HF49FD

MINIATURE POWER RELAY



File No.:E133481





(CQC)

File No.:CQC02001001937

Features

- 5A switching capability
- 3kV dielectric strength (between coil and contacts)
- Slim size (width 5mm, height 12.5mm)
- High sensitive: Min. 120mW
- HF49FD terminals compatible with HFS8 (Output module) and HFS20 SSR
- Sockets available

COIL DATA

- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (20.0 x 5.0 x 12.5) mm

CONTACT DATA	
Contact arrangement	1A
Contact Resistance	100mΩ (at 1A 6VDC)
Contact material	AgSnO2, AgNi
Contact rating (Res. load)	5A 250VAC/30VDC
Max. switching voltage	250VAC /30VDC
Max. switching current	5A
Max. switching power	1250VA / 150W
Mechanical endurance	2 x 10 ⁷ ops
Electrical endurance	1 x 10 ⁵ ops (See approval reports for more details)

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CHARACTERISTICS				
Insulation resistance		1000MΩ (at 500VDC)		
Dielectric strength	Between coil & contacts		3000VAC 1min	
	Between open contacts		1000VAC 1min	
Operate time (at nomi.volt.)		10ms max.		
Release time (at nomi.volt.)		5ms max.		
Shock resistance		Functional	98m/s ²	
		Destructive	980m/s ²	
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. 3g		
Construction		Wash tight		

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

2) Please find coil temperature curve in the characteristic curves below.

COIL	
Coil power	120 to 180mW

COIL DATA				at 23 C
Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC 85°C	Coil Resistance Ω
5	3.50	0.25	6.0	208 x (1±10%)
6	4.20	0.30	7.2	300 x (1±10%)
9	6.30	0.45	10.8	675 x (1±10%)
12	8.40	0.60	14.4	1200 x (1±10%)
18	12.6	0.90	21.6	2700 x (1±15%)
24	16.8	1.20	28.8	3200 x (1±15%)

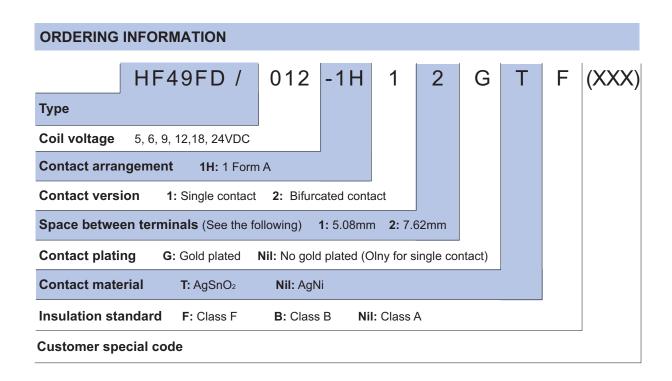
Notes: 1) All above data are tested when the relays terminals are downward position. Other positions of the terminals, the pick-up and dropout voltages will have $^{\pm}\,5\%$ tolerance. For example, when the relay terminals are transverse position, the max. pick-up voltage change is 75% of nominal voltage.

2) The max. allowable voltage in the COIL DATA is coil overdrive voltage, it is the instantaneous max. voltage which the relay coil could endure in a very short time.

SAFETY APPROVAL RATINGS			
UL&CUL	5A 30VDC L/R =0ms		
	5A 250VAC cosø=1		
TÜV	5A 250VAC COSØ=1		
	5A 30VDC L/R=0ms		

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

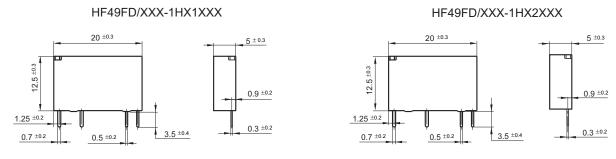


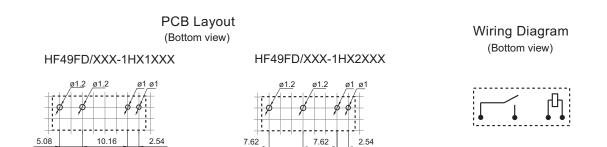


OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions



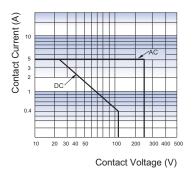


Remark: 1) In case of no tolerance shown in outline dimension: outline dimension \leq 1mm, tolerance should be \pm 0.2mm; outline dimension >1mm and \leq 5mm, tolerance should be \pm 0.3mm; outline dimension >5mm, tolerance should be \pm 0.4mm.

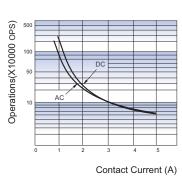
- 2) The tolerance without indicating for PCB layout is always ±0.1mm.
- 3) The width of the gridding is 2.54mm.

CHARACTERISTIC CURVES

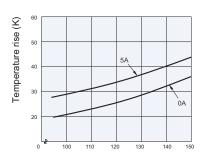
MAXIMUM SWITCHING POWER



ENDURANCE CURVE



COIL TEMPERATURE RISE



Percentage Of Nominal Coil Voltage

Disclaimer

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

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

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