

HFE66

SMART CAPACITOR LATCHING RELAY



File No.:E133481



File No.: B0532860034



File No.: CQC 18002200845



Features

- Latching relay
- Apply to smart capacitor
- 60A switching capability
- Low bounce time: less than 200μs

CONTACT DATA

Contact arrangement	1A
Contact resistance ¹⁾	≤2mΩ(1A 6VDC)
Contact material	AgSnO ₂
Contact rating (Res. load)	60A 250VAC (COSφ=1) 6 x 10 ³ ops
Max. switching voltage	277VAC
Max. switching current	90A
Max. switching power	15000VA
Mechanical endurance	1 x 10 ⁶ ops
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	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
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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	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 ¹⁾²⁾ 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: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.

SAFETY APPROVAL RATINGS

CQC	1A	60A/250VAC (cosφ=1) 85 C
UL (Type:HFE66-3)	1A	60A/277VAC (cosφ=1) 85 C
TUV (Type:HFE66-3)	1A	60A/277VAC (cosφ=1) 85 C

Notes: Only typical loads are listed above.other load specifications can be available upon request.



HONGFA RELAY

ISO9001、ISO/TS16949、ISO14001、OHSAS18001、IECQC QC 080000 CERTIFIED

2019 Rev.1.00

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: AgSnO ₂						
Sort	L1: Single coil latching			L2: Double coils latching			
Polarity	R: Reverse polarity			Nil: Positive polarity			
Special code ¹⁾	XXX: Customer special requirement						

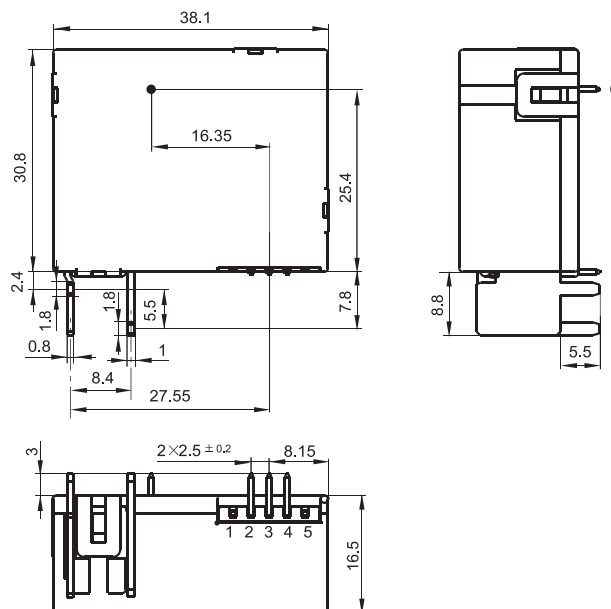
Notes: 1) The customer special requirement express as special code after evaluating by Hongfa.

OUTLINE DIMENSIONS AND WIRING DIAGRAM

Unit: mm

Outline Dimensions

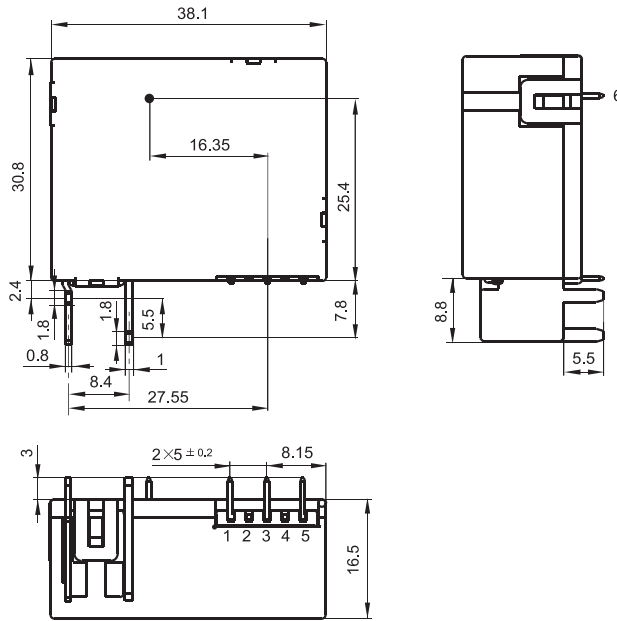
HFE66-1



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.

