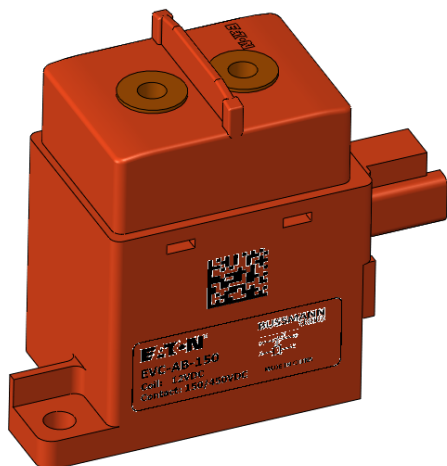


EVC DC Contactors – 150A



1 Basic information.....	1
2 Part number designation.....	2
3 Technical parameters....	3
4 Coil parameters.....	4
5 Curves	5
6 Outline drawing.....	6

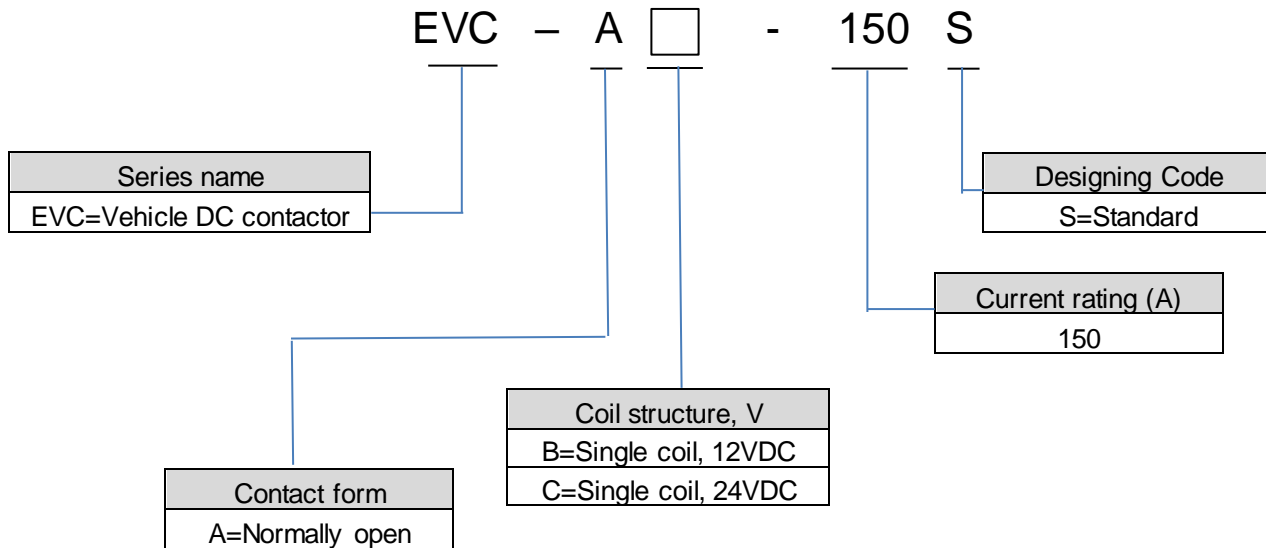
1. Basic information

The EVC DC square contactor uses highly reliable ceramic sealing technology. Compared with traditional DC contactors, this product series has:

- Complete sealing – The contacts are in a sealed environment with low contact resistance and good stability, which can be used in harsh environments.
- Filling gas – Filling in the arc extinguishing gas to improve the arc extinguishing performance of the product and prevent the contacts from oxidation.
- Magnetic blow-out – Use permanent magnets to blow and pull the arc, increasing the capacity of arc extinguishing.
- Miniaturization – New technology increases the load capacity of same volume
- Fully RoHS compliant – More environmentally friendly

It is one of the most used electronic components in electrical vehicles and charging piles for switching and controlling the DC circuits and the equipment. It has long life, high reliability, small size, low power consumption, electromagnetic compatibility, flame retardancy and fast response.

