HF36F-20 MINIATURE HIGH POWER RELAY

File No.: E134517

File No.: R50263288

File No.: CQC21002316568

Features

- 10.5mm Wide Slim Relay
- 20A switching capability
- High sensitivity,Coil power consumption is only 0.53W
- High surge current resistance: TV-8
- Insulation distance ⩾6.4mm
- Surge Voltage between Coil Contacts 10kV
- Optional explosion-proof specifications

RoHS compliant

CONTACT DATA

Contact arrangement	1A
Contact resistance	100mΩ max. (at 1A 6VDC)
Contact material	$AgSnO_2$
Contact rating(Res.)	20A 277VAC
Max.swtiching voltage	277VAC
Max.switching current	20A
Max.switching power	5540VA
Mechanical endurance	2×10^6 OPS
Electrical endurance	5×10^4 OPS (20A 277VAC,Resistive load,85˚C, 1s on 9s off)

Notes: 1) The data shown above are initial values.

COIL DATA 23˚C

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min	Max. Allowable Voltage VDC	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%)
48	36.0	2.40	62.4	4400×(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	1000VAC 1min
	Between coil & contacts	4000VAC 1min
Operate time (at nomi. volt.)		15ms max.
Release time (at nomi. volt.)		5ms max.
Shock resistance	Functional	98m/s²
	Destructive	980m/s²
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		5% to 85%RH
Ambient temperature		-40˚C to 85˚C
Termination		PCB
Unit weight		Approx. 12g
Construction		Plastic sealed Non-plastic sealed

Notes: 1) The data shown above are initial values.

SAFETY APPROVAL RATINGS

UL/CUL	20A 277VAC 85˚C 16A 277VAC 85˚C Making 20A,Breaking 5A 277VAC 85˚C TV-8 120VAC 40˚C
TUV	20A 277VAC 85˚C 16A 277VAC 85˚C Making 20A,Breaking 5A 277VAC 85˚C IEC62368-1 20A 277VAC 85˚C
CQC	20A 277VAC 85˚C 16A 277VAC 85˚C Making 20A,Breaking 5A 277VAC 85˚C

Notes: 1) Only some typical rating are listed above.If more details are required,please contact us.

COIL

Coil power	Approx.0.53W

ORDERING INFORMATION

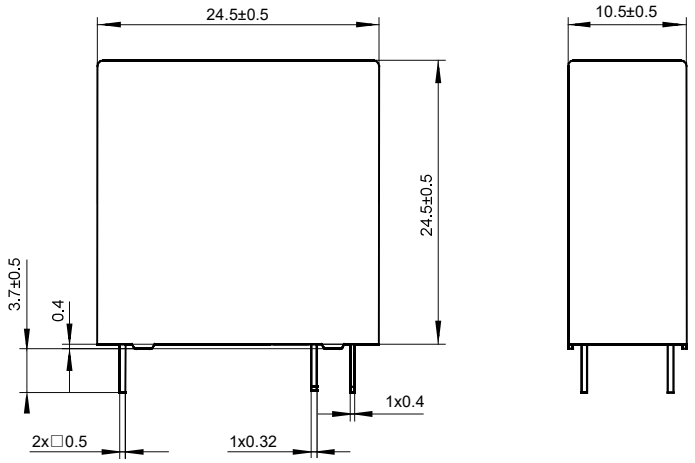
	HF36F-20/	12	-H	S	T	F	（XXX）
Type							
Coil voltage	5,6,9,12,24,48VDC						
Contact arrangement	**H:**1 Form A						
Construction[1)]	S: Plastic sealed	Nil: Non-plastic sealed					
Contact material	**T:** $AgSnO_2$						
Insulation class	**F:** Class F						
Special code	**XXX:** Customer special requiremen； **Nil:** Standard						

Notes: 1) Non-plastic sealed relays cannot be used in environment pollution (containing certain amount of H_2S, SO_2, NO_2, dust and other pollutants);
2) Non-plastic sealed relays cannot be cleaned and treated as a whole after being loaded into PCB welding;
3) The customer special requirement express as special code after evaluating by Hongfa.

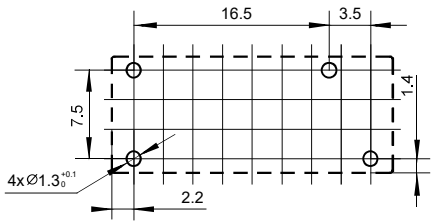
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

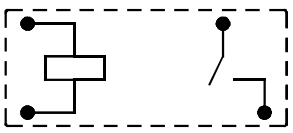
Outline Dimensions



PCB Layout(Bottom view)



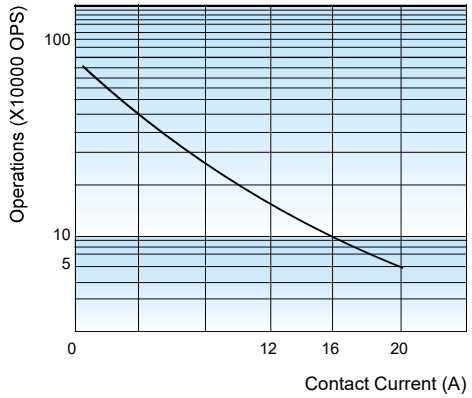
Wiring Diagram(Bottom view)



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 and ≤30mm, tolerance should be ±0.4mm;outline dimension＞30 mm, tolerance should be ±0.6mm.
3) The tolerance without indicating for PCB layout is always ±0.1mm.

CHARACTERISTIC CURVES

ENDURANCE CURVE



Test conditions:
20A 277VAC,Resistive load,at 85℃,1s on 9s off.

COIL TEMPERATURE RISE