

# HF62F

# MINIATURE HIGH POWER RELAY



File No.:E133481



File No.:R9934089



File No.:CQC02001001951



### Features

- 20A switching capability
- 5kV dielectric strength (between coil and contacts)
- 10kV impulse withstand voltage (between coil and contacts)
- creepage distance: 8mm
- PCB & QC layouts available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (29.0 x 12.6 x 24.4) mm

### CONTACT DATA

Contact arrangement	1A
Contact resistance	50mΩ (at 1A 6VDC)
Contact material	AgSnO <sub>2</sub>
Contact rating (Res. load)	16A 250VAC 16A 30VDC
Max. switching voltage	277VAC / 30VDC
Max. switching current	20A
Max. switching power	4000VAC / 480W
Mechanical endurance	1 x 10 <sup>7</sup> OPS
Electrical endurance	1 x 10 <sup>5</sup> OPS

### CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	5000VAC 1min
	Between open contacts	1000VAC 1min
Operate time (at nomi. volt.)		20ms max.
Release time (at nomi. volt.)		10ms max.
Humidity		35% to 85% RH, 40°C
Ambient temperature	Class B	-40°C to 70°C
	Class F	-40°C to 85°C
Shock resistance	Functional	98m/s <sup>2</sup>
	Destructive	980m/s <sup>2</sup>
Vibration resistance		10Hz to 55Hz 1.5mm DA
Termination		T type: PCB Standard: PCB & QC
Unit weight		Approx. 15g
Construction		Flux proofed

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

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

### COIL

Coil power	540mW
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### COIL DATA

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
5	4.0	0.5	6.50	47 x (1±10%)
6	4.8	0.6	7.80	68 x (1±10%)
9	7.2	0.9	11.7	155 x (1±10%)
12	9.6	1.2	15.6	270 x (1±10%)
18	14.4	1.8	23.4	620 x (1±10%)
24	19.2	2.4	31.2	1100 x (1±10%)
48	38.4	4.8	62.4	4400 x (1±10%)

