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SPX ELECTRIC APPLIANCE

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ZHEJIANG SPX ELECTRIC APPLIANCE CO.,LTD.



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.



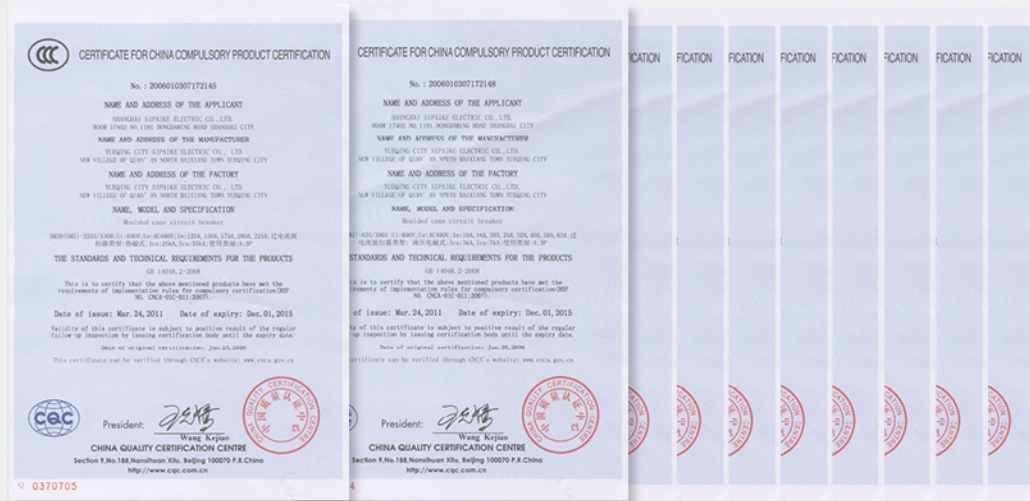
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COMPANY PROFILE

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.





AC CONTACTOR THERMAL RELAYS

S-M series AC contactor

01

S-C series AC contactor

03

SUT series auxiliary contact module

05



STH-T series thermal relays

06

STH-N series thermal relays

07

S3-T series magnetic starter

08



MOULDED CASE CIRCUIT BREAKER

SM30 (Parameter)

10

SM30-30 series moulded case circuit breaker

12

SM30-63 series moulded case circuit breaker

13

SM30-125 series moulded case circuit breaker

14

SM30-250 series moulded case circuit breaker

15

SM30-400 series moulded case circuit breaker

16

SM30-630(800) series moulded case circuit breaker

17

SM30-1600 series moulded case circuit breaker

18

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

19

SM30-800-SEP series moulded case circuit breaker

20

SM30-1000-SS series moulded case circuit breaker

21

SM50 series moulded case circuit breaker

22

SM1-225 series moulded case circuit breaker

23



MINIATURE CIRCUIT BREAKER

SM6 series miniature circuit breaker

25

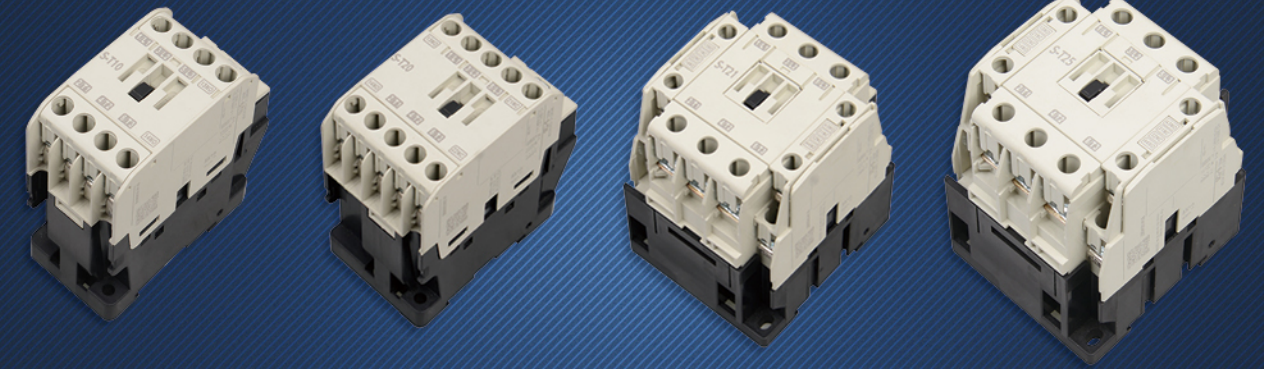
SQ1-250 series power changeover switch

26



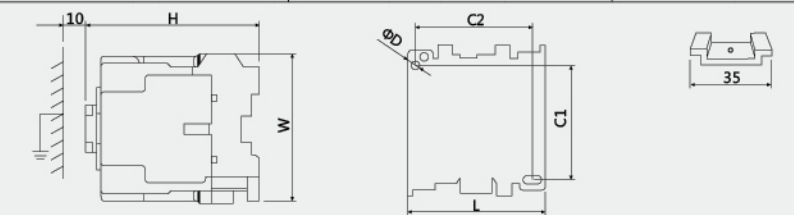
PRODUCT CATALOG

S-M series AC contactor



Frame(A)			S-M10(S-T10)	S-M12(S-T12)	S-M20(S-T20)	S-M21(S-T21)	S-M25(S-T25)
KW/HP(AC-3) Reted power(AC-3) IEC60947-4		220V	2.5/3.5	3.5/4.5	3.7	4	7.5/10
		380V	4/5.5	5.5/7.5	7.5	7.5	15/20
Reted current(AC-3) GB14048.4		220V	11	13	18	20	30
		380V	9	12	18	20	34
Reted heating current(A)			20		32		50
Reted insutaled voltage(V)			660				
Auxicary contact AC-15	Contact	Standard	1NO	1NO+1NC	1NO+1NC	2NO+2NC	
	Reted current (A)	220V	1.6				
		380V	0.95				
Electric life			100				80
Machanical life			1000		500		500

