HDM6s Molded Case Circuit Breaker

Standard: IEC 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-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
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

HDM6s Molded Case Circuit Breaker

Standard: IEC 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 60947-2

Technical Data

Fixed Thermal Magnetic																
Basic Information (IEC60947-2)																
Frame Size	AF	63						100				250				
Number of Poles		3P				4P		3P		4P		3P		4P		
Breaking Capacity Level		L	S	M	T	M	T	L	S	L	S	L	S	L	S	
Rated Ultimate Short-circuit Breaking Capacity Icu (kA rms)		25	18	50	30	50	30	35	26	35	26	35	26	35	26	
Rated Service Short-circuit Breaking Capacity Ics (kA rms)		75%	100%	50%	100%	50%	100%	75%	100%	75%	100%	75%	100%	75%	100%	
Mechanical Durabilities	On-off Cycle	8500						8500				7000				
Electrical Durabilities	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 81						See Page 82				See Page 83				

"■" shows it has this option;

"-" means it has no this option.

HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2

Technical Data

Fixed Thermal Magnetic																	
Basic Information (IEC60947-2)																	
Frame Size	AF	400				630				800							
Number of Poles		3P		4P		3P		4P		3P				4P			
Breaking Capacity Level		L	S	L	S	L	S	L	S	L	S	M	T	L	S	M	T
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)		50%	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%	100%
Mechanical Durabilities	On-off Cycle	4000				4000				2500							
Electrical Durabilities	On-off Cycle	1000				1000				500							
Tripping Unit																	
Rated Current (A)	In	200/225/250/315/350/400				400/500/630				400/500/630/700/800							
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)		■				■				■							
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							

"■" shows it has this option;

"-" means it has no this option.

HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2

Technical Data




Thermo-adjustable																
Basic Information (IEC60947-2)																
Frame Size	AF	100				250				400				630		
Number of Poles		3P		4P		3P		4P		3P		4P		3P		4P	
Breaking Capacity Level		M	T	M	T	M	T	M	T	M	T	M	T	M	T	M	T
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)		50%	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%	100%
Mechanical Endurance	On-off Cycle	8500				7000				4000				4000			
Electrical Endurance	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 82				See Page 83				See Page 84				See Page 85			

"■" shows it has this option;

"-" means it has no this option.

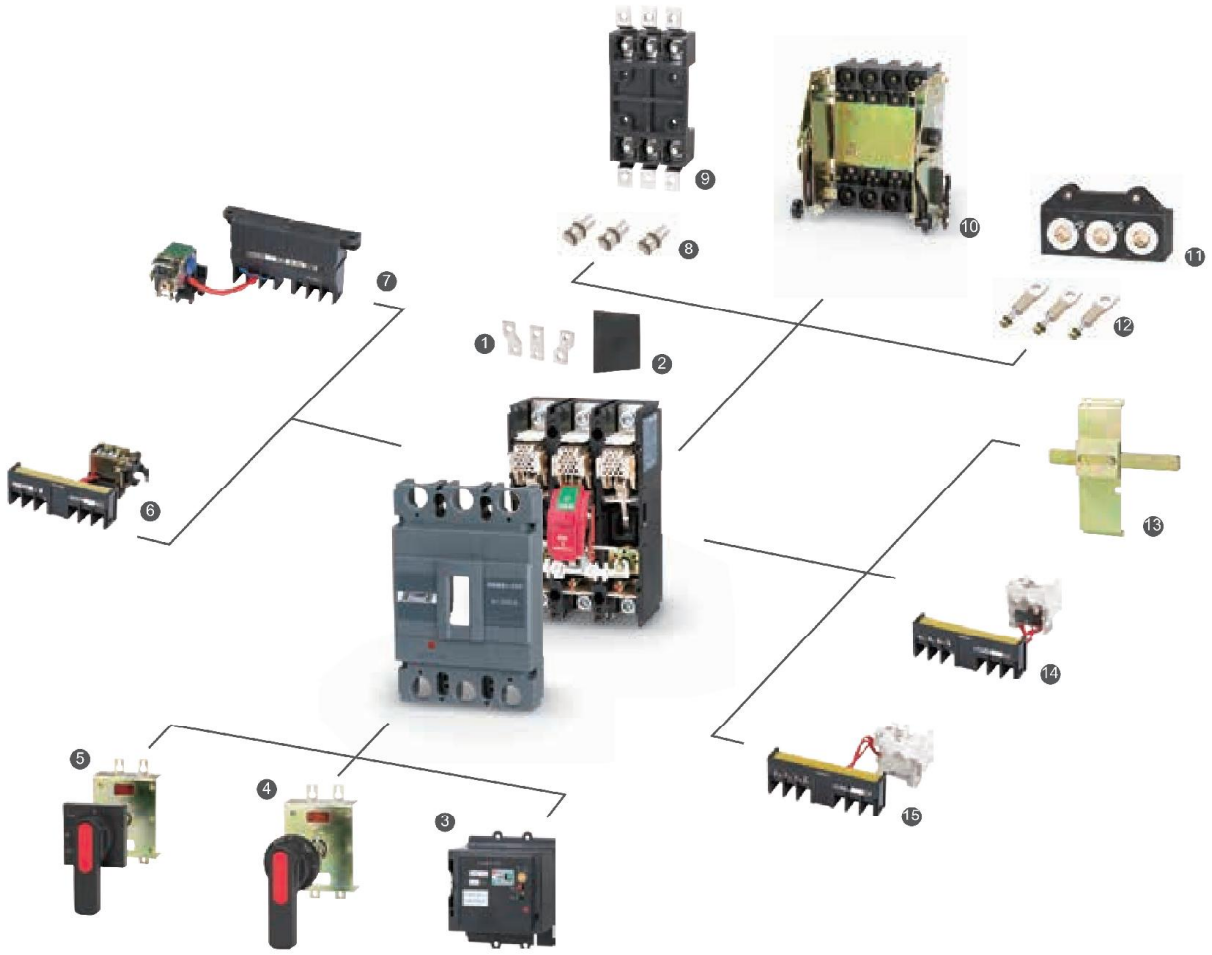
HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2

Basic Technical Data

- Rated Insulation Voltage Ui: AC 800V (Frame 63AF: AC 690V)
- Rated Impulse Withstand Voltage Uimp: 8KV (Frame 63AF: 6KV)
- Rated Working Voltage Ue: 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	Plug-in Rear Connection
2	Phase Barrier	7	MN	12	Fixed Rear Connection
3	AC Motor Mechanism	8	Plug-in Connecting Terminal	13	Mechanical Interlock
4	Round Extended Rotary Handle	9	Plug-in Front Connection	14	SD
5	Square Extended Rotary Handle	10	Drawer-out Rear Connection	15	OF

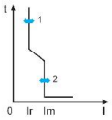
HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2

Complete Functions

Optional Tipping Unit Functions

The tripping unit is the intelligent part of the moulded 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

- Be used for overload and short-circuit protection.

Thermal-adjustable, Fixed-magnetic Tripping Unit

- Be 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

E.g.: The customers need 250AF, 200A current MCCB, and considering the product expansion in the future, it is required to select the circuit breaker with overload adjustable feature. So which kind of the product should the customers 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, Ir1=250A * 0.8=200A, Ii=250 * 10=2500A.

