

## General Specifications

### Outdoor models

PVI-5000-OUTD / PVI-5000-OUTD-S

PVI-6000-OUTD / PVI-6000-OUTD-S

### AURORA® BENEFITS

- Dual input section to process two strings with independent MPPT (6000W max models)
- High speed MPPT for real time power tracking and improved energy harvesting
- Transformerless operation for highest efficiency: up to 97% (96,5% Euro)
- Reverse polarity protection minimizes chance of damage due to mis-wiring
- High overload capability: works up to 6000W under most ambient conditions
- True Sine Wave Output
- Anti-islanding Protection
- LCD Display on the front to monitor the main parameters
- Standard DC Multi-Contact terminals, screw terminals option available



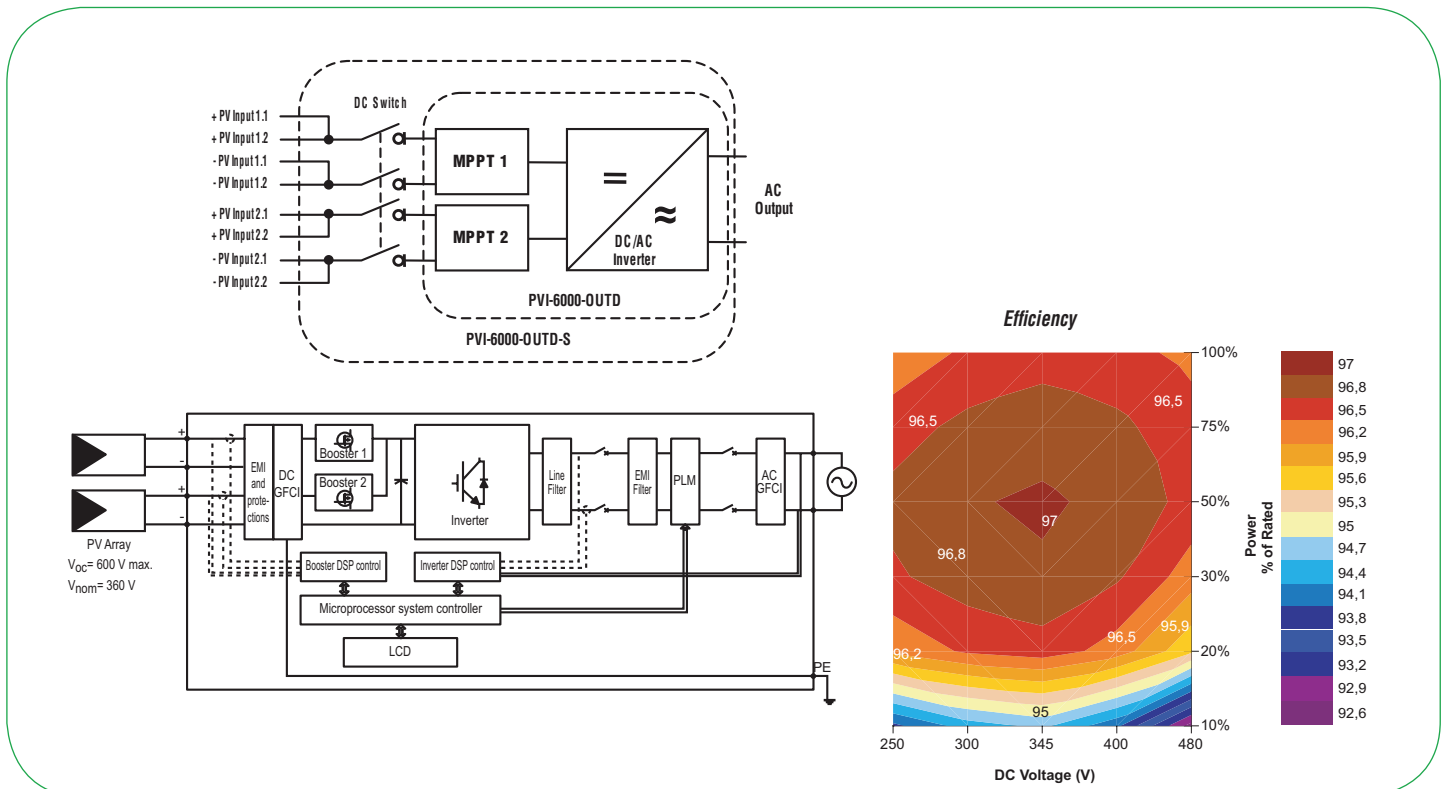
### SMART CONTROLS

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.

### STANDARDS AND CODES

Aurora inverters comply with standards set for grid-tied operation, safety and electromagnetic compatibility including: VDE0126, CEI 11-20 IV ed, DK5940, IEC 61683, IEC 61727, EN50081, EN50082, EN61000, CE certification, El Real Decreto RD1663/2000 de España.

