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ZHEJIANG EZITOWN ELECTRIC CO.,LTD

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Make Efforts to Ride on the Crest of Success

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Company Profile

Zhejiang**ezitown** Electrical Technology Co., Ltd is a modern enterprise specialized in R&D, design, manufacture and sale of low-voltage electrical products. The main products are moulded-case circuit breaker, intelligent moulded-case residual current operated circuit breaker and frame type conventional circuit breaker which are widely used in the areas of electric power, mechanical engineering, mine, metallurgy, petrochemical, construction, ship and new energy.

Our company not only has product R&D and design center, mould making center, product assembling and testing center, but also set up a fully automatic production process from product development to product manufacturing that can fully meet the customer’s various requirements. The company focuses on the whole process of quality management by introducing advanced intelligent and digital R&D and manufacture management system and equipment, making the products well received by users.

Now the company is introducing world cutting-edge technology and manufacturing technique to further improve the technological content of products and constantly updating products to deal with increasingly fierce market competition. The company adheres to the principle of customer first and making progress with customer and committed to provide high-quality electrical products and create first-class national electric appliance brand.

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Content

STM6 Series Moulded-case Circuit Breaker

STM6 Series Moulded-case Circuit Breaker

Product overview

STM6, STM6LY, STM6RT, STM6E and STM6EL series of circuit breakers are new upgraded circuit breakers researched and developed by the company combined with the advantages of similar international products and demand of domestic and international markets.

With insulation voltage up to 1000V, the circuit breaker is applicable for distribution systems of AC50Hz, rated working voltage 690V and rated working current from 10A to 800A, used to distribute electric power energy, protect circuits and power equipment against overload, short circuit, undervoltage and so on, also can be used for infrequent startup of motor and protect it from overload, short circuit or undervoltage.

It is featured with small size, high breaking, short flashover, etc., is the ideal product for users. It can be vertically installed or horizontally installed.

STM6DC series DC moulded-case circuit breaker (hereinafter referred to as circuit breaker) is suitable for DC systems of rated voltage up to and including DC 1000V and rated current 10~800A, used to distribute electric power energy, protect circuits and power equipment against overload, short circuit and so on.

The products can be fed with wires from top and bottom, and it is polarity-free.

It complies with the standards IEC60947-2, GB14048.2, etc.

Product features

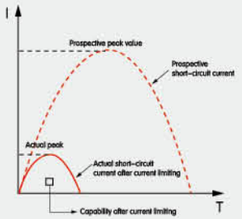
Feature 1: current limiting capacity

Current-limiting refers to limit of the increase of short-circuit current in the loop, and in the loop protected by STM6, peak value of the short-circuit current and the I2t energy in the circuit will be much smaller than the prospective value.

U-shaped static contact

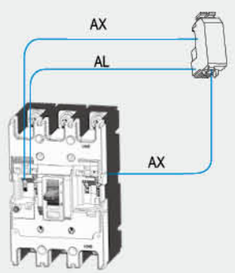
Unique U-shaped static contact can achieve pre-breaking technology:

The so-called pre-breaking technology refers to when short-circuit current flows through the contact system, electric power generated by U-shaped static contact and moving contact is mutual exclusive. The greater the short-circuit current is, the greater the repulsion of the electromotive force, and it is generated together with the short-circuit current at the same time. Before the trip action occurs, the electrodynamic repulsion force can make the static and moving contact separation, by increasing the arc to increase the equivalent resistance between them to achieve the purpose of suppressing increase of short-circuit current.



Feature 2: modularized accessories

- Accessory: For the circuit breakers of the same frame, they has uniform sizes regardless of the breaking capacity and rated
- current:Accessory: Users can freely choose and expand functions of circuit breakers according to their needs.
- Modularized accessories have insulation function, which is easy for hot-line operation and installation.

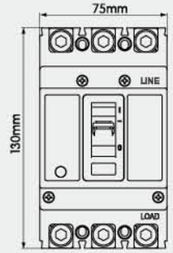


Product features

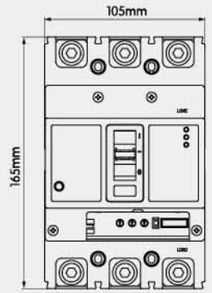
Feature 3: miniaturized frame

5 frame sizes: 125 type, 160 type, 250 type, 630 type, 800 type

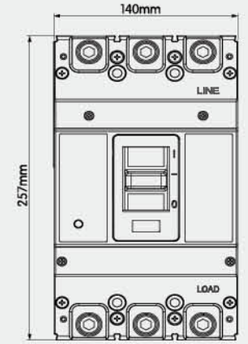
Rated current of STM6 series 10A~800A



125 frame reduces to the same size as the original 63 frame (the width is only 75mm)



160 frame reduces to the same size as the original 100 frame (the width is only 90mm)



630 frame reduces to the same size of the original 400 frame (the width is only 140mm)

Feature 4: contact repulsion device (patented technology)

The technical scheme adopted by the invention is:

As shown in Figure 1, the new contact device is mainly consisted of static contact, moving contact, shaft 1, shaft 2, shaft 3 and springs;

When the circuit breaker is in the closed state, shaft 2 acts on the right side of the spring angle; When the circuit breaker has a large fault current, the moving contact will be subjected to the electric repulsion generated by the current itself, and rotate with the center of shaft 1, when shaft 2 rotates to the top of the spring angle with the moving contact, it makes moving contact to rapidly rotate upwards and quickly break the circuit upon the reaction of spring, it has enhanced the breaking capacity of the product through optimization of the contact structure.

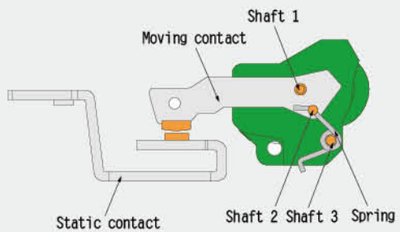


Fig.1

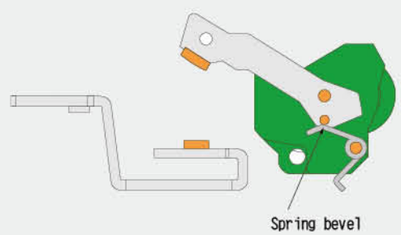
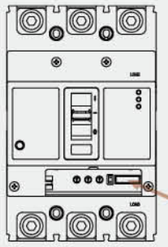


Fig.2 (status when breaking)

Product features

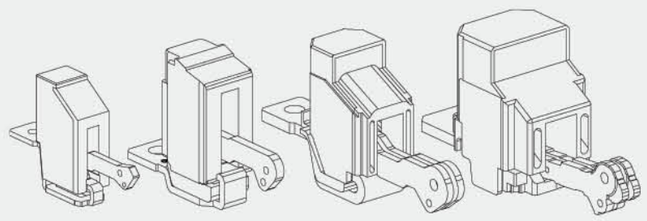
Feature 5: intelligence

Network communication is more convenient. It accesses to Modbus communication system through dedicated connection. STM6E / STM6EL with communication function can select monitoring accessories to realize door display, read, set and control.



Built-in communication,
need not external module

Feature: modularized arc extinguishing system



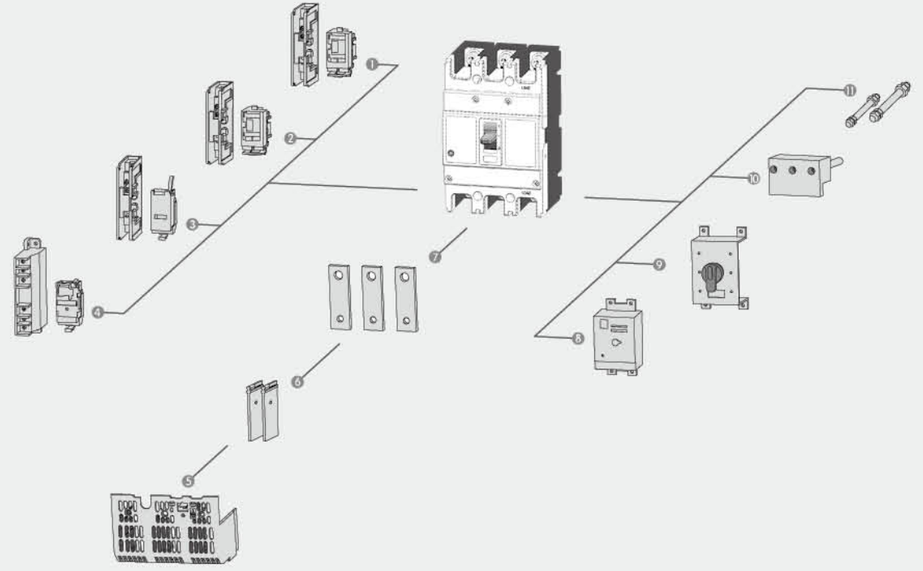
Feature 7: unification

The six series of STM6, STM6LY, STM6DC, STM6RT, STM6E, and STM6EL under the same frame size have the same dimensions, installation dimensions and appearance style, which is completely unified design.

