power-one® Renewable Energy Solutions

renvu

AURORA®

AURORA PANEL PRODUCTS

MICRO-0.25-I
MICRO-0.3-I

GENERAL SPECIFICATIONS
OUTDOOR MODELS

The new Aurora 250 & 300-watt micro-inverter product offers something new to Power-One customers. The ability to individually link all modules within a specific installation is an alternative to the traditional Aurora string inverters Power-One is famous for.

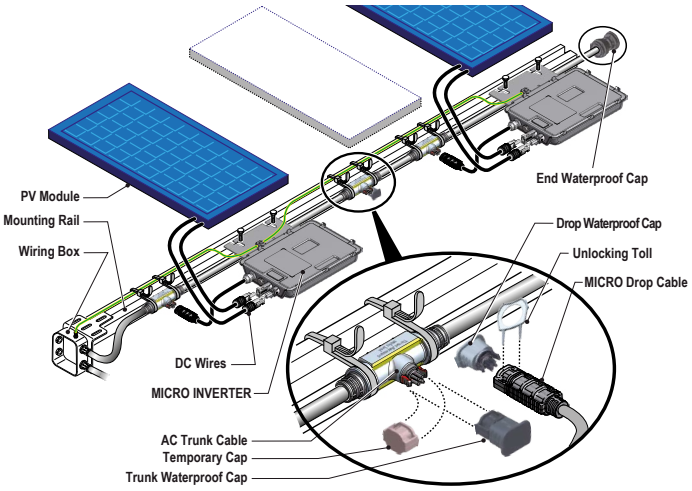
Micro-inverters have some advantages over string inverters. They allow you to control the panels output individually and offer Maximum Power Point Tracking (MPPT) for each single module.

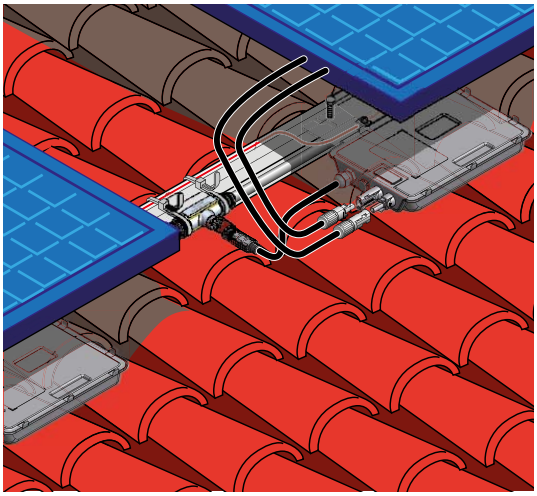
They also allow you to control individual panels in different ways and reduce the losses in efficiency in a variety of challenging conditions.

Features

- 'Electrolyte-free' power converter to further increase the life expectancy and long term reliability
- Outdoor enclosure for unrestricted use under any environmental conditions
- Increased energy harvesting thanks to the MPPT algorithm which works at the level of each solar panel in any light condition
- Enhanced MPPT control with reduced DC input current ripple
- HF isolation to fits any application that requires the positive grounding of DC input terminals
- 96.5% maximum efficiency
- Ease of installation by the implementation of a package inclusive of proprietary wireless communication hub
- Reduced susceptibility to fault. In case of a component failure only the energy produced from one PV module will be lost

