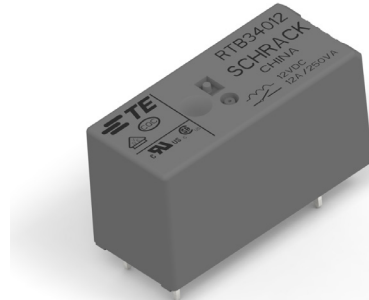


Power PCB Relay RT1 DC and AC (for Asia/Pacific markets)

- 1 pole 12A/16A, 1 form C (CO) or 1 form A (NO) contact
- Sensitive coil 400mW
- 5kV/10mm coil-contact, reinforced insulation
- Ambient temperature 85°C
- WG version: product in accordance to IEC 60335-1



Typical applications

Boiler control, timers, garage door control, POS automation, interface modules.



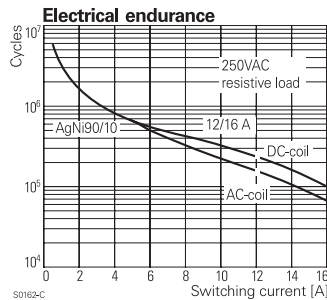
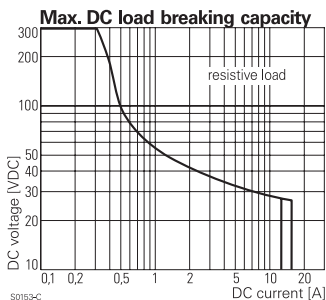
Approvals

VDE Cert. No. 40007571, UL E214025, cCSAus 1142018,
CQC 20002275223, CQC 08001027262
Technical data of approved types on request.

Contact Data	12A	16A
Contact arrangement	1 form C (CO) or 1 form A (NO)	
Rated voltage	250VAC	
Max. switching voltage	400VAC	
Rated current	12A	16A
Limiting continuous current	12A	16A, UL: 20A
Limiting making current max. 4s, duty factor 10%	25A	30A
Breaking capacity max.	3000VA	4000VA
Contact Material	AgNi 90/10	
Frequency of operation, with/without load	360/72000h ⁻¹	
Operate/release time max., DC coil	8/6ms	
Bounce time max., DC coil, form A/form B	4/6ms	

Contact ratings

Type	Contact	Load	Cycles
IEC 61810			
RT314 DC-coil	A (NO)	16A, 250VAC, cosφ=1, 85°C	30x10 ³
RT314 DC-coil	C (CO)	16A, 250VAC, cosφ=1, 85°C	10x10 ³
RT314 DC-coil	A (NO)	10A, 400VAC, cosφ=1, 85°C	150x10 ³
RT114 DC-coil	A (NO)	12A, 250VAC, cosφ=1, 85°C	50x10 ³
RT114 AC-coil	A (NO)	12A, 250VAC, cosφ=1, 70°C	100x10 ³
UL 508			
RT314	A/B (NO/NC)	20A, 250VAC, general purpose, 85°C	6x10 ³
RT334	A (NO)	16A, 250VAC, gen. purpose, 85°C	50x10 ³
RT314	A (NO)	1hp, 240VAC, 40°C	1x10 ³
EN60947-5-1			
RT314 DC-coil	A/B (NO/NC)	2A, 24VDC, DC13	6.050
EN60730-1			
RT314 DC-coil	A (NO)	12(2)A, 250VAC, 85°C	100x10 ³



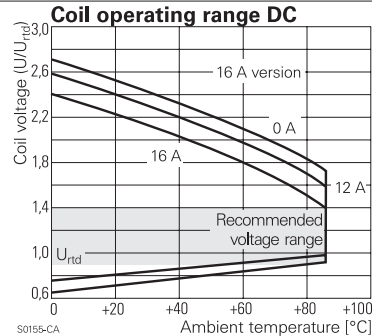
Mechanical endurance >30x10⁶ operations

Coil Data

Coil voltage range	5 to 110VDC
Operative range, IEC 61810	2
Coil insulation system according UL	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
005	5	3.5	0.5	62	403
006	6	4.2	0.6	90	400
009	9	6.3	0.9	200	400
012	12	8.4	1.2	360	400
024	24	16.8	2.4	1440	400
048	48	33.6	4.8	5520	417



All figures are given for coil without pre-energization, at ambient temperature +23°C. Other coil voltages on request.

Insulation Data

Insulation resistance	1000MΩ (at 500VDC)
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	PTI 250V

Power PCB Relay RT1 DC and AC (for Asia/Pacific markets) (Continued)

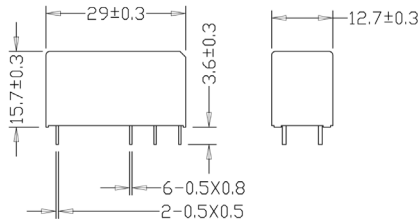
Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter	
China RoHS compliance	no hazardous material over threshold
Resistance to heat and fire	
WG version	according EN60335, par30
Ambient temperature	-40 to 85°C
Category of environmental protection	
IEC 61810	RTII - flux proof, RTIII - wash tight
Vibration resistance (functional), form A/form B contact, 30 to 500Hz	20g/5g
Shock resistance (destructive)	100g
Terminal type	PCB-THT, plug-in
Weight	14g
Resistance to soldering heat	THT, IEC 60068-2-20
RTII	270°C/10s
RTIII	260°C/5s
Packaging/unit	tube/20 pcs., box/500 pcs.

Accessories

For details see datasheet [Accessories Industrial Power Relay RT1](#)
NOTE: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1); for relays mounted on sockets deratings may apply.

