HF115FK-A MINIATURE HIGH POWER RELAY

File No.：E134517

File No.：116934

File No.：CQC13002103948



Features

- AC coil specification
- 16A switching capability
- Low height: 15.7 mm
- 5kV dielectric strength (between coil and contacts)
- Creepage distance：10mm
- Meeting reinforce insulation
- IEC60335-1 compliant products are available
- Sockets available
- UL insulation system:Class F

RoHS compliant

CONTACT DATA

Contact arrangement	1A,1C	2A,2C
Contact resistance[1)]	100mΩ max.(1A 6VDC)	
Contact material	$AgSnO_2$	
Contact rating(Res. load)	12A/16A 250VAC	8A 250VAC
Max.swtiching voltage	440VAC/300VDC	
Max.switching current	12A/16A	8A
Max.switching power	3000VA/4000VA	2000VA
Mechanical endurance	1×10^6OPS	
Electrical endurance[2)]	H3T type：7.5×10^4OPS (16A 250VAC,Resistive load, Room temp.,1s on 9s off) 2H4T type：5×10^4OPS (8A 250VAC,Resistive load, Room temp.,1s on 9s off)	

Notes: 1) The data shown above are initial values;
2) For plastic sealed type, the venting-hole should be opened in electrical endurance test.

COIL

Coil power	Approx.0.75VA to 0.9VA

COIL DATA(at 50Hz)

at 23˚C

Nominal Voltage VAC	Pick-up Voltage VAC max.[1)]	Drop-out Voltage VAC min.[1)]	Coil current mA	Coil Resistance Ω
24	18.00	3.60	31.6	350×(1±10%)
115	86.30	17.30	6.6	8100×(1±15%)
230	172.50	34.50	3.2	32500×(1±15%)

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

CHARACTERISTICS

Insulation resistance		1000 MΩ(500 VDC)
Dielectric strength	Between open contacts	1000VAC 1 min
	Between coil & contacts	5000VAC 1 min
	Between contacts sets	2500VAC 1 min
Coil temperature rise(at rated. volt.)		85K max.
Shock resistance[2)]	Functional	$98m/s^2$
	Destructive	$980m/s^2$
Vibration resistance[2)]		10Hz to 55Hz 10g/5g
Humidity		5% to 85%RH
Ambient temperature		-40˚C to 70˚C
Termination		PCB
Unit weight		Approx. 13g
Construction		Flux proofed, Plastic sealed

Notes: 1) The data shown above are initial values;
2) Non length direction index.

SAFETY APPROVAL RATINGS

UL/CUL	NO	12A 277VAC 40˚C 16A 277VAC 40˚C 8A 277VAC 40˚C
	NC	12A 277VAC 40˚C 16A 277VAC 40˚C
VDE	NO	12A 250VAC 70˚C 16A 250VAC 70˚C 8A 250VAC 70˚C

Notes: 1) All values unspecified are at room temperature.
2) The typical loads listed above are only part of the product certification. The detailed test conditions of each load are different, so the electrical durability is different. For more information, please contact us.

ORDERING INFORMATION

	HF115FK-A/	24	-H	S	1	T	F	（XXX）

Type	
Coil voltage	24,115,230VAC
Contact arrangement	**H:** 1 Form A **Z:** 1 Form C **2H:** 2 Form A **2Z:** 2 Form C
Construction[1)2)]	**S:** Plastic sealed **Nil:** Flux proofed
Structure	**1:** 3.5mm 1 pole 12A **2:** 5.0mm 1 pole 12A **3:** 5.0mm 1 pole 16A **4:** 5.0mm 2 pole 8A
Contact material	**T:** $AgSnO_2$
Insulation standard	**F:** Class F
Special code[3)]	**XXX:** Customer special requirement **Nil:** Standard

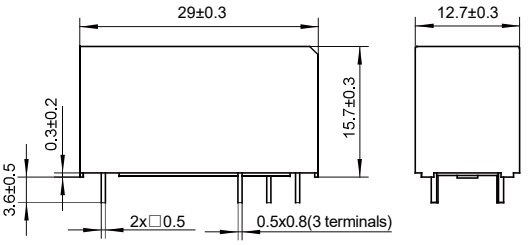
Notes:1) We recommend flux proofed types for a clean environment (free from contaminations like H_2S, SO_2, NO_2, dust, etc.);
We suggest to choose plastic sealed types and validate it in real application for an unclean environment (with contaminations like H_2S, SO_2, NO_2, dust, etc).
2) Water cleaning or surface process is not suggested after the flux-proofed relays are assembled on PCB;
3) The customer special requirement express as special code after evaluating by Hongfa;
4) The product has two packaging options: suction tray packaging and tube packaging. Among them, the standard size of tube packaging is 616 mm. If you need special customization, please contact us.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

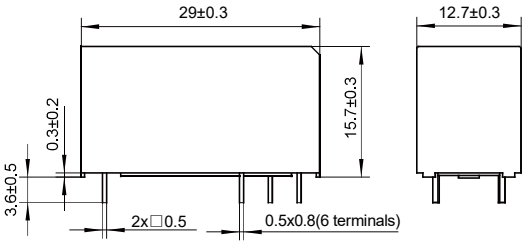
Unit: mm

Outline Dimensions

3.5mm Pinning（HF115FK-A/□□□-□□-□-1-□□）



5mm Pinning(HF115FK-A/□□□-□□-□-2/3/4-□□）

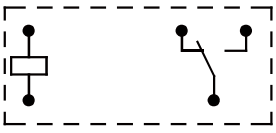


Wiring Diagram(Bottom view)

