



# IMPROVED BOTTOM LINE & PV ASSET MANAGEMENT

SolarEdge Commercial Offering  
for Installers & EPCs



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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 4.2GW of its DC optimised inverter solution and its products have been installed in PV systems in 102 countries. SolarEdge is traded on the NASDAQ under the SEDG symbol.

### Vision

- > For every solar panel to be individually managed by DC-DC panel-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 50 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



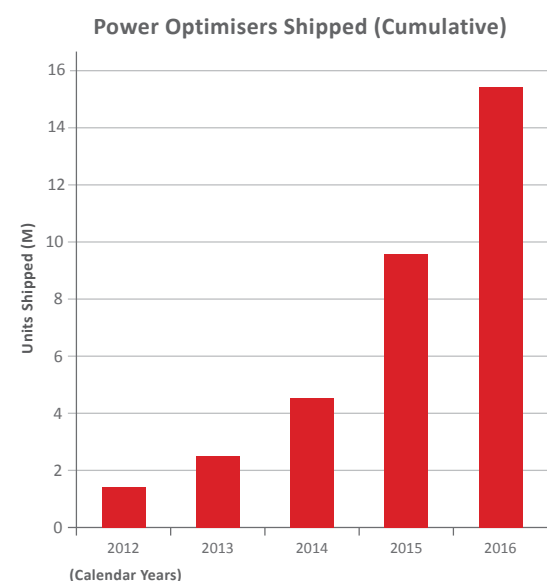
INNOVATION  
GUARANTEED



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

### Business Figures

- > 15,400,000 power optimisers and 633,000 inverters shipped worldwide
- > Monitoring platform continuously tracks over 374,000 PV installations



### Product Reliability

- > Long product warranties: 25-year power optimiser 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)

84 awarded patents and 123 additional patent applications



# Moving Forward to DC Optimised 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 panels 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 Panels

With panel-level power optimisation and maximum design flexibility, more panels can be installed on the roof, enabling a shorter project payback period.



### More Energy

The panel-level MPPT eliminates losses to maximise power from each individual panel, 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 panel power classes/brands in the same string, decrease future costs.

### Cost-Saving Maintenance & Higher System Uptime

Free panel-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 voltage, as well as current from all DC string cables, whenever inverter or grid power is shut down. The voltage of each panel is reduced to 1V. SolarEdge inverters comply with the UL1699B arc detection standard designed to mitigate the effects of some arc faults that may pose a risk of fire.



1MW SolarEdge system, Hoffenheim, Germany  
Installed by Wircon



# PV Asset Management with Panel-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.

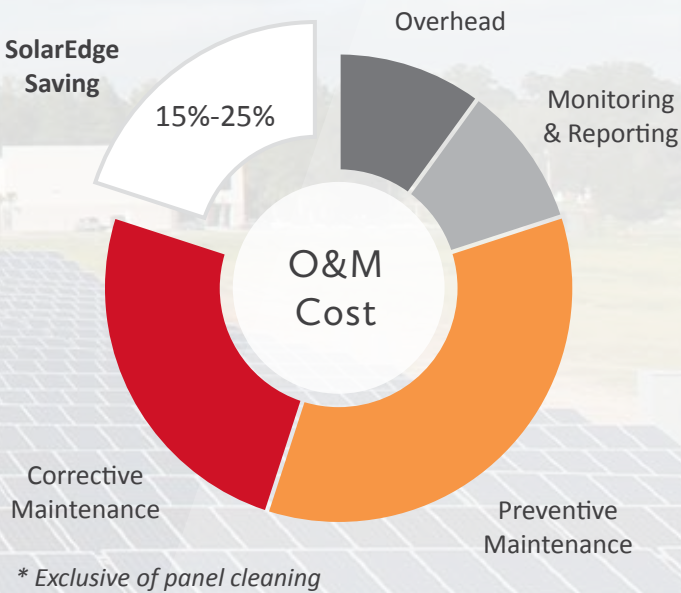


As equipment prices drop and system sizes trend upward, PV projects are increasingly seen as secure long-term investment opportunities. Like any financial asset, PV systems must be monitored and managed to realise their full potential.

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 optimised inverter solution offers advanced PV monitoring and asset management through its cloud-based monitoring platform. Power optimisers constantly track MPP and report high-resolution data on panel performance.

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



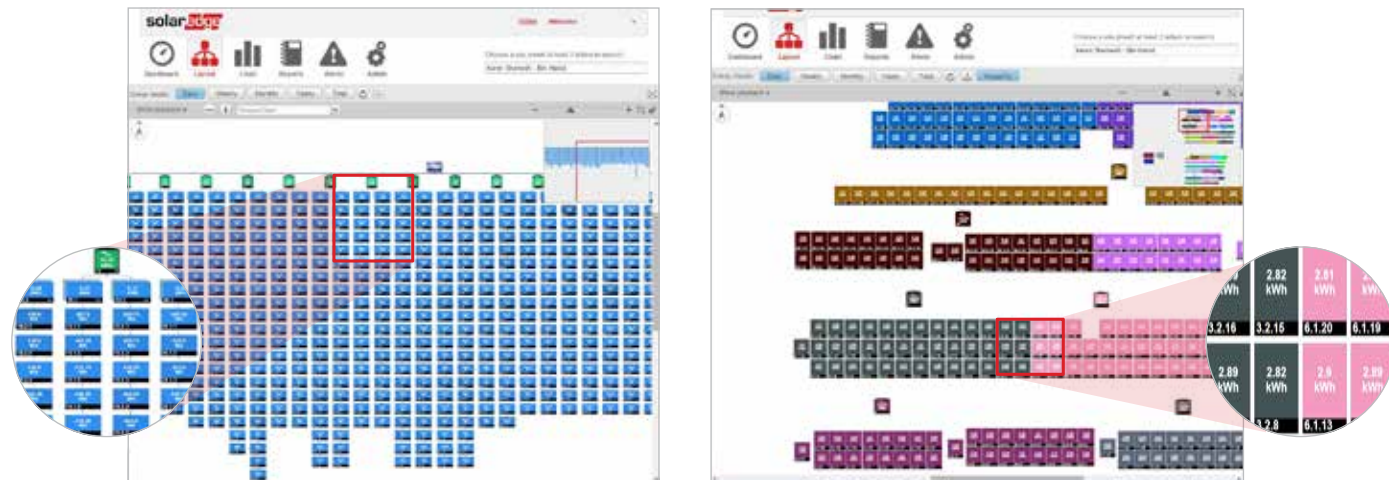
1MW SolarEdge system, Florida, United States  
Developed and installed by Region Solar & Sol Integrators



# PV Asset Management with Panel-Level Monitoring (cont.)

## SolarEdge's Monitoring Platform Features:

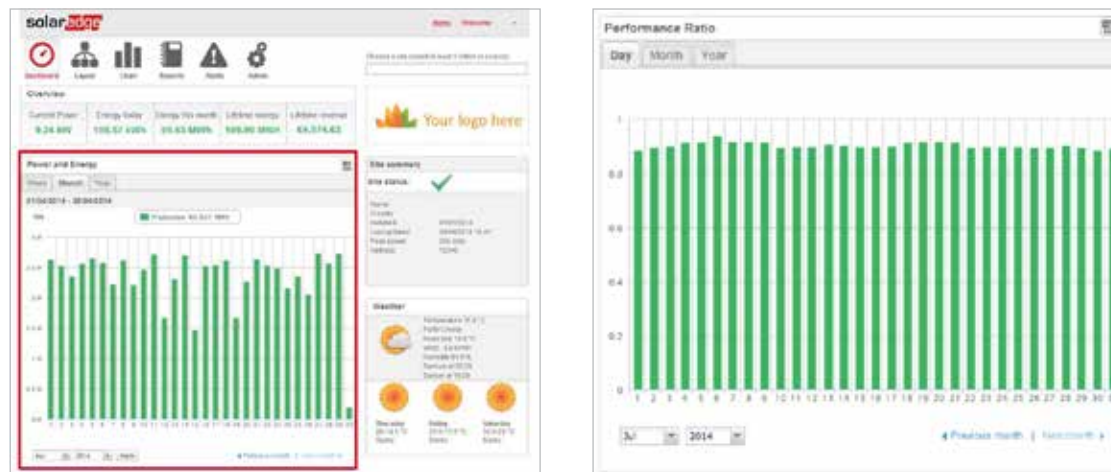
1. Real-time remote monitoring at the panel, string, and system levels



