HF115F-T/TH
(JQX-115F-T/TH)

MINIATURE HIGH POWER RELAY

c UL us
File No.: E134517

VDE
File No.:116934

CQC
File No.:CQC02001001951

Features

- High Temperature: 105˚C
- Low height 15.7 mm
- 5kV dielectric strength (between coil and contacts)
- Creepage distance: 10mm
- VDE0435/0631/0700
- Product in accordance to IEC 60335-1 available
- Sockets available
- Wash tight and flux proofed types 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	See ordering info.
Contact rating (Res. load)	HF115F-TH: 10A 250VAC HF115F-T: 16A 250VAC
Max. switching voltage	440VAC / 125VDC
Max. switching current	16A
Max. switching power	HF115F-TH: 2500VA HF115F-T: 4000VA
Mechanical endurance	1 x 10^7OPS
Electrical endurance	1 x 10^5OPS (See approval reports for more details)

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	5000VAC 1min
	Between open contacts	1000VAC 1min
Surge voltage (between coil & contacts)		10kV (1.2X50μs)
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 to150Hz 10g/5g
Humidity		35% to 85% RH
Ambient temperature		-40˚C to 105˚C
Termination		PCB
Unit weight		Approx. 13.5g
Construction		Wash tight, Flux proofed

Notes: The data shown above are initial values.

COIL

Coil power	HF115F-TH: 250mW; HF115F-T: 400mW

COIL DATA at 23˚C

Standard (HF115F-T)

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
5	3.50	0.5	6.5	62 x (1±10%)
6	4.20	0.6	7.8	90 x (1±10%)
9	6.30	0.9	11.7	202 x (1±10%)
12	8.40	1.2	15.6	360 x (1±10%)
18	12.6	1.8	23.4	810 x (1±10%)
24	16.8	2.4	31.2	1440 x (1±10%)
48	33.6	4.8	62.4	5760 x (1±10%)
60	42.0	6.0	78	7500 x (1±15%)

Sensitive (HF115F-TH)

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
5	3.75	0.5	6.5	100 x (1±10%)
6	4.50	0.6	7.8	144 x (1±10%)
9	6.75	0.9	11.7	324 x (1±10%)
12	9.00	1.2	15.6	576 x (1±10%)
18	13.50	1.8	23.4	1296 x (1±10%)
24	18.00	2.4	31.2	2304 x (1±10%)
48	36.00	4.8	62.4	9216 x (1±15%)
60	45.00	6.0	78	12857 x (1±15%)

查询"HF115F-T"供应商

SAFETY APPROVAL RATINGS

VDE	HF115F-TH-1H(S)3	10A 250VAC at 105°C 6A 400VAC at 105°C
	HF115F-T-1H(S)3B	16A 250VAC at 105°C
	HF115F-TH-1Z(S)3B	10A 250VAC at 105°C
	HF115F-T-1Z(S)3B	NO: 16A 250VAC at 105°C NC: 16A 250VAC at 105°C
UL&CUR	HF115F-TH-1H(S)3B	10A 277VAC
	HF115F-T-1H(S)3B	16A 277VAC

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

ORDERING INFORMATION

HF115F-T/TH 012 -1H S 3 A (XXX)

Type [1]	HF115F-T: Standard HF115F-TH: High Sensitive JQX-115F-T/TH (Old type)
Coil voltage	5, 6, 9,12, 18, 24, 48, 60VDC
Contact arrangement	**1H:** 1 Form A **1Z:** 1 Form C
Construction [2]	**S:** Wash tight **Nil:** Flux proofed
Version	**3:** 5.0mm
Contact material	**A:** $AgSnO_2$ **B:** AgNi **Nil:** AgCdO
Customer special code [3] (Only for special requirements)	e.g. (551) stands for RoHS compliant (Cadmium containing contacts) (555) stands for RoHS compliant (Cadmium-free contacts)

Notes: 1) We have now gradually updated our ordering information. We suggest new type should be selected. If necessary, old type can be kept for some period for the old customers.

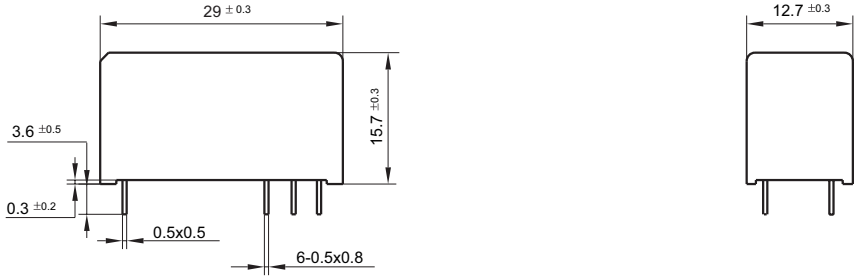
2) Under the ambience with dangerous gas like H_2S, SO_2 or NO_2, wash tight type is recommended; please test the relay in real applications. If the ambience allows, flux proofed is preferentially recommended.

3) HF115F-T is an environmental friendly product. Please mark a special code (555) or (551) when ordering. (551) stands RoHS compliant with Cadmium contact; (555) stands for RoHS compliant with Cadmium-free contact.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

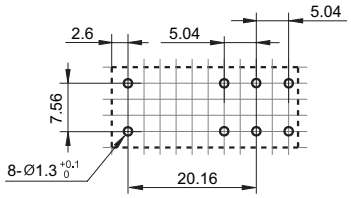
Outline Dimensions



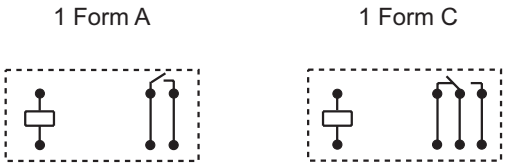
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

PCB Layout
(Bottom view)



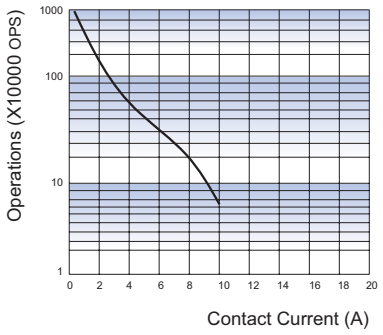
Wiring Diagram
(Bottom view)



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



COIL OPERATING RANGE (DC)