HDM6s All Series of Products Featuring Isolation Function

- The circuit breaker with isolation function shall meet the standard of IEC 60947-2.
- The operating handle hasn't indicated "OFF" position until the contact has been indeed 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 60947-2

Complete Accessories of HDM6 Series

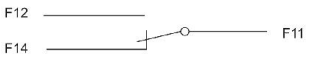
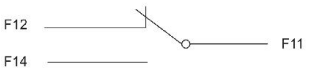
Indicating Accessories

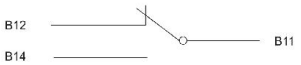
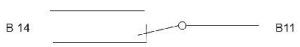
- Auxiliary Contact (OF):

  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 5 reasons:
  - Overload or short-circuit fault
  - Residual earth-leakage fault
  - Artificial Testing Release
  - Shunt Trip Release
  - Line Fault and Under-voltage Release Tripping

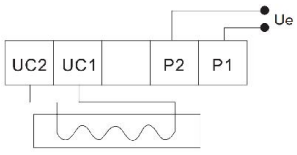
Accessory Name	Switch-on/off	Tripping
OF		

Accessory Name	Switch-on/off	Tripping
SD		

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

Undervoltage Release Wiring



- Under-voltage Release (MN)

Tripping threshold between 0.35 and 0.7 times the rated voltage; when it is at 85%-110% of rated working voltage, Under-voltage Release shall ensure the circuit breaker switch-on; when the rated working voltage is less than 35%, Undervoltage Release shall prevent switch-on of the circuit breaker.

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

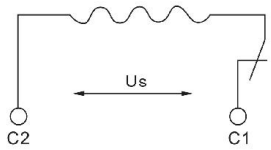
Standard: IEC 60947-2

Complete Accessories of HDM6 Series

- Shunt Release (MX)

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

Shunt Release Wiring



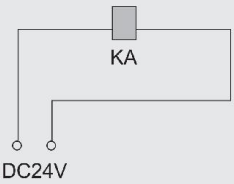
Applicable Type of Circuit Breaker	Power Consumption of Shunt Release Coil (W)			
	AC400V	AC230V	DC220V	DC24V
HDM6s63	91.6	76.1	90.7	91.2
HDM6s100	96.8	73	90.7	91.2
HDM6s250	112	68.6	90.7	85.3
HDM6s400	67	62.3	94.4	100
HDM6s630	68	58.2	94.4	100
HDM6s800	163	153	94.4	120

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

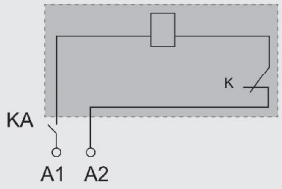
Conductor Area Rated / Control Supply Voltage Us (DC24V)	1.5mm^2	2.5mm^2
100%Us	150m	250m
85%Us	100m	160m

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

Schematic Diagram of Shunt-trip Release in dotted –line box



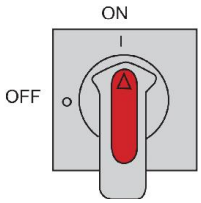
KA: it is DC24V Intermediate Relay, and the current capacity of the electric shock is 1A.

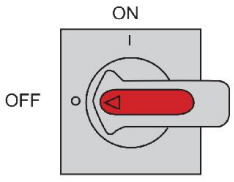


Power Input
The voltage specification of the power input AC50Hz 230V，400V；

- Extended Rotary Handle

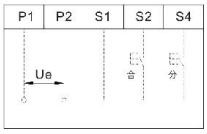
○ Function: indication of the three positions of switch-on, switch-off and trip
○ The circuit breaker cannot be switch-on when the switch board door is open
○ The door cannot be opened if the circuit breaker is ON
○ An extension shaft that can be adjusted to the distance between the back of circuit breaker 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 5 mm.





HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2



Complete Accessories of HDM6 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 bus-bars whether insulated or not. We can easily install the phase barrier through the phase slot of the this product

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

Connecting Accessories

- Fixed, Rear Connection

  It is 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

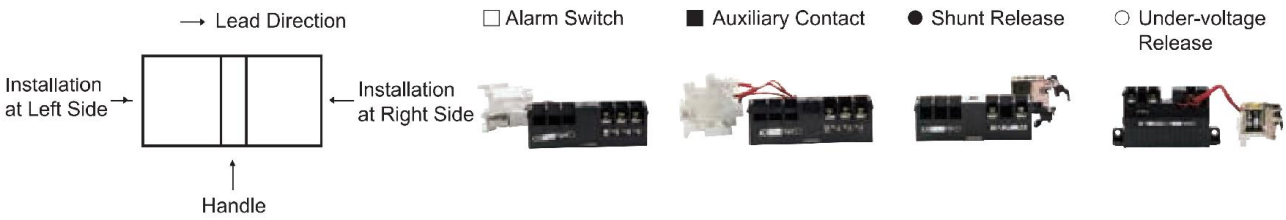
  The plug-in connection for the products is easy for maintenance and replacement, but plug-in and plug-out cannot be done with the electricity.

- Drawer-out Rear Connection

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

Installation Location of Accessories

Installation Method for Tripping Release and Accessories Code



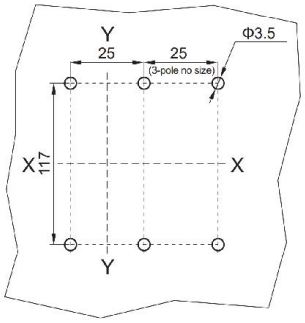
Name of Accessory	Product Type			
	HDM6s63/100/250	HDM6s400	HDM6s630	HDM6s800
Alarm Switch				
Shunt Release				
Auxiliary Contact				
Undervoltage Release				
Auxiliary Contact Shunt Release				
Shunt Release Undervoltage Release				
Auxiliary Contact Undervoltage Release				
Shunt-trip Release Alarm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

HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2

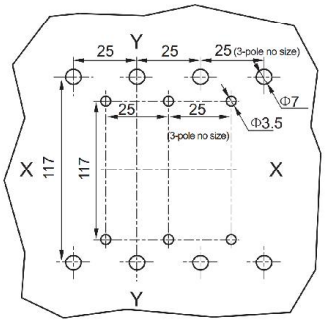
HDM6s63 Installation Dimension

- Chart of Fixed Front Connection Installation Hole



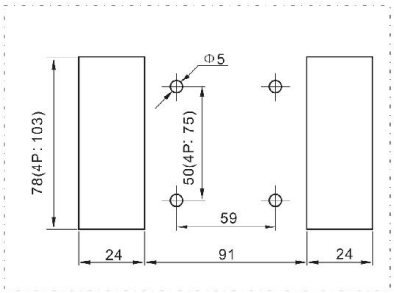
Remark: X-X, Y-Y is the center of 3-pole circuit breaker

