

BSBC7 Series DC Contactor Specification

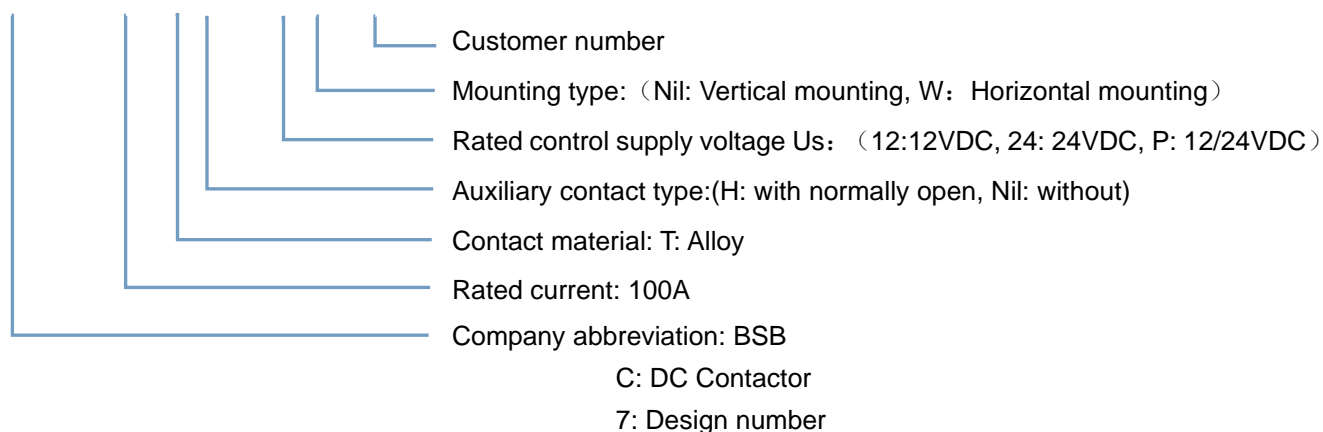
Customer	General Specification
Product Name	DC Contactor
Part Number	BSBC7-100T-12 BSBC7-100TH-12 BSBC7-100T-24 BSBC7-100TH-24 BSBC7-100T-12W BSBC7-100TH-12W BSBC7-100T-24W BSBC7-100TH-24W BSBC7-100T-P BSBC7-100TH-P
Date	2020/04/01
Validity	2 Year
Version	2020V1.0

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.
- Approval:** UL, CE, TUV

Ordering

BSBC7-100 T H -12 W /XXX



Basic Parameter

Contact parameter		
Main contact	Rated operational current Ie	100A
	Rated operational voltage Ue	12~1000VDC
	Min. load	1A12VDC
	Main contact type	1SH (SPST NO DM)
	Nominal resistance of main circuit	0.4 mΩ (@100A)
	Main contact mounting	M5 internal thread
	Connecting torque	3~4N·m
	Max. switching current (more than one cycle)	1000A320VDC
	Auxiliary contact	Max. current
Min. current		8VDC 100mA
Contact resistance		<0.15Ω

Coil parameter			
Product type	Standard		Energy-saving
Rated voltage Us(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 (@Us)	≤30ms		≤45ms
Release time (@Us)	≤10ms		
Bounce time (@Us)	≤5ms		

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

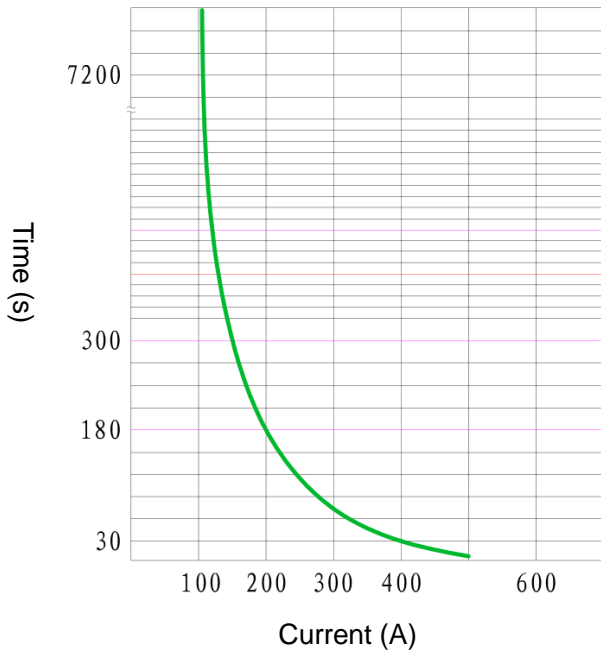
Life characteristics		
Mechanical Life	300,000 cycles	
Resistivity load life (L/R≤1ms)	See next page	
Capacitive load life (RC=1ms , only for connecting)	250A	50,000 cycles
Note: For capacitive load life, when the contactor is used to control the main circuit of charge and discharge, the pre-charge circuit 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.		

