

Features:

- 1 NO main contact set + 1 NC auxiliary contact set
- If main contacts weld, auxiliary contacts provide safety monitoring (IEC 61810-3)
- Contact gap Min 4.0mm (main contact)
Min 0.5mm (auxiliary contact)
- Low Holding Voltage Saves Energy
- Class F Insulation



Approvals

UL (File No.) : E179745-1-47
TUV (File No.) : R50671346
CQC (File No.) : CQC 25002466856

Contact Data

Contact arrangement	Form A (main contact) Form B (auxiliary contact)
Contact material	AgSnO ₂ (main contact) AgNi (auxiliary contact)
Contact Resistance	1mΩ max(@ 6VDC 20A) (main contact) 100mΩ max(@ 6VDC 1A) (auxiliary contact)
Rated load	270A 1000VAC (main contact) 1A 24VDC (auxiliary contact)
Max. Contact Voltage	1000VAC (main contact) 24VDC (auxiliary contact)
Max. Contact Current	270A (main contact) 1A (auxiliary contact)
Min. recommended contact load	1A, 6VDC
Operate Time (at nominal volt.)	≤45ms
Release Time (at nominal volt.)	≤20ms
Electrical endurance	

Main Contact:

Making 50A, Carrying 270A, Breaking 50A, 1000VAC,
Resistiveload, 85°C, 1s On 9s Off, 3×10⁴ops.

Auxiliary contact :

24VDC 1A Resistiveload, 85°C, 1s On 9s Off,
3×10⁴ops.

Coil Data

Coil Voltage Rating 12 VDC、24VDC

Rated Voltage VDC	Operating Voltage VDC	Release Voltage VDC	Coil Resistance ×(1±10%) Ω	Coil Power W	Holding Voltage
12	9	0.6	36	4	40% to 100% Rated Voltage (at 23°C)
24	18	1.2	144	4	50% to 100% Rated Voltage (at 85°C)

Note:

- (1) Continuous application of voltage above the holding voltage may cause coil overheating and failure
- (2) The holding voltage is applied subsequent to 200ms of the rated voltage.

Insulation Data

Insulation resistance	1000MΩ (500VDC)
between main contact sets	2500VAC, 50/60Hz 1min.
between main contact sets and auxiliary contact sets.	5000VAC, 50/60Hz 1min.
between auxiliary contact and coil	1000VAC, 50/60Hz 1min.
between main contact and coil	5000VAC, 50/60Hz 1min.

Other Data

Material compliance	EU RoHS/ELV, China RoHS, REACH
Temperature rise	< 70K (After the coil is energized with rated voltage for 200ms, set the holding voltage to 60% of rated voltage, load current carrying 270A, @85°C)
Ambient Temperature	-40°C~85°C
Ambient Humidity	5% to 85% RH
Weight	Approx. 210g
Packaging	EPE Foam
Shock resistance *	Functional 98m/s ² Destructive 980m/s ²
Vibration resistance *	10Hz to 55Hz 1.0mm DA
Mechanical Life	3×10 ⁵ ops
Terminal Configuration	pcb

Note:

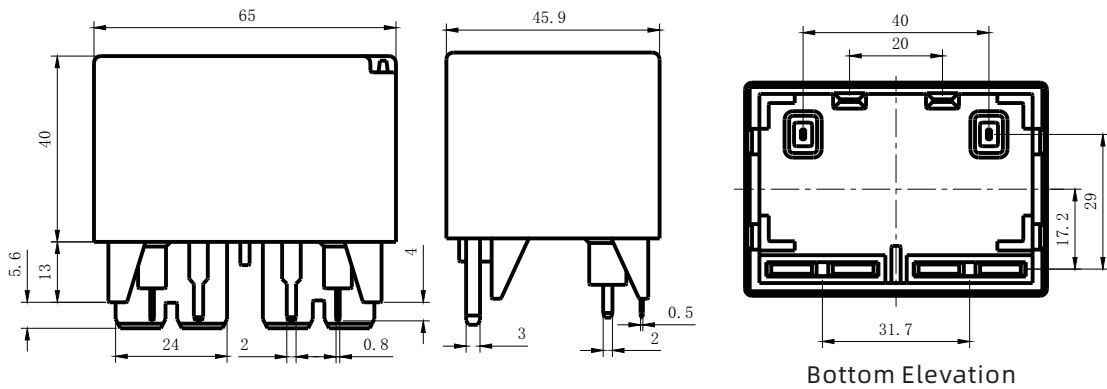
* :Excluding width-directional parameters