- Chart of Fixed Rear Connection Installation Hole

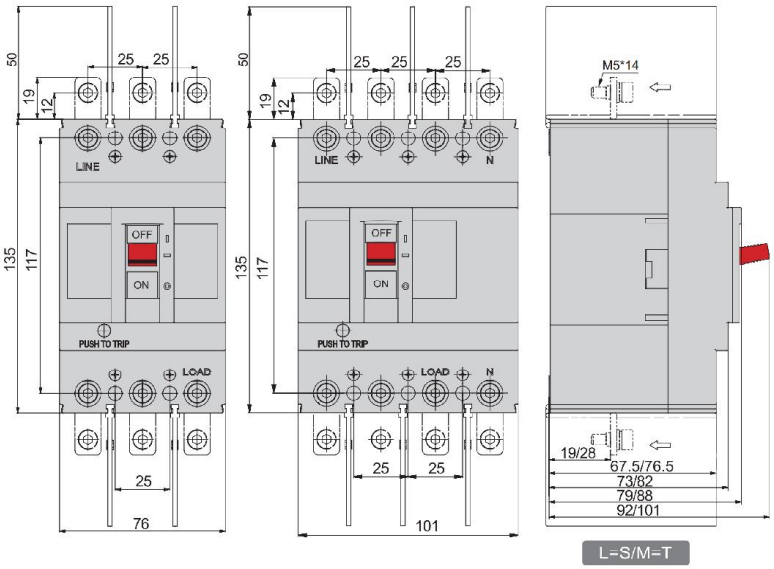


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

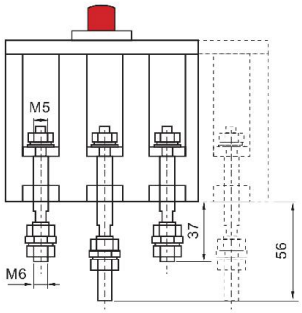
- Chart of Plug-in Rear Connection Installation Hole



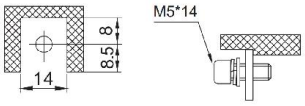
- Installation Dimension of Fixed Front Connection



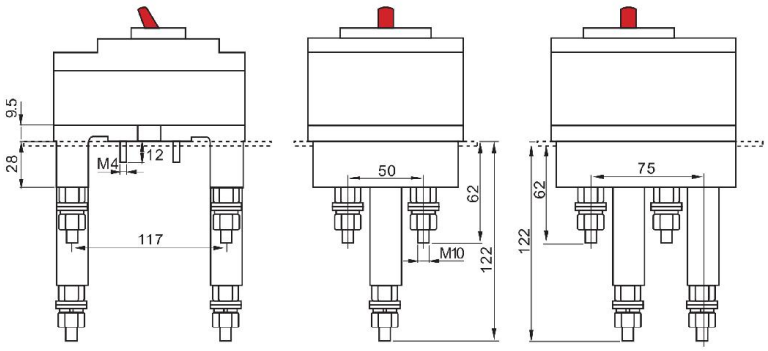
- Fixed Rear Connection Wiring



- Chart of Terminal Connection Installation Hole



- Plug-in Rear Connection Wiring

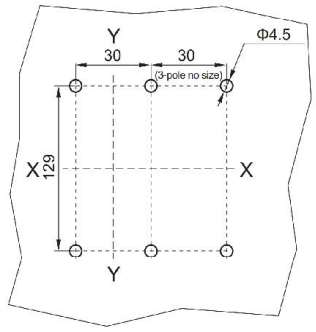


HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2

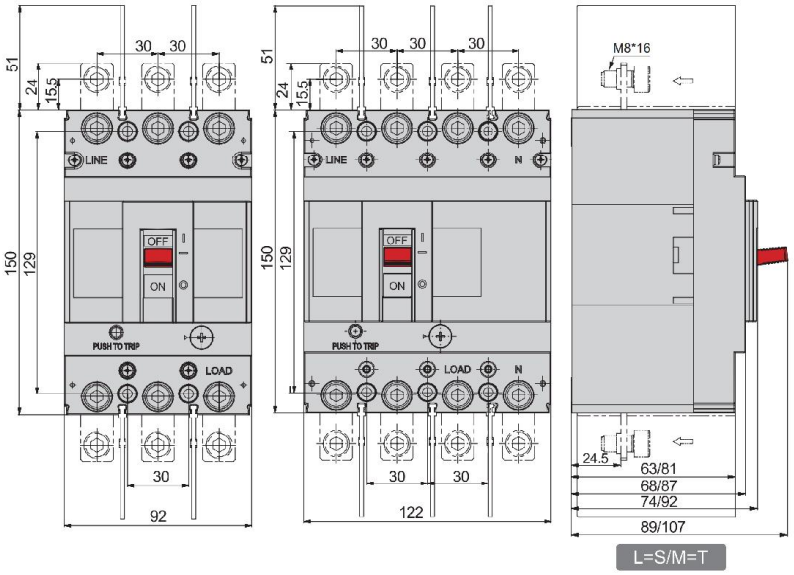
HDM6s100 Installation Dimension

- Chart of Fixed Front Connection Installation Hole

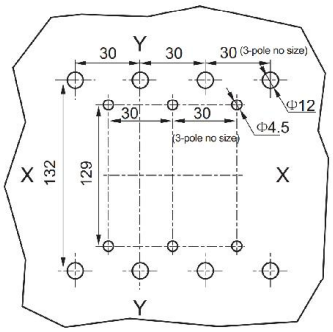


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

- Installation Dimension of Fixed Front Connection

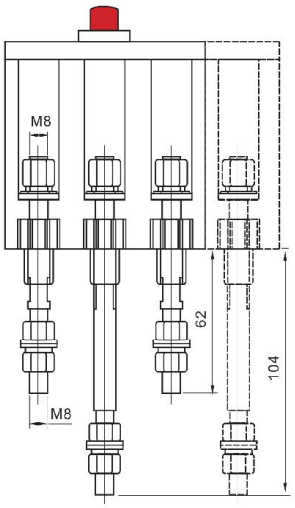


- Chart of Fixed Rear Connection Installation Hole

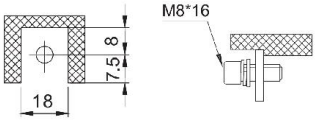


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

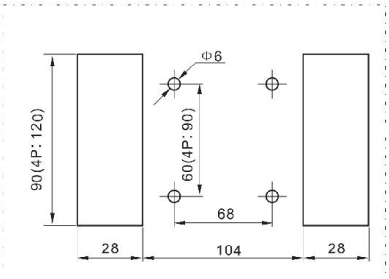
- Fixed Rear Connection Wiring



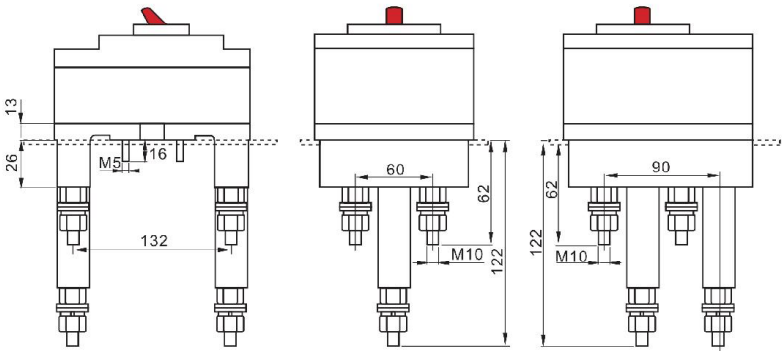
- Chart of Terminal Connection Installation Hole



