

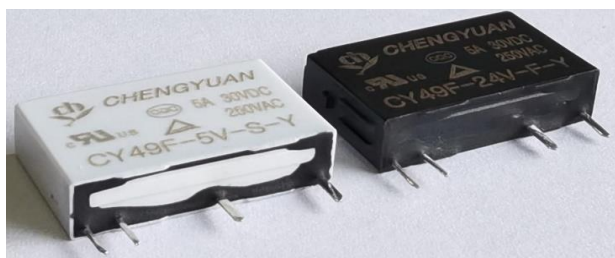


# 盛元继电器 CHENGYUAN RELAY

CY49

小型功率继电器

Miniature Power Relay



## 特点Features

- 负载能力：5安触点切换  
Load capacity : 5A switching capability
- 超薄，超小型，适用密集安装（宽度5mm, 高12.5mm）  
Ultra-thin, ultra-small, suitable for dense installation (width 5mm, height 12.5mm)
- 耐压可达3000伏  
Pressure resistance is up to 3000volts
- 高灵敏度，功耗仅为0.12W  
High sensitivity, power consumption is only 0.12W
- 配有多种插座可供选择  
With multiple sockets to choose from

## 触点参数 Contact Data

|                                         |                         |
|-----------------------------------------|-------------------------|
| 型号 Type                                 | CY49F                   |
| 触点材料<br>Contact material                | 银合金 Silver alloy        |
| 接触电阻<br>Contact resistance              | 100mΩ Max.(at 1A 16VDC) |
| 额定负载（阻性）<br>Rated load (Resistive load) | 5A250VAC /30VDC         |
| 最大切换电流<br>Max. switching current        | 5A                      |
| 最大切换电压<br>Max. switching voltage        | 270VAC                  |
| 最大切换功率<br>Max. switching power          | 1250VA/150W             |
| 最小切换负载<br>Min. switching load           | 6V 1A                   |

## 性能参数 Characteristics

|                                                    |                                                       |                                                            |
|----------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------|
| 吸合时间（额定电压）<br>Operate time (at rated coil voltage) | ≤ 10ms Max.                                           |                                                            |
| 释放时间<br>Release time                               | ≤ 5ms Max.                                            |                                                            |
| 绝缘电阻<br>Insulation resistance                      | Min 1000MΩ (at 500VDC)                                |                                                            |
| 介质耐压<br>Dielectric strength                        | 触点与触点间Between open contacts:                          | 1000VAC, 50/60Hz for 1min                                  |
|                                                    | 触点与线圈间Between coil and contact :                      | 3000VAC , 50/60Hz for 1min                                 |
| 抗振动<br>Vibration resistance                        | 耐久Destructive                                         | 10-55Hz,双振幅1.5mm<br>10-55Hz ,at double amplitude of 1.5 mm |
|                                                    | 误动作Functional                                         | 10-55Hz,双振幅1.5mm<br>10-55Hz ,at double amplitude of 1.5 mm |
| 抗冲击<br>Shock resistance                            | 误动作Functional                                         | 10G Min                                                    |
|                                                    | 耐久Destructive                                         | 10G Min                                                    |
| 寿命<br>Endurance                                    | 机械寿命（每小时10800次，室温） Mechanical endurance (10800ops./h) | 10000000次<br>10000000 ops.(at room temperature)            |
|                                                    | 电气寿命（每小时360次，室温） Electrical endurance (360ops./h)     | 100000次<br>100000 ops.(at room temperature)                |
| 环境温度Ambient atemperature                           | -40℃~+85℃(不冷凝 no condensation)                        |                                                            |
| 重量Weight                                           | 约3g Approx.3g                                         |                                                            |

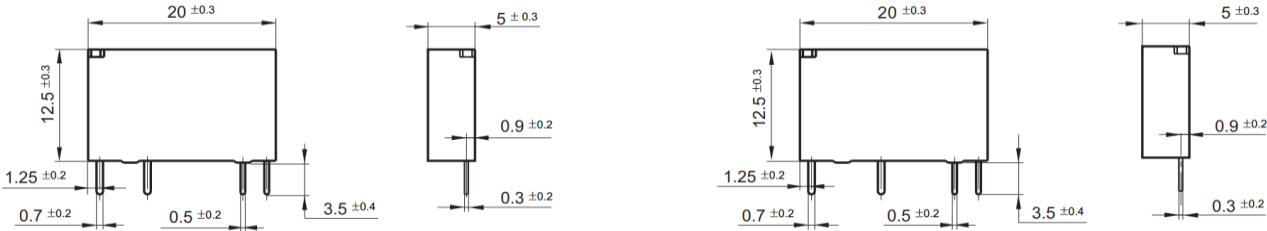
线圈参数 Coil Data (at 20°C)

| 额定电压<br>(VDC)<br>Nominal<br>voltage<br>(VDC) | 额定电流<br>±10%(mA)<br>Nominal<br>operating<br>current<br>±10%(mA) | 线圈电阻<br>±10%(Ω)<br>Coil resistance<br>±10%(Ω) | 额定功率<br>Nominal operating<br>power | 吸合电压(Max.)<br>Operate voltage<br>(Max.) | 释放电压 (Min.)<br>Release voltage<br>(Min.) | 最大连续外加电压<br>Max. allowable voltage      |
|----------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------|------------------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------|
| 5                                            | 24                                                              | 208                                           | 约0.12W<br>Approx 0.12W             | 额定电压的75%<br>75% of nominal<br>voltage   | 额定电压的5%<br>5% of nominal<br>voltage      | 额定电压的130%<br>130% of nominal<br>voltage |
| 6                                            | 20                                                              | 300                                           |                                    |                                         |                                          |                                         |
| 9                                            | 13.3                                                            | 675                                           |                                    |                                         |                                          |                                         |
| 12                                           | 10                                                              | 1200                                          |                                    |                                         |                                          |                                         |
| 18                                           | 6.6                                                             | 2700                                          |                                    |                                         |                                          |                                         |
| 24                                           | 7.5                                                             | 3200                                          | 约0.18W<br>Approx 0.18W             |                                         |                                          |                                         |

