

Power PCB Relay RT1 Clear Cover

- 1 pole 12A/16A, 1 form C (CO) or 1 form A (NO) contact
- DC or AC coil
- 5kV/10mm coil-contact, reinforced insulation
- Sensitive coil 400mW
- Clear Cover



Typical applications
Timers, garage door control, POS automation, interface modules, mechanical engineering



Approvals
VDE Cert. No. 40007571, cULus E214025, cCSAus 1142018
CQC 18002197247
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, AgNi 90/10 gold plated	
Frequency of operation, with/without load		
DC coil	360/72000h ⁻¹	
AC coil	360/36000h ⁻¹	
Operate/release time max., DC coil	8/6ms	
Bounce time max., DC coil, form A/form B	4/6ms	
Electrical endurance	see electrical endurance graph ¹⁾	

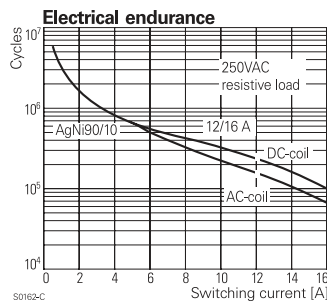
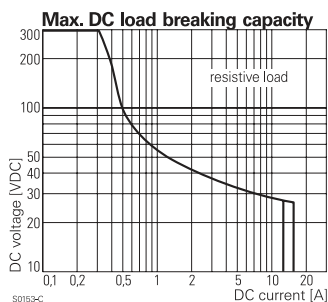
Contact ratings			
Type	Contact	Load	Cycles
IEC 61810			
RT314	A (NO)	16A, 250VAC, cosφ=1, 70°C	50x10 ³
RT314	C (CO)	16A, 250VAC, cosφ=1, 70°C	10x10 ³
RT114	A (NO)	12A, 250VAC, cosφ=1, 70°C	100x10 ³

UL 61810-1 (former UL 508)			
RT314	A (NO)	pilot duty, B300, 40°C	6x10 ³
RT314	A (NO)	16A, 250VAC, gen. purpose, 70°C	50x10 ³
RT314	A (NO)	1hp, 240VAC, 40°C	1x10 ³
RT314	A (NO)	FLA/LRA, 4.5/13.1A, 480VAC, 70°C	100x10 ³

EN60730-1			
RT314 DC-coil	A (NO)	12(2)A, 250VAC, 70°C	100x10 ³

Mechanical endurance
DC coil >30x10⁶ operations
AC coil >10x10⁶ operations

1) For reflow solderable versions: actual contact performance may be influenced by the reflow soldering process.



Coil Data	
Coil voltage range, DC coil/ AC coil	6 to 110VDC / 24 to 230VAC
Operative range, IEC 61810	2
Coil insulation system according UL	class F

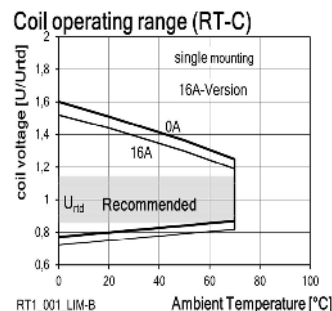
Coil versions, DC coil					
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10% ²⁾	Rated coil power mW
006	6	4.2	0.6	90	400
012	12	8.4	1.2	360	400
024	24	16.8	2.4	1440	400
060	60	42.0	6.0	8570 ²⁾	420
110	110	77.0	11.0	28800 ²⁾	420

2) Coil resistance ±12%.
All figures are given for coil without pre-energization, at ambient temperature +23°C.
Other coil voltages on request.

