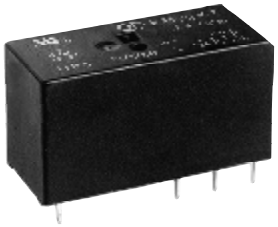
HF115FK-T MINIATURE HIGH POWER RELAY

c UL us
File No.:E134517

VDE
File No.:116934

CQC
File No.: CQC17002176308



Features

- High temperature: 105˚C
- Low height: 15.7 mm
- 16A switching capability
- 5kV dielectric strength (between coil and contacts)
- Creepage distance: 10mm
- Meeting reinforce insulation
- Product in accordance to IEC 60335-1 available
- Sockets available
- UL insulation system: Class F
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: 29.0mm x 12.7mm x 15.7mm

CONTACT DATA

Contact arrangement	1A, 1C
Contact resistance[1)]	100mΩ max.(at 1A 6VDC)
Contact material	$AgSnO_2$
Contact rating (Res. load)	16A 250VAC
Max. switching voltage	400VAC
Max. switching current	16A
Max. switching power	4000VA
Mechanical endurance	1 x 10^7 OPS
Electrical endurance	H3T type: 3 x 10^4 OPS (16A 250VAC, Resistive Load, at 105℃, 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
Surge voltage (between coil & contacts)		10kV (1.2 x 50μs)
Operate time (at nomi. volt.)		10ms max.
Release time (at nomi. volt.)		5ms max.
Shock resistance *	Functional	98m/s²
	Destructive	980m/s²
Vibration resistance *		10Hz to 150Hz 10g/5g
Humidity		5% to 85% RH
Ambient temperature		-40˚C to 105˚C
Termination		PCB
Unit weight		Approx. 13g
Construction		Flux proofed

Notes: 1) The data shown above are initial values.
2) * Index is not in relay length direction.

COIL

Coil power	Approx. 400mW

COIL DATA at 23˚C

Nominal Voltage VDC	Pick-up Voltage VDC max.[1)]	Drop-out Voltage VDC min.[1)]	Max. Voltage VDC *[2)]	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%)

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.

SAFETY APPROVAL RATINGS

UL/CUL	16A 250VAC at 105˚C
VDE	16A 250VAC at 105˚C 10A 250VAC at 105˚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.

ORDERING INFORMATION

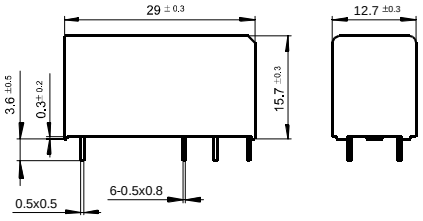
	HF115FK-T/	12	-H	3	T	(XXX)
Type						
Coil voltage	5, 6, 9, 12, 18, 24, 48VDC					
Contact arrangement	**H:** 1 Form A **Z:** 1 Form C					
Version	**3:** 5.0mm 1 pole 16A					
Contact material [1]	**T:** $AgSnO_2$					
Special code[3]	**XXX:** Customer special requirement			**Nil:** Standard		

Notes:1) We recommend flux proofed types for a clean environment (free from contaminations like H_2S, SO_2, NO_2, dust, etc.).
2) Contact is recommended for suitable condition and specifications if water cleaning or surface process is involved in assembling relays on PCB.
3) The customer special requirement express as special code after evaluating by Hongfa. e.g.(335) stands for product in accordance to IEC 60335-1 (GWT).

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

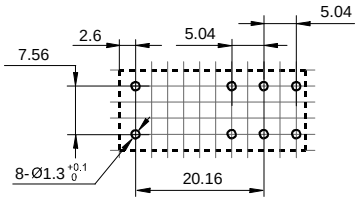
Outline Dimensions



Wiring Diagram (Bottom view)

1 Form A　　1 Form C

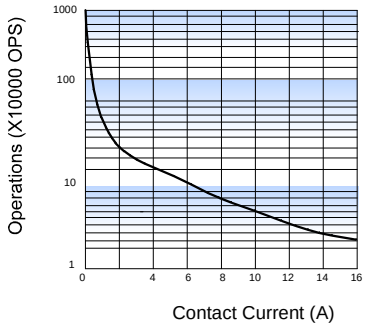
PCB Layout (Bottom view)



Remark: 1) 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, tolerance should be ±0.4mm.
2) The tolerance without indicating for PCB layout is always ±0.1mm.
3) The width of the gridding is 2.52mm.

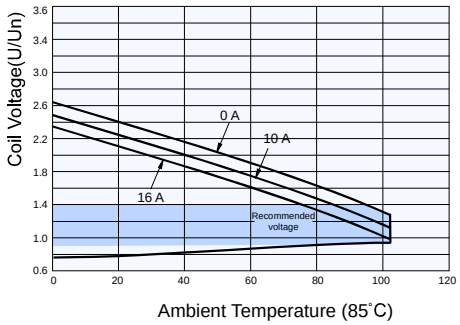
CHARACTERISTIC CURVES

ENDURANCE CURVE



Test conditions:
NO, resistive load, 250VAC, flux proofed,
at 105˚C, 1s on 9s off

COIL OPERATING RANGE (DC) *



Notes: * The use of a relay with an energising voltage other than the rated coil voltage may lead to reduced electrical life.
An energising voltage over the abver range may damage the insulation of relay coil.