

# MLQ-90S

## 新能源应用

### New Energy Applications

- 一组 90A 常闭触点形式
- 线圈与触点介质耐压 4KV
- UL 绝缘等级: F 级
- 满足加强绝缘, 爬电距离 6.4mm 以上
- 可提供符合 IEC61810-10 标准产品
- 可提供符合 UL508 标准产品
- 可提供满足 30A 1 万次 (载流寿命 30A-90A-30A) ,
- 电耐久性的产品 (环温 85°C)
- 外形尺寸: LxHxW: 39.0mm × 32.0mm × 16.5mm
- 90A normally closed contact configuration
- Coil and contact medium withstand voltage: 4KV
- UL insulation class: F-class
- Meets reinforced insulation requirements, creepage distance ≥ 6.4mm
- Products compliant with IEC 61810-10 available
- Products compliant with UL 508 available
- Products meeting 30A 10,000 cycles (current-carrying life 30A-90A-30A)
- electrical endurance available (ambient temperature 85°C)
- Dimensions: LxHxW 39.0mm × 32.0mm × 16.5mm



**MLQ** - **90** **SH** **1** **12** - **A** **L1** - **R** **XXX**

产品型号 Model	负载规格 Load	封装方式 Sealing Method: SH: 密封 Wash Tight S: 塑封 Sealed 无: 防尘型 Flux Proofed	触点组数 Number of Poles	线圈电压 Coil Voltage	触点形式 Contact Form	线圈类型 Coil Type	极性特点 Polarity	特性号 Special Code
90: 90A			1: 1组 1 Pole	05、06、09、12、24 VDC	A: 常开 NO B: 常闭 NC	L1: 单线圈 Single L2: 双线圈 Double	R: 反极性 Reversed Polarity 无: 标准极性 Default Polarity	XXX: 客户特殊要求 XXX: Customer Special Requirement

### 触点参数 CONTACT PARAMETERS

触点形式 Contact Form	1a、1b
触点材料 Contact Material	银合金 Silver Alloy
接触电阻 Contact Resistance	≤ 1.0mΩ (1A 6VDC)
触点负载 (阻性) Contact Rating(Res. Load)	90A 277VAC
最大切换电流 (阻性) Max. Switching Current(Res. Load)	90A
最大切换电压 (阻性) Max. Switching Voltage(Res. Load)	277VAC
最大切换功率 Max. Switching Power	24930WAC
电气寿命 Electrical Life	1×10 <sup>5</sup> 次 OPS
机械寿命 Mechanical Life	3×10 <sup>6</sup> 次 OPS

备注: 电气寿命数据仅供参考, 以最终产品确认规格书为准。

Notes: The electrical life data is only for reference, and the final product confirmation specification shall prevail.

# MLQ-90S

## 性能参数 CHARACTERISTICS

绝缘电阻 Insulation Resistance	1000MΩ Min. (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: 2000VAC 1min	
动作时间 Set Time	≤ 20ms	
复位时间 Reset Time	≤ 20ms	
冲击 Shock	稳定性 Functional	98m/s <sup>2</sup> (10G)
	强度 Destructive	980m/s <sup>2</sup> (100G)
振动 Vibration	10Hz~55Hz 1.5mm 双振幅 (DA)	
湿度 Humidity	5%-85%RH	
温度范围 Ambient Temperature	-40°C ~85°C	
引出端方式 Termination	印制板式 PCB	
封装方式 Construction	密封型 Wash Tight	
重量 Unit Weight	约 Approx.:42g	

## 线圈规格表 COIL DATA(23°C)

额定电压 Rated Voltage VDC	动作 / 复位电压 Operate/Reset Voltage VDC	脉冲宽度 Pulse Duration ms	线圈电阻 Coil Resistance Ω±10%	线圈功耗 Coil Power W	
5	≤ 3.75	≥ 50	单线圈 Single Coil Latching	16.7	
6	≤ 4.5			24	
9	≤ 6.75			54	
12	≤ 9.0			96	
24	≤ 18			384	
5	≤ 3.75		双线圈 Double Coils Latching	8.3/8.3	
6	≤ 4.5			12/12	
9	≤ 6.75			27/27	
12	≤ 9.0			48/48	
24	≤ 18			192/192	
				约 Approx. 1.5	
				约 Approx. 3.0	

## 安全认证 SAFETY STANDARD APPROVALS

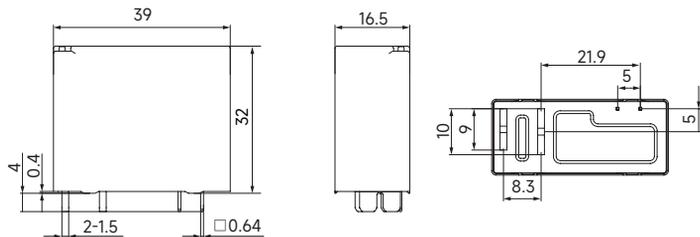
安全认证 Safety Standard Approvals	UL/CUL	TUV	CQC
证书编号 Certificate No.	E313266	R.50677761	CQC25002472614
负载 Rating	1、电寿命 Electrical Life 30A(100ms)-- 90A(800ms)-- 30A(100ms), 277/250VAC, 1 秒通 secon 9 秒断 Instant cut, 10000 次 time, 85°C 2、电寿命 Electrical Life 90A 277/250VAC, 1 秒通 secon 9 秒断 Instant cut, 500 次 time, 85°C	1、电寿命 Electrical Life 30A(100ms)-- 90A(800ms)-- 30A(100ms), 277/250VAC, 1 秒通 secon 9 秒断 Instant cut, 10000 次 time, 85°C 2、电寿命 Electrical Life 90A 277/250VAC, 1 秒通 secon 9 秒断 Instant cut, 500 次 time, 85°C	1、电寿命 Electrical Life 30A(100ms)-- 90A(800ms)-- 30A(100ms), 277/250VAC, 1 秒通 secon 9 秒断 Instant cut, 10000 次 time, 85°C 2、电寿命 Electrical Life 90A 277/250VAC, 1 秒通 secon 9 秒断 Instant cut, 500 次 time, 85°C