2. Part number designation



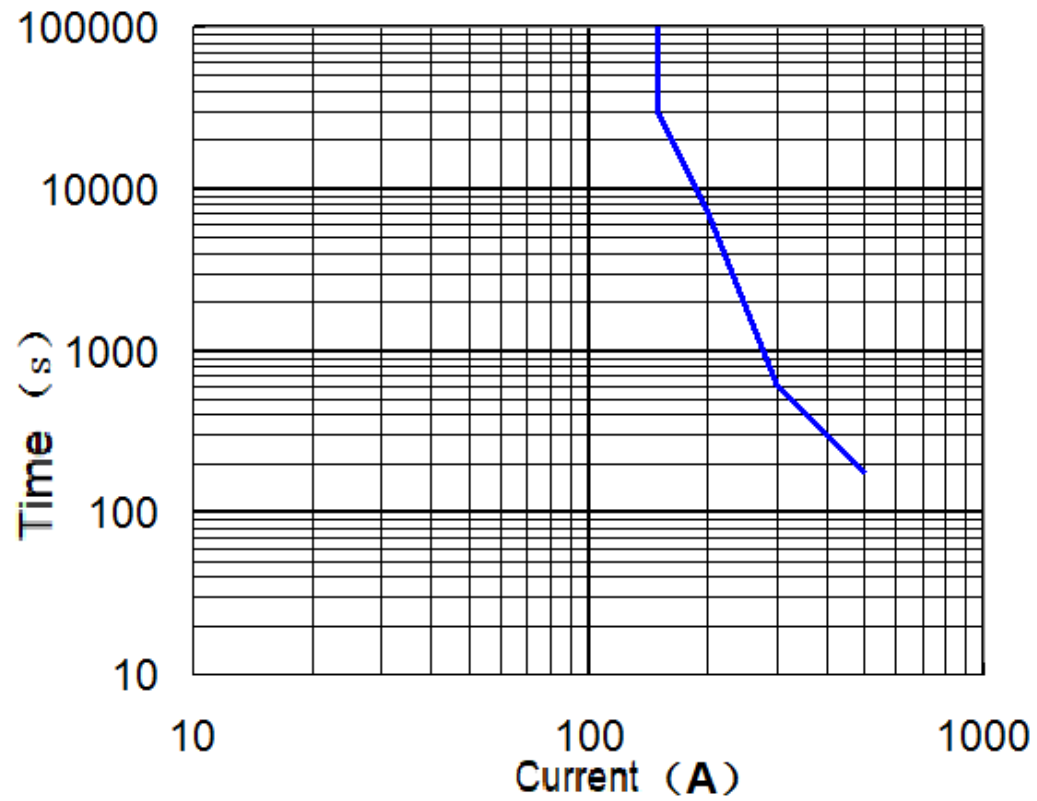
3. Technical parameters

Parameters	EVC-A□ - 150S
Main contact	
Contact form (main)	Single-pole single-throw – Normally Open
Rated voltage	12-750VDC
Rated current	150A
Short-time withstand current	7,200 sec. 200A, 600 sec. 300A, 180 sec.500A (see 5, curve)
Operation time, 23°C	
Closing time	≤ 50ms
Release time	≤ 10ms
Min. continuity load	1A 12VDC
Max breaking current	1,500A 450VDC 5 times 2,000A 450VDC 1 time
Contact resistance (Under rated current, initial value)	<2mΩ
Electrical performance	
Electrical life	150A 450VDC 2,000 times 200A 450VDC 1,000 times
Switch off overload	300A 450VDC 100 times
Insulation resistance	> 1,000MΩ (1,000VDC) (After the life test: 50 MΩ)
Dielectric withstand voltage (Between contacts, between contacts and coils)	2,500VAC, 1 min. (leakage current ≤ 1mA)
Mechanical performance	
Shock resistance-Malfunction	Half sine wave, 11ms, 196m/s ²
Shock resistance-Destruction	Half sine wave, 6ms, 490m/s ²
Random vibration	10-2,000Hz, 57.9m/s ²
Mechanical life	300,000 times
Weight	About 360g
Environmental requirements	
Ambient operating temperature range	-40°C~+85°C
Humidity range	5%~95%RH

