

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.

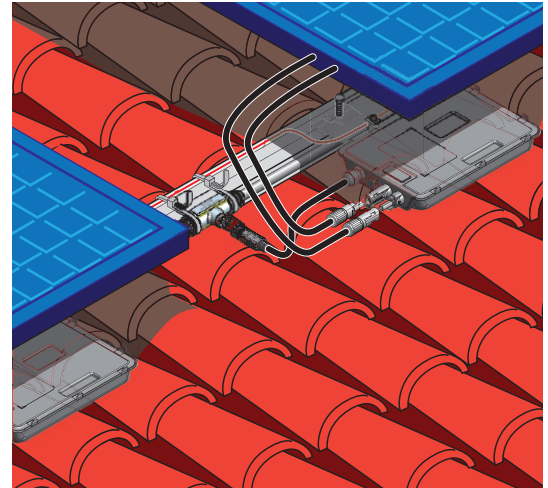
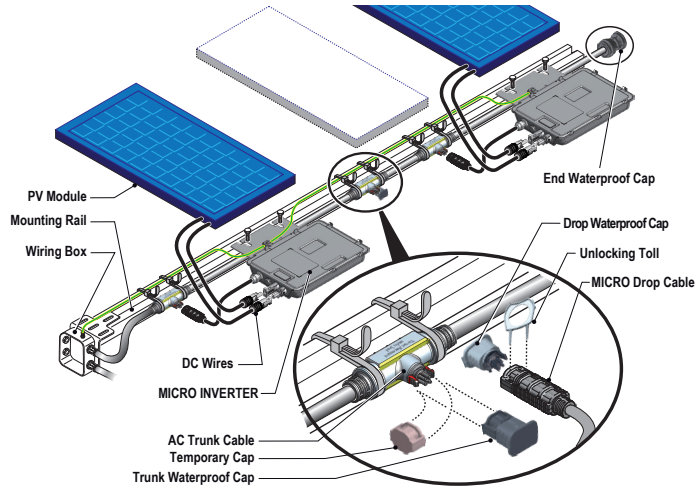
They also allow you to control individual panels in different ways and reduce the losses in efficiency in a variety of challenging conditions.



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

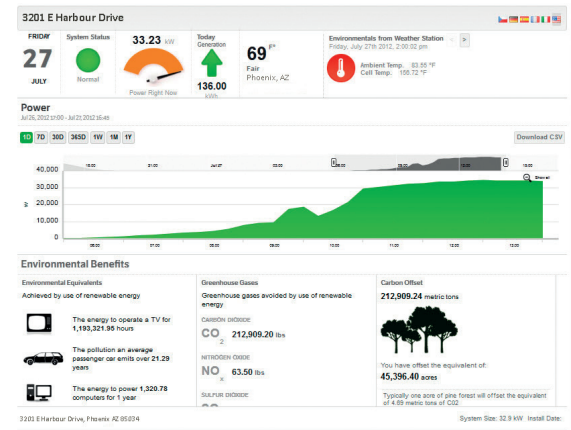
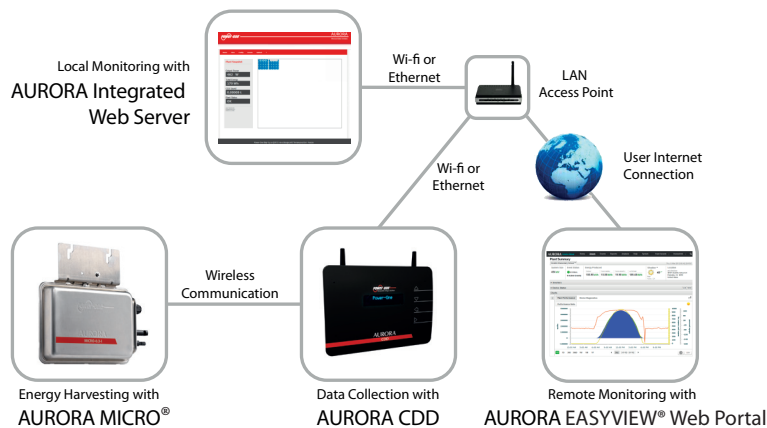
- The AURORA MICRO® Inverter offers ease of to installation with an AC trunk and drop cable configuration
- The mounting bracket on the AURORA MICRO® inverter ensures simple and durable mounting on commercially available racking solutions
- AC Cabling compatible with 60, 72 and 96 cell modules in both 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

