

FEATURES

- Ceramic brazing sealed technology guarantees no risk of arc leaking and ensures no fire or explosion
- Filled with gas (mostly hydrogen) to minimize contact oxidation and damage from arcing; the contact resistance is low and stable
- Contact part can meet IP67 protection level
- Current rated load continuously at 85°C
- Insulation resistance is 1000MΩ (1000VDC), and dielectric strength between the coil and contacts is 4.0kV, which meets the requirements of IEC 60664-1



APPLICATION

- Energy storage system
- Construction machinery
- Charging pile
- Solar inverter

CONTACT DATA

Main Contact Arrangement	1 Form A
Initial Contact Voltage Drop	≤6mV at 20 A
Rated Current (resistive load)	350 A (@ 185mm ²)
Rated Switching Voltage	1500VDC
Min.Applicable Load	6VDC, 1 A
Max. Switching Power (1500VDC)	525kW
Max. Breaking Current	2000A (1500VDC)
Aux. Contact Arrangement	1 Form A
Rated Load of Aux.	24VDC, 100mA
Max Load of Aux.	24VDC, 300mA

COIL DATA @ 23°C

Nominal Voltage (VDC)	Coil Power (W)	Nominal Current (A)	Coil Resistance (Ω±10%)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)
12	Driving 55 Holding 6	Driving 4.6 Holding 0.5	Driving 2.6 Holding 24	9.0 Max.	1 Min.
24	Driving 55 Holding 6	Driving 2.3 Holding 0.25	Driving 10.4 Holding 96	18.0 Max.	2 Min.

ENDURANCE

Electrical Life (resistive Load)	Breaking: 5000 ops (1500 VDC, 100A)
	Breaking: 3000 ops (1500 VDC, 150A)
	Breaking: 1000 ops (1000 VDC, 350A)
	Breaking: 5 ops (1500 VDC, 350A)
	Breaking: 1 op (1500 VDC, 2000A)
Current Endurance	350A, Cont.
	400A, 10min
	600A, 90 s
	2000A, 1 s
Mechanical endurance	2x10 ⁵ times, on-off ratio: 0.5s: 0.5s

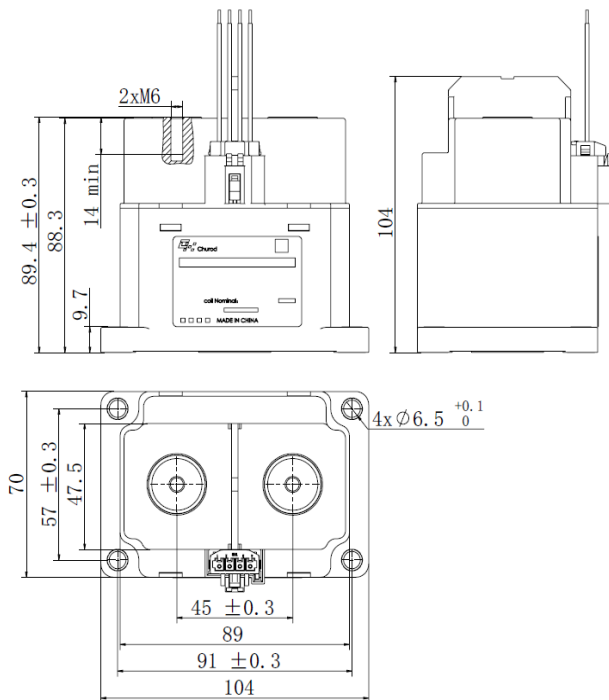
CHARACTERISTICS

Operate Time(at nominal voltage)		≤50ms
Release Time(at nominal voltage)		≤15ms
Insulation Resistance		> 1000 MΩ (at 1000 VDC)
Dielectric Strength	Between Coil and Contacts	4,000 VAC, 50/60 Hz (1min)
	Between Open Contacts	3,000 VAC, 50/60 Hz (1min)
Vibration		10Hz ~ 500Hz, 49 m/s ²
Shock Resistance	Functional	196 m/s ²
	Destructive	490 m/s ²
Ambient temperature		-40°C ~ 85°C
Humidity		5%RH to 85%RH
Weight		Approx 900g

