

UNO-2.0-I-W UNO-2.5-I-W

GENERAL SPECIFICATIONS

The UNO-2.0-I-W and UNO-2.5-I-W are the latest single phase string inverters for wind applications. A new-look inverter but packaged 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 range, this new product is 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.

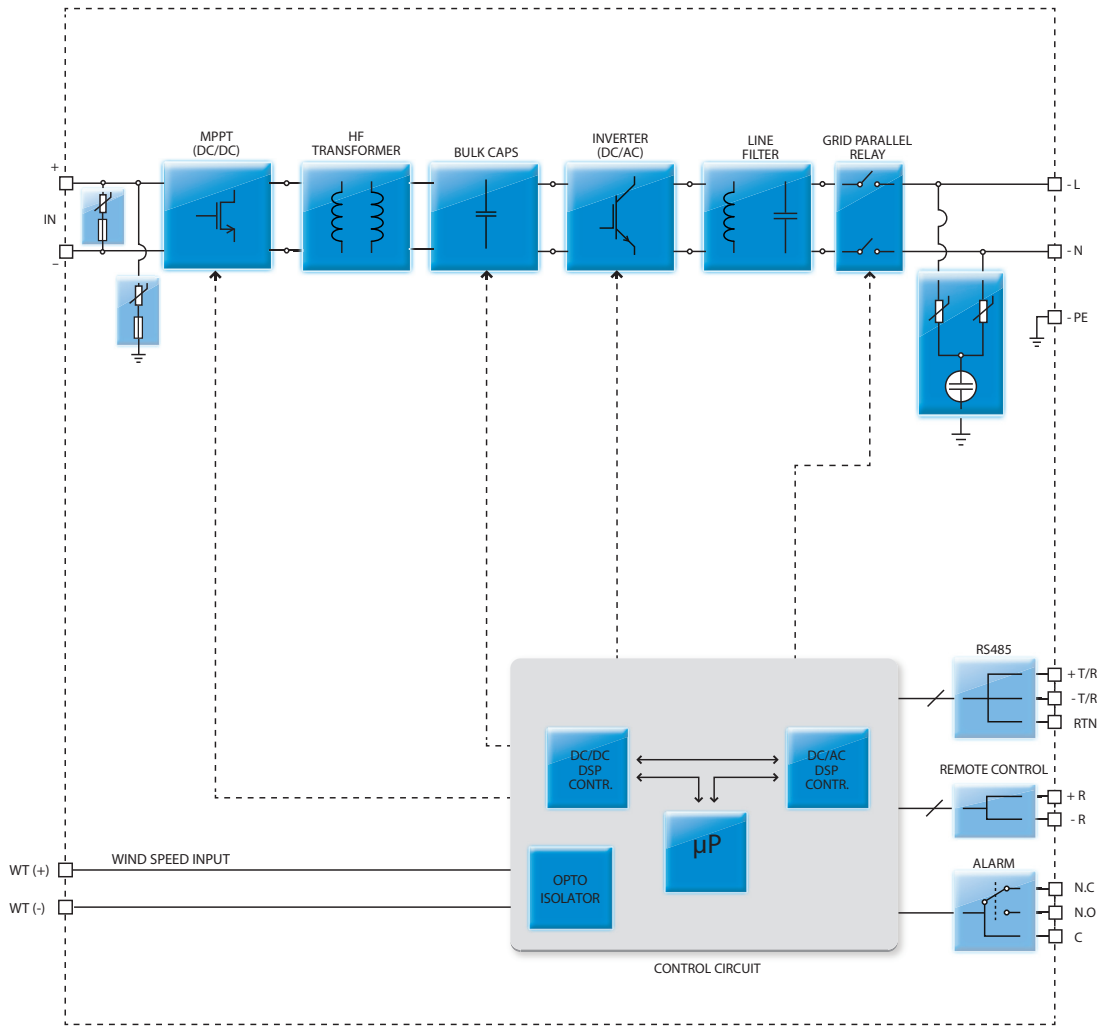
Despite the isolated operation, the UNO-2.0-I-W and UNO-2.5-I-W feature an efficiency of 96.3%. Has 16-point table to best match the power curve of each wind turbine.



