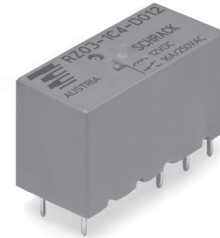


**Power PCB Relay RZH 105°C 16A**

- 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**

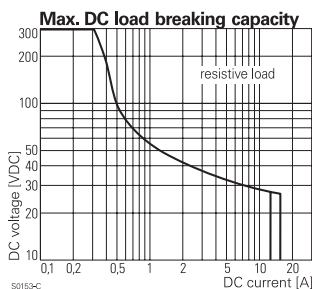
VDE Cert. No. 40023970, cULus E214025, CQC  
Technical data of approved types on request

**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, 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**

| Type             | Contact     | Load                            | Cycles              |
|------------------|-------------|---------------------------------|---------------------|
| <b>IEC 61810</b> |             |                                 |                     |
| RZH3-1C4         | A/C (NO/NC) | 16 A, 250 VAC, resistive, 105°C | 10x10 <sup>3</sup>  |
| RZH3-1A3         | A (NO)      | 16 A, 250 VAC, resistive, 85°C  | 40x10 <sup>3</sup>  |
| RZH3-1A3         | A (NO)      | 12 A, 250 VAC, resistive, 105°C | 20x10 <sup>3</sup>  |
| RZH . -1A4       | A (NO)      | 10 A, 250 VAC, resistive, 105°C | 150x10 <sup>3</sup> |
| RZHH-1A4         | A (NO)      | 12 A, 250 VAC, resistive, 85°C  | 150x10 <sup>3</sup> |
| RZHH-1A4         | A (NO)      | 18 A, 250 VAC, resistive, 85°C  | 30x10 <sup>3</sup>  |
| RZHH-1A4         | A (NO)      | 12 A, 250 VAC, resistive, 105°C | 100x10 <sup>3</sup> |
| RZHH-1A4         | A (NO)      | 10 A, 250 VAC, resistive, 105°C | 300x10 <sup>3</sup> |
| RZHH-1A4         | A (NO)      | 16 A, 250 VAC, resistive, 105°C | 30x10 <sup>3</sup>  |
| RZH . -1A4       | A (NO)      | 16 A, 250 VAC, resistive, 85°C  | 50x10 <sup>3</sup>  |
| <b>UL 508</b>    |             |                                 |                     |
| RZH3-1A4         | A (NO)      | 10 A, 250 VAC, resistive, 105°C | 150x10 <sup>3</sup> |
| RZH3-1C4         | A/C (NO/NC) | 16 A, 250 VAC, resistive, 105°C | 10x10 <sup>3</sup>  |
| RZHH-1A4         | A (NO)      | 10 A, 250 VAC, resistive, 105°C | 300x10 <sup>3</sup> |
| RZHH-1A4         | A (NO)      | 12 A, 250 VAC, resistive, 105°C | 150x10 <sup>3</sup> |
| RZHH-1A4         | A (NO)      | 12 A, 250 VAC, resistive, 85°C  | 150x10 <sup>3</sup> |
| RZHH-1A4         | A (NO)      | 16 A, 250 VAC, resistive, 105°C | 30x10 <sup>3</sup>  |
| RZHH-1A4         | A (NO)      | 16 A, 250 VAC, resistive, 85°C  | 50x10 <sup>3</sup>  |



**Contact Data (continued)**

Mechanical endurance >10x10<sup>6</sup> operations  
1) Continuous thermal load >10A at 105°C requires reduction of coil power to 49% of rated power after 100ms.

**Coil Data**

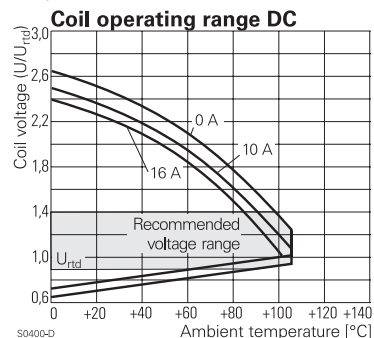
|   |                            |
|---|----------------------------|
| Coil voltage range                      | 3 to 48VDC                 |
| Operative range, IEC 61810              | 90...110% U <sub>RTD</sub> |
| Coil insulation system according UL1446 | class F                    |

**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.   |

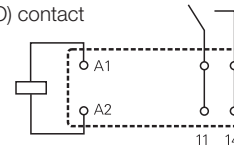
2) The use of foaming flux is not permitted.

**PCB layout / terminal assignment**

Bottom view on solder pins

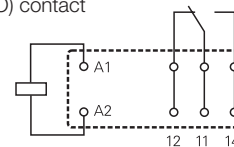
16A, pinning 5mm

1 form A (NO) contact



S0163-BF

1 form C (CO) contact



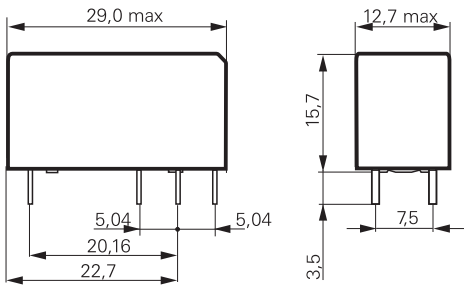
S0163-BE

Recommended pcb hole for manual mounting:  
Ø1.3mm

For automated mounting please ask for detailed drawing.

**Dimensions**

16 A, pinning 5 mm



S0557-AA

**Product code structure**

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

|                              |   |
|------------------------------|---|
| <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  |

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

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

Other types on request

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [General Purpose Relays](#) category:*

*Click to view products by [TE Connectivity](#) manufacturer:*

Other Similar products are found below :

[JVN1AF-4.5V-F](#) [PCN-105D3MHZ](#) [5JO-10000S-SIL](#) [5JO-1000CD-SIL](#) [5JO-400CD-SIL](#) [LY2S-AC220/240](#) [LYQ20DC12](#) [6031007G](#)  
[6131406HQ](#) [6-1393099-8](#) [6-1393122-4](#) [6-1393123-2](#) [6-1393767-1](#) [6-1393843-7](#) [6-1415012-1](#) [6-1419102-2](#) [6-1423698-4](#) [6-1608051-6](#) [6-1608067-0](#) [6-1616170-6](#) [6-1616248-2](#) [6-1616282-3](#) [6-1616348-2](#) [6-1616349-9](#) [6-1616350-1](#) [6-1616350-8](#) [6-1616358-7](#) [6-1616359-9](#) [6-1616360-9](#) [6-1616931-6](#) [6-1617039-1](#) [6-1617052-1](#) [6-1617090-2](#) [6-1617090-5](#) [6-1617347-5](#) [6-1617353-3](#) [6-1617801-8](#) [6-1618107-9](#) [6-1618248-4](#) [CX-4014](#) [MAHC-5494](#) [MAVCD-5419-6](#) [703XCX-120A](#) [7-1393100-5](#) [7-1393111-7](#) [7-1393767-8](#) [7-1414968-8](#) [7-1419130-3](#) [7-1608047-2](#) [7-1608065-1](#)