SYSTEM INSTALLATION





AURORA MICRO® INVERTER SYSTEM INSTALLATION

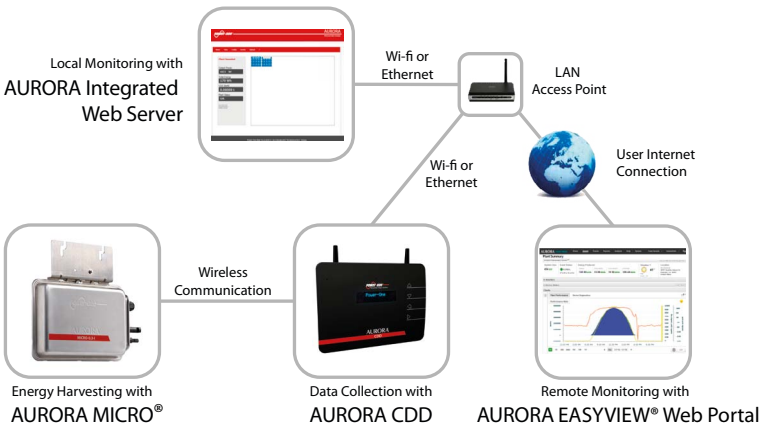
- The AURORA MICRO® Inverter offers ease of to installation with an AC trunk and drop cable configuration
- The mounting bracket on the AURORA MICRO® inverter ensures simple and durable mounting on commercially available racking solutions
- AC Cabling compatible with 60, 72 and 96 cell modules in both portrait and landscape orientation
- Locking connectors and weatherproof accessories ensure long term reliable operation of the plant

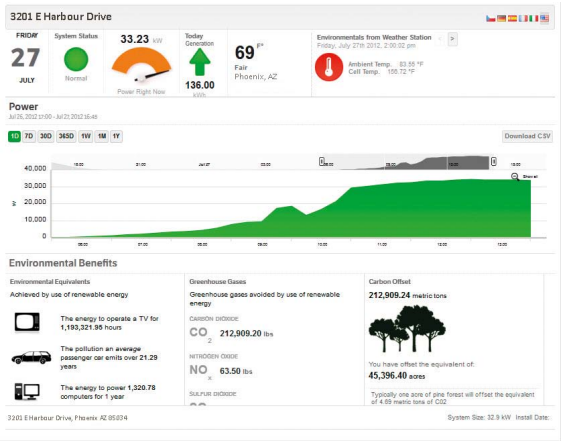
AURORA VISION MONITORING

- Easy monitoring solution for homeowners with AURORA EASYVIEW®
- Complete reporting, analytics and diagnostic view for installers with complete control of installation process and access security
- Tightly integrated micro-inverter and monitoring solution

System Overview

MONITORING SOLUTION





AURORA MICRO® INVERTER

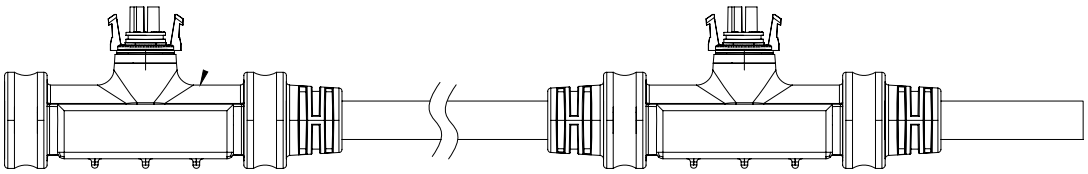
- 250W: MICRO-0.25-I
- 300W: MICRO-0.3-I

AURORA CDD

- Wireless Data Monitoring
- Remote Monitoring through AURORA VISION

CABLING AND ACCESSORIES

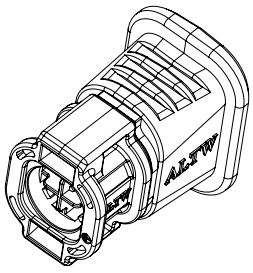
AC TRUNK CABLE



- Portrait Orientation (60, 72, 96 cell modules): AC-TRUNK SPOOL-41inches-50plugs (41" connector pitch, spool of 50 plugs)
- Landscape Orientation (60, 96 cell modules): AC-TRUNK SPOOL-67inches-32plugs (67" connector pitch, spool of 32 plugs)
- Landscape Orientation (72 cell modules): AC-TRUNK SPOOL-81inches-27plugs (81" connector pitch, spool of 27 plugs)

