

# HF162F/HF162F-E

# SUBMINIATURE INTERMEDIATE POWER RELAY



File No.:E133481



File No.:40032669



File No.:CQC10002050942



## Features

- High inrush current: TV-8 125VAC (118A inrush current)
- 3A/100A 250VAC capacitive load
- Low height, only 9.3mm (excluding buttons)
- High sensitivity: 250mW, Ideal for device power reduction
- Silent type available
- Typical applications: Flat-panel TVs, Audio visual equipment and other slim profile devices
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (26.3 x 26.1 x 10.0) mm

## CONTACT DATA

Contact arrangement	1A
Contact resistance	100mΩ max.(at 1A 6VDC)
Contact material	Silver alloy
Contact rating	10A 125VAC 8A 277VAC 5A 277VAC TV-8 125VAC 3A/100A 250VAC (Capacitive) (Standard type)
Max. switching voltage	277VAC
Max. switching current	10A
Max. switching power	2216VA
Mechanical endurance	1 x 10 <sup>6</sup> OPS 5 x 10 <sup>4</sup> OPS
Electrical endurance	(10A 125VAC, Resistive load, Room temp., 1s on 9s off)

## CHARACTERISTICS

Insulation resistance	1000MΩ (at 500VDC)	
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	1000VAC 1min
Surge voltage (between coil & contacts)	10kV (1.2 / 50μs)	
Operate time (at nomi. volt.)	15ms max.	
Release time (at nomi. volt.)	5ms max.	
Ambient temperature	-40°C to 70°C	
Humidity	5% to 85% RH	
Shock resistance	Functional	196m/s <sup>2</sup>
	Destructive	980m/s <sup>2</sup>
Vibration resistance	10Hz to 55Hz 1.5mm DA	
Termination	PCB	
Unit weight	Approx.12g	
Construction	Flux proofed	

- Notes:** 1) The data shown above are initial values.  
2) Please find coil temperature curve in the characteristic curves below.  
3) UL insulation system: Class A

## COIL

Coil power Approx. 250mW

## COIL DATA

at 23°C

### Standard type

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min.	Max. Voltage VDC*	Coil Resistance Ω
3	2.25	0.3	3.9	36 x (1±10%)
5	3.75	0.5	6.5	100 x (1±10%)
6	4.5	0.6	7.8	145 x (1±10%)
9	6.75	0.9	11.7	325 x (1±10%)
12	9.0	1.2	15.6	575 x (1±10%)
18	13.5	1.8	23.4	1300 x (1±10%)
24	18.0	2.4	31.2	2300 x (1±10%)

### Silent type

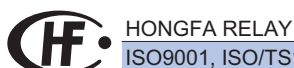
Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min.	Max. Voltage VDC*	Coil Resistance Ω
3	2.4	0.3	3.9	36 x (1±10%)
5	4.0	0.5	6.5	100 x (1±10%)
6	4.8	0.6	7.8	145 x (1±10%)
9	7.2	0.9	11.7	325 x (1±10%)
12	9.6	1.2	15.6	575 x (1±10%)
18	14.4	1.8	23.4	1300 x (1±10%)
24	19.2	2.4	31.2	2300 x (1±10%)

**Notes:** \*Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.

## SAFETY APPROVAL RATINGS

UL/CUL	10A 125VAC
	8A 277VAC
	5A 277VAC
	TV-8 125VAC
VDE	8A 250VAC
	5A 250VAC
	3A/100A 250VAC(Standard type)

- Notes:** 1) All values unspecified are at room temperature.  
2) Only typical loads are listed above. Other load specifications can be available upon request.



HONGFA RELAY

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

2014 Rev. 1.01

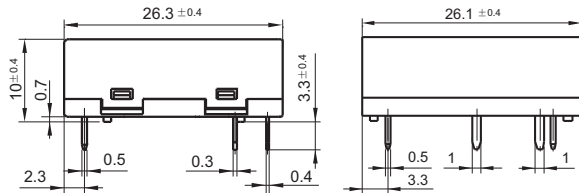
## ORDERING INFORMATION

	<b>HF162F /</b>	<b>12</b>	<b>-H</b>	<b>(XXX)</b>
<b>Type</b>	HF162F: Standard type HF162F-E: Silent type			
<b>Coil voltage</b>	3, 5, 6, 9, 12, 18, 24VDC			
<b>Contact arrangement</b>	H: 1 Form A			
<b>Customer special code</b>				

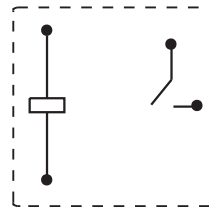
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

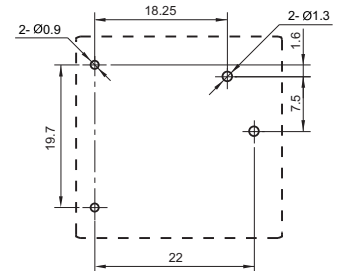
Outline Dimensions



Wiring Diagram  
(Bottom view)



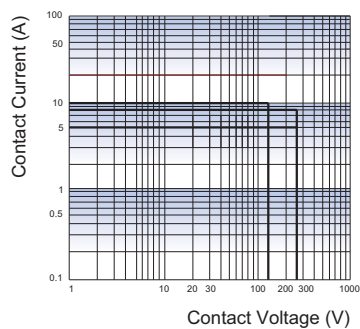
PCB Layout  
(Bottom view)



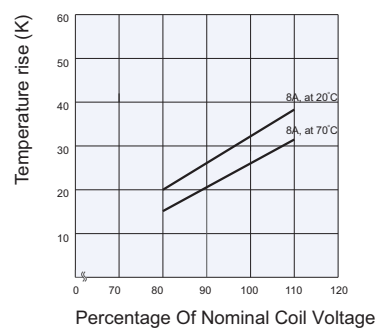
- Remark: 1) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1$ mm, tolerance should be  $\pm 0.2$ mm; outline dimension  $> 1$ mm and  $\leq 5$ mm, tolerance should be  $\pm 0.3$ mm; outline dimension  $> 5$ mm, tolerance should be  $\pm 0.4$ mm.  
2) The tolerance without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

## CHARACTERISTIC CURVES

MAXIMUM SWITCHING POWER



COIL TEMPERATURE RISE



### Disclaimer

The specification is for reference only. See to "Terminology and Guidelines" for more information. Specifications 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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