- Chart of Plug-in Rear Connection Installation Hole



- Plug-in Rear Connection Wiring

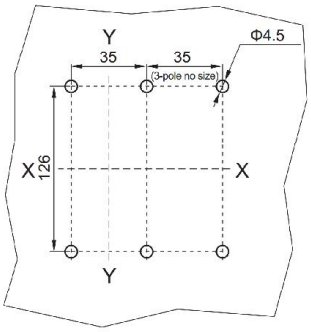


HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2

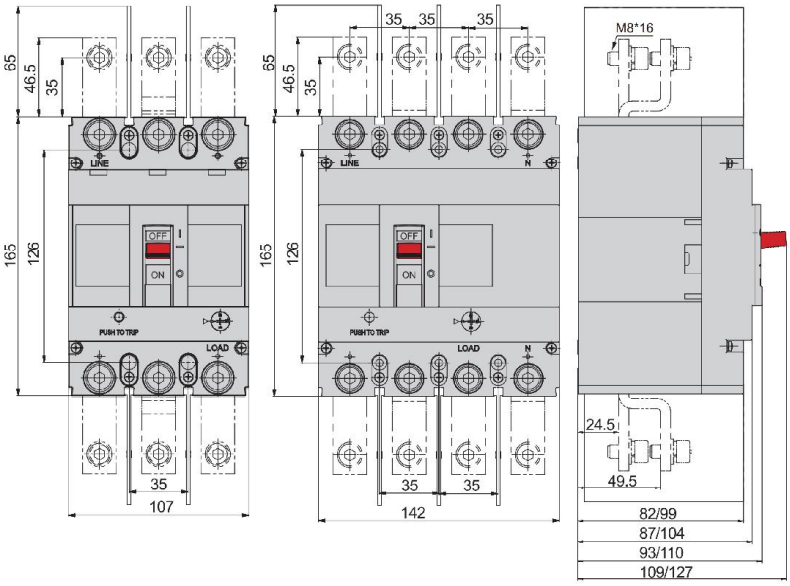
HDM6s250 Installation Dimension

● Chart of Fixed Front Connection Installation Hole

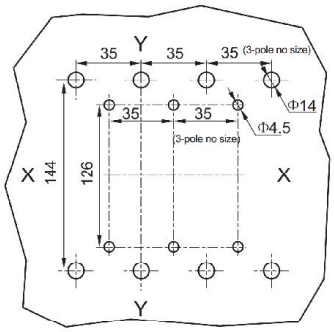


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

● Installation Dimension of Fixed Front Connection

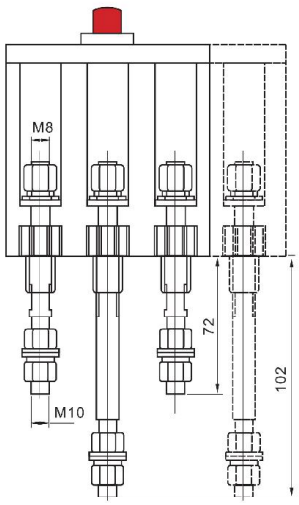


● Chart of Fixed Rear Connection Installation Hole

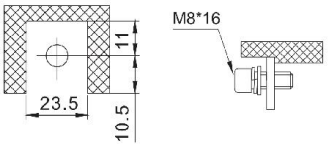


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

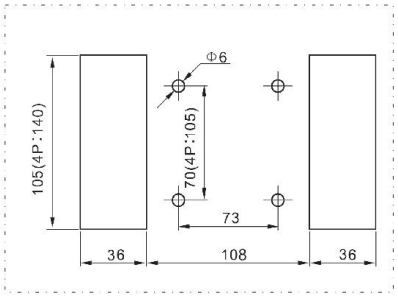
● Fixed Rear Connection Wiring



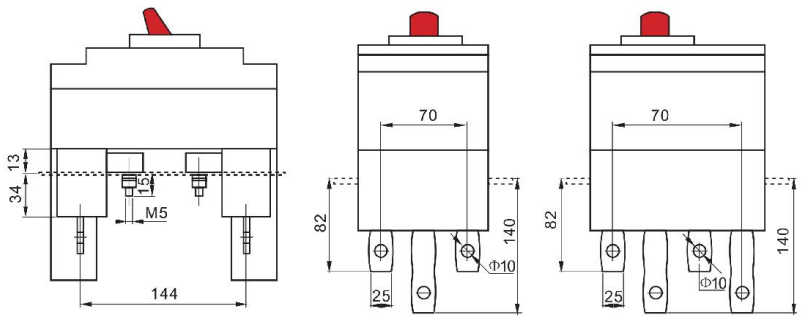
● Chart of Terminal Connection Installation Hole



