



Features

- 60A contact switching capability
- Low coil power consumption , impulse drive
- Excellent anti-shock ability and high reliability
- Dielectric strength between coil and contact :2.5KV
- Single and dual coil relays available
- Environmental friendly product (RoHS Compliant)

Contact capacity

Model	SMAE
Nominal switching resistance(res.load)	60A 250VAC
Max.switching current	60A
Max.switching voltage	250VAC
Max.switching power	15,000 VA

Characteristic Data

Contact material	Silver alloy	
Initial contact resistance	2mΩ Max.	
Operate time(at nominal volt.)	15msec. Max.	
Release time(at nominal volt.)	15msec. Max.	
Insulation Resistance	1,000MΩ Min.(DC500V)	
Initial dielectric strength	Between open contacts : AC1,500V , 50/60Hz 1min.	
	Between coil and contact : AC2,500V , 50/60Hz 1min.	
Vibration resistance	Function	10 ~ 55Hz at double amplitude of 1.5 mm
	Destructive	10 ~ 55Hz at double amplitude of 1.5 mm
Shock resistance	Function	10G Min.
	Destructive	100G Min.
Endurance (operate)	Mechanical(at 3,600 ops./h)	100,000 cycles
	Electrical(at 600ops./h)	10,000 cycles
Ambient temperature	-30°C ~ +55°C(no condensation)	

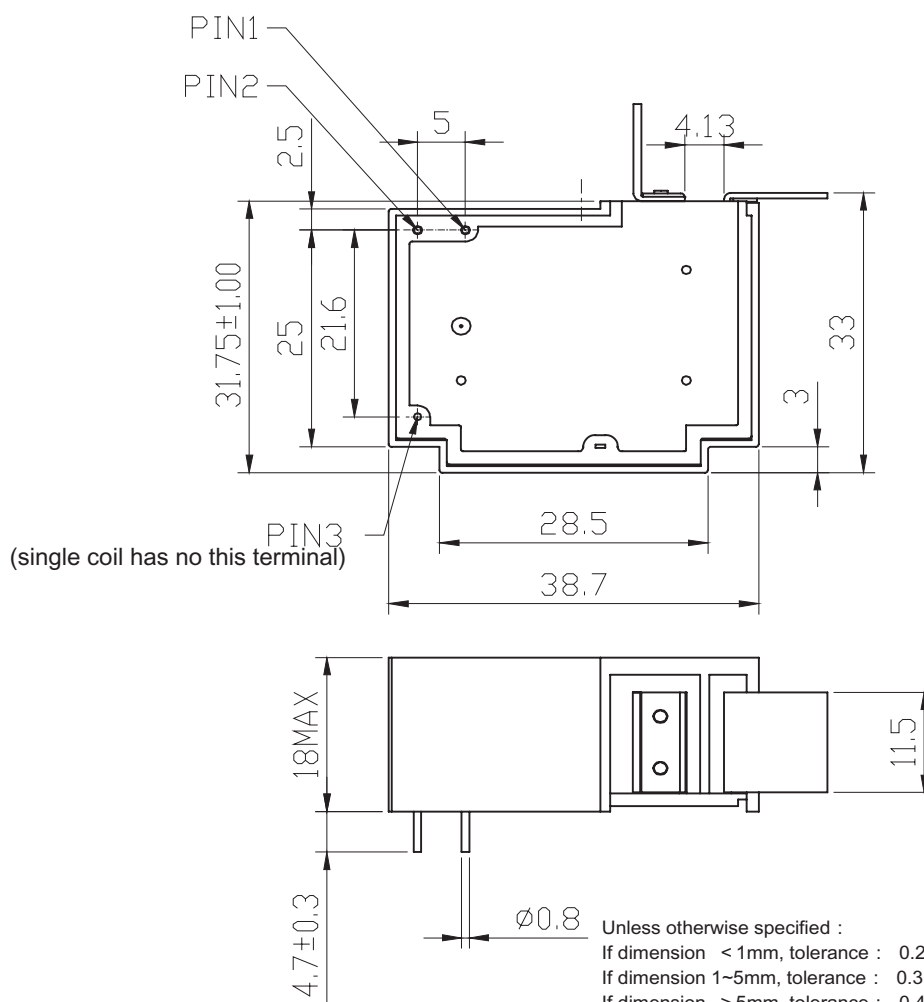
Coil Data (at 20°C)

