

SFX Moulded case circuit Breakers



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Product Usage

SFX series Moulded case circuit Breakers (hereinafter referred to as circuit breakers), with rated insulation voltage of 1000V, are suitable for infrequent conversion and motor protection in circuits with ac 50Hz/60Hz, rated working voltage of 400V/690V and below, rated working current up to 800A (no motor protection type with rated current > 630A). Circuit breaker with overload, short circuit and under-voltage protection function, can protect the line and power equipment from damage, and suitable for isolation; The circuit breaker equipped with electronic release has the function of protecting the line from overload, short circuit and undervoltage, and also has the protection of ground fault.

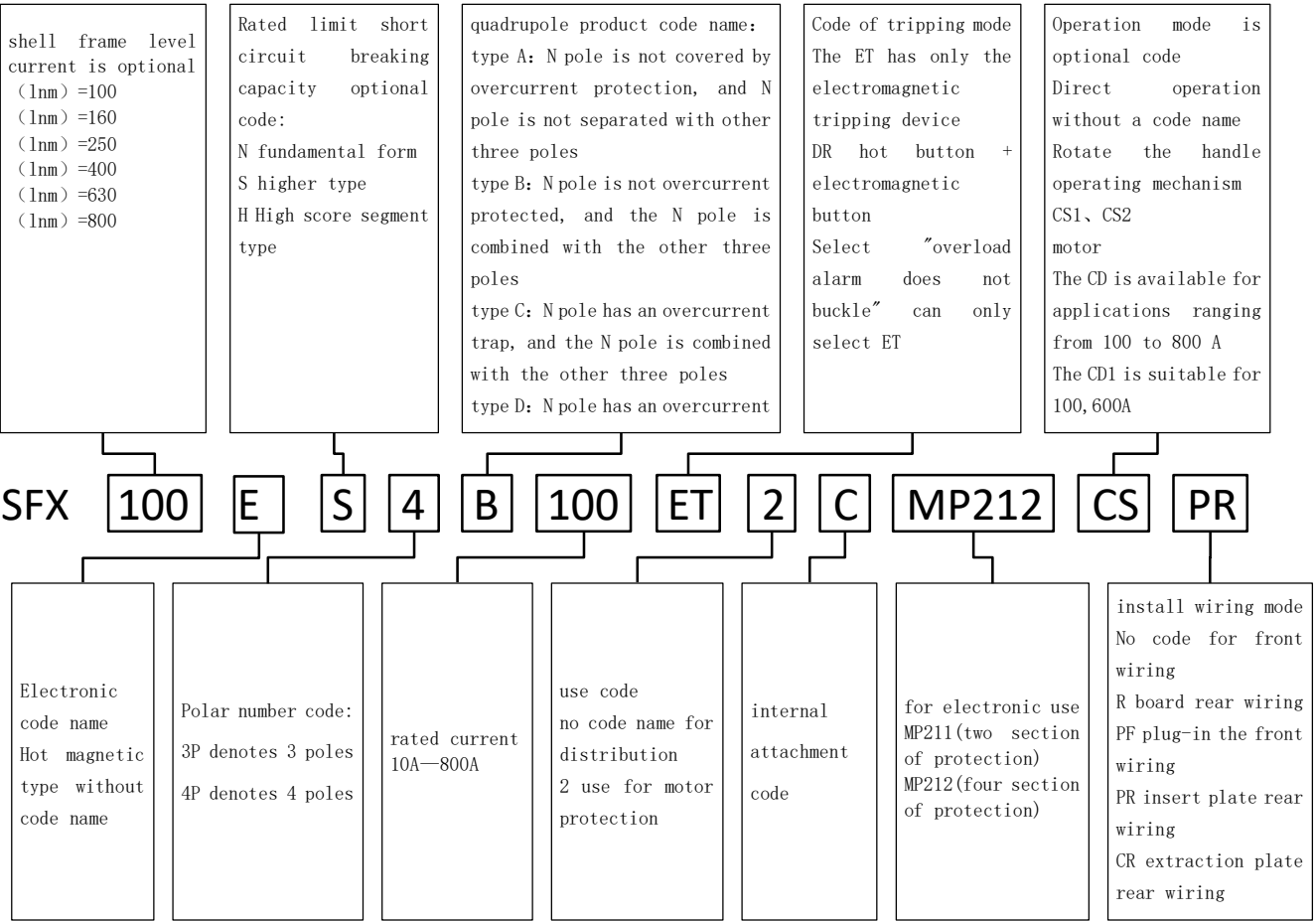
Features

- 1. With a higher performance-to-size ratio, it can provide users with more space for cable wiring and reduce the size of the switch cabinet;
- 2. Compact structure and extraordinary performance;
- 3. Extremely simple installation, operation and maintenance;
- 4. Complete accessories, easy to use and strong applicability;
- 5. It has the characteristics of small size, high breaking point, short flashover, and anti-vibration;
- 6. Install vertically or horizontally without reducing its technical performance.

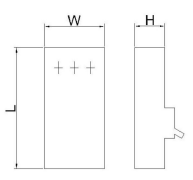
Normal usage conditions

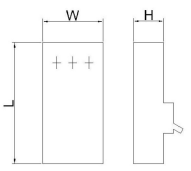
- 1. Installation site altitude: ≤ 2000m;
- 2. Operating environment temperature: -5~+40℃;
- 3. Relative air humidity: no more than 95% at +20℃; no more than 50% at +40℃;
- 4. Installation environment: a place without significant vibration and impact, installation category: Level III;
- 5. It should be placed in an area without explosive hazard and without gases and conductive dust that can corrode metals and damage insulation;
- 6. In places without rain or snow.
- 7. Pollution level: Level 3;
- 8. The installation category of the main circuit is III, and the installation category of the auxiliary circuit and control circuit is II.

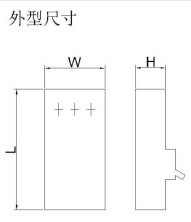
Quick Selection Table

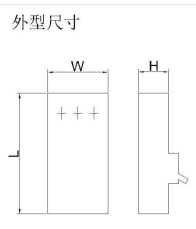


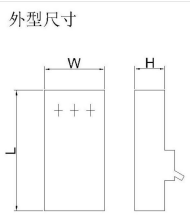
Technical Parameters

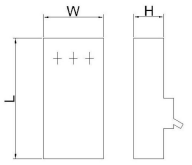
Circuit breaker model			SFX100 N	SFX100 S	SFX100 H	SFX100T
Frame grade Rated current		Inm (A)	100			
Rated current		In (A)	10, 12.5, 16, 20, 25, 32, 40, 50, 63, 80, 100			
Rated insulation voltage		Ui (V)	100			
Rated operating voltage		Ue (V)	AC400/50Hz AC690/50Hz			
Number of poles			3.4			
N- pole rated current			=In			
Rated ultimate short-circuit Breaking capacity 0-C0	Icu (k A)	AC400V	16	36	50	50
		AC690V	5	12	15	15
Rated operating short-circuit Breaking capacity 0-C0-C0	ICS (k A)	AC400V	12	27	37.5	50
		AC690V	3.75	9	11.25	15
Rated impulse withstand voltage	Uimp (V)		8000			
Service life	Electrical life		4000			
	Mechanical life		20000			
Arcing distance (mm)	up and down		≤150			
	about		≤50			
Overcurrent release	Thermal Magnetic	Adjustable heat	(0.7, 1.0)In			
		Magnetic adjustable	—			
	Electronic		—			
Use Category	The main circuit		A			
	Auxiliary circuit and control circuit		AC-15			
Undervoltage release			√			
Shunt release			√			
Auxiliary contact			√			
Alarm contact			√			
Auxiliary alarm contact			√			
Manual Exercise			√			
Electrician			√			
Hanging buckle			√			
Plug-in board			√			
Partition			√			
Extended handle			-			
外型尺寸 	W (mm)	3P	76			
		4P	101			
	L (mm)	3P	120			
		4P	120			
	H (mm)	3P	70			
		4P	70			

Circuit breaker model			SFX160 N	SFX160 S	SFX160H	SFX160T
Frame grade Rated current		Inm (A)	160			
Rated current		In (A)	16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160			
Rated insulation voltage		Ui (V)	1000			
Rated operating voltage		Ue (V)	AC400/50Hz AC690/50Hz			
Number of poles			3.4			
N- pole rated current			=In			
Rated ultimate short-circuit breaking capacity 0-C0	Icu (kA)	AC400V	25	36	50	50
		AC690V	8	12	15	15
Rated operating short-circuit breaking capacity 0-C0-C0	ICS (kA)	AC400V	18.75	27	37.5	50
		AC690V	6	9	11.25	15
Rated impulse withstand voltage	Uimp (V)		8000			
Service life	Electrical life		4000			
	Mechanical life		20000			
Arcing distance (mm)	up and down		≤150			
	about		≤50			
Overcurrent release	Thermal Magnetic	Adjustable heat	(0.7, 1.0)In			
		Magnetic adjustable	—			
	Electronic		—			
Use Category	The main circuit		A			
	Auxiliary circuit and control circuit		AC-15			
Undervoltage release			√			
Shunt release			√			
Auxiliary contact			√			
Alarm contact			√			
Auxiliary alarm contact			√			
Manual Exercise			√			
Electrician			√			
Hanging buckle			√			
Plug-in board			√			
Partition			√			
Extended handle			-			
外型尺寸 	W (mm)	3P	90			
		4P	120			
	L (mm)	3P	120			
		4P	120			
	H (mm)	3P	70			
		4P	70			

Circuit breaker model			SFX250 N	SFX250 S	SFX250 H
Frame grade Rated current		Inm (A)	250		
Rated current		In (A)	125, 140, 160, 180, 200, 225, 250 (Thermal Magnetic) 100, 125, 140, 160, 180, 200, 225, 250 (electronic)		
Rated insulation voltage		Ui (V)	1000		
Rated operating voltage		Ue (V)	AC400/50Hz AC690/50Hz		
Number of poles			3.4		
N- pole rated current			=In		
Rated ultimate short-circuit Breaking capacity 0-C0	Icu (kA)	AC400V	36	50	70
		AC690V	12	17	25
Rated operating short-circuit Breaking capacity 0-C0-C0	ICS (kA)	AC400V	27	37.5	52.5
		AC690V	9	12.75	18.75
Rated impulse withstand voltage		Uimp (V)	8000		
Service life	Electrical life		4000		
	Mechanical life		20000		
Arcing distance (mm)	up and down		≤150		
	about		≤50		
Overcurrent release	Thermal Magnetic	Adjustable heat	(0.7, 0.85, 1.0)In		
		Magnetic adjustable	(5, 7.5, 10)In		
	Electronic	Adjustable heat	(0.4-0.5-0.6-0.7-0.8-0.9-1)In		
		Magnetic adjustable	(1.5-2-4-6-8-10-12)In		
Operating Curve			3S-6S-12S-18S		
Use Category	The main circuit		A		
	Auxiliary circuit and control circuit		AC-15		
Undervoltage release			√		
Shunt release			√		
Auxiliary contact			√		
Alarm contact			√		
Auxiliary alarm contact			√		
Manual Exercise			√		
Electrician			√		
Hanging buckle			-		
Plug-in board			√		
Partition			√		
Extended handle			-		
外型尺寸 	W (mm)	3P	105	105 (electronic)	
		4P	140	-	
	L (mm)	3P	170	21.7 (electronic)	
		4P	170	-	
	H (mm)	3P	103.5	103.5 (electronic)	
		4P	103.5	-	

Circuit breaker model			SFX400 N	SFX400 S	SFX400 H
Frame grade Rated current		Inm (A)	400		
Rated current		In (A)	250, 315, 350, 400		
Rated insulation voltage		Ui (V)	1000		
Rated operating voltage		Ue (V)	AC400/50Hz AC690/50Hz		
Number of poles			3.4		
N- pole rated current			=In		
Rated ultimate short-circuit breaking capacity 0-C0	Icu (kA)	AC400V	36	50	70
		AC690V	12	17	25
Rated operating short-circuit breaking capacity 0-C0-C0	ICS (kA)	AC400V	27	37.5	52.5
		AC690V	9	12.75	18.75
Rated impulse withstand voltage	Uimp (V)		8000		
Service life	Electrical life		4000		
	Mechanical life		20000		
Arcing distance (mm)	up and down		≤150		
	about		≤50		
Overcurrent release	Thermal Magnetic	Adjustable heat	(0.7, 0.85, 1.0)In		
		Magnetic adjustable	(5, 7.5, 10)In		
	Electronic	Adjustable heat	(0.4-0.5-0.6-0.7-0.8-0.9-1)In		
		Magnetic adjustable	(1.5-2-4-6-8-10-12)In		
Operating Curve			3S-6S-12S-18S		
Use Category	The main circuit		A		
	Auxiliary circuit and control circuit		AC-15		
Undervoltage release			√		
Shunt release			√		
Auxiliary contact			√		
Alarm contact			√		
Auxiliary alarm contact			√		
Manual Exercise			√		
Electrician			√		
Hanging buckle			-		
Plug-in board			√		
Partition			√		
Extended handle			√		
外型尺寸 	W (mm)	3P	140		
		4P	184		
	L (mm)	3P	255		
		4P	255		
	H (mm)	3P	103.5		
		4P	103.5		

Circuit breaker model			SFX630 N	SFX630 S	SFX630H
Frame grade Rated current		Inm (A)	630		
Rated current		In (A)	400, 500, 630		
Rated insulation voltage		Ui (V)	1000		
Rated operating voltage		Ue (V)	AC400/50Hz AC690/50Hz		
Number of poles			3.4		
N- pole rated current			=In		
Rated ultimate short-circuit breaking capacity 0-C0	Icu (kA)	AC400V	36	50	70
		AC690V	12	17	25
Rated operating short-circuit breaking capacity 0-C0-C0	ICS (kA)	AC400V	27	37.5	52.5
		AC690V	9	12.75	18.75
Rated impulse withstand voltage	Uimp (V)		8000		
Service life	Electrical life		4000		
	Mechanical life		20000		
Arcing distance (mm)	up and down		≤150		
	about		≤50		
Overcurrent release	Thermal Magnetic	Adjustable heat	(0.7, 0.85, 1.0)In		
		Magnetic adjustable	(5, 7.5, 10)In		
	Electronic	Adjustable heat	(0.4-0.5-0.6-0.7-0.8-0.9-1)In		
		Magnetic adjustable	(1.5-2-4-6-8-10-12)In		
Operating Curve			3S-6S-12S-18S		
Use Category	The main circuit		A		
	Auxiliary circuit and control circuit		AC-15		
Undervoltage release			√		
Shunt release			√		
Auxiliary contact			√		
Alarm contact			√		
Auxiliary alarm contact			√		
Manual Exercise			√		
Electrician			√		
Hanging buckle			-		
Plug-in board			√		
Partition			√		
Extended handle			√		
外型尺寸 	W (mm)	3P	140		
		4P	184		
	L (mm)	3P	255		
		4P	255		
	H (mm)	3P	103.5		
		4P	103.5		

Circuit breaker model			SFX800	SFX800	SFX800
Frame grade Rated current		Inm (A)	800		
Rated current		In (A)	630, 700, 800		
Rated insulation voltage		Ui (V)	1000		
Rated operating voltage		Ue (V)	AC400/50Hz AC690/50Hz		
Number of poles			3.4		
N- pole rated current			=In		
Rated ultimate short-circuit breaking capacity 0-C0	Icu (kA)	AC400V	36	50	70
		AC690V	12	17	25
Rated operating short-circuit breaking capacity 0-C0-C0	ICS (kA)	AC400V	27	37.5	52.5
		AC690V	9	12.75	18.75
Rated impulse withstand voltage	Uimp (V)		8000		
Service life	Electrical life		1000		
	Mechanical life		20000		
Arcing distance (mm)	up and down		≤150		
	about		≤50		
Overcurrent release	Thermal Magnetic	Adjustable heat	(0.7, 0.85, 1.0)In		
		Magnetic adjustable	(5, 7.5, 10)In		
	Electronic	Adjustable heat	(0.4-0.5-0.6-0.7-0.8-0.9-1)In		
		Magnetic adjustable	(1.5-2-4-6-8-10-12)In		
Operating Curve			3S-6S-12S-18S		
Use Category	The main circuit		A		
	Auxiliary circuit and control circuit		AC-15		
Undervoltage release			√		
Shunt release			√		
Auxiliary contact			√		
Alarm contact			√		
Auxiliary alarm contact			√		
Manual Exercise			√		
Electrician			√		
Hanging buckle			-		
Plug-in board			√		
Partition			√		
Extended handle			√		
外型尺寸 	W (mm)	3P	210		
		4P	280		
	L (mm)	3P	268		
		4P	268		
	H (mm)	3P	103.5		
		4P	103.5		

