

PVI-3.0-OUTD-US-W PVI-3.6-OUTD-US-W PVI-4.2-OUTD-US-W

GENERAL SPECIFICATIONS

AURORA WIND

Aurora grid-tie transformerless wind inverters offer a unique combination of high efficiencies, installer-friendly designs and long service life. A major selling point of the Aurora Wind inverter is its very wide input voltage range ensuring power is continuously harvested from the lightest breeze to the strongest wind.

The competitive initial acquisition costs matched with the high efficiencies of up to 96.9% significantly increase return on investment on wind-power installations.

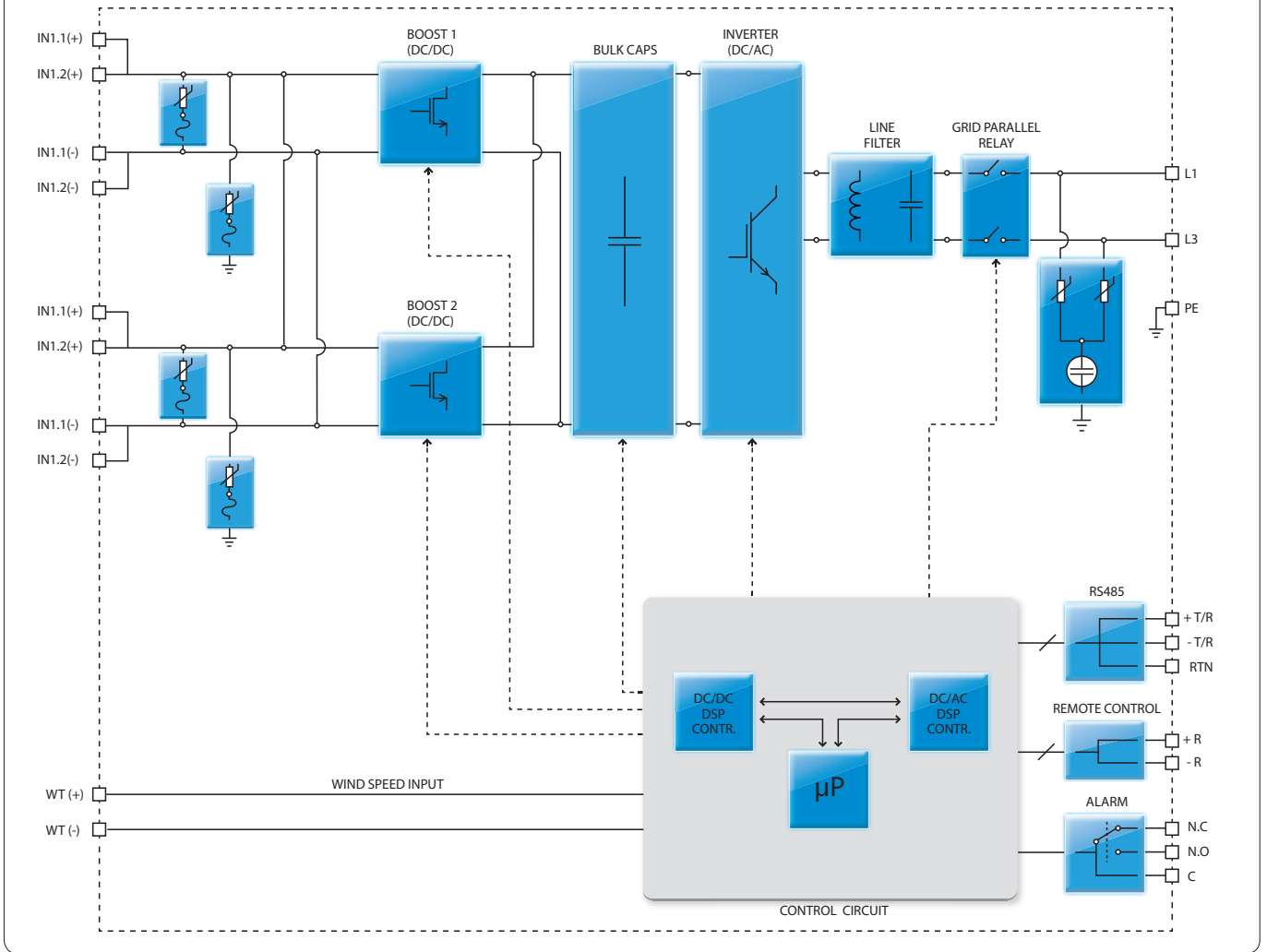
This compact, weather-sealed inverter has a programmable 16-point profile which allows a tight match for any compatible permanent magnet turbine.



Features

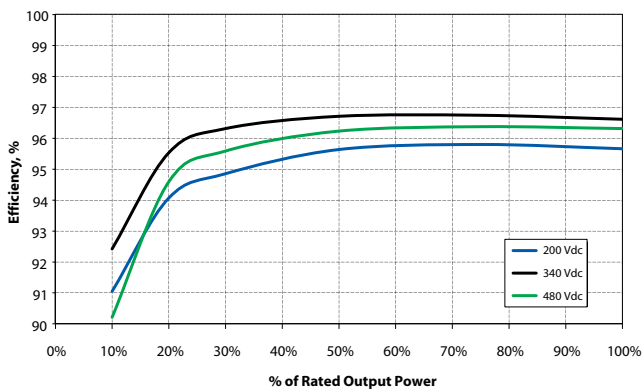
- Single Phase Output
- Transformerless operation for highest efficiency
- Power curve customization with high granularity to reach high level of power production yield
- Outdoor enclosure for unrestricted use under any environmental conditions
- Compact size and high power density
- Optimized real time power curve tracking algorithm and improved energy harvesting
- High overload capability: works up the power max limits under most ambient conditions
- Compatible with 25kW Wind Interface
- Compatible with 7200 Wind Interface
- Compatible with 4000 Wind Interface

