



Catalogue

Reliable made affordable



About Himel

Himel is a multinational manufacturer and provider of electrical products that successfully combines global expertise with local knowledge. We focus on long-term partnership with customers and offer products that meet real needs and ensure adequate compatibility for common usage.

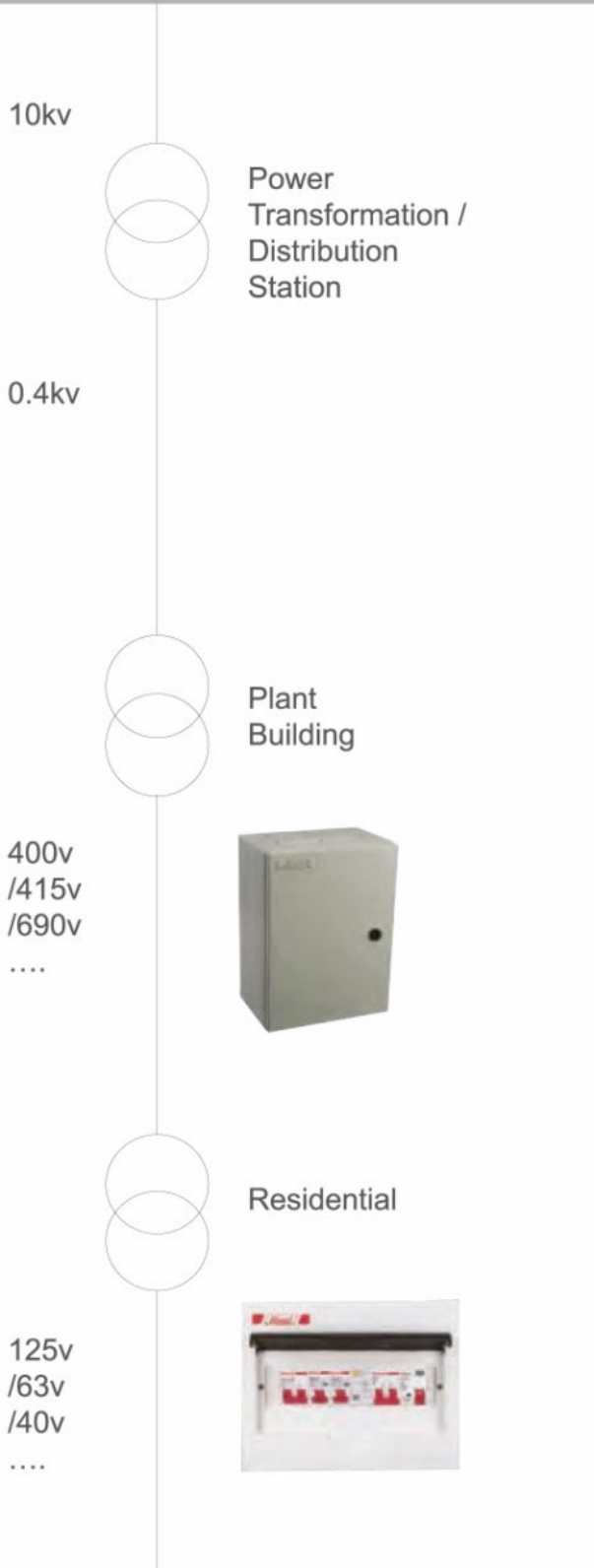
Our global footprint and technology allows to provide the best combination of affordable and reliable offers for low voltage power distribution, industry automation and home electric in the over 50 countries where we are present.

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Himel Offer Family

Reliable made affordable



Low-Voltage Power Distribution



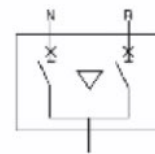
ACB
up to 6300A



Isolating
Switch



MCCB
up to 1250A



Automatic
Transfer Switch



Power
Capacity

Final Distribution



Disconnector
up to 125A



MCB
up to 125A



RCCB
up to 100A



RCBO
up to 125A

Motor Control & Protection



Motor Circuit Breaker



Interface Relay



Contactor



Time Relay



Thermal Relay

Industrial Components



Pilot components



Socket



Blocks



Fuse

Power Management



Current Transformer



Voltage Stabilizer

Wiring Device



British type

European type



Meter



Control transformer

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Low-voltage Power Distribution

Molded Case Circuit Breaker

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Final Distribution

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Motor Control & Protection

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Motor Circuit Breaker

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HDP6

Motor Circuit Breaker

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HAU,HAS,
HAE,HAN,
HDP6-32MC

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Magnetic Starter

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Molded Case Circuit Breaker Product Overview

Molded Case Circuit Breaker



HDM3 002
Current: 10~1250A
Breaking Capacity: S, L, F, M, N, T



HDM2 068
Current: 10~100A
Breaking Capacity: L



HDM6s 074
Current: 16-800A
Breaking Capacity: L, S, M, T



HDM3E 099
Current: 50~1600A
Breaking Capacity: M



HDM6E 145
Current: 50~800A
Breaking Capacity: M



HDM3L 161
Current: 40~630A
Breaking Capacity: S, FN

HDM3 Molded Case Circuit Breaker

Product selection

Standard: IEC/EN 60947-2



Material code: M363S6333102FR

Material description: HDM3-63S/33102 63A Fixed at rear

Product	Framesize	Breaking Capacity	Rated Current	Poles	Tipping Type	Product accessories	Protection Type	Operation Type	Product Inner Acc	Installation Type	Temperature
HDM3	63: 63A 100: 100A 160: 160A 250: 250A 400: 400A 630: 630A 800: 800A 1250: 1250A	S L F M N T	10:10A ... 1250:1250A	3: 3 Poles A: 4 Poles A type (The N phase is directly connected with a wire, and without contacts. It's always closed.) B: 4 Poles B type (The N phase is equipped with contacts, but without magnetic protection or thermal protection. It closes earlier and opens later than the other 3 poles.)	2: Mag 3: Mag-therm	xc: No accessories 08: Alarm 10: Shunt 20: Auxiliary 30: Undervoltage 40: Shunt+auxiliary 50: Shunt+undervoltage 60: Two groups of auxiliary 70: Undervoltage+auxiliary 18: Shunt+alarm 28: Auxiliary+alarm 38: Undervoltage+alarm 48: Shunt+auxiliary alarm 68: Auxiliary+auxiliary alarm alarm 78: Undervoltage+auxiliary alarm	Default: Power Distribution 2: Motor Protection	Default: Toggle P: MCH Z: Turning Toggle	Default: MX/MN AC400V A: MX/MN AC230V B: MX DC24V C: MX AC230V MN AC230V D: MX AC400V MN AC230V E: MX DC24V MN AC230V F: MX AC230V MN AC400V G: MX AC400V MN AC400V H: MX DC24V MN AC400V I: MX DC110V J: MX DC220V K: MX DC110V MN AC230V L: MX DC110V MN AC400V M: MX DC220V MN AC230V N: MX DC220V MN AC400V	Default: Fixed Front FR: Fixed Rear PF: Plug-in Front PR: Plug-in Rear D: Draw-out	Default: 40 °C T: 50 °C

Remark:

1. Shunt/auxiliary/alarm contacts are classified into terminals and standard configured leads. Two types for Shunt/auxiliary/alarm contacts: terminals and configured leads (standard offer)
2. Standard configuration of connection mode: fixed front connection
3. Standard configuration of conventional products: interphase barriers and mounting screw (without wiring copper bar)
4. As customized models, DC110V and DC220V shall be described specially
5. HDM3-100M/F/T/N minimum rated current is 40A.



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HDM3 Molded Case Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Selection of accessories HDM3-100 H1

Name	Current frame	Breaking Capacity	Product Inner Acc	Voltage Type	Installation Position	Poles
HDM3	100	FN	AL1	A2	L	3P
	63:63A	S	AL1:Alarm (with wire)	MX shunt:	L:Left	3P:3P
	100:100A	L	AL2:Alarm (with terminal)	A2:AC230V	R:Right	4P:4P
	160:160A	F	MX1:Shunt release (with wire)	A3:AC400V		
	250:250A	M	MX2:Shunt release (with terminal)	D1:DC110V		
	400:400A	N	OF11K1B:Auxiliary contact 1K1B(with wire)	D2:DC24V		
	630:630A	T	OF:21K1B:Auxiliary contact 1K1B(with terminal)	D3:DC220V		
	800:800A		OF12K2B:Auxiliary contact 2K2B(with wire)	MN under-		
	1250:1250A		OF22K2B:Auxiliary contact 2K2B(with terminal)	voltage:		
			MN:Undervoltage release	A2:AC230V		
			C3:Expanding terminal 3P(3pcs)	A3:AC400V		
			C4:Expanding terminal 4P(4pcs)			
			IB3:Interphase clapboard 3P(4pcs)			
			IB4:Interphase clapboard 4P(6pcs)			
			OFAL1:Auxiliary contact&Alarm (with wire)			
			OFAL2:Auxiliary contact&Alarm (with terminal)			
			CD1:AC Electric operating mechanism			
			CD2:DC Electric operating mechanism			
			H1: Round direct handle			
			H2: Square direct handle			
			HL1:Round extended rotation handle			
			HL2:Square extended rotation handle			

Remark:

- The extension terminal is all called accessory plate or wiring copper bus
- AL/MX/OF is equipped with terminal or lead can mount in the left and right position , and MN only mount in the left the default wiring length is 500mm, and when choose terminal type mount in the right, please remark the product is 3P or 4P.AL/OF default mount in the left, MX default mount in the right.
- 100AF and the accessories of type S breaker and F/N breaker are different and shall be distinguished
- MX shunt voltage type: AC230V、AC400V、DC24V、DC110V、DC220V
- MN under-voltage type: AC230V、AC400V
- Shunt: installed on the right
Under-voltage: installed on the left
- Auxiliary, alarm and auxiliary alarm: optional on left or right
- CD1:HDM3-1250 CD2:HDM3-63~800
- HDM3-800 internal accessories (alarm, auxiliary, shunt, undervoltage) does not provide single selling
- HDM3-1250 only provide motor mechanism selling separately

HDM3 Molded Case Circuit Breaker

Product Features

Standard: IEC/EN 60947-2



Low-voltage Distribution

Product Features

Standard

- IEC 60947-1
- IEC 60947-2

Pollution Degree

HDM3 products operate in the environment (industrial environment) with pollution class 3 defined in IEC/EN 60947-1 and IEC/EN 60947-2 standards.

Wet and heat resistance

- Dry and cold
- Dry and heat
- Wet and heat

Environment temperature

- HDM3 series can work for a long time under normal environment and operating temperature between -5°C and 50°C .
- Refer to the temperature derating factor table or contact us if the operating ambient temperature exceeds 40°C (motor protection exceeds 60°C).
- Storage temperature ranges between -20°C and 70°C .

Altitude

- Altitude at normal installation site does not exceed 2000m.
- If the altitude exceeds 2000m, the changes in the dielectric strength and the air temperature drop must be considered. Refer to the altitude derating factor table or contact us.

Humidity

The following conditions must be met during normal operation:

- The relative humidity of atmosphere does not exceed 50% if the ambient air temperature is $+40^{\circ}\text{C}$. The product can be used at a high relative humidity if the temperature is low.
- The monthly average relative humidity at the wettest month is 90%.
- The impact of the condensation generated on the product surface on the product property shall be considered.

Reliable contact indication with isolating function

HDM3 moulded case circuit breaker complies with the isolation defined in IEC standard 60947-2

- The isolated location corresponds to O (OFF)
- The operating handle can indicate "OFF" only when the contact is really open
- The rotation handle or electric operating mechanism will not change the reliability of the contact indication system. Through the test, the isolating function must guarantee:
- Mechanical reliability of contact indication system
- No leakage current
- There is a certain overvoltage resistance capacity between the input and output terminals.

Protection class

- IP protection class of circuit breaker body: IP20
- Circuit breaker installed in the switch cabinet:
 - circuit breaker with a toggle handle IP40
 - circuit breaker with an electric operating mechanism IP40



HDM3 Molded Case Circuit Breaker

Technical parameters
Standard: IEC/EN 60947-2



Technical parameters

Shell frame current		HDM3-63				HDM3-100					
Rated voltage Ue(V)		400/415				400/415					
Rated insulation voltage Ui(V)		690				800					
Rated impulse withstand voltage Uimp(kV)		6				8					
Rated current In(A)		10--63				10--100		40--100			
Number of poles Pole (3P,4P-A/B)		3/4				3/4		3/4		3	
		L	S	M	F	L	S	M	F	T	N
Rated ultimate short circuit breaking capacity Icu (kA)	50/60Hz AC 400/415V	18	25	30	50	18	25	26	35	30	50
Rated operating short circuit breaking capacity Ics (kA)	50/60Hz AC 400/415V	18	18	30	30	18	18	26	26	30	30
Mechanical life	Mechanical with maintenance	20000				20000					
	Mechanical without maintenance	10000				10000					
Electrical life	AC 400/415V	4000				4000					
Protection type	Power distribution protection	■				■					
	Motor protection	■				■					
Tripping ways	Thermal magnetic tripping	■				■					
	Single magnetic tripping	■				■					
Installation mode	Fixed front connection	■				■					
	Fixed rear connection	■				■					
	Plug-in front connection	■				■					
	Plug-in rear connection	■				■					
	Withdrawable	-				-					
Product accessories	Undervoltage release	■				■					
	Shunt release	■				■					
	Alarm contact	■				■					
	Auxiliary contacts (one open and one closed)	■				■					
	Auxiliary contacts (two open and two closed)	■				■					
	Extension terminal	■				■					
	AC/DC general electrically operated	■				■					
	Round direct manually operated	■				■					
	Square direct manually operated	■				■					
	Round extended manually operated	■				■					
	Square extended manually operated	■				■					
Phase partition	■				■						
Independent accessory installation	■				■						
Isolating function	■				■						
Use class		Class A				Class A					
Certification		TUV CE				TUV CE		KEMA CE			
Dimensions-Fixed front connection	3P(mm)	75*130*68				75*130*68		92*150*93.5			
W*H*D	4P(mm)	100*130*68				100*130*68		122*150*93.5			
Weight	Fixed 3/4P [kg]	0.78/0.98				0.78/0.98		1.28/1.63			

HDM3 Molded Case Circuit Breaker

Technical parameters
Standard: IEC/EN 60947-2



Low-voltage Distribution

Shell frame current		HDM3-630						HDM3-800				HDM3-1250
Rated voltage Ue(V)		400/415						400				400
Rated insulation voltage Ui(V)		800						800				800
Rated impulse withstand voltage Uimp(kV)		8						8				8
Rated current In(A)		400-630						630-800				800-1250
Number of poles Pole (3P,4P-A/B)		3/4						3/4				3
		L	S	M	F	T	N	L	S	M	F	N
Rated ultimate short circuit breaking capacity Icu(kA)	50/60Hz AC 400/415V	21	35	30	50	39	70	25	50	40	70	85
	Rated operating short circuit breaking capacity Ics(kA)	21	21	30	30	39	39	25	25	40	40	45
Mechanical life	Mechanical with maintenance	10000						2500				2500
	Mechanical without maintenance	5000						1250				1250
Electrical life	AC 400/415V	2000						500				500
Protection type	Power distribution protection	■						■				■
	Motor protection	■						-				-
Tripping ways	Thermal magnetic tripping	■						■				■
	Single magnetic tripping	■						■				■
Installation mode	Fixed front connection	■						■				■
	Fixed rear connection	■						■				-
	Plug-in front connection	-						-				-
	Plug-in rear connection	■						■				-
	Withdrawable	■						■				-
Product accessories	Undervoltage release	■						■				■
	Shunt release	■						■				■
	Alarm contact	■						■				-
	Auxiliary contacts (one open and one closed)	■						■				■
	Auxiliary contacts (two open and two closed)	■						■				■
	Extension terminal	■						■				■
	AC/DC general electrically operated	■						■				■
	Round direct manually operated	■						■				-
	Square direct manually operated	■						■				-
	Round extended manually operated	■						■				-
	Square extended manually operated	■						■				-
Phase partition	■						■				■	
Independent accessory Installation		■						-				-
Isolating Function		■						■				■
Use class		Class A						Class A				Class A
Certification		KEMA CE						KEMA,CE				-
Dimensions-Fixed front connection		3P(mm)		150*257*107.5				210*280*100				210*406*190
W*H*D		4P (mm)		198*257*107.5				280*280*100				-
Weight		Fixed 3/4P [kg]		5.10/6.24				7.34/9.68				18.98

Remark:
For HDM3-63/100, the rated current under 40 A, the protection function works at least at 400A; for the others, 10/12In.
For 100A, F/N type, the rated current starts with 40A.
The 4 Poles product with N phase is classified into type A and type B.
Type A: The N phase is directly connected with a wire, but without magnetic protection or thermal protection. It's always closed.
Type B: The N phase is installed with contacts, but without magnetic protection or thermal protection. It closes earlier and opens later than the other 3 poles.

HDM3 Molded Case Circuit Breaker

Distribution Protection
Standard: IEC/EN 60947-2



Low-voltage distribution protection

Fixed thermomagnetic release
HDM3 63-1250A

Rated current (A) at 40°C In	10	16	20	25	32	40	50	63	70	80	100	125	140	150	160	175	180	200	225	250	300	315	350	400	450	500	600	630	700	800	1000	1250
63	■																															
100	■																															
160											■																					
250											■																					
400																			■													
630																									■							
800																											■					
1250																												■				

Overload protection: thermal protection (I _r)	
Tripping current value (A)	Fixed (1.3I _n)
Short circuit current protection(magnetic protection)	
Tripping current value (A)	Fixed (10I _n)

Protection

The circuit breaker equipped with TM thermomagnetic release is mainly for protection of the cable, which is on the power distribution system for transformer power supply.

Overload protection: thermal protection (I_r)

The overload protection function provides inverse time limit curve on the basis of bimetal. If the limit is exceeded, the deformation of the bimetal can lead in the tripping of the circuit breaker operating mechanism.

Short circuit protection: magnetic protection (I_i)

Magnetic protection achieves short circuit protection through a magnetic trip device. The circuit breaker will trip instantaneously Short circuit protection I_i non-adjustable

De-rating table for application at higher ambient temperature

Frame	Ambient temperature				
	40	45	50	55	60
HDM3-63/100S/125S	1	0.96	0.89	0.83	0.75
HDM3-100F/N HDM3L-125	1	0.96	0.89	0.83	0.75
HDM3-160A/250A HDM3L-160A/250A	1	0.92	0.85	0.79	0.71
HDM3-400A/630A HDM3L-400	1	0.94	0.87	0.81	0.73
HDM3-800A HDM3L-630	1	0.95	0.88	0.82	0.74
HDM3-1250A	1	0.95	0.88	0.82	0.74



HDM3 Molded Case Circuit Breaker

Motor protection
Standard: IEC/EN 60947-2



HDM3 Motor protection

Motor feeder circuit functions

The motor feeder circuit comprises a set of devices for motor protection and control and feeder circuit self-protection.

Isolation

The energized conductors and upper-end distribution system are isolated, so that the maintenance personnel can maintain the motor feeder circuit without risk. The function is achieved by the motor protection circuit breaker and shall be provided with the reliable indicator of the contact indicating position

Power on/off

Manually, automatically or remotely control the motor (ON/OFF) and consider the overload at startup and the service life. The function is realized by the contactor. The contactor will be closed when the coil of the contactor is electrified. The upper power and the motor circuit will be connected through the circuit breaker.

Basic protection

• Short circuit protection:

Detect and break the large short circuit current as soon as possible to avoid damage to the equipment. The function is achieved by the circuit breaker with magnetic protection or with electronic trip unit.

• Overload protection:

Detect the overload current and turn off the motor before the insulation is damaged due to temperature rise of the motor and conductor. The function can be achieved by a thermomagnetic protection circuit breaker or an independent thermal relay.

• Phase imbalance or open-phase protection:

Phase imbalance or open phase will trigger temperature rise and braking torque, which may lead to premature aging of the motor. These effects are particularly prominent during startup, and thus the protection shall be very fast.

The motor feeder circuit protection parameters depend on:

- Application (driven equipment type, operation safety and operation frequency, etc.)
- Load or application continuity grade
- Applicable life and property protection standards

Required electrical functions:

- Power on/off, generally at a high withstand current level
- Applicable for the overload and short circuit protection of motor
- Additionally special protection

The motor feeder circuit must comply with the requirements

- Coordination between feeder circuit components
- Tripping class of thermal relay
- Use class of contactor
- Insulation coordination

Overload: $I < 10 \cdot I_n$

Causes:

- Electrical fault caused by power distribution system abnormalities (such as open phase, overvoltage or undervoltage)
- Mechanical problems caused by operation mistake (such as excessive torque) or motor damage (such as bearing vibration) will result in long startup time.

Impedance short circuit: $10 \cdot I_n < I < 50 \cdot I_n$

Such short circuit is generally caused by motor winding insulation deterioration or power cable damage.

Short circuit: $I > 50 \cdot I_n$

Such faults are relatively few and generally caused by connection error during maintenance.

HDM3 Molded Case Circuit Breaker

Motor protection

Standard: IEC/EN 60947-2



Motor feeder solutions

The standard IEC 60947 defines three types of component combinations to protect the motor feeder circuit.

- **Three components**

Magnetic protection circuit breaker + contactor + thermal relay

- **Two components**

Circuit breaker with overload and short circuit protection + contactor

- **One component**

Circuit breaker with overload and short circuit protection + contactor integrated in a solution

Equipment coordination

The components in the motor feeder circuit shall cooperate with each other. IEC60947-4-1 standard defines three types of coordination according to the equipment operating conditions and the short circuit detection standard.

- **Type 1 coordination**

No life or property limited

Contactor or thermal relay may be damaged

Repair and replacement may be required before continuing.

- **Type 2 coordination**

No life or property risks

Damage or adjustment is not allowed. The risks of adhesive contacts can be accepted, but shall be easily separated and isolated after accidents. The motor feeder may continue to use without repair or replacement of components

Quick check is enough before back into use

- **3 Perfect coordination**

The equipment constituting the motor feeder circuit shall not have the risk of damage or contacts welding. The motor feeder may continue to use without repair or replacement of components

In this type of coordination, an integrated equipment provides the solution.



HDM3 Molded Case Circuit Breaker

Motor protection
Standard: IEC/EN 60947-2



Contactor use type

For a given motor feeder program, the use class determines the contactor resistance capacity on operating frequency and life. Selection based on the operation conditions of the application may be because of excessive protection of contactor and circuit breaker. IEC60947 standard defines the following use classes of the contactor

Contactor use class	Load type	Control function	Typical application
AC-1	Non-inductive	Electrify	Heating and power distribution
AC-2	Slip ring motor	Start Turn off the motor during operation Counter current braking Inching	Drawbench
AC-3	Squirrel-cage motor	Start Turn off the motor during operation	Printing press, drawbench
AC-4		Start Turn off the motor during operation Regenerative braking Anti-phase braking Inching	

- Common coordination table of circuit breaker and contactor with the use class of AC-3
- This class covers the squirrel-cage asynchronous motor, which is the most common situation (accounting for 85%). The contactor can connect the starting current and cut off the rated current at 1/6 nominal voltage. The current shall be cut off without any obstacles and difficulties. HDM3 circuit breaker – contactor coordination table applies to the contactors with AC-3 use class, which can guarantee type 2 coordination.
- Use class AC-4 may require enlarging the specifications.
- The use class covers the squirrel-cage asynchronous motors which can operate under regenerative braking or inching (frequent start). The contactor can start and cut off the current under the system voltage. Due to these difficulties, the specifications of the contactors and the protection circuit breakers corresponding to class AC-3 shall be enlarged.

HDM3 Molded Case Circuit Breaker

Motor protection

Standard: IEC/EN 60947-2



Motor feeder circuit characteristics and solutions

Trip level of thermal protection equipment

The motor feeder circuit includes the thermal protection contained in the circuit breaker. The protected trip level shall be in line with the motor start level. The starting time of the motor ranges from several seconds (no-load starting) to tens of seconds (high-inertia load) according to the specific applications. IEC60947-4-1 standard defines the following trip levels as the settings of thermal protection current I_r .

Thermal relay trip level as settings of I_r				
Level	1.05 I_r	1.2 I_r	1.5 I_r	7.2 I_r
5	$t > 2h$	$t < 2h$	$t < 2min$	$2s < t < 5s$
10	$t > 2h$	$t < 2h$	$t < 4min$	$4s < t < 10s$
20	$t > 2h$	$t < 2h$	$t < 8min$	$6s < t < 20s$
30	$t > 2h$	$t < 2h$	$t < 12min$	$9s < t < 30s$

Current of squirrel-cage motor in full load conditions

Standard value with the unit of HP (horsepower)

Rated operating power	Rated operational current $I_n(A)$						
	110-120V	200V	208V	220-240V	380-415V	440-480V	550-600V
hp							
1/2	4.4	2.5	2.4	2.2	1.3	1.1	0.9
3/4	6.4	3.7	3.5	3.2	1.8	1.6	1.3
1	8.4	4.8	4.6	4.2	2.3	2.1	1.7
1 1/2	12	6.9	6.6	6	3.3	3	2.4
2	13.6	7.8	7.5	6.8	4.3	3.4	2.7
3	19.2	11	10.6	9.6	6.1	4.8	3.9
5	30.4	17.5	16.7	15.2	9.7	7.6	6.1
7 1/2	44	25.3	24.2	22	14	11	9
10	56	32.2	30.8	28	18	14	11
15	84	48.3	46.2	42	27	21	17
20	108	62.1	59.4	54	34	27	22
25	136	78.2	74.8	68	44	34	27
30	160	92	88	80	51	40	32
40	208	120	114	104	66	52	41
50	260	150	143	130	83	65	52
60	-	177	169	154	103	77	62
75	-	221	211	192	128	96	77
100	-	285	273	248	165	124	99
125	-	359	343	312	208	156	125
150	-	414	396	360	240	180	144
200	-	552	528	480	320	240	192
250	-	-	-	604	403	302	242
300	-	-	-	722	482	361	289

Note: 1 hp=0.7457 W

HDM3 Molded Case Circuit Breaker

Motor protection
Standard: IEC/EN 60947-2



Motor feeder circuit characteristics and solutions

Startup parameters of asynchronous motor

The main parameters (meeting 90% applications) of the direct startup of the three-phase asynchronous motors are shown as follows

I_r : Rated current

Startup parameters of asynchronous motor

Current of the motor under rated full load conditions (such as about 100 Arms at voltage and 55kW power) 400V

I_d Starting current

Current at motor startup. Depending on the specific applications, the starting time t_d is 5-30s and the average starting current is $7.2I_n$ (such as RMS current of 720A at 10s). These values determine the trip level and all other required "long start" protective equipment.

I''_d Peak starting current

Transient current between the first two half-wave periods after the system is powered: 10-15ms

Average of $14I_n$ (such as peak 1840A)

By selecting appropriate thermal relay trip level, the protection settings must be able to effectively protect the motor and allow passing the peak starting current.

HDM3 Molded Case Circuit Breaker

Motor protection

Standard: IEC/EN 60947-2



HDM3 motor feeder circuit solutions

HDM3 motor protection series

HDM3 trip unit can be used to constitute the two equipments motor feeder circuit solutions.

Three-element solution

A HDM3 circuit breaker with magnetic protection (32XX)

A HDC6 contactor

A HDR6 thermal relay

Two-element solution

A HDM3 circuit breaker with magnetic protection (33XX)

A HDC6 contactor

Three-element solution section table

U=220/240V

Motor P(kw)	I(A) 220V	I(A) 240V	In maximum (A)	Circuit breaker type	Rated current (A)	I _{rn} (A)	Contactor type	Thermal relay type	I _{rth} (A)
1.1	5	4.5	6	HDM3-32XX2	10	82	HDC6-0911	HDR6-18 5-7A	4/6
1.5	6.5	6	8	HDM3-32XX2	16	113	HDC6-0911	HDR6-18 6.3~9A	5.5/8
2.2	9	8	10	HDM3-32XX2	16	138	HDC6-1211	HDR6-18 9~12A	7/10
3	12	11	12.5	HDM3-32XX2	16	163	HDC6-1811	HDR6-18 11~15A	9/13
4	15	14	18	HDM3-32XX2	25	250	HDC6-1811	HDR6-18 14~18A	12/18
5.5	21	19	25	HDM3-32XX2	25	325	HDC6-2511	HDR6-32 23~32A	17/25
6.3	24	22	25	HDM3-32XX2	25	325	HDC6-2511	HDR6-32 23~32A	17/25
7.3	28	25	32	HDM3-32XX2	50	450	HDC6-3211	HDR6-32 23~32A	23/32
10	36	33	40	HDM3-32XX2	50	550	HDC6-4011	HDR6-95 37~50A	30/40
11	39	36	40	HDM3-32XX2	50	550	HDC6-4011	HDR6-95 37~50A	30/40
15	52	48	63	HDM3-32XX2	100	700	HDC6-6511	HDR6-95 55~70A	48/65
18.5	63	59	63	HDM3-32XX2	100	900	HDC6-6511	HDR6-95 55~70A	48/65
22	75	70	80	HDM3-32XX2	100	1100	HDC6-8011	HDR6-95 80~95A	63/80
30	100	95	100	HDM3-32XX2	160	1300	HDC6-115	HDR6-185 90~115A	60/100
37	125	115	150	HDM3-32XX2	160	1950	HDC6-150	HDR6-185 130~160A	90/150
45	150	140	150	HDM3-32XX2	160	1950	HDC6-150	HDR6-185 130~160A	90/150
55	180	170	185 220	HDM3-32XX2	200 320	2420 2880	HDC6-225	HDR6-630 180~250A	132/220
75	250	235	265	HDM3-32XX2	320	3500	HDC6-265	HDR6-630 230~320A	200/330
90	300	270	320	HDM3-32XX2	320	4160	HDC6-330	HDR6-630 290~400A	200/330

HDM3 Molded Case Circuit Breaker

Motor protection
Standard: IEC/EN 60947-2



HDM3 motor feeder circuit solutions

Three-element solution section table

U=380/415V

Motor P(kw)	I(A) 380V	I(A) 415V	In maximum (A)	Circuit breaker type	Rated current (A)	I _{rm} (A)	Contactor type	Thermal relay type	I _{rth} (A)
2.2	5.3	4.8	6	HDM3-32XX2	10	82	HDC6-0911	HDR6-18 5-7A	4/6
3	7	6.5	8	HDM3-32XX2	16	113	HDC6-0911	HDR6-18 6.3~9A	5.5/8
4	9	8.2	10	HDM3-32XX2	16	138	HDC6-1211	HDR6-18 9~12A	7/10
5.5	12	11	12.5	HDM3-32XX2	16	163	HDC6-1811	HDR6-18 11~15A	9/13
7.5	16	14	18	HDM3-32XX2	25	250	HDC6-1811	HDR6-18 14~18A	12/18
10	21	19	25	HDM3-32XX2	25	325	HDC6-2511	HDR6-32 23~32A	17/25
11	23	21	25	HDM3-32XX2	25	325	HDC6-2511	HDR6-32 23~32A	17/25
15	30	28	32	HDM3-32XX2	50	450	HDC6-3211	HDR6-32 23~32A	23/32
18.5	37	34	40	HDM3-32XX2	50	550	HDC6-4011	HDR6-95 37~50A	30/40
22	43	40	50	HDM3-32XX2	50	650	HDC6-4011	HDR6-95 37~50A	37/50
30	59	55	63	HDM3-32XX2	100	900	HDC6-6511	HDR6-95 55~70A	48/65
37	72	66	80	HDM3-32XX2	100	1100	HDC6-6511	HDR6-95 80~95A	63/80
45	85	80	100	HDM3-32XX2	100	1300	HDC6-8011	HDR6-185 90~115A	60/100
55	105	100	115	HDM3-32XX2	160	1500	HDC6-115	HDR6-185 90~115A	90/150
75	140	135	150	HDM3-32XX2	160	1950	HDC6-150	HDR6-185 130~160A	90/150
90	170	160	185	HDM3-32XX2	200	2420	HDC6-150	HDR6-630 180~250A	132/220
110	210	200	220	HDM3-32XX2	250 320	2860 2880	HDC6-225	HDR6-630 180~250A	132/220
132	250	230	265	HDM3-32XX2	320	3500	HDC6-265	HDR6-630 230~320A	200/330
160	300	270	320	HDM3-32XX2	320	4160	HDC6-330	HDR6-630 290~400A	200/330

HDM3 Molded Case Circuit Breaker

Motor protection
Standard: IEC/EN 60947-2



HDM3 motor feeder circuit solutions

Two-element solution section table

U=220/240V

Motor P(kw)	I(A) 220V	I(A) 240V	In maximum (A)	Circuit breaker type	Rated current (A)	I _m (A)	Contactors type	I _{rth} (A)
1.1	5	4.5	6	HDM3-32XX2	10	82	HDC6-0911	4/6
1.5	6.5	6	8	HDM3-32XX2	16	113	HDC6-0911	5.5/8
2.2	9	8	10	HDM3-32XX2	16	138	HDC6-1211	7/10
3	12	11	12.5	HDM3-32XX2	16	163	HDC6-1811	9/13
4	15	14	18	HDM3-32XX2	25	250	HDC6-1811	12/18
5.5	21	19	25	HDM3-32XX2	25	325	HDC6-2511	17/25
6.3	24	22	25	HDM3-32XX2	25	325	HDC6-2511	17/25
7.3	28	25	32	HDM3-32XX2	50	450	HDC6-3211	23/32
10	36	33	40	HDM3-32XX2	50	550	HDC6-4011	30/40
11	39	36	40	HDM3-32XX2	50	550	HDC6-4011	30/40
15	52	48	63	HDM3-32XX2	100	700	HDC6-6511	48/65
18.5	63	59	63	HDM3-32XX2	100	900	HDC6-6511	48/65
22	75	70	80	HDM3-32XX2	100	1100	HDC6-8011	63/80
30	100	95	100	HDM3-32XX2	160	1300	HDC6-115	60/100
37	125	115	150	HDM3-32XX2	160	1950	HDC6-150	90/150
45	150	140	150	HDM3-32XX2	160	1950	HDC6-150	90/150
55	180	170	185 220	HDM3-32XX2	200 320	2420 2880	HDC6-225	132/220
75	250	235	265	HDM3-32XX2	320	3500	HDC6-265	200/330
90	300	270	320	HDM3-32XX2	320	4160	HDC6-330	200/330



HDM3 Molded Case Circuit Breaker

Motor protection
Standard: IEC/EN 60947-2



HDM3 motor feeder circuit solutions

Two-element solution section table

U=380/415V

Motor P(kw)	I(A) 380V	I(A) 415V	In maximum (A)	Circuit breaker type	Rated current (A)	I _{lm} (A)	Contactors type	I _{rth} (A)
2.2	5.3	4.8	6	HDM3-32XX2	10	82	HDC6-0911	4/6
3	7	6.5	8	HDM3-32XX2	16	113	HDC6-0911	5.5/8
4	9	8.2	10	HDM3-32XX2	16	138	HDC6-1211	7/10
5.5	12	11	12.5	HDM3-32XX2	16	163	HDC6-1811	9/13
7.5	16	14	18	HDM3-32XX2	25	250	HDC6-1811	12/18
10	21	19	25	HDM3-32XX2	25	325	HDC6-2511	17/25
11	23	21	25	HDM3-32XX2	25	325	HDC6-2511	17/25
15	30	28	32	HDM3-32XX2	50	450	HDC6-3211	23/32
18.5	37	34	40	HDM3-32XX2	50	550	HDC6-4011	30/40
22	43	40	50	HDM3-32XX2	50	650	HDC6-5011	37/50
30	59	55	63	HDM3-32XX2	100	900	HDC6-6511	48/65
37	72	66	80	HDM3-32XX2	100	1100	HDC6-8011	63/80
45	85	80	100	HDM3-32XX2	100	1300	HDC6-115	60/100
55	105	100	115	HDM3-32XX2	160	1500	HDC6-115	90/150
75	140	135	150	HDM3-32XX2	160	1950	HDC6-150	90/150
90	170	160	185	HDM3-32XX2	200	2420	HDC6-185	132/220
110	210	200	220	HDM3-32XX2	250 320	2860 2880	HDC6-225	132/220
132	250	230	265	HDM3-32XX2	320	3500	HDC6-265	200/330
160	300	270	320	HDM3-32XX2	320	4160	HDC6-330	200/330

HDM3 Molded Case Circuit Breaker

Operating conditions
Standard: IEC/EN 60947-2



Low-voltage Distribution

Operating conditions

Altitude derating

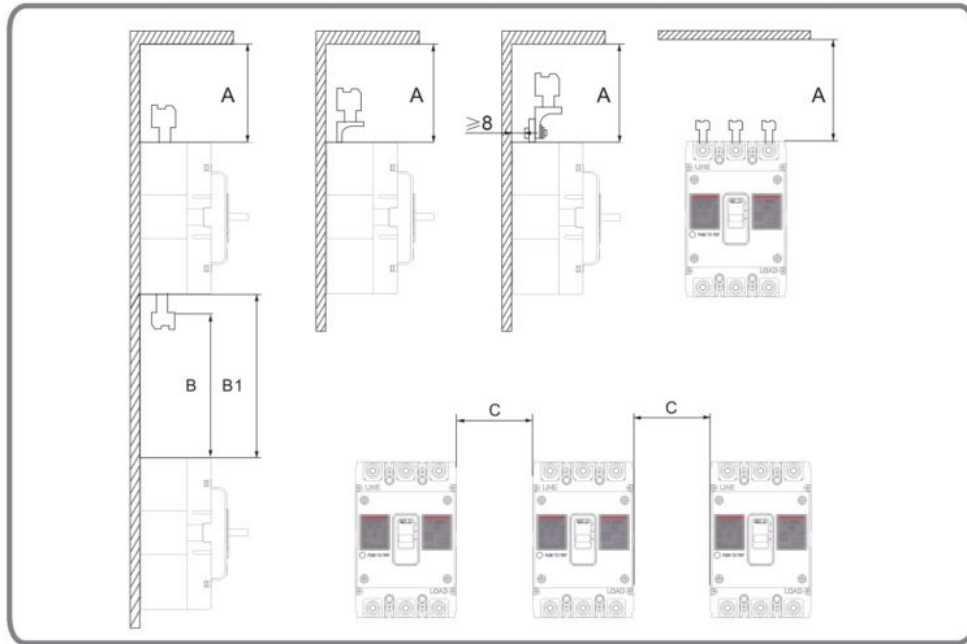
The circuit breaker features will not be affected if the altitude is below 2000m. The air insulation ability and cooling capacity shall be considered if the altitude is above 2000m.

Impact of altitude on the release performance

Altitude	2000m	3000m	4000m	5000m
Rated heat value at 40 °C (A)	I_n	$0.96I_n$	$0.93I_n$	$0.9I_n$
Average insulation voltage (V)	800	700	600	500
Dielectric strength (V)	3000	2500	2100	1800

Safety Distance

Safety Distance (Applicable to whole HDM3 series)



Safety Distance

Circuit breaker model	A (mm)	B (mm)	B1 (mm)	C (mm)
63A 100A 160A 250A	60	60	Bare cable length +B	30
400A 630A 800A 1250A	110	110		70

HDM3 Molded Case Circuit Breaker

Operating conditions
Standard: IEC/EN 60947-2



Operating conditions

The characteristics will be affected from high temperature

Impact of high temperature on the release performance (high-temperature degrading characteristics)

The overload protection value will be changed slightly when the temperature exceeds 40 °C. In the tripping curve chart, I_r , the setting value of the circuit breaker must be corrected according to the following factors

Circuit breaker mode	Environment temperature °C				
	40	45	50	55	60
HDM3-63L/S/M/F HDM3-100L/S	1	0.96	0.89	0.83	0.75
HDM3-100F/N/M/T	1	0.96	0.89	0.83	0.75
HDM3-160A/250A	1	0.92	0.85	0.79	0.71
HDM3-400A/630A	1	0.94	0.87	0.81	0.73
HDM3-800A	1	0.95	0.88	0.82	0.74
HDM3-1250A	1	0.95	0.88	0.82	0.74

Total power consumption of three poles (W)

Circuit breaker mode	Rated current	Front connection (standard configuration)	Rear connection	Plug-in connection	Withdrawable connection
HDM3-63/100L/S	63/100/125	24/26/28	27/29/31	28/29/32	-
HDM3-100M/F/T/N	100	40	50	50	-
HDM3-160A/250A	160/250	60/63	87/90	87/90	-
HDM3-400A/630A	400/630	115/180	120/190	125/200	128/205
HDM3-800A	800	200	230	290	300
HDM3-1250A	1250	250	-	-	-

HDM3 Molded Case Circuit Breaker

Installation mode
Standard: IEC/EN 60947-2



HDM3 installation mode

HDM3 circuit breakers have three installation modes, i.e. fixed, plug-in and withdrawable.

F	P	W
Fixed	Plug-in	Withdrawable
<p>> Same upper and lower terminals</p> <ul style="list-style-type: none"> > It can be directly connected to the busbar or connected to the cables with the extensive terminals > Fixed rear terminal: facilitate the installation and connection of the product after the panel > The circuit breaker has 7 HDM3-63/100L/S HDM3-100M/F/T/N HDM3-160L/S, HDM3-250S/L HDM3-160M/F/T/N, HDM3 M/F/T/N HDM3-400/630 HDM3-800 	<p>> The plug-in structure is achieved by adding "plug-in suite" on the fixed circuit breaker</p> <ul style="list-style-type: none"> > Pull out or rapidly change the circuit breaker without contacting the loading and outgoing lines and the installation base > The plug-in base can be pre-installed to facilitate increase of circuit breakers later > It can isolate the power cable when it is installed with baseplate > The circuit breaker can be pulled out when loosening the upper and lower set screws. 	<p>> The withdrawable structure is to install two side plates respectively on the base and the circuit breaker. Similar to the plug-in configuration, the withdrawable circuit breaker has all advantages of the plug-in circuit breaker and is very easy to operate. The withdrawable type is similar to the plug-in type, with all the advantages of it, and easily operating.</p> <ul style="list-style-type: none"> > The withdrawable circuit breaker has three positions: <ul style="list-style-type: none"> -Connected: the power supply circuit is connected -Testing: the power supply circuit is connected and the circuit breaker can be operated to check the auxiliary circuit -Disconncted: the circuit breaker can be removed from the base

	FF	FR	PF	PR	WD
	Fixed front	Fixed rear	Plug-in front	Plug-in rear	Withdrawable
HDM3-63	■	■	■	■	
HDM3-100	■	■	■	■	
HDM3-160	■	■	■	■	
HDM3-250	■	■	■	■	
HDM3-400	■	■		■	■
HDM3-630	■	■		■	■
HDM3-800	■	■		■	■
HDM3-1250	■				

HDM3 Molded Case Circuit Breaker

Accessories

Standard: IEC/EN 60947-2



HDM3 accessories

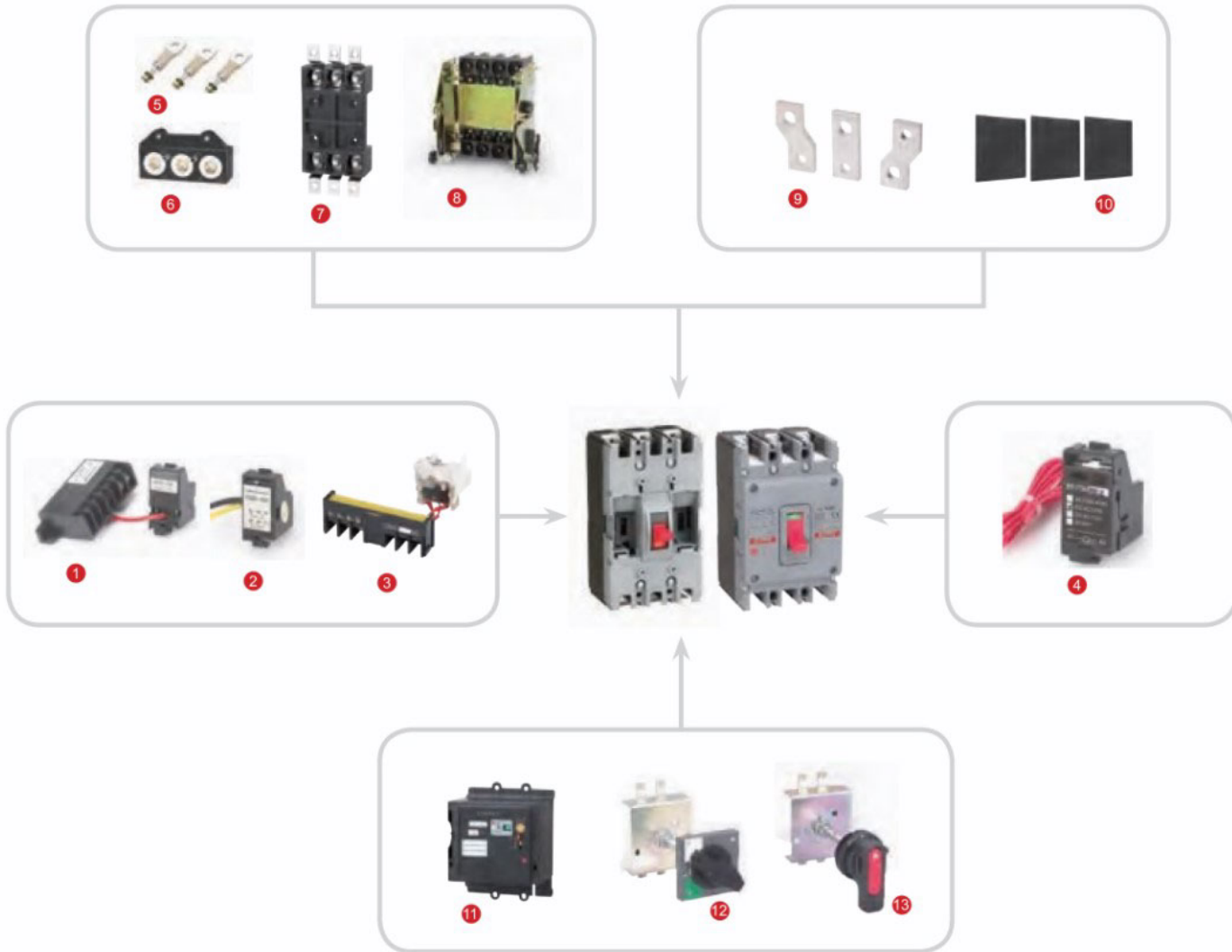
HDM3 series accessories list

Electrical accessories: shunt release, undervoltage release, auxiliary contact, alarm contact, auxiliary alarm integrated release and leakage alarm module

Mechanical accessories: interphase barriers, extension terminal, manual operating mechanism and electric operating mechanism

Installation accessories: Fixed rear, plug-in connection and withdrawable connection accessories.

Overview of Acc



1	Undervoltage release	6	Plug-in rear connection	11	Electric operating mechanism
2	Auxiliary contact	7	Plug-in front connection	12	Square handle operating mechanism
3	Alarm contact	8	Withdrawable connection	13	Round handle operating mechanism
4	Shunt release	9	Extension terminal		
5	Fixed rear connection	10	interphase barriers		

HDM3 Molded Case Circuit Breaker

Mechanical accessories
Standard: IEC/EN 60947-2



HDM3 Mechanical accessories

Interphase barriers

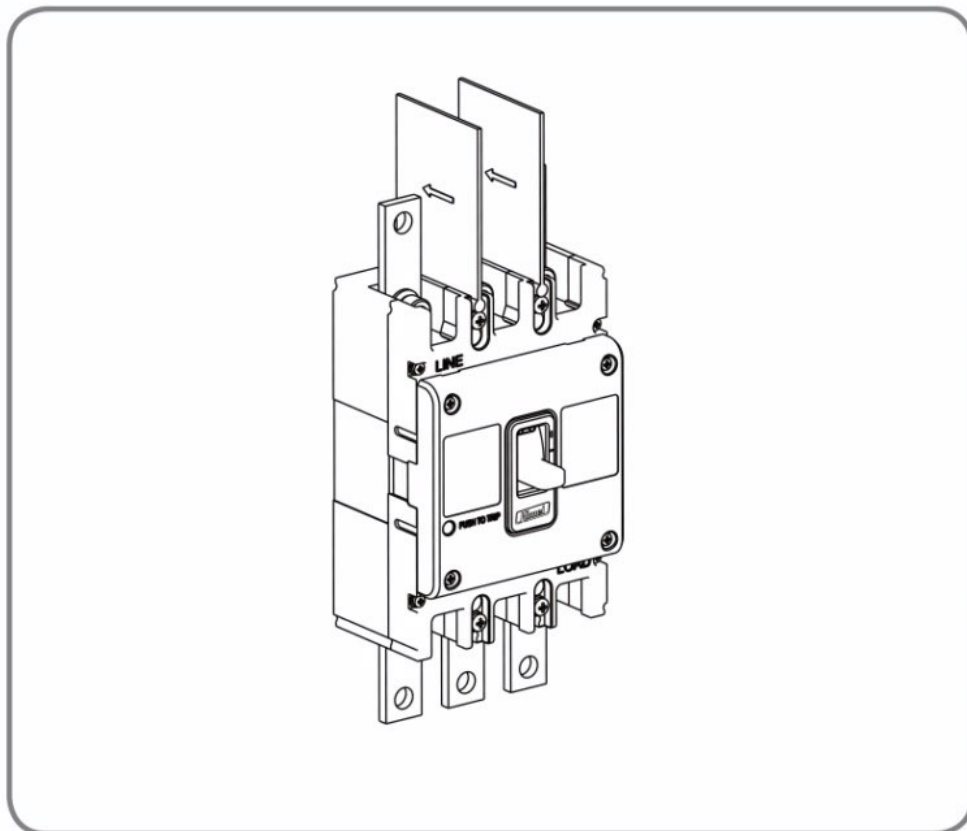
The interphase barriers can enhance the insulating performances between phase and phases . They can be installed from the product front even though the products had mounted. Interphase barriers will be offered by standard, 3P product(4pcs), 4P product(6pcs)

Extension terminals

The extension terminal is connected to the standard terminal of the circuit breaker, in order to provide many other wiring schemes in the limited space:

- >Direct extension terminal
- >Extension terminal with inter-electrode distance

The busbar and extension terminal can be connected to the inlet or outlet terminal of the circuit breaker.



HDM3 Molded Case Circuit Breaker

Mechanical accessories
Standard: IEC/EN 60947-2



HDM3 Mechanical accessories

Handle operating mechanism

The circuit breaker can be operated by the rotation of the handle and the ergonomically designed rotation handle makes the operation of the circuit breaker more flexible.

2 types of rotation handle operating mechanisms:

>Direct rotation handle (round handle operating mechanism and square handle operating mechanism)

">Extended rotation handle (round extending handle operating mechanism and square extended handle operating mechanism)

User visualization information/settings:

> 3 position indications: OFF, ON and TRIP

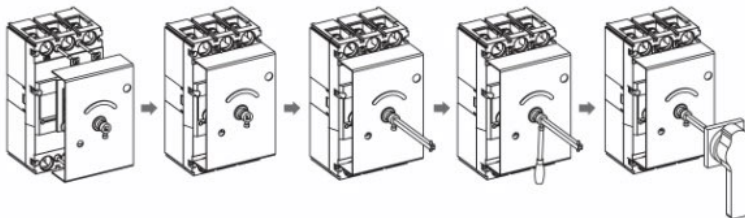
>The circuit breaker cannot be switched on when the door is open

>The door cannot be opened when the circuit breaker is switched on

>The axial length of the extended handle can be custom made according to the distance from the back of the circuit breaker to the door.

Schematic Diagram of Handle Operating Mechanism

Installation



1. Align to the installation direction of the mechanism
2. Tighten the mounting screws
3. Install the lengthened screw
4. Fix the screw
5. Install the lengthened handle



HDM3 Molded Case Circuit Breaker

Mechanical accessories
Standard: IEC/EN 60947-2

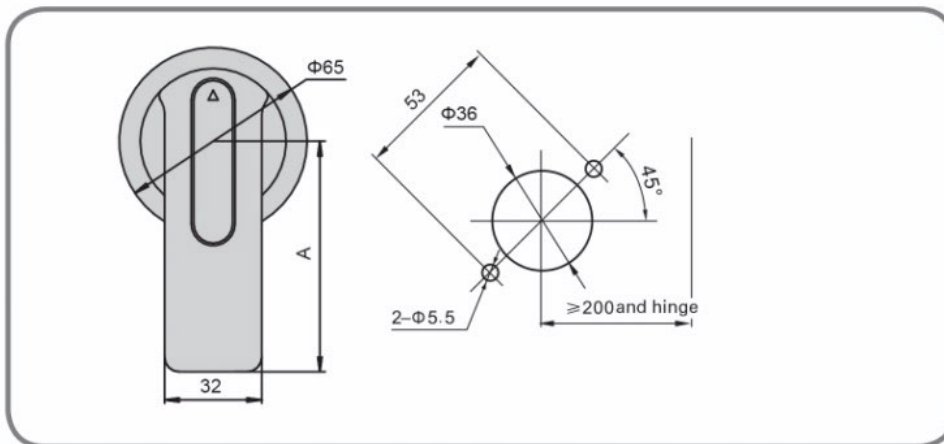


HDM3 Mechanical accessories

Round handle operating mechanism

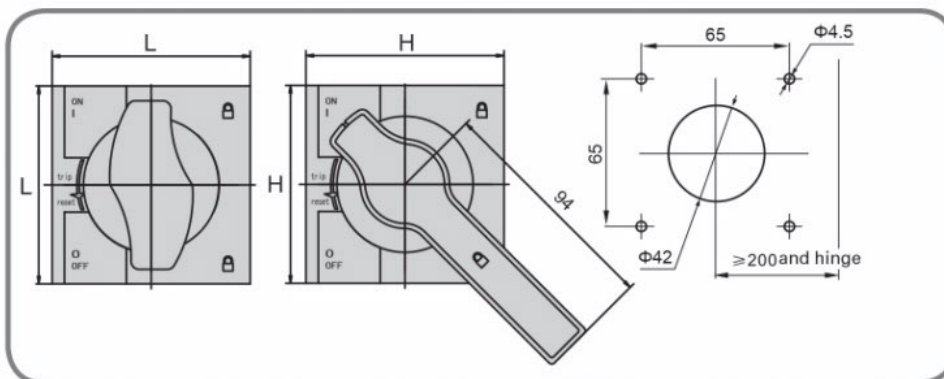
unit (mm)

Circuit breaker mode	A	Remark
HDM3-63/100L/S	65	Size A: 65 or 95 optional, default to 65
HDM3-100M/F/T/N	65	
HDM3-160/250A	65	
HDM3-400/630A	95	Size A: 95 or 125 optional, default to 95
HDM3-800A	95	



Square handle operating mechanism

Circuit breaker mode	L	H
HDM3-63/100L/S	80	80
HDM3-100M/F/T/N	80	80
HDM3-160/250A	80	80
HDM3-400/630A	80	80
HDM3-800A	80	80



HDM3 Molded Case Circuit Breaker

Mechanical accessories
Standard: IEC/EN 60947-2

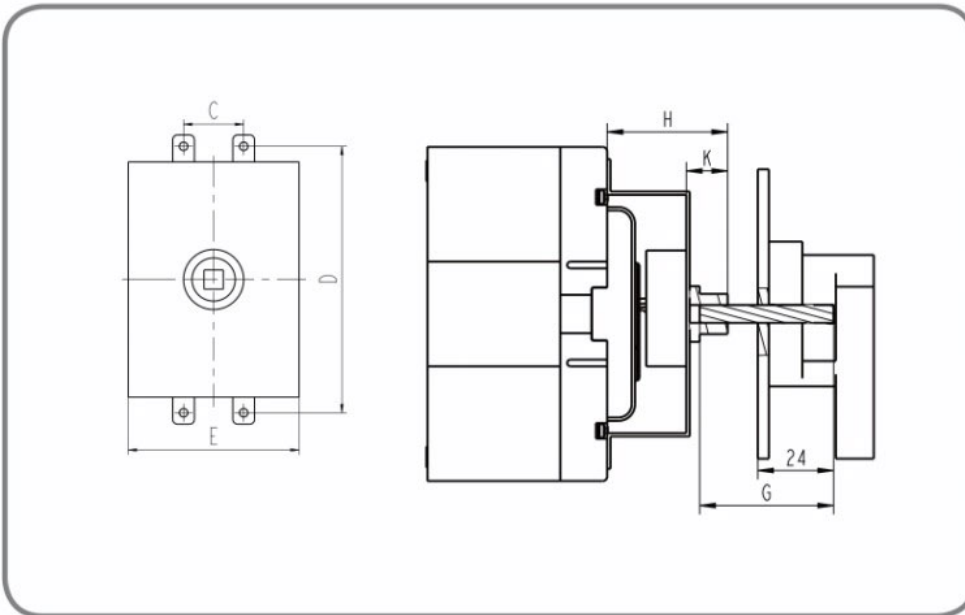
HDM3 Mechanical accessories

Extended rotation operating handle

unit (mm)

Circuit breaker mode	C	D	E	H	K
HDM3-63/100L/S	25	111	75	54	20
HDM3-100M/F/T/N	30	129	92	57	20
HDM3-160/250A	35	143	100	54	20
HDM3-400/630A	44	215	150	78	20
HDM3-800A	70	243	-	76	20

Remark: G means rod length, minimum distance is 50mm, the 150mm is standard, if you need customized, please contact us.



HDM3 Molded Case Circuit Breaker

Mechanical accessories
Standard: IEC/EN 60947-2

Electrical accessories

Auxiliary contact and alarm contact

Auxiliary contact

An accessory connected in the auxiliary circuit of the switching device to indicate the circuit breaker status of ON or not

Alarm contact:

An accessory used to indicate the circuit breaker status of ON or not. When the alarm contact indicates that the circuit breaker is at Trip status, there are the following five possibilities:

- Overload or short circuit fault
- Residual current fault
- Manual test button trip
- Shunt release action
- Line fault and undervoltage release action

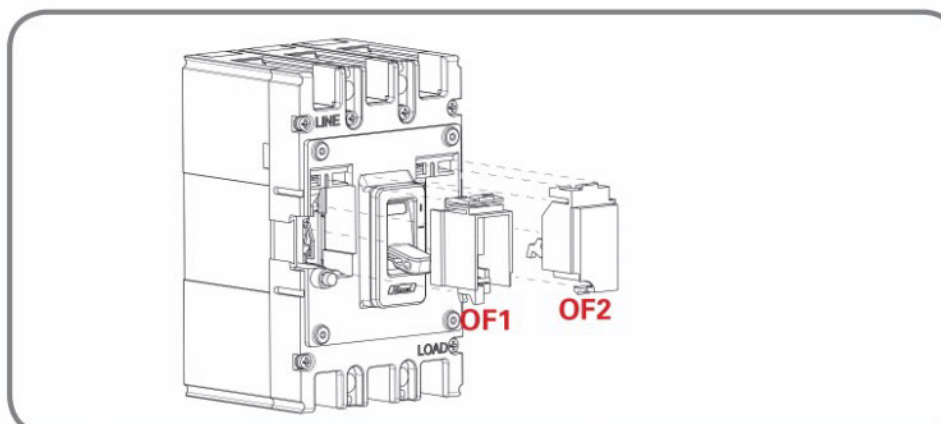
Electrical wiring diagram

Accessory name	ON	OFF/TRIP
Auxiliary		
Accessory name	ON/OFF	TRIP
Alarm		

Electrical parameters of auxiliary alarm contact

Conventional Thermal Current	3A	
Use category (IEC/EN 60947-2)	AC 15	DC13
Working electricity 50Hz	AC 400V	0.3A
	DC 220V	0.15A

Installation diagram of auxiliary contact



HDM3 Molded Case Circuit Breaker

Mechanical accessories
Standard: IEC/EN 60947-2



Electrical accessories

Shunt release

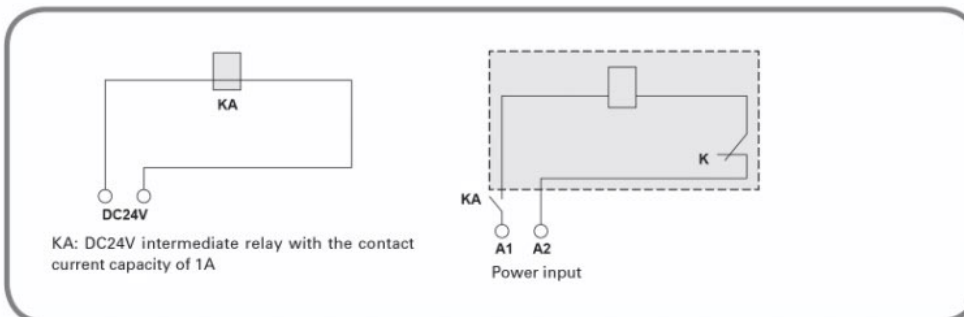
- >The shunt release shall reliably trip the circuit breaker at the voltage between 70% and 110% of the rated control power voltage U
- >The circuit breaker shall be reset on the site after tripping through the shunt release.

	Shunt coil power consumption(W)		
	AC400V	AC230V	DC24V
HDM3-63/100L/S	91.6	76.1	91.2
HDM3-100M/F/T/N	96.8	73	91.2
HDM3-160/250	112	68.6	85.3
HDM3-400	67	62.3	100
HDM3-630	68	58.2	100
HDM3-800	163	153	120
HDM3-1250	183	175	140

When the rated control voltage of the shunt release is DC24V, the maximum length of the copper wire shall meet the following requirements:

Rated control power voltage U_c (DC24V)	Wire area	
	1.5mm ²	2.5mm ²
100% U_c	150mm	250mm
85% U_c	100mm	160mm

If not meeting the requirements above, it is recommended to use the figure below to design the shunt release control loop:



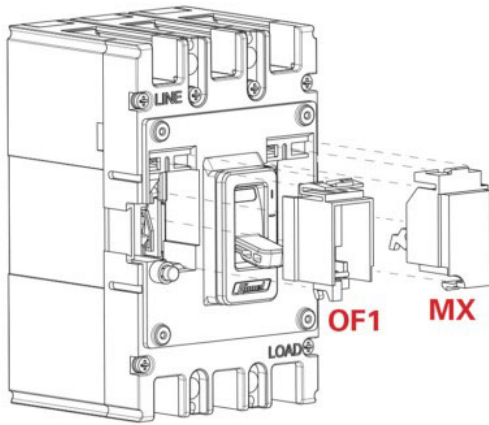
HDM3 Molded Case Circuit Breaker

Mechanical accessories
Standard: IEC/EN 60947-2



Electrical accessories

MX installation diagram:



HDM3 Molded Case Circuit Breaker

Mechanical accessories
Standard: IEC/EN 60947-2



Electrical accessories

Undervoltage release

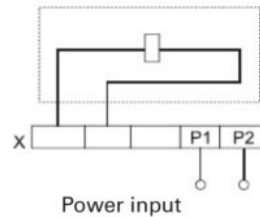
- The undervoltage release shall reliably trip the circuit breaker at the voltage between 35% and 70% of the rated operational voltage;
- The undervoltage release shall ensure that the circuit breaker can be switched on at the voltage between 85% and 110% of the rated operational voltage;
- The undervoltage release shall prevent the circuit breaker from switching on when voltage is below 35% of the rated operational voltage.



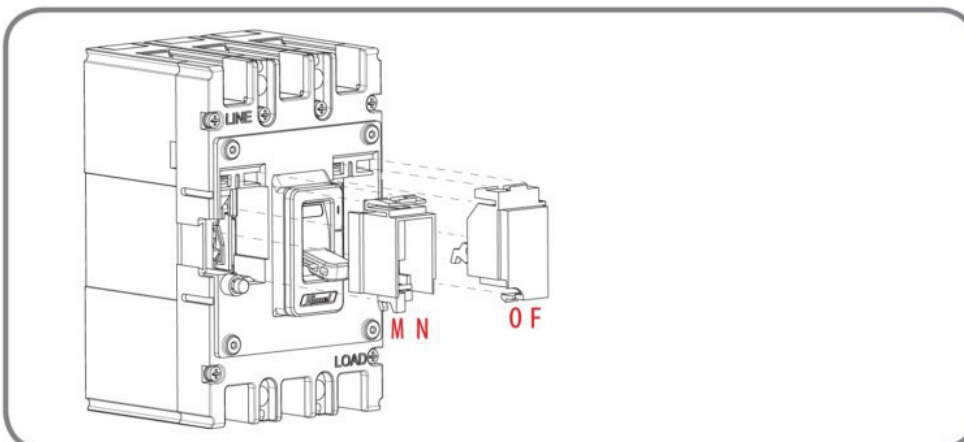
	Undervoltage coil power consumption(W)	
	AC400V	AC230V
HDM3-63/100L/S	4	3.1
HDM3-100M/F/T/N	3.9	3.2
HDM3-160/250	4.3	3.3
HDM3-400	3.6	2.5
HDM3-630	3.4	2.5
HDM3-800	2	1.6
HDM3-1250	2	1.6

Electric wiring diagram of undervoltage release Wiring diagram

Note: X- terminal block
Note: In the dashed box,
it is the wiring diagram of accessories in the
circuitbreaker.



Installation diagram of undervoltage release:



HDM3 Molded Case Circuit Breaker

Mechanical accessories
Standard: IEC/EN 60947-2



Electrical accessories

Electric operating mechanism

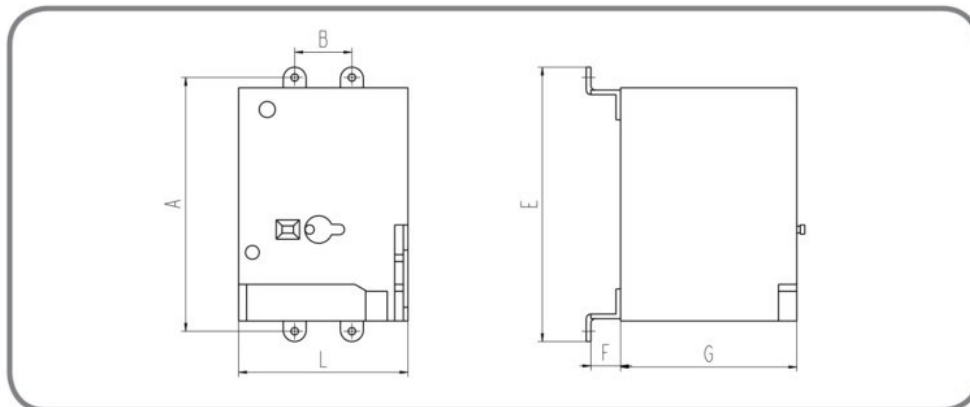
- Apply to remote electric connection, disconnection and re-trip of the circuit breaker and the automation control occasions.
- Rated voltage of electric operating mechanism: AC400V; AC230V/DC220V; AC/DC110V; DC24V
- Operating voltage range of electric operating mechanism: 85%-110% U_e
- There are two types of electric operating mechanisms:
 - CD2 General electric operating mechanism for AC and DC (HDM3-63~800)
- CD2 electric operating voltage and tolerance range:
 - CD2:63A-250A: Operating frequency ≤ 180 times/hour and actuation ; time \leq greater than 0.7s
 - CD2:400A-630A: Operating frequency of ≤ 60 times/hour; actuation time ≤ 1 s
- The voltage tolerance range is 184~253VAC/187~242VDC when the rated control power voltage is 230VAC/220VDC.
 - The voltage tolerance range is 320~440VAC when the rated control power voltage is 400VAC.
 - As for different operating forces of the circuit breaker, the switch with relatively small force can be normal.



>Parameters and installation dimensions of electric operating mechanism

unit (mm)

Circuit breaker mode	A	B	E	F	G	L
HDM3-63/100L/S	111	25	120	15	79	74
HDM3-100M/F/T/N	129	30	140	16	77	90
HDM3-160/250A	126	35	140	17	77	90
HDM3-400/630A	215	44	232	32	115	130
HDM3-800A	243	70	-	31	115	-



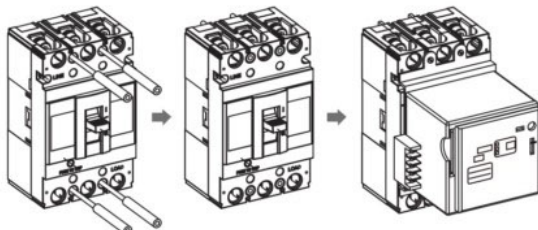
HDM3 Molded Case Circuit Breaker

Mechanical accessories
Standard: IEC/EN 60947-2



Electrical accessories

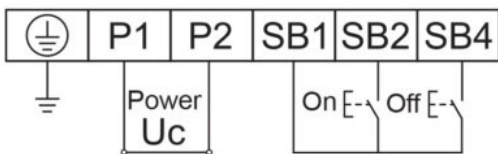
Installation drawing of CD2 electric operating mechanism



After tripping of the breaker with an electrically operated mechanism, the electrically operated mechanism must be opened first before closed.

Electric wiring diagram of CD2 electric operating mechanism

AC230V、AC400V and DC220V



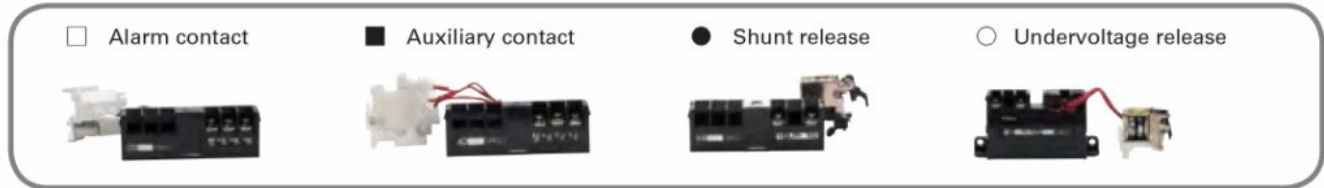
HDM3 Molded Case Circuit Breaker

Electric accessories

Standard: IEC/EN 60947-2



HDM3 Installation sites of HDM3 electric accessories



Electromagnetic type	Compound	Accessory name	HDM3-63/100L/S	HDM3-100M/FT/N	HDM3-160/250	HDM3-400/630	HDM3-800	HDM3-1250
208	308	Alarm code	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
210	310	Shunt release		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
220	320	Auxiliary contact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
230	330	Undervoltage release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
240	340	Shunt+ auxiliary	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
250	350	Shunt+ undervoltage	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
260	360	Two groups of auxiliary contacts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
270	270	Auxiliary+ undervoltage	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
218	318	Shunt + alarm	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
228	328	Auxiliary+ alarm	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
238	338	Undervoltage+ alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
248	348	Shunt +auxiliary+alarm	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
268	368	Two groups of auxiliary+alarm	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
278	378	Auxiliary +undervoltage+ alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: 2xx refers to the circuit breaker body only with a magnetic release; 3xx refers to the circuit breaker body with thermal trip and electromagnetic trip.

Low-voltage Distribution



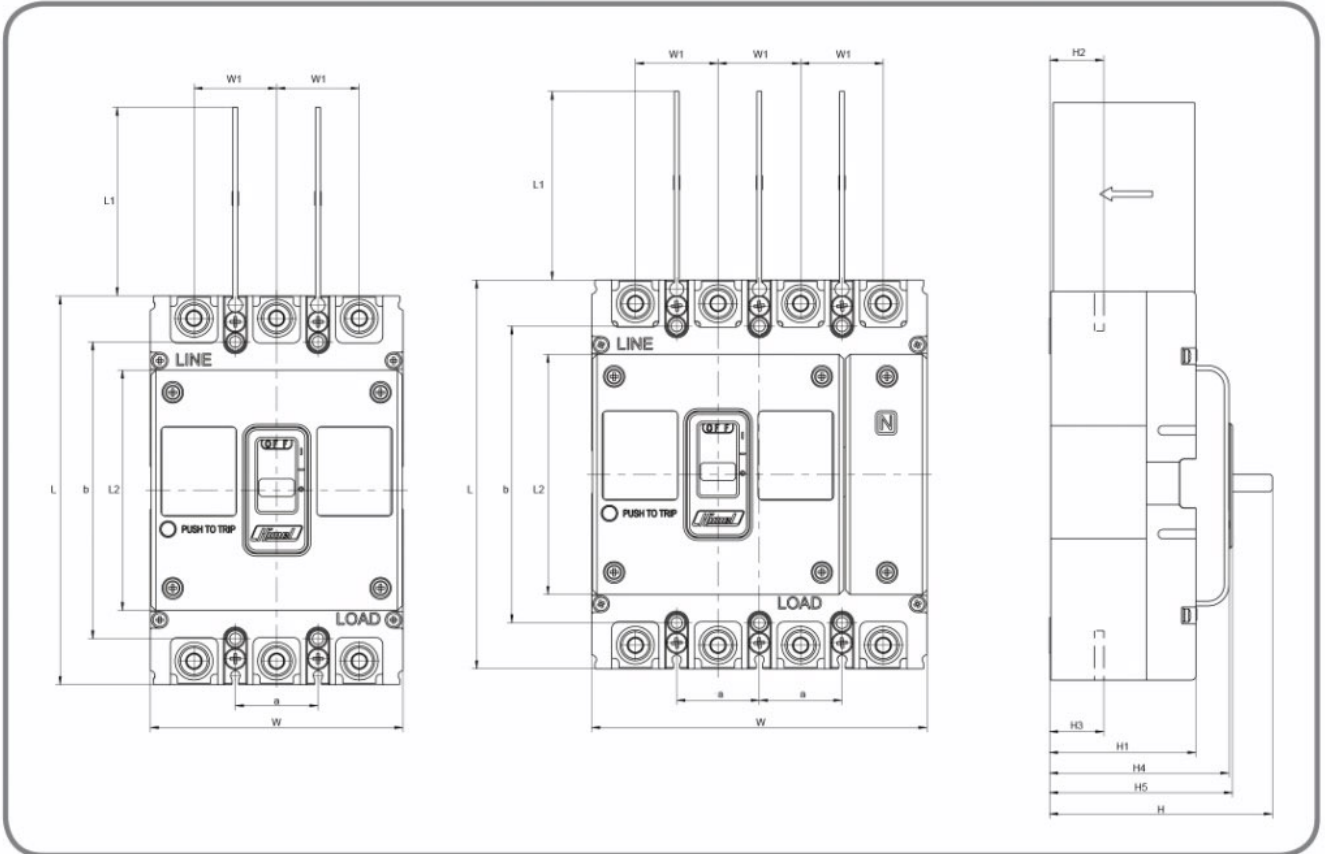
HDM3 Molded Case Circuit Breaker

Installation dimensions-Front
Standard: IEC/EN 60947-2



Installation dimensions

Fixed front installation dimensions



Shell frame	Number of poles	Overall dimension											Installation dimension	
		L	L1	L2	W	W1	H	H1	H2	H3	H4	H5	a	b
63/100L /S	3P	130	50	83	75	25	81.5	54	24	24	68	70.5	25	111
	4P				100									
100M/F /T/N	3P	150	50	96	92	30	111.5	81	28.5	28	93.5	95.5	30	129
	4P				122									
160/ 250S	3P	165	80	102	107	35	94.5	62	23	23	76	77.5	35	126
	4P				142									
160/ 250FN	3P	165	80	102	107	35	112.5	80	23	23	94	95.5	35	126
	4P				142									
400	3P	257	104.5	150	150	48	145.9	96.2	36	36.5	107.5	112.5	44	215
	4P				198									
630	3P	257	104.5	150	150	48	145.9	96.2	38	39	107.5	112.5	44	215
	4P				198									
800	3P	280	104.5	102	210	70	146.5	97.5	32.5	35.5	100	114	70	243
	4P				280									
1250	3P	406	104	97.2	210	70	197.5	134	58	60	140	158.5	70	376

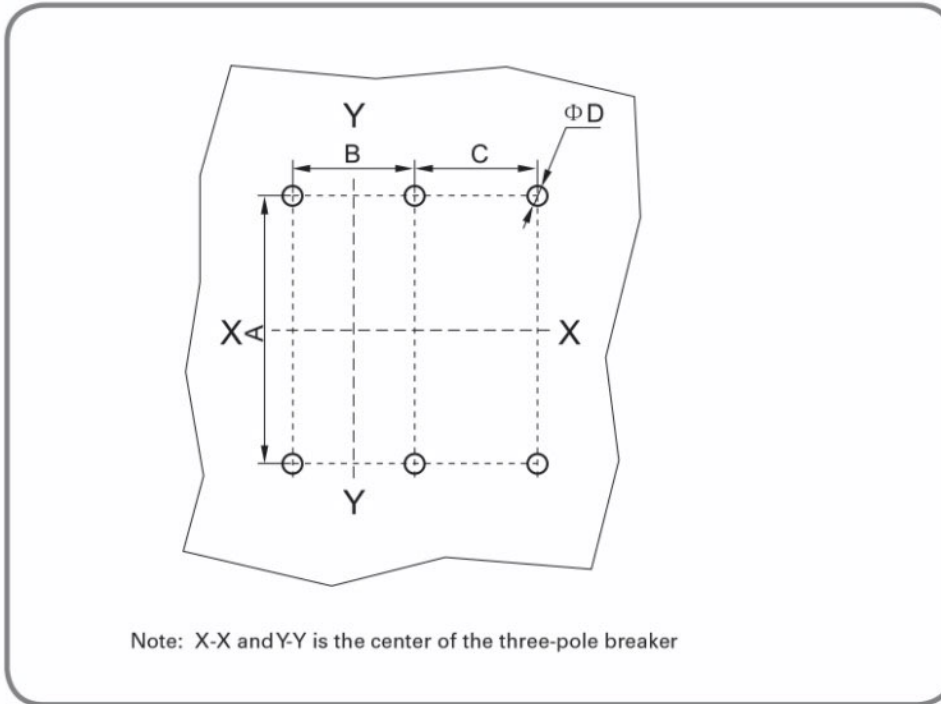
HDM3 Molded Case Circuit Breaker

Installation dimensions-Front
Standard: IEC/EN 60947-2



Installation dimensions

Fixed front installation hole dimensions



Shell frame	Number of poles	A	B	C	D
63/100L/S	3P	111	25	/	4.5
	4P			25	
100M/F/T/N	3P	129	30	/	5
	4P			30	
160/250	3P	126	35	/	5.5
	4P			35	
400/630	3P	215	44	/	6.5
	4P			/	
800	3P	243	70	/	7.5
	4P			70	
1250	3P	376	70	/	10.5

HDM3 Molded Case Circuit Breaker

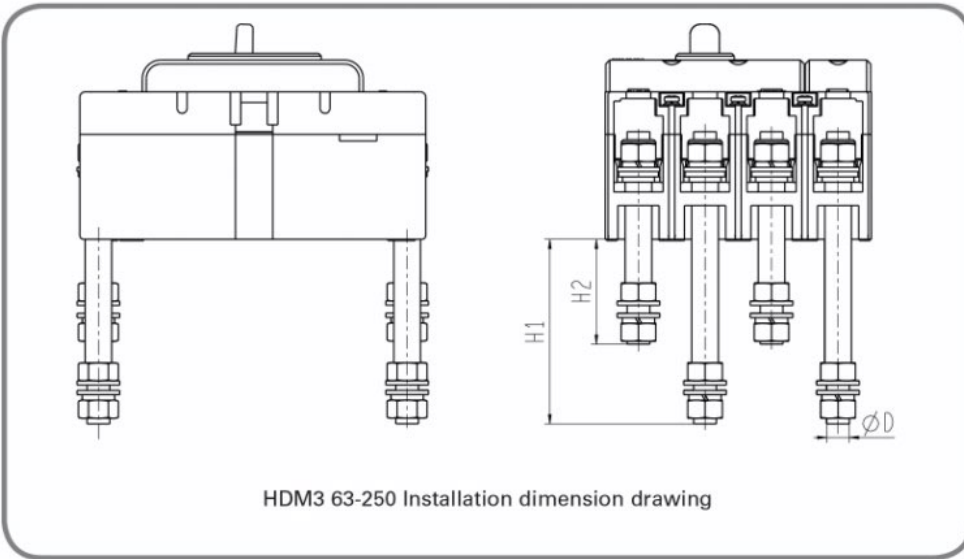
Installation dimensions-Rear
Standard: IEC/EN 60947-2



Installation dimensions-Rear

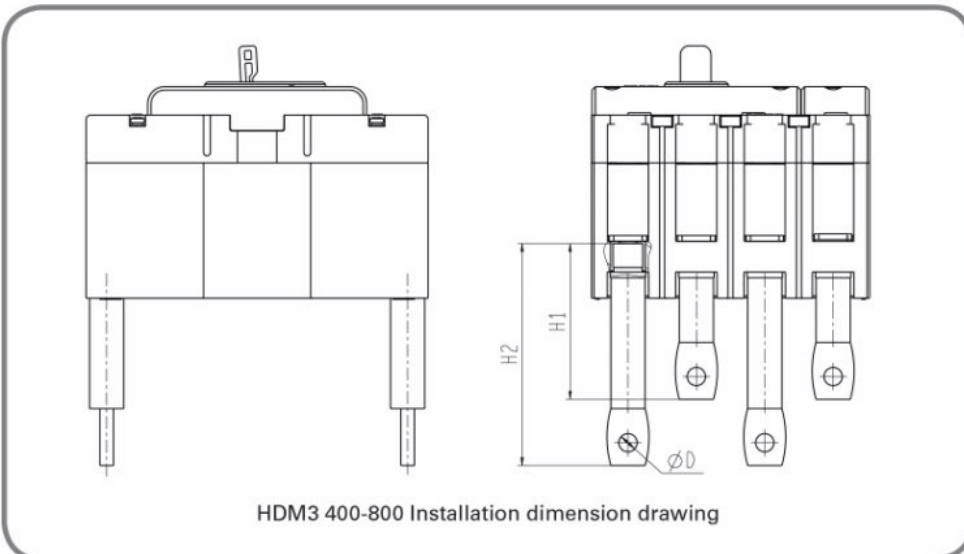
Fixed rear installation dimensions

Circuit breaker mode	H1	H2	D
HDM3-63/100L/S	80	67	8
HDM3-100M/F/T/N	97	47	8
HDM3-160	102	72	10
HDM3-250	102	72	10



Installation dimensions

Circuit breaker mode	H1	H2	D
HDM3-400	98	134	12.5
HDM3-630	98	134	12.5
HDM3-800	107	141	12.5



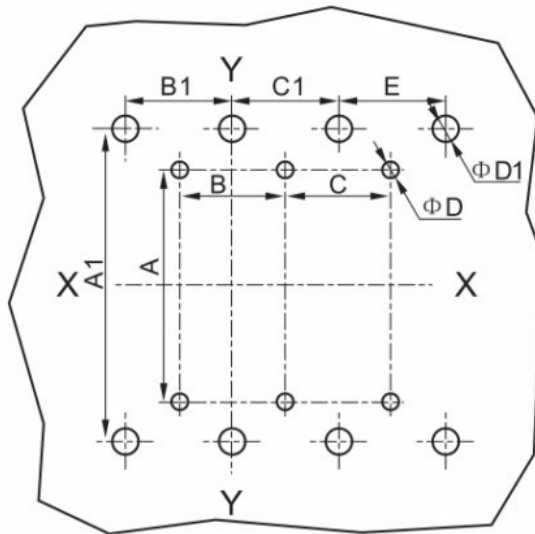
HDM3 Molded Case Circuit Breaker

Installation dimensions-Rear
Standard:IEC/EN 60947-2



Installation dimensions-Rear

Fixed rear installation hole dimensions



Note: X-X and Y-Y is the center of the three-pole breaker

Shell frame	Number of poles	A	B	C	D	A1	B1	C1	E	D
63/100L/S	3P	111	25	-	4.5	116	25	25	-	12
	4P			25					25	
100M/F/T/N	3P	129	30	-	5	132	30	30	-	12
	4P			30					30	
160/250	3P	126	35	-	5.5	145	35	35	-	15
	4P			35					35	
400/630	3P	215	44	-	6.5	225	48	48	-	18
	4P			-					48	
800	3P	243	70	-	7.5	243	70	70	-	27
	4P			70					70	



HDM3 Molded Case Circuit Breaker

Installation dimensions-Plug in
Standard:IEC/EN 60947-2

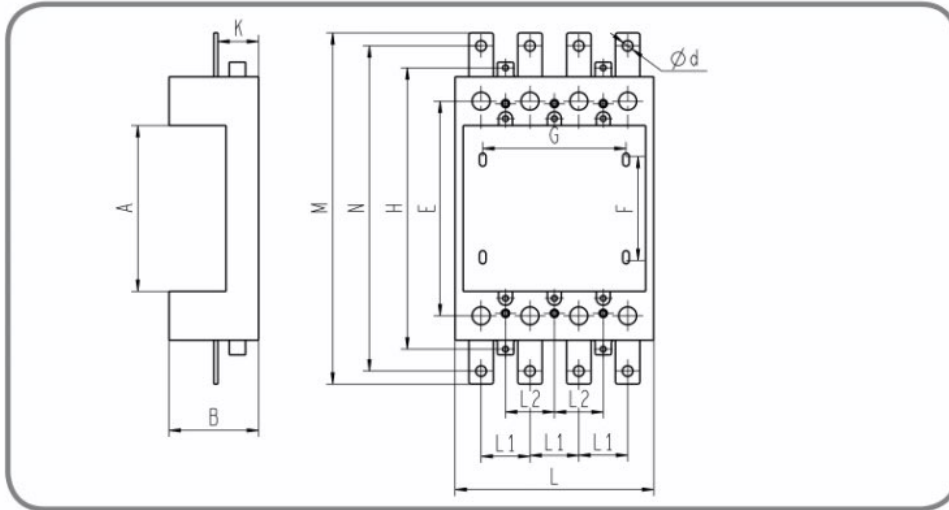


Installation dimensions-Plug in

Plug-in front installation dimensions

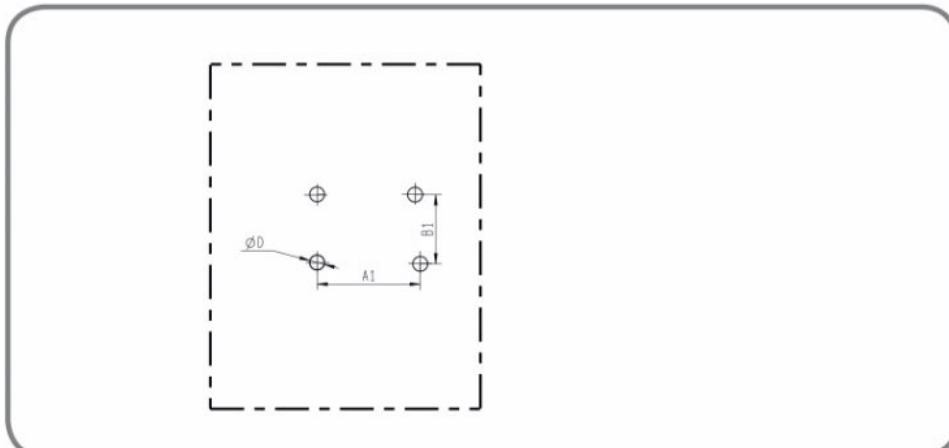
Installation dimensions

Circuit breaker mode	A	B	E	F	G(3P/4P)	H	L(3P/4P)	L1	L2	M	N	K	d
63/100S/125S	91.5	48.2	111	60	50/75	145	75/100	25	25	190	173	22.5	6
100F/N/125T	100.5	56.2	132	67	60/90	170	90/120	30	30	216	198	25	6.5
160/250A	108.5	73.2	144	74	70/105	191	105/140	35	35	243	223	37.5	8.5



Plug-in front hot position drawing

Circuit breaker mode	Number of poles	A1	B1	D
63/100L/S	3	50	60	5.5
	4	75		
100M/F/T/N	3	60	67	6.5
	4	90		
160/250	3	70	74	6.5
	4	105		



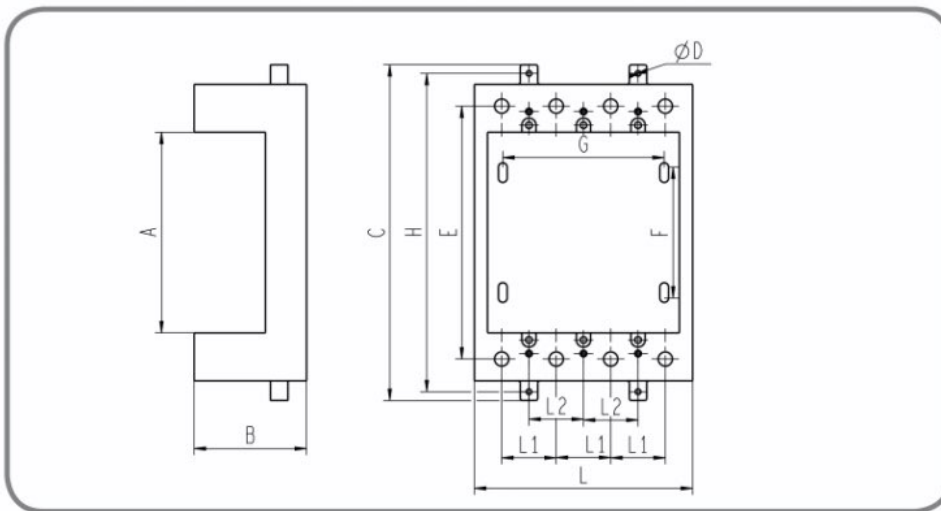
HDM3 Molded Case Circuit Breaker

Installation dimensions-Plug in
Standard: IEC/EN 60947-2

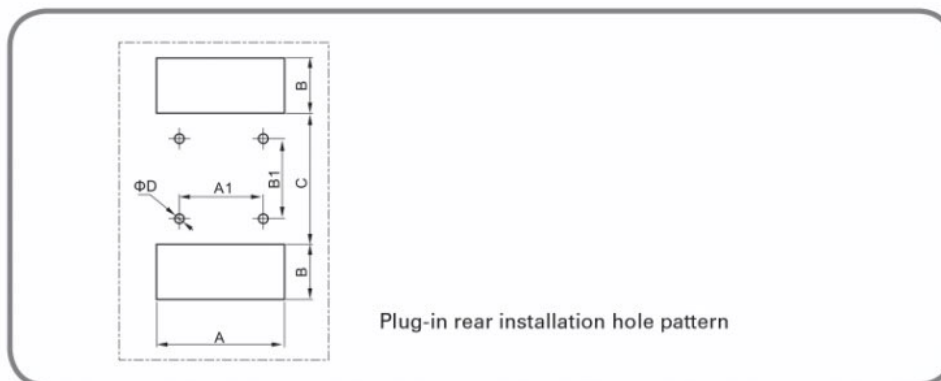
Installation dimensions-Plug in

Plug-in rear installation dimensions
Installation dimensions

Circuit breaker mode	A	B	C	D	E	F	G	H	L	L1	L2
63/100L/S	92	51.5	154	2.5	116	60	76	146	100	25	50
100M/F/T/N	102	55	180	3.5	132	60	90	173	122	30	60
160/250A	109.5	72	200	4	145	74.5	105	190	140	35	35
400/630A	170	80	-	-	225	145	88/132	-	152/200	48	44
800A	155	87	-	-	243	143	90/160	-	210/280	70	70/140



Circuit breaker mode	Number of poles	A	A1	B	B1	C	D
63/100L/S	3	79	50	30	60	90	5.5
	4	104	75				
100M/F/T/N	3	94	60	40	67	90	6.5
	4	124	90				
160/250	3	110	70	45	74	100	6.5
	4	145	105				
400/630	3	157	88	60	145	170	8.5
	4	205	132				
800	3	212	140	62	143	185	11
	4	282	210				



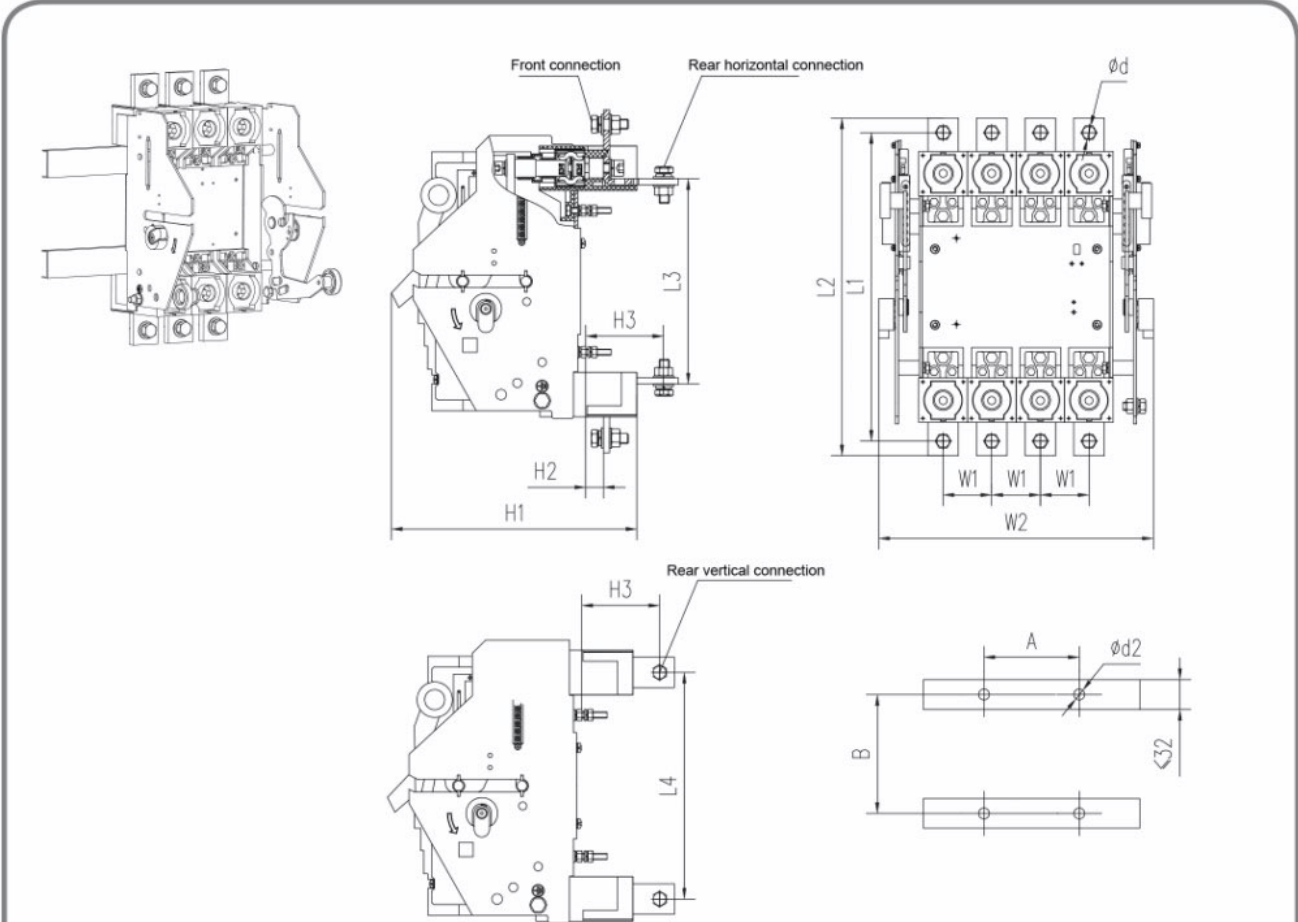
HDM3 Molded Case Circuit Breaker

Installation dimensions-Plug in
Standard: IEC/EN 60947-2



Low-voltage Distribution

HDM3 Drawable installation diagram

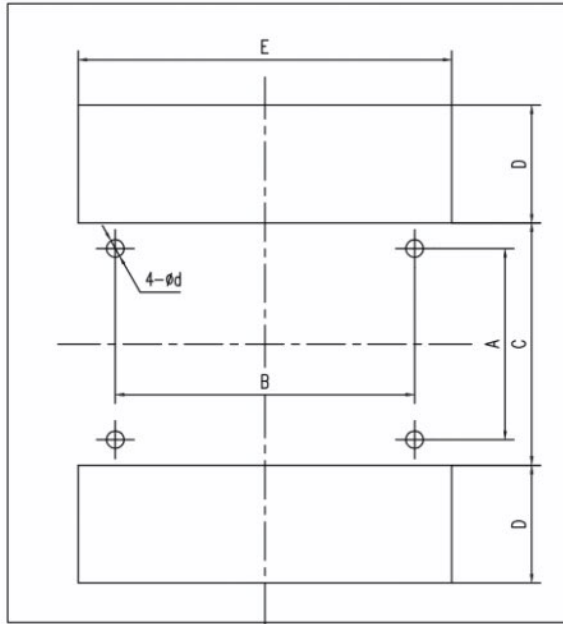


Frame	Pole	Overview Dimension										Installation Size		
		L1	L2	L3	L4	H1	H2	H3	W1	W2	ød1	A	B	ød2
HDM3-400	3P	310	339	203	223	253	17.5	77	48	223	ø11	96	140	ø7
	4P	310	339	203	223	253	17.5	77	48	271	ø11	144	140	ø7
HDM3-630	3P	310	339	207	223	253	17.5	77	48	223	ø11	96	140	ø7
	4P	310	339	207	223	253	17.5	77	48	271	ø11	144	140	ø7
HDM3-800	3P	367	410	241	231	238	-26	73	70	289	ø13	140	131	ø7
	4P	367	410	241	231	238	-26	73	70	359	ø13	210	131	ø7

HDM3 Molded Case Circuit Breaker

Installation dimensions-Plug in
Standard:IEC/EN 60947-2

HDM3 Drawable installation hole diagram



Frame	Hole size of rear connection							
	A	B		C	D	E		d
		3P	4P			3P	4P	
HDM3-400	140	96	144	178	47	147	195	7
HDM3-630	140	96	144	178	47	147	195	7
HDM3-800	131	140	210	170	77	213	283	7

Frame	Hole size of front connection							
	A	B		C	D	E		d
		3P	4P			3P	4P	
HDM3-400	140	96	144	178	90	147	195	7
HDM3-630	140	96	144	178	90	147	195	7
HDM3-800	131	140	210	170	130	213	283	7

Remark: HDM3-630 frame withdrawable connection is derating to 500A.

HDM3 Molded Case Circuit Breaker

Trip curve

Standard: IEC/EN 60947-2

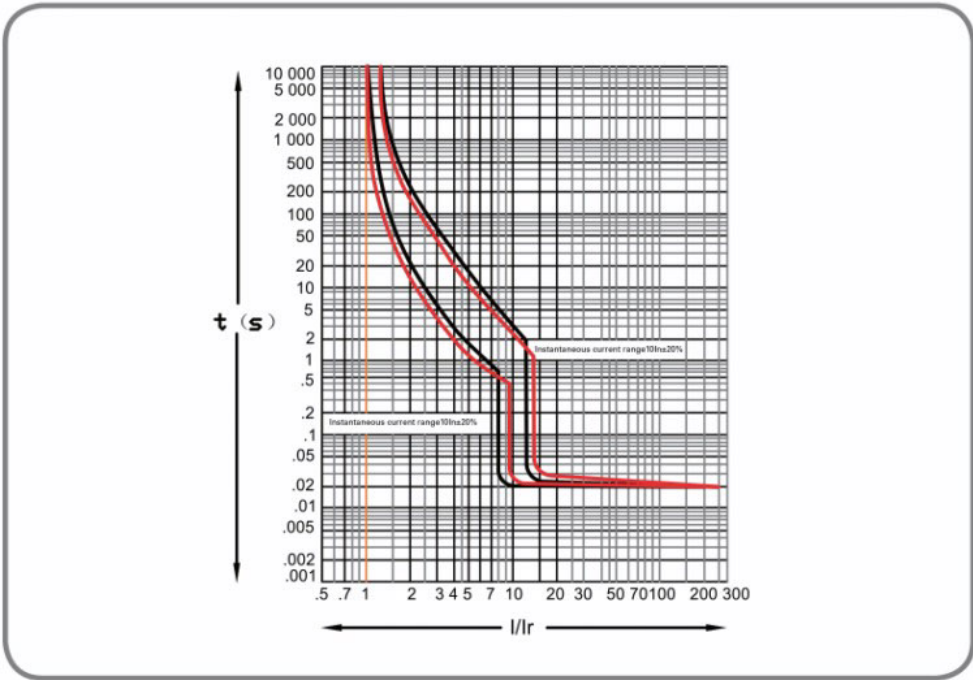


Low-voltage Distribution

HDM3 series Trip curve

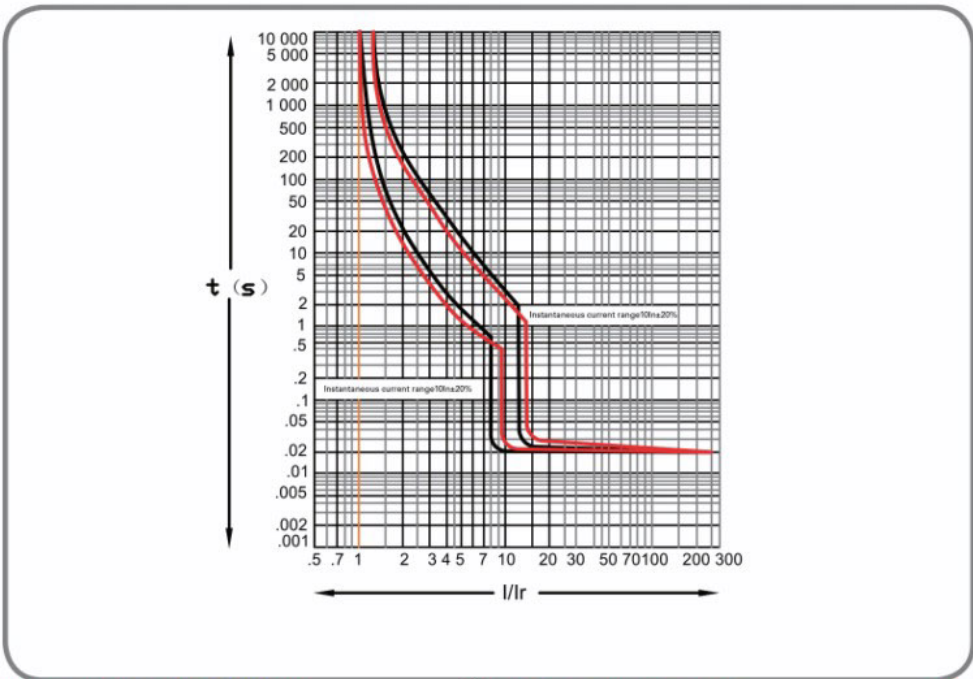
HDM3-63

HDM3-63 40-63A Black line: power distribution protection, red line: motor protection;



HDM3-100S

HDM3-100S 40A-100A Black line: power distribution protection, red line: motor protection;



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www.megahimel.com

HDM3 Molded Case Circuit Breaker

Trip curve

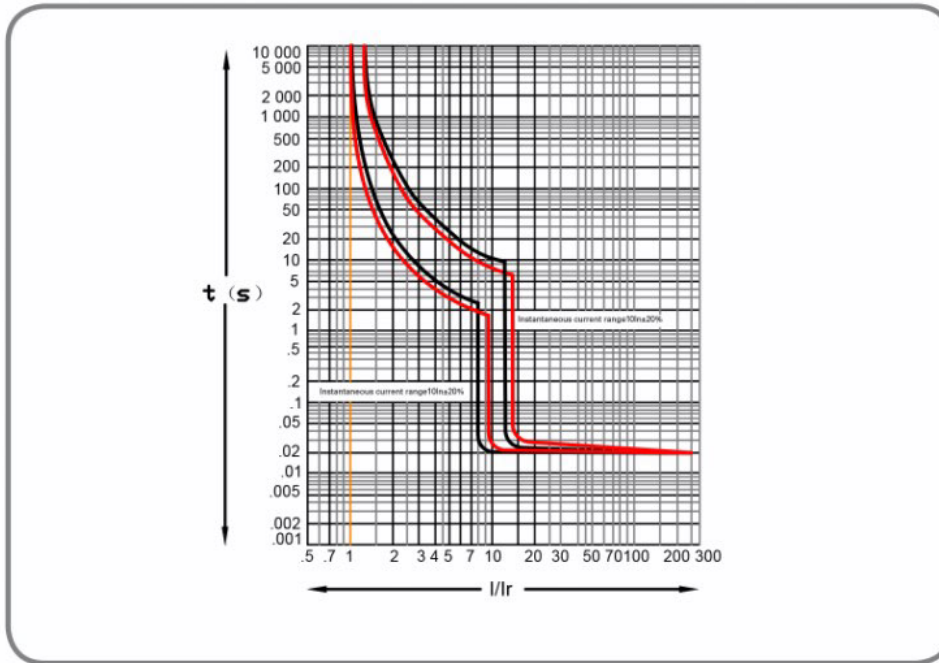
Standard: IEC/EN 60947-2



HDM3 series Trip curve

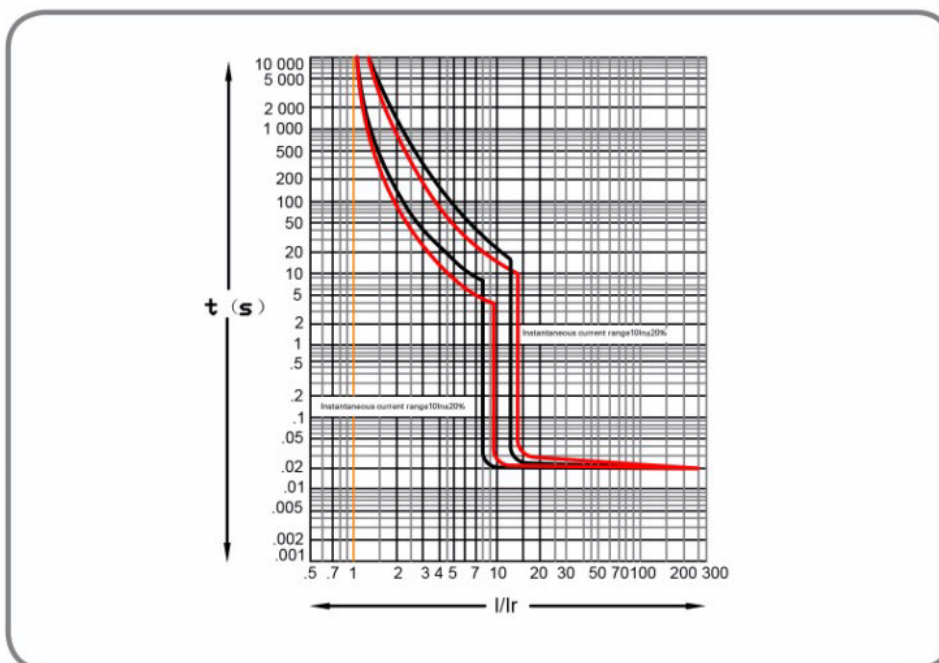
HDM3-100M/F/T/N

HDM3-100M/F/T/N 40A-100A Black line: power distribution protection, red line: motor protection;



HDM3-160/250

Black line: power distribution protection, red line: motor protection;



HDM3 Molded Case Circuit Breaker

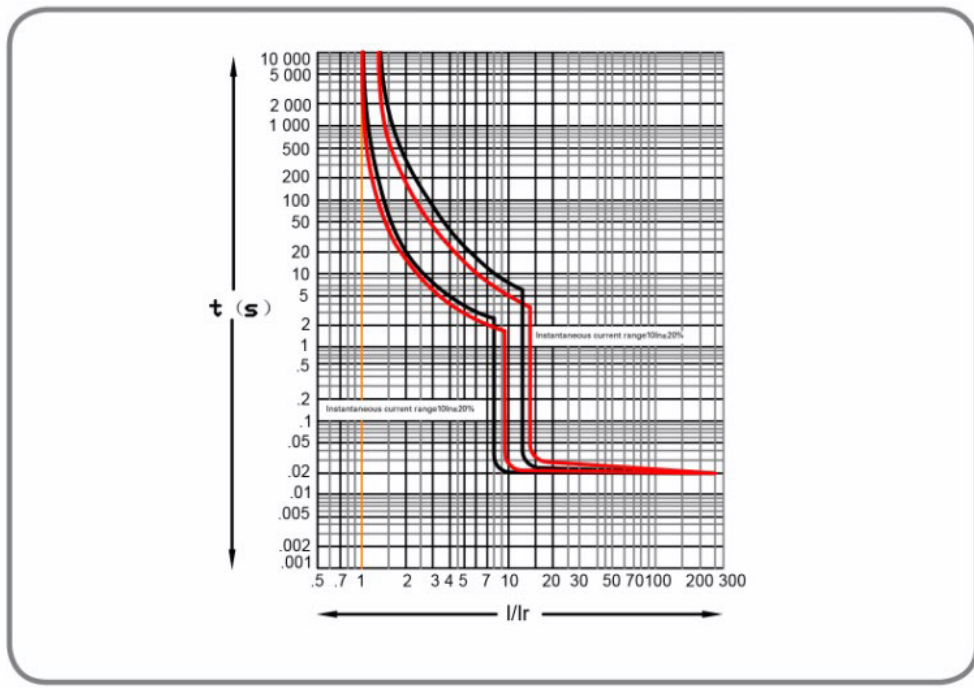
Trip curve
Standard: IEC/EN 60947-2



HDM3 series Trip curve

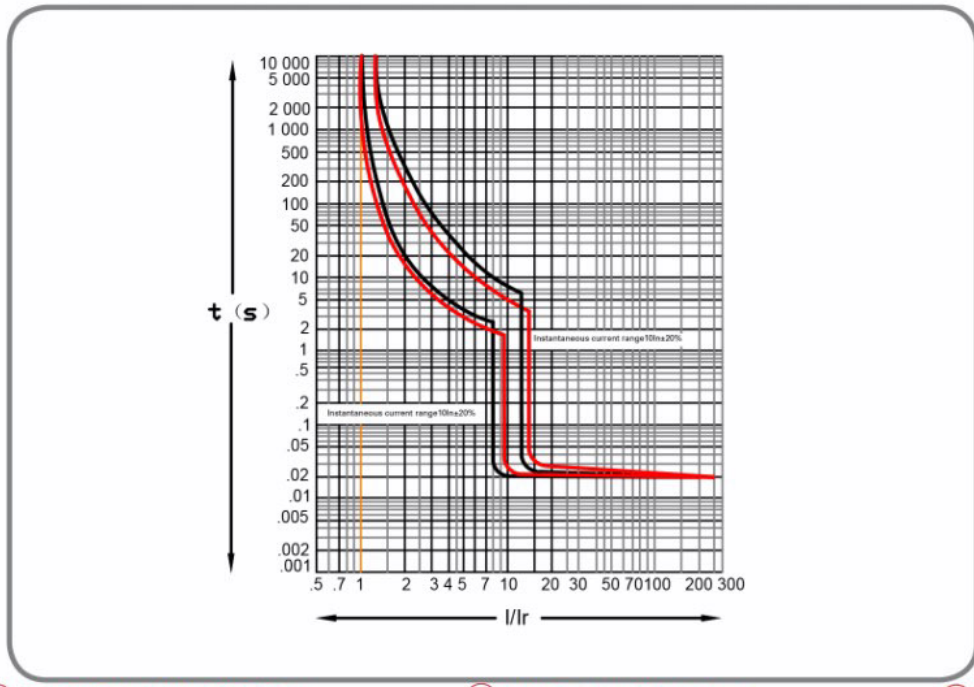
HDM3-400

Black line: power distribution protection , red line: motor protection;



HDM3-630

Black line: power distribution protection , red line: motor protection;



HDM3 Molded Case Circuit Breaker

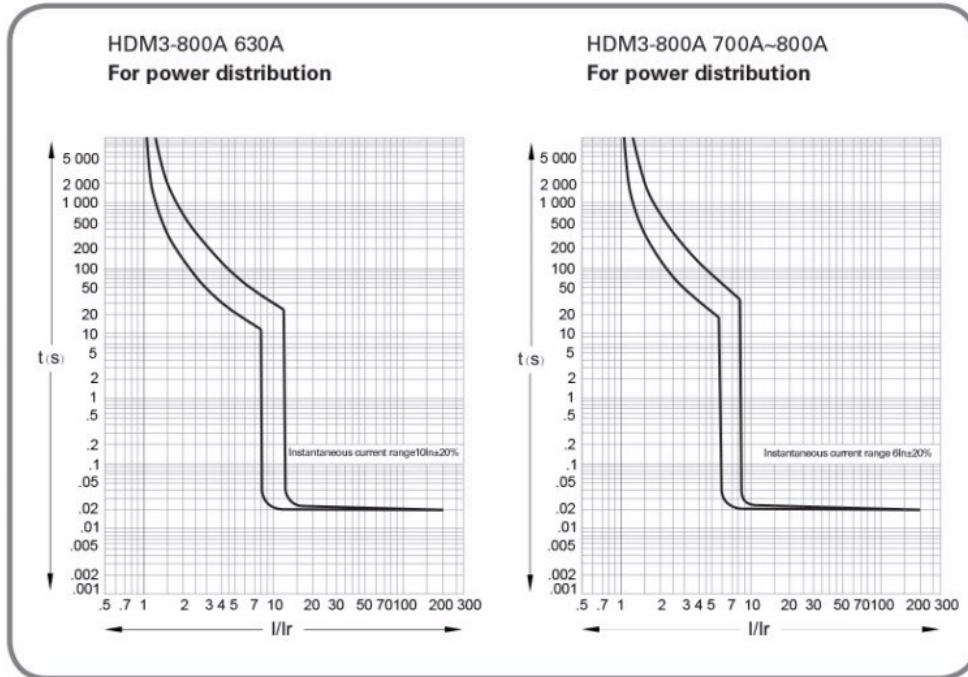
Trip curve

Standard: IEC/EN 60947-2



HDM3 series Trip curve

HDM3-800A



Low-voltage Distribution



HDM3 Molded Case Circuit Breaker

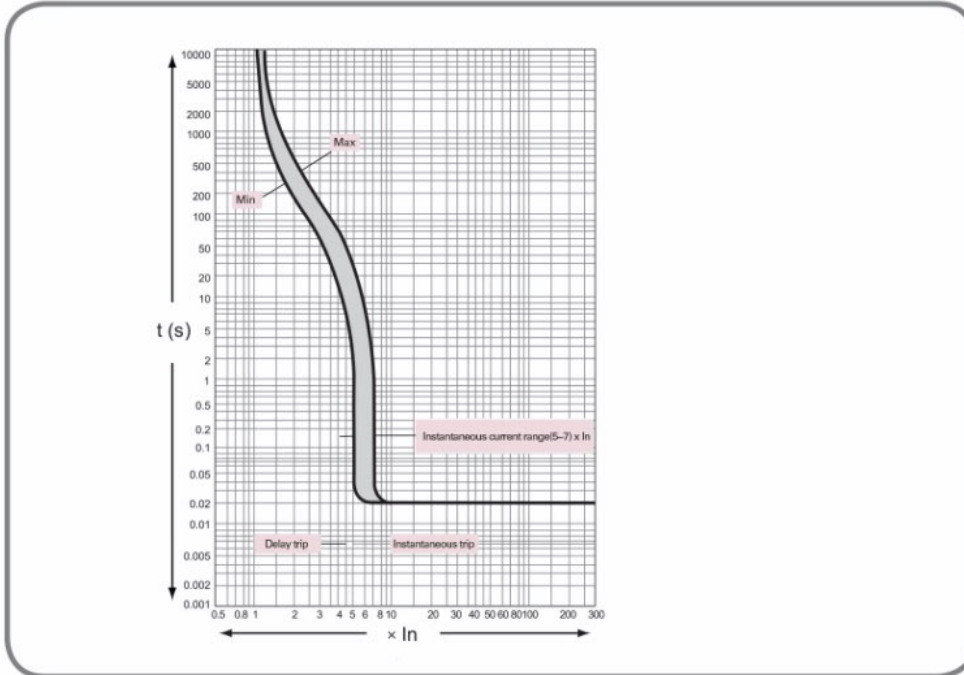
Trip curve

Standard: IEC/EN 60947-2



HDM3 series Trip curve

HDM3-1250A



HDM3 Molded Case Circuit Breaker

Repair and maintenance
Standard: IEC/EN 60947-2

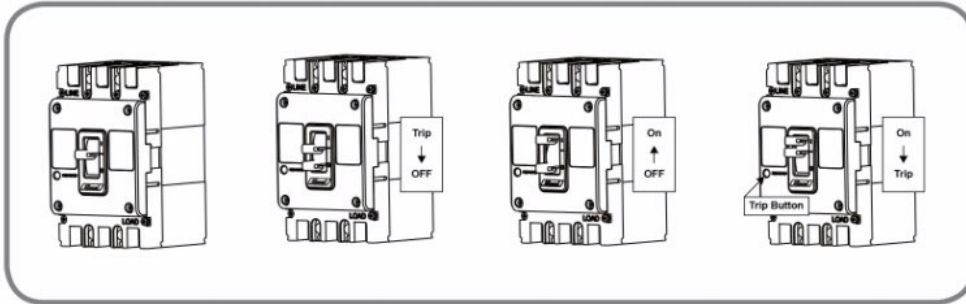


HDM3 Repair and maintenance

Operated and debug HDM3

First, check the circuit breaker handle status

1. The normal status of delivered products is at "Trip" position
2. Press the handle to the "OFF" position
3. Close the breaker and push the handle to "ON" position.
4. Tap the trip button and the breaker handle returns to "Trip" position.



Repair and maintenance

- The repair and maintenance shall be implemented by qualified persons
- The superior power supply must be cut off to ensure that the incoming terminals are electrically neutral
- Conduct maintenance and protection once a year under normal operating conditions with the maintenance content as follows:

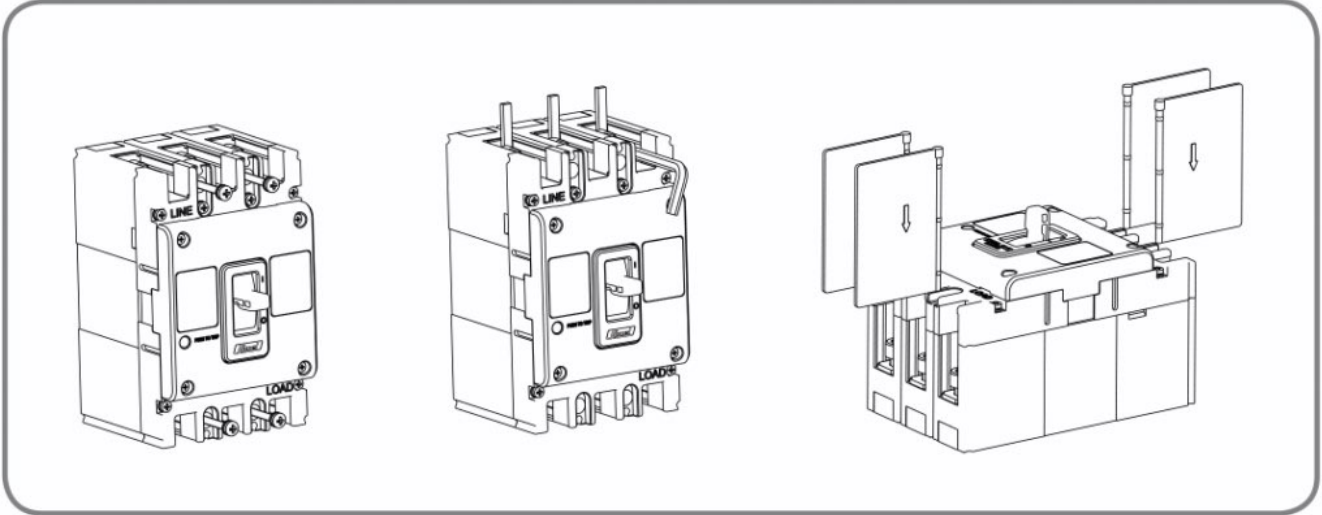
Type	Item	Content
Moulded case circuit breaker	Appearance	No dust or condensation .Clean is needed if there's any.
		No damage
		Non-discoloring shell and connectors
	Flash barrier	Insert the flash barrier in place according to the instructions
	Connector connection	Tighten without looseness according to the Rated Torque Chart
	Handle on/off operation	Operation shall be flexible
Circuit breaker with accessories	Trip button	The handle indicates trip after the trip of the product
	Insulation test	Conduct a test according to the product test requirements On the first page of User Manual
	With undervoltage release	The circuit breaker shall be disconnected reliably and the handle indicates trip if the undervoltage release is powered off
	With undervoltage release	The circuit breaker shall be disconnected reliably and the handle indicates trip if the release is provided with rated voltage
Circuit breaker with accessories	With auxiliary contact	The switching signal of the auxiliary contact shall be normal when the circuit breaker is connected and then disconnected
	With alarm contact	The switching signal of the alarm contact shall not function when the circuit breaker is closed and then tripped by pressing the trip button.

HDM3 Molded Case Circuit Breaker

Appendix
Standard: IEC/EN 60947-2



Appendix Torque table and connecting conductor



Torque table

Shell frame	Hexagon	Torque force N.m
63/100	M8	9.5-10.5
160/250	M8	9.5-10.5
400/630	M10	19.5-20.5
800/1250	M12	29.5-30.5

Connecting conductor mm²

Rated current A	10	16/20	25	32	40/50	63	80	100	125	140	160	180/200/225	250	315	400	500	600	700/800	1000	1250
Conductor cross-section mm ²	1.5	3	4	6	10	16	25	35	50	50	70	95	120	185	240	2*150	2*185	2*240	2*500	2*500

HDM3 Molded Case Circuit Breaker

Reference
Standard: IEC/EN 60947-2



Material order number

HDM3 Fixed front connection Power distribution protection Thermal magnetic tripping

Product Specification	In(A)	Icu(kA)	Ics(kA)	Order Reference	Order Reference	Order Reference
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-63L	10	18	18	HDM363L1033XX	HDM363L10A3XX	HDM363L10B3XX
	16	18	18	HDM363L1633XX	HDM363L16A3XX	HDM363L16B3XX
	20	18	18	HDM363L2033XX	HDM363L20A3XX	HDM363L20B3XX
	25	18	18	HDM363L2533XX	HDM363L25A3XX	HDM363L25B3XX
	32	18	18	HDM363L3233XX	HDM363L32A3XX	HDM363L32B3XX
	40	18	18	HDM363L4033XX	HDM363L40A3XX	HDM363L40B3XX
	50	18	18	HDM363L5033XX	HDM363L50A3XX	HDM363L50B3XX
	63	18	18	HDM363L6333XX	HDM363L63A3XX	HDM363L63B3XX
HDM3-63S	10	25	18	*HDM363S1033XX	HDM363S10A3XX	HDM363S10B3XX
	16	25	18	*HDM363S1633XX	HDM363S16A3XX	HDM363S16B3XX
	20	25	18	*HDM363S2033XX	HDM363S20A3XX	HDM363S20B3XX
	25	25	18	*HDM363S2533XX	HDM363S25A3XX	HDM363S25B3XX
	32	25	18	*HDM363S3233XX	HDM363S32A3XX	HDM363S32B3XX
	40	25	18	*HDM363S4033XX	HDM363S40A3XX	HDM363S40B3XX
	50	25	18	*HDM363S5033XX	HDM363S50A3XX	HDM363S50B3XX
	63	25	18	*HDM363S6333XX	HDM363S63A3XX	HDM363S63B3XX
HDM3-63M	10	30	30	HDM363M1033XX	HDM363M10A3XX	HDM363M10B3XX
	16	30	30	HDM363M1633XX	HDM363M16A3XX	HDM363M16B3XX
	20	30	30	HDM363M2033XX	HDM363M20A3XX	HDM363M20B3XX
	25	30	30	HDM363M2533XX	HDM363M25A3XX	HDM363M25B3XX
	32	30	30	HDM363M3233XX	HDM363M32A3XX	HDM363M32B3XX
	40	30	30	HDM363M4033XX	HDM363M40A3XX	HDM363M40B3XX
	50	30	30	HDM363M5033XX	HDM363M50A3XX	HDM363M50B3XX
	63	30	30	HDM363M6333XX	HDM363M63A3XX	HDM363M63B3XX
HDM3-63F	10	50	30	*HDM363F1033XX	HDM363F10A3XX	HDM363F10B3XX
	16	50	30	*HDM363F1633XX	HDM363F16A3XX	HDM363F16B3XX
	20	50	30	*HDM363F2033XX	HDM363F20A3XX	HDM363F20B3XX
	25	50	30	*HDM363F2533XX	HDM363F25A3XX	HDM363F25B3XX
	32	50	30	*HDM363F3233XX	HDM363F32A3XX	HDM363F32B3XX
	40	50	30	*HDM363F4033XX	HDM363F40A3XX	HDM363F40B3XX
	50	50	30	*HDM363F5033XX	HDM363F50A3XX	HDM363F50B3XX
	63	50	30	*HDM363F6333XX	HDM363F63A3XX	HDM363F63B3XX
HDM3-100L	10	18	18	HDM3100L1033XX	HDM3100L10A3XX	HDM3100L10B3XX
	16	18	18	HDM3100L1633XX	HDM3100L16A3XX	HDM3100L16B3XX
	20	18	18	HDM3100L2033XX	HDM3100L20A3XX	HDM3100L20B3XX
	25	18	18	HDM3100L2533XX	HDM3100L25A3XX	HDM3100L25B3XX
	32	18	18	HDM3100L3233XX	HDM3100L32A3XX	HDM3100L32B3XX
	40	18	18	HDM3100L4033XX	HDM3100L40A3XX	HDM3100L40B3XX
	50	18	18	HDM3100L5033XX	HDM3100L50A3XX	HDM3100L50B3XX
	63	18	18	HDM3100L6333XX	HDM3100L63A3XX	HDM3100L63B3XX
	80	18	18	HDM3100L8033XX	HDM3100L80A3XX	HDM3100L80B3XX
	100	18	18	HDM3100L10033XX	HDM3100L100A3XX	HDM3100L100B3XX

The reference with "*" means that it has 40°C and 50°C. Please add "T" at the end as 50°C reference.



HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Low-voltage Distribution

Material order number

HDM3 Fixed front connection Power distribution protection Thermal magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference	Order Reference	Order Reference
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-100S	10	25	18	HDM3100S1033XX	HDM3100S10A3XX	HDM3100S10B3XX
	16	25	18	HDM3100S1633XX	HDM3100S16A3XX	HDM3100S16B3XX
	20	25	18	HDM3100S2033XX	HDM3100S20A3XX	HDM3100S20B3XX
	25	25	18	HDM3100S2533XX	HDM3100S25A3XX	HDM3100S25B3XX
	32	25	18	HDM3100S3233XX	HDM3100S32A3XX	HDM3100S32B3XX
	40	25	18	HDM3100S4033XX	HDM3100S40A3XX	HDM3100S40B3XX
	50	25	18	HDM3100S5033XX	HDM3100S50A3XX	HDM3100S50B3XX
	63	25	18	HDM3100S6333XX	HDM3100S63A3XX	HDM3100S63B3XX
	80	25	18	*HDM3100S8033XX	HDM3100S80A3XX	HDM3100S80B3XX
100	25	18	*HDM3100S10033XX	HDM3100S100A3XX	HDM3100S100B3XX	
HDM3-100M	40	26	26	HDM3100M4033XX	HDM3100M40A3XX	HDM3100M40B3XX
	50	26	26	HDM3100M5033XX	HDM3100M50A3XX	HDM3100M50B3XX
	63	26	26	HDM3100M6333XX	HDM3100M63A3XX	HDM3100M63B3XX
	80	26	26	HDM3100M8033XX	HDM3100M80A3XX	HDM3100M80B3XX
	100	26	26	HDM3100M10033XX	HDM3100M100A3XX	HDM3100M100B3XX
HDM3-100F	40	35	26	*HDM3100F4033XX	HDM3100F40A3XX	HDM3100F40B3XX
	50	35	26	*HDM3100F5033XX	HDM3100F50A3XX	HDM3100F50B3XX
	63	35	26	*HDM3100F6333XX	HDM3100F63A3XX	HDM3100F63B3XX
	80	35	26	*HDM3100F8033XX	HDM3100F80A3XX	HDM3100F80B3XX
	100	35	26	*HDM3100F10033XX	HDM3100F100A3XX	HDM3100F100B3XX
HDM3-100T	40	30	30	HDM3100T4033XX	HDM3100T40A3XX	HDM3100T40B3XX
	50	30	30	HDM3100T5033XX	HDM3100T50A3XX	HDM3100T50B3XX
	63	30	30	HDM3100T6333XX	HDM3100T63A3XX	HDM3100T63B3XX
	80	30	30	HDM3100T8033XX	HDM3100T80A3XX	HDM3100T80B3XX
	100	30	30	HDM3100T10033XX	HDM3100T100A3XX	HDM3100T100B3XX
HDM3-100N	40	50	30	*HDM3100N4033XX	HDM3100N40A3XX	HDM3100N40B3XX
	50	50	30	*HDM3100N5033XX	HDM3100N50A3XX	HDM3100N50B3XX
	63	50	30	*HDM3100N6333XX	HDM3100N63A3XX	HDM3100N63B3XX
	80	50	30	*HDM3100N8033XX	HDM3100N80A3XX	HDM3100N80B3XX
	100	50	30	*HDM3100N10033XX	HDM3100N100A3XX	HDM3100N100B3XX
HDM3-160L	100	21	21	HDM3160L10033XX	HDM3160L100A3XX	HDM3160L100B3XX
	125	21	21	HDM3160L12533XX	HDM3160L125A3XX	HDM3160L125B3XX
	140	21	21	HDM3160L14033XX	HDM3160L140A3XX	HDM3160L140B3XX
	160	21	21	HDM3160L16033XX	HDM3160L160A3XX	HDM3160L160B3XX
HDM3-160S	100	35	21	*HDM3160S10033XX	HDM3160S100A3XX	HDM3160S100B3XX
	125	35	21	*HDM3160S12533XX	HDM3160S125A3XX	HDM3160S125B3XX
	140	35	21	*HDM3160S14033XX	HDM3160S140A3XX	HDM3160S140B3XX
	160	35	21	*HDM3160S16033XX	HDM3160S160A3XX	HDM3160S160B3XX
HDM3-160M	100	30	30	HDM3160M10033XX	HDM3160M100A3XX	HDM3160M100B3XX
	125	30	30	HDM3160M12533XX	HDM3160M125A3XX	HDM3160M125B3XX
	140	30	30	HDM3160M14033XX	HDM3160M140A3XX	HDM3160M140B3XX
	160	30	30	HDM3160M16033XX	HDM3160M160A3XX	HDM3160M160B3XX

The reference with "*" means that it has 40°C and 50°C. Please add "T" at the end as 50°C reference.

HDM3 Molded Case Circuit Breaker

Reference
Standard: IEC/EN 60947-2



Material order number

HDM3 Fixed front connection Power distribution protection Thermal magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference	Order Reference	Order Reference
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-160F	100	50	30	*HDM3160F10033XX	HDM3160F100A3XX	HDM3160F100B3XX
	125	50	30	*HDM3160F12533XX	HDM3160F125A3XX	HDM3160F125B3XX
	140	50	30	*HDM3160F14033XX	HDM3160F140A3XX	HDM3160F140B3XX
	160	50	30	*HDM3160F16033XX	HDM3160F160A3XX	HDM3160F160B3XX
HDM3-160T	100	36	36	HDM3160T10033XX	HDM3160T100A3XX	HDM3160T100B3XX
	125	36	36	HDM3160T12533XX	HDM3160T125A3XX	HDM3160T125B3XX
	140	36	36	HDM3160T14033XX	HDM3160T140A3XX	HDM3160T140B3XX
	160	36	36	HDM3160T16033XX	HDM3160T160A3XX	HDM3160T160B3XX
HDM3-160N	100	60	36	*HDM3160N10033XX	HDM3160N100A3XX	HDM3160N100B3XX
	125	60	36	*HDM3160N12533XX	HDM3160N125A3XX	HDM3160N125B3XX
	140	60	36	*HDM3160N14033XX	HDM3160N140A3XX	HDM3160N140B3XX
	160	60	36	*HDM3160N16033XX	HDM3160N160A3XX	HDM3160N160B3XX
HDM3-250L	100	21	21	HDM3250L10033XX	HDM3250L100A3XX	HDM3250L100B3XX
	125	21	21	HDM3250L12533XX	HDM3250L125A3XX	HDM3250L125B3XX
	140	21	21	HDM3250L14033XX	HDM3250L140A3XX	HDM3250L140B3XX
	160	21	21	HDM3250L16033XX	HDM3250L160A3XX	HDM3250L160B3XX
	180	21	21	HDM3250L18033XX	HDM3250L180A3XX	HDM3250L180B3XX
	200	21	21	HDM3250L20033XX	HDM3250L200A3XX	HDM3250L200B3XX
	225	21	21	HDM3250L22533XX	HDM3250L225A3XX	HDM3250L225B3XX
	250	21	21	HDM3250L25033XX	HDM3250L250A3XX	HDM3250L250B3XX
HDM3-250S	100	35	21	*HDM3250S10033XX	HDM3250S100A3XX	HDM3250S100B3XX
	125	35	21	*HDM3250S12533XX	HDM3250S125A3XX	HDM3250S125B3XX
	140	35	21	*HDM3250S14033XX	HDM3250S140A3XX	HDM3250S140B3XX
	160	35	21	*HDM3250S16033XX	HDM3250S160A3XX	HDM3250S160B3XX
	180	35	21	*HDM3250S18033XX	HDM3250S180A3XX	HDM3250S180B3XX
	200	35	21	*HDM3250S20033XX	HDM3250S200A3XX	HDM3250S200B3XX
	225	35	21	*HDM3250S22533XX	HDM3250S225A3XX	HDM3250S225B3XX
	250	35	21	*HDM3250S25033XX	HDM3250S250A3XX	HDM3250S250B3XX
HDM3-250M	100	30	30	HDM3250M10033XX	HDM3250M100A3XX	HDM3250M100B3XX
	125	30	30	HDM3250M12533XX	HDM3250M125A3XX	HDM3250M125B3XX
	140	30	30	HDM3250M14033XX	HDM3250M140A3XX	HDM3250M140B3XX
	160	30	30	HDM3250M16033XX	HDM3250M160A3XX	HDM3250M160B3XX
	180	30	30	HDM3250M18033XX	HDM3250M180A3XX	HDM3250M180B3XX
	200	30	30	HDM3250M20033XX	HDM3250M200A3XX	HDM3250M200B3XX
	225	30	30	HDM3250M22533XX	HDM3250M225A3XX	HDM3250M225B3XX
	250	30	30	HDM3250M25033XX	HDM3250M250A3XX	HDM3250M250B3XX
HDM3-250F	100	50	30	*HDM3250F10033XX	HDM3250F100A3XX	HDM3250F100B3XX
	125	50	30	*HDM3250F12533XX	HDM3250F125A3XX	HDM3250F125B3XX
	140	50	30	*HDM3250F14033XX	HDM3250F140A3XX	HDM3250F140B3XX
	160	50	30	*HDM3250F16033XX	HDM3250F160A3XX	HDM3250F160B3XX
	180	50	30	*HDM3250F18033XX	HDM3250F180A3XX	HDM3250F180B3XX
	200	50	30	*HDM3250F20033XX	HDM3250F200A3XX	HDM3250F200B3XX
	225	50	30	*HDM3250F22533XX	HDM3250F225A3XX	HDM3250F225B3XX
	250	50	30	*HDM3250F25033XX	HDM3250F250A3XX	HDM3250F250B3XX

The reference with "*" means that it has 40°C and 50°C. Please add "T" at the end as 50°C reference.



HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Low-voltage Distribution

Material order number

HDM3 Fixed front connection Power distribution protection Thermal magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference		
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-250T	100	36	36	HDM3250T10033XX	HDM3250T100A3XX	HDM3250T100B3XX
	125	36	36	HDM3250T12533XX	HDM3250T125A3XX	HDM3250T125B3XX
	140	36	36	HDM3250T14033XX	HDM3250T140A3XX	HDM3250T140B3XX
	160	36	36	HDM3250T16033XX	HDM3250T160A3XX	HDM3250T160B3XX
	180	36	36	HDM3250T18033XX	HDM3250T180A3XX	HDM3250T180B3XX
	200	36	36	HDM3250T20033XX	HDM3250T200A3XX	HDM3250T200B3XX
	225	36	36	HDM3250T22533XX	HDM3250T225A3XX	HDM3250T225B3XX
	250	36	36	HDM3250T25033XX	HDM3250T250A3XX	HDM3250T250B3XX
HDM3-250N	100	60	36	*HDM3250N10033XX	HDM3250N100A3XX	HDM3250N100B3XX
	125	60	36	*HDM3250N12533XX	HDM3250N125A3XX	HDM3250N125B3XX
	140	60	36	*HDM3250N14033XX	HDM3250N140A3XX	HDM3250N140B3XX
	160	60	36	*HDM3250N16033XX	HDM3250N160A3XX	HDM3250N160B3XX
	180	60	36	*HDM3250N18033XX	HDM3250N180A3XX	HDM3250N180B3XX
	200	60	36	*HDM3250N20033XX	HDM3250N200A3XX	HDM3250N200B3XX
	225	60	36	*HDM3250N22533XX	HDM3250N225A3XX	HDM3250N225B3XX
	250	60	36	*HDM3250N25033XX	HDM3250N250A3XX	HDM3250N250B3XX
HDM3-400L	200	21	21	HDM3400L20033XX	HDM3400L200A3XX	HDM3400L200B3XX
	225	21	21	HDM3400L22533XX	HDM3400L225A3XX	HDM3400L225B3XX
	250	21	21	HDM3400L25033XX	HDM3400L250A3XX	HDM3400L250B3XX
	315	21	21	HDM3400L31533XX	HDM3400L315A3XX	HDM3400L315B3XX
	350	21	21	HDM3400L35033XX	HDM3400L350A3XX	HDM3400L350B3XX
	400	21	21	HDM3400L40033XX	HDM3400L400A3XX	HDM3400L400B3XX
HDM3-400S	200	35	21	HDM3400S20033XX	HDM3400S200A3XX	HDM3400S200B3XX
	225	35	21	HDM3400S22533XX	HDM3400S225A3XX	HDM3400S225B3XX
	250	35	21	HDM3400S25033XX	HDM3400S250A3XX	HDM3400S250B3XX
	315	35	21	HDM3400S31533XX	HDM3400S315A3XX	HDM3400S315B3XX
	350	35	21	HDM3400S35033XX	HDM3400S350A3XX	HDM3400S350B3XX
	400	35	21	HDM3400S40033XX	HDM3400S400A3XX	HDM3400S400B3XX
HDM3-400M	200	30	30	HDM3400M20033XX	HDM3400M200A3XX	HDM3400M200B3XX
	225	30	30	HDM3400M22533XX	HDM3400M225A3XX	HDM3400M225B3XX
	250	30	30	HDM3400M25033XX	HDM3400M250A3XX	HDM3400M250B3XX
	315	30	30	HDM3400M31533XX	HDM3400M315A3XX	HDM3400M315B3XX
	350	30	30	HDM3400M35033XX	HDM3400M350A3XX	HDM3400M350B3XX
	400	30	30	HDM3400M40033XX	HDM3400M400A3XX	HDM3400M400B3XX
HDM3-400F	200	50	30	*HDM3400F20033XX	HDM3400F200A3XX	HDM3400F200B3XX
	225	50	30	*HDM3400F22533XX	HDM3400F225A3XX	HDM3400F225B3XX
	250	50	30	*HDM3400F25033XX	HDM3400F250A3XX	HDM3400F250B3XX
	315	50	30	*HDM3400F31533XX	HDM3400F315A3XX	HDM3400F315B3XX
	350	50	30	*HDM3400F35033XX	HDM3400F350A3XX	HDM3400F350B3XX
	400	50	30	*HDM3400F40033XX	HDM3400F400A3XX	HDM3400F400B3XX

The reference with "*" means that it has 40°C and 50°C. Please add "T" at the end as 50°C reference.

HDM3 Molded Case Circuit Breaker

Reference
Standard: IEC/EN 60947-2



Material order number

HDM3 Fixed front connection Power distribution protection Thermal magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference	Order Reference	Order Reference
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-400T	200	39	39	HDM3400T20033XX	HDM3400T200A3XX	HDM3400T200B3XX
	225	39	39	HDM3400T22533XX	HDM3400T225A3XX	HDM3400T225B3XX
	250	39	39	HDM3400T25033XX	HDM3400T250A3XX	HDM3400T250B3XX
	315	39	39	HDM3400T31533XX	HDM3400T315A3XX	HDM3400T315B3XX
	350	39	39	HDM3400T35033XX	HDM3400T350A3XX	HDM3400T350B3XX
	400	39	39	HDM3400T40033XX	HDM3400T400A3XX	HDM3400T400B3XX
HDM3-400N	200	70	39	*HDM3400N20033XX	HDM3400N200A3XX	HDM3400N200B3XX
	225	70	39	*HDM3400N22533XX	HDM3400N225A3XX	HDM3400N225B3XX
	250	70	39	*HDM3400N25033XX	HDM3400N250A3XX	HDM3400N250B3XX
	315	70	39	*HDM3400N31533XX	HDM3400N315A3XX	HDM3400N315B3XX
	350	70	39	*HDM3400N35033XX	HDM3400N350A3XX	HDM3400N350B3XX
	400	70	39	*HDM3400N40033XX	HDM3400N400A3XX	HDM3400N400B3XX
HDM3-630L	400	21	21	HDM3630L40033XX	HDM3630L400A3XX	HDM3630L400B3XX
	500	21	21	HDM3630L50033XX	HDM3630L500A3XX	HDM3630L500B3XX
	630	21	21	HDM3630L63033XX	HDM3630L630A3XX	HDM3630L630B3XX
HDM3-630S	400	35	21	HDM3630S40033XX	HDM3630S400A3XX	HDM3630S400B3XX
	500	35	21	HDM3630S50033XX	HDM3630S500A3XX	HDM3630S500B3XX
	630	35	21	HDM3630S63033XX	HDM3630S630A3XX	HDM3630S630B3XX
HDM3-630M	400	30	30	HDM3630M40033XX	HDM3630M400A3XX	HDM3630M400B3XX
	500	30	30	HDM3630M50033XX	HDM3630M500A3XX	HDM3630M500B3XX
	630	30	30	HDM3630M63033XX	HDM3630M630A3XX	HDM3630M630B3XX
HDM3-630F	400	50	30	HDM3630F40033XX	HDM3630F400A3XX	HDM3630F400B3XX
	500	50	30	HDM3630F50033XX	HDM3630F500A3XX	HDM3630F500B3XX
	630	50	30	HDM3630F63033XX	HDM3630F630A3XX	HDM3630F630B3XX
HDM3-630T	400	39	39	HDM3630T40033XX	HDM3630T400A3XX	HDM3630T400B3XX
	500	39	39	HDM3630T50033XX	HDM3630T500A3XX	HDM3630T500B3XX
	630	39	39	HDM3630T63033XX	HDM3630T630A3XX	HDM3630T630B3XX
HDM3-630N	400	70	39	HDM3630N40033XX	HDM3630N400A3XX	HDM3630N400B3XX
	500	70	39	HDM3630N50033XX	HDM3630N500A3XX	HDM3630N500B3XX
	630	70	39	HDM3630N63033XX	HDM3630N630A3XX	HDM3630N630B3XX
HDM3-800L	630	25	25	HDM3800L63033XX	HDM3800L630A3XX	HDM3800L630B3XX
	700	25	25	HDM3800L70033XX	HDM3800L700A3XX	HDM3800L700B3XX
	800	25	25	HDM3800L80033XX	HDM3800L800A3XX	HDM3800L800B3XX
HDM3-800S	630	50	25	HDM3800S63033XX	HDM3800S630A3XX	HDM3800S630B3XX
	700	50	25	HDM3800S70033XX	HDM3800S700A3XX	HDM3800S700B3XX
	800	50	25	HDM3800S80033XX	HDM3800S800A3XX	HDM3800S800B3XX
HDM3-800M	630	40	40	HDM3800M63033XX	HDM3800M630A3XX	HDM3800M630B3XX
	700	40	40	HDM3800M70033XX	HDM3800M700A3XX	HDM3800M700B3XX
	800	40	40	HDM3800M80033XX	HDM3800M800A3XX	HDM3800M800B3XX
HDM3-800F	630	70	40	*HDM3800F63033XX	HDM3800F630A3XX	HDM3800F630B3XX
	700	70	40	*HDM3800F70033XX	HDM3800F700A3XX	HDM3800F700B3XX
	800	70	40	*HDM3800F80033XX	HDM3800F800A3XX	HDM3800F800B3XX
HDM3-1250N	800	85	45	HDM31250N80033XX		
	1000	85	45	HDM31250N100033XX		
	1250	85	45	HDM31250N125033XX		

The reference with "*" means that it has 40°C and 50°C. Please add "T" at the end as 50°C reference.



HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Low-voltage Distribution

Material order number

HDM3 Fixed front connection Power distribution protection Magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference	Order Reference	Order Reference
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-63L	10	18	18	HDM363L1032XX	HDM363L10A2XX	HDM363L10B2XX
	16	18	18	HDM363L1632XX	HDM363L16A2XX	HDM363L16B2XX
	20	18	18	HDM363L2032XX	HDM363L20A2XX	HDM363L20B2XX
	25	18	18	HDM363L2532XX	HDM363L25A2XX	HDM363L25B2XX
	32	18	18	HDM363L3232XX	HDM363L32A2XX	HDM363L32B2XX
	40	18	18	HDM363L4032XX	HDM363L40A2XX	HDM363L40B2XX
	50	18	18	HDM363L5032XX	HDM363L50A2XX	HDM363L50B2XX
	63	18	18	HDM363L6332XX	HDM363L63A2XX	HDM363L63B2XX
HDM3-63S	10	25	18	HDM363S1032XX	HDM363S10A2XX	HDM363S10B2XX
	16	25	18	HDM363S1632XX	HDM363S16A2XX	HDM363S16B2XX
	20	25	18	HDM363S2032XX	HDM363S20A2XX	HDM363S20B2XX
	25	25	18	HDM363S2532XX	HDM363S25A2XX	HDM363S25B2XX
	32	25	18	HDM363S3232XX	HDM363S32A2XX	HDM363S32B2XX
	40	25	18	HDM363S4032XX	HDM363S40A2XX	HDM363S40B2XX
	50	25	18	HDM363S5032XX	HDM363S50A2XX	HDM363S50B2XX
	63	25	18	HDM363S6332XX	HDM363S63A2XX	HDM363S63B2XX
HDM3-63M	10	30	30	HDM363M1032XX	HDM363M10A2XX	HDM363M10B2XX
	16	30	30	HDM363M1632XX	HDM363M16A2XX	HDM363M16B2XX
	20	30	30	HDM363M2032XX	HDM363M20A2XX	HDM363M20B2XX
	25	30	30	HDM363M2532XX	HDM363M25A2XX	HDM363M25B2XX
	32	30	30	HDM363M3232XX	HDM363M32A2XX	HDM363M32B2XX
	40	30	30	HDM363M4032XX	HDM363M40A2XX	HDM363M40B2XX
	50	30	30	HDM363M5032XX	HDM363M50A2XX	HDM363M50B2XX
	63	30	30	HDM363M6332XX	HDM363M63A2XX	HDM363M63B2XX
HDM3-63F	10	50	30	HDM363F1032XX	HDM363F10A2XX	HDM363F10B2XX
	16	50	30	HDM363F1632XX	HDM363F16A2XX	HDM363F16B2XX
	20	50	30	HDM363F2032XX	HDM363F20A2XX	HDM363F20B2XX
	25	50	30	HDM363F2532XX	HDM363F25A2XX	HDM363F25B2XX
	32	50	30	HDM363F3232XX	HDM363F32A2XX	HDM363F32B2XX
	40	50	30	HDM363F4032XX	HDM363F40A2XX	HDM363F40B2XX
	50	50	30	HDM363F5032XX	HDM363F50A2XX	HDM363F50B2XX
	63	50	30	HDM363F6332XX	HDM363F63A2XX	HDM363F63B2XX
HDM3-100L	10	18	18	HDM3100L1032XX	HDM3100L10A2XX	HDM3100L10B2XX
	16	18	18	HDM3100L1632XX	HDM3100L16A2XX	HDM3100L16B2XX
	20	18	18	HDM3100L2032XX	HDM3100L20A2XX	HDM3100L20B2XX
	25	18	18	HDM3100L2532XX	HDM3100L25A2XX	HDM3100L25B2XX
	32	18	18	HDM3100L3232XX	HDM3100L32A2XX	HDM3100L32B2XX
	40	18	18	HDM3100L4032XX	HDM3100L40A2XX	HDM3100L40B2XX
	50	18	18	HDM3100L5032XX	HDM3100L50A2XX	HDM3100L50B2XX
	63	18	18	HDM3100L6332XX	HDM3100L63A2XX	HDM3100L63B2XX
	80	18	18	HDM3100L8032XX	HDM3100L80A2XX	HDM3100L80B2XX
	100	18	18	HDM3100L10032XX	HDM3100L100A2XX	HDM3100L100B2XX

The reference with "*" means that it has 40°C and 50°C. Please add "T" at the end as 50°C reference.

HDM3 Molded Case Circuit Breaker

Reference
Standard: IEC/EN 60947-2



Material order number

HDM3 Fixed front connection Power distribution protection Magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference	Order Reference	Order Reference
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-100S	10	25	18	HDM3100S1032XX	HDM3100S10A2XX	HDM3100S10B2XX
	16	25	18	HDM3100S1632XX	HDM3100S16A2XX	HDM3100S16B2XX
	20	25	18	HDM3100S2032XX	HDM3100S20A2XX	HDM3100S20B2XX
	25	25	18	HDM3100S2532XX	HDM3100S25A2XX	HDM3100S25B2XX
	32	25	18	HDM3100S3232XX	HDM3100S32A2XX	HDM3100S32B2XX
	40	25	18	HDM3100S4032XX	HDM3100S40A2XX	HDM3100S40B2XX
	50	25	18	HDM3100S5032XX	HDM3100S50A2XX	HDM3100S50B2XX
	63	25	18	HDM3100S6332XX	HDM3100S63A2XX	HDM3100S63B2XX
	80	25	18	HDM3100S8032XX	HDM3100S80A2XX	HDM3100S80B2XX
100	25	18	HDM3100S10032XX	HDM3100S100A2XX	HDM3100S100B2XX	
HDM3-100M	40	26	26	HDM3100M4032XX	HDM3100M40A2XX	HDM3100M40B2XX
	50	26	26	HDM3100M5032XX	HDM3100M50A2XX	HDM3100M50B2XX
	63	26	26	HDM3100M6332XX	HDM3100M63A2XX	HDM3100M63B2XX
	80	26	26	HDM3100M8032XX	HDM3100M80A2XX	HDM3100M80B2XX
	100	26	26	HDM3100M10032XX	HDM3100M100A2XX	HDM3100M100B2XX
HDM3-100F	40	35	26	HDM3100F4032XX	HDM3100F40A2XX	HDM3100F40B2XX
	50	35	26	HDM3100F5032XX	HDM3100F50A2XX	HDM3100F50B2XX
	63	35	26	HDM3100F6332XX	HDM3100F63A2XX	HDM3100F63B2XX
	80	35	26	HDM3100F8032XX	HDM3100F80A2XX	HDM3100F80B2XX
	100	35	26	HDM3100F10032XX	HDM3100F100A2XX	HDM3100F100B2XX
HDM3-100T	40	30	30	HDM3100T4032XX	HDM3100T40A2XX	HDM3100T40B2XX
	50	30	30	HDM3100T5032XX	HDM3100T50A2XX	HDM3100T50B2XX
	63	30	30	HDM3100T6332XX	HDM3100T63A2XX	HDM3100T63B2XX
	80	30	30	HDM3100T8032XX	HDM3100T80A2XX	HDM3100T80B2XX
	100	30	30	HDM3100T10032XX	HDM3100T100A2XX	HDM3100T100B2XX
HDM3-100N	40	50	30	HDM3100N4032XX	HDM3100N40A2XX	HDM3100N40B2XX
	50	50	30	HDM3100N5032XX	HDM3100N50A2XX	HDM3100N50B2XX
	63	50	30	HDM3100N6332XX	HDM3100N63A2XX	HDM3100N63B2XX
	80	50	30	HDM3100N8032XX	HDM3100N80A2XX	HDM3100N80B2XX
	100	50	30	HDM3100N10032XX	HDM3100N100A2XX	HDM3100N100B2XX
HDM3-160L	100	21	21	HDM3160L10032XX	HDM3160L100A2XX	HDM3160L100B2XX
	125	21	21	HDM3160L12532XX	HDM3160L125A2XX	HDM3160L125B2XX
	140	21	21	HDM3160L14032XX	HDM3160L140A2XX	HDM3160L140B2XX
	160	21	21	HDM3160L16032XX	HDM3160L160A2XX	HDM3160L160B2XX
HDM3-160S	100	35	21	HDM3160S10032XX	HDM3160S100A2XX	HDM3160S100B2XX
	125	35	21	HDM3160S12532XX	HDM3160S125A2XX	HDM3160S125B2XX
	140	35	21	HDM3160S14032XX	HDM3160S140A2XX	HDM3160S140B2XX
	160	35	21	HDM3160S16032XX	HDM3160S160A2XX	HDM3160S160B2XX
HDM3-160M	100	30	30	HDM3160M10032XX	HDM3160M100A2XX	HDM3160M100B2XX
	125	30	30	HDM3160M12532XX	HDM3160M125A2XX	HDM3160M125B2XX
	140	30	30	HDM3160M14032XX	HDM3160M140A2XX	HDM3160M140B2XX
	160	30	30	HDM3160M16032XX	HDM3160M160A2XX	HDM3160M160B2XX



HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Low-voltage Distribution

Material order number

HDM3 Fixed front connection Power distribution protection Magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference		
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-160F	100	50	30	HDM3160F10032XX	HDM3160F100A2XX	HDM3160F100B2XX
	125	50	30	HDM3160F12532XX	HDM3160F125A2XX	HDM3160F125B2XX
	140	50	30	HDM3160F14032XX	HDM3160F140A2XX	HDM3160F140B2XX
	160	50	30	HDM3160F16032XX	HDM3160F160A2XX	HDM3160F160B2XX
HDM3-160T	100	36	36	HDM3160T10032XX	HDM3160T100A2XX	HDM3160T100B2XX
	125	36	36	HDM3160T12532XX	HDM3160T125A2XX	HDM3160T125B2XX
	140	36	36	HDM3160T14032XX	HDM3160T140A2XX	HDM3160T140B2XX
	160	36	36	HDM3160T16032XX	HDM3160T160A2XX	HDM3160T160B2XX
HDM3-160N	100	60	36	HDM3160N12532XX	HDM3160N100A2XX	HDM3160N100B2XX
	125	60	36	HDM3160N14032XX	HDM3160N125A2XX	HDM3160N125B2XX
	140	60	36	HDM3160N16032XX	HDM3160N140A2XX	HDM3160N140B2XX
	160	60	36	HDM3160N10032XX	HDM3160N160A2XX	HDM3160N160B2XX
HDM3-250L	100	21	21	HDM3250L10032XX	HDM3250L100A2XX	HDM3250L100B2XX
	125	21	21	HDM3250L12532XX	HDM3250L125A2XX	HDM3250L125B2XX
	140	21	21	HDM3250L14032XX	HDM3250L140A2XX	HDM3250L140B2XX
	160	21	21	HDM3250L16032XX	HDM3250L160A2XX	HDM3250L160B2XX
	180	21	21	HDM3250L18032XX	HDM3250L180A2XX	HDM3250L180B2XX
	200	21	21	HDM3250L20032XX	HDM3250L200A2XX	HDM3250L200B2XX
	225	21	21	HDM3250L22532XX	HDM3250L225A2XX	HDM3250L225B2XX
	250	21	21	HDM3250L25032XX	HDM3250L250A2XX	HDM3250L250B2XX
HDM3-250S	100	35	21	HDM3250S10032XX	HDM3250S100A2XX	HDM3250S100B2XX
	125	35	21	HDM3250S12532XX	HDM3250S125A2XX	HDM3250S125B2XX
	140	35	21	HDM3250S14032XX	HDM3250S140A2XX	HDM3250S140B2XX
	160	35	21	HDM3250S16032XX	HDM3250S160A2XX	HDM3250S160B2XX
	180	35	21	HDM3250S18032XX	HDM3250S180A2XX	HDM3250S180B2XX
	200	35	21	HDM3250S20032XX	HDM3250S200A2XX	HDM3250S200B2XX
	225	35	21	HDM3250S22532XX	HDM3250S225A2XX	HDM3250S225B2XX
	250	35	21	HDM3250S25032XX	HDM3250S250A2XX	HDM3250S250B2XX
HDM3-250M	100	30	30	HDM3250M10032XX	HDM3250M100A2XX	HDM3250M100B2XX
	125	30	30	HDM3250M12532XX	HDM3250M125A2XX	HDM3250M125B2XX
	140	30	30	HDM3250M14032XX	HDM3250M140A2XX	HDM3250M140B2XX
	160	30	30	HDM3250M16032XX	HDM3250M160A2XX	HDM3250M160B2XX
	180	30	30	HDM3250M18032XX	HDM3250M180A2XX	HDM3250M180B2XX
	200	30	30	HDM3250M20032XX	HDM3250M200A2XX	HDM3250M200B2XX
	225	30	30	HDM3250M22532XX	HDM3250M225A2XX	HDM3250M225B2XX
	250	30	30	HDM3250M25032XX	HDM3250M250A2XX	HDM3250M250B2XX
HDM3-250F	100	50	30	HDM3250F10032XX	HDM3250F100A2XX	HDM3250F100B2XX
	125	50	30	HDM3250F12532XX	HDM3250F125A2XX	HDM3250F125B2XX
	140	50	30	HDM3250F14032XX	HDM3250F140A2XX	HDM3250F140B2XX
	160	50	30	HDM3250F16032XX	HDM3250F160A2XX	HDM3250F160B2XX
	180	50	30	HDM3250F18032XX	HDM3250F180A2XX	HDM3250F180B2XX
	200	50	30	HDM3250F20032XX	HDM3250F200A2XX	HDM3250F200B2XX
	225	50	30	HDM3250F22532XX	HDM3250F225A2XX	HDM3250F225B2XX
	250	50	30	HDM3250F25032XX	HDM3250F250A2XX	HDM3250F250B2XX



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HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Material order number

HDM3 Fixed front connection Power distribution protection Magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference	Order Reference	Order Reference
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-250T	100	36	36	HDM3250T10032XX	HDM3250T100A2XX	HDM3250T100B2XX
	125	36	36	HDM3250T12532XX	HDM3250T125A2XX	HDM3250T125B2XX
	140	36	36	HDM3250T14032XX	HDM3250T140A2XX	HDM3250T140B2XX
	160	36	36	HDM3250T16032XX	HDM3250T160A2XX	HDM3250T160B2XX
	180	36	36	HDM3250T18032XX	HDM3250T180A2XX	HDM3250T180B2XX
	200	36	36	HDM3250T20032XX	HDM3250T200A2XX	HDM3250T200B2XX
	225	36	36	HDM3250T22532XX	HDM3250T225A2XX	HDM3250T225B2XX
	250	36	36	HDM3250T25032XX	HDM3250T250A2XX	HDM3250T250B2XX
HDM3-250N	100	60	36	HDM3250N10032XX	HDM3250N100A2XX	HDM3250N100B2XX
	125	60	36	HDM3250N12532XX	HDM3250N125A2XX	HDM3250N125B2XX
	140	60	36	HDM3250N14032XX	HDM3250N140A2XX	HDM3250N140B2XX
	160	60	36	HDM3250N16032XX	HDM3250N160A2XX	HDM3250N160B2XX
	180	60	36	HDM3250N18032XX	HDM3250N180A2XX	HDM3250N180B2XX
	200	60	36	HDM3250N20032XX	HDM3250N200A2XX	HDM3250N200B2XX
	225	60	36	HDM3250N22532XX	HDM3250N225A2XX	HDM3250N225B2XX
	250	60	36	HDM3250N25032XX	HDM3250N250A2XX	HDM3250N250B2XX
HDM3-400L	200	21	21	HDM3400L20032XX	HDM3400L200A2XX	HDM3400L200B2XX
	225	21	21	HDM3400L22532XX	HDM3400L225A2XX	HDM3400L225B2XX
	250	21	21	HDM3400L25032XX	HDM3400L250A2XX	HDM3400L250B2XX
	315	21	21	HDM3400L31532XX	HDM3400L315A2XX	HDM3400L315B2XX
	350	21	21	HDM3400L35032XX	HDM3400L350A2XX	HDM3400L350B2XX
	400	21	21	HDM3400L40032XX	HDM3400L400A2XX	HDM3400L400B2XX
HDM3-400S	200	35	21	HDM3400S20032XX	HDM3400S200A2XX	HDM3400S200B2XX
	225	35	21	HDM3400S22532XX	HDM3400S225A2XX	HDM3400S225B2XX
	250	35	21	HDM3400S25032XX	HDM3400S250A2XX	HDM3400S250B2XX
	315	35	21	HDM3400S31532XX	HDM3400S315A2XX	HDM3400S315B2XX
	350	35	21	HDM3400S35032XX	HDM3400S350A2XX	HDM3400S350B2XX
	400	35	21	HDM3400S40032XX	HDM3400S400A2XX	HDM3400S400B2XX
HDM3-400M	200	30	30	HDM3400M20032XX	HDM3400M200A2XX	HDM3400M200B2XX
	225	30	30	HDM3400M22532XX	HDM3400M225A2XX	HDM3400M225B2XX
	250	30	30	HDM3400M25032XX	HDM3400M250A2XX	HDM3400M250B2XX
	315	30	30	HDM3400M31532XX	HDM3400M315A2XX	HDM3400M315B2XX
	350	30	30	HDM3400M35032XX	HDM3400M350A2XX	HDM3400M350B2XX
	400	30	30	HDM3400M40032XX	HDM3400M400A2XX	HDM3400M400B2XX
HDM3-400F	200	50	30	HDM3400F20032XX	HDM3400F200A2XX	HDM3400F200B2XX
	225	50	30	HDM3400F22532XX	HDM3400F225A2XX	HDM3400F225B2XX
	250	50	30	HDM3400F25032XX	HDM3400F250A2XX	HDM3400F250B2XX
	315	50	30	HDM3400F31532XX	HDM3400F315A2XX	HDM3400F315B2XX
	350	50	30	HDM3400F35032XX	HDM3400F350A2XX	HDM3400F350B2XX
	400	50	30	HDM3400F40032XX	HDM3400F400A2XX	HDM3400F400B2XX

Low-voltage Distribution



HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Low-voltage Distribution

Material order number

HDM3 Fixed front connection Power distribution protection Magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference		
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-400T	200	39	39	HDM3400T20032XX	HDM3400T200A2XX	HDM3400T200B2XX
	225	39	39	HDM3400T22532XX	HDM3400T225A2XX	HDM3400T225B2XX
	250	39	39	HDM3400T25032XX	HDM3400T250A2XX	HDM3400T250B2XX
	315	39	39	HDM3400T31532XX	HDM3400T315A2XX	HDM3400T315B2XX
	350	39	39	HDM3400T35032XX	HDM3400T350A2XX	HDM3400T350B2XX
	400	39	39	HDM3400T40032XX	HDM3400T400A2XX	HDM3400T400B2XX
HDM3-400N	200	70	39	HDM3400N20032XX	HDM3400N200A2XX	HDM3400N200B2XX
	225	70	39	HDM3400N22532XX	HDM3400N225A2XX	HDM3400N225B2XX
	250	70	39	HDM3400N25032XX	HDM3400N250A2XX	HDM3400N250B2XX
	315	70	39	HDM3400N31532XX	HDM3400N315A2XX	HDM3400N315B2XX
	350	70	39	HDM3400N35032XX	HDM3400N350A2XX	HDM3400N350B2XX
	400	70	39	HDM3400N40032XX	HDM3400N400A2XX	HDM3400N400B2XX
HDM3-630L	400	21	21	HDM3630L40032XX	HDM3630L400A2XX	HDM3630L400B2XX
	500	21	21	HDM3630L50032XX	HDM3630L500A2XX	HDM3630L500B2XX
	630	21	21	HDM3630L63032XX	HDM3630L630A2XX	HDM3630L630B2XX
HDM3-630S	400	35	21	HDM3630S40032XX	HDM3630S400A2XX	HDM3630S400B2XX
	500	35	21	HDM3630S50032XX	HDM3630S500A2XX	HDM3630S500B2XX
	630	35	21	HDM3630S63032XX	HDM3630S630A2XX	HDM3630S630B2XX
HDM3-630M	400	30	30	HDM3630M40032XX	HDM3630M400A2XX	HDM3630M400B2XX
	500	30	30	HDM3630M50032XX	HDM3630M500A2XX	HDM3630M500B2XX
	630	30	30	HDM3630M63032XX	HDM3630M630A2XX	HDM3630M630B2XX
HDM3-630F	400	50	30	HDM3630F40032XX	HDM3630F400A2XX	HDM3630F400B2XX
	500	50	30	HDM3630F50032XX	HDM3630F500A2XX	HDM3630F500B2XX
	630	50	30	HDM3630F63032XX	HDM3630F630A2XX	HDM3630F630B2XX
HDM3-630T	400	39	39	HDM3630T40032XX	HDM3630T400A2XX	HDM3630T400B2XX
	500	39	39	HDM3630T50032XX	HDM3630T500A2XX	HDM3630T500B2XX
	630	39	39	HDM3630T63032XX	HDM3630T630A2XX	HDM3630T630B2XX
HDM3-630N	400	70	39	HDM3630N40032XX	HDM3630N400A2XX	HDM3630N400B2XX
	500	70	39	HDM3630N50032XX	HDM3630N500A2XX	HDM3630N500B2XX
	630	70	39	HDM3630N63032XX	HDM3630N630A2XX	HDM3630N630B2XX
HDM3-800L	630	25	25	HDM3800L63032XX	HDM3800L630A2XX	HDM3800L630B2XX
	700	25	25	HDM3800L70032XX	HDM3800L700A2XX	HDM3800L700B2XX
	800	25	25	HDM3800L80032XX	HDM3800L800A2XX	HDM3800L800B2XX
HDM3-800S	630	50	25	HDM3800S63032XX	HDM3800S630A2XX	HDM3800S630B2XX
	700	50	25	HDM3800S70032XX	HDM3800S700A2XX	HDM3800S700B2XX
	800	50	25	HDM3800S80032XX	HDM3800S800A2XX	HDM3800S800B2XX
HDM3-800M	630	40	40	HDM3800M63032XX	HDM3800M630A2XX	HDM3800M630B2XX
	700	40	40	HDM3800M70032XX	HDM3800M700A2XX	HDM3800M700B2XX
	800	40	40	HDM3800M80032XX	HDM3800M800A2XX	HDM3800M800B2XX
HDM3-800F	630	70	40	HDM3800F63032XX	HDM3800F630A2XX	HDM3800F630B2XX
	700	70	40	HDM3800F70032XX	HDM3800F700A2XX	HDM3800F700B2XX
	800	70	40	HDM3800F80032XX	HDM3800F800A2XX	HDM3800F800B2XX
HDM3-1250N	800	85	45	HDM31250N80032XX		
	1000	85	45	HDM31250N100032XX		
	1250	85	45	HDM31250N125032XX		



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HDM3 Molded Case Circuit Breaker

Reference
Standard: IEC/EN 60947-2



Material order number

HDM3 Fixed front connection Motor protection Thermal tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference	Order Reference	Order Reference
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-63L	10	18	18	HDM363L1032XX2	HDM363L10A2XX2	HDM363L10B2XX2
	16	18	18	HDM363L1632XX2	HDM363L16A2XX2	HDM363L16B2XX2
	20	18	18	HDM363L2032XX2	HDM363L20A2XX2	HDM363L20B2XX2
	25	18	18	HDM363L2532XX2	HDM363L25A2XX2	HDM363L25B2XX2
	32	18	18	HDM363L3232XX2	HDM363L32A2XX2	HDM363L32B2XX2
	40	18	18	HDM363L4032XX2	HDM363L40A2XX2	HDM363L40B2XX2
	50	18	18	HDM363L5032XX2	HDM363L50A2XX2	HDM363L50B2XX2
	63	18	18	HDM363L6332XX2	HDM363L63A2XX2	HDM363L63B2XX2
HDM3-63S	10	25	18	HDM363S1032XX2	HDM363S10A2XX2	HDM363S10B2XX2
	16	25	18	HDM363S1632XX2	HDM363S16A2XX2	HDM363S16B2XX2
	20	25	18	HDM363S2032XX2	HDM363S20A2XX2	HDM363S20B2XX2
	25	25	18	HDM363S2532XX2	HDM363S25A2XX2	HDM363S25B2XX2
	32	25	18	HDM363S3232XX2	HDM363S32A2XX2	HDM363S32B2XX2
	40	25	18	HDM363S4032XX2	HDM363S40A2XX2	HDM363S40B2XX2
	50	25	18	HDM363S5032XX2	HDM363S50A2XX2	HDM363S50B2XX2
	63	25	18	HDM363S6332XX2	HDM363S63A2XX2	HDM363S63B2XX2
HDM3-63M	10	30	30	HDM363M1032XX2	HDM363M10A2XX2	HDM363M10B2XX2
	16	30	30	HDM363M1632XX2	HDM363M16A2XX2	HDM363M16B2XX2
	20	30	30	HDM363M2032XX2	HDM363M20A2XX2	HDM363M20B2XX2
	25	30	30	HDM363M2532XX2	HDM363M25A2XX2	HDM363M25B2XX2
	32	30	30	HDM363M3232XX2	HDM363M32A2XX2	HDM363M32B2XX2
	40	30	30	HDM363M4032XX2	HDM363M40A2XX2	HDM363M40B2XX2
	50	30	30	HDM363M5032XX2	HDM363M50A2XX2	HDM363M50B2XX2
	63	30	30	HDM363M6332XX2	HDM363M63A2XX2	HDM363M63B2XX2
HDM3-63F	10	50	30	HDM363F1032XX2	HDM363F10A2XX2	HDM363F10B2XX2
	16	50	30	HDM363F1632XX2	HDM363F16A2XX2	HDM363F16B2XX2
	20	50	30	HDM363F2032XX2	HDM363F20A2XX2	HDM363F20B2XX2
	25	50	30	HDM363F2532XX2	HDM363F25A2XX2	HDM363F25B2XX2
	32	50	30	HDM363F3232XX2	HDM363F32A2XX2	HDM363F32B2XX2
	40	50	30	HDM363F4032XX2	HDM363F40A2XX2	HDM363F40B2XX2
	50	50	30	HDM363F5032XX2	HDM363F50A2XX2	HDM363F50B2XX2
	63	50	30	HDM363F6332XX2	HDM363F63A2XX2	HDM363F63B2XX2
HDM3-100L	10	18	18	HDM3100L1032XX2	HDM3100L10A2XX2	HDM3100L10B2XX2
	16	18	18	HDM3100L1632XX2	HDM3100L16A2XX2	HDM3100L16B2XX2
	20	18	18	HDM3100L2032XX2	HDM3100L20A2XX2	HDM3100L20B2XX2
	25	18	18	HDM3100L2532XX2	HDM3100L25A2XX2	HDM3100L25B2XX2
	32	18	18	HDM3100L3232XX2	HDM3100L32A2XX2	HDM3100L32B2XX2
	40	18	18	HDM3100L4032XX2	HDM3100L40A2XX2	HDM3100L40B2XX2
	50	18	18	HDM3100L5032XX2	HDM3100L50A2XX2	HDM3100L50B2XX2
	63	18	18	HDM3100L6332XX2	HDM3100L63A2XX2	HDM3100L63B2XX2
	80	18	18	HDM3100L8032XX2	HDM3100L80A2XX2	HDM3100L80B2XX2

Low-voltage Distribution



HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Low-voltage Distribution

Material order number

HDM3 Fixed front connection Motor protection Thermal tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference		
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-100S	10	18	18	HDM3100S1032XX2	HDM3100S10A2XX2	HDM3100S10B2XX2
	16	18	18	HDM3100S1632XX2	HDM3100S16A2XX2	HDM3100S16B2XX2
	20	18	18	HDM3100S2032XX2	HDM3100S20A2XX2	HDM3100S20B2XX2
	25	18	18	HDM3100S2532XX2	HDM3100S25A2XX2	HDM3100S25B2XX2
	32	18	18	HDM3100S3232XX2	HDM3100S32A2XX2	HDM3100S32B2XX2
	40	18	18	HDM3100S4032XX2	HDM3100S40A2XX2	HDM3100S40B2XX2
	50	18	18	HDM3100S5032XX2	HDM3100S50A2XX2	HDM3100S50B2XX2
	63	18	18	HDM3100S6332XX2	HDM3100S63A2XX2	HDM3100S63B2XX2
	80	18	18	HDM3100S8032XX2	HDM3100S80A2XX2	HDM3100S80B2XX2
100	18	18	HDM3100S10032XX2	HDM3100S100A2XX2	HDM3100S100B2XX2	
HDM3-100M	40	26	26	HDM3100M4032XX2	HDM3100M40A2XX2	HDM3100M40B2XX2
	50	26	26	HDM3100M5032XX2	HDM3100M50A2XX2	HDM3100M50B2XX2
	63	26	26	HDM3100M6332XX2	HDM3100M63A2XX2	HDM3100M63B2XX2
	80	26	26	HDM3100M8032XX2	HDM3100M80A2XX2	HDM3100M80B2XX2
	100	26	26	HDM3100M10032XX2	HDM3100M100A2XX2	HDM3100M100B2XX2
HDM3-100F	40	35	26	HDM3100F4032XX2	HDM3100F40A2XX2	HDM3100F40B2XX2
	50	35	26	HDM3100F5032XX2	HDM3100F50A2XX2	HDM3100F50B2XX2
	63	35	26	HDM3100F6332XX2	HDM3100F63A2XX2	HDM3100F63B2XX2
	80	35	26	HDM3100F8032XX2	HDM3100F80A2XX2	HDM3100F80B2XX2
	100	35	26	HDM3100F10032XX2	HDM3100F100A2XX2	HDM3100F100B2XX2
HDM3-100T	40	30	30	HDM3100T4032XX2	HDM3100T40A2XX2	HDM3100T40B2XX2
	50	30	30	HDM3100T5032XX2	HDM3100T50A2XX2	HDM3100T50B2XX2
	63	30	30	HDM3100T6332XX2	HDM3100T63A2XX2	HDM3100T63B2XX2
	80	30	30	HDM3100T8032XX2	HDM3100T80A2XX2	HDM3100T80B2XX2
	100	30	30	HDM3100T10032XX2	HDM3100T100A2XX2	HDM3100T100B2XX2
HDM3-100N	40	50	30	HDM3100N4032XX2	HDM3100N40A2XX2	HDM3100N40B2XX2
	50	50	30	HDM3100N5032XX2	HDM3100N50A2XX2	HDM3100N50B2XX2
	63	50	30	HDM3100N6332XX2	HDM3100N63A2XX2	HDM3100N63B2XX2
	80	50	30	HDM3100N8032XX2	HDM3100N80A2XX2	HDM3100N80B2XX2
	100	50	30	HDM3100N10032XX2	HDM3100N100A2XX2	HDM3100N100B2XX2
HDM3-160L	100	21	21	HDM3160L10032XX2	HDM3160L100A2XX2	HDM3160L100B2XX2
	125	21	21	HDM3160L12532XX2	HDM3160L125A2XX2	HDM3160L125B2XX2
	140	21	21	HDM3160L14032XX2	HDM3160L140A2XX2	HDM3160L140B2XX2
	160	21	21	HDM3160L16032XX2	HDM3160L160A2XX2	HDM3160L160B2XX2
HDM3-160S	100	35	21	HDM3160S10032XX2	HDM3160S100A2XX2	HDM3160S100B2XX2
	125	35	21	HDM3160S12532XX2	HDM3160S125A2XX2	HDM3160S125B2XX2
	140	35	21	HDM3160S14032XX2	HDM3160S140A2XX2	HDM3160S140B2XX2
	160	35	21	HDM3160S16032XX2	HDM3160S160A2XX2	HDM3160S160B2XX2
HDM3-160M	100	30	30	HDM3160M10032XX2	HDM3160M100A2XX2	HDM3160M100B2XX2
	125	30	30	HDM3160M12532XX2	HDM3160M125A2XX2	HDM3160M125B2XX2
	140	30	30	HDM3160M14032XX2	HDM3160M140A2XX2	HDM3160M140B2XX2
	160	30	30	HDM3160M16032XX2	HDM3160M160A2XX2	HDM3160M160B2XX2

HDM3 Molded Case Circuit Breaker

Reference
Standard: IEC/EN 60947-2



Material order number

HDM3 Fixed front connection Motor protection Thermal tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference		
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-160F	100	50	30	HDM3160F10032XX2	HDM3160F100A2XX2	HDM3160F100B2XX2
	125	50	30	HDM3160F12532XX2	HDM3160F125A2XX2	HDM3160F125B2XX2
	140	50	30	HDM3160F14032XX2	HDM3160F140A2XX2	HDM3160F140B2XX2
	160	50	30	HDM3160F16032XX2	HDM3160F160A2XX2	HDM3160F160B2XX2
HDM3-160T	100	36	36	HDM3160T10032XX2	HDM3160T100A2XX2	HDM3160T100B2XX2
	125	36	36	HDM3160T12532XX2	HDM3160T125A2XX2	HDM3160T125B2XX2
	140	36	36	HDM3160T14032XX2	HDM3160T140A2XX2	HDM3160T140B2XX2
	160	36	36	HDM3160T16032XX2	HDM3160T160A2XX2	HDM3160T160B2XX2
HDM3-160N	100	60	36	HDM3160N10032XX2	HDM3160N100A2XX2	HDM3160N100B2XX2
	125	60	36	HDM3160N12532XX2	HDM3160N125A2XX2	HDM3160N125B2XX2
	140	60	36	HDM3160N14032XX2	HDM3160N140A2XX2	HDM3160N140B2XX2
	160	60	36	HDM3160N16032XX2	HDM3160N160A2XX2	HDM3160N160B2XX2
HDM3-250L	100	21	21	HDM3250L10032XX2	HDM3250L100A2XX2	HDM3250L100B2XX2
	125	21	21	HDM3250L12532XX2	HDM3250L125A2XX2	HDM3250L125B2XX2
	140	21	21	HDM3250L14032XX2	HDM3250L140A2XX2	HDM3250L140B2XX2
	160	21	21	HDM3250L16032XX2	HDM3250L160A2XX2	HDM3250L160B2XX2
	180	21	21	HDM3250L18032XX2	HDM3250L180A2XX2	HDM3250L180B2XX2
	200	21	21	HDM3250L20032XX2	HDM3250L200A2XX2	HDM3250L200B2XX2
	225	21	21	HDM3250L22532XX2	HDM3250L225A2XX2	HDM3250L225B2XX2
	250	21	21	HDM3250L25032XX2	HDM3250L250A2XX2	HDM3250L250B2XX2
HDM3-250S	100	35	21	HDM3250S10032XX2	HDM3250S100A2XX2	HDM3250S100B2XX2
	125	35	21	HDM3250S12532XX2	HDM3250S125A2XX2	HDM3250S125B2XX2
	140	35	21	HDM3250S14032XX2	HDM3250S140A2XX2	HDM3250S140B2XX2
	160	35	21	HDM3250S16032XX2	HDM3250S160A2XX2	HDM3250S160B2XX2
	180	35	21	HDM3250S18032XX2	HDM3250S180A2XX2	HDM3250S180B2XX2
	200	35	21	HDM3250S20032XX2	HDM3250S200A2XX2	HDM3250S200B2XX2
	225	35	21	HDM3250S22532XX2	HDM3250S225A2XX2	HDM3250S225B2XX2
	250	35	21	HDM3250S25032XX2	HDM3250S250A2XX2	HDM3250S250B2XX2
HDM3-250M	100	30	30	HDM3250M10032XX2	HDM3250M100A2XX2	HDM3250M100B2XX2
	125	30	30	HDM3250M12532XX2	HDM3250M125A2XX2	HDM3250M125B2XX2
	140	30	30	HDM3250M14032XX2	HDM3250M140A2XX2	HDM3250M140B2XX2
	160	30	30	HDM3250M16032XX2	HDM3250M160A2XX2	HDM3250M160B2XX2
	180	30	30	HDM3250M18032XX2	HDM3250M180A2XX2	HDM3250M180B2XX2
	200	30	30	HDM3250M20032XX2	HDM3250M200A2XX2	HDM3250M200B2XX2
	225	30	30	HDM3250M22532XX2	HDM3250M225A2XX2	HDM3250M225B2XX2
	250	30	30	HDM3250M25032XX2	HDM3250M250A2XX2	HDM3250M250B2XX2
HDM3-250F	100	50	30	HDM3250F10032XX2	HDM3250F100A2XX2	HDM3250F100B2XX2
	125	50	30	HDM3250F12532XX2	HDM3250F125A2XX2	HDM3250F125B2XX2
	140	50	30	HDM3250F14032XX2	HDM3250F140A2XX2	HDM3250F140B2XX2
	160	50	30	HDM3250F16032XX2	HDM3250F160A2XX2	HDM3250F160B2XX2
	180	50	30	HDM3250F18032XX2	HDM3250F180A2XX2	HDM3250F180B2XX2
	200	50	30	HDM3250F20032XX2	HDM3250F200A2XX2	HDM3250F200B2XX2
	225	50	30	HDM3250F22532XX2	HDM3250F225A2XX2	HDM3250F225B2XX2
	250	50	30	HDM3250F25032XX2	HDM3250F250A2XX2	HDM3250F250B2XX2



HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Low-voltage Distribution

Material order number

HDM3 Fixed front connection Motor protection Thermal tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference		
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-250T	100	36	36	HDM3250T10032XX2	HDM3250T100A2XX2	HDM3250T100B2XX2
	125	36	36	HDM3250T12532XX2	HDM3250T125A2XX2	HDM3250T125B2XX2
	140	36	36	HDM3250T14032XX2	HDM3250T140A2XX2	HDM3250T140B2XX2
	160	36	36	HDM3250T16032XX2	HDM3250T160A2XX2	HDM3250T160B2XX2
	180	36	36	HDM3250T18032XX2	HDM3250T180A2XX2	HDM3250T180B2XX2
	200	36	36	HDM3250T20032XX2	HDM3250T200A2XX2	HDM3250T200B2XX2
	225	36	36	HDM3250T22532XX2	HDM3250T225A2XX2	HDM3250T225B2XX2
	250	36	36	HDM3250T25032XX2	HDM3250T250A2XX2	HDM3250T250B2XX2
HDM3-250N	100	60	36	HDM3250N10032XX2	HDM3250N100A2XX2	HDM3250N100B2XX2
	125	60	36	HDM3250N12532XX2	HDM3250N125A2XX2	HDM3250N125B2XX2
	140	60	36	HDM3250N14032XX2	HDM3250N140A2XX2	HDM3250N140B2XX2
	160	60	36	HDM3250N16032XX2	HDM3250N160A2XX2	HDM3250N160B2XX2
	180	60	36	HDM3250N18032XX2	HDM3250N180A2XX2	HDM3250N180B2XX2
	200	60	36	HDM3250N20032XX2	HDM3250N200A2XX2	HDM3250N200B2XX2
	225	60	36	HDM3250N22532XX2	HDM3250N225A2XX2	HDM3250N225B2XX2
	250	60	36	HDM3250N25032XX2	HDM3250N250A2XX2	HDM3250N250B2XX2
HDM3-400L	200	21	21	HDM3400L20032XX2	HDM3400L200A2XX2	HDM3400L200B2XX2
	225	21	21	HDM3400L22532XX2	HDM3400L225A2XX2	HDM3400L225B2XX2
	250	21	21	HDM3400L25032XX2	HDM3400L250A2XX2	HDM3400L250B2XX2
	315	21	21	HDM3400L31532XX2	HDM3400L315A2XX2	HDM3400L315B2XX2
	350	21	21	HDM3400L35032XX2	HDM3400L350A2XX2	HDM3400L350B2XX2
	400	21	21	HDM3400L40032XX2	HDM3400L400A2XX2	HDM3400L400B2XX2
HDM3-400S	200	35	21	HDM3400S20032XX2	HDM3400S200A2XX2	HDM3400S200B2XX2
	225	35	21	HDM3400S22532XX2	HDM3400S225A2XX2	HDM3400S225B2XX2
	250	35	21	HDM3400S25032XX2	HDM3400S250A2XX2	HDM3400S250B2XX2
	315	35	21	HDM3400S31532XX2	HDM3400S315A2XX2	HDM3400S315B2XX2
	350	35	21	HDM3400S35032XX2	HDM3400S350A2XX2	HDM3400S350B2XX2
	400	35	21	HDM3400S40032XX2	HDM3400S400A2XX2	HDM3400S400B2XX2
HDM3-400M	200	30	30	HDM3400M20032XX2	HDM3400M200A2XX2	HDM3400M200B2XX2
	225	30	30	HDM3400M22532XX2	HDM3400M225A2XX2	HDM3400M225B2XX2
	250	30	30	HDM3400M25032XX2	HDM3400M250A2XX2	HDM3400M250B2XX2
	315	30	30	HDM3400M31532XX2	HDM3400M315A2XX2	HDM3400M315B2XX2
	350	30	30	HDM3400M35032XX2	HDM3400M350A2XX2	HDM3400M350B2XX2
	400	30	30	HDM3400M40032XX2	HDM3400M400A2XX2	HDM3400M400B2XX2
HDM3-400F	200	50	30	HDM3400F20032XX2	HDM3400F200A2XX2	HDM3400F200B2XX2
	225	50	30	HDM3400F22532XX2	HDM3400F225A2XX2	HDM3400F225B2XX2
	250	50	30	HDM3400F25032XX2	HDM3400F250A2XX2	HDM3400F250B2XX2
	315	50	30	HDM3400F31532XX2	HDM3400F315A2XX2	HDM3400F315B2XX2
	350	50	30	HDM3400F35032XX2	HDM3400F350A2XX2	HDM3400F350B2XX2
	400	50	30	HDM3400F40032XX2	HDM3400F400A2XX2	HDM3400F400B2XX2

HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Material order number

HDM3 Fixed front connection Motor protection Thermal tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference	Order Reference	Order Reference
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-400T	200	39	39	HDM3400T20032XX2	HDM3400T200A2XX2	HDM3400T200B2XX2
	225	39	39	HDM3400T22532XX2	HDM3400T225A2XX2	HDM3400T225B2XX2
	250	39	39	HDM3400T25032XX2	HDM3400T250A2XX2	HDM3400T250B2XX2
	315	39	39	HDM3400T31532XX2	HDM3400T315A2XX2	HDM3400T315B2XX2
	350	39	39	HDM3400T35032XX2	HDM3400T350A2XX2	HDM3400T350B2XX2
	400	39	39	HDM3400T40032XX2	HDM3400T400A2XX2	HDM3400T400B2XX2
HDM3-400N	200	70	39	HDM3400N20032XX2	HDM3400N200A2XX2	HDM3400N200B2XX2
	225	70	39	HDM3400N22532XX2	HDM3400N225A2XX2	HDM3400N225B2XX2
	250	70	39	HDM3400N25032XX2	HDM3400N250A2XX2	HDM3400N250B2XX2
	315	70	39	HDM3400N31532XX2	HDM3400N315A2XX2	HDM3400N315B2XX2
	350	70	39	HDM3400N35032XX2	HDM3400N350A2XX2	HDM3400N350B2XX2
	400	70	39	HDM3400N40032XX2	HDM3400N400A2XX2	HDM3400N400B2XX2
HDM3-630L	400	21	21	HDM3630L40032XX2	HDM3630L400A2XX2	HDM3630L400B2XX2
	500	21	21	HDM3630L50032XX2	HDM3630L500A2XX2	HDM3630L500B2XX2
	630	21	21	HDM3630L63032XX2	HDM3630L630A2XX2	HDM3630L630B2XX2
HDM3-630S	400	35	21	HDM3630S40032XX2	HDM3630S400A2XX2	HDM3630S400B2XX2
	500	35	21	HDM3630S50032XX2	HDM3630S500A2XX2	HDM3630S500B2XX2
	630	35	21	HDM3630S63032XX2	HDM3630S630A2XX2	HDM3630S630B2XX2
HDM3-630M	400	30	30	HDM3630M40032XX2	HDM3630M400A2XX2	HDM3630M400B2XX2
	500	30	30	HDM3630M50032XX2	HDM3630M500A2XX2	HDM3630M500B2XX2
	630	30	30	HDM3630M63032XX2	HDM3630M630A2XX2	HDM3630M630B2XX2
HDM3-630F	400	50	30	HDM3630F40032XX2	HDM3630F400A2XX2	HDM3630F400B2XX2
	500	50	30	HDM3630F50032XX2	HDM3630F500A2XX2	HDM3630F500B2XX2
	630	50	30	HDM3630F63032XX2	HDM3630F630A2XX2	HDM3630F630B2XX2
HDM3-630T	400	39	39	HDM3630T40032XX2	HDM3630T400A2XX2	HDM3630T400B2XX2
	500	39	39	HDM3630T50032XX2	HDM3630T500A2XX2	HDM3630T500B2XX2
	630	39	39	HDM3630T63032XX2	HDM3630T630A2XX2	HDM3630T630B2XX2
HDM3-630N	400	70	39	HDM3630N40032XX2	HDM3630N400A2XX2	HDM3630N400B2XX2
	500	70	39	HDM3630N50032XX2	HDM3630N500A2XX2	HDM3630N500B2XX2
	630	70	39	HDM3630N63032XX2	HDM3630N630A2XX2	HDM3630N630B2XX2

Low-voltage Distribution



HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Low-voltage Distribution

Material order number

HDM3 Fixed front connection Motor protection Thermal magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference		
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-63L	10	18	18	HDM363L1033XX2	HDM363L10A3XX2	HDM363L10B3XX2
	16	18	18	HDM363L1633XX2	HDM363L16A3XX2	HDM363L16B3XX2
	20	18	18	HDM363L2033XX2	HDM363L20A3XX2	HDM363L20B3XX2
	25	18	18	HDM363L2533XX2	HDM363L25A3XX2	HDM363L25B3XX2
	32	18	18	HDM363L3233XX2	HDM363L32A3XX2	HDM363L32B3XX2
	40	18	18	HDM363L4033XX2	HDM363L40A3XX2	HDM363L40B3XX2
	50	18	18	HDM363L5033XX2	HDM363L50A3XX2	HDM363L50B3XX2
	63	18	18	HDM363L6333XX2	HDM363L63A3XX2	HDM363L63B3XX2
HDM3-63S	10	25	18	HDM363S1033XX2	HDM363S10A3XX2	HDM363S10B3XX2
	16	25	18	HDM363S1633XX2	HDM363S16A3XX2	HDM363S16B3XX2
	20	25	18	HDM363S2033XX2	HDM363S20A3XX2	HDM363S20B3XX2
	25	25	18	HDM363S2533XX2	HDM363S25A3XX2	HDM363S25B3XX2
	32	25	18	HDM363S3233XX2	HDM363S32A3XX2	HDM363S32B3XX2
	40	25	18	HDM363S4033XX2	HDM363S40A3XX2	HDM363S40B3XX2
	50	25	18	HDM363S5033XX2	HDM363S50A3XX2	HDM363S50B3XX2
	63	25	18	HDM363S6333XX2	HDM363S63A3XX2	HDM363S63B3XX2
HDM3-63M	10	30	30	HDM363M1033XX2	HDM363M10A3XX2	HDM363M10B3XX2
	16	30	30	HDM363M1633XX2	HDM363M16A3XX2	HDM363M16B3XX2
	20	30	30	HDM363M2033XX2	HDM363M20A3XX2	HDM363M20B3XX2
	25	30	30	HDM363M2533XX2	HDM363M25A3XX2	HDM363M25B3XX2
	32	30	30	HDM363M3233XX2	HDM363M32A3XX2	HDM363M32B3XX2
	40	30	30	HDM363M4033XX2	HDM363M40A3XX2	HDM363M40B3XX2
	50	30	30	HDM363M5033XX2	HDM363M50A3XX2	HDM363M50B3XX2
	63	30	30	HDM363M6333XX2	HDM363M63A3XX2	HDM363M63B3XX2
HDM3-63F	10	50	30	HDM363F1033XX2	HDM363F10A3XX2	HDM363F10B3XX2
	16	50	30	HDM363F1633XX2	HDM363F16A3XX2	HDM363F16B3XX2
	20	50	30	HDM363F2033XX2	HDM363F20A3XX2	HDM363F20B3XX2
	25	50	30	HDM363F2533XX2	HDM363F25A3XX2	HDM363F25B3XX2
	32	50	30	HDM363F3233XX2	HDM363F32A3XX2	HDM363F32B3XX2
	40	50	30	HDM363F4033XX2	HDM363F40A3XX2	HDM363F40B3XX2
	50	50	30	HDM363F5033XX2	HDM363F50A3XX2	HDM363F50B3XX2
	63	50	30	HDM363F6333XX2	HDM363F63A3XX2	HDM363F63B3XX2
HDM3-100L	10	18	18	HDM3100L1033XX2	HDM3100L10A3XX2	HDM3100L10B3XX2
	16	18	18	HDM3100L1633XX2	HDM3100L16A3XX2	HDM3100L16B3XX2
	20	18	18	HDM3100L2033XX2	HDM3100L20A3XX2	HDM3100L20B3XX2
	25	18	18	HDM3100L2533XX2	HDM3100L25A3XX2	HDM3100L25B3XX2
	32	18	18	HDM3100L3233XX2	HDM3100L32A3XX2	HDM3100L32B3XX2
	40	18	18	HDM3100L4033XX2	HDM3100L40A3XX2	HDM3100L40B3XX2
	50	18	18	HDM3100L5033XX2	HDM3100L50A3XX2	HDM3100L50B3XX2
	63	18	18	HDM3100L6333XX2	HDM3100L63A3XX2	HDM3100L63B3XX2
	80	18	18	HDM3100L8033XX2	HDM3100L80A3XX2	HDM3100L80B3XX2
	100	18	18	HDM3100L10033XX2	HDM3100L100A3XX2	HDM3100L100B3XX2

HDM3 Molded Case Circuit Breaker

Reference
Standard: IEC/EN 60947-2



Material order number

HDM3 Fixed front connection Motor protection Thermal magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference		
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-100S	10	25	18	HDM3100S1033XX2	HDM3100S10A3XX2	HDM3100S10B3XX2
	16	25	18	HDM3100S1633XX2	HDM3100S16A3XX2	HDM3100S16B3XX2
	20	25	18	HDM3100S2033XX2	HDM3100S20A3XX2	HDM3100S20B3XX2
	25	25	18	HDM3100S2533XX2	HDM3100S25A3XX2	HDM3100S25B3XX2
	32	25	18	HDM3100S3233XX2	HDM3100S32A3XX2	HDM3100S32B3XX2
	40	25	18	HDM3100S4033XX2	HDM3100S40A3XX2	HDM3100S40B3XX2
	50	25	18	HDM3100S5033XX2	HDM3100S50A3XX2	HDM3100S50B3XX2
	63	25	18	HDM3100S6333XX2	HDM3100S63A3XX2	HDM3100S63B3XX2
	80	25	18	HDM3100S8033XX2	HDM3100S80A3XX2	HDM3100S80B3XX2
	100	25	18	HDM3100S10033XX2	HDM3100S100A3XX2	HDM3100S100B3XX2
HDM3-100M	40	26	26	HDM3100M4033XX2	HDM3100M40A3XX2	HDM3100M40B3XX2
	50	26	26	HDM3100M5033XX2	HDM3100M50A3XX2	HDM3100M50B3XX2
	63	26	26	HDM3100M6333XX2	HDM3100M63A3XX2	HDM3100M63B3XX2
	80	26	26	HDM3100M8033XX2	HDM3100M80A3XX2	HDM3100M80B3XX2
	100	26	26	HDM3100M10033XX2	HDM3100M100A3XX2	HDM3100M100B3XX2
HDM3-100F	40	35	26	HDM3100F4033XX2	HDM3100F40A3XX2	HDM3100F40B3XX2
	50	35	26	HDM3100F5033XX2	HDM3100F50A3XX2	HDM3100F50B3XX2
	63	35	26	HDM3100F6333XX2	HDM3100F63A3XX2	HDM3100F63B3XX2
	80	35	26	HDM3100F8033XX2	HDM3100F80A3XX2	HDM3100F80B3XX2
	100	35	26	HDM3100F10033XX2	HDM3100F100A3XX2	HDM3100F100B3XX2
HDM3-100T	40	30	30	HDM3100T4033XX2	HDM3100T40A3XX2	HDM3100T40B3XX2
	50	30	30	HDM3100T5033XX2	HDM3100T50A3XX2	HDM3100T50B3XX2
	63	30	30	HDM3100T6333XX2	HDM3100T63A3XX2	HDM3100T63B3XX2
	80	30	30	HDM3100T8033XX2	HDM3100T80A3XX2	HDM3100T80B3XX2
	100	30	30	HDM3100T10033XX2	HDM3100T100A3XX2	HDM3100T100B3XX2
HDM3-100N	40	50	30	HDM3100N4033XX2	HDM3100N40A3XX2	HDM3100N40B3XX2
	50	50	30	HDM3100N5033XX2	HDM3100N50A3XX2	HDM3100N50B3XX2
	63	50	30	HDM3100N6333XX2	HDM3100N63A3XX2	HDM3100N63B3XX2
	80	50	30	HDM3100N8033XX2	HDM3100N80A3XX2	HDM3100N80B3XX2
	100	50	30	HDM3100N10033XX2	HDM3100N100A3XX2	HDM3100N100B3XX2
HDM3-160L	100	21	21	HDM3160L10033XX2	HDM3160L100A3XX2	HDM3160L100B3XX2
	125	21	21	HDM3160L12533XX2	HDM3160L125A3XX2	HDM3160L125B3XX2
	140	21	21	HDM3160L14033XX2	HDM3160L140A3XX2	HDM3160L140B3XX2
	160	21	21	HDM3160L16033XX2	HDM3160L160A3XX2	HDM3160L160B3XX2
HDM3-160S	100	35	21	HDM3160S10033XX2	HDM3160S100A3XX2	HDM3160S100B3XX2
	125	35	21	HDM3160S12533XX2	HDM3160S125A3XX2	HDM3160S125B3XX2
	140	35	21	HDM3160S14033XX2	HDM3160S140A3XX2	HDM3160S140B3XX2
	160	35	21	HDM3160S16033XX2	HDM3160S160A3XX2	HDM3160S160B3XX2
HDM3-160M	100	30	30	HDM3160M10033XX2	HDM3160M100A3XX2	HDM3160M100B3XX2
	125	30	30	HDM3160M12533XX2	HDM3160M125A3XX2	HDM3160M125B3XX2
	140	30	30	HDM3160M14033XX2	HDM3160M140A3XX2	HDM3160M140B3XX2
	160	30	30	HDM3160M16033XX2	HDM3160M160A3XX2	HDM3160M160B3XX2



HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Low-voltage Distribution

Material order number

HDM3 Fixed front connection Motor protection Thermal magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference		
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-160F	100	50	30	HDM3160F10033XX2	HDM3160F100A3XX2	HDM3160F100B3XX2
	125	50	30	HDM3160F12533XX2	HDM3160F125A3XX2	HDM3160F125B3XX2
	140	50	30	HDM3160F14033XX2	HDM3160F140A3XX2	HDM3160F140B3XX2
	160	50	30	HDM3160F16033XX2	HDM3160F160A3XX2	HDM3160F160B3XX2
HDM3-160T	100	36	36	HDM3160T10033XX2	HDM3160T100A3XX2	HDM3160T100B3XX2
	125	36	36	HDM3160T12533XX2	HDM3160T125A3XX2	HDM3160T125B3XX2
	140	36	36	HDM3160T14033XX2	HDM3160T140A3XX2	HDM3160T140B3XX2
	160	36	36	HDM3160T16033XX2	HDM3160T160A3XX2	HDM3160T160B3XX2
HDM3-160N	100	60	36	HDM3160N10033XX2	HDM3160N100A3XX2	HDM3160N100B3XX2
	125	60	36	HDM3160N12533XX2	HDM3160N125A3XX2	HDM3160N125B3XX2
	140	60	36	HDM3160N14033XX2	HDM3160N140A3XX2	HDM3160N140B3XX2
	160	60	36	HDM3160N16033XX2	HDM3160N160A3XX2	HDM3160N160B3XX2
HDM3-250L	100	21	21	HDM3250L10033XX2	HDM3250L100A3XX2	HDM3250L100B3XX2
	125	21	21	HDM3250L12533XX2	HDM3250L125A3XX2	HDM3250L125B3XX2
	140	21	21	HDM3250L14033XX2	HDM3250L140A3XX2	HDM3250L140B3XX2
	160	21	21	HDM3250L16033XX2	HDM3250L160A3XX2	HDM3250L160B3XX2
	180	21	21	HDM3250L18033XX2	HDM3250L180A3XX2	HDM3250L180B3XX2
	200	21	21	HDM3250L20033XX2	HDM3250L200A3XX2	HDM3250L200B3XX2
	225	21	21	HDM3250L22533XX2	HDM3250L225A3XX2	HDM3250L225B3XX2
	250	21	21	HDM3250L25033XX2	HDM3250L250A3XX2	HDM3250L250B3XX2
HDM3-250S	100	35	21	HDM3250S10033XX2	HDM3250S100A3XX2	HDM3250S100B3XX2
	125	35	21	HDM3250S12533XX2	HDM3250S125A3XX2	HDM3250S125B3XX2
	140	35	21	HDM3250S14033XX2	HDM3250S140A3XX2	HDM3250S140B3XX2
	160	35	21	HDM3250S16033XX2	HDM3250S160A3XX2	HDM3250S160B3XX2
	180	35	21	HDM3250S18033XX2	HDM3250S180A3XX2	HDM3250S180B3XX2
	200	35	21	HDM3250S20033XX2	HDM3250S200A3XX2	HDM3250S200B3XX2
	225	35	21	HDM3250S22533XX2	HDM3250S225A3XX2	HDM3250S225B3XX2
	250	35	21	HDM3250S25033XX2	HDM3250S250A3XX2	HDM3250S250B3XX2
HDM3-250M	100	30	30	HDM3250M10033XX2	HDM3250M100A3XX2	HDM3250M100B3XX2
	125	30	30	HDM3250M12533XX2	HDM3250M125A3XX2	HDM3250M125B3XX2
	140	30	30	HDM3250M14033XX2	HDM3250M140A3XX2	HDM3250M140B3XX2
	160	30	30	HDM3250M16033XX2	HDM3250M160A3XX2	HDM3250M160B3XX2
	180	30	30	HDM3250M18033XX2	HDM3250M180A3XX2	HDM3250M180B3XX2
	200	30	30	HDM3250M20033XX2	HDM3250M200A3XX2	HDM3250M200B3XX2
	225	30	30	HDM3250M22533XX2	HDM3250M225A3XX2	HDM3250M225B3XX2
	250	30	30	HDM3250M25033XX2	HDM3250M250A3XX2	HDM3250M250B3XX2
HDM3-250F	100	50	30	HDM3250F10033XX2	HDM3250F100A3XX2	HDM3250F100B3XX2
	125	50	30	HDM3250F12533XX2	HDM3250F125A3XX2	HDM3250F125B3XX2
	140	50	30	HDM3250F14033XX2	HDM3250F140A3XX2	HDM3250F140B3XX2
	160	50	30	HDM3250F16033XX2	HDM3250F160A3XX2	HDM3250F160B3XX2
	180	50	30	HDM3250F18033XX2	HDM3250F180A3XX2	HDM3250F180B3XX2
	200	50	30	HDM3250F20033XX2	HDM3250F200A3XX2	HDM3250F200B3XX2
	225	50	30	HDM3250F22533XX2	HDM3250F225A3XX2	HDM3250F225B3XX2
	250	50	30	HDM3250F25033XX2	HDM3250F250A3XX2	HDM3250F250B3XX2



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HDM3 Molded Case Circuit Breaker

Reference
Standard: IEC/EN 60947-2



Material order number

HDM3 Fixed front connection Motor protection Thermal magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference		
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-250T	100	36	36	HDM3250T10033XX2	HDM3250T100A3XX2	HDM3250T100B3XX2
	125	36	36	HDM3250T12533XX2	HDM3250T125A3XX2	HDM3250T125B3XX2
	140	36	36	HDM3250T14033XX2	HDM3250T140A3XX2	HDM3250T140B3XX2
	160	36	36	HDM3250T16033XX2	HDM3250T160A3XX2	HDM3250T160B3XX2
	180	36	36	HDM3250T18033XX2	HDM3250T180A3XX2	HDM3250T180B3XX2
	200	36	36	HDM3250T20033XX2	HDM3250T200A3XX2	HDM3250T200B3XX2
	225	36	36	HDM3250T22533XX2	HDM3250T225A3XX2	HDM3250T225B3XX2
	250	36	36	HDM3250T25033XX2	HDM3250T250A3XX2	HDM3250T250B3XX2
HDM3-250N	100	60	36	HDM3250N10033XX2	HDM3250N100A3XX2	HDM3250N100B3XX2
	125	60	36	HDM3250N12533XX2	HDM3250N125A3XX2	HDM3250N125B3XX2
	140	60	36	HDM3250N14033XX2	HDM3250N140A3XX2	HDM3250N140B3XX2
	160	60	36	HDM3250N16033XX2	HDM3250N160A3XX2	HDM3250N160B3XX2
	180	60	36	HDM3250N18033XX2	HDM3250N180A3XX2	HDM3250N180B3XX2
	200	60	36	HDM3250N20033XX2	HDM3250N200A3XX2	HDM3250N200B3XX2
	225	60	36	HDM3250N22533XX2	HDM3250N225A3XX2	HDM3250N225B3XX2
	250	60	36	HDM3250N25033XX2	HDM3250N250A3XX2	HDM3250N250B3XX2
HDM3-400L	200	21	21	HDM3400L20033XX2	HDM3400L200A3XX2	HDM3400L200B3XX2
	225	21	21	HDM3400L22533XX2	HDM3400L225A3XX2	HDM3400L225B3XX2
	250	21	21	HDM3400L25033XX2	HDM3400L250A3XX2	HDM3400L250B3XX2
	315	21	21	HDM3400L31533XX2	HDM3400L315A3XX2	HDM3400L315B3XX2
	350	21	21	HDM3400L35033XX2	HDM3400L350A3XX2	HDM3400L350B3XX2
	400	21	21	HDM3400L40033XX2	HDM3400L400A3XX2	HDM3400L400B3XX2
HDM3-400S	200	35	21	HDM3400S20033XX2	HDM3400S200A3XX2	HDM3400S200B3XX2
	225	35	21	HDM3400S22533XX2	HDM3400S225A3XX2	HDM3400S225B3XX2
	250	35	21	HDM3400S25033XX2	HDM3400S250A3XX2	HDM3400S250B3XX2
	315	35	21	HDM3400S31533XX2	HDM3400S315A3XX2	HDM3400S315B3XX2
	350	35	21	HDM3400S35033XX2	HDM3400S350A3XX2	HDM3400S350B3XX2
	400	35	21	HDM3400S40033XX2	HDM3400S400A3XX2	HDM3400S400B3XX2
HDM3-400M	200	30	30	HDM3400M20033XX2	HDM3400M200A3XX2	HDM3400M200B3XX2
	225	30	30	HDM3400M22533XX2	HDM3400M225A3XX2	HDM3400M225B3XX2
	250	30	30	HDM3400M25033XX2	HDM3400M250A3XX2	HDM3400M250B3XX2
	315	30	30	HDM3400M31533XX2	HDM3400M315A3XX2	HDM3400M315B3XX2
	350	30	30	HDM3400M35033XX2	HDM3400M350A3XX2	HDM3400M350B3XX2
	400	30	30	HDM3400M40033XX2	HDM3400M400A3XX2	HDM3400M400B3XX2
HDM3-400F	200	50	30	HDM3400F20033XX2	HDM3400F200A3XX2	HDM3400F200B3XX2
	225	50	30	HDM3400F22533XX2	HDM3400F225A3XX2	HDM3400F225B3XX2
	250	50	30	HDM3400F25033XX2	HDM3400F250A3XX2	HDM3400F250B3XX2
	315	50	30	HDM3400F31533XX2	HDM3400F315A3XX2	HDM3400F315B3XX2
	350	50	30	HDM3400F35033XX2	HDM3400F350A3XX2	HDM3400F350B3XX2
	400	50	30	HDM3400F40033XX2	HDM3400F400A3XX2	HDM3400F400B3XX2

Low-voltage Distribution



HDM3 Molded Case Circuit Breaker

Reference

Standard: IEC/EN 60947-2



Low-voltage Distribution

Material order number

HDM3 Fixed front connection Motor protection Thermal magnetic tripping

Product Specification	In(A)	Icu(KA)	Ics(KA)	Order Reference	Order Reference	Order Reference
				Fixed front 3 pole	Fixed front 4-pole A type	Fixed front 4-pole B type
HDM3-400T	200	39	39	HDM3400T20033XX2	HDM3400T200A3XX2	HDM3400T200B3XX2
	225	39	39	HDM3400T22533XX2	HDM3400T225A3XX2	HDM3400T225B3XX2
	250	39	39	HDM3400T25033XX2	HDM3400T250A3XX2	HDM3400T250B3XX2
	315	39	39	HDM3400T31533XX2	HDM3400T315A3XX2	HDM3400T315B3XX2
	350	39	39	HDM3400T35033XX2	HDM3400T350A3XX2	HDM3400T350B3XX2
	400	39	39	HDM3400T40033XX2	HDM3400T400A3XX2	HDM3400T400B3XX2
HDM3-400N	200	70	39	HDM3400N20033XX2	HDM3400N200A3XX2	HDM3400N200B3XX2
	225	70	39	HDM3400N22533XX2	HDM3400N225A3XX2	HDM3400N225B3XX2
	250	70	39	HDM3400N25033XX2	HDM3400N250A3XX2	HDM3400N250B3XX2
	315	70	39	HDM3400N31533XX2	HDM3400N315A3XX2	HDM3400N315B3XX2
	350	70	39	HDM3400N35033XX2	HDM3400N350A3XX2	HDM3400N350B3XX2
	400	70	39	HDM3400N40033XX2	HDM3400N400A3XX2	HDM3400N400B3XX2
HDM3-630L	400	21	21	HDM3630L40033XX2	HDM3630L400A3XX2	HDM3630L400B3XX2
	500	21	21	HDM3630L50033XX2	HDM3630L500A3XX2	HDM3630L500B3XX2
	630	21	21	HDM3630L63033XX2	HDM3630L630A3XX2	HDM3630L630B3XX2
HDM3-630S	400	35	21	HDM3630S40033XX2	HDM3630S400A3XX2	HDM3630S400B3XX2
	500	35	21	HDM3630S50033XX2	HDM3630S500A3XX2	HDM3630S500B3XX2
	630	35	21	HDM3630S63033XX2	HDM3630S630A3XX2	HDM3630S630B3XX2
HDM3-630M	400	30	30	HDM3630M40033XX2	HDM3630M400A3XX2	HDM3630M400B3XX2
	500	30	30	HDM3630M50033XX2	HDM3630M500A3XX2	HDM3630M500B3XX2
	630	30	30	HDM3630M63033XX2	HDM3630M630A3XX2	HDM3630M630B3XX2
HDM3-630F	400	50	30	HDM3630F40033XX2	HDM3630F400A3XX2	HDM3630F400B3XX2
	500	50	30	HDM3630F50033XX2	HDM3630F500A3XX2	HDM3630F500B3XX2
	630	50	30	HDM3630F63033XX2	HDM3630F630A3XX2	HDM3630F630B3XX2
HDM3-630T	400	39	39	HDM3630T40033XX2	HDM3630T400A3XX2	HDM3630T400B3XX2
	500	39	39	HDM3630T50033XX2	HDM3630T500A3XX2	HDM3630T500B3XX2
	630	39	39	HDM3630T63033XX2	HDM3630T630A3XX2	HDM3630T630B3XX2
HDM3-630N	400	70	39	HDM3630N40033XX2	HDM3630N400A3XX2	HDM3630N400B3XX2
	500	70	39	HDM3630N50033XX2	HDM3630N500A3XX2	HDM3630N500B3XX2
	630	70	39	HDM3630N63033XX2	HDM3630N630A3XX2	HDM3630N630B3XX2

HDM2 Molded Case Circuit Breaker

Coding system & Order References
Standard: IEC/EN 60947-2




Low-voltage Distribution



Coding System

Product	Framesize	Breaking Capacity	Rated Current	Poles
HDM2	100	L	16	1
	↓	↓	↓	↓
	100:100AF	L: Icu=25kA/Ics=18kA	10: 10A 16: 16A ... 100: 100A	1P:1P 2P:2P

Order References

Product specification	In(A)	Order Reference
 HDM2 1P	10	HDM2100L0101
	16	HDM2100L0161
	20	HDM2100L0201
	25	HDM2100L0251
	32	HDM2100L0321
	40	HDM2100L0401
	50	HDM2100L0501
	63	HDM2100L0631
	80	HDM2100L0801
	100	HDM2100L1001
 HDM2 2P	10	HDM2100L0102
	16	HDM2100L0162
	20	HDM2100L0202
	25	HDM2100L0252
	32	HDM2100L0322
	40	HDM2100L0402
	50	HDM2100L0502
	63	HDM2100L0632
	80	HDM2100L0802
	100	HDM2100L1002

HDM2 Molded Case Circuit Breaker

Technical parameters
Standard: IEC/EN 60947-2



Technical Parameters

Shell Frame Current	HDM2-100	
Standard	IEC60947-2	
Rated Voltage Ue(V)	1P: 240VAC; 2P: 400/415VAC	
Rated Frequency (Hz)	50/60Hz	
Rated Insulation Voltage Ui(V)	690V	
Rated Impulse Withstand Voltage Uimp(kV)	8kV	
Rated Current In(A)	10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A, 80A, 100A	
Number of Poles	1P/2P	
Pollution Degree	3	
Installation Category	II	
Usage Category	A	
Ambient Temperature	-5°C ~+50°C	
Altitude	≤ 2000m	
Humidity	The atmospheric relative humidity does not exceed 50% when the maximum ambient temperature is +50°C . It is allowed to have relative higher humidity under lower temperature, e.g. up to 90% for +20°C .	
Protection Degree	IP30	
Rated ultimate short circuit breaking capacity(Icu/cos φ)	25kA/0.25	
Rated operating short circuit breaking capacity(Ics/cos φ)	18kA/0.25	
Mechanical Life	With Maintenance	20000
	Without Maintenance	8000
Electrical life	AC 400/415V	2000
Isolation function	Available	
Certification	CE	
W*H*D	1P (mm)	25*130*94
	2P (mm)	50*130*94

HDM2 Molded Case Circuit Breaker

Technical parameters

Standard: IEC/EN 60947-2



CE

De-rating table for application at higher ambient temperature

Model \ Temperature	0°C	10°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C
HDM2-1P	1.21	1.19	1.1	1.16	1.12	1.1	1.08	1.03	1	0.95	0.86	0.81
HDM2-2P	1.21	1.19	1.1	1.16	1.12	1.1	1.08	1.03	1	0.95	0.86	0.81

De-rating table for application at higher altitude

Altitude(m)	2000	3000	4000	5000
Rated Voltage(V)	415	350	310	270
De-rated rated current at ambient temperature of 50°C	1In	0.94In	0.88In	0.83In
Rated Insulation Voltage Ui(V)	800	700	600	500
Power frequency voltage (V)	3000	2500	2000	1800

Installing and Operation

- Before installation:
 - (1) Check whether the parameters on nameplate comply with the application requirement;
 - (2) Make sure the handle at the "Trip" position;
 - (3) Open and close the circuit breakers 3 times, and the operation should be reliable and no clamping, and the handle should be at "OFF" position;
- When installing:
 - (1) Check whether the wire connection is correct, and connect "LINE" to power supply, and "LOAD" to equipments.
 - (2) Refer to below table 1 for recommended wiring cross section and related rated current, to make sure the breaker work properly;
 - (3) Refer to table 2 for wiring fastening torque;

Rated current and related wiring cross section

Rated current A	16, 20	25	32	40, 50	63	80	100
Cross section of wire mm ²	2.5	4	6	10	16	25	35

Fastening torque

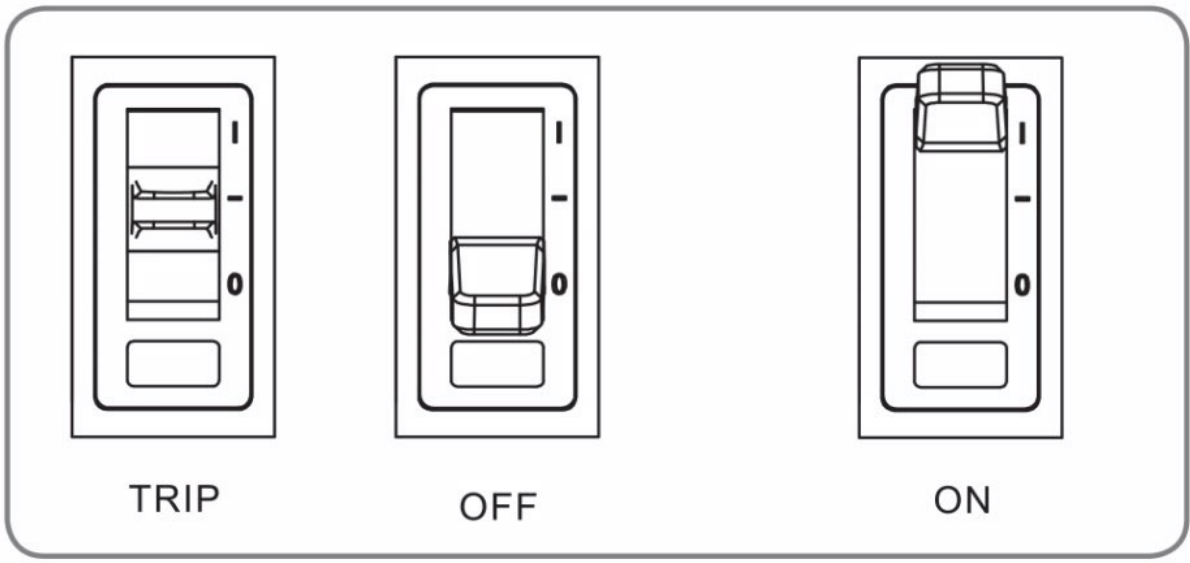
Model	Screw	Fastening torque N·m
100AF	M8	9.5-10.5

HDM2 Molded Case Circuit Breaker

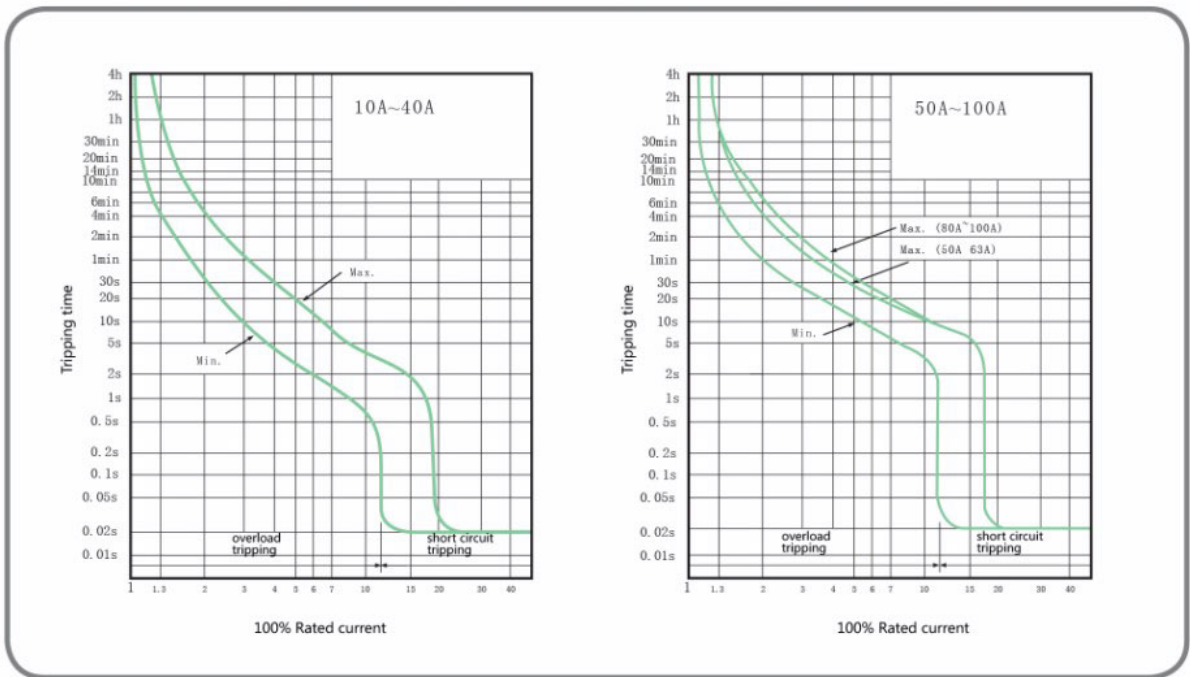
Technical parameters
Standard: IEC/EN 60947-2



Handle Position Indication



HDM2 Series Trip Curve

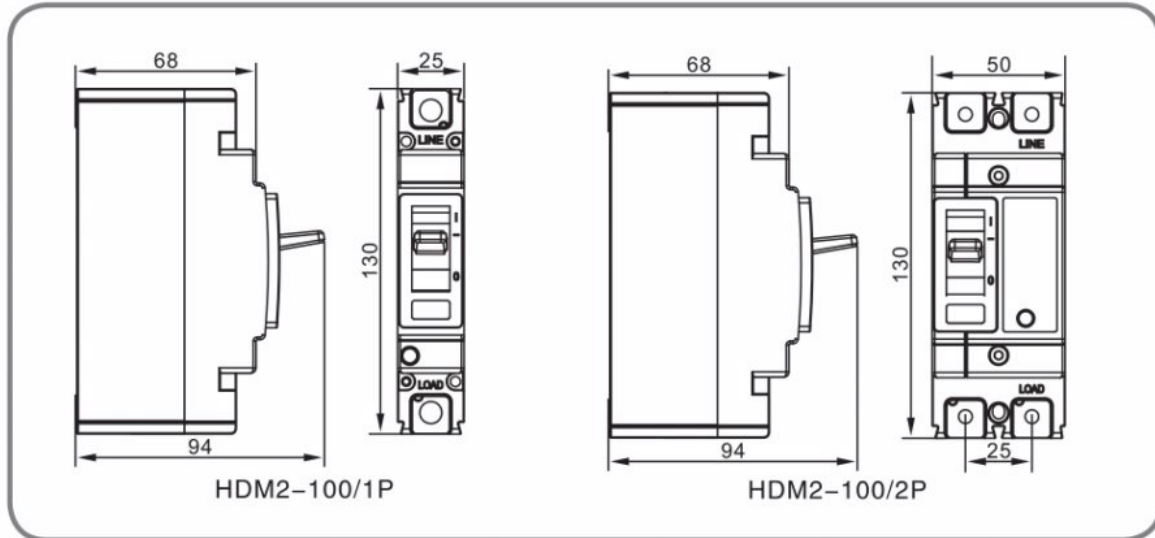


HDM2 Molded Case Circuit Breaker

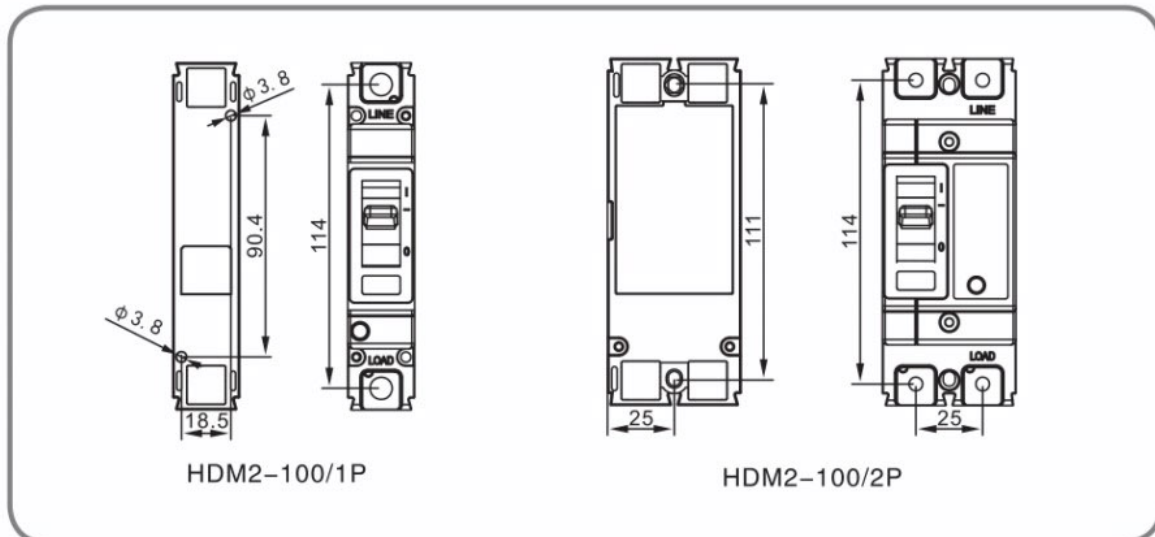
Dimensions and Installing size
Standard: IEC/EN 60947-2



Dimensions



Installation Size



HDM2 Molded Case Circuit Breaker

Maintenance and Care
Standard: IEC/EN 60947-2



Maintenance and Care

- The maintenance and care must be implemented by qualified professional persons;
 - Make sure that the breaker is electrically neutral;
 - Conduct maintenance and care once a year under normal operation condition.
- See below table for maintenance content.

