

SolarEdge Power Optimizers Inter-Compatibility

Version History

- Version 10 (Dec 2021) Updates for commercial Power Optimizer compatibility, P850, P860, P950, P960, P1100.
- Version 9 (Nov 2021) – added S440, S500 and S500B.
- Version 8 (Aug 2021) – marked P400 and P401 as being inter-compatible.
- Version 7 (May 2021) – added P375, P601, P605, P960, P1100. Re-added P300, P600, P700.
- Version 6 (Sept. 2020) – marked P950 as compatible with P850 and P800p.
- Version 5 (June 2020) - added P320, P340, P370T, P395, P400, OP400-EV, OP-480, P401, P485, P700, P801, P850, P860, P950 OP300-LV , OP350-LV, OP350-MV, OP600-96.
Deleted P300, P600, P700.
Added remark about M2640 and M1600.
Merged Europe and APAC and NAM to a single document.

This technical note specifies inter-compatibility between various models of the S-Series and P-Series SolarEdge power optimizers, as well as the inter-compatibility of the P-Series power optimizers with previous series of power optimizers (PBxxx and OPxxx).

The term “inter-compatibility” refers exclusively to the installation of power optimizers in the same PV string.

When replacing a power optimizer, the replacement power optimizer does not need to be identical to the replaced power optimizer, but it must be compatible with the other power optimizers in the string.



NOTE

Installing different series and models of power optimizers in the same installation is allowed as long as they are installed in separate PV strings. However, power optimizers that are inter-compatible may be installed in the same PV string.



NOTE

When replacing a power optimizer always verify with the SolarEdge Designer that the power, current and voltage specifications of the PV module are compatible with the replacement power optimizer specifications. Ensure that the module Voc (at minimum ambient temperature) does not exceed the replacement power optimizer’s maximum input voltage. Use the [SolarEdge Designer](#) to quickly validate electrical compatibility. Refer to the power optimizer datasheet for details.

The following compatibility tables detail the Power Optimizer series and models that can be installed in the same PV string, during installation or in case a power optimizer is being replaced.

If a cell does not contain a check mark, the relevant power optimizers cannot be installed in the same string.

Table 1: S-Series Power Optimizer Inter-compatibility

| | | S440 | S500 | S500B |
|-----------------|-------|------|------|-------|
| S-Series | S440 | ✓ | ✓ | |
| | S500 | ✓ | ✓ | |
| | S500B | | | ✓ |
| P-Series | P401 | ✓ | ✓ | |
| | P505 | | | ✓ |

Remarks:

The general recommendation is to avoid installing P-Series and S-Series Power Optimizers in the same PV string. If this is unavoidable:

- Any P-Series Power Optimizer that is compatible with the P401 Power Optimizer is also compatible with the S440 and S500 Power Optimizers.
- Any P-Series Power Optimizer that is compatible with the P505 Power Optimizer is also compatible with the S500B Power Optimizer. See, Table 2: P-Series Power Optimizer Inter-compatibility, on page 3.
- When replacing P-Series Power Optimizers with S-Series Power Optimizers verify that the inverter firmware version is updated as follows:
 - For inverters with LCDs - minimum required version 3.2537.
 - For SetApp enabled inverters - minimum required version 4.8.xx.



NOTE

Installing P-series and S-series Power Optimizers on the same PV string requires the use of an extension cable. For more details refer to the [Using Extension and Adapter cables with Power Optimizers](#) application note.

| | | P300 | P320 | P340 | P350 | P370 | P370T | P375 | P395 | P400 | P401 | P404 | P405 | P485 | P500 | P505 | P600 | P601 | P605 | P650 | P700 | P701 | P730 | P800p** | P801 | P850 *** | P860 | P950 | P960 | P1100 | |
|-----------------|-----------|------|------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------|------|-------------|------|------|------|-------|--|
| OP-Series | OP400-MV | | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | | | | | ✓ | | | | | | | | | | | | | | | | |
| | OP400-EV | | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | | | | | ✓ | | | | | | | | | | | | | | | | |
| | OP480 | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | | | | | | | | | | | | | | |
| | OP500-IV | | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | |
| | OP600-96 | | | | | | | | | | | | | | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | | ✓ | | | | | | |
| PB-Series | PB250-AOB | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | | | | | | | | | | | | | | |
| | PB350-AOB | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | | | | | | | | | | | | | | |
| | PB350-TFI | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | | | | | | | | | | | | | | |
| Module Embedded | OP250-LV | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | | | | | | | | | | | | | | |
| | PB250-CSI | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | | | | | | | |
| | OPJ300-LV | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | | | | | | | | | | | | | | |

Remarks:

** For P405, P485 and P800p, the same replacement options apply for both the single and dual input versions.

*** P850 replaced P800s; They can be used interchangeably and can be connected in the same string.

M series power optimizers (M2640 and M1600); cannot be used interchangeably and cannot be connected with any other power optimizer in the same string.