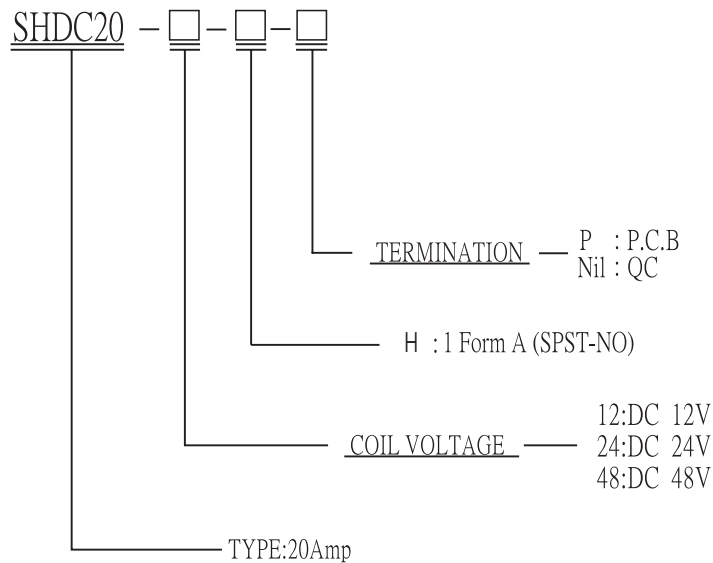


SHDC20 SERIES

ORDERING INFORMATION



FEATURES:

- New energy vehicle precharge relay
- Carrying current 20A continuously at 85°C
- Electricity safety meets IEC 60664-1
- Outline Dimension (30.1x30x29.2)mm

COIL

NOMINAL VOLTAGE (VDC)	COIL POWER (W)	PULL IN VOLTAGE (VDC)max.	DROP OUT VOLTAGE (VDC)min.
12V	3W	9V	1V
24V	3W	18V	2V
48V	3W	28.8V	4V

CHARACTERISTICS

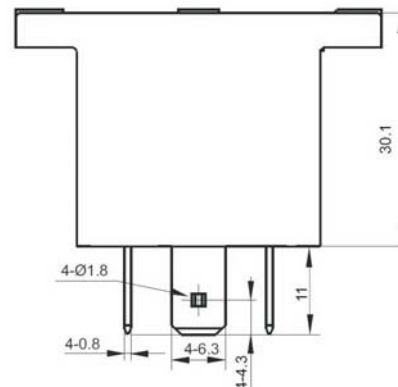
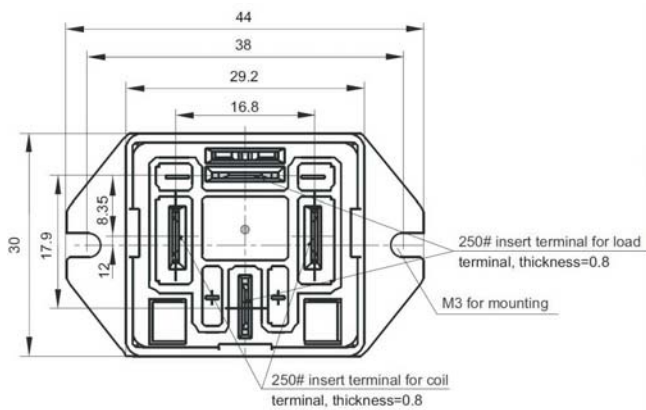
Item \ Type	20A
Operate Time	30msec Max.
Release Time	10msec Max.
Dielectric Strength between coil & contact between open contact	AC3000V (1min) AC2000V (1min)
Insulation Resistance	1000MΩ (at DC500V)
Operating Ambient Temperature	-40°C ~ +85°C (no freezing)
Humidity	5 to 85% RH
Shock Resistnce Functional Destructive	196m/s ² 490m/s ²
Vibration Resistnce	10~500Hz 49m/s ²
Termination	QC
Weight	55.0g(approx.)

