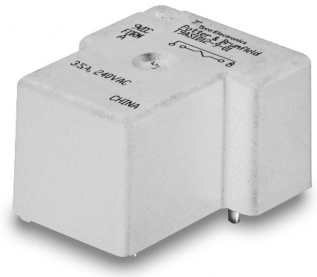
Power PCB Relay T9S Solar

- **1 pole 35A, 1 form A (NO) contact**
- **Contact gap >1.5mm (standard), >1.8mm (suffix S)**
- **350mW hold power**
- **Ambient temperature up to 85°C at 35A**
- **The appliance is able to meet VDE V 0126-1-1**
- **Product in accordance to IEC 60335-1**
- **EN61095: AC7a at 85°C**



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Typical applications
Photovoltaic inverter

Approvals

VDE 40030974, UL E58304
Technical data of approved types on request

Contact Data

Contact arrangement	1 form A (NO)
Contact gap	>1.5mm (standard), >1.8mm (suffix S)
Rated voltage	250VAC (1.8mm gap), 277VAC (1.5mm gap)
Rated current	35A[1)]
Breaking capacity max.	8750 VA
Contact material	AgNi
Initial contact resistance	75mΩ max. at 1A 6VDC
Frequency of operation, with/without load	6/300min^{-1}
Operate/release time max., incl bounce time	18/15ms

Contact ratings[2)]

Type	Contact	Load	Cycles
IEC 61810			
T9SV1K15-12	A (NO)	35A, 250VAC, cosφ=1, 85°C	30x10^3
T9SV1K15-12S	A (NO)	35A, 250VAC, cosφ=1, 85°C	20x10^3
UL 508			
T9SV1K15-12	A (NO)	35A, 277VAC, resistive, 85°C	30x10^3
T9SV1K15-12S	A (NO)	35A, 250VAC, resistive, 85°C	20x10^3

Mechanical endurance, DC coil 1x10^6 operations

1) The relay connections and wiring have to be designed with an adequate cross sections to ensure the current flow and heat dissipation.
2) Contact ratings with relay properly vented.

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
12	12[3)]	9.6	0.8	64+10%	2.25 / min. 0.35 hold

3) After the energization time of 100 ms with 12 VDC the coil requires a reduction of the coil voltage to 4.7...6.0 VDC.
All figures are given for coil without pre-energization, at ambient temperature +23°C.
Other coil voltages on request.

Insulation Data

Initial dielectric strength	
between open contacts	2500V$_{rms}$
between contact and coil	4000V$_{rms}$
Initial surge withstand voltage	
between contact and coil	6kV
Clearance/creepage	
between contact and coil	3/4mm
Material group of insulation parts	III
Tracking index of relay base	PTI 325

Other Data

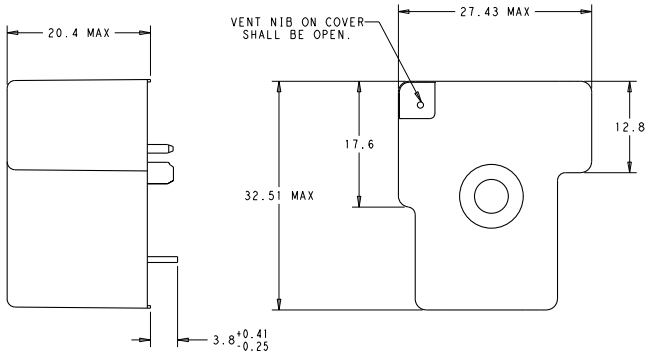
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content
refer to the Product Compliance Support Center at
www.te.com/customersupport/rohssupportcenter

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

1) The relay connections and wiring have to be designed with an adequate cross sections to ensure the current flow and heat dissipation.

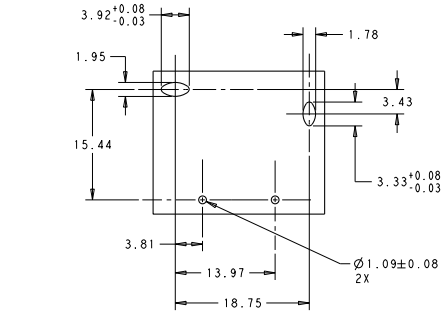
Power PCB Relay T9S Solar (Continued)

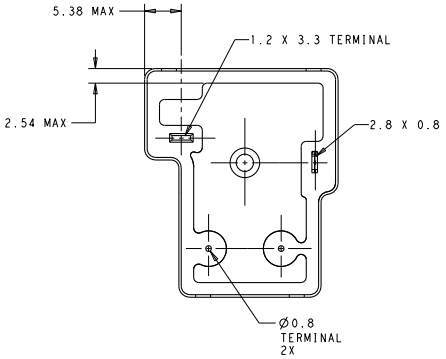
Dimensions

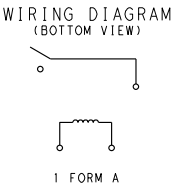


PCB layout / terminal assignment

Bottom view on solder pins







Notes

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	Version	Contact arrangement	Contact material	Contact gap	Coil	Part Number
T9SV1K15-12	PCB, flux tight	1 form A (NO) contact	AgNi	>1.5mm	12VDC	2027395-1
T9SV1K15-12S	PCB, flux tight	1 form A (NO) contact	AgNi	>1.8mm	12VDC	2027395-3