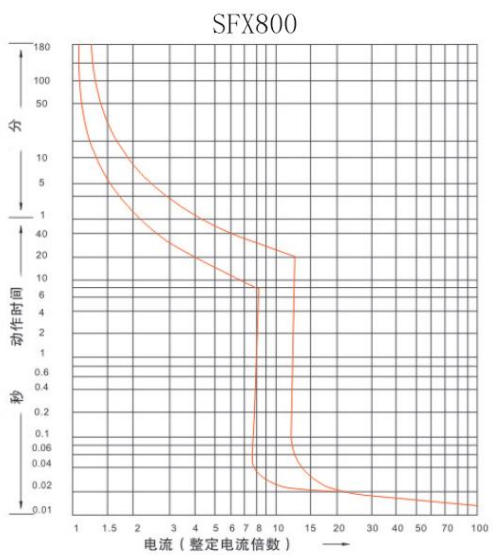
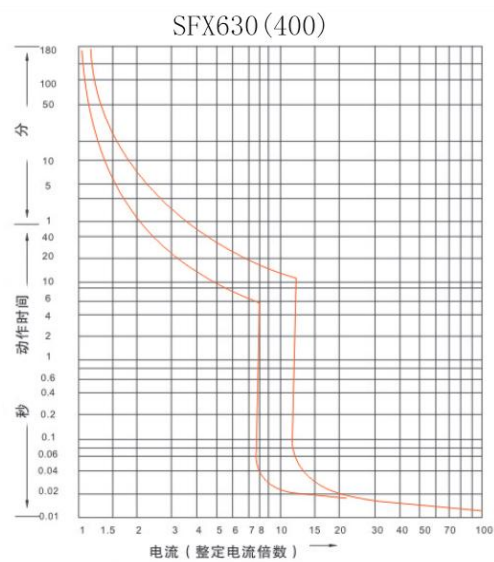
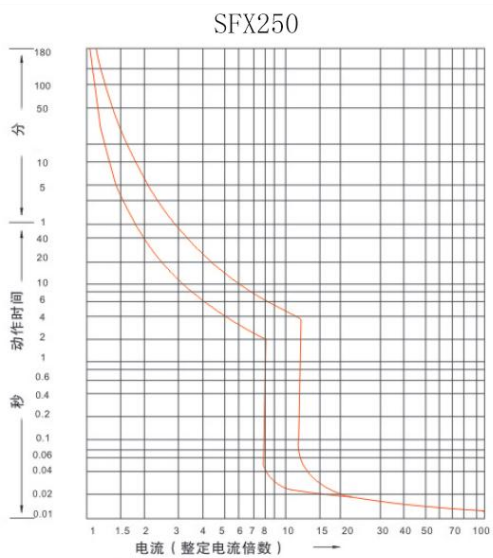
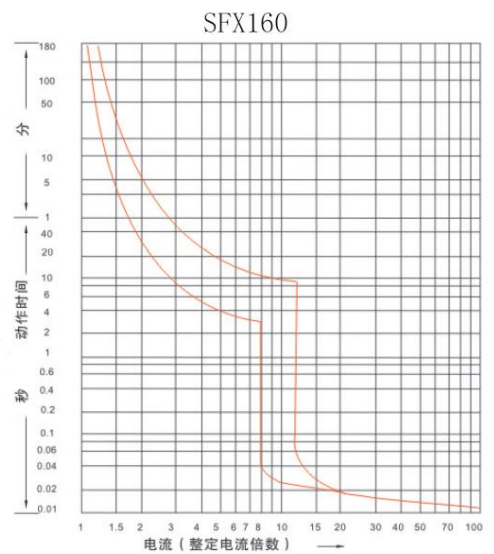
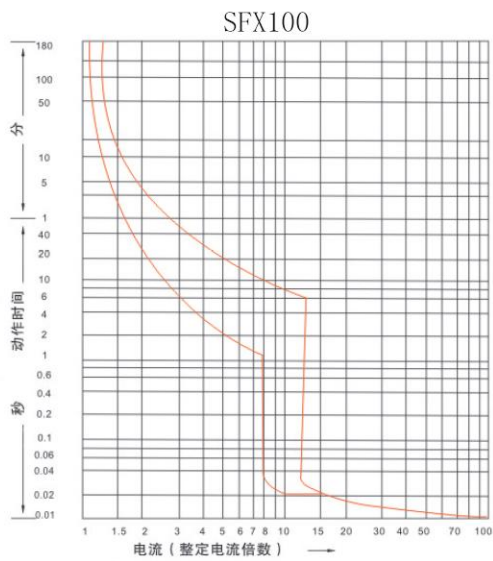
Inverse time breaking action characteristics of distribution circuit breakers when all poles are energized at the same time at an ambient air temperature of +40° C

Test project name	multiple	Agreed time for power distribution protection			Motor protection Agreed time	Starting State
		$I_n \leq 63A$	$63A < I_n \leq 63A$	$I_n > 250A$		
Conventional non-tripping current	1.05	≥ 1	≥ 2		≥ 2	Cold
Conventional tripping current	1.20				< 2	Hot
	1.30	< 1	< 2			
	1.5		$\leq 4min$		$\leq 4min$	
	7.2				$4s < T \leq 10s$	Cold
Return feature time	3.00	$\geq 5s$	$\geq 8s$	$\geq 12s$		Cold

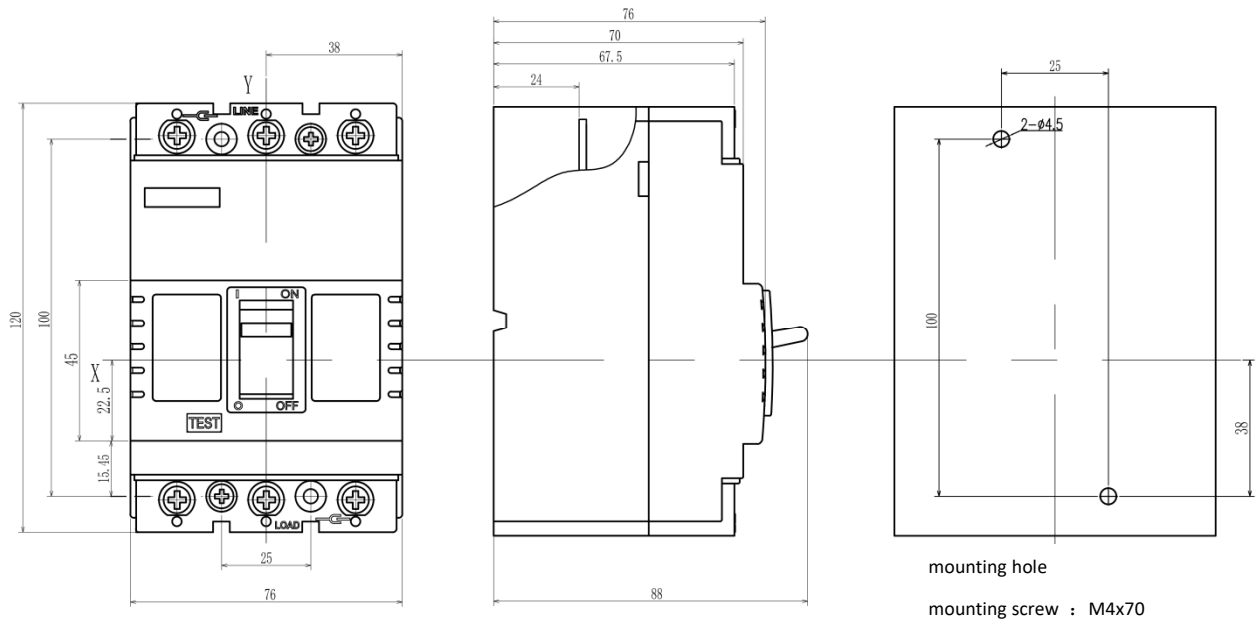
Protection characteristics of electromagnetic short-circuit instantaneous release

Release type	Power distribution protection	Motor protection
Instantaneous release	$10I_n$	$12I_n$