### SAFETY APPROVAL RATINGS

UL&CUL	16A 250VAC
	16A 30VDC
	20A 125VAC
TÜV	16A 250VAC COSØ=1
	16A 30VDC COSØ=1

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

2008 Rev. 1.00

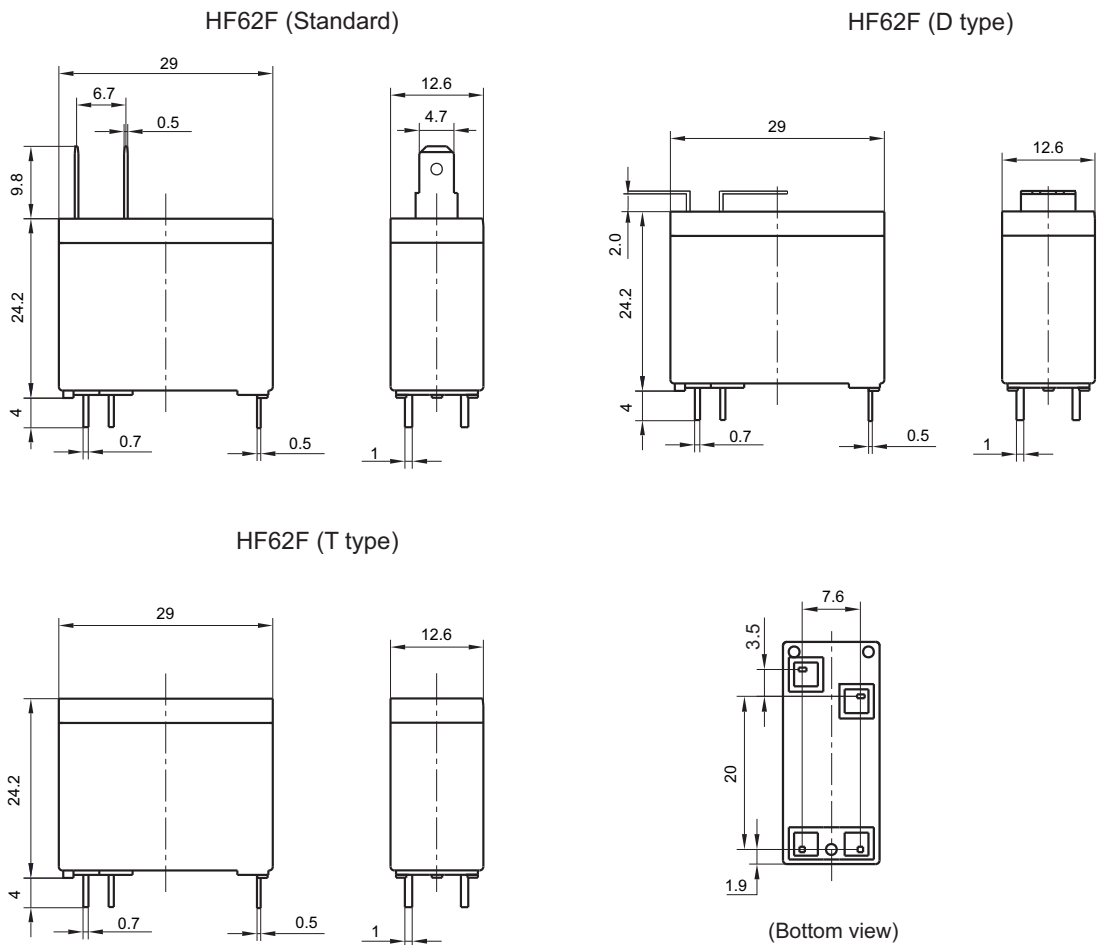
## ORDERING INFORMATION

<b>HF62F / 012 -1H T F (XXX)</b>	
<b>Type</b>	
<b>Coil voltage</b>	5, 6, 9, 12, 18, 24, 48VDC
<b>Contact arrangement</b>	1H: 1 Form A
<b>Termination</b>	D: Bended QC    T: PCB    Nil: PCB & QC
<b>Insulation Standard</b>	F: Class F    Nil: Class B
<b>Customer special code</b>	

## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

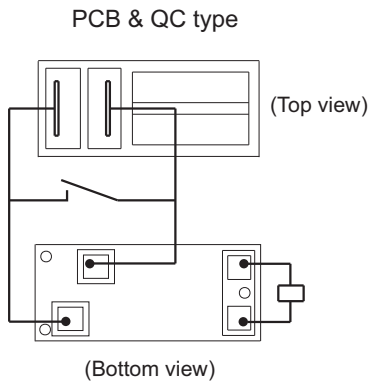
### Outline Dimensions



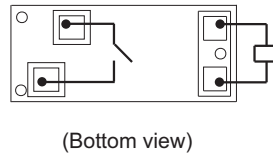
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

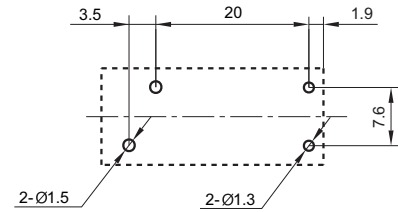
### Wiring Diagram



### PCB type



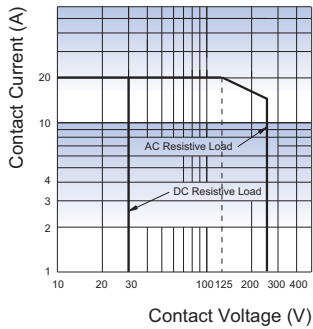
### PCB Layout (Bottom view)



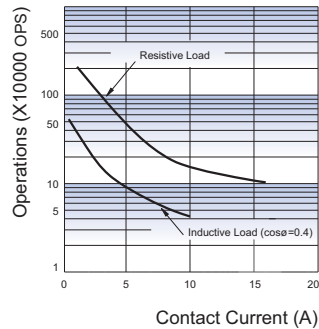
- Remark: 1) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $> 5\text{mm}$ , tolerance should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

## CHARACTERISTIC CURVES

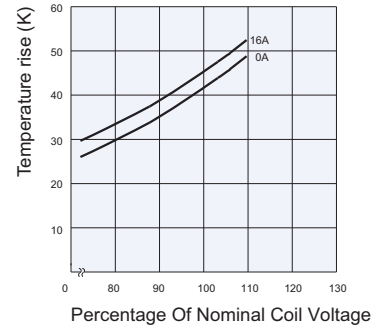
### MAXIMUM SWITCHING POWER



### ENDURANCE CURVE



### COIL TEMPERATURE RISE



### 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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