



# SolarEdge Power Optimizer

Module Embedded Solution

OPJ300-LV



POWER OPTIMIZERS

## PV power optimization at the module-level

- A certified junction box (US, IEC) incorporating the field proven SolarEdge power optimizer
- Up to 25% more energy and superior efficiency (99.5%)
- Mitigates all types of module mismatch losses, from manufacturing tolerance to partial shading
- Module-level voltage shutdown for installer and firefighter safety
- Simplifies system design by eliminating power optimizer selection process
- Independent optimization technology (IndOP™) - operation with any inverter and no additional hardware or addition of SolarEdge inverter for added benefits
- Unique Pass-Thru connector for easy module flashing and field replacement



# SolarEdge Power Optimizer

## Module Embedded Solution OPJ300-LV

BENEFITS PER SOLUTION	SolarEdge Power Optimizer with SolarEdge Inverter	SolarEdge Power Optimizer with SolarEdge Safety & Monitoring Interface and a Non-SolarEdge Inverter	SolarEdge Power Optimizer with a Non-SolarEdge Inverter
Added Energy	✓	✓	✓
Safety	✓	✓	—
Monitoring	✓	✓	—
Multi-facet Design	✓	✓	✓
Long String Design	✓	—	—

	Power Optimizer connected to a SolarEdge Inverter	Power Optimizer connected to a Non-SolarEdge Inverter <sup>(1)</sup>	
<b>INPUT</b>			
Rated Input DC Power	330		W
Absolute Maximum Input Voltage (Voc)	55		Vdc
MPPT Operating Range	5 - 55		Vdc
Maximum Short Circuit Current (Isc) of connected PV Module	10		Adc
Maximum DC Input Current	12.5		Adc
Maximum Efficiency	99.5		%
Weighted Efficiency	98.9		%
Overvoltage Category	II		

<b>OUTPUT DURING OPERATION</b>			
Maximum Output Current	15	10	Adc
Maximum Output Voltage	60	Voc of connected PV module	Vdc

<b>OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)</b>			
Safety Output Voltage per Power Optimizer	1	1 <sup>(2)</sup>	Vdc

<b>STANDARD COMPLIANCE</b>			
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3		
Safety	IEC62109-1 (class II safety, TUV-SUD), UL1741 (TUV-Rheinland & CSA)		
PV Junction Box	EN50548 (TUV-SUD), UL3730 (TUV-Rheinland & CSA)		
Material	UL-94 (5-VA), UV Resistant		
RoHS	Yes		

<b>INSTALLATION SPECIFICATIONS</b>			
Maximum Allowed System Voltage	1000V		Vdc
Dimensions (WxLxH)	208x155x29.5 / 8.2x6.1x1.16		mm / in
Weight (excluding cables)	700 / 1.5		g / lb
Output Wire Type	Double insulated; 6 mm <sup>2</sup> ; MC4 Compatible		
Output Wire Length	0.95 / 3.0		m / ft
Operating Temperature Range	-40 - +85 / -40 - +185		°C / °F
Protection Rating	IP67 / NEMA6		
Relative Humidity	0 - 100		%

PV SYSTEM DESIGN	Power Optimizer connected to a SolarEdge Inverter	Power Optimizer connected to a Non-SolarEdge Inverter <sup>(1)</sup>	
Minimum String Length	8 (1ph) 16 (3ph) 18 (3ph-MV)	According to inverter design rules & PV module datasheet	
Maximum String Length	25 (1ph) 50 (3ph)		
Maximum Power per String	5250 (1ph), 5700 (1ph HD-Wave) 11250 (3ph) 12750 (3ph-MV)		W W W
Parallel Strings of Different Lengths	Yes	No	
Parallel Strings of Different Orientations	Yes	Yes	

<sup>(1)</sup> Available only if Safety & Monitoring Interface (SMI) is installed or if SafeDC™ is disabled during installation by a one-time operation using the SolarEdge Key.

<sup>(2)</sup> When SolarEdge Safety and Monitoring Interface (SMI) is installed and off.

Note - OPI power optimizer warranty shall not exceed the maximum of (1) the module product warranty and (2) the module power warranty periods provided by the applicable module manufacturer.

