



MG RELAY CO.,LTD.  
www.mgrelay.com

# MH18

金属密闭继电器  
Metal sealed relay



### 特性 Features :

- 10A切换大容量 ( 10A switching capacity )
- 密封的金属外壳，适用于危险场所 Sealed metal case for use in dangerous places
- 真空干燥和干燥的氮气，去除污染物，为触点提供清洁干燥的环境  
Vacuum drying and drying of nitrogen to remove contaminants and provide a clean dry environment for contacts
- 镀金触点型 Gold plated contact type
- 具有多种触点组合 ( With multiple contact combinations )
- 环保产品 RoHS和REACH

### 性能参数 Coil parameter

|                                     |  |               |
|-------------------------------------|--|---------------|
| 触点型式 Contact type                   | 二组转换/三组转换 ( 2C/3C/3A)  |               |
| 接触电阻 Contact Resistance             | ≤ 50mΩ   |               |
| 触点材料 Contact Material               | AgCdO银镉 / AgSnO2银锡   |               |
| 阻性负载 Resistive load                 | 10A@30VDC<br>12A@120VAC  |               |
| 马达负载 Motor load                     | /  |               |
| 最大切换电压 Max. Switching Voltage       | 30VDC, 120VAC  |               |
| 最大切换电流 Max. Switching Current       | 12A  |               |
| 最大切换功率 Max. Switching Power         | 300W, 2440VA   |               |
| 绝缘电阻 Insulation resistance          | 1000MΩ / 500VDC  |               |
| 介质耐压<br>Dielectric strength         | 同极触点间 Between open contact                                       | 1000VAC, 1Min |
|                                     | 异极触点间 Between different pole                                     | 1500VAC, 1Min |
|                                     | 线圈触点间 Between contact and coil                                   | 1500VAC, 1Min |
| 动作时间 Operate time                   | ≤ 15ms   |               |
| 释放时间 Release time                   | ≤ 15ms   |               |
| 冲击稳定性 Stability of shock resistance | 98m/s <sup>2</sup>   |               |
| 冲击强度 Shock strength                 | 980m/s <sup>2</sup>  |               |
| 环境温度 Ambient temperature            | -45°C ~ +50°C (AC)<br>-45°C ~ +70°C (DC(无结冰、无结露 No ICE, no dew ) |               |
| 环境湿度 Ambient Humidity               | 5%RH ~ 85%RH   |               |
| 振动 Vibration                        | 10Hz ~ 55Hz, Double amplitude 1.0mm                              |               |
| 机械寿命 Mechanical life                | 500,000 ops  |               |
| 电气寿命 Electrical life                | 10,000 ops   |               |

|                                       |   |
|---------------------------------------|---|
| 额定线圈功率 Rated coil power               | 直流 ( DC ) 1.3W 交流 (AC)2.75VA  |
| 重量 Weight                             | ≤130g   |
| 体积Volume                              | 36.1mm×40.9mm ×52.2mm   |
| 配套插座或连接器 Matching socket or connector | 2P:PF-083A,PF-083AE,PF-08AN<br>3P:PF-113A,PF-113AE,PF-11AN  |
| 产品应用领域Product application area        | 机床、工业控制设备、电梯电控设备、安防控制领域、电源控制等<br>Machine tool、Industrial Control Equipment、Elevator control equipment、Field of security control、Power Control   |
| 产品应用场合Applications                    | 电源、焊接设备、自动贩卖机、通信设备、防灾设备、测量仪器、娱乐机器<br>、Power supply、Welding equipment、Vending machine、Communication equipment、Disaster Prevention equipment、Measuring Instrument、Entertainment Machine |
| 同行参考Peer Reference                    | 泰科TYCO:KR11/14<br>施耐德Schneider : 750H系列(750H series)  |

