

HF115F

MINIATURE HIGH POWER RELAY



File No.:E134517



File No.:116934



File No.:CQC02001001951



Features

- Low height: 15.7 mm
- 16A switching capability
- 5kV dielectric strength
(between coil and contacts)
- Creepage distance: 10mm
- VDE0435 / 0631 / 0700
- Flux proofed type available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (29.0 x 12.7 x 15.7) mm

CONTACT DATA

Contact arrangement	1A, 1C
Contact resistance	100mΩ (at 1A 6VDC)
Contact material	Ag alloy
Contact rating (Res. load)	12A/16A 250VAC
Max. switching voltage	440VAC / 125VDC
Max. switching current	12A / 16A
Max. switching power	3000VA / 4000VA
Mechanical endurance	1 x 10 ⁷ OPS
Electrical endurance	See approval reports for more details

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	5000VAC 1min
	Between open contacts	1000VAC 1min
Operate time (at nomi. volt.)		15ms max.
Release time (at nomi. volt.)		8ms max.
Temperature rise (at nomi. volt.)		55K max.
Shock resistance	Functional	100m/s ² (10g)
	Destructive	1000m/s ² (100g)
Vibration resistance		10Hz to150 Hz 10g/5g
Humidity		35% to 85% RH
Ambient temperature		-40°C to 85°C
Termination		PCB
Unit weight		Approx. 13.5g
Construction		Flux proofed

Notes: The data shown above are initial values.

COIL

Coil power	400mW
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COIL DATA

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
5	3.50	0.5	7.5	62 x (1±10%)
6	4.20	0.6	9.0	90 x (1±10%)
9	6.30	0.9	13.5	202 x (1±10%)
12	8.40	1.2	18	360 x (1±10%)
18	12.60	1.8	27	810 x (1±10%)
24	16.80	2.4	36	1440 x (1±10%)
48	33.60	4.8	72	5760 x (1±15%)
60	42.00	6.0	90	7500 x (1±15%)
110	77.00	11.0	165	25200 x (1±15%)

SAFETY APPROVAL RATINGS

UL&CUR	12A 250VAC 16A 250VAC
VDE	12A 250VAC at 85 °C 16A 250VAC at 85 °C



HONGFA RELAY

ISO9001、ISO/TS16949、ISO14001、OHSAS18001 CERTIFIED

2007 Rev. 1.00T

ORDERING INFORMATION

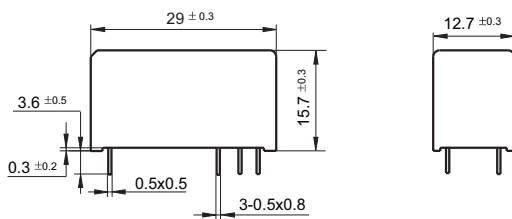
Type	HF115F / 012 -1H 1 (L)
Coil voltage	5, 6, 9, 12, 18, 24, 48, 60, 110VDC
Contact arrangement	1H: 1 Form A 1Z: 1 Form C
Version	1: 3.5mm 1 pole 12A 2: 5.0mm 1 pole 12A 3: 5.0mm 1 pole 16A
Special code	

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

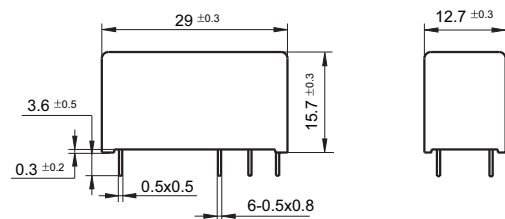
Unit: mm

Outline Dimensions

3.5mm Pinning (HF115F/ □□□ -□□ -1)



5mm Pinning (HF115F/ □□□ -□□ -2/3)

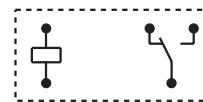


Wiring Diagram (Bottom view)

3.5/5mm Pinning, 1 Pole, 12A, HF115F/ □□□ -□□ -1/2



1 Form A

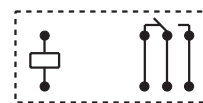


1 Form C

5mm Pinning, 1 Pole, 16A, HF115F/ □□□ -□□ -3



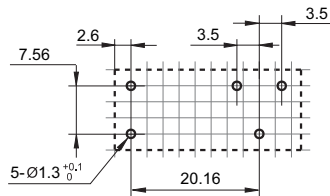
1 Form A



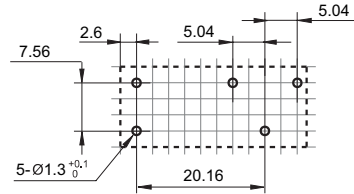
1 Form C

PCB Layout (Bottom view)

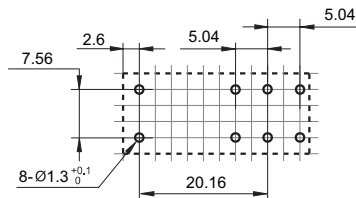
3.5mm 1Pole 12A



5mm 1Pole 12A



5mm 1Pole 16A



- Remark: 1) 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 $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.
 2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.
 3) The width of the gridding is 2.52mm.

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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