

## UNO-2.0-I-OUTD UNO-2.5-I-OUTD

### GENERAL SPECIFICATIONS OUTDOOR MODELS

The UNO-2.0-I and UNO-2.5-I are the latest single phase string inverters in the Aurora range. A new-look inverter but packed with Power-One's proven high performing technology. The new look inverter has new features including a special built-in heat sink compartment and front panel display system.

The smallest of Power-One's outdoor range, these new products are the right size for the average rooftop installation. This rugged outdoor inverter has been designed as a completely sealed unit to withstand the harshest environmental conditions.

The high speed MPPT offers real-time power tracking and improved energy harvesting.

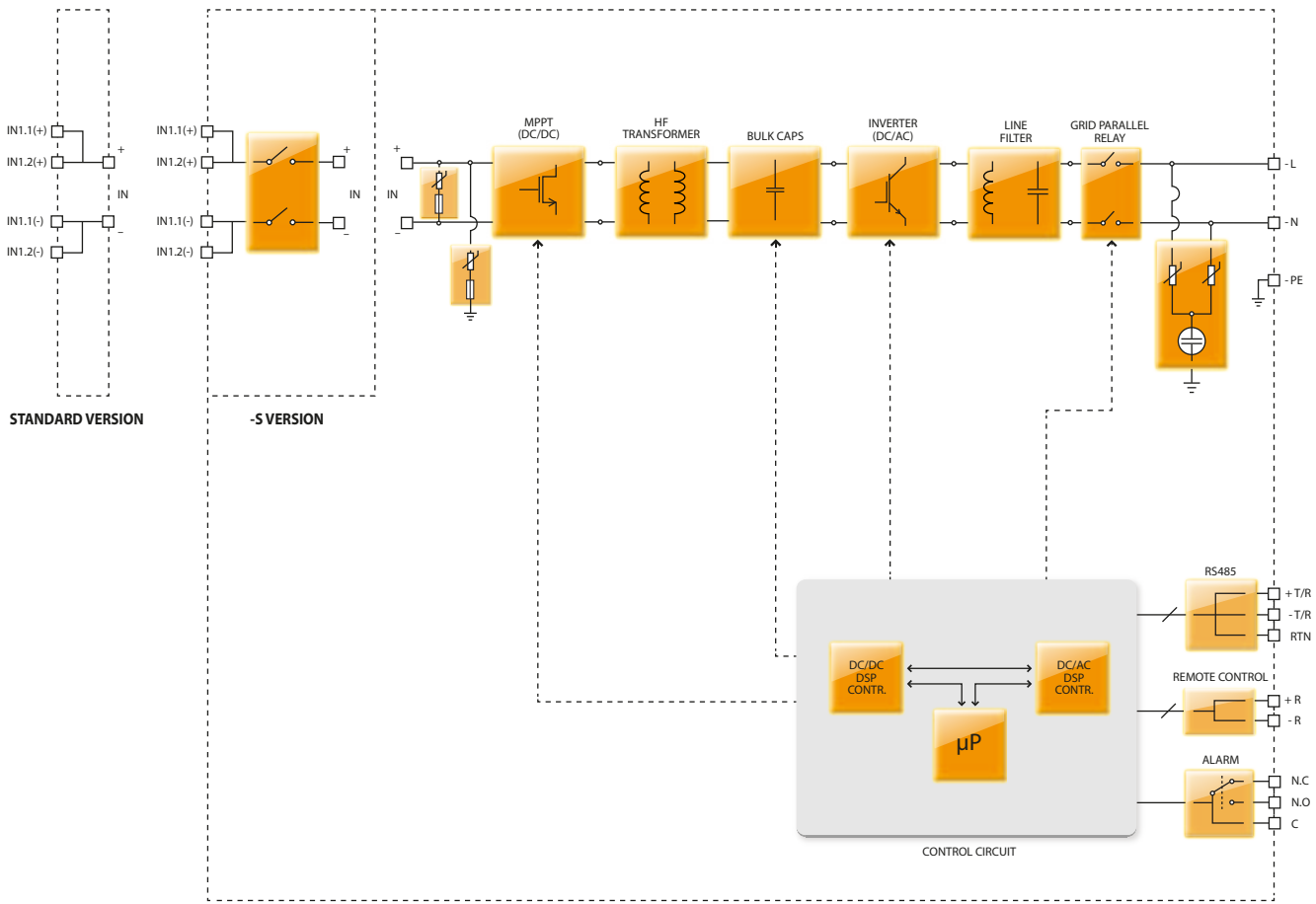
Despite the isolated operation, the UNO-2.0-I and UNO-2.5-I feature an efficiency of 96.3%. The wide input voltage range makes the inverter suitable to low power installations with reduced string size.



