SolarEdge TerraMax™ Inverter & H1300 Power Optimizer

For Europe and International Markets

SolarEdge TerraMax Inverter

H1300 Power Optimizer

Groundbreaking versatility. Greater yields.

Versatile

- Enables PV deployment on sloped, uneven, or irregular-shaped terrain
- Ideal for placement above crops or on bodies of water
- Ideal for both centralized and distributed topologies
- Long strings requiring less cabling

Powerful

- MLPE-based solution
- 99% inverter efficiency
- Offsets module mismatch
- 200% DC oversizing
- Integrated night-time PID rectifiers

Granular Visibility

- High precision monitoring and smart PV fleet management
- Pinpointed visibility into site performance
- Easy spotting of potential faults and remote troubleshooting
- Reduced service visits increase system uptime and lowers O&M costs

Safe and Secure

- Global safety and cybersecurity standards
- Multilayered protection from inverter to cloud
- Addresses various safety requirements throughout the system lifetime
- SafeDC™ – designed to automatically reduce DC voltage to touch-safe levels

/ Inverter Technical Specifications

SE300K(1) / SE330K

	SE300K(1)	SE330K	Units
OUTPUT			
Rated AC Active Output Power	297,000 @ 45ºC	330,000 @ 45ºC	W
Maximum Apparent AC Output Power	297,000 @ 45ºC	330,000 @ 45ºC	VA
AC Output Voltage – Line to Line (Nominal)	690		Vac
AC Output Voltage – Line to Line (Range)	587 – 759		Vac
AC Frequency	50 ± 5%		Hz
Rated Continuous Output Current (per Phase) @Nominal Voltage	276.1		Aac
AC Output Line Connections	3W + PE		
Total Harmonic Distortion	≤3		%
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes		
Power Factor Range	0.2 – 1 / leading, lagging		
INPUT			
Maximum DC Power (Module STC)	594,000	660,000	W
Maximum Input Voltage DC+ to DC-	1500		Vdc
Nominal DC Input Voltage DC+ to DC-	1250		Vdc
Maximum Input Current	266.7		Adc
Module-Level Optimization	Yes		
EFFICIENCY			
Maximum Efficiency / EU Efficiency	99.2 / 98.8		%
PROTECTION FEATURES			
DC Reverse Polarity Protection	Yes		
Ground Fault Isolation Detection	Yes		
AC Surge Protection	Type 2, monitored and field replaceable		
DC Surge Protection	Type 2, monitored and field replaceable		
CAN, RS485 Surge Protection	Yes		
DC Disconnect	Yes, integrated		
ADDITIONAL FEATURES			
Supported Communication Interfaces	CAN bus, RS485, Ethernet, WiFi, Cellular (optional)		
PID Protection	PID Rectifier		
Inverter Commissioning	With the SetApp mobile application using built-in Wi-Fi access point for local connection		
Pre-Commissioning	Inverter activation and validation powered by PV modules		
VAR at Night	Yes		
STANDARD COMPLIANCE			
Safety	IEC 62109		
Grid Connection Standards	VDE-AR-N 4110, VDE-AR-N 4120	EN 50549-2, C10/11, G99 Type A and B, CEI 0-16, NTS, TOR Erzeuger Typ B, C, D	
EMC	IEC/EN 61000-6-2, IEC 61000-6-4, EN 55011, CISPR 11, IEC 62920		
RoHS	Yes		
GENERAL DATA			
Dimensions (W x H x D)	1090 x 914 x 416 / 42.91 x 35.98 x 16.38		mm / in
Weight	163 / 359		kg / lb
Operating Temperature Range	-40 to +60 / -40 to +140(2)		°C / °F
Cooling	Fans (field replaceable)		
Noise Emission	< 72		dBA
Protection Rating	IP66		
Mounting	Bracket provided		
Topology	Transformerless		
AC Connection(3)	2 Glands, Cable Diameter 48 – 55mm, Terminal Lugs, Max. 300mm² per wire, Al or Cu		
DC Connection(4)	4 Glands, Cable Diameter 22 – 32mm, Terminal Lugs, Max. 300mm² per wire, Al or Cu		

(1) Available in DACH countries that follow VDE-AR-N-4110/VDE-AR-N-4120.
(2) For ambient temperatures above +45°C / 113°F power derating is applied. Refer to the Temperature Derating technical note for more details.
(3) Two AC terminals per line are available.
(4) Two sets of DC terminals (+, -) are available.

