

## CHDR RELAY SERIES

## 100 A POWER DC RELAY

### FEATURES

- Outline dimension(47.6mmX40.0mmX45.1mm)
- Contact arrangement 1 Double Make contact / 1 Form X
- Contact gap 3mmMin.
- Designed to meet IEC60947-4-1,UL60947-4-1,GB14048.4 requirements
- PC Board type
- RoHS compliance
- REACH SvHC compliance



### APPLICATION

DC power control  
 Inverter pre charge circuit control (H type)  
 Industrial control

### COIL

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

### COIL DATA@23°C

Rated coil voltage (VDC)	Coil 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	66.7	720	36	2.4

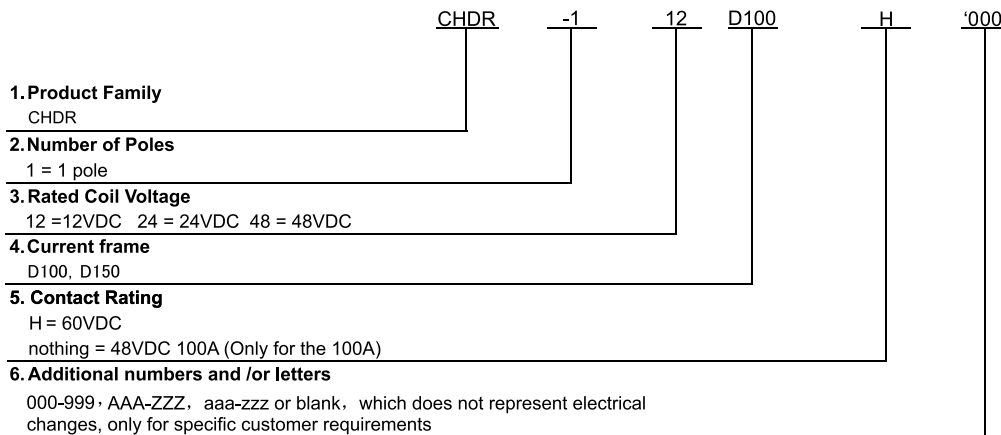
### CONTACT DATA

Type	H	H	nothing
Contact arrangement	1 Form X	1 Form X	1 Form X
Contact material	Ag Alloy	Ag Alloy	Ag Alloy
Initial contact resistance	100mΩ max. @6VDC, 1A	100mΩ max. @6VDC, 1A	100mΩ max. @6VDC, 1A
Max. switching voltage	60VDC	60VDC	60VDC
Max. switching current	150A	100A	100A
Max. switching power	9000W	6000W	4800W
Contact rating	150A @60VDC (resistive)	100A @60VDC (resistive)	100A @48VDC (resistive)
Mechanical endurance	1,000,000 ops Min (no load)		
Electrical endurance	1,000ops	1,000 ops	3,000 ops
Minimum load(reference value)	100mA(5VDC)		

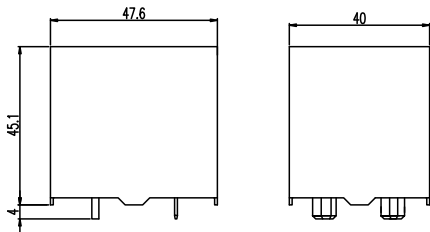
### CHARACTERISTICS

Operate voltage	75% of rated voltage or less	
Release voltage	5% of rated voltage or more	
Operate time (at rated voltage)	30ms max.	
Release time(At nominal voltage)	10ms 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 <sup>2</sup> (100G approximately )
	Malfunction	100 m/s <sup>2</sup> (10G approximately)
Ambient temperature	Operating: -40~+70°C (with no icing or condensation)	
Ambient humidity	Operating: 20% to 85% RH	
Terminal	Printed circuit terminals	
Enclosure (94V-0 Flammability Ratings)	Vented(Flux-tight)	
mounting direction	Free	
Weight	Approx. 165g	

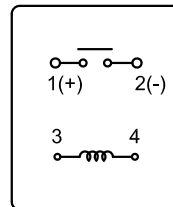
## ORDERING INFORMATION



## OUTLINE DIMENSION

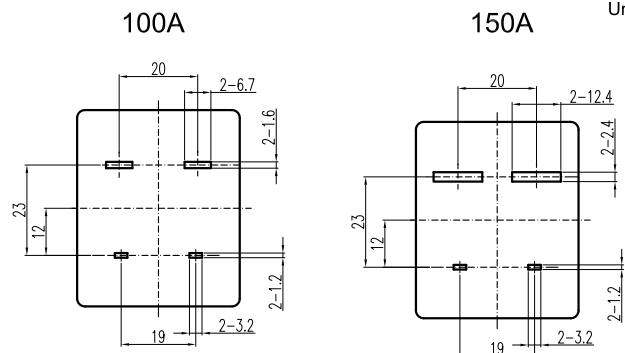


## WIRING DIAGRAMS (BOTTOM VIEWS)



Unit:mm

## PC BOARD LAYOUTS (BOTTOM VIEWS)



Unit:mm

### Remark:

- The reference tolerance in outline dimension:  
outline dimension  $\leq 1$ mm, reference tolerance is  $\pm 0.2$ mm; outline dimension  $> 1$ mm and  $\leq 5$ mm, reference tolerance is  $\pm 0.3$ mm;  
outline dimension  $> 5$ mm, reference tolerance is  $\pm 0.5$ mm
- The reference tolerance for PC Board layout is  $\pm 0.1$ mm.