
SolarEdge Power Optimizer

Module Embedded Solution

OPJ300-LV



POWER OPTIMIZER

PV power optimization at the module-level

- // Simplifies system design by eliminating power optimizer selection process
- // 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
- // A certified junction box (US, IEC) incorporating the field proven SolarEdge power optimizer
- // 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	SOLAREGE POWER OPTIMIZER WITH SOLAREGE INVERTER	SOLAREGE POWER OPTIMIZER WITH SOLAREGE SAFETY & MONITORING INTERFACE AND A NON-SOLAREGE INVERTER	SOLAREGE POWER OPTIMIZER WITH A NON-SOLAREGE INVERTER
Added Energy	v	v	v
Safety	v	v	-
Monitoring	v	v	-
Multi-facet Design	v	v	v
Long String Design	v	-	-

	POWER OPTIMIZER CONNECTED TO A SOLAREGE INVERTER	POWER OPTIMIZER CONNECTED TO A NON-SOLAREGE INVERTER ⁽¹⁾
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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

NDARD 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	EN50548 (TUV-SUD), UL3730 (TUV-Rheinland & CSA)		
Material	UL94 V-0, UV Resistant		
RoHS	Yes		

INSTALLATION SPECIFICATIONS			
Maximum Allowed System Voltage	1000V		Vdc
Dimensions (W x L x H)	208x155x29.5 / 8.2x6.1x1.16		mm / in
Weight (excluding cables)	700 / 1.5		gr / lb
Output Wire Type	Double insulated; 6 mm ² ; MC4 ⁽³⁾		
Output Wire Length	1/3.38 , 1.2/3.93		m / ft
Operating Temperature Range	-40 - +85 / -40 - +185		°C / °F
Protection Rating	IP67 / NEMA6		
Relative Humidity	0 - 100		%

(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. 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.

(3) For T4 please order OPJ300-LV-P1.

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PV SYSTEM DESIGN	POWER OPTIMIZER CONNECTED TO A SOLAREEDGE INVERTER	POWER OPTIMIZER CONNECTED TO A NON-SOLAREEDGE INVERTER ⁽¹⁾	
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
Parallel Strings of Different Lengths	Yes	No	
Parallel Strings of Different Orientations	Yes	Yes	

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