

AURORA® Photovoltaic Inverters



General Specifications Outdoor models PVI-5000-OUT-US PVI-6000-OUT-US

AURORA® BENEFITS

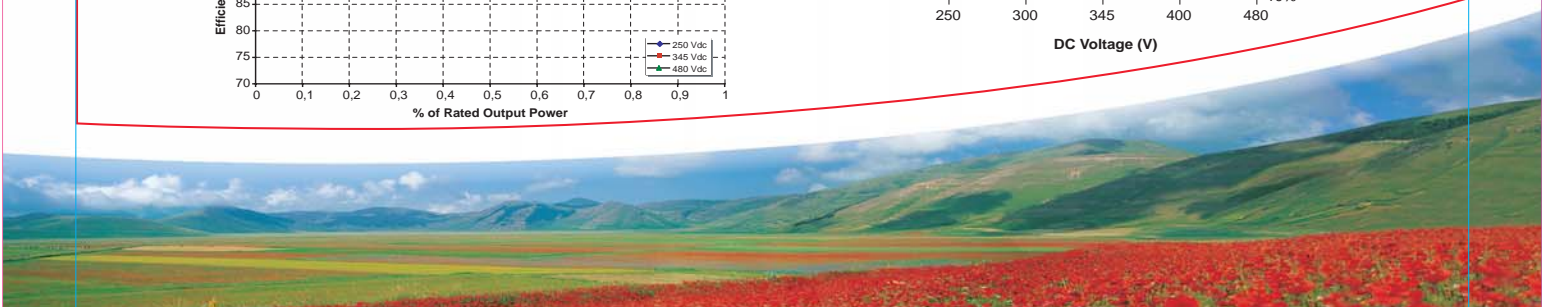
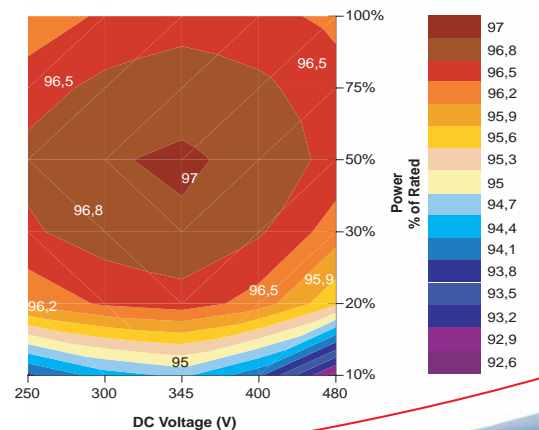
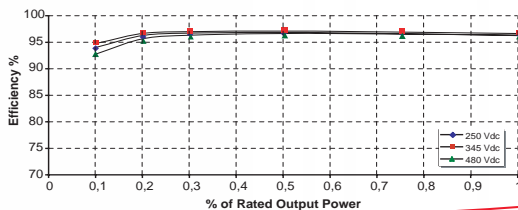
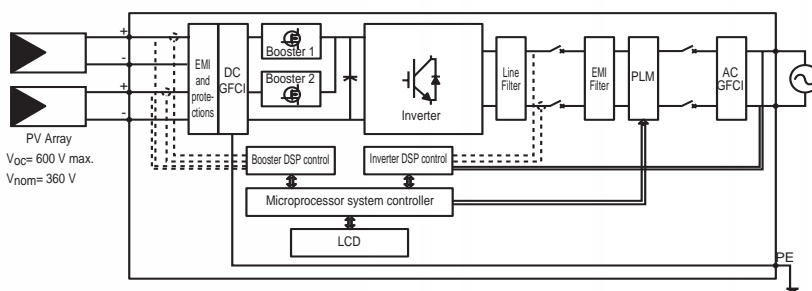
- Dual input section to process two strings with independent MPPT (6000W max models)
- IP65 (NEMA 4) ruggedized, completely sealed unit to stand the harshest environmental conditions
- High speed MPPT for real time power tracking and improved energy harvesting
- Compact size and high power density: 6000W (6000W max) of output power in a box just 981,5mm x 325mm x 195mm
- Front heatsink keeps the unit cleaner and more efficient over time
- Transformerless operation for highest efficiency: up to 97% (96,5% C.E.C)
- DC disconnect switch (2 x 25A/600Vdc) meet NEC Standard, Article 690 "Solar Photovoltaic System"
- Reverse polarity protection minimizes chance of damage due to mis-wiring
- High overload capability: works up to 6000W under most ambient conditions
- True Sine Wave Output
- Anti-islanding Protection
- Certified grid connected operation according to UL1741 & CSA-C22.2 N.107.1-01
- LCD Display on the front to monitor the main parameters
- Integrated RS-485 serial communication



HIGH PERFORMANCE REDEFINED

The revolutionary switching technology utilized in the Aurora inverter includes state-of-the-art for silicon Power Devices such, CoolMOS™ and Insulated Gate Bi-polar Transistors (IGBT's) to reduce switching losses. Aurora has been designed with large de-rating criteria on all critical components, achieving an extremely robust and reliable inverter designed to last for 25 years and to deliver true maximum output power on a continuous basis. With this design concept we achieve peak efficiencies of over 97% . Total current harmonic distortion, on the other hand, is typically less than 1% through the use of high-frequency switching techniques. Another exclusive advantage is Aurora's two source circuit inputs, each with its own MPPT (Max Power Point Tracker) for installations with multiple arrays.

