

HF2150/HF2151

MINIATURE HIGH POWER RELAY

UL
c **UL** US

File No.:E134517



File No.:CQC02001001951



Features

- 30A switching capability
- PCB coil terminals, ideal for heavyduty load
- Heavy load up to 7,200VA
- Sealed IP67 and flux proof type available
- Class F insulation available
- Environmental friendly product available (RoHS compliant)
- Outline Dimensions: 31.8 x 26.9 x 19.1 mm

CONTACT DATA

| | | | | |
|----------------------------|----------------------------|-------------------------|-------------------------|-------------------------|
| Contact arrangement | 1A | 1B | 1C(NO) | 1C(NC) |
| Initial contact resistance | 20mΩ (at rated Load) | | | |
| Contact material | AgSnO ₂ , AgCdO | | | |
| Contact rating (Res. Load) | 30A 240VAC 20A 30VDC | 15A 240VAC 10A 30VDC | 20A 240VAC 20A 30VDC | 10A 240VAC 10A 30VDC |
| Max. switching capacity | 7200VA 600W | 3600VA 300W | 4800VA 600W | 2400VA 300W |
| Max. switching voltage | 277VAC / 30VDC | | | |
| Max. switching current | 30A | 15A | 20A | 10A |
| Mechanical life | 1 x 10 ⁷ OPS | | | |
| Electrical life | 1 x 10 ⁶ OPS | | | |

COIL

| | |
|------------|-------|
| Coil power | 900mW |
|------------|-------|

COIL DATA

| Nominal Voltage (VDC) | Pick-up Voltage (VDC) | Drop-out Voltage (VDC) | Coil Resistance (Ω) |
|-----------------------|-----------------------|------------------------|---------------------|
| 5 | 3.75 | 0.5 | 27 ± 10% |
| 6 | 4.50 | 0.6 | 40 ± 10% |
| 9 | 6.75 | 0.9 | 97 ± 10% |
| 12 | 9.00 | 1.2 | 155 ± 10% |
| 15 | 11.25 | 1.5 | 256 ± 10% |
| 18 | 13.50 | 1.8 | 380 ± 10% |
| 24 | 18.00 | 2.4 | 660 ± 10% |
| 48 | 36.00 | 4.8 | 2560 ± 10% |
| 70 | 52.50 | 7.0 | 5500 ± 10% |
| 110 | 82.50 | 11.0 | 13450 ± 10% |

Notes: When requiring pull-in voltage <75% of nominal voltage, special order allowed.

CHARACTERISTICS

| | | |
|-------------------------------|-------------------------|---------------------|
| Initial insulation resistance | 1000MΩ (at 500VDC) | |
| Dielectric strength | Between coil & contacts | 2500VAC 1min. |
| | Between open contacts | 1500VAC 1min. |
| Operate time (at nomi. volt.) | Max. 15ms | |
| Release time (at nomi. volt.) | Max. 10ms | |
| Ambient temperature | Class B | -55°C to +100°C |
| | Class F | -55°C to +125°C |
| Shock resistance | Functional | 98m/s ² |
| | Destructive | 980m/s ² |
| Vibration resistance | 10 to 55Hz 1.5mm DA | |
| Humidity | 98% RH, +40°C | |
| Termination | PCB | |
| Unit weight | Approx. 35g | |
| Construction | Sealed IP67, Flux proof | |