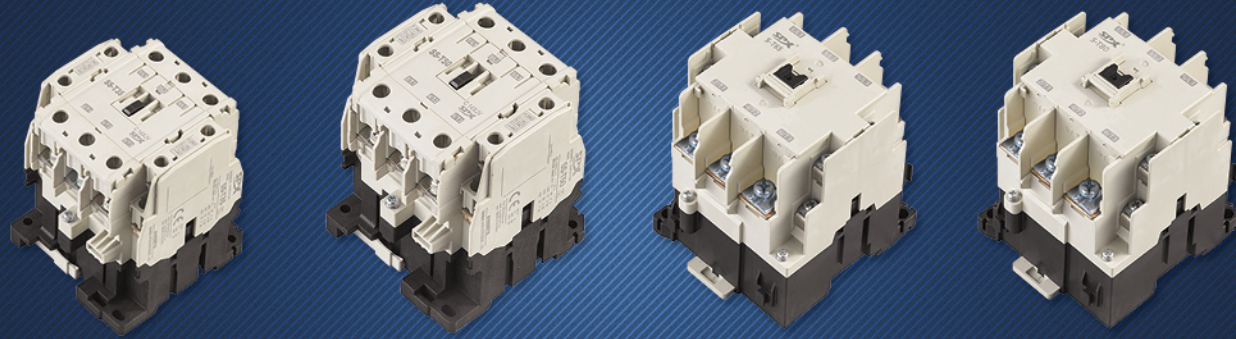
Outline and installation dimension



Type	L	W	H	C1	C2	ΦD
S-T10	36	75	78	60	28	4.2
S-T12	44	75	78	60	30/35	4.2
S-T20						
S-T21	63	81	81	58	54	4.5
S-T25						

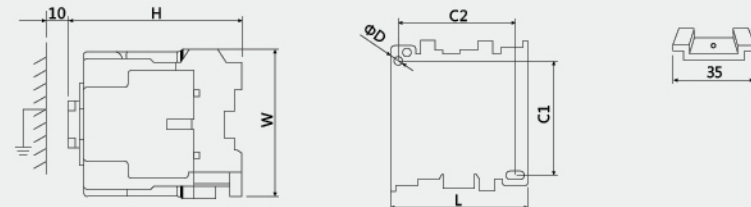
● Said the attachment

S-M series AC contactor



Frame(A)			S-M35(S-T35)	S-M50(S-T50)	S-M65(S-T65)	S-M80(S-T80)
KW/HP(AC-3) Reted power(AC-3) IEC60947-4		220V	11/15	15/18.5	18.5/22	22/30
		380V	18.5/22	22/30	30/45	45/55
Reted current(AC-3) GB14048.4		220V	42	54	68	85
		380V	40	50	65	85
Reted heating current(A)			60	80	100	120
Reted 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		
Machanical life			500	300		

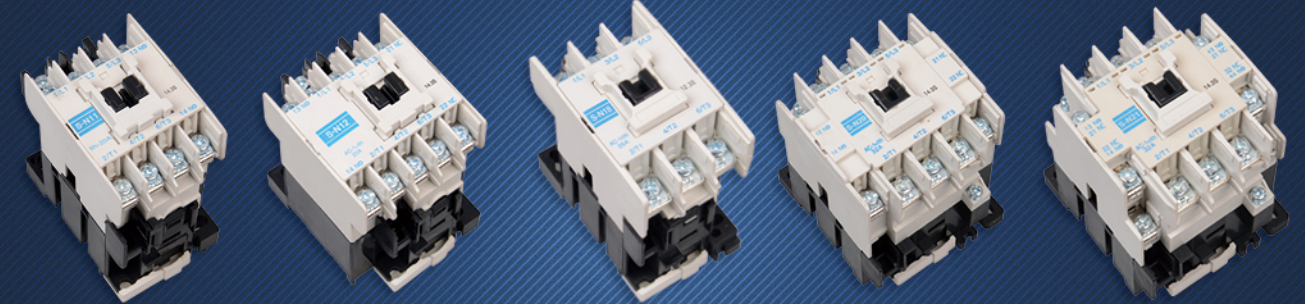
Outline and installation dimension



Type	L	W	H	C1	C2	ΦD
S-M35	75	89	90	70	65	4.5
S-M50						
S-M65	88	103	105	75	70	5.5
S-M80						

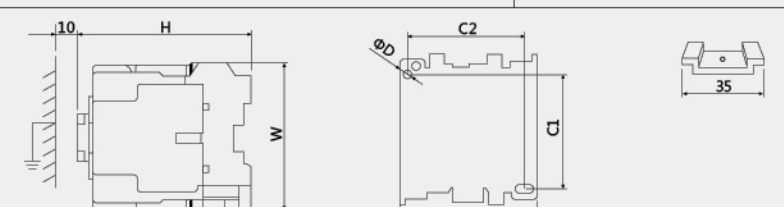
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S-C series AC contactor



Frame(A)			S-C10		S-C12	S-C20	S-C21	
			(S-N10)	(S-N11)	(S-N12)	(S-N18)	(S-N20)	(S-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	5.5/7.5
		380V	4/5.5	5.5/7.5	5.5/7.5	7.5/10	11/15	11/15
Reted current(AC-3) GB14048.4		220V	11	13	13	16	22	22
		380V	9	12	12	16	22	22
Reted heating current(A)			20			25	32	
Reted insutaled voltage(V)			660					
Auxicary contact AC-15	Contact	Standard	1NO		1NO+1NC	-	1NO+1NC	2NO+2NC
	Reted current (A)	220V	1.6					
		380V	0.95					
Electric life			100					
Machanical life			1000				500	

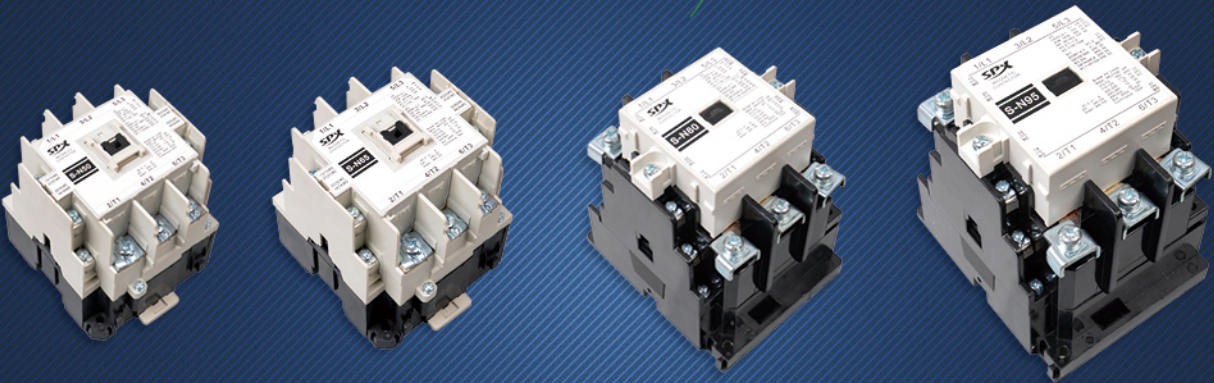
Outline and installation dimension

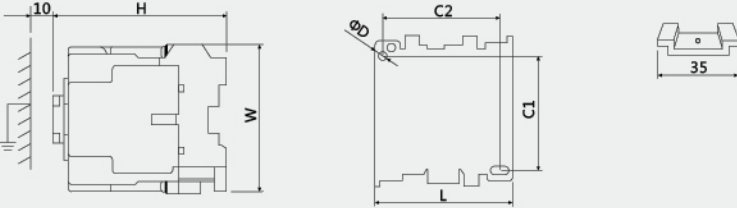


Type	L	W	H	C1	C2	ΦD
S-N10	43	78	78	50	35	4.5
S-N12	53	78	78	50	40	4.5
S-N18	43	79	81	60	30	4.5
S-N21	63	81	81	60	54	4.5

● Said the attachment

S-C series AC contactor



Frame(A)			S-C25(S-N25)	S-C35(S-N35)	S-C50(S-N50)	S-C65(S-N65)	S-C80(S-N80)	S-C95(S-N95)	
KW/HP(AC-3) Reted 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	
Reted current(AC-3) GB14048.4		220V	30	42	54	68	85	104	
		380V	34	44	51	66	85	105	
Reted heating current(A)			50	60	80	100	120	135	
Reted insauted voltage(V)			660						
Auxiary contact AC-15	Contact	Standard	2NO+2NC						
	Reted current (A)	220V	1.6						
		380V	0.95						
Electric life			80		60				
Machanical life			500		300				
Outline and installation dimension									
			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

