CHAR-C Series 200A~270A Photovoltaic Relay

Churod Electronics

PRODUCT FEATURES

- Outline dimension：Normalized form：62.7 mm×44.4 mm×55 mm
  Radiating form：62.7 mm×54.4 mm×55 mm
- 1 Form X arrangement， GAP≧4.0 mm
- Designed to meet GB21711.1, IEC61810, UL60947-1, RoHS, REACH SVHC requirements
- Environmental protection category RTII
- Contact switching capability with 200 A/250A /270A
- Applied to the inverter in solar photovoltaic field
- To reduce power loss, a small coil holding-voltage has been used for working coil
- Insulation class: F class

File NO. E341422

File NO. R50499133

File NO. CQC21002285874

APPLICATION

- Circuit Control of Inverter

COIL PARAMETERS

Rated voltage (VDC)	Rated power (W)	Rated current (mA)	Coil resistance (Ω±10%)	Operate voltage (VDC)	Release voltage (VDC)
6	4	666	9	≤4.5	≥0.6
9	4	444	20.25	≤6.75	≥0.9
12	4	333	36	≤9	≥1.2
24	4	166.6	144	≤18	≥2.4
48	4	83.3	576	≤36	≥4.8

Notes：

1) The above values are the initial at 23℃.

CONTACT PARAMETERS

Shape	Normalized form			Radiating form		
Type	200A	250A	270A	200A	250A	270A
Contact arrangement	1 Form X					
Contact material	Ag Alloy					
Contact resistance	≤1 mΩ (6 VDC 20 A)					
Contact rating	Making: 55 A , Carry: Rated current , Break: 55 A					
Max. breaking current	220	275		220	275	
Rated switching voltage	1000 VAC			830 VAC		
Max. switching power	220000	275000		182600	228250	
Electrical endurance	≥3×10^4次 (at 85 ℃ , 1 s ON/9 s OFF)					
Minimum load	1 Million cycles, Coil: 0.2 s ON / 0.2 s OFF					

Notes：

1) The life expectancy will be lower when a diode is used in parallel with the coil.

HOLD VOLTAGE

Rated voltage (VDC)	Hold voltage of coil (VDC)
6	3.3~6
9	4.95~9
12	6.6~12
24	13.2~24
48	26.4~48

Notes：

1) The above values are only the reference values at 23℃. Please contact the company for details.

OTHER PARAMETERS

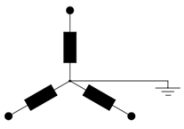
Dielectric strength		between open contacts	2500 VAC. 50/60 Hz 1 min
		between coil to contacts	5000 VAC. 50/60 Hz 1 min
Insulation resistance			100 MΩ (1000 VDC)
Operate time (Rated voltage)			≤45 ms (at 85 ℃)
Release time (Rated voltage)			≤10 ms
Vibration resistance		Between coil and contacts	10 Hz~ 55 Hz , 1.5 mm
		Malfunction	10 Hz~ 500 Hz , 49 m/s2
Shock resistance		Between coil and contacts	981 m/s2
		Malfunction	98.1 m/s2
Operating temperature			—40 ℃~85 ℃ (Without condensation and freezing)
Operating humidity			20% RH ~85% RH
Terminal style			PCB terminal
Category of protection			RT II (Flux proof)
Weight	Normalized form	200A	Approx.215 g
		250A	Approx.225 g
		270A	Approx.225 g
	Radiating form	200A	Approx.225 g
		250A	Approx.235 g
		270A	Approx.235 g

Notes：

1) Unless otherwise specified, the above values are the initial at 23℃.

APPLICATION ENVIRONMENT

When the product is applied at 830VAC, the power supply system is star connected, as shown in the figure.



ORDERING INFORMATON

	CHAR	-1	12	A270	C	C	,XXX

1.Product Family

CHAR series

2.Contact form

1=1 Form A (SPDM)

3.Coil rated voltage

06 =06 VDC , 09 =09 VDC , 12 =12 VDC , 24 =24 VDC , 48 =48 VDC

4.Rated switching current

A200= 200A , A250= 250A , A270= 270A

5.Product code

C series

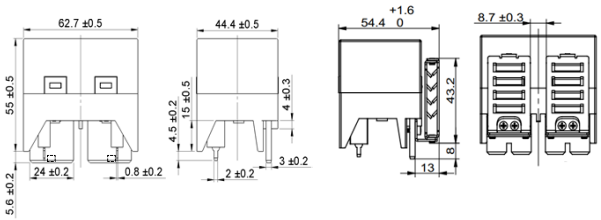
6. Terminal type

Not have : Normalized form C : Radiating form

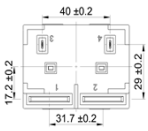
7.Additional numbers and letters

000-999 , AAA-ZZZ, aaa-zzz or blank , which does not represent electrical changes, only for specific customer requirements

OUTLINE DIMENSION



Radiating form



Normalized form

Notes :

1) Unmarked geometric toletance are as follows:

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

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

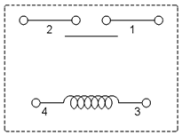
outline dimension > 10mm, reference tolerance is ±0.5mm.

2) Since the Radiating works with electricity as a whole, it is specified that any metal parts or components shall not be installed within 12mm of the five surfaces around the Radiatin

3) There is on slot at the bottom of main terminal.

There is a slot at the bottom of main terminal.

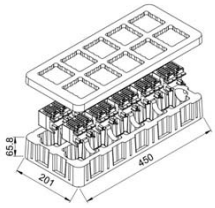
WIRING DIAGRAMS



Notes :

1) The schematic of wiring diagrams is the bottom view in the above.

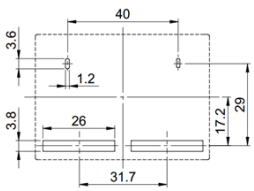
PACKAGING FIGURE



10 pcs inside a box

20 pcs inside a carton

PCB BOARD LAYOUTS



Notes :

1) The schematic of assembling with PCB is the bottom view in the above.

Disclaimer :

This specification is for reference only. For more details, please contact Churod. We are not able to evaluate all the performance and parameters of every possible application.

If you have any new needs, please contact us in time, we will be happy to serve you.