CHP8 Series 60~100A Magnetic Latching

Churod Electronics

FEATURES

- Dimensions of maximum products (40.4mm×30mm×17mm)
- 60A~100A Switching Capability
- Single Coil Latching; Double Coil Latching
- 4,000VAC Dielectric Strength(Between Coil and Contact)
- RoHS Compliance
- REACH SvHC Compliance
- IEC62055-31 UC2 Compliance(80A&90A)/UC3 Compliance(100A)
- Coil wire insulation class F
- Customized Teminal Likes Shunt ,Braided Cu-wire Etc

APPLICATION

Pre-payment Power Meters

Coil Power

H-Type

Coil voltage	9-48VDC	
Coil power	Single Coil Power	2W
	Double Coil Power	4W+4W

D-Type

Coil voltage	9-48VDC	
Coil power	Single Coil Power	1.5W
	Double Coil Power	3W+3W

L-Type

Coil voltage	9-48VDC	
Coil power	Single Coil Power	1W
	Double Coil Power	2W+2W

CONTACT DATA

Contact arrangement	1B/1A
Contact material	AgSnO2
Initial contact resistance	2mΩ max.@6VDC,1A
Max. switching voltage	250VAC
Max. switching current	100A
Max. switching power	25,000VA
Contact rating(Resistive Load)	60A@ 250VAC
	80A@ 250VAC
	90A@ 250VAC
	100A@ 250VAC
Mechanical endurance	500,000 ops Min.(no load)
Electrical endurance	10,000 ops Min(rated load)
Minimum load(reference value	1A @5VDC

COIL DATA @23℃

H-Type

Single Coil(2.0W)				
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω±10%)	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
9	225	40	6.8	6.8
12	167	72	9	9
24	83	288	18	18
48	42	1152	36	36

H-Type

Double Coil(4W+4W)				
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω±10%)	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
9	450	20+20	6.8	6.8
12	333	36+36	9	9
24	167	144+144	18	18
48	83	576+576	36	36

D-Type

Single Coil(1.5W)				
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω±10%)	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
9	167	54	6.8	6.8
12	125	96	9	9
24	63	384	18	18
48	31	1536	36	36

CHARACTERISTICS

Operate voltage		75% of nominal voltage or less
Release voltage		75% of nominal voltage or less
Operate time (At nominal voltage)		20ms max.
Release time(At nominal voltage)		20ms max.
Insulation resistance		1,000 MΩ min. (at 500 VDC)
Dielectric strength	Between coil and contacts	4,000 VAC, 50/60Hz for 1 min
	Between open contacts	2,000 VAC, 50/60Hz for 1 min
Vibration resistance		10 to 55 Hz.,1.5mm double amplitude
		10 to 55 Hz.,1.5mm double amplitude
Shock resistance	Destruction	1,000 m/s2(100G approximately)
	Malfunction	100 m/s2(10G approximately)
Ambient temperature		Operating: -40~+85℃ (without icing or condensation)
Ambient humidity		Operating: 20% to 85% RH
Pulse Duration		80ms Min
Weight		Approx. 50g

D-Type

Double Coil (3W+3W)				
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω±10%)	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
9	334	27+27	6.8	6.8
12	250	48+48	9	9
24	125	192+192	18	18
48	63	768+768	36	36

L-Type

Single Coil (1W)				
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω±10%)	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
9	111	81	6.8	6.8
12	83	144	9	9
24	42	576	18	18
48	21	2304	36	36

L-Type

Double Coil (2W+2W)				
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω±10%)	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
9	222	40.5+40.5	6.8	6.8
12	167	72+72	9	9
24	84	288+288	18	18
48	42	1152+1152	36	36

ORDERING INFORMATION

CHP8 -1 12 D A 2 -S N R 90 ,P 000

1. Product Family
CHP8 series

2. Number of Poles
1=1pole

3. Rated Coil Voltage
09=9VDC 12=12VDC 24=24VDC 48=48VDC

4. Coil Power
H=2.0W(Single Coil) 4W (Double Coil) (100A)
D=1.5W(Single Coil) 3W (Double Coil) (60A&80A&90A)
L=1.0W(Single Coil) 2W (Double Coil) (60A)

5. Contact Arrangement
B= Form B(SPST-NC) A= Form A(SPST-NO)

6.Contact Material
2=AgSnO2

7.Coil Type
S=Single Coil D=Double Coil

8.Coil Polarity
(Blank:Positive N:Negative (Refer to "DIAGRAMS Coil Polarity")

9, Coil Terminal Position
Blank: Coil and load terminal on the same side R: Coil and load terminal on the different side (Refer to Coil Terminal Position")