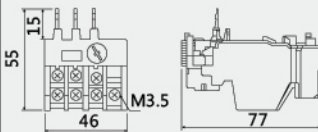
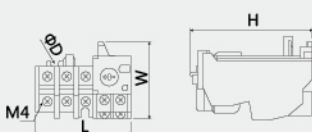
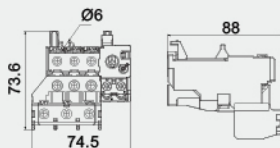
SUT Series Auxiliary contact module



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	(1a1b) Built-in double-contact,2-pole auxiliary contact
Applicable models	Electromagnetic contactor	S-M10~S-M50		
	Motor starter	MSO-T10KP~T25KP/MSOD-T12KP~T50KP		
	Electromagnetic relay	SR(D)-T5		
	Thermal overload relay			

STH-T series Thermal Relays

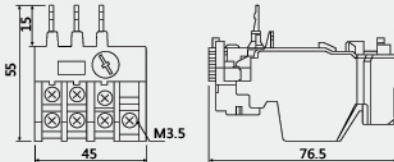
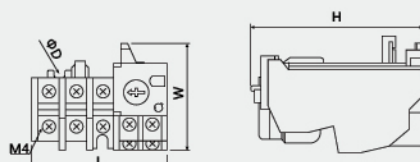


Frame(A)	STH-T18(TH-T18)		STH-T25(TH-T25)		STH-T50(TH-T50)	
Suitable AC contactor	S-M10/12		S-M20/25		S-M35/50	
Aux contact structure	Manual or Auto return					
Adjust range selcet(A)	Select(A)	Adjust range(A)	Select(A)	Adjust range(A)	Select(A)	Adjust range(A)
	0.24A	0.2~0.32	1.3A	1~1.6	29	24~34
	0.35A	0.28~0.42	1.7A	1.4~2.0	35	30~40
	0.5A	0.4~0.6	2.1A	1.7~2.5	42	34~50
	0.7A	0.55~0.85	2.5A	2~3		
	0.9A	0.7~1.1	3.6A	2.8~4.4		
	1.3A	1~1.6	5A	4~6		
	1.7A	1.4~2.0	6.6A	5.2~8		
	2.1A	1.7~2.5	9A	7~11		
	2.5A	2~3	11A	9~13		
	3.6A	2.8~4.4	15A	12~18		
	5A	4~6	19A	16~22		
	6.6A	5.2~8	22A	18~26		
	9A	7~11	29A	24~34		
	11A	9~13	35A	30~40		
Aux contact structure	1a1b(1NO+1NC)					
Outline and installation dimension						
	TH-T18		TH-T25		TH-T50	
	Type		L	W	H	ΦD
	TH-T25		63	51	81	4.5

● Said the attachment

STH-N Series Thermal Relaysmodule



Frame(A)	STH-N18(TH-N18)		STH-N25(TH-N25)		STH-N50(TH-N50)	
Suitable AC contactor	S-C10/12		S-C21/25		S-C50/95	
Aux contact structure	Manual or Auto return					
Adjust range selcet(A)	Select(A)	Adjust range(A)	Select(A)	Adjust range(A)	Select(A)	Adjust range(A)
	0.24A	0.2~0.32	1.3A	1~1.6	15A	12~18
	0.35A	0.28~0.42	1.7A	1.4~2.0	19A	16~22
	0.5A	0.4~0.6	2.1A	1.7~2.5	22A	18~26
	0.7A	0.55~0.85	2.5A	2~3	29A	24~34
	0.9A	0.7~1.1	3.6A	2.8~4.4	35A	30~40
	1.3A	1~1.6	5A	4~6	42A	34~50
	1.7A	1.4~2.0	6.6A	5.2~8	54A	43~65
	2.1A	1.7~2.5	9A	7~11	67A	54~80
	2.5A	2~3	11A	9~13	82A	65~93
	3.6A	2.8~4.4	15A	12~18	95A	85~105
	5A	4~6	19A	16~22		
	6.6A	5.2~8	22A	18~26		
	9A	7~11	29A	24~34		
	11A	9~13	35A	30~40		
Aux contact structure	1a1b(1NO+1NC)					
Outline and installation dimension						
	TH-N12			TH-N20/N60		
	Type	L	W	H	ΦD	
	TH-N20	63	51	79	4.5	
	TH-N60	89	57	83.5	4.5	

● Said the attachment

S3-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 vibrations.
 - (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 minimum 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 there 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 the atmosphere including flammable gas.
- Magnetic coil
 - Set the control voltage within the range of rated coil voltage.
- Thermal overload relay(OLR)
 - (1) The position 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 maintenance check and the part exchange.

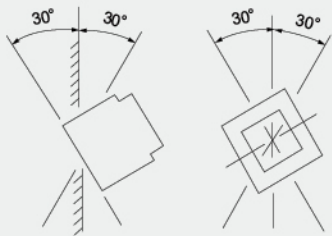


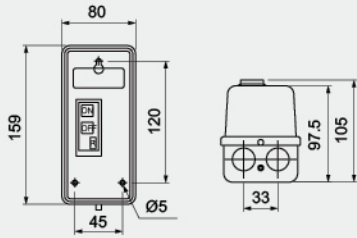
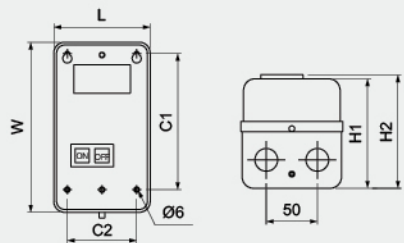
Fig.1



Fig.2

S3-T series Magnetic Starter



Type			S3-T10/12 (MS-T10/12)	S3-T20(MS-T20)	S3-T21 (MS-T21)	S3-T25 (MS-T25)	S3-T35 (MS-T35)		
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		
		380V	2.7/3.5	7.5/10	7.5/10	11/15	15/20		
Rated current Ie(A) (AC-3) GB14048.4		220V	11/13	20	20	26	35		
		380V	7/9	20	20	25	32		
Rated heating current Ith(A)			20	32		50	60		
Rated insutaed voltage Ui(V)			660						
Auxicary 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									
			S3-T10/12			S3-T20/21 S3-T25/35			
			Type	L	W	H1	H2	C1	C2
			S3-20/21	106	170	110	115	140	76
S3-25/35	136	225	127	130	165	95			

SM30 Series Moulded Case Circuit Breaker

SERVICE RANGE

SM30 series 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 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

