



IMPROVED BOTTOM LINE & PV ASSET MANAGEMENT

SolarEdge Commercial Offering



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1.63MW SolarEdge system, The Netherlands
Installed by AliusEnergy

SolarEdge Fact Sheet

About Us

In 2006, SolarEdge invented an intelligent inverter solution that has changed the way power is harvested and managed in PV systems. Since beginning shipments in 2010, SolarEdge has shipped more than 1.4GW of its DC optimized inverter solution and its products have been installed in PV systems in more than 70 countries. SolarEdge is traded on the NASDAQ under the SEDG symbol.

Vision

- > For every solar module to be individually managed by DC-DC module-level electronics
- > To accelerate the pace toward grid parity and make clean energy affordable and widespread



Bankability

- > Bankable in major European and North American solar financing institutions and banks
- > Publicly traded on NASDAQ as SEDG

Global Outreach

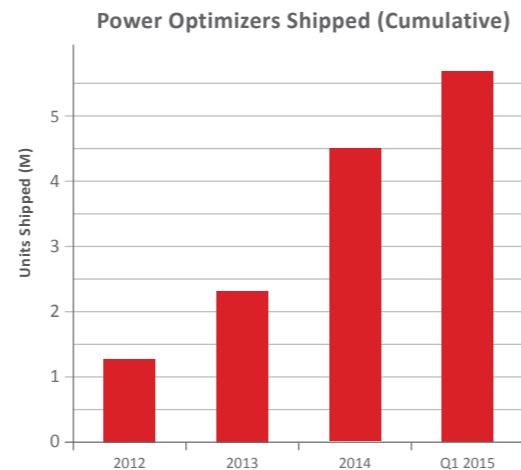
- > Products sold in 38 countries
- > Sales via leading integrators and distributors
- > Follow the sun call centers
- > Local expert teams
- > Technical and sales training
- > Global manufacturing with tier 1 electronic manufacturers



- > Received nearly 30 awards, from prestigious organizations ranging from Red Herring to Frost & Sullivan

Business Figures

- > 5,600,000 power optimizers and over 245,000 inverters shipped worldwide
- > Monitoring system continuously tracks over 100,000 PV installations



Product Reliability

- > Long product warranties: 25-year power optimizer warranty and 12-year inverter warranty, extendable to 20 or 25 years
- > Each SolarEdge product and component undergoes rigorous testing
- > Products and components have been evaluated in accelerated life chambers
- > Reliability strategy includes proprietary application specific ICs (ASIC)

45 awarded patents and 130 additional patent applications

Moving Forward to DC Optimized Inverters

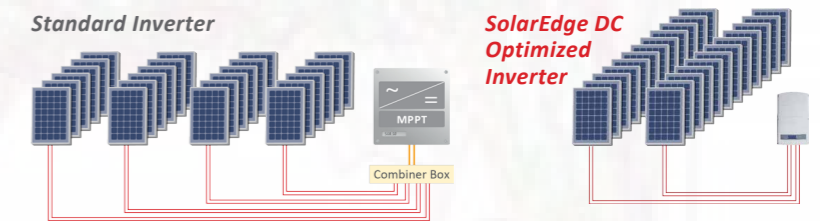
Significance of Inverter Selection

Inverter selection is key for the lifetime planning and performance of commercial PV systems. While inverters may only account for ~10% of the system cost, they:

1. Influence ~30% of system cost (EBOS, Inverter, labor)
2. Manage 100% of system production
3. Control O&M expenses by enabling PV Asset management

Reduced BoS Costs

Up to 15kW per string allows for more modules per string. This leads to fewer strings per inverter and therefore less wiring, combiner boxes, and fuses. This reduces BoS costs by up to 50%.



Lifetime Revenue

More Modules

With module-level power optimization and maximum design flexibility, more modules can be installed on the roof, enabling a shorter project payback period.



More Energy

The module-level MPPT eliminates losses to maximize power from each individual module, offering more energy production from the PV system. This technology future proofs the system against potential risks that could cause decreased lifetime energy production.

System Lifetime O&M Costs

Future Compatibility & Warranty

Low-cost inverter replacement (~40% less than traditional inverters), long inverter warranty, free lifetime monitoring, and the ability to install different power classes/brands in the same string, decrease future costs.

Cost-Saving Maintenance & Higher System Up Time

Free module-level performance monitoring & remote maintenance for system lifetime lead to more effective and efficient O&M by decreasing trips to sites, reducing the amount of time spent on site, and increasing system uptime.

Enhanced Safety

The DC disconnect is designed to automatically drop DC current, as well as voltage from all DC cables, whenever inverter or grid power is shutdown. The voltage of each module is reduced to 1V.



1MW SolarEdge system, Hoffenheim, Germany
installed by Wircon

PV Asset Management with Module-Level Monitoring

As a strategic O&M tool for optimum plant operation and PV asset management, the SolarEdge cloud-based monitoring platform increases system uptime.



As equipment prices drop and system sizes trend upward, PV projects are increasingly seen as secure long-term investment opportunities. Like any financial asset, PV systems must be monitored and managed to realize their full potential.

Traditional inverters offer limited information, such as string-level or system-level monitoring that can indicate underperformance of the array, but little else. It then becomes costly and time consuming to send skilled technicians to perform on site troubleshooting on inverters operating under load and on DC lines at nearly 1000V. They must connect expensive equipment to the arrays in an effort to 'sift through the tea leaves' of complex IV trace curves to detect issues.

The SolarEdge DC optimized inverter solution offers advanced PV monitoring and asset management through its cloud-based monitoring platform. Power optimizers are permanent fixtures on the array that constantly track MPP and report high-resolution data on module performance.

The SolarEdge monitoring platform transforms O&M from a manual, resource-intensive process to an automated, at-a-glance service. The solution delivers module-level insights and ensures that a plant is performing to the best of its ability at all times.

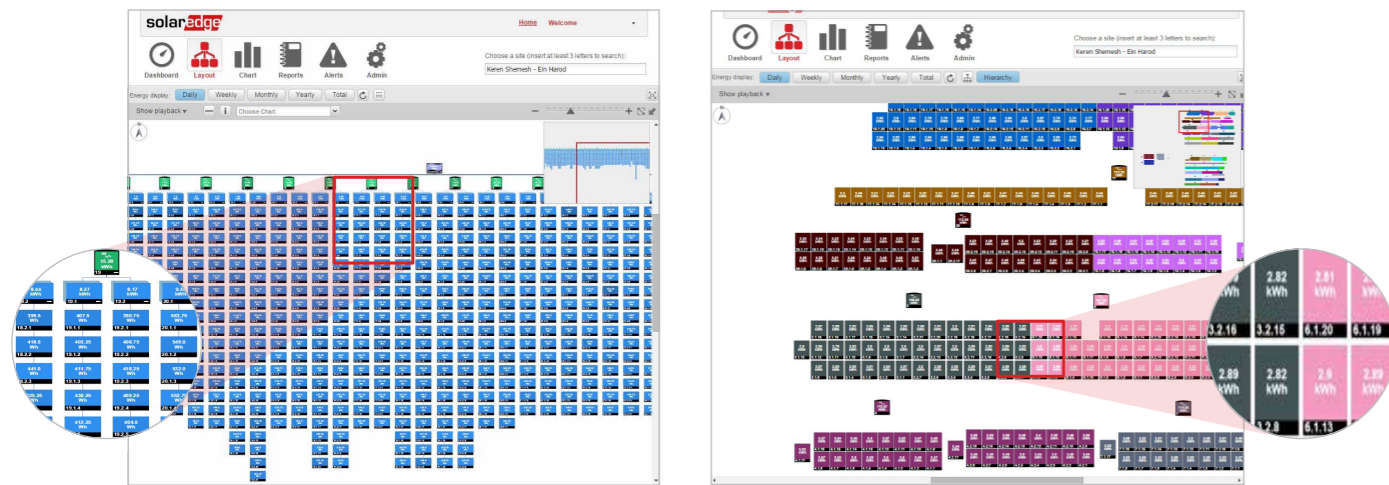


1MW SolarEdge system, Florida, United States
Developed and installed by Region Solar & Sol Integrators

PV Asset Management with Module-Level Monitoring (cont.)

SolarEdge's Monitoring Platform Features:

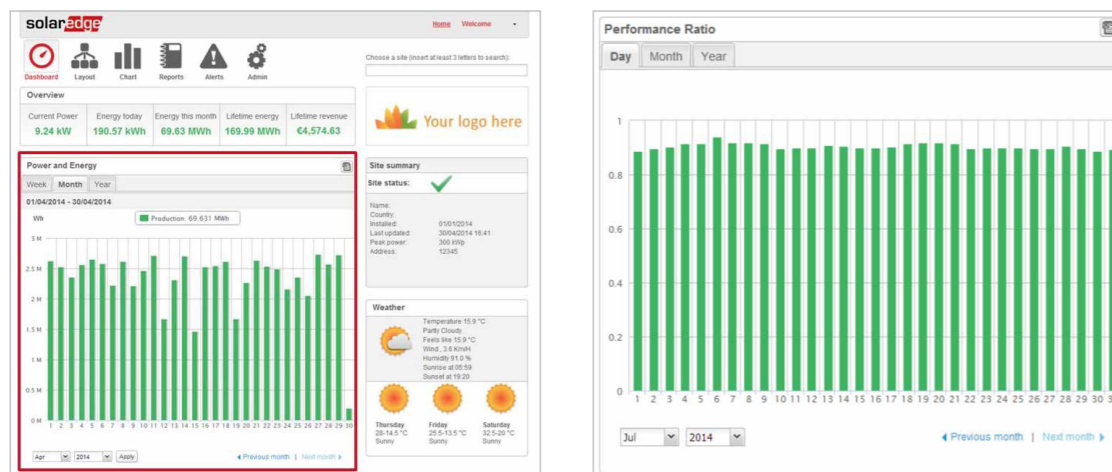
1. Real-time remote monitoring at the module, string, and system levels



The logical layout displays the electrical connectivity between modules, strings and inverter

