

HF115FP

MINIATURE POWER RELAY



File No.: E133481



File No.: 116934



Features

- 1 pole 16A, 2 pole 8A , 1 CO & 2 CO contacts
- 5kV dielectric, Creepage distance 8 mm (coil to contacts)
- Meeting VDE 0700, 0631 reinforce insulation
- DC/AC coil type relay , Coil power 400mW / 0.75VA
- Manual test device
- Type with mechanical indicator / electrical indicator
- Sockets available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (29.0 x 13.0 x 25.5) mm

CONTACT DATA

| | | |
|----------------------------|---------------------------------------|-----------|
| Contact arrangement | 1C | 2C |
| Contact resistance | 100mΩ (at 1A 6VDC) | |
| Contact material | AgNi | |
| Contact rating (Res. load) | 16A 250VAC | 8A 250VAC |
| Max. switching voltage | 440VAC | |
| Max. switching current | 16A | 8A |
| Max. switching power | 4000VA | 2000VA |
| Mechanical endurance | 5 x 10 ⁶ OPS | |
| Electrical endurance | See approval reports for more details | |

CHARACTERISTICS

| | | |
|-----------------------------------|----------------------------|---|
| Insulation resistance | 1000MΩ (500VDC) | |
| Dielectric strength | Between coil & contacts | 5000VAC 1min |
| | Between open contacts | 1000VAC 1min |
| | Between contact sets | 2500VAC 1min |
| Operate time (at nomi. volt.) | 15ms max. | |
| Release time (at nomi. volt.) | 8ms max. | |
| Temperature rise (at nomi. volt.) | 70K max. | |
| Shock resistance | Functional | 98m/s ² |
| | Destructive | 980m/s ² |
| Vibration resistance | NO | 10Hz to 150Hz 10g |
| | NC | length direction: 10Hz to 150Hz 2g other direction: 10Hz to 150Hz 5g |
| Humidity | 35% to 85% RH | |
| Ambient temperature | -40°C to 70°C | |
| Termination | PCB | |
| Unit weight | Approx. 16g | |
| Mounting distance | 5mm, packing of sockets | |

Notes: The data shown above are initial values.

COIL

| | |
|------------|--------------------------------|
| Coil power | DC type: 400mW AC type: 0.75VA |
|------------|--------------------------------|

Notes: The data shown above don't include the power of electronic indicating circuit when the relay picks-up.

COIL DATA

at 23°C

| Nominal Voltage VDC | Pick-up Voltage VDC | Drop-out Voltage VDC | Max. Allowable Voltage VDC | Coil Resistance Ω |
|---------------------|---------------------|----------------------|----------------------------|-------------------|
| 12 | 8.4 | 1.2 | 18 | 360 x (1±10%) |
| 24 | 16.8 | 2.4 | 36 | 1440 x (1±10%) |
| 48 | 33.6 | 4.8 | 72 | 5760 x (1±15%) |
| 110 | 77.0 | 11.0 | 165 | 25200 x (1±15%) |

Notes: The max. allowable voltage in the COIL DATA is coil overdrive voltage, it is the instantaneous max. voltage which the relay coil could endure in a very short time.

| Nominal Voltage VAC | Pick-up Voltage VAC | Drop-out Voltage VAC | Coil Current mA | Coil DC Resistance Ω |
|---------------------|---------------------|----------------------|-----------------|----------------------|
| 24 | 18.0 | 3.6 | 31.6 | 350 x (1±10%) |
| 115 | 86.3 | 35.5 | 6.6 | 8100 x (1±15%) |
| 230 | 172.5 | 34.5 | 3.2 | 32500 x (1±15%) |

SAFETY APPROVAL RATINGS

| | |
|-------------------|---|
| UL&CUL | 1 Fomr A: 16A 250VAC 2 Fomr A: 8A 250VAC |
| VDE | 1 Fomr A: 16A 250VAC 2 Fomr A: 8A 250VAC |