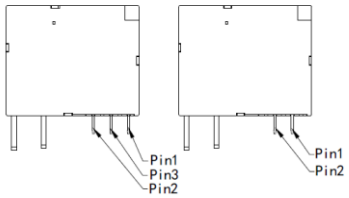
10 Contact Rating
60=60A 80=80A 90=90A 100=100A

11.Terminal Type(customized according to customer requirements)
P: PCB Type without brush wire
W: PCB Type with brush wire
M: With shunt
N: With shunt and brush wire

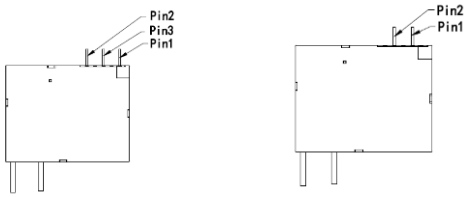
12. Additional numbers and /or letters
A combination of letters and Numbers (or blank),which does not represent electrical changes, only for specific customer requirements

DIAGRAMS :Coil Terminal

(Blank): D;Double Coil S:Singe Coil

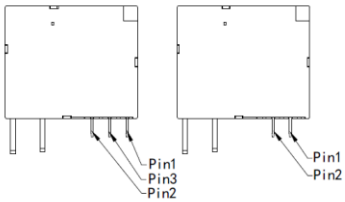


R: D;Double Coil S:Singe Coil



DIAGRAMS :Coil Polarity

D;Double Coil S:Singe Coil



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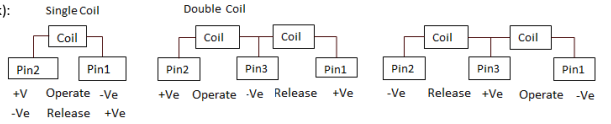

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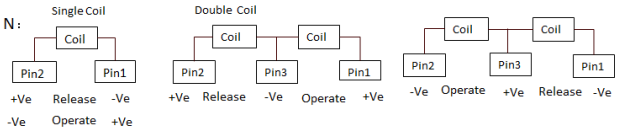
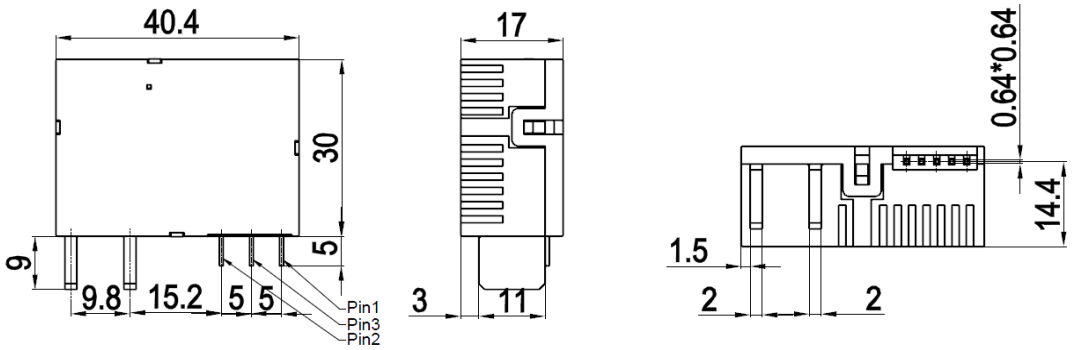