HONGFA RELAY

ISO9001、ISO/TS16949、ISO14001、OHSAS18001 CERTIFIED

2006 Rev. 1.10

SAFETY APPROVAL RATINGS

UL&CUR

| Load type | Volts | 1 Form A | 1 Form B | 1 Form C (NO) | 1 Form C (NO) |
|---|----------------|------------------|--------------|------------------|---------------|
| General purpose | 125/240VAC | 30A | 15A | -- | 15A |
| | 277VAC | 30A | 30A | 30A | 30A |
| Resistive | 125/240VAC | 30A | 15A | -- | -- |
| | 30VDC | 20A | 10A | 20A | 10A |
| | 277VAC | 20A | -- | -- | -- |
| | 240VAC | 15A | -- | -- | -- |
| Ballast | 125/240/277VAC | 6A | 3A | 6A | 3A |
| Pilot duty | 125VAC | 800VA | 290VA | 800VA | 290VA |
| | 125VAC | 690VA | -- | 690VA | -- |
| | 125VAC | 800VA | -- | 800VA | -- |
| | 240VAC | 1152VA | 768VA | 1152VA | 768VA |
| | 277VAC | 764VA | -- | 764VA | -- |
| Motor load | 125VAC | 1HP | 1/4HP | 1HP | 1/4HP |
| | 240VAC | 2HP | 1HP | 2HP | 1HP |
| | 125VAC | 1HP | -- | 1HP | -- |
| | 125/277VAC | 3/4HP | -- | 3/4HP | -- |
| Definite purpose (LRA-loaded rotor) (FLA-full load) | 120VAC | 82.8LRA, 13.8FLA | -- | 82.8LRA, 13.8FLA | -- |
| | 125VAC | 96LRA, 30FLA | 33LRA, 10FLA | 60LRA, 20FLA | 33LRA, 10FLA |
| | 125VAC | 60LRA, 20FLA | 30LRA, 12FLA | 60LRA, 20FLA | 30LRA, 12FLA |
| | 125VAC | 82.8LRA, 27FLA | -- | 82.8LRA, 27FLA | -- |
| | 240VAC | 80LRA, 30FLA | 33LRA, 10FLA | 80LRA, 20FLA | 33LRA, 10FLA |
| | 240VAC | 41.4LRA, 6.9FLA | -- | 41.4LRA, 6.9FLA | -- |
| | 277VAC | 60LRA, 20FLA | -- | 60LRA, 20FLA | -- |
| Tungsten | 125VAC | 15A | -- | 15A | -- |
| | 240VAC | 5A | -- | 5A | 3A |
| | 120VAC | -- | 3A | -- | -- |
| | 240VAC | -- | 3A | -- | -- |

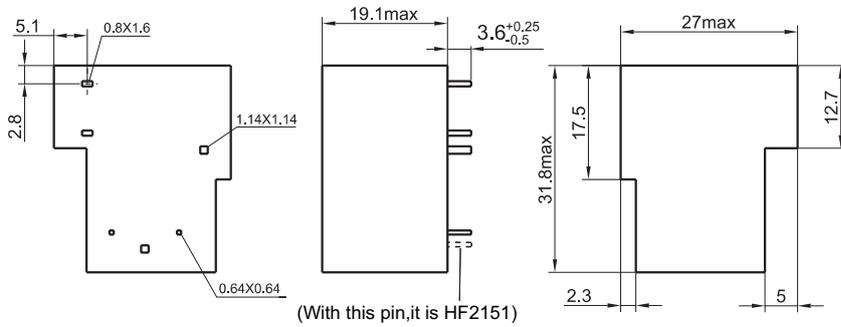
ORDERING INFORMATION

| | | | | | | | |
|--|---|----|-----|---|---|---|-----|
| Type | HF2150 / HF2151 / | 1A | 12D | E | T | F | XXX |
| Contact arrangement | 1A: 1 Form A 1B: 1 Form B 1C: 1 Form C | | | | | | |
| Coil voltage | 5, 6, 9, 12, 15, 18, 24, 48, 70, 110VDC | | | | | | |
| Construction | E: Sealed IP67 Nil: Flux proof | | | | | | |
| Contact material | T: AgSnO ₂ Nil: AgCdO | | | | | | |
| Insulation standard | F: Class F Nil: Class B | | | | | | |
| Customer special code (Only for special requirements) | e.g. 551 stands for RoHS compliant (Cadmium containing contacts) 555 stands for RoHS compliant (Cadmium-free contacts) | | | | | | |

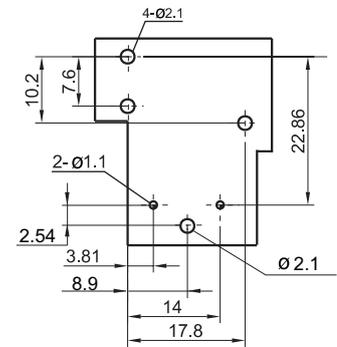
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions

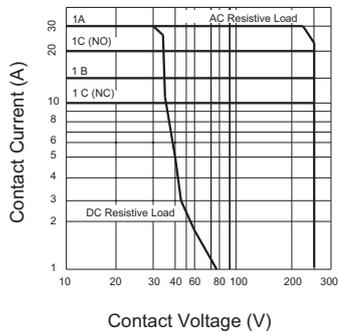


PCB Layout

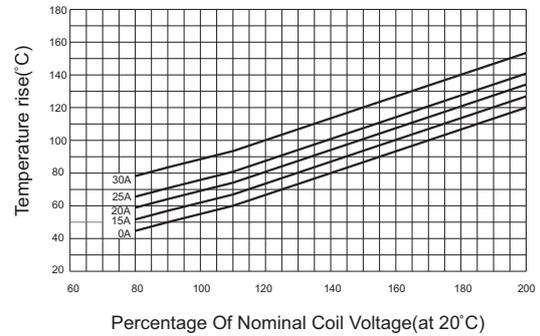


CHARACTERISTIC CURVES

MAXIMUM SWITCHING POWER



COIL TEMPERATURE RISE



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.

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