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

The hierarchy layout displays grouping of components per inverter

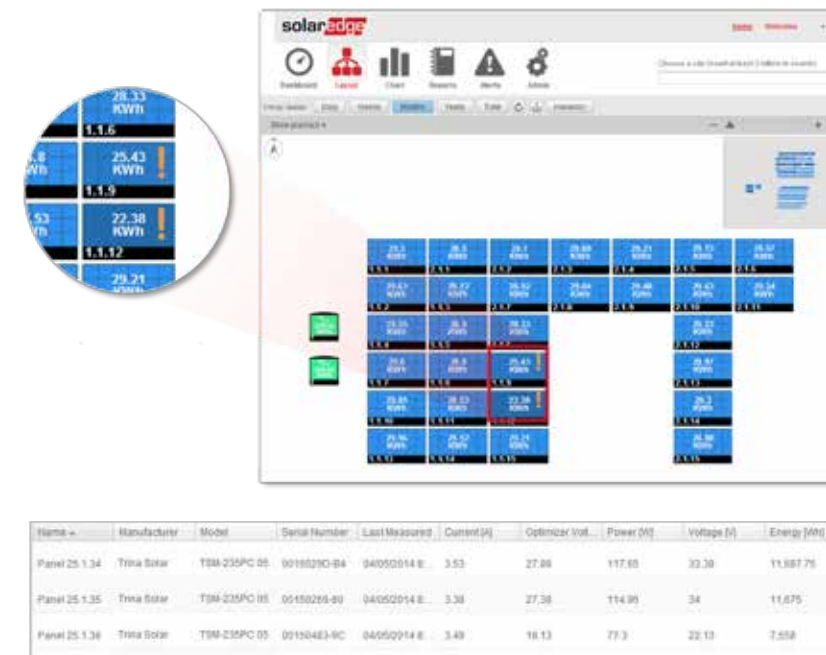
2. Comprehensive analytics tracking and reports of energy yield, system uptime, performance ratio, and financial performance



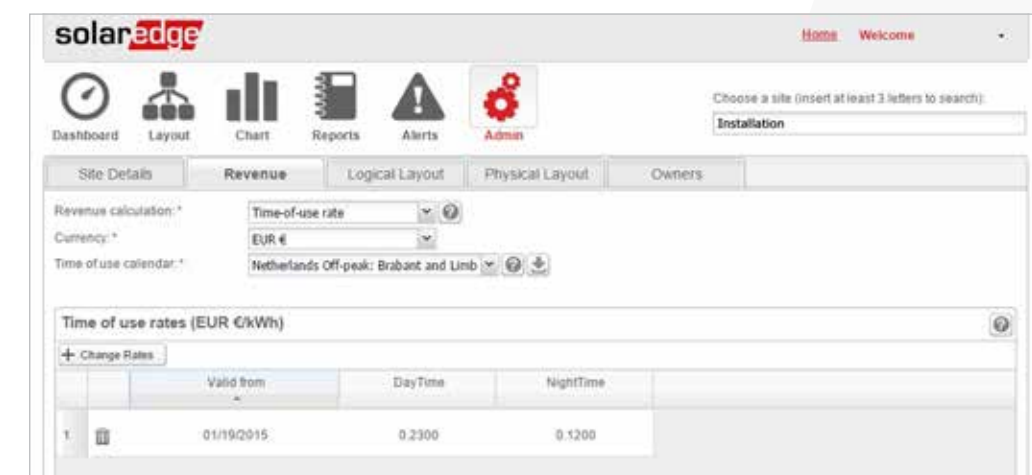
Dashboard - Energy production is displayed with a weekly, monthly and yearly resolution

Performance Ratio - Analyse 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 threshold alerts can be set to detect underperforming panels. 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 Panel-Level Monitoring (cont.)

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

## Soiling

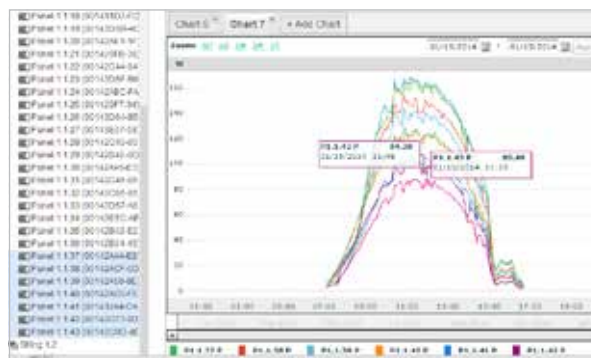


Before cleaning

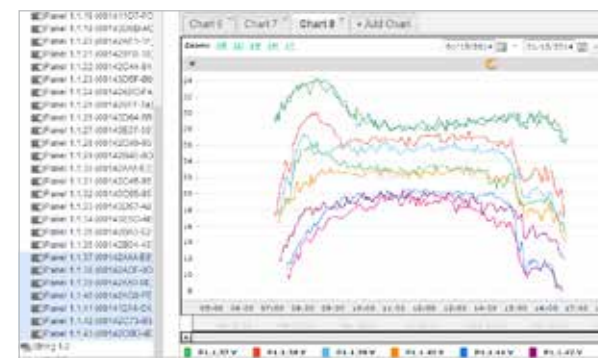


After cleaning

## Potential Induced Degradation (PID)



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



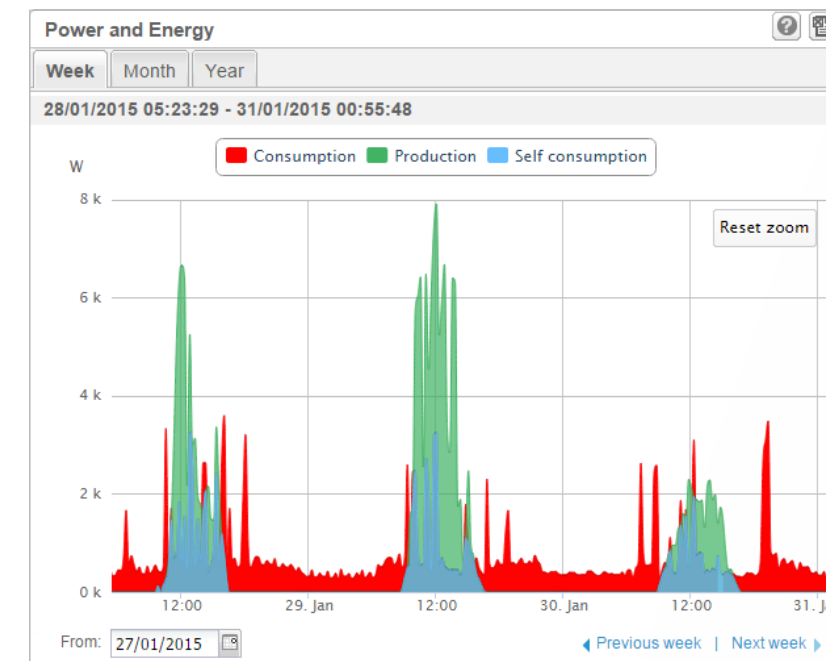
No need to send technicians to the roof – panel voltage is measured remotely

## Bypass Diode Failure



It is easy to identify the bypass diode failure with the panel-level voltage graphs. The faulty panel outputs at only 2/3 of the voltage (5/6 in this case of power optimiser connected to two panels).

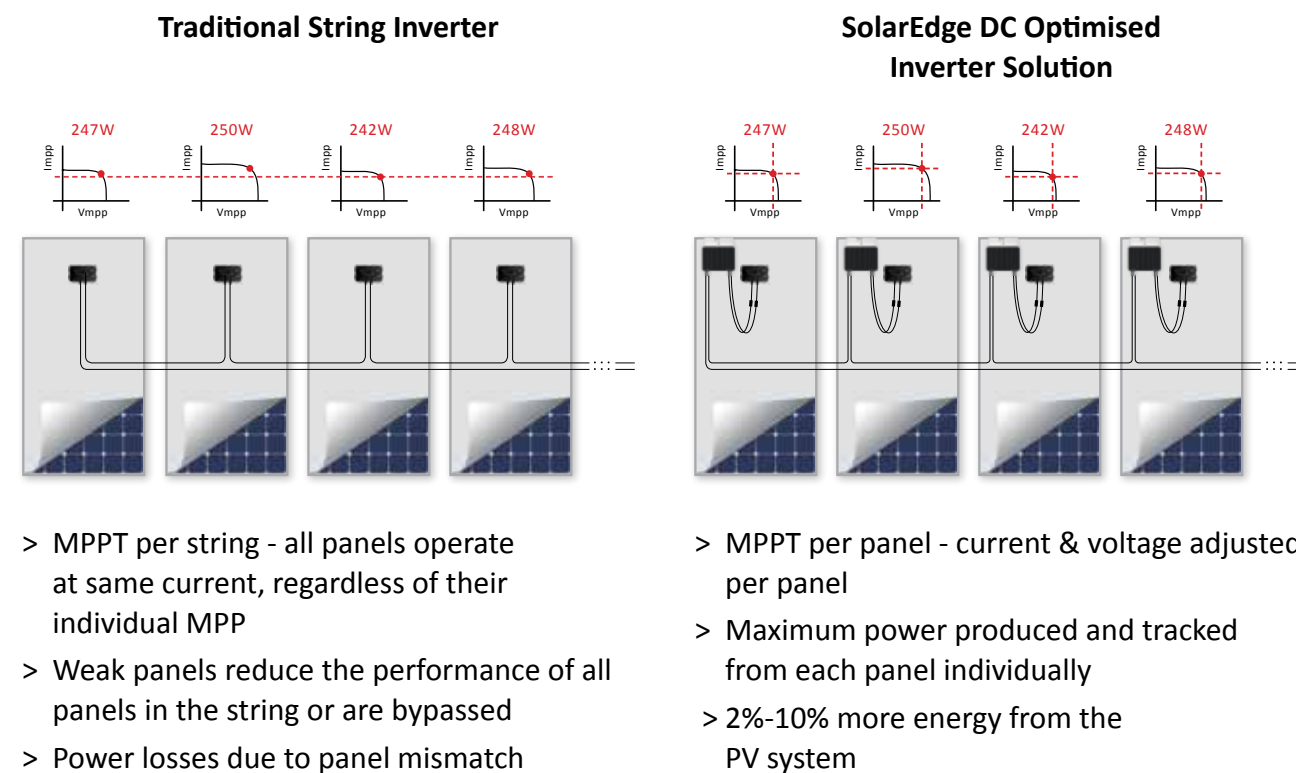
6. The consumption monitoring feature shows data about electricity consumption, PV production, and self-consumption. This feature is integrated into all SolarEdge inverters and requires only a connection of a SolarEdge Modbus Meter.





