SolarEdge TerraMax™ Inverter & H1300 Power Optimizer

For North America

SolarEdge TerraMax™ Inverter
330kW

H1300 Power Optimizer

Specially designed for ground mount installations, featuring a unique virtual central topology with single DC input architecture and module-level MPPTs

- **More Energy**
  - 99% efficiency
  - 200% DC oversizing
  - 100% power at high temperature levels
  - Granular MPPT with DC optimization
- **Higher BoS Savings**
  - Longer and fewer strings, with up to 80 modules per string
  - Enables virtual central topology
  - Up to 50% BoS savings
- **Lower O&M Costs**
  - Fewer truck rolls with continuous and granular monitoring
  - 100% visibility into system issues
  - Reduced project schedule risks with pre-commissioning feature
- **Safe and Secure**
  - Designed with cybersecurity features and multilayered protection from inverter to cloud
  - Built-in SafeDC™: designed to automatically reduce high DC voltage to touch-safe levels in the event of faults and maintenance activities

/ Inverter Technical Specifications

SE330KUS

	SE330KUS	Unit
OUTPUT		
Rated AC Active Output Power	330,000 @ 45°C / 113°F	W
Maximum Apparent AC Power Output	330,000 @ 45°C / 113°F	VA
AC Output Voltage - Line to Line (Nominal)	690	Vac
AC Output Voltage - Line to Line (Range)	587 – 759	Vac
AC Frequency	60 ± 5%	Hz
Maximum Continuous Output Current (per Phase) @Nominal Voltage	276.1	Aac
AC Output Line Connections	3PH 3W + PE	
Total Harmonic Distortion	≤3	%
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes	
Power Factor Range	0 – 1 / leading, lagging	
INPUT		
Maximum DC Power (Module STC)	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 / CEC Efficiency	99.2 / 99.0	%
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	
RS485 Surge Protection	Optional	
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	
Central Commissioning	Automated easy commissioning for several inverters at once	
VAR at Night	Yes	
STANDARD COMPLIANCE		
Safety	UL 1741, UL 1998, CSA C22.2#107.1	
Grid Connection Standards	UL 1741SA, UL 1741SB, IEEE 1547, Rule 21, Rule 14	
Emissions	FCC Part 15, Class A	
Advanced Grid Support Capabilities	L/HFRT, L/HVRT, VOLT-VAR, VOLT-Watt, Frequency-Watt, Ramp Rate Control, Fixed Power Factor, Fixed Q, Cos(Phi)/Watt	
RoHS	Yes	
GENERAL DATA		
Dimensions (W x H x D)	1090 x 903 x 409 / 42.9 x 35.6 x 16.1	mm / in
Weight	175 / 386	kg / lb
Operating Temperature Range(1)	-40 to +60 / -40 to +140	°C / °F
Cooling	Fans (field replaceable)	
Noise Emission	< 72	dBA
Protection Rating	IP66	
Mounting	Bracket provided	
Topology	Transformerless, ungrounded	
AC Connection(2)	Up to 2 x 2.5'' conduit, terminal lugs, max. 600 kcmil per wire, Al or Cu	
DC Connection(3)(4)	Up to 2 x 3'' conduit, terminal lugs, max. 600 kcmil per wire, Al or Cu	

(1) For ambient temperatures above +45°C / 113°F power derating is applied. Refer to the Temperature Derating Technical Note for more details.
(2) Two AC terminals per line are available.
(3) Up to two DC terminals (+, -) are available.
(4) A DC input with MC4 connectors supporting up to 20 strings is available upon request.

CE RoHS

/ Power Optimizer Technical Specifications

H1300

	H1300 (FOR CONNECTION TO TWO PV MODULES)	Unit
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 Short Circuit Current per Input (Isc)	15	Adc
Maximum Efficiency	99.5	%
Weighted Efficiency	98.8	%
Overvoltage Category	II	
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)		
Maximum Output Current	20	Adc
Maximum Output Voltage	75	Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED TO OPERATING SOLAREDGE)		
Safety Output Voltage per Power Optimizer	1 ± 0.1	Vdc
STANDARD COMPLIANCE		
EMC	FCC Part 15 Class A	
Safety	UL 1741, CSA C22.2#107.1, CSA C22.2#330	
Material	UL 94 V-0, UV resistant	
RoHS	Yes	
Fire Safety	VDE-AR-E 2100-712:2013-05	
INSTALLATION SPECIFICATIONS		
Compatible SolarEdge Inverters	SE330KUS	
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/Output Connector[2]	MC4	
Input Wire Length	1.6, 1.6 / 5.25, 5.25	m / ft
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.

		SE330KUS	
Minimum String Length[4] (Power Optimizers/Modules)	Module Power		
	400 – 450W	27 / 54	
	455 – 550W	24 / 48	
	555 – 650W	22 / 44	
Maximum String Length (Power Optimizers/Modules)		40 / 80	
Maximum Continuous Power per String		25,000	W
Maximum Allowed Connected Power per String[5]		33,000	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 use a lower minimum string length and/or connect more STC power per string.
(5) A minimum of 14 strings must be connected. For 13 strings or less, 29,000W is allowed.

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