

General Specifications Outdoor Models

PVI-5000-OUTD-US PVI-6000-OUTD-US

High-Efficiency, 5kW to 6kW Inverters

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 solar-power installations.

Industry-Leading Features and Performance

- High efficiencies deliver more energy – up to 97% (96,5 CEC).
- Two inputs with independent MPPTs, optimize power from multiple arrays oriented in different directions.
- Compact size and high power density: 6000W max of output power in a box just 38 5/8" x 12 13/16 x 7 11/16"

Unmatched Applications Flexibility

- Full-rated power available up to 50°C ambient temperature.
- Dual input sections with parallel option, with independent high-speed MPPTs, optimize energy harvesting from multiple arrays oriented in different directions.
- Wide MPPT operating range: 90 to 580VDC

Field-Proven Reliability

- IP65 (NEMA 4) rated enclosure withstands the harshest environmental conditions.
- Front-mounted heat sink resists contamination, enhancing cooling and increasing reliability and long-term efficiency.
- Grid-connected operation according to international standards, UL1741/IEEE1547 & CSA-C22.2 N.107.1-01
- Ten-year warranty, optionally extendable to fifteen and twenty years.



Installer Friendly

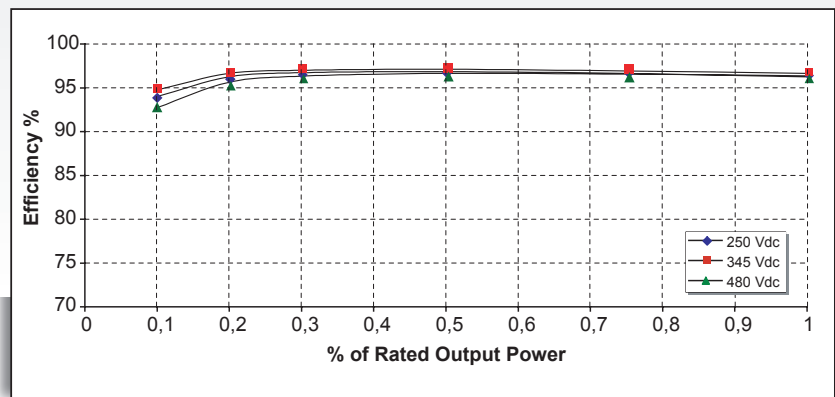
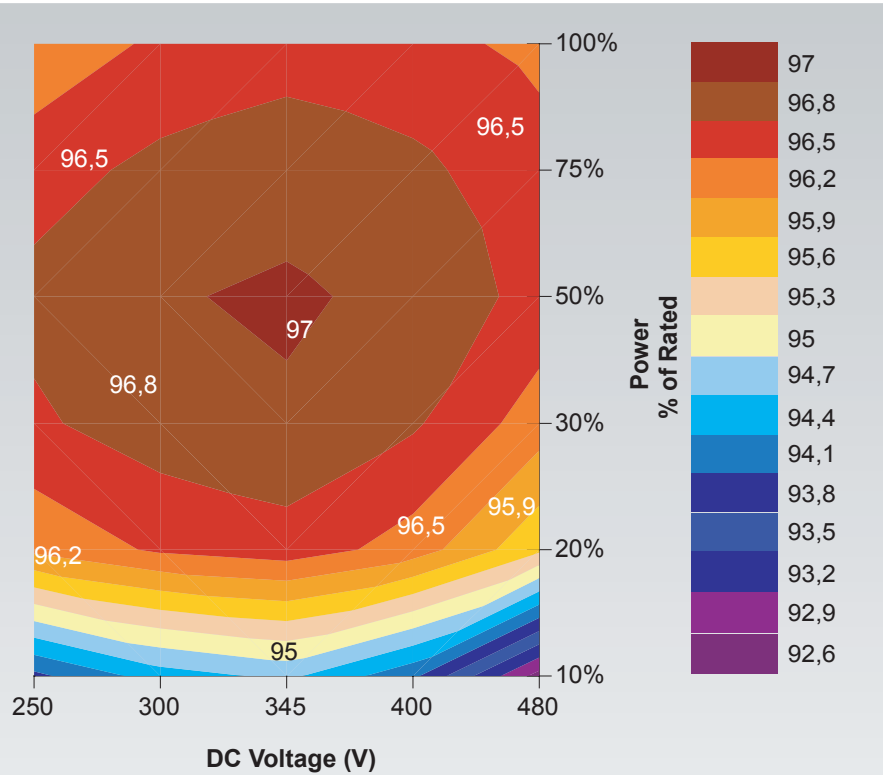
- Reverse-polarity protection minimizes potential damage caused by miswiring during installation.
- Front-panel mounted LCD display provides real-time updates for all critical operating parameters.
- RS-485 and USB communications interfaces.
- Integrated DC switch available in compliance with NEC Standard, Article 690 "Solar Photovoltaic System" (USA)
- Anti-islanding protection

