

# HFE36

# MINIATURE 3-PHASES RELAY



## Features

- 3-phases latching relay
- 100A switching capability at Res.load
- Heavy load up to 22.2kVA
- 4kV dielectric strength (between coil and contacts)
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (128.0 x 30.5 x 34.5) mm

## CONTACT DATA

Contact arrangement	3U, 3V
Contact resistance	Typ.:0.35mΩ max. (at 100A) <sup>1)</sup>
Contact material	AgSnO <sub>2</sub>
Contact rating (Res. load)	100A 230VAC
Max. switching voltage	440VAC
Max. switching current	100A
Max. switching power	23000VA
Mechanical endurance	1 x 10 <sup>5</sup> OPS
Electrical endurance	5 x 10 <sup>3</sup> OPS (100A 230VAC, Resistive load, Room temp., 10s on 20s off)

**Notes:** 1) Typical value: Sampling quantity for contact resistance shall not less than 20 pcs, take the average value from 5 continous measurements for each sample.

## CHARACTERISTICS

Insulation resistance	1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts 4000VAC 1 min
	Between open contacts 1500VAC 1 min
Creepage distance	8mm
Set time (at nomi. volt.)	30ms max.
Reset time (at nomi. volt.)	30ms max.
Shock resistance	Functional 98m/s <sup>2</sup>
	Destructive 980m/s <sup>2</sup>
Vibration resistance	10Hz to 55Hz 1.5mm DA
Humidity	5% to 85% RH
Ambient temperature	-40°C to 85°C
Termination	QC
Unit weight	Approx.300g
Construction	Dust protected

**Notes:** The data shown above are initial values.

## COIL

Coil power	Single coil latching: Approx. 8W Double coils latching: Approx. 16W
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## COIL DATA

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC max.	Pulse Duration ms min.	Coil Resistance x (1±10%) Ω	
6	4.8	100	Single coil latching	4.5
9	7.2	100		10
12	9.6	100		18
24	19.2	100		72
48	38.4	100		288
6	4.8	100	Double coils latching	2.25+2.25
9	7.2	100		5+5
12	9.6	100		9+9
24	19.2	100		36+36
48	38.4	100		144+144

**Notes:** When requiring other nominal voltage, special order allowed.



HONGFA RELAY

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

2016 Rev. 1.00

## ORDERING INFORMATION

Type	HFE36 -A / 12 -3SD T 2 -R (XXX)					
Version	A: Type A contact terminal					
Coil voltage	6, 9, 12, 24, 48VDC					
Contact form <sup>1)</sup>	3SD: 3 Form B (Double-contact) 3SH: 3 Form A (Double-contact)					
Contact material	T: AgSnO <sub>2</sub>					
Sort	1: Single coil latching			2: Double coils latching		
Polarity	R: Negative polarity			Nil: Positive polarity		
Special code <sup>2)</sup>	XXX: Customer special requirement		Nil: Standard			

