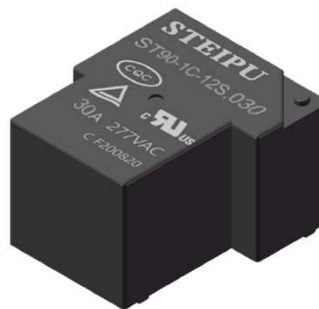


## 特性 Features

- 额定负载 Rate Current : 30A/40A 250VAC/30VDC
- 触点形式 Contact Arrangement : 1A 1B 1C
- 线圈功率 Coil Power : 0.9W 1.5W 2.25W
- 满足105°C使用条件 Comply 105°C application
- 外形尺寸 Outline Dimensions : (32.3x27.1x20)mm
- 重量 Unit Weight : ≈ 25g



## 典型应用 Application

充电桩 Charging Station

功率电源 Power Supply

### 触点参数 Contact Data

|                                       |                                                                                                            |
|---------------------------------------|------------------------------------------------------------------------------------------------------------|
| 触点形式 Contact Arrangement              | 1A, 1B, 1C                                                                                                 |
| 额定电压 Rating Voltage                   | 250VAC                                                                                                     |
| 最大切换电压 Max. Switching Voltage         | 277VAC                                                                                                     |
| 最大切换电流 Max. Switching Current         | 30/40A                                                                                                     |
| 触点材质 Contact Material                 | 银合金 Silver Alloy                                                                                           |
| 接触电阻 Contact Resistance               | 100mΩ(1A 6VDC)                                                                                             |
| 动作/释放时间<br>Operate Time/ Release Time | ≤15ms/≤10ms                                                                                                |
| 电耐久性 Electrical Endurance             | Rating load, Resistance,<br>on:off=1s:9s @23°C<br>30A: 1x10 <sup>5</sup> ops<br>40A: 1x10 <sup>4</sup> ops |
| 机械耐久性 Mechanical Endurance            | on:off=1s:1s<br>1x10 <sup>7</sup> ops                                                                      |
| 最大切换功耗 Max. Switching Power           | 11080VA/1200W                                                                                              |

### 线圈参数 Coil Data

|                               |                                     |
|-------------------------------|-------------------------------------|
| 线圈电压范围 Coil Voltage Range     | 5~48 VDC                            |
| 容许最大电压 Max. Continuous        | 额定电压的130%<br>120% of Rated Voltage* |
| 线圈绝缘等级 Coil Insulation System | F Class                             |
| 额定线圈功率 Coil Rating Power      | 0.9W/1.5W                           |

\* : 具体参考线圈规格一栏 Specific reference to the Coil Voltage Specifications sheet .

注:

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

### 性能参数 Characteristics

|                               |                              |                                            |
|-------------------------------|------------------------------|--------------------------------------------|
| 绝缘电阻 Insulation Resistance    |                              | 100MΩ 500VDC                               |
| 介质耐压<br>Dielectric Strength   | 断开触点间 Open Load Contacts     | 1500VAC 1min                               |
|                               | 线圈与触点间 Coil to Load Contacts | 2500VAC 1min                               |
| 温度范围<br>Temperature Range     |                              | -40°C to +105°C                            |
| 湿度 Ambient Operating Humidity |                              | 5 ~ +95%RH                                 |
| 振动 Vibration Resistance       |                              | 5HZ to 55HZ 1.5mm 双<br>振幅 Double Amplitude |
| 冲击 Shock                      | 稳定性 Functional               | 10G                                        |
|                               | 强度 Destructive               | 30G                                        |
| 重量 Weight                     |                              | ≈ 25g                                      |
| 耐热焊接 Soldering (Max.)         |                              | 10s, 265°C                                 |

