



### Features

- High switching capability : 20A.
- Small size for density PCB mounting.
- Dielectric strength : 5000V.
- Quick connect terminal construction.

### Safety Approval

UL , C-UL File No. : E179745

TUV File No. : R50148605

CQC File No. : CQC05001014267

### Contact Capacity

Model	SMH
Nominal switching capacity (res. load)	16A 277VAC
Max. switching current	20A
Max. switching voltage	277VAC
Max. switching power	5,540VA

### Characteristic Data

Contact material	Silver alloy	
Initial contact resistance (at 6VDC 1A)	50mΩ Max.(1A 6VDC)	
Operate time (at nominal volt.)	20msec. Max.(no diode)	
Release time (at nominal volt.)	10msec. 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 : AC5,000V , 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 7,200 ops./h)	10,000,000(at room temperature)
	Electrical (at 360 ops./h)	100,000(at room temperature)
Ambient temperature	-40°C ~ +85°C (no condensation)	
Unit weight	Approx. 15.8 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
5	100.00	50	130 % of nominal voltage	75% of nominal voltage	5 % of nominal voltage	.Approx 0.5W
6	83.33	72				
9	55.56	162				
12	41.67	288				
18	27.78	648				
24	20.83	1,152				
48	10.42	4,608				

## Safety Approval Ratings

Approval	CQC	TUV	UL/CUL
File No.	CQC05001014267	R50148605	E179745
Approved ratings	16A 250VAC	16A 277VAC 16A 30VDC	20A 277VAC , Resistive

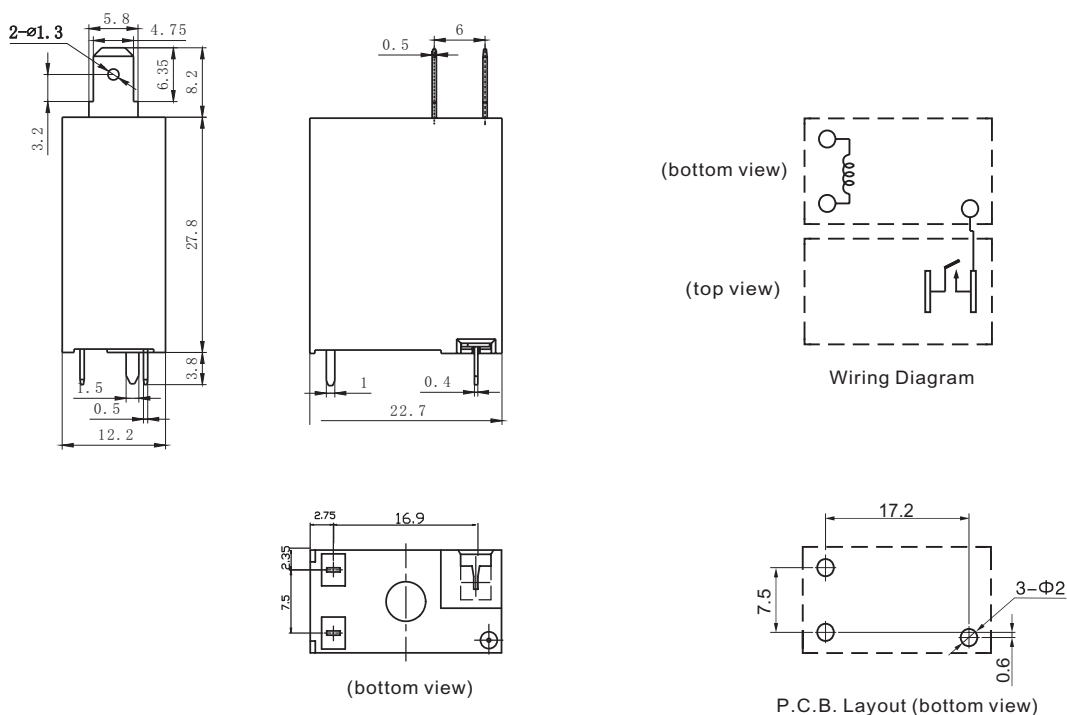
- (1) The above-mentioned unspecified temperature ratings, means that the ambient temperature is room temperature.
- (2) Only some typical ratings are listed above. Each rating's test condition is different, so the electrical endurance will be different. If more details are required, please contact us.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

