HF36FD SUBMINIATURE INTERMEDIATE POWER RELAY

c UL us
File No.:E134517

File No.:R50183875

CQC
File No.:CQC10002041724

Features

- 10A switching capability
- TV-8 125VAC approved by UL standard (118A inrush current)
- Plastic sealed and flux proofed types available
- Ideal for device power reduction
- 1 Form A and 1 Form C configurations
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (23.8 x 9.5 x 24.5) mm

CONTACT DATA

Contact arrangement	1A
Contact resistance	100mΩ max.(at 1A 6VDC)
Contact material	$AgSnO_2$
Contact rating	10A 250VAC 5A 250VAC 5A 30VDC TV-8 125VAC
Max. switching voltage	250VAC / 30VDC
Max. switching current	10A
Max. switching power	2500VA / 150W
Mechanical endurance	1×10^7 OPS
Electrical endurance	5×10^4 OPS

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	1000VAC 1min
Surge voltage		10kV (1.2 / 50μs)
Operate time (at nomi. volt.)		15ms max.
Release time (at nomi. volt.)		5ms max.
Humidity		5% to 85% RH
Ambient temperature		-40°C to 70°C
Shock resistance	Functional	196m/s²
	Destructive	980m/s²
Vibration resistance		10Hz to 55Hz 1.5mm DA
Termination		PCB
Unit weight		Approx.12g
Construction		Plastic sealed, Flux proofed

Notes: 1) The data shown above are initial values.
2) Please find coil temperature curve in the characteristic curves below.
3) UL insulation system: Class A

COIL

Coil power	Standard: Approx. 530mW; Sensitive: Approx. 250mW

COIL DATA at 23°C

Standard type

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min.	Max. Allowable Voltage VDC	Coil Resistance Ω
3	2.25	0.15	3.9	17 x (1±10%)
5	3.75	0.25	6.5	47 x (1±10%)
6	4.50	0.30	7.8	68 x (1±10%)
9	6.75	0.45	11.7	155 x (1±10%)
12	9.00	0.60	15.6	270 x (1±10%)
18	13.5	0.90	23.4	620 x (1±10%)
24	18.0	1.20	31.2	1080 x (1±10%)
48	36.0	2.40	62.4	4400 x (1±10%)

Sensitive type

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min.	Max. Allowable Voltage VDC	Coil Resistance Ω
3	2.40	0.15	3.9	36x (1±10%)
5	4.00	0.25	6.5	100 x (1±10%)
6	4.80	0.30	7.8	145 x (1±10%)
9	7.20	0.45	11.7	325 x (1±10%)
12	9.60	0.60	15.6	575 x (1±10%)
18	14.4	0.90	23.4	1300 x (1±10%)
24	19.2	1.20	31.2	2310 x (1±10%)

SAFETY APPROVAL RATINGS

UL/CUL	10A 250VAC 5A 250VAC 5A 30VDC TV-8 125VAC
TÜV	10A 250VAC 5A 250VAC/30VDC

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

ORDERING INFORMATION

	HF36FD /	012	-H	S	L	T	(XXX)
Type							
Coil voltage	3, 5, 6, 9, 12, 18, 24, 48VDC						
Contact arrangement	**H:** 1 Form A						
Construction [1]	**S:** Plastic sealed	**Nil:** Flux proofed					
Coil power	**L:** Sensitive	**Nil**: Standard					
Contact material	**T:** $AgSnO_2$						
Customer special code							

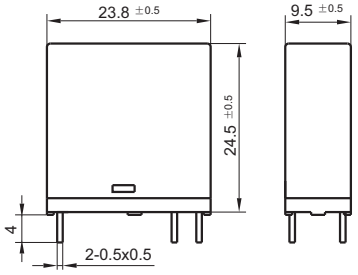
Notes: 1) Under the ambience with dangerous gas like H_2S, SO_2 or NO_2, plastic sealed type is recommended; Please test the relay in real applications. If the ambience allows, flux proofed type is preferentially recommended.
If water cleaning is required after the relay is assembled on PCB, please contact us for suggestion about suitable parts.

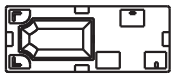
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions

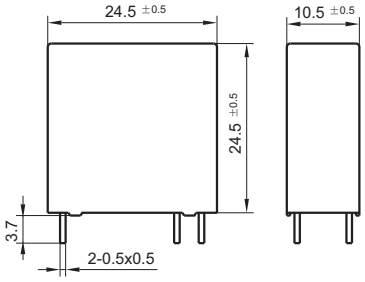
Flux proofed

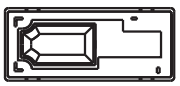




(Bottom view)

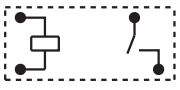
Plastic sealed



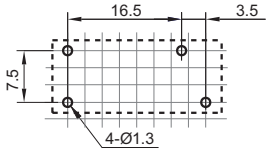


(Bottom view)

Wiring Diagram
(Bottom view)



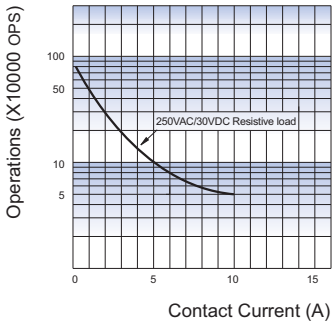
PCB Layout
(Bottom view)



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 2.5mm.

CHARACTERISTIC CURVES

ENDURANCE CURVE



COIL TEMPERATURE RISE