

## Three Phase Inverter with Synergy Technology

for the 277/480V Grid for North America

SE66.6KUS / SE100KUS



### Specifically designed to work with power optimizers

- / Easy two-person installation – each unit mounted separately, equipped with cables for simple connection between units
- / Balance of System and labor reduction compared to using multiple smaller string inverters
- / Independent operation of each unit enables higher uptime and easy serviceability
- / No wasted ground area: wall/rail mounted, or horizontally mounted under the modules (10° inclination)
- / Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- / Built-in module-level monitoring with Ethernet or cellular GSM
- / Fixed voltage inverter for superior efficiency (98.5%) and longer strings
- / Integrated DC Safety Switch
- / Built-in RS485 Surge Protection, to better withstand lightning events

# / Three Phase Inverter with Synergy Technology for the 277/480V Grid for North America

## SE66.6KUS / SE100KUS

	SE66.6KUS	SE100KUS	
<b>OUTPUT</b>			
Rated AC Power Output	66600	100000	VA
Maximum AC Power Output	66600	100000	VA
AC Output Line Connections	4-wire WYE (L1-L2-L3-N) plus PE		
AC Output Voltage Minimum-Nominal-Maximum <sup>(1)</sup> (L-N)	244 - 277 - 305		Vac
AC Output Voltage Minimum-Nominal-Maximum <sup>(1)</sup> (L-L)	422.5 - 480 - 529		Vac
AC Frequency Min-Nom-Max <sup>(1)</sup>	59.3 - 60 - 60.5		Hz
Maximum Continuous Output Current (per Phase) @277V	80	120	A
GFDI Threshold	1		A
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes		
<b>INPUT</b>			
Maximum DC Power (Module STC) / Unit	90000 / 45000	135000 / 45000	W
Transformer-less, Ungrounded	Yes		
Maximum Input Voltage DC to Gnd	500		Vdc
Maximum Input Voltage DC+ to DC-	1000		Vdc
Nominal Input Voltage DC to Gnd	425		Vdc
Nominal Input Voltage DC+ to DC-	850		Vdc
Maximum Input Current	80	120	Adc
Maximum Input Short Circuit Current	120		Adc
Reverse-Polarity Protection	Yes		
Ground-Fault Isolation Detection	350kΩ Sensitivity per Unit		
CEC Weighted Efficiency	98.5		%
Nighttime Power Consumption	< 12		W
<b>ADDITIONAL FEATURES</b>			
Supported Communication Interfaces	RS485, Ethernet, Cellular GSM (optional)		
Rapid Shutdown	NEC2014 and NEC2017 compliant/certified, upon AC Grid Disconnect		
RS485 Surge Protection	Built-in		
<b>DC SAFETY SWITCH</b>			
DC Disconnect	1000V / 2 x 40A	1000V / 3 x 40A	
<b>STANDARD COMPLIANCE</b>			
Safety	UL1741, UL1741 SA, UL1699B, UL1998, CSA 2.22		
Grid Connection Standards	IEEE 1547, Rule 21, Rule 14 (HI)		
Emissions	FCC part15 class A		
<b>INSTALLATION SPECIFICATIONS</b>			
Number of units	2	3	
AC Output Conduit Size / Max AWG / Max PE AWG	1.5" / 2/0 / 6	2" / 4/0 / 4	
DC Output Conduit Size / Terminal Block AWG Range / Number of Strings <sup>(2)</sup>	2 x 1.25" / 6-14 / 6 strings	2 x 1.25" / 6-14 / 9 strings	
Dimensions (H x W x D)	Primary Unit: 37 x 12.5 x 10.5 / 940 x 315 x 260; Secondary Unit: 21 x 12.5 x 10.5 / 540 x 315 x 260		in / mm
Weight	Primary Unit: 105.8 / 48; Secondary Unit 99.2 / 45		lb / kg
Operating Temperature Range	-40 to +140 / -40 to +60 <sup>(3)</sup>		°F / °C
Cooling	Fan (user replaceable)		
Noise	< 60		dBA
Protection Rating	NEMA 3R		
Mounting	Bracket provided		

<sup>(1)</sup> For other regional settings please contact SolarEdge support

<sup>(2)</sup> Single input option per unit (up to 3AWG) available

<sup>(3)</sup> De-rating from 50°C

**Complete Coverage**

Get full coverage on your entire system: replacement product or part(s), along with labor and material costs necessarily incurred to correct the product defect, subject to the SolarEdge Standard Warranty terms.