Type	Item	Content
Circuit Breaker	Appearance	Free of dust or condensation. Clean if there is any. Free of damage. No discoloration at the shell or connecting terminal.
	Terminal Connection	Not loose and tighten according to the torque specified in table 2
	Interphase barrier	Should be inserted tightly, and no damage
	Handle closing and opening	Operation shall be flexible
	Insulation test	Prohibited to test insulation between any two load phases by short circuit
	Test button	The handle should be at trip position after tripping
Circuit breaker with accessories (if applicable)	Installed with undervoltage release	The breaker shall open reliably when cut off the power supply of undervoltage release, and the handle should be at TRIP position
	Installed with shunt release	The breaker shall open reliably when energizing the shunt release with rated voltage, and the handle should be at TRIP position
	Installed with auxiliary contacts	Open and close the breaker, the auxiliary contacts shall transfer signal reliably.

HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Molded Case Circuit Breaker

Low-voltage Distribution



HDM6s



Frame Current	63A, 100A, 250A, 400A, 630A, 800A
Rated Insulation Voltage Ui	AC 800V (Frame 63AF:AC 690V)
Rated Impulse Withstand Voltage Uimp	8kV (Frame 63AF:6kV)
Rated Operational Voltage Ue	AC 400/415 (Frame 63AF:AC 400V)
Poles	3P, 4P
Rated Frequency	50/60Hz
Standard	IEC 60947-2
Certificate	

Name	Frame size	B.C.	Rated current	Pole	Accessory	Voltage of Accessory	Breaking Capacity & Installation
HDM6s	100	L	100	3	10	1	F
	↓	↓	↓	↓	↓	↓	↓
	063:63AF 100:100AF 250:250AF 400:400AF 630:630AF 800:800AF	L:L type S:S type M:M type T:T type	010:10A 800:800A	3:3P 4:4P	XX:No Accessory 10:MX 20:OF 30:MN (exclude 63M 4P) 40:MX+OF 50:MX+MN (exclude 63M 4P) 60:OF+OF 70:MN+OF (exclude 63M 4P) 08:SD 18:MX+SD 28:OF+SD 38:MN+SD (exclude 63M 4P) 48:MX+OF+SD 68:SD+OF+OF 78:MN+OF+SD (exclude 63M 4P) 98:MCH+SD+MN+OF	X:AC400V (MX,MN) or No Accessory N:AC230V (MX,MN) D:DC220V (MX) 1:MX AC400V MN AC230V 2:MX AC230V MN AC400V 3:MX DC220V MN AC400V 4:MX DC220V MN AC230V	F: 40°C Unadjustable Fixed Front 3: 40°C Adjustable Fixed Front




HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Low-voltage Distribution

Order Information




Type	Pole	In A	Fixed Thermal Magnetic				Thermo-adjustable	
			L-type	S-Type	M-type	T-Type	M-type	T-Type
HDM6s-63 	3	10	HDM6s063L0103XXXF	HDM6s063S0103XXXF	HDM6s063M0103XXXF	HDM6s063T0103XXXF	-	-
		16	HDM6s063L0163XXXF	HDM6s063S0163XXXF	HDM6s063M0163XXXF	HDM6s063T0163XXXF	-	-
		20	HDM6s063L0203XXXF	HDM6s063S0203XXXF	HDM6s063M0203XXXF	HDM6s063T0203XXXF	-	-
		25	HDM6s063L0253XXXF	HDM6s063S0253XXXF	HDM6s063M0253XXXF	HDM6s063T0253XXXF	-	-
		32	HDM6s063L0323XXXF	HDM6s063S0323XXXF	HDM6s063M0323XXXF	HDM6s063T0323XXXF	-	-
		40	HDM6s063L0403XXXF	HDM6s063S0403XXXF	HDM6s063M0403XXXF	HDM6s063T0403XXXF	-	-
		50	HDM6s063L0503XXXF	HDM6s063S0503XXXF	HDM6s063M0503XXXF	HDM6s063T0503XXXF	-	-
	63	HDM6s063L0633XXXF	HDM6s063S0633XXXF	HDM6s063M0633XXXF	HDM6s063T0633XXXF	-	-	
	4	10	-	-	HDM6s063M0104XXXF	HDM6s063T0104XXXF	-	-
		16	-	-	HDM6s063M0164XXXF	HDM6s063T0164XXXF	-	-
		20	-	-	HDM6s063M0204XXXF	HDM6s063T0204XXXF	-	-
		25	-	-	HDM6s063M0254XXXF	HDM6s063T0254XXXF	-	-
		32	-	-	HDM6s063M0324XXXF	HDM6s063T0324XXXF	-	-
		40	-	-	HDM6s063M0404XXXF	HDM6s063T0404XXXF	-	-
50		-	-	HDM6s063M0504XXXF	HDM6s063T0504XXXF	-	-	
63	-	-	HDM6s063M0634XXXF	HDM6s063T0634XXXF	-	-		
HDM6s-100 	3	16	HDM6s100L0163XXXF	HDM6s100S0163XXXF	-	-	HDM6s100M0163XXX3	HDM6s100T0163XXX3
		20	HDM6s100L0203XXXF	HDM6s100S0203XXXF	-	-	-	-
		25	HDM6s100L0253XXXF	HDM6s100S0253XXXF	-	-	HDM6s100M0253XXX3	HDM6s100T0253XXX3
		32	HDM6s100L0323XXXF	HDM6s100S0323XXXF	-	-	-	-
		40	HDM6s100L0403XXXF	HDM6s100S0403XXXF	-	-	HDM6s100M0403XXX3	HDM6s100T0403XXX3
		50	HDM6s100L0503XXXF	HDM6s100S0503XXXF	-	-	-	-
		63	HDM6s100L0633XXXF	HDM6s100S0633XXXF	-	-	HDM6s100M0633XXX3	HDM6s100T0633XXX3
		80	HDM6s100L0803XXXF	HDM6s100S0803XXXF	-	-	-	-
	100	HDM6s100L1003XXXF	HDM6s100S1003XXXF	-	-	HDM6s100M1003XXX3	HDM6s100T1003XXX3	
	4	16	-	-	-	-	HDM6s100M0164XXX3	HDM6s100T0164XXX3
		25	-	-	-	-	HDM6s100M0254XXX3	HDM6s100T0254XXX3
		40	-	-	-	-	HDM6s100M0404XXX3	HDM6s100T0404XXX3
		63	-	-	-	-	HDM6s100M0634XXX3	HDM6s100T0634XXX3
		100	-	-	-	-	HDM6s100M1004XXX3	HDM6s100T1004XXX3
100		-	-	-	-	-	-	
HDM6s-250 	3	100	HDM6s250L1003XXXF	HDM6s250S1003XXXF	-	-	-	-
		125	HDM6s250L1253XXXF	HDM6s250S1253XXXF	-	-	HDM6s250M1253XXX3	HDM6s250T1253XXX3
		160	HDM6s250L1603XXXF	HDM6s250S1603XXXF	-	-	HDM6s250M1603XXX3	HDM6s250T1603XXX3
		180	HDM6s250L1803XXXF	HDM6s250S1803XXXF	-	-	-	-
		200	HDM6s250L2003XXXF	HDM6s250S2003XXXF	-	-	HDM6s250M2003XXX3	HDM6s250T2003XXX3
		225	HDM6s250L2253XXXF	HDM6s250S2253XXXF	-	-	-	-
		250	HDM6s250L2503XXXF	HDM6s250S2503XXXF	-	-	HDM6s250M2503XXX3	HDM6s250T2503XXX3
	4	125	-	-	-	-	HDM6s250M1254XXX3	HDM6s250T1254XXX3
		160	-	-	-	-	HDM6s250M1604XXX3	HDM6s250T1604XXX3
		200	-	-	-	-	HDM6s250M2004XXX3	HDM6s250T2004XXX3
		250	-	-	-	-	HDM6s250M2504XXX3	HDM6s250T2504XXX3
		250	-	-	-	-	-	-
		250	-	-	-	-	-	-
		250	-	-	-	-	-	-

HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Order Information

Type	Pole	In A	Fixed Thermal Magnetic				Thermo-adjustable	
			L-type	S-Type	M-type	T-Type	M-type	T-Type
 HDM6s-400	3	200	HDM6s400L2003XXXF	HDM6s400S2003XXXF	-	-	-	-
		225	HDM6s400L2253XXXF	HDM6s400S2253XXXF	-	-	-	-
		250	HDM6s400L2503XXXF	HDM6s400S2503XXXF	-	-	HDM6s400M2503XXX3	HDM6s400T2503XXX3
		315	HDM6s400L3153XXXF	HDM6s400S3153XXXF	-	-	-	-
		350	HDM6s400L3503XXXF	HDM6s400S3503XXXF	-	-	-	-
		400	HDM6s400L4003XXXF	HDM6s400S4003XXXF	-	-	HDM6s400M4003XXX3	HDM6s400T4003XXX3
	4	200	HDM6s400L2004XXXF	HDM6s400S2004XXXF	-	-	-	-
		225	HDM6s400L2254XXXF	HDM6s400S2254XXXF	-	-	-	-
		250	HDM6s400L2504XXXF	HDM6s400S2504XXXF	-	-	HDM6s400M2504XXX3	HDM6s400T2504XXX3
		315	HDM6s400L3154XXXF	HDM6s400S3154XXXF	-	-	-	-
		350	HDM6s400L3504XXXF	HDM6s400S3504XXXF	-	-	-	-
		400	HDM6s400L4004XXXF	HDM6s400S4004XXXF	-	-	HDM6s400M4004XXX3	HDM6s400T4004XXX3
 HDM6s-630	3	400	HDM6s630L4003XXXF	HDM6s630S4003XXXF	-	-	-	-
		500	HDM6s630L5003XXXF	HDM6s630S5003XXXF	-	-	HDM6s630M5003XXX3	HDM6s630T5003XXX3
		630	HDM6s630L6303XXXF	HDM6s630S6303XXXF	-	-	HDM6s630M6303XXX3	HDM6s630T6303XXX3
	4	400	HDM6s630L4004XXXF	HDM6s630S4004XXXF	-	-	-	-
		500	HDM6s630L5004XXXF	HDM6s630S5004XXXF	-	-	HDM6s630M5004XXX3	HDM6s630T5004XXX3
		630	HDM6s630L6304XXXF	HDM6s630S6304XXXF	-	-	HDM6s630M6304XXX3	HDM6s630T6304XXX3
 HDM6s-800	3	400	HDM6s800L4003XXXF	HDM6s800S4003XXXF	HDM6s800M4003XXXF	HDM6s800T4003XXXF	-	-
		500	HDM6s800L5003XXXF	HDM6s800S5003XXXF	HDM6s800M5003XXXF	HDM6s800T5003XXXF	-	-
		630	HDM6s800L6303XXXF	HDM6s800S6303XXXF	HDM6s800M6303XXXF	HDM6s800T6303XXXF	-	-
		700	HDM6s800L7003XXXF	HDM6s800S7003XXXF	HDM6s800M7003XXXF	HDM6s800T7003XXXF	-	-
		800	HDM6s800L8003XXXF	HDM6s800S8003XXXF	HDM6s800M8003XXXF	HDM6s800T8003XXXF	-	-
	4	400	HDM6s800L4004XXXF	HDM6s800S4004XXXF	HDM6s800M4004XXXF	HDM6s800T4004XXXF	-	-
		500	HDM6s800L5004XXXF	HDM6s800S5004XXXF	HDM6s800M5004XXXF	HDM6s800T5004XXXF	-	-
		630	HDM6s800L6304XXXF	HDM6s800S6304XXXF	HDM6s800M6304XXXF	HDM6s800T6304XXXF	-	-
		700	HDM6s800L7004XXXF	HDM6s800S7004XXXF	HDM6s800M7004XXXF	HDM6s800T7004XXXF	-	-
		800	HDM6s800L8004XXXF	HDM6s800S8004XXXF	HDM6s800M8004XXXF	HDM6s800T8004XXXF	-	-



HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Low-voltage Distribution



Technical Data

Fixed Thermal Magnetic

Basic Information (IEC/EN60947-2)

Frame Size	AF	63						100				250					
		3P			4P			3P		4P		3P		4P			
Number of Poles		L	S	M	T	M	T	L	S	L	S	L	S	L	S		
Breaking Capacity Level																	
Rated Ultimate short-circuit Breaking Capacity Icu (kA)		25	18	50	30	50	30	35	26	35	26	35	26	35	26		
Rated Service short-circuit Breaking Capacity Ics (kA)		18	18	25	30	25	30	27	26	27	26	27	26	27	26		
Mechanical Life On-off Cycle		8500						8500				7000					
Electrical Life On-off Cycle		1500						1500				1000					
Tripping Unit																	
Rated Current (A)	In	10/16/20/25/32/40/50/63						16/20/25/32/40/50/63/80/100				-	100/125/160/180/200/225/250				-
Accessory																	
Indication Accessories																	
OF				■						■				■			
SD				■						■				■			
Control Accessories																	
MX (AC400, 230V, DC220V)				■						■				■			
MN (AC400, 230V)		■				-				■				■			
Extended Rotary Handle (Round and Square)				■						■				■			
AC Motor Mechanism (AC400, 230V)				■						■				■			
Mechanical Interlock		■				-		■		-		■		-			
Mounting & Connection																	
Fixed, Front Connection				■						■				■			
Fixed, Rear Connection				■						■				■			
Plug-in, Rear Connection		■				-				■				■			
Plug-in, Front Connection						-				■				■			
Drawer-out, Rear Connection						-				-				-			
Connection																	
Spreader				■						■				■			
Protection																	
Phase Barrier				■						■				■			
Installation Information		See Page 83						See Page 84				See Page 85					

■ with this option
- without this option

HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Low-voltage Distribution



Technical Data

Fixed Thermal Magnetic		Basic Information (IEC/EN60947-2)															
Frame Size	AF	400				630				800							
		3P		4P		3P		4P		3P				4P			
Number of Poles		L	S	L	S	L	S	L	S	L	S	M	T	L	S	M	T
Breaking Capacity Level		50	25	50	25	50	25	50	25	50	25	70	40	50	25	70	40
Rated Ultimate Short-circuit Breaking Capacity Icu (kA rms)		50	25	50	25	50	25	50	25	50	25	70	40	50	25	70	40
Rated Service Short-circuit Breaking Capacity Ics (kA rms)		25	25	25	25	25	25	25	25	25	25	35	40	25	25	35	40
Mechanical Durability	On-off Cycle	4000				4000				2500							
Electrical Durability	On-off Cycle	1000				1000				500							
Tripping Unit		200/225/250/315/350/400				400/500/630				400/500/630/700/800							
Rated Current (A)		In				In				In							
Accessory																	
Indication Accessories																	
OF		■				■				■							
SD		■				■				■							
Control Accessories																	
MX (AC400, 230V, DC220V)		■				■				■							
MN (AC400, 230V)		■				■				■							
Extended Rotary Handle (Round and Square)		■				■				■							
AC Motor Mechanism (AC400, 230V)		■				■				■							
Mechanical Interlock		■	-	■	-	■	-	■	-	■	-	■	-	■	-	■	-
Mounting & Connection																	
Fixed, Front Connection		■				■				■							
Fixed, Rear Connection		■				■				■							
Plug-in, Rear Connection		■				■				■							
Plug-in, Front Connection		-				-				-							
Drawer-out, Rear Connection		■				■				■							
Connection																	
Spreader		■				■				■							
Protection																	
Phase Barrier		■				■				■							
Installation Information		See Page 86				See Page 87				See Page 88							

■ with this option
- without this option

HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Technical Data

Thermal-adjustable

Basic Information (IEC/EN60947-2)

Frame Size	AF	100				250				400				630			
		3P		4P		3P		4P		3P		4P		3P		4P	
Number of Poles		M	T	M	T	M	T	M	T	M	T	M	T	M	T	M	T
Breaking Capacity Level																	
Rated Ultimate Short-circuit Breaking Capacity Icu (kA rms)		50	30	50	30	50	30	50	30	70	40	70	40	70	40	70	40
Rated Service Short-circuit Breaking Capacity Ics (kA rms)		30	30	30	30	30	30	30	30	40	40	40	40	40	40	40	40
Mechanical Durability On-off Cycle		800				7000				4000				4000			
Electrical Durability On-off Cycle		1500				1000				1000				1000			
Tripping Unit																	
Rated Current (A)	In	16/25/40/63/100				125/160/200/250				250/400				500/630			
Thermo-adjustable Setting (Ir)	In	0.8/0.9/1.0In				0.8/0.9/1.0In				0.8/0.9/1.0In				0.8/0.9/1.0In			
Accessory																	
Indication Accessories																	
OF			■				■				■				■		
SD			■				■				■				■		
Control Accessories																	
MX (AC400, 230V, DC220V)			■				■				■				■		
MN (AC400, 230V)		■		-		■		-		■		-		■		-	
Extended Rotary Handle (Round and Square)			■				■				■				■		
AC Motor Mechanism (AC400, 230V)			■				■				■				■		
Mechanical Interlock		■		-		■		-		■		-		■		-	
Mounting & Connection																	
Fixed, Front Connection			■				■				■				■		
Fixed, Rear Connection			■				■				■				■		
Plug-in, Rear Connection		■		-		■		-		■		-		■		-	
Plug-in, Front Connection			-				■				-				-		
Drawer-out, Rear Connection			-				-				■				■		
Connection																	
Spreader			■				■				■				■		
Protection																	
Phase Barrier			■				■				■				■		
Installation Information		See Page 84				See Page 85				See Page 86				See Page 87			

■ with this option
- without this option

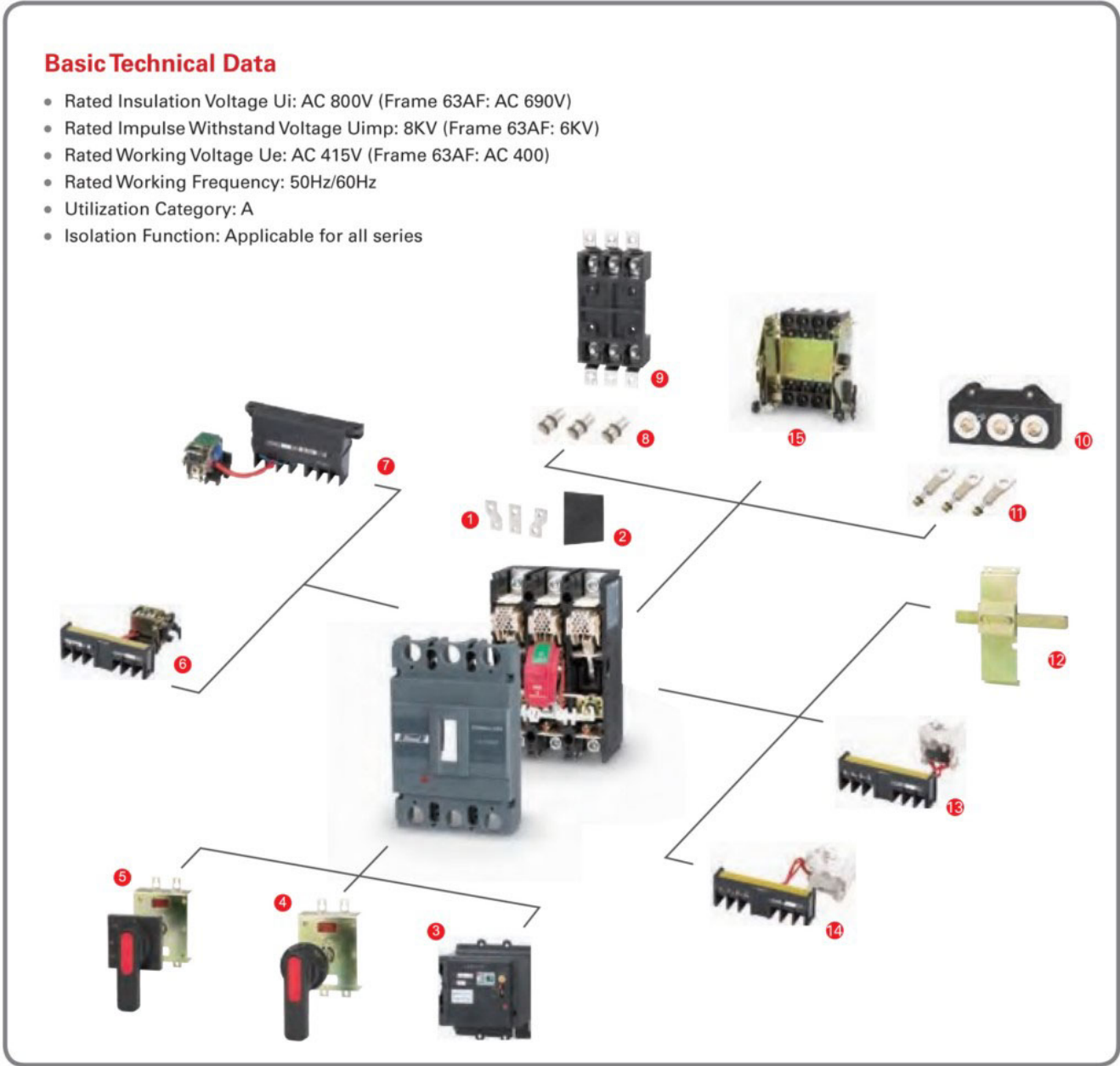
HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Basic Technical Data

- Rated Insulation Voltage U_i : AC 800V (Frame 63AF: AC 690V)
- Rated Impulse Withstand Voltage U_{imp} : 8KV (Frame 63AF: 6KV)
- Rated Working Voltage U_e : AC 415V (Frame 63AF: AC 400)
- Rated Working Frequency: 50Hz/60Hz
- Utilization Category: A
- Isolation Function: Applicable for all series



Complete Functions and Accessories

- | | | |
|---------------------------------|-------------------------------|----------------------------|
| 1 Spreader | 6 MX | 11 Fixed Rear Connection |
| 2 Phase Barrier | 7 MN | 12 Mechanical Interlock |
| 3 AC Motor Mechanism | 8 Plug-in Connecting Terminal | 13 SD |
| 4 Round Extended Rotary Handle | 9 Plug-in Front Connection | 14 OF |
| 5 Square Extended Rotary Handle | 10 Plug-in Rear Connection | 15 Withdrawable connection |

HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Complete Functions

Optional Tripping Unit Functions

The tripping unit is the intelligent part of the molded case circuit breaker
HDM6s Thermal Magnetic Tripping Unit is divided into 2 types, that is, Fixed Rating and Thermal-adjustable Tripping Unit

Fixed Thermal Magnetic Tripping Unit

Used for overload and short-circuit protection

Thermal-adjustable, Fixed-magnetic Tripping Unit

Used for overload and short-circuit protection

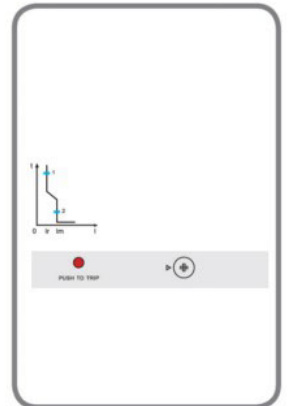
Adjustable overload current

Change the relation between the overload current and the rated current by adjusting the grades of the knobs (0.8-0.9-1.0In, three grades are available to be adjusted). Even so the current of instantaneous protection movement shall still take the rated current as the base number

Question: The customer requires 250AF, 200A current MCCB, and considering the product expansion in the future, is required to select the circuit breaker with an overload adjustable feature. So which product should the customer choose, how much is it for overload tripping release current (Ir1) and instantaneous tripping release current (Ii)?

Answer: HDM6s, 250AF, M-Type Breaking Capacity, Rated Current 250A, and switch the knob in the grade of 0.8

So, $I_{r1} = 250A * 0.8 = 200A$, $I_i = 250 * 10 = 2500A$



HDM6s All Series of Products Featuring Isolation Function

The circuit breaker with isolation function meets the standard of IEC 60947-2

The operating handle does not indicate 'OFF' position until the contact has been opened

The Isolation Function Protection includes:

- Mechanical reliability of the contact indication system
- No leakage current
- Over-voltage Withstand Capacity between outlet and inlet terminals

HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Low-voltage Distribution



Complete Accessories of HDM6s Series

Indicating Accessories

Auxiliary Contact (OF):

It is used to indicate the two positions of circuit breaker: ON or not.

Alarm Switch (SD):

It is used to indicate the two positions of circuit breaker: ON or not. When the alarm contact indicates that the circuit breaker is at Trip status, there are five reasons as follows:

- Overload or short-circuit fault
- Residual earth-leakage fault
- Manual test button on trip
- Shunt release action
- Line Fault and Under-voltage release action



Electrical Parameter of OF & SD

Rated Thermal Current (A)	3A	
Utilization Category	AC15	DC13
Working Current 50Hz/60Hz	AC400V	0.3A
	DC220V	0.15A

HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



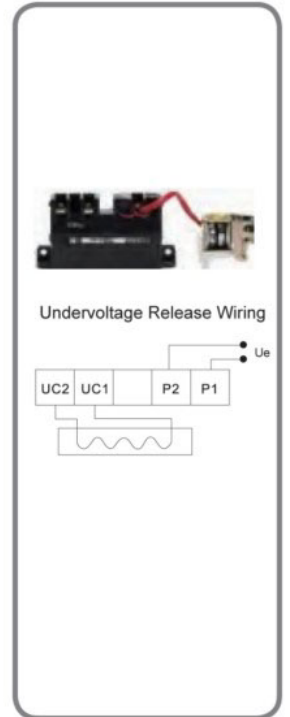
Control Accessories

Under-voltage Release (MN)

The MN shall tripping the circuit breaker reliably when the voltage between 35% and 70% of rated operating voltage.

The MN should ensure the circuit breaker to switch on when the voltage between 85% and 110% of rated operating voltage.

The MN should prevent the circuit breaker to switch on when the voltage less than 35% of rated operating voltage.



Applicable Type of Circuit Breaker	Power Consumption of Under-voltage Coil (W)	
	AC400V	AC230V
HDM6s63	4	3.1
HDM6s100	3.9	3.2
HDM6s250	4.3	3.3
HDM6s400	3.6	2.5
HDM6s630	3.4	2.5
HDM6s800	2	1.6

HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Low-voltage Distribution

Complete Accessories of HDM6 Series

Shunt Release (MX)

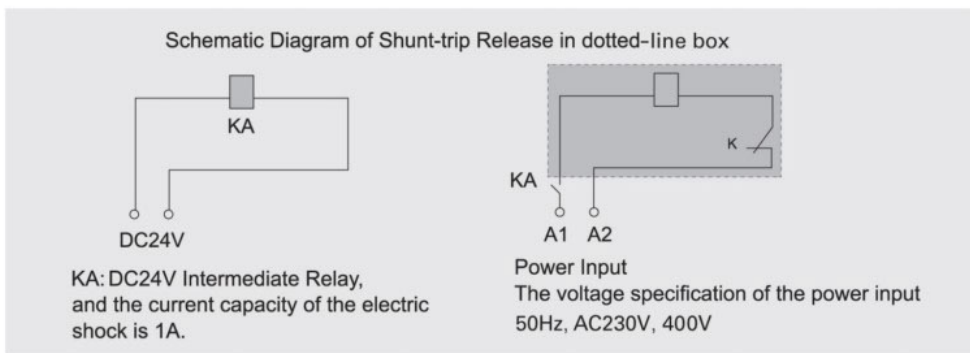
When the working voltage is between 70%-110% U_s , the shunt release will reliably trip the circuit breaker.

Applicable Type of Circuit Breaker	Power Consumption of Under-voltage Coil (W)			
	AC400V	AC230V	DC220V	DC24V
HDM6s63	91.6	76.1	90.7	91.2
HDM6s100	96.8	73	90.7	91.2
HDM6s250	112	68.6	90.7	85.3
HDM6s400	67	62.3	94.4	100
HDM6s630	68	58.2	94.4	100
HDM6s800	163	153	94.4	120

When the rated control supply voltage of the shunt release is DC24V, the maximum length of the copper conductor shall satisfy the following requirements:

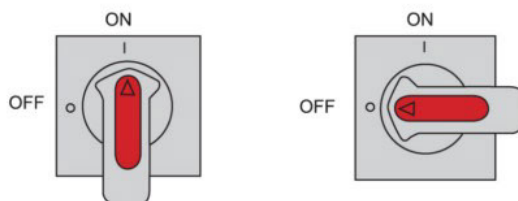
Control Supply Voltage (U_s) (DC24V)	Conductor Area Rated	
	1.5mm ²	2.5mm ²
100% U_s	150m	250m
85% U_s	100m	160m

When the requirements above cannot be met, it is recommended to adopt the following chart to design control loop of the shunt release.



Extended Rotary Handle

- Function: indication of the three positions of switch-on, switch-off and trip
- Residual earth-leakage fault. The circuit breaker cannot switch-on when the switch board door is open
- The door cannot be opened if the circuit breaker is ON
- An extension shaft that can be adjusted to the distance between the back of circuit breaker and door, the specific distance refers to the dimensions at the rear and the installation part
- The OFF-Position of the circuit breaker can hang 1-3 locks with the diameter of 5mm



HDM6s Molded Case Circuit Breaker

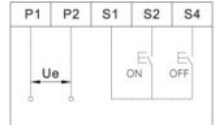
Standard: IEC/EN 60947-2



Complete Accessories of HDM6s Series

AC Motor Mechanism

Provide on-site and remote distance control circuit breaker to implement switch-on and switch-off



Mechanical Interlock

Prevent simultaneous switch-on of two sets of the circuit breakers



Phase Barriers

The phase barriers are used to reinforce isolation of connection points in installation with busbars whether insulated or not. We can easily install the phase barrier through the phase slot of this product Both the inlet and outlet line of HDM6s has phase barrier.



Connecting Accessories

Fixed, Rear Connection

Easy to install and connect the products in the Rear Connection



Plug-in

The wiring type is divided into plug-in Rear Connection and plug-in Front Connection

The plug-in connection for the products is easy for maintenance and replacement, but plug-in and plug-out cannot be done with the electricity.



Drawer-out Rear Connection

The drawer-out products can be easily maintained and replaced Visual connection and break-up.



HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Installation Location of Accessories Accessories of HDM6s Series

Installation Method for Tripping Release and Accessories Code



Name of Accessory	Product Type			
	HDM6s63/100/250	HDM6s400	HDM6s630	HDM6s800
Alarm Switch				
Shunt Release				
Auxiliary Contact				
Under-voltage Release				
Auxiliary Contact Shunt Release				
Shunt Release Under-voltage Release				
Auxiliary Contact Undervoltage Release				
Shunt-trip Release Alarm Switch				
Under-voltage Release Alarm Switch				
Shunt Release Auxiliary Contact Alarm Switch				
Auxiliary Contact Under-voltage Release Alarm Switch				

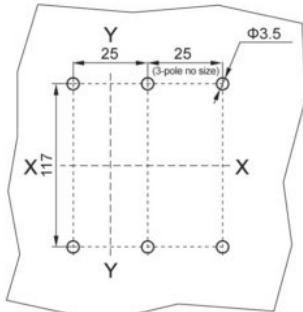
HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



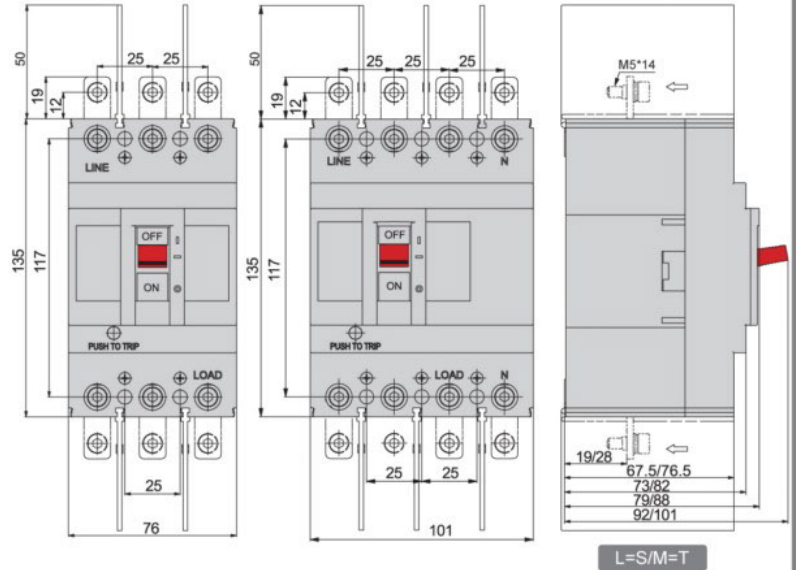
HDM6s63 Installation Dimension

- Chart of Fixed Front Connection Installation Hole

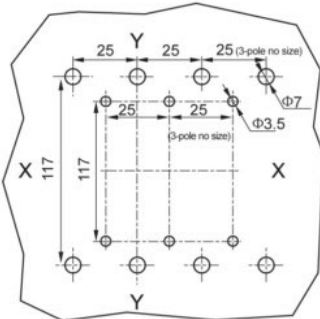


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

- Installation Dimension of Fixed Front Connection

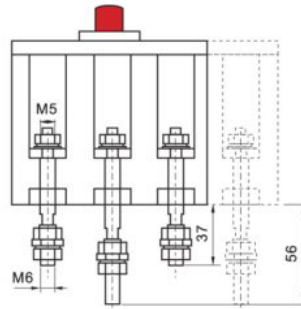


- Chart of Fixed Rear Connection Installation Hole

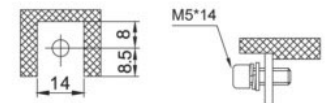


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

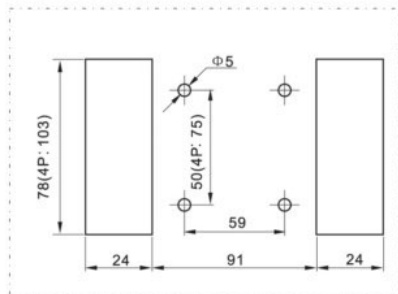
- Fixed Rear Connection Wiring



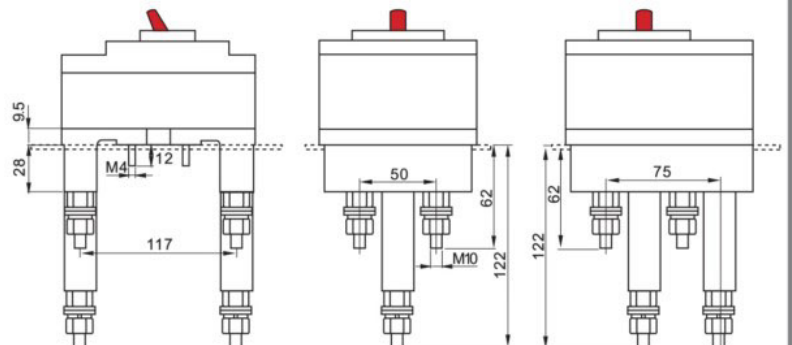
- Chart of Terminal Connection Installation Hole



- Chart of Plug-in Rear Connection Installation Hole



- Plug-in Rear Connection Wiring



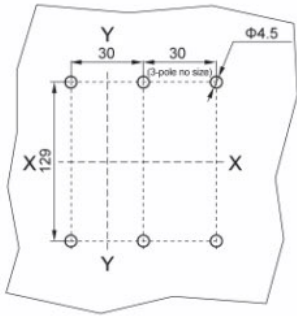
HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



HDM6s100 Installation Dimension

Chart of Fixed Front Connection Installation Hole



Remark: X-X, Y-Y is the center of 3-pole circuit breaker

Installation Dimension of Fixed Front Connection

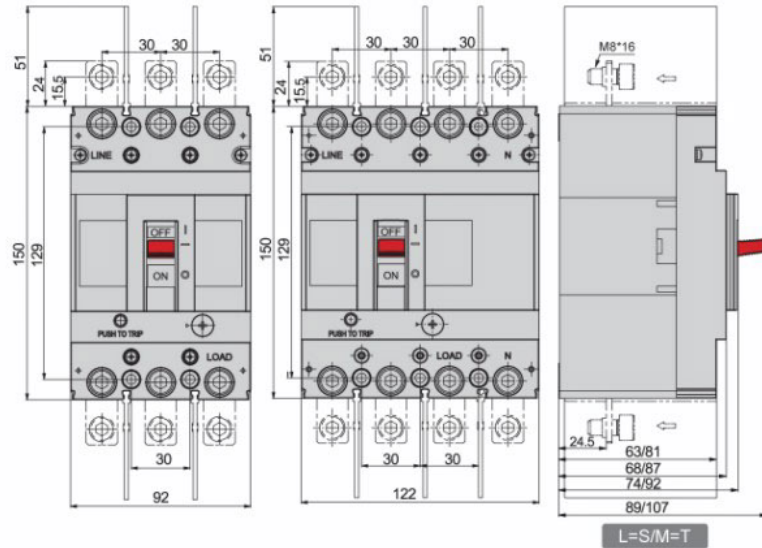
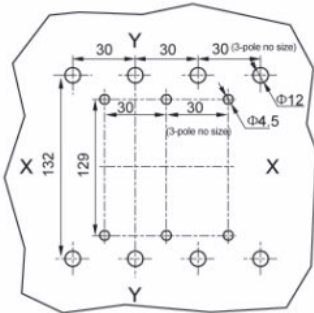


Chart of Fixed Rear Connection Installation Hole



Remark: X-X, Y-Y is the center of 3-pole circuit breaker

Fixed Rear Connection Wiring

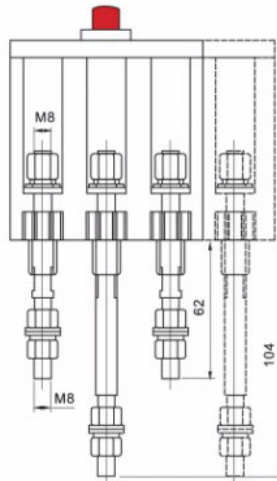


Chart of Terminal Connection Installation Hole

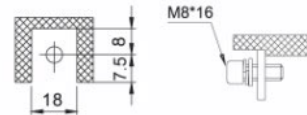
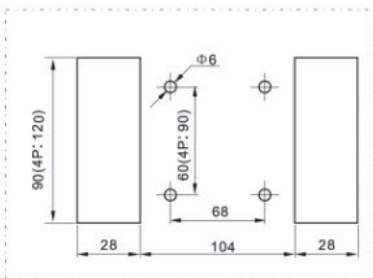
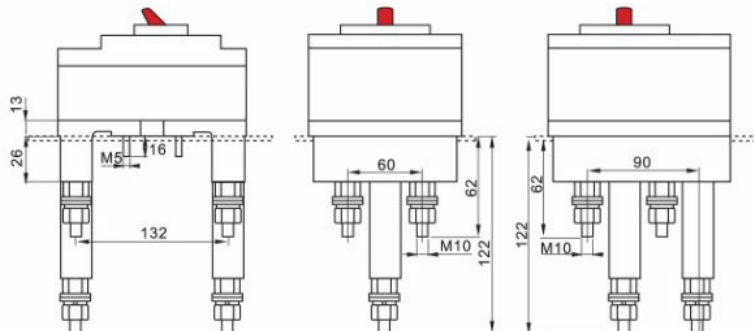


Chart of Plug-in Rear Connection Installation Hole



Plug-in Rear Connection Wiring



HDM6s Molded Case Circuit Breaker

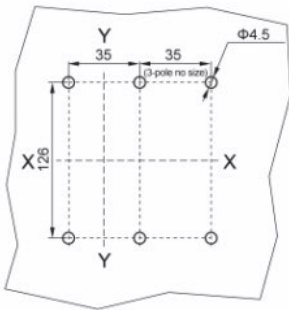
Standard: IEC/EN 60947-2



Low-voltage Distribution

HDM6s250 Installation Dimension

Chart of Fixed Front Connection Installation Hole



Remark: X-X, Y-Y is the center of 3-pole circuit breaker

Installation Dimension of Fixed Front Connection

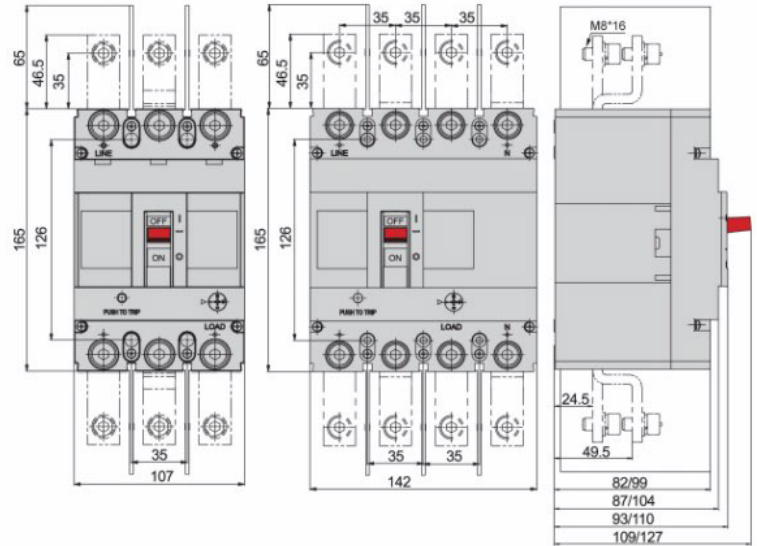
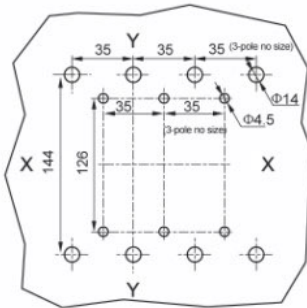


Chart of Fixed Rear Connection Installation Hole



Remark: X-X, Y-Y is the center of 3-pole circuit breaker

Fixed Rear Connection Wiring

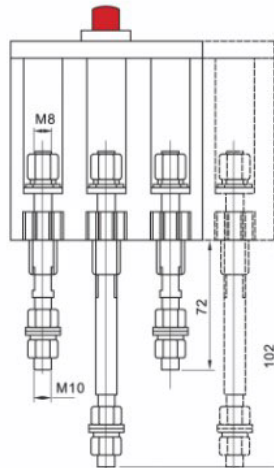


Chart of Terminal Connection Installation Hole

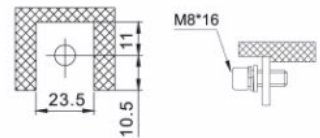
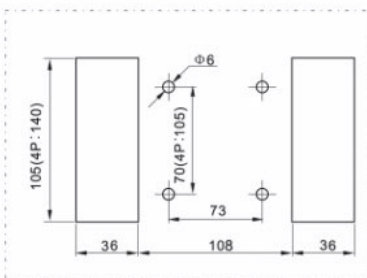
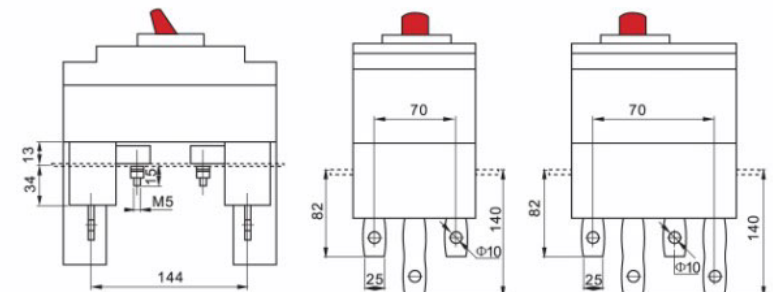


Chart of Plug-in Rear Connection Installation Hole



Plug-in Rear Connection Wiring



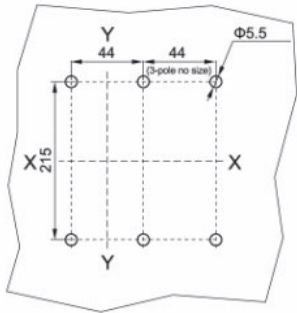
HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



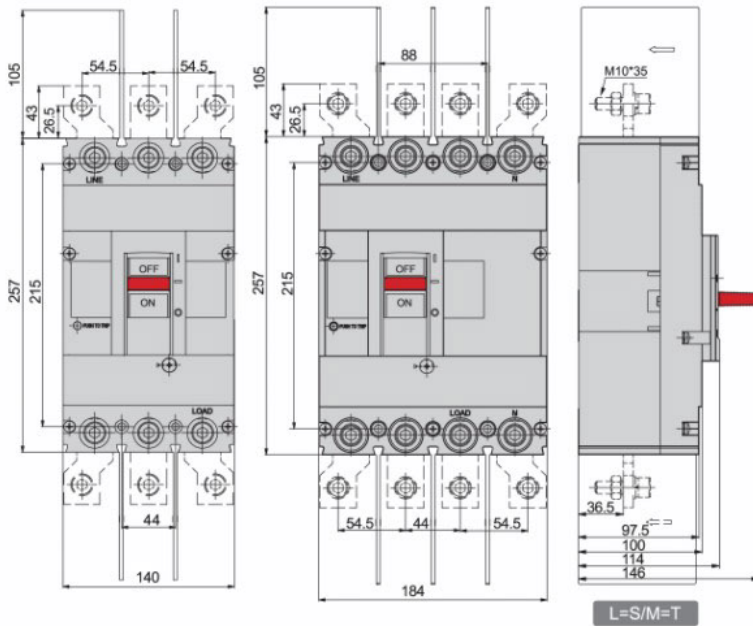
HDM6s400 Installation Dimension

● Chart of Fixed Front Connection Installation Hole

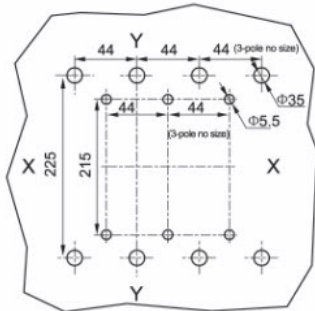


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

● Installation Dimension of Fixed Front Connection

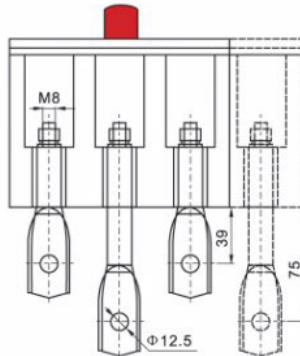


● Chart of Fixed Rear Connection Installation Hole

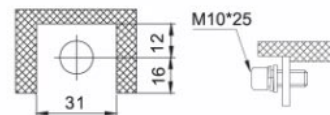


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

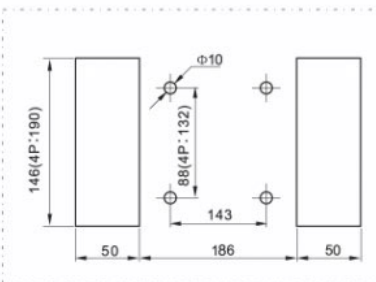
● Fixed Rear Connection Wiring



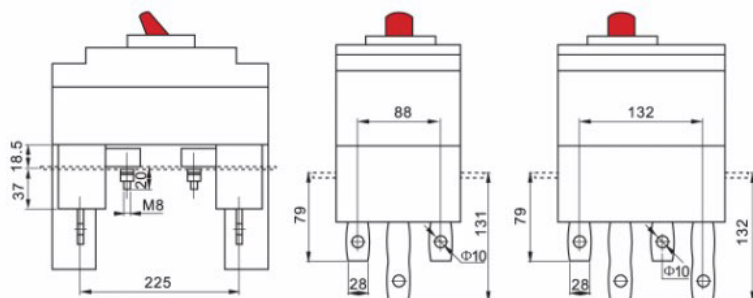
● Chart of Terminal Connection Installation Hole



● Chart of Plug-in Rear Connection Installation Hole



● Plug-in Rear Connection Wiring



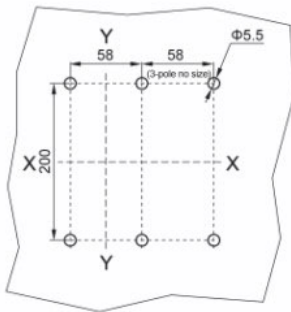
HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



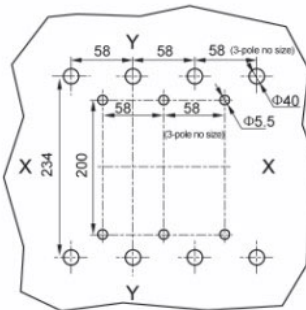
HDM6s630 Installation Dimension

Chart of Fixed Front Connection Installation Hole



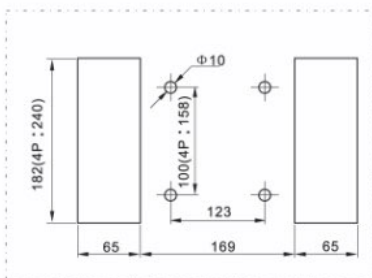
Remark: X-X, Y-Y is the center of 3-pole circuit breaker

Chart of Fixed Rear Connection Installation Hole

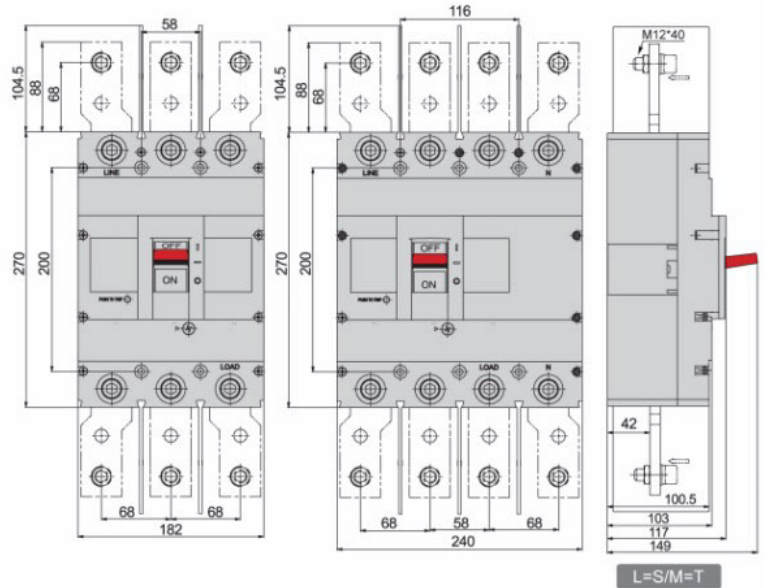


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

Chart of Plug-in Rear Connection Installation Hole



Installation Dimension of Fixed Front Connection



Fixed Rear Connection Wiring

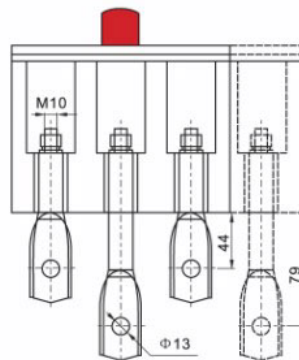
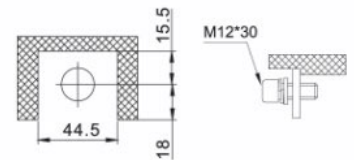
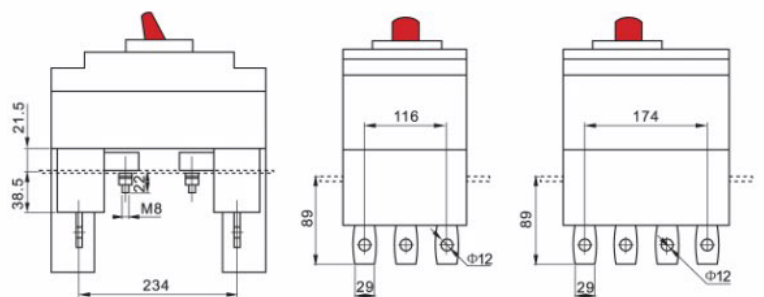


Chart of Terminal Connection Installation Hole



Plug-in Rear Connection Wiring



HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2

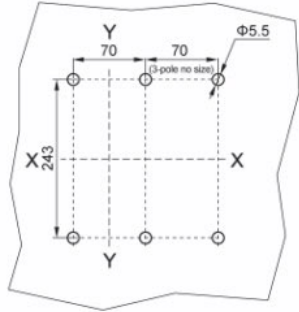


Low-voltage Distribution



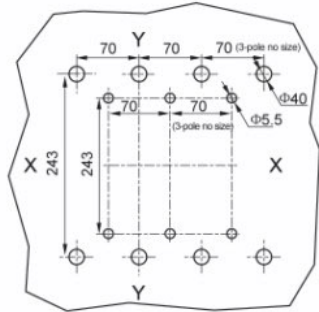
HDM6s800 Installation Dimension

Chart of Fixed Front Connection Installation Hole



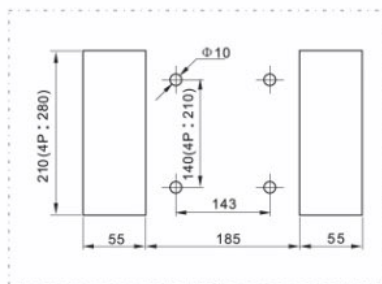
Remark: X-X, Y-Y is the center of 3-pole circuit breaker

Chart of Fixed Rear Connection Installation Hole

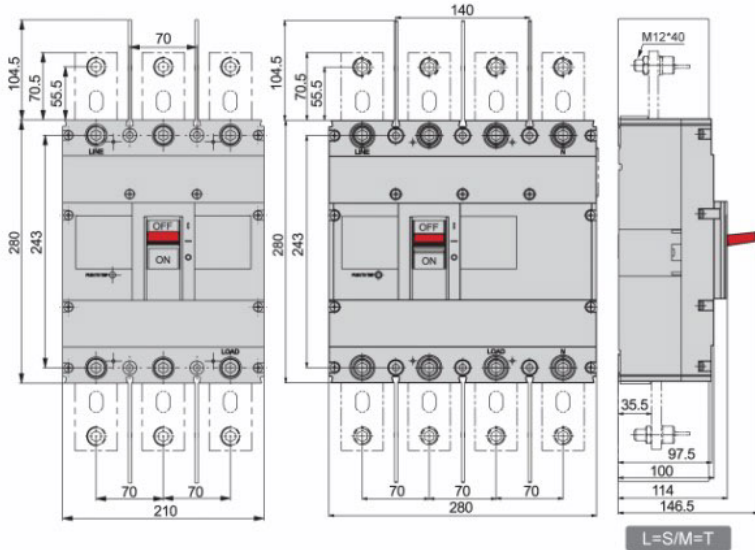


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

Chart of Plug-in Rear Connection Installation Hole



Installation Dimension of Fixed Front Connection



Fixed Rear Connection Wiring

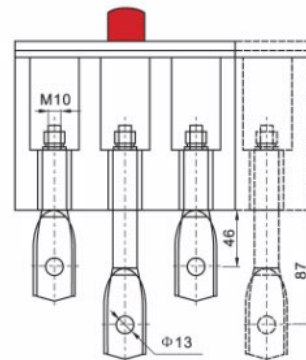
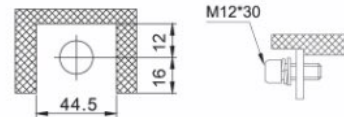
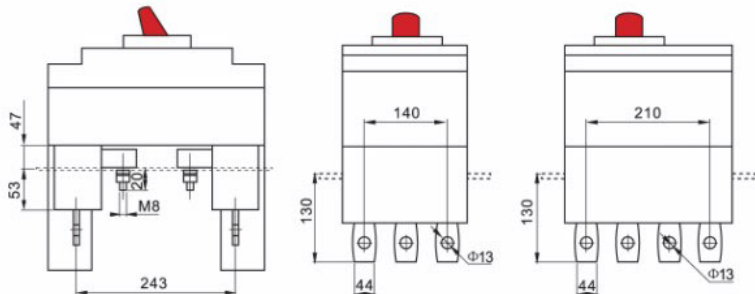


Chart of Terminal Connection Installation Hole



Plug-in Rear Connection Wiring



HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Low-voltage Distribution

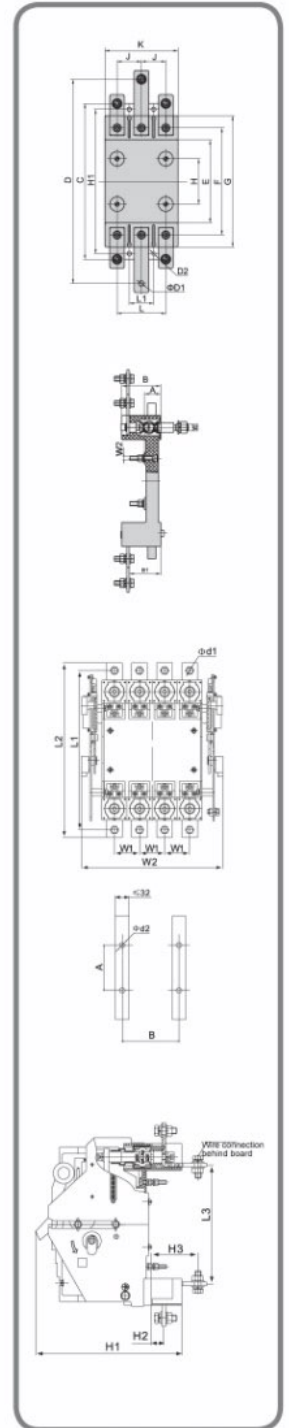
Plug-in Front Connection Installation Dimension (HDM6s100 and HDM6s250)

Equipped with Circuit Breaker	Pole No.	Appearance and Installation Dimension (mm)								
		A	B	B1	C	D	E	F	G	H
HDM6s100	3P	20	48	39	195	252	102	132	162	56
	4P	20	48	39	195	252	102	132	162	56
HDM6s250	3P	23	53	42	204	304	108	144	180	54
	4P	23	53	42	204	304	108	144	180	54

Equipped with Circuit Breaker	Pole No.	Appearance and Installation Dimension (mm)								
		H1	J	K	L	L1	M1	M2	Φd1	d2
HDM6s100	3P	178	30	90	60	30	M8	M5	Φ6.5	M5
	4P	178	30	120	90	60	M8	M5	Φ6.5	M5
HDM6s250	3P	196	35	107	70	35	M8	M5	Φ8.5	M5
	4P	196	35	142	105	70	M8	M5	Φ8.5	M5

Plug-in Front Connection Installation Dimension (HDM6s100 and HDM6s250)

Equipped with Circuit Breaker	Pole No.	Appearance Dimension (mm)									Installation Dimension		
		L1	L2	L3	H1	H2	H3	W1	W2	Φd1	A	B	Φd2
HDM6s400	3P	311	340	205	253	17.5	77	44	211	Φ11	88	141	Φ6.5
	4P	311	340	205	253	17.5	77	44	255	Φ11	132	141	Φ6.5
HDM6s630	3P	341	381	211	282	17.5	92	58	253	Φ13	116	140	Φ6.5
	4P	341	381	211	282	17.5	92	58	311	Φ13	174	140	Φ6.5
HDM6s800	3P	367	410	241	238	26	73	70	289	Φ13	140	131	Φ6.5
	4P	367	410	241	238	26	73	70	359	Φ13	210	131	Φ6.5



HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2

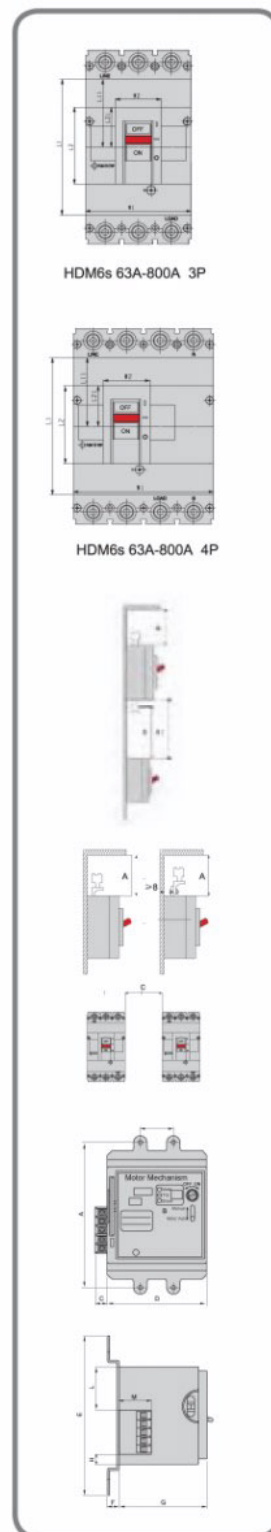


Low-voltage Distribution



HDM6s 63A-800A Fixed and Plug-in Circuit Breaker Connection Hole-opening Dimension

Type of Circuit Breaker	Pole No.	Exposure of Front Cover and Pull-out Handle			Exposure of Pull-out Handle Only		
		W1	L1	L11	W2	L2	L21
HDM6s63	3P	76	77	38.5	29	53	27
	4P	101	77	38.5	29	53	27
HDM6s100	3P	92	88	42	35	60	30
	4P	122	88	42	35	60	30
HDM6s250	3P	107	102	51	35	60	30
	4P	142	102	51	35	60	30
HDM6s400	3P	140	180	90	61	102	53
	4P	184	180	90	61	102	53
HDM6s630	3P	182	180	90	65	102	53
	4P	240	180	90	65	102	53
HDM6s800	3P	210	200	100	65	102	51
	4P	280	200	100	65	102	51



Safety Distance

Type of Circuit Breaker	A (mm)	B (mm)	B1 (mm)	C (mm)
HDM6s63	60	60		30
HDM6s100	60	60		30
HDM6s250	60	60	Length of Exposed	30
HDM6s400	110	110	Conductor + B	70
HDM6s630	110	110		70
HDM6s800	110	110		70

Remark: The distance between the products must meet the requirements of C distance even if products have accessories

Installation Dimension

AC Motor Mechanism

Type of Circuit Breaker	A	B	C	D	E	F	G	H	L	M
HDM6s63	117	25	11	76	128	2	80	8.5	38.5	28.5
HDM6s100	129	30	11	90	144	14	80	8.5	38.5	28.5
HDM6s250	126	35	11	104	138	13	80	8.5	38.5	28.5
HDM6s400	215	44	11	140	232	22	112	12	97.5	28.5
HDM6s630	200	58	11	140	216	17	112	12	97.5	28.5
HDM6s800	243	70	11	150	260	16	112	12	97.5	28.5

HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Low-voltage Distribution

HDM6s 63-800 Frame (3P) Mechanical Interlock Dimension

Type of Circuit Breaker	Breaking Capacity Level	A	B	C	D	E	F	G	H
HDM6s63	L, S	80	116.5	181	100	67.5	38	35.5	29
	M, T	80	116.5	181	100	76.5	38	35.5	29
HDM6s100	L, S	90	117	212	103	62.5	38	47	28
	M, T	90	117	212	103	81	38	47	28
HDM6s250	L, S	99	136	241	143	91.5	38	46	27
	M, T	99	136	241	143	99	38	46	27
HDM6s400	L/S/M/T	40	190	309.5	215	97.5	43	57	29.5
HDM6s630	L/S/M/T	62	239	415.5	199.5	100	43	55	51.5
HDM6s800	L/S/M/T	51	241	459	243	97.5	45.5	55	39



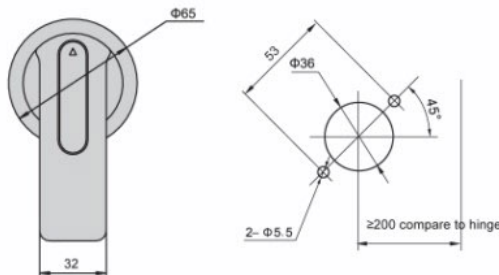
HDM6s 63-800 Frame Extension Rotary Handle Base Dimension

Type of Circuit Breaker	C	D	E	H	K
HDM6s63	25	50	50	52	20
HDM6s100	30	51.5	51.5	54	20
HDM6s250	35	71.5	71.5	56	20
HDM6s400	44	107.5	107.5	76	20
HDM6s630	58	100	1100	74	20
HDM6s800	70	121.5	121.5	76	20

Remark: The shortest distance of G connecting rod is 50mm, and ex-factory standard configuration is 150mm. Please contact the factory if special customization is required

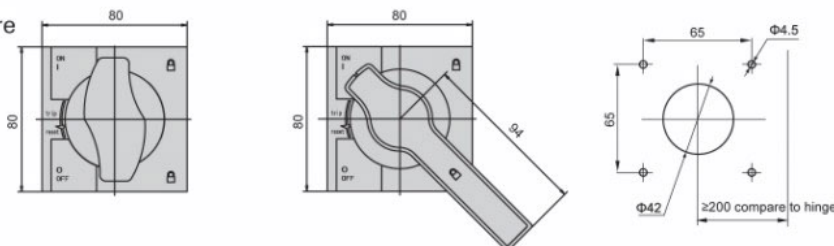
HDM6s 63-800 Frame Extension Rotary Handle

Round



HDM6s63, HDM6s100 and HDM6s250 is 65 or 95 for option, the default value is 65
 HDM6s400, HDM6s630 and HDM6s800 is 95 or 125 for option, the default value is 95

Square



HDM6s63, HDM6s100, HDM6s250 HDM6s400, HDM6s630, HDM6s800

Remark: For the Extension Rotary Handle accessory of HDM6s63, HDM6s100, and HDM6s250, there are L & M two different types.

HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2



Impact of High Temperature on Tripping Release Performance

When environmental temperature is over 40°C, small changes will impact overload protection properties. In tripping release time/current curve, the Ir setting value of the circuit breaker must be corrected as per the following factors:

Type of Circuit Breaker	Ambient Temperature °C				
	40	45	50	55	60
HDM6s63	1	0.94	0.88	0.80	0.72
HDM6s100	1	0.95	0.89	0.84	0.76
HDM6s250	1	0.95	0.91	0.87	0.82
HDM6s400	1	0.94	0.87	0.81	0.73
HDM6s630	1	0.93	0.88	0.83	0.76
HDM6s800	1	0.88	0.83	0.79	0.76



Impact of Altitude on Tripping Release Performance

No impact on the performance of the circuit breaker when the height is below 2000m. When it is over 2000m, please refer to following factors of air insulation properties and cooling capability. The correction factors in the table below are applicable for the conditions of the height of installation over 2000m, the breaking capacity of the circuit breaker remains unchanged.

Altitude (m)	2000	3000	4000	5000
40°C Thermal Rated Value (A)	In	0.96In	0.93In	0.9In
Average Isolation Voltage (V)	800	700	600	500
Dielectric Strength (V)	3000	2500	2100	1800

3-Pole (W) Total Power Loss

Type of Circuit Breaker	Power-up Current	Front Connection Wiring (Standard)	Rear Connection Wiring	Plug-in Wiring
HDM6s63	63A	26	29	29
HDM6s100	100A	40	50	50
HDM6s250	250A	63	90	90
HDM6s400	400A	103	110	130
HDM6s630	630A	160	190	220
HDM6s800	800A	200	230	290

HDM6s Molded Case Circuit Breaker

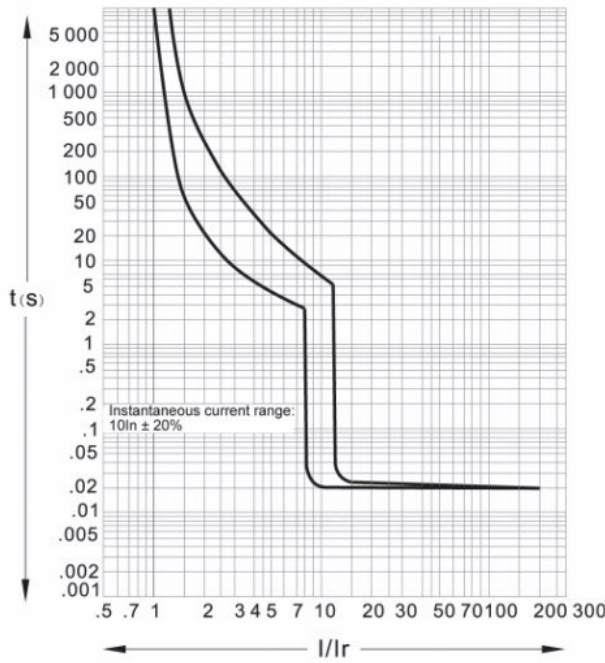
Standard: IEC/EN 60947-2



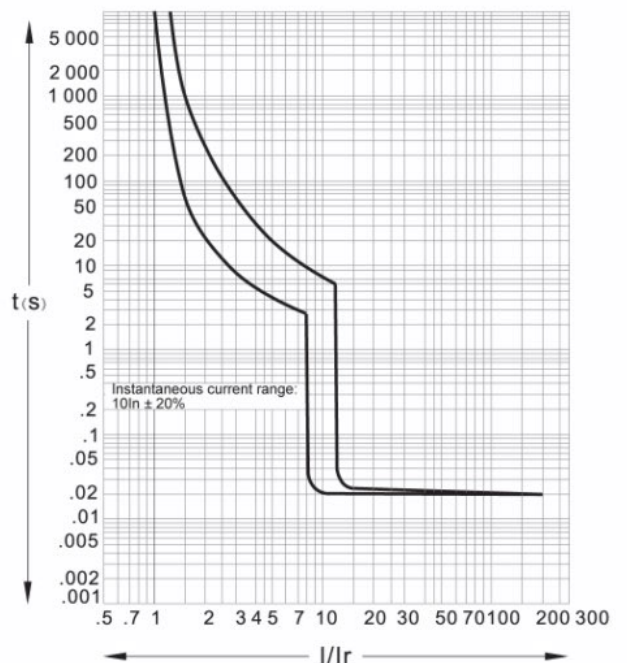
Low-voltage Distribution

Trip Curve

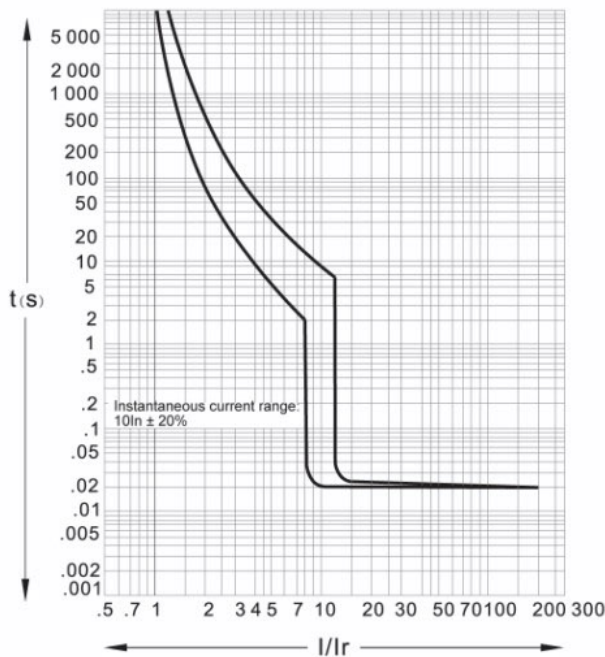
• HDM6s63 10A-63A, the black line is used for the distribution.



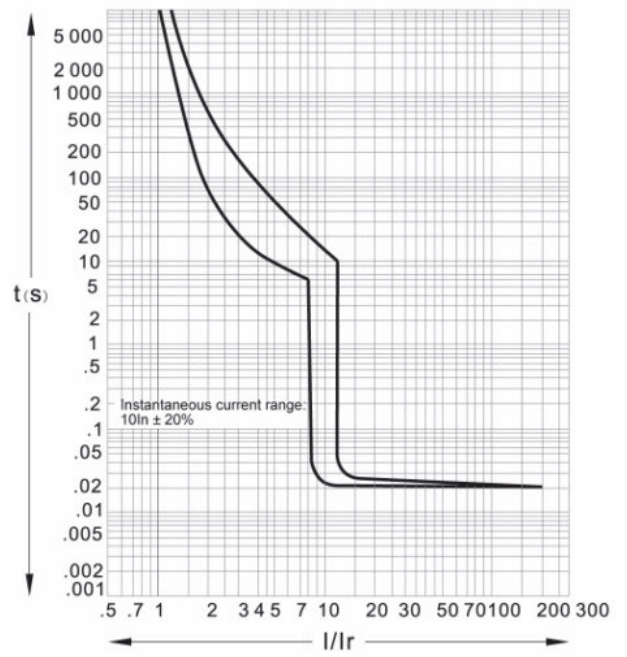
• HDM6s100 16A-50A, the black line is used for the distribution.



• HDM6s100 63A-100A, the black line is used for the distribution.



• HDM6s250 100A-250A, the black line is used for the distribution.



HDM6s Molded Case Circuit Breaker

Standard: IEC/EN 60947-2

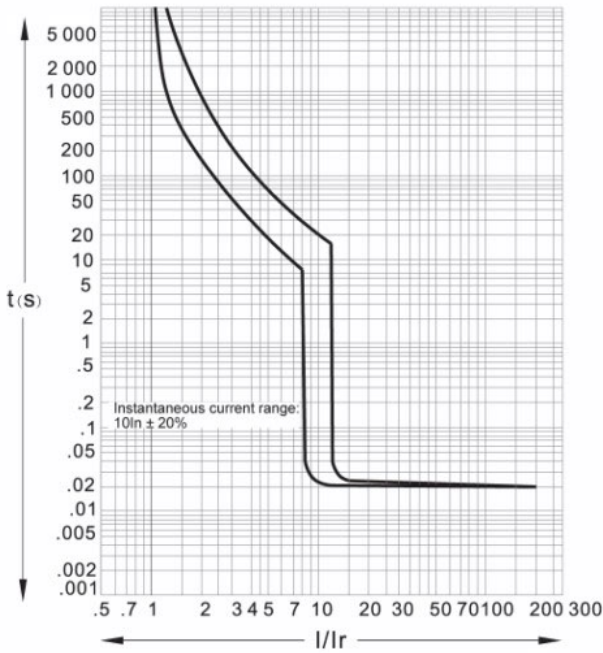


Low-voltage Distribution

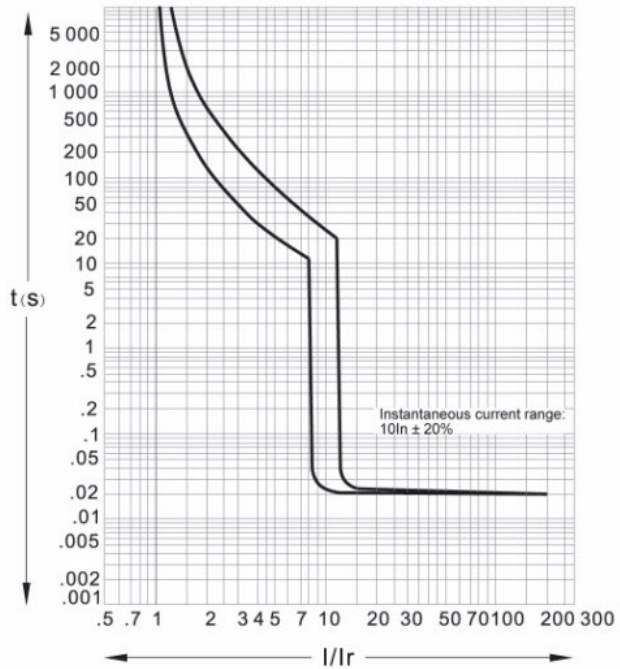


Trip Curve

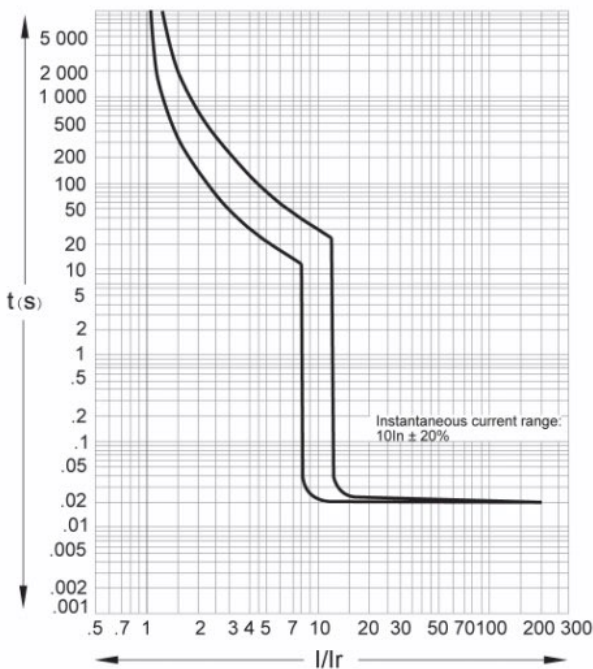
- HDM6s400 200A-400A, the black line is used for the power distribution.



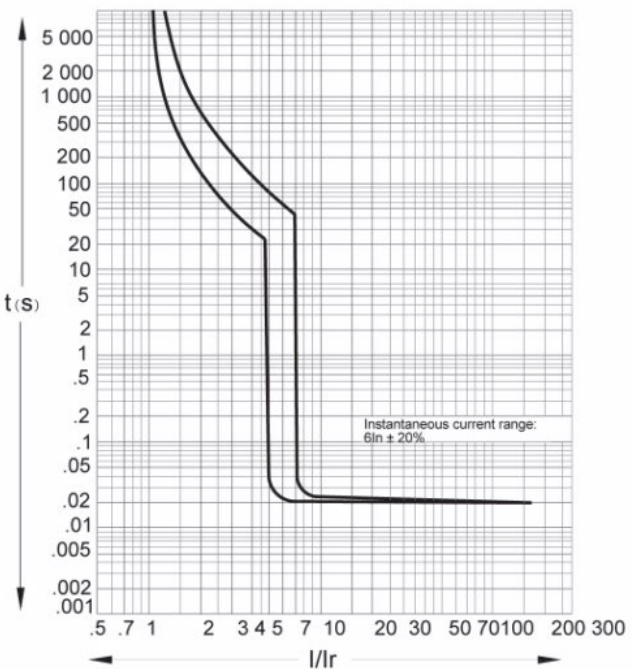
- HDM6s630 400A-630A is used for the power distribution.



- HDM6s800 400A-630A is used for the power distribution.



- HDM6s800 700A-800A is used for the power distribution.



HDM3E Molded Case Circuit Breaker(Electronic)

Product selection
Standard:IEC/EN 60947-2



Reference **HDM3E125M12533XXP7**

HD	M3E	125	M	125	3	3	XX
Code	A	B	C	D	E	F	G
	Product	Frame Current	Breaking Capacity	Rated Current	Pole	Tripping Type	Product accessory
Description	HDM3E	125	M	125	3	3	XX

HDM3E	125: 125A 250: 250A 400: 400A 630: 630A 800: 800A 16X: 1600Aⁱⁱ	M: 50kA	125: 125A 250: 250A 400: 400A 630: 630A 800: 800A 16X: 1600A	3: 3 Pole C: 4 Pole(with tripping release, N phase can open and close) D: 4 Pole(without tripping release, N phase connection directly)	3: Electronic tripping	XX:No accessory 08:Alarm 10:Shunt release ⁴ⁱ 18:Shunt release+alarm ⁴ⁱ 20:Single auxiliary 28: Auxiliary alarm 30:Under-voltage release ⁴ⁱ 38:Under-voltage release+alarm ⁴ⁱ 40:Shunt release+Single auxiliary ⁴ⁱ 48:Shunt release+Auxiliary alarm ⁴ⁱ 50:Shunt release+Under-voltage release 60:Double auxiliary(2K2B) 68:Single auxiliary+auxiliary alarm 70:Under-voltage release+Single auxiliary ⁴ⁱ 78:Under-voltage release+auxiliary alarm ⁴ⁱ 80:Shunt release+double auxiliary ⁴ⁱ 90:Undervoltage release+double auxiliary ⁴ⁱ
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- means specail use for 125~800 frame
- means application for all frame
- means specail use for 1600 frame

Example:

- | | |
|---------------------|---|
| HDM3E125M12533XX | HDM3E-125M 3P |
| HDM3E400M4003350 | HDM3E-400M 3P shunt release/undervoltage release AC400V |
| HDM3E16XM16X33XX | HDM3E-1600M 3P power module AC400V |
| HDM3E16XM16X3350AP7 | HDM3E-1600M 3P shunt release/power module/undervoltage release/motor mechanism AC230V |



HDM3E Molded Case Circuit Breaker(Electronic)

Product Features

Standard:IEC/EN 60947-2



-			P	B	-	
H			J	L	M	N
Accessory voltage			Operation Type	Motor Mechanism	Installation Type	Temperature
Code	MX/ Power module	MN	Defult	Motor Mechanism/ Closeing release voltage		Defult
Default	AC400V	AC400V	Default:manual operate	Default: -/-	-/-	Defult: 40 C
A	AC230V	AC230V	P: motor mechanism	4:DC24V	B:Fixed rear	T: 50 C
B	DC24V	-/-	Z: rotation manual operate [®]	7:AC230V	F:Plug-in front [®]	
D	AC400V	AC230V		0:AC400V	R:Plug-in rear [®]	
E	DC24V	AC230V		C:DC110V	D:Draw-out [®]	
F	AC230V	AC400V		F:DC220V		
H	DC24V	AC400V				
I	DC110V	-/-				
J	DC220V	-/-				
K	DC110V	AC230V				
L	DC110V	AC400V				
M	DC220V	AC230V				
N	DC220V	AC400V				

Remark:

- 1) Can choose the product reference according to above table.
- 2) 1600 AF standard offer:power module,default voltage:400V; Auxiliary contact 2open2close; Alarm contact; 3E-1600 controller; Interphase barriers 3) 125~800 AF inter accessory is standard offer with wiring(length 600mm) except undervoltage release(with terminal), if need other length or with terminal, please remark.
- 4) General product offer: interphase barriers, installation screw.
- 5) There is no withdrawable connection product of 125/250 frame, and 400/630 frame don't have plug-in front connection product.
- 6) The default horizontal outlet bar is equipped for plug-in front connection product.
- 7) Please derating to 500A when choose plug-in rear connection and withdrawable connection of 630 frame, and must adjust the max setting current Ir=500A.

HDM3E Molded Case Circuit Breaker(Electronic)

Product selection
Standard:IEC/EN 60947-2



Product Features

Standard

- IEC 60947-1
- IEC 60947-2

Using Environment

Pollution degree: Class III
IEC 60947-1 and IEC 60664-1 standard defined environment(industry environment)
Rated working voltage to the ground is 600V, available for environment IV(power inlet line)

Wet and heat resistance

Dry cold,Dry heat andWet heat

Environment temperature

- Operating temperature: -5 degree~50 degree, average temperature don't exceed 35 degree in 24h. (Note: when you need to use this product in -35~-5℃ and +50~+70℃ , please refer to derating temperature table)
- Storage temperature:-40℃ ~70℃

Altitude

- Normal installtion site do not exceed 2000m
- If altitude exceeds 2000m,must consider change factors of dielectric strength and air temperature drop. (Suggest breaking capacity derating 25%, rated impulse withstand voltage derating(12 kV reduce to 8kV, 8kV to 6kV); Rated insulation voltage derating(1000V reduce to 800V, 800V reduce to 690V)

Humidity

Normal operation conditions:

- If ambient air temperature is +40 ,the relative atmosphere humidity do not exceed 50%.
The product can be used at high relative humidit if the temperature is lower.
- The wettest month of average relative humidity is 90%.
- The condensation impact on the product surface shall be considered.

Reliable contact indicate with isolating function

HDM3E series complies with the isolation defined in IEC 60947-2

- The isolated location show O(OFF)
- The operating handle can indicate "OFF",when the contacts are really opened.
- Rotate handle and motor mechanism can not change the reliability of contact indicate system.Through testing,the isolating function must safe and reliable.

Protection class

- Circuit breaker body: IP 20
- Circuit breaker installed in switch cabint:
With toggle handle: IP 40
With motor mechanism: IP 40



HDM3E Molded Case Circuit Breaker(Electronic)

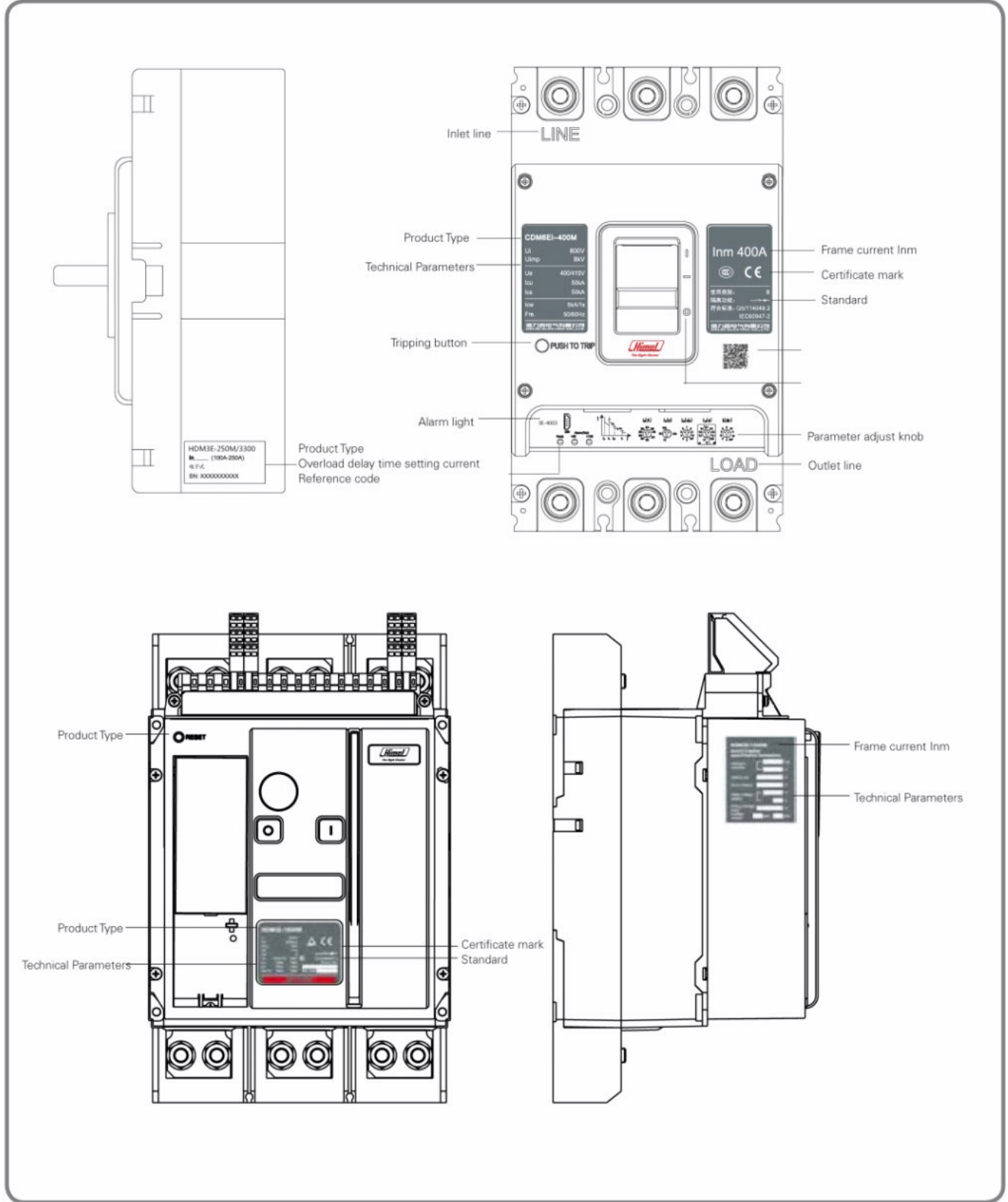
Product Features

Standard:IEC/EN 60947-2



Low-voltage Distribution

Nameplate Description







































HDM3E Molded Case Circuit Breaker(Electronic)

Product selection

Standard:IEC/EN 60947-2



Technical parameters

		HDM3E-125	HDM3E-250
Rated Voltage Ue (V)		400/415	400/415
Rated Insulation Voltage Ui (V)		800	800
Rated Impulse withstand Voltage Uimp (V)		8000	8000
Rated Frequency (HZ)		50	50
Frame Current(A)		125	250
Pole(3/4P)		3/4	3/4
Use Category		A	A
Breaking capacity	Breaking Class	M	M
	Icu (kA) AC 400/415V	50	50
	Ics (kA) AC 400/415V	50	50
	Icw (kA)	2.5 (1s)	2.5 (1s)
Mechanical life	With maintenance	10000	10000
	Without maintenance	7000	70000
Electrical life	AC 400/415V	1000	1000
Protection type	Power Distribution Protection		
	Motor Protection		
Tripping	Electronic tripping protection method	LSI	LSI
Wring mode	Fixed front connection		
	Fixed rear connection		(screw type)
	Plug-in front connection		
	Plug-in rear connection(horizontal)		
	Withdrawable ²⁾	-	-
Product accessories	Under-Voltage release		
	Shunt release		
	Alarm contact		
	Auxiliary contacts(1 open 1 close)		
	Auxiliary contacts(2 open 2 close)		
	AC/DC motor mechanism		
	Round direct manually handle		
	Square direct manually handle		
	Round extended manually handle		
	Square extended manually handle		
	Interphase barriers		
Self-installation for Accessories			
Isolating Function			
Certificate		TUV/CE	TUV/CE

Notes: 1) Product rear horizontal connection can be revised to vertical connection, refer to P40.

2) Product rear horizontal connection can be revised to fixed front connection and rear vertical connection, refer to P43.



HDM3E Molded Case Circuit Breaker(Electronic)

Product Features

Standard:IEC/EN 60947-2



HDM3E-400	HDM3E-630	HDM3E-800	HDM3E-1600
400/415	400/415	400/415	400/415
800	800	1000	1000
8000	8000	12000	12000
50	50	50	50
400	630	800	1600
3/4	3/4	3/4	3/4
B	B	B	B
M	M	M	M
50	50	50	50
50	50	50	50
5 (1s)	8 (1s)	10 (1s)	42 (1s)
7000	7000	5000	1500
4000	4000	2500	500
1000	1000	500	500
LSI	LSI	LSI	LSIG
(Horizontal)) ¹³	(Horizontal)) ¹³	(Horizontal)) ¹³	-
-	-	-	-
(Horizontal)) ²³	(Horizontal)) ²³	(Horizontal)) ²³	-
			-
TUV/CE	TUV/CE	TUV/CE	TUV/CE

HDM3E Molded Case Circuit Breaker(Electronic)

Controller Parameters(125-800AF)
Standard:IEC/EN 60947-2



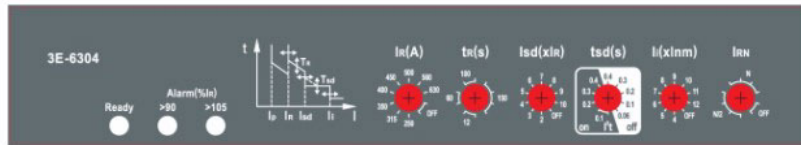
HDM3E series controller function and features

HDM3E-125~800

3P controller



4P controller



Controller Description

I_R :Overload long delay setting current
 I_{sd} :Short-circuit short delay setting current
 I_i :Short-circuit instantaneous setting current
Ready :Run light
> 90% I_R :pre-alarm light

t_R :Overload long delay setting time
 t_{sd} :Short-circuit short delay setting time
 I_{RN} :Short-circuit short delay setting time
Alarm :Alarm light
> 105% I_R :Overload alarm light

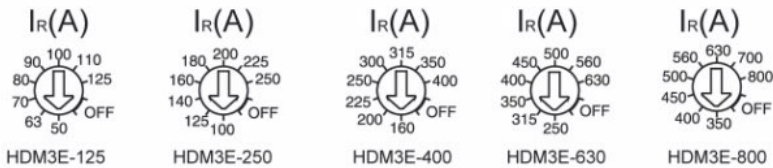
LSI three section protection curve



1) Overload long delay setting current I_R

Adjust I_R knob, can select the different current value of HDM3E, to satisfy the rated operating current requirement of different electrical wiring.

Following sketch is the adjust knob: I_R



Product Type	Overload long delay current protection feature setting value I_R (A)	Remark
HDM3E-125	50,63,70,80,90,100,110,125	OFF means close overload long delay protection
HDM3E-250	100,125,140,160,180,200,225,250	OFF means close overload long delay protection
HDM3E-400	160,200,225,250,300,315,350,400	OFF means close overload long delay protection
HDM3E-630	250,315,350,400,450,500,560,630	OFF means close overload long delay protection
HDM3E-800	350,400,450,500,560,630,700,800	OFF means close overload long delay protection

HDM3E Molded Case Circuit Breaker(Electronic)

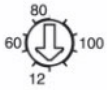
Controller Parameters(125-800AF)

Standard:IEC/EN 60947-2



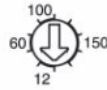
2) Overload long delay setting time t_R

$t_R(S)$



HDM3E-125/250

$t_R(S)$



HDM3E-400/630/800

t_R Action time @ $2I_R$

The following table is action value corresponding for different overload long delay time when the fault current is $1.5I_R$, $2I_R$, $6I_R$

Actual Current	Action time to different knob t_R (s), accuracy $\pm 10\%$, $t = (2I_R/I)^2 \times t_R$				
	12	60	80	100	150
$1.5I_R$	21.3	106.7	142.2	177.8	266.7
$2I_R$	12	60	80	100	150
$6I_R$	1.33	6.67	8.89	11.11	16.67

As example of HDM3E-400 product, how to set the overload long delay setting current and time. If select I_R 300, T_R is 60.

When overload current is $1.5I_R$ (450A), the range of overload action time is $106.7 \pm 10.67s$.

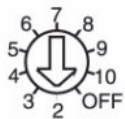
When overload current is $2I_R$ (600A), the range of overload action time is $60 \pm 6s$.

.When overload current is $6I_R$ (1800A), the range of overload action time is $6.67 \pm 0.667s$.

It is the same theory for the other section knob value.

3) Short-circuit short delay setting current I_{sd}

$I_{sd}(\times I_R)$

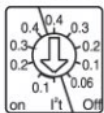


Selection knob of short-circuit short delay setting current I_{sd} : 2 3 4 5 6 7 8 9 10 OFF

Setting current I_{sd} value is the tap position of $\times I_R$ (can adjust by overload tripping current setting value) OFF means close the action option of short-circuit short delay time .

4) Short-circuit short delay setting time t_{sd}

$t_{sd}(S)$



Short time delay protection is used to ensure the selectivity coordination with the downstream circuit breakers. There are I^2t ON (inverse time limit) and I^2t OFF (fixed time limit) two type. The following table is the value of short delay tripping time t_{sd} : $t = (8I_{sd}/I)^2 \times t_{sd}$

t_{sd} action time @ $8I_{sd}$

I^2t ON @ $8I_{sd}$	Setting time $t_{sd}(s)$	-	0.1	0.2	0.3	0.4
	$I > 8I_{sd}$ delay time(s)	-	0.1	0.2	0.3	0.4
I^2t OFF	Setting time $t_{sd}(s)$	0.06	0.1	0.2	0.3	0.4
	Return time(ms)	20	80	140	230	350
	Max break time(ms)	100	140	220	320	500

As example of HDM3E-250, how can do set inverse time limit setting time of short-circuit short delay.

If I_R is selected 200, I_{sd} is selected on $2 \times I_R$ position, t_{sd} is selected I^2t ON, t_{sd} is selected on 0.2 position When short-circuit current is $2 \times I_R$ (400A), the short-circuit short time delay action time is 3.2s.

Note: when $I_R = OFF$, short-circuit short delay action current I_{sd} is matching to I_{nm} .

HDM3E Molded Case Circuit Breaker(Electronic)

Controller Parameters(125-800AF)
Standard:IEC/EN 60947-2



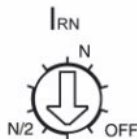
5) Short-circuit Instantaneous setting current $I_i (\times I_{nm})$

$I_i (\times I_{nm})$



Short-circuit Instantaneous setting current $I_i (\times I_{nm})$	HDM3E-125/250 /400/630/800	(4,5,6,7,8,9,10,11,12,OFF) $\times I_{nm}$
---	----------------------------	--

6) Neutral phase setting protection $I_{RN} (\times I_R / I_{nm})$



Setting current I_{RN} value selected knob is $\times I_R / I_{nm}$. Neutral phase protection is special for 4 poles circuit breakers. There are three type:

- OFF: Close neutral phase protection function, used for power distribution system without neutral protection situation
- N/2: Used for neutral phase wiring conductor cross-section equal to half of phase line of power distribution system long time delay, short time delay are also equal to the 1/2 of setting value of phase line protection in this status
- N: Used for neutral phase wiring conductor cross-section equal to phase line of power distribution system long time delay, short time delay instantaneous setting value are also equal to setting value of phase line protection in this status.

Note: When I_R is OFF, controller will automatically use the basic reference(I_{nm}) current as the neutral phase protection

7) Cotroller working status indicate

Following table is status of Run indicate light(Ready), Alarm indicate light(Alarm):

Run status	Ready	Alarm		Remark
	Green	Yellow	Red	
Normal	Blink	Extinguish	Extinguish	$I < 0.9I_R$
Pre-alarm	Blink	Blink	Extinguish	$0.9I_R \leq I \leq I_R$
Tripping	Extinguish	Extinguish	Extinguish	$1.05I_R < I$

Note:

- 1, I is current of main circuit, I_R is overload long time delay setting current value.
- 2, When yellow light blink, that means intelligent controller had worker on overload long time delay, setting parameters on the controller board is unavailable in this process.

HDM3E Molded Case Circuit Breaker(Electronic)

Controller Parameters(125-1600AF)
Standard:IEC/EN 60947-2

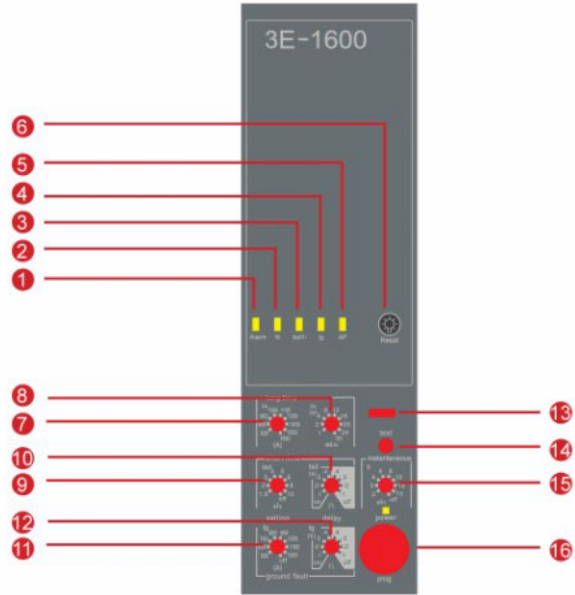


3E Controller Function and Characteristics

3E-1600(Basic type)

Indicate and button description

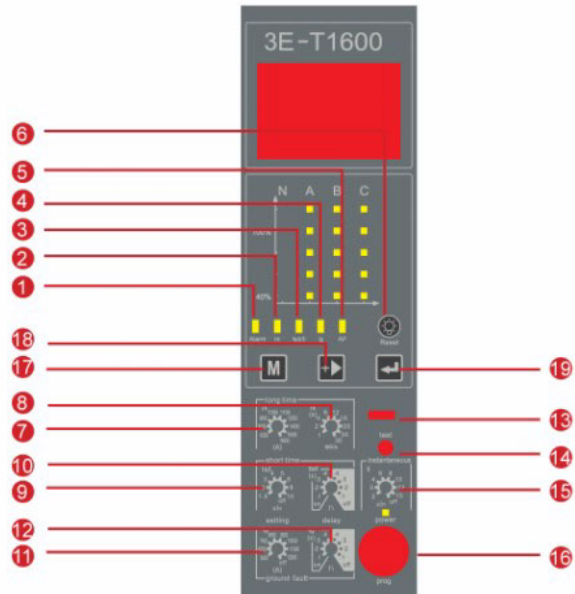
- | | |
|---|--|
| 1 Alarm indicate light | 9 Short time delay Isd |
| 2 Long time delay tripping indicate | 10 Short time delay tripping delay tsd |
| 3 Short time delay or Instantaneous tripping indicate | 11 Earthing fault tripping Ig |
| 4 Earthing tripping indicate | 12 Earthing fault tripping delay tg |
| 5 High level protection | 13 Lock position |
| 6 Reset button | 14 Testing button |
| 7 Long time delay current setting I_R | 15 Instantaneous tripping current |
| 8 Long time delay tripping delay t_R | 16 Testing connection port |



3E-T1600(Communication Type)

Indicate and button description

- | | |
|---|-------------------------------------|
| 1 Alarm indicate light | 11 Earthing fault tripping Ig |
| 2 Long time delay tripping indicate | 12 Earthing fault tripping delay tg |
| 3 Short time delay or Instantaneous tripping indicate | 13 Lock position |
| 4 Earthing tripping indicate | 14 Testing button |
| 5 High level protection | 15 Instantaneous tripping current |
| 6 Reset button | 16 Testing connection port |
| 7 Long time delay current setting I_R | 17 Setting btton/Switch button |
| 8 Long time delay tripping delay t_R | 18 PgDn or PgUp button |
| 9 Short time delay Isd | 19 Confirmation button |
| 10 Short time delay tripping delay tsd | |



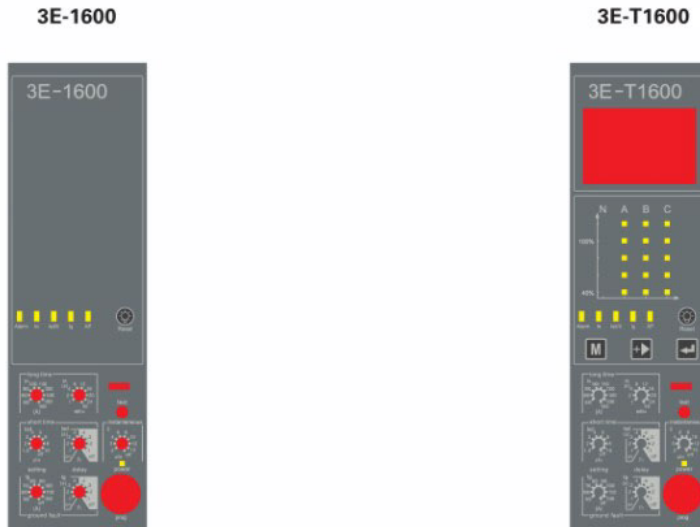
Note: 7 8 9 10 11 12 15 only stall indicate,don't adjust.

HDM3E Molded Case Circuit Breaker(Electronic)

Controller Parameters(1600AF)
Standard:IEC/EN 60947-2



Function Description



Protection Function	<ul style="list-style-type: none"> Long-time delay protection I_R Short-time delay protection I_{sd} Instantaneous protection I_i Earthing protection I_g MCR protection HSISC protection 	<ul style="list-style-type: none"> Long-time delay protection I_R Short-time delay protection I_{sd} Instantaneous protection I_i Earthing protection I_g MCR protection HSISC protection Current unbalance Maximum required current Earthing alarm
Measure Function		<ul style="list-style-type: none"> Current measure Voltage measure Power measure Frequency measure Electric energy measure
Miscellaneous Function	<ul style="list-style-type: none"> Pre-alarm Self-diagnosis function Fault history record Measure function 	<ul style="list-style-type: none"> Pre-alarm Self-diagnosis function Fault history record Measure function Displacement record Alarm record Clock
Display Function		LCD Display ¹⁾
Communication Function		Modbus

1) LCD will freeze when environment under minus 5 C , it will cause undisplay, but it don't affect the protection function and normal operating of circuit breakers.

HDM3E Molded Case Circuit Breaker(Electronic)

Controller Parameters(125-800AF)

Standard:IEC/EN 60947-2



Low-voltage Distribution

Intelligent Controller Protection Characteristics

Intelligent controller protection characteristics have inverse time limit and fixed time limit. When fault current exceed the setting value of inverse time limit, controller will work on the delay time protection according to fixed time limit setting. Inverse time limit curve conform to characteristics curve $I^2 t$

1) Overload long time dealy protection characteristics I_r

Overload long time delay protection action threshold vaule

$< 1.05 I_r$; $> 2h$ inaction

$\geq 1.2 I_r$; action delay

I_r current setting range:630A,800A,900A,1000A,1100A,1250A,1400A,1500A,1600A

Inverse time limit action characteristics		$I^2 t: t=(6/N)^2 * t_r$							
Setting current	Action time s								
$1.5 I_r$	16s 32s 64s 128s 192s 256s 320s 384s 480s								
$2 I_r$	9s 18s 36s 72s 108s 144s 180s 216s 270s								
$6 I_r$	1s 2s 4s 8s 12s 16s 20s 24s 30s								

Notes: N---- Fault current divide by setting current I/I_r

t-----Fault action delay time

t_r ----Long time delay setting value

Action time permissible error $\pm 10\%$

2) Short-circuit short time dealy protection characteristics I_{sd}

Short-circuit short time delay protection action threshold vaule

$< 0.9 I_{sd}$ inaction

$\geq 1.1 I_{sd}$; action delay

I_{sd} current setting range:1.5 I_r , 2 I_r , 3 I_r , 4 I_r , 5 I_r , 6 I_r , 8 I_r , 10 I_r , OFF

Setting current	Action time					
$I_{sd} < I \leq 8I_r$	Inverse time limit	Action character	$I^2 t=(8I_{sd}/t)^2 t_{sd}$			
		Delay time s	0.1	0.2	0.3	0.4
$I \geq 1.1I_{sd}$	Fixed time limit, returned time is minimum value	Setting time s	0.1	0.2	0.3	0.4
		Min s	0.08	0.14	0.23	0.35
		Max s	0.14	0.2	0.32	0.5

Notes: I_{sd} ---- Short time delay current setting value

I ---- Fault current value

I_r ---- Long deay time current setting value

t ---- Fault action deay time

t_{sd} ---- Short time delay inverse time limit setting value

Action time permissible error $\pm 20\%$

(The off of time means $I^2 t$ is inverse time limit closed, this state is fixed invese limit; use current konb is off, that means short time delay protection function is closed.)

3) Instantaneous Protection Characteristics I_i

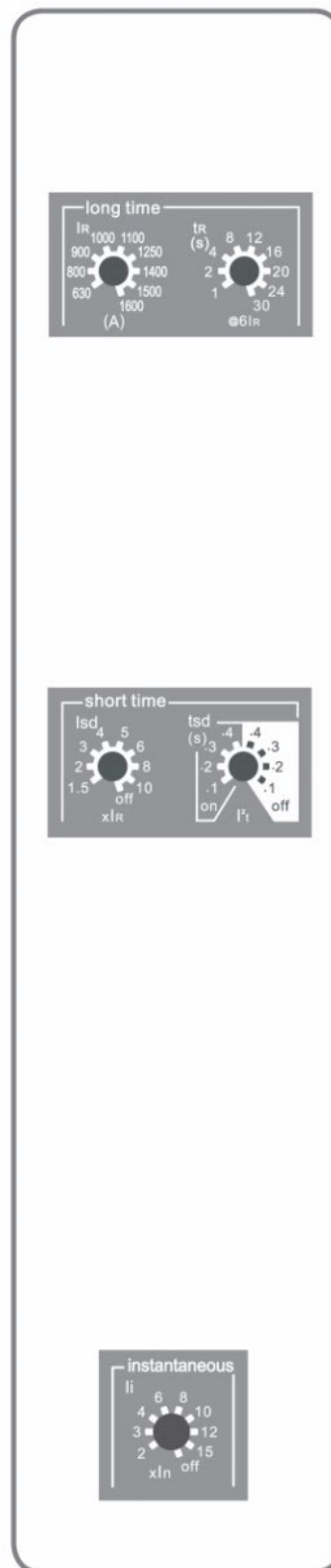
Short-circuit instantaneous protection action threshold vaule

$< 0.85 I_i$ inaction

$> 1.15 I_i$ action

Instantaneous action current setting value 2 I_n , 3 I_n , 4 I_n , 6 I_n , 8 I_n , 10 I_n , 12 I_n , 15 I_n , OFF

Note: Action time permissible error $\leq 50ms$.



HDM3E Molded Case Circuit Breaker(Electronic)

Controller Parameters(1600AF)
Standard:IEC/EN 60947-2



4) Earthing Fault Protection Action Characteristics I_g

Earthing fault protection action threshold value

< 0.9 I_g;inaction

≥ 1. 1 I_g;action delay

I_g current setting range:500A, 600A, 700A, 800A, 900A, 1000A, 1100A, 1200A, OFF

tg(s)	Inverse time limit	Action Charater
		$t = \frac{(I_g)^2}{I^2} \times t_g$
	Fixed time limit, returned time is minimum value	Settingtime (s) 0.1 0.2 0.3 0.4
		Settingtime (s) 0.1 0.2 0.3 0.4
		Min (s) 0.08 0.14 0.23 0.35
		Max (s) 0.14 0.2 0.32 0.5

Notes: I_J Earthing protection setting value I_J =1200A

I Fault current value

T Fault action delay time

t_g Earthing inverse time limit setting value

Inverse time limit action permissiable error ± 20%

(The off means is inverse time limit closed, this state is fixed time limit. Use current knob is off, that means earthing protection function is closed.)

5) Intelligent controller setting value

Tripping curve	Long time delay		Short time delay		Instantaneous	Earthing fault		Thermal momory
	I _R	t _R	I _{sd}	t _s	I _i	I _g	t _g	
I ² t	1600A	30s	6In	0.2s	10In	1100A	0.4s	20min

HDM3E Molded Case Circuit Breaker(Electronic)

Controller Parameters(125-1600AF)

Standard:IEC/EN 60947-2

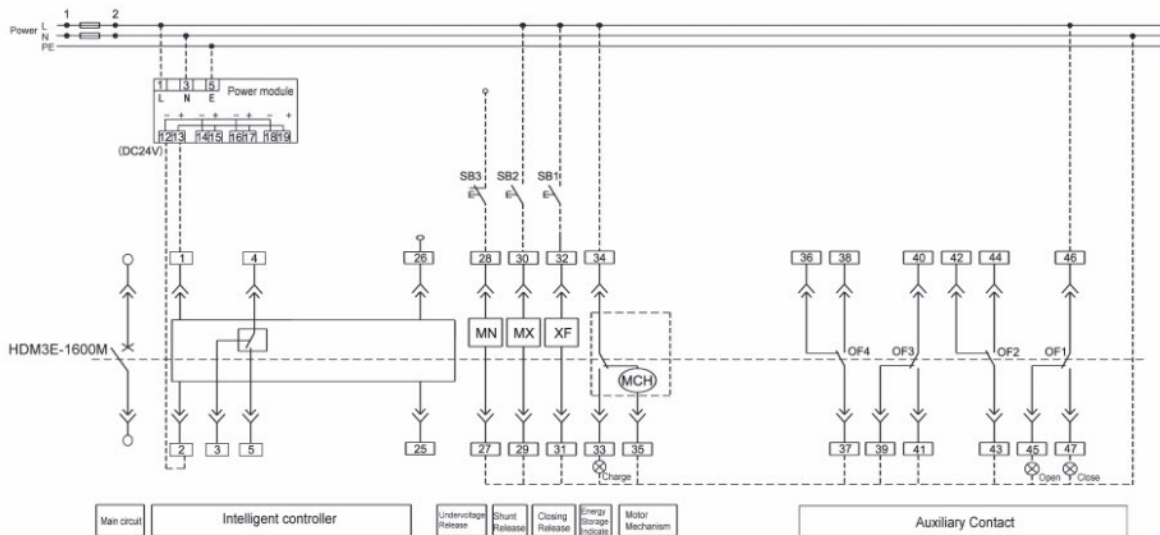


Low-voltage Distribution



Secondary wiring diagram

3E-1600



Controller Introduction:

Power: Power supply

1#,2# is auxiliary power DC24V , 1# is connect to positive terminal, and 2# is connect to negative terminal.

SWT: Fault tripping contact outlet(alarm contact)

3#,4#,5# are a set of transfer contact, and 4# is the common terminal, AC 400V,5A.

Note 1: 27#, 28# is under-voltage release terminal, connect from main circuit.

Note 2: controller must connect power supply, when voltage power is AC220/230V, use iAPU331 power module; when power is AC380/400V, use iAPU332 power module, when power is DC220/110V, use iAPU332D power module.

Note 3: HDM3E-1600M standard equipped with 2 open 2 close contact.

Note 4: MN, MX, XF,MCH are also optional accessories.

Note 5: Terminal 35# can not only be connected to power supply directly, achieve pre-storage energy automatically, but also can connect to the power supply by tandem connection with normal open button (achieve pre-storage energy manually). The dotted line part need connect by user.

Button by users:

SB1—closing button

SB2—opening button

SB3—emergency cut-off button

Components:

MN— Under-voltage release

MX— Shunt release

XF— Closing release

MCH— Motor mechanism

OF1~OF4—Auxiliary contacts

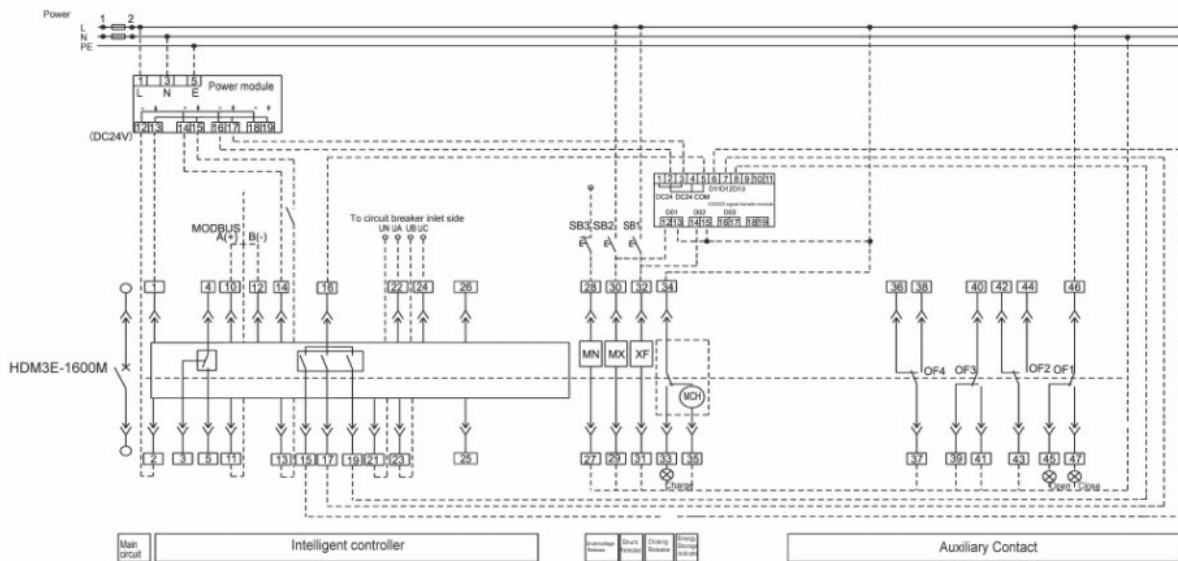
HDM3E Molded Case Circuit Breaker(Electronic)

Controller Parameters(1600AF)
Standard:IEC/EN 60947-2



Secondary wiring diagram

3E-T1600



Controller Introduction:

UM: Voltage measure signal input

21#, 22#, 23#, 24# is the input of N,A,B,C phase voltage.

ZSI: switch value in common, DI, DO function is defined by customer

13#, 14# is input of DC24V, 13# is connect to positive terminal, and 14# is connect to negative terminal.

15#, 16# is remote open, 16#, 17# is remote closing, 16#, 19# is general DO, and 16# is common terminal.

Power: Power supply input

1#, 2# is auxiliary power DC24V , 1# is connect to positive terminal, and 2# is connect to negative terminal.

SWT: Fault tripping contact outlet(alarm contact)

3#, 4#, 5# are a set of transfer contact, and 4# is the common terminal, AC 400V, 5A.

Com: Communication output

10#, 11# is communication connection, 12# is communication ground

Button by users:

SB1—closing button

SB2—opening button

SB3—emergency cut-off button

Components:

MN— Under-voltage release

MX— Shunt release

XF— Closing release

MCH— Motor mechanism

OF1—OF4—Auxiliary contacts

Note 1: 27#, 28# is under-voltage release terminal, connect from main circuit.

Note 2: controller must connect power supply, when voltage power is AC220/230V, use iAPU331 power module; when power is AC380/400V, use iAPU332 power module, when power is DC220/110V, use iAPU332D power module.

Note 3: When controller by remote, need to install signal transfer module(ICIO333, contact capacity is AC240V, 10A); the signal transfer module is equipped standard for four communication type product. It only can have three communication function (remote measure, remote test, remote communication) without signal transfer module

Note 4: HDM3E-1600M standard equipped with 2 open 2 close contact.

Note 5: Modbus-RTU is communication protocol , input terminal connect to 10#, 11#(cCom), output connect to bus of related protocol

Note 6: Terminal 35# can not only be connected to power supply directly, achieve pre-storage energy automatically, but also can connect to the power supply by tandem connection with normal open button (achieve pre-storage energy manually). The dotted line part need connect by user.

HDM3E Molded Case Circuit Breaker(Electronic)

Product selection

Standard:IEC/EN 60947-2



Accessories Selection

HDM3E	Frame	Accessories
	125	H1
	125A	AL1: Alarm contact(with wire)
	250A	AL2: Alarm contact(with terminal)
	400A	MX1: Shunt release(with wire)
	630A	MX2: Shunt release(with terminal)
	800A	OF11K1B: Auxiliary contact 1K1B(with wire)
	1600A	OF21K1B: Auxiliary contact 1K1B(with terminal)
		OF12K2B: Auxiliary contact 2K2B(with wire)
		OF22K2B: Auxiliary contact 2K2B(with terminal)
		MN: Undervoltage release
		C3:3P Expanding terminal(6pcs)
		C4:4P Expanding terminal(8pcs)
		H1: Round direct handle
		H2: Square direct handle
		IB3:3P Interphase barriers(6pcs)
		IB4:4P Interphase barriers(8pcs)
		HL1 :Round extended rotation handle
		HL2 :Square extended rotation handle
		D: AC/DC motor mechanism
		M3EMKAC230DC24: Input AC230V output DC24V
		M3EMKAC400DC24: Input AC400V output DC24V
		M3EMKDC110DC24: Input DC110V output DC24V
		M3EMKDC220DC24: Input DC220V output DC24V

means application for 125~800 frame

means application for all frame

means application for 1600 frame

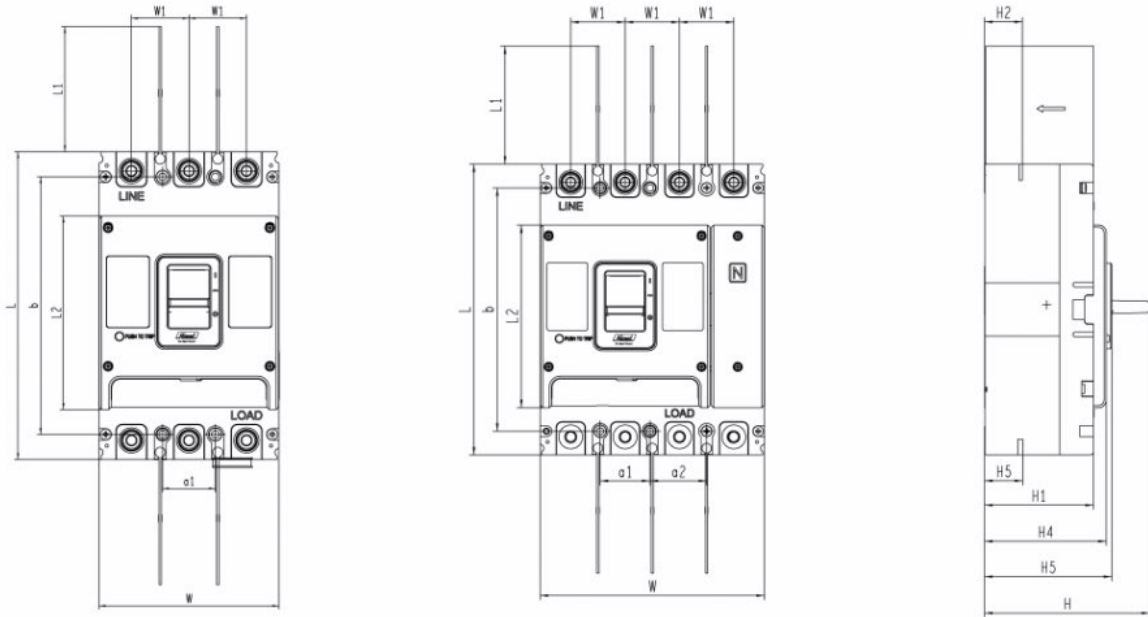


HDM3E Molded Case Circuit Breaker(Electronic)

Installation Dimension
Standard: IEC/EN 60947-2



Product appearance and installation dimension of 125A-800A



Unit: mm

Product	Pole	Appearance dimension											Installation dimension		
		L	L1	L2	W	W1	H	H1	H2	H3	H4	H5	a1	a2	b
HDM3E-125	3	165	80	102.5	107	35	112.5	86	21.5	23	94	95.5	35	35	126
	142														
HDM3E-250	3	165	80	102.5	107	35	112.5	86	23	23	94	95.5	35	35	126
	142														
HDM3E-400	3	257	104.5	161.5	150	48	145.9	96.2	36.5	37	107.5	112.2	44	-	215
	198														
HDM3E-630	3	257	104.5	161.5	150	48	145.9	96.2	38.5	39.5	107.5	112.2	44	-	215
	198														
HDM3E-800	3	280	104.5	170	210	70	154	103	40.5	47	116	121	70	70	243
	280														

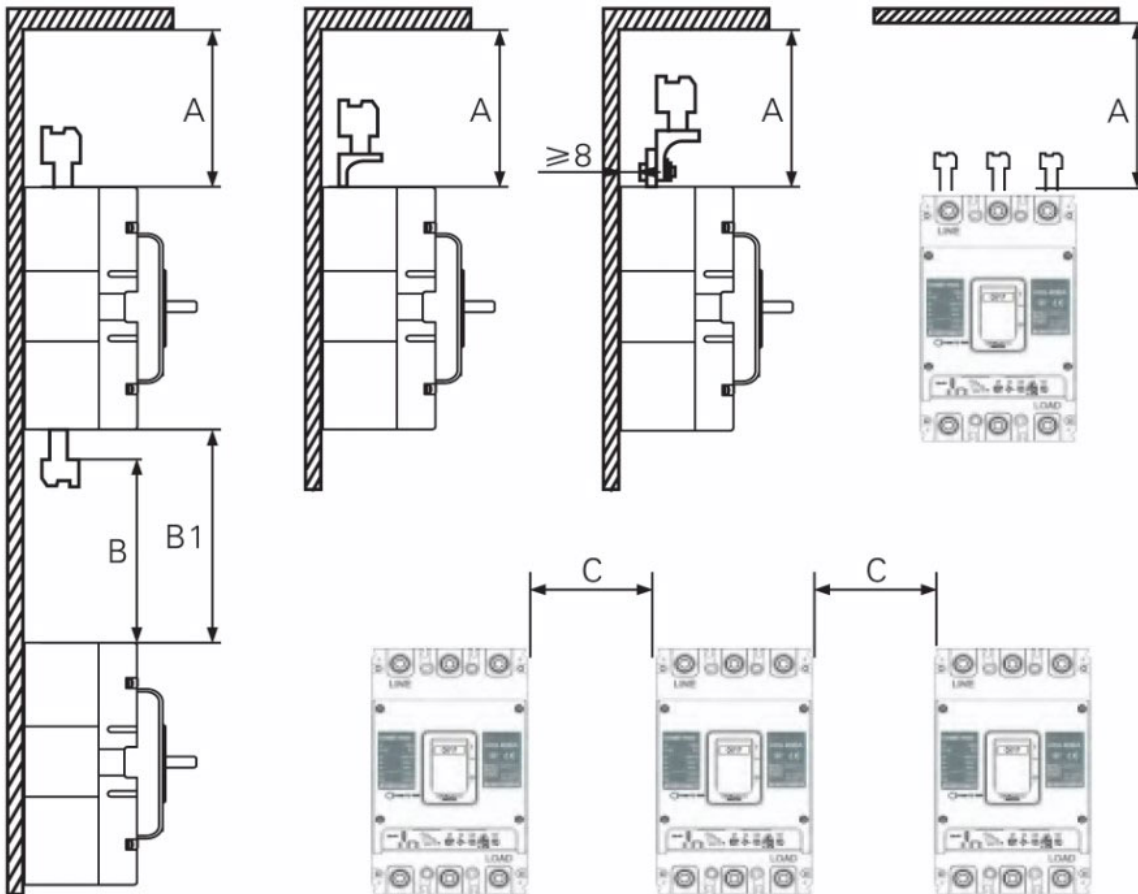
HDM3E Molded Case Circuit Breaker(Electronic)

Installation Dimension

Standard:IEC/EN 60947-2



■ Safety clearance(125A-800A MCCB)



Product	A (mm)	B (mm)	B1 (mm)	C (mm)
HDM3E-125/250	60	60	Length of bare cable + B	30
HDM3E-400/630	110	110		70
HDM3E-800	110	110		70

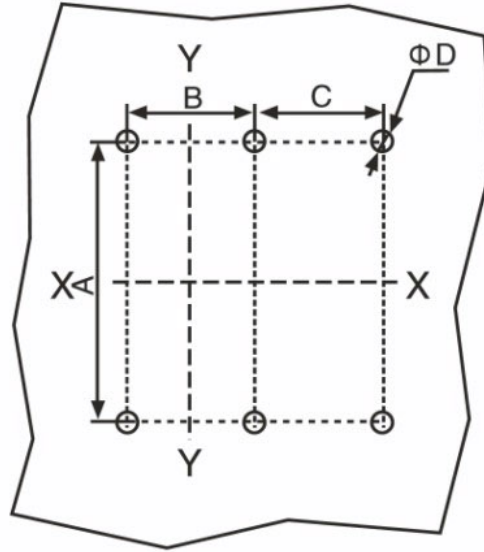
Note:No matter there is product with accessory or not,safety clearance must meet equirement of C.

HDM3E Molded Case Circuit Breaker(Electronic)

Installation Dimension
Standard:IEC/EN 60947-2



Fixed front installation hole dimensions(125-800A MCCB)



Note:X-X and Y-Y is the center of the three-pole breaker.

Unit: mm

Product	Pole	A	B	C	ΦD
HDM3E-125	3	126	35	-	5.5
	4			35	
HDM3E-250	3	126	35	-	5.5
	4			35	
HDM3E-400	3	215	44	-	6.5
	4			-	
HDM3E-630	3	215	44	-	6.5
	4			-	
HDM3E-800	3	243	70	-	7.5
	4			70	

HDM3E Molded Case Circuit Breaker(Electronic)

Installation Dimension

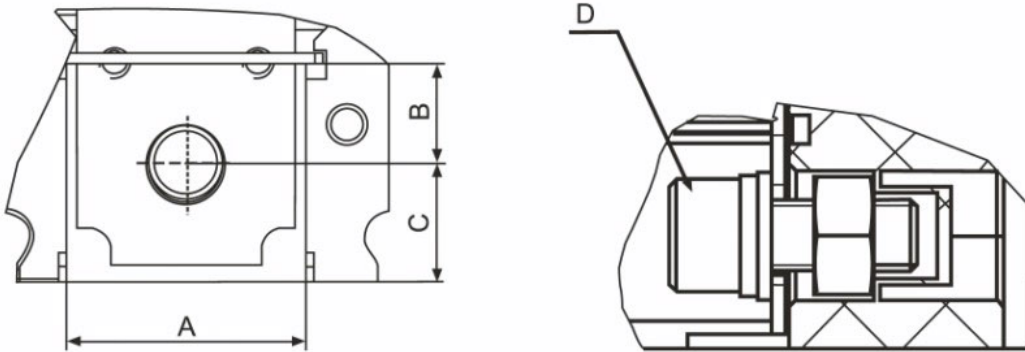
Standard:IEC/EN 60947-2



Low-voltage Distribution



■ Safety clearance(125A-800A MCCB)



Unit: mm

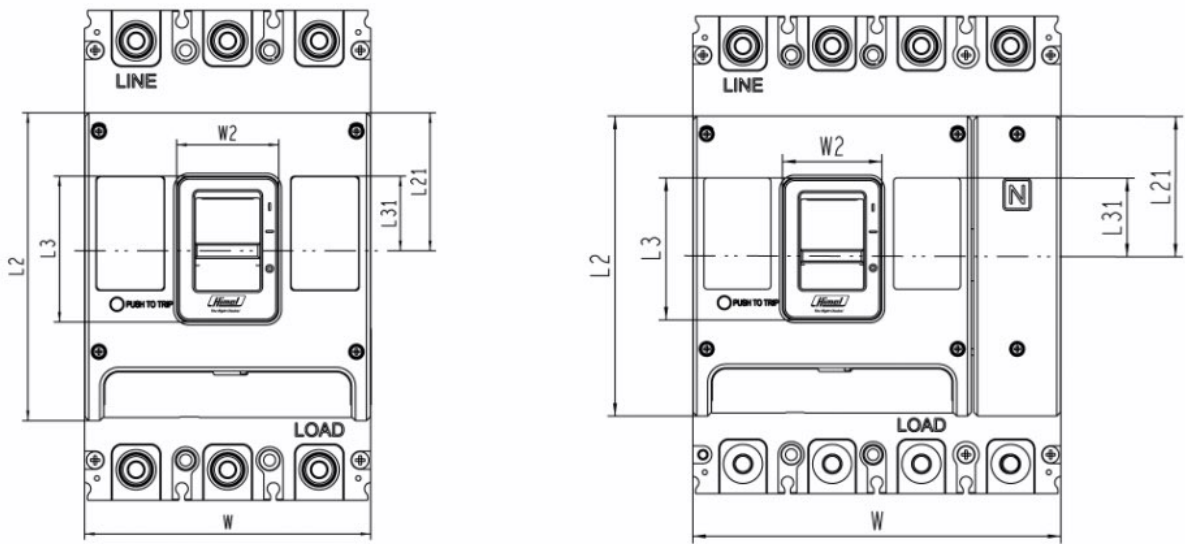
Product	A	B	C	D
HDM3E-125	25.5	12	10	M8x20
HDM3E-250	25.5	12	10	M8x20
HDM3E-400	32	13	16	M10×25
HDM3E-630	32	13	16	M10×35
HDM3E-800	45.5	16.8	18.5	M12×35

HDM3E Molded Case Circuit Breaker(Electronic)

Installation Dimension
Standard:IEC/EN 60947-2



Fixed and plug-in rear plate hole dimension



Unit:mm

Product	Pole	Cover and handle reveal			Only handle reveal		
		W	L2	L21	W2	L3	L31
HDM3E-125	3	107	102.5	51	26	50.5	26.5
	4	142					
HDM3E-250	3	107	102.5	51	26	50.5	26.5
	4	142					
HDM3E-400	3	150	161.5	75	52.5	75.5	41
	4	198					
HDM3E-630	3	150	161.5	75	52.5	75.5	41
	4	198					
HDM3E-800	3	210	170	67.5	55	85	42.5
	4	280					

HDM3E Molded Case Circuit Breaker(Electronic)

Installation Dimension
Standard:IEC/EN 60947-2



Product connection

1 Notice

- 1,Wiring connection must be implemented by qualified persons
- 2,wiring connection after ensuring incoming power is cut off
- 3,wiring connection after MCCB installation
- 4,MCCB wire connection must be correct,connecting "LINE"to power supply,and"LOAD" to equipments, upside down is forbidden.

2 Choosing standrand wire

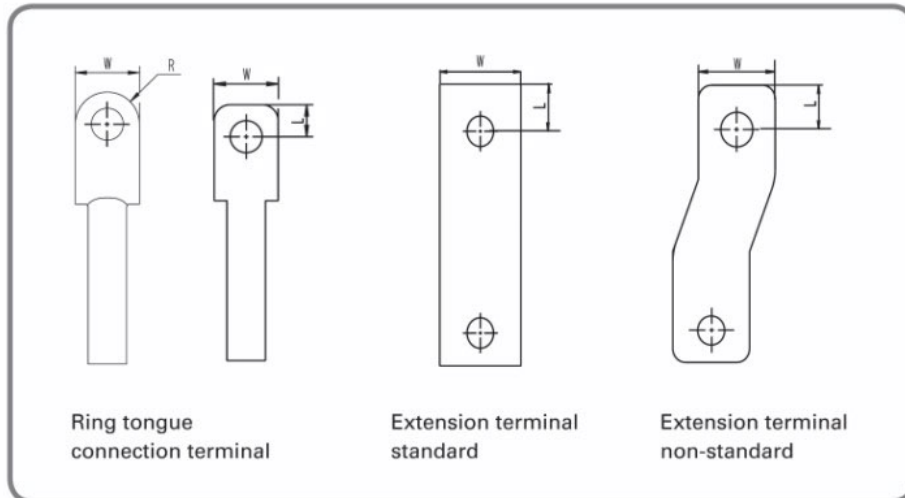
The size of wire for different frame of product

Table1:

Product	The size of wire (mm ²)	Quantity
HDM3E-125	50	1
HDM3E-250	120	1
HDM3E-400	240	1
HDM3E-630	185	2
HDM3E-800	240	2

Note:If product connect with Busbar,it will need to use with extension terminal.

3 Choosing ring tongue connection terminal and connection terminal



HDM3E Molded Case Circuit Breaker(Electronic)

Installation Dimension
Standard:IEC/EN 60947-2



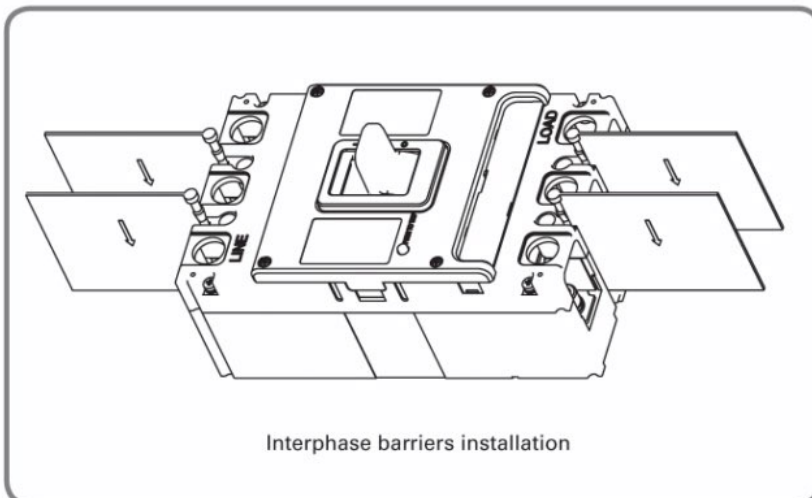
Product	Ring tongue connection terminal		
	W	R (L)	part number of ring tongue connection terminal
HDM3E-125	≤ 25	≤ 12	35mm ² : DT035SGD/DT035SED/DTG035SHD/DTL035MGD/SC35M8ZXD/SC35M10ZXD 50mm ² : DT050SGD/DT050SED/DTG050SHD/DTL050MGD/SC50M8ZXD/SC50M10ZXD/SC50M12ZXD OT : OT100ASD/OT150ASD
HDM3E-250			70mm ² : DT070SED/DTG070SHD/SC70M10ZXD/SC70M12ZXD 95mm ² : SC95M10ZXD/SC95M13ZXD OT : OT250ASD/OT300ASD
HDM3E-400	≤ 32	≤ 13	120mm ² : DT120SGD/DT120SED/DTG120SHD/DTL120MGD/DHADT120M13W28FT 150mm ² : DT150SED/DHADT150M13W30FT 185mm ² : DHADT185M13W31FT OT : OT400ASD
HDM3E-630			
HDM3E-800			240mm ² : DT240SGD/DT240SED/DHADT240M14W398FT

Note

- 1,The type and part number of terminals in the table are Himel's type and part number
- 2,The size of cable matched with terminal must be bigger than the size in the table,standard type is recommended

4

The screw must be tighten, torque shall be bigger than the table below. Interphase barriers must be installed as picture below. In case of short circuit between the phase, insulated end of cable is necessary.



Product	Screw for connection	Torque(N.m)
CDM6Ei-125/250	M8 × 20mm	9.5 -10.5
CDM6Ei-400/630	M10 × 25mm	19.5-20.5
CDM6Ei-800	M12 × 35mm	29.5-30.5

HDM3E Molded Case Circuit Breaker(Electronic)

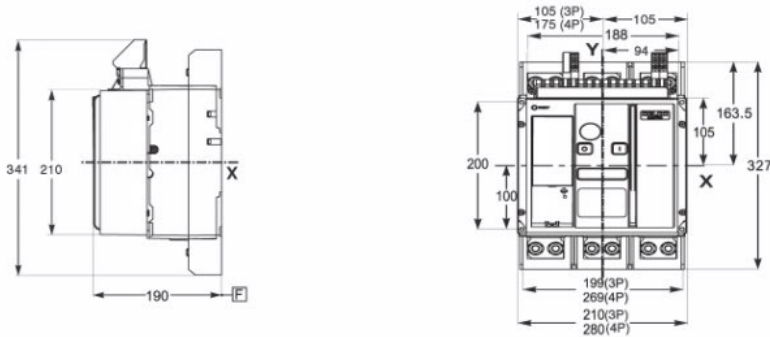
Installation Dimension
Standard:IEC/EN 60947-2



Fixed installation of 3 and 4 poles of 1600A

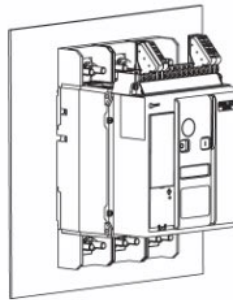
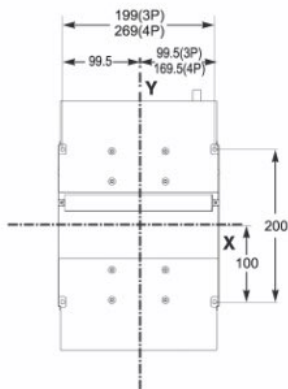
Fixed rear installation dimensions

Unit:mm

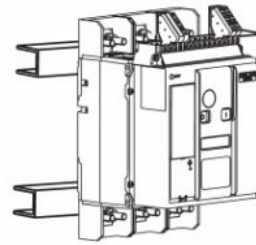


Vertical installation

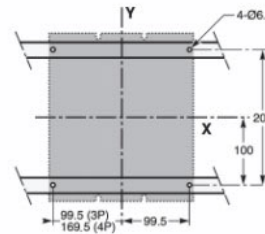
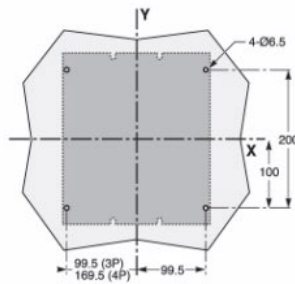
Unit:mm



Installed on plate



Installed on din rail

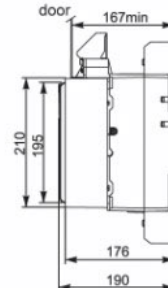
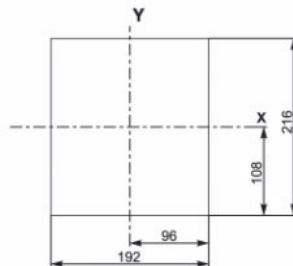
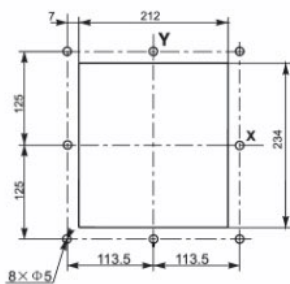


Note:X and Y are plane of symmetry of 3 pole breaker Z is back plane of breaker.

With doorframe:
Holes dimension on door

Without doorframe:
Holes dimension on door

Unit:mm



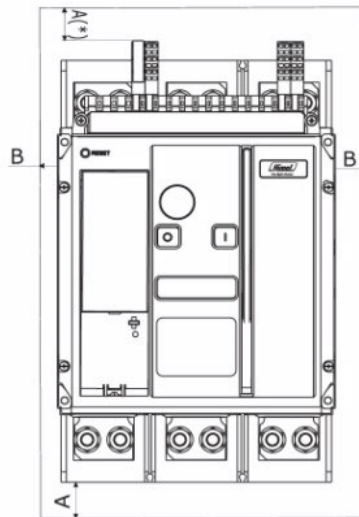
HDM3E Molded Case Circuit Breaker(Electronic)

Installation Dimension
Standard:IEC/EN 60947-2



Fixed rear installation dimension 1600A

Safety distance



	Insulation part	Metal part	Charged part
A	0	120	180
B	0	10	60

Note: X and Y are front plane symmetric axis.

(*) 50mm safety distance for removing arcing cover, 20mm safety distance for removing terminals.

F : Reference point.

HDM3E Molded Case Circuit Breaker(Electronic)

Installation Dimension
Standard:IEC/EN 60947-2



1600A appearance and installation dimension

The table below based on assumption below:

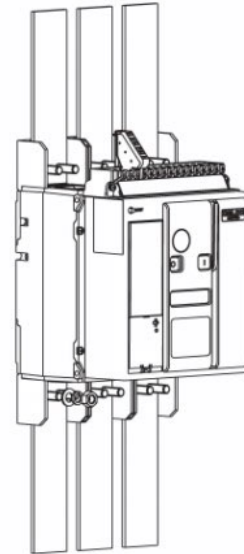
- The highest temperature is 100°C on busbar
- Ti Environment temperature around breaker and connection parts
- Copper varnished wire

Note:

The date in the table below comes from test and theoretical calculation under assumption condition above.

The table below is helpful to connection part design, but need to test to be confirmed.

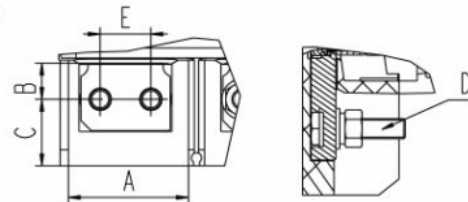
Front connection parts



Max current	Ti:40 C the number of busbar		Ti:50 C the number of busbar		Ti:60 C the number of busbar	
	5mm Thickness	10mm Thickness	5mm Thickness	10mm Thickness	5mm Thickness	10mm Thickness
630	2b.40x5	1b.40 x 10	2b.40x5	1b.40 x 10	2b.40x5	1b.40 x 10
800	2b.50x5	1b.50 x 10	2b.50x5	1b.50 x 10	2b.50x5	1b.63 x 10
1000	3b.50x5	1b.63 x 10	3b.50x5	2b.50 X 10	3b.63x5	2b.50 x 10
1250	3b.50x5	2b.40 x 10	3b.50x5	2b.50 X 10	3b.63x5	2b.50 x 10
	2b.80x5	2b.40 x 10	2b.80x5			
1600	3b.80x5	2b.63 x 10	3b.80x5	2b.63 x 10	3b.80x5	2b 50 x 10

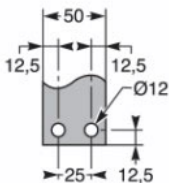
Note

The data in the tables above are derived from experiments and theoretical calculations, and it is not possible to substitute industrial experience or temperature rise tests for guidance only.

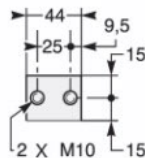


Product	A	B	C	screw	E	Torque range(N.M)
HDM3E-1600M	59	17.2	32.8	M10×40mm	25	50

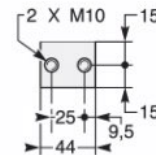
Front connection size



Recommended the size of busbar



The size of top terminal



The size of bottom terminal

HDM3E Molded Case Circuit Breaker(Electronic)

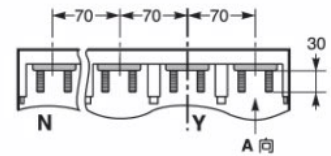
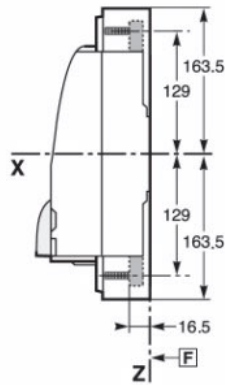
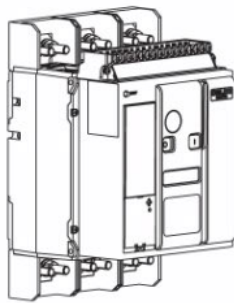
Installation Dimension
Standard:IEC/EN 60947-2



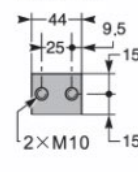
1600A Fixed busbar

Front Connexion

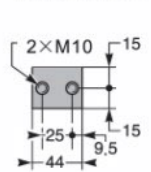
Unit:mm



Top terminal



Bottom terminal

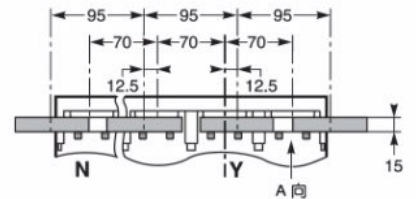
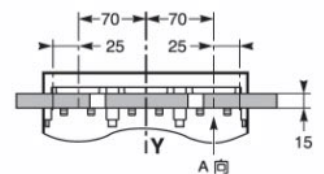
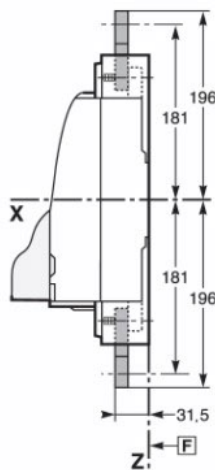
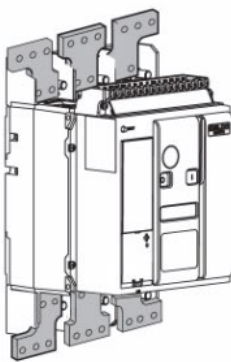


cutaway view

Remark:
Recommend screw: M10,
Torque:50 N.M.

Front connection with extension terminal

Unit:mm



HDM3E Molded Case Circuit Breaker(Electronic)

Installation Dimension

Standard:IEC/EN 60947-2

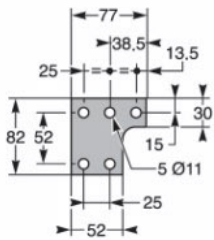


1600A Fixed busbar

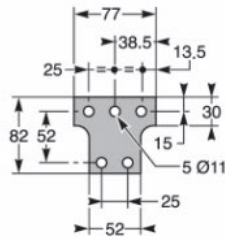
Extension terminal drawing

Unit:mm

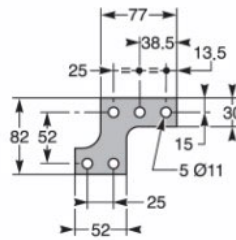
Extension terminal for A phase or B phase of 4 pole



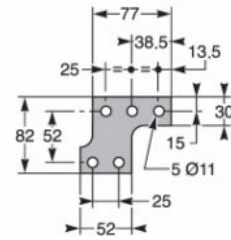
Extension terminal for B phase of 3 pole



Extension terminal for N phase or C phase of 4 pole



Extension terminal for A phase or C phase of 3 pole



Cutaway view

HDM3E Molded Case Circuit Breaker(Electronic)

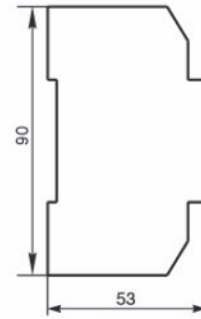
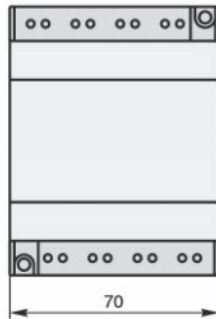
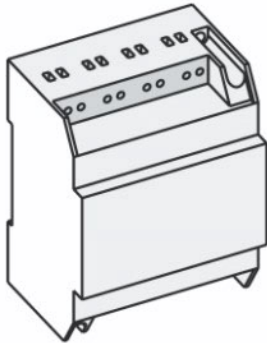
Installation Dimension
Standard:IEC/EN 60947-2



1600A Power supply module&singal conversion module dimension

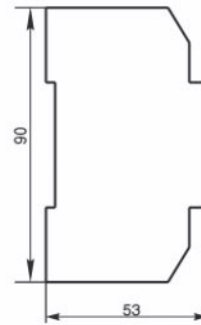
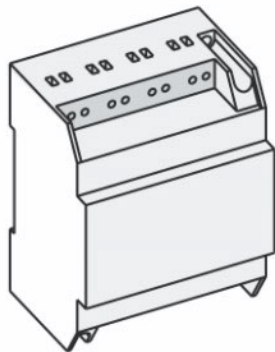
Supply power module can be installed on 35mm DIN rail.

Unit:mm



Signal conversion module can be installed on 35mm DIN rail

Unit:mm



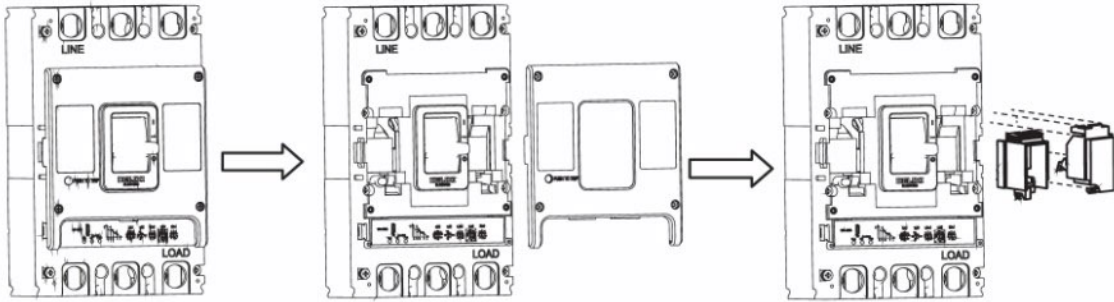
HDM3E Molded Case Circuit Breaker(Electronic)

Accessory Installation
Standard:IEC/EN 60947-2



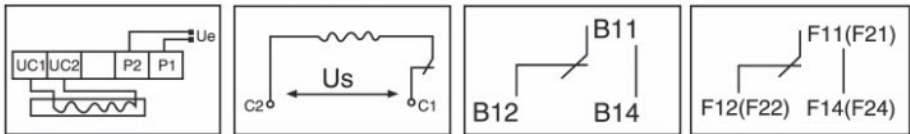
Internal accessories installation(125A-800A MCCB)

Diagram of inside accsories installation



Take the top cover down, and put accessories into left and right chamber of the middle cover and compress it. and install the topt cover, tighten the screws. An accessory can be installed in the left or right position,including shunt release,undervoltage release,auxiliary contact,alarm and auxiliary contact.

Internal accessory wiring diagram

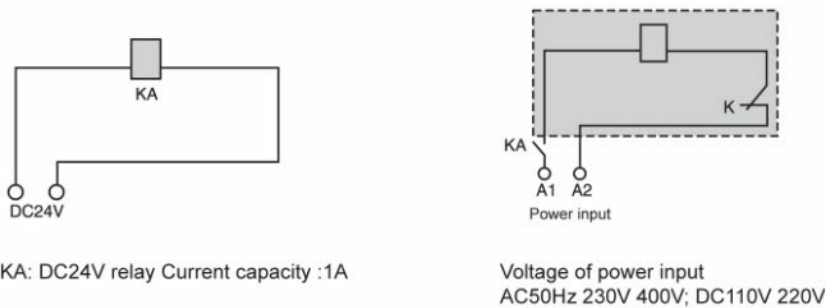


Undervoltage release Shunt release Alarm contact Auxiliary contact

When rated voltage of shunt release is DC24V,the longest of copper wire is no more than data below:

Rate voltage for control power U_s (DC24V)	Sectional area 1.5mm ²	Sectional area 2.5mm ²
100% U_s	150m	250m
80% U_s	100m	160m

If you can not match requirement the above table , the following diagram is used to design the control circuit of the shunt release:



HDM3E Molded Case Circuit Breaker(Electronic)

Accessory Installation
Standard:IEC/EN 60947-2



Internal accessories test

- 1,Shut down power supply for undervoltage release, breaker should be off, handle is on trip position
- 2,Shunt release is under reted voltage,breaker should be off,handle is on trip position
- 3,Switch on or off breaker with auxiliary contact,auxiliary contact can conversion normally singal
- 4,Switch on or trip(press red button) breaker,alarm contact can conversion normally singal

Note:The electrified time of shunt release lasts no more than 5s, otherwise shunt release will burnt out.When rated voltage of control power is DC24V,rated current of control circuit is 4.5~5.5A.

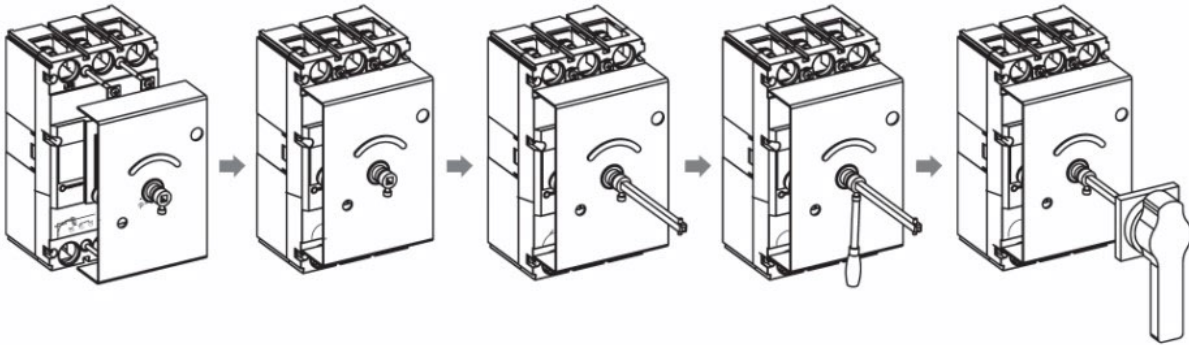
HDM3E Molded Case Circuit Breaker(Electronic)

Accessory Installation
Standard:IEC/EN 60947-2



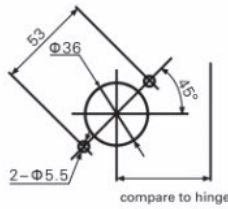
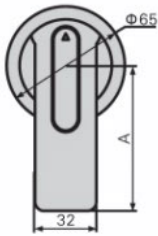
Outside accessories installation(125A-800A MCCB)

Handle operation mechanism installation drawings.

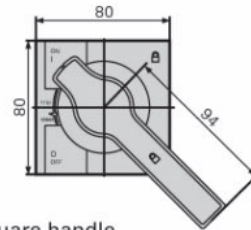
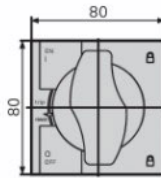


Rotary handle and installation dimension

Unit: mm

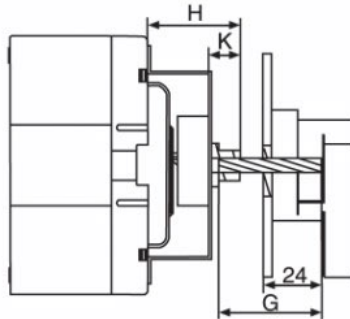
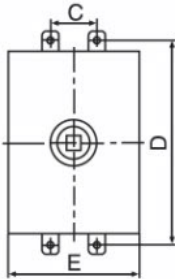


Round handle



Square handle

Dimension of mechanism



产品型号	C	D	E	H	K
CDM6Ei-125/250	35	143	100	49	20
CDM6Ei-400/630	44	215	140	76	20
CDM6Ei-800	70	243	210	76	20

Installed rotary handle, operation should be flexible, and the handle in the horizontal, circuit breaker should be switched on, handle in the vertical position, circuit breaker should be closed.

Note

1 G means the shortest connection bar is 40mm,standard is 150mm,can be customizational.

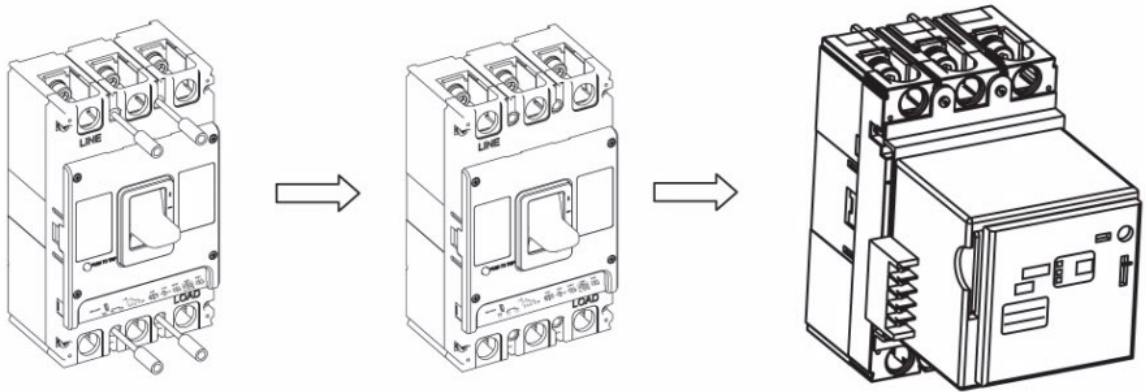
HDM3E Molded Case Circuit Breaker(Electronic)

Accessory Installation
Standard:IEC/EN 60947-2

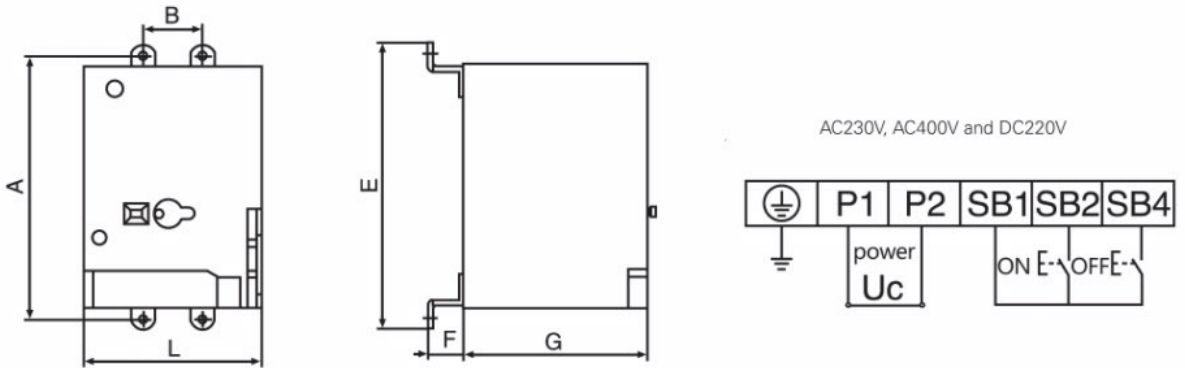


Motor operating mechanism(125A-800A MCCB)

Motor operating mechanism installation diagrams.



Installation dimension of motor operating mechanism and wiring diagram.



Unit: mm

Product	A	B	L	E	F	G
HDM3E-125/250	126	35	90.5	140	12	77
HDM3E-400/630	215	44	130	232	32	115
HDM3E-800	243	70	130	260	31	115

Note

- 1,When the breaker with motor operating mechanism trips, motor operating mechanism must be switched off before being switched on.
- 2.The breaker can be remoted control by motor operating mechanism.Only qualified people can remove motor operating mechanism when operating on USB connection and dial switch.

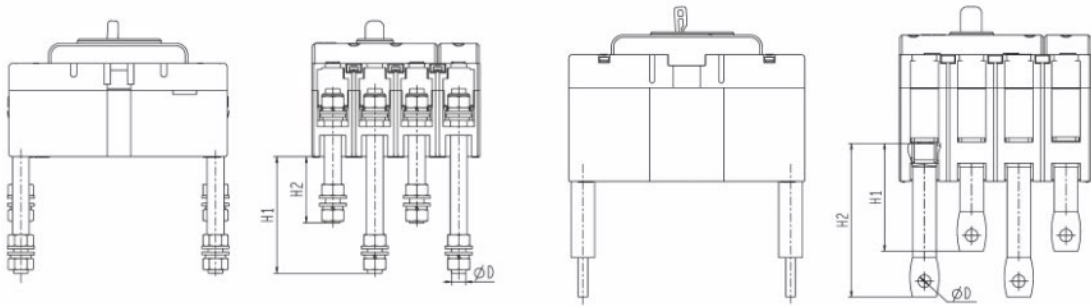
HDM3E Molded Case Circuit Breaker(Electronic)

Accessory Installation
Standard:IEC/EN 60947-2



Fixed rear connection(125A-800A MCCB)

Installation dimension of fixed rear connection



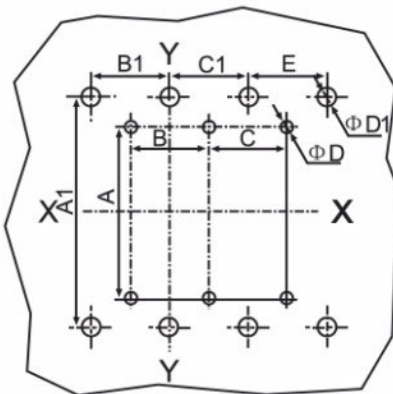
HDM3E-125/250

HDM3E-400/630/800

Unit: mm

Product	H1	H2	φD
HDM3E-125/250	102	72	10
HDM3E-400/630	92	128	12.5
HDM3E-800	129	129	13

Installation hole dimension of fixed rear connection



Note: X-X,Y-Y is the center of the three pole breaker

Unit: mm

Product	Pole	A	B	C	ΦD	A1	B1	C1	E	ΦD1
HDM3E-125/250	3	126	35	-	5.5	145	35	35	-	15
	4			35					35	
HDM3E-400/630	3	215	44	-	6.5	225	48	48	-	32
	4			-					48	
HDM3E-800	3	243	70	-	7.5	243	70	70	-	40
	4			70					70	

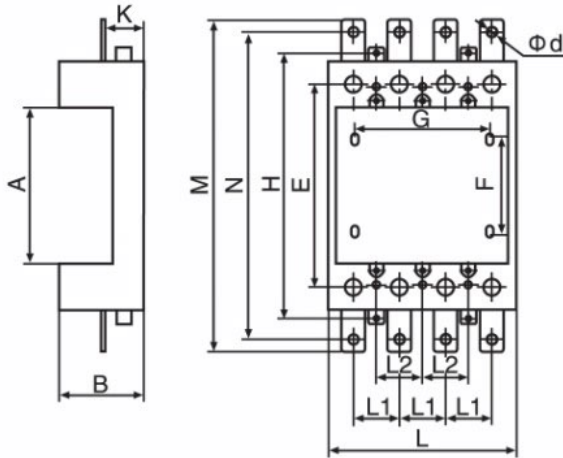
HDM3E Molded Case Circuit Breaker(Electronic)

Accessory Installation
Standard:IEC/EN 60947-2

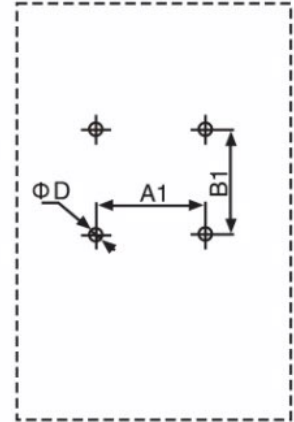


■ Plug-in front connection(125A-250A MCCB)

Installation dimension and installation hole dimension of plug-in front connection



Installation dimension of plug-in connection



Installation hole dimension of plug-in connection

Unit: mm

Product	Pole	A	B	E	F	G	H	L	L1	L2	M	N	K	Φd	A1	B1	ΦD
HDM3E-125/250	3	108.5	73.2	144	74	70	191	105	35	35	243	223	37.5	8.5	35	150	5
	4					105											

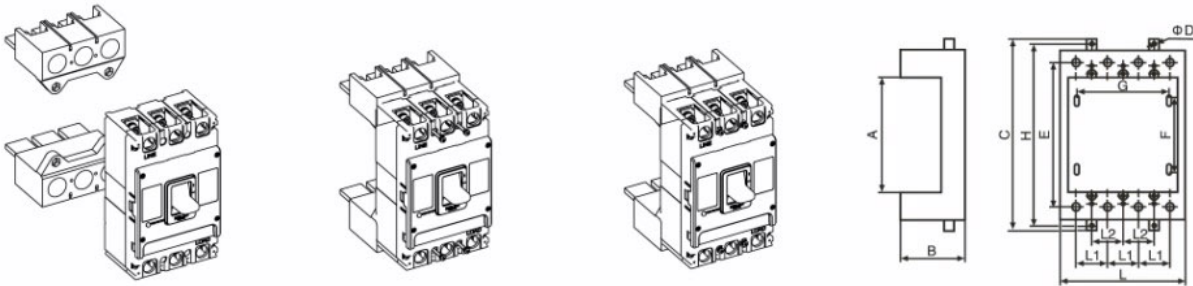
HDM3E Molded Case Circuit Breaker(Electronic)

Accessory Installation
Standard: IEC/EN 60947-2



Plug-in rear connection(125A-800A)

Installation dimension of plug-in rear connection



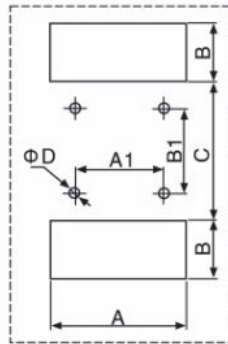
Installation diagram of plug-in rear connection accessory

Installation dimension of plug-in rear connection accessory

Unit: mm

Product	Pole	A	B	C	D	E	F	G	H	L	L1	L2
HDM3E-125/250	3	108.5	73.2	203	M4	144	74	70	191	105	35	35
	4							105		140		
HDM3E-400/630	3	170	60	-	-	225	130	60	-	152	48	44
	4							108		200		
HDM3E-800	3	187	125	342	M5	243	143	140	328	210	70	70
	4							210		280		

Installation hole dimension of plug-in rear connection accessory



Unit: mm

Product	Pole	A	A1	B	B1	C	ΦD
HDM3E-125/250	3	110	70	45	74	100	6.5
	4	145	105				
HDM3E-400/630	3	157	88	60	145	170	8.5
	4	205	132				
HDM3E-800	3	212	140	64	143	185	11
	4	282	210				

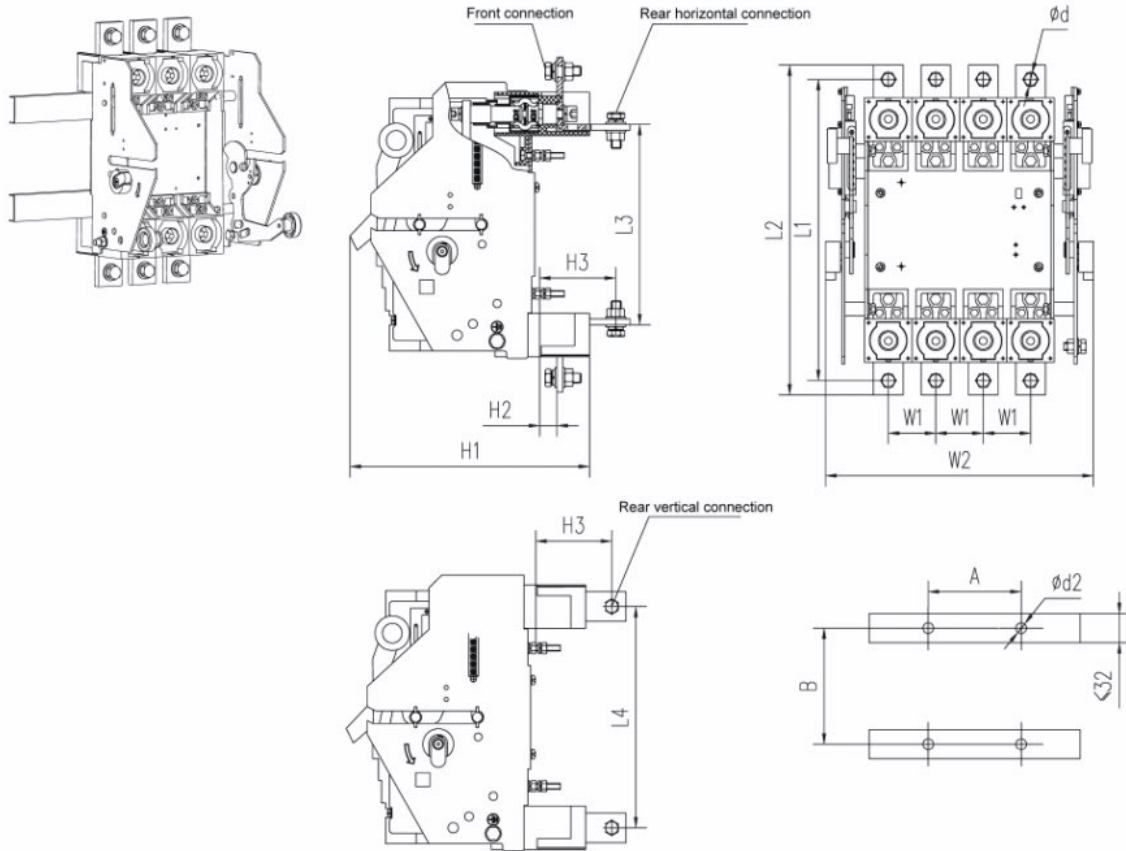
HDM3E Molded Case Circuit Breaker(Electronic)

Accessory Installation
Standard:IEC/EN 60947-2



Withdrawable connection(400~800 frame)

Installation dimension of withdrawable connection accessory



Product	Pole	Appearance dimension									Installation dimension			
		L1	L2	L3	L4	H1	H2	H3	W1	W2	φd1	A	B	φd2
HDM3E-400	3P	310	339	203	223	253	17.5	77	48	223	φ11	96	140	φ7
	4P	310	339	203	223	253	17.5	77	48	271	φ11	144	140	φ7
HDM3E-630	3P	310	339	207	223	253	17.5	77	48	223	φ11	96	140	φ7
	4P	310	339	207	223	253	17.5	77	48	271	φ11	144	140	φ7
HDM3E-800	3P	367	410	241	231	238	-26	73	70	289	φ13	140	131	φ7
	4P	367	410	241	231	238	-26	73	70	359	φ13	210	131	φ7

HDM3E Molded Case Circuit Breaker(Electronic)

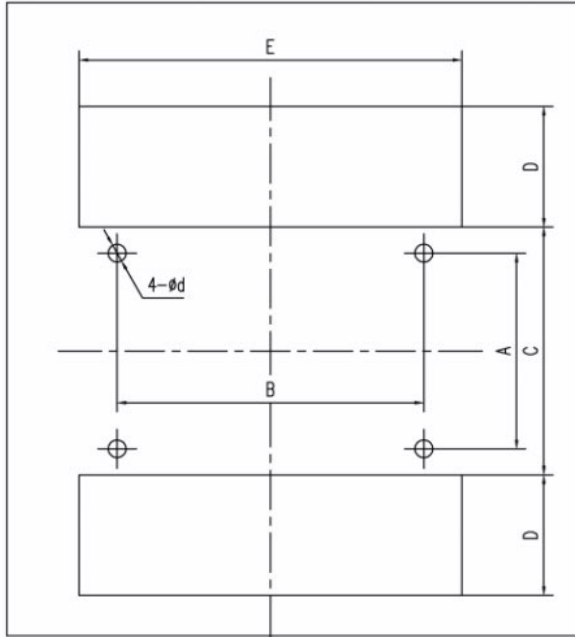
Accessory Installation
Standard: IEC/EN 60947-2



Low-voltage Distribution



Installation hole dimension of withdrawable connection



Product	Opening hole on plate							d
	A	B		C	D	E		
		3P	4P			3P	4P	
HDM3E-400	140	96	144	178	47	147	195	7
HDM3E-630	140	96	144	178	47	147	195	7
HDM3E-800	131	140	210	170	77	213	283	7

- Note 1. 630A HDM3E need to reduce capacity to 500A to use withdrawable connection.
2. If customer has no special requirement, withdrawable connection will not equip with electrical interlock

HDM3E Molded Case Circuit Breaker(Electronic)

Accessory Installation
Standard:IEC/EN 60947-2



Low-voltage Distribution

Accessories installation position(125A-800A MCCB)



Accessory code	Accessory name	Product type				
		HDM3E-125	HDM3E-250	HDM3E-400	HDM3E-630	HDM3E-800
308	Alarm contact (can be installed on the right or left side, default left side)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
310	Shunt release (can be installed on the right or left side, default right side)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
320	Auxiliary contact (can be installed on the right or left side, default right side)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
330	Undervoltage release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
340	Shunt release + auxiliary contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
350	Shunt release+ undervoltage release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
360	Two pieces of auxiliary contact (can be installed on the right or left side, default left side)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
370	Auxiliary contact+ undervoltage release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
318	Shunt release + alarm contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
328	Auxiliary contact+alarm contact (can be installed on the right or left side, default left side)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
338	Undervoltage release+ alarm contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
348	Shunt release+ auxiliary contact+ alarm contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
368	Two piece of auxiliary contact +alarm contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
378	Auxiliary contact+undervoltage release+alarm contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HDM3E Molded Case Circuit Breaker(Electronic)

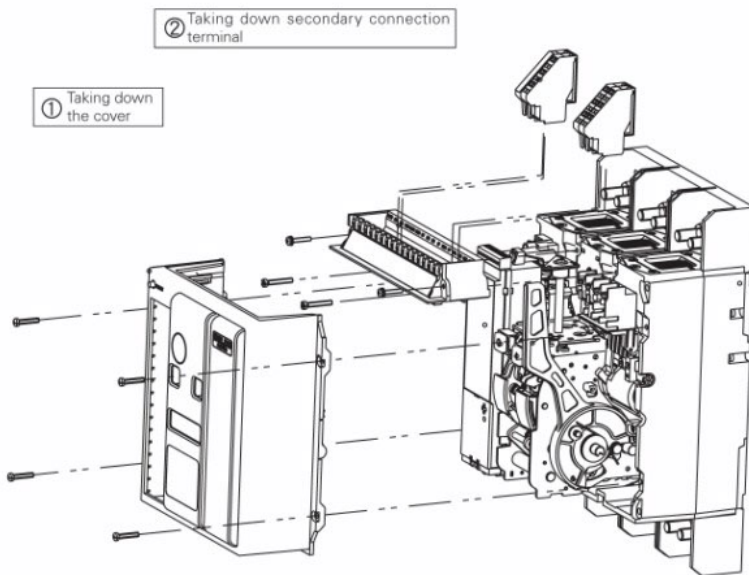
Accessory Installation(1600A)

Standard:IEC/EN 60947-2



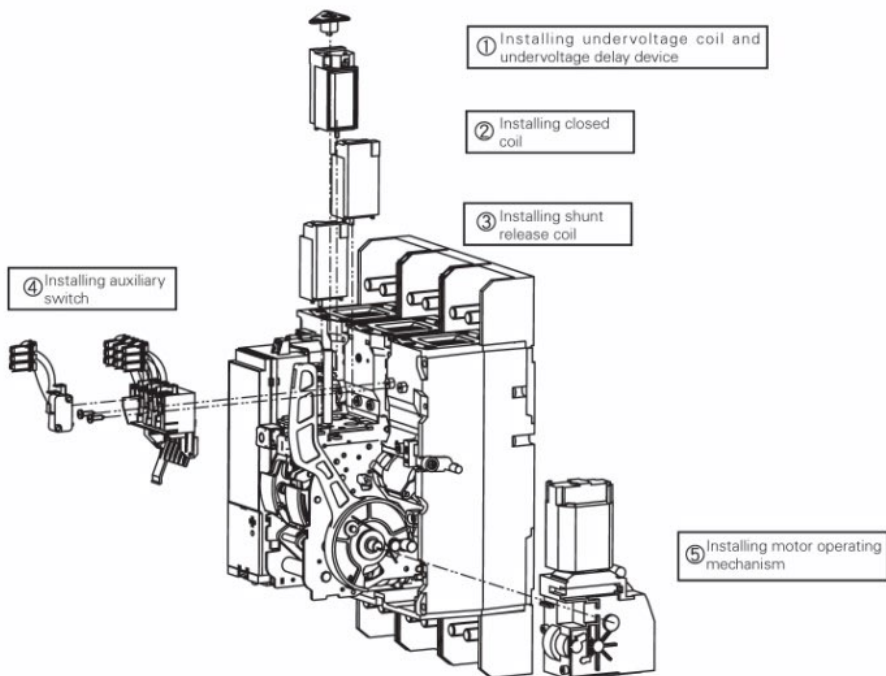
1600A Inside accessories

Taking down the cover and secondary connection terminal.



