三友继电器 SANYOU RELAYS

High Power Relay SPV270 V1.0

Features:

- High contact capacity：270A breaking capacity
- A set of normally open (NO) contacts with contact spacing >4mm
- Compliant with European PV standards（IEC62109、VDE0126)
- Low Holding Voltage Saves Energy
- Class F Insulation

Approvals

UL （File No.）： E179745
TUV（File No.）： R 50609945
CQC（File No.）： CQC23002412659

Insulation Data

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

Contact Data

Contact arrangement	Form A
Contact material	AgSnO2
Contact Resistance	1mΩ max(@ 6VDC 20A)
Rated load	270A 1000VAC
Max. Contact Voltage	1000VAC
Max. Contact Current	270A
Min. recommended contact load	1A,6VDC
Operate Time（at nominal volt.）	≤45ms
Release Time（at nominal volt.）	≤20ms

Electrical endurance

Making 50A,Carrying 270A,Breaking 50A,1000VAC, Resistiveload,85℃，1s On 9s Off，3×10^4ops.

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℃)
Ambient Temperature	-40℃~85℃
Ambient Humidity	5% to 85% RH
Weight	Approx. 210g
Packaging	EPE Foam
Shock resistance *	Functional 98m/s² Destructive 980m/s²
Vibration resistance*	10Hz to 55Hz 1.0mm DA
Mechanical Life	3×10^5ops
Terminal Configuration	pcb

Note:
* :Excluding width-directional parameters

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	48	3	40% to 100% Rated Voltage（at 23℃）
24	18	1.2	192	3	50% to 100% Rated Voltage（at 85℃）

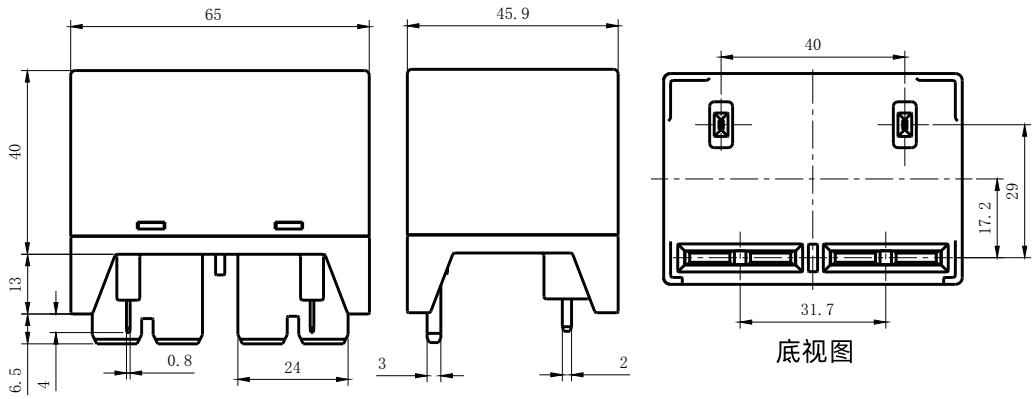
Note:
(1) Continuous application of voltage above the holding voltage may cause coil overheating and failure
(2) The holding voltage is applied subsequent to 200ms of the rated voltage.

Safety certification load

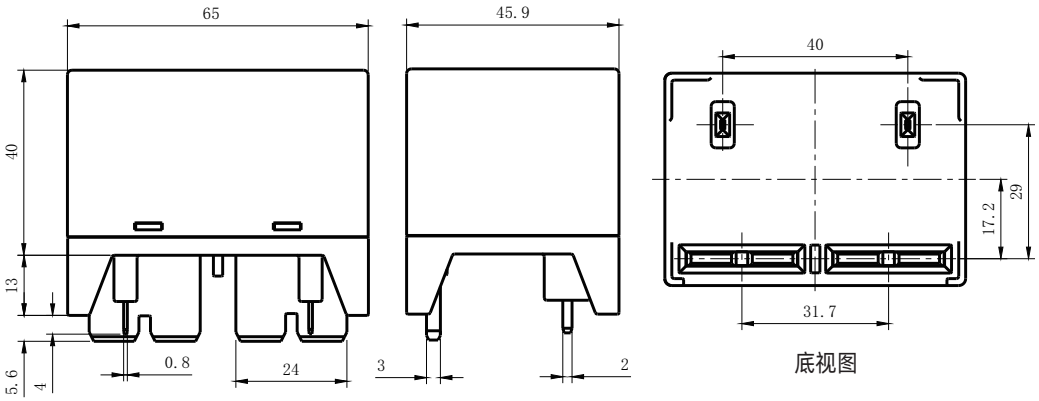
Certification	Approved ratings
UL/CUL	Main Contact: Making 50A,Carrying 270A,Breaking 50A, 1000VAC, Resistiveload,85℃，1s On 9s Off.
TUV	
CQC	

