

The letter data and photograph of the manual all belong to our company, reprint and peculate must be runned the duty.

**SPX**  
**ELECTRIC**  
**APPLIANCE**  
www.cnspx.com



**ZHEJIANG SPX ELECTRIC APPLIANCE CO.,LTD.**

Add: North Baixiang Industrial Zone, Yueqing, Zhejiang, China 325603

Tel: +86-577-62982277

Fax: +86-577-62983788

Http: //www.cnspx.com

E-mail: sales@cnspx.com



**ZHEJIANG SPX ELECTRIC APPLIANCE CO.,LTD.**



SPX ELECTRIC  
APPLIANCE  
[www.cnspx.com](http://www.cnspx.com)

## COMPANY PROFILE



SPX  
ELECTRIC  
APPLIANCE  
CO.,LTD

[www.cnspx.com](http://www.cnspx.com)

Zhejiang SPX Electric Appliance Co., Ltd. is a company integrating scientific research, development, production and sales. In addition to two factories invested by the company in Yueqing and Shanghai, the company also set up agents in Egypt, Sudan, Italy, Thailand, Dubai, India and so on.

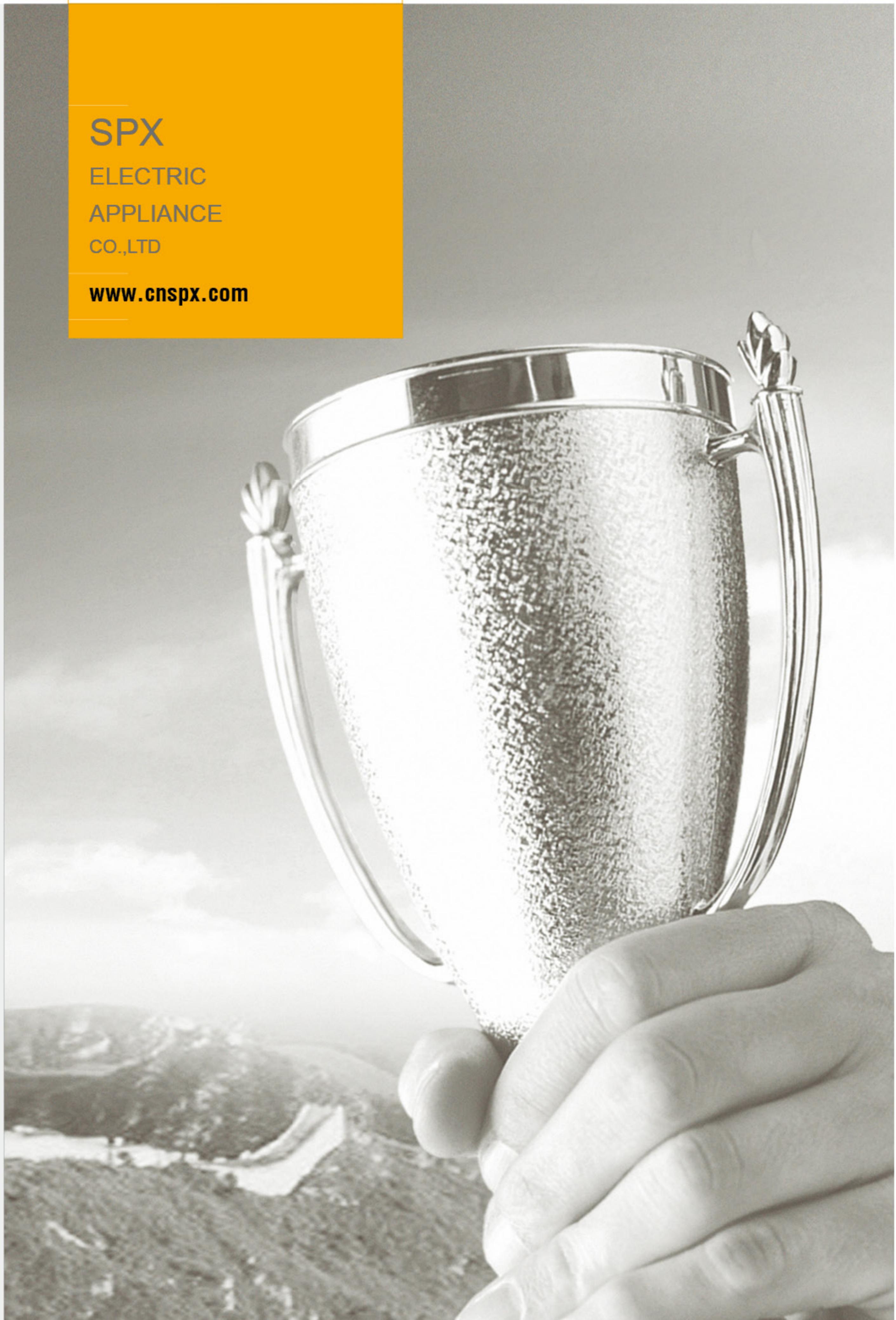
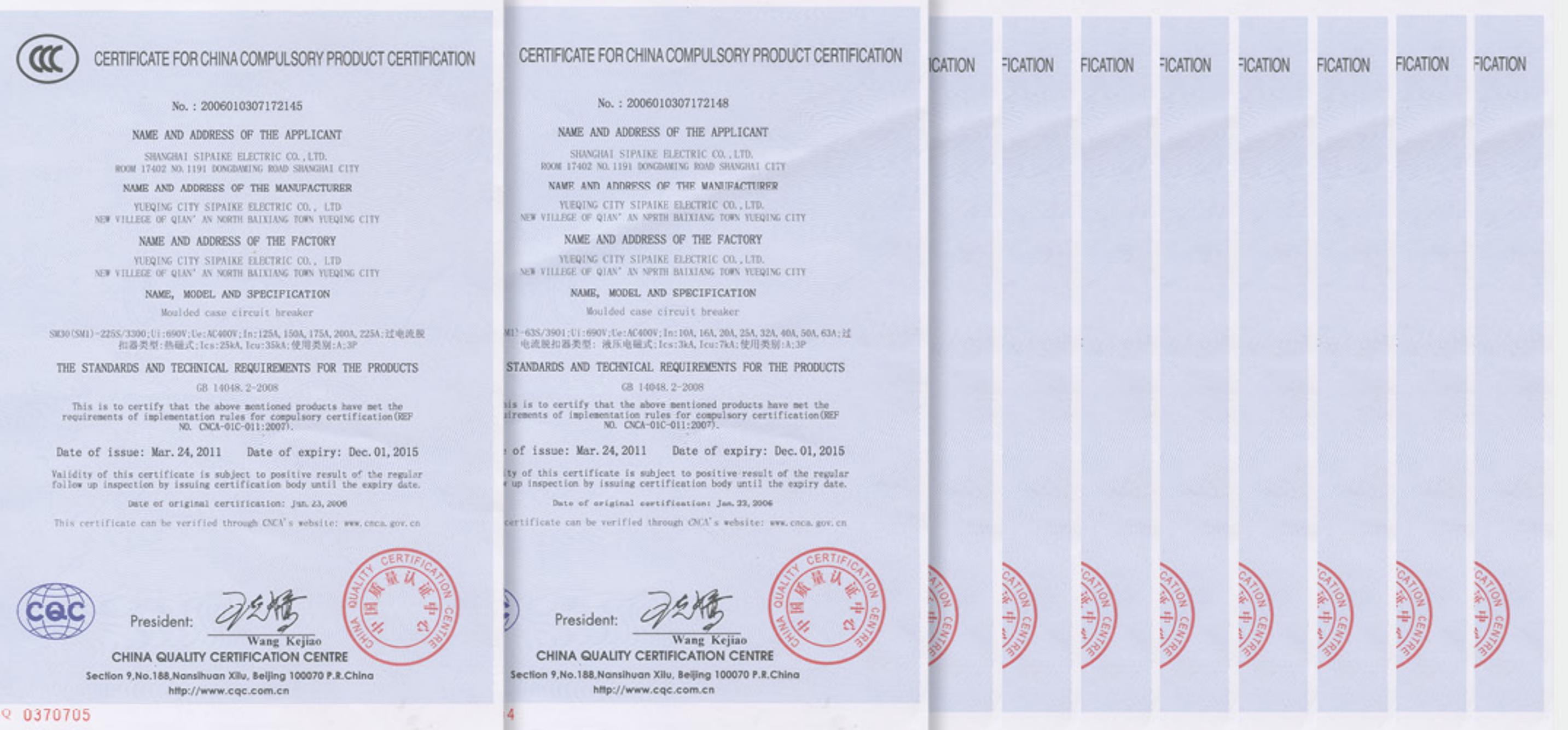
The company has standard workshops and advanced production equipment as well as a well-trained professional technical team. Our concept of self-transcendence and coexistence with the enterprise, and advanced quality awareness and perfect quality assurance system are applied throughout each production process.

At present, the products include moulded case circuit breaker (MCCB), earth leakage circuit breaker (ELCB), miniature circuit breaker (MCB), AC contactor and thermal relay. The company has passed China Compulsory Certification (CCC), CE Certification and ISO9001 Standard Certification. In addition, many products have patents.

SPX Company has a closed and modern plant with more than 10,000 square meters, first-class laboratories, processing centers, testing centers and first-rate facilities, which ensure the high quality of our products. Welcome customers at home and abroad to visit our company and work together for mutual benefit and create a brilliant future.



# ENTERPRISE HONOR





## AC CONTACTOR

**SS-T** series AC contactor

**01**

**STH-T** series thermal relays

**06**

**SS-N** series AC contactor

**03**

**STH-N** series thermal relays

**08**

**SUT** series auxiliary contact module

**05**

**SMS-T** series magnetic starter

**09**



## THERMAL RELAYS



## MOULDED CASE CIRCUIT BREAKER

**SM30** (Parameter)

**11**

**SM30-30** series moulded case circuit breaker

**13**

**SM30-63** series moulded case circuit breaker

**13**

**SM30-125** series moulded case circuit breaker

**15**

**SM30-250** series moulded case circuit breaker

**16**

**SM30-400** series moulded case circuit breaker

**17**

**SM30-630(800)** series moulded case circuit breaker

**18**

**SM30-1600** series moulded case circuit breaker

**19**

**SM30-630(400)-SEP** series moulded case circuit breaker

**20**

**SM30-800-SEP** series moulded case circuit breaker

**21**

**SM30-1000-SS** series moulded case circuit breaker

**22**

**SM50** series moulded case circuit breaker

**23**

**SM1-225** series moulded case circuit breaker

**24**



## MINIATURE CIRCUIT BREAKER

**SM6** series miniature circuit breaker

**26**

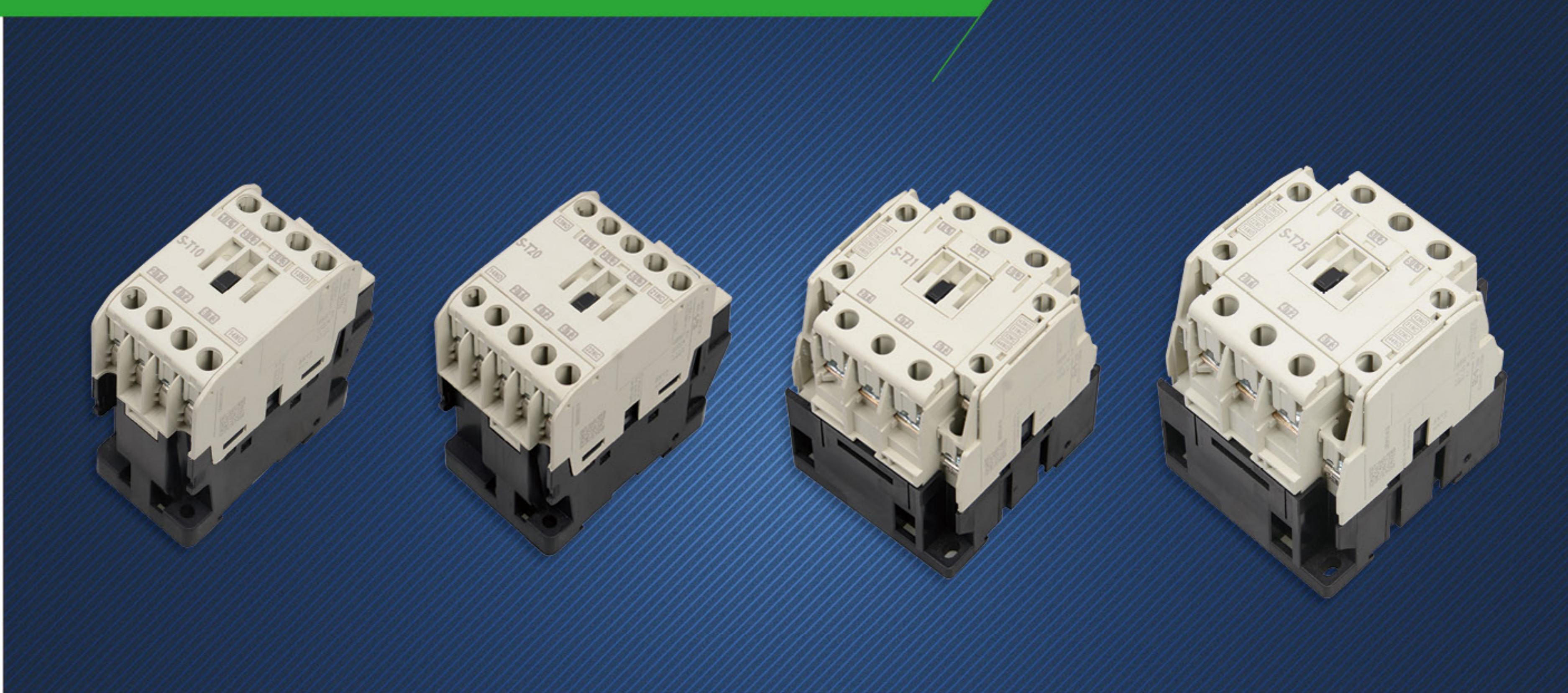
**SQ1-250** series power changeover switch

**27**



## PRODUCT CATALOG

## SS-T Series AC Contactor



Frame(A)	SS-T10	SS-T12	SS-T20	SS-T21	SS-T25
KW/HP(AC-3) Rated power(AC-3) IEC60947-4	220V	2.5/3.5	3.5/4.5	3.7	4
	380V	4/5.5	5.5/7.5	7.5	7.5/10
Rated current(AC-3) GB14048.4	220V	11	13	18	20
	380V	9	12	18	30
Rated heating current(A)		20		32	50
Rated insulated voltage(V)			660		
Auxiliary contact AC-15	Contact	Standard	1NO	1NO+1NC	1NO+1NC
	Rated current (A)	220V			1.6
		380V			0.95
Electric life			100		80
Mechanical life		1000		500	500
Outline and installation dimension					
Type	L	W	H	C1	C2
S-T10	36	75	78	60	28
S-T12	44	75	78	60	30/35
S-T20					4.2
S-T21	63	81	81	58	54
S-T25					4.5