### Block Diagram and typical efficiency



| <b>CHARACTERISTICS</b>                                     | <b>PVI-5000-OUTD</b>  | <b>PVI-6000-OUTD</b>                |
|--|---|-------------------------------------|
| <b>INPUT PARAMETERS</b>                                    |   |                                     |
| Nominal DC Power [kW]                                      | 4,8   | 6,2                                 |
| Max. Recommended DC Power [kW]                             | 5,75  | 6,9                                 |
| Operating Input Voltage Range [V]                          | 0,7xVstart - 580 (360 nominal)  |                                     |
| Full Power MPPT input voltage range (symmetrical load) [V] | 140-530   | 180-530                             |
| Full asymmetrical load input voltage range [V]             | 220-530 (@ 4kW) / 90-530 (@ 0,8kW)  | 220-530 (@ 4kW) / 120-530 (@ 2,2kW) |
| Absolute Max. Input Voltage [V]                            | 600   |                                     |
| Activation voltage "Vstart" [V]                            | 200 nominal (adjustable within the range 120Vdc-350Vdc, independently/each input)   |                                     |
| No of independent MPPT trackers                            | 2   |                                     |
| Max. Input Power, each MPPT [kW]                           | 4   |                                     |
| No. of DC Inputs   | 4 (2 each MPPT)   |                                     |
| Max. DC Current, each MPPT [A]                             | 18 (22 shortcircuit)  |                                     |
| DC Connection  | 8 x MultiContact Ø 4mm (4 male - positive input + 4 female - negative input)  |                                     |
|  | Mating cable connector included   |                                     |
|  | Conductor cross section: 4-6mmq/AWG12-10 - Cable Ø w/insulator: 3-6mm   |                                     |
| <b>INPUT PROTECTION</b>                                    |   |                                     |
| Reverse polarity protection                                | Yes   |                                     |
| Fuse rating, each input (-FS suffix versions only)         | NA  | NA                                  |
| DC side varistors  | 4 (2 for each MPPT), thermally protected  |                                     |
| PV array Insulation Control                                | according to VDE0126-1-1  |                                     |
| DC Switch (-S/-FS suffix versions only)                    | Integrated (Rating: 600Vdc / 25Adc)   |                                     |
| <b>OUTPUT PARAMETERS</b>                                   |   |                                     |
| Nominal AC Power (up to 50°C, kW)                          | 4,6   | 6                                   |
| Max. AC Power [kW]   | 5   | 6                                   |
| AC Grid Connection   | single phase 230Vac 50Hz + PE   |                                     |
| Nominal AC Voltage [V]                                     | 230   |                                     |
| Maximum AC Voltage Range [V]                               | 180-264   |                                     |
| Nominal AC Frequency [Hz]                                  | 50  |                                     |
| Max. AC Line Current [A]                                   | 25  | 30                                  |
| AC Connection  | Cage-clamp terminal block   |                                     |
|  | Conductor Cross Section: Solid: 0,5-16mmq / Stranded: 0,5-10mmq / AWG20-6   |                                     |
|  | Cable Gland: M32 - Cable Ø: 13-21mm   |                                     |
| Line Power Factor  | 1   |                                     |
| AC Current Distortion [THD%]                               | <3,5% at rated power with sine wave voltage   |                                     |
| <b>OUTPUT PROTECTION</b>                                   |   |                                     |
| AC side varistors  | 2, plus gas arrester to ground  |                                     |
| Ground fault protection (AC + DC leakage current)          | according to VDE0126-1-1  |                                     |
| <b>CONVERSION EFFICIENCY</b>                               |   |                                     |
| Max. Efficiency  | 97%   |                                     |
| Euro Efficiency  | 96,40%  |                                     |
| <b>ENVIRONMENTAL PARAMETERS</b>                            |   |                                     |
| Cooling  | Natural cooling   |                                     |
| Ambient Temp. Range [°C]                                   | -25 / +60 (output power derating above 50°C)  |                                     |
| Operating Altitude [m]                                     | 2000  |                                     |
| Acoustical Noise [dBA]                                     | <50 @1mt  |                                     |
| Environmental IP Rating                                    | IP65  |                                     |
| Relative Humidity  | 0-100% condensing   |                                     |
| <b>MECHANICAL</b>  |   |                                     |
| Dimensions [H x W x D]                                     | 740 x 325 x 208   |                                     |
| Weight [kg]  | 26  |                                     |
| <b>OTHER</b>   |   |                                     |
| Stand-By Consumption [W]                                   | 8   |                                     |
| Feed In Power Threshold [W]                                | 10  |                                     |
| Night Time consumption [W]                                 | 0,3   |                                     |
| Isolation  | No isolation, Transformer-less  |                                     |
| Display  | YES (Alphanumeric 2 lines)  |                                     |
| Communication  | RS485 (cage-clamp connector - Conductor cross section: 0,08-1,5mmq/AWG28-16); Usb (service only)<br>Optional "Aurora Easy Control" remote monitoring system |                                     |
| <b>AVAILABLE PRODUCT VARIANTS</b>                          |   |                                     |
| Standard - no options                                      | PVI-5000-OUTD   | PVI-6000-OUTD                       |
| With DC switch   | PVI-5000-OUTD-S   | PVI-6000-OUTD-S                     |
| With DC switch and protection fuse/each input              | NA  | NA                                  |

## MODEL SUMMARY

| MODEL NUMBER    | POWER                |
|-----------------|----------------------|
| PVI-5000-OUTD   | 5000W                |
| PVI-5000-OUTD-S | 5000W with DC Switch |
| PVI-6000-OUTD   | 6000W                |
| PVI-6000-OUTD-S | 6000W with DC Switch |