Ambient and installation conditions

- Altitude up to 2000m;
- Ambient medium temperature should be within -5℃ to +40℃ (+45℃ for marine products);
- It can withstand the effect of damp air;
- It can withstand the effect of moulds;
- It can withstand the effect of nuclear radiation;
- The max inclination is 22.5℃ .
- It still can work reliably when the ship subjects to normal vibration;
- It can still work reliably if the product subjects to the earthquake (4g).
- Places where the surrounding medium is free from explosion danger, and far away from gas or conductive dust that would erode the metal or destroy the insulation;
- Keep away from rain or snow.

Components of circuit breaker



1 Auxiliary switch
2 Alarm switch
3 Shunt release
4 Undervoltage release
5 Terminal cap
6 Phase partition
7 Front-board wiring
8 Electric operation
9 Manual operation
10Plug-in type back-board wiring
11Back-board wiring

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Product Selection Guide

STM6 - 125 S P / 4 300 - 125A 2 A Q1 D1 Q 2

STM6	125	C					P	4
↓	↓	↓					↓	↓
Product code	Frame size	Current class					Code of control circuit source voltage	Pole number
Moulded-case circuit breaker	125 160 250 630 800 Note: 125 is upgraded type of 63 frame 160 is upgraded type of 100 frame 250 is upgraded type of 225 frame 630 is upgraded type of 400 frame		S	M		H	P:electric operation Z :rotary handle W:direct operation	3 :3-pole 4 :4-pole
		125	25/15			35/25		
		160	35/25	50/35		70/50		
		250	35/25	50/35		85/50		
		630	50/35	65/42		85/50		
		800	50/35	65/42		85/50		

300	125A	2	A
↓	↓	↓	↓
Release type and internal accessory	Rated current (A)	Application	Code of four-pole product
The first digit represents release type 2 : has instantaneous release only; 3 :complex release Note: Later two digits are the code of accessories (see accessory table)	125 10, 16, 20, 32, 40, 50 63, 80, 100, 125 160 10, 16, 20, 32, 40, 50 63, 80, 100, 125, 140 160 250 100, 125, 140, 160 180, 200, 225, 250 630 250, 300, 315, 350, 400, 500, 630 800 500, 630, 700, 800	1: power distribution 2 :motor protection	A: N-pole without protection, cannot close or open B: N-pole without protection, can close and open C :N-pole with protection, can close and open D: N-pole with protection, cannot close or open

Q1			D1		Q	2
↓			↓		↓	↓
Accessory voltage			Electric operation voltage		Installation methods	Install wiring board or not
Undervoltage release	Shunt release	Auxiliary alarm	DC 1electric operation	DC3 electric operation	Q :Front-board H:Back-board C:Plug-in type	1:No 2 :Yes
Q1:AC220V Q2:AC240V Q3:AC380V Q4:AC415V	F1: AC220V F2: AC380V F3: DC110V F4: DC24V	J1: AC125V J2: AC250V J3: DC125V J4: DC24V	D1: AC220V D2: AC230V D3: AC380V D4: AC400V	D5: AC230V D6: AC110V D7: DC220 D8: DC110 D9: AC110-240V D10: DC100-220V		
			Note: Adaptable voltages for two electric operations. Please refer to the introduction of external accessory.			

Main performance indexes

Frame current (A)		125		160		
Model		STM6-125S	STM6-125H	STM6-160S	STM6-160M	STM6-160H
Pole number		2, 3, 4		2, 3, 4		
						
Rated current (A)		10, 16, 20, 32, 40, 50, 63, 80, 100, 125		10, 16, 20, 32, 40, 50, 63, 80, 100, 125, 140, 160		
Rated voltage (V)		AC400V		AC400V		
Rated insulation voltage (V)		AC1000V		AC1000V		
Short-circuit breaking capacity (KA)Icu/Ics	AC400V	25/15	35/25	35/25	50/35	70/50
Operating cycle number	ON	6000		3000		
	OFF	9000		7000		
Outline dim. (mm) a-b-c-ca 	2P	50-130-68-90		60-155-68-90	60-155-68-90	60-155-88-115
	3P	75-130-68-90		90-155-68-90	90-155-68-90	90-155-88-115
	4P	100-130-68-90		120-155-68-90	120-155-68-90	120-155-88-115
Wight (kg)	2P	0.5	0.55	1.0		1.1
	3P	0.55	0.65	1.1		1.2
	4P	0.65	0.8	1.4		1.5
Electric operating device (MD)		●		●		
External driving operating handle		●		●		
Automatic release		Thermal electromagnetic type		Thermal electromagnetic type		

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Main performance indexes

Frame current (A)		250			630		
Model		STM6-250S	STM6-250M	STM6-250H	STM6-630S	STM6-630M	STM6-630H
Pole number		3, 4			3, 4		
							
Rated current (A)		100, 125, 140, 160, 180, 200, 225, 250			250, 315, 350, 400, 500, 630		
Rated voltage (V)		AC400V			AC400V		
Rated insulation voltage (V)		AC1000V			AC1000V		
Short-circuit breaking capacity (KA)Icu/Ics	AC400V	35/25	65/42	85/50	50/35	65/42	85/50
Operating cycle number	ON	3000			2000		
	OFF	7000			4000		
Outline dim. (mm) a-b-c-ca 	3P	105-165-68-92		105-165-88-115	140-257-103-155		
	4P	140-165-68-92		140-165-88-115	184-257-103-155		
Wight (kg)	3P	1.5		1.7	5.7		
	4P	1.9		2.1	7.5		
Electric operating device (MD)		●			●		
External driving operating handle		●			●		
Automatic release		Thermal electromagnetic type			Thermal electromagnetic type		

Main performance indexes

Frame current (A)		800		
Model		STM6-800S	STM6-800M	STM6-800H
Pole number		3, 4		
				
Rated current (A)		500, 630, 700, 800		
Rated voltage (V)		AC400V		
Rated insulation voltage (V)		AC1000V		
Short-circuit breaking capacity (KA)Icu/Ics	AC400V	50/35	65/42	85/50
Operating cycle number	ON	1500		
	OFF	4000		
Outline dim. (mm) a-b-c-ca 	3P	210-275-103-155		
	4P	280-275-103-155		
Wight (kg)	3P	9.5		
	4P	12.5		
Electric operating device (MD)		●		
External driving operating handle		●		
Automatic release		Thermal electromagnetic type		

Product Selection Guide

STM6LY - 160 S P / 4 300 - 160A 2 A L1 Y1 Q1 D1 Q 2

STM6LY	160	S	P	4
↓	↓	↓	↓	↓
Product code	Frame size	Current class	Code of control circuit source voltage	Pole number
Residual-current circuit breaker	125, 160, 250,630, 800 Note: 125 is upgraded type of 63 frame 160 is upgraded type of 100 frame 225 is upgraded type of 250 frame 630 is upgraded type of 400 frame	S / M / H 125: 25/15 / - / 35/25 160: 35/25 / 50/35 / 70/50 250: 35/25 / 50/35 / 85/50 630: 50/35 / - / 85/50 800: - / - / 85/50	P:electric operation Z :rotary handle W:direct operation	3 :3-pole 4 :4-pole

300	160A	2	A
↓	↓	↓	↓
Release type and internal accessory	Rated current (A)	Application	Code of four-pole product
The first digit represents release type 2 :has instantaneous release only; 3 :complex release Note: Later two digits are the code of accessories (see accessory table)	125 10, 16, 20, 32, 40, 50 63, 80, 100, 125 160 10, 16, 20, 32, 40, 50 63, 80, 100, 125, 140 160 250 100, 125, 140, 160 180, 200, 225, 250 630 250, 300, 315, 350, 400, 500, 630 800 500, 630, 700, 800	1: power distribution 2 :motor protection	A: N-pole without protection, cannot close or open B: N-pole without protection, can close and open C :N-pole with protection, can close and open D: N-pole with protection, cannot close or open Note:Unless otherwise mentioned, 4-pole products will be classified as CAT. B by default.

