

**Power PCB Relay RPII/1**

- 1 pole 8/12/16A, 1 form C (CO) or 1 form A (NO) contact
- 4kV/8mm coil-contact
- Pinning 3.5 or 5mm (8/12A) and 5mm (16A)
- RoHS compliant (Directive 2002/95/EC)



Typical applications  
Power supplies, domestic appliances, heating control, installation

**Approvals**

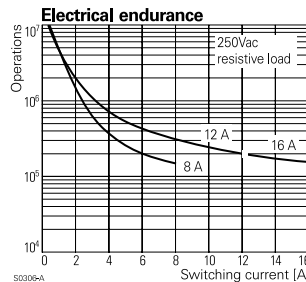
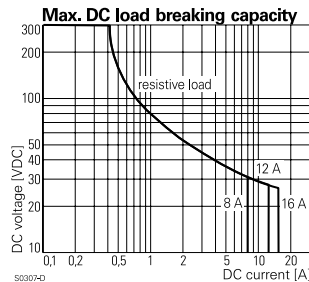
VDE REG.-Nr. C894, cULus E214024  
Technical data of approved types on request

| Contact Data                              | 8A                             | 12A    | 16A    |
|---|--------------------------------|--------|--------|
| Contact arrangement                       | 1 form C (CO) or 1 form A (NO) |        |        |
| Rated voltage                             | 250VAC                         |        |        |
| Max. switching voltage                    | 400VAC                         |        |        |
| Rated current                             | 8A                             | 12A    | 16A    |
| Limiting making current                   | 16A                            | 20A    | 25A    |
| Breaking capacity max.                    | 2000VA                         | 3000VA | 4000VA |
| Contact material                          | AgNi0.15                       | AgCdO  | AgCdO  |
| Frequency of operation, with/without load | 600/72000h <sup>-1</sup>       |        |        |
| Operate/release time typ.                 | 8/2ms                          |        |        |
| Bounce time typ., form A/form B           | 2/4ms                          |        |        |

**Contact ratings**

| Type            | Contact | Load                        | Cycles              |
|-----------------|---------|-----------------------------|---------------------|
| <b>IEC61810</b> |         |                             |                     |
| RP310           | A (NO)  | 16A, 250VAC resistive, 35°C | 100x10 <sup>3</sup> |
| RP410/418       | A (NO)  | 12A, 250VAC resistive, 35°C | 100x10 <sup>3</sup> |
| RP410/418       | C (CO)  | 10A, 250VAC resistive, 70°C | 100x10 <sup>3</sup> |
| RP411/418       | A (NO)  | 8A, 250VAC resistive, 35°C  | 100x10 <sup>3</sup> |

Mechanical endurance >30x10<sup>6</sup> operations



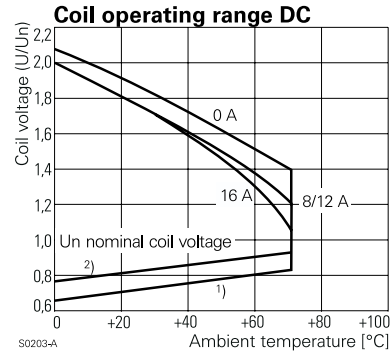
**Coil Data**

|                            |             |
|----------------------------|-------------|
| Coil voltage range         | 5 to 110VDC |
| Operative range, IEC 61810 | 2           |

**Coil versions, DC coil**

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% <sup>1)</sup> | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-------------------------------------|---------------------|
| 005       | 5                 | 3.5                 | 0.5                 | 54                                  | 500                 |
| 006       | 6                 | 4.2                 | 0.6                 | 68                                  | 500                 |
| 012       | 12                | 8.4                 | 1.2                 | 270                                 | 500                 |
| 024       | 24                | 16.8                | 2.4                 | 1100 <sup>1)</sup>                  | 500                 |
| 048       | 48                | 33.6                | 4.8                 | 4400 <sup>1)</sup>                  | 500                 |
| 060       | 60                | 42.0                | 6.0                 | 6540 <sup>1)</sup>                  | 500                 |
| 110       | 110               | 77.0                | 11.0                | 23100 <sup>1)</sup>                 | 500                 |

<sup>1)</sup> Coil resistance ±15%.  
All figures are given for coil without pre-energization, at ambient temperature +20°C.  
Other coil voltages on request.



**Insulation Data**

|                                    |                      |
|------------------------------------|----------------------|
| Initial dielectric strength        |                      |
| between open contacts              | 1000V <sub>rms</sub> |
| between contact and coil           | 4000V <sub>rms</sub> |
| Clearance/creepage                 |                      |
| between contact and coil           | ≥8/8mm               |
| Material group of insulation parts | IIIa                 |

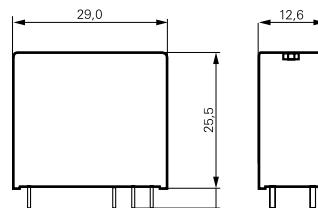
**Power PCB Relay RPII/1** (Continued)