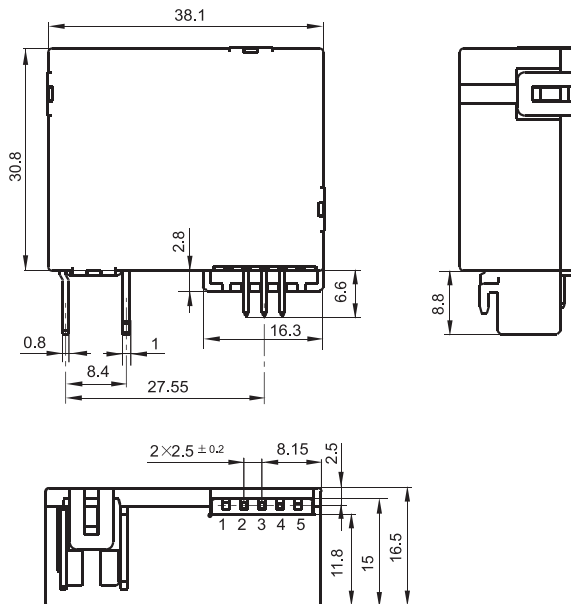
Outline Dimensions

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.

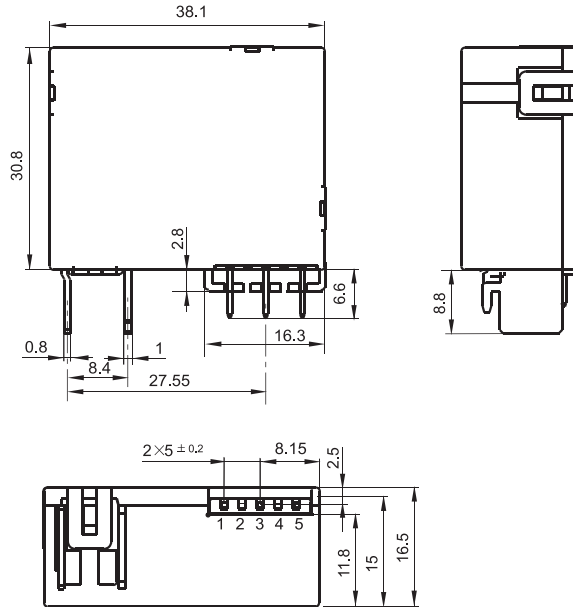
Remark:(1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.

(2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

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

Outline Dimensions

HFE66-4

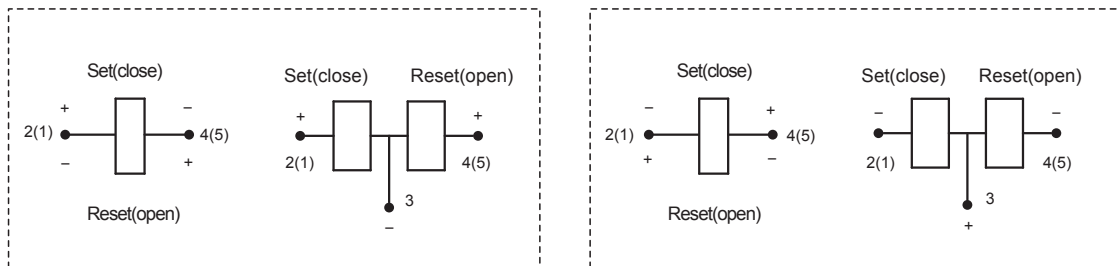


HFE66-4 single coil type has pin 1 and 5, HFE66-4 double coils type has pin 1, 3, and 5.

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.