HF84F HIGH POWER RELAY

c UL us

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 10^6OPS	
Electrical endurance	7 type: 3 x 10^4OPS (8A 250VAC, General use, at 40°C, 1s on 9s off) 1, 4 type: 1 x 10^5OPS (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/s² 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

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)	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.

ORDERING INFORMATION

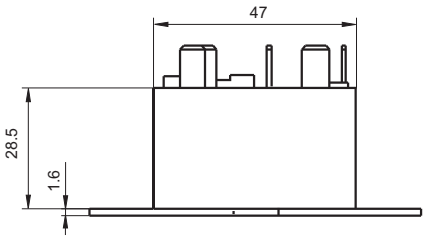
	HF84F	-1	A	24	(XXX)
Type					
Contact arrangement	**1:** 1 Form C **4:** 1 Form A **7:** 1 Form B				
Coil voltage form	**D:** DC **A:** AC				
Coil voltage	**AC:** 6VAC to 277VAC **DC:** 6VDC to 120VDC (No UL approved)				
Special code[1)]	**XXX:** Customer special requirement **Nil:** Standard				

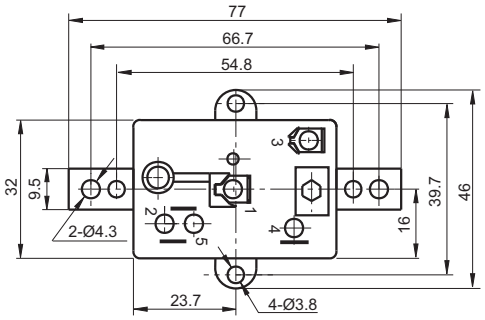
Notes: 1) The customer special requirement express as special code after evaluating by Hongfa.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions

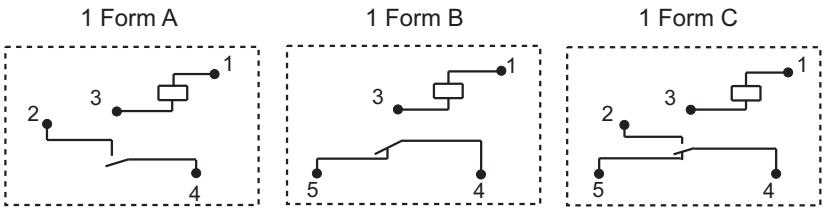




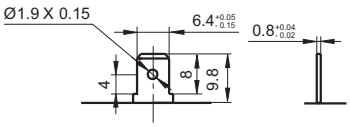
(Top view)

Wiring Diagram

(Top view)



Terminals type



Remark: 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.