

Power PCB Relay RT2 bistable

- 2 pole 8 A, 2 CO contacts
- Polarized bistable version with 1 or 2 coils
- 5 kV / 10 mm coil-contact
- Reinforced insulation

Applications

Battery powered equipment or applications with "memory function" (e.g. mains failure)



F0219-C

Approvals

VDE REG.-Nr. 6106, cULus E214025, cSP® 14385
Technical data of approved types on request

Contact data

Contact configuration	2 CO
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
Rated frequency of operation with / without load	15 / 1200 min ⁻¹
Operate- / release time	max 10 / 5 ms
Bounce time NO / NC contact	max 4 / 9 ms

Contact ratings

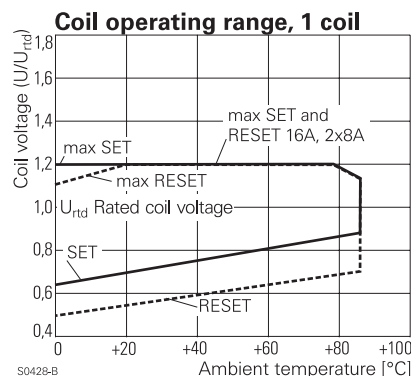
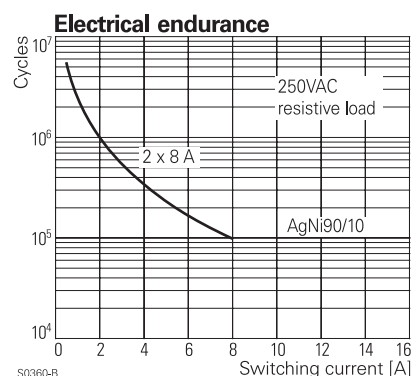
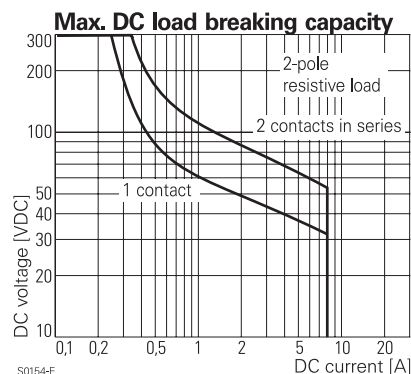
Type	Contact	Load	Ambient temp. [°C]	Cycles
IEC 61810				
RT444	NO	8 A, 250 VAC, cosφ=1	85°C	100x10 ³
RT424	CO	8 A, 250 VAC, cosφ=1	85°C	30x10 ³
UL 508				
RT424 DC coil	NO / NC	10 A, 250 VAC, general purpose	85°C	20x10 ³
RT424 DC coil	NO / NC	1/2 hp, 240 VAC	85°C	1x10 ³
RT424 DC coil	NO / NC	Pilot duty, B300, R300	85°C	6x10 ³

Coil data

	1 coil	2 coils
Rated voltage range	5...24 VDC	
Operative range to IEC 61810	2	
Limiting voltage, % of rated coil voltage	120%	150%
Minimum energization duration	30 ms	
Maximum energization duration	1 min at < 10% DF	
Coil insulation system according UL1446	class F	

Coil versions, bistable coil

Coil code	Rated voltage VDC	Operate voltage VDC	Reset voltage VDC	Coil resistance Ω	Rated coil power mW
bistable, 1 coil					
A05	5	3.5	2.8	62±10%	403
A06	6	4.2	3.3	90±10%	400
A12	12	8.4	6.6	360±10%	400
A24	24	16.8	13.2	1440±10%	400



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bistable, 2 coils

F05	5	3.5	2.8	42±10%	595
F06	6	4.2	3.3	55±10%	655
F12	12	8.4	6.6	240±10%	600
F24	24	16.8	13.2	886±10%	650

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

Coils operation

Version	1 coil		2 coils	
Coil terminals	A1	A2	A1	A3 A2
Pull-in	+	-	+	-
Reset	-	+	R	T

Contact position not defined at delivery

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 61810-1		
Type of insulation coil-contact circuit	reinforced	
open contact circuit	micro disconnection	
adjacent contact circuits	basic	
Rated insulation voltage	250 V	
Pollution degree	3	2
Rated voltage system	240 V	230 / 400 V
Overvoltage category	III	

Other data

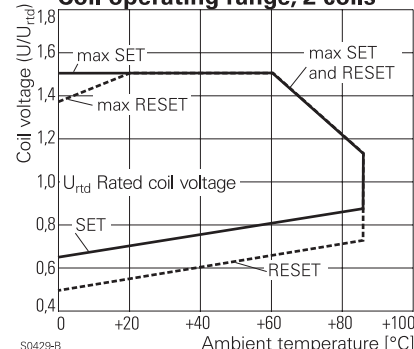
Mechanical endurance	> 2 x 10 ⁶ cycles	
Material	RoHS - Directive 2002/95/EC compliant as per product date code 0413	
Environment		
Ambient temperature range	-40...+85°C	
Vibration / shock resistance (function) opening NC cont.	3 / 5 g	
opening closed NO contact	6 / 15 g	
Shock resistance (destruction)	100 g	
Category of protection	RTII - flux-proof	
Processing		
Mounting	pcb or on socket*)	
Mounting distance	≥ 0 mm	
Resistance to soldering heat	270°C / 10 s	
Relay weight	13 g	
Packaging unit DC coil, bistable 1 coil	20 / 500 pcs	
bistable 2 coils	100 pcs	

*) socket available for 1 coil version only, see Accessories

Accessories

For 1-coil version, details see datasheet	accessories RT
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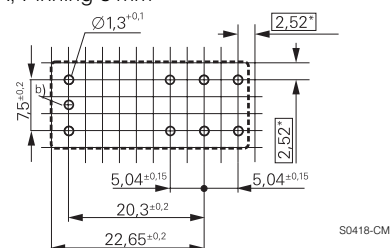
Coil operating range, 2 coils



PCB layout / terminal assignment

Bottom view on solder pins

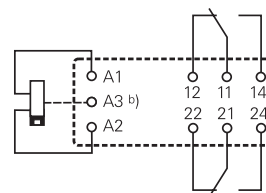
8 A, Pinning 5 mm



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

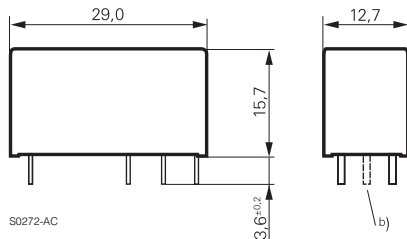
2 CO contacts

a)



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Dimensions



a) Indicated contact position while or after coil energization with reset voltage.

b) for 2 coil version only

Product key

Typical product key

RT	4	2	4	F24
Type				
RT Power PCB Relay RT2 bistable				
Version				
4 8 A, pinning 5 mm, flux proof				
Contact configuration				
2 2 CO contacts (2 form C)				
Contact material				
4 AgNi 90/10				
Coil				
Coil code: please refer to coil versions table, preferred types in bold print				

Product key	Version	Contacts	Cont. material	Coil	Coil	Part number
RT424A12	8 A	2 CO contacts	AgNi 90/10	bistable	12 VDC	4-1393243-6
RT424A24	pinning 5 mm			1 coil	24 VDC	4-1393243-7
RT424F12	flux tight			bistable	12 VDC	5-1393243-4
RT424F24				2 coils	24 VDC	5-1393243-6