BLOCK DIAGRAM AND TYPICAL EFFICIENCY



CHARACTERISTICS	PVI-5000-OUTD	PVI-6000-OUTD
Power Rating Ac [W]	5000	6000
Absolute Max Voltage [Vdc]	600	
Max. Power Tracking Window range [Vdc]	90 to 580 (360 nominal)	
Array Configuration (Max. Idc =18 A for each channel)	One or two arrays with common negative and independent MPPT	
Nominal AC Voltage (Range) [Vrms]	Single phase 208; 240; 277 (setting required)	
Nominal AC Frequency [Hz]	60	
Line Power Factor	1	
Maximum AC Line Current [Arms]	30	
AC Current Distortion [%]	<2% THD at rated power with finewave voltage	
Max Efficiency [%]	97 (96,5% C.E.C)	
Tare Losses [mW]	<300mW	
Operating Ambient Temperature [°C]	-25 to +60	
Enclosure Environmental Rating	NEMA 4X	
Relative Humidity	0-100% condensing	
Elevation	derated above 2.000 m (6,600ft)	
Audible Noise [dBA]	<50@ 1m	
Size (height x width x depth) [mm]	981,5mm x 325mm x 195mm	
Weight [kg]	30	

MODEL SUMMARY

Model Number	Power
PVI-5000-OUTD	5000W
PVI-6000-OUTD	6000W

SMART CONTROLS

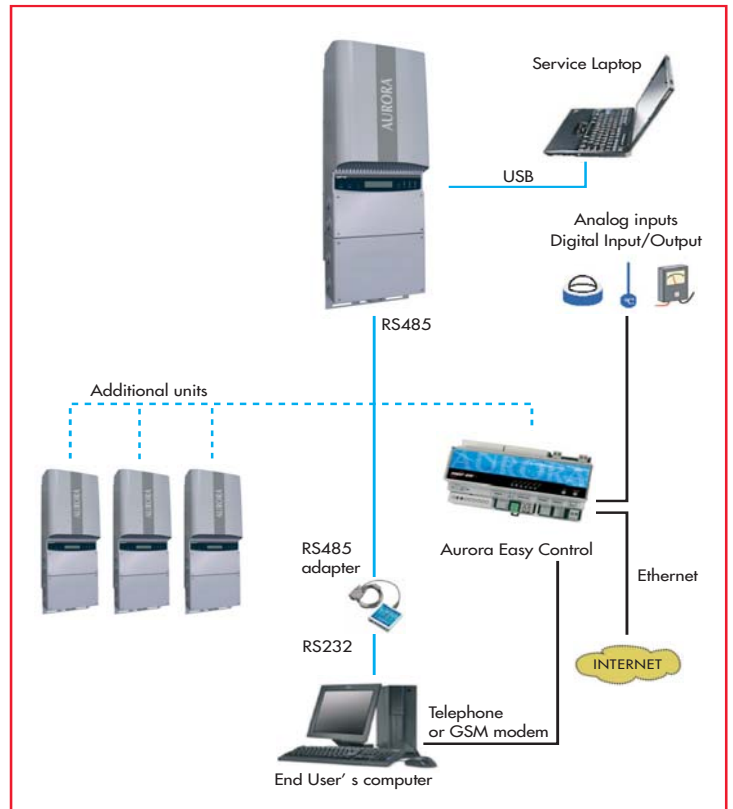
Aurora controls are DSP (Digital Signal Processor) based with sophisticated control and self-diagnostic algorithms. A LCD display shows the main operational parameters. Three LED's indicate the operating status.

BEST IN CLASS COMMUNICATION CAPABILITIES

Aurora offers integrated RS-485 communication, with additional USB port for quick field access. The optional Aurora Easy Communication system allows remote monitoring of the whole plant via the Internet, analog modem, or GSM modem.

STANDARDS AND CODES

Aurora inverters comply with standards set for grid-tied operation, safety and electromagnetic compatibility including: CSA certified according to UL1741 & CSA-C22.2 N.107.1-01, VDE0126, CEI 11-20 IV ed, DK5940, IEC 61683, IEC 61727, EN50081, EN50082, EN61000, CE certification.



Rev. 1.6 - 28/01/08 - Aurora is a trademark by Power-One - Product is subject to technical improvements

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