

Power PCB Relay T9S Solar (2.1mm gap)

- 1 pole 35A, 1 form A (NO) contact
- Contact gap > 2.1mm (suffix T)
- 350mW hold power¹⁾
- Ambient temperature up to 85°C at 35A
- Product in accordance to IEC 60335-1



Typical applications
Electrical vehicle loading stations
Electrical vehicle
Photovoltaic inverter

Approvals

TUV R50369970

Contact Data

Contact arrangement	1 form A (NO)
Contact gap	>2.1mm
Rated voltage	277VAC (2.1mm gap)
Rated current	35A ²⁾
Switch capacity max.	35A 277VAC
Contact material	Ag alloy (Cd free)
Initial contact resistance	75mΩ max. at 1A 6VDC 3mΩ max. at 20A
Frequency of operation, with/without load	6/300min ⁻¹
Operate/release time max., incl bounce time	18/15ms

Contact ratings²⁾

Type	Contact	Load	Cycles
T9SV1K18-12T	A (NO)	35A, 277VAC, resistive, room Temp.	30x10 ³

Internal test

T9SV1K18-12T	A (NO)	35A, 250VAC, resistive, 85°C	1x10 ³
Mechanical endurance, DC coil			5x10 ⁵

Coil Data

Rated coil voltage	12VDC
Coil insulation system according UL	Class F

Coil versions, DC coil

Coil Code	Rated Voltage VDC	Operate Voltage VDC	Release Voltage VDC	Coil Resistance Ω±10%	Rated coil Power W	Hold Voltage VDC
12	see note ¹⁾	9.6	0.8	64	2.25 min./ 0.35 Hold	4.7Min. ⁴⁾ 6.0Min. ⁴⁾

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

Insulation Data

Initial dielectric strength (1 minute)	
between open contacts	2500V _{rms}
between contact and coil	4000V _{rms}
Initial surge withstand voltage	
between contact and coil	6kV (1.2 /50 uS)
Initial insulation resistance (at 500VDC)	
between open contacts	1x10 ⁹ Ω
between contact and coil	1x10 ⁹ Ω
Clearance/creepage	
between contact and coil	4.2/5.6mm
Material group of insulation parts	III
Tracking index of relay base	PTI 325
Flame resistance of plastic parts	UL94 V-0

Other Data

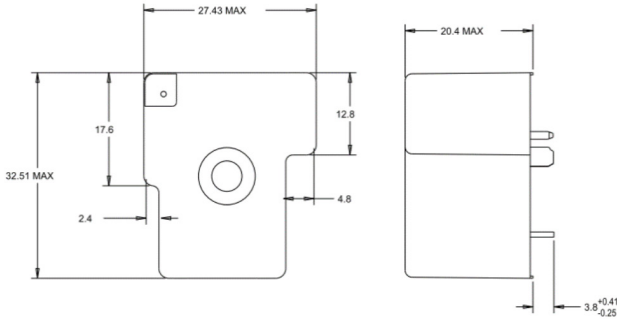
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter

Ambient temperature	-40 to +85°C ²⁾
Category of environmental protection	IEC 61810
Vibration resistance (functional)	RTII - flux proof 10-50HZ double amplitude 1mm
Vibration resistance (destructive)	10-50HZ double amplitude 1.5mm
Shock resistance (functional)	10g
Shock resistance (destructive)	100g
Terminal type	PCB-THT
Mounting	see note ²⁾
Mounting distance	≥10mm
Weight	appr. 30g
Resistance to soldering heat THT	IEC 60068-2-20 260°C/5s
Packaging unit	box/500 pcs.

- 1) Rated Voltage: 12VDC. After the energization time of 100ms with 12 VDC the coil requires a reduction of the coil voltage to 4.7... 6.0 VDC.
- 2) The relay connections and wiring have to be designed with an adequate cross sections to ensure the current flow and heat dissipation.
- 3) Contact ratings with relay properly vented.
- 4) The temperature of hold voltage: 4.7 VDC Min. at room temperature, and 6 VDC Min. at 85°C.

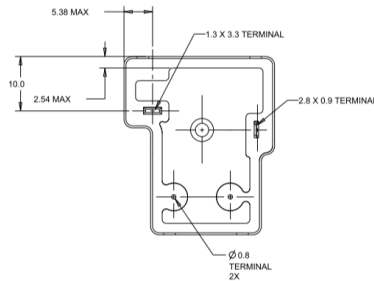
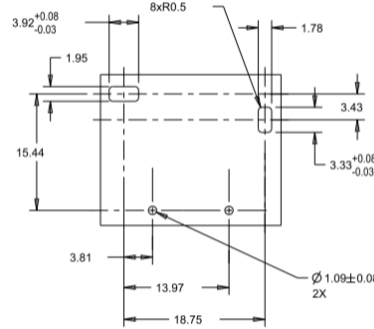
Power PCB Relay T9S Solar (2.1mm gap) (Continued)

Dimensions



PCB layout / terminal assignment

Bottom view on solder pins



WIRING DIAGRAM (BOTTOM VIEW)

Note:

1) General tolerance

Diagram Dimension	Tolerance
< 1 mm	±0.1
1 ~ 3 mm	±0.2
> 3 mm	±0.3

2) Dimensions of the pins after tin soldering

- a) +0.4 for the width and the thickness
- b) +1.0 for the length

Product code structure

Typical product code

T9S V 1 K 1 8 -12 T

Type T9S Power Relay T9S Series	T9S
Enclosure V Flux-proof plastic case S Wash tight	V
Contact arrangement 1 1 Form A (1NO)	1
Coil input K DC coil, 2.25W	K
Mounting and termination 1 PCB mounting; PCB terminals for coil and contacts	1
Contact material 8 Ag alloy	8
Coil voltage Coil code: Please refer to coil version table	-12
Contact gap T 2.1 mm contact gap	T

Product code	Version	Contact arrangement	Contact material	Contact gap	Coil	Part Number
T9SV1K18-12T	PCB, flux tight	1 form A (NO) contact	Ag alloy	>2.1mm	12VDC	2027395-7

Note. This list represents the most common types and does not show all variants covered by this datasheet, other types on request.

单击下面可查看定价，库存，交付和生命周期等信息

[>>TE Connectivity\(泰科\)](#)