

High Voltage DC Contactor

CBVC7 SERIES DC CONTACTOR



Customer	General Specification
Product Name	DC Contactor
Part Number	CBVC7-50

● Feature

- **Safe:** Fully sealed with epoxy resin, contact and coil will not be oxidized, product performance is not affected by external environment, no arc outbursts, can be worked in explosive and harmful environment.
- **Reliable:** Adopt DC high voltage non-polarity design, the breaking capacity is higher and more reliable, convenient and reliable installation or wiring.
- **Good for environment:** All components meet the latest ROHS environmental requirements.
- **Application:** Ordinary, quick charging, auxiliary contactor. Can be used in EV, charging equipment, photovoltaic system, etc.
- **Certification:** This product has obtained UL certification File No. – E537649

● Basic Parameter

Coil parameter			
Product type	Standard		Energy-saving
Rated voltage U_s (VDC)	12	24	12/24
Operating voltage range (VDC)	9~16	18~32	8~36
Pick up voltage (VDC)	≤ 9	≤ 18	7~8
Release voltage (VDC)	1.2~3.6	2.4~7.2	5~6
Coil power	5.5W	6W	holding: 1.6W
Inrush current	0.46A	0.25A	2A (0.1s)
Holding current	0.46A	0.25A	0.133A@12V 0.067A@24V
Pick up time (@ U_s)			≤ 45 ms
Release time (@ U_s)	≤ 10 ms		
Bounce time (@ U_s)	≤ 5 ms		

Life characteristics		
Mechanical Life	300,000 cycles	
Resistivity load life (L/R ≤ 1 ms)	See next page	
Capacitive load life (RC=1ms , only for connecting)	130A	50,000 cycles
<p>Note: For capacitive load life, when the contactor is used to control the main circuit of charge and discharge, the pre-charge circuit should be added. If there is no pre-charging path, a transient large current will be generated when the contactor closes, which may cause the contactor to stick.</p>		

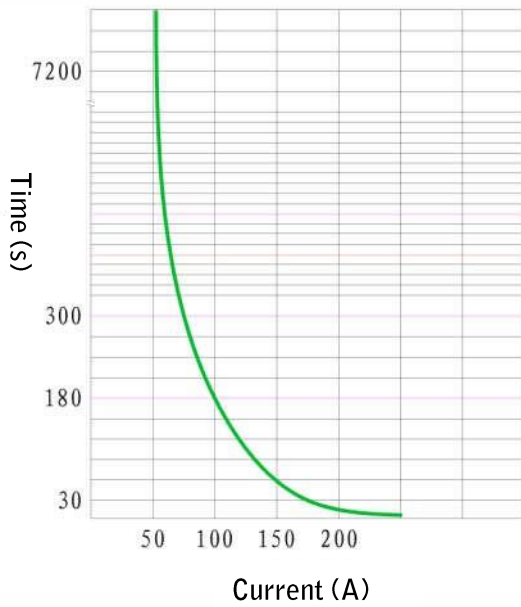
Environmental characteristics		
Shock	Stability test	196m/s ² (20G)
	Strength test	490m/s ² (50G)
Resistance to vibration	10~200Hz, 5G	
Operating ambient temperature	-40°C~+85°C	
Operating ambient humidity	5%~85% RH	
IP Grade	IP67(inner space)	
Altitude	≤ 4000 m	

Electrical characteristics	
Dielectric withstand voltage	AC3000V
Insulation resistance	≥ 1000 M Ω @1000VDC
Nominal insulation voltage U_i	1000V