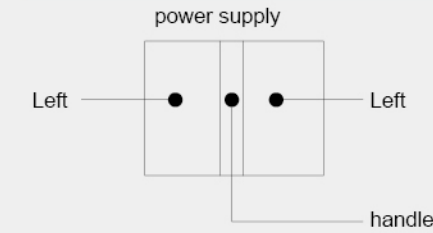
S M 30-63 C Z / 3 300-63 2 H 1

- 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
- Moulded case circuit breaker
- SPX electric appliance co.,ltd

NORMAL WORKING SURROUNDINGS

- Mounting height no mare 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



Type		SM30-125			SM30-250		SM30-400		SM30-(630-800)
Number of poles		2	3	4	3	4	3	4	3
Attachment code	Name of the attachment								
208、 308	AL	●			●		●		●
210、 310	SHT		□			□		□	
220、 320	AX	○			○		○		○
230、 330	UVT		■			■		■	
240、 340	SHT AX	○	□		○	□	○	□	○
260、 360	AX	○	○		○	○	○	○	○
270、 370	AX UVT	○	●		○	●	○	●	○
218、 318	SHT AL	○	■		○	■	○	■	○
228、 328	AX AL	■	○		■	○	■	○	■
238、 338	UVT AL	○	■		○	■	○	■	○
248、 348	SHT AX AL	●	■		●	■	●	■	●
268、 368	AX AL	○	○		○	○	○	○	○
278、 378	AX UVT AL	○	■		○	■	○	■	○
280、 380	AX SHT	○	□		○	□	○	□	○

Note:
200: only RM MCCB 300:only RT MCCB 000:isolating swith (int)
we can offer right AX, left SHT, left UVT.

PERFORMANCE CHARACTERISTIC

Tripping characteristics

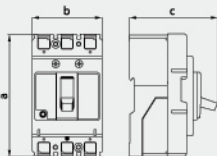
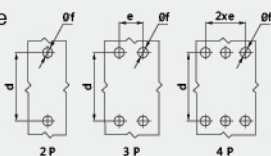
Rated current of release (A)	Thermodynamic release(ambient temp+40°C)		Operating current of magnetic release(A)	Note
	1.05In(cold state) operative time	1.30In(heat state) operative time		
In≤63	≥1h	<1h	10In±20%	
In>63	≥2h	<2h		

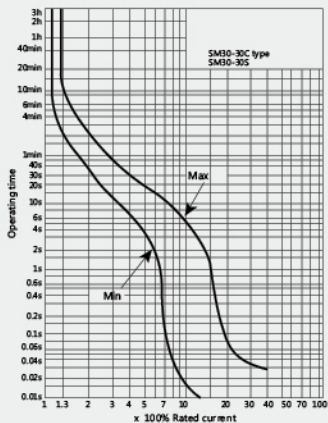
Protecting noter charactenristics

Rated current of release (A)	Thermodynamic release(ambient temp+40°C)		Operating current of magnetic release(A)	Note
	1.01In(cold state) operative time	1.20In(heat state) operative time		
In≤800	≥2h	<2h	12In±20%	

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	96	96	
			b	45	67	
			c	64	64	
Mounting picture			d	84.5	84.5	
			e	/	24	
			f	5	5	
Machine life	7000					
Electrical life	4000					
Electrical-operation device(MD)						
External rotary handle						
Automatic tripping device	Hydraulic-magnetic					



Operating time (s)

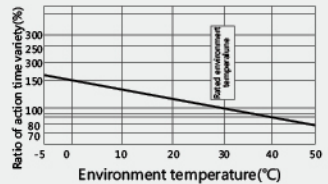
Max

Min

SM30-30C type
SM30-30S

x 100% Rated current

Temperature characteristics



Ratio of action time variability(%)

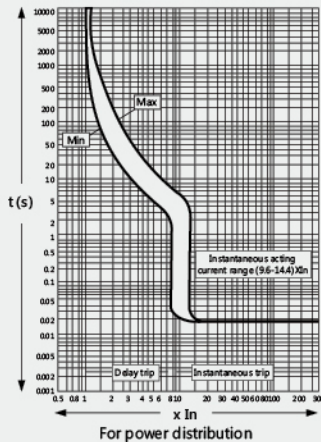
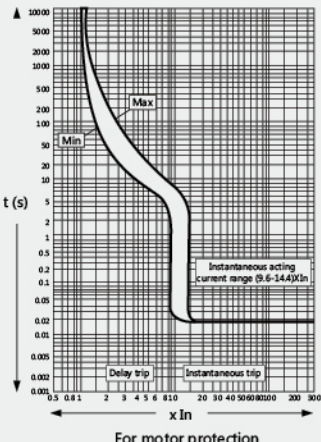
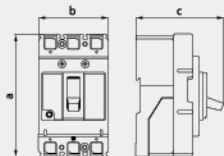
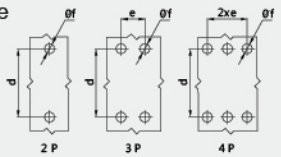
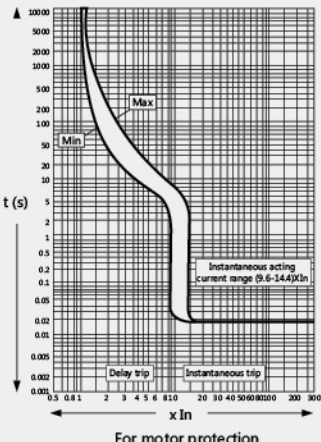
Environment temperature(°C)

Rated environment temperature

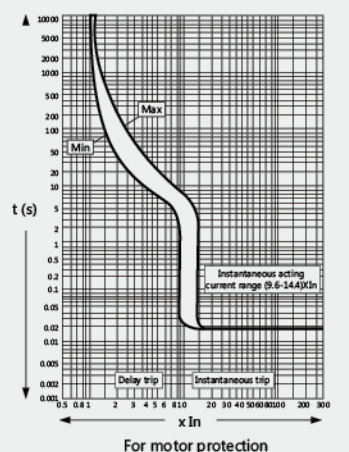
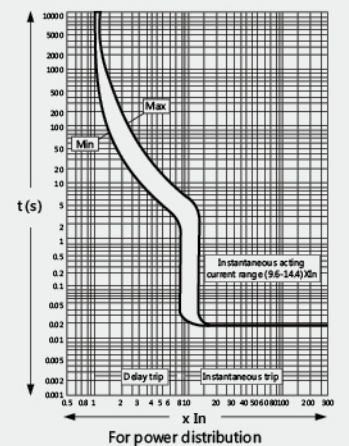
● Said the attachment

SM30-63 Series Moulded 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						 For power distribution
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	 For motor protection
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						 For motor protection
Electrical life	4000						
Electrical-operation device(MD)							
External rotary handle							
Automatic tripping device	Hydraulic-magnetic						

● Said the attachment



SM30-125 Series Moulded 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										
Mounting picture										
	a			b			c			
	d			e			f			
	g			h			i			
Machine life	7000									
Electrical life	3000									
Electrical-operation device(MD)	●									
External rotary handle	●									
Automatic tripping device	Thermal-magnetic									