● Said the attachment

## SS-T Series AC Contactor



Frame(A)		SS-T35	SS-T50	SS-T65	SS-T80	SS-T100	
KW/HP(AC-3) Reted power(AC-3) IEC60947-4	220V	11/15	15/18.5	18.5/22	22/30	30	
	380V	18.5/22	22/30	30/45	45/55	55	
Reted current(AC-3) GB14048.4	220V	42	54	68	85	105	
	380V	40	50	65	85	105	
Reted heating current(A)		60	80	100	120	150	
Retet insutaled voltage(V)			690				
Auxicary contact AC-15	Contact	Standard	2NO+2NC				
	Reted current (A)	220V	1.6				
		380V	0.95				
Electric life		85	65				
Mechanical life		500	300				

Outline and installation dimension						
Type	L	W	H	C1	C2	φD
SS-T35	75	89	90	70	65	4.5
SS-T50						
SS-T65	88	103	105	75	70	5.5
SS-T80						

● Said the attachment

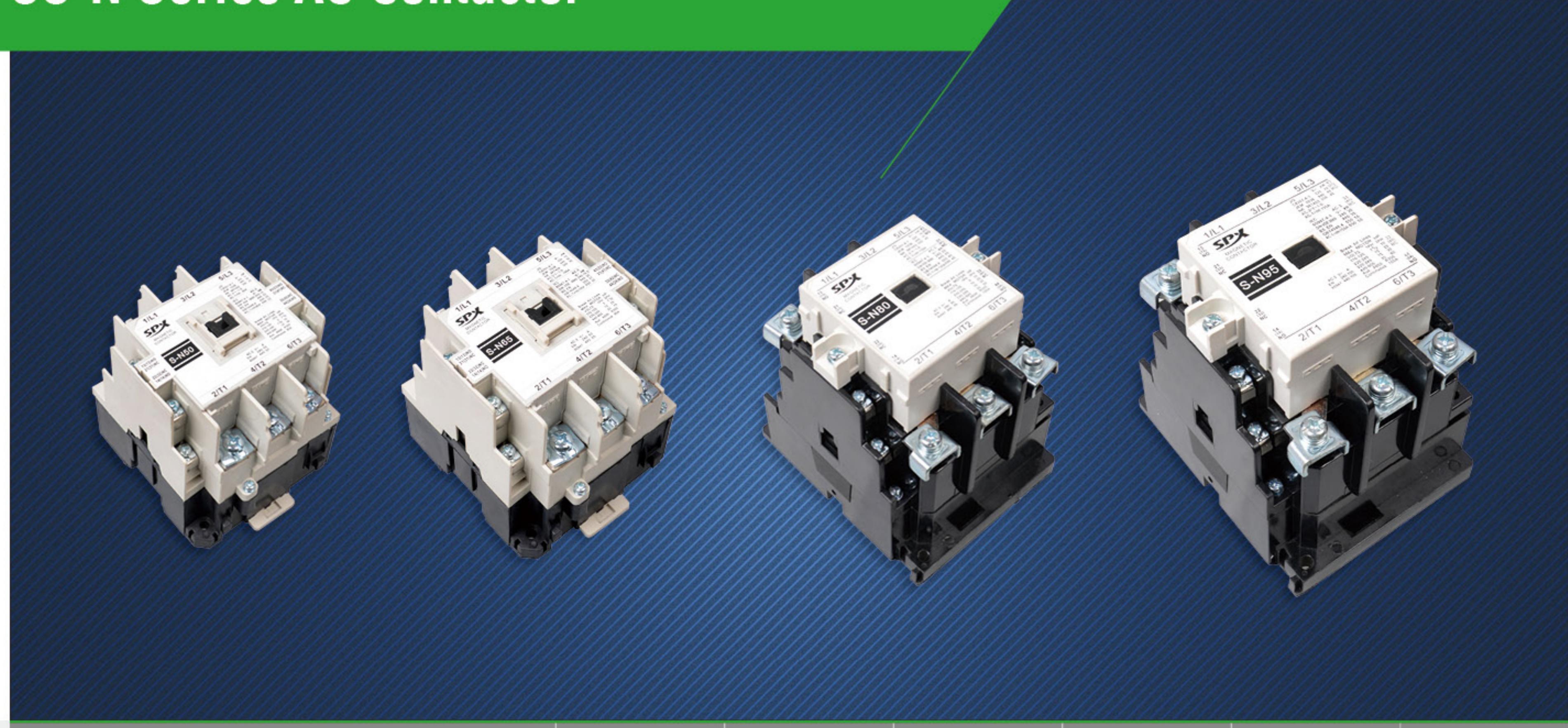
## SS-N Series AC Contactor



Frame(A)	SS-N10		SS-N12	SS-N20	SS-N21				
	SS-N10	SS-N11	SS-N12	SS-N20	SS-N20	SS-N21			
KW/HP(AC-3) Reted power(AC-3) IEC60947-4	220V	2.5/3.5	3.5/4.5	3.5/4.5	4/5.5	5.5/7.5			
	380V	4/5.5	5.5/7.5	5.5/7.5	7.5/10	11/15			
Reted current(AC-3) GB14048.4	220V	11	13	13	16	22			
	380V	9	12	12	16	22			
Retet heating current(A)			20		25	32			
Retet insutaled voltage(V)			660						
Auxicary contact AC-15	Contact	Standard	1NO	1NO+1NC	-	1NO+1NC			
	Reted current (A)	220V	1.6						
		380V	0.95						
Electric life			100						
Mechanical life			1000		500				
Outline and installation dimension									
Type	L	W	H	C1	C2	φD			
S-N10	43	78	78	50	35	4.5			
S-N12	53	78	78	50	40	4.5			
S-N18	43	79	81	60	30	4.5			
S-N21	63	81	81	60	54	4.5			

● Said the attachment

## SS-N Series AC Contactor



Frame(A)		SS-N25	SS-N35	SS-N50	SS-N65	SS-N80	SS-N95																												
KW/HP(AC-3) Rated power(AC-3) IEC60947-4	220V	7.5/10	11/15	15/20	18.5/25	22/30	30/40																												
	380V	15/20	18.5/25	22/30	30/40	45/60	55/75																												
Rated current(AC-3) GB14048.4	220V	30	42	54	68	85	104																												
	380V	34	44	51	66	85	105																												
Rated heating current(A)		50	60	80	100	120	135																												
Rated insulated voltage(V)		660																																	
Auxiliary contact AC-15	Contact	Standard	2NO+2NC																																
	Rated current (A)	220V	1.6																																
		380V	0.95																																
Electric life		80	60																																
Mechanical life		500	300																																
Outline and installation dimension																																			
<table border="1"> <thead> <tr> <th>Type</th> <th>L</th> <th>W</th> <th>H</th> <th>C1</th> <th>C2</th> <th>ΦD</th> </tr> </thead> <tbody> <tr> <td>S-N25/35</td> <td>75</td> <td>89</td> <td>91</td> <td>58</td> <td>54</td> <td>4.5</td> </tr> <tr> <td>S-N50/65</td> <td>88</td> <td>106</td> <td>106</td> <td>75</td> <td>70</td> <td>5</td> </tr> <tr> <td>S-N80/95</td> <td>100</td> <td>124</td> <td>130</td> <td>110</td> <td>80</td> <td>6</td> </tr> </tbody> </table>		Type	L	W	H	C1	C2	ΦD	S-N25/35	75	89	91	58	54	4.5	S-N50/65	88	106	106	75	70	5	S-N80/95	100	124	130	110	80	6						
Type	L	W	H	C1	C2	ΦD																													
S-N25/35	75	89	91	58	54	4.5																													
S-N50/65	88	106	106	75	70	5																													
S-N80/95	100	124	130	110	80	6																													

● Said the attachment

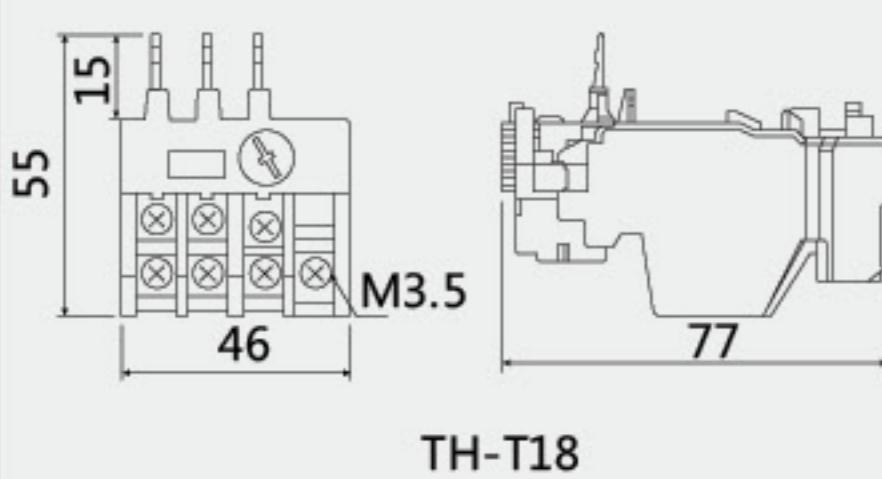
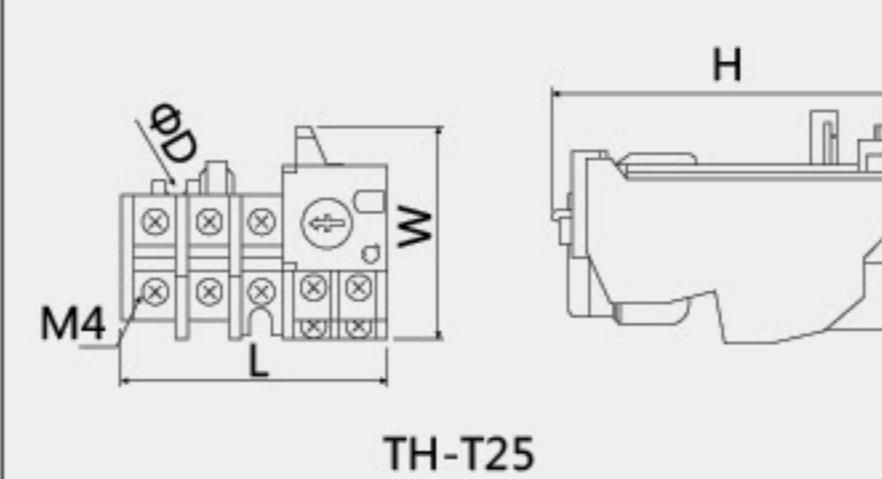
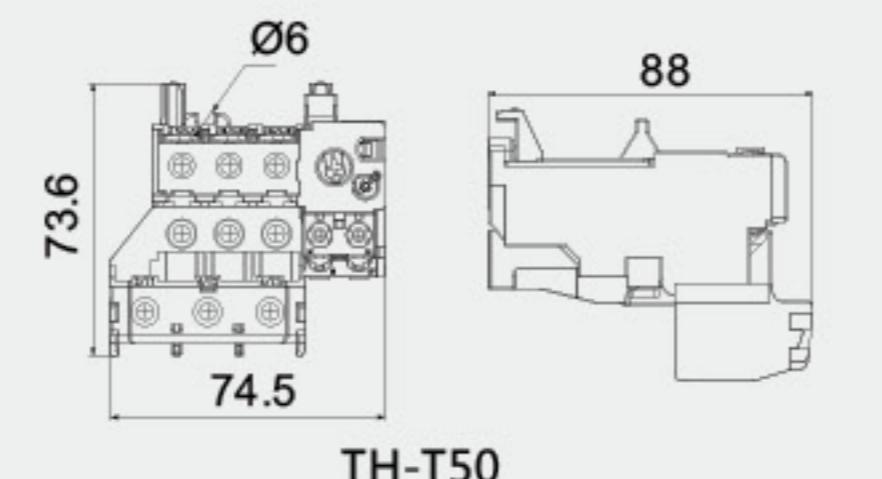
## SUT Series Auxiliary Contact Module



Model name		Auxiliary contact module		
Model	SUT-CX4(UT-AX4)	SUT-CX2(UT-AX2)	SUT-CX11(UT-AX11)	
Installation	Front mounted		Side mounted	
Spec./functions	(4a、2a2b、3a1b) Built-in double-contact,4-pole auxiliary contact		(2a、1a1b、2b) Built-in double-contact,2-pole auxiliary contact	
Applicable models	Electromagnetic contactor		SS-T10~SS-T50	
	Motor starter		MSO-T10KP~T25KP/MSOD-T12KP~T50KP	
	Electromagnetic relay		SR(D)-T5	
	Thermal overload relay			

## STH-T Series Thermal Relays



Frame(A)	STH-T18		STH-T25		STH-T50	
Suitable AC contactor	SS-T10/12		SS-T20/25		SS-T35/50	
Aux contact structure	Manual or Auto return					
	Select(A)	Adjust range(A)	Select(A)	Adjust range(A)	Select(A)	Adjust range(A)
	0.24	0.2~0.32	1.3	1~1.6	29	24~34
	0.35	0.28~0.42	1.7	1.4~2.0	35	30~40
	0.5	0.4~0.6	2.1	1.7~2.5	42	34~50
	0.7	0.55~0.85	2.5	2~3		
	0.9	0.7~1.1	3.6	2.8~4.4		
	1.3	1~1.6	5	4~6		
Adjust range selct(A)	1.7	1.4~2.0	6.6	5.2~8		
	2.1	1.7~2.5	9	7~11		
	2.5	2~3	11	9~13		
	3.6	2.8~4.4	15	12~18		
	5	4~6	19	16~22		
	6.6	5.2~8	22	18~26		
	9	7~11	29	24~34		
	11	9~13	35	30~40		
Aux contact structure	1a1b(1NO+1NC)					
Outline and installation dimension	 <b>TH-T18</b>		 <b>TH-T25</b>		 <b>TH-T50</b>	
Type	L	W	H	ØD		
TH-T25	63	51	81	4.5		

● Said the attachment

## STH-T Series Thermal Relays

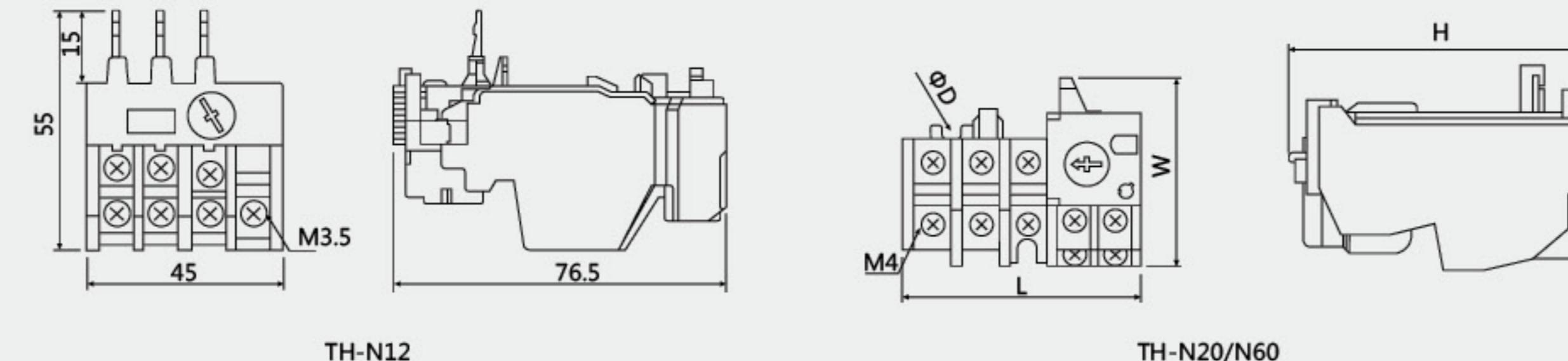


Model	STH-T65		STH-T100	
	Select(A)	Adjust range(A)	Select(A)	Adjust range(A)
Adjust range selct(A)	19	16~22	22	18~26
	22	18~26	29	24~34
	29	24~34	35	30~40
	35	30~40	42	34~50
	42	34~50	54	43~65
	54	43~65	67	54~80
	67	54~80	82	65~93
			95	85~105

