



### Features

- Small size with 16A switching capability.
- Low coil power consumption : 200mW available.

### Safety Approval

UL , C-UL File No. : E179745

TUV File No.R50139459

CQC File No. : CQC02001002127

### Contact Capacity

Model	SPA
Nominal switching capacity (res. load)	10A 250VAC
Max. switching current	16A
Max. switching voltage	277VAC
Max. switching power	4,432VA

### Characteristic Data

Contact material	Silver alloy	
Initial contact resistance (at 6VDC 1A)	100mΩ Max.(1A 6VDC)	
Operate time (at nominal volt.)	15msec. Max.(no diode)	
Release time (at nominal volt.)	8msec. Max.(no diode)	
Initial insulation resistance	1,000mΩ Min.(DC500V)	
Initial dielectric strength	Between open contacts : AC1,000V , 50/60Hz 1min.	
	Between coil and contact :AC2,500V , 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	Functional	10G Min.
	Destructive	100G Min.
Endurance (operations)	Mechanical (at 10,800 ops./h)	10,000,000(at room temperature)
	Electrical (at 360 ops./h)	100,000(at room temperature)
Ambient temperature	-40°C ~ +105°C (no condensation)	
Unit weight	Approx. 8.6 g	

### Coil Data (at 20°C)

Nominal voltage (VDC)	Nominal operating current 10% (mA)	Coil resistance 10% (Ω)	.Max allowable voltage	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Nominal operating power
3	66.67	45	150 % of nominal voltage	75 % of nominal voltage	5 % of nominal voltage	.Approx 0.20W
5	40.00	125				
6	33.33	180				
9	22.22	405				
12	16.67	720				
18	11.11	1,620				
24	8.57	2,880				
48	7.09	6,770				Approx.0.34W

**Safety Approval Ratings** (Note: More detail of approval ratings, please refer to the safety certification.)

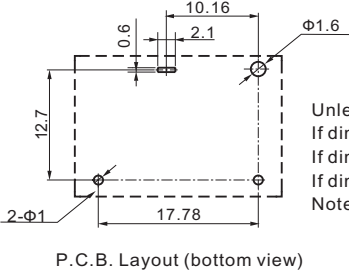
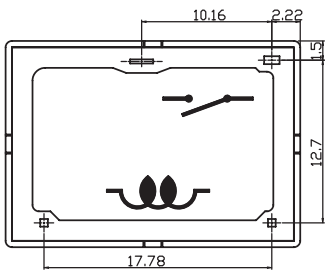
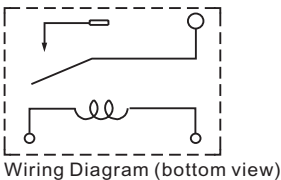
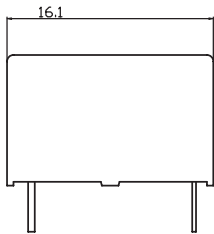
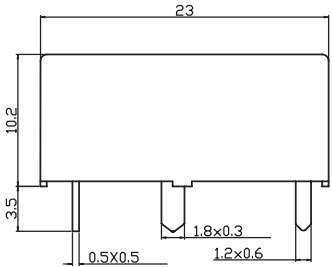
Approval	CQC	TUV	UL/CUL
File No.	CQC02001002127	R50139459	E179745
Approved ratings	10A 250VAC 16A 125/250/277VAC	10A 250VAC 10A 30VDC 16A 125/250/277VAC	15A 125VAC , Resistive 10A 250VAC , Resistive 10A 24VDC , Resistive 5A 125VAC , General Use 16A 125/250/277VAC , Resistive

- (1) The above-mentioned unspecified temperature ratings, means that the ambient temperature is room temperature.
- (2) Only some typical ratings are listed above. Each rating's test condition is different, so the electrical endurance will be different. If more details are required, please contact us.
- (3) For sealed type testing, please open the ventilation hole of case before test.
- (4) Composite contact product safety certification is executing.

**Ordering Information**

Nomenclature									
SPA	-S	-1	12	D	M	1	-F	-XX	Special Parameter : Nil-Standard type, 01-compound contact
Insulation System : Nil-Standard, B-Class B, F-Class F									
Contact Material : Nil-AgSnO <sub>2</sub> , 1-AgCdO, 2-φ4.0AgSnO <sub>2</sub> , 3-φ4.0AgNi+AgSnO <sub>2</sub>									
Contact Form : M-Form A									
Coil Power : D-0.20W/0.34W (48V)									
Coil Voltage (VDC) : 03, 05, 06, 09, 12, 18, 24, 48									
Number of Poles : 1-1 Pole									
Protective Construction : S-Flux proofed, SH-Sealed type washable									
Type Designation : SPA									

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



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 Applications**

- Home appliances, office equipment, instrument

**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.