

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
- RoHS compliant (Directive 2002/95/EC) as per product date code 0413



F0149-B

Applications

Domestic appliances, heating control, emergency lighting, modems

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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 current | 8 A, UL: 10 A |
| Rated voltage / max.switching voltage AC | 250/400 VAC |
| Limiting continuous current | 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 |
| Mechanical endurance DC coil | > 30 x 10 ⁶ cycles |
| AC coil | > 5 x 10 ⁶ cycles |
| Rated frequency of operation with / without load | 6 / 1200 min-1 |

Contact ratings

| Type | Load | Cycles |
|-------|---|---------------------|
| RT424 | 8 A, 250 VAC, NO contact, 70°C, EN61810-1 | 100x10 ³ |
| RT444 | 6(3) A, 250 VAC, NO contact, 85°C; EN60730-1 | 100x10 ³ |
| RT424 | 6(2) A, 250 VAC, NO/NC contact, 85°C; EN60730-1 | 100x10 ³ |
| RT424 | 10 A, 250 VAC, CO contact, 70°C; General purpose, UL508 | 30x10 ³ |
| RT424 | 1/2hp @ 240 VAC, 1/4hp @ 120 VAC, UL508 | |
| RT424 | Pilot duty B300, UL508 | |
| RT424 | 8 A, 30 VDC, General Purpose, UL508 | |
| RT424 | 4 A, 230 VAC, cosφ=0.6, gas burner | 150x10 ³ |

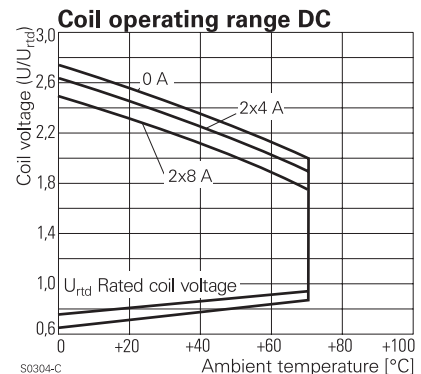
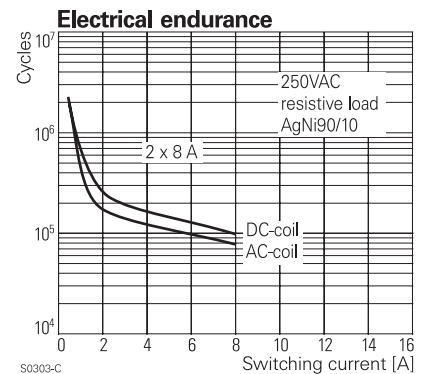
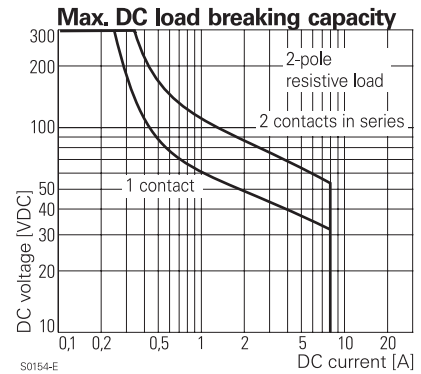
Coil data

| | |
|---|--------------|
| Rated coil voltage range DC coil | 5...110 VDC |
| AC coil | 24...230 VAC |
| Coil power DC coil | typ 400 mW |
| AC coil | typ 0,75 VA |
| Operative range | 2 |
| Coil insulation system according UL1446 | class F |

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



Power PCB Relay RT2 (Continued)

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 | functional |
| adjacent contact circuits | basic |
| Rated insulation voltage | 250 V |
| Pollution degree | 3 |
| Rated voltage system | 240 V |
| Overvoltage category | III |

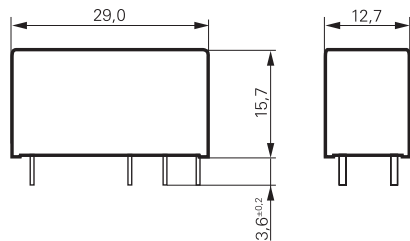
Other data

| | |
|--|---|
| RoHS - Directive 2002/95/EC | compliant as per product date code 0413 |
| Flammability class according to UL94 | V-0 |
| For WG version: GWFI to IEC 60335-1 (IEC 60695-2-12) | > 850 °C |
| GWIT to IEC 60335-1 (IEC 60695-2-13) | > 755 °C |
| Ambient temperature range | -40...+70°C |
| Operate- / release time DC coil | typ 7 / 2 ms |
| Bounce time DC coil NO / NC contact | typ 1 / 3 ms |
| 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 |
| Mounting | pcb or on socket |
| Mounting distance DC / AC coils | 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

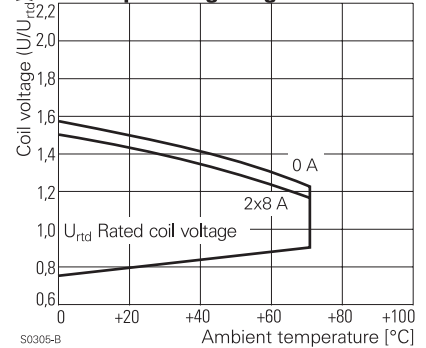
For details see datasheet accessories RT

Dimensions



S0272-BA

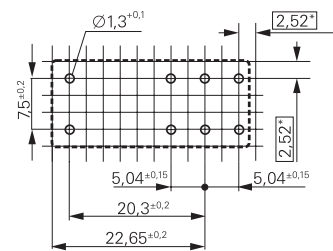
Coil operating range AC



S0305-B

PCB layout / terminal assignment

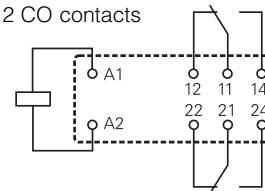
Bottom view on solder pins



S0418-CA

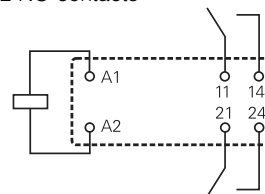
*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

2 CO contacts



S0163-BJ

2 NO contacts



S0163-BK

Power PCB Relay RT2 (Continued)

Product key

| | | | | | | | |
|-----------------------|---|----------|--|--|--|--|--|
| Type | R T | 4 | | | | | |
| Version | 4 8 A, pinning 5 mm, flux proof E 8 A, pinning 5 mm, wash tight | | | | | | |
| Contact configuration | 2 2 CO contacts 4 2 NO contacts | | | | | | |
| Contact material | 3 AgSnO₂ 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 | 0-1393243-1 |
| RTE24006 | pinning 5 mm | | | | 6 VDC | 0-1393243-2 |
| RTE24012 | wash tight | | | | 12 VDC | 0-1393243-4 |
| 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 |