

Power PCB Relay RT2

- 2 pole 8 A, 2 CO or 2 NO contacts
- DC- or AC-coil
- Sensitive coil 400 mW
- Reinforced insulation
- WG version: Product in accordance to IEC60335-1



F0149-C

Applications

Domestic appliances, heating control, emergency lighting, modems

Approvals

VDE REG.-Nr. 6106, **UL** US E214025, **SP** 14385, **BEAD** C0786
 Technical data of approved types on request

Contact data

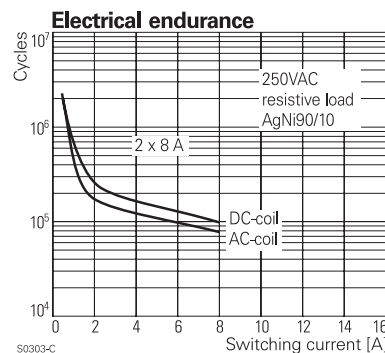
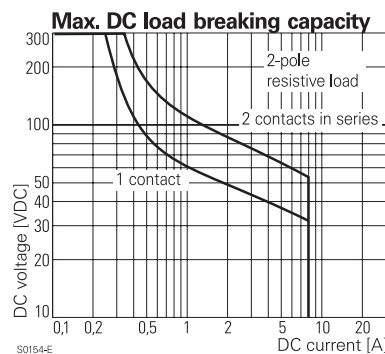
Contact configuration	2 CO or 2 NO
Contact set	single contact
Type of interruption	micro disconnection
Rated voltage / max. switching voltage AC	250 / 400 VAC
Rated current	8 A, UL: 10 A
Limiting continuous current	8 A, UL: 10 A
Maximum breaking capacity AC	2000 VA
Limiting making capacity, max 4 s, duty factor 10%	15 A
Contact material	AgNi 90/10, AgNi 90/10 gold plated, AgSnO ₂
Rated frequency of operation DC coil with / without load	6 / 1200 min ⁻¹
AC coil with / without load	6 / 600 min ⁻¹
Operate- / release time DC coil	max 8 / 6 ms
Bounce time DC coil NO / NC contact	max 4 / 10 ms

Contact ratings

Type	Contact	Load	Ambient temp. [°C]	Cycles
IEC 61810				
RT424 DC coil	CO	8 A, 250 VAC, cosφ=1	85°C	10x10 ³
RT444 AC coil	NO	8 A, 250 VAC, cosφ=1	70°C	50x10 ³
RT424 AC coil	CO	8 A, 250 VAC, cosφ=1	70°C	30x10 ³
UL 508				
RT424 DC coil	NO / NC	10 A, 250 VAC, general purpose	85°C	20x10 ³
RT424 DC coil	NO / NC	1/2 hp, 240 VAC	85°C	1x10 ³
RT424 DC coil	NO / NC	Pilot duty, B300, R300	85°C	6x10 ³
EN60947-5-1				
RTE24 DC coil	NO / NC	AC15, 250 VAC, 3A		6.050
RTE24 DC coil	NO / NC	DC13, 24 VDC, 2A		6.050
RTE24 DC coil	NO / NC	DC13, 250V DC, 0.2A		6.050
EN60730-1				
RT424 DC coil	NO / NC	6(2) A, 250 VAC	85°C	100x10 ³

Coil data

Rated coil voltage range DC coil	5...110 VDC
AC coil	24...230 VAC
Operative range to IEC 61810	2
Coil insulation system according UL1446	class F



Power PCB Relay RT2 (Continued)

Coil versions, DC-coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω	Rated coil power mW
005	5	3.5	0.5	62 ± 10%	403
006	6	4.2	0.6	90 ± 10%	400
012	12	8.4	1.2	360 ± 10%	400
024	24	16.8	2.4	1440 ± 10%	400
048	48	33.6	4.8	5520 ± 10%	417
060	60	42.0	6.0	8570 ± 12%	420
110	110	77.0	11.0	28800 ± 12%	420

All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request

Coil versions, AC-coil 50Hz

Coil code	Rated voltage VAC	Operate voltage 50 Hz VAC	Release voltage 50 Hz VAC	Coil resistance Ω	Rated coil power 50 Hz VA
524	24	18.0	3.6	350 ± 10%	0.76
615	115	86.3	17.3	8100 ± 15%	0.76
620	120	90.0	18.0	8800 ± 15%	0.75
700	200	150.0	30.0	24350 ± 15%	0.76
730	230	172.5	34.5	32500 ± 15%	0.74

All figures are given for coil without preenergization, at ambient temperature +23°C

Insulation

Dielectric strength coil-contact circuit	5000 V _{rms}
open contact circuit	1000 V _{rms}
adjacent contact circuits	2500 V _{rms}
Clearance / creepage coil-contact circuit	≥ 10 / 10 mm
adjacent contact circuits	≥ 3 / 4 mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 250 V
Insulation to IEC 60664-1	
Type of insulation coil-contact circuit	reinforced
open contact circuit	micro disconnection
adjacent contact circuits	basic
Rated insulation voltage	250 V
Pollution degree	3
Rated voltage system	240 V
Overvoltage category	2
	III