Electrical characteristics	
Dielectric withstand voltage	AC 3000V
Insulation resistance	≥1000MΩ@1000VDC
Nominal insulation voltage Ui	1000V

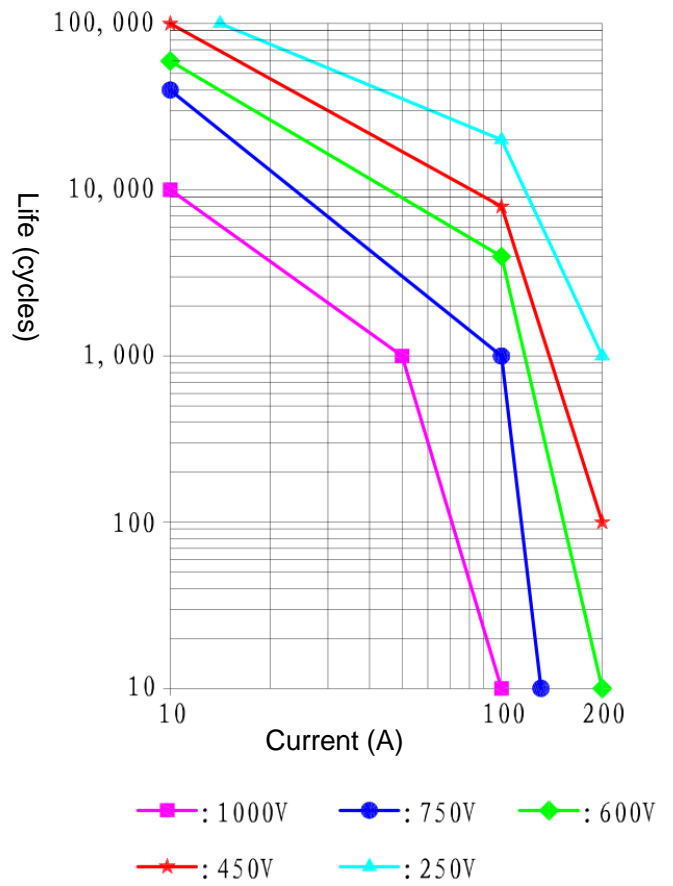
Environmental characteristics		
Shock	Stability test	196m/s ² (20G)
	Strength test	490m/s ² (50G)
Resistance to vibration		10~1000Hz, 10G
Operating ambient temperature		-40℃~+85℃
Operating ambient humidity		5%~85% RH
IP Grade		IP67(inner space)
Altitude		≤4000m

Other	
Weight	Standard: 190g, with auxiliary 195g Energy-saving: 205g, with auxiliary 210g
The cross sectional area of an external conductor	≥35mm ²
Case mounting hole torque	MAX 2.3 N·m

