

PVI-5000-OUTD PVI-6000-OUTD

GENERAL SPECIFICATIONS OUTDOOR MODELS

Designed for residential and small commercial PV installations, this inverter fills a specific niche in the Aurora product line to cater for those installations producing between 5kW and 20kW.

This inverter has all the usual Aurora benefits, including dual input section to process two strings with independent MPPT, high speed and precise MPPT algorithm for real-time power tracking and energy harvesting, as well as transformerless operation for high performance efficiencies of up to 97.1%.

The wide input voltage range makes the inverter suitable to low power installations with reduced string size. This outdoor inverter has been designed as a completely sealed unit to withstand the harshest environmental conditions.

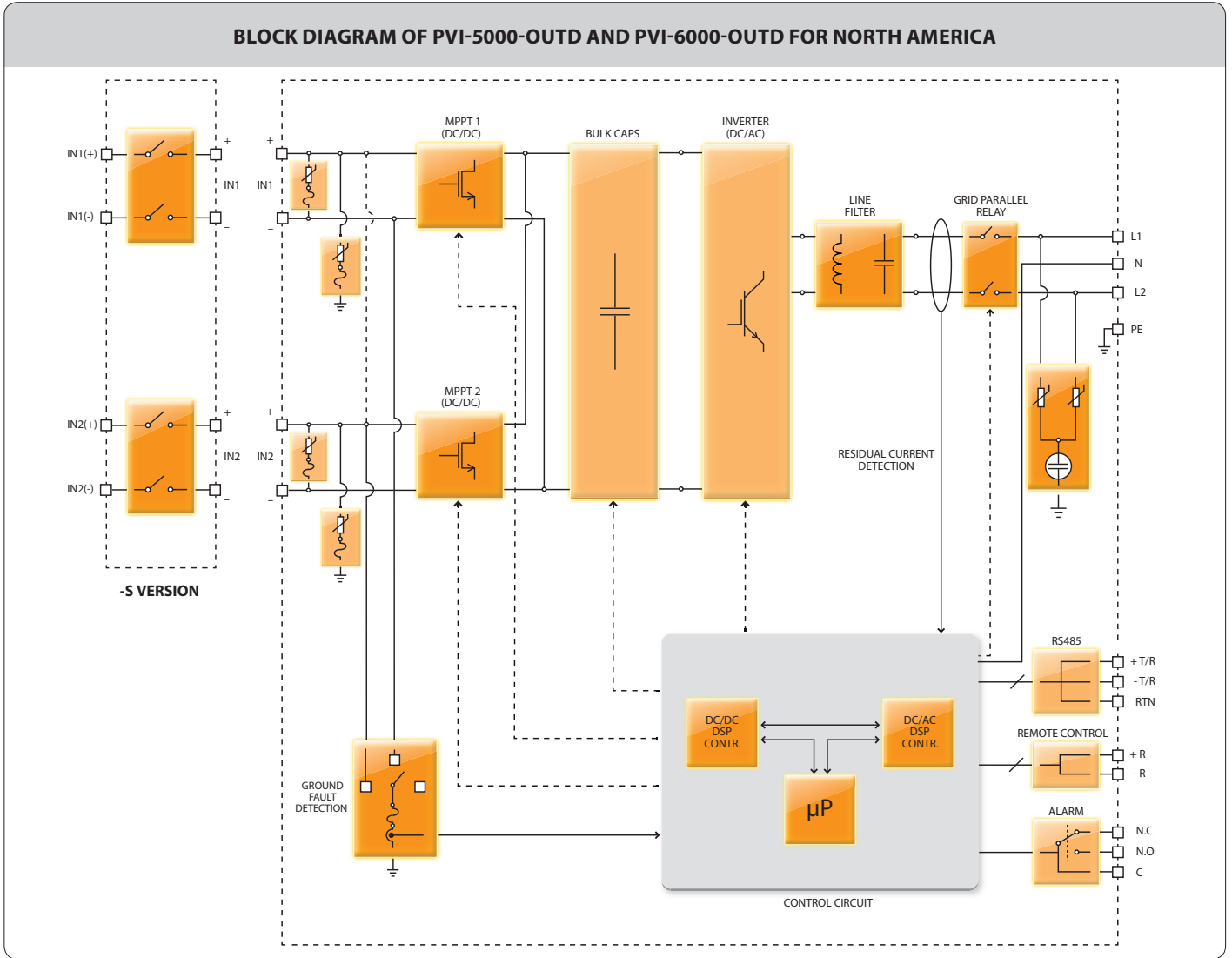


AURORA UNO

Features

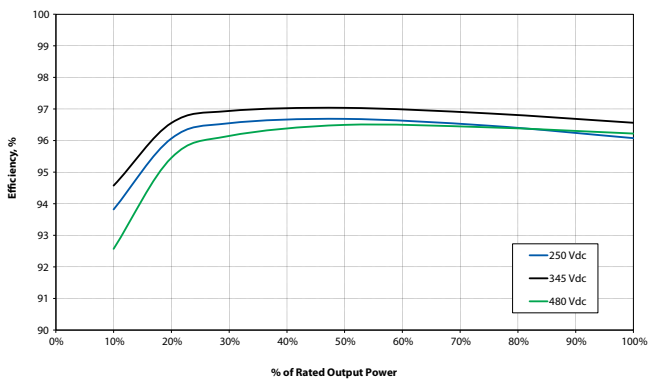
- Each inverter is set on specific grid codes which can be selected in the field
- Single phase output
- Dual input sections with independent MPP tracking, allows optimal energy harvesting from two sub-arrays oriented in different directions
- Wide input range
- High speed and precise MPPT algorithm for real time power tracking and improved energy harvesting
- Flat efficiency curves ensure high efficiency at all output levels ensuring consistent and stable performance across the entire input voltage and output power range
- Outdoor enclosure for unrestricted use under any environmental conditions
- RS-485 communication interface (for connection to laptop or datalogger)
- Compatible with PVI-RADIOMODULE for wireless communication with Aurora PVI-DESKTOP

