

Dual-Channel RS485 Surge Protection Device Plug-in for Three Phase Inverters with SetApp Configuration - Installation Guide

This document describes how to install the RS485 Dual-Channel Surge Protection Device (SPD) in a SolarEdge three-phase inverter.

For more information on the surge protection device, see the datasheet at:

https://www.solaredge.com/sites/default/files/se_spd_plug_in_for_rs485_for_3ph_with_setapp_ds.pdf



Kit Contents

- Five surge protection boards with 6-pin connectors
- Five sets of 3 spacers (15 spacers in all)

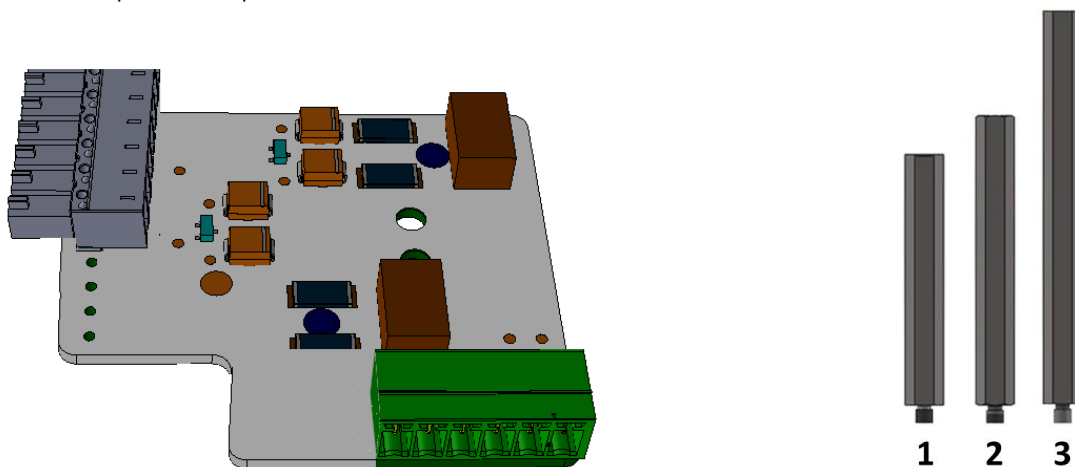


Figure 1: Surge Protection Board and Standoff Spacers

Using the Spacers

The following table specifies which spacers to use when installing the SPD in a three phase inverter with SetApp configuration.

Inverter Part Number	Spacers to Use
SExxK-xxxxxBxx4	Spacer 3
SExxK-xxxxlBxx4	Spacers 1 and 2

Installation Procedure



WARNING!

ELECTRICAL SHOCK HAZARD. Risk of electric shock from energy stored in the capacitor. Do not remove cover until 5 minutes after disconnecting all sources of supply.

1. Turn the inverter ON/OFF/P switch to OFF. Wait 5 minutes for the capacitors to discharge.
2. Turn the Safety Switch (if applicable) to OFF.
3. Disconnect the AC to the inverter by turning OFF the circuit breakers on the distribution panel.
4. Open the inverter cover screws and remove the cover.
5. Perform one of the following actions:
 - For a new RS485 connection installation, disconnect the 6-pin connector from the surge protection board, and connect the two sets of RS485 wires to the G, A, and B terminals, as shown in the figure below.

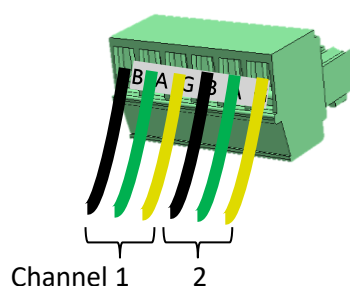


Figure 2: Connecting RS485 Wiring

- If RS485 connection is already installed in the inverter, disconnect the 6-pin connector from the inverter's communication board (leaving the RS485 wires intact).



Figure 3: Communication Board and 6-Pin Connector

6. Install the standoff spacer(s) according to inverter model number:

- In inverters with model numbers SExxK-xxxxxBxx4, use standoff spacer #3. Screw the standoff spacer into its socket as shown in the below figure. Place the surge protection device over the spacer so that the screw opening is aligned with the spacer, and insert the screw into the spacer via the indicated screw opening in the device. Do not tighten the screw at this point.

