power-one®
Renewable Energy Solutions

MICRO-0.25-I-OUTD
MICRO-0.3-I-OUTD

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.

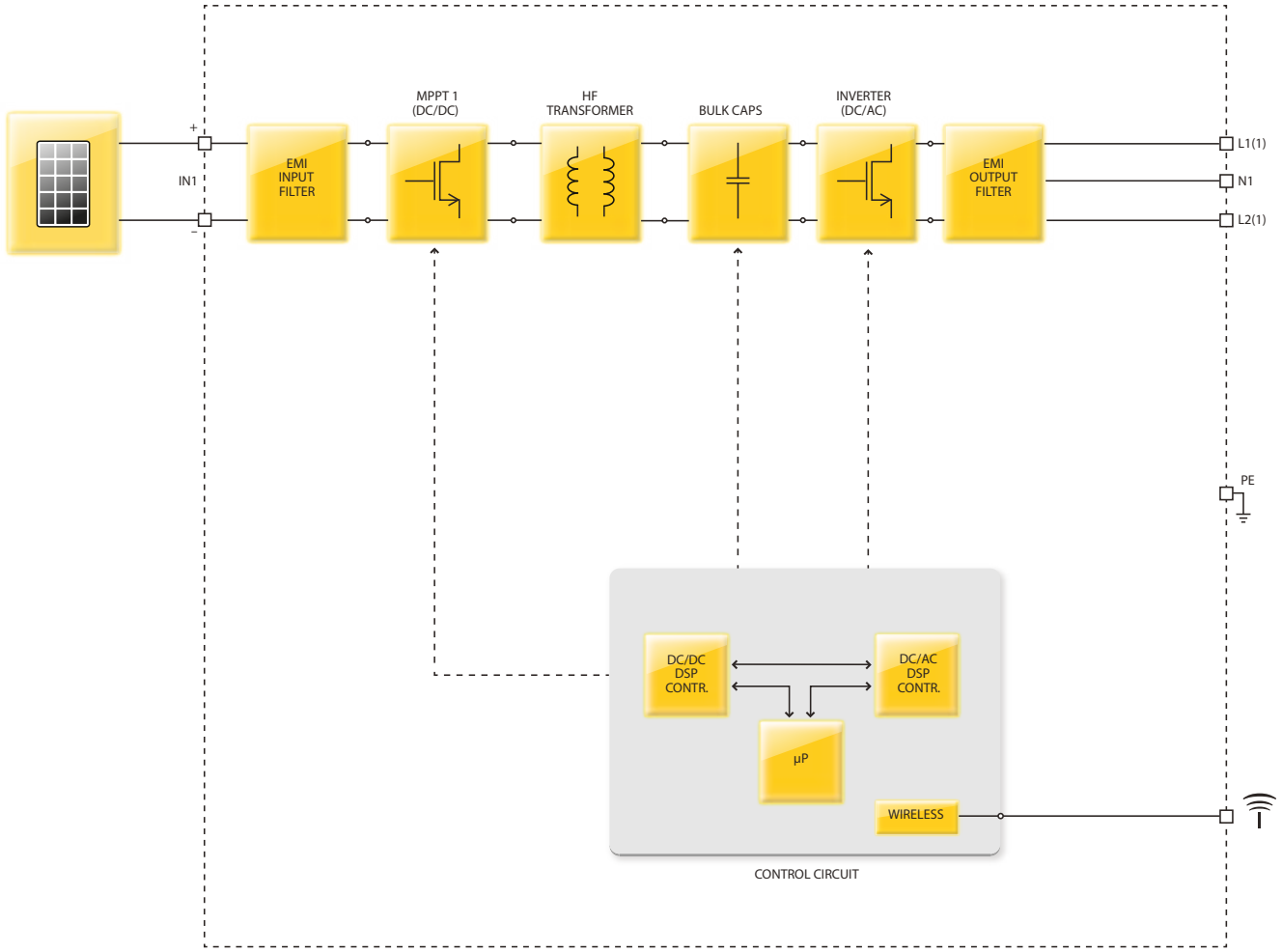
MICRO inverters have some advantages over string inverters. They allow you to control the panels output individually and offer Maximum Power Point Tracking (MPPT) for each single module.

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

Features

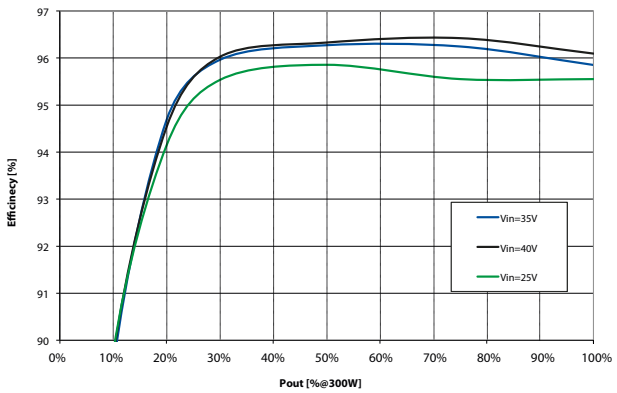
- 'Electrolyte-free' power converter to further increase the life expectancy and long term reliability
- Outdoor enclosure for unrestricted use under any environmental conditions
- Increased energy harvesting thanks to the MPPT algorithm which works at the level of each solar panel in any light condition
- 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

