

HF102F

MINIATURE HIGH POWER RELAY



File No.:E134517



File No.:40024142



File No.:CQC08002028081



Features

- 4.5kV dielectric strength (between coil and contacts)
- Heavy load up to 5000VA
- Ideal for motor switching
- Withstand inrush current of 80A
- PCB & QC layouts available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (30.5 x 16.0 x 23.5) mm

CONTACT DATA

Contact arrangement	1A
Contact resistance	100mΩ (at 1A 6VDC)
Contact material	AgSnO ₂ , AgCdO
Contact rating	Resistive: 20A Motor, Inrush: 80A 0.3s (cosφ=0.7) Break: 20A (cosφ=0.9)
Max. switching voltage	250VAC
Max. switching current	Resistive: 25A Motor: 80A
Max. switching power	6250VA
Mechanical endurance	2 x 10 ⁶ OPS
Electrical endurance	1 x 10 ⁵ OPS (See approval reports for more details)

CHARACTERISTICS

Insulation resistance	1000MΩ (at 500VDC)	
Dielectric strength	Between coil & contacts	4500VAC 1min
	Between open contacts	1000VAC 1min
Operate time (at nomi. volt.)	20ms max.	
Release time (at nomi. volt.)	10ms max.	
Temperature rise (at nomi. volt.)	60K max.	
Shock resistance	Functional	196m/s ²
	Destructive	980m/s ²
Vibration resistance	10Hz to 55Hz 1.5mm DA	
Ambient temperature	-25°C to 85°C	
Humidity	85% RH, 40°C	
Termination	HF102F: PCB & QC HF102F-P: PCB	
Unit weight	Approx. 23g	
Construction	Dust protected	

Notes: The data shown above are initial values.

COIL

Coil power	900mW
------------	-------

COIL DATA

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
5	3.5	0.5	6.0	27.8 x (1±10%)
12	8.4	1.2	14.4	160 x (1±10%)
24	16.8	2.4	28.8	640 x (1±10%)
48	33.6	4.8	57.6	2560 x (1±10%)

SAFETY APPROVAL RATINGS

UL/CUL	25A 250VAC
	20A 250VAC
	1HP 120VAC
	2HP 240VAC
VDE	25A 250VAC at 55°C
	20A 250VAC at 85°C

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



HONGFA RELAY

ISO9001, ISO/TS16949, ISO14001, OHSAS18001, IECQ QC 080000 CERTIFIED

2010 Rev. 1.00

ORDERING INFORMATION

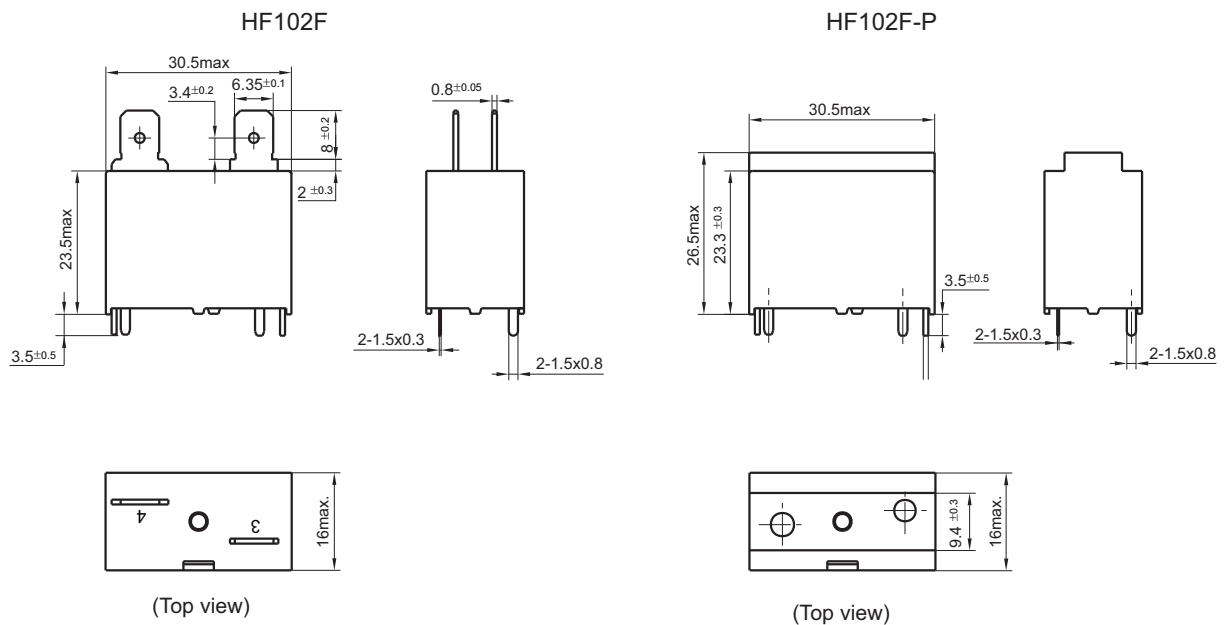
		HF102F /	T	12VDC	(XXX)
Type	HF102F-P: PCB HF102F: PCB & QC				
Contact material	T: AgSnO ₂		Nil: AgCdO		
Coil voltage	5, 12, 24, 48VDC				
Customer special code					

Notes: HF102F is unsealed version which cannot be washed.

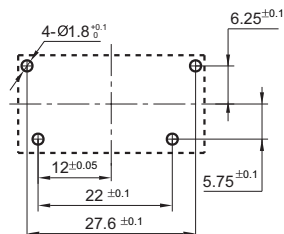
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

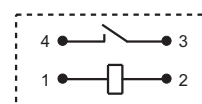
Outline Dimensions



PCB Layout (Bottom view)



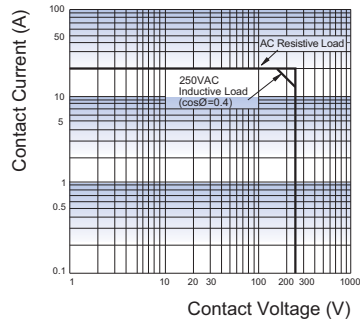
Wiring Diagram



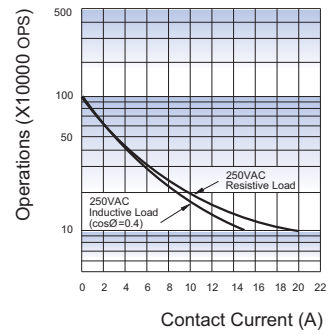
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.
2) The tolerance without indicating for PCB layout is always ±0.1mm.

CHARACTERISTIC CURVES

MAXIMUM SWITCHING POWER



ENDURANCE CURVE



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.

© Xiamen Hongfa Electroacoustic Co., Ltd. All rights of Hongfa are reserved.