Features

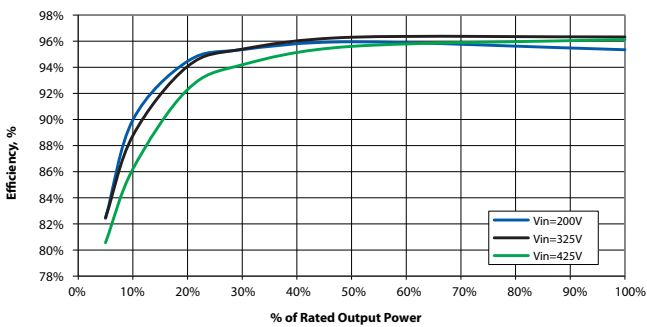
- Single Phase Output
- Power curve customization with high granularity to reach high level of power production yield
- Each inverter is set on specific grid codes which can be selected in the field
- Outdoor enclosure for unrestricted use under any environmental conditions
- RS485 communication interface (for connection to laptop or datalogger)
- Compact size and high power density
- Compatible with 4000 & 7200 Wind Interface
- Compatible with 15 kW and 25 kW Wind Interface

BLOCK DIAGRAM OF UNO-2.0-I-W AND UNO-2.5-I-W

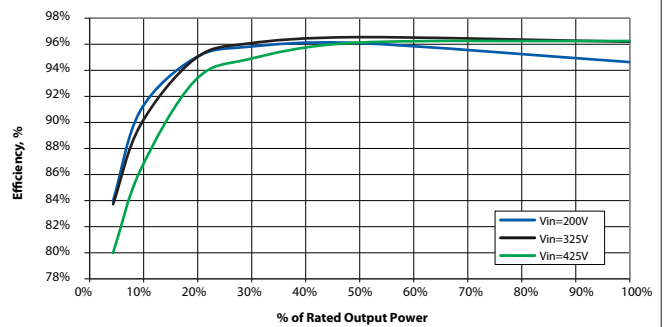


Block Diagram and Efficiency Curves

UNO-2.0-I-OUTD-W



UNO-2.5-I-OUTD-W



PARAMETER	UNO-2.0-I-OUTD-W	UNO-2.5-I-OUTD-W	UNO-2.0-I-OUTD-US-W			UNO-2.5-I-OUTD-US-W		
Input Side								
Maximum Absolute DC Input Voltage $V_{(dc,abs)}$	500 V	500 V	500 V			500 V		
Operating DC Input Range ($V_{dcmin}...V_{dcmax}$)	90...500 V	90...500 V	90...500 V			90...500 V		
DC Input range at full power ($V_{fp,min}...V_{fp,max}$)	200...470 V	200...470 V	200...470 V			200...470 V		
Dc Power Limitation	Power Limit to 12,5 Amax for $90 V \leq V_{dc} \leq 200 V$ Linear Derating From MAX to Null [$450V \leq V_{dc} \leq 500V$]	Power Limit to 12,8 Amax for $90 V \leq V_{dc} \leq 200 V$ Linear Derating From MAX to Null [$450V \leq V_{dc} \leq 500V$]	Power Limit to 12,5 Amax for $90 V \leq V_{dc} \leq 200 V$ Linear Derating From MAX to Null [$450V \leq V_{dc} \leq 500V$]			Power Limit to 12,8 Amax for $90 V \leq V_{dc} \leq 200 V$ Linear Derating From MAX to Null [$450V \leq V_{dc} \leq 500V$]		
Maximum DC Input Current ($I_{dc,max}$)	12.5 A	12.8 A	12.5 A			12.8 A		
Maximum Input Short Circuit Current	15.0 A	15.0 A	15.0 A			15.0 A		
DC Connection Type	Screw Terminal Block Cable Glands			Screw Terminal Block Cable Glands				
Input Protection								
Reverse Polarity Protection	No	No	No			No		
Input Over Voltage Protection - Varistor	2	2	2			2		
Generator Isolation Control	Yes	Yes	Yes			Yes		
Output Side								
AC Grid Connection	Single phase	Single phase	Single phase / Split phase			Single phase / Split phase		
Rated AC Power (P_{acr})	2000 W	2500 W	2000 W			2500 W		
Maximum AC Output Power ($P_{ac,max}$)	2200 W ⁽⁴⁾	2750 W ⁽⁵⁾	2200 W			2750 W		
Rated Grid AC Voltage (V_{acr})	230 V	230 V	208 V	240 V	277 V	208 V	240 V	277 V
AC Voltage Range	180...264 V ⁽¹⁾	180...264 V ⁽¹⁾	183...228 V	211...264 V	244...304 V	183...228 V	211...264 V	244...304 V
Maximum Output AC Current ($I_{ac,max}$)	10.0 A	12.0 A	10.0 A	10.0 A	9.0 A	12.0 A	12.0 A	10.5 A
Rated Frequency (f_r)	50 Hz	50 Hz	60 Hz			60 Hz		
Frequency Range ($f_{min}...f_{max}$)	47...53 Hz ⁽²⁾	47...53 Hz ⁽²⁾	59.3...60.5 Hz ⁽²⁾			59.3...60.5 Hz ⁽²⁾		
Nominal Power Factor ($\cos\phi_{acr}$)	> 0.990	> 0.990	> 0.990			> 0.990		
Total Harmonic Distortion	< 2%	< 2%	< 2%			< 2%		
AC Connection Type	Screw terminal block	Screw terminal block	Screw terminal block			Screw terminal block		
Output Protection								