L1	Y1
↓	↓
Rated residual operating current (mA)	Rated delay time (if selected)

L1			Y1				
Delay fixed type		Quick three-gear adjustable	Delay fixity				Delay three-gear adjustable
L1: 30 L2: 50 L3: 75 L4: 100 L5: 150	L7: 200 L8: 300 L9: 500 L10: 1000	L11: 30, 50, 100 L12: 30, 100, 200 L13: 30, 100, 500 L14: 100, 200, 300 L15: 100, 300, 500 L16: 300, 500, 1000	Y1: 0.1s Y2: 0.2s Y3: 0.3s	Y4: 0.4s Y5: 0.5s Y6: 0.6s	Y7: 0.7s Y8: 0.8s Y9: 0.9s	Y10: 1.0s Y11: 1.5s Y12: 2.0s	Y13: 0.45、1、2 Y14: 1、2、3(s)

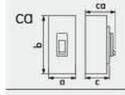
Q1	D1	Q	2
↓	↓	↓	↓
Accessory voltage	Electric operation voltage	Installation methods	Install wiring board or not

Q1			D1			
Undervoltage release Q1:AC220V Q2:AC240V Q3:AC380V Q4:AC415V	Shunt release F1: AC220V F2: AC380V F3: DC110V F4: DC24V	Auxiliary alarm J1: AC125V J2: AC250V J3: DC125V J4: DC24V	DC 1electric operation D1: AC220V D2: AC230V D3: AC380V D4: AC400V	DC3 electric operation D5: AC230V D6: AC110V D7: DC220 D8: DC110 D9: AC110-240V D10: DC100-220V	Q :Front-board H:Back-board C:Plug-in type	1: No 2 : Yes
			Note: Adaptable voltages for two electric operations. Please refer to the introduction of external accessory.			

Main performance indexes

Frame current		125		160		
Model		STM6LY-125S	STM6LY-125H	STM6LY-160S	STM6LY-160M	STM6LY-160H
Pole number		2, 3, 4		2, 3, 4	3, 4	
						
Power supply system	3P	3 ϕ 3W, 1 ϕ 2W, 1 ϕ 3W		3 ϕ 3W, 1 ϕ 2W, 1 ϕ 3W		
	4P	3 ϕ 4W		3 ϕ 4W		
Rated current		10, 16, 20, 32, 40, 50, 63, 80, 100, 125		10, 16, 20, 32, 40, 50, 63, 80, 100, 125, 140, 160		
Rated voltage		AC400V		AC400V		
Rated insulation voltage		AC690V		AC690V		
Leakage indication system		Button		Button		
Short-circuit breaking capacity (KA)Icu/Ics	AC400V	25/15	35/25	35/25	50/35	70/50
Operating cycle number	ON	6000		6000	3000	
	OFF	9000		9000	7000	
Quick type	Rated residual operating current	30, 100, 500 (adjustable)		30, 100, 500 (adjustable)		
	Max. actuation time	0.1		0.1		
Delay type	Rated residual operating current	100, 300, 500 (adjustable)		100, 300, 500 (adjustable)		
	Max. actuation time	—		—		
	Max. actuation time under 21△n (s)	0.45, 1.0, 2.0 (adjustable)		0.45, 1.0, 2.0 (adjustable)		
	Inertia non-actuation time under 21△n (s)	0.1, 0.5, 1.0		0.1, 0.5, 1.0		
Outline dim. (mm) a-b-ca 	2P	50-130-68-90		60-155-68-90		
	3P	75-130-68-90		90-155-68-90		90-155-88-115
	4P	100-130-68-90		120-155-68-90		120-155-88-115
Weight (kg)	2P	0.55		0.75	0.75	0.75
	3P	0.65		0.85	1.2	1.2
	4P	0.8		1.2	1.5	1.5
Electric operating device (MD)		●		●		
External driving operating handle		●		●		
Automatic release		Thermal electromagnetic type		Thermal electromagnetic type		

Main performance indexes

Frame current		250			630		800
Model		STM6LY-250S	STM6LY-250M	STM6LY-250H	STM6LY-630S	STM6LY-630H	STM6LY-800H
Pole number		3, 4			3, 4		3, 4
							
Power supply system	3P	3 ϕ 3W, 1 ϕ 2W, 1 ϕ 3W			3 ϕ 3W, 1 ϕ 2W, 1 ϕ 3W		3 ϕ 3W, 1 ϕ 2W, 1 ϕ 3W
	4P	3 ϕ 4W			3 ϕ 4W		3 ϕ 4W
Rated current		100, 125, 140, 160, 180, 200, 225, 250			250, 315, 350, 400, 500, 630		500, 630, 700, 800
Rated voltage		AC400V			AC400V		AC400V
Rated insulation voltage		AC690V			AC690V		AC690V
Leakage indication system		Button			Button		Button
Short-circuit breaking capacity (KA)Icu/Ics	AC400V	35/25	65/42	85/50	50/35	85/50	85/50
Operating cycle number	ON	3000			2000		2000
	OFF	7000			4000		4000
Quick type	Rated residual operating current	30, 100, 500 (adjustable)			30, 100, 500 (adjustable)		30, 100, 500 (adjustable)
	Max. actuation time	0.1			0.1		0.1
Delay type	Rated residual operating current	100, 300, 500 (adjustable)			100, 300, 500(adjustable)		100, 300, 500(adjustable)
	Max. actuation time	—			—		—
	Max. actuation time under 21△n (s)	0.45, 1.0, 2.0 (adjustable)			0.45, 1.0, 2.0 (adjustable)		0.45, 1.0, 2.0 (adjustable)
	Inertia non-actuation time under 21△n (s)	0.1, 0.5, 1.0			0.1, 0.5, 1.0		0.1, 0.5, 1.0
Outline dim. (mm) a-b-c-ca 	3P	105-165-68-92		105-165-88-115	140-257-103-155		210-257-103-155
	4P	140-165-68-92		140-165-88-115	185-257-103-155		280-257-103-155
Weight (kg)	3P	2.0		2.1	6.6		12.5
	4P	2.5		2.6	8.4		17.5
Electric operating device (MD)		●			●		●
External driving operating handle		●			●		●
Automatic release		Thermal electromagnetic type			Thermal electromagnetic type		Thermal electromagnetic type

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Product Selection Guide

STM6DC - 125 H 4300 / DC1000V / 80A / P / B

STM6DC	125	H	2	2
↓	↓	↓	↓	↓
Product code	Frame size rated current	Rated ultimate short-circuit breaking capacity	Pole number	Release type
DC circuit breaker	125, 160, 250, 630, 800	H :higher level type	2:2-pole 3:3-pole 4:4-pole	2-short-circuit release 3-complex release

0	1000V	P	B
↓	↓	↓	↓
Accessory	Rated operating voltage	External accessory	Wiring method
0 :Null 2 :auxiliary contact 3:complex release	DC 500V-1000V	Null: body operation P: electric operation GZ3: rotary handle	Null: front-board wiring B: back-board wiring C: plug-in type

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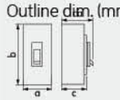
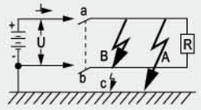
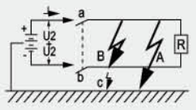
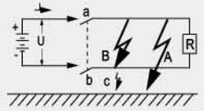
Main performance indexes

Frame current (A)		125	160	250
Model		STM6DC-125H	STM6DC-160H	STM6DC-250H
Pole number		2, 3, 4	2, 3, 4	2, 3, 4
				
Rated current (A)		10, 16, 20, 32, 40, 50, 63, 80, 100, 125	10, 16, 20, 32, 40, 50,63, 80, 100, 125, 140, 160	100, 125, 140, 160, 180, 200, 225, 250
Rated voltage (V)		DC250V, DC500V, DC750V, DC1000V	DC250V, DC500V, DC750V, DC1000V	DC250V, DC500V, DC750V, DC1000V
Rated insulation voltage (V)		DC1000V	DC1000V	DC1000V
Short-circuit breaking capacity (KA) Icu(Ics=70%Icu)		DC250V(35kA), DC500V(25kA), DC750V(15kA), DC1000V(10kA)	DC250V(35kA), DC500V(25kA), DC750V(15kA), DC1000V(10kA)	DC250V(35kA), DC500V(25kA), DC750V(15kA), DC1000V(10kA)
Operating cycle number	ON	6000	3000	3000
	OFF	9000	7000	7000
Outline dim. (mm) a-b-c-ca 	2P	50-130-68-90	60-155-88-115	-
	3P	75-130-68-90	90-155-88-115	105-165-88-115
	4P	100-130-68-90	120-155-88-115	140-165-88-115
Wight (kg)	2P	0.55	1.0	-
	3P	0.65	1.1	1.5
	4P	0.8	1.4	1.9
Electric operating device (MD)		●	●	●
External driving operating handle		●	●	●
Automatic release		Thermal electromagnetic type	Thermal electromagnetic type	Thermal electromagnetic type

