

PVI-3.0-TL-OUTD-W PVI-3.6-TL-OUTD-W PVI-4.2-TL-OUTD-W

GENERAL SPECIFICATONS

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.

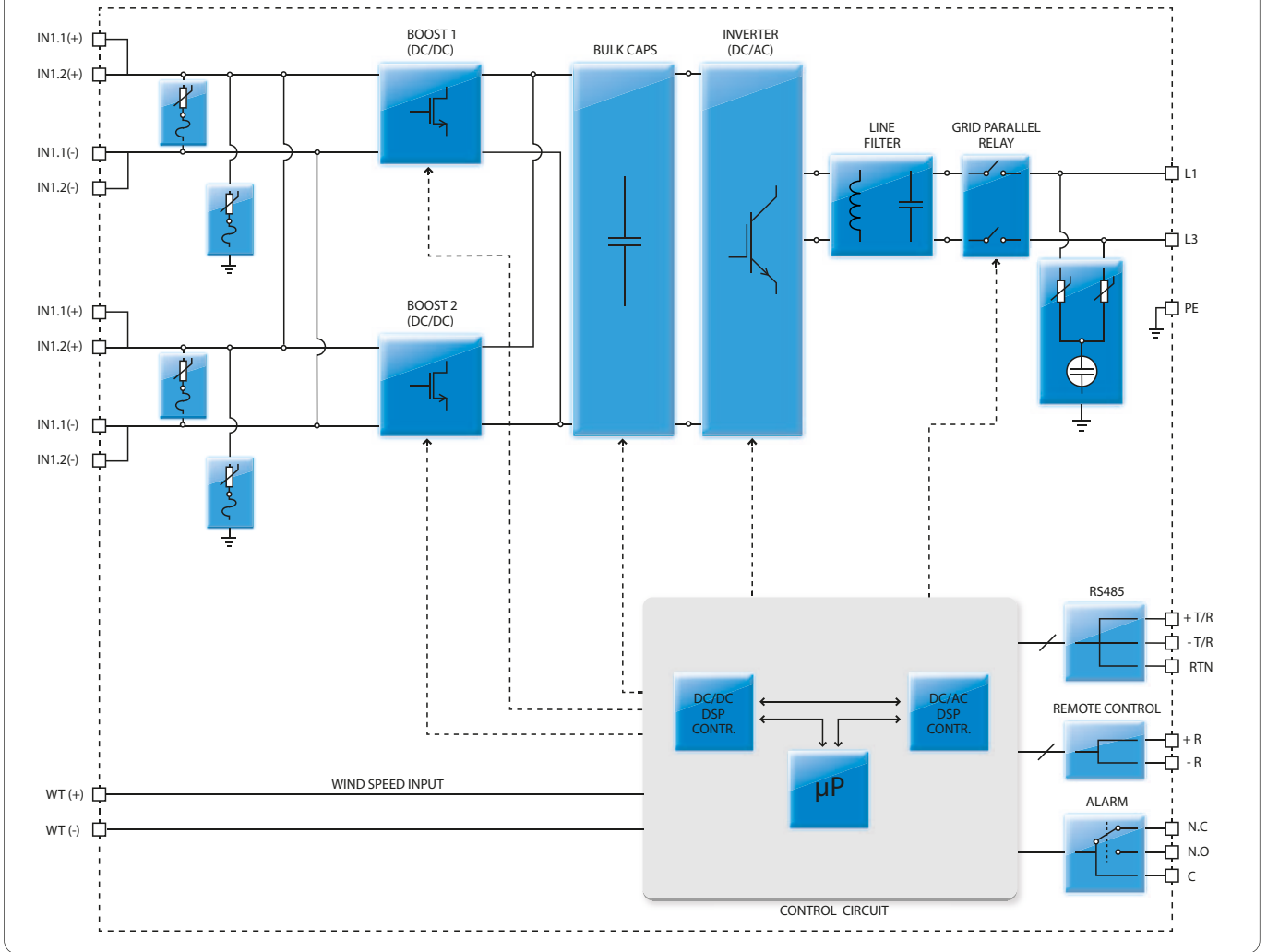
This compact, weather-sealed inverter has a programmable 16-point profile which allows a tight match for any compatible permanent magnet turbine.



