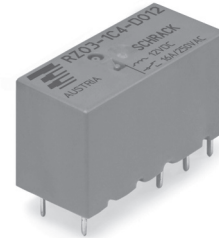


## Power PCB Relay RZH 105°C 16A

- 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

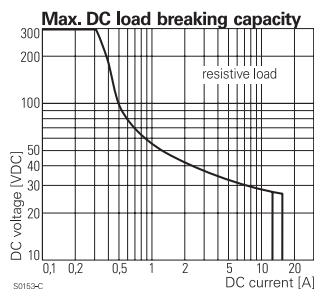
VDE Cert. No. 40023970, cULus E214025, CQC  
Technical data of approved types on request

### 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

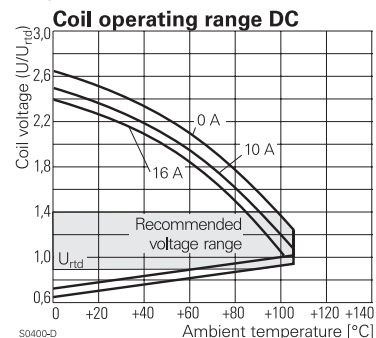
Coil voltage range	3 to 48VDC
Operative range, IEC 61810	90...110% U <sub>RTD</sub>
Coil insulation system according UL1446	class F

### 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	IIIa
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	RTII - flux proof
IEC 61810	
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.

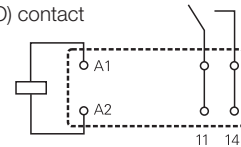
2) The use of foaming flux is not permitted.

**PCB layout / terminal assignment**

Bottom view on solder pins

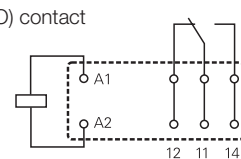
16A, pinning 5mm

1 form A (NO) contact



S0163-BF

1 form C (CO) contact



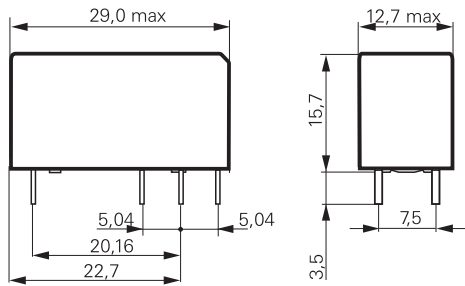
S0163-BE

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) <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 <b>1C</b> 1 form C (1 CO) contact
<b>Contact material</b>	<b>4</b> AgNi 90/10 <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

# Mouser Electronics

Authorized Distributor

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[TE Connectivity:](#)

[5-1415543-7](#)