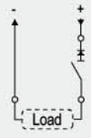
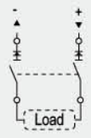
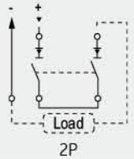
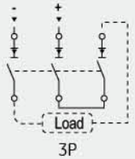
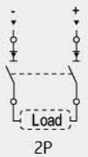
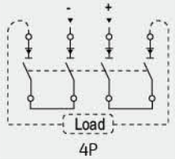
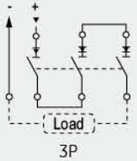
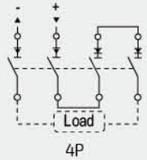
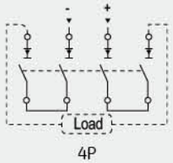
Main performance indexes

Frame current (A)		630	800
Model		STM6DC-630M	STM6DC-800H
Pole number		2, 3, 4	2, 3, 4
			
Rated current (A)		250, 315, 350, 400, 500, 630	500, 630, 700, 800
Rated voltage (V)		DC250V, DC500V, DC750V, DC1000V	DC250V, DC500V, DC750V, DC1000V
Rated insulation voltage (V)		DC1000V	DC1000V
Short-circuit breaking capacity (KA) Icu(Ics=70%Icu)		DC250V(65kA), DC500V(35kA), DC750V(25kA), DC1000V(15kA)	DC250V(65kA), DC500V(35kA), DC750V(25kA), DC1000V(15kA)
Operating cycle number	ON	2000	1500
	OFF	4000	4000
Outline dim. (mm) a-b-c-ca 	2P	140-257-103-155	210-275-103-155
	3P	140-257-103-155	210-275-103-155
	4P	184-257-103-155	280-275-103-155
Wight (kg)	2P	5.0	9.5
	3P	5.7	12.5
	4P	7.5	1.4
Electric operating device (MD)		●	●
External driving operating handle		●	●
Automatic release		Thermal electromagnetic type	Thermal electromagnetic type

DC system protection

System type		Grounding system		Ungrounded system
Various types of reformation		One pole of DC power is grounded	Neutral point of DC power is grounded	
				
Fault effect	Fault A	Max. Isc that only to the positive pole	Isc is close to max. Isc and only to the positive pole, voltage is U/2	No effect
	Fault B	Max. Isc that includes two poles	Max. Isc that includes two poles	Max. Isc that includes two poles
	Fault C	No effect	Same as fault A but only to the negative pole	No effect
The most serious situation		Fault A	Faults A and C	Fault B
Pole breaking		It can be connected at the positive in series, and commonly execute the breaking	At each pole, they must be at U/2	The two poles to be disconnected are evenly distributed between the two electrodes

Wiring method

Un＜250V	 1P	 2P		
Un＜800V	 2P	 3P	 2P	 4P
Un＜1000V	 3P	 4P	 4P	

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Product Selection Guide

STM6 RT - 160 H Z / 3 300 2 A Q1 Q 2

STM6	RT	160	H
↓	↓	↓	↓
Product code	Adjustable type	Code of frame size current	Breaking capacity ICU/ICS(kA)
Moulded-case circuit breaker (MCCB)	RT: thermomagnetic adjustable T/A: single adjustable (i.e. thermal adjustable\magnetic fixed)	160, 250, 630, 800 Note: 160 is upgraded type of 100 frame 225 is upgraded type of 250 frame 630 is upgraded type of 400 frame	S / M / H 160: 35/25 / 50/35 / 70/50 225: 35/25 / 50/35 / 85/50 630: 50/35 / - / 85/50 800: 50/35 / - / 85/50 H-high performance 70KA

Z	3	300	160A
	↓	↓	↓
Code of operating mode	Pole number	Code of release type and internal accessory	Rated current (A)
P:electric operation Z : rotary handle W:direct operation ①Electric operation DC1,DC2，DC3	3 :3-pole 4 :4-pole	The first digit represents release type 2 :has instantaneous release only; 3 :complex release Note: Later two digits are the code of accessories (see accessory table 1)	160 20-25,25-32,32-40 40-50,50-63,63-80 80-100,100-125,125-160 250 100-125,125-160 160-200,200-250 630 200-250,250-320 320-400,400-500 500-630 800 400-500,500-630 630-800

2	A
↓	↓
Application	Code of four-pole product
1:power distribution 2 :motor protection	A: N-pole without protection, cannot close or open B: N-pole without protection, can close and open C :N-pole with protection, can close and open D: N-pole with protection, cannot close or open

Q1			D1		Q	2
↓			↓		↓	↓
Accessory voltage			Electric operation voltage		Installation methods	Install wiring board or not
Undervoltage release	Shunt release	Auxiliary alarm	DC1 electric operation	DC3 electric operation	Q :Front-board H:Back-board C:Plug-in type	1:No 2 :Yes
Q1:AC220V Q2:AC240V Q3:AC380V Q4:AC415V	F1: AC220V F2: AC380V F3: DC110V F4: DC24V	J1: AC125V J2: AC250V J3: DC125V J4: DC24V	D1: AC220V D2: AC230V D3: AC380V D4: AC400V Note: Adaptable voltages for two electric operations. Please refer to the introduction of external accessory.	D5: AC230V D6: AC110V D7: DC220 D8: DC110 D9: AC110-240V D10: DC100-220V		

Main performance indexes

Frame current (A)		160			250		
Model		STM6RT-160S	STM6RT-160M	STM6RT-160H	STM6RT-250S	STM6RT-250M	STM6RT-250H
Pole number		3, 4			3, 4		
							
Rated current (A)		20-25, 25-32, 32-40, 40-50, 50-63, 63-80, 80-100, 100-125A, 125-160A			100-125, 125-160, 160-200, 200-250A		
Rated voltage (V)		AC400V			AC400V		
Rated insulation voltage (V)		AC1000V			AC1000V		
Short-circuit breaking capacity (KA)Icu/Ics	AC400V	35/25	50/35	70/50	35/25	50/35	85/50
Operating cycle number	ON	3000			3000		
	OFF	7000			7000		
Outline dim. (mm) a-b-c-ca 	3P	90-155-68-90		90-155-88-115	105-165-68-92		105-165-88-115
	4P	120-155-68-90		120-155-88-115	140-165-68-92		140-165-88-115
Wight (kg)	3P	1.0	1.0	1.1	1.5		1.7
	4P	1.1	1.4	1.7	1.9		2.1
Electric operating device (MD)		●			●		
External driving operating handle		●			●		
Automatic release		Thermal electromagnetic type			Thermal electromagnetic type		

Main performance indexes

Frame current (A)		630		800	
Model		STM6RT-630S	STM6RT-630H	STM6RT-800S	STM6RT-800H
Pole number		3, 4		3, 4	
					
Rated current (A)		200-250, 250-320, 320-400, 400-500, 500-630		400-500, 500-630, 630-800	
Rated voltage (V)		AC400V		AC400V	
Rated insulation voltage (V)		AC1000V		AC1000V	
Short-circuit breaking capacity (KA)Icu/Ics	AC400V	50/35	70/50	50/35	85/50
Operating cycle number	ON	2000		1500	
	OFF	4000		4000	
Outline dim. (mm) a-b-c-ca 	3P	140-257-103-155		210-275-103-155	
	4P	185-257-103-155		280-275-103-155	
Wight (kg)	3P	5.7		9.5	
	4P	7.5		12.5	
Electric operating device (MD)		●		●	
External driving operating handle		●		●	
Automatic release		Thermal electromagnetic type		Thermal electromagnetic type	

Product overview

STM6E and STM6EL series electronic circuit breakers are applicable for low-voltage power systems of AC 50Hz, rated operating voltage up to 1000V and rated operating current from 16A to 800A.

Ambient and installation conditions

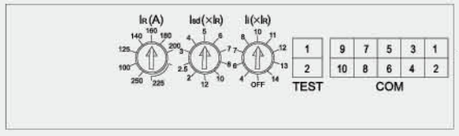
- Altitude up to 2000m;
- Ambient medium temperature should be within -5℃ to +40℃ (+45℃ for marine products);
- It can withstand the effect of damp air;
- It can withstand the effect of salt fog or oil mist;
- It can withstand the effect of moulds;
- It can withstand the effect of nuclear radiation;
- The max inclination is 22.5℃ .
- It still can work reliably when the ship subjects to normal vibration;
- It can still work reliably if the product subjects to the earthquake (4g).
- Places where the surrounding medium is free from explosion danger, and far away from gas or conductive dust that would erode the metal or destroy the insulation;
- Keep away from rain or snow.

