F0147-B

Special Load PCB Relay RP3SL

■ 1 pole 16A, 1 form A (NO) contact

- For high inrush currents up to 120A
- Mono- or bistable
- 4kV/8mm coil-contact

Typical applications Lighting control, timers, motor control, building automation



Approvals

VDE REG.-Nr. C894 (DC versions only), cULus E214024 Technical data of approved types on request

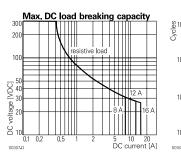
Contact Data		
Contact arrangement	1 form A (NO)	
Rated voltage	250VAC	
Max. switching voltage	400VAC	
Rated current		
flux proof version	16A	
wash tight version	12A	
Limiting making current		
max. 4 s, duty factor 10 %	25A	
max. 20 ms (incandescent lamp)	120A	
Breaking capacity max.		
flux proof version	4000VA	
wash tight version	3000VA	
Contact material	AgSnO	
Frequency of operation, with/without load	960/72000h-1	
Operate/release time max., monostable	14/12ms	
Set/reset time max., bistable	30/25ms	
Bounce time max.		
monostable	5/7ms	
bistable	5/15ms	

Contact ratings

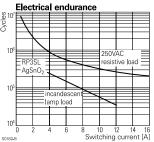
Туре	Contact	Load	Cycles
IEC6181	0		
RP3SL	A (NO)	16A, 250VAC resistive, 70°C	50x10 ³
RP7SL	A (NO)	12A, 250VAC resistive, 70°C	100x10 ³
-			

Mechanical endurance

monostable bistable

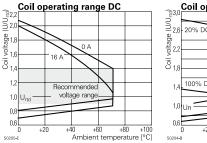






Coil Data

Coil data, monostable coil									
Coil volta	ige range		5	to 110VDC					
Operative range, IEC 61810									
flux pr	oof version			2					
wash	tight version			1					
Coil versions, DC coil									
Coil	Rated	Operate	Release	Coil	Rated coil				
code	voltage	voltage	voltage	resistance	power				
	VDC	VDC	VDC	$\Omega \pm 10\%^{1)}$	mW				
005	5	3.8	0.5	54	500				
006	6	4.5	0.6	68	500				
012	12	9.0	1.2	270	500				
024	24	18.0	2.4	1100 ¹⁾	500				
048	48	36.0	4.8	4400 ¹⁾	500				
060	60	45.0	6.0	6540 ¹⁾	500				



	Coil c	per	atin	ig ra	nge	e D	С		
(123,0 C) (12,0	2094 0	\downarrow	/		-bis	stab	le ve	ersio	on –
9 8	= 20 /0 L	Ĩ		\sim					
2,2 Volta	- 20% E	-			+	P	_		
0 8 1,8					-	_	_		
1,4	100%			_		_	- Ma	ıx. U	dem
1,0	Un 🥌	T	_	\geq	\geq	$\mathbf{>}$. Mii Mii	n.U, n.U	dem pull-in
0,6	0.	+20	+4		+60		+8	0	+100
S0204-	3			Ambi	ent f	em	oera	iture)°C∣

Coil Da	ta, bistabl	e coil	1 coil	2 co	oils	
Coil volt	age range			5 to	24VDC	
Operativ	ve range, IE	C 61810			1	
Reset v	oltage min/r	nax, % of l	Jrtd	70/110%	75/12	20%
Min./Ma	ax. energizat	tion duratio	n	20ms/1mi	n at < 50%[)F
Coil ve	rsions, bist	table				
Coil	Rated	Set	Reset	Reset	Coil	Rated coil
code	voltage	voltage	voltage	R1	resistance	power
	VDC	VDC	VDČ	Ω/W	$\Omega \pm 10\%^{1)}$	mW
Coil ve	rsions, bist	table 1 coi	il			
A05	5	3.7	3.6	39/0.5	21	1250
A12	12	9.0	8.7	220/0.5	115	1250
A24	24	18.0	16.7	820/0.5	460	1250
Coil ve	rsions, bist	table 2 coi	ils			
F12	12	9.0	9.0		105 ¹⁾	1250
F24	24	18.0	18.0		460 ¹⁾	1250
Coil ver A05 A12 A24 Coil ver F12 F24	voltage VDC rsions, bist 5 12 24 rsions, bist 12	voltage VDC table 1 coi 3.7 9.0 18.0 table 2 coi 9.0 18.0	voltage VDC il 3.6 8.7 16.7 ils 9.0	R1 Ω/W 39/0.5 220/0.5	$\begin{array}{c} \text{resistance} \\ \Omega \pm 10\%^{1)} \\ 21 \\ 115 \\ 460 \\ 105^{1)} \end{array}$	power mW 1250 1250 1250 1250

