



### 特点 Features:

- 50A触点切换能力  
50A Switching Capability
- 工作温度高达125°C  
125°C High Operating Temperature
- 塑封和防尘罩型可供选择  
Dustproof and Fluxproof type available
- 可带瞬态抑制电阻或二极管  
Resistor or diode paralleled type available
- 具有一组常开触点、一组转换触点、两组常开触点  
1 Form A、1 Form C and 2 Form A contact available

### 触点参数 Contact Data

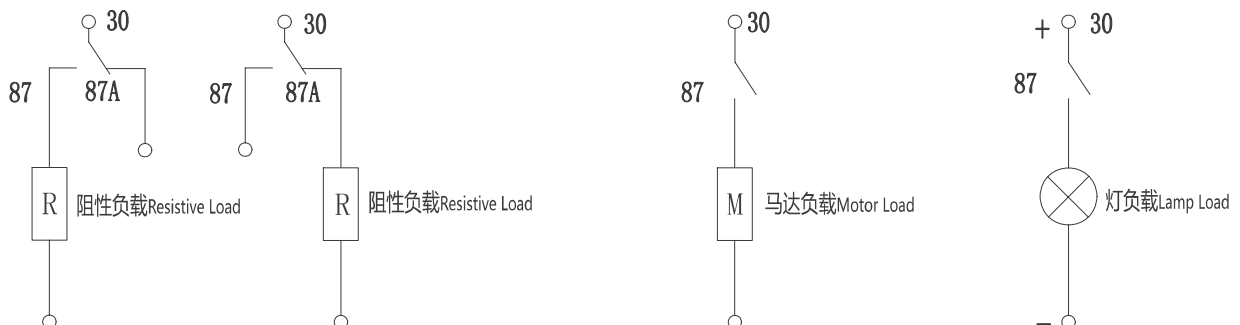
|   |  |
|---|--|
| 型号<br>Model                                     | SARN   |
| 额定负载 (阻性)<br>Nominal Load (Res. Load)           | Normal: NO:50A 14VDC /NC: 30A 14VDC (at 23°C)<br>NO:40A 14VDC /NC: 20A 14VDC (at 85°C) |
|   | Special: 2A: NO:30A 14VDC  |
| 最大切换电流 (正常型)<br>Max. Switching Current (normal) | On(NO):150A (Surge Current of Lamp Load, 14VDC)<br>Off(NO):50A (Resistive Load, 14VDC) |

| 触点负载电压<br>Contact Voltage | 负载类型<br>Load Type | 触点负载电流<br>Contact Current |                  |        | 通断比<br>Duty Factor | 电寿命 (次)<br>Endurance (Cycles) | 触点材料<br>Contact Material |                    |
|---------------------------|-------------------|---------------------------|------------------|--------|--------------------|-------------------------------|--------------------------|--------------------|
|                           |                   | Form C                    |                  | Form A |                    |                               |                          |                    |
| 14VDC                     | 阻性<br>Res.        | on                        | 50               | 30     | 50                 | 2s:2s                         | 1x10 <sup>5</sup>        | AgSnO <sub>2</sub> |
|                           |                   | off                       | 50               | 30     | 50                 |                               |                          |                    |
|                           | 马达<br>Motor       | on                        | 80 <sup>a</sup>  | --     | 80 <sup>a</sup>    | 2s:2s                         |                          |                    |
|                           |                   | off                       | 30               | --     | 30                 | 2s:2s                         |                          |                    |
| 27VDC                     | 灯<br>Lamp         | on                        | 150 <sup>a</sup> | --     | 150 <sup>a</sup>   | 2s:2s                         | 1x10 <sup>5</sup>        | AgSnO <sub>2</sub> |
|                           |                   | off                       | 30               | --     | 30                 | 2s:2s                         |                          |                    |
|                           | 阻性<br>Res.        | on                        | 30               | 10     | 20                 | 2s:2s                         | 1x10 <sup>5</sup>        | AgSnO <sub>2</sub> |
|                           |                   | off                       | 30               | 10     | 20                 | 2s:2s                         |                          |                    |