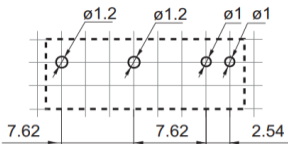
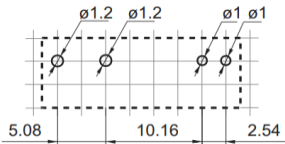
上述值为初始值，请勿在产品上连续施加最大电压>10min, 以免线圈过度发热。  
The data shown above are initial values. Do not appple maximum allowable voltage on coil for more than 10 minutes to avoid overheating of thd coil.

外形尺寸图、接线图、安装孔位图 （单位：mm）  
Outline dimension, Wiring diagram, PCB layout (Unit:mm)

外形图  
Outline dimension



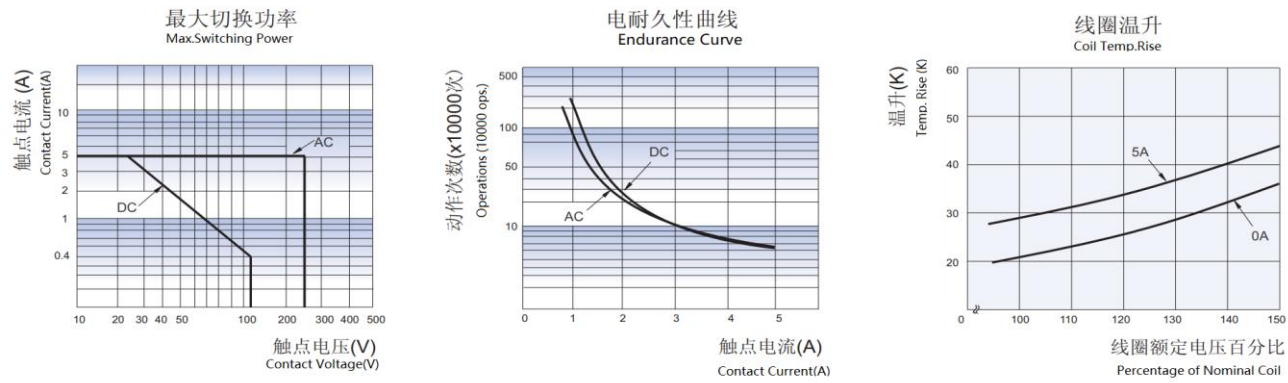
安装孔尺寸  
(底视图)  
P.C.B.Layout (bottom view)



接线图 (底视图)  
Wiring Diagram (bottom view)



性能曲线图 Characteristic Curves



典型用途 Typical Applications

工控设备 Industrial control equipment  
安全设备 Safety equipment  
办公室设备 Office equipment  
家用电器：冷柜等 Home appliances: Freezer , etc.

订货标记 Ordering Information

CY49F - 12VDC - S - Y - B - B - S- XX  
1 2 3 4 5 6 7 8

- 1: 型号Type: CY49F
  - 2: 额定电压Nominal Voltage: 5,6,9,12,18,24VDC
  - 3: 触点引出脚距Contact pin distance: F: 5.08mm S: 7.62mm
  - 4: 触点类型Contact type: Y: 单触点Single contact, E: 分叉触点 Bifurcated contact
  - 5: 外壳类别Enclosure Category :B 表示带卡扣 Indicates the belt buckle 无None : Not have
  - 6: 外壳颜色Enclosure Color: H-黑色Black; B-白色White
  - 7: 封装形式Protective Construction: S-塑封式Flux proofed, SH-防水式 Sealed type washable
  - 8: 特殊参数Special Parameter:无-标准型 Nil-Standard type 字母或数字-特殊要求Letter or number-Special requirement
- (1):塑封式不能在污染环境（含有H2S , SO2 , NO2 , 粉尘等污染特）中使用。  
Flux-proof relays can not be used in the environment with pollutants like H2S , SO2 , NO2 , dust,etc.
- (2): 塑封式装入PCB焊接后， 不能进行整体清.洗或表面处理。  
Water cleaning or surface process is not suggested after the flux-proof relays are assembled on PCB.
- (3):客户特殊要求（XX）， 由我司评估后， 按特性符号标识。

声明：本产品规格书仅供客户使用时参考，若有更改，恕不另行通知。  
对盛元而言，不可能评定继电器在每个具体应用领域的所有性能参数要求，因而客户应该根据具体的使用条件选择与之相匹配的产品。对于密封继电器在安装清洗后，使用前请打开外壳上的透气孔。如有疑问，请与盛元联系获得更多的技术支持。但产品选型责任仅由客户负责。

Disclaimer: The specification is for reference only . Specifications are subject to change without prior notice.

We could not evaluate all the performance and all the parameters for every possible applications . Thus the users should in a right position to choose suitable product for their own application. For sealed relays, after installation fand cleaning, please open the ventilation hole in the case before use . If there is any query , please contact Chengyuan for technical services. However it is the user's responsibility to determine which product should be used.