

# **Power PCB Relay RT1 Inrush Power**

- 1 pole 16A, 1 form A (NO) contact (W pre-make contact + AgSnO<sub>2</sub>)
- 10A/250VAC making and breaking capacity acc. to IEC 60669-1
- 165A/20ms inrush peak current
- Mono- or bistable coil
- 5kV/10mm coil-contact
- Reinforced insulation
- Test tab (manual operator) optional

## Typical applications

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

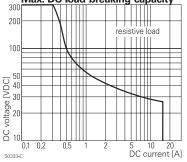


VDE REG.-Nr. 6106,UL E214025, cCSAus 14385 Technical data of approved types on request

Contac	t Data		RT	.3T	RTS	53L
Contact a	arrangement		1 form A (NO) contact			
Rated voltage				250V	AC	
Max. swit	Max. switching voltage			400V	AC	
Rated cu	rrent			164	4	
Limiting c	ontinuous cu	irrent	1	6A, UL: 20	A (RTS31	_)
Limiting n	naking currer	nt,				
max. 2	0ms (incand.	lamps)	16	65A	120	AC
max. 2	00µs (floures	cent lamps)	80	00A	-	
Breaking	capacity max	κ.		4000	VA	
Contact r	naterial		W (pre-m	nake cont.)	AgS	nO <sub>2</sub>
			+Ag	SnO <sub>2</sub>		
Contact s				e contact	single c	ontact
Frequenc	y of operatio	n, with/withc	out load	360/36	00h-1	
Operate/r	release time r	nax., DC coi	il	10/5	ns	
Operate/F	Reset time m	ax., bistable	version	10/10	ms	
Bounce ti	ime max.			4m	S	
Contact	ratings					
Туре	Contact	Load				Cycles
IEC 6181	0					
RTS3L	A (NO)	20A, 250V	AC resistiv	ve, 70°C		20x10 <sup>3</sup>
RTS3L m	onostable A	(NO) 16A, 28	50VAC res	istive, 85°C		100x10 <sup>3</sup>
RTS3T	A (NO)	16A, 250V	AC resistiv	ve, 85°C		5x10 <sup>3</sup>
UL 508		·				
RTS3L	A (NO)	20A, 250V	/AC, gener	al purpose,	70°C	20x10 <sup>3</sup>

UL 508			
RTS3L	A (NO)	20A, 250VAC, general purpose, 70°C	20x10 <sup>3</sup>
RTS3L	A (NO)	16A, 250VAC, resistive, 85°C	50x10 <sup>3</sup>
RTS3L	A (NO)	TV8, 240VAC, 40°C	25x10 <sup>3</sup>
RTS3L	A (NO)	1.5hp, 240VAC, 70°C	30x10 <sup>3</sup>
RTS3T	A (NO)	1200W Tungsten, 120VAC/277VAC,	
		60Hz, 50°C	6x10 <sup>3</sup>
RTS3T	A (NO)	620W Discharge lamps (standard ballast),	
		120VAC/277VAC, 60Hz, 50°C	6x10 <sup>3</sup>

Max. DC load breaking capacity



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



# Contact Data (continued)

Mechanical endurance		
DC coil	>5x10 <sup>6</sup> ops.	>10x10 <sup>6</sup> ops.
bistable version	>3x10 <sup>6</sup> ops.	>5x10 <sup>6</sup> ops.
tab manually operated	>1x10 <sup>3</sup> ops.	-

# Coil Data, monostable DC coil

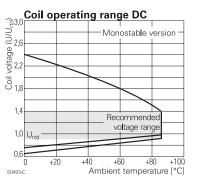
Coil voltage range	5 to 110VDC
Operative range, IEC 61810	2
Coil insulation system according UL1446	class F

## Coil versions, monostable DC coil

CONVERS	510115, 11101103				
Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	$\Omega \pm 10\%^{1)}$	mW
005	5	3.5	0.5	62	403
006	6	4.2	0.6	90	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 <sup>1)</sup>	420
110	110	77.0	11.0	28800 <sup>1)</sup>	420

1) Coil resistance ±12%.

All figures are given for coil without pre-energization, at ambient temperature +23°C. Other coil voltages on request.



Coil Data, bistable coils	1 coil	2 coils
Magnetic system	polariz	ed, bistable
Coil voltage range	3 to	24VDC
Operative range, IEC 61810		2
Limiting voltage, % of rated coil voltage	ge 120%	150%
Min./Max. energization duration	30ms/1min at	t <10% duty factor
Coil insulation system according UL1	446 c	lass F

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

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# Power PCB Relay RT1 Inrush Power (Continued)

## Coil Data (continued)

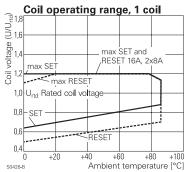
Coil vers	sions, bista	ble			
Coil	Rated	Set	Reset	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	mW
Coil vers	sions, bista	ble 1 coil			
A03	3	2.1	1.7	21	429
A12	12	8.4	6.6	360	400
A24	24	16.8	13.2	1440	400
Coil vers	sions, bista	ble 2 coils			
F03	3	2.1	1.7	15	600
F12	12	8.4	6.6	240	600
F24	24	16.8	13.2	886	650
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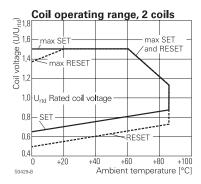
All figures are given for coil without pre-energization, at ambient temperature +23°C. Other coil voltages on request.

