

Power PCB Relay RT2

- 2 pole 8 A, 2 CO or 2 NO contacts
- DC- or AC-coil
- Sensitive coil 400 mW
- Reinforced insulation
- WG version: Product in accordance to IEC60335-1



F0149-C

Applications

Domestic appliances, heating control, emergency lighting, modems

Approvals

VDE REG.-Nr. 6106, **UL** US E214025, **CS** 14385, **BEAB** C0786
 Technical data of approved types on request

Contact data

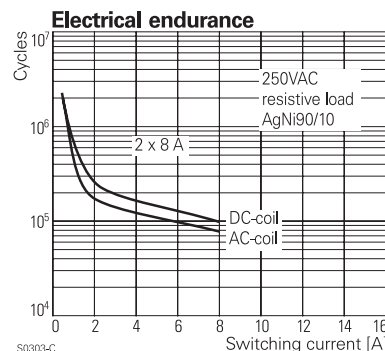
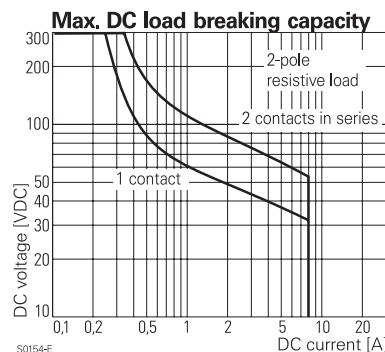
| | |
|--|--|
| Contact configuration | 2 CO or 2 NO |
| Contact set | single contact |
| Type of interruption | micro disconnection |
| Rated voltage / max. switching voltage AC | 250 / 400 VAC |
| Rated current | 8 A, UL: 10 A |
| Limiting continuous current | 8 A, UL: 10 A |
| Maximum breaking capacity AC | 2000 VA |
| Limiting making capacity, max 4 s, duty factor 10% | 15 A |
| Contact material | AgNi 90/10, AgNi 90/10 gold plated, AgSnO ₂ |
| Rated frequency of operation DC coil with / without load | 6 / 1200 min-1 |
| AC coil with / without load | 6 / 600 min-1 |
| Operate- / release time DC coil | max 8 / 6 ms |
| Bounce time DC coil NO / NC contact | max 4 / 10 ms |

Contact ratings

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

Coil data

| | |
|---|--------------|
| Rated coil voltage range DC coil | 5...110 VDC |
| AC coil | 24...230 VAC |
| Operative range to IEC 61810 | 2 |
| Coil insulation system according UL1446 | class F |



Power PCB Relay RT2 (Continued)

Coil versions, DC-coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|--------------------------|---------------------|
| 005 | 5 | 3.5 | 0.5 | 62 ± 10% | 403 |
| 006 | 6 | 4.2 | 0.6 | 90 ± 10% | 400 |
| 012 | 12 | 8.4 | 1.2 | 360 ± 10% | 400 |
| 024 | 24 | 16.8 | 2.4 | 1440 ± 10% | 400 |
| 048 | 48 | 33.6 | 4.8 | 5520 ± 10% | 417 |
| 060 | 60 | 42.0 | 6.0 | 8570 ± 12% | 420 |
| 110 | 110 | 77.0 | 11.0 | 28800 ± 12% | 420 |

All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request

Coil versions, AC-coil 50Hz

| Coil code | Rated voltage VAC | Operate voltage 50 Hz VAC | Release voltage 50 Hz VAC | Coil resistance Ω | Rated coil power 50 Hz VA |
|-----------|-------------------|---------------------------|---------------------------|--------------------------|---------------------------|
| 524 | 24 | 18.0 | 3.6 | 350 ± 10% | 0.76 |
| 615 | 115 | 86.3 | 17.3 | 8100 ± 15% | 0.76 |
| 620 | 120 | 90.0 | 18.0 | 8800 ± 15% | 0.75 |
| 700 | 200 | 150.0 | 30.0 | 24350 ± 15% | 0.76 |
| 730 | 230 | 172.5 | 34.5 | 32500 ± 15% | 0.74 |

