

## General Specifications Outdoor Models PVI-6000-OUTD-W

*Magnetek introduces our Aurora PVI-6000 Outdoor Wind Inverter that features revolutionary switching technology.*

Our Aurora inverter includes state-of-the-art silicon power devices that help reduce switching losses. Power devices include:

- Silicon Carbide Diodes
- CoolMOS™
- Insulated Gate Bi-polar Transistors (IGBT's)

Robust and reliable, Aurora was designed to last up to 25 years, and features large derating criteria on all critical components, and delivers true maximum output power on a continuous basis. 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.

Exclusive to Aurora, is its power curve in software that optimizes the wind turbine's output.



## AURORA<sup>®</sup> BENEFITS

- PMG (Permanent Magnet Generator) Power Curve implemented in high speed MPPTT
- IP65 (NEMA 4) – 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: 6000W (6000W max.) of output power in a box just 770mm x 322mm x 140mm
- Front heatsink keeps the unit cleaner and more efficient over time
- Transformerless operation for highest efficiency – up to 96%
- Reverse polarity protection minimizes chance of damage due to incorrect wiring
- High overload capability – works up to 6000K under most ambient conditions
- True Sine Wave Output
- Anti-islanding Protection
- Certified grid connected operation according to the international standards
- LCD Display on the front to monitor the main parameters and dispaly kW and kWh
- Integrated Power Line Modem (PLM) for communication over AC wires
- Wind Interface box is optional



Optional Wind Interface Box

## SMART CONTROLS

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

## BEST IN CLASS COMMUNICATION CAPABILITIES

Aurora features and integrated RS485 Communication link. An RS485 to RS232 converter (optional) is available to monitor the unit.

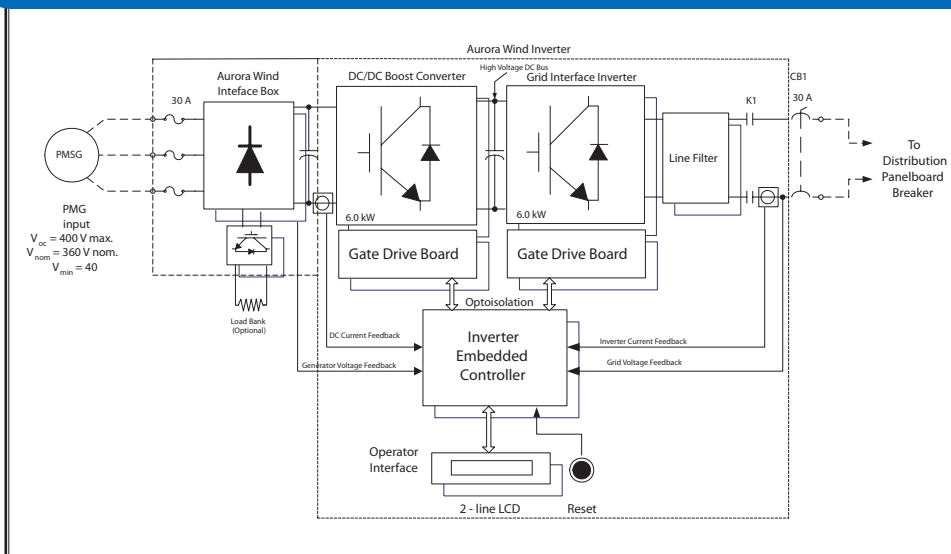


## CHARACTERISTICS

## PVI-6000-OUTD-W

Max Power Rating [W]	
Power Rating [W]	6000
Absolute Max Voltage Range [Vdc]	0 to 600 (360 nominal)
Max: Power Tracking Window Range [Vdc]	50-530 (360 nominal)
Power Curve: Manufacture Specific	Max. Idc=30A, Input 3-phase 40-400 VAC from PMG (rectified)
Nominal AC Voltage (Range) [Vrms]	Single-phase 184-245 (may vary to comply with regulations in each country)
Nominal AC Frequency [Hz]	50/60
Line Power Factor	1
Maximum AC Line Current [Arms]	30
AC Current Distortion [%]	<2.5% THD at rated power
Max Efficiency [%]	96 (Euro 95)
Tare Losses [mW]	<500
Operating Ambient Temperature [ °C]	-25 to +60
Enclosure Environmental Rating	IP65/NEMA 4
Relative Humidity	0-100% condensing
Elevation	2,000m (6,600ft)
Audible Noise [dBA]	<40
Size (height x width x depth) [mm]	770 x 322 x 140
Weight [kg]	25

## BLOCK DIAGRAM AND TYPICAL EFFICIENCY



## MODEL SUMMARY

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

## STANDARDS AND CODES

Aurora inverters comply with standards set for grid-tied operation, safety and electromagnetic compatibility including: VDE0126, CEI 11-20 IV ed, DK5950, IEC 61683, IEC 61727, EN50081, EN50082, EN61000, CE certification, CSA, and UL1741.