a. 峰值电流时间、稳态电流时间: 1:10

Time ratio of peak current: Stable current is: 1:10

### 负载接线图 Load Wiring Diagram



## 性能参数 Parameters Data

|                                   |  |   |
|-----------------------------------|--|---|
| 触点材料 Contact Material             | SilverAlloy  |   |
| 接触压降 Dropping Voltageof Contacts  | 200mv/at 10A (max)   |   |
| 吸合时间Operate Time                  | 10msec.Max.  |   |
| 释放时间Release Time                  | Ordinary type: 10msec.Max. Parallel resistor or diode type:15 msec. Max. |   |
| 绝缘电阻Initial Insulation Resistance | 100MΩ Min.(DC500V)   |   |
| 介质耐压Initial Dielectric Strength   | OP/OP : AC 500V , 50/60 Hzfor 1min .                                     |   |
|                                   | IP/OP : AC 500V , 50/60Hzfor 1min .                                      |   |
| 振动Vibration Resistance            | 5 ~ 22.3Hz at double amplitude of 10 mm<br>22.3~500Hz 98m/s <sup>2</sup> |   |
| 冲击Shock Resistance                | NO 30G/NC 5G   |   |
| 寿命Endurance(operations)           | Mechanical (10,800ops./h)  | 1x10 <sup>5</sup> cycles                |
|                                   | Electrical (900 ops./h)  | 详见触点参数表See the contact parameters table |
| 环境温度Ambient Temperature           | -40°C ~ +125°C( nocondensation )   |   |
| 重量Unit Weight                     | Approx. 32.0 g   |   |

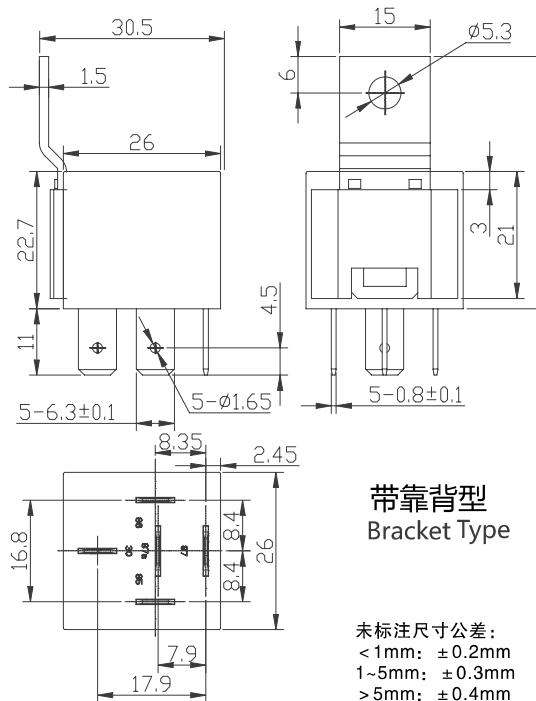
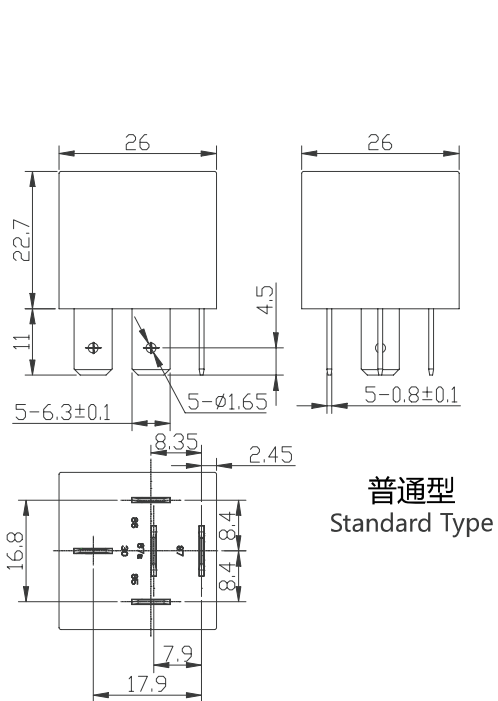
## 线圈参数 Coil Data( at 20°C)

| 额定电压<br>Nominal Voltage<br>(VDC) | 额定电流<br>Nominal<br>OperatingCurrent<br>1±10%(mA) | 线圈电阻<br>Coil Resistance<br>1±10%(Ω) | 并联电阻<br>Parallel Resistance<br>(Ω) | 等效电阻<br>Equivalent Resistance<br>(Ω) | 最大允许电压<br>Max.<br>allowable Voltage | 吸合电压<br>Pick-up Voltage<br>(Max.) | 释放电压<br>Drop-out Voltage<br>(Min.) | 线圈功率<br>Coil Power<br>(W) |
|----------------------------------|--|-------------------------------------|------------------------------------|--------------------------------------|-------------------------------------|-----------------------------------|------------------------------------|---------------------------|
| 12                               | 133.33   | 90                                  | ---                                | ---                                  | 150%of<br>额定电压<br>Nominal Voltage   | 60%of<br>额定电压<br>Nominal Voltage  | 10%of<br>额定电压<br>Nominal Voltage   | 1.6                       |
| 12                               | 133.33   | 90                                  | 680                                | 80                                   |                                     |                                   |                                    | 1.8                       |
| 24                               | 66.7   | 360                                 | ---                                | ---                                  |                                     |                                   |                                    | 1.6                       |
| 24                               | 66.7   | 360                                 | 2700                               | 320                                  |                                     |                                   |                                    | 1.8                       |