● Said the attachment

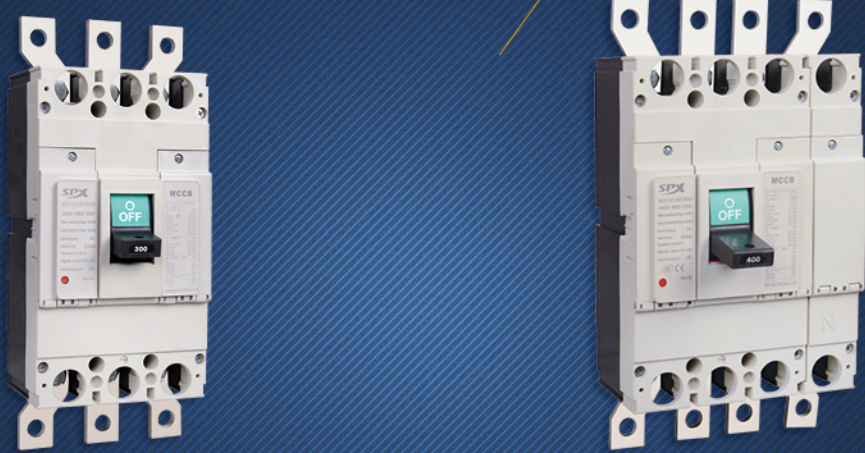
SM30-250 Series Moulded Case Circuit Breaker

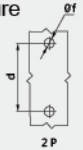
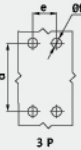
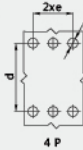


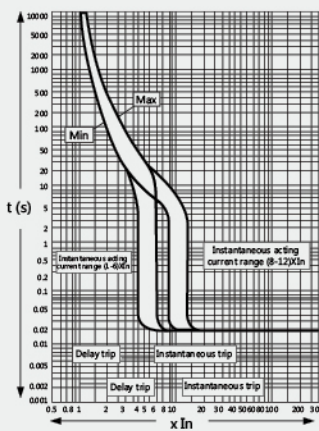
Frame(A)	SM30-250(NF-CW)						Operating characteristics
Rated current In(A)	100、125、140、150、 160、175、200、225、250						
Rated voltage(V)	AC 400V						
Rated insulation voltage(V)	AC 690V						
Number of poles	3			4			
Limited breaking capacity	C	S	H	C	S	H	
Short circuit interrupting capacity(kA) AC400V	18	30	50	18	30	50	
Operate short circuit(kA) AC400V	9	15	25	9	15	25	
Profile picture	 a165 b105 c90			 a165 b140 c90			
Mounting picture	 d126 e35 f5			 d126 e35 f5			
Machine life	4000						
Electrical life	2000						
Electrical-operation device(MD)	●						
External rotary handle	●						
Automatic tripping device	Thermal-magnetic						

● Said the attachment

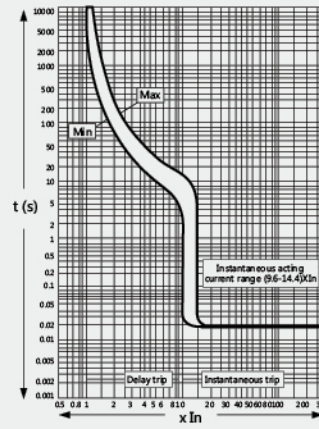
SM30-400 Series Moulded Case Circuit Breaker



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			a	258	258		
			b	140	185		
			c	153	153		
Mounting picture			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						



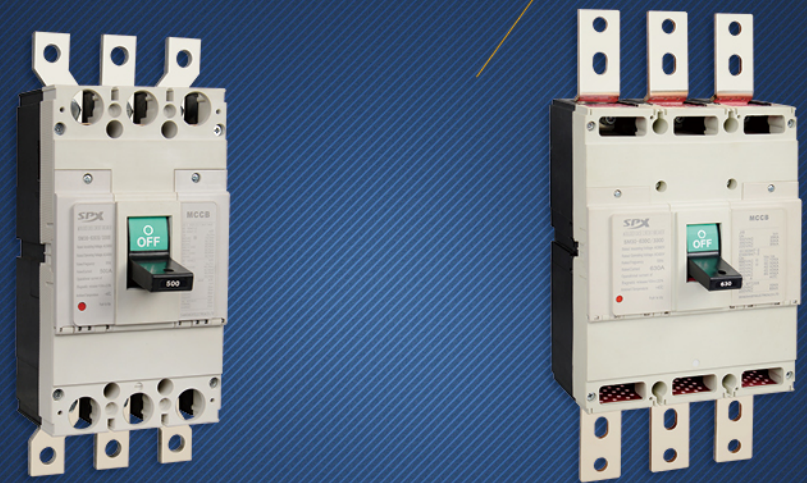
For power distribution

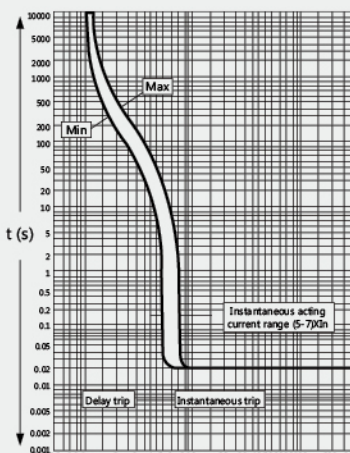
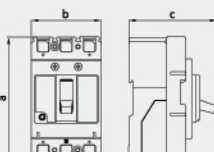
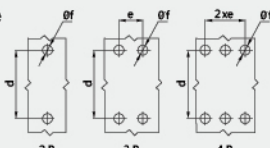


For motor protection

● Said the attachment

SM30-630(800) Series Moulded Case Circuit Breaker

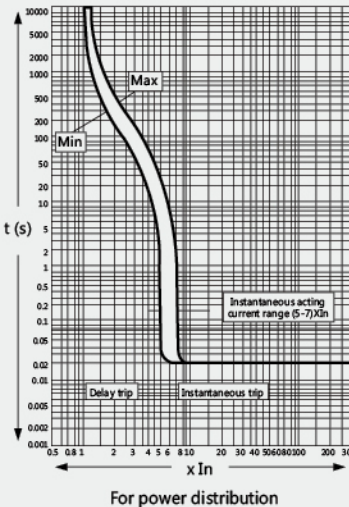
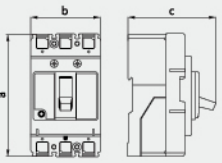
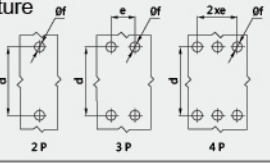


Frame(A)	SM30-630(800)(NF-CW)			Operating characteristics
Rated current In(A)	500、600、630、700、800			 For power distribution
Rated voltage(V)	AC 400V			
Rated insulation voltage(V)	AC 690V			
Number of poles	3			
Limited breaking capacity	C	S	H	
Short circuit interrupting capacity(kA) AC400V	36	50	70	
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 Moulded Case Circuit Breaker