All figures are given for coil without preenergization, at ambient temperature +23°C

Insulation

| | |
|---|-----------------------|
| Dielectric strength coil-contact circuit | 5000 V _{rms} |
| open contact circuit | 1000 V _{rms} |
| adjacent contact circuits | 2500 V _{rms} |
| Clearance / creepage coil-contact circuit | ≥ 10 / 10 mm |
| adjacent contact circuits | ≥ 3 / 4 mm |
| Material group of insulation parts | IIIa |
| Tracking index of relay base | PTI 250 V |
| Insulation to IEC 60664-1 | |
| Type of insulation coil-contact circuit | reinforced |
| open contact circuit | micro disconnection |
| adjacent contact circuits | basic |
| Rated insulation voltage | 250 V |
| Pollution degree | 3 |
| Rated voltage system | 240 V |
| Overvoltage category | 2 |
| | 230 / 400 V |
| | III |

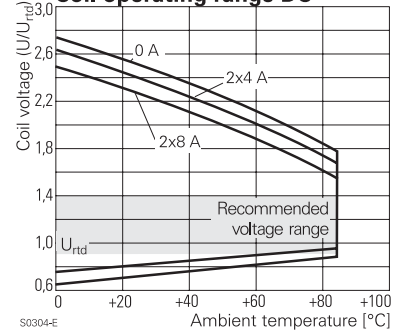
Other data

| | |
|---|---|
| Mechanical endurance DC coil | > 30 x 10 ⁶ cycles |
| AC coil | > 5 x 10 ⁶ cycles |
| Material | |
| RoHS - Directive 2002/95/EC | compliant as per product date code 0413 |
| Resistance to heat and fire, WG version | according EN60335, par30. |
| Environment | |
| Ambient temperature range | -40...+85°C |
| max. ambient temperature AC coil | 70°C |
| max. ambient temperature AgSnO contacts | 70°C |
| Vibration resistance (function) NO / NC contact | 20 / 5 g, 30 ... 300 Hz |
| Shock resistance (destruction) | 100 g |
| Category of protection | RTII - flux proof, RTIII - wash tight |
| Processing | |
| Mounting | pcb or on socket |
| Mounting distance DC / AC coil | ≥ 0 / ≥ 2.5 mm |
| Resistance to soldering heat flux-proof version | 270°C / 10 s |
| wash-tight version | 260°C / 5 s |
| Relay weight | 13 g |
| Packaging unit | 20 / 500 pcs |

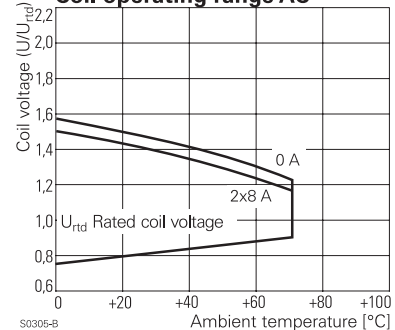
Accessories

| | |
|---------------------------|----------------|
| For details see datasheet | accessories RT |
|---------------------------|----------------|

Coil operating range DC

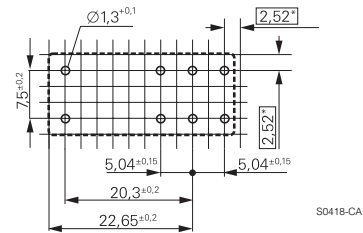


Coil operating range AC



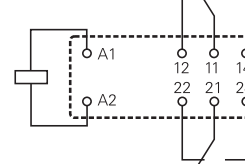
PCB layout / terminal assignment

Bottom view on solder pins

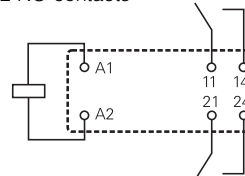


*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

2 CO contacts

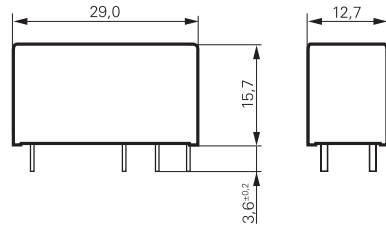


2 NO contacts



Power PCB Relay RT2 (Continued)