1) Coil resistance ±15% .

All figures are given for coil without pre-energization, at ambient temperature +23°C, duty factor 20%. Other coil voltages on request.

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

1

Special Load PCB Relay RP3SL (Continued)

Insulation Data

Initial dielectric strength	
between open contacts	2000V _{rms}
between contact and coil	4000V _{rms}
Clearance/creepage	
between contact and coil	≥8/8mm
Material group of insulation parts	Illa
Tracking index of relay base	PTI250V

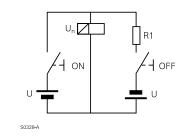
Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content							
refer to the Product Compliance Support Center a							
www.tycoelectronics.com/	customersupport/rohssupportcenter						
Ambient temperature							
flux proof version	-40 to +70°C						
wash tight version	-40 to +35°C						
Category of environmental protection							
IEC 61810 R	TII - flux proof, RTIII - wash tight						
Vibration resistance (functional), form A c	contact 20g						
Shock resistance (destructive)	100g						
Terminal type	PCB-THT						
Mounting distance, 12A/16A	0mm∕≥3mm						
Weight	18g						
Resistance to soldering heat THT, IEC 6	0068-2-20						
flux proof version	270°C/10s						
wash tight version	260°C/5s						
Packaging/unit							
monostable and bistable 1 coil version	tube/20 pcs., box/500 pcs.						
bistable 2coil version	tray/25 pcs., box/100 pcs.						

Accessories

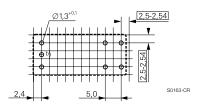
For monostable and bistable	1 coil version,
details see	PCB accessories RT in
	Accessories Industrial Power Relay RT

Circuit scheme for bistable 1 coil



PCB layout / terminal assignment

Bottom view on solder pins



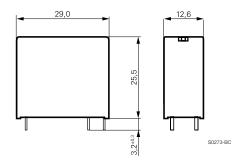
A1 A3 b) A2 11 14

Bistable versions: Indicated contact position during or after coil energization with reset voltage.

2-coil versions: Operate A2, A3 Reset A1, A3

b) for 2 coil version only

Dimensions





2

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S0163-CS

Special Load PCB Relay RP3SL (Continued)

Product code structure			Typical pro	oduct code	RP	3	SL	012
Туре]			
RP Special Load PCB Relay RP 3 SL								
Version								
3 Flux proof	7	Wash tight						
Contact configuration / contact material								
SL 1 form A contact (1 NO), AgSnO ₂								
Coil								
Coil code: please refer to coil versions table								

Product code	Version	Contact material	Coil version	Coil	Part number
RP3SL005	1 form A (NO) contact	AgSnO	DC coil	5VDC	1393230-7
RP3SL012	16A	-		12VDC	1393230-9
RP3SL018	flux proof			18VDC	1-1393230-0
RP3SL024				24VDC	1-1393230-1
RP3SL048				48VDC	1-1393230-2
RP3SL060				60VDC	1-1393230-3
RP3SLA06			Bistable 1 coil	6VDC	1393230-2
RP3SLA24				24VDC	1393230-4
RP3SLF12			Bistable 2 coils	12VDC	1393230-5

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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