Models	AC Power
PVI-5000-OUTD	5kW
PVI-6000-OUTD	6kW
Options	
Aurora Communicator software simplifies monitoring via PC. Aurora Easy Control datalogger is available for remote control via Internet, modem or GSM	

High Efficiencies Across a Broad Range of Operating Conditions

PVI-5000 and PVI-6000 inverters provide 208/240/277 Vac selectable outputs, at up to 97% efficiency (CEC 96.5). The graph to the right demonstrates the high efficiencies, across a continuous range of input voltages and load conditions, for the PVI-6000.

The graphs below depict the industry-leading performance of all models at three discrete MPPT-voltage reference points, and a continuous range of load conditions.

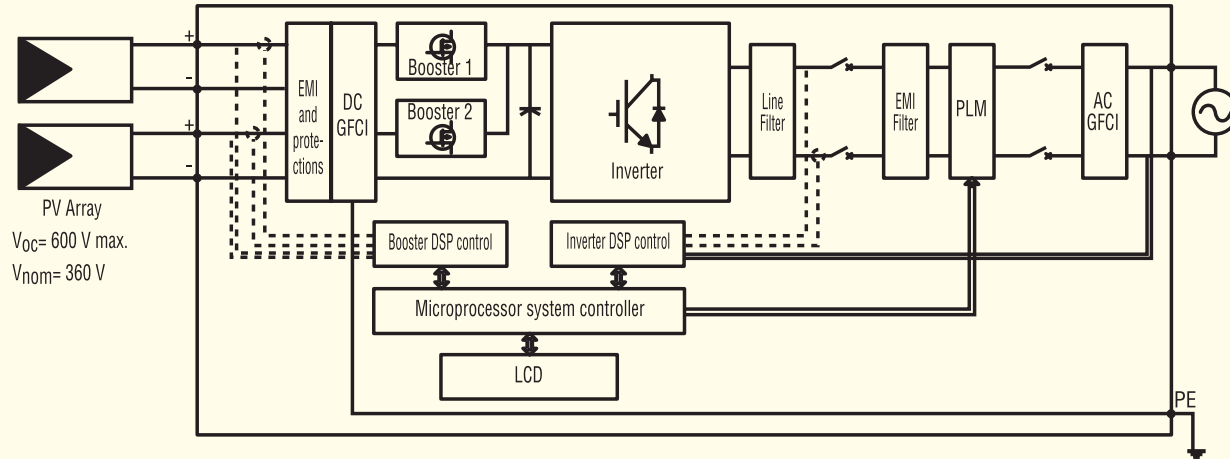


SPECIFICATIONS	PVI-5000-OUTD	PVI-6000-OUTD
INPUT PARAMETERS (DC Side)		
Nominal DC Power [kW]	5.15	6.18
Total Max. Recommended DC Power [kW]	5.3	6.4
Operating MPPT Input Voltage Range [V]	90 to 580 (360 nominal)	
Full Power MPPT Range [V]	140-530	170-530
Max. Input Voltage [V]	600	
Activation Voltage [V]	200 nominal (adjustable within 120-350)	
No Of Independent MPPT Trackers	2	
Max. Input Power, Each MPPT [kW]	4	4
No. Of DC Inputs	2 (1 each MPPT)	2 (1 each MPPT)
Max. DC Current, Each MPPT [A]	18 (22 short circuit)	18 (22 short circuit)
Thermally Protected DC Side Varistor	4 (2 for each MPPT)	
DC Switch	Integrated (Rating: 600Vdc/25A)	
DC Connections	4 (2 POSITIVE, 2 NEGATIVE) SCREW TERMINAL BLOCK 3 KNOCK-OUTS: G1&1/2" or G1" (using ring reduction) CONDUCTOR CROSS SECTION : MAX AWG4	
