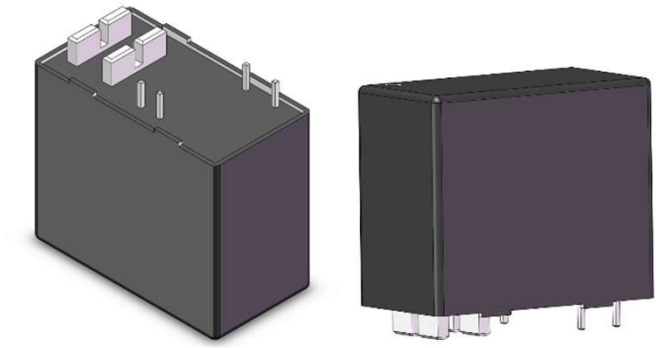
# STEV01-125 磁保持直流继电器 Latching DC Relay

## 特性 Features

- 125A触点切换能力 125A rating switching capability
- 最大80VDC负载开闭能力 Max. 80VDC switching capability
- 磁保持型继电器，功耗低 Latching type relay, power saving
- 辅助触点可选 Auxiliary contact available
- 外形尺寸 Outline dimensions: (39.5x 22.8 x 27.7)mm



## 典型应用 Application

- PCS/BMS
- 直流电源 DC Power
- OBC

## 触点参数 Contact Data

| | |
|---|---|
| 触点形式 Contact Arrangement | 1B/1A, 1B+1B/1A+1A |
| 额定电压 Rating Voltage | 80VDC |
| 最大切换电压 Max. Switching Voltage | 277VAC/80VDC |
| 最大切换电流 Max. Switching Current | 500A(5ms) 1ops |
| 触点材质 Contact Material | 银合金 Ag alloy |
| 接触电阻 Contact Resistance | Max.2mΩ (at 1A 6VDC) |
| 动作/释放时间 Operate Time/ Release Time | ≤30ms/≤30ms |
| 电耐久性 Electrical Endurance* | on : off=5s:5s, R-Load, @85℃ 125A/80VDC $6*10^3$ops |
| 机械耐久性 Mechanical Endurance | $1*10^5$ops. 18000 ops/h |
| 最大切换功耗 Max. Switching Power | 12000W |

*负载极性按推荐方向时 When the load polarity is in the recommended direction.

## 性能参数 Characteristics

| | | |
|---|---|---|
| 绝缘电阻 Insulation Resistance | | 100MΩ (500VDC) |
| 介质耐压 Dielectric Strength | 断开触点间 Open Load Contacts | 2000Vrms |
| | 线圈与触点间 Coil to Load Contacts | 2000Vrms |
| 温度范围 Temperature Range | | -40~+85℃ |
| 湿度 Ambient Operating Humidity | | 5 ~ 90%RH |
| 振动 Vibration Resistance | | 10~200Hz 3.5G |
| 冲击 Shock | 稳定性 Functional | 5G |
| | 强度 Destructive | 20G |
| 引出脚端子类型 External Terminal Type | | PCB |
| 耐热焊接 Soldering (Max.) | | 5±0.5s, 260±5℃<br>3.5±0.5s, 350±10℃ |

## 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<br>1路常闭 1 Form B |
| 最大负载 Max. Load | 80VDC 1A, 125VAC 1A |
| 最小负载 Min. Load | 8VDC 0.1A |
| 接触电阻 Contact Resistance | <0.1Ω |

## 线圈参数 Coil Data

| | |
|---|---|
| 线圈电压范围 Coil Voltage Range | 12~60 VDC |
| 容许最大电压 Max. Continuous | 额定电压的200%<br>200% of Rated Voltage |
| 线圈绝缘等级 Coil Insulation System | Class F |
| 额定线圈功率 Coil Rating Power | 7.7W |
| 最小线圈脉冲宽度 Min. Coil Voltage Plus Width | 200ms |

注:

a) 所有数值均为在环境温度+20℃下未预通电的线圈 All the performance data are for coils that are not pre energized at 20℃ ambient temperature.

b) 允许最大线圈电压是指继电器线圈在短时间内能够承受的最大电压值 Maximun allowable coil voltage refers to the maximun voltage which relay coilcould endure in a short period of time.

