HFE66-100   SMART CAPACITOR LATCHING RELAY

Features

- Latching relay
- Apply to smart capacitor
- 100A switching capability
- Low bounce time: less than 200µs

CONTACT DATA

Contact arrangement	1A
Contact resistence [1]	≤2mΩ(1A 24VDC)
Contact material	AgSnO₂
Contact rating (Res. load)	100A 250VAC(COSØ=1)6 x 10³ops
Max. switching voltage	380VAC
Max. switching current	100A
Max. switching power	38000VA
Mechanical endurance	1 x 10⁶ops
Electrical endurance	See "Contact rating"

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

CHARACTERISTICS

Insulation resistance		1000MΩ(500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	3000VAC(50/60Hz,1min) 1min
Creepage distance		8.4mm
Operate time (at 2.5 time nomi. volt.)		≤6ms
Release time (at 2.5 time nomi. volt.)		≤6ms
Bounce time		≤0.2ms
Shock resistance	Functional	98m/s²
	Destructive	980m/s²
Vibration resistance		10Hz ~ 55Hz 1.5mm DA
Humidity		5% ~ 70% RH
Ambient temperature		-40% ~ 85%
Termination	Coil terminal	PCB、QC
	Load terminal	QC
Unit weight		Approx.42g
Construction		Plastic sealed

Notes: The data shown above are initial values.

COIL

Coil power	Single coil latching:Approx.2.5W Double coils latching: Approx.5.0W

COIL DATA   23°C

Single coil latching

Nominal Voltage VDC	Set / Reset Voltage [1)2)] VDC	Pulse Duration ms	Coil Resistance x (1±10%) Ω
5	≤4.0	≥50	10
6	≤4.8	≥50	14.5
9	≤7.2	≥50	32.5
12	≤9.6	≥50	58
24	≤19.2	≥50	230
48	≤38.4	≥50	920

Double coils latching

Nominal Voltage VDC	Set / Reset Voltage [1)2)] VDC	Pulse Duration ms	Coil Resistance x (1±10%) Ω
5	≤4.0	≥50	5+5
6	≤4.8	≥50	7.2+7.2
9	≤7.2	≥50	16.2+16.2
12	≤9.6	≥50	29+29
24	≤19.2	≥50	115+115
48	≤38.4	≥50	460+460

Notes:1) The data shown above are initial values.
2) The above set voltage, reset voltage are the test value for relay without load. Please use 1~1.5 times of rated voltage to drive the relay for your application.

ORDERING INFORMATION

HFE66 -100 /12 -H T -1 1 -R (XXX)

Type	
Contact rating	**100:** 100A
Coil voltage	5,6,9,12,24,48 VDC
Contact form [1]	**H:** 1 Form A
Contact material	**T:** AgSnO2
Version	**1:** Type 1 coil pins **2:** Type 2 coil pins **3:** Type 3 coil pins **4:** Type 4 coil pins
Sort	**1:** Single coil latching **2:** Double coils latching
Polarity	**R:** Reverse polarity **Nil:** Positive polarity
Special code [2]	**XXX:** Customer special requirement

Notes: 1) H means that relay is on the "reset" status when delivery;
2) The customer special requirement express as special code after evaluating by Hongfa.

