PVI-3.0-3.6-4.2-0UTD-W



GENERAL SPECIFICATIONS **OUTDOOR MODELS** RORA PVI-3.0-OUTD-XX-W PVI-3.6-OUTD-XX-W Wind Interface Box PVI-4.2-OUTD-XX-W optional **AURORA® BENEFITS** - Transformerless operation for highest efficiency: up to 96,8% (96% Euro; 96% CEC) - IP65 (NEMA 4), completely sealed unit to withstand the harshest environmental conditions - Compact size and high power density: up to 4.2KW of output power in a box just 547mm x 325mm x 208mm and 17Kg weight. optimezed real time power curve tracking algorithm and improved energy harvesting - Heatsink keeps the unit cleaner and more efficient over time Reverse polarity protection minimizes chance of damage due to incorrect wiring. when used in conjunction with Aurora PVI-WIND-INTERFACE BOX. - High overload capability: works up the power max limits 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 Integrated RS-485 serial communication WIND INTERFACE BOX is optional

HIGH PERFORMANCE REDEFINED

The revolutionary switching technology utilized in the Aurora inverter includes state-of-the-art silicon Power devices such as CoolMOSTM and Insulated Gate Bi-polar Transistors (IGBT's) to reduce switching losses. Aurora has been designed with substantial de-rating of all critical components, achieving an extremely robust and reliable inverter, designed to last for 25 years and to deliver rated maximum output power on a continuous basis. With this design concept we achieve peak efficiencies of over 96,8%. Best in class with an outstanding input voltage range (50V to 580V) and ambient temperature range (-25°C to +60°C). Dedicated software to upload the wind generator power curve (16 points interpolation). WIND INTERFACE BOX is optional



Block Diagram and typical efficiency



| CHARATTERISTICS | PVI-3.0-OUTD-XX-W | PVI-3.6-OUTD-XX-W | PVI-4.2-OUTD-XX-W |
|--|--|--|--|
| Output Power Rating Ac [W] | 3000 | 3600 | 4200 |
| Absolute Max Input Voltage [Vdc] | 600 | 600 | 600 |
| Max. Power Tracking Window range [Vdc] | 50 to 580 (360 nominal) | 50 to 580 (360 nominal) | 50 to 580 (360 nominal) |
| Max Input current [Adc] | 20 | 32 | 32 |
| Max Power Voltage Range | 180Vdc-530Vdc | 180Vdc-530Vdc | 180Vdc-530Vdc |
| Input Configuration | Two channes parallel with common power curve | Two channes parallel with common power curve | Two channes parallel with common power curve |
| Nominal AC Voltage (Range) [Vrms] | Single-phase 200-245 Vac (180-264Vac) | Single-phase 200-245 Vac (180-264Vac) | Single-phase 200-245 Vac (180-264Vac) |
| Nominal AC Frequency [Hz] | 50 | 50 | 50 |
| Line Power Factor | 1 | 1 | 1 |
| Maximum AC Line Current [Arms] | 14.5 | 17.2 | 20 |
| 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 |
| Max Effi ciency [%] | 96,8% (96,0% Euro; 96,0% CEC) | 96,8% (96,0% Euro; 96,0% CEC) | 96,8% (96,0% Euro; 96,0% CEC) |
| Operating Ambient Temperature [°C] | -25 to +60 Derating per Tamb>55°C | -25 to +60 Derating per Tamb>55°C | -25 to +60 Derating per Tamb>45°C |
| Losses [W] | <8 | <8 | <8 |
| Enclosure Environmental Rating | IP65 | IP65 | IP65 |
| Relative Humidity | 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) |
| Audible Noise (dBA) | <50@ 1m | <50@ 1m | <50@ 1m |
| Size (height x width x depth) [mm] | 547 x 325 x 208 | 547 x 325 x 208 | 547 x 325 x 208 |
| Weight [kg] | 17 | 17 | 17 |

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

Aurora features an integrated RS485 Communication link and a USB port. An RS485 to RS232 converter (optional) is available to monitor the unit. AURORA Easy-Communicator (optional) allows remote monitoring via internet, GSM or analog modem.

STANDARDS AND CODES

Aurora inverters comply with standards set for grid-tied operation, safety and electromagnetic compatibility including: CSA- C22.2 N.107.1-01, UL1741,

G83/1, CEI 11-20 IV ed, DK5940, IEC61683, IEC61727, EN50081, EN50082, EN61000, Certification CE, El Real decreto RD 1663/200 De Espana, EN50438.