Short overload capacity curve



Cut-off life curve of resistive load

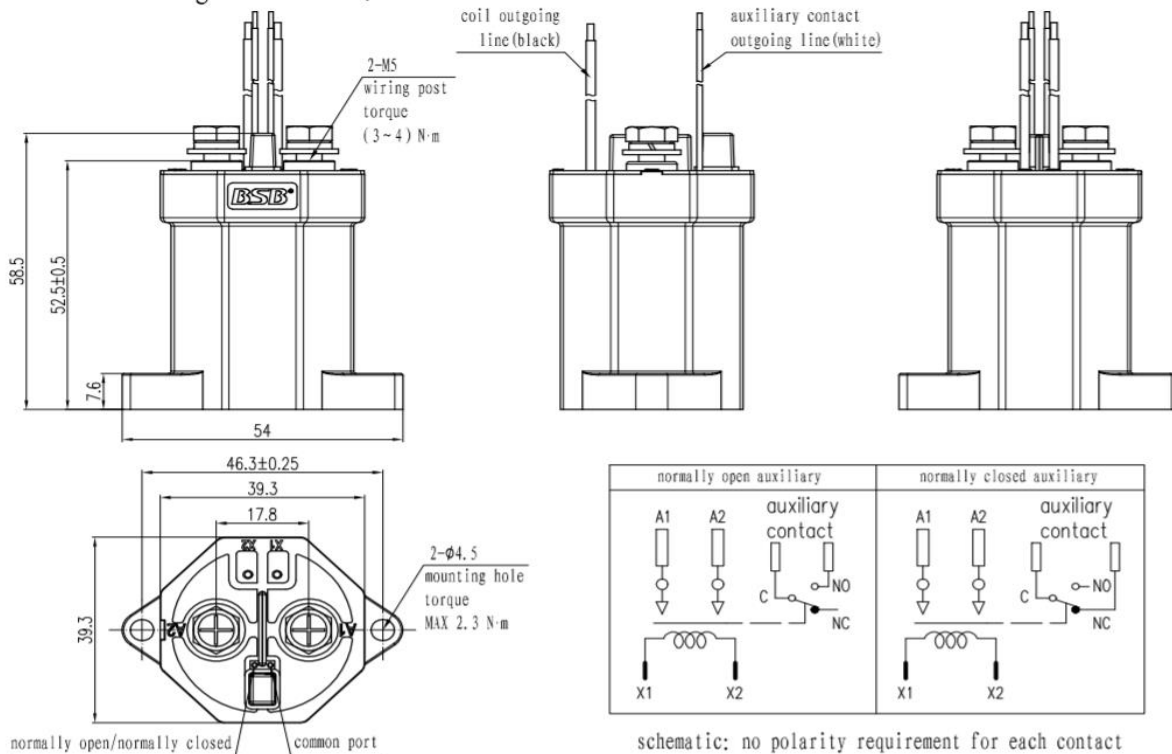


Note: Except for special note, the ambient temperature of electrical durability test is 23°C, and the on-break ratio is: 1s: 9s