Features

- Circuit breaker can be equipped with undervoltage release, shunt release, auxiliary contacts, alarm contacts, electric operating mechanism, rotary operating handle and other accessories.
- Circuit breaker has protection functions of overload long delay, short-circuit short delay and short-circuit instantaneous protection, the user can set the required protection characteristics (user only needs to operate the DIP switch for settings of protection function parameters).
- Circuit breaker has ground fault and thermal analog protection functions, pre-alarm indication over-current indication, load current indication, digital current analysis technology, and it can achieve a higher level of protection.
- STM6EL series is circuit breaker with residual current protection function.

Panel and function description

Intelligent release panel



Tripping test port (TEST)：

1Tripping test input DC12V(+)

2 Tripping test input DC12V(-)

Panel adjustment knob as follows in turn:

IR(A) Isd(x IR) Ii(x IR)

- IR: Overload long delay tripping setting current; Isd:
- Short-circuit short delay tripping setting current;
- Ii: Short-circuit instantaneous tripping setting current;

The rest parameters are set by factory default, or set by remote communication, as follows:

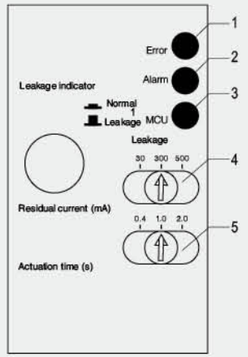
- tR: Overload long delay setting time, factory default: 60s;
- tsd: Short-circuit short delay setting time, factory default: 0.1s;
- Ip: Overload pre-alarm setting current, factory default: 0.85*IR;

Intelligent communication port (COM):

1：Power supply input DC24V(+)
2：Power supply input DC24V(-)
3：485A+
4：485A+
5：485B-
6：485B-
7：Closing and opening common terminal of electric operating mechanism
8：Closing and opening common terminal of electric operating mechanism
9：Opening of electric operating mechanism
10：Closing of electric operating mechanism

Panel with residual current protection

1：Setting current In overload indicator, the red light will go on when the operation current is ≥ 105% In
2：Pre-alarm current Ip indicator, the yellow light starts flashing when operation current is ≥ Ipx90%
3：When operation current is ≥ 60% xIn setting current, the green light will go on
4： The code switch for residual current setting
5：The code switch for leakage action time setting



Product Selection Guide

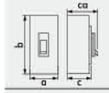
STM6 E - 160 P / 3 400 2 A

STM6	E	L
↓	↓	↓
Product code	Adjustable type	Rated residual operating current
Moulded-case circuit breaker	E: electronic adjustable	L: residual-current circuit breaker Quick fixed type 30、50、100、30、100、200、30、100、500、100、200、300 100、300、500、300、500、1000 Quick adjustable type 30、50、100、30、100、200、30、100、500、100、200、300 100、300、500、300、500、1000

160	P	3
↓	↓	↓
Code of frame size current	Code of operating mode	Pole number
Inm=160 Inm=300 Inm=630 Inm=1250	P: electric operation Z: rotary handle W: direct operation ①Electric operation DC1，DC2，DC3	3 :3-pole 4 :4-pole

400	2	A
↓	↓	↓
Code of release type and internal accessory	Code of different applications	Code of four-pole product
2: intelligent release Accessory code, see table 1	1: power distribution 2: motor protection	A: N-pole without protection, cannot close or open B: N-pole without protection, can close and open C :N-pole with protection, can close and open D: N-pole with protection, cannot close or open

Main performance indexes

Frame current (A)		160	250	630	800
Model		STM6E-160	STM6E-250	STM6E-630	STM6E-800
Pole number		3, 4	3, 4	3, 4	3, 4
					
Rated current (A)		16-32, 40-125, 80-160	100-250	200-400, 300-630	300-630, 400-800
Rated voltage (V)		AC400V	AC400V	AC400V	AC400V
Rated insulation voltage (V)		AC1000V	AC1000V	AC1000V	AC1000V
Short-circuit breaking capacity (KA)Icu/Ics	AC400V	70/50	85/50	85/50	85/50
Operating cycle number	ON	1500	1000	1000	1000
	OFF	7000	7000	4000	4000
Outline dim. (mm) a-b-c-ca 	3P	90-155-88-115	105-165-88-115	140-257-103-155	210-257-103-155
	4P	90-155-88-115	140-165-88-115	185-257-103-155	280-257-103-155
Wight (kg)	3P	1.8	2.1	5.7	5.7
	4P	2.3	2.6	7.5	7.5
Electric operating device (MD)		●	●	●	●
External driving operating handle		●	●	●	●
Automatic release		Electronic type	Electronic type	Electronic type	Electronic type

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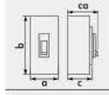
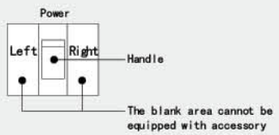
Main performance indexes

Frame current (A)		160	250	630	1250
Model		STM6EL-160	STM6EL-250	STM6EL-630	STM6EL-1250
Power supply system		3 ϕ 3W, 1 ϕ 2W 1 ϕ 3W	3 ϕ 4W, 3 ϕ 3W,1 ϕ 3W 1 ϕ 2W, 1 ϕ 3W	3 ϕ 3W, 1 ϕ 2W 1 ϕ 3W	3 ϕ 3W,1 ϕ 2W 1 ϕ 3W, 3 ϕ 4W
					
Rated current (A)		16-32, 40-125 80-160	100-250	200-400, 300-630	300-630, 400-800
Pole number		3, 4	3, 4	3, 4	3, 4
Rated voltage Ue(V)		AC440V	AC440V	AC440V	AC440V
Rated insulation voltage Ui(V)		AC1000V	AC1000V	AC1000V	AC1000V
Quick type	Rated residual operating current	100, 300, 500(adjustable)	100, 300, 500(adjustable)	100, 300, 500(adjustable)	100, 300, 500(adjustable)
	Max. actuation time	0.1	0.1	0.1	0.1
Delay type	Rated residual operating current	100, 300, 500(adjustable)	100, 300, 500(adjustable)	100, 300, 500(adjustable)	100, 300, 500(adjustable)
	Max. actuation time under 21△n (s)	0.45, 1.0, 2.0(adjustable)	0.45, 1.0, 2.0(adjustable)	0.45, 1.0, 2.0(adjustable)	0.45, 1.0, 2.0(adjustable)
	Inertia non-actuation time under 21△n (s)	0.1, 0.5, 1.0	0.1, 0.5, 1.0	0.1, 0.5, 1.0	0.1, 0.5, 1.0
Leakage indication system		Button	Button	Button	Button
Short-circuit breaking capacity (KA)Icu/Ics	AC400V	70/50	85/50	85/50	85/50
Operating cycle number	ON	1500	1000	1000	1000
	OFF	7000	7000	4000	4000
Outline dim. (mm) a-b-c-ca 	3P	90-155-88-115	105-165-88-115	140-257-103-155	210-257-103-155
	4P	120-155-88-115	140-165-88-115	185-257-103-155	280-257-103-155
Wight (kg)	3P	1.8	2.1	6.6	12.5
	4P	2.3	2.6	8.4	17.5
Electric operating device (MD)		●	●	●	●
External driving operating handle		●	●	●	●
Automatic release		Electronic type	Electronic type	Electronic type	Electronic type

Accessory table

Applicable for STM6, STM6LY, STM6DC, STM6RT, STM6E, and STM6EL

Model		STM6-125	STM6-160	STM6-250	STM6-630	STM6-800
Breaking capacity		S, H	S, M, H	S, M, H	S, M, H	S, H
Pole number		2, 3, 4	2, 3, 4	3, 4	3, 4	3, 4
Accessory code	Accessory name					
208、308	Alarm switch					
210、310	Shunt release					
220、320	Auxiliary switch					
230、330	Undervoltage release					
240、340	Shunt release, auxiliary switch					
260、360	Two groups of auxiliary switch					
270、370	Auxiliary switch, undervoltage release					
218、318	Shunt release, alarm switch					
228、328	Auxiliary switch, alarm switch					
238、338	Undervoltage release, alarm switch					
248、348	Shunt release, auxiliary switch, alarm switch					
268、368	Two groups of auxiliary switch, alarm switch					
278、378	Auxiliary switch, undervoltage release, alarm switch					
280、380	Two groups of auxiliary switch, shunt release					



● Alarm switch ○ Auxiliary switch

□ Shunt release ■ Undervoltage release

Note:1、The company can provide three new products of right auxiliary switch, left shunt release and left undervoltage release for choice.