Dimensions



S0272-BA

| | | | | | | |
|------------------------------|---|-----------|----------|----------|----------|------------|
| Product key | Typical product key | RT | 4 | 2 | 4 | 024 |
| Type | RT Power PCB Relay RT2 | | | | | |
| Version | 4 8 A, pinning 5 mm, flux proof E 8 A, pinning 5 mm, wash tight | | | | | |
| Contact configuration | 2 2 CO contacts (2 form C) 4 2 NO contacts (2 form A) | | | | | |
| Contact material | 3 AgSnO ₂ 4 AgNi 90/10 5 AgNi 90/10 gold plated | | | | | |
| Coil | Coil code: please refer to coil versions table | | | | | |
| Version | Blank Standard version WG Product in accordance with IEC 60335-1 (domestic appliances) | | | | | |

Preferred types in bold print

| Product key | Version | Contacts | Cont. material | Coil | Coil | Part number |
|-------------|--------------|---------------|------------------------|---------|---------|-------------|
| RT423012 | 8 A | 2 CO contacts | AgSnO | DC-coil | 12 VDC | 4-1419136-3 |
| RT423024 | pinning 5 mm | | | | 24 VDC | 4-1393243-2 |
| RT424005 | flux proof | | AgNi 90/10 | | 5 VDC | 5-1393243-9 |
| RT424006 | | | | | 6 VDC | 6-1393243-1 |
| RT424012 | | | | | 12 VDC | 6-1393243-3 |
| RT424024 | | | | | 24 VDC | 6-1393243-8 |
| RT424048 | | | | | 48 VDC | 7-1393243-0 |
| RT424060 | | | | | 60 VDC | 7-1393243-3 |
| RT424110 | | | | | 110 VDC | 7-1393243-5 |
| RT424524 | | | | AC-coil | 24 VAC | 7-1393243-6 |
| RT424615 | | | | | 115 VAC | 7-1393243-8 |
| RT424730 | | | | | 230 VAC | 7-1393243-9 |
| RT425005 | | | AgNi 90/10 gold plated | DC-coil | 5 VDC | 8-1393243-0 |
| RT425012 | | | | | 12 VDC | 8-1393243-2 |
| RT425024 | | | | | 24 VDC | 8-1393243-5 |
| RT425524 | | | | AC-coil | 24 VAC | 9-1393243-1 |
| RT425615 | | | | | 115 VAC | 9-1393243-2 |
| RT425730 | | | | | 230 VAC | 9-1393243-3 |
| RT444012 | | 2 NO contacts | AgNi 90/10 | DC-coil | 12 VDC | 9-1393243-7 |
| RT444024 | | | | | 24 VDC | 9-1393243-9 |
| RTE24005 | 8 A | 2 CO contacts | | | 5 VDC | 1393243-1 |
| RTE24006 | pinning 5 mm | | | | 6 VDC | 1393243-2 |
| RTE24012 | wash tight | | | | 12 VDC | 1393243-4 |
| RTE24024 | | | | | 24 VDC | 1-1393243-0 |
| RTE24048 | | | | | 48 VDC | 1-1393243-1 |
| RTE24060 | | | | | 60 VDC | 1-1393243-3 |
| RTE24110 | | | | | 110 VDC | 1-1393243-4 |
| RTE24524 | | | | AC-coil | 24 VAC | 1-1393243-5 |
| RTE24615 | | | | | 115 VAC | 1-1393243-7 |
| RTE24730 | | | | | 230 VAC | 1-1393243-8 |
| RTE25005 | | | AgNi 90/10 gold plated | DC-coil | 5 VDC | 1-1393243-9 |
| RTE25012 | | | | | 12 VDC | 2-1393243-0 |
| RTE25024 | | | | | 24 VDC | 2-1393243-1 |