Outline Dimensions



Note:

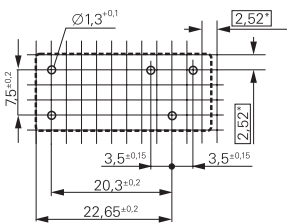
In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm;

PCB layout / terminal assignment

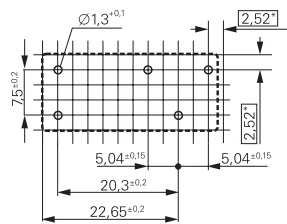
Bottom view on solder pins

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

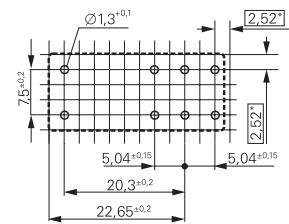
12A, pinning 3.5mm



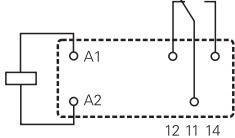
12A, pinning 5mm



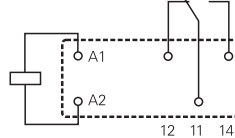
16A, pinning 5mm



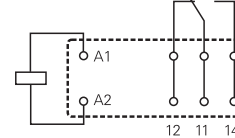
1 form C (CO) contact



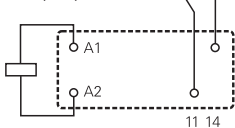
1 form C (CO) contact



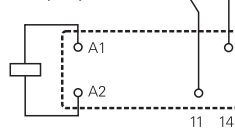
1 form C (CO) contact



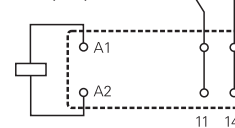
1 form A (NO) contact



1 form A (NO) contact



1 form A (NO) contact



Power PCB Relay RT1 DC and AC (for Asia/Pacific markets) (Continued)

Product code structure	Typical product code	RT	3	1	4	024
Type	RT Power PCB Relay RT1					
Version	<ul style="list-style-type: none"> 1 12A, pinning 3.5mm, flux proof 2 12A, pinning 5mm, flux proof *) 3 16A, pinning 5mm, flux proof B 12A, pinning 3.5mm, wash tight D 16A, pinning 5mm, wash tight 					
Contact arrangement	<ul style="list-style-type: none"> 1 1 form C (CO) contact 3 1 form A (NO) contact 					
Contact material	<ul style="list-style-type: none"> 4 AgNi 90/10 5 AgNi 90/10 gold plated (for type RT31.) 					
Coil	Coil code: please refer to coil versions table					
Version	<ul style="list-style-type: none"> Blank Standard version WG Product in accordance with IEC 60335-1 (domestic appliances) R Reflow solderable*) Wash tight version on request. 					

Product code	Version	Contact	Contact Material	Coil	Version	Part number
RT114009	12A, pinning 3.5mm,	1 form C (CO)	AgNi 90/10	9VDC	standard	1-1649326-2
RT114012	flux proof	contact		12VDC		1-1649326-3
RT114024				24VDC		1-1649326-5
RT114048				48VDC		1-1649326-6
RT114110				110VDC		1-1649326-8
RT115024			AgNi 90/10 gold pl.	24VDC		3-1833000-9
RT134012		1 form A (NO)	AgNi 90/10	12VDC		3-1649326-1
RT134024		contact		24VDC		3-1649326-3
RT214005	12A, pinning 5mm,	1 form C (CO)		5VDC		1-1649327-0
RT214012	flux proof	contact		12VDC		1-1649327-3
RT214024				24VDC		1-1649327-5
RT234012		1 form A (NO)		12VDC		3-1649327-1
RT234024		contact		24VDC		3-1649327-3
RT314005	16A, pinning 5mm,	1 form C (CO)		5VDC		1-1649328-0
RT314006	flux proof	contact		6VDC		1-1649328-1
RT314012				12VDC		1-1649328-3
RT314012WG				12VDC	IEC 60335-1 compliant	5-1833002-0
RT314018				18VDC	standard	1-1649328-4
RT314024				24VDC		1-1649328-5
RT314024WG				24VDC	IEC 60335-1 compliant	5-1833002-1
RT314048				48VDC	standard	1-1649328-6
RT314060				60VDC		1-1649328-7
RT314110				110VDC		1-1649328-8
RT315024			AgNi 90/10 gold pl.	24VDC		3-1833002-7
RT334012		1 form A (NO)	AgNi 90/10	12VDC		3-1649328-1
RT334012WG		contact		12VDC	IEC 60335-1 compliant	5-1833002-2
RT334024				24VDC	standard	3-1649328-3
RT334048				48VDC		3-1649328-4
RTB14005	12A, pinning 3.5mm,	1 form C (CO)		5VDC		1649326-1
RTB14012	wash tight	contact		12VDC		1649326-4
RTB14024				24VDC		1649326-6
RTB14048				48VDC		1649326-7
RTB34005		1 form A (NO)		5VDC		1-1649326-9
RTB34012		contact		12VDC		2-1649326-2
RTD14024	12A, pinning 5mm, wash tight	1 form C (CO)		24VDC		1649327-6
RTD14005	16A, pinning 5mm,	contact		5VDC		1649328-1
RTD14012	wash tight			12VDC		1649328-4
RTD14024				24VDC		1649328-6
RTD14048				48VDC		1649328-7
RTD14060				60VDC		1649328-8
RTD14110				110VDC		1649328-9
RTD34012		1 form A (NO)		12VDC		2-1649328-2
RTD34024WG		contact		24VDC	IEC 60335-1 compliant	3-1649328-7
RTD34015				15VDC	standard	4-1833002-0
RTD34024				24VDC		2-1649328-4