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# Power PCB Relay RTH 105°C 16A

- **1 pole 16A, 1 form C (CO) or 1 form A (NO) contact**
- **Ambient temperature 105°C**
- **Sensitive coil 400mW**
- **5kV/10mm coil-contact**
- **Reinforced insulation**
- **WG version: Product in accordance to IEC 60335-1**



F0220-D

Typical applications
Oven control, cooking plate control

## Approvals

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

## Contact Data

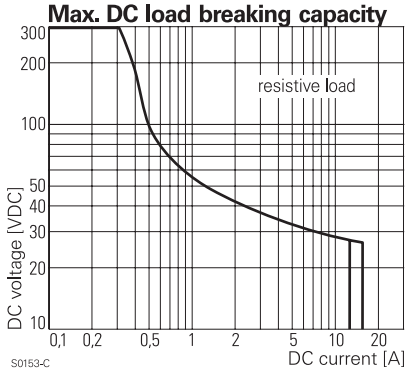
| | |
|---|---|
| Contact arrangement | 1 form C (CO) or 1 form A (NO) |
| Rated voltage | 250VAC |
| Max. switching voltage | 400VAC |
| Rated current | 16A[1)] |
| Limiting continuous current, form A/form B | 16 / 26A |
| Limiting making current (form A contact) max. 4 s, duty factor 10 % | 30A |
| Breaking capacity max. | 4000VA |
| Contact material | AgNi 90/10 |
| Frequency of operation, with/without load | 360/72000h$^{-1}$ |
| Operate/release time max. | 8/6ms |
| Bounce time max., form A/form B | 4/6ms |

**Contact ratings**

| Type | Contact | Load | Cycles |
|---|---|---|---|
| **IEC 61810** | | | |
| RTH14 | A (NO) | 10A, 250VAC resistive,105°C | 150x10$^3$ |
| RTH14 | C (CO) | 16A, 250VAC resistive, 105°C | 10x10$^3$ |
| RTH14 | B (NC) | 26A, 250VAC resistive, 85°C | 500 |
| RTH34 | A (NO) | 10A, 400VAC resistive, 105°C | 150x10$^3$ |
| RTHH4 | A (NO) | 10A, 250VAC resistive, 105°C | 250x10$^3$ |
| **UL 508** | | | |
| RTH14 | A/B (NO/NC) | 16A, 250VAC, resistive, 105°C | 30x10$^3$ |
| RTH34 | A (NO) | 20A, 250VAC, general purpose, 105°C | 6x10$^3$ |

Mechanical endurance >30x10$^6$ operations

1) Continuous thermal load >10A at 105°C requires reduction of coil power to 64% of rated power after 100ms




## Coil Data

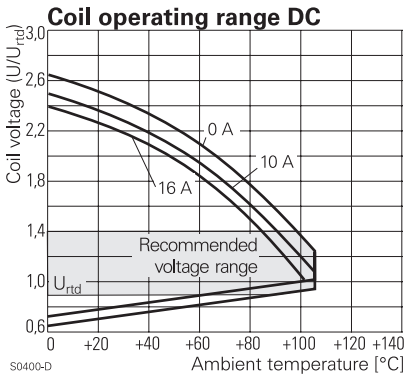
| | |
|---|---|
| Coil voltage range | 5 to 60VDC |
| Operative range, IEC 61810 | 90...110% $U_{RTD}$ |
| Coil insulation system according UL1446 | class F |

**Coil versions, DC coil**

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|---|---|---|---|---|---|
| 009 | 9 | 6.3 | 0.9 | 203 | 399[1)] |
| 012 | 12 | 8.4 | 1.2 | 360 | 400[1)] |
| 024 | 24 | 16.8 | 2.4 | 1440 | 400[1)] |

1) Continuous thermal load > 10 A at 105°C requires reduction of coil power to 64% of rated power after 100ms.