**Peace of mind:** our warranty extensions for 20-25 years break down to as low as a \$30 annual investment. At a fraction of the cost of a new inverter, you can be covered for an additional 8-13 years beyond the original warranty period.



**Rapid response time with no hidden shipping costs:** We manage a rapid RMA process and generally ship a replacement unit within 48 hours at no cost to you.



**What happens if I sell my house?** Because SolarEdge warranties are registered to the inverter serial number, the new homeowner can simply provide the inverter serial number to SolarEdge customer service to update the name and contact information on account.

**You're covered. Your Extended Warranty purchase means you can rest assured that your new inverter is covered for the lifetime of your system.**

Most of your system is already covered for 25 years: your SolarEdge power optimizers come from the factory with a 25 year warranty built-in and so do many PV modules. This enables SolarEdge to offer low rates on warranty extensions. Getting your entire system covered with an inverter warranty extension to 20-25 years will help you to minimize unexpected expenses throughout the system's lifetime.





## Purchasing Your Extended Warranty - Ask Your Installer!

### What is the current warranty on my inverter?

Your SolarEdge Inverter comes with a 12-year warranty that begins the earlier of: (i) 4 months from the date the Inverters are shipped from SolarEdge; and (ii) the installation of the Inverters. **The week and year of shipment is built into your serial number:**

▲ week shipped  
**SJ1415-07F12B200-43**  
▼ year shipped

*Example: Warranty began the 14th week of 2015*

### Pricing

Specification	20 years	25 years
Single Phase Inverter <4kW	\$240	\$389
Single Phase Inverter 4 - 7.6kW	\$303	\$493
Single Phase Inverter >7.6kW	\$460	\$745

\* Prices subject to change. Please see our website for updated pricing information



### What information do I need to purchase the extended warranty?

SolarEdge warranties are registered to the inverter serial number. Whether you or your installer is purchasing the warranty, be prepared to provide the serial number in addition to site address, name, and contact information. SolarEdge accepts all major credit cards.

### How long do I have to purchase the extended warranty?

The warranty extension must be activated within 16 months of inverter shipment from SolarEdge. The warranty extension can be purchased from your installer or through a simple transaction on the SolarEdge website: <http://www.solaredge.com/us/service/warranty>.

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# Power Optimizer For North America

P860



POWEROPTIMIZER

## PV power optimization at the module-level The most cost effective solution for commercial and large field installations

- Specifically designed to work with SolarEdge inverters
- Up to 25% more energy
- Superior efficiency (99.5%)
- Balance of System cost reduction; 50% less cables, fuses and combiner boxes, over 2x longer string lengths possible
- Fast installation with a single bolt
- Advanced maintenance with module-level monitoring
- Module-level voltage shutdown for installer and firefighter safety
- Meets NEC requirements for arc fault protection (AFCI) and Photovoltaic Rapid Shutdown System (PVRSS)
- Use with two PV modules connected in parallel