● Aux contact structure:1a1b(1NO+1NC)

## STH-N Series Thermal Relays



Frame(A)	STH-N12	STH-N20	STH-N60	STH-N95
Suitable AC contactor	SS-N10/12	SS-N21/25	SS-N50/65	SS-N80/95
Aux contact structure				
Manual or Auto return				
Adjust range select(A)	Select(A)	Adjust range(A)	Select(A)	Adjust range(A)
0.24	0.2~0.32	1.3	1~1.6	15
0.35	0.28~0.42	1.7	1.4~2.0	19
0.5	0.4~0.6	2.1	1.7~2.5	22
0.7	0.55~0.85	2.5	2~3	29
0.9	0.7~1.1	3.6	2.8~4.4	35
1.3	1~1.6	5	4~6	42
1.7	1.4~2.0	6.6	5.2~8	54
2.1	1.7~2.5	9	7~11	67
2.5	2~3	11	9~13	82
3.6	2.8~4.4	15	12~18	95
5	4~6	19	16~22	
6.6	5.2~8	22	18~26	
9	7~11	29	24~34	
11	9~13	35	30~40	
Aux contact structure	1a1b(1NO+1NC)			
Outline and installation dimension	 TH-N12: L=63mm, W=45mm, H=55mm, M3.5, 15mm height, 76.5mm base width. TH-N20/N60: L=89mm, W=57mm, H=83.5mm, M4, 15mm height, 76.5mm base width.			
Type	L	W	H	$\Phi D$
TH-N20	63	51	79	4.5
TH-N60	89	57	83.5	4.5

● Said the attachment

## SMS-T Series Magnetic Starter

### INSTRUCTIONS

#### ● Unpacking

- (1) Check that the type name and ratings are suitable for required application and supply voltage.
- (2) Check on missing or damaged parts which may be the result of transportation.

#### ● Installation

- (1) Mount the units in a dry location free of dust and vibrationos.
- (2) The correct mounting direction is in the vertical plane, but it may be tilted up to 30° in any direction.(Fig.1)
- (3) Provide a minimun arc space(A of Fig.2) as follows.

Type MSD(D), S(D)-(2x)T65,T80: 5mm

Type MSD(D), S(D)-(2x)T100: 10mm

Type MSD(D), S(D)-(2x)N10~N65: 5mm

Type MSD(D), S(D)-(2x)N80~N400: 10mm

Type S(D)-N600,N800: 10mm

(4) Note: that ther is a possibility that defective contact is generated if the product is used by the shut space for a long time. Do not use the product in t he atmosphere induding flammable gas.

#### ● Magnetic coil

Set the control voltage within the range of rated coil voltage.

#### ● Thermal overload relay(OLR)

- (1) The positiono of adjustment knob should be value of full load current of the motor used.
- (2) Do not remove the cover of OLR.
- (3) It should be noted that foreign matter, such as wire chip, should not enter the relay interior. through the display window.

#### ● Refer to instruction manual for the following

- (1) Addition of auxiliary contact block.
- (2) Combination of OLR and contactor.
- (3) Change to automatic resetting of OLR.
- (4) Built up of a reversible contactor, using by mechanical interlock unit.

#### ● Please refer to a maintenance check manual for maintnenance check and the part exchange.

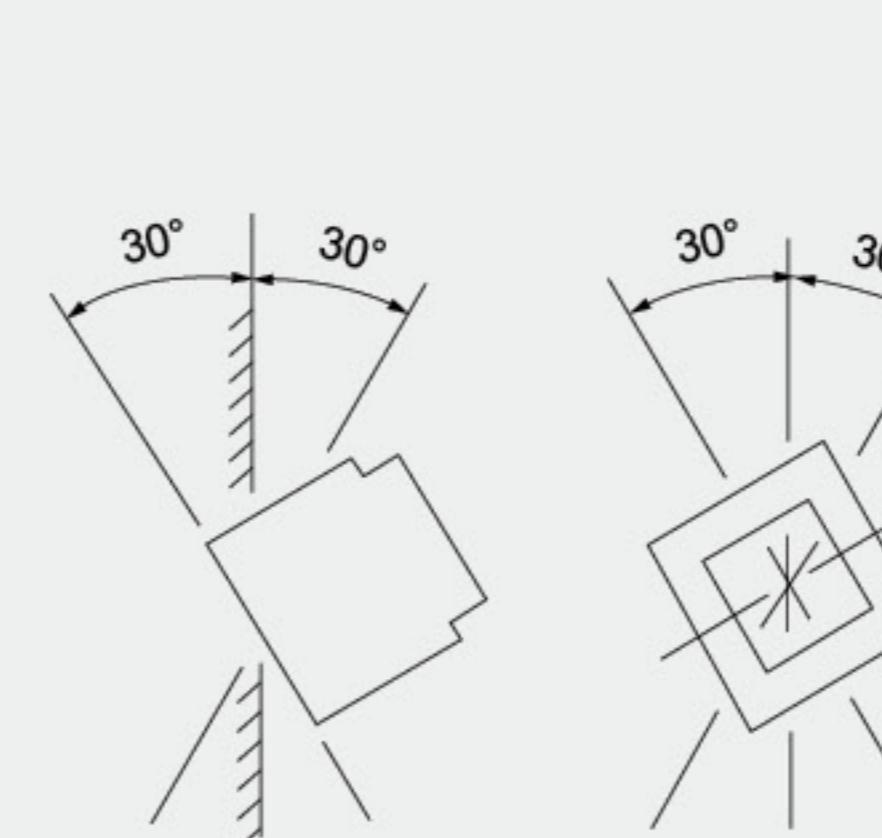


Fig.1

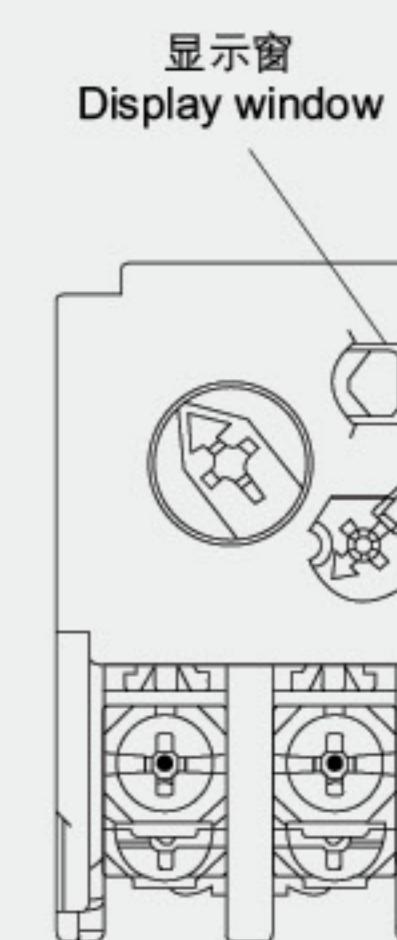


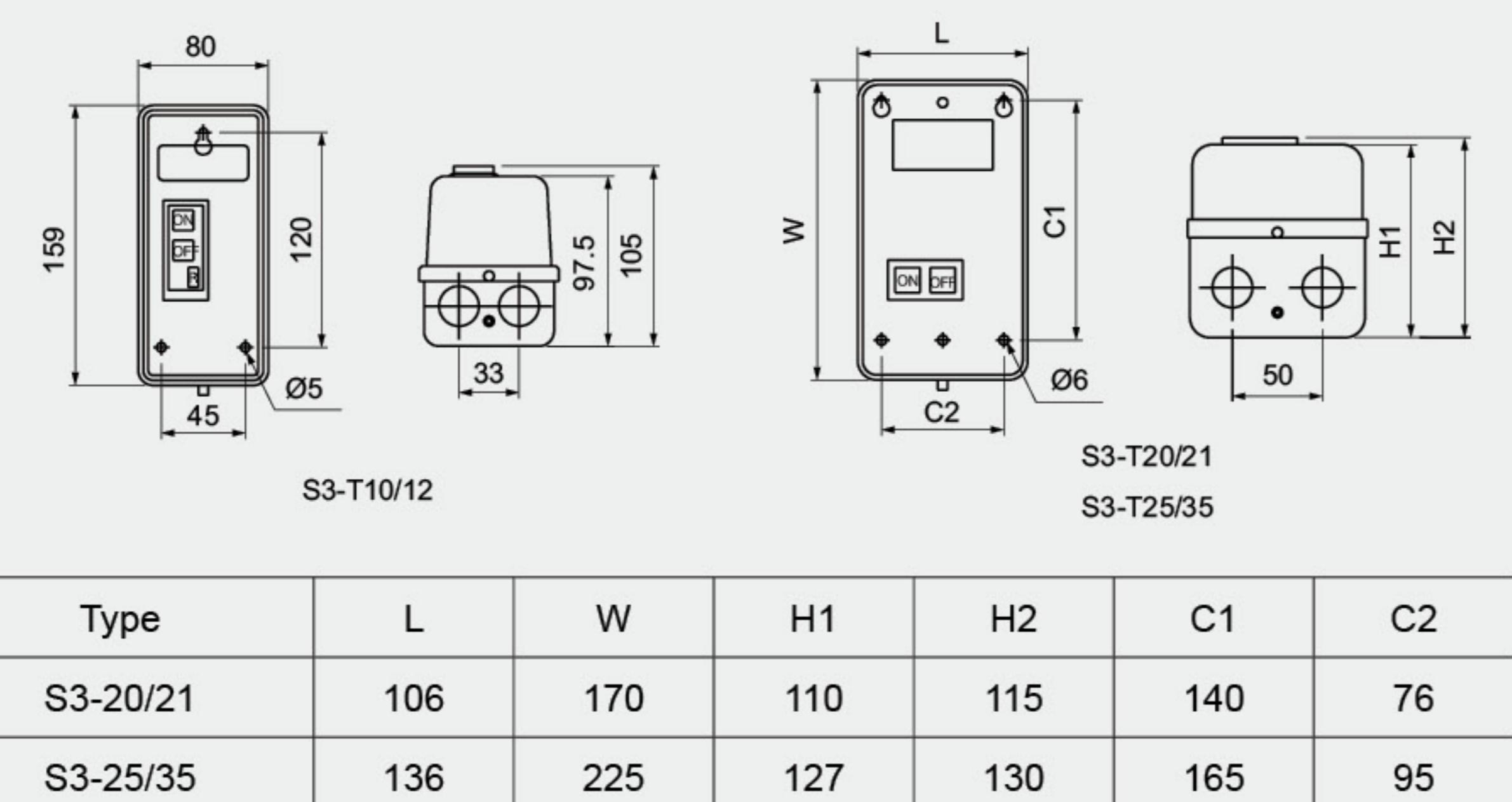
Fig.2

## SMS-T Series Magnetic Starter



Type	SMS-T10/12	SMS-T20	SMS-T21	SMS-T25	SMS-T35	SMS-T50	SMS-T65	SMS-T80
Rated power KW/HP (AC-3) IEC60947-4	220V	2.2/3	4/5.5	4/5.5	5.5/7.5	7.5/10	15	18.5
	380V	2.7/3.5	7.5/10	7.5/10	11/15	15/20	22	30
Rated current Ie(A) (AC-3) GB14048.4	220V	11/13	20	20	26	35	55	85
	380V	7/9	20	20	25	32	50	85
Rated heating current Ith(A)	20	32		50	60	80	100	135
Rated insulated voltage Ui(V)				660				
Auxiliary contact AC-15	Contact	Standard	1NO	1NO+1NC		2NO+2NC		
	Rated current(A)	220V			1.6			
		380V			0.95			
Enclosure rating				IP30				
Mechanical life	1000			500				

Outline and installation dimension



## SM30 Series Molded Case Circuit Breaker

### SERVICE RANGE

SM30 series molded case circuit breaker(MCCB) is one of most advanced type breakers in the world, which adopt international advanced design and manufacture technology. They are suitable for short circuit and overload protection for circuit of AC690V, 50HZ, rated current to 1600A, its rated insulation voltage is 690V. It takes protect effect when mouse cage motor non-frequent start, breaking off working and protecting and protecting over load, short circuit and lacking voltage.

MCCB according to the rated short circuit interrupting capacity(ICU) can divide into into three types(C standard) (S).(H).

### MODEL AND ITS MEANING

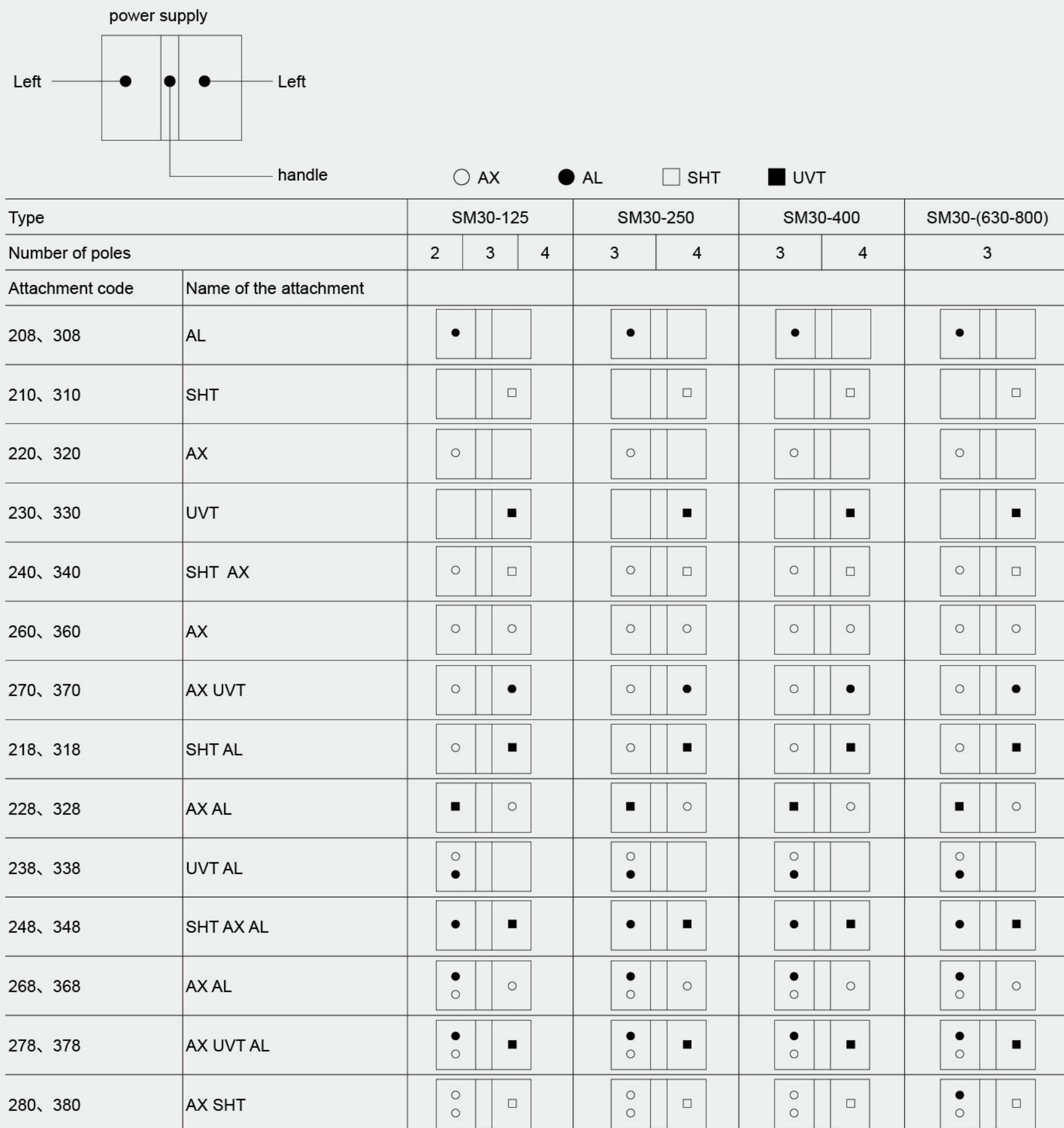
S M 30-63 C Z / 3 300-63 2 H 1

- If mounting connection board(no mounting no code,if mounting with 1)
- Mounting type(in front of board no code,behind of board with H,injection with C)
- Application code:no code for distribution type,"2"for motor protection type
- Rated current(for example3、6、10、16、20、25、32、40、50、60 ect.)
- Trip unit and code(see attachment)
- Number of poles(2P, 3P, 4P)
- Operation type(Directing handle operation no code,Automatic tripping device with D,rotary handle with Z.)
- Rated limited short circuit breaking capacity (C:standard S:Relatively high marks broken type H:High marks broken type)
- Rated current of frame(for example30、63、125、250、630、800)
- Design Number
- Molded case circuit breaker
- SPX electric appliance co.,ltd

