power-one®
Changing the Shape of Power

AURORA®
Wind Inverters

General Specifications
Outdoor Models

PVI-6000-OUTD-US-W

Optional Wind interface Box

High-Efficiency, 6kW Inverter

Aurora® grid-tie transformerless inverters offer a unique combination of ultra-high efficiencies, installer-friendly designs, long service life, and competitive initial acquisition costs; significantly increasing return on investment in wind-power installations.

Industry-Leading Features and Performance

- High efficiencies deliver more energy – up to 97% (96.5 CEC).
- MPPT optimize power from eolic generator.
- PMG (Permanent Magnet Generator) Power Curve implemented in high speed MPPT

Unmatched Applications Flexibility

- Full-rated power available up to 50 °C ambient temperature.
- Wide MPPT operating range: 50 to 580VDC

Field-Proven Reliability

- IP65 (NEMA 4) rated enclosure withstands the harshest environmental conditions.
- Front-mounted heatsink resists contamination, enhancing cooling and increasing reliability and long-term efficiency.
- Grid-connected operation in accorging to international standard UL1741/IEEE1547
- Five-year warranty, optionally extendable to ten years.

Installer Friendly

- Reverse-polarity protection minimizes potential damage caused by miswiring during installation.
- Front-panel mounted LCD display provides real-time updates for all critical operating parameters.
- RS-485 and USB communications interfaces.
- Anti-islanding protection

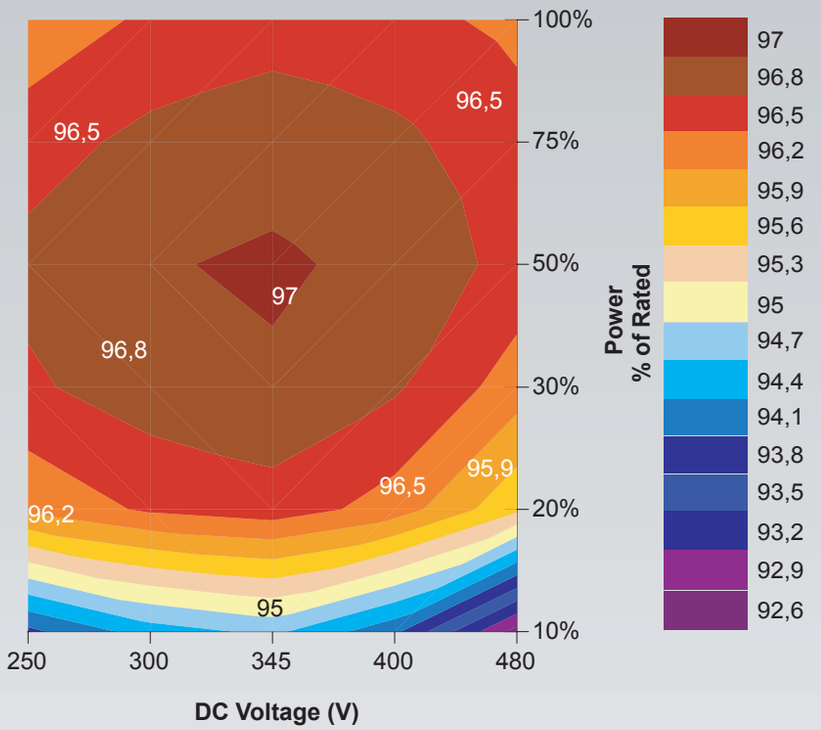
Model	AC Power
PVI-6000-OUTD-US-W	6kW
Options	
Aurora Communicator software simplifies monitoring via PC. Aurora Easy Control datalogger is available for remote control via Internet, modem.	
Optional interface box	

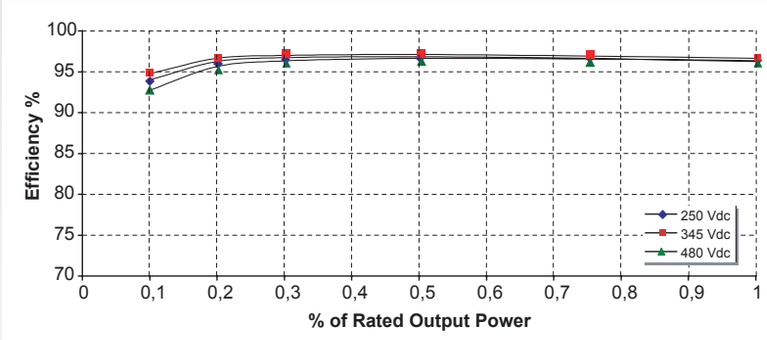
Renewable Energy Division

High Efficiencies Across a Broad Range of Operating Conditions

PVI-6000-OUTD-US-W inverter works with nominal output voltage, at up to 97% efficiency.

The graph to the right demonstrates the high efficiencies, across a continuous range of input voltages and load conditions, for the PVI-6000. The graph below depicts the industry-leading performance at three discrete MPPT-voltage reference points, and a continuous range of load conditions.





