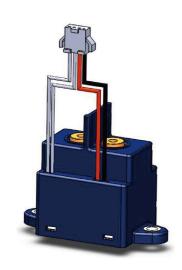
# STE200V-1000 陶瓷密封高压接触器 Ceramic Sealed High-voltage Contactor

#### 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
- 采用陶瓷密封结构,无电弧泄露风险 Ceramic sealed structure, no arc leakage
- 200A 85°C长时间载流能力 200A 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;

| 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         | 1000A, 300VDC, ≥1ops                       |  |
| 触点材质 Contact Material                 | 银合金 Ag alloy                               |  |
| 接触电阻 Contact Resistance               | Max. 3mΩ ( @200A)                          |  |
| 最小适用负载 Min. Applicable Load           | 1A 12VDC                                   |  |
| 动作/释放时间<br>Operate Time/ Release Time | ≤30ms/≤10ms                                |  |
|                                       | On:off=0.6s:5.4s                           |  |
|                                       | 800 ops (1000VDC 200A)                     |  |
|                                       | 1,000ops (750VDC 200A)                     |  |
| 电耐久性 Electrical Endurance             | 5,000ops (450VDC 200A)                     |  |
|                                       | 1,500ops (1000VDC 150A)                    |  |
|                                       | 2,000ops (750VDC 150A)                     |  |
|                                       | 8,000ops (450VDC 150A)                     |  |
| 机械耐久性 Mechanical Endurance            | 2*10 <sup>5</sup> ops.(on:off=0.25s:0.25s) |  |
|                                       | 200A: Continued                            |  |
|                                       | 300A: 5min                                 |  |
| 电流耐受 Current Carrying Capacity        | 400A: 1min                                 |  |
|                                       | 600A: 10s                                  |  |
|                                       | 1000A: 0.6s                                |  |

| 线圈规格 Coil Voltage Specifications |                |         |         |                |           |
|----------------------------------|----------------|---------|---------|----------------|-----------|
| 额定电压                             | 辅助触点           | 动作电压    | 释放电压    | 最大工作电压         | 额定功       |
| Nominal                          | Auxiliary      | Must    | Release | Max. Allowable | 率Rated    |
| Coil                             | Contact        | Operate | Coil    | Voltage        | Power     |
| VDC                              | 带/不带<br>Yes/No | VDC     | VDC     | VDC            | W         |
| 12                               | 带/Yes          | ≤9      | ≥ 1     | 18             | 4.5       |
| 24                               | 带/Yes          | ≤18     | ≥ 2     | 36             | 4.5       |
|                                  |                |         |         |                | or 100ms, |

注:

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  $23^{\circ}\text{C}$ ambient temperature.

- 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.

| 性能参数 Characteristics          |                    |                                 |  |  |
|-------------------------------|--------------------|---------------------------------|--|--|
| 绝缘电阻 Insulation Resistance    |                    | 1000MΩ (at 1000VDC)             |  |  |
|                               | 断开触点间 Open         | 4000Vrms 1min<br>4000Vrms 1min  |  |  |
|                               | Load Contacts      |                                 |  |  |
| 介质耐压                          | 线圈与触点间 Coil to     |                                 |  |  |
| Dielectric                    | Load Contacts      |                                 |  |  |
| Strength                      | 主触点与辅助触点间          | 3000Vrms 1min, 漏电流              |  |  |
|                               | Between Main and   | Leakage Current 1mA             |  |  |
|                               | Auxiliary Contacts | Leakage Current IIIIA           |  |  |
| 温度范围                          |                    | -40~+85° C                      |  |  |
| Temperature Range             |                    |                                 |  |  |
| 湿度 Ambient Operating Humidity |                    | 5% ~ 85%RH                      |  |  |
| 振动 Vibration Resistance       |                    | 5G 10~500Hz 100m/s <sup>2</sup> |  |  |
| 冲击 Shock                      |                    | 11ms ½ 正弦波 sine                 |  |  |
|                               | 稳定性 Functional     | Vehicle: ON: 20G, OFF: 10G      |  |  |
|                               |                    | Industrial: ON/OFF: 10G         |  |  |
|                               | 强度 Destructive     | 50G                             |  |  |
| 外形尺寸 Outline Dimension        |                    | 71.8X36X58.7mm                  |  |  |
| 重量 Weight                     |                    | Approx.185g                     |  |  |