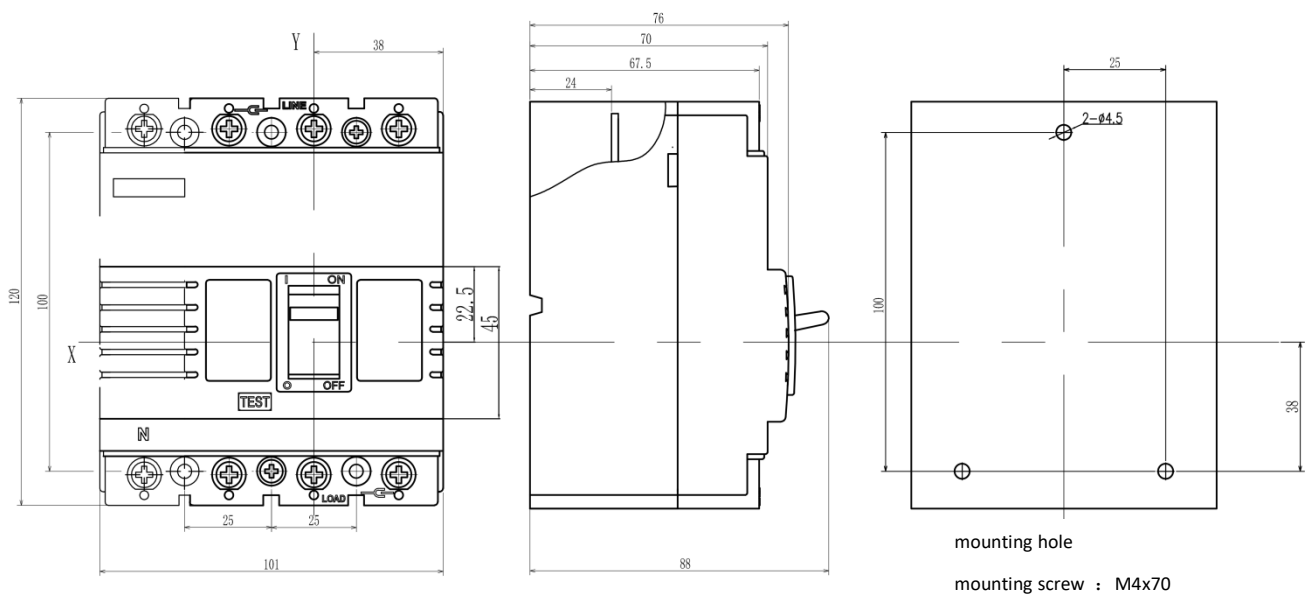
Protection curve



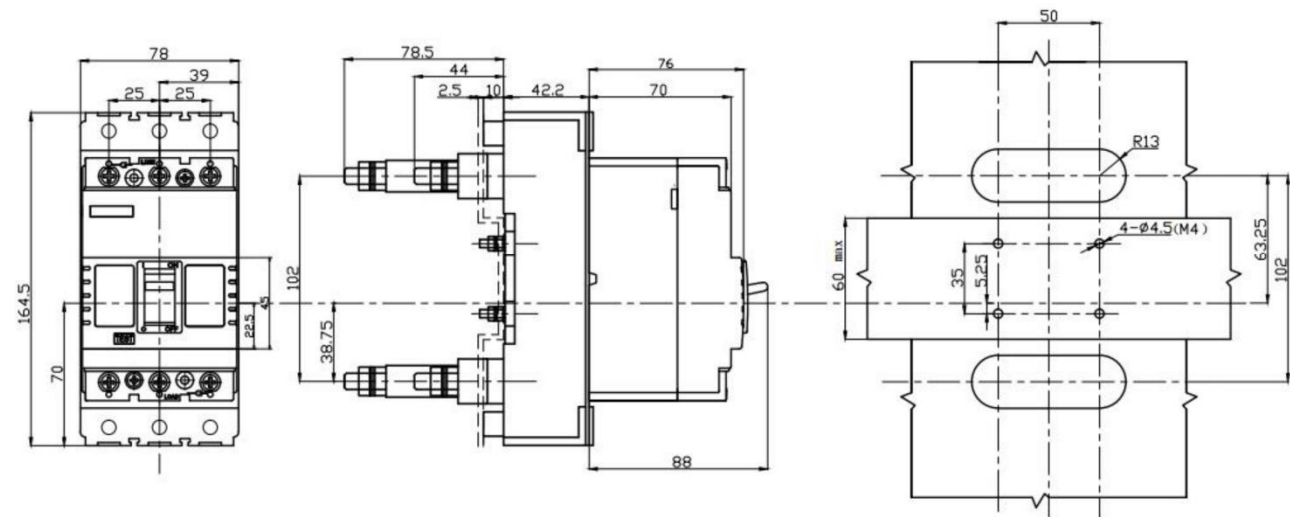
SFX100/3P



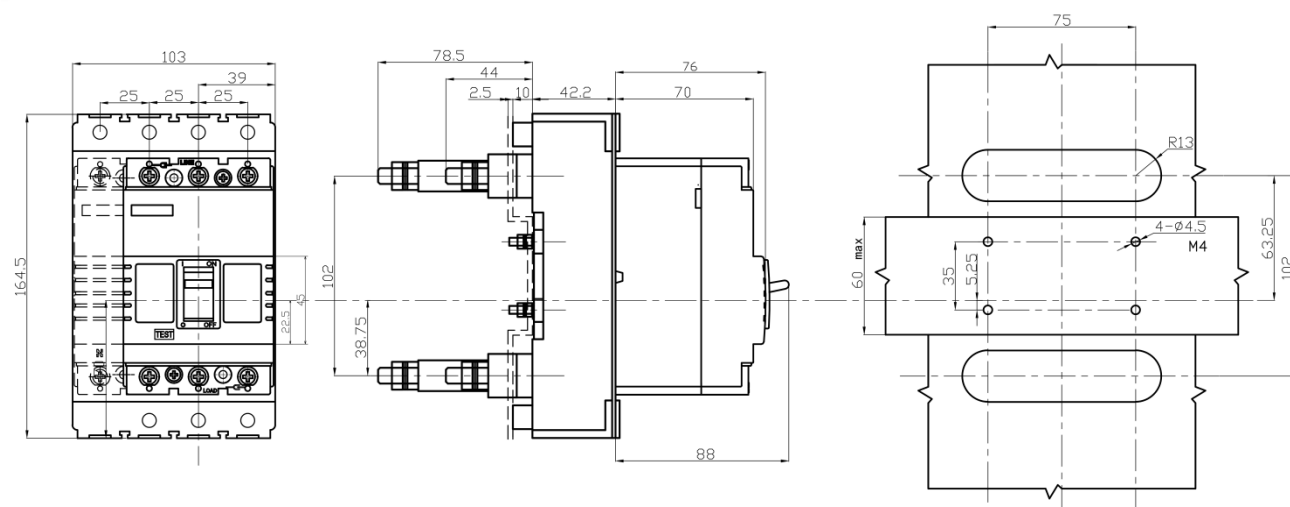
SFX100/4P



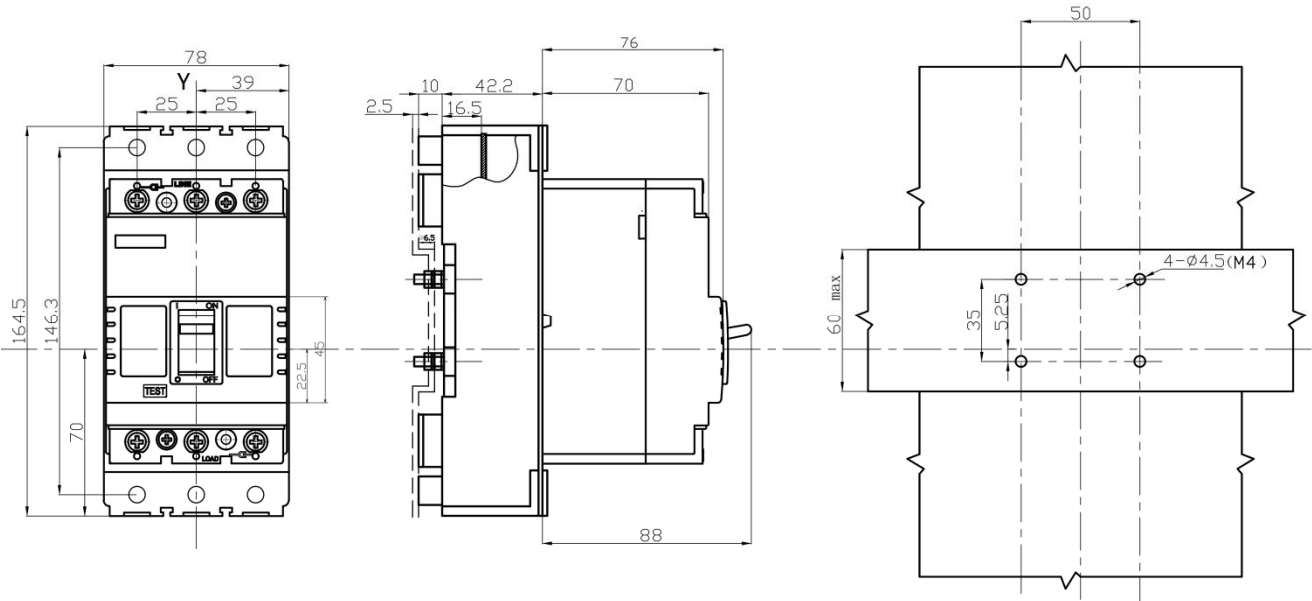
SFX100/3P rear panel plug-in



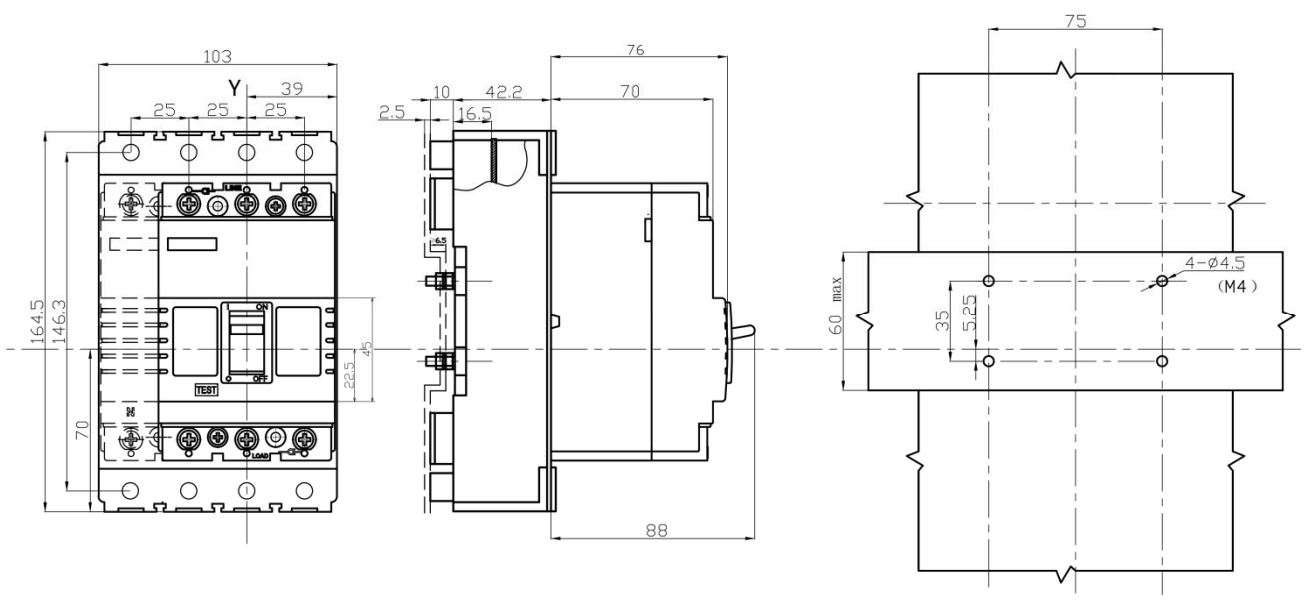
SFX100/4P rear plug-in



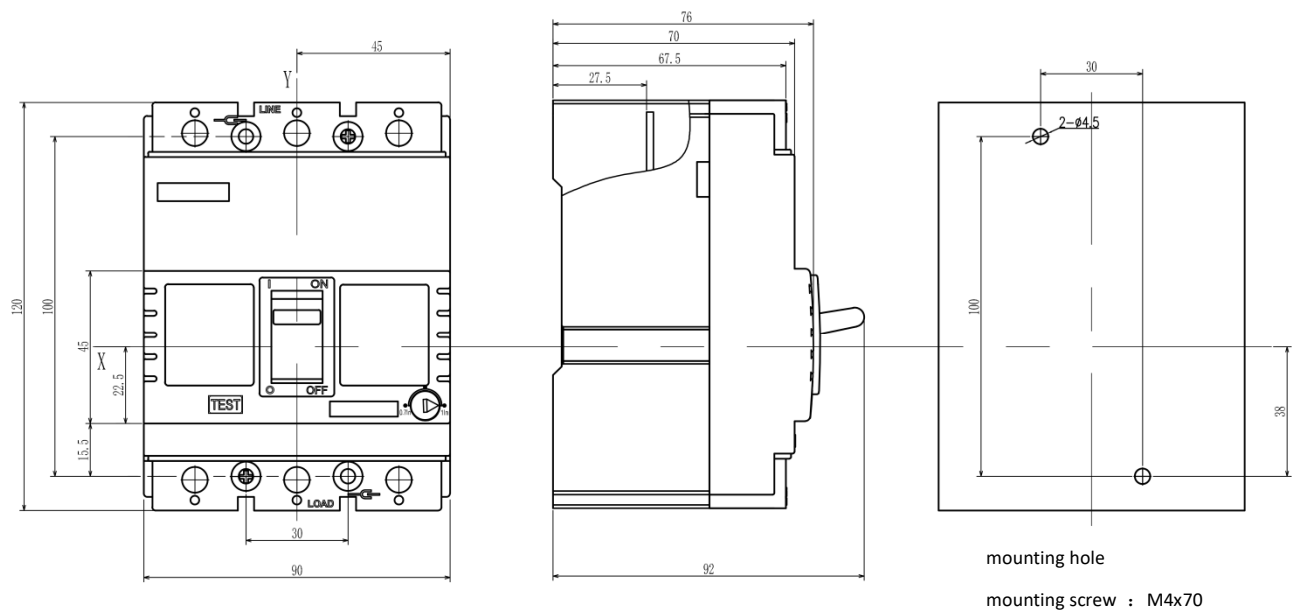
SFX100/3P front panel plug-in



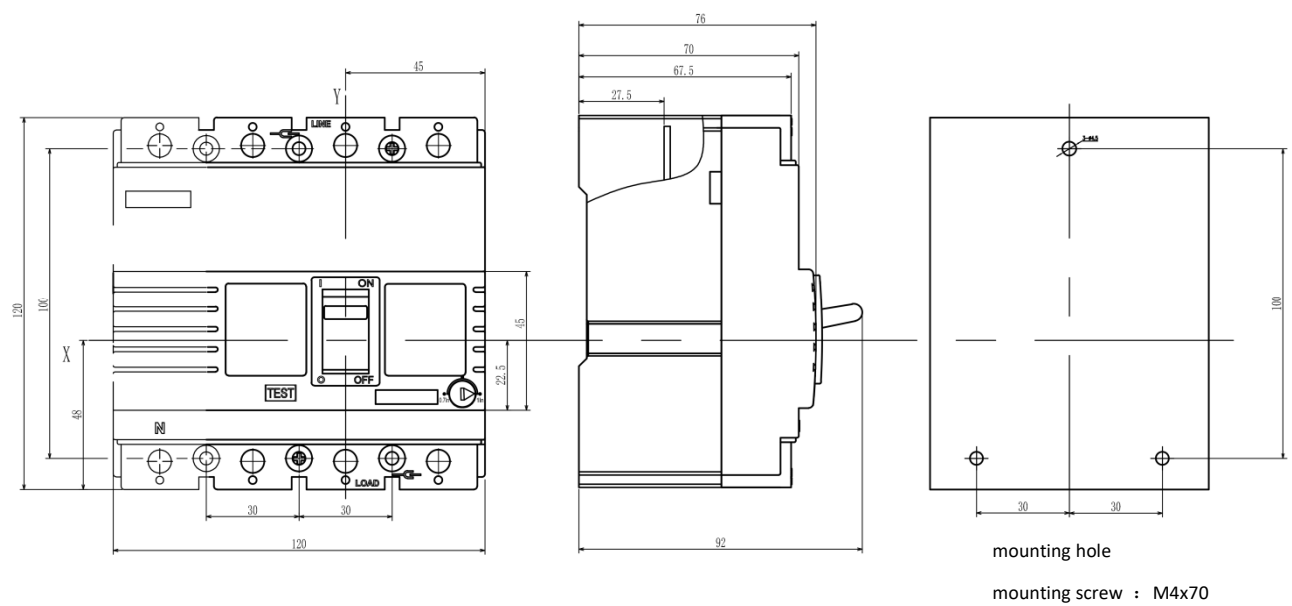
SFX100/4P front panel plug-in