### NORMAL WORKING SURROUNDINGS

- Mounting height no more than 2000m.
- The largest mounting slope no more than 22° .
- The surrounding temperature no more than +40° C, and no lower than -5° C, and the average temperature no more than +35° C.
- The air humidity no more than 50% when the air temp+40°C, but in low temp allow a little higher humidity(for example +20°C the humidity arrives at 90%, make sure to have appropriate step when the temp changes.)
- In the medium where no explosion danger, besides the medium can not corrode the metal and damage the insulating gas, and no conductive dust.
- The place no rain and snow corrosion.

# SPARE PARTS SHEET



Note:

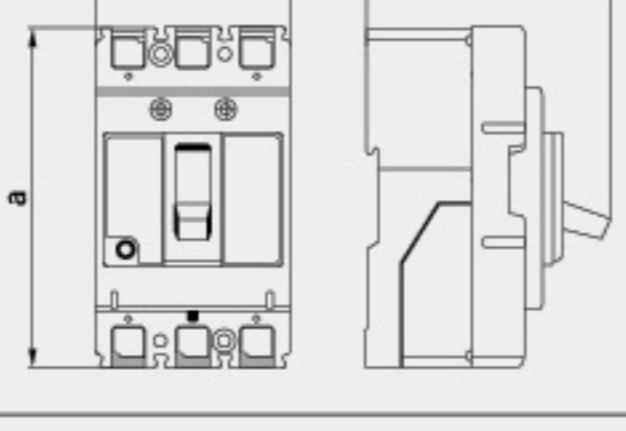
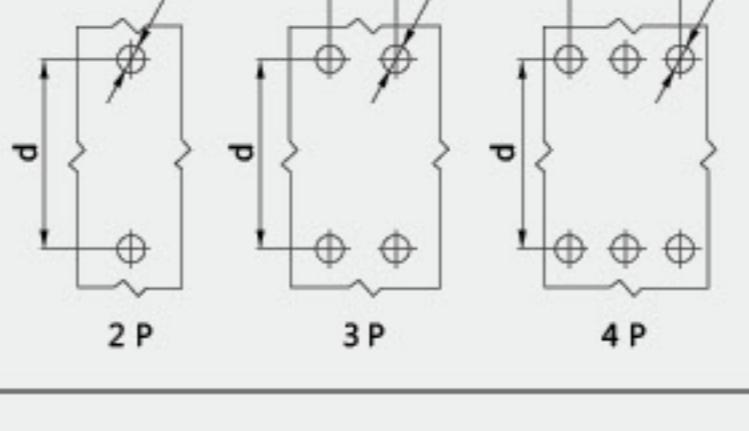
200: only RM MCCB 300:only RT MC  
we can offer right AX, leff SHT,leff UVT.

# PERFORMANCE CHARACTERISTIC

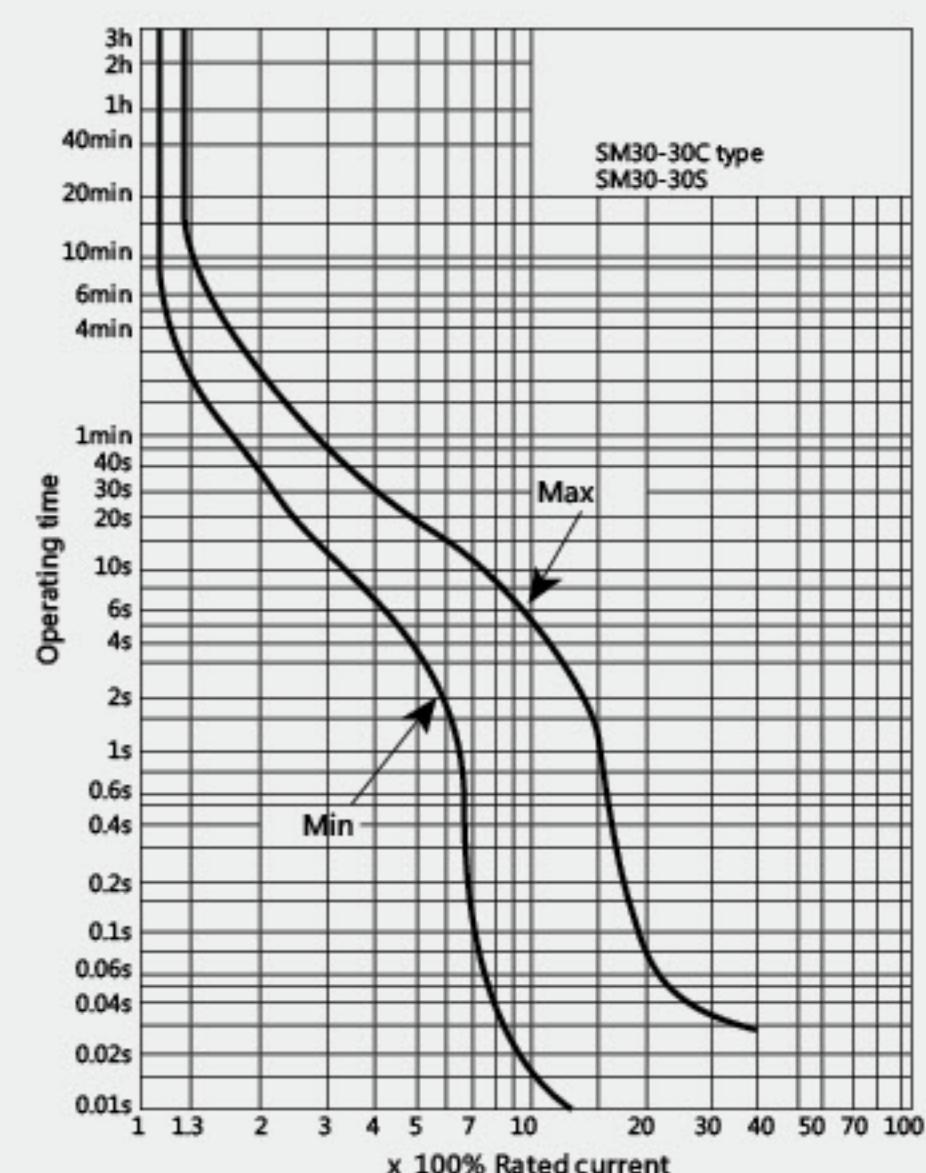
Tripping characteristics				Protecting notes characteristics					
Rated current of release (A)	Thermodynamic release(ambient temp+40°C )		Operating current of magnetic realease(A)	Note	Rated current of release (A)	Thermodynamic release(ambient temp+40°C )		Operating current of magnetic realease(A)	Note
	1.05In(cold state) operative time	1.30In(heat state) operative time				1.01In(cold state) operative time	1.20In(heat state) operative time		
In≤63	≥1h	<1h	10In±20%		In≤800	≥2h	<2h	12In±20%	
In>63	≥2h	<2h							

# SM30-30 Series Moulded Case Circuit Breaker

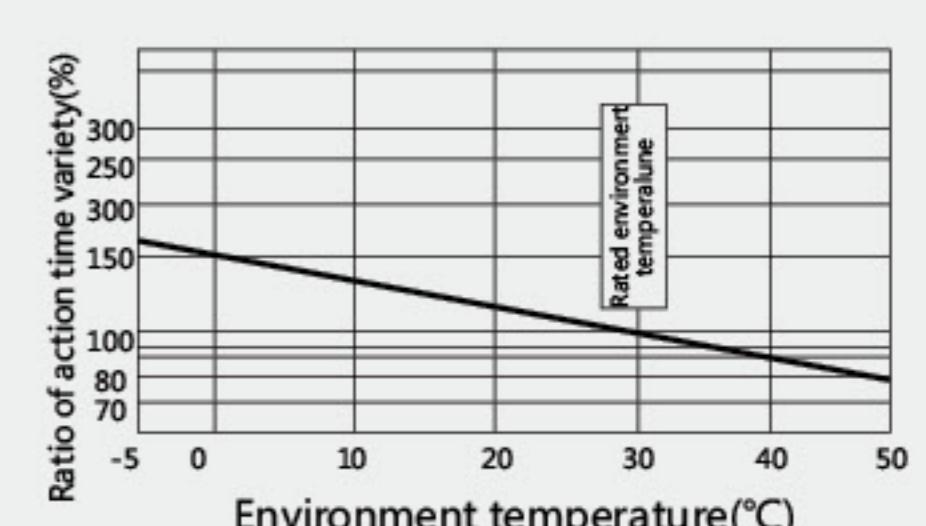


Frame(A)	SM30-30(NF-CW)				Operating characteristics
Rated current In(A)	(2)、3、(3.2)、5、10、15、20、30				
Rated voltage(V)	AC 400V				
Rated insulation voltage(V)	AC 500V				
Number of poles	2		3		
Limited breaking capacity	C	S	C	S	
Short circuit interrupting capacity(kA) AC400V	1.5	1.5	1.5	1.5	
Operate short circuit(kA) AC400V	1	1	1	1	
Profile picture		a b c	96 45 64	96 67 64	
Mounting picture		d e f	84.5 / 5	84.5 24 5	
Machine life	7000				
Electrical life	4000				
Electrical-operation device(MD)					
External rotary handle					
Automatic tripping device	Hydraulic-magnetic				

- Said the attachment



## Temperature characteristics



### Environment temperature(°C)

## SM30-63 Series Molded Case Circuit Breaker



Frame(A)	SM30-63(NF-CW)						Operating characteristics			
Rated current In(A)	3、6、10、16、20、25、32、40、50、63									
Rated voltage(V)	AC 400V									
Rated insulation voltage(V)	AC 500V									
Number of poles	2			3						
Limited breaking capacity	C	S	H	C	S	H				
Short circuit interrupting capacity(kA) AC400V	5	5	10	5	5	10				
Operate short circuit(kA) AC400V	2	2	5	2	2	5				
Profile picture		a	130	130						
		b	50	74						
		c	88	88						
Mounting picture		d	110	110						
		e	/	25						
		f	5	5						
Machine life	7000									
Electrical life	4000									
Electrical-operation device(MD)										
External rotary handle										
Automatic tripping device	Hydraulic-magnetic									

● Said the attachment

## SM30-125 Series Molded Case Circuit Breaker

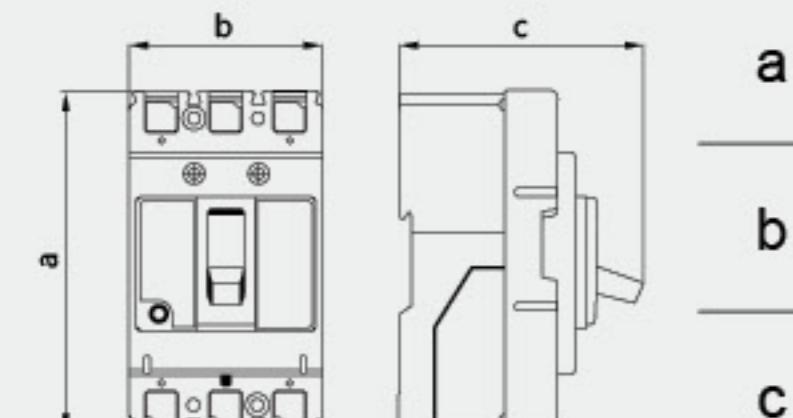
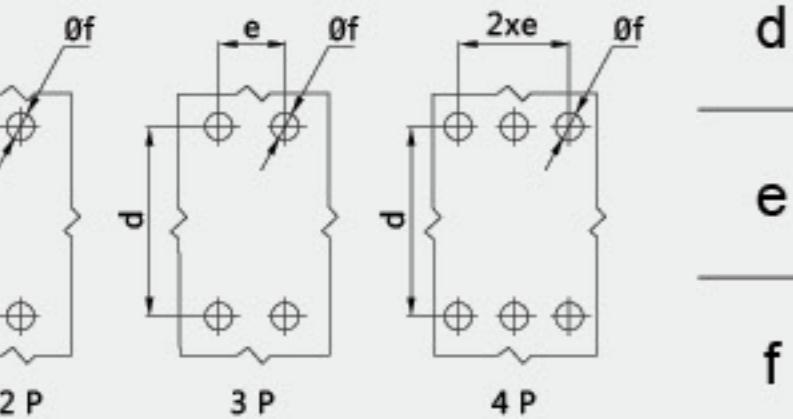


Frame(A)	SM30-125(NF-CW)								Operating characteristics			
Rated current In(A)	30、32、40、50、60、63、80、100、125											
Rated voltage(V)	AC 400V											
Rated insulation voltage(V)	AC 690V											
Number of poles	2		3		4							
Limited breaking capacity	C	S	H	C	S	H	C	S	H			
Short circuit interrupting capacity(kA) AC400V	10	30	50	10	30	50	10	30	50			
Operate short circuit(kA) AC400V	5	15	25	5	15	25	5	15	25			
Profile picture		a	130	130			155					
		b	60	90			120					
		c	89	89			89					
Mounting picture		d	110	110			131					
		e	/	30			30					
		f	5	5			5					
Machine life	7000											
Electrical life	3000											
Electrical-operation device(MD)	●											
External rotary handle	●											
Automatic tripping device	Thermal-magnetic											