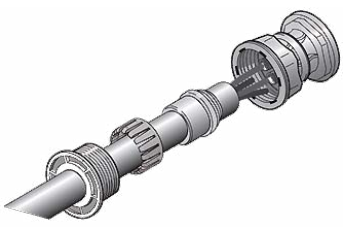
System Components

AC TRUNK CABLE PLUG CAP



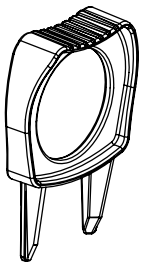
- Plug cap to cover and seal unused plugs on AC trunk cable: AC-TRUNK PLUG CAP

AC TRUNK CABLE END CAP



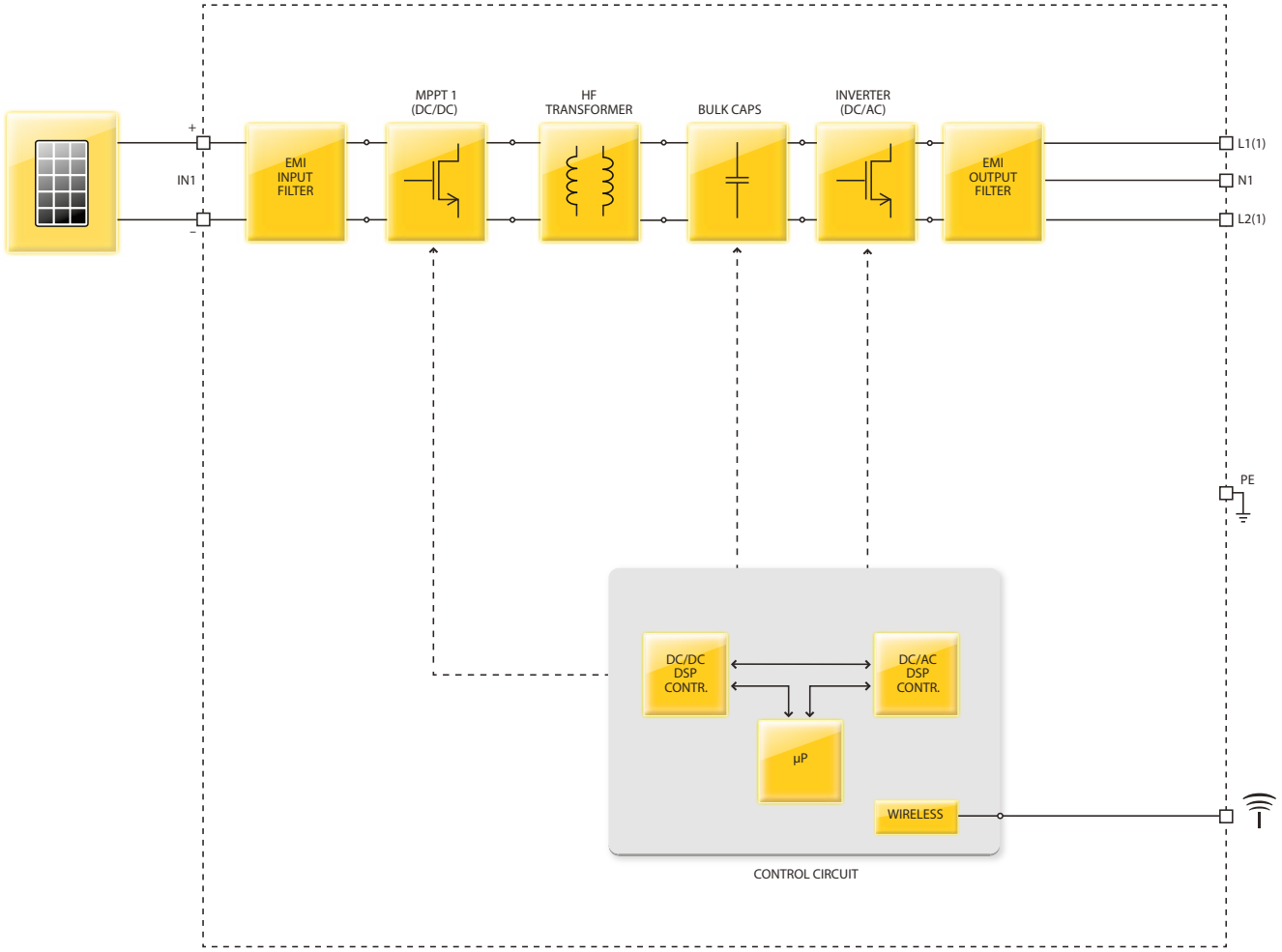
- End cap to cover and seal ends of AC trunk cable: AC-TRUNK END CAP

