

Power PCB Relay RT2 DC and AC (for global markets)

- 2 pole 8A, 2 form C (CO) or 2 form A (NO) contacts
- DC or AC coil
- 5kV/10mm coil-contact, reinforced insulation
- Ambient temperature up to 85°C
- WG version: product in accordance to IEC60335-1
- Reflow version: for THR (Through-Hole Reflow) soldering process

Typical applications

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

Approvals

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

Contact Data

Contact arrangement	2 form C (CO) or 2 form A (NO)
Rated voltage	250VAC
Max. switching voltage	400VAC
Rated current	8A, UL: 10A
Limiting continuous current	8A, UL: 10A
Limiting making current, max. 4s, dut	ty factor 10% 15A
Breaking capacity max.	2000VA
Contact material	AgNi 90/10, AgNi 90/10 gold plated,
	AgSnO ₂
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/fo	orm B 4/10ms
Electrical endurance	see electrical endurance graph ¹⁾

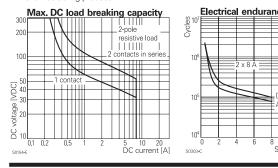
Contact ratings

Туре	Contact	Load	Cycles
IEC 61810			
RT424 DC coil	C (CO)	8A, 250VAC, cosφ=1, 85°C	10x10 ³
RT444 AC coil	A (NO)	8A, 250VAC, cosφ=1, 70°C	50x10 ³
RT424 AC coil	C (CO)	8A, 250VAC, cosφ=1, 70°C	30x10 ³
UL 508			
RT424 DC coil	A/B (NO/NC)	10A, 250VAC, gen. purpose, 85°C	20x10 ³
RT424 DC coil	A/B (NO/NC)	1/2hp, 240VAC, 85°C	1x10 ³
RT424 DC coil	A/B (NO/NC)	Pilot duty, B300, R300, 85°C	6x10 ³
EN60947-5-1			
RTE24 DC coil	A/B (NO/NC)	AC15, 250VAC, 3A	6.050
RTE24 DC coil	A/B (NO/NC)	DC13, 24VDC, 2A	6.050
RTE24 DC coil	A/B (NO/NC)	DC13, 250VDC, 0.2A	6.050
ENIORE A			

EN60730-1

RT424 DC coil A/B (NO/NC) 6(2)A, 250VAC, 85°C

100x103 1) For reflow solderable versions: actual contact performance may be influenced by the reflow soldering process





Catalog and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

250VÅ

coil

AC-coil

AgNi90/10

istive load

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Switching current [A]





Contact Data (continued)

Mechanical endurance	
DC coil	>30x10 ⁶ operations
DC coil, reflow version	>10x10 ⁶ operations
AC coil	>5x10 ⁶ operations
AC coil, reflow version	>2x10 ⁶ operations

Coil Data

Coil voltage range, DC coil/AC coil	5 to 110VDC / 24 to 230VAC
Operative range, IEC 61810	2
Coil insulation system according UL	class F

Coil versions DC coil

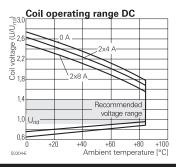
		••			
Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	$\Omega \pm 10\%^{2}$	mW
005	5	3.5	0.5	62	403
006	6	4.2	0.6	90	400
009	9	6.3	0.9	200	400
012	12	8.4	1.2	360	400
024	24	16.8	2.4	1440	400
048	48	33.6	4.8	5520	417
060	60	42.0	6.0	8570 ²⁾	420
110	110	77.0	11.0	288002)	420

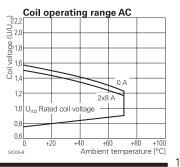
2) Coil resistance ±12%. All figures are given for coil without pre-energization, at ambient temperature +23°C. Other coil voltages on request.

Coil versions, AC coil 50Hz

Coil	Rated	Rated Operate		Coil	Rated coil
code	voltage	voltage voltage		resistance	power
	VAC	VAC	VAC	$\Omega \pm 15\%^{3)}$	VA
524	24	18.0	3.6	350 ³⁾	0.76
615	115	86.3	17.3	8100	0.76
620	120	90.0	18.0	8800	0.75
700	200	150.0	30.0	24350	0.76
730	230	172.5	34.5	32500	0.74
	1 100/ 11		c 11 111 1		

3) Coil resistance $\pm 10\%$. All figures are given for coil without pre-energization, at ambient temperature +23°C, 50Hz. Other coil voltages on request.





Catalog and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Catalog product data, 'Definitions' section, application notes and all specifications are subject to change.



