HFE66 SMART CAPACITOR LATCHING RELAY

Features

- Latching relay
- Apply to smart capacitor
- 60A switching capability
- Low bounce time: less than 200μs
- Environmental friendly product (RoHS compliant)
- Outline Dimensions:38.1mm X 30.8mm X 16.5mm

CONTACT DATA

Contact arrangement	1A
Contact resistence	≤2mΩ(1A 20VDC)
Contact material	$AgSnO_2$
Contact rating (Res. load)	60A 250VAC（COSØ=1）6 x 10^3ops
Max. switching voltage	277VAC
Max. switching current	90A
Max. switching power	24930VA
Mechanical endurance	1 x 10^6ops
Electrical endurance	See "Contact rating"

CHARACTERISTICS

Insulation resistance		1000mΩ(500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	2500VAC(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/s^2
	Destructive	980m/s^2
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.35g
Construction		Plastic sealed

Notes: The data shown above are initial values.

COIL

Coil power	Single coil latching:Approx.1.5W Double coils latching: Approx.2x3W

COIL DATA 23℃

Single coil latching

Nominal Voltage VDC	Set / Reset Voltage VDC	Pulse Duration ms	Coil Resistance x (1±10%) Ω
5	≤4.0	≥50	16.7
6	≤4.8	≥50	24
9	≤7.2	≥50	54
12	≤9.6	≥50	96
24	≤19.2	≥50	384
48	≤38.4	≥50	1536

Double coils latching

Nominal Voltage VDC	Set / Reset Voltage VDC	Pulse Duration ms	Coil Resistance x (1±10%) Ω
5	≤4.0	≥50	8.3+8.3
6	≤4.8	≥50	12+12
9	≤7.2	≥50	27+27
12	≤9.6	≥50	48+48
24	≤19.2	≥50	192+192
48	≤38.4	≥50	768+768

Notes: When requiring other nominal voltage, special order allowed.

ORDERING INFORMATION

	HFE66	-1	/12	-H	T	-L1	-R	(XXX)
Type								
Version	**1:** Type 1 coil pins **2:** Type 2 coil pins **3:** Type 3 coil pins **4:** Type 4 coil pins							
Coil voltage	5,6,9,12,24,48 VDC							
Contact form	**H:** 1 Form A							
Contact material	**T:** AgSnO2							
Sort	**L1:** Single coil latching	**L2:** Double coils latching						
Polarity	**R:** Reverse polarity	**Nil:** Positive polarity						
Special code (1)	**XXX:** Customer special requirement	**Nil:** Standard						

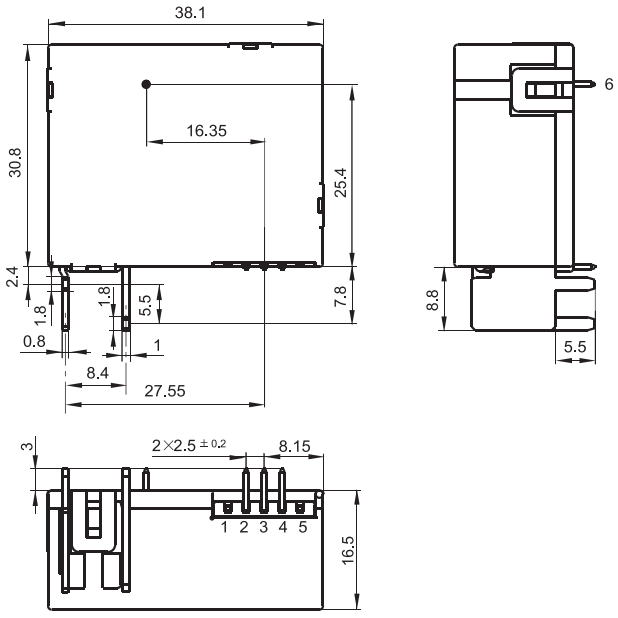
（1）The customer special requirement express as special code after evaluating by Hongfa.

OUTLINE DIMENSIONS AND WIRING DIAGRAM

Unit: mm

Outline Dimensions

HFE66-1



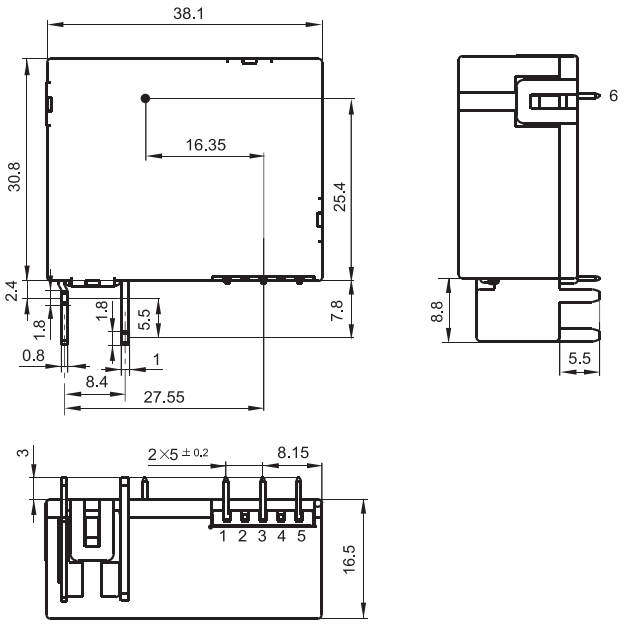
HFE66-1 single coil type has pin 2 and 4, HFE66-1 double coils type has pin 2, 3, and 4. Pin 6 is alternative.

