Power PCB Relay RT1 Inrush Power

- **1 pole 16 A, 1 NO contact (W pre-make contact + $AgSnO_2$)**
- **10 A / 250 VAC making and breaking capacity acc. to IEC 60669-1**
- **165 A / 20 ms inrush peak current**
- **Mono- or bistable coil**
- **5 kV / 10 mm coil-contact**
- **Reinforced insulation**
- **Optional test tab (manual operator)**
- **RoHS compliant (Directive 2002/95/EC)**

Applications

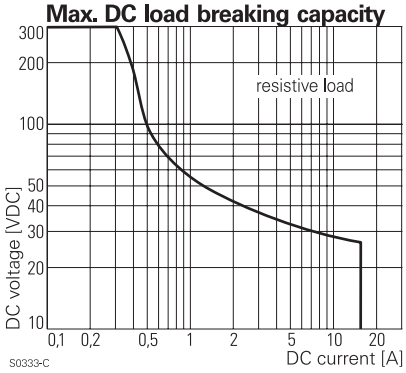
Lighting systems, movement sensors, filament and incandescent lamp loads, motors

F0272-A

Approvals

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

Max. DC load breaking capacity



S0333-C

Contact data	RT.3T	RTS3L
Contact configuration	1 NO	
Contact set	pre-make contact	single contact
Type of interruption	micro disconnection	
Rated current	16 A	
Rated voltage / max.switching voltage AC	250/400 VAC	
Limiting continuous current	16 A	
Maximum breaking capacity AC	4000 VA	
Limiting making capacity		
max 20 ms (incandescent lamps)	165 A	120 A
max 200 µs (fluorescent lamps)	800 A	-
Contact material	W (pre-make cont.)+$AgSnO_2$	$AgSnO_2$
Mechanical endurance DC	> $5x10^6$ cycles	> $10x10^6$ cycles
bistable	> $3x10^6$ cycles	> $5x10^6$ cycles
tab manually operated	> 10^3 cycles	-
Rated frequency of operation with / without load	6 / 60 min^{-1}	

Contact ratings

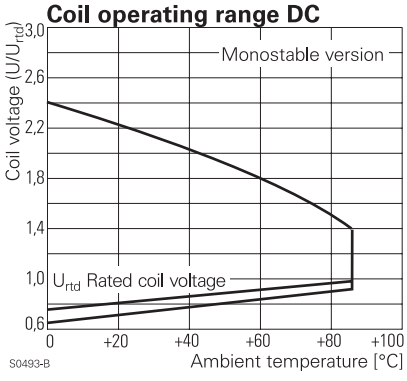
Type	Load	Cycles
RTS3T	3000 W, 230 VAC, DF 8,3%, 5 min^{-1}, incandescent lamp	typ. $12x10^3$
RT*3T	16 A, 250 VAC, capacitive load 140 µF, 7,5 min^{-1}, EN60669-1	> $20x10^3$
RT*3T	TV5, UL508, 40°C	$25x10^3$
RTS3L	16 A, 250 VAC, 85°C	> $100x10^3$
RTS3L	1.5 hp, 240 VAC	
RTS3L	TV8, UL508, 40°C	$25x10^3$
RTS3L	10/100 A / 250 VAC, simulated lamp load, acc. to IEC 61810-2	$20x10^3$

Coil data

Coil data, monostable coil

Rated coil voltage range	5...110 VDC
Coil power	typ 400 mW
Operative range	2
Coil insulation system according UL1446	class F

Coil operating range DC



S0493-B

Coil versions, monostable 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

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Product specification according to IEC 61810-1. Product data, technical parameters, test conditions and processing information only to be used together with the 'Definitions' at schrackrelays.com in the 'Schrack' section.

Specifications subject to change.

Power PCB Relay RT1 Inrush Power (Continued)

Coil data, bistable coils	1 coil	2 coils
Rated coil voltage range	3...24 VDC	
Coil power	typ 400 mW	typ 600 mW
Operative range	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 1 coil

Coil code	Rated voltage VDC	Operate voltage VDC	Reset voltage VDC	Coil resistance Ω	Rated coil power mW
A03	3	2.1	1.7	21±10%	429
A12	12	8.4	6.6	360±10%	400
A24	24	16.8	13.2	1440±10%	400
Coil versions, bistable 2 coils					
F03	3	2.1	1.7	15±10%	600
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	-	+	-	+	

Contact position not defined at delivery

Insulation

Dielectric strength coil-contact circuit	5000 V_{rms}	
open contact circuit	1250 V_{rms}	
Clearance / creepage coil-contact circuit	≥ 10 / 10 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	functional	
Rated insulation voltage	250 V	
Pollution degree	3	2
Rated voltage system	240 V	400 V
Overvoltage category	III	

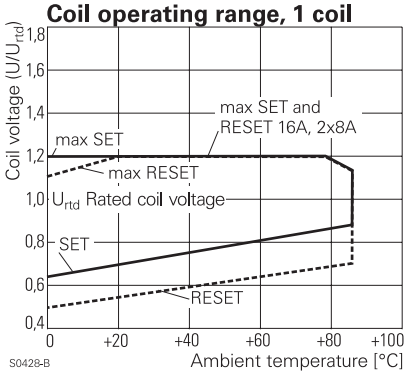
Other data		RT.3T	RTS3L
RoHS - Directive 2002/95/EC		compliant	
Flammability class according to UL94		V-0	
Ambient temperature range	monostable	-40...+70°C	-40...+85°C
	bistable: 1 coil	-10...+70°C	-10...+85°C
	bistable: 2 coils	-40...+70°C	-40...+85°C
Vibration resistance (function)	monostable	10 g	20 g
Shock resistance (destruction)		100 g	
Category of protection		RTII - flux proof	
Mounting		pcb or on socket*)	
Mounting distance		0 mm	
Resistance to soldering heat		270 °C / 10 s	
Relay weight with / without test tab		16 / 14 g	- / 14 g
Packaging unit with / without test tab		100 / 500 pcs	- / 500 pcs