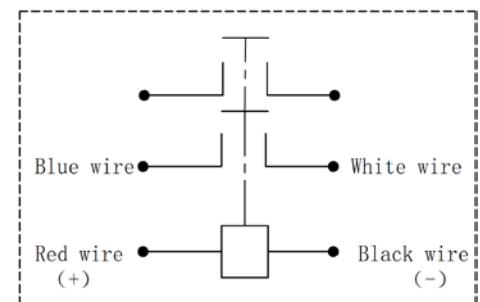
ORDERING INFORMATION

CH	PV	S	350	/ F -	12	C	A	1	- A	C	, XXX
Company Code											
CH: Churod											
Application Area											
PV: Photovoltaic Energy Storage											
Series Code											
S: S Series											
Load Current											
350: 350A											
Load Voltage											
E: 1000VDC F: 1500VDC											
Coil Specification											
12: 12VDC 24: 24VDC											
Coil Termination											
C: Connector											
Contact Type											
A: Form A											
Load Termination											
1: Screw Terminal Female											
Aux. Contact Type											
A: Form A											
Aux. Contact Termination											
C: Connector											
Characteristic Code											
Blank or Other Customer Requirements											

OUTLINE DIMENSION



WIRING DIAGRAM

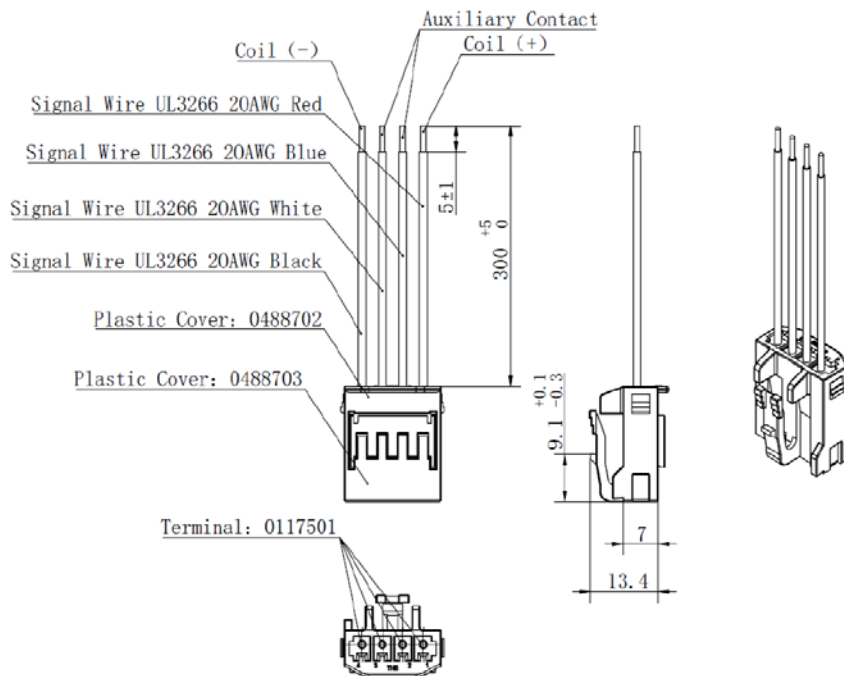


Note: The coil has polarity, The load and Aux. have no polarity

Note: All unspecified tolerance according to following table.

Outline dimensions hadn't specified tolerance	
Outline Dimensions	Tolerance
≤ 10	± 0.3
$10 \sim 50$	± 0.6
> 50	± 1

COIL TERMINATION:CONNECTOR



INSTALLATION INFORMATION

Load Terminal Installation				
Installation Mode	Selection Screw	Torque	Copper Busbar Diameter	Copper Busbar Thickness
M6 Screw	M6x18 Combined Bolt	6 N·m ~8N·m	Ø 6.0 mm~Ø 6.5 mm	3.0mm~5.0 mm

Relay Installation		
Mounting Type	Horizontal or vertical direction	Mounting Hole Size
Installation Mode	M6 Screw	
Torque	6 N·m ~8N·m	

ENGINEERING NOTES

1. Unless otherwise explicitly stated, the standard environment conditions for measurement or testing are listed as followings:

Ambient temperature is 23°C±5°C.

Atmospheric pressure is 96× (1±10%) kPa.

Relative humidity is 25% RH ~ 75% RH.

2. In order to curb the reverse electromotive force of coil, a nonlinear resistor is recommended to use (ZNR is recommended, the max energy tolerance:≥1J. Voltage: 1.5~2 times the rated voltage) . Please be noted that a diode will make the release time of relay increase, which should lead to the degradation of cutting-off capability. Relay products with circuit board do not need to add a device to curb the reverse electromotive force of the coil.

3. The rating load of contact is resistive load. Please assure a surge absorption device together with inductive load when using the L/R≥1ms inductive load (L Load), otherwise it may lead to the decrease of electrical endurance and defective switch.