OUTLINE DIMENSIONS AND WIRING DIAGRAM

Unit: mm

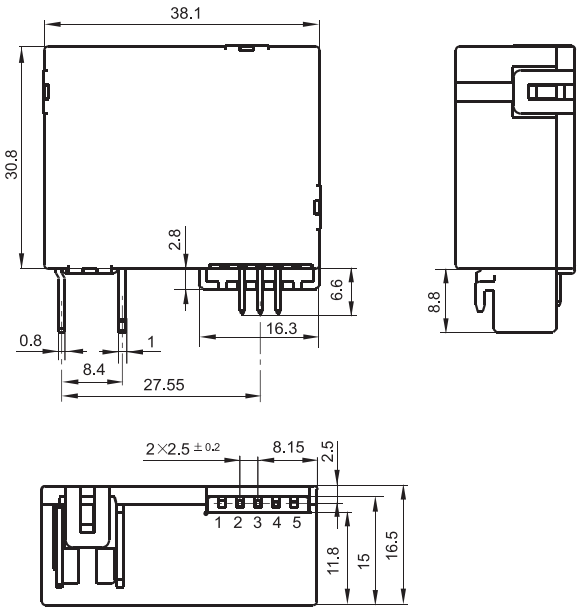
Outline Dimensions

HFE66-2



HFE66-2 single coil type has pin 1 and 5, HFE66-2 double coils type has pin 1, 3, and 5. Pin 6 is alternative.

HFE66-3



HFE66-3 single coil type has pin 2 and 4, HFE66-3 double coils type has pin 2, 3, and 4.

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.

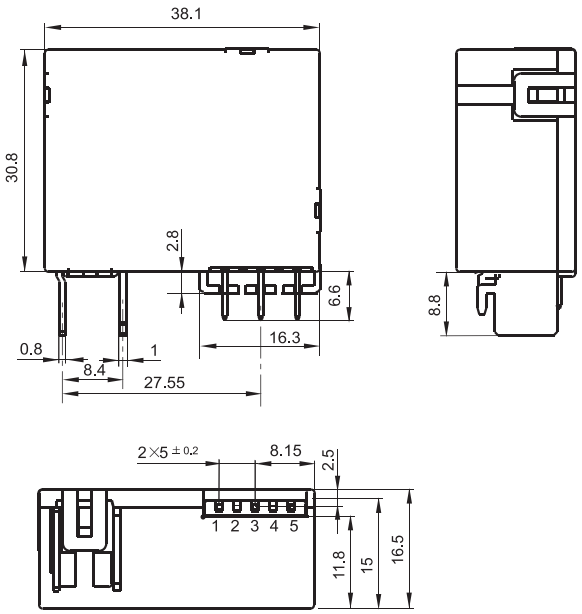
(3) Contact is recommended for suitble assembly method and customized terminal solutions.

OUTLINE DIMENSIONS AND WIRING DIAGRAM

Unit: mm

Outline Dimensions

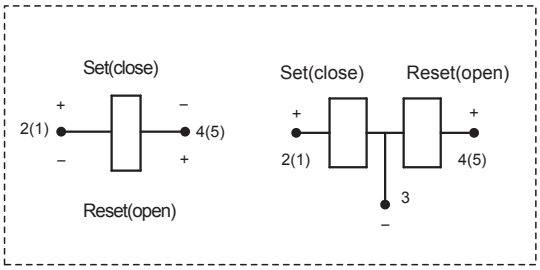
HFE66-4



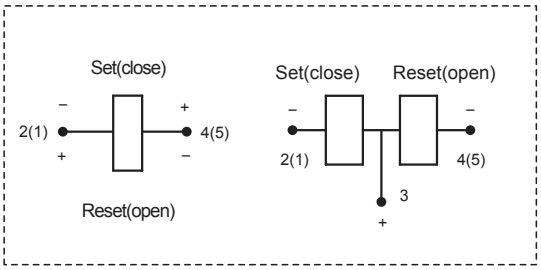
HFE66-4 single coil type has pin 1 and 5, HFE66-4 double coils type has pin 1, 3, and 5.

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.

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.