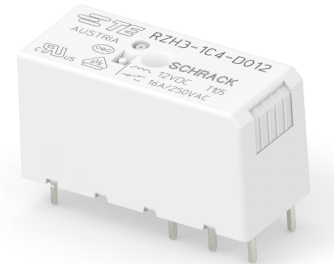


## Power PCB Relay RZH 105°C 16A

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

Typical applications  
Oven control, cooking plate control



F0305-A



### Approvals

VDE Cert. No. 40023970, cULus E214025, CQC 1200206685  
Technical data of approved types on request

### Contact Data

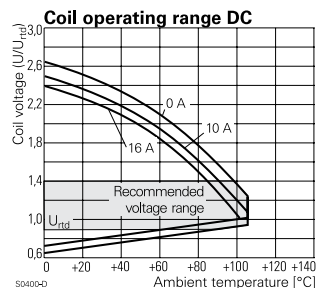
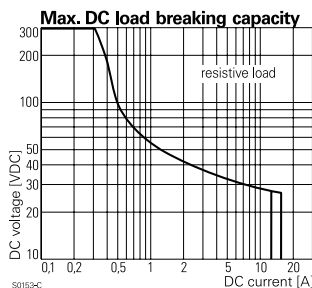
|                                                                        |                                  |
|------------------------------------------------------------------------|----------------------------------|
| Contact arrangement                                                    | 1 form C (CO) or 1 form A (NO)   |
| Rated voltage                                                          | 250VAC                           |
| Max. switching voltage                                                 | 400VAC                           |
| Rated current                                                          | 16A <sup>1)</sup>                |
| Limiting making current,<br>form A contact, max. 4 s, duty factor 10 % | 30A                              |
| Breaking capacity max.                                                 | 4000VA                           |
| Contact material                                                       | AgNi 90/10 or AgSnO <sub>2</sub> |
| Frequency of operation, with/without load                              | 360/72000h <sup>-1</sup>         |
| Operate/release time max.                                              | 8/6ms                            |
| Bounce time max., form A/form B                                        | 4/6ms                            |

### Contact ratings for standard version

| Type             | Contact     | Load                 | Cycles              |
|------------------|-------------|----------------------|---------------------|
| <b>IEC 61810</b> |             |                      |                     |
| RZH3-1C4         | A/C (NO/NC) | 16 A, 250 VAC, 105°C | 10x10 <sup>3</sup>  |
| RZH3-1A3         | A (NO)      | 16 A, 250 VAC, 85°C  | 40x10 <sup>3</sup>  |
| RZH3-1A3         | A (NO)      | 12 A, 250 VAC, 105°C | 20x 10 <sup>3</sup> |
| RZH . -1A4       | A (NO)      | 10 A, 250 VAC, 105°C | 150x10 <sup>3</sup> |
| RZHH-1A4         | A (NO)      | 12 A, 250 VAC, 85°C  | 150x10 <sup>3</sup> |
| RZHH-1A4         | A (NO)      | 18 A, 250 VAC, 85°C  | 30x10 <sup>3</sup>  |
| RZHH-1A4         | A (NO)      | 12 A, 250 VAC, 105°C | 100x10 <sup>3</sup> |
| RZHH-1A4         | A (NO)      | 10 A, 250 VAC, 105°C | 300x10 <sup>3</sup> |
| RZHH-1A4         | A (NO)      | 16 A, 250 VAC, 105°C | 30x10 <sup>3</sup>  |
| RZH . -1A4       | A (NO)      | 16 A, 250 VAC, 85°C  | 50x10 <sup>3</sup>  |