Dimensions

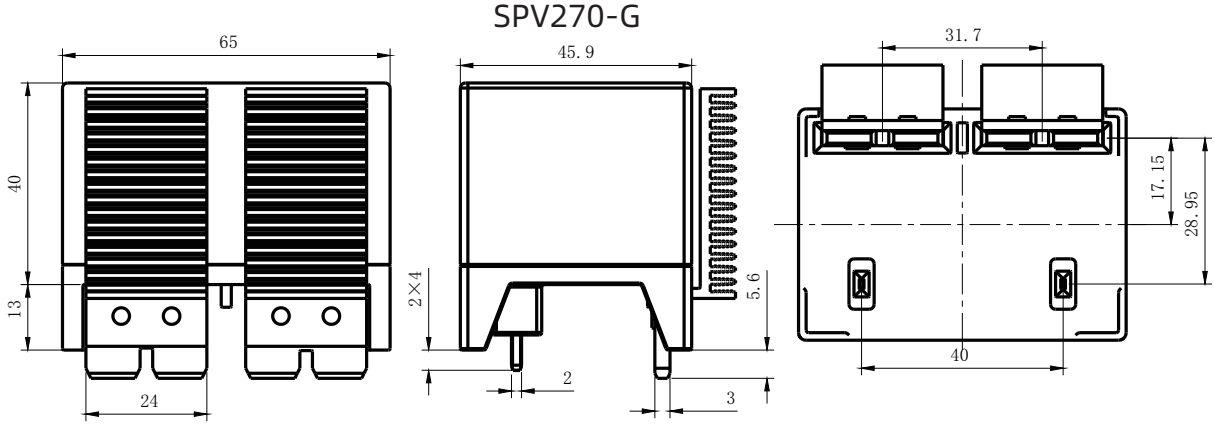
SPV270



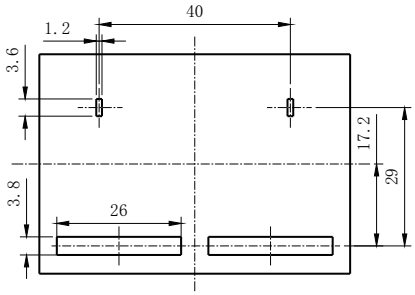
SPV270-S



SPV270-G



Wiring diagram (bottom view)

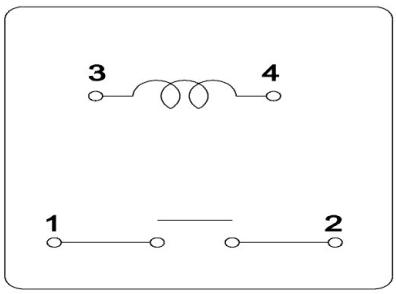


未注尺寸公差：

＜1mm：±0.2mm
1~5mm：±0.3mm
＞5mm：±0.4mm

注：1、引出脚尺寸为预焊前尺寸
2、安装孔尺寸公差：±0.1mm

Wiring Diagrams



Product Code Structure

SPV	270	-M	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:	
						Coil specification: (VDC)	12,24
						Contact form:	-M: Form A
						Load current:	270: 270A
						Basic model:	SPV

Note:

(1) Flux-proof type can not be used in polluted environment containing HS, SO_2, 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.