HFE31 HIGH POWER LATCHING RELAY

Features

- 200A Latching relay
- Electrical endurance 5000ops
- According to IEC62055-31:UC4 (Carrying: 7kA current / 500ms)
- Contact resistence ≤0.25mΩ

CONTACT DATA

Contact arrangement	1U, 1V
Contact resistence 1)	Typ.:0.25mΩ max. (at 200A)2)
Contact material	$AgSnO_2$
Contact rating (Res. load)	200A 220VAC
Max. switching voltage	253VAC
Max. switching current	200A
Rated switching power	44000kVA
Mechanical endurance	1 x 10^5OPS
Electrical endurance	5000OPS (200A 250VAC, Resistive load, Room temp., 0.6s on 5.4s off)

Notes:1)The data shown above are initial values.
2) 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 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/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	Coil termination	PCB&QC
	Load 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

COIL DATA at 23˚C

Single coil latching

Nominal Voltage VDC	Set / Reset Voltage VDC max. 1)	Pulse Duration (Recommended) ms	Coil Resistance x (1±10%)Ω
6	≤4.8	50~100	7.2
9	≤7.2	50~100	16.2
12	≤9.6	50~100	28.8
24	≤19.2	50~100	115.2
48	≤38.4	50~100	460.8

Double coils latching

Nominal Voltage VDC	Set / Reset Voltage VDC max. 1)	Pulse Duration (Recommended) ms	Coil Resistance x (1±10%)Ω
6	≤4.8	50~100	3.6+3.6
9	≤7.2	50~100	8.1+8.1
12	≤9.6	50~100	14.4+14.4
24	≤19.2	50~100	57.6+57.6
48	≤38.4	50~100	230.4+230.4

Notes:1) The data shown above are initial values ; recommended driving voltage is 1~1.5times of rated voltage.

ORDERING INFORMATION

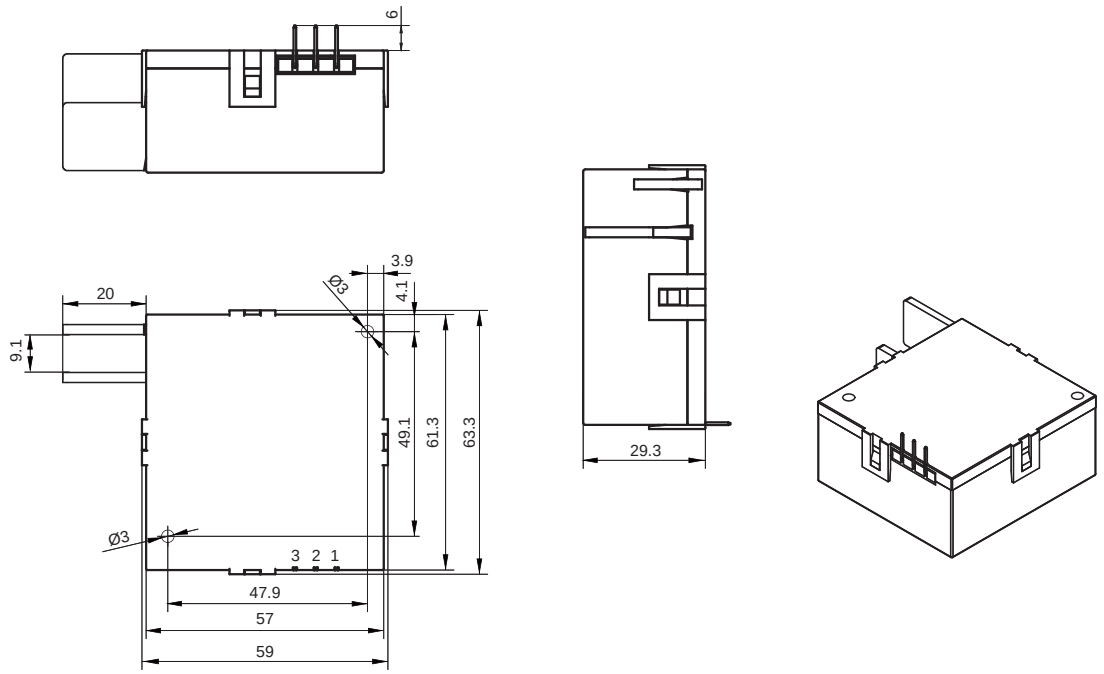
	HFE31	/ 6	-SD	1	T	-2	- R	(XXX)
Type								
Coil voltage	6, 9, 12, 24, 48VDC							
Contact form[1]	**SD:** 1 Form B (Double-contact of 1 Form B) **SH:** 1 Form A (Double-contact of 1 Form A)							
Termination	**1:** With mounting aperture **2:** No mounting aperture							
Contact material	**T:** $AgSnO_2$							
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 speical 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



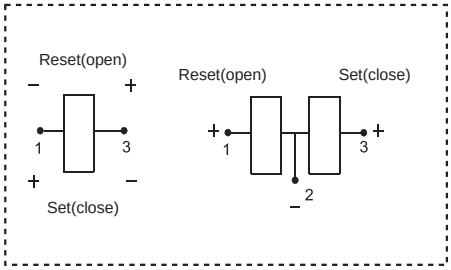
Remark: In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

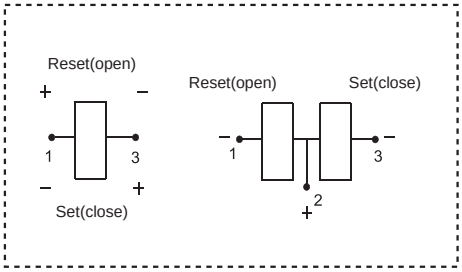
Unit: mm

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. Do not energize voltage to “set” coil and “reset” coil simultaneously. And also long energized time (more than 1 min) should be avoided.
3. Normally the load terminals are not suitable for reflow solder, wave solder or tin solder, we suggest use spot welding. Load terminals shall be prevented from assembly stress, or freely move.
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.