

HFE31

HIGH POWER LATCHING RELAY



Features

- Latching relay
- 200A switching capability
- Carrying:7kA peak current/500ms
- According to the fault current test of IEC 62055-31:UC3 (Carrying: 6kA current / 10ms; Making:3kA current / 10ms)
- 4kV dielectric strength (between coil and contacts)
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (61.3 x 57.0 x 29.3) mm

CONTACT DATA

Contact arrangement	1U, 1V
Contact resistance	Typ.:0.25mΩ max. (at 200A) ¹⁾
Contact material	AgSnO ₂
Contact rating (Res. load)	200A 250VAC
Max. switching voltage	400VAC
Max. switching current	200A
Max. switching power	50kVA
Mechanical endurance	1 x 10 ⁵ OPS
Electrical endurance	5 x 10 ³ OPS (200A 250VAC, Resistive load, Room temp., 0.6s on 5.4s off)

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 sample.

CHARACTERISTICS

Insulation resistance	1000MΩ (at 500VDC)	
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	2000VAC 1min
Creepage distance	9.6mm	
Set time (at nomi. volt.)	25ms max.	
Reset time (at nomi. volt.)	25ms max.	
Shock resistance	Functional	196m/s ²
	Destructive	980m/s ²
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. 151g	
Construction	Dust protected	

Notes: The data shown above are initial values.

COIL

Coil power	Single coil latching:Approx. 5W Double coils latching: Approx.10W
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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	150	Single coil latching	7.2
12	9.6	150		28.8
24	19.2	150		115.2
48	38.4	150		460.8
6	4.8	150	Double coils latching	3.6+3.6
12	9.6	150		14.4+14.4
24	19.2	150		57.6+57.6
48	38.4	150		230.4+230.4

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	HFE31 / 6 -SD 1 T -2 -R (XXX)						
Coil voltage	6, 12, 24, 48VDC						
Contact form ¹⁾	SD: 1 Form B (Double-contact of 1 Form B) SH: 1 Form A (Double-contact of 1 Form A)						
Termination	1: With mounting aperture 2: No mounting aperture						
Contact material	T: AgSnO ₂						
Coil Sort	1: Single coil latching			2: Double coils latching			
Polarity	R: Negative polarity			Nil: Positive polarity			
Special code ²⁾	XXX: Customer special requirement			Nil: Standard			

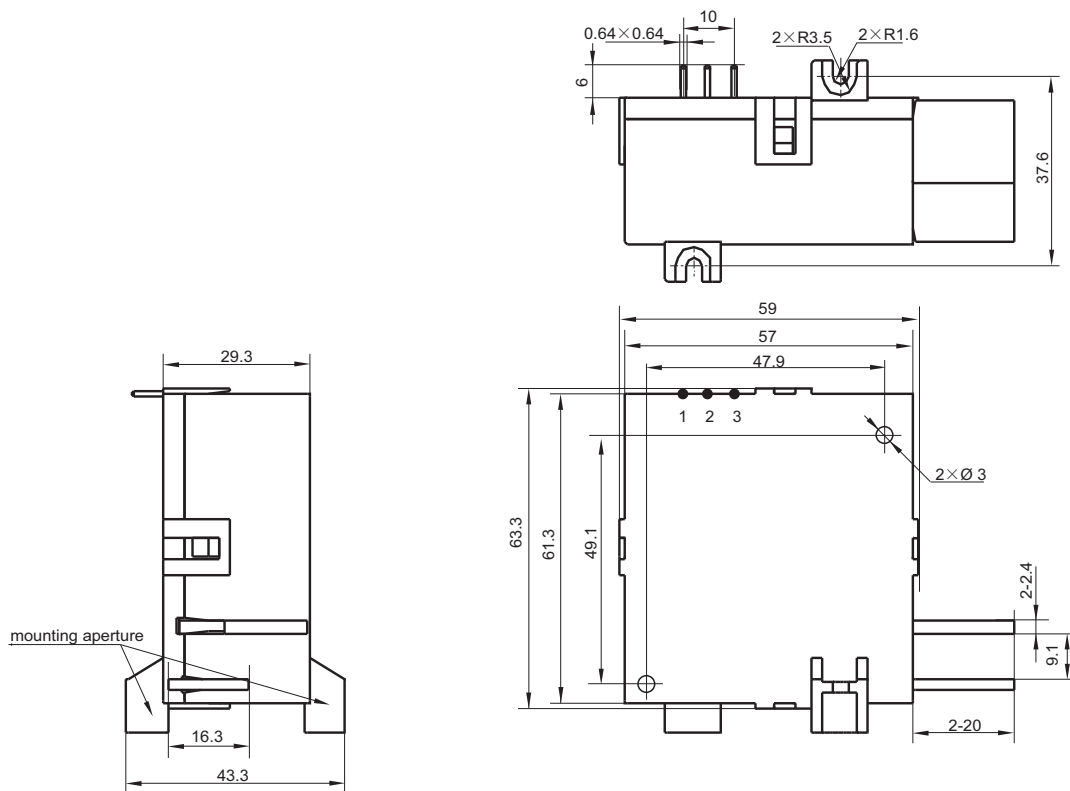
Notes: 1) SH means that relay is on the "reset" status when delivery; SD means that relay is on the "set" status when delivery. If no special required by customer, we will keep the relay on the "set" status when delivery.

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

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

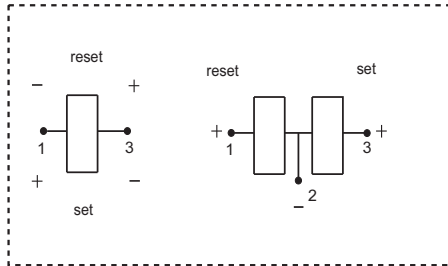
Outline Dimensions



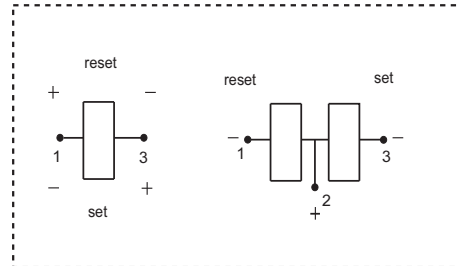
Remark: In case of no tolerance shown in outline dimension: outline dimension ≤ 1 mm, tolerance should be ± 0.2 mm; outline dimension > 1 mm and ≤ 5 mm, tolerance should be ± 0.3 mm; outline dimension > 5 mm, tolerance should be ± 0.4 mm.

Coil Wring 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.
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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