HF36F-V MINIATURE HIGH POWER RELAY

File No.: E133481

File No.: R50632048

File No.: CQC24002435863

Features

- 15 mm wide slim relay
- 20A AC/DC switching capability
- High sensitivity,Coil power consumption is only 0.53W
- DC400V 20A bidirectional opening and closing is realized through 2 contacts of the product in series

RoHS compliant

CONTACT DATA

Contact arrangement	1H
Contact resistance(initial)	100mΩ max. (at 1A 6VDC)
Contact material	$AgSnO_2$
Contact rating(Res.Res. load)	20A 200VAC
Max.swtiching voltage	200VDC/277VAC
Max.switching current	20A
Max.switching capacity	4000W/4432VA
Mechanical endurance	2×10^6 OPS
Electrical endurance	1×10^5 OPS (85℃,1s on 9s off,20A 200VDC, Resistive load)

Notes: The data shown above are initial values.

COIL DATA

23℃

Nominal Voltage VDC	Pick-up Voltage VDC max.[1)]	Drop-out Voltage VDC min.[1)]	Max. Allowable Voltage VDC[2)]	Coil Resistance Ω
5	3.75	0.25	6.5	47×(1±10%)
6	4.5	0.30	7.8	68×(1±10%)
9	6.75	0.45	11.7	155×(1±10%)
12	9.00	0.60	15.6	270×(1±10%)
24	18.0	1.20	31.2	1080×(1±10%)

Notes: 1) The data shown above are initial values.
2) Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.

CHARACTERISTICS

Insulation resistance		1000MΩ(500VDC)
Dielectric strength	Between open&contacts	2500VAC 1min
	Between coil contacts	4000VAC 1min
Operate time (at rated. volt.)		15ms max.
Release time (at rated. volt.)		5ms max.
Shock resistance	Functional	98m/s²
	Destructive	980m/s²
Humidity		5% to 85%RH
Ambient temperature		-40℃ to 85℃
Vibration resistance		10Hz to 55Hz1.5mm DA
Termination		PCB
Unit weight		Approx. 20g
Construction		Flux proofed Plastic sealed

Notes: The data shown above are initial values.

SAFETY APPROVAL RATINGS

UL/CUL	20A 200VDC 85℃ (2 contact connection)20A 400VDC 85℃ 16A 277VAC 85℃
TÜV	20A 200VDC 85℃ (2 contact connection)20A 400VDC 85℃ 16A 277VAC 85℃
CQC	20A 200VDC 85℃ (2 contact connection)20A 400VDC 85℃ 16A 277VAC 85℃

Notes: Only typical loads are listed above.Other load specifications can be available upon request.

COIL

Coil power	Approx.0.53W

ORDERING INFORMATION

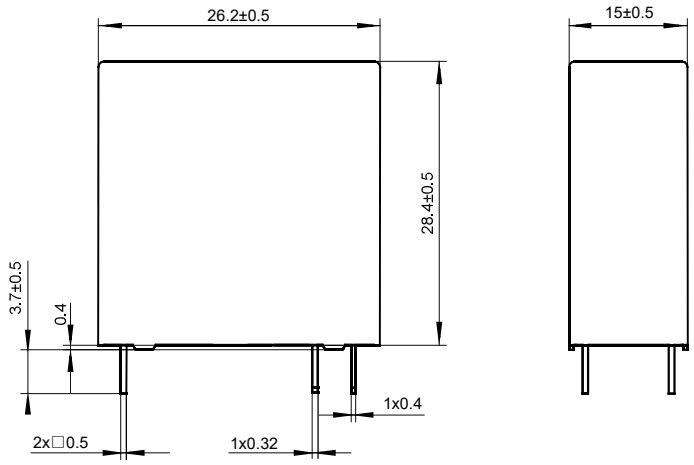
	HF36F-V/	12	-H	S	T	F	（XXX）
Type							
Coil voltage	5,6,9,12,24VDC						
Contact arrangement	**H:**1 Form A						
Construction	S: Plastic sealed	Nil: Flux proofed					
Contact material	**T:** $AgSnO_2$						
Insulation standard	**F:** Class F						
Special code	**XXX:** Customer special requiremen； **Nil:** Standard						

Notes: 1) Contact is recommended for suitable condition and specifications if water cleaning or surface process is involved in assembling relays on PCB.
2) The customer special requirement express as special code after evaluating by Hongfa.
3) Storage, transportation and installation can not have a strong magnetic field around.
4) Product contains magnet, so there will be mutual exclusion or attraction between products. During the installation, please consider the installation mounting distance.