/ Power Optimizer Technical Specifications

H1300

	H1300	Units
INPUT		
Rated Input DC Power(1)	1300	W
Connection Method	Single input for series connected modules	
Absolute Maximum Input Voltage (Voc at lowest temperature)	125	Vdc
MPPT Operating Range	12.5 – 105	Vdc
Maximum Continuous Input Current	15	Adc
Maximum Short Circuit Current (Isc) of Connected PV Module	20	Adc
Maximum Efficiency	99.5	%
Weighted Efficiency	98.8	%
Overvoltage Category	II	
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)		
Rated Output Current	20	Adc
Rated Output Voltage	75	Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR INVERTER OFF)		
Safety Output Voltage per Power Optimizer	1 ± 0.1	Vdc
STANDARD COMPLIANCE		
EMC	FCC Part 15 Class A, IEC 61000-6-2, IEC 61000-6-4, EN 55011	
Safety	IEC 62109-1 (Class II safety)	
Material	UL94 V-0, UV resistant	
RoHS	Yes	
Fire Safety	VDE-AR-E 2100-712:2013-05	
INSTALLATION SPECIFICATIONS		
Compatible SolarEdge Inverters	SolarEdge TerraMax™ Inverter SE300K and SolarEdge TerraMax™ Inverter SE330K	
Maximum Allowed System Voltage	1500	Vdc
Dimensions (W x L x H)	129 x 155 x 59 / 5.08 x 6.10 x 2.32	mm / in
Weight (including cables)	1170 / 2.6	g / lb
Input Connector	MC4-Evo2(2)	
Input Wire Length	0.16, 0.16 / 0.52, 0.52	m / ft
Output Connector	MC4-Evo2	
Output Wire Length	0.1, 5.3 / 0.32, 17.39	m / ft
Operating Temperature Range(3)	-40 to +65 / -40 to +149	°C / °F
Protection Rating	IP68 / NEMA6P	
Relative Humidity	0 – 100	%

(1) The rated power of the module at STC will not exceed the power optimizer's Rated Input DC Power. Modules with up to +5% power tolerance are allowed.
(2) For other connector types please contact SolarEdge.
(3) For ambient temperatures above +65°C / 149°F power derating is applied. Refer to the Temperature Derating technical note for more details.

		SE300K	SE330K	Units
Minimum String Length(4) (Power Optimizers/Modules)	**Module Power**			
	400 – 450W	27 / 54	27 / 54	
	455 – 550W	24 / 48	24 / 48	
	555 – 650W	22 / 44	22 / 44	
Maximum String Length (Power Optimizers/Modules)		40 / 80	40 / 80	
Maximum Continuous Power per String		25,000	25,000	W
Maximum Allowed Connected Power per String		33,000(5)	33,000(6)	W
Maximum allowed difference between the shortest and longest string connected to the same inverter		5 Power Optimizers		

(4) Design your project using SolarEdge Designer to use a lower minimum string length and/or connect more STC power per string.
(5) For the SE300K, a minimum of 12 strings must be connected. For 11 strings or less, 29,000W is allowed.
(6) For the SE330K, a minimum of 14 strings must be connected. For 13 strings or less, 29,000W is allowed.

SolarEdge is a global leader in smart energy technology. By leveraging world-class engineering capabilities and with a relentless focus on innovation, SolarEdge creates smart energy solutions that power our lives and drive future progress.

SolarEdge developed an intelligent inverter solution that changed the way power is harvested and managed in photovoltaic (PV) systems. The SolarEdge DC optimized inverter maximizes power generation while lowering the cost of energy produced by the PV system.

Continuing to advance smart energy, SolarEdge addresses a broad range of energy market segments through its PV, storage, EV charging, UPS, and grid services solutions.

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