

MICRO-0.3-I

GENERAL SPECIFICATIONS OUTDOOR MODELS

MICRO-0.3-I-OUTD

AURORA UNO

The new Aurora 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.

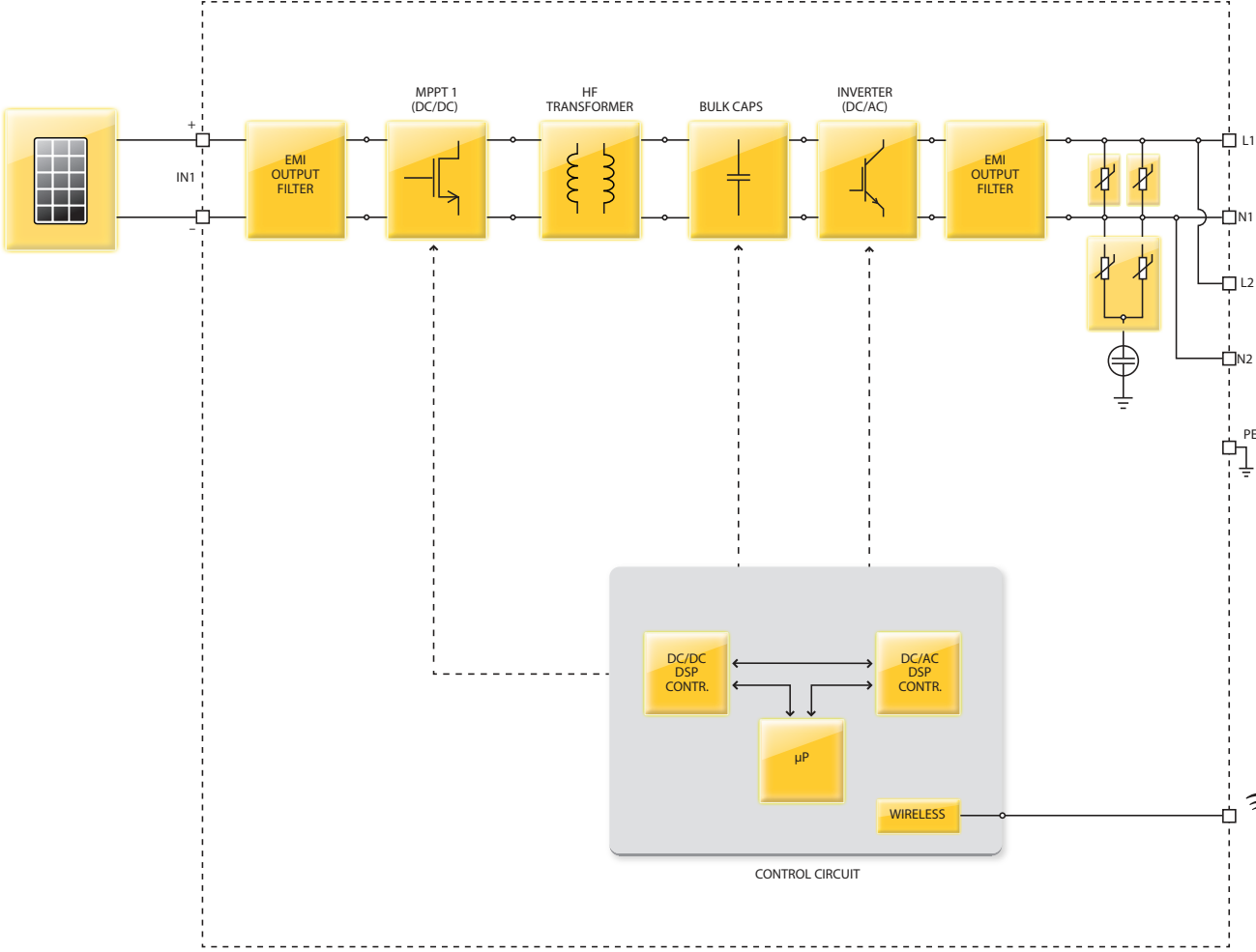
They also allow you to control individual panels in different ways and reduce the losses in efficiency in a variety of challenging conditions.



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
- No DC input current ripple
- The HF isolation allows it to fit any application that requires the grounding of either one of the input terminations
- 95.5% of efficiency
- Ease of installation by the implementation of a package inclusive of proprietary wireless communication hub and grid interface
- Reduced susceptibility to fault. In case of a component failure only the energy produced from one PV module will be lost
- Up to 10 micro inverters directly connectable in a string

BLOCK DIAGRAM OF MICROINVERTER



Block Diagram

PARAMETER	MICRO-0.3-I
Input Side	
Maximum Input Power ($P_{dcmax,STC}$)	320 Wp
Operating Input Range ($V_{dcmin}...V_{dcmax}$)	25...60 V
MPPT Input range ($V_{MPPTmin,r}...V_{MPPTmax,r}$)	30...50 V
Absolute Maximum Input Voltage ($V_{max,abs}$)	65 V
Absolute Maximum Input Current ($I_{dcmax,abs}$)	10.0 A
Number of DC Inputs Pairs	1
DC Connection Type	MC4
Output Side	
AC Grid Connection ($V_{acmin}...V_{acmax}$)	Single phase
Rated Power ($P_{ac,r}$)	300 W
Rated Grid Voltage ($V_{ac,r}$)	230 / 240 Vac
AC Voltage Range ($V_{acmin}...V_{acmax}$)	180...264 Vac ¹
Maximum Output Current ($I_{ac,max}$)	1.5 A
Rated Frequency (f)	50/60 Hz
Frequency Range ($f_{min}...f_{max}$)	47...53 / 57...63 Hz ²
Nominal Power Factor ($\cos\phi_{ac,r}$)	> 0.95
Maximum number of units per string	10
Output Protection	
Anti-islanding protection	According to local standard
Output Over Voltage Protection - Varistor	2(L - N) / 2 (L - PE)
Operating Performance	
Maximum Efficiency (η_{max})	95.5%
Weighted Efficiency (EURO/CEC)	95.0% / 95.0%
Stand-by Consumption	< 0.05 W
Communication	
Local Monitoring System	Wireless
Remote Control	Wireless
Environmental	
Ambient Temperature Range	-40...+70°C / -40...158°F
Relative Humidity	0...100 % condensing
Noise Emission	< 30 db(A) @ 1 m
Maximum Operating Altitude without Derating	2000 m / 6560 ft
Physical	
Environmental Protection Rating	IP 65
Cooling	Natural
Dimension (H x W x D)	210mm x 160mm x 50mm / 8.3" x 6.3" x 2.0"
Weight	< 1.5 kg / 3.3 lb
Safety	
Isolation Level	HF Transformer
Marking	CE, cCSAus
Safety and EMC Standard	EN 50178, EN61000-6-2, EN61000-6-4, EN61000-3-11, EN61000-3-12
Grid Standard	VDE0126-1-1, Enel Guideline, AS4777, G83/1, UL1741, IEEE 1547, FCC
Available Products Variants	
Standard	MICRO-0.3-I-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

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