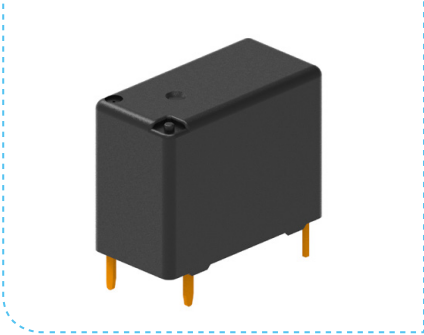


# MPDN

- 10A 触点切换能力
- 具有一组常开，一组转换触点形式
- 标准印制板引出脚
- 塑封型和防焊剂型可供选择
- 外形尺寸 L×W×H: 20.5×10.2×15.3mm
- 10A Switching capability
- 1 Form A and 1 Form C configurations
- Standard PCB layout
- Wash tight and flux proofed types available
- Outline dimensions L×W×H: 20.5×10.2×15.3mm



|               |                                                       |                         |                                 |                                     |                                                                    |
|---------------|-------------------------------------------------------|-------------------------|---------------------------------|-------------------------------------|--------------------------------------------------------------------|
| MPDN          | S                                                     | 1                       | 12                              | A                                   | F                                                                  |
| 产品型号<br>Model | 产品结构<br>Structure                                     | 触点组数<br>Number of Poles | 线圈电压<br>Coil Voltage            | 触点形式<br>Contact Form                | 绝缘等级<br>Insulation Class                                           |
|               | S: 塑封型<br>无: 防焊剂型<br>S: Wash tight<br>Nil: Flux Proof | 1: 1 组 1 Pole           | 05, 06, 09, 12<br>18, 24, 48VDC | A: 常开 NO<br>B: 常闭 NC<br>C: 转换 NO/NC | F: F 级<br>无: 标准型, B 级<br>F: Class F<br>Nil: Standard type, Class B |

## 触点参数 CONTACT PARAMETERS

|                                         |                    |                                    |
|-----------------------------------------|--------------------|------------------------------------|
| 触点形式 Contact Arrangement                |                    | 1a, 1b, 1c                         |
| 触点材料 Contact Material                   |                    | 银合金 Silver Alloy                   |
| 接触电阻 Contact Resistance( 初始 Initial)    |                    | ≤ 100mΩ(1A 6VDC)                   |
| 触点负载 (阻性)<br>Contact Rating (Res. load) | 标准型 Standard Type  | NO: 10A 250VAC NO: 5A 250VAC/30VDC |
|                                         | 灵敏型 Sensitive Type | NC: 3A/5A 250VAC/30VDC             |
| 最大切换电流 Max. Switching Current           |                    | 10A                                |
| 最大切换电压 Max. Switching Voltage           |                    | 250VAC/30VDC                       |
| 最大切换功率 Max. Switching Power             |                    | 2500VA/300W                        |
| 电气寿命 Electrical Life                    |                    | 1×10 <sup>5</sup> 次 OPS            |
| 机械寿命 Mechanical Life                    |                    | 1×10 <sup>6</sup> 次 OPS            |

## 性能参数 CHARACTERISTICS

|                            |                                 |                                   |
|----------------------------|---------------------------------|-----------------------------------|
| 绝缘电阻 Insulation Resistance |                                 | 1000MΩ(500VDC)                    |
| 介质耐压 Dielectric Strength   | 触点与线圈间 Between Coil & Contacts: | 4000VAC 1min                      |
|                            | 断开触点间 Between Open Contacts:    | 1000VAC 1min                      |
| 动作时间 Operate Time          |                                 | ≤ 8ms                             |
| 释放时间 Release Time          |                                 | ≤ 5ms                             |
| 环境温度 Ambient Temperature   |                                 | -40℃ ~+105℃                       |
| 振 动 Vibration              |                                 | 10Hz~55Hz 1.5mm 双振幅 (DA)          |
| 冲 击 Shock                  | 功能性的 Functional                 | 98m/s <sup>2</sup> (10G)          |
|                            | 强度 Destructive                  | 980m/s <sup>2</sup> (100G)        |
| 引出端形式 Terminal form        |                                 | 印制板式 PCB                          |
| 封装形式 Construction          |                                 | 塑封型 Wash tight<br>防焊剂型 Flux Proof |
| 重 量 Unit Weight            |                                 | 约 Approx. 7g                      |