Danger:
Make sure power supply shut down before installation

Installing coil, motor operating mechanism and auxiliary contact



HDM3E Molded Case Circuit Breaker(Electronic)

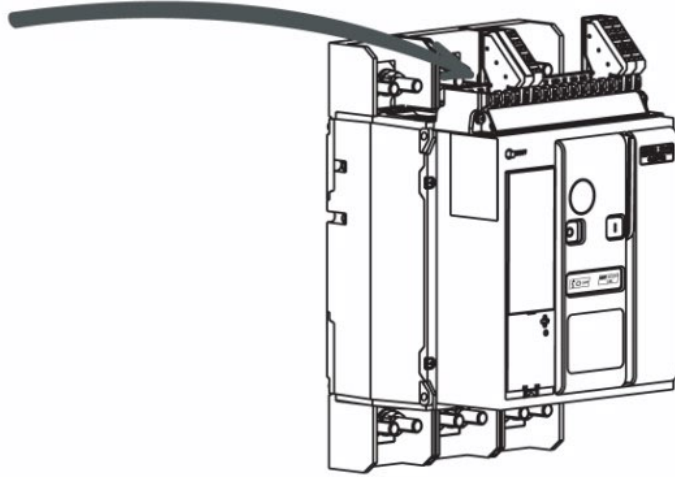
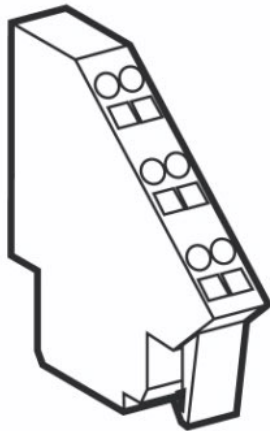
Accessory Installation(1600A)
Standard:IEC/EN 60947-2



1600A Secondary circuit connection

Fixing auxiliary terminal

Fixed type
Inserting auxiliary terminal into groove directly



Terminal layout

DC24V

Res SWT2	UM	ZSI	Pow	SWT	Com	CT	MN	MX	XF	MCH	PF	OF4	OF3	OF2	OF1
	22	13 17	1	5	10	25	27	29	31	35		38	41	44	47
	23	16 19		3	12					33		36	39	42	45
	21 24	14 15	2	4	11	26	28	30	32	34		37	40	43	46
Control Unit							Remote Operating					Auxiliary Switch			

- 1 Check terminal serial number
- 2 Inserting same serial number of connection port
- 3 Pow 1,2 is DC24V power supply port, make sure use with DC 24V from factory. Note:DC24V can be positive and negative connection, do not access directly to 230V power

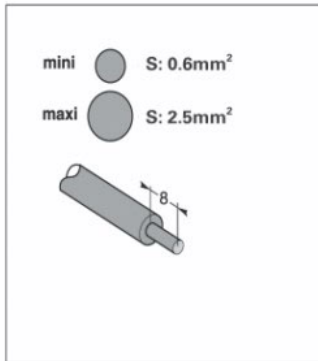
HDM3E Molded Case Circuit Breaker(Electronic)

Accessory Installation(1600A)

Standard:IEC/EN 60947-2



Wiring for auxiliary terminal

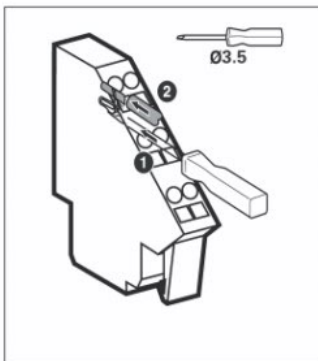


Sectional area of wire

Min 0.6mm²

Max 2.5mm²

The stripper wire needs at least 8mm

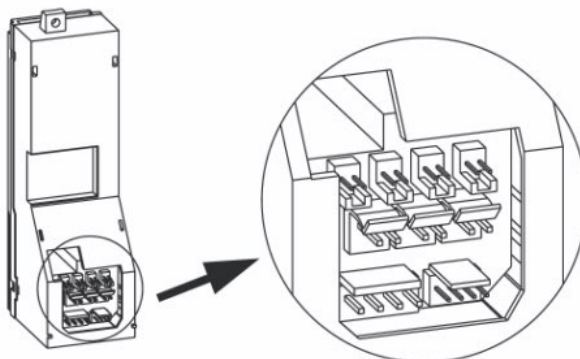


1 Insert screwdriver into the box and press down

2 Meanwhile insert wire into circle

3 Release screwdriver, make sure wire connect with auxiliary terminal

Transform installation



connect the transform with control unit terminal
(match number in transform and control unit terminal)

HDM3E Molded Case Circuit Breaker(Electronic)

Accessory Installation(1600A)
Standard:IEC/EN 60947-2



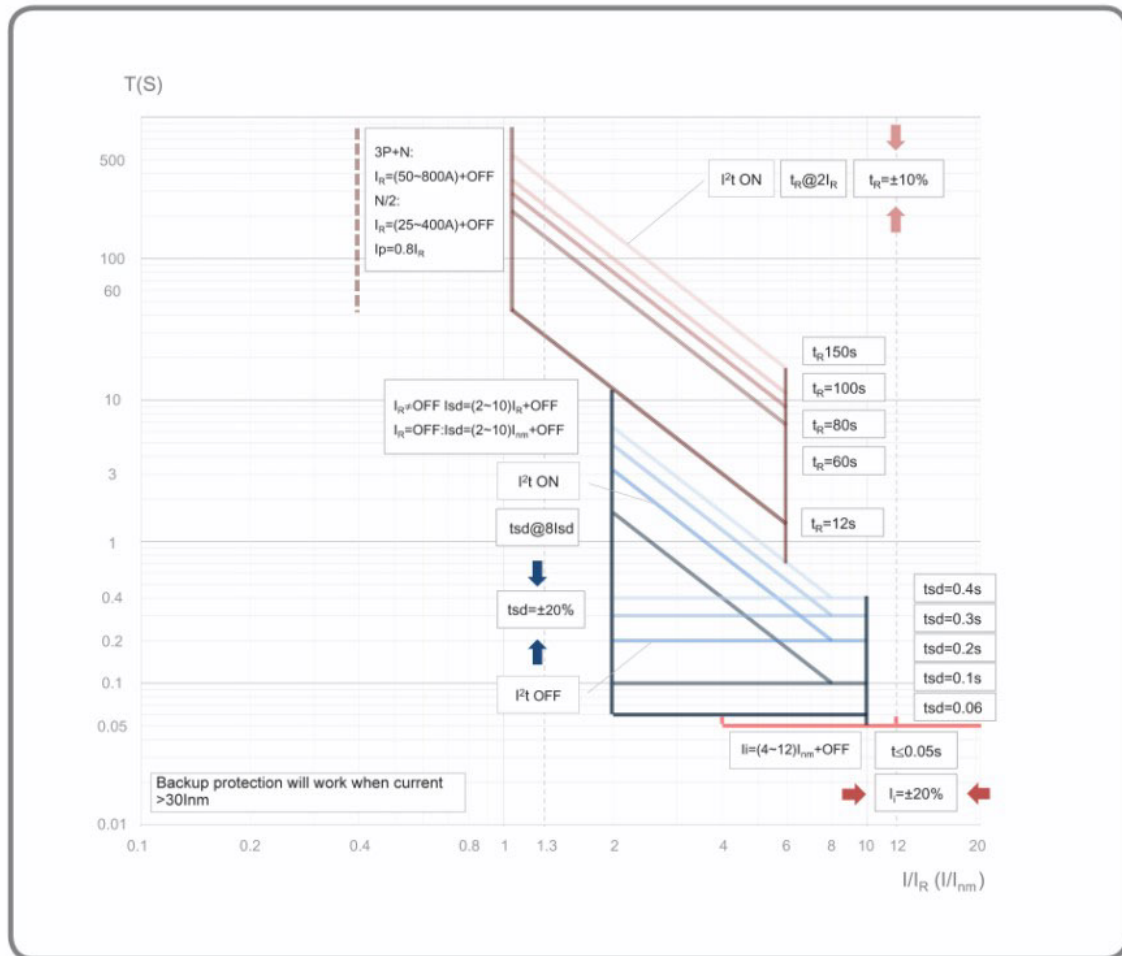
Temperature derating table

Frame	+40°C	+50°C	+60°C	+70°C
125A	-	-	Inm=80A	Inm=63A
250A	-	-	Inm=200A	Inm=160A
400A	-	-	Inm=315A	Inm=250A
630A	-	-	Inm=500 A	Inm=400A
800A	-	-	Inm=560A	Inm=500A
1600A	-	Inm=1500A	Inm=1250A	Inm=1000A

Note:Max I_R is smaller than Inm.

If the breaker is applied to the high temperature area,please refer the table above

HDM3E(125~800AF) Tripping curve



HDM3E Molded Case Circuit Breaker(Electronic)

Tripping curve(1600A)

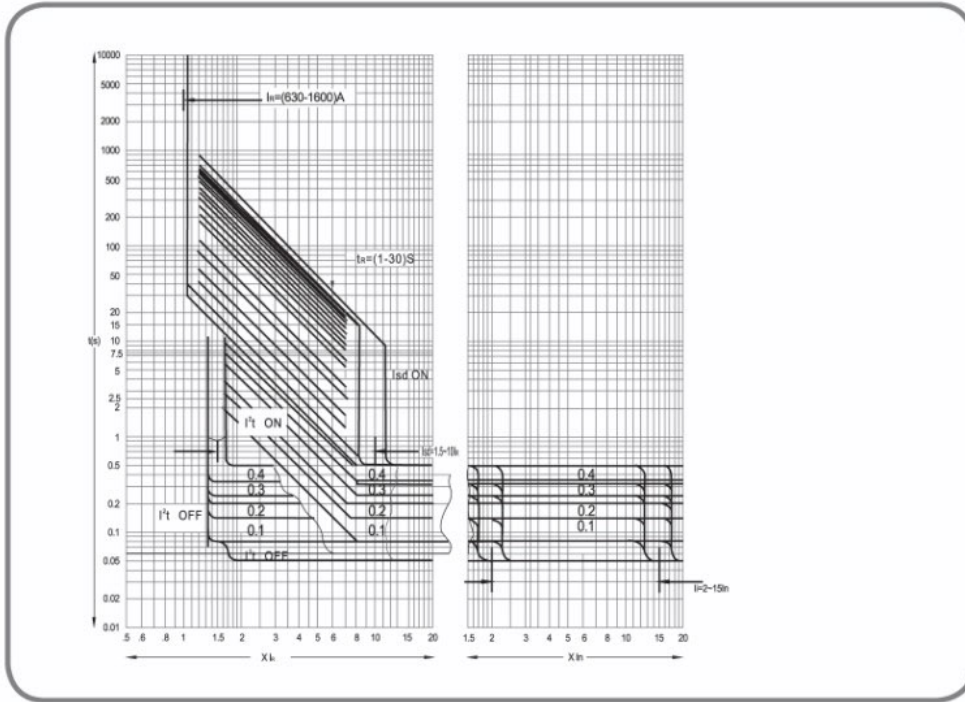
Standard:IEC/EN 60947-2



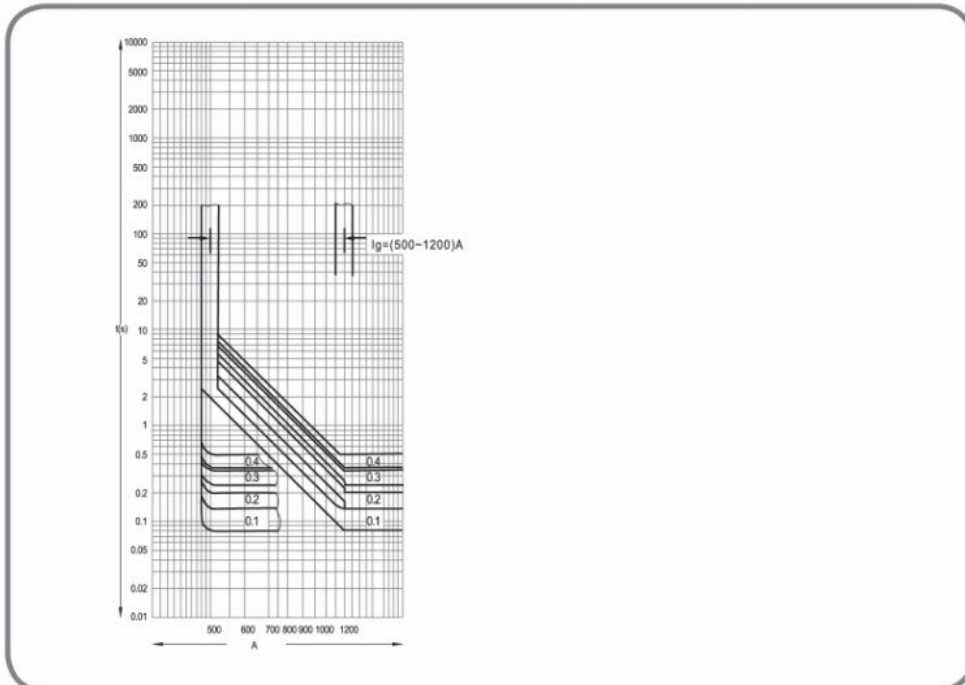
Low-voltage Distribution

HDM3E-1600AF Tripping characteristic

Triple protection



Underground protection



HDM3E Molded Case Circuit Breaker(Electronic)

Standard product type
Standard:IEC/EN 60947-2



125A-800A MCCB

Standard products can be provided for 125-800A

Standard electronic, LSI triple protection.

- Each protection can be open and closed,can be set up for distribution or motor protection



1600A

2 standard product can be provided for 1600A

1.Standard electronic ,LSIG protection.

- Each protection can be open and closed except long time delay protection,can be set up for distribution or motor protection
- Control unit is 3E-1600,power supply module,alarm contact, auxiliary contact(2 NO 2 NC), interphase barriers

2.Four remote control and communication function,LSIG protection.

- Each protection can be open and closed except long time delay protection,can be set up for distribution or motor protection
- Equipped RS485, and support Modbus-RTU is communication protocol
- 1600 AF standard offer: power module(AC400V/DC24V); Auxiliary contact 2open2close; Alarm contact; 3E-T1600 controller; motor mechanism(including motor, shunt release, close coil),the voltage must be the same of the above accessory; signal transfer module; Interphase barriers



HDM3E Molded Case Circuit Breaker(Electronic)

Product reference

Standard:IEC/EN 60947-2



Low-voltage Distribution



Order reference	Product description
HDM3E125M12533XX	HDM3E-125M 3 pole 125A
HDM3E250M25033XX	HDM3E-250M 3 pole 250A
HDM3E400M40033XX	HDM3E-400M 3 pole 400A
HDM3E630M63033XX	HDM3E-630M 3 pole 630A
HDM3E800M80033XX	HDM3E-800M 3 pole 800A
HDM3E16XM16X33XX	HDM3E-1600M 3 pole 1600A
HDM3E125M125C3XX	HDM3E-125M 4 pole 125A
HDM3E250M250C3XX	HDM3E-250M 4 pole 250A
HDM3E400M400C3XX	HDM3E-400M 4 pole 400A
HDHDM3E630M630D3X	HDM3E-630M 4 pole 630A
HDM3E800M800D3XX	HDM3E-800M 4 pole 800A
HDM3E16XM16XC3XX	HDM3E-1600M 4 pole 1600A

HDM6E Molded Case Circuit Breaker (Electronic)

Standard: IEC/EN 60947-2



Coding System

Name	Frame	B.C	Rated Current	Pole	Accessory	Voltage of Accessory	Installation Method
HDM6E	250 ↓	M ↓	250 ↓	3P ↓	10 ↓	1 ↓	F ↓
	100:100AF	M:M type	100:100A	3:3P	XX: No Accessory	X:AC400V or No Accessory	F: fix-type in front of the board
	250:250AF		250:250A	A:4P AType	10: MX		
	400:400AF		400:400A	N phase is not equipped with overcurrent trip component and N phase is always connected. The N phase does not open/ close with the other 3 poles.	20:OF 30:MN	N:AC400v	T:50 C
	630:630AF		630:630A	B:4P BType	60:OF+OF		
	800:800AF		800:800A	N phase is not equipped with overcurrent trip component, and N phase opens/ closes with other 3 poles. (N phase closes earlier, and opens later than the other 3 poles)	08:SD 28:OF+SD	D:DC24V	

Remark: 1.The HDM6E can offered 250,400,630AF with general environment .
2.The HDM6E can offered 100,250,400,630,800AF with 50 degree.

Order Information

Type	Breaking Capacity	Rated Current	Pole	Refrence
HDM6E-100	M	100	3	HDM6E100M1003XXXT
	M	100	A	HDM6E100M100AXXXT
	M	100	B	HDM6E100M100BXXXT
HDM6E-250	M	250	3	HDM6E250M2503XXXF
	M	250	A	HDM6E250M250AXXXF
	M	250	B	HDM6E250M250BXXXF
	M	250	3	HDM6E250M2503XXXT
	M	250	A	HDM6E250M250AXXXT
	M	250	B	HDM6E250M250BXXXT
HDM6E-400	M	400	3	HDM6E400M4003XXXF
	M	400	A	HDM6E400M400AXXXF
	M	400	B	HDM6E400M400BXXXF
	M	400	3	HDM6E400M4003XXXT
	M	400	A	HDM6E400M400AXXXT
	M	400	B	HDM6E400M400BXXXT
HDM6E-630	M	630	3	HDM6E630M6303XXXF
	M	630	A	HDM6E630M630AXXXF
	M	630	B	HDM6E630M630BXXXF
	M	630	3	HDM6E630M6303XXXT
	M	630	A	HDM6E630M630AXXXT
	M	630	B	HDM6E630M630BXXXT
HDM6E-800	M	800	3	HDM6E800M8003XXXT
	M	800	A	HDM6E800M800AXXXT
	M	800	B	HDM6E800M800BXXXT



HDM6E Molded Case Circuit Breaker (Electronic)

Standard IEC/EN 60947-2



Low-voltage Distribution



Technical Data

Basic Information (IEC/EN60947-2)					
Frame Size AF	100	250	400	630	800
Number of Poles	3P,4P	3P,4P	3P,4P	3P,4P	3P,4P
Breaking Capacity Level	M	M	M	M	M
Rated Ultimate Short-circuit Breaking Capacity Icu (kA rms)	50	50	70	70	70
Rated Service Short-circuit Breaking Capacity Ics (kA rms)	30	30	40	40	40
Mechanical Durability On-off Cycle	7000	7000	4000	2500	2500
Electrical Durability On-off Cycle	1000	1000	1000	500	500
Tripping Unit					
Rated Current (A) In	100	250	400	630	800
Accessory					
Indication Accessories					
OF	■	■	■	■	■
SD	■	■	■	■	■
Control Accessories					
MX (AC400, 230V, DC220V)	■	■	■	■	■
MN (AC400, 230V)	■	■	■	■	■
Extended Rotary Handle(Round and Square)	■	■	■	■	■
AC Motor Mechanism (AC400, 230V)	■	■	■	■	■
Mounting & Connection					
Fixed, Rear Connection	■	■	■	■	■
Plug-in, Rear Connection	■	■	■	■	■
Connection					
Spreader	■	■	■	■	■
Protection					
Phase Barrier	■	■	■	■	■
Installation Information					
	See page 103	See page 104	See page 105		

" ■ " with this option



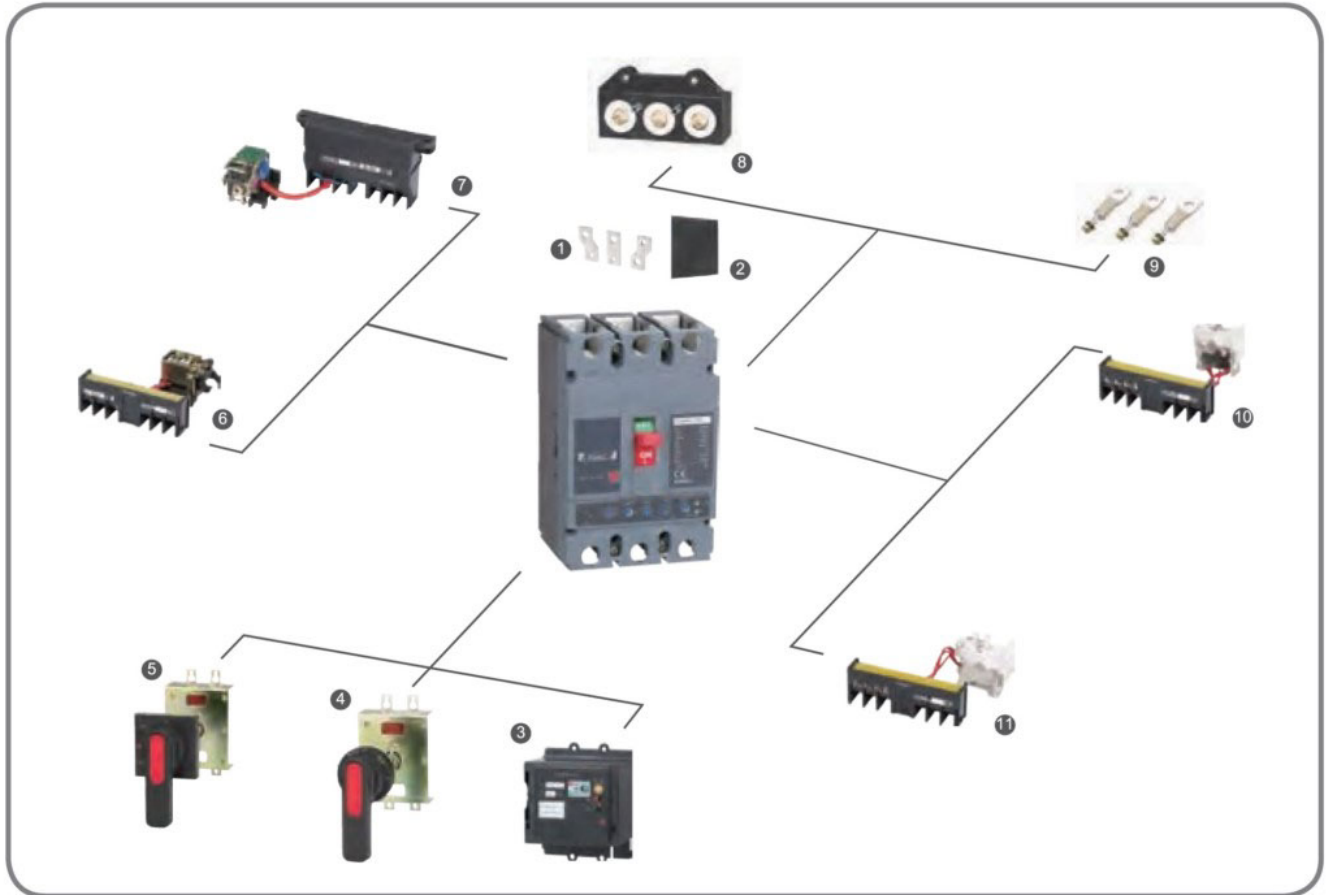
HDM6E Molded Case Circuit Breaker (Electronic)

Standard IEC/EN 60947-2



Basic Technical Data

- Rated Insulation Voltage U_i : AC 800V
- Rated Impulse Withstand Voltage U_{imp} : 8KV
- Rated Operational Voltage U_e : AC 400V
- Rated Operational Frequency: 50Hz
- Utilization Category: A



Complete Functions and Accessories

1	Spreader	6	MX	11	OF
2	Phase Barrier	7	MN		
3	AC Motor Mechanism	8	Plug-in Front Connection		
4	Round Extended Rotary Handle	9	Fixed Rear Connection		
5	Square Extended Rotary Handle	10	SD		

HDM6E Molded Case Circuit Breaker (Electronic)

Standard IEC/EN 60947-2



Low-voltage Distribution



Trip unit function

Flexible setting: offer three section protection function, including long-time delay, short-time delay, instantaneous protection, realize the action currents and action time adjustable, the user can set the trip module according to the load current requirements

Design patent: current transformer design, it can judge effectively even the current reaches a high value

Instantaneous trip design: trip the large short circuit current, and also improve the action reliability

Load monitoring: electronic tripping device configured load indicator lamp, can indicate the actual load status during operation accurately

Fault indication: when the hardware of electronic trip fault, the indication light is keeping; during the normal operation, the indicator will flicker as a frequency of 50Hz, every 0.5 seconds for 1 bright



Intelligent controller function

Rated Current (A)	In	100/250	400/630/800
Overload Protection (long time delay)			
Tripping Current(A)	$I_r = I_n \times$	0.4/0.5/0.6/0.7/0.8/ 0.9/0.95/1	0.4/0.5/0.6/0.7/0.75/0.8/0.85/ 0.9/0.95/1
Delay Time(s)	T_r	0.5/1/2/4+OFF	0.5/1/2/4/8/12/16+OFF
Short-Circuit Protection (short time delay)			
Tripping Current(A)	$I_{sd} = I_r \times$	2/2.5/3/3.5/4/5/6/7/8/10	2/2.5/3/3.5/4/5/6/7/8/10
Delay Time(s)	T_{sd}	0.1/0.2/0.3/0.4+ON 0.1/0.2/0.3/0.4+OFF	0.1/0.2/0.3/0.4+ON 0.1/0.2/0.3/0.4+OFF
Short-Circuit Protection (instantaneous)			
Tripping Current (A)	$I_i = I_n \times$	2/4/6/8/10 I_n +OFF	2/4/6/8/10/12 I_n +OFF
N Phase Current Type		N,N/2,OFF(Unadjustable)	N,N/2,OFF

Basic Parameter Information

The 4-pole products with N phase are divided to four types.

A type: N phase is not equipped with overcurrent trip component an N phase is always connected. The N phase does not open/close with the other 3 poles

B type: N phase is not equipped with overcurrent trip component, and N phase opens/closes with the other 3 poles (N phase closes first and then opens)

Isolation Function

HDM6E series product has isolation protection function. The operation handle can indicate "OFF" position only when the contact is really opened.

HDM6E Molded Case Circuit Breaker (Electronic)

Standard IEC/EN 60947-2



Complete Accessories of HDM6E Series

Indicating Accessories

Auxiliary Contact (OF):

Be connected in the auxiliary circuit of switch device and used for the accessories to indicate the position of the circuit breaker contacts.

Alarm Switch (SD):

Be used for the accessories under the state of on and off or trip of the indication circuit breaker for the following reasons:

- Overload or short-circuit fault
- Residual earth-leakage fault
- Manual test button trip
- Shunt Trip Release
- Line Fault and Under-voltage release action



Electrical Parameter of OF & SD			
Rated Thermal Current (A)	3A		
Utilization Category	AC15	DC13	
Working Current 50Hz/60Hz	AC400V	0.3A	—
	DC220V	—	0.15A

Control Accessories

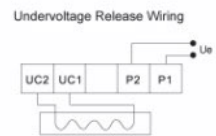
Under-voltage Release (MN)

The MN shall tripping the circuit breaker reliably when the voltage between 35% and 70% of rated operating voltage.

The MN should ensure the circuit breaker to switch on when the voltage between 85% and 110% of rated operating voltage.

The MN should prevent the circuit breaker to switch on when the voltage less than 35% of rated operating voltage.

Applicable Type of Circuit Breaker	Power Consumption of Under-voltage Coil(W)	
	AC400V	AC230V
HDM6E100/250	4.3	3.3
HDM6E400	3.6	2.5
HDM6E630/800	2	1.6



HDM6E Molded Case Circuit Breaker (Electronic)

Standard IEC/EN 60947-2



Complete Accessories of HDM6 Series

Shunt Release (MX)

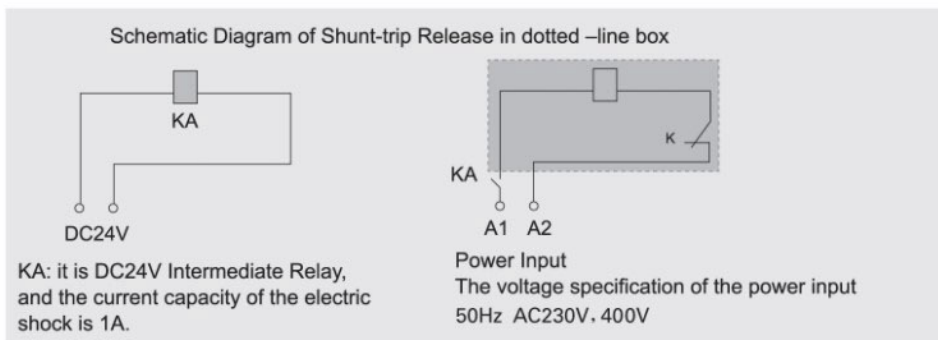
When the working voltage is between 70%-110% U_s , the shunt release will reliably trip the circuit breaker.

Applicable Type of Circuit Breaker	Power Consumption of Under-voltage Coil (W)		
	AC400V	AC230V	DC24V
HDM6E100/250	112	68.6	85.3
HDM6E400	67	62.3	100
HDM6E630/800	163	153	120

When the rated control supply voltage of the shunt release is DC24V, the maximum length of the copper conductor shall satisfy the following requirements:

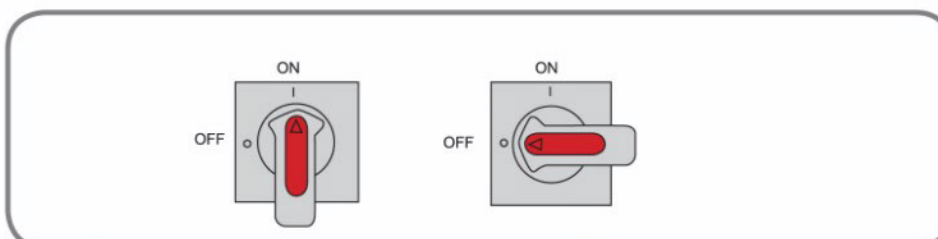
Conductor Area Rated	1.5mm ²	2.5mm ²
Control Supply Voltage U_s (DC24V)		
100% U_s	150m	250m
85% U_s	100m	160m

When the requirements above cannot be met, it is recommended to adopt the following chart to design control loop of the shunt release.



Extended Rotary Handle

- Function: indication of the three positions of switch-on, switch-off and trip
- Residual earth-leakage fault. The circuit breaker cannot switch-on when the switch board door is open
- The door cannot be opened if the circuit breaker is ON
- An extension shaft that can be adjusted to the distance between the back of circuit breaker and door, the specific distance refers to the dimensions at the rear and the installation part
- The OFF-Position of the circuit breaker can hang 1-3 locks with the diameter of 5mm



Low-voltage Distribution



HDM6E Molded Case Circuit Breaker (Electronic)

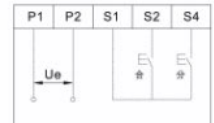
Standard IEC/EN 60947-2



Complete Accessories of HDM6E Series

AC Motor Mechanism

Provide on-site and remote distance control circuit breaker to implement switch-on and switch-off



Phase Barriers

The phase barriers are used to reinforce isolation of connection points in installation with busbars whether insulated or not. We can easily install the phase barrier through the phase slot of this product

Both the inlet and outlet line of HDM6s has phase barrier.



Connecting Accessories

Fixed, Rear Connection

Easy to install and connect the products in the Rear Connection



Plug-in Rear Connection

The plug-in connection for the products is easy for maintenance and replacement, but plug-in and plug-out cannot be done with the electricity



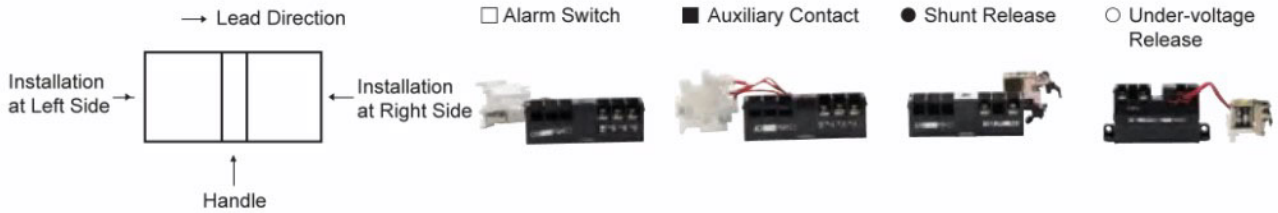
HDM6E Molded Case Circuit Breaker (Electronic)

Standard: IEC/EN 60947-2



Installation Location of Accessories

Installation Method for Tripping Release and Accessories Code



Name of Accessory	Product Type		
	HDM6E100/250	HDM6E400	HDM6E630/800
Alarm Switch			
Shunt Release			
Auxiliary Contact			
Undervoltage Release			
Two Group Auxiliary Contact			
Auxiliary Contact Alarm Switch			

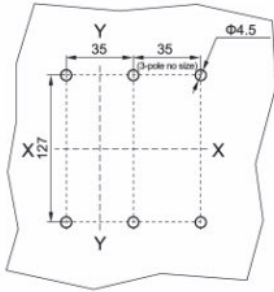
HDM6E Molded Case Circuit Breaker (Electronic)

Standard: IEC/EN 60947-2



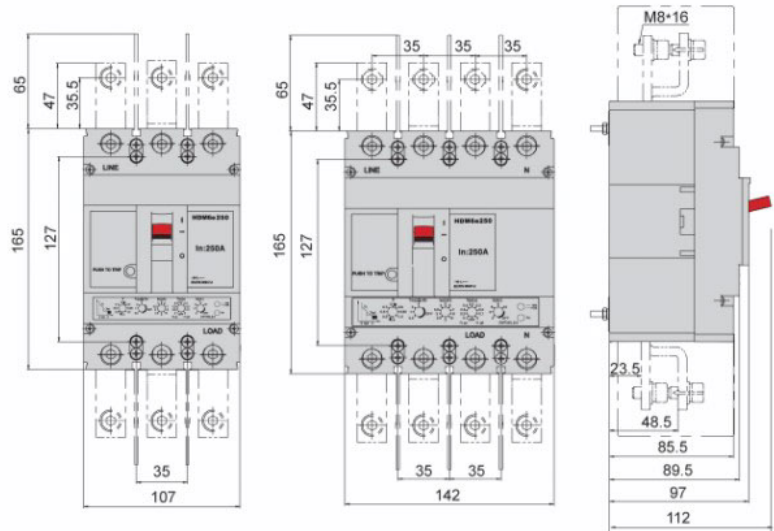
HDM6E 100/250AF Installation Dimension

● Chart of Fixed Front Connection Installation Hole

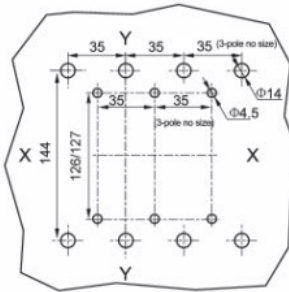


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

● Installation Dimension of Fixed Front Connection

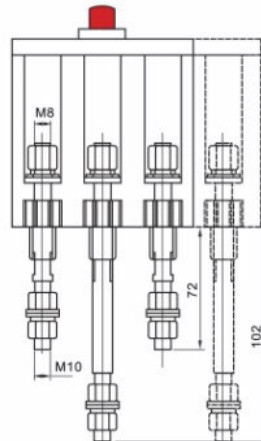


● Chart of Fixed Rear Connection Installation Hole

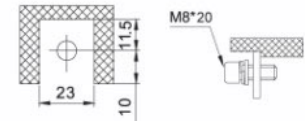


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

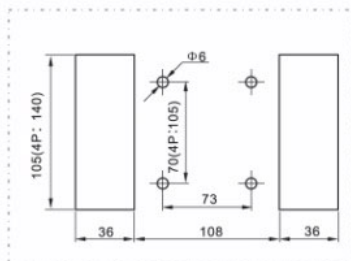
● Fixed Rear Connection Wiring



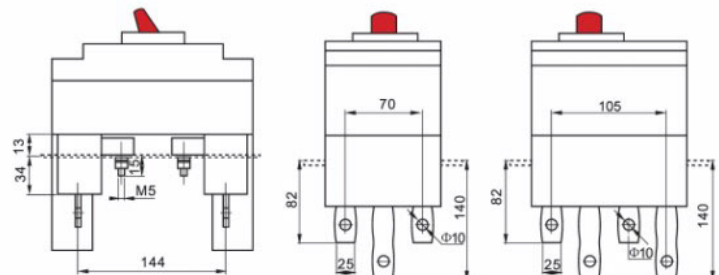
● Chart of Terminal Connection Installation Hole



● Chart of Plug-in Rear Connection Installation Hole



● Plug-in Rear Connection Wiring



HDM6E Molded Case Circuit Breaker (Electronic)

Standard IEC/EN 60947-2

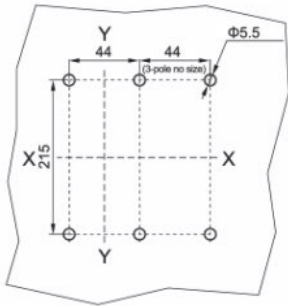


Low-voltage Distribution



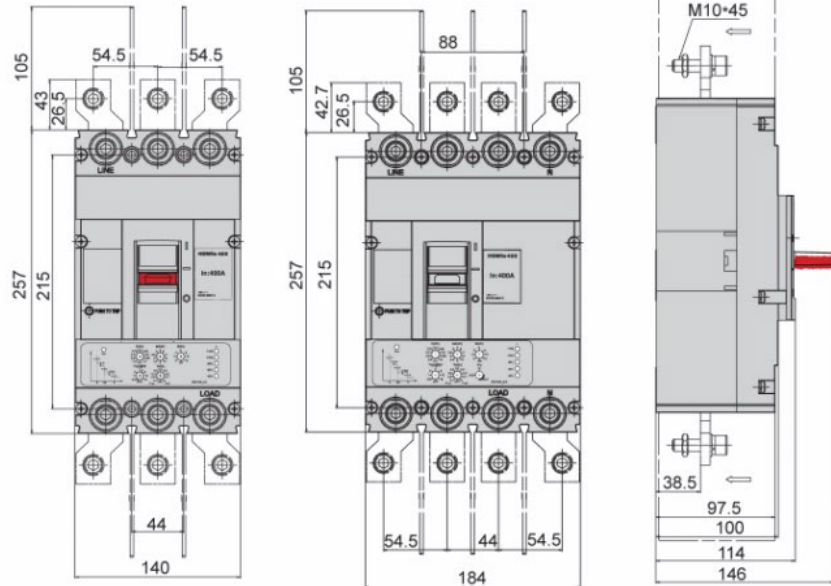
HDM6E 400AF Installation Dimension

● Chart of Fixed Front Connection Installation Hole

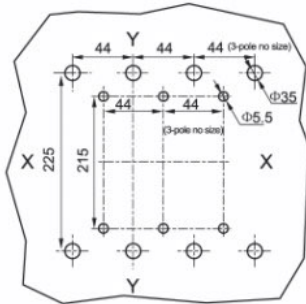


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

● Installation Dimension of Fixed Front Connection

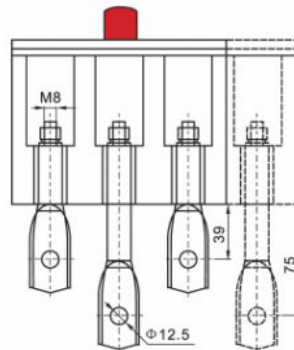


● Chart of Fixed Rear Connection Installation Hole

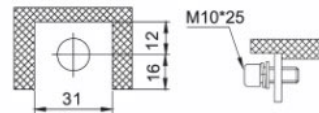


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

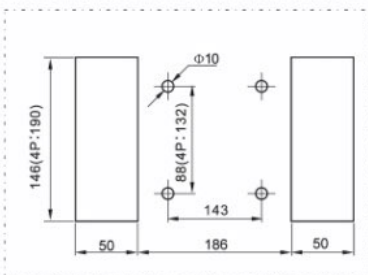
● Fixed Rear Connection Wiring



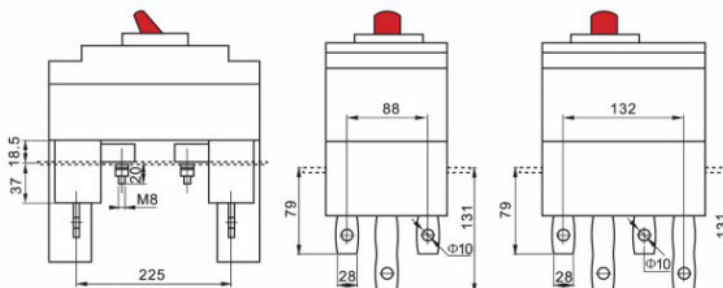
● Chart of Terminal Connection Installation Hole



● Chart of Plug-in Rear Connection Installation Hole



● Plug-in Rear Connection Wiring



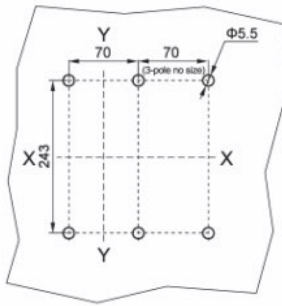
HDM6E Molded Case Circuit Breaker (Electronic)

Standard IEC/EN 60947-2



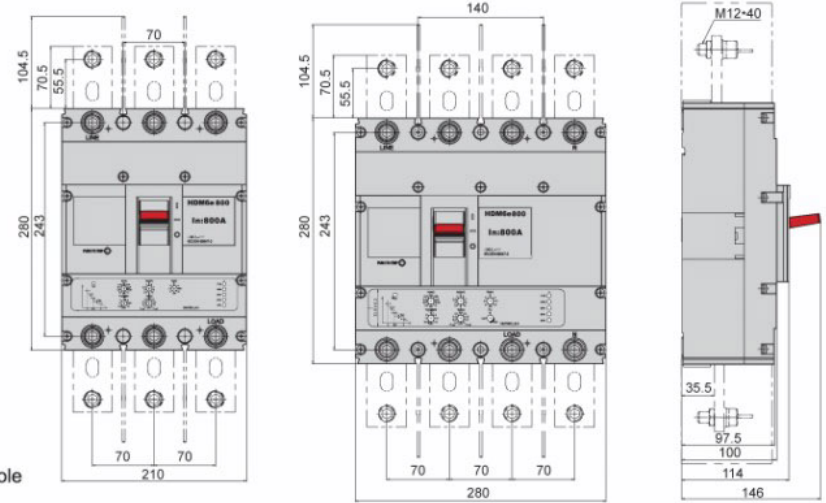
HDM6E 630/800AF Installation Dimension

● Chart of Fixed Front Connection Installation Hole

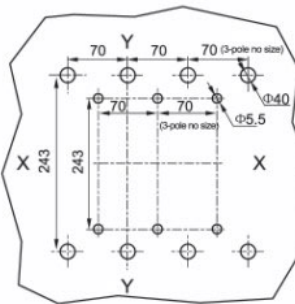


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

● Installation Dimension of Fixed Front Connection

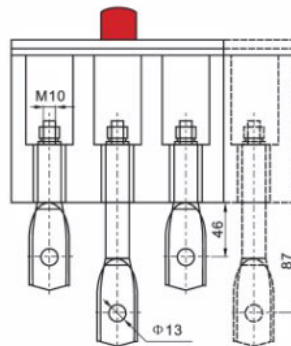


● Chart of Fixed Rear Connection Installation Hole

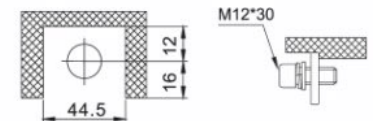


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

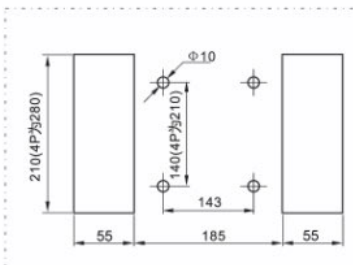
● Fixed Rear Connection Wiring



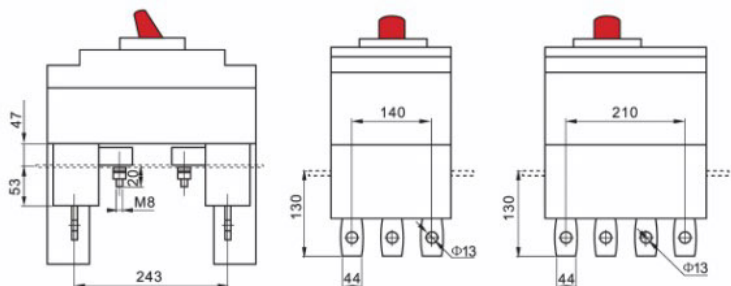
● Chart of Terminal Connection Installation Hole



● Chart of Plug-in Rear Connection Installation Hole



● Plug-in Rear Connection Wiring



HDM6E Molded Case Circuit Breaker (Electronic)

Standard IEC/EN 60947-2



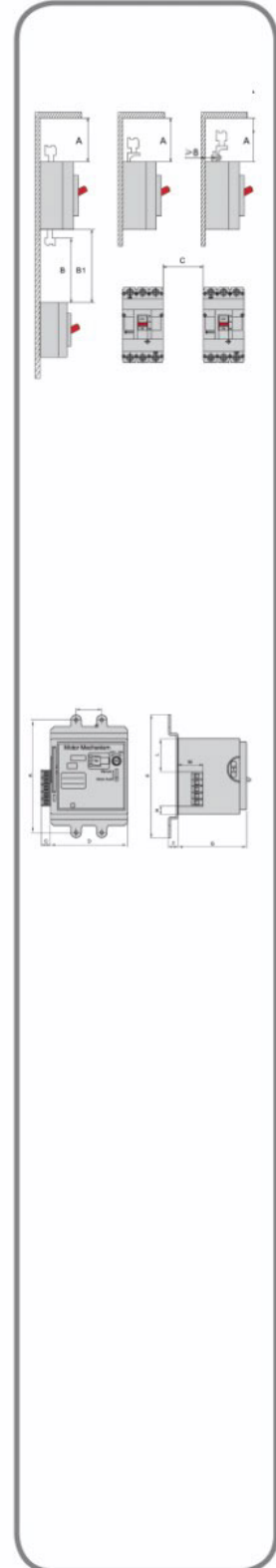
Low-voltage Distribution



Safety Distance

Type of Circuit Breaker	A(mm)	B(mm)	B1(mm)	C(mm)
HDM6E100/250	60	60	Length of Exposed Conductor +B	30
HDM6E400	110	110		70
HDM6E630/800	110	110		70

Remark: no matter whether the products have the accessories, the distance between the products must meet the requirements of C distance.



Installation Dimension

Motor Mechanism

Type of Circuit Breaker	A	B	C	D	E	F	G	H	L	M
HDM6E100/250AF	127	35	11	104	138	16	80	8.5	38.5	28.5
HDM6E400AF	215	44	11	140	232	22	112	12	97.5	28.5
HDM6E630/800AF	243	70	11	150	260	16	112	12	97.5	28.5

HDM6E Molded Case Circuit Breaker (Electronic)

Standard IEC/EN 60947-2

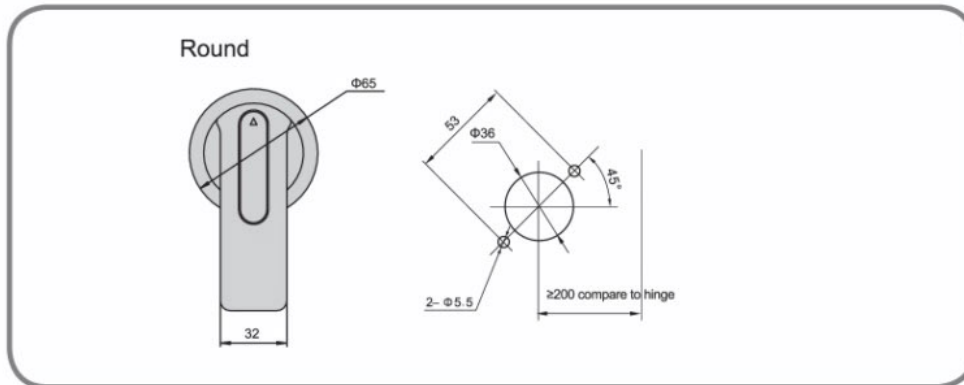


HDM6E Extension Rotary Handle Base Dimension

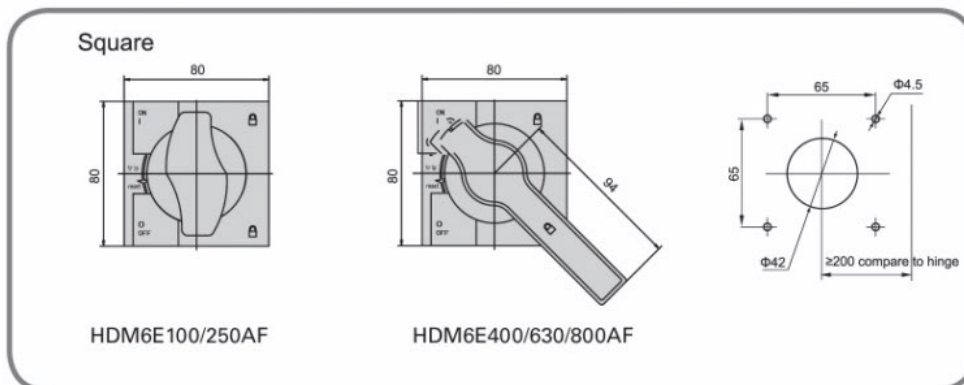
Type of Circuit Breaker	C	D	E	H	K
HDM6E100/250	35	71.5	71.5	56	20
HDM6E400	44	107.5	107.5	76	20
HDM6E630/800	70	121.5	121.5	76	20

Remark: the shortest distance of G connecting rod is 50mm and ex-factory standard configuration is 150mm, please contact the factory if the special customization is required

HDM6E Extension Rotary Handle



HDM6E250 is 65 or 95 for option, the default value is 65.
 HDM6E400, HDM6E800 is 95 or 125 for option, the default value is 95.



HDM6E Molded Case Circuit Breaker (Electronic)

Standard IEC/EN 60947-2



Impact of Altitude on Tripping Release Performance

No impact on the performance of the circuit breaker when the height is below 2000m. When it is over 2000m, please refer to following factors of air insulation properties and cooling capability. The correction factors in the table below are applicable for the conditions of the height of installation over 2000m, the breaking capacity of the circuit breaker remains unchanged.

Altitude(m)	2000	3000	4000	5000
Average Isolation Voltage(V)	800	700	600	500
Dielectric Strength(V)	3000	2500	2100	1800

Operating conditions

Altitude derating Temperature affect characteristics

Impact of high temperature on the release performance(high-temperature degrading characteristics)

The overload protection ability will be changed slightly when the temperature exceeds 50°C . In the tripping curve chart, I_r, the setting value of the circuit breaker must be corrected according to the following factors.

Frame	Environment Temperature°C			
	40°C	50°C	55°C	60°C
HDM6E-100	1In	1In	0.97In	0.95In
HDM6E-250	1In	1In	0.97In	0.95In
HDM6E-400	1In	1In	0.97In	0.95In
HDM6E-630	1In	1In	0.96In	0.94In
HDM6E-800	1In	1In	0.96In	0.94In

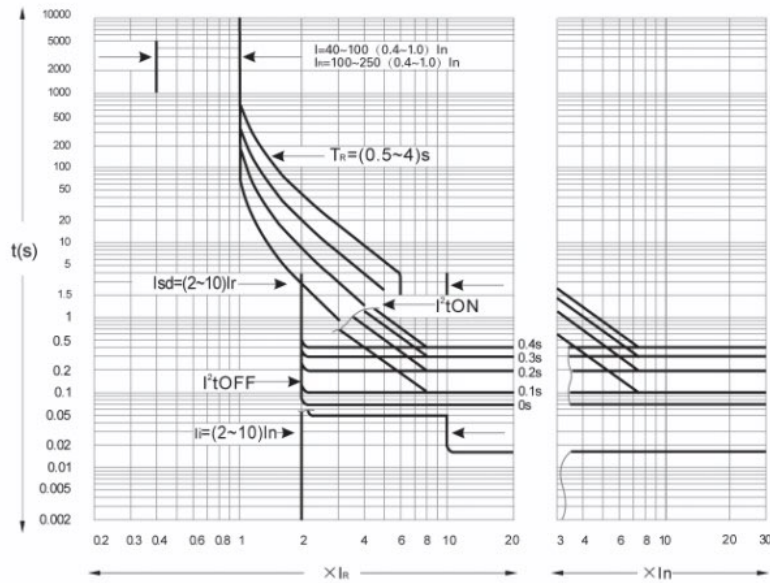
HDM6E Molded Case Circuit Breaker (Electronic)

Standard IEC/EN 60947-2

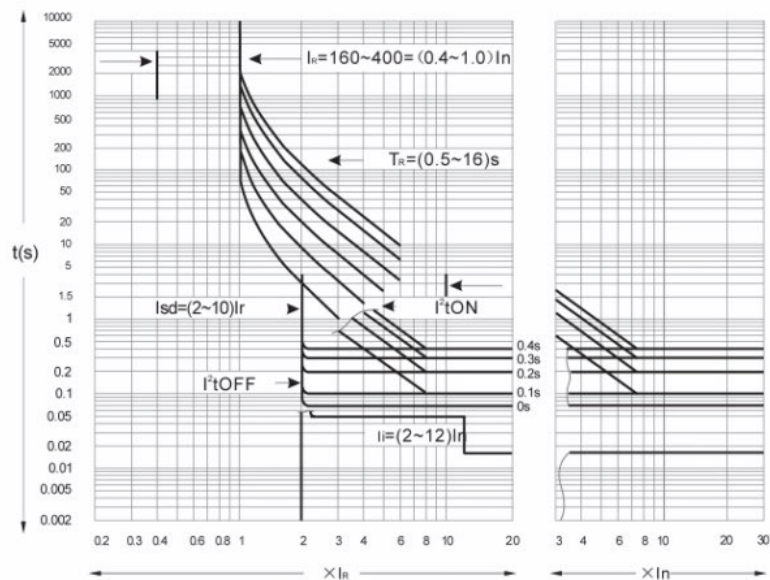


Trip Curve

HDM6E 100/250AF



HDM6E 400AF



HDM6E Molded Case Circuit Breaker (Electronic)

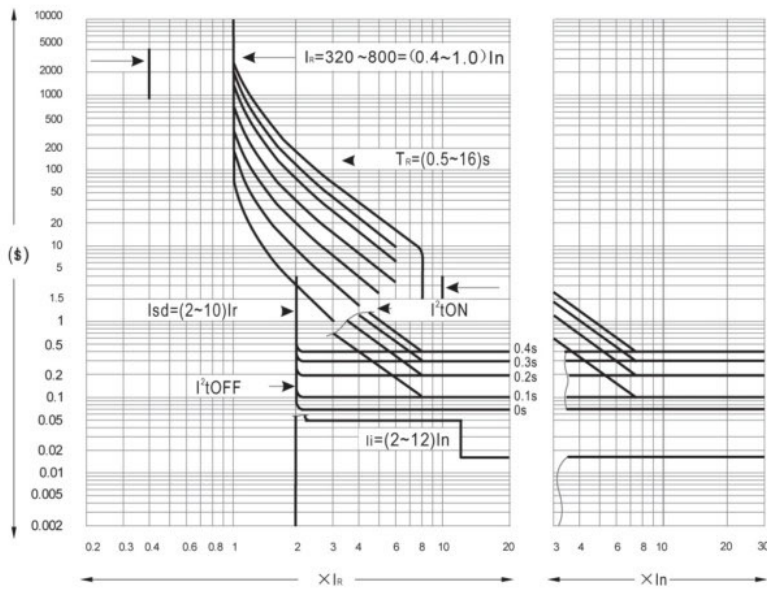
Standard IEC/EN 60947-2



Low-voltage Distribution

Trip Curve

HDM6E 630/800AF



HDM3L Earth-Leakage Circuit Breaker

HDM3L Technical Parameters
Standard: IEC/EN 60947-2



Basic parameters

		HDM3L-125	HDM3L-160
Rated voltage Ue(V)		400/415	400/415
Rated current In(A)		16/20/25/32/40/50/63/80/100/125	100/125/140/160
Rated insulation voltage Ui(V)		800	800
Rated impulse withstand voltage Uimp (kV)		8	8
Number of poles		3/4 (A,B)	3/4 (A,B)
Rated residual operating current IΔn mA (three rating adjustable)	Non- delay type	KA: 30mA,100mA,300mA KB: 100mA,300mA,500mA	KA: 30mA,100mA,300mA KB: 100mA,300mA,500mA
	Delay type	KB: 100mA,300mA,500mA	KB: 100mA,300mA,500mA
Rated residual non-tripping current IΔno (mA)		50% IΔn	50% IΔn
Non-delay type: breaking time		≤ 0.2	≤ 0.2
Fixed delay: 2IΔn limit non-actuating time (s)		0.1/0.2/0.3/0.4/0.5/1	0.1/0.2/0.3/0.4/0.5/1
Delay adjustable type: limit non-actuating time S under 2IΔn state		Y1: 0.1/0.2/0.3s	Y1: 0.1/0.2/0.3s
		Y2: 0.4/0.5/1s	Y2: 0.4/0.5/1s
Breaking capacity		S	F
Icu (415V) 50Hz/60Hz		35	50
Ics (415V) 50Hz/60Hz		21	30
Rated residual short-circuit making capacity IΔm(kA)		25% Icu	25% Icu
Mechanical life with maintenance		40000	40000
Mechanical life without maintenance		20000	20000
Electrical life 400V		8000	8000
Modular mounting of accessories			
Isolation function			
Protection type		Distribution protection	Distribution protection
		Motor protection	Motor protection
Tripping		Thermal magnetic tripping	Thermal magnetic tripping
Wiring mode			
Fixed front connection			
Fixed rear connection			
Plug-in rear connection			
Dimension (mm)	3P	92x150x93.5	107*165*94
	4P	122x150x93.5	142*165*94
Product accessories			
Shunt release			
Alarm contact			
Auxiliary contacts (1NO1NC)			
Auxiliary contacts (2NO2NC)			
Leakage alarm tripping module			
Leakage alarm non-tripping module			
Extension terminal			
Electronic motor operating mechanism CD2			
Round handle operating mechanism			
Round extended-handle operating mechanism			
Square handle operating mechanism			
Square extended-handle operating mechanism			
Interphase barriers			
Certification		CE	CE

Note: when the rated residual current In is at 30mA-100mA-300mA rating, the delay duration can only be chosen as non-delay mode



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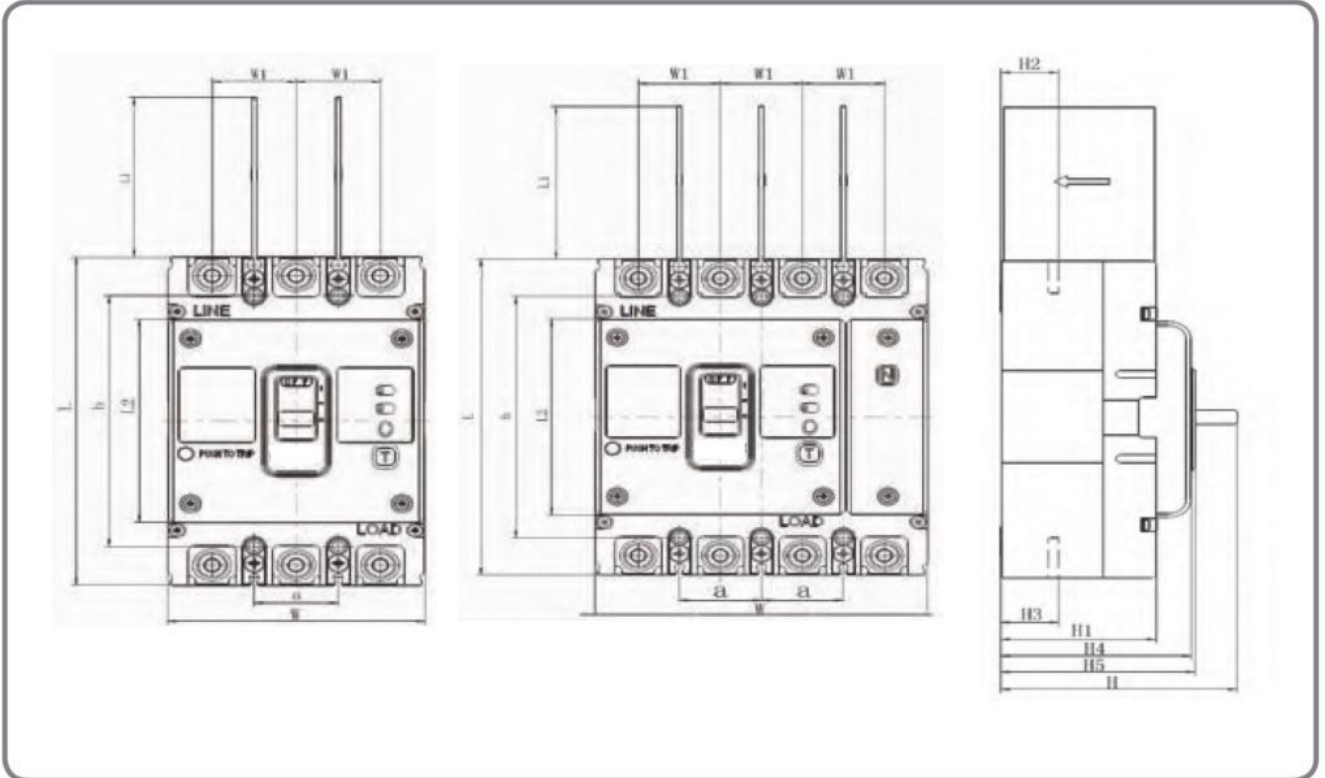
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HDM3L Earth-Leakage Circuit Breaker

HDM3L Technical Parameters
Standard: IEC/EN 60947-2



HDM3L Fixed front connection installation dimension



Frame	Number of poles	appearance dimension										Mounting dimension		
		L	L1	L2	W	W1	H	H1	H2	H3	H4	H5	a	b
125	3P	150	50	96	92	30	111.5	81	28.5	28	93.5	95.5	30	129
	122													
160/250	3P	165	80	102	107	35	112.5	80	23	23	94	95.5	35	126
	142													
400	3P	257	104.5	150	150	48	145.9	96.2	36	36/36.5	107.5	112.5	44	215
	198													
630	3P	280	102	102	210	70	160	108	40.5	41.5	111	119	70	243
	280													

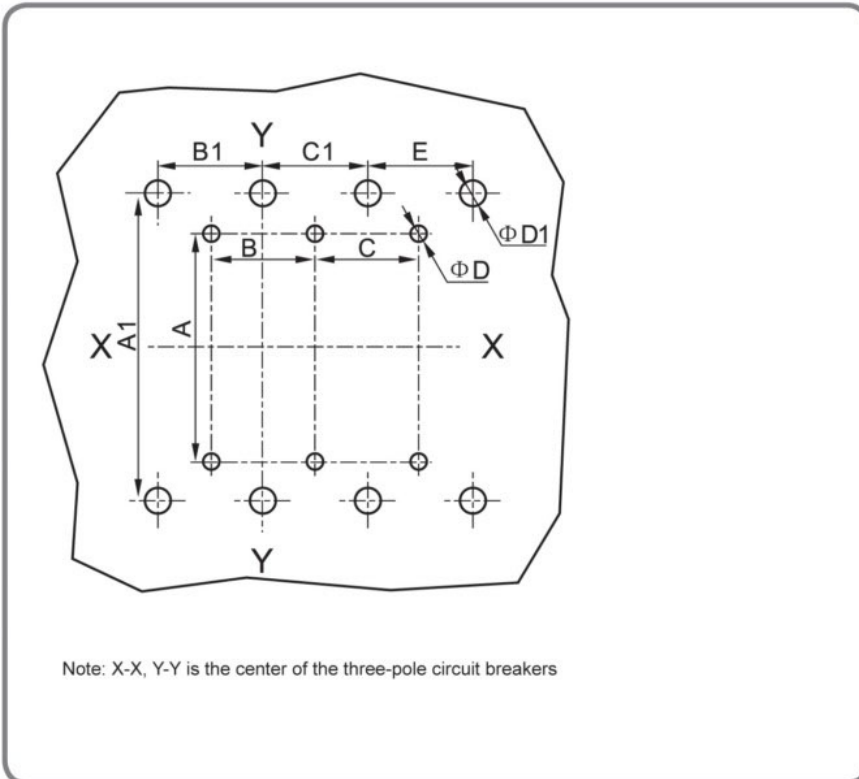
unit mm

HDM3L Earth-Leakage Circuit Breaker

HDM3L Technical Parameters
Standard: IEC/EN 60947-2



HDM3L Fixed rear connection installation hole



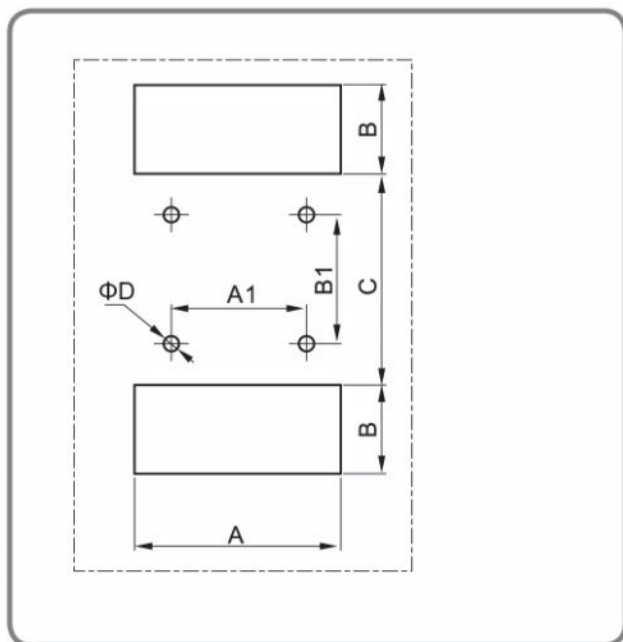
Frame	Number of poles	A	B	C	ΦD	A1	B1	C1	E	ΦD1	unit mm
125	3P	129	30	-	5.0	132	30	30	-	15	
	4P	129	30	30	5.0	132	30	30	30	15	
160/250	3P	126	35	-	5.5	145	35	35	-	15	
	4P	126	35	35	5.5	145	35	35	35	15	
400	3P	215	44	-	6.5	225	48	48	-	32	
	4P	215	44	-	6.5	225	48	48	48	32	
630	3P	243	70	-	7.5	243	70	70	-	40	
	4P	243	70	70	7.5	243	70	70	70	40	

HDM3L Earth-Leakage Circuit Breaker

HDM3L Technical Parameters
Standard: IEC/EN 60947-2



HDM3L plug-in rear connection hole



unit mm

Frame	Number of poles	A	A1	B	B1	C	ΦD
125	3P	92	60	30	60	102	4.5
	4P	122	90				
160/250	3P	109	70	40	74.5	104	6
	4P	144	105				
400	3P	152	88	54	145	170	8.5
	4P	200	132				
630	3P	212	140	62	143	185	11
	4P	282	210				

HDM3L plug-in front connection hole

*Refer to above chart of "plug-in rear connection hole"

unit mm

Frame	Number of poles	A	A1	B	B1	C	ΦD
125	3P	/	30	/	112	/	5
	4P						
160/250	3P	/	35	/	150	/	5
	4P						

HDM3L Earth-Leakage Circuit Breaker

Debugging and maintenance
Standard: IEC/EN 60947-2

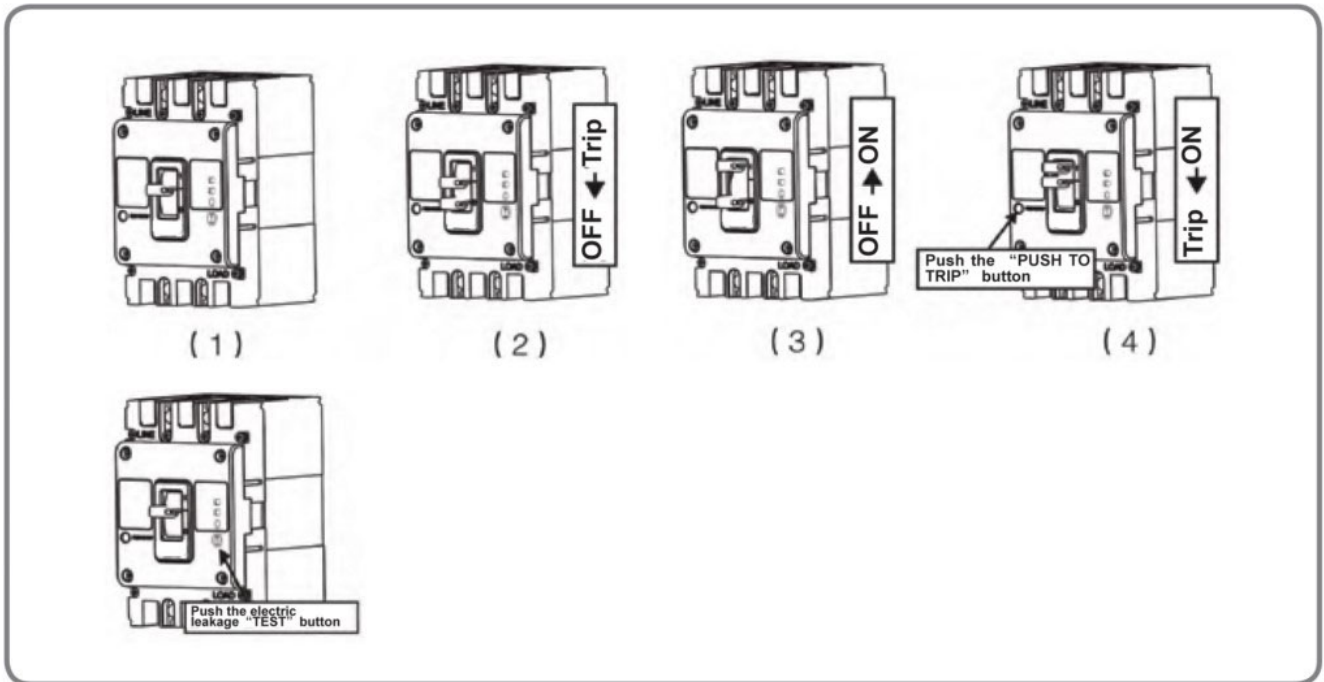


Low-voltage Distribution

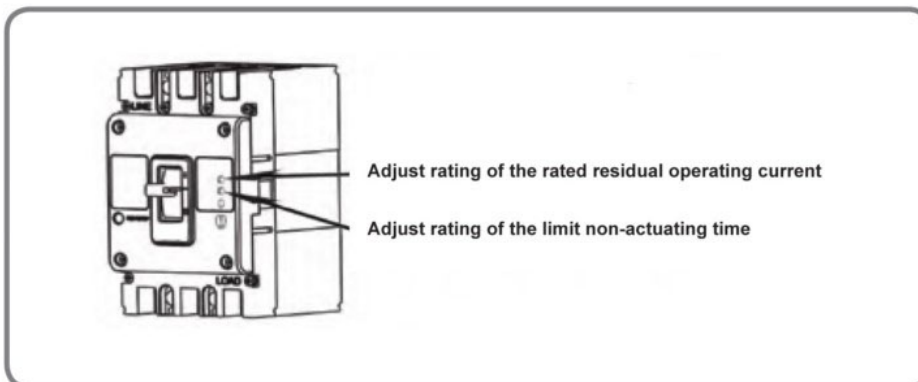
HDM3L Operation and debugging

Step 1. Check the handle state of the circuit breaker

1. Default position of the circuit breaker is at the "TRIP" position
2. Press the handle to the "OFF" position before tripping operation
3. Close the circuit breaker to the "ON" position
4. Upon pressing the "PUSHTOTRIP" button, the handle of the circuit breaker should return to the "TRIP" position
5. The leakage test button needs to be pressed once every month, to check whether the leakage function of the product is valid



Step 2: Select the correct rating for the rated residual operating current and limit non-actuating time



HDM3L Earth-Leakage Circuit Breaker

Debugging and maintenance
Standard: IEC/EN 60947-2



HDM3L Repair and maintenance

- The repair and maintenance must be operated by qualified persons;
- Superior power must be cut off to ensure the incoming terminals are electrically neutral (except for the testing items using the leakage testing button);
- Conduct maintenance and protection once a year under normal operating conditions with the maintenance content as follow:

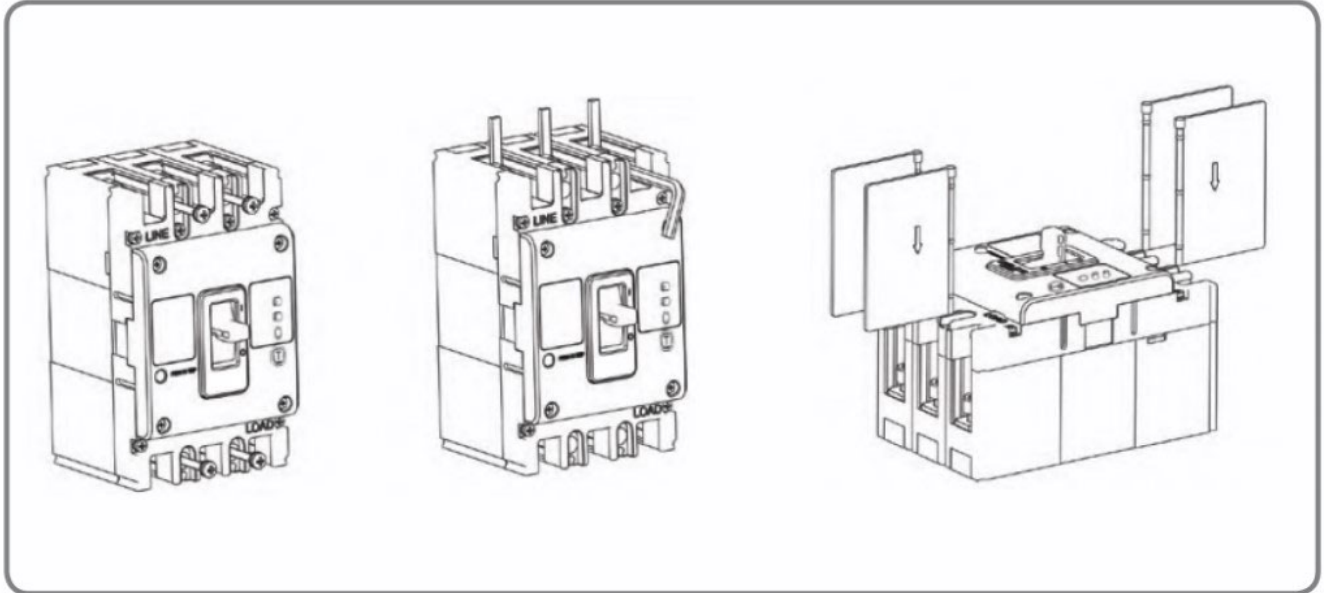
Type	Item	Details
Leakage molded frame circuit breaker	Appearance	Free from dust, condensation, to be cleaned if necessary
		Free from damage
		No color degradation of the frame and the connecting terminal
	Flash barrier	Inserting the flash barrier in place according to the instructions
	Connector connection	Tighten without looseness according to the torque table
	Handle On/Off operation	Flexible in operations
	Trip button	After tripping, the handle directs to the tripping position
Circuit breaker with accessories	Insulation test	Test according to the product testing requirements on the home page
	Test with the leakage testing button	With the leakage testing button pressed once every month, the circuit breaker should be normally opened and closed. Time to press the test button cannot be too long. If the product trip every month, do not press it repeatedly. Please contact the local dealer to resolve the problem.
	With shunt release	The circuit breaker shall be disconnected reliably and the handle indicates trip if the release is provided with rated voltage
	With auxiliary contacts	The switching signal of the auxiliary contact shall be normal when the circuit breaker is connected and then disconnected.
With alarm contacts	The switching signal of the alarm contact shall be normal when the circuit breaker is closed and then tripped by pressing the trip button.	

HDM3L Earth-Leakage Circuit Breaker

Appendix
Standard: IEC/EN 60947-2



HDM3L torque table and connecting conductors



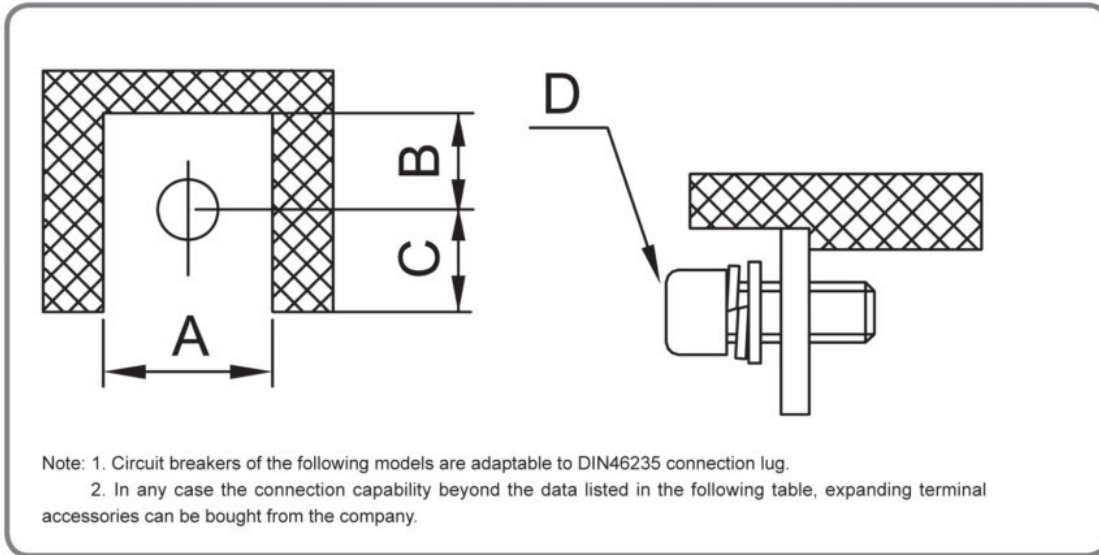
Torque and connecting conductor table

Frame	Hexagon	Torque force N.m
125	M8	9.5-10.5
160/250	M8	9.5-10.5
400	M10	19.5-20.5
630	M12	29.5-30.5

HDM3L Earth-Leakage Circuit Breaker

Appendix
Standard: IEC/EN 60947-2

Figure of HDM3L terminal board mounting holes (mm)



Model	Maximum connecting capability of DIN46235	A	B	C	D
125	25mm ²	18	7.5	9	M8X16
160/250	70mm ²	25	12.5	9.5	M8X20
400	120mm ²	32	14	16	M10X25
630	-	44.5	12	16	M12X30

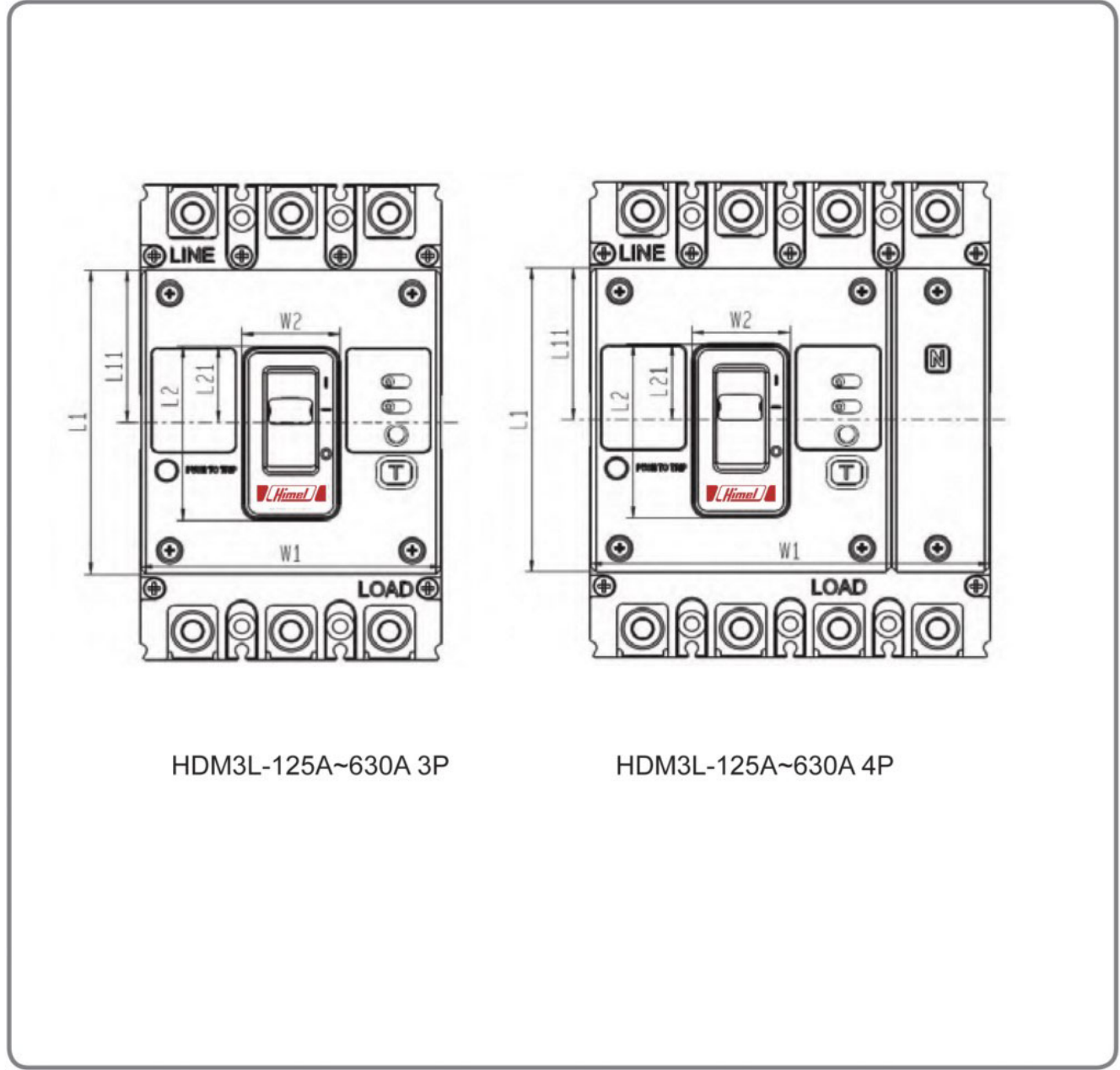
HDM3L Earth-Leakage Circuit Breaker

Appendix
Standard: IEC/EN 60947-2



Low-voltage Distribution

Hole dimension for HDM3L-125A~630A fixed or plug-in breaker panel (mm)



HDM3L-125A~630A 3P

HDM3L-125A~630A 4P

HDM3L Earth-Leakage Circuit Breaker

Product selection

Standard:IEC/EN 60947-2



Low-voltage Distribution

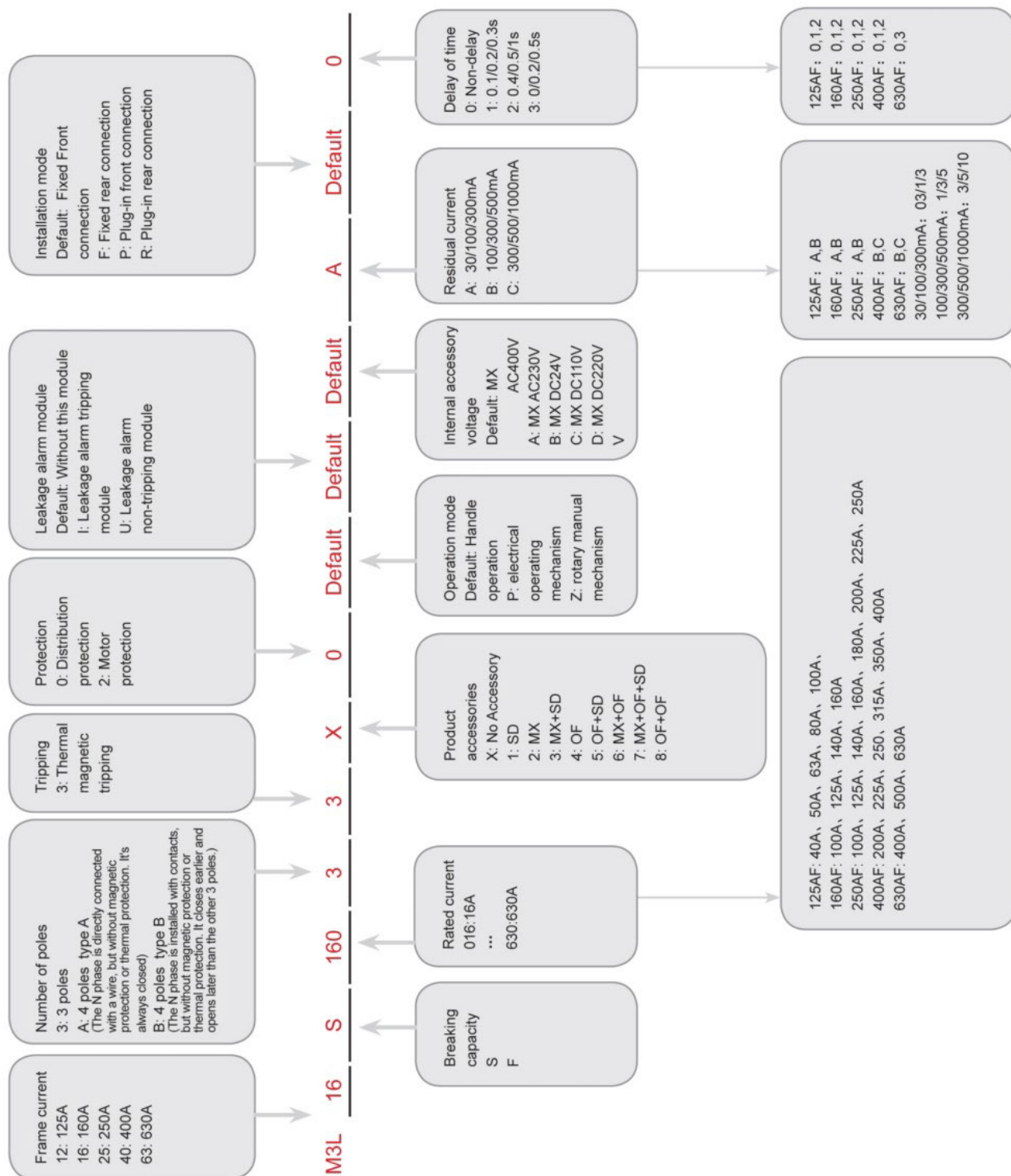


Model	Number of poles	Show front cover and toggle handle			Only show toggle handle		
		W1	L1	L11	W2	L2	L21
125	3P	92	96	48	30	55	24
	4P	122	96	48	30	55	24
160/250	3P	107	102	51	26	54	27
	4P	142	102	51	26	54	27
400	3P	150	150	75	52.5	75.5	41
	4P	198	150	75	52.5	75.5	41
630	3P	210	102	61	65	102	51
	4P	280	102	61	65	102	51

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2

For example: **HDM3L16S16033000A0 HDM3L-160S/3300 160A 03/1/3**



Note: 1

1. Motor protection of 630A is not available;
2. Plug-in front connection is available for 400A & above
3. Delay duration: 0/0.2/0.5s for 630A is adjustable
4. Time-delay product is unavailable for 30/100/300mA;

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard:IEC/EN 60947-2



Low-voltage Distribution



Accessory selection, HDM3L

HDM3L	Current frame	Breaking Capacity	Accessories	Voltage Type	Installation Position	Poles
	100	F	H1	A2	L	3P
	↓	↓	↓	↓	↓	↓
	125:25A 160:160A 250:250A 400:400A 630:630A	S F	AL1:Alarm (with wire) AL2:Alarm (with terminal) MX1:Shunt release (with wire) MX2:Shunt release (with terminal) OF11K1B:Auxiliary contact left(with wire) OF11K2B:Auxiliary contact left(with terminal) C3:Expanding terminal 3P(3pcs) C4:Expanding terminal 4P(4pcs) IB3:Interphase clapboard 3P(2pcs) IB4:Interphase clapboard 4P(3pcs) OFAL1:Auxiliary contact&Alarm (with wire) OFAL2:Auxiliary contact&Alarm (with terminal) CD1:AC Electric operating mechanism CD2:DC Electric operating mechanism	MX shunt: A2:AC230V A3:AC400V D1:DC110V D2:DC24V D3:DC220V	L:Left R:Right	3P:3P 4P:4P

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution

Material Order Number

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference	
HDM3L -125F	40	3P	30/100/300mA	Not Delay Time Type	HDM3L12F04033X0A0	
				Not Delay Time Type	HDM3L12F04033X0B0	
				0.1/0.2/0.3s	HDM3L12F04033X0B1	
		0.4/0.5/1s	HDM3L12F04033X0B2			
		4P(A)	30/100/300mA	Not Delay Time Type	HDM3L12F040A3X0A0	
				Not Delay Time Type	HDM3L12F040A3X0B0	
	0.1/0.2/0.3s			HDM3L12F040A3X0B1		
	0.4/0.5/1s		HDM3L12F040A3X0B2			
	4P(B)		30/100/300mA	Not Delay Time Type	HDM3L12F040B3X0A0	
				Not Delay Time Type	HDM3L12F040B3X0B0	
		0.1/0.2/0.3s		HDM3L12F040B3X0B1		
		0.4/0.5/1s	HDM3L12F040B3X0B2			
		50	3P	30/100/300mA	Not Delay Time Type	HDM3L12F05033X0A0
					Not Delay Time Type	HDM3L12F05033X0B0
	0.1/0.2/0.3s				HDM3L12F05033X0B1	
	0.4/0.5/1s		HDM3L12F05033X0B2			
	4P(A)		30/100/300mA	Not Delay Time Type	HDM3L12F050A3X0A0	
				Not Delay Time Type	HDM3L12F050A3X0B0	
		0.1/0.2/0.3s		HDM3L12F050A3X0B1		
		0.4/0.5/1s	HDM3L12F050A3X0B2			
		4P(B)	30/100/300mA	Not Delay Time Type	HDM3L12F050B3X0A0	
				Not Delay Time Type	HDM3L12F050B3X0B0	
	0.1/0.2/0.3s			HDM3L12F050B3X0B1		
	0.4/0.5/1s		HDM3L12F050B3X0B2			
63	3P		30/100/300mA	Not Delay Time Type	HDM3L12F06333X0A0	
				Not Delay Time Type	HDM3L12F06333X0B0	
		0.1/0.2/0.3s		HDM3L12F06333X0B1		
	0.4/0.5/1s	HDM3L12F06333X0B2				
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L12F063A3X0A0		
			Not Delay Time Type	HDM3L12F063A3X0B0		
0.1/0.2/0.3s			HDM3L12F063A3X0B1			
0.4/0.5/1s		HDM3L12F063A3X0B2				
4P(B)		30/100/300mA	Not Delay Time Type	HDM3L12F063B3X0A0		
			Not Delay Time Type	HDM3L12F063B3X0B0		
	0.1/0.2/0.3s		HDM3L12F063B3X0B1			
	0.4/0.5/1s	HDM3L12F063B3X0B2				

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard:IEC/EN 60947-2



Low-voltage Distribution



Material Order Number

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference	
HDM3L -125F	80	3P	30/100/300mA	Not Delay Time Type	HDM3L12F08033X0A0	
				Not Delay Time Type	HDM3L12F08033X0B0	
			100/300/500mA	0.1/0.2/0.3s	HDM3L12F08033X0B1	
				0.4/0.5/1s	HDM3L12F08033X0B2	
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L12F080A3X0A0		
			Not Delay Time Type	HDM3L12F080A3X0B0		
		100/300/500mA	0.1/0.2/0.3s	HDM3L12F080A3X0B1		
			0.4/0.5/1s	HDM3L12F080A3X0B2		
		4P(B)	30/100/300mA	Not Delay Time Type	HDM3L12F080B3X0A0	
				Not Delay Time Type	HDM3L12F080B3X0B0	
			100/300/500mA	0.1/0.2/0.3s	HDM3L12F080B3X0B1	
				0.4/0.5/1s	HDM3L12F080B3X0B2	
	100	3P	30/100/300mA	Not Delay Time Type	HDM3L12F10033X0A0	
				Not Delay Time Type	HDM3L12F10033X0B0	
			100/300/500mA	0.1/0.2/0.3s	HDM3L12F10033X0B1	
				0.4/0.5/1s	HDM3L12F10033X0B2	
4P(A)		30/100/300mA	Not Delay Time Type	HDM3L12F100A3X0A0		
			Not Delay Time Type	HDM3L12F100A3X0B0		
		100/300/500mA	0.1/0.2/0.3s	HDM3L12F100A3X0B1		
			0.4/0.5/1s	HDM3L12F100A3X0B2		
		4P(B)	30/100/300mA	Not Delay Time Type	HDM3L12F100B3X0A0	
				Not Delay Time Type	HDM3L12F100B3X0B0	
			100/300/500mA	0.1/0.2/0.3s	HDM3L12F100B3X0B1	
				0.4/0.5/1s	HDM3L12F100B3X0B2	
HDM3L -125S		40	3P	30/100/300mA	Not Delay Time Type	HDM3L12S04033X0A0
					Not Delay Time Type	HDM3L12S04033X0B0
				100/300/500mA	0.1/0.2/0.3s	HDM3L12S04033X0B1
					0.4/0.5/1s	HDM3L12S04033X0B2
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L12S040A3X0A0		
			Not Delay Time Type	HDM3L12S040A3X0B0		
		100/300/500mA	0.1/0.2/0.3s	HDM3L12S040A3X0B1		
			0.4/0.5/1s	HDM3L12S040A3X0B2		
		4P(B)	30/100/300mA	Not Delay Time Type	HDM3L12S040B3X0A0	
				Not Delay Time Type	HDM3L12S040B3X0B0	
			100/300/500mA	0.1/0.2/0.3s	HDM3L12S040B3X0B1	
				0.4/0.5/1s	HDM3L12S040B3X0B2	
			100/300/500mA	0.4/0.5/1s	HDM3L12S050B3X0B2	
				0.4/0.5/1s	HDM3L12S050B3X0B2	

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution

Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference	
HDM3L -125S	50	3P	30/100/300mA	Not Delay Time Type	HDM3L12S05033X0A0	
				Not Delay Time Type	HDM3L12S05033X0B0	
				0.1/0.2/0.3s	HDM3L12S05033X0B1	
				0.4/0.5/1s	HDM3L12S05033X0B2	
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L12S050A3X0A0		
				HDM3L12S050A3X0B0		
				0.1/0.2/0.3s	HDM3L12S050A3X0B1	
				0.4/0.5/1s	HDM3L12S050A3X0B2	
		100/300/500mA	Not Delay Time Type	HDM3L12S050B3X0A0		
				HDM3L12S050B3X0B0		
				0.1/0.2/0.3s	HDM3L12S050B3X0B1	
				0.4/0.5/1s	HDM3L12S050B3X0B2	
	63	3P	30/100/300mA	Not Delay Time Type	HDM3L12S06333X0A0	
				Not Delay Time Type	HDM3L12S06333X0B0	
				0.1/0.2/0.3s	HDM3L12S06333X0B1	
				0.4/0.5/1s	HDM3L12S06333X0B2	
		4P(A)	30/100/300mA	Not Delay Time Type	HDM3L12S063A3X0A0	
					HDM3L12S063A3X0B0	
					0.1/0.2/0.3s	HDM3L12S063A3X0B1
					0.4/0.5/1s	HDM3L12S063A3X0B2
	100/300/500mA		Not Delay Time Type	HDM3L12S063B3X0A0		
				HDM3L12S063B3X0B0		
				0.1/0.2/0.3s	HDM3L12S063B3X0B1	
				0.4/0.5/1s	HDM3L12S063B3X0B2	
80	3P	30/100/300mA	Not Delay Time Type	HDM3L12S08033X0A0		
			Not Delay Time Type	HDM3L12S08033X0B0		
			0.1/0.2/0.3s	HDM3L12S08033X0B1		
			0.4/0.5/1s	HDM3L12S08033X0B2		
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L12S080A3X0A0		
				HDM3L12S080A3X0B0		
				0.1/0.2/0.3s	HDM3L12S080A3X0B1	
				0.4/0.5/1s	HDM3L12S080A3X0B2	
100/300/500mA		Not Delay Time Type	HDM3L12S080B3X0A0			
			HDM3L12S080B3X0B0			
			0.1/0.2/0.3s	HDM3L12S080B3X0B1		
			0.4/0.5/1s	HDM3L12S080B3X0B2		

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard:IEC/EN 60947-2



Low-voltage Distribution



Accessory selection, HDM3L

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference
HDM3L -125S	100	3P	30/100/300mA	Not Delay Time Type	HDM3L12S10033X0A0
				Not Delay Time Type	HDM3L12S10033X0B0
			100/300/500mA	0.1/0.2/0.3s	HDM3L12S10033X0B1
				0.4/0.5/1s	HDM3L12S10033X0B2
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L12S100A3X0A0	
			Not Delay Time Type	HDM3L12S100A3X0B0	
			0.1/0.2/0.3s	HDM3L12S100A3X0B1	
			0.4/0.5/1s	HDM3L12S100A3X0B2	
		100/300/500mA	Not Delay Time Type	HDM3L12S100B3X0A0	
			Not Delay Time Type	HDM3L12S100B3X0B0	
			0.1/0.2/0.3s	HDM3L12S100B3X0B1	
			0.4/0.5/1s	HDM3L12S100B3X0B2	
HDM3L -160F	100	3P	30/100/300mA	Not Delay Time Type	HDM3L16F10033X0A0
				Not Delay Time Type	HDM3L16F10033X0B0
			100/300/500mA	0.1/0.2/0.3s	HDM3L16F10033X0B1
				0.4/0.5/1s	HDM3L16F10033X0B2
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L16F100A3X0A0	
			Not Delay Time Type	HDM3L16F100A3X0B0	
			0.1/0.2/0.3s	HDM3L16F100A3X0B1	
			0.4/0.5/1s	HDM3L16F100A3X0B2	
		100/300/500mA	Not Delay Time Type	HDM3L16F100B3X0A0	
			Not Delay Time Type	HDM3L16F100B3X0B0	
			0.1/0.2/0.3s	HDM3L16F100B3X0B1	
			0.4/0.5/1s	HDM3L16F100B3X0B2	
4P(B)	30/100/300mA	Not Delay Time Type	HDM3L16F12533X0A0		
		Not Delay Time Type	HDM3L16F12533X0B0		
		0.1/0.2/0.3s	HDM3L16F12533X0B1		
		0.4/0.5/1s	HDM3L16F12533X0B2		
	100/300/500mA	Not Delay Time Type	HDM3L16F125A3X0A0		
		Not Delay Time Type	HDM3L16F125A3X0B0		
		0.1/0.2/0.3s	HDM3L16F125A3X0B1		
		0.4/0.5/1s	HDM3L16F125A3X0B2		
125	3P	30/100/300mA	Not Delay Time Type	HDM3L16F125B3X0A0	
			Not Delay Time Type	HDM3L16F125B3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L16F125B3X0B1	
			0.4/0.5/1s	HDM3L16F125B3X0B2	
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L16F125A3X0A0	
			Not Delay Time Type	HDM3L16F125A3X0B0	
			0.1/0.2/0.3s	HDM3L16F125A3X0B1	
			0.4/0.5/1s	HDM3L16F125A3X0B2	
		100/300/500mA	Not Delay Time Type	HDM3L16F125B3X0A0	
			Not Delay Time Type	HDM3L16F125B3X0B0	
			0.1/0.2/0.3s	HDM3L16F125B3X0B1	
			0.4/0.5/1s	HDM3L16F125B3X0B2	

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference
HDM3L -160F	140	3P	30/100/300mA	Not Delay Time Type	HDM3L16F14033X0A0
				Not Delay Time Type	HDM3L16F14033X0B0
				0.1/0.2/0.3s	HDM3L16F14033X0B1
				0.4/0.5/1s	HDM3L16F14033X0B2
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L16F140A3X0A0	
			Not Delay Time Type	HDM3L16F140A3X0B0	
			0.1/0.2/0.3s	HDM3L16F140A3X0B1	
			0.4/0.5/1s	HDM3L16F140A3X0B2	
		100/300/500mA	Not Delay Time Type	HDM3L16F140B3X0A0	
			Not Delay Time Type	HDM3L16F140B3X0B0	
			0.1/0.2/0.3s	HDM3L16F140B3X0B1	
			0.4/0.5/1s	HDM3L16F140B3X0B2	
	160	3P	30/100/300mA	Not Delay Time Type	HDM3L16F16033X0A0
				Not Delay Time Type	HDM3L16F16033X0B0
				0.1/0.2/0.3s	HDM3L16F16033X0B1
				0.4/0.5/1s	HDM3L16F16033X0B2
4P(A)		30/100/300mA	Not Delay Time Type	HDM3L16F160A3X0A0	
			Not Delay Time Type	HDM3L16F160A3X0B0	
			0.1/0.2/0.3s	HDM3L16F160A3X0B1	
			0.4/0.5/1s	HDM3L16F160A3X0B2	
	100/300/500mA	Not Delay Time Type	HDM3L16F160B3X0A0		
		Not Delay Time Type	HDM3L16F160B3X0B0		
		0.1/0.2/0.3s	HDM3L16F160B3X0B1		
		0.4/0.5/1s	HDM3L16F160B3X0B2		
4P(B)	30/100/300mA	Not Delay Time Type	HDM3L16F160B3X0A0		
		Not Delay Time Type	HDM3L16F160B3X0B0		
		0.1/0.2/0.3s	HDM3L16F160B3X0B1		
		0.4/0.5/1s	HDM3L16F160B3X0B2		
	100/300/500mA	Not Delay Time Type	HDM3L16F160B3X0A0		
		Not Delay Time Type	HDM3L16F160B3X0B0		
		0.1/0.2/0.3s	HDM3L16F160B3X0B1		
		0.4/0.5/1s	HDM3L16F160B3X0B2		
HDM3L -160S	100	3P	30/100/300mA	Not Delay Time Type	HDM3L16S10033X0A0
				Not Delay Time Type	HDM3L16S10033X0B0
				0.1/0.2/0.3s	HDM3L16S10033X0B1
				0.4/0.5/1s	HDM3L16S10033X0B2
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L16S100A3X0A0	
			Not Delay Time Type	HDM3L16S100A3X0B0	
			0.1/0.2/0.3s	HDM3L16S100A3X0B1	
			0.4/0.5/1s	HDM3L16S100A3X0B2	
		100/300/500mA	Not Delay Time Type	HDM3L16S100B3X0A0	
			Not Delay Time Type	HDM3L16S100B3X0B0	
			0.1/0.2/0.3s	HDM3L16S100B3X0B1	
			0.4/0.5/1s	HDM3L16S100B3X0B2	
	4P(B)	30/100/300mA	Not Delay Time Type	HDM3L16S100B3X0A0	
			Not Delay Time Type	HDM3L16S100B3X0B0	
			0.1/0.2/0.3s	HDM3L16S100B3X0B1	
			0.4/0.5/1s	HDM3L16S100B3X0B2	
100/300/500mA		Not Delay Time Type	HDM3L16S100B3X0A0		
		Not Delay Time Type	HDM3L16S100B3X0B0		
		0.1/0.2/0.3s	HDM3L16S100B3X0B1		
		0.4/0.5/1s	HDM3L16S100B3X0B2		

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution



Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference	
HDM3L -160S	125	3P	30/100/300mA	Not Delay Time Type	HDM3L16S12533X0A0	
				Not Delay Time Type	HDM3L16S12533X0B0	
			0.1/0.2/0.3s	HDM3L16S12533X0B1		
		0.4/0.5/1s	HDM3L16S12533X0B2			
		4P(A)	30/100/300mA	Not Delay Time Type	HDM3L16S125A3X0A0	
				Not Delay Time Type	HDM3L16S125A3X0B0	
	100/300/500mA		0.1/0.2/0.3s	HDM3L16S125A3X0B1		
			0.4/0.5/1s	HDM3L16S125A3X0B2		
	4P(B)		30/100/300mA	Not Delay Time Type	HDM3L16S125B3X0A0	
				Not Delay Time Type	HDM3L16S125B3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L16S125B3X0B1		
			0.4/0.5/1s	HDM3L16S125B3X0B2		
		140	3P	30/100/300mA	Not Delay Time Type	HDM3L16S14033X0A0
					Not Delay Time Type	HDM3L16S14033X0B0
	100/300/500mA			0.1/0.2/0.3s	HDM3L16S14033X0B1	
				0.4/0.5/1s	HDM3L16S14033X0B2	
	4P(A)			30/100/300mA	Not Delay Time Type	HDM3L16S140A3X0A0
					Not Delay Time Type	HDM3L16S140A3X0B0
			100/300/500mA	0.1/0.2/0.3s	HDM3L16S140A3X0B1	
	0.4/0.5/1s			HDM3L16S140A3X0B2		
	4P(B)		30/100/300mA	Not Delay Time Type	HDM3L16S140B3X0A0	
				Not Delay Time Type	HDM3L16S140B3X0B0	
			100/300/500mA	0.1/0.2/0.3s	HDM3L16S140B3X0B1	
				0.4/0.5/1s	HDM3L16S140B3X0B2	
160		3P	30/100/300mA	Not Delay Time Type	HDM3L16S16033X0A0	
				Not Delay Time Type	HDM3L16S16033X0B0	
	100/300/500mA		0.1/0.2/0.3s	HDM3L16S16033X0B1		
			0.4/0.5/1s	HDM3L16S16033X0B2		
	4P(A)		30/100/300mA	Not Delay Time Type	HDM3L16S160A3X0A0	
				Not Delay Time Type	HDM3L16S160A3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L16S160A3X0B1		
	0.4/0.5/1s		HDM3L16S160A3X0B2			
	4P(B)	30/100/300mA	Not Delay Time Type	HDM3L16S160B3X0A0		
			Not Delay Time Type	HDM3L16S160B3X0B0		
		100/300/500mA	0.1/0.2/0.3s	HDM3L16S160B3X0B1		
			0.4/0.5/1s	HDM3L16S160B3X0B2		

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution

Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference			
HDM3L -250F	100	3P	30/100/300mA	Not Delay Time Type	HDM3L25F10033X0A0			
				Not Delay Time Type	HDM3L25F10033X0B0			
				0.1/0.2/0.3s	HDM3L25F10033X0B1			
				0.4/0.5/1s	HDM3L25F10033X0B2			
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25F100A3X0A0				
					100/300/500mA	Not Delay Time Type	HDM3L25F100A3X0B0	
						0.1/0.2/0.3s	HDM3L25F100A3X0B1	
						0.4/0.5/1s	HDM3L25F100A3X0B2	
		30/100/300mA	Not Delay Time Type	HDM3L25F100B3X0A0				
					100/300/500mA	Not Delay Time Type	HDM3L25F100B3X0B0	
						0.1/0.2/0.3s	HDM3L25F100B3X0B1	
						0.4/0.5/1s	HDM3L25F100B3X0B2	
	125	3P	30/100/300mA	Not Delay Time Type		HDM3L25F12533X0A0		
				Not Delay Time Type	HDM3L25F12533X0B0			
				0.1/0.2/0.3s	HDM3L25F12533X0B1			
				0.4/0.5/1s	HDM3L25F12533X0B2			
		4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25F125A3X0A0			
						100/300/500mA	Not Delay Time Type	HDM3L25F125A3X0B0
							0.1/0.2/0.3s	HDM3L25F125A3X0B1
							0.4/0.5/1s	HDM3L25F125A3X0B2
	30/100/300mA		Not Delay Time Type	HDM3L25F125B3X0A0				
					100/300/500mA	Not Delay Time Type	HDM3L25F125B3X0B0	
						0.1/0.2/0.3s	HDM3L25F125B3X0B1	
						0.4/0.5/1s	HDM3L25F125B3X0B2	
140	3P	30/100/300mA	Not Delay Time Type	HDM3L25F14033X0A0				
			Not Delay Time Type	HDM3L25F14033X0B0				
			0.1/0.2/0.3s	HDM3L25F14033X0B1				
			0.4/0.5/1s	HDM3L25F14033X0B2				
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25F140A3X0A0				
					100/300/500mA	Not Delay Time Type	HDM3L25F140A3X0B0	
						0.1/0.2/0.3s	HDM3L25F140A3X0B1	
						0.4/0.5/1s	HDM3L25F140A3X0B2	
30/100/300mA		Not Delay Time Type	HDM3L25F140B3X0A0					
				100/300/500mA	Not Delay Time Type	HDM3L25F140B3X0B0		
					0.1/0.2/0.3s	HDM3L25F140B3X0B1		
					0.4/0.5/1s	HDM3L25F140B3X0B2		

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution



Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference
HDM3L -250F	180	3P	30/100/300mA	Not Delay Time Type	HDM3L25F18033X0A0
				Not Delay Time Type	HDM3L25F18033X0B0
			100/300/500mA	0.1/0.2/0.3s	HDM3L25F18033X0B1
				0.4/0.5/1s	HDM3L25F18033X0B2
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25F180A3X0A0	
			Not Delay Time Type	HDM3L25F180A3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25F180A3X0B1	
			0.4/0.5/1s	HDM3L25F180A3X0B2	
	4P(B)	30/100/300mA	Not Delay Time Type	HDM3L25F180B3X0A0	
			Not Delay Time Type	HDM3L25F180B3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25F180B3X0B1	
			0.4/0.5/1s	HDM3L25F180B3X0B2	
200	3P	30/100/300mA	Not Delay Time Type	HDM3L25F20033X0A0	
			Not Delay Time Type	HDM3L25F20033X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25F20033X0B1	
			0.4/0.5/1s	HDM3L25F20033X0B2	
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25F200A3X0A0	
			Not Delay Time Type	HDM3L25F200A3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25F200A3X0B1	
			0.4/0.5/1s	HDM3L25F200A3X0B2	
	4P(B)	30/100/300mA	Not Delay Time Type	HDM3L25F200B3X0A0	
			Not Delay Time Type	HDM3L25F200B3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25F200B3X0B1	
			0.4/0.5/1s	HDM3L25F200B3X0B2	
225	3P	30/100/300mA	Not Delay Time Type	HDM3L25F22533X0A0	
			Not Delay Time Type	HDM3L25F22533X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25F22533X0B1	
			0.4/0.5/1s	HDM3L25F22533X0B2	
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25F225A3X0A0	
			Not Delay Time Type	HDM3L25F225A3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25F225A3X0B1	
			0.4/0.5/1s	HDM3L25F225A3X0B2	
	4P(B)	30/100/300mA	Not Delay Time Type	HDM3L25F225B3X0A0	
			Not Delay Time Type	HDM3L25F225B3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25F225B3X0B1	
			0.4/0.5/1s	HDM3L25F225B3X0B2	

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution

Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference
HDM3L -250F	250	3P	30/100/300mA	Not Delay Time Type	HDM3L25F25033X0A0
				Not Delay Time Type	HDM3L25F25033X0B0
			100/300/500mA	0.1/0.2/0.3s	HDM3L25F25033X0B1
				0.4/0.5/1s	HDM3L25F25033X0B2
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25F250A3X0A0	
			Not Delay Time Type	HDM3L25F250A3X0B0	
			0.1/0.2/0.3s	HDM3L25F250A3X0B1	
			0.4/0.5/1s	HDM3L25F250A3X0B2	
		100/300/500mA	Not Delay Time Type	HDM3L25F250B3X0A0	
			Not Delay Time Type	HDM3L25F250B3X0B0	
			0.1/0.2/0.3s	HDM3L25F250B3X0B1	
			0.4/0.5/1s	HDM3L25F250B3X0B2	
HDM3L -250S	100	3P	30/100/300mA	Not Delay Time Type	HDM3L25S10033X0A0
				Not Delay Time Type	HDM3L25S10033X0B0
			100/300/500mA	0.1/0.2/0.3s	HDM3L25S10033X0B1
				0.4/0.5/1s	HDM3L25S10033X0B2
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25S100A3X0A0	
			Not Delay Time Type	HDM3L25S100A3X0B0	
			0.1/0.2/0.3s	HDM3L25S100A3X0B1	
			0.4/0.5/1s	HDM3L25S100A3X0B2	
		100/300/500mA	Not Delay Time Type	HDM3L25S100B3X0A0	
			Not Delay Time Type	HDM3L25S100B3X0B0	
			0.1/0.2/0.3s	HDM3L25S100B3X0B1	
			0.4/0.5/1s	HDM3L25S100B3X0B2	
125	3P	30/100/300mA	Not Delay Time Type	HDM3L25S12533X0A0	
			Not Delay Time Type	HDM3L25S12533X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25S12533X0B1	
			0.4/0.5/1s	HDM3L25S12533X0B2	
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25S125A3X0A0	
			Not Delay Time Type	HDM3L25S125A3X0B0	
			0.1/0.2/0.3s	HDM3L25S125A3X0B1	
			0.4/0.5/1s	HDM3L25S125A3X0B2	
		100/300/500mA	Not Delay Time Type	HDM3L25S125B3X0A0	
			Not Delay Time Type	HDM3L25S125B3X0B0	
			0.1/0.2/0.3s	HDM3L25S125B3X0B1	
			0.4/0.5/1s	HDM3L25S125B3X0B2	

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard:IEC/EN 60947-2



Low-voltage Distribution



Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference
HDM3L -250S	140	3P	30/100/300mA	Not Delay Time Type	HDM3L25S14033X0A0
				Not Delay Time Type	HDM3L25S14033X0B0
			100/300/500mA	0.1/0.2/0.3s	HDM3L25S14033X0B1
				0.4/0.5/1s	HDM3L25S14033X0B2
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25S140A3X0A0	
			Not Delay Time Type	HDM3L25S140A3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25S140A3X0B1	
			0.4/0.5/1s	HDM3L25S140A3X0B2	
	4P(B)	30/100/300mA	Not Delay Time Type	HDM3L25S140B3X0A0	
			Not Delay Time Type	HDM3L25S140B3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25S140B3X0B1	
			0.4/0.5/1s	HDM3L25S140B3X0B2	
160	3P	30/100/300mA	Not Delay Time Type	HDM3L25S16033X0A0	
			Not Delay Time Type	HDM3L25S16033X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25S16033X0B1	
			0.4/0.5/1s	HDM3L25S16033X0B2	
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25S160A3X0A0	
			Not Delay Time Type	HDM3L25S160A3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25S160A3X0B1	
			0.4/0.5/1s	HDM3L25S160A3X0B2	
	4P(B)	30/100/300mA	Not Delay Time Type	HDM3L25S160B3X0A0	
			Not Delay Time Type	HDM3L25S160B3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25S160B3X0B1	
			0.4/0.5/1s	HDM3L25S160B3X0B2	
180	3P	30/100/300mA	Not Delay Time Type	HDM3L25S18033X0A0	
			Not Delay Time Type	HDM3L25S18033X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25S18033X0B1	
			0.4/0.5/1s	HDM3L25S18033X0B2	
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25S180A3X0A0	
			Not Delay Time Type	HDM3L25S180A3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25S180A3X0B1	
			0.4/0.5/1s	HDM3L25S180A3X0B2	
	4P(B)	30/100/300mA	Not Delay Time Type	HDM3L25S180B3X0A0	
			Not Delay Time Type	HDM3L25S180B3X0B0	
		100/300/500mA	0.1/0.2/0.3s	HDM3L25S180B3X0B1	
			0.4/0.5/1s	HDM3L25S180B3X0B2	

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution

Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference	
HDM3L -250S	200	3P	30/100/300mA	Not Delay Time Type	HDM3L25S20033X0A0	
				Not Delay Time Type	HDM3L25S20033X0B0	
				0.1/0.2/0.3s	HDM3L25S20033X0B1	
				0.4/0.5/1s	HDM3L25S20033X0B2	
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25S200A3X0A0		
				HDM3L25S200A3X0B0		
				0.1/0.2/0.3s	HDM3L25S200A3X0B1	
				0.4/0.5/1s	HDM3L25S200A3X0B2	
		100/300/500mA	Not Delay Time Type	HDM3L25S200B3X0A0		
				HDM3L25S200B3X0B0		
				0.1/0.2/0.3s	HDM3L25S200B3X0B1	
				0.4/0.5/1s	HDM3L25S200B3X0B2	
	225	3P	30/100/300mA	Not Delay Time Type	HDM3L25S22533X0A0	
				Not Delay Time Type	HDM3L25S22533X0B0	
				0.1/0.2/0.3s	HDM3L25S22533X0B1	
				0.4/0.5/1s	HDM3L25S22533X0B2	
		4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25S225A3X0A0	
					HDM3L25S225A3X0B0	
					0.1/0.2/0.3s	HDM3L25S225A3X0B1
					0.4/0.5/1s	HDM3L25S225A3X0B2
	100/300/500mA	Not Delay Time Type	HDM3L25S225B3X0A0			
			HDM3L25S225B3X0B0			
			0.1/0.2/0.3s	HDM3L25S225B3X0B1		
			0.4/0.5/1s	HDM3L25S225B3X0B2		
250	3P	30/100/300mA	Not Delay Time Type	HDM3L25S25033X0A0		
			Not Delay Time Type	HDM3L25S25033X0B0		
			0.1/0.2/0.3s	HDM3L25S25033X0B1		
			0.4/0.5/1s	HDM3L25S25033X0B2		
	4P(A)	30/100/300mA	Not Delay Time Type	HDM3L25S250A3X0A0		
				HDM3L25S250A3X0B0		
				0.1/0.2/0.3s	HDM3L25S250A3X0B1	
				0.4/0.5/1s	HDM3L25S250A3X0B2	
100/300/500mA	Not Delay Time Type	HDM3L25S250B3X0A0				
		HDM3L25S250B3X0B0				
		0.1/0.2/0.3s	HDM3L25S250B3X0B1			
		0.4/0.5/1s	HDM3L25S250B3X0B2			

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution



Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference	
HDM3L -400S	200	3P	100/300/500mA	Not Delay Time Type	HDM3L40S20033X0B0	
				0.1/0.2/0.3s	HDM3L40S20033X0B1	
				0.4/0.5/1s	HDM3L40S20033X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40S20033X0C0		
			0.1/0.2/0.3s	HDM3L40S20033X0C1		
			0.4/0.5/1s	HDM3L40S20033X0C2		
	4P(A)	100/300/500mA		Not Delay Time Type	HDM3L40S200A3X0B0	
				0.1/0.2/0.3s	HDM3L40S200A3X0B1	
				0.4/0.5/1s	HDM3L40S200A3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40S200A3X0C0		
			0.1/0.2/0.3s	HDM3L40S200A3X0C1		
			0.4/0.5/1s	HDM3L40S200A3X0C2		
	4P(B)	100/300/500mA		Not Delay Time Type	HDM3L40S200B3X0B0	
				0.1/0.2/0.3s	HDM3L40S200B3X0B1	
				0.4/0.5/1s	HDM3L40S200B3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40S200B3X0C0		
			0.1/0.2/0.3s	HDM3L40S200B3X0C1		
			0.4/0.5/1s	HDM3L40S200B3X0C2		
	225	3P	100/300/500mA		Not Delay Time Type	HDM3L40S22533X0B0
					0.1/0.2/0.3s	HDM3L40S22533X0B1
					0.4/0.5/1s	HDM3L40S22533X0B2
			300/500/1000mA	Not Delay Time Type	HDM3L40S22533X0C0	
				0.1/0.2/0.3s	HDM3L40S22533X0C1	
				0.4/0.5/1s	HDM3L40S22533X0C2	
4P(A)		100/300/500mA		Not Delay Time Type	HDM3L40S225A3X0B0	
				0.1/0.2/0.3s	HDM3L40S225A3X0B1	
				0.4/0.5/1s	HDM3L40S225A3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40S225A3X0C0		
			0.1/0.2/0.3s	HDM3L40S225A3X0C1		
			0.4/0.5/1s	HDM3L40S225A3X0C2		
4P(B)		100/300/500mA		Not Delay Time Type	HDM3L40S225B3X0B0	
				0.1/0.2/0.3s	HDM3L40S225B3X0B1	
				0.4/0.5/1s	HDM3L40S225B3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40S225B3X0C0		
			0.1/0.2/0.3s	HDM3L40S225B3X0C1		
			0.4/0.5/1s	HDM3L40S225B3X0C2		

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference
HDM3L -400S	250	3P	100/300/500mA	Not Delay Time Type	HDM3L40S25033X0B0
				0.1/0.2/0.3s	HDM3L40S25033X0B1
				0.4/0.5/1s	HDM3L40S25033X0B2
		300/500/1000mA	Not Delay Time Type	HDM3L40S25033X0C0	
			0.1/0.2/0.3s	HDM3L40S25033X0C1	
			0.4/0.5/1s	HDM3L40S25033X0C2	
	4P(A)	100/300/500mA	Not Delay Time Type	HDM3L40S250A3X0B0	
			0.1/0.2/0.3s	HDM3L40S250A3X0B1	
			0.4/0.5/1s	HDM3L40S250A3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40S250A3X0C0	
			0.1/0.2/0.3s	HDM3L40S250A3X0C1	
			0.4/0.5/1s	HDM3L40S250A3X0C2	
	4P(B)	100/300/500mA	Not Delay Time Type	HDM3L40S250B3X0B0	
			0.1/0.2/0.3s	HDM3L40S250B3X0B1	
			0.4/0.5/1s	HDM3L40S250B3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40S250B3X0C0	
			0.1/0.2/0.3s	HDM3L40S250B3X0C1	
			0.4/0.5/1s	HDM3L40S250B3X0C2	
	315	3P	100/300/500mA	Not Delay Time Type	HDM3L40S31533X0B0
				0.1/0.2/0.3s	HDM3L40S31533X0B1
				0.4/0.5/1s	HDM3L40S31533X0B2
			300/500/1000mA	Not Delay Time Type	HDM3L40S31533X0C0
				0.1/0.2/0.3s	HDM3L40S31533X0C1
				0.4/0.5/1s	HDM3L40S31533X0C2
4P(A)		100/300/500mA	Not Delay Time Type	HDM3L40S315A3X0B0	
			0.1/0.2/0.3s	HDM3L40S315A3X0B1	
			0.4/0.5/1s	HDM3L40S315A3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40S315A3X0C0	
			0.1/0.2/0.3s	HDM3L40S315A3X0C1	
			0.4/0.5/1s	HDM3L40S315A3X0C2	
4P(B)		100/300/500mA	Not Delay Time Type	HDM3L40S315B3X0B0	
			0.1/0.2/0.3s	HDM3L40S315B3X0B1	
			0.4/0.5/1s	HDM3L40S315B3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40S315B3X0C0	
			0.1/0.2/0.3s	HDM3L40S315B3X0C1	
			0.4/0.5/1s	HDM3L40S315B3X0C2	

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution



Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference			
HDM3L-400S	350	3P	100/300/500mA	Not Delay Time Type	HDM3L40S35033X0B0			
				0.1/0.2/0.3s	HDM3L40S35033X0B1			
				0.4/0.5/1s	HDM3L40S35033X0B2			
				300/500/1000mA	Not Delay Time Type	HDM3L40S35033X0C0		
					0.1/0.2/0.3s	HDM3L40S35033X0C1		
					0.4/0.5/1s	HDM3L40S35033X0C2		
					4P(A)	Not Delay Time Type	HDM3L40S350A3X0B0	
						100/300/500mA	0.1/0.2/0.3s	HDM3L40S350A3X0B1
							0.4/0.5/1s	HDM3L40S350A3X0B2
				300/500/1000mA	Not Delay Time Type	HDM3L40S350A3X0C0		
					0.1/0.2/0.3s	HDM3L40S350A3X0C1		
					0.4/0.5/1s	HDM3L40S350A3X0C2		
4P(B)					Not Delay Time Type	HDM3L40S350B3X0B0		
					100/300/500mA	0.1/0.2/0.3s	HDM3L40S350B3X0B1	
						0.4/0.5/1s	HDM3L40S350B3X0B2	
400	3P		100/300/500mA	Not Delay Time Type	HDM3L40S40033X0B0			
				0.1/0.2/0.3s	HDM3L40S40033X0B1			
				0.4/0.5/1s	HDM3L40S40033X0B2			
				300/500/1000mA	Not Delay Time Type	HDM3L40S40033X0C0		
					0.1/0.2/0.3s	HDM3L40S40033X0C1		
					0.4/0.5/1s	HDM3L40S40033X0C2		
					4P(A)	Not Delay Time Type	HDM3L40S400A3X0B0	
						100/300/500mA	0.1/0.2/0.3s	HDM3L40S400A3X0B1
							0.4/0.5/1s	HDM3L40S400A3X0B2
				300/500/1000mA	Not Delay Time Type	HDM3L40S400A3X0C0		
					0.1/0.2/0.3s	HDM3L40S400A3X0C1		
					0.4/0.5/1s	HDM3L40S400A3X0C2		
4P(B)					Not Delay Time Type	HDM3L40S400B3X0B0		
					100/300/500mA	0.1/0.2/0.3s	HDM3L40S400B3X0B1	
						0.4/0.5/1s	HDM3L40S400B3X0B2	
			300/500/1000mA	Not Delay Time Type	HDM3L40S400B3X0C0			
				0.1/0.2/0.3s	HDM3L40S400B3X0C1			
				0.4/0.5/1s	HDM3L40S400B3X0C2			

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution

Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference
HDM3L-400F	200	3P	100/300/500mA	Not Delay Time Type	HDM3L40F20033X0B0
				0.1/0.2/0.3s	HDM3L40F20033X0B1
				0.4/0.5/1s	HDM3L40F20033X0B2
		300/500/1000mA	Not Delay Time Type	HDM3L40F20033X0C0	
			0.1/0.2/0.3s	HDM3L40F20033X0C1	
			0.4/0.5/1s	HDM3L40F20033X0C2	
	4P(A)	100/300/500mA	Not Delay Time Type	HDM3L40F200A3X0B0	
			0.1/0.2/0.3s	HDM3L40F200A3X0B1	
			0.4/0.5/1s	HDM3L40F200A3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F200A3X0C0	
			0.1/0.2/0.3s	HDM3L40F200A3X0C1	
			0.4/0.5/1s	HDM3L40F200A3X0C2	
	4P(B)	100/300/500mA	Not Delay Time Type	HDM3L40F200B3X0B0	
			0.1/0.2/0.3s	HDM3L40F200B3X0B1	
			0.4/0.5/1s	HDM3L40F200B3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F200B3X0C0	
			0.1/0.2/0.3s	HDM3L40F200B3X0C1	
			0.4/0.5/1s	HDM3L40F200B3X0C2	
	225	3P	100/300/500mA	Not Delay Time Type	HDM3L40F22533X0B0
				0.1/0.2/0.3s	HDM3L40F22533X0B1
				0.4/0.5/1s	HDM3L40F22533X0B2
			300/500/1000mA	Not Delay Time Type	HDM3L40F22533X0C0
				0.1/0.2/0.3s	HDM3L40F22533X0C1
				0.4/0.5/1s	HDM3L40F22533X0C2
4P(A)		100/300/500mA	Not Delay Time Type	HDM3L40F225A3X0B0	
			0.1/0.2/0.3s	HDM3L40F225A3X0B1	
			0.4/0.5/1s	HDM3L40F225A3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F225A3X0C0	
			0.1/0.2/0.3s	HDM3L40F225A3X0C1	
			0.4/0.5/1s	HDM3L40F225A3X0C2	
4P(B)		100/300/500mA	Not Delay Time Type	HDM3L40F225B3X0B0	
			0.1/0.2/0.3s	HDM3L40F225B3X0B1	
			0.4/0.5/1s	HDM3L40F225B3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F225B3X0C0	
			0.1/0.2/0.3s	HDM3L40F225B3X0C1	
			0.4/0.5/1s	HDM3L40F225B3X0C2	

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution



Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference	
HDM3L-400F	250	3P	100/300/500mA	Not Delay Time Type	HDM3L40F25033X0B0	
				0.1/0.2/0.3s	HDM3L40F25033X0B1	
				0.4/0.5/1s	HDM3L40F25033X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F25033X0C0		
				0.1/0.2/0.3s	HDM3L40F25033X0C1	
				0.4/0.5/1s	HDM3L40F25033X0C2	
	4P(A)	100/300/500mA	Not Delay Time Type	HDM3L40F250A3X0B0		
				0.1/0.2/0.3s	HDM3L40F250A3X0B1	
				0.4/0.5/1s	HDM3L40F250A3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F250A3X0C0		
				0.1/0.2/0.3s	HDM3L40F250A3X0C1	
				0.4/0.5/1s	HDM3L40F250A3X0C2	
	4P(B)	100/300/500mA	Not Delay Time Type	HDM3L40F250B3X0B0		
				0.1/0.2/0.3s	HDM3L40F250B3X0B1	
				0.4/0.5/1s	HDM3L40F250B3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F250B3X0C0		
				0.1/0.2/0.3s	HDM3L40F250B3X0C1	
				0.4/0.5/1s	HDM3L40F250B3X0C2	
	315	3P	100/300/500mA	Not Delay Time Type	HDM3L40F31533X0B0	
					0.1/0.2/0.3s	HDM3L40F31533X0B1
					0.4/0.5/1s	HDM3L40F31533X0B2
			300/500/1000mA	Not Delay Time Type	HDM3L40F31533X0C0	
					0.1/0.2/0.3s	HDM3L40F31533X0C1
					0.4/0.5/1s	HDM3L40F31533X0C2
4P(A)		100/300/500mA	Not Delay Time Type	HDM3L40F315A3X0B0		
				0.1/0.2/0.3s	HDM3L40F315A3X0B1	
				0.4/0.5/1s	HDM3L40F315A3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F315A3X0C0		
				0.1/0.2/0.3s	HDM3L40F315A3X0C1	
				0.4/0.5/1s	HDM3L40F315A3X0C2	
4P(B)		100/300/500mA	Not Delay Time Type	HDM3L40F315B3X0B0		
				0.1/0.2/0.3s	HDM3L40F315B3X0B1	
				0.4/0.5/1s	HDM3L40F315B3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F315B3X0C0		
				0.1/0.2/0.3s	HDM3L40F315B3X0C1	
				0.4/0.5/1s	HDM3L40F315B3X0C2	

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution

Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference
HDM3L-400F	350	3P	100/300/500mA	Not Delay Time Type	HDM3L40F35033X0B0
				0.1/0.2/0.3s	HDM3L40F35033X0B1
				0.4/0.5/1s	HDM3L40F35033X0B2
		300/500/1000mA	Not Delay Time Type	HDM3L40F35033X0C0	
			0.1/0.2/0.3s	HDM3L40F35033X0C1	
			0.4/0.5/1s	HDM3L40F35033X0C2	
	4P(A)	100/300/500mA	Not Delay Time Type	HDM3L40F350A3X0B0	
			0.1/0.2/0.3s	HDM3L40F350A3X0B1	
			0.4/0.5/1s	HDM3L40F350A3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F350A3X0C0	
			0.1/0.2/0.3s	HDM3L40F350A3X0C1	
			0.4/0.5/1s	HDM3L40F350A3X0C2	
	4P(B)	100/300/500mA	Not Delay Time Type	HDM3L40F350B3X0B0	
			0.1/0.2/0.3s	HDM3L40F350B3X0B1	
			0.4/0.5/1s	HDM3L40F350B3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F350B3X0C0	
			0.1/0.2/0.3s	HDM3L40F350B3X0C1	
			0.4/0.5/1s	HDM3L40F350B3X0C2	
	400	3P	100/300/500mA	Not Delay Time Type	HDM3L40F40033X0B0
				0.1/0.2/0.3s	HDM3L40F40033X0B1
				0.4/0.5/1s	HDM3L40F40033X0B2
			300/500/1000mA	Not Delay Time Type	HDM3L40F40033X0C0
				0.1/0.2/0.3s	HDM3L40F40033X0C1
				0.4/0.5/1s	HDM3L40F40033X0C2
4P(A)		100/300/500mA	Not Delay Time Type	HDM3L40F400A3X0B0	
			0.1/0.2/0.3s	HDM3L40F400A3X0B1	
			0.4/0.5/1s	HDM3L40F400A3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F400A3X0C0	
			0.1/0.2/0.3s	HDM3L40F400A3X0C1	
			0.4/0.5/1s	HDM3L40F400A3X0C2	
4P(B)		100/300/500mA	Not Delay Time Type	HDM3L40F400B3X0B0	
			0.1/0.2/0.3s	HDM3L40F400B3X0B1	
			0.4/0.5/1s	HDM3L40F400B3X0B2	
		300/500/1000mA	Not Delay Time Type	HDM3L40F400B3X0C0	
			0.1/0.2/0.3s	HDM3L40F400B3X0C1	
			0.4/0.5/1s	HDM3L40F400B3X0C2	

HDM3L Earth-Leakage Circuit Breaker

Product selection
Standard: IEC/EN 60947-2



Low-voltage Distribution



Accessory selection, HDM3L

HDM3L Motor protection Thermal-magnetic tripping

Product Specification	In(A)	Poles	Residual Current	Delay Time	Order Reference
HDM3L-630S	400	3P	100/300/500mA	0/0.2/0.5s	HDM3L63S40033X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63S40033X0C3
		4P(A)	100/300/500mA	0/0.2/0.5s	HDM3L63S400A3X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63S400A3X0C3
		4P(B)	100/300/500mA	0/0.2/0.5s	HDM3L63S400B3X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63S400B3X0C3
	500	3P	100/300/500mA	0/0.2/0.5s	HDM3L63S50033X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63S50033X0C3
		4P(A)	100/300/500mA	0/0.2/0.5s	HDM3L63S500A3X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63S500A3X0C3
		4P(B)	100/300/500mA	0/0.2/0.5s	HDM3L63S500B3X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63S500B3X0C3
630	3P	100/300/500mA	0/0.2/0.5s	HDM3L63S63033X0B3	
		300/500/1000mA	0/0.2/0.5s	HDM3L63S63033X0C3	
	4P(A)	100/300/500mA	0/0.2/0.5s	HDM3L63S630A3X0B3	
		300/500/1000mA	0/0.2/0.5s	HDM3L63S630A3X0C3	
	4P(B)	100/300/500mA	0/0.2/0.5s	HDM3L63S630B3X0B3	
		300/500/1000mA	0/0.2/0.5s	HDM3L63S630B3X0C3	
HDM3L-630F	400	3P	100/300/500mA	0/0.2/0.5s	HDM3L63F40033X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63F40033X0C3
		4P(A)	100/300/500mA	0/0.2/0.5s	HDM3L63F400A3X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63F400A3X0C3
		4P(B)	100/300/500mA	0/0.2/0.5s	HDM3L63F400B3X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63F400B3X0C3
	500	3P	100/300/500mA	0/0.2/0.5s	HDM3L63F50033X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63F50033X0C3
		4P(A)	100/300/500mA	0/0.2/0.5s	HDM3L63F500A3X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63F500A3X0C3
		4P(B)	100/300/500mA	0/0.2/0.5s	HDM3L63F500B3X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63F500B3X0C3
	630	3P	100/300/500mA	0/0.2/0.5s	HDM3L63F63033X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63F63033X0C3
		4P(A)	100/300/500mA	0/0.2/0.5s	HDM3L63F630A3X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63F630A3X0C3
		4P(B)	100/300/500mA	0/0.2/0.5s	HDM3L63F630B3X0B3
			300/500/1000mA	0/0.2/0.5s	HDM3L63F630B3X0C3

Isolating Switch



■ Isolating Switch



HDGL 193

Current: 16~3150A

HDGL Isolating Switch

Standard: IEC 60947-3

Function

HDGL series isolating switch is operating for AC 50/60Hz, and its maximum rated operating voltage is 690V, while the maximum current rated operating current is 3150A. In the industrial enterprise distribution system, the isolating switch can be used as circuit isolation which can also switch off the rated load.

Coding System

Model	Frame current	Pole number	Window and shaft	Rated current	Auxiliary contact
HDGL	160	3	J	100	11
	↓	↓	↓	↓	↓
HDGL: Normal	63	3:3P	J: External operation	16	11: 1NO1NC
HDGL single throw isolator	100	4:4P	with extended shaft 300mm	25	22: 2NO2NC
HDGLZ: Overlap type double throw switch	160			32	
HDGLZ: Overlap type double throw switch	250			40	
HDGLZ: Overlap type double throw switch	630		K: With observing window	63	
HDGLZ: Overlap type double throw switch	1600			80	
HDGLZC: Symmetric type double throw switch	3150		JK: Window plus external operation with extended shaft 300mm	100	
				125	
				160	
				200	
				250	
				315	
				400	
				500	
				630	
				800	
				1000	
				1250	
				1600	
				2000	
				2500	
				3150	

Remark:

- 1, Default length of the extended shaft of external operation handle is 300mm, but 500mm can also be provided. It depends on client request.
- 2, Window: no window for 16-100A, and 125A-3150A can be with window, but 200A-3150A would have longer devliery time.
- 3, No auxiliary contact for 16-100A;
- 4, Symmetric type double throw switches with more than 1600A are not available.



HDGL Isolating Switch

Standard: IEC 60947-3



Model	Frame current	Accessory	Auxiliary details
HDGL	100	J	300
	↓	↓	↓
HDGL: For HDGL (or also for HDGLZ,HDGLZC, see description for exact application)	100: For 100AF below	J: External operation with extended shaft	300: 300mm shaft
HDGLZ: For HDGLZ (or also HDGLZC,see description for exact application)	630: For 630AF below	A type handle	11: 1NO1NC
HDGLZC: For HDGLZC	1600: For 1600AF below	JB: External operation with extended shaft	22: 2NO2NC
	3150: For 3150AF below	B type handle	
	Default: For all specs	OF: Auxiliary contact	

Standard Reference	Description
HDGL1600OF11	HDGL-100~1600A Auxiliary contact 1NO1NC
HDGL1600OF22	HDGL-100~1600A Auxiliary contact 2NO2NC
HDGL3150OF11	HDGL-2000~3150A Auxiliary contact 1NO1NC
HDGL3150OF22	HDGL-2000~3150A Auxiliary contact 2NO2NC
HDGLZ630OF11	HDGLZ-100~630A Auxiliary contact 1NO1NC
HDGLZ630OF22	HDGLZ-100~630A Auxiliary contact 2NO2NC
HDGLZ3150OF11	HDGLZ-800~3150A Auxiliary contact 1NO1NC
HDGLZ3150OF22	HDGLZ-800~3150A Auxiliary contact 2NO2NC
HDGLZC630OF11	HDGLZC-100~630A Auxiliary contact 1NO1NC
HDGLZC630OF22	HDGLZC-100~630A Auxiliary contact 2NO2NC
HDGLZC1600OF11	HDGLZC-800~1600A Auxiliary contact 1NO1NC
HDGLZC1600OF22	HDGLZC-800~1600A Auxiliary contact 2NO2NC
HDGL100J300	HDGL(Z)(C) 16~100A External operation handle with 300mm shaft
HDGL630J300	HDGL 100~630A External operation handle with 300mm shaft
HDGL3150J300	HDGL(Z)(C) 800~3150AF External operation handle with 300mm shaft
HDGL3150JB300	HDGL(Z)(C) 800~3150A External operation handle with 300mm shaft B type
HDGLZ630J300	HDGLZ(C) 100~630A External operation handle with 300mm shaft



HDGL Isolating Switch

Standard: IEC 60947-3



Technical Data

Conventional free air thermal current (A)	16 25 32 40 63	80 100	100 125 160	200 250	315 400	500 630	800 1000 1250 1600	2000 2500 3150
Power frequency withstand voltage (V)	2000							
Rated insulation voltage (V)	800							
Rated impulse withstand voltage Uimp	12kV(2000m)							
Rated short-time withstand current (kA)	2	12	20	25	50			
Mechanical Endurance	8000			5000		3000	1000	
Electrical Endurance	1500	200			100			

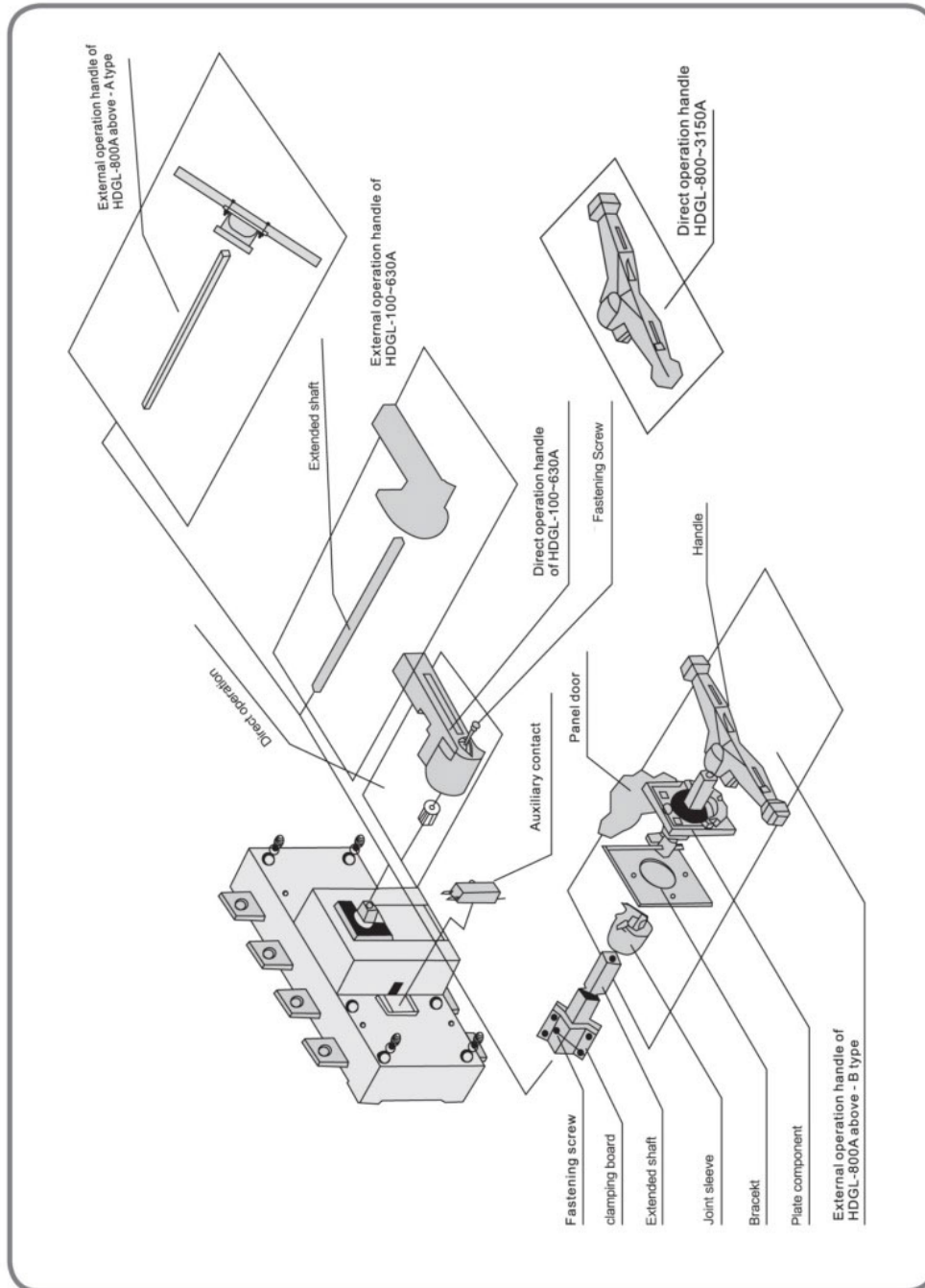
HDGL Isolating Switch

Standard: IEC 60947-3



HDGL(Z)(C) Assembly demonstration

HDGL assembly demonstration

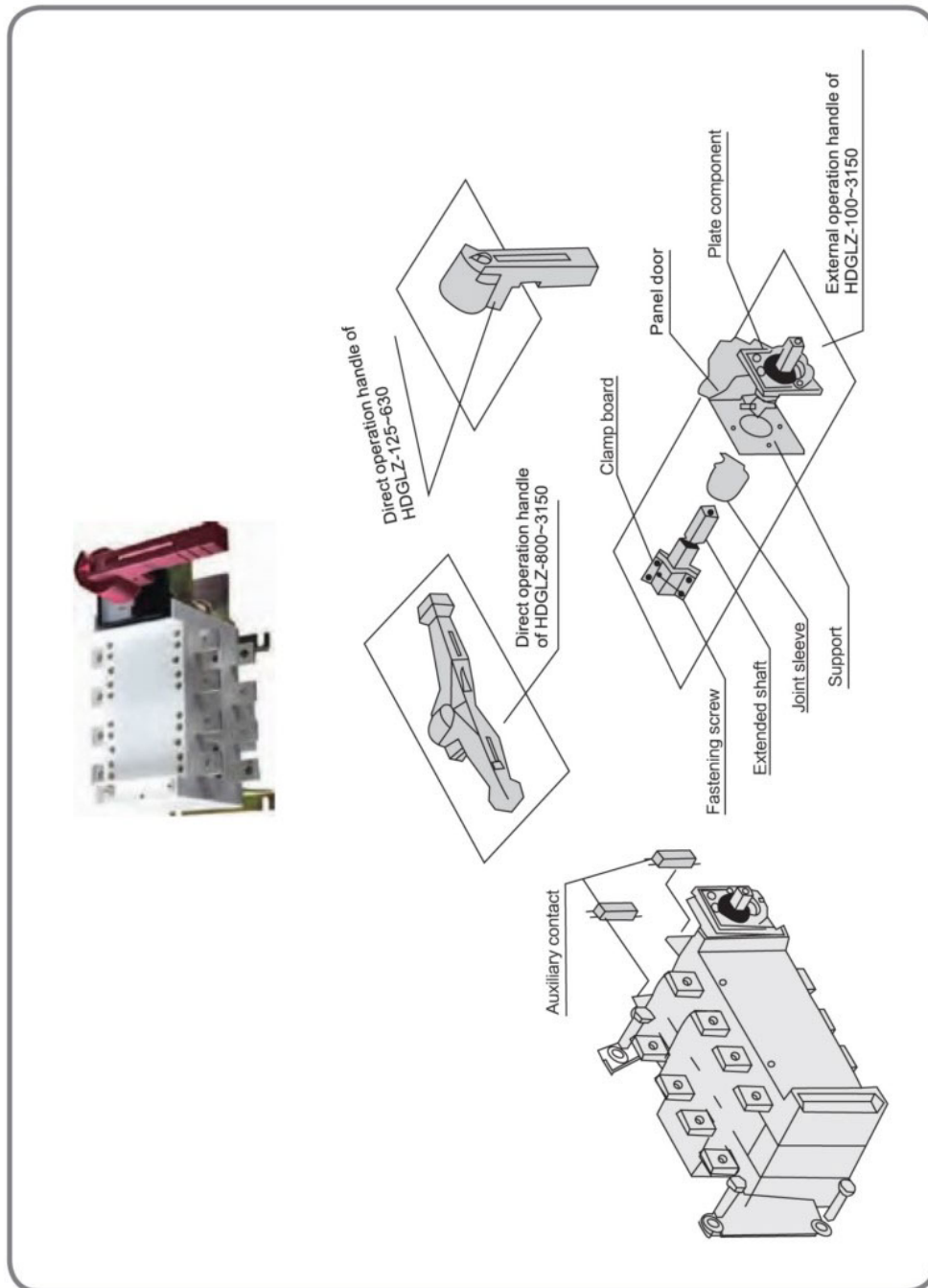


HDGL Isolating Switch

Standard: IEC 60947-3

HDGL(Z)(C) Assembly demonstration

HDGLZ assembly demonstration

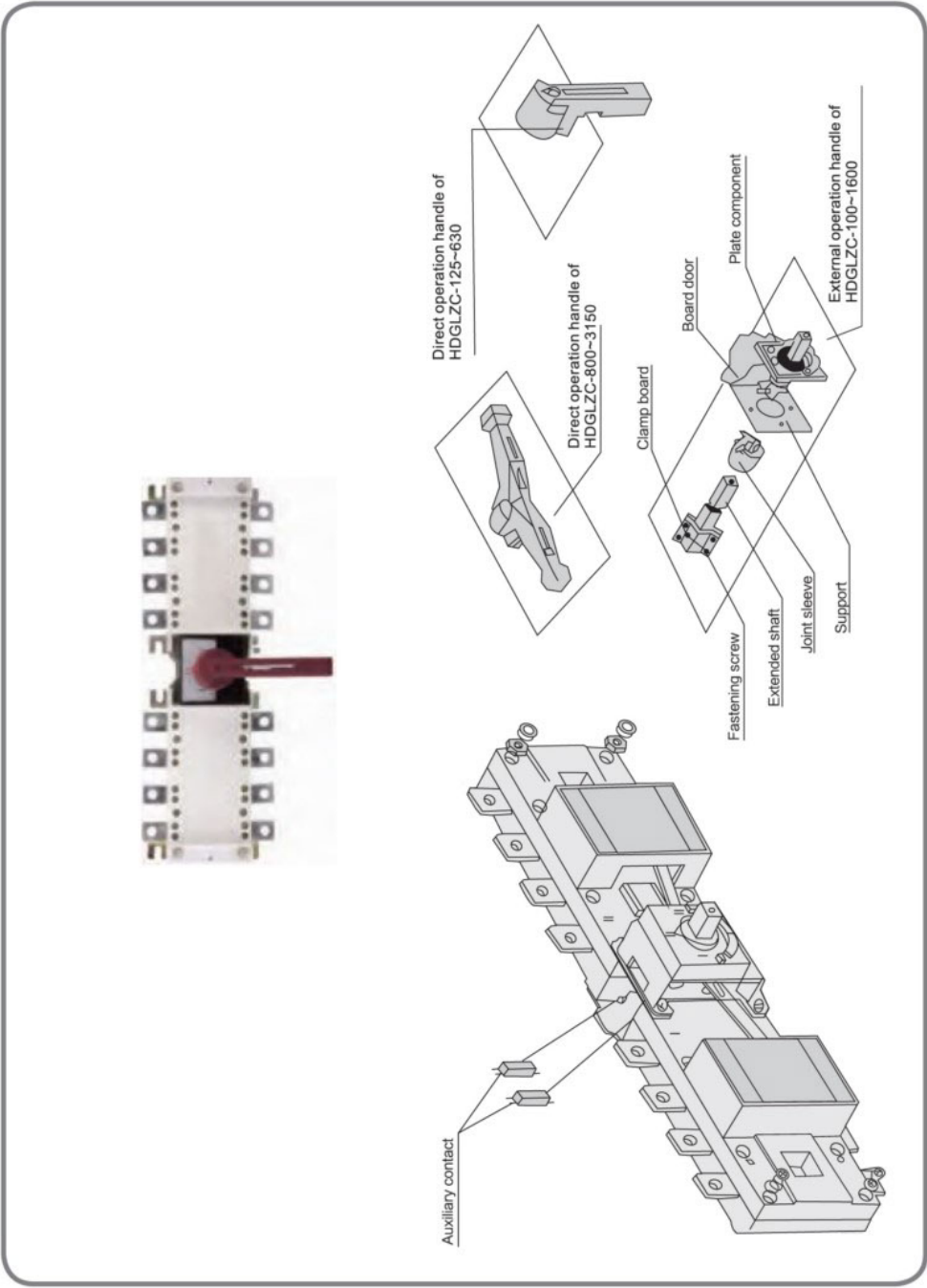


HDGL Isolating Switch

Standard: IEC 60947-3



HDGLZC assembly demonstration



HDGL Isolating Switch

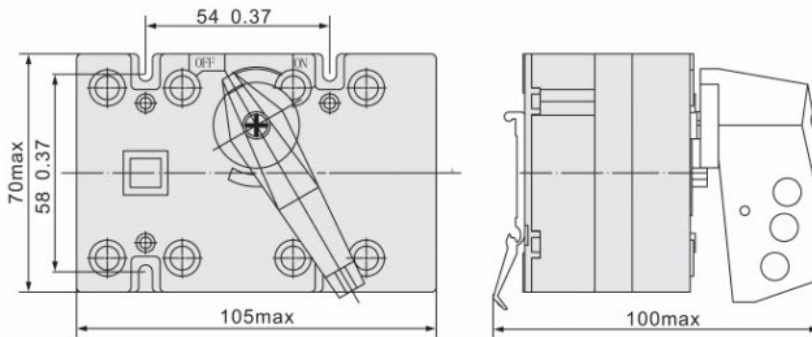
Standard: IEC 60947-3



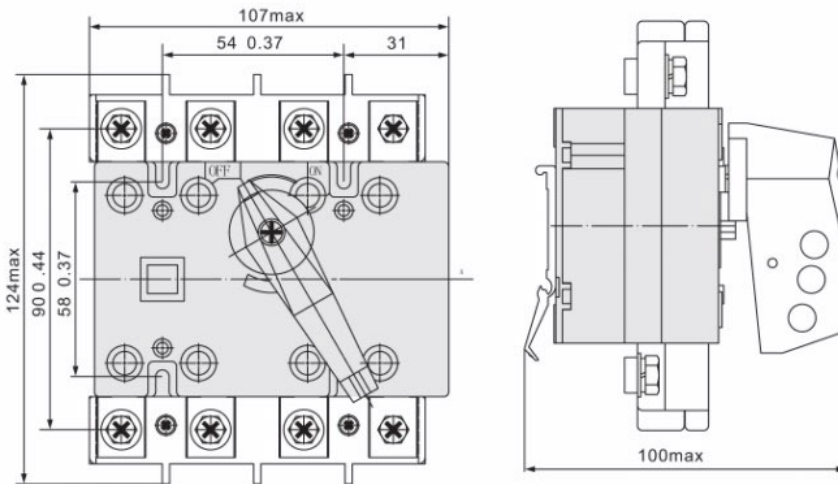
Overall and Installation Dimensions

HDGL-16~63/3(4) and HDGL-80~100/3(4) (100A here is under 100AF)

HDGL-16~63/3(4)



HDGL-80~100/3(4)



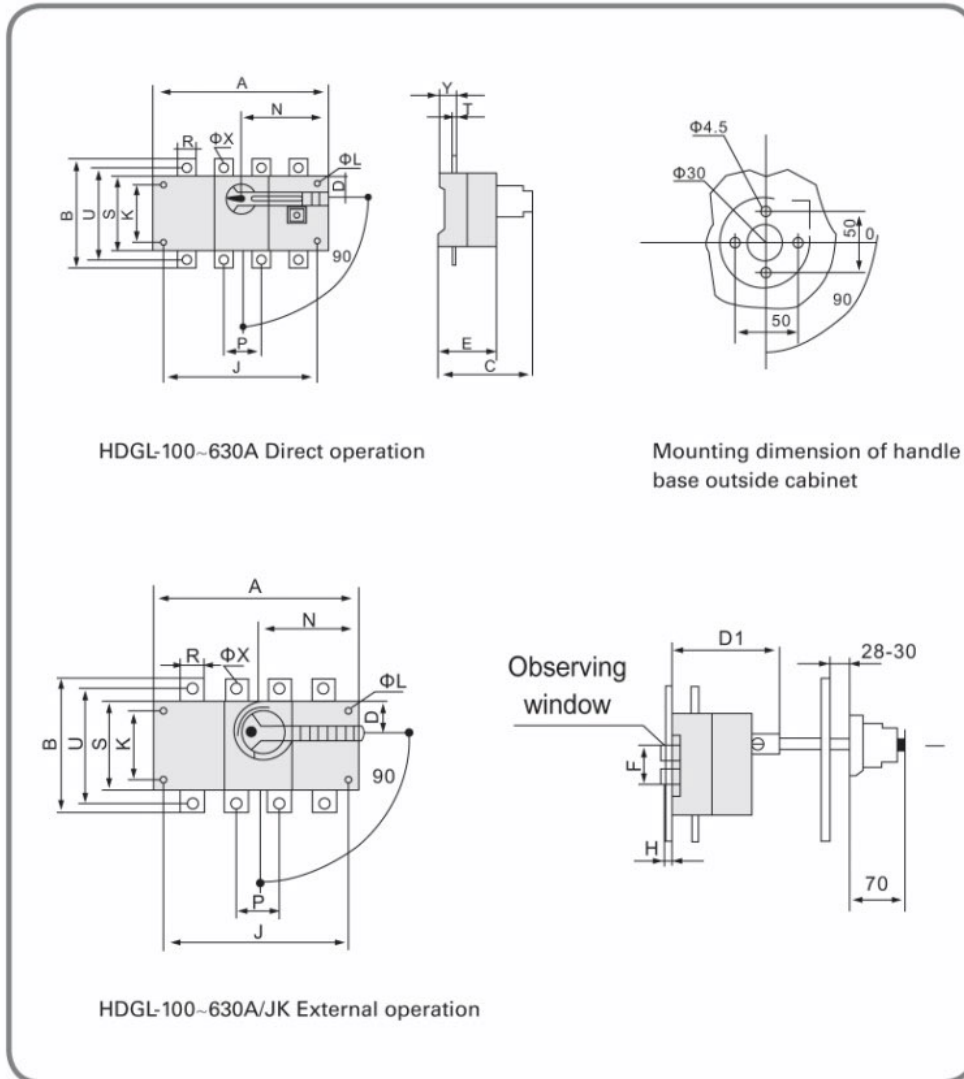
HDGL Isolating Switch

Standard: IEC 60947-3



Overall and Installation Dimensions

HDGL-100~630A(100A here is under 160AF)



HDGL Isolating Switch

Standard: IEC 60947-3



Specifications	Overall dimensions and mounting dimensions																			
	A	B	C	D	D1	E	L	J	K	N	P	R	S	T	U	X	Y	F	H	
HDGL-100~630AF																				
100A/3 (160AF)	140	135	120	27	92	73	5.5	120	65	85	36	20	85	3.5	115	9	25	53	10	
100A/4 (160AF)	170	135	120	27	92	73	5.5	150	65	85	36	20	85	3.5	115	9	25	53	10	
125A/3	140	135	120	27	92	73	5.5	120	65	85	36	20	85	3.5	115	9	25	53	10	
125A/4	170	135	120	27	92	73	5.5	150	65	85	36	20	85	3.5	115	9	25	53	10	
160A/3	140	135	120	27	92	73	5.5	120	65	85	36	20	85	3.5	115	9	25	53	10	
160A/4	170	135	120	27	92	73	5.5	150	65	85	36	20	85	3.5	115	9	25	53	10	
200A/3	180	170	138	35	98	86	6.5	160	90	115	50	25	110	3.5	140	11	25	80	15	
200A/4	230	170	138	35	98	86	6.5	210	90	115	50	25	110	3.5	140	11	25	80	15	
250A/3	180	170	138	35	98	86	6.5	160	90	115	50	25	110	3.5	140	11	25	80	15	
250A/4	230	170	138	35	98	86	6.5	210	90	115	50	25	110	3.5	140	11	25	80	15	
315A/3	230	240	175	50	135	110	7	210	140	145	65	32	160	4.5	206	11	37	104	20	
315A/4	290	240	175	50	135	110	7	270	140	145	65	32	160	4.5	206	11	37	104	20	
400A/3	230	240	175	50	135	110	7	210	140	145	65	32	160	4.5	206	11	37	104	20	
400A/4	290	240	175	50	135	110	7	270	140	145	65	32	160	4.5	206	11	37	104	20	
500A/3	230	260	175	50	135	110	7	210	140	145	65	40	160	6	220	13	37	104	20	
500A/4	290	260	175	50	135	110	7	270	140	145	65	40	160	6	220	13	37	104	20	
630A/3	230	260	175	50	135	110	7	210	140	145	65	40	160	6	220	13	37	104	20	
630A/4	290	260	175	50	135	110	7	270	140	145	65	40	160	6	220	13	37	104	20	

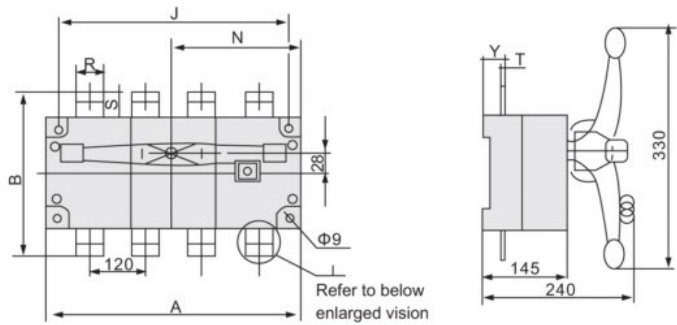
HDGL Isolating Switch

Standard: IEC 60947-3

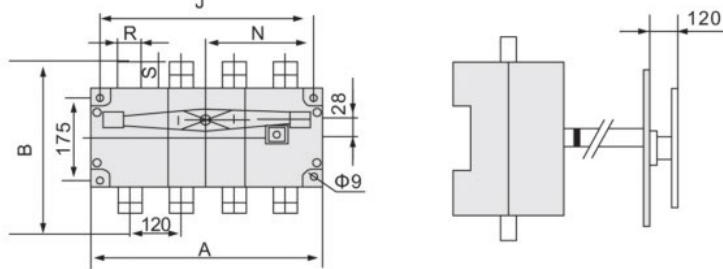
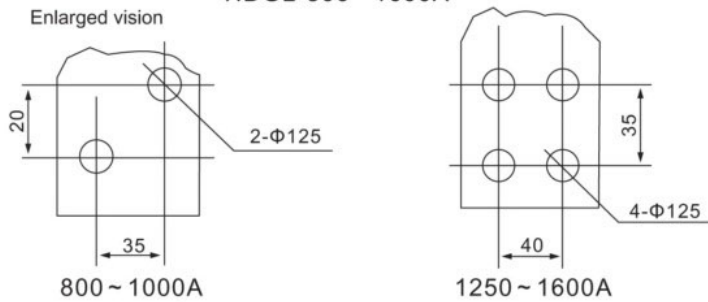


Overall and Installation Dimensions

HDGL-800~1600



HDGL-800 ~ 1600A



HDGL-800 ~ 1600A/J



A type: mounting dimension of outside handle base

B type: Mounting dimension of outside handle base

Note: 1. A type handle, length 405; B type handle, length 330
 2. Defaulted A type handle, B type handle can be customized individually

HDGL Isolating Switch

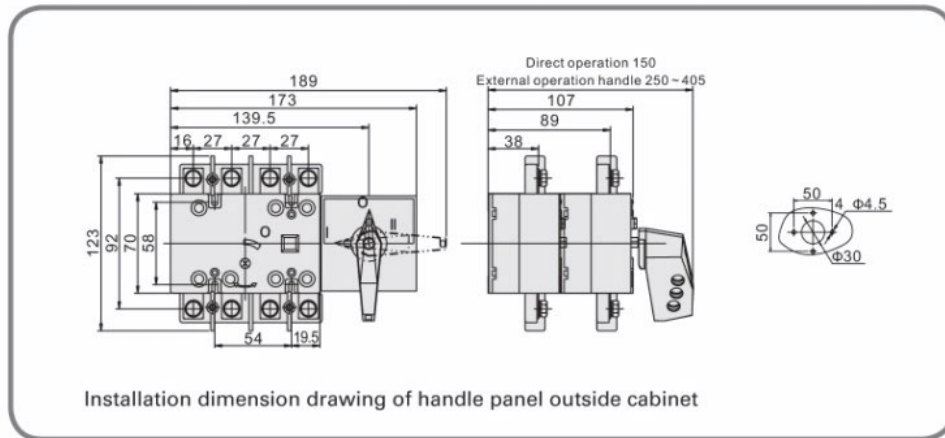
Standard: IEC 60947-3



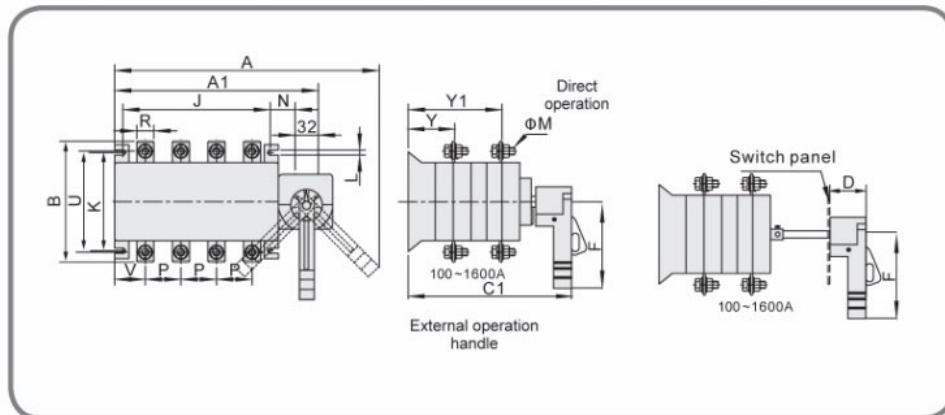
Overall and Installation Dimensions

Specification current	HDGL-2000,2500,3150 Installation dimensions of switchgear and switchgear inside cabinet (mm)									
	A	B	C	L	J	N	O	R	Y	Y1
HDGL-2000A/3	378	440	374	173.5	350	40	40	80	92	225
HDGL-2500A/3	378	440	374	173.5	350	40	40	80	92	225
HDGL-3150A/3	378	510	374	173.5	350	50	50	100	76	245
HDGL-2000A/4	500	440	374	235	473	40	40	80	92	225
HDGL-2500A/4	500	440	374	235	473	40	40	80	92	225
HDGL-3150A/4	500	510	374	235	473	50	50	100	76	245

HDGLZ-80~100A (100A here is under 100AF)



HDGLZ-100~1600A (100A here is under 160AF)



HDGL Isolating Switch

Standard: IEC 60947-3



Specification current	Overall dimensions and mounting dimensions (mm)																
	A	A1	B	C1	D	F	J	K	L	N	P	R	U	V	øM	Y	Y1
100-160A/3	265	196	135	211	85	115	120	95	7	29.5	36	20	115	29	8	55	122
100-160A/4	295	226	135	211	85	115	150	95	7	29.5	36	20	115	29	8	55	122
200-250A/3	310	235	170	240	85	115	160	115	8.5	29.5	50	25	142	37	10	65	148
200-250A/4	360	288	170	240	85	115	210	115	8.5	29.5	50	25	142	37	10	65	148
315-400A/3	405	305	240	312	85	143	210	180	10	43	65	30	205	48	10	85	200
315-400A/4	460	365	240	312	85	143	275	180	10	43	65	30	205	48	10	85	200
500-630A/3	405	305	260	312	85	143	210	180	10	43	65	40	220	48	12	86	201
500-630A/4	460	365	260	312	85	143	275	180	10	43	65	40	220	48	12	86	201
800-1000A/3	585	480	320	410	105	165	350	220	11	50	120	60	246	73	10	115	260
800-1000A/4	715	600	320	410	105	165	473	220	11	50	120	60	246	73	10	115	260
1250A/3	585	480	340	410	105	165	350	220	11	50	120	80	246	73	12	115	260
1250A/4	715	600	340	410	105	165	473	220	11	50	120	80	246	73	12	115	260
1600A/3	585	480	340	410	105	165	350	220	11	50	120	80	246	73	12	116	262
1600A/4	715	600	340	410	105	165	473	220	11	50	120	80	246	73	12	116	262

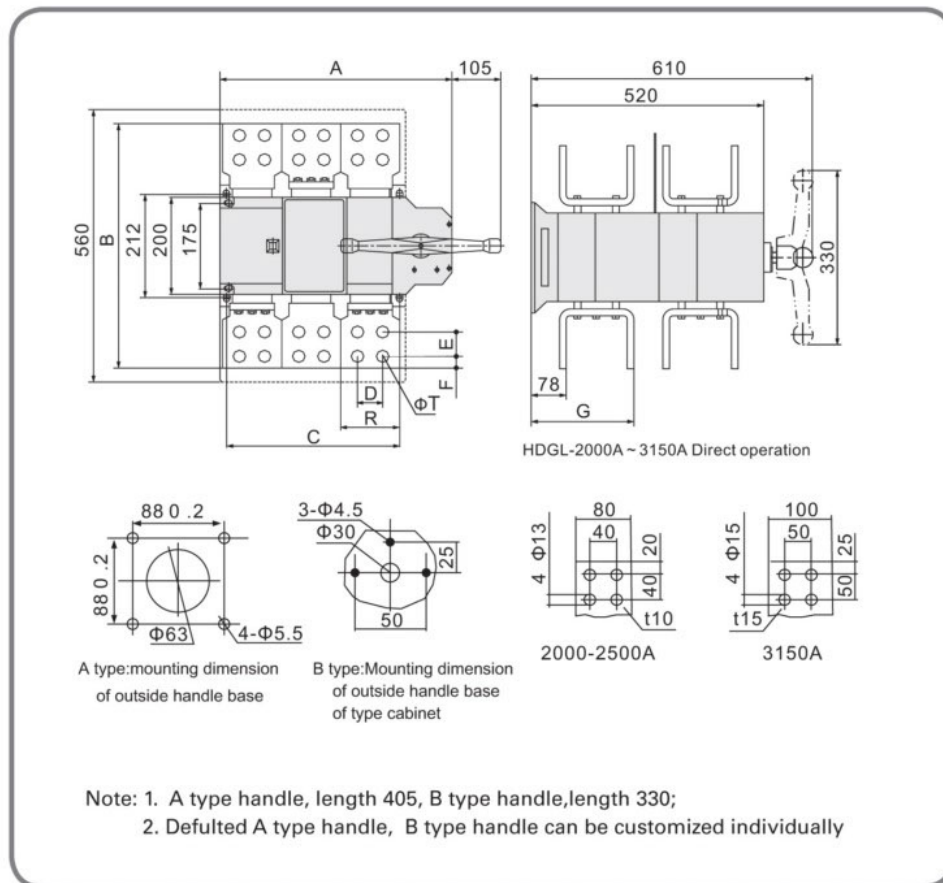
HDGL Isolating Switch

Standard: IEC 60947-3



Overall and Installation Dimensions

HDGLZ-2000~3150A



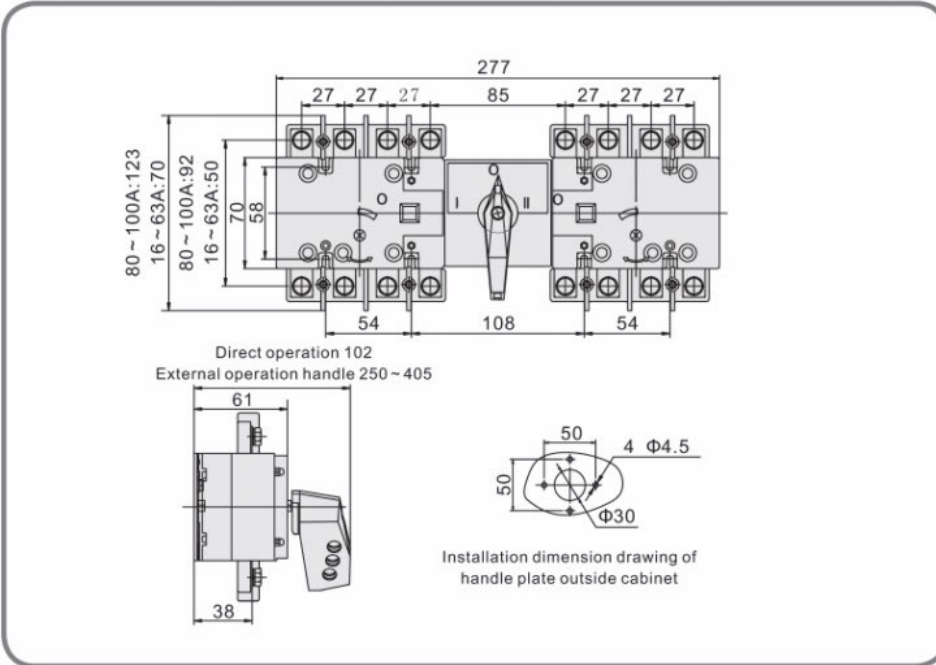
Specification current	Overall dimensions and mounting dimensions (mm)								
	A	B	C	D	E	F	G	T	R
2000A/3	479	418	353	40	40	20	220	10	80
2000A/4	598	418	473	40	40	20	220	10	80
2500A/3	479	418	353	40	40	20	220	10	80
2500A/4	598	418	473	40	40	20	220	10	80
3150A/3	479	492	353	50	50	25	320	15	100
3150A/4	598	492	473	50	50	25	320	15	100

HDGL Isolating Switch

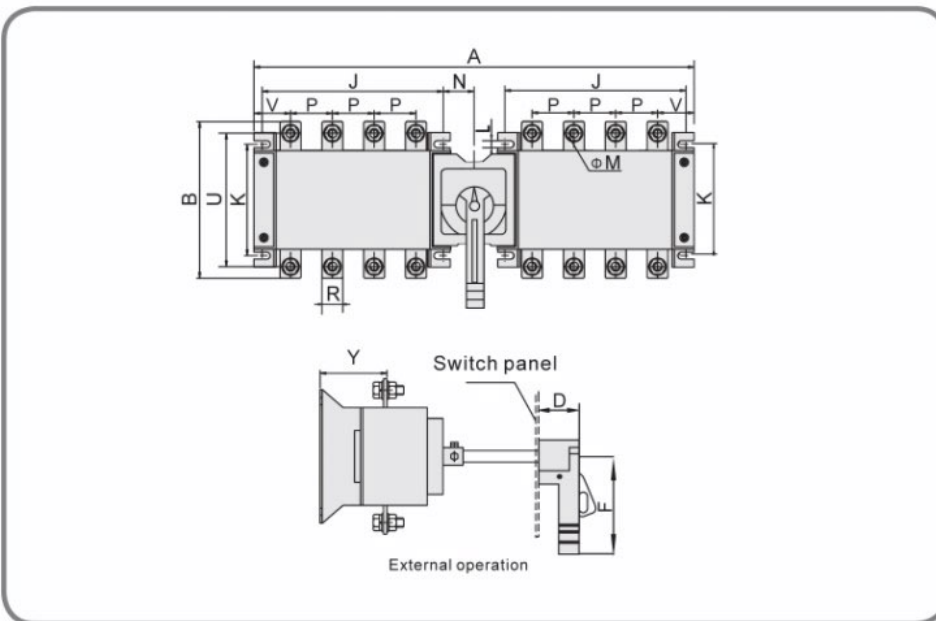
Standard: IEC 60947-3



HDGLZC-16~100A (100A here is under 100AF)



HDGLZC-100~1600A (100A here is under 160AF)



HDGL Isolating Switch

Standard: IEC 60947-3

Overall and Installation Dimensions

Specification current	Overall dimensions and mounting dimensions (mm)														
	A	B	C	D	F	J	K	L	N	P	R	U	V	øM	Y
100-160A/3	320	135.5	144	85	115	120	95	7	29.5	36	20	115	29	8	55
100-160A/4	380	135.5	144	85	115	150	95	7	29.5	36	20	115	29	8	55
200-250A/3	400	172	158	85	115	160	115	8.5	29.5	50	25	142	37	10	65
200-250A/4	503	172	158	85	115	210	115	8.5	29.5	50	25	142	37	10	65
315-400A/3	545	240	195	85	143	210	180	10	43	65	30	205	48	10	85
315-400A/4	660	240	195	85	143	275	180	10	43	65	30	205	48	10	85
500-630A/3	545	260	195	85	143	210	180	10	43	65	40	220	48	12	86
500-630A/4	660	260	195	85	143	275	180	10	43	65	40	220	48	12	86
800-1000A/3	840	320	258	105	165	350	220	11	50	120	60	/	73	10	115
800-1000A/4	1080	320	258	105	165	473	220	11	50	120	60	/	73	10	115
1250A/3	840	340	258	105	165	350	220	11	50	120	80	/	73	12	115
1250A/4	1080	340	258	105	165	473	220	11	50	120	80	/	73	12	115
1600A/3	840	340	258	105	165	350	220	11	50	120	80	/	73	12	116
1600A/4	1080	340	258	105	165	473	220	11	50	120	80	/	73	12	116

Air Circuit Breaker Product Overview



Air Circuit Breaker



HDW6 **211**
Current: 200~6300A
Voltage: 400V



HDW9 **235**
Current: 630~6300A
Voltage: 400/415V, 690V



HDW6 Order Information

Selection of Breaker
Standard: IEC/EN 60947-2



Step 1

Select Current



1000A Frame 2000A Frame 3200A Frame



6300A Frame

1 Select frame

10:1000A frame

l _{cu}	42
l _{cs}	30
l _{cw} (0.5s)	30

20:2000A frame

l _{cu}	80
l _{cs}	50
l _{cw} (1s)	50

32:3200A frame

l _{cu}	80
l _{cs}	80
l _{cw} (1s)	65

63:6300A frame

l _{cu}	120
l _{cs}	100
l _{cw} (1s)	80

2 Select current

02: 200A
04: 400A
06: 630A
08: 800A
10: 1000A

06: 630A
08: 800A
10: 1000A
12: 1250A
16: 1600A
20: 2000A

20: 2000A
25: 2500A
32: 3200A

40: 4000A
50: 5000A
63: 6300A (exclude 4P)

Doorframe and phase barrier are compliant

Production name	Frame	Rated current			
W6	10: 1000	02: 200A	12: 1250A	40: 4000A	
	20: 2000	04: 400A	16: 1600A	50: 5000A	
	32: 3200	06: 630A	20: 2000A	63: 6300A (Exclude 4P)	
	63: 6300	08: 800A	25: 2500A		
				32:3200A	
↓	↓				
W6	+	20	16		

For example **W620163DHDD54L**

HDW6 Order Information

Selection of Breaker
Standard: IEC/EN 60947-2



Step 2

Select Form

FH: Fixed horizontal
4:4P



FH: Fixed horizontal
3:3P



DH: Drawout horizontal
3:3P



DH: Drawout horizontal
4:4P



1 Select installation way

FH: Fixed horizontal 3:3P
(1000AF-3200AF) 4:4P

DH: Drawout horizontal 3:3P
(1000AF-6300AF) 4:4P

Step 3

Select Control Loop



Motor mechanism (MCH)



Closing voltage release (XF)



Shunt release (MX)



Under-voltage release (MN)



Under-voltage delayed release (MNR)



Auxiliary contact

Pole	Installation method
3:3P	DH: Drawout horizontal (1000AF-6300AF)
4:4P	FH: Fixed horizontal (1000AF-3200AF)
↓	↓
3	DH

Motor mechanism (MCH) + Closing release (XF)
D : DC220V
N : AC230V
V : AC400V
5: Without MCH & XF
↓
D

HDW6 Order Information

Selection of Breaker
Standard: IEC/EN 60947-2



Step

4

Select Intelligent Controller

1 Select intelligent controller



- 1 Select Motor mechanism (MCH)
Closing release (XF)
- 2 Select Shunt release (MX)
Under-voltage release
- 3 Select Auxiliary contact

Motor mechanism (MCH) + Closing release (XF) (Must Option)

- D: DC220V
- N: AC230V
- V: AC400V

Shunt release (MX) (choose at least one of the Acc. from MX/MN/MNR)

- D: DC220V
- N: AC230V
- V: AC400V
- 5: Without shunt release

Undervoltage release (MN/MNR)

- N: AC230V
- V: AC400V
- P: With under-voltage delayed AC230V
- T: With under-voltage delayed AC400V
- 5: Without under-voltage release

Auxiliary contact (Must Option)

- 4: Four open and four close (1000AF)
- 6: Five open and five close (2000-6300AF)

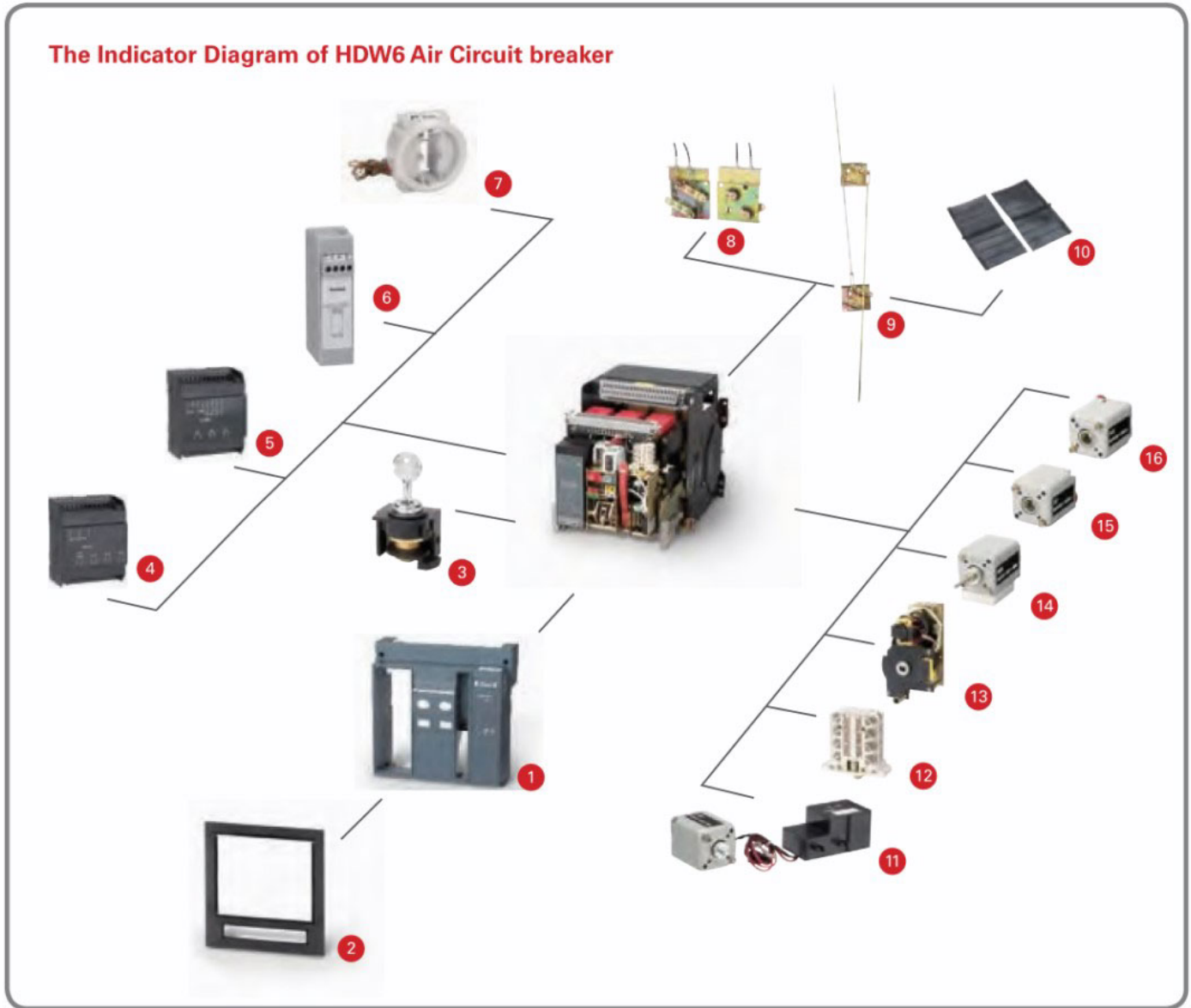
Shunt release (MX)	Under-voltage release	Auxiliary contact	ECW series intelligent controller
D: DC220V	N: AC230V	4: Four open and four close (1000AF)	M: ECW-M
N: AC230V	V: AC400V	6: Five open and five close (2000-6300AF)	L: ECW-L
V: AC400V	P: With under-voltage delayed AC230V		H: ECW-H
5: WITHOUT shunt release	T: With under-voltage delayed AC400V		
	5: Without under-voltage release		
↓	↓	↓	↓
D	5	4	+ L

HDW6 Order Information

Accessories
Standard: IEC/EN 60947-2



The Indicator Diagram of HDW6 Air Circuit breaker



- | | | | |
|-----------------------|-------------------------------------|--|-------------------------|
| 1 Front Cover | 5 Relay module | 9 Connecting-rod type mechanical interlock | 13 Motor mechanism |
| 2 Door frame | 6 DC power supply module | 10 Phase barrier | 14 Undervoltage release |
| 3 Key lock | 7 N-phase circumscribed transformer | 11 Undervoltage delayed release | 15 Closing release |
| 4 Power supply module | 8 Cable mechanical interlock | 12 Auxiliary contact | 16 Shunt release |

HDW6 Order Information

Accessories order Information
Standard:IEC/EN 60947-2



Accessory code

	Code	Accessory name	
• Control module accessory			
	HDW6AP	Power module	input AC230V/DC220V output DC24V 1000-6300AF
	HDW6DCP	DC Power module	input DC220V output DC24V 1000-6300AF
	HDW6R	Relay module	Capacity AC230V/DC24V input DC24V 1000-6300AF
• The accessory is for protection and measure			
N-phase circumscribed transformer	HDW6N1002	N-phase circumscribed transformer	(200A 1000AF)
	HDW6N1008	N-phase circumscribed transformer	(400A-800A 1000AF)
	HDW6N1010	N-phase circumscribed transformer	(1000A 1000AF)
	HDW6N2008	N-phase circumscribed transformer	(630A-800A 2000AF)
	HDW6N2020	N-phase circumscribed transformer	(1000A-2000A 2000AF)
	HDW6N3232	N-phase circumscribed transformer	(2000A-3200A 3200AF)
	HDW6N6363	N-phase circumscribed transformer	(4000A-6300A 6300AF)
• For lock function			
Button lock	HDW6L3	Three locks and two keys	(2000-6300AF)
	HDW6L2	Two locks and one key	(2000-6300AF)
	HDW6L1	One lock and one key	(2000-6300AF)
• For power supply changeover			
Cable mechanical interlock	HDW6FL2	Fixed cable mechanical interlock (2 sets 2000~6300AF)	
	HDW6FL3	Fixed cable mechanical interlock (3 sets 2000~6300AF)	
	HDW6DL2	Drawout Cable mechanical interlock (2 sets 2000~6300AF)	
	HDW6DL3	Drawout Cable mechanical interlock (3 sets 2000~6300AF)	
Connecting-rod type mechanical interlock	HDW6FG2	Fixed connecting-rod type mechanical interlock (2 sets 2000~6300AF)	
	HDW6FG3	Fixed connecting-rod type mechanical interlock (3 sets 2000~6300AF)	
	HDW6DG2	Drawout connecting-rod type mechanical interlock (2 sets 2000~6300AF)	
	HDW6DG3	Drawout connecting-rod type mechanical interlock (3 sets 2000~6300AF)	

Note: interlock only available for all AF except for 1000AF.

Radio Accessory Guide

If you need more extended function, choose accessory by yourself.
Please see the appendix, order goods on the basis of accessory code.

