

# HF36F (JZC-36F)

# SUBMINIATURE INTERMEDIATE POWER RELAY



File No.:E134517



File No.:R50012558



File No.:CQC02001001944



## Features

- 10A switching capability
- Wash tight and flux proofed types available
- TV-5 125VAC approved by UL standard (only for 1 Form A)
- 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 <sub>2</sub> , 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 <sup>7</sup> ops
Electrical endurance	1 x 10 <sup>5</sup> 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 200m/s <sup>2</sup> (20g)
	Destructive 1000m/s <sup>2</sup> (100g)
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	Sensitive: 250mW; Standard: 530mW
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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%)

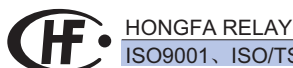
### Sensitive Type (Only for 1 Form A)

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

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



ISO9001、ISO/TS16949、ISO14001、OHSAS18001 CERTIFIED

2007 Rev. 2.00

## ORDERING INFORMATION

		<b>HF36F / 012 -H S L T (XXX)</b>	
<b>Type</b> <sup>1)</sup>	HF36F JZC-36F (Old type)		
<b>Coil voltage</b>	5, 6, 9, 12, 18, 24, 48VDC		
<b>Contact arrangement</b>	<b>H:</b> 1 Form A	<b>Z:</b> 1 Form C	
<b>Construction</b> <sup>2)</sup>	<b>S:</b> Wash tight	<b>Nil:</b> Flux proofed	
<b>Coil power</b>	<b>L:</b> Sensitive (Only for 1 Form A)	<b>Nil:</b> Standard	
<b>Contact material</b>	<b>T:</b> AgSnO <sub>2</sub>	<b>Nil:</b> AgCdO	
<b>Customer special code</b> <sup>3)</sup> (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<sub>2</sub>S, SO<sub>2</sub> or NO<sub>2</sub>, wash tight type is recommended; please test the relay in real applications. If the ambience allows, flux proofed is preferentially recommended.

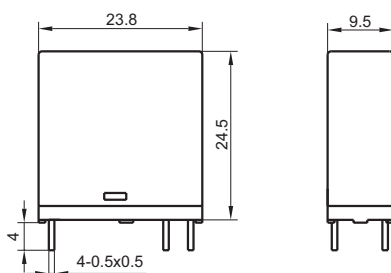
3) HF36F is an environmental friendly product. Please mark a special code (555) or (551) when ordering. (551) stands RoHS compliant with Cadmium contact; (555) stands for RoHS compliant with Cadmium-free contact.

## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

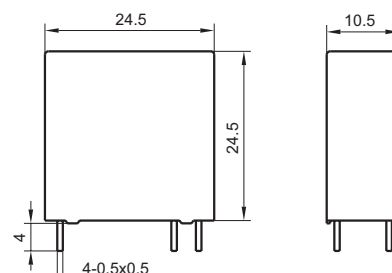
### Outline Dimensions

1 Form A & Flux proofed



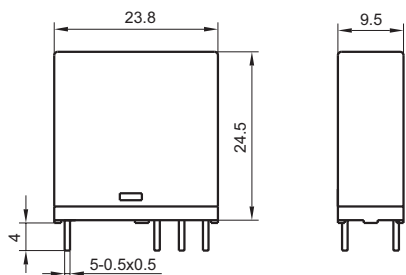
(Bottom view)

1 Form A & Wash tight



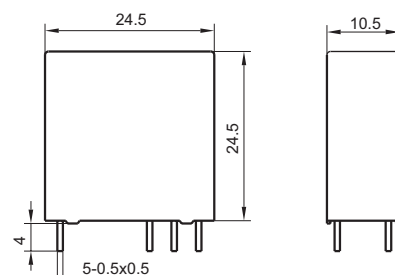
(Bottom view)

1 Form C & Flux proofed



(Bottom view)

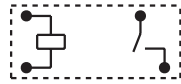
1 Form C & Wash tight



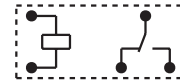
(Bottom view)

**Wiring Diagram**  
(Bottom view)

1 Form A

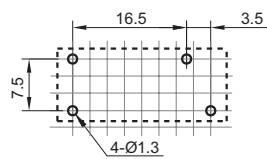


1 Form C

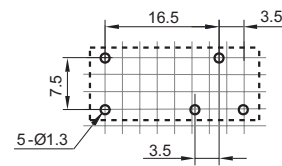


**PCB Layout**  
(Bottom view)

1 Form A



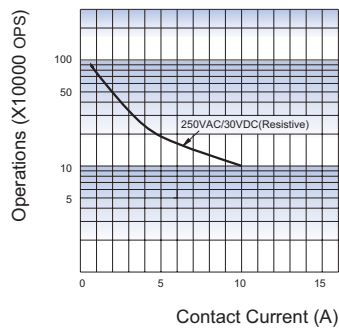
1 Form C



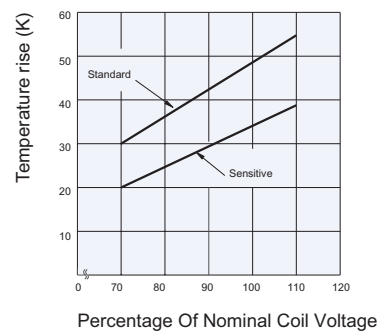
- Remark: 1) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $> 5\text{mm}$ , tolerance should 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.