

## Power PCB Relay RT2

- 2 pole 8A, 2 form C (CO) or 2 form A (NO) contacts
- Sensitive coil 400mW
- 5kV/10mm coil-contact, reinforced insulation
- Ambient temperature 85°C

### Typical applications

Boiler control, timers, garage door control, POS automation, interface modules



### Approvals

VDE REG.-Nr. 6106, UL E214025, cCSAus 14385  
Technical data of approved types on request

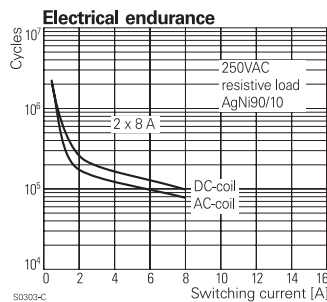
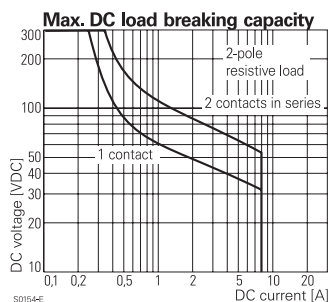
### Contact Data

|                                                   |                                |
|---------------------------------------------------|--------------------------------|
| Contact arrangement                               | 2 form C (CO) or 2 form A (NO) |
| Rated voltage                                     | 250VAC                         |
| Max. switching voltage                            | 400VAC                         |
| Rated current                                     | 8A, UL: 10A                    |
| Limiting continuous current                       | 8A, UL: 10A                    |
| Limiting making current, max. 4s, duty factor 10% | 15A                            |
| Breaking capacity max.                            | 2000VA                         |
| Contact material                                  | AgNi 90/10                     |
| Frequency of operation, with/without load         | 360/72000h <sup>-1</sup>       |
| Operate/release time max., DC coil                | 8/6ms                          |
| Bounce time max., DC coil, form A/form B          | 4/10ms                         |

### Contact ratings

| Type               | Contact     | Load                            | Cycles              |
|--------------------|-------------|---------------------------------|---------------------|
| <b>IEC 61810</b>   |             |                                 |                     |
| RT424 DC coil      | C (CO)      | 8A, 250VAC, cosφ=1, 85°C        | 10x10 <sup>3</sup>  |
| RT444 AC coil      | A (NO)      | 8A, 250VAC, cosφ=1, 70°C        | 50x10 <sup>3</sup>  |
| RT424 AC coil      | C (CO)      | 8A, 250VAC, cosφ=1, 70°C        | 30x10 <sup>3</sup>  |
| <b>UL 508</b>      |             |                                 |                     |
| RT424 DC coil      | A/B (NO/NC) | 10A, 250VAC, gen. purpose, 85°C | 20x10 <sup>3</sup>  |
| RT424 DC coil      | A/B (NO/NC) | 1/2hp, 240VAC, 85°C             | 1x10 <sup>3</sup>   |
| RT424 DC coil      | A/B (NO/NC) | Pilot duty, B300, R300, 85°C    | 6x10 <sup>3</sup>   |
| <b>EN60947-5-1</b> |             |                                 |                     |
| RTE24 DC coil      | A/B (NO/NC) | AC15, 250VAC, 3A                | 6.050               |
| RTE24 DC coil      | A/B (NO/NC) | DC13, 24VDC, 2A                 | 6.050               |
| RTE24 DC coil      | A/B (NO/NC) | DC13, 250VDC, 0.2A              | 6.050               |
| <b>EN60730-1</b>   |             |                                 |                     |
| RT424 DC coil      | A/B (NO/NC) | 6(2)A, 250VAC, 85°C             | 100x10 <sup>3</sup> |

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



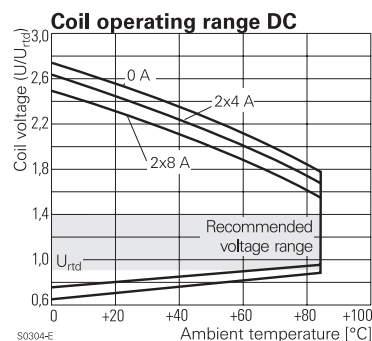
### Coil Data

|                                     |             |
|-------------------------------------|-------------|
| Coil voltage range                  | 5 to 110VDC |
| Operative range, IEC 61810          | 2           |
| Coil insulation system according UL | class F     |

### Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-----------------------|---------------------|
| 005       | 5                 | 3.5                 | 0.5                 | 62                    | 403                 |
| 006       | 6                 | 4.2                 | 0.6                 | 90                    | 400                 |
| 009       | 9                 | 6.3                 | 0.9                 | 200                   | 400                 |
| 012       | 12                | 8.4                 | 1.2                 | 360                   | 400                 |
| 024       | 24                | 16.8                | 2.4                 | 1440                  | 400                 |
| 048       | 48                | 33.6                | 4.8                 | 5520                  | 417                 |

All figures are given for coil without pre-energization, at ambient temperature +23°C.  
Other coil voltages on request.