## Ordering Information

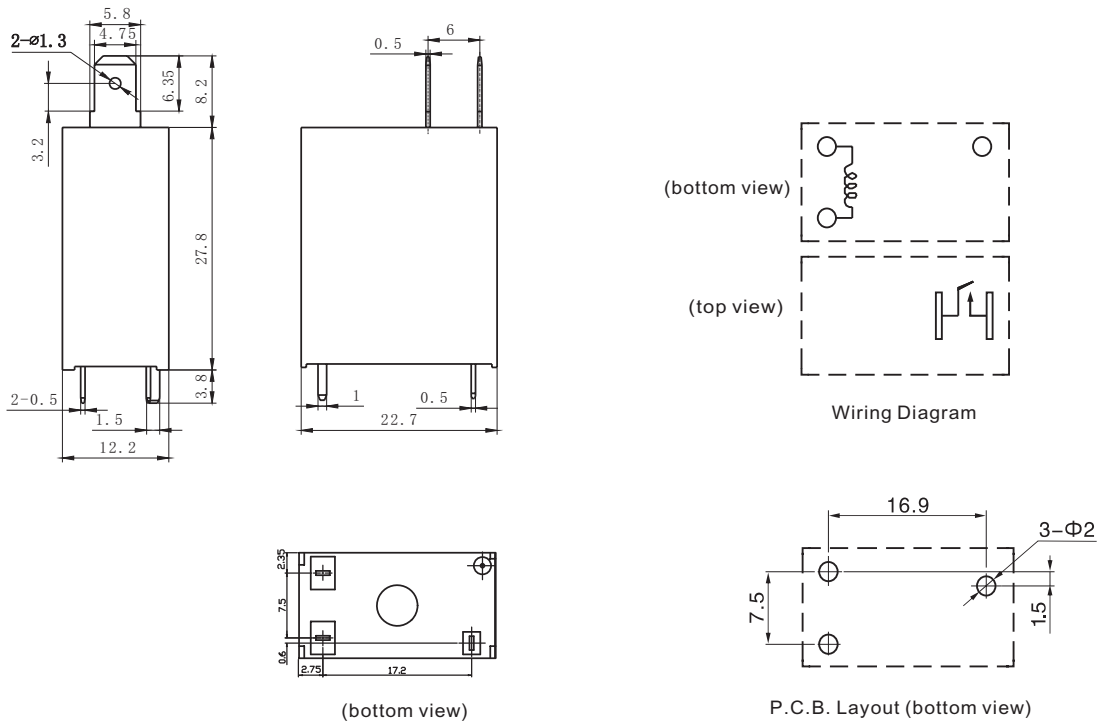
Nomenclature						
SMH	- 1	12	D	M	P	- F -XX
Special Parameter : Nil-Standard type, 01-operate time :7.2ms, 02-operate time :7.2ms , pinning on drawing 2.						
Insulation System : Nil-Standard, B-Class B, F-Class F						
Terminal Type : Nil-Standard, P-PCB, Letter or number-Special requirement						
Contact Form : M-Form A						
Coil Power : D-0.5W						
Coil Voltage (VDC) : 05, 06, 09, 12, 18, 24, 48						
Number of Poles : 1-1 Pole						
Type Designation : SMH						