# Maximum Energy Yield in Commercial Installations

Unavoidable in commercial installations, panel-level mismatch occurs when panels in a string have different Maximum Power Points (MPPs). Arising from a variety of sources, the mismatch decreases the energy yield of the entire string.



The SolarEdge DC optimised inverter solution mitigates power losses caused by panel mismatch for maximum power generation from each panel. With SolarEdge, strong panels are not affected by the weaker ones.

## Examples of power mismatch in commercial installations:

### Manufacturing Tolerance Mismatch

The panel manufacturer-warranted output power range may vary greatly. A standard deviation of 3% is sufficient to result in ~2% energy loss.



Guaranteed power output from panel manufacturers  
**0~+3%**

### Soiling & Shading

Panel soiling, from dirt, bird droppings or snow, contributes to mismatch between panels and strings.

While there may be no obstructions during site installation, throughout a system's lifetime, a tree may grow or a structure may be erected that creates uneven shading.



Soiling



Bird droppings



Leaves

### Uneven Panel Ageing

Panel performance can degrade up to 20% over 20 years, however, each panel ages at a different rate, which causes ageing 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 DC optimised inverter solution effectively minimises these potential costs.

Forward compatibility eliminates expensive stock of spare panel inventory.

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

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



**Power Optimisers**  
300W - 350W



**Commercial Inverters**  
15kVA - 27.6kVA



**Cloud-based  
Monitoring Platform**

SolarEdge provides low-cost inverter replacement out of warranty

- > ~40% less than traditional inverters

Products are certified for ammonia resistance - suitable for agricultural areas



| 2.02MW SolarEdge system, Denmark

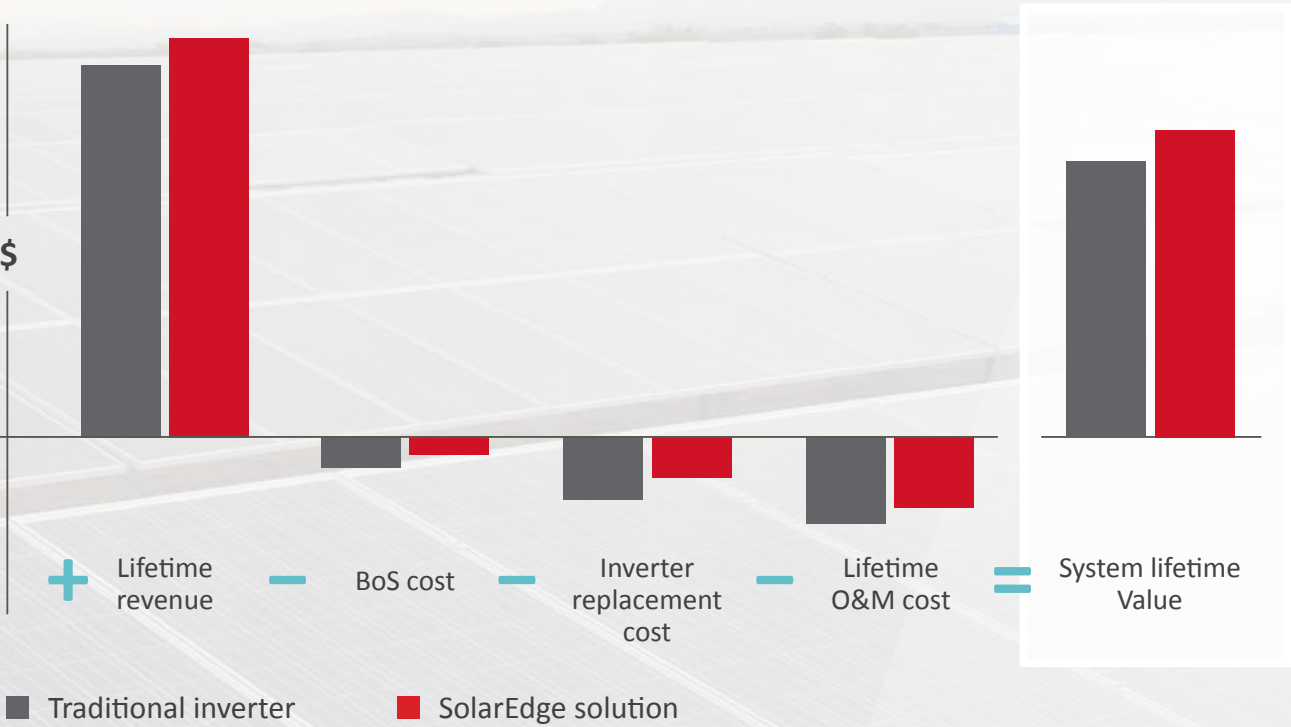


# A Higher Lifetime Value

The SolarEdge DC optimised inverter solution offers a better LCOE for a system’s lifetime by maximising yield and reducing costs.

The SolarEdge DC optimised inverter solution maximises power generation at the individual panel 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 cost, is lower. This makes the SolarEdge solution more economically attractive.

Lifetime PV System Cost and Revenue

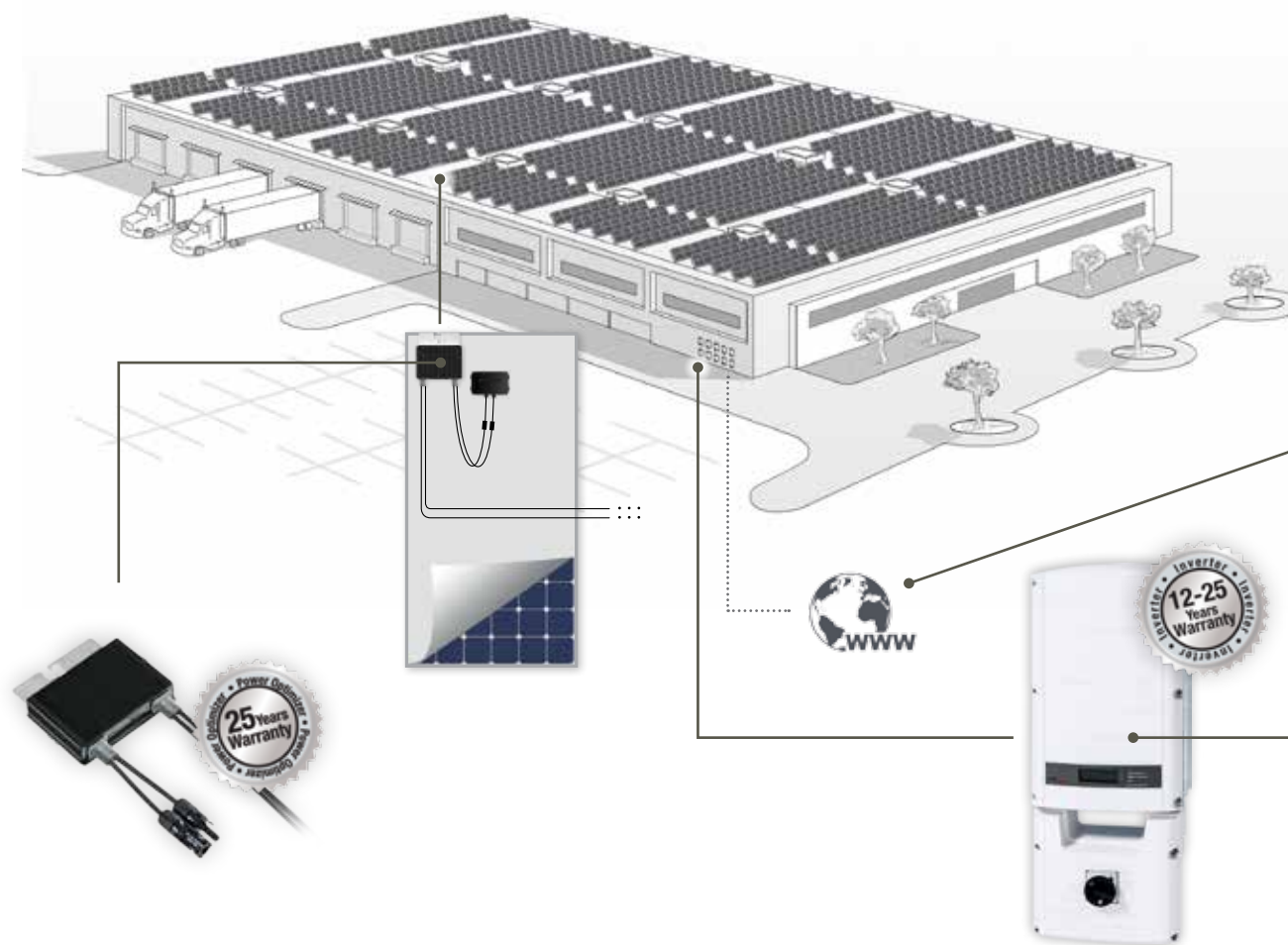


1.3MW SolarEdge system, Arizona, USA



# Commercial System Diagram

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



## P300/P350 Power Optimisers

- Panel-level MPPT - no mismatch power losses
- Strings of uneven lengths, panels on multiple azimuths & tilts
- SafeDC™ - automatic panel-level safety shutdown