BLOCK DIAGRAM OF MICRO-0.25/0.3-I-OUTD

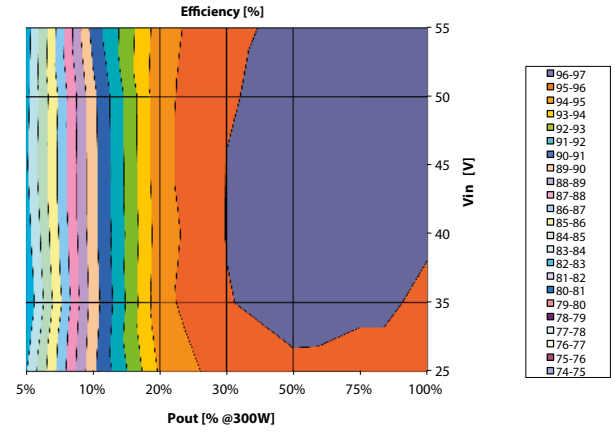


Block Diagram and Efficiency Curves

MICRO-0.3-I



MICRO-0.3-I



PARAMETER	MICRO-0.25-I-OUTD	MICRO-0.3-I-OUTD
Input Side		
Maximum DC Input Power (P_{dcmax})	265 Wp	320 Wp
Operating DC Input Voltage Range (V_{dcmin}...V_{dcmax})	12...60 V	12...60 V
MPPT Input DC Voltage Range ($V_{MPPTmin}$ ... $V_{MPPTmax}$)	25...50 V	30...50 V
Absolute Maximum DC Input Voltage ($V_{max,abs}$)	65 V	65 V
Maximum DC Input Current (I_{dcmax})	10.5 A	10.5 A
Number of DC Inputs Pairs for each MPPT	1	1
DC Connection Type	PV connector Amphenol Helios H4[6]	PV connector Amphenol Helios H4[6]
Start-up DC Input Voltage (V_{start})	25V	25V
Output Side		
AC Grid Connection Type	Single phase	Single phase
Rated AC Power ($P_{ac,r}$)	250 W	300 W
Maximum Apparent Power (S_{max})	250 VA[3]	300 VA[3]
Rated AC Grid Voltage ($V_{ac,r}$)	230 V	230 V
AC Voltage Range (V_{acmin}...V_{acmax})	180...264 V [1]	180...264 V [1]
Maximum AC Output Current ($I_{ac,max}$)	1.3 A	1.5 A
Contributory fault current	3 A	3 A
Rated Output Frequency (f_r)	50 Hz	50 Hz
Output Frequency Range (f_{min}...f_{max})	47...53 Hz [2]	47...53 Hz [2]
Nominal Power Factor ($Cosphi_{ac,r}$) and adjustable range	> 0.995[3]	> 0.995[3]
Maximum number of units per phase	17	17
Output Protection		
Anti-Islanding Protection	According to local standard	According to local standard
Output Overvoltage Protection - Varistor	Yes	Yes
Operating Performance		
Maximum Efficiency (η_{max})	96.5%	96.5%
Weighted Efficiency (η_{EURO}/η_{CEC})	95.4% / -	95.5% / -
Stand-by Consumption	< 50mW	< 50mW
Communication		
Monitoring System (PC/Data logger)	Wireless	Wireless
Remote Monitoring	Wireless	Wireless
Environmental		
Ambient Temperature Range	-40...+75°C / -40...167°F with Derating above 65°C (149°F)	-40...+75°C / -40...167°F with Derating above 65°C (149°F)
Relative Humidity	0...100 % condensing	0...100 % condensing
Noise Emission	< 30 db(A) @ 1 m	< 30 db(A) @ 1 m
Maximum Operating Altitude without Derating	2000 m / 6560 ft	2000 m / 6560 ft
Physical		
Environmental Protection Rating	IP 65	IP 65
Cooling	Natural	Natural
Dimension (H x W x D)	266mm x 246mm x 35mm / 10.5" x 9.7" x 1.37"	266mm x 246mm x 35mm / 10.5" x 9.7" x 1.37"
Weight	< 1.65 kg / 3.5 lb	< 1.65 kg / 3.5 lb
Safety		
Isolation Level	HF Transformer	HF Transformer
Marking	CE [5]	CE [5]
Safety and EMC Standard	EN61000-6-2, EN61000-6-3, EN61000-3-2, EN61000-3-3, EN 50178, EN62109-1, EN62109-2	EN61000-6-2, EN61000-6-3, EN61000-3-2, EN61000-3-3, EN 50178, EN62109-1, EN62109-2
Grid Standard [4]	CEI 0-21, VDE 0126-1-1, VDE-AR-N 4105, G83/2, RD1699, AS 4777	CEI 0-21, VDE 0126-1-1, VDE-AR-N 4105, G83/2, RD1699, AS 4777
Available Products Variants		
Standard	MICRO-0.25-I-OUTD-230	MICRO-0.3-I-OUTD-230

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

3. The unit has not reactive power capability

4. The unit has not an internal disconnection device

5. Take care that an external device (i.e. CDD) shall be used in the end system installation to indicate faults

6. MC4 compatible in most countries where it is distributed

Remark. Features not specifically listed in the present data sheet are not included in the product

Ver. 2013-04.0-EN - All products are subject to technical improvements without notice.

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
Japan	Asia Pacific	03-4580-2714 / +81-3-4580-2714	sales.japan@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
Greece	Europe	00 800 00287672	sales.greece@power-one.com
Italy	Europe	00 800 00287672	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
Israel	Middle East	+972 0 3 544 8884	sales.israel@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