#### **Bistable coils - operation**

Distance sense specialisti						
Version	1 (	coil	2	2 coils		
Coil terminals	A1	A2	A1	A3	A2	
Operate	+	-		+	-	
Reset	-	+	-	+		
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Contact position not defined at delivery





Insulation Data	
Initial dielectric strength	
between open contacts	1250V <sub>rms</sub>
between contact and coil	5000V <sub>rms</sub>
Clearance/creepage	
between contact and coil	≥10/10mm
Material group of insulation parts	Illa
Tracking index of relay base	PTI 250V

Other Data	RT.3T	RTS3L				
Material compliance: EU RoHS/EL	/, China RoHS, REA	CH, Halogen content				
refer to the	e Product Complian	ice Support Center at				
www.te.c	com/customersuppo	ort/rohssupportcenter				
Ambient temperature		· ·				
monostable DC coil	-40 tc	) 85°C				
bistable 1 coil	-10 tc	) 85°C				
bistable 2 coils	-40 tc	) 85°C				
Category of environmental protection						
IEC 61810	RTII - flu	ux proof				
Vibration resistance (functional),						
monostable version	10g	20g				
Shock resistance (destructive)	10	)0g				
Terminal type	PCB-TH1	Γ, plug-in <sup>2)</sup>				
Weight, without / with test tab	14/16g	14g/-				
Resistance to soldering heat THT						
IEC 60068-2-20	270°0	C/10s				
Packaging/unit						
without test tab	tube/20 pcs.,	tube/20 pcs.,				
	box/500 pcs.	box/500 pcs.				
with test tab	tray/25 pcs.,	-				
	box/100 pcs.	-				
2) BTT3T or bistable 2 coil version: pcb m	ounting only. See Acces	ssories				

RTT3T or bistable 2 coil version: pcb mounting only. See Accessories

## Accessories RTS3.

 For details see datasheet
 Accessories Industrial Power Relay RT

 Socket available for 1 coil version only.

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.

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

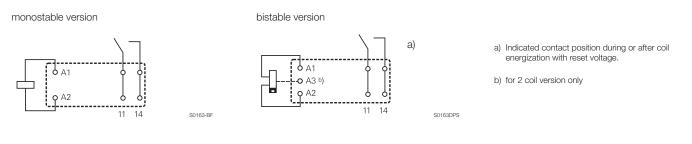
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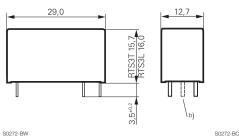
# Power PCB Relay RT1 Inrush Power (Continued)

#### Terminal assignment Bottom view on solder pins



## **Dimensions / PCB layout**

version without test tab



S0491-B

13,7

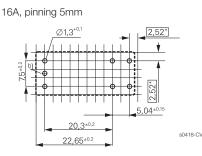
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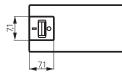
3,5±0,2



b) for 2 coil version only

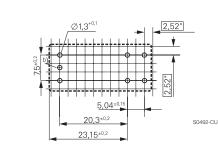
\*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

version with test tab



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# Power PCB Relay RT1 Inrush Power (Continued)

Produ	ct code structure		Typical product code	RT	S	3	т	A12
Туре								
	<b>RT</b> Power PCB Relay RT1 Inrush Power							
Version	1							
:	S Without test tab	т	With test tab (manual operator) for contact material ,T' and bistable coil only					
Contac	t configuration							
;	3 1 form A (NO) contact							
Contac	t material							
	L AgSnO <sub>2</sub>	Т	Tungsten (W) pre-make + AgSnO <sub>2</sub>					
Coil								_
	Coil code: please refer to coil versions tabl	le						

Product code	Version	Contacts	Contact material	Coil version	Coil	Part number
RTS3L005	Without test tab,	1 form A (NO)	AgSnO <sub>2</sub>	Monostable	5VDC	1-1415898-8
RTS3L006	16mm high	contact			6VDC	4-1415898-4
RTS3L012					12VDC	1-1415898-9
RTS3L024					24VDC	1-1415898-4
RTS3LA12				Bistable, 1 coil	12VDC	2-1415898-3
RTS3LF12				Bistable, 2 coils		2-1415898-5
RTS3T005	Without test tab,		W pre-make + AgSnO <sub>2</sub>	Monostable	5VDC	1-1415898-6
RTS3T012	15.7mm high				12VDC	1415898
RTS3T024					24VDC	1415898-1
RTS3T048					48VDC	1-1415898-1
RTS3T060					60VDC	1-1415898-2
RTS3TA05				Bistable, 1 coil	5VDC	1-1415898-5
RTS3TA06					6VDC	3-1415898-1
RTS3TA12					12VDC	1415898-2
RTS3TF03				Bistable, 2 coils	3VDC	1415898-4
RTS3TF12					12VDC	1415898-5
RTS3TF24					24VDC	1415898-6
RTT3TA12	With test tab,			Bistable, 1 coil	12VDC	1415898-7
RTT3TF24	23.6mm high			Bistable, 2 coils	24VDC	1-1415898-0

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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 6031007G
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 6-1393122-4
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 6-1393767-1
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 6-1617039-1
 6-1617052-1
 6-1617090-2
 6-1617347-5
 6-1617353-3
 6-1617801-8
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