

HF36F

SUBMINIATURE INTERMEDIATE POWER RELAY



File No.:E134517



File No.:R50156252



File No.:CQC02001001944



Features

- 10A switching capability
- TV-5 125VAC approved by UL standard (only for 1 Form A)
- Wash tight and flux proofed types available
- 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, 1C
Contact resistance	100mΩ (at 1A 6VDC)
Contact material	AgSnO ₂ , AgCdO
Contact rating	10A 250VAC 10A 30VDC TV-5 125VAC
Max. switching voltage	250VAC / 30VDC
Max. switching current	10A
Max. switching power	2500VA / 300W
Mechanical endurance	1 x 10 ⁷ ops
Electrical endurance	1 x 10 ⁵ ops

CHARACTERISTICS

Insulation resistance	1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts NO: 4000VAC 1min NC: 3000VAC 1min
	Between open contacts 1000VAC 1min
Operate time (at nomi. volt.)	15ms max.
Release time (at nomi. volt.)	5ms max.
Humidity	35% to 85% RH
Ambient temperature	-40°C to 70°C
Shock resistance	Functional 196m/s ²
	Destructive 980m/s ²
Vibration resistance	10Hz to 55Hz 1.5mm DA
Termination	PCB
Unit weight	Approx. 12g
Construction	Wash tight, Flux proofed

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

2) Please find coil temperature curve in the characteristic curves below.

COIL

Coil power	Standard: 530mW; Sensitive: 250mW
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COIL DATA

at 23°C

Standard type

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
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 (Only for 1 Form A)

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance (Ω)
5	3.75	0.25	6.5	100 x (1±10%)
6	4.50	0.30	7.8	145 x (1±10%)
9	6.75	0.45	11.7	325 x (1±10%)
12	9.00	0.60	15.6	575 x (1±10%)
18	13.5	0.90	23.4	1300 x (1±10%)
24	18.0	1.20	31.2	2310 x (1±10%)

SAFETY APPROVAL RATINGS

UL&CUL	1 Form C	10A 250VAC 10A 30VDC
	1 Form A	10A 250VAC 10A 30VDC TV-5 125VAC
TÜV		10A 250VAC COSφ=1 10A 30VDC L/R=0

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



HONGFA RELAY

ISO9001, ISO/TS16949, ISO14001, OHSAS18001, IECQ QC 080000 CERTIFIED

2009 Rev. 1.01

ORDERING INFORMATION

Type	HF36F / 012 -H S L T (XXX)					
Coil voltage	5, 6, 9, 12, 18, 24, 48VDC					
Contact arrangement	H: 1 Form A		Z: 1 Form C			
Construction ¹⁾	S: Wash tight		Nil: Flux proofed			
Coil power	L: Sensitive (Only for 1 Form A)			Nil: Standard		
Contact material	T: AgSnO ₂		Nil: AgCdO			
Customer special code						

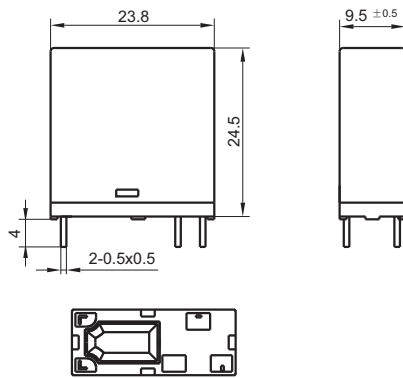
Notes: 1) Under the ambience with dangerous gas like H₂S, SO₂ or NO₂, wash tight type is recommended; Please test the relay in real applications. If the ambience allows, flux proofed type is preferentially recommended.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

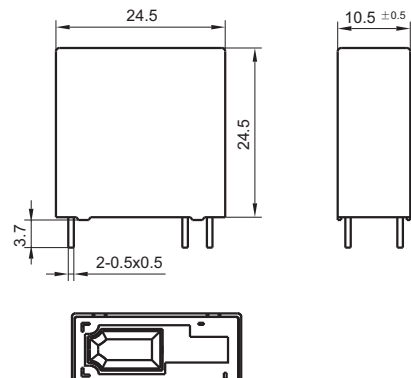
Outline Dimensions

1 Form A & Flux proofed



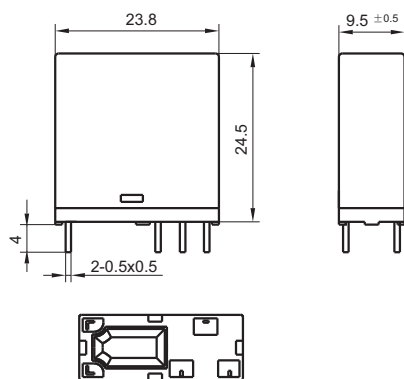
(Bottom view)

1 Form A & Wash tight



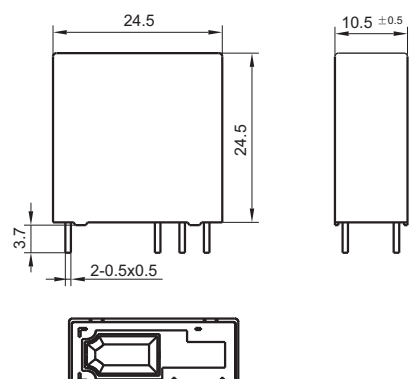
(Bottom view)

1 Form C & Flux proofed



(Bottom view)

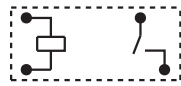
1 Form C & Wash tight



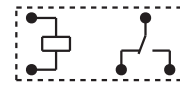
(Bottom view)

Wiring Diagram
(Bottom view)

1 Form A

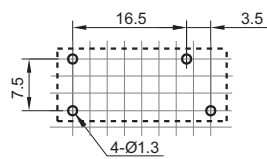


1 Form C

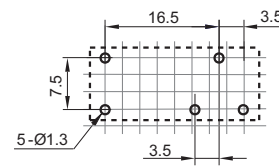


PCB Layout
(Bottom view)

1 Form A



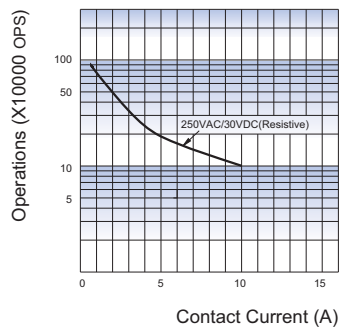
1 Form C



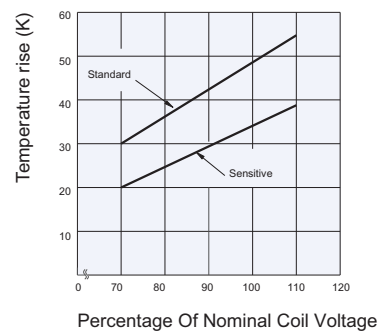
- Remark: 1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.
 2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.
 3) The width of the gridding is 2.5mm.

CHARACTERISTIC CURVES

ENDURANCE CURVE



COIL TEMPERATURE RISE



Disclaimer

This datasheet is for the customers' reference. All the specifications are 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.