线圈规格表 COIL DATA(23°C )

| 标准型 Standard Type            |                                |                                |                                           |                                  |                         |
|------------------------------|--------------------------------|--------------------------------|-------------------------------------------|----------------------------------|-------------------------|
| 额定电压<br>Rated Voltage<br>VDC | 动作电压<br>Operate Voltage<br>VDC | 释放电压<br>Release Voltage<br>VDC | 最大允许电压<br>Max Allowable<br>Voltage<br>VDC | 线圈电阻<br>Coil Resistance<br>Ω±10% | 线圈功耗<br>Coil Power<br>W |
| 5                            | ≤ 3.75                         | ≥ 0.25                         | 7.5                                       | 62.5                             | 约 Approx.<br>0.4        |
| 6                            | ≤ 4.5                          | ≥ 0.3                          | 9                                         | 90                               |                         |
| 9                            | ≤ 6.75                         | ≥ 0.45                         | 13.5                                      | 202.5                            |                         |
| 12                           | ≤ 9                            | ≥ 0.6                          | 18                                        | 360                              |                         |
| 18                           | ≤ 13.5                         | ≥ 0.9                          | 27                                        | 810                              |                         |
| 24                           | ≤ 18                           | ≥ 1.2                          | 36                                        | 1440                             |                         |
| 48                           | ≤ 36                           | ≥ 2.4                          | 72                                        | 5760                             |                         |

| 标准型 Standard Type            |                                |                                |                                           |                                  |                         |
|------------------------------|--------------------------------|--------------------------------|-------------------------------------------|----------------------------------|-------------------------|
| 额定电压<br>Rated Voltage<br>VDC | 动作电压<br>Operate Voltage<br>VDC | 释放电压<br>Release Voltage<br>VDC | 最大允许电压<br>Max Allowable<br>Voltage<br>VDC | 线圈电阻<br>Coil Resistance<br>Ω±10% | 线圈功耗<br>Coil Power<br>W |
| 5                            | ≤ 3.75                         | ≥ 0.25                         | 7.5                                       | 55.5                             | 约 Approx.<br>0.45       |
| 6                            | ≤ 4.5                          | ≥ 0.3                          | 9                                         | 80                               |                         |
| 9                            | ≤ 6.75                         | ≥ 0.45                         | 13.5                                      | 180                              |                         |
| 12                           | ≤ 9                            | ≥ 0.6                          | 18                                        | 320                              |                         |
| 18                           | ≤ 13.5                         | ≥ 0.9                          | 27                                        | 720                              |                         |
| 24                           | ≤ 18                           | ≥ 1.2                          | 36                                        | 1280                             |                         |
| 48                           | ≤ 36                           | ≥ 2.4                          | 72                                        | 5120                             |                         |