Standard size

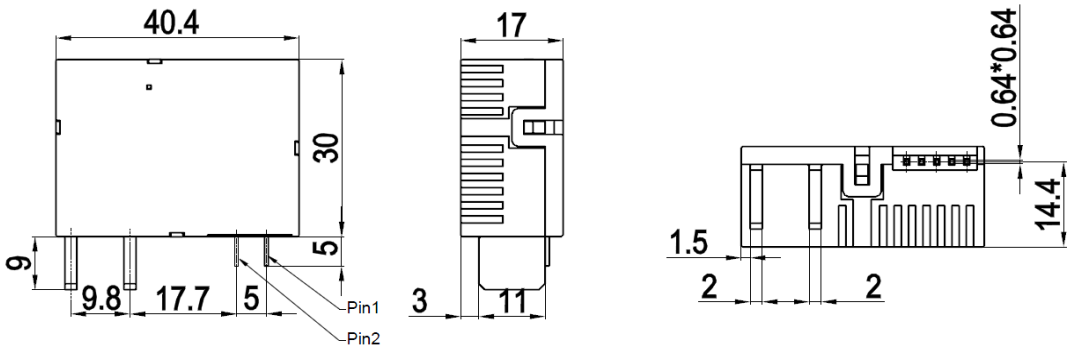
100A

D;Double Coil



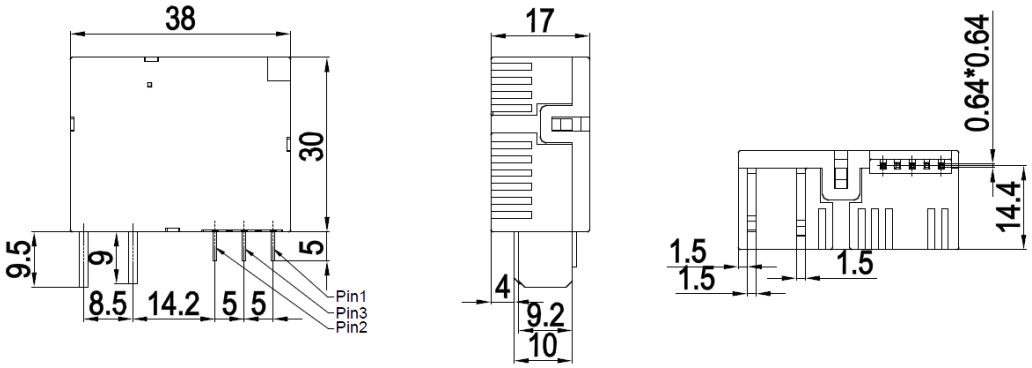
100A

S:Singe Coil



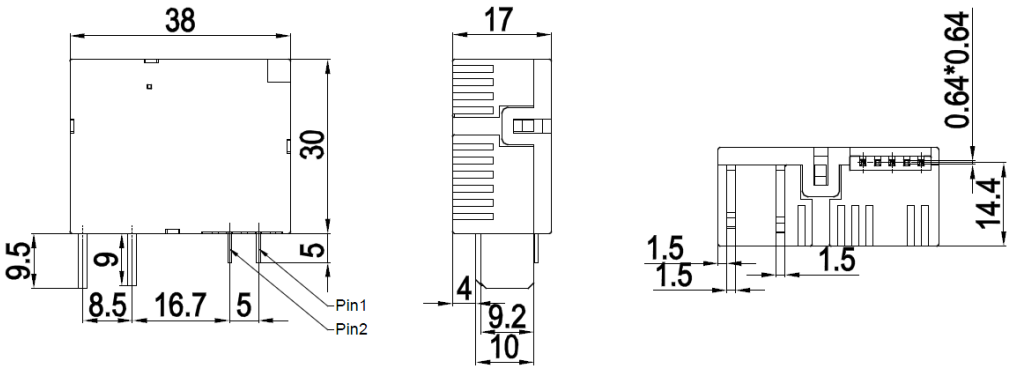
80-90A

D;Double Coil



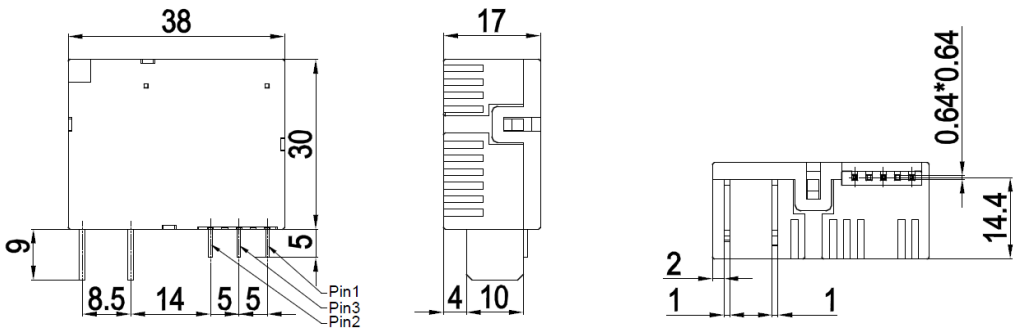
80-90A

S:Singe Coil



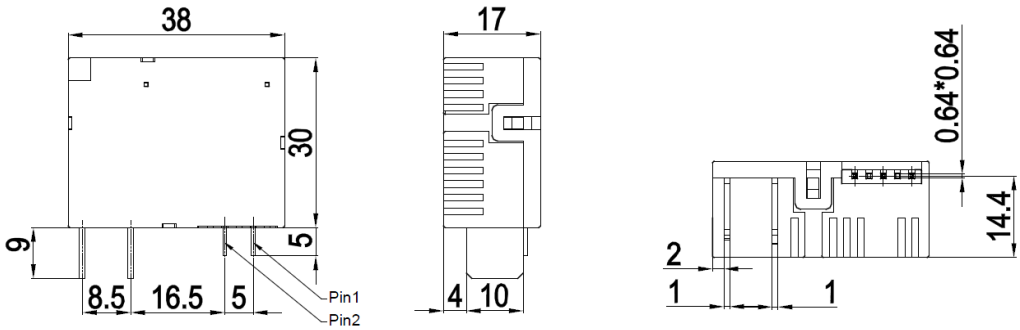
60A

D;Double Coil



60A

S:Singe Coil



Unit:mm

Remark: 1)The reference tolerance in outline dimension:

outline dimension ≤1mm, reference tolerance is ±0.2mm;

