

# HFE63-661 SUBMINIATURE INTERMEDIATE POWER RELAY



## Features

- 80A Latching relay
- Electrical endurance 10000ops
- Terminal configuration LLNN
- According to IEC62052-31 IEC62055-31:UC3
- Contact resistance  $\leq 0.5m\Omega(80A,2SD)$

RoHS compliant

## CONTACT DATA

Contact arrangement	2SD:2 Form B(Double conntacts)
Contact resistance <sup>1)</sup>	Typical value: <sup>2)</sup> $\leq 0.5m\Omega(80A,2SD)$
Contact material	AgSnO <sub>2</sub>
Contact rating	See "electrical endurance"
Max. switching voltage	288VAC
Max. switching current	80A
Max. switching power	23040W
Mechanical endurance	Meter: $1 \times 10^5$ ops

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	1000M $\Omega$ ( 500VDC)
Dielectric strength	Between coil and contact 4000VAC 1min
	Between open contacts 2000VAC 1min
Creepage distance	8.9mm
Set time (at nomi. volt.)	$\leq 20ms$
Reset time (at nomi. volt.)	$\leq 20ms$
Shock resistance	Functional 98m/s <sup>2</sup>
	Destructive 980m/s <sup>2</sup>
Vibration resistance	10Hz ~ 55Hz 1.5mm DA
Humidity	5% ~ 85% RH
Ambient temperature	-40°C ~ 85°C
Termination	Coil termination PCB&QC
	Load termination QC
Unit weight	Approx.70g
Construction	Dust protected

Notes: The data shown above are initial values.

## COIL

Rated power	Single coil latching:Approx. 3.0W
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## COIL DATA

23°C

Single coil latching

Nominal Voltage VDC	Set/Reset Voltage <sup>1) 2)</sup> VDC	Pulse Duration (Recommended) ms	Coil Resistance $\times(1\pm 10\%)\Omega$
12	$\leq 9.6$	50-100	48

Notes: 1) The data shown above are initial values.

2) The above values are used as incoming inspection standards, and the recommended driving voltage is 1~1.5 times of the rated voltage.

## ELECTRICAL ENDURANCE

UC Class	Voltage (Uc)	Current (Ic)	Power Factor	Close Open time (s)	Electrical endurance(ops)	
UC3	240VAC	80A	COS $\phi$ =1	10:20	5000	Total: 10000
			COS $\phi$ =0.5		5000	

Notes: 1) Electrical endurance meet IEC62052-31/IEC62055-31 test requirement,do the inductive load test after the resistive load test.

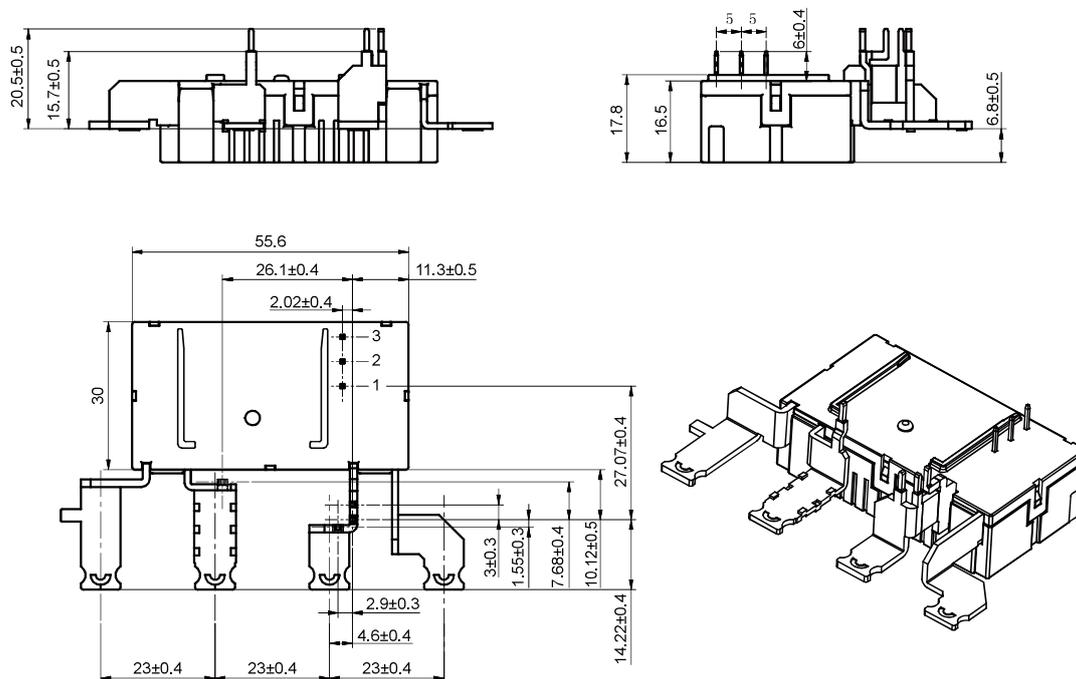
2) Coil driven by rated voltage.



HONGFA RELAY

ISO9001、IATF16949、ISO14001、ISO45001、IECQ QC 080000、ISO/EC 27001 CERTIFIED 2024 Rev. 1.00

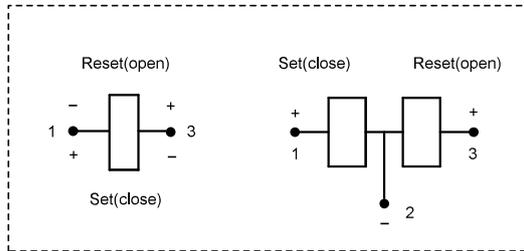
Outline Dimensions



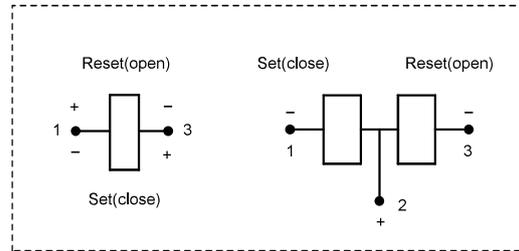
- Note: 1) load terminal dimensions and sampling resistance can be customized made per customer request  
 2) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1$ mm, tolerance should be  $\pm 0.2$ mm; outline dimension  $> 1$ mm and  $\leq 5$ mm, tolerance should be  $\pm 0.3$ mm; outline dimension  $> 5$ mm, tolerance should be  $\pm 0.4$ mm.

Wiring Diagram

Standard polarity



Reverse polarity



**CAUTIONS**

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.

**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.