

HFE66

SMART CAPACITOR LATCHING RELAY



File No.:E133481



File No.: B0532860034



File No.:CQC 18002200845



Features

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

RoHS compliant

CONTACT DATA

Contact arrangement	1A
Contact resistance 1)	≤2mΩ(60A)
Contact material	AgSnO ₂
Contact rating (Res. load)	60A 250VAC(COSφ=1) 6 x 10 ³ ops
Max. switching voltage	277VAC
Max. switching current	60A
Max. switching power	16620VA
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)
Creepage distance	8.4mm	
Operate time(at twice nomi. volt.)	≤6ms	
Release time(at twice 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% ~ 85% RH	
Ambient temperature	-40°C ~ 85°C	
Termination	Coil terminal	PCB、QC
	Load terminal	QC
Unit weight	Approx.35g	
Construction	Flux proofed	

Notes: The data shown above are initial values.

COIL

Rated power	Single coil latching:1.5W
	Double coils latching:3.0W

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	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 1~2.5 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.



ISO9001、IATF16949、ISO14001、ISO45001、IECQ QC 080000、ISO/EC 27001

2025 Rev.1.00

ORDERING INFORMATION

Type	HFE66	-1	/12	-H	T	-L1	-R	(XXX)
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 arrangement	H: 1 Form A							
Contact material	T: AgSnO ₂							
Coil type	L1: Single coil latching			L2: Double coils latching				
Polarity	R: Reverse polarity			Nil: Standard polarity				
Special code ¹⁾	XXX: Customer special requirement							

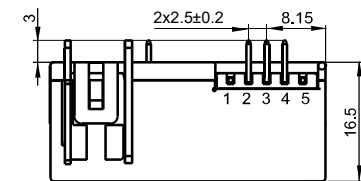
Notes: 1) The customer special requirement express as special code after evaluating by Hongfa.

OUTLINE DIMENSIONS AND WIRING DIAGRAM

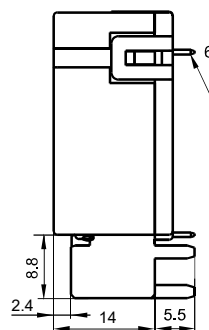
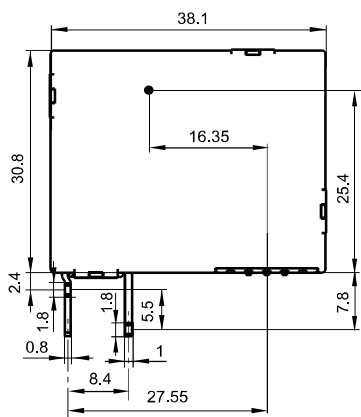
Unit: mm

Outline Dimensions

HFE66-1



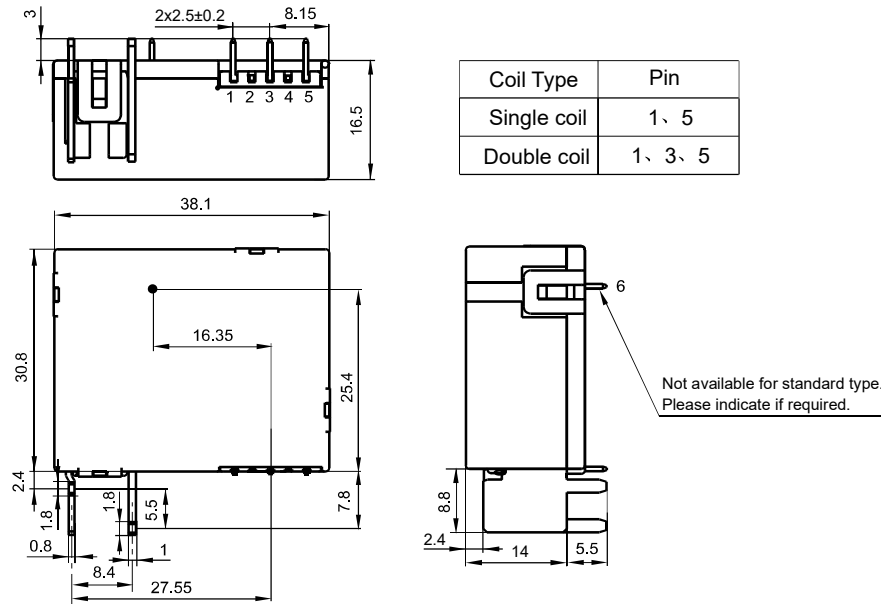
Coil Type	Pin
Single coil	2、4
Double coil	2、3、4



