HF10FH MINIATURE HIGH POWER RELAY

c UL us
File No.:134517

Features

- 10A switching capability
- Long endurance (Min. 100,000 electrical operations)
- Industry standard 8 or 11 round terminals
- Sockets available
- With push button
- Smoke cover type available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (35.5 x 35.5 x 55.3) mm

CONTACT DATA

Contact arrangement	2C, 3C
Contact resistance	100mΩ (at 1A 24VDC)
Contact material	See ordering info.
Contact rating (Res. load)	2C: 10A 250VAC/30VDC 3C: (NO)10A 250VAC/30VDC (NC) 5A 250VAC/30VDC
Max. switching voltage	250VAC / 30VDC
Max. switching current	10A
Max. switching power	2500VA / 300W
Mechanical endurance	1 x 10^7 OPS
Electrical endurance	1 x 10^5 OPS (See approval reports for more details)

CHARACTERISTICS

Insulation resistance		500MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	2500VAC 1min
	Between open contacts	2000VAC 1min
Operate time (at nomi. volt.)		30ms max.
Release time (at nomi. volt.)		30ms max.
Temperature rise (at nomi. volt.)		70K max.
Shock resistance	Functional	98m/s^2
	Destructive	980m/s^2
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		98% RH, 40˚C
Ambient temperature		-40˚C to 55˚C
Termination		Octal and Undecal Type Plug
Unit weight		Approx. 100g
Construction		Dust protected

Notes: The data shown above are initial values.

COIL

Coil power	DC type: 1.5W; AC type: 2.7VA

COIL DATA at 23˚C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
6	4.80	0.60	7.20	23.5 x (1±10%)
12	9.60	1.20	14.4	95 x (1±10%)
24	19.2	2.40	28.8	430 x (1±10%)
48	38.4	4.80	57.6	1630 x (1±10%)
60	48.0	6.00	72.0	1920 x (1±10%)
100	80.0	10.0	120	6800 x (1±10%)
110	88.0	11.0	132	7300 x (1±10%)

Nominal Voltage VAC	Pick-up Voltage VAC	Drop-out Voltage VAC	Max. Allowable Voltage VAC	Coil Resistance Ω
6	4.80	1.80	7.20	3.9 x (1±10%)
12	9.60	3.60	14.4	16.9 x (1±10%)
24	19.2	7.20	28.8	70 x (1±10%)
48	38.4	14.4	57.6	315 x (1±10%)
110/120	88.0	36.0	132	1600 x (1±10%)
220/240	176	72.0	264	6800 x (1±10%)

SAFETY APPROVAL RATINGS

UL&CUL	10A 250VAC/30VDC 1/3HP 240VAC 1/3HP 120VAC 1/2HP 277VAC

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

ORDERING INFORMATION

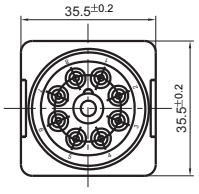
	HF10FH /	012	A	-2Z	D	T	G	(XXX)
Type								
Coil voltage	**DC:** 6, 12, 24, 48, 100, 110V **AC:** 6, 12, 24, 48, 110/120, 220/240V							
Coil voltage form	**A:** AC	**D:** DC						
Contact arrangement	**2Z:** 2 Form C **3Z:** 3 Form C **3Z-1:** 3 Form C (Different Wiring Diagram)							
LED	**D:** With LED	**Nil:** Without LED						
Contact material	**T:** $AgSnO_2$	**Nil:** AgCdO						
Contact plating	**G:** Gold plated	**Nil:** No gold plated						
Customer special code								

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

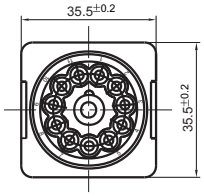
Outline Dimensions

2 Form C

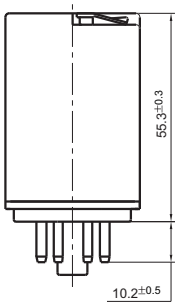


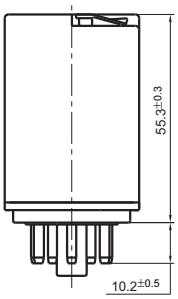
(Bottom view)

3 Form C



(Bottom view)

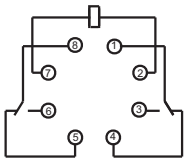




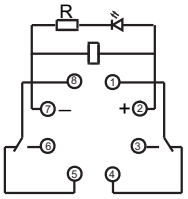
Wiring Diagram

(Bottom view)

2 Form C

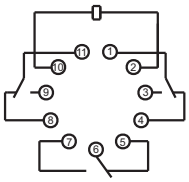


2 Form C (With LED)

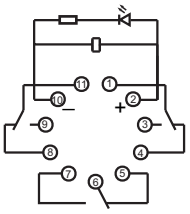


Remark: For AC parts with diode, the positive and negative pole markings on wiring diagram are not applicable.

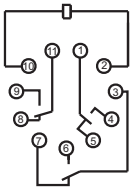
3 Form C



3 Form C (With LED)



3 Form C (Different Wiring Diagram)

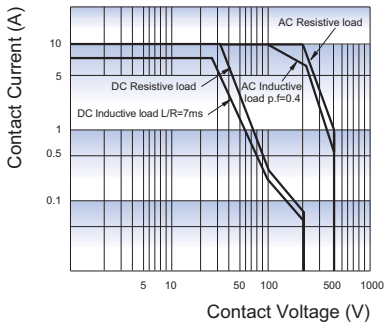


Remark: For AC parts with diode, the positive and negative pole markings on wiring diagram are not applicable.

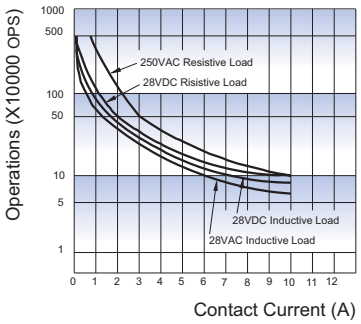
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.
2) The tolerance without indicating for PCB layout is always ±0.1mm.

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.