AC TRUNK CABLE UNLOCK TOOL



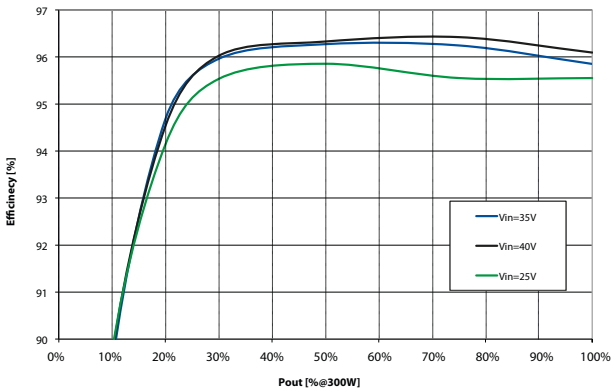
- To disconnect AURORA MICRO inverter or Junction cap from trunk cable: AC-TRUNK UNLOCK TOOL

BLOCK DIAGRAM OF MICROINVERTER

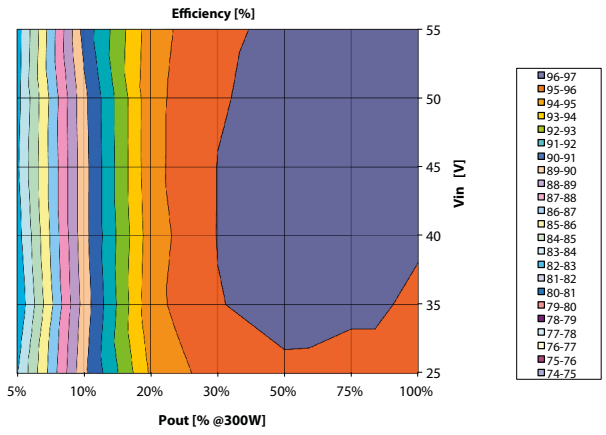


Block Diagram and Efficiency Curves

MICRO-0.3-I



MICRO-0.3-I



TECHNICAL DATA	VALUES	MICRO-0.25-I-OUTD-US-208/240		MICRO-0.3-I-OUTD-US-208/240	
Nominal Output Power	W	250		300[1]	
Rated Grid AC Voltage	V	208	240	208	240
Maximum Output Power	W	250		300	
Input Side (DC)					
Maximum Usable DC Input Power	Wp	265[2]		320[2]	
Absolute Maximum Voltage (Vmax)	V	65		65	
Start- Up Voltage (Vstart)	V	25		25	
Full Power MPPT Voltage Range	V	25-60		30-60	
Operating Voltage Range	V	12-60[3]		12-60[3]	
Maximum Usable Current (Idcmax)	A	10.5		10.5	
Maximum Short Circuit Current Limit	A	12.5[3]			
DC Connection Type		Amphenol H4 (MC4 compatible) PV connector			
Output Side (AC)					
Grid Connection Type		1Ø/2W	Split-Ø/3W	1Ø/2W	Split-Ø/3W
Adjustable Voltage Range (Vmin-Vmax)	V	183-228	211-264	183-228	211-264
Grid Frequency	Hz	60		60	
Adjustable Grid Frequency Range	Hz	57-60.5		57-60.5	
Maximum Output Current	A	1.20	1.04	1.44	1.25
Power Factor		> 0.95		> 0.95	
Maximum Number of Inverters per String		13	15	11	12
Grid Wiring Termination Type		12AWG Drop Cable from Inverter to 10AWG AC Trunk Cable			
Protection Devices					
Input					
Reverse Polarity Protection		Yes Polarized PV Connectors (Amphenol H4)			
Output					
Anti-Islanding Protection		Meets UL 1741/IEEE1547 requirements		Meets UL 1741/IEEE1547 requirements	
Over-Voltage Protection Type		Varistor		Varistor	
Maximum AC OCPD Rating	A	20		20	
Efficiency					
Maximum Efficiency	%	96.5		96.5	
CEC Efficiency	%	96		96	
Operating Performance					
Stand-by Consumption	mW	< 50		< 50	
Communication					
Monitoring System		Wireless and Web-Based Monitoring through AURORA CDD			
Environmental					
Ambient Air Operating Temperature Range	°F (°C)	-40 to 167 (-40 to 75) with derating above 149 (65)		-40 to 167 (-40 to 75) with derating above 149 (65)	
Ambient Air Storage Temperature Range	°F (°C)	-40 to 167 (-40 to +75)		-40 to 167 (-40 to +75)	
Relative Humidity	% RH	0-100 condensing		0-100 condensing	
Acoustic Noise Emission Level	db (A) @1m	< 30		< 30	
