

HEV50

HV direct current relay

Features

- 150A of switching capability
- Contact: 1 Form A
- With arc extinguishing device, increased load capacity
- Optional resistor or diode to protect the coil circuit
- 75°C of working temperature
- According to customer needs to select connector
- Friendly product(RoHS Compliant)

Relay Picture



ORDERING INFORMATION

HEV50 - [S] - [DC12V] - [A] - [R] - [X]

Model	Enclosure	Coil Voltage	Contact Form	Parallel Electronic Component	Connector model
	S - Plastic Sealed Type	DC12V, DC24V, DC36V, DC48V	A-1 Form A with arc extinguishing device	Blank - Standard R- With Resistor (12V-680Ω, 24V-2700Ω, 36V-6500Ω, 48V-12000Ω) D- With Diode	Blank - None X- As Customer Needs

SPECIFICATION

CONTACT DATA

Contact Form	1 Form A	
Contact Material	Ag Alloy	
Contact Resistance	Max.50mΩ(24VDC 1A)	
Load	Max.Continuous Current	150A
	Max.Connect Current	300A

Life	Electrical (23°C)	Resistance: 12VDC 150A 5×10 ⁴ ops ON/OFF:1S/4S 24VDC 100A 5×10 ⁴ ops ON/OFF:1S/4S 36VDC 70A 5×10 ⁴ ops ON/OFF:1S/4S 48VDC 60A 5×10 ⁴ ops ON/OFF:1S/4S 72VDC 50A 5×10 ⁴ ops ON/OFF:1S/4S 110VDC 30A 5×10 ⁴ ops ON/OFF:1S/4S
	Mechanical	1×10 ⁷ operations

GENERAL DATA

Insulation Resistance	Min.100MΩ 500VDC	
Dielectric Strength	Between open contacts	550VAC, 50/60Hz, 1min
	Between coil and contacts	550VAC, 50/60Hz, 1min
Operate Time (at 23°C)	Max.50ms	
Release Time (at 23°C)	Max.50ms	
Operating Temperature	- 40°C to +75°C	
Humidity	5~85% R.H	
Vibration Resistance	Sine wave 10-500Hz Peak, 5G	
Shock Resistance	10G	
Weight	Approximately 85g	

Note:Data shown are of initial value

COIL DATA

Nominal Coil Power	2.4W
Nominal Coil Power(With Resistor)	2.6W

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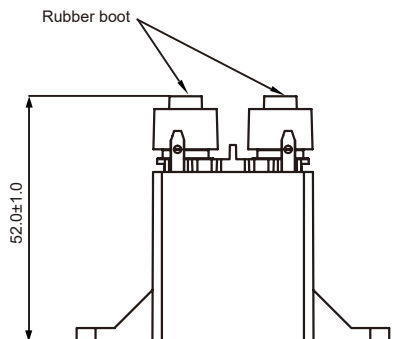
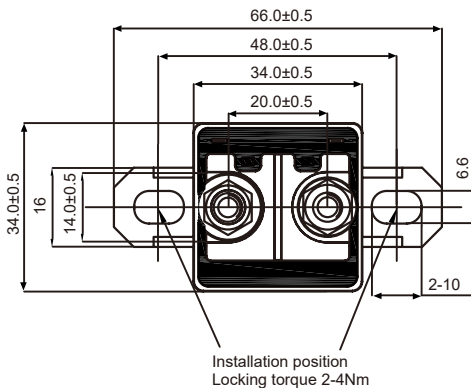
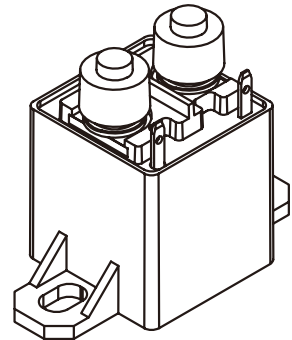
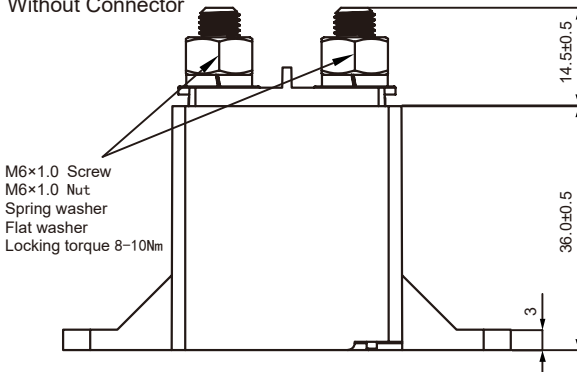
COIL DATA

