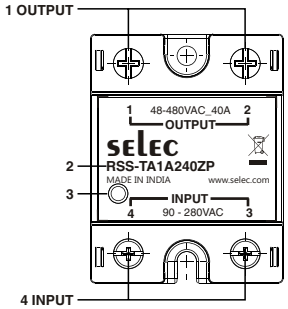
OP2044-V01

RSS-TA1A240ZP / RSS-TA1A225ZP / RSS-TA1A240ZPL / RSS-TA1A225ZPL

Operating Instructions

57.50 X 44.50

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 : 90 - 280VAC
- Nominal input impedance : 11k Ohms
- Must operate voltage : 90VAC
- Must release voltage : 45VAC
- Maximum turn-on time : 1½ cycle + 1ms
- Maximum turn-off time : 1½ cycle + 1ms
- Zero crossing turn-on : Available

OUTPUT

- RMS on-state current(I_T) : 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
- Repetitive peak Off-state Non-repetitive peak On-state Current(I_{TSM})
  For I_T = 40A : 400A
- For I_T = 25A : 250A
- Rate of rise of Off-state Voltage($\frac{dV}{dt}$) : 500 V/µs / 1000 V/µs

General specification

- Dielectric strength : 4000VAC,50/60Hz for 1min
- Ambient temperature : Operating : - 30 °C to 80 °C
  Storage : - 30 °C to 100 °C
- Ambient humidity : 93% non-condensing
- Pollution degree : II
- Installation category : III
- Dimensions(lxwxh)mm : 57.5 x 44.5 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

ORDER CODE INFORMATION

Product	Max Load Current	Max Load Voltage	Certification
RSS-TA1A240ZP	40A	48-480VAC	—
RSS-TA1A240ZPL			—
RSS-TA1A225ZP	25A	48-480VAC	—
RSS-TA1A225ZPL			—

Product	Repetitive peak Off-state Voltage	Application
RSS-TA1A240ZP	800V	Resistive load and heater control.
RSS-TA1A225ZP		
RSS-TA1A240ZPL	1200V	Inductive load, Resistive load and heater control.
RSS-TA1A225ZPL		

WARNING

⚠ WARNING :

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

CAUTION

⚠ CAUTION :

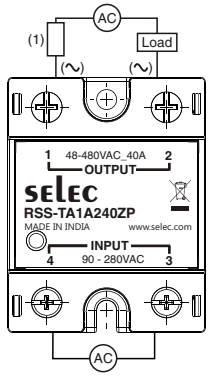
- Do not touch the SSR or the heat sink either while the power supply is ON or immediately after the power is turned OFF. The SSR and the heat sink may be hot.
- Do not touch the SSR main circuit terminals immediately after the power is turned Off.The internal snubber circuit is charged.
- SSR may occasionally 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-TA1A240ZP	45A Class J
RSS-TA1A240ZPL	
RSS-TA1A225ZP	30A Class J
RSS-TA1A225ZPL	

WIRING GUIDELINES

- Ensure the use of proper cable sizes. Abnormal heating of wire may cause burning.
- Do not use wire with broken sheaths. It may cause electric shock.
- Use cable with crimp terminals of appropriate size for terminations.
- Heat generated by incorrect terminations may result in fire.
  Loose terminals generate abnormal heat which may result in fire.
- 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. Touching the terminals when they are charged may occasionally result in minor electric shock.

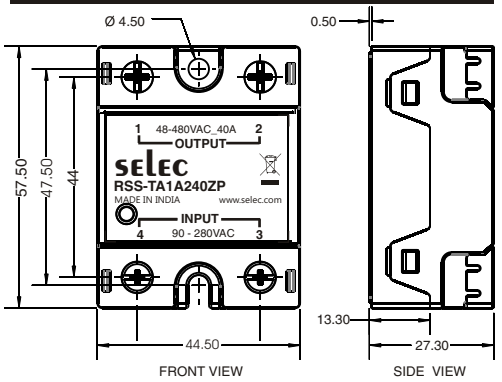
TIGHTENING TORQUE

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

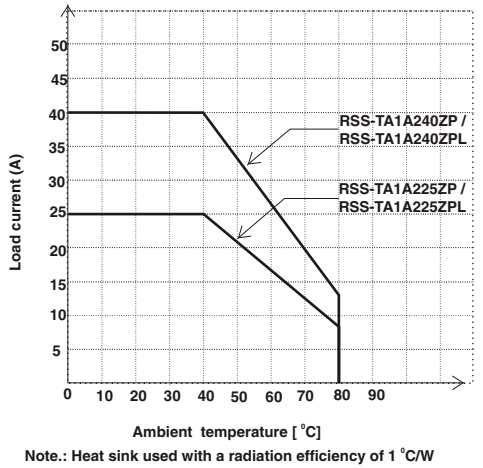
USAGE

- 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.

DIMENSION(mm)



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.)

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