The hierarchy layout displays grouping of components per inverter

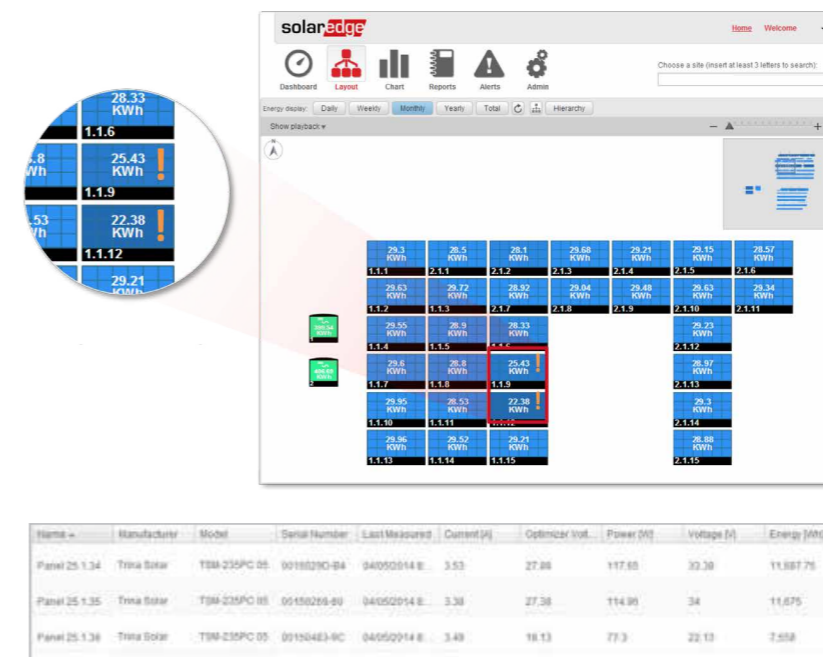
2. Comprehensive analytics tracking and reports of energy yield, system uptime, performance ratio, and financial performance



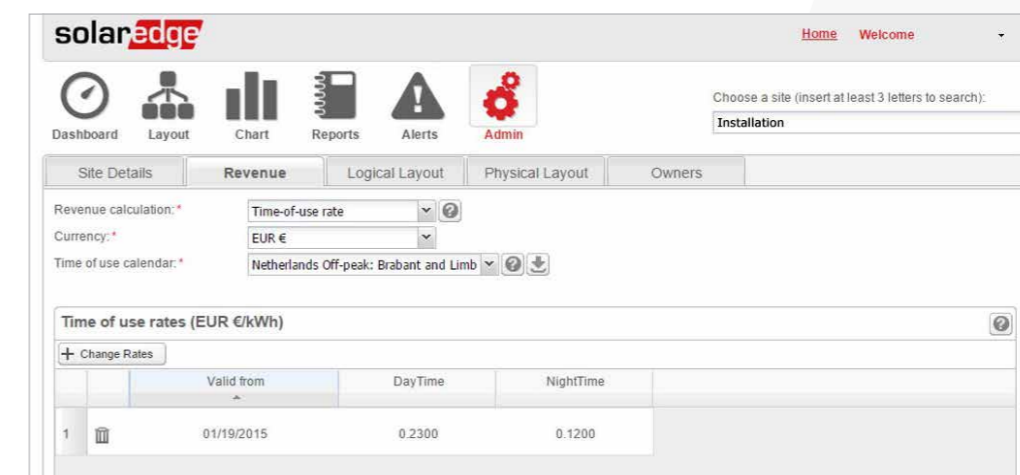
Dashboard - Energy production is displayed on a weekly, monthly and yearly resolution

Performance Ratio - Analyze and track the system's performance ratio

3. Pinpointed and automatic alerts for immediate fault detection, accurate maintenance, and rapid response. The alerts show the specific fault location, fault description, and fault status. Energy thresholds can be set alerts for underperforming modules. Custom settings available for time of day and offset from sunrise and sunset



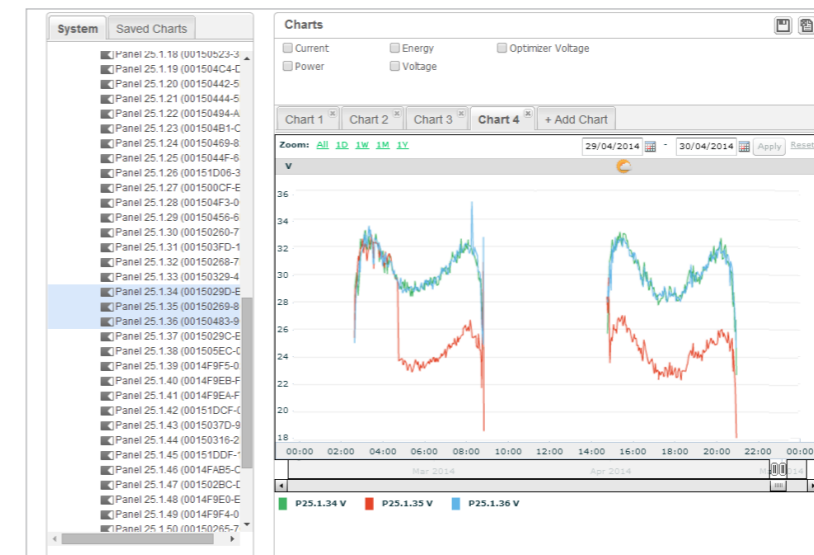
4. The time-of-use feature allows system owners to define peak and off-peak rates in order to track expected PV revenue. This may be used as an indication of the systems ROI.



PV Asset Management with Module-Level Monitoring (cont.)

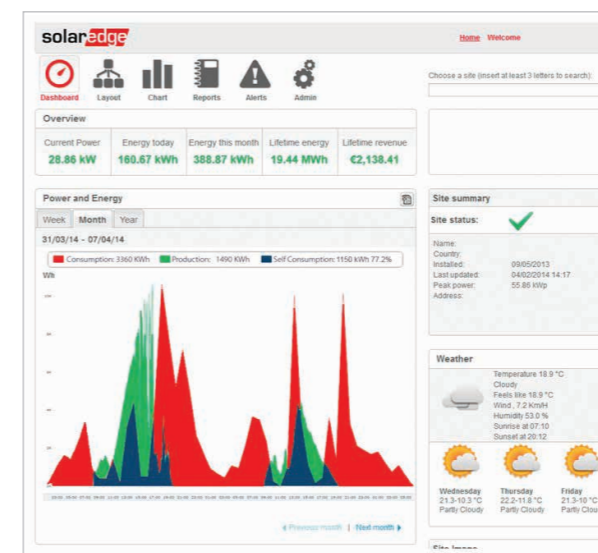
5. Accurate and remote troubleshooting for fast and efficient resolution with minimal and shortened onsite visits. Examples of identifying underperforming modules:

Bypass Diode Failure



It is easy to identify the bypass diode failure with the module-level voltage graphs. The faulty module outputs at only 2/3 of the voltage.

6. Consumption monitoring feature shows data on electricity consumption, PV production, and self consumption. This feature is offered to system owners who install SolarEdge's Smart Energy Management feature set in their commercial system.



Soiling

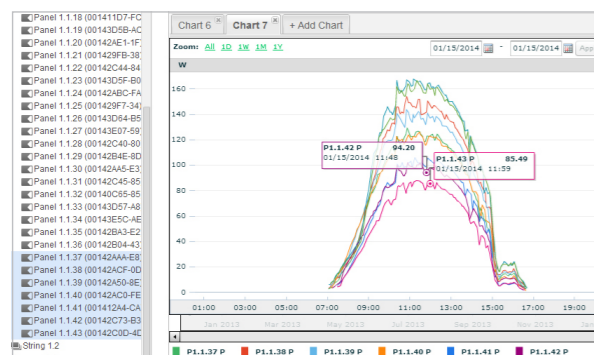


Before cleaning

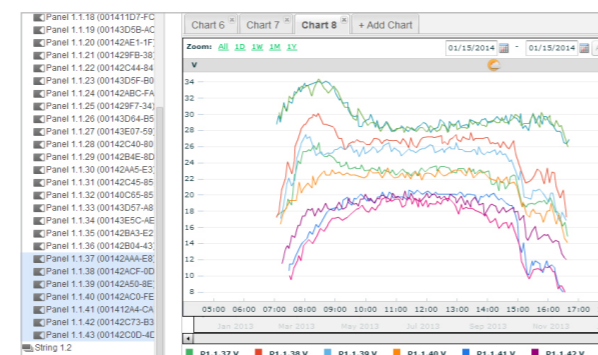


After cleaning

Potential Induced Degradation (PID)



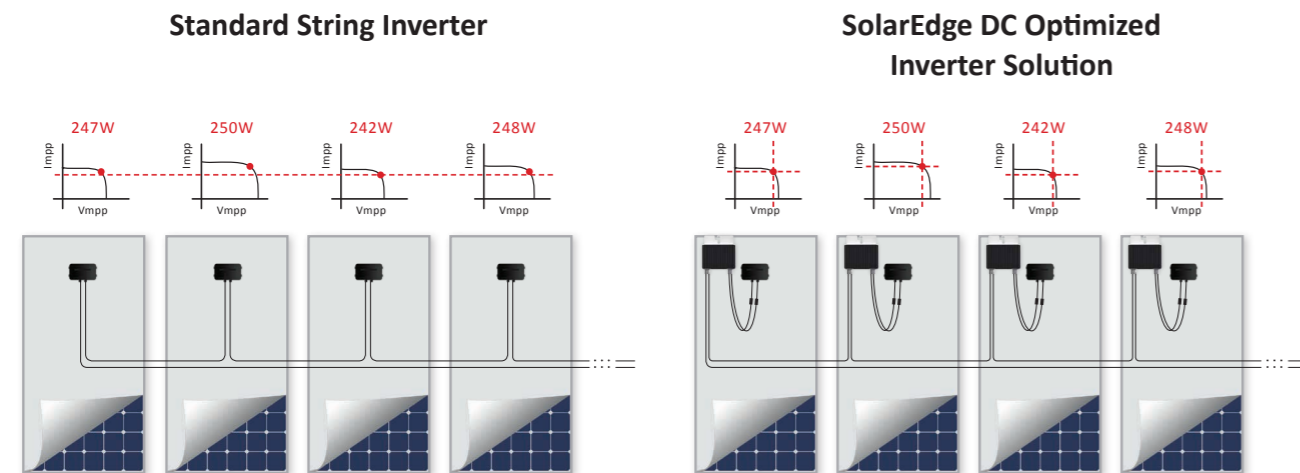
Looking at the modules within one string, it is possible to see the power degradation increasing towards the negative pole.



