

## PVI-2000-OUTD

### GENERAL SPECIFICATIONS OUTDOOR MODELS

#### PVI-2000-OUTD

The transformerless operation of this compact outdoor residential inverter provides an efficiency of 95.5%. The high-speed Maximum Power Point Tracker (MPPT) produces real-time power tracking and improved energy harvesting.

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

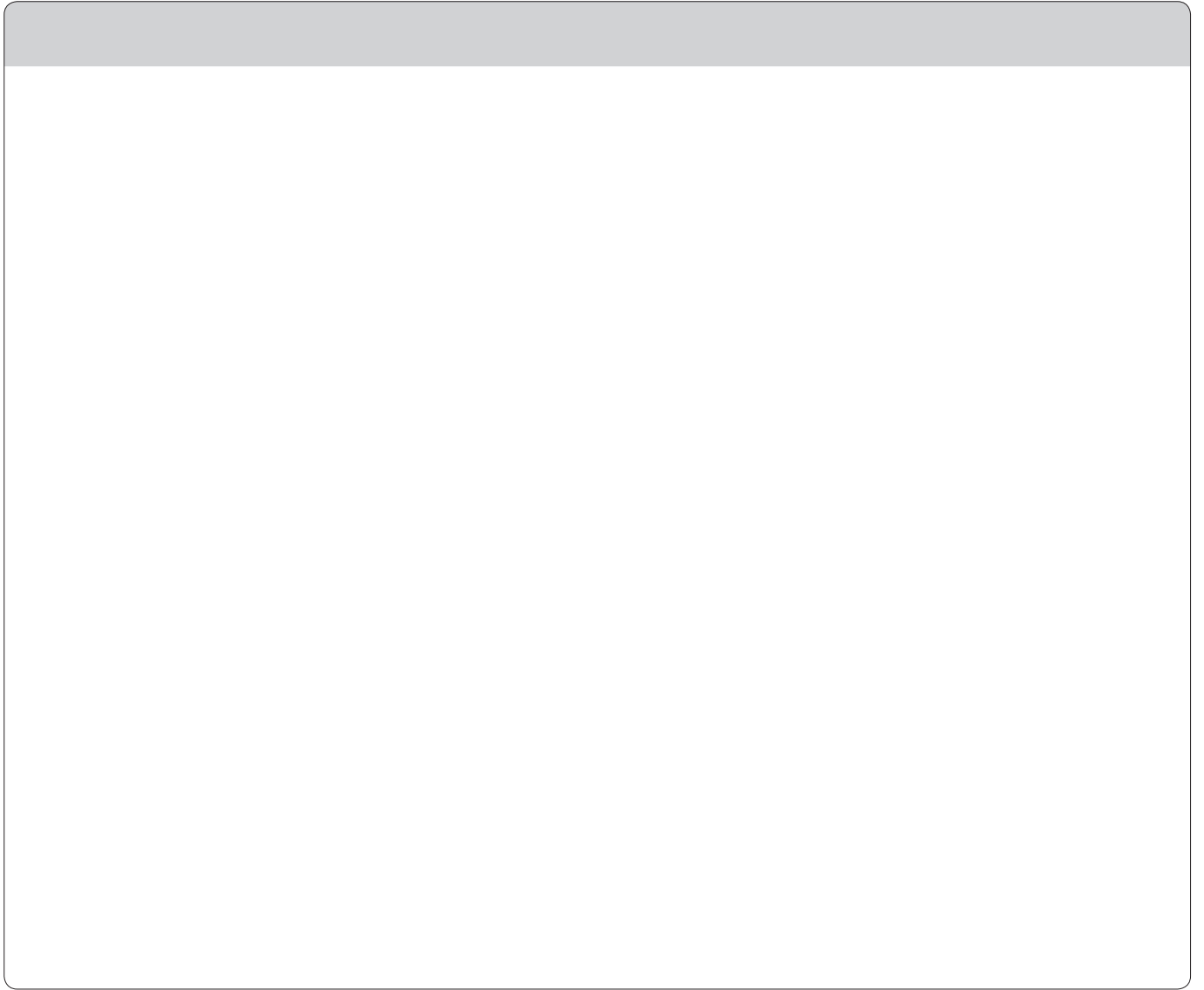
This small single string inverter features a front heat sink to keep the unit cleaner and more efficient over time.