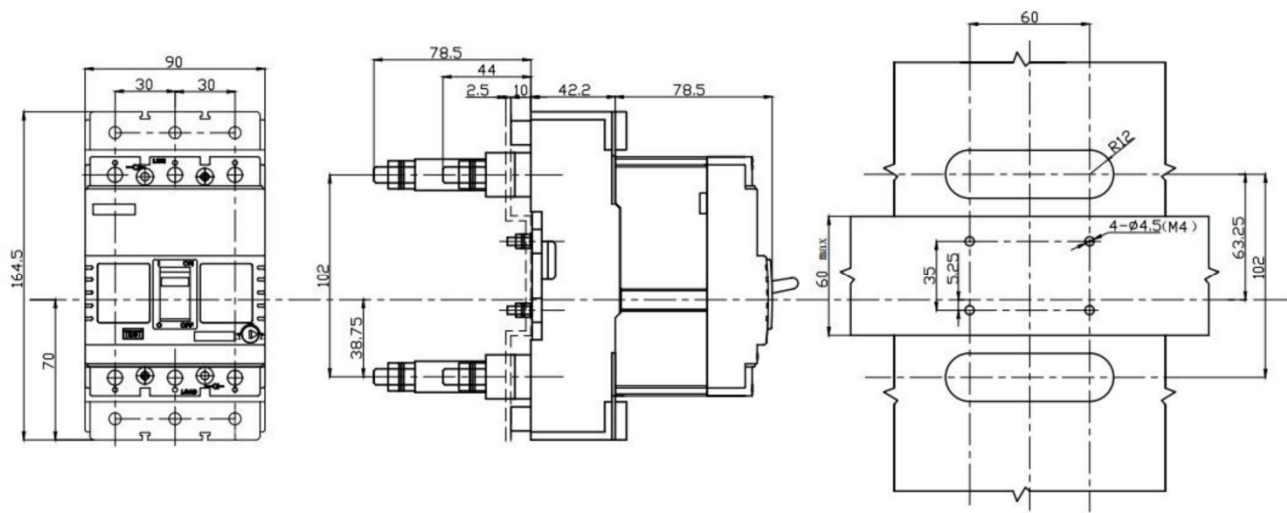
SFX160/3P



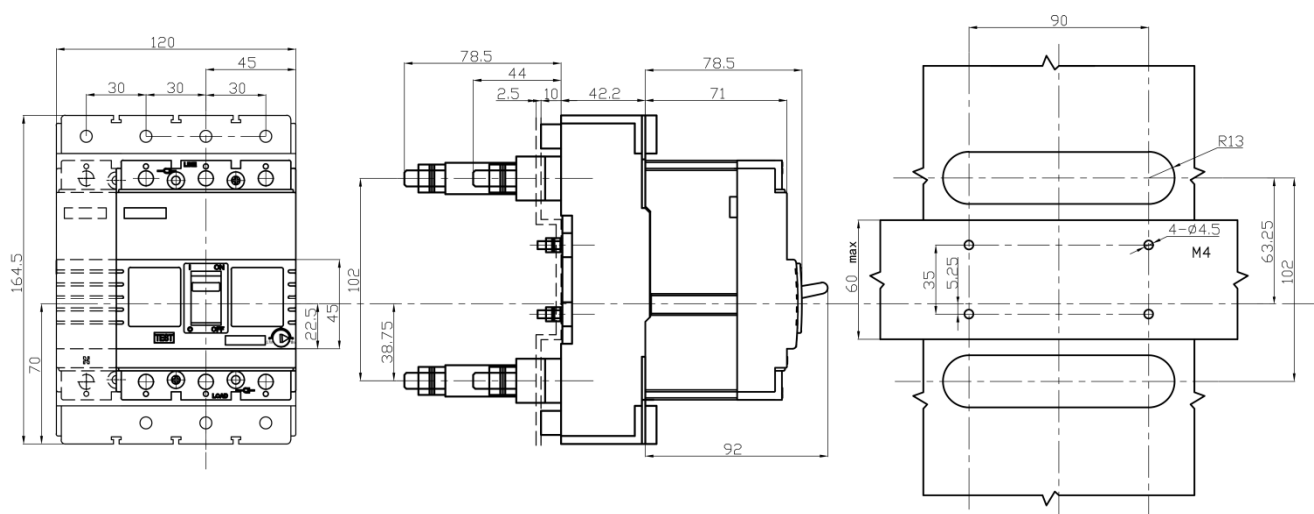
SFX160/4P



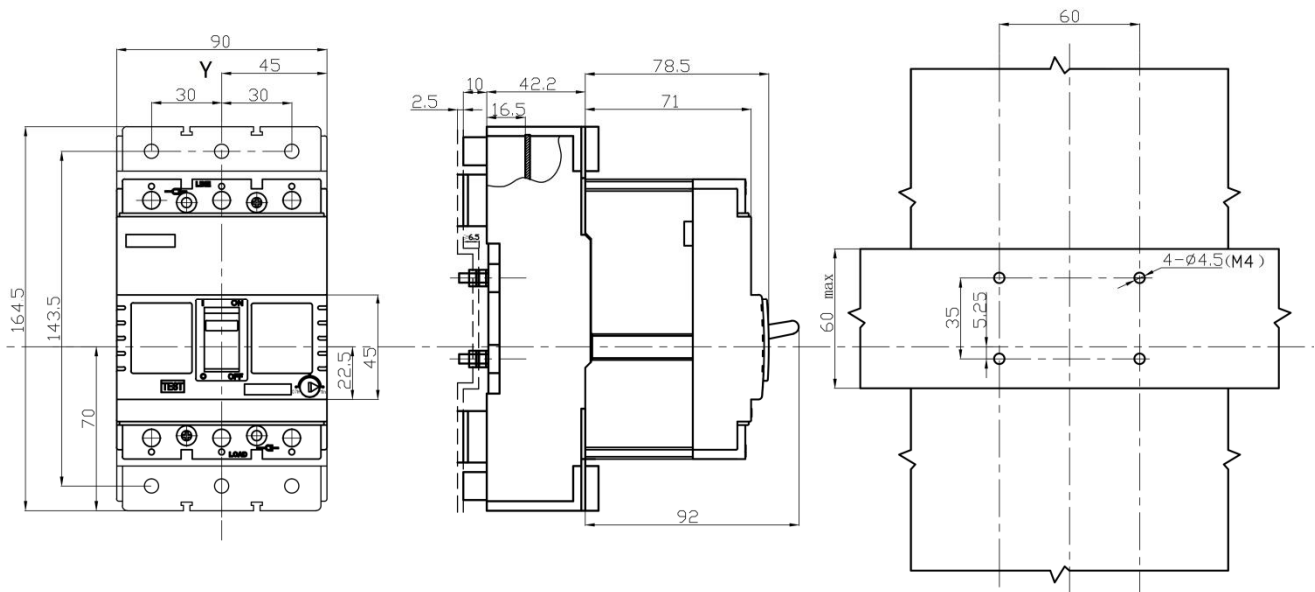
SFX160/3P rear panel plug-in



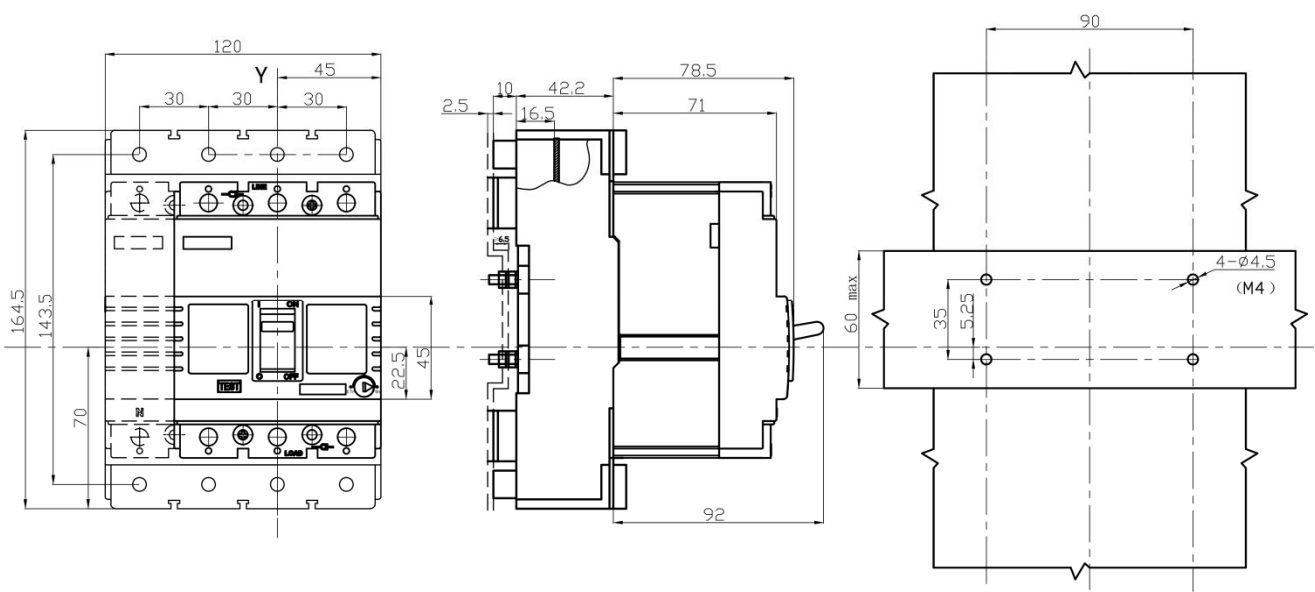
SFX160/4P rear plug-in



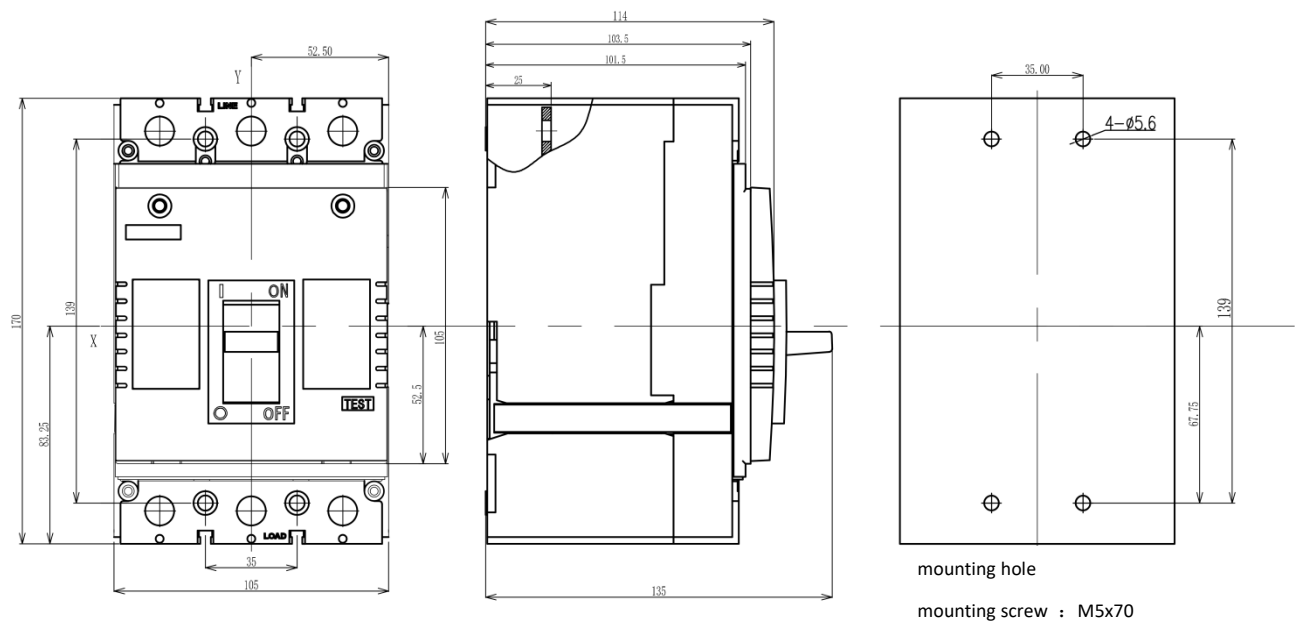
SFX160/3P front panel plug-in



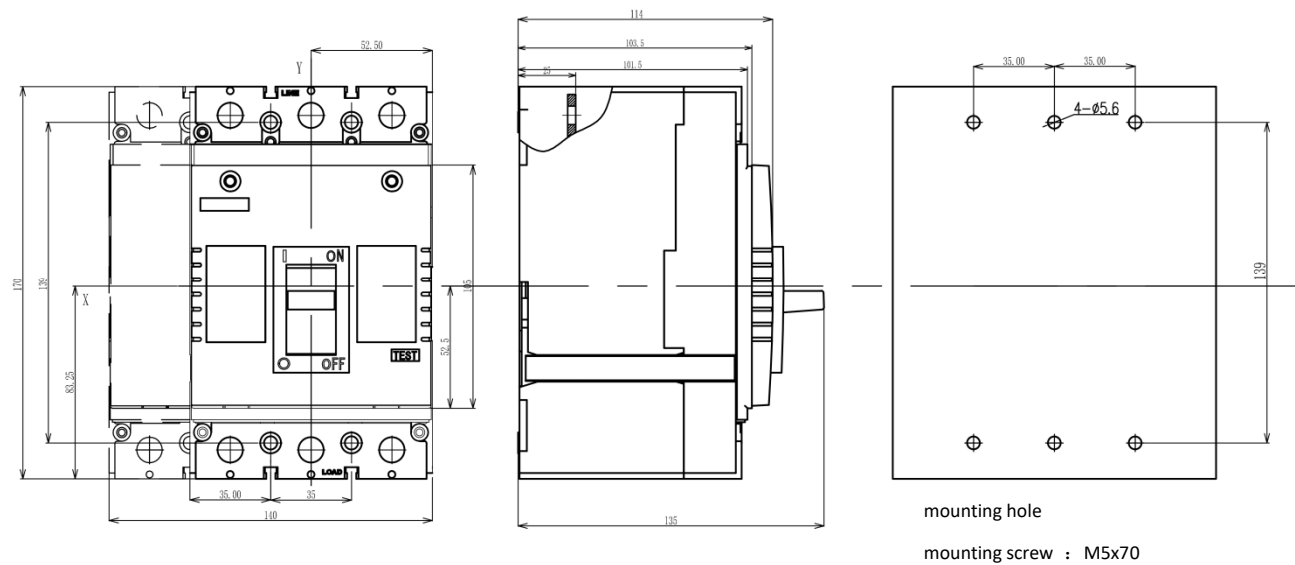
SFX160/4P front panel plug-in



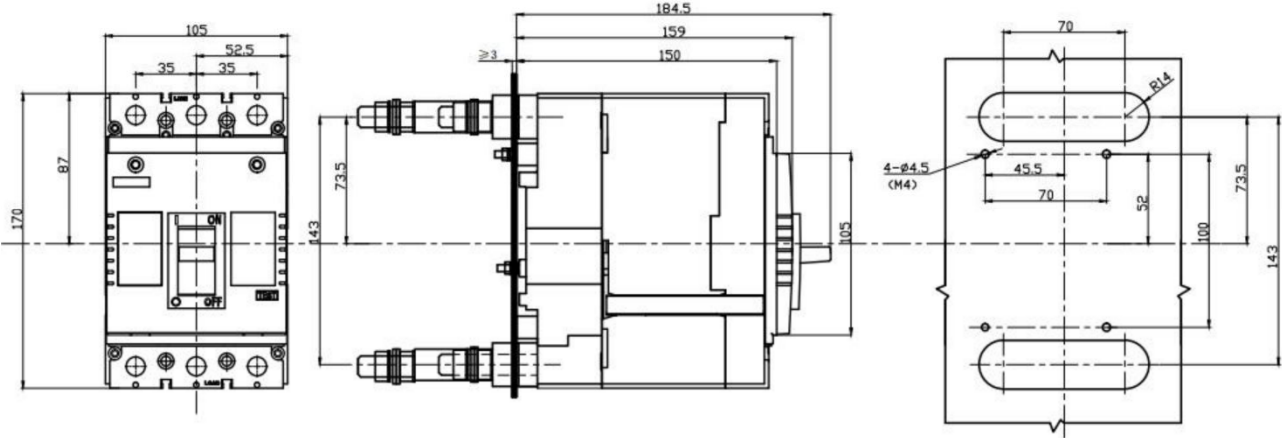
SFX250/3P



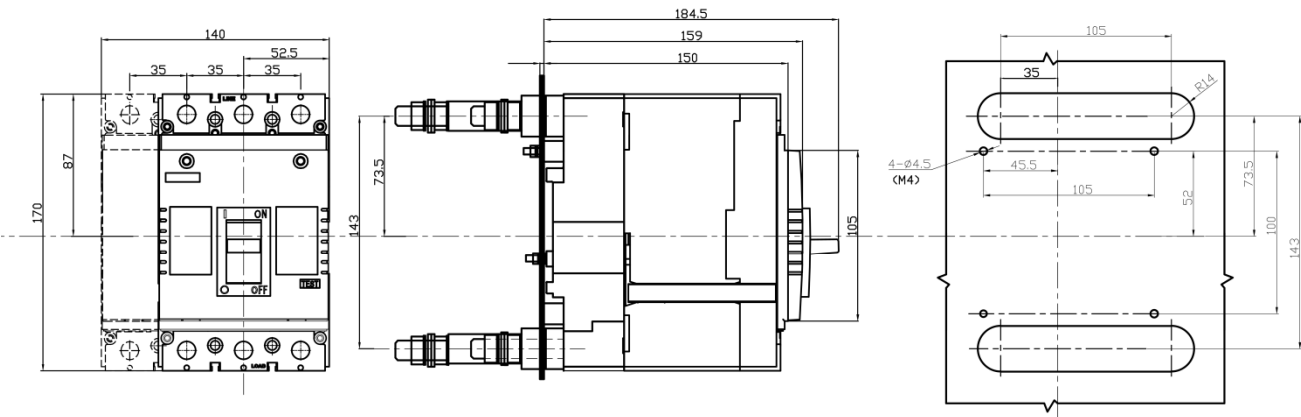