# Power Optimizer

## For North America

### P860

Optimizer Model (Typical Module Compatibility)	P860 (for 2 x 72 cell modules)		
<b>INPUT</b>			
Rated Input DC Power <sup>(1)</sup>	860		W
Connection Method	Dual input for independently connected modules <sup>(2)</sup>		
Absolute Maximum Input Voltage (Voc at lowest temperature)	60		Vdc
MPPT Operating Range	12.5 - 60		Vdc
Maximum Short Circuit Current (Isc)	22		Adc
Maximum Short Circuit Current per input (Isc)	11		Adc
Maximum Efficiency	99.5		%
Weighted Efficiency	98.6		%
Overvoltage Category	II		
<b>OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)</b>			
Maximum Output Current	18		Adc
Maximum Output Voltage	85		Vdc
<b>OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)</b>			
Safety Output Voltage per Power Optimizer	1 ± 0.1		Vdc
<b>STANDARD COMPLIANCE</b>			
Photovoltaic Rapid Shutdown System	Compliant with NEC 2014, 2017 <sup>(3)</sup>		
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3		
Safety	IEC62109-1 (class II safety), UL1741		
Material	UL94 V-0, UV Resistant		
RoHS	Yes		
<b>INSTALLATION SPECIFICATIONS</b>			
Compatible SolarEdge Inverters	Three phase inverters		
Maximum Allowed System Voltage	1000		Vdc
Dimensions (W x L x H)	129 x 168 x 59 / 5.1 x 6.61 x 2.32		mm / in
Weight	1064 / 2.34		gr / lb
Input Connector	MC4 <sup>(4)</sup>		
Input Wire Length <sup>(5)</sup>	Lengths options	<b>Input #1</b>	<b>Input #2</b>
	(1)	0.16 / 0.52	0.16 / 0.52
	(2)	(-) 1.3 / 4.26 , (+) 0.16 / 0.52	(-) 0.16 / 0.52 , (+) 1.3 / 4.26
	(3)	(-) 1.6 / 5.24 , (+) 0.16 / 0.52	(-) 0.16 / 0.52 , (+) 1.6 / 5.24
Output Wire Type / Connector	Double Insulated; MC4		
Output Wire Length	2.1 / 6.8 <sup>(6)</sup>		m / ft
Operating Temperature Range <sup>(7)</sup>	-40 - +85 / -40 - +185		°C / °F
Protection Rating	IP68 / NEMA6P		
Relative Humidity	0 - 100		%

<sup>(1)</sup> Rated power of the module at STC will not exceed the optimizer "Rated Input DC Power". Modules with up to +5% power tolerance are allowed.

<sup>(2)</sup> In a case of odd number of PV modules in one string, it is allowed to install one P860 power optimizer connected to one PV module. When connecting a single module to P860, seal the unused input connectors with the supplied pair of seals.

<sup>(3)</sup> NEC 2017 requires max combined input voltage be not more than 80V.

<sup>(4)</sup> For other connector types please refer to: <https://www.solaredge.com/sites/default/files/optimizer-input-connector-compatibility.pdf>

<sup>(5)</sup> Longer inputs wire length are available for use with split junction box modules. (For 1.3m/4.26ft order P860-xxxXxxY. For 1.6m/5.24ft order P860-xxxYxxY).

<sup>(6)</sup> When using the longer input option (1.3m/4.26ft or 1.6m/5.24ft), the output wire length is 2.2m / 7.2ft

<sup>(7)</sup> For ambient temperature above +70°C / +158°F power de-rating is applied. Refer to Power Optimizers Temperature De-Rating Application Note for more details.

PV System Design Using a SolarEdge Inverter <sup>(8)</sup>		Three Phase for 208V Grid <sup>(9)</sup>	Three Phase for 480V/277V Grid	
Minimum String Length	Power Optimizers	8	14	
	PV Modules	16	27	
Maximum String Length	Power Optimizers	30		
	PV Modules	60		
Maximum Power per String		7200	15300	W
Parallel Strings of Different Lengths or Orientations		Yes		

<sup>(8)</sup> It is not allowed to mix P860 with P730/P800p/P850 in one string or to mix with P320/P340/P370/P400/P405/P505 in one string.

<sup>(9)</sup> P860 design with three phase 208V inverters is limited. Use the SolarEdge Designer for verification.

## LIMITED PRODUCT WARRANTY

This SolarEdge Technologies Ltd. Limited Warranty covers defects in workmanship and materials of the below-listed products for the applicable warranty period set out below:

- **Power optimizers:** 25 years commencing on the earlier of: (i) 4 months from the date the power optimizers are shipped from SolarEdge; and (ii) the installation of the power optimizers, *provided, however*, that for the module embedded power optimizers (CSI and OPJ models), the Warranty Period shall not exceed the maximum of (1) the module product warranty and (2) the module power warranty periods provided by the applicable module manufacturer.
- **Inverters, Safety & Monitoring Interface (SMI), Auto-transformer, GSM Cellular Modem:** 12\* years commencing on the earlier of: (i) 4 months from the date the products are shipped from SolarEdge; and (ii) the installation of the products.
- **StorEdge Interface:** 10 years commencing on the earlier of: (i) 4 months from the date the Interfaces are shipped from SolarEdge; and (ii) the installation of the Interfaces.
- **Home Gateway, Control and Communication Gateway, Firefighter Gateway, Wireless Communication Products excluding GSM Cellular Modem, RS485 Expansion Kit, SolarEdge Meter, Smart Monitoring Combiner Box:** 5 years commencing on the earlier of: (i) 4 months from the date the product is shipped from SolarEdge; and (ii) the installation of the product. Warranty duration of wireless communication products is the same whether or not the product is pre-installed in the inverter.