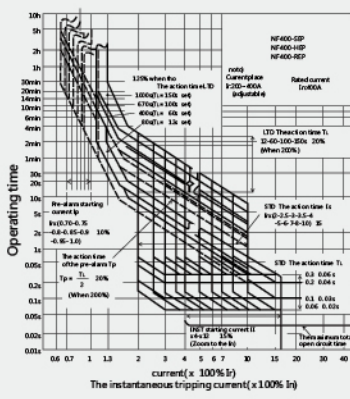
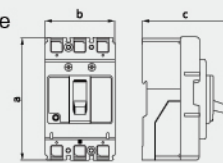
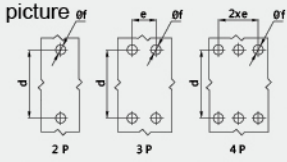


Frame(A)	SM30-1600(NF-CW)	Operating characteristics
Rated current In(A)	1000、1250、1600	 For power distribution
Rated voltage(V)	AC 400V	
Rated insulation voltage(V)	AC 690V	
Number of poles	3	
Limited breaking capacity	S	
Short circuit interrupting capacity(kA) AC400V	80	
Operate short circuit(kA) AC400V	40	
Profile picture		
Mounting picture		
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 Moulded Case Circuit Breaker

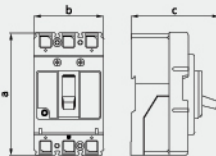
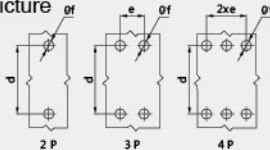


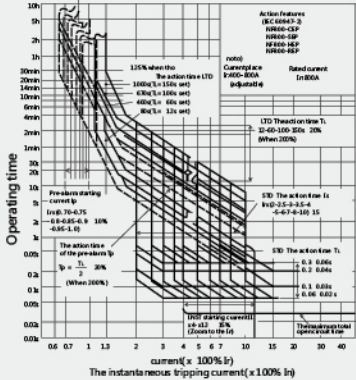
Frame(A)			SM30-630-SEP	SM30-630-HEP	SM30-630-REP	Operating characteristics	
Rated current In(A)			200~630 adjustable				
Number of poles			3				
Rated insulation voltage U1(V)		AC	690	690	690		
Rated breaking capacity (KA)	IEC 60947-2 (Icu/Ics)	AC	690V	10/10	10/10		15/10
			500V	30/30	50/50		70/35
			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				

● Said the attachment

SM30-800-SEP Series Moulded Case Circuit Breaker



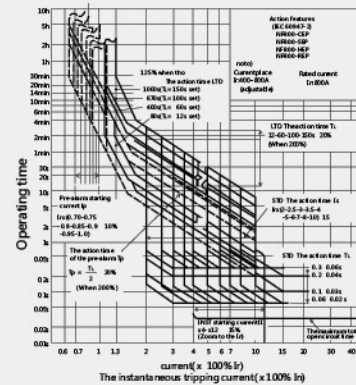
Frame(A)			SM30-800-CEP	SM30-800-SEP	SM30-800-HEP	SM30-800-REP	Operating characteristics	
Rated current In(A)			400~800 adjustable					
Number of poles			3					
Rated insulation voltage U1(V)			AC	600	690	690	690	
Rated breaking capacity (KA)	IEC 60947-2 (Icu/Ics)	AC	690V	-	10/10	15/15	20/15	
			500V	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					



Operating time

The instantaneous tripping current (x 100% I_n)

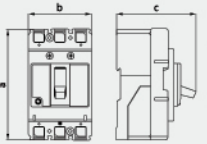
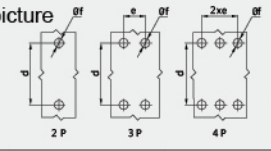
Action features (for 400V-2, 690V-2, 690V-3, 690V-4, 690V-5, 690V-6, 690V-7, 690V-8, 690V-9, 690V-10, 690V-11, 690V-12, 690V-13, 690V-14, 690V-15, 690V-16, 690V-17, 690V-18, 690V-19, 690V-20, 690V-21, 690V-22, 690V-23, 690V-24, 690V-25, 690V-26, 690V-27, 690V-28, 690V-29, 690V-30, 690V-31, 690V-32, 690V-33, 690V-34, 690V-35, 690V-36, 690V-37, 690V-38, 690V-39, 690V-40, 690V-41, 690V-42, 690V-43, 690V-44, 690V-45, 690V-46, 690V-47, 690V-48, 690V-49, 690V-50, 690V-51, 690V-52, 690V-53, 690V-54, 690V-55, 690V-56, 690V-57, 690V-58, 690V-59, 690V-60, 690V-61, 690V-62, 690V-63, 690V-64, 690V-65, 690V-66, 690V-67, 690V-68, 690V-69, 690V-70, 690V-71, 690V-72, 690V-73, 690V-74, 690V-75, 690V-76, 690V-77, 690V-78, 690V-79, 690V-80, 690V-81, 690V-82, 690V-83, 690V-84, 690V-85, 690V-86, 690V-87, 690V-88, 690V-89, 690V-90, 690V-91, 690V-92, 690V-93, 690V-94, 690V-95, 690V-96, 690V-97, 690V-98, 690V-99, 690V-100, 690V-101, 690V-102, 690V-103, 690V-104, 690V-105, 690V-106, 690V-107, 690V-108, 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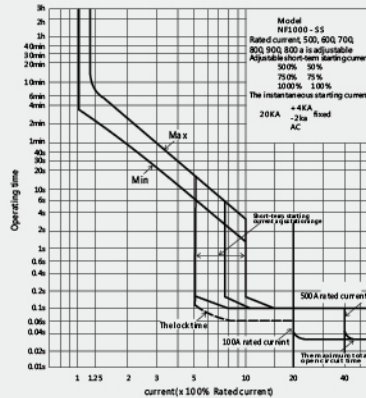


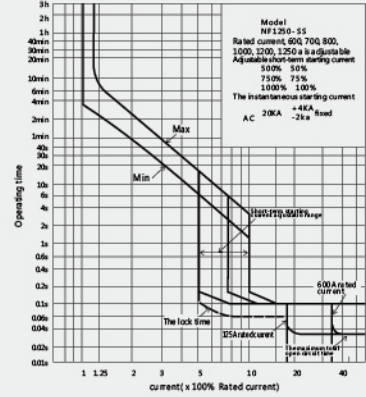
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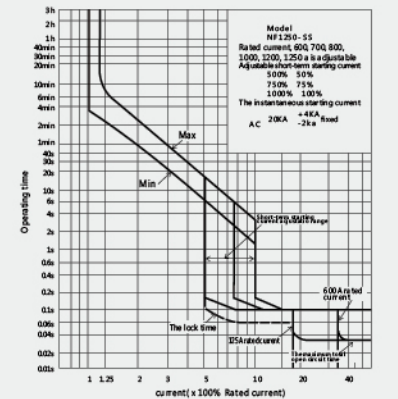
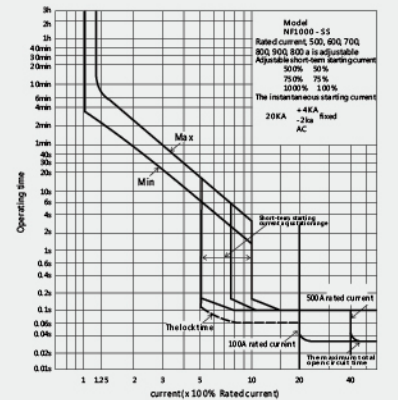
SM30-1000-SS Series Moulded Case Circuit Breaker



