

# HD WAVE SINGLE PHASE

SolarEdge's HD-Wave technology inverter, winner of the prestigious 2016 Intersolar award, breaks the mold of traditional inverters.



SolarEdge SE HD Wave



Inversores SolarEdge monofásicos



StorEdge SE HD Wave



SolarEdge HD Wave VE

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
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- 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:

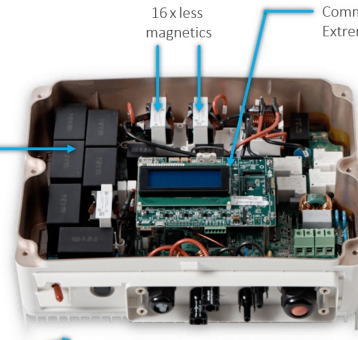
- Small lightweight and easy to install at <10kg
- 99% weighted efficiency (33%-50% less losses than the market standard)
- Superb reliability due to lower heat dissipation and film capacitors instead of electrolytic capacitors
- Up to 155% oversizing allowed
- Backward compatible with existing SolarEdge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

## HD-Wave Technology Components



Utilizes thinfilm  
Instead of  
electrolytic capacitors

2.5 x less cooling  
elements



16 x less  
magnetics

Communication Board (SELV)  
Extremely low voltage, touch safe

Much smaller,  
efficient and cost  
effective standard  
silicon switches

## 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
<b>OUTPUT</b>							
Rated AC Power Output	VA	2200	3000	3500	4000	5000 <sup>(1)</sup>	6000
Máximo AC Power Output	VA	2200	3000	3500	4000	5000 <sup>(1)</sup>	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
Total Harmonic Distortion (THD)		< 3					
Power Factor		1, adjustable between -0,9 to 0,9					
Protections,		Utility monitoring, Islanding Protection, Country configurable Thresholds					
<b>INPUT</b>							
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 Current	Adc	6,5	9	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					
<b>ADDITIONAL FEATURES</b>							
Supported Communication Interfaces <sup>(3)</sup>		RS485, Ethernet, ZigBee (optional), Wi-Fi (optional), Built-in GSM (optional)					
Smart Energy Management		Export Limitation, StorEdge applications					
Inverter commissioning		With the SetApp mobile application using built in Wi-Fi station for local connection					
Arc Fault protection		Integrated, User Configurable (According to UL1699B)					
<b>STANDARD COMPLIANCE</b>							
Safety		IEC-62109-1/2					
Grid Connection Standards		IEC61727, IEC62116, EN 50438, VDE-AR-N-4105, VDE 0126-1-1, UTE_C_15-712, G98, G99, CEI-021, ÖNORM, TF3.2.1, C10-11, NRS 097-2-1					
Emissions		IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12, FCC Part 15 Class B					
RoHS		Yes					
<b>INSTALLATION SPECIFICATIONS</b>							
AC Output	mm	Cable Gland - diameter 9-16					
AC - Supported Wire Cross Section	mm <sup>2</sup>	1 - 16					
DC Input		1 MC4 pair			2 MC4 pairs		
Dimensions	mm	280 x 370 x 142					
Weight	Kgr	7,8	7,8	7,8	7,8	9	10,6
Noise		< 25					
Cooling		Natural convection					
Operating temperature range	°C	-20 +60 <sup>(2)</sup> (-40 optional)					
Protection Rating		IP65 - Outdoor and Indoor					
Bracketed mounted		Provided					

<sup>(1)</sup> Limited to 4600VA when inverter is to Germany

<sup>(2)</sup> De-rating from 50 °C

SolarEdge HD Wave inverters are available in a Storage (including SESTI inside the same box) and in a EV vehicle for electrical vehicle recharge and energy management.

## DOWNLOADS

CATÁLOGO GENERAL 2020

 [Catalogo-Bornay-0520.pdf](#)

Size: 21.51 MiB