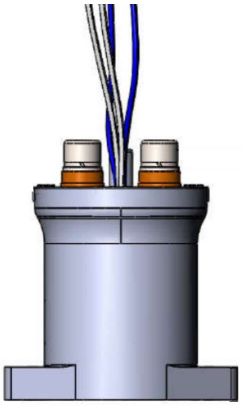
STZ50 环氧密封高压接触器 Epoxy Sealed High-voltage Contactor

特点 Features

- 主触点无极性，可双向带载切换 The main contact is non-polar and can be switched bidirectional with load
- 采用密封结构，无电弧泄露风险 Sealed structure, no arc leakage risk
- 50A 85℃长时间载流能力 50A Long-term current carrying capacity at 85 ° C
- 触点室内充有保护性气体，有效防止触点氧化烧损，触点部分可满足 IP67 防护等级The contact room is filled with protective gas to effectively prevent contact oxidation and burning, and the contact part can meet the IP67 protection grade



典型应用 Typical application

- 电池充电系统Battery charging system;
- 大功率直流设备High power DC equipment;
- 可再生能源存储设备Renewable energy storage devices;
- 燃料电池 & 太阳能系统Fuel Cell & Solar Energy Systems;
- 新能源汽车New energy vehicle；
- 混合动力汽车Hybrid electric vehicle.

触点参数 Contact Data

触点形式 Contact Arrangement	1A
最大切换电压 Max. Switching Voltage	1000VDC
最大切换电流 Max. Switching Current	600A 320VDC, 1ops
触点材质 Contact Material	银合金 Ag alloy
接触电阻 Contact Resistance	Max. 1mΩ (20A 6VDC)
动作/释放时间 Operate Time/ Release Time	≤30ms/≤10ms
回跳时间 Rebound Time	<5ms
电耐久性 Electrical Endurance	1000 ops (1000VDC 50A) 6000 ops (750VDC 50A)
机械耐久性 Mechanical Endurance	$2*10^5$ops.(on : off=1s:1s)
电流耐受 Current Carrying Capacity	50A: continuous
	80A: 10min
	90A: 1min
	150A: 30s
	250A: 10s

性能参数 Characteristics

绝缘电阻 Insulation Resistance		100MΩ（at 1000VDC)
介质耐压 Dielectric Strength	断开触点间 Open Load Contacts	2500Vrms 1min
	线圈与触点间 Coil to Load Contacts	1500Vrms 1min
温度范围 Temperature Range		-40~+85℃
湿度 Ambient Operating Humidity		5% ~ 95%RH
振动 Vibration Resistance		10G(10~500Hz) 1/2正弦波/Sinusoidal wave
冲击 Shock	稳定性 Functional	20G
	强度 Destructive	50G
重量 Weight		Approx.150g
外形尺寸 Outline Dimension		53.8×39.5×58.1mm

辅助触点规格 Auxiliary Contacts Specifications

辅助触点形式 Auxiliary Contacts Arrangement	1路常开 1 Form A
最大负载 Max. Load	30VDC 2A, 125VAC 3A
最小负载 Min. Load	8VDC 0.1A
接触电阻 Contact Resistance	<0.1Ω

注:

a) 所有数值均为在环境温度+23℃下未预通电的线圈 All the performance data are for coils that are not pre energized at 23℃ ambient temperature.

线圈规格 Coil Voltage Specifications

额定电压 Nominal Coil	辅助触点 Auxiliary Contact	动作电压 Must Operate	释放电压 Release Coil	额定功率 Rated Power
VDC	带/不带 Yes/No	VDC	VDC	W
12	带/Yes	≤9	≥ 1.2	6
12	不带/No	≤9	≥ 1.2	
24	带/Yes	≤18	≥ 2.4	
24	不带/No	≤18	≥ 2.4	

注:

a) 以上值为初始值 All the performance data are initial values.

b) 线圈电阻是在线圈温度23℃，公差为±10% Coil resistance is tested at 23℃ ambient temperature, ±10% tolerance.

■ 型号命名标准 Model Number Legend

	STZ50	-1A	S	-12	-1000	,XXX

基本型号 Basic Type:

STZ50

触点结构 Contact Arrangement:

A: 1组常开 1 Form A

辅助触点 Auxiliary Contact:

Blank: 标准型不带辅助触点 Standard without Auxiliary Contact

S: 带1组常开辅助触点 with 1A Auxiliary Contact

线圈电压 Coil Voltage:

12VDC, 24VDC

主触点额定电压 Rated Voltage of Main Contact:

1000: 1000VDC

主触点极性 Main Contact Polarity:

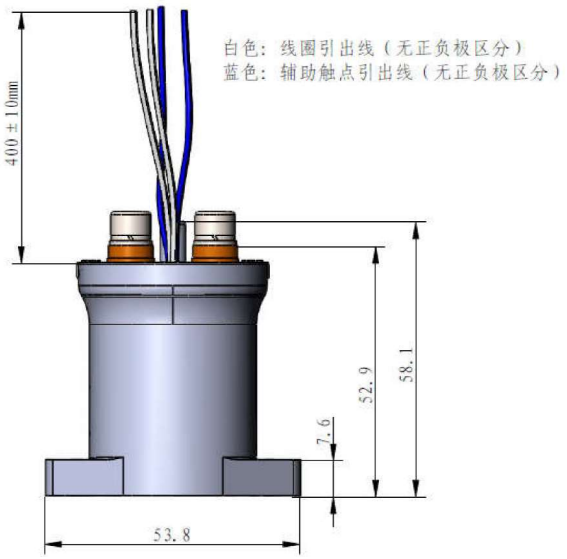
Blank: 无极性 Non-polarity

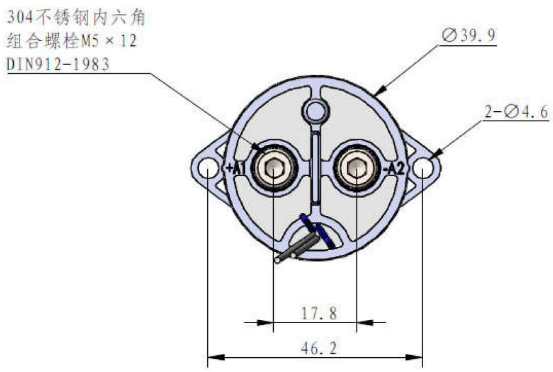
特殊特性 Special Characteristic:

XXX: 客户特殊特性号 Customer special feature number

■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

◆ 外形尺寸 Outline Dimensions



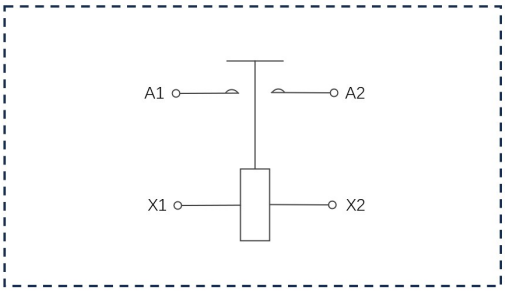


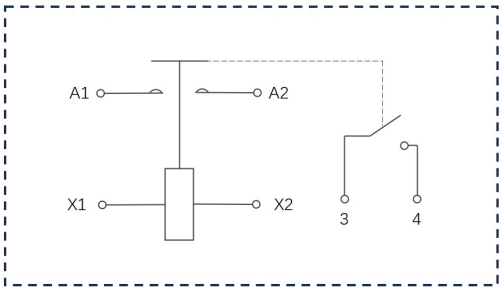
注 Note:

未注尺寸公差 Unspecified tolerance：≤10mm: +0.3 mm, 10~50 mm: ±0.5mm, ≥50mm: ±0. 8mm ;

■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

◆ 接线图 Wiring Diagram





说明:

A1、A2 为负载端，X1、X2为线圈端，3、4为辅助触点，负载、线圈和辅助触点均无极性。A1, A2 are load terminals, X1, X2 are coil terminals, 3, 4 are auxiliary contacts. The load, the coil and the auxiliary contacts have no polarity.

■ 使用注意事项 Precautions for Use

1. 规格范围：应避免规格以上的操作使用，包括但不限于线圈额定，主触点额定以及电器寿命等的超规格使用。 以避免发生异常发热现象以及烟雾，火灾等事故。 Specification range: Operations above the specification should be avoided, including but not limited to coil rating, main contact rating, and electrical life beyond the specification. To avoid abnormal heating phenomenon and smoke, fire and other accidents
2. 使用 L/R>1ms 的感应负载 (L负载)时，推荐并联浪涌器件。如未采取措施，可能会造成电气寿命缩短、切断不良。 Parallel surge devices are recommended when L/R>1ms inductive load (L load) is used. If no measures are taken, it may cause shortened electrical life and poor cutting
3. 在没有加负载的情况下动作时，接触电阻可能会上升，请注意。 Please note that the contact resistance may rise when operating without a load
4. 安装与维修：接触器安装应牢固可靠，非正常连接时，容易导致接触器过热与火灾等事故。在安装母线时， 请勿向端子施加过度的负载，否则可能会造成通断性能的故障。通电时，安装、 维修，故障检修前，应事先切断 接触器与连接器 , 插座等连接部分的电源。 Installation and maintenance: The contactor installation should be firm and reliable, abnormal connection, easy to lead to overheating and fire accidents. When installing the bus bar, do not apply excessive load to the terminal. Otherwise, the on-off performance may be faulty. When powered on, before installation, maintenance, and troubleshooting, the power supply of the contactor and connector, socket and other connecting parts should be cut off in advance
5. 对接触器的重复动作，应充分考虑其动作的间隔时间。为避免引起误动作，建议接触器的两次动作之间的 时间间隔应大于 0.1s。 For the repeated action of the contactor, the interval time of its action should be fully considered. To avoid misoperation , it is recommended that the time interval between two actions of the contactor should be greater than 0.1s
6. 端子拧紧条件：各个部位的螺钉锁紧扭矩，请控制在下述的规定范围内。在超过范围的情况下，可能会造成破损。 1) 接触器底座：6N ·m~8N ·m；2) 主触点接线柱：20N ·m~25N ·m。 Terminal tightening conditions: Screw locking torque of each part should be controlled within the following specified range. In the case of exceedance, damage may be caused. 1) Contactor base: 6N ·m~8N ·m; 2) Main contact terminal: 20N ·m~25N ·m
7. 配线、母线等，请参考： 50A：公称截面积 16mm^2 以上。 Distribution, bus, etc., please refer to: 50A: nominal cross-sectional area of 16mm^2 or more
8. 严禁将产品长时间放置在超过产品温度使用范围的环境中。产品使用环境：温度 -55℃ ~85℃，湿度 5%~95%R. H.。It is strictly prohibited to place the product in an environment beyond the product temperature range for a long time. Product use environment: temperature -55℃ ~85℃, humidity 5%~95% R.H.
9. 触点连接端子的正确安装：需按电路图进行接线。 Correct installation of contact connection terminals: Connect cables according to the circuit diagram
10. 在接触器意外坠地后，请不要再使用。 Do not use the contactor after it accidentally falls to the ground