## 订货标记 Ordering Information

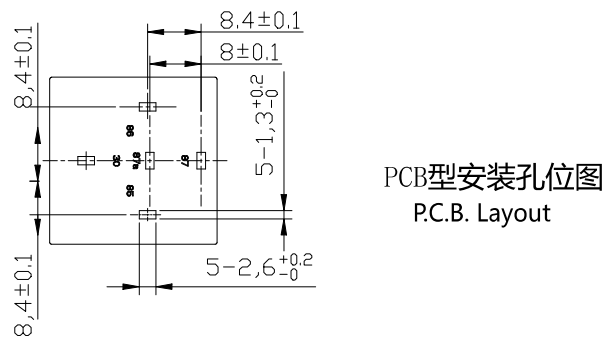
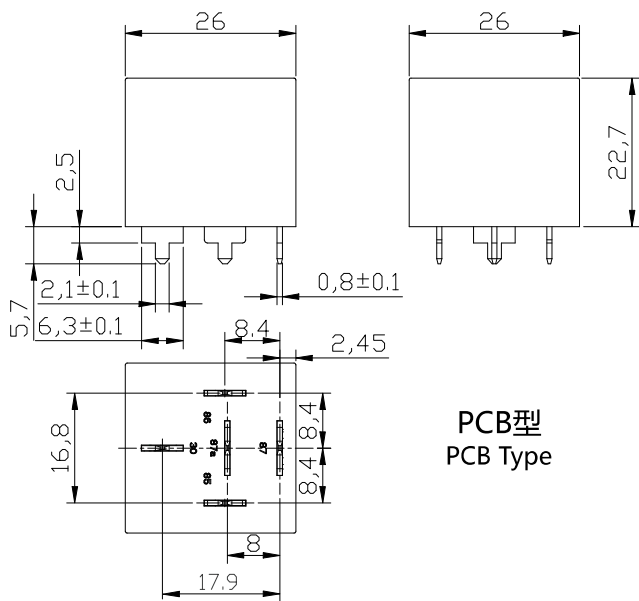
| 型号命名规则 Nomenclature   |    |    |    |   |   |   |   |     |
|---|----|----|----|---|---|---|---|-----|
| SARN  | -S | -1 | 12 | D | M | F | R | -XX |
| 特殊参数: 无-标准型, 01-端子无孔<br>Special Parameter: Nil-Standard type, 01-terminal without hole  |    |    |    |   |   |   |   |     |
| 配件形式: 无-普通型, R-带电阻,<br>D-并二极管(见接线图), DC-并二极管(见接线图)<br>Accessory Form: Nil-withoutaccessory, R-withresistor<br>D-Parallel diode(see wiring diagram), DC-Parallel diode(see wiring diagram) |    |    |    |   |   |   |   |     |
| 安装形式: 无-普通型, F-铁靠背型, P-PCB型<br>Mounting type: Nil-without bracket, F-with iron bracket, P-PCB type  |    |    |    |   |   |   |   |     |
| 触点形式 Contact Form: Nil-FormC, M-FormA,  |    |    |    |   |   |   |   |     |
| 线圈功耗 Coil Power: D-1.6/1.8W   |    |    |    |   |   |   |   |     |
| 线圈规格 Coil Voltage (VDC): 12, 24   |    |    |    |   |   |   |   |     |
| 触点组数 Number of Poles: 1-1Pole, 2-2Pole  |    |    |    |   |   |   |   |     |
| 封装形式: 无-防尘式, S-塑封式<br>ProtectiveConstruction: Nil-Dustproof, S-Fluxproof  |    |    |    |   |   |   |   |     |
| 基本型号 Type Designation: SARN   |    |    |    |   |   |   |   |     |

