

General Specifications

PVI-3600-US INDOOR

PVI-3600-OUTD-US-F OUTDOOR
US Models

Magnetek introduces the Aurora PVI-3600 Indoor and PVI-3600 Outdoor Transformerless PV Inverters with two independent MPPT trackers.

Our PVI-3600 Auroras are non-isolated inverters with two independent Max Power Point Trackers (MPPT) that provide optimal energy harvesting from two independent PV arrays. Combined with an industry-leading operating window of 90 to 530 volts and its ability to optimize two arrays with different orientations, tilt angles or numbers of series modules, the Aurora provides the system designer exceptional flexibility.

The Aurora utilizes state-of-the-art silicon power devices including CoolMOS™, Silicon Carbide Diodes and Insulated Gate Bi-polar Transistors (IGBTs) that help reduce switching losses. Robust and reliable, Aurora was designed to last up to 25 years and features large deratings on all major components and are enclosed in rugged but attractive enclosures.

AURORA® Features & Benefits

- Compact and light for ease of installation; the indoor unit weighs just 16.5 lbs(7.5 kg) and the outdoor unit weighs 29 lbs(23 kg)
- Dual input section to process two strings with independent MPPT
- Robust NEMA 2 (indoor) or NEMA 4X (outdoor) enclosures and conformal coating of the boards to withstand harsh environments
- High speed advanced MPPT controls for maximum energy harvesting
- Indoor unit has graphical LCD on the front panel with integrated datalogger. Outdoor unit has two line LCD on the front to monitor the main parameters & display kW and kWh
- Configurable for 208 Vac or 240 Vac operation
- Transformerless operation for highest efficiency—up to 96%
- Reverse polarity protection minimizes chance of damage due to incorrect wiring
- True Sine Wave Output
- Anti-islanding Protection
- Certified UL 1741 by CSA
- Embedded RS232 (indoor only) and RS485 serial communication options

SMART CONTROLS

Aurora controls are DSP (Digital Signal Processor) based with sophisticated control and self-diagnostics algorithms. On the indoor unit a 128 x 128 graphical LCD 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. The indoor unit displays the dollar value of energy produced and amount of CO₂ offset.

BEST IN CLASS COMMUNICATION CAPABILITIES

Auroras come standard with an integrated RS-485 port allowing monitoring of up to 31 inverters on a local PC using the free Aurora Communicator software. In addition the indoor unit has an integrated RS-232 port for easy monitoring of a single inverter using a local windows compatible computer. Internet-based monitoring is also available and additional monitoring and communications options such as wireless, Ethernet and cell phone monitoring will be made available over time. Please contact Magnetek or check our website for latest monitoring options.