Nominal voltage (VDC)	Duoble coil-Res. 10%(Ω)		Single coil-Res. 10%(Ω)	Release voltage (Max.)	Operate voltage (Min.)	Pulse duration	Nominal operating power
5	12.5	12.5	25	80% of Nominal voltage	80% of Nominal voltage	80 Min.	Single/Dual: 1.0W/2.0W
6	18	18	36				
9	40.5	40.5	81				
12	72	72	144				
15	112.5	112.5	225				
18	162	162	324				
24	288	288	576				
48	1,152	1,152	2,304				

Order Information

Nomenclature					
SMAE	-1	12	D	M	1-XX
Special Parameter : Nil-Standard type, Letter or number-Special requirement					
Coil Type : 1-Single coil , 2-Double coils					
Contact Form : Nil-FormC,M-FormA					
Coil Power : D-Standard type					
Coil Voltage(VDC) : 05 , 06 , 09 , 12 , 15 , 18 , 24 , 48					
Number of Poles : 1-Single relay					
Type Designation : SMAE					

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



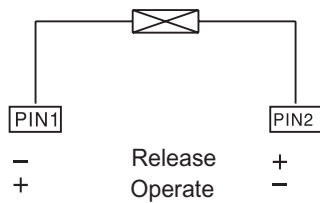
Unless otherwise specified :
 If dimension < 1mm, tolerance : 0.2 mm;
 If dimension 1~5mm, tolerance : 0.3 mm;
 If dimension > 5mm, tolerance : 0.4 mm.
 Note : 1. Extended terminal dimension is dimension before soldering.
 2. Tolerance of P.C.B. layout : 0.5 mm.

Typical Application

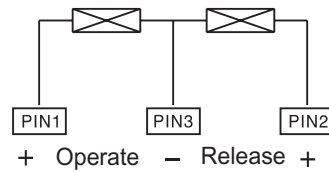
- Intelligent electric meters
- Electric remote control
- Composite power switch
- Electrical Equipment

Wiring diagram

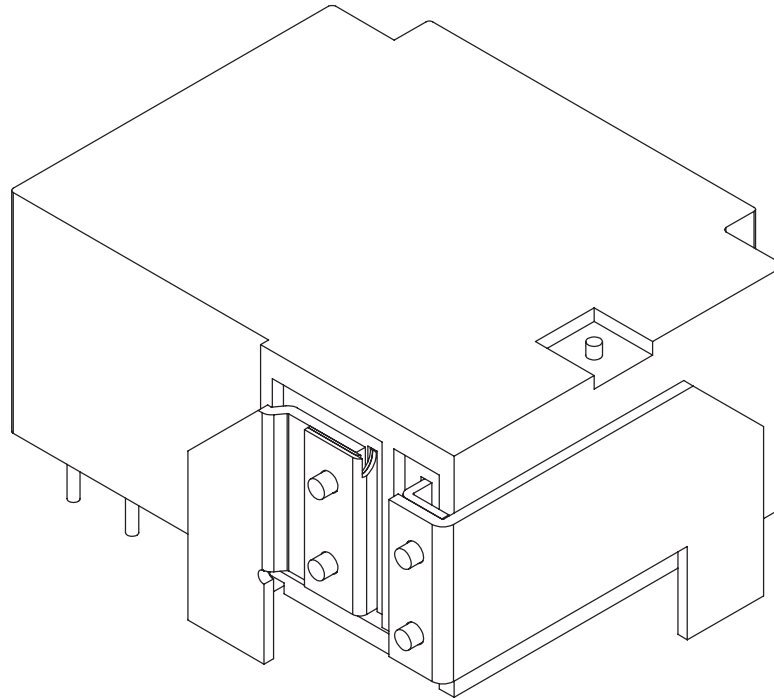
wiringdiagram of single coil



Wiring diagram of dual coil



Typical drawing



Note:

Typical drawing is just for reference, customized terminals with metering components are acceptable. Please contact us for any special requirements.

Announcements :

- 1 The magnetic latching relay is to be supplied with contacts close(Operate) or contacts open(Release), but the contact status may got changed due to unexpected shock or vibration during delivering or mounting. You can reset the contact status according to your requirement.
- 2 In order to make sure the contacts are completely closed or opened, energized voltage to Operate or Release coil should be the nominal operate/release voltage, impulse width should be 5 times more than specified operate/release time in the specification but less than 1 minute. Do not apply power to Operate and Release coils at the same time.

Disclaimer:

This datasheet is just for customers' reference. The newest specification you can get from the website of sanyorelays. We could not evaluate all the performances and parameters for all possible applications, so the user should choose the suitable relay for their own application or require us to provide necessary help. If there is any query, please contact Sanyou for the technical service, however, it is the user's responsibility to determine which relay should be used.