## 15kVA-27.6kVA Inverter

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

## Cloud-based Monitoring Platform

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

## Control & Communication Gateway

- Connection of multiple environmental sensors to analyse system performance

## Environmental Sensors

- Connection of environmental sensors to calculate site performance ratio and measure environmental conditions



# 300kW Rooftop System Comparison

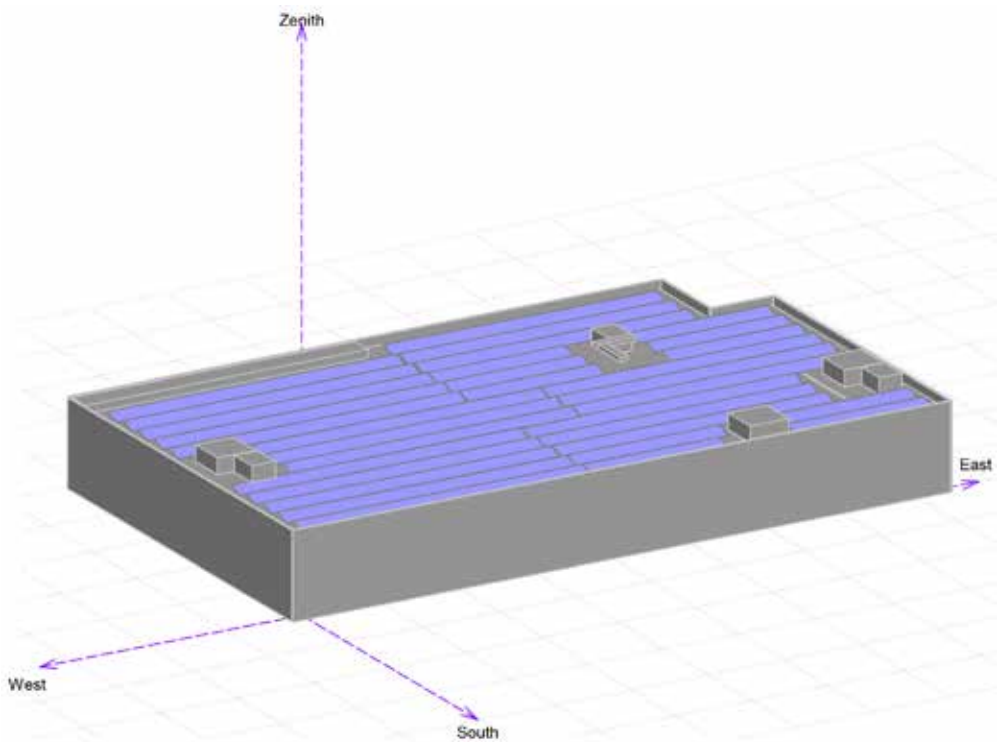
## Comparison of a 300kWp SolarEdge system to an identical system with a traditional string inverter

The system, in Amsterdam, The Netherlands, comprises 1,000×300Wp modules. One system was designed with 9×SE27.6K SolarEdge inverters and power optimisers. The second system was designed with 9×27.6kW traditional string inverters.

### Energy Comparison

PVsyst was used to simulate the yield of both systems in year 1 and year 20. The SolarEdge advantage is growing with time due to uneven module aging which increases mismatch between modules.

	Traditional String Inverter	SolarEdge System	SolarEdge Advantage
PVsyst year 1 yield (MWh)	272.3	279.1	2.5%
PVsyst year 20 yield (MWh)	242.9	257.2	5.9%

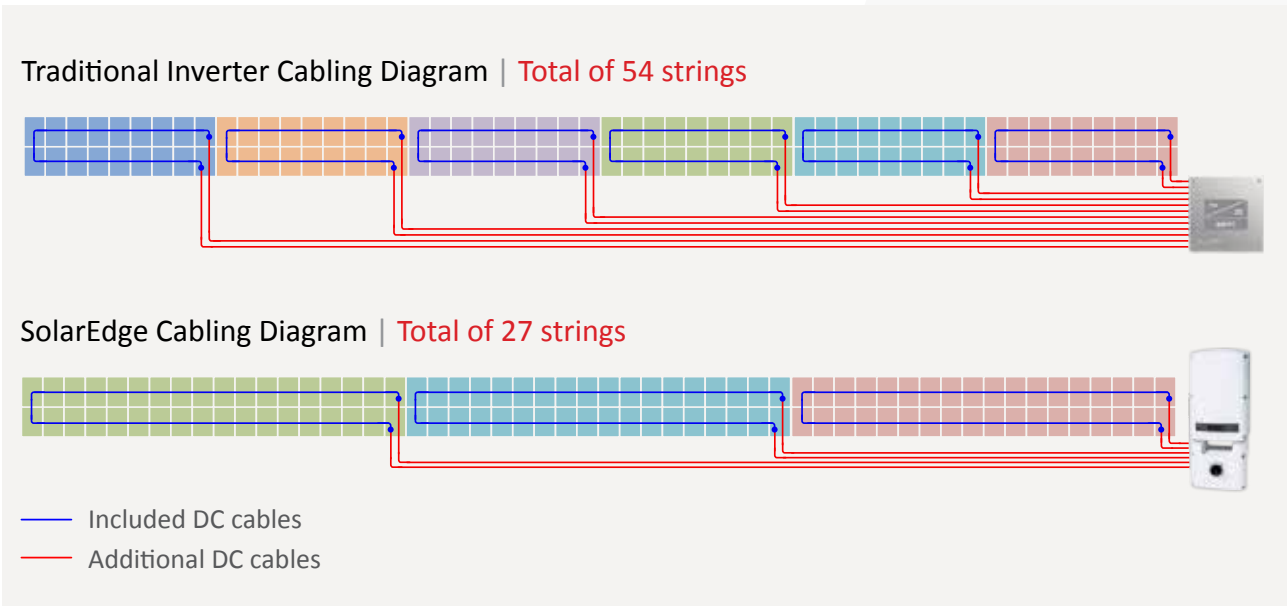


### BoS comparison

	Traditional String Inverter	SolarEdge DC Optimised Inverter
DC power (kW)	300	300
AC power (kW)	248.4	248.4
Modules (300W, 72-cell)	1,000	1,000
Inverters	9	9
No. of strings	54	27
Modules per string	18/19	36/38
DC cable CU 1×6mm² (m)	6,542	2,317
MC4 connectors (1 pair)	108	54
Datalogger	1	-
BoS cost	100%	31%
BoS cost saving*		1.15 c/w

