

AURORA[®]

Photovoltaic Inverters



General Specifications

Indoor models

PVI-3600

PVI-2000

AURORA[®] BENEFITS

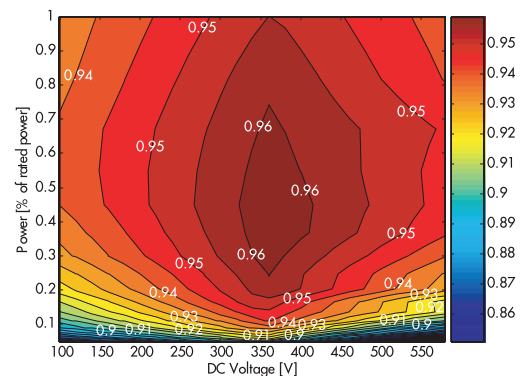
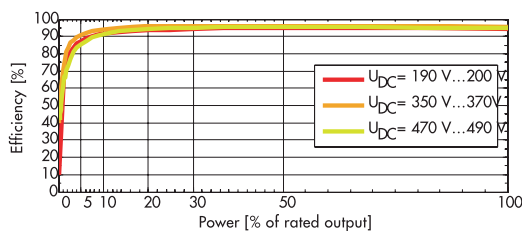
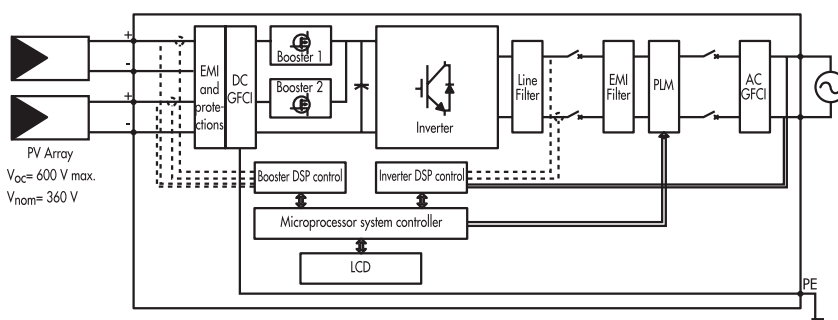
- Dual input section to process two strings with independent MPPT (3600W models)
- Robust IP21 (NEMA 2) indoor enclosure and conformal coating of the boards to stand harsh environmental conditions
- High speed, advanced MPPT controls for maximum energy harvesting
- Very compact and light design for ease of installation: 3600W of output power in a box just 440mm x 465mm x 57mm weighting less than 7.5kg (16,5 lbs)
- Graphical LCD Display on the front panel with integrated data logger
- Transformerless operation for highest efficiency: up to 96%
- Reverse polarity protection minimizes chance of damage due to mis-wiring
- True Sine Wave Output
- Anti-islanding protection
- Certified grid connected operation according international standards
- Embedded RS232 and RS485 serial links and remote communication options (PLM, Dial-up modem, GSM and Ethernet)



HIGH PERFORMANCE REDEFINED

The switching technology utilized in the Aurora inverters includes state-of-the-art for silicon Power Devices such as Silicon Carbide Diodes, CoolMOSTM 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 more. With this design concept we achieve peak efficiencies of over 96%. Total current harmonic distortion, on the other hand, is typically less than 2% 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 (available on the PVI-3600 model only).

