

44.50 X 57.50

## General specification

: 4000VAC,50/60Hz Dielectric strength for 1min

· Ambient temperature Operating: - 30 °C to 80 °C

Storage: - 30 °C to 100 °C · Ambient humidity 93% non-condensing

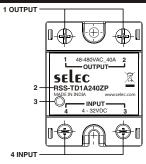
· Pollution degree · 11 · Installation category : 111

 Dimensions(lxwxh)mm · 44.5 x 57.5 x 27.3

 Mounting type Panel · Product Weight Approx 87 g

Heat sink must be used when SSR has to switch a load current above 4A

## PRODUCT DESCRIPTION



- 1 Load output connection screw (M5) terminals
- 2 Indication area for product label or markings
- 3 Control input voltage LED indicator
- 4 Control input connection screw (M4) terminals

## **SPECIFICATION**

#### INPUT

· Control Input Voltage : 4 - 32VDC Nominal input impedance · 2k Ohms · Must operate voltage . 4VDC(Max) 1VDC(Min) · Must release voltage · Maximum turn-on time ½ cycle + 1ms · Maximum turn-off time 1/2 cvcle + 1ms Zero crossing turn-on Available Reverse voltage protection : Available

## OUTPUT

• RMS on-state current(I<sub>T</sub>) : 40A / 25A · Load voltage range : 48-480VAC · Minimum load current : 100mA

 Off-state leakage current : 20mA max(at 480VAC) · On-state voltage drop : 1.5V(RMS)max

• Operating frequency range : 47 - 63Hz Minimum power factor : 0.5 • Non-repetitive peak On-state Current(ITSM) For  $I_{\tau} = 40A$ : 400A

For  $I_{\tau} = 25A$ : 250A

• Rate of rise of Off-state Voltage(dV) : 500V/µs / 1000V/µs

#### **ORDER CODE INFORMATION** Max Load Max Load Certification Product Current Voltage RSS-TD1A240ZP 40A 48-480VAC RSS-TD1A225ZP 25A RSS-TD1A240ZPL 40A 48-480VAC RSS-TD1A225ZPL 25A

Product	Repetitive peak Off-state Voltage	Application
RSS-TD1A240ZP	800V	Resistive load and
RSS-TD1A225ZP	800 V	heater control.
RSS-TD1A240ZPL	1200V	Inductive load, Resistive load and
RSS-TD1A225ZPL	12007	heater control.

### **WARNING**

## / WARNING :

- · Minor human hazard by electric shock and burns occasionally occur.
- · Heat sink must be connected to earth in the end product.

### **CAUTION**

## A CAUTION :

- Do not touch the SSR or the heat sink either while the power supply is ON or immediately after the power is turned OFF. The SSR and the heat sink may be hot.
- · Do not touch the SSR main circuit terminals immediately after the power is turned Off. The internal snubber circuit
- · SSR may occasionally rupture in case of short circuit. To protect against short-circuit accident, install a protective device, such as a quick-burning fuse or a circuit breaker.

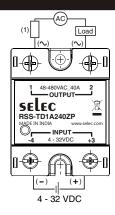
# SAFETY PRECAUTIONS

### Mounting

· Mount SSR in the orientation such that the heat sink fins are always positioned in vertical orientation in order to ensure proper heat ventilation & do not obstruct air flow to the SSR heat sink. Air convection for SSR is necessary.

- · If a material with high thermal resistance is used for heat sink, heat generated by SSR may occasionally cause fire or burning.
- · When installing SSR directly into a control panel such that the panel can be used as a heat sink, use a panel material with low thermal resistance such as Aluminium / Steel
- Tighten the SSR screws securely. Loose terminals generate abnormal heat which may result in fire.

## **WIRING**



## **FUSE INFORMATION**

Product	(1) Suitable Fuse	
RSS-TD1A240ZP	45 A Close I	
RSS-TD1A240ZPL	45A Class J	
RSS-TD1A225ZP	30A Class J	
RSS-TD1A225ZPL	JUA Olass II	

## **WIRING GUIDELINES**

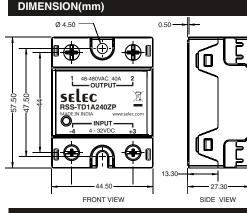
- · Ensure the use of proper cable sizes and not use wire with broken sheaths.
- · Use cable with crimp terminals of appropriate size for terminations.
- · Tighten screws to the specified torque. Re-tighten after 48 hours to minimize wire cold flow. Re-torque every 3 to 6 months.
- · When tightening terminal screws ensure no non-conductive foreign matter is caught in screw.
- · Be sure to conduct wiring with power supply turned off.

## **TIGHTENING TORQUE**

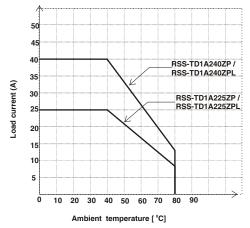
SCREW SIZE	TIGHTENING TORQUE
M4 screws(Control Input)	1.2N-m
M5 screws (Load Output)	2.0N-m

#### **USAGE**

- Always use SSR within its rated specifications, otherwise malfunction, damage or fire may result.
- · Select a load within the rated range Inappropriate load may cause misoperation, trouble or burning.
- Select the power supply within the rated frequency range. Inappropriate power frequency may cause misoperation, trouble or burning.
- Use of SSR in domestic environments may cause radio interference, in this case the user may be required to employ additional mitigation methods.



### **DERATING CURVE**



Note.: Heat sink used with a radiation efficiency of 1 °C/W

(Specifications are subject to change, since development is a continuous process.)

## Selec Controls Pvt. Ltd., India

Factory Address :

EL-27/1, Electronic Zone, TTC Industrial Area, MIDC, Mahape, Navi Mumbai - 400 710, INDIA.

Tel. No.: +91-22-41 418 468/41 418 452

Fax No.: +91-22-28471733 | Toll free: 1800 227 353 Website: www.selec.com | Email: sales@selec.com

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