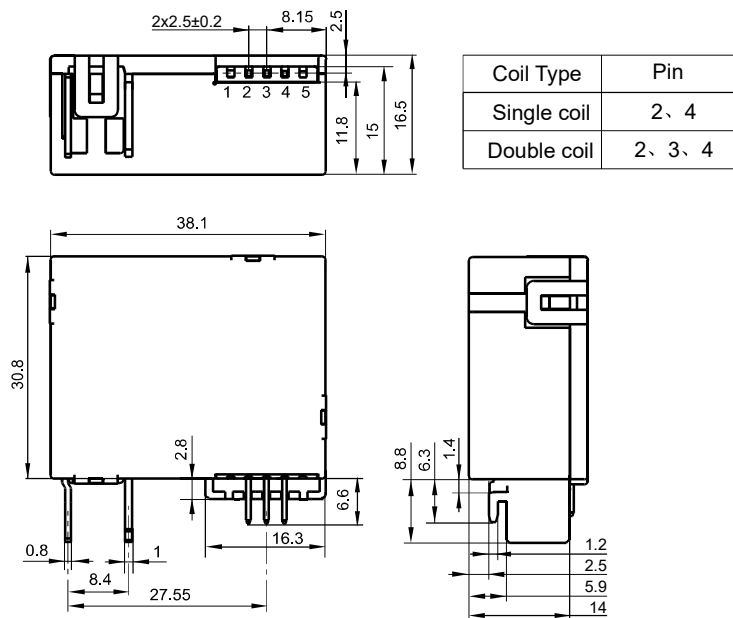
Not available for standard type.
Please indicate if required.

Outline Dimensions

HFE66-2



HFE66-3



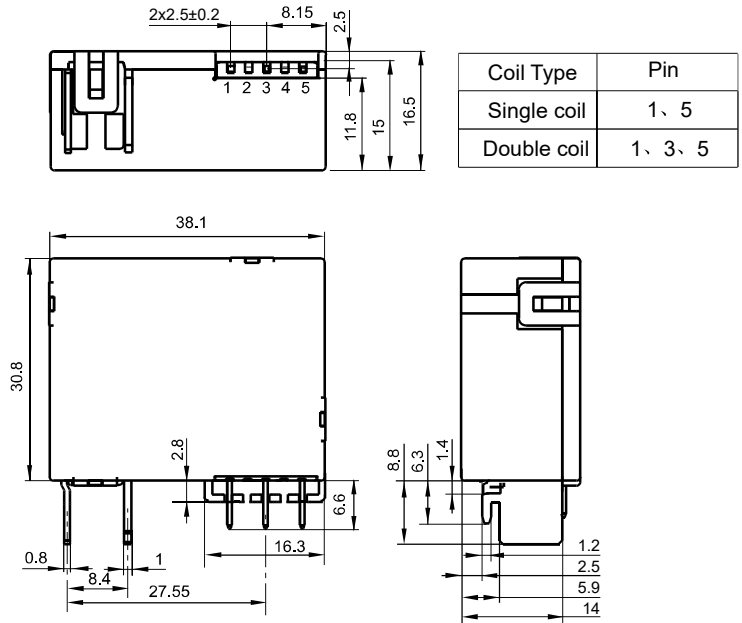
Remark:(1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.

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

(3) Please confirm with us for the detailed mounting method and external connector.

Outline Dimensions

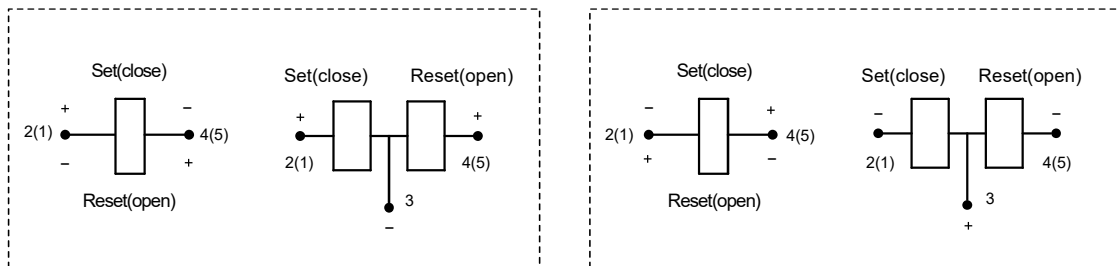
HFE66-4



Wiring Diagram

Standard polarity

Reverse polarity



CAUTIONS

1. Relay is on the "reset" or "set" status when delivery, 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 applied across the coil 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. Because of the dust proof structure and custom made external terminal, the recommended storage time shall not longer than 6 months. Please pay attention to the storage environment. To ensure contact reliability, we will keep contact status be open 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.