SFX250/4P



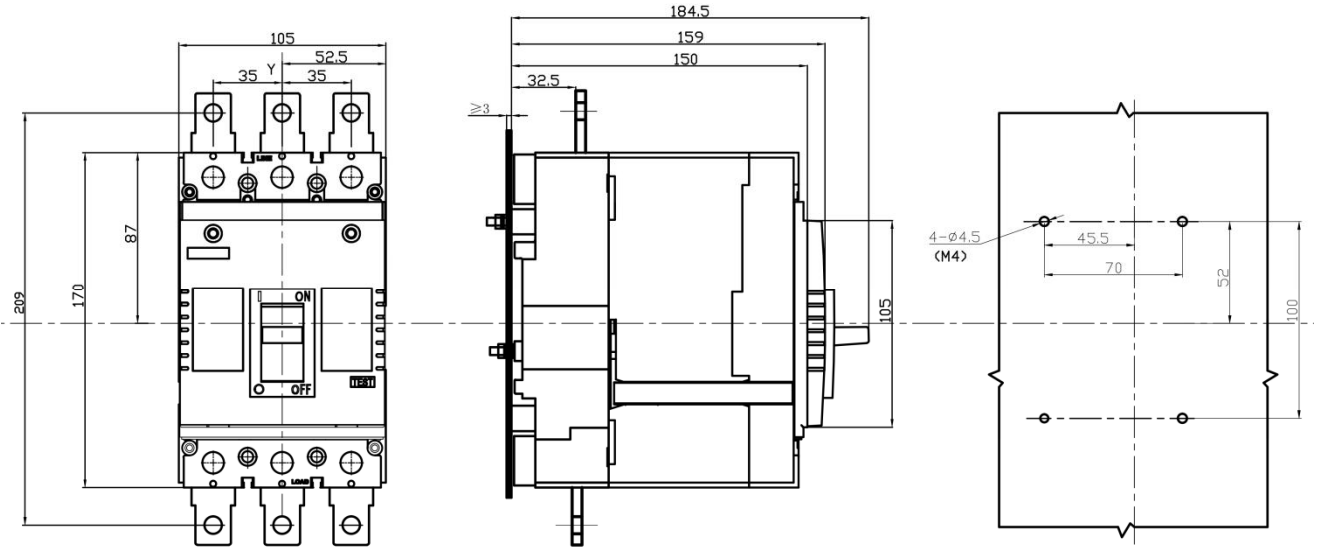
SFX250/3P rear plug-in



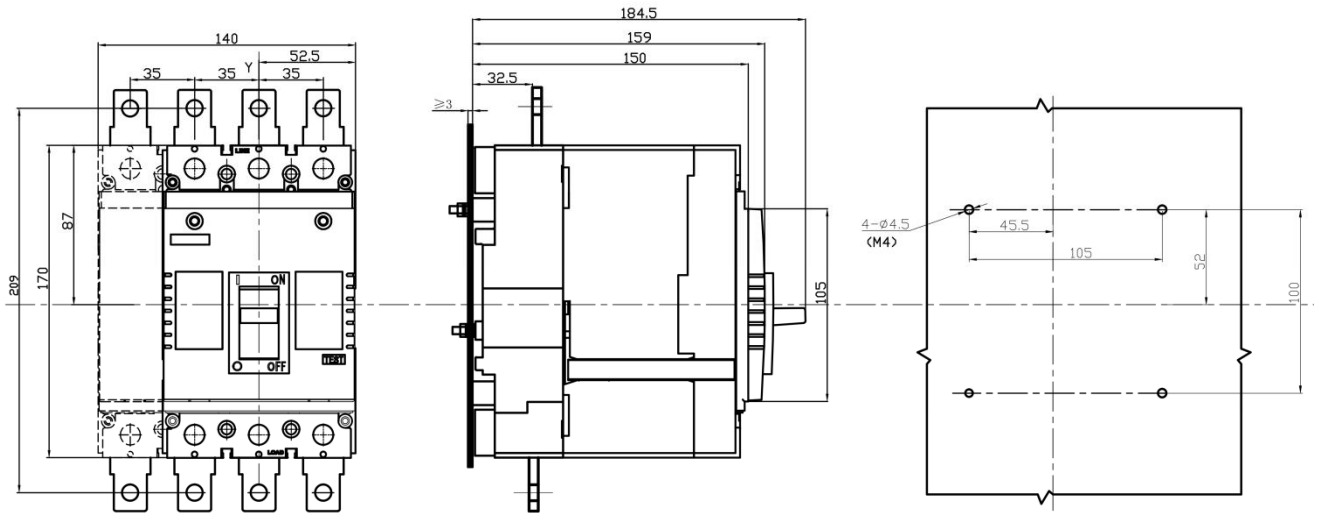
SFX250/4P rear plug-in



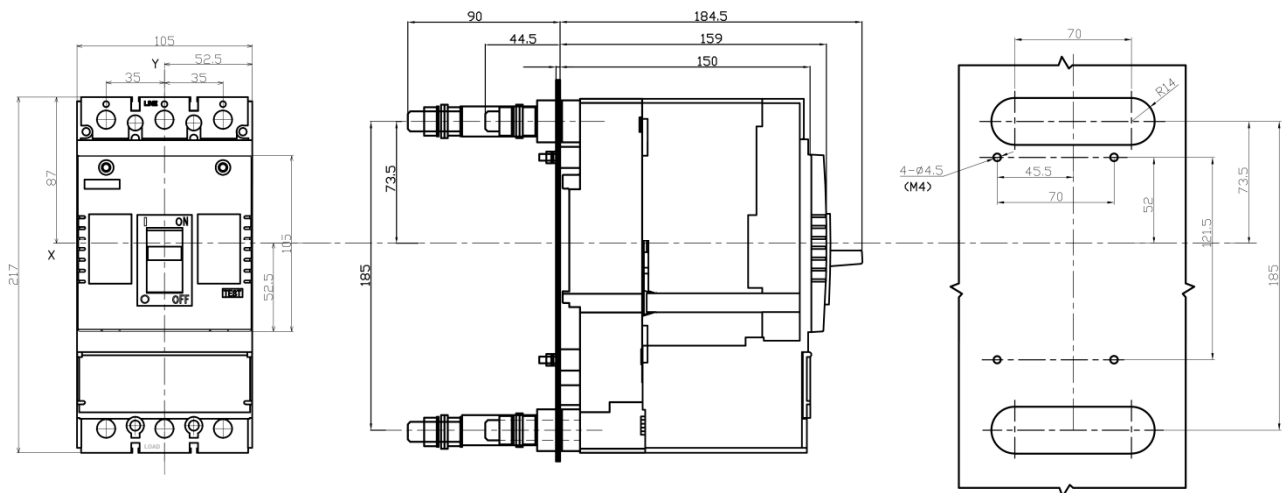
SFX250/3P front panel plug-in



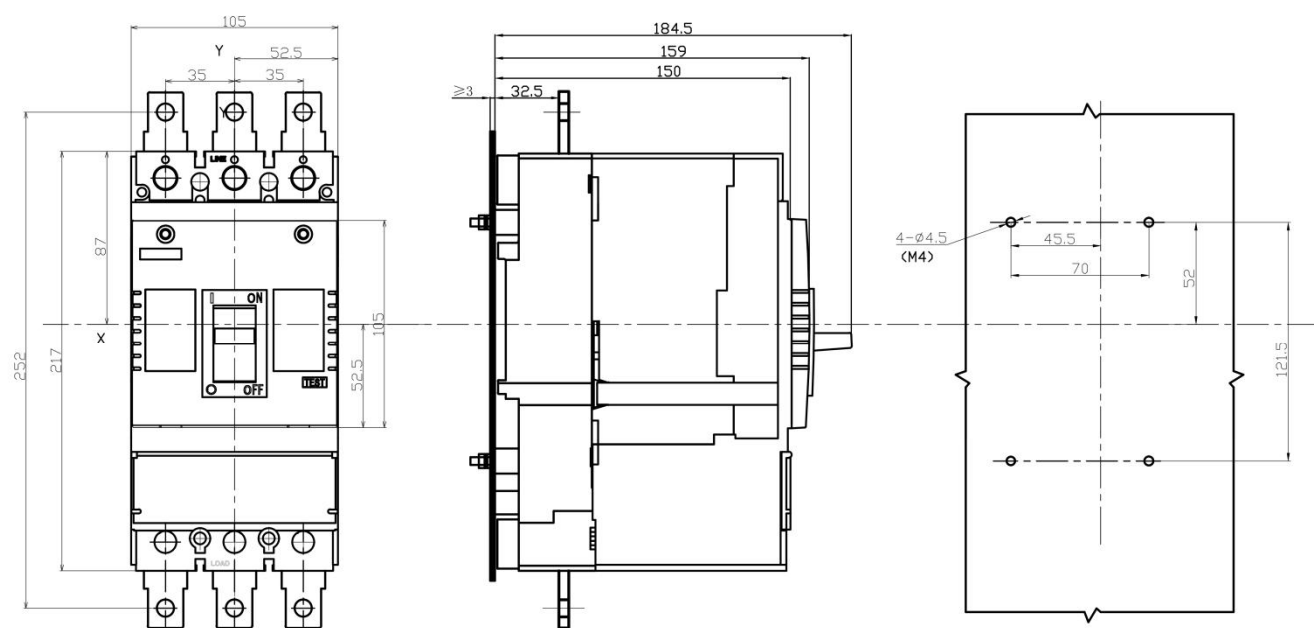
SFX250/4P front panel plug-in



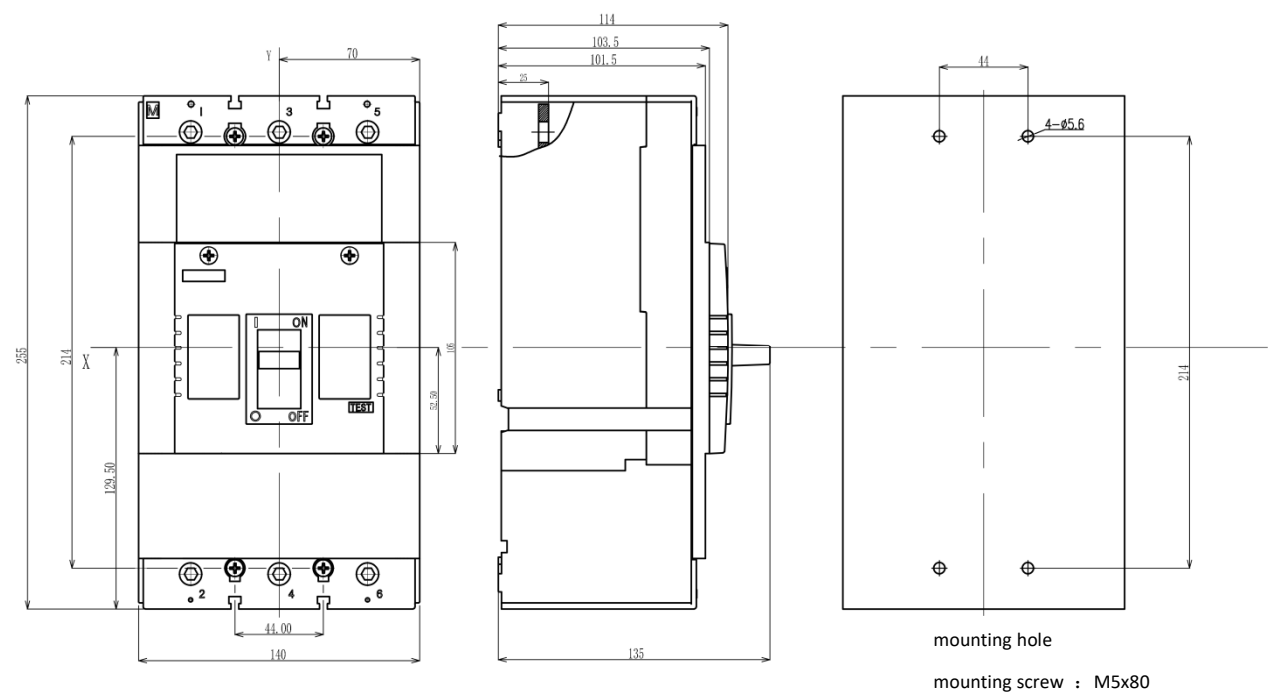
SFX250E/3P rear panel plug-in



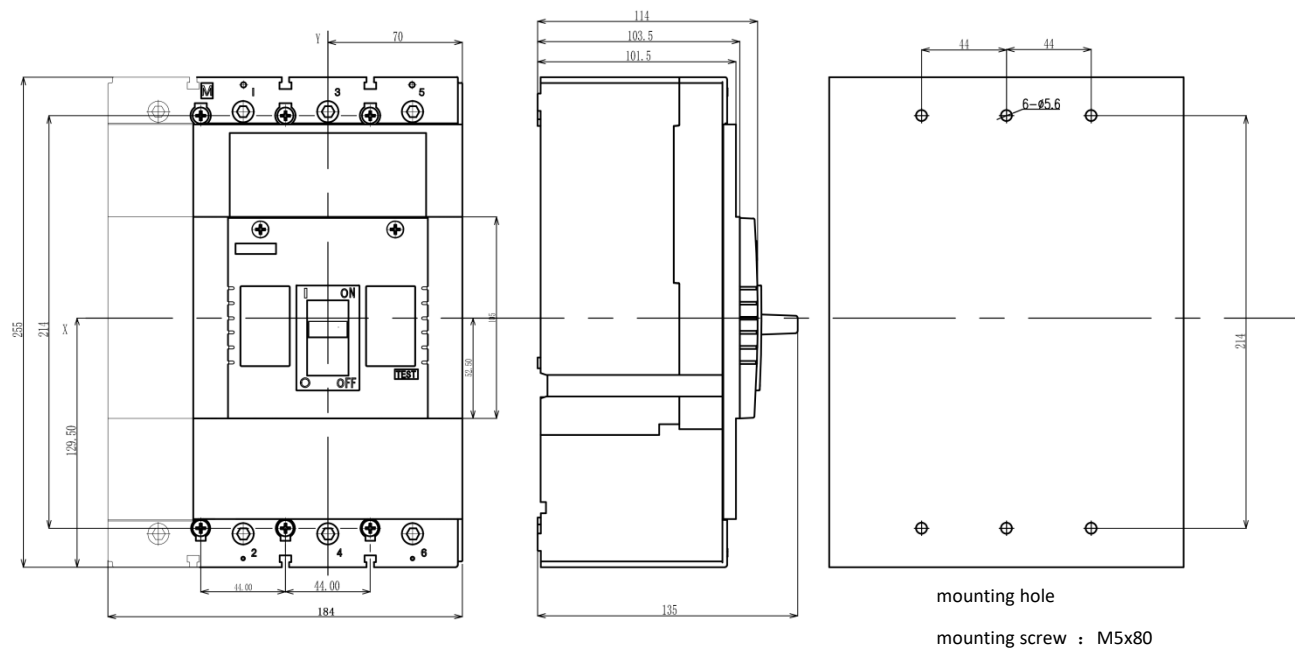
SFX250E/3P front panel plug-in



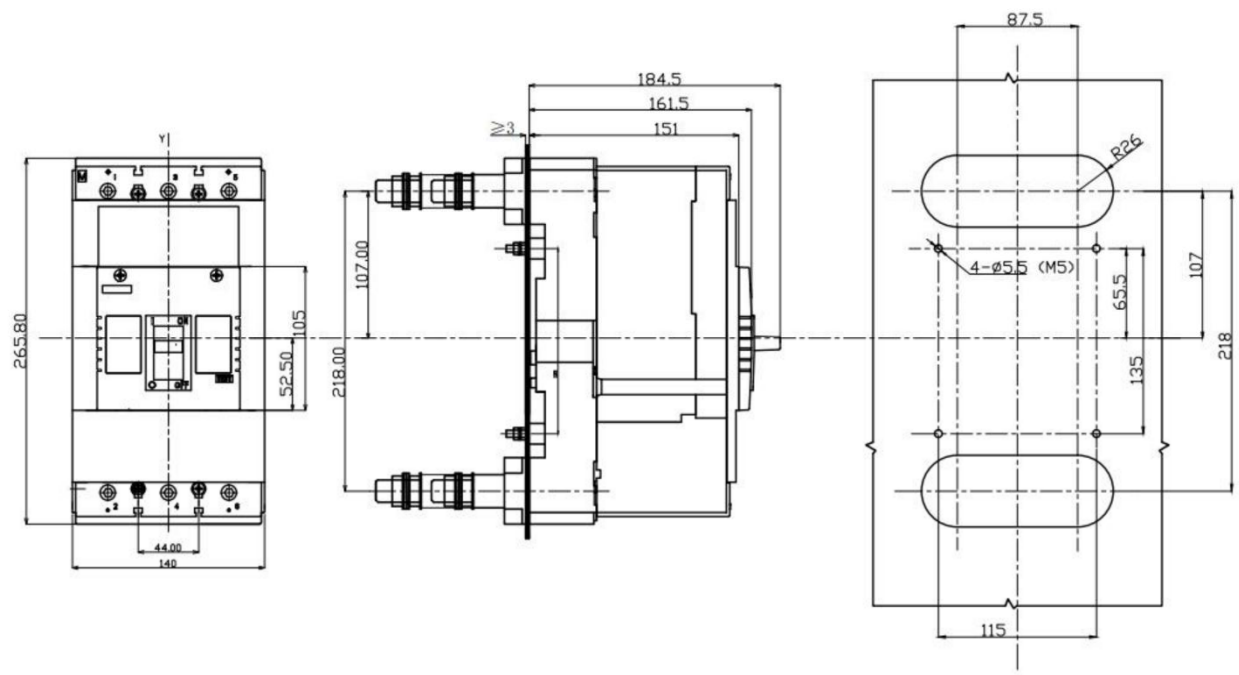