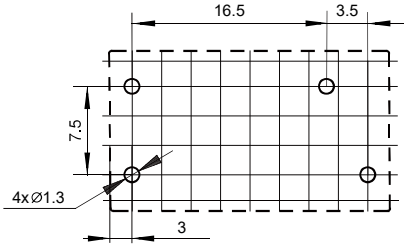
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

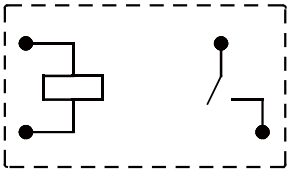
Outline Dimensions



PCB Layout(Bottom view)



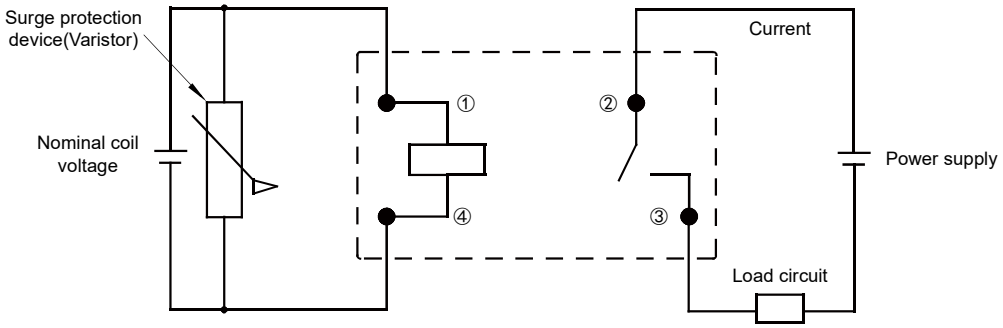
Wiring Diagram(Bottom view)



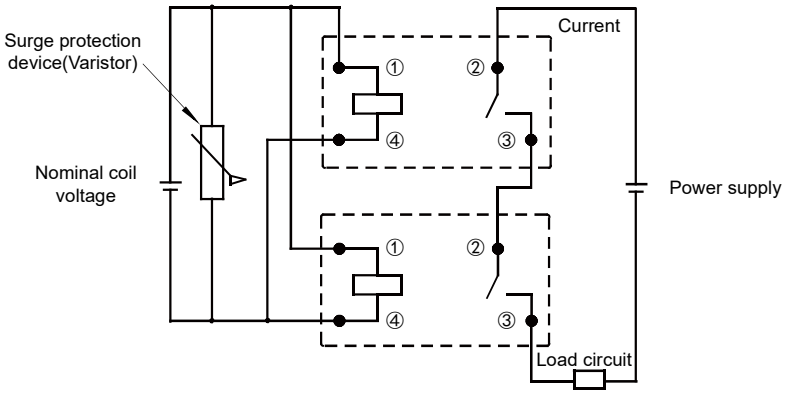
Notes:1) The pin dimension of the product outline drawing is the size before tinning (it will become larger after tinning), and the mounting hole size is the recommended design size of the PCB board hole. The specific PCB board hole design size can be mapped and adjusted according to the actual product.
2) In case of no tolerance shown in outline dimension: outline dimension≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm, outline dimension＞5mm, tolerance should be ±0.4mm；
3) The tolerance without indicating for PCB layout is always ±0.1mm；

CIRCUIT DIAGRAM

Single load circuit wiring diagram



Wiring diagram for series connection of 2 contacts and parallel connection of coils



Notes:
1) The output contact terminals and the input coil terminal are no polarity to distinguish.
2) Avoid using relay under the strong magnetic field,which will decrease the blast function and magnetic,thus cause the arc can not be interrupted and relay damaged.
3) To avoid using relays under strong magnetic field because it will change the parameters of relay such as pull-in and drop-out voltage.
4) There is magnetic element inside, the magnetism would make the relays stick to each other, in order to avoid the sticking that may lead to deformation or parameter change inside the relay, gap is needed between the relay units.
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6) There is magnetic element inside, the magnetism would make the relays repel each other. When more than one relay need in board layout,there should be gap between each units,in order to avoid the repel and soldering issue.