CONTACT DATA

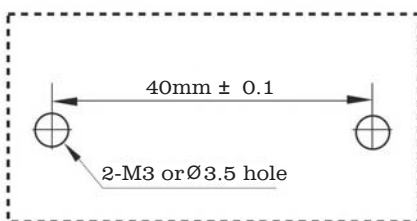
Item \ Type	60V	450V
Contact arrangement	1A	
Contact resistance	10mΩ Max. (20A)	
Rated load current	20A	
Mechanical endurance	2 X 10 ⁵	
Max. Switching Voltage	72VDC	450VDC
Max. Breaking Current	30A(72VDC, ≥1 ops)	35A(450VDC, ≥1 ops)
Max. Switching Power	1.44kW	9kW
Electrical endurance ⁽¹⁾ Res. Load	Switching: 1 X 10 ⁵ (72VDC, 20A)	Switching: 3 X 10 ³ (450VDC, 20A) Switching: 3 X 10 ⁴ (450VDC, 10A) Making: 1 X 10 ⁵ (450VDC, 20A)
Current carrying capacity ⁽²⁾	20A:Cont. 30A:1h 40A:20min 80A:30s 120A:10s 200A:0.6s	

Notes:(1)Until special statement the temperature of electrical endurance is at 23°C and the on-off ratio is 0.6s:5.4s
(2)Ambient temperature is room temperature and cross section area of wire is 2.5mm² min.

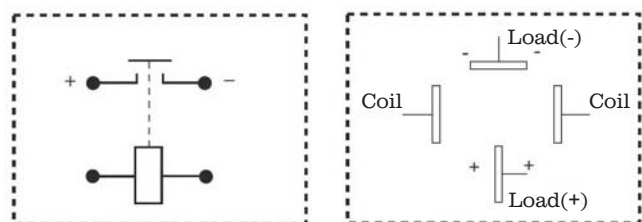
DIMENSIONS(Unit:mm)



Installation Hole

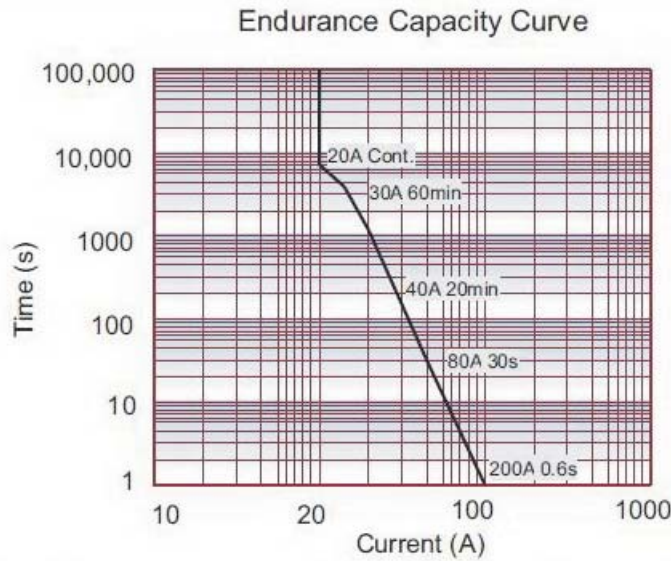


Coil Wiring Diagram

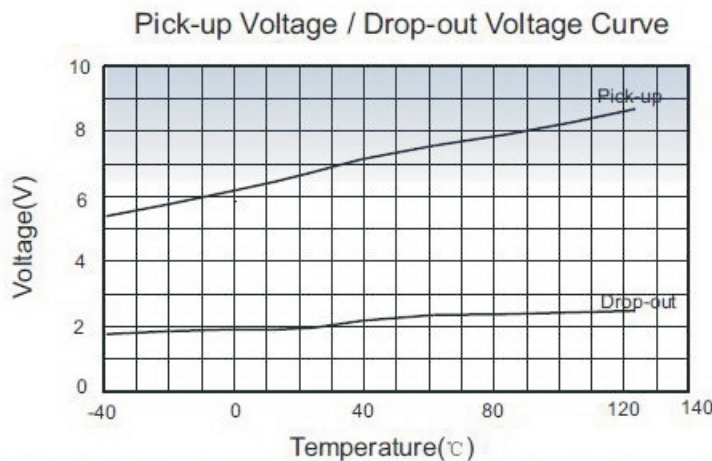


Note: polarity option on the loads; no polarity on coil.

PERFORMANCE CHART



Notes: The data above is measured at the environment temperature 85°C with cross section area of wire $\geq 2.5\text{mm}^2$. This data is only for reference and please do not use it for fuse selection.



Notes: When the coil voltage is 12V, the data above is taken as sample value and only for reference (Sample quantity: n=3)

CAUTION

1. In case of loosening, please use washer when install the relay with M3 screw, and the torque within 1.4N·m ~ 2.2N·m. The push and pull force for terminals is 49N for load terminals and 49N for coil terminals. The torque beyond the range may cause damage.

2. Please do not adhere foreign materials like oil on the terminals and please use the wire with cross section area 4mm^2 min, otherwise the terminal parts may have abnormal heating.

Disclaimer

The specification is for reference only. See to "Terminology and Guidelines" for more information. Specifications subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.