### Insulation Data

|                                    |                      |
|------------------------------------|----------------------|
| Initial dielectric strength        |                      |
| between open contacts              | 1000V <sub>rms</sub> |
| between contact and coil           | 5000V <sub>rms</sub> |
| between adjacent contacts          | 2500V <sub>rms</sub> |
| Clearance/creepage                 |                      |
| between contact and coil           | ≥10/10mm             |
| between adjacent contacts          | ≥3/4mm               |
| Material group of insulation parts | IIIa                 |
| Tracking index of relay base       | PTI 250V             |

## Power PCB Relay RT2 (Continued)

### Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://www.te.com/customersupport/rohssupportcenter)

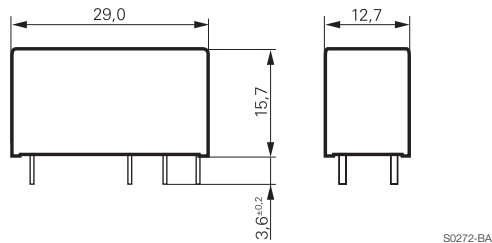
|                                                                       |                                       |
|-----------------------------------------------------------------------|---------------------------------------|
| Ambient temperature                                                   | -40 to 85°C                           |
| Category of environmental protection                                  | RTII - flux proof, RTIII - wash tight |
| IEC 61810                                                             |                                       |
| Vibration resistance (functional), form A/form B contact, 30 to 300Hz | 20g/5g                                |
| Shock resistance (destructive)                                        | 100g                                  |
| Terminal type                                                         | PCB-THT, plug-in                      |
| Weight                                                                | 13g                                   |
| Resistance to soldering heat THT, IEC 60068-2-20                      |                                       |
| RTII                                                                  | 270°C/10s                             |
| RTIII                                                                 | 260°C/5s                              |
| Packaging/unit                                                        | tube/20pcs., box/500pcs.              |

### Accessories

For details see datasheet [Accessories Industrial Power Relay RT](#)

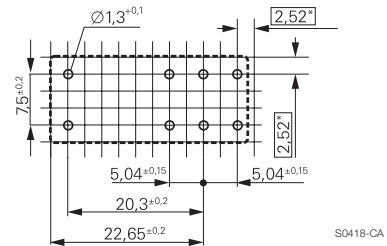
NOTE: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1); for relays mounted on sockets deratings may apply.

### Dimensions



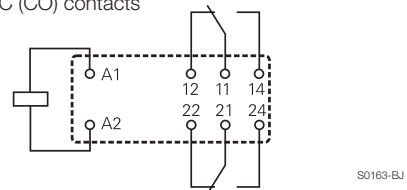
### PCB layout / terminal assignment

Bottom view on solder pins

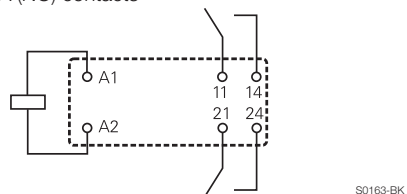


\*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

### 2 form C (CO) contacts



### 2 form A (NO) contacts



**Power PCB Relay RT2** (Continued)

| Product code structure |                                                | Typical product code |   |   |   |     |   |
|------------------------|------------------------------------------------|----------------------|---|---|---|-----|---|
| Type                   | RT Power PCB Relay RT2                         | RT                   | 4 | 2 | 4 | 024 | F |
| Version                |                                                |                      |   |   |   |     |   |
| 4                      | 8A, pinning 5mm, flux proof                    |                      |   |   |   |     |   |
| E                      | 8A, pinning 5mm, wash tight                    |                      |   |   |   |     |   |
| Contact arrangement    |                                                |                      |   |   |   |     |   |
| 2                      | 2 form C (CO) contacts                         |                      |   |   |   |     |   |
| 4                      | 2 form A (NO) contacts                         |                      |   |   |   |     |   |
| Contact material       |                                                |                      |   |   |   |     |   |
| 4                      | AgNi 90/10                                     |                      |   |   |   |     |   |
| Coil                   |                                                |                      |   |   |   |     |   |
|                        | Coil code: please refer to coil versions table |                      |   |   |   |     |   |
| Version                |                                                |                      |   |   |   |     |   |
| F                      | Standard version                               |                      |   |   |   |     |   |

| Product code | Version      | Contacts               | Contact material | Coil  | Part number |
|--------------|--------------|------------------------|------------------|-------|-------------|
| RT424005F    | 8A,          | 2 form C (CO) contacts | AgNi 90/10       | 5VDC  | 1-1419108-6 |
| RT424012F    | pinning 5mm, |                        |                  | 12VDC | 2-1393237-8 |
| RT424024F    | flux proof   |                        |                  | 24VDC | 1-1419108-7 |
| RT444012F    |              | 2 form A (NO) contacts |                  | 12VDC | 1-1419108-9 |
| RT444024F    |              |                        |                  | 24VDC | 2-1419108-0 |
| RTE24005F    | 8A,          | 2 form C (CO) contacts |                  | 5VDC  | 4-1419108-0 |
| RTE24006F    | pinning 5mm, |                        |                  | 6VDC  | 6-1393227-5 |
| RTE24009F    | wash tight   |                        |                  | 9VDC  | 3-1393237-0 |
| RTE24012F    |              |                        |                  | 12VDC | 3-1393237-1 |
| RTE24024F    |              |                        |                  | 24VDC | 3-1393237-3 |
| RTE24048F    |              |                        |                  | 48VDC | 3-1393237-4 |
| RTE44012F    |              | 2 form A (NO) contacts |                  | 12VDC | 4-1419108-2 |
| RTE44024F    |              |                        |                  | 24VDC | 3-1393237-5 |

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

Other types on request