● Chart of Plug-in Rear Connection Installation Hole



● Plug-in Rear Connection Wiring

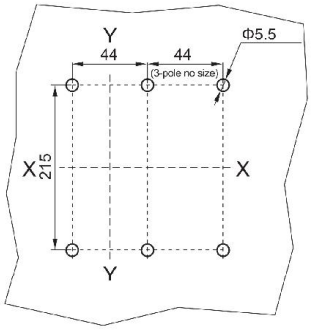


HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2

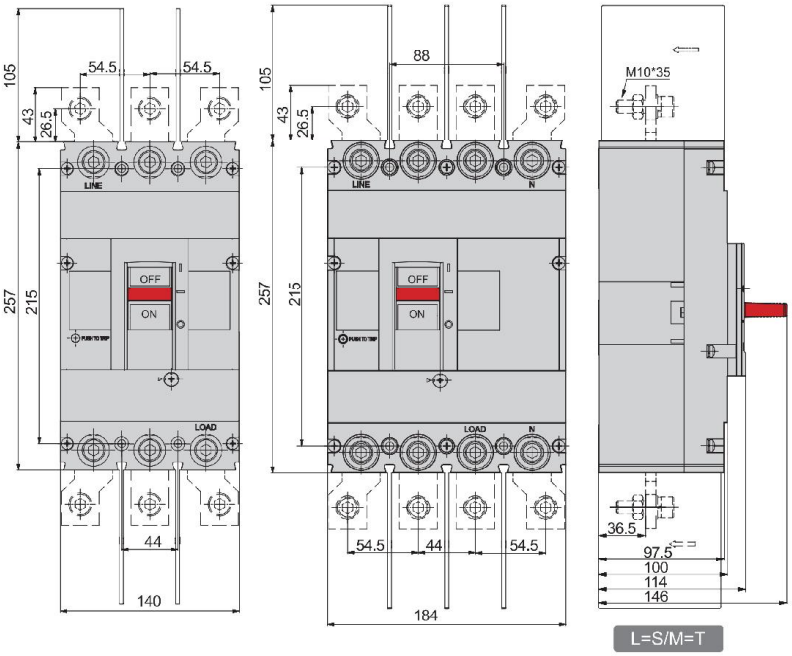
HDM6s400 Installation Dimension

● Chart of Fixed Front Connection Installation Hole

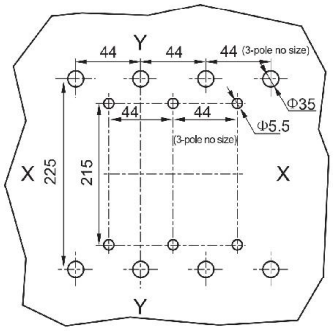


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

● Installation Dimension of Fixed Front Connection

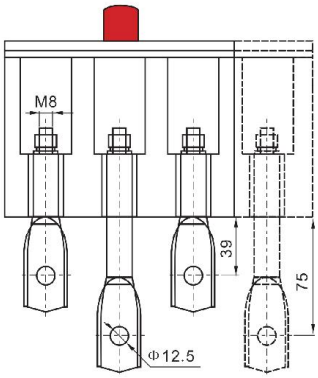


● Chart of Fixed Rear Connection Installation Hole

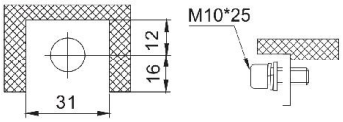


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

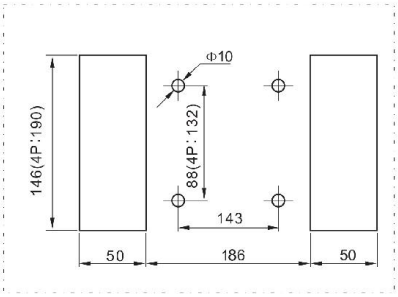
● Fixed Rear Connection Wiring



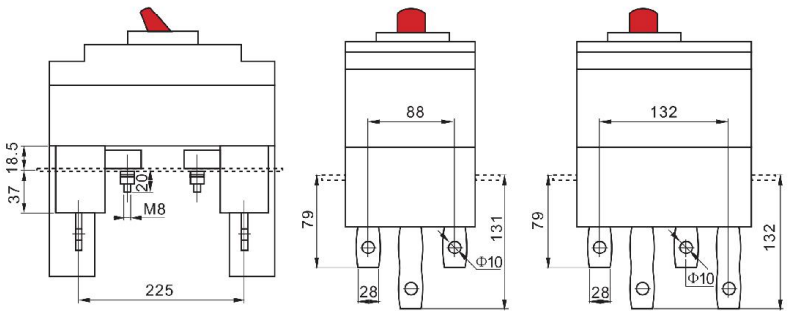
● Chart of Terminal Connection Installation Hole



● Chart of Plug-in Rear Connection Installation Hole



● Plug-in Rear Connection Wiring

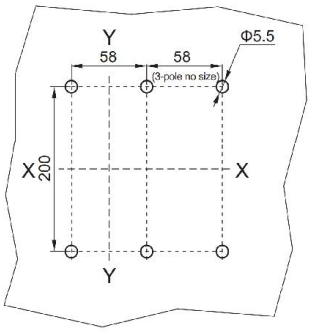


HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2

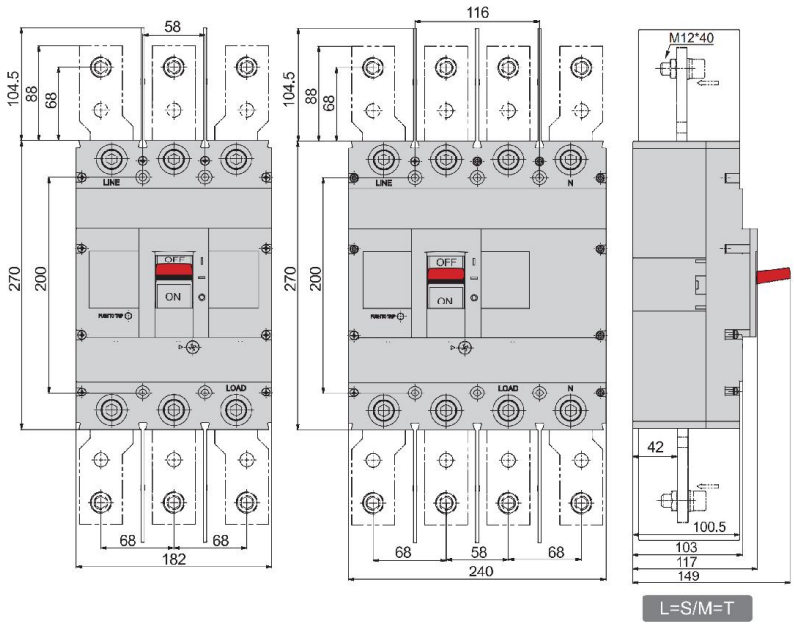
HDM6s630 Installation Dimension

● Chart of Fixed Front Connection Installation Hole

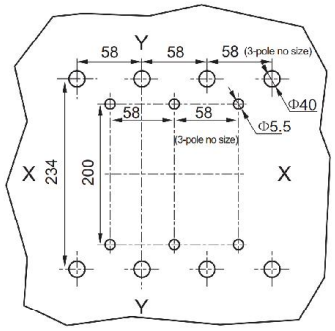


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

● Installation Dimension of Fixed Front Connection

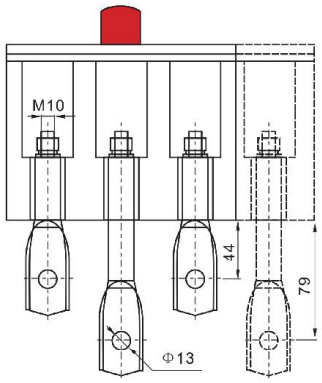


● Chart of Fixed Rear Connection Installation Hole

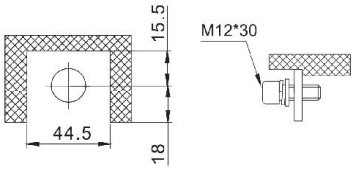


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

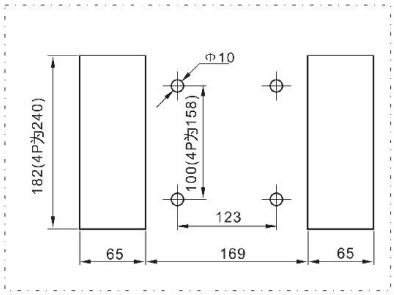
● Fixed Rear Connection Wiring



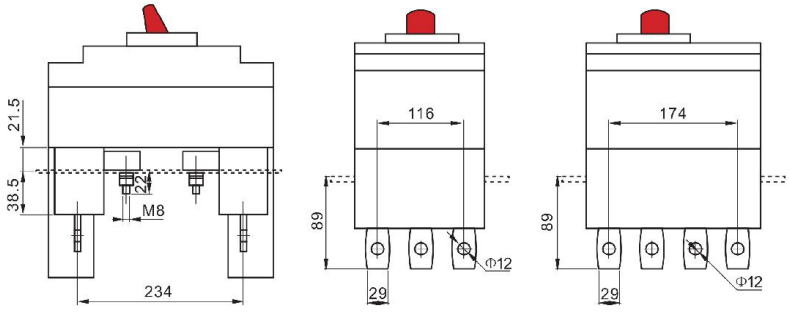
● Chart of Terminal Connection Installation Hole