Ambient Temperature: 23°C

Model	Nominal Voltage VDC	Coil Resistance Ω ±/-10%	Parallel Resistance Ω ±/-5%	Equivalent Resistance Ω ±/-10%	Operate Voltage \leq VDC	Release Voltage \geq VDC	Coil Power W
HEV50-S-DC12V-A	12	60	-	-	7.2	1.2	2.4
HEV50-S-DC24V-A	24	240	-	-	14.4	2.4	
HEV50-S-DC36V-A	36	540	-	-	21.6	3.6	
HEV50-S-DC48V-A	48	960	-	-	28.8	4.8	
HEV50-S-DC12V-A-R	12	60	680	55.1	7.2	1.2	2.6
HEV50-S-DC24V-A-R	24	240	2700	220	14.4	2.4	
HEV50-S-DC36V-A-R	36	540	6500	500	21.6	3.6	
HEV50-S-DC48V-A-R	48	960	12000	890	28.8	4.8	

OUTLINE(UNIT: mm)

Without Connector

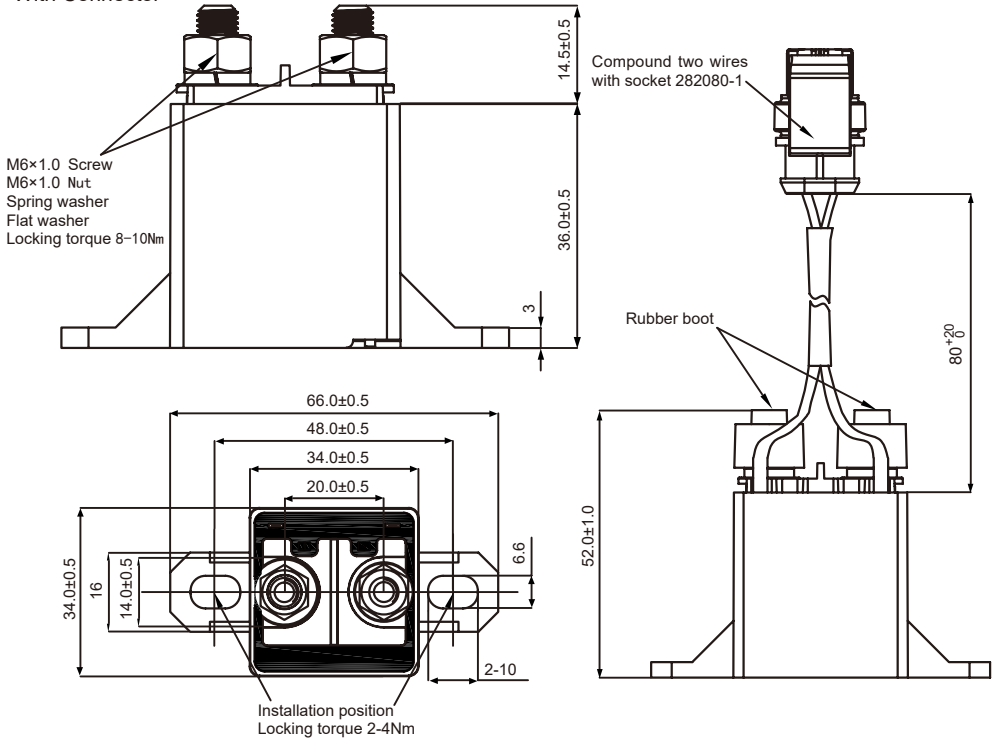


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OUTLINE(UNIT: mm)

With Connector



Precautions:

1. Use washers when installing the relay to prevent the screws from loosening. The torque range of the tightening screw is as specified below. Exceeding the maximum torque can cause the product to rupture.
Torque at the load end (M6 nut): 8-10Nm
Torque at the installation: 2-4Nm
2. The coil of this relay is polar, so the coil should be connected as indicated on the product.
3. Do not use products that have been dropped.
4. Avoid installing the product in a location with strong magnetic fields (near the transformer or magnet) or near objects with thermal radiation.
5. This relay is a high voltage DC switch. In its final breakdown mode, it may lose its proper cut-off function, so do not make it exceed its switching capacity and life parameters (please treat the relay as one products with a life expectancy and replace them if necessary). Once the relay loses its ability to cut off, it may cause the surrounding parts to burn, so design the protect circuit to ensure that the power supply can be cut off in 1 second.
6. If the coil and the contact of the relay are continuously connected to the rated voltage or current, the power supply is turned off and then turned on immediately. At this time, as the temperature of the coil increases, the resistance of the coil increases, so that the pull-in voltage of the product rises, possibly this causes the rated pull-in voltage to be exceeded. In this case, the following measures should be taken: such as reducing the load current, limiting the continuous power-on time or using a coil voltage higher than the rated pull-in voltage.
7. The drive circuit power of the coil must be greater than the power of the product coil, otherwise it will reduce the cutting ability of the product.
8. Be careful not to let debris and oil get on the main lead, and the external terminal should be in reliable contact with the main lead of the product. Otherwise, the lead may be very hot. At the same time, the lead wire connected to the product must have the proper electrical conductivity to prevent overheating and affect the life.
9. The operating frequency of the relay must not exceed 15 times per minute, otherwise the relay may be damaged.

ISO9001, IATF16949, ISO14001 Approved