

HFE66(661) SMART CAPACITOR LATCHING RELAY



Features

- Inrush current capacity up to 2000A(peak)
- Max. operate bounce time of 0.2ms
- Max. operate time range of 0.3ms(for 100 times)
- Dielectric strength up to 2500VAC(50/60Hz 1min)

RoHS compliant

CONTACT DATA

Contact arrangement	1A
Contact resistance ¹⁾	≤2mΩ(100A)
Contact material	AgSnO ₂
Contact rating (Res. load)	HFE66-60:60A 250VAC HFE66-100:100A 250VAC
Max. switching voltage	277VAC
Max. switching current	100A
Max. switching power	27700VA
Mechanical endurance	1 x 10 ⁶ ops
Electrical endurance	1.5 x 10 ⁴ ops(Inrush current of 2000A (peak) , pulse duration of 50μs)

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 & contacts	4000VAC 1min
	Between open contacts	2500VAC 1min
Creepage distance	8.4mm	
Operate time(at twice nomi. volt.)	≤6ms	
Release time(at twice nomi. volt.)	≤6ms	
Bounce time(at twice nomi. volt.)	≤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% ~ 85%	
Termination	Coil terminal	PCB、QC
	Load terminal	QC
Unit weight	Approx.43g	
Construction	Plastic sealed	

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	50~100	16.7
6	≤4.8	50~100	24
9	≤7.2	50~100	54
12	≤9.6	50~100	96
24	≤19.2	50~100	384
48	≤38.4	50~100	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	50~100	8.3+8.3
6	≤4.8	50~100	12+12
9	≤7.2	50~100	27+27
12	≤9.6	50~100	48+48
24	≤19.2	50~100	192+192
48	≤38.4	50~100	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.



HONGFA RELAY

ISO9001、IATF16949、ISO14001、OHSAS18001、IECQ QC 080000 CERTIFIED

2021 Rev.1.00

ORDERING INFORMATION

Type		HFE66 -60 /12 -H T 1 -1 -R (661)						
Contact rating	60: 60A 100: 100A							
Coil voltage	5,6,9,12,24,48 VDC							
Contact arrangement	H: 1 Form A							
Contact material	T: AgSnO ₂							
Coil terminal form	1: Type 1 coil pins		2: Type 2 coil pins					
	3: Type 3 coil pins		4: Type 4 coil pins					
Coil type	1: Single coil latching		2: Double coils latching					
Polarity	R: Reverse polarity		Nil: Standard polarity					
Special code ¹⁾	XXX: Customer special requirement							

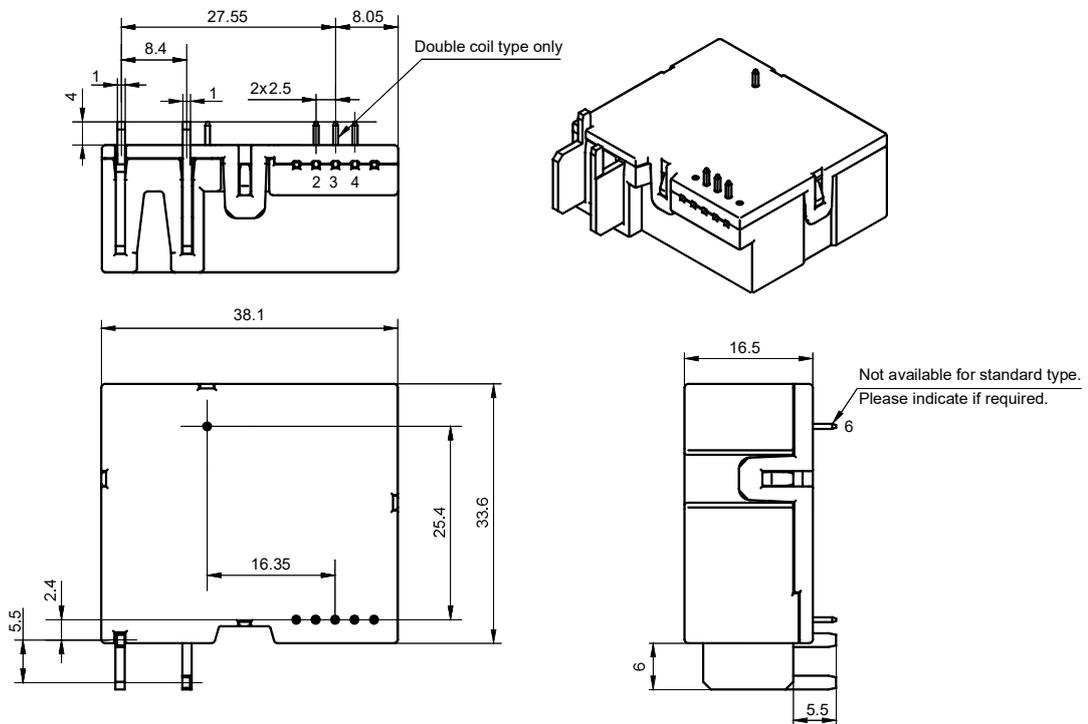
Notes: 1) The customer special requirement express as special code after evaluating by Hongfa.