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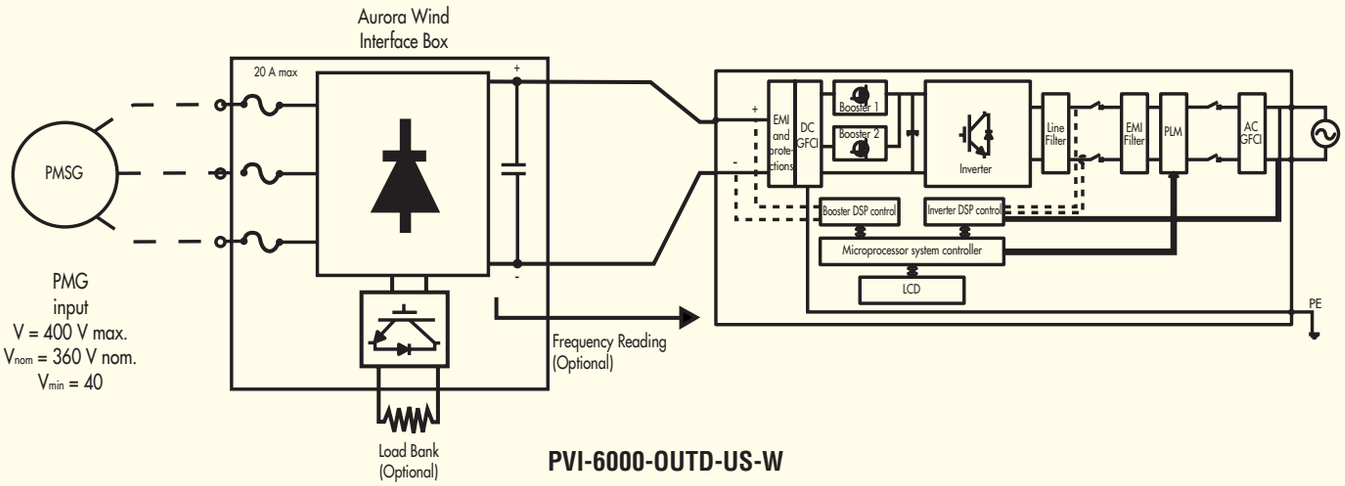
SPECIFICATIONS	PVI-6000-OUTD-US-W
INPUT PARAMETERS (DC Side)	
Nominal DC Power [kW]	6.18
Total Max. Recommended DC Power [kW]	6.4
Operating MPPT Input Voltage Range [V]	50 to 580 (360 nominal)
Full Power MPPT Range [V]	180-530
Max. Input Voltage [V]	600
Activation voltage [V]	200 nominal (adjustable within 50-350)
No of Independent MPPT Trackers	1
No. of DC Inputs	1
Max. DC Current, each MPPT [A]	36 (44 short circuit)
Thermally Protected DC Side Varistor	4
DC Connections	4 (2 positive ; 2 negative) screw terminal block Wire size: Solid from AWG 20 to AWG 6 / Stranded from AWG 20 to AWG 8 Cable gland : M25-cable diameter 3/8" to 11/16"
OUTPUT PARAMETERS (AC Side)	
Nominal AC Power [kW]	6
Max. AC Power [kW]	6
AC Grid Connection	single phase 208/277 - splite phase 240
Nominal AC Voltage Range [V]	Default - 240V; Optional 208 or 277V (setting required)
Maximum AC Voltage Range [V]	187.2-224.6 ; 216-25.2 ; 249.3-299.2
Nominal AC Frequency [Hz]	60
Max. AC Line Current [A]	24/20/18 (30 short circuit)
AC Side Varistor	2 (Live - Neutral / Live - PE)
AC Connection	Screw terminal block Wire size: Solid from AWG 20 to AWG 6 / Stranded from AWG 20 to AWG 8 Cable Gland: M25 - Cable diameter 3/8" to 11/16"
Line Power Factor	1
AC Current Distortion (THD)	<2% at rated power with sine wave voltage
Max. Efficiency	97%
CEC Efficiency	96.5%
Feed In Power Threshold [W]	20
Nighttime Consumption [W]	< 2
Isolation	No (Transformerless)
ENVIRONMENTAL PARAMETERS	
Cooling	Natural cooling
Ambient Temp. Range [°C]	-25 / + 60 (output power derating above 50 °C)
Operating Altitude [ft]	6,000
Acoustical Noise [dBA]	< 50 @ 1mt
Environmental IP Rating	IP65
Relative Humidity	0-100% condensing
MECHANICAL	
Dimensions (HxWxD) [mm]	740x325x195 (29 1/8" x 12 13/16" x 7 11/16")
Weight [kg]	27 (57,3 lbs)
OTHER	
Display	YES (Alphanumeric 2 lines)
Communication	RS485 (Spring terminal block - Conductor cross section: AWG28-16) USB connection (Service) "Aurora Easy-Control" system for remote control (Optional)

Standards and Codes

Aurora inverters comply with standards set for grid-tied operation, safety, and electromagnetic compatibility including: UL1741& CSA -C22.2 N.107.1-01, VDE0126, CEI 11-20, DK5940, CEI64-8, IEC 61683, IEC 61727, EN50081, EN50082, EN61000, CE certification, El Real Decreto RD1663/2000 de España.

Block Diagram and Operating Configurations



PVI-6000-OUTD-US-W

Inverter electrical block diagram

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