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



HONGFA RELAY

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

2009 Rev. 1.01

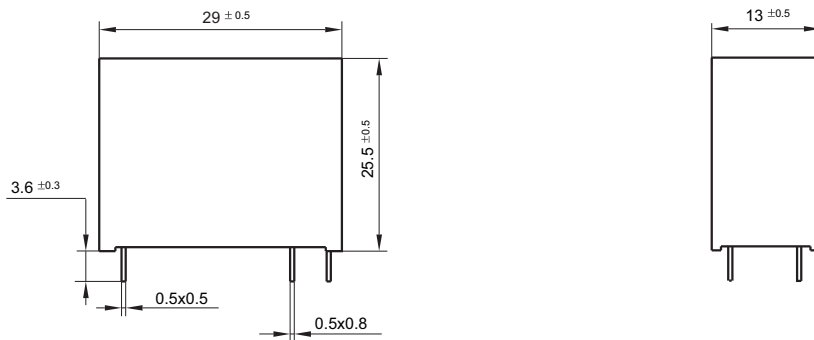
ORDERING INFORMATION

| | | | | | | |
|-----------------------|--|-----|--------------------|---|---|-------|
| Type | HF115FP / | 024 | -1Z | 3 | B | (XXX) |
| Coil voltage | 012 ~ 110: 12, 24, 48, 110 VDC A24 ~ A230: 24, 115, 230 VAC | | | | | |
| Contact arrangement | 1Z: 1 Form C | | 2Z: 2 Form C | | | |
| Version | 3: 5.0mm 1 pole 16A | | 4: 5.0mm 2 pole 8A | | | |
| Contact material | B: AgNi | | | | | |
| Customer special code | | | | | | |

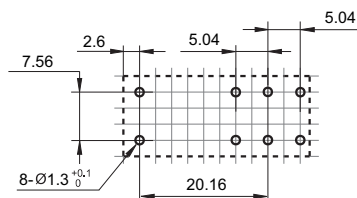
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions



PCB Layout (Bottom view)



DIN rail Socket



Solder Socket



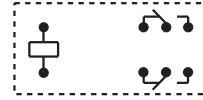
- Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤ 1 mm, tolerance should be ± 0.2 mm; outline dimension > 1 mm and ≤ 5 mm, tolerance should be ± 0.3 mm; outline dimension > 5 mm, tolerance should be ± 0.4 mm.
 2) The tolerance without indicating for PCB layout is always ± 0.1 mm.
 3) The width of the gridding is 2.52mm.

Wiring Diagram (Bottom view)

HF115FP/ □□□ -1Z3□

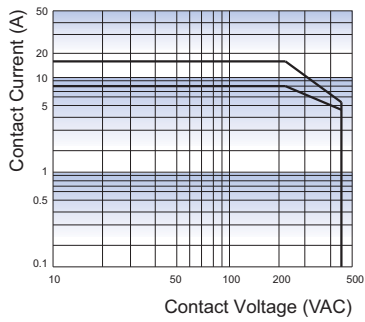


HF115FP/ □□□ -2Z4□

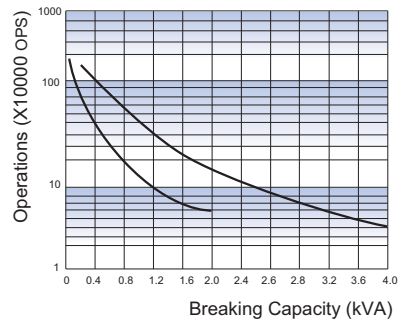


CHARACTERISTIC CURVES

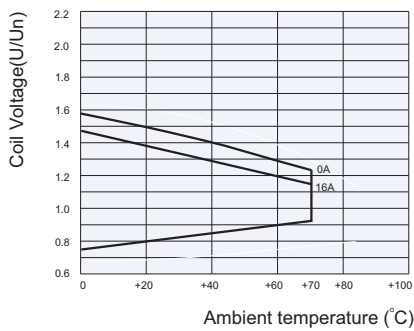
MAXIMUM SWITCHING POWER



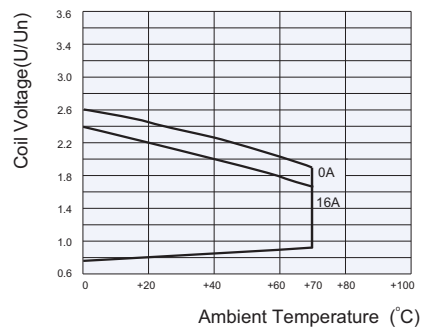
ENDURANCE CURVE



COIL OPERATING RANGE (AC)



COIL OPERATING RANGE (DC)



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.