● Said the attachment

## SM30-250 Series Molded Case Circuit Breaker

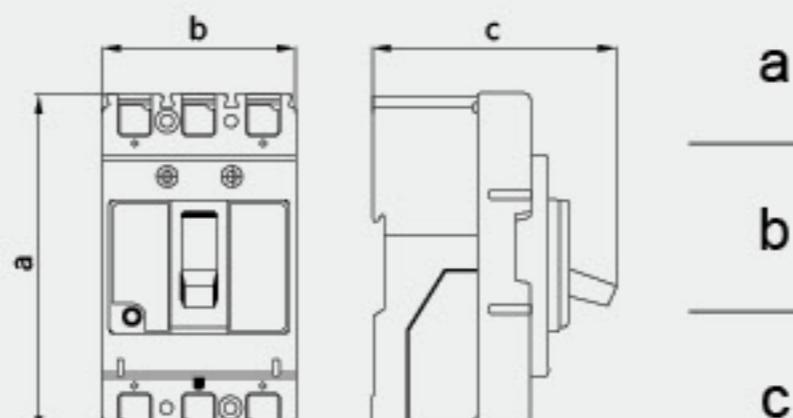
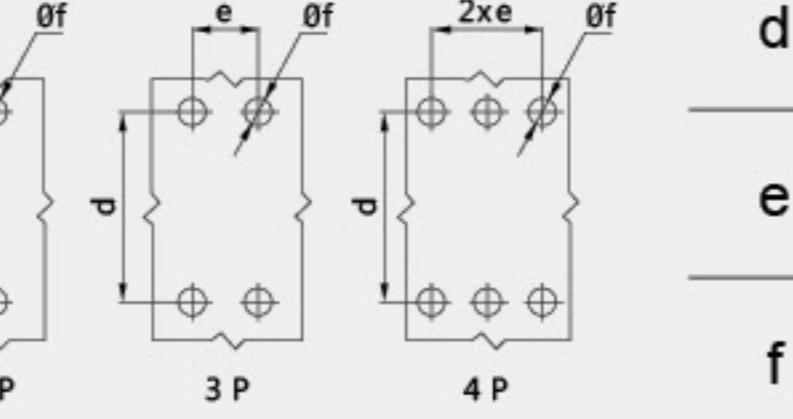


Frame(A)	SM30-250(NF-CW)						Operating characteristics									
Rated current In(A)	100、125、140、150、160、175、200、225、250															
Rated voltage(V)	AC 400V															
Rated insulation voltage(V)	AC 690V															
Number of poles	3			4												
Limited breaking capacity	C	S	H	C	S	H										
Short circuit interrupting capacity(kA) AC400V	18	30	50	18	30	50										
Operate short circuit(kA) AC400V	9	15	25	9	15	25										
Profile picture	 <table border="1"> <tr> <td>a</td> <td>165</td> <td>165</td> </tr> <tr> <td>b</td> <td>105</td> <td>140</td> </tr> <tr> <td>c</td> <td>90</td> <td>90</td> </tr> </table>							a	165	165	b	105	140	c	90	90
a	165	165														
b	105	140														
c	90	90														
Mounting picture	 <table border="1"> <tr> <td>d</td> <td>126</td> <td>126</td> </tr> <tr> <td>e</td> <td>35</td> <td>35</td> </tr> <tr> <td>f</td> <td>5</td> <td>5</td> </tr> </table>							d	126	126	e	35	35	f	5	5
d	126	126														
e	35	35														
f	5	5														
Machine life	4000															
Electrical life	2000															
Electrical-operation device(MD)	●															
External rotary handle	●															
Automatic tripping device	Thermal-magnetic															

● Said the attachment

## SM30-400 Series Molded Case Circuit Breaker

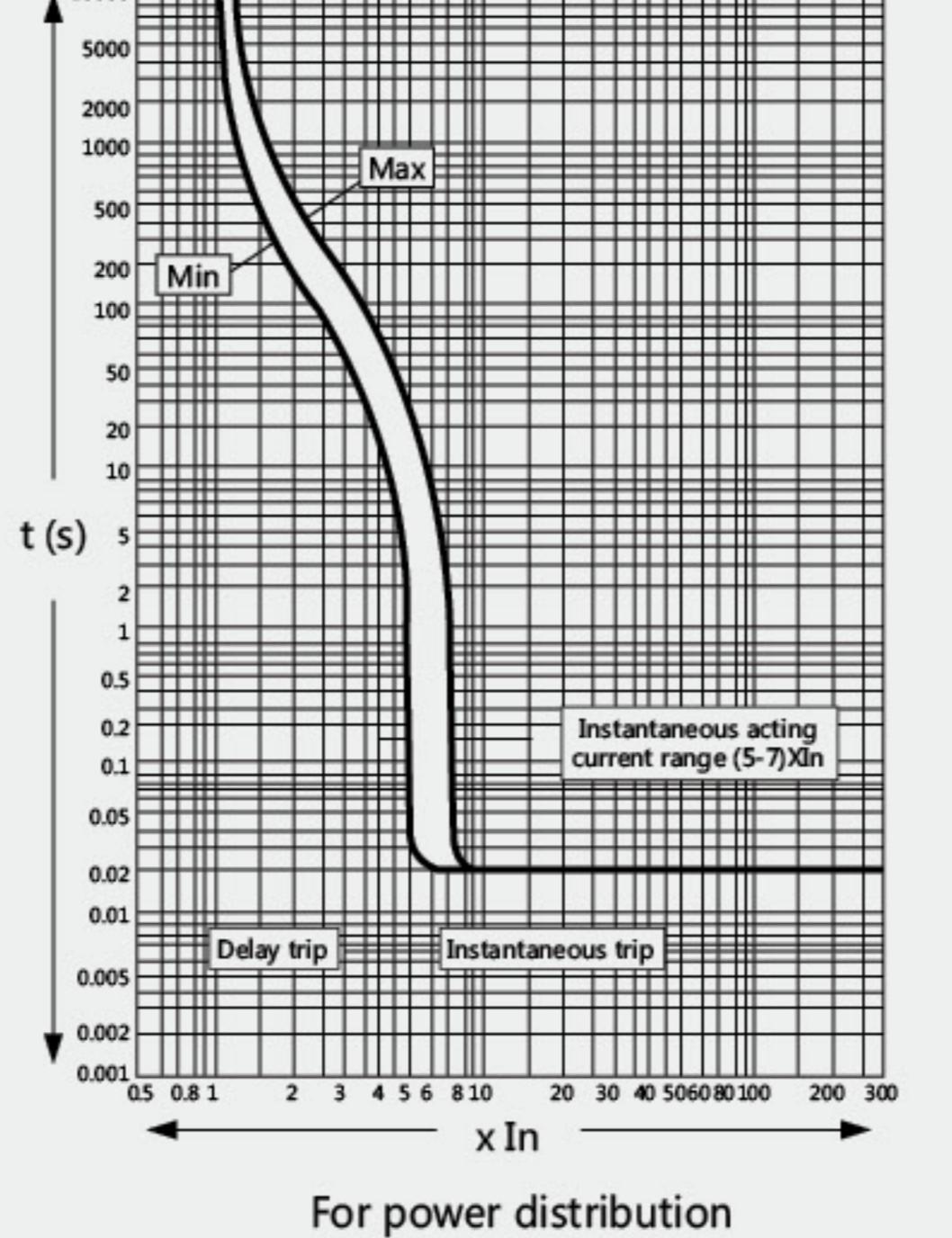
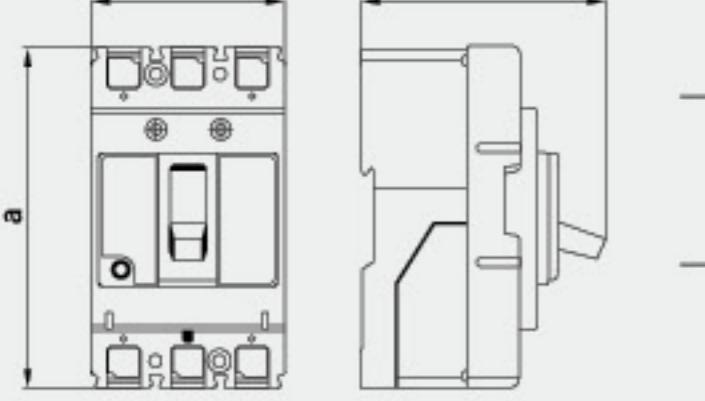
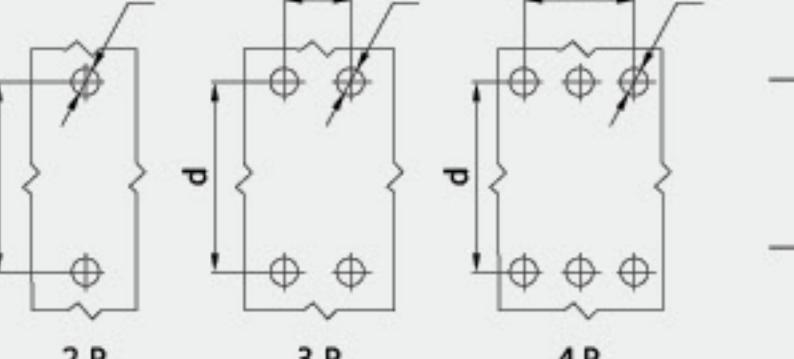


Frame(A)	SM30-400(NF-CW)						Operating characteristics									
Rated current In(A)	250、300、315、350、400															
Rated voltage(V)	AC 400V															
Rated insulation voltage(V)	AC 690V															
Number of poles	3			4												
Limited breaking capacity	C	S	H	C	S	H										
Short circuit interrupting capacity(kA) AC400V	25	35	50	25	35	50										
Operate short circuit(kA) AC400V	15	20	25	15	20	25										
Profile picture	 <table border="1"> <tr> <td>a</td> <td>258</td> <td>258</td> </tr> <tr> <td>b</td> <td>140</td> <td>185</td> </tr> <tr> <td>c</td> <td>153</td> <td>153</td> </tr> </table>							a	258	258	b	140	185	c	153	153
a	258	258														
b	140	185														
c	153	153														
Mounting picture	 <table border="1"> <tr> <td>d</td> <td>195</td> <td>195</td> </tr> <tr> <td>e</td> <td>45</td> <td>45</td> </tr> <tr> <td>f</td> <td>8</td> <td>8</td> </tr> </table>							d	195	195	e	45	45	f	8	8
d	195	195														
e	45	45														
f	8	8														
Machine life	4000															
Electrical life	1500															
Electrical-operation device(MD)	●															
External rotary handle	●															
Automatic tripping device	Thermal-magnetic															

● Said the attachment

## SM30-630(800) Series Molded Case Circuit Breaker

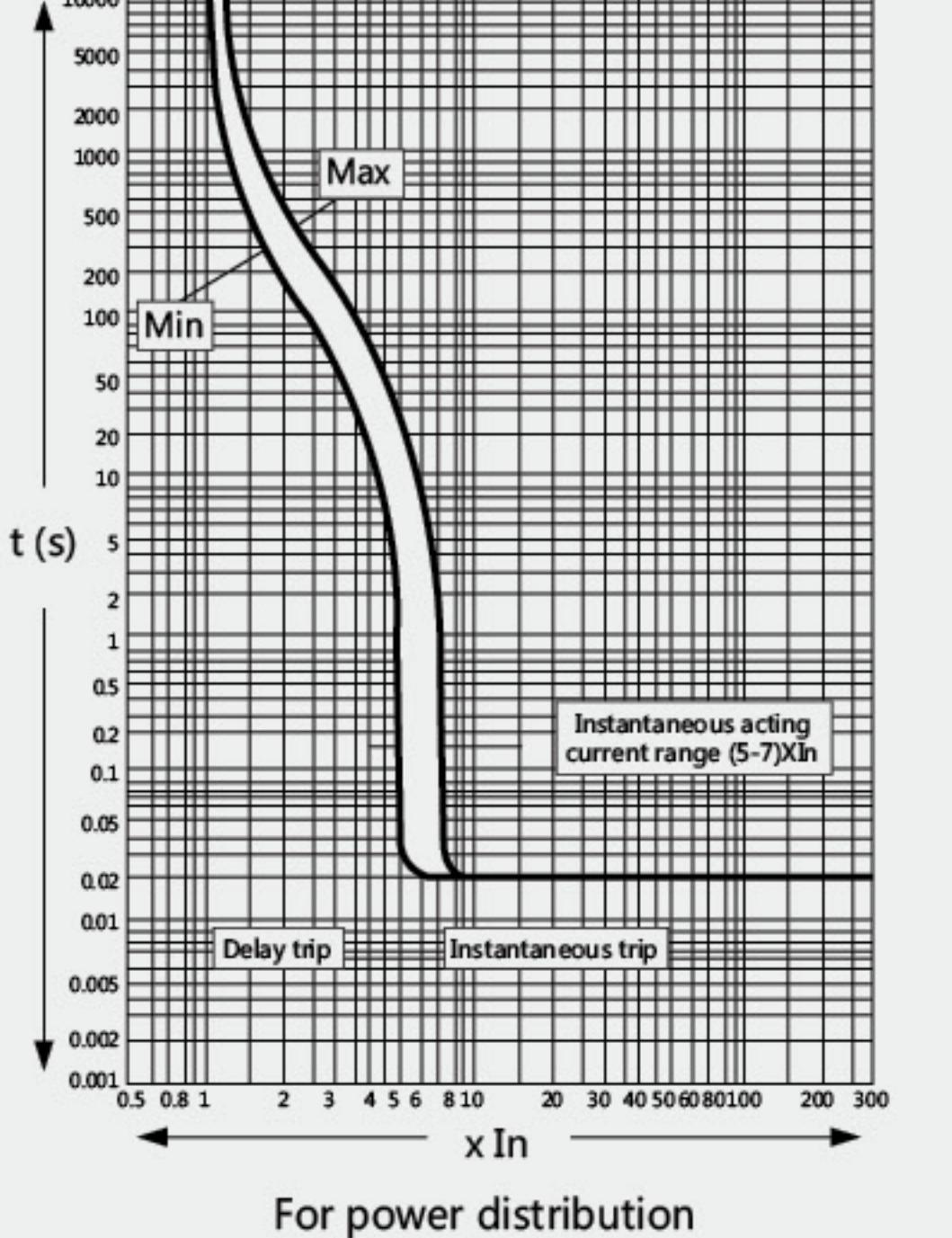
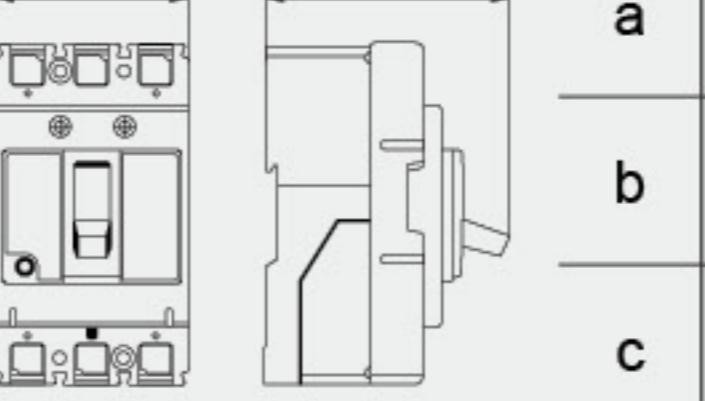
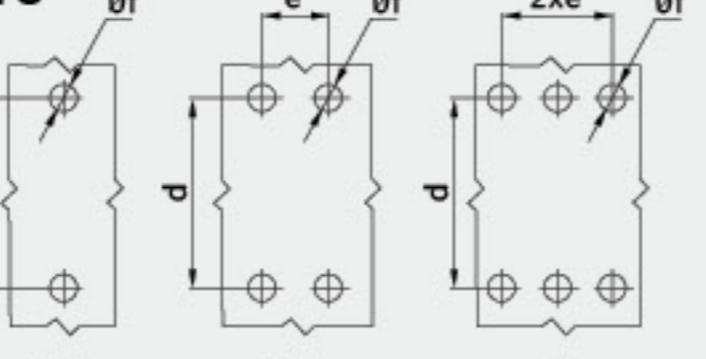


