

Technical sheet of SCB88 Series Thermal Circuit Breaker

* Maximum Operating Voltages	3A~30A 125/250Vac ; 32/50Vdc
* Insulation Resistance:	>100M ohms (DC 500 V)
* Dielectric Strength:	1,500Vac X 1Minute
* Voltage Drop:	Less Than 1.0V
* Reset Time:	Within 60sec
* Ignition Proof :	PEQZ2.E155159

* Behaviour at rated current
EN 60934, test sequence C

I_N	Operating cycles	U_N	I_{CN}	$\cos \phi$	L/R
3....20A	500	AC 125V	$1.5 \times I_N$	0.95-1	-
	500	AC 250V	$1.5 \times I_N$	0.95-1	-

* Behaviour at rated switching capacity
EN 60934, test sequence D

I_N	Operating cycles	U_N	I_{CN}	$\cos \phi$	L/R
3....20A	40	AC 250V	$6 \times I$	0.55-0.65	-

* Conditional short-circuit current Inc1
EN 60934, test sequence F

I_N	Operating cycles	U_N	I_{CN}	$\cos \phi$	L/R
3....20A	O-CO-CO max. fuse: 32A	AC 250V	500A	0.93-0.98	-

* Endurance, electrical
(UL 1077, §21)

I_N	Operating cycles	U_N	I_{CN}	$\cos \phi$	L/R
3....30A	50	AC 250V	$6 \times I$	0.60-0.65	-
	50	DC 50V	$10 \times I_N$	-	0

* Rated conditional circuit Inc
(UL1077, §25)

I_N	Operating cycles	U_N	I_{CN}	$\cos \phi$	L/R
3....30A	O-CO-CO max. fuse: 32A	AC 250V DC 50V	1000A,C1 300A,C1	0.93-0.98 -	- 0

* Compliant with Rohs

The product accord with the requirement of ROHS(2011/65/EU)
Contacts use Exmpted item of RoHS Directive 2010/571/EU 8(a)

* Compliant with REACH, PAHS, PH1, PH2, PH3

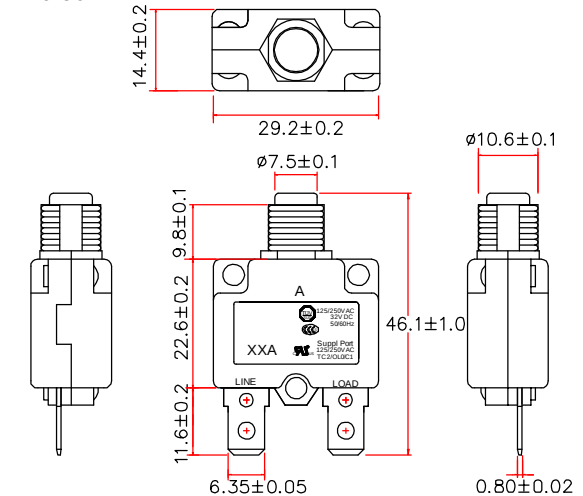
* Applications:

Power tools
Industrial equipment
Medical equipment
Power generators
UPS

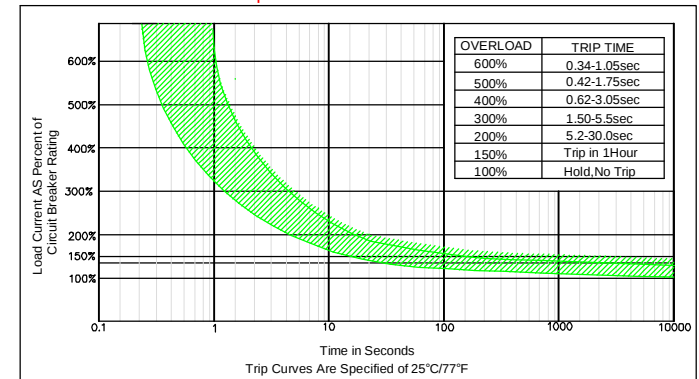
* Approve

UL+ cUL 3A-30A TC2/OL0/1.0 kA C1, 250 Vac
UL+ cUL 3A-30A TC2/OL1/1.0 kA C1, 250 Vac
UL+ cUL 3A-30A TC2/OL0/400 A U3, 250 Vac
UL+ cUL 3A-30A TC2/OL1/400 A U3, 250 Vac
UL+ cUL 3A-30A TC2/OL0/300 A C1, 50 Vdc
CSA 3A-16A TC1/OL1/U3 125Vac 0.4KA
TUV SUD 3A-20A 125/250Vac 32Vdc
CCC 3A-20A 125/250Vac
VDE 3A-16A 125/250Vac

* Dimension:



* SCB88 Series 3A-30A Trip Time Curves



* Ambient Temperature Correction Factor

Ambient temperature	-10°C	0°C	10°C	25°C	35°C	40°C	50°C	60°C
Multiplication factor	*1.30	*1.20	*1.10	1.00	*0.94	*0.85	*0.73	*0.68

The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping. Please multiply the current breaker current ratings by the derating factor shown below.

Example : Normal Continuous Current =10A
Ambient Temperature = 45°C
Multiplication Factor = 0.85
Recommended Rating=10A/0.85=11.8A
Select the Nearest Rating = 12A

* Max.Internal Resistance

Amp rating	Max resistance
3.0 - 5.0Amp	<0.225 Ohms
6.0 - 8.0Amp	<0.175 Ohm
9.0 - 12.0Amp	<0.125 Ohm
13.0 - 16.0Amp	<0.050 Ohm
17.0 - 20.0Amp	<0.040 Ohm
21.0 - 25.0Amp	<0.030 Ohm
26.0 - 30.0Amp	< 0.020 Ohm

5				TOLERANCE		APPROVED	CHECK	DESING	DRAWER	UNIT	mm		
4				DIMENSION	TOLERANCE					SCALE	1:1		
3				XX.XX	±0.05					REV	F/5		
2				XX.X	±0.1					DATE	2015.01.10		
1				XX	±0.15					TITLE	SCB88 Series Datasheet		
				ANGLE	TOLERANCE	FILE NO	SCB88 Series Thermal Circuit Breaker						
				X	±1°	SWEETA PRODUCTS CORPORATION							
NO	DESCRIPTION	APPROVED	DATE			DRAWING NO					DS-88-001		

Order Guide

SCB	88-	12-	A1	B	1	4-	P	O	O	N	B
Series No.											
Amp Rating.	(Table A)										
Bushing Type.	(Table B)										
Color of Button.	(Table C)										
Terminal Type.	(Table D)										
Voltage.	3=125/250Vac, 4=125/250Vac 32Vdc(Tags), 5=Client designation 7=Only 7A,10A,12A,15A 125/250Vac 32Vdc (APM on body) 9=CSA U3 type										
Mounting Nut Type.	(Table E)										
Waterproof Type.	(Table F)										
Nameplate Type.	(Table G)										
Terminal Finish.	S=Plate with Tin N=Plate with Nickel 0=No plate										
Body Type.	B=Black W=White										

(Table B) Bushing Type

Bushing type= P1 Plastic M11XP1.0 	Bushing type= P2 Plastic M12XP1.0 	Bushing type= P3 Plastic 3/8"-27T 	Bushing type= PC Plastic M11XP1.0
Bushing type= PS Plastic Snap in 	Bushing type= KF Plastic Snap in 	Bushing type= HK Plastic Snap in 	
Bushing type= AWAB Plastic No pitch 	Bushing type= PL Plastic No pitch 	Bushing type= P0 Plastic No pitch 	Bushing type= P4 Plastic No pitch
Bushing type= A1 Metal M11XP1.0 	Bushing type= B1 Metal M11XP1.0 	Bushing type= A3 Metal 3/8"-27T 	Bushing type= B3 Metal 3/8"-27T
Panel Hole 	P1,PC,A1,B1 	P2 	P3,A3,B3
	P4 	AWAB 	P0
	PS,KF,HK 		

