

Power PCB Relay RT1

- 1 pole 12A/16A, 1 form C (CO) or 1 form A (NO) contact
- 5kV/10mm coil-contact, reinforced insulation
- Ambient temperature 85°C



Typical applications

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

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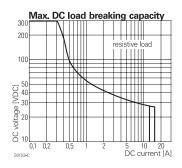
VDE Cert. No. 40007571, cULus E214025, cCSAus 1142018; CQC in preparation

Technical data of approved types on request

Contact Data	12A	16A
Contact arrangement	1 form C (CO)	or 1 form A (NO)
Rated voltage	25	0VAC
Max. switching voltage	40	0VAC
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	AgN	i 90/10
Frequency of operation, with/without	load	
_ DC coil	360/7	'2000h ⁻¹
Operate/release time max., DC coil	8/	6ms
Bounce time max., DC coil, form A/fe	orm B 4/	6ms
Contact ratings		

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Contact rating	s		
Туре	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
RT314	A (NO)	FLA/LRA, 4.5/13.1A, 480VAC, 70°C	100x10 ³
RT314, RTD14	A (NO)	1/2 HP@120VAC, 40°C	1x10 ³
RT314, RTD14	A (NO)	60LRA/10 FLA@240VAC, 40°C	6x10 ³
RT314, RTD14	A (NO)	A300 Pilot Duty, 40°C	6x10 ³

B300 Pilot Duty, 40°C





Contact Dat	ta (continue	ed)	
EN60947-5-1			
RT314 DC-coil	A/B (NO/N	NC) 2A, 24VDC, DC13	6.050
EN60730-1			
RT314 DC-coil	A (NO)	12(2)A, 250VAC, 85°C	100x10 ³
Mechanical end	durance		
DC coil		>30x10 ⁶ operations	
1) For reflect cold	oroble version	a satual contact performance may be in	fluorood by the

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

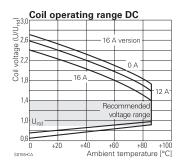
Coil Data		
Coil voltage range, DC coil	5 to 110VDC	
Operative range, IEC 61810	2	
Coil insulation system according UL	class F	

Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	$\Omega \pm 10\%^{2)}$	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
018	18	12.6	1.8	770	420
024	24	16.8	2.4	1440	400
048	48	33.6	4.8	5520	417
110	110	77.0	11.0	288002)	420

²⁾ Coil resistance ±12%.

6x10³

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



RT314, RTD14 B (CO)



Power PCB Relay RT1 (Continued)

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	Illa
Tracking index of relay base	PTI 250V

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C)	τn	er	IJ	ata

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 85°C

Category of environmental protection, IEC 61810

RTII - flux proof, RTIII - wash tight standard version

Vibration resistance (functional)

form A/form B contact, 30 to 500Hz 20g/5g Shock resistance (destructive) 100g

Other Data (continued)							
Terminal type							
standard version	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 RT 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.

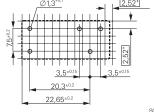
PCB layout / terminal assignment

Bottom view on solder pins

1 form C (CO) contact

1 form A (NO) contact

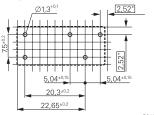
12A, pinning 3.5mm



S0163-BG

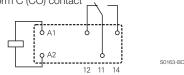
S0163-BH

12A, pinning 5mm

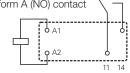




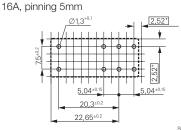
1 form C (CO) contact

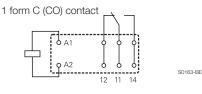


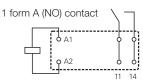
1 form A (NO) contact



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







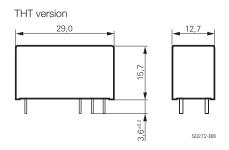
S0163-BF

S0163-BD



Power PCB Relay RT1 (Continued)

Dimensions



					١.		
Product code structure	Typical product co	de RT	3	1	4	024	
Туре							
RT Power PCB Relay RT1							
Version							
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				_			
1 1 form C (CO) contact							
3 1 form A (NO) contact							
Contact material					•		
4 AgNi 90/10							
Coil							
Coil code: please refer to coil versions table							
Version							
F Standard version							

^{*)} Wash tight version on request

Product code	Version	Contacts	Contact material	Coil	Part number
RT114012F	12A, pinning 3.5mm,	1 form C (CO)	AgNi 90/10	12VDC	1419108-2
RT114024F	flux proof	contact		24VDC	1419108-3
RT134012F		1 form A (NO)		12VDC	5-1415020-1
RT134024F		contact		24VDC	2-1393242-1
RT314005F	16A, pinning 5mm,	1 form C (CO)		5VDC	1419108-8
RT314012F	flux proof	contact		12VDC	2-1393237-2
RT314024F				24VDC	2-1393237-3
RT334012F		1 form A (NO)		12VDC	2-1393237-5
RT334024F		contact		24VDC	2-1393237-7
RTB14005F	12A, pinning 3.5mm,	1 form C (CO)		5VDC	2-1419108-4
RTB14012F	wash tight	contact		12VDC	2-1419108-5
RTB14024F				24VDC	2-1419108-6
RTB34012F		1 form A (NO)		12VDC	2-1419108-7
RTD14005F	16A, pinning 5mm,	1 form C (CO)		5VDC	2-1419108-8
RTD14012F	wash tight	contact		12VDC	2-1419108-9
RTD14024F				24VDC	3-1419108-1
RTD34012F		1 form A (NO)		12VDC	3-1419108-6
RTD34024F		contact		24VDC	3-1419108-9

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

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