OUTPUT PARAMETERS (AC Side)		
Nominal AC Power [kW]	5000	6000
Max. AC Power [kW]	5000	6000
AC Grid Connection	single phase / split phase	
Nominal AC Voltage Range [V]	Default : 240V split phase Optional : 208 or 277 single phase (setting required)	
Maximum AC Voltage Range [V]	187.2-224.6 ; 216-259.2 ; 249.3-299.2	
Nominal AC Frequency [Hz]	60	
Max. AC Line Current [A]	24; 20;18 (30 short circuit)	29; 25;21.6 (30 short circuit)
AC Side Varistor	2 (Live - Neutral / Live - PE)	
AC Connection	SCREW TERMINAL BLOCK 3 KNOCK-OUTS: G1&1/2" or G1" (using ring reduction) CONDUCTOR CROSS SECTION : AWG4/8	
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	
Night Time Consumption [W]	< 2	
Isolation	Transformer-less	
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) [Inches]	38 5/8" x 12 13/16" x 7 11/16"	
Weight [lbs]	66	
OTHER		
Display	YES (Alphanumeric 2 lines)	
Communication	RS485 (Spring terminal block - Conductor cross section: 0,08-1,5mmq/AWG28-16) USB connection (Service) "Aurora Easy-Control" system for remote control (Optional)	

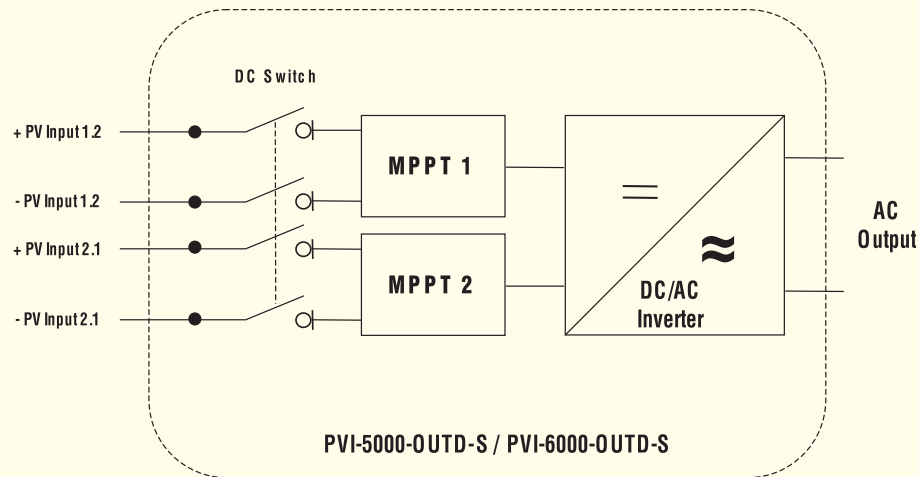
Standards and Codes

Aurora inverters comply with standards set for grid-tied operation, safety, and electromagnetic compatibility including: UL1741/IEEE1547 & 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



Inverter electrical block diagram



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