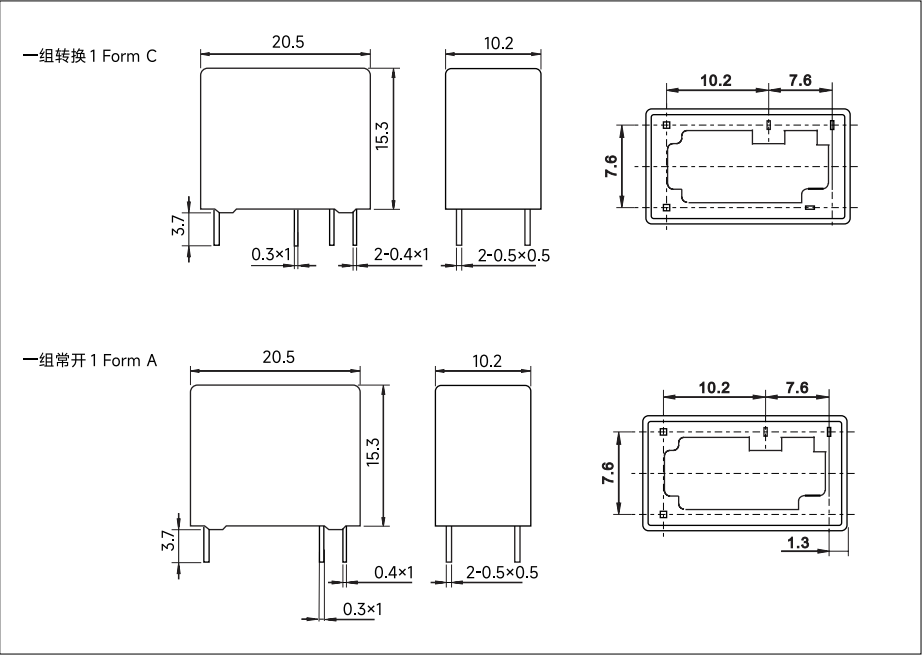
| 灵敏型 Sensitive Type           |                                |                                |                                           |                                  |                         |
|------------------------------|--------------------------------|--------------------------------|-------------------------------------------|----------------------------------|-------------------------|
| 额定电压<br>Rated Voltage<br>VDC | 动作电压<br>Operate Voltage<br>VDC | 释放电压<br>Release Voltage<br>VDC | 最大允许电压<br>Max Allowable<br>Voltage<br>VDC | 线圈电阻<br>Coil Resistance<br>Ω±10% | 线圈功耗<br>Coil Power<br>W |
| 5                            | ≤ 3.75                         | ≥ 0.25                         | 7.5                                       | 125                              | 约 Approx.<br>0.2        |
| 6                            | ≤ 4.5                          | ≥ 0.3                          | 9                                         | 180                              |                         |
| 9                            | ≤ 6.75                         | ≥ 0.45                         | 13.5                                      | 405                              |                         |
| 12                           | ≤ 9                            | ≥ 0.6                          | 18                                        | 720                              |                         |
| 18                           | ≤ 13.5                         | ≥ 0.9                          | 27                                        | 1620                             |                         |
| 24                           | ≤ 18                           | ≥ 1.2                          | 36                                        | 2800                             |                         |
| 48                           | ≤ 36                           | ≥ 2.4                          | 72                                        | 11520                            |                         |

安全认证 SAFETY STANDARD APPROVALS

|                                      |                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                       |                                                                                                                                                                                         |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 安全认证<br>Safety Standard<br>Approvals | UL                                                                                                                                                                                                                                                                                                                                                                      | TUV                                                                                                                                                                                                                                   | CQC                                                                                                                                                                                     |
| 证书编号<br>Certificate No.              | E358149                                                                                                                                                                                                                                                                                                                                                                 | R50403369                                                                                                                                                                                                                             | 18002195922                                                                                                                                                                             |
| 负载<br>Rating                         | NO(100k 105°C):<br>10A 277VAC/250VAC/125VAC<br>5A 277VAC/250VAC/30VDC<br>8A 250VAC<br>3A 250VAC/30VDC<br>TV-5 120VAC<br>1/6HP 277VAC<br><br>NO/NC (100k 105°C):<br>NO: 10A<br>277VAC/250VAC/125VAC<br>5A 277VAC/250VAC/30VDC<br>TV-5 120VAC<br>1/6HP 277VAC<br>1A 250VAC<br>3A 250VAC/30VDC<br>8A 250VAC<br>NC: 3A 250VAC/30VDC<br>5A 277VAC /250VAC/30VDC<br>1A 250VAC | NO(100k 105°C):<br>10A 250VAC<br>8A 250VAC<br>5A 250VAC/30VDC<br>3A 250VAC/30VDC<br><br>NO/NC(100k 105°C):<br>NO:10A 250VAC<br>8A 250VAC<br>5A 250VAC/30VDC<br>3A 250VAC/30VDC<br>NC: 3A 250VAC/30VDC<br>5A 250VAC/30VDC<br>1A 250VAC | NO (100k 105°C):<br>NO:10A<br>277VAC/250VAC/125VAC<br>8A 277VAC/250VAC<br>5A<br>277VAC/250VAC/30VDC<br>3A<br>277VAC/250VAC/30VDC<br>NC: 3A 250VAC/30VDC<br>5A 250VAC/30VDC<br>1A 250VAC |

