



Application Note

Control Import Limit

Version 1.0

January 2025

MAN-01-01230-1.0

About

This application note describes the Import limit control function and explains how to configure it using SetApp, the SolarEdge mobile application for installers.

Revision history

Version	Date	Description
1.0	January 2025	Initial release date.

Overview

The significant increase in high-wattage appliances, such as heat pumps and electric vehicle (EV) chargers, has resulted in a higher demand for electricity. Frequently, when the main panel's capacity is exceeded, circuit breakers may trip to safeguard the electrical infrastructure. The repeated tripping of the breakers indicates that the panel may be overloaded, which suggests that an upgrade to a higher-capacity panel may be necessary.

The release of version 4.22 and the introduction of Import Limit Control in the SolarEdge system allow for site power management within the existing infrastructure, reducing the need for costly increases in the main AC connection.

The Import Limit Control function monitors and manages the level of current imported from the grid by controlling the consumption level of the controllable devices on the site.



NOTE

Import Limit Control only regulates the power of controllable devices, and therefore cannot fully manage the import level.

System Requirements

- SetApp enabled inverters:
 - SolarEdge Home Wave Inverter- Single Phase
 - SolarEdge Home Hub Inverter- Single Phase
 - SolarEdge Home Wave Inverter- Three Phase
 - SolarEdge Home Hub Inverter- Three Phase
 - SolarEdge StorEdge Three phase
 - Three Phase Inverter (SE12.5K/SE16K/SE17K)

- CPU firmware version 4.22 or higher
- An Energy meter configured to Import/Export mode

How does it work?

When activating the Import Limit Control, you must define the maximum import current per phase. After activated, the system begins monitoring the current import level. If the import threshold is exceeded on one of the phases, the system starts reducing the consumption of the controllable devices to keep the current level below the set limit, thereby preventing the breaker from tripping and promoting homeowner comfort.

Support controllable devices

- SolarEdge Home Hot Water Controllers
- SolarEdge Home Batteries
- SolarEdge EV chargers
- Third-party EV chargers integrated via the One Controller for Residential

The consumption level of the controllable devices is reduced in the following order:

1. EV Charger
2. Home Batteries
3. Hot Water Controller

If the consumption of a controllable device decreases to zero while the import remains high, the system moves to the next device on the priority list and begin controlling its consumption.

Configuration

To activate and configure the Import Limit Control:

1. Open SetApp and go to **Power Control > Energy Manager> > Limit Control > Import Limit** and tap **Edit**.
2. Toggle on **Activate**.
3. In **Set Value**, enter the current limit per phase.
4. Then, tap **Set**.

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Import Limit

Active

Set Value A