

## 53TP SERIES | IP20

3-PHASE AC OUTPUT PANEL MOUNT SOLID STATE RELAYS

### MOUNTING INSTRUCTIONS

Please read all installation instructions before using your solid state relay. Choose one of the two mounting options and follow the instructions.

#### Mounting on Heat Sink

- Select adequate heat sink (see thermal derating curves).
- Be sure to use thermal pad or thermal compound between the SSR and the selected heat sink.
- The SSR mounting slots have a diameter of 0.2 in (5.0 mm). Four screws are needed (not included) to mount the SSR onto heat sink (See fig. 1). Choose screw length considering the mounting surface and that the baseplate thickness is 0.125 in (3.2 mm).
- Before applying full torque, tighten down all 4 screws until they contact the baseplate. Then, tighten them to 20 lb-in (2.2 Nm) starting with one immediately followed by the one in the diagonally opposite corner. After the first 2 screws are completely tightened, proceed tightening the remaining 2 screws.
- For optimal thermal performance heat sink fins should be oriented vertically to promote natural airflow.

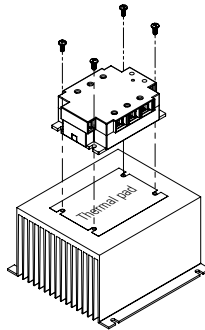


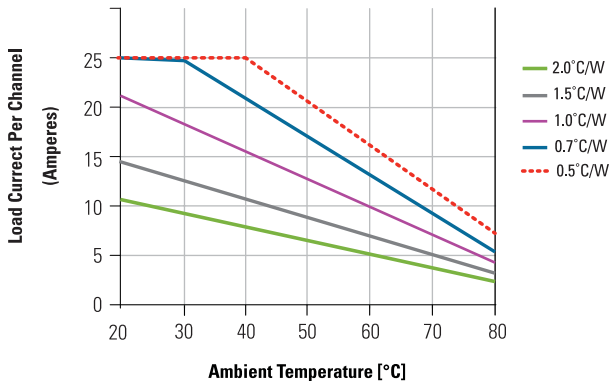
fig. 1 53TP Series SSR mounted on HS053 heat sink

#### Mounting on Panel

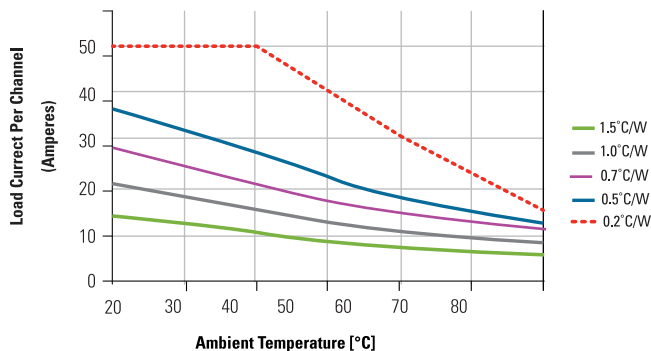
- Locate the panel section on which the SSR will be mounted. Panel mount surface must be clean, bare metal and provide adequate heat sinking capability.
- Be sure to use thermal pad or thermal compound between the SSR and the panel.
- The SSR mounting slots have a diameter of 0.2 in (5.0 mm). Four screws are needed (not included) to mount the SSR onto panel.
- Choose screw length considering the mounting surface and that the baseplate thickness is 0.125 in (3.2 mm).
- Before applying full torque, tighten down all 4 screws until they contact the baseplate. Then, tighten them to 20 lb-in (2.2 Nm) starting with one immediately followed by the one in the diagonally opposite corner. After the first 2 screws are completely tightened, proceed tightening the remaining 2 screws.

### DERATING CURVES

53TP IP20 25A



53TP IP20 50A



### ORDERING OPTIONS



	D	53	TP	25	C	H	-10
<b>Control Voltage</b>	B: 90-140 VAC C: 180-260 VAC D: 4-32 VDC E: 18-36 VAC						
<b>Series</b>	53						
<b>Type</b>	TP: 3 switched channels						
<b>Load Current/per phase</b>	25: 25 Amps 50: 50 Amps						
<b>Cover</b>	C: IP20						
<b>Thermal Pad</b>	Blank: Not included H: Included						
<b>Relay Options</b>	Blank: Zero Voltage Turn-On -10: Random Turn-On						