## 线圈规格 Coil Voltage Specifications

| 额定电压 Nominal Coil | 动作电压 Must Operate | 释放电压 Release Coil | 线圈电阻(10A) Coil Resistance |
|---|---|---|---|
| VDC | VDC | VDC | Ω(±10%) |
| 12 | 9 | 9 | 18.7 |
| 24 | 18 | 18 | 74.8 |
| 48 | 36 | 36 | 299.2 |
| 60 | 45 | 45 | 467.5 |

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±20% Coil resistance is tested at 23℃ ambient temperature, ±20% tolerance.

## ■ 型号命名标准 Model Number Legend

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| STEV01 | -125 | -1B | D | -12 | U | S | ,XXX |

基本型号 Basic Type:
STEV01

触点负载 Contact Rating:
125: 125A

触点结构 Contact Arrangement:
1A: 1组常开 1 Form A;  1B: 1组常闭 1 Form B

辅助触点 Auxiliary Contact:
Blank: 不带辅助触点 Without Auxiliary Contact;
H: 带1 组常开辅助触点 With 1 Form A Auxiliary Contact
D: 带1 组常闭辅助触点 With 1 Form B Auxiliary Contact

线圈电压 Coil Voltage:
12, 24, 48, 60VDC

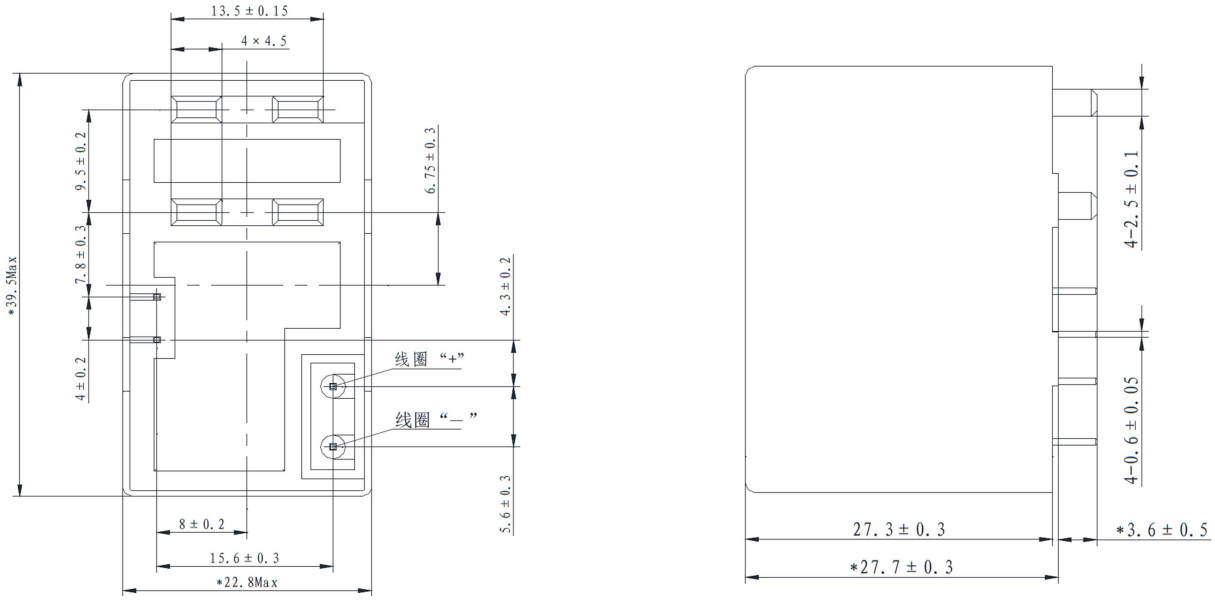
线圈排序 Coil Sort:
U: 单线圈 Single Coil

保持构造 Protective Construction:
Blank: 耐助焊剂型 Flux Tight ;  S:  塑料密封型 Sealed

特殊特性 Special Characteristic:
Blank: 标准型 Standard;  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）