### 线圈规格表 Coil Versions (环境温度+ 23℃ The ambient temperature is 23℃)

| 额定电压 (V)<br>Rated oltage |               | 工作电压 (V)<br>Operate voltage | 释放电压 (V)<br>Release voltage | 最大电压(V)<br>MAX.voltage | 线圈电阻(Ω)<br>Coil sistance |
|--------------------------|---------------|-----------------------------|-----------------------------|------------------------|--------------------------|
| DC                       | 6VDC          | ≤80%                        | ≥10%                        | 110%                   | 32±10%                   |
|                          | 12VDC         |                             |                             |                        | 120±10%                  |
|                          | 24VDC         |                             |                             |                        | 472±10%                  |
|                          | 48VDC         |                             |                             |                        | 1800±10%                 |
|                          | 110VDC        |                             |                             |                        | 10000±10%                |
|                          | 120VDC        |                             |                             |                        | 10000±10%                |
| AC                       | 6VAC          | ≤85%                        | ≥30%                        |                        | 4.2±10%                  |
|                          | 12VAC         |                             |                             |                        | 18±10%                   |
|                          | 24VAC         |                             |                             |                        | 72±10%                   |
|                          | 48VAC         |                             |                             |                        | 280±10%                  |
|                          | 110VAC        |                             |                             |                        | 1500±10%                 |
|                          | 120VAC        |                             |                             |                        | 1700±10%                 |
|                          | 220VAC/230VAC |                             |                             | 6000±10%               |                          |
|                          | 240VAC        |                             |                             | 7200±10%               |                          |

备注：最大电压是指继电器在短时间内能够承受的最大电压值。

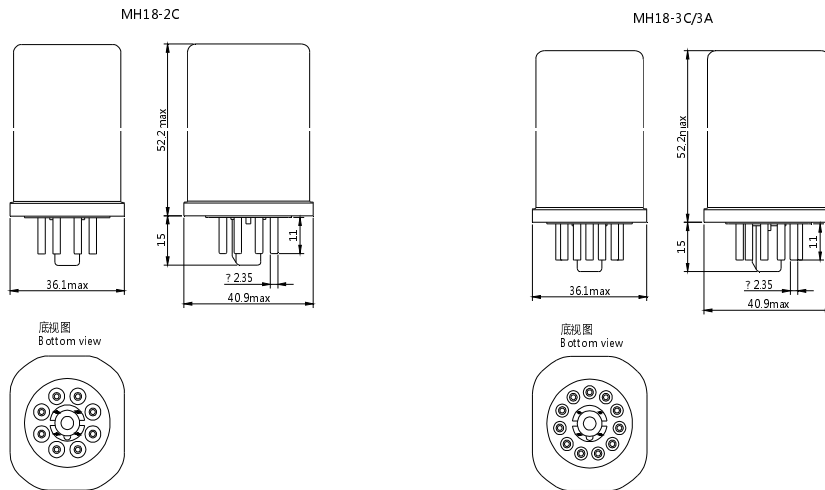
Note: The maximum voltage is the maximum that the relay can withstand in a short period of time.

## 订货标记示例 Order mark example

|   |             |            |           |           |           |                |
|---|-------------|------------|-----------|-----------|-----------|----------------|
| <b>编号说明</b>   | <b>MH18</b> | <b>-2C</b> | <b>()</b> | <b>()</b> | <b>-C</b> | <b>-120VAC</b> |
| 系列Series<br>MH18  |             |            |           |           |           |                |
| 触点形式Contact form<br>2C:DPDT 3C:DPDT 3A:APDT                             |             |            |           |           |           |                |
| 触点负载Contact rating<br>空白Blank: 10A 12:12A                               |             |            |           |           |           |                |
| 引出端形式Terminal style<br>空白Blank: 八进制插头8PIN/11PIN Octal plug 8PIN / 11PIN |             |            |           |           |           |                |
| 外壳样式Cover style<br>C:标准型普通外壳Standard case                               |             |            |           |           |           |                |
| 线圈电压Coil voltage<br>A: AC交流 DC: DC直流                                    |             |            |           |           |           |                |