*) RTT3T or bistable 2 coil version, pcb mounting only; see Accessories

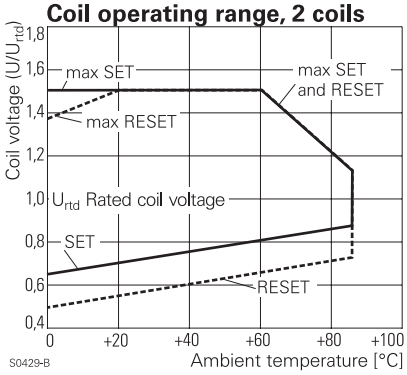
Accessories RTS3.

For details see datasheet	Accessories Power Relay RT

Coil operating range, 1 coil

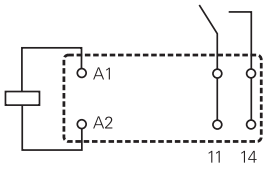


Coil operating range, 2 coils

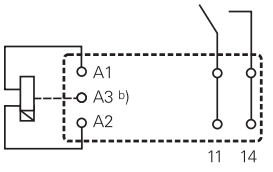


Terminal assignment
Bottom view on solder pins

monostable version



bistable version



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

b) for 2 coil version only

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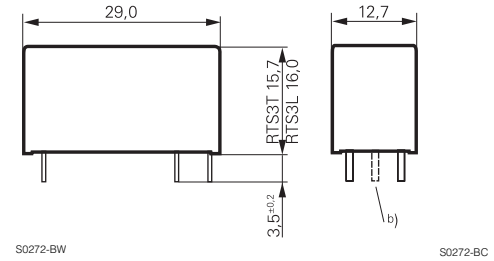
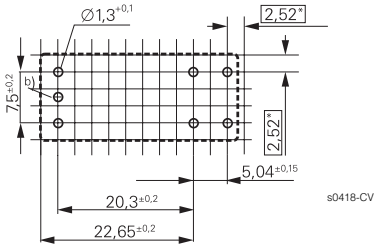
Dimensions / PCB layout

version without test tab

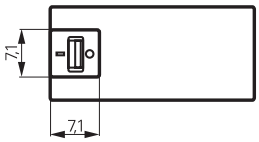


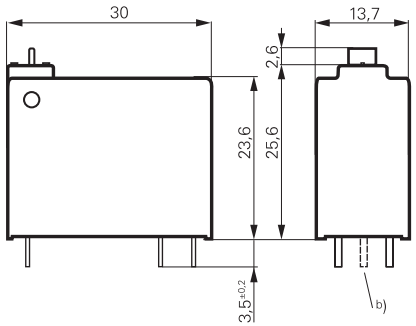
16 A, pinning 5 mm

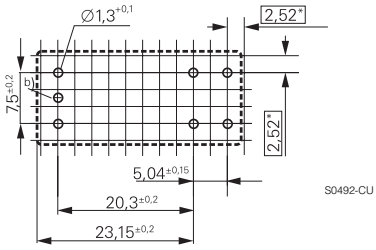


b) for 2 coil version only

version with test tab







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

Product key

R	T		3				

Type

Version
- **S** without test tab
- **T** with test tab (manual operator) for contact material 'T' and bistable coil only

Contact configuration
- **3** 1 NO contact

Contact material
- **L** $AgSnO_2$
- **T** Tungsten (W) pre-make + $AgSnO_2$

Coil
- Coil code: please refer to coil versions table

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Power PCB Relay RT1 Inrush Power (Continued)

Product key	Version	Contacts	Cont. material	Coil	Coil	Part number
RTS3L005	without	1 NO contact	$AgSnO_2$	monostable	5 VDC	1-1415898-8
RTS3L012	test tab			coil	12 VDC	1-1415898-9
RTS3L018					18 VDC	2-1415898-0
RTS3L024					24 VDC	1-1415898-4
RTS3L048					48 VDC	2-1415898-1
RTS3L060					60 VDC	2-1415898-2
RTS3LA12				bistable	12 VDC	2-1415898-3
RTS3LA24				1-coil	24 VDC	2-1415898-4
RTS3LF12				bistable	12 VDC	2-1415898-5
RTS3LF24				2-coils	24 VDC	2-1415898-6
RTS3T012			W pre-make +	monostable	12 VDC	0-1415898-0
RTS3T024			$AgSnO_2$	coil	24 VDC	0-1415898-1
RTS3TA12				bistable	12 VDC	0-1415898-2
RTS3TA24				1-coil	24 VDC	0-1415898-3
RTS3TF03				bistable	3 VDC	0-1415898-4
RTS3TF12				2-coils	12 VDC	0-1415898-5
RTS3TF24					24 VDC	0-1415898-6
RTT3TA12	with			bistable	12 VDC	0-1415898-7
RTT3TA24	test tab			1-coil	24 VDC	0-1415898-8
RTT3TF12				bistable	12 VDC	0-1415898-9
RTT3TF24				2-coils	24 VDC	1-1415898-0

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