power-one®
Changing the Shape of Power

AURORA®
Photovoltaic Inverter

General Specifications
Outdoor models

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

High-Efficiency, 3kW to 4.2kW Inverters
Aurora® grid-tie transformerless inverters offer a unique combination of ultra-high efficiencies, installer-friendly designs, long service life, and competitive initial acquisition costs; significantly increasing return on investment in solar-power installations.

Industry-Leading Features and Performance
- High efficiencies deliver more energy – up to 96.8% (96% Euro).
- Two inputs with independent MPPTs, optimize power from multiple arrays that oriented in different directions.
- Compact size and high power density: 4600W max of output power in a box just 31" x 12 13/16" x 7 11/16".

Unmatched Applications Flexibility
- Full-rated power available up to 50°C ambient temperature.
- Two input sections,with parallel option, with independent high speed MPPTs, optimize energy harvesting from multiple arrays oriented in different directions.
- Wide MPPT operating range: 90 to 580VDC

Field-Proven Reliability
- IP65 (NEMA 4) rated enclosure withstands the harshest environmental conditions.
- Front-mounted heat sink resists contamination, enhancing cooling and increasing reliability and long-term efficiency.
- Grid-connected operation according to international standards, UL1741 & CSA-C22.2 N.107.1-01
- Five-year warranty, optionally extendable to twelve years.

Installer Friendly
- Reverse-polarity protection minimizes potential damage caused by miswiring during installation.
- Front-panel mounted LCD display provides real-time updates for all critical operating parameters.
- RS-485 and USB communications interfaces.
- Integrated DC switch available in compliance with NEC Standard, Article 690 "Solar Photovoltaic System" (USA)
- Anti islanding protection

Models	AC Power
PVI-3.0-OUTD	3.0kW
PVI-3.6-OUTD	3.6kW
PVI-4.2-OUTD	4.2kW

Options

Aurora Communicator software simplifies monitoring via PC. Aurora Easy Control datalogger is available for remote control via Internet, modem or GSM

Renewable Energy Division

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SPECIFICATIONS	PVI-3.0-OUTD/-S	PVI-3.6-OUTD/-S	PVI-4.2-OUTD/-S
INPUT PARAMETERS (DC Side)			
Nominal DC Power [kW]	3.12	3.75	4.38
Total Max. Recommended DC Power [kW]	3.5	4.15	4.82
Operating MPPT Input Voltage Range [V]	90 to 580 (360 nominal)		
Full Power MPPT Range [V]	160-530	120-530	140-530
Max. Input Voltage [V]	600		
Activation voltage [V]	200 nominal (adjustable within 120-350)		
No of independent MPPT trackers	2		
Max. Input Power, each MPPT [kW]	2	3	3
No. of DC Inputs	2 (1 each MPPT)	2 (1 each MPPT)	2 (1 for MPPT1, 1 for MPPT2)
Max. DC Current, each MPPT [A]	10 (12.5 short circuit)	16 (20 short circuit)	16 (20 short circuit)
Thermally Protected DC side varistor	4 (2 for each MPPT)		
DC Switch	Integrated (Rating: 600Vdc/25A)		
DC Connections	4 (2 POSITIVE, 2 NEGATIVE) SCREW TERMINAL BLOCK 3 KNOCK-OUTS: G1&1/2" or G1" (using ring reduction) CONDUCTOR CROSS SECTION : MAX AWG4		
OUTPUT PARAMETERS (AC Side)			
Nominal AC Power [kW]	3	3.6	4.2
Max. AC Power [kW]	3.3	3.96	4.6
AC Grid Connection	single phase / split phase		
Nominal AC Voltage Range [V]	Default: 240V split phase, Optional - 208 ot 277 single phase (setting required)		
Maximum AC Voltage Range [V]	187.2-224.6 ; 216-259.2 ; 249.3-299.2		
Nominal AC Frequency [Hz]	60		
Max. AC Line Current [A]	14.4; 12.5; 10.8 (16 short circuit)	17.3; 15;13 (19 short circuit)	20; 17.5; 15 (22 short circuit)
AC side varistor	2 (Live - Neutral / Live - PE)		
AC Connection	SCREW TERMINAL BLOCK 3 KNOCK-OUTS: G1&1/2" or G1" (using ring reduction) CONDUCTOR CROSS SECTION : AWG4/8		
Line Power Factor	1		
AC Current Distortion (THD)	<3.5% at rated power with sine wave voltage		
Max. Efficiency	96.8%		
Euro Efficiency	96%		
Feed In Power Threshold [W]	20		
Night Time consumption [W]	< 2		
Isolation	No (transformer less)		
ENVIRONMENTAL PARAMETERS			
Cooling	Natural cooling		
Ambient Temp. Range [°C]	-25 / + 60 (output power derating above 50°C)		
Operating Altitude [ft]	6,000		
Acoustical Noise [dBA]	< 50 @ 1mt		
Environmental IP Rating	IP65		
Relative Humidity	0-100% condensing		
MECHANICAL			
Dimensions (HxWxD) [inches]	31" 12 13/16" x 7 11/16"		
Weight [lbs]	46.25		
OTHER			
Display	YES (Alphanumeric 2 lines)		
Communication	RS485 (Screw terminal block - Conductor cross section: 0,08-1,5mmq/AWG28-16) USB connection (Service) "Aurora Easy-Control" system for remote control (Optional)		

Standards and Codes

Aurora inverters comply with standards set for grid-tied operation, safety, and electromagnetic compatibility including: UL1741 pending, VDE0126, CEI 11-20, DK5940, CEI64-8, IEC 61683, IEC 61727, EN50081, EN50082, EN61000, CE certification, El Real Decreto RD1663/2000 de España.