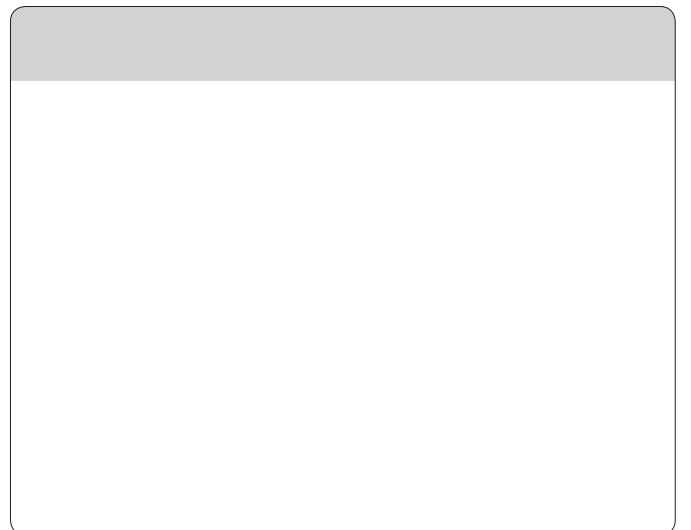
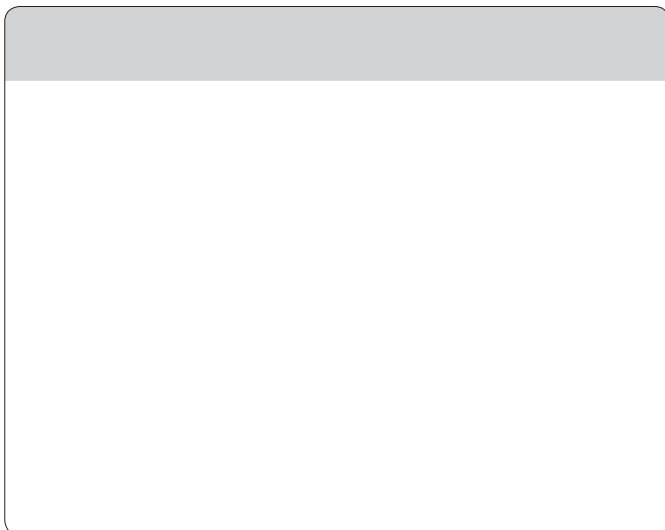
AURORA UNO

## Features

- Wide input range
- High speed and precise MPPT algorithm for real time power tracking and improved energy harvesting
- 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 and Efficiency Curves



PARAMETER	PVI-2000-OUTD
<b>Input Side</b>	
Absolute Maximum DC Input Voltage ( $V_{max,abs}$ )	600 V
Start-up DC Input Voltage ( $V_{start}$ )	200 V (adj. 120...350 V)
Operating DC Input Voltage Range ( $V_{dcmin} \dots V_{dcmax}$ )	$0.7 \times V_{start} \dots 580$ V
Rated DC Input Power ( $P_{acr}$ )	2100 W
Number of Independent MPPT	1
Maximum DC Input Power for each MPPT ( $P_{MPPTmax}$ )	2100 W Linear Derating From MAX to Null [ $530V \leq V_{MPPT} \leq 580V$ ]
MPPT Input DC Voltage Range ( $V_{MPPTmin,f} \dots V_{MPPTmax,f}$ ) at $P_{acr}$	210...530 V
DC Power Limitation for each MPPT with Independent Configuration of MPPT at $P_{acr}$ , max unbalance example	Not applicable
Maximum DC Input Current ( $I_{dcmax}$ ) / for each MPPT ( $I_{MPPTmax}$ )	10.0 A / 10.0 A
Maximum Input Short Circuit Current for each MPPT	12.0 A
Number of DC Inputs Pairs for each MPPT	1
DC Connection Type	Tool Free PV Connector WM / MC4
<b>Input Protection</b>	
Reverse Polarity protection	Yes, from limited current source
Input Over Voltage Protection for each MPPT - Varistor	2
Photovoltaic Array Isolation Control	According to local standard
<b>Output Side</b>	
AC Grid Connection Type	Single phase
Rated AC Power ( $P_{acr}$ )	2000 W
Maximum AC Output Power ( $P_{acmax}$ )	2000 W
Rated AC Grid Voltage ( $V_{acr}$ )	230 V
AC Voltage Range	180...264 V <sup>(1)</sup>
Maximum AC Output Current ( $I_{ac,max}$ )	10.0 A
Rated Output Frequency ( $f_r$ )	50 Hz
Output Frequency Range ( $f_{min} \dots f_{max}$ )	47...53 Hz <sup>(2)</sup>
Nominal Power Factor ( $\cos\phi_{i,acr}$ )	> 0.995
Total Current Harmonic Distortion	< 2.5 %
AC Connection Type	Circular connector
<b>Output Protection</b>	
Anti-Islanding Protection	According to local standard
Maximum AC Overcurrent Protection	16.0 A
Output Overvoltage Protection - Varistor	2 (L - N / L - PE)
<b>Operating Performance</b>	
Maximum Efficiency ( $\eta_{max}$ )	95.5%
Weighted Efficiency (EURO/CEC)	94.4% / -
Feed In Power Threshold	10.0 W
Stand-by Consumption	< 8.0 W
<b>Communication</b>	
Wired Local Monitoring	PVI-USB-RS485_232 (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
<b>Environmental</b>	
Ambient Temperature Range	-25...+60°C / -13...140°F with derating above 40°C/104°F
Relative Humidity	0...100 % condensing
Noise Emission	< 40 db(A) @ 1 m
Maximum Operating Altitude without Derating	2000 m / 6560 ft
<b>Physical</b>	
Environmental Protection Rating	IP 65
Cooling	Natural
Dimension (H x W x D)	420mm x 326mm x 141mm / 16.5" x 12.8" x 5.6"
Weight	< 14.5 kg / 32.0 lb
Mounting System	Wall bracket
<b>Safety</b>	
Isolation Level	Transformerless
Marking	CE
Safety and EMC Standard	EN 50178, EN61000-6-1, EN61000-6-3, EN61000-3-2, EN61000-3-3, AS/NZS 3100
Grid Standard	DK 5940, VDE 0126-1-1, G83/1, AS 4777
Available Products Variants	
Standard	PVI-2000-OUTD

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

<sup>1</sup> The AC Voltage Range may vary depending on specific country grid standard

<sup>2</sup> The Frequency Range may vary depending on specific country grid standard



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