No need to send technicians to the roof – modules voltage is measured remotely

Maximum Energy Yield in Commercial Installations

Unavoidable in commercial installations, module-level mismatch occurs when modules in a string have different Points (MPP's). Arising from a variety of sources, the mismatch decreases the energy yield of the entire string.



- > MPPT per entire string - all modules operate at same current, regardless of their individual MPP
- > Weak modules reduce the performance of all modules in the string or are bypassed
- > Power losses due to module mismatch

- > MPPT per module - current & voltage adjusted per module
- > Maximum power produced and tracked from each module individually
- > 2%-10% more energy from the PV system

The SolarEdge DC optimized inverter solution mitigates power losses caused by mismatch between modules for maximum power generation from each module. With SolarEdge, strong modules are not affected by the weaker ones.

Examples of power mismatch in commercial installations:

1. MANUFACTURING TOLERANCE MISMATCH

From the manufacturing plant, the warranted output power range of modules may vary greatly. A standard deviation of +/-3% is sufficient to result in ~2% energy loss.



Guaranteed power output from module manufacturers
0~+3%

2. SOILING & SHADING

Module soiling, from dirt, bird droppings or snow, contribute to mismatch between modules and strings. (figure 1)

While there may be no obstructions during site design, during a system's lifetime, a tree may grow or a structure may be erected that creates uneven shading. (figure 2)



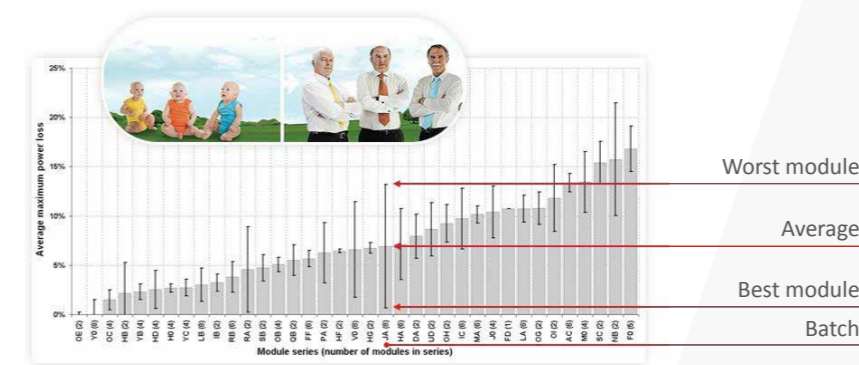
Figure 1 - Soiling mismatch



Figure 2 - Partial shading

3. UNEVEN MODULE AGING

Module performance can degrade up to 20% over 20 years, however, each module ages at a different rate, which causes aging mismatch.



Source: A. Skoczek et. al., "The results of performance measurements of field-aged c-Si photovoltaic modules", Prog. Photovolt: Res. Appl. 2009; 17:227-240

Future Compatibility & Warranty

As part of PV asset management planning, it is important to account for future costs that can impact the return on investment of a PV system. The SolarEdge optimized DC inverter solution effectively minimizes these potential costs.

Forward compatibility eliminates expensive stock of spare module inventory.

- > **Replacement:** SolarEdge allows modules of different power classes and brands in the same string.
- > **Expansion:** New power optimizers can be utilized in the same string with older models.

SolarEdge offers 25-year power optimizer warranty, 12-year inverter warranty, and free monitoring for 25 years. SolarEdge offers extended warranties at attractive prices.



SolarEdge provides low-cost inverter replacement out of warranty

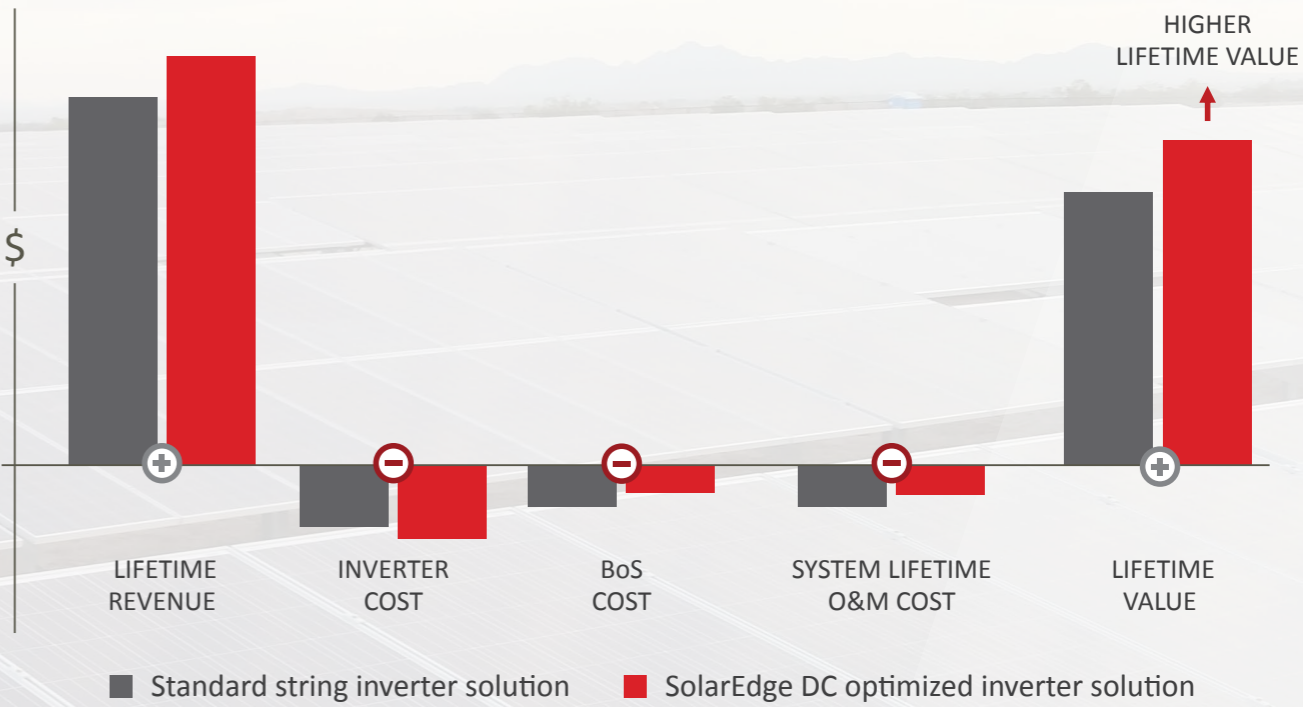
- > ~40% less than traditional inverters

| 2.02MW SolarEdge system, Denmark

A Higher Lifetime Value

The SolarEdge optimized DC inverter solution offers a better LCOE for a system's lifetime by maximizing yield and reducing costs.

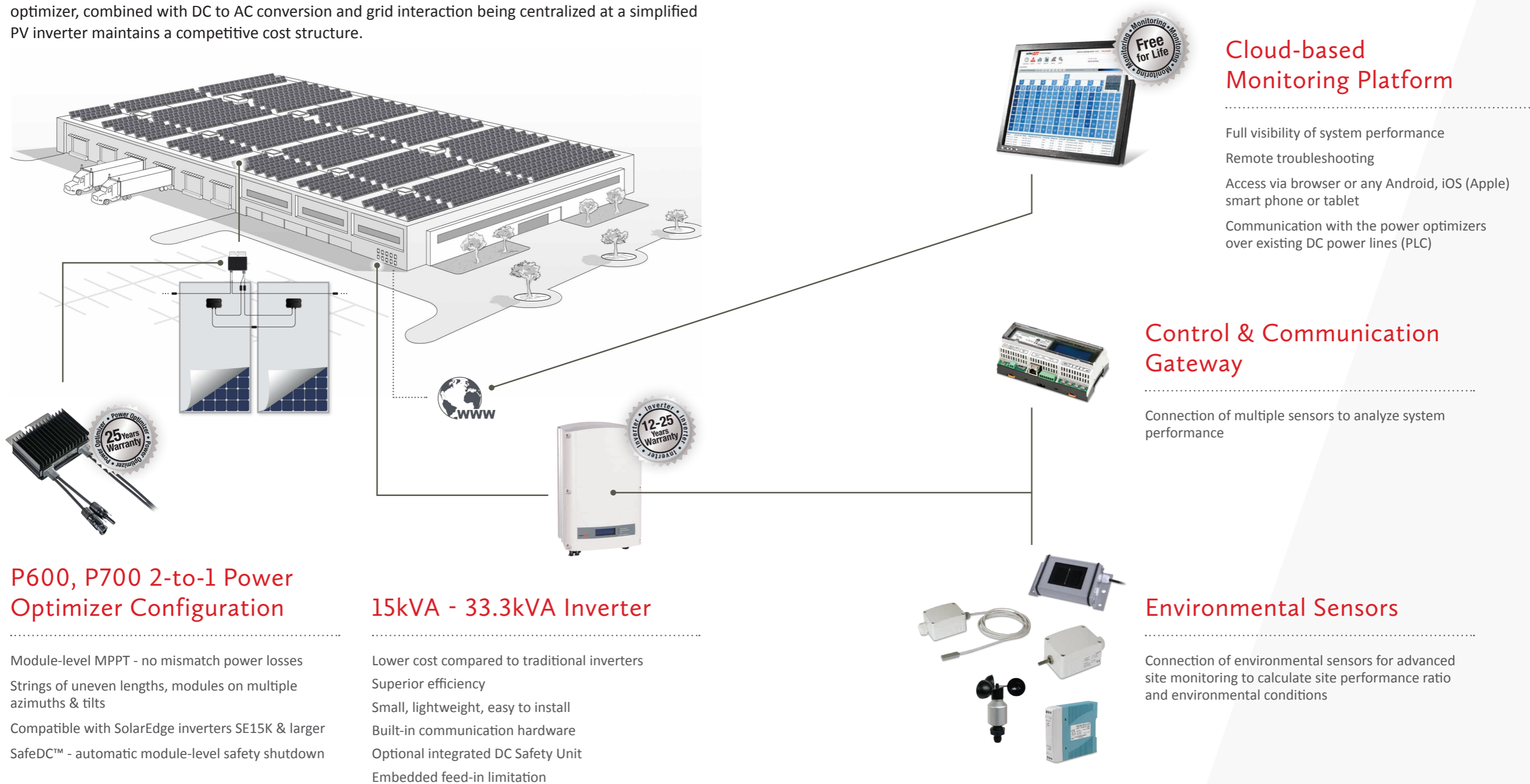
The SolarEdge DC optimized inverter solution maximizes power generation at the individual module level, which leads to a higher lifetime revenue from PV systems. While the initial cost of the SolarEdge solution is generally slightly higher than the equivalent traditional inverter system, the total installation cost as well as the lifetime maintenance, is lower. This makes the SolarEdge solution more economically attractive.



| 1.3MW SolarEdge system, Arizona, USA

Commercial System Diagram

The SolarEdge solution consists of inverters, power optimizers, and a cloud-based monitoring platform. The technology provides superior power harvesting and module management by connecting power optimizers at the module level. The ability to connect two modules to just one optimizer, combined with DC to AC conversion and grid interaction being centralized at a simplified PV inverter maintains a competitive cost structure.



