

# HF84F

# HIGH POWER RELAY



File No.:E134517 (AC type)



### Features

- 16A switching capability
- 2.5kV dielectric strength (between coil and contacts)
- Panel mount types available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (47.0 x 32.0 x 28.5)mm

### CONTACT DATA

Contact arrangement	1A, 1B, 1C	
Contact resistance	50mΩ max.(at 1A 24VDC)	
Contact material	AgCe	
Contact rating (Res.load)	1A, 1C	1B
	16A 250VAC, Resistive load	8A 250VAC, General load
Max. switching voltage	250VAC	
Max. switching current	16A	
Max. switching power	4000VAC	
Mechanical endurance	1 x 10 <sup>6</sup> OPS	
Electrical endurance	7 type: 3 x 10 <sup>4</sup> OPS (8A 250VAC, General use, at 40°C, 1s on 9s off)	
	1, 4 type: 1 x 10 <sup>5</sup> OPS (16A 250VAC, Resistive load, at 65°C, 1s on 9s off)	

### CHARACTERISTICS

Insulation resistance	500MΩ (at 500VDC)	
Dielectric strength	Between coil & contacts	2500VAC 1min
	Between open contacts	1000VAC 1min
Operate time (at nomi. volt.)	DC type: 25ms max.	
Release time (at nomi. volt.)	DC type: 25ms max.	
Temperature rise (at nomi. volt.)	90K max.	
Shock resistance (Functional)	147m/s <sup>2</sup> 11ms	
Vibration resistance	10Hz to 55Hz 2.54mm DA	
Ambient temperature	-40°C to 65°C	
Humidity	5% to 85% RH	
Termination	QC	
Unit weight	Approx. 75g	
Construction	Dust protected	

Notes: 1) The data shown above are initial values.  
2) UL insulation system: Class A

### COIL

Coil power	DC type: 2.1W ; AC type: 3.5VA
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### COIL DATA

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min.	Max. Voltage VDC *	Coil Resistance Ω
6	4.50	0.6	6.6	17.5 x (1±10%)
9	6.75	0.9	9.9	40 x (1±10%)
12	9.00	1.2	13.2	70 x (1±10%)
24	18.0	2.4	26.4	280 x (1±10%)
48	36.0	4.8	52.8	1120 x (1±10%)
120	90.0	12.0	132	7000 x (1±10%)

Nominal Voltage VAC	Pick-up Voltage VAC max.	Drop-out Voltage VAC min.	Max. Voltage VAC *	Coil Resistance Ω
6	5.1	1.2	6.6	4.8 x (1±10%)
12	10.2	2.4	13.2	19 x (1±10%)
24	20.4	4.8	26.4	90 x (1±10%)
48	40.6	9.6	52.8	300 x (1±10%)
120	102	24	132	2000 x (1±10%)
240	204	48	264	7200 x (1±10%)
277	235	55.4	304.7	11000 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 (AC type)	Rating
HF84F-1	8FLA, 25LRA 250VAC at 40°C
	16A 250VAC Resistive at 65°C
	8A 250VAC General use at 40°C
HF84F-4	8FLA, 25LRA 250VAC at 40°C
	16A 250VAC Resistive at 65°C
	8A 250VAC General use at 40°C
HF84F-7	8FLA, 25LRA 250VAC at 40°C
	8A 250VAC General use at 40°C

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

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## ORDERING INFORMATION

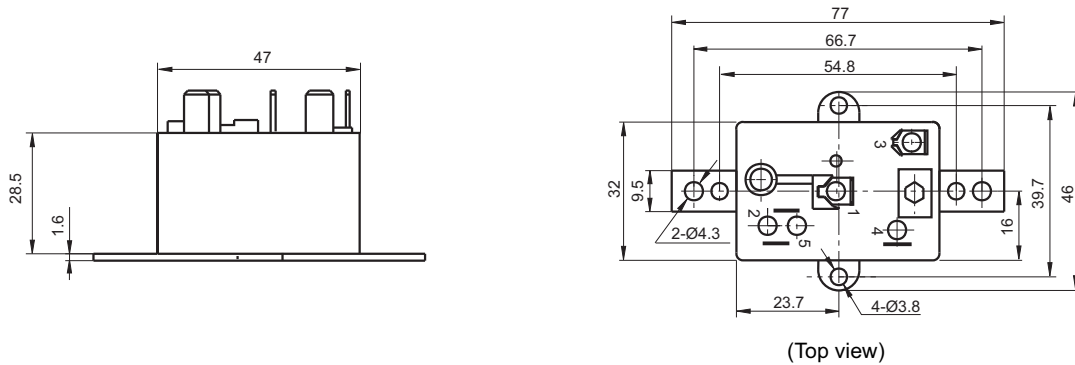
Type	HF84F	-1	A	24	(XXX)
Contact arrangement	1: 1 Form C 4: 1 Form A 7: 1 Form B				
Coil voltage form	D: DC A: AC				
Coil voltage	AC: 6VAC to 277VAC DC: 6VDC to 120VDC (No UL approved)				
Special code <sup>1)</sup>	XXX: Customer special requirement		Nil: Standard		

Notes: 1) The customer special requirement express as special code after evaluating by Hongfa.

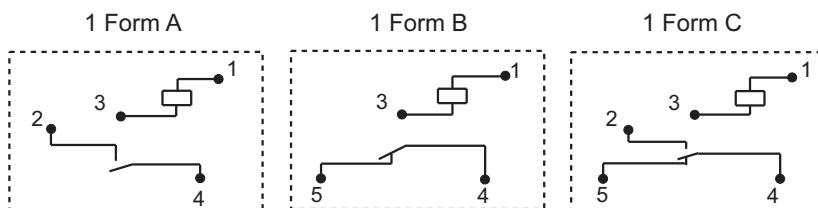
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

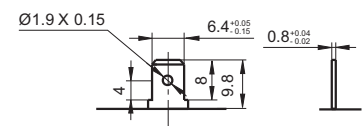
### Outline Dimensions



### Wiring Diagram (Top view)



### Terminals type



Remark: 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.

### 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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