● Chart of Plug-in Rear Connection Installation Hole



● Plug-in Rear Connection Wiring

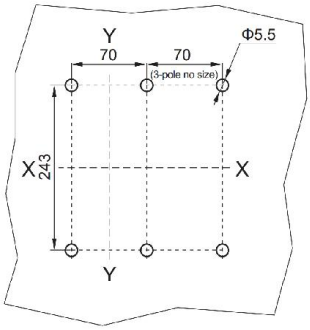


HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2

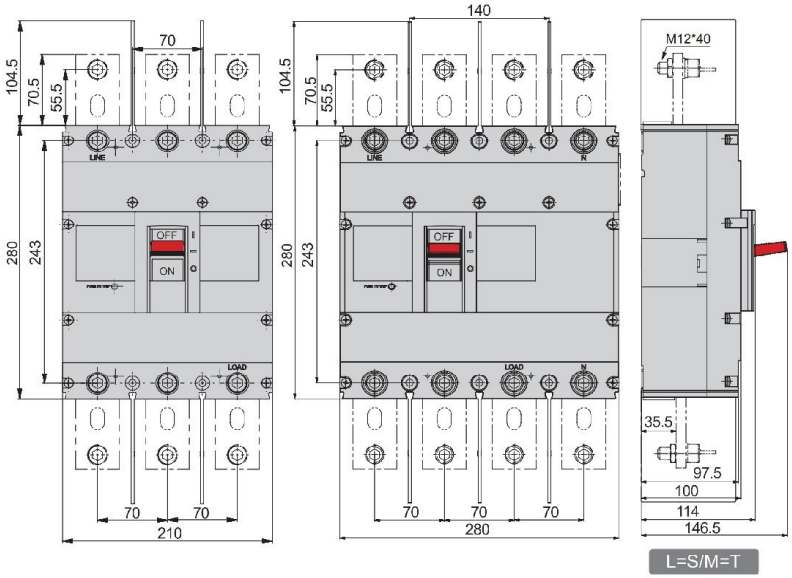
HDM6s800 Installation Dimension

- Chart of Fixed Front Connection Installation Hole

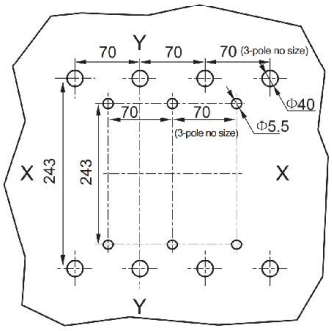


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

- Installation Dimension of Fixed Front Connection

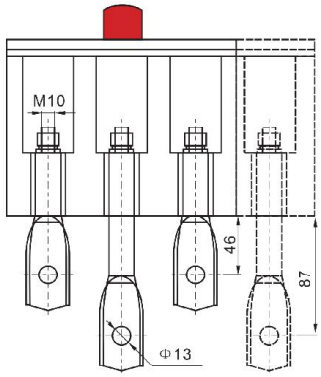


- Chart of Fixed Rear Connection Installation Hole

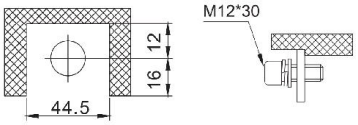


Remark: X-X, Y-Y is the center of 3-pole circuit breaker

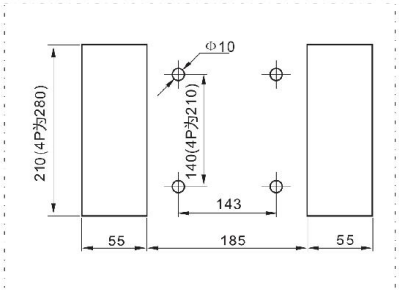
- Fixed Rear Connection Wiring



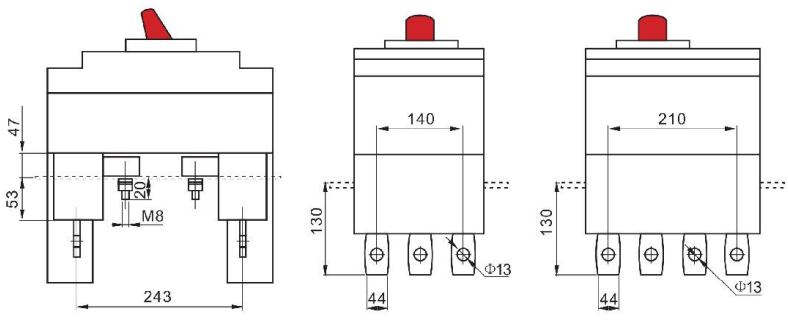
- Chart of Terminal Connection Installation Hole



- Chart of Plug-in Rear Connection Installation Hole

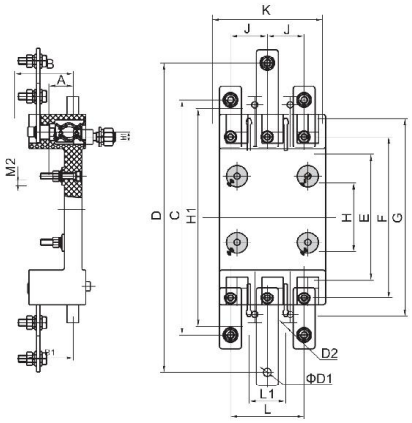


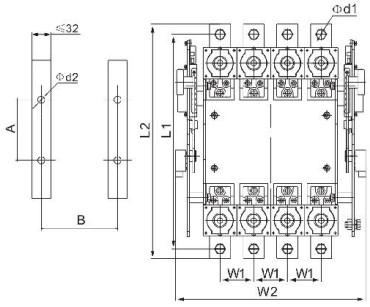
- Plug-in Rear Connection Wiring

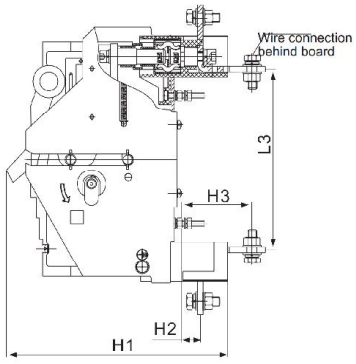


HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2







● 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

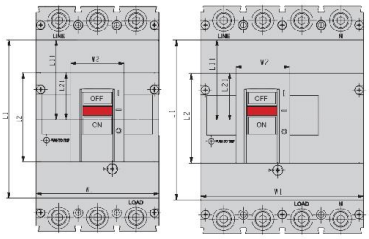
Equipped with Circuit Breaker	Pole No.	Appearance and Installation Dimension (mm)								
		H1	J	K	L	L1	M1	M2	ΦD1	D2
HDM6s100	3P	178	30	90	60	30	M8	M5	Φ6.5	M5
	4P	178	30	120	90	60	M8	M5	Φ6.5	M5
HDM6s250	3P	196	35	107	70	35	M8	M5	Φ8.5	M5
	4P	196	35	142	105	70	M8	M5	Φ8.5	M5

● Drawer-out Rear Connection Base (HDM6s400, HDM6s630 and HDM6s800)

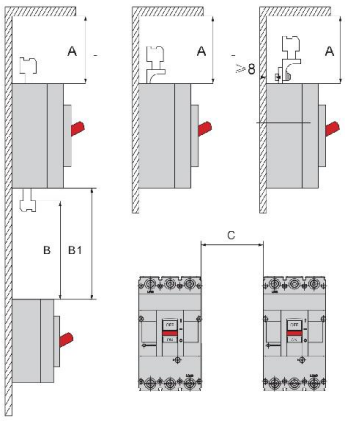
Equipped with Circuit Breaker	Pole No.	Appearance Dimension (mm)								Installation Dimension		
		L1	L2	L3	H1	H2	H3	W1	W2	Φd1	A	B	Φd2
HDM6s400	3P	311	340	205	253	17.5	77	44	211	Φ11	88	141	Φ6.5
	4P	311	340	205	253	17.5	77	44	255	Φ11	132	141	Φ6.5
HDM6s630	3P	341	381	211	282	17.5	92	58	253	Φ13	116	140	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 60947-2