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$_{rms}$ |
| between contact and coil | 5000V$_{rms}$ |
| Clearance/creepage | |
| between contact and coil | ≥10/10mm |
| Material group of insulation parts | IIIa |
| Tracking index of relay base | PTI250V |



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Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

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Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

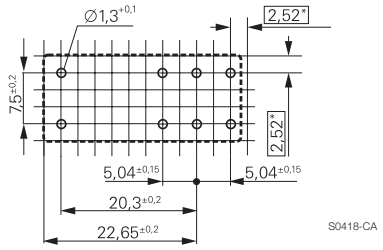
## Power PCB Relay RTH 105°C 16A (Continued)

### 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 | |
| Resistance to heat and fire | |
| WG version | according EN 60335-1, par.30 |
| Ambient temperature | -40 to 105°C |
| Category of environmental protection | |
| IEC 61810 | RTII - flux proof |
| Vibration resistance (functional) | |
| form A/form B contact, 30 to 150Hz | 20/5g |
| Shock resistance (destructive) | 100g |
| Terminal type | PCB-THT |
| Weight | 14g |
| Resistance to soldering heat THT | |
| IEC 60068-2-20 | 270°C/10s |
| Packaging/unit | tube/20 pcs., box/500 pcs. |

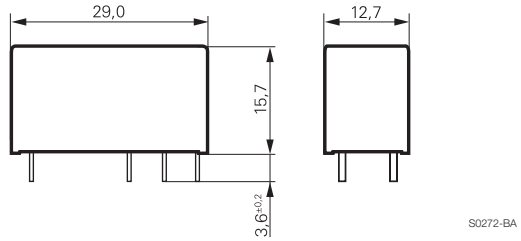
**PCB layout / terminal assignment**
Bottom view on solder pins

16A, pinning 5mm

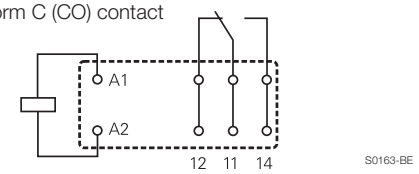



*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

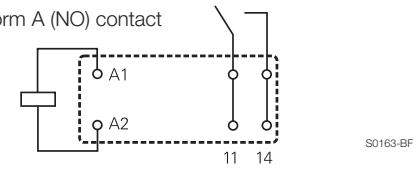
**Dimensions**




1 form C (CO) contact




1 form A (NO) contact




### Product code structure

Typical product code: **RT H 3 4 012 WG**

**Type**
**RT** Power PCB Relay RTH 105°C 16A

**Version**
**H** 16A, pinning 5mm, 105°C

**Contact configuration**
**1** 1 form C (CO) contact
**3** 1 form A (NO) contact
**H** 1 form A (NO) contact „High Performance“

**Contact material**
**4** AgNi 90/10

**Coil**
Coil code: please refer to coil versions table

**Version**
**Blank** Standard version
**WG** Product in accordance with IEC 60335-1 (domestic appliances)

| Product code | Version | Contact configuration | Contact Material | Coil | Part number |
|---|---|---|---|---|---|
| RTH14012 | 16A, 105°C | 1 form C (CO) | AgNi 90/10 | 12VDC | 8-1415006-1 |
| RTH14012WG | | contact | | | 1-1415538-1 |
| RTH14024WG | | | | 24VDC | 9-1415535-4 |
| RTH34012 | | 1 form A (NO) | | 12VDC | 9-1415006-1 |
| RTH34012WG | | contact | | | 1-1415536-9 |
| RTH34024 | | | | 24VDC | 1415039-1 |
| RTH34024WG | | | | | 2-1415536-0 |
| RTHH4009WG | 16A, 105°C, | | | 9VDC | 1-1415540-6 |
| RTHH4012 | High Performance | | | 12VDC | 8-1415047-1 |
| RTHH4012WG | | | | | 4-1415536-2 |
| RTHH4024 | | | | 24VDC | 9-1415047-1 |

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



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