(Table D) Terminal Type

Type=1 Straight 11.8mm 	Type=2 90° bend up 	Type=3 90° bend down 	Type=4 90° bend Line pin up 	Type=5 90° bend Load pin up 	Type=6 Straight 8.0mm 	Type=7 90° bend 	Type=8 45° bend up 	Type=9 45° bend down 	Type=X Straight 3.2mm 	Type=F Screw #8-32 Straight 	Type=L Screw #8-32 90° bend up 	Type=J Screw #8-32 90° bend down 	Type=K Screw #8-32 Load pin 90° bend 	Type=G Screw #8-32 Line pin 90° bend 	Type=H Screw #8-32 Load pin 90° bend
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(Table A) Standard Rating

03= 3.0A	09= 9.0A	17= 17.0A
3.5= 3.5A	10= 10.0A	18= 18.0A
04= 4.0A	11= 11.0A	20= 20.0A
05= 5.0A	12= 12.0A	22= 22.0A
06= 6.0A	13= 13.0A	25= 25.0A
07= 7.0A	15= 15.0A	30= 30.0A
08= 8.0A	16= 16.0A	

(Table C) Color of Button Type

B = Black 黑推 1 NORMAL AMP STAMP Amps=white 	W = White 白推 5 NORMAL AMP STAMP Amps=black 	R = Red 紅推 6 NORMAL AMP STAMP Amps=white
7 Mark 上蓋 	8 Mark 上蓋 	9 Mark 上蓋
X Mark 上蓋 	Y Mark 上蓋 	Z Mark 上蓋

Table F Waterproof Type

Table E Mounting Nut Type

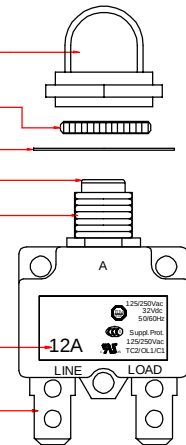
Table G Nameplate Type

Table C Color of Button Type

Table B Bushing Type

Table A Standard Rating

Table D Terminal Type



(Table E) Mounting Nut Type

0	Type= P	Type= Q	Type= A	Type= B	Type= C	Type= 4	Type= 5	Type= 6
None	Plastic Integrated Kunrnut 	Plastic Kunrnut 	Metal Kunrnut 	Metal Hexnut M11 H=14 M12 H=15 	Metal 	Plastic+Metal 	Plastic+Metal 	Plastic+Metal

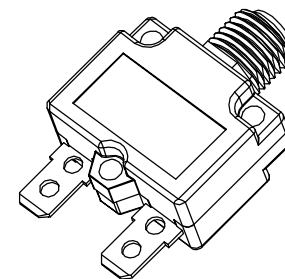
(Table F) Waterproof Type

0	Type= R	Type= F	Type= T	Type= V	Type= U	Type= C
None						
	M11xP1.0 Clean M12xP1.0 Clean	3/8"-27 Clean M11xP1.0 Clean M12xP1.0 Clean	Only M11xP1.0 Clean	M11xP1.0 Clean M12xP1.0 Clean	Only 3/8"-27 Black	Only 3/8"-27 Clean

(Table G) Nameplate Type

0	B	A	S
None	Black plate W White plate 	Black plate 	Black plate X White plate

TITLE / DRAWING NO	Approved	
SCB88 Series Order guide	Date	2014.05.24
DS-88-002	REV	F/4



5				TOLERANCE		APPROVED	CHECK	DESING	DRAWER	UNIT	mm	
4				DIMENSION	TOLERANCE					SCALE	1:1	
3				XX.XX	±0.05					REV	F/5	
2				XX.X	±0.1					DATE	2015.01.10	
1				XX	±0.15					FILE NO	SCB88 Series Thermal Circuit Breaker	
NO	DESCRIPTION	APPROVED	DATE	ANGLE	TOLERANCE	SWEETA PRODUCTS CORPORATION				DRAWING NO	DS-88-003	
				X	±1°							