

MLP-90

新能源应用

New Energy Applications

- 外形尺寸 L30 × W16.2 × H25.5mm
 - 双稳态磁保持继电器
 - 90A 负载电流
 - 良好抗震性能和抗冲击性能
 - 适用于新能源汽车充电桩领域
- Outline dimensions L30 × W16.2 × H25.5mm.
 - Bistable magnetic holding relay.
 - 90A load currents are optional.
 - Good vibration resistance and shock resistance.
 - Applicable to new energy vehicle charging piles.



MLP

- 90

- 1

12

- Bb

- L1

- R

(SH)

| 产品型号 Model | 负载规格 Load Type | 触点组数 Contact Groups | 线圈电压 Coil Voltage | 触点形式 Contact Form1 | 线圈类型 Coil Type | 极性类型 Polarity | 封装类型 Package Type |
|---------------|-------------------|------------------------|---|--|------------------------------------|---|--|
| 90: 90A | | 1: 1组 Group | 5VDC; 12VDC; 24VDC; 48VDC; 60VDC; 72VDC; | A: 常开 NO; B: 常闭 NC Aa: 双常开 NO+NO; Bb: 双常闭 NC+NC | L1: 单线圈 Single Coil Latching | 无 Nil: 正极性 Positive Polarity; R: 反极性 Reverse Polarity; | S: 塑封型 Sealed; SH: 密封型(封气孔) Wash Tight; |

备注 Notes:

双常开和双常闭产品, 其中一组为辅助触点。

One set of contacts for dual normally open and dual normally closed products is auxiliary contact.

触点参数 CONTACT PARAMETERS

| | |
|-------------------------------|---|
| 触点形式 Contact Arrangement | A、B、Aa、Bb (详见订货标记 See ordering information for details) |
| 触点材料 Contact Material | 银合金 Silver Alloy |
| 接触电阻 Contact Resistance | ≤ 0.8mΩ (20A 6VDC) (初始 Initial) |
| 最大切换电流 Max. Switching Current | 90A |
| 最大切换电压 Max. Switching Voltage | 48VDC |
| 最大切换功率 Max. Switching Power | 4320W |
| 电气寿命 Electrical Life1) | ≥ 6×10 ⁵ 次 Ops (23±5°C, 1s On: 9s Off, 带吹弧磁钢 Magnetic Blow-Out) |
| 机械寿命 Mechanical Life | ≥ 3×10 ⁵ 次 Ops |

备注 Notes:

电气寿命数据仅供参考, 以最终产品确认规格书为准。除非特别申明, 测量或试验的标准环境条件如下:

环境温度 23±5°C, 大气压力为 96±10% kPa, 相对湿度为 50%±25% RH.

The electrical life data is only for reference, and the final product confirmation specification shall prevail. Unless otherwise explicitly stated, the standard environment conditions for

measurement or testing are listed as follows: Ambient temperature is 23±5°C, Atmospheric pressure is 96±10% kPa, Relative humidity is 50%±25% RH.

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性能参数 CHARACTERISTICS

| | |
|-----------------------------|--|
| 绝缘电阻 Insulation Resistance | 1000MΩ (500VDC) |
| 介质耐压 Dielectric Strength | 主触点与线圈间 Between Coil & Contacts:1500VAC 1min |
| | 断开主触点间 Between Open Contacts: 1500VAC 1min |
| | 主触点与辅助触点间 Between Coil & Contacts:1500VAC 1min |
| | 断开辅助触点间 Between Coil & Contacts:1000VAC 1min |
| 浪涌电压 Surge Voltage | 10kV (1.2/50us) |
| 动作时间 Set Time | ≤ 20ms |
| 复位时间 Reset Time | ≤ 20ms |
| 环境温度 Ambient Temperature | -40°C ~+105°C |
| 振动 Vibration Resistance | 10Hz~55Hz 1.5mm 双振幅 (DA) |
| 冲击 Shock Resistance | 稳定性 Functional: 98m/s ² (10G) |
| | 强度 Destructive: 980m/s ² (100G) |
| 引出端方式 Terminal Form | 印制板式 PCB |
| 封装形式 Construction | 塑封型, 密封型 Sealed, Wash Tight |
| 重量 Unit Weight | 约 Approx. 25g |

线圈规格表 COIL DATA(23°C)

| 额定电压 Rated Voltage VDC | 动作 / 复位电压 Set/Reset Voltage VDC | 脉冲宽度 Pulse Width ms | 线圈电阻 Coil Resistance Ω±10% | 线圈功率 Coil Power W |
|------------------------------|---------------------------------------|---------------------------|----------------------------------|-------------------------|
| 5 | ≤ 3.5 | ≥ 20 | 8.3 | 约 Approx.3 |
| 12 | ≤ 8.4 | | 48 | |
| 24 | ≤ 16.8 | | 192 | |
| 48 | ≤ 33.6 | | 736 | |
| 60 | ≤ 42 | | 1200 | |
| 72 | ≤ 50.4 | | 1728 | |