## Features

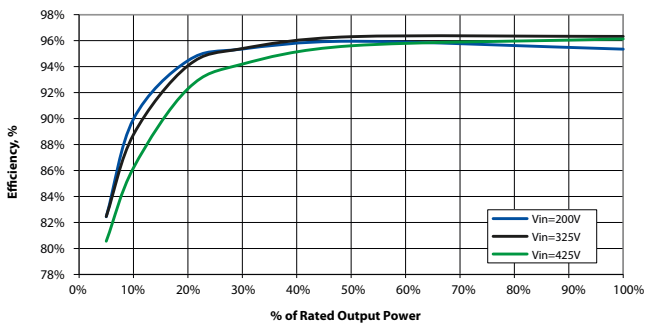
- Single phase output
- Each inverter is set on specific grid codes which can be selected in the field
- Wide input range
- High speed and precise MPPT algorithm for real time power tracking and improved energy harvesting
- Flat efficiency curves ensure high efficiency at all output levels ensuring consistent and stable performance across the entire input voltage and output power range
- Outdoor enclosure for unrestricted use under any environmental conditions
- RS-485 communication interface (for connection to laptop or datalogger)
- Compatible with PVI-RADIOMODULE for wireless communication with Aurora PVI-DESKTOP

## BLOCK DIAGRAM OF UNO-2.0/2.5-I-OUTD

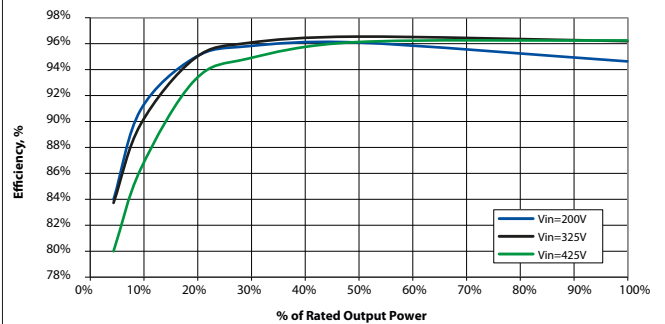


## Block Diagram and Efficiency Curves

UNO-2.0-I-OUTD



UNO-2.5-I-OUTD



PARAMETER	UNO-2.0-I-OUTD	UNO-2.5-I-OUTD
<b>Input Side</b>		
Absolute Maximum DC Input Voltage ( $V_{max,abs}$ )	520 V	
Start-up DC Input Voltage ( $V_{start}$ )	200 V (adj. 120...350 V)	
Operating DC Input Voltage Range ( $V_{dcrmin} \dots V_{dcrmax}$ )	$0.7 \times V_{start} \dots 520$ V	
Rated DC Input Power ( $P_{dcr}$ )	2100 W	2600 W
Number of Independent MPPT	1	1
Maximum DC Input Power for each MPPT ( $P_{MPPTmax}$ )	2300 W Linear Derating From MAX to Null [470V ≤ $V_{MPPT}$ ≤ 520V]	2900 W Linear Derating From MAX to Null [470V ≤ $V_{MPPT}$ ≤ 520V]
MPPT Input DC Voltage Range ( $V_{MPPTmin} \dots V_{MPPTmax}$ ) at $P_{acr}$	170...470 V	205...470 V
DC Power Limitation for each MPPT with Independent Configuration of MPPT at $P_{acr}$ , max unbalance example	not applicable	
Maximum DC Input Current ( $I_{dcrmax}$ ) / for each MPPT ( $I_{MPPTmax}$ )	12.5 A / 12.5 A	12.8 A / 12.8 A
Maximum Input Short Circuit Current for each MPPT	15.0 A	
Number of DC Inputs Pairs for each MPPT	2	
DC Connection Type	Tool Free PV Connector WM / MC4	
<b>Input Protection</b>		
Reverse Polarity protection	Yes, from limited current source	
Input Over Voltage Protection for each MPPT - Varistor	2	
Photovoltaic Array Isolation Control	According to local standard	
DC Switch Rating for each MPPT (Version with DC Switch)	16 A / 600 V	
<b>Output Side</b>		
AC Grid Connection Type	Single phase	
Rated AC Power ( $P_{acr} @ \cos\phi=1$ )	2000 W	2500 W
Maximum AC Output Power ( $P_{acmax} @ \cos\phi=1$ )	2200 W <sup>(4)</sup>	2750 W <sup>(5)</sup>
Rated AC Grid Voltage ( $V_{acr}$ )	230 V	
AC Voltage Range	180...264 V <sup>(1)</sup>	