2、Within 220, 320, 240, 340, 270 and 370 specifications, auxiliary switch can be supplied with two pair switches, please specify in the order.

3、P switches of STM6LY, STM6E and STM6EL can not be equipped with right auxiliary switch, right shunt release and right undervoltage release.

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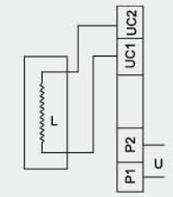
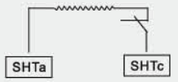
Internal accessories

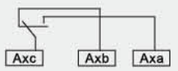
Internal accessories of STM6, STM6LY, STM6RT, STM6DC, STM6E, STM6EL series include undervoltage release, shunt release and auxiliary alarm release, their main technical parameters and wiring diagram are as follows:



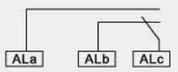
Undervoltage release	
Rated voltage of power supply	Main features
AC220, AC240 AC380, AC415	A、Undervoltage release should act when voltage drops to within 70% and 35% of the rated voltage. B、The undervoltage release should not be able to close to prevent the circuit breaker from closing when voltage is lower than 35% of the rated voltage. C、The undervoltage release should ensure to be closed and ensure reliable closing of the circuit breaker when voltage is equal to or greater than 85% of the rated voltage.



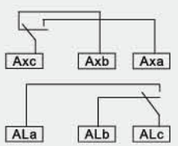
Shunt release	
Rated voltage of power supply	Main features
DC24, DC110 AC220, AC380	Shunt release can work reliably when the rated voltage value is at 70% and 110%.



Auxiliary alarm contact	
Rated voltage of power supply	Main features
Auxiliary switch AC 125V 5A, AC 250V 3A DC 125V0.4A, DC 125V0.2A	Provide position-difference signal for “Closing” and “Opening” of circuit breaker.



Alarm switch AC 125 5A, AC 250V 3A DC 125V0.4A, DC 125V 0.2A	Provide differentiated signals for the circuit breaker at "normal work" and "fault free trip" positions.



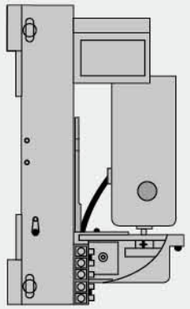
Auxiliary alarm switch AC 125V 5A, AC 250V 3A DC 125V0.4A.DC125V0.2A	Provide differentiated signals for the circuit breaker at "close", "open" and "fault free trip" positions.

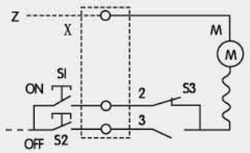
External accessories

The main technical parameters, dimensions and installation diagrams of external accessories for STM6, STM6R, STM6R, STM6R, STM6EL, and STM6EL series are as follows:

DC3 electric operating mechanism

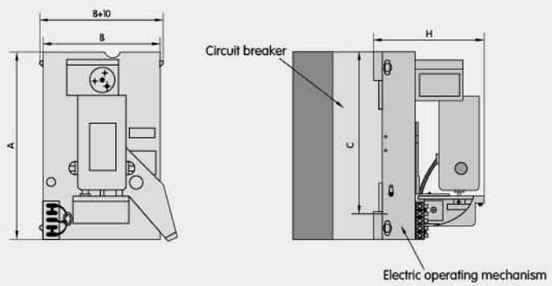
DC1 series electric operating mechanism is driven by motor, which is suitable for 250A and above heavy current rating circuit breaker operation.





M– motor S3– sensitive switch
X– connection terminal
SI、S2– button (user–supplied)

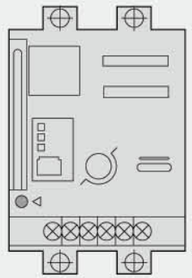
Model & Spec.			
Power distribution circuit breaker		DC1-400/30	DC 1-630/30
		STM6-630 STM6LY-630 STM6RT-630 STM6DC-630 STM6E-630 STM6EL-630	STM6-800 STM6LY-800 STM6RT-800 STM6DC-800 STM6E-800 STM6EL-800
Outline dim.	A	226	
	B	132	
	C	196	
	H	139	
Rated voltage (V)		AC400V, AC380V, AC230V, AC220V	
Starting current (A)		≤ 5.7	
Power (W)		120	
Operating times/hour (times)		120	



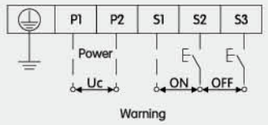
External accessories

The main technical parameters, dimensions and installation diagrams of external accessories for STM6, STM6LY, STM6RT, STM6DC, STM6E, and STM6EL series are as follows:

DC3 electric operating mechanism



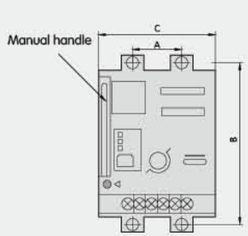
Wiring diagram

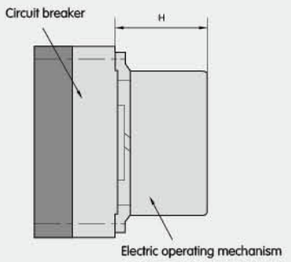


Warning

1. Manually prohibit counterclockwise operation
2. When it is manual operation, insert the handle at the starting point, clockwise rotate it 180 °

Model & Spec.		DC3-63/30	DC3-100/30	DC3-250/30	DC3-400/30	DC3-630/30
Applicable model		STM6-125 STM6LY-125 STM6RT-125 STM6DC-125	STM6-160 STM6LY-160 STM6RT-160 STM6DC-160 STM6E-160 STM6EL-160	STM6-250 STM6LY-250 STM6RT-250 STM6DC-250 STM6E-250 STM6EL-250	STM6-630 STM6LY-630 STM6RT-630 STM6DC-630 STM6E-630 STM6EL-630	STM6-800 STM6LY-800 STM6RT-800 STM6DC-800 STM6E-800 STM6EL-800
Outline dim.	A	25	30	35	44	70
	B	117	132	126	194	243
	C	90	90	90	130	130
	H	88.5	89.5	92	152	153
Rated voltage (V)		AC-110-24, DC100-220.DC24			AC230，DC220 or AC110,DC110，DC24	
Starting current (A)		≤ 0.5			≤ 2	
Mechanical life (times)		14000		10000	5000	
Power (W)		14			35	

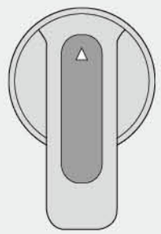


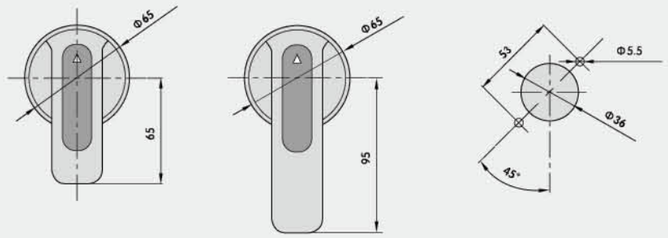


External accessories

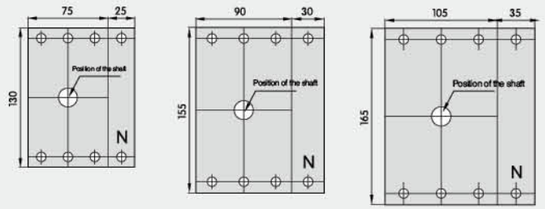
Manual operating mechanism

Appearance of round handles and door opening size (the distance from center of opening to the hinge is not less than 200mm)