SFX400,630/SFX400E,630E/3P



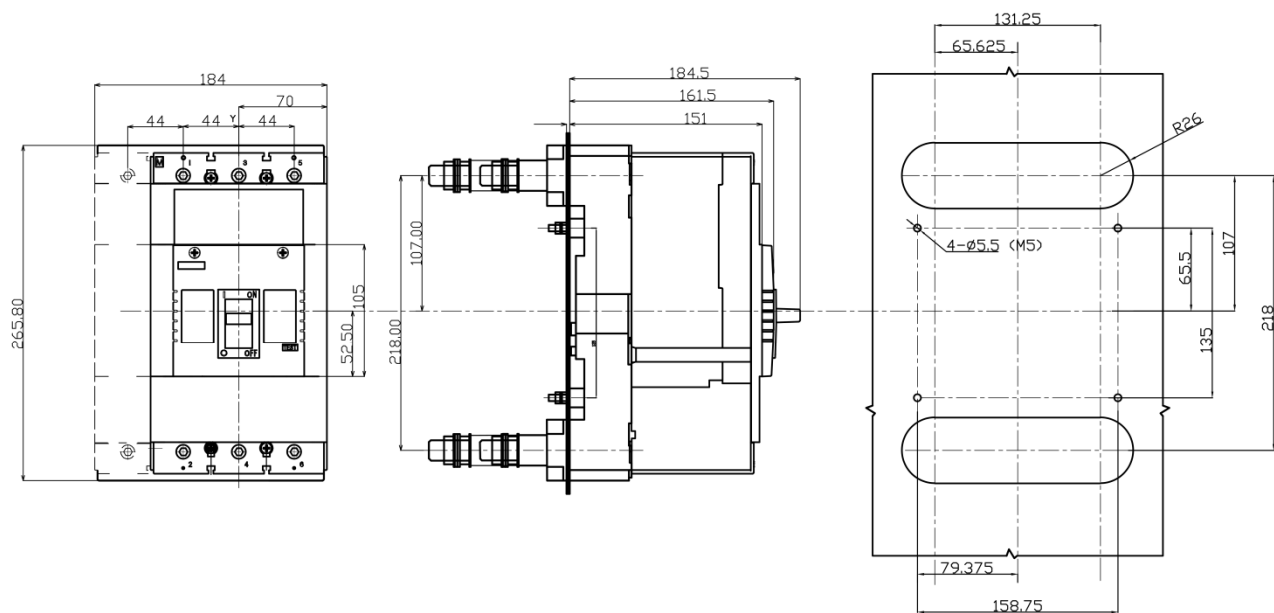
SFX400,630/SFX400E,630E/4P



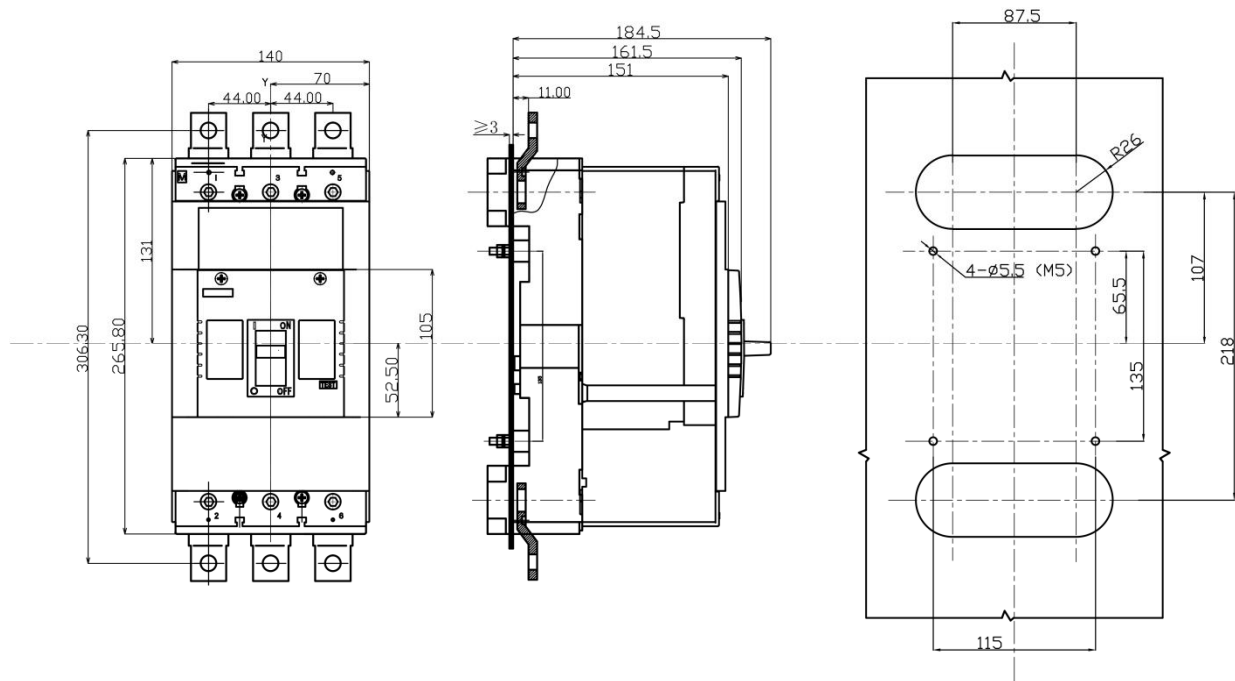
SFX400,630/SFX400E,630E/3P rear panel plug-in



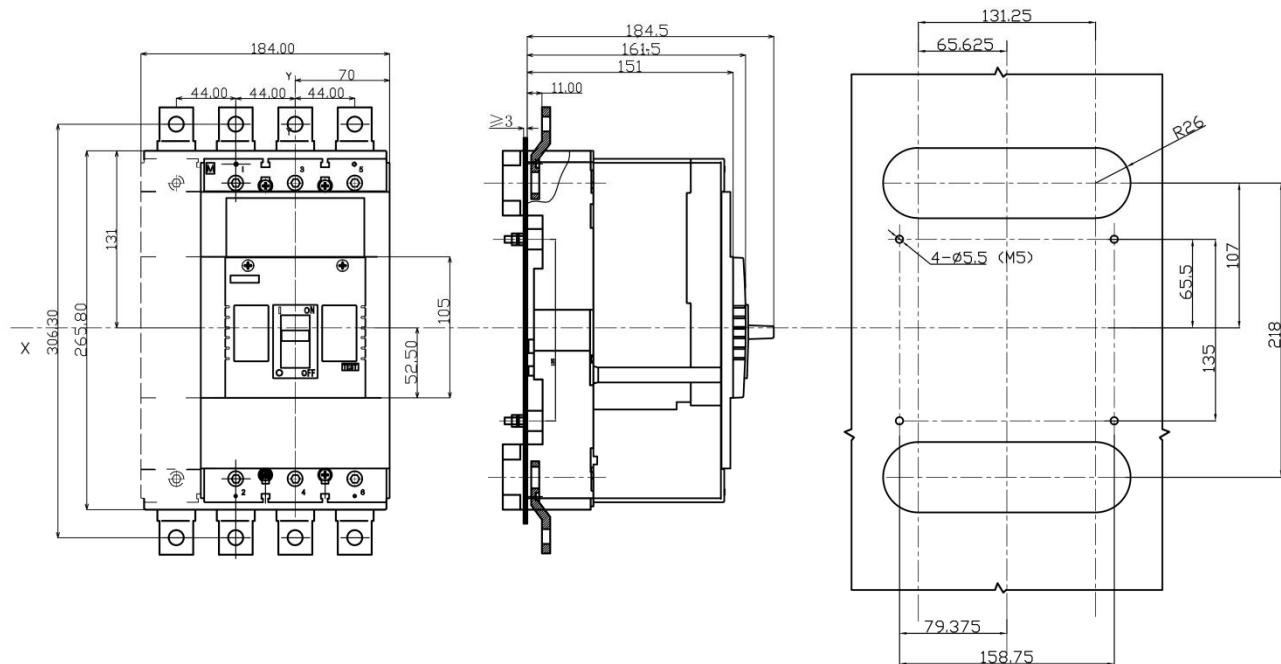
SFX400,630/SFX400E,630E/ 4 P rear plug-in



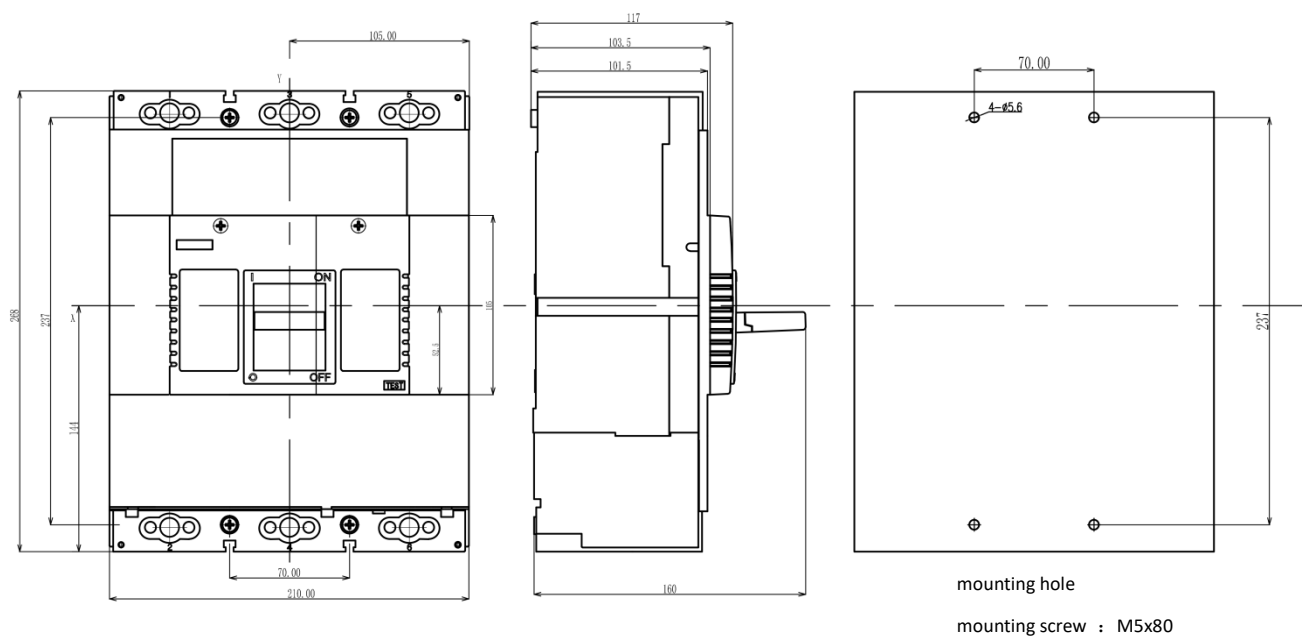
SFX400,630/SFX400E,630E/3P front panel plug-in



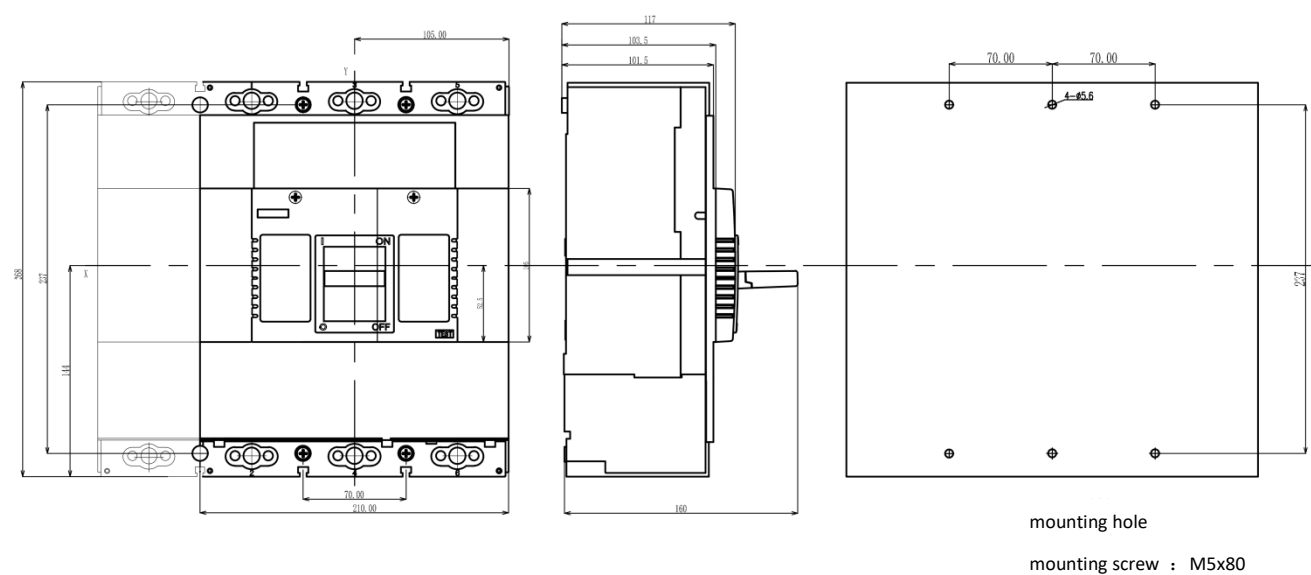
SFX400,630/SFX400E,630E/4P front panel plug-in



