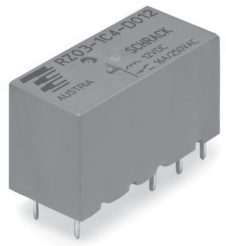
Power PCB Relay RZH 105°C 16A

- **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**



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Typical applications
Oven control, cooking plate control

Approvals

VDE REG.-Nr. C693, UL E214025	CQC: CQC12002066685

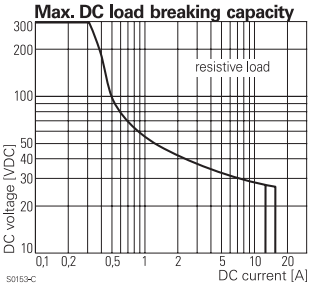
Technical data of approved types on request

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 making current, form A contact, max. 4 s, duty factor 10 %	30A
Breaking capacity max.	4000VA
Contact material	AgNi 90/10 or $AgSnO_2$
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			
RZH3-1C4	A/C (NO/NC)	16 A, 250 VAC, resistive, 105°C	10x10^3
RZH3-1A3	A (NO)	16 A, 250 VAC, resistive, 85°C	50 x 10^3
RZH3-1A3	A (NO)	12 A, 250 VAC, resistive, 105°C	20 x 10^3
RZH . -1A4	A (NO)	10 A, 250 VAC, resistive, 105°C	150x10^3
RZHH-1A4	A (NO)	12 A, 250 VAC, resistive, 85°C	150x10^3
RZHH-1A4	A (NO)	18 A, 250 VAC, resistive, 85°C	30x10^3
RZHH-1A4	A (NO)	12 A, 250 VAC, resistive, 105°C	100x10^3
RZHH-1A4	A (NO)	10 A, 250 VAC, resistive, 105°C	300x10^3
RZHH-1A4	A (NO)	16 A, 250 VAC, resistive, 105°C	30x10^3
RZH . -1A4	A (NO)	16 A, 250 VAC, resistive, 85°C	50x10^3
UL 508			
RZH3-1A4	A (NO)	10 A, 250 VAC, resistive, 105°C	150x10^3
RZH3-1C4	A/C (NO/NC)	16 A, 250 VAC, resistive, 105°C	10x10^3
RZHH-1A4	A (NO)	10 A, 250 VAC, resistive, 105°C	250x10^3
RZHH-1A4	A (NO)	12 A, 250 VAC, resistive, 105°C	100x10^3
RZHH-1A4	A (NO)	12 A, 250 VAC, resistive, 85°C	150x10^3
RZHH-1A4	A (NO)	16 A, 250 VAC, resistive, 105°C	30x10^3
RZHH-1A4	A (NO)	16 A, 250 VAC, resistive, 85°C	50x10^3
RZ03-1A3	C (CO)	16 A, 250 VAC, resistive, 85°C	10 x 10^3



Contact Data (continued)

Mechanical endurance	>10x10^6 operations

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

Coil Data

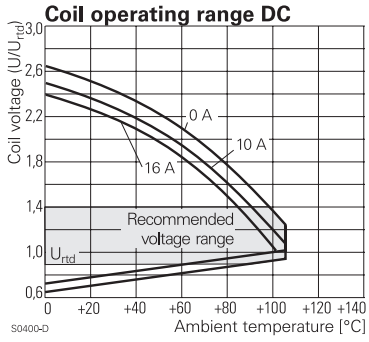
Coil voltage range	3 to 48VDC
Operative range, IEC 61810	90...110% U_{RTD}
Coil insulation system according UL1446	class F

Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW[1)]
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$_{rms}$
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

02-2012, Rev. 0212
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Power PCB Relay RZH 105°C 16A (Continued)

Other Data

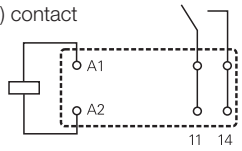
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter	
Resistance to heat and fire	
standard cover version	according EN 60335-1, par.30
Ambient temperature	-40 to 105°C
Category of environmental 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[2)]
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



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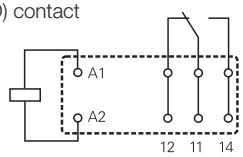
1 form C (CO) contact



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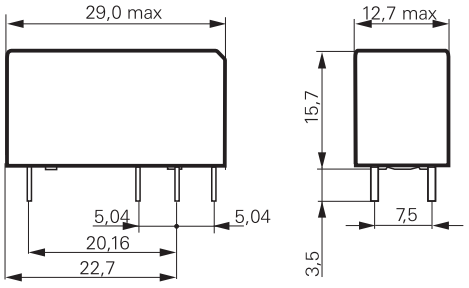
Dimensions

16 A, pinning 5 mm



S0557-AA

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**

Type
RZ Power PCB Relay RZ

Version
H Hot version 105°C

Version
3 double pinning 5mm, 16A (1 form A or 1 form C)
H double pinning 5mm, 16A High performance (1 form A)

Contact Configuration
1A 1 form A (1 NO) contact
1C 1 form C (1 CO) contact

Contact material
4 AgNi 90/10
3 $AgSnO_2$

Coil version
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)	$AgSnO_2$	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