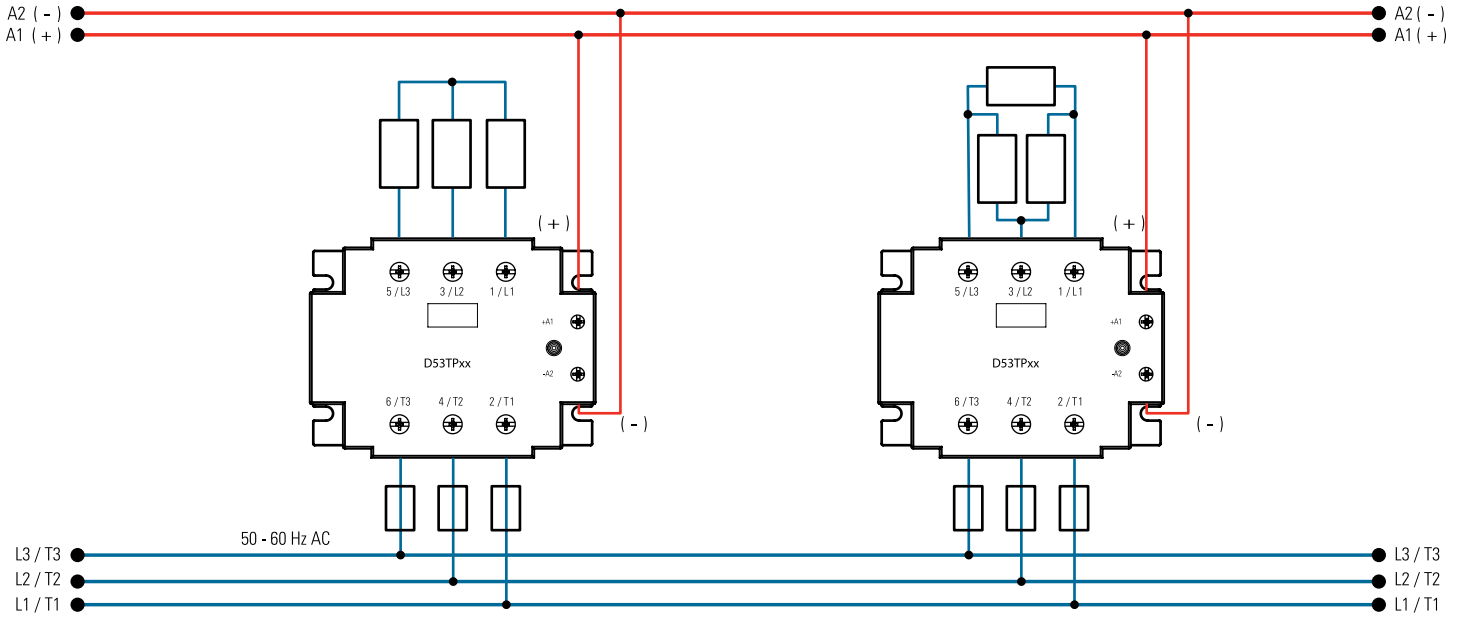
— Required for valid part number  
 □ For options only and not required for valid part number



# WIRING DIAGRAM

**TABLE 1. Fuse**

 	
No Time Delay Fuse	
x53TP25Cxxx	25 A Class J
x53TP50Cxxx	60 A Class J



### Recommended Screw Torque Range

16.82 lb-in (1.9 Nm) on input and 21.24 lb-in (2.4 Nm) on output.

### Wire Size

Maximum wire size capacity per terminal: input 16 AWG (1.3 mm<sup>2</sup>), output 10 AWG (5.3 mm<sup>2</sup>) solid, 8 AWG(8.4 mm<sup>2</sup>) stranded. Choose wire gauge according to actual load current.

### Important Considerations

**WARNING!** Be sure to use input and output voltages within operating ranges. LED indicates only input status. It does not represent output status.

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Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

## CONTACT US

### Americas

+1 (877) 502 5500  
sales.crydom@sensata.com

### Europe, Middle East & Africa

+44 (1202) 416170  
ssr-info.eu@sensata.com

### Asia Pacific

sales.isasia@list.sensata.com  
China +86 (21) 2306 1500  
Japan +81 (45) 277 7117  
Korea +82 (31) 601 2004  
India +91 (80) 67920890  
Rest of Asia +886 (2) 27602006  
ext 2808