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**

F0220-D

Typical applications
Oven control, cooking plate control

Approvals

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

Contact Data

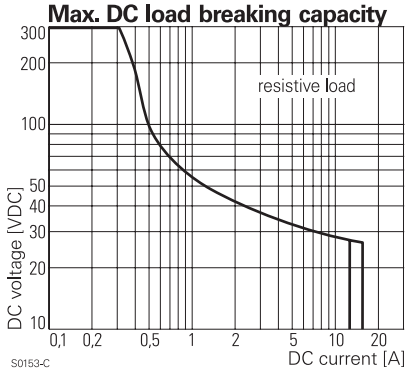
Contact arrangement	1 form C (CO) or 1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	400VAC
Rated current	16A[1)]
Limiting continuous current, form A/form B	16 / 26A
Limiting making current (form A contact) max. 4 s, duty factor 10 %	30A
Breaking capacity max.	4000VA
Contact material	AgNi 90/10
Frequency of operation, with/without load	360/72000h^{-1}
Operate/release time max.	8/6ms
Bounce time max., form A/form B	4/6ms

Contact ratings

Type	Contact	Load	Cycles
IEC 61810			
RTH14	A (NO)	10A, 250VAC resistive,105°C	150x10^3
RTH14	C (CO)	16A, 250VAC resistive, 105°C	10x10^3
RTH14	B (NC)	26A, 250VAC resistive, 85°C	500
RTH34	A (NO)	10A, 400VAC resistive, 105°C	150x10^3
RTHH4	A (NO)	10A, 250VAC resistive, 105°C	250x10^3
UL 508			
RTH14	A/B (NO/NC)	16A, 250VAC, resistive, 105°C	30x10^3
RTH34	A (NO)	20A, 250VAC, general purpose, 105°C	6x10^3

Mechanical endurance >30x10^6 operations

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



Coil Data

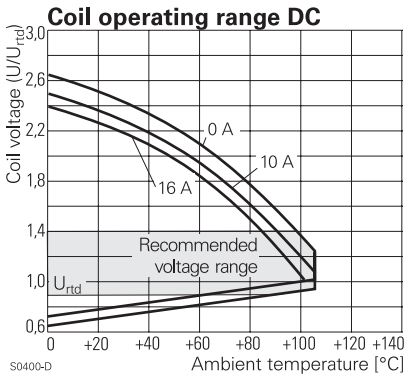
Coil voltage range	5 to 60VDC
Operative range, IEC 61810	90...110% U_{RTD}
Coil insulation system according UL1446	class F

Coil versions, DC coil

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

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$_{rms}$
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

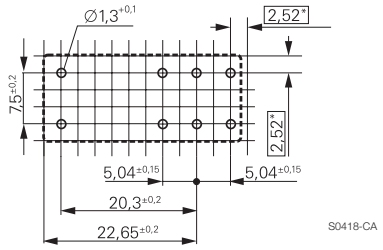
Power PCB Relay RTH 105°C 16A (Continued)

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	
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.

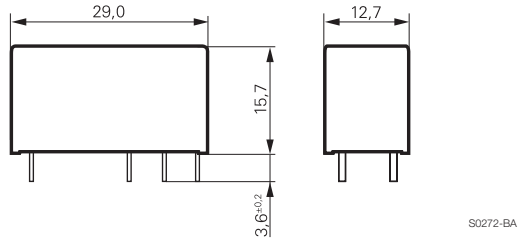
PCB layout / terminal assignment
Bottom view on solder pins

16A, pinning 5mm

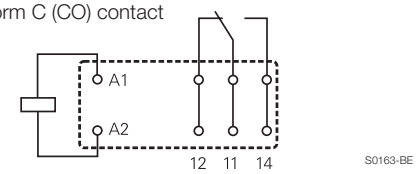


*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

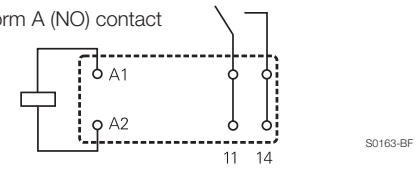
Dimensions



1 form C (CO) contact



1 form A (NO) contact



Product code structure

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

Type
RT Power PCB Relay RTH 105°C 16A

Version
H 16A, pinning 5mm, 105°C

Contact configuration
1 1 form C (CO) contact
3 1 form A (NO) contact
H 1 form A (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)

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