

Power PCB Relay RTH 105°C 16A

- 1 pole 16 A, 1 CO or 1 NO contact
- Ambient temperature 105°C
- Sensitive coil 400 mW
- 5 kV / 10 mm coil-contact
- Reinforced insulation
- WG version: Product in accordance to IEC60335-1

Applications

Oven control, cooking plate control



F0220-D

Approvals

VDE REG.-Nr. 6106, c **us** E214025, c **us** 14385
Technical data of approved types on request

Contact data

Contact configuration	1 CO or 1 NO
Contact set	single contact
Type of interruption	micro disconnection
Rated voltage / max. switching voltage AC	250 / 400 VAC
Rated current	16 A ¹⁾
Limiting continuous current NO/NC contact	16 / 25 A
Maximum breaking capacity AC	4000 VA
Limiting making capacity, max 4 s, duty factor 10%	30 A
Contact material	AgNi 90/10
Rated frequency of operation with / without load	6 / 1200 min ⁻¹
Operate- / release time	max 8 / 6 ms
Bounce time NO / NC contact	max 4 / 6 ms

Contact ratings

Type	Contact	Load	Ambient temp. [°C]	Cycles
IEC 61810				
RTH14	NO	10 A, 250 VAC, cosφ=1	105°C	150x10 ³
RTH14	CO	16 A, 250 VAC, cosφ=1	105°C	10x10 ³
RTH14	NC	26 A, 250 VAC, cosφ=1	85°C	500
RTH34	NO	10 A, 400 VAC, cosφ=1	105°C	150x10 ³
RTHH4	NO	10 A, 250 VAC, cosφ=1	105°C	250x10 ³
UL 508				
RTH14	NO / NC	16 A, 250 VAC, resistive	105°C	30x10 ³
RTH34	NO	20 A, 250 VAC, general purpose	105°C	6x10 ³

Coil data

Rated coil voltage range DC coil	5...60 VDC
Operative voltage range, % of rated coil voltage	90 - 110 %
Coil insulation system according UL1446	class F

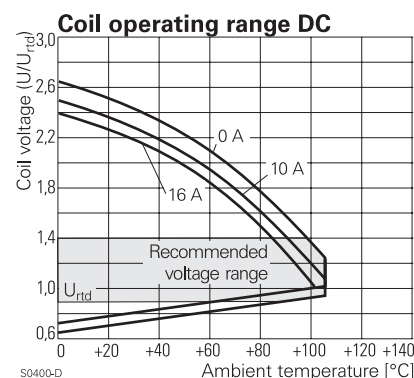
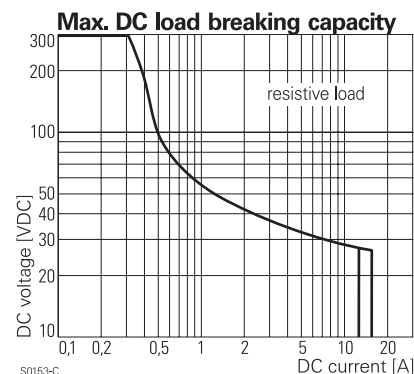
Coil versions, DC-coil

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

All figures are given for coil without preenergization, at ambient temperature +23°C

Other coil voltages on request

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



Power PCB Relay RTH 105°C 16A (Continued)

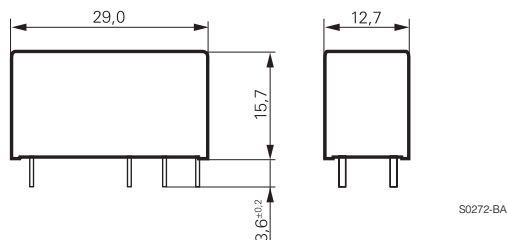
Insulation

Dielectric strength coil-contact circuit	5000 V _{rms}
open contact circuit	1000 V _{rms}
Clearance / creepage coil-contact circuit	≥ 10 / 10 mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 250 V
Insulation to IEC 61810-1	
Type of insulation coil-contact circuit	reinforced
open contact circuit	micro disconnection
Rated insulation voltage	250 V
Pollution degree	3
Rated voltage system	240 V
Overvoltage category	III

Other data

Mechanical endurance	> 30 x 10 ⁶ cycles
Material	
RoHS - Directive 2002/95/EC	compliant as per product date code 0413
Resistance to heat and fire, WG version	according EN60335, par30.
Environment	
Ambient temperature range	-40...+105°C
Vibration resistance (function) NO / NC contact	20 / 5 g, 30 ... 150 Hz
Shock resistance (destruction)	100 g
Category of protection	RTII - flux proof
Processing	
Mounting	pcb
Mounting distance	≥ 0 mm
Resistance to soldering heat flux-proof version	270 °C / 10 s
Relay weight	14 g
Packaging unit	20 / 500 pcs

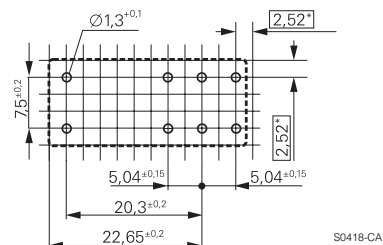
Dimensions



PCB layout / terminal assignment

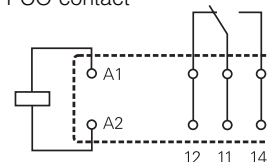
Bottom view on solder pins

16 A, pinning 5 mm

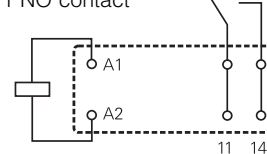


*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

1 CO contact



1 NO contact



Product key

Typical product key

RT H 3 4 012 WG

Type

RT Power PCB Relay RTH 105°C 16A

Version

H 16 A, pinning 5 mm, 105°C

Contact configuration

1 1 CO contact (1 form C)

3 1 NO contact (1 form A)

H 1 NO contact "High Performance" (1 form A)

Contact material

4 AgNi 90/10

Coil

Coil code: please refer to coil versions table

Version

Blank Standard version

WG Product in accordance with IEC 60335-1 (domestic appliances)

Product key	Version	Contacts	Contact material	Coil	Part number
RTH14012	16 A, 105°C	1 CO contact	AgNi 90/10	12 VDC	8-1415006-1
RTH34012	pinning 5mm	1 NO contact			9-1415006-1
RTHH4012	flux proof	1 NO high perform.			8-1415047-1
RTH14012WG	16 A, 105°C	1 CO contact			1-1415538-1
RTH34012WG	pinning 5mm	1 NO contact			1-1415536-9
RTH14024WG	flux proof	1 CO contact		24 VDC	9-1415535-4
RTH34024WG	IEC 60335-1	1 NO contact			2-1415536-0