### 线圈规格 Coil Voltage Specifications

| 额定电压<br>Nominal Coil | 动作电压<br>Must Operate | 释放电压<br>Release Coil | 最大过载电压<br>Max. Voltage (VDC) |      | 线圈电阻<br>Coil Resistance Ω(±10%) |      |
|----------------------|----------------------|----------------------|------------------------------|------|---------------------------------|------|
|                      | VDC                  | VDC                  | 0.9W                         | 1.5W | 0.9W                            | 1.5W |
| 5                    | ≤ 3.75               | ≥ 0.5                | 6.5                          | 6.5  | 27.7                            | 16.6 |
| 6                    | ≤ 4.5                | ≥ 0.6                | 7.8                          | 7.8  | 40                              | 24   |
| 9                    | ≤ 6.75               | ≥ 0.9                | 11.7                         | 11.7 | 90                              | 54   |
| 12                   | ≤ 9.0                | ≥ 1.2                | 15.6                         | 15.6 | 160                             | 96   |
| 18                   | ≤ 13.5               | ≥ 1.8                | 23.4                         | 23.4 | 360                             | 216  |
| 24                   | ≤ 18.0               | ≥ 2.4                | 31.2                         | 31.2 | 640                             | 384  |
| 48                   | ≤ 36.0               | ≥ 4.8                | 62.4                         | 62.4 | 2560                            | 1536 |

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°C, 公差为±10% Coil resistance is tested at 23°C ambient temperature, ±10% tolerance.

ST90-30/40A 小型大功率继电器 Miniature High Power Relay

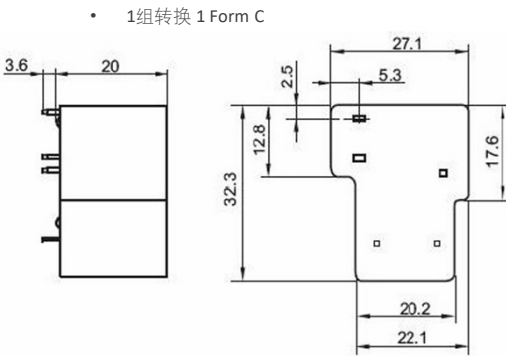
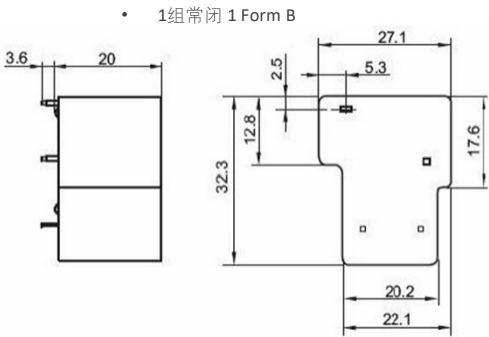
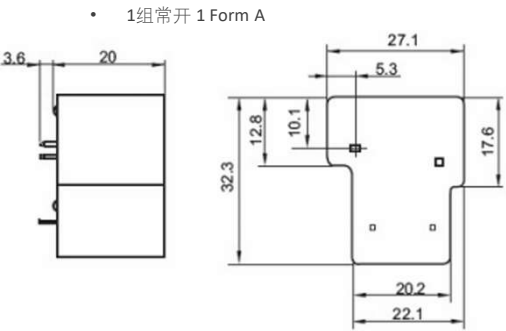
型号命名标准 Model Number Legend

|                               |                                                                                                                                                                                                                                                  |     |     |   |      |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|---|------|
|                               | ST90                                                                                                                                                                                                                                             | -1A | -12 | S | ,XXX |
| 基本型号 Basic Type:              | ST90                                                                                                                                                                                                                                             |     |     |   |      |
| 触点结构 Contact Arrangement:     | 1A: 1组常开 1 Form A; 1B: 1组常闭 1 Form B; 1C: 1组转换 1 Form C                                                                                                                                                                                          |     |     |   |      |
| 线圈电压 Coil Voltage:            | 5, 6, 9, 12, 18, 24, 48, 110VDC                                                                                                                                                                                                                  |     |     |   |      |
| 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:  | 030: 0.9W线圈功耗 Coil Power, 30A负载 Rating Load; 130: 1.5W线圈功耗 Coil Power, 30A负载 Rating Load;<br>040: 0.9W线圈功耗 Coil Power, 40A负载 Rating Load; 140: 1.5W线圈功耗 Coil Power, 40A负载 Rating Load;<br>**6: 6号脚位 With 6 <sup>th</sup> Pin ; **W: 宽脚位 Wide Pin |     |     |   |      |