Cloud-based Monitoring Platform

- Full visibility of system performance
- Remote troubleshooting
- Access via browser or any Android, iOS (Apple) smart phone or tablet
- Communication with the power optimizers over existing DC power lines (PLC)

Control & Communication Gateway

- Connection of multiple sensors to analyze system performance

Environmental Sensors

- Connection of environmental sensors for advanced site monitoring to calculate site performance ratio and environmental conditions

P600, P700 2-to-1 Power Optimizer Configuration

- Module-level MPPT - no mismatch power losses
- Strings of uneven lengths, modules on multiple azimuths & tilts
- Compatible with SolarEdge inverters SE15K & larger
- SafeDC™ - automatic module-level safety shutdown

15kVA - 33.3kVA Inverter

- Lower cost compared to traditional inverters
- Superior efficiency
- Small, lightweight, easy to install
- Built-in communication hardware
- Optional integrated DC Safety Unit
- Embedded feed-in limitation

200kWp System BoS Comparison

Comparison of a 200kWp SolarEdge system to a system with a traditional string inverter

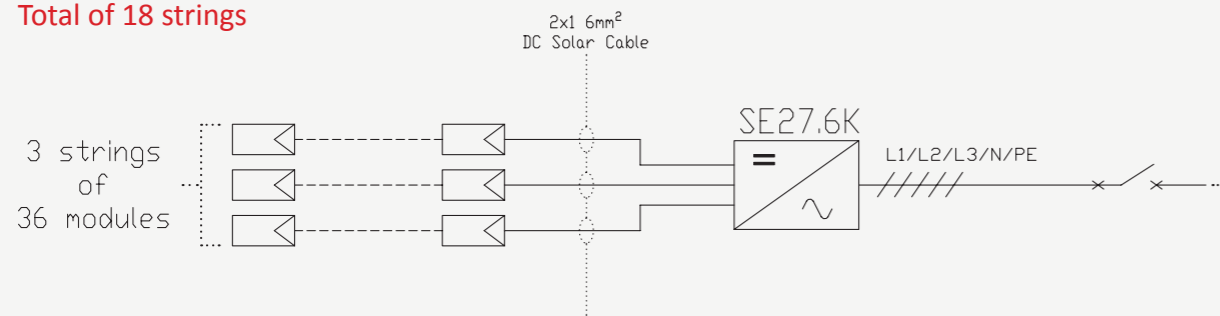
One system was designed with six SolarEdge 27.6kVA inverters and 324 power optimizers in a 2:1 configuration and the other one was designed with six 27.6kVA standard string inverters.

	SolarEdge DC Optimized Inverter	Traditional String Inverter
DC power (kW)	200.88	200.88
AC power (kW)	165.6	165.6
Modules (310W, 72-cell)	648	648
Inverters	6	6
No. of strings	18	36
Modules per string	36	18
DC Cable length (m)	219	546
Cable Cost (%)	40%	100%