\* Estimated saving on BoS components based on typical market prices in €

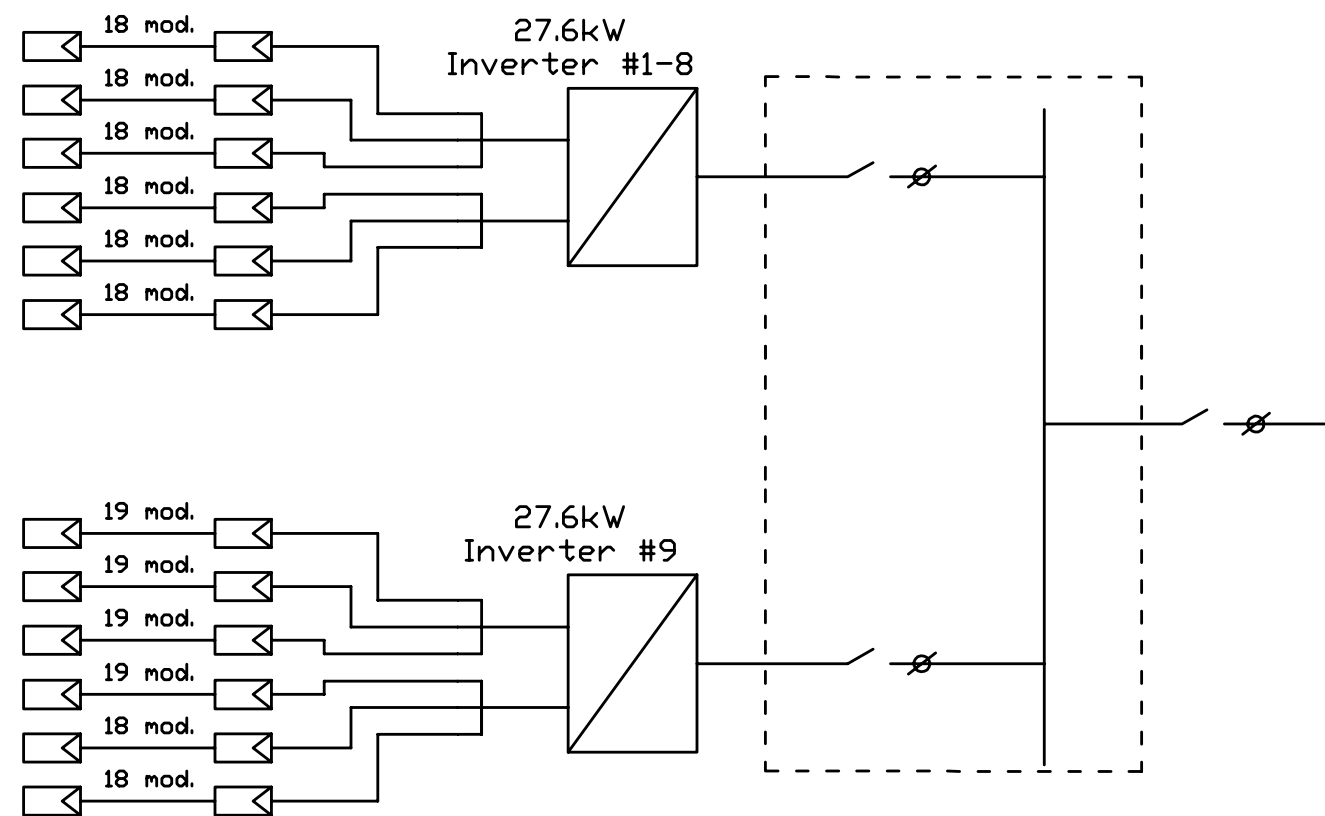
### Cabling Comparison



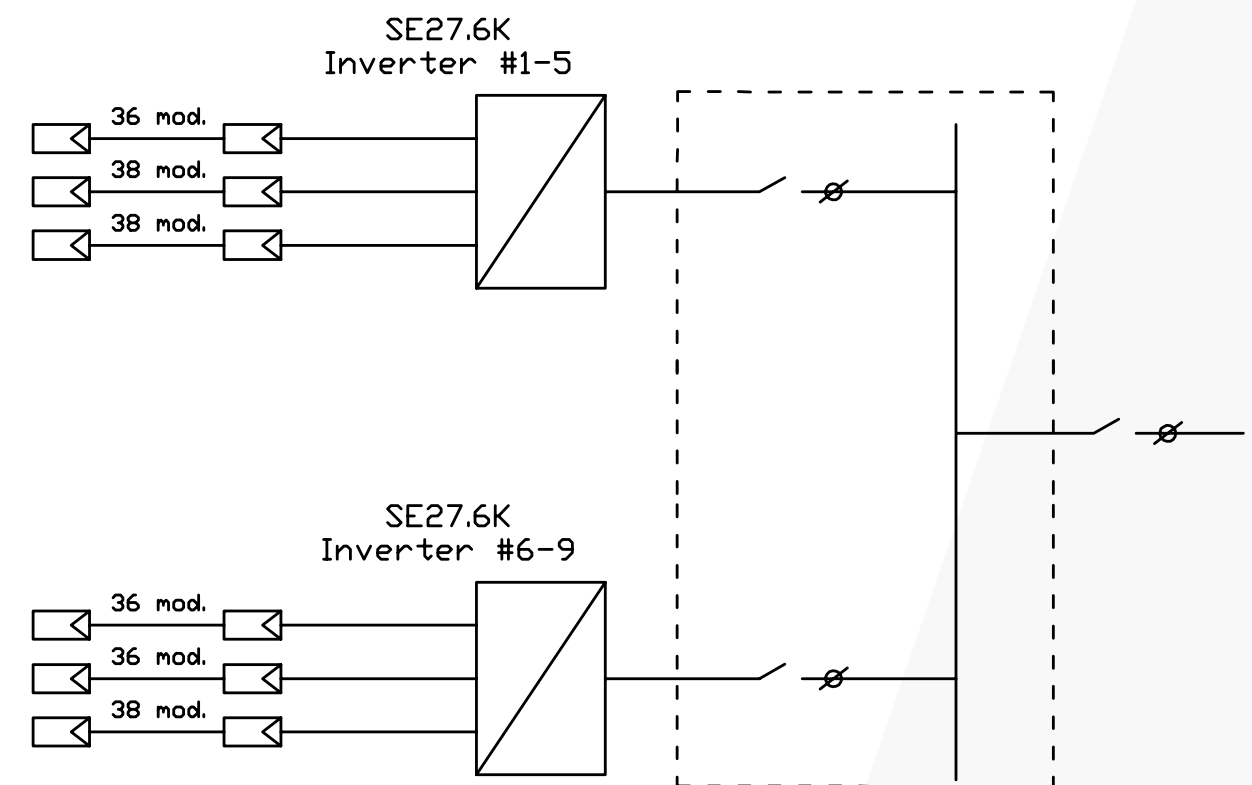


# 300kWp Rooftop System — Electrical Diagram Comparison

Traditional String Inverter System



SolarEdge DC Optimised Inverter Solution





# 1MWp Ground Mount System Comparison

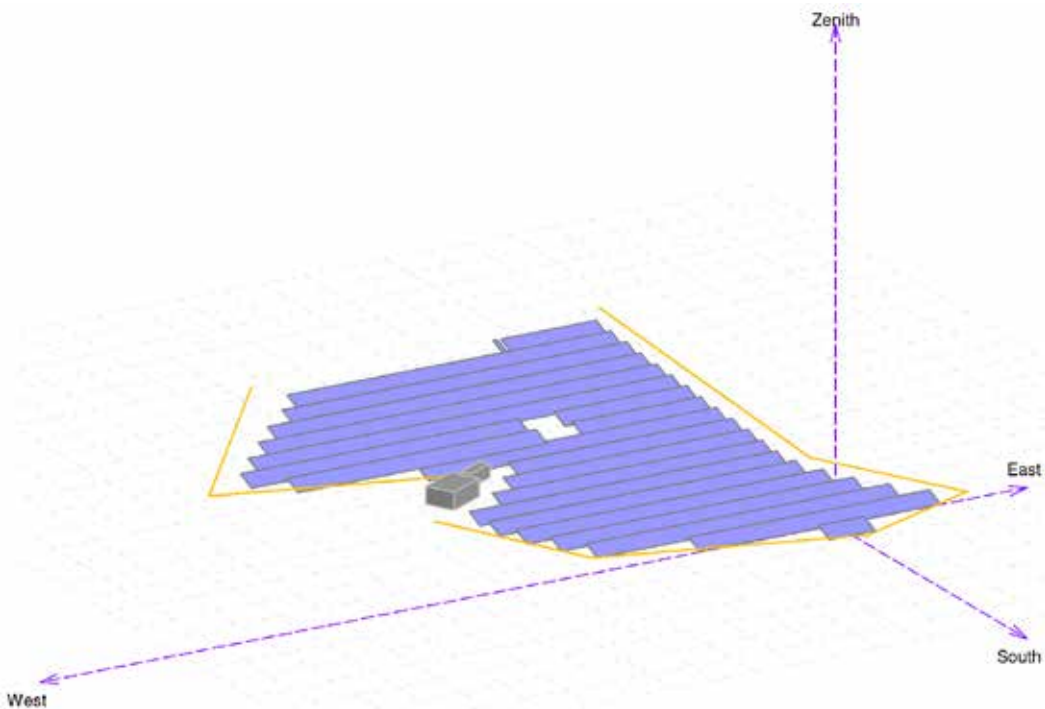
## Comparison of a 1MWp SolarEdge solution to an identical system with a traditional string inverter

The system, in Munich, Germany, comprises 4,050×260Wp modules. One system was designed with 33×SE27.6K SolarEdge inverters and power optimisers. The second system was designed with 18×50kW traditional string inverters.

### Energy Comparison

PVsyst was used to simulate the yield of both systems in year 1 and year 20. The SolarEdge advantage is growing with time due to uneven module aging which increases mismatch between modules.