BLOCK DIAGRAM OF PVI-5000-OUTD AND PVI-6000-OUTD FOR NORTH AMERICA

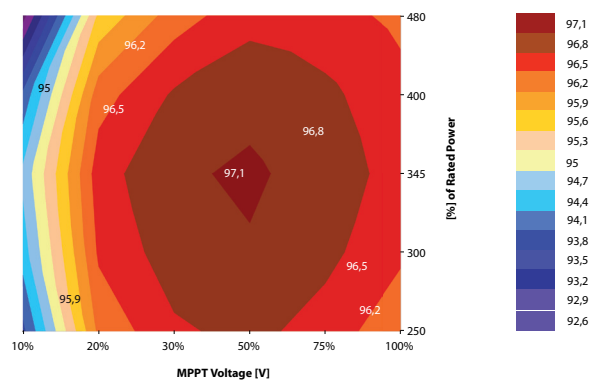


Block Diagram and Efficiency Curves

PVI-6000-OUTD-US



PVI-6000-OUTD-US



TECHNICAL DATA	Values	PVI-5000-OUTD-US			PVI-6000-OUTD-US		
Rated Grid AC Voltage	V	208	240	277	208	240	277
Input Side (DC)							
Maximum Usable Power for Each Channel	W	4000			4000		
MPPT Voltage Range	V	200-530			200-530		
Start- Up Voltage	V	200 (adj. 120-350)			200 (adj. 120-350)		
Absolute Maximum Voltage (Vmax)	V	600			600		
Maximum Current (I _{dcmax}) for both MPPT in Parallel	A	36			36		
Maximum Usable Current per Channel	A	18			18		
Number of Wire Landing Terminals per Channel		1			1		
Number of Independent MPPT Channels		2			2		
Array Wiring Termination		Screw terminal block 3 Knock-Outs: 1 ½" or 1" (w/ Ring Reducer.)			Screw terminal block 3 Knock-Outs: 1 ½" or 1" (w/ Ring Reducer.)		
Output Side (AC)							
Grid Standard		1Ø/2W or Split-Ø/3W			1Ø/2W or Split-Ø/3W		
Nominal Power	W	5000			6000		
Voltage Range (V _{min} -V _{max})	V	183-228	211-264	244-304	183-228	211-264	244-304
Grid Frequency; Range**	Hz	60;(59.3-60.5)			60;(59.3-60.5)		
Maximum Current (I _{ac, max})	A	27	23	20	30	28	24
Power Factor		> 0.995			> 0.995		
Total Harmonic Distortion At Rated Power	%	< 2			< 2		
Efficiency							
Maximum Efficiency	%	97.1			97.1		
CEC Efficiency	%	96	96.5	96.5	96	96.5	96.5
Operating Parameters							
Consumption in Stand By (Night)	W _{RMS}	< 8.0			< 8.0		
Consumption During Operation	W _{RMS}	20			20		
Topology		Transformerless			Transformerless		
Mechanical Specifications							
Enclosure rating		NEMA 4			NEMA 4		
Cooling		Natural Convection			Natural Convection		
Conduit Connections		Trade size KO's: (2ea x 1/2") and (2ea x 1-1/4"; 3 places side, front, rear)			Trade size KO's: (2ea x 1/2") and (2ea x 1-1/4"; 3 places side, front, rear)		
Grid Wiring Termination Type		Screw Terminal Block Single wire, 90°C terminal wiring			Screw Terminal Block Single wire, 90°C terminal wiring		
Dimensions (W/H/D)	in(mm)	12.8 x 41.4 x 8.7 (325 x 1052 x 222)			12.8 x 41.4 x 8.7 (325 x 1052 x 222)		
Unit Weight	lb(kg)	< 59.5 (27.0)			< 59.5 (27.0)		
