

PVI-5000-OUTD / PVI-6000-OUTD

AURORA[®]
Photovoltaic Inverter

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



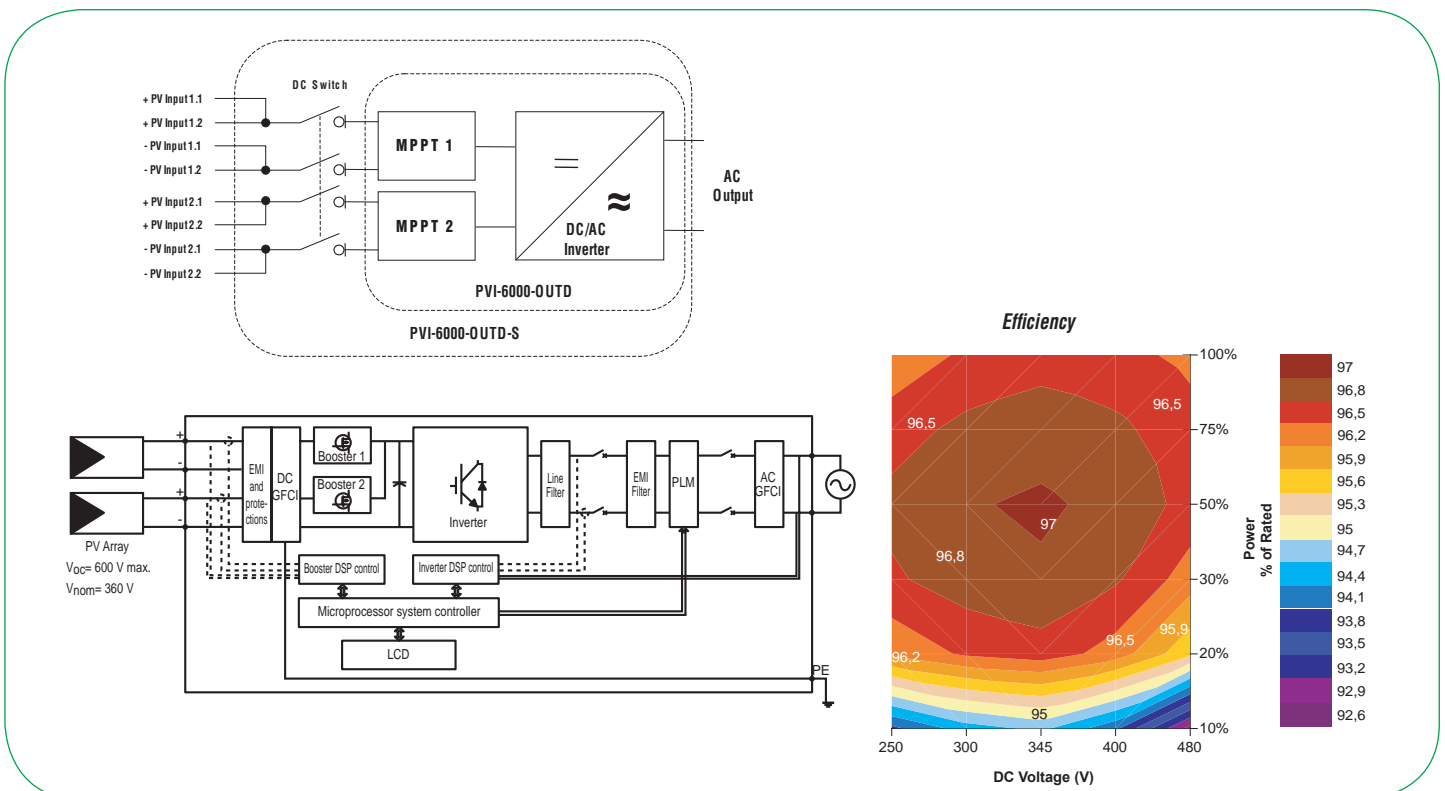
SMART CONTROLS

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



CHARACTERISTICS	PVI-5000-OUTD	PVI-6000-OUTD
INPUT PARAMETERS		
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)	
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	
INPUT PROTECTION		
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)	
OUTPUT PARAMETERS		
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	
OUTPUT PROTECTION		
AC side varistors	2, plus gas arrester to ground	
Ground fault protection (AC + DC leakage current)	according to VDE0126-1-1	
CONVERSION EFFICIENCY		
Max. Efficiency	97%	
Euro Efficiency	96,40%	
ENVIRONMENTAL PARAMETERS		
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	
MECHANICAL		
Dimensions [H x W x D]	740 x 325 x 195	
Weight [kg]	26	
OTHER		
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) Optional "Aurora Easy Control" remote monitoring system	
AVAILABLE PRODUCT VARIANTS		
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