HDW6 Overall Dimensions

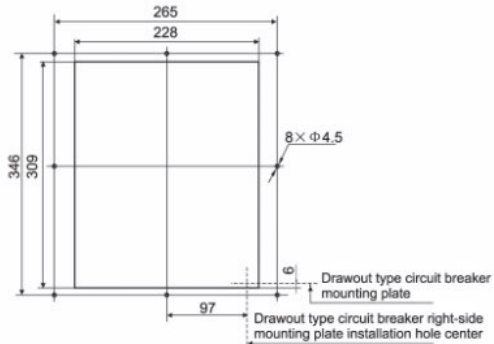
Standard: IEC/EN 60947-2



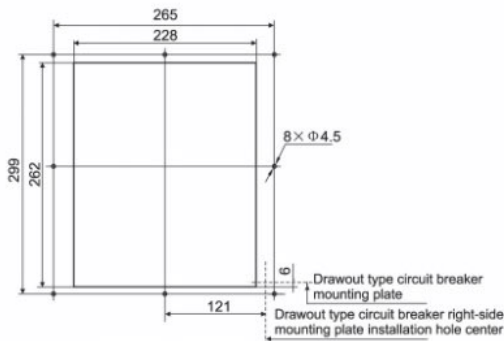
Low-voltage Distribution



HDW6-1000



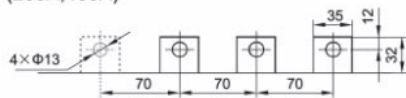
Doorframe(Drawout)



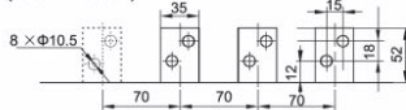
Doorframe(Fixed)

Busbar Dimension

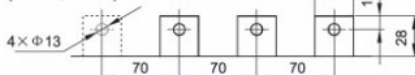
○ Drawer-Out
(200A,400A)



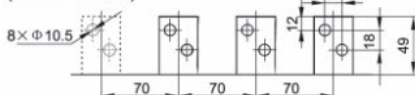
(630A~1000A)



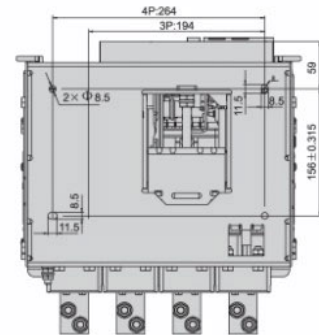
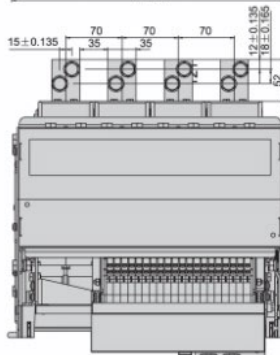
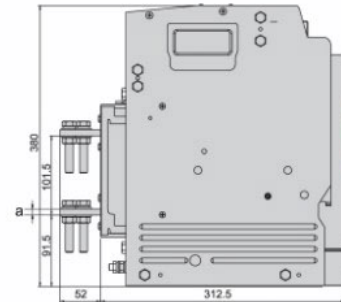
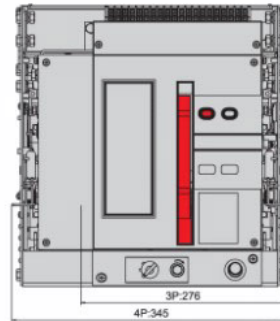
○ Fixed
(200A,400A)



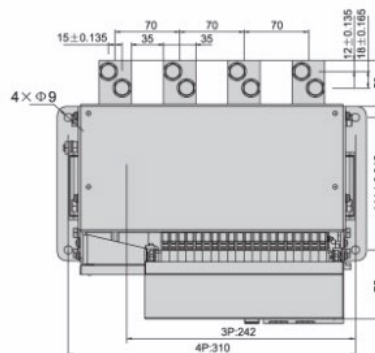
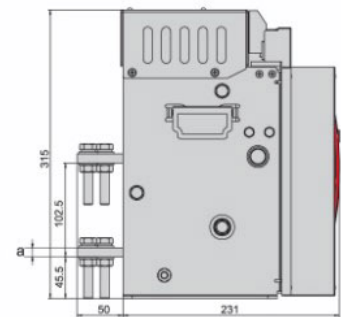
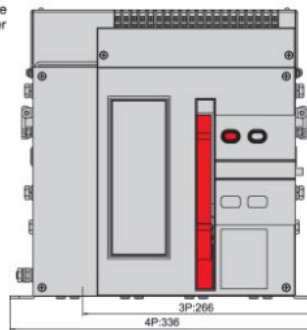
(630A~1000A)



Volume
○ Drawout



○ Fixed



HDW6 Overall Dimensions

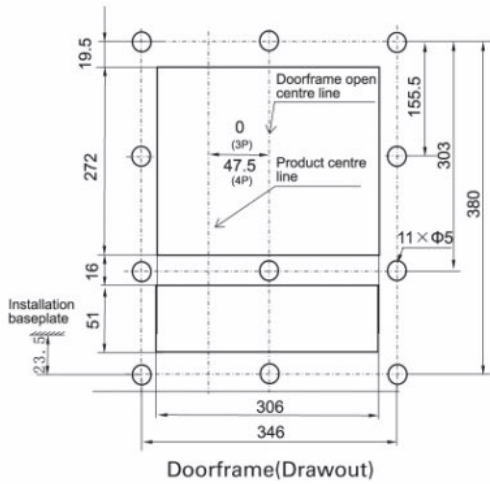
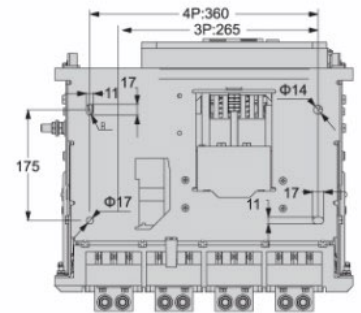
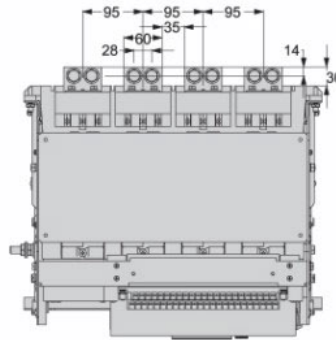
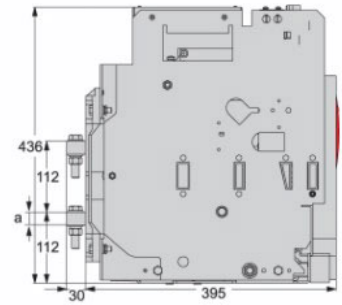
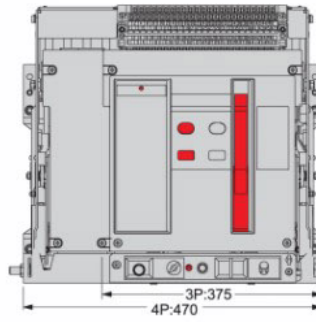
Standard: IEC/EN 60947-2



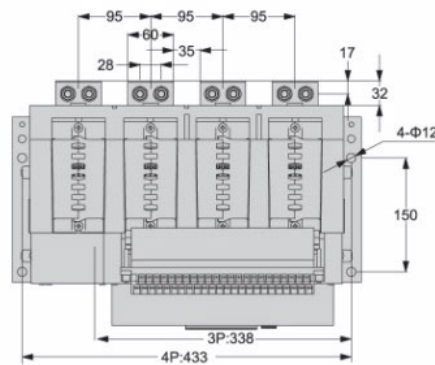
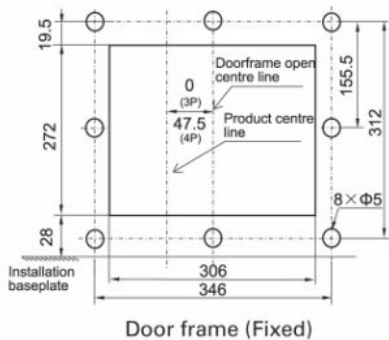
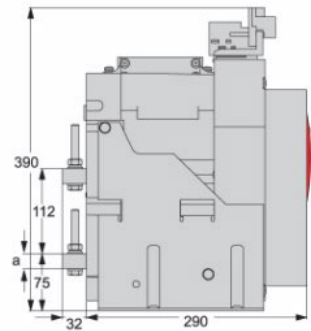
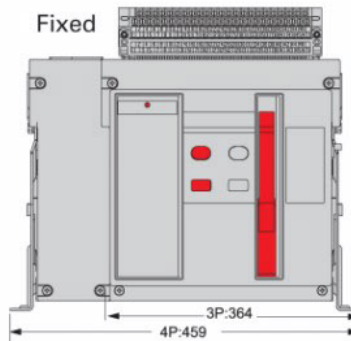
HDW6-2000



Volume Drawout



Fixed



In(A)	a(mm)
630-800	10
1000-1600	15
2000	20

HDW6 Overall Dimensions

Standard: IEC/EN 60947-2



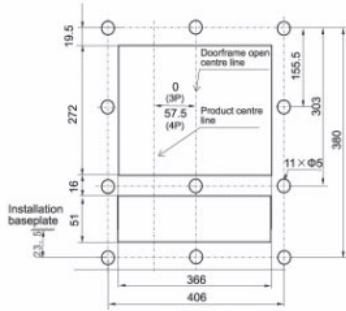
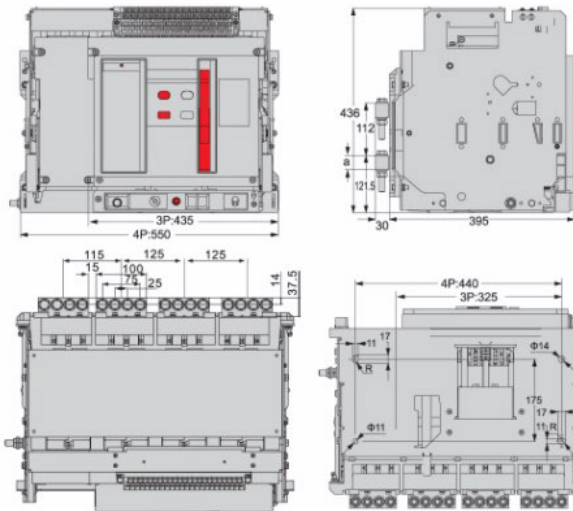
Low-voltage Distribution



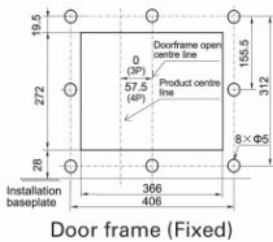
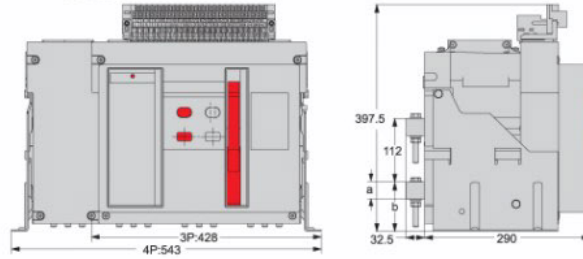
HDW6-3200



Volume Drawout



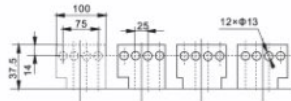
Fixed



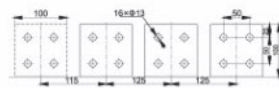
In(A)	a(mm)
2000-2500	10
1000-1600	15

Busbar Dimension

Drawer-Out

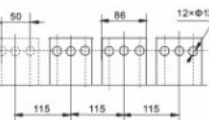


horizontal connection(standard)

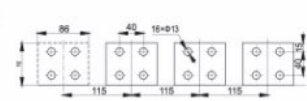


horizontal and extended connection (customized)

Fixed



horizontal connection(standard)



horizontal and extended connection (customized)

HDW6 Technical Parameter

Technical Parameter
Standard: IEC/EN 60947-2



Low-voltage Distribution



Common characteristics

Number of poles		3P, 4P
Rated insulation voltage U_i	V	800
Rated impulse withstand voltage U_{imp}	kV	8
Rated operational voltage U_e	V	400

Rated current

$I_n(A)$	I_n Frame (A)	1000	2000	3200	6300
200		•			
400		•			
630		•	•		
800		•	•		
1000		•	•		
1250			•		
1600			•		
2000			•	•	
2500				•	
3200				•	
4000					•
5000					•
6300					•

Breaking capacity

Rated ultimate short circuit breaking capacity I_{cu} (kA)	42	80	80	120
Rated service short circuit breaking capacity I_{cs} (kA)	30	50	80	100
Rated Short-Time Withstand Current I_{cw} (0.5s)	30			85
Rated short circuit withstand current I_{cw} (kA/1s)		50	65	85

Service life

Mechanical Life with Maintenance	10000	10000	8000	5000
Mechanical Life without Maintenance	2500	2500	2500	2500
Electric Life with Maintenance	1000	1000	1000	800
Electric Life without Maintenance	500	500	500	500

HDW6 Technical Parameter

Intelligent controller
Standard: IEC/EN 60947-2



ECW-L

Function information		
Protection		Use
Long time delay	L	Protect cable, prevent ageing
Short time delay	S	Protect equipment, prevent impedance short circuit
Instantaneous	I	Protect equipment, prevent metallicity short circuit
Earthing	G	Prevent fire

ECW-L		Setting range
Protection characteristics		
Protection Characteristics for Overload Delay		
Action current I_R	0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0In+OFF	
Delay time t_L	30s, 60s, 120s, 240s	
Protection Characteristics for Short-Delay Short Circuit		
Action current I_{sd}	3, 4, 5, 6, 7, 8, 10In+OFF	
Action time t_S	0.2s, 0.4s	
Protection Characteristics for Instantaneous Short Circuit		
Action current I_i	Setting range	Remark
	(10, 11, 12, 14, 16, 18, 20) In+OFF	1000AF 2000AF
	(7, 8, 9, 10, 11, 12, 14) In+OFF	3200AF 6300AF
Earthing protection		
Action current I_g	0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8In+OFF	
Actuation time t_G	0.1s, 0.2s, 0.3s, 0.4s	



HDW6 Technical Parameter

Intelligent controller
Standard:IEC/EN 60947-2



Low-voltage Distribution



ECW-M

Function information		
Protection	Use	
Long time delay	L	Protect cable, prevent ageing
Short time delay	S	Protect equipment, prevent impedance short circuit
Instantaneous	I	Protect equipment, prevent metallicity short circuit
Earthing	G	Prevent fire
Measure		
Current measurement		
Voltage measurement		
Auxiliary function		
Pre-alarm		
Self-diagnosis function		
Fault log		
Test function		



ECW-M	Setting range
-------	---------------

Protection Characteristics for Overload long time delay		
Action current I_R	0.4~1.0In+OFF (>100A)	
Delay time t_L	Fault current	
	t_R	15 30 60 120 240 480
	$1.5 \times I_R$	15 30 60 120 240 480
	$2 \times I_R$	8.4 16.9 33.8 67.5 135 270
	$7.2 \times I_R$	0.65 1.3 2.6 5.2 10.4 20.8
$t = (1.5/N)^2 \times t_R$ N=Fault current divided by the setting current I/I_R t=Delay Time of Failure Action t_R =Setting Value of long time delay		

Protection Characteristics for short-circuit short time delay			
Action current I_{sd}	(0.4~15)In+OFF Step setting 10kA below : $\leq 2A$, 10kA above $\leq 10A$		
Action time t_s	Inverse time Limit I^2T		
	Fault current		
	ts(s)	0.1 0.2 0.3 0.4	
	I^2T : OFF	Min.delay(ms)	60 160 255 340
		Max.delay	140 240 345 460
	I^2T : ON	Min.delay	60 160 255 340
	$I > 8I_R$	Max.delay	140 240 345 460
I^2T : ON	Inverse time limit delay	$t = (8I_R)^2 / I^2 \times t_s$	
$I \leq 8I_R$			

Protection Characteristics for Instantaneous Short Circuit				
	HDW6-1000	HDW6-2000	HDW6-3200	HDW6-6300
Action current I_i	2.0In~20kA+OFF	1.0In~50kA+OFF	1.0In~75kA+OFF	1.0In~100kA+OFF
Earthing Protection				
Action current I_g	0.2~1.0In+OFF			
Action time t_g	0.1s, 0.2s, 0.3s, 0.4s, OFF			

HDW6 Technical Parameter

Intelligent controller
Standard: IEC/EN 60947-2



ECW-H

Function Information

Protection		Use
Long time delay	L	Protect cable, prevent ageing
Short time delay	S	Protect equipment, prevent impedance short circuit
Instantaneous	I	Protect equipment, prevent metallicity short circuit
Earthing	G	Prevent fire

Measure

Current measurement
Voltage measurement
Power measurement
Harmonic wave measurement

Auxiliary function

Pre-alarm
Self-diagnosis function
Fault log
Test function

Communication Function

ECW-H Protection characteristics

Parameter Name	Setting Range
----------------	---------------

Overload Long Time Delay

Action current I_R	OFF+(0.4~1.0) I_n
Protection curve	SI: Standard inverse time limit
Type selection	VI: Rapid inverse time limit EI(G): Express inverse time limit(distribution) EI(M): Express inverse time limit(electromotor) HV: High-Pressure Welding Fuse Compatibility I2t: Universal inverse time limit protection
Setting delay time	C01~C16

Protection Characteristics for Short Delay

Action Current of Inverse Time Limit I_s	OFF+(0.4~15) I_n
Action Current of Fixed Time Limit I_{sd}	OFF+(0.4~15) I_n
Delay Time of Fixed Time Limit t_{sd}	0.1~0.4s

Instantaneous Protection Characteristics

Action current I_i	HDW6-1000	HDW6-2000	HDW6-3200	HDW6-6300
	2.0 I_n ~20kA+OFF	1.0 I_n ~50kA+OFF	1.0 I_n ~75kA+OFF	1.0 I_n ~100kA+OFF

Earthing Protection Characteristics

Action current I_g	OFF+(0.2~1.0) I_n
Inverse time limit shearing coefficient C_r	1.5~6, +OFF
Delay time t_g	(0.1~1)s



HDW6 Technical Parameter

Accessories

Standard:IEC/EN 60947-2



Low-voltage Distribution



Long-distance operation

Shunt Release

- Function introduction
- When the breaker is stored and under specified voltage, Shunt release can make the breaker break through long-distance remote control.

Accessory parameter

Rated operational voltage V	AC230V AC400V DC220V
Operation voltage	(0.7-1.1)Us
Consumption	300VA(AC) 40W(DC)
Breaking time	<30ms

Under-voltage Release and Under-voltage Delay Release

- Function introduction
- The under-voltage release automatically opens a circuit breaker when voltage drops to a value ranging between 35% to 70% of the line voltage. After tripping the circuit breaker cannot be re-closed again when the voltage goes below 35% or until it returns to 85% of line voltage. Under-voltage relay release makes the breaker break in 1s-3s (adjustable)

Accessory parameter

Rated operational voltage V	AC400V AC230V
Operational voltage	(0.35-0.7)Ue
Dependable closing voltage	(0.85-1.1)Ue
Unable closing voltage	≤0.35Ue
Consumption	12VA
Delay time	1s-3s

Closing Release

- Function introduction
- When the breaker is stored and under specified voltage, Shunt release can make the breaker close through long-distance remote control.

Accessory parameter

Rated operational voltage V	AC230V AC400V DC220V
Operational voltage	(0.85-1.1)Us
Consumption	300VA(AC) 40W(DC)
Breaking time	<70ms



HDW6 Technical Parameter

Accessories
Standard: IEC/EN 60947-2

Motor Mechanism

Function introduction

- When the breaker is open with power supply, MCH can store energy for ACB automatically, thus the breaker can be opened and closed with the operation of MX, MN, XF. It can be manually stored when there is no power.

Accessory parameter

Rated control power voltage V	AC230V AC400V DC220V
Action voltage	(0.85-1.1)Us
Consumption	150W (maxi.)
Energy storage time	<5s

Auxiliary Contact

Function introduction

- Used for keeping watch on the breaker's status, connecting position signal light and breaking indicator light

Accessory parameter

Utilization category			AC-15	DC13
Auxiliary contact default type			5NO 5NC (4NO 4NC for 1000AF)	
Conventional thermal current Ith			6A	
Auxiliary contact's energized operational performance			Equal to circuit breaker operation performance	
Making & breaking capacity	Under normal conditions	I/le making	10	1
		I/le breaking	1	1
		U/Us	1	1
		cos φ or T0.95	0.3	6Pe
	Under abnormal conditions	U/Us	10	1.1
		I/le	1.1	1.1
		COS φ or T0.95	0.3	6Pe
		Operation cycles	10	10



HDW6 Technical Parameter

Accessories

Standard:IEC/EN 60947-2



Transformer

N-phase Circumscribed Transformer

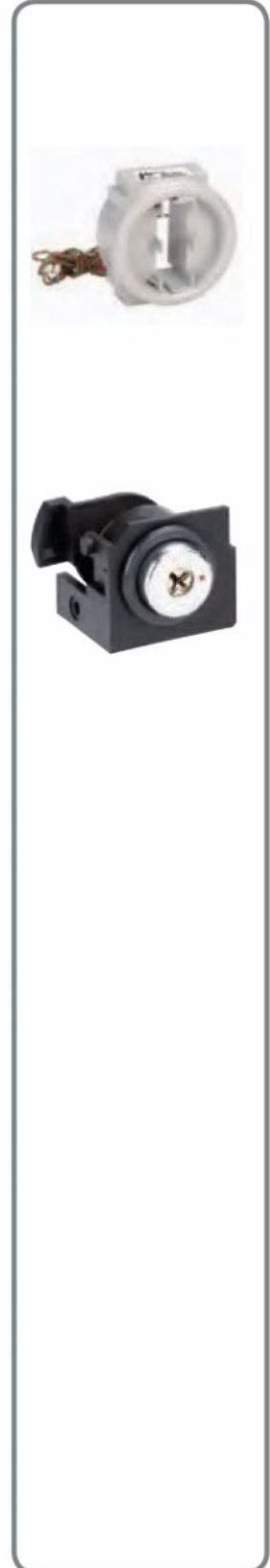
- Function introduction
- The 3P+N earth connection is used to measure the current of the neutral phase

Note: 1. Only for 3P Breaker, and the Intelligent Controller should be 4P
2. Max connection distance is 2M
3. Customize according to the Intelligent Controller

Lock

Divide Release Lock

- Function introduction
- When the breaker is breaking, it can lock in
- It is divided into three types:
 - one lock and one key
 - two locks and one key
 - three locks and two keys



HDW6 Technical Parameter

Accessories
Standard: IEC/EN 60947-2

Connection

Cable Mechanical Interlock

- Function introduction
- Can connect two or three breakers for linking

Note: Max horizontal installation distance is 2M

Connecting-rod Type Mechanical Interlock

- Function introduction
- It could connect two breakers to be linkage, one of the breakers is closing, the other is breaking

Note: Only for vertical installation, the max installation distance is 0.9M

*The mechanical interlock is unavailable for 1000A frame.

Phase Barrier

- Function introduction
- It can increase creeping distance and prevent to engender electric arc when installed in the middle of the breaker busbar.
- The mechanical interlock is unavailable for 1000A frame."

Intelligent Controller Accessory

DC Power Module

- Function introduction
- In the alternating current, supply auxiliary power supply for intelligent controller
- Used for ST201 relay module or DC controller power supply



HDW6 Technical Parameter

Accessories

Standard:IEC/EN 60947-2



Low-voltage Distribution



Power Module

- Function introduction
- In direct current, supply auxiliary power supply for intelligent controller



Relay Module

- Function introduction
- Exporting signal element is used for failure warning or indication

Note: HDW6AP & HDW6R only for H Intelligent Controller and are used together as a set



Other accessories

Door frame

- Function introduction
- Install on the power distribution cabinet door, increase IP protection grade to IP40



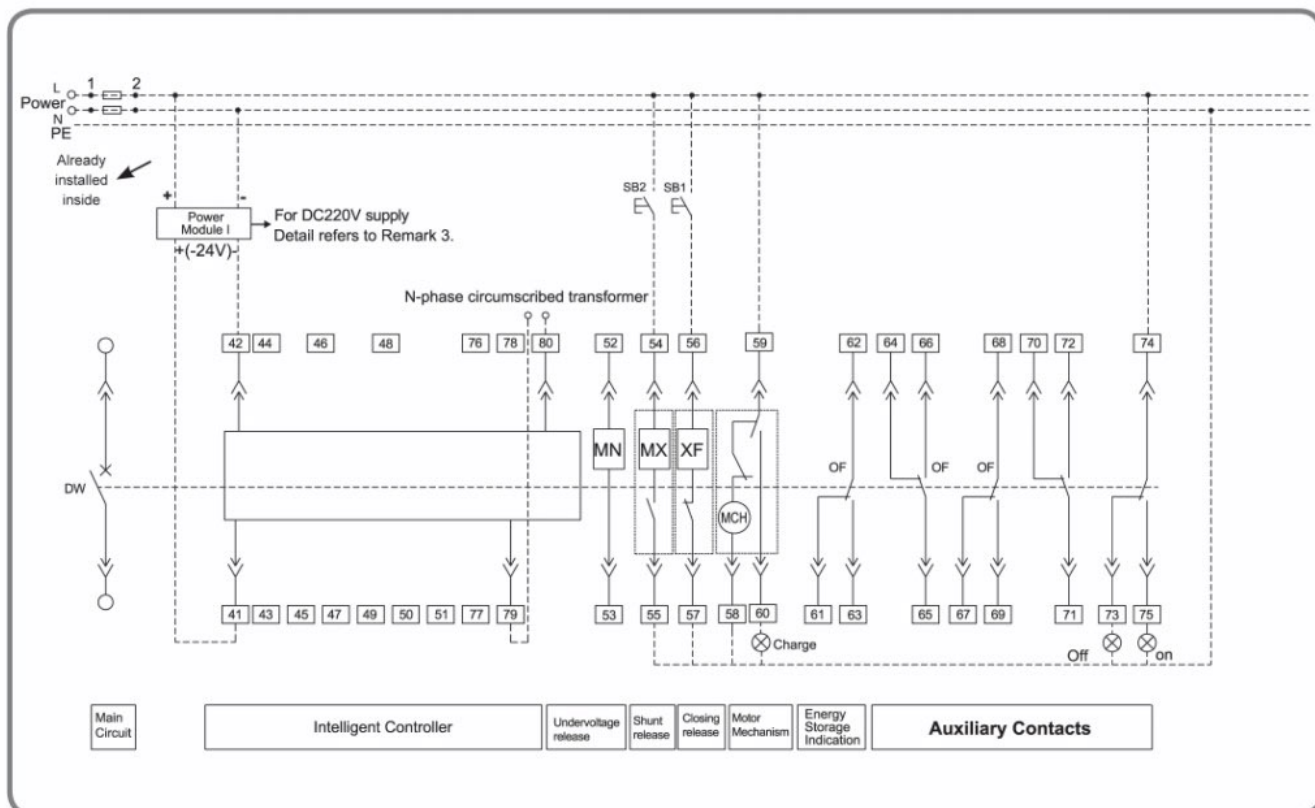
HDW6 Technical Parameter

Accessories

Standard: IEC/EN 60947-2



- L-Type and M-Type Intelligent Controller (1000AF)



Pin Function:

1# and 2#: The input voltage should be mentioned when place order(AC230V or AC400V)
 41# and 42#: auxiliary supply input terminal,
 79#, 80#: input for circumscribed transformer

Components:

- MN – Undervoltage Release
- MX – Shunt Release
- XF – Closing Release
- OF – Auxiliary Contacts
- MCH – Motor Mechanism
- SB1 – Closing Button
- SB2 – Opening Button

Remarks 1: terminal 52# ~ 53# of MN undervoltage release connect to main circuit

Remarks 2: MN, MX, XF and MCH shall be connected with different powers because of different control supply. When auxiliary contact OF is 4a4b, MX Shunt-trip Release and MN Closing Release shall be tandem connected with NO and NO auxiliary contacts in the factory

Remarks 3: Power Module 1 is DC Power Module, and has already been installed inside the breaker. No DC power Module when the power is AC power supply. The input & output terminals cannot be connected reversely. (the draw-out type output terminal has been connected in the factory)

Remarks 4: The auxiliary contact is four-open and four-close; 79# and 80# are input terminals for circumscribed transformer, applied for (3P+N) T type earthing failure protection

Remark 5: Please make sure the 1# and 2# power input voltage is correct.

HDW6 Technical Parameter

Accessories

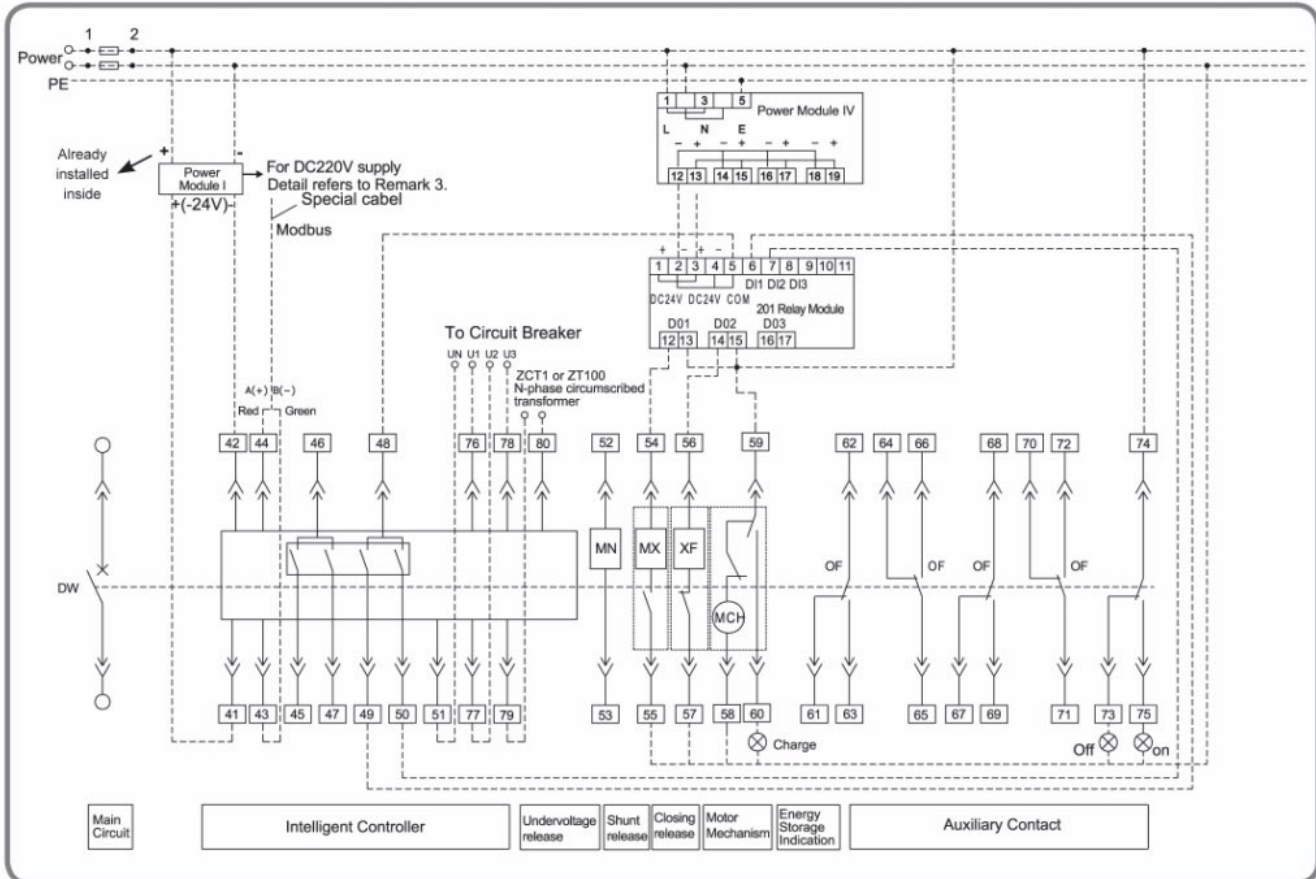
Standard: IEC/EN 60947-2



Low-voltage Distribution



• H-Type Intelligent Controller (1000AF)



Pin Function:

- 1# and 2#: The input voltage should be mentioned when place order (AC230V or AC400V)
- 41# and 42#: Auxiliary supply input terminal
- 43# and 44#: Respective output communication wire of RS485B and RS485A
- 45#: Alarm signal output
- 46#: Signal contact output shared terminal 1
- 47#: Error tripping output
- 48#: Signal contact output shared terminal 1
- 49#: Communication remote control Shunt trip release output
- 50#: Communication remote control make output
- 51#: Neuter line voltage signal (N phase)
- 76#: Voltage signal A phase
- 77#: Voltage signal B phase
- 78#: Voltage signal C phase
- 79#, 80#: Input of circumscribed transformer

Components:

- MN – Under-voltage Release
- MX – Shunt Release
- XF – Closing Release
- OF – Auxiliary Contact
- MCH – Motor Mechanism
- ZCT1 – Leakage transformer
- ZT100 – Earthing transformer

Remarks 1: Terminal 52# ~ 53# of MN undervoltage release connect to main circuit

Remarks 2: MN, MX, XF and MCH shall be connected with different powers because of different control supply. When auxiliary contact OF is 4a4b, MX shunt-trip Release and XF Closing release shall be tandem connected with NO and NO auxiliary contacts in the factory

Remarks 3: Power Module 1 is DC Power Module, and has already been installed inside the breaker. No DC power Module when the power is AC power supply. The input & output terminals cannot be connected reversely. (the draw-out type output terminal has been connected in the factory)

Remarks 4: The auxiliary contact is four-open and four-close; 79# and 80# are input terminal for circumscribed transformer, applied for (3P+N) T type earthing failure protection. or connect ZCT1 or ZT100 (should order extra)

Remarks 5: Long-range control should add 201 relay module and power module IV the capacity of relay module is: AC230V, 10A; DC24V, 10A

Remarks 6: Communication agreement is Modbus. If use Profibus or other arrangement, it will require an extra order
Power module IV and 201 relay module needs an extra order

Remark 7: Please make sure the 1# and 2# power input voltage is correct.

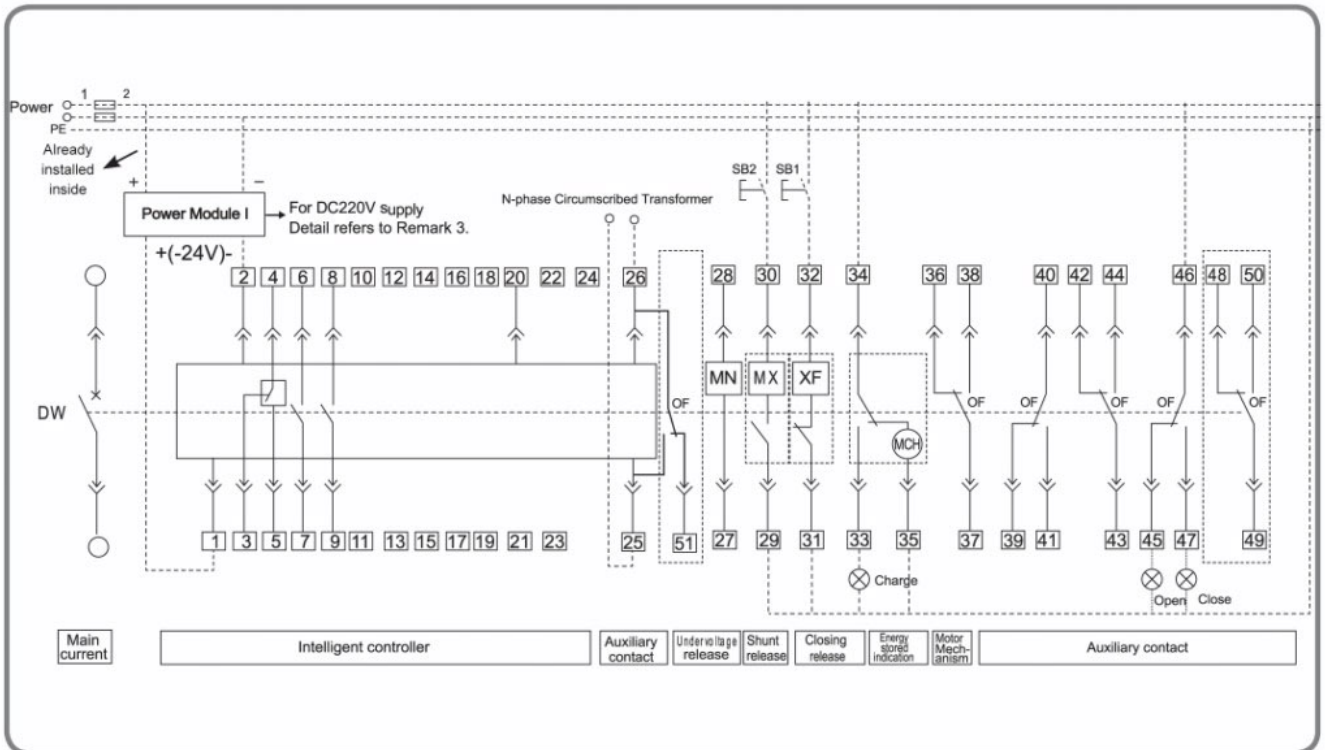
HDW6 Technical Parameter

Accessories
Standard: IEC/EN 60947-2



Low-voltage Distribution

• L-Type and M-Type Intelligent Controller (2000-6300AF)



Pin Function:

1# and 2#: Auxiliary power supply input terminal, the input voltage should be mentioned when place order (AC230V or AC400V).

1# for positive terminal when being DC
3#, 4# and 5#: Contact output of tripping fault (4# refers to shared terminal)

Contact capacity: AC 380V, 16A

6#, 7#, 8# and 9#: Two groups of auxiliary terminals with circuit breaker status

Contact capacity: AC 380V, 16A

20#: PE wire, protection earthing wire

25# ~26#: Output for circumscribed transformer

Components:

MN — Undervoltage Release

MX — Shunt Release

XF — Closing Release

OF — Auxiliary Contacts

MCH — Motor Mechanism

SB1 — Closing Button

SB2 — Opening Button

Remarks 1: Terminal 27# ~ 28# of MN undervoltage release connect to main circuit

Remarks 2: MN, MX, XF and MCH shall be connected with different powers because of control supply voltage. Auxiliary contact OF is 5a5b, MX Shunt Release and XF Closing Release have been tandem connected with normal open and normal close auxiliary contacts in the factory

Remarks 3: Terminal 35# can not only be connected to the power supply directly (automatic pre-storing energy), but also to the power supply after adopting tandem connection with normal open button (manual pre-storing energy)

Remarks 4: Power Module 1 is DC Power Module, and has already been installed inside the breaker when the power supply is DC. No DC power Module when the power is AC power supply. The input & output terminals cannot be connected reversely (the draw-out type output terminal has been connected in the factory)

Remarks 5: The auxiliary contact is five open and five close, 25# and 26# are circumscribed transformer, applied for (3P+N)T type earthing failure protection

Remark 6: Please make sure the 1# and 2# power input voltage is correct.

HDW9 Functions and Characteristics


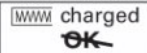
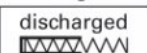


Overview
IEC/EN: 60947-2

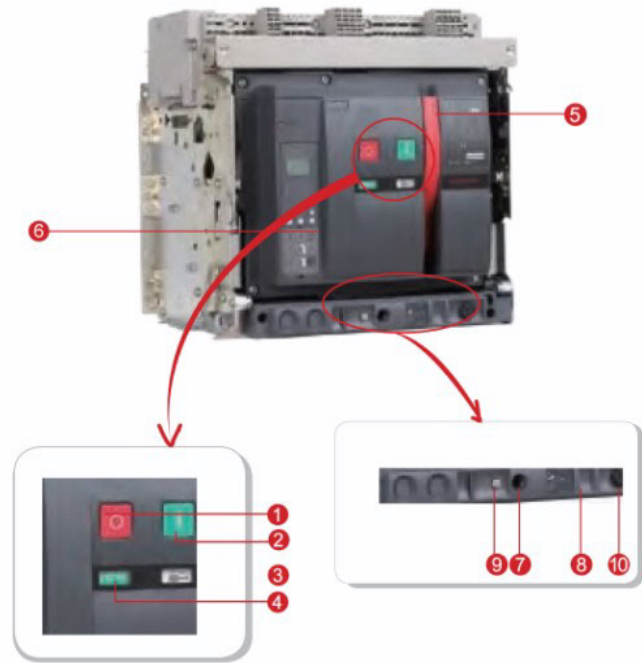


Low-voltage Distribution



About the Panel

- 1 Opening button (O)
- 2 Closing button (I)
- 3 Energy storage status indicator
 - Charged, ready for closing

 - Charged, not ready for closing

 - Discharged

- 4 Main contacts position indicator
 -  Opening
 -  Closing
- 5 Mechanical energy storage handle
- 6 Intelligent controller
- 7 Hand crank
- 8 'Connected', 'testing', 'disconnected', position indicator
- 9 'Connected', 'testing', 'disconnected, position Limiter
- 10 Hand crank cabinet



HDW9 Functions and Characteristics

Overview
IEC/EN: 60947-2

Technical Parameters

Circuit Breaker

Common Parameters

Pole	3,4
Rated operational voltage U _e (V)	400/415, 690
Rated insulation voltage U _i (V)	800/1000
Rated impulse withstand voltage U _{imp} (kV)	8/12

Rated Current

In	Frame Size (A)	1600N	4000H1	4000H2	6300L
630		•	•		
800		•	•		
1000		•	•		
1250		•	•		
1600		•	•		
2000			•	•	
2500			•	•	
3200			•	•	
4000			•	•	•
5000					•
6300					•

Breaking Capacity

I _{cu} (kA)	415V	50	65	100	120 ^{*1}
	690V	35	65	75	
I _{cs} (kA)	415V	50	65	100	100 ^{*1}
	690V	35	65	75	
I _{cw} (1s)(kA)	415V	42	65	85	85 ^{*1}
	690V	35	65	75	

Service Life (one thousand times)

Electrical Endurance (415V) (690V)	6	5	5	0.8
	4	3	3	
Mechanical Endurance: With maintenance Without maintenance	25(K times)	20(K times)	20(K times)	5(K times)
	12.5(K times)	10(K times)	10(K times)	2.5(K times)

Dimensions

Size (mm)	draw-out	3P	322x288x281	439x441x404	439x441x404	441.5x815x508 ^{*2}
						441.5x930x508 ^{*3}
Height x width x depth	fixed	3P	301x276x200.5	352x422x306.5	352x422x306.5	
		4P	301x346x200.5	352x537x306.5	352x537x306.5	
Weight (kg)	draw-out	3P	34	78	78	210
		4P	41	95	95	233
	fixed	3P	14	42	42	
		4P	17	52	52	

Altitude

The technical parameter will change when used for 2000m above sea level

Dielectric resistance voltage (V)	3500	3150	2500
Average isolation level (V)	1000	900	700
Maximum utilisation voltage (V)	690	590	520
Average thermal current 40°C	1XIn	0.99XIn	0.96XIn

*1 400V

*2 Dimensions of 4000A and 5000A

*3 Dimension of 6300A

*4 4P is not available for 6300AF



1600N



4000H1



4000H2



6300L

HDW9 Functions and Characteristics

iTR336 Series Intelligent Control Units
IEC/EN: 60947-2



Low-voltage Distribution



Overall View

iTR336

Basic Type
Protection:
Long time + short time + instantaneous + earth fault

iTR336E

Standard Type
Protection:
Long time + short time + instantaneous + earth fault
LED lights indicate the status of 3 phases

iTR336H

Advanced Type
Protection:
Long time + short time + instantaneous + earth fault
Multiple protection, measurement, maintenance, communication functions.

iTR336H-L





High-low Temperature Type
Protection:
Long time + short time + instantaneous + earth fault
Multiple protection, measurement, maintenance, communication functions.
Available in extreme situations, between -40°C and 80°C

HDW9 Functions and Characteristics

iTR336 Series Intelligent Control Units
IEC/EN: 60947-2



Function

	iTR336	iTR336E	iTR336H	iTR336H-L
				
Protection	Long time-L Short time-S Instantaneous-I MCR Ground fault-G	Long time-L Short time-S Instantaneous-I MCR Ground fault-G	Long time-L Short time-S Instantaneous-I MCR Ground fault-G Under-voltage/alarm Over-voltage/alarm 3-phase imbalance/alarm Phase sequence/alarm Under-frequency/alarm Over-frequency/alarm Inverse power protection/alarm Voltage harmonic alarm (THDu) Current harmonic alarm (THDi)	Long time-L Short time-S Instantaneous-I MCR Ground fault-G Under-voltage/alarm Over-voltage/alarm 3-phase imbalance/alarm Phase sequence/alarm Under-frequency/alarm Over-frequency/alarm Inverse power protection/alarm Voltage harmonic alarm (THDu) Current harmonic alarm (THDi)
Measurement		Current Voltage Power Frequency Energy	Current Voltage Power Frequency Energy Harmonic	Current Voltage Power Frequency Energy Harmonic
Auxiliary function	Test function	Pre-alarm Self-diagnose Fault history record Test function	Pre-alarm Self-diagnose Fault history record Test function Load monitor ZSI	Pre-alarm Self-diagnose Fault history record Test function Load monitor ZSI High to low temperature
Communication			Modbus	Modbus

HDW9 Functions and Characteristics

iTR336 Series Intelligent Control Units
IEC/EN: 60947-2



Low-voltage Distribution



Overall View

- 1 Top fix
- 2 LED indicator light
- 3 Data sheet
- 4 Adjusting knob
- 5 Bottom fixed
- 6 Terminal connector
- 7 CT connector
- 8 Magnetic flow/micro switch

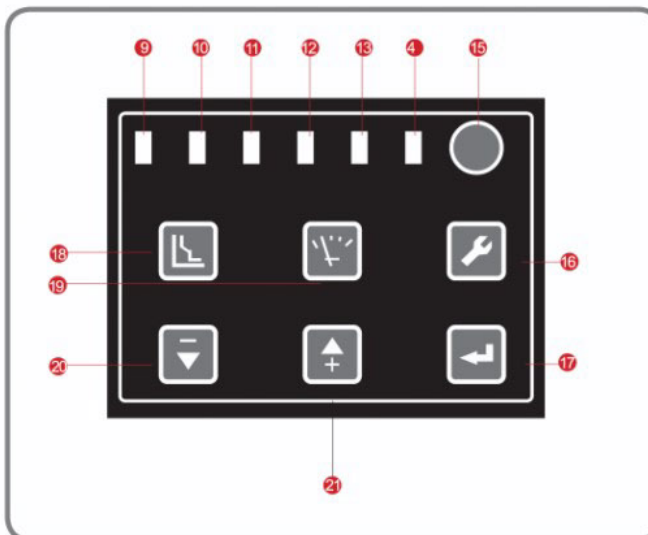


Direction

- 9 Alarm LED
- 10 Long-time LED
- 11 Short/instantaneous LED
- 12 Leakage LED
- 13 Advanced protect LED
- 14 Communication
- 15 Reset

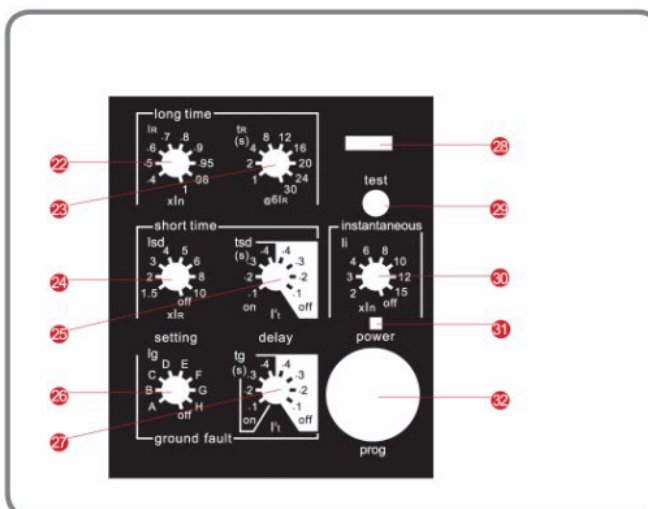
Navigator

- 16 System setting
- 17 Confirm
- 18 Protection interface/return
- 19 Measurement interface/return
- 20 Move down
- 21 Move up



Control Panel

- 22 Long time-current setting
- 23 Long time-time setting
- 24 Short time-current setting I_{sd}
- 25 Short time-time setting t_{sd}
- 26 Ground fault-current setting I_g
- 27 Ground fault-time setting t_g
- 28 Padlock
- 29 Test, Instantaneous
- 30 Instantaneous current setting
- 31 Power
- 32 Test port



HDW9 Functions and Characteristics

iTR336 Series Intelligent Control Units
IEC/EN: 60947-2



Low-voltage Distribution

Protection Characteristics

The intelligent control unit can provide inverse time delayed protection and fixed time delayed protection when the failure current is over inverse time delayed protection settings. Inverse time delayed protection curve meet the curve of $I^2 t$.

1600N,4000H1,4000H2

Overload long time delay Protect Characteristics

Tripping Characteristics

$<1.05 I_R$: $>2h$ non-tripping

$>1.2 I_R$: $<1h$ tripping

$\geq 1.2 I_R$: delay tripping

I_R setting range: $0.4I_N, 0.5I_N, 0.6I_N, 0.7I_N, 0.8I_N, 0.9I_N, 0.95I_N, 0.98I_N, 1.0I_N$

Inverse Time Protection Tripping Characteristics $I^2 t: t=(6/N)^2 * t_R$

Current	Tripping time								
$1.5 I_R$	16s	32s	64s	128s	192s	256s	320s	384s	480s
$2 I_R$	9s	18s	36s	72s	108s	144s	180s	216s	270s
$6 I_R$	1s	2s	4s	8s	12s	16s	20s	24s	30s

N: Failure current I/I_R

t: Failure tripping delayed time

Long delayed time setting

Tripping time error $\pm 10\%$

Short-circuit Short Delay Protect Characteristics

Tripping Characteristics

$<0.9 I_{sd}$: $>2h$ non-tripping

$>1.1 I_{sd}$: $<1h$ tripping

$\geq 1.1 I_{sd}$: Delay tripping

I_{sd} setting range: $1.5 I_R, 2 I_R, 3 I_R, 4 I_R, 5 I_R, 6 I_R, 8 I_R, 10 I_R + OFF$

Current	Tripping Time					
$I_{sd} < 1.5 I_R$	Inverse time		$I^2 t = (8I_R)^2 t_{sd}$			
			Setting time s	0.1, 0.2, 0.3, 0.4		
$I_{sd} > 1.5 I_R$ ($I^2 t$ ON)	Tripping time of fixed is the minimum time.	Setting time s	0.1	0.2	0.3	0.4
		Min. s	0.08	0.14	0.23	0.35
		Max. s	0.14	0.2	0.32	0.5

I_{sd} : Short time delay current

I: Failure current

I_R : Long delay current

t: Failure tripping delayed time

t_{sd} : Short delay inverse time

Tripping time error $\pm 20\%$

Short-circuit Instantaneous Protect Characteristics

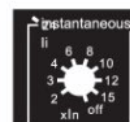
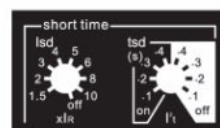
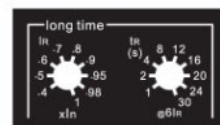
Tripping Characteristics

$<0.85 I_i$: Non-tripping

$>1.15 I_i$: Tripping

Instantaneous current: $2I_N, 3I_N, 4I_N, 6I_N, 8I_N, 10I_N, 12I_N, 15I_N + OFF$

Tripping time error $\leq 50ms$



HDW9 Functions and Characteristics

iTR336 Series Intelligent Control Units
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Low-voltage Distribution



Ground Return Protect Characteristics

Tripping Characteristics

- <0.9 I_g: Non-tripping
- >1.1 I_g: Tripping
- >1.1 I_g: Delay tripping

Current	A	B	C	D	E	F	G	H	OFF
I _n ≥1250	0.2I _n	0.3I _n	0.4I _n	0.5I _n	0.6I _n	0.8I _n	0.9I _n	I _n	
I _n ≥1250	500A	600A	700A	800A	900A	1000A	1100A	1200A	

tg(s)	Inverse time	Tripping Characteristics
-------	--------------	--------------------------

$$t = \frac{(I_g)^2}{I^2} \times t_g$$

Tripping time of fixed is the minimum time	Setting time s	0.1, 0.2, 0.3, 0.4			
	Setting time s	0.1	0.2	0.3	0.4
	Min. s	0.08	0.14	0.23	0.35
	Max.s	0.14	0.2	0.32	0.5

- I_g: ground protection current. I_n>1250A, I_g=1200A. I_n≤ 1250A, I_g=I_n.
- I: Fault current
- T: Tripping delayed time
- t_g: Grounding inverse time
- Tripping time error±20%

Factory Default Settings

Curve	Long delay		Short delay		Inst.	Ground fault		Memory
I ² t	I _R	t _R	I _{sd}	t _s	I _i	I _g	t _g	
	1I _n	30s	6I _n	0.2s	10I _n	G	0.4s	20min

Details refers to HDW9 Intelligent Control Unit User Manual-1600N, 4000H1 & H2



HDW9 Functions and Characteristics

iTR336 Series Intelligent Control Units
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6300L

iTR336E Protect Characteristics Setting Range

Over-load Protect Characteristics

Tripping current I_R	(0.4~1.0) I_n +OFF						
Delayed time setting t_R	Failure Current	Delay Time					
	t_R	15	30	60	120	240	480
	$1.5 \times I_R$	15	30	60	120	240	480
	$2 \times I_R$	8.4	16.9	33.8	67.5	135	270
	$7.2 \times I_R$	0.65	1.3	2.6	5.2	10.4	20.8
$t: (1.5/N)^2 \times t_R$ N: Failure Current I/I_R t: Delayed failure tripping time t_R : Delayed tripping time							

Short-circuit Short Delay Protect Characteristics

Tripping current of fixed time I_{sd}	(0.4~15) I_n +OFF Step: below 10kA: $\leq 2A$; above 10kA: $\leq 10A$
Delayed time of fixed time t_s	I^2T

Failure Current	Delay Time				
	t_s (s)	0.1	0.2	0.3	0.4
I^2T : OFF	Min.delay (ms)	60	160	255	340
	Max.delay (ms)	140	240	345	460
I^2T : ON	Min.delay (ms)	60	160	255	340
	Max.delay (ms)	140	240	345	460
$I > 8I_R$	Max.delay (ms)	140	240	345	460
I^2T : ON	Inverse time	$t = (8I_R)^2 / I^2 \times t_s$			
$I \leq 8I_R$					

Short-circuit Instantaneous Protect Characteristics

Tripping current I_i	$2.0 I_n \sim 100kA$ +OFF
------------------------	---------------------------

Ground Return Protect Characteristics

Tripping current I_g	(0.2~1.0) I_n +OFF
Delayed time t_g	0.1s, 0.2s, 0.3s, 0.4s, OFF



HDW9 Functions and Characteristics

iTR336 Series Intelligent Control Units
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Low-voltage Distribution



iTR336H Protect Characteristics

Over-load Protect Characteristics

Tripping current I_R	OFF+(0.4~1.0) I_n
Tripping curves	SI: Standard inverse time
Protection type	VI: Rapid Inverse Time
	EI(G): Express inverse time (distribution)
	EI(M): Express inverse time (electromotor)
	HV~High voltage fuse compatibility
	I ² t: Universal inverse time protection
Delayed time setting	C01~C16

Short-circuit Short Delay Protect Characteristics

Tripping current of inverse time I_{sd}	OFF+(0.4~15) I_n
Tripping current of fixed time I_{sd}	OFF+(0.4~15) I_n
Delayed time of fixed time t_{sd}	0.1~0.4s

Short-circuit Instantaneous Protect Characteristics

Tripping current I_i	2.0 I_n ~100kA+OFF
------------------------	----------------------

Ground Return Protect Characteristics

Tripping current I_g	OFF+(0.2~1.0) I_n
Shearing coefficient of inverse time C_r	(1.5~6)+OFF
Delayed time t_g	0.1~1s



Factory Default Settings

Controller	Curve	Long delay		Short delay			Inst.	Ground fault			Monitoring Ic1, Ic2	Memory
		I _R	t _R	I _{sd}	I _{sd2}	t _s		I _i	I _g	t _g		
iTR336				4I _n	/						1I _n	20min
iTR336E	I ² t	1I _n	60s			0.2s	10I _n	0.8I _n	0.4s			
iTR336H				6I _n	8I _n							

HDW9 Functions and Characteristics

iTR336 Series Intelligent Control Units
Accessories
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Remote Operation

Shunt Release MX

After the circuit breaker is closed, the shunt release can open the circuit breaker instantaneously under required power voltage. The operation can be made remotely.

- Rated control power voltage: AC220V/AC230V, AC380V/AC400V, DC220V
- Operating voltage: (0.7-1.1) U_s
- Break time: $50 \pm 10\text{ms}$ (1600N,4000H1&H2)
 $<30\text{ms}$ (6300L)

Closing Release XF

After the circuit breaker completes energy storage, the closing release can close the circuit breaker under required power voltage. The operation can be made remotely.

- Rated control power voltage: AC220V/AC230V, AC380V/AC400V, DC220V
- Operating voltage: (0.85-1.1) U_s
- Closing time: $55 \pm 10\text{ms}$ (1600N)
 $70 \pm 10\text{ms}$ (4000H1&H2,>3200A, $80 \pm 10\text{ms}$)
 $<70\text{ms}$ (6300L)

Under-voltage Release MN

The under-voltage release can be divided into under-voltage release and under-voltage delayed release.

When the circuit breaker is closed, the voltage will drop to 70% to 35% of rated voltage and the circuit breaker can be opened.

The breaker can only be closed again when the power voltage of the under-voltage release returns to 85% of rated voltage.

Rated control power voltage: AC220V/AC230V, AC380V/AC400V

- Operating voltage: (0.35-0.7) U_e
- Reliable closing voltage: (0.85-1.1) U_e
- Voltage that can not be closed: $\leq 0.35U_e$
- Delay time: 0.5s, 0.9s, 1.5s, 3s(1600N,4000H1&H2),1s,3s,5s (6300L)

Under-voltage Delayed Release MNR

The under-voltage delay release can open the circuit breaker after 0.5s, 0.9s, 1.5s, 3s (1600N,4000H1&H2),1s, 3s, 5s (6300L)

Electric Motor MCH

The motor mechanism can store energy for the circuit breaker automatically when it is power on and the circuit breaker is open. The electric motor can open or close the circuit breaker with the shunt release, under-voltage release and closing voltage release. When there is no power supply the handle can store energy for the circuit breaker.

- Rated control power voltage: AC220V/AC230V, AC380V/AC400V, DC220V
- Operating voltage: (0.85-1.1) U_s
- Power consumption: 180W (1600N,4000H1&H2),150W (6300L)
- Energy storage time: $<5\text{s}$
- Utilization category: AC15, DC13



HDW9 Functions and Characteristics

Accessories
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Low-voltage Distribution



Indication Contacts

ON/OFF Auxiliary Contacts OF

Default: 4NO+4NC 8NO+8NC for 4000AF and 5NO+5NC are also available. Auxiliary contacts can be used to indicate the status of the circuit breaker, e.g. connecting the status indicator of the circuit breaker.

Rated thermal current I_{th}: AC400V/AC380V 0.75A, AC230V 1.3A, DC220V 0.15A

Ready to Close Contact PF

Ready to close contact is composed of a mechanical indicating contact and a transferring contact. It can send closing signal and indicate:

- The circuit breaker is disconnected
- The energy is stored
- No continued opening command

AC12/DC12: AC380V/AC400V 3A, DC220V 0.15A

Connected (CE), Disconnected (CD), Testing (CT) Position Indication Contacts

Connected (CE), Disconnected (CD), Testing (CT) position indication contacts are installed on the chassis for indicating the position of the circuit breaker

Draw-out type only

Fault-trip Indication Contact (Additional) SWT2

When there is electrical malfunction, the contact provides a set of malfunction signal outputs

Remote Reset Contact Res

When there is electrical malfunction, after the circuit breaker is opening the contact can allow malfunction locking device of the circuit breaker to be remotely reset. This contact is not compatible with additional SWT fault-trip indication contact

Only for iTR336H, iTR336H-L

Keylocks and Interlocks

OFF Position Padlock

The padlock should be prepared by the client.

The rocker cannot be inserted after the padlock is locked or when the circuit breaker is at disconnected position.

OFF Position Keylock

The opening lock can lock the circuit at OFF position. The circuit breaker can only be closed when the lock is opened with a key and the key is not pulled out. The opening lock can be divided into 3 types:

- 1 lock and 1 key
- 2 locks and 1 key
- 3 locks and 2 keys

The latter 2 types are used in distribution system with two wirings and one contacting

Door Interlock

The interlock is installed at the side of draw-out type circuit breaker and linked with the door of the distribution cabinet. When the circuit breaker is at connection or test position, it ensures that the cabinet door cannot be opened. The cabinet door can be opened at disconnected position. It can prevent the circuit breaker from slipping and causing damage

3-position Interlock

For the draw-out type circuit breaker, the 'connection', 'test' and 'disconnected' position of the circuit breaker can be indicated by the indicator. The in/out button is locked at indicated by the indicator. The in/out button is locked at each position. Push to unlock



HDW9 Functions and Characteristics

Accessories
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Mechanical Interlock

Lever Interlock and Cable Interlock

- Lever interlock is used for two circuit breakers installed vertically. Cable interlock is used for 2 or 3 circuit breakers installed vertically or horizontally
- The interlocks is used in distribution system with two wirings and one contacting
- The interlocks build mechanical links between 2 or 3 circuit breakers
- If one circuit breaker is closed, the linked circuit breaker will be opened

Operation Protection

Door Frame

- The door frame is installed on the door of the distribution cabinet, and can increase the protection degree to IP40
- Suitable for fix-type and draw-out type

Interphase Barriers

- The Interphase barriers are insulating plates installed in the middle of busbar to increase creepage distance and insulating ability
- The Interphase barriers are installed between the front and rear connecting terminals

Safety Shutters

The safety shutters is installed in draw-out type circuit breaker. When the circuit breaker is at test or disconnected position, the safety shutters can protect contact cables by preventing operators from touching live parts

Accessories of Control Unit

N-phase External Current Transformer

N-phase external current transformer is used to measure neutral phase current in 3P+N grounding system and it is installed on the grounding busbar by the client

Ground Return Current Transformer

- Ground return current transformer is used to measure the neutral phase current under grounding type of grounding current return. The current transformer can also provide protection for up and down grounding defects of the circuit breaker
- The grounding current transformer is only suitable for iTR336H and iTR336H-L controller

Earth-leakage Current Transformer

Earth-leakage current transformer is used for the grounding protection type of leakage protection

The Earth-leakage Current Transformer is suitable for iTR336H and iTR336H-L controller

Power Supply Module

- The power supply module can be used in AC220V/AC230V, AC400V/AC415V, DC220V circuits and provide power supply for intelligent controller. And the output is DC24V
- The power supply module of HDW9-6300L is used in DC220V circuits and provides power supply for intelligent controller. Signal convert module works with power supply module

Signal Convert Module

Signal convert module is used for communication function, e.g. zone selective interlock function. The iTR336H and iTR336H-L controller are equipped with this



HDW9 Functions and Characteristics

Connections
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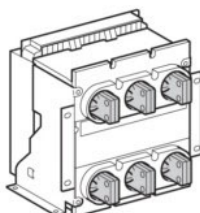
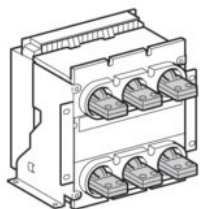
Low-voltage Distribution



Rear Connections

Horizontal

Vertical

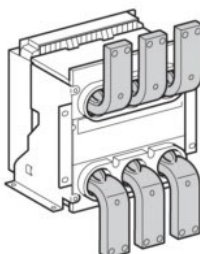


For 1600N, horizontal and vertical connection methods transforms by rotating the connection terminal 90 degree

For 4000H1 & H2, horizontal and vertical connection terminals are different, please remark when ordering

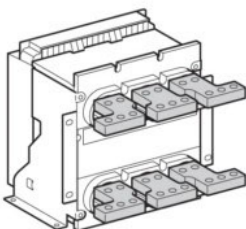
For 6300L, horizontal connection is the only method

Front Connections 630A~3200A



Spreaders (1600N only)

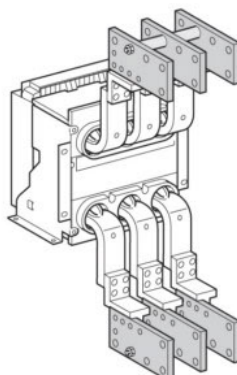
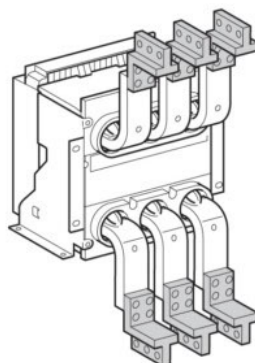
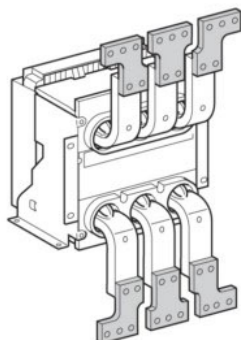
Horizontal Rear Connection with Spreaders



Front Connection with Spreaders

Vertical Adapters

Cable-lug Adapters



HDW9 Functions and Characteristics

Connection
IEC/EN: 60947-2



Low-voltage Distribution

Optional Connection Solutions

Type	1600N				4000H1 4000H2				6300L	
	Draw-out Type		Fixed Type		Draw-out Type		Fixed Type		Draw-out	
	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	
Spreaders										
Vertical-connection Adapters										
Cable-lug Adapters										
Interphase Barriers *1										

*1 Interphase barriers must be used over 500V

*2 4000A horizontal rear connection is not included

HDW9 Functions and Characteristics

Coding System
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Low-voltage Distribution





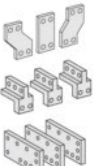



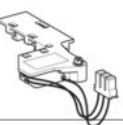
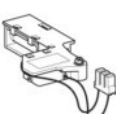
Accessory References

	Reference	Remarks
Intelligent Control Unit		
	HDW9TU0	iTR336
	HDW9TUE	iTR336E
	HDW9TUH	iTR336H
	HDW9TUHL	iTR336H-L (1600N,4000H1&H2)
Remote Operation		
Shunt Release MX		
	HDW9MX2A	AC230V (1600N,4000H1&H2)
	HDW9MX4A	AC400V (1600N,4000H1&H2)
	HDW9MX2D	DC220V (1600N,4000H1&H2)
	HDW9MX2A63	AC230V (6300L)
	HDW9MX4A63	AC400V (6300L)
	HDW9MX2D63	DC220V (6300L)
Closing Release XF		
	HDW9XF2A	AC230V (1600N,4000H1&H2)
	HDW9XF4A	AC400V (1600N,4000H1&H2)
	HDW9XF2D	DC220V (1600N,4000H1&H2)
	HDW9XF2A63	AC230V (6300L)
	HDW9XF4A63	AC400V (6300L)
	HDW9XF2D63	DC220V (6300L)
Under-voltage Release MN		
	HDW9MN2A	AC230V (1600N,4000H1&H2)
	HDW9MN4A	AC400V (1600N,4000H1&H2)
	HDW9MN2A63	AC230V (6300L)
	HDW9MN4A63	AC400V (6300L)
Under-voltage Delayed Release MNR		
	HDW9MNR2A	AC230V (1600N,4000H1&H2)
	HDW9MNR4A	AC400V (1600N,4000H1&H2)
	HDW9MNR2A63	AC230V (6300L)
	HDW9MNR4A63	AC400V (6300L)
MCH		
	HDW9MCH162A	AC230V (1600N)
	HDW9MCH164A	AC400V (1600N)
	HDW9MCH162D	DC220V (1600N)
	HDW9MCH402A	AC230V (4000H1&H2)
	HDW9MCH404A	AC400V (4000H1&H2)
	HDW9MCH402D	DC220V (4000H1&H2)
	HDW9MCH632A	AC230V (6300L)
	HDW9MCH634A	AC400V (6300L)
	HDW9MCH632D	DC230V (6300L)

HDW9 Selection

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Operation Protection		
Door Frame 	HDW916FCDP	1600N fixed type
	HDW916DCDP	1600N draw-out type
	HDW940FCDP	4000H1&H2 fixed type
	HDW940DCDP	4000H1&H2 draw-out type
	HDW963DCDP	6300L draw-out type
Interphase Barriers 	HDW916FEIP	1600N fixed type
	HDW916DEIP	1600N draw-out type
	HDW940FEIP	4000H1&H2 fixed type
	HDW940DEIP	4000H1&H2 draw-out type
	HDW963DEIP	6300L draw-out type
Connection Accessories		
	HDW9V3	1600N 3P vertical adapters
	HDW9V4	1600N 4P vertical adapters
	HDW9C3	1600N 3P cable-lug adapters
	HDW9C4	1600N 4P cable-lug adapters
	HDW9S3	1600N 3P spreaders
	HDW9S4	1600N 4P spreaders
Indication Contacts		
Auxiliary Contacts OF 	HDW90F4416	4NO 4NC--1600N
	HDW90F4440	4NO 4NC--4000H1&H2
	HDW90F88	8NO 8NC--4000H1&H2
	HDW90F12	12NO 12NC--4000H1&H2
	HDW90F55	5NO 5NC--6300L
Ready to Close Contact PF 	HDW916PF	1600N
	HDW940PF	4000H1&H2
3-Position Indication Contacts (CE, CD, CT) 	HDW916EDT	1600N
	HDW940EDT	4000H1&H2
Fault-Trip Indication Contact (Additional) SWT2 	HDW916SWT2	1600N
	HDW940SWT2	4000H1&H2
Remote Reset Contact Res 	HDW916RES	1600N
	HDW940RES	4000H1&H2








HDW9 Functions and Characteristics

Coding System
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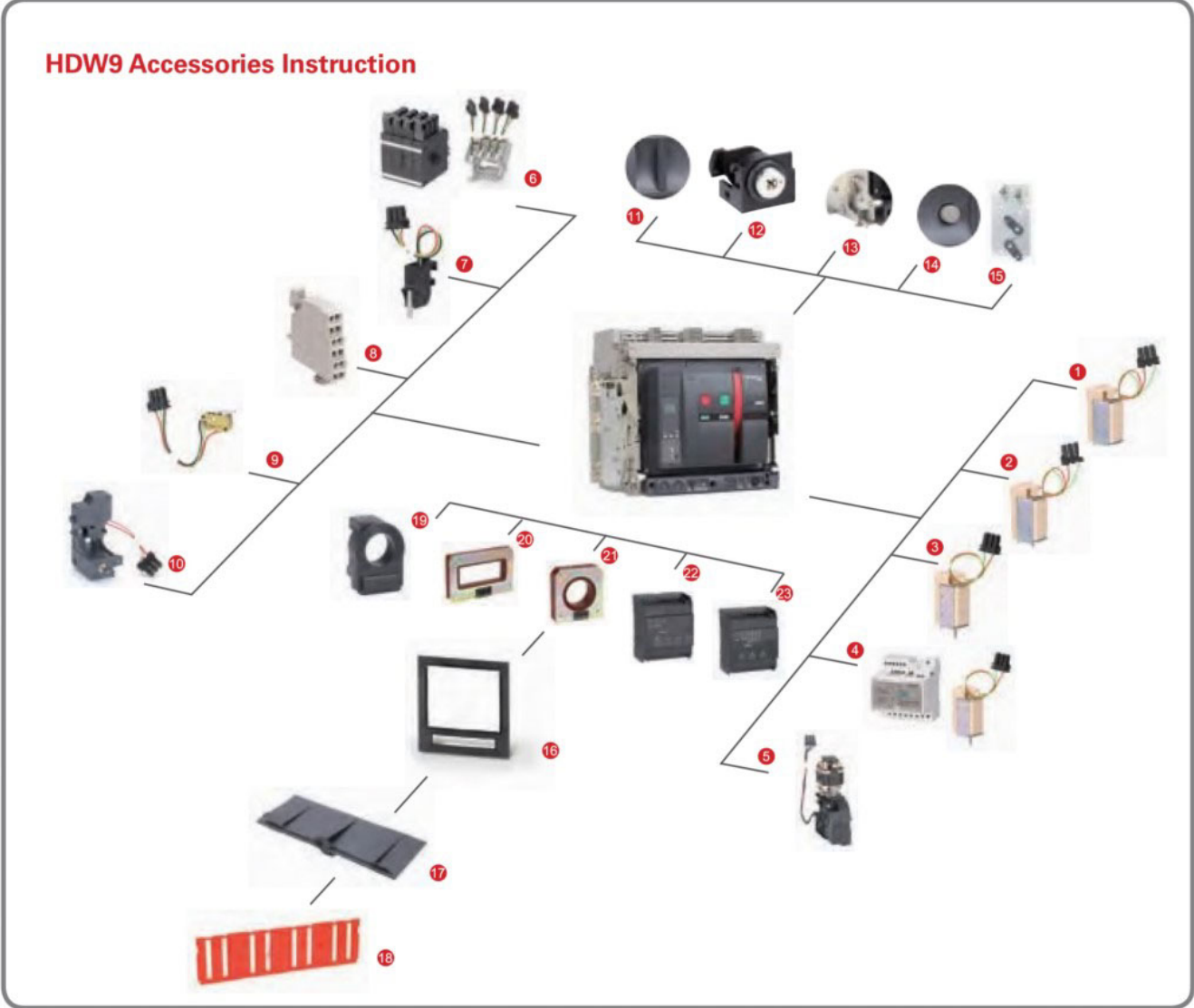
Low-voltage Distribution



Accessories of the Control Unit		
N-Phase External Current Transformer 	HDW9N16	1600N
	HDW9N40	4000H1&H2
	HDW9N63	6300L
Ground Return Current Transformer 	HDW9G	
Earth-Leakage Current Transformer 	HDW9L	
Power Supply Module 	HDW92AP	AC230V
	HDW94AP	AC400V
	HDW92DP	DC220V
Signal Convert Module 	HDW9TR	
Keylock and Interlock		
Keylocks 	HDW916L1	1600N--1 lock 1 key
	HDW916L2	1600N--2 locks 1 key
	HDW916L3	1600N--3 locks 2 keys
	HDW940L1	4000H1&H2--1 lock 1 key
	HDW940L2	4000H1&H2--2 locks 1 key
	HDW940L3	4000H1&H2--3 locks 2 keys
	HDW963L1	6300L--1 lock 1 key
	HDW963L2	6300L--2 locks 1 key
	HDW963L3	6300L--3 locks 2 keys
	Door Interlocks 	HDW9DLL16
HDW9DLR16		1600N draw-out type--right
HDW9DLL40		4000H1&H2 fixed type--left
HDW9DLR40		4000H1&H2 draw-out type--right
HDW9DLL63		6300L draw-out type--left
Mechanical Interlock 	HDW9DLR63	6300L draw-out type--right
	Cable Interlocks	
Lever Interlocks 	HDW916FLL2	1600N fixed type--2 devices
	HDW916DLL2	1600N draw-out type--2 devices
	HDW940FLL2	4000H1&H2 fixed type--2 devices
	HDW940FLL3	4000H1&H2 fixed type--3 devices
	HDW940DLL2	4000H1&H2 draw-out type--2 devices
	HDW940DLL3	4000H1&H2 draw-out type--3 devices
	HDW963DLL2	6300L draw-out type--2 devices
	HDW963DLL3	6300L draw-out type--3 devices
	HDW916FGL2	1600N fixed type--2 devices
	HDW916DGL2	1600N draw-out type--2 devices
	HDW940FGL2	4000H1&H2 fixed type--2 devices
	HDW940DGL2	4000H1&H2 draw-out type--2 devices
	HDW963DGL2	6300L draw-out type--2 devices
	HDW963DGL3	6300L draw-out type--3 devices

HDW9 Functions and Characteristics

Coding System
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Remote Operation	Indication Contacts	Locks	Mechanical Interlock	Protection	Controller Accessories
1 Shunt release	6 Auxiliary contacts OF	11 OFF position padlock	15 Mechanical interlock	16 Door frame	19 N-phase external CT
2 Closing release	7 Ready to close contact	12 OFF position keylock		17 Interphase barriers	20 Ground return CT
3 Under-voltage release	8 3-position indication contacts(CE, CD, CT)	13 Door interlock		18 Safety shutter	21 Earth-leakage CT
4 Under-voltage delayed release	9 Fault -trip indication contact (SWT)	14 3-position interlock			22 Power supply module
5 Electric motor	10 Remote reset contact				23 Signal convert module

HDW9 Selection

Configuration
IEC/EN: 60947-2



Configuration

		1600N	4000H1	4000H2	6300L
Main Body					
Main body of circuit breaker		■	■	■	■
Components					
Intelligent control unit	iTR336	■	■	■	
	iTR336E	■	■	■	■
	iTR336H	■	■	■	■
	iTR336H-L	■	■	■	■
Remote operation	Shunt release	■	■	■	■
	Closing release	■	■	■	■
	Electric motor	■	■	■	■
	Under-voltage release	■	■	■	■
	Under-voltage delayed release	■	■	■	■
Operation protection	Door frame	■	■	■	■
	Interphase barriers ¹	■	■	■	■
Wiring methods	Horizontal rear connection	■	■	■	■
	Horizontal rear connection with spreaders	■			
	Vertical rear connection	■	■	■	
	Front connection ²	■	■	■	
	Front connection with spreaders	■			
	Front connection with vertical-connection adapters	■			
	Front connection with cable-lug adapters	■			
Indication contacts	Auxiliary contacts	4NO 4NC	■	■	■
		5NO 5NC			■
		8NO 8NC		■	■
		12NO 12NC		■	■
	Ready to close contact	■	■	■	
	Fault-trip indication contact SWT2 (additional)	■	■	■	
	3-position indication contacts ³	■	■	■	
	Remote reset contact ^{4, 5}	■	■	■	
Control unit accessories	N-phase external current transformer	■	■	■	■
	Ground return current transformer ⁴	■	■	■	■
	Earth-leakage current transformer ⁴	■	■	■	■
	Power supply module	■	■	■	■
	Signal convert module ⁴	■	■	■	■
Locks	OFF position keylock	■	■	■	■
	Door interlock	■	■	■	■
Mechanical interlock	Cable interlock	■	■	■	■
	Lever interlock	■	■	■	■

¹ Details refers to **P211**

² Front connection is not available for 4000H1 & H2 4000A

³ Only for draw-out type

⁴ Only for iTR336H, iTR336H-L

⁵ Not compatible with additional fault-trip indication contact (SWT2)

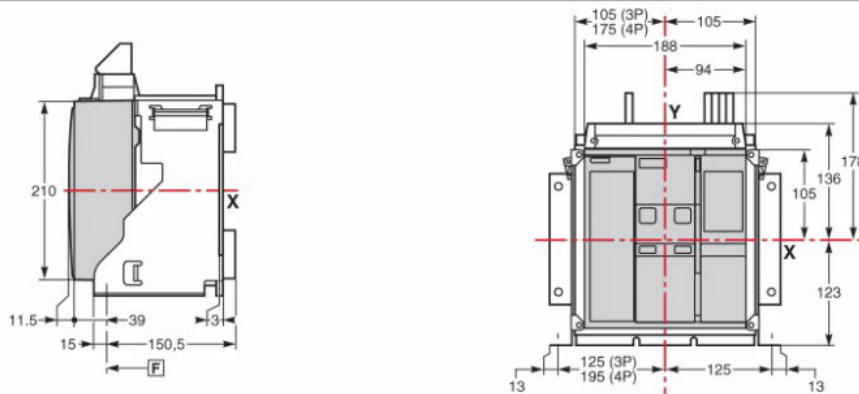
HDW9 Installation Dimensions

HDW9-1600N Fixed Type 3P & 4P
IEC/EN: 60947-2



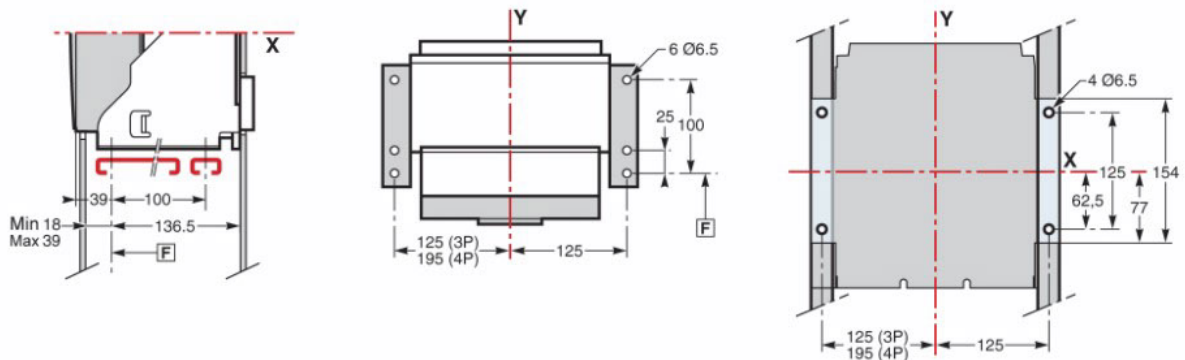
Low-voltage Distribution

Dimensions



Horizontal installation on board or railway

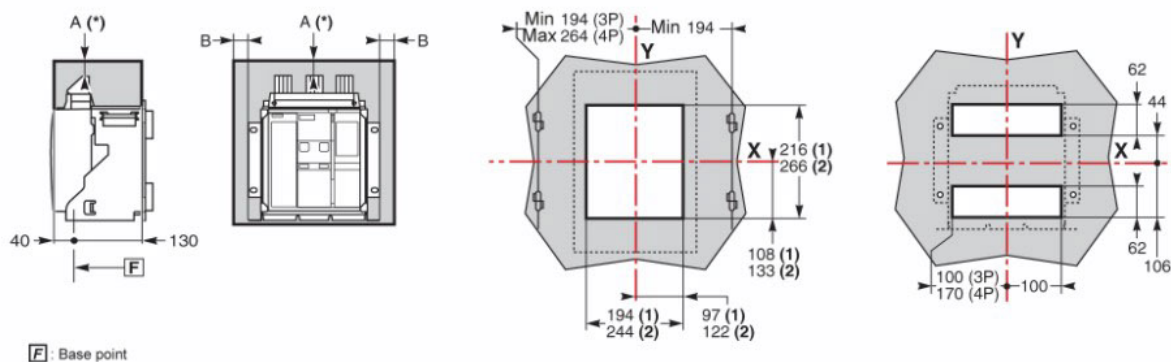
Vertical installation on back board or frame



Safety clearances

Door frame

Rear panel holes dimensions



[F]: Base point

	Non-conductor	Metals	Electric conductor
A	0	0	100
B	0	0	60

(1) Without door frame

(2) With door frame

Remark: X axis and Y axis are the symmetry axis of 3-pole breaker's mask

Removing the arc chutes needs 50mm safety clearance

Removing terminal blocks needs 20mm safety clearance

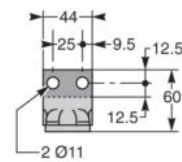
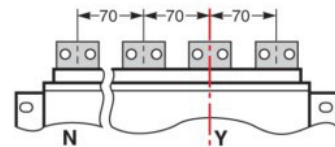
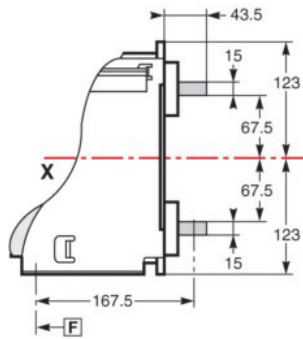
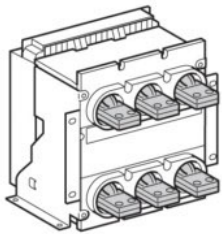
HDW9 Installation Dimensions

HDW9-1600N Fixed Type 3P & 4P
IEC/EN: 60947-2

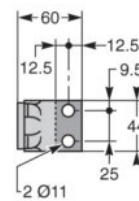
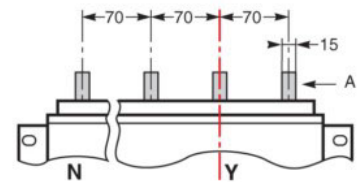
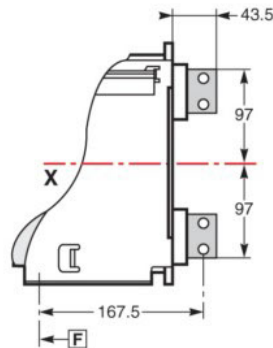
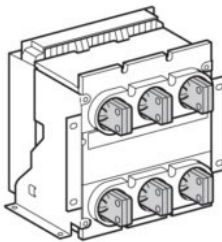


Connections

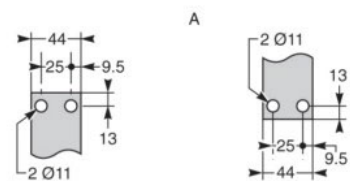
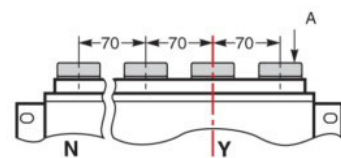
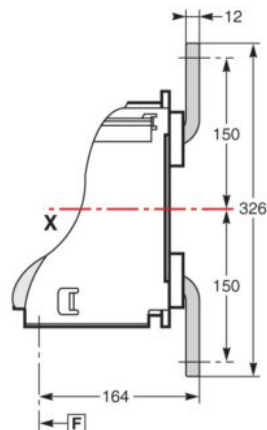
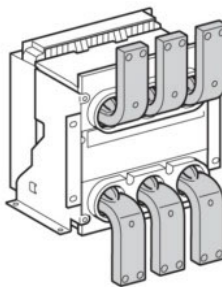
Horizontal rear connection



Vertical rear connection



Front connection



Remarks: Screws: M10 Class8.8
Fasten torque: 50 N • m with gasket

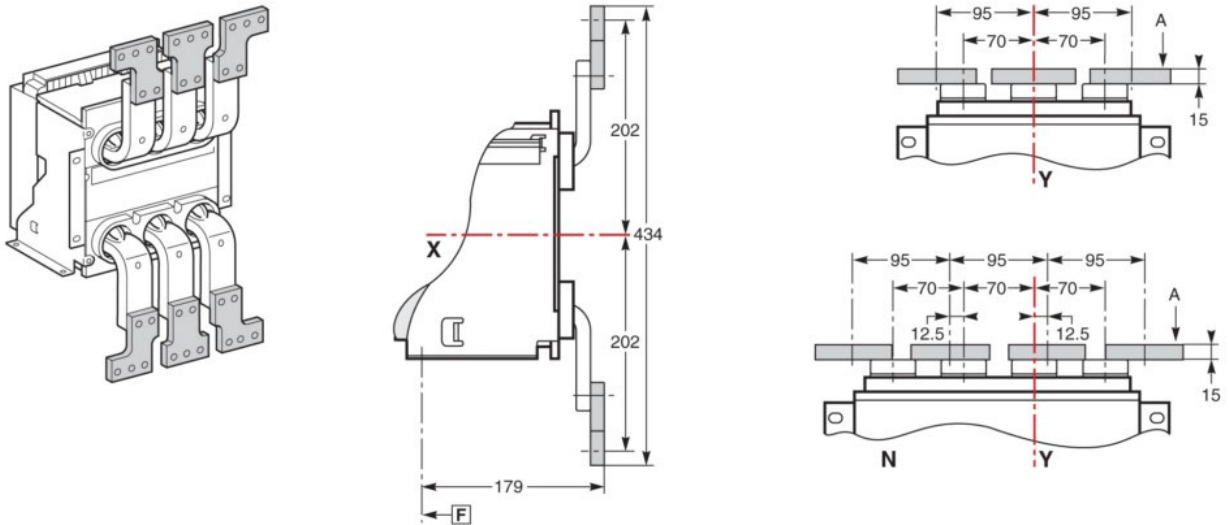
HDW9 Installation Dimensions

HDW9-1600N Fixed Type 3P & 4P
IEC/EN: 60947-2

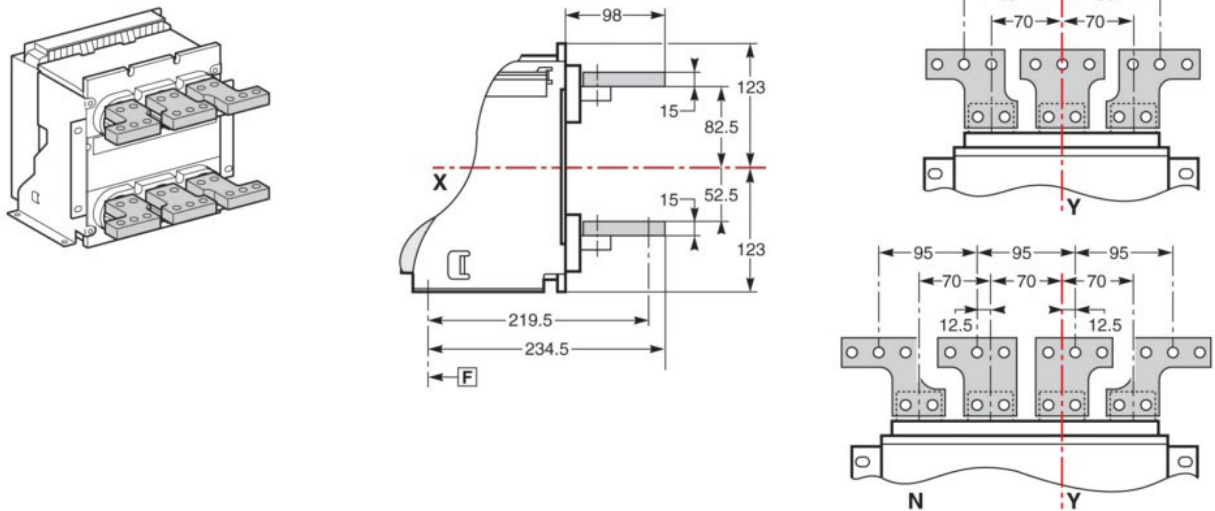


Connections

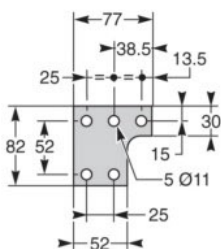
Front connection with spreaders



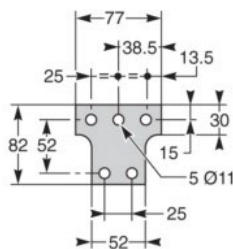
Rear connection with spreaders



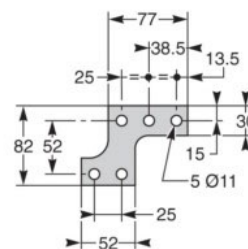
Middle left or right spreader for 4P



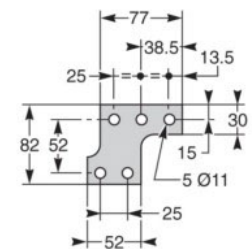
Middle spreader for 3P



Left or right spreader for 4P



Left or right spreader for 3P



F :Base point

Remark: X axis and Y axis are the symmetry axis of 3-pole breaker's mask

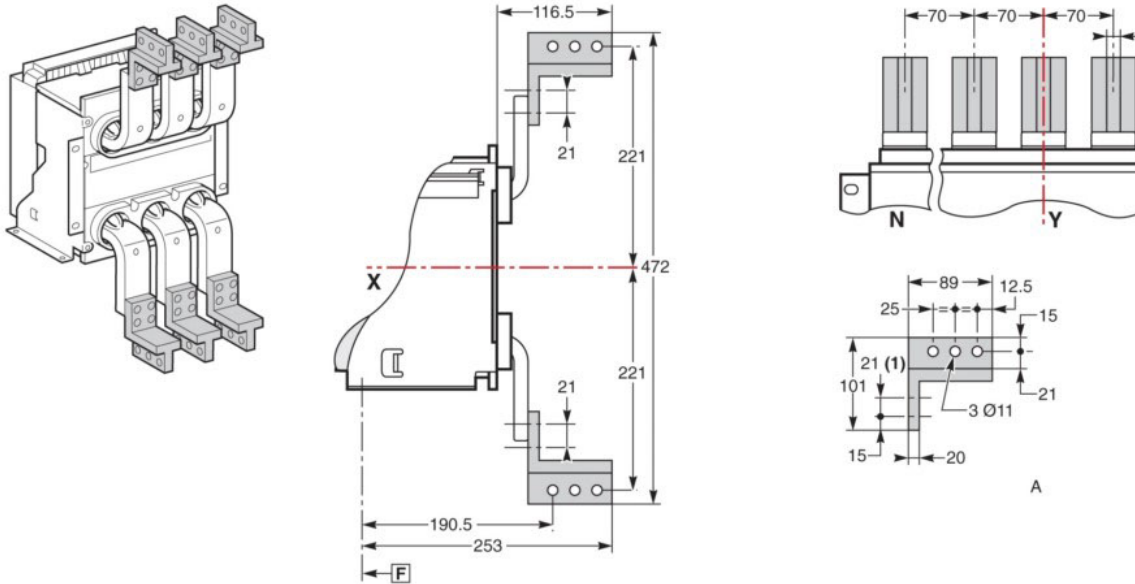
HDW9 Installation Dimensions

HDW9-1600N Fixed Type 3P & 4P
IEC/EN: 60947-2

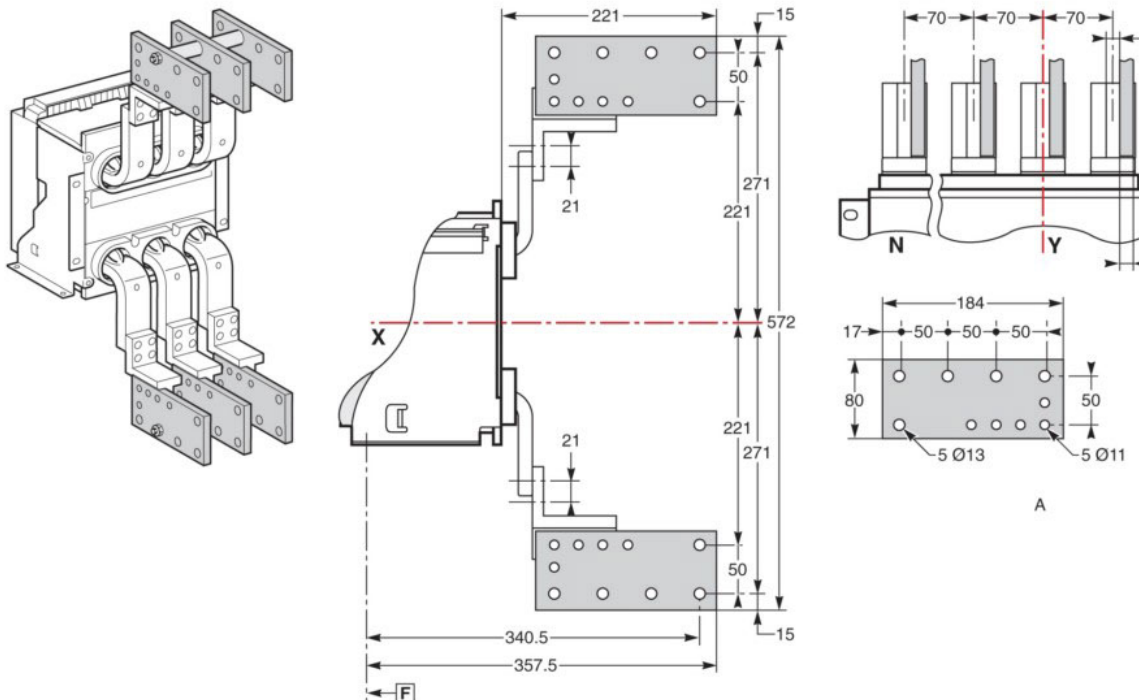


Connections

Front connection with vertical-connection adapters



Front connection with vertical-connection adapters and cable-lug adapters and cable-lug adapters



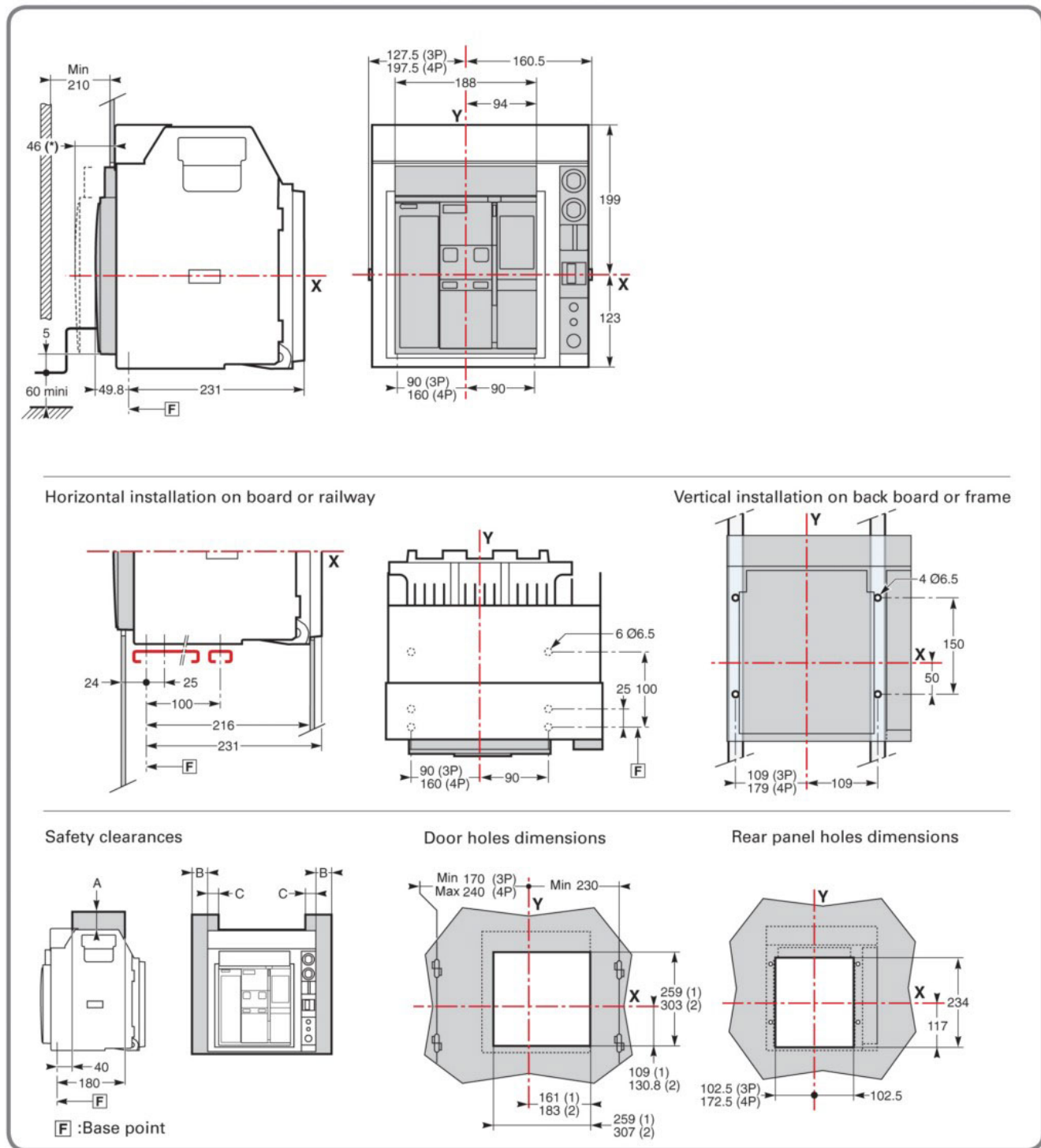
Remarks: Screws: M10 Class8.8
Fasten torque: 50 N • m with gasket

HDW9 Installation Dimensions

HDW9-1600N Fixed Type 3P & 4P
IEC/EN: 60947-2



Dimensions



	Non-conductor	Metals	Electric conductor
A	0	0	90
B	10	10	60
C	0	0	90

(1) Without door frame

(2) With door frame

Remark: X axis and Y axis are the symmetry axis of 3-pole breaker's mask

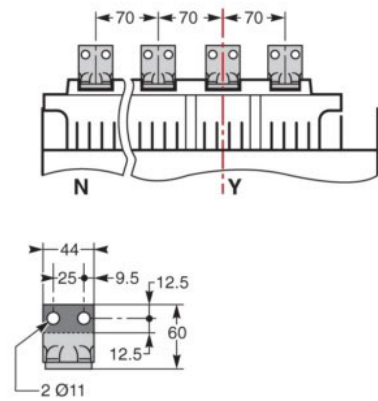
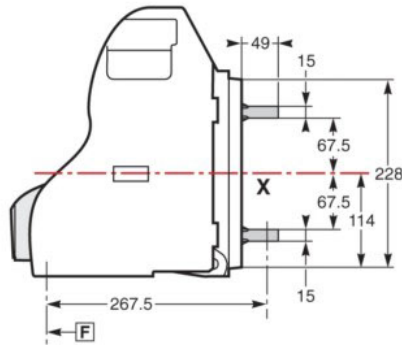
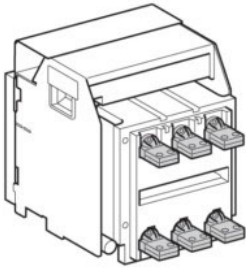
HDW9 Installation Dimensions

HDW9-1600N Fixed Type 3P & 4P
IEC/EN: 60947-2

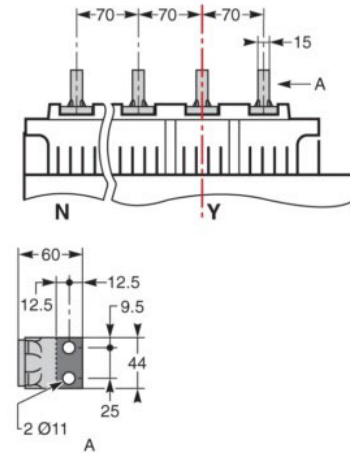
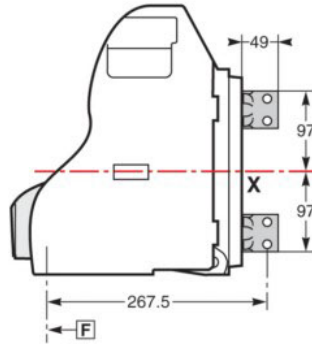
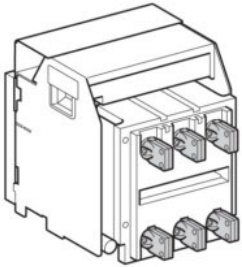


Connections

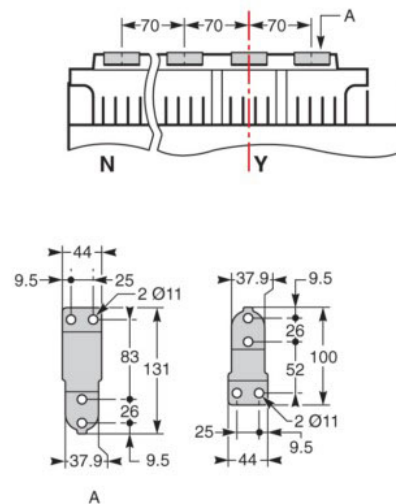
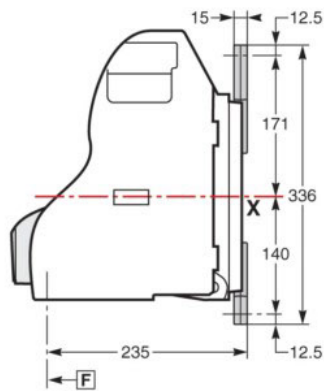
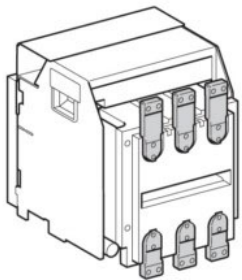
Horizontal rear connection



Vertical rear connection



Front connection



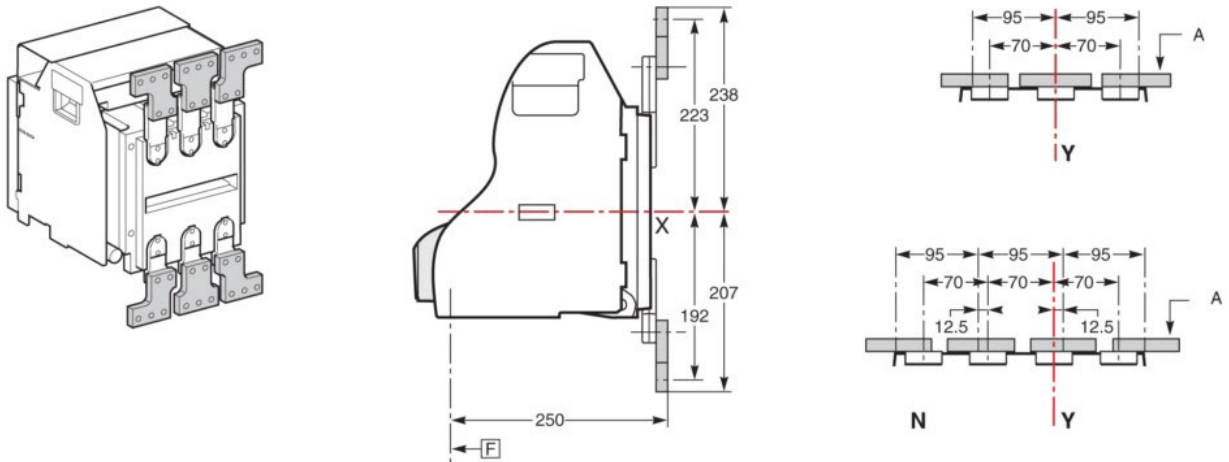
HDW9 Installation Dimensions

HDW9-1600N Fixed Type 3P & 4P
IEC/EN: 60947-2

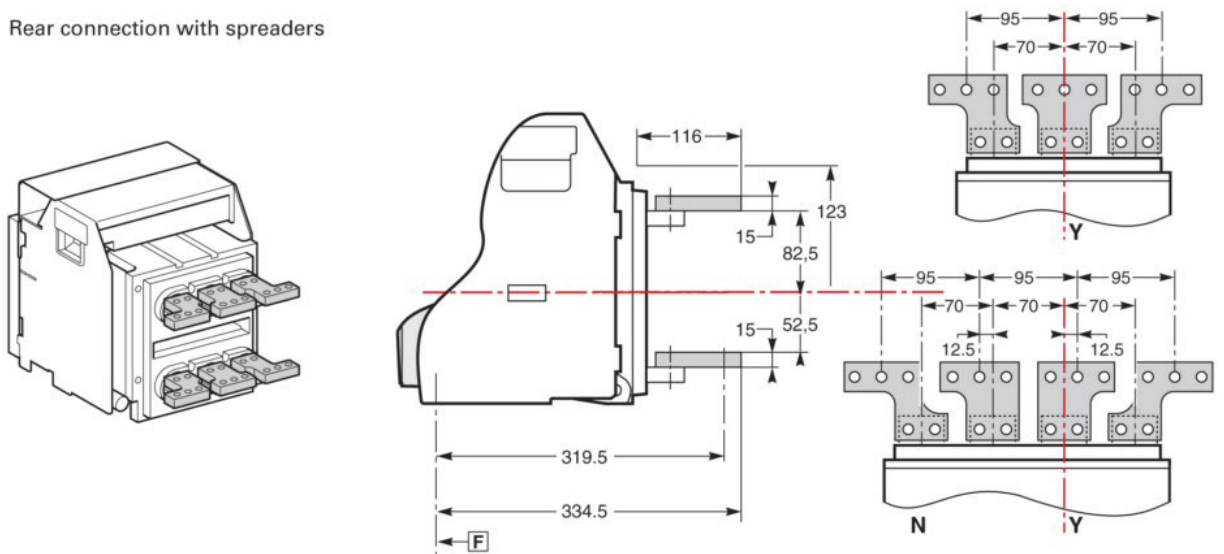


Dimensions

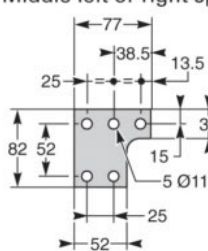
Front connection with spreaders



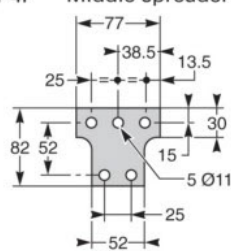
Rear connection with spreaders



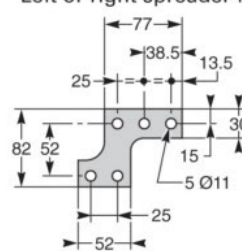
Middle left or right spreader for 4P



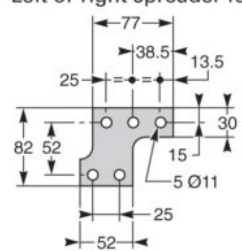
Middle spreader for 3P



Left or right spreader for 4P



Left or right spreader for 3P



F : Base point

Remark: X axis and Y axis are the symmetry axis of 3-pole breaker's mask

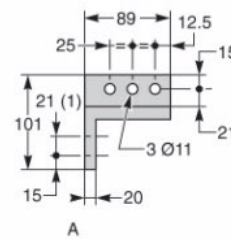
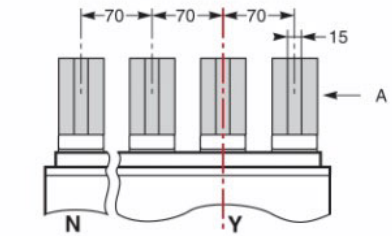
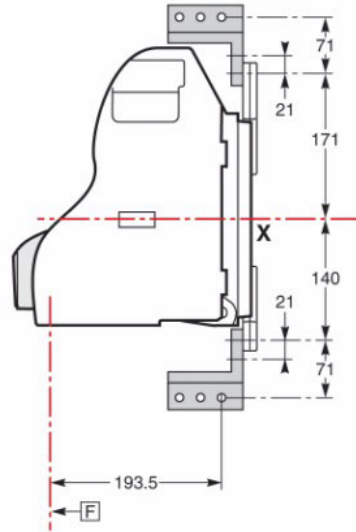
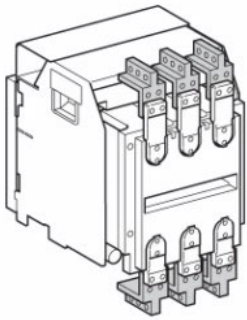
HDW9 Installation Dimensions

HDW9-1600N Fixed Type 3P & 4P
IEC/EN: 60947-2

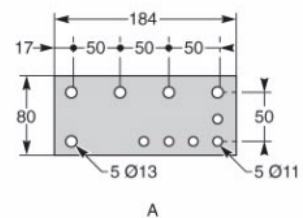
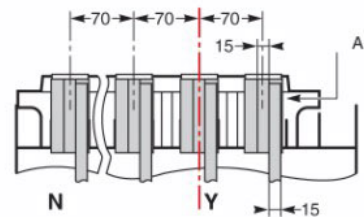
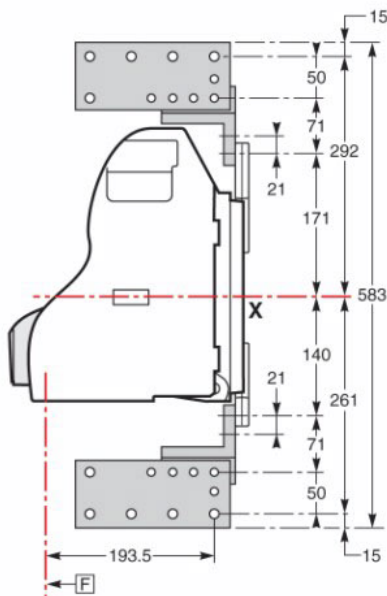
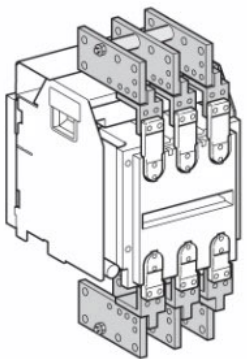


Connections

Front connection with vertical-connection adapters



Front connection with vertical-connection adapters and cable-lug adapters



F : Base point

Remark: Screws: M10 Class8.8

Fasten torque: 50 N • m with gasket

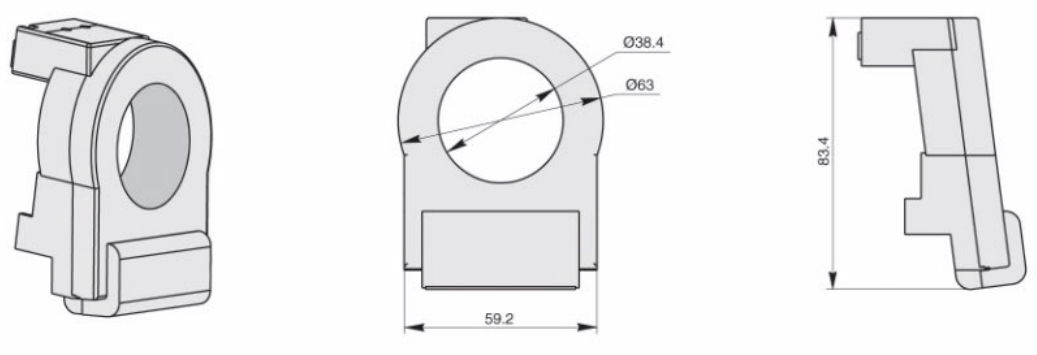
HDW9 Installation Dimensions

HDW9-1600N
IEC/EN: 60947-2

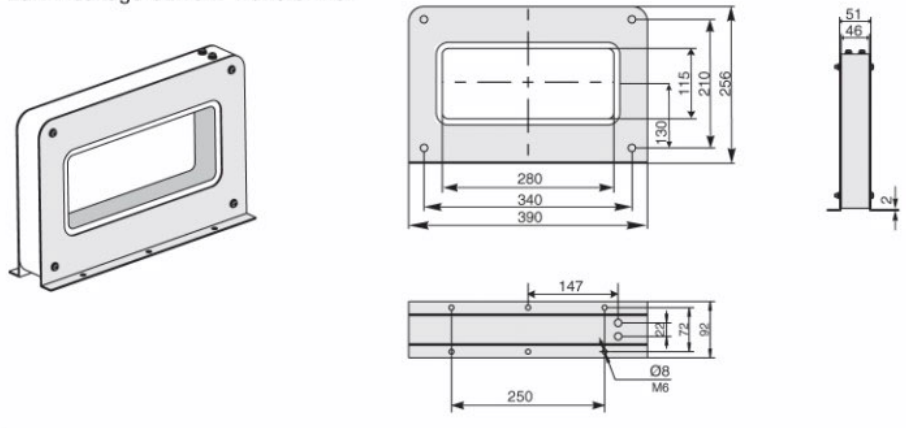


Dimensions of Extend Current Transformers

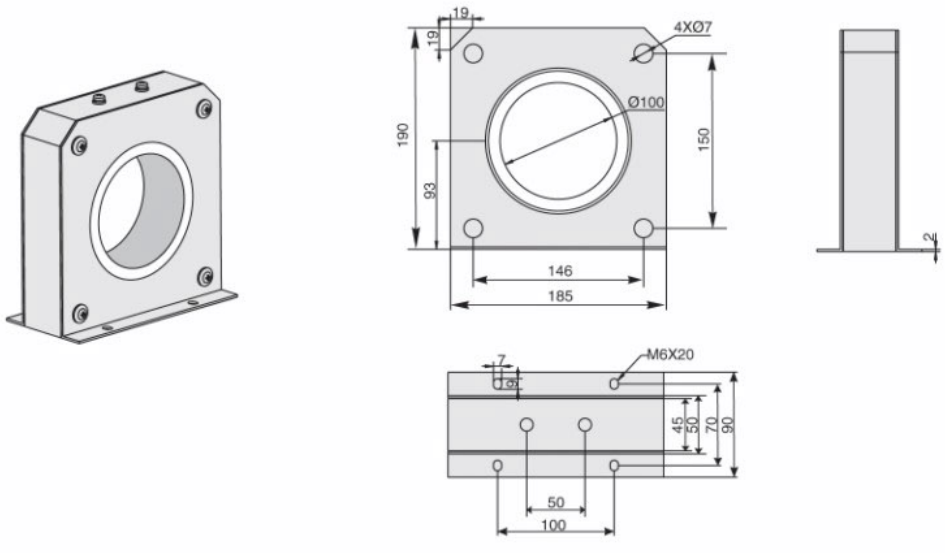
N-phase Extend Current Transformer



Earth-leakage Current Transformer



Ground Return Current Transformer



HDW9 Installation Dimensions

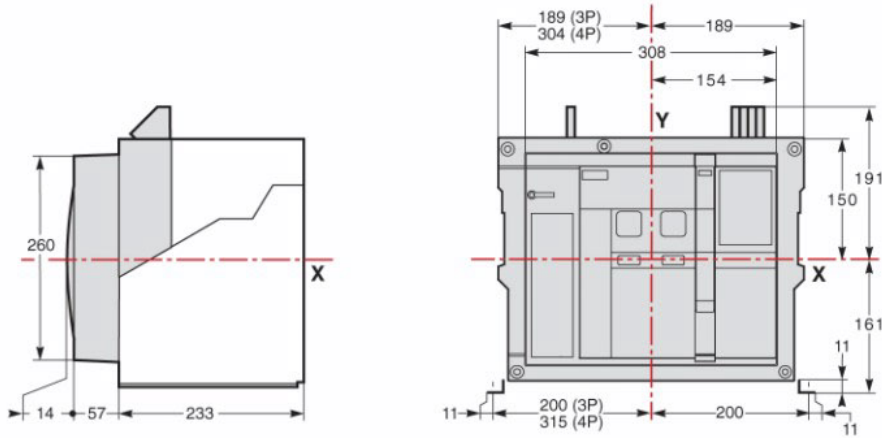
HDW9-4000H1 & H2 Fixed Type 3P & 4P 1600A~3200A
IEC/EN: 60947-2



Low-voltage Distribution

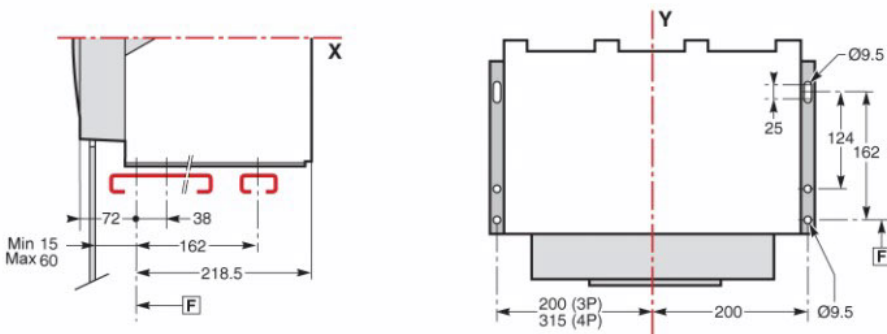


Dimensions

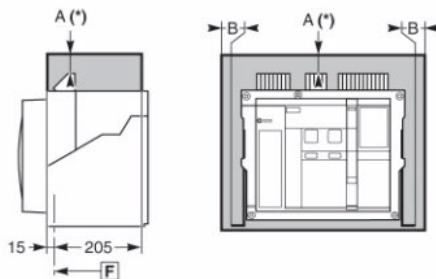


Horizontal installation on board or railway

Vertical installation on back board or frame

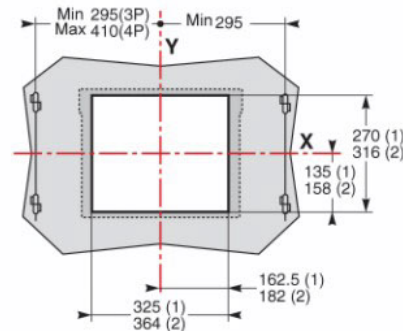


Safety clearances



F : Base point

Door holes dimensions



	Non-conductor	Metals	Electric conductor
A	0	0	100
B	0	0	60

(1) Without door frame

(2) With door frame

Remark: X axis and Y axis are the symmetry axis of 3-pole breaker's mask

Removing the arc chutes needs 110mm safety clearance

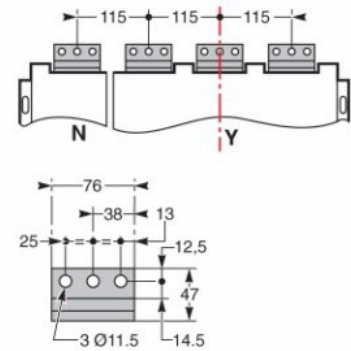
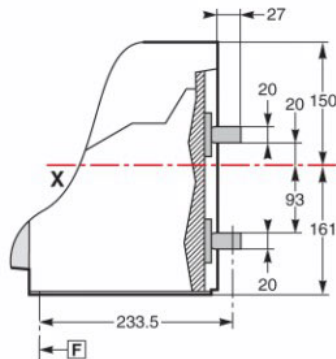
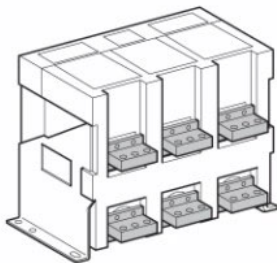
Removing terminal blocks needs 20mm safety clearance

HDW9 Installation Dimensions

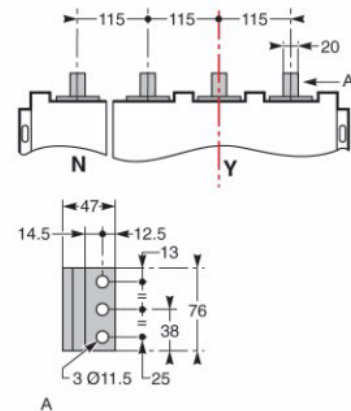
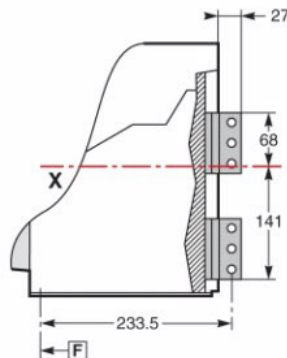
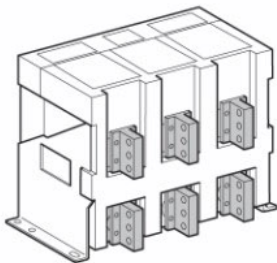
HDW9-4000H1 & H2 Fixed Type 3P & 4P 1600A~3200A
IEC/EN: 60947-2

Connections

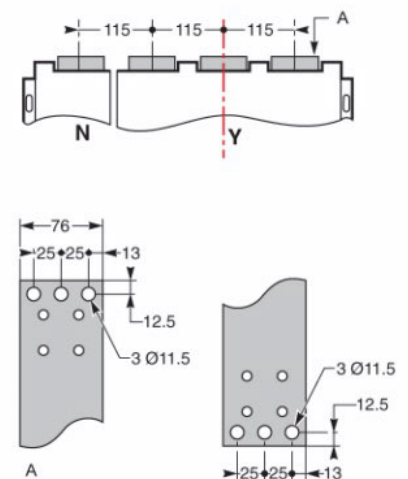
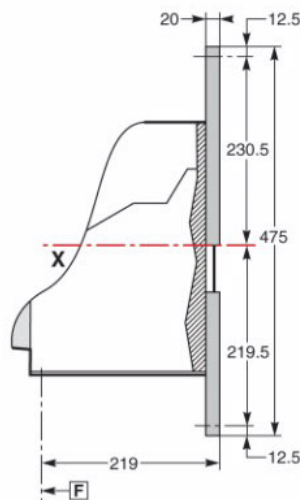
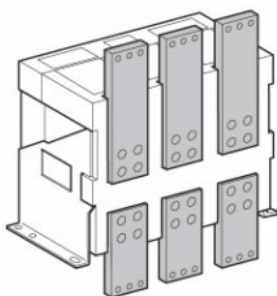
Horizontal rear connection



Vertical rear connection



Front connection



F : Base point

Remarks: Screws: M10 Class8.8

Fasten torque: 50N · m with gasket

HDW9 Installation Dimensions

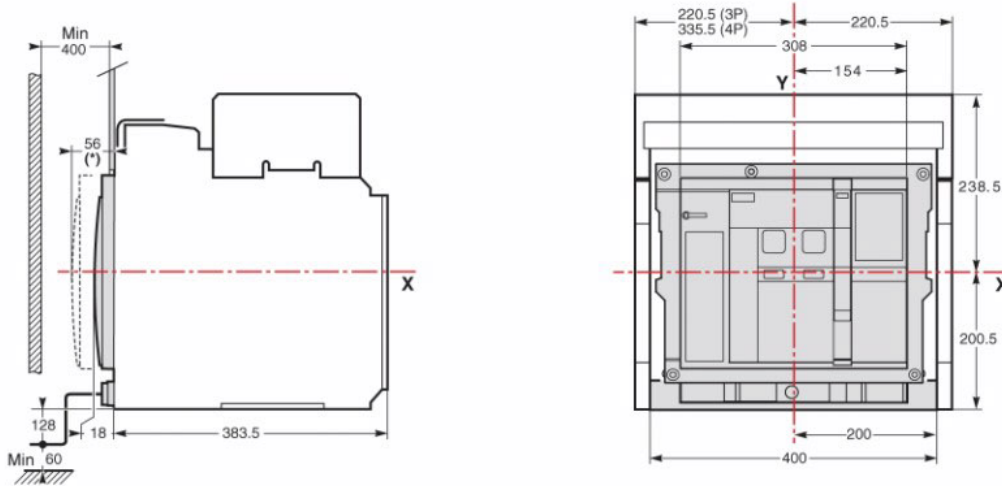
HDW9-4000H1 & H2 Draw-out Type 3P & 4P 1600A~3200A
IEC/EN: 60947-2



Low-voltage Distribution

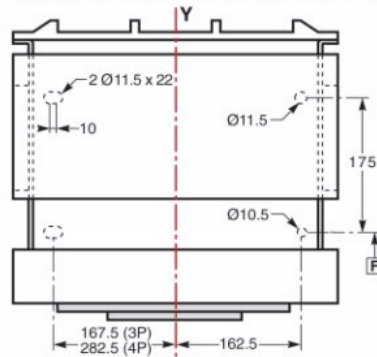
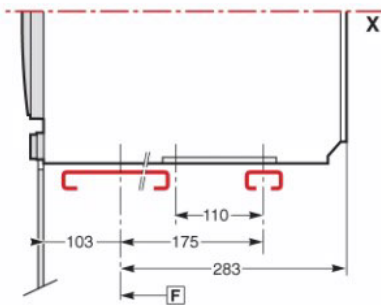


Dimensions



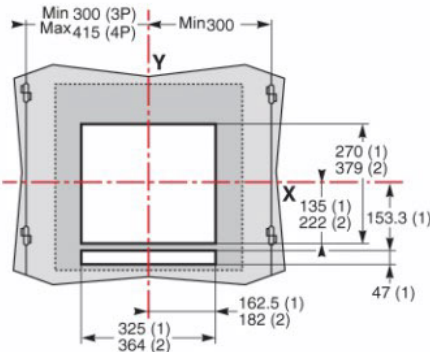
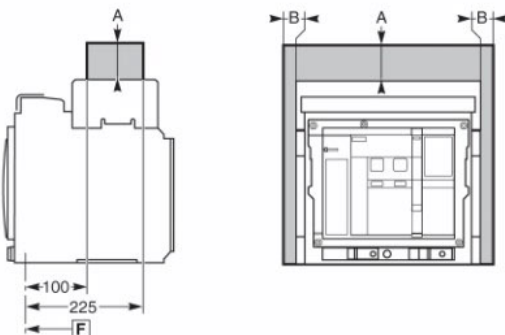
Horizontal installation on board or railway

Vertical installation on back board or frame



Safety clearances

Door holes dimensions



[F] : Base point

	Non-conductor	Metals	Electric conductor
A	0	0	0
B	0	0	60

(1) Without door frame

(2) With door frame

Remark: X axis and Y axis are the symmetry axis of 3-pole breaker's mask.
Removing the arc chutes needs 110mm safety clearance
Removing terminal blocks needs 20mm safety clearance

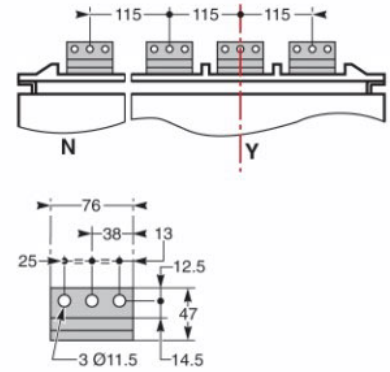
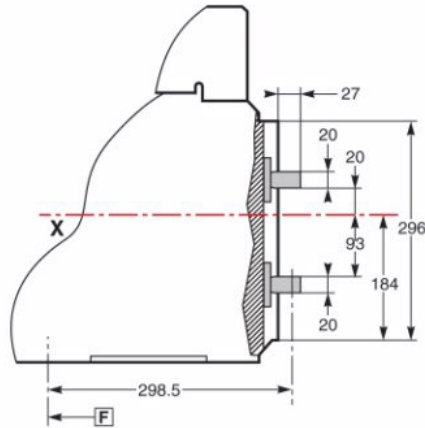
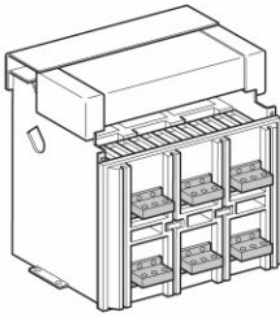
HDW9 Installation Dimensions

HDW9-4000H1 & H2 Fixed Type 3P & 4P 1600A~3200A
IEC/EN: 60947-2

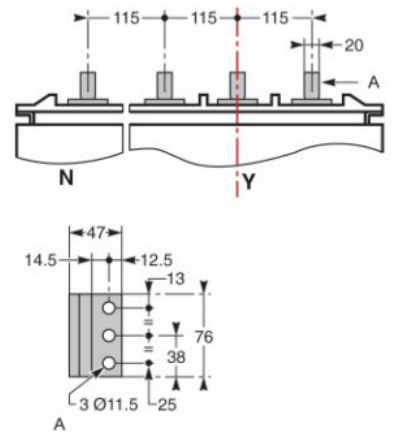
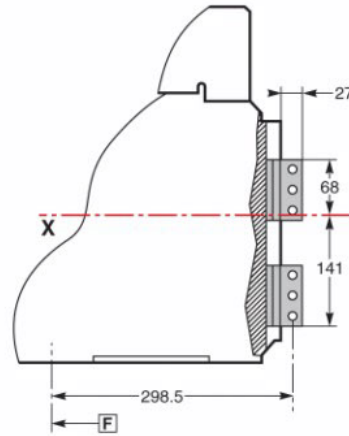
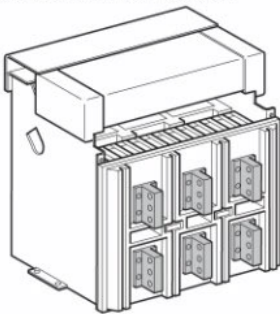


Connections

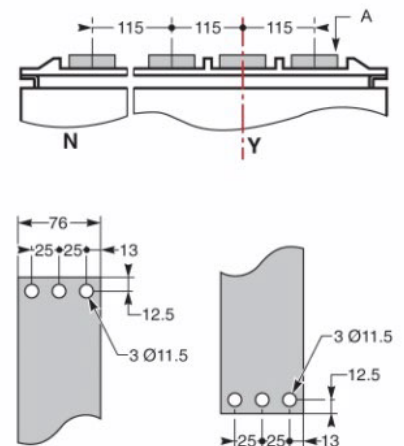
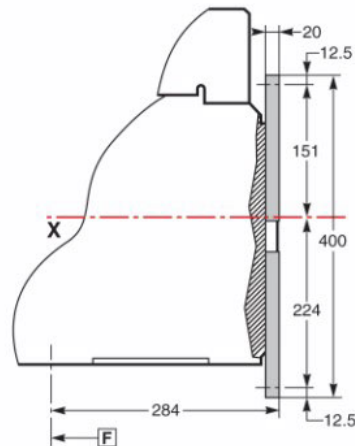
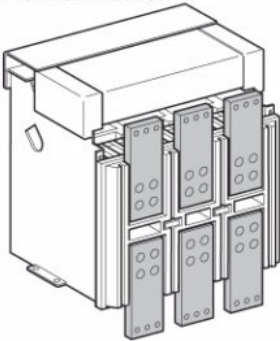
Horizontal rear connection



Vertical rear connection



Front connection



F : Base point

Remarks: Screws: M10 Class8.8

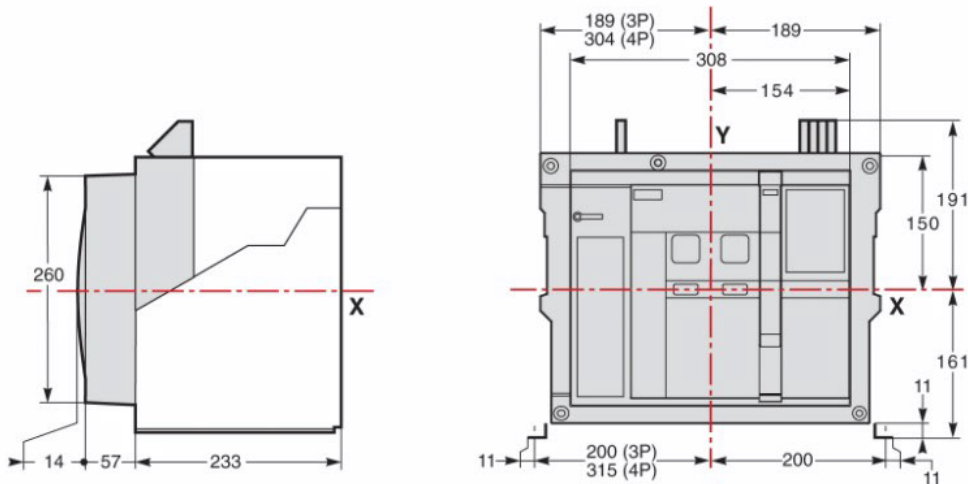
Fasten torque: 50N · m with gasket

HDW9 Installation Dimensions

HDW9-4000H1 & H2 Fixed Type 3P & 4P 1600A~3200A
IEC/EN: 60947-2

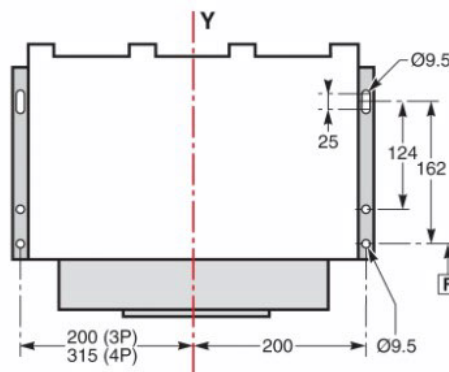
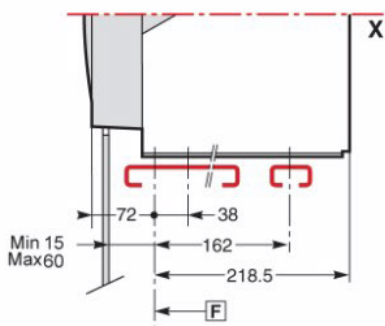


Dimensions



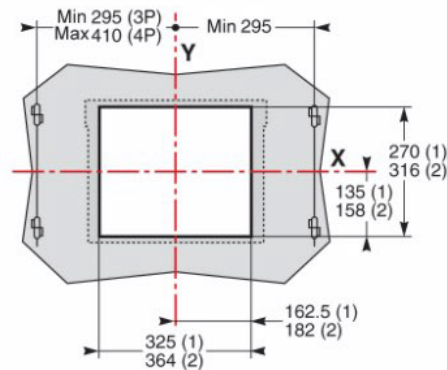
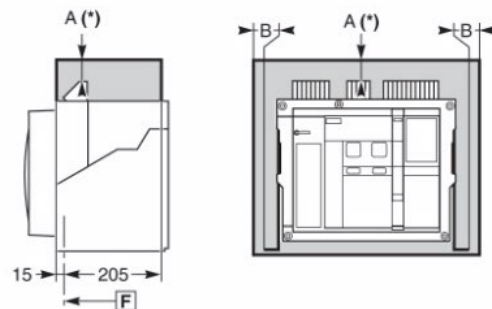
Horizontal installation on board or railway

Vertical installation on back board or frame



Safety clearances

Door holes dimensions



F : Base point

	Non-conductor	Metals	Electric conductor
A	0	0	100
B	0	0	60

(1) Without door frame

(2) With door frame

Remark: X axis and Y axis are the symmetry axis of 3-pole breaker's mask
Removing the arc chutes needs 110mm safety clearance
Removing terminal blocks needs 20mm safety clearance

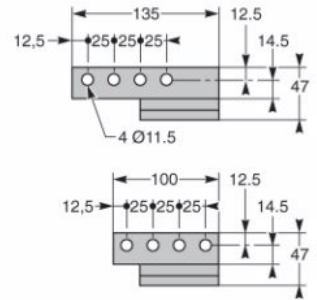
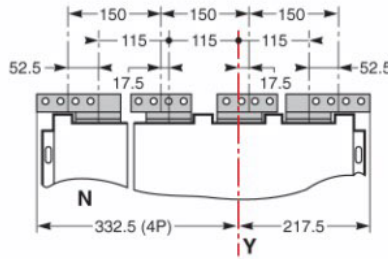
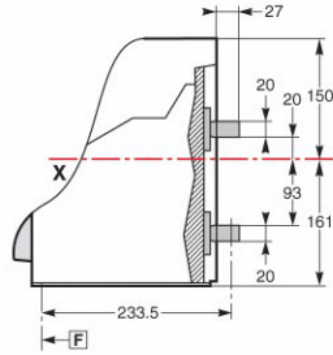
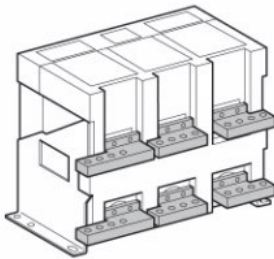
HDW9 Installation Dimensions

HDW9-4000H1 & H2 Fixed Type 3P & 4P 4000A
IEC/EN: 60947-2

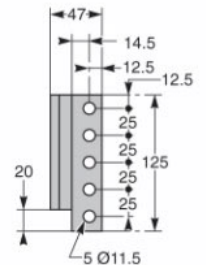
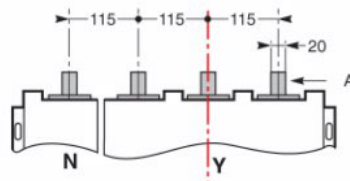
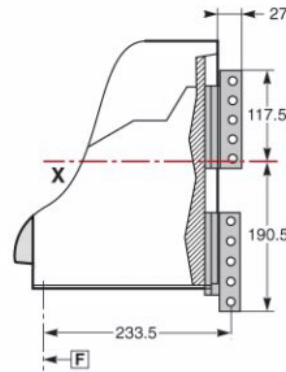
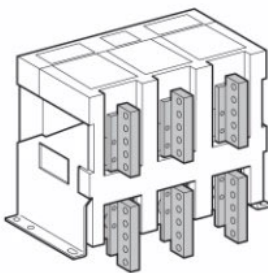


Low-voltage Distribution

Connections



Vertical rear connection



F : Base point

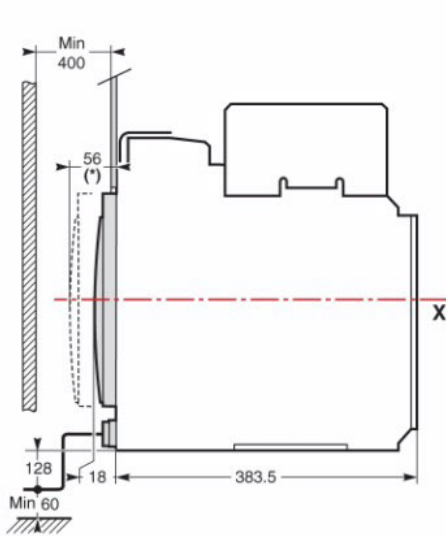
Remarks: Screws: M10 Class8.8
Fasten torque: 50N · m with gasket

HDW9 Installation Dimensions

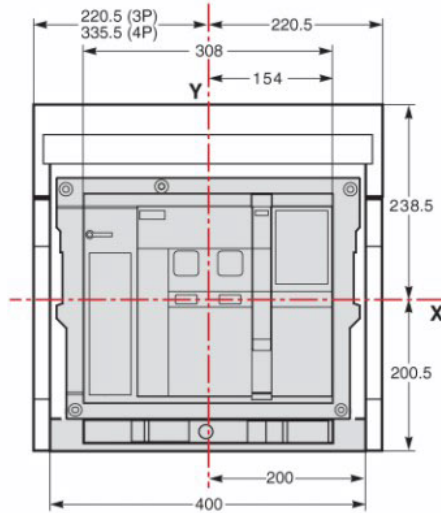
HDW9-4000H1 & H2 Fixed Type 3P & 4P 4000A
IEC/EN: 60947-2



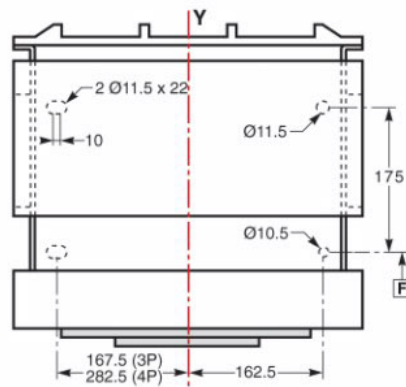
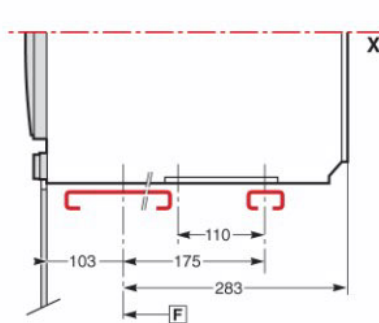
Dimensions



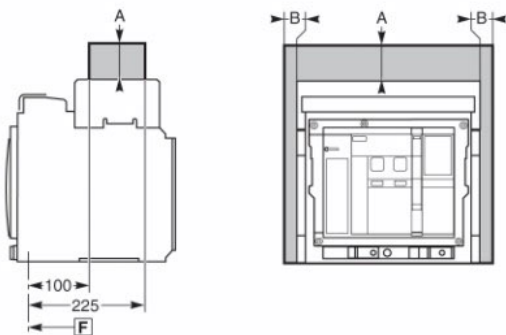
Horizontal installation on board or railway



Vertical installation on back board or frame

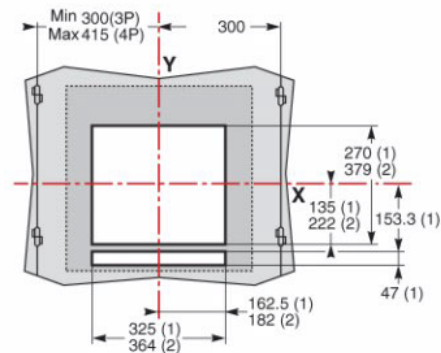


Safety clearances



F: Base point

Door holes dimensions



(1) Without door frame
(2) With door frame

Remark: X axis and Y axis are the symmetry axis of 3-pole breaker's mask
Removing the arc chutes needs 110mm safety clearance
Removing terminal blocks needs 20mm safety clearance

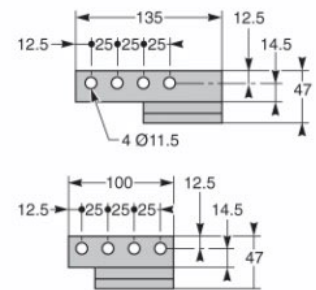
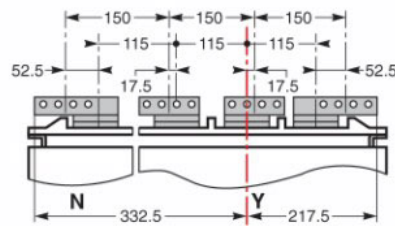
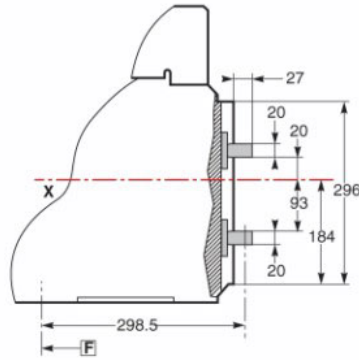
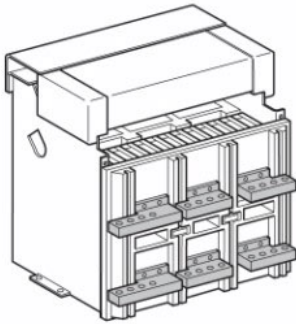
	Non-conductor	Metals	Electric conductor
A	0	0	0
B	0	0	60

HDW9 Installation Dimensions

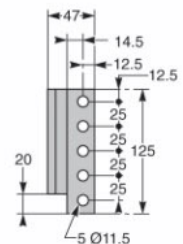
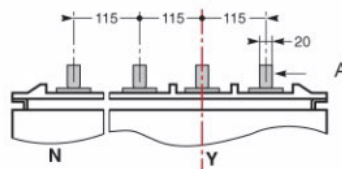
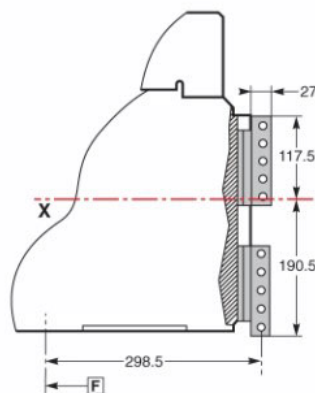
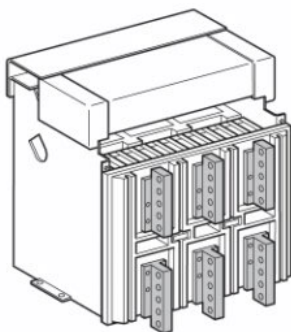
HDW9-4000H1 & H2 Fixed Type 3P & 4P 4000A
IEC/EN: 60947-2



Connections



Vertical rear connection



F: Base point

Remarks: Screws: M10 Class8.8

Fasten torque: 50Nm with gasket

HDW9 Installation Dimensions

HDW9-4000H1 & H2
IEC/EN: 60947-2

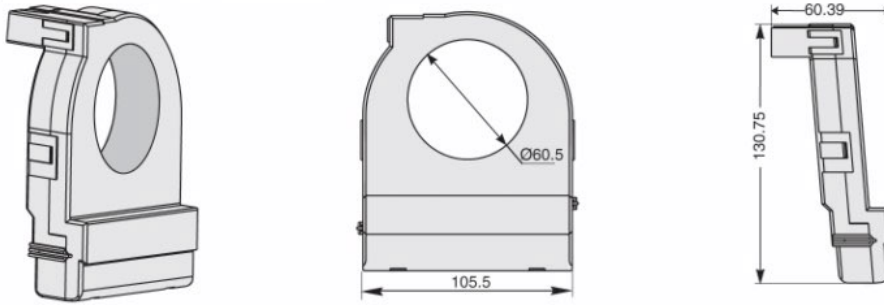


Low-voltage Distribution

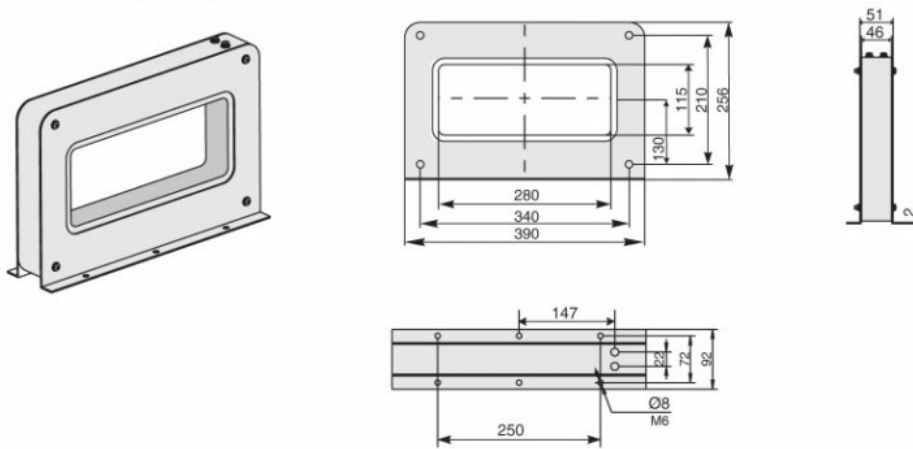


Dimensions of Extend Current Transformers

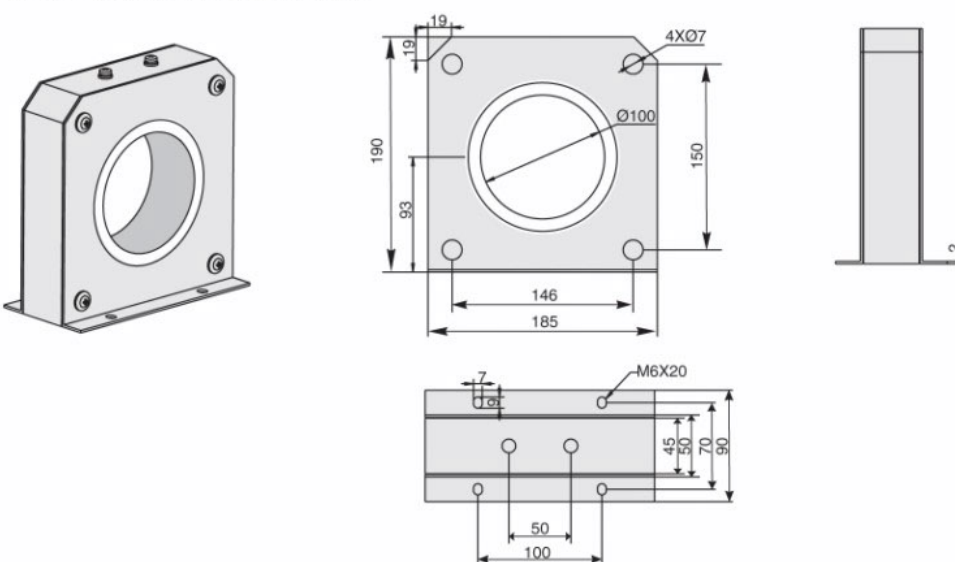
N-phase Extend Current Transformer



Earth-leakage Current Transformer



Ground Return Current Transformer

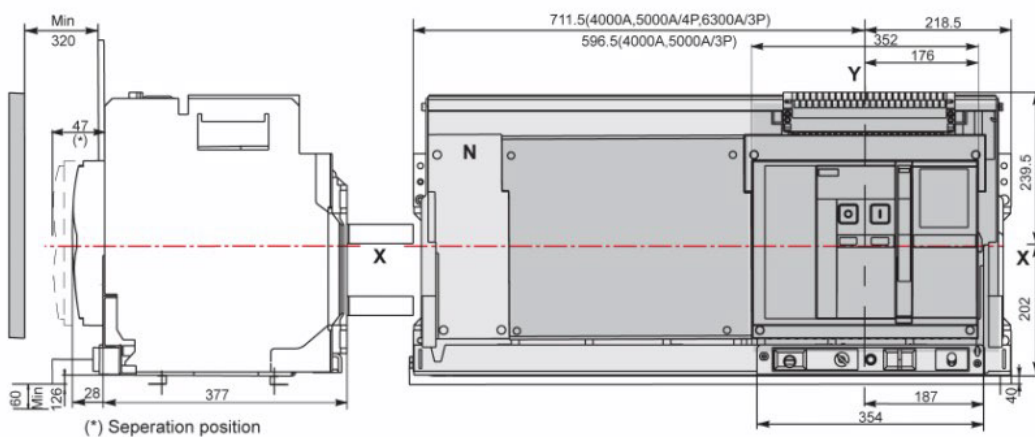


HDW9 Installation Dimensions

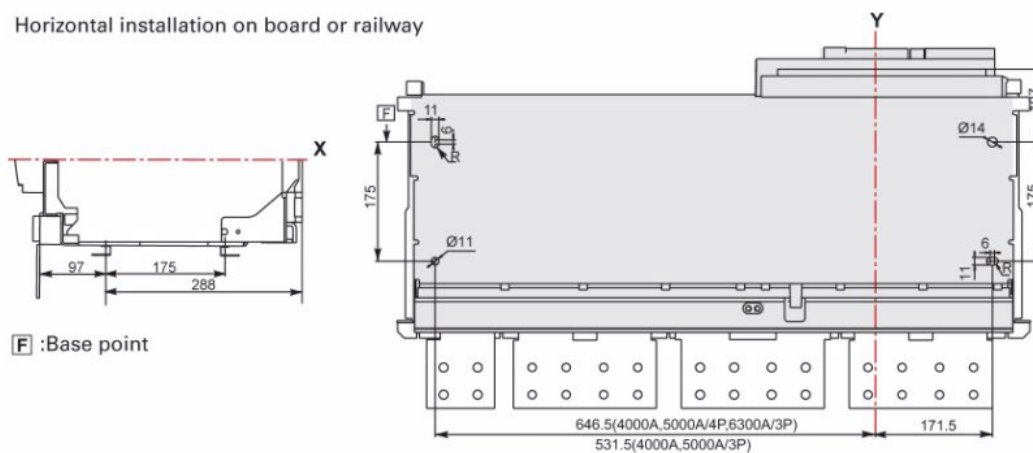
HDW9-6300H1 & H2 Fixed Type 3P & 4P 6300A
IEC/EN: 60947-2



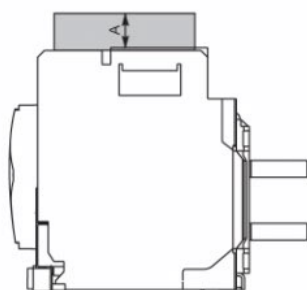
Dimensions



Horizontal installation on board or railway

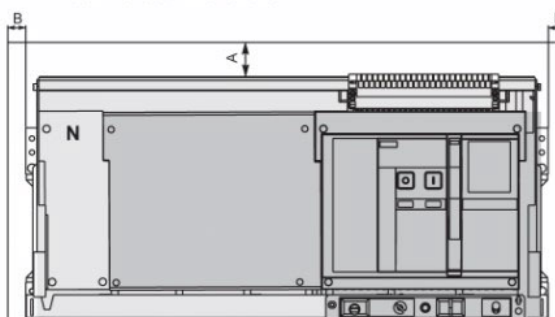


Safety clearances



F : Base point

Door holes dimensions



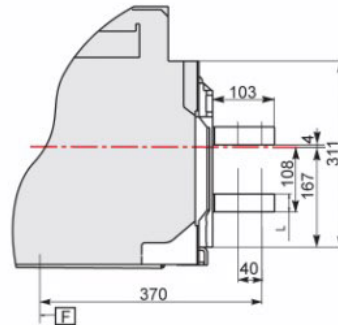
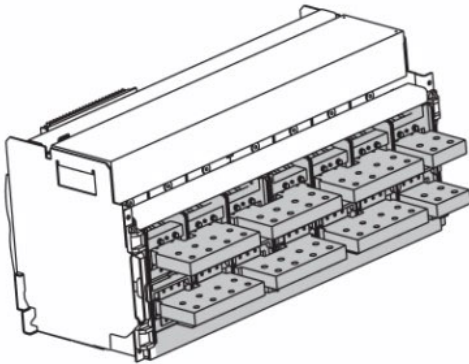
	Non-conductor	Metals	Electric conductor
A	0	0	0
B	0	0	60

HDW9 Installation Dimensions

HDW9-6300L Draw-out Type 3P & 4P
IEC/EN: 60947-2

Connections

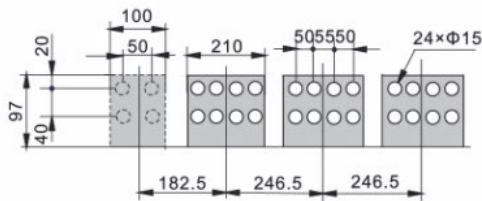
Horizontal rear connection



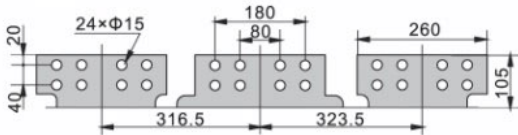
In(A)	L
4000A	20
5000A	30
6300A	30

Busbar dimensions

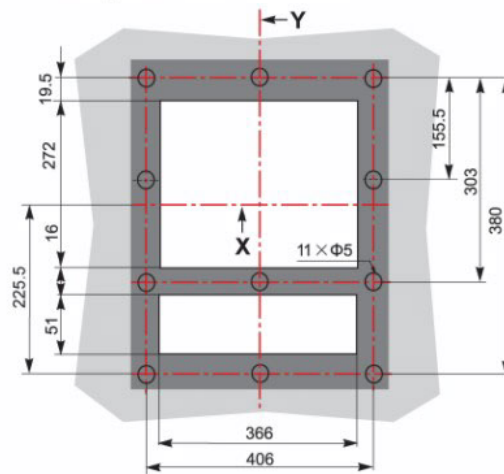
In=4000A、5000A



In=6300A



Rear panel holes dimensions



F :Base point

Remark: X axis and Y axis are the symmetry axis of breaker's mask

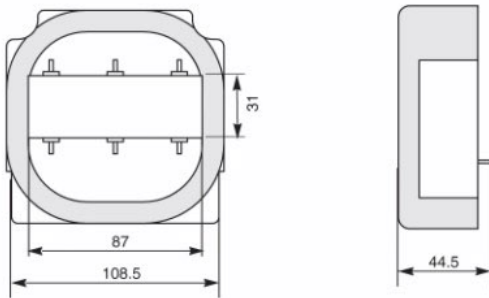
HDW9 Installation Dimensions

HDW9-6300L
IEC/EN: 60947-2

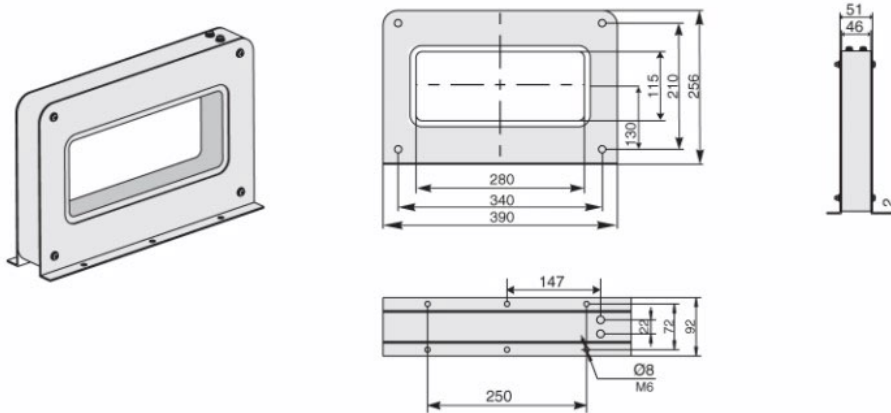


Dimensions of Extend Current Transformers

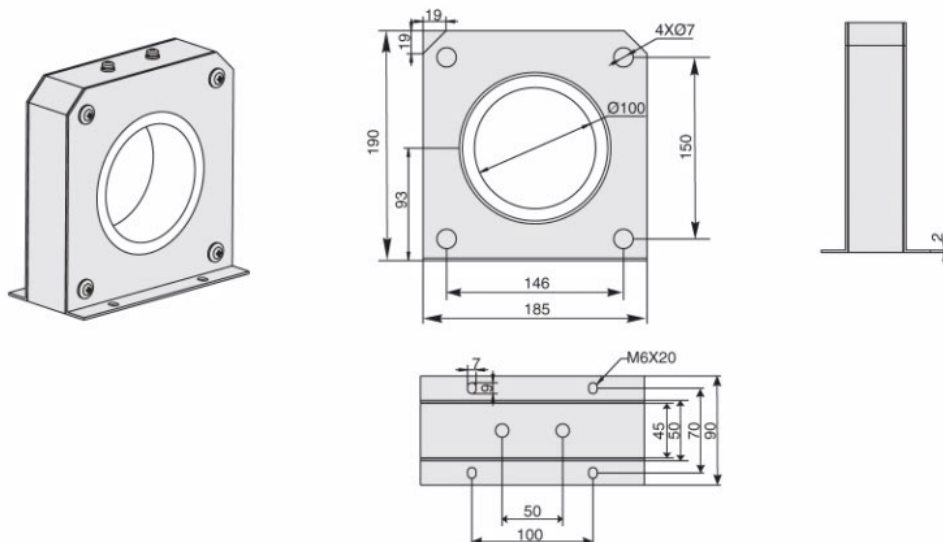
N-phase Extend Current Transformer



Earth-leakage Current Transformer



Ground Return Current Transformer

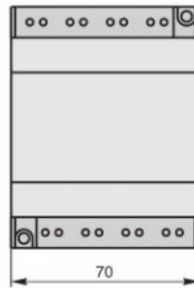
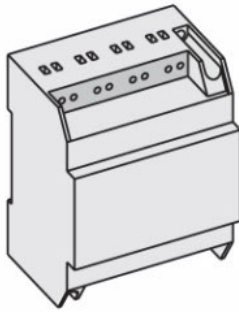


HDW9 Installation Dimensions

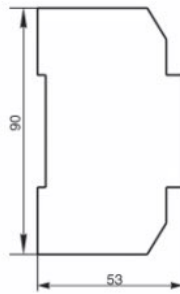
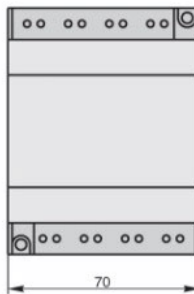
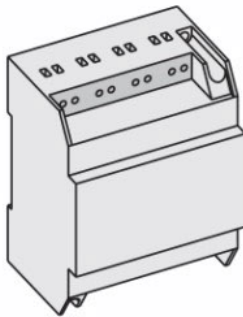
1600N, 4000H1, 4000H2, 6300L
IEC/EN: 60947-2

Dimensions of Power Supply Module and Signal Convert Module

Power Supply Module



Signal Convert Module



Busbar Dimensions

In(A)	Ti=40°C			Ti=50°C			Ti=60°C		
	Qty	Size (mm×mm)	Section (mm ²)	Qty	Size (mm×mm)	Section (mm ²)	Qty	Size (mm×mm)	Section (mm ²)
630	2	40×5	400	2	40×5	400	2	40×5	400
800	2	50×5	500	2	50×5	500	2	50×5	500
1000	2	60×5	600	3	50×5	750	3	60×5	900
1250	2	80×5	800	2	80×5	800	3	60×5	900
1600	2	100×5	1000	3	80×5	1200	3	80×5	1200
2000	3	100×5	1500	3	100×5	1500	3	100×5	1500
2500	4	100×5	2000	4	100×5	2000	4	100×5	2000
3200	3	100×10	3000	3	100×10	3000	4	100×10	4000
4000	5	100×10	5000	5	100×10	5000	6	100×10	6000
5000	5	120×10	6000	6	120×10	7200			
6300	6	120×10	7200	7	120×10	8400			

Remark: Ti stands for ambient temperature
The material of busbar is bare copper

HDW9 Appendix

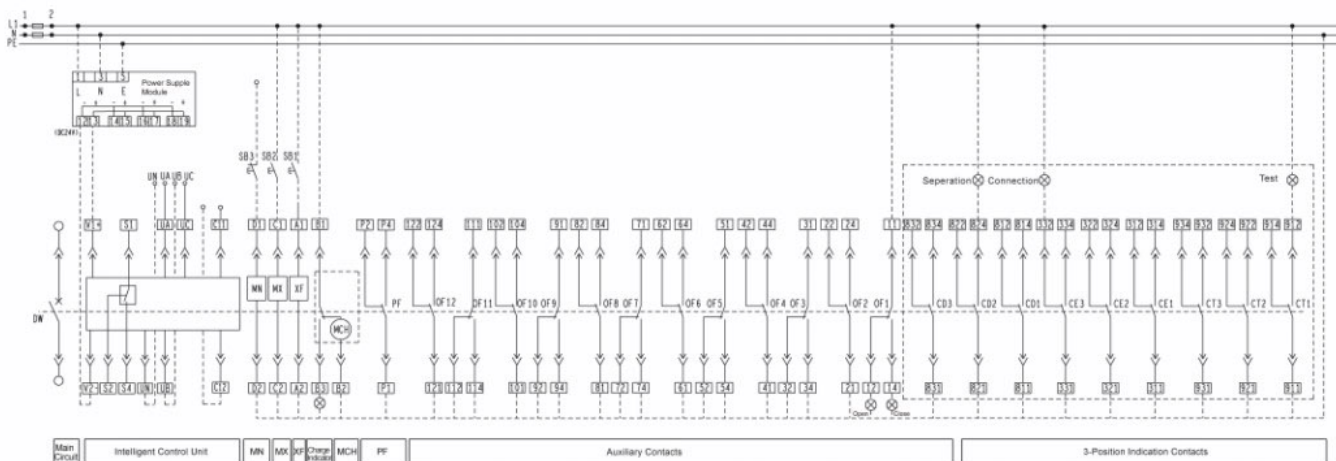
Electrical Schematic Diagram
IEC/EN: 60947-2



1600N, 4000H1, 4000H2

Electrical Schematic Diagram

iTR336, iTR336E



Note:

- UM: Voltage test signal input
UN, UA, UB, UC stands for voltage signal form N, A, B, C.
- Pow: Power input
Connect V1+, V2- to positive and negative poles on power supply module.
- SWT: Fault-trip indication output
S1, S2, S4 are switch contacts, S1 is common port. Contact capacity: AC400V 5A
- CT: External current transformer
C11, C12 are input port of CT

- Remark 1: Intelligent control units work with power supply module. The input voltage of iAPU331 is AC220/230V; The input voltage of iAPU332 is AC380/400V; The input voltage of iAPU332D is DC220V.
- Remark 2: HDW9-1600N offers 4NO 4NC auxiliary contacts. HDW9-4000H1&H2 offer 4NO 4NC auxiliary contacts as standard. 8NO 8NC or 12NO 12NC offer as optional.
- Remark 3: HDW9-1600N offers CT1, CD1 and CD2.
- Remark 4: Voltage measure function only for iTR336E.
- Remark 5: ZT100 and ZCT1 offer as optional. The CT port can connect with one kind of CT only.

Client Preparation

- SB1-Closing button
- SB2-Opening button
- SB3-Emergency stop button

Component

MN-Under-voltage release	PF-Ready to close contact	CD1~CD3-Seperation position indication contacts
MX-Opening release	OF1~OF12-Auxillary contacts	CT1~CT3-Test position indication contacts
XF-Closing release	ZCT1-Earth-leakage CT	CE1~CE3-Connect position indication contacts
MCH-Electric motor	ZT100-Ground return CT	

HDW9 Appendix

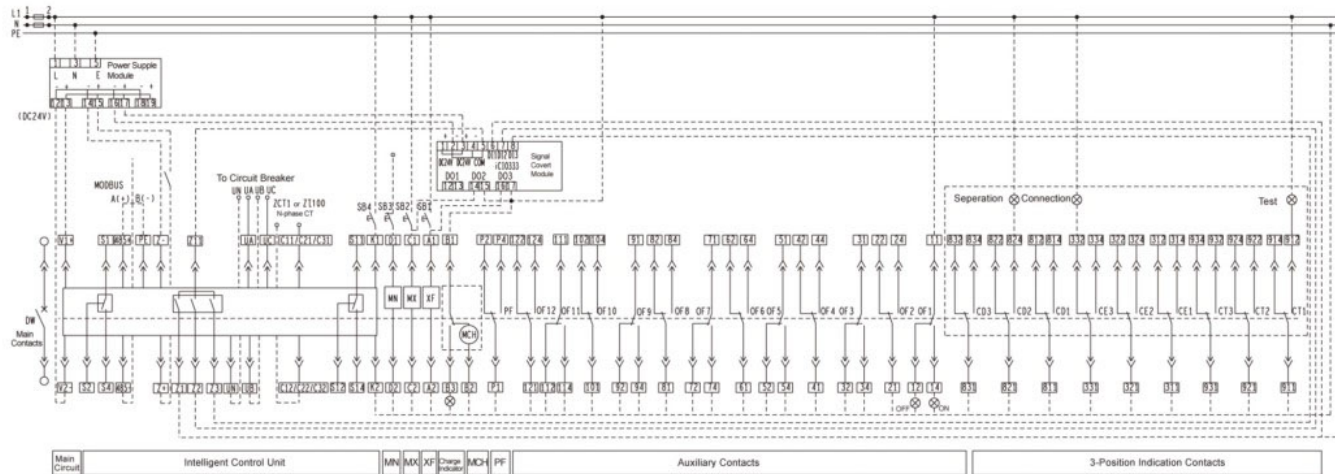
Electrical Schematic Diagram
IEC/EN: 60947-2



1600N, 4000H1, 4000H2

Electrical Schematic Diagram

iTR336H, iTR336H-L



Note:

- UM:** Voltage test signal input
UN, UA, UB, UC stand for voltage signal form N, A, B, C.
- ZSI:** Zone selective interlock
Z+, Z- are ZSI input port, AC24V .
- Pow:** Power input
Connect V1+, V2- to positive and negative poles on power supply module.
- SWT:** Fault-trip indication output
S1, S2, S4 are switch contacts, S1 is common port. Contact capacity: AC400V 5A
- COM:** Communication output
485+, 485- are communication output port; PE is protecting earth of the communication wire.
- CT:** External current transformer
C11, C12 are input port of CT
C21, C22 are input port of ZT100
C31, C32 are input port of ZCT1
- Res:** Remote reset
K1, K2 are the input port of remote reset.
- SWT2:** Fault-trip indication output 2
S11, S12, S14 are switch contacts, S11 is common port. Contact capacity: AC400V 5A

Client Preparation	Component		
SB1-Closing button	MN-Under-voltage release	PF-Ready to close contact	CD1~CD3-Seperation position indication contacts
SB2-Opening button	MX-Opening release	OF1~OF12-Auxillary contacts	CT1~CT3-Test position indication contacts
SB3-Emergency stop button	XF-Closing release	ZCT1-Earth-leakage CT	CE1~CE3-Connect position indication contacts
SB4-Remote reset button	MCH-Electric motor	ZT100-Ground return CT	

- Remark 1:** Intelligent control units work with power supply module. The input volatage of iAPU331 is AC220/230V; The input voltage of iAPU332 is AC380/400V; The input volatage of iAPU332D is DC220V.
- Remark 2:** ZT100 and ZCT1 offer as optional. This CT port can connect with one kind of CT only.
- Remark 3:** For remote control, iCIO333 signal convert module is necessary. The contact capacity of the module is AC240V 10A, DC24V 10A.
- Remark 4:** HDW9-1600N offers 4NO 4NC auxiliary contacts. HDW9-4000H1&H2 offer 4NO 4NC auxiliary contacts as standard. 8NO 8NC or 12NO 12NC offer as optional.
- Remark 5:** Communication protocol is Modbus as standard. Profibus module and Devicenet module should order for additional. Power supply module is necessary when communication module is used.
- Remark 6:** HDW9-1600N offers CT1, CD1 and CD2.
- Remark 7:** Res and SWT2 are optional parts, they are not compatible with each other.

Low-voltage Distribution



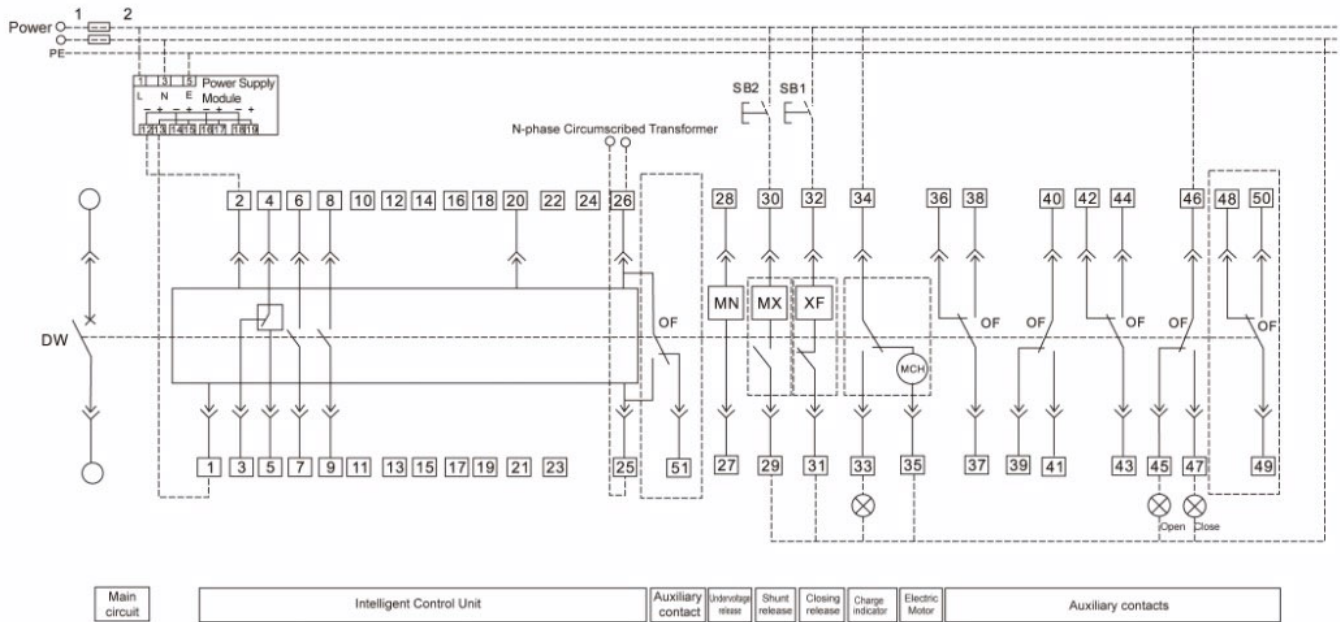
HDW9 Appendix

Electrical Schematic Diagram
IEC/EN: 60947-2

6300L

Electrical Schematic Diagram

iTR336, iTR336E



Pin Function:

- 1# and 2#: auxiliary supply input terminal, 1# for positive terminal when being DC
- 3#, 4# and 5#: contact output of tripping fault (4# refers to shared terminal); contact capacity: AC 380V, 16A
- 6#, 7#, 8# and 9#: two groups of auxiliary terminals with circuit breaker status; contact capacity: AC 380V, 16A
- 20#: PE wire, protection earthing wire
- 25# ~26#: output for circumscribed transformer

Components:

- MN – Undervoltage Release
- MX – Shunt Release
- XF – Closing Release
- OF – Auxiliary Contacts
- MCH – Electric Motor
- SB1 – Closing Button
- SB2 – Opening Button

Remarks 1: terminal 27# ~ 28# of MN undervoltage release connect to main circuit

Remarks 2: MN, MX, XF and MCH shall be connected with different powers because of control supply voltage. Auxiliary contact OF is 5a5b, MX shunt release and XF Closing Release have been tandem connected with normal open and normal close auxiliary contacts in the factory

Remarks 3: Terminal 35# cannot only be connected to the power supply directly (automatic pre-storing energy), but also to the power supply after adopting tandem connection with normal open button (manual pre-storing energy)

Remarks 4: Terminal 6# ~ 7# can output normal close contacts, if the users put forward.

Remarks 5: Power Module 1 is DC Power Module. No DC power module when the power is AC power supply. The input & output terminals cannot be connected reversely (the draw-out type output terminal has been connected in the factory)

Remarks 6: The auxiliary contact is 5NO 5NC, 25# and 26# are circumscribed transformer, applied for (3P+N)T type earthing failure protection.

HDW9 Appendix

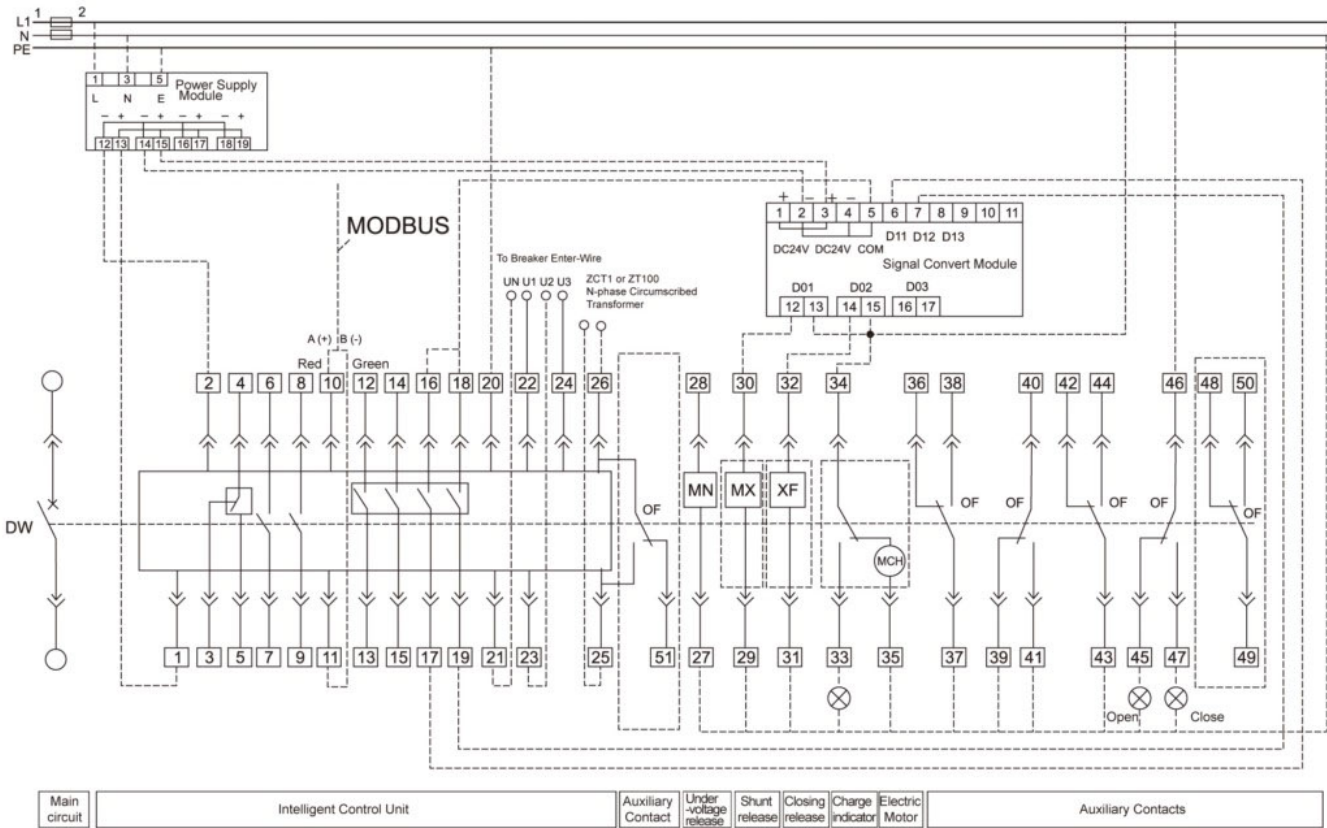
Electrical Schematic Diagram
IEC/EN: 60947-2



6300L

Electrical Schematic Diagram

iTR336H



Pin Function:

- 1# and 2#: auxiliary supply input terminal, 1# for positive terminal when being DC
- 3#, 4# and 5#: contact output of tripping fault (4# refers to shared terminal); contact capacity: AC 380V, 16A
- 6#, 7#, 8# and 9#: two groups of auxiliary terminals with circuit breaker status; contact capacity: AC 380V, 16A
- 10# and 11#: respective output wire of RS485A and RS485B communication
- 12#, 13#: alarm signal output
- 14#, 15#: error tripping signal output
- 16#, 17#: communication remote control shunt release output
- 18#, 19#: communication remote control make output
- 20#: PE Line, shielding earthing line.
- 21#: Neuter line voltage signal (N phase)
- 22#: voltage signal A phase
- 23#: voltage signal B phase
- 24#: voltage signal C phase
- 25#, 26#: input of circumscribed transformer

Components:

- MN — Under-voltage Release
- MX — Shunt Release
- XF — Closing Release
- OF — Auxiliary Contact
- MCH — Electric Motor
- ZCT1 — Earth-leakage CT
- ZT100 — Earthing Transformer

Remarks 1: terminal 27# ~ 28# of MN undervoltage release connect to main circuit.

Remarks 2: MN, MX, XF and MCH shall be connected with different powers because of control supply voltage. Auxiliary contact OF is 5NO5NC, MX Shunt-trip Release and XF Closing Release have been tandem connected with normal open and normal close auxiliary contacts in the factory.

Remarks 3: Terminal 35# can not only be connected to the power supply directly (automatic pre-storing energy), but also to the power supply after adopting tandem connection with normal open button (manual pre-storing energy).

Remarks 4: Terminal 6# ~ 7# can output normal close contacts, if the users put forward.

Remarks 5: iAPU332D is DC power supply module and there is no such module when the power is AC power supply. The input & output terminals cannot be connected reversely (the draw-out type output terminal has been connected in the factory).

Remarks 6: The auxiliary contact is five-open and five-close, 25# and 26# are circumscribed transformer, applied for (3P+N) T type earthing failure protection, or connect Z CT1 or ZT100 (extra order required).

Remarks 7: Long-range control should add signal module and power module capacity of signal module: AC230V, 10A; DC24V, 10A.

Remarks 8: Communication agreement is Modbus. If use Profibus or other arrangement, an additional order needs to be made. Power module and signal module also needs an additional order.



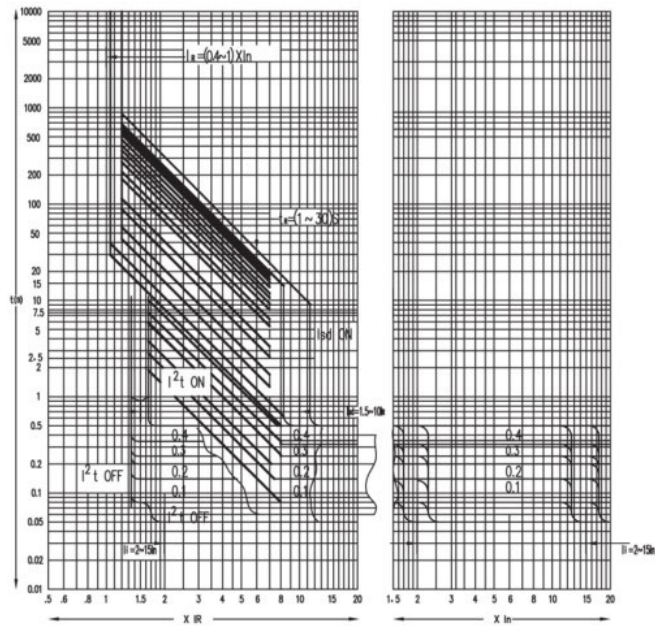
HDW9 Appendix

Electrical Schematic Diagram
IEC/EN: 60947-2

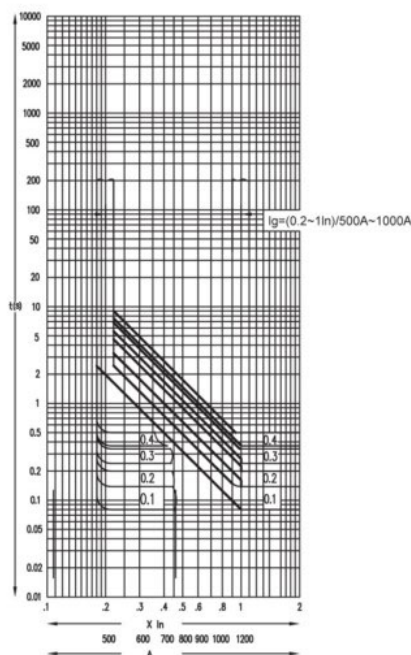
Tripping Curves

Normal Protections

1600N,4000H1&H2



Ground Return Protection

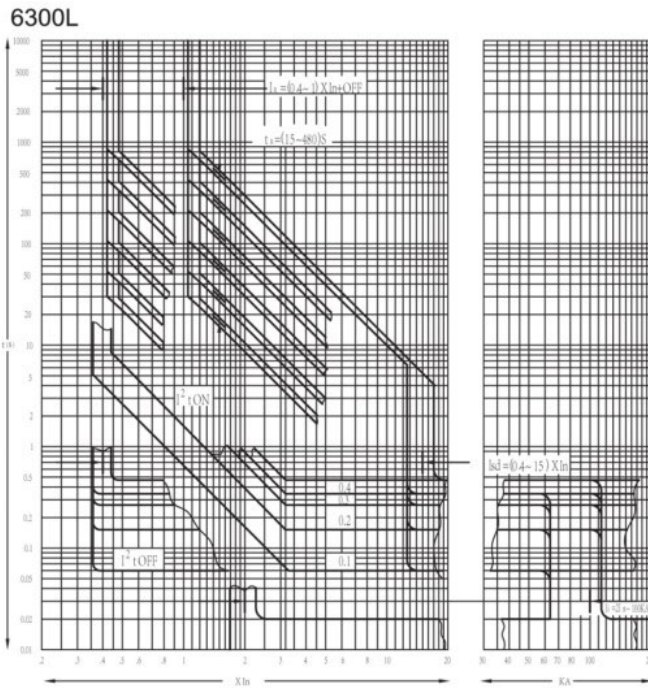


HDW9 Appendix

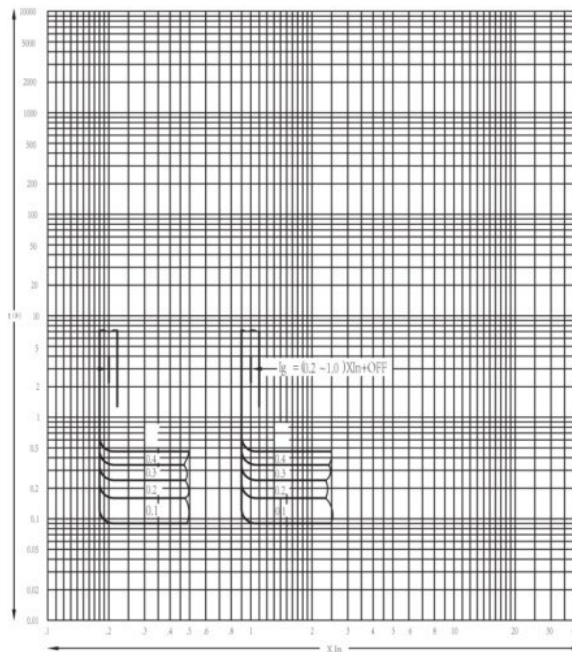
Tripping Curves
IEC/EN: 60947-2

Tripping Curves

Normal Protections



Ground Return Protection



Miniature Circuit Breaker & Switch Disconnectors Product Overview



Miniature Circuit Breaker (MCB)

Type	In (A)																			AC/DC		Phase -neutral
	1A	2A	3A	4A	5A	6A	8A	10A	13A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A	AC	DC	
HDB3w	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓		
HDB3wH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓		
HDB6s	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓		
HDB9	✓	✓		✓		✓		✓		✓	✓	✓	✓	✓	✓	✓				✓		
HDB9Z	✓	✓		✓		✓		✓		✓	✓	✓	✓	✓	✓	✓					✓	
HDB3w-125																✓	✓	✓	✓	✓		
HDB3wP						✓		✓		✓	✓	✓	✓	✓						✓		✓
HDB3wPH						✓		✓		✓	✓	✓	✓	✓						✓		✓
HDB3wZ	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					✓	
HDB6P						✓		✓		✓	✓	✓	✓							✓		✓
HDB9P						✓		✓		✓	✓	✓	✓	✓						✓		✓

Accessories

Type	OF	SD	MX+OF	MV	MN	MVMN
HDB3w HDB3wH ACC	✓	✓	✓	✓	✓	✓
HDB6s ACC	✓	✓	✓			
HDB9 ACC	✓	✓	✓	✓	✓	✓

Switch Disconnector

Type	In (A)																			AC/DC	
	1A	2A	3A	4A	5A	6A	8A	10A	13A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A	AC	DC
HDB6IS											✓		✓			✓			✓	✓	
HDG3											✓	✓	✓	✓		✓	✓	✓	✓	✓	
HDG9													✓			✓		✓	✓	✓	



Size		Poles						Breaking Capacity				Tripping Curve			Certificate						Temperature	
18mm	27mm	1P	1P+N	2P	3P	3P+N	4P	3kV	4.5kV	6kV	10kV	B	C	D	CE	IEC-CB	TUV	KEMA	SEMKO	RoHS		
✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓					-20°C ~+60°C
✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓				✓	-35°C ~+70°C
✓		✓		✓	✓		✓		✓	✓		✓	✓	✓	✓	✓		✓				-5°C ~+40°C
✓		✓		✓	✓		✓		✓	✓		✓	✓	✓	✓	✓		✓			✓	-30°C ~+70°C
✓		✓		✓			✓		✓	✓		✓	✓		✓	✓			✓	✓		-30°C ~+70°C
	✓	✓		✓	✓		✓		✓	✓		✓	✓	✓	✓	✓	✓					-20°C ~+60°C
✓			✓					✓	✓			✓	✓	✓	✓	✓	✓					-20°C ~+60°C
✓			✓					✓	✓			✓	✓	✓	✓	✓	✓				✓	-35°C ~+70°C
✓		✓		✓	✓					✓		✓	✓		✓	✓						-25°C ~+60°C
✓			✓						✓			✓		✓	✓	✓			✓			-5°C ~+40°C
✓			✓						✓	✓		✓		✓	✓	✓	✓				✓	-25°C ~+70°C

Size		Poles						Certificate						Temperature
18mm	27mm	1P	1P+N	2P	3P	3P+N	4P	CE	IEC-CB	TUV	KEMA	SEMKO	RoHS	
✓		✓		✓	✓		✓	✓	✓			✓		-5°C ~+40°C
✓		✓		✓	✓		✓	✓	✓					-20°C ~+60°C
✓		✓		✓	✓		✓	✓	✓	✓			✓	-30°C ~+70°C



HDB3wH Miniature Circuit Breaker

Standard: IEC/EN60898-1



Function

HDB3wH Miniature standard circuit breaker has the following function:

- Short circuit protection
- Overload protection
- Control
- Isolation

Main Features

Rated operating voltage (V)	1P/1P+N: 240 AC 2P, 3P, 3P+N, 4P: 415 AC
Rated current (A)	1-63
Rated frequency (Hz)	50/60
Number of poles	1P, 1P+N, 2P, 3P, 3P+N, 4P
Breaking capacity (kA)	3, 4.5, 6

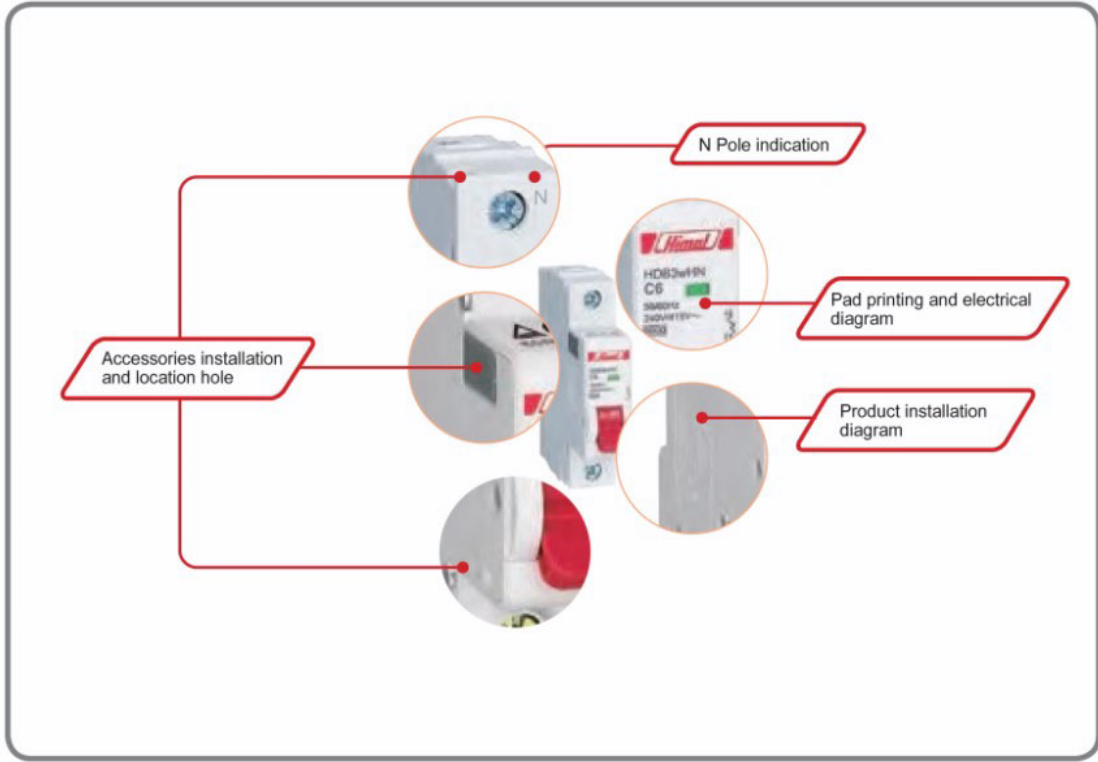


HDB3wH Miniature Circuit Breaker

Standard: IEC/EN60898-1



Product Details Display



Final Distribution
Himel

HDB3wH Miniature Circuit Breaker

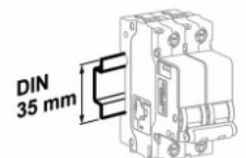
Standard: IEC/EN60898-1



Functions and Features

Electrical Characteristics

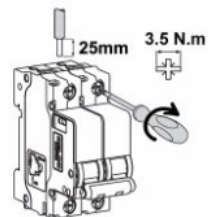
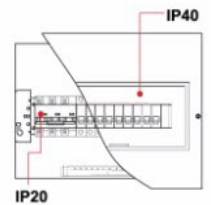
Rated insulation voltage U_i	(V)	250 (phase-to-ground) 500 (phase-to-phase)
Maximum working voltage U_{Bmax}	1P, 1P+N	(V) 240/415 AC
	2P, 3P, 4P, 3P+N	(V) 415 AC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(kA)	3, 4.5, 6
Rated impulse withstand voltage U_{imp} (1.2/50)	(kA)	4
Dielectric test voltage		2kV (50/60HZ, 1min)
Over-voltage category		II
Isolating function		Available
Pollution class		2
Electric shock protection grade		II
Trip type:		Thermal magnetic trip
Thermal magnetic trip characteristics:	Type B curve (3In~5In)	■
	Type C curve (5In~10In)	■
	Type D curve (10In~14In)	■
Electrical and mechanical accessories		■



Installed on 35mm standard guide rail

Mechanical Characteristics

Handle	Red, pad printing indicating ON-OFF position
Mechanical endurance	Times 20,000
Electrical endurance	Times 7,000
Protection grade	Installed in distribution box IP40 Installed directly IP20
Mechanical shock resistance	30g, 3 shocks, lasting 11ms (No significant vibration or shock)
Anti-vibration (IEC/EN 60947-2)	No significant vibration or shock
Rated ambient temperature	30°C
Operating ambient temperature (daily mean temperature)	-20° C~+60°C
Storage temperature	-40° C~+70°C



Flexible installation direction

Installation Features

Terminal form	Tunnel terminal
Maximum wiring capacity	Current ratings 1-63 25mm ²
Maximum ultimate torque	Current ratings 1-63:3.5 N.m
Tool:	Crosshead screwdriver or flathead screwdriver
Installation	Installed on standard DIN guide rail (35mm)
Wiring Type	Top or bottom




HDB3wH Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3wH Selection Guide

Product name	Breaking capacity	Number of poles	Trip type	Rated current	
HDB3wH	N	1	C	6	
	A: 3kA	1: 1P	B: Type B	1: 1A	20: 20A
	L: 4.5kA	2: 2P	C: Type C	2: 2A	25: 25A
	N: 6kA	3: 3P	D: Type D	3: 3A	32: 32A
		4: 4P		4: 4A	40: 40A
		5: 1P+N		6: 6A	50: 50A
		6: 3P+N		10: 10A	63: 63A
				16: 16A	

HDB3wHA Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
3kA 	1P	1	HDB3wHA1B1	HDB3wHA1C1	HDB3wHA1D1
		2	HDB3wHA1B2	HDB3wHA1C2	HDB3wHA1D2
		3	HDB3wHA1B3	HDB3wHA1C3	HDB3wHA1D3
		4	HDB3wHA1B4	HDB3wHA1C4	HDB3wHA1D4
		5	HDB3wHA1B5	HDB3wHA1C5	HDB3wHA1D5
		6	HDB3wHA1B6	HDB3wHA1C6	HDB3wHA1D6
		8	HDB3wHA1B8	HDB3wHA1C8	HDB3wHA1D8
		10	HDB3wHA1B10	HDB3wHA1C10	HDB3wHA1D10
		13	HDB3wHA1B13	HDB3wHA1C13	HDB3wHA1D13
		16	HDB3wHA1B16	HDB3wHA1C16	HDB3wHA1D16
		20	HDB3wHA1B20	HDB3wHA1C20	HDB3wHA1D20
		25	HDB3wHA1B25	HDB3wHA1C25	HDB3wHA1D25
		32	HDB3wHA1B32	HDB3wHA1C32	HDB3wHA1D32
		40	HDB3wHA1B40	HDB3wHA1C40	HDB3wHA1D40
		50	HDB3wHA1B50	HDB3wHA1C50	HDB3wHA1D50
		63	HDB3wHA1B63	HDB3wHA1C63	HDB3wHA1D63
3kA 	1P+N	10	HDB3wHA5B10	HDB3wHA5C10	HDB3wHA5D10
		13	HDB3wHA5B13	HDB3wHA5C13	HDB3wHA5D13
		16	HDB3wHA5B16	HDB3wHA5C16	HDB3wHA5D16
		20	HDB3wHA5B20	HDB3wHA5C20	HDB3wHA5D20
		25	HDB3wHA5B25	HDB3wHA5C25	HDB3wHA5D25
		32	HDB3wHA5B32	HDB3wHA5C32	HDB3wHA5D32
		40	HDB3wHA5B40	HDB3wHA5C40	HDB3wHA5D40
		50	HDB3wHA5B50	HDB3wHA5C50	HDB3wHA5D50
63	HDB3wHA5B63	HDB3wHA5C63	HDB3wHA5D63		
3kA 	2P	1	HDB3wHA2B1	HDB3wHA2C1	HDB3wHA2D1
		2	HDB3wHA2B2	HDB3wHA2C2	HDB3wHA2D2
		3	HDB3wHA2B3	HDB3wHA2C3	HDB3wHA2D3
		4	HDB3wHA2B4	HDB3wHA2C4	HDB3wHA2D4
		5	HDB3wHA2B5	HDB3wHA2C5	HDB3wHA2D5
		6	HDB3wHA2B6	HDB3wHA2C6	HDB3wHA2D6
		8	HDB3wHA2B8	HDB3wHA2C8	HDB3wHA2D8
		10	HDB3wHA2B10	HDB3wHA2C10	HDB3wHA2D10
		13	HDB3wHA2B13	HDB3wHA2C13	HDB3wHA2D13
		16	HDB3wHA2B16	HDB3wHA2C16	HDB3wHA2D16
		20	HDB3wHA2B20	HDB3wHA2C20	HDB3wHA2D20
		25	HDB3wHA2B25	HDB3wHA2C25	HDB3wHA2D25
		32	HDB3wHA2B32	HDB3wHA2C32	HDB3wHA2D32
		40	HDB3wHA2B40	HDB3wHA2C40	HDB3wHA2D40
		50	HDB3wHA2B50	HDB3wHA2C50	HDB3wHA2D50
63	HDB3wHA2B63	HDB3wHA2C63	HDB3wHA2D63		



HDB3wH Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3wH Selection Guide






HDB3wHA Breaking capacity	Pole	Rated current	Trip type				
			B	C	D		
3kA 	3P	1	HDB3wHA3B1	HDB3wHA3C1	HDB3wHA3D1		
		2	HDB3wHA3B2	HDB3wHA3C2	HDB3wHA3D2		
		3	HDB3wHA3B3	HDB3wHA3C3	HDB3wHA3D3		
		4	HDB3wHA3B4	HDB3wHA3C4	HDB3wHA3D4		
		5	HDB3wHA3B5	HDB3wHA3C5	HDB3wHA3D5		
		6	HDB3wHA3B6	HDB3wHA3C6	HDB3wHA3D6		
		8	HDB3wHA3B8	HDB3wHA3C8	HDB3wHA3D8		
		10	HDB3wHA3B10	HDB3wHA3C10	HDB3wHA3D10		
		13	HDB3wHA3B13	HDB3wHA3C13	HDB3wHA3D13		
		16	HDB3wHA3B16	HDB3wHA3C16	HDB3wHA3D16		
		20	HDB3wHA3B20	HDB3wHA3C20	HDB3wHA3D20		
		25	HDB3wHA3B25	HDB3wHA3C25	HDB3wHA3D25		
		32	HDB3wHA3B32	HDB3wHA3C32	HDB3wHA3D32		
		40	HDB3wHA3B40	HDB3wHA3C40	HDB3wHA3D40		
		50	HDB3wHA3B50	HDB3wHA3C50	HDB3wHA3D50		
		63	HDB3wHA3B63	HDB3wHA3C63	HDB3wHA3D63		
		3kA 	3P+N	10	HDB3wHA6B10	HDB3wHA6C10	HDB3wHA6D10
				13	HDB3wHA6B13	HDB3wHA6C13	HDB3wHA6D13
16	HDB3wHA6B16			HDB3wHA6C16	HDB3wHA6D16		
20	HDB3wHA6B20			HDB3wHA6C20	HDB3wHA6D20		
25	HDB3wHA6B25			HDB3wHA6C25	HDB3wHA6D25		
32	HDB3wHA6B32			HDB3wHA6C32	HDB3wHA6D32		
40	HDB3wHA6B40			HDB3wHA6C40	HDB3wHA6D40		
50	HDB3wHA6B50			HDB3wHA6C50	HDB3wHA6D50		
63	HDB3wHA6B63			HDB3wHA6C63	HDB3wHA6D63		
3kA 	4P			1	HDB3wHA4B1	HDB3wHA4C1	HDB3wHA4D1
				2	HDB3wHA4B2	HDB3wHA4C2	HDB3wHA4D2
				3	HDB3wHA4B3	HDB3wHA4C3	HDB3wHA4D3
		4	HDB3wHA4B4	HDB3wHA4C4	HDB3wHA4D4		
		5	HDB3wHA4B5	HDB3wHA4C5	HDB3wHA4D5		
		6	HDB3wHA4B6	HDB3wHA4C6	HDB3wHA4D6		
		8	HDB3wHA4B8	HDB3wHA4C8	HDB3wHA4D8		
		10	HDB3wHA4B10	HDB3wHA4C10	HDB3wHA4D10		
		13	HDB3wHA4B13	HDB3wHA4C13	HDB3wHA4D13		
		16	HDB3wHA4B16	HDB3wHA4C16	HDB3wHA4D16		
		20	HDB3wHA4B20	HDB3wHA4C20	HDB3wHA4D20		
		25	HDB3wHA4B25	HDB3wHA4C25	HDB3wHA4D25		
		32	HDB3wHA4B32	HDB3wHA4C32	HDB3wHA4D32		
		40	HDB3wHA4B40	HDB3wHA4C40	HDB3wHA4D40		
		50	HDB3wHA4B50	HDB3wHA4C50	HDB3wHA4D50		
		63	HDB3wHA4B63	HDB3wHA4C63	HDB3wHA4D63		

HDB3wH Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3wH Selection Guide

HDB3wHL Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
4.5kA 	1P	1	HDB3wHL1B1	HDB3wHL1C1	HDB3wHL1D1
		2	HDB3wHL1B2	HDB3wHL1C2	HDB3wHL1D2
		3	HDB3wHL1B3	HDB3wHL1C3	HDB3wHL1D3
		4	HDB3wHL1B4	HDB3wHL1C4	HDB3wHL1D4
		5	HDB3wHL1B5	HDB3wHL1C5	HDB3wHL1D5
		6	HDB3wHL1B6	HDB3wHL1C6	HDB3wHL1D6
		8	HDB3wHL1B8	HDB3wHL1C8	HDB3wHL1D8
		10	HDB3wHL1B10	HDB3wHL1C10	HDB3wHL1D10
		13	HDB3wHL1B13	HDB3wHL1C13	HDB3wHL1D13
		16	HDB3wHL1B16	HDB3wHL1C16	HDB3wHL1D16
		20	HDB3wHL1B20	HDB3wHL1C20	HDB3wHL1D20
		25	HDB3wHL1B25	HDB3wHL1C25	HDB3wHL1D25
		32	HDB3wHL1B32	HDB3wHL1C32	HDB3wHL1D32
		40	HDB3wHL1B40	HDB3wHL1C40	HDB3wHL1D40
50	HDB3wHL1B50	HDB3wHL1C50	HDB3wHL1D50		
63	HDB3wHL1B63	HDB3wHL1C63	HDB3wHL1D63		
4.5kA 	1P+N	10	HDB3wHL5B10	HDB3wHL5C10	HDB3wHL5D10
		13	HDB3wHL5B13	HDB3wHL5C13	HDB3wHL5D13
		16	HDB3wHL5B16	HDB3wHL5C16	HDB3wHL5D16
		20	HDB3wHL5B20	HDB3wHL5C20	HDB3wHL5D20
		25	HDB3wHL5B25	HDB3wHL5C25	HDB3wHL5D25
		32	HDB3wHL5B32	HDB3wHL5C32	HDB3wHL5D32
		40	HDB3wHL5B40	HDB3wHL5C40	HDB3wHL5D40
50	HDB3wHL5B50	HDB3wHL5C50	HDB3wHL5D50		
63	HDB3wHL5B63	HDB3wHL5C63	HDB3wHL5D63		
4.5kA 	2P	1	HDB3wHL2B1	HDB3wHL2C1	HDB3wHL2D1
		2	HDB3wHL2B2	HDB3wHL2C2	HDB3wHL2D2
		3	HDB3wHL2B3	HDB3wHL2C3	HDB3wHL2D3
		4	HDB3wHL2B4	HDB3wHL2C4	HDB3wHL2D4
		5	HDB3wHL2B5	HDB3wHL2C5	HDB3wHL2D5
		6	HDB3wHL2B6	HDB3wHL2C6	HDB3wHL2D6
		8	HDB3wHL2B8	HDB3wHL2C8	HDB3wHL2D8
		10	HDB3wHL2B10	HDB3wHL2C10	HDB3wHL2D10
		13	HDB3wHL2B13	HDB3wHL2C13	HDB3wHL2D13
		16	HDB3wHL2B16	HDB3wHL2C16	HDB3wHL2D16
		20	HDB3wHL2B20	HDB3wHL2C20	HDB3wHL2D20
		25	HDB3wHL2B25	HDB3wHL2C25	HDB3wHL2D25
		32	HDB3wHL2B32	HDB3wHL2C32	HDB3wHL2D32
		40	HDB3wHL2B40	HDB3wHL2C40	HDB3wHL2D40
50	HDB3wHL2B50	HDB3wHL2C50	HDB3wHL2D50		
63	HDB3wHL2B63	HDB3wHL2C63	HDB3wHL2D63		

Final Distribution



HDB3wH Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3wH Selection Guide



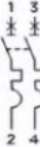
HDB3wHL Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
4.5kA 	3P	1	HDB3wHL3B1	HDB3wHL3C1	HDB3wHL3D1
		2	HDB3wHL3B2	HDB3wHL3C2	HDB3wHL3D2
		3	HDB3wHL3B3	HDB3wHL3C3	HDB3wHL3D3
		4	HDB3wHL3B4	HDB3wHL3C4	HDB3wHL3D4
		5	HDB3wHL3B5	HDB3wHL3C5	HDB3wHL3D5
		6	HDB3wHL3B6	HDB3wHL3C6	HDB3wHL3D6
		8	HDB3wHL3B8	HDB3wHL3C8	HDB3wHL3D8
		10	HDB3wHL3B10	HDB3wHL3C10	HDB3wHL3D10
		13	HDB3wHL3B13	HDB3wHL3C13	HDB3wHL3D13
		16	HDB3wHL3B16	HDB3wHL3C16	HDB3wHL3D16
		20	HDB3wHL3B20	HDB3wHL3C20	HDB3wHL3D20
		25	HDB3wHL3B25	HDB3wHL3C25	HDB3wHL3D25
		32	HDB3wHL3B32	HDB3wHL3C32	HDB3wHL3D32
40	HDB3wHL3B40	HDB3wHL3C40	HDB3wHL3D40		
50	HDB3wHL3B50	HDB3wHL3C50	HDB3wHL3D50		
63	HDB3wHL3B63	HDB3wHL3C63	HDB3wHL3D63		
4.5kA 	3P+N	10	HDB3wHL6B10	HDB3wHL6C10	HDB3wHL6D10
		13	HDB3wHL6B13	HDB3wHL6C13	HDB3wHL6D13
		16	HDB3wHL6B16	HDB3wHL6C16	HDB3wHL6D16
		20	HDB3wHL6B20	HDB3wHL6C20	HDB3wHL6D20
		25	HDB3wHL6B25	HDB3wHL6C25	HDB3wHL6D25
		32	HDB3wHL6B32	HDB3wHL6C32	HDB3wHL6D32
		40	HDB3wHL6B40	HDB3wHL6C40	HDB3wHL6D40
50	HDB3wHL6B50	HDB3wHL6C50	HDB3wHL6D50		
63	HDB3wHL6B63	HDB3wHL6C63	HDB3wHL6D63		
4.5kA 	4P	1	HDB3wHL4B1	HDB3wHL4C1	HDB3wHL4D1
		2	HDB3wHL4B2	HDB3wHL4C2	HDB3wHL4D2
		3	HDB3wHL4B3	HDB3wHL4C3	HDB3wHL4D3
		4	HDB3wHL4B4	HDB3wHL4C4	HDB3wHL4D4
		5	HDB3wHL4B5	HDB3wHL4C5	HDB3wHL4D5
		6	HDB3wHL4B6	HDB3wHL4C6	HDB3wHL4D6
		8	HDB3wHL4B8	HDB3wHL4C8	HDB3wHL4D8
		10	HDB3wHL4B10	HDB3wHL4C10	HDB3wHL4D10
		13	HDB3wHL4B13	HDB3wHL4C13	HDB3wHL4D13
		16	HDB3wHL4B16	HDB3wHL4C16	HDB3wHL4D16
		20	HDB3wHL4B20	HDB3wHL4C20	HDB3wHL4D20
		25	HDB3wHL4B25	HDB3wHL4C25	HDB3wHL4D25
		32	HDB3wHL4B32	HDB3wHL4C32	HDB3wHL4D32
40	HDB3wHL4B40	HDB3wHL4C40	HDB3wHL4D40		
50	HDB3wHL4B50	HDB3wHL4C50	HDB3wHL4D50		
63	HDB3wHL4B63	HDB3wHL4C63	HDB3wHL4D63		

HDB3wH Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3wH Selection Guide

HDB3wHN Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
6kA 	1P	1	HDB3wHN1B1	HDB3wHN1C1	HDB3wHN1D1
		2	HDB3wHN1B2	HDB3wHN1C2	HDB3wHN1D2
		3	HDB3wHN1B3	HDB3wHN1C3	HDB3wHN1D3
		4	HDB3wHN1B4	HDB3wHN1C4	HDB3wHN1D4
		5	HDB3wHN1B5	HDB3wHN1C5	HDB3wHN1D5
		6	HDB3wHN1B6	HDB3wHN1C6	HDB3wHN1D6
		8	HDB3wHN1B8	HDB3wHN1C8	HDB3wHN1D8
		10	HDB3wHN1B10	HDB3wHN1C10	HDB3wHN1D10
		13	HDB3wHN1B13	HDB3wHN1C13	HDB3wHN1D13
		16	HDB3wHN1B16	HDB3wHN1C16	HDB3wHN1D16
		20	HDB3wHN1B20	HDB3wHN1C20	HDB3wHN1D20
		25	HDB3wHN1B25	HDB3wHN1C25	HDB3wHN1D25
		32	HDB3wHN1B32	HDB3wHN1C32	HDB3wHN1D32
		40	HDB3wHN1B40	HDB3wHN1C40	HDB3wHN1D40
50	HDB3wHN1B50	HDB3wHN1C50	HDB3wHN1D50		
63	HDB3wHN1B63	HDB3wHN1C63	HDB3wHN1D63		
6kA 	1P+N	10	HDB3wHN5B10	HDB3wHN5C10	HDB3wHN5D10
		13	HDB3wHN5B13	HDB3wHN5C13	HDB3wHN5D13
		16	HDB3wHN5B16	HDB3wHN5C16	HDB3wHN5D16
		20	HDB3wHN5B20	HDB3wHN5C20	HDB3wHN5D20
		25	HDB3wHN5B25	HDB3wHN5C25	HDB3wHN5D25
		32	HDB3wHN5B32	HDB3wHN5C32	HDB3wHN5D32
		40	HDB3wHN5B40	HDB3wHN5C40	HDB3wHN5D40
50	HDB3wHN5B50	HDB3wHN5C50	HDB3wHN5D50		
63	HDB3wHN5B63	HDB3wHN5C63	HDB3wHN5D63		
6kA 	2P	1	HDB3wHN2B1	HDB3wHN2C1	HDB3wHN2D1
		2	HDB3wHN2B2	HDB3wHN2C2	HDB3wHN2D2
		3	HDB3wHN2B3	HDB3wHN2C3	HDB3wHN2D3
		4	HDB3wHN2B4	HDB3wHN2C4	HDB3wHN2D4
		5	HDB3wHN2B5	HDB3wHN2C5	HDB3wHN2D5
		6	HDB3wHN2B6	HDB3wHN2C6	HDB3wHN2D6
		8	HDB3wHN2B8	HDB3wHN2C8	HDB3wHN2D8
		10	HDB3wHN2B10	HDB3wHN2C10	HDB3wHN2D10
		13	HDB3wHN2B13	HDB3wHN2C13	HDB3wHN2D13
		16	HDB3wHN2B16	HDB3wHN2C16	HDB3wHN2D16
		20	HDB3wHN2B20	HDB3wHN2C20	HDB3wHN2D20
		25	HDB3wHN2B25	HDB3wHN2C25	HDB3wHN2D25
		32	HDB3wHN2B32	HDB3wHN2C32	HDB3wHN2D32
		40	HDB3wHN2B40	HDB3wHN2C40	HDB3wHN2D40
50	HDB3wHN2B50	HDB3wHN2C50	HDB3wHN2D50		
63	HDB3wHN2B63	HDB3wHN2C63	HDB3wHN2D63		

Final Distribution


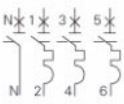



HDB3wH Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3wH Selection Guide

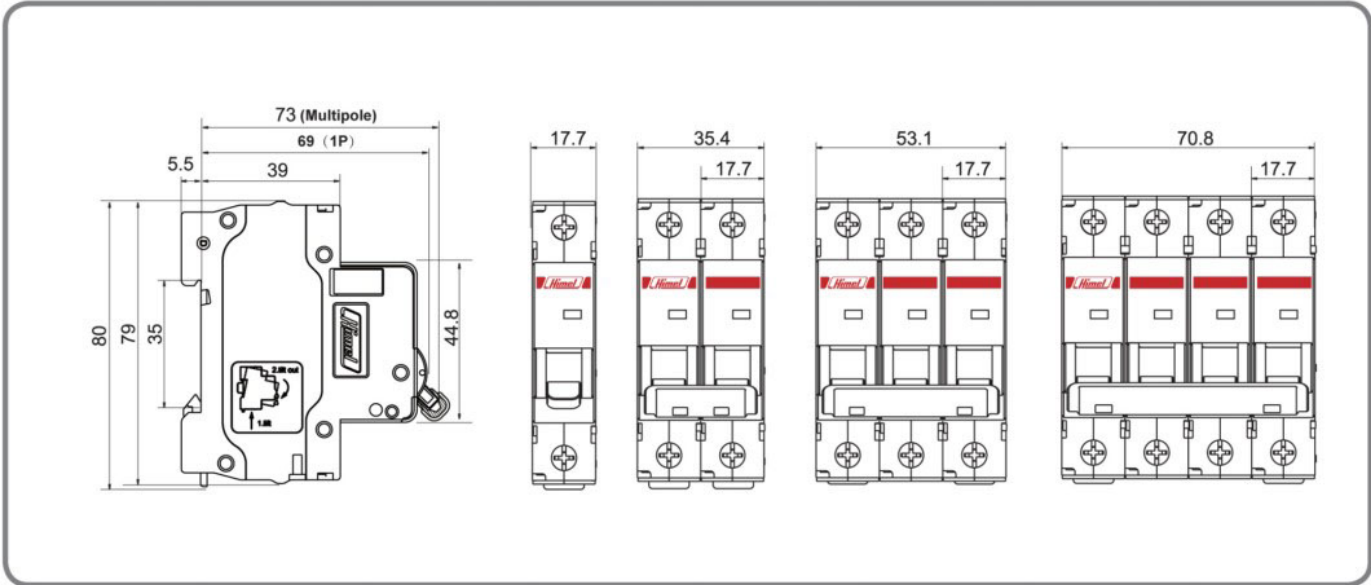
HDB3wHN Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
6kA 	3P	1	HDB3wHN3B1	HDB3wHN3C1	HDB3wHN3D1
		2	HDB3wHN3B2	HDB3wHN3C2	HDB3wHN3D2
		3	HDB3wHN3B3	HDB3wHN3C3	HDB3wHN3D3
		4	HDB3wHN3B4	HDB3wHN3C4	HDB3wHN3D4
		5	HDB3wHN3B5	HDB3wHN3C5	HDB3wHN3D5
		6	HDB3wHN3B6	HDB3wHN3C6	HDB3wHN3D6
		8	HDB3wHN3B8	HDB3wHN3C8	HDB3wHN3D8
		10	HDB3wHN3B10	HDB3wHN3C10	HDB3wHN3D10
		13	HDB3wHN3B13	HDB3wHN3C13	HDB3wHN3D13
		16	HDB3wHN3B16	HDB3wHN3C16	HDB3wHN3D16
		20	HDB3wHN3B20	HDB3wHN3C20	HDB3wHN3D20
		25	HDB3wHN3B25	HDB3wHN3C25	HDB3wHN3D25
		32	HDB3wHN3B32	HDB3wHN3C32	HDB3wHN3D32
		40	HDB3wHN3B40	HDB3wHN3C40	HDB3wHN3D40
		50	HDB3wHN3B50	HDB3wHN3C50	HDB3wHN3D50
		63	HDB3wHN3B63	HDB3wHN3C63	HDB3wHN3D63
6kA 	3P+N	10	HDB3wHN6B10	HDB3wHN6C10	HDB3wHN6D10
		13	HDB3wHN6B13	HDB3wHN6C13	HDB3wHN6D13
		16	HDB3wHN6B16	HDB3wHN6C16	HDB3wHN6D16
		20	HDB3wHN6B20	HDB3wHN6C20	HDB3wHN6D20
		25	HDB3wHN6B25	HDB3wHN6C25	HDB3wHN6D25
		32	HDB3wHN6B32	HDB3wHN6C32	HDB3wHN6D32
		40	HDB3wHN6B40	HDB3wHN6C40	HDB3wHN6D40
50	HDB3wHN6B50	HDB3wHN6C50	HDB3wHN6D50		
6kA 	4P	1	HDB3wHN4B1	HDB3wHN4C1	HDB3wHN4D1
		2	HDB3wHN4B2	HDB3wHN4C2	HDB3wHN4D2
		3	HDB3wHN4B3	HDB3wHN4C3	HDB3wHN4D3
		4	HDB3wHN4B4	HDB3wHN4C4	HDB3wHN4D4
		5	HDB3wHN4B5	HDB3wHN4C5	HDB3wHN4D5
		6	HDB3wHN4B6	HDB3wHN4C6	HDB3wHN4D6
		8	HDB3wHN4B8	HDB3wHN4C8	HDB3wHN4D8
		10	HDB3wHN4B10	HDB3wHN4C10	HDB3wHN4D10
		13	HDB3wHN4B13	HDB3wHN4C13	HDB3wHN4D13
		16	HDB3wHN4B16	HDB3wHN4C16	HDB3wHN4D16
		20	HDB3wHN4B20	HDB3wHN4C20	HDB3wHN4D20
		25	HDB3wHN4B25	HDB3wHN4C25	HDB3wHN4D25
		32	HDB3wHN4B32	HDB3wHN4C32	HDB3wHN4D32
		40	HDB3wHN4B40	HDB3wHN4C40	HDB3wHN4D40
		50	HDB3wHN4B50	HDB3wHN4C50	HDB3wHN4D50
		63	HDB3wHN4B63	HDB3wHN4C63	HDB3wHN4D63

HDB3wH Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3wH Installation Dimension



Final Distribution



HDB3wH Miniature Circuit breaker

Standard: IEC/EN60898-1



Trip Characteristic

B features

The miniature circuit breaker with B tripping features meets IEC 60898 standard and applies to providing protection for the resistive load or the load without impulse current.

