

**Power PCB Relay RTH 105°C 16A**

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



Typical applications  
Oven control, cooking plate control



F0220-D

**Approvals**

VDE REG.-Nr. 6106, UL E214025, cCSAus 14385  
Technical data of approved types on request

**Contact Data**

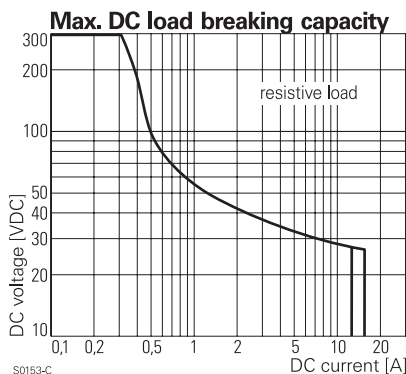
Contact arrangement	1 form C (CO) or 1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	400VAC
Rated current	16A <sup>1)</sup>
Limiting continuous current, form A/form B	16 / 26A
Limiting making current (form A contact) max. 4 s, duty factor 10 %	30A
Breaking capacity max.	4000VA
Contact material	AgNi 90/10
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>			
RTH14	A (NO)	10A, 250VAC resistive, 105°C	150x10 <sup>3</sup>
RTH14	C (CO)	16A, 250VAC resistive, 105°C	10x10 <sup>3</sup>
RTH14	B (NC)	26A, 250VAC resistive, 85°C	500
RTH34	A (NO)	10A, 400VAC resistive, 105°C	150x10 <sup>3</sup>
RTHH4	A (NO)	10A, 250VAC resistive, 105°C	250x10 <sup>3</sup>
<b>UL 508</b>			
RTH14	A/B (NO/NC)	16A, 250VAC, resistive, 105°C	30x10 <sup>3</sup>
RTH34	A (NO)	20A, 250VAC, general purpose, 105°C	6x10 <sup>3</sup>

Mechanical endurance >30x10<sup>6</sup> operations

1) Continuous thermal load >10A at 105°C requires reduction of coil power to 64% of rated power after 100ms



**Coil Data**

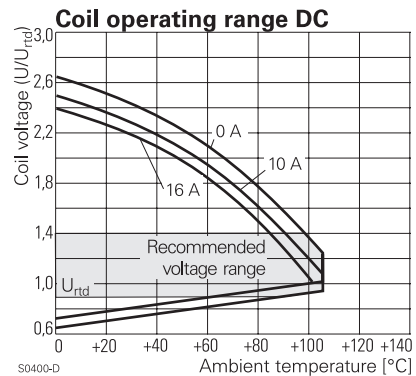
Coil voltage range	5 to 60VDC
Operative range, IEC 61810	90...110% U <sub>RTD</sub>
Coil insulation system according UL1446	class F

**Coil versions, DC coil**

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
009	9	6.3	0.9	203	399 <sup>1)</sup>
012	12	8.4	1.2	360	400 <sup>1)</sup>
024	24	16.8	2.4	1440	400 <sup>1)</sup>

1) Continuous thermal load > 10 A at 105°C requires reduction of coil power to 64% of rated power after 100ms.

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 RTH 105°C 16A (Continued)**

**Other Data**

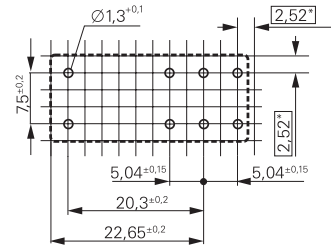
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://www.te.com/customersupport/rohssupportcenter)

Resistance to heat and fire	WG 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)	form A/form B contact, 30 to 150Hz	20/5g
Shock resistance (destructive)		100g
Terminal type		PCB-THT
Weight		14g
Resistance to soldering heat THT	IEC 60068-2-20	270°C/10s
Packaging/unit		tube/20 pcs., box/500 pcs.

**PCB layout / terminal assignment**

Bottom view on solder pins

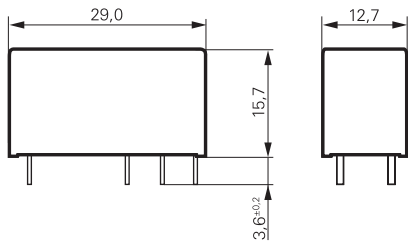
16A, pinning 5mm



S0418-CA

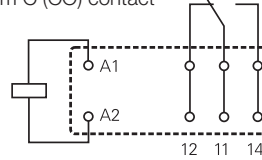
\*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

**Dimensions**



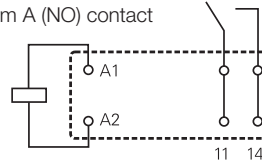
S0272-BA

1 form C (CO) contact



S0163-BE

1 form A (NO) contact



S0163-BF

**Product code structure**

Typical product code **RT H 3 4 012 WG**

<b>Type</b>	<b>RT</b> Power PCB Relay RTH 105°C 16A
<b>Version</b>	<b>H</b> 16A, pinning 5mm, 105°C
<b>Contact configuration</b>	<b>1</b> 1 form C (CO) contact <b>3</b> 1 form A (NO) contact <b>H</b> 1 form A (NO) contact „High Performance“
<b>Contact material</b>	<b>4</b> AgNi 90/10
<b>Coil</b>	Coil code: please refer to coil versions table
<b>Version</b>	<b>Blank</b> Standard version <b>WG</b> Product in accordance with IEC 60335-1 (domestic appliances)

Product code	Version	Contact configuration	Contact Material	Coil	Part number
RTH14012	16A, 105°C	1 form C (CO) contact	AgNi 90/10	12VDC	8-1415006-1
RTH14012WG				24VDC	1-1415538-1
RTH14024WG				12VDC	9-1415535-4
RTH34012		1 form A (NO) contact		12VDC	9-1415006-1
RTH34012WG				24VDC	1-1415536-9
RTH34024				24VDC	1415039-1
RTH34024WG				9VDC	2-1415536-0
RTHH4009WG	16A, 105°C, High Performance			12VDC	1-1415540-6
RTHH4012				12VDC	8-1415047-1
RTHH4012WG				24VDC	4-1415536-2
RTHH4024				24VDC	9-1415047-1

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

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