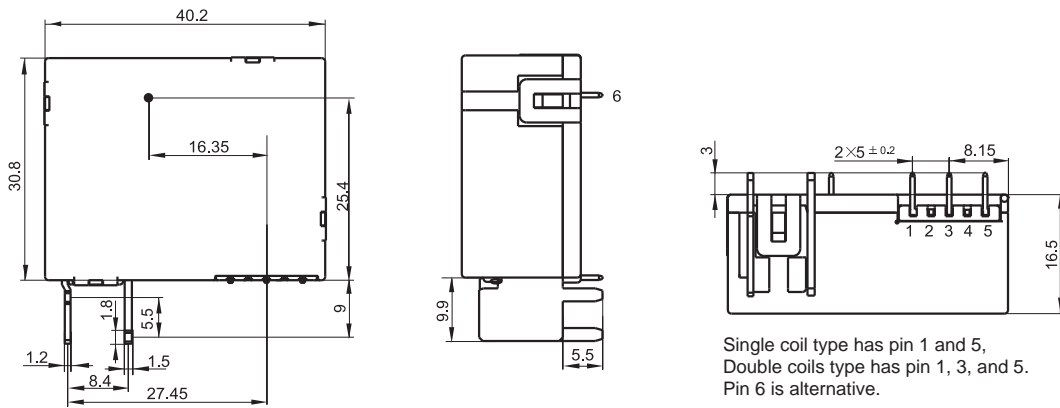## OUTLINE DIMENSIONS AND WIRING DIAGRAM

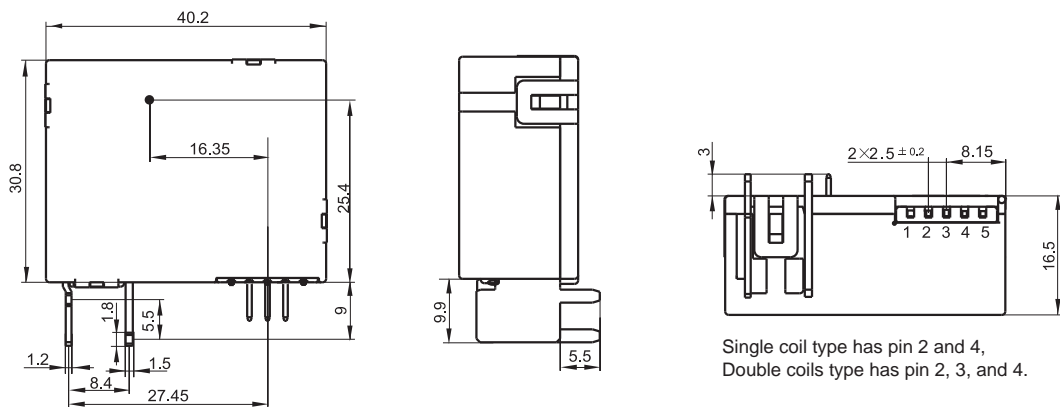Unit: mm

Outline Dimensions

HFE66-100 Type 1 coil pins
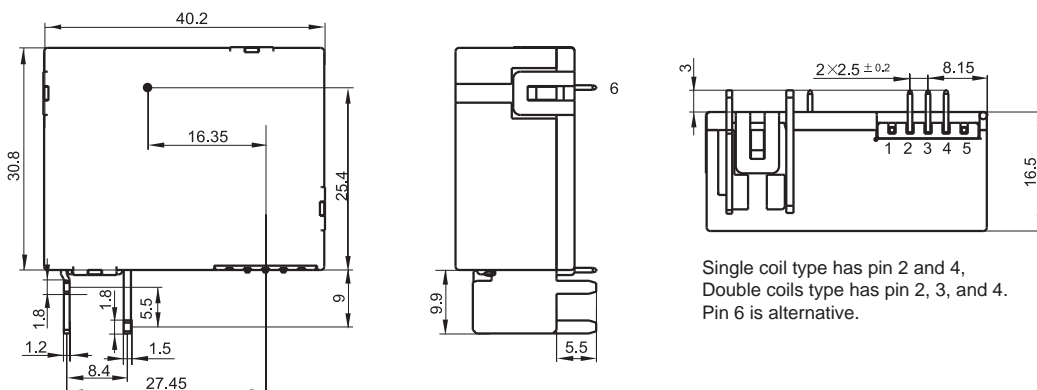
Single coil type has pin 2 and 4,
Double coils type has pin 2, 3, and 4.
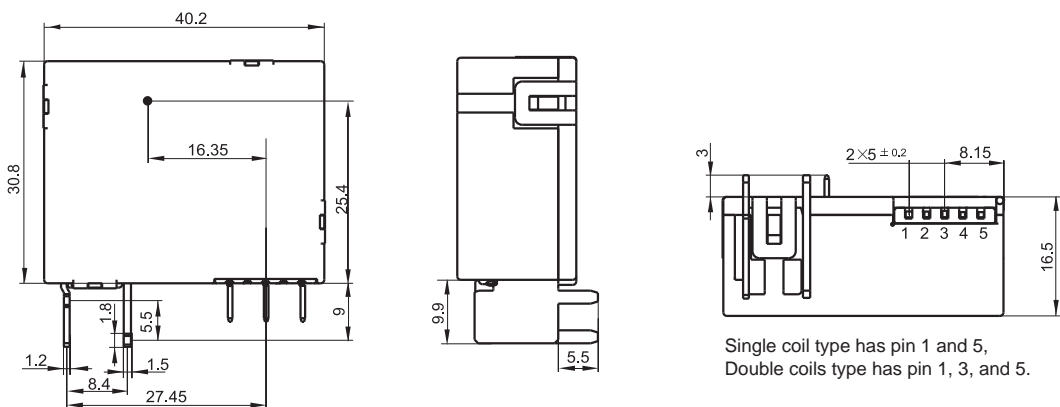Pin 6 is alternative.

Outline Dimensions

HFE66-100 Type 2 coil pins

Single coil type has pin 1 and 5,
Double coils type has pin 1, 3, and 5.
Pin 6 is alternative.

HFE66-100 Type 3 coil pins

Single coil type has pin 2 and 4,
Double coils type has pin 2, 3, and 4.

HFE66-100 Type 4 coil pins

Single coil type has pin 1 and 5,
Double coils type has pin 1, 3, and 5.

Remark:(1) 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.

(2) The tolerance without indicating for PCB layout is always ±0.1mm.

(3) Contact is recommended for suitble assembly method and customized terminal solutions.

Wiring Diagram

Positive polarity

Reverse polarity
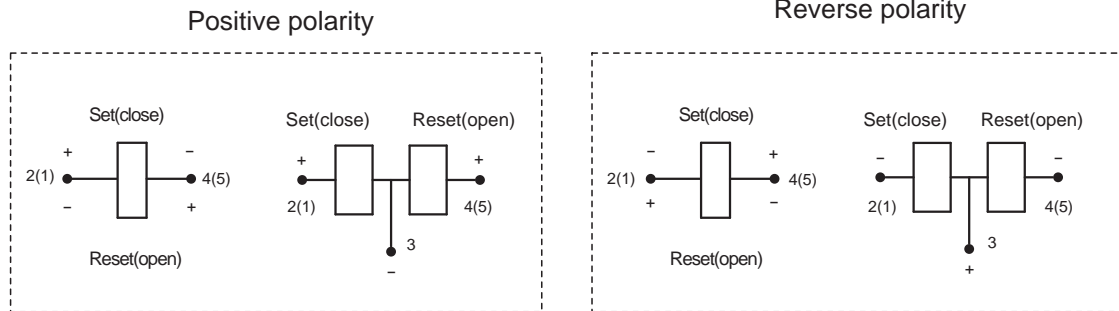
Notice:

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.