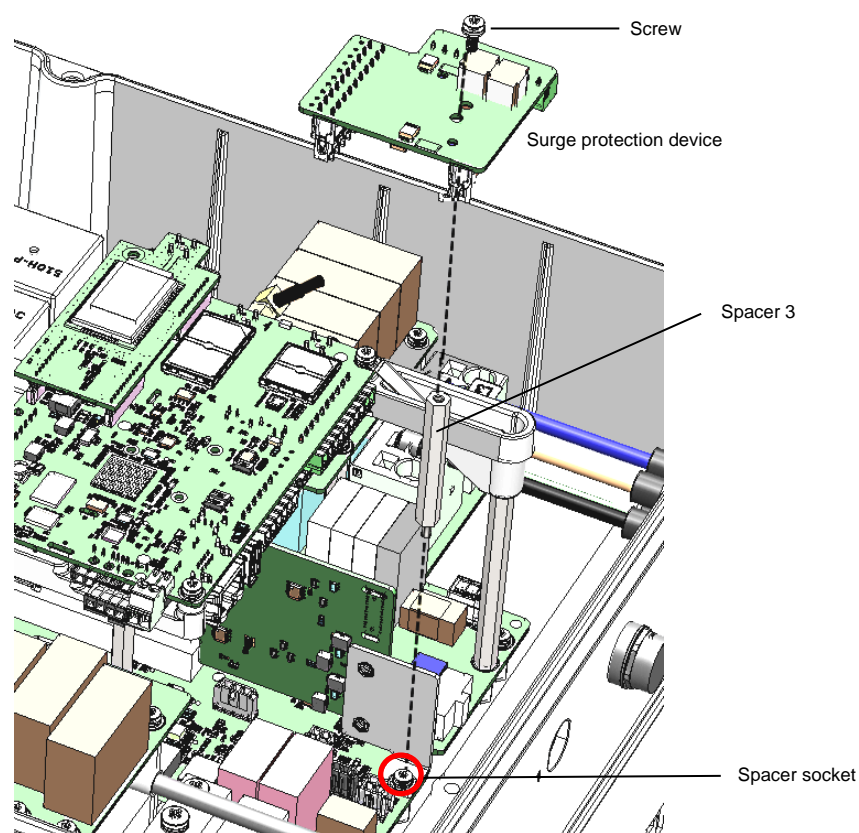


Figure 4: Installing the Standoff Spacer #3 in SExxK-xxxxxBxx4 Inverters

- In inverters with model numbers SExxK-xxxxlBxx4, use standoff spacers #1 and #2. Screw the standoff spacers into the socket as shown in the below figure. Place the surge protection device over the spacers so that the screw opening is aligned with the spacers, and insert the screw into the upper spacer via the indicated screw opening in the device. Do not tighten the screw at this point.

