

### FEATURES

- Outline dimension(47.7mm×40.1mm×51.8mm)
- 1 Form X arrangement
- Contact gap,4.0mm Min.
- Designed to meet UL/cUL,TUV requirements
- PCB terminal for the mounting
- RoHS compliance
- REACH SvHC compliance



### APPLICATION

Solar inverter,  
Industrial Control

### COIL PARAMETER

Coil voltage	12VDC,24VDC,48VDC
Coil power	3.2W

### CONTACT DATA

Type	CHAR-A200	CHAR-A150H
Contact arrangement	1 Form X	
Contact material	Ag Alloy	
Initial contact resistance	1mΩ max.@DC20A	
Max. switching voltage	830VAC	
Max. switching current	220A	180A
Max. switching power	182,600VA	149,400VA
Contact rating	Make 50A, Carry 200A, Break 50A 830VAC	Make 50A, Carry 150A, Break 50A 830VAC
Mechanical endurance	1,000,000 ops Min.(no load)	
Electrical endurance	30,000 ops Min.(Resistive load)	
Minimum load (reference value)	100mA @48VAC	

### COIL DATA @23°C

CHAR				
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω±10%)	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
12	267	45	9	0.6
24	133	180	18	1.2
48	67	720	36	2.4

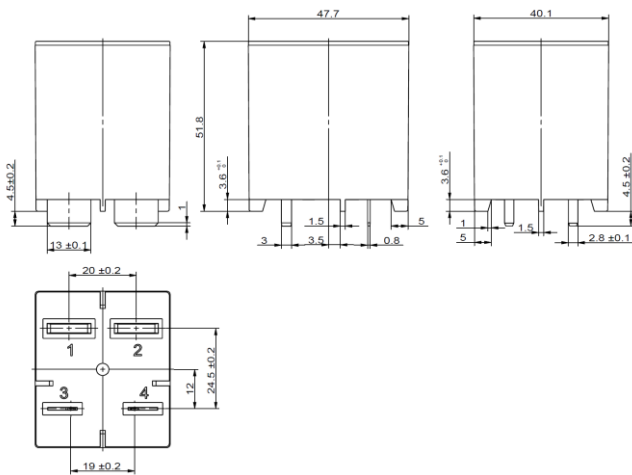
### CHARACTERISTICS

Operate voltage	75% of nominal voltage or less	
Release voltage	5% of nominal voltage or more	
Operate time (At nominal voltage)	35ms max.	
Release time(At nominal voltage)	30ms max.	
Insulation resistance	1,000MΩ min. (at 1000 VDC)	
Dielectric strength	Between coil and contacts	4,500 VAC, 50/60Hz (1min)
	Between open contacts	2,500 VAC, 50/60Hz (1min)
Surge voltage between coil and contacts	6,000V(1.2/50μs)	
Vibration resistance	Destruction	10 to 55 Hz,1.5mm double amplitude
	Malfunction	10 to 55 Hz,1.5mm double amplitude
Shock resistance	Destruction	1,000 m/s <sup>2</sup> (100G approximately )
	Malfunction	100 m/s <sup>2</sup> (10G approximately)
Ambient temperature	Operating: -40~ +85°C (without icing or condensation)	
Ambient humidity	Operating: 20% to 85% RH	
Terminal	PCB terminals	
Enclosure (94V-0 Flammability Ratings)	V: Vented(Flux-tight),plastic cover.(RT II)	
Weight	Approx. 194g	

## ORDERING INFORMATION

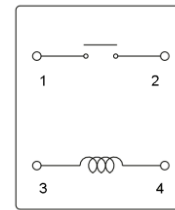
1. Product Family CHAR Series 2. Number of Poles 1=1 pole 3. Rated Coil Voltage 12 =12VDC, 24 =24VDC, 48 =48VDC 4. Current Rating A200=AC 200A, A150H=AC 150A 5. Additional numbers and /or letters 000-999, AAA-ZZZ, aaa-zzz or blank, which does not represent electrical changes, only for specific customer requirements	CHAR	-1	12	A200	000
--	------	----	----	------	-----

## OUTLINE DIMENSION

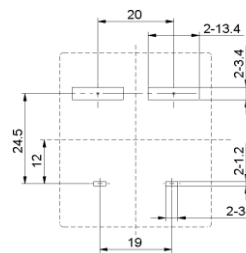


Remark: 1) The reference tolerance in outline dimension:  
 outline dimension  $\leq 1\text{mm}$ , reference tolerance is  $\pm 0.2\text{mm}$ ;  
 outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , reference tolerance is  $\pm 0.3\text{mm}$ ;  
 outline dimension  $> 5\text{mm}$ , reference tolerance is  $\pm 0.5\text{mm}$ .

## WIRING DIAGRAMS (BOTTOM VIEWS)

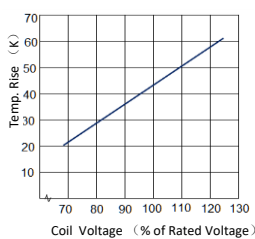


## PC BOARD LAYOUTS (BOTTOM VIEWS)

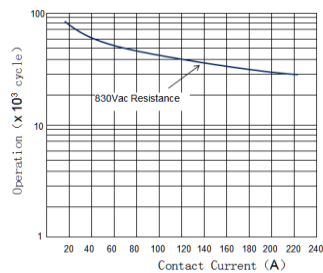


## Reference Date

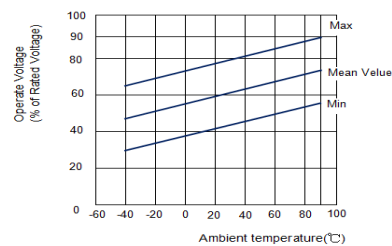
Coil Temperature Rise



Electrical Life

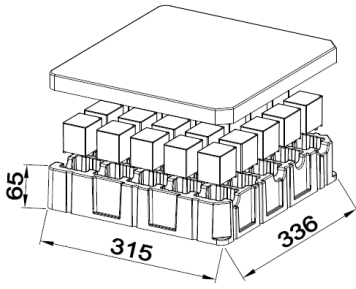


Coil Operate Voltage & Temperature Cure



---

## PACKAGING FIGURE



25 pcs inside a box

50 pcs inside a carton

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.

---

[Http://www.churod.com](http://www.churod.com)

2020 Rev.00 Churod Electronics Co., Ltd.