C features

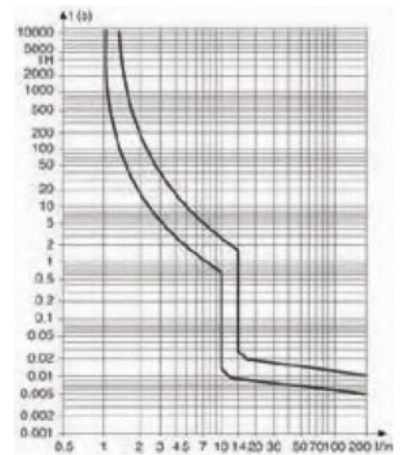
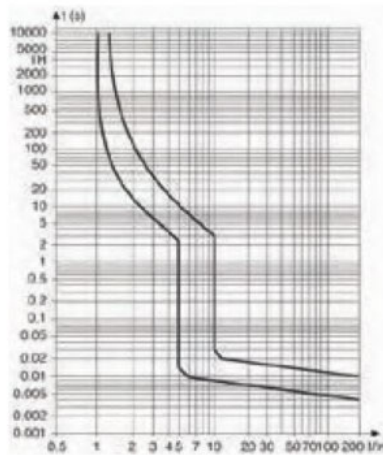
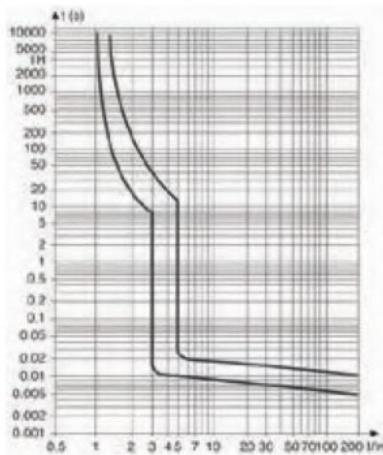
The miniature circuit breaker with C trip features meets IEC60898 standard and applies to providing protection for the resistive load and the inductive load with lower impulse current

D features

The miniature circuit breaker with D trip features meets IEC60898 standard and applies to providing protection for the load with higher impulse current at circuit connection.

Tripping type	Compliance standard	Thermal trip characteristics				Electro-magnetic trip characteristics			
		Test current	Test time	Initial state	Expected result	AC test current	Test time	Initial state	Expected result
B	IEC60898	1.13In	≥1h	Cold state	Non tripping	3In	≥0.1s	Cold state	Non-tripping
		1.45In	<1h	Heated state	Tripping	5In	<0.1s		Tripping
C	IEC60898	1.13In	≥1h (≤ 63A) ≥ 2h (>63A)	Cold state	Non tripping	5In	≥0.1s	Cold state	Non-tripping
		1.45In	<1h (≤ 63A) <2h (>63A)	Heated state	Tripping	10In	<0.1s		Tripping
D	IEC60898	1.13In	≥1h	Cold state	Non tripping	10In	≥0.1s	Cold state	Non-tripping
		1.45In	<1h	Heated state	Tripping	14In	<0.1s		Tripping

Tripping Curve



HDB3wH Miniature Circuit breaker

Standard: IEC/EN60898-1



Temperature Correction Coefficient Table

Rated current A	Rated current correction value A								
	-20	-10	0	10	20	30	40	50	60
1	1.22	1.18	1.15	1.1	1.05	1	0.94	0.9	0.84
2	2.43	2.31	2.25	2.17	2.06	2	1.93	1.85	1.63
3	3.68	3.57	3.43	3.29	3.18	3	2.82	2.63	2.57
4	4.89	4.75	4.67	4.48	4.24	4	3.98	3.52	3.25
5	6.21	5.98	5.83	5.77	5.42	5	4.85	4.57	4.19
6	7.33	7.05	6.84	6.62	6.3	6	5.64	5.42	5.06
8	9.78	9.44	9.15	8.51	7.98	8	7.1	6.92	6.75
10	12.25	11.87	11.64	11.15	10.62	10	9.3	8.96	8.48
13	15.78	15.34	14.83	14.22	13.75	13	12.1	11.75	10.93
16	19.49	18.72	18.06	17.98	16.96	16	15.04	14.42	13.47
20	24.35	23.68	22.82	22.47	21.2	20	18.8	17.85	16.78
25	30.52	29.61	28.78	28.09	26.5	25	23.25	22.52	21.02
32	38.96	37.68	36.62	35.96	33.92	32	30.08	28.81	26.84
40	48.85	47.13	46.32	45.8	42.8	40	36.8	36.21	33.5
50	61.58	59.52	57.35	55.04	52.59	50	46	44.25	42.36
63	76.86	74.25	71.18	69.13	67.41	63	58.59	56.83	52.93

Final Distribution



HDB3wH Miniature Circuit breaker

Standard: IEC/EN60898-1



Derating Table for Using in High Altitude Area

- IEC60947.2 standard stipulates the relationship between the altitude and the dielectric property. The altitude below 2,000m does not have significant impact on the properties of the circuit breaker.
- When the altitude is higher than 2,000m, the air cooling, dielectric property falling and other conditions must be considered, so the manufacturer shall discuss with the user on the working conditions or doing special design.
- The following table provides the correct value made for the rated current when the breaking capacity remains unchanged at the altitude above 2,000m.

Altitude (m)	2000	3000	4000
Dielectric strength	2500	2200	1950
Maximum working voltage (V)	440	440	440
Rated current	I_n	$0.96I_n$	$0.93I_n$

HDB3w Miniature Circuit Breaker

Standard: IEC/EN60898-1



Function

HDB3w Miniature standard circuit breaker has the following features:

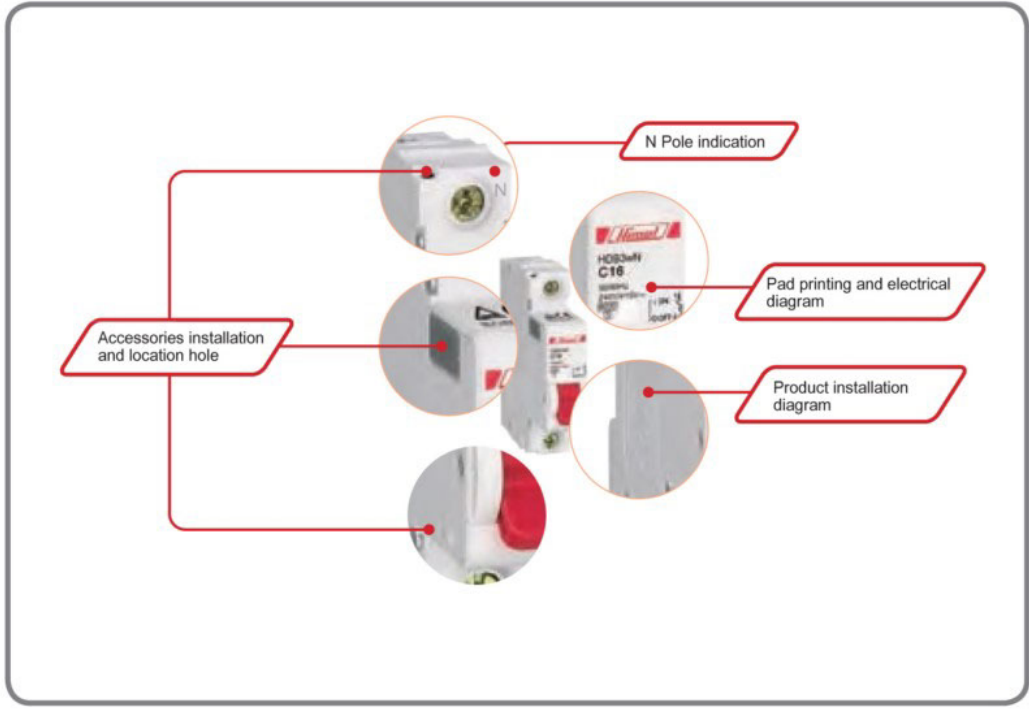
- Short circuit protection
- Overload protection
- Control
- Isolation

Main Features

Rated operating voltage (V)	1P/1P+N:240AC 2P, 3P, 3P+N, 4P: 415 AC
Rated current (A)	1-63
Rated frequency (Hz)	50/60
Number of poles	1P, 1P+N, 2P, 3P, 3P+N, 4P
Breaking capacity (kA)	3, 4.5, 6



Product Details Display



Final Distribution
Himel

HDB3w Miniature Circuit Breaker

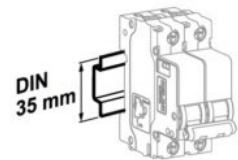
Standard: IEC/EN60898-1



Functions and Features

Electrical Characteristics

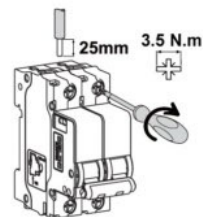
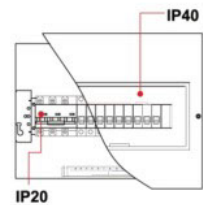
Rated insulation voltage U_i	(V)	250 (phase-to-ground) 500 (phase-to-phase)
Maximum working voltage U_{Bmax}	1P, 1P+N	(V) 240/415 AC
	2P, 3P, 4P, 3P+N	(V) 415 AC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(kA)	3, 4.5, 6
Rated impulse withstand voltage U_{imp} (1.2/50)	(kA)	4
Dielectric test voltage		2kV (50/60HZ, 1min)
Over-voltage category		II
Isolating function		Available
Pollution class		2
Electric shock protection grade		II
Trip type:		Thermal magnetic trip
Thermal magnetic trip characteristics:	Type B curve (3 I_n ~5 I_n)	
	Type C curve (5 I_n ~10 I_n)	
	Type D curve (10 I_n ~14 I_n)	
Electrical and mechanical accessories		



Installed on 35mm standard guide rail

Mechanical Characteristics

Handle	Red, pad printing indicating ON-OFF position
Mechanical endurance	Times 25,000
Electrical endurance	Times 6,000
Protection grade	Installed in distribution box IP40 Installed directly IP20
Mechanical shock resistance	30g, 3 shocks, lasting 11ms (No significant vibration or shock)
Anti-vibration (IEC/EN 60947-2)	No significant vibration or shock
Rated ambient temperature	30°C
Operating ambient temperature (daily mean temperature)	-20° C~+60°C
Storage temperature	-40° C~+70°C



Flexible installation direction

Installation Features

Terminal form	Tunnel terminal
Maximum wiring capacity	Current ratings 1-63 25mm ²
Maximum ultimate torque	Current ratings 1-63:3.5 N.m
Tool:	Crosshead screwdriver or flathead screwdriver
Installation	Installed on standard DIN guide rail (35mm)
Wiring Type	Top or bottom




HDB3w Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3w Selection Guide

Product name	Breaking capacity	Number of poles	Trip type	Rated current		Product name
HDB3w	N	1	C	6		Default
	A: 3kA	1: 1P	B: Type B	1: 1A	20: 20A	default:40°C
	L: 4.5kA	2: 2P	C: Type C	2: 2A	25: 25A	50D:50°C
	N: 6kA	3: 3P	D: Type D	3: 3A	32: 32A	
		4: 4P		4: 4A	40: 40A	
		5: 1P+N		6: 6A	50: 50A	
		6: 3P+N		10: 10A	63: 63A	
				16: 16A		

HDB3wA Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
3kA 	1P	1	HDB3wA1B1	HDB3wA1C1	HDB3wA1D1
		2	HDB3wA1B2	HDB3wA1C2	HDB3wA1D2
		3	HDB3wA1B3	HDB3wA1C3	HDB3wA1D3
		4	HDB3wA1B4	HDB3wA1C4	HDB3wA1D4
		5	HDB3wA1B5	HDB3wA1C5	HDB3wA1D5
		6	HDB3wA1B6	HDB3wA1C6	HDB3wA1D6
		8	HDB3wA1B8	HDB3wA1C8	HDB3wA1D8
		10	HDB3wA1B10	HDB3wA1C10	HDB3wA1D10
		13	HDB3wA1B13	HDB3wA1C13	HDB3wA1D13
		16	HDB3wA1B16	HDB3wA1C16	HDB3wA1D16
		20	HDB3wA1B20	HDB3wA1C20	HDB3wA1D20
		25	HDB3wA1B25	HDB3wA1C25	HDB3wA1D25
		32	HDB3wA1B32	HDB3wA1C32	HDB3wA1D32
		40	HDB3wA1B40	HDB3wA1C40	HDB3wA1D40
		50	HDB3wA1B50	HDB3wA1C50	HDB3wA1D50
		63	HDB3wA1B63	HDB3wA1C63	HDB3wA1D63
3kA 	1P+N	10	HDB3wA5B10	HDB3wA5C10	HDB3wA5D10
		13	HDB3wA5B13	HDB3wA5C13	HDB3wA5D13
		16	HDB3wA5B16	HDB3wA5C16	HDB3wA5D16
		20	HDB3wA5B20	HDB3wA5C20	HDB3wA5D20
		25	HDB3wA5B25	HDB3wA5C25	HDB3wA5D25
		32	HDB3wA5B32	HDB3wA5C32	HDB3wA5D32
		40	HDB3wA5B40	HDB3wA5C40	HDB3wA5D40
		50	HDB3wA5B50	HDB3wA5C50	HDB3wA5D50
63	HDB3wA5B63	HDB3wA5C63	HDB3wA5D63		
3kA 	2P	1	HDB3wA2B1	HDB3wA2C1	HDB3wA2D1
		2	HDB3wA2B2	HDB3wA2C2	HDB3wA2D2
		3	HDB3wA2B3	HDB3wA2C3	HDB3wA2D3
		4	HDB3wA2B4	HDB3wA2C4	HDB3wA2D4
		5	HDB3wA2B5	HDB3wA2C5	HDB3wA2D5
		6	HDB3wA2B6	HDB3wA2C6	HDB3wA2D6
		8	HDB3wA2B8	HDB3wA2C8	HDB3wA2D8
		10	HDB3wA2B10	HDB3wA2C10	HDB3wA2D10
		13	HDB3wA2B13	HDB3wA2C13	HDB3wA2D13
		16	HDB3wA2B16	HDB3wA2C16	HDB3wA2D16
		20	HDB3wA2B20	HDB3wA2C20	HDB3wA2D20
		25	HDB3wA2B25	HDB3wA2C25	HDB3wA2D25
		32	HDB3wA2B32	HDB3wA2C32	HDB3wA2D32
		40	HDB3wA2B40	HDB3wA2C40	HDB3wA2D40
		50	HDB3wA2B50	HDB3wA2C50	HDB3wA2D50
		63	HDB3wA2B63	HDB3wA2C63	HDB3wA2D63



HDB3w Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3w Selection Guide






HDB3wA Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
3kA 	3P	1	HDB3wA3B1	HDB3wA3C1	HDB3wA3D1
		2	HDB3wA3B2	HDB3wA3C2	HDB3wA3D2
		3	HDB3wA3B3	HDB3wA3C3	HDB3wA3D3
		4	HDB3wA3B4	HDB3wA3C4	HDB3wA3D4
		5	HDB3wA3B5	HDB3wA3C5	HDB3wA3D5
		6	HDB3wA3B6	HDB3wA3C6	HDB3wA3D6
		8	HDB3wA3B8	HDB3wA3C8	HDB3wA3D8
		10	HDB3wA3B10	HDB3wA3C10	HDB3wA3D10
		13	HDB3wA3B13	HDB3wA3C13	HDB3wA3D13
		16	HDB3wA3B16	HDB3wA3C16	HDB3wA3D16
		20	HDB3wA3B20	HDB3wA3C20	HDB3wA3D20
		25	HDB3wA3B25	HDB3wA3C25	HDB3wA3D25
		32	HDB3wA3B32	HDB3wA3C32	HDB3wA3D32
40	HDB3wA3B40	HDB3wA3C40	HDB3wA3D40		
50	HDB3wA3B50	HDB3wA3C50	HDB3wA3D50		
63	HDB3wA3B63	HDB3wA3C63	HDB3wA3D63		
3kA 	3P+N	10	HDB3wA6B10	HDB3wA6C10	HDB3wA6D10
		13	HDB3wA6B13	HDB3wA6C13	HDB3wA6D13
		16	HDB3wA6B16	HDB3wA6C16	HDB3wA6D16
		20	HDB3wA6B20	HDB3wA6C20	HDB3wA6D20
		25	HDB3wA6B25	HDB3wA6C25	HDB3wA6D25
		32	HDB3wA6B32	HDB3wA6C32	HDB3wA6D32
		40	HDB3wA6B40	HDB3wA6C40	HDB3wA6D40
		50	HDB3wA6B50	HDB3wA6C50	HDB3wA6D50
		63	HDB3wA6B63	HDB3wA6C63	HDB3wA6D63
		3kA 	4P	1	HDB3wA4B1
2	HDB3wA4B2			HDB3wA4C2	HDB3wA4D2
3	HDB3wA4B3			HDB3wA4C3	HDB3wA4D3
4	HDB3wA4B4			HDB3wA4C4	HDB3wA4D4
5	HDB3wA4B5			HDB3wA4C5	HDB3wA4D5
6	HDB3wA4B6			HDB3wA4C6	HDB3wA4D6
8	HDB3wA4B8			HDB3wA4C8	HDB3wA4D8
10	HDB3wA4B10			HDB3wA4C10	HDB3wA4D10
13	HDB3wA4B13			HDB3wA4C13	HDB3wA4D13
16	HDB3wA4B16			HDB3wA4C16	HDB3wA4D16
20	HDB3wA4B20			HDB3wA4C20	HDB3wA4D20
25	HDB3wA4B25			HDB3wA4C25	HDB3wA4D25
32	HDB3wA4B32			HDB3wA4C32	HDB3wA4D32
40	HDB3wA4B40			HDB3wA4C40	HDB3wA4D40
50	HDB3wA4B50			HDB3wA4C50	HDB3wA4D50
63	HDB3wA4B63	HDB3wA4C63	HDB3wA4D63		

HDB3w Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3w Selection Guide

HDB3wL Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
4.5kA 	1P	1	HDB3wL1B1	*HDB3wL1C1	*HDB3wL1D1
		2	HDB3wL1B2	*HDB3wL1C2	*HDB3wL1D2
		3	HDB3wL1B3	*HDB3wL1C3	*HDB3wL1D3
		4	HDB3wL1B4	*HDB3wL1C4	*HDB3wL1D4
		5	HDB3wL1B5	*HDB3wL1C5	*HDB3wL1D5
		6	HDB3wL1B6	*HDB3wL1C6	*HDB3wL1D6
		8	HDB3wL1B8	*HDB3wL1C8	*HDB3wL1D8
		10	HDB3wL1B10	*HDB3wL1C10	*HDB3wL1D10
		13	HDB3wL1B13	*HDB3wL1C13	*HDB3wL1D13
		16	HDB3wL1B16	*HDB3wL1C16	*HDB3wL1D16
		20	HDB3wL1B20	*HDB3wL1C20	*HDB3wL1D20
		25	HDB3wL1B25	*HDB3wL1C25	*HDB3wL1D25
		32	HDB3wL1B32	*HDB3wL1C32	*HDB3wL1D32
		40	HDB3wL1B40	*HDB3wL1C40	*HDB3wL1D40
50	HDB3wL1B50	*HDB3wL1C50	*HDB3wL1D50		
63	HDB3wL1B63	*HDB3wL1C63	*HDB3wL1D63		
4.5kA 	1P+N	10	HDB3wL5B10	*HDB3wL5C10	*HDB3wL5D10
		13	HDB3wL5B13	*HDB3wL5C13	*HDB3wL5D13
		16	HDB3wL5B16	*HDB3wL5C16	*HDB3wL5D16
		20	HDB3wL5B20	*HDB3wL5C20	*HDB3wL5D20
		25	HDB3wL5B25	*HDB3wL5C25	*HDB3wL5D25
		32	HDB3wL5B32	*HDB3wL5C32	*HDB3wL5D32
		40	HDB3wL5B40	*HDB3wL5C40	*HDB3wL5D40
50	HDB3wL5B50	*HDB3wL5C50	*HDB3wL5D50		
63	HDB3wL5B63	*HDB3wL5C63	*HDB3wL5D63		
4.5kA 	2P	1	HDB3wL2B1	*HDB3wL2C1	*HDB3wL2D1
		2	HDB3wL2B2	*HDB3wL2C2	*HDB3wL2D2
		3	HDB3wL2B3	*HDB3wL2C3	*HDB3wL2D3
		4	HDB3wL2B4	*HDB3wL2C4	*HDB3wL2D4
		5	HDB3wL2B5	*HDB3wL2C5	*HDB3wL2D5
		6	HDB3wL2B6	*HDB3wL2C6	*HDB3wL2D6
		8	HDB3wL2B8	*HDB3wL2C8	*HDB3wL2D8
		10	HDB3wL2B10	*HDB3wL2C10	*HDB3wL2D10
		13	HDB3wL2B13	*HDB3wL2C13	*HDB3wL2D13
		16	HDB3wL2B16	*HDB3wL2C16	*HDB3wL2D16
		20	HDB3wL2B20	*HDB3wL2C20	*HDB3wL2D20
		25	HDB3wL2B25	*HDB3wL2C25	*HDB3wL2D25
		32	HDB3wL2B32	*HDB3wL2C32	*HDB3wL2D32
		40	HDB3wL2B40	*HDB3wL2C40	*HDB3wL2D40
50	HDB3wL2B50	*HDB3wL2C50	*HDB3wL2D50		
63	HDB3wL2B63	*HDB3wL2C63	*HDB3wL2D63		

The reference with "*" means that it has 40 C and 50 C. Please add "50D" at the end as 50 C reference.


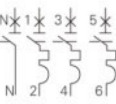



HDB3w Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3w Selection Guide

HDB3wL Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
4.5kA 	3P	1	HDB3wL3B1	*HDB3wL3C1	*HDB3wL3D1
		2	HDB3wL3B2	*HDB3wL3C2	*HDB3wL3D2
		3	HDB3wL3B3	*HDB3wL3C3	*HDB3wL3D3
		4	HDB3wL3B4	*HDB3wL3C4	*HDB3wL3D4
		5	HDB3wL3B5	*HDB3wL3C5	*HDB3wL3D5
		6	HDB3wL3B6	*HDB3wL3C6	*HDB3wL3D6
		8	HDB3wL3B8	*HDB3wL3C8	*HDB3wL3D8
		10	HDB3wL3B10	*HDB3wL3C10	*HDB3wL3D10
		13	HDB3wL3B13	*HDB3wL3C13	*HDB3wL3D13
		16	HDB3wL3B16	*HDB3wL3C16	*HDB3wL3D16
		20	HDB3wL3B20	*HDB3wL3C20	*HDB3wL3D20
		25	HDB3wL3B25	*HDB3wL3C25	*HDB3wL3D25
		32	HDB3wL3B32	*HDB3wL3C32	*HDB3wL3D32
		40	HDB3wL3B40	*HDB3wL3C40	*HDB3wL3D40
50	HDB3wL3B50	*HDB3wL3C50	*HDB3wL3D50		
63	HDB3wL3B63	*HDB3wL3C63	*HDB3wL3D63		
4.5kA 	3P+N	10	HDB3wL6B10	*HDB3wL6C10	*HDB3wL6D10
		13	HDB3wL6B13	*HDB3wL6C13	*HDB3wL6D13
		16	HDB3wL6B16	*HDB3wL6C16	*HDB3wL6D16
		20	HDB3wL6B20	*HDB3wL6C20	*HDB3wL6D20
		25	HDB3wL6B25	*HDB3wL6C25	*HDB3wL6D25
		32	HDB3wL6B32	*HDB3wL6C32	*HDB3wL6D32
		40	HDB3wL6B40	*HDB3wL6C40	*HDB3wL6D40
50	HDB3wL6B50	*HDB3wL6C50	*HDB3wL6D50		
63	HDB3wL6B63	*HDB3wL6C63	*HDB3wL6D63		
4.5kA 	4P	1	HDB3wL4B1	*HDB3wL4C1	*HDB3wL4D1
		2	HDB3wL4B2	*HDB3wL4C2	*HDB3wL4D2
		3	HDB3wL4B3	*HDB3wL4C3	*HDB3wL4D3
		4	HDB3wL4B4	*HDB3wL4C4	*HDB3wL4D4
		5	HDB3wL4B5	*HDB3wL4C5	*HDB3wL4D5
		6	HDB3wL4B6	*HDB3wL4C6	*HDB3wL4D6
		8	HDB3wL4B8	*HDB3wL4C8	*HDB3wL4D8
		10	HDB3wL4B10	*HDB3wL4C10	*HDB3wL4D10
		13	HDB3wL4B13	*HDB3wL4C13	*HDB3wL4D13
		16	HDB3wL4B16	*HDB3wL4C16	*HDB3wL4D16
		20	HDB3wL4B20	*HDB3wL4C20	*HDB3wL4D20
		25	HDB3wL4B25	*HDB3wL4C25	*HDB3wL4D25
		32	HDB3wL4B32	*HDB3wL4C32	*HDB3wL4D32
		40	HDB3wL4B40	*HDB3wL4C40	*HDB3wL4D40
50	HDB3wL4B50	*HDB3wL4C50	*HDB3wL4D50		
63	HDB3wL4B63	*HDB3wL4C63	*HDB3wL4D63		




The reference with "*" means that it has 40°C and 50°C. Please add "50D" at the end as 50°C reference.

HDB3w Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3w Selection Guide

HDB3wN Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
6kA 	1P	1	HDB3wN1B1	*HDB3wN1C1	*HDB3wN1D1
		2	HDB3wN1B2	*HDB3wN1C2	*HDB3wN1D2
		3	HDB3wN1B3	*HDB3wN1C3	*HDB3wN1D3
		4	HDB3wN1B4	*HDB3wN1C4	*HDB3wN1D4
		5	HDB3wN1B5	*HDB3wN1C5	*HDB3wN1D5
		6	HDB3wN1B6	*HDB3wN1C6	*HDB3wN1D6
		8	HDB3wN1B8	*HDB3wN1C8	*HDB3wN1D8
		10	HDB3wN1B10	*HDB3wN1C10	*HDB3wN1D10
		13	HDB3wN1B13	*HDB3wN1C13	*HDB3wN1D13
		16	HDB3wN1B16	*HDB3wN1C16	*HDB3wN1D16
		20	HDB3wN1B20	*HDB3wN1C20	*HDB3wN1D20
		25	HDB3wN1B25	*HDB3wN1C25	*HDB3wN1D25
		32	HDB3wN1B32	*HDB3wN1C32	*HDB3wN1D32
		40	HDB3wN1B40	*HDB3wN1C40	*HDB3wN1D40
50	HDB3wN1B50	*HDB3wN1C50	*HDB3wN1D50		
63	HDB3wN1B63	*HDB3wN1C63	*HDB3wN1D63		
6kA 	1P+N	10	HDB3wN5B10	*HDB3wN5C10	*HDB3wN5D10
		13	HDB3wN5B13	*HDB3wN5C13	*HDB3wN5D13
		16	HDB3wN5B16	*HDB3wN5C16	*HDB3wN5D16
		20	HDB3wN5B20	*HDB3wN5C20	*HDB3wN5D20
		25	HDB3wN5B25	*HDB3wN5C25	*HDB3wN5D25
		32	HDB3wN5B32	*HDB3wN5C32	*HDB3wN5D32
		40	HDB3wN5B40	*HDB3wN5C40	*HDB3wN5D40
50	HDB3wN5B50	*HDB3wN5C50	*HDB3wN5D50		
63	HDB3wN5B63	*HDB3wN5C63	*HDB3wN5D63		
6kA 	2P	1	HDB3wN2B1	*HDB3wN2C1	*HDB3wN2D1
		2	HDB3wN2B2	*HDB3wN2C2	*HDB3wN2D2
		3	HDB3wN2B3	*HDB3wN2C3	*HDB3wN2D3
		4	HDB3wN2B4	*HDB3wN2C4	*HDB3wN2D4
		5	HDB3wN2B5	*HDB3wN2C5	*HDB3wN2D5
		6	HDB3wN2B6	*HDB3wN2C6	*HDB3wN2D6
		8	HDB3wN2B8	*HDB3wN2C8	*HDB3wN2D8
		10	HDB3wN2B10	*HDB3wN2C10	*HDB3wN2D10
		13	HDB3wN2B13	*HDB3wN2C13	*HDB3wN2D13
		16	HDB3wN2B16	*HDB3wN2C16	*HDB3wN2D16
		20	HDB3wN2B20	*HDB3wN2C20	*HDB3wN2D20
		25	HDB3wN2B25	*HDB3wN2C25	*HDB3wN2D25
		32	HDB3wN2B32	*HDB3wN2C32	*HDB3wN2D32
		40	HDB3wN2B40	*HDB3wN2C40	*HDB3wN2D40
50	HDB3wN2B50	*HDB3wN2C50	*HDB3wN2D50		
63	HDB3wN2B63	*HDB3wN2C63	*HDB3wN2D63		

The reference with "*" means that it has 40 C and 50 C. Please add "50D" at the end as 50 C reference.


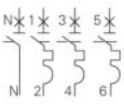



HDB3w Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3w Selection Guide

HDB3wN Breaking capacity	Pole	Rated current	Trip type		
			B	C	D
6kA 	3P	1	HDB3wN3B1	*HDB3wN3C1	*HDB3wN3D1
		2	HDB3wN3B2	*HDB3wN3C2	*HDB3wN3D2
		3	HDB3wN3B3	*HDB3wN3C3	*HDB3wN3D3
		4	HDB3wN3B4	*HDB3wN3C4	*HDB3wN3D4
		5	HDB3wN3B5	*HDB3wN3C5	*HDB3wN3D5
		6	HDB3wN3B6	*HDB3wN3C6	*HDB3wN3D6
		8	HDB3wN3B8	*HDB3wN3C8	*HDB3wN3D8
		10	HDB3wN3B10	*HDB3wN3C10	*HDB3wN3D10
		13	HDB3wN3B13	*HDB3wN3C13	*HDB3wN3D13
		16	HDB3wN3B16	*HDB3wN3C16	*HDB3wN3D16
		20	HDB3wN3B20	*HDB3wN3C20	*HDB3wN3D20
		25	HDB3wN3B25	*HDB3wN3C25	*HDB3wN3D25
		32	HDB3wN3B32	*HDB3wN3C32	*HDB3wN3D32
		40	HDB3wN3B40	*HDB3wN3C40	*HDB3wN3D40
		50	HDB3wN3B50	*HDB3wN3C50	*HDB3wN3D50
		63	HDB3wN3B63	*HDB3wN3C63	*HDB3wN3D63
6kA 	3P+N	10	HDB3wN6B10	*HDB3wN6C10	*HDB3wN6D10
		13	HDB3wN6B13	*HDB3wN6C13	*HDB3wN6D13
		16	HDB3wN6B16	*HDB3wN6C16	*HDB3wN6D16
		20	HDB3wN6B20	*HDB3wN6C20	*HDB3wN6D20
		25	HDB3wN6B25	*HDB3wN6C25	*HDB3wN6D25
		32	HDB3wN6B32	*HDB3wN6C32	*HDB3wN6D32
		40	HDB3wN6B40	*HDB3wN6C40	*HDB3wN6D40
		50	HDB3wN6B50	*HDB3wN6C50	*HDB3wN6D50
6kA 	4P	1	HDB3wN4B1	*HDB3wN4C1	*HDB3wN4D1
		2	HDB3wN4B2	*HDB3wN4C2	*HDB3wN4D2
		3	HDB3wN4B3	*HDB3wN4C3	*HDB3wN4D3
		4	HDB3wN4B4	*HDB3wN4C4	*HDB3wN4D4
		5	HDB3wN4B5	*HDB3wN4C5	*HDB3wN4D5
		6	HDB3wN4B6	*HDB3wN4C6	*HDB3wN4D6
		8	HDB3wN4B8	*HDB3wN4C8	*HDB3wN4D8
		10	HDB3wN4B10	*HDB3wN4C10	*HDB3wN4D10
		13	HDB3wN4B13	*HDB3wN4C13	*HDB3wN4D13
		16	HDB3wN4B16	*HDB3wN4C16	*HDB3wN4D16
		20	HDB3wN4B20	*HDB3wN4C20	*HDB3wN4D20
		25	HDB3wN4B25	*HDB3wN4C25	*HDB3wN4D25
		32	HDB3wN4B32	*HDB3wN4C32	*HDB3wN4D32
		40	HDB3wN4B40	*HDB3wN4C40	*HDB3wN4D40
		50	HDB3wN4B50	*HDB3wN4C50	*HDB3wN4D50
		63	HDB3wN4B63	*HDB3wN4C63	*HDB3wN4D63

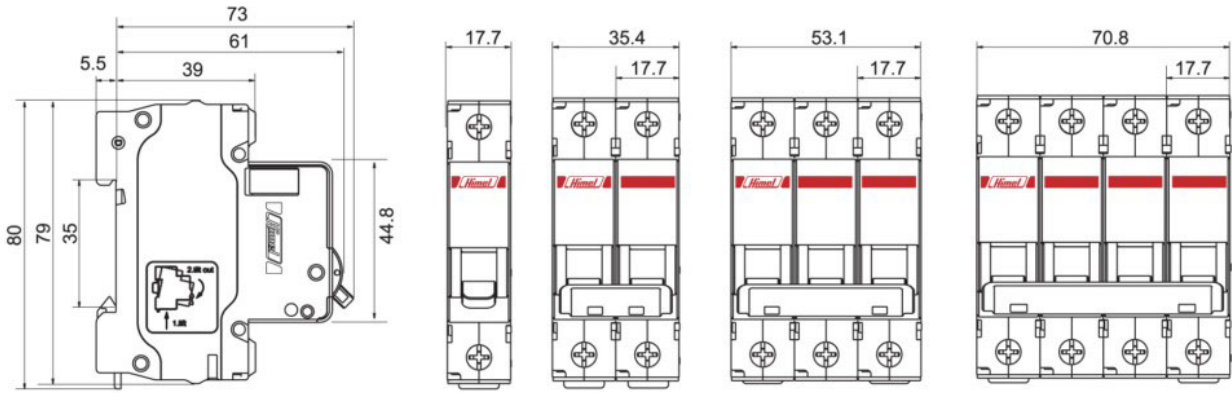
The reference with "*" means that it has 40 C and 50 C. Please add "50D" at the end as 50 C reference.

HDB3w Miniature Circuit breaker

Standard: IEC/EN60898-1



HDB3w Installation Dimension



Final Distribution



HDB3w Miniature Circuit breaker

Standard IEC/EN60898-1



Trip Characteristic

B features

The miniature circuit breaker with B tripping features meets IEC 60898 standard and applies to providing protection for the resistive load or the load without impulse current.

C features

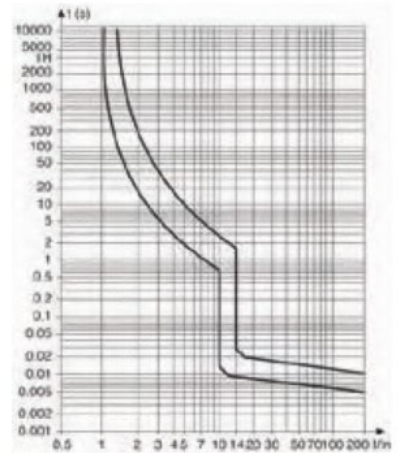
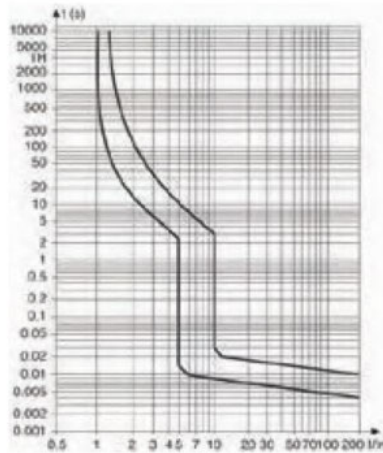
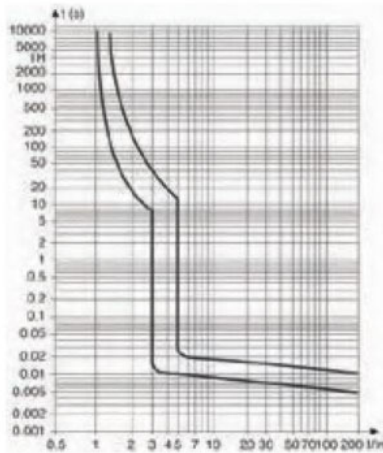
The miniature circuit breaker with C trip features meets IEC60898 standard and applies to providing protection for the resistive load and the inductive load with lower impulse current

D features

The miniature circuit breaker with D trip features meets IEC60898 standard and applies to providing protection for the load with higher impulse current at circuit connection.

Tripping type	Compliance standard	Thermal trip characteristics				Electro-magnetic trip characteristics			
		Test current	Test time	Initial state	Expected result	AC test current	Test time	Initial state	Expected result
B	IEC60898	1.13In	≥1h	Cold state	Non tripping	3In	≥0.1s	Cold state	Non-tripping
		1.45In	<1h	Heated state	Tripping	5In	<0.1s		Tripping
C	IEC60898	1.13In	≥1h(≤ 63A) ≥ 2h(>63A)	Cold state	Non tripping	5In	≥0.1s	Cold state	Non-tripping
		1.45In	<1h (≤ 63A) <2h (>63A)	Heated state	Tripping	10In	<0.1s		Tripping
D	IEC60898	1.13In	≥1h	Cold state	Non tripping	10In	≥0.1s	Cold state	Non-tripping
		1.45In	<1h	Heated state	Tripping	14In	<0.1s		Tripping

Tripping Curve



HDB3w Miniature Circuit breaker

Standard IEC/EN60898-1



Temperature Correction Coefficient Table

Rated current A	Rated current correction value A								
	-20	-10	0	10	20	30	40	50	60
1	1.22	1.18	1.15	1.1	1.05	1	0.94	0.9	0.84
2	2.43	2.31	2.25	2.17	2.06	2	1.93	1.85	1.63
3	3.68	3.57	3.43	3.29	3.18	3	2.82	2.63	2.57
4	4.89	4.75	4.67	4.48	4.24	4	3.98	3.52	3.25
5	6.21	5.98	5.83	5.77	5.42	5	4.85	4.57	4.19
6	7.33	7.05	6.84	6.62	6.3	6	5.64	5.42	5.06
8	9.78	9.44	9.15	8.51	7.98	8	7.1	6.92	6.75
10	12.25	11.87	11.64	11.15	10.62	10	9.3	8.96	8.48
13	15.78	15.34	14.83	14.22	13.75	13	12.1	11.75	10.93
16	19.49	18.72	18.06	17.98	16.96	16	15.04	14.42	13.47
20	24.35	23.68	22.82	22.47	21.2	20	18.8	17.85	16.78
25	30.52	29.61	28.78	28.09	26.5	25	23.25	22.52	21.02
32	38.96	37.68	36.62	35.96	33.92	32	30.08	28.81	26.84
40	48.85	47.13	46.32	45.8	42.8	40	36.8	36.21	33.5
50	61.58	59.52	57.35	55.04	52.59	50	46	44.25	42.36
63	76.86	74.25	71.18	69.13	67.41	63	58.59	56.83	52.93

Final Distribution



HDB3w Miniature Circuit breaker

Standard IEC/EN60898-1



Derating Table for Using in High Altitude Area

- IEC60947.2 standard stipulates the relationship between the altitude and the dielectric property. The altitude below 2,000m does not have significant impact on the properties of the circuit breaker.
- When the altitude is higher than 2,000m, the air cooling, dielectric property falling and other conditions must be considered, so the manufacturer shall discuss with the user on the working conditions or doing special design.
- The following table provides the correct value made for the rated current when the breaking capacity remains unchanged at the altitude above 2,000m.

Altitude (m)	2000	3000	4000
Dielectric strength	2500	2200	1950
Maximum working voltage (V)	440	440	440
Rated current	I_n	$0.96I_n$	$0.93I_n$

HDB3wZ DC Miniature Circuit Breaker

Standard IEC/EN60947-2



HDB3wZ DC Miniature Circuit Breaker Function

Short-circuit protection Control
Over-load protection Insulation

Electrical Parameters

Rated Voltage: 1P DC250V;2P/3P DC500V
Rated Current: 1,2,3,4,5,6,8,10,13,16,20,25,32,40,50,63A
Poles:1P/2P/3P
Breaking Capacity:6KA
Impulse Withstand Voltage:6KV
Mechanical Life:20000 times
Electrical Life:3000 times

Tripping Feature

B Type Curve
Protect the loading of low short-circuit current
Tripping Feature: Instantaneously tripping range: (4.4~6.6)In
C Type Curve
Protect normal loading and distribution cables
Tripping Feature: Instantaneously tripping range: (6.8~10.2)In

Environment

Operation Temperature: -25 °C ~60 °C

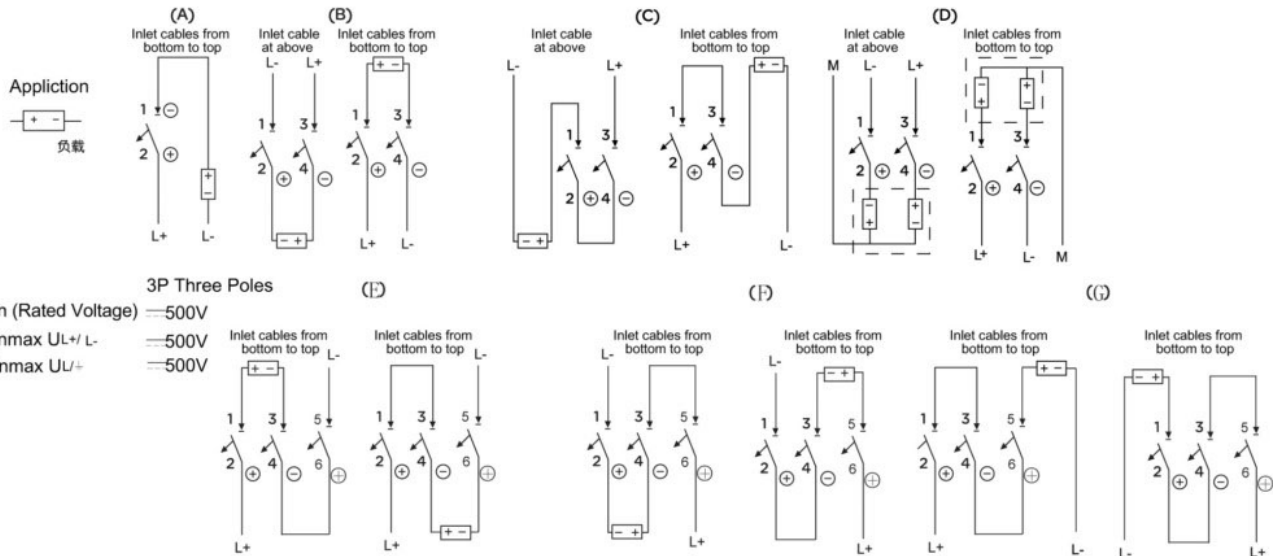
Installation

Module installation, installed on standard DIN guide rail
Rated Torque: 2.5N

Wiring

Tunnel type wiring terminal
Wiring terminal area: 1~63A, used for less than and equal to 25mm² wire

	1P Single Pole	2P Two Poles	2P Two Poles	2P Two Poles
Un (Rated Voltage)	—250V	—500V	—500V	—500V
Unmax UL+/L-	—250V	—500V	—500V	—500V
Unmax UL±	—250V	—500V	—500V	—500V



Remark: (1) + Power Anode, L- Power Cathode
(2) + Circuit Breaker Anode, - Circuit Breaker Cathode
(3) L- of DC power is normally connect to ground, the "M" of power system connect to ground

HDB3wZ DC Miniature Circuit Breaker

Standard: IEC/EN 60947-2



Coding System



HDB3wZ DC Miniature Circuit Breaker

Product Name	Breaking Capacity	Poles	Tripping type	Rated Current
HDB3wZ	Default	2	C	20
	Default: 6KA (1P: 250v, 2P/3P: 500v)	1:1P 2:2P 3:3P	B:B type C:C type	1:1A 2:2A 3:3A ... 63:63A

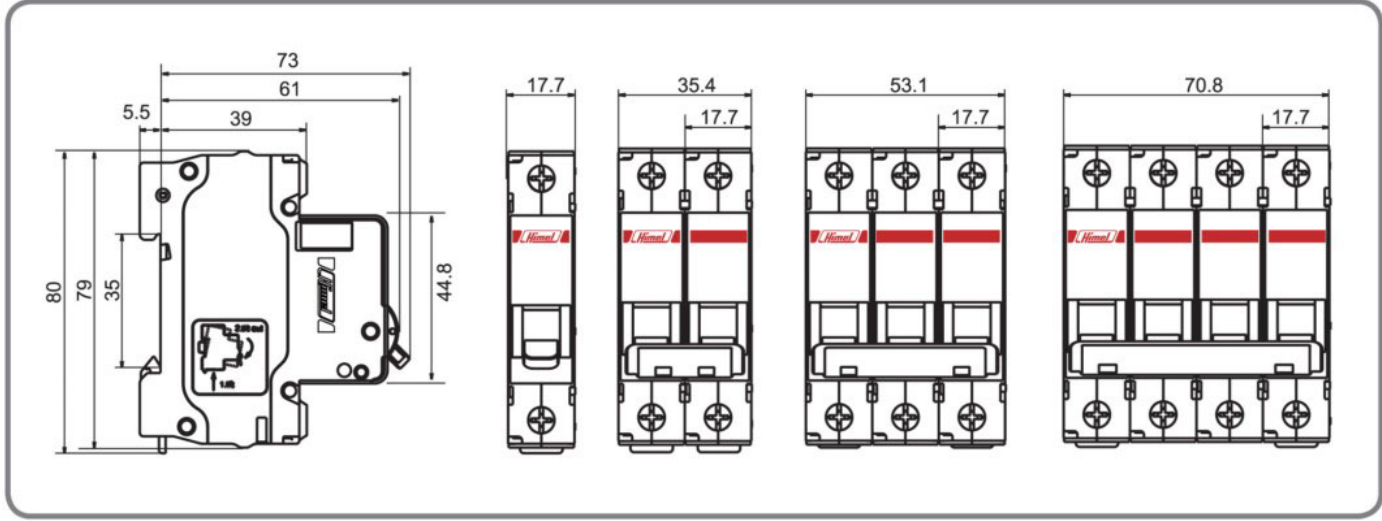
Breaking Capacity	Tripping type	Poles		
		1P	1P	2P
6kA	B	HDB3wZ1B6	HDB3wZ2B6	HDB3wZ3B6
		HDB3wZ1B8	HDB3wZ2B8	HDB3wZ3B8
		HDB3wZ1B10	HDB3wZ2B10	HDB3wZ3B10
		HDB3wZ1B13	HDB3wZ2B13	HDB3wZ3B13
		HDB3wZ1B16	HDB3wZ2B16	HDB3wZ3B16
		HDB3wZ1B20	HDB3wZ2B20	HDB3wZ3B20
		HDB3wZ1B25	HDB3wZ2B25	HDB3wZ3B25
		HDB3wZ1B32	HDB3wZ2B32	HDB3wZ3B32
		HDB3wZ1B40	HDB3wZ2B40	HDB3wZ3B40
	HDB3wZ1B50	HDB3wZ2B50	HDB3wZ3B50	
	HDB3wZ1B63	HDB3wZ2B63	HDB3wZ3B63	
	C	HDB3wZ1C1	HDB3wZ2C1	HDB3wZ3C1
		HDB3wZ1C2	HDB3wZ2C2	HDB3wZ3C2
		HDB3wZ1C3	HDB3wZ2C3	HDB3wZ3C3
		HDB3wZ1C4	HDB3wZ2C4	HDB3wZ3C4
		HDB3wZ1C5	HDB3wZ2C5	HDB3wZ3C5
		HDB3wZ1C6	HDB3wZ2C6	HDB3wZ3C6
		HDB3wZ1C8	HDB3wZ2C8	HDB3wZ3C8
		HDB3wZ1C10	HDB3wZ2C10	HDB3wZ3C10
HDB3wZ1C13		HDB3wZ2C13	HDB3wZ3C13	
HDB3wZ1C16		HDB3wZ2C16	HDB3wZ3C16	
HDB3wZ1C20	HDB3wZ2C20	HDB3wZ3C20		
HDB3wZ1C25	HDB3wZ2C25	HDB3wZ3C25		
HDB3wZ1C32	HDB3wZ2C32	HDB3wZ3C32		
HDB3wZ1C40	HDB3wZ2C40	HDB3wZ3C40		
HDB3wZ1C50	HDB3wZ2C50	HDB3wZ3C50		
HDB3wZ1C63	HDB3wZ2C63	HDB3wZ3C60		

HDB3wZ DC Miniature Circuit Breaker

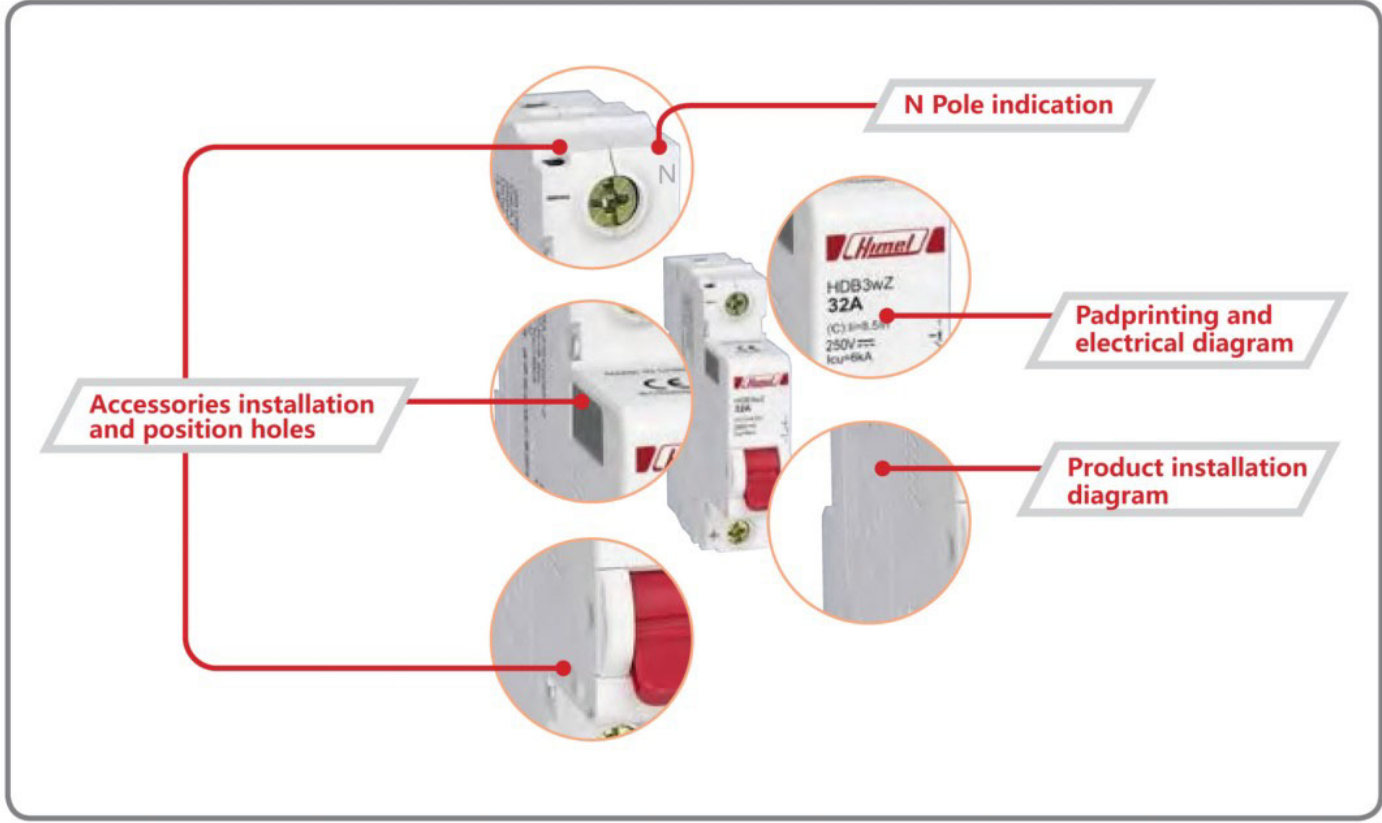
Standard: IEC/EN 60947-2



Installation Dimension



Product Details Display



Final Distribution



664-7693 | 0923-7031311



info@megahimel.com



www.megahimel.com

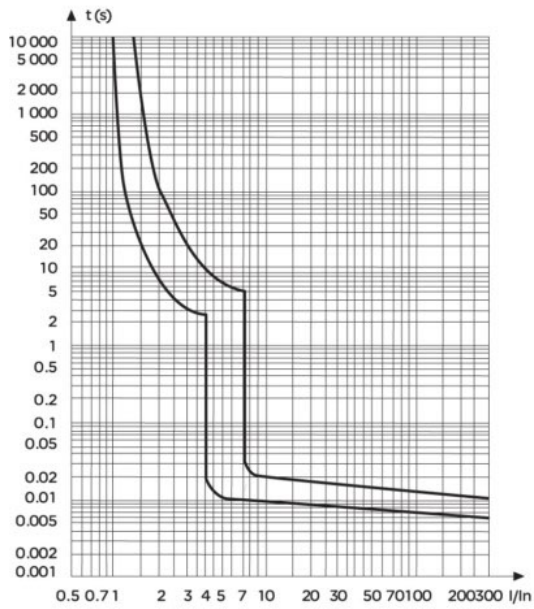
HDB3wZ DC Miniature Circuit Breaker

Standard: IEC/EN 60947-2



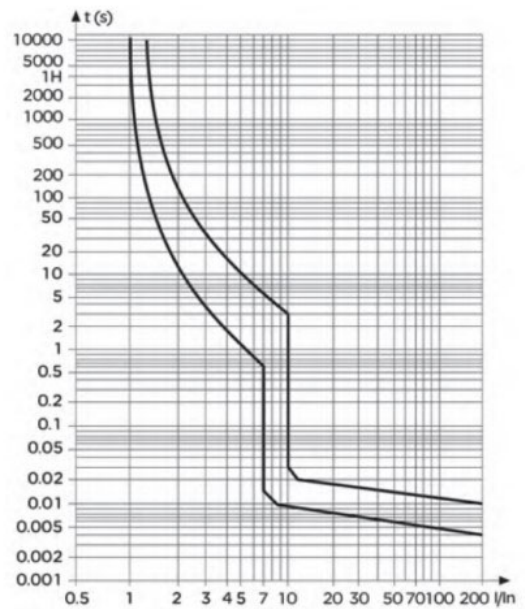
Tripping Curve

▼ B type curve: (4.4-6.6) In



HDB3wZ B Type Curve

▼ C Type Curve: (6.8-10.2) In



HDB3wZ C Type Curve

HDB6s 18mm Miniature Circuit Breaker

Standard: IEC/EN 60898-1


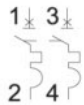


Function

HDB6s miniature circuit breakers combine the following functions:

- Protection of circuits against overload currents
- Protection of circuits against short-circuit currents
- Control
- Isolation

Order Information

Type	Breaking Capacity (kA)	Rating (A)	Width	Reference		
				B curve	C curve	D curve
1P 	4.5/6	1	2	HDB6sN1B1	HDB6sN1C1	HDB6sL1D1
		2	2	HDB6sN1B2	HDB6sN1C2	HDB6sL1D2
		3	2	HDB6sN1B3	HDB6sN1C3	HDB6sL1D3
		4	2	HDB6sN1B4	HDB6sN1C4	HDB6sL1D4
		5	2	HDB6sN1B5	HDB6sN1C5	HDB6sL1D5
		6	2	HDB6sN1B6	HDB6sN1C6	HDB6sL1D6
		8	2	HDB6sN1B8	HDB6sN1C8	HDB6sL1D8
		10	2	HDB6sN1B10	HDB6sN1C10	HDB6sL1D10
		13	2	HDB6sN1B13	HDB6sN1C13	HDB6sL1D13
		16	2	HDB6sN1B16	HDB6sN1C16	HDB6sL1D16
		20	2	HDB6sN1B20	HDB6sN1C20	HDB6sL1D20
		25	2	HDB6sN1B25	HDB6sN1C25	HDB6sL1D25
		32	2	HDB6sN1B32	HDB6sN1C32	HDB6sL1D32
		40	2	HDB6sN1B40	HDB6sN1C40	HDB6sL1D40
		50	2	HDB6sL1B50	HDB6sL1C50	HDB6sL1D50
		63	2	HDB6sL1B63	HDB6sL1C63	HDB6sL1D63
2P 	4.5/6	1	4	HDB6sN2B1	HDB6sN2C1	HDB6sL2D1
		2	4	HDB6sN2B2	HDB6sN2C2	HDB6sL2D2
		3	4	HDB6sN2B3	HDB6sN2C3	HDB6sL2D3
		4	4	HDB6sN2B4	HDB6sN2C4	HDB6sL2D4
		5	4	HDB6sN2B5	HDB6sN2C5	HDB6sL2D5
		6	4	HDB6sN2B6	HDB6sN2C6	HDB6sL2D6
		8	4	HDB6sN2B8	HDB6sN2C8	HDB6sL2D8
		10	4	HDB6sN2B10	HDB6sN2C10	HDB6sL2D10
		13	4	HDB6sN2B13	HDB6sN2C13	HDB6sL2D13
		16	4	HDB6sN2B16	HDB6sN2C16	HDB6sL2D16
		20	4	HDB6sN2B20	HDB6sN2C20	HDB6sL2D20
		25	4	HDB6sN2B25	HDB6sN2C25	HDB6sL2D25
		32	4	HDB6sN2B32	HDB6sN2C32	HDB6sL2D32
		40	4	HDB6sN2B40	HDB6sN2C40	HDB6sL2D40
		50	4	HDB6sL2B50	HDB6sL2C50	HDB6sL2D50
		63	4	HDB6sL2B63	HDB6sL2C63	HDB6sL2D63

Note: Width refers to multiple of 9mm



Final Distribution



HDB6s Miniature Circuit Breaker

Standard: IEC/EN 60898-1



Order Information

Type	Breaking Capacity (kA)	Rating (A)	Width	Reference				
				B curve	C curve	D curve		
3P 	4.5/6	1	6	HDB6sN3B1	HDB6sN3C1	HDB6sL3D1		
		2	6	HDB6sN3B2	HDB6sN3C2	HDB6sL3D2		
		3	6	HDB6sN3B3	HDB6sN3C3	HDB6sL3D3		
		4	6	HDB6sN3B4	HDB6sN3C4	HDB6sL3D4		
		5	6	HDB6sN3B5	HDB6sN3C5	HDB6sL3D5		
		6	6	HDB6sN3B6	HDB6sN3C6	HDB6sL3D6		
		8	6	HDB6sN3B8	HDB6sN3C8	HDB6sL3D8		
		10	6	HDB6sN3B10	HDB6sN3C10	HDB6sL3D10		
		13	6	HDB6sN3B13	HDB6sN3C13	HDB6sL3D13		
		16	6	HDB6sN3B16	HDB6sN3C16	HDB6sL3D16		
		20	6	HDB6sN3B20	HDB6sN3C20	HDB6sL3D20		
		25	6	HDB6sN3B25	HDB6sN3C25	HDB6sL3D25		
		32	6	HDB6sN3B32	HDB6sN3C32	HDB6sL3D32		
		40	6	HDB6sN3B40	HDB6sN3C40	HDB6sL3D40		
		50	6	HDB6sL3B50	HDB6sL3C50	HDB6sL3D50		
		63	6	HDB6sL3B63	HDB6sL3C63	HDB6sL3D63		
		4P 	4.5/6	1	8	HDB6sN4B1	HDB6sN4C1	HDB6sL4D1
				2	8	HDB6sN4B2	HDB6sN4C2	HDB6sL4D2
				3	8	HDB6sN4B3	HDB6sN4C3	HDB6sL4D3
4	8			HDB6sN4B4	HDB6sN4C4	HDB6sL4D4		
5	8			HDB6sN4B5	HDB6sN4C5	HDB6sL4D5		
6	8			HDB6sN4B6	HDB6sN4C6	HDB6sL4D6		
8	8			HDB6sN4B8	HDB6sN4C8	HDB6sL4D8		
10	8			HDB6sN4B10	HDB6sN4C10	HDB6sL4D10		
13	8			HDB6sN4B13	HDB6sN4C13	HDB6sL4D13		
16	8			HDB6sN4B16	HDB6sN4C16	HDB6sL4D16		
20	8			HDB6sN4B20	HDB6sN4C20	HDB6sL4D20		
25	8			HDB6sN4B25	HDB6sN4C25	HDB6sL4D25		
32	8			HDB6sN4B32	HDB6sN4C32	HDB6sL4D32		
40	8			HDB6sN4B40	HDB6sN4C40	HDB6sL4D40		
50	8			HDB6sL4B50	HDB6sL4C50	HDB6sL4D50		
63	8			HDB6sL4B63	HDB6sL4C63	HDB6sL4D63		

Note: Width refers to multiple of 9mm



HDB6s Miniature Circuit Breaker

Standard: IEC/EN 60898-1



Technical Data

MCB	HDB6s 18mm Circuit Breaker				
Electrical Features	Standard	IEC/EN 60898-1			
	Certification	KEMA CB CE			
	Poles	1-4P			
	Rated Current In(A)	1, 2, 3, 4, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63			
	Rated Voltage Ue	230/400V AC			
	Insulation Voltage Ui	500V			
	Breaking Capacity Icn				
	Rate current(A)	Breaking capacity Icn (kA)	Type	Poles	Voltage (V)
	1-40	6	B,C	1P 2P, 3P, 4P	230/400 400
	50,63	4.5	B,C	1P 2P, 3P, 4P	230/400 400
1-63	4.5	D	1P 2P, 3P, 4P	230/400 400	
Tripping Curve (see following tripping curve pictures)					
B Curve: The magnetic release operates between 3 and 5 In					
C Curve: The magnetic release operates between 5 and 10 In					
D Curve: The magnetic release operates between 10 and 14 In					
Mechanical Features	Electrical Durability	4000 times			
	Mechanical Durability	10000 times			
	Protection Degree	2			
	Tropicalization	Treatment 2			
	Ambient Temperature	-5°C~+40°C			
Connection	Up to 25mm ² cables				
Installation	Rated Current(A)	Screw	Rated Torque (Nm)	Maximum Ultimate Torque	
	1-63	M5	2.5	4.5	
Mounting	35mm Din-rail				
Accessories	Contact Accessory	OF			
	Fault-indicating Accessories	SD			
	Shunt-trip Release	MX+OF			

Final Distribution

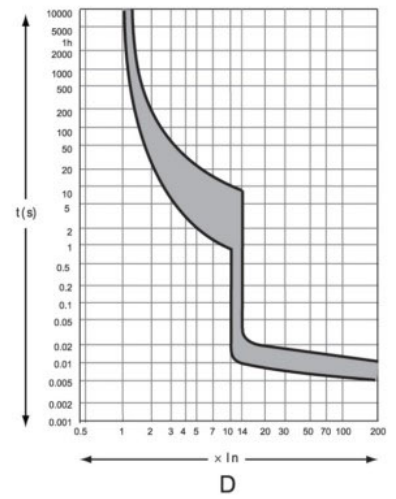
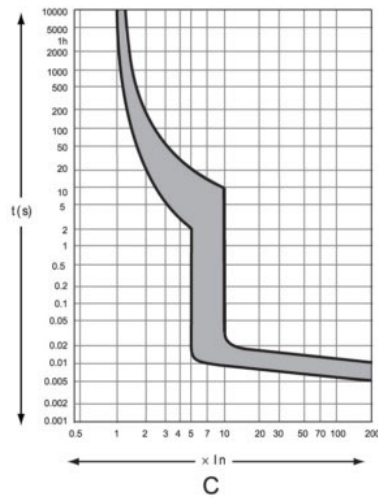
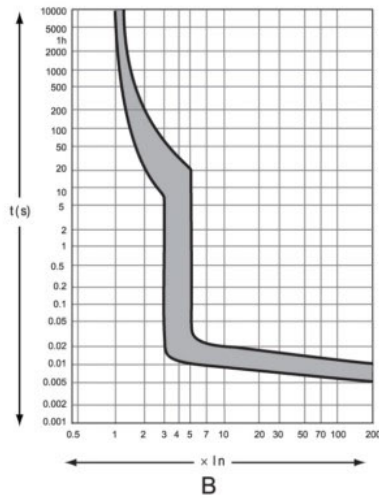


HDB6s Miniature Circuit Breaker

Standard: IEC/EN 60898-1

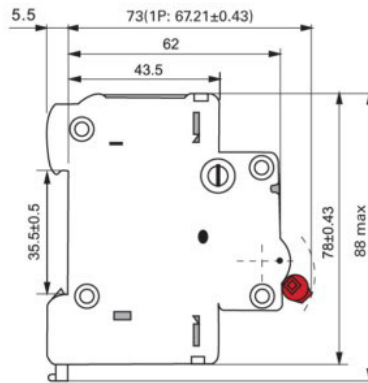
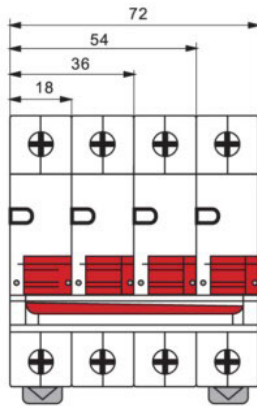


Tripping Curves



Overall Dimensions

Unit: mm



HDB9 18mm Miniature Circuit Breaker

Standard: IEC/EN 60898-1





Function

HDB9 miniature circuit breakers combine the following functions:

- Protection of circuits against overload currents
- Protection of circuits against short-circuit currents
- Control
- Isolation

Order Information

Type	Breaking Capacity (kA)	Rating (A)	Width	Reference				
				B curve	C curve	D curve		
1P  	6	1	2		HDB9N631C1	HDB9N631D1		
		2	2		HDB9N631C2	HDB9N631D2		
		4	2		HDB9N631C4	HDB9N631D4		
		6	2	HDB9N631B6	HDB9N631C6	HDB9N631D6		
		10	2	HDB9N631B10	HDB9N631C10	HDB9N631D10		
		16	2	HDB9N631B16	HDB9N631C16	HDB9N631D16		
		20	2	HDB9N631B20	HDB9N631C20	HDB9N631D20		
		25	2	HDB9N631B25	HDB9N631C25	HDB9N631D25		
		32	2	HDB9N631B32	HDB9N631C32	HDB9N631D32		
		40	2	HDB9N631B40	HDB9N631C40	HDB9N631D40		
		50	2	HDB9N631B50	HDB9N631C50	HDB9N631D50		
		63	2	HDB9N631B63	HDB9N631C63	HDB9N631D63		
		10	10	1	2		HDB9H631C1	HDB9H631D1
				2	2		HDB9H631C2	HDB9H631D2
4	2				HDB9H631C4	HDB9H631D4		
6	2			HDB9H631B6	HDB9H631C6	HDB9H631D6		
10	2			HDB9H631B10	HDB9H631C10	HDB9H631D10		
16	2			HDB9H631B16	HDB9H631C16	HDB9H631D16		
20	2			HDB9H631B20	HDB9H631C20	HDB9H631D20		
25	2			HDB9H631B25	HDB9H631C25	HDB9H631D25		
32	2			HDB9H631B32	HDB9H631C32	HDB9H631D32		
40	2			HDB9H631B40	HDB9H631C40	HDB9H631D40		
50	2			HDB9H631B50	HDB9H631C50	HDB9H631D50		
63	2			HDB9H631B63	HDB9H631C63	HDB9H631D63		

Note: Width refers to multiple of 9mm



Final Distribution

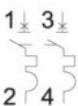



HDB9 18mm Miniature Circuit Breaker

Standard: IEC/EN 60898-1



Order Information

Type	Breaking Capacity (kA)	Rating (A)	Width	Reference		
				B curve	C curve	D curve
2P 	6	1	4		HDB9N632C1	HDB9N632D1
		2	4		HDB9N632C2	HDB9N632D2
		4	4		HDB9N632C4	HDB9N632D4
		6	4	HDB9N632B6	HDB9N632C6	HDB9N632D6
		10	4	HDB9N632B10	HDB9N632C10	HDB9N632D10
		16	4	HDB9N632B16	HDB9N632C16	HDB9N632D16
		20	4	HDB9N632B20	HDB9N632C20	HDB9N632D20
		25	4	HDB9N632B25	HDB9N632C25	HDB9N632D25
		32	4	HDB9N632B32	HDB9N632C32	HDB9N632D32
	40	4	HDB9N632B40	HDB9N632C40	HDB9N632D40	
	50	4	HDB9N632B50	HDB9N632C50	HDB9N632D50	
	63	4	HDB9N632B63	HDB9N632C63	HDB9N632D63	
	10	1	4		HDB9H632C1	HDB9H632D1
		2	4		HDB9H632C2	HDB9H632D2
		4	4		HDB9H632C4	HDB9H632D4
		6	4	HDB9H632B6	HDB9H632C6	HDB9H632D6
		10	4	HDB9H632B10	HDB9H632C10	HDB9H632D10
		16	4	HDB9H632B16	HDB9H632C16	HDB9H632D16
		20	4	HDB9H632B20	HDB9H632C20	HDB9H632D20
25		4	HDB9H632B25	HDB9H632C25	HDB9H632D25	
32		4	HDB9H632B32	HDB9H632C32	HDB9H632D32	
3P 	6	1	6		HDB9N633C1	HDB9N633D1
		2	6		HDB9N633C2	HDB9N633D2
		4	6		HDB9N633C4	HDB9N633D4
		6	6	HDB9N633B6	HDB9N633C6	HDB9N633D6
		10	6	HDB9N633B10	HDB9N633C10	HDB9N633D10
		16	6	HDB9N633B16	HDB9N633C16	HDB9N633D16
		20	6	HDB9N633B20	HDB9N633C20	HDB9N633D20
		25	6	HDB9N633B25	HDB9N633C25	HDB9N633D25
		32	6	HDB9N633B32	HDB9N633C32	HDB9N633D32
		40	6	HDB9N633B40	HDB9N633C40	HDB9N633D40
		50	6	HDB9N633B50	HDB9N633C50	HDB9N633D50
		63	6	HDB9N633B63	HDB9N633C63	HDB9N633D63

Note: Width refers to multiple of 9mm



Final Distribution

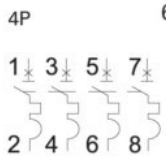
HDB9 18mm Miniature Circuit Breaker

Standard: IEC/EN 60898-1



Order Information

Type	Breaking Capacity (kA)	Rating (A)	Width	Reference				
				B curve	C curve	D curve		
	10	1	6		HDB9H633C1	HDB9H633D1		
		2	6		HDB9H633C2	HDB9H633D2		
		4	6		HDB9H633C4	HDB9H633D4		
		6	6	HDB9H633B6	HDB9H633C6	HDB9H633D6		
		10	6	HDB9H633B10	HDB9H633C10	HDB9H633D10		
		16	6	HDB9H633B16	HDB9H633C16	HDB9H633D16		
		20	6	HDB9H633B20	HDB9H633C20	HDB9H633D20		
		25	6	HDB9H633B25	HDB9H633C25	HDB9H633D25		
		32	6	HDB9H633B32	HDB9H633C32	HDB9H633D32		
		40	6	HDB9H633B40	HDB9H633C40	HDB9H633D40		
		50	6	HDB9H633B50	HDB9H633C50	HDB9H633D50		
		63	6	HDB9H633B63	HDB9H633C63	HDB9H633D63		
		4P	6	1	8		HDB9N634C1	HDB9N634D1
				2	8		HDB9N634C2	HDB9N634D2
4	8				HDB9N634C4	HDB9N634D4		
6	8			HDB9N634B6	HDB9N634C6	HDB9N634D6		
10	8			HDB9N634B10	HDB9N634C10	HDB9N634D10		
16	8			HDB9N634B16	HDB9N634C16	HDB9N634D16		
20	8			HDB9N634B20	HDB9N634C20	HDB9N634D20		
25	8			HDB9N634B25	HDB9N634C25	HDB9N634D25		
32	8			HDB9N634B32	HDB9N634C32	HDB9N634D32		
40	8			HDB9N634B40	HDB9N634C40	HDB9N634D40		
50	8			HDB9N634B50	HDB9N634C50	HDB9N634D50		
63	8			HDB9N634B63	HDB9N634C63	HDB9N634D63		
	10			1	8		HDB9H634C1	HDB9H634D1
				2	8		HDB9H634C2	HDB9H634D2
		4	8		HDB9H634C4	HDB9H634D4		
		6	8	HDB9H634B6	HDB9H634C6	HDB9H634D6		
		10	8	HDB9H634B10	HDB9H634C10	HDB9H634D10		
		16	8	HDB9H634B16	HDB9H634C16	HDB9H634D16		
		20	8	HDB9H634B20	HDB9H634C20	HDB9H634D20		
		25	8	HDB9H634B25	HDB9H634C25	HDB9H634D25		
		32	8	HDB9H634B32	HDB9H634C32	HDB9H634D32		
		40	8	HDB9H634B40	HDB9H634C40	HDB9H634D40		
		50	8	HDB9H634B50	HDB9H634C50	HDB9H634D50		
		63	8	HDB9H634B63	HDB9H634C63	HDB9H634D63		



Final Distribution



Note: Width refers to multiple of 9 mm.

HDB9 18mm Miniature Circuit Breaker

Standard: IEC/EN 60898-1



Technical Data

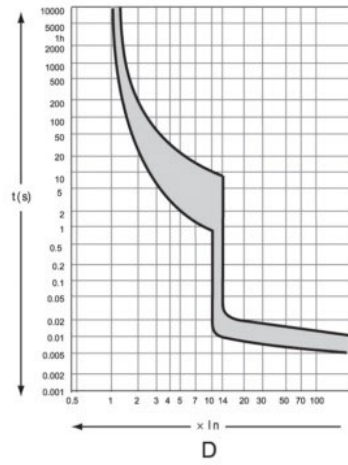
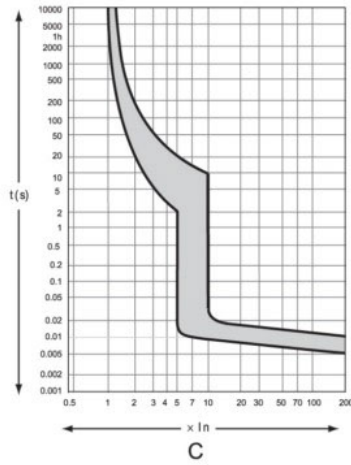
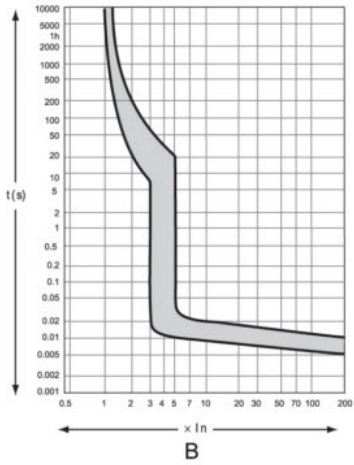
MCB	HDB9 18mm Circuit Breaker				
Electrical Features	Standard	IEC/EN 60898-1			
	Certification	KEMA CB CE RoHS			
	Poles	1-4P			
	Rated Current I _n	1, 2, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63 A			
	Rated Voltage U _e	230/400V AC			
	Insulation Voltage U _i	500V			
	Breaking Capacity I _{cn}				
	Rate current(A)	Breaking capacity I _{cn} (kA)	Type	Poles	Voltage (V)
	1-63	6	B,C,D	1P 2P, 3P, 4P	230/400 400
	1-63	10	B,C,D	1P 2P, 3P, 4P	230/400 400
Tripping Curve (see following tripping curve pictures)					
B Curve: the magnetic release operates between 3 and 5 I _n					
C Curve: the magnetic release operates between 5 and 10 I _n					
D Curve: the magnetic release operates between 10 and 14 I _n					
Mechanical Features	Electrical Durability	10000 times			
	Mechanical Durability	20000 times			
	Protection Degree	2			
	Ambient Temperature	-30°C ~ +70°C			
Connection	1-32A	Up to 25mm ² cables	40-63	Up to 35mm ² cables	
Installation	Rated Current(A)	Screw	Rated Torque (Nm)	Maximum Ultimate Torque	
	1-32	M5	2.0	3.5	
	40-63	M6.5	3.5	3.5	
Mounting	35mm Din-rail				
Accessories	Contact Accessory	OF			
	Fault-indicating Accessories	SD			
	Shunt -trip release	MX+OF			

HDB9 18mm Miniature Circuit Breaker

Standard: IEC/EN 60898-1

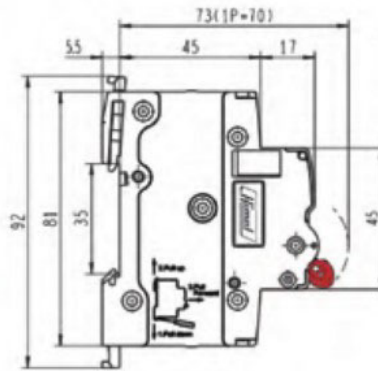
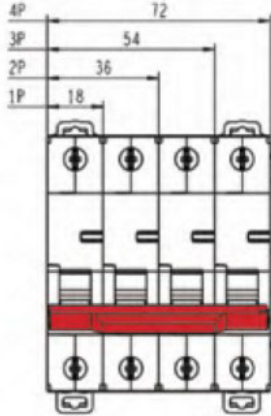


Tripping Curve



Overall Dimensions

Unit: mm



Accessories



664-7693 | 0923-7031311



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HDB9Z DC Miniature Circuit Breaker

Standard: IEC 60947.2



Function

HDB9Z DC miniature circuit breakers combine the following functions:

- Protection of circuits against overload current;
- Protection of circuits against short-circuit currents;
- Control and isolation;

Order Information

Model	Frame	Poles	Curve	Rated current
HDB9Z	63	1	B	1
	63:63AF	1:1P 2:2P 4:4P	B:B curve C:C curve	1:1 2:2 ... 63:63

Type	Rating current	Reference	
	(A)	B curve	C curve
1P	1	HDB9Z631B1	HDB9Z631C1
	2	HDB9Z631B2	HDB9Z631C2
	4	HDB9Z631B4	HDB9Z631C4
	6	HDB9Z631B6	HDB9Z631C6
	10	HDB9Z631B10	HDB9Z631C10
	16	HDB9Z631B16	HDB9Z631C16
	20	HDB9Z631B20	HDB9Z631C20
	25	HDB9Z631B25	HDB9Z631C25
	32	HDB9Z631B32	HDB9Z631C32
	40	HDB9Z631B40	HDB9Z631C40
	50	HDB9Z631B50	HDB9Z631C50
	63	HDB9Z631B63	HDB9Z631C63



HDB9Z DC Miniature Circuit Breaker

Standard: IEC 60947.2



Final Distribution



Type	Rating current	Reference	
	(A)	B curve	C curve
2P	1	HDB9Z632B1	HDB9Z632C1
	2	HDB9Z632B2	HDB9Z632C2
	4	HDB9Z632B4	HDB9Z632C4
	6	HDB9Z632B6	HDB9Z632C6
	10	HDB9Z632B10	HDB9Z632C10
	16	HDB9Z632B16	HDB9Z632C16
	20	HDB9Z632B20	HDB9Z632C20
	25	HDB9Z632B25	HDB9Z632C25
	32	HDB9Z632B32	HDB9Z632C32
	40	HDB9Z632B40	HDB9Z632C40
	50	HDB9Z632B50	HDB9Z632C50
	63	HDB9Z632B63	HDB9Z632C63
4P	1	HDB9Z634B1	HDB9Z634C1
	2	HDB9Z634B2	HDB9Z634C2
	4	HDB9Z634B4	HDB9Z634C4
	6	HDB9Z634B6	HDB9Z634C6
	10	HDB9Z634B10	HDB9Z634C10
	16	HDB9Z634B16	HDB9Z634C16
	20	HDB9Z634B20	HDB9Z634C20
	25	HDB9Z634B25	HDB9Z634C25
	32	HDB9Z634B32	HDB9Z634C32
	40	HDB9Z634B40	HDB9Z634C40
	50	HDB9Z634B50	HDB9Z634C50
	63	HDB9Z634B63	HDB9Z634C63

HDB9Z DC Miniature Circuit Breaker

Standard: IEC 60947.2



Technical Data

DC MCB	HDB9Z DC Circuit Breaker
General	
Standard	IEC60947.2
Certificate	CE CB Semko RoHS
Application	For final distribution in Industry, domestic building, power and basic facilities
Mechanical Performance	
Installation	Standard DIN rail
Line Load	
Connection	1 ~ 63A: up to 25mm ²
Terminals	Tunnel Terminal
Protection Degree	IP20
Rated Torque (Nm)	Up to 32A: 2.5 40-63A: 3.5
Locking Function	Locked at OFF Position
Tripping Indication (Indicator)	Yes
Electrical Performance	
Functions	Overload Protection
	Short-circuit Protection
	Insulation
	Control
Poles	1P/2P/4P
Frame Size	63A
Rated Current	1,2,4,6,10,16,20,25,32,40,50,63A
Tripping Curve	I _t =5.5I _n ±20%, I _t =8.5I _n ±20%
Breaking Capacity	6kA, 10kA
Rated Working Voltage (U _e AC)	DC: 1P/2P 125V/250V (10KA) 1P/2P 250V/500V(6KA) 4P 1000V(6KA)



HDB9Z DC Miniature Circuit Breaker

Standard: IEC 60947.2



Uimp	6kV
Qucik Closing Tech	Yes
Acc	OF/SD/MX+OF OF/SD/MX+OF
ME	20000 times (O-C)
EE	10000 times (O-C)
Using Environment	Working Temp: -30°C ~ 70°C
	Altitude: Lower than 2000m
	Tropicalization: treatment 2
Storage Temp.	-40°C to +85°C
Environment	
Pullution Degree	2

Final Distribution

Accessories



HDB3w-125 Molded Case Circuit Breaker

IEC/EN60947-2



HDB3w-125 Molded Case Circuit Breaker has The Following Features

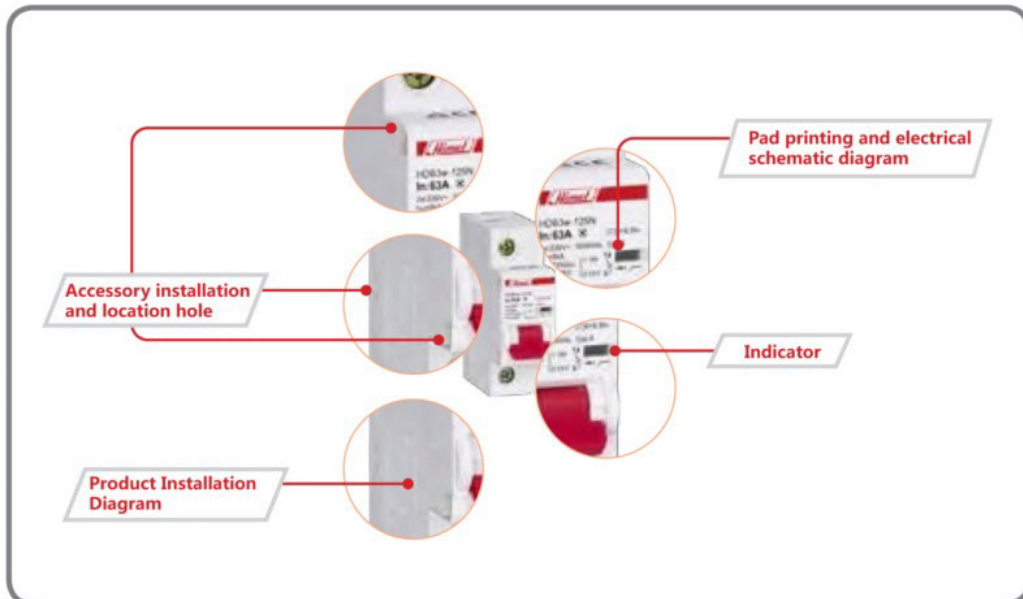
- Short circuit protection
- Overload protection
- Isolating function

Main Features

Rated operating voltage (V)	1P: 230VAC
	2P,3P,4P: 400VAC
Rated current (A)	63-125
Rated frequency (Hz)	50/60
Poles	1P,2P,3P,4P
Breaking capacity (kA)	6, 10



Product Details Display



HDB3w-125 Molded Case Circuit Breaker

IEC/EN60947-2

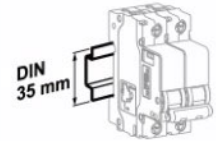


Electrical Characteristics

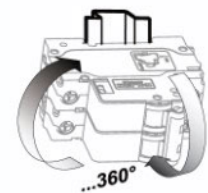
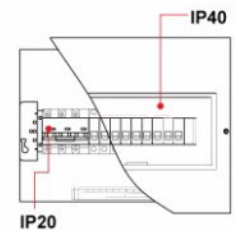
Rated insulation voltage U_i	(V)	250 (phase-to-ground) / 500 (phase-to-phase)
Rated working voltage U_{Bmax}	1P	230VAC
	2P,3P,4P	400VAC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(KA)	6, 10
Rated impulse withstand voltage	(KV)	4
Dielectric test voltage		2kV (50/60Hz 1 minute)
Isolating function		Available
Pollution class		2
Tripping type		Thermal magnetic tripping
Thermal magnetic trip characteristics	C curve ($I_i=8.5I_n$)	■
	D curve ($I_i=12I_n$)	■
Electrical and mechanical accessories		■

Mechanical characteristics

Handle		Red, pad printing indicating ON-OFF position
Mechanical life	Times	8500 times ($I_n \leq 100A$) 7000 times ($I_n > 100A$)
Electrical life	Times	1500 times ($I_n \leq 100A$) 1000 times ($I_n > 100A$)
Protection rating	Installed in distribution box	IP40
	Installed directly	IP20
Mechanical shock resistance		30g, 3 shocks, last for 11ms (Places with no significant vibration or shock)
Anti-vibration (IEC/EN 60947-2)		Places with no significant vibration or shock
Reference ambient temperature	°C	30°C
Operating ambient temperature (daily mean temperature $\leq +35^\circ C$)	°C	-20°C ~+60°C
Storage temperature	°C	-40°C ~+70°C



Installed on 35mm standard guide rail



Flexible installation direction



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HDB3w-125 Molded Case Circuit Breaker

IEC/EN60947-2



Installation features

Terminal type		Tunnel terminal
Maximum wiring capacity	(A)	Current ratings 63-125:50mm ²
Maximum ultimate torque	(A)	Current ratings 63-125:3.5N.m
Tools		Cross head screwdriver or flathead screwdriver
Installation		Installed on standard DIN guide rail (35mm)
Line incoming mode		Top or bottom

Temperature (°C)

Rated value Current (A)	-20	-10	0	10	20	30	40	50	60
63	78.8	75.6	72.5	69.3	66.2	63	59.2	56.1	53
80	100	96	92	88	84	80	75.2	71	67
100	125	120	115	110	105	100	94	88	80
125	169.2	162.8	143.8	137.5	131.2	125	117.8	111.5	105





HDB3w-125 Molded Case Circuit Breaker

IEC/EN60947-2



HDB3w-125 Molded Case Circuit Breaker

Product name	Breaking capacity	Poles	Trip type	Rated current
HDB3w-125	N	1	C	63
	↓	↓	↓	↓
	N: 6kA H: 10kA	1: 1P 2: 2P 3: 3P 4: 4P	C: C curve (Ii=8.5In) D: D curve (Ii=12In)	63: 63A 80: 80A 100: 100A 125: 125A

HDB3w-125 Breaking capacity	Pole	Rated current	Trip type	
			C	D
6kA	1P 	63	HDB3w125N1C63	HDB3w125N1D63
		80	HDB3w125N1C80	HDB3w125N1D80
		100	HDB3w125N1C100	HDB3w125N1D100
		125	HDB3w125N1C125	HDB3w125N1D125
	2P 	63	HDB3w125N2C63	HDB3w125N2D63
		80	HDB3w125N2C80	HDB3w125N2D80
		100	HDB3w125N2C100	HDB3w125N2D100
		125	HDB3w125N2C125	HDB3w125N2D125
	3P 	63	HDB3w125N3C63	HDB3w125N3D63
		80	HDB3w125N3C80	HDB3w125N3D80
		100	HDB3w125N3C100	HDB3w125N3D100
		125	HDB3w125N3C125	HDB3w125N3D125
4P 	63	HDB3w125N4C63	HDB3w125N4D63	
	80	HDB3w125N4C80	HDB3w125N4D80	
	100	HDB3w125N4C100	HDB3w125N4D100	
	125	HDB3w125N4C125	HDB3w125N4D125	



Final Distribution




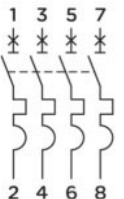


HDB3w-125 Molded Case Circuit Breaker

IEC/EN60947-2



HDB3w-125 Molded Case Circuit Breaker

HDB3w-125 Breaking capacity	Pole	Rated current	Trip type	
			C	D
10kA	1P 	63	HDB3w125H1C63	HDB3w125H1D63
		80	HDB3w125H1C80	HDB3w125H1D80
		100	HDB3w125H1C100	HDB3w125H1D100
		125	HDB3w125H1C125	HDB3w125H1D125
	2P 	63	HDB3w125H2C63	HDB3w125H2D63
		80	HDB3w125H2C80	HDB3w125H2D80
		100	HDB3w125H2C100	HDB3w125H2D100
		125	HDB3w125H2C125	HDB3w125H2D125
	3P 	63	HDB3w125H3C63	HDB3w125H3D63
		80	HDB3w125H3C80	HDB3w125H3D80
		100	HDB3w125H3C100	HDB3w125H3D100
		125	HDB3w125H3C125	HDB3w125H3D125
4P 	63	HDB3w125H4C63	HDB3w125H4D63	
	80	HDB3w125H4C80	HDB3w125H4D80	
	100	HDB3w125H4C100	HDB3w125H4D100	
	125	HDB3w125H4C125	HDB3w125H4D125	



HDB3w-125 Molded Case Circuit Breaker

IEC/EN60947-2

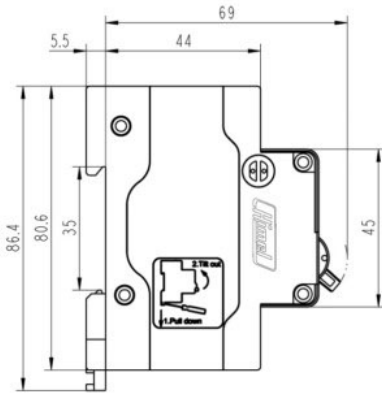


HDB3w-125 Molded Case Circuit Breaker

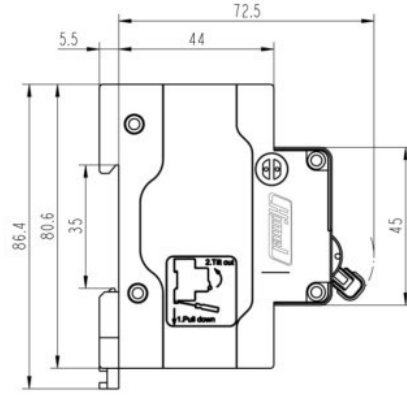
1P



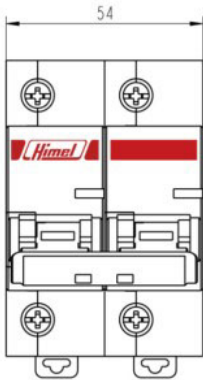
1P Right side view



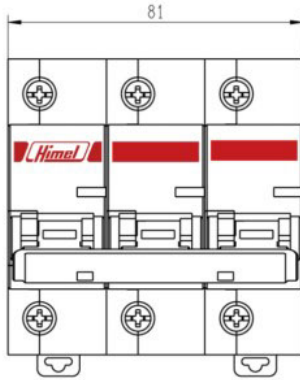
2-4P Right side view



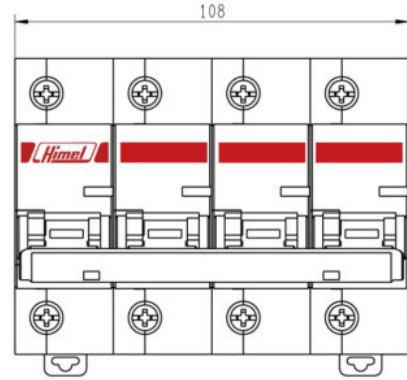
2P



3P



4P



Final Distribution



HDB3wHP Phase Line + Neutral Line Circuit Breaker

IEC/EN60898-1



HDB3wHP Technical Parameters

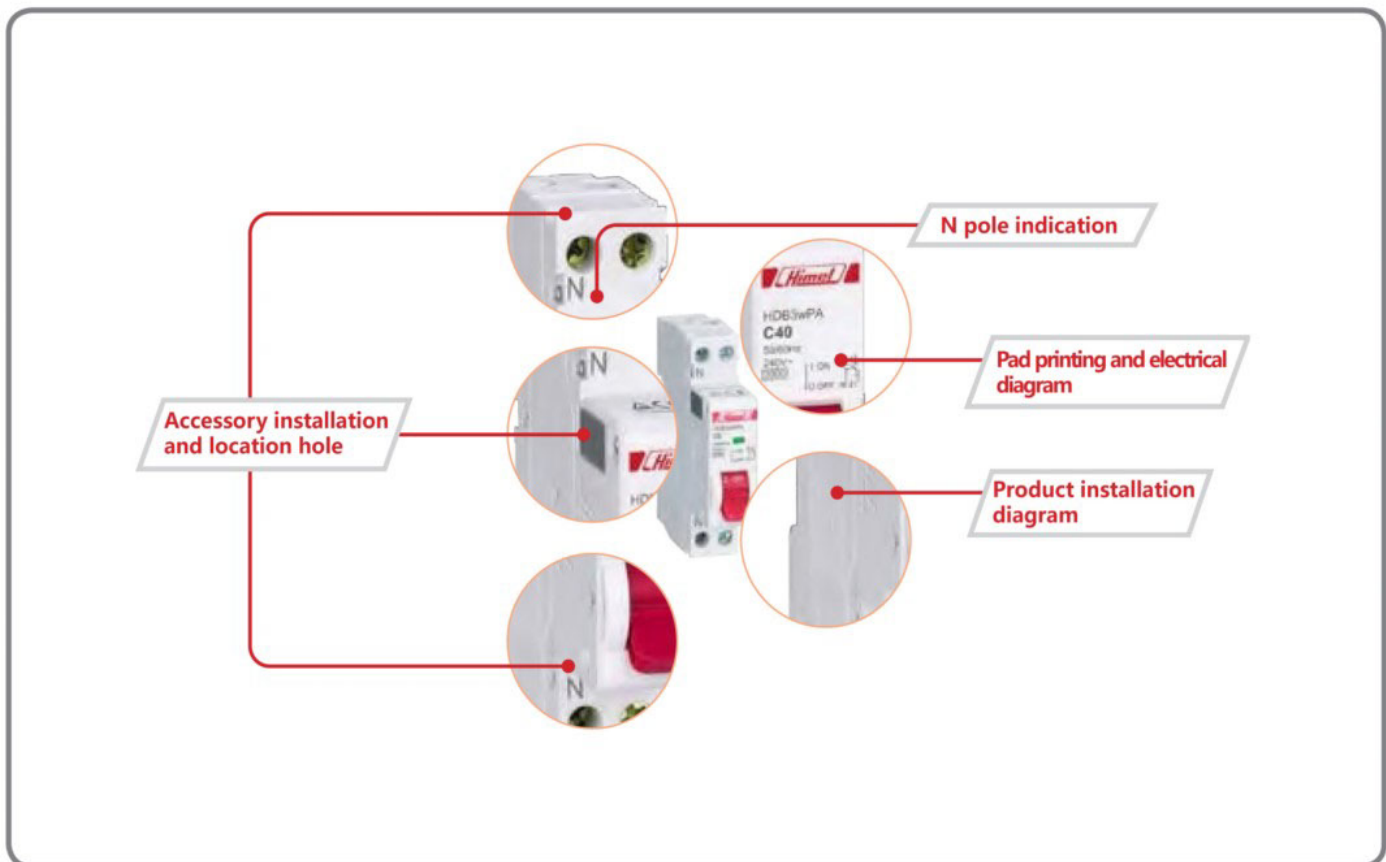
- Short circuit protection
- Overload protection
- Isolating function

Main Features

Rated operating voltage (V)	1P+N: 240 AC
Rated current (A)	6-40
Rated frequency (Hz)	50/60
Poles	1P+N
Breaking capacity (kA)	3,4,5



Product Details Display



HDB3wHP Phase Line + Neutral Line Circuit Breaker

IEC/EN60898-1

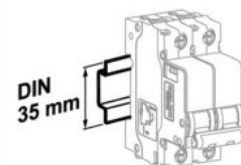


Electrical Characteristics

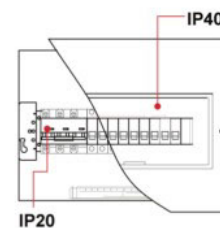
Rated insulation voltage U_i	(V)	250 (phase-to-ground) / 500 (phase-to-phase)
Rated working voltage U_{Bmax}	1P+N (V)	240AC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(kA)	3,4.5
Rated impulse withstand voltage (1.2/50)	(KV)	4
Dielectric test voltage		2kV (50/60HZ, 1 minute)
Use category		A
Isolating function		Available
Pollution class		2
Tripping type		Thermal magnetic tripping
Thermal magnetic trip characteristics	C curve (5In~10In)	■
	D curve (10In~14In)	■
Electrical and mechanical accessories		■

Mechanical Characteristics

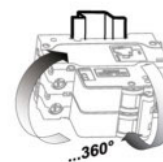
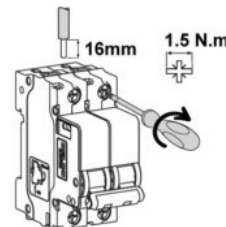
Handle		Red, pad printing indicating ON-OFF position
Mechanical life	Times	10000
Electrical life	Times	4000
Protection rating	Installed in distribution box	IP40
	Installed directly	IP20
Mechanical shock resistance		30g, 3 shocks, last for 11ms (Places with no significant vibration or shock)
Anti-vibration (IEC/EN 60068-2-6)		(Places with no significant vibration or shock)
High temperature humidity resistant	High temperature humidity (°C /RH)	Category 2, 28 cycles Relative humidity 90%~96% at 55 °C Relative humidity 95%~100% at 25 °C
Reference ambient temperature	°C	30 °C
Operating ambient temperature (daily mean temperature $\leq +35^\circ\text{C}$)	°C	-20 °C ~+60 °C
Storage temperature	°C	-40 °C ~+70 °C



Installed on 35mm
standard guide rail



IP20



Flexible installation
direction

Final Distribution

Megahimel

HDB3wHP Phase Line + Neutral Line Circuit Breaker

IEC/EN60898-1



Installation Features

Terminal type		Tunnel terminal
Maximum wiring capacity	(A)	Current ratings 6-40:16mm ²
Maximum ultimate torque	(A)	Current ratings 6-40:1.5 N.m
Tools		Cross head screwdriver or flathead screwdriver
Installation		Installed on standard DIN guide rail (35mm)
Line incoming mode		Top or bottom

HDB3wHP Phase Line + Neutral Line Circuit Breaker

IEC/EN60898-1





HDB3wHP Phase Line + Neutral Line Circuit Breaker

Product name	Breaking capacity	Trip type	Rated current
HDB3wHP	Default	C	6
	↓		↓
	A:3kA Default:4.5kA	C: C D: D	6: 6A 25: 25A 10: 10A 32: 32A 16: 16A 40: 40A 20: 20A

Final Distribution



HDB3wHP Breaking capacity	Type	Rated current	Trip type	
			C	D
3kA	1P+N 	6	HDB3wHPAC6	HDB3wHPAD6
		10	HDB3wHPAC10	HDB3wHPAD10
		16	HDB3wHPAC16	HDB3wHPAD16
		20	HDB3wHPAC20	HDB3wHPAD20
		25	HDB3wHPAC25	HDB3wHPAD25
		32	HDB3wHPAC32	HDB3wHPAD32
		40	HDB3wHPAC40	HDB3wHPAD40
		4.5kA	1P+N 	6
10	HDB3wHPC10			HDB3wHPD10
16	HDB3wHPC16			HDB3wHPD16
20	HDB3wHPC20			HDB3wHPD20
25	HDB3wHPC25			HDB3wHPD25
32	HDB3wHPC32			HDB3wHPD32
40	HDB3wHPC40			HDB3wHPD40



HDB3wP Phase Line + Neutral Line Circuit Breaker

IEC/EN60898-1



HDB3wP Technical Parameters

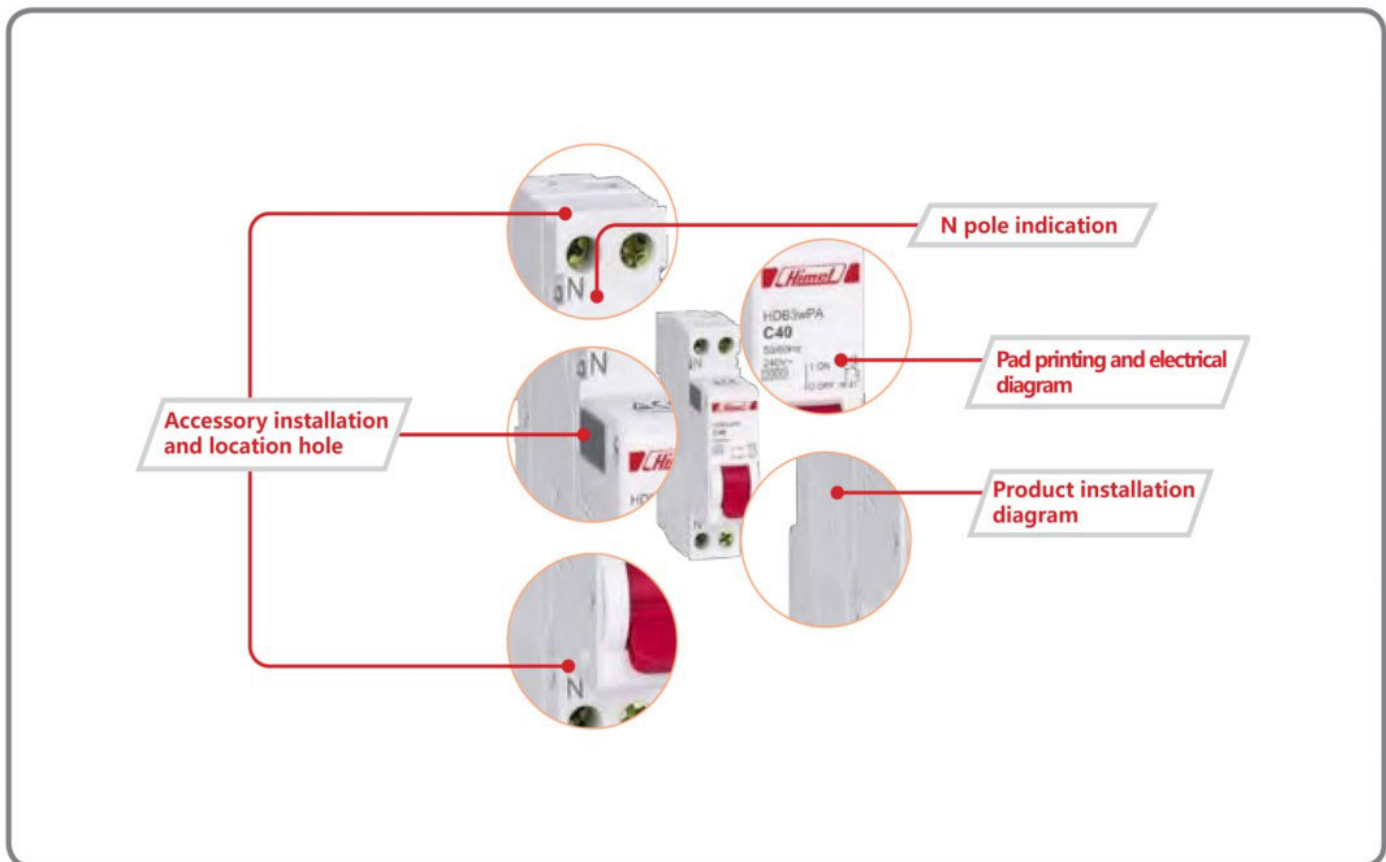
- Short circuit protection
- Overload protection
- Isolating function

Main Features

Rated operating voltage (V)	1P+N: 240 AC
Rated current (A)	6-40
Rated frequency (Hz)	50/60
Poles	1P+N
Breaking capacity (kA)	3,4,5



Product Details Display



HDB3wP Phase Line + Neutral Line Circuit Breaker

IEC/EN60898-1

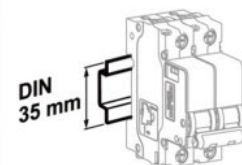


Electrical Characteristics

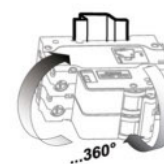
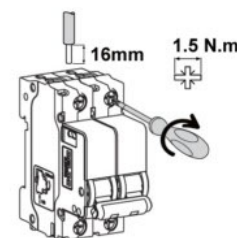
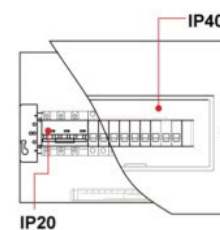
Rated insulation voltage U_i	(V)	250 (phase-to-ground) / 500 (phase-to-phase)
Rated working voltage U_{Bmax}	1P+N (V)	240AC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(kA)	3,4.5
Rated impulse withstand voltage (1.2/50)	(KV)	4
Dielectric test voltage		2kV (50/60HZ, 1 minute)
Use category		A
Isolating function		Available
Pollution class		2
Tripping type		Thermal magnetic tripping
Thermal magnetic trip characteristics	C curve (5In~10In)	■
	D curve (10In~14In)	■
Electrical and mechanical accessories		■

Mechanical Characteristics

Handle		Red, pad printing indicating ON-OFF position
Mechanical life	Times	15000
Electrical life	Times	10000
Protection rating	Installed in distribution box	IP40
	Installed directly	IP20
Mechanical shock resistance		30g, 3 shocks, last for 11ms (Places with no significant vibration or shock)
Anti-vibration (IEC/EN 60068-2-6)		(Places with no significant vibration or shock)
High temperature humidity resistant	High temperature humidity (°C /RH)	Category 2, 28 cycles Relative humidity 90%~96% at 55 °C Relative humidity 95%~100% at 25 °C
Reference ambient temperature	°C	30 °C
Operating ambient temperature (daily mean temperature $\leq +35^\circ\text{C}$)	°C	-20 °C ~+60 °C
Storage temperature	°C	-40 °C ~+70 °C



Installed on 35mm
standard guide rail



Flexible installation
direction

Final Distribution

Megahimel

HDB3wP Phase Line + Neutral Line Circuit Breaker

IEC/EN60898-1



Installation Features

Terminal type		Tunnel terminal
Maximum wiring capacity	(A)	Current ratings 6-40:16mm ²
Maximum ultimate torque	(A)	Current ratings 6-40:1.5 N.m
Tools		Cross head screwdriver or flathead screwdriver
Installation		Installed on standard DIN guide rail (35mm)
Line incoming mode		Top or bottom



HDB3wP Phase Line + Neutral Line Circuit Breaker

IEC/EN60898-1



HDB3wP Phase Line + Neutral Line Circuit Breaker

Product name	Breaking capacity	Trip type	Rated current
HDB3wP	N	C	6
	↓		↓
	A:3kA N:4.5kA	C: C D: D	6: 6A 25: 25A 10: 10A 32: 32A 16: 16A 40: 40A 20: 20A

HDB3wP Breaking capacity	Pole	Rated current	Trip type	
			C	D
3kA	1P+N 	6	HDB3WPAC6	HDB3WPAD6
		10	HDB3WPAC10	HDB3WPAD10
		16	HDB3WPAC16	HDB3WPAD16
		20	HDB3WPAC20	HDB3WPAD20
		25	HDB3WPAC25	HDB3WPAD25
		32	HDB3WPAC32	HDB3WPAD32
		40	HDB3WPAC40	HDB3WPAD40
4.5kA	1P+N 	6	HDB3WPNC6	HDB3WPND6
		10	HDB3WPNC10	HDB3WPND10
		16	HDB3WPNC16	HDB3WPND16
		20	HDB3WPNC20	HDB3WPND20
		25	HDB3WPNC25	HDB3WPND25
		32	HDB3WPNC32	HDB3WPND32
		40	HDB3WPNC40	HDB3WPND40



Final Distribution



HDB6p Phase-neutral Circuit Breaker

Standard: IEC/EN 60898-1



Function

HDB6p phase-neutral circuit breakers combine the following functions:

- Protection of circuits against overload currents
- Protection of circuits against short-circuit currents
- Control

Order Information

Pole	Rating (A)	Width (in mode of 9mm)	Reference
			C curve
	6	2	HDB6pC6
	10	2	HDB6pC10
	16	2	HDB6pC16
	20	2	HDB6pC20
	25	2	HDB6pC25
	32	2	HDB6pC32



Technical Data

MCB	HDB6p Phase-neutral Circuit Breaker			
Electrical Features	Standard	IEC/EN 60898-1		
	Certification	CB, CE SEMKO		
	Poles	1P+N		
	Rated Current In (A)	6,10,16,20,25,32		
	Rated Voltage Ue	230V AC		
	Insulation Voltage Ui	500V		
	Breaking Capacity Icn	4500A		
Tripping Curve (see following tripping curve pictures)				
C Curve: The magnetic release operates between 5 and 10 In				
Mechanical Features	Electrical Durability	4000 times		
	Mechanical Durability	16000 times		
	Protection Degree	2		
	Tropicalization	Treatment 2		
	Ambient Temperature	-5°C ~ +40°C		
Connection	Up to 16mm ² cables			
Installation	Rated current(A)	Screw	Rated Torque (Nm)	Maximum Ultimate Torque (Nm)
	6-32	M4	1.2	1.5
Mounting	35mm Din-rail			

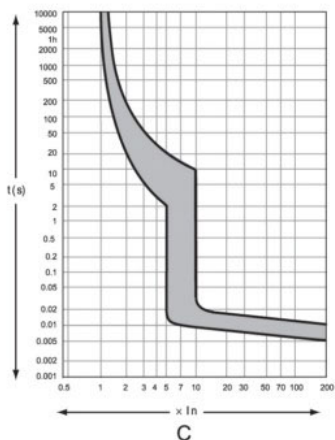
HDB6p Phase-neutral Circuit Breaker

Standard: IEC/EN 60898-1



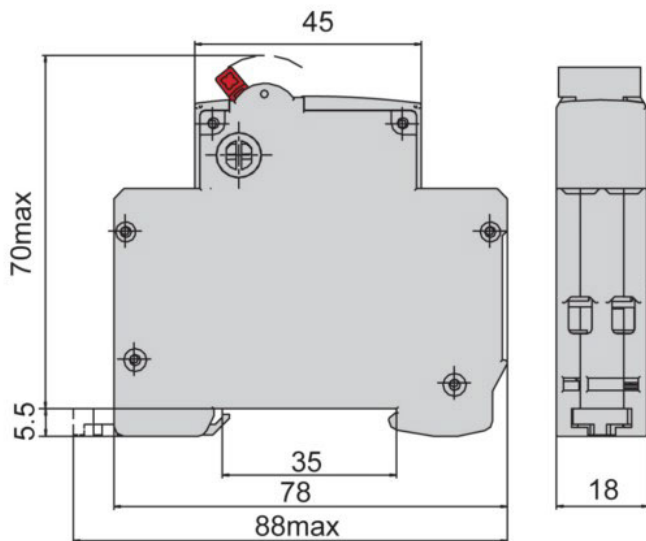
Tripping Curve

HDB6p Phase-neutral Circuit Breaker



Overall Dimensions

Unit: mm



Final Distribution



HDB9P Phase-neutral Circuit Breaker

Standard: IEC/EN 60898-1



Function

HDB9P Phase-neutral Circuit Breaker combines the following functions:

- Protection of circuits against overload currents
- Protection against short-circuit currents
- Control
- Isolation

Order Information

Pole	Rating (A)	Breaking Capacity (kA)	Width (in mode.of 9mm)	Reference
				C curve
1P+N	6	4.5	2	HDB9Pa40C6
	10	4.5	2	HDB9Pa40C10
	16	4.5	2	HDB9Pa40C16
	20	4.5	2	HDB9Pa40C20
	25	4.5	2	HDB9Pa40C25
	32	4.5	2	HDB9Pa40C32
	40	4.5	2	HDB9Pa40C40
	6	6	2	HDB9PN40C6
	10	6	2	HDB9PN40C10
	16	6	2	HDB9PN40C16
	20	6	2	HDB9PN40C20
	25	6	2	HDB9PN40C25
	32	6	2	HDB9PN40C32
	40	6	2	HDB9PN40C40

Note: Width refers to multiple of 9 mm.

Technical Data

MCB	HDB9P Phase-neutral Circuit Breaker					
Electrical Features	Standard	IEC/EN 60898-1				
	Certification	CB,CE,TUV, RoHS				
	Poles	1P+N				
	Rated Current In(A)	6, 10, 16, 20, 25, 32, 40				
	Rated Voltage Ue	240V AC				
	Insulation Voltage Ui	500V				
	Breaking Capacity	4500A, 6000A				
	Tripping Curve (see following tripping curve picture)					
	C Curve: the magnetic release operates between 5 and 10 In					
	Rated Current, A	6	10	16,20	25	32
Cross-sectional area of conductor mm ²	1	1.5	2.5	4	6	10



HDB9P Phase-neutral Circuit Breaker

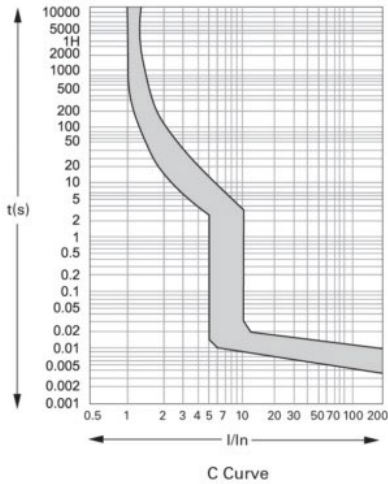
Standard: IEC/EN 60898-1



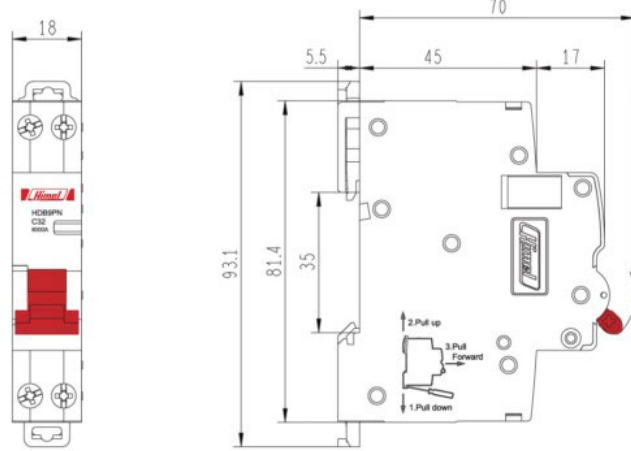
Technical Data

MCB	HDB9P Phase-neutral Circuit Breaker			
Electrical Features	Electrical Durability	10000 times		
	Mechanical Durability	20000 times		
	Protection Degree	IP20		
	Tropicalization	Treatment 2		
	Ambient Temperature	-25 °C ~ +70 °C		
Connection	6 - 40A, Up to 16mm ² cables			
Installation	Rated Current (A)	Screw	Rated Torque (Nm)	Maximum Ultimate Torque (Nm)
	6-40	M4	1.5	2.0
Mounting	35mm Din-Rail			

Tripping Curve



Overall Dimensions



Accessories



HDG3 Isolating switch has the following features

- Isolation
- Open and close the mixed load of resistance and inductance

Main Features

Rated current	20,25,32,40,63,80,100,125A
Rated operating voltage	230/400V AC
Isolating function	Handle with on/off indicating the status
Mechanical life	≤ 100A: 8500 125A: 7000
Electrical life	Use category: AC-22A cos =0.8 ≤ 100A: 1500 125A: 1000
Impulse withstand voltage	6kV
Use category	AC-22A
Rated short-time withstand current	20Ie, 1 second
Environment	Operating ambient temperature: -20°C ~ 60°C Damp and hot resistance: 2 (Relative humidity 95% at 55°C)
Wiring	Tunnel terminal 50mm ² and below
Installation	Installed on standard DIN guide rail(35mm) Maximum ultimate torque:3.5Nm



HDG3 Isolating Switch

IEC/EN 60947-3



HDG3 Isolating switch

Product name	Poles	Rated current
HDG3	1	20
	↓	↓
	1: 1P	20: 20A
	2: 2P	25: 25A
	3: 3P	32: 32A
	4: 4P	40: 40A
		63: 63A
		80:80A
		100: 100A
		125: 125A



Final Distribution



HDG3 Isolating Switch

IEC/EN 60947-3



HDG3 Isolating switch

HDG3 Isolating switch	Pole	Rated current	Reference
1P		20	HDG3120
		25	HDG3125
		32	HDG3132
		40	HDG3140
		63	HDG3163
		80	HDG3180
		100	HDG31100
		125	HDG31125
2P		20	HDG3220
		25	HDG3225
		32	HDG3232
		40	HDG3240
		63	HDG3263
		80	HDG3280
		100	HDG32100
3P		20	HDG3320
		25	HDG3325
		32	HDG3332
		40	HDG3340
		63	HDG3363
		80	HDG3380
		100	HDG33100
4P		20	HDG3420
		25	HDG3425
		32	HDG3432
		40	HDG3440
		63	HDG3463
		80	HDG3480
		100	HDG34100
	125	HDG34125	



HDG3 Isolating Switch

IEC/EN 60947-3

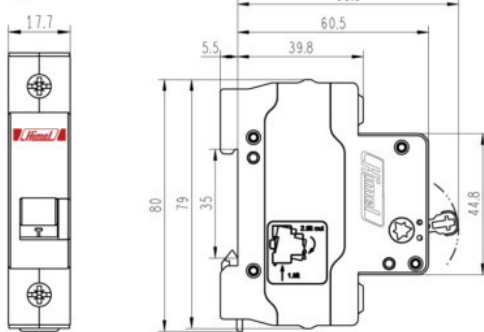


HDG3 Isolating Switch

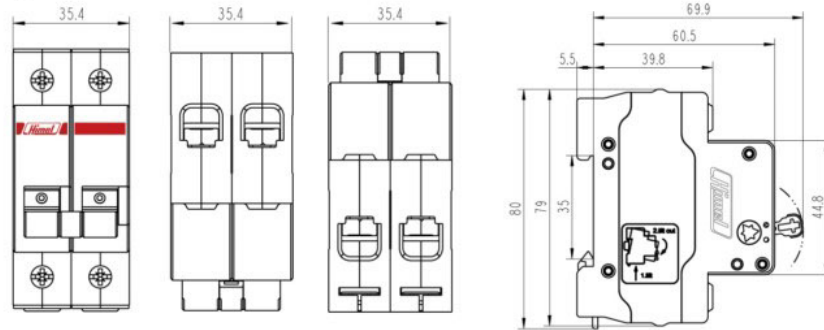
Final Distribution



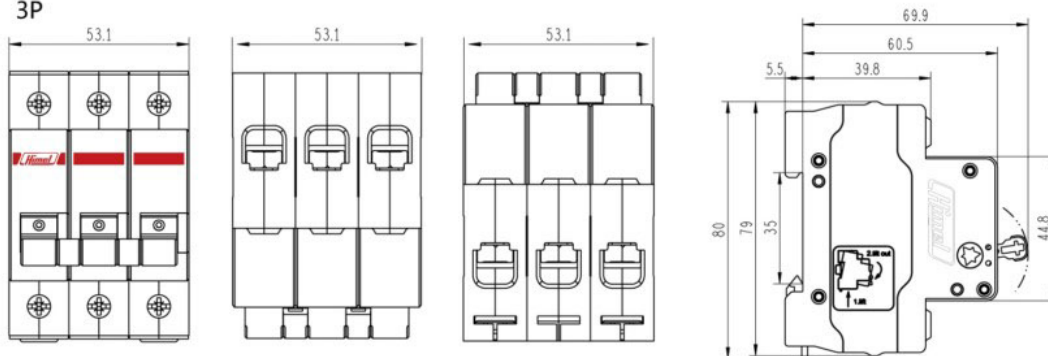
1P



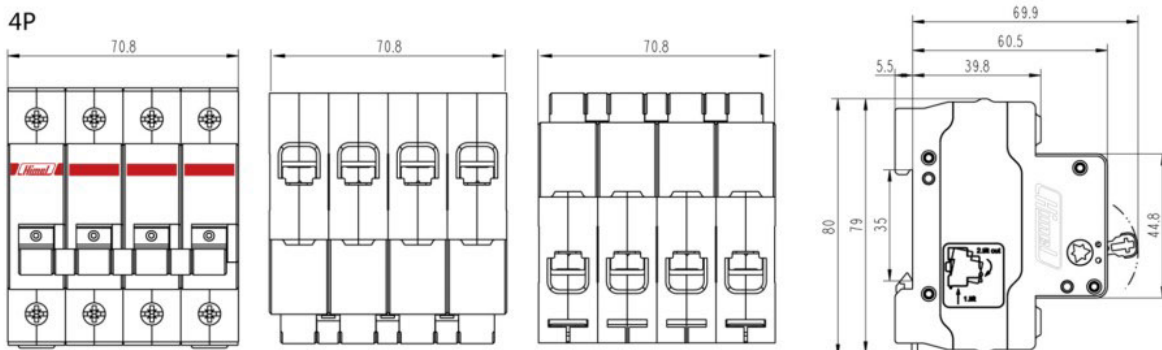
2P



3P



4P



HDB6IS Switch Disconnecter

Standard: IEC/EN 60947-3


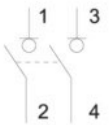
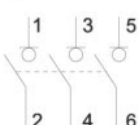
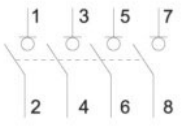


Function

HDB6IS switch disconnectors combine the following functions:

- Making and breaking normal load circuits
- Isolation

Order Information

Type	Rating (A)	Width (in mod. of 9mm)	Reference
1P 	20	2	HDB6IS120
	32	2	HDB6IS132
	63	2	HDB6IS163
	100	2	HDB6IS1100
	125	2	HDB6IS1125
2P 	20	4	HDB6IS220
	32	4	HDB6IS232
	63	4	HDB6IS263
	100	4	HDB6IS2100
	125	4	HDB6IS2125
3P 	20	6	HDB6IS320
	32	6	HDB6IS332
	63	6	HDB6IS363
	100	6	HDB6IS3100
	125	6	HDB6IS3125
4P 	20	8	HDB6IS420
	32	8	HDB6IS432
	63	8	HDB6IS463
	100	8	HDB6IS4100
	125	8	HDB6IS4125



HDB6IS Switch Disconnecter

Standard: IEC/EN 60947-3

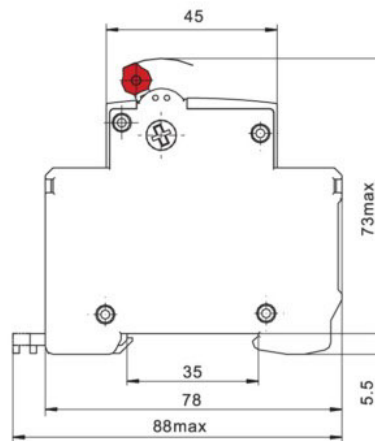
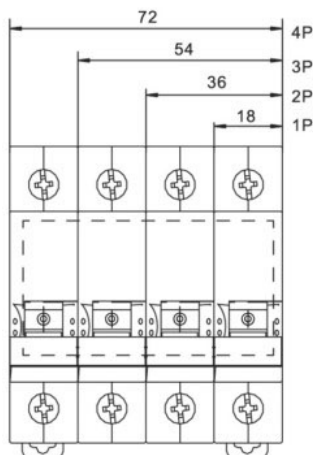


Technical Data

Switch Disconnecter	HDB6IS Switch Disconnecter			
Electrical Features	Standard	IEC/EN 60947-3		
	Certification	CB, CE SEMKO,		
	Poles	1-4P		
	Rated Current In	20, 32, 63, 100, 125A		
	Rated Voltage Ue	230V/400V AC		
	Insulation Voltage Ui	500V		
	Short-time Withstand Capacity for 1s	12 Ie		
Mechanical Features	Electrical Durability	1500 times		
	Mechanical Durability	8500 times		
	Protection Degree	2		
	Ambient Temperature	-5°C~+40°C		
	Tropicalization	Treatment 2		
Connection	Up to 50mm ² cables			
Installation	Rated current(A)	Screw	Rated Torque (Nm)	Maximum ultimate torque (Nm)
	20-125	M6.5	3.5	3.5
Mounting	35mm Din-rail			

Overall Dimensions

Unit: mm



HDG9 Switch Disconnecter

Standard: IEC/EN 60947-3


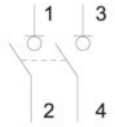
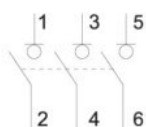
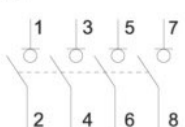


Function

HDG9 switch disconnectors combine the following functions:

- Making and breaking normal load circuits
- Isolation

Order Information

Type	Rating (A)	Width (in mod. of 9mm)	Reference
1P 	32	2	HDG9125132
	63	2	HDG9125163
	100	2	HDG91251100
	125	2	HDG91251125
2P 	32	4	HDG9125232
	63	4	HDG9125263
	100	4	HDG91252100
	125	4	HDG91252125
3P 	32	6	HDG9125332
	63	6	HDG9125363
	100	6	HDG91253100
	125	6	HDG91253125
4P 	32	8	HDG9125432
	63	8	HDG9125463
	100	8	HDG91254100
	125	8	HDG91254125



HDG9 Switch Disconnecter

Standard: IEC/EN 60947-3



Technical Data

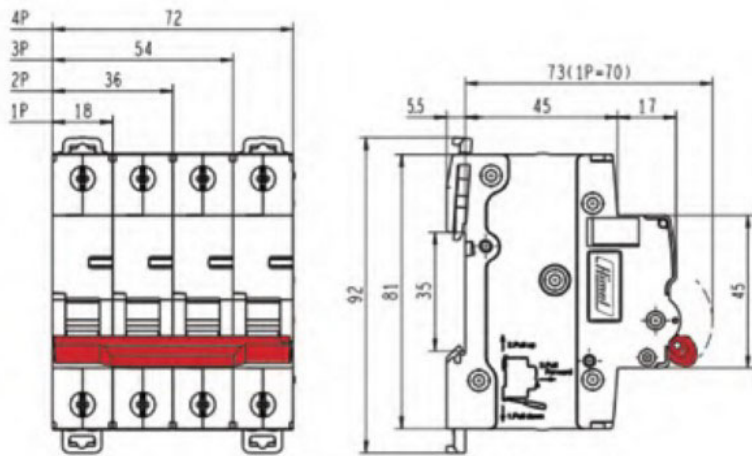
Switch Disconnecter	HDB5 Switch Disconnecter			
Electrical Features	Standard	IEC/EN 60947-3		
	Certification	CB,CE,TUV, RoHS		
	Poles	1-4P		
	Rated Current In	32,63,100,125A		
	Rated Voltage Ue	230/400VAC		
	Insulation Voltage Ui	500V		
	Short-time Withstand Capacity for 1s	20 le		
	Mechanical Features	Electrical Durability	32A: 30000 times 63A: 20000 times 100A: 10000 times 125A: 2500 times	
Mechanical Durability		5000 times		
Protection Degree		2		
Ambient Temperature		-30°C~+70°C		
Tropicalization		Treatment 2		
Connection	Up to 50mm ² cables			
Installation	Rated Current(A)	Screw	Rated Torque (Nm)	Limiting Torque (Nm)
	32-125	M6.5	3.5	3.5
Mounting	35mm Din-rail			

Final Distribution



Overall Dimensions

Unit: mm



Residual Current Devices Overview



Residual Current Operated Circuit Breaker

Type	In (A)																				Type		Phase -neutral
	1A	2A	3A	4A	5A	6A	8A	10A	13A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A	AC	A		
HDB3wLE						✓		✓		✓	✓	✓	✓	✓	✓	✓				✓			
HDB3wHLE						✓		✓		✓	✓	✓	✓	✓	✓	✓				✓			
HDB3wLE-125																✓	✓	✓	✓	✓			
HDB9LE						✓		✓		✓	✓	✓	✓	✓	✓	✓				✓			
HDB9LM						✓		✓		✓	✓	✓	✓	✓	✓	✓				✓			
HDB3wPLE						✓		✓		✓	✓	✓	✓	✓						✓			
HDB3wHPLE						✓		✓		✓	✓	✓	✓	✓						✓			
HDB9PLE						✓		✓		✓	✓	✓	✓	✓						✓			
HDB6pLE						✓		✓		✓	✓	✓	✓	✓						✓			
HDB3VR								✓		✓	✓	✓	✓	✓		✓	✓	✓		✓	✓		
HDB6VR								✓		✓	✓	✓	✓	✓		✓	✓	✓		✓	✓		

Residual Current Switch

Type	In (A)																				Type		Phase -neutral
	1A	2A	3A	4A	5A	6A	8A	10A	13A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A	AC	A		
HDB3VR								✓		✓	✓	✓	✓	✓		✓	✓	✓		✓	✓		
HDB6VR								✓		✓	✓	✓	✓	✓		✓	✓	✓		✓	✓		



Size		Poles						Breaking Capacity				Tripping Curve			Residual Current(mA)						Certificate						Temperature
18 mm	27 mm	1P	1P+N	2P	3P	3P+N	4P	3kV	4.5kV	6kV	10kV	B	C	D	10	30	50	75	100	300	CE	IEC-CB	TUV	KE MA	SE MKO	RoHS	
✓			✓	✓	✓	✓	✓			✓			✓	✓		✓	✓	✓	✓	✓	✓						-20°C ~+60°C
✓			✓	✓	✓	✓	✓			✓			✓	✓		✓	✓	✓	✓	✓	✓					✓	-35°C ~+70°C
	✓		✓	✓	✓	✓	✓				✓		✓	✓		✓	✓	✓	✓	✓	✓	✓					-20°C ~+60°C
✓			✓	✓	✓	✓	✓			✓			✓			✓			✓	✓	✓					✓	-5°C ~+40°C
✓			✓				✓		✓				✓			✓			✓	✓	✓	✓	✓			✓	-5°C ~+55°C
✓			✓					✓	✓				✓	✓		✓	✓	✓	✓	✓	✓	✓	✓				-20°C ~+60°C
✓			✓					✓	✓				✓	✓		✓	✓	✓	✓	✓	✓	✓	✓			✓	-35°C ~+70°C
✓			✓						✓				✓			✓					✓	✓	✓			✓	-25°C ~+70°C
✓			✓						✓	✓			✓			✓					✓	✓			✓		-5°C ~+40°C
				✓			✓			✓					✓	✓			✓	✓	✓	✓	✓				-25°C ~+40°C
				✓			✓			✓					✓	✓			✓	✓	✓	✓	✓				-25°C ~+40°C

Size		Poles						Breaking Capacity				Tripping Curve			Residual Current(mA)						Certificate						Temperature
18mm	27mm	1P	1P+N	2P	3P	3P+N	4P	3kV	4.5kV	6kV	10kV	B	C	D	10	30	50	75	100	300	CE	IEC-CB	TUV	KE MA	SE MKO	RoHS	
				✓			✓			✓					✓	✓				✓	✓	✓	✓				-25°C ~+40°C
				✓			✓			✓					✓	✓				✓	✓	✓	✓				-25°C ~+40°C

HDB3wHLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



Function

HDB3wHLE Residual Current Operated Circuit Breaker has the following features:

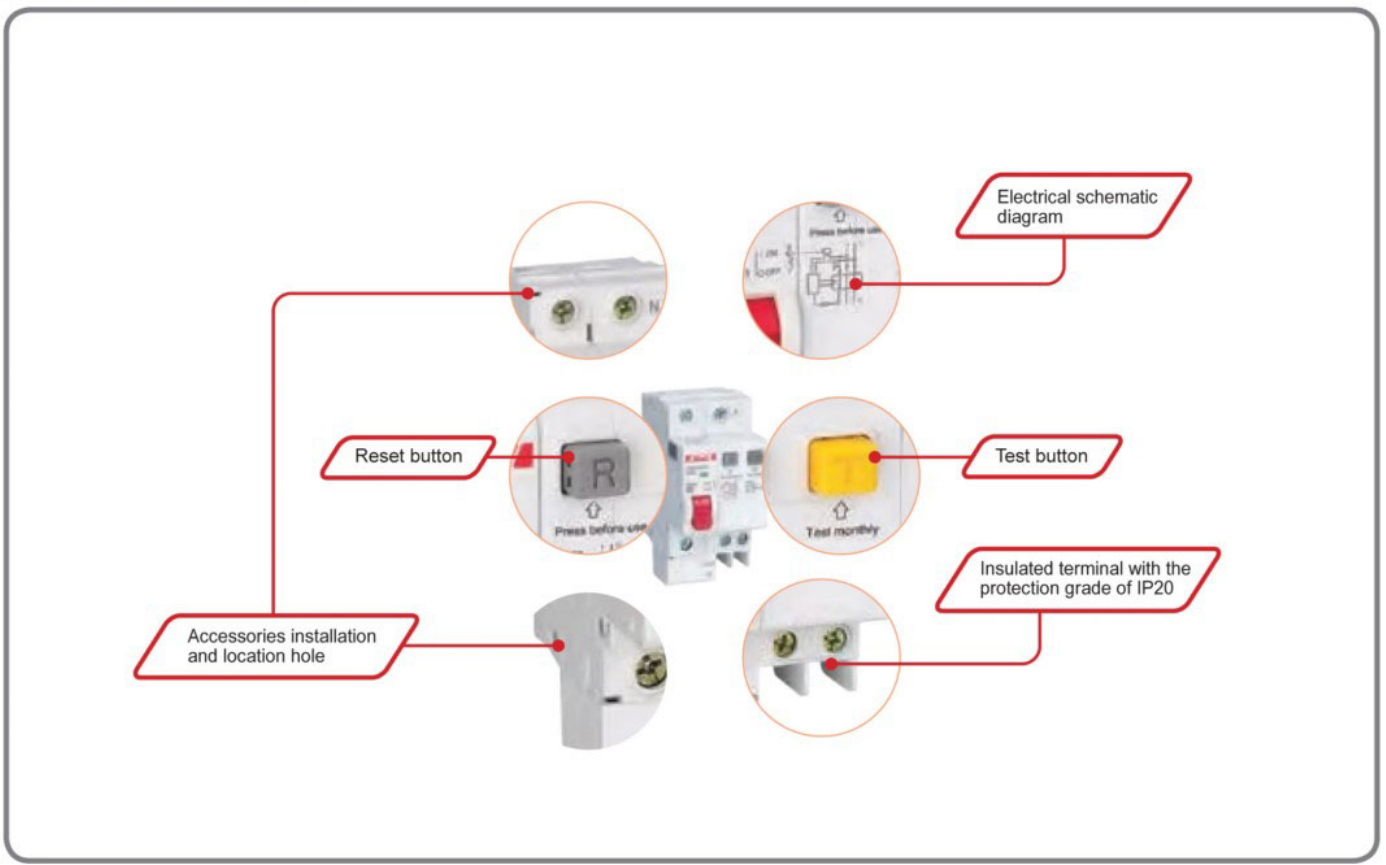
- Short circuit protection
- Overload protection
- Isolating function
- Earthleakage protection function
- Residual Current Operated Circuit Breaker over voltage protection function

Main Features

Rated operating voltage V	1P+N, 2P: 240AC 3P, 3P+N, 4P 415 AC
Rated current A	6-63
Rated frequency Hz	50/60
Number of poles	1P+N, 2P, 3P, 3P+N, 4P
Breaking capacity kA	6
Rated residual operating current mA	30, 50, 75, 100, 300
Over-voltage protection function	280±5% AC (for products only 1P+N,2P,C curve)



Product Details Display



HDB3wHLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



Functions and Features

Electrical Characteristics

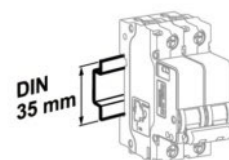
Nominal insulation voltage U_i	(V)	250 (phase-to-ground) 500 (phase-to-phase)
Maximum working voltage U_{Bmax}	1P+N, 2P (V)	230 AC
	3P, 3P+N, 4P (V)	400 AC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(kA)	6
Rated impulse withstand voltage U_{imp} (1.2/50)	(kV)	4
Dielectric test voltage		2kV (50/60HZ, 1min)
Isolating function		Available
Pollution class		2
Electric shock protection grade		II
Trip type:		Thermal magnetic trip
Thermal magnetic trip characteristics:	Type B curve (3I _n ~5I _n)	-
	Type C curve (5I _n ~10I _n)	■
	Type D curve (10I _n ~14I _n)	■
Electrical and mechanical accessories		■

Mechanical Characteristics

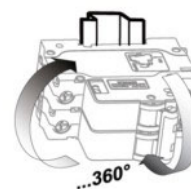
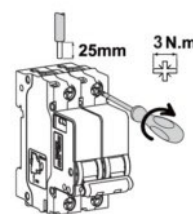
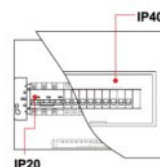
Trip indication	Upspring of the reset button indicates leakage of trip	
Manual control	Two reset modes are allowed for the handle	
	Overcurrent fault	The circuit breaker and the residual current operated device reset simultaneously
	Leakage fault	The residual current operated device resets before the circuit breaker resets
Handle	Red, pad printing indicating ON-OFF position	
Mechanical endurance	Times 4,000	
Electrical endurance	Times 4,000	
Protection grade	Installed in distribution box IP40 Installed directly IP20	
Mechanical shock resistance	30g, 3 shocks, lasting 11ms (No significant vibration or shock)	
Anti-vibration(IEC/EN 60068-2-6)	No significant vibration or shock	
High temperature humidity resistant	Category 2, 28 cycles Relative humidity 90%~96% at 55° C Relative humidity 95%~100% at 25° C	
Rated ambient temperature	30° C	
Operating ambient temperature (daily mean temperature ≤ +35° C)	-20° C~+60° C	
Storage temperature	-40° C~+70° C	

Installation Features

Terminal form	Tunnel terminal
Maximum wiring capacity (A)	Current ratings 6-32:16mm ² Current ratings 40-63:25mm ²
Maximum ultimate torque (A)	Current ratings 6-32:2.5 N.m Current ratings 40-63:3 N.m
Tool	Crosshead screwdriver or flathead screwdriver
Installation	Installed on standard DIN guide rail (35mm)
Line incoming mode	Top



Installed on 35mm standard guide rail



Flexible installation direction

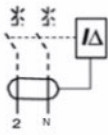
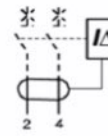
HDB3wHLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



HDB3wHLE Residual Current Operated Circuit Breaker

Product name	Breaking capacity	Number of poles	Trip type	Rated current	Residual current	Other functions
HDB3wHLE	N	1	C	6	Default:30mA R50: 50mA R75: 75mA R100: 100mA R300: 300mA	G Default: No over-voltage protection G: Over-voltage protection
	N 6kA	1: 1P+N 2: 2P 3: 3P 6: 3P+N 4: 4P	C: CType D: DType	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A		

HDB3wHLE Residual current operated circuit breaker	Type	Rated current	Trip type			
			C			
	1P+N	6	HDB3wHLEN1C6	HDB3wHLEN1C6R50		
		10	HDB3wHLEN1C10	HDB3wHLEN1C10R50		
		16	HDB3wHLEN1C16	HDB3wHLEN1C16R50		
		20	HDB3wHLEN1C20	HDB3wHLEN1C20R50		
		25	HDB3wHLEN1C25	HDB3wHLEN1C25R50		
		32	HDB3wHLEN1C32	HDB3wHLEN1C32R50		
		40	HDB3wHLEN1C40	HDB3wHLEN1C40R50		
		50	HDB3wHLEN1C50	HDB3wHLEN1C50R50		
		63	HDB3wHLEN1C63	HDB3wHLEN1C63R50		
			2P	6	HDB3wHLEN2C6	HDB3wHLEN2C6R50
				10	HDB3wHLEN2C10	HDB3wHLEN2C10R50
				16	HDB3wHLEN2C16	HDB3wHLEN2C16R50
				20	HDB3wHLEN2C20	HDB3wHLEN2C20R50
25	HDB3wHLEN2C25			HDB3wHLEN2C25R50		
32	HDB3wHLEN2C32			HDB3wHLEN2C32R50		
40	HDB3wHLEN2C40			HDB3wHLEN2C40R50		
50	HDB3wHLEN2C50	HDB3wHLEN2C50R50				
63	HDB3wHLEN2C63	HDB3wHLEN2C63R50				

HDB3wHLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



HDB3wHLE Residual Current Operated Circuit Breaker

Product name	Breaking capacity	Number of poles	Trip type	Rated current	Residual current	Other functions
HDB3wHLE	N N 6kA	1 1: 1P+N 2: 2P 3: 3P 6: 3P+N 5: 4P	C C: CType D: DType	6 6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	Default: 30mA R50: 50mA R75: 75mA R100: 100mA R300: 300mA	G Default: No over-voltage protection G: Over-voltage protection

Trip type				
C			D	
HDB3wHLEN1C6R75	HDB3wHLEN1C6R100	HDB3wHLEN1C6R300	HDB3wHLEN1D6	HDB3wHLEN1D6R50
HDB3wHLEN1C10R75	HDB3wHLEN1C10R100	HDB3wHLEN1C10R300	HDB3wHLEN1D10	HDB3wHLEN1D10R50
HDB3wHLEN1C16R75	HDB3wHLEN1C16R100	HDB3wHLEN1C16R300	HDB3wHLEN1D16	HDB3wHLEN1D16R50
HDB3wHLEN1C20R75	HDB3wHLEN1C20R100	HDB3wHLEN1C20R300	HDB3wHLEN1D20	HDB3wHLEN1D20R50
HDB3wHLEN1C25R75	HDB3wHLEN1C25R100	HDB3wHLEN1C25R300	HDB3wHLEN1D25	HDB3wHLEN1D25R50
HDB3wHLEN1C32R75	HDB3wHLEN1C32R100	HDB3wHLEN1C32R300	HDB3wHLEN1D32	HDB3wHLEN1D32R50
HDB3wHLEN1C40R75	HDB3wHLEN1C40R100	HDB3wHLEN1C40R300	HDB3wHLEN1D40	HDB3wHLEN1D40R50
HDB3wHLEN1C50R75	HDB3wHLEN1C50R100	HDB3wHLEN1C50R300	HDB3wHLEN1D50	HDB3wHLEN1D50R50
HDB3wHLEN1C63R75	HDB3wHLEN1C63R100	HDB3wHLEN1C63R300	HDB3wHLEN1D63	HDB3wHLEN1D63R50
HDB3wHLEN2C6R75	HDB3wHLEN2C6R100	HDB3wHLEN2C6R300	HDB3wHLEN2D6	HDB3wHLEN2D6R50
HDB3wHLEN2C10R75	HDB3wHLEN2C10R100	HDB3wHLEN2C10R300	HDB3wHLEN2D10	HDB3wHLEN2D10R50
HDB3wHLEN2C16R75	HDB3wHLEN2C16R100	HDB3wHLEN2C16R300	HDB3wHLEN2D16	HDB3wHLEN2D16R50
HDB3wHLEN2C20R75	HDB3wHLEN2C20R100	HDB3wHLEN2C20R300	HDB3wHLEN2D20	HDB3wHLEN2D20R50
HDB3wHLEN2C25R75	HDB3wHLEN2C25R100	HDB3wHLEN2C25R300	HDB3wHLEN2D25	HDB3wHLEN2D25R50
HDB3wHLEN2C32R75	HDB3wHLEN2C32R100	HDB3wHLEN2C32R300	HDB3wHLEN2D32	HDB3wHLEN2D32R50
HDB3wHLEN2C40R75	HDB3wHLEN2C40R100	HDB3wHLEN2C40R300	HDB3wHLEN2D40	HDB3wHLEN2D40R50
HDB3wHLEN2C50R75	HDB3wHLEN2C50R100	HDB3wHLEN2C50R300	HDB3wHLEN2D50	HDB3wHLEN2D50R50
HDB3wHLEN2C63R75	HDB3wHLEN2C63R100	HDB3wHLEN2C63R300	HDB3wHLEN2D63	HDB3wHLEN2D63R50

HDB3wHLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



HDB3wHLE Residual Current Operated Circuit Breaker

Product name	Breaking capacity	Number of poles	Trip type	Rated current	Residual current	Other functions
HDB3wHLE	N	1	C	6	Default:30mA R50: 50mA R75: 75mA R100: 100mA R300: 300mA	G
	N 6kA	1: 1P+N 2: 2P 3: 3P 6: 3P+N 5: 4P	C: CType D: DType	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A		Default: No over-voltage protection G: Over-voltage protection

Trip type			Over voltage
D			
HDB3wHLEN1D6R75	HDB3wHLEN1D6R100	HDB3wHLEN1D6R300	
HDB3wHLEN1D10R75	HDB3wHLEN1D10R100	HDB3wHLEN1D10R300	HDB3wHLEN1C10G
HDB3wHLEN1D16R75	HDB3wHLEN1D16R100	HDB3wHLEN1D16R300	HDB3wHLEN1C16G
HDB3wHLEN1D20R75	HDB3wHLEN1D20R100	HDB3wHLEN1D20R300	HDB3wHLEN1C20G
HDB3wHLEN1D25R75	HDB3wHLEN1D25R100	HDB3wHLEN1D25R300	HDB3wHLEN1C25G
HDB3wHLEN1D32R75	HDB3wHLEN1D32R100	HDB3wHLEN1D32R300	HDB3wHLEN1C32G
HDB3wHLEN1D40R75	HDB3wHLEN1D40R100	HDB3wHLEN1D40R300	HDB3wHLEN1C40G
HDB3wHLEN1D50R75	HDB3wHLEN1D50R100	HDB3wHLEN1D50R300	HDB3wHLEN1C50G
HDB3wHLEN1D63R75	HDB3wHLEN1D63R100	HDB3wHLEN1D63R300	HDB3wHLEN1C63G
HDB3wHLEN2D6R75	HDB3wHLEN2D6R100	HDB3wHLEN2D6R300	
HDB3wHLEN2D10R75	HDB3wHLEN2D10R100	HDB3wHLEN2D10R300	HDB3wHLEN2C10G
HDB3wHLEN2D16R75	HDB3wHLEN2D16R100	HDB3wHLEN2D16R300	HDB3wHLEN2C16G
HDB3wHLEN2D20R75	HDB3wHLEN2D20R100	HDB3wHLEN2D20R300	HDB3wHLEN2C20G
HDB3wHLEN2D25R75	HDB3wHLEN2D25R100	HDB3wHLEN2D25R300	HDB3wHLEN2C25G
HDB3wHLEN2D32R75	HDB3wHLEN2D32R100	HDB3wHLEN2D32R300	HDB3wHLEN2C32G
HDB3wHLEN2D40R75	HDB3wHLEN2D40R100	HDB3wHLEN2D40R300	HDB3wHLEN2C40G
HDB3wHLEN2D50R75	HDB3wHLEN2D50R100	HDB3wHLEN2D50R300	HDB3wHLEN2C50G
HDB3wHLEN2D63R75	HDB3wHLEN2D63R100	HDB3wHLEN2D63R300	HDB3wHLEN2C63G

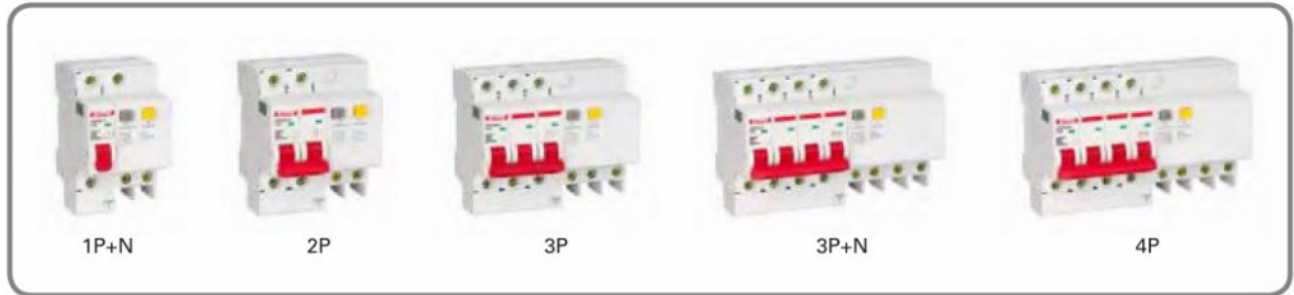


HDB3wHLE Residual Current Operated Circuit Breaker

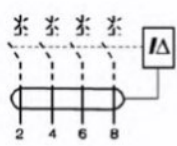
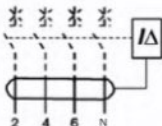
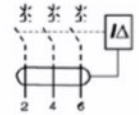
Standard: IEC61009-1



HDB3wHLE Residual Current Operated Circuit Breaker



HDB3wHLE Residual current operated circuit breaker	Type	Rated current	Trip type	
			C	
	3P	6	HDB3wHLEN3C6	HDB3wHLEN3C6R50
		10	HDB3wHLEN3C10	HDB3wHLEN3C10R50
		16	HDB3wHLEN3C16	HDB3wHLEN3C16R50
		20	HDB3wHLEN3C20	HDB3wHLEN3C20R50
		25	HDB3wHLEN3C25	HDB3wHLEN3C25R50
		32	HDB3wHLEN3C32	HDB3wHLEN3C32R50
		40	HDB3wHLEN3C40	HDB3wHLEN3C40R50
		50	HDB3wHLEN3C50	HDB3wHLEN3C50R50
		63	HDB3wHLEN3C63	HDB3wHLEN3C63R50
	3P+N	6	HDB3wHLEN6C6	HDB3wHLEN6C6R50
		10	HDB3wHLEN6C10	HDB3wHLEN6C10R50
		16	HDB3wHLEN6C16	HDB3wHLEN6C16R50
		20	HDB3wHLEN6C20	HDB3wHLEN6C20R50
		25	HDB3wHLEN6C25	HDB3wHLEN6C25R50
		32	HDB3wHLEN6C32	HDB3wHLEN6C32R50
4P	6	HDB3wHLEN4C6	HDB3wHLEN4C6R50	
	10	HDB3wHLEN4C10	HDB3wHLEN4C10R50	
	16	HDB3wHLEN4C16	HDB3wHLEN4C16R50	
	20	HDB3wHLEN4C20	HDB3wHLEN4C20R50	
	25	HDB3wHLEN4C25	HDB3wHLEN4C25R50	
	32	HDB3wHLEN4C32	HDB3wHLEN4C32R50	
	63	HDB3wHLEN4C63	HDB3wHLEN4C63R50	

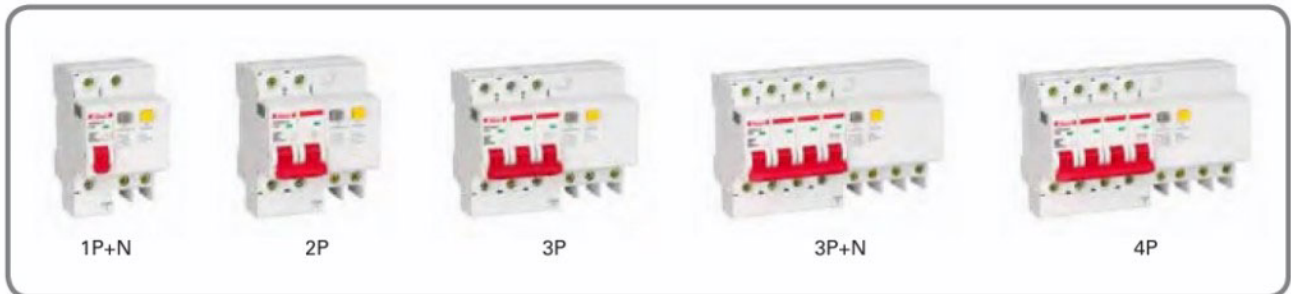


HDB3wHLE Residual Current Operated Circuit Breaker

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HDB3wHLE Residual Current Operated Circuit Breaker



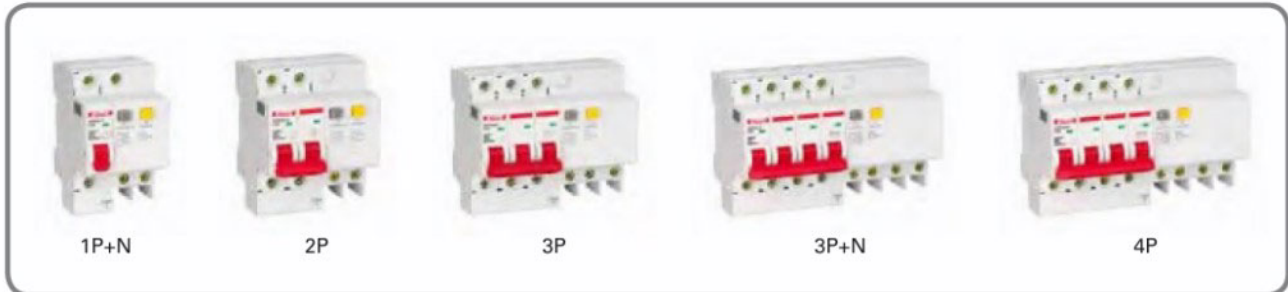
Trip type				
C			D	
HDB3wHLEN3C6R75	HDB3wHLEN3C6R100	HDB3wHLEN3C6R300	HDB3wHLEN3D6	HDB3wHLEN3D6R50
HDB3wHLEN3C10R75	HDB3wHLEN3C10R100	HDB3wHLEN3C10R300	HDB3wHLEN3D10	HDB3wHLEN3D10R50
HDB3wHLEN3C16R75	HDB3wHLEN3C16R100	HDB3wHLEN3C16R300	HDB3wHLEN3D16	HDB3wHLEN3D16R50
HDB3wHLEN3C20R75	HDB3wHLEN3C20R100	HDB3wHLEN3C20R300	HDB3wHLEN3D20	HDB3wHLEN3D20R50
HDB3wHLEN3C25R75	HDB3wHLEN3C25R100	HDB3wHLEN3C25R300	HDB3wHLEN3D25	HDB3wHLEN3D25R50
HDB3wHLEN3C32R75	HDB3wHLEN3C32R100	HDB3wHLEN3C32R300	HDB3wHLEN3D32	HDB3wHLEN3D32R50
HDB3wHLEN3C40R75	HDB3wHLEN3C40R100	HDB3wHLEN3C40R300	HDB3wHLEN3D40	HDB3wHLEN3D40R50
HDB3wHLEN3C50R75	HDB3wHLEN3C50R100	HDB3wHLEN3C50R300	HDB3wHLEN3D50	HDB3wHLEN3D50R50
HDB3wHLEN3C63R75	HDB3wHLEN3C63R100	HDB3wHLEN3C63R300	HDB3wHLEN3D63	HDB3wHLEN3D63R50
HDB3wHLEN6C6R75	HDB3wHLEN6C6R100	HDB3wHLEN6C6R300	HDB3wHLEN6D6	HDB3wHLEN6D6R50
HDB3wHLEN6C10R75	HDB3wHLEN6C10R100	HDB3wHLEN6C10R300	HDB3wHLEN6D10	HDB3wHLEN6D10R50
HDB3wHLEN6C16R75	HDB3wHLEN6C16R100	HDB3wHLEN6C16R300	HDB3wHLEN6D16	HDB3wHLEN6D16R50
HDB3wHLEN6C20R75	HDB3wHLEN6C20R100	HDB3wHLEN6C20R300	HDB3wHLEN6D20	HDB3wHLEN6D20R50
HDB3wHLEN6C25R75	HDB3wHLEN6C25R100	HDB3wHLEN6C25R300	HDB3wHLEN6D25	HDB3wHLEN6D25R50
HDB3wHLEN6C32R75	HDB3wHLEN6C32R100	HDB3wHLEN6C32R300	HDB3wHLEN6D32	HDB3wHLEN6D32R50
HDB3wHLEN6C40R75	HDB3wHLEN6C40R100	HDB3wHLEN6C40R300	HDB3wHLEN6D40	HDB3wHLEN6D40R50
HDB3wHLEN6C50R75	HDB3wHLEN6C50R100	HDB3wHLEN6C50R300	HDB3wHLEN6D50	HDB3wHLEN6D50R50
HDB3wHLEN6C63R75	HDB3wHLEN6C63R100	HDB3wHLEN6C63R300	HDB3wHLEN6D63	HDB3wHLEN6D63R50
HDB3wHLEN4C6R75	HDB3wHLEN4C6R100	HDB3wHLEN4C6R300	HDB3wHLEN4D6	HDB3wHLEN4D6R50
HDB3wHLEN4C10R75	HDB3wHLEN4C10R100	HDB3wHLEN4C10R300	HDB3wHLEN4D10	HDB3wHLEN4D10R50
HDB3wHLEN4C16R75	HDB3wHLEN4C16R100	HDB3wHLEN4C16R300	HDB3wHLEN4D16	HDB3wHLEN4D16R50
HDB3wHLEN4C20R75	HDB3wHLEN4C20R100	HDB3wHLEN4C20R300	HDB3wHLEN4D20	HDB3wHLEN4D20R50
HDB3wHLEN4C25R75	HDB3wHLEN4C25R100	HDB3wHLEN4C25R300	HDB3wHLEN4D25	HDB3wHLEN4D25R50
HDB3wHLEN4C32R75	HDB3wHLEN4C32R100	HDB3wHLEN4C32R300	HDB3wHLEN4D32	HDB3wHLEN4D32R50
HDB3wHLEN4C40R75	HDB3wHLEN4C40R100	HDB3wHLEN4C40R300	HDB3wHLEN4D40	HDB3wHLEN4D40R50
HDB3wHLEN4C50R75	HDB3wHLEN4C50R100	HDB3wHLEN4C50R300	HDB3wHLEN4D50	HDB3wHLEN4D50R50
HDB3wHLEN4C63R75	HDB3wHLEN4C63R100	HDB3wHLEN4C63R300	HDB3wHLEN4D63	HDB3wHLEN4D63R50

HDB3wHLE Residual Current Operated Circuit Breaker

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HDB3wHLE Residual Current Operated Circuit Breaker



Trip type			Over voltage
D			
HDB3wHLEN3D6R75	HDB3wHLEN3D6R100	HDB3wHLEN3D6R300	
HDB3wHLEN3D10R75	HDB3wHLEN3D10R100	HDB3wHLEN3D10R300	
HDB3wHLEN3D16R75	HDB3wHLEN3D16R100	HDB3wHLEN3D16R300	
HDB3wHLEN3D20R75	HDB3wHLEN3D20R100	HDB3wHLEN3D20R300	
HDB3wHLEN3D25R75	HDB3wHLEN3D25R100	HDB3wHLEN3D25R300	
HDB3wHLEN3D32R75	HDB3wHLEN3D32R100	HDB3wHLEN3D32R300	
HDB3wHLEN3D40R75	HDB3wHLEN3D40R100	HDB3wHLEN3D40R300	
HDB3wHLEN3D50R75	HDB3wHLEN3D50R100	HDB3wHLEN3D50R300	
HDB3wHLEN3D63R75	HDB3wHLEN3D63R100	HDB3wHLEN3D63R300	
HDB3wHLEN6D6R75	HDB3wHLEN6D6R100	HDB3wHLEN6D6R300	
HDB3wHLEN6D10R75	HDB3wHLEN6D10R100	HDB3wHLEN6D10R300	
HDB3wHLEN6D16R75	HDB3wHLEN6D16R100	HDB3wHLEN6D16R300	
HDB3wHLEN6D20R75	HDB3wHLEN6D20R100	HDB3wHLEN6D20R300	
HDB3wHLEN6D25R75	HDB3wHLEN6D25R100	HDB3wHLEN6D25R300	
HDB3wHLEN6D32R75	HDB3wHLEN6D32R100	HDB3wHLEN6D32R300	
HDB3wHLEN6D40R75	HDB3wHLEN6D40R100	HDB3wHLEN6D40R300	
HDB3wHLEN6D50R75	HDB3wHLEN6D50R100	HDB3wHLEN6D50R300	
HDB3wHLEN6D63R75	HDB3wHLEN6D63R100	HDB3wHLEN6D63R300	
HDB3wHLEN4D6R75	HDB3wHLEN4D6R100	HDB3wHLEN4D6R300	
HDB3wHLEN4D10R75	HDB3wHLEN4D10R100	HDB3wHLEN4D10R300	
HDB3wHLEN4D16R75	HDB3wHLEN4D16R100	HDB3wHLEN4D16R300	
HDB3wHLEN4D20R75	HDB3wHLEN4D20R100	HDB3wHLEN4D20R300	
HDB3wHLEN4D25R75	HDB3wHLEN4D25R100	HDB3wHLEN4D25R300	
HDB3wHLEN4D32R75	HDB3wHLEN4D32R100	HDB3wHLEN4D32R300	
HDB3wHLEN4D40R75	HDB3wHLEN4D40R100	HDB3wHLEN4D40R300	
HDB3wHLEN4D50R75	HDB3wHLEN4D50R100	HDB3wHLEN4D50R300	
HDB3wHLEN4D63R75	HDB3wHLEN4D63R100	HDB3wHLEN4D63R300	

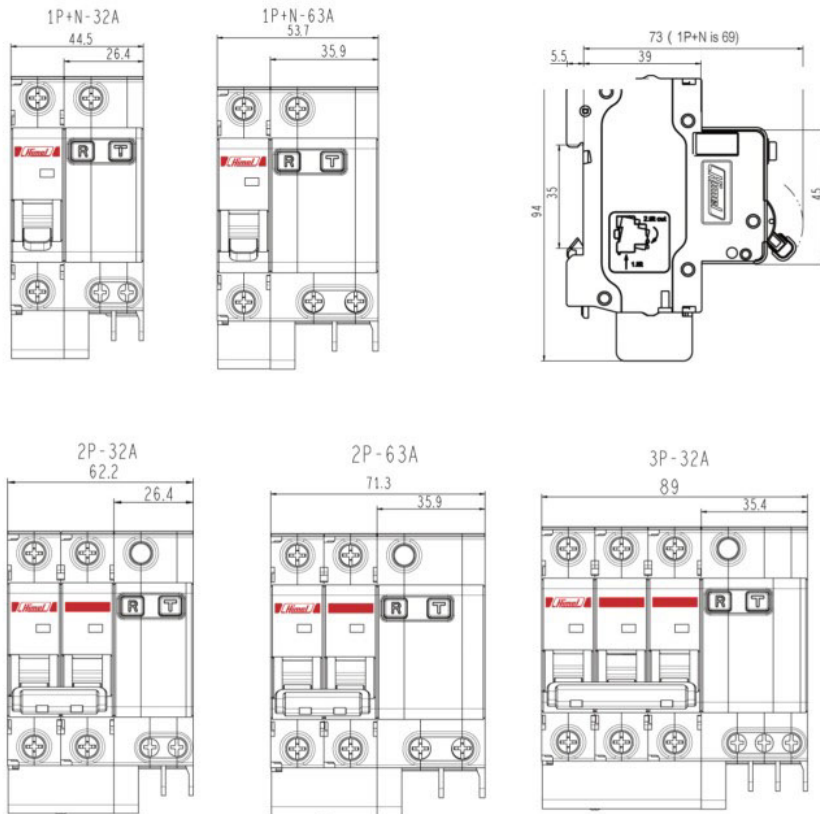


HDB3wHLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



HDB3wHLE Installation Dimension

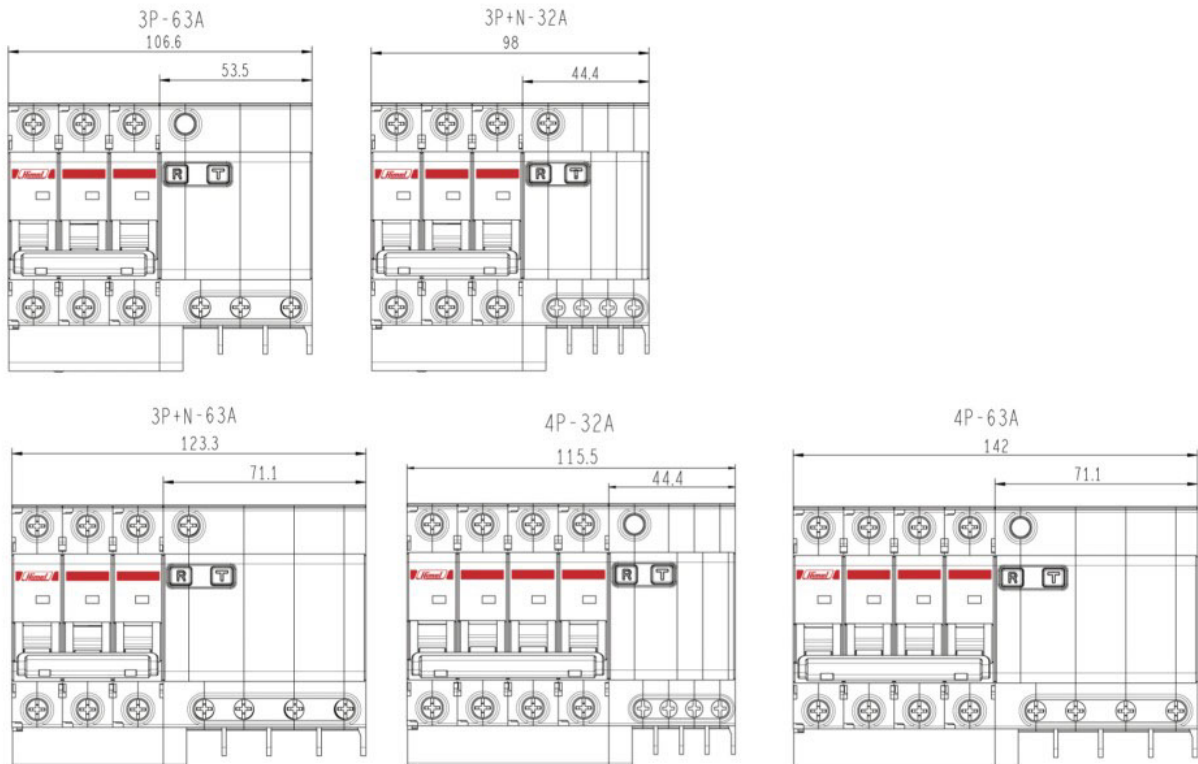


HDB3wHLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



HDB3wHLE Installation Dimension



Final Distribution



HDB3wLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



Function

HDB3wLE Residual Current Operated Circuit Breaker has the following features:

- Short circuit protection
- Overload protection
- Isolating function
- Earthleakage protection function
- Residual Current Operated Circuit Breaker over voltage protection function

Main Features

Rated operating voltage V	1P+N, 2P: 230AC 3P, 3P+N, 4P 400 AC
Rated current A	6-63
Rated frequency Hz	50/60
Number of poles	1P+N, 2P, 3P, 3P+N, 4P
Breaking capacity kA	6
Rated residual operating current mA	30, 50, 75, 100, 300
Over-voltage protection function	280±5% AC (for products only 1P+N,2P,C curve)



Product Details Display



HDB3wLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



Functions and Features

Electrical Characteristics

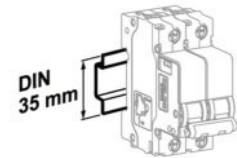
Nominal insulation voltage U_i	(V)	250 (phase-to-ground) 500 (phase-to-phase)
Maximum working voltage U_{Bmax}	1P+N, 2P (V)	230 AC
	3P, 3P+N, 4P (V)	400 AC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(kA)	6
Rated impulse withstand voltage U_{imp} (1.2/50)	(kV)	4
Dielectric test voltage		2kV (50/60HZ, 1min)
Isolating function		Available
Pollution class		2
Electric shock protection grade		II
Trip type:		Thermal magnetic trip
Thermal magnetic trip characteristics:	Type B curve ($3I_n \sim 5I_n$)	-
	Type C curve ($5I_n \sim 10I_n$)	■
	Type D curve ($10I_n \sim 14I_n$)	■
Electrical and mechanical accessories		■

Mechanical Characteristics

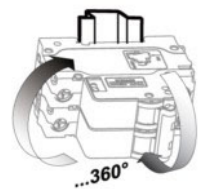
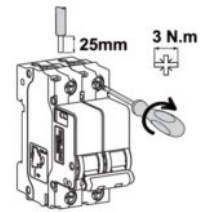
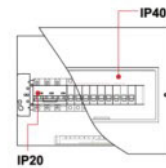
Trip indication	Upspring of the reset button indicates leakage trip	
Manual control	Two reset modes are allowed for the handle	
	Overcurrent fault	The circuit breaker and the residual current operated device reset simultaneously
	Leakage fault	The residual current operated device resets before the circuit breaker resets
Handle	Red, pad printing indicating ON-OFF position	
Mechanical endurance	Times 25,000	
Electrical endurance	Times 6,000	
Protection grade	Installed in distribution box IP40 Installed directly IP20	
Mechanical shock resistance	30g, 3 shocks, lasting 11ms (No significant vibration or shock)	
Anti-vibration (IEC/EN 60068-2-6)	No significant vibration or shock	
High temperature humidity resistance	Category 2, 28 cycles Relative humidity 90%~96% at 55° C Relative humidity 95%~100% at 25° C	
Rated ambient temperature	30° C	
Operating ambient temperature (daily mean temperature $\leq +35^\circ$ C)	-20° C~+60° C	
Storage temperature	-40° C~+70° C	

Installation Features

Terminal form	U terminal
Maximum wiring capacity (A)	Current ratings 6-32:16mm ²
	Current ratings 40-63:25mm ²
Maximum ultimate torque (A)	Current ratings 6-32:2.5 N.m
	Current ratings 40-63:3 N.m
Tool	Crosshead screwdriver or flathead screwdriver
Installation	Installed on standard DIN guide rail (35mm)
Line incoming mode	Top



Installed on 35mm standard guide rail



Flexible installation direction

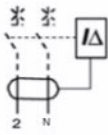
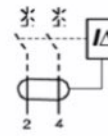
HDB3wLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



HDB3wLE Residual Current Operated Circuit Breaker

Product name	Breaking capacity	Number of poles	Trip type	Rated current	Residual current	Other functions
HDB3wLE	N	1	C	6	Default:30mA R50: 50mA R75: 75mA R100: 100mA R300: 300mA	G Default: No over-voltage protection G: Over-voltage protection
	N 6kA	1: 1P+N 2: 2P 3: 3P 6: 3P+N 4: 4P	C: CType D: DType	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A		

HDB3wLE Residual current operated circuit breaker	Type	Rated current	Trip type			
			C			
	1P+N	6	HDB3wLEN1C6	HDB3wLEN1C6R50		
		10	HDB3wLEN1C10	HDB3wLEN1C10R50		
		16	HDB3wLEN1C16	HDB3wLEN1C16R50		
		20	HDB3wLEN1C20	HDB3wLEN1C20R50		
		25	HDB3wLEN1C25	HDB3wLEN1C25R50		
		32	HDB3wLEN1C32	HDB3wLEN1C32R50		
		40	HDB3wLEN1C40	HDB3wLEN1C40R50		
		50	HDB3wLEN1C50	HDB3wLEN1C50R50		
		63	HDB3wLEN1C63	HDB3wLEN1C63R50		
			2P	6	HDB3wLEN2C6	HDB3wLEN2C6R50
				10	HDB3wLEN2C10	HDB3wLEN2C10R50
				16	HDB3wLEN2C16	HDB3wLEN2C16R50
20	HDB3wLEN2C20			HDB3wLEN2C20R50		
25	HDB3wLEN2C25			HDB3wLEN2C25R50		
32	HDB3wLEN2C32			HDB3wLEN2C32R50		
40	HDB3wLEN2C40			HDB3wLEN2C40R50		
50	HDB3wLEN2C50			HDB3wLEN2C50R50		
63	HDB3wLEN2C63			HDB3wLEN2C63R50		

HDB3wLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



HDB3wLE Residual Current Operated Circuit Breaker

Product name	Breaking capacity	Number of poles	Trip type	Rated current	Residual current	Other functions
HDB3wLE	N	1	C	6	Default:30mA R50 50mA R75: 75mA R100: 100mA R300: 300mA	G Default: No over-voltage protection G: Over-voltage protection
	N 6kA	1: 1P+N 2: 2P 3: 3P 6: 3P+N 5: 4P	C: CType D: DType	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A		

Trip type				
C			D	
HDB3wLEN1C6R75	HDB3wLEN1C6R100	HDB3wLEN1C6R300	HDB3wLEN1D6	HDB3wLEN1D6R50
HDB3wLEN1C10R75	HDB3wLEN1C10R100	HDB3wLEN1C10R300	HDB3wLEN1D10	HDB3wLEN1D10R50
HDB3wLEN1C16R75	HDB3wLEN1C16R100	HDB3wLEN1C16R300	HDB3wLEN1D16	HDB3wLEN1D16R50
HDB3wLEN1C20R75	HDB3wLEN1C20R100	HDB3wLEN1C20R300	HDB3wLEN1D20	HDB3wLEN1D20R50
HDB3wLEN1C25R75	HDB3wLEN1C25R100	HDB3wLEN1C25R300	HDB3wLEN1D25	HDB3wLEN1D25R50
HDB3wLEN1C32R75	HDB3wLEN1C32R100	HDB3wLEN1C32R300	HDB3wLEN1D32	HDB3wLEN1D32R50
HDB3wLEN1C40R75	HDB3wLEN1C40R100	HDB3wLEN1C40R300	HDB3wLEN1D40	HDB3wLEN1D40R50
HDB3wLEN1C50R75	HDB3wLEN1C50R100	HDB3wLEN1C50R300	HDB3wLEN1D50	HDB3wLEN1D50R50
HDB3wLEN1C63R75	HDB3wLEN1C63R100	HDB3wLEN1C63R300	HDB3wLEN1D63	HDB3wLEN1D63R50
HDB3wLEN2C6R75	HDB3wLEN2C6R100	HDB3wLEN2C6R300	HDB3wLEN2D6	HDB3wLEN2D6R50
HDB3wLEN2C10R75	HDB3wLEN2C10R100	HDB3wLEN2C10R300	HDB3wLEN2D10	HDB3wLEN2D10R50
HDB3wLEN2C16R75	HDB3wLEN2C16R100	HDB3wLEN2C16R300	HDB3wLEN2D16	HDB3wLEN2D16R50
HDB3wLEN2C20R75	HDB3wLEN2C20R100	HDB3wLEN2C20R300	HDB3wLEN2D20	HDB3wLEN2D20R50
HDB3wLEN2C25R75	HDB3wLEN2C25R100	HDB3wLEN2C25R300	HDB3wLEN2D25	HDB3wLEN2D25R50
HDB3wLEN2C32R75	HDB3wLEN2C32R100	HDB3wLEN2C32R300	HDB3wLEN2D32	HDB3wLEN2D32R50
HDB3wLEN2C40R75	HDB3wLEN2C40R100	HDB3wLEN2C40R300	HDB3wLEN2D40	HDB3wLEN2D40R50
HDB3wLEN2C50R75	HDB3wLEN2C50R100	HDB3wLEN2C50R300	HDB3wLEN2D50	HDB3wLEN2D50R50
HDB3wLEN2C63R75	HDB3wLEN2C63R100	HDB3wLEN2C63R300	HDB3wLEN2D63	HDB3wLEN2D63R50

HDB3wLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



HDB3wLE Residual Current Operated Circuit Breaker

Product name	Breaking capacity	Number of poles	Trip type	Rated current	Residual current	Other functions
HDB3wLE	N	1	C	6	Default:30mA R50 50mA R75: 75mA R100: 100mA R300: 300mA	G Default: No over-voltage protection G: Over-voltage protection
	N 6kA	1: 1P+N 2: 2P 3: 3P 6: 3P+N 5: 4P	C: CType D: DType	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A		

Trip type			Over voltage
D			
HDB3wLEN1D6R75	HDB3wLEN1D6R100	HDB3wLEN1D6R300	
HDB3wLEN1D10R75	HDB3wLEN1D10R100	HDB3wLEN1D10R300	HDB3wLEN1C10G
HDB3wLEN1D16R75	HDB3wLEN1D16R100	HDB3wLEN1D16R300	HDB3wLEN1C16G
HDB3wLEN1D20R75	HDB3wLEN1D20R100	HDB3wLEN1D20R300	HDB3wLEN1C20G
HDB3wLEN1D25R75	HDB3wLEN1D25R100	HDB3wLEN1D25R300	HDB3wLEN1C25G
HDB3wLEN1D32R75	HDB3wLEN1D32R100	HDB3wLEN1D32R300	HDB3wLEN1C32G
HDB3wLEN1D40R75	HDB3wLEN1D40R100	HDB3wLEN1D40R300	HDB3wLEN1C40G
HDB3wLEN1D50R75	HDB3wLEN1D50R100	HDB3wLEN1D50R300	HDB3wLEN1C50G
HDB3wLEN1D63R75	HDB3wLEN1D63R100	HDB3wLEN1D63R300	HDB3wLEN1C63G
HDB3wLEN2D6R75	HDB3wLEN2D6R100	HDB3wLEN2D6R300	
HDB3wLEN2D10R75	HDB3wLEN2D10R100	HDB3wLEN2D10R300	HDB3wLEN2C10G
HDB3wLEN2D16R75	HDB3wLEN2D16R100	HDB3wLEN2D16R300	HDB3wLEN2C16G
HDB3wLEN2D20R75	HDB3wLEN2D20R100	HDB3wLEN2D20R300	HDB3wLEN2C20G
HDB3wLEN2D25R75	HDB3wLEN2D25R100	HDB3wLEN2D25R300	HDB3wLEN2C25G
HDB3wLEN2D32R75	HDB3wLEN2D32R100	HDB3wLEN2D32R300	HDB3wLEN2C32G
HDB3wLEN2D40R75	HDB3wLEN2D40R100	HDB3wLEN2D40R300	HDB3wLEN2C40G
HDB3wLEN2D50R75	HDB3wLEN2D50R100	HDB3wLEN2D50R300	HDB3wLEN2C50G
HDB3wLEN2D63R75	HDB3wLEN2D63R100	HDB3wLEN2D63R300	HDB3wLEN2C63G

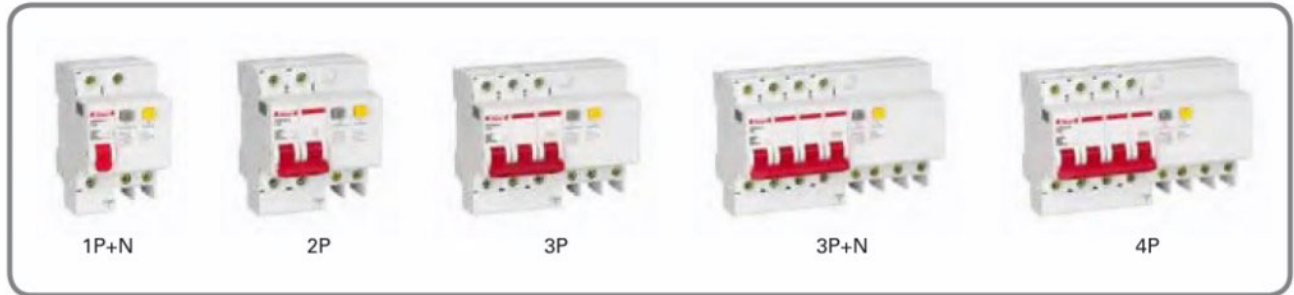


HDB3wLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



HDB3wLE Residual Current Operated Circuit Breaker



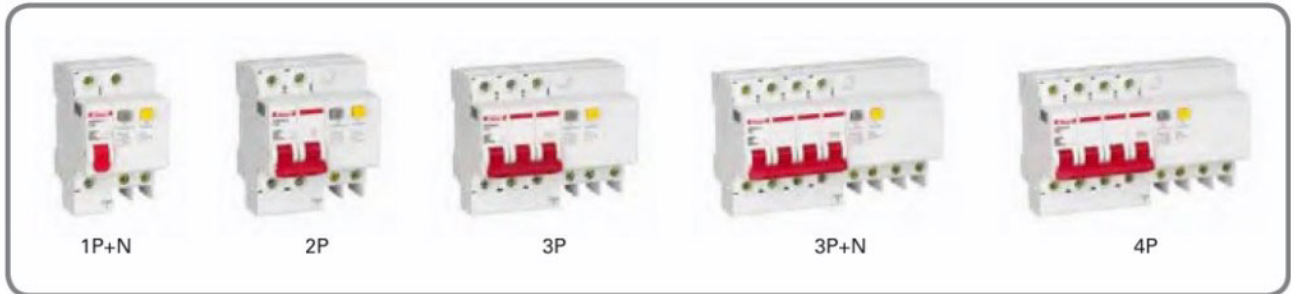
HDB3wLE Residual current operated circuit breaker	Type	Rated current	Trip type			
			C			
	3P	6	HDB3wLEN3C6	HDB3wLEN3C6R50		
		10	HDB3wLEN3C10	HDB3wLEN3C10R50		
		16	HDB3wLEN3C16	HDB3wLEN3C16R50		
		20	HDB3wLEN3C20	HDB3wLEN3C20R50		
		25	HDB3wLEN3C25	HDB3wLEN3C25R50		
		32	HDB3wLEN3C32	HDB3wLEN3C32R50		
		40	HDB3wLEN3C40	HDB3wLEN3C40R50		
		50	HDB3wLEN3C50	HDB3wLEN3C50R50		
		63	HDB3wLEN3C63	HDB3wLEN3C63R50		
			3P+N	6	HDB3wLEN6C6	HDB3wLEN6C6R50
				10	HDB3wLEN6C10	HDB3wLEN6C10R50
				16	HDB3wLEN6C16	HDB3wLEN6C16R50
20	HDB3wLEN6C20			HDB3wLEN6C20R50		
25	HDB3wLEN6C25			HDB3wLEN6C25R50		
32	HDB3wLEN6C32			HDB3wLEN6C32R50		
40	HDB3wLEN6C40			HDB3wLEN6C40R50		
50	HDB3wLEN6C50			HDB3wLEN6C50R50		
63	HDB3wLEN6C63			HDB3wLEN6C63R50		
	4P			6	HDB3wLEN4C6	HDB3wLEN4C6R50
				10	HDB3wLEN4C10	HDB3wLEN4C10R50
				16	HDB3wLEN4C16	HDB3wLEN4C16R50
		20	HDB3wLEN4C20	HDB3wLEN4C20R50		
		25	HDB3wLEN4C25	HDB3wLEN4C25R50		
		32	HDB3wLEN4C32	HDB3wLEN4C32R50		
		40	HDB3wLEN4C40	HDB3wLEN4C40R50		
		50	HDB3wLEN4C50	HDB3wLEN4C50R50		
		63	HDB3wLEN4C63	HDB3wLEN4C63R50		