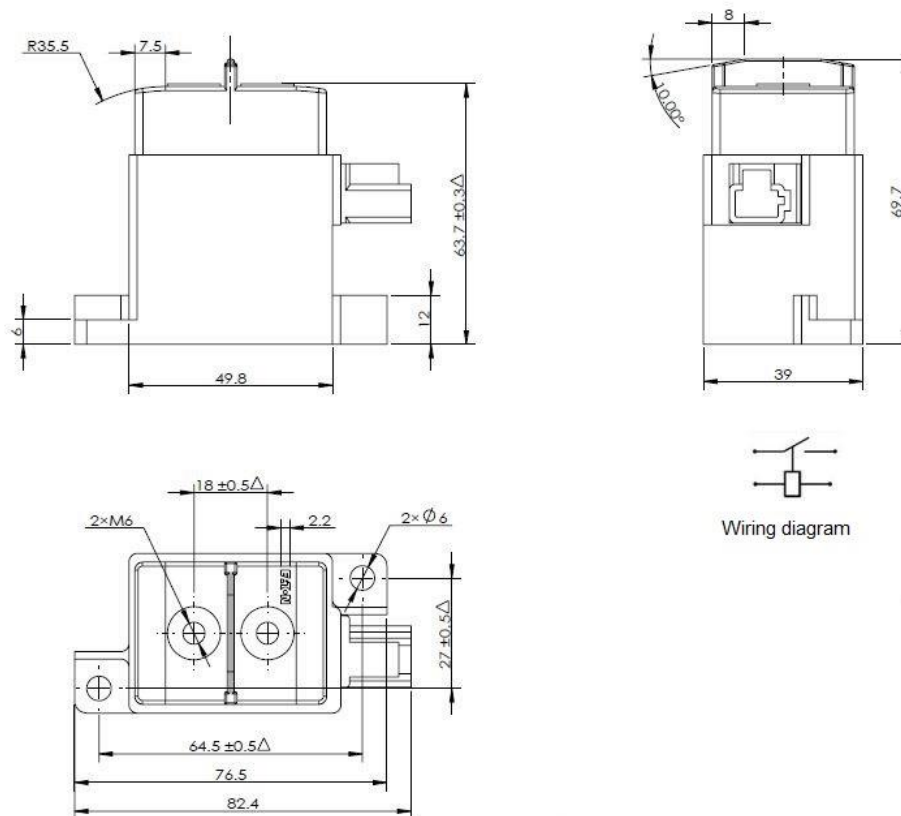
4. Coil parameters

Parameter	EVC-AB-150S	EVC-AC-150S
Coil series number	B	C
Coil operating voltage	12VDC	24VDC
Coil voltage (Max.)	16VDC	32VDC
Operating voltage, 25°C (Max.)	9VDC	18VDC
Release voltage, 25°C (Min.)	1.2VDC	2.4VDC
Rated operating current (25°C)	0.58A	0.29A
Coil resistance (25°C ± 5%Ω)	20.5Ω	82.5Ω
Coil power	7W	7W
Pick up voltage, 85°C (Max)	9.6V	19.2V

5. Carrying withstand current curve



6. Outline drawing



Remark:

- ◆ Δ sign is an importantly controlled size;
- ◆ The product is installed with M5 bolts and the locking torque is 3.5Nm-4.5Nm;
- ◆ Main contact terminal is installed with M6 bolts and the locking torque is 6Nm-6Nm.

Application considerations

- ◆ Warning - When more than one outgoing strip is used at the outgoing end of the power supply, make sure that the main power line is closest to the connector of the contactor, and the outgoing line with small current is at the top, followed by washer, elastic washer and nut. Improper connection sequence can cause severe overheating and lead to melting the insulation of the connecting cable;
- ◆ When the coil connected with diodes in parallel, it may also lead to the decrease of contact breaking ability, which should be paid attention to when applying.