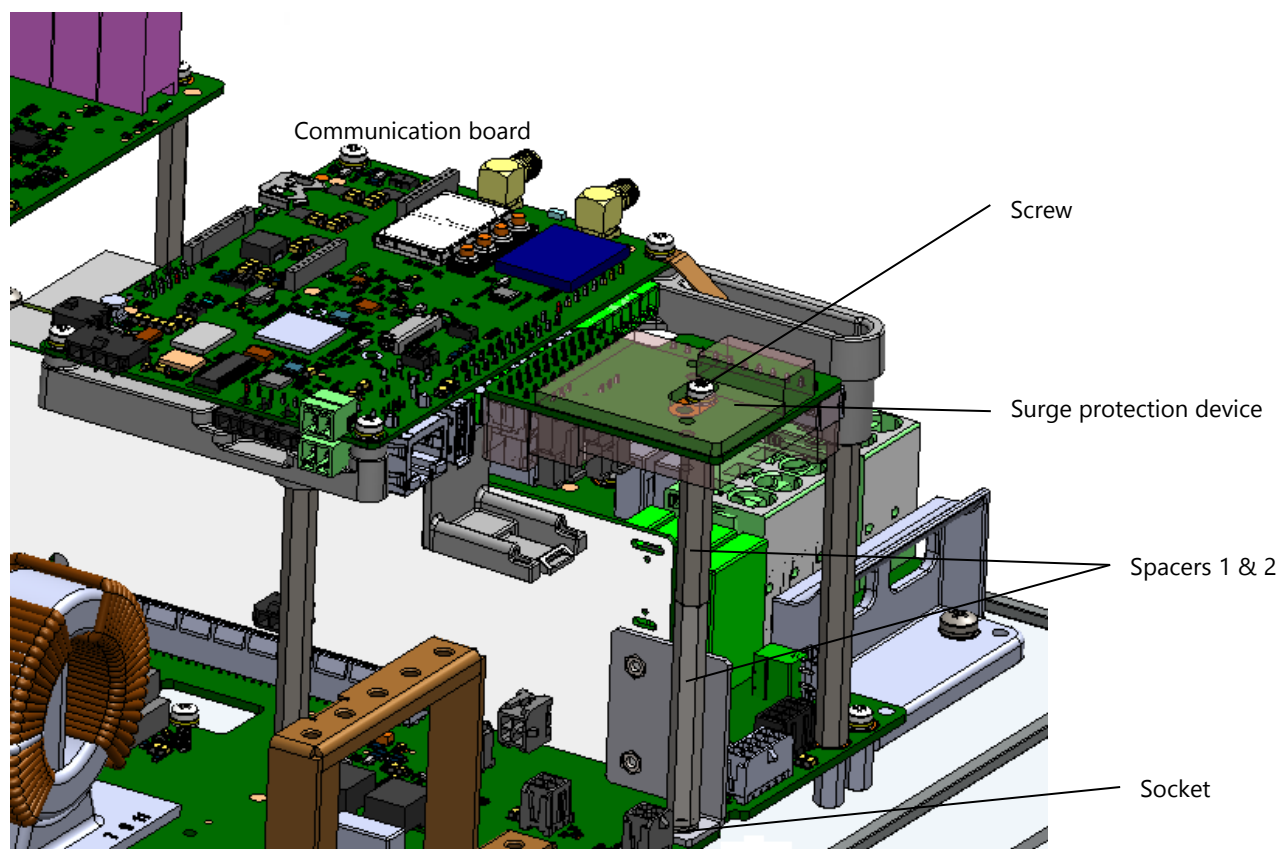


Figure 5: Installing the Standoff Spacers #1 and #2 in SExxK-xxxxlBxx4 Inverters

7. Insert the surge protection board's connectors into the communication board socket, applying light pressure. Make sure the connectors are firmly inserted.

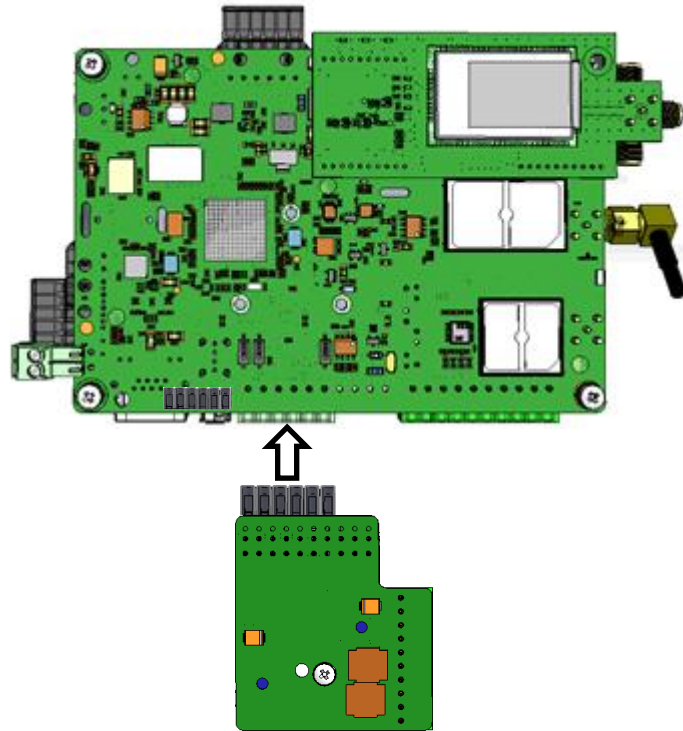


Figure 6: Connecting the Surge Protection Device to the Communication Board – View from Above

8. Tighten the screw securing the surge protection device (torque 1.1 N*m/ 0.8 lb*ft).
9. Connect the 6-pin connector to the surge protection device.
10. Close the inverter cover.
11. Turn ON the AC to the inverter.
12. Turn the Safety Switch (if applicable) to ON.
13. Turn the inverter ON/OFF/P switch to ON.