\* In some countries the inverter warranty is limited to 7 years. For a list of these countries please access [http://www.solaredge.com/warranty\\_exceptions](http://www.solaredge.com/warranty_exceptions)

The Limited Warranty does not apply to components which are separate from the Products, ancillary equipment and consumables, such as, for example, cables, fuses, wires and connectors, whether supplied by SolarEdge or others. Some components may carry their own manufacturer warranty. See product datasheet for more details. In addition, for all power optimizers with a part number ending in C, the SolarEdge warranty does not apply to the input connector.

The Limited Warranty only applies to the buyer who has purchased the Products from an authorized seller of SolarEdge for use in accordance with their intended purpose. The Limited Warranty may be transferred from buyer to any assignee, and will remain in effect for the time period remaining under the foregoing warranties, *provided* that the Products are not moved outside its original country of installation and any reinstallation is done in accordance with the installation directions and use guidelines accompany the Products (collectively the "Documentation").

If, during the applicable Warranty Period, buyer discovers any defect in workmanship and materials and seeks to activate the Limited Warranty, then buyer shall, promptly after such discovery, report the defect to SolarEdge by sending an email to [support@solaredge.com](mailto:support@solaredge.com) with the following information: (i) a short description of the defect, (ii) the Product's serial number, and (iii) a scanned copy of the purchase receipt or warranty certificate of the applicable Product.

Upon buyer's notification, SolarEdge shall determine whether the reported defect is eligible for coverage under the Limited Warranty. The Product's serial number must be legible and properly attached to the Product in order to be eligible for Warranty coverage. If SolarEdge determines that the reported defect is not eligible for coverage under the Limited Warranty, SolarEdge will notify buyer accordingly and will explain the reason why such coverage is not available. If SolarEdge determines that the reported defect is eligible for coverage under the Limited Warranty, SolarEdge will notify buyer accordingly, and SolarEdge may, in its sole discretion, take any of the following actions:

- repair the Product at SolarEdge's facilities or on-site; or
- issue a credit note for the defective Product in an amount up to its actual value at the time buyer notifies SolarEdge of the defect, as determined by SolarEdge, for use toward the purchase of a new Product; or
- provide Buyer with replacement units for the Product.

SolarEdge will determine whether the Product should be returned to SolarEdge and, if SolarEdge so determined, the Return Merchandise Authorization ("RMA") Procedure (set out below) will be invoked. Where replacement Products are sent, SolarEdge generally sends such products within 48 hours. SolarEdge may use new, used or refurbished parts that are at least functionally equivalent to the original part when making warranty repairs. The repaired Product or replacement parts or Product, as applicable, shall continue to be covered under the Limited Warranty for the remainder of the then-current Warranty Period for the Product.

Where the RMA Procedure is invoked by SolarEdge, SolarEdge will instruct buyer how to package and ship the Product or part(s) to the designated location. SolarEdge will bear the cost of such shipment, upon receipt of the Product or part(s), SolarEdge will, at its expense and sole discretion, either repair or replace the Product or part(s).

SolarEdge will deliver the repaired or replaced Product or part(s) to buyer at buyer's designated location in countries where SolarEdge has an office and/or there is a significant PV market. For the specific list of countries to which such service is provided, please access [http://www.solaredge.com/articles/shipping\\_cost\\_coverage\\_warranty](http://www.solaredge.com/articles/shipping_cost_coverage_warranty). SolarEdge will bear the cost of such shipment, including shipping and customs (where applicable) and buyer shall bear any applicable value added tax. SolarEdge may elect to ship replacement Product and/or part(s) prior to receipt of the Product and/or part(s) to be returned to SolarEdge as per the above.

