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|---------|------------|
| PS No.  | PS-011-014 |
| Version | 01         |
| Date    | 2015-8-28  |

# 继电器规格书 RELAY SPECIFICATION

品名/Product Description RE-105DM1  
零件编号/Part Number  
客户名/Customer

## 客户批准/Customer Approval

|                   |
|-------------------|
| 盖章处/STAMPING AREA |
|                   |

| 发行批准 / Issued by |     |     |
|------------------|-----|-----|
| PD               | SM  | R&D |
| 许忠               | 余明亮 | 冯旭强 |



| 继电器规格书<br>Relay Specification | 型号<br>Type            | RE-105DM1                            |                               | 产品编号<br>Part Number        |
|-------------------------------|-----------------------|--------------------------------------|-------------------------------|----------------------------|
| 1 <u>零件清单/PARTS LIST</u>      |                       |                                      |                               |                            |
| No.                           | 零件名<br>Part           | 材质<br>MATERIAL                       | 型号/处理方式<br>TYPE/TREATMENT     | UL FILE No.<br>FLAME CLASS |
| 1                             | 骨架<br>Bobbin          | PBT                                  | 5010GN6-30M8X<br>5010GN6-30M8 | E53664<br>E53664           |
| 2                             | 外壳<br>Case            | PBT                                  | RG301<br>5010GN6-30M8         | E171666<br>E53664          |
| 3                             | 基座<br>Base            | PBT                                  | RG301<br>5010GN6-30M8         | E171666<br>E53664          |
| 4                             | 铁芯<br>Core            | 铁<br>Steel                           | 镀镍<br>Nickel Plated           |                            |
| 5                             | 轭铁<br>Yoke            | 铁<br>Steel                           | 镀镍<br>Nickel Plated           |                            |
| 6                             | 衔铁<br>Armature        | 铁<br>Steel                           | 镀镍<br>Nickel Plated           |                            |
| 7                             | 挂钩<br>Hinge           | 不锈钢<br>Stainless Steel               |                               |                            |
| 8                             | M接点<br>M Contact      | 银合金<br>Ag Alloy                      |                               |                            |
| 9                             | 可动接点<br>C Contact     | 银合金<br>Ag Alloy                      |                               |                            |
| 10                            | M端子<br>M Terminal     | 铜合金<br>Cu Alloy                      |                               |                            |
| 11                            | C端子<br>C Terminal     | 铜合金<br>Cu Alloy                      |                               |                            |
| 12                            | 可动弹片<br>S.C.C         | 铜合金<br>Cu Alloy                      |                               |                            |
| 13                            | 线圈端子<br>Coil Terminal | 铜包钢<br>Cu covered Steel              | 镀锡<br>Solder Coated           |                            |
| 14                            | 线材<br>Wire            | 聚氨脂漆包圆铜线<br>Polyurethane copper wire | 3UEW 155(F Class)             | E164502<br>E234867         |
| 15                            | 胶水<br>Sealing Resin   | 环氧树脂<br>Epoxy                        |                               |                            |
|                               |                       |                                      |                               |                            |

PS No.:




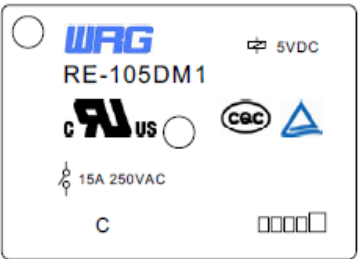
PS-011-014

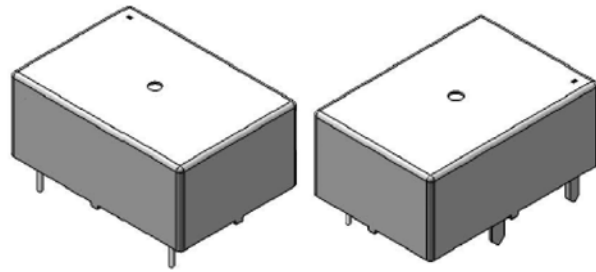
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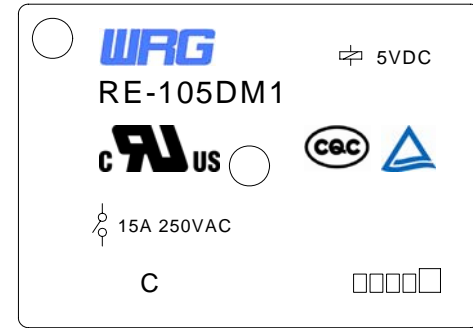
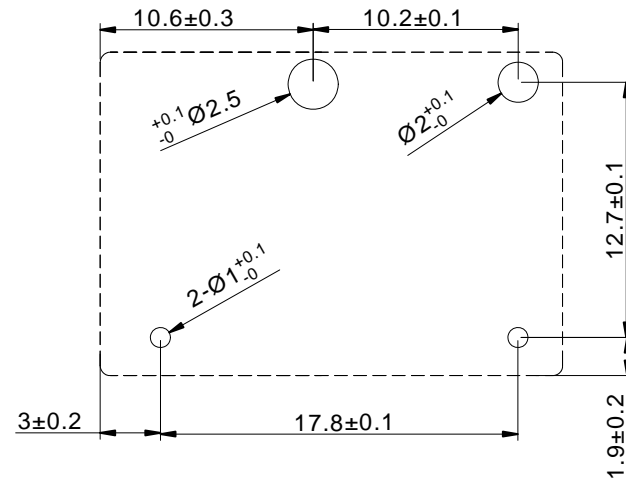
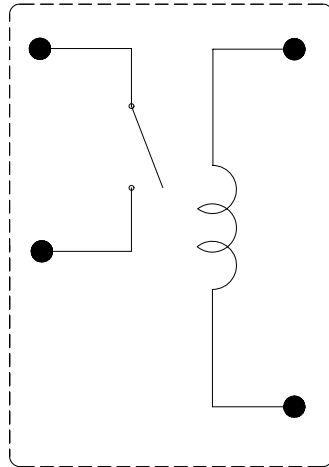
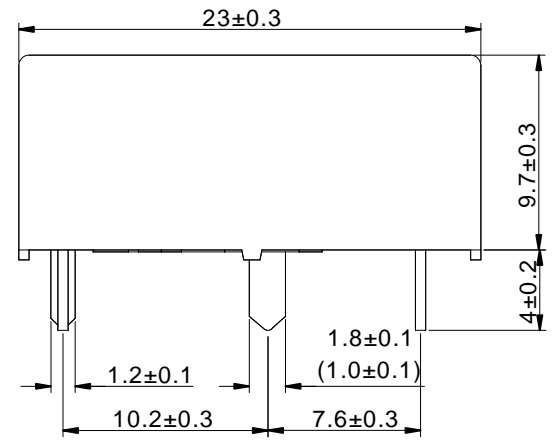
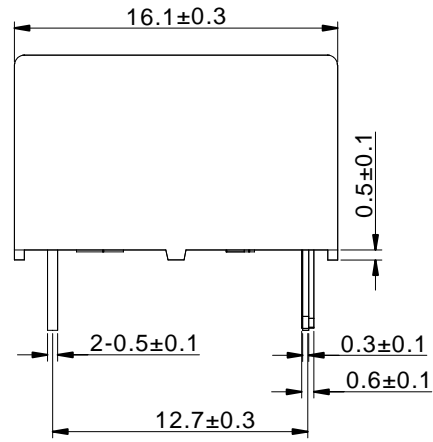
| 继电器规格书<br>Relay Specification   | 型号<br>Type   | RE-105DM1   | 产品编号<br>Part Number | PS No.:                          |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
|---|--|---|---------------------|----------------------------------|---|-----------------------------|-----------------------------|-----|-------------------------|-------------------------------|-----|---|-------------------------------|----|---|-------------------------------|------|------------------------------------|-------------------------------|------|------------------------------------|-----------------------------|------|---|-------------------------------------|-------------------|------------------------------|--|----------------------------------|--|----------------------------|--|----------------------------|---|-------------------------------------|---|------------|
| <p>2. <u>性能/SPECIFICATIONS</u></p> <p>2.1 <u>驱动部分/COIL SPECIFICATIONS</u></p> <table border="0"> <tr> <td>2.1.1 额定电压<br/>Rated Coil Voltage</td> <td>5</td> <td>VDC (在20°C时)<br/>VDC at 20°C</td> </tr> <tr> <td>2.1.2 额定功率<br/>Nominal Power</td> <td>0.2</td> <td>W (在20°C时)<br/>W at 20°C</td> </tr> <tr> <td>2.1.3 线圈电阻<br/>Coil Resistance</td> <td>125</td> <td><math>\Omega \pm 10\%</math> (在20°C时)<br/><math>\Omega \pm 10\%</math> (at 20°C)</td> </tr> <tr> <td>2.1.4 额定电流<br/>Nominal Current</td> <td>40</td> <td>mA<math>\pm 10\%</math> (在20°C时)<br/>mA<math>\pm 10\%</math> (at 20°C)</td> </tr> <tr> <td>2.1.5 吸合电压<br/>Operate Voltage</td> <td>3.75</td> <td>VDC以下 (在20°C时)<br/>VDC Max. at 20°C</td> </tr> <tr> <td>2.1.6 释放电压<br/>Release Voltage</td> <td>0.25</td> <td>VDC以上 (在20°C时)<br/>VDC Min. at 20°C</td> </tr> <tr> <td>2.1.7 最大连续施加电压<br/>Max Power</td> <td>7.75</td> <td>VDC Max. 155%额定电压<br/>VDC Max. 155% of Nominal</td> </tr> </table> <p>2.2 <u>开关部/CONTACT SPECIFICATION</u></p> <table border="0"> <tr> <td>2.2.1 开关类型<br/>Contact Configuration</td> <td>单刀常开型<br/>1 Form A</td> </tr> <tr> <td>2.2.2 接点规格<br/>Contact Rating</td> <td>15 A 250VAC (阻性负载)<br/>15 A @250VAC (Resistive)</td> </tr> <tr> <td>2.2.3 接触电阻<br/>Contact Resistance</td> <td>100 m<math>\Omega</math> 以下, (初期值, DC 6V/1A条件下)<br/>100 m<math>\Omega</math> Max. @ Initiate, DC 6V/1A<br/>500 m<math>\Omega</math> 以下, (寿命试验后, DC 6V/1A条件下)<br/>500 m<math>\Omega</math> Max. @ After Life, DC 6V/1A</td> </tr> <tr> <td>2.2.4 吸合时间<br/>Operate Time</td> <td>20 ms 以下 (额定电压下)<br/>20 ms Max. @ Rated Voltage</td> </tr> <tr> <td>2.2.5 释放时间<br/>Release Time</td> <td>10 ms 以下 (施加额定电压后断开时)<br/>10 ms Max. @ Rated Voltage</td> </tr> <tr> <td>2.2.6 最大动作频率<br/>Max. Switching Rate</td> <td>300 次/分 (无负载)<br/>300 ops./min. (no load).<br/>6 次/分 (额定负载)<br/>6 ops./min. (Rated load)</td> </tr> </table> |  |   |                     | 2.1.1 额定电压<br>Rated Coil Voltage | 5 | VDC (在20°C时)<br>VDC at 20°C | 2.1.2 额定功率<br>Nominal Power | 0.2 | W (在20°C时)<br>W at 20°C | 2.1.3 线圈电阻<br>Coil Resistance | 125 | $\Omega \pm 10\%$ (在20°C时)<br>$\Omega \pm 10\%$ (at 20°C) | 2.1.4 额定电流<br>Nominal Current | 40 | mA $\pm 10\%$ (在20°C时)<br>mA $\pm 10\%$ (at 20°C) | 2.1.5 吸合电压<br>Operate Voltage | 3.75 | VDC以下 (在20°C时)<br>VDC Max. at 20°C | 2.1.6 释放电压<br>Release Voltage | 0.25 | VDC以上 (在20°C时)<br>VDC Min. at 20°C | 2.1.7 最大连续施加电压<br>Max Power | 7.75 | VDC