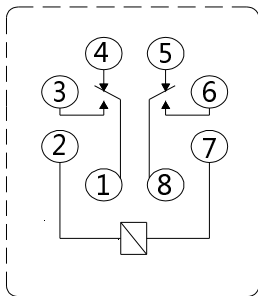
## 外形尺寸图 Dimension drawing

### 标准型 (Standard type)

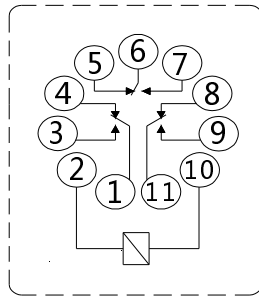


## 内部接线图 Wiring diagrams

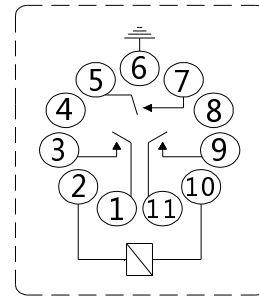
直流、交流线圈  
DC、AC coil  
MH18-2C



直流、交流线圈  
DC、AC coil  
MH18-3C






直流、交流线圈  
DC、AC coil  
MH18-3A



注: 1, 对于DC规格, 请在确认线圈级性后正确接线。

For DC specifications, please connect correctly after confirming coil-level performance.

## 继电器配套插座:Relay socket (另售Resell)

| 插座型號<br>Socket type | 連接繼電器型號<br>Type of connecting relay | 型狀 SHAPE  | 安裝方式<br>Installation mode | 材質<br>Material Quality |
|---------------------|-------------------------------------|---|---------------------------|------------------------|
| PF-083A             | MH18                                |  | 1. 兩側螺絲孔安裝; 2. 導軌安裝       | PC                     |
| PF-083B             | MH18                                |   | 1. 兩側螺絲孔安裝; 2. 導軌安裝       | PA                     |
| PF-083AE            | MH18                                |  | 1. 兩側螺絲孔安裝; 2. 導軌安裝       | PC                     |
| PF-083AF            | MH18                                |   | 1. 兩側螺絲孔安裝; 2. 導軌安裝       | PA                     |
| PF-08AN             | MH18                                |  | 1. 兩側螺絲孔安裝; 2. 導軌安裝       | PA                     |

## 插座性能Socket performance

| 插座型號<br>Socket type | 負載電流Load current | 負載電壓<br>Load voltage | 介質耐壓Dielectric strength            |                      | 外連接導線External connecting conductor |                 | 螺釘扭矩Screw Torque | 防護等級<br>Protection level |
|---------------------|------------------|----------------------|------------------------------------|----------------------|------------------------------------|-----------------|------------------|--------------------------|
|                     |                  |                      | 線圈及觸點間<br>Between Coil and contact | 觸點間<br>Contact Point | AWG                                | mm <sup>2</sup> |                  |                          |
|                     |                  |                      | V/S                                | V/S                  |                                    |                 |                  |                          |
| PF-083A             | 10A              | 240VAC               | 2000                               | 2000                 | 20-16                              | 0.5-1.5         | 0.8Nm            | /                        |
| PF-083B             | 16A              | 277VAC               | 2000                               | 2000                 | 20-16                              | 0.5-1.5         | 0.8Nm            | /                        |
| PF-083AE            | 10A              | 240VAC               | 2000                               | 2000                 | 20-16                              | 0.5-1.5         | 0.7Nm            | IP20防觸摸                  |
| PF-083AF            | 16A              | 277VAC               | 2000                               | 2000                 | 20-16                              | 0.5-1.5         | 0.7Nm            | IP20防觸摸                  |
| PF-08AN             | 16A              | 277VAC               | 2000                               | 2000                 | 20-16                              | 0.5-1.5         | 0.7Nm            | IP20防觸摸                  |

## 注意事项Points to note

### 关于安裝: About installation

无安裝方向限制, 請尽量避免接点移动方向易受振动、冲击的安裝方式

No installation direction limit, please try to avoid contact moving direction susceptible to vibration, impact of the installation

### 关于继电器的更換: ON REPLACEMENT OF RELAYS:

因维护等原因更換继电器时, 为防止继电器的误动作及触电事故, 请务必切断负载侧和继电器线圈的电源。

When changing the relay for maintenance and other reasons, please cut off the power supply of the load side and the relay coil in order to prevent misoperation and electric shock of the relay.