JQX-118F (HF118F) MINIATURE HIGH POWER RELAY

c UL us
E133481

VDE
File No.: 40010480

CQC
File No.:CQC04001011425

Features

- 10A switching capability
- 1&2 pole configurations
- 5KV dielectric strength (between coil and contacts)
- Low height: 12.5 mm
- Sealed IP67 & flux proof types available
- Creepage distance >8mm (VDE0435,0631,0700, CTI 250)
- Environmental protection product available (RoHs & WEEE compliant)

CONTACT DATA

Contact arrangement	1A,1B,1C (specialties 1A5,1B6)	2A,2B,2C
Contact material	See ordering info.	
Initial contact resistance Max.	100mΩ (at 1A 6VDC)	
Contact rating (Res. Load)	10A 250VAC/30VDC	5A 250VAC/30VDC
Max. switching voltage	440VAC/125VDC	
Max. switching current	10A	5A
Max. switching power	2500VA 300W	1250VA 150W
Mechanical life	1 x 10^7OPS	
Electrical life	1 x 10^5OPS	

CHARACTERISTICS

Initial insulation resistance		1000MΩ, 500VDC
Dielectric strength	Between coil and contacts	5000VAC 1min.
	Between open contacts	1000VAC 1min.
	Between contact sets	2500VAC 1min.
Surge voltage between coil and contacts		10KV (1.2X50μs)
Operate time (at nomi. Vot.)		Max. 10ms
Release time (at nomi. Vot.)		Max. 5ms
Temperature rise (at nomi. Volt.)		55˚C
Shock resistance	Functional	NC: 49 m/s² NO: 98 m/s²
	Destructive	980 m/s²
Vibration resistance	NC (no coil voltage)	DA:0.8mm, 10 to 55Hz
	NO	DA:1.65mm, 10 to 55Hz
Ambient temperature		-40˚C to +85˚C
Humidity		35% to 85%
Termination		PCB
Unit weight		8g
Construction		Sealed IP67 & Flux proof

COIL

Nominal coil power	0.22~0.29 W

COIL DATA (at 20˚C)

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
5	3.5	0.5	11.8	113 ± 10%
6	4.20	0.6	14.1	164 ± 10%
9	6.30	0.9	21.2	360 ± 10%
12	8.40	1.2	28.2	620± 10%
18	12.70	1.8	42.3	1,295 ± 10%
24	16.80	2.4	56.4	2,350 ± 15%
48	33.60	4.8	112.8	8,000 ± 15%
60	42.00	6.0	141	12,500 ± 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.

SAFETY APPROVAL RATINGS

UL (AgNi AgSnO2)	version 1,2,3,5,6	10A 250VAC 10A 30VDC B300 R300
	version 4	5A 250VAC
VDE (AgNi AgNi/Au)	1H (;S) (1;2;3;5.;7) (-;G)	8A 250VAC @85˚C
	1D (;S) (1;2;3;6), T. (-;G)	8A 250VAC @85˚C
	1Z (-;S) (1;2;3) (-;G)	8A 250VAC @85˚C
VDE (AgSnO2 AgSnO2/ Au)	1H (-;S) (1;2;3;5;7), T.(-;G)	8A 250VAC @85˚C
	1D (-;S) (1;2;3;6), T.(-;G)	8A 250VAC @85˚C
	1Z (-;S) (1;2;3), T.(-;G)	8A 250VAC @85˚C
	1H (-;S) (1;2;3;5;7), T.(-;G) 1Z (-;S) (1;2;3), T.(-;G)	250VAC 30A COS Ø=0.7 /3A COS Ø=0.4 @85˚C

ORDERING INFORMATION

	JQX-118F /	012	1H	S	1	G	XXX

Type

Coil voltage 5,6,9,12,18,24,48,60VDC

Contact arrangement **1H:**1 Form A **1D:**1 Form B **1Z:**1 Form C
2H:2 Form A **2D:**2 Form B **2Z:**2 Form C

Structure **S:** Sealed IP67 **Nil:** Flux proof

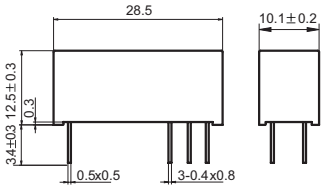
Version **1:** 3.2mm 1 pole **2:** 3.2mm 1 pole **3:** 3.2mm 1 pole **4:**3.2mm 2 pole
5: 5mm 1 Form A **6:** 5mm only 1 Form B

Contact material **T:** $AgSnO_2$ **G:** AgNi / Au **TG:** $AgSnO_2$ / Au **Nil:** AgNi

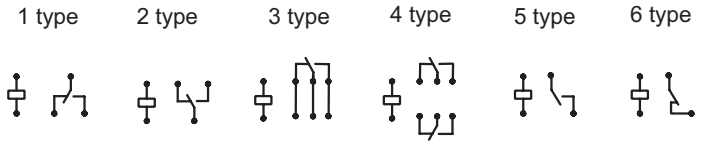
Special request code (For example: 551: Lead-free 555: RoHs & WEEE compliant)

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

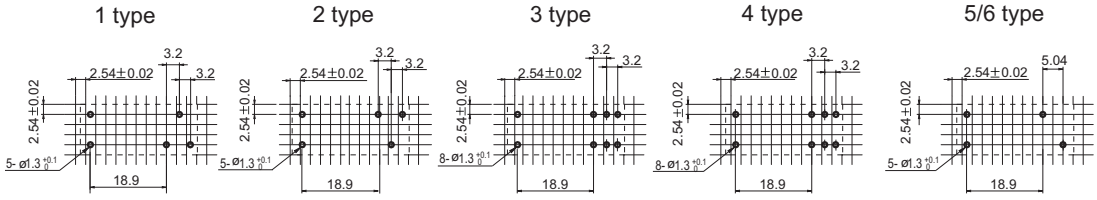
Outline Dimensions



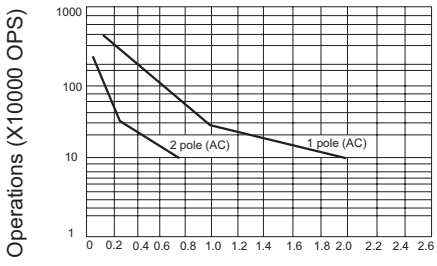
Wiring Diagram



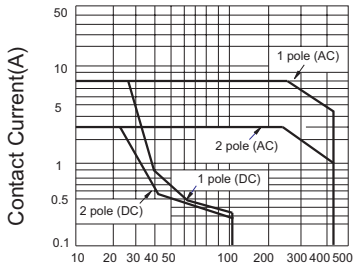
PCB Layout (T=2.54 0.02mm)



CHARACTERISTICS CURVE



Breaking Capacity (KVA)



Contact Voltage(V)