

Power PCB Relay RTH 105°C 16A

- 1 pole 16 A, 1 CO or 1 NO contact
- High-temperature version
- Sensitive coil 400 mW
- 5 kV / 10 mm coil-contact
- Reinforced insulation
- WG version: Product in accordance to IEC60335-1
- Ambient temperature 105°C at rated load
- RoHS compliant (Directive 2002/95/EC) as per product date code 0413



F0220-C

Applications

Oven control, cooking plate control

Approvals

VDE REG.-Nr. 6106, **CE** us E214025
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 current	16 A ¹⁾
Rated voltage / max.switching voltage AC	240/400 VAC
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
Mechanical endurance	> 10 x 10 ⁶ cycles
Rated frequency of operation with / without load	6 / 1200 min ⁻¹

Contact ratings

Type	Load	Cycles
RTH14	10 A, 250 VAC, NO contact, 105°C, EN61810-1	1,5x10 ⁵
RTH14	16 A, 250 VAC, NO contact, 105°C, UL508	3x10 ⁴
RTH14	16 A, 250 VAC, CO contact, 105°C, EN61810-1	1x10 ⁴
RTHH4	10 A, 250 VAC, 105°C	typ 3x10 ⁵
RTHH4	16/8 A, 250 VAC, 105°C	typ 2,5x10 ⁵
RTHH4	15 A, 250 VAC, 105°C, 10% DF, 7.5 min ⁻¹ , UL508	1x10 ⁵

Coil data

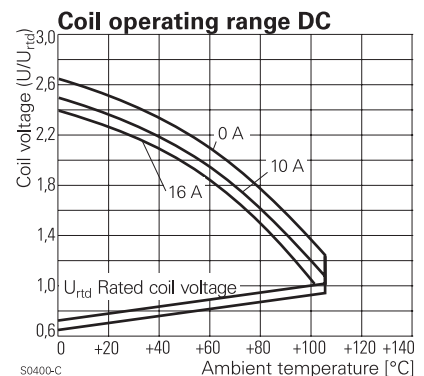
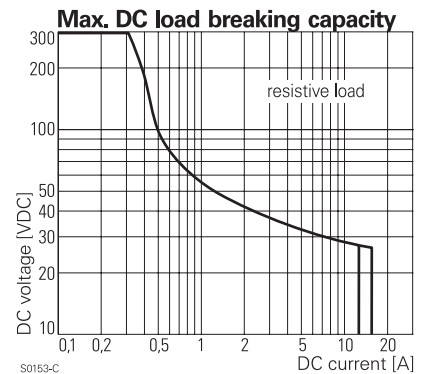
Rated coil voltage range DC coil	5...60 VDC
Coil power	typ 400 mW ¹⁾
Operative voltage range, % of rated coil voltage	90 - 110 %
Coil insulation system according UL1446	class F

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
012	12	8.4	1.2	360±10%	400
024	24	16.8	2.4	1440±10%	400

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

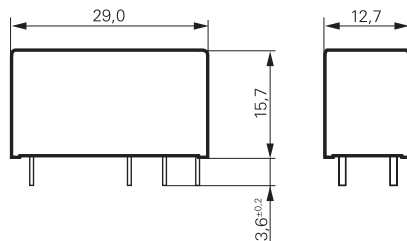
¹⁾ Continuous thermal load > 10 A at 105°C requires reduction of coil power to 64% of rated power after 100 ms



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 60664-1	
Type of insulation coil-contact circuit	reinforced
open contact circuit	functional
Rated insulation voltage	250 V
Pollution degree	3
Rated voltage system	240 V
Overvoltage category	III

Other data	
RoHS - Directive 2002/95/EC	compliant as per product date code 0413
Flammability class according to UL94	V-0
For WG version: GWFI to IEC 60335-1	> 850 °C
GWT to IEC 60335-1 current ≤ 0,2 A	> 650 °C
current > 0,2 A	> 750 °C
Ambient temperature range	-40...+105°C
Operate- / release time	typ 7 / 3 ms
Bounce time NO / NC contact	typ 1 / 3 ms
Vibration resistance (function) NO / NC contact	20 / 5 g, 30 ... 150 Hz
Shock resistance (destruction)	100 g
Category of protection	RTII - flux proof
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



S0272-BA

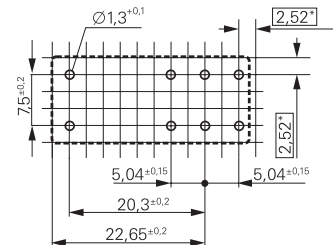
Product key

Type	
Version	H 16 A, pinning 5 mm, 105°C
Contact configuration	1 1 CO contact 3 1 NO contact H 1 NO contact "High Performance"
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)

PCB layout / terminal assignment

Bottom view on solder pins

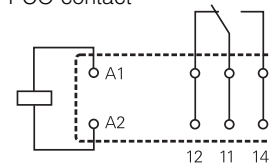
16 A, pinning 5 mm



S0418-CA

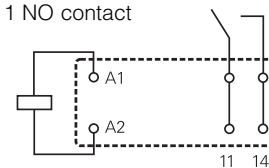
*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

1 CO contact



S0163-BE

1 NO contact



S0163-BF

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