### UL 61810-1 (former UL 508)

|          |             |                      |                     |
|----------|-------------|----------------------|---------------------|
| RZH3-1A4 | A (NO)      | 10 A, 250 VAC, 105°C | 150x10 <sup>3</sup> |
| RZH3-1C4 | A/C (NO/NC) | 16 A, 250 VAC, 105°C | 10x10 <sup>3</sup>  |
| RZHH-1A4 | A (NO)      | 10 A, 250 VAC, 105°C | 300x10 <sup>3</sup> |
| RZHH-1A4 | A (NO)      | 12 A, 250 VAC, 105°C | 150x10 <sup>3</sup> |
| RZHH-1A4 | A (NO)      | 12 A, 250 VAC, 85°C  | 150x10 <sup>3</sup> |
| RZHH-1A4 | A (NO)      | 16 A, 250 VAC, 105°C | 30x10 <sup>3</sup>  |
| RZHH-1A4 | A (NO)      | 16 A, 250 VAC, 85°C  | 50x10 <sup>3</sup>  |



### Contact Data (continued)

#### Contact ratings for RZ reinforced flux proof version

| Type                             | Contact | Load                   | Cycles              |
|----------------------------------|---------|------------------------|---------------------|
| <b>IEC 61810</b>                 |         |                        |                     |
| RZHH-1A4-D...-R                  | A (NO)  | 16A, 250VAC, 105°C     | 30x10 <sup>3</sup>  |
| <b>IEC 61810 (former UL 508)</b> |         |                        |                     |
| RZHH-1A4-D...-R                  | A (NO)  | 16A, 277VAC, GP, 105°C | 100x10 <sup>3</sup> |

Mechanical endurance >10x10<sup>6</sup> operations

### Coil Data

|                                         |                            |
|-----------------------------------------|----------------------------|
| Coil voltage range                      | 3 to 48VDC                 |
| Operative range, IEC 61810              | 90...110% U <sub>RTD</sub> |
| 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 <sup>1)</sup> |
|-----------|-------------------|---------------------|---------------------|-----------------------|-----------------------------------|
| D003      | 3                 | 2.1                 | 0.3                 | 22                    | 410                               |
| D005      | 5                 | 3.5                 | 0.5                 | 60                    | 420                               |
| D006      | 6                 | 4.2                 | 0.6                 | 90                    | 400                               |
| D009      | 9                 | 6.3                 | 0.9                 | 200                   | 400                               |
| D012      | 12                | 8.4                 | 1.2                 | 360                   | 400                               |
| D024      | 24                | 16.8                | 2.4                 | 1440                  | 400                               |
| D048      | 48                | 33.6                | 4.8                 | 5730                  | 400                               |

1) Continuous thermal load > 10 A at 105°C requires reduction of coil power to 49% of rated power after 100 ms.

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> |
| Clearance/creepage                 |                      |
| between contact and coil           | ≥10/10mm             |
| Material group of insulation parts | IIla                 |
| Tracking index of relay base       | PTI250V              |

**Power PCB Relay RZH 105°C 16A (Continued)**

**Other Data**

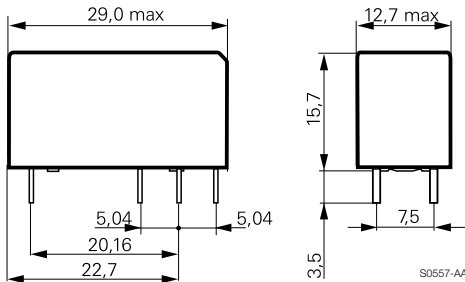
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://www.te.com/customersupport/rohssupportcenter)

|                                                |                              |
|------------------------------------------------|------------------------------|
| Resistance to heat and fire                    |                              |
| standard cover 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), 30 to 500Hz |                              |
| closing form A contact                         | >15g                         |
| opening form A contact                         | >20g                         |
| opening form B contact                         | >5g                          |
| Shock resistance (destructive)                 | 100g                         |
| Terminal type                                  | PCB-THT                      |
| Mounting distance                              | ≥2mm                         |
| Weight                                         | 10g                          |
| Resistance to soldering heat THT               |                              |
| IEC 60068-2-20                                 | 270°C/10s <sup>2</sup>       |
| Packaging/unit                                 | tube/20 pcs., box/500 pcs.   |
| suffix-00001/-R0001 & -00002/-R0002            | See details C-1558100        |

2) The use of foaming flux is not permitted.