Frame(A)	SM30-630(800)(NF-CW)			Operating characteristics
Rated current In(A)	500、600、630、700、800			
Rated voltage(V)	AC 400V			
Rated insulation voltage(V)	AC 690V			
Number of poles	3			
Limited breaking capacity	C	S	H	
Short circuit interrupting capacity(kA) AC400V	36	50	70	
Operate short circuit(kA) AC400V	18	25	35	
Profile picture		a	275	
		b	210	
		c	150	
Mounting picture		d	243	
		e	70	
		f	8	
Machine life	4000			
Electrical life	1500			
Electrical-operation device(MD)				
External rotary handle				
Automatic tripping device	Thermal-magnetic			

 Said the attachment

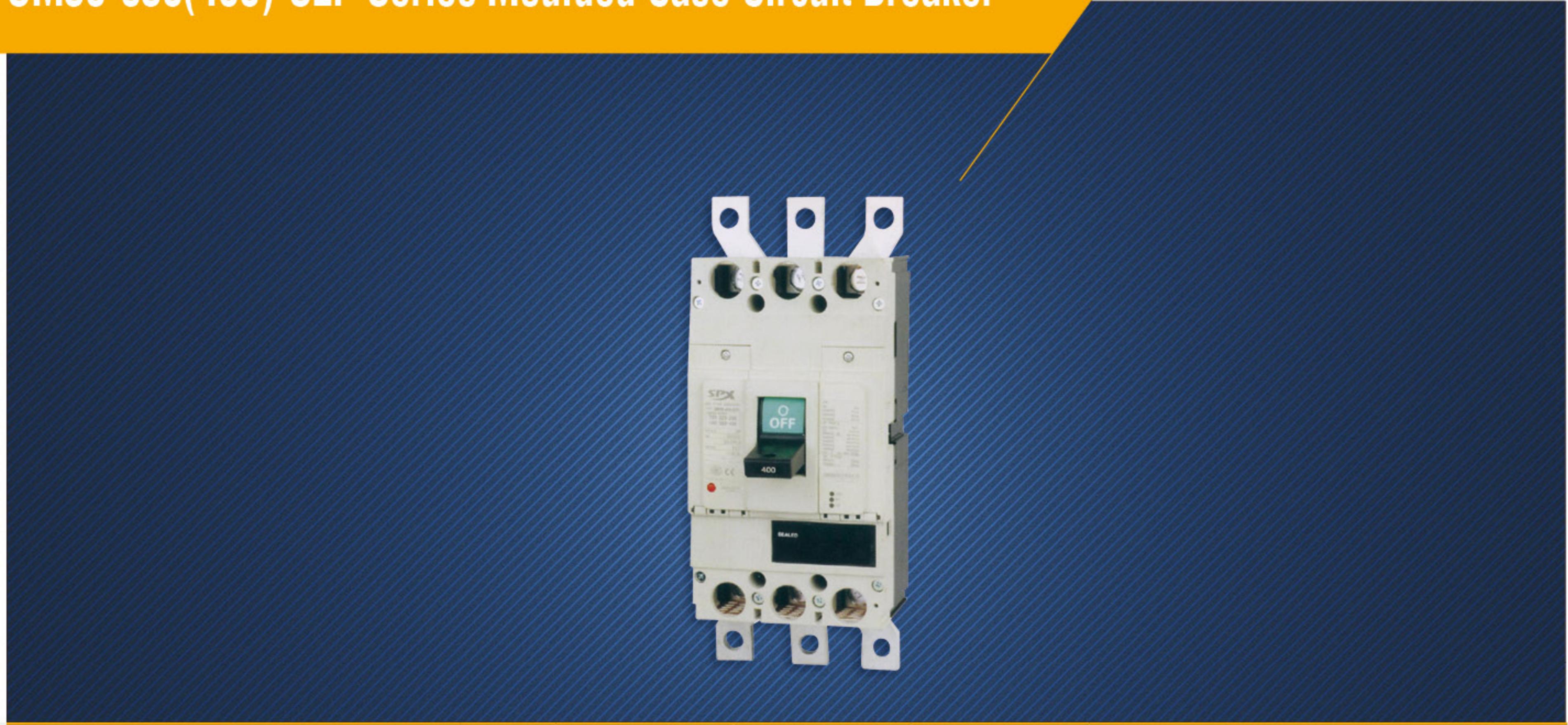
## SM30-1600 Series Molded Case Circuit Breaker

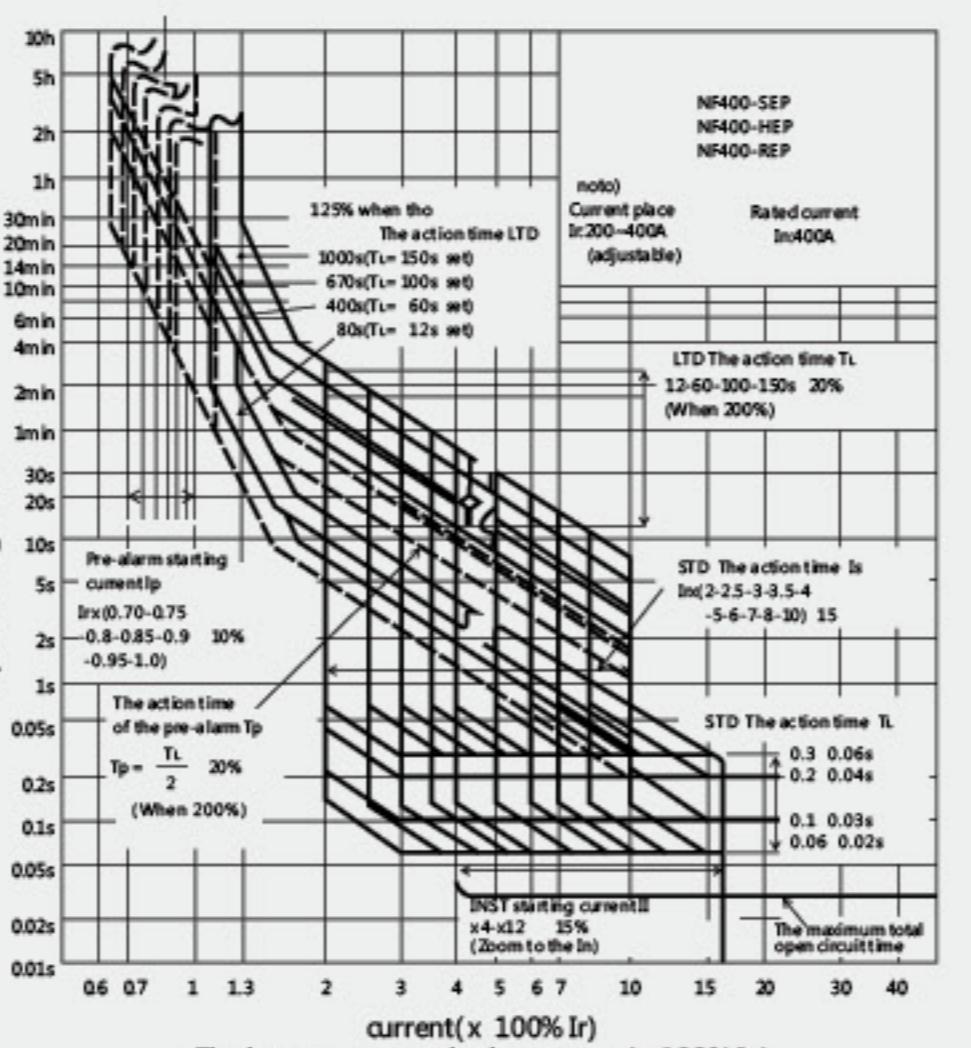


Frame(A)	SM30-1600(NF-CW)			Operating characteristics
Rated current In(A)	1000、1250、1600			
Rated voltage(V)	AC 400V			
Rated insulation voltage(V)	AC 690V			
Number of poles	3			
Limited breaking capacity	S			
Short circuit interrupting capacity(kA) AC400V	80			
Operate short circuit(kA) AC400V	40			
Profile picture		a	405	
		b	210	
		c	190	
Mounting picture		d	275	
		e	70	
		f	10	
Machine life	2500			
Electrical life	500			
Electrical-operation device(MD)				
External rotary handle				
Automatic tripping device	Thermal-magnetic			

 Said the attachment

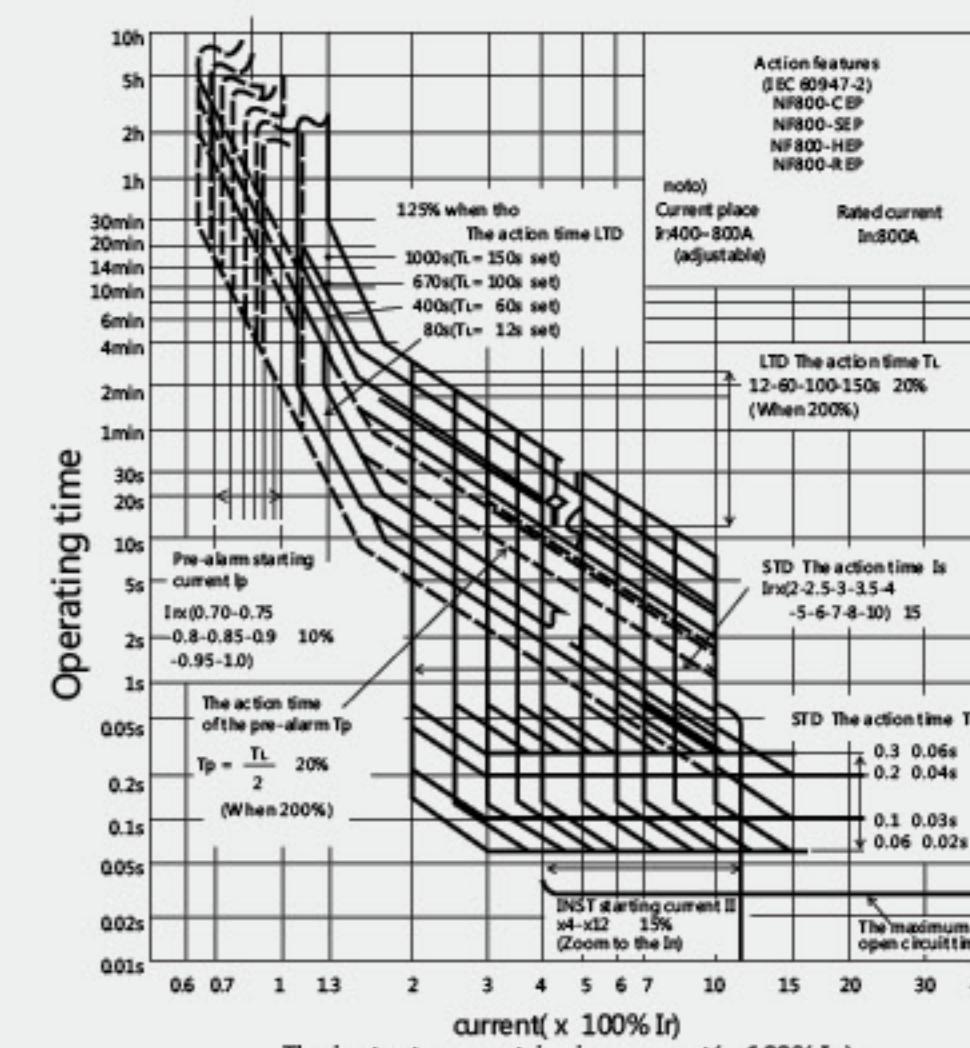
## SM30-630(400)-SEP Series Molded Case Circuit Breaker



Frame(A)			SM30-630-SEP	SM30-630-HEP	SM30-630-REP	Operating characteristics									
Rated current In(A)			200~630 adjustable												
Number of poles			3												
Rated insulation voltage U1(V)		AC	690	690	690										
Rated breaking capacity (KA)	IEC 60947-2 (Icu/lcs)	AC	690V	10/10	10/10	15/10									
			500V	30/30	50/50	70/35									
			440V	42/42	65/65	125/63									
			400V	45/45	70/70	125/63									
			230V	85/85	100/100	150/75									
		DC	250V	-	-	-									
Profile picture			a	258											
			b	140											
			c	153											
Mounting picture			d	195											
			e	45											
			f	8											
Machine life			4000												
Electrical life			1500												
Electrical-operation device(MD)															
External rotary handle															
Automatic tripping device			Thermal-magnetic												

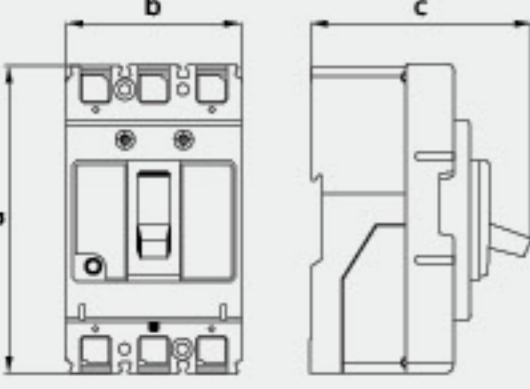
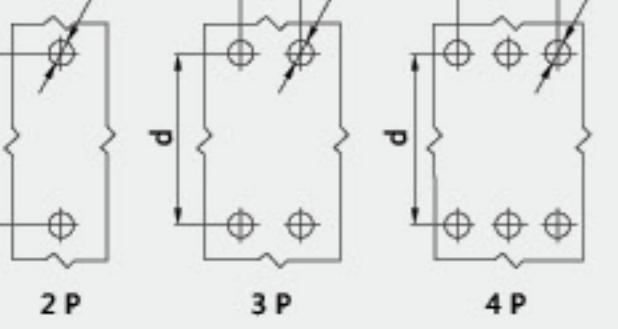
## SM30-800-SEP Series Molded Case Circuit Breaker



Frame(A)			SM30-800-CEP	SM30-800-SEP	SM30-800-HEP	SM30-800-REP	Operating characteristics								
Rated current In(A)			400~800 adjustable												
Number of poles			3												
Rated insulation voltage U1(V)		AC	600	690	690	690									
Rated breaking capacity (KA)	IEC 60947-2 (Icu/lcs)	AC	690V	-	10/10	15/15	20/15								
			500V	18/9	30/30	50/50	70/35								
			440V	36/18	42/42	65/65	125/63								
			400V	36/18	45/45	70/70	125/63								
			230V	50/25	85/85	100/100	150/75								
		DC	250V	-	-	-	-								
Profile picture			a	275											
			b	210											
			c	150											
Mounting picture			d	243											
			e	70											
			f	8											
Machine life			4000												
Electrical life			1500												
Electrical-operation device(MD)															
External rotary handle															
Automatic tripping device			Thermal-magnetic												

