# **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	3SH, 3SD
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	5000 ops

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

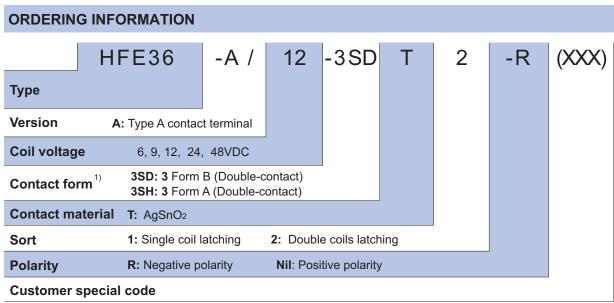
CHARACTERISTICS					
Insulation resistance		1000MΩ (at 500VDC)			
Dielectric strength	Between coil & contacts	4000VAC 1 min			
	Between open contacts	1500VAC 1 min			
Creepage distance		8mm			
Operate time (at nomi. volt.)		30ms max.			
Release time (at nomi. volt.)		30ms max.			
Shock resistance	Functional	98m/s²			
	Destructive	980m/s²			
Vibration resistance		10Hz to 55Hz 1.5mm DA			
Humidity		5% to 85% RH			
Ambient temperature		-40°C to 85°C			
Termination		QC			
Unit weight	t	Approx.300g			
Construction	on	Dust protected			

Notes: The data shown above are initial values.

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

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.

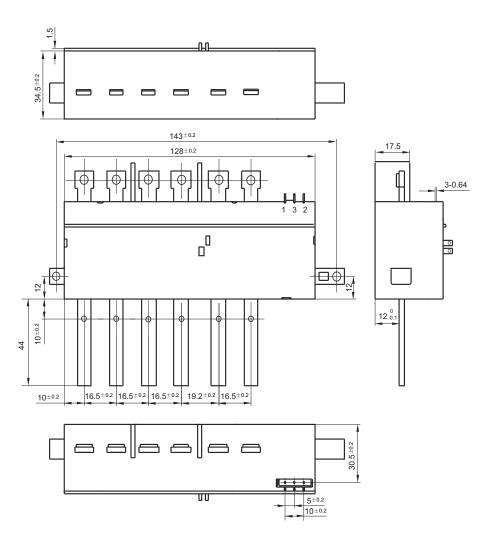


Notes: 1) 3H, 3SH means that relay is on the "reset" status when delivery; 3D, 3SD means that relay is on the "set" status when delivery. If no speical required by customer, we will keep the relay on the "set" status when delivery.

# **OUTLINE DIMENSIONS, WIRING DIAGRAM**

Unit: mm

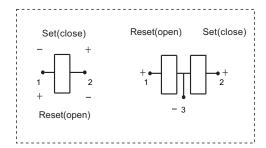
## **Outline Dimensions**

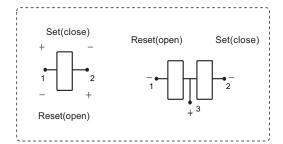


# Coil Wiring Diagram

#### 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

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.

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