Where SolarEdge decides to repair the Product or part(s), warranty coverage includes labor and material costs necessarily incurred to correct the Product defect; and where SolarEdge decides to replace the Product or part(s) to which the Limited Warranty applies, warranty coverage includes the cost of the replacement of the Product or part(s). In addition, SolarEdge shall bear shipping costs in respect to the foregoing, as set out above. All other costs, including, without limitation, travel and boarding costs of SolarEdge service personnel that are incurred for repairs of Products on-site, as well as costs related to buyer's employees and contractors repair or replacement activities, are not covered by the Limited Warranty and, unless otherwise agreed in writing in advance by SolarEdge, shall be borne by the buyer.

**Warranty Exclusions:** This Limited Warranty will not apply if (a) buyer is in default under the General Terms and Conditions of other Agreement governing the purchase of the Product, or (b) the Product or any part thereof is:

- damaged as a result of misuse, abuse, accident, negligence or failure to maintain the Product;
- damaged as a result of modifications, alterations or attachments thereto which were not pre-authorized in writing by SolarEdge;
- damaged due to the failure to observe the applicable safety regulations governing the proper use of the Product;
- installed or operated not in strict conformance with the Documentation, including without limitation, not ensuring sufficient ventilation for the Product as described in SolarEdge installation guide;
- opened, modified or disassembled in any way without SolarEdge's prior written consent;
- used in combination with equipment, items or materials not permitted by the Documentation or in violation of local codes and standards;
- damaged or rendered non-functional as a result of power surges, lightning, fire, flood, pest damage, accident, action of third parties, or other events beyond SolarEdge's reasonable control or not arising from normal operating conditions; or
- damaged during or in connection with shipping or transport to or from buyer where buyer arranges such shipping or transport.

This Limited Warranty does not cover cosmetic or superficial defects, dents, marks or scratches, which do not influence the proper functioning of the Product.

THE LIMITED WARRANTIES SET OUT HEREIN ARE IN LIEU OF ANY OTHER WARRANTIES WITH RESPECT TO THE PRODUCTS PURCHASED BY BUYER FROM SOLAREEDGE, WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL (INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), ALL OF WHICH ARE EXPRESSLY EXCLUDED TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW.

Claims by buyer that go beyond the warranty terms set out herein, including claims for compensation or damages, are not covered by the Limited Warranty, insofar as SolarEdge is not subject to statutory liability. In such cases, please contact the company that sold you the Product. Eventual claims in accordance with the law on product liability remain unaffected.

Coverage under the Limited Warranty is subject to buyer complying with the foregoing notification requirements and cooperating with SolarEdge's directions. SolarEdge's sole obligation and buyer's exclusive remedy for any defect warranted hereunder is limited to those actions expressly stated above. Such actions are final and do not grant any further rights, in particular with respect to any claims for compensation.

Unless otherwise specified in an executed Agreement with SolarEdge, the Limited Warranty and related provisions set out herein are subject to SolarEdge's General Terms and Conditions, including, without limitation, the provisions thereof, which relate to disclaimer of warranties, limitation of liability and governing law and jurisdiction.

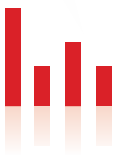
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**Know that your PV system is producing to its maximum potential.**

View historic and real-time energy production of your SolarEdge optimized system on the go with your smart phone.



**Easy to use charts show your PV performance.**

Compare today's production to past measurements.



**Want to know how your PV system stacks up against your friends?**

You can share real-time system performance details with your friends across many social platforms: email, messaging apps, Facebook and on Twitter.



**Real-time and forecasted weather data.**

Evaluate your system's performance by understanding what environmental conditions affect energy production.

**See and share your system's performance on the go: real-time insight to home energy production and usage.**

Gain visibility into your system performance in real-time with this intuitive, user-friendly app. Share your system performance at the push of a button.

**Don't have a solar system yet?** You can explore and learn about features by using the demo account.

Download the app for free on iPhone or Android by visiting the AppStore or Google Play.