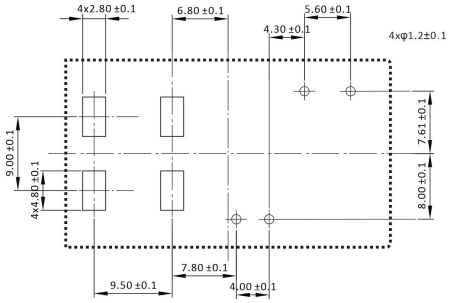
◆ 外形尺寸 Outline dimensions



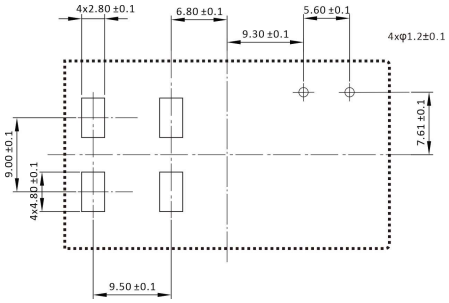
## ■ 外形尺寸、PCB 布局、接线图 Outline dimensions, PCB Layout, Wiring Diagram (mm）

◆ 印刷线路板加工尺寸 PCB Outline Dimension Bottom View

● 带辅助触点 with Auxiliary Contact

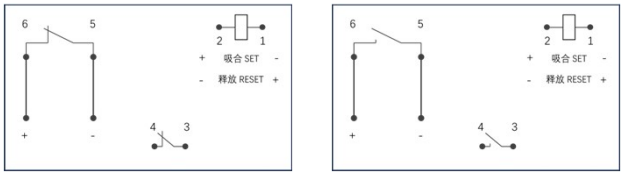



● 不带辅助触点 without Auxiliary Contact




◆ 接线图 Wiring Diagram Bottom View

● 带辅助触点 with Auxiliary Contact

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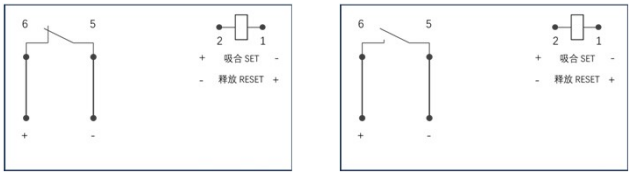


注 Note:

未注尺寸公差 Unspecified tolerance : <1mm: ±0.2 mm, 1~5 mm: ±0.3mm, >5mm: ±0. 5mm ;

安装孔尺寸中未注尺寸公差为± 0.1 mm PCB layout dimensions hadn't specified tolerance is ±0.1mm.

请注意:

1. 上面显示的数据是初始值。
2. 继电器在出库时处于"吸合"或"释放"状态，考虑中转冲击上升和继电器安装时，继电器将变为"吸合"或"释放"状态，因此，在应用（连接电源）时，请根据要求将继电器复位到"吸合"或"释放"状态。
3. 在运输、储存和操作产品过程中。请将产品置于远离磁场的地方避免操作电压和释放电压的变化。
4. 不要同时给"吸合"线圈和"释放"线圈通电。同时长时间通电（1分钟以上）应该避免。
5. 用于计量测量应用的继电器通常采用防尘结构，但大多数继电器可以根据客户的具体要求特制。这类继电器建议存放时间不超过6个月，并且请注意存放环境。如果客户无特殊要求，为确保接触可靠性，在交货时我们将保持继电器触点闭合状态。

Notice:

1. The data shown above are initial values.
2. Relay is on the "reset" or "set" status when being released from stock, with the consideration of shock risen from transit and relay mounting, relay would be changed to "set" or "reset" status, therefore, when application (connecting the power supply), please reset the relay to "set" or "reset" status on request.
3. During transportation, storage and operation the product. Please keep the product away from magnetic fields to avoid changes of operate and release voltage.
4. Do not energize voltage to "set" coil and "reset" coil simultaneously. And also long energized time (more than 1 min) should be avoided.
5. Relays used for metering measuring applications are usually made with dust proof structure, while most relays could be made specially per customer's specific requirements. No longer than 6 months' storage time is recommended for this kind of relay, and please pay attention to the storage environment. To ensure contact reliability, we will keep contact status be closed when delivery if no special required by customer.