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 (Icu/Ics)	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		

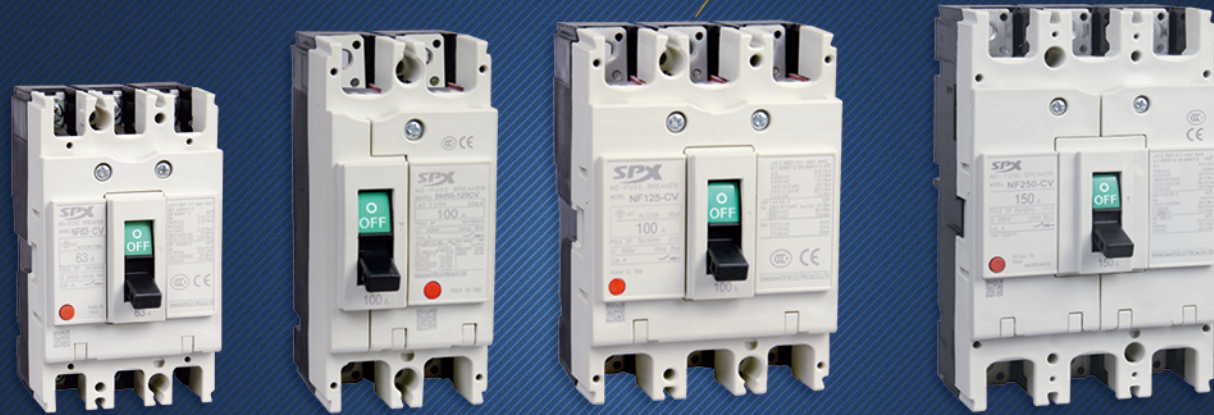
Operating time		Model NF1000-SS Rated current: 500, 600, 700, 800, 900, 1000 is adjustable Adjustable short-term starting current: 500% 50% 750% 75% 1000% 100% The instantaneous starting current: 20KA ~4KA AC ~2s head AC

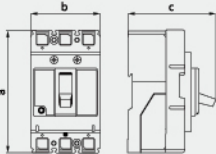
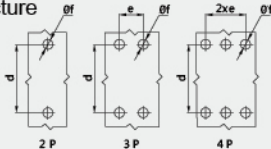
Operating time		Model NF1250-SS Rated current: 600, 700, 800, 1000, 1200, 1250 is adjustable Adjustable short-term starting current: 500% 50% 750% 75% 1000% 100% The instantaneous starting current: 25KA ~4KA AC ~2s head AC



● Said the attachment

SM50 Series Moulded 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		4		3			4			
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	
Operate short circuit(kA) AC400V	2	3	6	10	15	25	10	15	25	10	15	25	9	15	25	
Profile picture				a	130		130		130		130		165		165	
				b	75		59		89		119		105		140	
				c	89		90		90		90		90		90	
Mounting picture				d	111		110		110		110		126		126	
				e	25		/		30		30		35		35	
				f	4.5		5		5.5		5.5		5		5	
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 Moulded Case Circuit Breaker

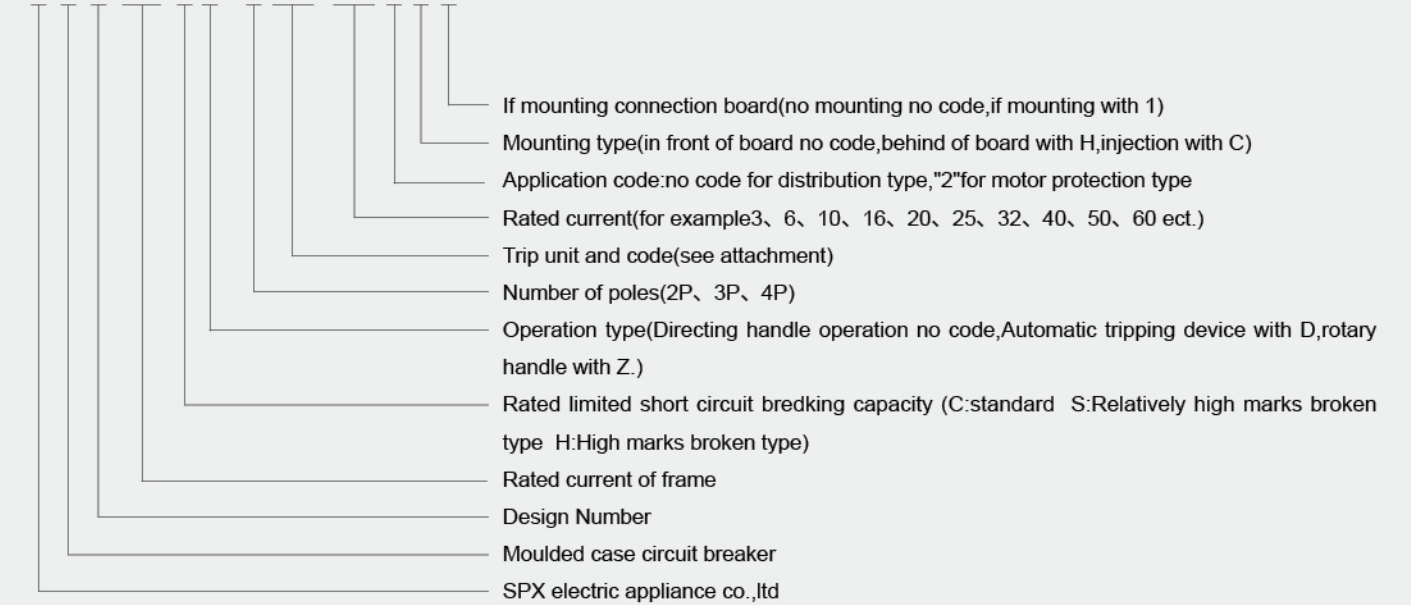
SERVICE RANGE

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 overload 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



PERFORMANCE CHARACTERISTIC

Tripping characteristics

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

Protecting noter characteristics

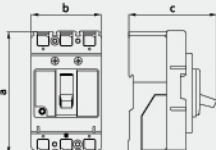
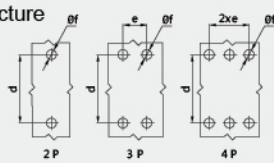
Rated current of release (A)	Thermodynamic release (ambient temp+40℃)				Operating current of magnetic release(A)	Note
	1.01In (cold state) perative time	1.2In (heat state) perative time	1.5In (cold state) perative time	7.2In (heat state) perative time		
63≤In≤225	≥2h	<2h	8min	6s≤Tp≤20s	12In±20%	

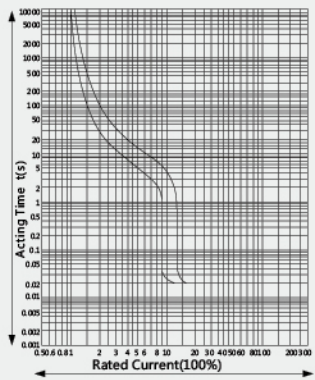
NORMAL WORKING SURROUNDINGS

- Mounting height no mare 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.