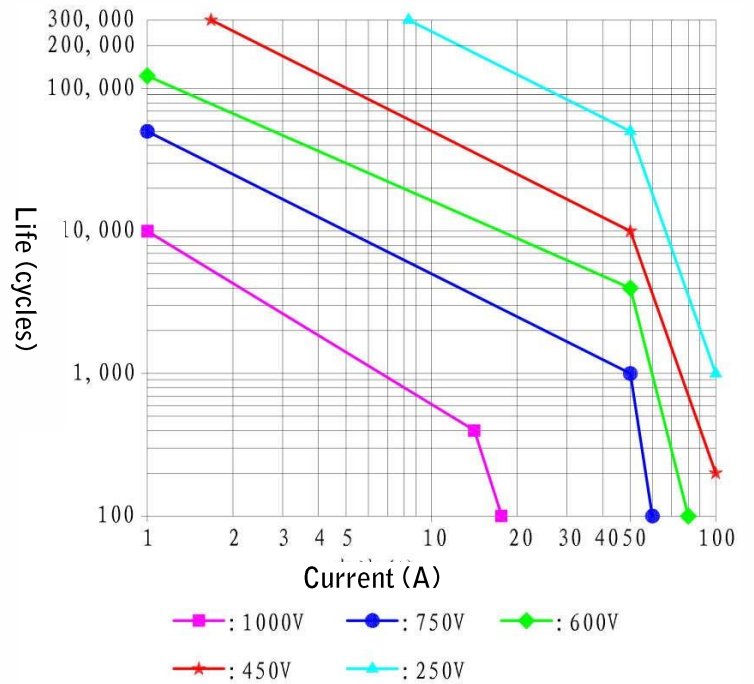
Note: The above parameters are normal temperature rating, if other parameters needed, can customize.

Other	
Weight	Standard: 190g, with auxiliary 195g Energy-saving: 205g, with auxiliary 210g
The cross-sectional area of an external conductor	≥10mm ²
Case mounting hole torque	MAX 2.3 N·m

