

General Specifications

PVI-3000-I-OUTD-US

PVI-3000-I-OUTD-US-F

Magnetek introduces the Aurora PVI-3000 Isolated Outdoor PV Inverter with two independent MPPT trackers.

Our Aurora inverter features 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! It features large deratings on all major components and is enclosed in a corrosion resistant NEMA 4X sealed aluminum enclosure.

AURORA[®] BENEFITS

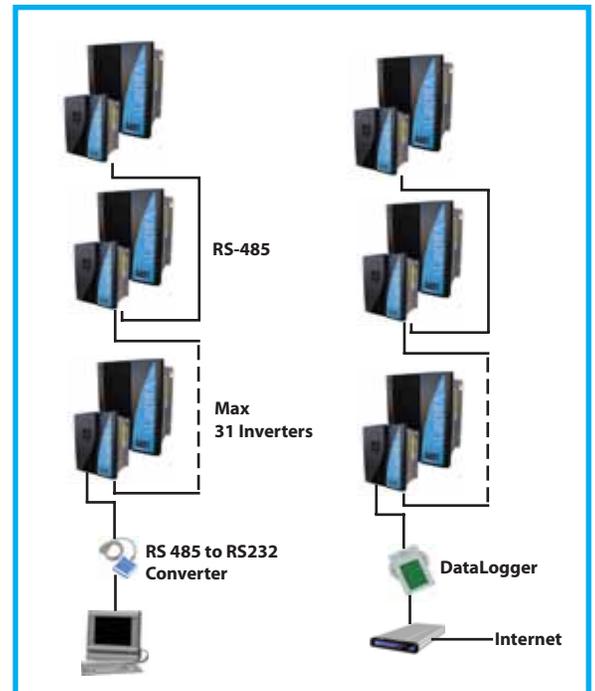
- Dual independent MPPT channels optimize energy harvesting on systems with multiple array orientations or tilt angles.
- Flexibility in array design: Each array string can have different numbers of modules. Each string can be a different module type.
- IP65 (NEMA 4X)—The completely sealed, rugged unit can withstand the harshest environmental conditions
- High speed MPPT for real time power tracking and improved energy harvesting
- Compact size and high power density: 3000W of output power at 40°C in a box just 16.5 in x 12.83 in x 10.6 in (420mm x 326mm x 268mm)
- Front heatsink keeps the unit cleaner and more efficient over time
- Integrated RS485 serial link
- Isolation with 60Hz high efficiency, low weight toroidal transformer for seamless grid-tied operation
- Reverse polarity protection minimizes chance of damage due to incorrect wiring
- High overload capability—3000W at 40°C with external fan
- True Sine Wave Output
- Anti-islanding Protection
- Certified to UL 1741
- Integrated LCD monitors main parameters LCD on the front to monitor the main parameters & display kW and kWh
- Configurable to 208 Vac or 240 Vac output

SMART CONTROLS

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

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. 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.



Interface Options Diagram



CHARACTERISTICS

PVI-3000-I-OUTD-US

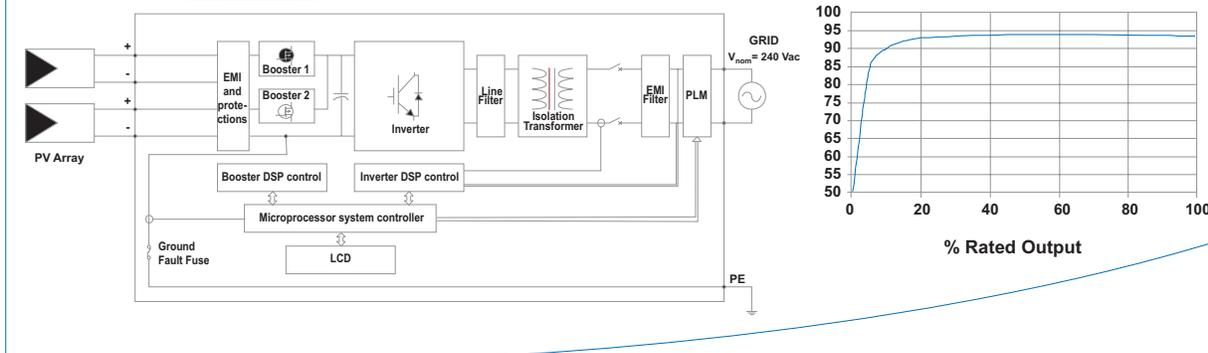
PVI-3000-I-OUTD-US-F

Nominal Power Rating [W]	3000 (2700@208Vac)	3000 (2700@208Vac)
Power Rating @ 40°C [W]	2520	3000 (2700@208 Vac)
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 arrays with common negative grounding and independent MPPT	
Max Power Input Current	10 Amps per MPPT Channel, 20 Amps total	
Nominal AC Voltage (Range) [Vrms]	Single-phase 184-264 (may be adjusted to comply with local regulations)	
Nominal AC Frequency [Hz]	59.3 to 60.5	
Maximum AC Line Current [Arms]	13	13
Max AC Output Breaker	20A	
AC Current Distortion [%]	<2.5% THD at rated power with sinewave voltage	
Max Efficiency [%]	94	
Tare Losses [W]	<0.3	
Operating Ambient Temperature [°C]	-25 to +60	
Enclosure Environmental Rating	NEMA 4X/IP65	
Relative Humidity	0-100% condensing	
Elevation	Derated above 6,600ft (2000m)	
Audible Noise [dBA]	<40	
Size (height x width x depth) [in]	16.5 x 12.83 x 9.13	
Weight [lb]	70	72
Standards	Certified to UL 1741	

MODEL SUMMARY

Model Number	
PVI-3000-I-OUTD-US	No Fan
PVI-3000-I-OUTD-US-F	With Fan
PVI-3000-I-OUTD-US (208V)	No Fan
PVI-3000-I-OUTD-US-F (208V)	With Fan

BLOCK DIAGRAM AND TYPICAL EFFICIENCY



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