**Other Data**

|   |                                       |
|---|---------------------------------------|
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at <a href="http://www.tycoelectronics.com/customersupport/rohssupportcenter">www.tycoelectronics.com/customersupport/rohssupportcenter</a> |                                       |
| Ambient temperature   | -40 to +70°C                          |
| Category of environmental protection IEC 61810  | RTII - flux proof, RTIII - wash tight |
| Vibration resistance (functional), form A/form B, 30 to 300Hz   | 10/2g                                 |
| Shock resistance (destructive)  | 100g                                  |
| Terminal type   | PCB-THT                               |
| Weight  | 18g                                   |
| Resistance to soldering heat THT, IEC 60068-2-20  |                                       |
| flux proof version  | 270°C/10s                             |
| wash tight version  | 260°C/5s                              |
| Packaging/unit  | tube/20 pcs., box/500 pcs.            |

**Dimensions**

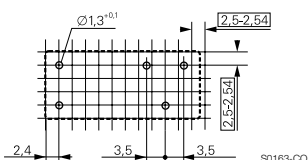
Dimensions in mm



S0273-AA

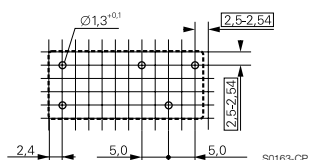
**PCB layout / terminal assignment**

8/12A, pinning 3.5 mm



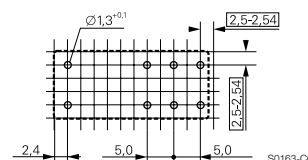
S0163-CQ

8/12A, pinning 5 mm



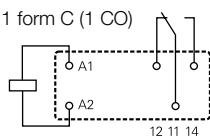
S0163-CP

16A, pinning 5 mm



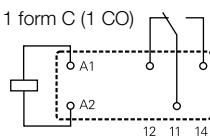
S0163-CO

1 form C (1 CO)



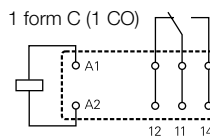
S0163-BG

1 form C (1 CO)



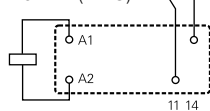
S0163-BC

1 form C (1 CO)



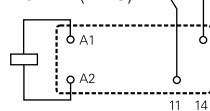
S0163-BE

1 form A (1 NO)



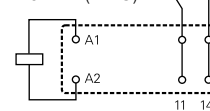
S0163-BH

1 form A (1 NO)



S0163-BD

1 form A (1 NO)



S0163-BF

**Product code structure**

Typical product code **RP 3 1 0 024**

**Type**

**RP** Power PCB Relay RPII/1

**Version**

- |                            |                            |
|----------------------------|----------------------------|
| <b>3</b> 16A, flux proof   | <b>7</b> 16A, wash tight   |
| <b>4</b> 8/12A, flux proof | <b>8</b> 8/12A, wash tight |

**Contact arrangement**

- |                                  |                                  |
|----------------------------------|----------------------------------|
| <b>1</b> 1 form C contact (1 CO) | <b>3</b> 1 form A contact (1 NO) |
|----------------------------------|----------------------------------|

**Contact material and pinning**

- |                                      |                                     |
|--------------------------------------|-------------------------------------|
| <b>1</b> AgNi0.15, 8A, pinning 5mm   | <b>0</b> AgCdO, 12/16A, pinning 5mm |
| <b>2</b> AgNi0.15, 8A, pinning 3.5mm | <b>8</b> AgCdO, 12A, pinning 3.5mm  |

**Coil**

Coil code: please refer to coil versions table

**Power PCB Relay RPII/1** (Continued)

| Product code | Version         | Contact arrangement   | Contact material | Pinning   | Coil  | Part number |
|--------------|-----------------|-----------------------|------------------|-----------|-------|-------------|
| RP310012     | 16A, flux proof | 1 form C (CO) contact | AgCdO            | 5mm 16A   | 12VDC | 2-1393230-9 |
| RP310024     |                 |                       |                  |           | 24VDC | 3-1393230-2 |
| RP310048     |                 |                       |                  |           | 48VDC | 3-1393230-3 |
| RP330012     |                 | 1 form A (NO) contact |                  |           | 12VDC | 4-1393230-7 |
| RP330024     |                 |                       |                  |           | 24VDC | 4-1393230-9 |
| RP330048     |                 |                       |                  |           | 48VDC | 5-1393230-1 |
| RP410024     | 12A, flux proof | 1 form C (CO) contact | AgNi0.15         | 5mm 8/12A | 24VDC | 8-1393230-2 |
| RP411024     | 8A, flux proof  |                       |                  |           |       | 9-1393230-5 |
| RP412024     |                 |                       |                  | 3.5mm     |       | 1-1393231-2 |
| RP418012     | 12A, flux proof |                       | AgCdO            |           | 12VDC | 2-1393231-5 |
| RP418024     |                 |                       |                  |           | 24VDC | 2-1393231-8 |
| RP438012     |                 | 1 form A (NO) contact |                  |           | 12VDC | 5-1393231-0 |
| RP710012     | 16A, wash tight | 1 form C (CO) contact |                  | 5mm 16A   |       | 7-1393231-2 |
| RP710024     |                 |                       |                  |           | 24VDC | 7-1393231-5 |
| RP730012     |                 | 1 form A (NO) contact |                  |           | 12VDC | 8-1393231-2 |
| RP818012     | 12A, wash tight |                       |                  | 3.5mm     |       | 1-1393232-7 |

This list represents the most common types and does not show all variants covered by this datasheet.  
 Other types on request