Max. 155%额定电压<br>VDC Max. 155% of Nominal | 2.2.1 开关类型<br>Contact Configuration | 单刀常开型<br>1 Form A | 2.2.2 接点规格<br>Contact Rating | 15 A 250VAC (阻性负载)<br>15 A @250VAC (Resistive) | 2.2.3 接触电阻<br>Contact Resistance | 100 m $\Omega$ 以下, (初期值, DC 6V/1A条件下)<br>100 m $\Omega$ Max. @ Initiate, DC 6V/1A<br>500 m $\Omega$ 以下, (寿命试验后, DC 6V/1A条件下)<br>500 m $\Omega$ Max. @ After Life, DC 6V/1A | 2.2.4 吸合时间<br>Operate Time | 20 ms 以下 (额定电压下)<br>20 ms Max. @ Rated Voltage | 2.2.5 释放时间<br>Release Time | 10 ms 以下 (施加额定电压后断开时)<br>10 ms Max. @ Rated Voltage | 2.2.6 最大动作频率<br>Max. Switching Rate | 300 次/分 (无负载)<br>300 ops./min. (no load).<br>6 次/分 (额定负载)<br>6 ops./min. (Rated load) | PS-011-014 |
| 2.1.1 额定电压<br>Rated Coil Voltage  | 5  | VDC (在20°C时)<br>VDC at 20°C                               |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.1.2 额定功率<br>Nominal Power   | 0.2  | W (在20°C时)<br>W at 20°C                                   |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.1.3 线圈电阻<br>Coil Resistance   | 125  | $\Omega \pm 10\%$ (在20°C时)<br>$\Omega \pm 10\%$ (at 20°C) |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.1.4 额定电流<br>Nominal Current   | 40   | mA $\pm 10\%$ (在20°C时)<br>mA $\pm 10\%$ (at 20°C)         |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.1.5 吸合电压<br>Operate Voltage   | 3.75   | VDC以下 (在20°C时)<br>VDC Max. at 20°C                        |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.1.6 释放电压<br>Release Voltage   | 0.25   | VDC以上 (在20°C时)<br>VDC Min. at 20°C                        |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.1.7 最大连续施加电压<br>Max Power   | 7.75   | VDC Max. 155%额定电压<br>VDC Max. 155% of Nominal             |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.2.1 开关类型<br>Contact Configuration   | 单刀常开型<br>1 Form A  |   |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.2.2 接点规格<br>Contact Rating  | 15 A 250VAC (阻性负载)<br>15 A @250VAC (Resistive)   |   |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.2.3 接触电阻<br>Contact Resistance  | 100 m $\Omega$ 以下, (初期值, DC 6V/1A条件下)<br>100 m $\Omega$ Max. @ Initiate, DC 6V/1A<br>500 m $\Omega$ 以下, (寿命试验后, DC 6V/1A条件下)<br>500 m $\Omega$ Max. @ After Life, DC 6V/1A |   |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.2.4 吸合时间<br>Operate Time  | 20 ms 以下 (额定电压下)<br>20 ms Max. @ Rated Voltage   |   |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.2.5 释放时间<br>Release Time  | 10 ms 以下 (施加额定电压后断开时)<br>10 ms Max. @ Rated Voltage  |   |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
| 2.2.6 最大动作频率<br>Max. Switching Rate   | 300 次/分 (无负载)<br>300 ops./min. (no load).<br>6 次/分 (额定负载)<br>6 ops./min. (Rated load)  |   |                     |                                  |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
|   |  |   |                     | Ver                              |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |
|   |  |   |                     | 01                               |   |                             |                             |     |                         |                               |     |   |                               |    |   |                               |      |                                    |                               |      |                                    |                             |      |   |                                     |                   |                              |  |                                  |  |                            |  |                            |   |                                     |   |            |

