

## 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

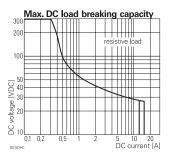
Typical applications	
Oven control, cooking plate control	

### Approvals

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

Contact Data	
Contact arrangement 1 f	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 1	0 % 30A
Breaking capacity max.	4000VA
Contact material	AgNi 90/10 or AgSnO <sub>2</sub>
Frequency of operation, with/without load	360/72000h-1
Operate/release time max.	8/6ms
Bounce time max., form A/form B	4/6ms

Туре	Contact	Load	Cycles
IEC 61810			
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	20x 10 <sup>3</sup>
RZH1A4	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>
RZH1A4	A (NO)	16 A, 250 VAC, resistive, 85°C	50x10 <sup>3</sup>
UL 508			
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>



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



F0305-A



### 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

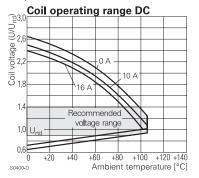
Coil voltage range	3 to 48VDC
Operative range, IEC 61810	90110% U <sub>RTD</sub>
Coil insulation system according UL1446	class F

#### Coil versions DC coil

Coil	Rated	Operate	Release	Coil	Rated coil		
code	voltage	voltage	voltage	resistance	power		
	VDC	VDC	VDC	Ω±10%	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>ms</sub>
between contact and coil	5000V <sub>ms</sub>
Clearance/creepage	
between contact and coil	≥10/10mm
Material group of insulation parts	Illa
Tracking index of relay base	PTI250V

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

1



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

### **Other Data**

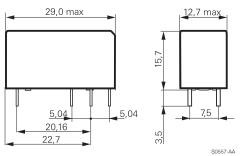
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter ..... 

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.
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The use of foaming flux is not permitted.

#### Dimensions

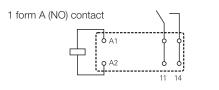
### 16 A, pinning 5 mm



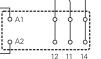
### PCB layout / terminal assignment

Bottom view on solder pins

16A, pinning 5mm



1 form C (CO) contact



S0163-BE

S0163-BF

Recommended pcb hole for manual mounting: Ø1.3mm

For automated mounting please ask for detailed drawing.

Product	code structure	Typical product code	RZ	н	3	-1A	4	-D012
Туре								
	Power PCB Relay RZ							
Version								
н	Hot version 105°C							
Version								
3	double pinning 5mm, 16A (1 form A or 1 form C)							
н	double pinning 5mm, 16A High performance (1 form A)							
Contact C	Configuration							
1A	1 form A (1 NO) contact							
1C	1 form C (1 CO) contact							
Contact n	naterial							
4	AgNi 90/10							
3	AgSnO <sub>2</sub>							
Coil versi	on							-
Со	il 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

[16A, 105°C, pinning 5mm] 1 form A (NO) KZH3-1A3-D012 

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

2

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