安全认证 SAFETY STANDARD APPROVALS

| | | | | |
|--------------------------------|----------------------|----------------------|-----|----|
| 安全认证 Safety Standard Approvals | CCC | UL | VDE | CE |
| 证书编号 Certificate No. | 认证中 In Certification | 认证中 In Certification | | |

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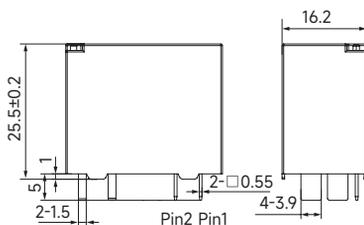
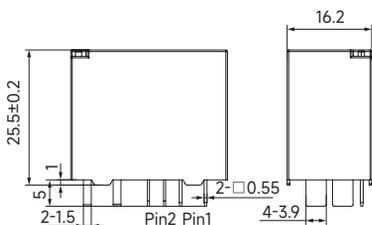
外形尺寸、接线图、安装孔尺寸

PROFILE DIMENSION, WIRING DIAGRAM AND PCB LAYOUT (单位 UNIT: mm)

外形尺寸 Profile dimension

MLP-90 □ -S-1 □ -A/B-L1:

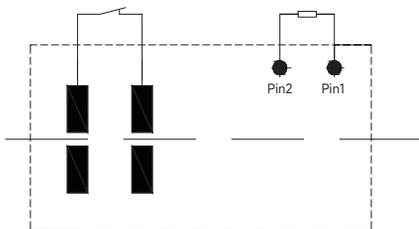
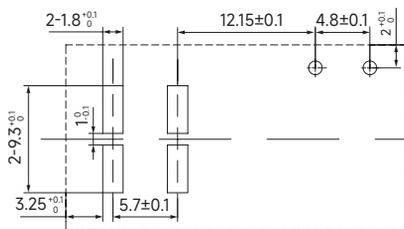
MLP-90 □ -S-1 □ -Aa/Bb-L1:



安装孔尺寸 PCB Layout (底视 Bottom View)

MLP-90 □ -S-1 □ -Aa/Bb-L1:

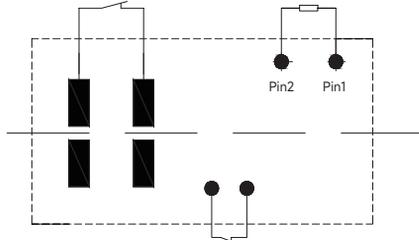
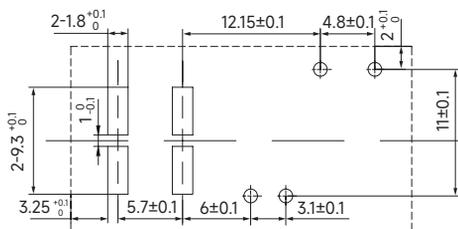
MLP-90 □ -S-1 □ -Aa/Bb-L1:



接线图 Wiring Diagram (底视 Bottom View)

MLP-90 □ -S-1 □ -B-L1:

MLP-90 □ -S-1 □ -Bb-L1:



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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 $1\text{-}5\text{mm}$ 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的均为 $\pm 0.1\text{mm}$ 。
The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

声明 STATEMENT:

1. 磁保持继电器出厂状态为动作或复归状态，但因运输或继电器安装时受到冲击等因素的影响，可能会改变状态，因而使用时（电源接入时）请根据需要重新将其设置为复归状态或动作状态；

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 "reset" or "set" status, therefore, when application(connecting the power supply), please reset the relay to "reset" or "set" status on request.

2. 为了确保磁保持继电器动作或复归，施加到线圈上的激励电压须达到额定电压，脉冲宽度须大于动作或复归时间的5倍；不要同时向动作线圈和复归线圈施加电压；不要长时间（大于1分钟）向线圈施加电压；

In order to maintain "reset" or "set" status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than "reset" or "set" time. Do not energize voltage to "reset" coil and "set" coil simultaneously. And also long energized time (more than 1min) should be avoided.

3. 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.

4. 对美硕而言，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.

本目录虽经多次校对以求正确，但仅供参考之用，一切以产品实物为准。
Although this catalogue has been proofread for many times, it is only for reference.
All items are subject to the actual products.



继电器综合样本

RELAYS COMPONENTS



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