Anti-islanding protection	According to local standard		According to UL 1741/IEE1547			According to UL 1741/IEE1547		
Maximum AC Overcurrent Protection	15.0 A	15.0 A	15.0 A	15.0 A	12.0 A	15.0 A		
Output Over Voltage Protection - Varistor	2 (L - N / L - PE)	2 (L - N / L - PE)	2 (L ₁ - L ₂ / L ₁ - PE)			2 (L ₁ - L ₂ / L ₁ - PE)		
Operating Performance								
Maximum Efficiency (η_{max})	96.3%	96.3%	96.3%			96.3%		
Stand-by Consumption	< 8.0 W ⁽⁸⁾	< 8.0 W ⁽⁸⁾	< 8.0 W ⁽⁸⁾			< 8.0 W ⁽⁸⁾		
Communication								
Wired Local Monitoring	PVI-USB-RS485_232 (opt.), PVI-DESKTOP (opt.)		PVI-USB-RS485_232 (opt.), PVI-DESKTOP (opt.)					
Remote Monitoring	PVI-AEC-EVO (opt.), AURORA-UNIVERSAL (opt.)		PVI-AEC-EVO (opt.), AURORA-UNIVERSAL (opt.)					
Wireless Local Monitoring	PVI-DESKTOP (opt.) with PVI-RADIOMODULE (opt.)		PVI-DESKTOP (opt.) with PVI-RADIOMODULE (opt.)					
User Interface	Graphic display			Graphic display				
Environmental								
Ambient Temperature Range	-25...+60°C (-13...+ 140°F) with derating above 50°C (122°F)	-25...+60°C (-13...+ 140°F) with derating above 45°C (113°F)	-25...+60°C (-13...+ 140°F) with derating above 50°C (122°F)			-25...+60°C (-13...+ 140°F) with derating above 45°C (113°F)		
Noise Emission	< 50 dB(A) @ 1 m	< 50 dB(A) @ 1 m	< 50 dB(A) @ 1 m			< 50 dB(A) @ 1 m		
Maximum Operating Altitude with Derating	2000 m / 6560 ft	2000 m / 6560 ft	2000 m / 6560 ft			2000 m / 6560 ft		
Physical								
Environmental Protection Rating	IP 65	IP 65	NEMA 4X			NEMA 4X		
Cooling	Natural	Natural	Natural			Natural		
Dimension (H x W x D)	518mm x 367mm x 161mm / 20.4" x 14.4" x 6.3"	518mm x 367mm x 161mm / 20.4" x 14.4" x 6.3"	518mm x 367mm x 161mm / 20.4" x 14.4" x 6.3"			518mm x 367mm x 161mm / 20.4" x 14.4" x 6.3"		
Weight	< 17 kg / 37.4 lb	< 17 kg / 37.4 lb	< 17 kg / 37.4 lb			< 17 kg / 37.4 lb		
Safety								
Isolation Level	HF transformer	HF transformer	HF Transformer			HF Transformer		
Marking	CE	CE	cCSAus			cCSAus		
Safety and EMC standard	EN 50178, AS/NZS3100, AS/NZS 60950, EN61000-6-1, EN61000-6-3, EN61000-3-11, EN61000-3-12	EN 50178, AS/NZS3100, AS/NZS 60950, EN61000-6-1, EN61000-6-3, EN61000-3-11, EN61000-3-12	UL 1741, CSA - C22.2 N. 107.1-01			UL 1741, CSA - C22.2 N. 107.1-01		
Grid Standard	Enel Guideline (CEI 0-21 + Attachment A70 Terna) ⁽⁶⁾ , VDE 0126-1-1, VDE-AR-N 4105 ⁽⁷⁾ , G83/1, EN 50438, RD1663, AS 4777	Enel Guideline (CEI 0-21 + Attachment A70 Terna) ⁽⁶⁾ , VDE 0126-1-1, VDE-AR-N 4105 ⁽⁷⁾ , G83/1, EN 50438, RD1663, AS 4777	IEEE 1547 and Hawaii variant			IEEE 1547 and Hawaii variant		
Available Products Variants								
Standard	UNO-2.0-I-OUTD-W ⁽³⁾	UNO-2.5-I-OUTD-W ⁽³⁾	UNO-2.0-I-OUTD-US-W ⁽³⁾			UNO-2.5-I-OUTD-US-W ⁽³⁾		

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. Ask Sales for Availability

4. Limited to 2000 W for Germany

5. Limited to 2500 W for Germany

6. Since their applicability dates, limited to plant power $\leq 3kW$

7. Limited to plant power $\leq 3.68kVA$

8. Sleep mode consumption < 0.6W

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



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