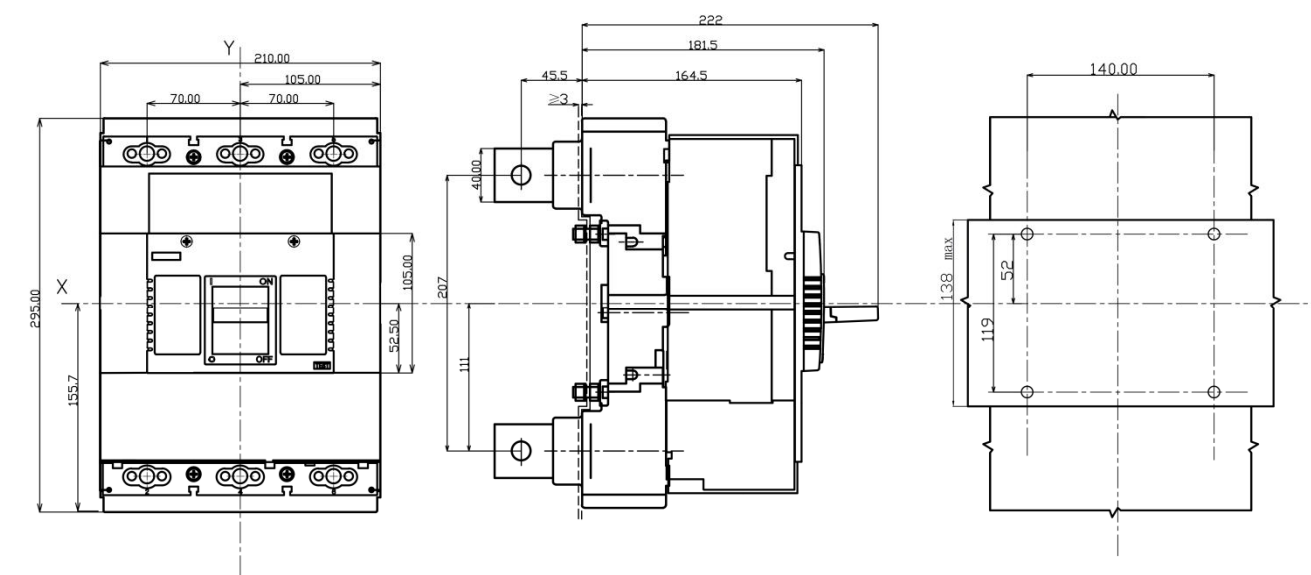
SFX800,SFX800E/3P



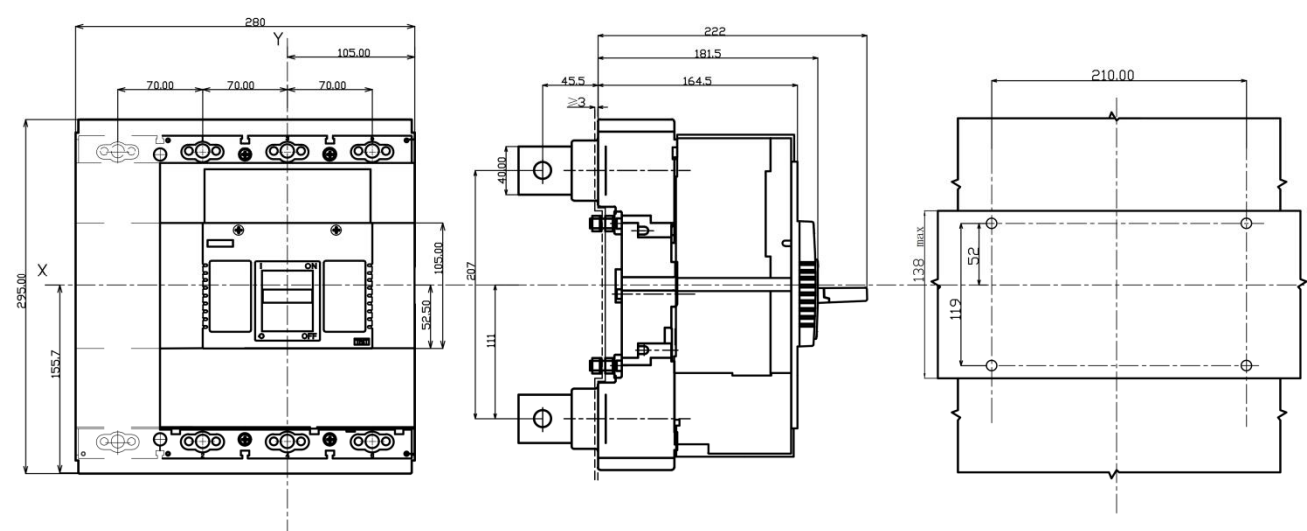
SFX800,SFX800E / 4P



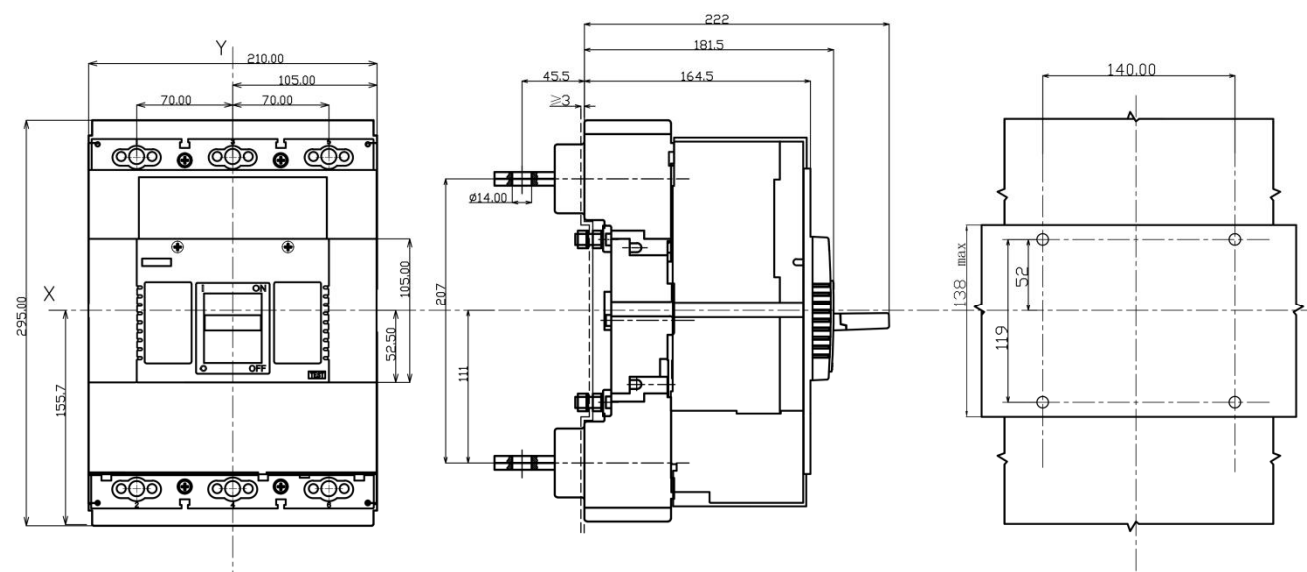
SFX800,SFX800E/3P rear vertical plug-in



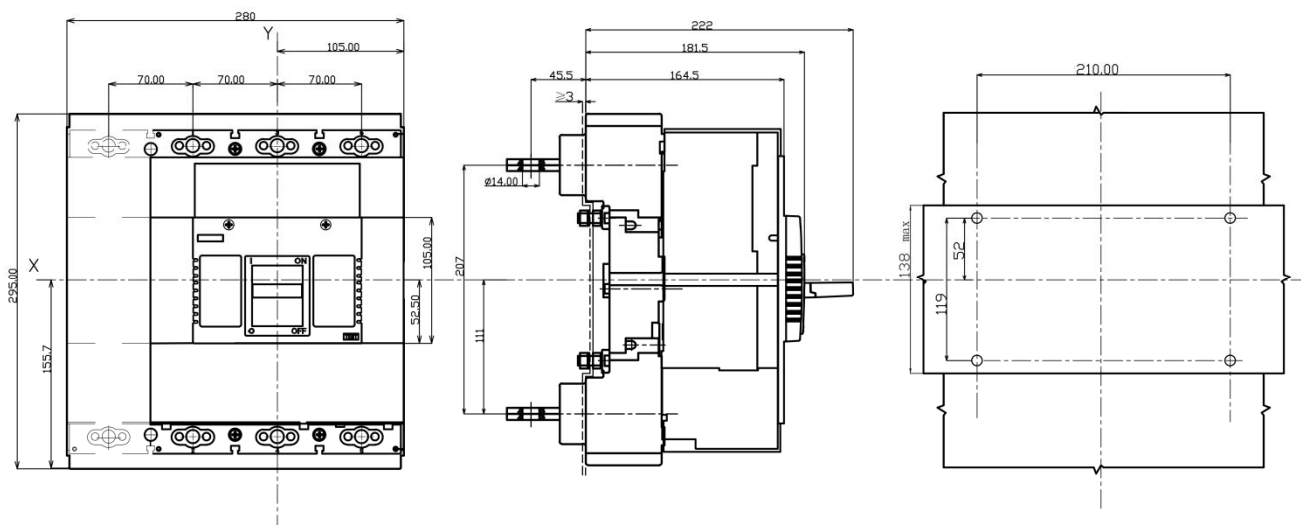
SFX800,SFX800E/4P rear vertical plug-in



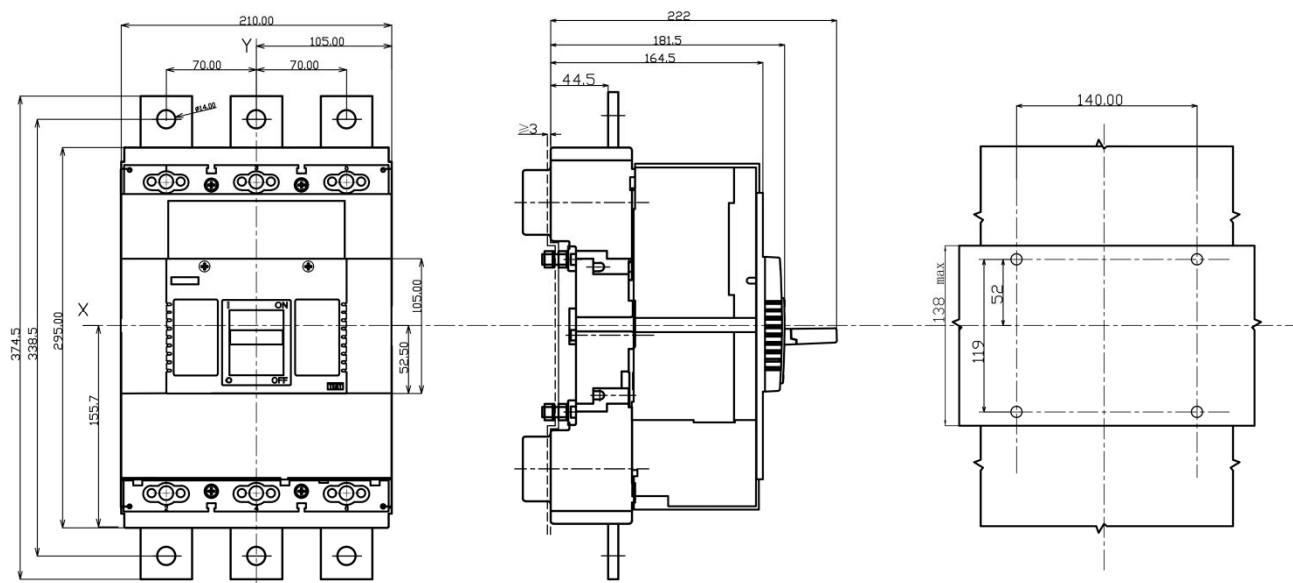
SFX800,SFX800E/3P rear panel horizontal plug-in



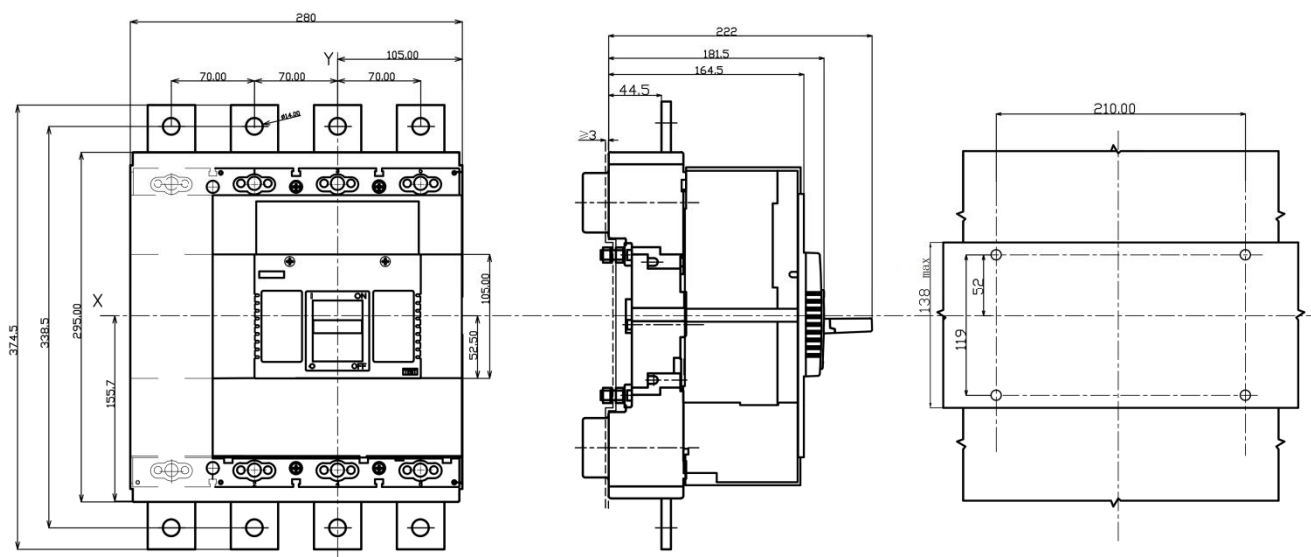
SFX800,SFX800E/4P Horizontal plug-in type



SFX800,SFX800E/3P front panel plug-in

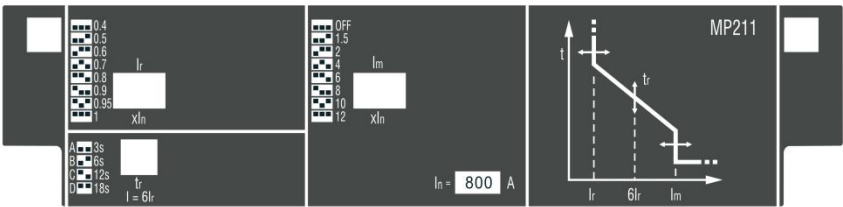
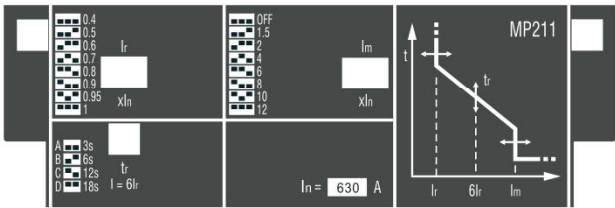
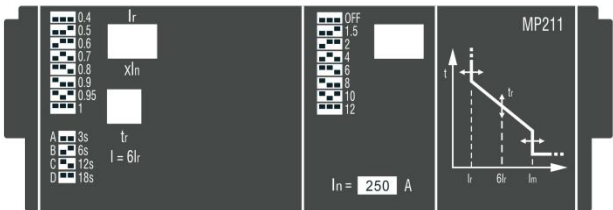


SFX800,SFX800E/4P front panel plug-in

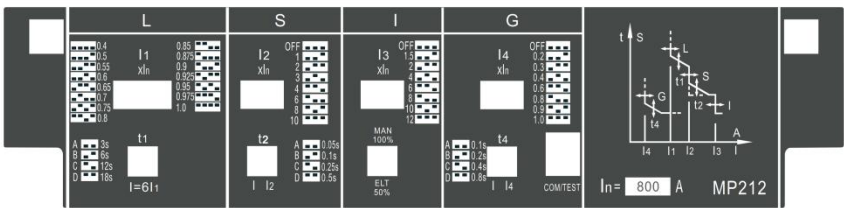
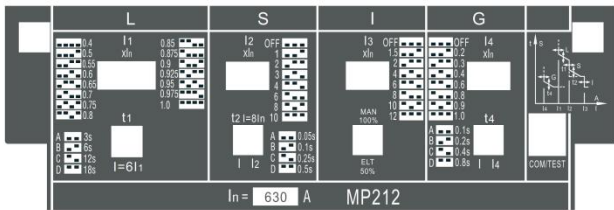
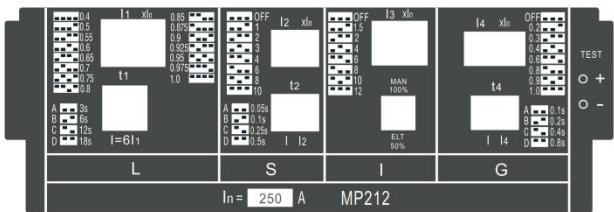


Electronic trip unit

Electronic release MP211 panel diagram



Electronic trip unit MP212 panel diagram



Electronic trip unit settings

MP211

Serial number	Function	set up	model	MP211	MP211	Factory Reset
			Number of poles	3P	3P	
			Ampere number (A)	250	400/630	
1	L	Overload current setting		(0.4,0.5,0.6,0.7,0.8,0.9,0.95,1.0)×In	(0.4,0.5,0.6,0.7,0.8,0.9,0.95,1.0)×In	1.0In
2		Set the delay time at overload current		3S,6S,12S,18S	3S,6S,12S,18S	3S
3	I	Instantaneous current setting		(1.5,2,4,6,8,10,12,OFF)×In	(1.5,2,4,6,8,10,12,OFF)×In	10In

MP212

Serial number	Function	set up	model	MP212	MP212	Factory Reset
			Number of poles	3P	3P	
			Ampere number (A)	250	400/630	
1	L	Overload current setting		(0.4,0.5,0.55,0.6,0.65,0.7,0.75,0.8)×In	(0.4,0.5,0.55,0.6,0.65,0.7,0.75,0.8)×In	1.0In
2		Set the delay time at overload current		3S,6S,12S,18S	3S,6S,12S,18S	3S
3	S	Short circuit current setting		(1,2,3,4,6,8,10,OFF) ×In	(1,2,3,4,6,8,10,OFF) ×In	6In
4		In short-circuit current setting delay		0.05,0.1,0.25,0.5	0.05,0.1,0.25,0.5	0.1S
5	I	Instantaneous current setting		(1.5,2,4,6,8,10,12,OFF)×In	(1.5,2,4,6,8,10,12,OFF)×In	10In
6	G	Ground fault current setting		(0.2,0.3,0.4,0.6,0.8,0.9,1.0, OFF)×In	(0.2,0.3,0.4,0.6,0.8,0.9,1.0, OFF)×In	1.0In
7		Setting the delay time at ground fault current		0.1,0.2,0.4,0.8	0.1,0.2,0.4,0.8	0.4S
8		Electric or electrical selection parameter setting		Function setting (switch ELT/MAN) USB interface Function SET (switch ELT/MAN)		
		Used to set the neutral switch parameters		InN=%In, switch 50/100		
		Socket for connecting measuring devices		Panel socket		

Rotary handle operating mechanism

1. The rotary handle operating mechanism can be used for:

- ① Use the rotary handle on the circuit breaker to control the closing and opening of the circuit breaker.
- ② Use the rotary handle outside the switch cabinet door to control the closing and opening of the circuit breaker.
- ③ Interlock the rotary handle operating mechanism with the switch cabinet door to prevent the switch cabinet door from being opened when the circuit breaker is in the closed state.

2. The user can install an off position lock to prevent the circuit breaker from closing (up to 3 padlocks with a diameter of 6mm can be hung, prepared by the user).

3. Each circuit breaker is equipped with an independent key and lock.

4. Two circuit breakers are equipped with two identical locks and one key.

5. Three circuit breakers are equipped with three identical locks and two identical keys.

6. The types and specifications of the rotary handle operating mechanisms provided to users are shown in the table below.