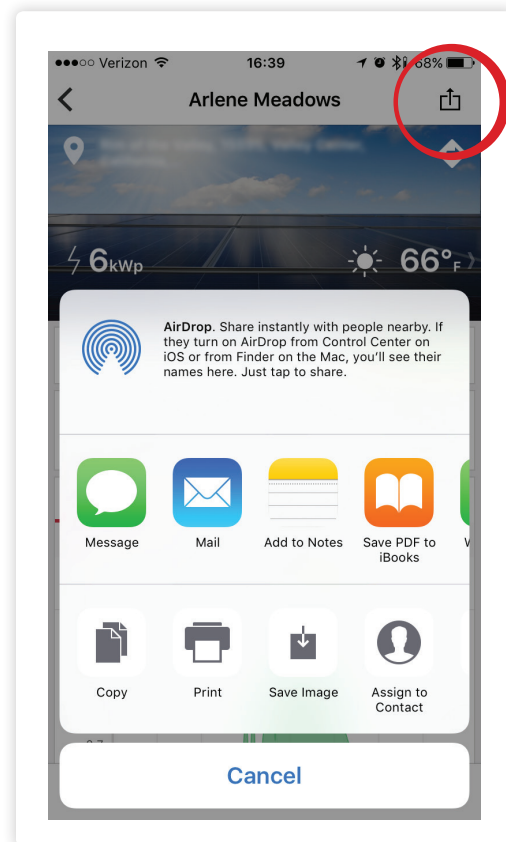
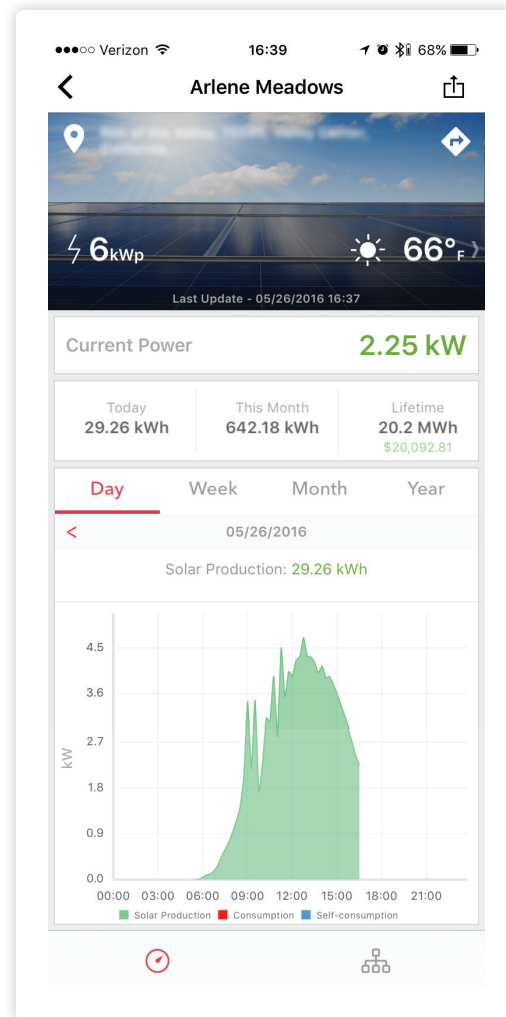
# Getting Started with the SolarEdge Monitoring App

After your inverter connects to the internet, SolarEdge automatically begins tracking and reporting your site's performance. Your installer will need to create the physical layout in the SolarEdge portal for you to view. **Confirm with your installer regarding completion date of your homeowner account.**

\* Before you can register you need to ensure that SolarEdge email isn't getting stuck in your SPAM folder. Add [DoNotReply@solaredge.com](mailto:DoNotReply@solaredge.com) to your contacts and watch for a registration email with the subject line: *Registration to SolarEdge Monitoring Portal.*

To begin using:

1. A link to register will be sent to you in email. \*Note: if you click the link and nothing happens, simply copy and paste the same URL into your web browser address bar.
2. Register your site with SolarEdge:
  - You will need to enter your name, phone number, language, create a password and select units (*Imperial* for Fahrenheit and *Metric* for Celsius)
  - Check the box agreeing to SolarEdge's terms and conditions and select if you want news, updates or technical notifications from SolarEdge
  - Click Confirm, log-in and view your energy performance
3. To get updated information on your smart phone, download the free monitoring app:
  - Visit Google Play or the App Store to download the "SolarEdge Monitoring" app.
  - Login using the same email address and password that you created during registration. The app will remember your login information; allowing you to see your system's performance at any time.
4. You can begin sharing your system's performance on your favorite social network or by email or text.



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