

# AURORA<sup>®</sup>wind

## Photovoltaic Inverters



### General Specifications

#### Outdoor models

PVI-6000-OUTD-US-W

PVI-6000-OUTD-IT-W

PVI-6000-OUTD-ES-W

PVI-6000-OUTD-UK-W

### AURORA<sup>®</sup> BENEFITS

- 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 740mm 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% Euro; 96,5% C.E.C.)
- Reverse polarity protection minimizes chance of damage due to mis-wiring,
- only if used in conjunction with Aurora PVI-WIND-INTERFACE BOX.
- 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
- WIND INTERFACE BOX is optional

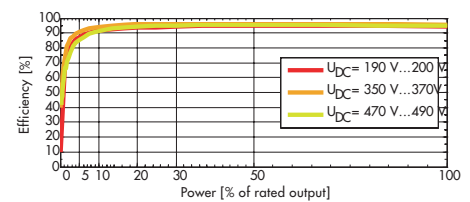
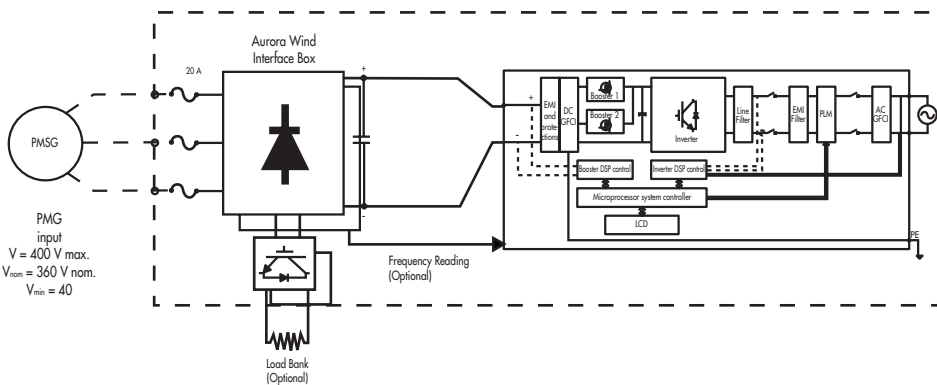


Optional  
Wind Interface Box

### HIGH PERFORMANCE REDEFINED

The revolutionary switching technology utilized in the Aurora inverter includes state-of-the-art for silicon Power Devices such, CoolMOS<sup>™</sup> 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-6000-OUTD-US-W	PVI-6000-OUTD-IT-W	PVI-6000-OUTD-ES-W	PVI-6000-OUTD-UK-W
Power Rating Ac [W]	6000	6000	6000	6000
Absolute Max Voltage [Vdc]	600	600	600	600
Max. Power Tracking Window range [Vdc]	50 to 580 (360 nominal)	50 to 580 (360 nominal)	50 to 580 (360 nominal)	50 to 580 (360 nominal)
Input Configuration (Max. Idc =18 A for each channel)	Two channel in parallel with common MPPT	Two channel in parallel with common MPPT	Two channel in parallel with common MPPT	Two channel in parallel with common MPPT
Nominal AC Voltage (Range) [Vrms]	Single phase 208; 240; 277 (setting required)	Single-phase 200-245 (180-264) (may vary to comply with regulations in each country)	Single-phase 200-245 (180-264) (may vary to comply with regulations in each country)	Single-phase 200-245 (180-264) (may vary to comply with regulations in each country)
Nominal AC Frequency [Hz]	60	50	50	50
Line Power Factor	1	1	1	1
Maximum AC Line Current [Arms]	30	30	30	30
AC Current Distortion [%]	<2% THD at rated power with finewave voltage	<2% THD at rated power with finewave voltage	<2% THD at rated power with finewave voltage	<2% THD at rated power with finewave voltage
Max Efficiency [%]	97 (96,5% C.E.C)	97 (Euro 96.4)	97 (Euro 96.4)	97 (Euro 96.4)
Tare Losses [mW]	250	<1000	250	250
Operating Ambient Temperature [°C]	-25 to +60	-25 to +60	-25 to +60	-25 to +60
Enclosure Environmental Rating	NEMA 4X	IP65	IP65	IP65
Relative Humidity	0-100% condensing	0-100% condensing	0-100% condensing	0-100% condensing
Elevation	derated above 2.000 m (6,600ft)	derated above 2.000 m (6,600ft)	derated above 2.000 m (6,600ft)	derated above 2.000 m (6,600ft)
Audible Noise [dBA]	<50@ 1m	<50@ 1m	<50@ 1m	<50@ 1m
Size (height x width x depth) [mm]	740 x 325 x 195	740 x 325 x 195	740 x 325 x 195	740 x 325 x 195
Weight [kg]	26	26	26	26