HDB3wLE Residual Current Operated Circuit Breaker

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HDB3wLE Residual Current Operated Circuit Breaker



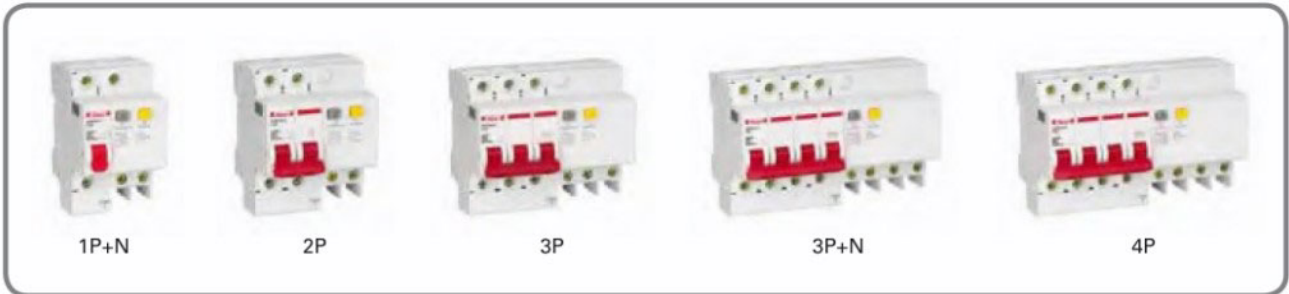
Trip type				
C			D	
HDB3wLEN3C6R75	HDB3wLEN3C6R100	HDB3wLEN3C6R300	HDB3wLEN3D6	HDB3wLEN3D6R50
HDB3wLEN3C10R75	HDB3wLEN3C10R100	HDB3wLEN3C10R300	HDB3wLEN3D10	HDB3wLEN3D10R50
HDB3wLEN3C16R75	HDB3wLEN3C16R100	HDB3wLEN3C16R300	HDB3wLEN3D16	HDB3wLEN3D16R50
HDB3wLEN3C20R75	HDB3wLEN3C20R100	HDB3wLEN3C20R300	HDB3wLEN3D20	HDB3wLEN3D20R50
HDB3wLEN3C25R75	HDB3wLEN3C25R100	HDB3wLEN3C25R300	HDB3wLEN3D25	HDB3wLEN3D25R50
HDB3wLEN3C32R75	HDB3wLEN3C32R100	HDB3wLEN3C32R300	HDB3wLEN3D32	HDB3wLEN3D32R50
HDB3wLEN3C40R75	HDB3wLEN3C40R100	HDB3wLEN3C40R300	HDB3wLEN3D40	HDB3wLEN3D40R50
HDB3wLEN3C50R75	HDB3wLEN3C50R100	HDB3wLEN3C50R300	HDB3wLEN3D50	HDB3wLEN3D50R50
HDB3wLEN3C63R75	HDB3wLEN3C63R100	HDB3wLEN3C63R300	HDB3wLEN3D63	HDB3wLEN3D63R50
HDB3wLEN6C6R75	HDB3wLEN6C6R100	HDB3wLEN6C6R300	HDB3wLEN6D6	HDB3wLEN6D6R50
HDB3wLEN6C10R75	HDB3wLEN6C10R100	HDB3wLEN6C10R300	HDB3wLEN6D10	HDB3wLEN6D10R50
HDB3wLEN6C16R75	HDB3wLEN6C16R100	HDB3wLEN6C16R300	HDB3wLEN6D16	HDB3wLEN6D16R50
HDB3wLEN6C20R75	HDB3wLEN6C20R100	HDB3wLEN6C20R300	HDB3wLEN6D20	HDB3wLEN6D20R50
HDB3wLEN6C25R75	HDB3wLEN6C25R100	HDB3wLEN6C25R300	HDB3wLEN6D25	HDB3wLEN6D25R50
HDB3wLEN6C32R75	HDB3wLEN6C32R100	HDB3wLEN6C32R300	HDB3wLEN6D32	HDB3wLEN6D32R50
HDB3wLEN6C40R75	HDB3wLEN6C40R100	HDB3wLEN6C40R300	HDB3wLEN6D40	HDB3wLEN6D40R50
HDB3wLEN6C50R75	HDB3wLEN6C50R100	HDB3wLEN6C50R300	HDB3wLEN6D50	HDB3wLEN6D50R50
HDB3wLEN6C63R75	HDB3wLEN6C63R100	HDB3wLEN6C63R300	HDB3wLEN6D63	HDB3wLEN6D63R50
HDB3wLEN4C6R75	HDB3wLEN4C6R100	HDB3wLEN4C6R300	HDB3wLEN4D6	HDB3wLEN4D6R50
HDB3wLEN4C10R75	HDB3wLEN4C10R100	HDB3wLEN4C10R300	HDB3wLEN4D10	HDB3wLEN4D10R50
HDB3wLEN4C16R75	HDB3wLEN4C16R100	HDB3wLEN4C16R300	HDB3wLEN4D16	HDB3wLEN4D16R50
HDB3wLEN4C20R75	HDB3wLEN4C20R100	HDB3wLEN4C20R300	HDB3wLEN4D20	HDB3wLEN4D20R50
HDB3wLEN4C25R75	HDB3wLEN4C25R100	HDB3wLEN4C25R300	HDB3wLEN4D25	HDB3wLEN4D25R50
HDB3wLEN4C32R75	HDB3wLEN4C32R100	HDB3wLEN4C32R300	HDB3wLEN4D32	HDB3wLEN4D32R50
HDB3wLEN4C40R75	HDB3wLEN4C40R100	HDB3wLEN4C40R300	HDB3wLEN4D40	HDB3wLEN4D40R50
HDB3wLEN4C50R75	HDB3wLEN4C50R100	HDB3wLEN4C50R300	HDB3wLEN4D50	HDB3wLEN4D50R50
HDB3wLEN4C63R75	HDB3wLEN4C63R100	HDB3wLEN4C63R300	HDB3wLEN4D63	HDB3wLEN4D63R50

HDB3wLE Residual Current Operated Circuit Breaker

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HDB3wLE Residual Current Operated Circuit Breaker



Trip type			Over voltage
D			
HDB3wLEN3D6R75	HDB3wLEN3D6R100	HDB3wLEN3D6R300	
HDB3wLEN3D10R75	HDB3wLEN3D10R100	HDB3wLEN3D10R300	
HDB3wLEN3D16R75	HDB3wLEN3D16R100	HDB3wLEN3D16R300	
HDB3wLEN3D20R75	HDB3wLEN3D20R100	HDB3wLEN3D20R300	
HDB3wLEN3D25R75	HDB3wLEN3D25R100	HDB3wLEN3D25R300	
HDB3wLEN3D32R75	HDB3wLEN3D32R100	HDB3wLEN3D32R300	
HDB3wLEN3D40R75	HDB3wLEN3D40R100	HDB3wLEN3D40R300	
HDB3wLEN3D50R75	HDB3wLEN3D50R100	HDB3wLEN3D50R300	
HDB3wLEN3D63R75	HDB3wLEN3D63R100	HDB3wLEN3D63R300	
HDB3wLEN6D6R75	HDB3wLEN6D6R100	HDB3wLEN6D6R300	
HDB3wLEN6D10R75	HDB3wLEN6D10R100	HDB3wLEN6D10R300	
HDB3wLEN6D16R75	HDB3wLEN6D16R100	HDB3wLEN6D16R300	
HDB3wLEN6D20R75	HDB3wLEN6D20R100	HDB3wLEN6D20R300	
HDB3wLEN6D25R75	HDB3wLEN6D25R100	HDB3wLEN6D25R300	
HDB3wLEN6D32R75	HDB3wLEN6D32R100	HDB3wLEN6D32R300	
HDB3wLEN6D40R75	HDB3wLEN6D40R100	HDB3wLEN6D40R300	
HDB3wLEN6D50R75	HDB3wLEN6D50R100	HDB3wLEN6D50R300	
HDB3wLEN6D63R75	HDB3wLEN6D63R100	HDB3wLEN6D63R300	
HDB3wLEN4D6R75	HDB3wLEN4D6R100	HDB3wLEN4D6R300	
HDB3wLEN4D10R75	HDB3wLEN4D10R100	HDB3wLEN4D10R300	
HDB3wLEN4D16R75	HDB3wLEN4D16R100	HDB3wLEN4D16R300	
HDB3wLEN4D20R75	HDB3wLEN4D20R100	HDB3wLEN4D20R300	
HDB3wLEN4D25R75	HDB3wLEN4D25R100	HDB3wLEN4D25R300	
HDB3wLEN4D32R75	HDB3wLEN4D32R100	HDB3wLEN4D32R300	
HDB3wLEN4D40R75	HDB3wLEN4D40R100	HDB3wLEN4D40R300	
HDB3wLEN4D50R75	HDB3wLEN4D50R100	HDB3wLEN4D50R300	
HDB3wLEN4D63R75	HDB3wLEN4D63R100	HDB3wLEN4D63R300	

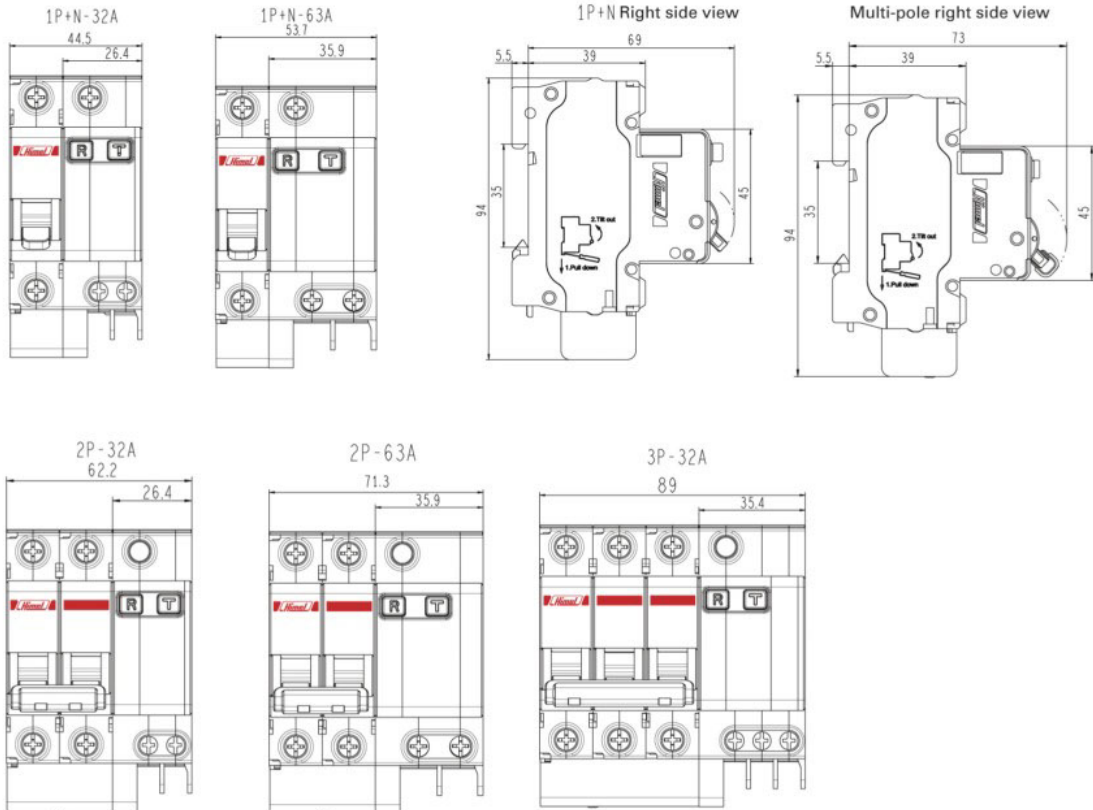


HDB3wLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



HDB3wLE Installation Dimension



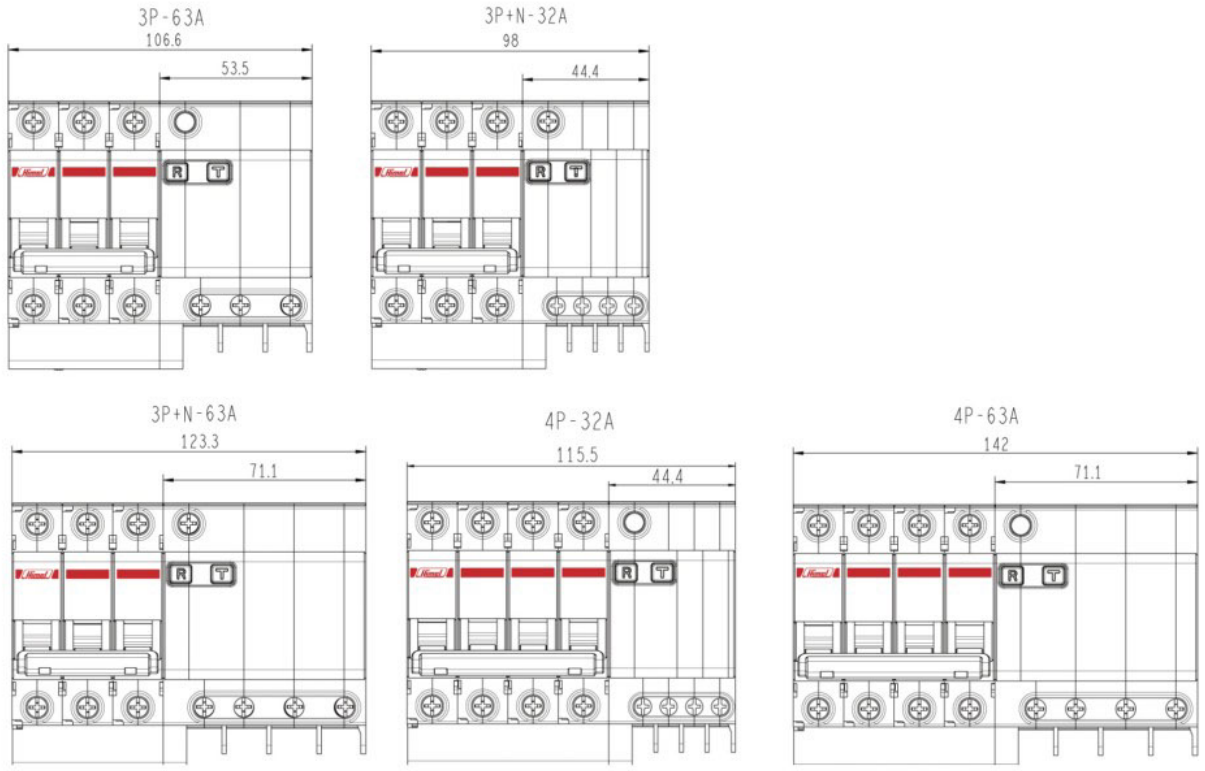
HDB3wLE Residual Current Operated Circuit Breaker

Standard: IEC61009-1



Final Distribution

HDB3wLE Installation Dimension



HDB9LE Residual Current Operated Circuit Breaker

Standard: IEC 61009-1

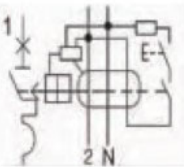
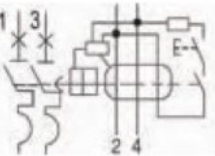
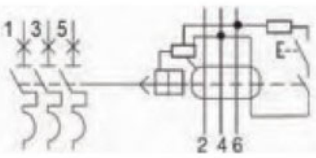
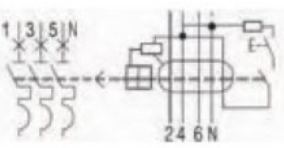


Function

HDB9LE electronic type residual current operated circuit breakers combine the following functions:

- Overload Protection
- Protection against short-circuit current
- Protection against indirect currents
- Additional protection for users against direct contacts (30mA)
- Protection for electrical installations against insulation faults (fire hazard, etc)
- Isolation

Order Information

Pole	Voltage (V)	Breaking Capacity	Sensitivity (mA)	Frame Size	Rated Current (A)	Reference	
						C curve	
1P+N 	230	6kA	30	32	6	HDB9LEN321C6S	
					10	HDB9LEN321C10S	
					16	HDB9LEN321C16S	
					20	HDB9LEN321C20S	
					25	HDB9LEN321C25S	
					32	HDB9LEN321C32S	
					63	40	HDB9LEN631C40S
					50	HDB9LEN631C50S	
					63	HDB9LEN631C63S	
					2P 	230	6kA
10	HDB9LEN322C10S						
16	HDB9LEN322C16S						
20	HDB9LEN322C20S						
25	HDB9LEN322C25S						
32	HDB9LEN322C32S						
63	40	HDB9LEN632C40S					
50	HDB9LEN632C50S						
63	HDB9LEN632C63S						
3P 	400	6kA	30	32			
					10	HDB9LEN323C10S	
					16	HDB9LEN323C16S	
					20	HDB9LEN323C20S	
					25	HDB9LEN323C25S	
					32	HDB9LEN323C32S	
					63	40	HDB9LEN633C40S
					50	HDB9LEN633C50S	
					63	HDB9LEN633C63S	
					3P+N 	400	6kA
10	HDB9LEN326C10S						
16	HDB9LEN326C16S						
20	HDB9LEN326C20S						
25	HDB9LEN326C25S						
32	HDB9LEN326C32S						
63	40	HDB9LEN636C40S					
50	HDB9LEN636C50S						
63	HDB9LEN636C63S						

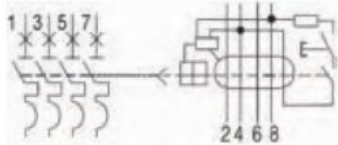


HDB9LE Residual Current Operated Circuit Breaker

Standard: IEC 61009-1



Pole	Voltage (V)	Breaking Capacity	Sensitivity (mA)	Frame Size	Rated Current (A)	Reference
						C curve
4P	400	6kA	30	32	6	HDB9LEN324C6S
					10	HDB9LEN324C10S
					16	HDB9LEN324C16S
					20	HDB9LEN324C20S
					25	HDB9LEN324C25S
					32	HDB9LEN324C32S
				63	40	HDB9LEN634C40S
					50	HDB9LEN634C50S
					63	HDB9LEN634C63S



Final Distribution

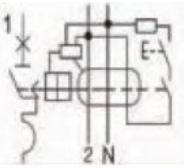
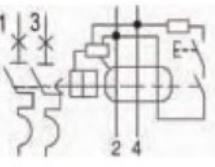
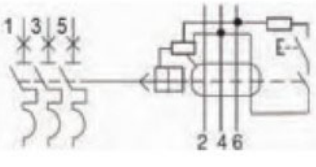
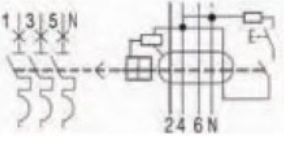


HDB9LE Residual Current Operated Circuit Breaker

Standard: IEC 61009-1



Order Information

Pole	Voltage (V)	Breaking Capacity	Sensitivity (mA)	Frame Size	Rated Current (A)	Reference	
						C curve	
1P+N 	230	6kA	100	32	6	HDB9LEN321C6Y	
					10	HDB9LEN321C10Y	
					16	HDB9LEN321C16Y	
					20	HDB9LEN321C20Y	
					25	HDB9LEN321C25Y	
					32	HDB9LEN321C32Y	
					63	40	HDB9LEN631C40Y
						50	HDB9LEN631C50Y
						63	HDB9LEN631C63Y
						63	HDB9LEN631C63Y
2P 	230	6kA	100	32	6	HDB9LEN322C6Y	
					10	HDB9LEN322C10Y	
					16	HDB9LEN322C16Y	
					20	HDB9LEN322C20Y	
					25	HDB9LEN322C25Y	
					32	HDB9LEN322C32Y	
					63	40	HDB9LEN632C40Y
						50	HDB9LEN632C50Y
						63	HDB9LEN632C63Y
						63	HDB9LEN632C63Y
3P 	400	6kA	100	32	6	HDB9LEN323C6Y	
					10	HDB9LEN323C10Y	
					16	HDB9LEN323C16Y	
					20	HDB9LEN323C20Y	
					25	HDB9LEN323C25Y	
					32	HDB9LEN323C32Y	
					63	40	HDB9LEN633C40Y
						50	HDB9LEN633C50Y
						63	HDB9LEN633C63Y
						63	HDB9LEN633C63Y
3P+N 	400	6kA	100	32	6	HDB9LEN326C6Y	
					10	HDB9LEN326C10Y	
					16	HDB9LEN326C16Y	
					20	HDB9LEN326C20Y	
					25	HDB9LEN326C25Y	
					32	HDB9LEN326C32Y	
					63	40	HDB9LEN636C40Y
						50	HDB9LEN636C50Y
						63	HDB9LEN636C63Y
						63	HDB9LEN636C63Y

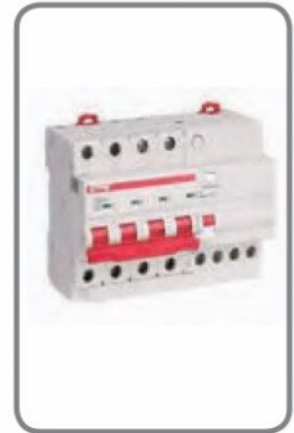
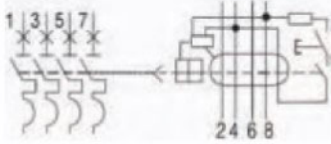


HDB9LE Residual Current Operated Circuit Breaker

Standard: IEC 61009-1



Pole	Voltage (V)	Breaking Capacity	Sensitivity (mA)	Frame Size	Rated Current (A)	Reference	
						C curve	
4P	400	6kA	100	32	6	HDB9LEN324C6Y	
					10	HDB9LEN324C10Y	
					16	HDB9LEN324C16Y	
					20	HDB9LEN324C20Y	
					25	HDB9LEN324C25Y	
					32	HDB9LEN324C32Y	
					63	40	HDB9LEN634C40Y
						50	HDB9LEN634C50Y
						63	HDB9LEN634C63Y



Final Distribution

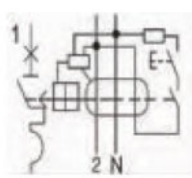
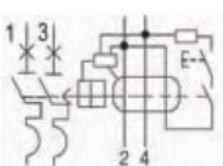
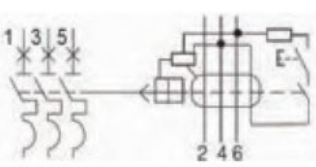
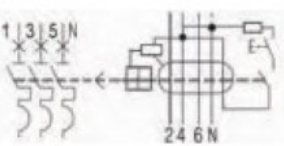


HDB9LE Residual Current Operated Circuit Breaker

Standard: IEC 61009-1



Order Information

Pole	Voltage (V)	Breaking Capacity	Sensitivity (mA)	Frame Size	Rated Current (A)	Reference	
						C curve	
1P+N 	230	6kA	300	32	6	HDB9LEN321C6T	
					10	HDB9LEN321C10T	
					16	HDB9LEN321C16T	
					20	HDB9LEN321C20T	
					25	HDB9LEN321C25T	
					32	HDB9LEN321C32T	
					63	40	HDB9LEN631C40T
						50	HDB9LEN631C50T
						63	HDB9LEN631C63T
					2P 	230	6kA
10	HDB9LEN322C10T						
16	HDB9LEN322C16T						
20	HDB9LEN322C20T						
25	HDB9LEN322C25T						
32	HDB9LEN322C32T						
63	40	HDB9LEN632C40T					
	50	HDB9LEN632C50T					
	63	HDB9LEN632C63T					
3P 	400	6kA	300	32			
					10	HDB9LEN323C10T	
					16	HDB9LEN323C16T	
					20	HDB9LEN323C20T	
					25	HDB9LEN323C25T	
					32	HDB9LEN323C32T	
					63	40	HDB9LEN633C40T
						50	HDB9LEN633C50T
						63	HDB9LEN633C63T
					3P+N 	400	6kA
10	HDB9LEN326C10T						
16	HDB9LEN326C16T						
20	HDB9LEN326C20T						
25	HDB9LEN326C25T						
32	HDB9LEN326C32T						
63	40	HDB9LEN636C40T					
	50	HDB9LEN636C50T					
	63	HDB9LEN636C63T					

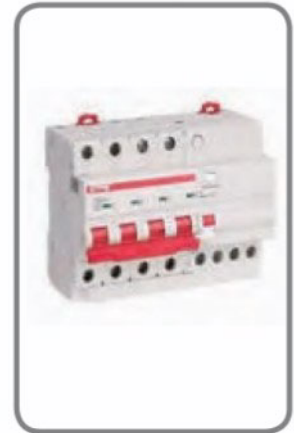
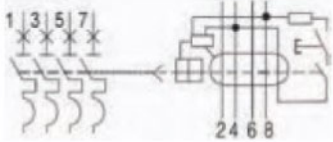


HDB9LE Residual Current Operated Circuit Breaker

Standard: IEC 61009-1



Pole	Voltage (V)	Breaking Capacity	Sensitivity (mA)	Frame Size	Rated Current (A)	Reference
						C curve
4P	400	6kA	300	32	6	HDB9LEN324C6T
					10	HDB9LEN324C10T
					16	HDB9LEN324C16T
					20	HDB9LEN324C20T
					25	HDB9LEN324C25T
					32	HDB9LEN324C32T
				63	40	HDB9LEN634C40T
					50	HDB9LEN634C50T
					63	HDB9LEN634C63T



Final Distribution



HDB9LE Residual Current Operated Circuit Breaker

Standard: IEC 61009-1



Technical Data

RCBO	HDB9LE Residual Current Operated Circuit Breaker			
Electrical Features	Standard	IEC61009-1		
	Certificate	CE RoHS		
	Electronic Type	AC		
	Poles	1P+N, 2P, 3P, 3P+N, 4P		
	Rated Current In	6, 10, 16, 20, 25, 32, 40, 50, 63A		
	Rated Voltage Ue	230V AC for 1P+N/2P, 400V AC for 3P/3P+N/4P		
	Insulation Voltage Ui	500V		
	Breaking Capacity	6kA		
	Sensitivity	30mA, 100mA, 300mA		
	Tripping Curve (see following tripping curve picture)			
C Curve: The magnetic release operates between 5 and 10 In				
Mechanical Features	Electrical Durability	2000 times		
	Mechanical Durability	2000 times		
	Protection Degree	2		
	Tropicalization	Treatment 2		
	Ambient Temperature	-5°C~+40°C		
Connection	6-40A, Up to 25mm ² cables, 50-63A, Up to 35mm ² cables			
Installation	Rated current(A)	Screw	Rated Torque (Nm)	Maximum Ultimate Torque (Nm)
	6-32	M4	2.0	3.0
	40-60	M6	2.5	3.5
Mounting	35mm Din-rail			
Accessories	Contact Accessory:	OF		
	Fault-indicating Accessory:	SD		
	Shunt-Trip Release:	MX+OF		

HDB9LE Residual Current Operated Circuit Breaker

Standard: IEC 61009-1



Accessories



SD

OF

MX+OF

HDB9LM Electromagnetic Residual Current Operated Circuit Breaker

Standard:EN61009-1,61009-2-1



Function

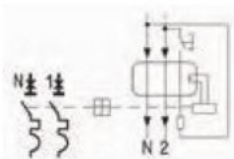
HDB9LM electronic type residual current operated circuit breakers combine the following functions:

- Overload Protection
- Protection against short-circuit current
- Residual Protection(Electromagnetic)
- Protection for users against direct contacts (30mA)
- Protection for electrical installations against insulation faults (fire hazard,ect.)
- Isolation

Order Information

Model	Frame	Poles	Curve	Rated current	Sensitivity	Enclosure
HDB9LM	63	5	C	6	T	Default
	↓	↓	↓	↓	↓	↓
	63: 63AF	5:1P+N 6:3P+N	C:C curve	6: 6A 10: 10A ... 63: 63A	T:300mA S:30mA	Default:Without enclosure E:With enclosure

Frame	Poles	Curve	Sensitivity	Rated Current (A)	Reference	
					Default	E
63AF	1P+N	C	30mA	6	HDB9LM635C6S	HDB9LM635C6SE
				10	HDB9LM635C10S	HDB9LM635C10SE
				16	HDB9LM635C16S	HDB9LM635C16SE
				20	HDB9LM635C20S	HDB9LM635C20SE
				25	HDB9LM635C25S	HDB9LM635C25SE
				32	HDB9LM635C32S	HDB9LM635C32SE
				40	HDB9LM635C40S	HDB9LM635C40SE
				45	HDB9LM635C45S	HDB9LM635C45SE
				50	HDB9LM635C50S	HDB9LM635C50SE
				63	HDB9LM635C63S	HDB9LM635C63SE
			300mA	6	HDB9LM635C6T	HDB9LM635C6TE
				10	HDB9LM635C10T	HDB9LM635C10TE
				16	HDB9LM635C16T	HDB9LM635C16TE
				20	HDB9LM635C20T	HDB9LM635C20TE
				25	HDB9LM635C25T	HDB9LM635C25TE
				32	HDB9LM635C32T	HDB9LM635C32TE
				40	HDB9LM635C40T	HDB9LM635C40TE
				45	HDB9LM635C45T	HDB9LM635C45TE
				50	HDB9LM635C50T	HDB9LM635C50TE
				63	HDB9LM635C63T	HDB9LM635C63TE

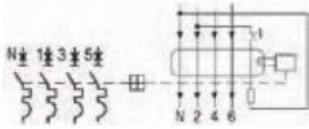


HDB9LM Electromagnetic Residual Current Operated Circuit Breaker

Standard EN61009-1 61009-2-1



Frame	Poles	Curve	Sensitivity	Rated Current (A)	Reference	
					Default	E
63AF	3P+N	C	30mA	6	HDB9LM636C6S	HDB9LM636C6SE
				10	HDB9LM636C10S	HDB9LM636C10SE
				16	HDB9LM636C16S	HDB9LM636C16SE
				20	HDB9LM636C20S	HDB9LM636C20SE
				25	HDB9LM636C25S	HDB9LM636C25SE
				32	HDB9LM636C32S	HDB9LM636C32SE
				40	HDB9LM636C40S	HDB9LM636C40SE
				45	HDB9LM636C45S	HDB9LM636C45SE
				50	HDB9LM636C50S	HDB9LM636C50SE
				63	HDB9LM636C63S	HDB9LM636C63SE
			300mA	6	HDB9LM636C6T	HDB9LM636C6TE
				10	HDB9LM636C10T	HDB9LM636C10TE
				16	HDB9LM636C16T	HDB9LM636C16TE
				20	HDB9LM636C20T	HDB9LM636C20TE
				25	HDB9LM636C25T	HDB9LM636C25TE
				32	HDB9LM636C32T	HDB9LM636C32TE
				40	HDB9LM636C40T	HDB9LM636C40TE
				45	HDB9LM636C45T	HDB9LM636C45TE
				50	HDB9LM636C50T	HDB9LM636C50TE
				63	HDB9LM636C63T	HDB9LM636C63TE



Final Distribution

HDB9LM Electromagnetic Residual Current Operated Circuit Breaker

Standard EN61009-1 61009-2-1



Technical Data

RCBO	HDB9LM Electromagnetic Residual Current Operated Circuit Breaker			
Electrical Features	Standard	61009-1,61009-2-1		
	Electronic Type	AC		
	Poles	1P+N, 3P+N		
	Rated Current In	6, 10, 16, 20, 25, 32, 40, 45,50, 63A		
	Rated Voltage Ue	240V AC for 1P+N,415V AC for 3P+N500V		
Electrical Features	Insulation Voltage Ui	500V		
	Breaking Capacity	6KA		
	Sensitivity	30mA, 300mA		
	Tripping Curve (see following tripping curve picture)			
C Curve: the magnetic release operates between 5 and 10				
Mechanical Features	Electrical Durability	2000		
	Mechanical Durability	2000		
	Protection Degree	2		
	Tropicalization	Treatment 2		
	Ambient Temperature	-5°C~+55°		
Connection	6 - 40A,Up to 25mm ² cables, 50-63A,Up to 35mm ² cables			
Installation	Rated current(A)	Screw	Rated Torque (Nm)	Maximum Ultimate Torque(Nm)
	6-32	M4	2.0	3.0
	40-60	M6	2.5	3.5
Mounting	35mm Din-Rail			
Accessories	Contact Accessory:	OF		
	Fault-indicating Accessory:	SD		

Final Distribution

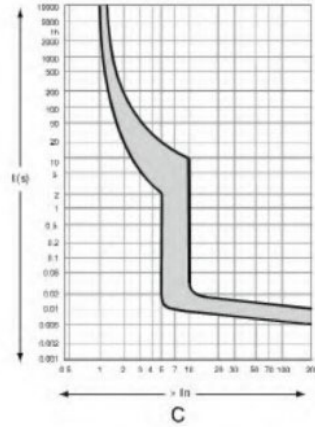


HDB9LM Electromagnetic Residual Current Operated Circuit Breaker

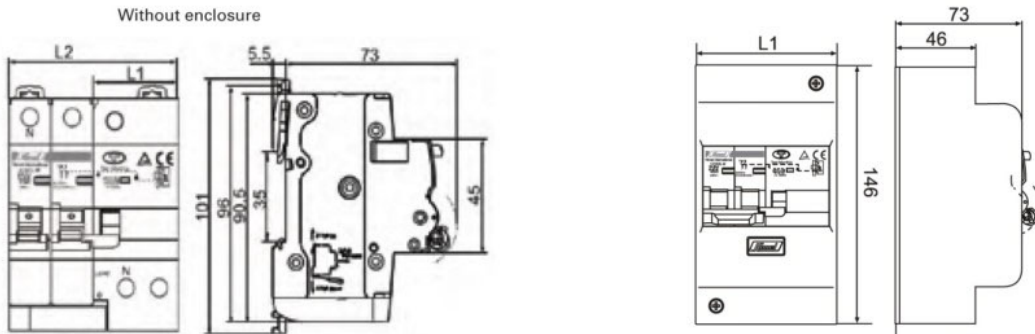
Standard EN61009-1 61009-2-1



Tripping Curve



Overall Dimensions



	L1(mm)	L2(mm)
1P+N	36	72
3P+N	63	135

	L1(mm)
1P+N	80
3P+N	143

Accessories



HDB3wLE-125 Molded Case Residual Current Operated Circuit Breaker

IEC/EN60947-2



HDB3wLE-125 molded case residual current operated circuit breaker has the following features

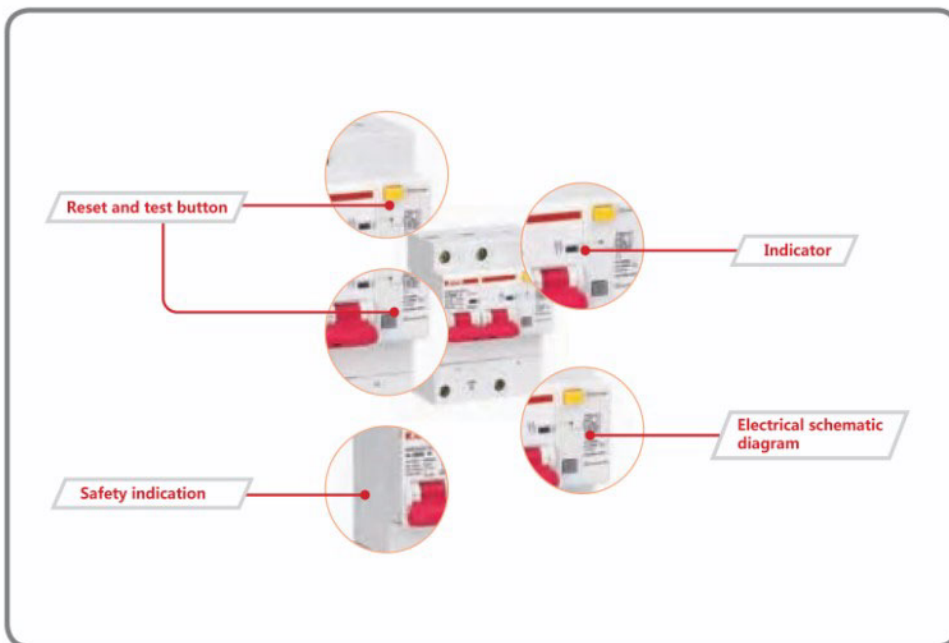
- Short circuit protection
- Overload protection
- Isolating function
- Leakage protection function
- Overvoltage protection function

Main Features

Rated operating voltage (V)	1P+N,2P: 230AC
	3P,3P+N,4P: 400AC
Rated current (A)	63-125
Rated frequency (Hz)	50/60
Poles	1P+N,2P,3P,3P+N,4P
Breaking capacity (kA)	10
Rated residual operating current (mA)	30,50,75,100,300
Overvoltage protection function (V)	(280±14 VAC(The products of 1P+N,2P,30mA have the over voltage function)



Product Details Display



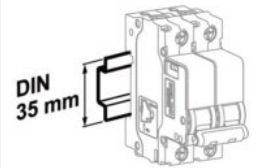
HDB3wLE-125 Molded Case Residual Current Operated Circuit Breaker

IEC/EN60947-2

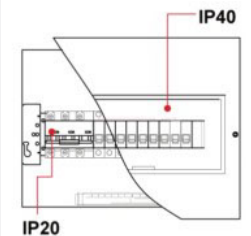


Electrical Characteristics

Rated insulation voltage U_i	(V)	250 (phase-to-ground) / 500 (phase-to-phase)
Maximum working voltage U_{Bmax}	1P+N,2P	(V) 230 AC
	3P,3P+N,4P	(V) 400 AC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(KA)	10
Rated impulse withstand voltage U_{imp} (1.2/50)	(kV)	4
Dielectric test voltage		2kV (50/60HZ, 1 minute)
Isolating function		Available
Pollution class		2
Tripping type		Thermal magnetic tripping
Thermal magnetic trip characteristics	C curve ($I_i=8.5I_n$)	
	D curve ($I_i=12I_n$)	
Electrical and mechanical accessories		

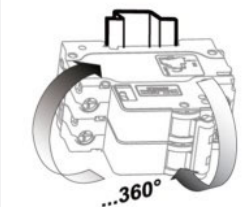
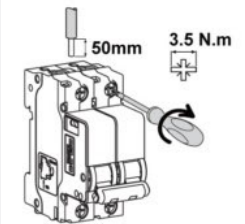


Installed on 35mm standard guide rail



Mechanical Characteristics

Tripping indication		Residual current operated tripping indication is available on HDB3wLE-125. Upspring of the reset button indicates leakage trip
Manual control	Over-current fault	The circuit breaker and the residual current operated device reset simultaneously
	Leakage fault	The residual current operated device resets before the circuit breaker resets
Handle		Red, pad printing indicating ON-OFF position
Mechanical life	Times	8500
Electrical life	Times	3000
Protection rating	Installed in distribution box	IP40
	Installed directly	IP20
Mechanical shock resistance		30g, 3 shocks, last for 11ms (Places with no significant vibration or shock)
Anti-vibration (IEC/EN 60947-2)		Places with no significant vibration or shock
Reference ambient temperature	°C	30°C
Operating ambient temperature (daily mean temperature $\leq +35^\circ\text{C}$)	°C	-20°C ~+60°C
Storage temperature	°C	-40°C ~+70°C



Flexible installation direction

HDB3wLE-125 Molded Case Residual Current Operated Circuit Breaker

IEC/EN60947-2



HDB3wLE-125 molded case residual current operated circuit breaker has the following features

Installation Features

Terminal type	Tunnel Terminals	
Maximum wiring capacity	(A)	Current ratings 63-125: 50mm ²
Maximum ultimate torque	(A)	Current ratings 63-125: 3.5N.m
Tools	Cross head screwdriver or flathead screwdriver	
Installation	Installed on standard DIN guide rail (35mm)	
Line incoming mode	Top	

HDB3wLE-125 Molded Case Residual Current Operated Circuit Breaker

Product name	Poles	Trip type	Rated current	Residual current	Other functions
HDB3wLE-125	1	C	63		G
	↓	↓	↓	↓	↓
	1: 1P+N 2: 2P 3: 3P 6: 3P+N 4: 4P	C: C D: D	63: 63A 80: 80A 100: 100A 125: 125A	Default: 30mA W: 50mA Q: 75mA Y: 100mA T: 300mA	Default: No over-voltage protection G: Overvoltage protection



Final Distribution



HDB3wLE-125 Molded Case Residual Current Operated Circuit Breaker

IEC/EN60947-2



HDB3wLE-125 Molded Case Residual Current Operated Circuit Breaker

HDB3wLE-125 molded case residual current operated circuit breaker	Pole	Rated current	Trip type		
			C	D	
<p>1P+N</p>		63	HDB3wLE1251C63	HDB3wLE1251D63	HDB3wLE1251D63Y
		80	HDB3wLE1251C80	HDB3wLE1251D80	HDB3wLE1251D80Y
		100	HDB3wLE1251C100	HDB3wLE1251D100	HDB3wLE1251D100Y
		125	HDB3wLE1251C125	HDB3wLE1251D125	HDB3wLE1251D125Y
<p>2P</p>		63	HDB3wLE1252C63	HDB3wLE1252D63	HDB3wLE1252D63Y
		80	HDB3wLE1252C80	HDB3wLE1252D80	HDB3wLE1252D80Y
		100	HDB3wLE1252C100	HDB3wLE1252D100	HDB3wLE1252D100Y
		125	HDB3wLE1252C125	HDB3wLE1252D125	HDB3wLE1252D125Y
<p>3P</p>		63	HDB3wLE1253C63	HDB3wLE1253D63	HDB3wLE1253D63Y
		80	HDB3wLE1253C80	HDB3wLE1253D80	HDB3wLE1253D80Y
		100	HDB3wLE1253C100	HDB3wLE1253D100	HDB3wLE1253D100Y
		125	HDB3wLE1253C125	HDB3wLE1253D125	HDB3wLE1253D125Y
<p>3P+N</p>		63	HDB3wLE1256C63	HDB3wLE1256D63	HDB3wLE1256D63Y
		80	HDB3wLE1256C80	HDB3wLE1256D80	HDB3wLE1256D80Y
		100	HDB3wLE1256C100	HDB3wLE1256D100	HDB3wLE1256D100Y
		125	HDB3wLE1256C125	HDB3wLE1256D125	HDB3wLE1256D125Y
<p>4P</p>		63	HDB3wLE1254C63	HDB3wLE1254D63	HDB3wLE1254D63Y
		80	HDB3wLE1254C80	HDB3wLE1254D80	HDB3wLE1254D80Y
		100	HDB3wLE1254C100	HDB3wLE1254D100	HDB3wLE1254D100Y
		125	HDB3wLE1254C125	HDB3wLE1254D125	HDB3wLE1254D125Y

HDB3wLE-125 Molded Case Residual Current Operated Circuit Breaker

IEC/EN60947-2



Trip type			
D		Over voltage	
HDB3wLE1251D63T	HDB3wLE1251D63W	HDB3wLE1251D63Q	HDB3wLE1251D63G
HDB3wLE1251D80T	HDB3wLE1251D80W	HDB3wLE1251D80Q	HDB3wLE1251D80G
HDB3wLE1251D100T	HDB3wLE1251D100W	HDB3wLE1251D100Q	HDB3wLE1251D100G
HDB3wLE1251D125T	HDB3wLE1251D125W	HDB3wLE1251D125Q	HDB3wLE1251D125G
HDB3wLE1252D63T	HDB3wLE1252D63W	HDB3wLE1252D63Q	HDB3wLE1252D63G
HDB3wLE1252D80T	HDB3wLE1252D80W	HDB3wLE1252D80Q	HDB3wLE1252D80G
HDB3wLE1252D100T	HDB3wLE1252D100W	HDB3wLE1252D100Q	HDB3wLE1252D100G
HDB3wLE1252D125T	HDB3wLE1252D125W	HDB3wLE1252D125Q	HDB3wLE1252D125G
HDB3wLE1253D63T	HDB3wLE1253D63W	HDB3wLE1253D63Q	
HDB3wLE1253D80T	HDB3wLE1253D80W	HDB3wLE1253D80Q	
HDB3wLE1253D100T	HDB3wLE1253D100W	HDB3wLE1253D100Q	
HDB3wLE1253D125T	HDB3wLE1253D125W	HDB3wLE1253D125Q	
HDB3wLE1256D63T	HDB3wLE1256D63W	HDB3wLE1256D63Q	
HDB3wLE1256D80T	HDB3wLE1256D80W	HDB3wLE1256D80Q	
HDB3wLE1256D100T	HDB3wLE1256D100W	HDB3wLE1256D100Q	
HDB3wLE1256D125T	HDB3wLE1256D125W	HDB3wLE1256D125Q	
HDB3wLE1254D63T	HDB3wLE1254D63W	HDB3wLE1254D63Q	
HDB3wLE1254D80T	HDB3wLE1254D80W	HDB3wLE1254D80Q	
HDB3wLE1254D100T	HDB3wLE1254D100W	HDB3wLE1254D100Q	
HDB3wLE1254D125T	HDB3wLE1254D125W	HDB3wLE1254D125Q	



Final Distribution

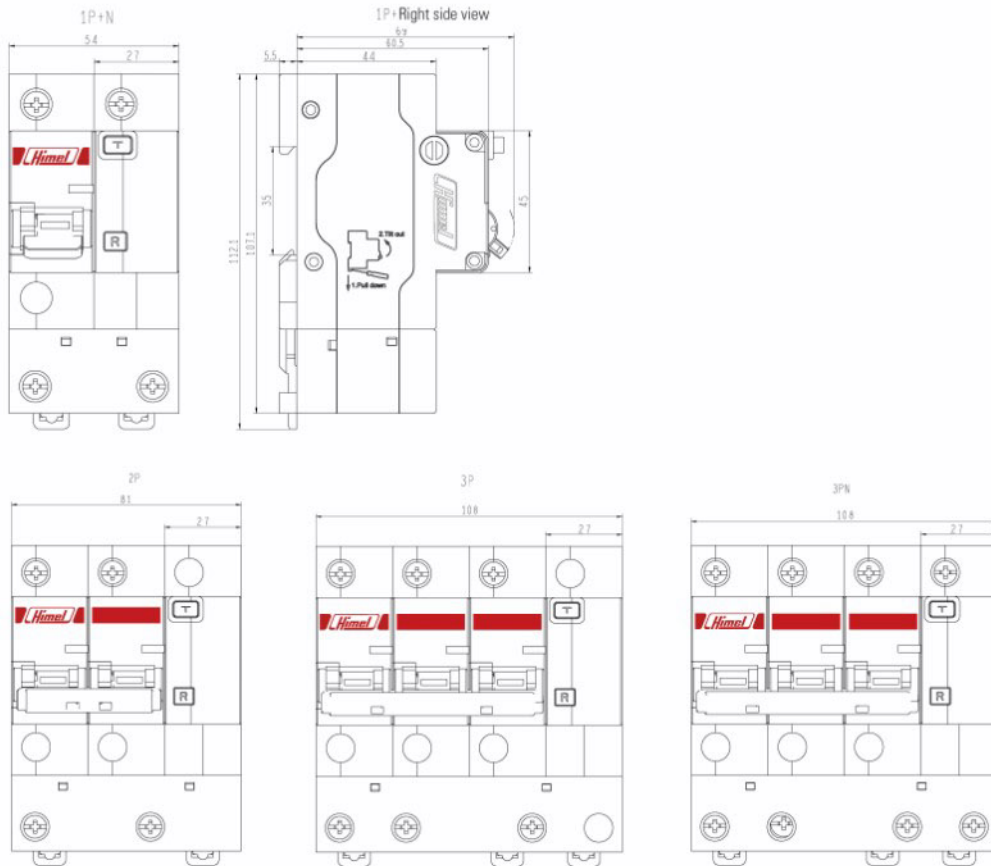


HDB3wLE-125 Molded Case Residual Current Operated Circuit Breaker

IEC/EN60947-2



HDB3wLE-125 Installation Dimension



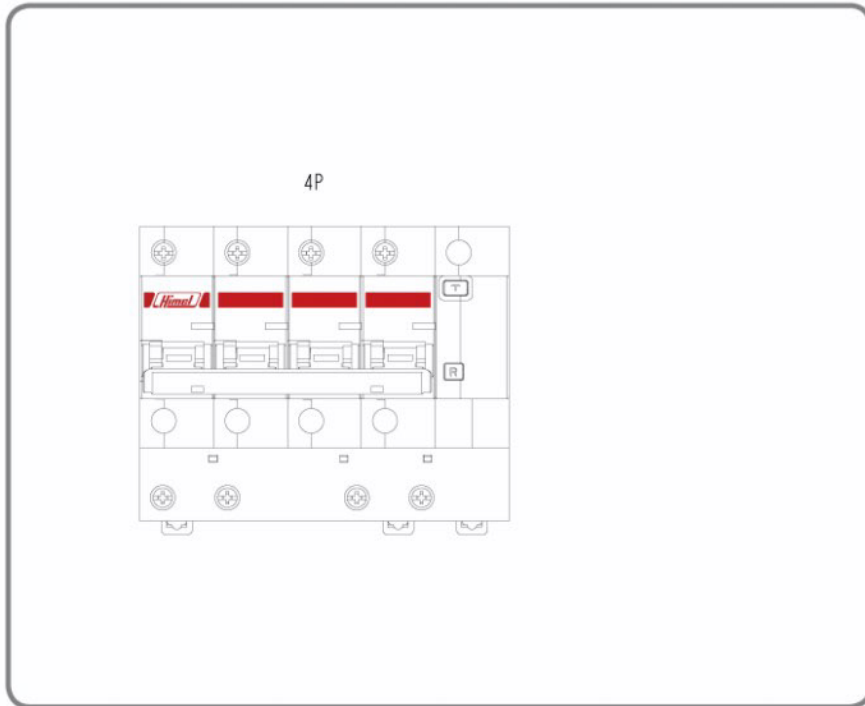
Final Distribution

HDB3wLE-125 Molded Case Residual Current Operated Circuit Breaker

IEC/EN60947-2



HDB3wLE-125 Installation Dimension



HDB3wHPLE Phase Line + Neutral Line Residual Current Operated Circuit Breaker

IEC61009-1



HDB3wHPLE phase line + neutral line residual current operated circuit breaker has the following functions:

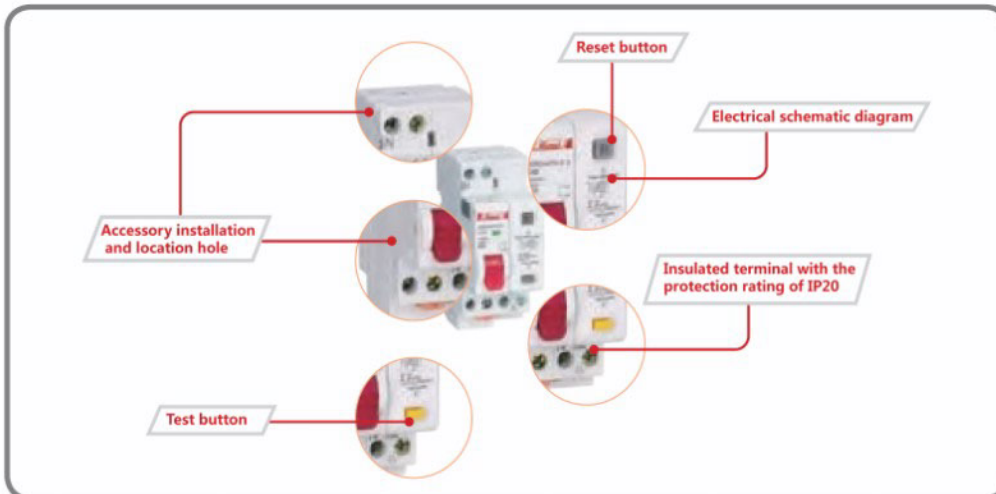
- Short circuit protection
- Overload protection
- Isolating function
- Leakage protection function
- Overvoltage protection function

Main Features

Rated operating voltage (V)	1P+N: 240AC
Rated current (A)	6-40
Rated frequency (Hz)	50/60
Poles	1P+N
Breaking capacity (kA)	3,4,5
Rated residual operating current (mA)	30
Over-voltage protection function	280±5% AC



Product Details Display



HDB3wHPLC Phase Line + Neutral Line Residual Current Operated Circuit Breaker

IEC61009-1



Electrical characteristics

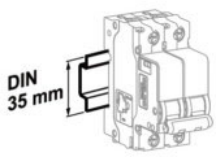
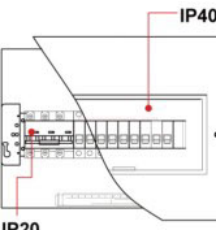
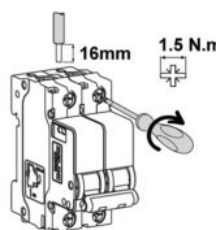
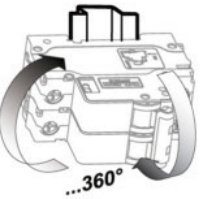
Rated insulation voltage U_i	(V)	250 (phase-to-ground) / 500 (phase-to-phase)
Maximum working voltage U_{Bmax} 1P+N	(V)	240AC
Rated short-circuit capacity I_{cn} (IEC/EN61009-1)	(KA)	3,4.5
Rated impulse withstand voltage U_{imp} (1.2/50)	(KA)	4
Dielectric test voltage		2kV (50/60Hz 1 minute)
Isolating function		Available
Pollution class		2
Electric shock protection grade		II
Tripping type		Thermal magnetic tripping
Thermal magnetic trip characteristics C curve (5In~10In)		
D curve (10In~14In)		
Electrical and mechanical accessories		

Mechanical characteristics

Tripping indication		Residual current operated tripping indication is available on HDB3wHPLC. Upspring of the reset button indicates leakage trip
Manual control	Over-current fault	The circuit breaker and the residual current operated device reset simultaneously
	Leakage fault	The residual current operated device resets before the circuit breaker resets
Handle		Red, pad printing indicating ON-OFF position
Mechanical life	Times	4000
Protection rating	Times	4000
Protection rating	Installed in distribution box	IP40
	Installed directly	IP20
Mechanical shock resistance		30g, 3 shocks, last for 11ms (No significant vibration or shock)
Anti-vibration (IEC/EN 60068-2-6)		No significant vibration or shock
High temperature humidity resistant	°C /RH	Category 2, 28 cycles Relative humidity 90%~96% at 55°C Relative humidity 90%~100% at 25°C
Reference ambient temperature	°C	30°C
Operating ambient temperature (daily mean temperature $\leq +35^\circ$)	°C	-20°C ~+60°C
Storage temperature	°C	-40°C ~+70°C

Installation Features

Terminal type		Tunnel Terminals
Maximum wiring capacity	(A)	Current ratings 6-40:16mm ²
Maximum ultimate torque	(A)	Current ratings 6-40:1.5N.m
Tools		Cross head screwdriver or flathead screwdriver
Installation		Installed on standard DIN guide rail (35mm)
Line incoming mode		Top

Final Distribution



HDB3wHPLE Phase Line + Neutral Line Residual Current Operated Circuit Breaker

IEC61009-1



HDB3wHPLE Phase Line + Neutral Line Residual Current Operated Circuit Breaker

Product name	Breaking capacity	Trip type	Rated current	Residual current	Other functions
HDB3wHPLE	Default ↓ A: 3kA Default: 4.5kA	C ↓ C: C D: D	6 ↓ 6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A	Default ↓ Default: 30mA	G ↓ Default: No over-voltage protection G: Overvoltage protection



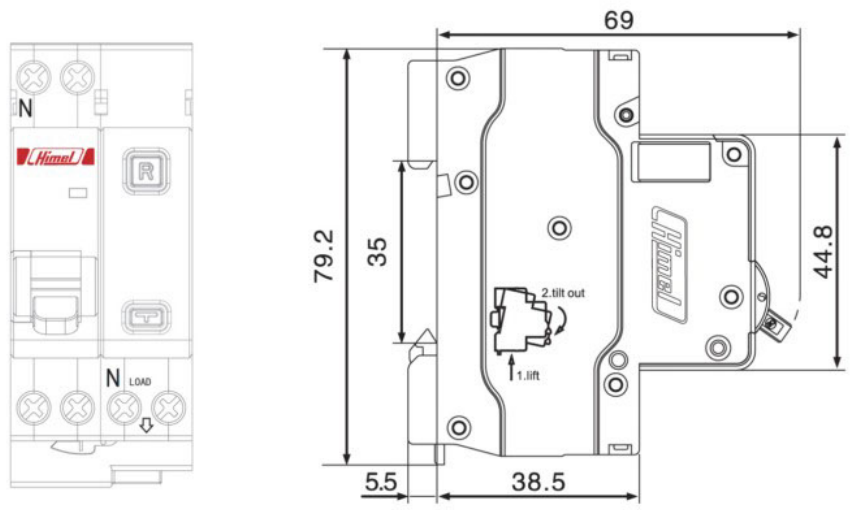
HDB3wHPLE phase line + neutral line Residual current operated circuit breaker	Type	Rated current	Trip type		
			C	D	
3kA	1P+N		6	HDB3wHPLEAC6	HDB3wHPLEAD6
			10	HDB3wHPLEAC10	HDB3wHPLEAD10
			16	HDB3wHPLEAC16	HDB3wHPLEAD16
			20	HDB3wHPLEAC20	HDB3wHPLEAD20
			25	HDB3wHPLEAC25	HDB3wHPLEAD25
			32	HDB3wHPLEAC32	HDB3wHPLEAD32
			40	HDB3wHPLEAC40	HDB3wHPLEAD40
			6	HDB3wHPLEAC6G	
			10	HDB3wHPLEAC10G	
			16	HDB3wHPLEAC16G	
			20	HDB3wHPLEAC20G	
			25	HDB3wHPLEAC25G	
			32	HDB3wHPLEAC32G	
			40	HDB3wHPLEAC40G	
4.5kA	1P+N		6	HDB3wHPLEC6	HDB3wHPLED6
			10	HDB3wHPLEC10	HDB3wHPLED10
			16	HDB3wHPLEC16	HDB3wHPLED16
			20	HDB3wHPLEC20	HDB3wHPLED20
			25	HDB3wHPLEC25	HDB3wHPLED25
			32	HDB3wHPLEC32	HDB3wHPLED32
			40	HDB3wHPLEC40	HDB3wHPLED40
			6	HDB3wHPLEC6G	
			10	HDB3wHPLEC10G	
			16	HDB3wHPLEC16G	
			20	HDB3wHPLEC20G	
			25	HDB3wHPLEC25G	
			32	HDB3wHPLEC32G	
			40	HDB3wHPLEC40G	

HDB3wHPLE Phase Line + Neutral Line Residual Current Operated Circuit Breaker

IEC61009-1



HDB3wHPLE Installation Dimension



Final Distribution



HDB3wPLE Phase Line + Neutral Line Residual Current Operated Circuit Breaker

IEC61009-1



HDB3wPLE phase line + neutral line residual current operated circuit breaker has the following functions:

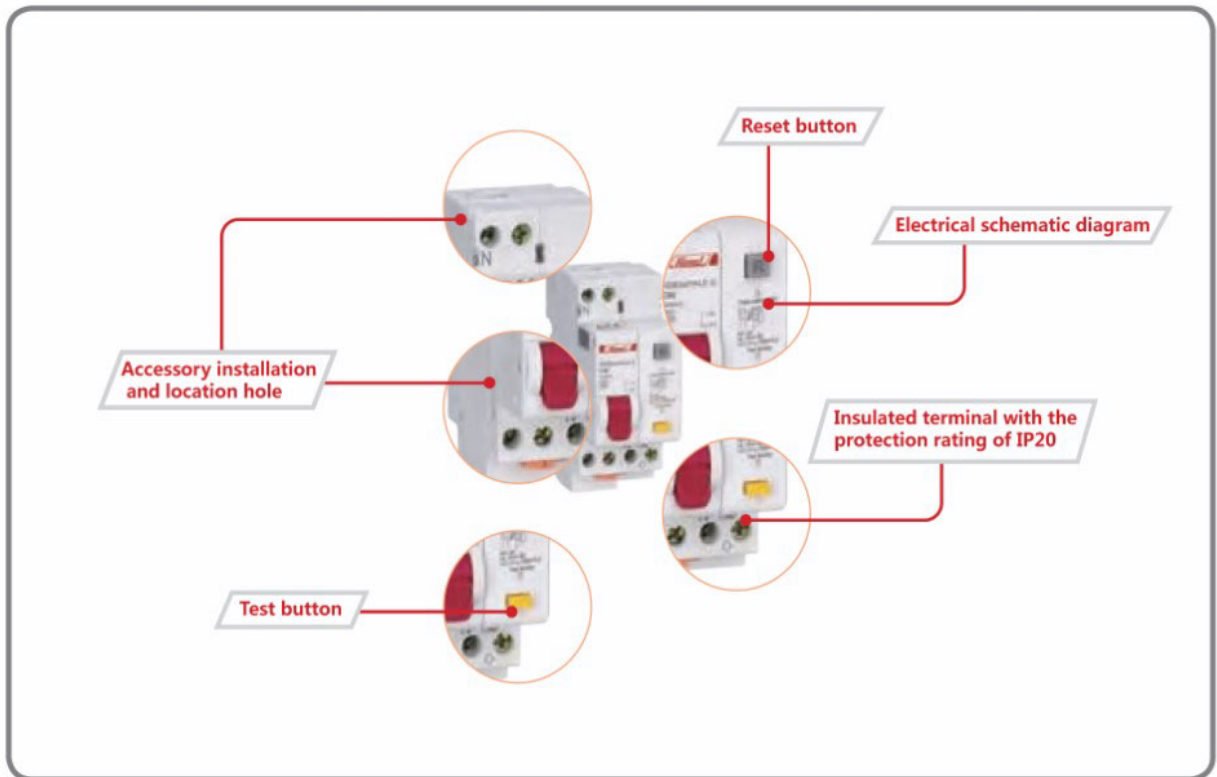
- Short circuit protection
- Overload protection
- Isolating function
- Leakage protection function
- Overvoltage protection function

Main Features

Rated operating voltage (V)	1P+N: 240AC
Rated current (A)	6-40
Rated frequency (Hz)	50/60
Poles	1P+N
Breaking capacity (kA)	3,4,5
Rated residual operating current (mA)	30
Over-voltage protection function	(280±14)VAC



Product Details Display

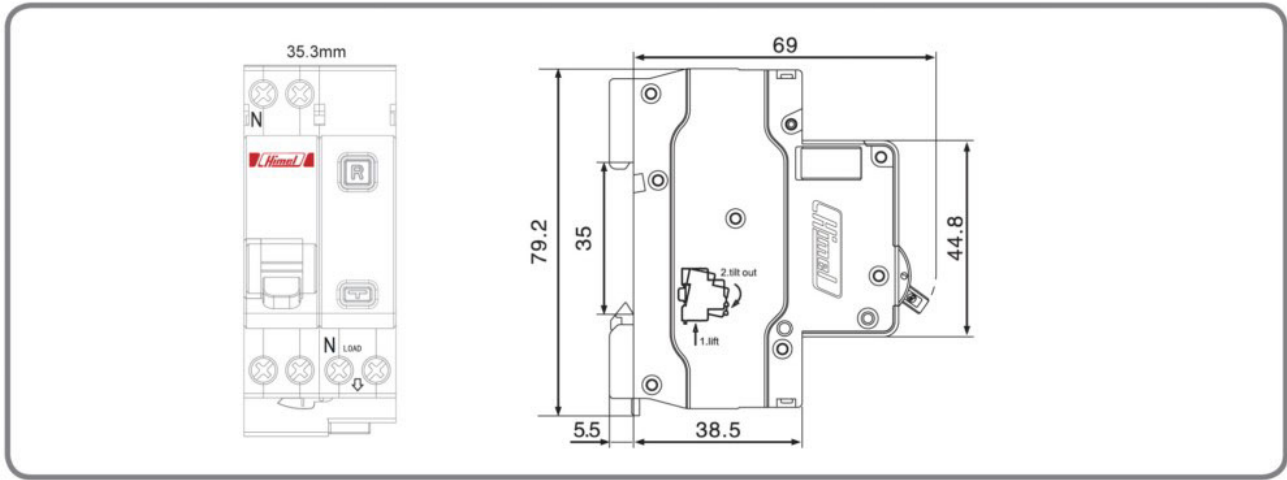


HDB3wPLE Phase Line + Neutral Line Residual Current Operated Circuit Breaker

IEC61009-1



HDB3wPLE Installation Dimension



Final Distribution



HDB3wPLE Phase Line + Neutral Line Residual Current Operated Circuit Breaker

IEC61009-1



Final Distribution

Electrical characteristics

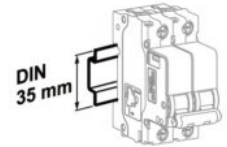
Rated insulation voltage U_i	(V)	250 (phase-to-ground) / 500 (phase-to-phase)
Maximum working voltage U_{Bmax} 1P+N	(V)	240AC
Rated short-circuit capacity I_{cn} (IEC/EN61009-1)	(KA)	3,4,5
Rated impulse withstand voltage U_{imp} (1.2/50)	(kV)	4
Dielectric test voltage		2kV (50/60Hz 1 minute)
Isolating function		Available
Pollution class		2
Electric shock protection grade		II
Tripping type		Thermal magnetic tripping
Thermal magnetic trip characteristics C curve (5In~10In)		■
D curve (10In~14In)		■
Electrical and mechanical accessories		■

Mechanical characteristics

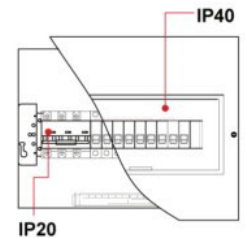
Tripping indication		Residual current operated tripping indication is available on HDB3wPLE. Upspring of the reset button indicates leakage trip
Manual control	Over-current fault	The circuit breaker and the residual current operated device reset simultaneously
	Leakage fault	The residual current operated device resets before the circuit breaker resets
Handle		Red, pad printing indicating ON-OFF position
Mechanical life	Times	10000
Protection rating	Times	4000
Protection rating	Installed in distribution box	IP40
	Installed directly	IP20
Mechanical shock resistance		30g, 3 shocks, last for 11ms (No significant vibration or shock)
Anti-vibration (IEC/EN 60068-2-6)		No significant vibration or shock
High temperature humidity temperature	°C /RH	Category 2, 28 cycles Relative humidity 90%~96% at 55°C Relative humidity 90%~100% at 25°C
Reference ambient temperature	°C	30°C
Operating ambient temperature (daily mean temperature $\leq +35^\circ$)	°C	-20°C ~+60°C
Storage temperature	°C	-40°C ~+70°C

Installation Features

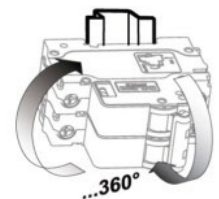
Terminal type		Tunnel Terminals
Maximum wiring capacity	(A)	Current ratings 6-40: 16mm ²
Maximum ultimate torque	(A)	Current ratings 6-40: 1.5N.m
Tools		Cross head screwdriver or flathead screwdriver
Installation		Installed on standard DIN guide rail (35mm)
Line incoming mode		Top



Installed on 35mm standard guide rail



IP20



Flexible installation direction

HDB3wPLE Phase Line + Neutral Line Residual Current Operated Circuit Breaker

IEC61009-1

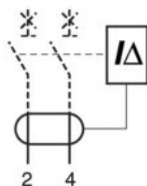
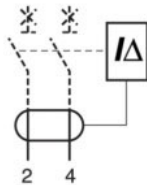


HDB3wPLE Phase Line + Neutral Line Residual Current Operated Circuit Breaker

Product name	Breaking capacity	Trip type	Rated current	Residual current	Other functions
HDB3wPLE	Breaking capacity ↓ 3kA 4.5kA	C ↓ C: C D: D	6 ↓ 6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A	↓ Default: 30mA	↓ G Default: No over-voltage protection G: Overvoltage protection



HDB3wPLE phase line + neutral line Residual current operated circuit breaker	Type	Rated current	Trip type	
			C	D
3kA	1P+N	6	HDB3wPLEAC6	HDB3wPLEAD6
			HDB3wPLEAC10	HDB3wPLEAD10
		16	HDB3wPLEAC16	HDB3wPLEAD16
			HDB3wPLEAC20	HDB3wPLEAD20
		25	HDB3wPLEAC25	HDB3wPLEAD25
			HDB3wPLEAC32	HDB3wPLEAD32
		40	HDB3wPLEAC40	HDB3wPLEAD40
		6	HDB3wPLEAC6G	
			HDB3wPLEAC10G	
		16	HDB3wPLEAC16G	
			HDB3wPLEAC20G	
		25	HDB3wPLEAC25G	
			HDB3wPLEAC32G	
		40	HDB3wPLEAC40G	
4.5kA	1P+N	6	HDB3wPLEC6	HDB3wPLED10
			HDB3wPLEC10	HDB3wPLED16
		16	HDB3wPLEC16	HDB3wPLED20
			HDB3wPLEC20	HDB3wPLED25
		25	HDB3wPLEC25	HDB3wPLED32
			HDB3wPLEC32	HDB3wPLED40
		40	HDB3wPLEC40	
		6	HDB3wPLEC10G	
			HDB3wPLEC16G	
		16	HDB3wPLEC20G	
			HDB3wPLEC25G	
		25	HDB3wPLEC32G	
			HDB3wPLEC40G	
		40	HDB3wPLEC6G	



Final Distribution



HDB3wPLEY-63 Phase Line + Neutral Line Residual Current Operated Circuit Breaker

Functions and Features
IEC61009-1



HDB3wPLEY-63 phase line + neutral line residual current operated circuit breaker has the following functions:

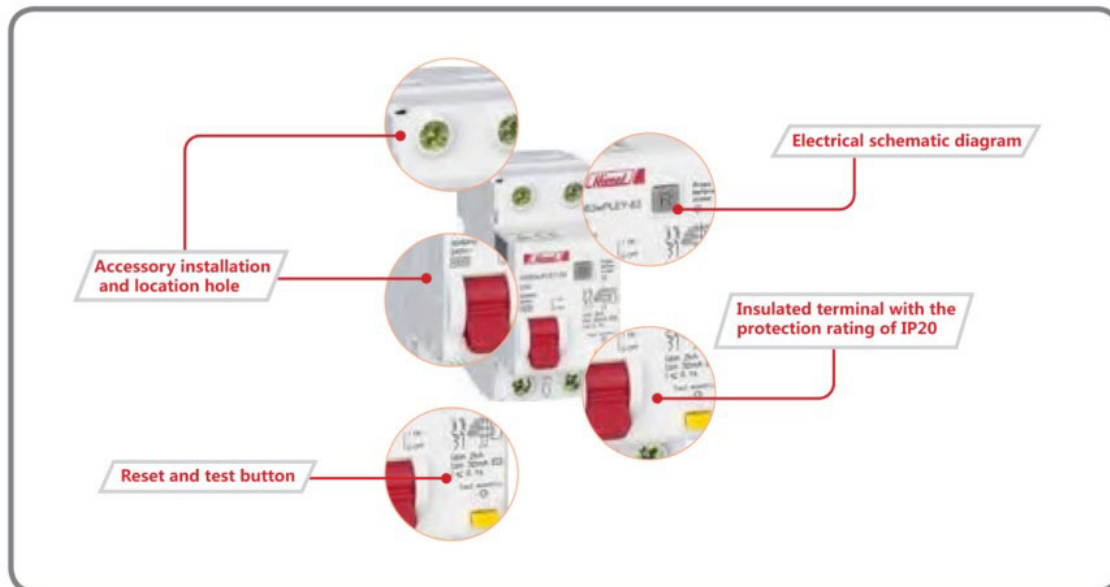
- Short circuit protection
- Overload protection
- Isolating function
- Leakage protection function
- Overvoltage protection function

Main Features

Rated operating voltage (V)	1P+N: 240AC
Rated current (A)	6-63
Rated frequency (Hz)	50/60
Poles	1P+N(N-pole is breakable)
Breaking capacity (kA)	4.5
Rated residual operating current (mA)	30



Product Details Display



HDB3wPLEY-63 Phase Line + Neutral Line Residual Current Operated Circuit Breaker

Functions and Features
IEC61009-1



Electrical characteristics

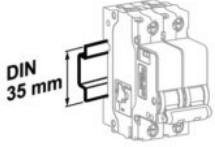
Rated insulation voltage U_i	(V)	250 (phase-to-ground) / 500 (phase-to-phase)
Maximum working voltage U_{Bmax} 1P+N	(V)	240AC
Rated short-circuit capacity I_{cn} (IEC/EN61009-1)	(KA)	4.5
Rated impulse withstand voltage U_{imp} (1.2/50)	(KV)	4
Dielectric test voltage		2kV (50/60Hz 1 minute)
Isolating function		Available
Pollution class		2
Electric shock protection grade		II
Tripping type		Thermal magnetic tripping
Thermal magnetic trip characteristics C curve (5In~10In)		
D curve (10In~14In)		
Electrical and mechanical accessories		

Mechanical characteristics

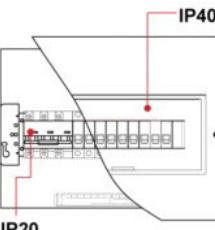
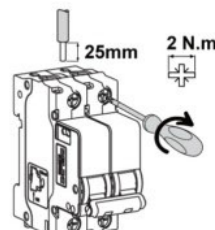
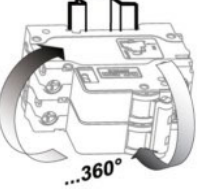
Tripping indication		Residual current operated tripping indication is available on HDB3wPLEY-63. Upspring of the reset button indicates leakage trip
Manual control	Over-current fault	The circuit breaker and the residual current operated device reset simultaneously
	Leakage fault	The residual current operated device resets before the circuit breaker resets
Handle		Red, pad printing indicating ON-OFF position
Mechanical life	Times	10000
Electrical life	Times	4000
Protection rating	Installed in distribution box	IP40
	Installed directly	IP20
Mechanical shock resistance		30g, 3 shocks, last for 11ms (No significant vibration or shock)
Anti-vibration (IEC/EN 60068-2-6)		No significant vibration or shock
High temperature humidity resistant (IEC 60068-2)	°C /RH	Category 2, 28 cycles Relative humidity 90%~96% at 55°C Relative humidity 95%~100% at 25°C
Reference ambient temperature	°C	30°C
Operating ambient temperature (daily mean temperature $\leq +35^\circ$)	°C	-20°C ~+60°C
Storage temperature	°C	-40°C ~+70°C

Installation Features

Terminal type		Tunnel Terminals
Maximum wiring capacity	(A)	Current ratings 6-63:25mm ²
Maximum ultimate torque	(A)	Current ratings 6-63:2N.m
Tools		Cross head screwdriver or flathead screwdriver
Installation		Installed on standard DIN guide rail (35mm)
Line incoming mode		Top



Installed on 35mm standard guide rail

Flexible installation direction

Final Distribution



HDB3wPLEY-63 Phase Line + Neutral Line Residual Current Operated Circuit Breaker

Functions and Features
IEC61009-1

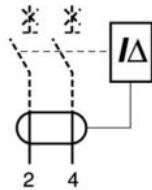


HDB3wPLEY-63 Phase Line + Neutral Line Residual Current Operated Circuit Breaker

Product name	Breaking capacity	Trip type	Rated current	Residual current
HDB3wPLEY-63	Default	C	6	Default
	↓	↓	↓	↓
	Default: 4.5kA	C: C D: D	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	Default: 30mA



Breaking capacity	Type	Rated current	Trip type	
			C	D
4.5kA	1P+N	6	HDB3wPLEY63C6	HDB3wPLEY63D6
		10	HDB3wPLEY63C10	HDB3wPLEY63D10
		16	HDB3wPLEY63C16	HDB3wPLEY63D16
		20	HDB3wPLEY63C20	HDB3wPLEY63D20
		25	HDB3wPLEY63C25	HDB3wPLEY63D25
		32	HDB3wPLEY63C32	HDB3wPLEY63D32
		40	HDB3wPLEY63C40	HDB3wPLEY63D40
		50	HDB3wPLEY63C50	HDB3wPLEY63D50
		63	HDB3wPLEY63C63	HDB3wPLEY63D63

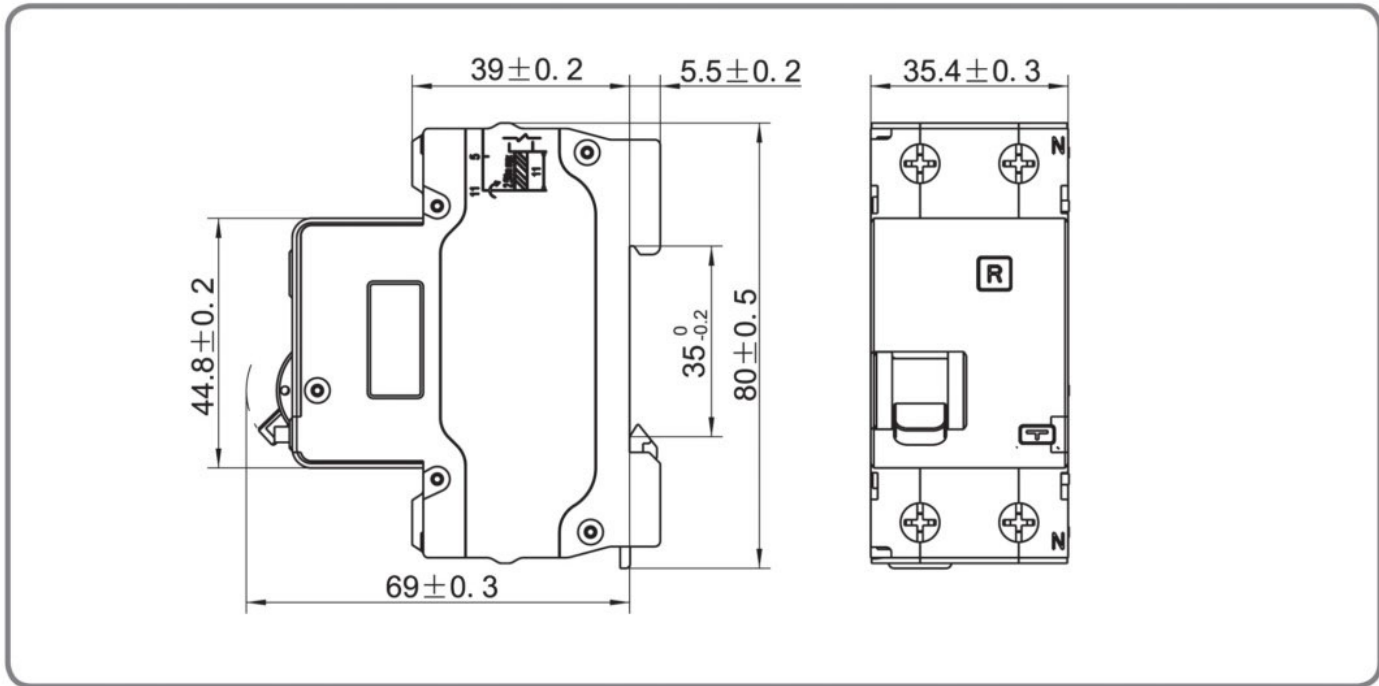


HDB3wPLEY-63 Phase Line + Neutral Line Residual Current Operated Circuit Breaker

Functions and Features
IEC61009-1



HDB3wPLEY-63 Phase Line + Neutral Line Residual Current Operated Circuit Breaker



Final Distribution
Himal

HDB6pLE Residual Current Operated Circuit Breaker

Standard: IEC/EN 61009-1



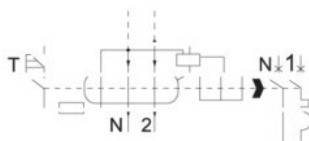
Function

HDB6pLE electronic type residual current operated circuit breakers combine the following functions:

- Protection of circuits against overload currents
- Protection of circuits against short-circuit currents
- Protection of users against indirect contact
- Additional protection for users against direct contacts (30mA)
- Protection for electrical installations against insulation faults (fire hazard, etc)
- Isolation

Order Information

Type	Width (mm)	Rated (A)	Reference
			C curve
1P+N	36	6	HDB6pLEC6
		10	HDB6pLEC10
		16	HDB6pLEC16
		20	HDB6pLEC20
		25	HDB6pLEC25
		32	HDB6pLEC32
		40	HDB6pLEC40



Technical Data

RCBO	HDB6pLE Residual Current Operated Circuit Breaker			
Electrical Features	Standard	IEC/EN 61009-1		
	Certification	CB CE SEMKO		
	Electronic Type	AC		
	Poles	1P+N		
	Rated Current In	6,10,16, 20, 25, 32, 40A		
	Rated Voltage Ue	230V AC		
	Insulation Voltage Ui	500V		
	Breaking Capacity	4.5kA		
Sensitivity	30mA			
Tripping Curve (see following tripping curve pictures)				
C Curve: the magnetic release operates between 5 and 10 In				
Mechanical Features	Electrical Durability	2000 times		
	Mechanical Durability	4000 times		
	Protection Degree	2		
	Tropicalization	Treatment 2		
	Ambient Temperature	-5°C~+40°C		
Connection	Up to 25mm ² cables			
Installation	Rate current(A)	Screw	Rated Torque (Nm)	Limiting Torque (Nm)
	6-40	M5	2.5	4.5
Mounting	35mm Din-rail			

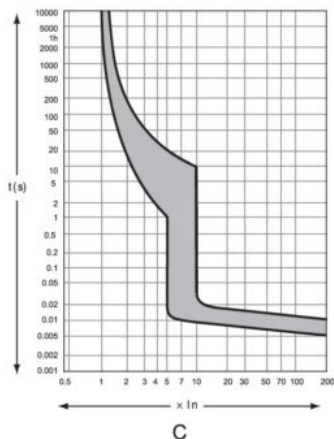
HDB6pLE Residual Current Operated Circuit Breaker

Standard: IEC/EN 61009-1



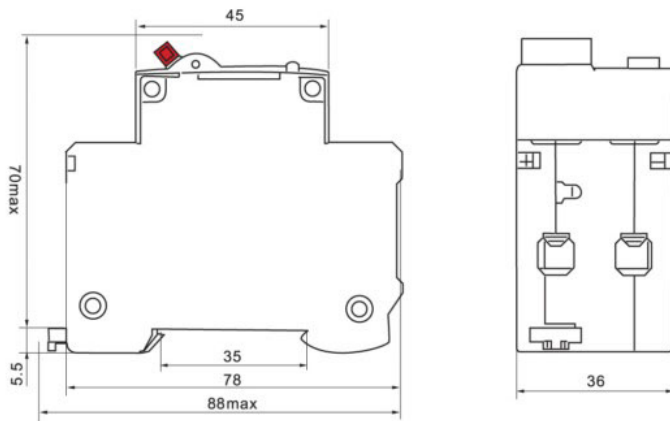
Tripping Curve

HDB6pLE Residual Current Operated Circuit Breaker



Overall Dimensions

Unit: mm



Final Distribution
Megahimel

HDB9PLE Residual Current Operated Circuit Breaker

Standard: IEC/EN 61009-1



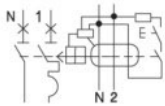
Function

HDB9PLE electronic type residual current operated circuit breakers combine the following functions:

- Protection of circuits against overload currents
- Protection against short-circuit currents
- Protection against indirect contacts
- Additional protection for users against direct contacts (30mA)
- Protection for electrical installations against insulation faults (fire hazard, etc.)
- Isolation

Order Information

Type	Rating (A)	Breaking Capacity (kA)	Reference	Reference
			Sensitivity(10mA)	Sensitivity(30mA)
1P+N	6	4.5	HDB9PLEa40C6L	HDB9PLEa40C6s
	10	4.5	HDB9PLEa40C10L	HDB9PLEa40C10s
	16	4.5	HDB9PLEa40C16L	HDB9PLEa40C16s
	20	4.5	HDB9PLEa40C20L	HDB9PLEa40C20s
	25	4.5	HDB9PLEa40C25L	HDB9PLEa40C25s
	32	4.5	HDB9PLEa40C32L	HDB9PLEa40C32s
	40	4.5	HDB9PLEa40C40L	HDB9PLEa40C40s
	6	6	HDB9PLEN40C6L	HDB9PLEN40C6s
	10	6	HDB9PLEN40C10L	HDB9PLEN40C10s
	16	6	HDB9PLEN40C16L	HDB9PLEN40C16s
	20	6	HDB9PLEN40C20L	HDB9PLEN40C20s
	25	6	HDB9PLEN40C25L	HDB9PLEN40C25s
	32	6	HDB9PLEN40C32L	HDB9PLEN40C32s
	40	6	HDB9PLEN40C40L	HDB9PLEN40C40s



Technical Data

RCBO		HDB9PLE Residual Current Operated Circuit Breaker						
Electrical Features	Standard	IEC/EN 61009-1						
	Certificate	CB, CE, TUV, RoHS						
	Electronic Type	AC						
	Poles	1P+N						
	Rated Current In (A)	6, 10, 16, 20, 25, 32, 40						
	Insulation Voltage Ui	500V						
	Breaking Capacity	4500A, 6000A						
	Sensitivity	10mA, 30mA						
	Tripping Curve (see following tripping curve pictures)							
	C Curve: the magnetic release operates between 5 and 10 In							
Mechanical Features	Electrical Durability	10000 times						
	Mechanical Durability	20000 times						
	Protection Degree	IP20						
	Tropicalization	Treatment 2						
	Ambient Temperature	-25°C~+70°C						
Rated Current, A	6	10	16,20	25	32	40		
Cross-sectional area of conductor mm ²	1	1.5	2.5	4	6	10		

HDB9PLE Residual Current Operated Circuit Breaker

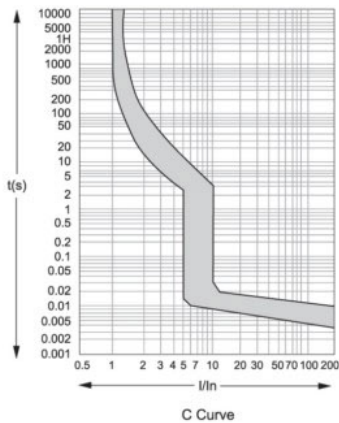
Standard: IEC/EN 61009-1



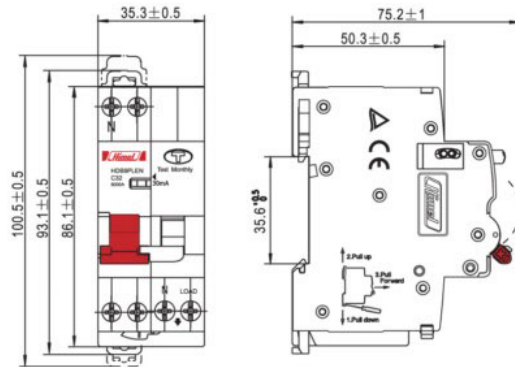
Technical Data

RCBO		HDB9PLE Residual Current Operated Circuit Breaker		
Connection	6 - 40A, up to 16mm ² cables			
Electrical Features	Rated Current(A)	Screw	Rated Torque (Nm)	Maximum Ultimate Torque (Nm)
	6-40	M4	1.5	2.0
Mounting	35mm Din-Rail			

Tripping Curve



Overall Dimensions



Accessories



Final Distribution



HDB3VR Electromagnetic Type Residual Current Switch

Standard: IEC/EN 61008-1



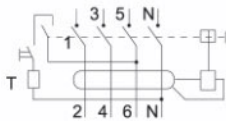
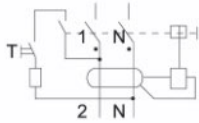
Function

HDB3VR Electromagnetic Type Residual Current Switch combine the following functions:

- Protection for users against indirect contacts
- Additional protection for users against direct contacts (30mA)
- Protection for electrical installations against insulation faults (fire hazard, etc)

Order Information

Type	Width (In mod. of 9mm)	Rating (A)	Sensitivity (mA)	Reference		
				AC type	A type	
2P	63AF	10	10	HDB3VR210LC	HDB3VR210LA	
			30	HDB3VR210SC	HDB3VR210SA	
			100	HDB3VR210YC	HDB3VR210YA	
			300	HDB3VR210TC	HDB3VR210TA	
		16	10	10	HDB3VR216LC	HDB3VR216LA
				30	HDB3VR216SC	HDB3VR216SA
				100	HDB3VR216YC	HDB3VR216YA
				300	HDB3VR216TC	HDB3VR216TA
		25	10	10	HDB3VR225LC	HDB3VR225LA
				30	HDB3VR225SC	HDB3VR225SA
				100	HDB3VR225YC	HDB3VR225YA
				300	HDB3VR225TC	HDB3VR225TA
40	30	30	HDB3VR240SC	HDB3VR240SA		
		100	HDB3VR240YC	HDB3VR240YA		
		300	HDB3VR240TC	HDB3VR240TA		
		63	30	30	HDB3VR263SC	HDB3VR263SA
100	HDB3VR263YC			HDB3VR263YA		
300	HDB3VR263TC			HDB3VR263TA		
100AF	80	30	HDB3VR280SC	HDB3VR280SA		
		100	HDB3VR280YC	HDB3VR280YA		
		300	HDB3VR280TC	HDB3VR280TA		
	100	30	HDB3VR2100SC	HDB3VR2100SA		
		100	HDB3VR2100YC	HDB3VR2100YA		
		300	HDB3VR2100TC	HDB3VR2100TA		
4P	63AF	10	10	HDB3VR410LC	HDB3VR410LA	
			30	HDB3VR410SC	HDB3VR410SA	
			100	HDB3VR410YC	HDB3VR410YA	
			300	HDB3VR410TC	HDB3VR410TA	
		16	10	10	HDB3VR416LC	HDB3VR416LA
				30	HDB3VR416SC	HDB3VR416SA
				100	HDB3VR416YC	HDB3VR416YA
				300	HDB3VR416TC	HDB3VR416TA
		25	10	10	HDB3VR425LC	HDB3VR425LA
				30	HDB3VR425SC	HDB3VR425SA
				100	HDB3VR425YC	HDB3VR425YA
				300	HDB3VR425TC	HDB3VR425TA
		40	30	30	HDB3VR440SC	HDB3VR440SA
				100	HDB3VR440YC	HDB3VR440YA
				300	HDB3VR440TC	HDB3VR440TA
				63	30	30
		100	HDB3VR463YC			HDB3VR463YA
		300	HDB3VR463TC			HDB3VR463TA
		100AF	80	30	HDB3VR480SC	HDB3VR480SA
				100	HDB3VR480YC	HDB3VR480YA
				300	HDB3VR480TC	HDB3VR480TA
			100	30	HDB3VR4100SC	HDB3VR4100SA
				100	HDB3VR4100YC	HDB3VR4100YA
				300	HDB3VR4100TC	HDB3VR4100TA



HDB3VR Electromagnetic Type Residual Current Switch

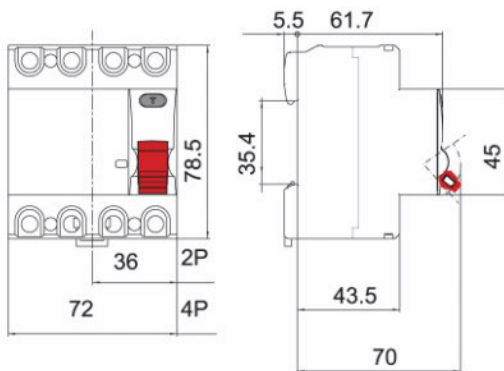
Standard: IEC/EN 61008-1



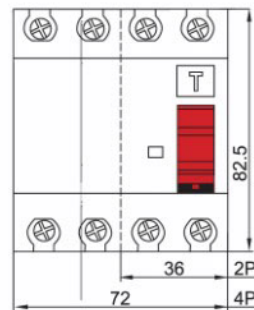
RCCB	HDB3VR Electromagnetic Type Residual Current Switch			
Electrical Features	Standard	IEC/EN 61008-1		
	Certification	TUV,CE,CB		
	Type	AC, A		
	Poles	2P, 4P		
	Rated Current In	10,16, 25, 32, 40, 63, 80, 100A		
	Rated Voltage Ue	230/400V AC		
	Insulation Voltage Ui	500V		
Sensitivity	10, 30, 100, 300mA			
Mechanical Features	Electrical Durability	1000 times		
	Mechanical Durability	2000 times		
	Overload or Short Circuit Protection	No		
	Tripping Indication	Instantaneous trip Operated current is unadjustable		
	Fault Current Indicator	Mechanical indication in the front		
	Protection Degree	2		
	Tropicalization	Treatment 2		
	Ambient Temperature	-25°C~+40°C		
Connection	Up to 25mm ² cables (In≤63A)	Up to 35mm ² cables (In>63A)		
	Rate current(A)	Screw	Rated Torque (Nm)	Maximum Ultimate Torque (Nm)
Installation	25-100	M5	2.0	3.0
Mounting	35mm Din-rail			

Overall Dimensions

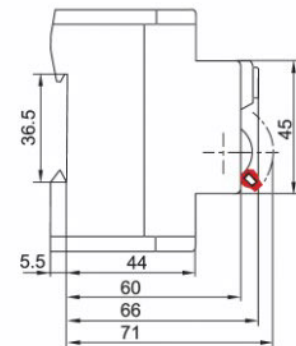
Unit: mm



HDB3VR-63



HDB3VR-100



HDB6VR Electromagnetic Type Residual Current Switch

Standard: IEC/EN 61008-1



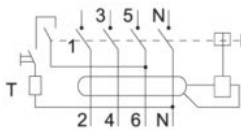
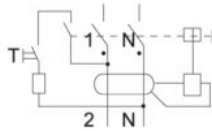
Function

HDB6VR Electromagnetic Type Residual Current Switch combine the following functions:

- Protection for users against indirect contacts
- Additional protection for users against direct contacts (30mA)
- Protection for electrical installations against insulation faults (fire hazard, etc)

Order Information

Type	Width (In mod. of 9mm)	Rating (A)	Sensitivity (mA)	Reference			
				AC type	A type		
2P 63AF 4		10	30	HDB6VR210SC	HDB6VR210SA		
			100	HDB6VR210YC	HDB6VR210YA		
			300	HDB6VR210TC	HDB6VR210TA		
		16		30	HDB6VR216SC	HDB6VR216SA	
					100	HDB6VR216YC	HDB6VR216YA
					300	HDB6VR216TC	HDB6VR216TA
		25		30	HDB6VR225SC	HDB6VR225SA	
					100	HDB6VR225YC	HDB6VR225YA
					300	HDB6VR225TC	HDB6VR225TA
		40		30	HDB6VR240SC	HDB6VR240SA	
					100	HDB6VR240YC	HDB6VR240YA
					300	HDB6VR240TC	HDB6VR240TA
63		30	HDB6VR263SC	HDB6VR263SA			
			100	HDB6VR263YC	HDB6VR263YA		
			300	HDB6VR263TC	HDB6VR263TA		
100AF		80	30	HDB6VR280SC	HDB6VR280SA		
			100	HDB6VR280YC	HDB6VR280YA		
			300	HDB6VR280TC	HDB6VR280TA		
		100		30	HDB6VR2100SC	HDB6VR2100SA	
					100	HDB6VR2100YC	HDB6VR2100YA
					300	HDB6VR2100TC	HDB6VR2100TA
4P 63AF 8		10	30	HDB6VR410SC	HDB6VR410SA		
			100	HDB6VR410YC	HDB6VR410YA		
			300	HDB6VR410TC	HDB6VR410TA		
		16		30	HDB6VR416SC	HDB6VR416SA	
					100	HDB6VR416YC	HDB6VR416YA
					300	HDB6VR416TC	HDB6VR416TA
		25		30	HDB6VR425SC	HDB6VR425SA	
					100	HDB6VR425YC	HDB6VR425YA
					300	HDB6VR425TC	HDB6VR425TA
		40		30	HDB6VR440SC	HDB6VR440SA	
					100	HDB6VR440YC	HDB6VR440YA
					300	HDB6VR440TC	HDB6VR440TA
63		30	HDB6VR463SC	HDB6VR463SA			
			100	HDB6VR463YC	HDB6VR463YA		
			300	HDB6VR463TC	HDB6VR463TA		
100AF		80	30	HDB6VR480SC	HDB6VR480SA		
			100	HDB6VR480YC	HDB6VR480YA		
			300	HDB6VR480TC	HDB6VR480TA		
		100		30	HDB6VR4100SC	HDB6VR4100SA	
					100	HDB6VR4100YC	HDB6VR4100YA
					300	HDB6VR4100TC	HDB6VR4100TA



HDB6VR Electromagnetic Type Residual Current Switch

Standard: IEC/EN 61008-1



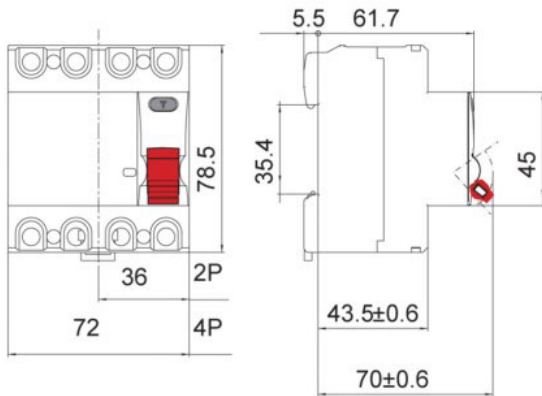
RCCB	HDB6VR Electromagnetic Type Residual Current Switch			
Electrical Features	Standard	IEC/EN 61008-1		
	Certification	TUV,CE,CB		
	Type	AC, A		
	Poles	2P, 4P		
	Rated Current In	10,16, 25, 32, 40, 63, 80, 100A		
	Rated Voltage Ue	230/400V AC		
	Insulation Voltage Ui	500V		
	Sensitivity	10, 30, 100, 300mA		
Mechanical Features	Electrical Durability	1000 times		
	Mechanical Durability	2000 times		
	Overload or Short Circuit Protection	No		
	Tripping Indication	Instantaneous trip, rated residual operated current is unadjustable		
	Fault Current Indicator	Mechanical indication in the front		
	Protection Degree	2		
	Tropicalization	Treatment 2		
	Ambient Temperature	-25°C~+40°C		
Connection	Up to 25mm ² cables (In≤63A)	Up to 35mm ² cables (In>63A)		
	Rate current(A)	Screw	Rated Torque (Nm)	Maximum Ultimate Torque(Nm)
Installation	25-100	M5	2.0	3.0
	Mounting 35mm Din-rail			

Final Distribution

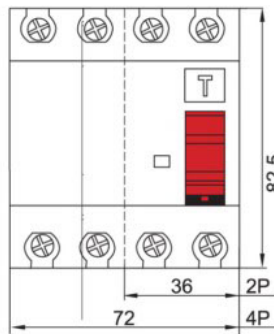


Overall Dimensions

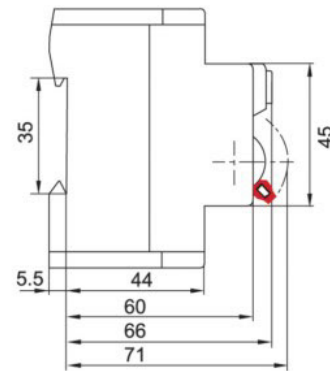
Unit: mm



HDB6VR-63



HDB6VR-100



HDB6v Residual Current Protection Module

Standard: IEC 61009-1



Function

HDB6v must be combined with HDB6s act as a residual current breaker with the following functions:

- Protection of persons against indirect contacting
- Supplementary protection of persons against direct contacting
- Prevention of electric-caused fire
- Over-voltage protection by products marked 'G'

Order Information

Frame	Type	Voltage (V)	Sensitivity (mA)	Width	Reference
V32	1P+N	230	30	5	HDB6v321N
			100	5	HDB6v321NR100
			300	5	HDB6v321NR300
	2P	230	30	7	HDB6v322P
			100	7	HDB6v322PR100
			300	7	HDB6v322PR300
	3P	400	30	10	HDB6v323P
			100	10	HDB6v323PR100
			300	10	HDB6v323PR300
	3P+N	400	30	11	HDB6v323N
			100	11	HDB6v323NR100
			300	11	HDB6v323NR300
4P	400	30	13	HDB6v324P	
		100	13	HDB6v324PR100	
		300	13	HDB6v324PR300	
V63	1P+N	230	30	6	HDB6v631N
			100	6	HDB6v631NR100
			300	6	HDB6v631NR300
	2P	230	30	8	HDB6v632P
			100	8	HDB6v632PR100
			300	8	HDB6v632PR300
	3P	400	30	12	HDB6v633P
			100	12	HDB6v633PR100
			300	12	HDB6v633PR300
	3P+N	400	30	14	HDB6v633N
			100	14	HDB6v633NR100
			300	14	HDB6v633NR300
	4P	400	30	16	HDB6v634P
			100	16	HDB6v634PR100
			300	16	HDB6v634PR300

Note: Width refers to mutultiple of 9mm



HDB6v Residual Current Protection Module

Standard: IEC 61009-1



Final Distribution



Technical Data

RCBO		HDB6v Residual Current Protection Module		
Electrical Features	Standard	IEC61009-1		
	Electronic Type	AC		
	Poles	1P+N, 2P, 3P, 3P+N, 4P		
	Frame Size	32AF, 63AF		
	Rated Voltage Ue	230/400V AC		
	Rated Insulation Voltage	500V		
	Breaking Capacity	After HDB6s combined with HDB6v, the breaking capacity refers to HDB6s		
Electrical Features	Sensitivity	30, 100, 300mA		
	Tripping Indication	On is a residual opening current indication, which distinguish residual current from other faults		
	Manual Control	Allows for two kinds of reset Reset at the same time with breaker Reset before breaker		
	'G' products offer over-voltage protection	280V±5% AC, applicable to products with 1P+N and 2P		
Mechanical Features	Electrical Durability	2000 times (In≤25A) 1000times (In>25A)		
	Mechanical Durability	2000 times		
	Protection Degree	IP20		
	Tropicaliation	Treatment 2		
	Ambient Temperature	-5°C~+40°C		
Connection	-Up to 16mm ² cables (V32)			
	-Up to 25mm ² cables (V63)			
Installation	Rated Current(A)	Screw	Rated Torque (Nm)	Limiting Torque (Nm)
	V32	M4	2.2	3.0
	V63	M5	2.5	4.5

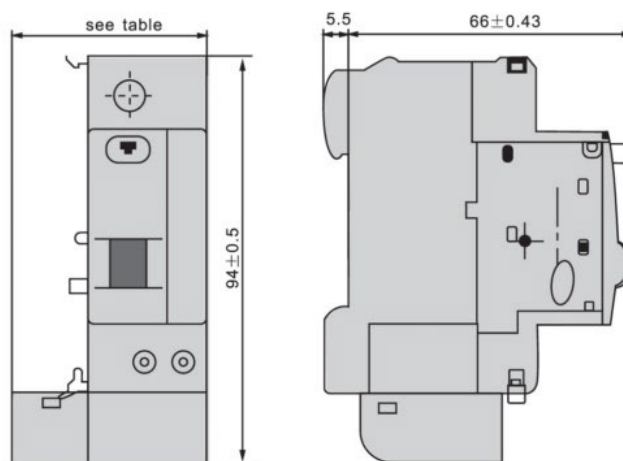
HDB6v Residual Current Protection Module

Standard: IEC 61009-1



Overall Dimensions

Unit: mm



	V32	V63
1P+N	45±0.32	54±0.37
2P	63±0.37	72±0.43
3P	90±0.5	108±0.57
3P+N	99±0.5	126±0.64
4P	117±0.57	144±0.72

HDB6v Residual Current Protection Module

Standard: IEC 61009-1

Electronic type: AC

Sensitivity: 30, 100, 300mA



Assembly



HDB6v can be assembled with HDB6s to be residual current breaker overcurrent

- Protection of persons against indirect contacts
- Supplementary protection of persons against direct contacting
- Prevention of electric-caused fire
- Overvoltage protection by products marked "G"

Accessories

HDB9, HDB9P, HDB9LE, HDB9PLE

Standard:OF/SD: IEC/EN60947-5-1, MN/MV/MVMN: IEC/EN 60947-2; MO: IEC/EN 60947-1(MX);IEC/EN60947-5-1(OF)

Accessories

Sketch map of installation with breaker



SD

OF

MX+OF

Remote Control Auxiliaries

OF contact auxiliary

- Indicate ON or OFF state of the breaker
- Basic type of auxiliary contact: 1NO+1NC

SD fault-indicating switch

- Sends out fault signal on the front when breaking down
- Indicator on the front to show fault trip
- Basic type of auxiliary contact: 1NO+1NC

Tripping Device

MX+OF shunt trip release

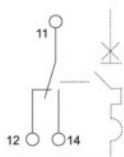
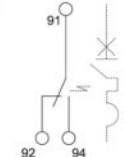
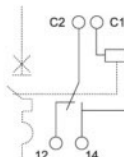
- Indicates ON or OFF state of the breaker
- Directly installs on the left of MCB without tools

Introductions

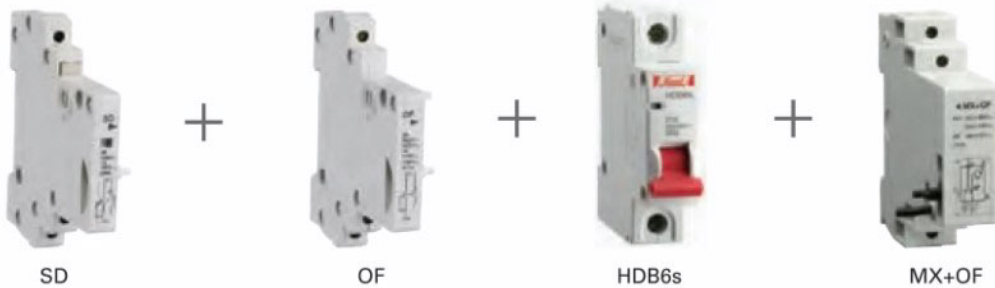
- Directly installs on the left of MCB without tools
- Each MCB assembles maximum 3 control auxiliaries (OF or SD)



Order Information

Type	Width (mm)	Voltage (V)	Reference
OF 	9		HDB963OF
SD 	9		HDB963SD
MX+OF 	18	AC/DC 12/24V	HDB963MX24
	18	AC/DC 48V	HDB963MX48
	18	AC 100-415V DC 110-130V	HDB963MX415

Sketch map of installation with breakers



Remote Control Auxiliaries

OF contact auxiliary

- Indicate ON or OFF state of the breaker
- Basic type of auxiliary contact: 1NO+1NC
- Connection: 1-4mm² cables

Tripping Device

MX+OF shunt trip release

- Indicate ON or OFF state of the breaker
- Makes the assembled breaker trip once it has received the signal
- Basic type of auxiliary contact: 1NO+1NC
- Connection: 1-4mm² cables

SD fault-indicating switch

- Sends out fault signal indicated on the front when breaking down
- Indicator on the front to show fault trip
- Basic type of auxiliary contact: 1NO+1NC
- Connection: 1-4mm² cables

Introductions

- OF, SD must be assembled on the left, one auxiliary only
- Each time only one auxiliary accepted on the left of MCB
- MX+OF must be assembled on the right, one MX+OF only
- HDB6s can't assemble MX+OF while assembled with HDB6v

Order Information

Type	Width (mm)	Voltage (V)	Reference
OF	9		HDB6sOF
SD	9		HDB6sSD
MX+OF	18	AC/DC 12-24V	HDB6sMX24
	18	AC/DC 24-48V	HDB6sMX48
	18	AC110-127V	HDB6sMX110
	18	AC230-400V	HDB6sMX230



Accessories

HDB3w, HDB3wLE

Standard:OF/SD: IEC/EN60947-5-1, MN/MV/MVMN: IEC/EN 60947-2; MO: IEC/EN 60947-1(MX);IEC/EN60947-5-1(OF)

Accessories

Remote indication accessories

OF Auxiliary contact

- External circuit, indicating the close and open status of the circuit breaker
- Basic form of auxiliary contacts; one normally open and one normally closed
- Wiring capacity: 1-2.5mm² wire

SD Alarm contact

- Issue a signal in case of circuit breaker fault trip
- Mechanical indication on the front panel can indicate the fault trip
- Basic form of auxiliary contacts; one normally open and one normally closed
- Wiring capacity: 1-2.5mm² wire

Trip accessories

MX+OF Shunt release

- External circuit, indicating the close and open status of the circuit breaker
- Trigger the circuit breaker assembled with it to trip after obtaining the signal
- Basic form of auxiliary contacts; one normally open and one normally closed
- Wiring capacity: 1-2.5mm² wire

MV Over-voltage release

- Protect the line over-voltage fault
- Trigger the circuit breaker assembled with it to trip after the voltage at both ends of the release rises to the rated range
- The fault trip indication is provided on the front panel and the upspring of the indicating part indicates the over-voltage trip
- Rated work trip over-voltage: 280 (1±5%) V AC
- Wiring capacity: 1-2.5mm²

MN Under-voltage release

- Protect the line under-voltage fault
- Trigger the circuit breaker assembled with it to trip after the voltage at both ends of the release rises to the rated range
- The fault trip indication is provided on the front panel and the upspring of the indicating part indicates the under-voltage trip
- Rated work trip under-voltage: 161 (1±5%) V AC, under-voltage protection range (35% 70%) U_e
- Wiring capacity: 1-2.5mm²

MVMN Over-voltage and under-voltage release

- Protect the line over-voltage, under-voltage and other faults
- Trigger the circuit breaker assembled with it to trip after the voltage at both ends of the release rises to the rated range
- The fault trip indication is provided on the front panel and the upspring of the indicating part indicates the over-voltage or under-voltage trip
- Rated work trip over-voltage: 280 (1±5%) V AC, rated work trip under-voltage: 161(1±5%) V AC, under-voltage protection range (35% 70%) U_e
- Wiring capacity: 1-2.5mm²

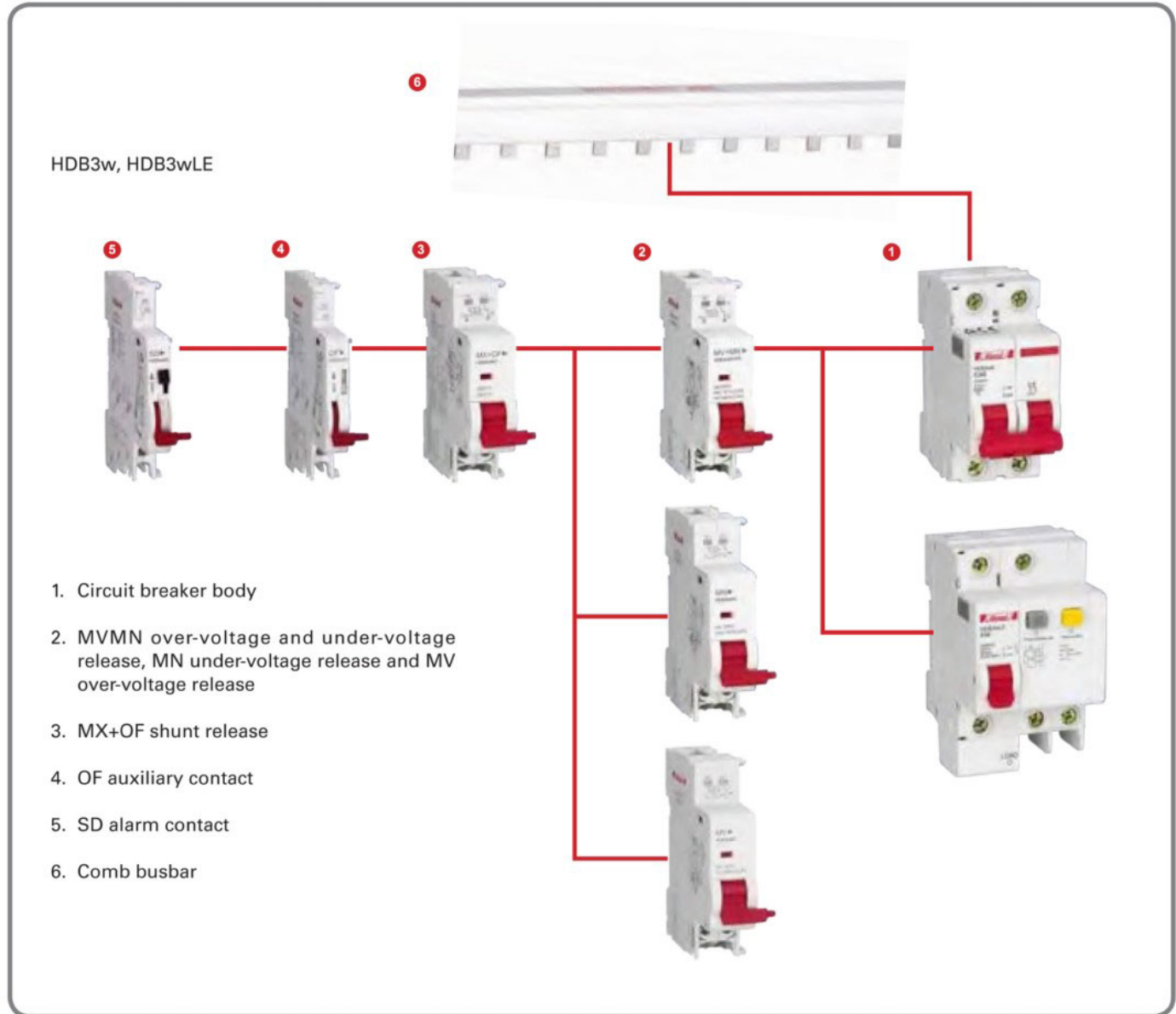


Accessories

HDB3w, HDB3wH, HDB3wLE, HDB3wHLE

Standard: OF/SD: IEC/EN60947-5-1, MN/MV/MVMN: IEC/EN 60947-2; MO: IEC/EN 60947-1(MX); IEC/EN60947-5-1(OV)

Schematic Diagram of Installation of Accessories



Assembly instructions



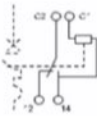
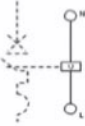
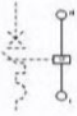

1. The accessories are installed on the left of the circuit breaker without tools
2. The total width of the accessory assembly is within 54mm
The order and quantity from left to right: OF, SD (3 max.) +MO, MV, MN, MVMN (2 max.) +MCB
3. The accessories are commonly used in HDB3w, HDB3wLE, HDB3wP, HDB3wPLE

Accessories Selection

HDB3w,HDB3wH,HDB3wLE,HDB3wHLE

Standard:OF/SD: IEC/EN60947-5-1, MN/MV/MVMN: IEC/EN 60947-2; MO: IEC/EN 60947-1(MX);IEC/EN60947-5-1(OF)

Assembly Instructions

Product name	Width (mm)	Voltage range (V)	Order number
OF 	9	AC 415V/3A, 240V/6A DC 130V/1A, 48V/2A, 24V/6A	HDB3wOF
SD 	9	AC 415V/3A, 240V/6A DC 130V/1A, 48V/2A, 24V/6A	HDB3wSD
MX+OF 	18 18	AC 130V-415V DC 110-130V AC/DC 24V-48V	HDB3wMO220 HDB3wMO24
MV 	18	AC 130V-415V DC 110-130V AC/DC 24V-48V	HDB3wMV
MN 	18	AC 240V	HDB3wMN
MVMN 	18	AC 240V	HDB3wMVMN



Technical Data

Standard	IEC 60664
Material of Busbar	E-CU-F25
Material of Insulation	PVC
Short-circuit Strength	50kA
Nominal Voltage	415V
Operating Voltage	Max 500V
Surge Voltage	4kV
Clima Stability	IEC 60068-2

Order Information

Type	Pole	Thickness of Pin(mm)	Section Cross(mm ²)	Max. current(A) End feed-in	A	Length	Reference	Dimension (mm)
PIN-TYPE	1	1.2	6	40	5	1m	HBBT1P40A12P	
		1.2	10	63	9	1m	HBBT1P63A12P	
		1.4	16	75	9	1m	HBBT1P75A15P	
		1.5	16	80	9	1m	HBBT1P80A15P	
		1.6	16	85	9	1m	HBBT1P85A15P	
	2	1.2	6	40	5	1m	HBBT2P40A12P	
		1.2	10	63	9	1m	HBBT2P63A12P	
		1.4	16	75	9	1m	HBBT2P75A15P	
		1.5	16	80	9	1m	HBBT2P80A15P	
	3	1.2	6	40	5	1m	HBBT3P40A12P	
		1.4	16	75	9	1m	HBBT3P75A15P	
		1.5	16	80	9	1m	HBBT3P80A15P	
		1.6	16	85	9	1m	HBBT3P85A15P	
	4	1.2	6	40	5	1m	HBBT4P40A12P	
		1.4	16	75	9	1m	HBBT4P75A15P	
		1.5	16	80	9	1m	HBBT4P80A15P	
1.6		16	85	9	1m	HBBT4P85A15P		
U-TYPE	1	1.2	6	40	5	1m	HBBT1P40A12F	
		1.2	10	63	9	1m	HBBT1P63A12F	
		1.5	10	63	7	1m	HBBT1P63A15F	
		1.4	16	75	9	1m	HBBT1P75A15F	
		1.5	16	80	9	1m	HBBT1P80A15F	
	2	1.2	6	40	5	1m	HBBT2P40A12F	
		1.2	10	63	9	1m	HBBT2P63A12F	
		1.5	10	63	7	1m	HBBT2P63A15F	
		1.4	16	75	9	1m	HBBT2P75A15F	
		1.5	16	80	9	1m	HBBT2P80A15F	
	3	1.2	6	40	5	1m	HBBT3P40A12F	
		1.2	10	63	9	1m	HBBT3P63A12F	
		1.5	10	63	7	1m	HBBT3P63A15F	
		1.4	16	75	9	1m	HBBT3P75A15F	
		1.5	16	80	9	1m	HBBT3P80A15F	
	4	1.2	6	40	5	1m	HBBT4P40A12F	
		1.2	10	63	9	1m	HBBT4P63A12F	
		1.5	10	63	7	1m	HBBT4P63A15F	
		1.4	16	75	9	1m	HBBT4P75A15F	
		1.5	16	80	9	1m	HBBT4P80A15F	
	1.6	16	85	9	1m	HBBT4P85A15F		



Control Devices Product Overview

Control Devices



HDCH8s 428

Rated Voltage (Ue): 250V 400V
 Rated Insulation Voltage Ui: 500V AC
 Coil Voltage (Us): AC230V 50/60Hz

Time Relay



HDRT8 431

Rated Voltage (Ue): 230V
 Rated Current (Ie): 5A

Surge Protective Device Product Overview

Surge Protection Device

Type	In (kA)						Size			Poles					
	20kA	40kA	65kA	80kA	120kA	160kA	18mm	36mm	54mm	1P	1P+N	2P	3P	3P+N	4P
HDY3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Type	Maximum continuous voltage			Accessories		Certificate						Temperature	
	AC275V	AC385V	AC440V	NO	Remote signal	CE	IEC-CB	TUV	KEMA	SEMKO	RoHS		
HDY3	✓	✓	✓	✓	✓								-20°C ~+60°C

HDCH8S Modular Contactor

Standard: IEC 61095



Function

HDCH8S Modular Contactor provides:

- Switch on or Switch off lighting or other equipments

Order Information

Pole	Current (A)	Contacts	Reference		
2P	16	2NO	HDCH8S16220		
		2NC	HDCH8S16202		
		1NO 1NC	HDCH8S16211		
	20	2NO	HDCH8S20220		
		2NC	HDCH8S20202		
		1NO 1NC	HDCH8S20211		
	25	2NO	HDCH8S25220		
		2NC	HDCH8S25202		
		1NO 1NC	HDCH8S25211		
	40	2NO	HDCH8S40220		
		2NC	HDCH8S40202		
		1NO 1NC	HDCH8S40211		
63	2NO	HDCH8S63220			
	2NC	HDCH8S63202			
	1NO 1NC	HDCH8S63211			
3P	16	3NO	HDCH8S16330		
		3NC	HDCH8S16303		
		2NO 1NC	HDCH8S16321		
		1NO 2NC	HDCH8S16312		
		20	3NO	HDCH8S20330	
			3NC	HDCH8S20303	
	2NO 1NC		HDCH8S20321		
	1NO 2NC		HDCH8S20312		
	25		3NO	HDCH8S25330	
			3NC	HDCH8S25303	
		2NO 1NC	HDCH8S25321		
		1NO 2NC	HDCH8S25312		
		40	3NO	HDCH8S40330	
			3NC	HDCH8S40303	
	2NO 1NC		HDCH8S40321		
	1NO 2NC		HDCH8S40312		
	63		3NO	HDCH8S63330	
			3NC	HDCH8S63303	
		2NO 1NC	HDCH8S63321		
		1NO 2NC	HDCH8S63312		
		4P	16	4NO	HDCH8S16440
				4NC	HDCH8S16404
	2NO 2NC			HDCH8S16422	
	3NO 1NC			HDCH8S16431	
20	4NO			HDCH8S20440	
	4NC			HDCH8S20404	
	2NO 2NC		HDCH8S20422		
	3NO 1NC		HDCH8S20431		
	25		4NO	HDCH8S25440	
			4NC	HDCH8S25404	
2NO 2NC			HDCH8S25422		
3NO 1NC			HDCH8S25431		
40		4NO	HDCH8S40440		
		4NC	HDCH8S40404		
	2NO 2NC	HDCH8S40422			
	3NO 1NC	HDCH8S40431			
	63	4NO	HDCH8S63440		
		4NC	HDCH8S63404		
2NO 2NC		HDCH8S63422			
3NO 1NC		HDCH8S63431			
Spacer for HDCH8s			HDCH8sIS		



HDCH8S Modular Contactor

Standard: IEC 61095



Technical information

Parameter		Item	16A	20A	25A	40A	63A
Standard		IEC 61095					
Rated Current In(A)	AC-7a		16	20	25	40	63
Conventional Free Air Thermal Current Ith(A)			25	25	25	63	63
Rated Insulation Voltage Ui(V)			500				
Rated Voltage Ue(V)			250		400		
Rated Impulse Withstand Voltage Uimp (V)			4kV				
Ambient Temperature			-5°C~ 60°C				
Making and Breaking Capacity (AC-7a)			1.05Ie				
Main Contacts		2P	1NO1NC, 2NO, 2NC				
		3P	3NO, 3NC, 2NO1NC, 1NO2NC				
		4P	2NO2NC, 3NO1NC, 4NO, 4NC				
Controlled power (kW)	AC-7a	250V	3.5	4.5	5.5	9	14
		400V	6.5	8	10	16	25
Operation Frequency		times	≥30000				
Operation frequency /1h(AC-7a)			360				
Coil Voltage Us(V)			AC24V AC220-240V 50/60Hz				
IP Grade			IP20				
Wiring Ability (mm ²)	Control circuit	Hard wire	1.5~2.5 mm ²			2×1.5mm ²	
		Soft wire	1.5~2.5 mm ²			2×2.5mm ²	
	Main circuit	Hard wire	1.5~6mm ²			6~25mm ²	
		Soft wire	1~4 mm ²			6~16mm ²	

Installation

In the cabinet or box, one piece of spacer must be installed between each two HDCH8s contactors in order to improve the heat dissipation in sealed space.

HDCH8S Modular Contactor

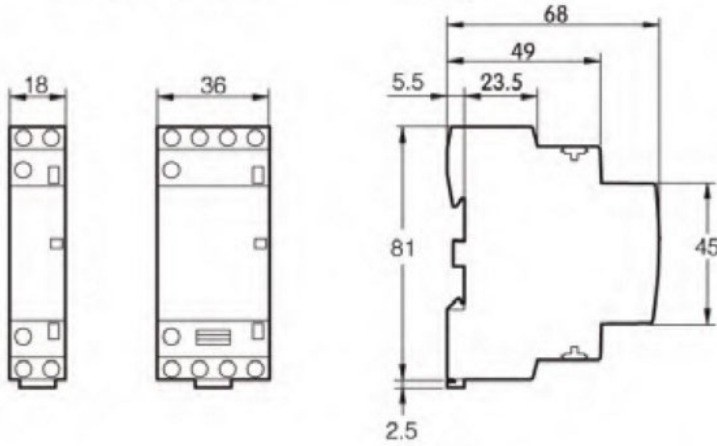
Standard: IEC 61095



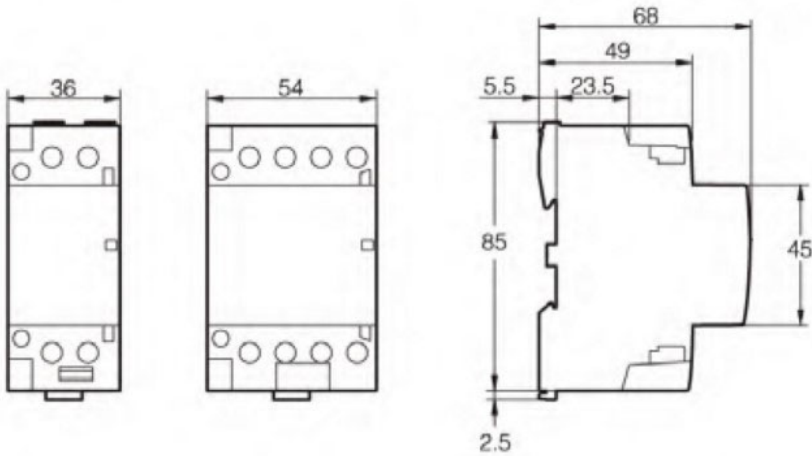
Overall Dimensions

HDCH8S 16-63A

HDCH8S , 16-25A



HDCH8S , 40-63A



Final Distribution



HDRT8 Time Relay

Standard: IEC 60947-5



Function

HDRT8 Time Relay provides:

- Switch-off Delay
- Switch-on Delay

Order Information

Maximum Delay Time	Delay Type	Reference
10s	Switch-on delay	HDRT810B
120s	Switch-on delay	HDRT8120B
480s	Switch-on delay	HDRT8480B
480s	Off delay	HDRT8480A

Technical Data

Building Control Command Devices	HDRT8 Time Relay
Standard	IEC 60947-5
Rated Voltage U_e	230V AC
Rated Current (I_e)	5A
Delay Type	Off delay Switch-on delay
Maximum Delay Time	10s 120s 480s
Conventional Thermal Current (I_{th})	8A
Delayed-time Range	0.1-10s ($\leq 10s$) 10-120s ($\leq 120s$) 30-480s ($\leq 480s$)
Contact Type	Normally-open contact
Contact Number	1
Rated Control Supply Voltage (U_s)	230V AC
Operating Voltage Range	85%-110% U_s
Electrical Durability	30000 times
Rated Power	<1W
Insulation Resistance	>1.5M Ω
Dielectric Strength	Live part of the relay to the grounding: AC 1760V 5s Strength between contacts disconnected position: AC 1000V 1min contact position: AC 1000V 1min
Wiring Ability	Maximum cross section for terminals Up to 1mm ²

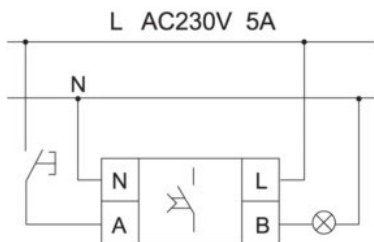


HDRT8 Time Relay

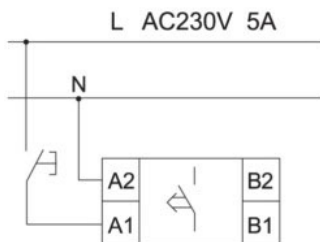
Standard: IEC 60947-5



Wiring Diagram



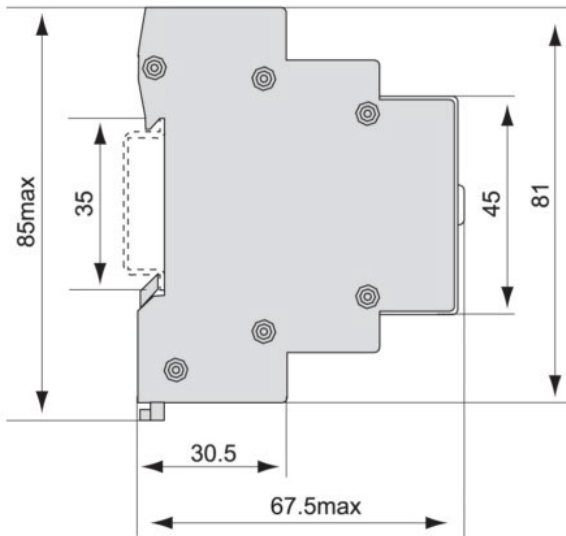
HDRT8-480A



HDRT8-10B, 120B, 480B

Overall Dimensions

Unit: mm



Final Distribution



HDY3 Power Surge Protector

Standard: IEC61643-1



HDY3 Technical Parameters

Product model		HDY3-20				HDY3-40				HDY3-65			
Nominal discharge current I_n	kA	10				20				30			
Maximum discharge current I_{max}	kA	20				40				65			
Maximum allowable backup fuse strength	A gL	50				100				125			
Maximum continuous operating voltage U_c	V	275	340	385	440	275	340	385	440	275	340	385	440
Protection level U_p	kV	1.3	1.5	1.6	1.8	1.5	1.7	1.8	2.0	1.6	1.8	2.0	2.2
Leakage current 75% U_c 1mA	μ A	≤ 20											
Response time	ns	≤ 25											
Waveform	μ s	8 / 20											
Product structure		Plug-in											
Protection rating		II											
Poles		1P,2P,3P,4P,1P+ N,3P+ N											
Operating state indicator		Available (green: normal; red: fault)											
Terminal wiring capacity		Minimum 4mm ² for copper wire, maximum: 36mm ² for single strand, 25mm ² for multi-strand											
Conformance standard		IEC61643 -1											
Installation		Installed on standard DIN guide rail(35mm)											
Maximum ultimate torque		35N.m											
Optional accessories		Available (YX remote signaling)											



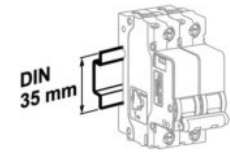
HDY3 Power Surge Protector

Standard: IEC61643-1



HDY3 Technical Parameters

Product model		HDY3-80				HDY3-120				HDY3-160			
Nominal discharge current I_n	kA	40				60				80			
Maximum discharge current I_{max}	kA	80				120				160			
Maximum allowable backup fuse strength	A gL	160				200				250			
Maximum continuous operating voltage U_c	V	275	340	385	440	275	340	385	440	275	340	385	440
Protection level Up	kV	1.8	2.0	2.2	2.2	2.2	2.4	2.5	3.5	2.3	3.7	3.7	2.8
Leakage current I_{leak} 7 5% U_c 1mA	μ A	≤ 20											
Response time	ns	≤ 25											
Waveform	μ s	8 / 20											
Product structure		Plug-in											
Protection rating		I											
Poles		1P,2P,3P,4P,1P+ N,3P+ N											
Operating state indication window		Available (green: normal; red: fault)											
Operating state indicator		Available (green: normal; red: fault)											
Terminal wiring capacity		Minimum 4mm ² for copper wire, maximum: 36mm ² for single strand, 25mm ² for multi-strand											
Conformance standard		IEC61643 -1											
Installation		Installed on standard DIN guide rail(35mm)											
Maximum ultimate torque		35N.m											
Optional accessories		Available (YX remote signaling)											



Installed on 35mm standard guide rail

Final Distribution



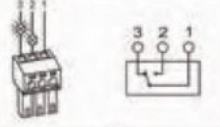
HDY3 Power Surge Protector

Standard: IEC61643-1



Accessories

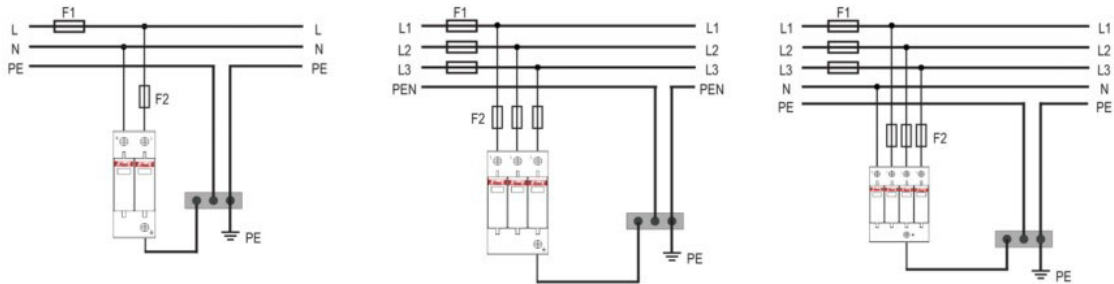
Remote signaling YX	
Rated operating voltage Ue	125V
Rated operational current Ie	1A
Contact	A normal open contact and a normal closed contact
Function	When SPD module is detached due to fault, the normal open contact will be closed and the normal closed contact will be disconnected to send out the fault information



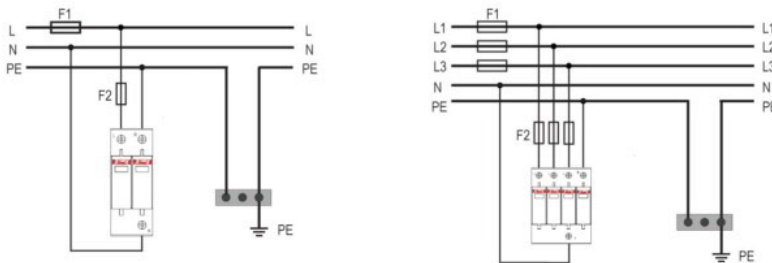
Wiring capacity: 15mm² (max)
U_{max}: AC125V I_{max}: 1A

HDY3 Wiring Diagram

TN-S System Installation Diagram



TT System Installation Diagram

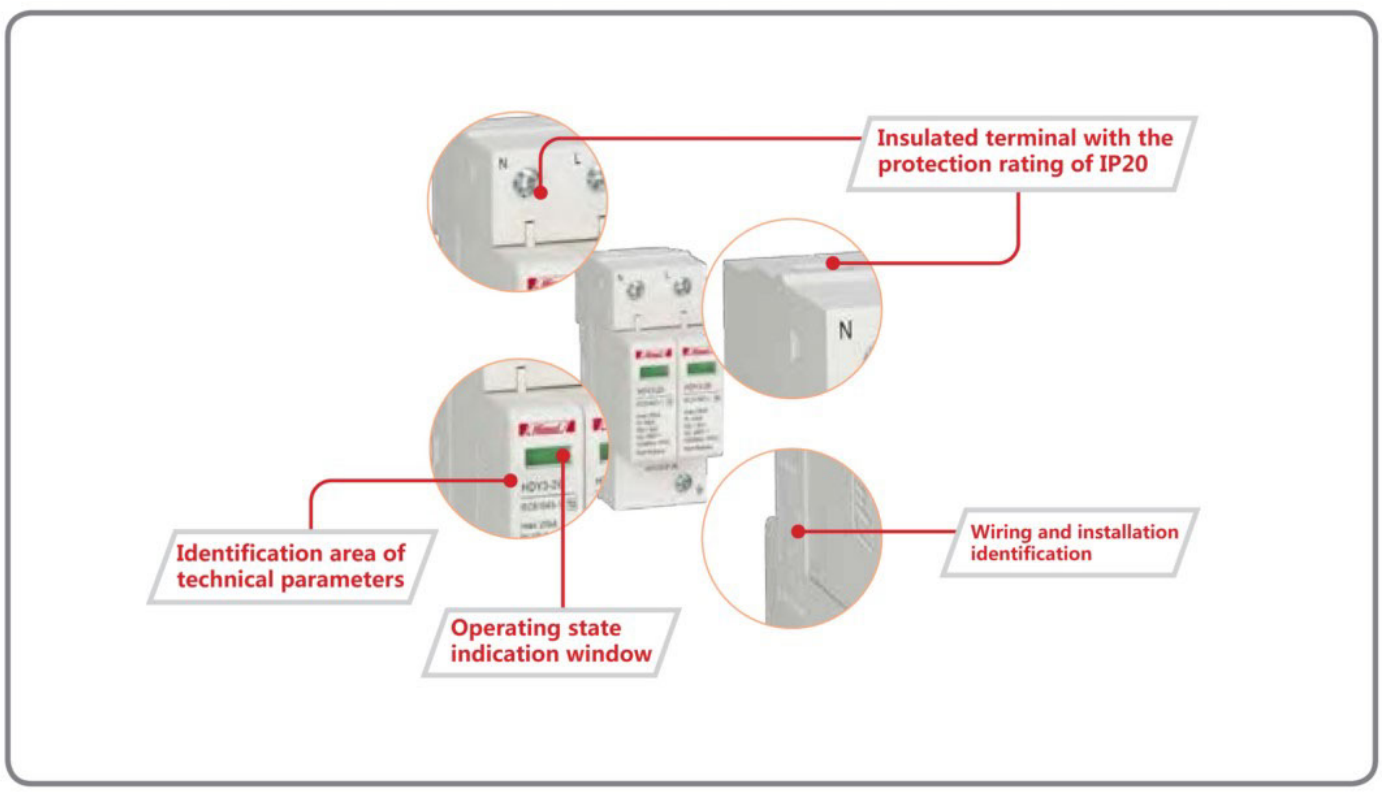


HDY3 Power Surge Protector

Standard: IEC61643-1



Product Details Display



Final Distribution
Himel

HDY3 Power Surge Protector


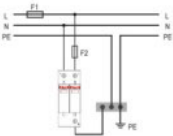
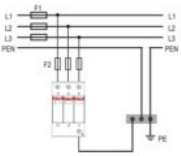
Standard: IEC61643-1



Final Distribution

HDY3 Power Surge Protector

Product name	Maximum discharge current	Poles	Maximum continuous voltage	Accessories
HDY3	60	1	275	YX
	↓	↓	↓	↓
	20: 20kA 40: 40kA 65: 65kA 80: 80kA 120: 120kA 160: 160kA	1: 1P 2: 2P 3: 3P 4: 4P 5: 1P+N 6: 3P+N	Default: AC385V 275: AC275V 440: AC440V	YX: Remote signaling Default: No remote signaling

HDY3 Power surge protector	Type	Rated current	Maximum discharge current					
			275V		385V		440V	
	1P	20	HDY3201275	HDY3201	HDY3201440			
		40	HDY3401275	HDY3401	HDY3401440			
		65	HDY3651275	HDY3651	HDY3651440			
		80	HDY3801275	HDY3801275YX	HDY3801	HDY3801YX	HDY3801440	HDY3801275YX
		120	HDY31201275	HDY31201275YX	HDY31201	HDY31201YX	HDY31201440	HDY31201275YX
		160	HDY31601275	HDY31601275YX	HDY31601	HDY31601YX	HDY31601440	HDY31601275YX
	2P	20	HDY3202275	HDY3202275YX	HDY3202	HDY3202YX	HDY3202440	HDY3202440YX
		40	HDY3402275	HDY3402275YX	HDY3402	HDY3402YX	HDY3402440	HDY3402440YX
		65	HDY3652275	HDY3652275YX	HDY3652	HDY3652YX	HDY3652440	HDY3652440YX
		80	HDY3802275	HDY3802275YX	HDY3802	HDY3802YX	HDY3802440	HDY3802440YX
		120	HDY31202275	HDY31202275YX	HDY31202	HDY31202YX	HDY31202440	HDY31202440YX
		160	HDY31602275	HDY31602275YX	HDY31602	HDY31602YX	HDY31602440	HDY31602440YX
	3P	20	HDY3203275	HDY3203275YX	HDY3203	HDY3203YX	HDY3203440	HDY3203440YX
		40	HDY3403275	HDY3403275YX	HDY3403	HDY3403YX	HDY3403440	HDY3403440YX
		65	HDY3653275	HDY3653275YX	HDY3653	HDY3653YX	HDY3653440	HDY3653440YX
		80	HDY3803275	HDY3803275YX	HDY3803	HDY3803YX	HDY3803440	HDY3803440YX
		120	HDY31203275	HDY31203275YX	HDY31203	HDY31203YX	HDY31203440	HDY31203440YX
		160	HDY31603275	HDY31603275YX	HDY31603	HDY31603YX	HDY31603440	HDY31603440YX

HDY3 Power Surge Protector

Standard: IEC61643-1



HDY3 Power Surge Protector



2P



4P

HDY3 Power surge protector	Poles	Rated current	Maximum discharge current					
			275V		385V		440V	
	4P	20	HDY3204275	HDY3204275YX	HDY3204	HDY3204YX	HDY3204440	HDY3204440YX
		40	HDY3404275	HDY3404275YX	HDY3404	HDY3404YX	HDY3404440	HDY3404440YX
		65	HDY3654275	HDY3654275YX	HDY3654	HDY3654YX	HDY3654440	HDY3654440YX
		80	HDY3804275	HDY3804275YX	HDY3804	HDY3804YX	HDY3804440	HDY3804440YX
		120	HDY31204275	HDY31204275YX	HDY31204	HDY31204YX	HDY31204440	HDY31204440YX
		160	HDY31604275	HDY31604275YX	HDY31604	HDY31604YX	HDY31604440	HDY31604440YX
	1P+N	20	HDY3205275	HDY3205275YX	HDY3205	HDY3205YX	HDY3205440	HDY3205440YX
		40	HDY3405275	HDY3405275YX	HDY3405	HDY3405YX	HDY3405440	HDY3405440YX
		65	HDY3655275	HDY3655275YX	HDY3655	HDY3655YX	HDY3655440	HDY3655440YX
		80	HDY3805275	HDY3805275YX	HDY3805	HDY3805YX	HDY3805440	HDY3805440YX
		120	HDY31205275	HDY31205275YX	HDY31205	HDY31205YX	HDY31205440	HDY31205440YX
		160	HDY31605275	HDY31605275YX	HDY31605	HDY31605YX	HDY31605440	HDY31605440YX
	3P+N	20	HDY3206275	HDY3206275YX	HDY3206	HDY3206YX	HDY3206440	HDY3206YX
		40	HDY3406275	HDY3406275YX	HDY3406	HDY3406YX	HDY3406440	HDY3406YX
		65	HDY3656275	HDY3656275YX	HDY3656	HDY3656YX	HDY3656440	HDY3656YX
		80	HDY3806275	HDY3806275YX	HDY3806	HDY3806YX	HDY3806440	HDY3806YX
		120	HDY31206275	HDY31206275YX	HDY31206	HDY31206YX	HDY31206440	HDY31206YX
		160	HDY31606275	HDY31606275YX	HDY31606	HDY31606YX	HDY31606440	HDY31606YX



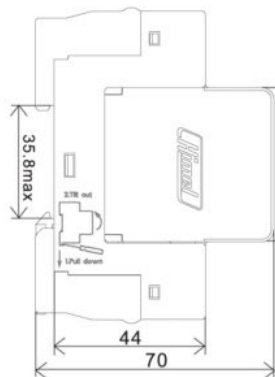
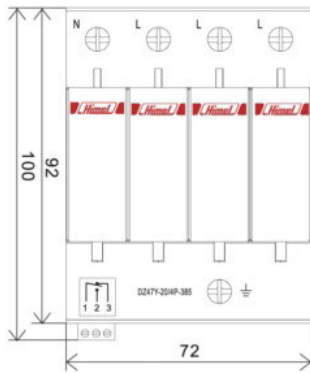
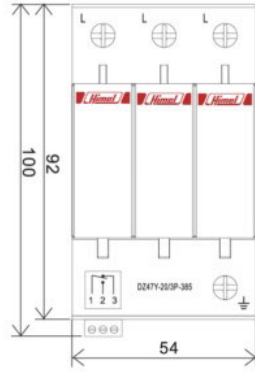
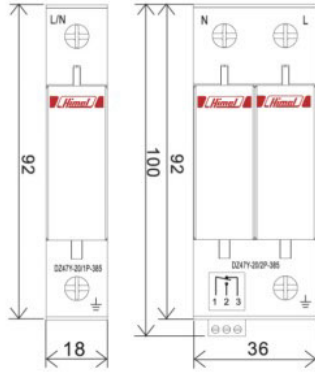
HDY3 Power Surge Protector

Standard: IEC61643-1



HDY3 Installation Dimension

HDY3-20/40/65



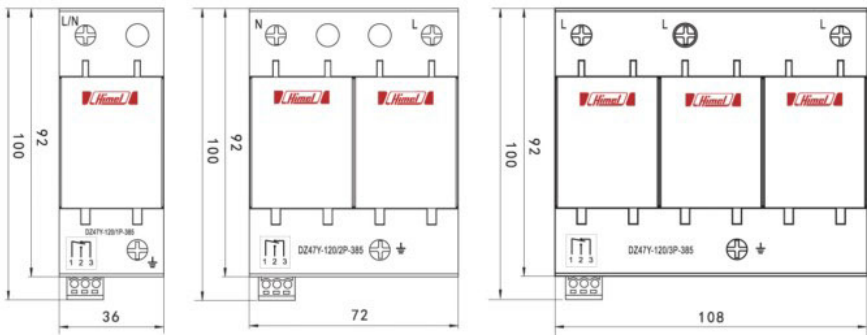
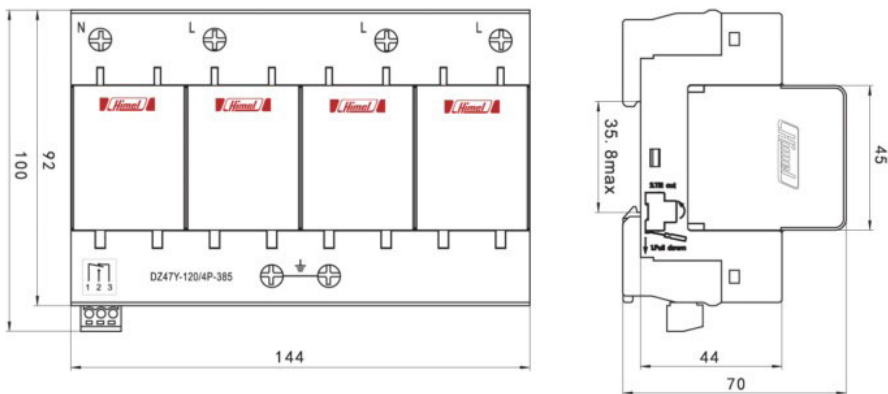
HDY3 Power Surge Protector

Standard: IEC61643-1

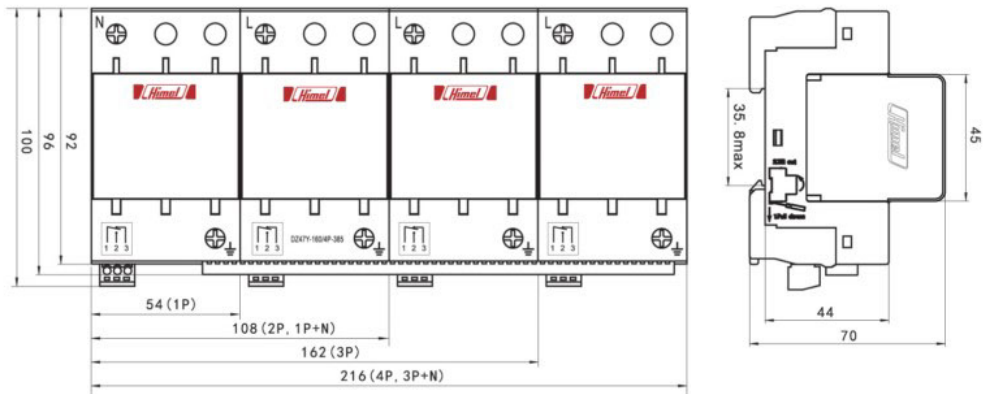


HDY3 Installation Dimension

HDY3-80/120



HDY3-160



Final Distribution



Distribution Box



Consumer Box



HDPZ50 442

No. of ways:
6,8,12,16,20,24
Protection Grade: IP30

Metal Enclosure



HJXF 444

Protection Grade:
IP43, IP54

HDPZ50 Consumer Box

Standard: IEC60439-1 IEC60670



Function

HDPZ50 Consumer Box provide:

- Protection against overload
- Protection against over voltage
- Protection against leakage

Order Information

Material	Installation	No. of Ways	Reference		
Metal Box & Plastic Cover	Surface installation	6	HDPZ50M6		
		8	HDPZ50M8		
		12	HDPZ50M12		
		16	HDPZ50M16		
		20	HDPZ50M20		
		24	HDPZ50M24		
	Flush installation	6	HDPZ50R6		
		8	HDPZ50R8		
		12	HDPZ50R12		
		16	HDPZ50R16		
		20	HDPZ50R20		
		24	HDPZ50R24		
Full Plastic (fire-retardancy)		4	HDPZ50PM4IP30F		
		6	HDPZ50PM6IP30F		
		8	HDPZ50PM8IP30F		
		12	HDPZ50PM12IP30F		
		15	HDPZ50PM15IP30F		
		18	HDPZ50PM18IP30F		
		24	HDPZ50PM24IP30F		
		36	HDPZ50PM36IP30F		
		4	HDPZ50PR4IP30F		
		6	HDPZ50PR6IP30F		
		8	HDPZ50PR8IP30F		
		12	HDPZ50PR12IP30F		
		15	HDPZ50PR15IP30F		
		18	HDPZ50PR18IP30F		
		24	HDPZ50PR24IP30F		
		36	HDPZ50PR36IP30F		
		Full Plastic (Non fire-retardancy)		4	HDPZ50PM4NF
				6	HDPZ50PM6NF
8	HDPZ50PM8NF				
12	HDPZ50PM12NF				
15	HDPZ50PM15NF				
18	HDPZ50PM18NF				
24	HDPZ50PM24NF				
36	HDPZ50PM36NF				
4	HDPZ50PR4NF				
6	HDPZ50PR6NF				
8	HDPZ50PR8NF				
12	HDPZ50PR12NF				
15	HDPZ50PR15NF				
18	HDPZ50PR18NF				
24	HDPZ50PR24NF				
36	HDPZ50PR36NF				



Final Distribution



HDPZ50 Consumer Box

Standard: IEC60439-1 IEC60670



Technical Data

Type	HDPZ50	HDPZ50P
Material	Box: Metal, Cover: Plastic	Full Plastic
Fire-resistancy	Fire-resistant	Optional
Protection Grade	IP30	IP30
Rated Operation Voltage	230/400V	230/400V
Rated Insulated Voltage	500V	500V
Rated Operating Current	100A	100A
Withstand Current	6kA	6kA

Overall Dimensions

HDPZ50

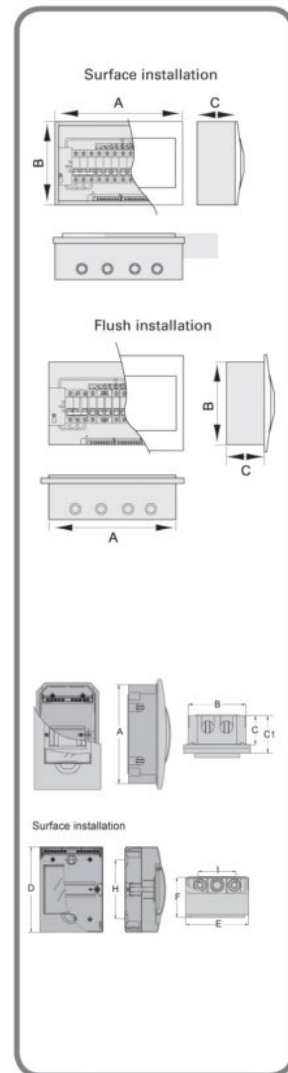
Unit: mm

Metal Box & Plastic	Surface Installation		Flush Installation		Thickness C
	A	B	A	B	
6	171	220	163	200	90
8	207	220	199	200	90
12	279	220	272	200	90
16	351	220	343	200	90
20	423	220	413	200	90
24	303	383	282	364	90

HDPZ50P

Unit: mm

Full Plastic Loop Number	Dimension for Hidden Installation				Dimension for Surface Installation				
	Height A	Width B	Thickness		Height D	Width E	Thickness F	Installation Dimension	
			C	C1				H	I
4	200	114	61	78	200	112	91	138	-
6	200	150	61	78	200	147	96	144	-
8	200	186	61	78	200	183	96	144	-
12	196	258	61	78	200	255	96	144	-
15	198	311	61	78	200	310	96	144	-
18	216	363	61	78	218	362	96	162	290
24	310.5	261	74.5	92	324	270	102	230	207
36	414.5	261	70.5	88	459	270	102	418	207



HJXF Metal Enclosure

Standard: EN60529



Function

HJXF Metal Enclosure provide:

- Control, monitoring, measurement and protection for the electric power loops and main power
- Controlling equipment.

Order Information

Type	Thickness	Dimension (mm)									Lock	Reference
		Overall			Installation		Mounting					
		H	W	D	H1	B1	H6	B6	Thick			
HJXF 2520 14 IP43 Improved	1.0	250	200	140	295	128	130	128	1.0	1	HJXF252014B	
HJXF 3025 14 IP43 Improved	1.0	300	250	140	345	178	180	178	1.0	1	HJXF302514B	
HJXF 3025 18 IP43 Improved	1.0	300	250	180	345	178	180	178	1.0	1	HJXF302518B	
HJXF 3030 14 IP43 Improved	1.0	300	300	140	345	228	180	228	1.0	1	HJXF303014B	
HJXF 3030 18 IP43 Improved	1.0	300	300	180	345	228	180	228	1.0	1	HJXF303018B	
HJXF 4030 14 IP43 Improved	1.0	400	300	140	445	228	280	228	1.0	1	HJXF403014B	
HJXF 4030 20 IP43 Improved	1.0	400	300	200	445	228	280	228	1.0	1	HJXF403020B	
HJXF 5040 14 IP43 Improved	1.0	500	400	140	545	328	380	328	1.0	2	HJXF504014B	
HJXF 5040 20 IP43 Improved	1.0	500	400	200	545	328	380	328	1.0	2	HJXF504020B	
HJXF 5040 25 IP43 Improved	1.0	500	400	250	545	328	380	328	1.0	2	HJXF504025B	
HJXF 6040 14 IP43 Improved	1.2	600	400	140	645	328	480	328	1.2	2	HJXF604014B	
HJXF 6040 20 IP43 Improved	1.2	600	400	200	645	328	480	328	1.2	2	HJXF604020B	
HJXF 6040 25 IP43 Improved	1.2	600	400	250	645	328	480	328	1.2	2	HJXF604025B	
HJXF 6050 14 IP43 Improved	1.2	600	500	140	645	428	480	428	1.2	2	HJXF605014B	
HJXF 6050 20 IP43 Improved	1.2	600	500	200	645	428	480	428	1.2	2	HJXF605020B	
HJXF 6050 25 IP43 Improved	1.2	600	500	250	645	428	480	428	1.2	2	HJXF605025B	
HJXF 7050 16 IP43 Improved	1.2	700	500	160	745	428	580	428	1.2	2	HJXF705016B	
HJXF 7050 20 IP43 Improved	1.2	700	500	200	745	428	580	428	1.2	2	HJXF705020B	
HJXF 7050 25 IP43 Improved	1.2	700	500	250	745	428	580	428	1.2	2	HJXF705025B	
HJXF 8060 20 IP43 Improved	1.5	800	600	200	845	528	680	528	1.5	2	HJXF806020B	
HJXF 8060 25 IP43 Improved	1.5	800	600	250	845	528	680	528	1.5	2	HJXF806025B	
HJXF 10080 20 IP43 Improved	1.5	1000	800	200	1045	728	880	728	1.5	2	HJXF1008020B	
HJXF 10080 25 IP43 Improved	1.5	1000	800	250	1045	728	880	728	1.5	2	HJXF1008025B	
HJXF 10080 30 IP43 Improved	1.5	1000	800	300	1045	728	880	728	1.5	2	HJXF1008030B	

Final Distribution



HJXF Metal Enclosure

Standard: EN60529



Order Information

Type	Thickness	Dimension (mm)									Lock	Reference
		Overall			Installation		Mounting					
		H	W	D	H1	B1	H6	B6	Thick			
HJXF 2520 14 IP54	1.2	250	200	140	310	150	172	122	2.0	1	HJXF252014Q	
HJXF 3025 14 IP54	1.2	300	250	140	360	200	222	172	2.0	1	HJXF302514Q	
HJXF 3025 18 IP54	1.2	300	250	180	360	265	222	172	2.0	1	HJXF302518Q	
HJXF 3030 14 IP54	1.2	300	300	140	360	265	222	222	2.0	1	HJXF303014Q	
HJXF 3030 18 IP54	1.2	300	300	180	360	265	222	222	2.0	1	HJXF303018Q	
HJXF 4030 14 IP54	1.2	400	300	140	460	365	322	222	2.0	1	HJXF403014Q	
HJXF 4030 20 IP54	1.2	400	300	200	460	365	322	222	2.0	1	HJXF403020Q	
HJXF 5040 14 IP54	1.2	500	400	140	560	465	422	322	2.0	2	HJXF504014Q	
HJXF 5040 20 IP54	1.2	500	400	200	560	465	422	322	2.0	2	HJXF504020Q	
HJXF 5040 25 IP54	1.2	500	400	250	560	465	422	322	2.0	2	HJXF504025Q	
HJXF 6040 14 IP54	1.5	600	400	140	660	565	522	322	2.0	2	HJXF604014Q	
HJXF 6040 20 IP54	1.5	600	400	200	660	565	522	322	2.0	2	HJXF604020Q	
HJXF 6040 25 IP54	1.5	600	400	250	660	565	522	322	2.0	2	HJXF604025Q	
HJXF 6050 14 IP54	1.5	600	500	140	660	565	522	422	2.0	2	HJXF605014Q	
HJXF 6050 20 IP54	1.5	600	500	200	660	565	522	422	2.0	2	HJXF605020Q	
HJXF 6050 25 IP54	1.5	600	500	250	660	565	522	422	2.0	2	HJXF605025Q	
HJXF 7050 16 IP54	1.5	700	500	160	760	665	622	422	2.0	2	HJXF705016Q	
HJXF 7050 20 IP54	1.5	700	500	200	760	665	622	422	2.0	2	HJXF705020Q	
HJXF 7050 25 IP54	1.5	700	500	250	760	665	622	422	2.0	2	HJXF705025Q	
HJXF 8060 20 IP54	1.5	800	600	200	860	765	722	522	2.0	2	HJXF806020Q	
HJXF 8060 25 IP54	1.5	800	600	250	860	765	722	522	2.0	2	HJXF806025Q	
HJXF 10080 20 IP54	1.5	1000	800	200	1060	965	922	722	2.0	2	HJXF1008020Q	
HJXF 10080 25 IP54	1.5	1000	800	250	1060	965	922	722	2.0	2	HJXF1008025Q	
HJXF 10080 30 IP54	1.5	1000	800	300	1060	965	922	722	2.0	2	HJXF1008030Q	

HJXF Metal Enclosure

Standard: EN60529

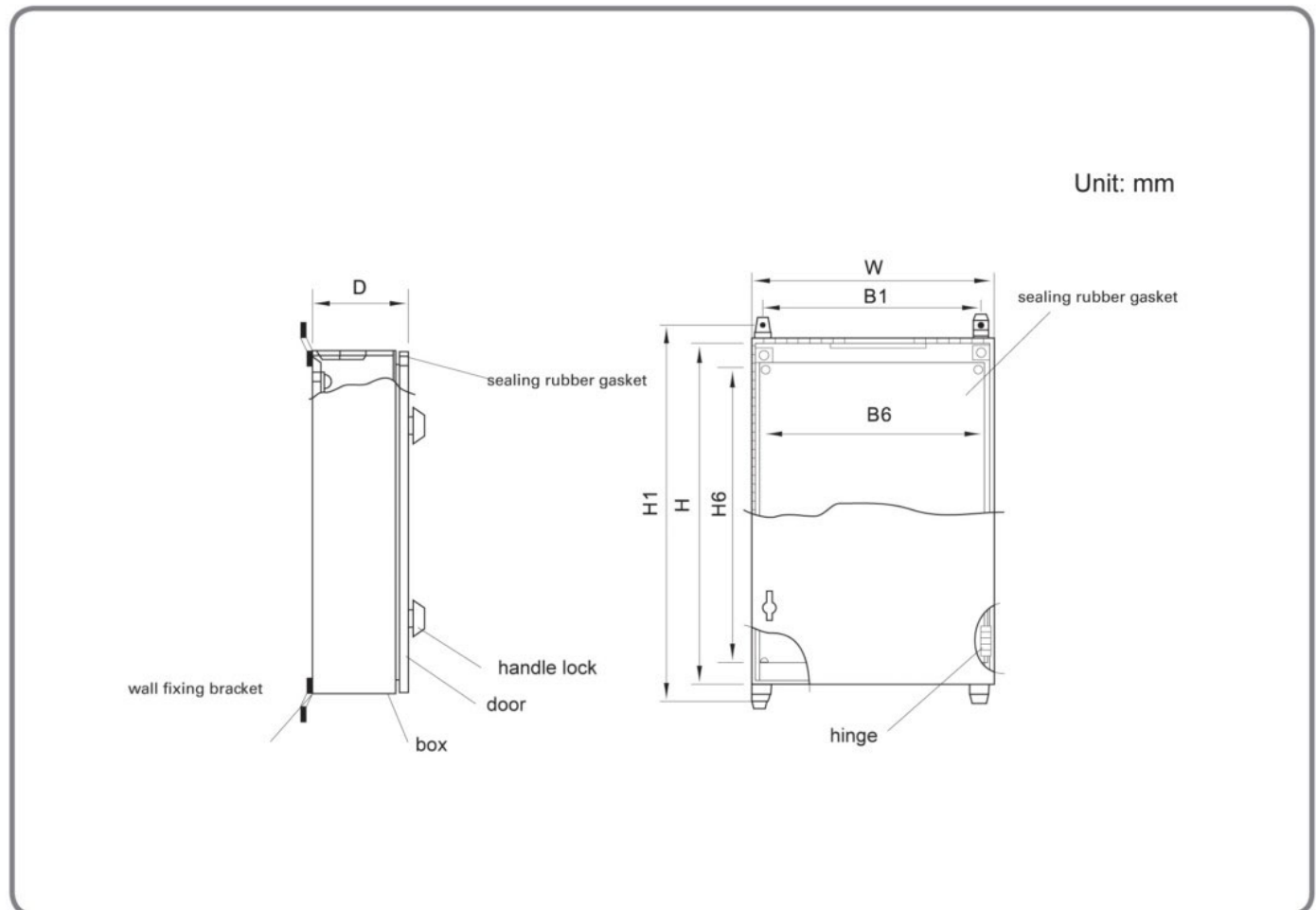


Technical Data

Type	HJXF
Protection Grade	IP43, IP54
Standard:	EN60529
Certificate	CE
Sheet Thickness	1.0~1.5mm
Mounting Plate Thickness	1.0~1.5mm
Hinge	Enhanced
Sealing Rubber Gasket	Black rubber gasket
Cable Gland	Bottom only



Overall Dimensions



Final Distribution



Product Overview



■ Contactor



HDC3 448
Current: 6-95A
Pole: 3P
Coil Voltage: AC24-440V



HDC6 461
Current: 9-630A
Pole: 3P
Coil Voltage: AC24-440V



HJX2 4P 479
Current: 9-95A
Pole: 4P
Coil Voltage: AC24-440V



HJX2-F 4P 485
Current: 115-800A
Pole: 4P
Coil Voltage: AC110-440V



HDC17K 493
Current: 6~12A
Pole: 3P/4P
Coil voltage: AC24-400V

■ Thermal Overload Relay



HDR3s 498
Setting Current: 0.1~93A
Trip Class: 10A, 10



HDR6 505
Setting Current: 0.1-630A
Trip Class: 10A, 10

Product Overview

With the new generation of technical platform and automatic production and testing equipment, the new HDC3 AC contactor effectively fits the actual customer application needs which is in a good quality and easy to use. The series includes three major categories, e.g. HDC3 AC contactor, HDR3s thermal overload relay and HDZ3 contactor relay and their accessories.

Product range

- HDC3 AC contactor: 6-95A, totally 12 current specifications
Accessories: HPCs transparent dust cover, HFD6 top auxiliary contact, HFC6 side auxiliary contact, HFT6 air delayed head and HFR6 mechanical interlock
Certification: CB, CE, SEMKO
- HDR3s thermal overload relay: setting current covering 0.1~93A
Accessories: independent mounting base
Certification: CB, CE, SEMKO
- HDZ3 contactor relay: 2NO+2NC, 3NO+1NC, 4NO+0NC, 1NO+3NC and 0NO+4NC
Accessories: HPCs transparent dust cover, HFD6 top auxiliary contact and HFT6 air delayed head
Certification: CE

Standards

- IEC 60947-1 General provisions
- IEC 60947-4-1 Contactors
- IEC 60947-5-1 Relays

Normal installation and operation conditions

Installation position:

The installation site shall be vertical, and inclination at all directions shall not exceed $\pm 22.5^\circ$. (inclination of HDR3s is no greater than 5°); installation Class III;

Pollution class:

Class 3

Ambient temperature:

- In normal operation, the ambient temperature range is between -5°C and $+40^\circ\text{C}$, but average value in 24h is no more than $+35^\circ\text{C}$;
- Storage temperature: $-25^\circ\text{C} \sim +55^\circ\text{C}$; a short time (24h) is allowed with maximum $+70^\circ\text{C}$

Altitude:

Altitude at normal installation position does not exceed 2000m.

Humidity

- The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is $+40^\circ\text{C}$. It is allowed to have a relative higher humidity under lower temperature, e.g. up to 90% at $+20^\circ\text{C}$.
- For occasional dew due to the temperature change, preventive measures shall be taken.

Product protection grade:

IP20



HDC3 AC contactor

Functions and features
Standard: IEC/EN 60947-4-1



Main Technical Parameters of HDC3



Contactor model		HDC3-06	HDC3-09	HDC3-12	HDC3-18	HDC3-25	HDC3-32	HDC3-38	HDC3-40	HDC3-50	HDC3-65	HDC3-80	HDC3-95		
Main circuit characteristics															
Number of poles		3 poles													
Rated insulation voltage(Ui)		V 690													
Maximum rated operating voltage(Ue)		V 660/690													
Conventional thermal current(Ith)		25	25	25	32	40	50	50	60	80	80	125	125		
Rated operating current(Ie)	AC-3,380/400V	A	6	9	12	18	25	32	38	40	50	65	80	95	
	AC-3,660/690V	A	3.8	6.6	8.9	12.0	18.0	22.0	22.0	34.0	39.0	42.0	49.0	49.0	
	AC-4,380/400V	A	2.6	3.5	5.0	7.7	8.5	12.0	14.0	18.5	24.0	28.0	37.0	44.0	
	AC-4,660/690V	A	1	1.5	2.0	3.8	4.4	7.5	8.9	9.0	12.0	14.0	17.3	21.3	
Rated operating power (Pe)	AC-3,380/400V	kW	2.2	4.0	5.5	7.5	11.0	15.0	18.5	18.5	22.0	30.0	37.0	45.0	
	AC-3,660/690V	kW	3	5.5	7.5	10.0	15.0	18.5	18.5	30.0	33.0	37.0	45.0	45.0	
	AC-4,380/400V	kW	1.1	2.2	3.0	4.0	5.5	7.5	7.5	7.5	11.0	15.0	18.5	22.0	
	AC-4,660/690V	kW	0.75	1.1	1.5	3.7	4.0	5.5	7.5	7.5	11.0	11.0	15.0	18.5	
Mechanical durabilities		10,000 times	1200				1000			900			650		
Electrical durabilities	AC-3	10,000 times	110				90			65					
	AC-4	10,000 times	22				22			17		11			
Operation frequency	AC-3	Time/hour	1200				600								
	AC-4	Time/hour	300				300								
Coil															
Rated control circuit voltage (Us)	50Hz	V	24, 36, 48, 110, 127, 220/230, 240, 380/400, 415, 440												
	50/60Hz	V	24, 36, 48, 110, 127, 220/230, 240, 380/400, 415, 440												
Allowable control circuit voltage(Us)	Operation	V	85%~110% Us(installing angle of ±22.5°); 70%~120% Us(installing angle of ±5°)												
	Drop-out	V	20%~75% Us(installing angle of ±22.5°); 20%~65% Us(installing angle of ±5°)												
Coil power	Actuation	VA	50	60			70			200			200		
	Holding	VA	6~9.5	6~9.5			6~9.5			15~20			15~20		
	Heat dissipation	W	1~3	1~3			1~3			6~10			6~10		
Main circuit terminal wiring capability															
Soft wire	1 wire	mm ²	1...4				1.5...6			2.5...25			4...50		
	Without terminal	2 wires	1...4				1.5...6			2.5...16			4...25		
Soft wire	1 wire	mm ²	1...4				1...6			2.5...25			4...50		
	With terminal	2 wires	1...2.5				1...4			2.5...10			4...16		
Hard wire	1 wire	mm ²	1...4				1.5...6		1.5...10		2.5...25			4...50	
	Without terminal	2 wires	1...4				1.5...6		1.5...6		2.5...10			4...25	
Auxiliary contact															
Conventional thermal current (Ith)		A	10												
Rated operating voltage (Ue)	AC	V	380												
	DC	V	220												
Rated control capacity	AC-15	VA	360												
	DC-13	W	33												
Certification		CB, CE, SEMKO													

HDC3 AC contactor

Functions and features
Standard: IEC/EN 60947-4-1



Main Technical Parameters of HDC3-N

Contactor model	Rated insulation voltage	Rated operating voltage	Conventional thermal current	Intermittent periodic duty AC-4	
	Ui(V)			Ie(A)	Pe(kw)
HDC3-09N	690	380/400	20	3.5	1.5
		660/690		1.5	1.1
HDC3-12N	690	380/400	20	5	2.2
		660/690		2	1.5
HDC3-18N	690	380/400	25	7.7	3.3
		660/690		3.8	3
HDC3-25N	690	380/400	32	8.5	4
		660/690		4.4	4
HDC3-32N	690	380/400	40	12	5.4
		660/690		7.5	5.5
HDC3-38N	690	380/400	40	14	5.5
		660/690		8.9	6
HDC3-40N	690	380/400	50	18.5	7.5
		660/690		9	7.5
HDC3-50N	690	380/400	60	24	11
		660/690		12	10
HDC3-65N	690	380/400	80	28	15
		660/690		14	11
HDC3-80N	690	380/400	110	37	18.5
		660/690		17.3	15
HDC3-95N	690	380/400	110	44	22
		660/690		21.3	18.5



Motor Control and Protection



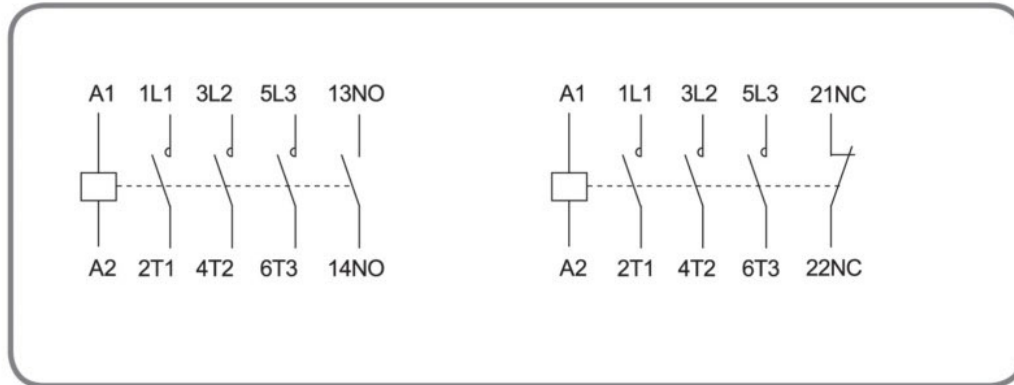
HDC3 AC contactor

Functions and features
Standard: IEC/EN 60947-4-1

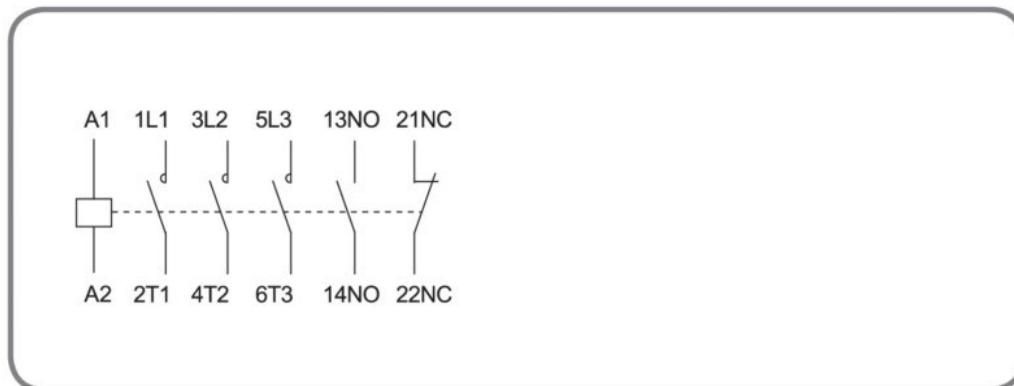


Wiring diagram

HDC3 6~38(1NO, or 1NC)



HDC3 9~95(1NO1NC)



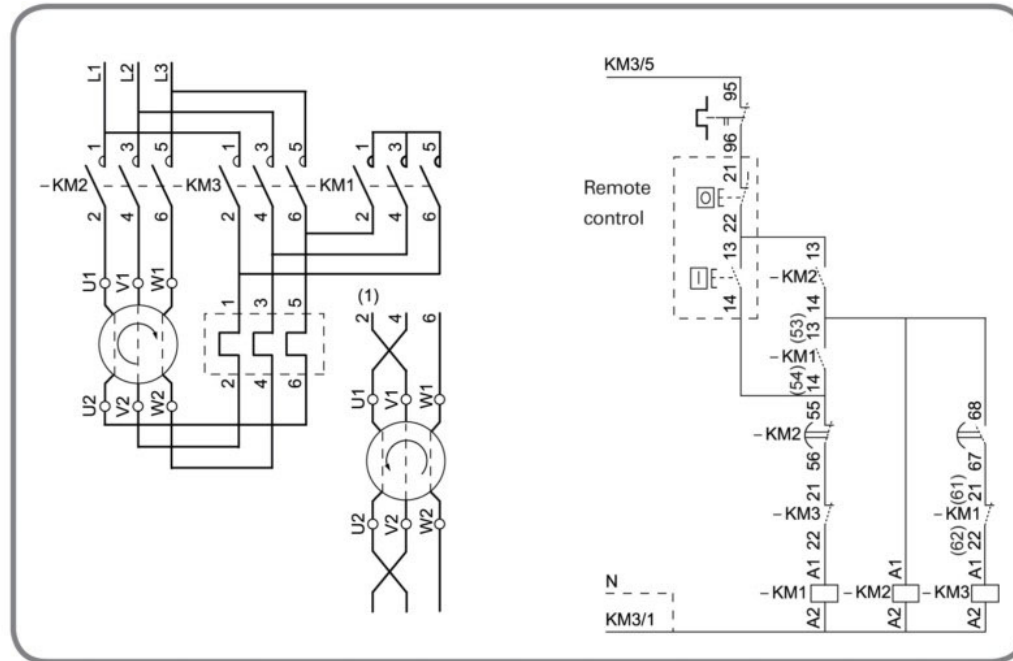
HDC3 AC contactor

Functions and features
Standard: IEC/EN 60947-4-1



Wiring diagram

Wiring diagram for star-delta starter



Motor Control and Protection



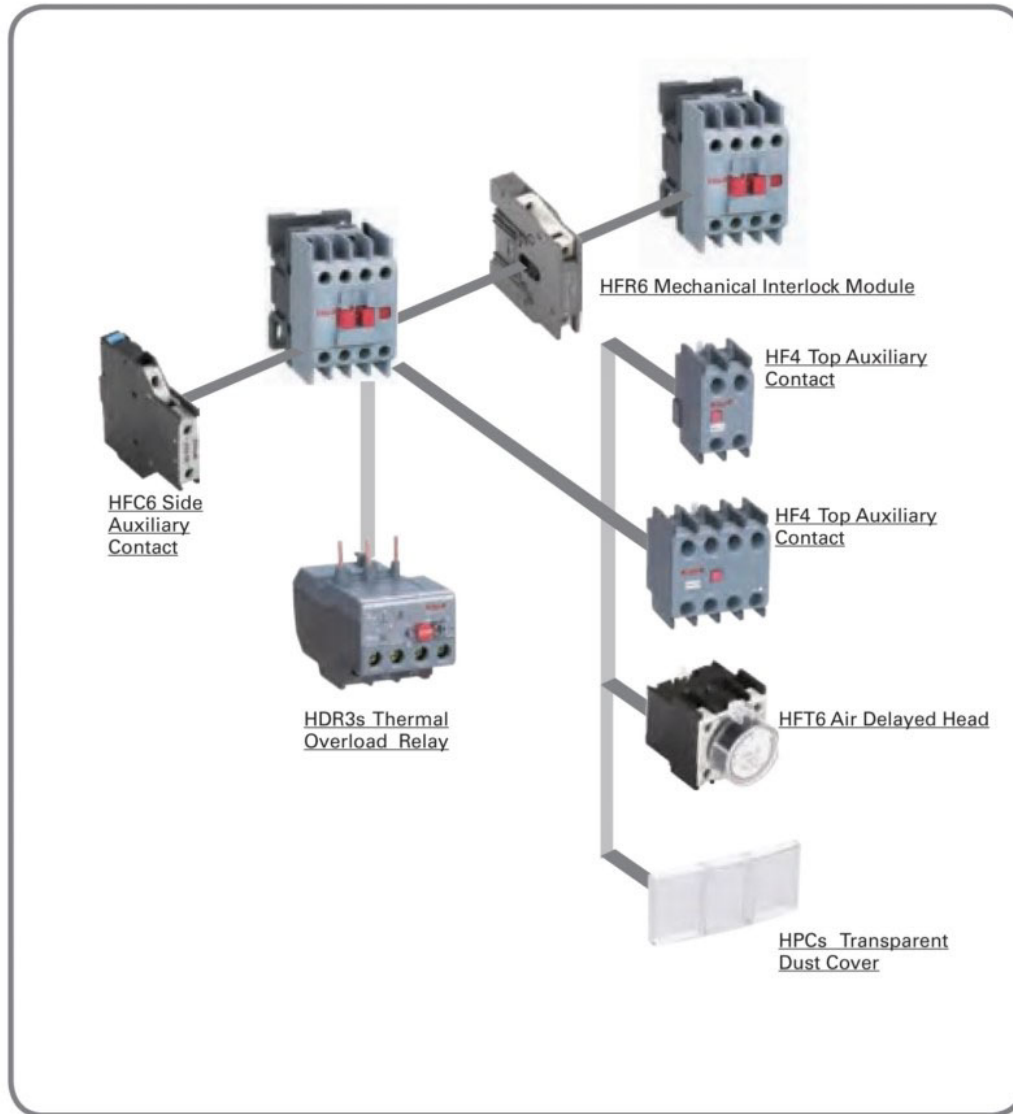
HDC3 AC contactor

Functions and features

Standard: IEC/EN 60947-4-1

Schematic Diagram of Accessory Installation

HDC3 schematic diagram of accessories



Transparent cover

Contacteur Type	Reference
HDC3-6~38A/HDZ3	HPCs38
HDC3-40~65A	HPCs65
HDC3-80~95A	HPCs95

HDC3 AC Contactor

Accessories

Standard: IEC/EN 60947-4-1



Auxiliary Contact

Installation Position	Pole	Auxiliary Contact		Contact Point Layout	Reference
		NO	NC		
Top	2	0	2	 2NC 1NO1NC 2NO	HF4 02
		1	1		HF4 11
		2	0		HF4 20
	4	0	4	 4NC1 1NO3NC 2NO2NC	HF4 04
		1	3		HF4 13
		2	2		HF4 22
		3	1		HF4 31
		4	0		HF4 40
Side	2	0	2	 2NC 1NO1NC 2NO	HFC6 02
		1	1		HFC6 11
		2	0		HFC6 20



Motor Control and Protection



HFT6 Air Delayed Head

Installation Position	Delay Type	Wiring Diagram	Delay Range	Reference
Top	Making time-delay		0.1-3s	HFT6 20
			0.1-30s	HFT6 22
			10-180s	HFT6 24
	Breaking time-delay		0.1-3s	HFT6 30
			0.1-30s	HFT6 32
			10-180s	HFT6 34

HDC3 AC Contactor

Accessories

Standard:IEC/EN 60947-4-1



Mechanical Interlock Module

Horizontal Installation		
Interlock Method	Contact Type	Reference
Mechanical interlock	HDC3-9~32	HFR6 32 H
with electrical interlock	HDC3-40~95	HFR6 95 H
Mechanical interlock without electrical interlock	HDC3-9~32	HFR6 32 HX



HDC3 AC Contactor

Order Information
Standard: IEC/EN 60947-4-1



HDC3 AC Contactor



Motor Control and Protection



Product Name	Current Specification	Auxiliary Contact	Coil Voltage	Coil frequency
HDC3	06	10	M	5
	↓	↓	↓	↓
	06:6A ... 95:95A	10:1NO+0NC 01:0NO+1NC 11:1NO+1NC	B:24V ... M:220V/230V ... Q:380V/400V ...	5:50Hz 7:50/60Hz

Motor power Pe(KW AC-3,380V)	Rated current Ie(A)	Auxiliary contact		Reference
		NO	NC	
2.2	6	1	0	HDC3 06 10 *
		0	1	HDC3 06 01 *
4	9	1	0	HDC3 09 10 *
		0	1	HDC3 09 01 *
		1	1	HDC3 09 11 *
5.5	12	1	0	HDC3 12 10 *
		0	1	HDC3 12 01 *
		1	1	HDC3 12 11 *
7.5	18	1	0	HDC3 18 10 *
		0	1	HDC3 18 01 *
		1	1	HDC3 18 11 *
11	25	1	0	HDC3 25 10 *
		0	1	HDC3 25 01 *
		1	1	HDC3 25 11 *
15	32	1	0	HDC3 32 10 *
		0	1	HDC3 32 01 *
		1	1	HDC3 32 11 *
18.5	38	1	0	HDC3 38 10 *
		0	1	HDC3 38 01 *
		1	1	HDC3 38 11 *
18.5	40	1	1	HDC3 40 11 *
22	50	1	1	HDC3 50 11 *
30	65	1	1	HDC3 65 11 *
37	80	1	1	HDC3 80 11 *
45	95	1	1	HDC3 95 11 *

Note: Only 3-pole is available

* means coil voltage code + frequency code

Coil voltage code & coil frequency code										
Coil Voltage(V)	24	36	48	110	127	220/230	240	380/400	415	440
50Hz	B5	C5	E5	F5	S5	M5	U5	Q5	L5	X5
50/60Hz	B7	C7	E7	F7	S7	M7	U7	Q7	L7	X7

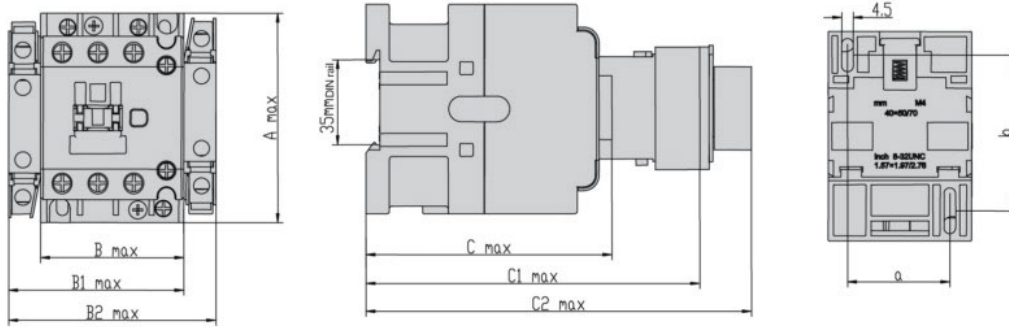
HDC3 AC Contactor

Standard: IEC/EN 60947-4-1

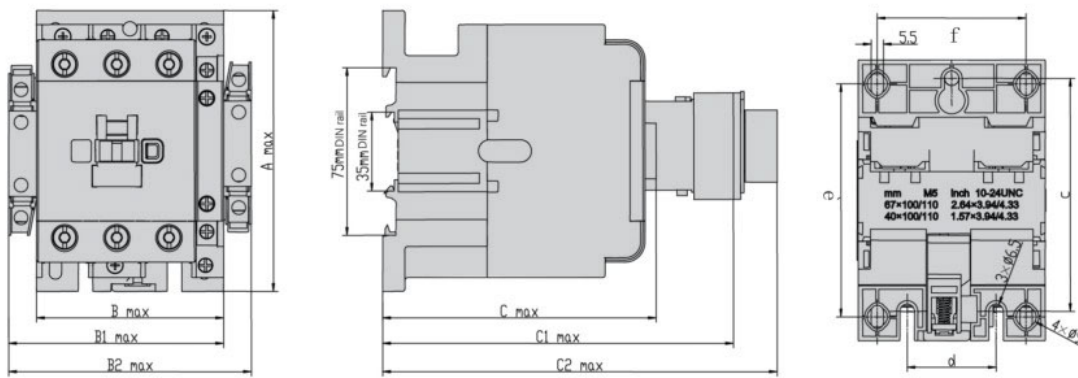


Overall and installation dimensions

HDC3 06-38A



HDC3-40-95A



HDC3 AC Contactor

Standard:IEC/EN 60947-4-1



Overall and installation dimensions

Overall Dimension of HDC3 06-95A AC contactor

Model	Auxilliary contacts	Amax	Bmax	B1max	B2max	Cmax	C1max	C2max
HDC3-06	01,10	74.5	45.5	-	-	75	107	132
HDC3-09, 12, 18	01,10	74.5	45.5	58	71	82.5	114.5	139.5
	11	74.5	45.5	58	71	85.5	117.5	142.5
HDC3-25, 32, 38	01,10,11	83	56.5	69	82	97	129	154
HDC3-40, 50, 65	11	127.5	74.5	88	101	117	148.5	173.5
HDC3-80,95	11	127.5	85.5	99	112	125.5	157	182

Note: B1max--contactor+HFC6 B2max--Contactor+2 pieces of HFC6 C1max--Contactor+HF4 C2max--Contactor+HFT6

For HDC3-09~18, the height with 11 auxiliary contacts is 3mm higher than those with 01 or 10 auxiliary contacts.

Model	Auxilliary contacts	a	b	c	d	e	f
HDC3-06	01,10	35	50/60	-	-	-	-
HDC3-09, 12, 18	01,10,11	35	50/60	-	-	-	-
HDC3-25, 32, 38	01,10,11	40	50/70	-	-	-	-
HDC3-40, 50, 65	11	-	-	105	40	100/110	59
HDC3-80,95	11	-	-	105	40	100/110	67



HDC3-N reversible AC contactor

Order Information
Standard: IEC/EN 60947-4-1



HDC3-N reversible AC contactor



Product Name	Current Specification	Mechanical interlock	Auxiliary Contact	Coil Voltage	Coil Frequency
HDC3	09	N	10	M	5
	↓	↓	↓	↓	↓
	09:9A ... 95:95A	N:Mechanical interlock	10:1NO+0NC 01:0NO+1NC 11:1NO+1NC	B:24V ... M:220V/230V ... Q:380V/400V ...	5:50Hz 7:50/60Hz

Motor power Pe (KW AC-4,380V)	Rated current Ie (A)	Auxiliary contact		Reference
		NO	NC	
1.5	9	1	0	HDC3 09N 10 *
		0	1	HDC3 09N 01 *
		1	1	HDC3 09N 11 *
2.2	12	1	0	HDC3 12N 10 *
		0	1	HDC3 12N 01 *
		1	1	HDC3 12N 11 *
3	18	1	0	HDC3 18N 10 *
		0	1	HDC3 18N 01 *
		1	1	HDC3 18N 11 *
4	25	1	0	HDC3 25N 10 *
		0	1	HDC3 25N 01 *
		1	1	HDC3 25N 11 *
5.5	32	1	0	HDC3 32N 10 *
		0	1	HDC3 32N 01 *
		1	1	HDC3 32N 11 *
5.5	38	1	0	HDC3 38N 10 *
		0	1	HDC3 38N 01 *
		1	1	HDC3 38N 11 *
7.5	40	1	1	HDC3 40N 11 *
11	50	1	1	HDC3 50N 11 *
15	65	1	1	HDC3 65N 11 *
18.5	80	1	1	HDC3 80N 11 *
22	95	1	1	HDC3 95N 11 *

Note: Only 3-pole is available;
* means coil voltage code + frequency code

Coil voltage code					
Coil voltage (V)	24	36	110	220/230	380/400
*	B	C	F	M	Q

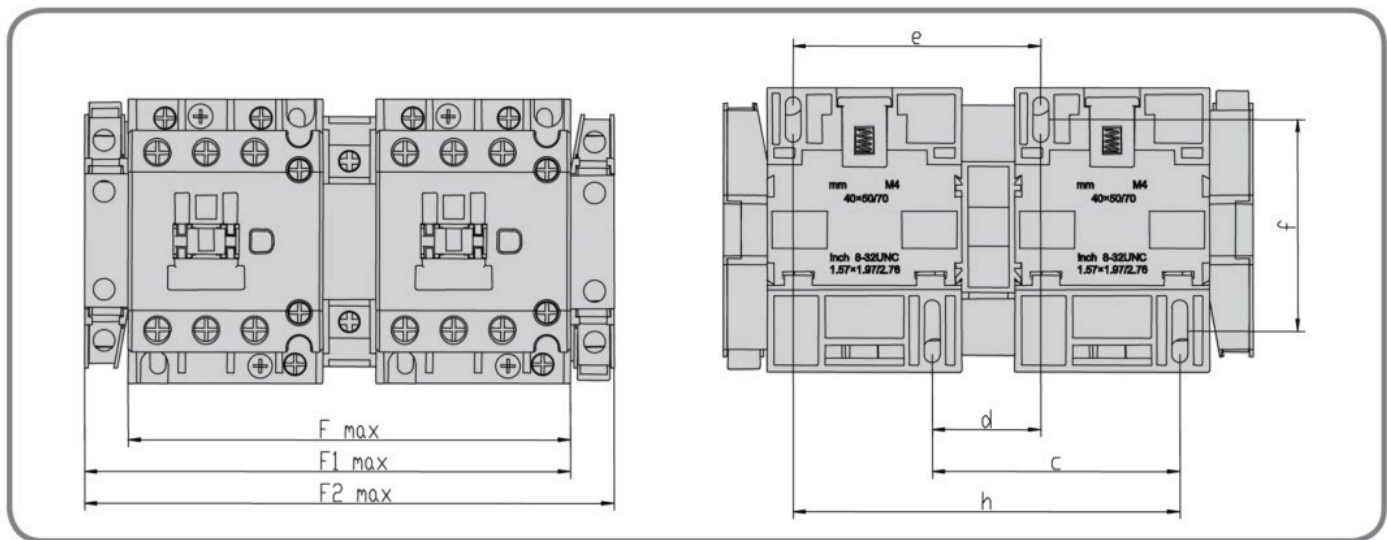
HDC3-N Directional AC contactor

Standard: IEC/EN 60947-4-1

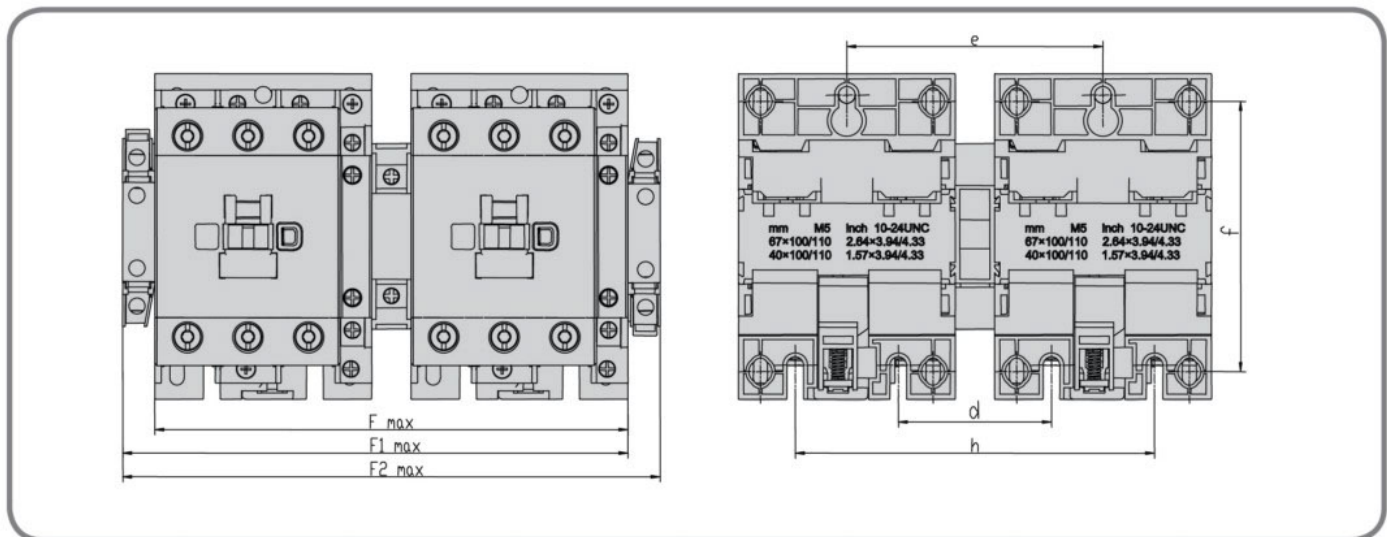


Overall and installation dimensions

HDC3-N 09-38A



HDC3-N 40-95A



Overall dimension of HDC3-N 09-95A directional AC contactor

Model	Fmax	F1max	F2max	c	d	e	f	h
HDC3-09N, 12N, 18N	107	120	131	60	25	60	50/60	95
HDC3-25N, 32N, 38N	129	142	153	71	31.5	71	50/60	111.5
HDC3-40N, 50N, 65N	163	180	193	-	50	90	100/110	130
HDC3-80N, 95N	186	202	215	-	60	100	100/110	140

Product List

HDC6 AC Contactor
Standard: IEC/EN 60947-4-1



HDC6 AC Contactor



Rated Operating Current	AC-3,400V	9A	12A	18A	25A	32A	40A	50A	65A	80A	95A
Control Power of Controlled	AC-3,400V	4kW	5.5kW	7.5kW	11kW	15kW	18.5kW	22kW	30kW	37kW	45kW
Power of Three-Phase Cage Motor	AC-3,690V	5.5kW	7.5kW	10kW	15kW	18.5kW	30kW	33kW	37kW	45kW	45kW

Accessories and Spare Parts

Top Auxiliary Contact		2 poles: HFD6-11, HFD6-20, HFD6-02 4 poles: HFD6-22, HFD6-13, HFD6-31, HFD6-40, HFD6-04
Side Auxiliary Contact		2 poles: HFC6-11, HFC6-20, HFC6-02
Air Delayed Head		Making time-delay: HFT6-20, HFT6-22, HFT6-24 Breaking time-delay: HFT6-30, HFT6-32, HFT6-34
Mechanical Interlocking Module		HFR6-32 Apply to Product of 9-32A, horizontal installation HFR6-95 Apply to Product of 40-95A, horizontal installation
HX6 Coil		Order reference: HX6+AF+Us+frequency For example: HX632N7
Main Contact		Not applicable

HDR6 Thermal Overload Relay

Thermal Overload Relay		HDR6-18	HDR6-32	HDR6-95
		0.10-0.15A	6.3-9A	30-40A
		0.12-0.18A	9-12A	37-50A
	
		14-18A	23-32A	80-95A

HDZ6 Contactor Relay

Contactor Relay		HDZ6-32, HDZ6-41
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115A	150A	185A	225A	265A	330A	400A	500A	630A
55kW	75kW	90kW	110kW	132kW	160kW	200kW	250kW	335kW
80kW	100kW	110kW	129kW	160kW	220kW	280kW	335kW	450kW

2 poles: HFD6-11, HFD6-20, HFD6-02
4 poles: HFD6-22, HFD6-13, HFD6-31, HFD6-40, HFD6-04

No side auxiliary contact

Making time-delay: HFT6-20, HFT6-22, HFT6-24
Breaking time-delay: HFT6-30, HFT6-32, HFT6-34

Horizontal installation and vertical installation

Spare parts, HX6-115-630 (Voltage AC: 230V and 400V are optional)

Spare parts, HMC6-115-630

HDR6-185	HDR6-630F
48-65A	145-200A
255-70A	180-250A
...	...
150-185A	460-630A

HDC6 AC Contactor

Order Information

Standard: IEC/EN 60947-4-1



Product Name	Rated Current	Auxiliary Contact	Coil Voltage	Coil Frequency
HDC6	09	11	M	
	09:9A ... 630:630A	11:1NO+1NC 00:0NO+0NC	B:24V ... X:440V	Default: 50HZ 7:50/60HZ

AC-3, 380/400V		Instant Auxiliary Contact		Reference
Rated Current (A)	Rated Power (KW)	1	1	
9	4	1	1	HDC6 09 11*.
12	5.5	1	1	HDC6 12 11*.
18	7.5	1	1	HDC6 18 11*.
25	11	1	1	HDC6 25 11*.
32	15	1	1	HDC6 32 11*.
40	18.5	1	1	HDC6 40 11*.
50	22	1	1	HDC6 50 11*.
65	30	1	1	HDC6 65 11*.
80	37	1	1	HDC6 80 11*.
95	45	1	1	HDC6 95 11*.
115	55	-	-	HDC6 115 00*.
150	75	-	-	HDC6 150 00*.
185	90	-	-	HDC6 185 00*.
225	110	-	-	HDC6 225 00*.
265	132	-	-	HDC6 265 00*.
330	160	-	-	HDC6 330 00*.
400	200	-	-	HDC6 400 00*.
500	250	-	-	HDC6 500 00*.
630	335	-	-	HDC6 630 00*.