Maximum Operating Altitude without Derating	ft(m)	6560 (2000)		6560 (2000)	
Mechanical Specifications					
Enclosure rating		NEMA 4X		NEMA 4X	
Cooling		Natural Convection		Natural Convection	
Dimensions (H x W x D)	in (mm)	10.5 x 9.7 x 1.37 (266 x 246 x 35)			
Weight	lb/(kg)	< 3.5 (1.65)		< 3.5 (1.65)	
Mounting System		Rack mounting with 5/16" bolt			
Safety					
Isolation Level		HF Transformer		HF Transformer	
Safety and EMC Standard		UL1741, EN61000-6-2, EN61000-6-3, FCC Part 15		UL1741, EN61000-6-2, EN61000-6-3, FCC Part 15	
Safety Approval		$_{c}CSA_{us}$		$_{c}CSA_{us}$	
Warranty					
Standard Warranty	years	10		10	
Available Models					
Standard		MICRO-0.25-I-OUTD-US-208/240		MICRO-0.3-I-OUTD-US-208/240	

1 With derating below 200V for 208VAC operation
2 This is the maximum power that the inverter will utilize. It does not define the maximum power rating for the PV module.
3 Only use PV modules that satisfy these parameters under all operating conditions.

renvu
www.renvu.com
info@renvu.com
855.755.5855
380B Cambridge Ave. Palo Alto, CA 94306

www.power-one.com

Power-One Renewable Energy Worldwide Sales Offices

Country	Name/Region	Telephone	Email
Australia	Asia Pacific	+61 2 9735 3111	sales.australia@power-one.com
China (Shenzhen)	Asia Pacific	+86 755 2988 5888	sales.china@power-one.com
China (Shanghai)	Asia Pacific	+86 21 5505 6907	sales.china@power-one.com
India	Asia Pacific	+65 6896 3363	sales.india@power-one.com
Singapore	Asia Pacific	+65 6896 3363	sales.singapore@power-one.com
Belgium / The Netherlands / Luxembourg	Europe	+32 2 206 0338	sales.belgium@power-one.com
France	Europe	+33 (0) 141 796 140	sales.france@power-one.com
Germany	Europe	+49 7641 955 2020	sales.germany@power-one.com
Italy	Europe	00 800 00287672 Opt. n°5	sales.italy@power-one.com
Spain	Europe	+34 91 879 88 54	sales.spain@power-one.com
United Kingdom	Europe	+44 1903 823 323	sales.UK@power-one.com
Dubai	Middle East	+971 50 100 4142	sales.dubai@power-one.com
Canada	North America	+1 877 261-1374	sales.canada@power-one.com
USA East	North America	+1 877 261-1374	sales.usaeast@power-one.com
USA Central	North America	+1 877 261-1374	sales.usacentral@power-one.com
USA West	North America	+1 877 261-1374	sales.usawest@power-one.com