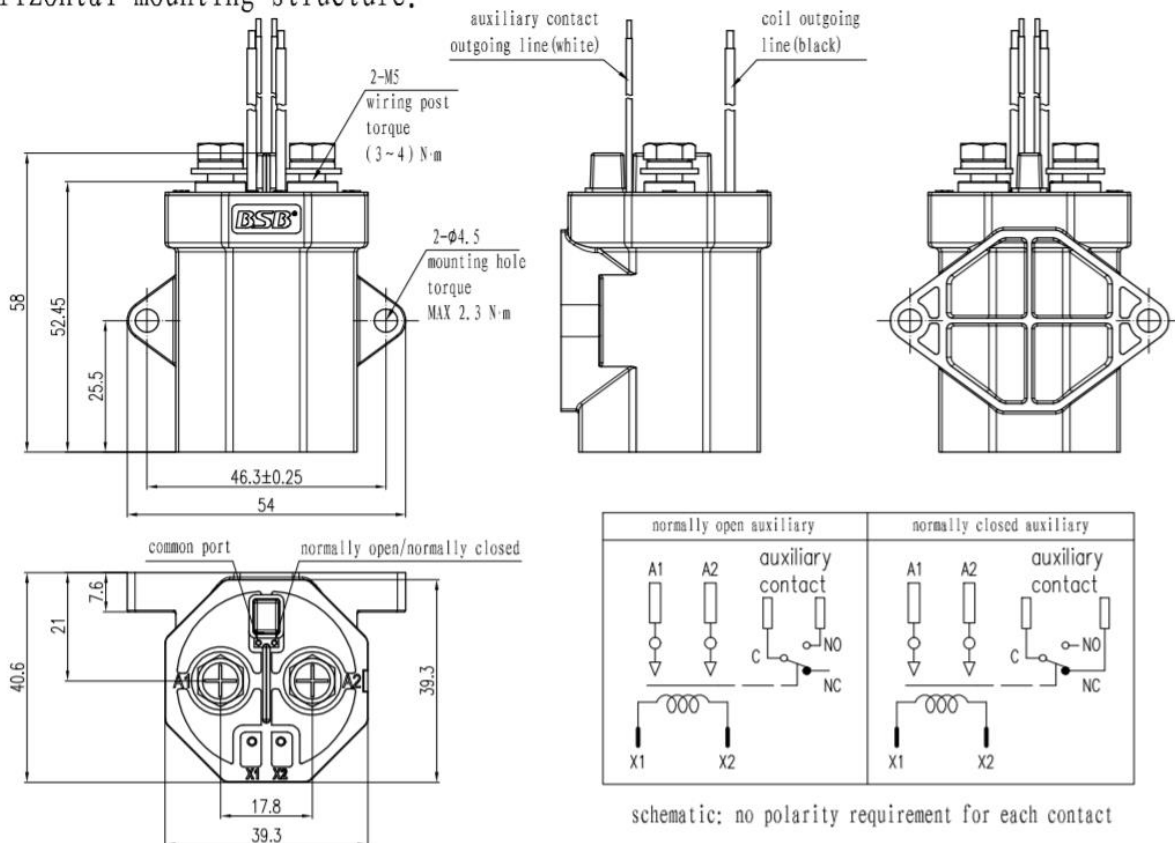
Outline and wiring schematic diagram

Standard

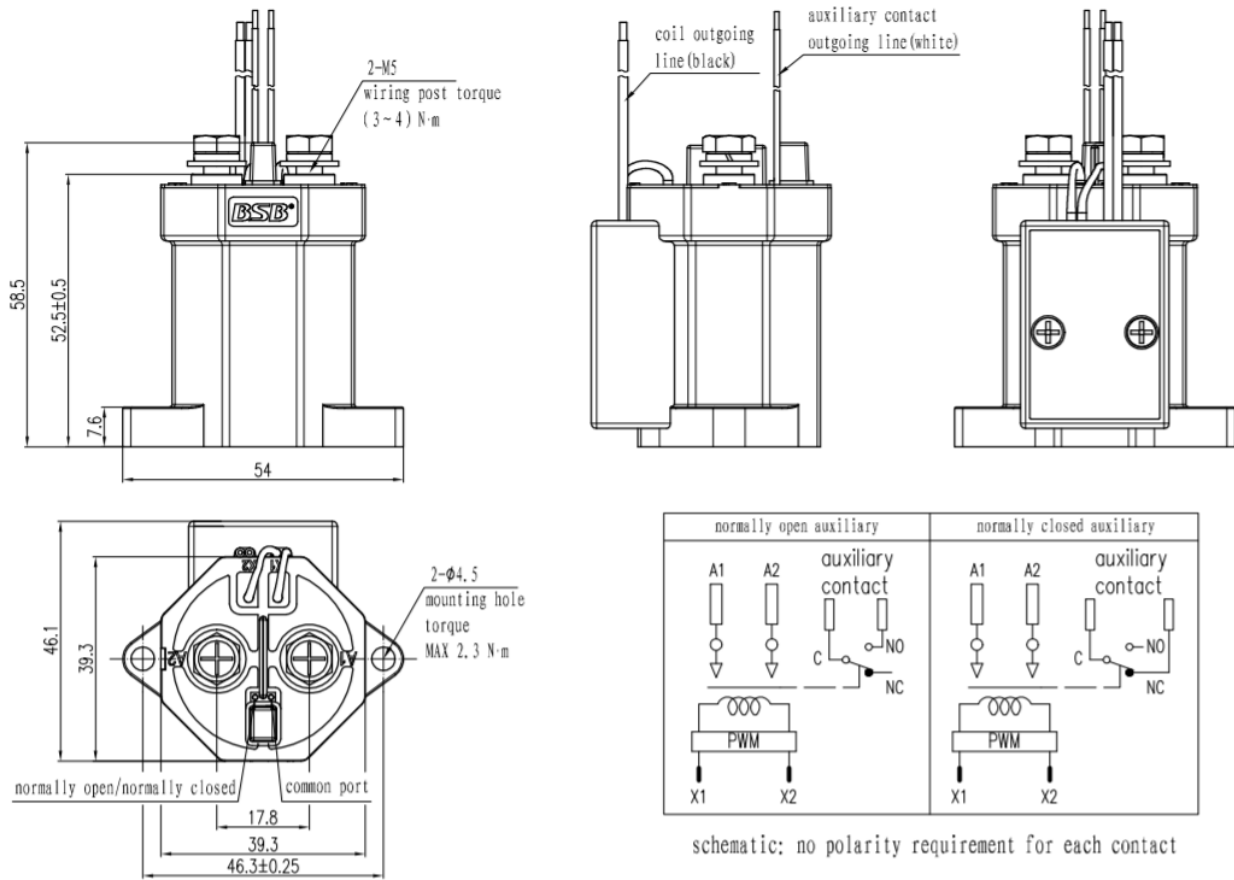
Vertical mounting structure:



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