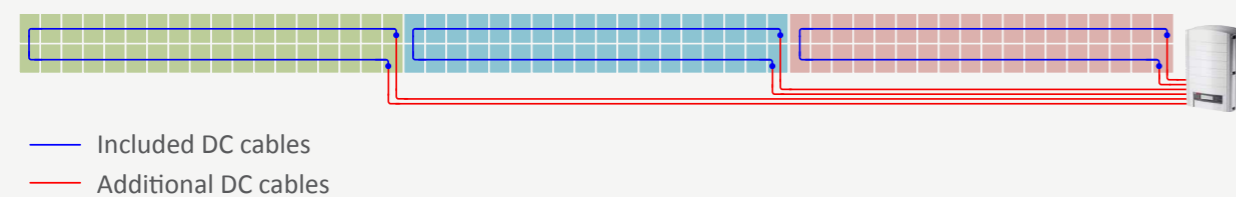
Electrical Diagram Comparison

SolarEdge DC Optimized Inverter Solution

Total of 18 strings

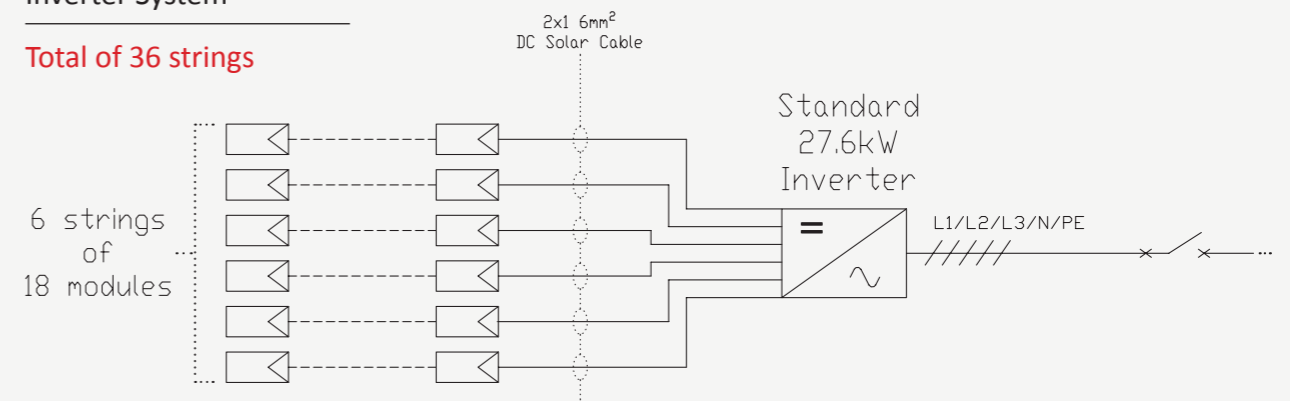


SolarEdge Cabling Diagram

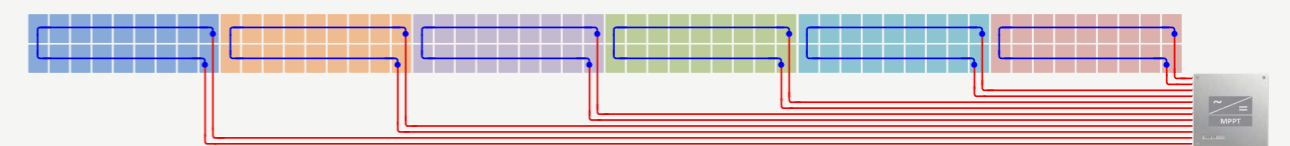


Traditional String Inverter System

Total of 36 strings

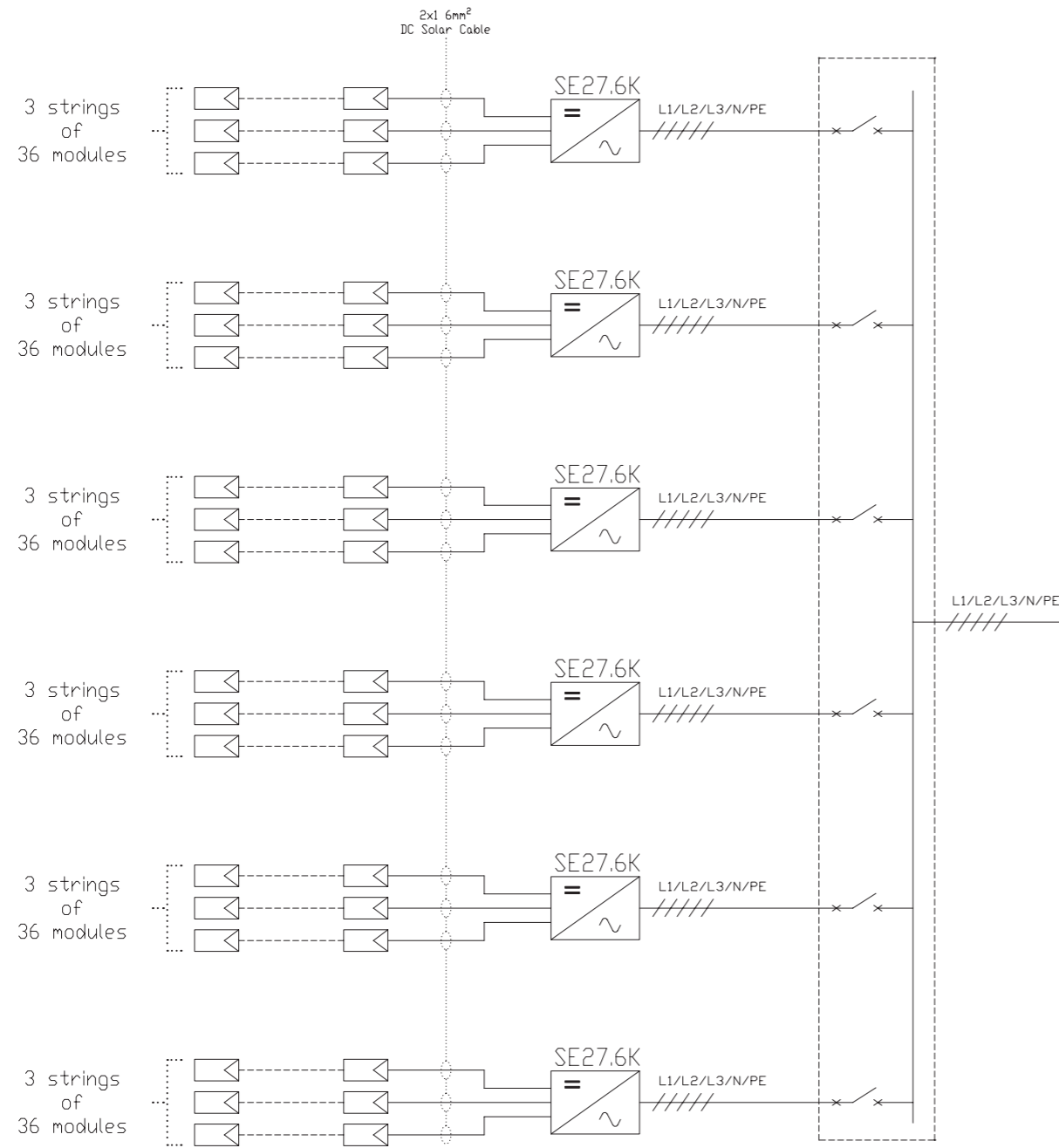


Standard Inverter Cabling Diagram

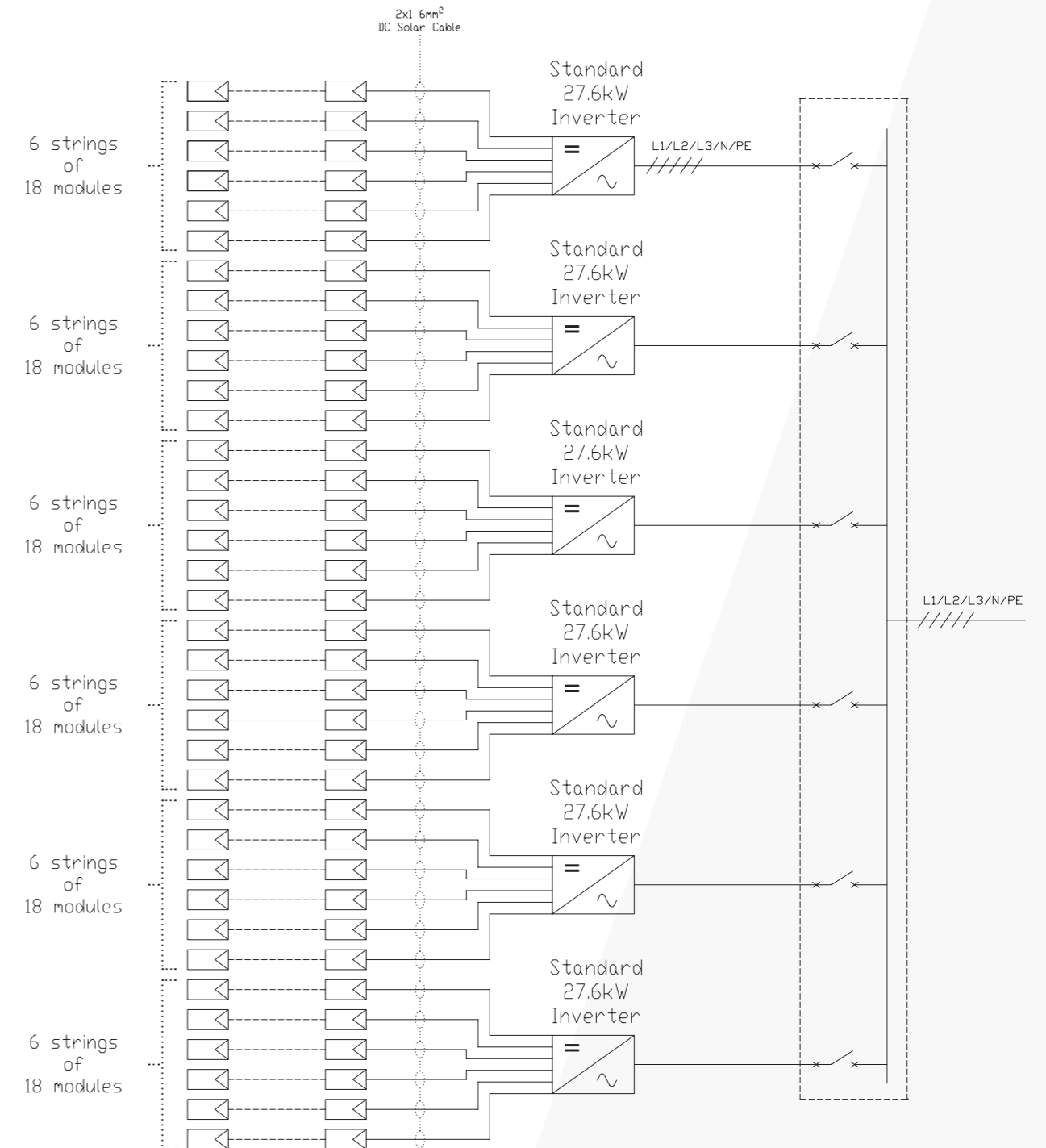


200kWp Electrical Diagram Comparison

SolarEdge DC Optimized Inverter Solution



Traditional String Inverter System



1MWp System BoS Comparison

Comparison of a 1MWp SolarEdge solution to an identical system with a traditional string inverter

One system was designed with twenty-four SolarEdge 33.3kVA inverters and 1,680 power optimizers in a 2:1 configuration and the other one was designed with 24 standard string inverters.

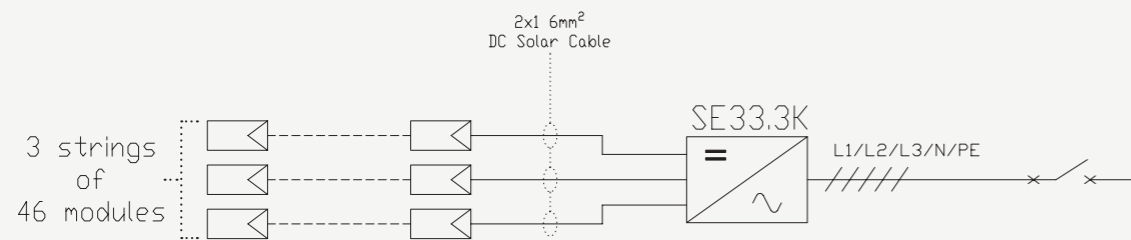
	SolarEdge DC Optimized Inverter	Traditional String Inverter
DC Power (kW)	1026.7	1026.7
AC Power (kW)	799.2	800
Modules (310W, 72-cell)	3,312	3,312
Inverters	24	24
No. of strings	72	144
Modules per string	46	23
DC Cable Length (m)	264	5364
AC Cable Length (m)	8,464	8,464
Cost (%)	79	100
Total Copper Used (kg)	1696.4	1951.4
Copper Ratio (%)	87	100

Electrical Diagram Comparison

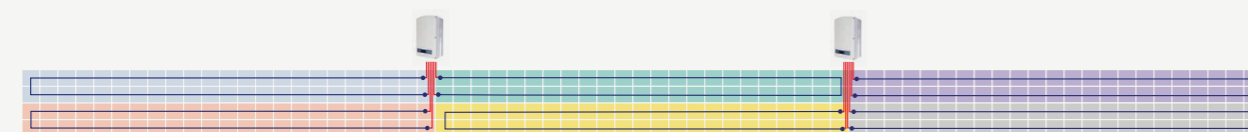
AC cable lengths are negligible. Inverters are located close to one another.

SolarEdge DC Optimized Inverter Solution

Total of 72 strings



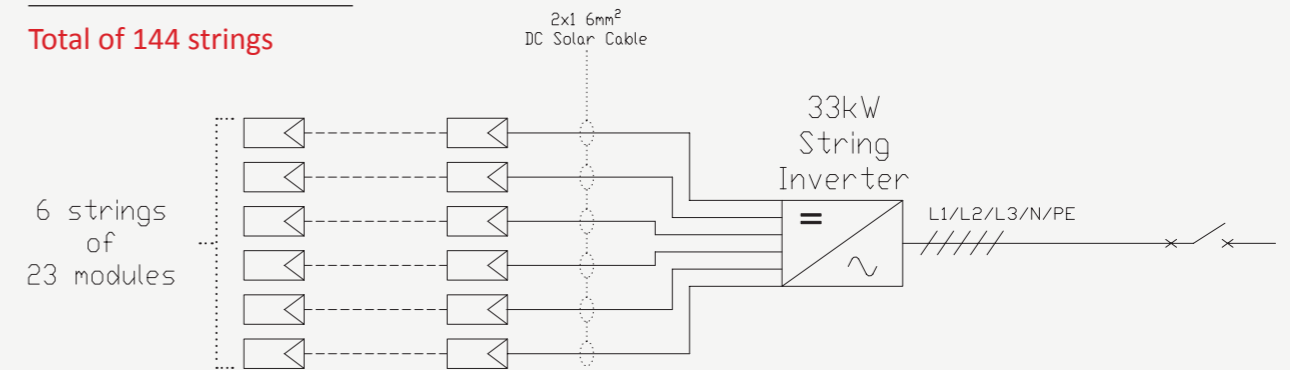
SolarEdge Cabling Diagram



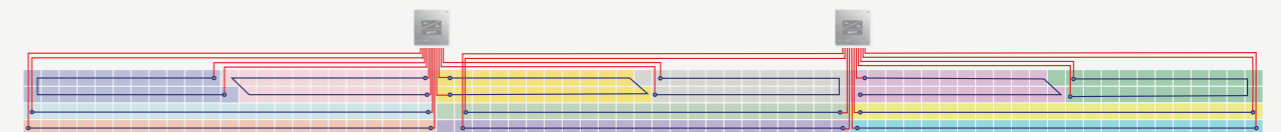
- Included DC cables
- Additional DC cables

