

HD WAVE INVERTERS

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SolarEdge HD Wave



Inversores SolarEdge monofásicos

The **SolarEdge DC-AC PV inverter** is specifically designed to work with the **SolarEdge power optimizers**. Because MPPT and voltage management are handled separately for each module by the power optimizer, the inverter is only responsible for DC to AC inversion. Consequently, it is a less complicated, more cost effective, more reliable solar inverter with a standard 12 year warranty, extendable to 20 or 25 years. The fixed string voltage ensures operation at the highest efficiency at all times independent of string length and temperature.

In addition to its functionality as a DC-optimized inverter, the single phase inverter also manages battery and system energy as part of SolarEdge's battery storage solution.

Feature Highlights:

- Solar inverters specifically designed to work with power optimizers
- 2.2kW to 6kW inverter range
- Superior efficiency
- Standard 12-year warranty (extendable to 20 or 25 years)

- Built-in module-level monitoring receiver
- Communication to internet via Ethernet, wireless (Wi-Fi or ZigBee) or cellular connection
- Supports PV and battery management as part of the StorEdge solution
- IP65 / NEMA 3R – Outdoor and indoor installation

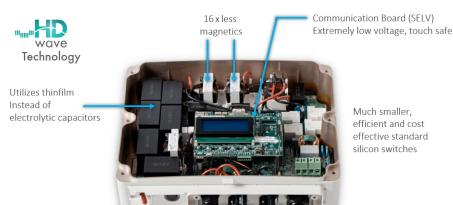
HD-Wave – A New Era for PV Inverters: ≤6kW, ≤10kg, 99% Efficiency

SolarEdge's HD-Wave technology inverter, winner of the prestigious 2016 Intersolar award, breaks the mold of traditional inverters. Using a novel power conversion technology that is based on a distributed switching and powerful DSP processing, the HD-Wave technology inverter is able to synthesize a clean sine wave that leads to a dramatic reduction in the magnetics and heavy cooling elements. This small and lightweight inverter enables simplified shipping and storing and one-person installation. The record-breaking efficiency allows more energy production for an improved ROI.

Additional HD-Wave Feature Highlights:

- Small lightweight and easy to install at <10kg
- 99% weighted efficiency (33%-50% less losses than the market standard)
- Superb reliability due to lower heat dissipation and film capacitors instead of electrolytic capacitors
- Up to 155% oversizing allowed
- Backward compatible with existing SolarEdge systems

HD-Wave Technology Components





HD-Wave vs. Traditional Technology

HD-Wave Technology	Traditional Technology
1) Distributed multi-level switching elements create a sine wave. Powerful DSP processor synthesizes a clean sine wave.	1) Today, inverter switching elements create a crude sine wave
2) Less magnetics are required for filtering	2) Magnetics filter a sine wave
3) Highly efficient design with minimal heat loss reduces cooling requirements	3) Metallic enclosures, cooling systems and fans dissipate heat

SPECIFICATIONS

SE2200H SE3000H SE3500H SE4000H SE5000H SE6000H

OUTPUT

Rated AC Power Output	VA	2200	3000	3500	4000	5000 (1)	6000
Máximum AC Power Output	VA	2200	3000	3500	4000	5000 (1)	6000
AC Output Voltage (Nominal)	Vac	220 / 230					
AC Output Voltage Range	Vac	184 - 264,5					
AC Frequency (Nominal)	Hz	50 / 60 ± 5					
Max. Continuous Output Current	A	10	14	16	18,5	23	27,5
Residual Current Detector / Step detector	mA	300 / 30					
Protections,	Utility monitoring, Islanding Protection, Country configurable Thresholds						

INPUT

Maximum DC Power (Module STC)	W	3400	4650	5425	6200	7750	9300
Transformer-less, Ungrounded		Yes					
Maximum input voltage	Vdc	480					
Nominal DC input voltage	Vdc	380					
Maximum Input	A _{dc}	6.5	9	10	11.5	13.5	16.5

maximum input Current	AC	0,5	5	10	11,5	13,5	16,5
Reverse-polarity protection					Yes		
Ground-Fault isolation detection					600kΩ Sensitivity		
Maximum inverter efficiency	%				99,2		
European Weighted efficiency	%	98,3			98,8		99
Nighttime Power Consumption	W				<2,5		

ADDITIONAL FEATURES

Supported Communication Interfaces (3)	RS485, Ethernet, ZigBee (optional), Wi-Fi (optional), Built-in GSM (optional)
Smart Energy Management	Export Limitation, StorEdge applications

STANDARD COMPLIANCE

Safety	IEC 62109, AS-3100
Grid Connection Standards	AS-4777, VDE-AR-N-4105, VDE 0126-1-1, UTE C15-712, G83/2, G59/3, CEI-021, EN 50438, IEC61727, IEC62116, ÖNORM, TF3.2.1, C10-11, NRS 097-2-1
Emissions	IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12, FCC part15 class B
RoHS	Yes

INSTALLATION SPECIFICATIONS

AC Output	mm	Cable Gland - diameter 9-16
AC - Supported Wire Cross Section	mm ²	1 - 16
DC Input		1 MC4 pair 2 MC4 pairs
Dimensions	mm	280 x 370 x 142
Weight	Kgr	9,5
Noise		< 25
Cooling		Natural convection
Noise	dBA	<25
Operating temperature range	°C	-20 +60 (2) (-40 optional)
Protection Rating		IP65 - Outdoor and Indoor
Bracketed mounted		Provided

- (1) Limited to 4600VA when inverter is to Germany
(2) De-rating from 50 °C

Refer to Datasheets -> Communications category in Downloads page for specifications

of optional communication options:
<http://www.solaredge.com/groups/support/downloads>