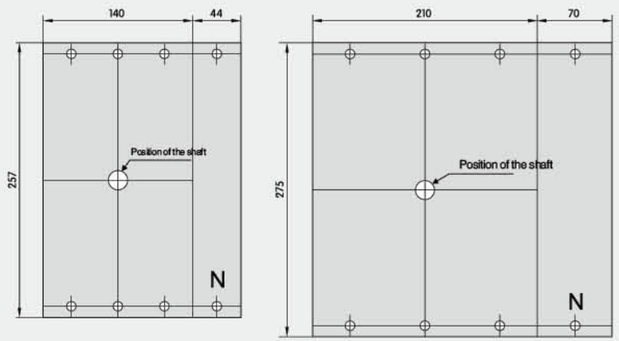
Opening diagram of center-type shaft



STM6-125
STM6LY-125
STM6RT-125
STM6DC-125

STM6-160
STM6LY-160
STM6RT-160
STM6DC-160
STM6E-160
STM6EL-160

STM6-250
STM6LY-250
STM6RT-250
STM6DC-250
STM6E-250
STM6EL-250

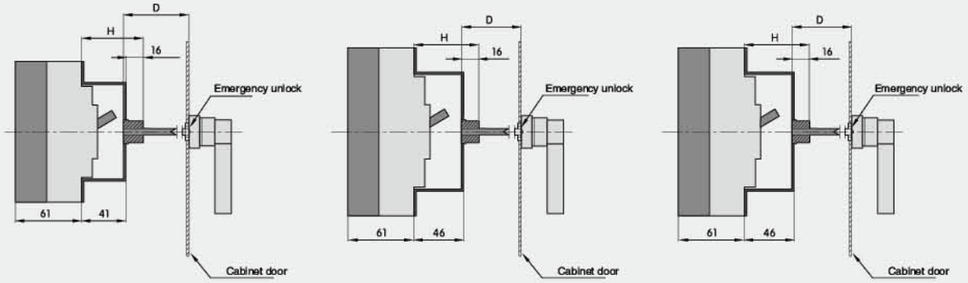


STM6-630
STM6LY-630
STM6RT-630
STM6DC-630
STM6E-630
STM6EL-630

STM6-800
STM6LY-800
STM6RT-800
STM6DC-800
STM6E-800
STM6EL-800

External accessories

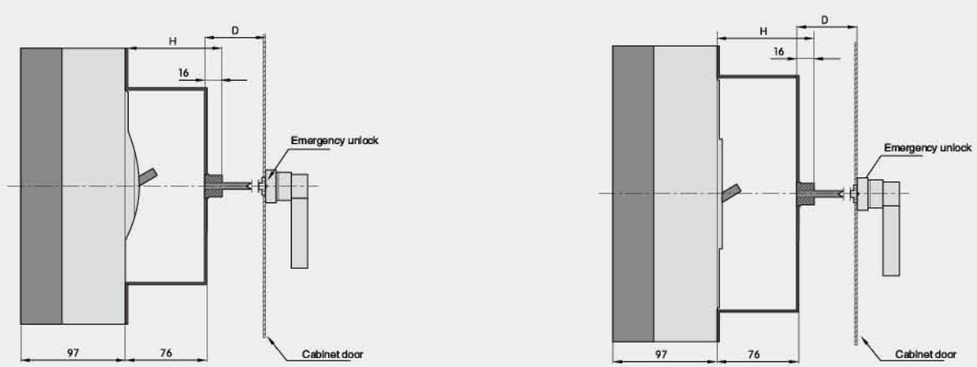
Installation diagram of cabinet and door



STM6-125
STM6LY-125
STM6RT-125
STM6DC-125

STM6-160
STM6LY-160
STM6RT-160
STM6DC-160
STM6E-160
STM6EL-160

STM6-250
STM6LY-250
STM6RT-250
STM6DC-250
STM6E-250
STM6EL-250

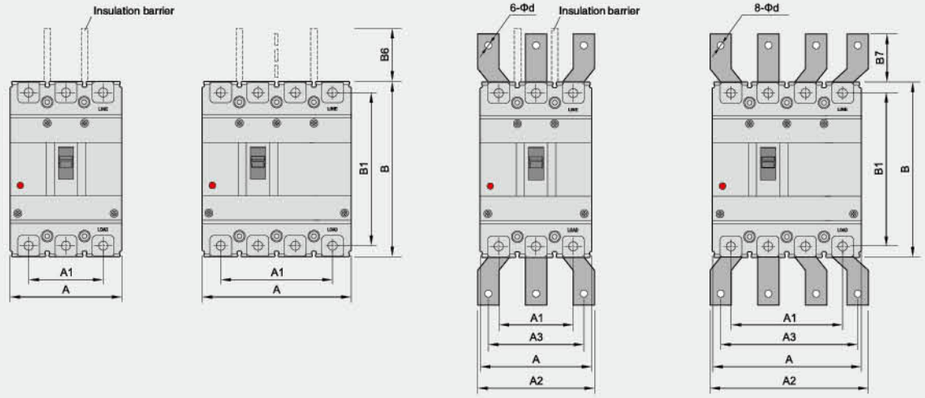


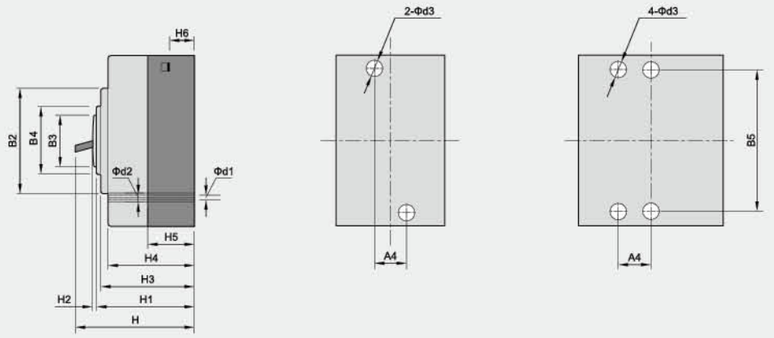
STM6-630
STM6LY-630
STM6RT-630
STM6DC-630
STM6E-630
STM6EL-630

STM6-800
STM6LY-800
STM6RT-800
STM6DC-800
STM6E-800
STM6EL-800

Note: the length of the square shaft D = 150mm, when its length is no more than 150mm, please specify it in the order.

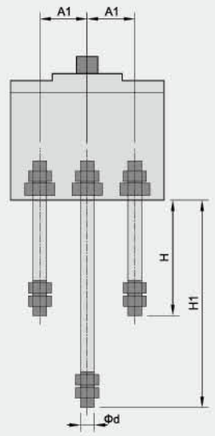
Front-board outline and installation dimensions

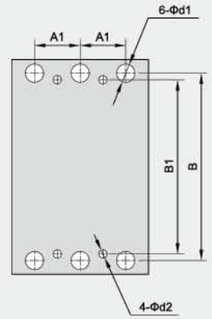


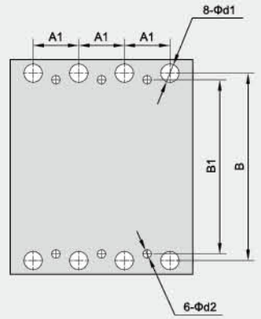


Model						Outline dim.			Outline dim.																										Installation dim.		Terminal screw
Moulded-case circuit breaker (MCCB)	Residual-current circuit breaker (RCCB)	Thermomagnetic adjustable circuit breaker	DC circuit breaker	Electronic adjustable circuit breaker	Electronic adjustable residual-current circuit breaker	A			A1		A2		A3		B	B1	B2	B3	B4	B6	B7	H	H1	H2	H3	H4	H5	H6	Φd	Φd1	Φd2	Φd3	A4	B5	
						3P	4P		3P	4P	3P	4P	3P	4P																						
STM6-125S	STM6LY-125S	-	-	-	-	75	100		50	75	-	-	-	-	130	114	84	50	59	50	-	90	72	4	68	61	40	23	-	4.5	8.5	5	25	111	M6/M8
STM6-125H	STM6LY-125H	-	-	-	-	75	100		50	75	-	-	-	-	130	114	84	50	59	50	-	90	72	4	68	61	40	23	-	4.5	8.5	5	25	111	M6/M8
STM6-160S	STM6LYL-160S	STM6RT-160S	STM6DC-160H	STM6E-160	STM6EL-160	90	120		60	90	-	-	-	-	155	134	102	50	59	50	-	90	72	4	68	61	40	23	-	4.5	8.5	5	30	132	M8
STM6-160M	STM6LY-160M	STM6RT-160M				90	120		60	90	-	-	-	-	155	134	102	50	59	50	-	90	72	4	68	61	40	23	-	4.5	8.5	5	30	132	M8
STM6-160H	STM6LY-160H	STM6RT-160H				90	120		60	90	-	-	-	-	155	134	102	50	59	50	-	115	91	4	88	81	60	23	-	4.5	8.5	5	30	132	M8
STM6-250S	STM6LY-250S	STM6RT-250S	STM6DC-250H	STM6E-250	STM6EL-250	105	140		70	105	-	-		-	165	144	102	50	59	100	-	92	72	4	68	61	40	23	-	4.5	8.5	5	35	126	M8
STM6-250M	STM6LY-250M	STM6RT-250M				105	140		70	105	-	-	-	-	165	144	102	50	59	100	-	92	72	4	68	61	40	23	-	4.5	8.5	5	35	126	M8
STM6-250H	STM6LY-250H	STM6RT-250H				105	140		70	105	-	-	-	-	165	144	102	50	59	100	-	115	91	4	88	81	60	23	14	4.5	8.5	5	35	126	M8
STM6-630S	STM6LY-630S	STM6RT-630S	STM6DC-630H	STM6E-630	STM6EL-630	140	184		88	132	140	196	112	168	257	230	150	90	99	110	43	155	107	5	103	97	64	30	14	7	13	7	44	194	M10
STM6-630H	STM6LY-630H	STM6RT-630H				140	184		88	132	140	196	112	168	257	230	150	90	99	110	42	155	107	5	103	97	64	30	14	7	13	7	44	194	M10
STM6-800S	-	STM6RT-800S	STM6DC-800H	STM6E-800	STM6EL-800	210	280		140	210	180	250	140	210	275	243	150	90	102	110	87	155	107	5	103	97	64	26	14	8	14	7	70	243	M12
STM6-800H	STM6LY-800H	STM6RT-800H				210	280		140	210	180	250	140	210	275	243	150	90	102	100	87	155	107	5	103	97	64	26		8	14	7	70	243	M12