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

外形尺寸 Outline dimensions

标准产品 Standard Type

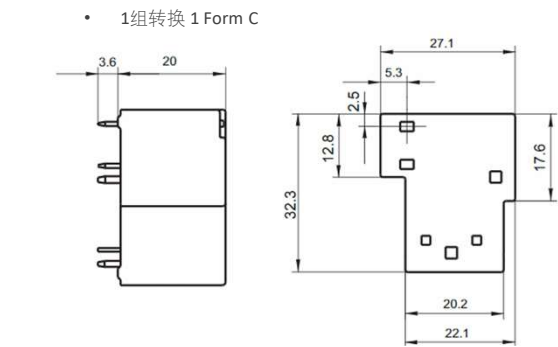
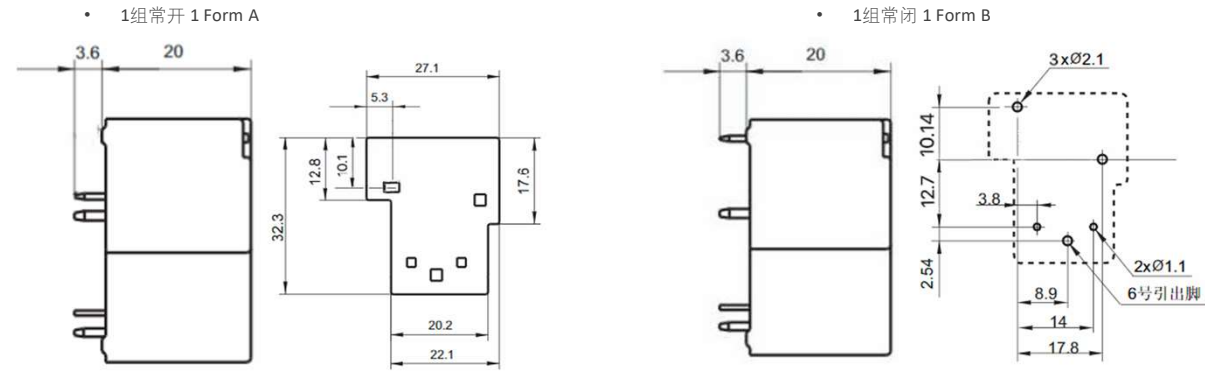


ST90-30/40A 小型大功率继电器 Miniature High Power Relay

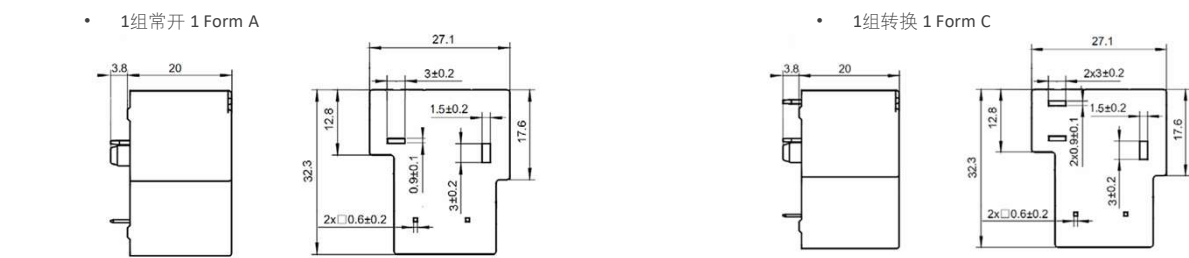
外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

