

HF30F

MINIATURE HIGH POWER RELAY



File No.:E133481



File No.:40055993



File No.:CQC21002317491



Features

- 10A switching capability
- 4.0kV dielectric strength (between coil and contacts)
- contact arrangement: 2 Form A
- UL insulation system: Class F
- IEC60335-1 compliant products are available
- TV-5 compliant products are available

RoHS compliant

CONTACT DATA

Contact arrangement	2A
Contact resistance	100mΩ max.(at 6VDC 1A)
Contact material	AgSnO ₂
Contact rating	10A 250VAC
Max.switching voltage	277VAC
Max.switching current	10A
Max.switching power	2770VA
Mechanical endurance	1×10 ⁶ ops
Electrical endurance	1×10 ⁵ ops
	(10A 277VAC Resistive load,Room temp.,
	1s on 9s off)
	5×10 ⁴ ops
	(10A 277VAC Resistive load,85°C,
	1s on 9s off)

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

COIL

Coil power	Approx.400mW
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COIL DATA

23°C

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min	Max. Allowable Voltage VDC	Coil Resistance Ω
3	2.25	0.15	3.9	22.5×(1±10%)
5	3.75	0.25	6.5	62.5×(1±10%)
6	4.5	0.30	7.8	90×(1±10%)
9	6.75	0.45	11.7	202×(1±10%)
12	9.00	0.60	15.6	360×(1±10%)
18	13.5	0.90	23.4	810×(1±10%)
24	18.0	1.20	31.2	1440×(1±10%)
48	36.0	2.40	62.4	5760×(1±10%)

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

2) Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.

CHARACTERISTICS

Insulation resistance		1000MΩ(500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	1000VAC 1min
	Between contacts sets	2500VAC 1min
Operate time (at nomi. volt.)		10ms
Release time (at nomi. volt.)		5ms
Shock resistance	Functional	98m/s²
	Destructive	980m/s²
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		5% to 85%RH
Ambient temperature		-40°C to 85°C
Termination		PCB
Unit weight		Approx. 9g
Construction		Plastic sealed, Flux proofed

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

SAFETY APPROVAL RATINGS

UL/CUL	2H	10A 250VAC Resistive load,40°C,1s on 9s off
		10A 250VAC Resistive load,85°C,1s on 9s off
TUV	2H	10A 250VAC General use,85°C,1s on 9s off
		10A 250VAC Resistive load,40°C,1s on 9s off
CQC	2H	10A 250VAC Resistive load,85°C,1s on 9s off
		10A 250VAC Resistive load,40°C,1s on 9s off

Notes: 1) All values unspecified are at room temperature.

2) Only some typical rating are listed above.If more details are required,please contact us.



HONGFA RELAY

ISO9001, IATF16949, ISO14001, ISO45001, IECQ QC 080000, ISO/IEC 27001 CERTIFIED

2023 Rev. 1.00

ORDERING INFORMATION

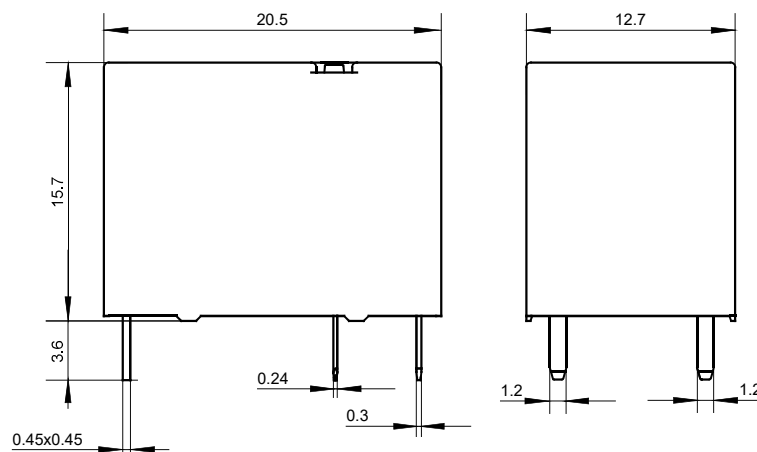
Type	HF30F/	12	-2H	S	T	F	(XXX)
Coil voltage	3, 5, 6, 9, 12, 18, 24, 48VDC						
Contact arrangement	2H:2 Form A						
Construction	S: Plastic sealed Nil: Flux proofed						
Contact material	T: AgSnO ₂						
Insulation class	F: Class F						
Special code	XXX: Customer special requiremen; Nil: Standard						

- Notes: 1) We suggest to choose plastic sealed types and validate it in real application for an unclean environment (with contaminations like H₂S, SO₂, NO₂, dust, etc).
- 2) When overall cleaning is not required, it is recommended to select flux products. Contact is recommended for suitable condition and specifications if water cleaning or surface process is involved in assembling relays on PCB.
- 3) The customer special requirement express as special code after evaluating by Hongfa.
e.g.(335) stands for product in accordance to IEC 60335-1(GWT).

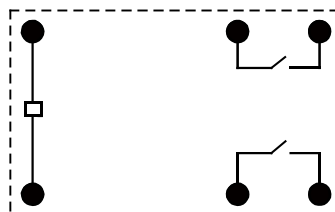
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

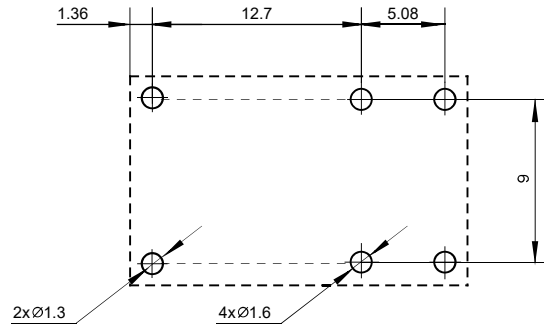
Outline Dimensions



Wiring Diagram(Bottom view)



PCB Layout(Bottom view)



- Notes:1) The pin dimension of the product outline drawing is the size before tinning (it will become larger after tinning), and the mounting hole size is the recommended design size of the PCB board hole. The specific PCB board hole design size can be mapped and adjusted according to the actual product.
- 2) 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 $> 5\text{mm}$ and $\leq 30\text{mm}$, tolerance should be $\pm 0.4\text{mm}$; outline dimension $> 30\text{mm}$, tolerance should be $\pm 0.6\text{mm}$.
- 3) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

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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