## SMART CONTROLS

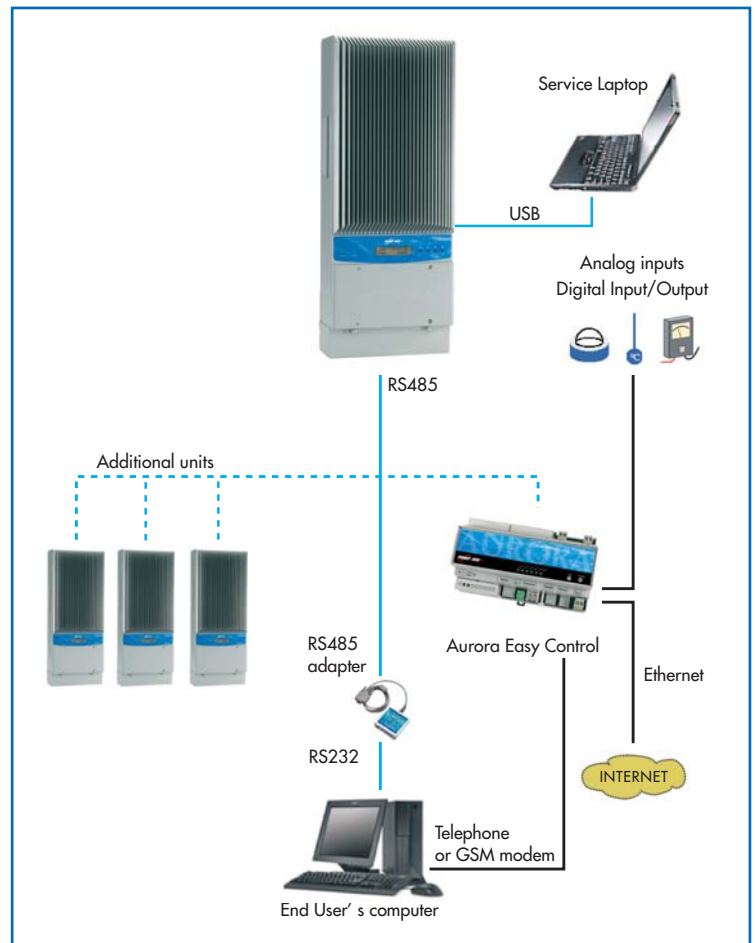
Aurora controls are DSP (Digital Signal Processor) based with sophisticated control and self-diagnostic algorithms. A LCD display shows the main operational parameters. Three LED's indicate the operating status.

## 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, CEI 11-20 IV ed, DK5940, IEC 61683, IEC 61727, EN50081, EN50082, EN61000, CE certification, CLEAR SKIES G83/1, El Real decreto RD 1663/200 De Espana.



Rev. 1.1 - 25/01/07 - Aurora is a trademark by Power-One - Product is subject to technical improvements

### Europa Power-One Italy S.p.a.

Via S. Giorgio, 642  
52028 Terranuova Bracciolini, Arezzo, Italy  
Phone: (+39) 055 9195 1  
Fax: (+39) 055 9198 185  
aesales-eu@power-one.com

### North America Power-One Inc.

740 Calle Plano  
Camarillo, California - 93012-8583  
aesales-us@power-one.com