Action characteristics

Frame grade Rated current	Select the rotary handle operating mechanism model							
	Installed on circuit breaker		Installed on the switch cabinet compartment door (optional: handle + operating mechanism)					
			handle				Operating mechanism	
	CS2	CS2/L	Type A (round)		F type (square)		CS1 (eccentric type)	
		With interlock	A-1 Short handle	A-2 Long handle	F1-1 Short handle	F-2 Long handle		CS1/L With interlock
100	-	-	A-1	-	F1-1	-	CS1-100	CS1/L-100
160	-	-	A-1	-	F1-1	-	CS1-160	CS1/L-160
250	CS2-250	CS2/L-250	A-1	-	F1-1	-	CS1-250	CS1/L-250
400 (630)	CS2-400	CS2/L-400	A-1	-	F1-1	-	CS1-400	CS1/L-400

CS1 rotary handle operating mechanism



CS1-100~160 CS1-250~630

1. Eccentric structure.
2. Install on the circuit breaker.
3. Available with A-type or F-type handle.
4. Can be equipped with compartment door interlocking device.
5. Purchase accessories.

CS2 rotary handle operating mechanism



CS 2 -100~160

CS 2 -250~630

1. Install on the circuit breaker.
2. Available with A-type or F-type handle.
3. Can be equipped with compartment door interlocking device.
4. Purchase accessories.

Type A manual



1. Short handle structure.
2. Installed on the door of the small room.
3. Can be equipped with CS1 and CSS type operating mechanisms.
4. The protection level reaches IP30.
5. Purchase accessories.

F1-1 manual operation



1. Short handle structure.
2. Installed on the door of the small room.
3. Can be equipped with CS1 and CSS type operating mechanisms.
4. The protection level reaches IP30. (At the same time Handle with protection level IP54 is available)
5. Purchase accessories.

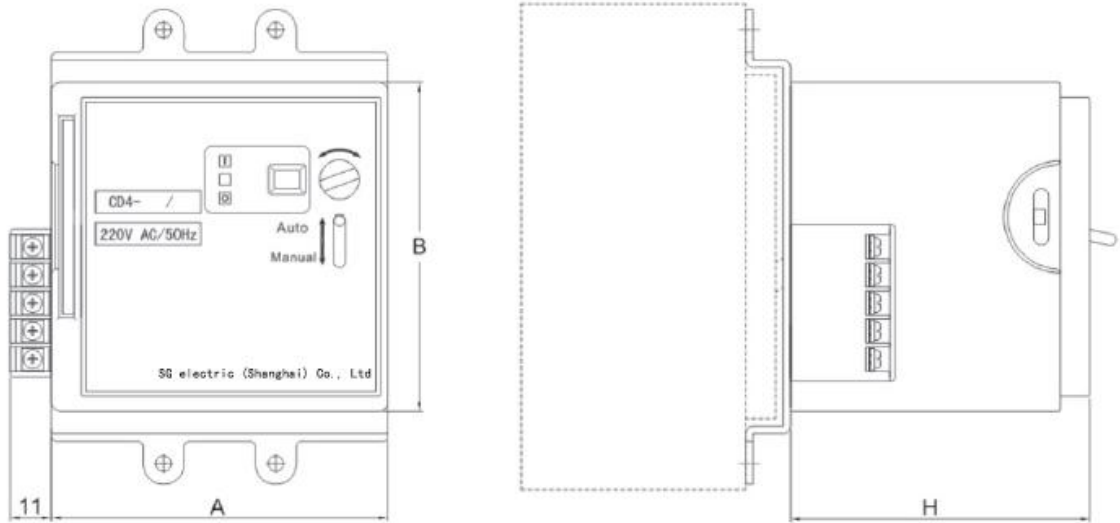
CD electric operating mechanism

Function

- ◆ Isolation function tips
- ◆ Helps trip the circuit breaker
- ◆ Manual or automatic opening and closing of circuit breakers
- ◆ Manual Operation
- ◆ Switch the manual/automatic switch to the automatic position, and then turn the handle to open and close the circuit breaker.
- ◆ Automatic operation
- ◆ Switch the manual/auto switch to the manual position, and then press the button to remotely open and close the circuit breaker.
- ◆ On/off operation type controlled by pulse or automatic hold type signal
- ◆ Operating range: 85%UN-110%UN

The main technical parameters

1. Rated voltage (Ue): AC 50HZ 400V, 230V DC 250V
2. Working voltage range: (85%-110%)Ue
3. Withstand voltage: AC1800V 1min
4. Motor power: about 180W
5. Working frequency: 60-120/hour
6. Electrical life: 5000-10000 times



Specification	Applicable circuit breaker model	Dimensions		
		A	B	H
CD-100	SFX100	76	88	80
CD-160	SFX160	90	88	80
CD-250	SFX250	104	90	80
CD-400 (630)	SFX400 (630)	150	140	112

CD1 type motor operating mechanism



1. Direct closing and opening of the motor with manual mode
2. Applicable circuit breaker:
①Inm=100A ②Inm=160A
Please specify the specific specifications when ordering.
3. Purchase accessories

Electrical accessories for operation				Motor operating mechanism	
Operating supply voltage range				$(0.85-1.1) \times U_s$	
Rated control power supply voltage	power supply	AC50HZ		220V	380V
		Power consumption	Startup power consumption	220VA	200VA
			Continuous power consumption	110VA	110VA
		DC		110V	220V
		Power consumption	Startup power consumption	200W	200W
			Continuous power consumption	110W	110W
Closing time				0.1S	
Opening time				0.1S	

CD2 type motor operating mechanism

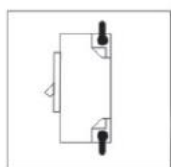


1. The motor can be directly closed and opened with manual closing and opening modes.
2. Equipped with a manual emergency disconnect button.
3. The user can install an off position lock to prevent the circuit breaker from closing.
4. Applicable circuit breaker:
①Inm=250A
②Inm=400A
③Inm=630A
Please specify the specific specifications when ordering.
5. Purchase accessories

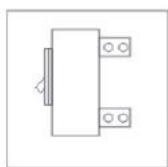
Action characteristics

Electrical accessories for operation				Motor operating mechanism	
Operating supply voltage range				(0.85-1.1)×Us	
Rated control power supply voltage	power supply	AC50HZ		220V	380V
		Power consumption	Startup power consumption	510VA	510VA
			Continuous power consumption	360VA	360VA
		DC		110VA	220VA
		Power consumption	Startup power consumption	510VA	510VA
			Continuous power consumption	360VA	360VA
Closing time				0.1S	
Opening time				0.1S	

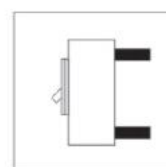
Installation wiring method



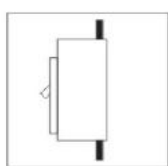
Front board wiring



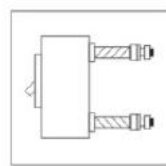
Vertical wiring behind the plate



Horizontal wiring after board



Long plate front wiring

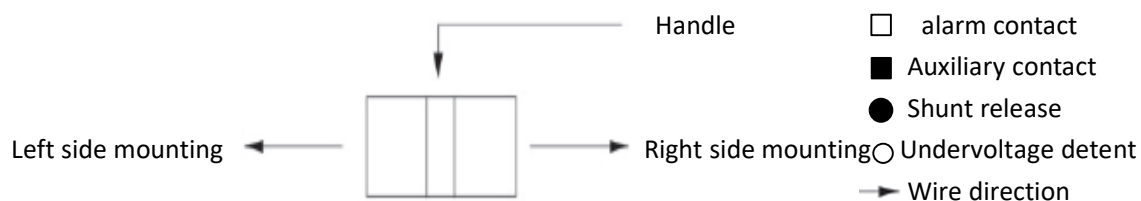


Behind the plate screw node

Plug-in and withdrawable types

Frame grade Rated current (A)	Plug-in		Pull-out	
	3P	4P	3P	4P
100	■	■	-	-
160	■	■	-	-
250	■	■	■	■
400 (630)	■	■	■	■
800	-	-	■	■

Tripping mode and accessory code



Accessory code	type Parts Name	SFX100-800
C	Alarm contact	
S	Shunt release	
A	Auxiliary contact	
U	Undervoltage release	
SA	Shunt release, auxiliary contact	
SU	Shunt release, undervoltage release	
AA	Double auxiliary contacts	
AU	Auxiliary contact, undervoltage release	
SC	Shunt release, alarm contact	
AC	Auxiliary contact, alarm contact	
UC	Undervoltage release, alarm contact	
SAC	Shunt release, auxiliary contact, alarm contact	
AAC	Two sets of auxiliary contacts and alarm contacts	
AUC	Auxiliary contact, undervoltage release, alarm contact	

Internal accessories

Shunt release series

Shunt release application:

The shunt release is used to remotely control the instantaneous opening of the circuit breaker, and the release is an instantaneous working mode.



Shunt release action characteristics:

Electrical accessories for operation			Shunt release	
Operating supply voltage range			$(0.7-1.1) \times U_s$	
Rated control power supply voltage	power supply	AC 50HZ	220V	380V
		Power consumption	150VA	150VA
		DC	110V	220V
		Power consumption	150W	150W

Shunt release wiring diagram:

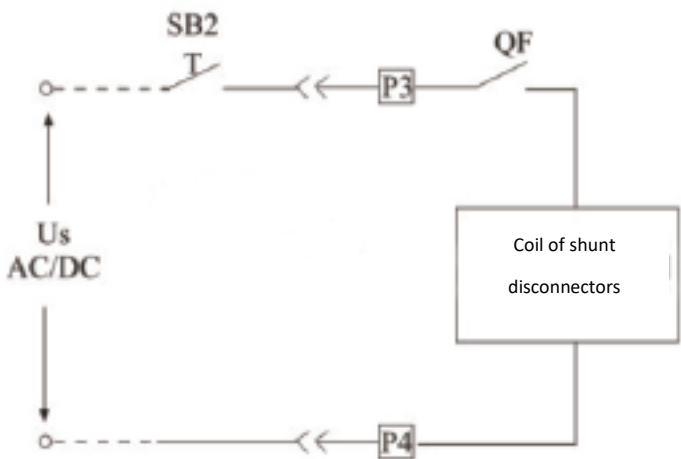
SB2-opening button (user-prepared)

P3.P4 terminal number

Us-Control Power Supply

QF-Self-locking auxiliary contact

Only the dotted line is connected by the user, the rest of the wiring has been connected by the factory for the user's reference



Suitable for SFX models	SFX100	SFX160	SFX250	SFX400	SFX630	SFX800
Shunt release series	100/160S		250/400S		630S	800S

Undervoltage release series

Undervoltage release application:

The undervoltage release is used for undervoltage protection of lines and power supply equipment.
The release is of long-time working type.

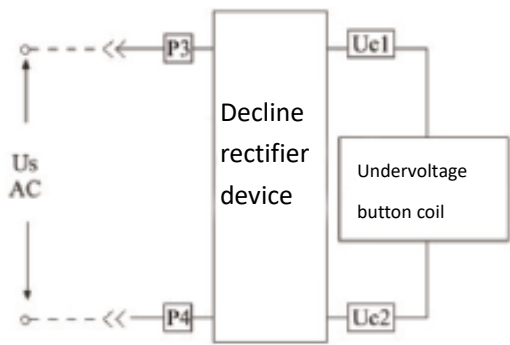
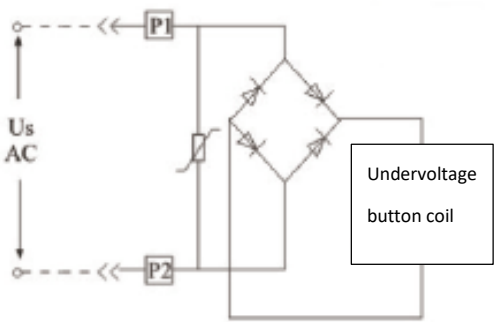


Undervoltage release action characteristics:

Rated operating voltage	AC380	AC220	DC110	DC220
Action voltage	$(0.35-0.7) \times U_e$			
Guaranteed closing voltage	$(0.85-1.1) \times U_e$			
Ensure that the voltage cannot be closed	$\leq 0.35U_e$			
Power consumption	10VA		4W	

Wiring diagram of undervoltage release:

Us-Control Power Supply
P1, P2-terminal number
Uc1, Uc2-terminal number
100A-630A Embedded
100A-630A external type



Only the dotted lines are connected by the user, and the rest of the wiring has been connected by the factory for the user's reference.

Suitable for SFX models	SFX100	SFX160	SFX250	SFX400	SFX630	SFX800
Undervoltage release series	100/160U		250/400U		630U	800U

Auxiliary contact series

Auxiliary contact use:

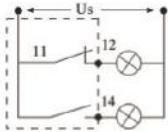
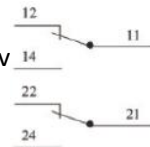
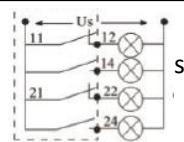
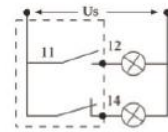
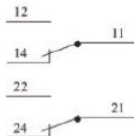
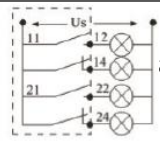
Auxiliary contacts are used to automatically control the control circuit of the circuit breaker, such as the signal indication of the opening and closing status of the circuit breaker.



Auxiliary contact specifications:

- 1) One normally open and one normally closed
- 2) Two normally open two normally closed
- 3) Four normally open and four normally closed

Auxiliary contact wiring diagram:

Circuit breaker status	Auxiliary contact state wiring diagram	
Closing position	A set of auxiliary contacts , provid 	
	Two sets of auxiliary contacts, prov 	
Disconnect position	A set of auxiliary contacts, providin 	
	Two sets of auxiliary contacts, providir 	

Suitable for SFX models	SFX100	SFX160	SFX250	SFX400	SFX630	SFX800
Auxiliary contact series	100/160A		250/400A		630A	800A

Alarm contact series

Alarm contact use:

The alarm contact is used to alarm when the circuit breaker is disconnected due to overload, short circuit, undervoltage fault of the line and equipment.



Alarm contact specifications:

- 1) One normally open and one normally closed

Alarm contact wiring diagram:

Circuit breaker status	Alarm contact status	Wiring Diagram
Open and closed positions		
Tripping position		

Suitable for SFX models	SFX100	SFX160	SFX250	SFX400	SFX630	SFX800
Alarm contact series	100/160C		250/400C		630C	800C

Auxiliary alarm contact series

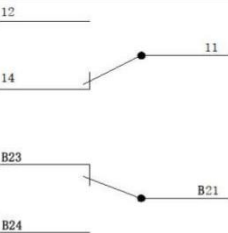
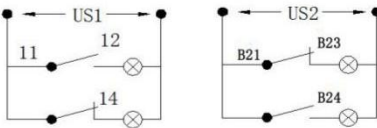
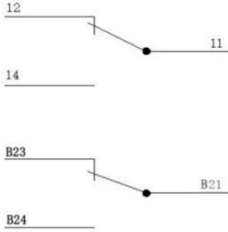
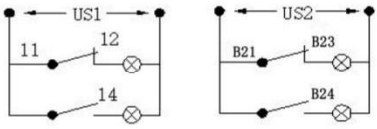
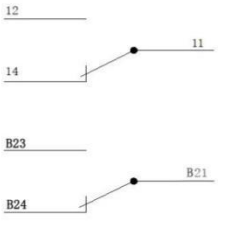
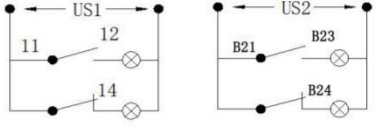
Auxiliary alarm contact use:

The auxiliary alarm contact is used for automatic control of the control circuit of the circuit breaker, and for alarming when the circuit breaker is disconnected due to overload, short circuit, undervoltage fault of the line and equipment.

Auxiliary alarm contact specifications:

- 1) One normally open, one normally closed + 1 alarm contact
- 2) Two normally open, two normally closed and one alarm contact

Auxiliary alarm contact wiring diagram

breaker state	auxiliary alarm contact status	wiring diagram
disconnect position		 note: US1 is the auxiliary power supply US2 is the alarm power supply
closing position		 note: US1 is the auxiliary power supply US2 is the alarm power supply
free release position		 note: US1 is the auxiliary power supply US2 is the alarm power supply

Suitable for SFX models	SFX100	SFX160	SFX250	SFX400	SFX630	SFX800
Auxiliary alarm contact series	100/160A+C		250/400 A+C		630 A+C	800 A+C