外形尺寸 Outline dimensions

带6号脚类型 With 6<sup>th</sup> Pin Type

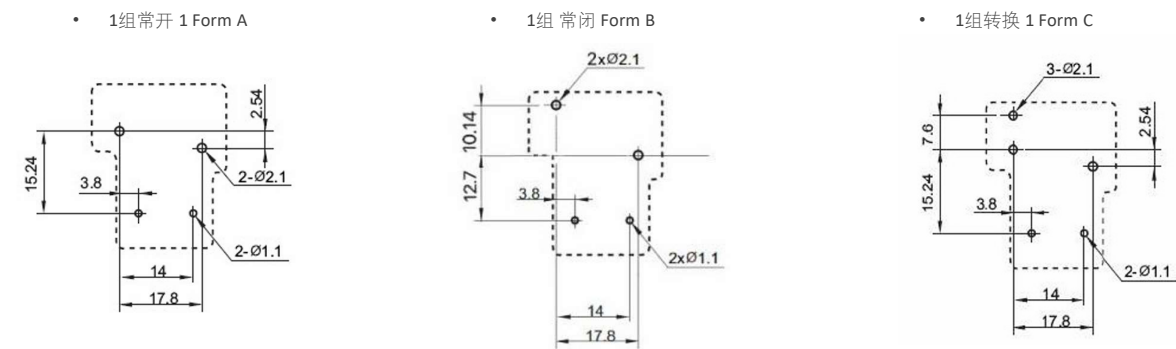


宽脚位类型 Wide Pin Type



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

标准产品 Standard Type

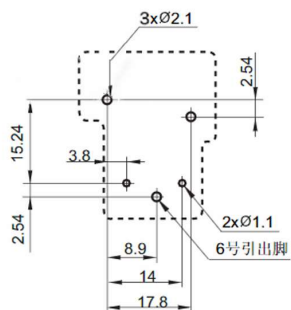


### ■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

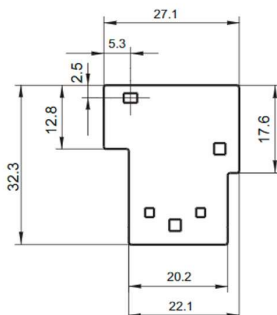
#### ◆ 印刷线路板加工尺寸 PCB Outline Dimension Bottom View

##### ● 带6号脚类型 With 6<sup>th</sup> Pin Type

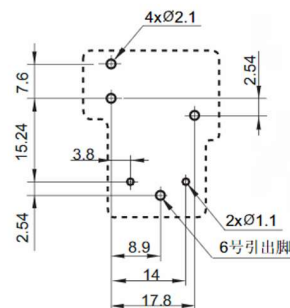
###### • 1组常开 1 Form A



###### • 1组常闭 Form B

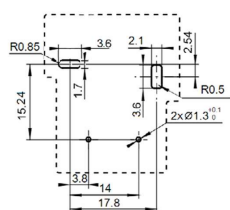


###### • 1组转换 1 Form C

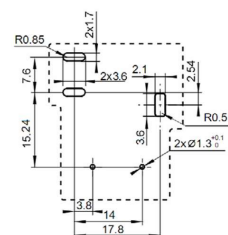


##### ● 宽脚位类型 Wide Pin Type

###### • 1组常开 1 Form A



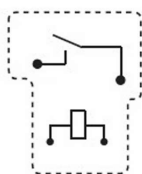
###### • 1组转换 1 Form C



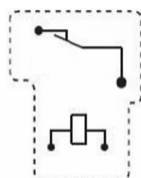
#### ◆ 接线图 Wiring Diagram Bottom View

##### ● 标准产品、宽脚位 Standard/Wide Pin Type

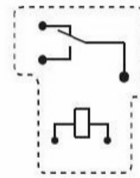
###### • 1组常开 1 Form A



###### • 1组常闭 Form B

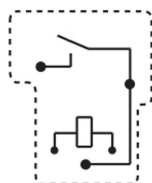


###### • 1组转换 1 Form C

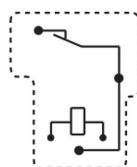


##### ● 带6号脚类型 With 6<sup>th</sup> Pin Type

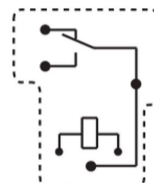
###### • 1组常开 1 Form A



###### • 1组常闭 Form B



###### • 1组转换 1 Form C



#### 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 PC board layout dimensions hadn't specified tolerance is ±0.1mm.

### 免责声明:

本说明书仅供参考。

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