

# HF32FA-G

## SUBMINIATURE INTERMEDIATE POWER RELAY



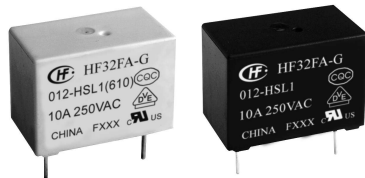
File No.:E134517



File No.:40006182



File No.:CQC17002175721



### Features

- 10A switching capability
- Creepage/clearance distance > 8mm
- 5kV dielectric strength (between coil and contacts)
- UL insulation system: Class F
- Meets VDE 0700, 0631 reinforce insulation
- Product in accordance to IEC 60335-1 available

### CONTACT DATA

|                                  |   |
|----------------------------------|---|
| Contact arrangement              | 1A  |
| Contact resistance <sup>1)</sup> | 70mΩ max.(at 1A 6VDC)   |
| Contact material                 | AgSnO <sub>2</sub>  |
| Contact rating (Res. Load)       | 10A 250VAC  |
| Max. switching voltage           | 250VAC  |
| Max. switching current           | 10A   |
| Max. switching power             | 2500VA  |
| Mechanical endurance             | 1 x 10 <sup>6</sup> ops   |
| Electrical endurance             | 1.5 x 10 <sup>4</sup> OPS (10A 250VAC, Resistive load, at 85°C, 1s on 9s off) |

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

### CHARACTERISTICS

|                                |                              |                     |
|--------------------------------|------------------------------|---------------------|
| Insulation resistance          | 1000MΩ (at 500VDC)           |                     |
| Dielectric strength            | Between coil & contacts      | 5000VAC 1min        |
|                                | Between open contacts        | 1000VAC 1min        |
| Operate time (at rated. volt.) | 8ms max.                     |                     |
| Release time (at rated. volt.) | 4ms max.                     |                     |
| Humidity                       | 5% to 85% RH                 |                     |
| Ambient temperature            | -40°C to 85°C                |                     |
| Shock resistance*              | Functional                   | 98m/s <sup>2</sup>  |
|                                | Destructive                  | 980m/s <sup>2</sup> |
| Vibration resistance*          | 10Hz to 55 Hz 1.65mm DA      |                     |
| Termination                    | PCB                          |                     |
| Unit weight                    | Approx.4.6g                  |                     |
| Construction                   | Plastic sealed, Flux proofed |                     |

- Notes: 1) \*Index is not in relay length direction.  
 2) The data shown above are initial values.  
 3) Please find coil temperature curve in the characteristic curves below.  
 4) For plastic sealed type, the venting-hole should be excised in electrical endurance test.

### COIL

|            |  |
|------------|--|
| Coil power | Standard: Approx. 450mW;<br>Sensitive: Approx. 230mW |
|------------|--|

### COIL DATA

at 23°C

#### Standard type

| Nominal Voltage VDC | Pick-up Voltage VDC max. <sup>1)</sup> | Drop-out Voltage VDC min. <sup>1)</sup> | Max. Voltage VDC <sup>2)</sup> | Coil Resistance Ω |
|---------------------|--|---|--------------------------------|-------------------|
| 3                   | 2.25                                   | 0.15                                    | 3.9                            | 20 x (1±10%)      |
| 5                   | 3.75                                   | 0.25                                    | 6.5                            | 55 x (1±10%)      |
| 6                   | 4.50                                   | 0.30                                    | 7.8                            | 80 x (1±10%)      |
| 9                   | 6.75                                   | 0.45                                    | 11.7                           | 180 x (1±10%)     |
| 12                  | 9.00                                   | 0.60                                    | 15.6                           | 320 x (1±10%)     |
| 18                  | 13.5                                   | 0.90                                    | 23.4                           | 720 x (1±10%)     |
| 24                  | 18.0                                   | 1.20                                    | 31.2                           | 1280 x (1±10%)    |
| 48 <sup>3)</sup>    | 36.0                                   | 2.40                                    | 62.4                           | 5120 x (1±10%)    |

#### Sensitive type

| Nominal Voltage VDC | Pick-up Voltage VDC max. <sup>1)</sup> | Drop-out Voltage VDC min. <sup>1)</sup> | Max. Voltage VDC <sup>2)</sup> | Coil Resistance Ω |
|---------------------|--|---|--------------------------------|-------------------|
| 3                   | 2.25                                   | 0.15                                    | 5.1                            | 38 x (1±10%)      |
| 5                   | 3.75                                   | 0.25                                    | 8.5                            | 108 x (1±10%)     |
| 6                   | 4.50                                   | 0.30                                    | 10.2                           | 155 x (1±10%)     |
| 9                   | 6.75                                   | 0.45                                    | 15.3                           | 350 x (1±10%)     |
| 12                  | 9.00                                   | 0.60                                    | 20.4                           | 620 x (1±10%)     |
| 18                  | 13.5                                   | 0.90                                    | 30.6                           | 1390 x (1±10%)    |
| 24                  | 18.0                                   | 1.20                                    | 40.8                           | 2480 x (1±10%)    |
| 48 <sup>3)</sup>    | 36.0                                   | 2.40                                    | 81.6                           | 9920 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.  
 3) For products with rated voltage ≥ 48V, measures should be taken to prevent coil overvoltage in order to protect coil in test and application (eg. Connect diodes in parallel).

### SAFETY APPROVAL RATINGS

|        |                            |
|--------|----------------------------|
| UL/CUL | 10A 250VAC at 85°C<br>B300 |
| VDE    | 10A 250VAC at 85°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.



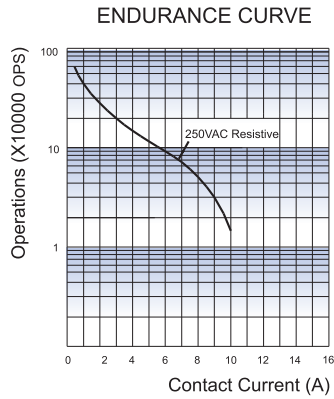
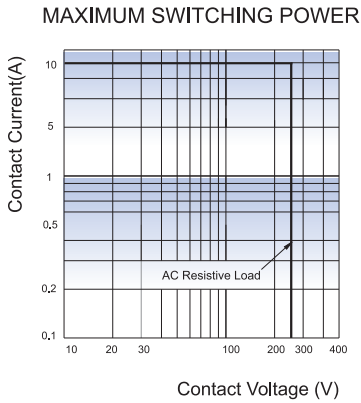
HONGFA RELAY

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

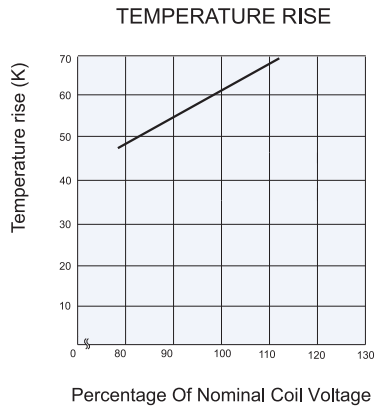
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# CHARACTERISTIC CURVES



**Test conditions:** Flux proofed, at 85°C  
5s on 5s 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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