Traditional String Inverter System

Total of 144 strings

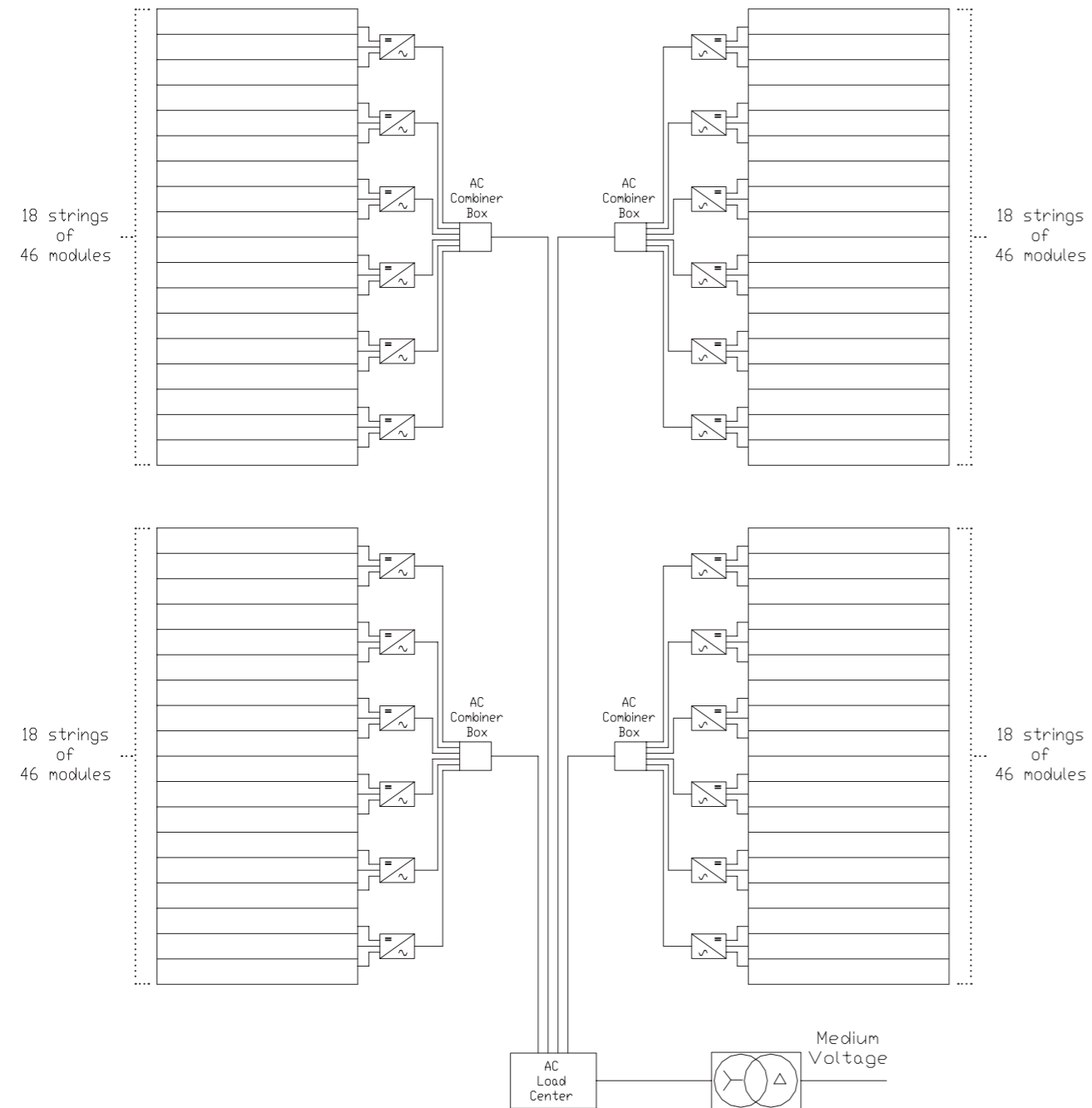


Standard Inverter Cabling Diagram

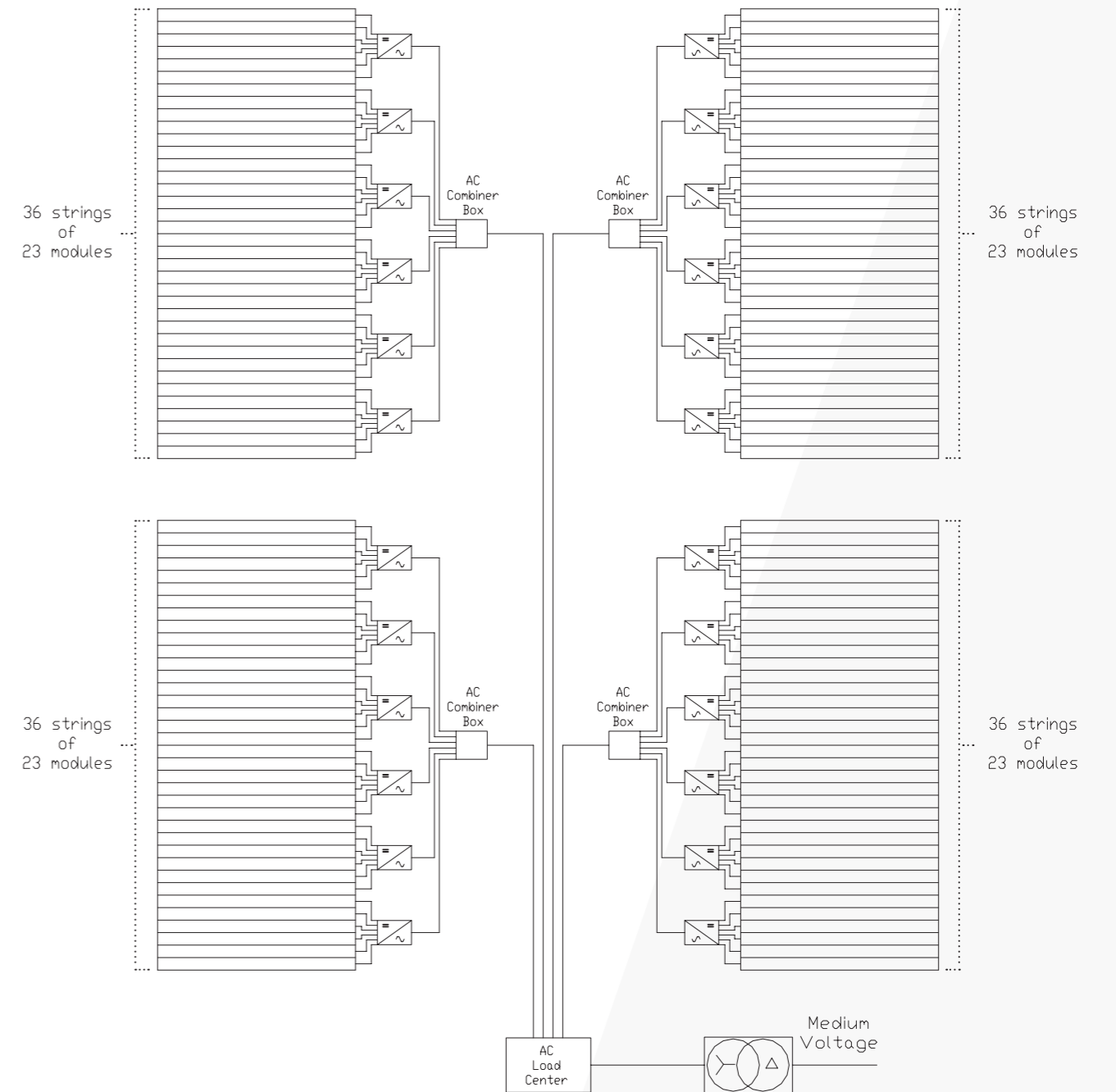


1MWp System Comparison - Electrical Diagram

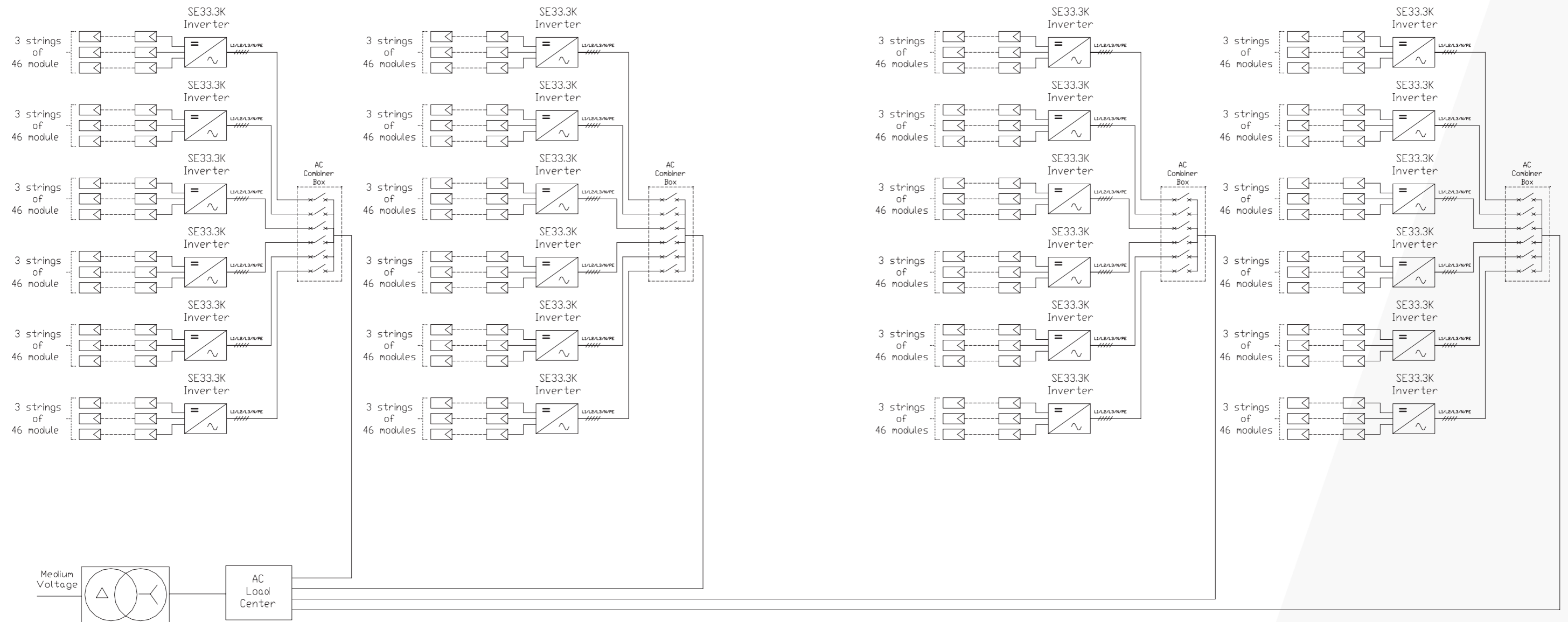
SolarEdge DC Optimized Inverter Solution



