

**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, **us** E214025, **SP** 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 <sup>-1</sup>
Operate- / release time	max 10 / 5 ms
Bounce time NO / NC contact	max 4 / 9 ms

**Contact ratings**

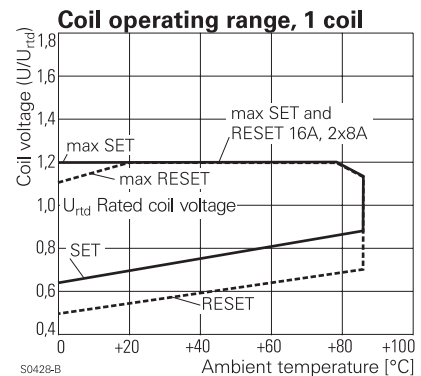
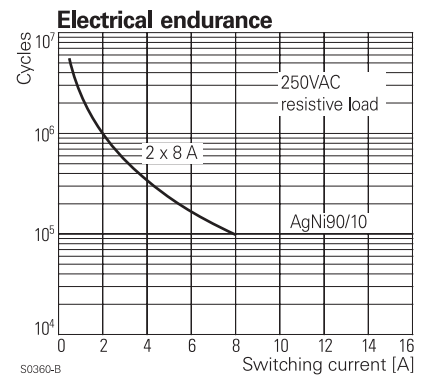
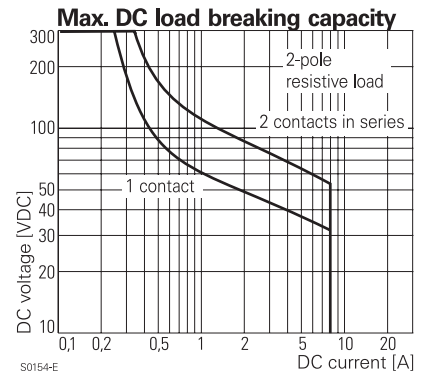
Type	Contact	Load	Ambient temp. [°C]	Cycles
<b>IEC 61810</b>				
RT444	NO	8 A, 250 VAC, cosφ=1	85°C	100x10 <sup>3</sup>
RT424	CO	8 A, 250 VAC, cosφ=1	85°C	30x10 <sup>3</sup>
<b>UL 508</b>				
RT424 DC coil	NO / NC	10 A, 250 VAC, general purpose	85°C	20x10 <sup>3</sup>
RT424 DC coil	NO / NC	1/2 hp, 240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

**Coil data**

	1 coil	2 coils
Rated coil 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
<b>bistable, 1 coil</b>					
A05	5	3.5	2.8	62±10%	403
A06	6	4.2	3.3	90±10%	400
<b>A12</b>	<b>12</b>	<b>8.4</b>	<b>6.6</b>	<b>360±10%</b>	<b>400</b>
<b>A24</b>	<b>24</b>	<b>16.8</b>	<b>13.2</b>	<b>1440±10%</b>	<b>400</b>



**Power PCB Relay RT2 bistable (Continued)**

**bistable, 2 coils**

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

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	-	+	-	+

Contact position not defined at delivery

**Insulation**

Dielectric strength coil-contact circuit	5000 V <sub>rms</sub>	
open contact circuit	1000 V <sub>rms</sub>	
adjacent contact circuits	2500 V <sub>rms</sub>	
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**

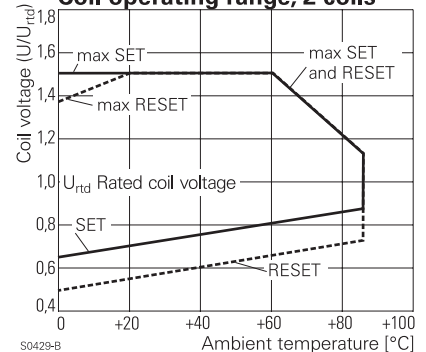
Mechanical endurance	> 2 x 10 <sup>6</sup> cycles
Material	RoHS - Directive 2002/95/EC compliant as per product date code 0413
Environment	
Ambient temperature range	-40...+85°C
Vibration / shock resistance (function) opening NC cont.	3 / 5 g
opening closed NO contact	6 / 15 g
Shock resistance (destruction)	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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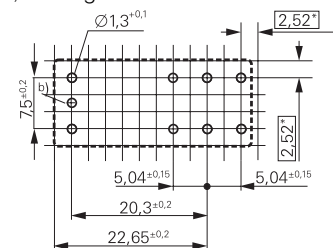
**Coil operating range, 2 coils**



**PCB layout / terminal assignment**

Bottom view on solder pins

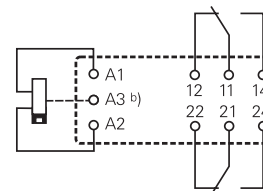
8 A, Pinning 5 mm



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

2 CO contacts

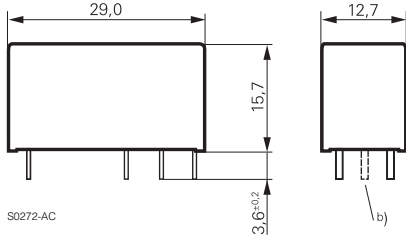
a)



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**Power PCB Relay RT2 bistable** (Continued)

**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