	Traditional String Inverter	SolarEdge System	SolarEdge Advantage
PVsyst year 1 yield (MWh)	1,159	1,182	2%
PVsyst year 20 yield (MWh)	1,036	1,090	5.2%



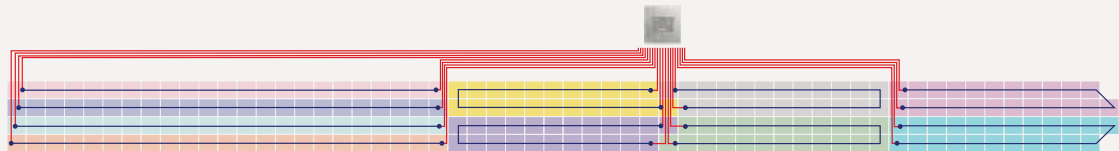
### BoS comparison

	Traditional String Inverter	SolarEdge DC Optimised Inverter
DC power (kW)	1,053	1,053
AC power (kW)	900	910.8
Modules (300W, 72-cell)	4,050	4,050
Inverters	18	33
No. of strings	180	99
Modules per string	22/23	40/42
DC cable CU 1×6mm² (m)	7,347	2,561
MC4 connectors (1 pair)	360	198
AC cable NA2XY 4×35mm² (m)	-	2,459
AC cable NA2XY 4×70mm² (m)	1,349	-
Datalogger	1	-
BoS cost	100%	62%
BoS cost saving*		0.4 c/w

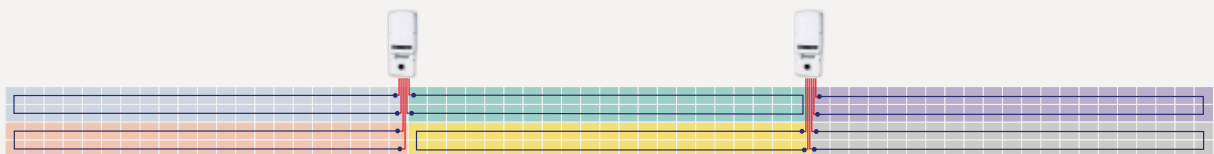
\* Estimated saving on BoS components based on typical market prices in €

### Cabling Comparison

Traditional Inverter Cabling Diagram | Total of 180 strings



SolarEdge Cabling Diagram | Total of 99 strings

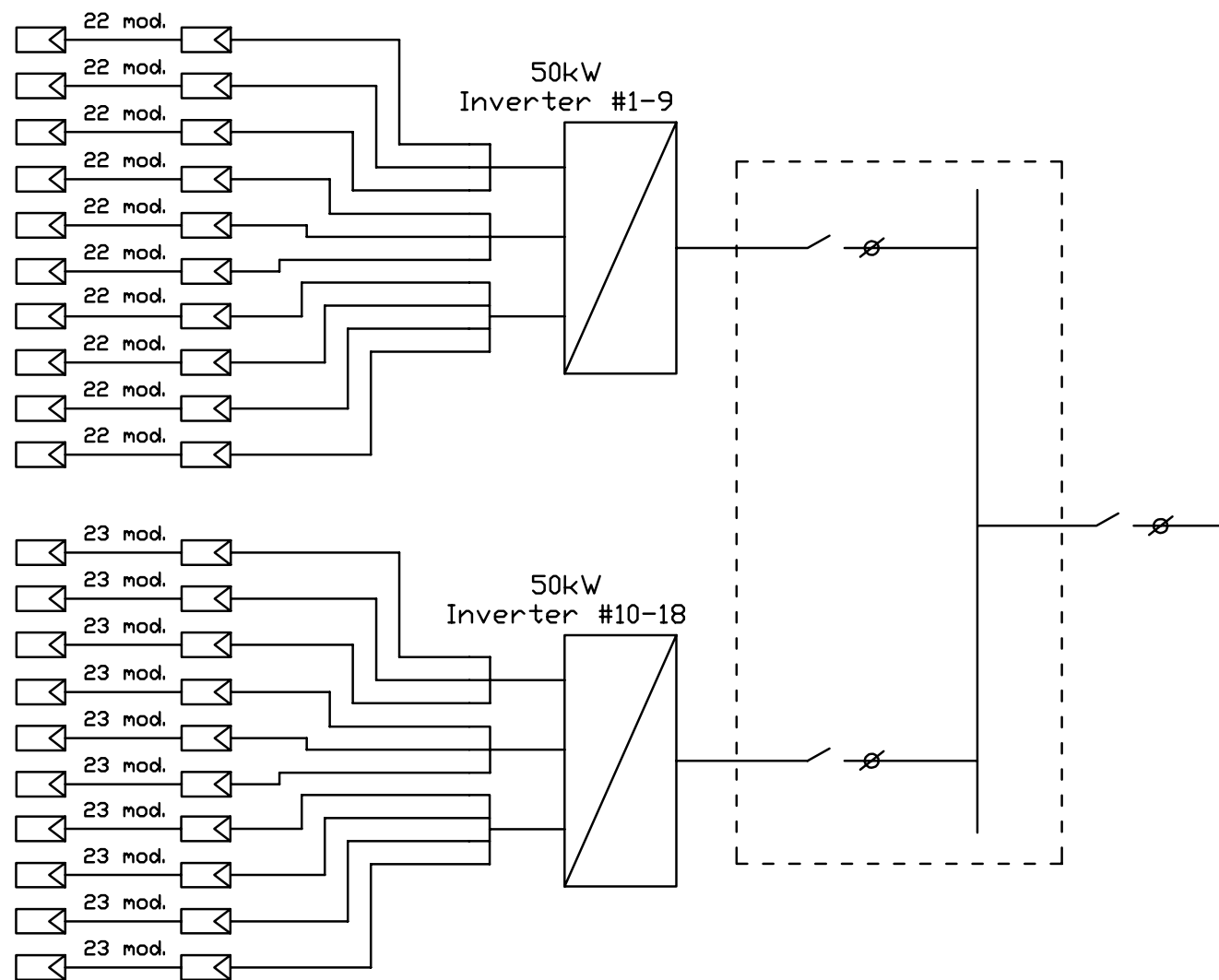


— Included DC cables  
— Additional DC cables

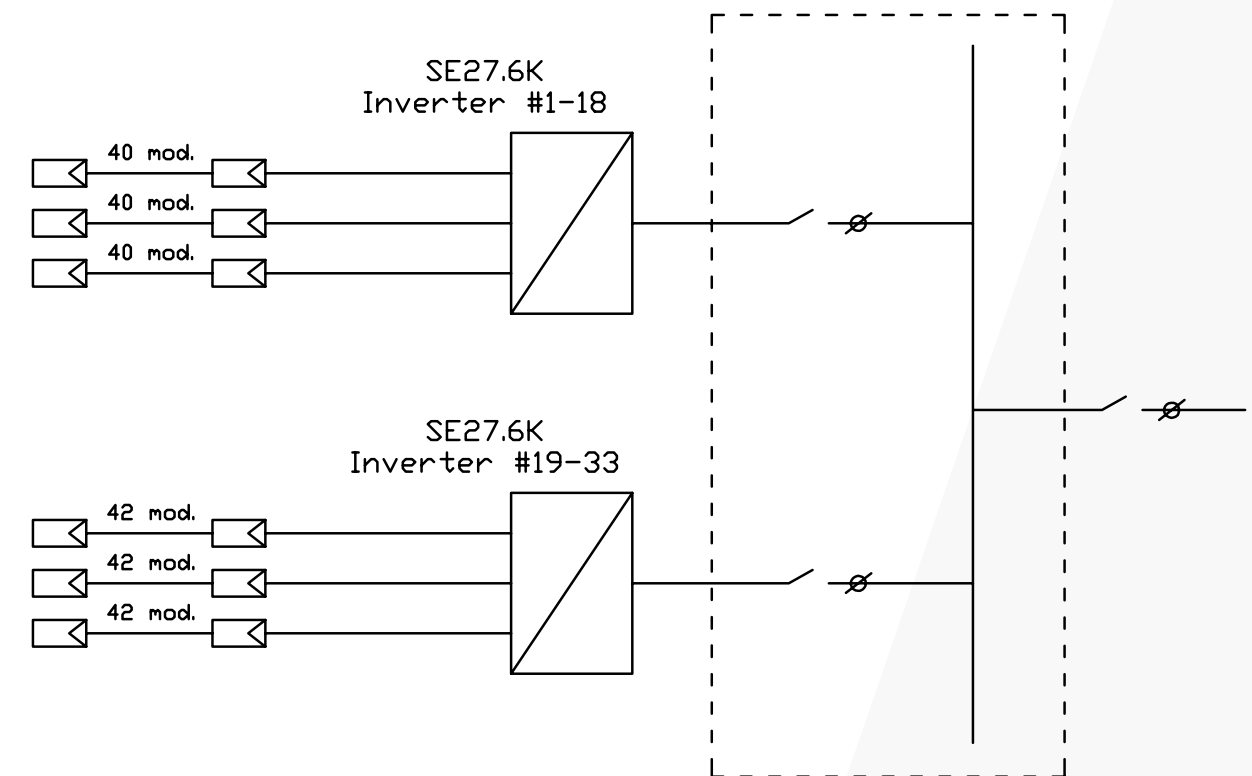


# 1MWp Ground Mount System — Electrical Diagram Comparison

## Traditional String Inverter System



## SolarEdge DC Optimised Inverter Solution





# SE15K-27.6K Three Phase Inverter Datasheet



Specifically designed to work with power optimisers

- 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
- Integrated DC Safety Unit
  - 2-pole Mechanical DC disconnect
  - Optional DC fuses (for SE25K & SE27.6K models only)