Features

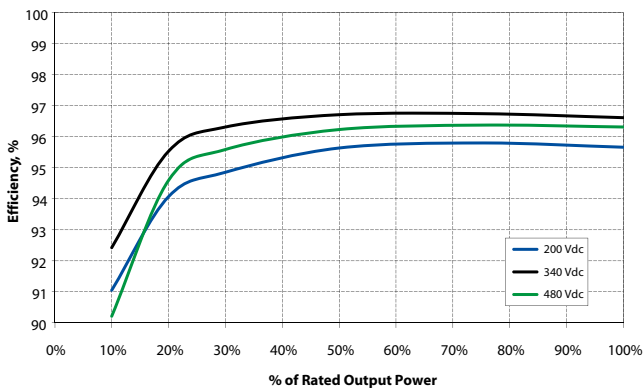
- Single Phase Output
- Transformerless operation for highest efficiency
- Power curve customization with high granularity to reach high level of power production yield
- Outdoor enclosure for unrestricted use under any environmental conditions
- Compact size and high power density
- Optimized real time 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-TL-OUTD-W, PVI-3.6-TL-OUTD-W AND PVI-4.2-TL-OUTD-W

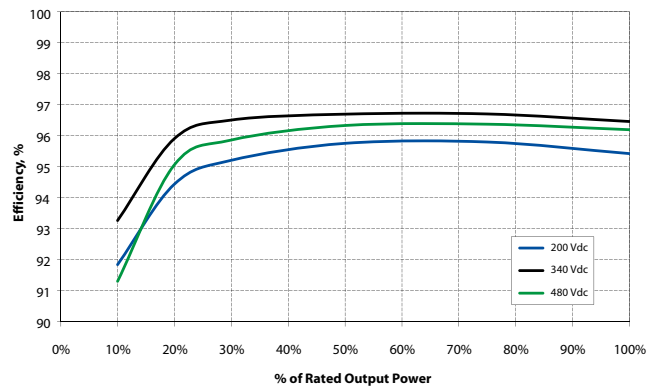


Block Diagram and Efficiency Curves

PVI-3.6-TL-OUTD-W



PVI-4.2-TL-OUTD-W



PARAMETER	PVI-3.0-TL-OUTD-W	PVI-3.6-TL-OUTD-W	PVI-4.2-TL-OUTD-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 ($V_{fp,min} \dots V_{fp,max}$)	160...530 V	120...530 V	140...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 Cable Glands		
Input Protection			
Reverse Polarity Protection	No		
Input Over Voltage Protection - Varistor	4		
Generator Isolation Control	Yes		
Output Side			
AC Grid Connection	Single phase		
Rated AC Power (P_{acr})	3000 W	3600 W	4200 W
Maximum AC Output Power ($P_{ac,max}$)	3300 W	4000 W	4600 W
Rated Grid AC Voltage ($V_{ac,r}$)	230 V		
AC Voltage Range	180...264 V ⁽¹⁾		
Maximum Output AC Current ($I_{ac,max}$)	14.5 A	17.2 A ⁽³⁾	20 A
Rated Frequency (f _r)	50 Hz		
Frequency Range ($f_{min} \dots f_{max}$)	47...53 Hz ⁽²⁾		
Nominal Power Factor (Cosφ _{i_{ac,r}})	> 0.995		
Total Harmonic Distortion	< 2%		
AC Connection Type	Screw Terminal Block Cable Glands		
Output Protection			
Anti-islanding protection	According to local standard		
Maximum AC Overcurrent Protection	16 A	19 A	22 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	IP 65		
Cooling	Natural		
Dimension (H x W x D)	618mm x 325mm x 222mm / 24.3" x 12.8" x 8.7"		
Weight	17 kg / 37.4 lb		
Safety			
Isolation Level	Transformerless		
Marking	CE		
Safety and EMC standard	EN 50178, EN61000-6-2, EN61000-6-4, EN61000-3-11, EN61000-3-12		
Grid Standard	DK 5940, VDE 0126-1-1, G83/1, EN 50438, RD1663, AS4777 ⁽⁵⁾	DK 5940, VDE 0126-1-1, G83/1, G59/2 ⁽⁴⁾ , EN 50438, RD1663, AS4777 ⁽⁵⁾	DK 5940, VDE 0126-1-1, G59/2, EN 50438, RD1663, AS4777 ⁽⁵⁾
Available Products Variants			
Standard	PVI-3.0-TL-OUTD-W	PVI-3.6-TL-OUTD-W	PVI-4.2-TL-OUTD-W

1. The AC voltage range may vary depending on specific country grid standard

2. The Frequency range may vary depending on specific country grid standard

3. Maximum output current limited to 16A for G83/1 version

4. Ask sales for availability

5. Add suffix -AU to product description



www.power-one.com

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