

# SolarEdge Next Generation Power Optimizers

## P – Series

December 2013



# Next Generation Power Optimizer

- SolarEdge is introducing its next generation power optimizers - The P Series
  - P Series is replacing the OPxxx Series

## P Series

December 1, 2013



## OPxxx – current Series



- Optimized for future High-Power PV Modules
  - P300 match all 60-cell crystalline module
  - P350 match all 72-cell crystalline module
  - P500 match all 96-cell crystalline module
  - P405 match selected Thin-Film Modules
  - P600 match any 60-cell module, two modules connected in series
  - P700 match any 72-cell module, two modules connected in series
- Single mounting screw installation
- Full compliance with VDE-AR-E 2100-712 Fire Safety Guidelines
- P600 is now also compatible with SE15kW inverter
- P700 is compatible with SE16kW inverter



# P Series Fire Safety Compliance

- Comply with VDE-AR-E 2100-712 Fire Safety Guidelines
- P Series power optimizers allow automatic and fail-safe reduction of DC-voltage to a safe voltage (below 120Vdc) within the required time (<15sec)
  - This function is embedded in the product and **saves** additional hardware or fire proof constructional measures. Leading to a reduction of installation costs
- This compliance is additional to the SafeDC™ mechanism



VDE-AR-E 2100-712: “Measures for the DC range of a PV installation for the maintenance of safety in the case of firefighting or technical assistance”

- **Lower cost per watt** -> Higher power for the same price
- P300 replacing OP250 for all 60-cell module at same price
- P350 replacing OP300 for all 72-cell module at same price
- P500 replacing OP400 for all 96-cell module at same price
- P405 replacing OP400-EV for thin-film modules
- Easier installation – Only one mounting screw

# P-Series Installers Benefits

- Easier installation – Only one mounting screw
- Simpler process in selecting the right power optimizer
- Comply with VDE-AR-E 2100-712 Fire Safety Guidelines – saves additional hardware or fire proof constructional measures. Leading to a reduction of installation costs
- P600 compatibility with SE15K
  - Easier to design systems in countries with restrictions on plants up to 30 kWp (e.g. Switzerland, Austria, etc.).



# P300-P350-P405-P500 Specification

	P300	P350	P500	P405*	
Supported Modules	60-cell	72-cell	96-cell	Thin-Film	
Maximum Power (@STC)	300	350	500	405	W
Maximum input voltage (@ lowest ambient temperature) / Input Current	48 / 10	60 / 10	80 / 10	125/10	V/ A
MPPT Range	8 – 48	8 – 60	8 - 80	12.5-105	V
Maximal output voltage	60	60	60	85	V
Total output current	15	15	15	15	A
Operating Temperature	-40 - +85	-40 - +85	-40 - +85	-40 - +85	°C
MC4					
Output Cable	1.0	1.0 (portrait) 1.2 (landscape)	1.2		

\* Note: P405 can be installed ONLY with P405

# P600/P700 Specification

	P600	P700	
Supported Modules	Two 60-cell modules connected in series	Two 72-cell modules connected in series	
Maximum Power (@STC)	600	700	W
Maximum input voltage (@ lowest ambient temperature) / Input Current	96 / 10	125 / 10	V / A
MPPT Range	12.5 - 80	12.5 - 105	V
Maximal output voltage	85		V
Total output current	15		A
Operating Temperature	-40 - +85		°C
Compatible SolarEdge Inverters	<b><u>SE15K</u></b> and larger	<b><u>SE16K</u></b> and larger	
Cable Length	1.2 (portrait) 1.8 (landscape)	1.2 (portrait) 2.1 (landscape)	m

\* Note: P600/P700 can't be installed with P300/350/P500/P405

- P Series power optimizers are fully backward compatible with OPxxx & PB (Gen 1) power optimizers

OPxxx	Field Replacement by
OP250-LV, PB250/350-AOB	P350
OPI300-LV	P350I
OP300-MV	P500
OP400-MV	P500
OP400-EV	P405
OP600-96V	P600

# Thank you

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