	SE15K <sup>(1)</sup>	SE16K <sup>(1)</sup>	SE17K <sup>(1)</sup>	SE25K <sup>(1)</sup>	SE27.6K <sup>(1)</sup>	
OUTPUT						
Rated AC Power Output	15000	16000	17000	25000	27600	VA
Maximum AC Power Output	15000	16000	17000	25000	27600	VA
AC Output Voltage - Line to Line / Line to Neutral (Nominal)	400 / 230					Vac
AC Output Voltage - Line to Neutral Range	184 - 264.5					Vac
AC Frequency	50/60 ± 5					Hz
Maximum Continuous Output Current (per Phase)	23	25.5	26	38	40	A
Residual Current Detector / Residual Current Step Detector	300 / 30					mA
Grids Supported - Three Phase	3 / N / PE (WYE with Neutral); 230 / 400					V
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes					

	SE15K <sup>(1)</sup>	SE16K <sup>(1)</sup>	SE17K <sup>(1)</sup>	SE25K <sup>(1)</sup>	SE27.6K <sup>(1)</sup>	
INPUT						
Maximum DC Power (Panel STC)	18750	20000	21250	33750	37250	W
Transformer-less, Ungrounded	Yes					
Nominal DC Input Voltage DC to Gnd	375					
Maximum Input Voltage DC to Gnd	415					
Nominal DC Input Voltage DC+ to DC-	750					Vdc
Maximum Input Voltage DC+ to DC-	830					Vdc
Maximum Input Current	22	23	23	37	40	Adc
Reverse-Polarity Protection	Yes					
Ground-Fault Isolation Detection	700kΩ Sensitivity					
Maximum Inverter Efficiency	98			98.3		%
European Weighted Efficiency	97.6	97.7	97.7	98	98	%
Nighttime Power Consumption	< 2.5			< 4		W
ADDITIONAL FEATURES						
Supported Communication Interfaces <sup>(2)</sup>	RS485, Ethernet, Zigbee (optional), Wi-Fi (optional), Built-in GSM (optional)					
DC SAFETY UNIT						
2-pole Disconnection	1000V / 23A			1000V / 40A		
DC Fuses on Plus & Minus	N/A			20A		
STANDARD COMPLIANCE						
Safety	IEC-62103 (EN50178), IEC-62109, AS-3100					
Grid Connection Standards <sup>(3)</sup>	VDE-AR-N-4105, G59/3, AS-4777, EN 50438 , CEI-021, VDE 0126-1-1, CEI-016 <sup>(4)</sup> , BDEW					
Emissions	IEC61000-6-2, IEC61000-6-3 , IEC61000-3-11, IEC61000-3-12					
RoHS	Yes					
INSTALLATION SPECIFICATIONS						
AC output conduit size / AWG range	19.05 minimum / 12-6 AWG					mm
DC input conduit size / AWG range	19.05 minimum / 12-6 AWG					mm
Dimensions with Safety Unit (H×W×D)	775×315×260					mm
Weight	36.2			48		kg
Operating Temperature Range	-20 - +60 (M40 version -40 - +60)					°C
Cooling	Fan (user replaceable)					
Noise	< 50			< 55		dBA
Protection Rating	IP65 - Outdoor and Indoor					
Bracket Mounted (Bracket Provided)						

<sup>(1)</sup> These specifications apply to inverters with Australian part numbers (SExxxx-AUxxxxxx or SExxxx-ER-01-AUS)  
<sup>(2)</sup> Refer to Datasheets -> Communications category in Downloads page for specifications of optional communication options: [www.solaredge.com/downloads](http://www.solaredge.com/downloads)  
<sup>(3)</sup> For all standards refer to Certifications category in Downloads page: [www.solaredge.com/downloads](http://www.solaredge.com/downloads)  
<sup>(4)</sup> Model SE25K and SE27.6K only



# SolarEdge Power Optimiser – P300-350



The most cost-effective solution for panel-level optimisation 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 panel-level monitoring

Panel-level voltage shutdown for installer and firefighter safety

Panel-level monitoring



	P300 (for 60-cell panels)	P350 (for high-power 60-cell and for 72-cell panels)	
INPUT			
Rated Input DC Power <sup>(1)</sup>	300	350	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	48	60	Vdc
MPPT Operating Range	8 - 48	8 - 60	Vdc
Maximum Continuous Input Current (Isc)	10	11	Adc
Maximum Efficiency	99.5		%
Weighted Efficiency	98.8		%
Overvoltage Category	II		
OUTPUT DURING OPERATION (POWER OPTIMISER CONNECTED TO OPERATING SOLAREEDGE INVERTER)			
Maximum Output Current	15		Adc
Maximum Output Voltage	60		Vdc
OUTPUT DURING STANDBY (POWER OPTIMISER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)			
Safety Output Voltage per Power Optimiser	1		Vdc

	P300 (for 60-cell panels)	P350 (for high-power 60-cell and for 72-cell panels)	
STANDARD COMPLIANCE			
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3		
Safety	IEC62109-1 (class II safety), UL1741		
RoHS	Yes		
Fire Safety	VDE-AR-E 2100-712:2013-05		
INSTALLATION SPECIFICATIONS			
Maximum Allowed System Voltage	1000		Vdc
Dimensions (W × L × H)	128 × 152 × 27.5 / 5 × 5.97 × 1.08		mm / in
Weight (including cables)	760 / 1.7		gr / lb
Input Connector	MC4(2)		
Output Connector	MC4		
Output Wire Length	0.95 / 3.0	1.2 / 3.9	m / ft
Operating Temperature Range	-40 - +85 / -40 - +185		°C / °F
Protection Rating	IP68 / NEMA6P		
Relative Humidity	0 - 100		%

<sup>(1)</sup> Rated STC power of the panel. Panel of up to +5% power tolerance allowed.

<sup>(2)</sup> For other connector types please contact SolarEdge.

PV SYSTEM DESIGN USING A SOLAREEDGE INVERTER(3)		SINGLE PHASE	THREE PHASE	
Minimum String Length (Power Optimisers)	P300,P350	8	16	
Maximum String Length (Power Optimisers)		25	50	
Maximum Power per String		5250	11250	W
Parallel Strings of Different Lengths or Ori- entations		Yes		

<sup>(3)</sup> It is not allowed to mix with P300/P35 in one string.



# 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-G			
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-G		
COMMUNICATION INTERFACES			
Ethernet Interface	10/100-BaseT		
Wireless Connections	ZigBee module <sup>(*)</sup>		
Power Reduction Interface	4 control pins, 5V, GND		
RS232 Interface	For local connection		
SUPPORTED RS485 DEVICES <sup>(A)</sup>			
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 × W × H)	161.6 × 90 × 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		

<sup>(A)</sup> for supported protocols and devices, see link: [www.solaredge.com/files/pdfs/se-gateway-supported-devices](http://www.solaredge.com/files/pdfs/se-gateway-supported-devices)  
<sup>(\*)</sup> 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



	Direct Irradiance SE1000-SEN-IRR-S1	Ambient Temperature SE1000-SEN-TAMB-S2	Panel Temperature SE1000-SEN-TMOD-S2	Wind Velocity SE1000-SEN-WIND-S1	Units
OUTPUT					
Electrical output range	0-1.4V	0-10V	4-20mA	4-20mA	
MEASUREMENT					
Range	0-1400 W/m²	-40 to 90 °C / -40 to 194 °F	-40 to 90 °C / -40 to 194 °F	0-50 m/s	
Accuracy	±5%	1% of full scale	1% of full scale	±0.5 m/s or ±3% of measuring value	