BLOCK DIAGRAM OF PVI-3.0-OUTD-W, PVI-3.6-OUTD-W AND PVI-4.2-OUTD-W FOR NORTH AMERICA

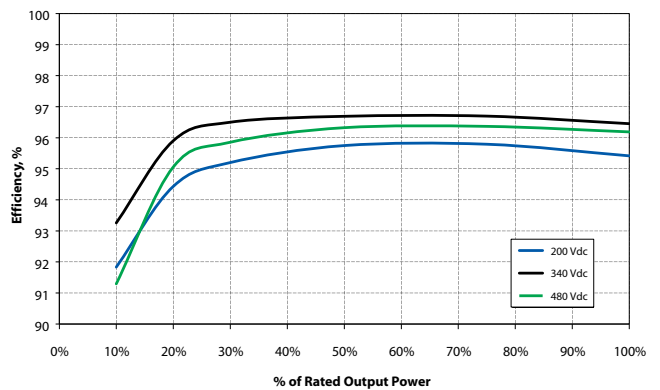


Block Diagram and Efficiency Curves

PVI-3.6-OUTD-US-W



PVI-4.2-OUTD-US-W



PARAMETER	PVI-3.0-OUTD-US-W			PVI-3.6-OUTD-US-W			PVI-4.2-OUTD-US-W		
Input Side									
Maximum Absolute DC Input Voltage $V_{(dc,abs)}$	600 V								
Operating DC Input Range ($V_{dcmin} \dots V_{dcmax}$)	50...580 V								
DC Input range at full power ($V_{fp,min} \dots V_{fp,max}$)	200...530 V			220...530 V			200...530 V		
Dc Power Limitation	Linear Derating From MAX to Null [530V ≤ V _{dc} ≤ 580V]								
Maximum DC Input Current ($I_{dc,max}$)	20 A			32 A			32 A		
Maximum Input Short Circuit Current	25 A			40 A			40 A		
DC Connection Type	Screw Terminal Block 3 Knock-Outs: 1 ½" or 1" (w/ Ring Red.)								
Input Protection									
Reverse Polarity Protection	No								
Input Over Voltage Protection - Varistor	4								
Generator Isolation Control	Yes								
Output Side									
	208	240	277	208	240	277	208	240	277
AC Grid Connection	Single Phase / Split Phase								
Rated AC Power (P_{acr})	3000 W			3600 W			4200 W		
Maximum AC Output Power ($P_{ac,max}$)	3000 W	3300 W	3300 W	3600 W	4000 W	4000 W	4200 W	4600 W	4600 W
Rated Grid AC Voltage ($V_{acr,r}$)	208 V	240 V	277 V	208 V	240 V	277 V	208 V	240 V	277 V
AC Voltage Range	183...228 V	211...264 V	244...304 V	183...228 V	211...264 V	244...304 V	183-228 V	211-264 V	244-304 V
Maximum Output AC Current ($I_{ac,max}$)	14.5 A	14.5 A	12.0 A	17.2 A	16 A	16 A	20 A	20 A	20 A
Rated Frequency (f)	60 Hz								
Frequency Range ($f_{min} \dots f_{max}$)	59.3...60.5 Hz								
Nominal Power Factor ($\cos\phi_{ac,r}$)	> 0.995								
Total Harmonic Distortion	< 2%								
AC Connection Type	Screw Terminal Block 3 Knock-Outs: 1 ½" or 1" (w/ring reducer)								
Output Protection									
Anti-islanding protection	208	240	277	208	240	277	208	240	277
Maximum AC Overcurrent Protection	20 A	20 A	15 A	25 A	20 A	20 A	25 A	25 A	25 A
Output Over Voltage Protection - Varistor	2 (L-N/L-PE)								
Operating Performance									
Maximum Efficiency (η_{max})	96.8%								
Stand-by Consumption	< 8W								
Communication									
Wired Local Monitoring	PVI-USB-RS485_223 (opt.), PVI-DESKTOP (opt.)								
Remote Monitoring	PVI-AEC-EVO (opt.), AURORA-UNIVERSAL (opt.)								
Wireless Local Monitoring	PVI-DESKTOP (opt.) with PVI-RADIOMODULE (opt.)								
User Interface	16 characters x 2 lines LCD display								
Environmental									
Ambient Temperature Range	-25...+ 60°C/-13...140°F with derating above 55°C/131°F								
Noise Emission	< 50 dB(A)								
Maximum Operating Altitude with Derating	2000 m / 6560 ft								
Physical									
Environmental Protection Rating	NEMA 4X								
Cooling	Natural								
Dimension (H x W x D)	618mm x 325mm x 222mm / 24.3" x 12.8" x 8.7"								
Weight	18 kg / 39.6 lb								
Safety									
Isolation Level	Transformerless								
Marking	cCSAus								
Safety and EMC standard	UL 1741, CSA - C22.2 N. 107.1-01								
Grid Standard	IEEE 1547								
Available Products Variants									
Standard	PVI-3.0-OUTD-US-W			PVI-3.6-OUTD-US-W			PVI-4.2-OUTD-US-W		