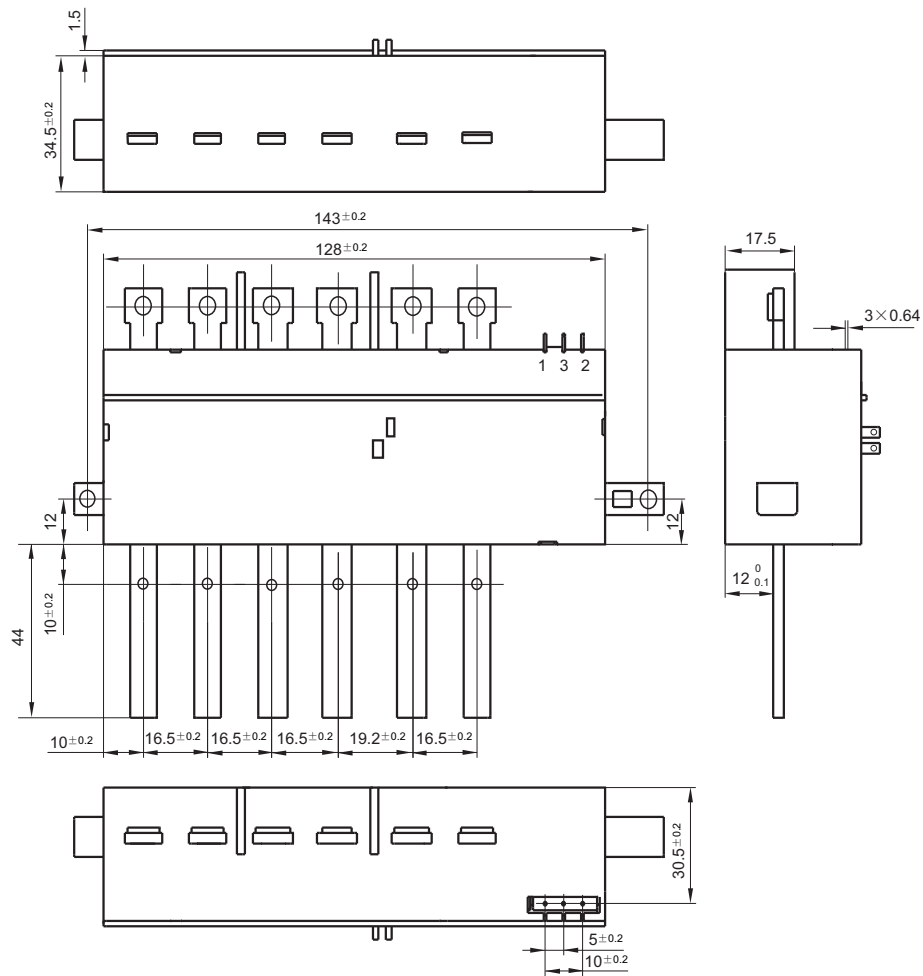
Notes: 1) 3H, 3SH means that relay is on the "reset" status when delivery; 3D, 3SD means that relay is on the "set" status when delivery. If no special required by customer, we will keep the relay on the "set" status when delivery.

2) The customer special requirement express as special code after evaluating by Hongfa.

## OUTLINE DIMENSIONS, WIRING DIAGRAM

Unit: mm

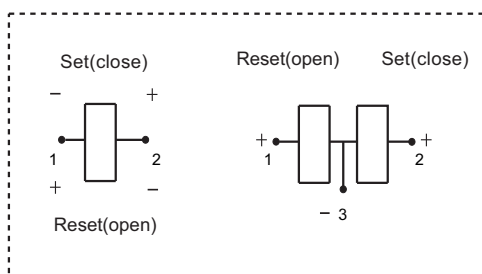
Outline Dimensions



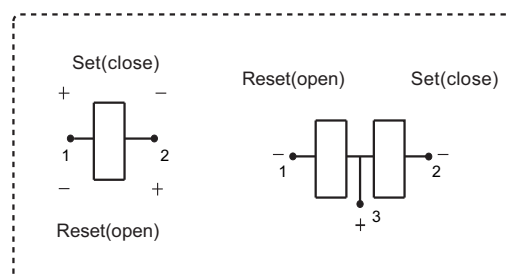
Remark: In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.1\text{mm}$ ; outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $> 5\text{mm}$ , tolerance should be  $\pm 0.4\text{mm}$ .

Coil Wiring Diagram

Positive polarity



Negative polarity



**Notice:**

1. Relay is on the "reset" or "set" status when being released from stock, with the consideration of shock risen from transit and relay mounting, relay would be changed to "set" or "reset" status, therefore, when application (connecting the power supply), please reset the relay to "set" or "reset" status on request.
2. In order to maintain "set" or "reset" status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than "set" or "reset" time. Do not energize voltage to "set" coil and "reset" coil simultaneously. And also long energized time (more than 1 min) should be avoided.
3. The terminals of relay without twisted copper wire can not be tin-soldered, can not be moved willfully, more over two terminals can not be fixed at the same time.
4. relays used for metering measuring applications are usually made with dust proof structure, while most relays could be made specially per customer's specific requirements.No longer than 6 months' storage time is recommended for this kind of relay, and please pay attention to the storage environment. To ensure contact reliability, we will keep contact status be closed when delivery if no special required by customer.

**Disclaimer**

The specification is for reference only. Specifications 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.

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