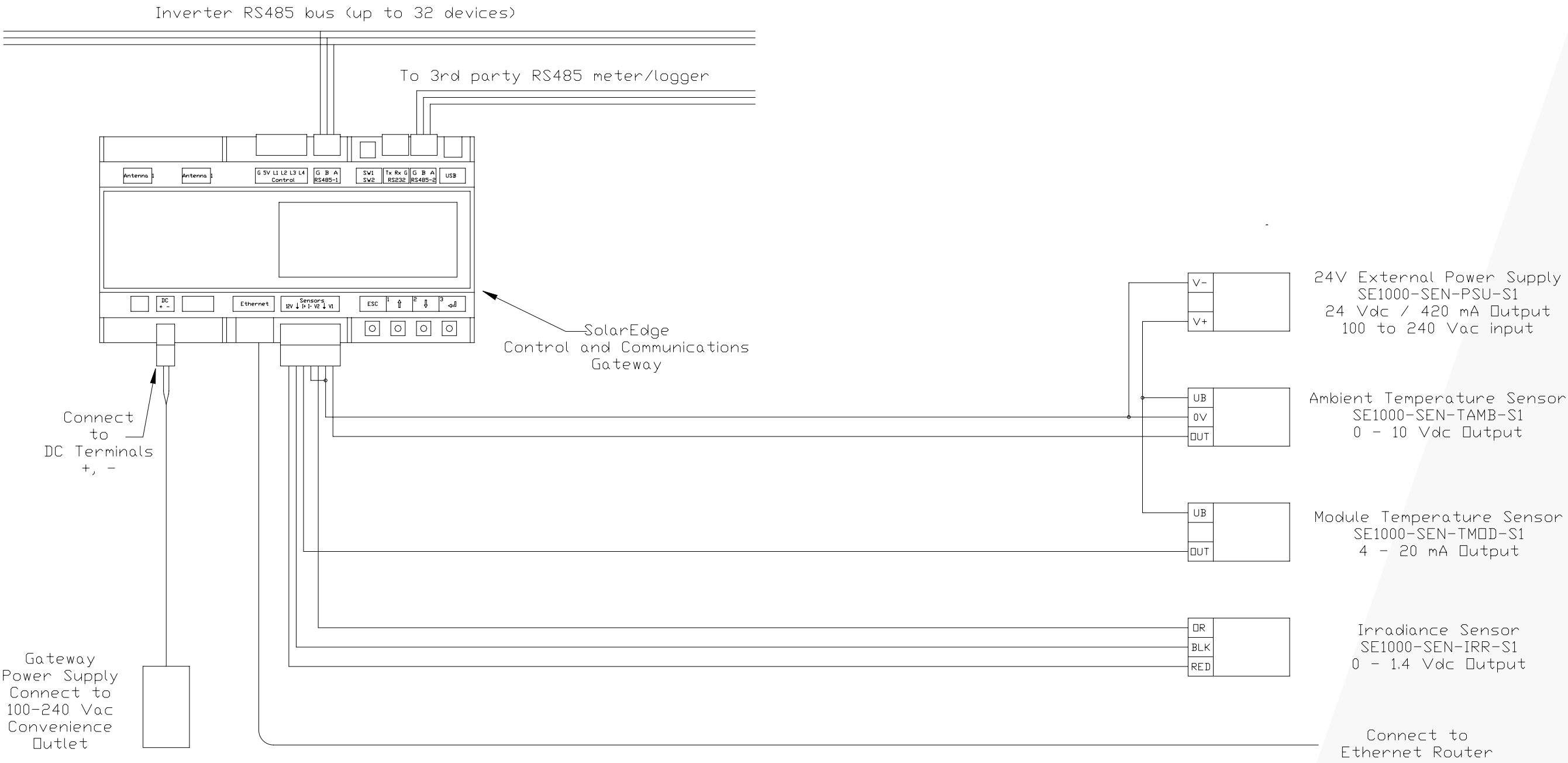
	Direct Irradiance SE1000-SEN-IRR-S1	Ambient Temperature SE1000-SEN-TAMB-S2	Panel Temperature SE1000-SEN-TMOD-S2	Wind Velocity SE1000-SEN-WIND-S1	Units
INSTALLATION SPECIFICATIONS					
Control and Communication Gateway (sold separately; SE1000-CCG-G)	Needed				
Dimensions	154×86×40 / 6×3.5×1.5	64×58×34 / 2.5×2.3×1.3	64×58×34 / 2.5×2.3×1.3	165×105×105 / 6.5×4.2×4.2	mm / in
Weight	340 / 0.75	350 / 0.77	350 / 0.77	750 / 1.65	gm / lb
Enclosure type	Powder-coated aluminum	Pulver Coated Aluminium	Pulver Coated Aluminium	Housing - Aluminum (AlMgSi1) Cup star - Synthetic, with fibre glass (PC-GF10) Bottom - Synthetic (POM H2320)	
Operating Temperature	-20 to 70 / -4 to 155	-40 to 80 / -40 to 176	-40 to 80 / -40 to 176	0 to 70 / 32 to 155	°C / °F
Protection Rating	IP65	IP67	IP67	IP55	

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



# 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.



# Comprehensive Service Suite

SolarEdge supports you throughout your PV project life cycle. We provide the tools and services to help you grow your business with us.



Project design & Pre-Sale



Project Execution



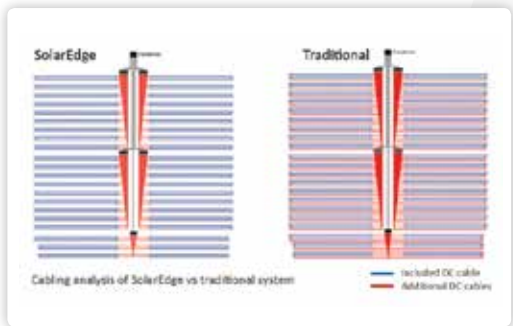
Operation & Maintenance

## Project Design and Pre-Sale

Our dedicated tools and engineering services help you close deals.



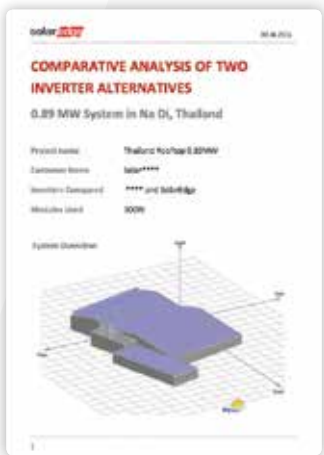
Training and tools help your sales team convey the added value of the SolarEdge solution



Tailor-made design optimisation by SolarEdge pre-sale engineers



LCOE and ROI analysis



PV simulation and Comparative system analysis



# Comprehensive Service Suite (Cont.)

## Project Execution

Our advanced tools and features will assist you to easily and smoothly execute projects.



**Project design validation**  
prior to installation



**Hands-on installation training**  
by local field engineers



**Installation validation**  
checklist



**DC safety** protecting installers  
from high DC voltage



**Easy and flexible**  
string layout



**Remote and on-site installation**  
support by local service teams



**Remote operations** to commission  
and activate the installation



**Automatic**  
commissioning report

## Operation & Maintenance

Our advanced monitoring platform allows you to guarantee system availability and high performance ratio for system lifetime.

### Performance monitoring



Fleet management      Pre-scheduled performance and status reports of multiple sites      Pinpointed automatic alerts      Inter-site and multi-site comparisons

### Fault detection



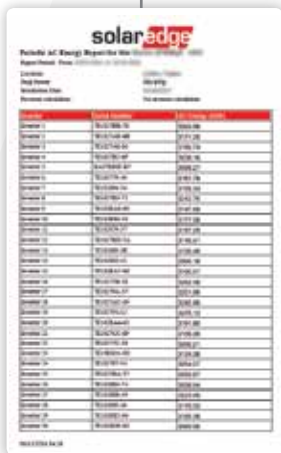
Inverter and panel-level fault identification      Remote troubleshooting tools

### Service



**Rapid RMA process**      **Follow the sun call center**

### Executive reporting



Site specific automated production reports



SolarEdge invented an intelligent inverter that has changed the way power is harvested and managed in PV systems. The SolarEdge DC optimised inverter maximises power generation at the individual PV panel-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 optimised inverter solution includes PV inverters, power optimisers, and cloud-based monitoring. By connecting power optimisers to each panel, the system enables superior power harvesting and panel management. System costs remain competitive by centralising the DC-AC inversion and grid interaction at a simplified PV inverter. Enhanced PV asset management including reduced O&M costs are enabled through panel-level monitoring and remote troubleshooting. Another benefit is the automatic DC shutdown, for installer, maintenance personnel, and firefighter safety, through the SafeDC™ mechanism.



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This document includes estimates of various parameters of the compared solar systems, including annual A/C energy production, performance ratio and shading loss based on PVsyst computer-simulated results for installations using our and competing systems. While we are not aware of any reason to believe these estimates and comparisons are materially inaccurate or misleading, they are inherently uncertain and the projected results are not guaranteed. Actual results will vary depending on a number of factors, including actual field conditions, quality of installment and other variances from the assumptions underlying the estimates. Although care has been taken to ensure the accuracy, completeness and reliability of the estimates and comparisons presented, SolarEdge assumes no responsibility for these. MORE SPECIFICALLY, IN NO EVENT SHALL SOLAREEDGE BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL OR INCIDENTAL LOSSES OR DAMAGES RESULTING FROM OR ARISING OUT OF USE OF OR RELIANCE ON THE ESTIMATES AND COMPARISONS PRESENTED.

**Cautionary Note Regarding Market Data and Industry Forecasts:** This brochure may contain market data and industry forecasts from certain third-party sources. This information is based on industry surveys and the preparer's expertise in the industry and there can be no assurance that any such market data is accurate or that any such industry forecasts will be achieved. Although we have not independently verified the accuracy of such market data and industry forecasts, we believe that the market data is reliable and that the industry forecasts are reasonable.