# MLQ-90S

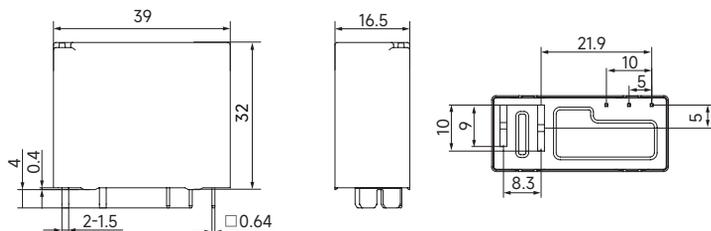
## 外形尺寸、接线图、安装孔尺寸

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

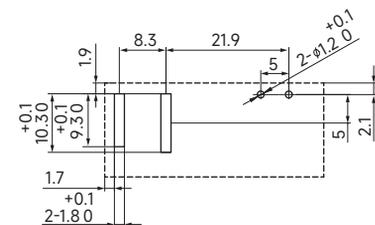
单线圈 Single Coil



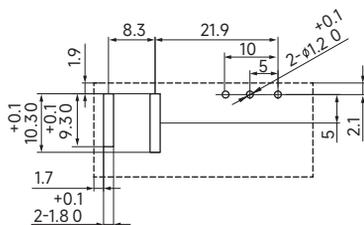
双线圈 Double Coils



单线圈 Single Coil



双线圈 Double Coils



### 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 $\pm 0.4\text{mm}$ 。

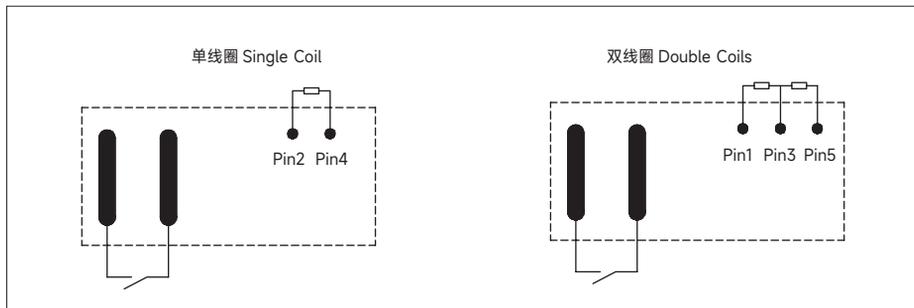
In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $> 5\text{mm}$ , tolerance should be  $\pm 0.4\text{mm}$ ;

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  $\pm 0.1\text{mm}$ .

# MLQ-90S

## 接线图 WIRING DIAGRAM



### 注意事项：

- 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；
- 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；
- 3、不带软铜绞线的磁保持继电器负载引出脚不能焊锡，不能随意扳动。
- 4、继电器通常为防尘罩结构，外按件按照客户特殊要求定制，所以推荐此产品的储存时间小于6个月，并注意仓储环境；同时为保证产品接触可靠性，在客户没有特别申明的情况下，我司将控制继电器触点为闭合状态。

### NOTICE

1. 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. 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. The terminals of relay without twisted copper wire can not be tin-soldered, can not be moved willfully, more over two terminals can't be fixed at the same time.
4. Relays used for metering measuring applications are usually made with dust proof structure, while most relays could be made specially per customer's specific requirements. No longer than 6 months' storage time is recommended for this kind of relay, and please pay attention to the storage environment. To ensure contact reliability, we will keep contact status be closed when delivery if no special required by customer.

### 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。  
MEISHUO cannot evaluate all performance parameters for each specific application. Customers should select products based on matching conditions. For technical support, please contact us. Product selection responsibility lies solely with 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



浙江美硕电气科技股份有限公司  
ZHEJIANG MEISHUO ELECTRIC TECHNOLOGY CO.,LTD.

地址：浙江省乐清市经济开发区纬十二路 158 号      Add.: No. 158, Wei 12 Road, Yueqing Economic  
Development Zone, Yueqing City, Zhejiang, China  
电话：+86-0577-62518886      62518811      Tel: +86-0577-62518811, 62518886  
传真：+86-0577-62518821      Fax: +86-0577-62518821  
Http:// www.msrelay.com      www.msrelay.cn      Http://www.msrelay.com  
E-mail: sales@msrelay.com      E-mail: sales@msrelay.com



扫一扫 关注公众号  
Follow us

© 版权所有浙江美硕电气科技股份有限公司，保留所有权利。  
Copyright Zhejiang Meishuo Electric Technology Co., Ltd. All rights reserved.

环保纸印刷  
Eco paper printing

2026.01.29

2026