

Features

- High contact capability : 16 switching capability
- Small, Height only 15.7mm
- Vertical or Horizontal quick terminal output
- Creepage distance :10 mm,IP/OP 5,000V
- Withstand surge voltage of 10KV
- Compliance with IEC 60335-1 GWIF 850°C/GWIT775°C
CTI \geq 250V
- Ambient temperature range -40°C ~ 105°C
- Compliance with RoHS and the requirements for
White Goods
- Satisfice IEC60335-1 product is available.
- Satisfice IEC60079-15 product is available.



Safety Approval

UL , C-UL File No. : E179745

CQC File No. : CQC13002089403

VDE File No.: 40031353

Contact Capacity

Model	SMF -1Pole NO	SMF -1Pole NC
Nominal switching capacity (res. load)	16A 277VAC	16A 277VAC
Max. switching current	20A	20A
Max. switching voltage	277VAC	277VAC
Max. switching power	4,432VA	4,432VA

Characteristic Data

Contact material	Silver alloy	
Initial contact resistance at (VDC A 1)	100m Ω Max.	
Operate time (at nominal volt .)	15msec. Max.	
Release time (at nominal volt .)	10msec. Max.	
Initial insulation resistance	100M Ω Min.(DC500V)	
Initial dielectric strength	Between open contacts : AC1000V , 50/60Hz 1min.	
	Between coil and contact : AC5000V , 50/60Hz 1min.	
	Between contact sets: AC2500V , 50/60Hz 1Min	
Vibration resistance	Functional	10~55Hz at double amplitude of 1.5 mm
	Destructive	10~55Hz at double amplitude of 1.5 mm
Shock resistance	Destructive	10G Min.
	Functional	100G Min.
Endurance (operations)	Mechanical (at 10,800 ops./h)	5,000,000cycles
	Electrical (at 360 ops./h)	100,000 cycles
Ambient temperature	-40°C ~+105°C (no condensation)	
Unit weight	Approx. 15.5g	

Coil Data (at 20°C)

Nominal voltage (VDC)	Nominal operating current 10% (mA)	coil resistance % (Ω)	Max. allowable voltage	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Nominal operating power
5	81.00	63	150 % of nominal voltage	75 % of nominal voltage	5 % of nominal voltage	0.40W (Approx.)
6	67.00	90				
9	45.00	203				
12	33.00	360				
15	26.00	562				
18	22.00	810				
24	17.00	1440				
48	8.00	5,760				
60	6.70	8,570				
110	3.60	28,800				

Safety Approval Ratings

(Note: More detail of approval ratings, please refer to the safety certification)

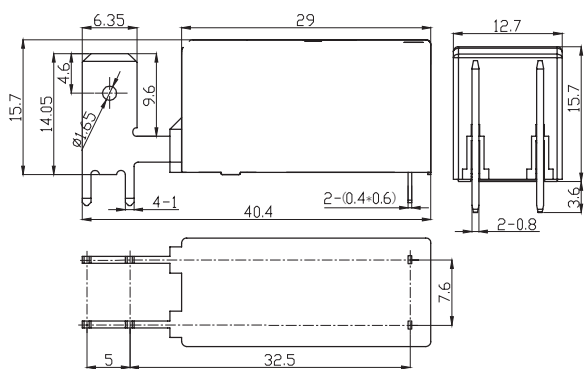
Approval	CQC	VDE	UL/CUL
File No.	CQC13002089403	40031353	E179745
Approved ratings	16A 277VAC	16A 277VAC	16A 277VAC

Ordering Information

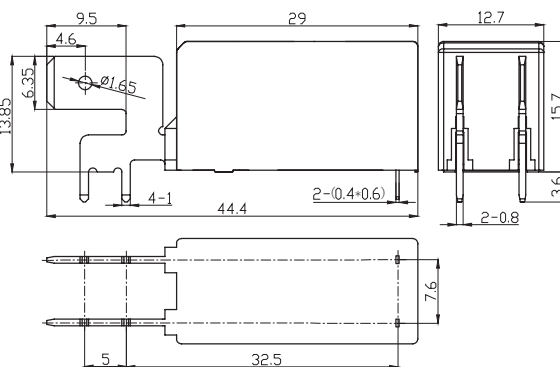
Nomenclature

SMF	-S	- 1	12	D	M	H	1	- F	XX
Special Parameter: Nil-Standard type, Letter or number-Special requirement									
Insulation System : Nil-Standard, B-Class B, F-Class F									
Contact Material : Nil-AgNi, 1-AgSnO2									
Contact Capacity : V: Vertical quick terminal H: Horizontal quick terminal									
Contact Form : B-Form B, M-Form A									
Coil Power : D-0.4W									
Coil Voltage (VDC) : 05, 06, 09, 12, 15, 18, 24, 48, 60, 110									
Number of Poles : 1-1 Pole									
Protective Construction : S-Flux proofed SH-Sealed type washable									
Type Designation : SMF									

