

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	≤150mV at 600 A
Rated Current (resistive load)	600 A (@ 2x185mm ²)
Rated Switching Voltage	1000VDC
Min.Applicable Load	6VDC, 1 A
Max. Switching Power (1000VDC)	600kW
Max. Breaking Current	2000A (1000VDC)
Aux. Contact Arrangement	1 Form A
Rated Load of Aux.	6VDC, 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.	1.2 Min.
24	Driving 55 Holding 6	Driving 2.3 Holding 0.25	Driving 10.4 Holding 102	18.0 Max.	2.4 Min.

ENDURANCE

Electrical Life (resistive Load)	Breaking: 30000 ops (50VDC,100A)
	Breaking: 1000 ops (1000 VDC,600A)
	Breaking: 1 op (1000 VDC,2000A)
Current Enduranc	600A, Cont.
	700A, 2000s
	1350A, 15s
	2000A, 1s
Mechanical endurance	2x10 ⁵ times, on-off ratio: 0.5s: 0.5s

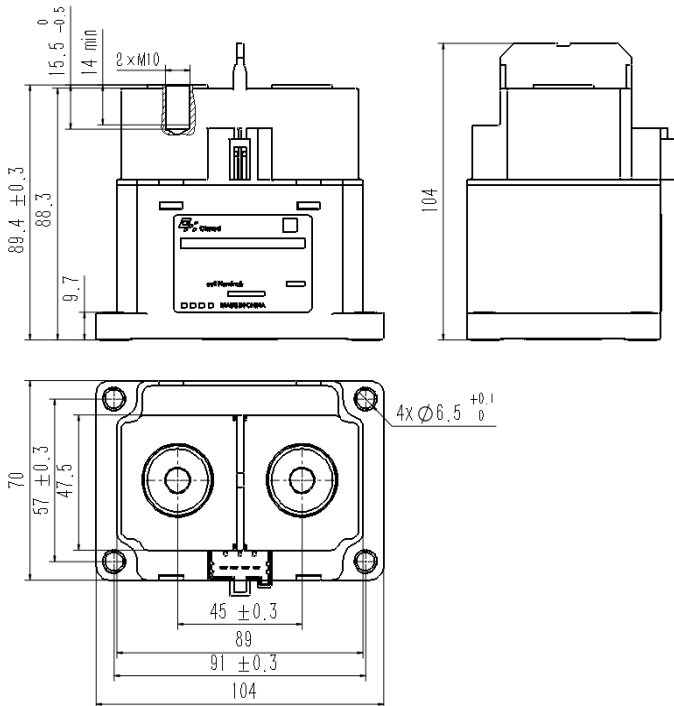
CHARACTERISTICS

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

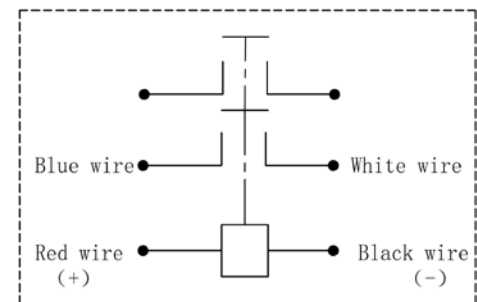
ORDERING INFORMATION

	CH	PV	-S	600	/ E -	12	C	A	1 - A	C	, XXX
Company Code	CH: Churod										
Application Area	PV: Photovoltaic Energy Storage										
Series Code	S: S Series										
Load Current	600: 600A										
Load Voltage	E: 1000VDC										
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

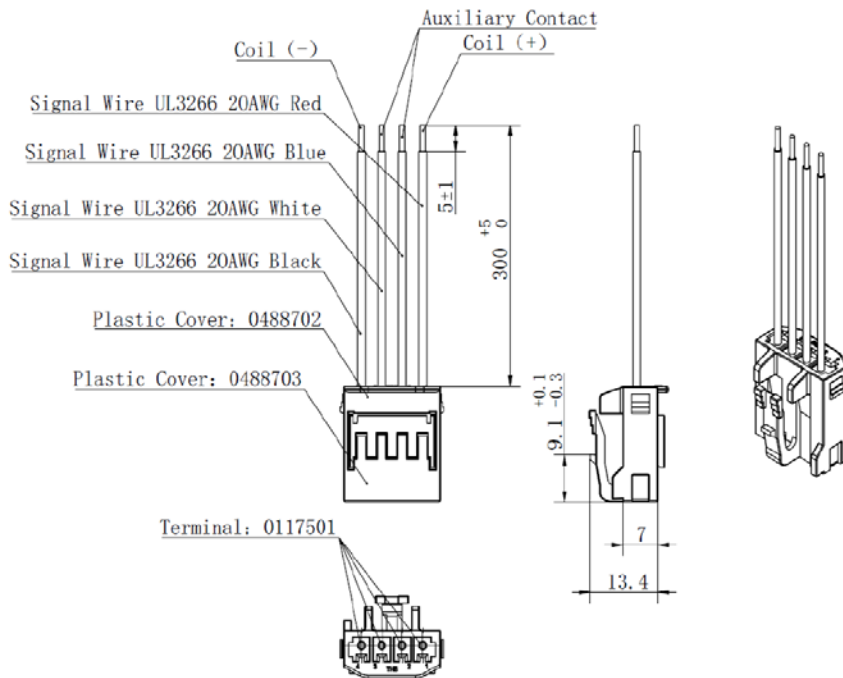


Note: The coil has polarity, The load and Aux. have no polarity

Note: All unspecified tolerance according to following table.

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

COIL TERMINATION:CONNECTOR



INSTALLATION INFORMATION

Load Terminal Installation				
Installation Mode	Selection Screw	Torque	Copper Busbar Diameter	Copper Busbar Thickness
M10 Screw	M10 Combined Bolt	13.5 N·m ~ 16.5N·m	Ø 10.0 mm~Ø 10.5 mm	3.0mm~5.0 mm

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