

Square D SDSA3650

Square D SDSA3650 3 Phase Surge Protection Device User Manual

Model: SDSA3650

1. PRODUCT OVERVIEW

The Square D SDSA3650 is a robust 3-phase surge protection device designed to safeguard electrical systems operating at 347/600VAC Wye. This non-filtering, non-modular unit provides essential protection against transient overvoltages, ensuring the longevity and reliability of connected equipment. It features an integrated LED status indicator for easy monitoring of its operational status.



Figure 1: Square D SDSA3650 3 Phase Surge Protection Device. This image shows the black rectangular unit with a grey label on the front. The label displays the model number SDSA3650, 'Surge Protective Device', status indicators (OK, Replace), and the Square D by Schneider Electric logo. Two insulated wires extend from the right side of the device, ready for connection.

2. SAFETY INFORMATION

WARNING: Risk of electric shock. Installation and servicing must be performed by qualified personnel only. Disconnect power before installation or maintenance.

- Always follow local and national electrical codes.
- Ensure the device is installed in a dry, protected environment.
- Do not attempt to open or repair the device. Refer to qualified service personnel.

3. INSTALLATION AND SETUP

The SDSA3650 is designed for chase nipple mounting. Proper wiring is crucial for effective surge protection.

3.1 Mounting

Mount the device securely using its chase nipple mounting style. Ensure it is positioned to allow for proper wire routing and visibility of the status indicator.

3.2 Wiring

This device is a 3-pole, 4-wire configuration. Connect the 12 AWG wires from the surge protector to the appropriate points in your electrical panel or equipment, following the wiring diagram provided with the product packaging. Ensure all connections are tight and secure.

- **Phase Connections:** Connect the phase wires (L1, L2, L3) to the corresponding terminals.
- **Neutral Connection:** Connect the neutral wire.
- **Ground Connection:** Ensure a proper ground connection is established.

After installation, verify all connections and restore power. The device's status indicator should illuminate.

4. OPERATION

The SDSA3650 operates automatically to detect and divert harmful voltage surges away from sensitive equipment. Its operational status is indicated by an LED on the front panel.

4.1 Status Indicator

The device features an LED status indicator to provide immediate visual feedback on its operational health:

- **OK:** When the "OK" indicator is lit, the surge protection device is functioning correctly and providing protection.
- **Replace / Suspendre / Remplacer:** If the "Replace" indicator is lit, the device has absorbed a significant surge or has reached the end of its protective life and requires replacement.

5. MAINTENANCE

The SDSA3650 requires minimal maintenance. Regular visual inspection is recommended.

- **Periodic Inspection:** Periodically check the LED status indicator on the front of the device.
- **Cleaning:** If necessary, gently wipe the exterior of the device with a dry, soft cloth. Do not use liquid cleaners

or solvents.

6. TROUBLESHOOTING

Most operational issues with the SDSA3650 are indicated by the status LED.

6.1 "Replace" Indicator is Lit

If the "Replace" indicator is illuminated, it signifies that the surge protection module has been compromised and is no longer providing adequate protection. In this event:

1. **Disconnect Power:** Safely disconnect power to the circuit where the device is installed.
2. **Replace Device:** The device must be replaced with a new Square D SDSA3650 unit to restore surge protection.
3. **Consult Professional:** If you are unsure about the replacement process, consult a qualified electrician.

6.2 No Indicator Light

If neither the "OK" nor "Replace" indicator is lit, ensure that power is supplied to the circuit and that the device is correctly wired. If the issue persists, the device may be faulty or improperly installed. Consult a qualified electrician.

7. SPECIFICATIONS

Feature	Specification
Item	Surge Protection Device
Phase	3
Voltage	347/600VAC Wye
Max. Continuing Operating Voltage	510VAC
Voltage Protection Rating (L-N)	1800V
Voltage Protection Rating (L-L)	3000V
Nominal Discharge Current	10kA
Modes of Protection	L-L, L-N
Filtering / Nonfiltering	Nonfiltering
Modular / Nonmodular	Nonmodular
Mounting Style	Chase Nipple
Enclosure Material	Plastic
Enclosure NEMA Rating	4X
Length	3.60"
Width	3.00"
Depth	3.39"

Feature	Specification
Joules	1304
Max. Surge Current Per Phase	40kA
Max. Surge Current Per Mode	40kA
Short Circuit Current Rating	200kA
Number of Poles	3
Number of Wires	4
Wire Gauge	12 AWG
Standards	UL 1449 3rd Edition, CSA C22.5
Includes	LED Status Indicator
Package Dimensions	2 x 2 x 2 inches
Manufacturer	CAI - SQUARE D

8. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the documentation included with your product or visit the official Square D / Schneider Electric website.
For technical support or further inquiries, please visit:www.schneider-electric.com

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question