## SM30-1000-SS Series Molded Case Circuit Breaker



Frame(A)			SM300-1000-SS	SM300-1250-SS	Operating characteristics			
Rated current In(A)			500,600,700,850, 900,1000 adjustable	600,700,800,1000, 1200,1250 adjustable				
Number of poles			3					
Rated insulation voltage U1(V)			AC 690	690				
Rated breaking capacity (KA)	IEC 60947-2 (lcu/lcs)	AC	690V	25/13	25/13			
			500V	65/33	65/33			
			440V	85/43	85/43			
			400V	85/43	85/43			
			230V	125/63	125/63			
			DC 250V	-	-			
Profile picture			a	405				
			b	210				
			c	190				
Mounting picture			d	275				
			e	70				
			f	10				
Machine life				2500				
Electrical life				500				
Electrical-operation device(MD)								
External rotary handle								
Automatic tripping device				Thermal-magnetic				

● Said the attachment

## SM50 Series Molded Case Circuit Breaker



Frame(A)	SM50-63(NF-CV)	SM50-125(NF-CV)	SM50-250(NF-CV)
Rated current In(A)	3, 6, 10, 16, 20, 25, 32, 40, 50, 63	10, 16, 20, 32, 40, 50, 63, 80, 100, 125	100, 125, 140, 150, 160, 175, 200, 225, 250
Rated voltage(V)	AC 400V	AC 400V	AC 400V
Rated insulation voltage(V)	AC 500V	AC 690V	AC 690V
Number of poles	3	2	3
Limited breaking capacity	C S H C S H C S H C S H C S H		
Short circuit interrupting capacity(kA) AC400V	5 6 12 18 30 50 18 30 50 18 30 50 18 30 50 18 30 50		
Operate short circuit(kA) AC400V	2 3 6 10 15 25 10 15 25 10 15 25 9 15 25 9 15 25		
Profile picture	a 130 b 75 c 89	130 130 130 165	165
Mounting picture	d 111 e 25 f 4.5	110 110 110 126	126
Machine life		7000 7000	4000
Electrical life		3000 3000	2000
Electrical-operation device(MD)		●	●
External rotary handle		●	●
Automatic tripping device	Hydraulic-magnetic	Thermal-magnetic	Thermal-magnetic

## SM1-225 Series Molded Case Circuit Breaker

### SERVICE RANGE

SM1-225 moulded case circuit breaker(MCCB) is one of most advanced type breakers in the world, which adopt international advanced design and manufacture technology. They are suitable for short circuit and overloada protection for circuit of AC690V,50HZ,rated current to 1600A, its rated insulation voltage is 690V. It takes protect effect when mouse cage motors non-frequent start ,breaking off working and protecting and protecting over load, short circuit and lacking voltage.

MCCB according to the rated short circuit interrupting capacity(ICU) can divide into three types(C standard) (S). (H).

### MODEL AND ITS MEANING

S M 1 -225 L Z / 3 300 -225 2 H 1

- If mounting connection board(no mounting no code,if mounting with 1)
- Mounting type(in front of board no code,behind of board with H,injection with C)
- Application code:no code for distribution type,"2"for motor protection type
- Rated current(for example3、6、10、16、20、25、32、40、50、60 ect.)
- Trip unit and code(see attachment)
- Number of poles(2P、3P、4P)
- Operation type(Directing handle operation no code,Automatic tripping device with D,rotary handle with Z.)
- Rated limited short circuit breaking capacity (C:standard S:Relatively high marks broken type H:High marks broken type)
- Rated current of frame
- Design Number
- Moulded case circuit breaker
- SPX electric appliance co.,ltd

### PERFORMANCE CHARACTERISTIC

#### Tripping characteristics

Rated current of release (A)	Thermodynamic release (ambient temp+40°C)		Operating current of magnetic release(A)	Note
	1.05In (cold state) operative time	1.30In (heat state) operative time		
63≤In≤225	≥2h	<2h	10In±20%	

#### Protecting note characteristics

Rated current of release (A)	Thermodynamic release (ambient temp+40°C)				Operating current of magnetic release(A)	Note
	1.01In (cold state) operative time	1.2In (heat state) operative time	1.5In (cold state) operative time	7.2In (heat state) operative time		
63≤In≤225	≥2h	<2h	8min	6s≤Tp≤20s	12In±20%	

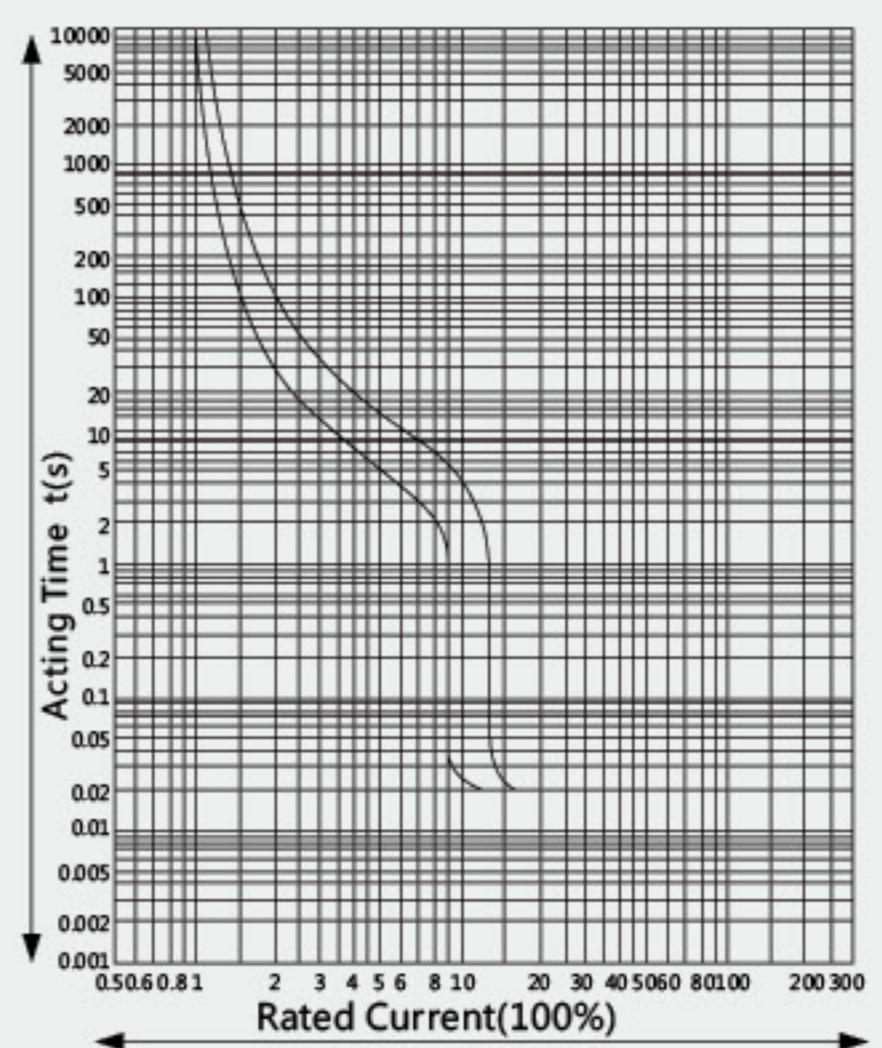
### NORMAL WORKING SURROUNDINGS

- Mounting height no more than 2000m.
- The largest mounting slope no more than 22° .
- The surrounding temperature no more than +40°C, and no lower than -5°C, and the average temperature no more than +35°C.
- The air humidity no more than 50% when the air temp+40°C, but in low temp allow a little higher humidity(for example +20°C the humidity arrives at 90%, make sure to have appropriate step when the temp changes.)
- In the medium where no explosion danger, besides the medium can not corrode the metal and damage the insulating gas, and no conductive dust.
- The place no rain and snow corrosion.

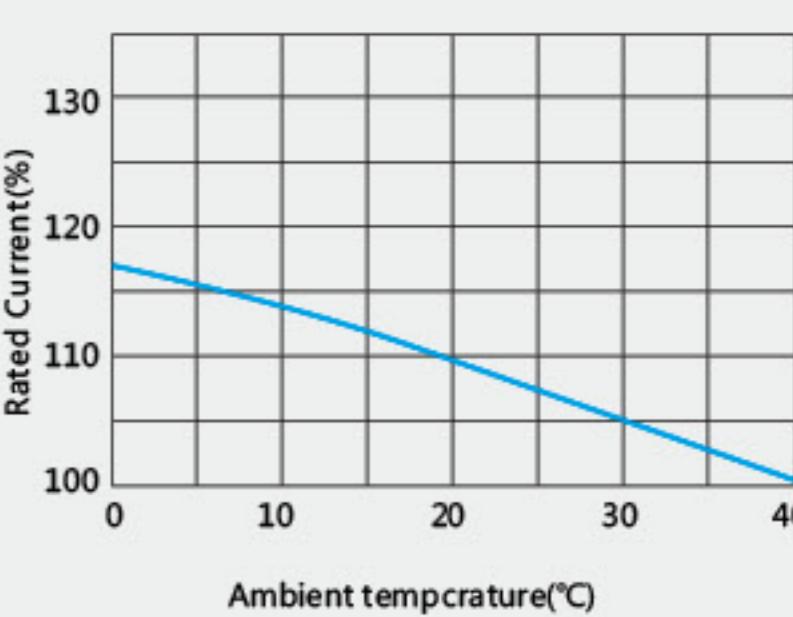
## SM1-225 Series Molded Case Circuit Breaker



Frame(A)	225						Operating characteristics
Number of poles	1		3				
Rated current In(A)	63、90 120、160		100、125、140、160、 180、200、225				
Rated voltage(V)		AC 400V					
Rated insulation voltage(V)		AC 690V					
Limited breaking capacity	L	M	H	L	M	H	
Short circuit interrupting capacity(kA) AC400V	35	50	80	35	50	80	
Operate short circuit(kA) AC400V	22	35	40	22	35	40	
3P Profile picture	a	151					
	b	44					
	c	110					
1P Profile picture	d	136					
	e	30					
	f	5					
Machine life		6500					
Electrical life		2500					
Electrical-operation device(MD)							● Said the attachment
External rotary handle							●
Automatic tripping device		Hydraulic-magnetic					



Current-Temperature Characteristic



Ambient temperature(°C)

