

solar**edge**

# S-Series Power Optimizers for Residential Installations

Smart.  
Simple.  
Safe.



# / Delivering Maximum Power Safely

In 2006, SolarEdge invented the DC optimized inverter solution, forever changing the way solar energy is harvested in PV systems. By connecting our Power Optimizer to each PV module, we enabled maximum energy production and system safety.

Now we are upgrading safety, yet again.

**The new SolarEdge S-Series Power Optimizers are gamechangers.**

Our S-Series Power Optimizers include SolarEdge Sense Connect patented technology, which raises the bar in PV system safety. These innovative Power Optimizers are designed to detect PV connector overheating, whether from installation or other environmental issues, preventing potential electric arc events or connector damage.\*

Additional improvements to the Power Optimizer installation experience mean it's even easier to extract the maximum amount of energy from each PV module.

**Our newest generation of Power Optimizers do even more to protect people and property.**

# / A Truly Holistic Approach to PV Safety\*\*

## SafeDC™

Ensures the PV system's DC voltage is reduced to touch-safe levels during grid failures or when the inverter is shut down, in up to five minutes.



## Sense Connect

The patented technology detects faulty wiring that can potentially cause electric arcs.

## Rapid Shutdown

Allows fast discharge of conductors to safe voltage levels, within 30 seconds.

## Arc Fault Prevention

Detect and terminate electric arcs through automatic inverter shutdown.

## Module-Level Monitoring

Sends automatic notifications on system issues, helping to prevent potential safety risks.

\* Feature available via firmware upgrade in 2022

\*\* Safety functionality is subject to inverter model and firmware version

# / Our Most Advanced Power Optimizers Yet

## They're Smart.

If a thermal event is detected in a connector, the smart S-Series Power Optimizer automatically notifies the installer and initiates system shutdown when necessary. The installer can immediately identify the faulty connector and prevent such events from developing into a safety hazard. Early detection and prevention mean real O&M savings.

The S-Series is also future-proofed to manage the technology requirements of today and tomorrow's PV modules.

## They're Simple.

A new and improved cable design means easier installations. With three short cables and one long one, connectors stay closer to the Power Optimizer and "float" in the air, which minimizes exposure to isolation faults that can be caused by a wet environment.

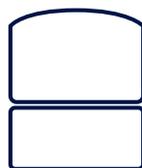
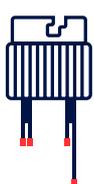
We've also simplified our Power Optimizer model range with a streamlined line-up that makes it easier to design, order and store.

## They're Safe.

Sense Connect is patented technology designed to prevent arcs from occurring.\* The connections are monitored 24/7 to detect irregular connector behavior and, if necessary, initiate an inverter shut down to avoid electric arc events and connector damage. This extra level of protection can surpass even the most stringent arc detection standards.

SolarEdge SafeDC™, automatically shuts down module DC voltage during inverter or grid shutdown and is built-in to the S-Series models as before.

# / How Does SolarEdge Sense Connect Work?



### Sense

Identifies connector temperature as abnormal

### React

Shuts down inverter production

### Identify

**Monitoring Platform**  
Connector location is visible in the physical layout

### Notify

**Monitoring App**  
Notifies installer, including location identification

# / Exceptional Efficiency with S-Series

As with all SolarEdge Power Optimizers, the S-Series is extraordinarily efficient (99.5%) which enables homeowners to produce more energy. With a 1:1 module connection and MPP tracking per module, mismatch loss is negligible. And as always, installers and homeowners benefit from real-time, module-level performance monitoring, accessible from anywhere with their SolarEdge apps.

## / What Sense Connect Offers Installers



Detection of potential thermal events



On-site identification of faulty installation



Fast detection of faulty connection location



Automatic inverter shutdown

## / Benefits You Expect From SolarEdge

- / 25-year Power Optimizer warranty
- / Robust and reliable technology
- / Advanced safety built-in
- / Higher system energy production

### About SolarEdge

SolarEdge is a global leader in smart energy technology. By deploying world-class engineering capabilities and a relentless focus on innovation, we create smart energy products and solutions that power our lives and drive future progress.



**solar**edge  
**solaredge.com**

©SolarEdge Technologies, Ltd.  
All rights reserved.  
Rv: 12/2021/V01/ROW  
Subject to change without notice