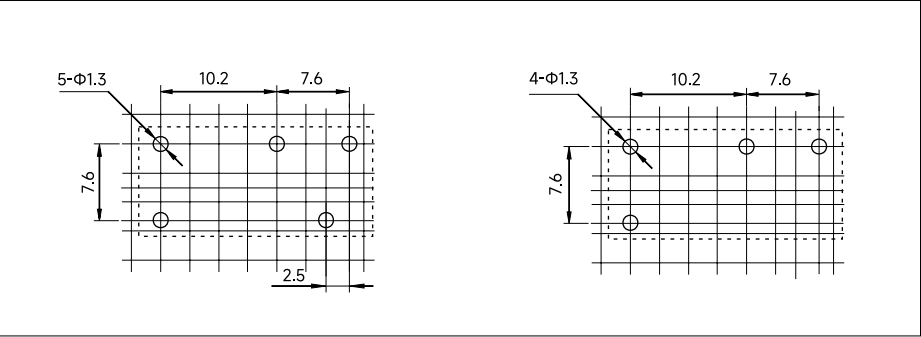
外形尺寸（底视图）OUTLINE DIMENSIONS (BOTTOM VIEW)

单位 Unit: mm



安装孔尺寸 PCB LAYOUT

单位 Unit: mm

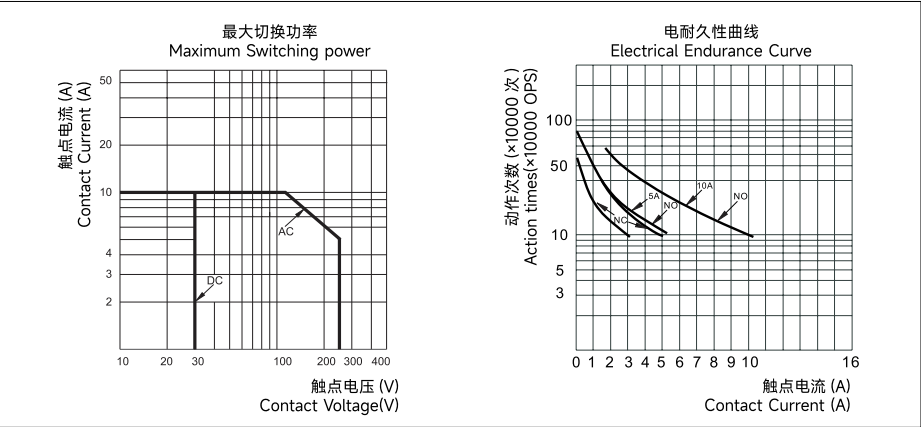


备注 Notes:

1) 产品部分外形尺寸未注尺寸公差, 当外形尺寸 $\leq 1\text{mm}$ , 公差为 $\pm 0.2\text{mm}$ ; 当外形尺寸在 $1\sim 5\text{mm}$ 之间时, 公差为 $\pm 0.3\text{mm}$ ; 当外形尺寸 $> 5\text{mm}$ 时, 公差为 $\pm 0.4\text{mm}$ 。  
In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $> 5\text{mm}$ , tolerance should be  $\pm 0.4\text{mm}$ ;

2) 安装孔尺寸中未注尺寸公差均为 $\pm 0.1\text{mm}$ 。  
The tolerance without indicating for PCB layout is always  $\pm 0.1\text{mm}$ .

性能曲线图 PERFORMANCE CURVE



声明 STATEMENT:

1. 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。  
This product specification for client's reference, if any change without notice.

2. 对美硕而言, 不可能评定继电器在每个具体应用领域的性能参数要求, 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, 如有疑问, 请与美硕联系获取更多的技术支持。但产品选型责任仅由客户负责。  
For Meishuo, cannot require evaluation of relays in each specific application of all the performance parameters, so customers should be selected according to the matching conditions for the use of specific products, if you have any questions, please contact us and get more technical support. However, product selection responsibility only by the customer.