Coil versions, AC coil 50/60 Hz					
Coil code	Rated voltage VAC	Operate voltage VAC	Release voltage VAC	Coil resistance Ω±15% ³⁾	Rated coil power VA
524	24	18.0	3.6	350 ³⁾	0.76
615	115	86.3	17.3	8100	0.76
730	230	172.5	34.5	32500	0.74

3) Coil resistance ±10%.
All figures are given for coil without pre-energization, at ambient temperature +23°C, 50 Hz.
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	IIla
Tracking index of relay base	PTI 250V



Power PCB Relay RT1 Clear Cover (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

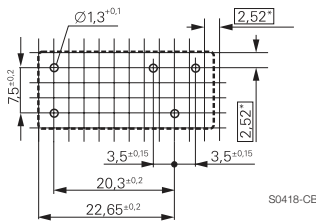
Ambient temperature	
DC coil	-40 to 70°C
AC coil	-40 to 70°C
Category of environmental protection, IEC 61810	
standard version	RTII - flux proof
Vibration resistance (functional)	
form A/form B contact, 30 to 500Hz	20g/5g
Shock resistance (destructive)	
	100g
Terminal type	
standard version	PCB-THT
Mounting distance	
	AC coil: $\geq 2.5\text{mm}$
Weight	
	14g
Resistance to soldering heat THT, IEC 60068-2-20	
RTII	270°C/10s
Packaging/unit	
	tube/20 pcs., box/500 pcs.

PCB layout / terminal assignment

Bottom view on solder pins

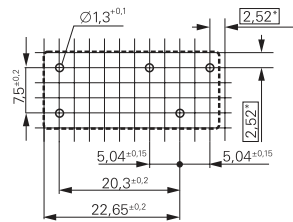
*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

12A, pinning 3.5mm



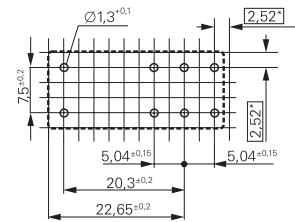
S0418-CB

12A, pinning 5mm



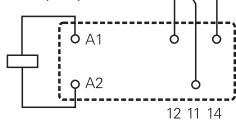
S0418-CN

16A, pinning 5mm



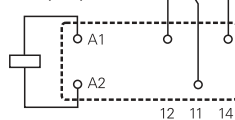
S0418-CA

1 form C (CO) contact



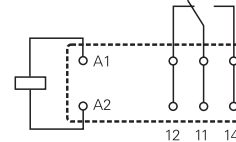
S0163-BG

1 form C (CO) contact



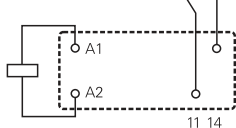
S0163-BC

1 form C (CO) contact



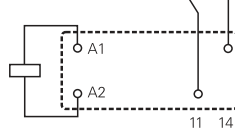
S0163-BE

1 form A (NO) contact



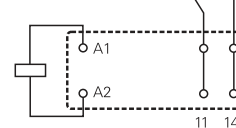
S0163-BH

1 form A (NO) contact



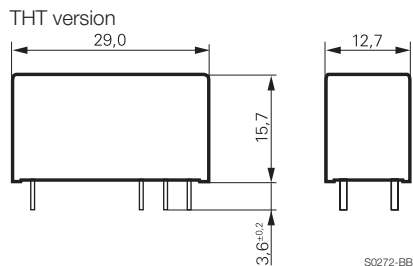
S0163-BD

1 form A (NO) contact



S0163-BF

Dimensions



Power PCB Relay RT1 Clear Cover (Continued)

Product code structure	Typical product code	RT	3	1	4	024	C
Type	RT Power PCB 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 						
Contact Arrangement	<ul style="list-style-type: none"> 1 1 form C (CO) contacts 3 1 form A (NO) contacts 						
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	C Clear cover						

Product code	Version	Contacts	Cont. material	Coil	Version	Part Number
RT114024C	12A, pinning 3.5mm,	1 form C (CO)	AgNi 90/10	24VDC	Standard	tbd
RT114730C	flux proof	contacts		230VAC		1-1415543-3
RT114524C				24VAC		1-1415543-2
RT214024C	12A, pinning 5mm, flux proof			24VDC		tbd
RT314024C	16A, pinning 5mm,					tbd
RT314524C	flux proof			24VAC		tbd
RT314730C				230VAC		1-1415543-1

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