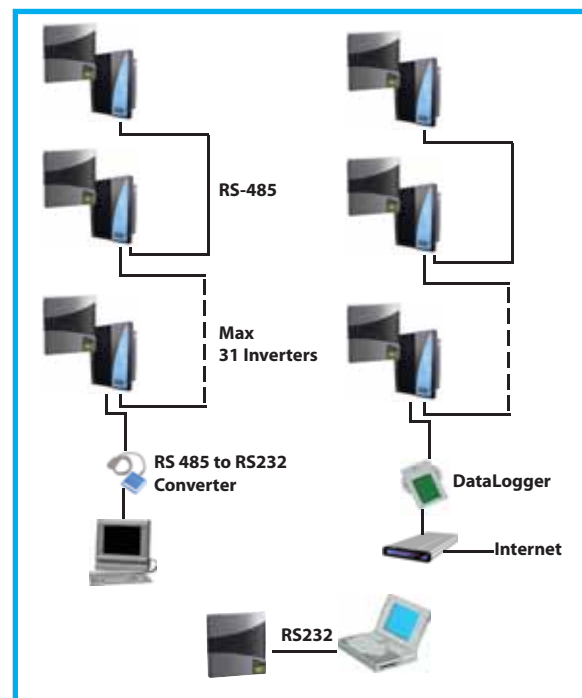
Indoor Unit



Indoor Display



Outdoor Unit



Interface Options Diagram



MAGNETEK
UNCOMMON POWER

CHARACTERISTICS

PVI-3600-US

PVI-3600-OUTD-US-F

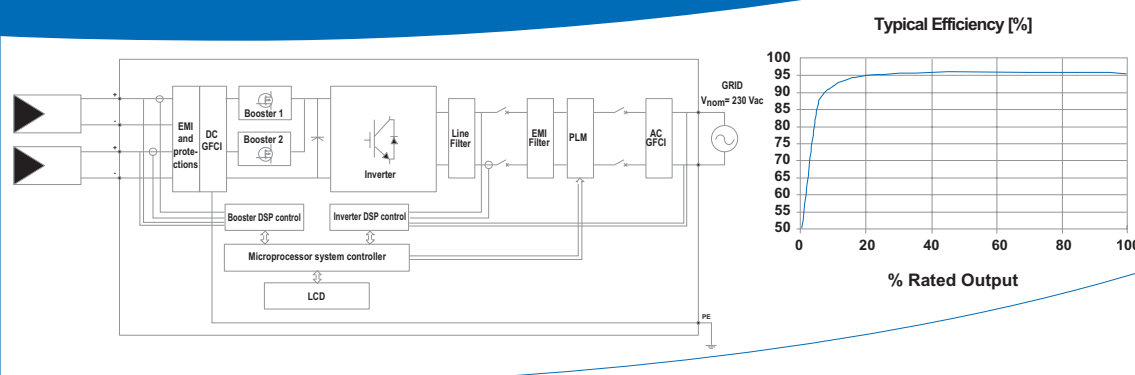
Nominal Power Rating [W]	3600 (3300@208Vac)	3600 (3300@208Vac)
Power Rating @ 40°C [W]	3600	
Absolute Max Voltage Range [Vdc]	0 to 600	
Operating Window Range [Vdc]	90-530 (360 nominal)	
Startup Voltage (Vdc open circuit)	200	
Array Configuration	One or two floating arrays and independent MPPT	
Max Power Input Current	10 Amps per MPPT Channel, 20 Amps total	
Nominal AC Voltage (Range) [Vrms]	Single-phase 184-264	
Nominal AC Frequency [Hz]	60	
Maximum AC Line Current [Arms]	16	
Max AC Output Breaker	20A	
AC Current Distortion [%]	<2.5% THD at rated power with sinewave voltage	
Max Efficiency [%] Peak	96	
CEC Efficiency	94.5% (94% - 208V)	95% (94.5% - 208V)
Tare Losses [W]	<.3	
Operating Ambient Temperature [°C]	+50 to +60	
Enclosure Environmental Rating	NEMA 2/IP21(indoor)	NEMA 4X/IP65(outdoor)
Relative Humidity	0-95% condensing	0-100% condensing
Elevation	Derated above 6,600ft (2000m)	
Audible Noise [dBA]	<40	
Size (height x width x depth) [in]	17.3in x 18.3in x 2.2in (440mm x 465mm x 57mm)	16.5in x 12.8in x 5.55in (420mm x 326mm x 141mm)
Weight [lb] (kg)	16.5 (7.5 kg)	29 (13kg)
Standards and Codes	CSA listed to UL 1741.In the United States, the PVI-3600 Auroras should be installed in accordance with the 2005 National Electric Code	

MODEL SUMMARY

Model Number Power

PVI-3600-US	3600W
PVI-3600-OUTD-US-F	3600W
PVI-3600-US (208V)	3300W
PVI-3600-OUTD-US-F (208V)	3300W

BLOCK DIAGRAM AND TYPICAL EFFICIENCY



Data Sheet#: PVI-3600 Indoor-Outdoor-05A
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Europe-Magnetek, SpA

Via S. Giorgio 642
52028 Terranuova Bracciolini, Arezzo, Italy
Phone: (+39) 055-9195-1
Fax: (+39) 055-9738-270
aesales-eu@magnetek.it

www.alternative-energies.com
www.magnetek.com

North America-Magnetek, Inc.

N49 W13650 Campbell Drive
Menomonee Falls, WI 53051
Phone: 1-866-381-2035
Fax: 1-866-381-2035
aesales-us@magnetek.com