



CHDR RELAY SERIES

100A~150A DC POWER RELAY

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

 UL File NO. E341422
 TUV File NO. R50316974



APPLICATION

Solar inverter,
Industrial Control

COIL PARAMETER

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

CONTACT DATA

Type	CHDR-150H	CHDR-100H	CHDR-100
Contact arrangement	1 Form X	1 Form X	1 Form X
Contact material	Ag Alloy		
Initial contact resistance	100mΩ max.@6VDC,1A		
Max. switching voltage	60VDC	60VDC	48VDC
Max. switching current	150A	100A	100A
Max. switching power	9000W	6000W	4800W
Rated load	150A@60VDC (Resistive load)	100A@60VDC (Resistive load)	100A@48VDC (Resistive load)
Mechanical endurance	1,000,000 ops Min.(no load)		
Electrical endurance	1,000 cyc;es	1,000 cycles	3,000 cycles
Minimum load(reference value)	100mA@5VDC		

COIL DATA @23°C

CHDR				
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω)±10%	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
12	267	45	9.0	0.6
24	133	180	18.0	1.2
48	67	720	36.0	2.4

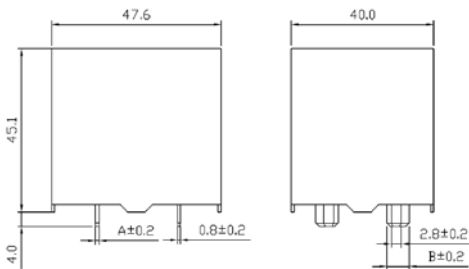
CHARACTERISTICS

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	1,000 MΩ min. (at 500 VDC)	
Dielectric strength	Between coil and contacts	4,000 VAC, 50/60 Hz for 1 min
	Between open contacts	1,300 VAC, 50/60 Hz for 1 min
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℃ Operating: -40~+65℃ (Only for CHDR-150H type) (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. 165g	

ORDERING INFORMATION

	CHDR	-1	12	D100	H	'000
1. Product Family	CHDR Series					
2. Number of Poles	1 = 1 pole					
3. Rated Coil Voltage	12 = 12VDC 24 = 24VDC 48 = 48VDC					
4. Current Rating	D100 = AC rating,100A D150 = AC rating,150A					
5. Load voltage type	H = 60VDC Blank = 48VDC					
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

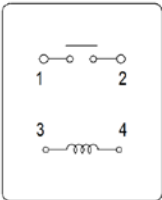


Model	A Terminal	B Terminal
CHDR-100/100H	1.2	6.3
CHDR-150H	2.0	12.0

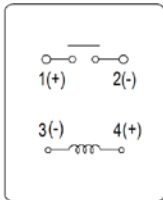
Remark: The reference tolerance in outline dimension:
outline dimension $\leq 1\text{mm}$, reference tolerance is $\pm 0.2\text{mm}$;
outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, reference tolerance is $\pm 0.3\text{mm}$;
outline dimension $> 5\text{mm}$, reference tolerance is $\pm 0.5\text{mm}$.

WIRING DIAGRAMS (BOTTOM VIEWS)

CHDR-100



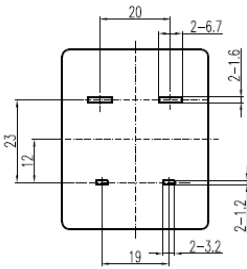
CHDR-100H/150H



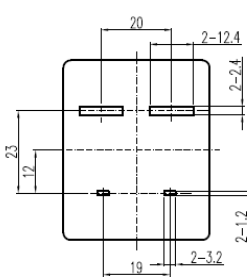
PC BOARD LAYOUTS (BOTTOM VIEWS)

Unit:mm

CHDR-100/100H



CHDR-150H

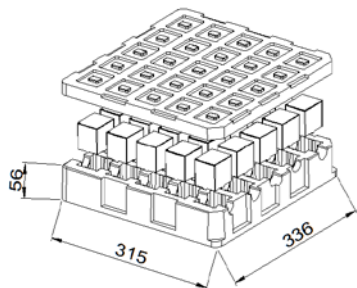


Typical products

Product Description		Characteristic					
Product Name	Code	Coil Rated voltage	Contact material	Contact Load	Electrical endurance	Safety certification	Special Feature
CHDR-1**D100	000	12V、24V 、48V	Ag Alloy	100A@48VDC(Resistive load)	3,000	UL/cUL,TUV	
CHDR-112D150H	000			150A@60VDC(Resistive load)	1,000	UL/cUL,TUV	
CHDR-112D100H	000			100A@60VDC(Resistive load)	1,000	UL/cUL,TUV	

Remarks: Special ordering for other requirements

Packaging Figure



25 pcs inside a box
50pcs inside a carton