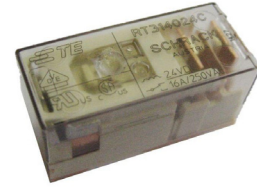


**Power PCB Relay RT1 Clear Cover**

- 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 <sup>-1</sup>	
AC coil	360/36000h <sup>-1</sup>	
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 <sup>1)</sup>	

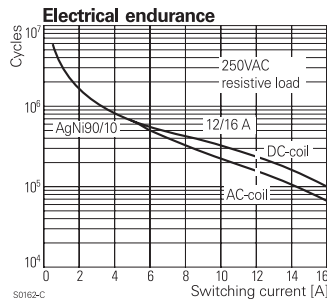
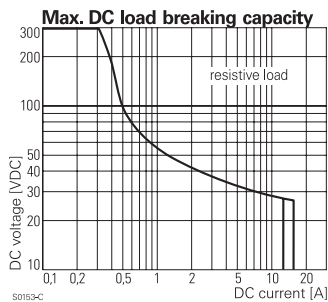
Contact ratings			
Type	Contact	Load	Cycles
<b>IEC 61810</b>			
RT314	A (NO)	16A, 250VAC, cosφ=1, 70°C	50x10 <sup>3</sup>
RT314	C (CO)	16A, 250VAC, cosφ=1, 70°C	10x10 <sup>3</sup>
RT114	A (NO)	12A, 250VAC, cosφ=1, 70°C	100x10 <sup>3</sup>

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

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

Mechanical endurance  
DC coil >30x10<sup>6</sup> operations  
AC coil >10x10<sup>6</sup> 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

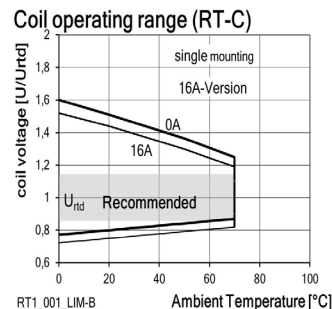
Coil versions, DC coil					
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10% <sup>2)</sup>	Rated coil power mW
006	6	4.2	0.6	90	400
012	12	8.4	1.2	360	400
024	24	16.8	2.4	1440	400
060	60	42.0	6.0	8570 <sup>2)</sup>	420
110	110	77.0	11.0	28800 <sup>2)</sup>	420

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% <sup>3)</sup>	Rated coil power VA
524	24	18.0	3.6	350 <sup>3)</sup>	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 <sub>rms</sub>
between contact and coil	5000V <sub>rms</sub>
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](http://www.te.com/customersupport/rohssupportcenter)

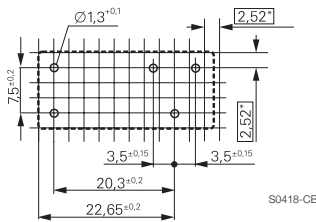
Ambient temperature	
DC coil	-40 to 70°C
AC coil	-40 to 70°C
Category of environmental protection, IEC 61810	
standard version	RTII - flux proof
Vibration resistance (functional)	
form A/form B contact, 30 to 500Hz	20g/5g
Shock resistance (destructive)	
	100g
Terminal type	
standard version	PCB-THT
Mounting 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

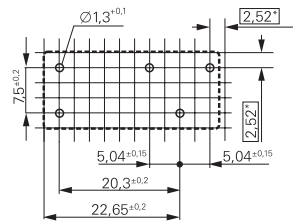
\*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

12A, pinning 3.5mm



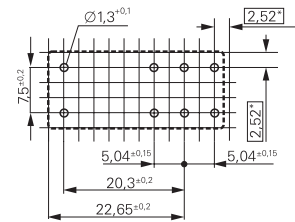
S0418-CB

12A, pinning 5mm



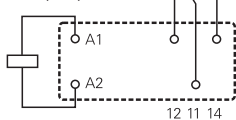
S0418-CN

16A, pinning 5mm



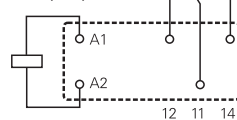
S0418-CA

1 form C (CO) contact



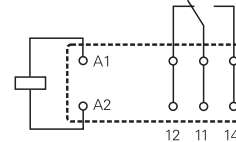
S0163-BG

1 form C (CO) contact



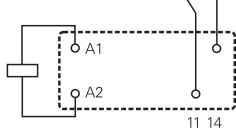
S0163-BC

1 form C (CO) contact



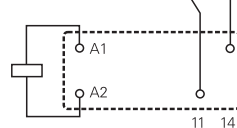
S0163-BE

1 form A (NO) contact



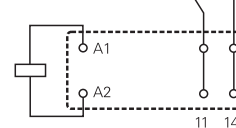
S0163-BH

1 form A (NO) contact



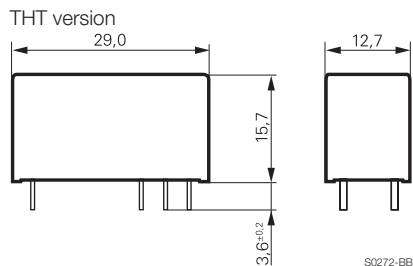
S0163-BD

1 form A (NO) contact



S0163-BF

**Dimensions**



S0272-BB

**Power PCB Relay RT1 Clear Cover** (Continued)

<b>Product code structure</b>	Typical product code	<b>RT</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>024</b>	<b>C</b>
<b>Type</b>	RT Power PCB RT1						
<b>Version</b>	<ul style="list-style-type: none"> <li><b>1</b> 12A, pinning 3.5mm, flux proof</li> <li><b>2</b> 12A, pinning 5mm, flux proof</li> <li><b>3</b> 16A, pinning 5mm, flux proof</li> </ul>						
<b>Contact Arrangement</b>	<ul style="list-style-type: none"> <li><b>1</b> 1 form C (CO) contacts</li> <li><b>3</b> 1 form A (NO) contacts</li> </ul>						
<b>Contact material</b>	<ul style="list-style-type: none"> <li><b>4</b> AgNi 90/10</li> <li><b>5</b> AgNi 90/10 gold plated (for type RT31.)</li> </ul>						
<b>Coil</b>	Coil code: please refer to coil versions table						
<b>Version</b>	<b>C</b> 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