Traditional String Inverter System



1MWp Detailed SolarEdge Schematic



Product Datasheets



| 1.22MW SolarEdge system, Denmark

SE15K-33.3K Three Phase Inverter Datasheet



Specifically designed to work with power optimizers

Superior efficiency (98%)

Small, lightest in its class, and easy to install

Built-in LAN internet connection

IP65 – Outdoor and indoor installation

Fixed voltage inverter

Optional integrated DC Safety Unit

- 2-pole Mechanical DC disconnect
- DC surge protection (type II)
- DC fuses



	SE15k	SE16k	SE17k	SE25k	SE27.6k	SE33.3k	
OUTPUT							
Rated AC Power Output	15000	16000	17000	25000	27600	33300	VA
Maximum AC Power Output	15000	16000	17000	25000	27600	33300*	VA
AC Output Voltage - Line to Line / Line to Neutral (Nominal)	380 / 220 ; 400 / 230					480/277	VAC
AC Output Voltage - Line to Neutral Range	184 - 264.5					244-305	VAC
AC Frequency	50/60 ± 5						Hz
Maximum Continuous Output Current (per Phase)	23	25.5	26	38	40	40	A
Residual Current Detector / Residual Current Step Detector	300 / 30						mA
Grids Supported - Three Phase	3 / N / PE ; 230 / 400		3 / N / PE (WYE with Neutral)				V
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes						

	SE15k	SE16k	SE17k	SE25k	SE27.6k	SE33.3k		
INPUT								
Recommended Max. DC Power ⁽¹⁾ (Module STC)	18750	20000	21250	33750	37250	44950	W	
Transformer-less, Ungrounded	Yes							
Maximum Input Voltage (Voc)	900					1000	Vdc	
Nominal DC Input Voltage	750					840	Vdc	
Maximum Input Current	22	23	23	37	40	40	ADC	
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	1MΩ Sensitivity							
Maximum Inverter Efficiency	98			98.5			%	
European Weighted Efficiency	97.6	97.7	97.7	98	98	98.3	%	
Nighttime Power Consumption	< 2.5			< 4			W	
ADDITIONAL FEATURES								
Supported Communication Interfaces	RS485, RS232, Ethernet, Zigbee (optional)			RS485, Ethernet, Zigbee (optional), Wi-Fi (optional)				
STANDARD COMPLIANCE								
Safety	IEC-62103 (EN50178), IEC-62109			IEC-62103 (EN50178), IEC-62109, AS3100				
Grid Connection Standards	VDE 0126-1-1, VDE-AR-N-4105, AS-4777, RD-1663, DK 5940			VDE-AR-N-4105, BDEW, G59/3, AS-4777, EN 50438, VDE 0126-1-1, CEI-021, CEI-016 ⁽²⁾		BDEW, CEI-016		
Emissions	IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12, FCC part15 class B			IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12				
RoHS	Yes							
INSTALLATION SPECIFICATIONS								
AC Output	Cable Gland - diameter 15-21						mm	
DC Input	2 MC4 pairs			3 MC4 pairs			mm	
Dimensions (H x W x D)	540 x 315 x 260						mm	
Weight	33.2			45			kg	
Operating Temperature Range	-20 - +60 (M40 version -40 - +60)			-20 - +60 (-40 version available)				°C
Cooling	Fans (user replaceable)							
Noise	<55							
Protection Rating	IP65 - Outdoor and Indoor							
Bracket Mounted (Bracket Provided)								

⁽¹⁾ Limited to 135% of AC power.

⁽²⁾ For all standards refer to Certifications category in Downloads page

* 33.3k requires separate 480V-MV transformer

SolarEdge Power Optimizer – P600-700



The most cost-effective solution for module-level optimization in commercial installations

More energy

Superior efficiency (99.5%)

Balance of System costs reduction; 50% less cables, fuses and combiner boxes

Fast installation with a single bolt

Next generation maintenance with module level monitoring

Module-level voltage shutdown for installer and firefighter safety

Use with two PV modules connected in series

Module-level monitoring



	P600 (for 2 x 60-cell PV modules)	P700 (for 2 x 72-cell PV modules)	
INPUT			
Rated Input DC power ⁽¹⁾	600	700	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	96	125	VDC
MPPT Operating Range	12.5 - 80	12.5 - 105	VDC
Maximum Continuous Input Current (Isc)	10		ADC
Maximum Efficiency	99.5		%
Weighted Efficiency	98.6		%
Overtoltage Category	II		
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING INVERTER)			
Maximum Output Current	15		ADC
Maximum Output Voltage	85		VDC
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)			
Safety Output Voltage per Power Optimizer	1		VDC

	P600 (for 2 x 60-cell PV modules)	P700 (for 2 x 72-cell PV modules)	
STANDARD COMPLIANCE			
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3		
Safety	IEC62109-1 (class II safety)		
RoHS	Yes		
Fire Safety	VDE-AR-E 2100-712:2013-05		
INSTALLATION SPECIFICATIONS			
Compatible SolarEdge Inverters	Three phase inverters SE15K & larger	Three phase inverters SE16K & larger	
Maximum Allowed System Voltage	1000		Vdc
Dimensions (W x L x H)	Pxxx-2 series	141 x 212 x 40.5	mm
	Pxxx-5 series	128 x 152 x 43	mm
Weight (including cables)	Pxxx-2 series	1100	gr
	Pxxx-5 series	930	gr
Input Connector	MC4 ⁽²⁾		
Output Connector	MC4		
Output Wire Length	1.2 (portrait orientation) or 1.8 (landscape orientation)	1.2 (portrait orientation) or 2.1 (landscape orientation)	m
Operating Temperature Range ⁽³⁾	-40 - +85		°C
Protection Rating	Pxxx-2 series	IP65	
	Pxxx-5 series	IP68	
Relative Humidity	0 - 100		%

⁽¹⁾ Rated combined STC power of 2 modules connected in series. Module of up to +5% power tolerance allowed.

⁽²⁾ For other connector types please contact SolarEdge.

⁽³⁾ 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 SOLAREEDGE INVERTER ⁽⁴⁾⁽⁵⁾		THREE PHASE SE15K & LARGER	THREE PHASE SE16K & LARGER	THREE PHASE SE33.3K	
Compatible Power Optimizer		P600	P600 & P700		
Minimum String Length	Power Optimizers		13		
	PV Modules		26		
Maximum String Length	Power Optimizers		30		
	PV Modules		60		
Maximum Power per String		11250 ⁽⁶⁾		12750 ⁽⁷⁾	W
Parallel Strings of Different Lengths or Orientations		Yes			

⁽⁴⁾ P600 and P700 can be mixed in one string. It is not allowed to mix P600/P700 with P300/P350/P405/P500 in one string.

⁽⁵⁾ In a case of odd number of PV Modules in one string it is allowed to install one P600/P700 power optimizer connected to one PV Module.

⁽⁶⁾ For SE27.6K: It is allowed to install up to 13,500W per string when 3 strings are connected to the inverter and when the maximum power difference between the strings is up to 2,000W; inverter max DC power: 37,250W.

⁽⁷⁾ For SE33.3K: It is allowed to install up to 15,000W per string when 3 strings are connected to the inverter and when the maximum power difference between the strings is up to 2,000W; inverter max DC power: 45,000W.

SolarEdge Control & Communication Gateway



All-in-one communication gateway

Environmental sensors support

Power reduction interface & MV grid control

Modbus meter reader

Easy installation - DIN rail and wall mount



SE1000-CCG			
POWER			
Power Supply - Wall Mount	Included, 100-240VAC, EU/UK/US/AU interchangeable, 2-pin plug		
Supply Voltage	9-14		Vdc
Connector Type	terminal block		
Power Consumption	<2		W
ANALOG SENSOR INPUT			
Number of Inputs	3		
	Range	Accuracy	Resolution
Input 1	0-30mV or 0-2V	+/- 1% f.s	10 bit
Input 2	0-2V or 0-10V		
Input 3	-20mA – 20mA		

SE1000-CCG		
COMMUNICATION INTERFACES		
Ethernet Interface	10/100-BaseT	
Wireless Connections	ZigBee module (*)	
Power Reduction Interface	4 control pins, 5V, GND	
RS232 Interface	For local connection	
SUPPORTED RS485 DEVICES^(a)		
SolarEdge Devices	Yes	
Export Inverter Data	Yes	
Revenue Meters	Yes	
Export Data to Non-SolarEdge Logger	Yes	
ENVIRONMENTAL		
Operating Temperatures	-20 to 60	°C
Protection Rating	IP20 Indoor	
MECHANICAL		
Mounting Type	DIN Rail / Wall mount	
Dimensions (L x W x H)	161.6 X 90 X 62	mm
Weight	0.5	kg
STANDARD COMPLIANCE		
Safety	UL60950-1, IEC-60950-1	
EMC	FCC Part 15 class B, IEC61000-6-2, IEC61000-6-3	

^(a) for supported protocols and devices, see link: www.solaredge.com/files/pdfs/se-gateway-supported-devices

^(*) sold separately - see individual product specs for supported locations

Environmental Sensors



Environmental Monitoring of a SolarEdge System

Connect environmental sensors to the SolarEdge inverter

Calculate site performance ratio

Irradiance, temperature, and wind measurements



	IRRADIANCE SE1000-SEN-IRR-S1	AMBIENT TEMPERATURE SE1000-SEN-TAMB-S1	MODULE TEMPERATURE SE1000-SEN-TMOD-S1	WIND VELOCITY SE1000-SEN-WIND-S1
OUTPUT				
Electrical output range	0-1.4V	0-10V	4-20mA	4-20mA
MEASUREMENT				
Range	0-1400 W/m ²	-50 to 50 °C	-10 to 120 °C	0-50 m/s
Accuracy	±5%	1% of full scale	1% of full scale	±0.5 m/s or ±3% of measuring value

