



Feature:

- Adopt ceramic seal structure , be able to use at explosive or harmful environment, the contact will not be corroded and oxidated.
- RoHS compliant

Parameters Table

Characteristic	Items		Information	
Contact Data	Contact Form		1 Form A contact	
	Nominal Load Current		100A	
	Max. Switching Voltage		750VDC	
	Max. Switching Current		1000A 300VDC(more than once)	
	Min. Load		1A 12VDC	
	Contact Resistance		≤1.5mΩ(at6VDC 20A)	
	Outgoing Mode		M6 External Thread	
Electrical Data	Initial Insulation Resistance		Between Contacts : 1000MΩ(500VDC)	
			Between Contact and Coil : 1000MΩ(500VDC)	
			Between Contact and Case : 1000MΩ(500VDC)	
	Initial Dielectric Strength		Between Contacts : 3000Vrms	
Between Contact and Coil : 4000Vrms				
Physical Data	Shock Resistance		Stability: 196m/s ² (20G)	
			Durability: 490m/s ² (50G)	
Vibration resistance			10~200Hz 43m/s ² (4.4G)	
	Ambient Data	Ambient Temperature		-40°C~85°C
Ambient Humidity		5%~95%RH		
Unit Weight		Approx.400g		
Endurance Data	Mechanical Endurance		500,000 Cycles	
	Electrical Endurance	450V	Capacitive Load	Switching:25,000 Cycles (22.5VDC,τ=1ms,shock 400A,steady 100A) On:1 Cycles (360VDC,τ=1ms,shock 1350A,steady 100A)
			Resistive Load	Breaking:10,000 Cycles (360VDC,50A) Switching:3,000 Cycles (450VDC,100A)
		750V	Capacitive Load	Switching:25,000 Cycles (37.5VDC,τ=1ms,shock 400A,steady 100A)
			Resistive Load	Breaking:6,000 Cycles (600VDC,50A) Switching:1,000 Cycles (750VDC,100A)
	Load Current Capacity			100A:continuity 400A:2min 120A:2h 600A:30s 100A:10min

Coil Data(at 20°C)

Rated Voltage (VDC)	12	24	48
Operation Voltage (VDC)	12	24	48
Max. Voltage (VDC)	16	32	64
Pick-up Voltage (VDC)	≤9	≤18	≤36
Drop-out Voltage (VDC)	≥1.2	≥2.4	≥4.8
Coil Resistance(±10%)(Ω)	32	128	512
Average Stay Current (A)	0.38	0.19	0.1
Steady Power (W)	4.5	4.5	4.5
Operation Time (ms)	≤30	≤30	≤30
Release Time (ms)	≤10	≤10	≤10

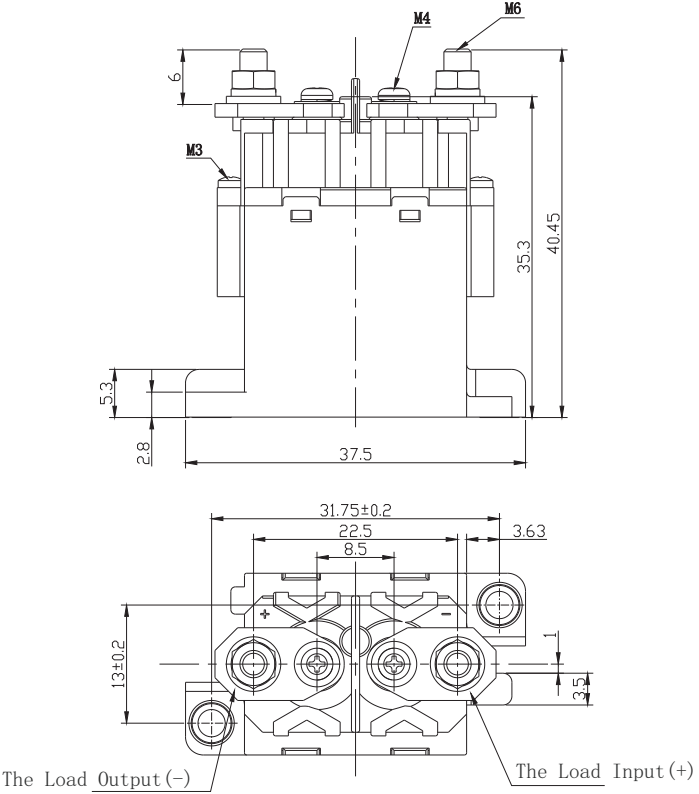
Note : Coil data is based on coil without resistance or diode.

Ordering Information

Nomenclature							
SEV	100	-450	M	12	C	1	(XXX)
							Customer features label
							Load connection type: 1:connection piece+external thread 2:internal thread
							Coil connection type: Nil: outgoing line C: outgoing line+connector
							Coil Voltage (VDC) : 12:12VDC 24:24VDC 48:48VDC
							Number of Poles: M:1 Form A contact
							Load Voltage : 450:450VDC 750:750VDC
							Load current : 100A
							Type Designation: SEV

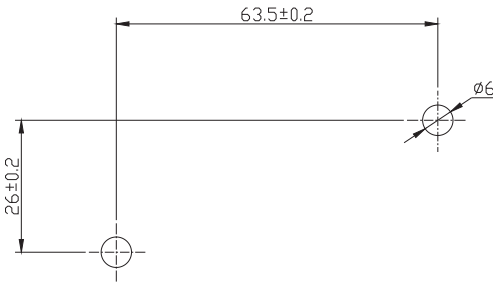
Note: The outgoing line length is 100mm.

Outline Dimensions

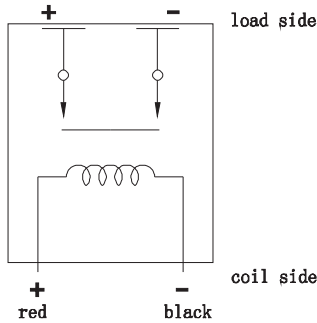


Unless otherwise specified:
If dimension ≤ 10 mm, tolerance: ±0.3mm;
If dimension 10-50 mm, tolerance: ±0.5mm;
If dimension > 50 mm, tolerance: ±0.8mm;

Installation Size Chart



Wiring Diagram



The load side has positive and negative electrode

Instructions

1. Use and transport conditions

- 1) temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- 2) humidity: $5 \sim 95\% \text{RH}$
- 3) atmosphere pressure: $86 \sim 106 \text{Kpa}$

2. When install the relay, you must using the gasket to prevent the screw become flexible.

3. The tightening torque range of screw is $6.0 \sim 8.0 \text{ N}\cdot\text{m}$, and the gas inside the sealing member is H_2 . If the torque range is exceeded, the sealing member may be destroyed and it will be dangerous.

4. Please regard the relay as a product within a service life. Don't exceed its capacity of the switch and service life. Please change in time as necessary.

5. The load output of the relay has positive and negative electrode, please refer the Wiring Diagram to connect it.

6. Be careful and don't stain the connection part of contact with foreign bodies and oil, it may lead to abnormal heat dissipation. Please use the connecting bus with nominal sectional area ($\text{Min. } 38 \text{mm}^2$).

7. Please avoid applying to the terminal with excessive load, if the load of nominal range is exceeded, it will affect the function of switch.

Disclaimer :

This datasheet is the customers' reference. All the specification are subject to change without notice.

We could not evaluate all the performance and parameters for every possible application. Thus the users should be in a right position to choose the suitable product for their own application. If there is any query, please contact Sanyou for technical service. However it is the users' responsibility to determine which product should be used only.

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