Maximum AC Output Current ( $I_{ac,max}$ )	10.0 A	12.0 A
Contributory fault current	16.0 A	
Rated Output Frequency ( $f_r$ )	50 Hz / 60 Hz	
Output Frequency Range ( $f_{min} \dots f_{max}$ )	47...53 Hz / 57...63 Hz <sup>(2)</sup>	
Nominal Power Factor and adjustable range	> 0.990 <sup>(8)</sup>	
Total Current Harmonic Distortion	< 2%	
AC Connection Type	Screw terminal block	
<b>Output Protection</b>		
Anti-Islanding Protection	According to local standard	
Maximum AC Overcurrent Protection	15.0 A	
Output Overvoltage Protection - Varistor	2 (L - N / L - PE)	
<b>Operating Performance</b>		
Maximum Efficiency ( $\eta_{max}$ )	96.3%	
Weighted Efficiency (EURO/CEC)	95.1% / -	95.4% / -
Feed In Power Threshold	24.0 W	
Stand-by Consumption	< 8.0 W <sup>(3)</sup>	
<b>Communication</b>		
Wired Local Monitoring	PVI-USB-RS232_485 (opt.), PVI-DESKTOP (opt.)	
Remote Monitoring	PVI-AEC-EVO (opt.), AURORA LOGGER (opt.)	
Wireless Local Monitoring	PVI-DESKTOP (opt.) with PVI-RADIOMODULE (opt.)	
User Interface	Graphic display	
<b>Environmental</b>		
Ambient Temperature Range	-25...+60°C (-13...+ 140°F) with derating above 45°C (113°F)	
Relative Humidity	0...100 % condensing	
Noise Emission	< 50 dB(A) @ 1 m	
Maximum Operating Altitude without Derating	2000 m / 6560 ft	
<b>Physical</b>		
Environmental Protection Rating	IP 65	
Cooling	Natural	
Dimension (H x W x D)	518mm x 367mm x 161mm / 20.4" x 14.4" x 6.3"	
Weight	< 17 kg / 37.4 lb	
Mounting System	Wall bracket	
<b>Safety</b>		
Isolation Level	HF transformer	
Marking	CE	
Safety and EMC Standard	EN 50178, EN62109-1, EN62109-2, AS/NZS3100, AS/NZS 60950, EN61000-6-2, EN61000-6-3, EN61000-3-2, EN61000-3-3	
Grid Standard	CEI 0-21 <sup>(6)</sup> , VDE 0126-1-1, VDE-AR-N 4105 <sup>(7)</sup> , G83/1, EN 50438 (not for all national appendices), RD1699, AS 4777, C10/11, IEC 61727, ABNT NBR 16149	
<b>Available Products Variants</b>		
Standard	UNO-2.0-I-OUTD	UNO-2.5-I-OUTD
With DC Switch	UNO-2.0-I-OUTD-S	UNO-2.5-I-OUTD-S

- The AC voltage range may vary depending on specific country grid standard
- The Frequency range may vary depending on specific country grid standard
- Night time consumption < 0.6W
- Limited to 2000 W for Germany
- Limited to 2500 W for Germany
- Limited to plant power ≤3kW
- Limited to plant power ≤3.68kVA
- The unit has not reactive power capability

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



# www.power-one.com

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