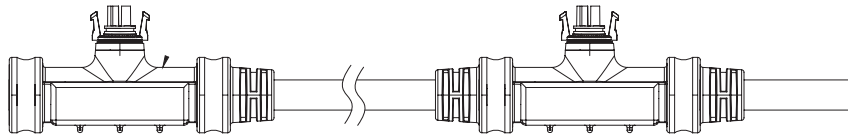
AURORA CDD



- Wireless Data Monitoring
- Remote Monitoring through AURORA VISION

CABLING AND ACCESSORIES

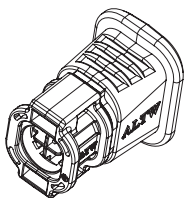
AC TRUNK CABLE



- 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)

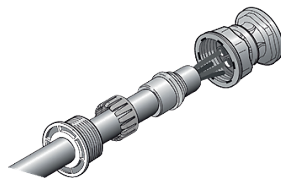
System Components

AC TRUNK CABLE PLUG CAP



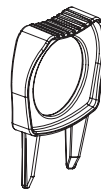
- Plug cap to cover and seal unused plugs on AC trunk cable: AC-TRUNK PLUG CAP

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

AC TRUNK CABLE JOINER



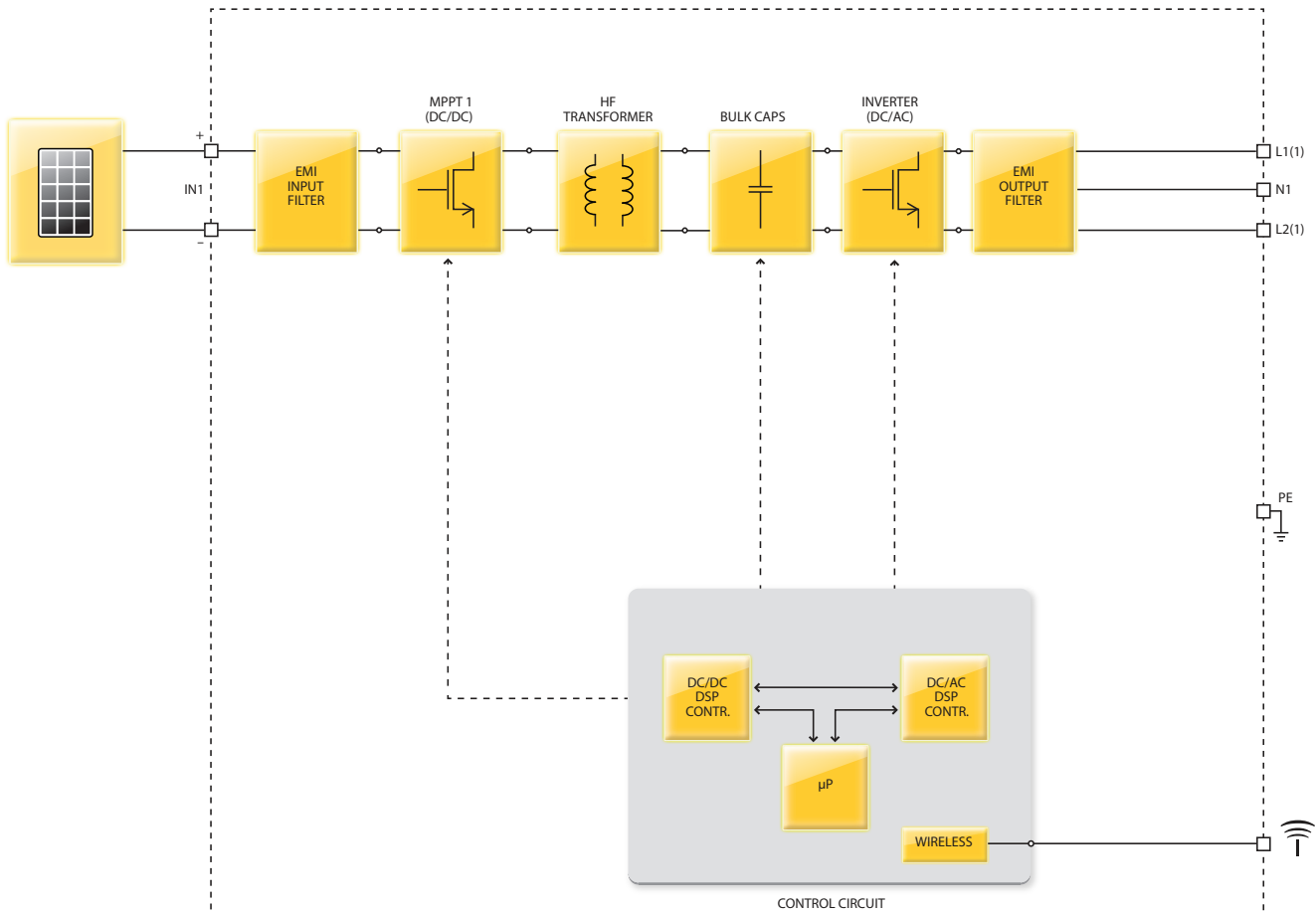
- To connect two trunk cables together: AC-TRUNK CABLE JOINER