OutlineDimensions

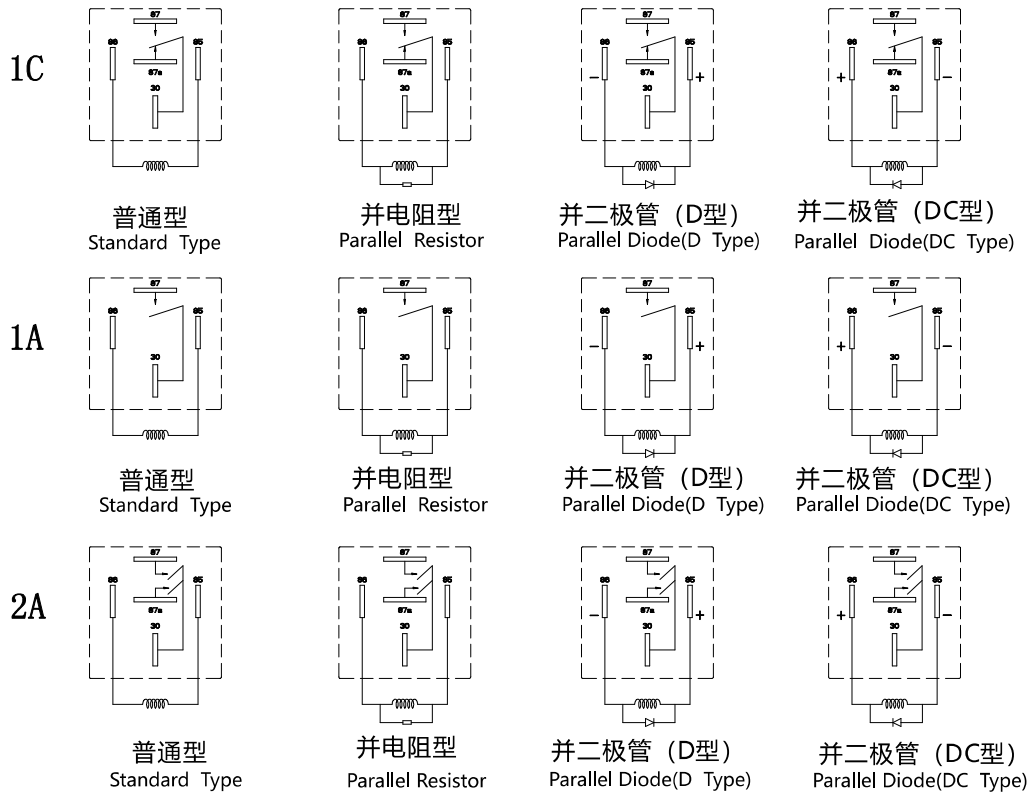


未标尺寸公差:  
 < 1mm: ±0.2mm  
 1~5mm: ±0.3mm  
 > 5mm: ±0.4mm  
 注: 1、引出脚尺寸为预焊前尺寸  
 2、安装孔尺寸公差: 0.1

Unless otherwise specified:  
 If dimension < 1 mm, tolerance: 0.2mm  
 If dimension 1~5 mm, tolerance: 0.3mm  
 If dimension > 5 mm, tolerance: 0.4mm  
 Note:  
 1. Extended terminal dimension is dimension before soldering.  
 2. Tolerance of mounting holes: 0.1mm



## 接线图 WiringDiagram



## 典型用途 TypicalApplications

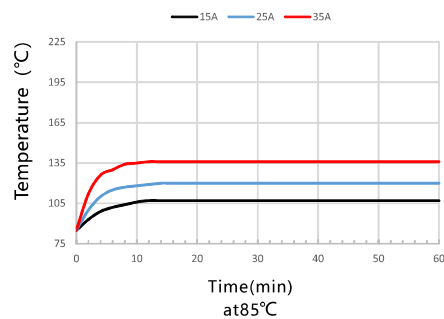
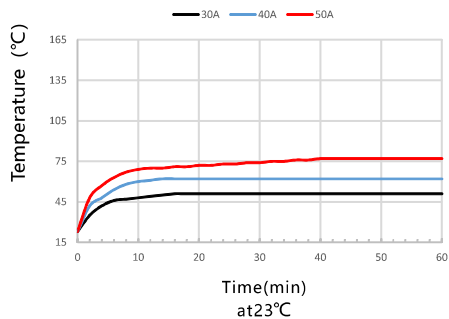
- 后窗除雾器、电池断路装置、汽车空调、灯雾、大灯装置  
● rearwindowdefogger、batterybreakingdevice、automotiveAC、foglightcontrol、headlightcontrol
- 电力分配、防抱死制动 (ABS)、牵引控制系统  
● electricpowerdistributor、ABS、tractioncontrolsystem.

## 性能曲线图 Characteristic Curves

### Terminal temperature rise curves

Test items:SARN-S-124DM(1.6W)  
Amount:3PCS  
Coil Voltage:12VDC  
Load current:30A,40A,50A

Test items:SARN-S-124DM(1.6W)  
Amount:3PCS  
Coil Voltage:12VDC  
Load current:30A,40A,50A



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。  
对三友而言,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,若有疑问,请与三友联系获取更多的技术支持。但产品选型责任仅由客户负责。

© 三友联众集团股份有限公司版权所有,本公司保留所有权利。

Disclaimer:

This datasheet is the customers' reference.All the specification are subject to change without notice.  
We could not evaluate all the performance and parameters for every possible application.Thus the users should be in a right position to choose the suitable product for their own application.If there is any query,please contact Sanyou for technicals ervice.  
However it is the users responsibility to determine which product should be used only.

©Sanyou Corporation Limited ,All rights of Sanyou to reserved