



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



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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 ⁽¹⁾	
INPUT			
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		

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

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

STANDARD COMPLIANCE			
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 Material	EN50548 (TUV-SUD), UL3730 (TUV-Rheinland & CSA)		
RoHS	UL-94 (5-VA), UV Resistant Yes		

INSTALLATION SPECIFICATIONS			
Maximum Allowed System Voltage	Compliant with 600V (UL) / 1000V (IEC) ⁽³⁾		
Dimensions (WxLxH)	208x155x29.5 / 8.2x6.1x1.16		
Weight (excluding cables)	700 / 1.5		
Output Wire Type	Double insulated; 6 mm ² ; MC4 Compatible		
Output Wire Length	0.95 / 3.0		
Operating Temperature Range	-40 - +85 / -40 - +185		
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 ⁽¹⁾		
	EU	North America			
Minimum String Length	8 (1ph) 16 (3ph) 18 (3ph-MV)	8 (1ph) 10 (3ph-208V) 18 (3ph-480V) ⁽³⁾	According to inverter design rules & PV module datasheet		
Maximum String Length	25 (1ph) 50 (3ph)	25 (1ph; 3ph-208V) 50 (3ph-480V) ⁽³⁾			
Maximum Power per String	5250 (1ph) 11250 (3ph) 12750 (3ph-MV)	5250 (1ph) 6000 (3ph-208V) 12750 (3ph-480V) ⁽³⁾			W W W
Parallel Strings of Different Lengths	Yes			No	
Parallel Strings of Different Orientations	Yes		Yes		

⁽¹⁾ 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.

⁽²⁾ When SolarEdge Safety and Monitoring Interface (SMI) is installed and off.

⁽³⁾ 1000V(UL) model available.

Note - OPJ 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.