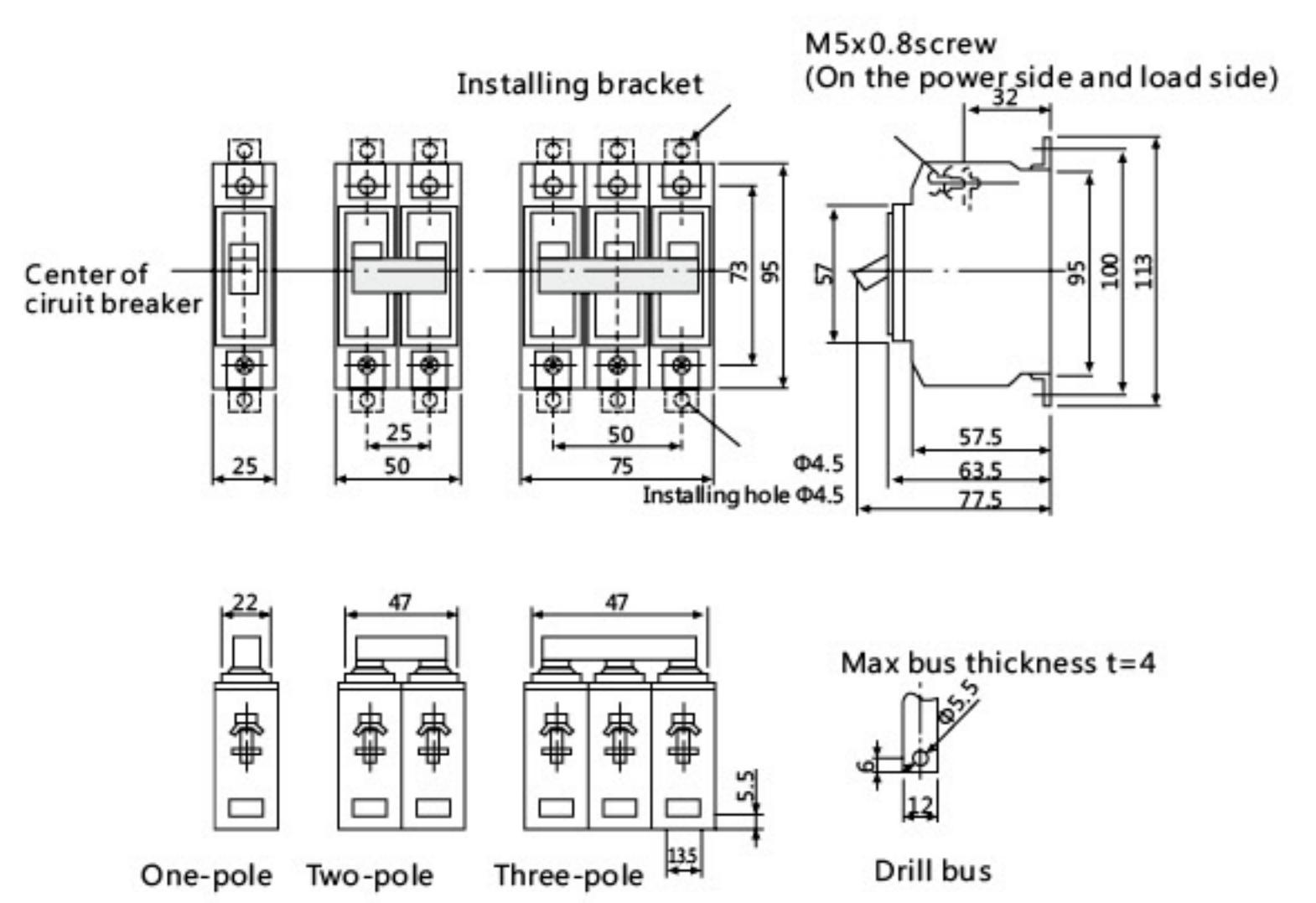
## SM6 Series Miniature Circuit Breaker



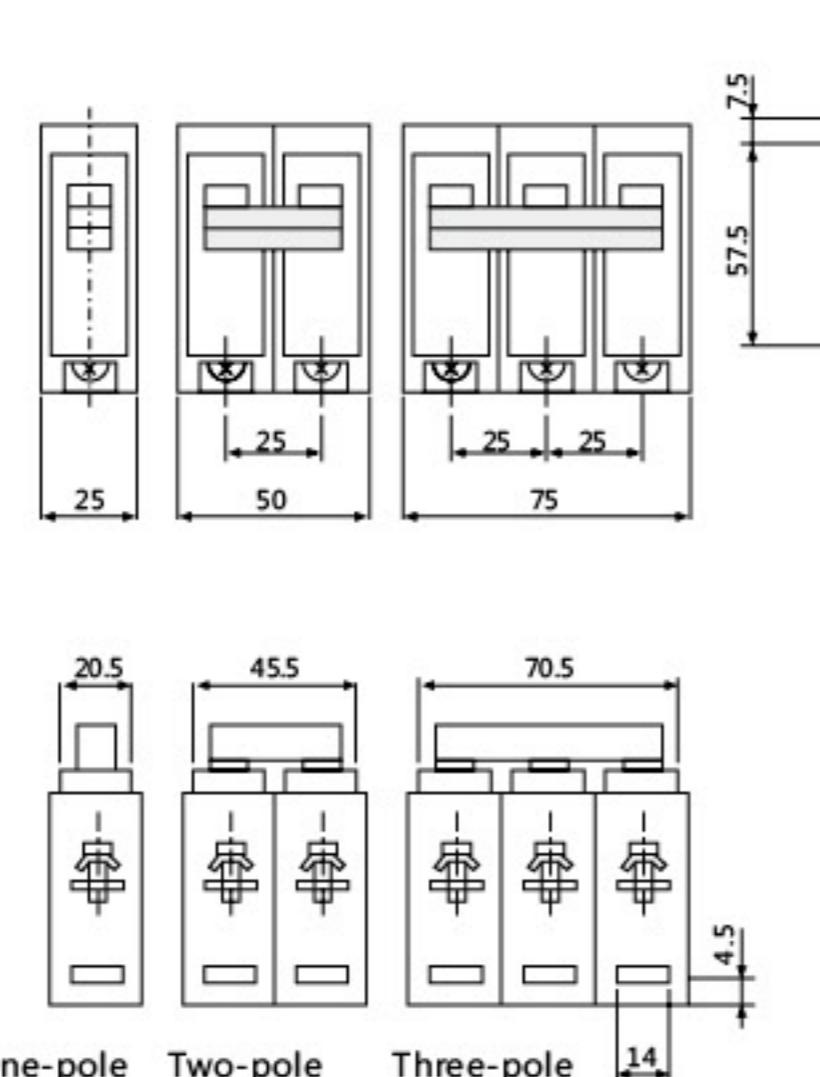
Type	SM6			Operating characteristics
No of poles	1	2	3	
Rated current In(A) At environment temperature	70	70, 100	70, 100	
Rated voltage Ue(V)	AC	230/400		
	DC	125		
Operating short-circuit breaking capacity Ics(kA)	AC230	4.5	—	Operating time graph showing Action features Model: SM6-K Rated temperature: 70,100 & Ambient temperature: 40 °C
	AC400V	—	3	Exterior size diagram showing Ratio current In(A) vs Environment temperature(°C) for 70.300A rating.
	DC125V	6	—	

### EXTERIOR SIZE DIAGRAM

SM6-K



SM6-K



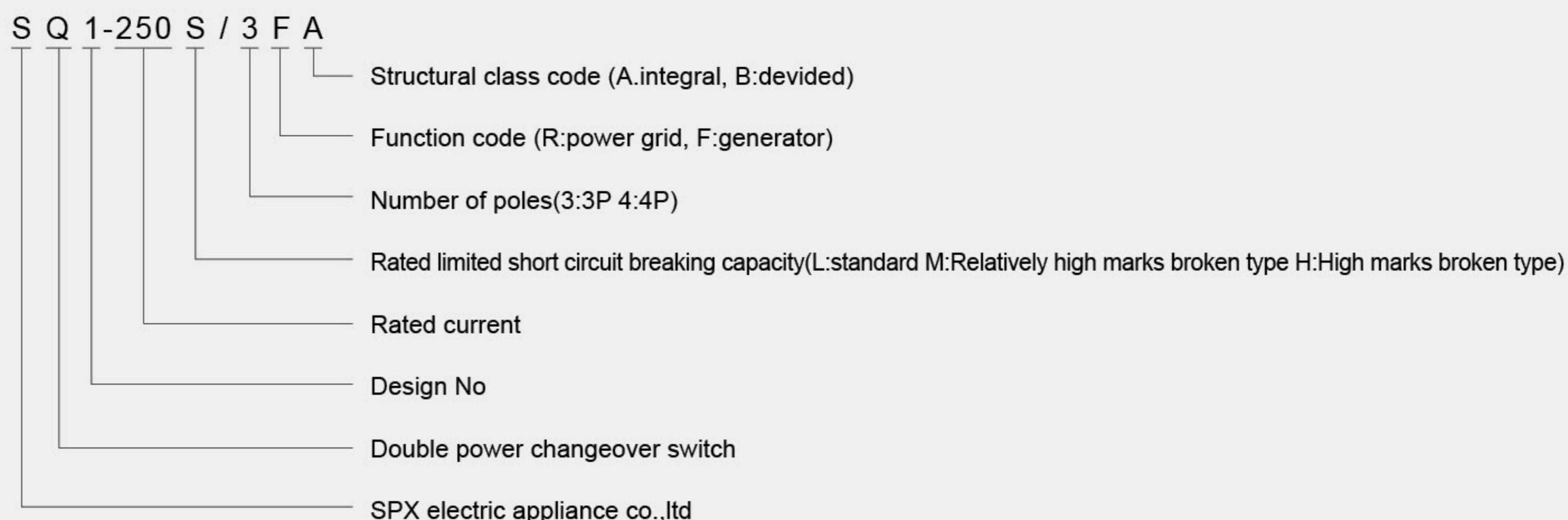
## SQ1-250 Series Power Changeover Switch

### SERVICE RANGE

SQ1-250 double power changeover switch is consist of 2pcs MCCB SM30-250 which developed by our company and double power changeover switch controller. They are suitable for AC50HZ, rated voltage 400V, rated current 100A-250A double power supply system, It operated by automatic or manual operation to change the power of normal power supply and back-up power.

The double power changeover switch main use in high-rise buildings, hospital, market, bank, fire control, chemical engineering, military affairs etc. place.

### MODEL AND ITS MEANING



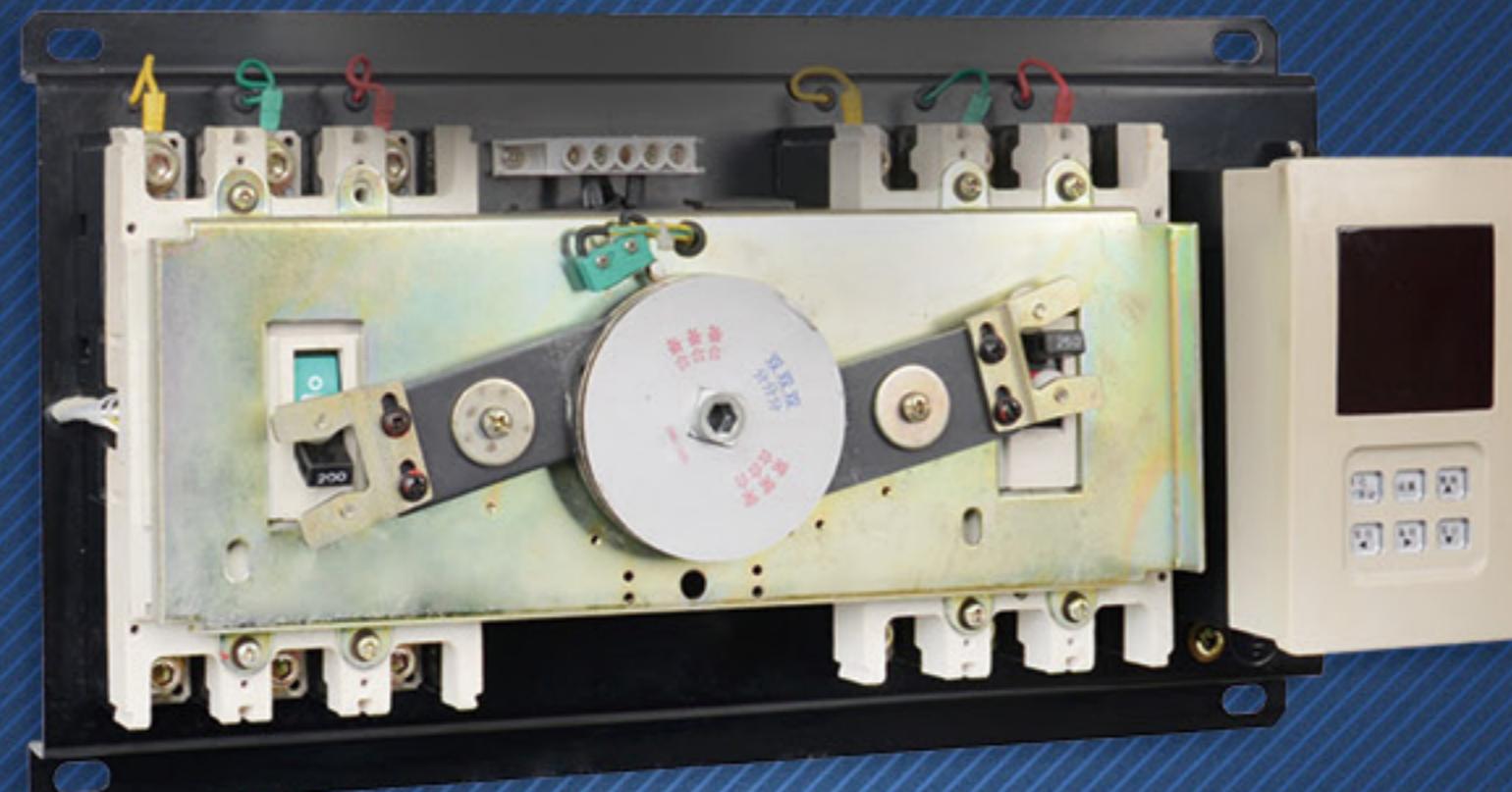
### NORMAL WORKING SURROUNDINGS

- Double protect function of machine and electric interlock, to prevent 2pcs MCCB closed at the same time
- 6 control ways :manual control, automatic recovery, common power supply, back-up power supply, power off trip again
- It has the function of under voltage protection, over voltage protection, lost-phase protection, to prevent trouble power supply to load power.
- When have trouble in power, circuit breaker tripping etc., it has warning function.
- It has the function of preventing MCCB double closing: after load side short circuit, overload, circuit breaker close automatic, it can't close by itself.
- Can adjust parameter value (like under voltage value, overvoltage value, delay switching value.)
- It has the fire control console, when in emergency, connect the controller, it will close the power.

### NOTICE

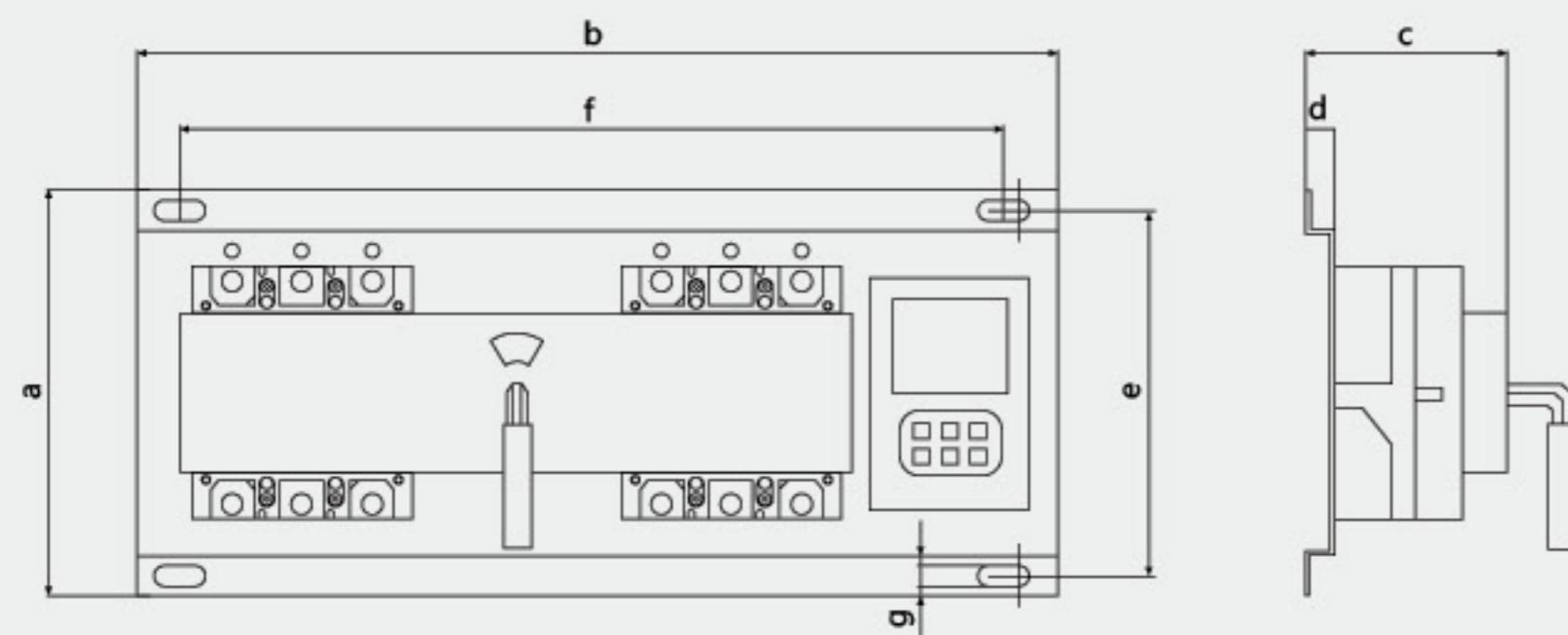
- Common power supply and back-up supply's phase must be concord. The phase N of common power and back-up power can't connect wrong, or it will make the controller broken.
- Load is abnormal, the circuit breaker tripped for overload or short circuit, please check to find the reason, then use again.
- When work by automatic operation, please don't operate by hand.

# SQ1-250 Series Power Changeover Switch



The execution MCCB	SQ1-250
Rated current	100、125、140、150、160、175、180、200、225、250
Rated voltage	400V
Rated insulation voltage	690V
Electrical grade	CB level (the main loop contact of circuit breaker can break short-circuit current, with overcurrent release)
Use classes	AC-33B (electric load, resistive load and mixed load below 30%)
Undervoltage protection setting range	Phase voltage adjustable from 150 to 180, differential 1V, factory set value is 150V
Oversupply protection setting range	Phase voltage adjustable from 240 to 280, differential 1V, factory set value is 280V
Changing-over delay time	0 to 30s adjustable, 0.5s differential, factory set to 5s
Voltage accuracy	1.0 Class
Cycle operation number (power off)	4500
Cycle operation number (power on)	1000

## DIMENSION AND MOUNTING



Profile size				Mounting size		
a	b	c	d	e	f	g
214	470	120	25	220	435	9

## NORMAL WORKING SURROUNDINGS

- Mounting height no more than 2000m.
- The surrounding temperature no more than +40°C , and no lower than -5°C , and the average temperature no more than +35°C .
- The air humidity no more than 50% when the air temp+40°C , but in low temp allow a little higher humidity(for example +20°C the humidity arrives at 90%, make sure to have appropriate step when the temp changes).
- Mounting in dry conditions of no conductive dust, no corrosion, nonflammable, avoid rain and water, the switch can't be shocked and vibration, the largest mounting slope no more than 5° .The foreign field of the double power changeover switch's place, it can't over earth magnetic field 5 times in any direction.