Shipping Weight	lbs (kg)	78(35.4)			78 (35.4)		
Mounting System		Wall bracket			Wall bracket		
Environmental							
Ambient Air Temperature Range	F(°C)	-13...+140 (-25...+60) with derating above 122 (50)			-13...+140 (-25...+60) with derating above 122 (50)		
Acoustic Noise Emission Level	db A@ 1 m	< 50			< 50		
Relative Humidity	%RH	0-100 condensing			0-100 condensing		
Maximum Operating Altitude without Derating	ft(m)	6560 (2000)			6560 (2000)		
Protection Devices							
Output							
Anti-Islanding Protection		According to UL 1741/IEEE 1547			According to UL 1741/IEEE 1547		
External AC OCPD Rating	A _{RMS}	35	30	25	40	35	30
Over-Voltage Protection Type		Varistor, 2(L-N/L-PE)			Varistor, 2(L-N/L-PE)		
Input							
Reverse Polarity Protection		Yes			Yes		
Maximum Short Circuit Current Limit per Channel	A	22			22		
Over-Voltage Protection Type		Varistor, 2 for each channel			Varistor, 2 for each channel		
PV Array Ground Fault Detection		Pre start-up Riso and dynamic GFDI (Requires Floating Arrays)			Pre start-up Riso and dynamic GFDI (Requires Floating Arrays)		
DC Switch Current Rating (Per Contact)	A/V	25 / 600			25 / 600		
Isolation Level		Transformerless (Floating Array)			Transformerless (Floating Array)		
Safety and EMC Standard		UL 1741, CSA - C22.2 N. 107.1-01			UL 1741, CSA - C22.2 N. 107.1-01		
Safety Approval		cCSA _{US}			cCSA _{US}		
Features- Communication							
User-Interface (Display)		16 characters x 2 lines LCD display			16 characters x 2 lines LCD display		
Remote Monitoring (1xRS485 incl.)		AURORA-UNIVERSAL (opt.)			AURORA-UNIVERSAL (opt.)		
Wired Local Monitoring (1xRS485 incl.)		PVI-USB-RS485_232 (opt.), PVI-DESKTOP (opt.)			PVI-USB-RS485_232 (opt.), PVI-DESKTOP (opt.)		
Wireless Local Monitoring		PVI-DESKTOP (opt.) with PVI-RADIOMODULE (opt.)			PVI-DESKTOP (opt.) with PVI-RADIOMODULE (opt.)		
Standard Warranty	Years	5			5		
Available Models							
Standard- With DC Switch- Floating Array		PVI-5000-OUTD-US			PVI-6000-OUTD-US		

*All data is subject to change without notice

** Adjustable low trip point to 57Hz. Contact manufacturer for details



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