HFE65 SUBMINIATURE INTERMEDIATE POWER RELAY

Features

- 200A Latching relay
- Electrical endurance 6000ops
- According to ANSI C 12.1
  (Carrying: 12kA r.m.s/66.7ms;
  7kA peak current/100ms)
- Contact resistance ≤0.25mΩ

RoHS compliant

CONTACT DATA

Contact arrangement	2A(Dual contact), 2B(Dual contact)
Contact resistance 1)	Typical value: 2) ≤0.25mΩ(200A)
Contact material	$AgSnO_2$
Contact rating	See “electrical endurance”
Max. switching voltage	276VAC
Max. switching current	200A
Max. switching power	55200VA
Mechanical endurance	1 x 10^5ops
Electrical endurance	200A 240VAC:6 x 10^3ops (Two contact sets were connected in a series)

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 (500VDC)
Dielectric strength	Between coil and contact	4000VAC 1min
	Between open contacts	2000VAC 1min
	Between coil and auxiliary contact	1500VAC 1min
	Between main contact and auxiliary contact	4000VAC 1min
Creepage distance		9.6mm
Set time (at nomi. volt.)		≤25ms
Reset time (at nomi. volt.)		≤25ms
Shock resistance	Functional	98m/s²
	Destructive	980m/s²
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.400g
Construction		Dust protected

Notes: The data shown above are initial values.

COIL

Rated power	Single coil latching: Approx. 12W Double coils latching: Approx. 24W

COIL DATA

23°C

Single coil latching

Nominal Voltage VDC	Set / Reset Voltage 1) 2) VDC	Pulse Duration (Recommended) ms	Coil Resistance x (1±10%) Ω
6	≤4.8	50~100	3
9	≤7.2	50~100	6.75
12	≤9.6	50~100	12
24	≤19.2	50~100	48
48	≤38.4	50~100	190

Double coils latching

Nominal Voltage VDC	Set / Reset Voltage 1) 2) VDC	Pulse Duration (Recommended) ms	Coil Resistance x (1±10%) Ω
6	≤4.8	50~100	1.5+1.5
9	≤7.2	50~100	3.3+3.3
12	≤9.6	50~100	6+6
24	≤19.2	50~100	24+24
48	≤38.4	50~100	95+95

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.

ORDERING INFORMATION

	HFE65	-1	/12	-2SD	A	7	T	1	-1	-R	(XXX)