Power PCB Relay RT2 DC and AC (for global markets) (Continued)

Insulation Data		
Initial dielectric strength		
between open contacts	1000V _{ms}	
between contact and coil	5000V_m_	
between adjacent contacts	2500V	
Clearance/creepage		
between contact and coil	≥10/10mm	
between adjacent contacts	≥3/4mm	
Material group of insulation parts	Illa	
Tracking index of relay base	PTI 250V	
reflow version	PTI 175V	

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 or reflow version	according EN60335, par30
Ambient temperature	
DC coil	-40 to 85°C
AC coil	-40 to 70°C
AgSnO ₂ contacts	-40 to 70°C
Category of environmental protection	n, IEC 61810
standard version	RTII - flux proof, RTIII - wash tight
reflow version	RTII - flux proof
Vibration resistance (functional),	
form A/form B contact, 30 to 300ł	Hz 20g/5g
Shock resistance (destructive)	100g

Other Data (continued)	
Terminal type	PCB-THT, plug-in
reflow version	PCB-THR
Mounting distance, AC coil	≥2.5mm
Weight	13g
Resistance to soldering heat THT, IEC	60068-2-20
RTII	270°C/10s
RTIII	260°C/5s
Resistance to soldering heat THR	
reflow soldering (for reflow version)	forced gas convection 4) or
	vapour phase ⁵⁾
temperature profile	according EN61730
Packaging/unit	tube/20pcs., box/500pcs.
4) infrared heating not allowed.	

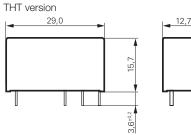
5) recommended fluid LS/230.

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.

Dimensions

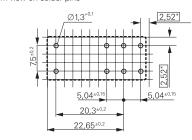


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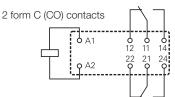
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THR version (reflow solderable)

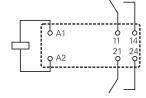
PCB layout / terminal assignment Bottom view on solder pins



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

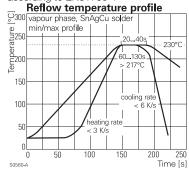


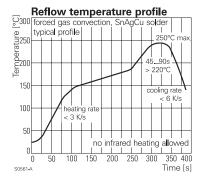
2 form A (NO) contacts



Process conditions for Reflow soldering

according to EN61760-1





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Catalog and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section. Catalog and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

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Power PCB Relay RT2 DC and AC (for global markets) (Continued)

Product	ct code structure Typical p	product code	RT	4	2	4	024	
Туре								
R	RT Power PCB Relay RT2							
Version								
4	8A, pinning 5mm, flux proof							
E	8A, pinning 5mm, wash tight (not for Reflow version)							
Contact a	arrangement							
2	2 form C (CO) contacts							
4	2 form A (NO) contacts							
Contact r	material							
3	B AgSnO							
4	AgNi 90/10							
5	AgNi 90/10 gold plated							
Coil								
	Coil code: please refer to coil versions table							
Version								
BI	Blank Standard version							
W	VG Product in accordance with IEC 60335-1 (domestic appliances)							
R	R Reflow solderable							

Product code	Version	Contacts	Contact material	Coil	Version	Part number
RT423730	8A,	2 form C (CO)	AgSnO	230VAC	Standard	4-1393243-3
RT424005	pinning 5mm,	contacts	AgNi 90/10	5VDC		5-1393243-9
RT424006	flux proof			6VDC		6-1393243-1
RT424012				12VDC		6-1393243-3
RT424012WG					IEC60335-1 compliant	7-1415538-8
RT424024				24VDC	Standard	6-1393243-8
RT424024WG					IEC60335-1 compliant	7-1415538-7
RT424048				48VDC	Standard	7-1393243-0
RT424060				60VDC		7-1393243-3
RT424110				110VDC		7-1393243-5
RT424524				24VAC		7-1393243-6
RT424615				115VAC		7-1393243-8
RT424730				230VAC		7-1393243-9
RT425003			AgNi 90/10	3VDC		7-1415525-1
RT425005			gold plated	5VDC		8-1393243-0
RT425012				12VDC		8-1393243-2
RT425024				24VDC		8-1393243-5
RT444012		2 form A (NO)	AgNi 90/10	12VDC		9-1393243-7
RT444024		contacts		24VDC		9-1393243-9
RTE24005	8A,	2 form C (CO)		5VDC		1393243-1
RTE24006	pinning 5mm,	contacts		6VDC		1393243-2
RTE24012	wash tight			12VDC		1393243-4
RTE24024				24VDC		1-1393243-0
RTE24048				48VDC		1-1393243-1
RTE24110				110VDC		1-1393243-4
RTE24524				24VAC		1-1393243-5
RTE24615				115VAC		1-1393243-7
RTE24730				230VAC		1-1393243-8
RTE25005			AgNi 90/10	5VDC		1-1393243-9
RTE25012			gold plated	12VDC		2-1393243-0
RTE25024				24VDC		2-1393243-1
RTE25524						2-1393243-4
RTE43009		2 form A (NO)	AgSnO	9VDC		4-1415535-1
RTE44009		contacts	AgNi 90/10			3-1393243-1
RTE44730				230VAC		3-1393243-5

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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TE Connectivity: RTE24024F