HDM6s 63A-800A 3P HDM6s 63A-800A 4P



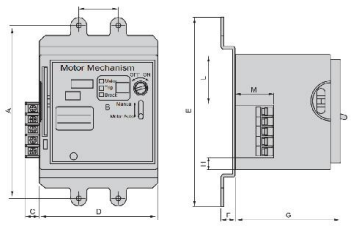
● HDM6s 63A-800A Fixed and Plug-in Circuit Breaker Connection Hole-opening Dimension

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	Length of Exposed Conductor +B	30
HDM6s100	60	60		30
HDM6s250	60	60		30
HDM6s400	110	110		70
HDM6s630	110	110		70
HDM6s800	110	110		70

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



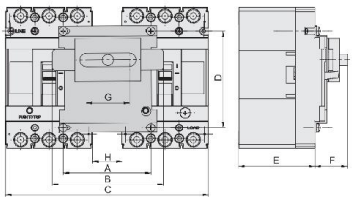
Installation Dimension

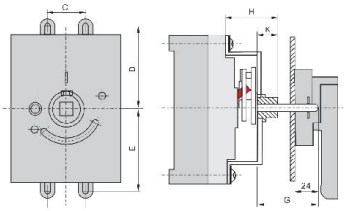
● AC Motor Mechanism

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 60947-2





● HDM6s63-800 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

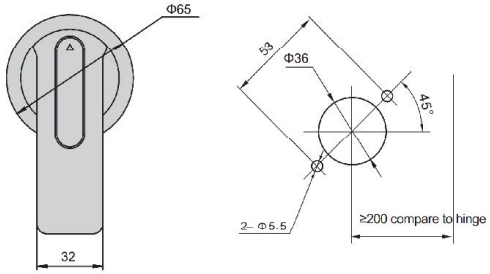
● HDM6s63-800 Frame Extension Rotary Handle Base Dimension

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	100	74	20
HDM6s800	70	121.5	121.5	76	20

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

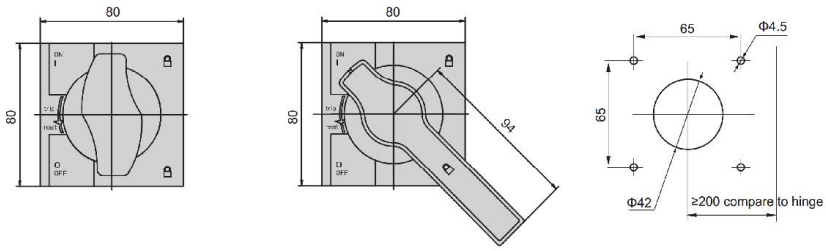
● HDM6s63-800 Frame Extension Rotary Handle

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

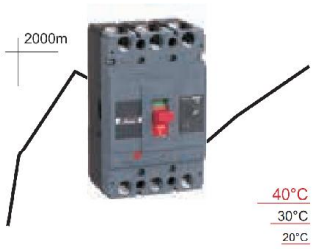
HDM6s Molded Case Circuit Breaker

Standard: IEC 60947-2

Impact of High Temperature on Tipping Release Performance

When environmental temperature is over 40°C, small changes have taken place on 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
HDM6s 63	1	0.94	0.88	0.80	0.72
HDM6s 100	1	0.95	0.89	0.84	0.76
HDM6s 250	1	0.95	0.91	0.87	0.82
HDM6s 400	1	0.94	0.87	0.81	0.73
HDM6s 630	1	0.93	0.88	0.83	0.76
HDM6s 800	1	0.88	0.83	0.79	0.76



Impact of Altitude on Tipping Release Performance

There is no impact on the performance of the circuit breaker when the height is below 2000m. But when it is over 2000m, the falling factors as air insulation properties and cooling capability shall be considered; the correction factors given in the table below are applicable for the conditions of the height for the installation over 2000m, the breaking capacity of the circuit breaker remains unchanged.

Altitude (m)	2000	3000	4000	5000
Max.Working Voltage (V)	415	350	310	270
30°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

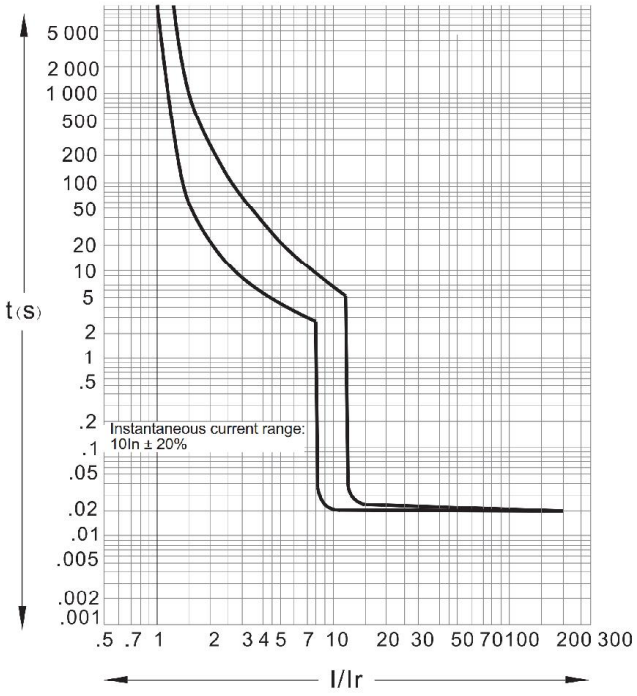
Type of Circuit Breaker	Power-up Current	Front Connection Wiring (Standard)	Rear Connection Wiring	Plug-in Wiring
HDM6s 63	63A	26	29	29
HDM6s 100	100A	40	50	50
HDM6s 250	250A	63	90	90
HDM6s 400	400A	103	110	130
HDM6s 630	630A	160	190	220
HDM6s 800	800A	200	230	290