BLOCK DIAGRAM AND TYPICAL EFFICIENCY



CHARACTERISTICS	PVI-2000	PVI-3600
Power Rating Ac [W]	2000	3600
Absolute Max Voltage range [Vdc]	0 to 600 (360 nominal)	
Max. Power Tracking Window range [Vdc]	90 to 580 (360 nominal)	
Array Configuration (Max. Idc=10A for each channel)	One array	One or two arrays with common negative and independent MPPT
Nominal AC Voltage (Range) [Vrms]	Single-phase 185-264 (may vary to comply with regulations in each country)	
Nominal AC Frequency [Hz]	50/60	
Line Power Factor	1	
Maximum AC Line Current [Arms]	9	16
AC Current Distortion [%]	<2.5% THD at rated power with sinewave voltage	
Max Efficiency [%]	96 (Euro 95)	
Tare Losses [mW]	<300	
Operating Ambient Temperature [°C]	-25 to +55	
Enclosure Environmental Rating	IP21 / NEMA 2	
Relative Humidity	0-95% non condensing	
Elevation	Derated above 6,600ft (2000m)	
Audible Noise [dBA]	< 30 @ 1m (<50 @ 1m with fans at max speed)	
Size (height x width x depth) [mm]	440 x 465 x 57	
Weight [kg]	6	7.5

MODEL SUMMARY	
Model Number	Power
PVI-3600	3600W
PVI-2000	2000W

ACCESSORY LIST	
Accessory	Description
PVI-PLM	PLM card
PVI-SC	Cage clamp assembly kit
PVI-PLMREC	PLM receiver card
PVI-RS232485	RS232485 Converter

SMART CONTROLS

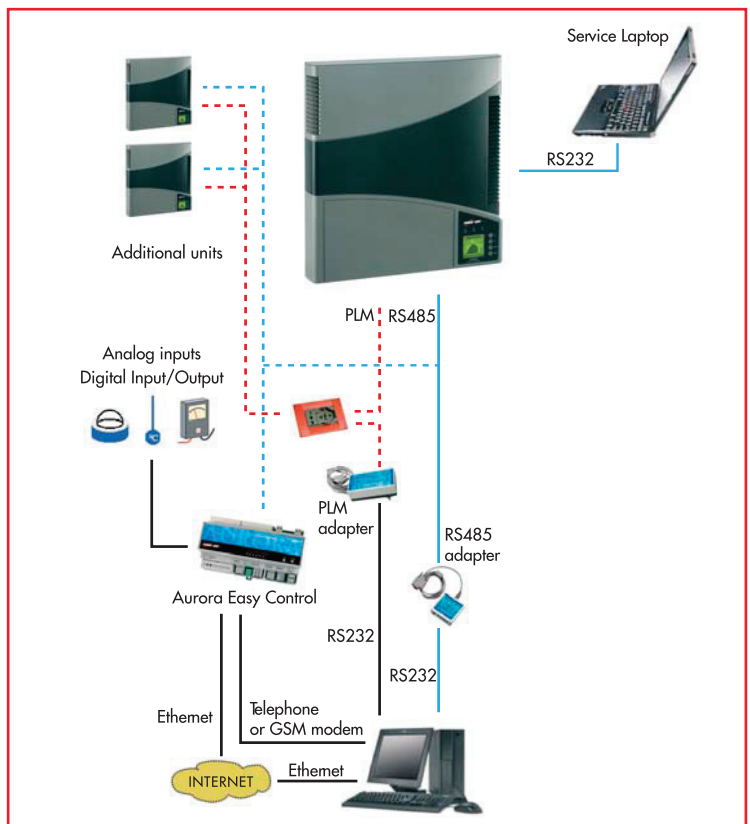
Aurora controls are DSP (Digital Signal Processor) based with sophisticated control and self-diagnostic algorithms. A 128 x 128 graphical LCD display shows the unit's operating status, its performance and diagnostic messages. Four scrolling keys on the front panel of the unit are used to navigate menus for data display and parameter settings.

BEST IN CLASS COMMUNICATION CAPABILITIES

Aurora features a communication link by means of a built-in RS232, RS485 serial ports. Moreover the Aurora Easy control system (on demand) allows remote monitoring of the installation through Internet, analog or GSM modems.

STANDARDS AND CODES

Aurora inverters comply with standards set for grid-tied operation, safety and electromagnetic compatibility including: UL1741 (only PVI-3600-OUTD model), VDE0126, CEI 11-20 IV ed, DK5940, IEC 61683, IEC 61727, EN50081, EN50082, EN61000, CE certification Australian AS4777



Rev. 1.5 - 12/04/07 - Aurora is a trademark by Power-One - Product is subject to technical improvements