Short overload capacity curve



Cut-off life curve of resistive load

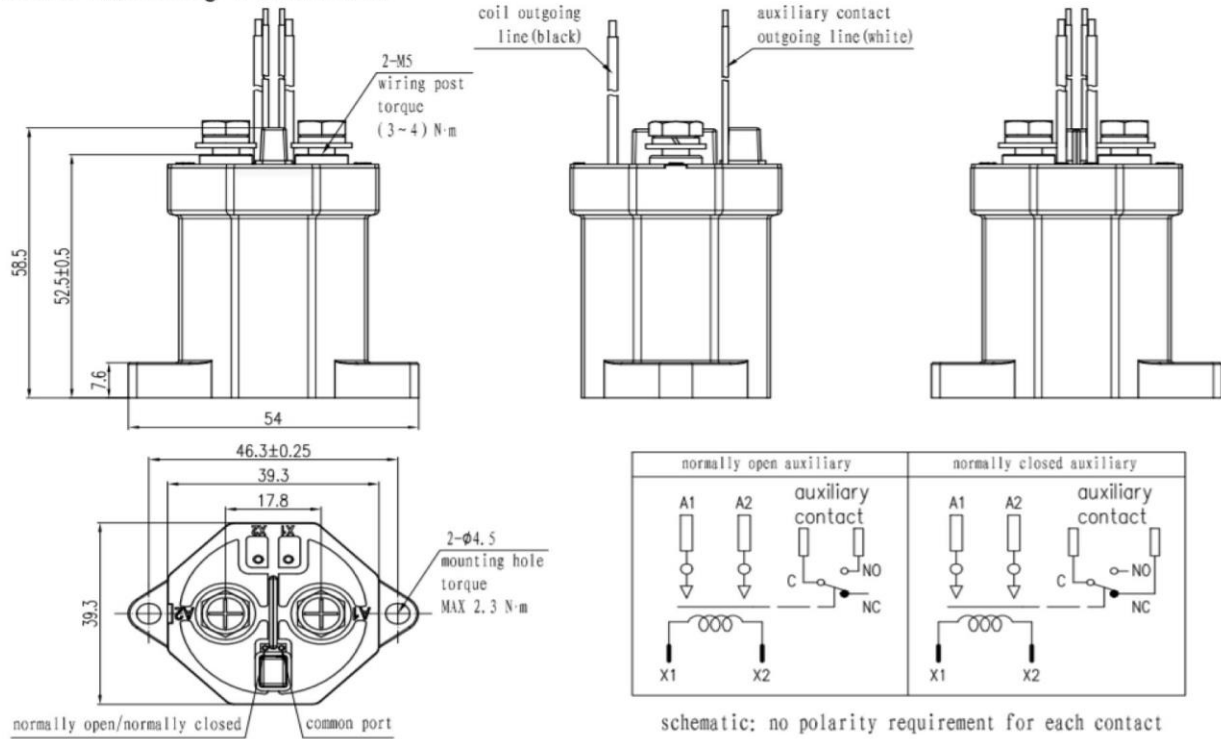


Note: Except for special note, the ambient temperature of electrical durability test is 23°C, and the on-break ratio is: 1s:

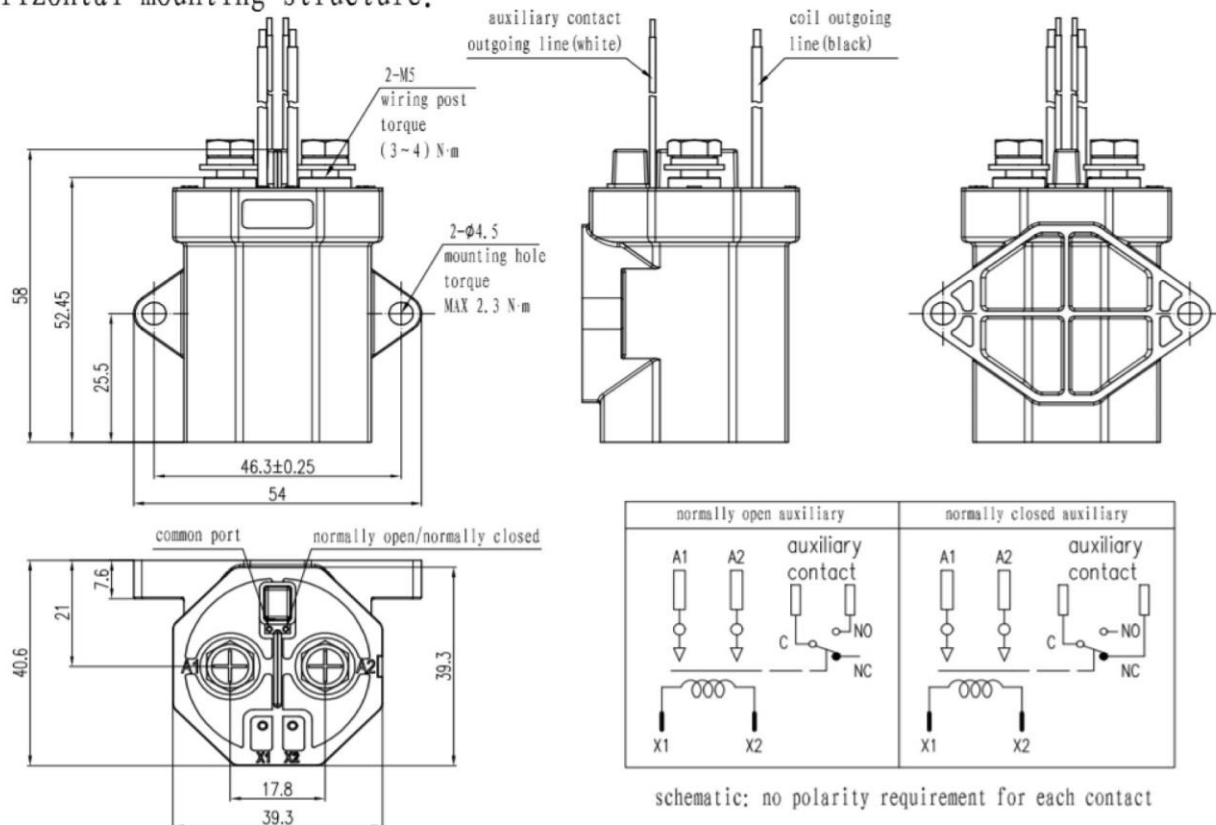
● Outline and wiring schematic diagram

Standard

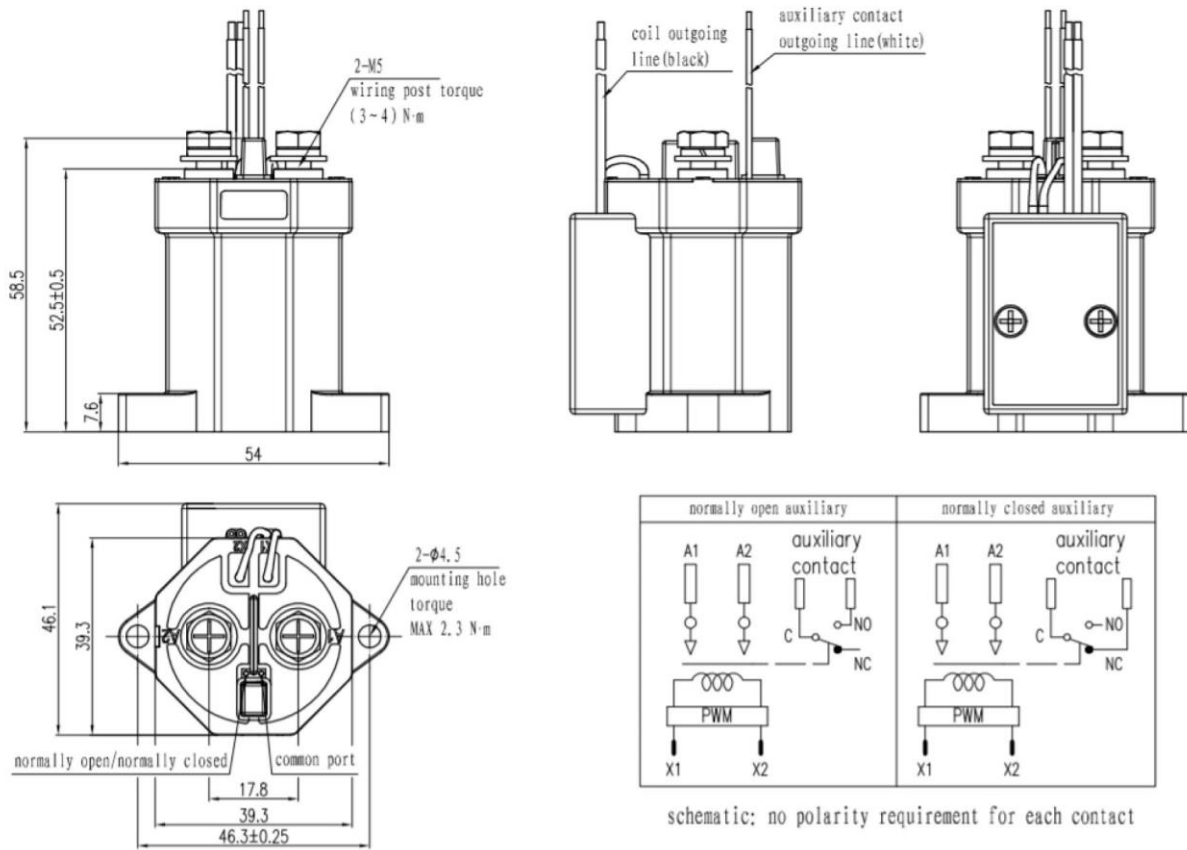
Vertical mounting structure:



Horizontal mounting structure:



● Energy-saving



Note: Control coil wire length 300±20mm

Product without tolerance, when ≤10mm, tolerance

±0.3mm When dimension between 10~50 mm,

tolerance ±0.5mm When dimension ≥50mm,

tolerance ±0.8mm

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