

FEATURES

- Outline dimension(47.6mm×40.0mm×45.1mm)
- 1 Form X arrangement
- Contact gap,3.6mm Min.
- Designed to meet UL/cUL,TUV requirements
- PCB terminal for the mounting
- RoHS compliance
- REACH SvHC compliance



cULus
File NO. E341422

TUV
File NO. R50316974

APPLICATION

Solar inverter,
Industrial Control
Inverter precharge circuit control

COIL PARAMETER

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

CONTACT DATA

Type	CHAR-A60	CHAR-A80	CHAR-A100 CHAR-A100T	CHAR-A130	CHAR-A150	CHAR-A160
Contact arrangement	1 Form X					
Contact material	Ag Alloy					
Initial contact resistance	100mΩ max.@6VDC,1A					
Max. switching voltage	690VAC	690VAC	690VAC	690VAC	690VAC	690VAC
Max. switching current	60A	80A	100A	130A	150A	160A
Max. switching power	41,400VA	55,200VA	69,000VA	89,700VA	103,500VA	110,400VA
Contact rating	60A	Make 60A, Carry 60A, Break 60A 277VAC				
		Make 30A, Carry 60A, Break 30A 690VAC				
	80A	Make 60A, Carry 80A, Break 60A 277VAC				
		Make 30A, Carry 80A, Break 30A 690VAC				
	100A	Make 60A, Carry 100A, Break 60A 277VAC				
		Make 30A, Carry 100A, Break 30A 690VAC				
	130A	Make 60A, Carry 130A, Break 60A 277VAC				
		Make 40A, Carry 130A, Break 40A 690VAC				
	150A	Make 60A, Carry 150A, Break 60A 277VAC				
		Make 30A, Carry 150A, Break 30A 690VAC				
	160A	Make 45A, Carry 160A, Break 45A 690VAC				
	Mechanical endurance	1,000,000 ops Min.(no load)				
Electrical endurance	30,000 ops(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

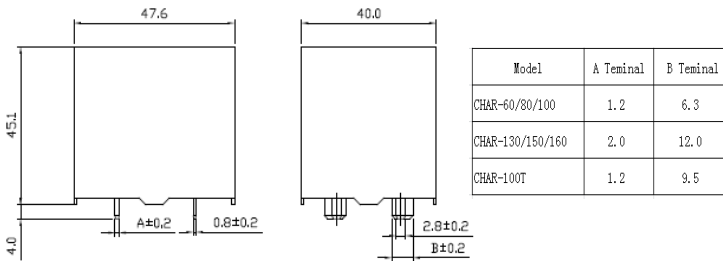
CHARACTERISTICS

Operate voltage	75% of nominal voltage or less	
Release voltage	5% of nominal voltage or more	
Operate time (At nominal voltage)	30ms max.	
Release time(At nominal voltage)	30ms max.	
Insulation resistance	1,000MΩ min. (at 500 VDC)	
Dielectric strength	Between coil and contacts	4,000 VAC, 50/60Hz (1min)
	Between open contacts	1,300 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 ² (100G approximately)
	Malfunction	100 m/s ² (10G approximately)
Ambient temperature	Operating: -40~+85°C (without icing or condensation) (Remark: For AC690V load, operated voltage with rated coil voltage for 100ms and then reduced to 50~70% of rated coil voltage for steady-state conditions.)	
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. 165g	

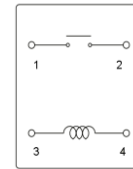
ORDERING INFORMATION

	CHAR	-1	12	A100	000
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					
A60=AC 60A, A80=AC 80A, A100=AC 100A, A100T=AC 100A					
A130=AC 130A, A150=AC 150A, A160=AC 160A					
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					

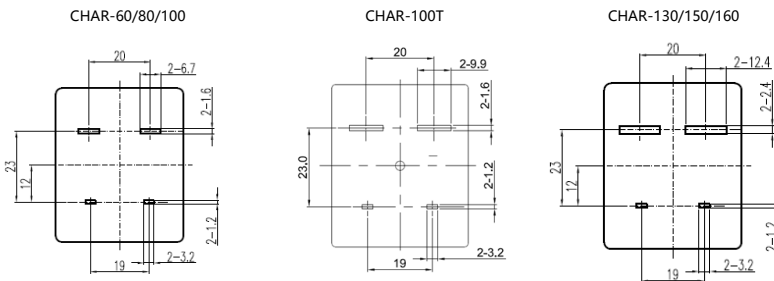
OUTLINE DIMENSION



WIRING DIAGRAMS (BOTTOM VIEWS)



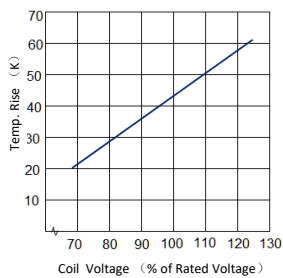
PC BOARD LAYOUTS (BOTTOM VIEWS)



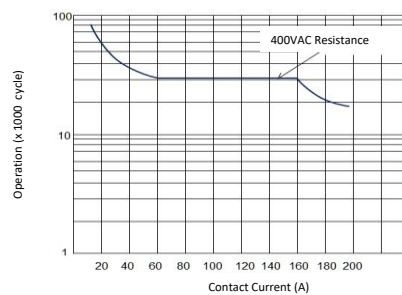
Remark: 1) The reference tolerance in outline dimension:
outline dimension $\leq 1\text{mm}$, reference tolerance is $\pm 0.2\text{mm}$;
outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, reference tolerance is $\pm 0.3\text{mm}$;
outline dimension $> 5\text{mm}$, reference tolerance is $\pm 0.5\text{mm}$.

Reference Date

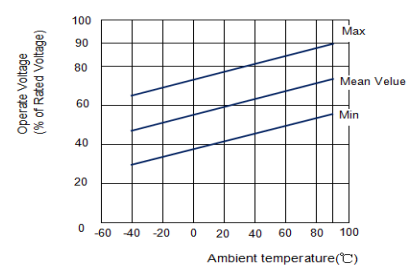
Coil Temperature Rise



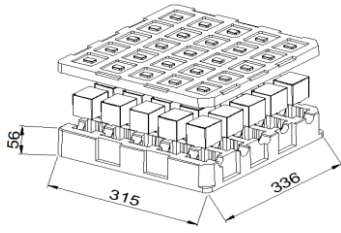
Electrical Life



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.

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