

# Power Optimizer

## Service Model for Residential Systems

R500 / R600



### R-Series Service Power Optimizers for P-Series RMA

#### ! Simpler Service and O&M

- ! Cable layout similar to the P-series power optimizers for faster replacement
- ! One fits all – one part number can replace multiple power optimizer models for easier logistics

#### ! High Safety with Support for All P-Series Features

- ! Automatic module-level voltage shutdown with SafeDC™, ensuring maximum protection of people and property
- ! Does not support Sense Connect

#### Compatibility Table

P-Series Power Optimizer	R-Series Power Optimizer
P3xx / P401	R500
P400 / P500 / P404 / P405 / P485 / P505 / P601	R600

\* R-Series power optimizers cannot be used for new installations or for S-Series Power Optimizers for retrofits or RMA purposes. For full inter-compatibility guidelines, refer to the [SolarEdge Residential Power Optimizer Inter-Compatibility Technical Note](#).

\*\* R600 is compatible with P400/P500, not with other 60V output P-Series Power Optimizers. If you have a full string of P400/P500 Power Optimizers, use R600 as RMA. If you have a P400/P500 Power Optimizer in a string of P3xx/P401 Power Optimizers, use R500 as RMA.

# / Power Optimizer

## Service Model for Residential Installations

### R500 / R600

	R500	R600	UNIT
<b>INPUT</b>			
Rated Input DC Power <sup>(1)</sup>	500	600	W
Absolute Maximum Input Voltage (Voc)	60	125	Vdc
MPPT Operating Range	8 – 60	12.5 – 125	Vdc
Maximum Short Circuit Current (Isc) of Connected PV Module		14.5	Adc
Maximum Efficiency		99.5	%
Weighted Efficiency		98.6	%
Overtoltage Category		II	
<b>OUTPUT DURING OPERATION</b>			
Maximum Output Current		15	Adc
Maximum Output Voltage	60	80	Vdc
<b>OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)</b>			
Safety Output Voltage per Power Optimizer		1 ± 0.1	Vdc
<b>STANDARD COMPLIANCE<sup>(2)</sup></b>			
EMC	FCC Part 15 Class B, IEC 61000-6-2, IEC 61000-6-3, CISPR11, EN-55011		
Safety	IEC 62109-1 (class II safety), UL1741		
Material	UL94 V-0, UV Resistant		
RoHS	Yes		
Fire Safety	VDE-AR-E 2100-712:2018-12		
<b>INSTALLATION SPECIFICATIONS</b>			
Maximum Allowed System Voltage		1000	Vdc
Dimensions (W x L x H)	129 x 155 x 30 / 5.07 x 6.10 x 1.18	129 x 165 x 45 / 5.07 x 6.49 x 1.77	mm / in
Weight	720 / 1.6	790 / 1.74	gr / lb
Input Connector	MC4		
Input Wire Length	0.16 / 0.52		m / ft
Output Connector	MC4		
Output Wire Length	1.2 / 3.94		m / ft
Bracket Type	Flat	Bent	
Operating Temperature Range <sup>(3)</sup>	-40 to +85 / -40 to +185		°C / °F
Protection Rating	IP68		
Relative Humidity	0 – 100		%

(1) Rated power of the module at STC will not exceed the Power Optimizer Rated Input DC Power. Modules with up to +5% power tolerance are allowed.

(2) For details about CE compliance, see [Declaration of Conformity – CE](#).

(3) Power derating is applied for ambient temperatures above +85°C / +185°F for R500, and for ambient temperatures above +75°C / +167°F for R600. Refer to the [Power Optimizers Temperature Derating Technical Note](#) or the [Power Optimizers Temperature Derating Technical Note for North America](#), according to your region.