Note: "*" means coil voltage; "." means coil frequency

Code Table of Coil Voltage

AC Coil Voltage (V)	24	36	48	110	127	220	230	240	380	400	415	440
50HZ	B	C	E	F	S	M	-	-	Q	V	L	X
50/60HZ	B7	-	-	F7	-	M7	N7	-	Q7	V7	L7	-

Note: 115-630AF refers to the actual situation



Motor Control and Protection

HDC6-N Directional AC Contactor

Order Information
Standard: IEC/EN 60947-4-1



Product Name	Rated Current	Directional Conatctor	Coil Voltage	Coil Frequency
HDC6	09	N	M	
	09:9A ... 630:630A	N:Mechanical interlock	B:24V ... X:440V	Default: 50Hz 7:50/60Hz

AC-3, 380/400V		Instant Auxiliary Contact		Reference
Rated Current (A)	Rated Power (KW)	{	}	
9	4	1	1	HDC6 09N*.
12	5.5	1	1	HDC6 12N*.
18	7.5	1	1	HDC6 18N*.
25	11	1	1	HDC6 25N*.
32	15	1	1	HDC6 32N*.
40	18.5	1	1	HDC6 40N*.
50	22	1	1	HDC6 50N*.
65	30	1	1	HDC6 65N*.
80	37	1	1	HDC6 80N*.
95	45	1	1	HDC6 95N*.
115	55	-	-	HDC6 115N*.
150	75	-	-	HDC6 150N*.
185	90	-	-	HDC6 185N*.
225	110	-	-	HDC6 225N*.
265	132	-	-	HDC6 265N*.
330	160	-	-	HDC6 330N*.
400	200	-	-	HDC6 400N*.
500	250	-	-	HDC6 500N*.
630	335	-	-	HDC6 630N*.

Note: "*" means coil voltage; "." means coil frequency

Code Table of Coil Voltage

AC Coil Voltage (V)	24	36	48	110	127	220	230	240	380	400	415	440
50HZ	B	C	E	F	S	M	-	-	Q	V	L	X
50/60HZ	B7	-	-	F7	-	M7	N7	-	Q7	V7	L7	-

Note: 115-630AF refers to the actual situation



Motor Control and Protection



HDC6 AC Contactor

Main Technical Parameter

Standard: IEC/EN 60947-4-1



Main Technical Parameter



Model	HDC6-09	HDC6-12	HDC6-18	HDC6-25	HDC6-32	HDC6-40	HDC6-50	HDC6-65	HDC6-80	HDC6-95
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Main Circuit Characteristics

Rated Operating Current (AC380V/400V)	le, AC-3 le, AC-4 le, AC-1	9A 3.5A 20A	12A 8.9A 20A	18A 12A 32A	25A 18A 40A	32A 21A 50A	40A 34A 60A	50A 39A 80A	65A 42A 80A	80A 49A 125A	95A 55A 125A
Rated Insulation Voltage (Ui)		690V									
Maximum Rated Operating Voltage (Ue)		690V									
Number of Poles		3									
Rated Operating Power Class AC-3	220/240V	2.2kW	3kW	4kW	5.5kW	7.5kW	11kW	15kW	18.5kW	22kW	25kW
	380/400V	4kW	5.5kW	7.5kW	11kW	15kW	18.5kW	22kW	30kW	37kW	45kW
	415/440V	4kW	5.5kW	9kW	11kW	15kW	22kW	25kW	37kW	45kW	45kW
	660/690V	5.5kW	7.5kW	10kW	15kW	18.5kW	30kW	33kW	37kW	45kW	45kW
AC-3	Electric durabilities (10 thousand times)	100	100	100	100	80	80	80	80	60	60
	Operating Rate (time/h)	1200	1200	1200	1200	600	600	600	600	600	600
Mechanical Durabilities	(10 thousand times)	1000	1000	1000	1000	800	800	800	800	800	800

Coil

Rated Control Circuit Voltage (Us)	50/60Hz	24V, 48V, 110V, 220V, 230V, 240V, 380V, 400V									
Allowable Control Circuit Voltage (Us)	Operation	85%~110% Us									
	Drop-out	20%~75% Us									
Coil Power	Actuation VA	70				110		200			
	Holding VA	8				11		20			
	Heat dissipation W	1.8~2.7				3~4		6~10			

Terminal Wiring Ability

Soft Wire Without Terminal Block	1 pc (wire section mm ²)	1~4	1~4	1.5~6	1.5~10	2.5~10	2.5~25	2.5~25	2.5~25	4~50	4~50
	2 pcs (wire section mm ²)	1~4	1~4	1.5~6	1.5~6	2.5~10	2.5~16	2.5~16	2.5~16	4~25	4~25
Soft Wire With Terminal Block	1 pc (wire section mm ²)	1~4	1~4	1~6	1~6	1~10	2.5~25	2.5~25	2.5~25	4~50	4~50
	2 pcs (wire section mm ²)	1~2.5	1~2.5	1~4	1~4	1.5~6	2.5~10	2.5~10	2.5~10	4~16	4~16
Hard Wire Without Terminal Block	1 pc (wire section mm ²)	1~4	1~4	1.5~6	1.5~6	1.5~10	2.5~25	2.5~25	2.5~25	4~50	4~50
	2 pcs (wire section mm ²)	1~4	1~4	1.5~6	1.5~6	2.5~10	2.5~16	2.5~16	2.5~16	4~25	4~25

Auxiliary Contact

Rated Thermal Current (Ith)	A	10
Rated Operating Voltage (Ue)	AC V	400
	DC V	220
Rated Control Capacity	AC-15 VA	360



Contactor Type	HDC6-115	HDC6-150	HDC6-185	HDC6-225	HDC6-265	HDC6-330	HDC6-400	HDC6-500	HDC6-630
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Main Circuit Characteristics

Rated Operating Current (AC380V/400V)	le, AC-3 le, AC-4 le, AC-1	115A 52A 200A	150A 60A 250A	185A 79A 275A	225A 85A 315A	265A 105A 350A	330A 117A 400A	400A 138A 500A	500A 147A 630A	630A 188A 800A
Rated Insulation Voltage (Ui)		1000V								
Rated Operating Voltage (Ue)		690V								
Number of Pole		3								
Rated Operating Power Class AC-3	220/240V 380/400V 415/440V 660/690V	30kW 55kW 59kW 80kW	40kW 75kW 80kW 100kW	55kW 90kW 100kW 110kW	63kW 110kW 110kW 129kW	75kW 132kW 140kW 160kW	100kW 160kW 180kW 220kW	110kW 200kW 220kW 280kW	147kW 250kW 280kW 335kW	200kW 335kW 375kW 450kW
AC-3	Electric durabilities (10 thousand times)	120	120	100	100	80	80	80	80	80
	Operating Rate (time/h)	600	600	600	600	600	600	300	300	300
Mechanical Durabilities	(10 thousand times)	1000	1000	600	600	600	600	600	600	600

Coil

Rated Control Circuit Voltage (Us)	50Hz 50/60Hz	110V, 127V, 220V-230V, 240V, 380V-400V, 440V 110V, 220-230V, 240V, 380V-400V (115-225A), 110V, 127V, 220V-230V, 240V, 380V-400V, 440V(265-630A)								
Allowable Control Circuit Voltage (Us)	Operation	85%~110% Us								
	Drop-out	20%~75% Us								
Coil Power	Actuation VA	550	800	1200	1200	1250	1650			
	Holding VA	45	55	13	20	24	22			
	Heat dissipation W	16	24	12	14	18	20			

Terminal Wiring Ability

Fixed Wire Without Terminal Block	1 pc (wire section mm ²)	95	120	150	185	240	240	-	-	-
	2 pcs (wire section mm ²)	-	-	-	-	-	-	150	240	-
Copper Bar	2 pcs (size mm ²)	20*3	25*3	25*3	32*4	32*4	30*5	30*5	40*5	60*5

Auxiliary Contact

Rated Thermal Current (Ith)	A	10
Rated Operating Voltage (Ue)	AC V	400
	DC V	220
Rated Control Capacity	AC-15 VA	360

HDC6 AC Contactor

Directional Contactor

Standard: IEC/EN 60947-4-1



Directional Contactor (horizontal installation)	Rated Capacity (kW)		Rated Current (Ie)		Rated Thermal Current (A)
	AC-3		AC-3		
	400V	690V	400V	690V	AC-1
HDC6-09N	4	5.5	9	6.6	20
HDC6-12N	5.5	7.5	12	8.9	20
HDC6-18N	7.5	10	18	12	32
HDC6-25N	11	15	25	18	40
HDC6-32N	15	18.5	32	21	50
HDC6-40N	18.5	30	40	34	60
HDC6-50N	22	33	50	39	80
HDC6-65N	30	37	65	42	80
HDC6-80N	37	45	80	49	125
HDC6-95N	45	45	95	55	125
HDC6-115N	55	80	115	86	200
HDC6-150N	75	100	150	108	200
HDC6-185N	90	110	185	118	275
HDC6-225N	110	129	225	137	275
HDC6-265N	132	160	265	170	315
HDC6-330N	160	220	330	235	380
HDC6-400N	200	280	400	303	450
HDC6-500N	250	335	500	353	630
HDC6-630N	335	450	630	462	800

Motor Control and Protection

HDC6 AC Contactor

Option for Star Delta Starter
Standard: IEC/EN 60947-4-1



Contactor (HDC6-09~95)

Max. Starting Frequency: 30 times/h; Max. Starting Time: 30s

Motor			Contactor	Contactor	Contactor	Thermal Overload Relay	
Class AC-3 50Hz 3-Phase Electromotor Delta Connection			Straight Connection KM2	Delta Connection KM3	Star Connection KM1		
P (KW)	In (A)	IrD (A)	Type	Type	Type	Type	Setting Range (A)
1.5	3.5	2	HDC6-09	HDC6-09	HDC6-09	HDR6-18	1.8~2.5
2.2	5	3	HDC6-09	HDC6-09	HDC6-09	HDR6-18	2.5~3.6
3	6.6	4	HDC6-09	HDC6-09	HDC6-09	HDR6-18	3.5~4.8
4	8.5	5	HDC6-09	HDC6-09	HDC6-09	HDR6-18	4.5~6.3
5.5	11.5	6	HDC6-09	HDC6-09	HDC6-09	HDR6-18	5~7
7.5	15.5	9	HDC6-12	HDC6-12	HDC6-09	HDR6-18	9~12
9	18.5	11	HDC6-18	HDC6-18	HDC6-12	HDR6-18	11~15
11	22	13	HDC6-18	HDC6-18	HDC6-12	HDR6-18	11~15
15	30	16	HDC6-25	HDC6-25	HDC6-18	HDR6-32	14~18
18.5	37	22	HDC6-25	HDC6-25	HDC6-18	HDR6-32	18~25
22	44	26	HDC6-32	HDC6-32	HDC6-25	HDR6-32	23~32
30	60	35	HDC6-40	HDC6-40	HDC6-32	HDR6-95	30~40
37	72	40	HDC6-50	HDC6-50	HDC6-40	HDR6-95	37~50
45	85	47	HDC6-65	HDC6-65	HDC6-50	HDR6-95	37~50
55	105	58	HDC6-80	HDC6-80	HDC6-65	HDR6-95	55~70
75	138	78	HDC6-95	HDC6-95	HDC6-80	HDR6-95	63~80

Motor Control and Protection

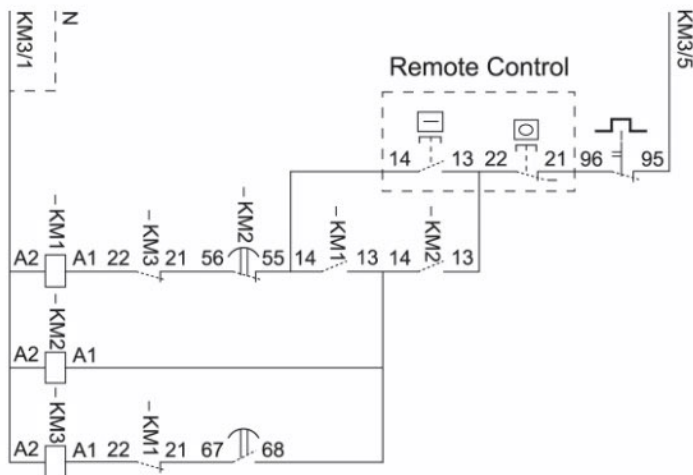
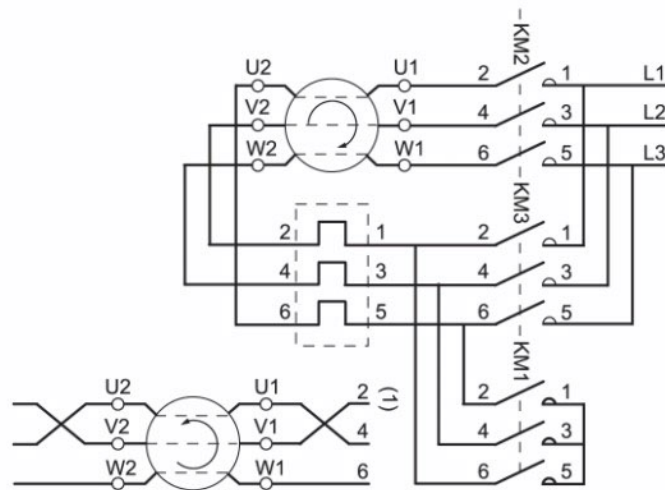


HDC6 AC Contactor

Option for Star-Delta Starter
Standard: IEC/EN 60947-4-1



Wiring Diagram for Star-Delta Starter

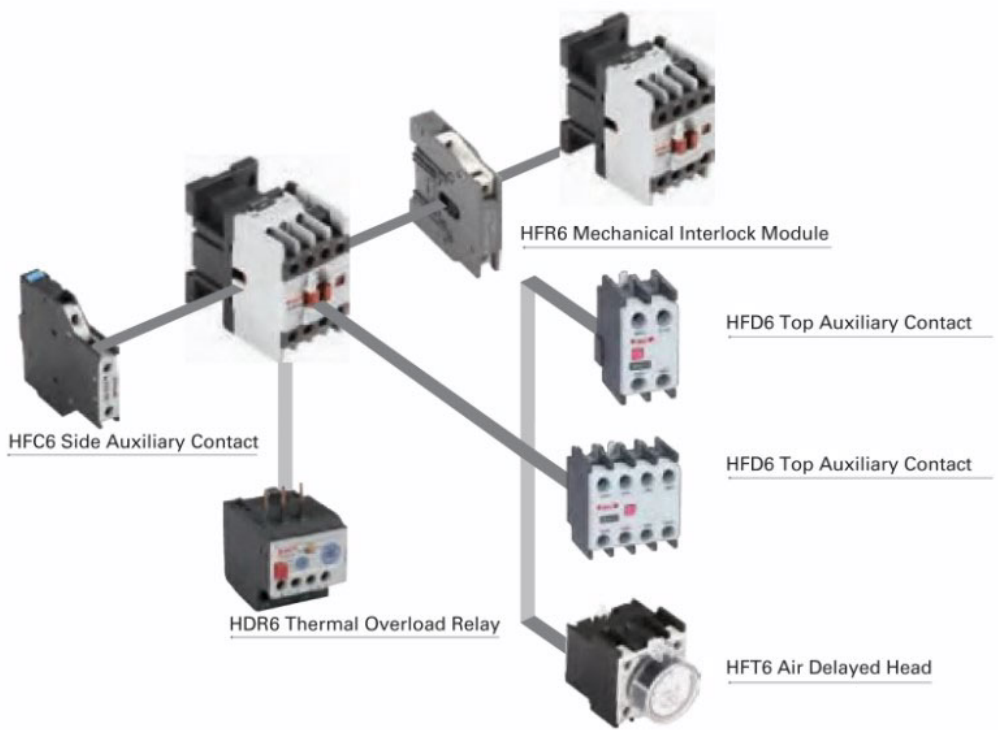


HDC6 AC Contactor

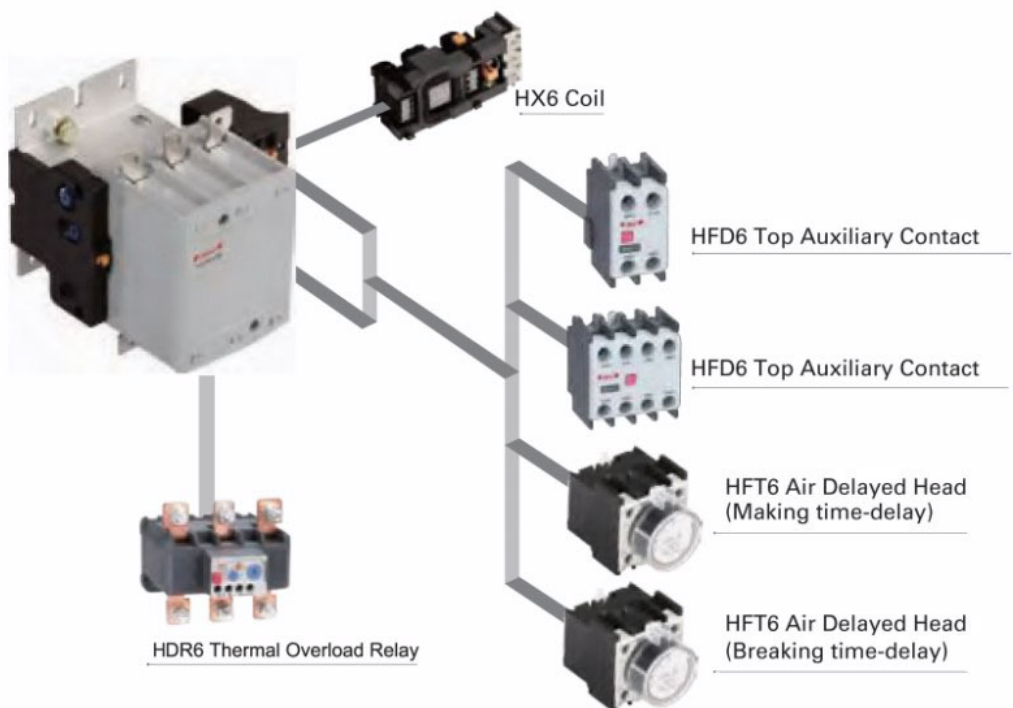
Accessories
Standard: IEC/EN 60947-4-1



HDC6-9~95A Contactor Accessories



HDC6-115~630A Contactor Accessories



Motor Control and Protection



HDC6 AC Contactor

Accessories

Standard: IEC/EN 60947-4-1



Motor Control and Protection

Auxiliary Contact

Installation Position	Pole	Auxiliary Contact		Contact Point Layout	Reference		
		NO	NC				
Top	2	0	2		HFD6 02		
		1	1		HFD6 11		
		2	0		HFD6 20		
	4	0	4		HFD6 04		
		1	3		HFD6 13		
		2	2		HFD6 22		
		3	1		HFD6 31		
		4	0		HFD6 40		
		Side	2	0	2		HFC6 02
				1	1		HFC6 11
2	0				HFC6 20		
4	0		4		HFC6 04		
	1		3		HFC6 13		
	2		2		HFC6 22		



HFT6 Air Delayed Head

Installation Position	Delay Type	Wiring Diagram	Delay Range	Reference
Top	Making time-delay		0.1-3s	HFT6 20
			0.1-30s	HFT6 22
			10-180s	HFT6 24
	Breaking time-delay		0.1-3s	HFT6 30
			0.1-30s	HFT6 32
			10-180s	HFT6 34

HDC6 AC Contactor

Accessories
Standard: IEC/EN 60947-4-1



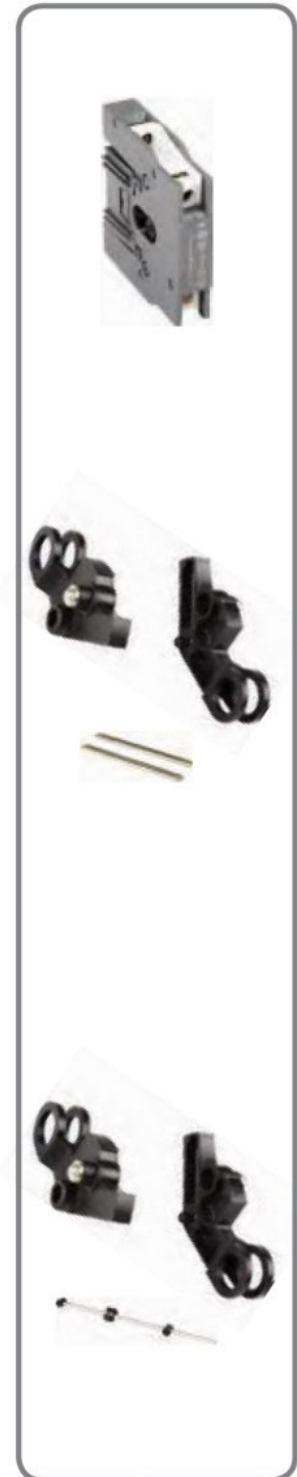
Mechanical Interlock Module

Horizontal Installation

Interlock Method	Contact Type	Reference
Mechanical interlock with electrical terminal	HDC6-9~32	HFR6 32 H
	HDC6-40~95	HFR6 95 H
Mechanical interlock without electrical terminal	HDC6-9~32	HFR6 32 HX
	HDC6-115~150	HFR6 FF H
	HDC6-185~225	HFR6 GGH
	HDC6-265~330	HFR6 HHH
	HDC6-400~500	HFR6 KK H
Simplified mechanical interlock without bars	HDC6-630	HFR6 LL H
	HDC6-115~150	HFR6 FF Hs
	HDC6-185~225	HFR6 GGHs
	HDC6-265~330	HFR6 HHHs
	HDC6-400~500	HFR6 KK Hs
HDC6-630	HFR6 LL Hs	

Vertical Installation (Mechanical interlock without electrical terminal)

Contact Type		Interlock Device Reference
Bottom	Top	
HDC6-115 or HDC6-150	HDC6-115	HFR6 FF V
	HDC6-150	HFR6 FF V
	HDC6-185	HFR6 FG V
	HDC6-225	HFR6 FG V
	HDC6-265	HFR6 FH V
	HDC6-330	HFR6 FH V
	HDC6-400	HFR6 FH V
	HDC6-500	HFR6 FH V
	HDC6-630	HFR6 FL V
HDC6-185 or HDC6-225	HDC6-185	HFR6 GG V
	HDC6-225	HFR6 GG V
	HDC6-265	HFR6 GK V
	HDC6-330	HFR6 GK V
	HDC6-400	HFR6 GK V
	HDC6-500	HFR6 GK V
	HDC6-630	HFR6 GL V
HDC6-265 or HDC6-330	HDC6-265	HFR6 HK V
	HDC6-330	HFR6 HK V
	HDC6-400	HFR6 HK V
	HDC6-500	HFR6 HK V
	HDC6-630	HFR6 HL V
HDC6-400	HDC6-400	HFR6 HK V
	HDC6-500	HFR6 HK V
	HDC6-630	HFR6 HL V
HDC6-500	HDC6-500	HFR6 HK V
	HDC6-630	HFR6 HL V
HDC6-630	HDC6-630	HFR6 LL V



Motor Control and Protection



Note: Vertical installation adopts mechanical Interlock device equipped with the interlock without electricity

HDC6 AC Contactor

Accessories

Standard: IEC/EN 60947-4-1



HX6 Coil

Corresponding Contactor	Coil Voltage	Reference
115A-150A	220V	HX6 150 M
	380V	HX6 150 Q
185A-225A	220V	HX6 225 M
	380V	HX6 225 Q
265A-330A	220V	HX6 330 M
	380V	HX6 330 Q
400A	220V	HX6 400 M
	380V	HX6 400 Q
500A	220V	HX6 500 M
	380V	HX6 500 Q
630A	220V	HX6 630 M
	380V	HX6 630 Q



HMC6 Main Contact

Number of Poles	Contactor Current Specification	Reference
3	115A	HMC6 115
	150A	HMC6 150
	185A	HMC6 185
	225A	HMC6 225
	265A	HMC6 265
	330A	HMC6 330
	400A	HMC6 400
	500A	HMC6 500
	630A	HMC6 630



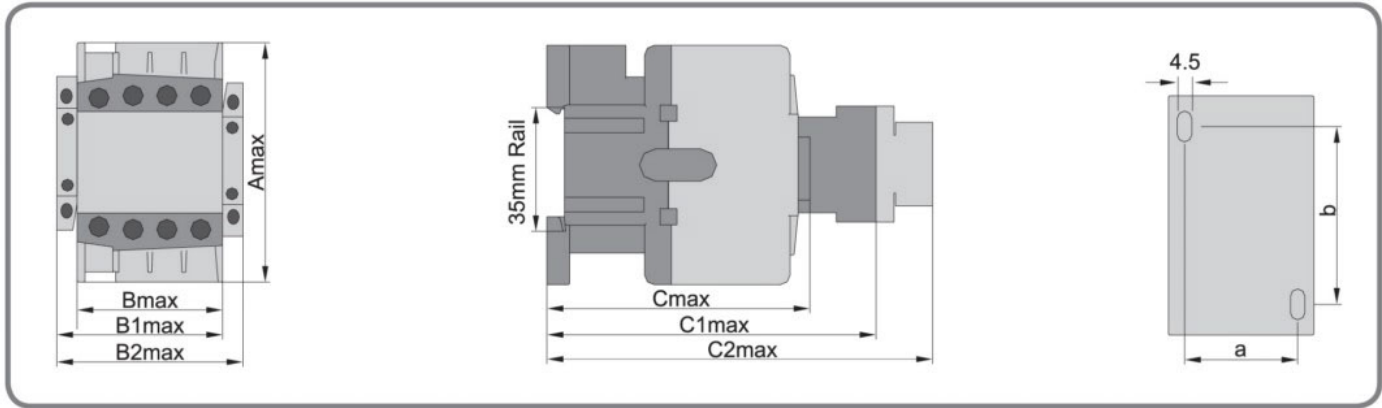
HDC6 AC Contactor

Overall Dimension of Installation

Standard: IEC/EN 60947-4-1

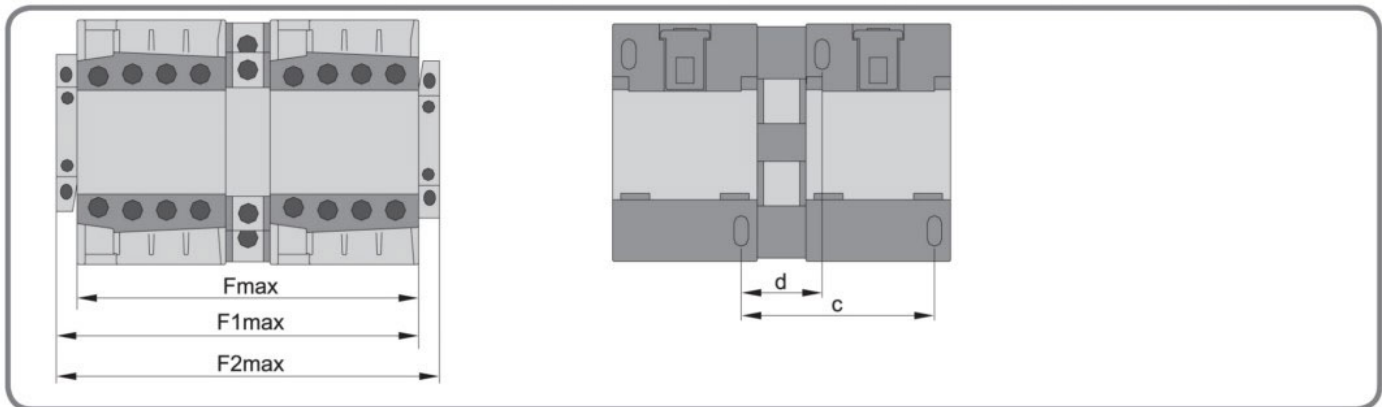


HDC6-9~32



HDC6	9/12	18	25/32
A	74.5	74.5	80
B (without accessory)	45.5	45.5	56.5
B1 (with one HFC6)	58	58	69
B2 (with two HFC6)	71	71	82
C (without accessory)	84	89	99.5
C1 (with HFD6)	116	122	132
C2 (with HFT6)	141	145	156
a	35	35	40
b	50/60	50/60	50/70

HDC6-9~32N



HDC6	9N/12N	18N	25N/32N
F (without accessory)	108	108	132
F1 (with one HFC6)	119	119	143
F2 (with two HFC6)	131	131	155
c	60	60	71.5
d	25	25	31.5

Motor Control and Protection



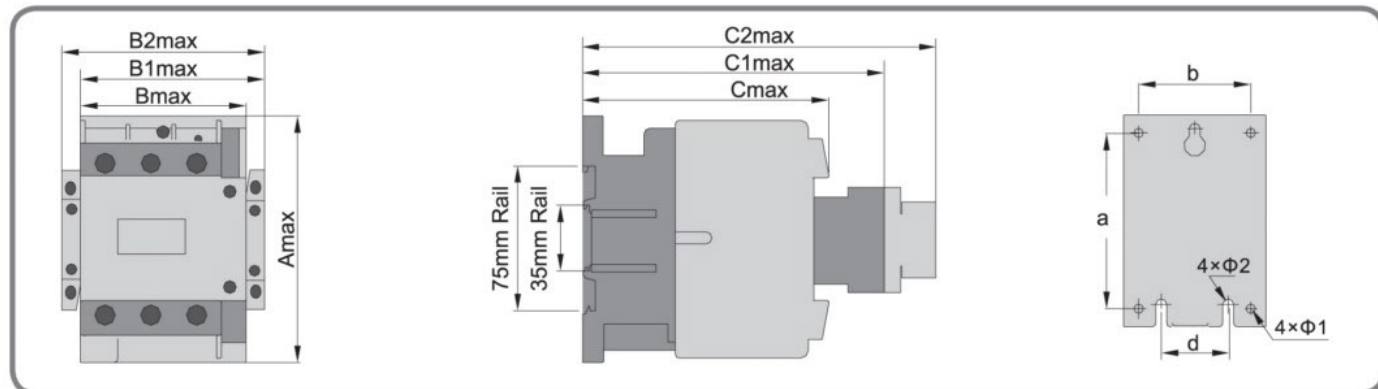
HDC6 AC Contactor

Overall Dimension of Installation

Standard: IEC/EN 60947-4-1

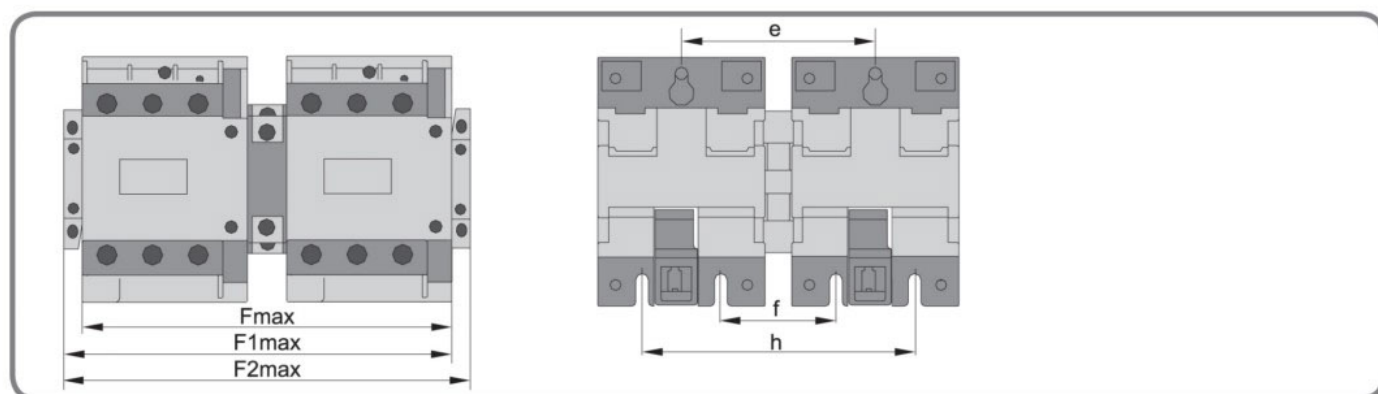


HDC6-40~95



HDC6	40/50/65	80/95
A	127	127
B (without accessory)	75	85
B1 (with one HFC6)	89	99
B2 (with two HFC6)	102	112
C (without accessory)	118.5	127.5
C1 (with HFD6)	150	160
C2 (with HFT6)	175	185
a	105	105
b	59	67
c	105	105
d	40	40
Φ1	5.5	5.5
Φ2	6.5	6.5

HDC6-40N~95N



HDC6	40N/50N/65N	80N/95N
F (without accessory)	169	190
F1 (with one HFC6)	182	203
F2 (with two HFC6)	195	216
e	90	100.5
f	50	60.5
h	130	140

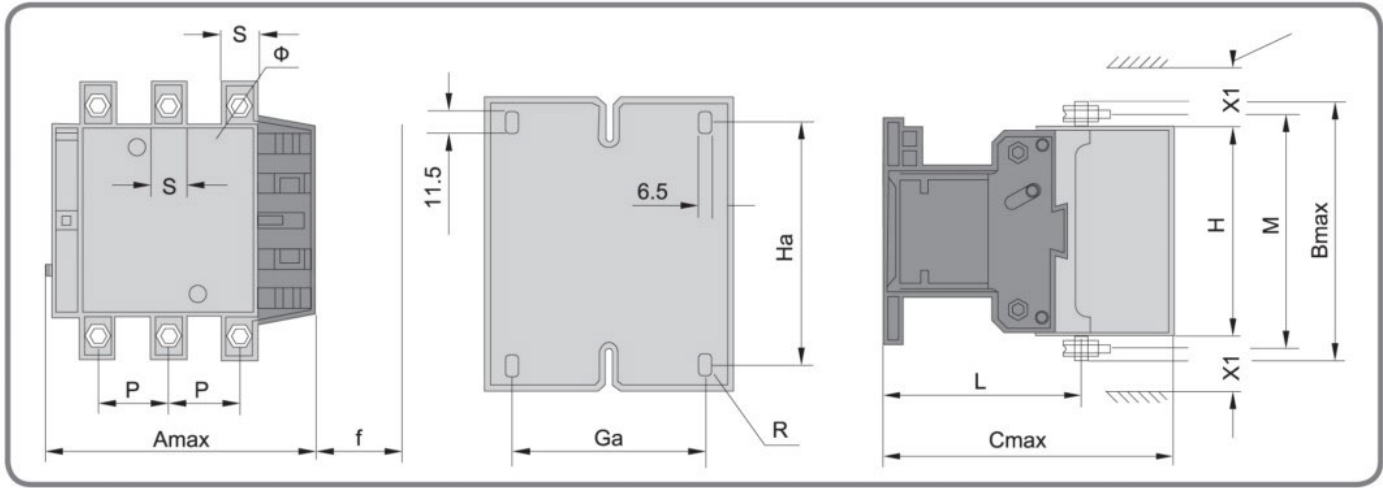
HDC6 AC Contactor

Overall Dimension of Installation

Standard: IEC/EN 60947-4-1



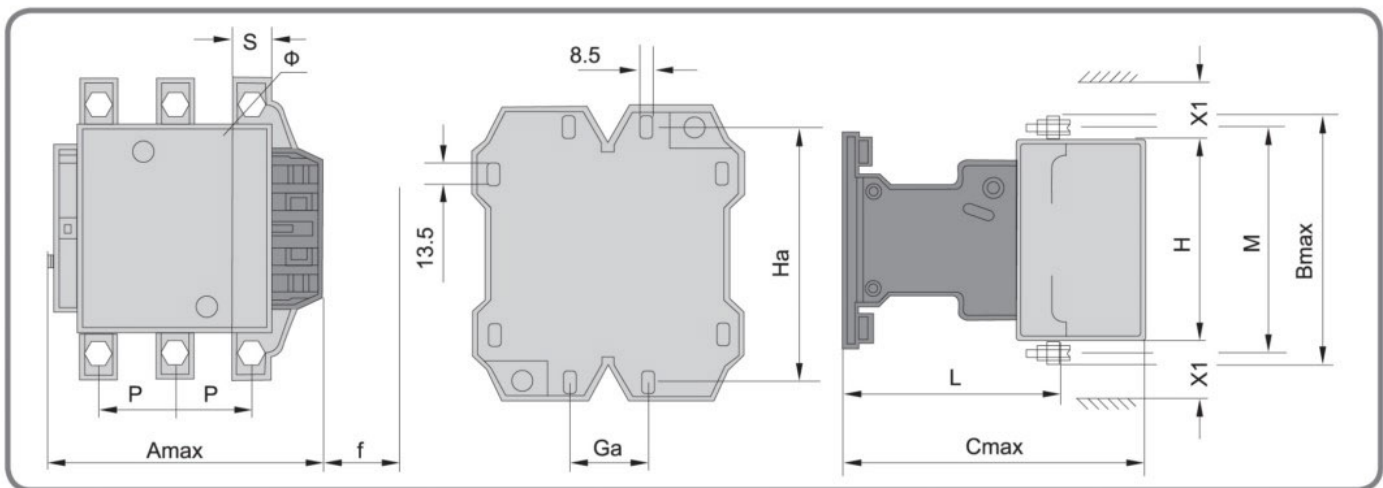
HDC6-115~330



Type	Amax	Bmax	Cmax	P	S	φ	f	M	H	L	X1	X1	Ga	Ha
											(200-550V)	(600-1000V)		
HDC6-115	167	163	172	37	20	M6	131	147	124	107	10	15	80	110~120
HDC6-150	167	171	172	40	20	M8	131	150	124	107	10	15	80	110~120
HDC6-185	171	174	183	40	20	M8	131	154	127	113.5	10	15	80	110~120
HDC6-225	171	197	183	48	25	M10	131	172	127	113.5	10	15	80	110~120
HDC6-265	202	203	215	48	25	M10	147	178	147	141	10	15	96	110~120
HDC6-330	213	206	220	48	25	M10	147	181	158	145	10	15	96	110~120

Note: 'f' reserved space to ensure draw-out coil can take out easily

HDC6-400~500



Type	Amax	Bmax	Cmax	P	S	φ	f	M	H	L	X1	X1	Ga	Ha
											(200-550V)	(600-1000V)		
HDC6-400	213	206	220	48	25	M10	146	181	158	145	15	20	80	170~180
HDC6-500	223	233	233	55	30	M10	150	208	172	146	15	20	80	170~180

Note: 'f' reserved space to ensure draw-out coil can take out easily

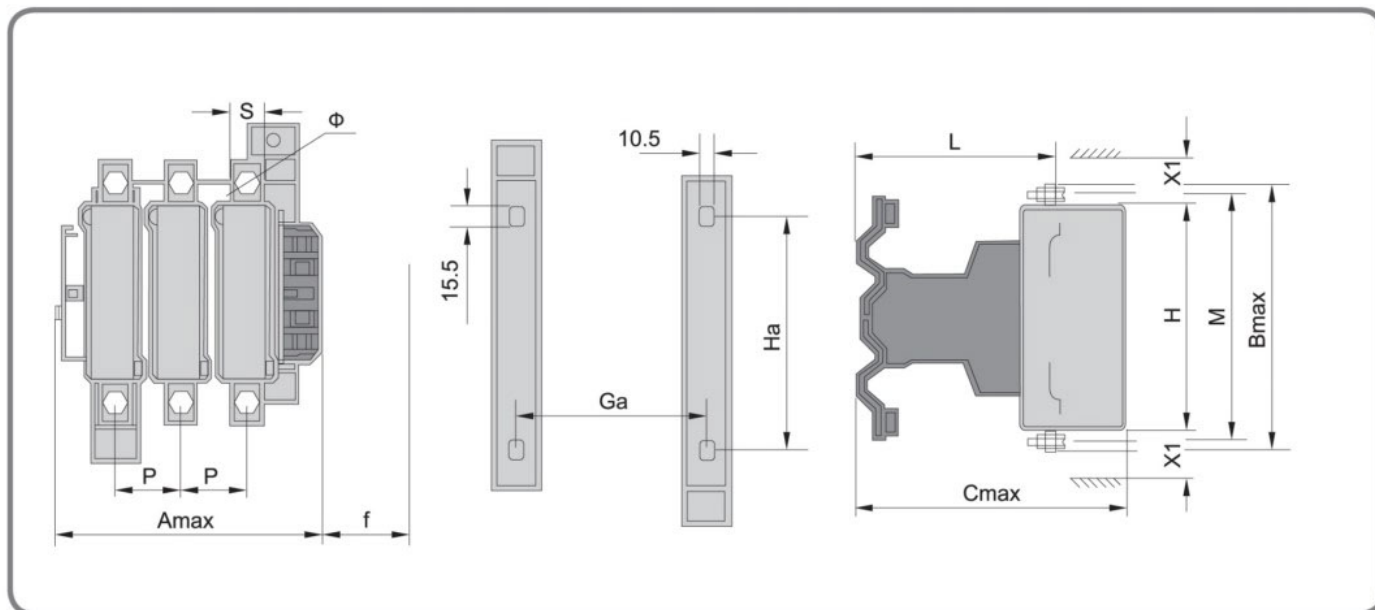
HDC6 AC Contactor

Overall Dimension of Installation

Standard: IEC/EN 60947-4-1



HDC6-630



Type	Amax	Bmax	Cmax	P	S	φ	f	M	H	L	X1	X1	Ga	Ha
											(200-550V)	(600-1000V)		
HDC6-630	309	304	256	80	40	M12	181	264	202	155	20	30	180	180~190

Note: 'f' reserves space to ensure that draw-out coil can be taken out easily

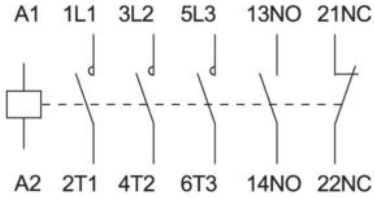
HDC6 AC Contactor

Overall Dimension of Installation
Standard: IEC/EN 60947-4-1

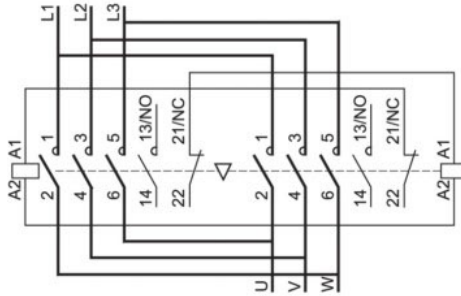


Wiring Diagram

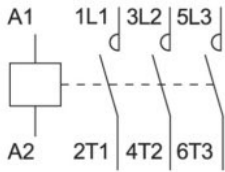
HDC6-09~95



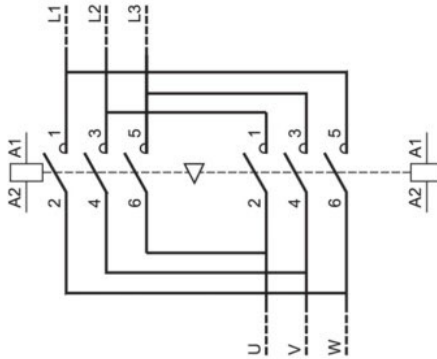
HDC6-09N~95N
(Horizontal Installation, Mechanical +Electrical Interlock)



HDC6-115~630



HDC6-115N~630N
(Horizontal Installation, Mechanical Interlock)



Motor Control and Protection



HJX2 4P AC Contactor

Standard: IEC 60947-4-1





Function

HJX2 4P AC contactors provide:

- Remote make & break of circuits
- Frequent start and stop of motors

Order Information

Motor P(kW) AC-380/400V	Rated current(A) AC-3 380/400V	Main contact		Reference
4	9			HJX20904*7
		2	2	HJX20908*7
5.5	12	4	0	HJX21204*7
		2	2	HJX21208*7
11	25	4	0	HJX22504*7
		2	2	HJX22508*7
18.5	40	4	0	HJX24004*7
		2	2	HJX24008*7
22	50	4	0	HJX25004*7
		2	2	HJX25008*7
30	65	4	0	HJX26504*7
		2	2	HJX26508*7
37	80	4	0	HJX28004*7
		2	2	HJX28008*7
45	95	4	0	HJX29504*7
		2	2	HJX29508*7



Reference Description

Product name	Rated Current	Main Contact	Coil Voltage	Coil Frequency
HJX2	09	04	*	7
	↓	↓	↓	↓
	09:9A 12:12A ... 95:95A	04:4NO+0NC 08:2NO+2NC	B:24V ... X:440V	7:50/60Hz

Coil voltage code

Coil voltage	24V	36V	48V	110V	127V	220V	230V	240V	380V	400V	415V	440V
*	B	C	E	F	S	M	N	U	Q	V	L	X

Motor Control and Protection

HJX2 4P AC Contactor

Standard: IEC 60947-4-1



Technical Data

Model	HJX2-09	HJX2-12	HJX2-25	HJX2-40	HJX2-50	HJX2-65	HJX2-80	HJX2-95	
Main circuit characteristics									
Maximum Rated Operating Voltage (Ue)					690V				
Rated Insulation Voltage (Ui)					690V				
Rated Impulse Withstand Voltage (Uimp)					8kV				
Conventional thermal current A	25	25	40	60	80	80	125	125	
Rated Operating Current	380/400V AC-3 A	9	12	25	40	50	65	80	95
	660/690V AC-3 A	6.6	8.9	18	34	39	42	49	49
	380/400V AC-4 A	3.3	5	8.5	18.5	24	28	37	44
	660/690V AC-4 A	1.5	2	4.4	9	12	14	17.3	21.3
Rated Power of controlled 3-phase cage motor	380/400V AC-3 KW	4	5.5	11	18.5	22	30	37	45
	660/690V AC-3 KW	5.5	7.5	15	30	33	37	45	45
	380/400V AC-4 KW	1.2	2.2	4	7.5	11	15	18.5	22
	660/690V AC-4 KW	1.1	1.5	4	7.5	11	11	15	18.5
Electric durabilities	AC-3 ×10 ⁴ operations	100	100	100	80	80	80	60	60
	AC-4 ×10 ⁴ operations	20	20	20	15	15	15	10	10
Mechanical durabilities	×10 ⁴ operations	1000	1000	1000	800	800	800	600	600
Operating frequency	AC-3 cycles/h	1200	1200	1200	600	600	600	600	600
	AC-4 cycles/h	300	300	300	300	300	300	300	300
Matched fuse	HRT16-25	HRT16-25	HRT16-50	HRT16-63	HRT16-80	HRT16-80	HRT16-125	HRT16-125	
Cable connection cross section mm ²	1.5	1.5	4	10	16	16	25	35	
Coil									
Coil Voltage(Us)	V	AC 24V, 36V, 110V, 220V, 380V							
Operating voltage	V	85%...110% Us							
Drop-out voltage	V	20%...75% Us							
Coil Power	Actuation VA	70	70	110	200	200	200	200	200
	Holding VA	9	9	11	24	24	24	24	24
	Heat Dissipation W	2.7	2.7	4	10	10	10	10	10
Terminal Wiring Ability									
Flexible Wire Without Terminal Block	1pc(Section of Connecting Conduction mm ²)	1~4	1~4	1.5~6	2.5~25	2.5~25	2.5~25	4~50	4~50
	2pcs(Section of Connecting Conduction mm ²)	1~4	1~4	1.5~6	2.5~16	2.5~16	2.5~16	4~25	4~25
Flexible Wire With Terminal Block	1pc(Section of Connecting Conduction mm ²)	1~4	1~4	1~6	2.5~25	2.5~25	2.5~25	4~50	4~50
	2pcs(Section of Connecting Conduction mm ²)	1~2.5	1~2.5	1~4	2.5~10	2.5~10	2.5~10	4~16	4~16
Fixed Wire Without Terminal Block	1pc(Section of Connecting Conduction mm ²)	1~4	1~4	1.5~6	2.5~25	2.5~25	2.5~25	4~50	4~50
	2pcs(Section of Connecting Conduction mm ²)	1~4	1~4	1.5~6	2.5~16	2.5~16	2.5~16	4~25	4~25
Auxiliary Contact									
Rated Thermal Current (Ith)	A					10			
Rated Operating Voltage (Ue)	AC					400			
	DC					220			
Rated Control Capacity	AC-15					360			
	DC-13					33			

Motor Control and Protection

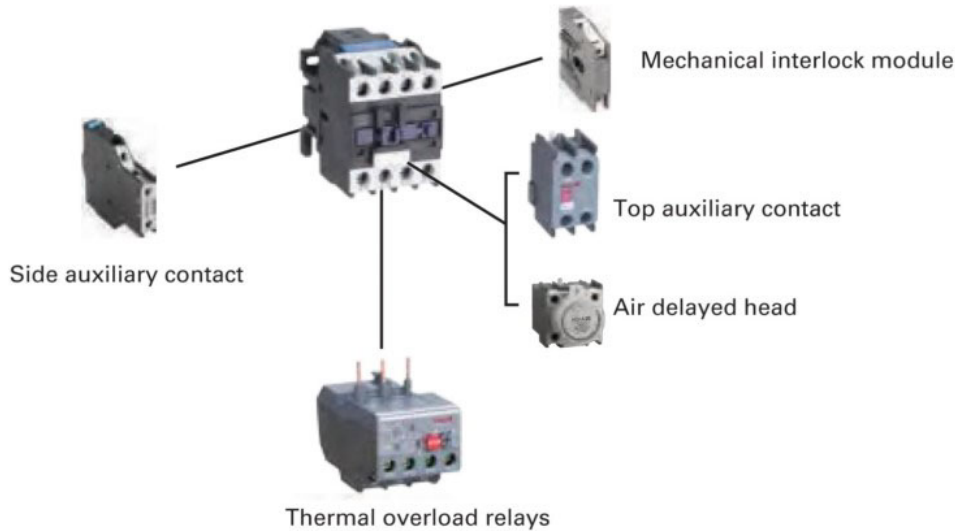


HJX2 4P AC Contactor

Standard: IEC 60947-4-1



HJX2-4P Contactor Accessories



Contactor

	9	12	25	40	50	65	80	95		
Top auxiliary contact	2 Poles:HF411,HF402,HF420 4 Poles:HF404,HF413,HF422,HF431,HF440									
Side auxiliary contact	2 Poles:HFC611,HFC602,HFC620									
Air delayed head	Making time-delay:HSK420,HSK422,HSK424 Breaking time-delay:HSK430,HSK432,HSK434									
Mechanical interlocking module	9-25A:HFR632HX 40-95A:HFR695HX									
Thermal overload relays	HDR3-25/HDR3s-25 0.1-0.16A ... 17-25A			HDR3-36/HDR3s-38 23-32A 30-40A			HDR3-93/HDR3s-93 23-32A ... 80-93A			



HJX2 4P AC Contactor

Standard: IEC 60947-4-1



Accessories

HF4 Top auxiliary contact

Pole	Contact		Wiring diagram	Reference
	NO	NC		
2P	1	1		HF411
	0	2		HF402
	2	0		HF420
4P	0	4		HF404
	1	3		HF413
	2	2		HF422
	3	1		HF431
	4	0		HF440

HSK4 Air delayed head

Delay Type	Wiring diagram	Delay Range	Reference
Making time-delay		0.1-3S	HSK420
		0.1-30S	HSK422
		10-180S	HSK424
Breaking time-delay		0.1-3S	HSK430
		0.1-30S	HSK432
		10-180S	HSK434

HFC6 Side auxiliary contact

Pole	Contact		Wiring diagram	Reference
	NO	NC		
2P	0	2		HFC602
	1	1		HFC611
	2	0		HFC620



Motor Control and Protection



Accessories

Mechanical interlock module

Contactor Specifications	Reference (**"X" means without electric terminal)
HJX2-9~25	HFR632H
HJX2-9~25	HFR632HX
HJX2-40~95	HFR695HX

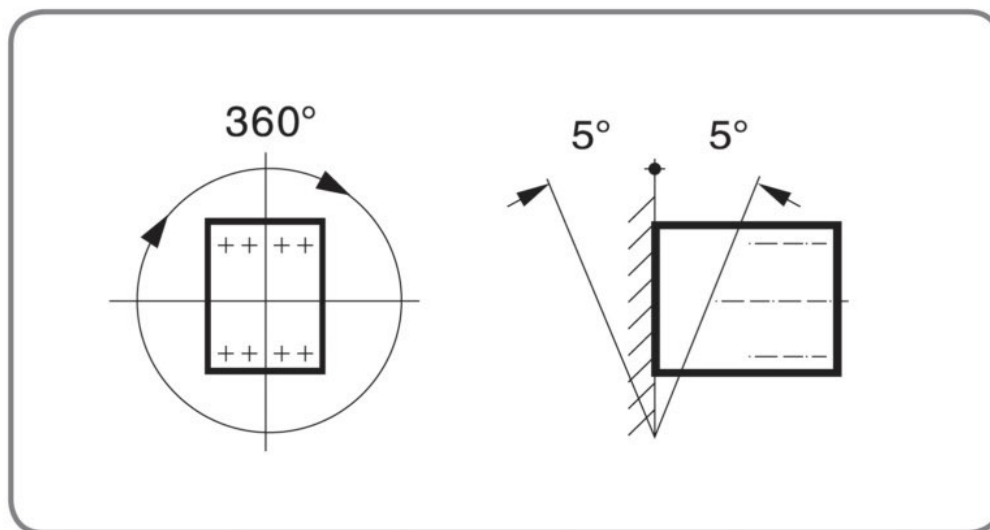


Working Conditions

- Ambient temperature: $-5^{\circ}\text{C}+40^{\circ}\text{C}$, the daily average temperature $\leq 35^{\circ}\text{C}$
- Altitude: ≤ 2000 m;
- The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is $+40^{\circ}\text{C}$. It is allowed to have a relative higher humidity under lower temperature, e.g. up to 90% at $+20^{\circ}\text{C}$. For occasional dew due to the temperature change, preventive measures shall be taken.
- Pollution Level: 3

Installation Conditions

- Installation Type: III
- Installation position: Should be installed in the absence of a significant shake and vibration place. The installation site shall be vertical, and inclination at all directions shall not exceed $\pm 5^{\circ}$

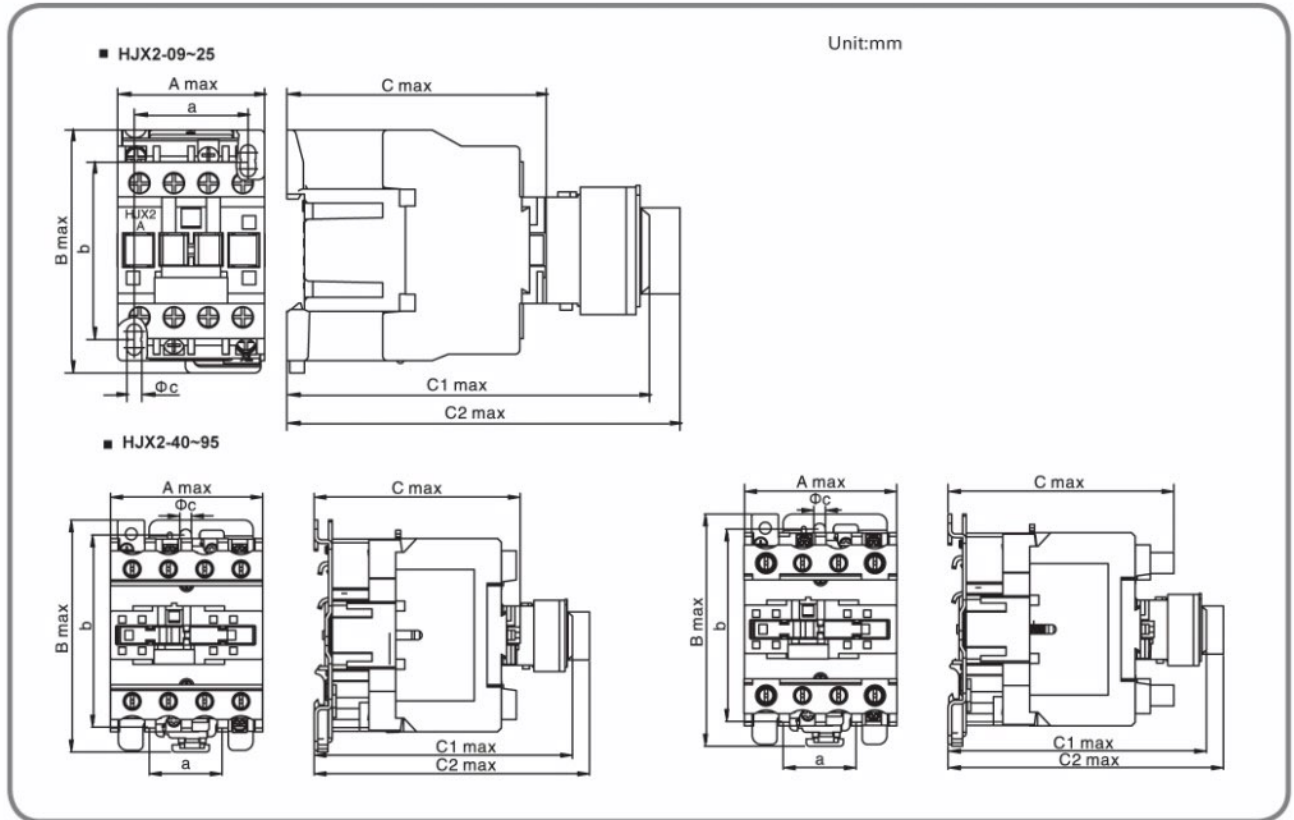


HJX2 4P AC Contactor

Standard: IEC 60947-4-1



Overall Dimensions



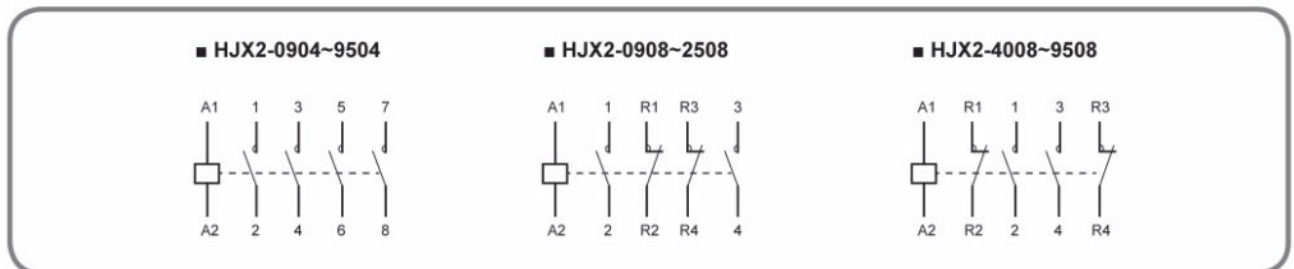
Overall dimensions & mounting figures

Unit:mm

Model	A max	B max	C max	C1 max	C2 max	a	b	c
HJX2-0904,0908,1204,1208	47	76	82	115	134	35	50/60	4.5
HJX2-2504,2508	58	86	96	130	149	40	50/60	4.5
HJX2-4004,5004,6504	85	128	116	149	168	40	100/110	6.5
HJX2-4008,5008,6508	85	128	126	149	168	40	100/110	6.5
HJX2-8004,9504	96	128	127	160	179	40	100/110	6.5
HJX2-8008,9508	96	128	136	160	179	40	100/110	6.5

Remark: C1max—Cotactor+HF4(or HFD6) C2max—Cotactor+HSK4(or HFT6)

Wiring diagram



HJX2-F 4P AC Contactor

Standard: IEC 60947-4-1



Function

HJX2-F 4P AC contactors provide:

- Remote make & break of circuits
- Frequent start and stop of motors

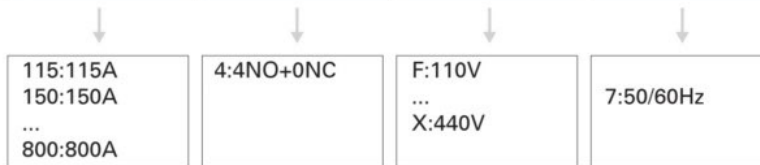
Order Information

Motor P(kW) AC-380/400V	Rated current(A) AC-3 380/400V	Main contact		Reference
55	115	4	0	HJX2F1154*7
75	150	4	0	HJX2F1504*7
90	185	4	0	HJX2F1854*7
100	225	4	0	HJX2F2254*7
132	265	4	0	HJX2F2654*7
160	330	4	0	HJX2F3304*7
200	400	4	0	HJX2F4004*7
250	500	4	0	HJX2F5004*7
335	630	4	0	HJX2F6304*7
400	800	4	0	HJX2F8004*7



Reference Description

Product name	Rated current	Main Contact	Coil Voltage	Coil Frequency
HJX2F	115	4	*	7



Coil voltage code

Coil voltage	110V	220V	230V	240V	380V	400V	415V	440V
*	F	M	N	U	Q	V	L	X

HJX2-F 4P AC Contactor

Standard: IEC 60947-4-1



Technical Data

Model	HJX2-F115	HJX2-F150	HJX2-F185	HJX2-F225	HJX2-F265	HJX2-F330	HJX2-F400	HJX2-F500	HJX2-F630	HJX2-F800	
Main circuit characteristics											
Maximum Rated Operating voltage (Ue)	660/690V										
Rated Insulation Voltage (Ui)	690V										
Rated Impulse Withstand Voltage (Uimp)	8kV										
Conventional thermal current	200	250	275	315	350	400	500	630	800	800	
Rated Operating Current	440V AC-3 A	115	150	185	225	265	330	400	500	630	800
	440V AC-4 A	52	60	79	85	105	117	138	147	188	195
	660V AC-3 A	86	107	118	135	170	235	305	355	460	493
	660V AC-4 A	49	57	69	82	98	107	135	145	170	175
	le max AC-1 A $\theta \leq 40^\circ\text{C}$	200	250	275	315	350	400	500	630	800	800
Rated power of AC-3	220/240V	30	40	55	63	75	100	129	147	200	220
	380/400V	55	75	90	100	132	160	200	250	335	400
	415V	59	80	100	110	140	180	220	280	375	425
	440V	59	80	100	110	140	180	220	280	375	425
	500V	75	90	110	129	160	200	257	335	400	450
	660/690V	80	100	120	129	180	220	280	355	450	475
	1000V	65	65	100	140	147	160	185	335	450	450
Electric durabilities	AC-3 $\times 10^4$ operations	60	60	50	50	50	50	30	30	20	15
	AC-4 $\times 10^4$ operations	15	15	15	15	15	15	8	8	5	4
Mechanical durabilities	$\times 10^4$ operations	300	300	300	300	300	300	100	100	100	100
Operating frequency cycles/h	AC-1, AC-2, AC-3	600	600	600	600	600	600	300	300	300	300
	AC-4	150	150	150	150	150	150	150	150	150	150
Matched fuse	Model	HRT16-1	HRT16-1	HRT16-2	HRT16-2	HRT16-2	HRT16-3	HRT16-3	HRT16-3	HRT16-3	HRT16-4
	Rated current(A)	200	250	315	315	400	500	500	500	630	800
Cable connection cross section mm ²		95	120	150	185	240	240	2*150	2*240	2*60*5	2*60*5
Coil											
Coil Voltage(Us)	V	110V, 220V, 230V, 240V, 380V, 400V, 415V, 440V									
Operating voltage	Pull in voltage V	85%...110% Us									
Drop-out voltage	Drop-out voltage AC V	20%...75% Us									
	Drop-out voltage DC V	10%...75% Us									
Average Coil Power	Actuation AC VA	855	855	1180	1180	700	700	1150	1150	1730	1730
	Holding AC VA	8.1	8.1	10.9	10.9	10	10	18	20	25	25
	Actuation DC VA	665	665	902	902	803	803	1140	1220	1920	1920
	Holding DC VA	4.83	4.83	5.07	5.07	4.53	4.53	7.5	8	12.5	12.5
	Heat Dissipation W	7.2	7.2	9.8	9.8	10.4	10.4	14	18	20	20
Terminal Wiring Ability - Main Circuit											
Wiring Bar	Bar quantity	2	2	2	2	2	2	2	2	2	2
	Dimensions	20x3	25x3	25x3	32x3	32x4	30x5	30x5	40x5	60x5	60x5
Wire With Lug Plate	mm ²	95	120	150	185	240	240	2x150	2x240	---	---
Wire With Coupler	mm ²	95	120	150	185	240	---	---	---	---	---
Fastening Torque	N.m	10	18	18	35	35	35	35	35	58	58

Motor Control and Protection



HJX2-F 4P AC Contactor

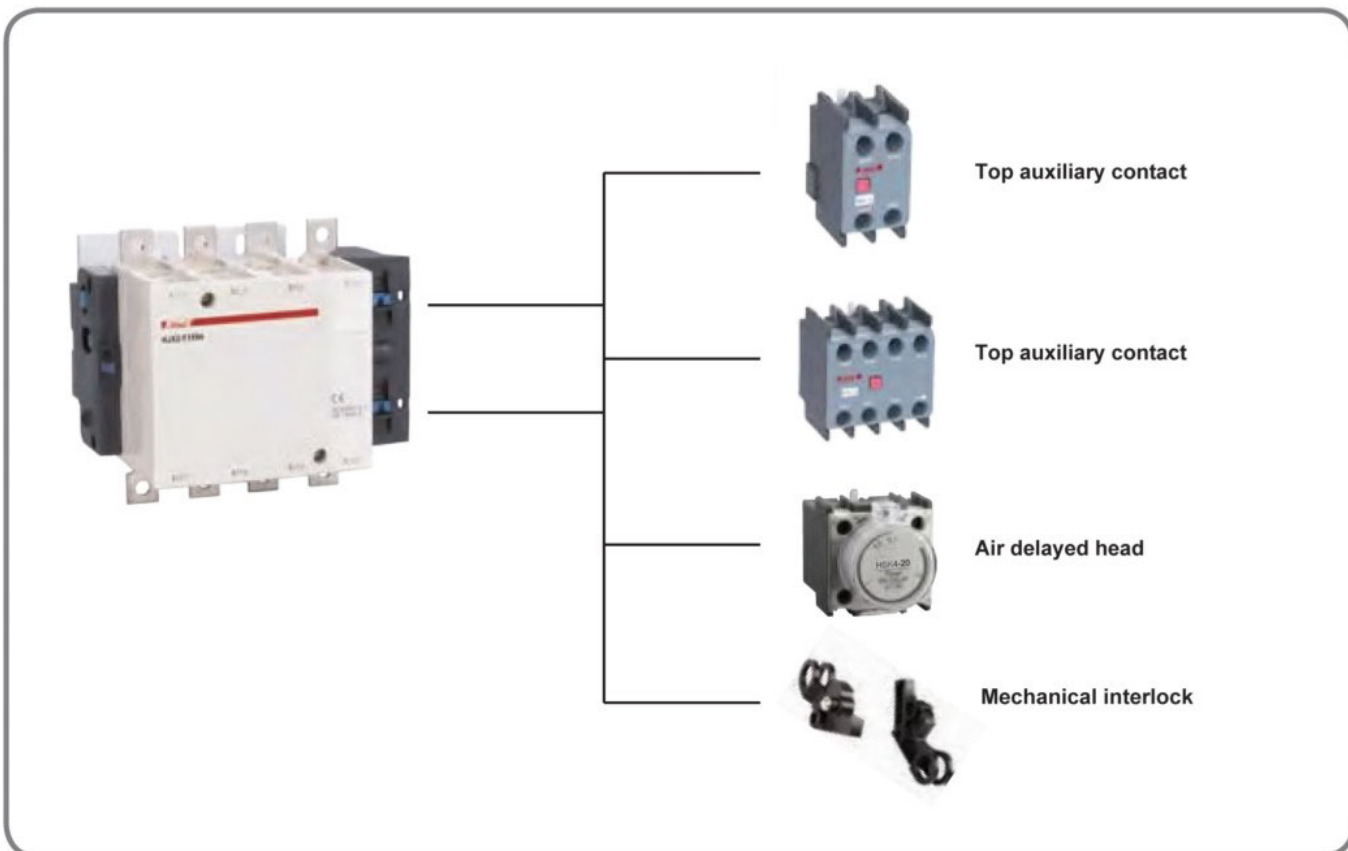
Standard: IEC 60947-4-1



Technical Data

Terminal Wiring Ability - Main Circuit			
Flexible Wire Without Terminal Block	1pc(Section of Connecting Conduction mm ²)		1~4
	2pcs(Section of Connecting Conduction mm ²)		1~4
Flexible Wire With Terminal Block	1pc(Section of Connecting Conduction mm ²)		1~4
	2pcs(Section of Connecting Conduction mm ²)		1~2.5
Fixed Wire Without Terminal Block	1pc(Section of Connecting Conduction mm ²)		1~4
	2pcs(Section of Connecting Conduction mm ²)		1~4
Fastening Torque	N.m		1.2
Auxiliary Contact			
Rated Thermal Current (Ith)	A		10
Rated Operating Voltage (Ue)	AC	V	400
	DC	V	220
Rated Control Capacity	AC-15	VA	360
	DC-13	VA	33

HJX2-F 4P Contactor Accessories



HJX2-F 4P AC Contactor

Standard: IEC 60947-4-1



Accessories

HF4 Top of auxiliary contact

Pole	Contact		Wiring diagram	Reference
	NO	NC		
2P	1	1		HF411
	0	2		HF402
	2	0		HF420
4P	0	4		HF404
	1	3		HF413
	2	2		HF422
	3	1		HF431
	4	0		HF440



HSK4 Air delayed head

Delay type	Wiring diagram	Delay range	Reference
Making time-delay		0.1-3S	HSK420
		0.1-30S	HSK422
		10-180S	HSK424
Breaking time-delay		0.1-3S	HSK430
		0.1-30S	HSK432
		10-180S	HSK434

HJX2-F 4P AC Contactor

Standard: IEC 60947-4-1



Accessories

Mechanical Interlock Module

Horizontal Installation

Interlock Method	Contact Type	Reference
Mechanical interlock without electrical terminals	HJX2-F 4P-115~150	HNFS1504
	HJX2-F 4P-185~225	HNFS2254
	HJX2-F 4P-265~330	HNFS3304
	HJX2-F 4P-400~500	HNFS5004
	HJX2-F 4P-630~800	HNFS8004



HJX2-F 4P AC Contactor

Standard: IEC 60947-4-1

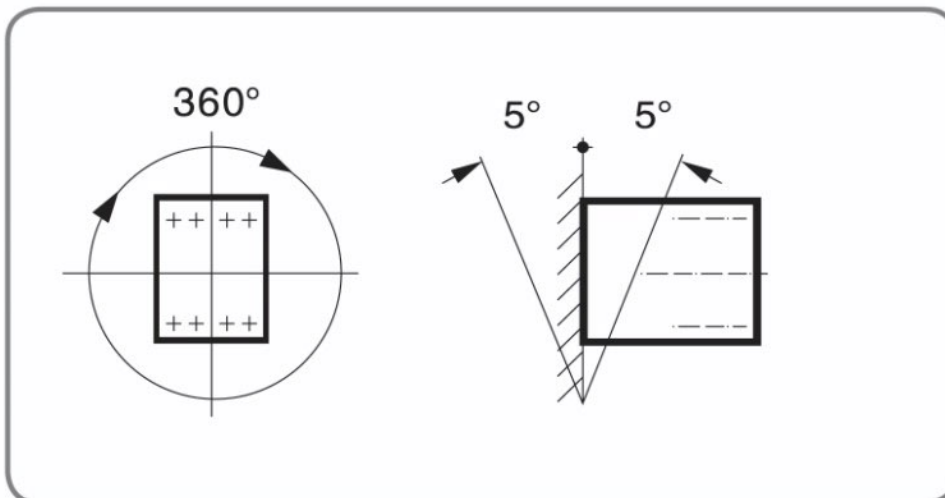


Working Conditions

- Ambient temperature for operating: -5°C $+40^{\circ}\text{C}$, and the daily average temperature $\leq 35^{\circ}\text{C}$.
- Ambient temperature for storage and transportation: $-25\dots+55^{\circ}\text{C}$ and can reach 70°C in a short time.
- Altitude: ≤ 2000 m, and the altitude could be higher under lower operating voltage and operating current.
- The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is $+40^{\circ}\text{C}$. It is allowed to have a higher humidity under lower temperature, e.g. up to 90% at $+20^{\circ}\text{C}$. For occasional dew due to the temperature change, preventive measures shall be taken.
- Pollution Level: 3
- Protection class: IP00 (IP20 if it's with terminal protection cover)

Installation Conditions

- Installation Type: III
- Installation position: should be installed in the absence of a significant shock and vibration place. The installation site shall be vertical , and inclination at all directions shall not exceed $\pm 5^{\circ}$. When the coil control voltage is not lower than 85%Us, the inclination should be no more than $\pm 30^{\circ}$.



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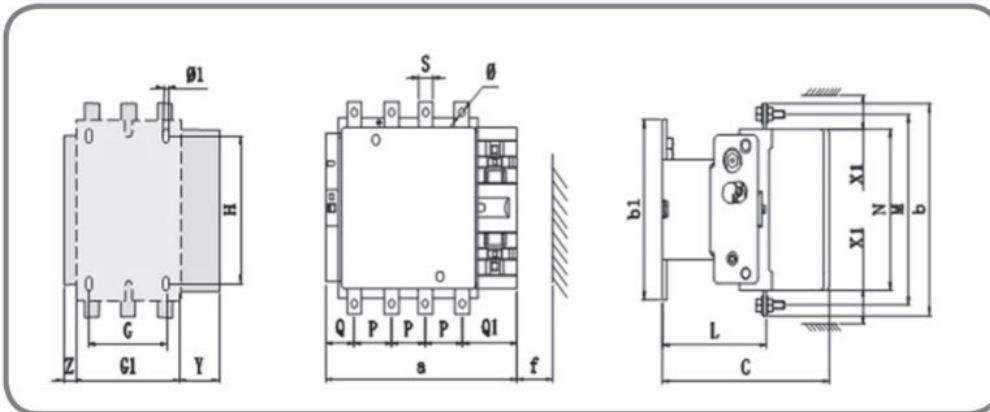
HJX2-F 4P AC Contactor

Standard: IEC 60947-4-1

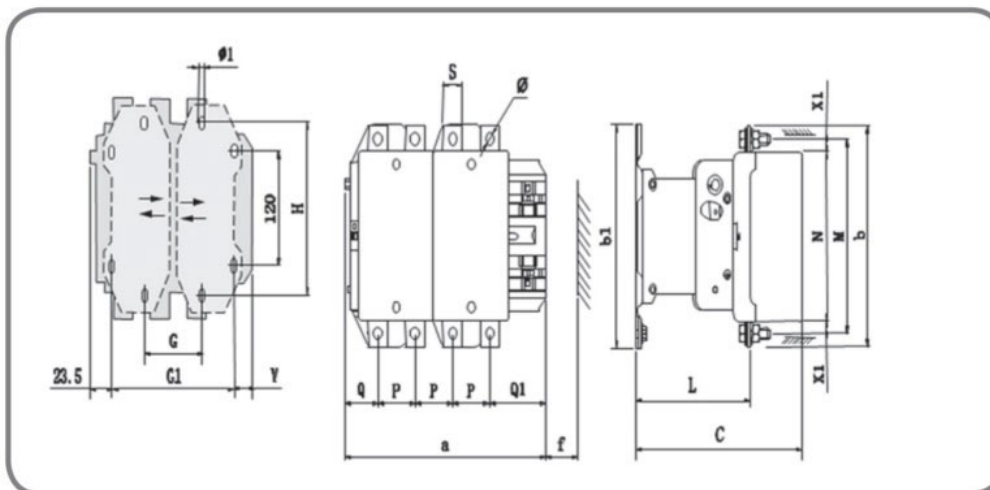


Overall Dimensions

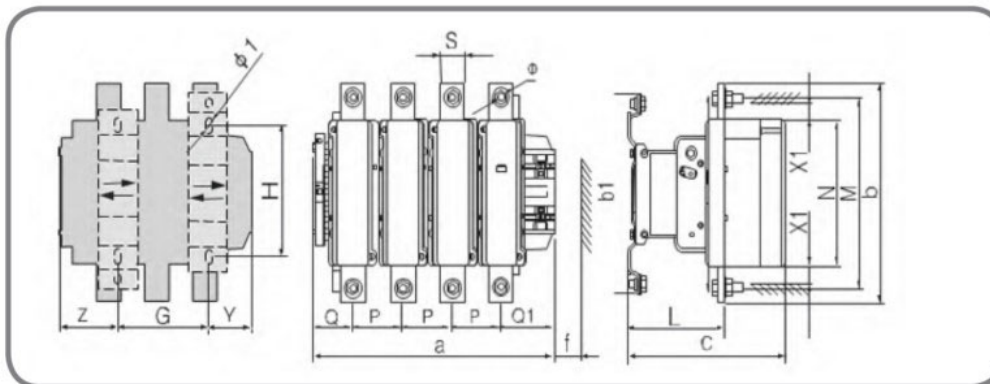
HJX2-F115~330



HJX2-F400~500



HJX2-F630~800



HJX2-F 4P AC Contactor

Standard: IEC 60947-4-1

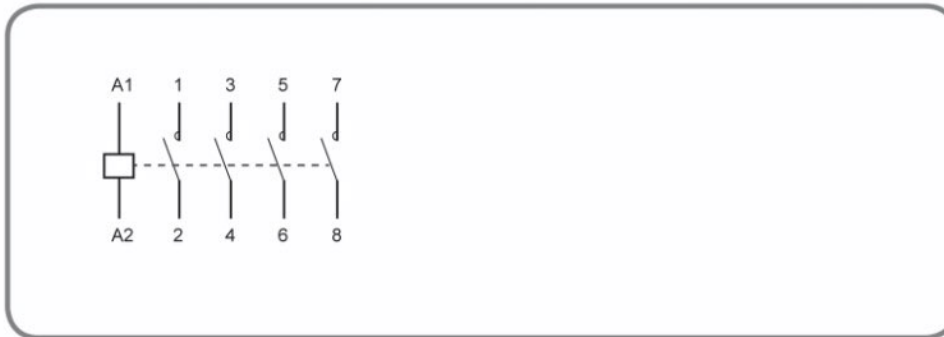


HJX2-F115~800 Overall Dimensions and Mounting Figures

HJX2-F	a	P	Q	Q1	S	φ	f	b	b1	M	N	C	L	G	H	φ1	G1	Z	Y	X1	
																				500V	>500V
1154	220.5	37	29.5	60	20	M6	131	162	137	147	124	171	107	80	120-106	6.5	143	13.5	44	10	15
1504	200.5	40	25	55.5	20	M8	131	170	137	150	124	171	113.5	80	120-106	6.5	143	13.5	44	10	15
1854	208.5	40	29	59.5	20	M8	130	174	137	154	127	181	113.5	80	120-106	6.5	151	13.5	44	10	15
2254	208.5	48	17	47.5	25	M10	130	197	137	172	127	181	113.5	80	120-106	6.5	151	20.5	44	10	15
2654	244.5	48	34	66.5	25	M10	147	203	145	178	147	213	141	96	120-106	6.5	186	20.5	38	10	15
3304	261	48	43	74	25	M10	147	206	145	181	158	219	145	96	120-106	6.5	202.5	20.5	38	10	15
4004	261	48	43	74	25	M10	151	206	209	181	158	219	145	80(66-102)	180	8.5	170(156-192)	23.5	67.5	15	20
5004	288	55	46	77	30	M10	169	238	209	208	172	232	146	140(66-175)	180	8.5	230(156-265)	23.5	34.5	15	20
6304	389	80	60	89	40	M12	201	304	280	264	202	255	155	240(150-275)	180	10.5	---	60.5	68.5	20	30
8004	389	80	60	89	40	M12	201	304	280	264	202	255	155	240(150-275)	180	10.5	---	60.5	68.5	20	30

Wiring Diagram

HJX2-F1154-8004



Motor Control and Protection



HDC17-K Mini AC Contactor

Standard: IEC 60947-4-1



HDC17-K AC contactor provides:
Remote make & break of circuits
Frequent start and stop of motors

Order Information

Motor P(kW) 380V	Rated current(A)	Main contact		Auxiliary contact		Reference
		NO	NC	NO	NC	
2.2	6	3	0	1	0	HDC17K63010*
		3	0	0	1	HDC17K63001*
		4	0	0	0	HDC17K64000*
		2	2	0	0	HDC17K62200*
4	9	3	0	1	0	HDC17K93010*
		3	0	0	1	HDC17K93001*
		4	0	0	0	HDC17K94000*
		2	2	0	0	HDC17K92200*
4	12	3	0	1	0	HDC17K123010*
		3	0	0	1	HDC17K123001*
		4	0	0	0	HDC17K124000*



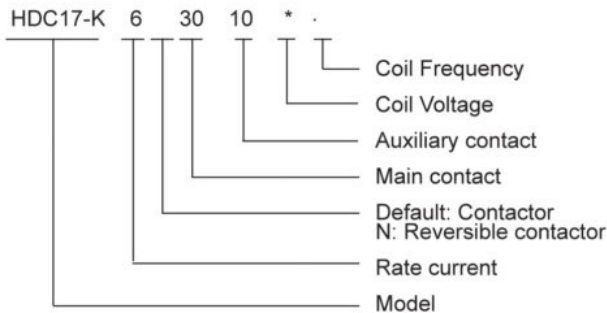
Motor Control and Protection

HDC17-K Mini AC Contactor

Standard: IEC 60947-4-1



Reference Description



■ Coil voltage code

coil voltage	24V	36V	110V	127V	220/230V	380/400V
*	B	C	F	S	M	Q

■ Coil frequency code

coil frequency	50/60Hz
.	7

Motor Control and Protection

HDC17-K Mini AC Contactor

Standard: IEC 60947-4-1



Technical Data

Model			HDC17-K06	HDC17-K09	HDC17-K12
Main circuit characteristics					
Rated operating current	380V/400V, AC-3	A	6	9	12
	380V/400V, AC-4	A	2.6	3.5	5
	660V/690V, AC-3	A	3.5	5	6
	660V/690V, AC-4	A	1.2	1.5	2
Rated operating voltage	V		220/230, 380/400, 660/690		
Rated insulation voltage	V		690		
Rated conventional thermal current	A		16	20	20
Pole			3, 4		
Power of controlled 3-phase cage motor	220V/230V, AC-3	kW	1.5	2.2	3
	380V/400V, AC-3	kW	2.2	4	5.5
	660V/690V, AC-3	kW	3	4	4
Electric durabilities	AC-3	× 10 ⁴ operations	100		
		Operating rate	cycles/h		
Electric durabilities	AC-4	× 10 ⁴ operations	20		
		Operating rate	cycles/h		
Mechanical durabilities	× 10 ⁴ cycles		1000		
Matched Fuse			HRT16-16	HRT16-20	
Cable connection	Inflexible cable	number of piece	2		
	Cross Section of Cable	mm ²	4		
Coil					
Coil voltage(Us)	V		AC 24V,36V,110V,127V,220/230V,380/400V		
Operating voltage	V		85%~110% Us		
Drop-out voltage	V		20%~75% Us		
Inrush	VA		30		
Sealed	VA		4.5		
Auxiliary contact					
Rated conventional thermal current	V		690		
Rated insulation voltage	A		10		
Rated operating current	380V, AC-15	A	0.95		
	220V, DC-13	A	0.15		
Control capacity	AC-15	VA	360		
	DC-13	W	33		

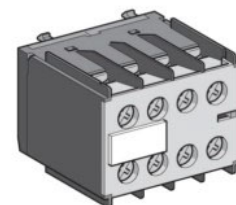
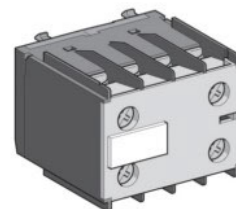
HDC17-K Mini AC Contactor

Standard: IEC 60947-4-1



HF4K Top auxilliary contact

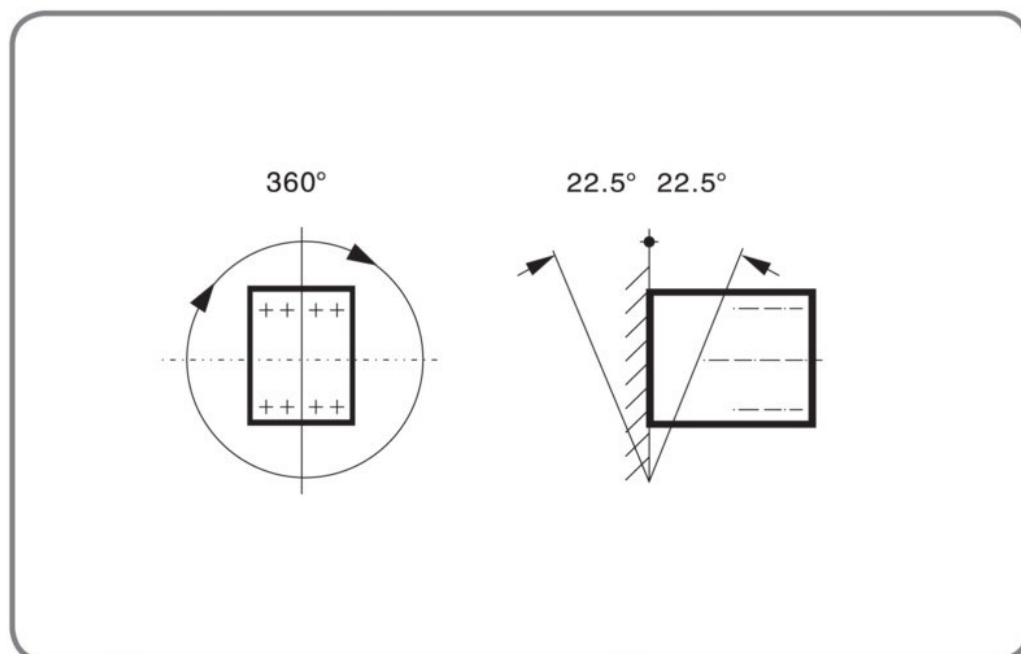
Pole	Contact		Wiring Diagram	Reference
	NO	NC		
2P	1	1		HF4K11
	0	2		HF4K02
	2	0		HF4K20
	0	4		HF4K04
4P	1	3		HF4K13
	2	2		HF4K22
	3	1		HF4K31
	4	0		HF4K40



Working Conditions

- Ambient temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, and the daily average temperature $\leq 35^{\circ}\text{C}$
- Altitude: ≤ 2000 m
- Humidity: Maximum temperature is $+40^{\circ}\text{C}$, and air relative humidity is no more than 50%; at a lower temperature a higher relative humidity is allowed. For example, when humidity is up to 90% at 20°C due to the temperature change resulting from Gel happening occasionally, special measures should be taken.
- Pollution Level: 3
- Installation Type: III
- Installation position: should be installed in the absence of a significant shock and vibration place

Installation Location



Motor Control and Protection

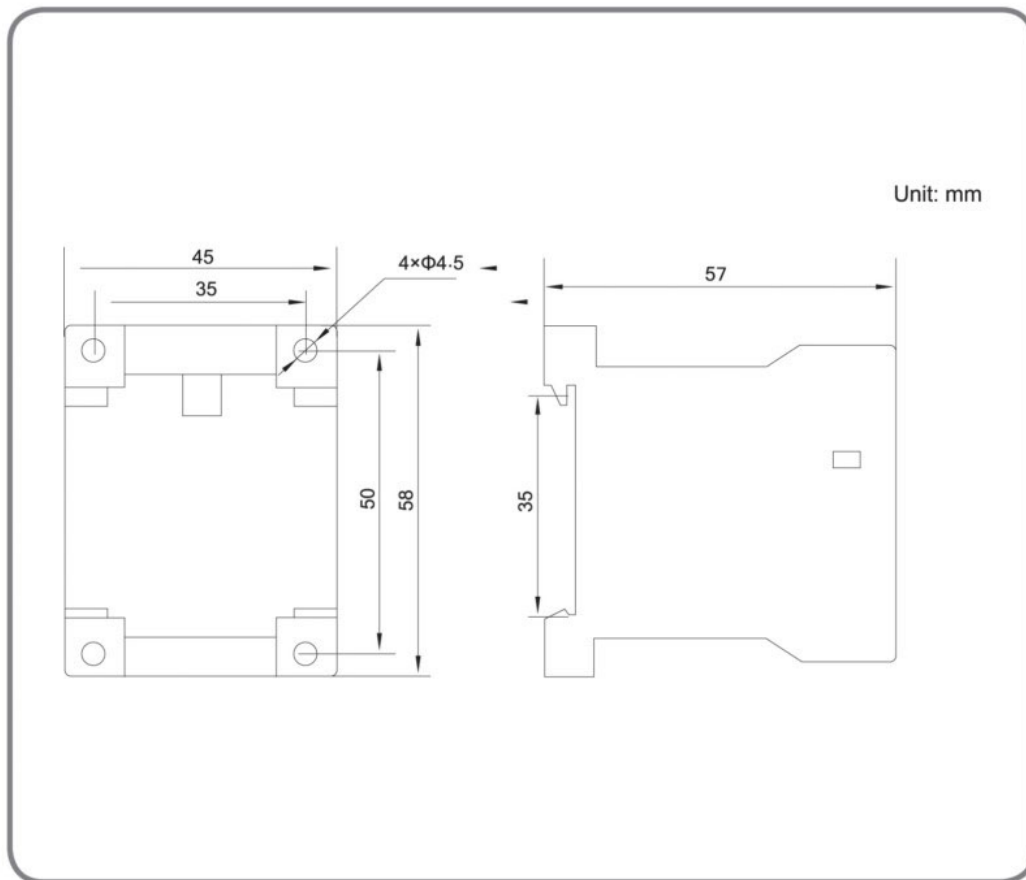


HDC17-K Mini AC Contactor

Standard: IEC 60947-4-1



Overall Dimensions



Motor Control and Protection

HDR3s Thermal Overload Relay

Functions and features



Main technical parameters



Motor Control and Protection



HDR3s Thermal Overload Relay				
Temperature compensation		-5°C~+40°C		
Trip level	10A	HDR3s-25,38		
	10	HDR3s-93		
Rated insulation voltage(Ui)	V	660V		
Product features				
Overload protection		Yes		
Phase-failure protection		Yes		
Manual reset		Yes		
Automatic reset		Yes		
Stop button		Yes		
Test button		Yes		
Trip indication		Yes		
Tolerance on slope in any direction		±5°		
Auxiliary circuit				
Utilization category		AC-15	DC-13	
Rated frequency	HZ	50/60	50/60	
Rated insulation voltage (Ui)	V	500	500	500
Rated operating voltage (Ue)	V	230	400	230
Rated operating current Ie	A	1.57	0.90	0.14
Conventional thermal current Ith	A NO	5	5	5
	NC	5	5	5
Product Certification		CB, CE, SEMKO		

Base

	Name	Reference
	HDR3s-25	HJRS1D25J
	HDR3s-38	HJRS1D36J
	HDR3s-93	HJRS1D93J

HDR3s Thermal Overload Relay

Functions and features
Standard:IEC/EN 60947-4-1



Tripping Characteristic

No.	Multiples of Current Setting	Tripping Time		Initial Condition	Reference Ambient Air Temperature
		Trip class 10A	Trip class 10		
Limits of operation of time-delay overload relays when energized on all poles					
1	1.05	Non-tripping within 2h	Non-tripping within 2h	Cold State	+20°C
2	1.2	Tripping within 2h	Tripping within 2h	After No.1 Test (Thermal Equilibrium)	
3	1.5	<2min	<4min	After No.1 Test (Thermal Equilibrium)	
4	7.2	2s<Tp≤10s	4s<Tp≤10s	Cold State	+20°C
Limits of operation of three-pole thermal overload relays when energized on two poles only					
When the value of current flowing in two poles and the third pole de-energized					
1	1.0	Non-tripping within 2h	Non-tripping within 2h	Cold State	+20°C
2	1.15	Tripping within 2h	Tripping within 2h	After No.1 Test (Thermal Equilibrium)	

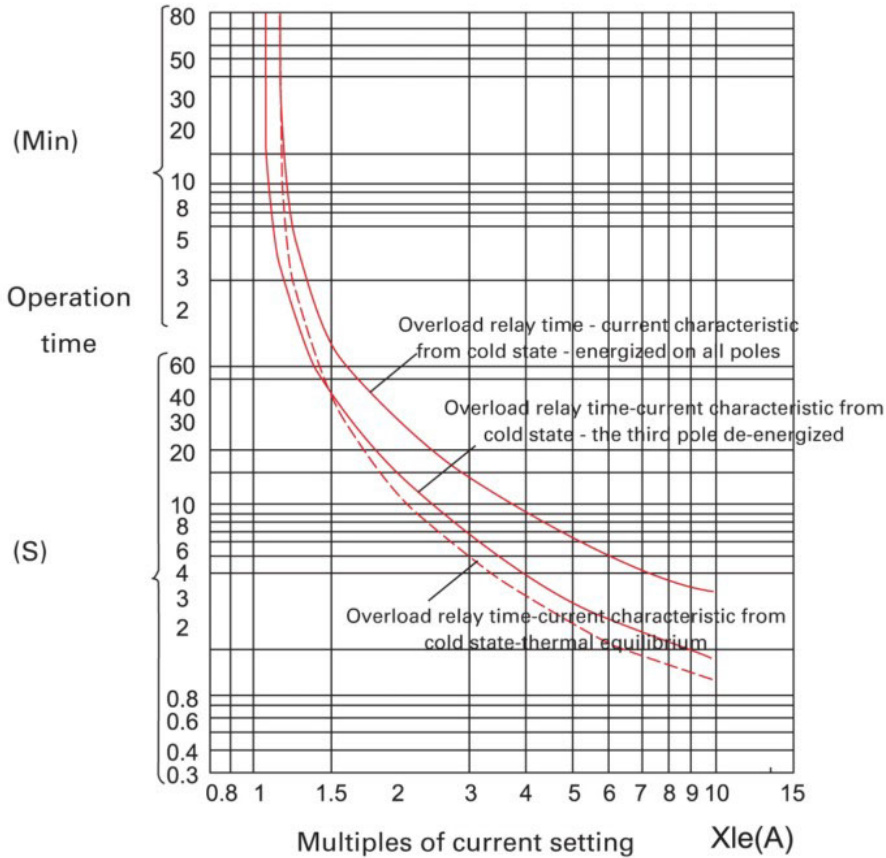
HDR3s Thermal Overload Relay

Functions and features



Tripping Characteristics

Average value (Environment temperature 20°C)



Motor Control and Protection



HDR3s Thermal Overload Relay

Order Information
Standard: IEC/EN 60947-4-1



HDR3s Thermal Overload Relay

Product Name	Frame current	Auxiliary Contact
HDR3s	25	P16
	↓	↓
	25:25A 38:38A 93:93A	1P6: 1.0-1.6A P16: 0.1-0.16 ... 93: 80-93A P means decimal point

Frame Current (A)	Setting Current(A)	Matched Fuse	Matched Contactor	Reference
		Recommended HRT16	Recommended HDC3	
25	0.1-0.16	4	09-38	HDR3s25P16
	0.16-0.25	4	09-38	HDR3s25P25
	0.25-0.4	4	09-38	HDR3s25P4
	0.4-0.63	4	09-38	HDR3s25P63
	0.63-1	4	09-38	HDR3s251
	1-1.6	4	09-38	HDR3s251P6
	1.6-2.5	6	09-38	HDR3s252P5
	2.5-4	10	09-38	HDR3s254
	4-6	16	09-38	HDR3s256
	5.5-8	20	09-38	HDR3s258
	7-10	20	09-38	HDR3s2510
	9-13	25	12-38	HDR3s2513
	12-18	35	18-38	HDR3s2518
	17-25	50	25-38	HDR3s2525
38	23-32	63	25-32	HDR3s3832
	30-40	80	32-38	HDR3s3840
93	7.0-10	20	40-95	HDR3s9310
	9.0-13	25	40-95	HDR3s9313
	12-18	35	40-95	HDR3s9318
	17-25	50	40-95	HDR3s9325
	23-32	63	40-95	HDR3s9332
	30-40	80	40-95	HDR3s9340
	37-50	100	50-95	HDR3s9350
	48-65	100	50-95	HDR3s9365
	55-70	125	65-95	HDR3s9370
	63-80	125	80-95	HDR3s9380
	80-93	160	95	HDR3s9393



Motor Control and Protection

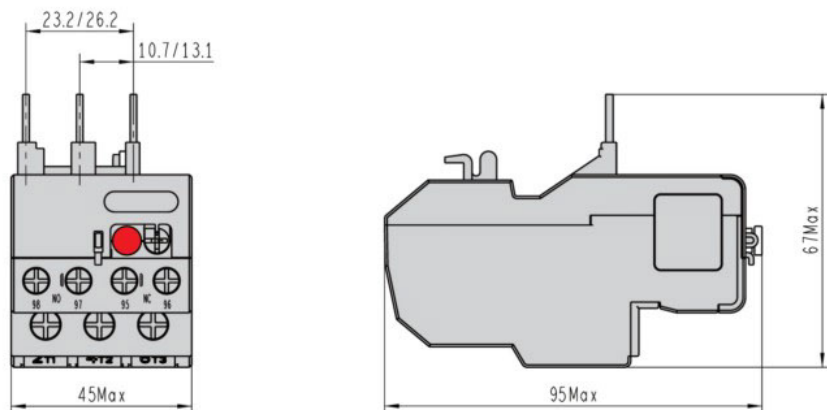


HDR3s Thermal Overload Relay

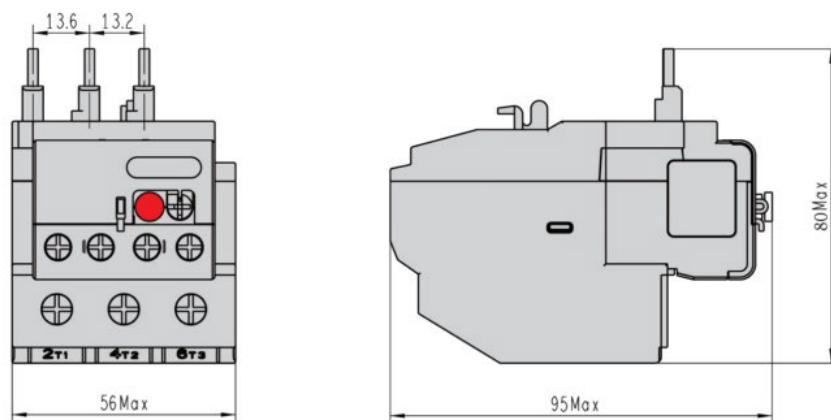
Overall and installation dimensions
Standard: IEC/EN 60947-4-1



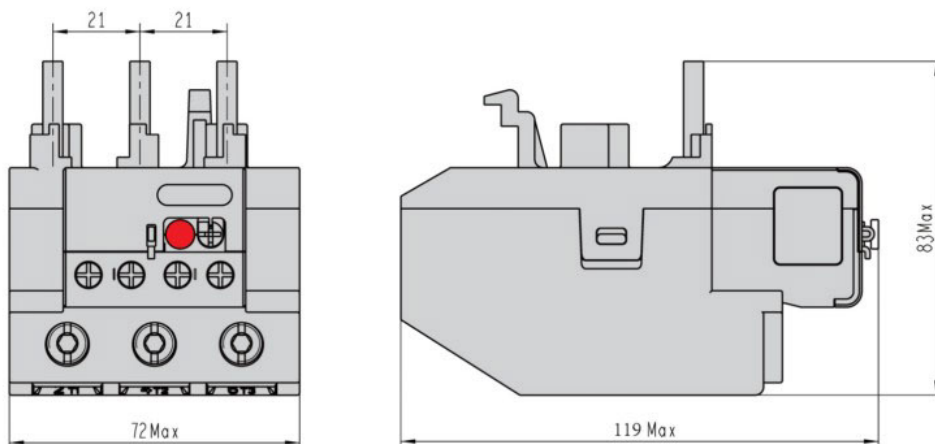
Overall dimensional drawing of HDR3s-25/Z



Overall dimensional drawing of HDR3s-38/Z



Overall dimensional drawing of HDR3s-93/Z

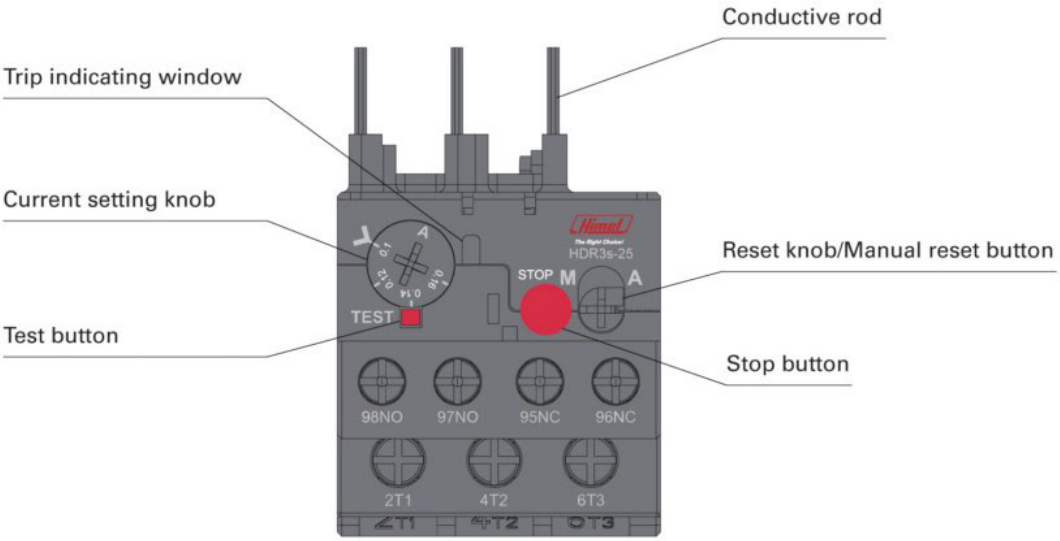


HDR3s Thermal Overload Relay

Introduction
Standard: IEC/EN 60947-4-1

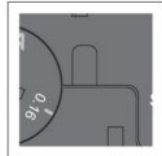


Function Introduction



Motor Control and Protection

1, Trip indicating window



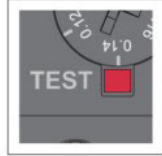
When the thermal overload relay tripped, the trip indicating window will show orange color, which means "tripped"

2, Current setting knob



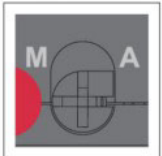
Set the adjusting current for the electric motor

3, Test button



Simulate "trip"(make NO, NC contacts act) to check the control circuit

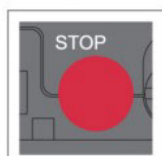
4, Reset knob/Manual reset button



Reset knob:
When the wedge points to M: Manual reset
When the wedge points to A: Automatic reset

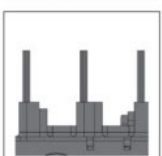
Manual reset button:
When the thermal overload relay tripped(indicating window shows orange color), push this button to reset the relay.

5, Stop button



Make the NC contacts act, but not affect the NO contacts. When push STOP button, the control circuit will be open, and motor stops working.

6, Conductive rod



Can be inserted into main circuit terminal of the contactor. The square rod increase the contact surface, and make the wire connection more tight.

HDR6 Thermal Overload Relay

Order Information

Standard: IEC/EN 60947-4-1



Product Type	Frame Current	Setting Current	Installation Type
HDR6	18	P15	
	18: 18A ... 630:630A	15: 0.1-0.15 ... 630:460-630A P means decimal point	Default: None F: Independent installation

Setting Current	Matched Fuse		Matched Contactor	Reference
	aM	gG		
0.10-0.15A	0.25	2	HDC6-09~18	HDR6 18 P15
0.12-0.18A	0.25	2	HDC6-09~18	HDR6 18 P18
0.18-0.25A	0.5	2	HDC6-09~18	HDR6 18 P25
0.25-0.36A	1	2	HDC6-09~18	HDR6 18 P36
0.35-0.50A	1	2	HDC6-09~18	HDR6 18 P5
0.50-0.70A	1	2	HDC6-09~18	HDR6 18 P7
0.63-0.90A	2	4	HDC6-09~18	HDR6 18 P9
0.90-1.20A	2	4	HDC6-09~18	HDR6 18 1P2
1.20-1.80A	4	6	HDC6-09~18	HDR6 18 1P8
1.80-2.50A	4	6	HDC6-09~18	HDR6 18 2P5
2.50-3.60A	6	10	HDC6-09~18	HDR6 18 3P6
3.50-4.80A	8	16	HDC6-09~18	HDR6 18 4P8
4.50-6.30A	8	16	HDC6-09~18	HDR6 18 6P3
5-7A	12	20	HDC6-09~18	HDR6 18 7
6.3-9A	12	20	HDC6-09~18	HDR6 18 9
9-12A	16	25	HDC6-09~18	HDR6 18 12
11-15A	20	35	HDC6-09~18	HDR6 18 15
14-18A	20	35	HDC6-09~18	HDR6 18 18
6.3-9A	12	20	HDC6-25~32	HDR6 32 9
9-12A	16	25	HDC6-25~32	HDR6 32 12
12-18A	20	35	HDC6-25~32	HDR6 32 18
18-25A	25	50	HDC6-25~32	HDR6 32 25
23-32A	40	63	HDC6-25~32	HDR6 32 32
18-25A	25	50	HDC6-40~95	HDR6 95 25
23-32A	40	63	HDC6-40~95	HDR6 95 32
30-40A	40	100	HDC6-40~95	HDR6 95 40
37-50A	63	100	HDC6-40~95	HDR6 95 50
48-65A	63	100	HDC6-40~95	HDR6 95 65
55-70A	80	125	HDC6-40~95	HDR6 95 70
63-80A	80	125	HDC6-40~95	HDR6 95 80
80-95A	100	160	HDC6-40~95	HDR6 95 95

Base

Adaptive Thermal Relay Type	Reference
HDR6-18	HDR6 18 J
HDR6-32	HDR6 32 J
HDR6-95	HDR6 95 J



Motor Control and Protection

HDR6 Thermal Overload Relay

Order Information

Standard: IEC/EN 60947-4-1



Range for Setting Current	Matched Relay		Matched Contactor	Reference
	aM	gG		
48-65	80	100	HDC6-115~185	HDR6 185 65
55-70	80	100	HDC6-115~185	HDR6 185 70
63-80	80	100	HDC6-115~185	HDR6 185 80
75-95	100	125	HDC6-115~185	HDR6 185 95
90-115	125	200	HDC6-115~185	HDR6 185 115
105-135	160	200	HDC6-115~185	HDR6 185 135
120-150	160	200	HDC6-115~185	HDR6 185 150
130-160	160	250	HDC6-115~185	HDR6 185 160
150-185	200	250	HDC6-115~185	HDR6 185 185
145-200	200	400	HDC6-225~630	HDR6 630 200F
180-250	250	400	HDC6-225~630	HDR6 630 250F
230-320	355	500	HDC6-225~630	HDR6 630 320F
290-400	400	630	HDC6-225~630	HDR6 630 400F
350-480	500	800	HDC6-225~630	HDR6 630 480F
460-630	630	800	HDC6-225~630	HDR6 630 630F

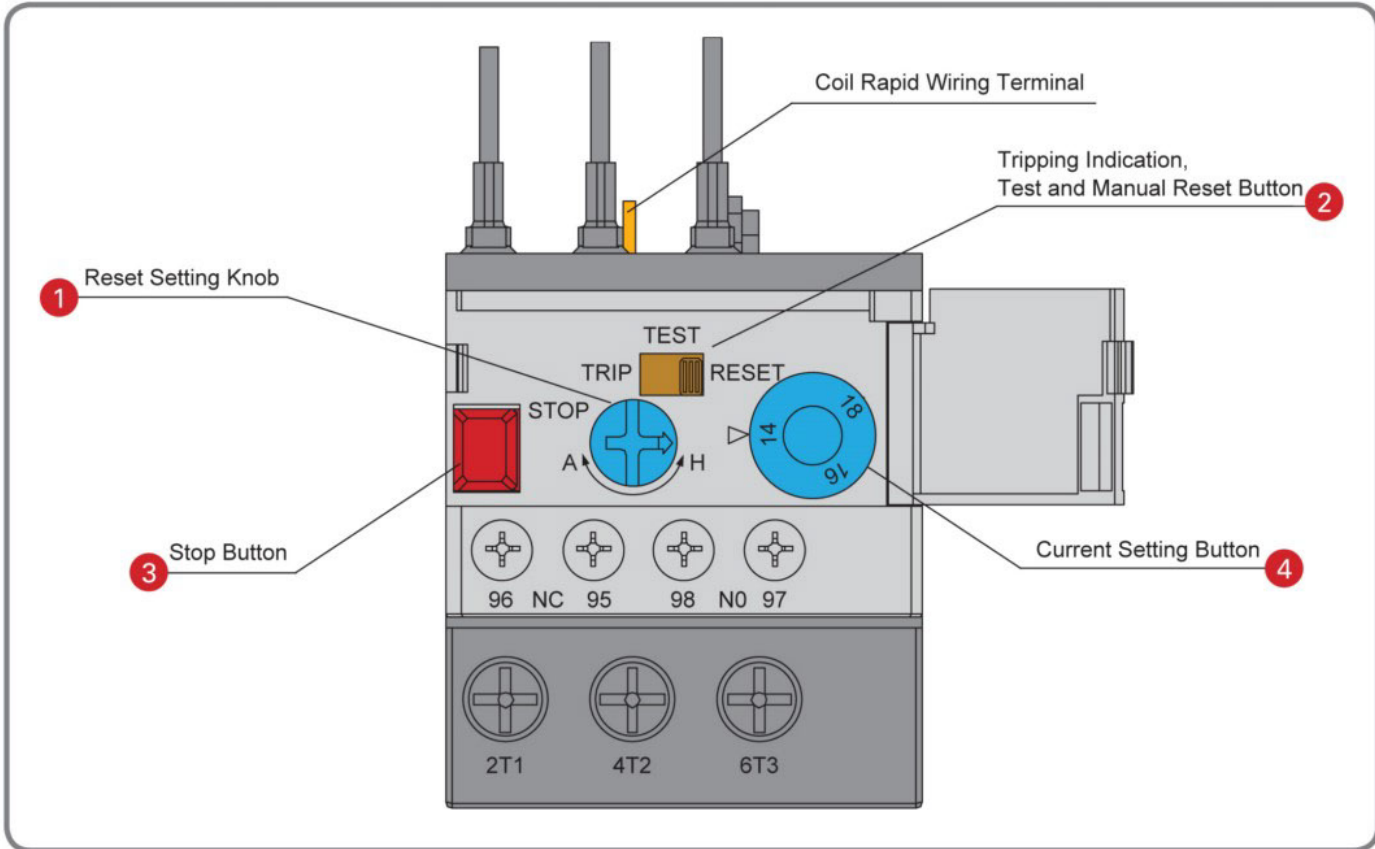


Motor Control and Protection

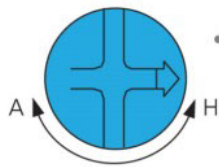


HDR6 Thermal Overload Relay

Introduction for Functions
Standard: IEC/EN 60947-4-1



1 Reset Setting Knob



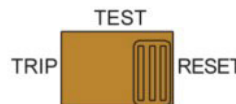
- Manual Reset for Arrow points to 'H';
- Automatic Reset for Arrow points to 'A'.

3 Stop Button



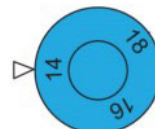
- Make NC Contact operate, but not influence NO contact. After pressing Stop Button, cut control circuit off and the electromotor stops working.

2 Tripping Indicator, Test and Manual Reset Button



- After the operation of tripping indication and thermal overload relay, yellow button to 'Trip' position means 'tripping'
- After the operation of manual reset, the reset is realized to put yellow button back to 'Reset' position;
- Implement the test to simulate the tripping (use NO and NC contact to operate) and check the control circuit. When carrying out the test under manual reset state, put back to 'Reset' position after reaching 'Trip'. Automatically rebound to 'Reset' after switching to 'Trip' for automatic reset.

4 Current Setting Button



- Set the value of setting current for rated electromotor.

HDR6 Thermal Overload Relay

Technical Parameter

Standard: IEC/EN 60947-4-1



Main Technical Parameter

Temperature Compensation		-10° C~+55° C
Trip Class	10A	HDR6-18,32,630/F
	10	HDR6-95,185
Frame Current	HDR6-18	0.1~18A
	HDR6-32	6.3~32A
	HDR6-95	18~95A
	HDR6-185	48~185A
	HDR6-630/F	145~630A
Rated impulse withstand voltage (Uimp)		6kV
Protection Function		Over-load Protection
		Phase Failure Protection
		Manual and Automatic Reset
		Tripping Indication
		Stop Button
Installation Method		Test Button
		Assembly / Independent: HDR6-18~185 Independent: HDR6-630/F
Auxiliary Circuit		
Rated Thermal Current		6A
Contact Type		1NO+1NC
Rated Insulating Voltage		690V
Control Capacity	AC-15 220V/240V	1.64A
	AC-15 380V/415V	0.95A
	DC-13 220V/240V	0.23A
Wiring Ability	Wire Section	1mm ²

Motor Control and Protection



HDR6 Thermal Overload Relay

Tripping Characteristics and Wiring Diagram
Standard: IEC/EN 60947-4-1

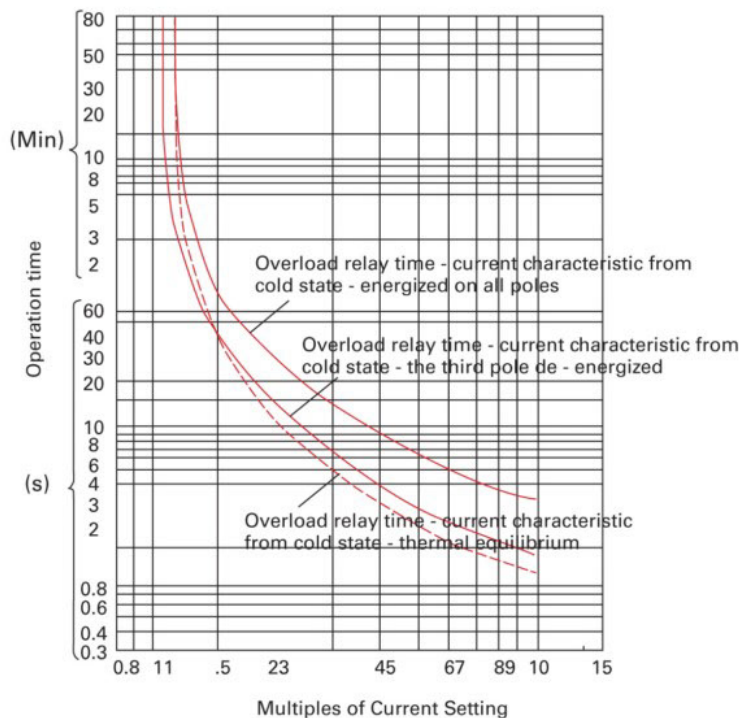


Tripping Characteristics

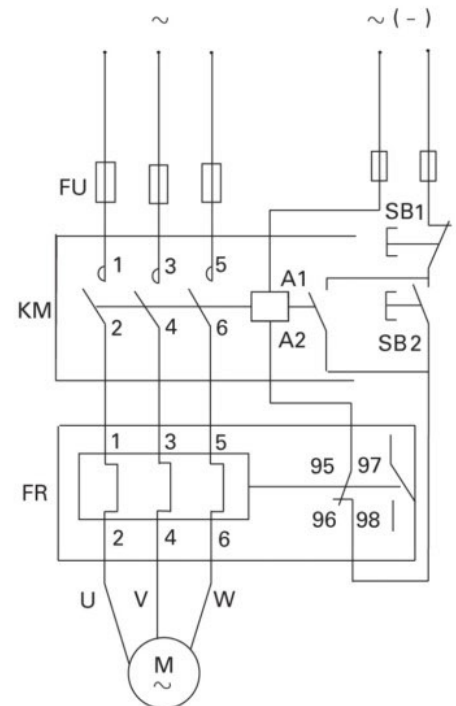
No.	Multiples of Current Setting	Tripping Time		Initial Condition	Reference Ambient Air Temperature
		Trip class 10A	Trip class 10		
Limits of operation of time-delay overload relays when energized on all poles					
1	1.05	Non-tripping within 2h	Non-tripping within 2h	Cold State	+20°C
2	1.2	Tripping within 2h	Tripping within 2h	After No.1 Test (Thermal Equilibrium)	
3	1.5	<2min	<4min	After No.1 Test (Thermal Equilibrium)	
4	7.2	2s<Tp≤10s	4s<Tp≤10s	Cold State	+20°C
Limits of operation of three-pole thermal overload relays when energized on two poles only					
When the value of current flowing in two poles and the third pole de-energized					
1	1.0 0.9	Non-tripping within 2h	Non-tripping within 2h	Cold State	+20°C
2	1.15 0	Tripping within 2h	Tripping within 2h	After No.1 Test (Thermal Equilibrium)	

Tripping Characteristics

Average Value (Environmental Temperature: 20°C)



Wiring Diagram

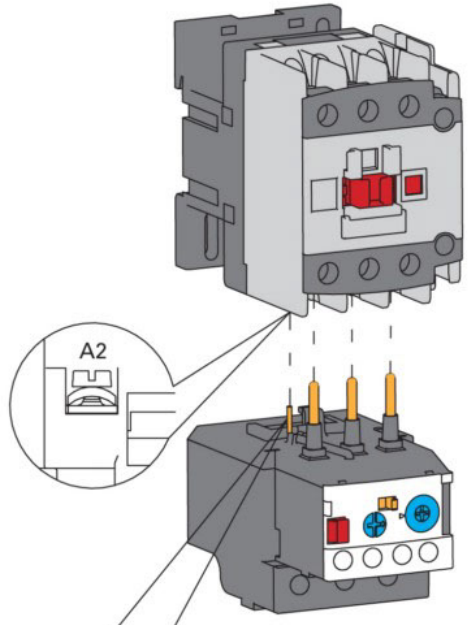


HDR6 Thermal Overload Relay

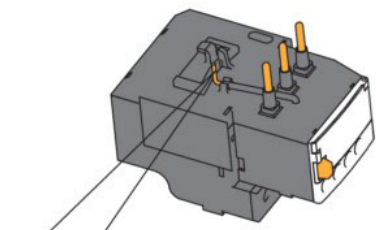
Installation Methods
Standard: IEC/EN 60947-4-1



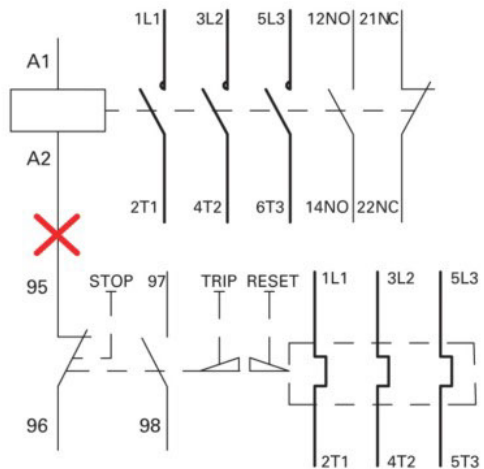
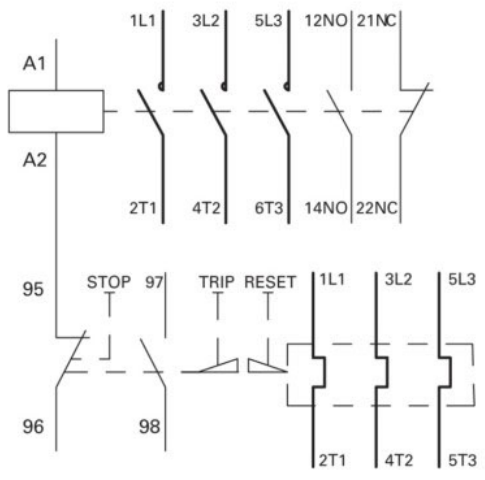
HDR6-9~95 Assembly Installation



This wire is the coil rapid wiring terminal which can be used as the assembly with the contactor. When these two are completely connected, the screw in A2 contact point of the contactor coil should be tightened.



If this wiring terminal is not used, it can be cut shorter and then insulating tape should be used in conductive parts.



Motor Control and Protection



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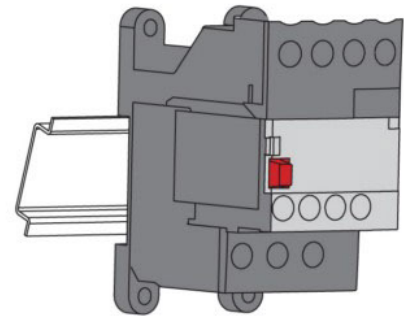
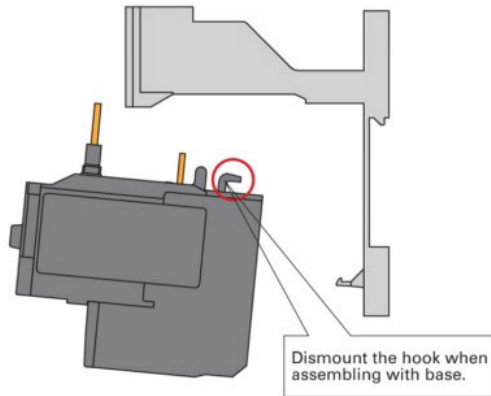
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HDR6 Thermal Overload Relay

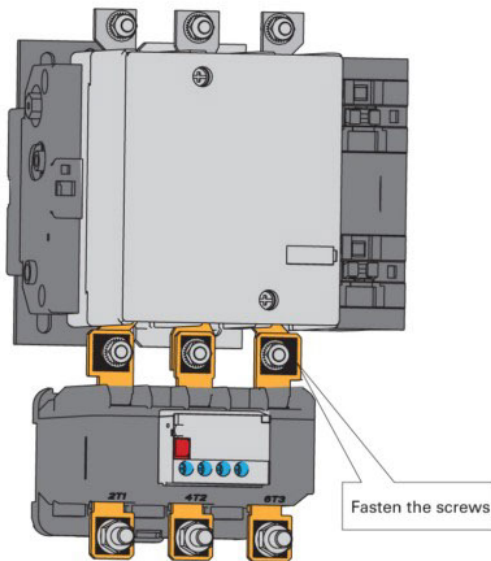
Installation Methods
Standard: IEC/EN 60947-4-1



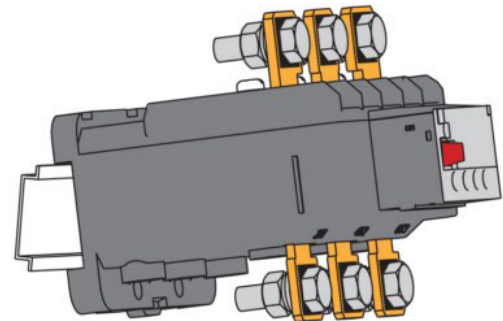
HDR6-9~95 Independent Installation



HDR6-185 Assembly Installation



Independent Installation



Note: It also can be fixed by screws.

HDR6-630/F It only can be fixed by 75mm railway or screws

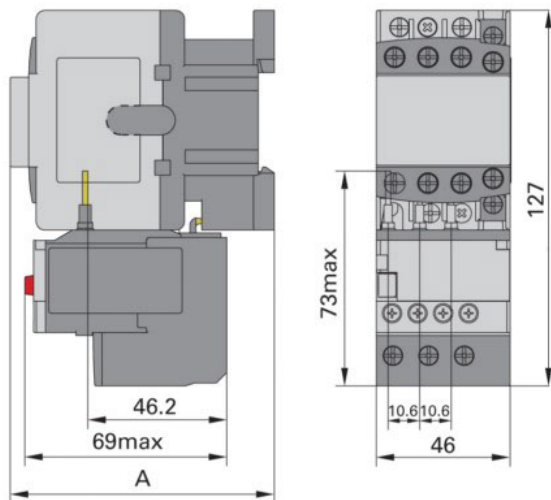
HDR6 Thermal Overload Relay

Overall Dimension of Installation

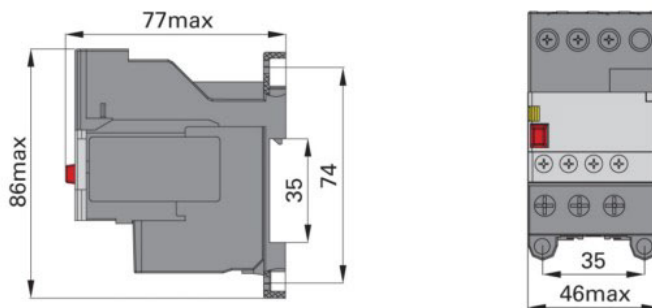
Standard: IEC/EN 60947-4-1



HDR6-18 Assembly Installation



HDR6-18 Independent Installation



Assembly Installation for HDR6-18 and HDC6-09, 12, 18

	HDC6-09	HDC6-12	HDC6-18
A	84	84	89

Motor Control and Protection



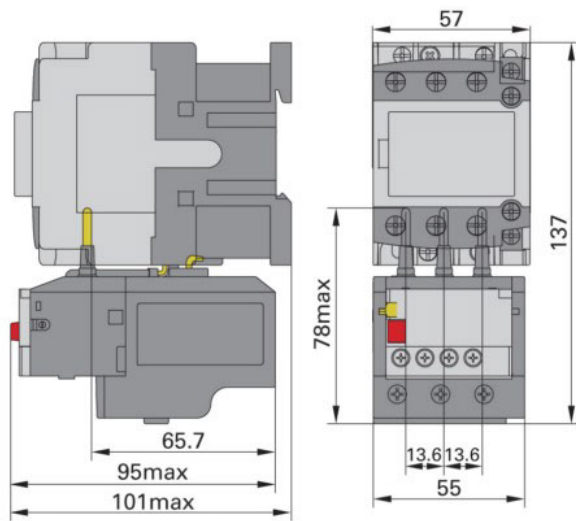
HDR6 Thermal Overload Relay

Overall Dimension of Installation

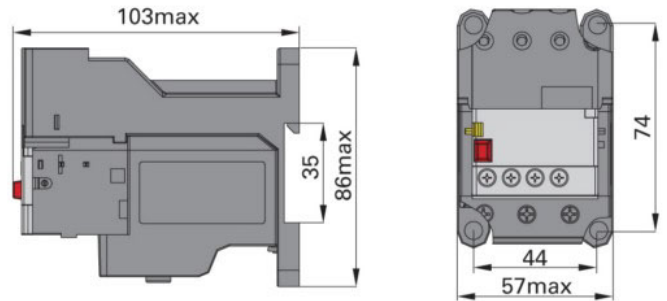
Standard: IEC/EN 60947-4-1



HDR6-32 Assembly Installation



HDR6-32 Independent Installation



Motor Control and Protection

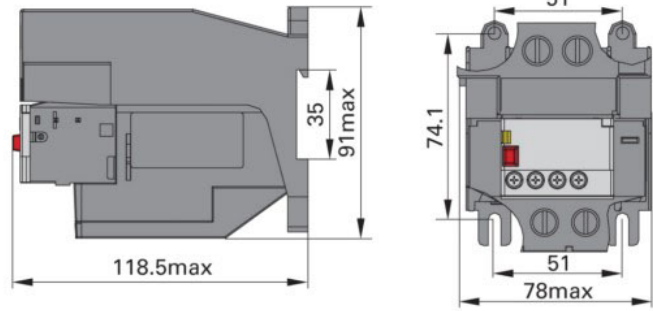
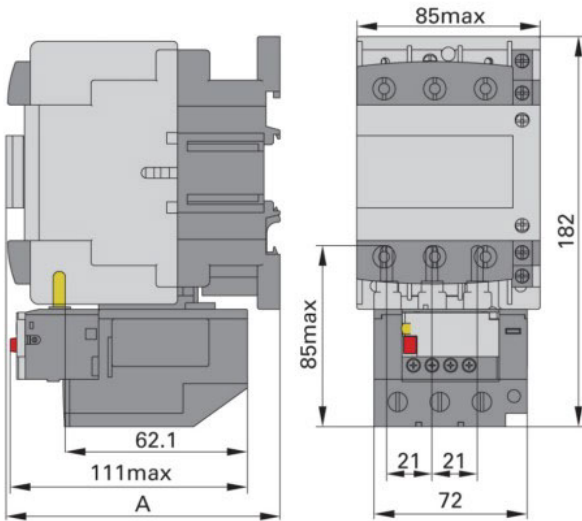
HDR6 Thermal Overload Relay

Overall Dimension of Installation
Standard: IEC/EN 60947-4-1



HDR6-95 Assembly Installation

HDR6-95 Independent Installation



Assembly Installation for HDR6-95 and HDC6-40~95					
	HDC6-40	HDC6-50	HDC6-65	HDC6-80	HDC6-95
A	118.5	118.5	118.5	127.5	127.5

Motor Control and Protection



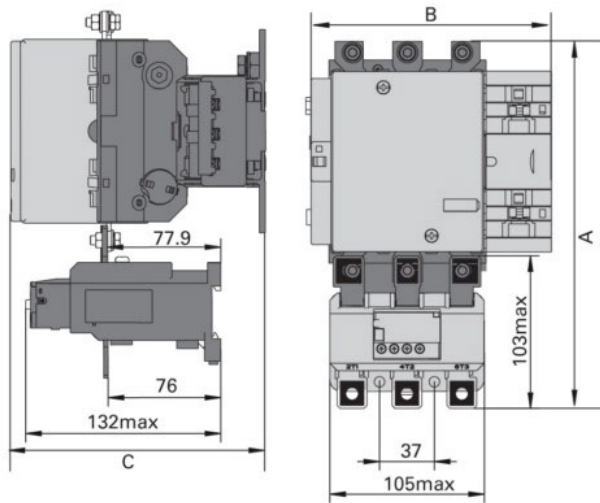
HDR6 Thermal Overload Relay

Overall Dimension of Installation

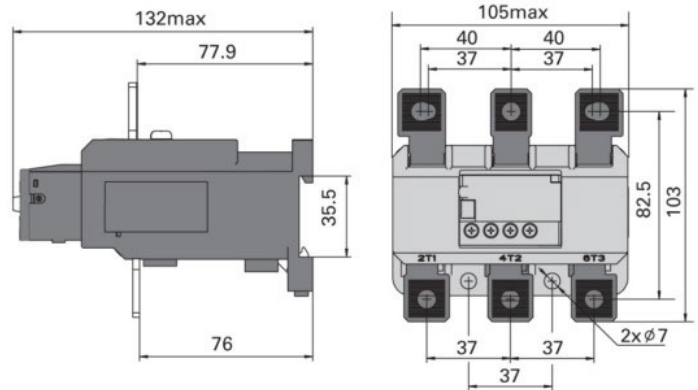
Standard: IEC/EN 60947-4-1



HDR6-185 Assembly Installation



HDR6-185 Independent Installation



Assembly Installation for HDR6-185 and HDC6-115~185

	HDC6-115	HDC6-150	HDC6-185
A	248	253	257
B	167	167	171
C	172	172	183

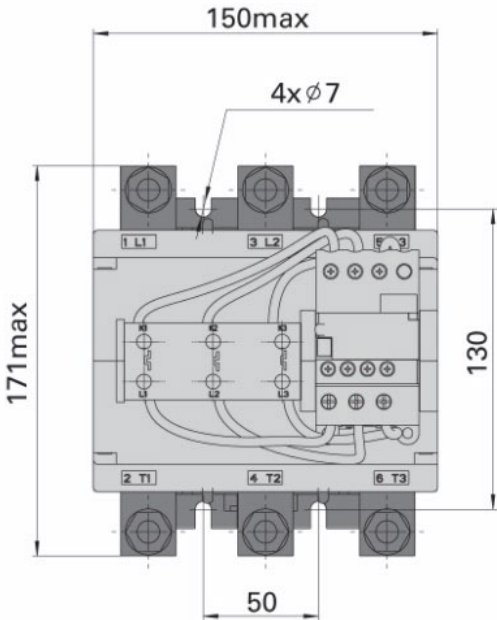
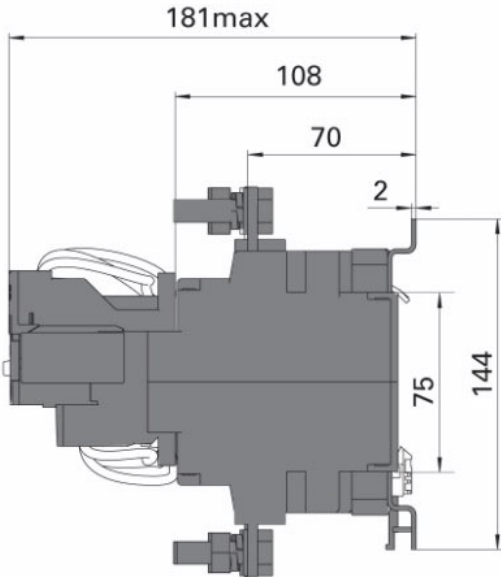
HDR6 Thermal Overload Relay

Overall Dimension of Installation

Standard: IEC/EN 60947-4-1



HDR6-630/F Independent Installation



Motor Control and Protection



Product Overview

Definite Purpose Contactor



HDC19s 518
Current: 25-115A
Poles: 3P
Application:
Power factor correction

Contactory Relay



HDZ3 523
Contact:
22,31,40,13,04
Application:
AC24-440V

Control Relay



HDZ9 527
Contact:
2Z, 3Z, 4Z
Coil Voltage:
AC6-380V
DC6-220V



HJSZ3 531
Rated working voltage:
120V, 240V, 400V
Relay Time: 0.05s-24h



HXJ9 534
Voltage: 380V, 400V

Motor Protector



HDP6 535
Frame Current: 32A
Setting Current: 0.1-32A

Magnetic Starter



HDS6 542
Frame Current: 32,95
Setting Current: 1-95A

HDC19s Capacitor Switching Contactor

Standard: IEC 60947-4-1, IEC 60947-5-1



Function

The new HDC 19s capacitor switching contactor is developed based on new 3 series contactor, and adopts automatic production line. It provides:

- Switch single or multiple 3-phase capacitors to improve their power factor
- Reduce the closing current impact of capacitors
- Current range covers 25A to 115A, and the maximum controlled capacity is 60kvar

Order Information

Model	Rated conventional thermal current	Auxiliary contact	Coil voltage	Frequency
HDC19s	25	11	M	5
	25: 25	11: 1NO+1NC	F: 110V	5: 50Hz
	32: 32	20: 2NO+0NC	S: 127V	7: 50/60Hz
	M: 220/230V	
	115: 115	21: 2NO+1NC	U: 240V	
			Q: 380/400V	
			L: 415V	
			X: 440V	

Model	Auxiliary contact		Reference
	NO	NC	Ith(A)
HDC19s-25	1	1	HDC19s 25 11 *
	2	0	HDC19s 25 20 *
	0	2	HDC19s 25 02 *
HDC19s-32	1	1	HDC19s 32 11 *
	2	0	HDC19s 32 20 *
	0	2	HDC19s 32 02 *
HDC19s-43	1	1	HDC19s 43 11 *
	2	0	HDC19s 43 20 *
	0	2	HDC19s 43 02 *
HDC19s-63	1	2	HDC19s 63 12 *
	2	1	HDC19s 63 21 *
HDC19s-95	1	2	HDC19s 95 12 *
	2	1	HDC19s 95 21 *
HDC19s-115	1	2	HDC19s 115 12 *
	2	1	HDC19s 115 21 *

Note: This product is 3 poles. The "*" and "." mean coil voltage and coil frequency.

Coil voltage code

Coil Voltage	110	127	220/230	240	380/400	415	440
50Hz	F5	S5	M5	U5	Q5	L5	X5
50/60Hz	F7	S7	M7	U7	Q7	L7	X7



HDC19s Capacitor Switching Contactor

Standard: IEC 60947-4-1, IEC 60947-5-1



Technical Data



Model			HDC19s-25	HDC19s-32	HDC19s-43	HDC19s-63	HDC19s-95	HDC19s-115	
Main Circuit									
Rated Operating Voltage (Ue)		V	380/400						
Rated Insulation Voltage (Ui)		V	690						
Rated Current of Controlled Capacitor	AC-6b 380V	A	17	29	36	43	72	87	
Rated Capacity of Controlled Capacitor (Qn)	AC-6b 220V	kvar	6	10	15	18	30	35	
	AC-6b 380V	kvar	12	20	25	30	50	60	
Rated Conventional Thermal Current		A	25	32	43	63	95	125	
Controlled Inrush Current		A	≤ 35I _n			≤ 55I _n			
Mechanical Endurance		× 10 ⁴ operations	100						
Electrical Endurance	AC-6b 380V	× 10 ⁴ operations	15				12		
Operating Frequency	AC-6b 380V	operations/h	300				120		

Coil								
Coil Voltage (Us)		V	24V, 36V, 48V, 110, 127, 220/230, 240, 380/400, 415, 440					
Coil Frequency		Hz	AC 50Hz & 50/60Hz					
Operating Voltage		V	85%~110%Us					
Drop-out Voltage		V	20%~75%Us					

Auxiliary Contact								
Auxiliary Contact Combination			11, 20, 02			12, 21		
Rated Conventional Thermal Current (I _{th})	A		10					
Minimum Load can be connected			6V×10mA					

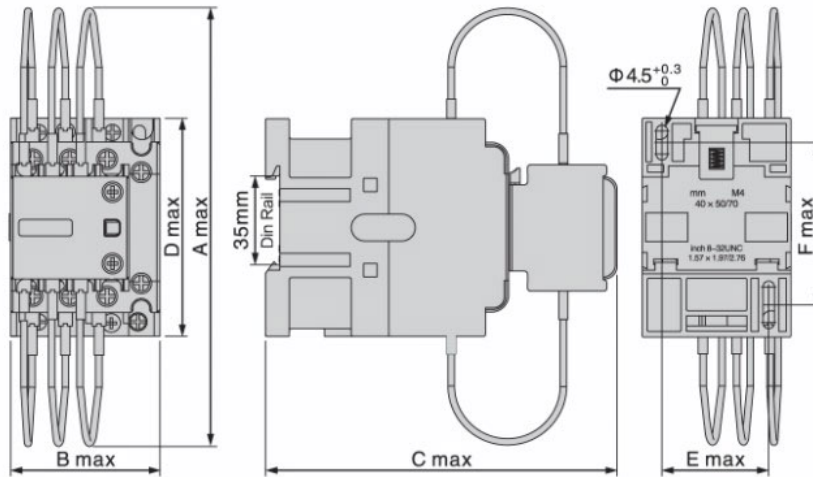
HDC19s Capacitor Switching Contactor

Standard: IEC 60947-4-1, IEC 60947-5-1

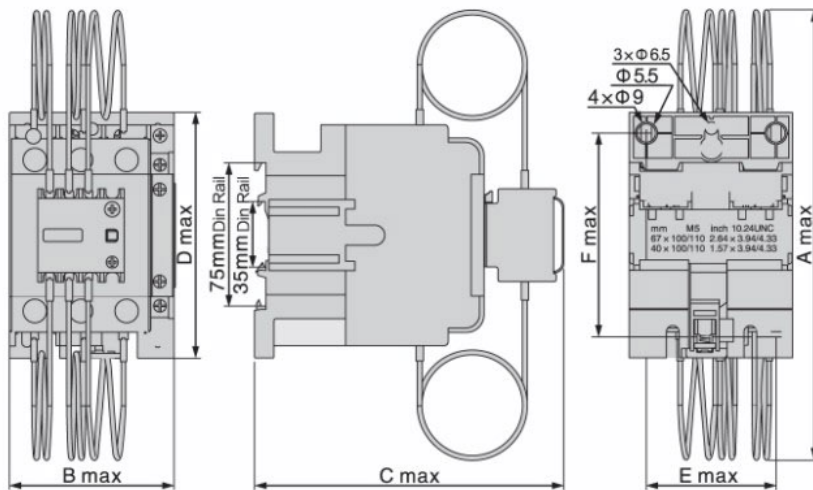


Overall and installation Dimensions

HDC19s-25, 32, 43



HDC19s-63, 95, 115



HDC19s Capacitor Switching Contactor

Standard: IEC 60947-4-1, IEC 60947-5-1



Overall and installation Dimensions

Model	Overall size				Installation dimension	
	Amax	Bmax	Cmax	Dmax	Emax	Fmax
HDC19s-25	176	45.5	122	74.5	35	50/60
HDC19s-32	180	56.5	132	83	40	50/60
HDC19s-43	180	56.5	132	83	40	50/60
HDC19s-63	190	74.5	154	127.5	59	100/110
HDC19s-95	190	85.5	160	127.5	67	100/110
HDC19s-115	190	85.5	160	127.5	67	100/110

Working Conditions

- Ambient temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, and the daily average temperature: $\leq 35^{\circ}\text{C}$
- Altitude: ≤ 2000 m
- The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is $+40^{\circ}\text{C}$. It is allowed to have a relative higher humidity under lower temperature, e.g. up to 90% at $+20^{\circ}\text{C}$. For occasional dew due to the temperature change, preventive measures shall be taken.
- Pollution Level: 3

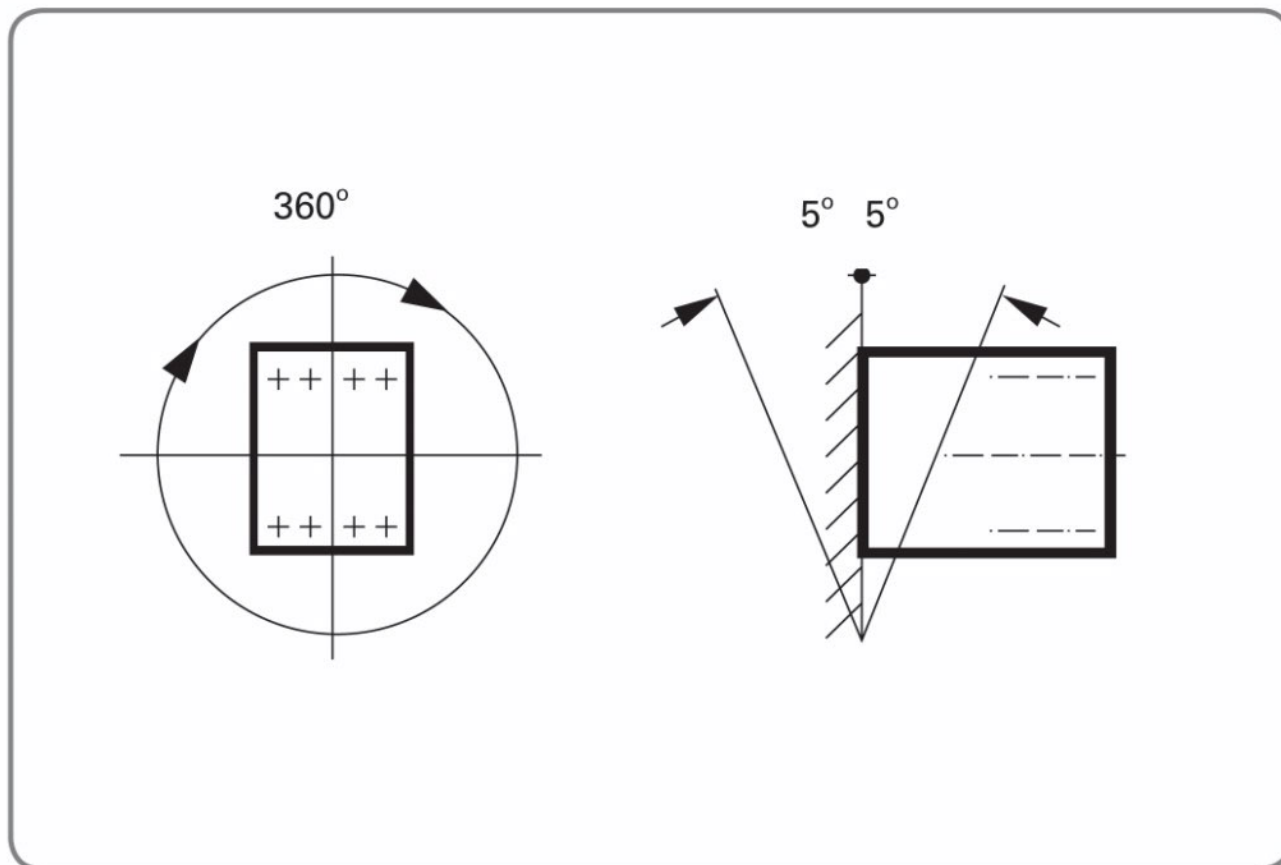
HDC19s Capacitor Switching Contactor

Standard: IEC 60947-4-1, IEC 60947-5-1



Installation Conditions

- Installation Type: III
- Installation position: should be installed in the absence of a significant shock and vibration point



HDZ3 Contactor Relay

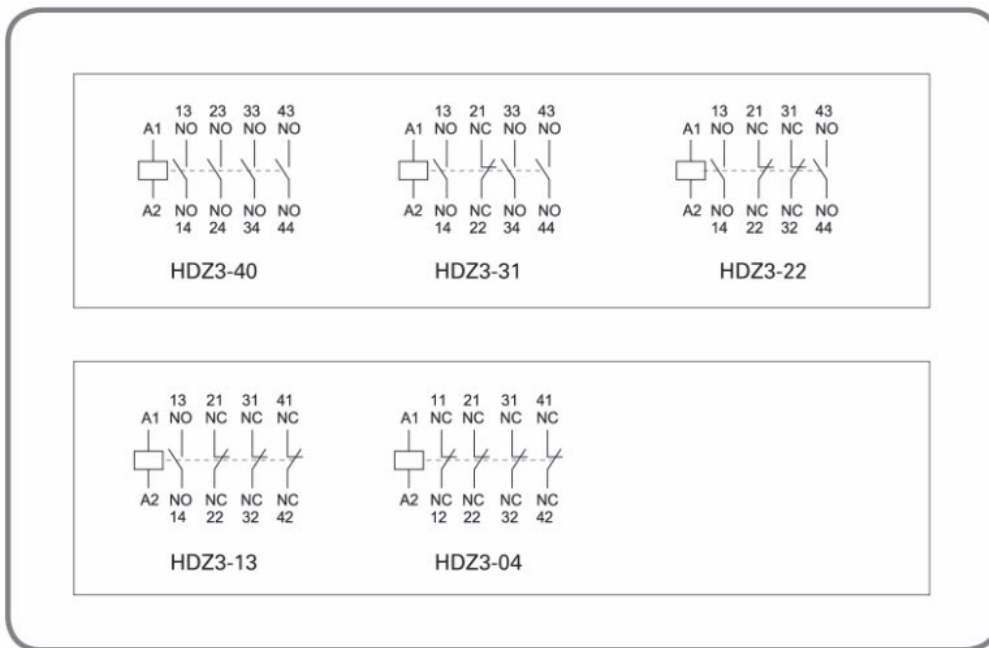
Functions and features
Standard: IEC/EN 60947-5-1



Main technical parameters

Rated insulation voltage (Ui)	V	690
Conventional thermal current (Ith)	A	10
Rated operating current (Ie)	A	AC-15 380V: 0.95
		DC-13 220V: 0.15
Contact combination		2NO+2NC,3NO+1NC,4NO+0NC,1NO+3NC,0NO+4NC
Electrical durabilities	10,000 times	110
Mechanical durabilities	10,000 times	1100
Operating frequency	times/Hour	1200
Rated control circuit voltage(Us)	50Hz	24,36,48,110,127,220/230,240,380/400,415,440
	50/60Hz	24,36,48,110,127,220/230,240,380/400,415,440
Operating voltage range	V	AC 85%...110% Us
Drop-out voltage range	V	AC 20%...75% Us
Certification		CE

Wiring Diagram

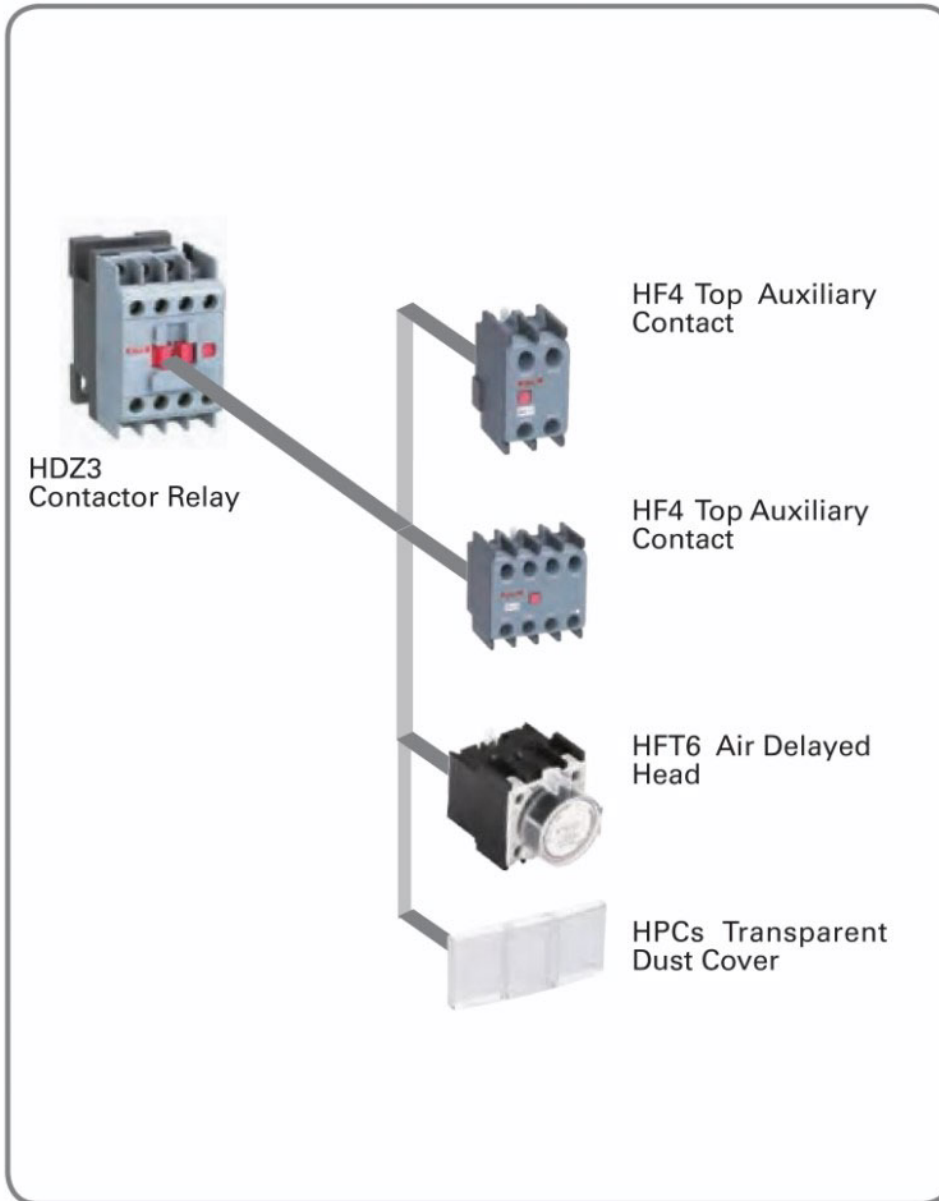


HDZ3 Contactor Relay

Functions and features
Standard:IEC/EN 60947-5-1



Schematic diagram of Accessory installation



Motor Control and Protection



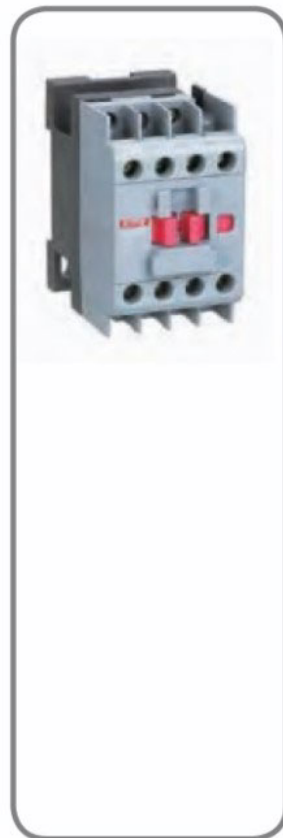
HDZ3 Contactor Relay

Order Information
Standard: IEC/EN 60947-5-1



HDZ3 Contactor Relay

Product Name	Contact	Coil Voltage	Coil Frequency
HDZ3	22	M	5
	↓	↓	
	22: 2NO+2NC 31: 3NO+1NC 40: 4NO+0NC 13: 1NO+3NC 04: 0NO+4NC	B: 24V ... M: 220V/230V ... Q: 380V/400V ...	5: 50Hz 7: 50/60Hz



Contact		Reference
NO	NC	
2	2	HDZ322*
3	1	HDZ331*
4	0	HDZ340*
1	3	HDZ313*
0	4	HDZ304*

Coil voltage code										
Coil voltage(V)	24	36	48	110	127	220/230	240	380/400	415	440
*	B	C	E	F	S	M	U	Q	L	X

Note: * means coil voltage code

Motor Control and Protection

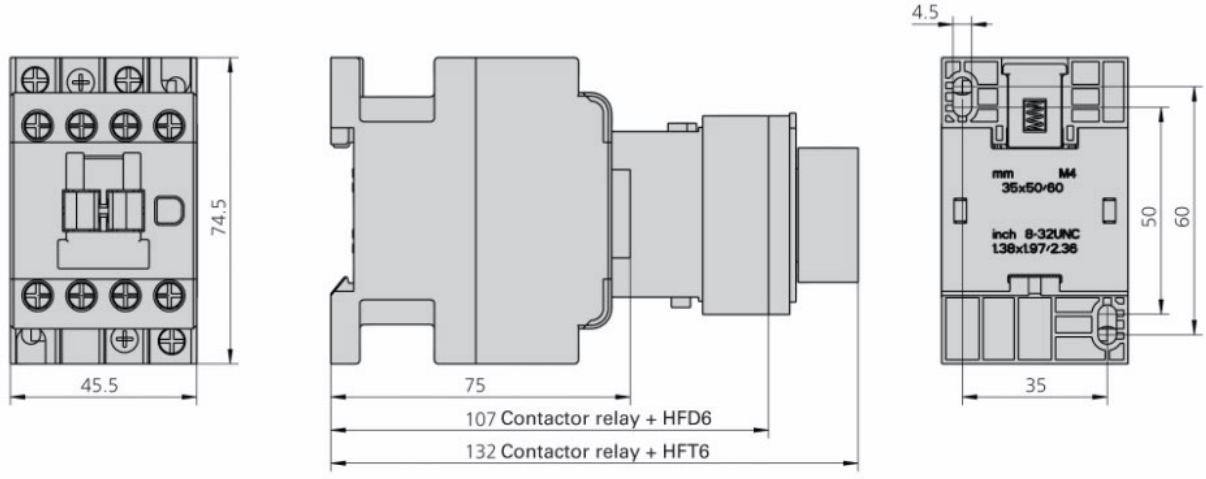
HDZ3 Contactor Relay

Overall and installation dimensions
Standard: IEC/EN 60947-5-1



Overall and installation dimensions

HDZ3



Motor Control and Protection



Function

- Used to implement the intermediate control signal conversion to realize a low-power output. In the field of industrial control, used in conjunction with contactors, relays, circuit breakers, etc.

Technical Data

- Small size and high sensitivity;
- High load capacity for contacts;
- Various models;
- With LED display.

Coding System

Product Name	Rated Current	Poles	AC/DC	LED	Coil Voltage	Type
HDZ9	05	2	D	L	T	R
	03: 3A 05: 5A 10: 10A	2: 2P 3: 3P 4: 4P	Default: AC D: DC	Default: none L: LED	C: 36V E: 48V ... Q: 380V	Default: Classic R: Rotary button

Order Information

Classic Type

Rated Current	Poles	Control Voltage Type	LED	Reference	Base Reference
5A	2	AC	L	HDZ9052L*	HPYF08A/HPYF08A15/HPYF08AZ
		AC	None	HDZ9052*	HPYF08A/HPYF08A15/HPYF08AZ
		DC	L	HDZ9052DL*	HPYF08A/HPYF08A15/HPYF08AZ
		DC	None	HDZ9052D*	HPYF08A/HPYF08A15/HPYF08AZ
	3	AC	L	HDZ9053L*	HPYF11A
		AC	None	HDZ9053*	HPYF11A
		DC	L	HDZ9053DL*	HPYF11A
		DC	None	HDZ9053D*	HPYF11A
	4	AC	L	HDZ9054L*	HPYF14A/HPYF14A15/HPYF14AZ
		AC	None	HDZ9054*	HPYF14A/HPYF14A15/HPYF14AZ
		DC	L	HDZ9054DL*	HPYF14A/HPYF14A15/HPYF14AZ
		DC	None	HDZ9054D*	HPYF14A/HPYF14A15/HPYF14AZ
3A	4	AC	L	HDZ9034L*	HPYF14A/HPYF14A15/HPYF14AZ
		AC	None	HDZ9034*	HPYF14A/HPYF14A15/HPYF14AZ
		DC	L	HDZ9034DL*	HPYF14A/HPYF14A15/HPYF14AZ
		DC	None	HDZ9034D*	HPYF14A/HPYF14A15/HPYF14AZ
10A	2	AC	L	HDZ9102L*	HPTF08A/HPTF08A15
		AC	None	HDZ9102*	HPTF08A/HPTF08A15
		DC	L	HDZ9102DL*	HPTF08A/HPTF08A15
		DC	None	HDZ9102D*	HPTF08A/HPTF08A15
	3	AC	L	HDZ9103L*	HPTF11A
		AC	None	HDZ9103*	HPTF11A
		DC	L	HDZ9103DL*	HPTF11A
		DC	None	HDZ9103D*	HPTF11A
	4	AC	L	HDZ9104L*	HPTF14A/HPTF14A15
		AC	None	HDZ9104*	HPTF14A/HPTF14A15
		DC	L	HDZ9104DL*	HPTF14A/HPTF14A15
		DC	None	HDZ9104D*	HPTF14A/HPTF14A15



HDZ9 Miniature Relay

IEC 61810 / EN 60947-1



Order Information

Rotary Button Type

Rated Current	Poles	Control Voltage Type	LED	Reference	Base Reference
5A	2	AC	L	HDZ9052L*R	HPYF08A/HPYF08A15/HPYF08AZ
		AC	None	HDZ9052*R	HPYF08A/HPYF08A15/HPYF08AZ
		DC	L	HDZ9052DL*R	HPYF08A/HPYF08A15/HPYF08AZ
		DC	None	HDZ9052D*R	HPYF08A/HPYF08A15/HPYF08AZ
3A	4	AC	L	HDZ9034L*R	HPYF14A/HPYF14A15/HPYF14AZ
		AC	None	HDZ9034*R	HPYF14A/HPYF14A15/HPYF14AZ
		DC	L	HDZ9034DL*R	HPYF14A/HPYF14A15/HPYF14AZ
		DC	None	HDZ9034D*R	HPYF14A/HPYF14A15/HPYF14AZ



Motor Control and Protection

Coil Voltage Table

Voltage	6V	12V	24V	36V	48V	110V	127V	220V	230V	240V	380V
*	T	J	B	C	E	F	S	M	N	U	Q

HDZ9 Miniature Relay

IEC 61810 / EN 60947-1



Technical information

Model		5A		3A,5A	10A		
		2P	3P	4P	2P	3P	4P
Load	Resistance	5A/250VAC 28VDC		3A/250VAC 28VDC	10A/250VAC 28VDC		
	Motor	1/6 HP 240VAC					
Switching Power		1250VA, 140W	1250VA, 140W	750VA, 84W	2500VA, 280W		
Contact resistance (Initial)		≤100mΩ					
Contact	Material	Silver Alloy					
	Electrical Endurance (make circuit 1s, break circuit 1s)	≥100000 times (1800 times/h)					
	Mechanical Endurance (300 times/min)	≥10000000 times (18000 times/h)					
Actuation Voltage (23°C)		DC: ≤75% (rated voltage), AC: ≤80% (rated voltage)					
Release Voltage (23°C)		DC: ≥10% (rated voltage), AC: ≥30% (rated voltage)					
Maximum Voltage (23°C)		110% (rated voltage)					
Insulation Resistance		≥100MΩ (500VDC)					
Coil Power	DC (W)	about 0.9					
	AC (VA)	about 1.2					
Actuation Time (rated voltage)		≤15ms					
Release Time (rated voltage)		≤10ms					
Initial Withstand Voltage	Between polar contacts	1500VAC/1min (residual current is 1mA)					
	Between bipolar contacts	1200VAC/1min (residual current is 1mA)					
	Between coil and contacts	1500VAC/1min (residual current is 1mA)					
Ambient Temperature		-55°C~+55°C			-55°C~+55°C		
Ambient Humidity		35%~85%RH					
Atmospheric Pressure		86~106KPa					
Installation Method		Plug-in, PCB Welding					
Weight		30g					
Matched Base		HPYF08A, HPYF11A, HPYF14A			HPTF08A, HPTF11A, HPTF14A		
Coil Specification		DC: 6V~220V; AC: 6V~380V.					
Certificate		CB, CE					

Motor Control and Protection

HDZ9 Miniature Relay

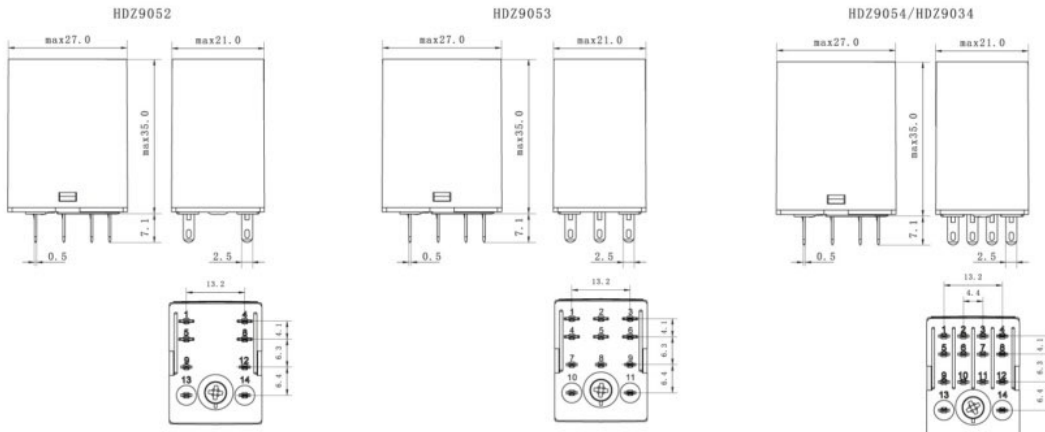
IEC 61810 / EN 60947-1



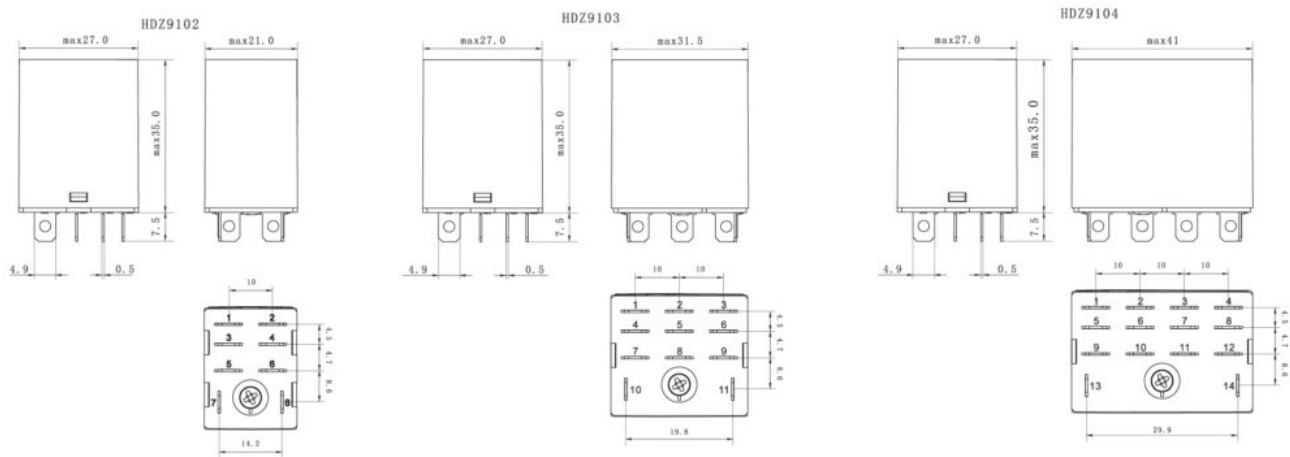
Overall Dimensions

Unit: mm

HDZ9-03/05



HDZ9-10



Motor Control and Protection



Function

HJSZ3 Series electronic time relay provides

- Rated AC frequency 50Hz & controlling voltage 400V or below
- Be used as time-control component in the automatic controlling circuit, according to the scheduled time turn on or off the circuit

Order Information

Relay mode	Rated operating voltage	Relay time	Reference
Relay after power-on	120V	A: 0.05-0.5s/5s/30s/3M	HJSZ3AA120
		B: 0.1-1s/10s/60s/6M	HJSZ3AB120
		C: 0.5-5s/50s/5M/30M	HJSZ3AC120
		D: 1-10s/100s/10M/60M	HJSZ3AD120
		E: 6s-60s/10M/60M/6h	HJSZ3AE120
		F: 0.2M-2M/20M/2h/12h	HJSZ3AF120
		G: 0.4M-4M/40M/4h/24h	HJSZ3AG120
	240V	A: 0.05-0.5s/5s/30s/3M	HJSZ3AA240
		B: 0.1-1s/10s/60s/6M	HJSZ3AB240
		C: 0.5-5s/50s/5M/30M	HJSZ3AC240
		D: 1-10s/100s/10M/60M	HJSZ3AD240
		E: 6s-60s/10M/60M/6h	HJSZ3AE240
		F: 0.2M-2M/20M/2h/12h	HJSZ3AF240
		G: 0.4M-4M/40M/4h/24h	HJSZ3AG240
	400V	A: 0.05-0.5s/5s/30s/3M	HJSZ3AA400
		B: 0.1-1s/10s/60s/6M	HJSZ3AB400
		C: 0.5-5s/50s/5M/30M	HJSZ3AC400
		D: 1-10s/100s/10M/60M	HJSZ3AD400
		E: 6s-60s/10M/60M/6h	HJSZ3AE400
		F: 0.2M-2M/20M/2h/12h	HJSZ3AF400
		G: 0.4M-4M/40M/4h/24h	HJSZ3AG400



HJSZ3 Series Electronic Time Relay

Standard: IEC 60947-5-1



Technical information

Relay mode	Rated operating voltage	Relay time	Reference		
Relay after power-off	120V	1S: 0.1-1s	HJSZ3F1S120		
		2S: 0.2-2s	HJSZ3F2S120		
		3S: 0.3s-3s	HJSZ3F3S120		
		5S: 0.5s-5s	HJSZ3F5S120		
		6S: 0.6s-6s	HJSZ3F6S120		
		10S: 1s-10s	HJSZ3F10S120		
		20S: 2s-20s	HJSZ3F20S120		
		30S: 3s-30s	HJSZ3F30S120		
		60S: 6s-60s	HJSZ3F60S120		
		100S: 10s-100s	HJSZ3F100S120		
		180S: 18s-180s	HJSZ3F180S120		
		4M: 0.4min-4min	HJSZ3F4M120		
		5M: 0.5min-5min	HJSZ3F5M120		
		6M: 0.6min-6min	HJSZ3F6M120		
		10M: 1min-10min	HJSZ3F10M120		
		20M: 2min-20min	HJSZ3F20M120		
		30M: 3min-30min	HJSZ3F30M120		
			240V	1S: 0.1-1s	HJSZ3F1S240
				2S: 0.2-2s	HJSZ3F2S240
				3S: 0.3s-3s	HJSZ3F3S240
5S: 0.5s-5s	HJSZ3F5S240				
6S: 0.6s-6s	HJSZ3F6S240				
10S: 1s-10s	HJSZ3F10S240				
20S: 2s-20s	HJSZ3F20S240				
30S: 3s-30s	HJSZ3F30S240				
60S: 6s-60s	HJSZ3F60S240				
100S: 10s-100s	HJSZ3F100S240				
180S: 18s-180s	HJSZ3F180S240				
4M: 0.4min-4min	HJSZ3F4M240				
5M: 0.5min-5min	HJSZ3F5M240				
6M: 0.6min-6min	HJSZ3F6M240				
10M: 1min-10min	HJSZ3F10M240				
20M: 2min-20min	HJSZ3F20M240				
30M: 3min-30min	HJSZ3F30M240				
	400V			1S: 0.1-1s	HJSZ3F1S400
				2S: 0.2-2s	HJSZ3F2S400
				3S: 0.3s-3s	HJSZ3F3S400
		5S: 0.5s-5s	HJSZ3F5S400		
		6S: 0.6s-6s	HJSZ3F6S400		
		10S: 1s-10s	HJSZ3F10S400		
		20S: 2s-20s	HJSZ3F20S400		
		30S: 3s-30s	HJSZ3F30S400		
		60S: 6s-60s	HJSZ3F60S400		
		100S: 10s-100s	HJSZ3F100S400		
		180S: 18s-180s	HJSZ3F180S400		
		5M: 0.5min-5min	HJSZ3F5M400		
		6M: 0.6min-6min	HJSZ3F6M400		
		10M: 1min-10min	HJSZ3F10M400		
		20M: 2min-20min	HJSZ3F20M400		
		30M: 3min-30min	HJSZ3F30M400		

Base for HJSZ3

HTP28XEDZ

Motor Control and Protection



HJSZ3 Series Electronic Time Relay

Standard: IEC 60947-5-1

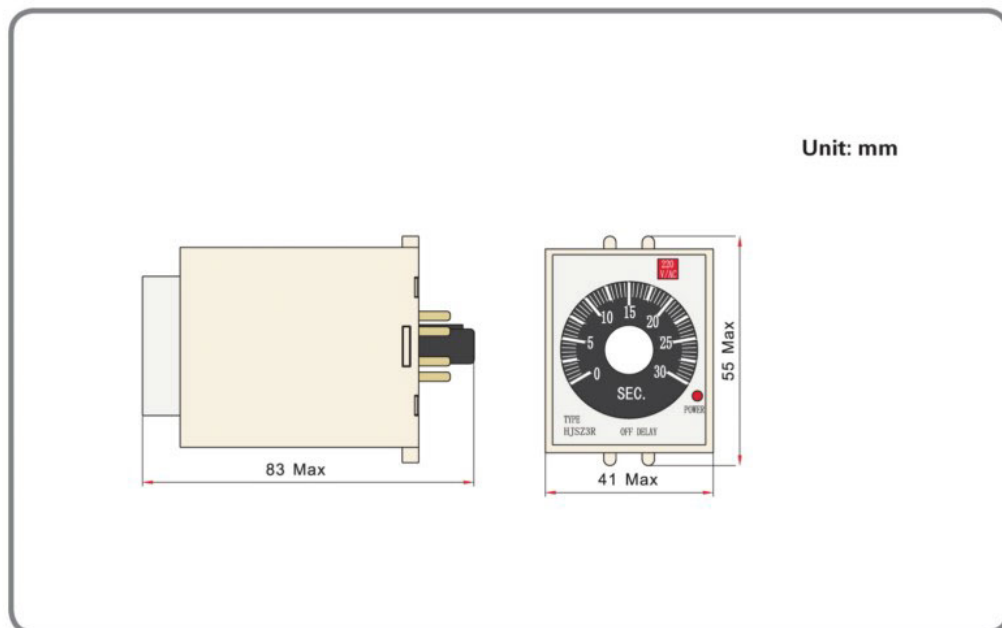


Motor Control and Protection

Technical Data

Condition	AC-15	400V/1.95A; 240V/1.5A; 120V/3.0A
	DC-13	250V/0.27A; 125V/0.55A
Repetitive error	≤5%	
Rated thermal current	5A	
Mechanical life	≥1 × 10 ⁶ times	
Electric life	≥1 × 10 ⁵ times	
Power loss	≤3W	
Working mode	A: Delay after power-on	F: Delay after power-off
Reset mode	A: Power-off reset	F: External device reset
Contact endurance	A: 5A (Resistive)	F: 1A (Resistive)
Delay time	HJSZ3A: 0.05s-0.5s/5s/30s/3M, 0.1s-1s/10s/60s/6M 0.5s-5s/50s/5M/30M, 1s-10s/100s/10M/60M 6s-60s/10M/60M/6h, 0.2M-2M/20M/2h/12h 0.4M-4M/40M/4h/24h HJSZ3F: 0.1s-1s, 0.2s-2s, 0.3s-3s, 0.5s-5s, 0.6s-6s, 1s-10s, 2s-20s, 3s-30s, 6s-60s, 10s-100s, 10s-120s, 10s-180s, 0.4M-4M, 0.5M-5M, 0.6M-6M, 1M-10M, 2M-20M, 3M-30M	
Temperature	-5°C~+40°C	
Installation mode	Din rail mounted, Panel mounted	

Overall Dimensions



HXJ9 Phase Failure And Sequence Protection Relay

Standard: IEC 60947-5-1



Function

HXJ9 phase failure and sequence protection relay provides:

- Rated frequency is 50Hz, and rated control supply AC voltage is 400V
- Phase failure and phase sequence protections

Order Information

Function	Voltage	Reference
Phase Failure and sequence Protection	380V	HXJ9
	400V	HXJ9400

Technical Data

Standard	IEC 60947-5-1
Overvoltage protection	Adjustable, HXJ9: 380~460V, HXJ9400: 400~480V, Reaction time: 1.5s-4s (adjustable)
Undervoltage protection	Adjustable, HXJ9: 300~380V, HXJ9400: 320~400V. Reaction time: 2s-9s (adjustable)
Phase failure & phase wrong protect time	Reaction time $\leq 2s$
Contact mode	1 NO, 1NC
Contact endurance	5A Resistive
Power voltage	AC 400V
Mechanical lifetime	$\geq 1 \times 10^6$ times
Electrical lifetime	$\geq 1 \times 10^5$ times
Power loss	$\leq 1W$
Contact capacity	AC400V \times 3

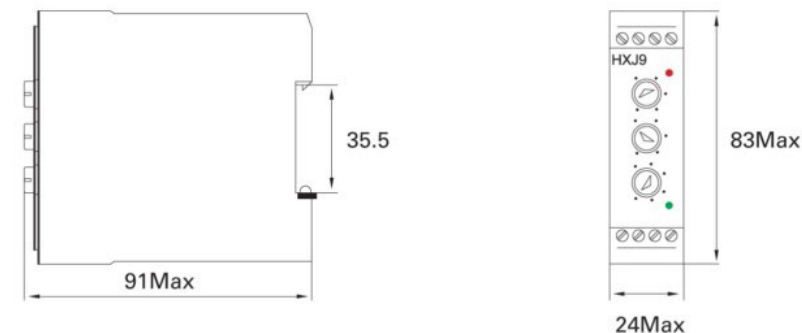


Motor Control and Protection



Overall Dimensions

Unit: mm



HDP6 Motor Circuit Breaker

Standard: IEC 60947-1, IEC 60947-2, IEC 60947-4-1



Order Information

Product Name	Frame Current	Setting Current
HDP6	32	P16
	↓	↓
	32:32A	P16:0.1-0.16A 32:24-32A P means decimal point



Thermal Release	Magnetic Release	400/415V,50/60Hz,AC-3	Recommended	Reference
Setting Current	Current Id	Rated Operating Power	Contactor	
0.1-0.16A	1.5A	-	HDC6-0911	HDP632P16
0.16-0.25A	2.4A	0.06KW	HDC6-0911	HDP632P25
0.25-0.4A	5A	0.09KW	HDC6-0911	HDP632P4
0.4-0.63A	8A	0.12KW	HDC6-0911	HDP632P63
0.63-1A	13A	0.25KW	HDC6-0911	HDP6321
1-1.6A	22.5A	0.37KW	HDC6-0911	HDP6321P6
1.6-2.5A	33.5A	0.75KW	HDC6-0911	HDP6322P5
2.5-4A	51A	1.5KW	HDC6-0911	HDP6324
4-6.3A	78A	2.2KW	HDC6-0911	HDP6326P3
6-10A	138A	4KW	HDC6-0911	HDP63210
9-14A	170A	5.5KW	HDC6-1211	HDP63214
13-18A	223A	7.5KW	HDC6-1811	HDP63218
17-23A	327A	9KW	HDC6-2511	HDP63223
20-25A	327A	11KW	HDC6-2511	HDP63225
24-32A	416A	15KW	HDC6-3211	HDP63232

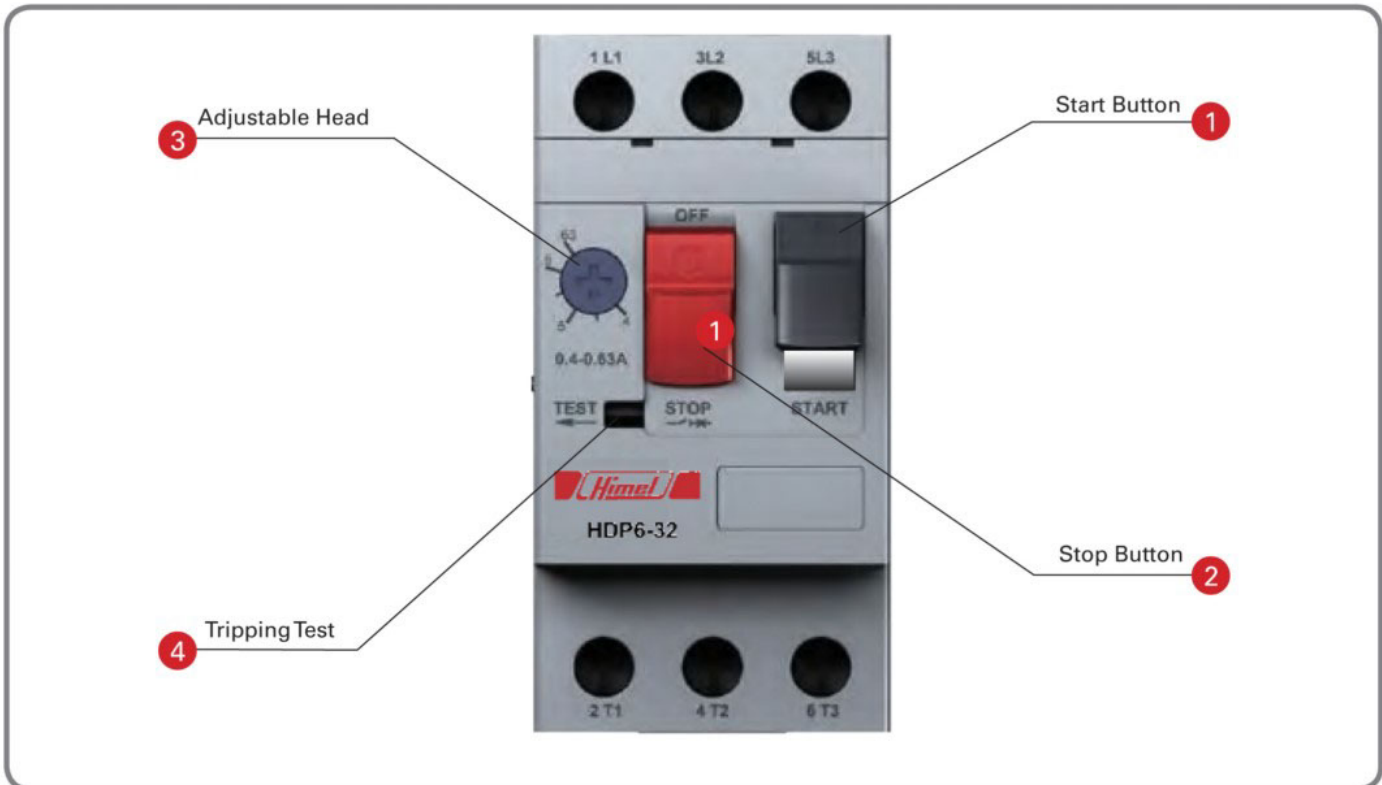
Motor Control and Protection

HDP6 Motor Circuit Breaker

Standard: IEC 60947-1, IEC 60947-2, IEC 60947-4-1



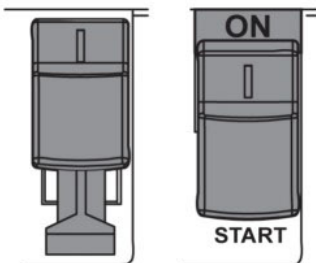
Introduction for Functions



Motor Control and Protection

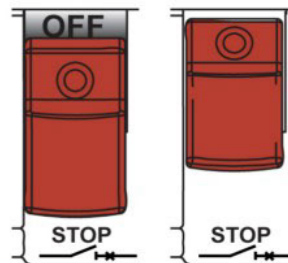


1 Start Button



- Press to start HDP6
- After downward pull-out, lock the start button to stop the work

2 Stop Button



- Press to stop HDP6

3 Adjustable Head



- Set the thermal tripping current

4 Tripping Test



- Can simulate the tripping action, test product performance

HDP6 Motor Circuit Breaker

Standard: IEC 60947-1, IEC 60947-2, IEC 60947-4-1



Main Technical Parameters

Operation mode	Button operated
Frame current	32A
Rated impulse withstand voltage	6000V
Maximum rated operating voltage	690V
Rated insulation voltage	690V
Rated operating frequency	50/60Hz
Trip class	10A
Fastening torque	1.7N • m
Mechanical durabilities	100000
Electrical durabilities AC-3 400V	100000
Overload protection category	Phase failure, thermal overload
Short circuit protection	Yes
Isolation function	Yes
Temperature compensation function	Yes

Breaking Capacity

Setting Current	Ue:230/240V		Ue:400/415V		Ue:440V		Ue:500V		Ue:690V	
	Icu	Ics	Icu	Ics	Icu	Ics	Icu	Ics	Icu	Ics
0.1-0.16A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
0.16-0.25A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
0.25-0.4A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
0.4-0.63A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
0.63-1A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
1-1.6A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
1.6-2.5A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	3kA	2.25kA
2.5-4A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	3kA	2.25kA
4-6.3A	100kA	100kA	100kA	100kA	50kA	50kA	50kA	50kA	3kA	2.25kA
6-10A	100kA	100kA	100kA	100kA	15kA	15kA	10kA	10kA	3kA	2.25kA
9-14A	100kA	100kA	15kA	7.5kA	8kA	4kA	6kA	4.5kA	3kA	2.25kA
13-18A	100kA	100kA	15kA	7.5kA	8kA	4kA	6kA	4.5kA	3kA	2.25kA
17-23A	50kA	50kA	15kA	6kA	6kA	3kA	4kA	3kA	3kA	2.25kA
20-25A	50kA	50kA	15kA	6kA	6kA	3kA	4kA	3kA	3kA	2.25kA
24-32A	50kA	50kA	10kA	5kA	6kA	3kA	4kA	3kA	3kA	2.25kA

Remark: Icu Rated Ultimate Short-circuit Breaking Capacity
Ics Rated Service Short-circuit Breaking Capacity

HDP6 Motor Circuit Breaker

Standard: IEC 60947-1, IEC 60947-2, IEC 60947-4-1



Main Technical Parameters

Fuse Select gL/gG (When the prospective short-circuit current is greater than the rated ultimate short-circuit breaking capacity Icu, need a spare fuse)

Setting Current	Ue: 230/240V	Ue: 400/415V	Ue: 690V
0.1-0.16A	-	-	-
0.16-0.25A	-	-	-
0.25-0.4A	-	-	-
0.4-0.63A	-	-	-
0.63-1A	-	-	-
1-1.6A	-	-	-
1.6-2.5A	-	-	20
2.5-4A	-	-	32
4-6.3A	-	-	40
6-10A	-	-	40
9-14A	-	80	50
13-18A	-	80	50
17-23A	100	100	50
20-25A	100	100	50
24-32A	100	100	50

Note: '-'no need to use fuse

3 Phase Motor Rated Power, 50/60Hz, AC-3

Setting Current	Ue: 230/240V	Ue: 400/415V	Ue: 690V
0.1-0.16A	-	-	-
0.16-0.25A	-	0.06kw	-
0.25-0.4A	-	0.09kw	-
0.4-0.63A	-	0.12kw	0.37kw
0.63-1A	-	0.25kw	0.55kw
1-1.6A	-	0.37kw	1.1kw
1.6-2.5A	0.37kw	0.75kw	1.5kw
2.5-4A	0.75kw	1.5kw	3kw
4-6.3A	1.1kw	2.2kw	4kw
6-10A	2.2kw	4kw	7.5kw
9-14A	3kw	5.5kw	9kw
13-18A	4kw	7.5kw	11kw
17-23A	5.5kw	9kw	15kw
20-25A	5.5kw	11kw	18.5kw
24-32A	7.5kw	15kw	22kw



HDP6 Motor Circuit Breaker

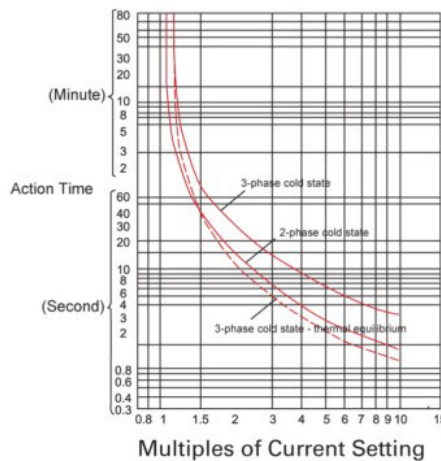
Standard: IEC 60947-1, IEC 60947-2, IEC 60947-4-1



Operating Characteristics

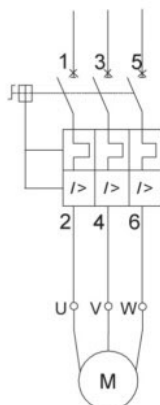
No.	Multiples of Current Setting	Tripping time	Initial Conditions	Reference Ambient Air Temperature
Tripping Characteristics for Phase Load Balance				
1	1.05	Non-tripping within 2h	Cold State	+20°C
2	1.2	Tripping within 2h	Immediately after No.1 test	+20°C
3	1.5	Tripping within 2m	Immediately after No.1 test	+20°C
4	7.2	Tripping within $2s < T_p \leq 10s$	Cold State	+20°C
Tripping Characteristics for Phase Load Unbalance (Phase Failure)				
	Any 2-Phase	3 rd Phase		
1	1.0	0.9	Non-tripping within 2h	Cold State
2	1.15	0	Tripping within 2h	Immediately after No.1 test
The temperature compensation performance				
1	1.0	Non-tripping within 2h	Cold State	+40°C
2	1.2	Tripping within 2h	Immediately after No.1 test	+40°C
3	1.05	Non-tripping within 2h	Cold State	-5°C
4	1.3	Tripping within 2h	Immediately after No.3 test	-5°C

Average (Ambient Temperature 20°C)



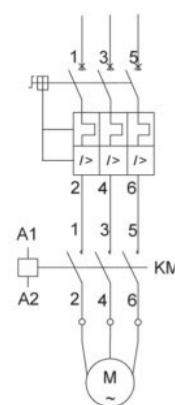
Wiring Diagram

HDP6 drive motor directly



Used for low operation frequency area

HDP6 use with HDC6



Used for high operation frequency area



HDP6 Motor Circuit Breaker Accessories

Standard: IEC 60947-1, IEC 60947-2, IEC 60947-4-1



Accessories

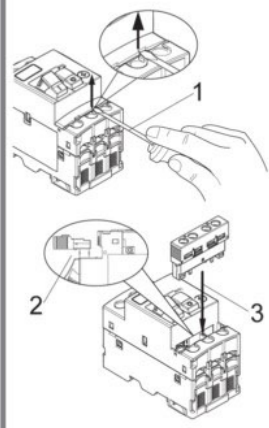
Name	Type	Spec.	Reference	
Undervoltage Release	HAU	110~115V,50Hz;110~127V,60Hz	HAU110	
		220~240V,50/60Hz	HAU220	
		380~400V,50Hz;380~440V,60Hz	HAU380	
		415V,50/60Hz	HAU415	
Shunt Release	HAS	110~115V,50Hz;110~127V,60Hz	HAS110	
		220~240V,50/60Hz	HAS220	
		380~400V,50Hz;380~440V,60Hz	HAS380	
		415V,50/60Hz	HAS415	
Auxiliary Contact	Top	HAE	2NO	HAE20
			1NC+1NO	HAE11
	Side	HAN	2NO	HAN20
			1NC+1NO	HAN11
Waterproof Cover	HDP6-32MC	IP55	HDP632MC	

Parameters of instantaneous auxiliary contact

Name	Rated Insulation Voltage U_i	Utilization Category	Rated Operating Voltage	Rated Operating Current	Conventional Thermal Current			
Top Auxiliary Contact	250V	AC-15	24V	2A	2.5A			
			48V	1.25A	2.5A			
			110V	1A	2.5A			
			230V	0.5A	2.5A			
		DC-13	24V	1A	2.5A			
			48V	0.3A	2.5A			
			Side Auxiliary Contact	690V	AC-15	48V	6A	6A
						110V	4.5A	6A
230V	3.3A	6A						
380V	2.2A	6A						
DC-13	24V	6A			6A			
	48V	5A			6A			
		220V	0.5A	6A				



Installation of HAE11 or HAE20



1. Pry the top auxiliary protective cover up;
2. Put the flat surface of the top auxiliary contact close to the circuit breaker;
3. Align the installation position and insert it.

Motor Control and Protection

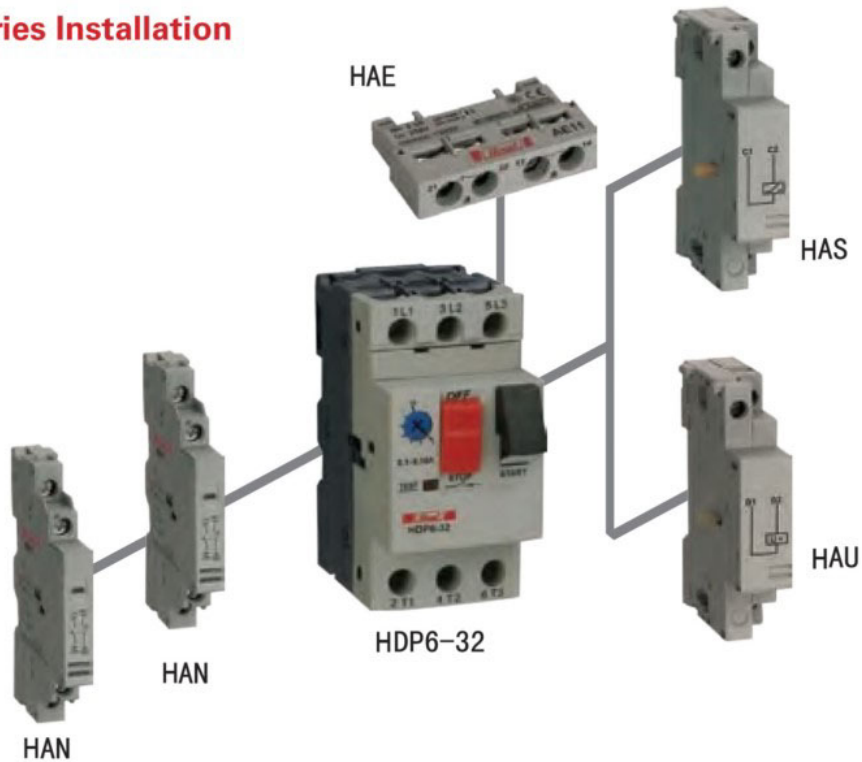


HDP6 Motor Circuit Breaker Accessories

Standard: IEC 60947-1, IEC 60947-2, IEC 60947-4-1

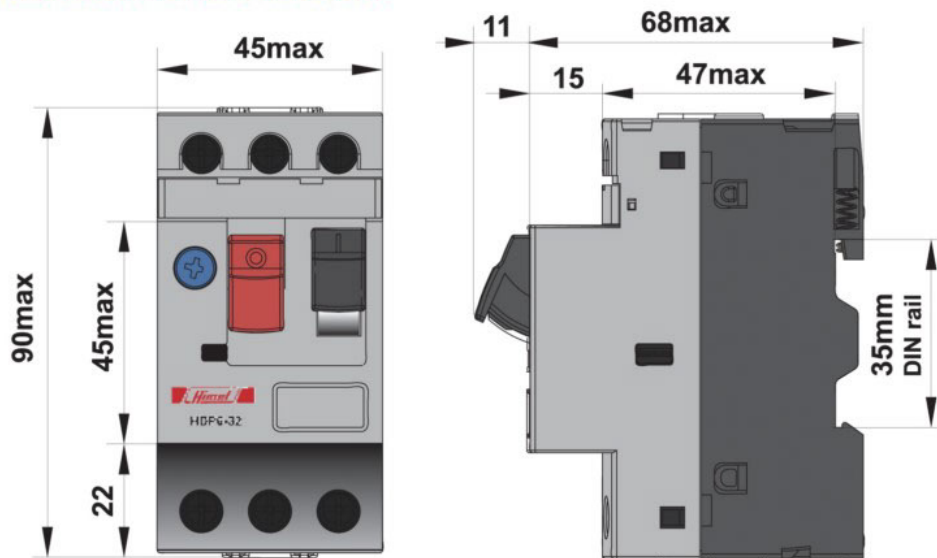


Accessories Installation



Type	Name	Installation Position	The largest installed Qty.
HAE	Top Auxiliary Contact	Face-up	1
HAN	Side Auxiliary Contact	Left Side	2
HAU	Undervoltage Release	Right Side	1
HAS	Shunt Release	Right Side	1

Overall Dimension for Installation



HDS6 Magnetic Starter

Standard: IEC 60947-4



Order information

Name of Product	Frame size	Rated Current	Control Voltage & Frequency	Setting Current
HDS6	32	09	N	4P8
	32: 32A	09:9A	B:24V 50/60HZ	P15: 0.1-0.15A
	95: 95A
		95:95A	V:400V 50/60HZ	95: 80-95A Default: Without Relay

Remark: P means decimal point

Frame size	Rated Current	Setting Current (A)	Order No. With Button		
32	09	0.1-0.15A	HDS63209*P15		
		0.12-0.18A	HDS63209*P18		
		0.18-0.25A	HDS63209*P25		
		0.25-0.36A	HDS63209*P36		
		0.35-0.5A	HDS63209*P5		
		0.5-0.7A	HDS63209*P7		
		0.63-0.9A	HDS63209*P9		
		0.9-1.2A	HDS63209*1P2		
		1.2-1.8A	HDS63209*1P8		
		1.8-2.5A	HDS63209*2P5		
		2.5-3.6A	HDS63209*3P6		
		3.5-4.8A	HDS63209*4P8		
		4.5-6.3A	HDS63209*6P3		
		5-7A	HDS63209*7		
		6.3-9A	HDS63209*9		
		12	9-12A	HDS63212*12	
		18	11-15A	11-15A	HDS63218*15
				14-18A	HDS63218*18
		25	18-25A	HDS63225*25	
		32	23-32A	HDS63232*32	
09		HDS63209*			
12		HDS63212*			
18		HDS63218*			
25		HDS63225*			
32		HDS63232*			
95	40	30-40A	HDS69540*40		
	50	37-50A	HDS69550*50		
	65	48-65A	HDS69565*65		
	80	55-70A	HDS69580*70		
		63-80A	HDS69580*80		
	95	80-95A	HDS69595*95		
	40		HDS69540*		
	50		HDS69550*		
	65		HDS69565*		
	80		HDS69580*		
95		HDS69595*			

Note: "*" means coil voltage code.

Code Table of Coil Voltage

Coil Voltage (V)	24	110	220	230	380	400V	415
50/60Hz	B	F	M	N	Q	V	L



Motor Control and Protection



Applicable Scope

HDS6 Series of Magnetic Starter (hereinafter referred to as "Starter") is mainly used for control AC 50/60Hz and maximum rated working voltage is up to 660V. Direct start and stop of three-phase squirrel cage induction motor with maximum rated working current is up to 95A under AC-3 using type, and overload protection is provided for the motor.