| 继电器规格书<br>Relay Specification            | 型号<br>Type  | RE-105DM1  | 产品编号<br>Part Number  | PS No.:    |
|--|---|--|--|------------|
|  |   |  |  |            |
| 2.3 <u>特性/GENERAL SPECIFICATION</u>      |   |  |  |            |
| 2.3.1 绝缘电阻<br>Insulation Resistance      | 1000 MΩ以上 (500VDC)<br>1000 MΩ Min@500VDC  |  |  | PS-011-014 |
| 2.3.2 介质耐压<br>Dielectric Strength        | 1000 VAC/分钟(接点间)<br>2000 VAC/分钟(线圈/接点间)   |  | 1000 VAC@50/60Hz 1 min.(Between Open Contacts)<br>2000 VAC@50/60Hz 1 min.(Between Coil and Contacts) | Ver        |
| 2.3.3 电气寿命<br>Electrical Life            | 1X10 <sup>5</sup> 次以上 (15A AC250V额定阻性负载条件下)<br>1X10 <sup>5</sup> Cycle Min. @15A AC250V Rate Load   |  |  | 01         |
| 2.3.4 机械寿命<br>Mechanical Life            | 1X10 <sup>6</sup> 次以上 (无负载)<br>1X10 <sup>6</sup> Cycle Min. @no load  |  |  |            |
| 2.3.5 使用环境温度<br>Temperature              | -40~105 °C (无凝结时)<br>-40~105 °C @no condensation  |  |  |            |
| 2.3.6 使用环境湿度<br>Humidity                 | 20~85% RH (无凝结时)<br>20~85% RH @no condensation  |  |  |            |
| 2.3.7 抗振动<br>Vibration                   | 耐久<br>Mechanical<br>误动作<br>Operational  | 10~55 Hz, 双振幅 1.5mm<br>10 to 55 Hz, 1.5mm double amplitude<br>10~55 Hz, 双振幅1.5mm<br>10 to 55 Hz, 1.5mm double amplitude  |  |            |
| 2.3.8 抗冲击<br>Shock                       | 耐久<br>Mechanical<br>误动作<br>Operational  | 980 m/s <sup>2</sup> Min (约100G)<br>980 m/s <sup>2</sup> Min (100G approximately)<br>98 m/s <sup>2</sup> Min (约10G)<br>98 m/s <sup>2</sup> Min (10G approximately) |  |            |
| 2.3.9 重量<br>Weight                       | 9 克<br>9 g  |  |  |            |
| 2.3.10 焊锡条件<br>Solder ability            | 5s @ 260°C (波峰焊)<br>5s @ 260°C (wave soldering)   |  |  |            |
| 2.4 <u>端子性能/TERMINAL CHARACTERSITICS</u> |   |  |  |            |
| 2.4.1 端子强度<br>Terminals strength         | 5牛/10秒, 任意方向静态压力, 无异常, 但端子弯曲可以<br>5N 10s, There shall be no abnormalities.<br>(The curving of the terminal shall be acceptable)             |  |  |            |
| 2.4.2 可焊性<br>Terminal solderbility       | 260±5°C 5s, 端子头部3mm部分90%以上的面积有锡覆盖<br>(无铅焊锡)<br>260±5°C 5s, In Case of lead lead free solder,<br>90% of the dipped portion shall be solderd. |  |  |            |
| 2.4.3 耐热性<br>Soldring Heat Resistance    | 10s 260°C或3s 350°C,端子头部3mm浸入锡中, 无异常发生<br>10s @ 260°C or 3s @ 350°C ,There shall be no abnormalities.<br>(wave soldering)                    |  |  |            |