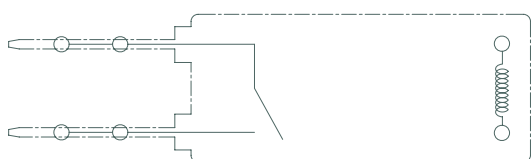
Outline Dimensions Wiring Diagram ,P.C.Board Layout (unit:mm)



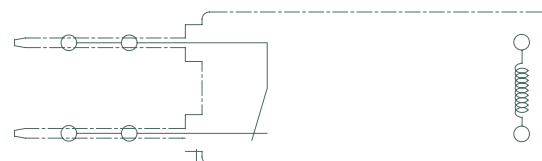
Vertical quick terminal



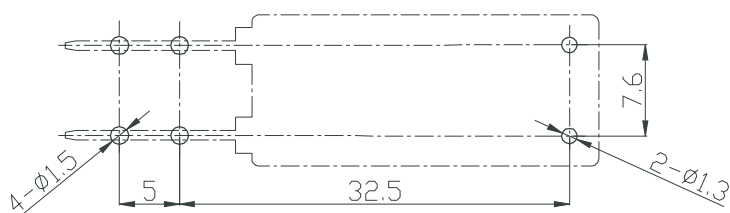
Horizontal quick terminal



1A Wiring Diagram(bottom view)



1B Wiring Diagram(bottom view)



1A/1B P.C.B Layout(bottom view)

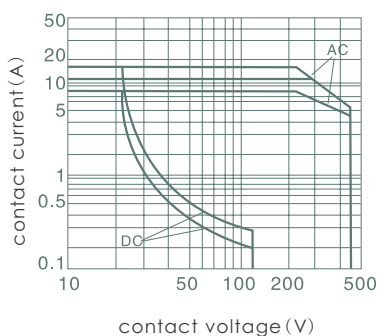
unless otherwise specified:
 if dimension < 1mm,tolerance: 0.2mm
 if dimension 1~5mm,tolerance: 0.3mm
 if dimension > 5mm,tolerance: 0.4mm
 Note:1.Extended terminal dimension is dimension before soldering.
 2.Tolerance of P.C.B Layout: 0.1mm

Typical Appliances

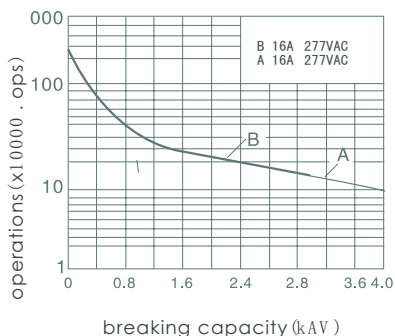
- home appliances, washing machine, air conditioner, microwave oven
 audio equipment , monitor, industrial control equipment, instrument, etc.

Characteristic Curves

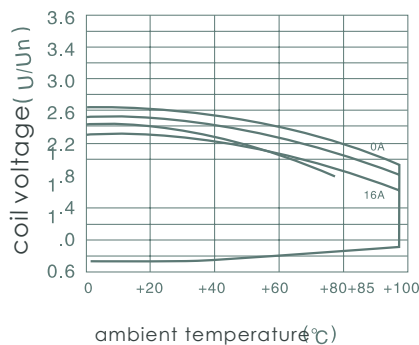
Max. Switching Power



Endurance Curve



Temperature Range of Coil Operation



Disclaimer:

This datasheet is the customers' reference. All the specification are subject to change without notice.
 We could not evaluate all the performance and all the parameters for every possible application. Thus the user should in a right position to choose the suitable product for their own application. For sealed relays after installation and cleaning, please open the vent hole on the case before use. If there is any query, please contact Sanyou for the technical service. However it is the user's responsibility to determine which product should be used only.