Technical Parameter

Type	Setting Current (A)	Controllable Maximum Motor Power (KW) 380V				Option Type		
		240V	400V	440V	690V	AC Contactor Type	Thermal Overload Relay Type	
HDS6-32	0.1-0.15A	2.2kW	4kW	4kW	5.5kW	HDC60911*	HDR618P15	
	0.12-0.18A	2.2kW	4kW	4kW	5.5kW		HDR618P18	
	0.18-0.25A	2.2kW	4kW	4kW	5.5kW		HDR618P25	
	0.25-0.36A	2.2kW	4kW	4kW	5.5kW		HDR618P36	
	0.35-0.5A	2.2kW	4kW	4kW	5.5kW		HDR618P5	
	0.5-0.7A	2.2kW	4kW	4kW	5.5kW		HDR618P7	
	0.63-0.9A	2.2kW	4kW	4kW	5.5kW		HDR618P9	
	0.9-1.2A	2.2kW	4kW	4kW	5.5kW		HDR6181P2	
	1.2-1.8A	2.2kW	4kW	4kW	5.5kW		HDR6181P8	
	1.8-2.5A	2.2kW	4kW	4kW	5.5kW		HDR6182P5	
	2.5-3.6A	2.2kW	4kW	4kW	5.5kW		HDR6183P6	
	3.5-4.8A	2.2kW	4kW	4kW	5.5kW		HDR6184P8	
	4.5-6.3A	2.2kW	4kW	4kW	5.5kW		HDR6186P3	
	5-7A	2.2kW	4kW	4kW	5.5kW		HDR6187	
	6.3-9A	2.2kW	4kW	4kW	5.5kW		HDR6189	
	9-12A	3kW	5.5kW	5.5kW	7.5kW		HDC61211*	HDR61812
	11-15A	4kW	7.5kW	9kW	10kW		HDC61811*	HDR61815
	14-18A	4kW	7.5kW	9kW	10kW			HDR61818
	18-25A	5.5kW	11kW	11kW	15kW		HDC62511*	HDR63225
23-32A	7.5kW	15kW	15kW	18.5kW	HDC63211*	HDR63232		
HDS6-95	30-40A	11kW	18.5kW	22kW	30kW	HDC64011*	HDR69540	
	37-50A	15kW	22kW	25kW	33kW	HDC65011*	HDR69550	
	48-65A	18.5kW	30kW	37kW	37kW	HDC66511*	HDR69565	
	55-70A	22kW	37kW	45kW	45kW	HDC68011*	HDR69570	
	63-80A	22kW	37kW	45kW	45kW		HDR69580	
	80-95A	25kW	45kW	45kW	45kW	HDC69511*	HDR69595	

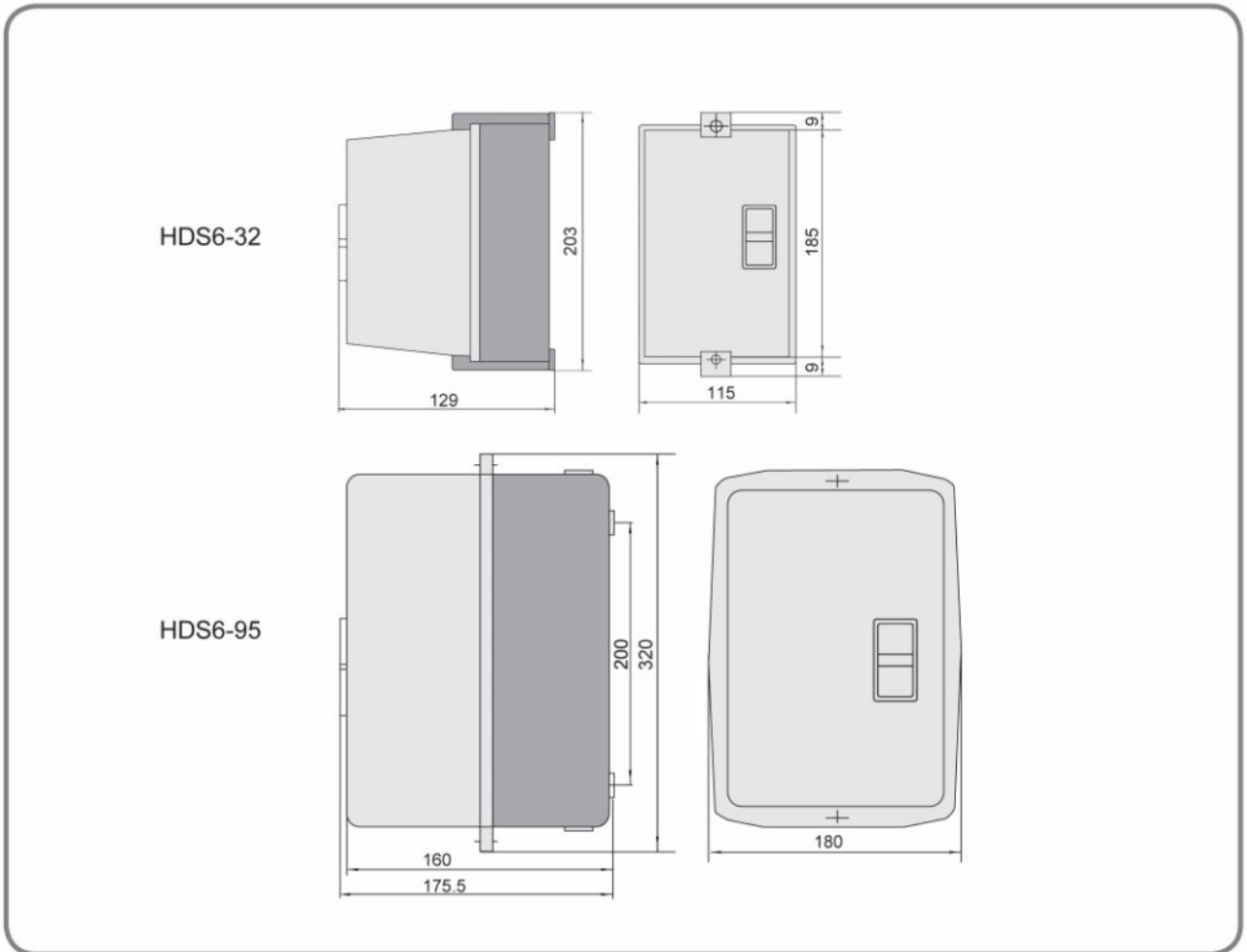


HDS6 Magnetic Starter

Standard: IEC 60947-4



Overall Dimension of Installation (mm)



Control Signal

Indicator Light



HLD11 546

IP degree: IP65

Specification:

AC/DC: 6V 12V 24V 36V 48V 110V 220V 230V 380V

AC: 220V 230V 380V

Pushbutton Switches



HLAY5 550

IP degree: IP55

Specification:

AC-15: 380V/2A 220V/3.3A

DC-13: 220V/0.5A 110V/1.1A



HLAY7 560

IP degree: IP55

Specification:

AC-15: 660V/1.1A

380V/2.0A 220V/3.3A

DC-13: 440V/0.25A

220V/0.5A 110V/1.1A



HLAY8 566

IP degree: IP55

Specification:

AC-15: 660V/1.5A

380V/2.5A 220V/4.5A

DC-13: 440V/0.2A

220V/0.4A 110V/0.8A

HLD11 Indicator Light

Standard: IEC 60947-5-1



Function

HLD11 Series of indicator provides:

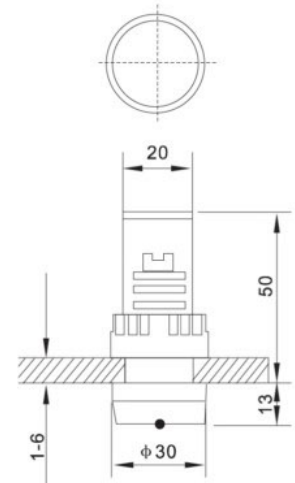
- Pilot signal and alarm signal
- Emergency signals and other instructions incidents signals

Technical Data

Rated voltage	AC/DC (Resistance type) A2,B2: 6V,12V,24V,36V,48V,110V,220V, C2,D2: 6V,12V,24V,36V,48V,110V	AC (Capacitance type) A4,B4,C4,D4: 220V,230V,380V
Rated current (mA)	≤50	≤20
Working life (H)	30000	
Brightness of light (cd/m ²)	≥40	
Power frequency withstand voltage	2500V AC 1min	
Before board protect degree	IP65	

Order Information

Installation dimension	Type	Step-down Type	Rated voltage	Button colour	Reference	Overall Dimensions	Unit:mm
22:φ22	A: Full cover head & long terminal	2: Resistance type 4: Capacitance type	AC.DC 6V	○	HLD1122A21T7		
				●	HLD1122A21T3		
				●	HLD1122A21T4		
				●	HLD1122A21T5		
				●	HLD1122A21T8		
			AC.DC 12V	○	HLD1122A21J7		
				●	HLD1122A21J3		
				●	HLD1122A21J4		
				●	HLD1122A21J5		
				●	HLD1122A21J8		
			AC.DC 24V	○	HLD1122A21B7		
				●	HLD1122A21B3		
				●	HLD1122A21B4		
				●	HLD1122A21B5		
				●	HLD1122A21B8		
			AC.DC 110V	○	HLD1122A21F7		
				●	HLD1122A21F3		
				●	HLD1122A21F4		
				●	HLD1122A21F5		
				●	HLD1122A21F8		
			AC.DC 220V	○	HLD1122A21M7		
				●	HLD1122A21M3		
				●	HLD1122A21M4		
				●	HLD1122A21M5		
●	HLD1122A21M8						
AC 230V	○	HLD1122A41N7					
	●	HLD1122A41N3					
	●	HLD1122A41N4					
	●	HLD1122A41N5					
	●	HLD1122A41N8					



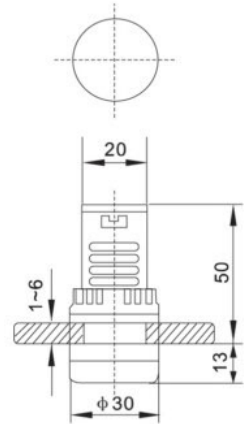
HLD11 Indicator Light

Standard: IEC 60947-5-1



Order Information

Installation dimension	Type	Step-down type	Rated voltage	Button colour	Reference	Overall Dimensions	Unit: mm
22:φ22	B: Half cover head & long terminal	2: Resistance type 4: Capacitance type	AC 380V	○ ● ● ● ●	HLD1122A41Q7 HLD1122A41Q3 HLD1122A41Q4 HLD1122A41Q5 HLD1122A41Q8		
			AC.DC 6V	○ ● ● ● ●	HLD1122B21T7 HLD1122B21T3 HLD1122B21T4 HLD1122B21T5 HLD1122B21T8		
			AC.DC 12V	○ ● ● ● ●	HLD1122B21J7 HLD1122B21J3 HLD1122B21J4 HLD1122B21J5 HLD1122B21J8		
			AC.DC 24V	○ ● ● ● ●	HLD1122B21B7 HLD1122B21B3 HLD1122B21B4 HLD1122B21B5 HLD1122B21B8		
			AC.DC 110V	○ ● ● ● ●	HLD1122B21F7 HLD1122B21F3 HLD1122B21F4 HLD1122B21F5 HLD1122B21F8		
			AC.DC 220V	○ ● ● ● ●	HLD1122B21M7 HLD1122B21M3 HLD1122B21M4 HLD1122B21M5 HLD1122B21M8		
			AC 230V	○ ● ● ● ●	HLD1122B41N7 HLD1122B41N3 HLD1122B41N4 HLD1122B41N5 HLD1122B41N8		
			AC 380V	○ ● ● ● ●	HLD1122B41Q7 HLD1122B41Q3 HLD1122B41Q4 HLD1122B41Q5 HLD1122B41Q8		



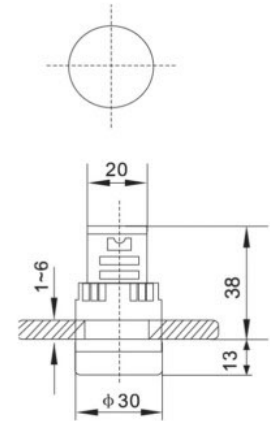
HLD11 Indicator Light

Standard: IEC 60947-5-1



Order Information

Installation dimension	Type	Step-down type	Rated voltage	Button colour	Reference	Overall Dimensions	Unit: mm
22:φ22	C: Full cover head & short terminal	2: Resistance type 4: Capacitance type	AC.DC 6V	○	HLD1122C21T7		
				●	HLD1122C21T3		
				●	HLD1122C21T4		
				●	HLD1122C21T5		
				●	HLD1122C21T8		
			AC.DC 12V	○	HLD1122C21J7		
				●	HLD1122C21J3		
				●	HLD1122C21J4		
				●	HLD1122C21J5		
				●	HLD1122C21J8		
			AC.DC 24V	○	HLD1122C21B7		
				●	HLD1122C21B3		
				●	HLD1122C21B4		
				●	HLD1122C21B5		
				●	HLD1122C21B8		
			AC.DC 110V	○	HLD1122C21F7		
				●	HLD1122C21F3		
				●	HLD1122C21F4		
				●	HLD1122C21F5		
				●	HLD1122C21F8		
			AC 220V	○	HLD1122C41M7		
				●	HLD1122C41M3		
				●	HLD1122C41M4		
				●	HLD1122C41M5		
●	HLD1122C41M8						
AC 230V	○	HLD1122C41N7					
	●	HLD1122C41N3					
	●	HLD1122C41N4					
	●	HLD1122C41N5					
	●	HLD1122C41N8					
AC 380V	○	HLD1122C41Q7					
	●	HLD1122C41Q3					
	●	HLD1122C41Q4					
	●	HLD1122C41Q5					
	●	HLD1122C41Q8					



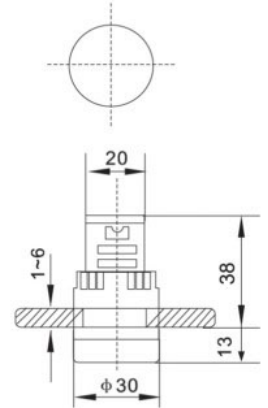
HLD11 Indicator Light

Standard: IEC 60947-5-1



Order Information

Installation dimension	Type	Step-down type	Rated voltage	Button colour	Reference	Overall Dimensions	Unit: mm
22:φ22	D: Half cover head & short terminal	2: Resistance type 4: Capacitance type	AC.DC 6V	○	HLD1122D21T7		
				●	HLD1122D21T3		
				●	HLD1122D21T4		
				●	HLD1122D21T5		
				●	HLD1122D21T8		
			AC.DC 12V	○	HLD1122D21J7		
				●	HLD1122D21J3		
				●	HLD1122D21J4		
				●	HLD1122D21J5		
				●	HLD1122D21J8		
			AC.DC 24V	○	HLD1122D21B7		
				●	HLD1122D21B3		
				●	HLD1122D21B4		
				●	HLD1122D21B5		
				●	HLD1122D21B8		
			AC.DC 110V	○	HLD1122D21F7		
				●	HLD1122D21F3		
				●	HLD1122D21F4		
				●	HLD1122D21F5		
				●	HLD1122D21F8		
			AC 220V	○	HLD1122D41M7		
				●	HLD1122D41M3		
				●	HLD1122D41M4		
				●	HLD1122D41M5		
				●	HLD1122D41M8		
			AC 230V	○	HLD1122D41N7		
				●	HLD1122D41N3		
				●	HLD1122D41N4		
●	HLD1122D41N5						
●	HLD1122D41N8						
AC 380V	○	HLD1122D41Q7					
	●	HLD1122D41Q3					
	●	HLD1122D41Q4					
	●	HLD1122D41Q5					
	●	HLD1122D41Q8					



Industrial Control Components

HLAY5 Pushbutton Switches

Standard: IEC 60947-5-1



- Function** HLAY5 series of pushbutton switches provide:
- Control and indicate the status of the circuit

Technical Data

Usage mode	Rated value						
AC-15	Rated voltage (Ue) V	380	220				
	Rated current (Ie) A	2	3.3				
DC-13	Rated voltage (Ue) V	220	110				
	Rated current (Ie) A	0.5	1.1				
Mechanical endurance	10 ⁵	30 (Flush type), 10 (Illuminated) 1 (Emergency stop, Selective-type, Key-type)					
Electric endurance	10 ⁵	AC-6 (Flush type), DC-3 (Illuminated) 1 (Emergency stop, Selective-type, Key-type)					
Rated thermal current (Ith) A	6						
Before board ingress protection	IP40, and some specifications can reach IP55 or IP65 with protection cover						
Illuminated pushbutton							
Power supplier voltage	V	6	12	24	110	220	380
LED		✓	✓	✓	✓	✓	-
Neon lamp		-	-	-	✓	✓	✓
Filament lamp		✓	✓	✓	-	-	-

Rated impulse withstand voltage (Uimp) V: 6000

Working Condition

Temperature	-5°C to +40°C
Relative humidity	≤50% (40°C) 90% (20°C)
Altitude	≤2000m
Pollution degree	3



Industrial Control Components

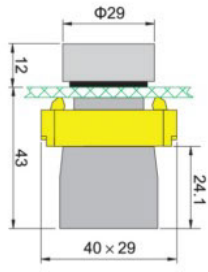



HLAY5 Pushbutton Switches

Standard: IEC 60947-5-1



Order Information

Flush						Unit: mm
Name	Material	Type	Color	NO + NC	Reference	Dimension
HLAY5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	B: Metal	Self-return flush button	1: White 2: Black 3: Green 4: Red 5: Yellow 6: Blue	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	○ HLAY5BA15 ● HLAY5BA25 ● HLAY5BA31 ● HLAY5BA42 ● HLAY5BA55 ● HLAY5BA65	
	E: Plastic	Self-return flush button	1: White 2: Black 3: Green 4: Red 5: Yellow 6: Blue	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	○ HLAY5EA15 ● HLAY5EA25 ● HLAY5EA31 ● HLAY5EA42 ● HLAY5EA55 ● HLAY5EA65	


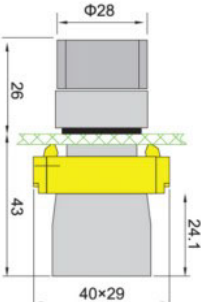
Industrial Control Components


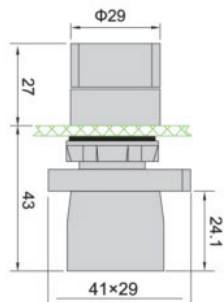

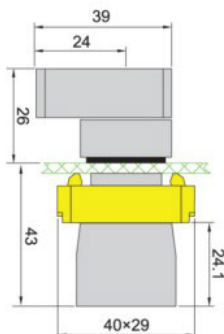

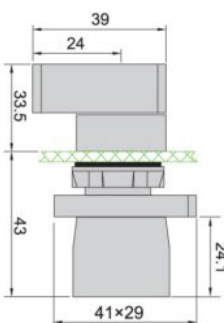
HLAY5 Selector Switches

Standard: IEC 60947-5-1



Order Information

Selector Switch						Unit: MM	
Name	Material	Type	Operation	NO + NC	Reference	Dimension	
HLAY5	□	□	□	□			
	B: Metal	D: Rotary button with short handle	2:2p C R 3:3p L C R 4:2p C R 5:3p L C R	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC 6: 2NO+1NC 7: 1NO+2NC	HLAY5BD21 HLAY5BD25 HLAY5BD33 HLAY5BD45 HLAY5BD53		

Selector Switches						Unit: mm	
Name	Material	Type	Operation	NO + NC	Reference	Dimension	
HLAY5	□	□	□	□			
	E: Plastic	D: Rotary button with short handle	2:2p C R 3:3p L C R 4:2p reset C R 5:3p reset L C R	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	HLAY5ED21 HLAY5ED25 HLAY5ED33 HLAY5ED45 HLAY5ED55		
	B: Metal	J: Rotary button with long handle	2:2p 3:3p 4:2p reset 5:3p reset	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	HLAY5BJ21 HLAY5BJ25 HLAY5BJ33 HLAY5BJ45 HLAY5BJ55		
	E: Plastic	J: Rotary button with long handle	2:2p 3:3p 4:2p reset 5:3p reset	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	HLAY5EJ21 HLAY5EJ25 HLAY5EJ33 HLAY5EJ45 HLAY5EJ55		

Industrial Control Components



2p:2-position self-locking 3p:3-position self-locking 2p reset:2-position self-return 3p reset:3-position self-return

HAY5 Selector Switches

Standard: IEC 60947-5-1

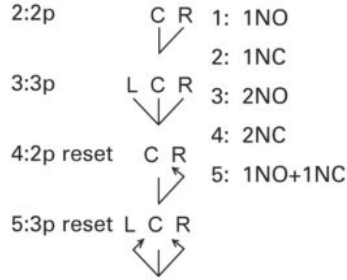


Order Information

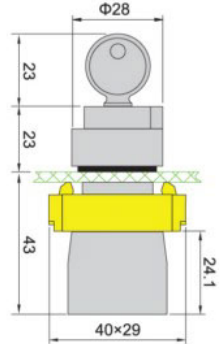
Key-operated Selector Switches						Unit: mm
Name	Material	Type	Operation	NO + NC	Reference	Dimension
HAY5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		



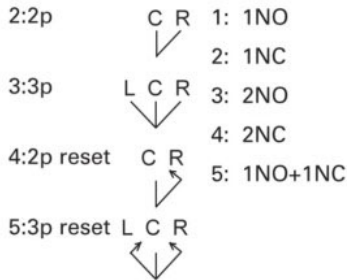
B: Metal G: Key button



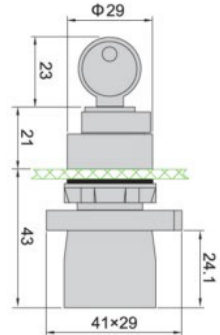
HAY5BG21
 HAY5BG25
 HAY5BG33
 HAY5BG45
 HAY5BG55



E: Plastic G: Key button



HAY5EG21
 HAY5EG25
 HAY5EG33
 HAY5EG45
 HAY5EG55


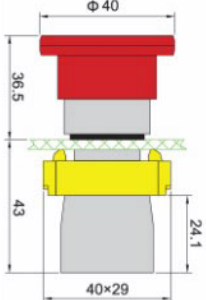

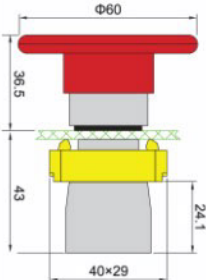

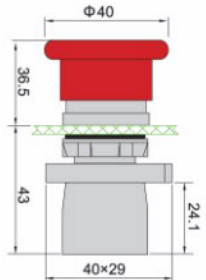

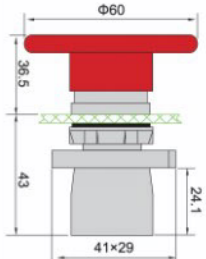


HLAY5 Pushbutton Switches

Standard: IEC 60947-5-1



Order Information

Mushroom Button						Unit: MM	
Name	Material	Type	Color	NO + NC	Reference	Dimension	
	B Metal	C: $\Phi 40$ Mushroom	3 Green 4 Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	<ul style="list-style-type: none"> ● HLAY5BC31 ● HLAY5BC42 ● HLAY5BC35 ● HLAY5BC45 		
	B: Metal	R: $\Phi 60$ Mushroom	3 Green 4 Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	<ul style="list-style-type: none"> ● HLAY5BR31 ● HLAY5BR42 ● HLAY5BR35 ● HLAY5BR45 		
	E: Plastic	C: $\Phi 40$ Mushroom	3 Green 4 Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	<ul style="list-style-type: none"> ● HLAY5EC31 ● HLAY5EC42 ● HLAY5EC35 ● HLAY5EC45 		
	E: Plastic	R: $\Phi 60$ Mushroom	3 Green 4 Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	<ul style="list-style-type: none"> ● HLAY5ER31 ● HLAY5ER42 ● HLAY5ER35 ● HLAY5ER45 		


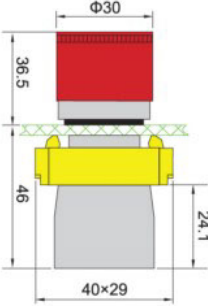

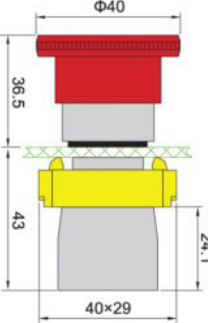

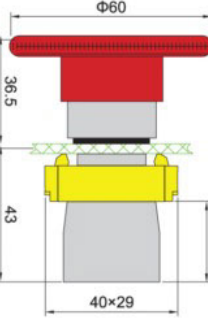


HLAY5 Pushbutton Switches

Standard: IEC 60947-5-1



Order Information

Emergency Stop Button							Unit: mm
Name	Material	Type	Head	Color	NO + NC	Reference	Dimension
HLAY5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	B Metal	S: Rotary reset emergency stop button	4: $\phi 30$	3 Green 4 Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	<ul style="list-style-type: none"> ● HLAY5BS431 ● HLAY5BS442 ● HLAY5BS435 ● HLAY5BS445 	
	B Metal	S: Rotary reset emergency stop button	5: $\phi 40$	3 Green 4 Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	<ul style="list-style-type: none"> ● HLAY5BS531 ● HLAY5BS542 ● HLAY5BS535 ● HLAY5BS545 	
	B Metal	S: Rotary reset emergency stop button	6: $\phi 60$	3 Green 4 Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	<ul style="list-style-type: none"> ● HLAY5BS631 ● HLAY5BS642 ● HLAY5BS635 ● HLAY5BS645 	


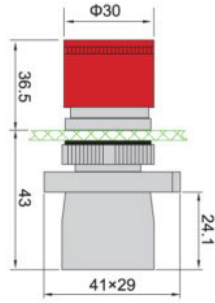
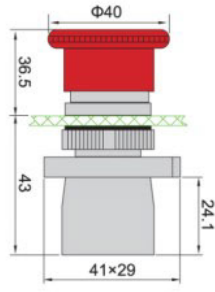
Industrial Control Components

HLAY5 Pushbutton Switches

Standard: IEC 60947-5-1



Order Information

Emergency Stop Button							Unit: mm
Name	Material	Type	Head	Color	NO + NC	Reference	Dimension
HLAY5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	E: Plastic	S: Rotary reset emergency stop button	4: $\Phi 30$	3 Green 4 Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	<ul style="list-style-type: none"> ● HLAY5ES431 ● HLAY5ES442 ● HLAY5ES435 ● HLAY5ES445 	
	E: Plastic	S: Rotary reset emergency stop button	5: $\Phi 40$	3 Green 4 Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	<ul style="list-style-type: none"> ● HLAY5ES531 ● HLAY5ES542 ● HLAY5ES535 ● HLAY5ES545 	
	E: Plastic	S: Rotary reset emergency stop button	6: $\Phi 60$	3 Green 4 Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	<ul style="list-style-type: none"> ● HLAY5ES631 ● HLAY5ES642 ● HLAY5ES635 ● HLAY5ES645 	

Industrial Control Components


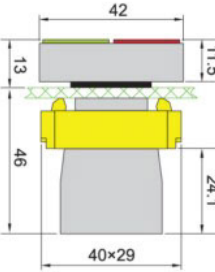

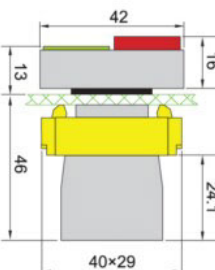


HLAY5 Pushbutton Switches

Standard: IEC 60947-5-1



Order Information

Two-head Button							Unit: mm
Name	Material	Type	Head	No. of head	NO + NC	Reference	Dimension
HLAY5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	B: Metal	L8:Two-head	3: Flush button	2: 2	5: 1NO+1NC	HLAY5BL8325	
	B: Metal	L8:Two-head	4: One flat and one high button	2: 2	5: 1NO+1NC	HLAY5BL8425	


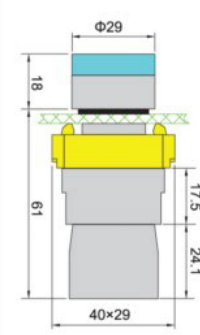

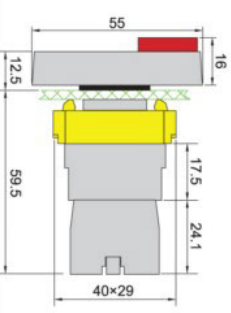

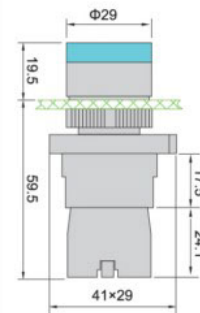

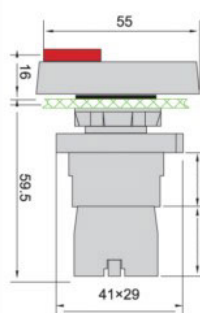
Industrial Control Components

HLY5 Pushbutton Switches

Standard: IEC 60947-5-1



Order Information

Illuminated Pushbutton Switches							Unit: mm	
Name	Material	Type	Color	Voltage	NO + NC	Light	Reference	Dimension
HLY5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	B: Metal	W3: Self-return flush button with lamp	1: White 3: Green 4: Red 5: Yellow 6: Blue 7: Pure white 8: Pure blue	T: 6V B: 24V F: 110V M: 220V Q: 380V	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	N: Neon L: LED Blank: Filament	○ HLAY5BW31*5* ● HLAY5BW33*1* ● HLAY5BW34*2* ● HLAY5BW35*5* ● HLAY5BW36*5* ● HLAY5BW37*5* ● HLAY5BW38*5*	
	B: Metal	W84: Two-head button with lamp		T: 6V B: 24V F: 110V M: 220V Q: 380V	5: 1NO+1NC	N: Neon L: LED Blank: Filament	HLAY5BW84*5*	
	E: Plastic	W3: Self-return flush button with lamp	1: White 3: Green 4: Red 5: Yellow 6: Blue 7: Pure white 8: Pure blue	T: 6V B: 24V F: 110V M: 220V Q: 380V	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC	N: Neon L: LED Blank: Filament	○ HLAY5EW31*5* ● HLAY5EW33*2* ● HLAY5EW34*1* ● HLAY5EW35*5* ● HLAY5EW36*5* ● HLAY5EW37*5* ● HLAY5EW38*5*	
	E: Plastic	W84: Two-head button with lamp		T: 6V B: 24V F: 110V M: 220V Q: 380V	5: 1NO+1NC	N: Neon L: LED Blank: Filament	HLAY5EW84*5*	

Note: Supply voltage code: T:6V, B:24V, F:110V, M:220V, N:230V, Q:380V
The pure white and pure blue are only available for LED lamp

Industrial Control Components



HLAY5 Pushbutton Switches

Standard: IEC 60947-5-1



Order Information

Pilot Light Lamp							Unit: mm
Name	Material	Type	Voltage	Color	Light	Reference	Dimension
HLAY5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		



B: Metal

V: Pilot Light

T: 6V

1: White

N: Neon

B: 24V

3: Green

L: LED

F: 110V

4: Red

Blank:

M: 220V

5: Yellow

Filament

Q: 380V

6: Blue

7: Pure white

8: Pure blue

○ HLAY5BV*1*

● HLAY5BV*3*

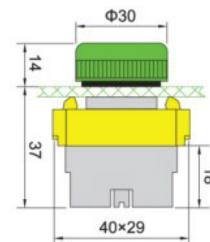
● HLAY5BV*4*

● HLAY5BV*5*

● HLAY5BV*6*

○ HLAY5BV*7*

● HLAY5BV*8*



Base				Unit: MM
Name	Type	Contact	Reference	Dimension
HLAY5	<input type="checkbox"/>	<input type="checkbox"/>		



BE: Auxiliary contact

101: 1NO

102: 1NC

103: 2NO

104: 2NC

105: 1NO+1NC

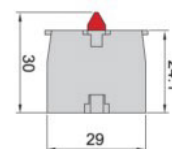
HLAY5BE101

HLAY5BE102

HLAY5BE103

HLAY5BE104

HLAY5BE105



Note: Supply voltage code: T:6V, B:24V, F:110V, M:220V, N:230V, Q:380V
The pure white and pure blue are only available for LED lamp

HLAY7 Pushbutton Switches

Standard: IEC 60947-5-1



Function HLAY7 series of pushbutton switches provide:

- Control and indicate the status of the circuit

Technical Data

Usage mode	Rated value			
AC-15	Rated voltage (Ue) V	660	380	220
	Rated current (Ie) A	1.1	2	3.3
DC-13	Rated voltage (Ue) V	440	220	110
	Rated current (Ie) A	0.25	0.5	1.1
Mechanical endurance	10 ⁵	30 (Flush type), 10 (With lamp) 0.5 (Emergency stop, Rotary, Key-type)		
Electric endurance	10 ⁵	6 (Flush type), 1 (With lamp) 0.5 (Emergency stop, Rotary, Key-type)		
Rated thermal current (Ith)	A	10		
Operation frequency	T/h	1200		
Contact resistance	m Ω	≤50		
Illuminated pushbutton				
		Filament lamp	Neon lamp	LED
Working voltage (Ue)V		6,12, 24	110, 220, 380	6,12, 24
Lifetime h		≥1000	≥2000	≥3000

Working Condition

Ambient temperature	-5°C~+40°C
Relative humidity	≤ 50% (40°C) 90% (20°C)
Altitude	≤ 2000m
Pollution degree	3



Industrial Control Components


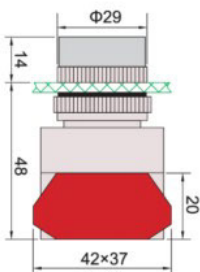

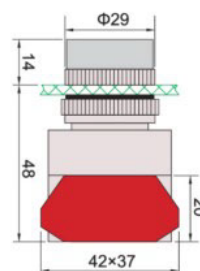

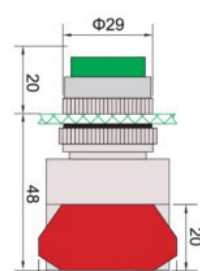

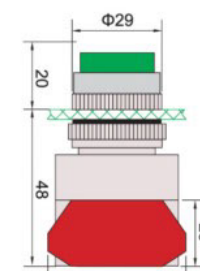


HLAY7 Pushbutton Switches

Standard: IEC 60947-5-1



Order Information

Flush Button						Unit: mm
Name	NO + NC	Type	Color	Installation	Reference	Dimension
HLAY7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	BN: Flush button	1: White 2: Back 3: Green 4: Red 5: Yellow 6: Blue	2: Φ 22 3: Φ 25 4: Φ 30	○ HLAY711BN12 ● HLAY711BN22 ● HLAY711BN32 ● HLAY711BN42 ● HLAY711BN52 ● HLAY711BN62	
	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	BNZS: Self-locking flush button	3: Green 4: Red	2: Φ 22 3: Φ 25 4: Φ 30	● HLAY711BNZS32 ● HLAY711BNZS42	
	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	GN: High button	3: Green 4: Red	2: Φ 22 3: Φ 25 4: Φ 30	● HLAY711GN32 ● HLAY711GN42	
	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	GNZS: Self-locking high button	3: Green 4: Red	2: Φ 22 3: Φ 25 4: Φ 30	● HLAY711GNZS32 ● HLAY711GNZS42	

Industrial Control Components

HLAY7 Pushbutton Switches

Standard: IEC 60947-5-1



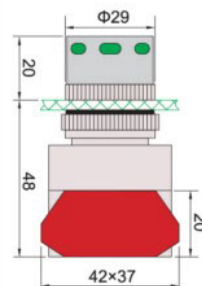
Order Information

Flush Button						Unit: mm	
Name	NO + NC	Type	Color	Installation	Reference	Dimension	
HLAY7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			



- 10: 1NO
 - 01: 1NC
 - 20: 2NO
 - 02: 2NC
 - 11: 1NO+1NC
- JN: Full protection
- 3: Green
 - 4: Red
- 2: Φ 22
 - 3: Φ 25
 - 4: Φ 30

- HLAY711JN32
- HLAY711JN42

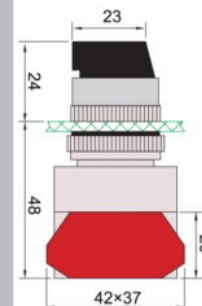


Selective Switches						Unit: mm	
Name	NO + NC	Type	Operation	Color	Installation	Reference	Dimension
HLAY7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		



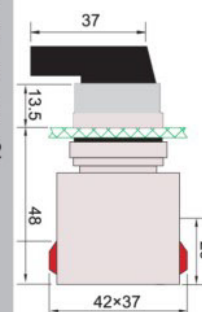
- 10: 1NO
 - 01: 1NC
 - 20: 2NO
 - 02: 2NC
 - 11: 1NO+1NC
- X: Rotary button with short handle
- 20:2p
 - 21:2p reset
 - 30:3p
 - 31:3p reset
 - 33:3p reset
-
- 2: Black
 - 3: Green
 - 4: Red
- 2: Φ 22
 - 3: Φ 25
 - 4: Φ 30

- HLAY711X2022
- HLAY711X2132
- HLAY711X3042
- HLAY711X3122
- HLAY720X3022



- 10: 1NO
 - 01: 1NC
 - 20: 2NO
 - 02: 2NC
 - 11: 1NO+1NC
- XB: Rotary button with long handle
- 20:2p
 - 21:2p reset
 - 30:3p
 - 31:3p reset
 - 33:3p reset
-
- 2: Black
 - 3: Green
 - 4: Red
- 2: Φ 22
 - 3: Φ 25
 - 4: Φ 30

- HLAY711XB2022
- HLAY711XB2132
- HLAY711XB3042
- HLAY711XB3022
- HLAY720XB3322



2p:2-position 3p:3-position 2p reset:2-position self-return on right 3p reset:3-position self-return on right and holding on left

HLAY7 Pushbutton Switches

Standard: IEC 60947-5-1

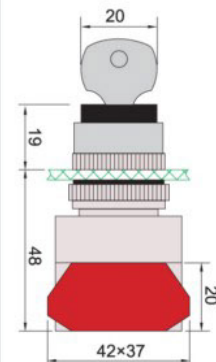


Order Information

Key-operated Selective Switches						Unit: mm
Name	NO + NC	Type	Operation	Installation	Reference	Dimension
HLAY7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		



10: 1NO	Y: Key-operated	20:2p	C R	2: ϕ 22	HLAY711Y202
01: 1NC			↙ ↘	3: ϕ 25	HLAY711Y212
20: 2NO		21:2p	C R	4: ϕ 30	HLAY711Y302
02: 2NC			↙ ↘		HLAY711Y312
11: 1NO+1NC		30:3p	L C R		HLAY711Y332
			↙ ↘		
		31:3p reset	L C R		
			↙ ↘		
		33:3p reset	L C R		
			↙ ↘		



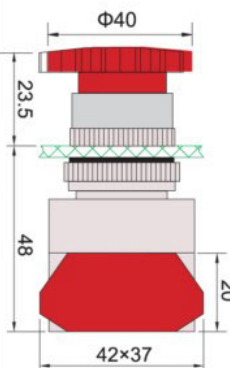
Mushroom Button						Unit: mm
Name	NO + NC	Type	Color	Installation	Reference	Dimension
HLAY7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		



10: 1NO	M: Mushroom button	3: Green	2: ϕ 22	● HLAY711M32
01: 1NC		4: Red	3: ϕ 25	● HLAY711M42
20: 2NO			4: ϕ 30	
02: 2NC				
11: 1NO+1NC				



10: 1NO	MZS: Self-locking mushroom button	3: Green	2: ϕ 22	● HLAY711MZS32
01: 1NC		4: Red	3: ϕ 25	● HLAY711MZS42
20: 2NO			4: ϕ 30	
02: 2NC				
11: 1NO+1NC				



2p:2-position 3p:3-position 2p reset:2-position self-return on right 3p reset:3-position self-return on right and holding on left

HLAY7 Pushbutton Switches

Standard: IEC 60947-5-1



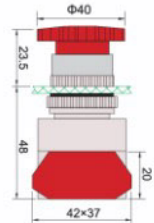
Order Information

Emergency Stop Button						Unit: mm	
Name	NO + NC	Type	Color	Installation	Reference	Dimension	
HLAY7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			



10: 1NO	ZS: Emergency stop button	3: Green	2: Φ 22
01: 1NC		4: Red	3: Φ 25
20: 2NO			4: Φ 30
02: 2NC			
11: 1NO+1NC			

- HLAY710ZS32
- HLAY701ZS42
- HLAY711ZS32
- HLAY711ZS42



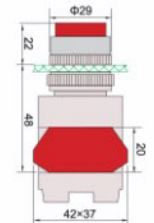
Illuminated Pushbutton Switches

							Unit: mm	
Name	NO + NC	Type	Color	Voltage	Installation	Light	Reference	Dimension
HLAY7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		



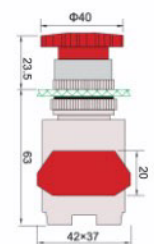
10: 1NO	D: Button with lamp	3: Green	T: 6V	2: Φ 22	N: Neon
01: 1NC		4: Red	B: 24V	3: Φ 25	L: LED
20: 2NO		5: Yellow	F: 110V	4: Φ 30	Default:
02: 2NC		6: Blue	M: 220V		Filament
11: 1NO+1NC		7: Pure white	Q: 380V		
		8: Pure blue			

- HLAY711D3*2*
- HLAY711D4*2*
- HLAY711D5*2*
- HLAY711D6*2*
- HLAY711D7*2*
- HLAY711D8*2*



10: 1NO	DZS: Self-locking button with lamp	3: Green	T: 6V	2: Φ 22	N: Neon
01: 1NC		4: Red	B: 24V	3: Φ 25	L: LED
20: 2NO		5: Yellow	F: 110V	4: Φ 30	Default:
02: 2NC		6: Blue	M: 220V		Filament
11: 1NO+1NC		7: Pure white	Q: 380V		
		8: Pure blue			

- HLAY711DZS3*2*
- HLAY711DZS4*2*
- HLAY711DZS5*2*
- HLAY711DZS6*2*
- HLAY711DZS7*2*
- HLAY711DZS8*2*



10: 1NO	DM: Mushroom button with lamp	3: Green	T: 6V	2: Φ 22	N: Neon
01: 1NC		4: Red	B: 24V	3: Φ 25	L: LED
20: 2NO			F: 110V	4: Φ 30	Default:
02: 2NC			M: 220V		Filament
11: 1NO+1NC			Q: 380V		

- HLAY711DM3*2*
- HLAY711DM4*2*



10: 1NO	DMZS: Self-locking mushroom button with lamp	3: Green	T: 6V	2: Φ 22	N: Neon
01: 1NC		4: Red	B: 24V	3: Φ 25	L: LED
20: 2NO			F: 110V	4: Φ 30	Default:
02: 2NC			M: 220V		Filament
11: 1NO+1NC			Q: 380V		

- HLAY711DMZS3*2*
- HLAY711DMZS4*2*

Note: Supply voltage code: T:6V, B:24V, F:110V, M:220V, N:230V, Q:380V
The pure white and pure blue are only available for LED lamp



HLAY7 Pushbutton Switches

Standard: IEC 60947-5-1

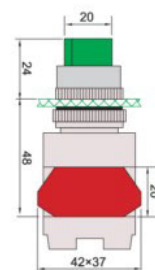


Order Information

Illuminated Selective Switches									Unit: mm
Name	NO + NC	Type	Operation	Color	Voltage	Install	Light	Reference	Dimension



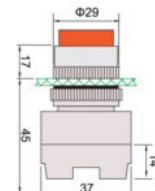
10: 1NO	XD: Rotary button with lamp	20:2p	C R	3: Green	T: 6V	2: Φ 22	N: Neon	● HLAY711XD203*2*
01: 1NC				4: Red	B: 24V	3: Φ 25	L: LED	● HLAY711XD204*2*
20: 2NO					F: 110V	4: Φ 30	Default:	● HLAY711XD303*2*
02: 2NC		30:3p	L C R		M: 220V		Filament	● HLAY711XD304*2*
11: 1NO+1NC					Q: 380V			



Indication Lamp							Unit: mm
Name	Type	Color	Voltage	Installation	Reference	Dimension	



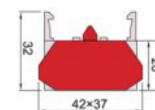
XD1: Filament	1: White	T: 6V	2: Φ 22	○ HLAY7XD11*2
XD2: Neon	3: Green	B: 24V		● HLAY7XD23*2
XD3: LED	4: Red	F: 110V		● HLAY7XD34*2
	5: Yellow	M: 220V		● HLAY7XD15*2
	6: Blue	Q: 380V		● HLAY7XD26*2
	7: Pure white			○ HLAY7XD37*2
	8: Pure blue			● HLAY7XD38*2



Base				Unit: mm
Name	Type	Contact	Reference	Dimension



BE: Auxiliary contact				
		101: 1NO	HLAY7BE101	
		102: 1NC	HLAY7BE102	
		103: 2NO	HLAY7BE103	
		104: 2NC	HLAY7BE104	
		105: 1NO+1NC	HLAY7BE105	



Note: Supply voltage code: T:6V, B:24V, F:110V, M:220V, N:230V, Q:380V
The pure white and pure blue are only available for LED lamp.

2p:2-position 3p:3-position

HLAY8 Pushbutton Switches

Standard: IEC 60947-5-1



Function

HLAY8 series pushbutton switches provide:

- Control and indicate the status of the circuit

Technical Data

Usage mode	Rated value	
AC-15	Rated voltage (Ue) V	660 380 220
	Rated current (Ie) A	1.5 2.5 4.5
DC-13	Rated voltage (Ue) V	440 220 110
	Rated current (Ie) A	0.25 0.4 0.8
Mechanical endurance	10 ⁵	30 Flush type 3 Rotary, 0.5 Emergency stop, Key-type
Electric endurance	10 ⁵	6 (Flush type), 1 (With lamp) 0.5 (Emergency stop, Key-type)
Rated thermal current (Ith)	A	10
Contact resistance	m Ω	≤50
Illuminated pushbutton		
Rated working voltage (Ue)V	6 12 24 36 48 110 220 230 380	
Power supply	AC, DC	
Rated working current (Ie)mA	≤50	
		AC
		≤20

Working Condition

Ambient temperature	-5°C ~ +40°C
Relative humidity	≤50% (40°C) 90% (20°C)
Altitude	≤2000m
Pollution degree	3


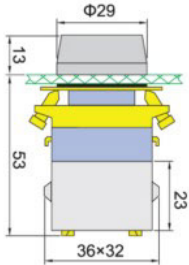

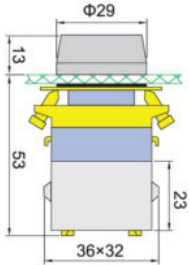

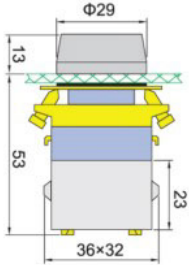


HLAY8 Pushbutton Switches

Standard: IEC 60947-5-1



Order Information

Flush Button					Unit: mm	
Name	NO + NC	Type	Color	Reference	Dimension	
HLAY8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	BN: Flush button	1: White 2: Black 3: Green 4: Red 5: Yellow 6: Blue	○ HLAY811BN1 ● HLAY811BN2 ● HLAY811BN3 ● HLAY811BN4 ● HLAY811BN5 ● HLAY811BN6		
	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	BNZS: Self-locking flush button	3: Green 4: Red 5: Yellow	● HLAY811BNZS3 ● HLAY811BNZS4 ● HLAY811BNZS5		
	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	S: Waterproof	3: Green 4: Red 5: Yellow	● HLAY811S3 ● HLAY811S4 ● HLAY811S5		

HLAY8 Pushbutton Switches

Standard: IEC 60947-5-1

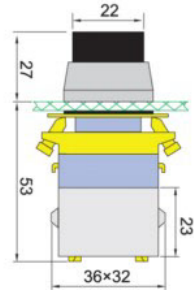


Order Information

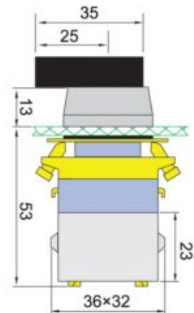
Selective Switches						Unit: mm
Name	NO + NC	Type	Operation	Color	Reference	Dimension
HLAY8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		



10: 1NO	X: Rotary	20:2p	C R	2: Black	<ul style="list-style-type: none"> ● HLAY811X202 ● HLAY811X213 ● HLAY811X304 ● HLAY811X312 ● HLAY820X332
01: 1NC	button with	21:2p reset	C R	3: Green	
20: 2NO	short handle	30:3p	L C R	4: Red	
02: 2NC		31:3p reset	L C R		
11: 1NO+1NC		33:3p reset	L C R		



10: 1NO	XB: Rotary	20:2p	C R	2: Black	<ul style="list-style-type: none"> ● HLAY811XB202 ● HLAY811XB213 ● HLAY811XB304 ● HLAY811XB312 ● HLAY820XB332
01: 1NC	button with	21:2p reset	C R	3: Green	
20: 2NO	long handle	30:3p	L C R	4: Red	
02: 2NC		31:3p reset	L C R		
11: 1NO+1NC		33:3p reset	L C R		



Industrial Control Components


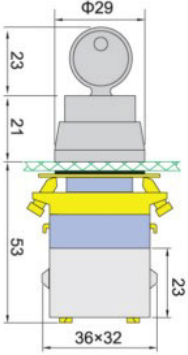



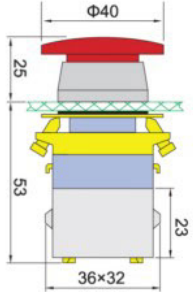

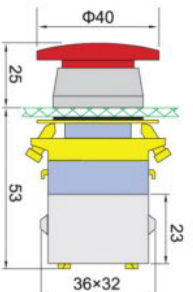
HLAY8 Pushbutton Switches

Standard: IEC 60947-5-1



Order Information

Key-operated Selective Switches					Unit: mm	
Name	NO + NC	Type	Operation	Reference	Dimension	
HLAY8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	10: 1NO	Y: Key-operated	20:2p	C R	HLAY811Y20 HLAY811Y21 HLAY820Y30 HLAY811Y31 HLAY811Y33	
	01: 1NC			C R		
	20: 2NO		21:2p reset	C R		
	02: 2NC		30:3p	L C R		
	11: 1NO+1NC		31:3p reset	L C R		
			33:3p reset	L C R		

Mushroom Button					Unit: mm
Name	NO + NC	Type	Color	Reference	Dimension
HLAY8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	10: 1NO	M: Mushroom button	3: Green	● HLAY811M3	
	01: 1NC		4: Red	● HLAY811M4	
	20: 2NO				
	02: 2NC				
	11: 1NO+1NC				
	10: 1NO	MZS: Self-locking mushroom button	3: Green	● HLAY811MZS3	
	01: 1NC		4: Red	● HLAY811MZS4	
	20: 2NO				
	02: 2NC				
	11: 1NO+1NC				

2p:2-position 3p:3-position 2p reset:2-position self-return on right 3p reset:3-position self-return on both right and left

HLAY8 Pushbutton Switches

Standard: IEC 60947-5-1



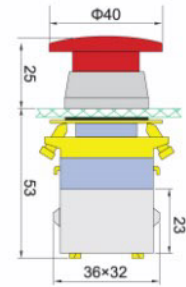
Order Information

Emergency Stop Button					Unit: mm	
Name	NO + NC	Type	Color	Reference	Dimension	
HLAY8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			



10: 1NO	ZS: emergency stop button	3: Green
01: 1NC		4: Red
20: 2NO		
02: 2NC		
11: 1NO+1NC		

- HLAY811ZS3
- HLAY811ZS4



Illuminated Pushbutton Switches						Unit: mm	
Name	NO + NC	Type	Color	Voltage	Power	Reference	Dimension
HLAY8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		



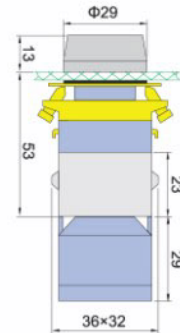
10: 1NO	D: Button with lamp	3: Green	T: 6V	2: AC/DC	● HLAY811D3*4
01: 1NC		4: Red	B: 24V	4: AC	● HLAY811D4*4
20: 2NO		5: Yellow	F: 110V		● HLAY811D5*2
02: 2NC		6: Blue	M: 220V		● HLAY811D6*2
11: 1NO+1NC		7: Pure white	Q: 380V		○ HLAY811D7*2
		8: Pure blue			● HLAY811D8*2



10: 1NO	DZS: Self-locking button with lamp	3: Green	T: 6V	2: AC/DC	● HLAY811DZS3*4
01: 1NC		4: Red	B: 24V	4: AC	● HLAY811DZS4*4
20: 2NO		5: Yellow	F: 110V		● HLAY811DZS5*2
02: 2NC		6: Blue	M: 220V		● HLAY811DZS6*2
11: 1NO+1NC		7: Pure white	Q: 380V		○ HLAY811DZS7*2
		8: Pure blue			● HLAY811DZS8*4



10: 1NO	DS: Waterproof button with lamp	3: Green	T: 6V	2: AC/DC	● HLAY811DS3*4
01: 1NC		4: Red	B: 24V	4: AC	● HLAY811DS4*4
20: 2NO			F: 110V		● HLAY811DS5*2
02: 2NC			M: 220V		
11: 1NO+1NC			Q: 380V		



Note: Supply voltage code: T:6V, B:24V, F:110V, M:220V, N:230V, Q:380V
The pure white and pure blue are only available for LED lamp


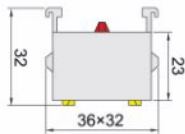


HLAY8 Pushbutton Switches

Standard: IEC 60947-5-1



Order Information

Base				Unit: MM
Name	Type	Contact	Reference	Dimension
HLAY8	□	□		
	BE: Auxiliary contact	101: 1NO 102: 1NC 103: 2NO 104: 2NC 105: 1NO+1NC	HLAY8BE101 HLAY8BE102 HLAY8BE103 HLAY8BE104 HLAY8BE105	



Fuse Overview

Fuse



HRT16 573

Rated operating current:
2-630A

Rated operating voltage:
500/690V

Rated breaking capacity:
120kA(500V),50kA(690V)



HRT18 576

Rated operating current:
2-63A

Rated operating voltage:
380V

Rated breaking capacity:
100kA

Function

HRT16 fuse provides:

- Protection of circuits against overload current
- Protection of circuits against short-circuit current

Order Information

Fuse-link	Rated Current In (A)	Suitable fuse base	Weight (g)	Reference
HRT16-00C	2	HRT16-00	123	HRT16000S2
	4			HRT16000S4
	6			HRT16000S6
	8			HRT16000S8
	10			HRT16000S10
	12			HRT16000S12
	16			HRT16000S16
	20			HRT16000S20
	25			HRT16000S25
	32			HRT16000S32
	40			HRT16000S40
	50			HRT16000S50
	63			HRT16000S63
	80			HRT16000S80
100	HRT16000S100			
HRT16-00	2	HRT16-00	170	HRT16002
	4			HRT16004
	6			HRT16006
	8			HRT16008
	10			HRT160010
	12			HRT160012
	16			HRT160016
	20			HRT160020
	25			HRT160025
	32			HRT160032
	40			HRT160040
	50			HRT160050
	63			HRT160063
	80			HRT160080
	100			HRT1600100
	125			HRT1600125
160	HRT1600160			
HRT16-1	80	HRT16-1	450	HRT16180
	100			HRT161100
	125			HRT161125
	160			HRT161160
	200			HRT161200
	250			HRT161250
HRT16-2	125	HRT16-2	660	HRT162125
	160			HRT162160
	200			HRT162200
	250			HRT162250
	300			HRT162300
	315			HRT162315
	355			HRT162355
	400			HRT162400



HRT16 Fuse

Standard: IEC 60269



Order Information

Fuse-link	Rated Current In (A)	Suitable fuse base	Weight (g)	Reference
HRT16-3	315	HRT16-3	850	HRT163315
	355			HRT163355
	400			HRT163400
	450			HRT163450
	500			HRT163500
	630			HRT163630

Order Information

Fuse Base	Rated Current In(A)	Material	Weight (g)	Reference
HRT16-00	160	Resin	200	HRT1600ZS
HRT16-1	250	Resin	700	HRT161ZS
HRT16-2	400	Resin	1150	HRT162ZS
HRT16-3	630	Resin	1280	HRT163ZS

Technical Data

Rated operating current	2-630A
Rated operating voltage	AC500/690V DC250/440V
Rated breaking capacity	120kA(500), 50kA(500V)

Accessory-puller

Material	Usage	Reference
ABS (flame resistance)	Assemble and replace HRT16 fuse	HRT16C

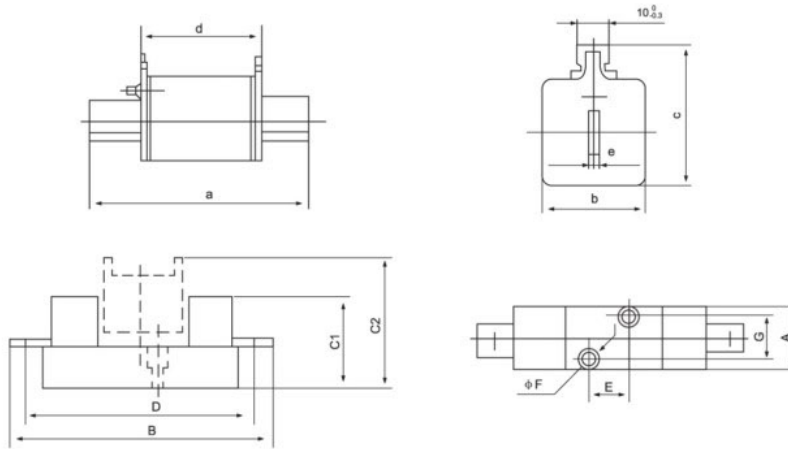


Industrial Control Components



Overall Dimensions

Unit: mm



Type	HRT16-00C	HRT16-00	HRT16-1	HRT16-2	HRT16-3
a	78.5	78.5	135	150	150
b	21	29	48	58	67
c	57	57	62	72	85
d	49	49	67	67	67
e	6	6	6	6	6
A	-	30	58	64	64
B	-	120	200	250	250
C1	-	61	83	99	105
C2	-	85	96	112	120
D	-	100	175	200	210
E	-	25	25	25	25
F	-	7.5	10.5	10.5	10.5
G	-	—	30	30	30

Industrial Control Components

HRT18 Fuse

Standard: IEC 60269



Function

HRT18 fuse provides:

- Protection of circuits against overload current
- Protection of circuits against short-circuit current

Order Information

Cylindrical Fuse	Rated Current In(A)	Weight (g)	Reference
HRT18-32	2	8	HRT1810382
	4		HRT1810384
	6		HRT1810386
	8		HRT1810388
	10		HRT18103810
	12		HRT18103812
	16		HRT18103816
	20		HRT18103820
	25		HRT18103825
	32		HRT18103832
HRT18-63	2	20	HRT1814512
	4		HRT1814514
	6		HRT1814516
	8		HRT1814518
	10		HRT18145110
	12		HRT18145112
	16		HRT18145116
	20		HRT18145120
	25		HRT18145125
	32		HRT18145132
	40		HRT18145140
	50		HRT18145150
	63		HRT18145163



Industrial Control Components



HRT18 Fuse

Standard: IEC 60269



Order Information

Holder of fuse	Pole	Rated Current In(A)	Note	Weight (g)	Reference
HRT18-32X	1P	32	Material: Resin	82	HRT1832ZXB
	2P		With indicator		HRT1832Z2XB
	3P				HRT1832Z3XB
HRT18-32	1P	32	Material: Resin	82	HRT1832ZB
	2P		Without indicator		HRT1832Z2B
	3P				HRT1832Z3B
HRT18-32X	1P	32	Material: Nylon	82	HRT1832ZX
	2P		With indicator		HRT1832Z2X
	3P				HRT1832Z3X
HRT18-32	1P	32	Material: Nylon	82	HRT1832Z
	2P		Without indicator		HRT1832Z2
	3P				HRT1832Z3
HRT18-63X	1P	63	Material: Resin	206	HRT1863ZXB
	2P		With indicator		HRT1863Z2XB
	3P				HRT1863Z3XB
HRT18-63	1P	63	Material: Resin	206	HRT1863ZB
	2P		Without indicator		HRT1863Z2B
	3P				HRT1863Z3B



Technical Data

Rated operating current	2-63A
Rated operating voltage	AC380V-500V
Rated breaking capacity	100kA

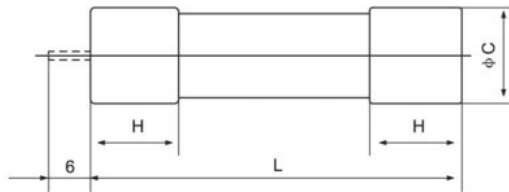
HRT18 Fuse

Standard: IEC 60269



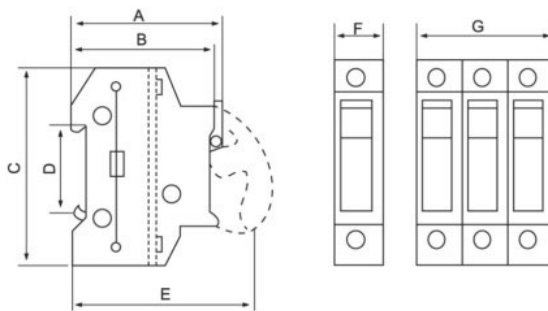
Overall Dimensions

Unit: mm



Cylindrical Fuse

Type	Size	L	C	Hmax
HRT18-32	10x38	38±0.6	10.3±0.1	10.5
HRT18-63	14x51	51 ^{+0.6} _{-0.6}	14.3±0.1	13.8



Holder of fuse

Type	A	B	C	D	E	F	G
HRT18-32	63	60	79	35	80	18	54
HRT18-63	78	76	103	35	110	25	75

Industrial Control Components



Industrial Plugs & Sockets Overview



HDCP Moving Industrial Plugs **580**

Pole: 2P+E~3P+N+E

Voltage: 110~415V

Current: 16,32,63,125A



HDCP Fixed Industrial Plugs **581**

Pole: 2P+E~3P+N+E

Voltage: 110~415V

Current: 16,32,63,125A



HDCM Moving Industrial Sockets **582**

Pole: 2P+E~3P+N+E

Voltage: 110~415V

Current: 16,32,63,125A



HDCM Fixed Industrial Sockets **583**

Pole: 2P+E~3P+N+E

Voltage: 110~415V

Current: 16,32,63,125A



HDCS Multi-function Plugs and Sockets **584**

Pole: 2P+E

Voltage: 110V, 230V

Current: 16A

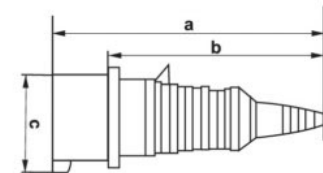
HDCP Moving Industrial Plugs

Standard: IEC 60309-1-2

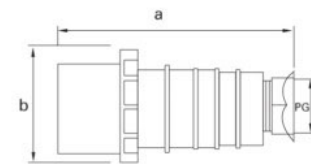


Moving Industrial Plugs

	Pole No.	IP	Nominal voltage	Nominal current(A)	Reference
	 2P+E	44	110~130	16	HDCP316IP441
				32	HDCP332IP441
	 2P+E	44	230~250	16	HDCP316IP44
				32	HDCP332IP44
	 3P+E	44	400~415	16	HDCP416IP44
				32	HDCP432IP44
	 3P+N+E	44	230~400	16	HDCP516IP44
			240~415	32	HDCP532IP44
	 2P+E	67	230~250	63	HDCP363IP67
	 3P+E	67	400~415	63	HDCP463IP67
	 3P+N+E	67	230~400	63	HDCP563IP67
			240~415	125	HDCP5125IP67



	16Amp			32Amp		
Poles	3	4	5	3	4	5
a	142	142	169	178	178	178
b	105	105	132	132	132	137
c	47	53	61	63	63	70



	63Amp			125Amp		
Poles	3	4	5	3	4	5
a	230	230	230	295	295	295
b	109	109	109	124	124	124
c	36	36	36	50	50	50

Industrial Control Components



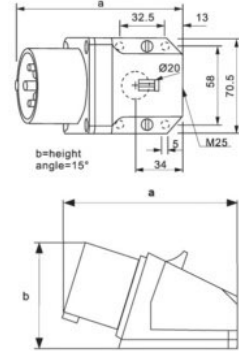
HDP Fixed Industrial Plugs

Standard: IEC 60309-1-2

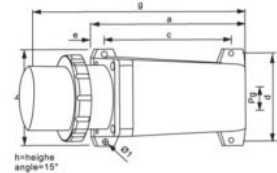


Fixed Industrial Plugs

	Pole No.	IP	Nominal voltage	Nominal current(A)	Reference
	 2P+E	44	110~130	16	HDP316IP441
				32	HDP332IP441
	 2P+E	44	230~250	16	HDP316IP44
				32	HDP332IP44
	 3P+E	44	400~415	16	HDP416IP44
				32	HDP432IP44
	 3P+N+E	44	230~400	16	HDP516IP44
				32	HDP532IP44
	 2P+E	67	230~250	63	HDP363IP67
	 3P+E	67	400~415	63	HDP463IP67
	 3P+N+E	67	230~400	63	HDP563IP67



	16Amp			32Amp		
Poles	3	4	5	3	4	5
a	151	152	160	189	189	194
b	66	76	90	90	90	90



	63Amp		
Poles	3	4	5
a	193	193	193
b	122	122	122
c	157	157	157
d	109	109	109
e	19	19	19
f	6	6	6
g	288	288	288
h	127	127	127
PG	29	29	29

Industrial Control Components

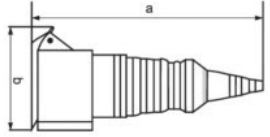
HDSM Moving Industrial Sockets

Standard: IEC 60309-1-2

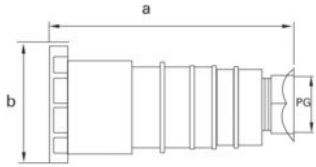


Moving Industrial Sockets

	Pole No.	IP	Nominal voltage	Nominal current(A)	Reference
	2P+E	44	110~130	16	HDSM316IP441
				32	HDSM332IP441
	2P+E	44	230~250	16	HDSM316IP44
				32	HDSM332IP44
	3P+E	44	400~415	16	HDSM416IP44
				32	HDSM432IP44
	3P+N+E	44	230~400	16	HDSM516IP44
			240~415	32	HDSM532IP44
	2P+E	67	230~250	63	HDSM363IP67
				125	HDSM3125IP67
	3P+E	67	400~415	63	HDSM463IP67
				125	HDSM4125IP67
	3P+N+E	67	230~400	63	HDSM563IP67
			240~415	125	HDSM5125IP67



Poles	16Amp			32Amp		
	3	4	5	3	4	5
a	130	131	139	149	149	154
b	66	76	90	90	90	100



Poles	63Amp			125Amp		
	3	4	5	3	4	5
a	240	240	240	300	300	300
b	112	112	112	126	126	126
PG	36	36	36	50	50	50

Industrial Control Components



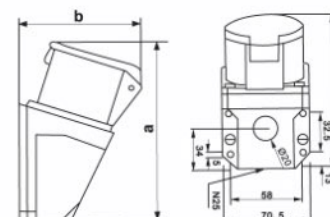
HDSF Moving Industrial Sockets

Standard: IEC 60309-1-2

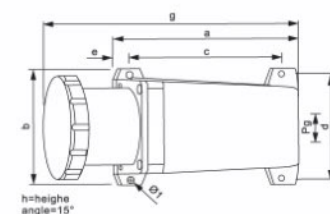


Moving Industrial Sockets

	Pole No.	IP	Nominal voltage	Nominal current(A)	Reference
	2P+E	44	110~130	16	HDSF316IP441
				32	HDSF332IP441
	2P+E	44	230~250	16	HDSF316IP44
				32	HDSF332IP44
	3P+E	44	400~415	16	HDSF416IP44
				32	HDSF432IP44
	3P+N+E	44	230~400	16	HDSF516IP44
				32	HDSF532IP44
	2P+E	67	230~250	63	HDSF363IP67
				125	HDSF3125IP67
	3P+E	67	400~415	63	HDSF463IP67
				125	HDSF4125IP67
	3P+N+E	67	230~400	63	HDSF563IP67
				125	HDSF5125IP67



	16Amp			32Amp		
Poles	3	4	5	3	5	5
a	128	128	129	141	141	143
b	86	90	96	97	97	104
M	25	25	25	25	25	25



	63Amp			125Amp		
Poles	3	4	5	3	4	5
a	193	193	193	220	220	220
b	122	122	122	140	140	140
c	157	157	157	185	185	185
d	109	109	109	130	130	130
e	19	19	19	17	17	17
f	6	6	6	8	8	8
g	270	270	270	320	320	320
h	130	130	130	150	150	150
PG	29	29	29	36	36	36

HDPS Multi-function Plugs & Sockets

Standard: IEC 60309-1-2



Multi-function Plugs and Sockets

Pole No.	Input	Output	Nominal voltage(V)	Nominal current(A)	Reference
2P+E	1 Plug	2 socket	230	16	HDPS316230
2P+E	1 Plug	2 socket	110	16	HDPS316110
2P+E	1 Plug	3 socket	230	16	HDPS416230
2P+E	1 Plug	3 socket	110	16	HDPS416110



Industrial Control Components



Copper Terminal Block Overview



HTB010 **587**

Hole: 4, 6, 8, 10, 12, 14, 16

Hole diameter (mm): 5.2, 6

Screw dimension (mm): M4*8, M5*10

Max current(A): 100, 150



HTB019 **588**

Hole: 4, 6, 8, 10, 12, 14, 16

Hole diameter (mm): 5.2, 6

Screw dimension (mm): M4*8, M5*10

Max current (A): 100, 150



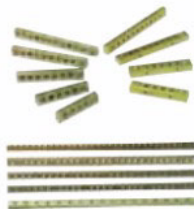
HTB007 **589**

Hole: 6, 8, 10, 12, 14, 16

Hole diameter (mm): 5.2, 6

Screw dimension (mm): M4*8, M5*10

Max current (A): 100, 150



HTB043 **590**

Hole: 78, 109, 116, 133

Hole diameter (mm): 5~9

Screw dimension (mm): M4*8~M6*12

Max current (A): 100~200



HTB112 **590**

Hole: 2x7, 2x15, 4x7, 4x11, 4x15

Hole diameter (mm): 5.2

Screw dimension (mm): M4

Max current (A): 125

DIN Rail Overview



HDIN **591**

Thickness(mm): 1.0

Length: 1000mm, 2000mm

Material: Aluminum, Steel

HCF Series Cable Connector

Standard:EN60947-1



Technical Data

- Thread specification: International Metric / ISO standard
- Material: Nylon 66
- Working temperature: -40°C~+100°C
- Maximum temperature in short time: +120°C
- Installation: Standard threaded hole
- Colour: Black & gray



Order Information

Standard	Cable range (mm)	Thread external diameter (mm)	Panel hole (mm)	Thread length (mm)	Spanner size A&F	Reference Black	Reference Gray
National Standard	7.6-4.6	12	12.5	8.5	18/19	HCFMG12IP68B	HCFMG12IP68W
	10-6	16	16.5	15	22/22	HCFMG16IP68B	HCFMG16IP68W
	14-9	20	20.5	15	27/27	HCFMG20IP68B	HCFMG20IP68W
	18-13	25	25.5	15	33/33	HCFMG25IP68B	HCFMG25IP68W
	25-18	32	33	15	41/41	HCFMG32IP68B	HCFMG32IP68W
	30-24	40	41	20	50/50	HCFMG40IP68B	HCFMG40IP68W
	41-30	50	51	22	62/62	HCFMG50IP68B	HCFMG50IP68W
	51-40	63	64	25	75/75	HCFMG63IP68B	HCFMG63IP68W
DIN/ Germany Standard	7-3.5	7	12.5	8	17/19	—	HCFPG7IP54W
	8-4.5	9	15.2	8.5	22/19	—	HCFPG9IP54W
	10.5-6	11	18.6	9	24/22	—	HCFPG11IP54W
	12.5-7.5	13.5	20.4	9.6	27/24	—	HCFPG135IP54W
	14-8.5	16	22.5	10	30/27	—	HCFPG16IP54W
	18-12.5	21	28.3	12	36/33	—	HCFPG21IP54W
	25-18	29	37	15	46/41	—	HCFPG29IP54W
	30-23	36	47	15	57/50	—	HCFPG36IP54W
	39-30	42	54	15.5	64/62	—	HCFPG42IP54W
45-35	48	59.3	15.5	70/65	—	HCFPG48IP54W	

Industrial Control Components



HTB010 Series Copper Terminal Block

Standard:EN61439-6



Order Information

HTB0100609

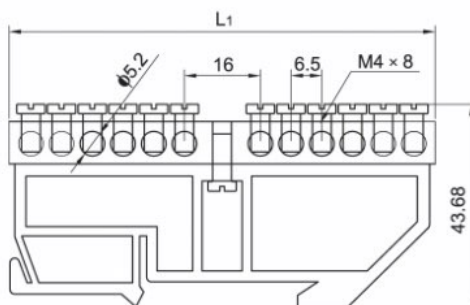
Holes	Cross section (mm)	Hole diameter (mm)	Installation dimension (mm) (L)	Overall dimension (mm) (L1)	Reference
4	6 x 9	5.2	35 x 7.5	88.5 x 12.1	HTB0100609W4*
6	6 x 9	5.2	35 x 7.5	88.5 x 12.1	HTB0100609W6*
8	6 x 9	5.2	35 x 7.5	88.5 x 12.1	HTB0100609W8*
10	6 x 9	5.2	35 x 7.5	88.5 x 12.1	HTB0100609W10*
12	6 x 9	5.2	35 x 7.5	90.5 x 12.1	HTB0100609W12*
14	6 x 9	5.2	35 x 7.5	103.5 x 12.1	HTB0100609W14*
16	6 x 9	5.2	35 x 7.5	116.5 x 12.1	HTB0100609W16*

*' means support color as below:

Y = Yellow

B = Blue

Dimension



Unit: mm



HTB0100812

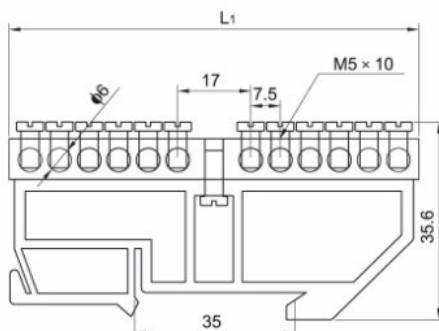
Holes	Cross section (mm)	Hole diameter (mm)	Installation dimension (mm) (L)	Overall dimension (mm) (L1)	Reference
4	8 x 12	6	35 x 7.5	88.5 x 12.1	HTB0100812W4*
6	8 x 12	6	35 x 7.5	88.5 x 12.1	HTB0100812W6*
8	8 x 12	6	35 x 7.5	88.5 x 12.1	HTB0100812W8*
10	8 x 12	6	35 x 7.5	88.5 x 12.1	HTB0100812W10*
12	8 x 12	6	35 x 7.5	102.5 x 12.1	HTB0100812W12*
14	8 x 12	6	35 x 7.5	117.5 x 12.1	HTB0100812W14*
16	8 x 12	6	35 x 7.5	132 x 12.1	HTB0100812W16*

*' means support color as below:

Y = Yellow

B = Blue

Dimension



Unit: mm



HTB019 Series Copper Terminal Block

Standard: EN61439-6



Order Information

HTB0190609

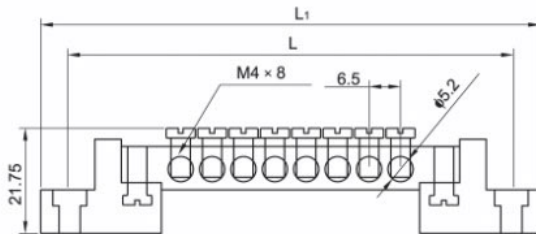
Holes	Cross section (mm)	Hole diameter (mm)	Installation dimension(mm) (L)	Overall dimension (mm) (L1)	Reference
4	6 x 9	5.2	64.5	76.5 x 12.5	HTB0190609W4*
6	6 x 9	5.2	77.5	89.5 x 12.5	HTB0190609W6*
8	6 x 9	5.2	90.5	102.5 x 12.5	HTB0190609W8*
10	6 x 9	5.2	103.5	115.5 x 12.5	HTB0190609W10*
12	6 x 9	5.2	116.5	128.5 x 12.5	HTB0190609W12*
14	6 x 9	5.2	129.5	141.5 x 12.5	HTB0190609W14*
16	6 x 9	5.2	142.5	154.5 x 12.5	HTB0190609W16*

*' means support color as below:

G = Green

B = Blue

Dimension



Unit:mm

HTB0070812

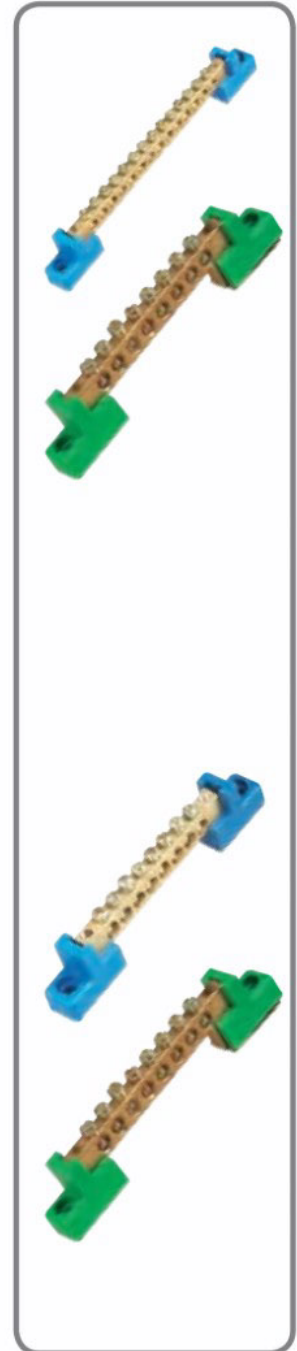
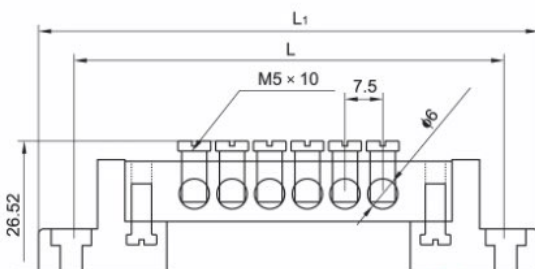
Holes	Cross section (mm)	Hole diameter (mm)	Installation dimension (mm) (L)	Overall dimension (mm) (L1)	Reference
4	8 x 12	6	71.5	84.5 x 12.5	HTB0190812W4*
6	8 x 12	6	86.5	99.5 x 12.5	HTB0190812W6*
8	8 x 12	6	101.5	114.5 x 12.5	HTB0190812W8*
10	8 x 12	6	116.5	129.5 x 12.5	HTB0190812W10*
12	8 x 12	6	131.5	144.5 x 12.5	HTB0190812W12*
14	8 x 12	6	146.5	159.5 x 12.5	HTB0190812W14*
16	8 x 12	6	161.5	174.5 x 12.5	HTB0190812W16*

*' means support color as below:

G = Green

B = Blue

Dimension



Industrial Control Components



HTB007 Series Copper Terminal Block

Standard:EN61439-6



Order Information

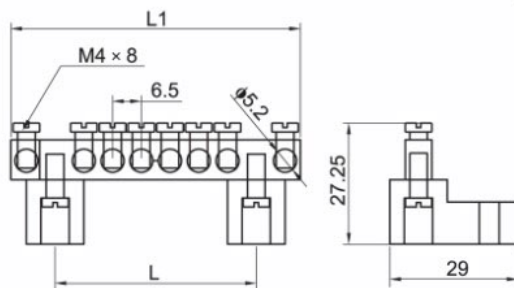
HTB0070609

Holes	Cross section (mm)	Hole diameter (mm)	Installation dimension(mm) (L)	Overall dimension (mm) (L1)	Reference
6	6 x 9	5.2	44.5	58.5 x 29	HTB0070609W6*
8	6 x 9	5.2	44.5	65.5 x 29	HTB0070609W8*
10	6 x 9	5.2	44.5	78.5 x 29	HTB0070609W10*
12	6 x 9	5.2	44.5	91.5 x 29	HTB0070609W12*
14	6 x 9	5.2	44.5	104.5 x 29	HTB0070609W14*
16	6 x 9	5.2	44.5	117.5 x 29	HTB0070609W16*

'*' means support color below:
G = Green
B = Blue

Dimension

Unit: mm



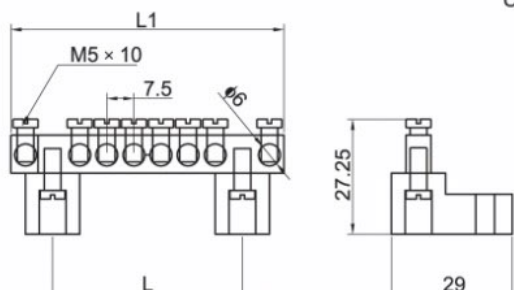
HTB0070812

Holes	Cross section (mm)	Hole diameter (mm)	Installation dimension(mm) (L)	Overall dimension (mm) (L1)	Reference
6	8 x 12	6	52.5	68.5 x 28.5	HTB0070812W6*
8	8 x 12	6	52.5	77.5 x 28.5	HTB0070812W8*
10	8 x 12	6	52.5	92.5 x 28.5	HTB0070812W10*
12	8 x 12	6	52.5	107.5 x 28.5	HTB0070812W12*
14	8 x 12	6	52.5	122.5 x 28.5	HTB0070812W14*
16	8 x 12	6	52.5	137.5 x 28.5	HTB0070812W16*

'*' means support color as below:
G = Green
B = Blue

Dimension

Unit: mm



HTB043 & HTB112 Series Copper Terminal Blocks

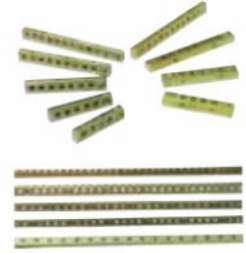
Standard:EN61439-6



Order Information

HTB043

Holes	Cross section (mm)	Hole diameter (mm)	Screw dimension (mm)	Reference
78	16 x 16	9	M6*12	HTB0431616W078
109	14 x 14	7	M6*12	HTB0431414W109
116	10 x 10	6	M5*10	HTB0431010W116
116	8 x 12	6.5	M5*10	HTB0430812W116
116	8 x 10	6	M5*10	HTB0430810W116
116	9 x 9	5.5	M5*10	HTB0430909W116
133	7 x 9	5.2	M4*10	HTB0430709W133
133	8 x 8	5.2	M4*8	HTB0430808W133
133	6 x 9	5.2	M4*8	HTB0430609W133
133	6 x 8	5	m4*8	HTB0430608W133



HTB112

Line	Holes per line	Overall dimension (mm)			Installation dimension (mm) (L)	Reference
		Length	Width	Height		
2	7	65	45	51	45 x M4	HTB112W2P7
2	15	132	45	51	112 x M4	HTB112W2P15
4	7	65	88	51	45 x M4	HTB112W4P7
4	11	100	88	51	80 x M4	HTB112W4P11
4	15	132	88	51	112 x M4	HTB112W4P15



Industrial Control Components



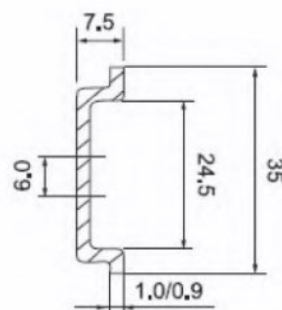
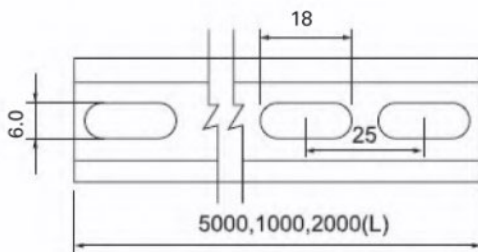
Order Information

Thickness (mm)	Length (mm)	Material	Reference
1.0	1000	Aluminum	HDIN02T1000
	2000	Aluminum	HDIN02T2000
	1000	Steel	HDIN12T1000
	2000	Steel	HDIN12T2000



Order Information

Unit: mm



Current Transformer Overview

Current Transformer



HLMK 593

Class: 0.5, 1.0
Current Ratio: 30/5~5000/5
Bar: 30x10, 40x10, 50x10, 60x20, 80x10(60x30), 100x30(60x40), 120x25(80x30)

Voltage Transformer



HBK 596

Type: Single-phase
Rated Capacity: 25VA~20kVA
Rated Voltage: ≤1200V
Output Voltage: Customization commonly

Meter Overview

Single-phase



HDDS606 600

Type: Single-phase

Specification
 1.5(6)A, 3(6)A
 2.5(10)A, 5(20)A
 5(30)A, 10(40)A
 15(60)A, 20(80)A
 30(100)A

Meter Overview

Three-phase



HDTS607 604

Type: Three-phase Four-wire

Specification
 1.5(6)A, 3(6)A
 2.5(10)A, 5(20)A
 5(30)A, 10(40)A
 15(60)A, 20(80)A
 30(100)A



HDSS607 607

Type: Three-phase Three-wire

Specification
 1.5(6)A, 3(6)A
 5(20)A, 10(40)A
 15(60)A, 20(80)A
 30(100)A

Panel Meter



H72 Series 610

Type:
 • Ammeter
 • Voltmeter
 • Frequency meter

Specification
 72x72mm



H96 Series 612

Type:
 • Ammeter
 • Voltmeter
 • Frequency meter

Specification
 96x96mm

HLMK Series Current Transformer

Standard: IEC 60044-1



Function

HLMK Series Current Transformer provides:

- Measuring and transforming the high current to low current

Order Information

Accuracy Class: 0.5

Maximum Rated Voltage: 0.66KV

Model	Rated Current Primary/Secondary (A)	Rated Load (VA)	Bus-bar (mm)	Diameter (mm)	Number of Turns through the core	Reference
HLMK-0.66-30	30/5	5-3.75		20	5	HLMKP63030
	50/5	5-3.75		20	3	HLMKP65030
	75/5	5-3.75		20	2	HLMKP67530
	100/5	5-3.75		20	2	HLMKP610030
	150/5	5-3.75	30×10	20	1	HLMKP615030
	200/5	5-3.75	30×10	20	1	HLMKP620030
HLMK-0.66-40	250/5	5-3.75	40×10	30	1	HLMKP625040
	300/5	5-3.75	40×10	30	1	HLMKP630040
	400/5	5-3.75	40×10	30	1	HLMKP640040
	500/5	5-3.75	40×10	30	1	HLMKP650040
HLMK-0.66-50	300/5	5-3.75	50×15	35	1	HLMKP630050
	400/5	5-3.75	50×15	35	1	HLMKP640050
	500/5	5-3.75	50×15	35	1	HLMKP650050
	600/5	10-3.75	50×15	35	1	HLMKP660050
	750/5	10-3.75	50×15	35	1	HLMKP675050
	800/5	10-3.75	50×15	35	1	HLMKP680050
HLMK-0.66-60	1000/5	10-3.75	50×15	35	1	HLMKP6100050
	500/5	5-3.75	60×20	45	1	HLMKP650060
	600/5	10-3.75	60×20	45	1	HLMKP660060
	750/5	10-3.75	60×20	45	1	HLMKP675060
	800/5	10-3.75	60×20	45	1	HLMKP680060
	1000/5	10-3.75	60×20	45	1	HLMKP6100060
HLMK-0.66-80	1200/5	10-3.75	60×20	45	1	HLMKP6120060
	1500/5	10-3.75	60×20	45	1	HLMKP6150060
	600/5	10-3.75	80×10 or 60×30	50	1	HLMKP660080
	750/5	10-3.75	80×10 or 60×30	50	1	HLMKP675080
	800/5	10-3.75	80×10 or 60×30	50	1	HLMKP680080
	1000/5	10-3.75	80×10 or 60×30	50	1	HLMKP6100080
HLMK-0.66-100	1200/5	10-3.75	80×10 or 60×30	50	1	HLMKP6120080
	1500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6150080
	2000/5	15-3.75	80×10 or 60×30	50	1	HLMKP6200080
	2500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6250080
	600/5	10-3.75	100×30 or 60×40	60	1	HLMKP6600100
	750/5	10-3.75	100×30 or 60×40	60	1	HLMKP6750100
HLMK-0.66-120	800/5	10-3.75	100×30 or 60×40	60	1	HLMKP6800100
	1000/5	10-3.75	100×30 or 60×40	60	1	HLMKP61000100
	1200/5	10-3.75	100×30 or 60×40	60	1	HLMKP61200100
	1500/5	15-3.75	100×30 or 60×40	60	1	HLMKP61500100
	2000/5	15-3.75	100×30 or 60×40	60	1	HLMKP62000100
	2500/5	15-3.75	100×30 or 60×40	60	1	HLMKP62500100
HLMK-0.66-120	3000/5	20-3.75	100×30 or 60×40	60	1	HLMKP63000100
	1500/5	15-3.75	120×25 or 80×30	60	1	HLMKP61500120
	2000/5	15-3.75	120×25 or 80×30	60	1	HLMKP62000120
	2500/5	15-3.75	120×25 or 80×30	60	1	HLMKP62500120
	3000/5	20-3.75	120×25 or 80×30	60	1	HLMKP63000120
	4000/5	20-3.75	120×25 or 80×30	60	1	HLMKP64000120
	5000/5	20-3.75	120×25 or 80×30	60	1	HLMKP65000120



HLMK Series Current Transformer

Standard: IEC 60044-1



Order Information

Accuracy Class: 1
Maximum Rated Voltage: 0.66KV

Model	Rated Current Primary/ Secondary (A)	Rated Load (VA)	Bus-bar (mm)	Diameter (mm)	Number of Turns through the core	Reference
HLMK-0.66-30	30/5	5-3.75		20	5	HLMKP6P13030
	50/5	5-3.75		20	3	HLMKP6P15030
	75/5	5-3.75		20	2	HLMKP6P17530
	100/5	5-3.75		20	2	HLMKP6P110030
	150/5	5-3.75	30×10	20	1	HLMKP6P115030
	200/5	5-3.75	30×10	20	1	HLMKP6P120030
HLMK-0.66-40	300/5	5-3.75	30×10	20	1	HLMKP6P130030
	250/5	5-3.75	40×10	30	1	HLMKP6P125040
	300/5	5-3.75	40×10	30	1	HLMKP6P130040
	400/5	5-3.75	40×10	30	1	HLMKP6P140040
	500/5	5-3.75	40×10	30	1	HLMKP6P150040
	600/5	10-3.75	40×10	30	1	HLMKP6P160040
HLMK-0.66-50	300/5	5-3.75	50×15	35	1	HLMKP6P130050
	400/5	5-3.75	50×15	35	1	HLMKP6P140050
	500/5	5-3.75	50×15	35	1	HLMKP6P150050
	600/5	10-3.75	50×15	35	1	HLMKP6P160050
	750/5	10-3.75	50×15	35	1	HLMKP6P175050
	800/5	10-3.75	50×15	35	1	HLMKP6P180050
	1000/5	10-3.75	50×15	35	1	HLMKP6P1100050
	1200/5	10-3.75	50×15	35	1	HLMKP6P1120050
HLMK-0.66-60	500/5	5-3.75	60×20	45	1	HLMKP6P150060
	600/5	10-3.75	60×20	45	1	HLMKP6P160060
	750/5	10-3.75	60×20	45	1	HLMKP6P175060
	800/5	10-3.75	60×20	45	1	HLMKP6P180060
	1000/5	10-3.75	60×20	45	1	HLMKP6P1100060
	1200/5	10-3.75	60×20	45	1	HLMKP6P1120060
	1500/5	10-3.75	60×20	45	1	HLMKP6P1150060
	2000/5	10-3.75	60×20	45	1	HLMKP6P1200060
HLMK-0.66-80	600/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P160080
	750/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P175080
	800/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P180080
	1000/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P1100080
	1200/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P1120080
	1500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6P1150080
	2000/5	15-3.75	80×10 or 60×30	50	1	HLMKP6P1200080
	2500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6P1250080
HLMK-0.66-100	600/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P1600100
	750/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P1750100
	800/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P1800100
	1000/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P11000100
	1200/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P11200100
	1500/5	15-3.75	100×30 or 60×40	60	1	HLMKP6P11500100
	2000/5	15-3.75	100×30 or 60×40	60	1	HLMKP6P12000100
	2500/5	15-3.75	100×30 or 60×40	60	1	HLMKP6P12500100
HLMK-0.66-120	3000/5	20-3.75	100×30 or 60×30	60	1	HLMKP6P13000100
	1500/5	15-3.75	120×25 or 80×30	60	1	HLMKP6P11500120
	2000/5	15-3.75	120×25 or 80×30	60	1	HLMKP6P12000120
	2500/5	15-3.75	120×25 or 80×30	60	1	HLMKP6P12500120
	3000/5	20-3.75	120×25 or 80×30	60	1	HLMKP6P13000120
	4000/5	20-3.75	120×25 or 80×30	60	1	HLMKP6P14000120
	5000/5	20-3.75	120×25 or 80×30	60	1	HLMKP6P15000120



Power Energy Management



HLMK Series Current Transformer

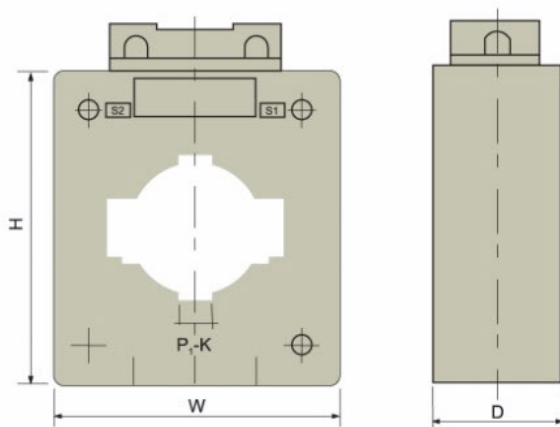
Standard: IEC 60044-1

Technical Data

- Rated primary current: 30A-5000A
- Rated secondary current: 5A
- Maximum rated voltage: 0.66kV
- Accuracy class: 0.5, 1.0
- Short time thermal current: $I_{th}=100I_h$
- Security coefficient security coefficient: $FS < 5$
- Standard: IEC 60044-1

Overall Dimensions

Unit: mm



Model	H	W	D
HLMK-0.66-30	79	60	37
HLMK-0.66-40	99	75	40
HLMK-0.66-50	99	82	40
HLMK-0.66-60	126	102	40
HLMK-0.66-80	118	125	40
HLMK-0.66-100	136	170	40
HLMK-0.66-120	136	190	41

HBK Series Voltage Transformer

Standard: IEC 61558-2-2



Features

- EI shell structure with characteristic of simple structure and strong anti-seismic capacity
- I-type coil frame, simple winding process, high level automation and good product consistency.
- Self-design protective terminal blocks with advantages of good safety performance, convenient use for users and high production efficiency
- Strong load capacity and overvoltage capacity from aspects of product design, manufacturing, temperature rise, insulating property and accessory selection

Order Requirement

- Multi-input voltage or multi-output voltage can be customized if required;
- Separated voltage using on both input and output side is recommended;
- In principle, input/output voltage between 0-1200V can be customized if required;
- Isolation layer is compulsory if input voltage equals to output voltage; other conditions should be judged according to actual application requirements.

Technical Parameters

Rated Voltage	≤1200V
Rated Frequency	50Hz, 60Hz
Insulation Resistance	≥5MΩ
Insulation Class	B
Rated Duty	Uninterrupted Duty
Standard	IEC 61558-2-2

Applications

HBK control transformer is applied to the electrical system of the machine tool and other mechanical equipments which is used as the power supply of the voltage circuit, lighting circuit, signaling circuit and electronic device; it also has two or more than two-electrical-isolated – winding transformer.

Working and Installation Conditions

Altitude	≤2000m
Ambient temperature	-5°C ~ +40°C
Relative humidity	Monthly average maximum relative humidity is 90% during the wettest month; at the same month, the monthly average temperature is +25°C. a. In medium without explosion hazard, where no air might corrode metal and destroy insulation or no conductive dust existing b. No violent vibration or bump
Operating environment	c. The place where is no invasion of rain and snow d. The power supply voltage waveform is similar to sine wave e. The difference of power supply voltage is less or equals to ±5%



HBK Series Voltage Transformer

Standard: IEC 61558-2-2



Coding System

Product	Rated Capacity	Voltage Ratio (input/output)	Isolation	Transformer Type	Voltage Type
HBK	1000	E9	G	M	C
	↓	↓	↓	↓	↓
	00025: 25VA 00050: 50VA 00060: 60VA 00063: 63VA 00100: 100VA 00150: 150VA 00200: 200VA 00250: 250VA 00300: 300VA 00400: 400VA 00500: 500VA 00600: 600VA 00630: 630VA 00700: 700VA 00800: 800VA 01000: 1000VA 01200: 1200VA 01500: 1500VA 02000: 2000VA 02500: 2500VA 03000: 3000VA 04000: 4000VA 05000: 5000VA 06000: 6000VA 07000: 7000VA 08000: 8000VA 10000: 10kVA 15000: 15kVA 20000: 20kVA	D1: 380V/220V D2: 380V/36V D3: 380V/24V D7: 220V/220V D8: 220V/36V D9: 220V/24V D5V: 380V/5V E1: 400V/230V E7: 230V/230V E8: 230V/36V E9: 230V/24V E5V: 230V/5V F1: 240V/380V 415V/12V/24V/110V F2: 230V/380V/415V /12V/24V/230V	Default: no isolation G: isolation	Default: single-input & single-output type M: Multi-input & Muti-output type	C: Center-tapped Winding S: Separate Winding



Power Energy Management

HBK Series Voltage Transformer

Standard: IEC 61558-2-2



Order Information

Model	Rated Capacity (VA)	Voltage Ratio (input/output)	Isolation	Reference
HBK-10kVA 380V/220V	1000	380V/220V	No	HBK10000D1
HBK-10kVA 380V/36V	1000	380V/36V	No	HBK10000D2
HBK-10kVA 380V/24V	1000	380V/24V	No	HBK10000D3
HBK-10kVA 220V/220V with isolation	1000	220V/220V	Yes	HBK10000D7G
HBK-10kVA 220V/36V	1000	220V/36V	No	HBK10000D8
HBK-10kVA 220V/24V	1000	220V/24V	No	HBK10000D9
HBK-10kVA 380V/5V	1000	380V/5V	No	HBK10000D5V
HBK-10kVA 400V/230V	1000	400V/230V	No	HBK10000E1
HBK-10kVA 230V/230V with isolation	1000	230V/230V	Yes	HBK10000E7G
HBK-10kVA 230V/36V	1000	230V/36V	No	HBK10000E8
HBK-10kVA 230V/24V	1000	230V/24V	No	HBK10000E9
HBK-10kVA 230V/5V	1000	230V/5V	No	HBK10000E5V

Note: Other order information can follow the coding system of HBK.

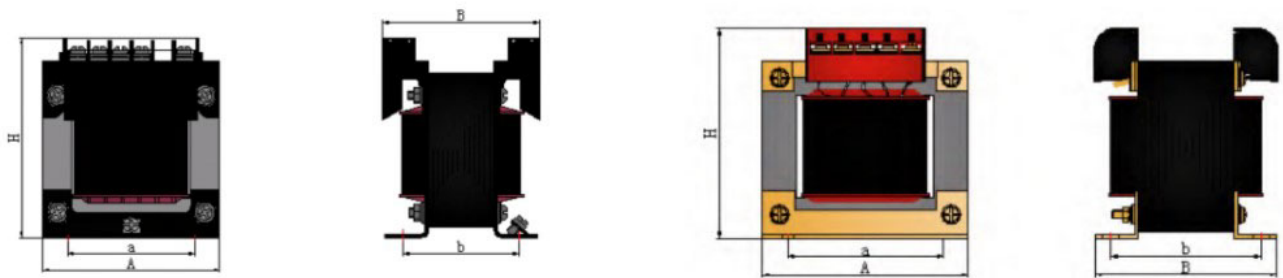


HBK Series Control Transformer

Standard: IEC 61558-2-2



Outline dimensions and installation dimensions



25VA — 200VA

250VA — 1000VA

Parameters of outline dimensions and installation dimensions

HBK Series		
Capacity (VA)	Outline Dimensions A×B×H (mm)	Installation Dimensions a×b (mm)
25	78×69×90	56×50
50	78×69×90	56×50
100	84×83×94	64×64
150	102×88×109	76×65
200	102×94×109	76×71
250	120×107×123	90×77
300	120×113×123	90×83
400	132×117×132	110×93
500	132×122×132	110×98
1000	150×137×147	110×113
1500	180×254×205	150×140
2000	180×270×205	150×156
2500	192×310×215	160×160
3000	192×315×215	160×165
4000	240×340×245	180×170
5000	240×350×245	180×180
10000	300×370×310	240×180

HDDS606 Single-Phase Electronic Watt-hour Meter

Standard: IEC 62053-21



Function

HDDS606 single-phase watt-hour meter provides:

- Measuring the active energy in the single-phase AC power network with frequency of 50Hz or 60Hz
- Measuring the active energy for enterprises, transformer sub-station or power sub-station
- Automatic metering in power transmission and distribution network

Model	Voltage	Accuracy class	Specification	Optional function	Optional function	Optional function	Optional function	Optional function
HDDS606	N	1	6M4	6	H	CD	485	I
	N:230V	1: ±1% 2: ±2%	6M4: 1.5(6)A 10M4:2.5(10)A ... 100M3: 30(100)A	Default: 50Hz 6: 60Hz	H: Connect via VT/CT(only for dial display) 5A Default: Direct Connection or dial display	CD: LCD display Default: without LCD display	485: 485 interface Default: without 485 interface	I: infrared Default: without infrared

Note: "M" in the specification code represents multiple of current.

Order Information

Function Description	Current specification	Reference
Dial display-class 1	1.5(6)A	HDDS606N16M4
Dial display-class 1	2.5(10)A	HDDS606N110M4
Dial display-class 1	5(20)A	HDDS606N120M4
Dial display-class 1	5(30)A	HDDS606N130M6
Dial display-class 1	10(40)A	HDDS606N140M4
Dial display-class 1	15(60)A	HDDS606N160M4
Dial display-class 1	20(80)A	HDDS606N180M4
Dial display-class 1	30(100)A	HDDS606N1100M3
Dial display-class 2	1.5(6)A	HDDS606N26M4
Dial display-class 2	2.5(10)A	HDDS606N210M4
Dial display-class 2	5(20)A	HDDS606N220M4
Dial display-class 2	5(30)A	HDDS606N230M6
Dial display-class 2	10(40)A	HDDS606N240M4
Dial display-class 2	15(60)A	HDDS606N260M4
Dial display-class 2	20(80)A	HDDS606N280M4
Dial display-class 2	30(100)A	HDDS606N2100M3

Note: Special specifications can be customized



HDDS606 Single-Phase Electronic Watt-Hour Meter

Standard: IEC 62053-21



Order Information

Function Description	Current specification	Reference
LCD without 485 communications	1.5(6)A	HDDS606N16M4CD
LCD without 485 communications	2.5(10)A	HDDS606N110M4CD
LCD without 485 communications	5(20)A	HDDS606N120M4CD
LCD without 485 communications	5(30)A	HDDS606N130M6CD
LCD without 485 communications	10(40)A	HDDS606N140M4CD
LCD without 485 communications	15(60)A	HDDS606N160M4CD
LCD without 485 communications	20(80)A	HDDS606N180M4CD
LCD with 485 communications	1.5(6)A	HDDS606N16M4CD485
LCD with 485 communications	5(20)A	HDDS606N120M4CD485
LCD with 485 communications	10(40)A	HDDS606N140M4CD485
LCD with 485 communications	15(60)A	HDDS606N160M4CD485
LCD with 485 communications and infrared communications	1.5(6)A	HDDS606N116M4CD485I
LCD with 485 communications and infrared communications	2.5(10)A	HDDS606N110M4CD485I
LCD with 485 communications and infrared communications	5(20)A	HDDS606N120M4CD485I
LCD with 485 communications and infrared communications	5(30)A	HDDS606N130M6CD485I
LCD with 485 communications and infrared communications	10(40)A	HDDS606N140M4CD485I
LCD with 485 communications and infrared communications	15(60)A	HDDS606N160M4CD485I
LCD with 485 communications and infrared communications	20(80)A	HDDS606N180M4CD485I
LCD with 485 communications and infrared communications	30(100)A	HDDS606N1100M3CD485I

Note: Special specifications can be customized



Power Energy Management

HDDS606 Single-Phase Electronic Watt-Hour Meter

Standard: IEC 62053-21



Technical Data

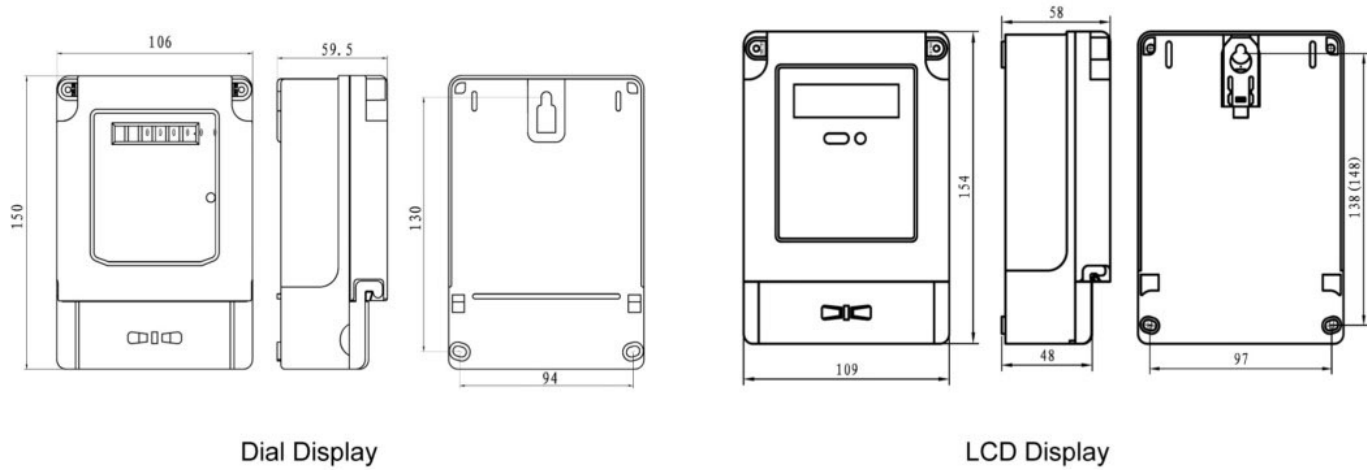
Standard	IEC 62053-21
Working voltage (V)	230V
Accuracy class	1, 2
Power loss	Voltage circuit $\leq 2W/10VA$; Current circuit $\leq 4VA$
Optional functions	LCD display, infrared communication, 485 communication
Normal working temperature	-10°C~+45°C
Limited working temperature	-25°C~+55°C
Normal working voltage	0.9~1.1 (Reference voltage)
Limited working voltage	0.8~1.15 (Reference voltage)
Relative humidity	<75%
Installation location	Should be installed in the height of 1.8m vertically and the angularity $\leq 1^\circ$
Power-off off display	The LCD can display kWh value when power off
Bidirectional measuring function	Active power of both forward and reverse directions can be measured, and power consumption is accumulated at one direction.

HDDS606 Single-Phase Electronic Watt-Hour Meter

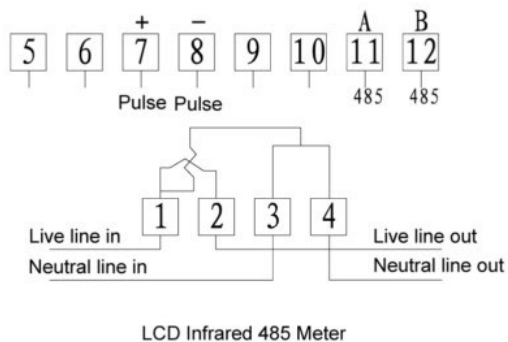
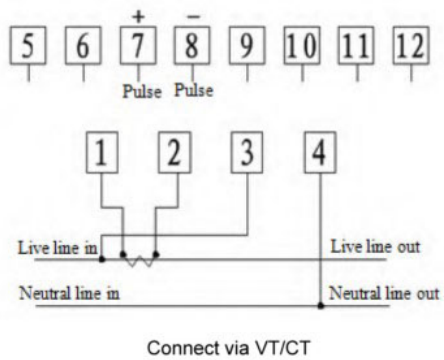
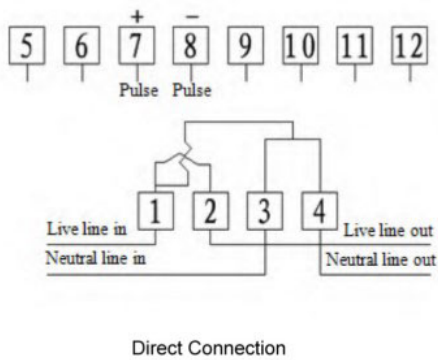
Standard: IEC 62053-21



Overall Dimensions



Wiring Diagram



Power Energy Management

HDTS607 Three-Phase Four-Wire Electronic Watt-Hour Meter

Standard: IEC 62053-21



Function

HDTS607 Three Phase four-wire watt-hour meter provides:

- Measuring the active energy in the three-phase four-wire AC power network at frequency of 50Hz or 60Hz
- Measuring the active energy of enterprises, transformer sub-station or power stations, and be used as automatic meters of power transmission and distribution network

Order Information

Voltage (V)	Grade	Current (A)	Reference
57.7/100	1	1.5(6)	HDTS607WY16M4
		3(6)	HDTS607WY16M2
230/400	1	1.5(6)	HDTS607NV16M4
		2.5(10)	HDTS607NV110M4
		3(6)	HDTS607NV16M2
		5(20)	HDTS607NV120M4
		10(40)	HDTS607NV140M4
		15(60)	HDTS607NV160M4
		20(80)	HDTS607NV180M4
		30(100)	HDTS607NV1100M3

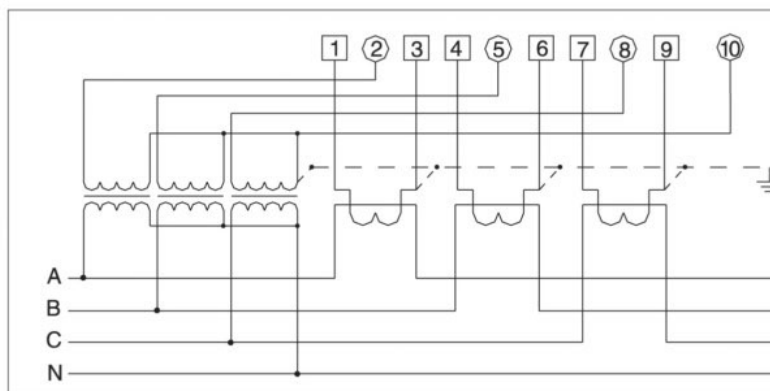


NOTE: 'M' expresses the current multiples in the standard codes
Transformer function (H) is only available for 1.5(6)A and 3(6)A

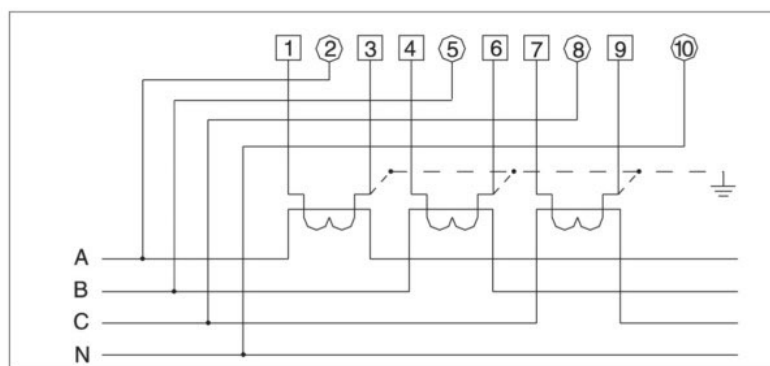
Technical Data

Working voltage	57.7/100V, 230/400V
Power loss	Voltage circuit $\leq 2W$ per10VA; Current circuit $\leq 4VA$
Optional functions	LCD display, infrared communication, 485 communication
Normal working temperature	-10°C~+45°C
Ultimate working temperature	-25°C~+55°C
Normal working voltage	0.9~1.1 (Reference voltage)
Ultimate working voltage	0.8~1.15 (Reference voltage)
Relative humidity	<75%
Installation location	Should be installed in the height of 1.8m vertically and the angularity $\leq 1^\circ$.

Wiring Diagram



• Wiring diagram for 3 x 57.7/100V $\leq 3 \times 3(6)A$ with voltage transformer



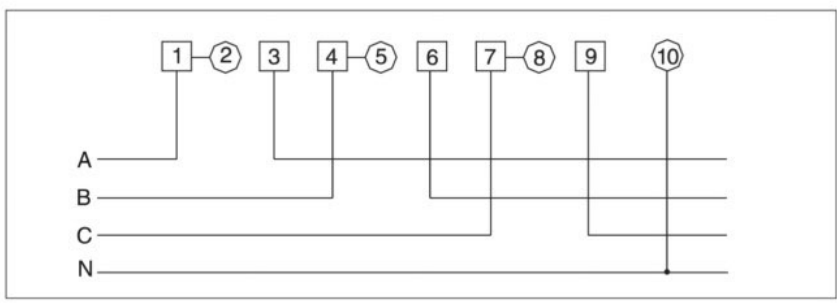
• Wiring diagram for 3 x 230/400V $\leq 3 \times 3(6)A$ with current transformer

HDT5607 Three-Phase Four-Wire Electronic Watt-Hour Meter

Standard: IEC 62053-21



Wiring Diagram

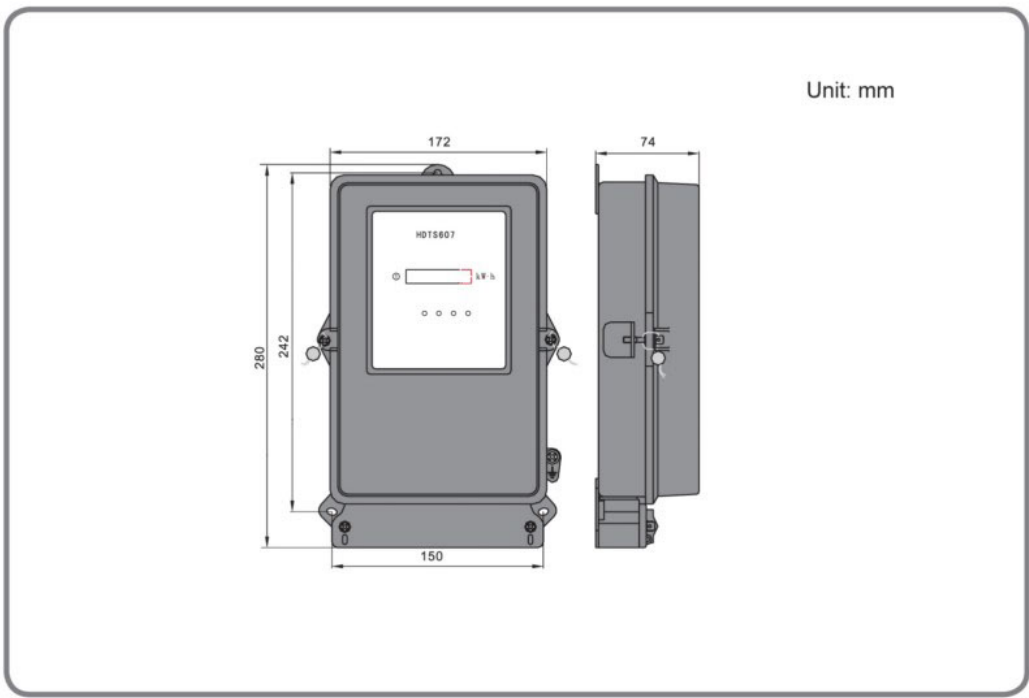


- Wiring diagram for 3 x 230/400V $\geq 3 \times 2.5(10)$ A direct



- Wiring diagram for impulse testing

Overall Dimensions



HDSS607 Three-Phase Three-Wire Electronic Watt-Hour Meter

Standard: IEC 62053-21



Function

HDSS607 Single-phase electronic watt-hour meter provides:

- Measuring the active energy in the three-phase three-wire AC power network at frequency of 50Hz or 60Hz
- Measuring the active energy of enterprises, transformer sub-station or power stations, and be used as automatic meters of power transmission and distribution network

Order Information

Voltage (V)	Grade	Current (A)	Reference
100	1	1.5 (6)	HDSS607Y16M4
		3 (6)	HDSS607Y16M2
400	1	1.5 (6)	HDSS607V16M4
		3 (6)	HDSS607V16M2
		5 (20)	HDSS607V120M4
		10 (40)	HDSS607V140M4
		15 (60)	HDSS607V160M4
		20 (80)	HDSS607V180M4
		30 (100)	HDSS607V1100M3



NOTE: 'M' expresses the current multiple in the standard codes
Transformer function (H) is only available for 1.5(6)A and 3(6)A

HDSS607 Three-Phase Three-Wire Electronic Watt-Hour Meter

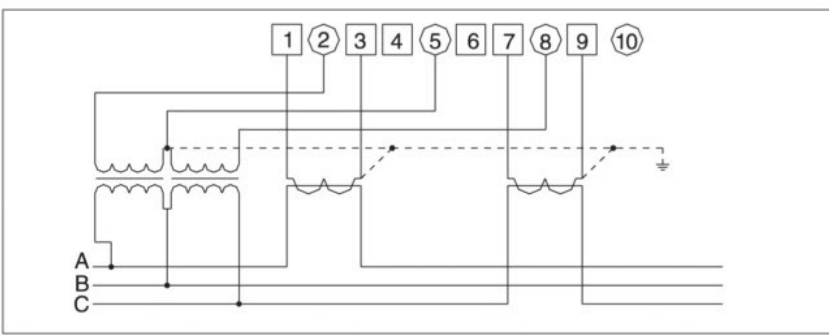
Standard: IEC 62053-21



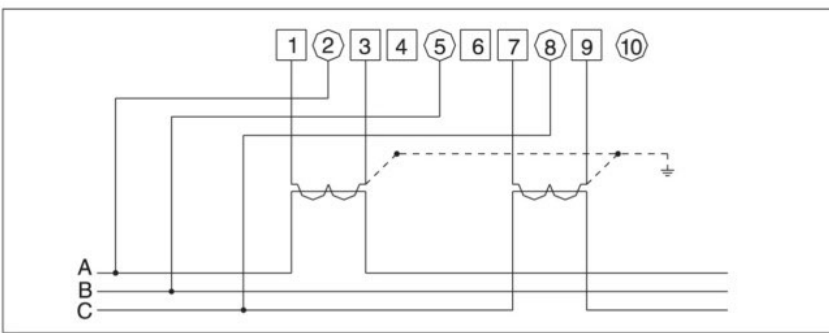
Technical Data

Standard	IEC 62053-21
Working voltage	100V 400V
Power loss	Voltage circuit $\leq 2W$ per 10VA; Current circuit $\leq 4VA$
Optional functions	LCD display, infrared communication, 485 communication
Normal working temperature	-10°C ~ +45°C
Ultimate working temperature	-25°C ~ +55°C
Normal working voltage	0.9 ~ 1.1 (Reference voltage)
Ultimate working voltage	0.8 ~ 1.15 (Reference voltage)
Relative humidity	< 75%
Installation location	Should be installed in the height of 1.8m vertically and the angularity $\leq 1^\circ$.

Wiring Diagram



• Wiring diagram for 3 x 100V $\leq 3 \times 3(6)A$ with voltage transformer

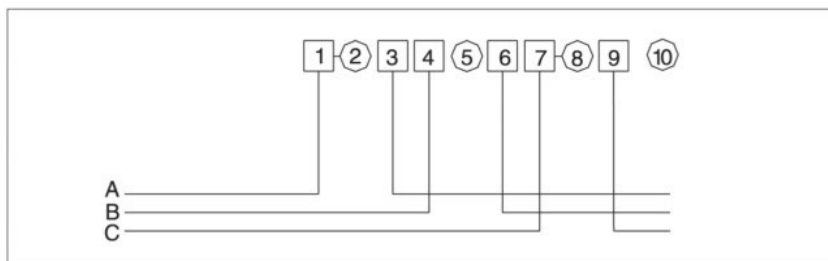


• Wiring diagram for 3 x 400V $\leq 3 \times 3(6)A$ with current transformer

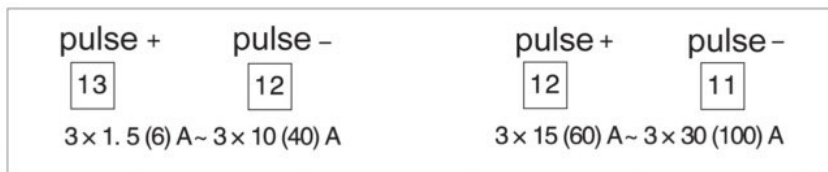
Power Energy Management



Wiring Diagram

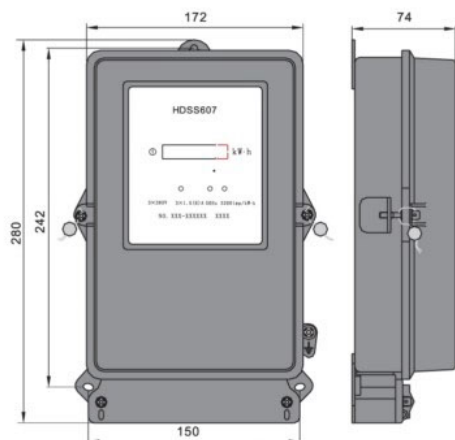


- Wiring diagram for 3 x 400V $\geq 3 \times 2.5(10)$ A direct



- Wiring diagram for impulse testing

Overall Dimensions



Unit: mm

H72 Series Panel Meter

Standard: IEC 60051



Function

H72 series panel meter provides:

- H72T/H72L applies to measure the current, voltage or frequency in the AC circuit
- H72C applies to measure the current or voltage in the DC circuit
- Mainly be used as an indicating instrument for high or low-voltage switch cabinet, power supply cabinet, control cabinet and other electric-control facilities in the AC transmission circuit system

Order Information

Type	Accuracy rating	Specification	Note	Dimensions (mm)	Reference
Ammeter	1.5	30/5A	AC Type	72×72×67.5	H72TA30
		40/5A	External connection	72×72×67.5	H72TA40
		50/5A	transformer	72×72×67.5	H72TA50
		60/5A	2 times of current	72×72×67.5	H72TA60
		75/5A	overload	72×72×67.5	H72TA75
		80/5A		72×72×67.5	H72TA80
		100/5A		72×72×67.5	H72TA100
		150/5A		72×72×67.5	H72TA150
		160/5A		72×72×67.5	H72TA160
		200/5A		72×72×67.5	H72TA200
		250/5A		72×72×67.5	H72TA250
		300/5A		72×72×67.5	H72TA300
		400/5A		72×72×67.5	H72TA400
		600/5A		72×72×67.5	H72TA600
		800/5A		72×72×67.5	H72TA800
		1000/5A		72×72×67.5	H72TA1000
		1600/5A		72×72×67.5	H72TA1600
		5000/5A		72×72×67.5	H72TA5000
		10000/5A		72×72×67.5	H72TA10000
		5A	AC Type Direct connection	72×72×67.5	H72TA5A
	1.5	5A	DC Type	72×72×67.5	H72CA5A
Voltmeter	1.5	300V	AC Type	72×72×67.5	H72LV300
		500V		72×72×67.5	H72LV500
		600V		72×72×67.5	H72LV600
		500V	DC Type	72×72×67.5	H72CV500
Frequency meter	1.0	45-55HZ (200V)	AC Type	72×72×67.5	H72LHZ01200V



H72 Series Panel Meter

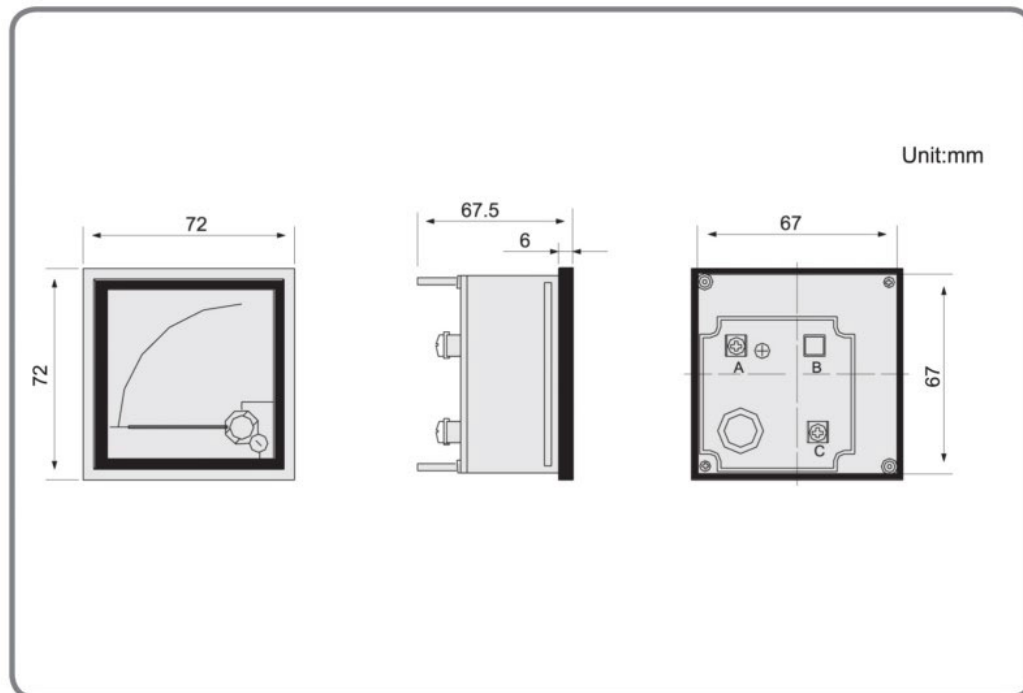
Standard: IEC 60051



Technical Data

Standard	IEC 60051
Dielectric strength test	Frequency 50/60Hz, Voltage 2000V, duration 1 minute
Impact test	Maximum acceleration 147m/s ²
Response time	≤4s
Angular Deflection	90°
Temperature	-25°C~+40°C
Humidity	(25%~80%) RH
Environment	No mildew, insects, salt mist, dew, sand and dust are permitted
Installation	Installed vertically
IP Grade	IP42

Overall Dimensions



H96 Series Panel Meter

Standard: IEC 60051



Function

H96 series panel meter provides:

- H96T/H96L applies to measure the current, voltage or frequency in the AC circuit
- H96C applies to measure the current or voltage in the DC circuit
- Mainly be used as an indicating instrument for high or low-voltage switch cabinet, power supply cabinet, control cabinet and other electric-control facilities in the AC transmission circuit system

Order Information

Type	Accuracy rating	Specification	Note	Dimensions (mm)	Reference
Ammeter	1.5	30/5A	ACType	96×96×67.5	H96TA30
		40/5A	External connection	96×96×67.5	H96TA40
		50/5A	transformer	96×96×67.5	H96TA50
		60/5A		96×96×67.5	H96TA60
		75/5A		96×96×67.5	H96TA75
		80/5A		96×96×67.5	H96TA80
		100/5A		96×96×67.5	H96TA100
		150/5A		96×96×67.5	H96TA150
		160/5A		96×96×67.5	H96TA160
		200/5A		96×96×67.5	H96TA200
		250/5A		96×96×67.5	H96TA250
		300/5A		96×96×67.5	H96TA300
		400/5A		96×96×67.5	H96TA400
		600/5A		96×96×67.5	H96TA600
		800/5A		96×96×67.5	H96TA800
		1000/5A		96×96×67.5	H96TA1000
		1600/5A		96×96×67.5	H96TA1600
		5000/5A		96×96×67.5	H96TA5000
		10000/5A		96×96×67.5	H96TA10000
		5A	ACType Direct connection	96×96×67.5	H96TA5A
	1.5	5A	DCType	96×96×67.5	H96CA5A
Voltmeter	1.5	300V	ACType	96×96×67.5	H96LV300
		500V		96×96×67.5	H96LV500
		600V		96×96×67.5	H96LV600
		500V	DCType	96×96×67.5	H96CV500
Frequency meter	1.0	45-55HZ (200V)	ACType	96×96×67.5	H96LHZ01200V



H96 Series Panel Meter

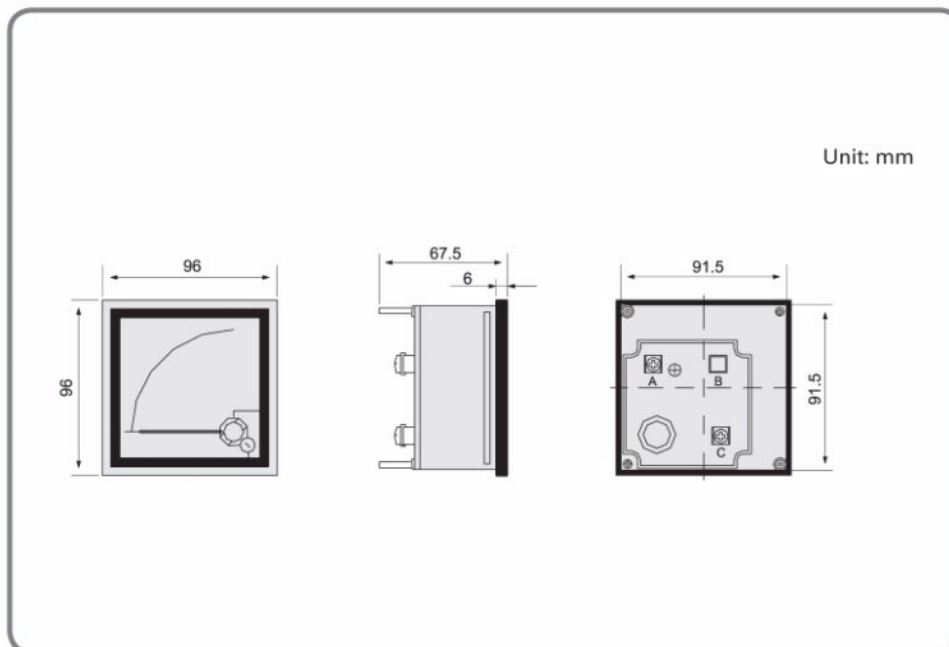
Standard: IEC 60051



Technical Data

Standard	IEC 60051
Dielectric strength test	Frequency 50/60Hz, Voltage 2000V, duration 1 minute
Impact test	Maximum acceleration 147m/s ²
Response time	≤4s
Angular Deflection	90°
Temperature	-25°C~+40°C
Humidity	(25%~80%) RH
Environment	No mildew, insects, salt mist, dew sand and dust are permitted
Installation	Installed vertically
IP Grade	IP42

Overall Dimensions



Digital Time Switch Overview



HKG316T 615

Max. switch times per day:
10-on-10-off,
8-on-8-off

Reset: Power-off reset



HKG316TD 616

Max. switch times per day:
16-on-16-off

Reset: Key-button reset



HKG816A 617

Max. switch times per day:
16-on-16-off

Reset: Key-button reset



HKG816B 617

Max. switch times per day:
8-on-8-off

Reset: Key-button reset

HKG316T Series Digital Time Switch

Standard: IEC 60947-5-1



Function

HKG316T Series Digital Time Switch provides:

- Rated AC frequency is 50Hz, and rated AC control voltage is 400V or below
- Time control components in automatic control circuit, and turn on or off the circuits according to the scheduled time

Order Information

Output loops	Rated control voltage	Reference
10-on-10-off (Single output)	AC:230V	HKG316T230
	AC:400V	HKG316T400
8-on-8-off (Double output)	AC:230V	HKG316T2230
	AC:400V	HKG316T2400

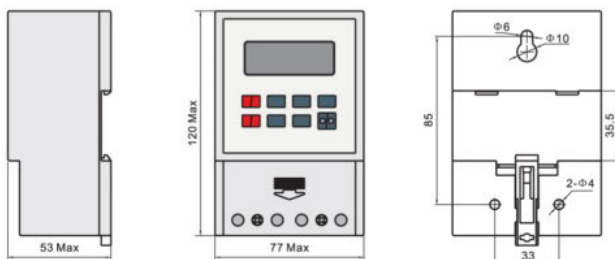
Technical Data

Standard	IEC 60947-5-1
Control time	$1\text{min} \leq t \leq 168\text{h}$ (time is controlled in a daily cycle or a weekly cycle)
Utilization mode	AC-15: 240V/3A 400V/1.9A
Control power	$\leq 6\text{kW}$
Rated control voltage	230/400V AC
Rated thermal current	10A
Accuracy	$\leq 2\text{s/day}$
Mechanical life	$\geq 1 \times 10^6$ times
Electrical life	$\geq 1 \times 10^5$ times
Power loss	$\leq 3\text{W}$
Temperature	$-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$
Display model	Digital LED display
Time-set mode	Digital Keyswitch setting
Battery	Inner alkaline battery
Install mode	Standard din-rail mounted

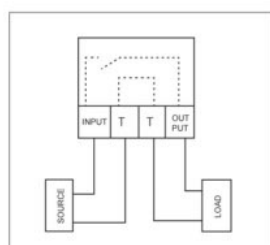


Overall Dimensions

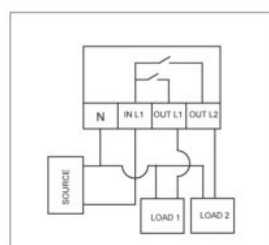
Unit: mm



Wiring Diagram



Single output



Double output

HKG316TD Series Digital Time Switch

Standard: IEC 60947-5-1



Function

HKG316TD Series Digital Time Switch provides:

- Rated AC frequency is 50Hz, and rated control supply voltage is AC 400V or below
- Turn on or off any circuit equipment timely

Order Information

Output loops	Rated control voltage	Reference
16-on-16-off	AC: 230V	HKG316TD230
	AC: 400V	HKG316TD400

Technical Data

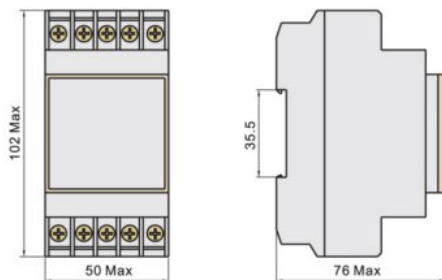
Standard	IEC 60947-5-1
Control time	$1\text{min} \leq t \leq 168\text{h}$ (time is controlled in a daily cycle or a weekly cycle)
Utilization mode	AC-15: 240V/3A
Control power	$\leq 6\text{kW}$
Rated control voltage	230/380V AC
Rated thermal current	10A
Accuracy	$\leq 2\text{s/day}$
Mechanical life	$\geq 1 \times 10^6$ times
Electrical life	$\geq 1 \times 10^5$ times
Power loss	$\leq 3\text{W}$
Temperature	$-5^\circ\text{C} \sim +40^\circ\text{C}$
Display model	Digital LED display
Time-set mode	Digital Keyswitch setting
Battery	Inner rechargeable battery
Install mode	Standard din-rail (35mm) mounted



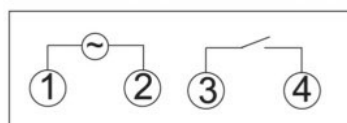
Power Energy Management

Overall Dimensions

Unit: mm



Wiring Diagram



HKG816 Series Digital Time Switch

Standard: IEC 60947-5-1



Function

HKG816 Series Digital Time Switch provides:

- Rated AC frequency is 50Hz, and rated AC control voltage is 230V or below
- Be used as time control components in automatic control circuit, and turn on or off the circuits according to the scheduled time

Order Information

Cover	Output loops	Rated control voltage	Reference
Non-transparent cover	16-on-16-off	AC: 230V	HKG816A230
Transparent cover	8-on-8-off	AC: 230V	HKG816B230

Technical Data

Standard	IEC 60947-5-1
Control time	1min≤t≤168h (time is controlled in a daily cycle or a weekly cycle)
Using mode	AC-15: 240V/3A; 400V/1.9A
Control power	≤ 6kW
Rated control voltage	230V AC
Rated thermal current	10A
Accuracy	≤ 2s/day
Mechanical life	≥ 1x10 ⁶
Electrical life	≥ 1x10 ⁵
Power loss	≤ 4.5W
Temperature	-5°C~+40°C
Display mode	Digital LED display
Time-set mode	Digital keyswitch setting
Battery	Inner rechargeable battery
Install mode	Din-rail mounted



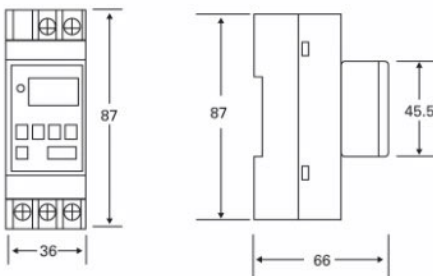
HKG816A



HKG816B

Overall Dimensions

Unit: mm



Voltage Stabilizer Overview

Single-phase



HTND 619

Type: Single-phase (Analog meter/Digital meter)

Specification: 0.5kVA, 1kVA, 1.5kVA, 2kVA, 3kVA, 5kVA, 7kVA, 10kVA, 15kVA, 20kVA, 30kVA



HTND3 623

Type: Single-phase full-automatic AC voltage stabilizer(LCD display)

Specification: 1kVA, 1.5kVA, 2kVA, 3kVA, 5kVA, 7kVA, 10kVA, 15kVA, 20kVA, 30kVA



HSVC-B 625

Type: High precise full-automatic AC voltage stabilizer

Specification: 3kVA, 5kVA, 7kVA, 10kVA



HAVRL 627

Type: Ultra-low voltage full-automatic AC voltage stabilizer

Specification: 0.5kVA, 1kVA, 1.5kVA, 2kVA, 3kVA, 5kVA, 7kVA, 10kVA

Three-phase



HSJW 629

Type: Three-phase

Specification: 1.5kVA, 3kVA, 4.5kVA, 6kVA, 9kVA, 15kVA, 20kVA, 30kVA, 45kVA, 60kVA



HSBW 631

Type: Three-phase Compensation

Specification: 10kVA, 15kVA, 30kVA, 50kVA, 100kVA, 150kVA, 200kVA, 250kVA, 300kVA, 400kVA, 500kVA, 600kVA, 800kVA, 1000kVA, 1600kVA, 2000kVA

HTND Single-Phase Full-Automatic AC Voltage Stabilizer

Standard: EN 61000-6-2 / EN 61000-6-4 / EN 61558-1



Function

HTND single-phase AC voltage stabilizer provides:

- Wide input voltage range, high efficiency, high regulation accuracy, same input and output voltage waveform, small volume, light weight
- Available in the electric equipments and facilities in housing, school, shop, office and precision instrument for scientific experiment

Order Information

Form	Output voltage	Power rating	Reference		
			European plug	British plug	Terminal connect
Desktop	220V	0.5K	HTNDP5HE220	HTNDP5HB220	
		1K	HTND1HE220	HTND1HB220	-
		1.5K	HTND1P5HE220	HTND1P5HB220	-
		2K	-	-	HTND2H220*
		3K	-	-	HTND3H220*
		5K	-	-	HTND5H220*
		7K	-	-	HTND7H220*
		10K	-	-	HTND10H220*
Cabinet	220V	10K	-	-	HTND10GH220*
		15K	-	-	HTND15GH220*
		20K	-	-	HTND20GH220*
		30K	-	-	HTND30GH220*
Desktop	230V	0.5K	HTNDP5HE230	HTNDP5HB230	
		1K	HTND1HE230	HTND1HB230	-
		1.5K	HTND1P5HE230	HTND1P5HB230	-
		2K	-	-	HTND2H230*
		3K	-	-	HTND3H230*
		5K	-	-	HTND5H230*
		7K	-	-	HTND7H230*
		10K	-	-	HTND10H230*
Cabinet	230V	10K	-	-	HTND10GH230*
		15K	-	-	HTND15GH230*
		20K	-	-	HTND20GH230*
		30K	-	-	HTND30GH230*

Note: * = "default" means Analog Meter type

* = "E" means Digital Meter type



0.5K HTNDP5HE220 HTNDP5HB220

HTND Single-Phase Full-Automatic AC Voltage Stabilizer

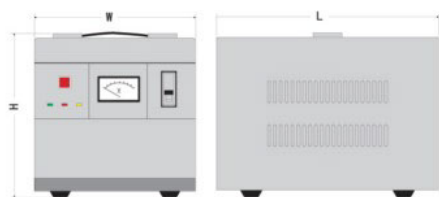
Standard: EN 61000-6-2 / EN 61000-6-4 / EN 61558-1



Technical Data

Type		HTND Single-Phase Full-Automatic AC Voltage Stabilizer			
Rated Capacity	kVA	0.5~5	7~10	15~20	30
Output Voltage	Accuracy of stabilized voltage	V	220±4%; 110±4%	220±4%	
	Undervoltage Protection	V	184±4 (not for standard product) can be customized		
	Overvoltage Protection	V	246±4		
Range of Input Voltage	V	150~250 or 110~250		150~290	
Mains Supply (by-pass function)		can be customized (not for standard product)			
Cooling Mode		Air cooling can be customized (not for standard product: standard one is self-cooling)			
Voltage-regulating Speed	s	<1 (variation of input voltage is 10%)			
Temperature Rise	K	<80			
Frequency	Hz	50/60			
Display Mode		Dial Meter (Panel Meter) or LED			
Insulation Grade		B			
Insulation Resistance	MΩ	≥5			
Time Delay	min	5±2 (not for standard product) can be customized			
Withstand Voltage	V/1min	1500			
Efficiency		≥92%			
Maximum Rated Current	A	2.3 (0.5kVA), 4.5 (1kVA), 6.8 (1.5kVA), 9.1 (2kVA), 13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 45.5 (10kVA), 68 (15kVA), 90.9 (20kVA), 136 (30kVA)			
Certification		CE			
Standard		EN61000-6-2/ EN61000-6-4/EN61558-1			

Overall Dimensions



Unit: mm

Product shape	Model	Width×Length×Height (mm)			
		W	L	H	
Desktop	HTND-0.5	190	160	135	
	HTND-1	205	190	155	
	HTND-1.5	205	190	155	
	HTND-2	240	270	200	
	HTND-3	225	305	235	
	HTND-5	225	310	290	
	HTND-7	240	387	360	
	HTND-10	240	387	360	
	Cabinet type	HTND-10	310	340	535
		HTND-15	340	360	640
HTND-20		340	380	780	
HTND30		425	390	845	

HTND2 High Precise Full-Automatic AC Voltage Stabilizer

Standard: EN 61000-6-2 EN 61000-6-4 EN 61558-1



Function

HTND2 series high-precision full automatic AC voltage stabilizer is a new type of LED display AC voltage stabilizer. It is controlled by CPU, while it has elegant appearance, wide range for stabilizing voltage and no additional distortion. Overvoltage protection and short circuit protection are included in HTND2, which make HTND2 be an ideal AC voltage-stabilized power supply.

Application Range

- It is suitable for household appliances, school, research units, laboratory, radio and television equipment, textile machinery, factories and mines and processing equipment, where need to be voltage stabilized.

Coding System

Product name	Rated power kVA	Structure	Plug type	Output voltage
HTNDS	10	G	E	230
↓	↓	↓	↓	↓
HTNDS:HTND2	1: 1kVA 1P5: 1.5kVA 2: 2kVA ... 30: 30kVA	Default: Desk type G: Cabinet type	HE: Europe type HB: British type H: Terminal connect	Default: Output 220V 230: Output 230V

Shape	Output voltage	Power rating	Reference		
			European plug	British plug	Terminal connect
Desktop	220V	1kVA	HTNDS1HE	HTNDS1HB	
		1.5kVA	HTNDS1P5HE	HTNDS1P5HB	
		2kVA	HTNDS2HE	HTNDS2HB	
		3kVA	HTNDS3HE	HTNDS3HB	
		5kVA	HTNDS5HE	HTNDS5HB	
		7kVA	HTNDS7HE	HTNDS7HB	
		10kVA	HTNDS10HE	HTNDS10HB	
		Cabinet	220V	10kVA	
15kVA					HTNDS15GH
20kVA					HTNDS20GH
30kVA					HTNDS30GH
Desktop	230V	1kVA	HTNDS1HE230	HTNDS1HB230	
		1.5kVA	HTNDS1P5HE230	HTNDS1P5HB230	
		2kVA	HTNDS2HE230	HTNDS2HB230	
		3kVA	HTNDS3HE230	HTNDS3HB230	
		5kVA	HTNDS5HE230	HTNDS5HB230	
		7kVA	HTNDS7HE230	HTNDS7HB230	
		10kVA	HTNDS10HE230	HTNDS10HB230	
		Cabinet	230V	10kVA	
15kVA					HTNDS15GH230
20kVA					HTNDS20GH230
30kVA					HTNDS30GH230



Note: More functions can be customized if customers require, e.g. undervoltage protection, temperature rise protection, time delay.

HTND2 High Precise Full-Automatic AC Voltage Stabilizer

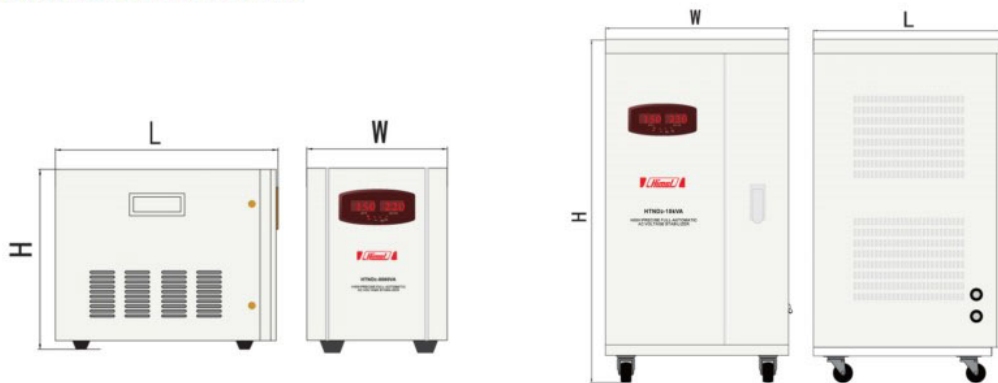
Standard: EN 61000-6-2 EN 61000-6-4 EN 61558-1



Main Technical Parameters

Type		HTND2			
Rated Capacity	kVA	1~5	7~10	15~20	30
Output Voltage	Accuracy of stabilized voltage	V	220±4%; 110±4%	220±4%	
	Undervoltage Protection	V	184±4 (not for standard product) can be customized		
	Overvoltage Protection	V	246±4		
Range of Input Voltage	V	140~250	140~300	155~285	
Voltage-regulating Speed	s	<1 (variation of input voltage is 10%)			
Temperature Rise	K	<80			
Frequency	Hz	50/60			
Insulation Grade		B			
Insulation Resistance	MΩ	≥5			
Time Delay	min	5±2 (not for standard product) can be customized			
Withstand Voltage	V/1min	1500			
Efficiency		92%			
Maximum Rated Current	A	1.5 (1kVA), 6.8 (1.5kVA), 9.1 (2kVA), 13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 45.5 (10kVA), 68 (15kVA), 90.9 (20kVA), 136 (30kVA)			
Certification		CE			

Outline Dimensions



Unit: mm

Product shape	Model	Width × Length × Height Weight (mm)			Weight (kg)
		W	L	H	
Desktop	HTND2-1	165	275	215	5.8
	HTND2-1.5	165	275	215	6.2
	HTND2-2	175	300	230	7.8
	HTND2-3	215	305	265	12.5
	HTND2-5	220	325	285	15.7
	HTND2-7	245	420	378	26.5
	HTND2-10	245	420	378	29.3
Cabinet	HTND2-10	310	340	530	33
	HTND2-15	340	360	650	56.5
	HTND2-20	390	390	770	63.5
	HTND2-30	425	395	845	77

HTND3 Single-Phase Full-Automatic AC Voltage Stabilizer

Standard: EN 61000-6-2 / EN 61000-6-4 / EN 61558-1



HTND3 Series High Precise Full-Automatic AC Voltage Stabilizer provides:

- Innovative and elegant appearance;
- LCD display, and central processor CPU control;
- Wide range of input voltage(150~250V) without additional distortion;
- Comprehensive protection function: electrical overload protection, over voltage protection, short circuit and temperature rise protection protection;
- Good output voltage waveform, smooth regulating process without instantaneous power failure;
- High precision of output voltage(220V ±4%).

Order information



Product name	Rated power kVA	Structure	Plug type	Output voltage
HTNDC	10	G	E	230
↓	↓	↓	↓	↓
HTNDC:HTND3	1: 1kVA 1P5: 1.5kVA 2: 2kVA ... 30: 30kVA	Default: Desk type G: Cabinet type	HE: European type HB: British type H: Terminal connect	Default: 220V output 230: 230V output

Shape	Output voltage	Power rating	Reference		
			European plug	British plug	Terminal connect
Desktop	220V	1k	HTNDC1HE	HTNDC1HB	
		1.5k	HTNDC1P5HE	HTNDC1P5HB	
		2k	HTNDC2HE	HTNDC2HB	
		3k	HTNDC3HE	HTNDC3HB	
		5k	HTNDC5HE	HTNDC5HB	
		7k	HTNDC7HE	HTNDC7HB	
		10k	HTNDC10HE	HTNDC10HB	
Cabinet	220V	10k			HTNDC10GH
		15k			HTNDC15GH
		20k			HTNDC20GH
		30k			HTNDC30GH
Desktop	230V	1k	HTNDC1HE230	HTNDC1HB230	
		1.5k	HTNDC1P5HE230	HTNDC1P5HB230	
		2k	HTNDC2HE230	HTNDC2HB230	
		3k	HTNDC3HE230	HTNDC3HB230	
		5k	HTNDC5HE230	HTNDC5HB230	
		7k	HTNDC7HE230	HTNDC7HB230	
		10k	HTNDC10HE230	HTNDC10HB230	
Cabinet	230V	10k			HTNDC10GH230
		15k			HTNDC15GH230
		20k			HTNDC20GH230
		30k			HTNDC30GH230



HTND3 Single-Phase Full-Automatic AC Voltage Stabilizer

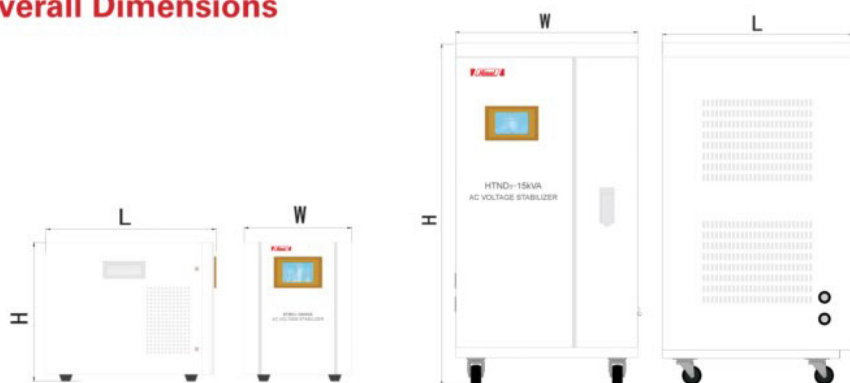
Standard: EN 61000-6-2 / EN 61000-6-4 / EN 61558-1



Technical Data

Type		HTND3 Single-Phase Full-Automatic AC Voltage Stabilizer			
Rated Capacity	kVA	1~5	7~10	15~20	30
Output Voltage	Accuracy of stabilized voltage	V	220±4%; 110±4%	220±4%	
	Undervoltage Protection	V	184±4 (not for standard product) can be customized		
	Overvoltage Protection	V	246±4		
Range of Input Voltage	V	1150~250		150~290	
Voltage-regulating Speed	s	<1 (variation of input voltage is 10%)			
Temperature Rise	K	<80			
Frequency	Hz	50/60			
Display Mode		LCD			
Insulation Grade		B			
Insulation Resistance	MΩ	≥5			
Time Delay	min	5±2 (not for standard product) can be customized			
Withstand Voltage	V/1min	1500			
Efficiency		≥92%			
Maximum Rated Current	A	1.5 (1kVA), 6.8 (1.5kVA), 9.1 (2kVA), 13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 45.5 (10kVA), 68 (15kVA), 90.9 (20kVA), 136 (30kVA)			
Certification		CE			
Standard		EN61000-6-2/ EN61000-6-4/EN61558-1			

Overall Dimensions



Product shape	Model	Width×Length×Height (mm)			Weight (kg)
		W	L	H	
Desktop	HTND3-1	165	275	215	5.8
	HTND3-1.5	165	275	215	6.2
	HTND3-2	175	300	230	7.8
	HTND3-3	215	305	265	12.5
	HTND3-5	220	325	285	15.7
	HTND3-7	245	420	378	26.5
	HTND3-10	245	420	378	29.3
Cabinet	HTND3-10	310	340	530	33
	HTND3-15	340	360	650	56.5
	HTND3-20	390	380	770	63.5
	HTND3-30	425	380	845	77

Power Energy Management



HSVC-B High Precise Full-Automatic AC Voltage Stabilizer

Standard: EN 61000-6-2/EN 61000-6-4/EN61558-1



HSVC-B Series High Precise Full-Automatic AC Voltage Stabilizer

- Hanging type, Novel and luxury appearance;
- LCD display, and central processor CPU control;
- Wide range of input voltage(110~250V), without additional distortion;
- Complete protection function: time-delay selection, under-voltage protection, AC direct output over voltage protection, short circuit and temperature rise protection;
- Good output voltage waveform, smooth regulating process, without instantaneous power outages;
- High precision of output voltage(220V ±4%);

Order information

Product name	Rated power kVA	Structure	Input voltage	Other features
HSVCB	10	C	I110	WF



↓	↓	↓	↓	↓
HSVCB: HSVC-B	3: 3kVA 5: 5kVA 7: 7kVA 10: 10kVA	Dial meter display C: LCD display	Default: 150V~250V input I110: 110V~250V input	WF: With fan FD: With fan, With delay

Shape	Power rating	Reference		
		150V~250V	110V~250V	Input 110V~250V with fan, with delay
Hanging type	3k	HSVCB3C	HSVCB3CI110	HSVCB3CI110FD
	5k	HSVCB5C	HSVCB5CI110	HSVCB5CI110FD
	7k	HSVCB7C	HSVCB7CI110	HSVCB7CI110FD
	10k	HSVCB10C	HSVCB10CI110	HSVCB10CI110FD



Power energy management

HSVC-B High Precise Full-Automatic AC Voltage Stabilizer

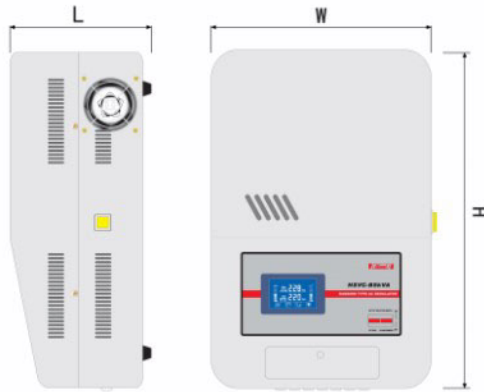
Standard: EN 61000-6-2/EN 61000-6-4/EN 61558-1



Technical Data

Type		HSVC High Precise Full-Automatic AC Voltage Stabilizer	
Rated Capacity		kVA	3~7 10
Output Voltage	Accuracy of stabilized voltage	V	220±4%;110±4% 220±4%
	Undervoltage Protection	V	184±4 (not for standard product) can be customized
	Overvoltage Protection	V	246±4
Range of Input Voltage		V	110~250 or 150~250
Voltage-regulating Speed		s	<1 (variation of input voltage is 10%)
Temperature Rise		K	<80
Frequency		Hz	50/60
Display Mode		Dial Meter (Panel Meter) or LCD	
Insulation Resistance		MΩ	≥5
Time Delay		min	5±4 (not for standard product) can be customized
Withstand Voltage		V/1min	1500
Efficiency			≥92%
Maximum Rated Current		A	13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 45.5 (10kVA)
Standard		EN61000-6-2/ EN61000-6-4/EN61558-1	

Overall Dimensions



Product shape	Model	Width × Length × Height (mm)			Weight (kg)
		W	L	H	
Hanging type	HSVC-B3kVA	265	165	395	13
	HSVC-B5kVA	280	170	430	16.7
	HSVC-B7kVA	280	170	430	22.9
	HSVC-B10kVA	300	180	445	27

HAVRL Ultra-Low Voltage Full-Automatic AC Voltage Stabilizer

Standard:EN61000-6-2/ EN61000-6-4/EN61558-1



Function

HAVRL series household ultra-low voltage full-automatic AC voltage stabilizers are widely used in low and high fluctuating voltage areas to provide ideal stabilized AC voltage and protect power supply for household appliances, such as air conditioners, refrigerators, TV and sound sets etc.

Specifications power

HAVRL	Rated power kVA
	P5:0.5
Full-automatic	1P5:1.5
AC voltage stabilizer	2:2..... 10:10

Rated power

HAVRL	Rated power kVA
Desktop type	0.5 , 1 , 1.5 , 2 , 3 , 5 , 7 , 10

Main technical parameters

This product uses 8-bit RISC structured single chip and electromagnetic components for control. Integrating the advantages of plentiful regulated power supply, it has thoroughly eliminated the defects of mechanical noise, abrasion and slow response etc. on conventional voltage stabilizer. Besides the advantages of reasonable design, easy operation, reliable performance and high efficiency etc., HAVRL also has input and output voltage detection, LED display, working status indicator, and overvoltage, overcurrent and temperature rise protections to ensure the safe operation of electrical installations.

Ambient temperature: -5°C~+40°C, the mean temperature in the hottest months \leq +30°C

Altitude: 1000m;

Relative humidity: not higher than 90% (at +25°C)

Working environment: indoors without chemical deposition and dirt; indoors without harmful erosive media, inflammable and explosive gas or dust; indoors with serious vibration and jounce.

HAVRL Series

Type	HAVRL Ultra-Low Voltage Full-Automatic AC Voltage Stabilizer	
Output Voltage	Accuracy of stabilized voltage	V 220 \pm 8%; 110 \pm 10%
	Overvoltage Protection	V 250 \pm 4
Range of Input Voltage		V 85~250
Voltage-regulating Speed		ms <10
Temperature Rise		K <75 (with rated load)
Frequency		Hz 50/60
Display Mode		LED
Insulation Resistance	M Ω	\geq 5
Withstand Voltage	V/1min	2000
Efficiency		\geq 90%
Maximum Rated Current	A	2.3 (0.5kVA), 4.5 (1kVA), 6.8 (1.5kVA), 9.0 (2kVA), 13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 45 (10kVA)
Standard		EN61000-6-2/ EN61000-6-4/EN61558-1



HAVRL Ultra-Low Voltage Full-Automatic AC Voltage Stabilizer

Standard: EN61000-6-2/ EN61000-6-4/EN61558-1



Overall dimensions and weight



Type	Specification	Overall size WxLxH (mm)	Weight (kg)
Desktop type	HAVRL-500VA	165x275x215	3.0
	HAVRL-1500VA	165x275x215	4.7
	HAVRL-3000VA	215x305x265	9.7
	HAVRL-7000VA	245x420x378	16
	HAVRL-1000VA	165x275x215	4.0
	HAVRL-2000VA	175x300x230	6.2
	HAVRL-5000VA	220x325x285	11.5
	HAVRL-10000VA	245x420x378	18

The above dimensions and weight are only for references, which are subjected to improvements without further notice!



HSJW Three-Phase Full-Automatic AC Voltage Stabilizer

Standard:EN61000-6-2/ EN61000-6-4/EN61558-1



Function

HSJW three-phase AC voltage stabilizer provides:

- This product is constructed by connecting three stabilizers with Y-connection
- Wide input voltage range, high efficiency, high regulation accuracy, same input and output voltage waveform, small volume, less weight
- Available in the electric equipment and facilities in housing, school, shop, office and precision instrument for scientific experiment

Order Information

Shape	Power rating	Reference
Desktop	1.5 kVA	HSJW1P5
	3k VA	HSJW3
	4.5 kVA	HSJW4P5
Cabinet	6 kVA	HSJW6G
	9 kVA	HSJW9G
	15 kVA	HSJW15G
	20 kVA	HSJW20G
	30 kVA	HSJW30G
	45 kVA	HSJW45G
	60kVA	HSJW60G

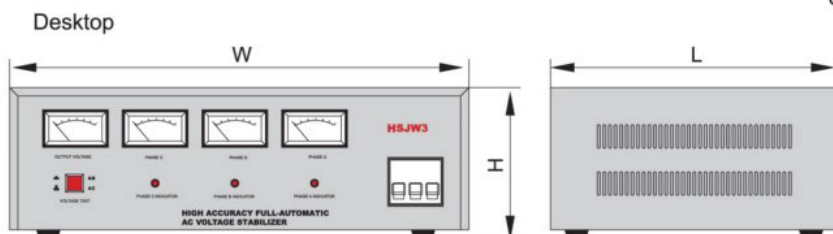
Technical Data

Type	HSJWThree-Phase Full-Automatic AC Voltage Stabilizer	
Rated Capacity	kVA	1.5~30 45~60
Output Voltage	Accuracy of stabilized voltage	V 380±4%
	Undervoltage Protection	V 320±7 (not for standard product) can be customized
	Overvoltage Protection	V 425±7
Range of Input Voltage	V	260~430 304~456
Voltage-regulating Speed	s	<1 (variation of input voltage is 10%)
Temperature Rise	K	<80
Ambient Temperature	°C	-5°C~+40°C
Frequency	Hz	50/60
Display Mode		Dial Meter (Panel Meter) or LED or LCD
Insulation Resistance	MΩ	≥5
Withstand Voltage	V/1min	1500
Efficiency		≥92%
Maximum Rated Current	A	2.3 (1.5kVA), 4.6 (3kVA), 6.8 (4.5kVA), 9.1 (6kVA), 13.7 (9kVA), 22.8 (15kVA), 30.4 (20kVA), 45.6 (30kVA), 68 (45kVA), 91 (60kVA)
Certification		CE
Standard		EN61000-6-2/ EN61000-6-4/EN61558-1



Overall Dimensions

Unit: mm



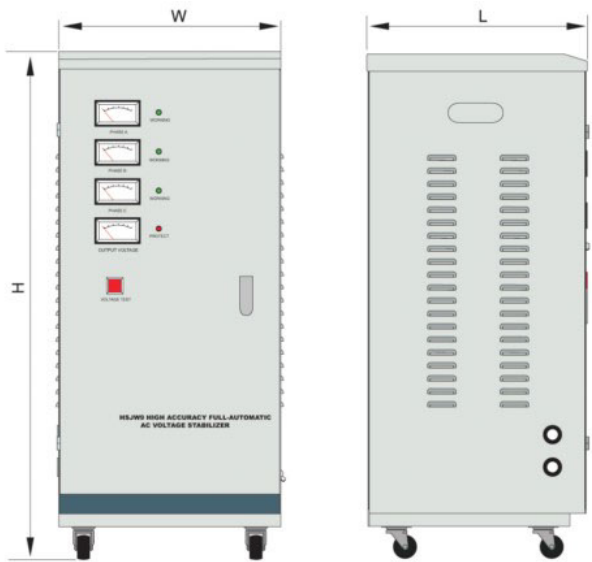
HSJW Three-Phase Full-Automatic AC Voltage Stabilizer

Standard: EN61000-6-2/ EN61000-6-4/ EN61558-1



Overall Dimensions

- Cabinet



Form	Model	Width × Length × Height (mm)		
		W	L	H
Desktop	HSJW-1P5	485	315	165
	HSJW-3	485	315	165
	HSJW-4.5	485	315	165
Cabinet	HSJW-6	278	322	665
	HSJW-9	320	325	750
	HSJW-15	350	350	855
	HSJW-20	425	390	845
	HSJW-30	440	415	875
	HSJW-45	550	450	1170
	HSJW-60	600	495	1300



HSBW Three-Phase Compensation AC Voltage Stabilizer

Standard:EN61000-6-2/ EN61000-6-4/EN61558-1



Function

HSBW three-phase compensation AC voltage stabilizer provides:

- This product is designed and developed with the international advanced compensation technology Keep the output voltage in steady state automatically when the network voltage fluctuate or the load current varies
- Provided with over-voltage, over-current, phase lose protection function
- under-voltage

Order Information

Power rating	Reference
10kVA	HSBW10
15kVA	HSBW15
30kVA	HSBW30
50kVA	HSBW50
100kVA	HSBW100
150kVA	HSBW150
180kVA	HSBW180
200kVA	HSBW200
225kVA	HSBW225
250kVA	HSBW250
300kVA	HSBW300
400kVA	HSBW400
500kVA	HSBW500
600kVA	HSBW600
800kVA	HSBW800
1000kVA	HSBW1000
1600kVA	HSBW1600
2000kVA	HSBW2000



Technical Data

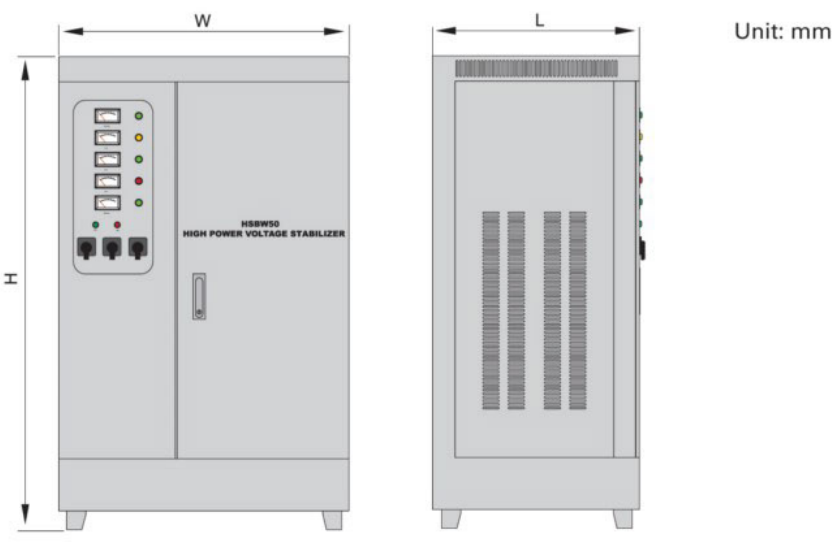
Type	HSBWThree-Phase Compensation AC Voltage Stabilizer	
Rated Capacity	kVA	10~2000
Output Voltage	Accuracy of stabilized voltage	V 380±3%
	Undervoltage Protection	V 320±7 (not for standard product) can be customized
	Overvoltage Protection	V 425±7
Range of Input Voltage	V	304~456
Voltage-regulating Speed	s	<1 (variation of input voltage is 10%)
Temperature Rise	K	<60
Ambient Temperature	°C	-5°C~+40°C
Frequency	Hz	50/60
Display Mode		Dial Meter (Panel Meter) or LED or LCD
Insulation Resistance	MΩ	≥5
Withstand Voltage	V/1min	2000
Efficiency		≥95%
Certification		CE
Standard		EN61000-6-2/ EN61000-6-4/EN61558-1

HSBW Three-Phase Compensation AC Voltage Stabilizer

Standard: EN61000-6-2/ EN61000-6-4/ EN61558-1



Overall Dimensions



Model	No. of Cabinet	Width × Length × Height (mm)			
		W	L	H	
HSBW-10	1	750	580	1170	
HSBW-20	1	750	580	1170	
HSBW-50	1	800	570	1300	
HSBW-100	1	850	645	1460	
HSBW-200	1	1050	750	1850	
HSBW-500	1	1400	1100	2100	
HSBW-800	2	1350	1100	2200	
HSBW-1000	2	1300	1200	2200	*Main cabinet
		1500	1200	2200	*Assistant cabinet
HSBW-1600	4	1450	1200	2255	
HSBW-2000	4	1450	1200	2255	



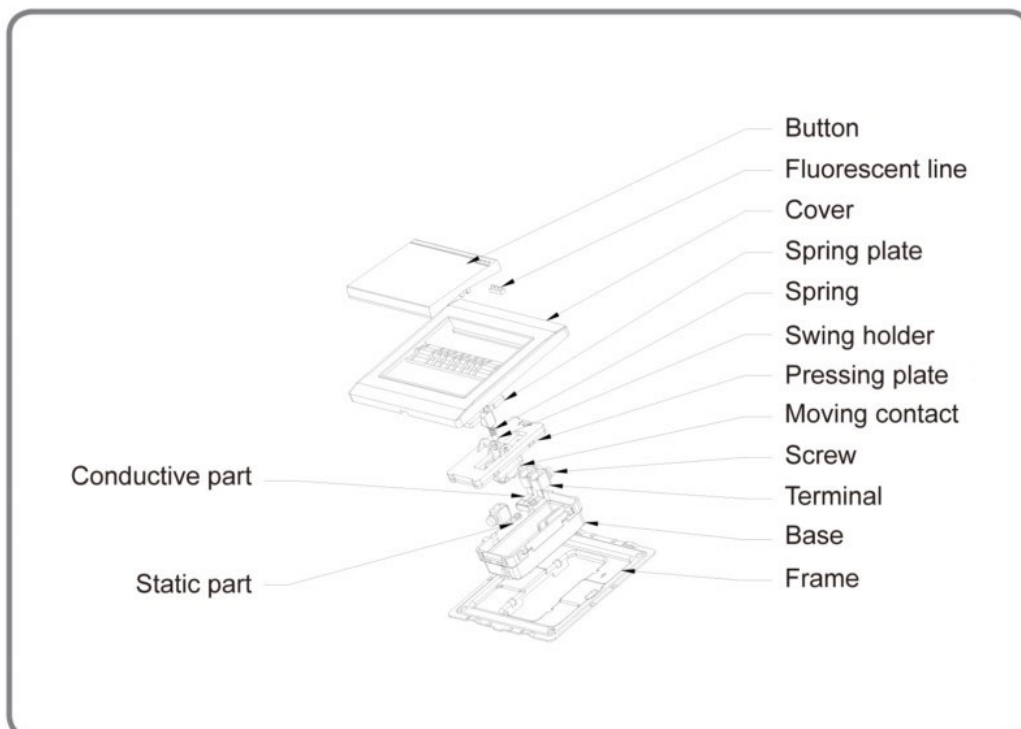
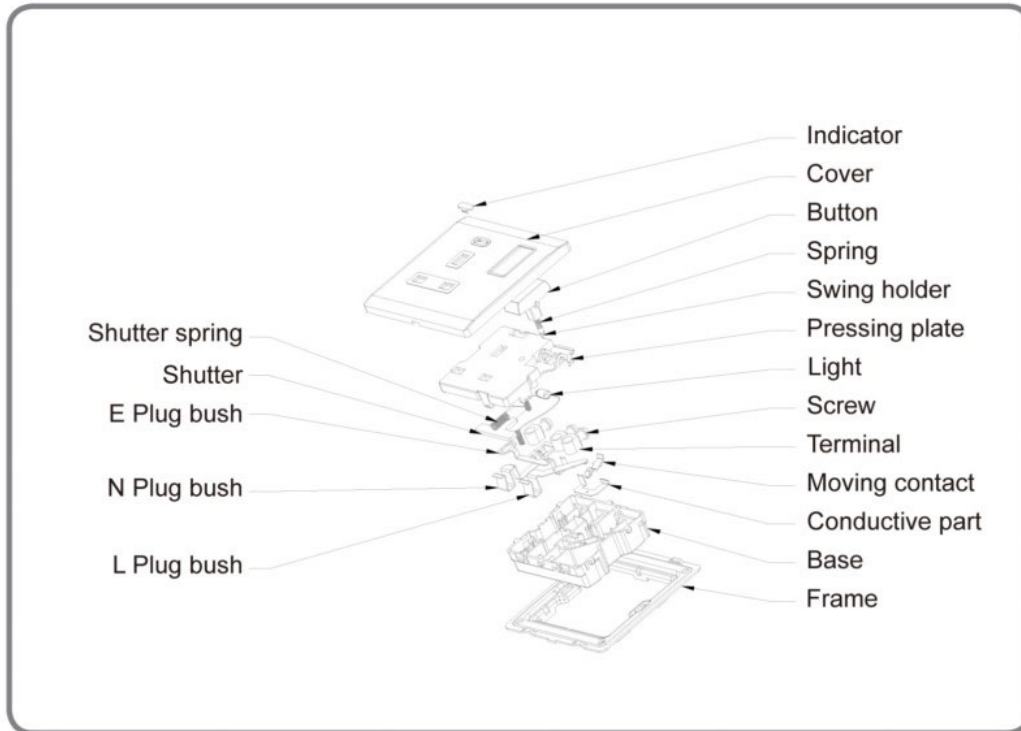
British Standard Wiring Devices

Prime Series

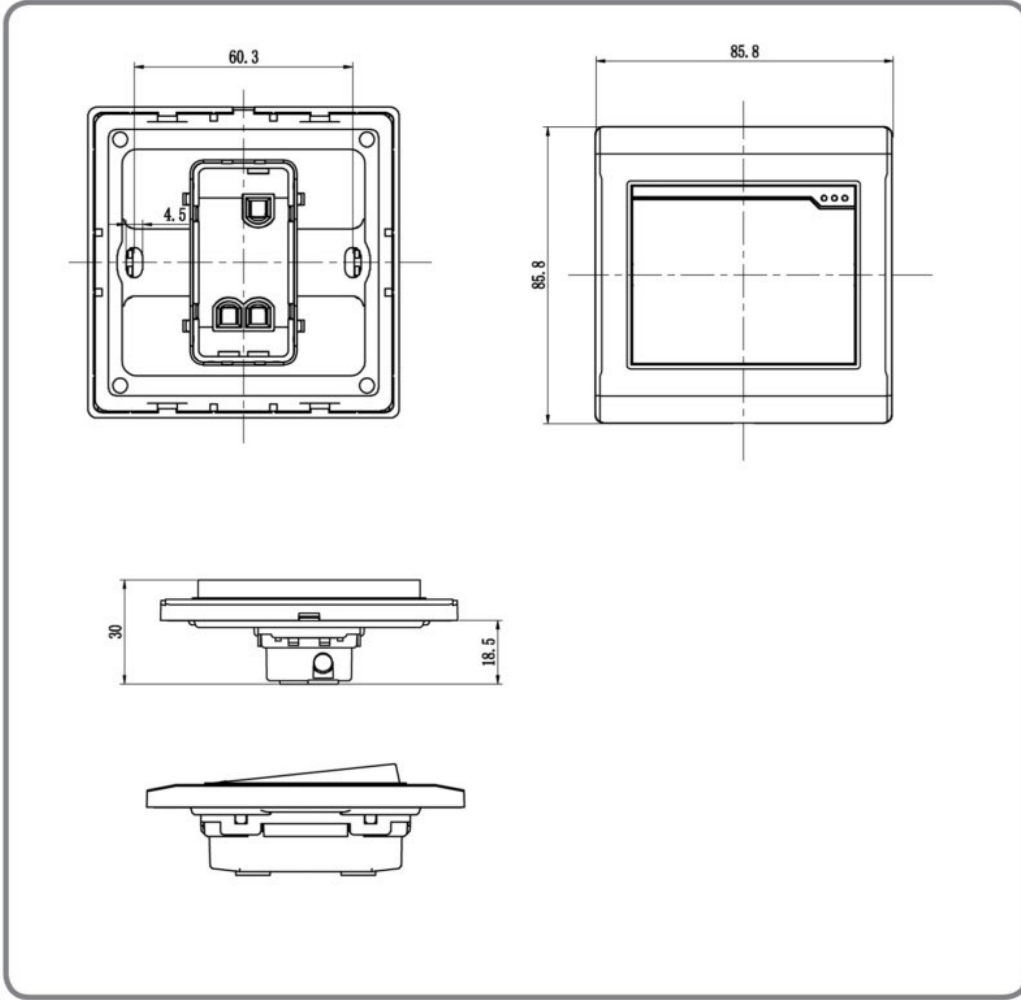
Standard: IEC 60669 / BS 1363-2



Main Product Structure Description



Features and Dimension



Wiring Devices



British Standard Wiring Devices

Prime Series

Standard: IEC 60669 / BS 1363-2



Flush Switches

HWDYLK1 1 Gang 1 way Switch

HWDYLK2 1 Gang 2 way Switch

HWDYL2K1 2 Gang 1 way Switch

HWDYL2K2 2 Gang 2 way Switch

HWDYL3K1 3 Gang 1 way Switch

HWDYL3K2 3 Gang 2 way Switch

HWDYL4K1 4 Gang 1 way Switch

HWDYL4K2 4 Gang 2 way Switch

HWDYLKB Bell Switch



Wiring Devices

Double Pole Switches

HWDY245K1 1 Gang 20A Double Pole Switch with Neon

HWDYL45K2 1 Gang 45A Double Pole Switch with Neon



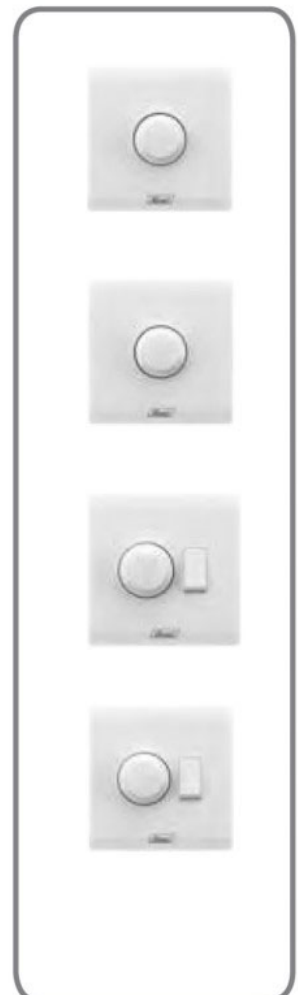
Dimmer Switches & Fan Control Switches

HWDYLTG 1 Gang Light Dimmer

HWDYLTS 1 Gang Fan Speed Controller

HWDYLK1TS 1 Gang Switched Fan Speed Controller

HWDYLK1TG 1 Gang Switched Dimmer



British Standard Wiring Devices

Prime Series

Standard: IEC 60669 / BS 1363-2



Socket Outlet

HWDYLK1SF13U 1 Gang 13A Switched Socket

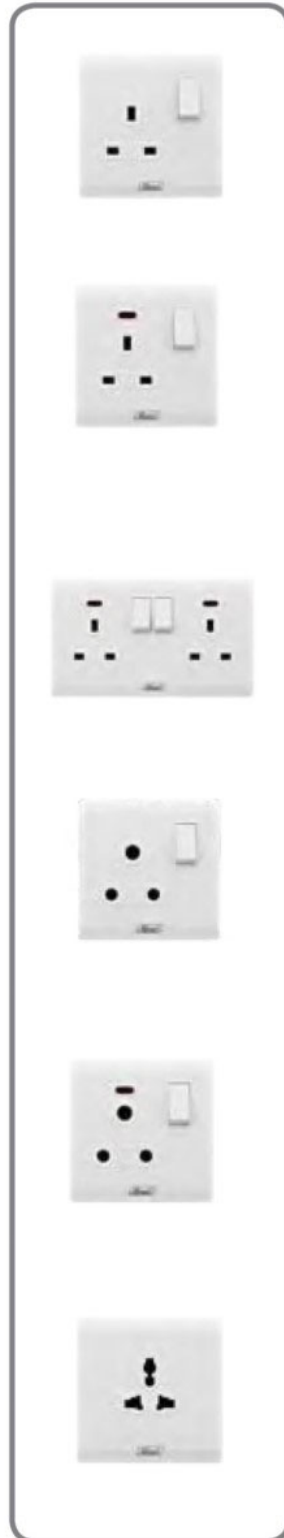
HWDYLK1SF131P 1 Gang 13A Switched Socket with Neon

HWDYLK2K12SF13 2 Gang 13A Switched Socket with Neon

HWDYLK1SC15 1 Gang 15A Switched Socket

HWDYLK1SF15 1 Gang 15A Switched Socket With Neon

HWDYLSW 1 Gang 13A International Socket



Wiring Devices

Socket Outlet

HWDYLK1SW 1 Gang 13A Switched International Socket with Neon

HWDYLSW2USB 1 Gang International Socket with 2 USB

HWDYLK1SW2USB 1 Gang 13A International Switched Socket with 2 USB with Neon

HWDYL5SW 1 Gang 5 Pin Universal Socket

HWDYLK1L 1 Gang Switch and 2pin

HWDYL2K12SW16A 2 Gang 16A Switched International Socket with Neon



British Standard Wiring Devices Prime Series

Standard: IEC 60669 / BS 1363-2



Telecommunication Accessories

HWDYLD 1 Gang Data Socket

HWDYLTV 1 Gang TV Co-Axial Outlet

HWDYTELLD 2 Gang Tel and Data Socket

HWDYTVTEL 2 Gang TV and 4 core Tel Socket

HWDYLTEL 1 Gang 4 core Tel Socket

HWDY2TEL 2 Gang 4 core Tel Socket



Telecommunication Accessories

HWDYL2D 2 Gang Data Socket

HWDYL2TV 2 Gang TV Socket

HWDYTVLD 2 Gang HWD TV and Network Port

HWDYLTV2 1 Gang Satellite TV Socket

HWDYLTV2TEL 2 Gang Satellite + TEL

HWDYLTV2V 2 Gang Satellite + TV



British Standard Wiring Devices Prime Series

Standard: IEC 60669 / BS 1363-2



Hotel Accessories

HWDYHKS Hotel Keycard Switch

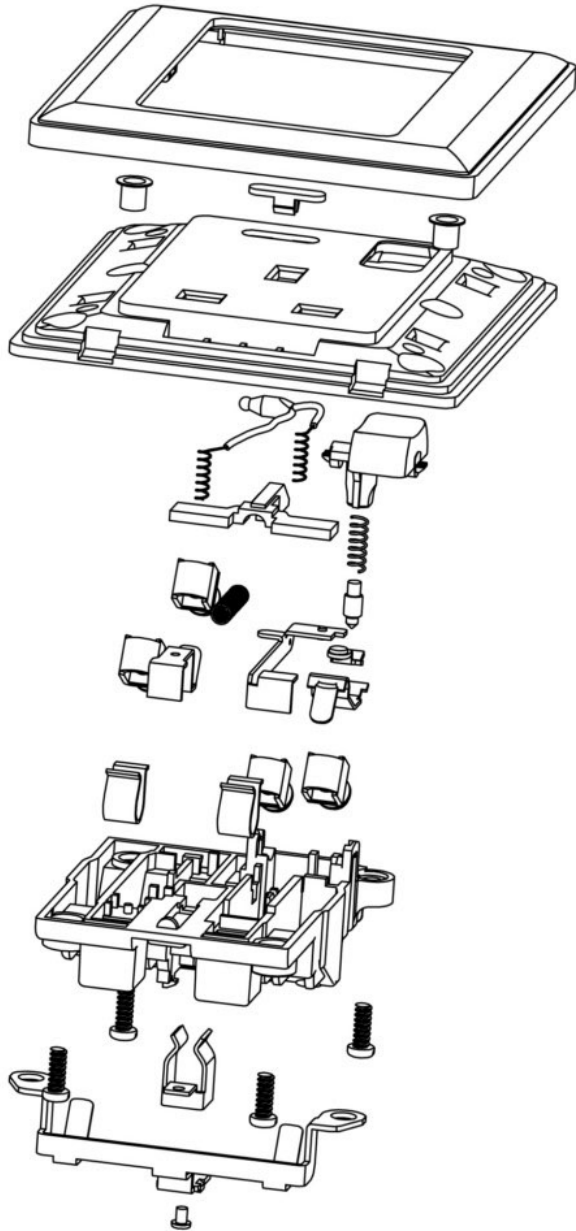


Flush Plates and Accessories

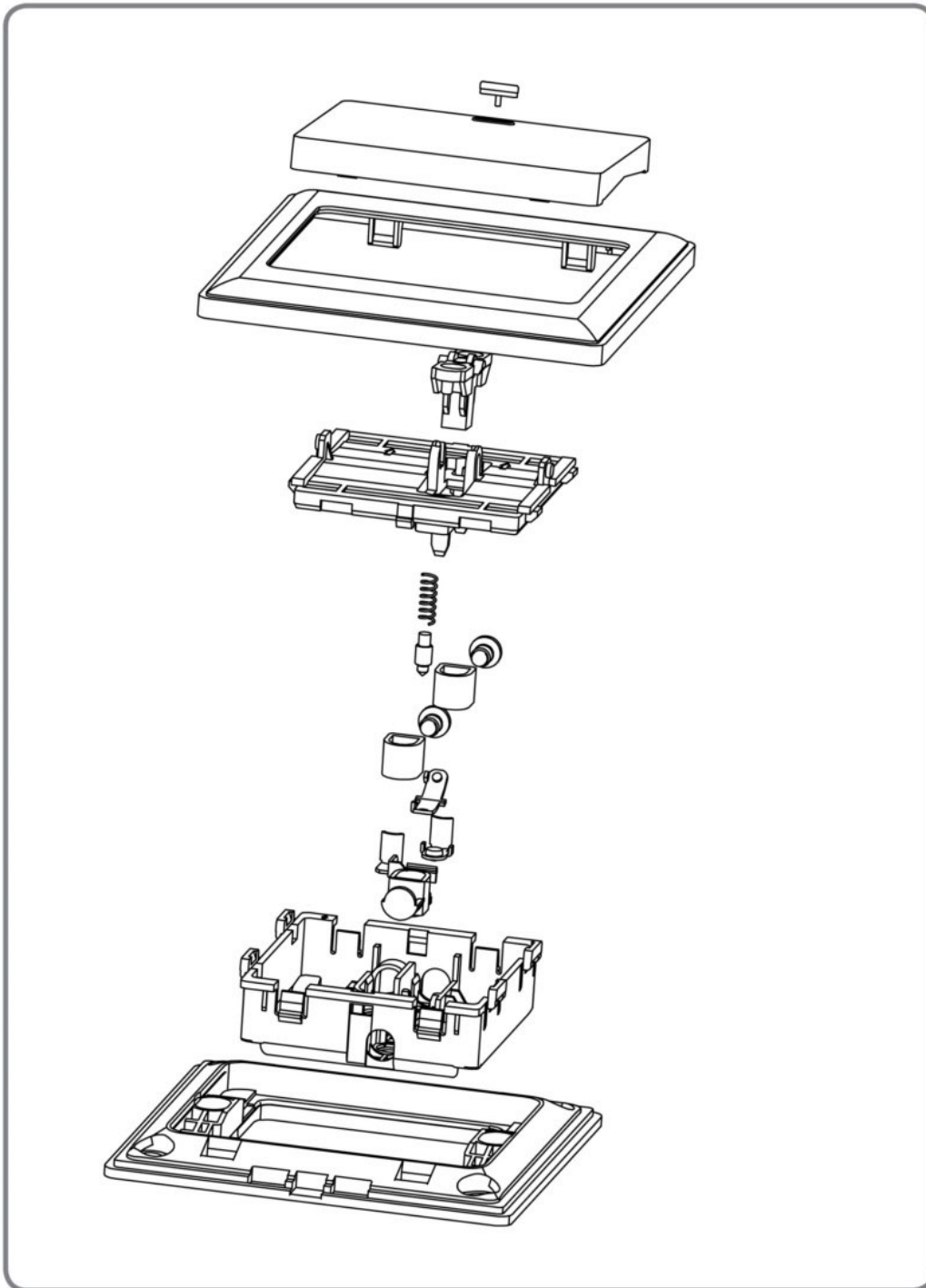
HWDYLB Blank panel



13A Switched Socket with Neon



1Gang 1Way Switch



Flush Switches: Common characteristics

- Rated Voltage: 250V
- Rated Current: 16AX
- Contact Opening: normal gap
- Degree of protection against access to hazardous parts and against harmful effects due to the ingress of solid foreign objects: IP2X
- Degree of protection against harmful effects due to ingress of water: IPX0
- Method of actuating: Rocker
- Method of application: Flush-type
- Type of terminal: Screw Type
- Flexible Cable outlet: Without
- Standard: IEC 60669-1: 2017
- Material: Polycarbonate

Socket Outlet: Common characteristics

- Rated Voltage: 250V
- Rated Current: 13A
- Method of application: Flush-type
- Type of terminal: Screw Type
- Flexible Cable outlet: Without
- Standard: BS 1363-2: 2016 + A1: 2018
- Material:
Front Cover, Decorative Rocker, Mounting Plate, Switch Rocker, Indicator Light Cover: PC
Base: PA66
Shutter Body: PA66

Double Pole Switches: Common characteristics

- Rated Voltage: 250V
- Rated Current: 20A for HWDA20S; 45A for HWDA45S and HWDA45ST
- Contact Opening: normal gap
- Degree of protection against access to hazardous parts and against harmful effects due to the ingress of solid foreign objects: IP2X
- Degree of protection against harmful effects due to ingress of water: IPX0
- Method of actuating: Rocker
- Method of application: Flush-type
- Type of terminal: Screw Type
- Flexible Cable outlet: Without
- Standard: IEC 60669-1: 2017
- Material: Polycarbonate

Flush Switches

HWDA1S 1 Gang 1 Way Switch
HWDA1S2 1 Gang 2 Way Switch
HWDA1S3 1 Gang 2 Way (4 Line) Switch

HWDA2S 2 Gang 1 Way Switch
HWDA2S2 2 Gang 2 Way Switch

HWDA3S 3 Gang 1 Way Switch
HWDA3S2 3 Gang 2 Way Switch





HWDA4S 4 Gang 1 Way Switch
HWDA4S2 4 Gang 2 Way Switch

HWDABS Bell Switch

HWDACS Curtain Switch



COLOURS

-  Gold HWDA – product code - G
-  Metallic HWDA – product code - M
-  Brown HWDA – product code - B
-  Cream HWDA – product code - C

Double Pole Switches

- HWDA20S** 1 Gang 20A Double Pole Switch with Neon
- HWDA45S** 1 Gang 45A Double Pole Switch with Neon
- HWDA45ST** 1 Gang 45A Double Pole Switch with Neon (146 type)







Dimmer Switches & Fan Control Switches

- HWDAAD3** 1 Gang 300W Dimmer
- HWDAAD10** 1 Gang 1000W Dimmer
- HWDAADFC3** 1 Gang 230V Fan Control



COLOURS

-  Gold HWDA – product code - G
-  Metallic HWDA – product code - M
-  Brown HWDA – product code - B
-  Cream HWDA – product code - C

Socket Outlet

HWDAUSUSB	1 Gang 20A Universal Socket + 2 Gang USB
HWDA5PS	1 Gang 5pin Socket
HWDA5PSS	1 Gang 5pin Socket with Switch







Telecommunication Accessories

HWDA45C	45A Socket Technical Connector
HWDA1TS	1 Gang RJ11 Telephone Socket (4 Pin)
HWDA2TS	2 Gang RJ11 Telephone Socket (4 Pin)



COLOURS

-  Gold HWDA – product code - G
-  Metallic HWDA – product code - M
-  Brown HWDA – product code - B
-  Cream HWDA – product code - C

Telecommunication Accessories





HWDA1DS	1 Gang RJ45 Data Socket 8 Pin
HWDA2DS	2 Gang RJ45 Data Socket 8 Pin
HWDA1SS	1 Gang Satellite Socket
HWDA1S1T	1 Gang Satellite. + RJ11 Telephone Socket (4 Pin)
HWDASTS	Sensitive time Switch



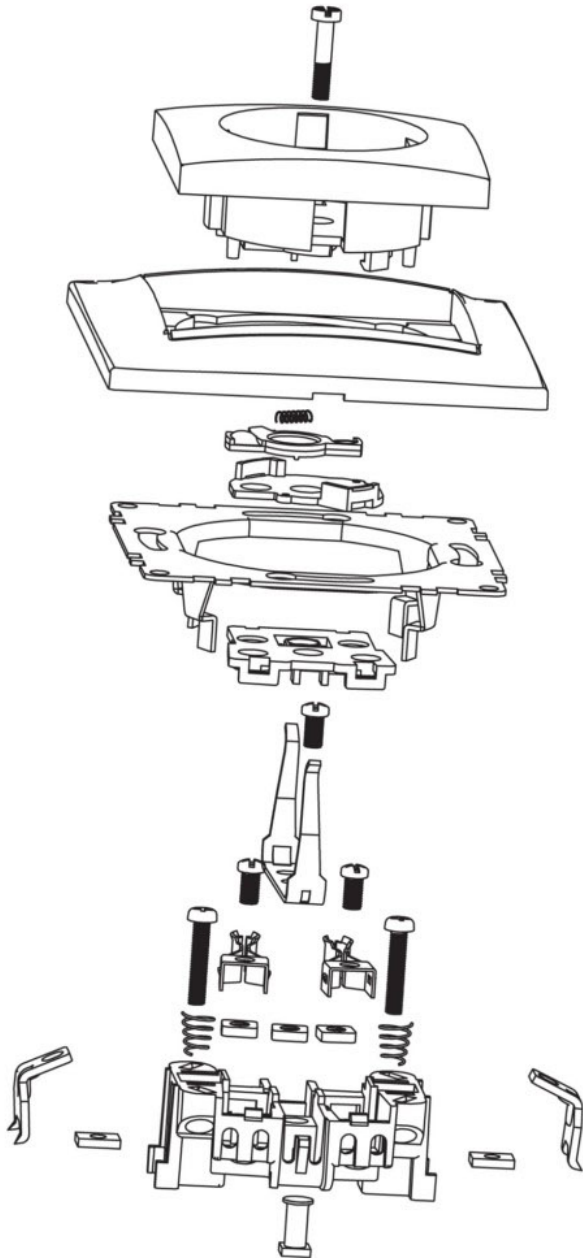
Flush Plates and Accessories

HWDA B	Blank Panel
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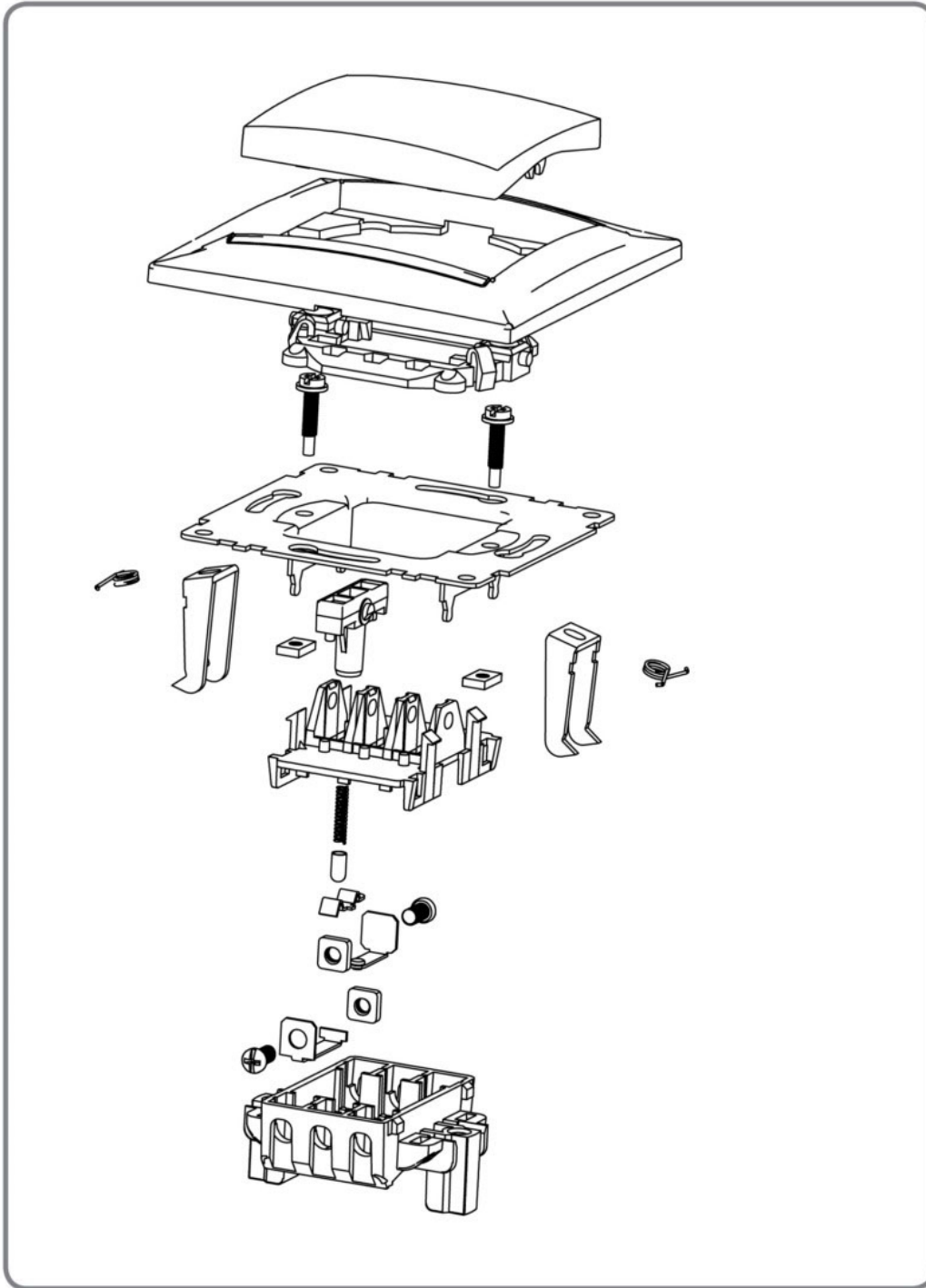
COLOURS

-  Gold HWDA – product code - G
-  Metallic HWDA – product code - M
-  Brown HWDA – product code - B
-  Cream HWDA – product code - C

1 Gang Earthed Schuko Socket



1 Gang 1 Way Switch



Flush Switches

- Rated Voltage: 250V
- Rated Current: 10AX
- Requirements: IEC 60669-1; EN 60669
- Degree of protection: IP2X + IPX0
- Method of actuating: Rocker
- Method of application: Flush-type
- Type of terminals: Screw-type

Dimmer

- Rated Voltage: 230V
- Rated Frequency: 50Hz
- Requirements: EN 60669-1; EN 60669-2
- Degree of protection: IP2X + IPX0
- Method of actuating: Rotary
- Method of mounting: Flush-Type
- Type of terminals: Screw-type
- Minimum and Maximum current / load: 20-300W

Sockets Outlets




- Rated Voltage: 250V
- Rated Current: 16A
- Requirements: IEC 60884-1
- With and Without Shutter options available
- Degree of protection: IP2X + IPX0
- Method of connecting the cable: Screw-type
- Existence of shutters: without shutters / with shutters
- Method of application: Flush-type

Flush Switches

HWDS1S	1 Gang 1 Way Switch
HWDS1S2	1 Gang 2 Way Switch
HWDS2S	2 Gang 1 Way Switch
HWDS2S2	2 Gang 2 Way Switch
HWDS1SL	1 Gang 1 Way Switch with LED
HWDS2SL	1 Gang 2 Way Switch with LED
HWDS1PB	Push Button
HWDSBS	Bell Switch



COLOURS

-  Gold HWDS – product code - G
-  Metallic HWDS – product code - M
-  Wood HWDS – product code - W

Dimmer

HWDS 1 Gang Light Dimmer



Socket Outlet

HWDS2P 1 Gang 2pin Socket
HWDS2PS 1 Gang 2pin Socket with shutters

HWDS2P 2 Gang 2pin Socket
HWDS2PS 2 Gang 2pin Socket with shutters

HWDS 1 gang Schuko Socket
HWDS 1 gang Schuko Socket with shutters




HWDS 2 gang Schuko Socket
HWDS 2 gang Schuko Socket with shutters

HWSS 1 gang Schuko Socket with cover
HWSS 1 gang Schuko Socket with cover with shutters

HWFS 1 Gang 2pin+E Socket
HWFS 1 Gang 2pin+E Socket with shutters



COLOURS




-  Gold HWDS – product code - G
-  Metallic HWDS – product code - M
-  Wood HWDS – product code - W

Telecommunication Accessories

HWDC	1 Gang Data Socket
HWDS2C	2 Gang Data Socket
HWST	1 Gang RJ11 Telephone
HWDS2T	2 Gang RJ11 Telephone
HWSTV	1 Gang Isolated TV Socket
HWSTVSA	1 Gang TV + SAT Socket
HWSSA	1 Gang Satellite Socket



COLOURS

-  Gold HWDS – product code - G
-  Metallic HWDS – product code - M
-  Wood HWDS – product code - W



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