

General Specifications

Indoor models

PVI-2000

PVI-3600

AURORA® BENEFITS

- Dual input section to process two strings with independent MPPT (3600W models)
- Robust IP21 (NEMA 2) indoor enclosure and conformal coating of the boards to stand harsh environmental conditions
- High speed, advanced MPPT controls for maximum energy harvesting
- Very compact and light design for ease of installation: 3600W of output power in a box just 440mm x 465mm x 57mm weighting less than 7.5kg (16,5 lbs)
- Graphical LCD Display on the front panel with integrated data logger
- Transformerless operation for highest efficiency: up to 96%
- Reverse polarity protection minimizes chance of damage due to mis-wiring
- True Sine Wave Output
- Anti-islanding protection
- Certified grid connected operation according international standards



SMART CONTROLS

Aurora controls are DSP (Digital Signal Processor) based with sophisticated control and self-diagnostic algorithms.

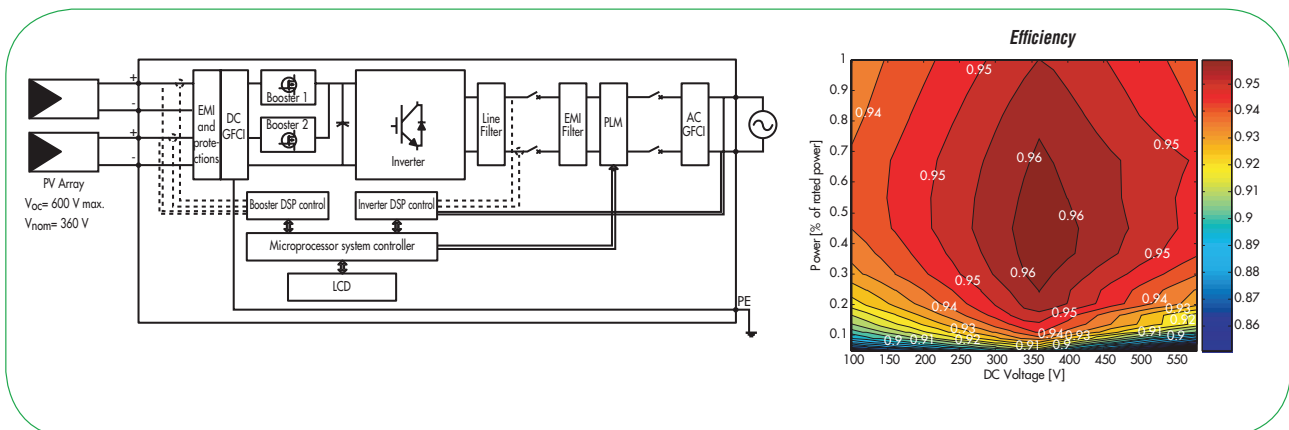
A 128 x 128 graphical LCD display shows the unit's operating status, its performance and diagnostic messages.

Four scrolling keys on the front panel of the unit are used to navigate menus for data display and parameter settings.

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-2000	PVI-3600
INPUT PARAMETERS		
Nominal DC Power [kW]	2,1	3,8
Max. Recommended DC Power [kW]	2,3	4,2
Operating Input Voltage Range [V]	90 - 580 (360 nominal)	
Full Power MPPT input voltage range (symmetrical load) [V]	210-530	190-530
Full asymmetrical load input voltage range [V]	NA	200-530 (@ 2kW) / 180-530 (@ 1,8kW)
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	1	2
Max. Input Power, each MPPT [kW]	2	2
No. of DC Inputs	1	2 (1 each MPPT)
Max. DC Current, each MPPT [A]	10 (12 shortcircuit) 2 (1 positive, 1 negative)	10 (12 shortcircuit) 4 (2 positive, 2 negative)
DC Connection	MultiContact Ø 3mm (male - positive input + 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	2, thermally protected	4 (2 for each MPPT), thermally protected
PV array Insulation Control	according to VDE0126-1-1	
DC Switch (-S/-FS suffix versions only)	NA	
OUTPUT PARAMETERS		
Nominal AC Power (up to 40°C, kW)	2	3,6
Max. AC Power [kW]	2	3,6
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]	9	16
AC Connection	Circular Bayonet Connector Conductor Cross Section: Solid / Stranded: 0,5-2,5mmq / AWG 20-14 Outer Cable Ø: 10-12mm	
Line Power Factor	1	
AC Current Distortion (THD%)	<2,5% 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	96%	
Euro Efficiency	95,00%	
ENVIRONMENTAL PARAMETERS		
Cooling	Forced cooling	
Ambient Temp. Range [°C]	-25 / +55 (output power derating above 40°C)	
Operating Altitude [m]	2000	
Acoustical Noise [dBA]	<30 @1mt (<30 @1mt with fan at full speed)	
Environmental IP Rating	IP21	
Relative Humidity	0-90% non condensing	
MECHANICAL		
Dimensions [H x W x D]	440 x 465 x 57	
Weight [kg]	6	7,5
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 (Gráfico)	
Communication	RS485 (cage-clamp connector - Conductor cross section: 0,08-1,5mmq/AWG28-16); RS232 (DB9) Optional "Aurora Easy Control" remote monitoring system	
AVAILABLE PRODUCT VARIANTS		
Standard - no options	PVI-2000	PVI-3600
With DC switch	NA	NA
With DC switch and protection fuse/each input	NA	NA

MODEL SUMMARY

MODEL NUMBER	POWER
PVI-2000	2000W
PVI-3600	3600W