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

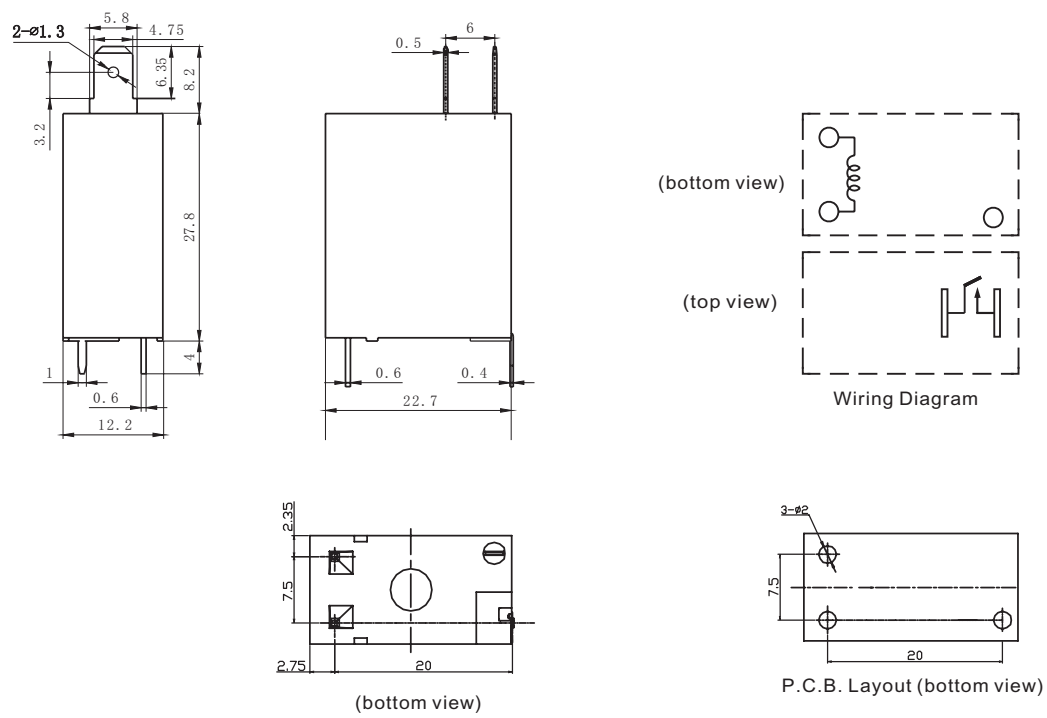
### Drawing 1



### Drawing 2



### Drawing 3

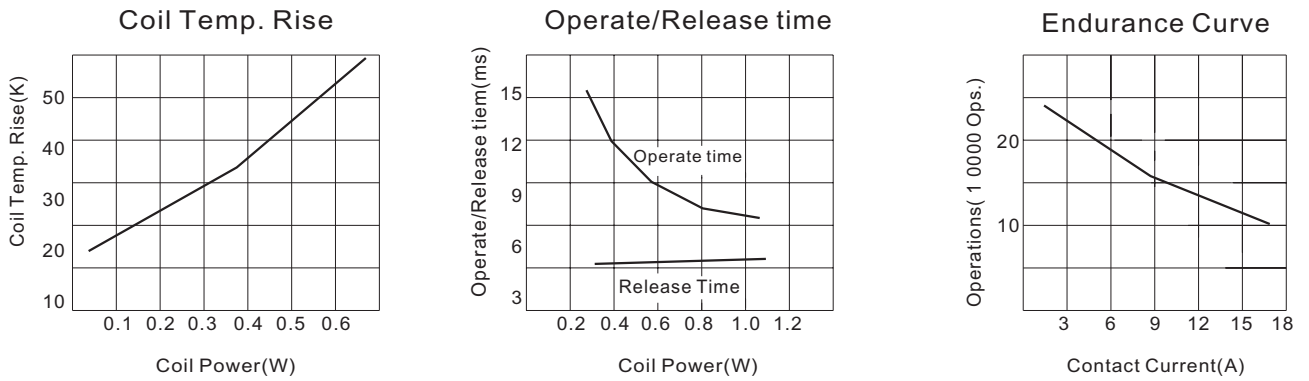


Unless otherwise specified :  
 If dimension < 1mm, tolerance : 0.2mm;  
 If dimension 1~5mm, tolerance : 0.3mm;  
 If dimension > 5mm, tolerance : 0.4mm.  
 Note : 1. Extended terminal dimension is dimension before soldering.  
 2. Tolerance of P.C.B. layout : 0.1mm.

## Typical Applications

- Home appliances, microwave oven

## Characteristic Curves



**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.