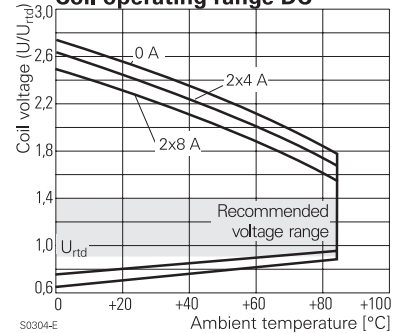
Other data

Mechanical endurance DC coil	> 30 x 10 ⁶ cycles
AC coil	> 5 x 10 ⁶ cycles
Material	
RoHS - Directive 2002/95/EC	compliant as per product date code 0413
Resistance to heat and fire, WG version	according EN60335, par30.
Environment	
Ambient temperature range	-40...+85°C
max. ambient temperature AC coil	70°C
max. ambient temperature AgSnO contacts	70°C
Vibration resistance (function) NO / NC contact	20 / 5 g, 30 ... 300 Hz
Shock resistance (destruction)	100 g
Category of protection	RTII - flux proof, RTIII - wash tight
Processing	
Mounting	pcb or on socket
Mounting distance DC / AC coil	≥ 0 / ≥ 2.5 mm
Resistance to soldering heat flux-proof version	270°C / 10 s
wash-tight version	260°C / 5 s
Relay weight	13 g
Packaging unit	20 / 500 pcs

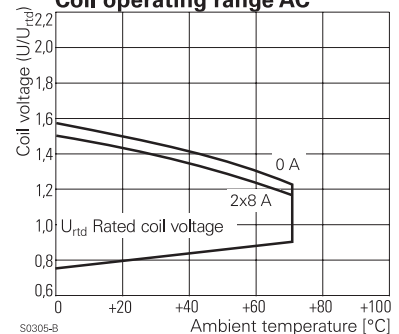
Accessories

For details see datasheet	accessories RT
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Coil operating range DC

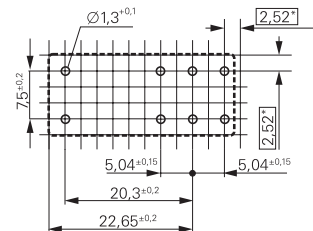


Coil operating range AC



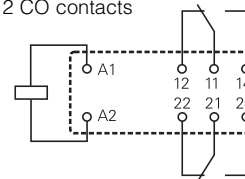
PCB layout / terminal assignment

Bottom view on solder pins

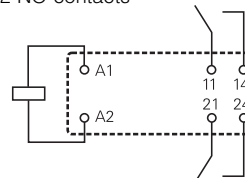


*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

2 CO contacts

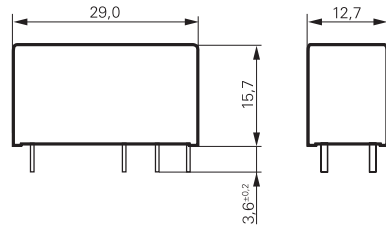


2 NO contacts



Power PCB Relay RT2 (Continued)

Dimensions



S0272-BA

Product key	Typical product key	RT	4	2	4	024
Type	RT Power PCB Relay RT2					
Version	4 8 A, pinning 5 mm, flux proof E 8 A, pinning 5 mm, wash tight					
Contact configuration	2 2 CO contacts (2 form C) 4 2 NO contacts (2 form A)					
Contact material	3 AgSnO₂ 4 AgNi 90/10 5 AgNi 90/10 gold plated					
Coil	Coil code: please refer to coil versions table					
Version	Blank Standard version WG Product in accordance with IEC 60335-1 (domestic appliances)					

Preferred types in bold print

Product key	Version	Contacts	Cont. material	Coil	Coil	Part number
RT423012	8 A	2 CO contacts	AgSnO	DC-coil	12 VDC	4-1419136-3
RT423024	pinning 5 mm				24 VDC	4-1393243-2
RT424005	flux proof		AgNi 90/10		5 VDC	5-1393243-9
RT424006					6 VDC	6-1393243-1
RT424012					12 VDC	6-1393243-3
RT424024					24 VDC	6-1393243-8
RT424048					48 VDC	7-1393243-0
RT424060					60 VDC	7-1393243-3
RT424110					110 VDC	7-1393243-5
RT424524				AC-coil	24 VAC	7-1393243-6
RT424615					115 VAC	7-1393243-8
RT424730					230 VAC	7-1393243-9
RT425005			AgNi 90/10	DC-coil	5 VDC	8-1393243-0
RT425012			gold plated		12 VDC	8-1393243-2
RT425024					24 VDC	8-1393243-5
RT425524				AC-coil	24 VAC	9-1393243-1
RT425615					115 VAC	9-1393243-2
RT425730					230 VAC	9-1393243-3
RT444012		2 NO contacts	AgNi 90/10	DC-coil	12 VDC	9-1393243-7
RT444024					24 VDC	9-1393243-9
RTE24005	8 A	2 CO contacts			5 VDC	1393243-1
RTE24006	pinning 5 mm				6 VDC	1393243-2
RTE24012	wash tight				12 VDC	1393243-4
RTE24024					24 VDC	1-1393243-0
RTE24048					48 VDC	1-1393243-1
RTE24060					60 VDC	1-1393243-3
RTE24110					110 VDC	1-1393243-4
RTE24524				AC-coil	24 VAC	1-1393243-5
RTE24615					115 VAC	1-1393243-7
RTE24730					230 VAC	1-1393243-8
RTE25005			AgNi 90/10	DC-coil	5 VDC	1-1393243-9
RTE25012			gold plated		12 VDC	2-1393243-0
RTE25024					24 VDC	2-1393243-1