CDD ANTENNA EXTENSION CABLE 50FT (Optional)



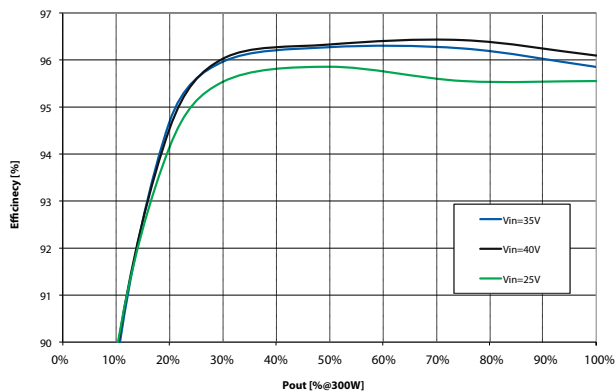
- To extend the wireless communication range of the CDD and MICRO inverters: MOBILE MARK CABLE-ASSY-C25-26-15L

BLOCK DIAGRAM OF MICROINVERTER

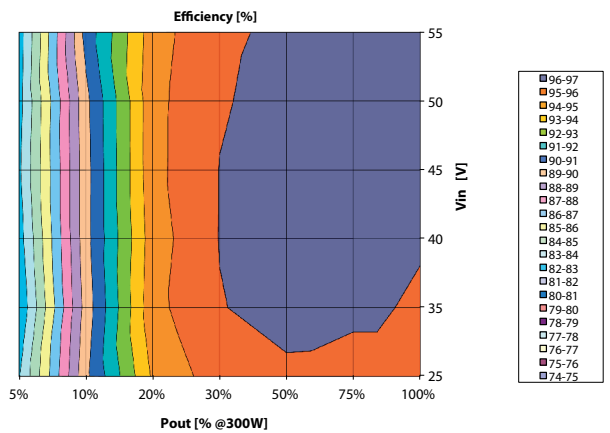


Block Diagram and Efficiency Curves

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 | 260 | | 310 | |
| Input Side (DC) | | | | | |
| Maximum Usable DC Input Power | Wp | 265 ² | | 320 ² | |
| Absolute Maximum Voltage (Vmax) | V | 65 | | 65 | |
| Maximum allowed PV module rating (STC) | W | 300 | | 360 | |
| 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 | | 18AWG 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 (CDD required for compliance to UL1741) | | | |
| 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" or 8mm bolt | | | |
| Safety | | | | | |
| Isolation Level | | HF Transformer | | HF Transformer | |
| Safety and EMC Standard | | UL1741, CSA C22.2 N. 107.1-01, EN61000-6-2, EN61000-6-3, FCC Part 15 | | UL1741, CSA C22.2 N. 107.1-01, EN61000-6-2, EN61000-6-3, FCC Part 15 | |
| Safety Approval | | cCSA _{us} | | cCSA _{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 input power that the inverter will utilize.

³ Only use PV modules that satisfy these parameters under all operating conditions.



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