OUTLINE DIMENSIONS AND WIRING DIAGRAM

Unit: mm

Outline Dimensions

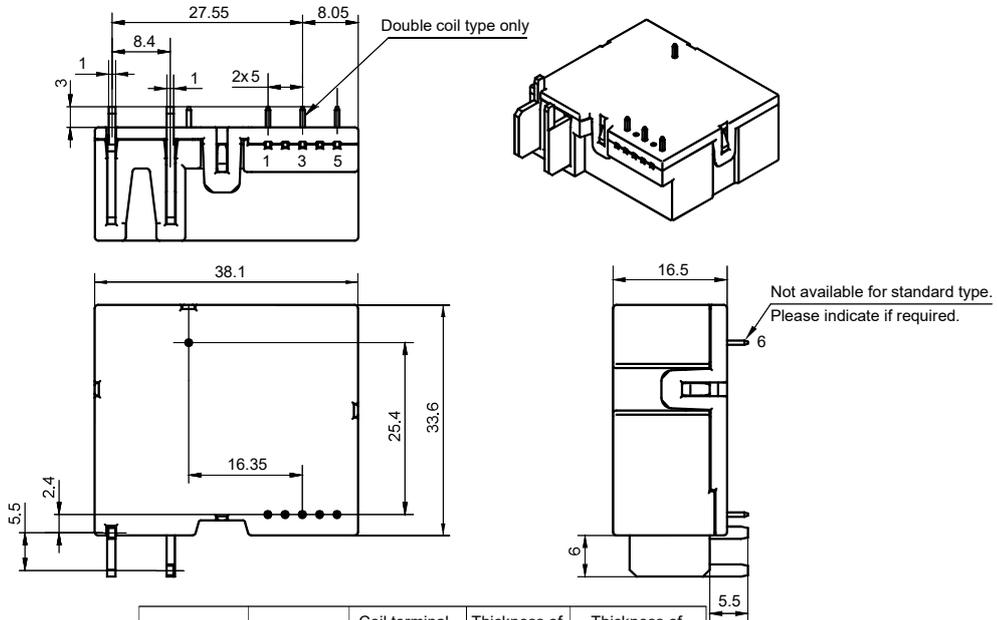
Type 1 coil pins



Contact rating	Coil type	Coil terminal type	Thickness of load terminal	Thickness of sampling terminal
60A	Single coil	2、4	1mm	1mm
	Double coil	2、3、4		
100A	Single coil	2、4	1.2mm	1mm
	Double coil	2、3、4		