**Dimensions**

16 A, pinning 5 mm

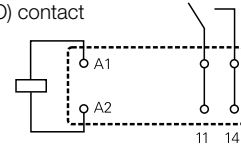


**PCB layout / terminal assignment**

Bottom view on solder pins

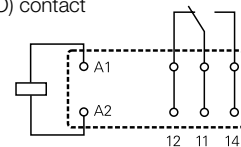
16A, pinning 5mm

1 form A (NO) contact



S0163-BF

1 form C (CO) contact



S0163-BE

Recommended pcb hole for manual mounting: Ø1.3mm  
For automated mounting please ask for detailed drawing.

**Product code structure**

Typical product code **RZ H 3 -1A 4 -D012 -R**

|                              |                                                                                                                                 |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Type</b>                  | <b>RZ</b> Power PCB Relay RZ                                                                                                    |
| <b>Version</b>               | <b>H</b> Hot version 105°C                                                                                                      |
| <b>Version</b>               | <b>3</b> double pinning 5mm, 16A (1 form A or 1 form C)<br><b>H</b> double pinning 5mm, 16A High performance (1 form A)         |
| <b>Contact Configuration</b> | <b>1A</b> 1 form A (1 NO) contact<br><b>1C</b> 1 form C (1 CO) contact                                                          |
| <b>Contact material</b>      | <b>4</b> AgNi 90/10<br><b>3</b> AgSnO <sub>2</sub>                                                                              |
| <b>Coil version</b>          | Coil code: please refer to coil versions table                                                                                  |
| <b>Cover version</b>         | <b>Blank</b> standard (hot stamped)<br><b>-R</b> reinforced flux proof (epoxy) and Plug-In capable (only AgNi contact versions) |

**Power PCB Relay RZH 105°C 16A** (Continued)

| Product code        | Version                   | Contacts      | Contact material | Coil  | Part number |             |
|---------------------|---------------------------|---------------|------------------|-------|-------------|-------------|
|                     |                           |               |                  |       | Austria     | China       |
| RZH3-1C4-D012       | 16A, 105°C<br>pinning 5mm | 1 form C (CO) | AgNi 90/10       | 12VDC | 2-1415899-5 |             |
| RZH3-1C4-D024       |                           |               |                  | 24VDC | 2-1415899-6 |             |
| RZH3-1A4-D009       |                           | 1 form A (NO) |                  | 9VDC  | 2-1415899-7 |             |
| RZH3-1A4-D009-R0001 |                           |               |                  | 9VDC  |             | 2-2071452-6 |
| RZH3-1A4-D012       |                           |               |                  | 12VDC | 2-1415899-8 |             |
| RZH3-1A4-D012-R0001 |                           |               |                  | 12VDC |             | 2-2071452-7 |
| RZH3-1A4-D024       |                           |               |                  | 24VDC | 2-1415899-9 |             |
| RZH3-1A4-D024-R0001 |                           |               |                  | 24VDC |             | 2-2071452-8 |
| RZHH-1A4-D009       | 16A, 105°C<br>pinning 5mm |               |                  | 9VDC  | 6-1415899-2 |             |
| RZHH-1A4-D009-R0001 |                           |               |                  | 9VDC  | 2071452-8   |             |
| RZHH-1A4-D012       | High performance          |               |                  | 12VDC | 6-1415899-6 |             |
| RZHH-1A4-D012-R0001 |                           |               |                  | 12VDC |             | 2071452-7   |
| RZHH-1A4-D024       |                           |               |                  | 24VDC | 6-1415899-7 |             |
| RZHH-1A4-D024-R0001 |                           |               |                  | 24VDC |             | 3-2071452-2 |
| RZH3-1A3-D012       | 16A, 105°C, pinning 5mm   |               | AgSnO2           | 12VDC | 9-1415899-0 |             |

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[RZHH-1A4-D012](#)