Dimension of back-board wiring







Model							Dimension of back-board wiring							
Moulded-case circuit breaker	Residual-current circuit breaker (RCCB)	Thermomagnetic adjustable circuit breaker	DC circuit breaker	Electronic adjustable circuit breaker	Electronic adjustable residual-current circuit breaker		A1	B	B1	H	H1	Φd	Φd1	Φd2
STM6-125S	STM6LY-125S	-	-	-	-		25	114	111	62	87	6	14	5
STM6-125H	STM6LY-125H	-	-	-	-		25	114	111	62	87	6	14	5
STM6-160S	STM6LYL-160S	STM6RT-160S	STM6DC-160H	STM6E-160	STM6EL-160		30	134	132	72	112	8	18	5
STM6-160M	STM6LY-160M	STM6RT-160M					30	134	132	72	112	8	18	5
STM6-160H	STM6LY-160H	STM6RT-160H					30	134	132	72	112	8	18	5
STM6-250S	STM6LY-250S	STM6RT-250S	STM6DC-250H	STM6E-250	STM6EL-250		35	144	126	87	126	12	24	5
STM6-250M	STM6LY-250M	STM6RT-250M					35	144	126	87	126	12	24	5
STM6-250H	STM6LY-250H	STM6RT-250H					35	144	126	87	126	12	24	5
STM6-630S	STM6LY-630S	STM6RT-630S	STM6DC-630H	STM6E-630	STM6EL-630		44	230	194	83	136	18	35	7
STM6-630H	STM6LY-630H	STM6RT-630H					44	230	194	83	136	18	35	7
STM6-800S	-	STM6RT-800S	STM6DC-800H	STM6E-800	STM6EL-800		70	243	243	174	243	26	48	7
STM6-800H	STM6LY-800H	STM6RT-800H					70	243	243	174	243	26	48	7

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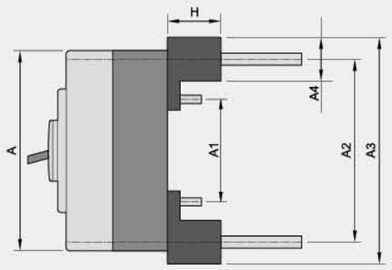
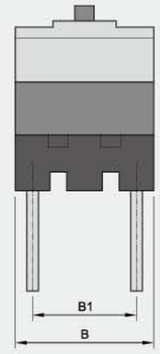
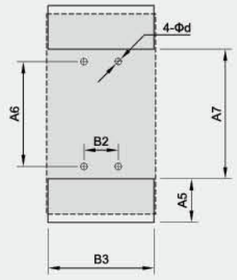
Dimension of plug-in type wiring







Model							Dimension of back-board wiring													
Moulded-case circuit breaker	Residual-current circuit breaker (RCCB)	Thermomagnetic adjustable circuit breaker	DC circuit breaker	Electronic adjustable circuit breaker	Electronic adjustable residual-current circuit breaker		A	A1	A2	A3	A4	A5	A6	A7	H	B	B1	B2	B3	Φd2
STM6-125S	STM6LY-125S	-		-	-		130	54	114	140	29	31	54	80	48	75	50	25	78	5.2
STM6-125H	STM6LY-125H	-	-	-	-		130	54	114	140	29	31	54	80	48	75	50	25	78	5.2
STM6-160S	STM6LYL-160S	STM6RT-160S	STM6DC-160H	STM6E-160	STM6EL-160		155	54	134	168	38	40	54	92	52	90	60	30	93	6.5
STM6-160M	STM6LY-160M	STM6RT-160M					155	54	134	168	38	40	54	92	52	90	60	30	93	6.5
STM6-160H	STM6LY-160H	STM6RT-160H					155	54	134	168	38	40	54	92	52	90	60	30	93	6.5
STM6-250S	STM6LY-250S	STM6RT-250S	STM6DC-250H	STM6E-250	STM6EL-250		165	54	144	182	45	47	54	90	50	105	70	70	108	6.5
STM6-250M	STM6LY-250M	STM6RT-250M					165	54	144	182	45	47	54	90	50	105	70	70	108	6.5
STM6-250H	STM6LY-250H	STM6RT-250H					165	54	144	182	45	47	54	90	50	105	70	70	108	6.5
STM6-630S	STM6LY-630S	STM6RT-630S	STM6DC-630H	STM6E-630	STM6EL-630		257	140	230	282	55	55	140	171	60	134	87	44	136	8.2
STM6-630H	STM6LY-630H	STM6RT-630H					257	140	230	282	55	55	140	171	60	134	87	44	136	8.2
STM6-800S	-	STM6RT-800S	STM6DC-800H	STM6E-800	STM6EL-800		275	155	243	298	55	56	155	187	60	206	140	70	208	8.2
STM6-800H	STM6LY-800H	STM6RT-800H					275	155	243	298	55	56	155	187	60	206	140	70	208	8.2

Operating characteristics

1. Power distribution circuit breaker are charged for every poles at the same time when the ambient air temperature is +40℃ , its inverse time action characteristics without humidity compensation are as shown in the following table:

Name of test current	Multiple of setting current	Conventional time	Initial state
		In≤63 63<In	
Conventional non-tripping current	1.05	≥1h ≥2h	Cold state
Conventional tripping current	1.30	<1h <2h	Thermal state

2. Motor protection circuit breaker are charged for every poles at the same time when the ambient air temperature is +40 ℃ , its inverse time action characteristics without humidity compensation are as shown in the following table:

Name of test current	Multiple of setting current	Conventional time	Initial state
		In≤800	
Conventional non-tripping current	1.0	≥2h	Cold state
Conventional tripping current	1.2	<2h	Thermal state

3. Operating characteristics under short-circuit condition:

- Short-circuit current setting value of instantaneous release of the power distribution circuit breaker is 10In;
- Short-circuit current setting value of instantaneous release of the motor protection circuit breaker is 12In;
- Accuracy of the short-circuit current setting value of instantaneous release is ± 20%.

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Installation

- Check whether the nameplate of the circuit breaker meets the requirements before installation, the cross-section of copper wire should be matched with the rated current of the circuit breaker.
- All fasteners must be tightened during installation.
- The cover of circuit breaker can not be opened, its parameters has been set and qualified in the factory, please do not adjust it.

Use and maintenance

- The handle of the circuit breaker should be moved upwards and downwards for several time before switching on the circuit breaker, the operation mechanism should act reliably.
- After the control circuit comes across general failures, the circuit breaker is opened, then the handle is in a vertical position.
- If user wants to make the breaker closing, firstly, find out the cause and remove the fault, pull the handle down, make the operating mechanism re-trip, then pull the handle to the position "close" , and the circuit breaker can be closed.。
- The surface of the circuit breaker should be cleaned regularly to maintain good insulation.
- Protect the circuit breaker from impact or fall, or attack of rain or snow during operation, storage and transportation.
- Circuit breakers produced by the company are guaranteed for 18 month since the date of production or the date of purchase (as per the date of the invoice). The company will be responsible for free replacement or repair for the defective product caused by manufacturing issue on the premise of intact seal.

Enclosed documents

The documents such as Certificate of Conformity, Operating Manual, Packing List and so on should be enclosed.

Order guide

- Name and model of circuit breaker;
- Rated current and setting multiple of circuit breaker;
- Accessory name and rated voltage.

eg.: Order 50 sets of circuit breaker of power distribution 125 type, with rated current 100A standard type AC 380V undervoltage release, complex release, N-pole is not installed with overcurrent release and will close and open together with other three poles.
Please write like this: STM6-125L74370 100A 1 B Q 3, circuit breaker 50 sets.