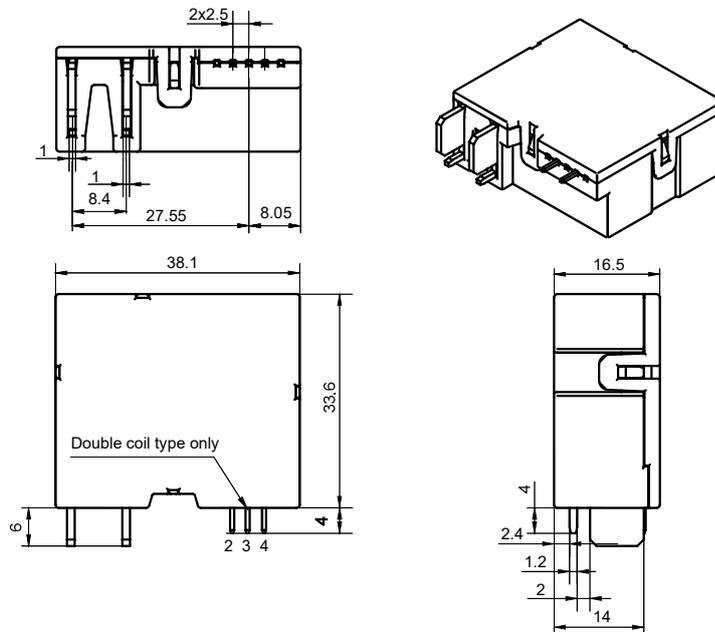
Outline Dimensions

Type 2 coil pins



Contact rating	Coil type	Coil terminal type	Thickness of load terminal	Thickness of sampling terminal
60A	Single coil	1、5	1mm	1mm
	Double coil	1、3、5		
100A	Single coil	1、5	1.2mm	1mm
	Double coil	1、3、5		

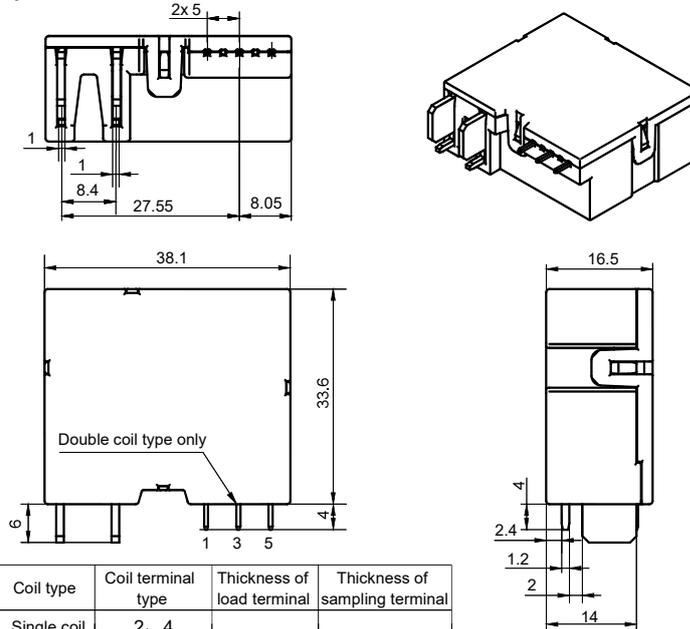
Type 3 coil pins



Contact rating	Coil type	Coil terminal type	Thickness of load terminal	Thickness of sampling terminal
60A	Single coil	2、4	1mm	1mm
	Double coil	2、3、4		
100A	Single coil	2、4	1.2mm	1mm
	Double coil	2、3、4		

Outline Dimensions

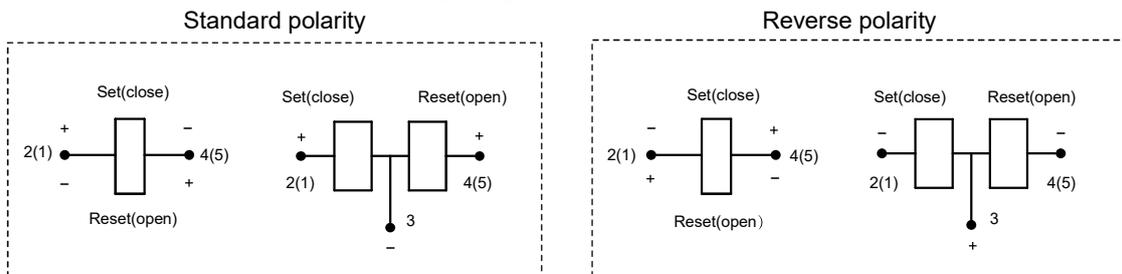
Type 4 coil pins



Contact rating	Coil type	Coil terminal type	Thickness of load terminal	Thickness of sampling terminal
60A	Single coil	2、4	1mm	1mm
	Double coil	2、3、4		
100A	Single coil	2、4	1.2mm	1mm
	Double coil	2、3、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) Please confirm with us for the detailed mounting method and external connector.

Wiring Diagram (Bottom view)



CAUTIONS

- 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.
- In order to maintain "set" or "reset" status, energized voltage applied across the 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.
- The terminals of relay without twisted copper wire can not be tin-soldered, can not be moved willfully.
- 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.