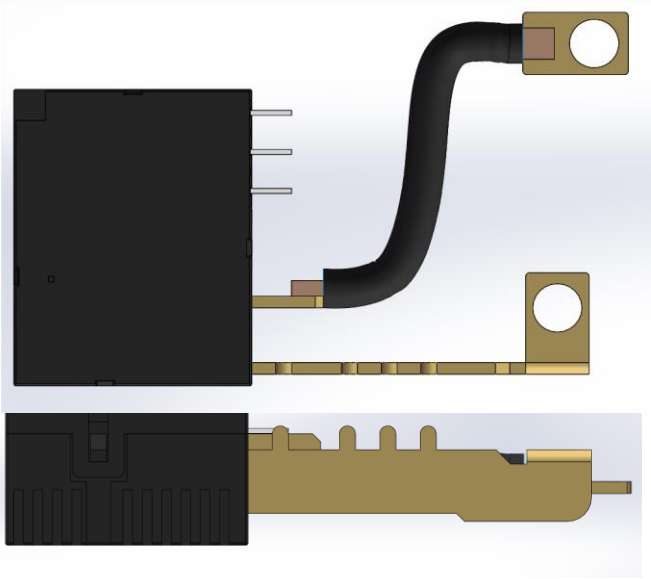
outline dimension ＞1mm and ≤5mm, reference tolerance is ±0.3mm;

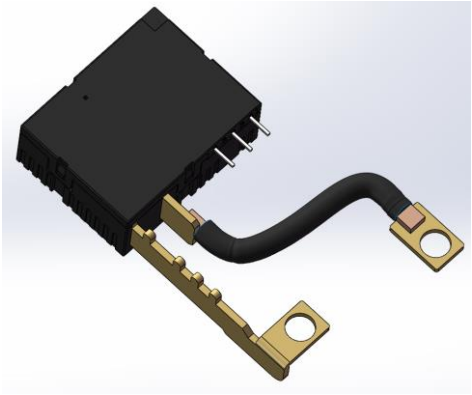
outline dimension ＞5mm, reference tolerance is ±0.5mm.

2)The reference tolerance for PC Board layout is ±0.1mm.

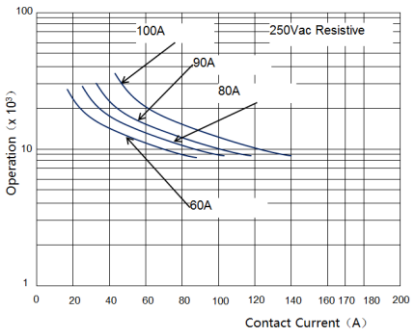
3) Relay is on the "reset" or "set" status when being released from stock, wiith the consideration of shock risen from transit and relay mounting,relay would be changed to "set" or "reset" sttus, therefore, when application (connecting the power supply), please rest the relay to "set" or "reset" status on request.

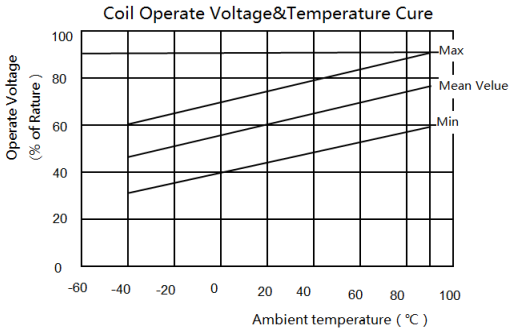
Customized typical



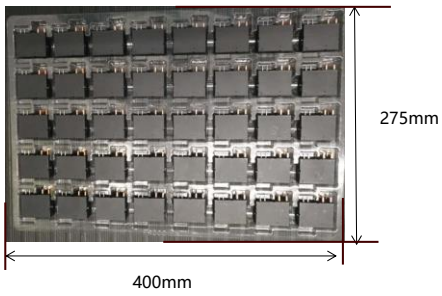


Reference Date





PACKAGING FIGURE



40 pcs inside a box (Lengt*Width 400mm*275mm)

400pcs inside a carton (Lengt*Width*Height 415mm*290mm*220mm)

Disclaimer:

The specification is for reference only,if you need more detail information,please contact Churod. We could not evaluate all the performance and all parameters for every possible application

And the user should be in a right position to choose the suitable product for their own application.If there is any new need,please contact Churod for the technical service.