3.5/5mm,1 pole,12A(HF115FK-A/□□□-□-□-1/2-□□)



1 Form A

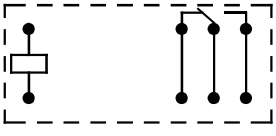


1 Form C

5mm,1 pole,16A(HF115FK-A/□□□-□-□-3-□□)



1 Form A



1 Form C

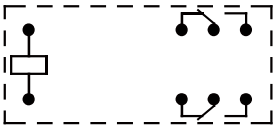
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

5mm,2 pole,8A(HF115FK-A/□□□-2□-□-4-□□)



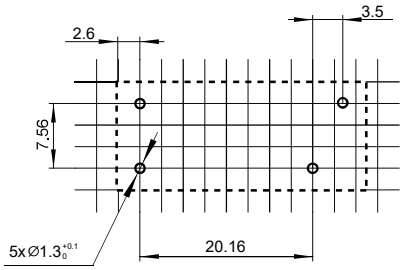
2 Form A



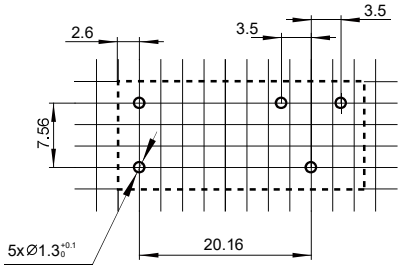
2 Form C

PCB Layout(Bottom view)

3.5mm,1pole,12A(HF115FK-A/□□□-1□□-1-□□)

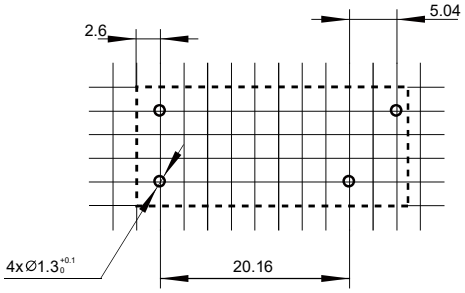


1 From A

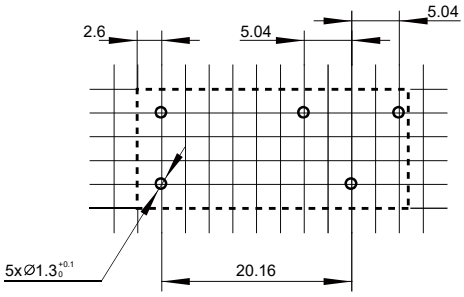


1 From C

5mm,1pole,12A(HF115FK-A/ □□□-1□- □-2-□□)

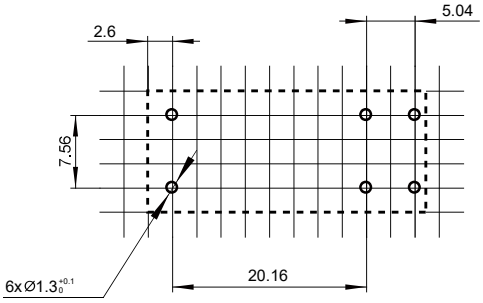


1 From A

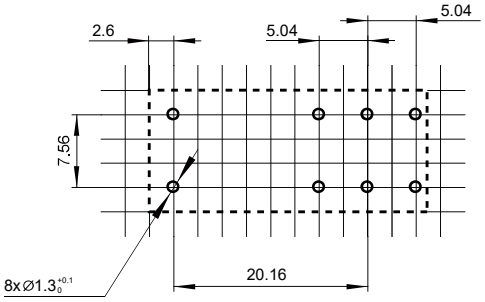


1 From C

5mm,1pole,16A(HF115FK-A/□□□-1□-□-3-□□)



1 From A



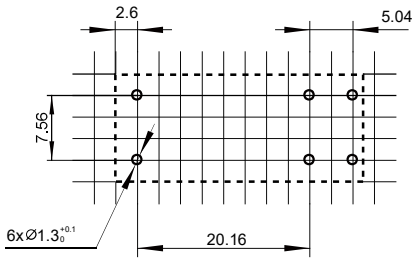
1 From C

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

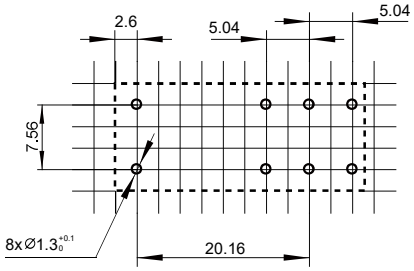
Unit: mm

PCB Layout(Bottom view)

5mm,2pole,8A(HF115FK-A/□□□-2□-□-4-□□)



1 From A



1 From C

Notes:1) The pin dimension of the product outline drawing is the size before tinning (it will become larger after tinning), and the mounting hole size is the recommended design size of the PCB board hole. The specific PCB board hole design size can be mapped and adjusted according to the actual product.

2) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension＞1mm and ≤5mm,tolerance should be ±0.3mm; outline dimension＞5mm and ≤30mm, tolerance should be ±0.4mm;outline dimension＞30 mm, tolerance should be ±0.6mm;

3) The tolerance without indicating for PCB layout is always ±0.1mm;

4) The width of the gridding is 2.52mm.

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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