	IRRADIANCE SE1000-SEN-IRR-S1	AMBIENT TEMPERATURE SE1000-SEN-TAMB-S1	MODULE TEMPERATURE SE1000-SEN-TMOD-S1	WIND VELOCITY SE1000-SEN-WIND-S1
INSTALLATION SPECIFICATIONS				
24V External Power Supply (SE1000-SEN-PSU-S1)	Not needed	Needed	Needed	Not needed
Control & Communication Gateway (sold separately; SE1000-CCG) - Needed				
Dimensions	154 x 86 x 40	58 x 103 x 50	58 x 103 x 50	165 x 105 x 105
Weight	340	110	115	750
Enclosure type	Powder-coated aluminum	Polyamide	Polyamide	Housing - Aluminum (AlMgSi1) Cup star - Synthetic, with fibre glass (PC-GF10) Bottom - Synthetic (POM H2320)
Operating Temperature	-20 to 70	-35 to 70	-35 to 70	0 to 70
Protection Rating	IP65	IP65	IP65	IP55

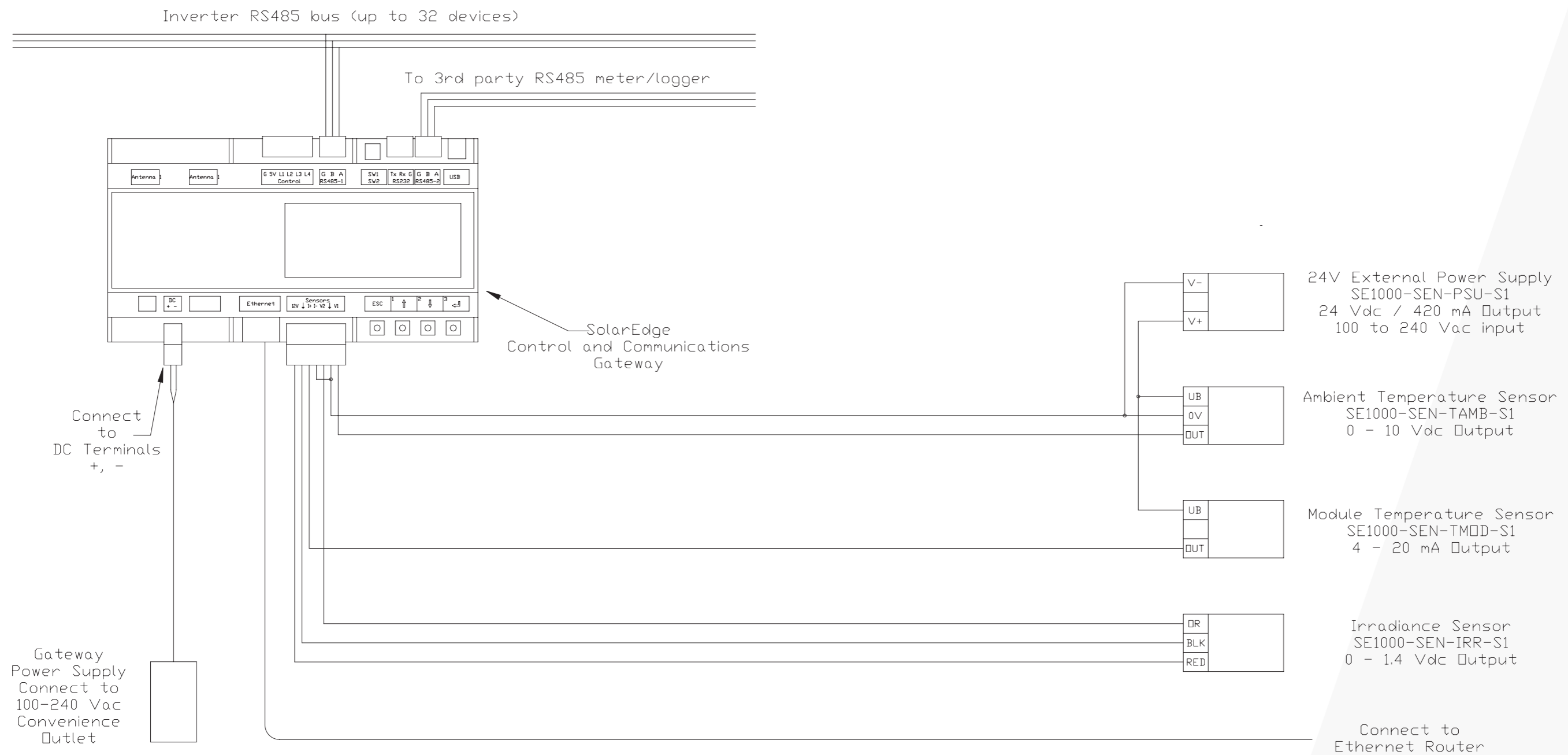
The warranty and service for the sensors is provided directly by Ingenieurbüro Mencke & Tegtmeyer GmbH; for more details, please see www.imt-solar.com/products.html

24V EXTERNAL POWER SUPPLY FOR TEMPERATURE SENSORS (SE1000-SEN-PSU-S1)	
OUTPUT	
Electrical output	24V / 420mA
STANDARD COMPLIANCE	
Safety	EN60950-1, UL508
Immunity	EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61000-6-1, EN61204-3, light industry level, criteria A
Emissions	EN55011, EN55022 (CISPR22), EN61204-3 Class B, EN61000-3-2,-3
INSTALLATION SPECIFICATIONS	
Max. number of sensors powered by the power supply	2
Dimensions	22.5 x 90 x 100
Weight	170
Operating Temperature	-20 to 70
Protection Rating	IP20 Indoor

The warranty and service for the power supply is provided directly by Mean Well; for more details, please see www.meanwell.com/search/MDR-10/

Analog Sensor Connections

With the connection of sensors to the SolarEdge Control and Communication Gateway (CCG), PV system owners can monitor the site's irradiance, temperature and wind velocity. This also enables the SolarEdge monitoring server to calculate and display the site performance ratio (PR), calculated based on the sensor readings.



SolarEdge Global Services

As a PV business partner, SolarEdge offers a wide variety of optional pre and post sales services to support the installation and help ensure lifetime profitability of a SolarEdge commercial system.

Pre-sales Services

The focus of SolarEdge's pre-sales services is to assist in developing and designing a PV system that will provide the optimal ROI for the system owner. These services include:

1. We provide **system design consulting** throughout the sales process and installation to support the efficient development and successful implementation and operation of SolarEdge systems. The design consulting service includes site layouts, mapping, SLD models, and PVsyst simulations.
2. With **local expert teams** located all over the world, SolarEdge is able to provide localized support at a rapid response time to accelerate the design, installation, and commissioning of commercial projects. The localized support ensures that each PV system meets the all necessary grid requirements.
3. **Technical training** is intended to educate installers on the installation of SolarEdge products. It teaches how to minimize power losses, reduce maintenance costs with module-level monitoring, install more modules with less cabling and combiner box cost and minimize risk with module shutdown. The training provides installers with hands-on education, case studies, and troubleshooting examples.

| 984kW SolarEdge system, Germany



SolarEdge Global Services (cont.)

Post-sales Services

1. To ensure that the design meets all technical requirements, SolarEdge offers **project design validation** before installation. Performed by our expert technical staff, the project design validation confirms that the site design complies with the technical requirements and SolarEdge component specifications. As part of this step, the SolarEdge technical staff reviews the electrical planning, optimal wiring and module placement, communications plan and more. This step is key in leading to a smooth installation making sure the system will perform as expected, preventing future malfunctions and energy losses.
2. As part of its **onsite services**, SolarEdge provides installation checklists to guide the installer through the installation process. SolarEdge also offers mapping assistance which includes simple step-by-step instructions and best practices to ensure fast and accurate system mapping.
3. **Remote monitoring and preventative diagnostics** can be performed through SolarEdge's cloud-based monitoring platform. The SolarEdge monitoring platform collects power, voltage, current and system data sent from our inverters and power optimizers and allows users to view the data at the module, string, inverter level and system levels. The monitoring platform can be used to perform remote troubleshooting and preventative diagnostics to minimize time and cost. Some examples of remote operations are:
 - > **Firmware upgrade** – SolarEdge can remotely upgrade optimizer and inverter firmware to introduce new features
 - > **Pairing** – if optimizer-inverter pairing was not completed on site it can be done remotely by the installer
 - > **Inverter grid connection and power control settings** – SolarEdge can remotely change an inverter's settings, such as advanced grid codes and reactive power control
4. Once the installation has been completed and the system is up and running, the SolarEdge post sale team can perform remote **site evaluation**. This process involves a suite of tests and audits for a two week period to verify proper installation and identify any potential site and system issues requiring the customer's attention. Following the completion of the site evaluation stage, the system owner receives a complete report including any issues and recommendations found, and the site is officially handed over to the customer.
5. **Rapid RMA process** - SolarEdge offers a rapid RMA process through its installer portal. Following analysis and approval by the SolarEdge support team, replacements are quickly sent to limit downtime.
6. Our **worldwide call centers** support over 70 countries where SolarEdge systems are installed. Based on follow-the-sun operating hours, the call centers are staffed by experts who have undergone extensive training to establish their knowledge and experience.



SolarEdge invented an intelligent inverter that has changed the way power is harvested and managed in PV systems. The SolarEdge DC optimized inverter maximizes power generation at the individual PV module-level while lowering the cost of energy produced by the PV system.

Addressing a broad range of solar market segments, from residential to commercial and large-scale solar, the SolarEdge DC optimized inverter solution includes PV inverters, power optimizers, and cloud-based monitoring. By connecting power optimizers to each module, the system enables superior power harvesting and module management. System costs remain competitive by centralizing the DC-AC inversion and grid interaction at a simplified PV inverter. Enhanced PV asset management including reduced O&M costs are enabled through module-level monitoring and remote troubleshooting. Another benefit is the automatic DC shutdown, for installer, maintenance personnel, and firefighter safety, through the SafeDC™ mechanism.

Website www.solaredge.com

Email info@solaredge.com

Twitter www.twitter.com/SolarEdgePV

Facebook www.facebook.com/SolarEdge

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