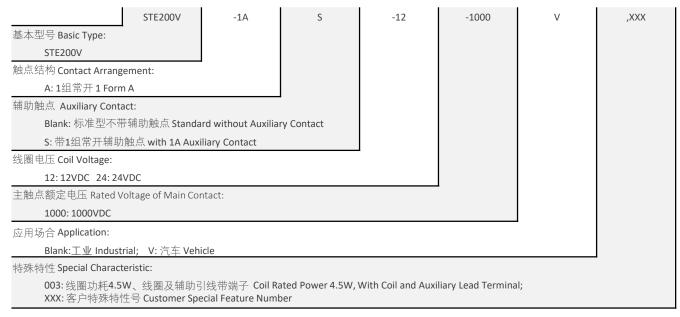
| 辅助触点规格 Auxiliary Contacts Specifications |               |  |  |
|--|---------------|--|--|
| 辅助触点形式 Auxiliary Contacts<br>Arrangement | 1路常开 1 Form A |  |  |
| 最大负载 Max. Load                           | 6VDC 0.1A     |  |  |
| 最小负载 Min. Load                           | 6VDC 3mA      |  |  |
| 接触压降 Contact Voltage Drop                | ≤100mV @1A    |  |  |

注:

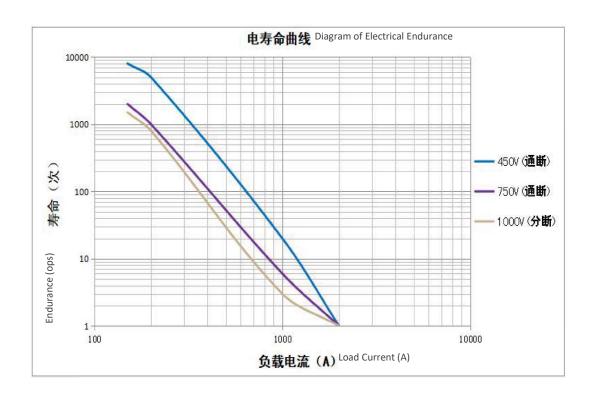
- 以上值为初始值 All the performance data are initial values.
- 线圈电阻是在线圈温度23℃,公差为±10% Coil resistance is tested at 23°C ambient temperature, ±10% tolerance.

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#### ■ 型号命名标准 Model Number Legend

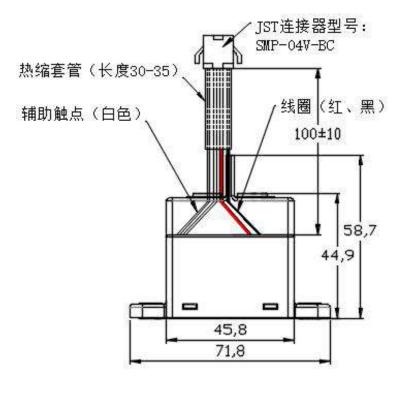


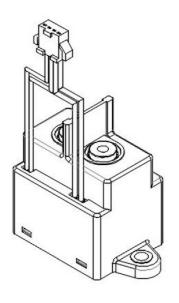
### ■ 电寿命曲线图 Diagram of Electrical Endurance

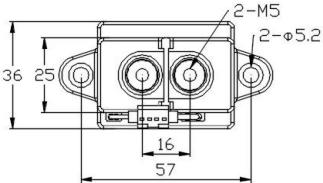


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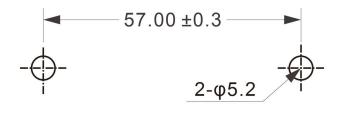
■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)







◆ 安装孔位图 Installation Hole Bitmap

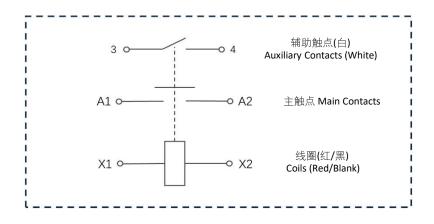


注 Note:

未注尺寸公差 Unspecified tolerance : ≤10mm: +0.3 mm, 10~50 mm: ±0.5mm, ≥50mm: ±0.8mm;

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- 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 onoff 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 M6螺钉:6N·m~8N·m(外负载安装)。 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. M6 screw: 6N·m~8N·m (External load installation)
- 7. 配线、母线等,请参考: 200A:公称截面积 95mm² 以上。 Distribution, bus, etc., please refer to: 200A: nominal cross-sectional area of 95mm² 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 -40℃ ~85℃,湿度 5%~85%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 -40℃ ~85℃, humidity 5%~85% 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