|  |            |           |                     |            |
|--|------------|-----------|---------------------|------------|
| 继电器规格书<br>Relay Specification  | 型号<br>TYPE | RE-105DM1 | 产品编号<br>Part Number | PS No.:    |
| <p>2.5 <u>安全规格/SAFETY REQUIREMENTS</u></p> <p>2.5.1 UL规格认定 (UL &amp; C-UL)<br/>UL (UL &amp; C-UL)</p> <p>档案号:<br/>File No.:</p> <p>E345228</p>  <p>2.5.2 CQC标志认证<br/>CQC</p> <p>证书编号:<br/>Certificate No.:</p> <p>CQC12002086474</p>  <p>2.5.3 TUV规格认定<br/>TUV</p> <p>证书号<br/>Certificate No.</p> <p>R 50250866</p>  |            |           |                     | PS-011-014 |
| <p>3. <u>捺印图/Mark Layout</u></p>  <p>注:<br/>仅供参考.<br/>For reference only.</p>   |            |           |                     | Ver<br>01  |
| <p>结束/&lt;END&gt;</p>  |            |           |                     |            |



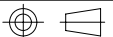
3:1



|            |    |    |     |
|------------|----|----|-----|
| 首版制图日期     | 承认 | 检图 | 制图  |
| 2015.08.28 |    |    | 刘勇强 |
| 作图日期       |    |    |     |
| 2015.08.28 |    |    |     |

|     |      |          |
|-----|------|----------|
| 型号  | 版本   | 名称       |
| RE  | V1.0 | RE 外观图   |
| 比例  | 页数   | 图号       |
| 4:1 | 1/1  | U-011-04 |

| 外观图尺寸公差 (mm) |      | 外观图端子脚公差 (mm)<br>(端子脚预焊前尺寸) | PCB板孔距/孔径公差 (mm) |      |
|--------------|------|-----------------------------|------------------|------|
| <1           | ±0.1 | ±0.1                        | 孔距               | 孔径   |
| 1-5          | ±0.2 |                             | ±0.1             | +0.1 |
| >5           | ±0.3 |                             |                  |      |



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