

HF42F

SUBMINIATURE INTERMEDIATE POWER RELAY



File No.:E133481



File No.:R50356443



File No.:CQC18002199982



Features

- 5A switching capability
- TV-3 125VAC approved by UL standard
- 2 Form A slim configuration

RoHS compliant

CONTACT DATA

| | |
|----------------------------------|---|
| Contact arrangement | 2A |
| Contact resistance ¹⁾ | 100mΩ max. (at 1A 6VDC) |
| Contact material | AgSnO ₂ , AgCdO |
| Contact rating (Res. load) | 5A 250VAC/30VDC |
| Max. switching voltage | 250VAC / 30VDC |
| Max. switching current | 5A |
| Max. switching power | 1250VA / 150W |
| Mechanical endurance | 1×10^6 OPS |
| Electrical endurance | 2H: 5×10^4 OPS (5A 250VAC, Resistive load, Room temp., 1.5s on 1.5s off) |

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

COIL

| | |
|------------|---------------|
| Coil power | Approx. 530mW |
|------------|---------------|

COIL DATA

at 23°C

| Nominal Voltage VDC | Pick-up Voltage VDC max.1) | Drop-out Voltage VDC min.1) | Max. Voltage VDC *2) | Coil Resistance Ω |
|---------------------|----------------------------|-----------------------------|----------------------|-------------------|
| 5 | 3.75 | 0.25 | 6.5 | 47 x (1±10%) |
| 6 | 4.50 | 0.30 | 7.8 | 68 x (1±10%) |
| 9 | 6.75 | 0.45 | 11.7 | 155 x (1±10%) |
| 12 | 9.00 | 0.60 | 15.6 | 270 x (1±10%) |
| 18 | 13.5 | 0.90 | 23.4 | 620 x (1±10%) |
| 24 | 18.0 | 1.20 | 31.2 | 1080 x (1±10%) |
| 48 | 36.0 | 2.40 | 62.4 | 4400 x (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.

SAFETY APPROVAL RATINGS

| | |
|--------|--------------------------------------|
| UL/CUL | 5A 250VAC 5A 30VDC TV-3 125VAC |
| TÜV | 5A 250VAC 5A 30VDC |

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

2) Only typical loads are listed above. Other load specifications can be available upon request.

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

- 2) Please find coil temperature curve in the characteristic curves below.
- 3) UL insulation system: Class A
- 4) For sealed type, the vent-hole cover should be excised.



HONGFA RELAY

ISO9001, ISO/TS16949, ISO14001, OHSAS18001, IECQ QC 080000 CERTIFIED

2020 Rev. 1.01

ORDERING INFORMATION

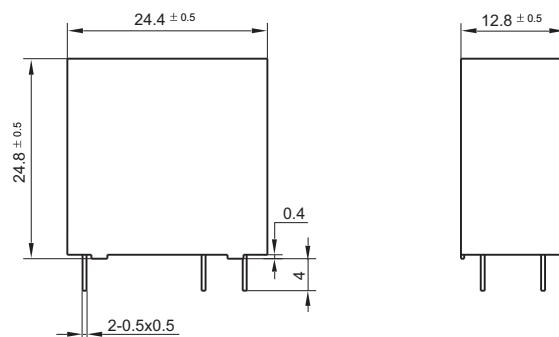
| | | | | | | |
|----------------------------|-----------------------------------|-----|-----|---------------|---|-------|
| | HF42F / | 012 | -2H | S | T | (XXX) |
| Type | | | | | | |
| Coil voltage | 5, 6, 9, 12, 18, 24, 48VDC | | | | | |
| Contact arrangement | 2H: 2 Form A | | | | | |
| Construction ¹⁾ | S: Plastic sealed | | | | | |
| Contact material | T: AgSnO ₂ Nil: AgCdO | | | | | |
| Special code ²⁾ | XXX: Customer special requirement | | | Nil: Standard | | |

Notes: 1) Contact is recommended for suitable condition and specifications if water cleaning or surface process is involved in assembling relays on PCB.
 2) The customer special requirement express as special code after evaluating by Hongfa.

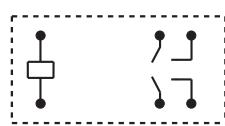
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

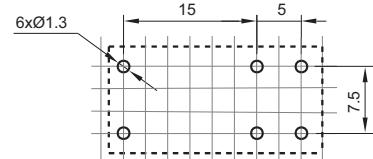
Outline Dimensions



Wiring Diagram
(Bottom view)



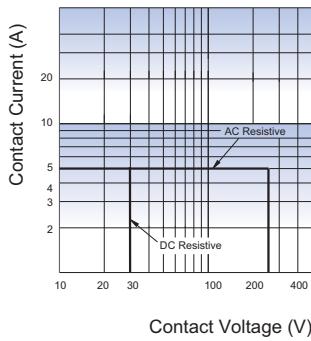
PCB Layout
(Bottom view)



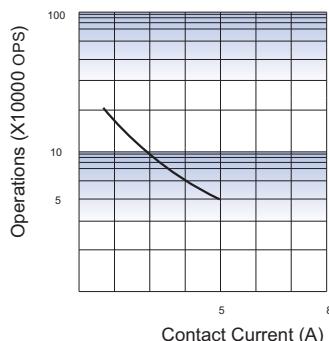
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤ 1 mm, tolerance should be ± 0.2 mm; outline dimension > 1 mm and ≤ 5 mm, tolerance should be ± 0.3 mm; outline dimension > 5 mm, tolerance should be ± 0.4 mm.
 2) The tolerance without indicating for PCB layout is always ± 0.1 mm.
 3) The width of the gridding is 2.5mm.

CHARACTERISTIC CURVES

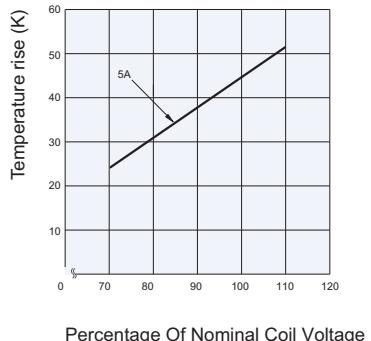
MAXIMUM SWITCHING POWER



ENDURANCE CURVE



COIL TEMPERATURE RISE



Test conditions:

5A 250VAC, Resistive load,
Room temp., 1s on 9s off

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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