HDM6s Molded Case Circuit Breaker

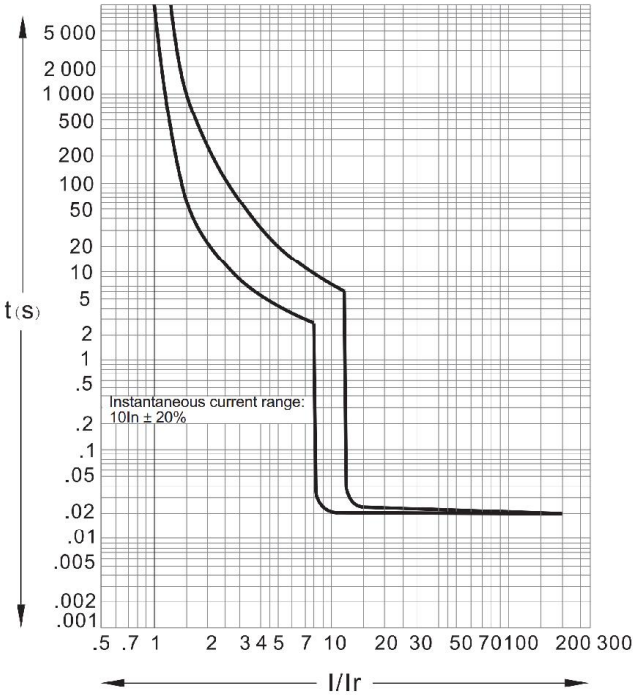
Standard: IEC 60947-2

Tripping Release Curve

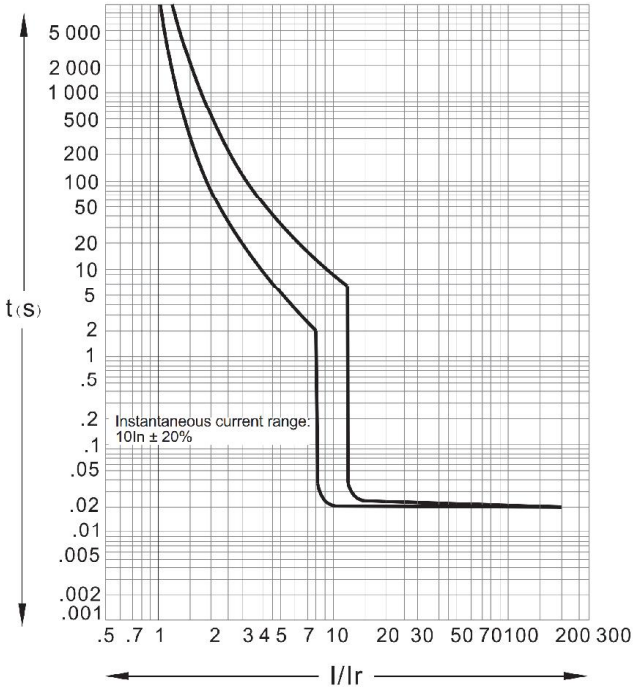
- HDM6s63 10A-63A, the black line is used for the distribution.



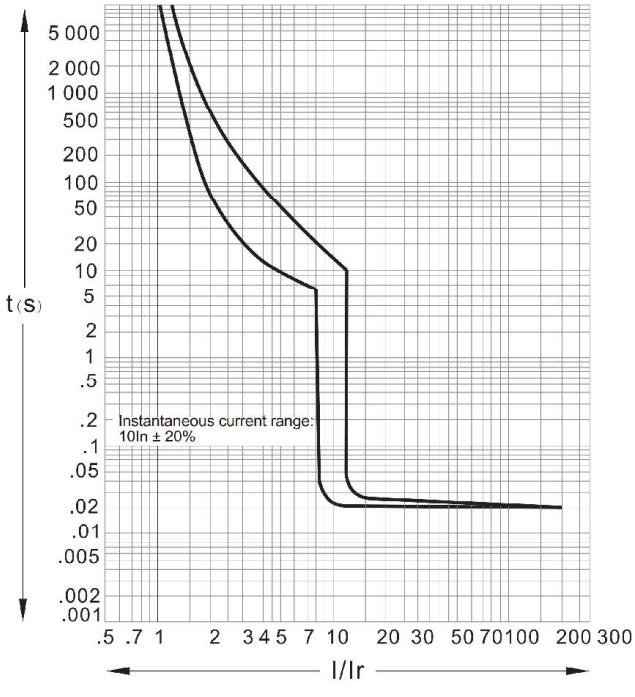
- HDM6s100 16A-50A, the black line is used for the distribution.



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



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

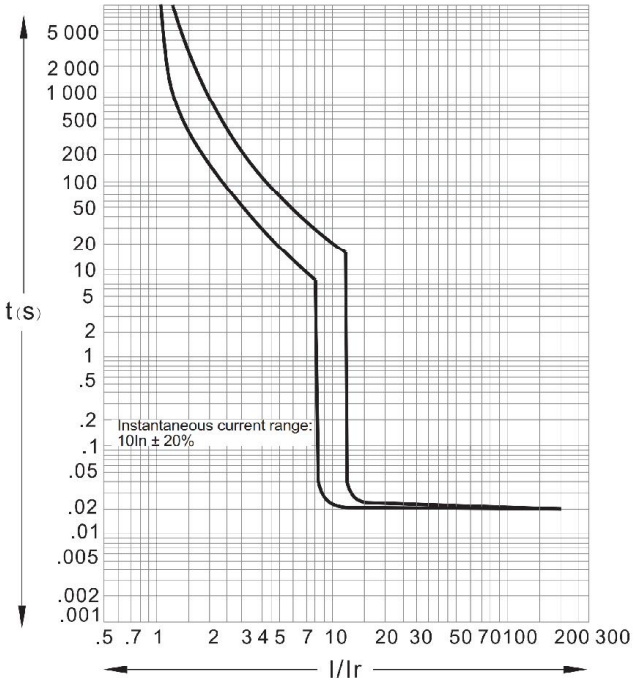


HDM6s Molded Case Circuit Breaker

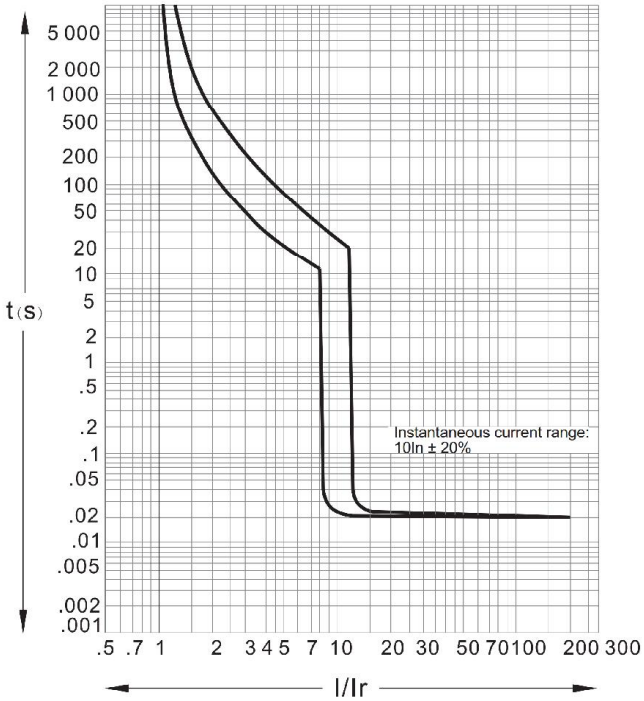
Standard: IEC 60947-2

Tripping Release Curve

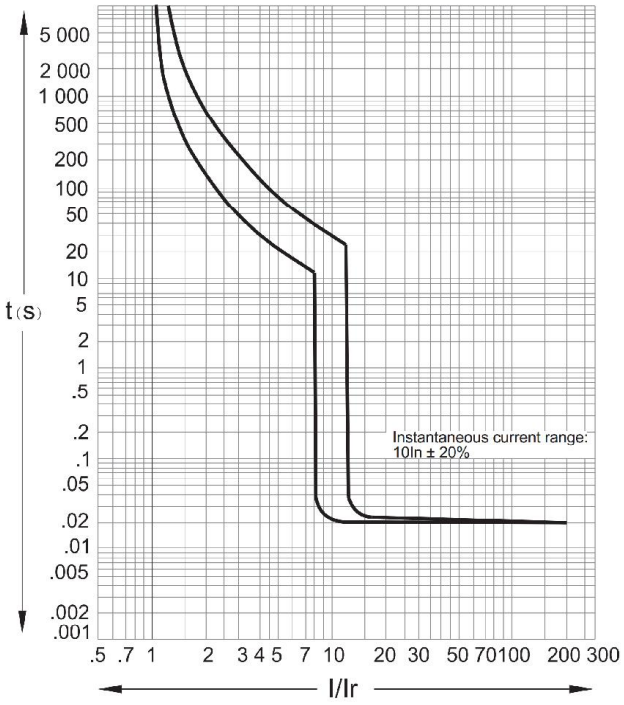
- HDM6s400 200A-400A, the black line is used for the power distribution.



- 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.