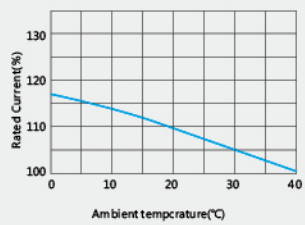
SM1-225 Series Moulded Case Circuit Breaker



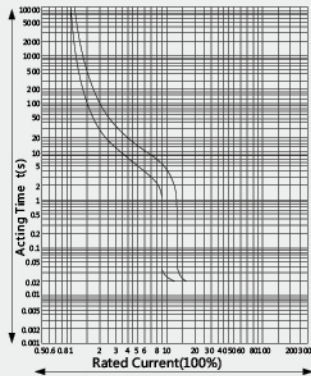
Frame(A)	225						Operating characteristics		
Number of poles	1			3					
Rated current In(A)	63、90 120、160			100、125、140、160、 180、200、225					
Rated voltage(V)	AC 400V								
Rated insulation voltage(V)	AC 690V								
Limited breaking capacity	L	M	H	L	M	H			
Short circuit interrupting capacity(kA) AC400V	35	50	80	35	50	80			
Operate short circuit(kA) AC400V	22	35	40	22	35	40			
3P Profile picture			a	151		175			
			b	44		111			
			c	110		110			
1P Profile picture			d	136		137			
			e	30		38			
			f	5		5			
Machine life	6500								
Electrical life	2500								
Electrical-operation device(MD)							●		
External rotary handle							●		
Automatic tripping device	Hydraulic-magnetic								



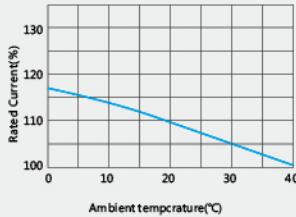
Current-Temperature Characteristic



● Said the attachment

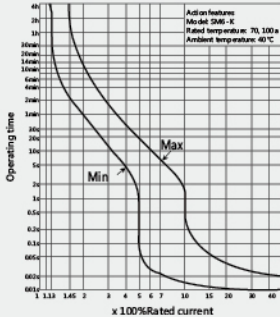
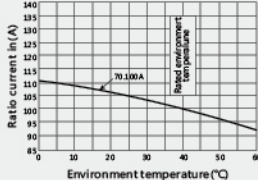


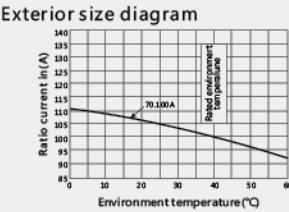
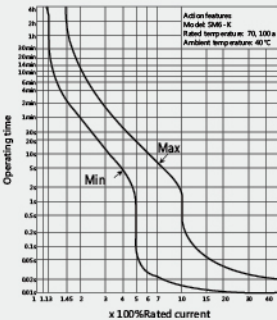
Current-Temperature Characteristic



SM6 Series Miniature Circuit Breaker

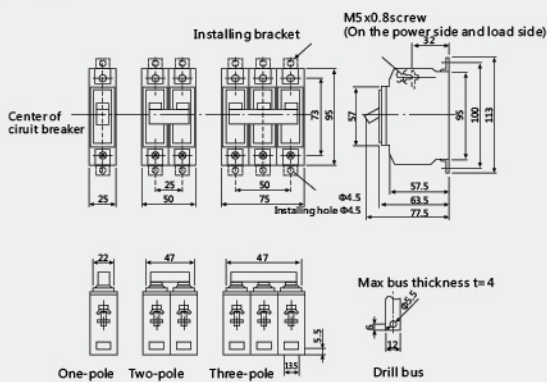


Type		SM6			Operating characteristics	
No of poles		1	2	3		
Rated current In(A) At environment temperature		70	70, 100	70, 100		
Rated voltage Ue(V)		AC	230/400			
		DC	125			
Operating short-circuit breaking capacity Ics(kA)	IEC60898	AC230	4.5	—		
		AC400V	—	3		
	—	DC125V	6			

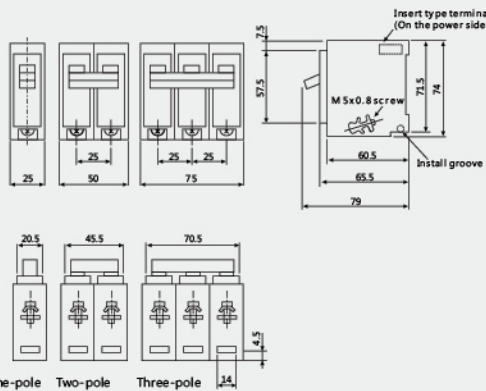


EXTEROR SIZE DIAGRAM

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

S Q 1-250 S / 3 F A

Structural class code (A: integral, B: divided)

Function code (R: power grid, F: generator)

Number of poles (3: 3P 4: 4P)

Rated limited short circuit breaking capacity (L: standard M: Relatively high marks broken type H: High marks broken type)

Rated current

Design No

Double power changeover switch

SPX electric appliance co., Ltd

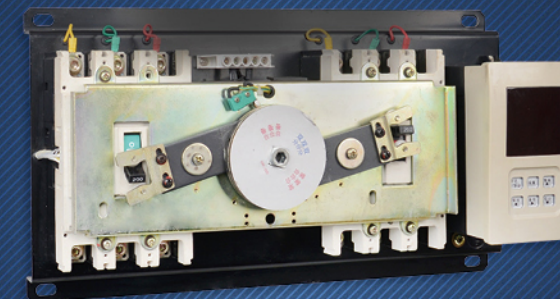
NORMAL WORKING SURROUNDINGS

- 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, losing-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

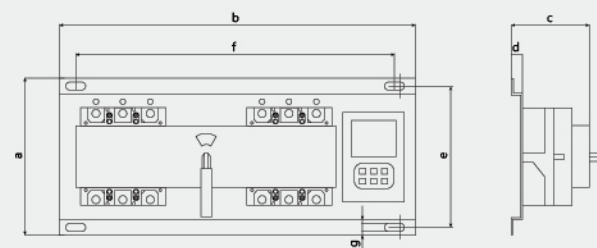
- Common power supply and back-up supply's phase must be concord. The phase N of common power and back-up power can't connect wrong, or it will make the controller broken.
- Load is abnormal, the circuit breaker tripped for overload or short circuit, please check to find the reason, then use again.
-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