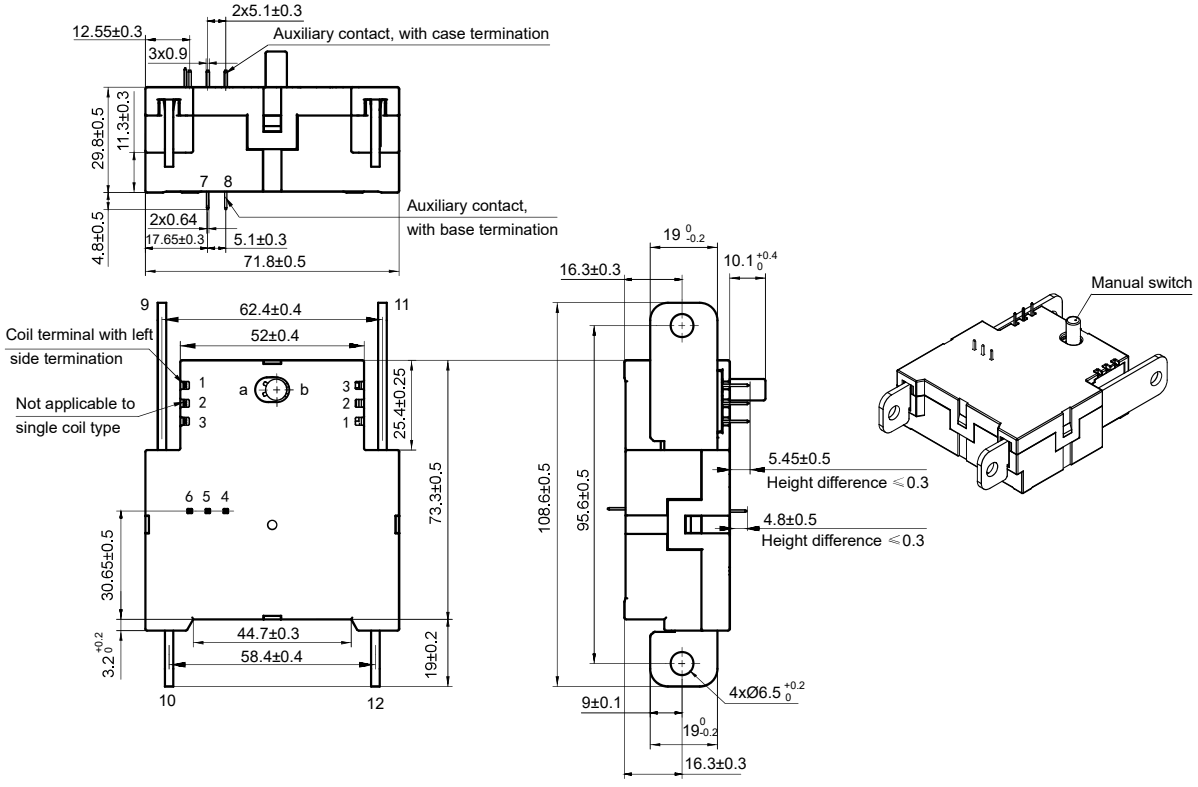
Type	
Version	**1:**Without manual switch **2:** With manual switch
Coil voltage	6,9,12,24,48VDC
Contact arrangement [1]	**2SD:**2 Form B(Dual contact) **2SH:**2 Form A(Dual contact)
Auxiliary contact form and termination type [2]	**Nil:** without auxiliary contact **A:**The auxiliary contact state is consistent with the main contact, with case termination. **B:**The auxiliary contact state is opposite of the main contact, with case termination. **C:**The auxiliary contact state is opposite of the main contact, with base termination.
Load terminal type	**7:** With external connection part **Nil:** Without external connection part
Contact material	**T:**$AgSnO_2$
Coil terminal position	**1:** Left side termination **2:** Right side termination
Coil type	**1:** Single coil latching **2:** Double coils latching
Polarity	**R:** Reverse polarity **Nil:** Standard polarity
Special code [3]	**XXX:** Customer special requirement

Notes:1) 2SH means that relay is on the "reset" status when delivery; 2SD 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 termination direction of auxiliary contact shall be from the base or from the case.
3) The customer special requirement express as special code after evaluating by Hongfa.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PCB LAYOUT

Unit: mm

Outline Dimensions



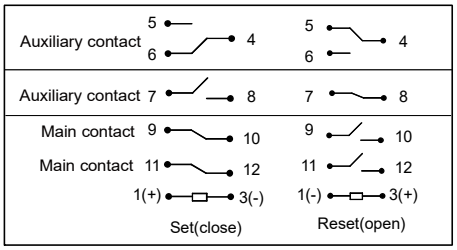
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PCB LAYOUT

Unit: mm

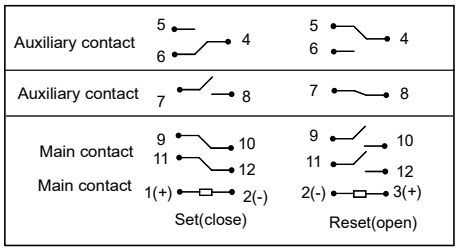
Wirng Diagram

Standard polarity

Single coil latching

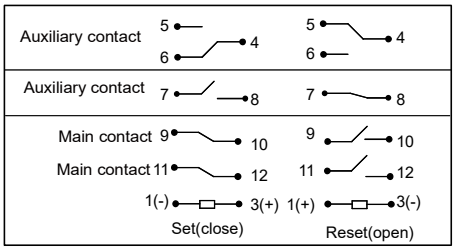


Double coils latching

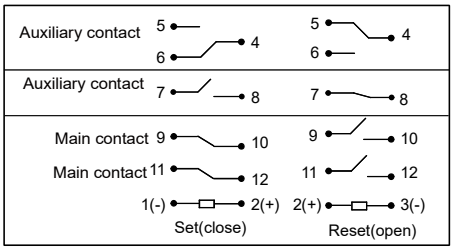


Reverse polarity

Single coil latching



Double coils latching



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.