# NRL709HC-100A 磁保持继电器/Magnetic Latching Relay


## ◆ 特点 Characteristic

> 体积小，100A触点切换能力；
> 线圈功耗小、温升极低；
> 触点接触电阻小，电接触稳定性能好；
> 抗冲击、抗振动能力强；
> 外形尺寸：60.8×36×21mm；
> 符合IEC62055-31 UC3标准;
> Small size, 100A switching capability.
> Low coil consumption, ultra-low temperature rise.
> Low contact resistance.
> Strong anti-shock and anti-vibration capability.
> Outline size: 60.8×36×21mm.
> IEC62055-31 UC3 Compliant.

## ◆ 订货标记 Ordering Information

NRL ① - 709HC ② - 12 ③ - S ④ - 100 ⑤

| | |
|---|---|
| ① | 磁保持继电器代号 Latching Relay |
| ② | 产品型号 Part Number |
| ③ | 线圈电压 Coil Voltage |
| ④ | D 表示双线圈，S 表示单线圈<br>D= Double Coil; S= Single Coil |
| ⑤ | 100=100A |

## ◆ 性能 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 | 2000VAC 1min |
| | 触点组间耐压 Pole&Pole | 4000VAC 1min |
| 闭合时间 Operate Time | | 20msec. Max. |
| 断开时间 Release Time | | 20msec. Max. |
| 抗冲击 Shock resistance | 稳定性 Functional | 98m/S$^2$ |
| | 强度 Destructive | 980m/S$^2$ |
| 振动 Vibration resistance | | 10~55Hz 1.5mm |
| 湿度 Humidity | | 5%-85%RH |
| 温度范围 Ambient temperature | | -40~+70℃ |
| 引出端方式 Temination | | 快连接式 Fast connection |
| 重量 Unit weight | | 90g |
| 封装形式 Constrution | | 防尘罩 Dust protected |

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## ◆ 触点参数 Contact Data

| | |
|---|---|
| 触点形式 Contact form | 2A/2B |
| 触点材料 Contact material | AgSnO2 |
| 接触电阻 Contact resistance (1A 6VDC)<br>测试点离外壳5mm处（Test point within 5mm distance from the casing ) | Max: 0.8 mΩ |
| 触点负载 Contact Rating | 100A 250VAC |
| 最大转换电流 Max. Switching Current | 100A |
| 最大转换电压 Max. Switching Voltage | 277VAC |
| 最大转换功率 Max. Switching Power | 25000VA |
| 机械寿命 Mechanical life | $1\times10^5$ |
| 电气寿命 Electrical life (阻性负载 Resistive) | $1\times10^4$ |

## ◆ 线圈 Coil

| | |
|---|---|
| 线圈功耗 Coil power | 单线圈 : 4.0W 双线圈 :8.0W<br>Single coil: 4.0W Double coil: 8.0W |

## ◆ 线圈参数 Coil Data

| 额定电压 (VDC)<br>Rated Voltage | 动作电压 (VDC)<br>Pick-up voltage | 脉冲宽度 (ms)<br>Pulse Duration | 线圈电阻 (Ω)<br>Coil Resistance |
|---|---|---|---|
| 单线圈 Single coil | | | |
| 9 | ≤ 6.8 | ≥ 50 | 20±10% |
| 12 | ≤ 9 | ≥ 50 | 36±10% |
| 24 | ≤ 18 | ≥ 50 | 144±10% |
| 48 | ≤ 36 | ≥ 50 | 576±10% |
| 双线圈 Double coil | | | |
| 9 | ≤ 6.8 | ≥ 50 | 2×10±10% |
| 12 | ≤ 9 | ≥ 50 | 2×18±10% |
| 24 | ≤ 18 | ≥ 50 | 2×72±10% |
| 48 | ≤ 36 | ≥ 50 | 2×288±10% |

备注：如需其它额定电压，可特殊定货。
Note: Special ordering for other coil voltage.

## ◆ 典型应用 Typical Application

1) 主要用于 IC 卡预付费电表，集中抄表系统；
Prepayment Energy Meter; AMR System;
2) 也用于复合开关、家电和自动控制装置。
Compound Switch; Automatic Control System.

## 电耐久性 ELECTRICAL ENDURANCE

| UC 等级 Class | 电压 Voltage（Uc） | 电流 Current（Ic） | 功率因素 Power Factor | 接通/断开时间 Close Open time（s） | 电耐久性 Electricalendurance（ops） | |
|---|---|---|---|---|---|---|
| UC3 | 230VAC | 80A | COS∅=1 | 10:20 | 5000 | 共 Total 10000 |
| | | | COS∅=0.5 | | 5000 | |

备 注：1）电耐久性符合IEC62052-31试验要求，阻性试验后接着做感性试验。

Notes：1）Electrical endurance meet IEC62052-31 test requirement，do the inductive load test after the resistive load test。

2）线圈额定电压驱动。

2）The line is driven by rated voltage

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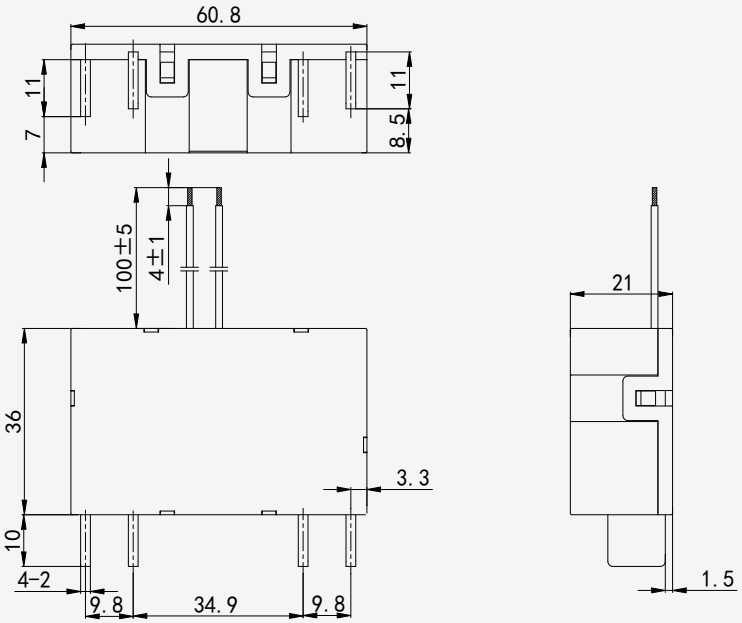
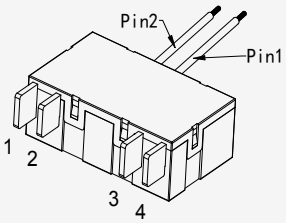
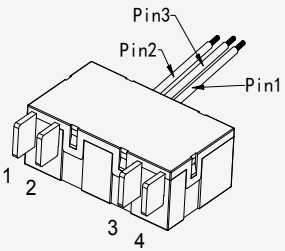
◆ 尺寸图 Dimensions(mm)/ 接线图 Circuit Diagram




单线圈 Single coil




双线圈 Double coil