Safety certification load

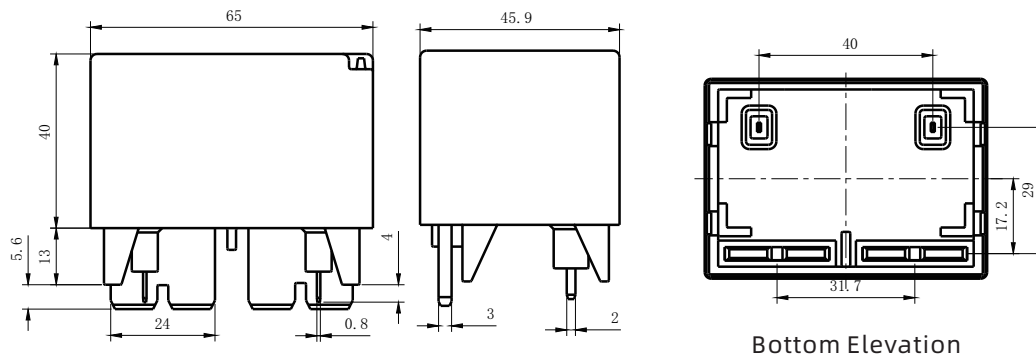
Certification	Approved ratings
UL/CUL	Main Contact: Making 50A, Carrying 270A, Breaking 50A, 1000VAC, Resistiveload, 85°C, 1s On 9s Off, Auxiliary contact : 24VDC 1A Resistiveload, 85°C, 1s On 9s Off,
TUV	
CQC	

Dimensions

SPV270C-MF

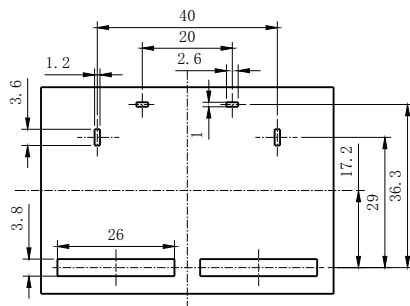


SPV270C-M

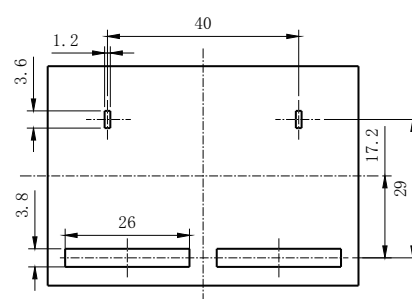


Wiring diagram (bottom view)

SPV270C-MF

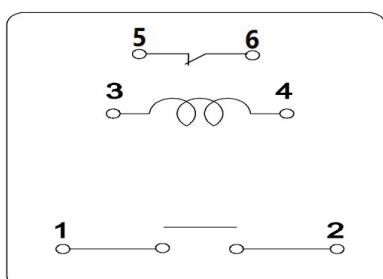


SPV270C-M

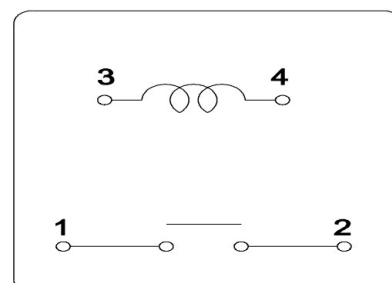


Wiring Diagrams

SPV270C-MF



SPV270C-M



Product Code Structure

SPV	270C	-S	-M	F	12	1	-xx	
								Special parameters: Nil-No special parameters X: Customer-specific requirements, unrelated to structural design G: External auxiliary heat sink added to the terminal
								Contact material: 1-AgSnO ₂
								Coil specification: (VDC) 12,24
								Auxiliary Contact form: Nil : No Auxiliary Contacts F : NC Auxiliary Contacts Included
								Main Contact form: -M: Form A
								Package Type -S : Flux-Proof Type -SH : Water-Resistant Type
								Load current: 270C: 270A
								Basic model: SPV

- Note:
- (1) Flux-proof type can not be used in polluted environment containing HS, SO₂, NO, dust and other pollutants.
 - (2) Water cleaning or surface process is not suggested after the flux-proofed relays are assembled on PCB..
 - (3) Customer special requirements (XX) shall be evaluated by our company and marked by specail suffix.

Disclaimer

This product specification is for reference only, subject to change without prior notice.It is not possible for Sanyou to evaluate all the performance parameter requirements of relays in each specific application field, so customers should choose the suitable product according to the specific application conditions. If you have any questions, please contact us for more technical support, but the customer should be responsible for product selection.