

Solar inverters

# ABB string inverters UNO-2.0/2.5-I-OUTD 2.0kW to 2.5kW



**ABB's UNO 2.0 and 2.5 inverters have a lightweight design that enables inverter mounting flexibility for residential applications.**

**These isolated inverters are simple to wall mount and are extremely lightweight.**

They feature the flexibility and innovation for which ABB is known for. These inverters are fully integrated with a DC disconnect and wiring box that saves installation time and cost.

**These inverters provide a flexible system with high levels of performance and reliability that designers need.**

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

The wide input voltage range makes the inverter suitable for low-power installations with a reduced string size.

#### **Highlights:**

- This inverter operates at 96 percent CEC weighted efficiency
- It has a single-phase and split-phase output
- It operates with extra quiet high-frequency transformer inverter architecture
- The NEMA 4X rated enclosure enables unrestricted use under any environmental condition

### Additional highlights:

- The flexible data monitoring options enables users to view inverter performance from any location from virtually any device
- This inverter comes with a standard 10-year warranty, and available extensions to 15 and 20 years

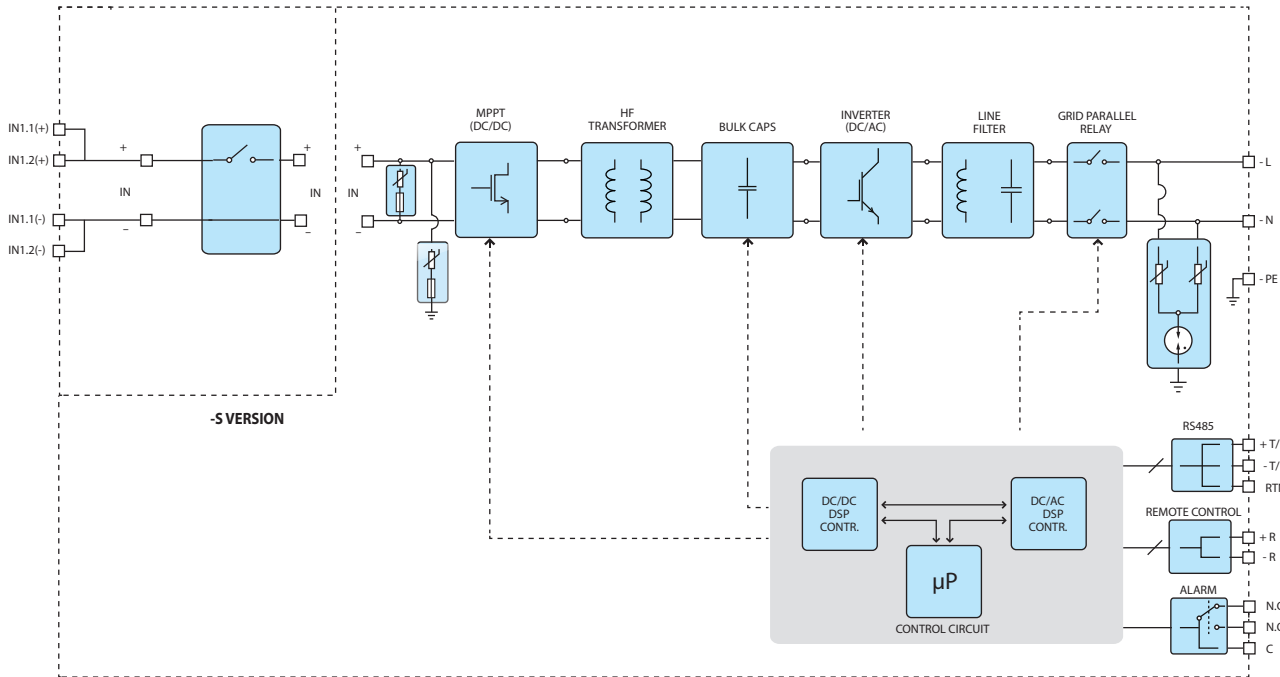


### Technical data and types

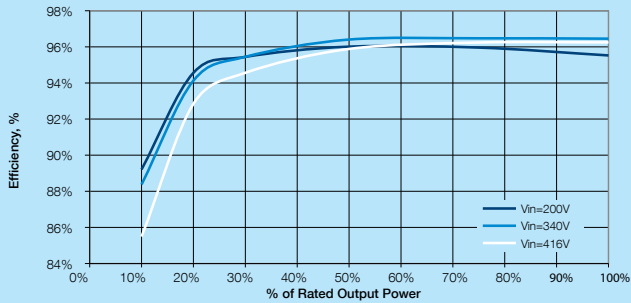
Type code	UNO-2.0-I-OUTD-S-US			UNO-2.5-I-OUTD-S-US		
Nominal output power	2000W			2500W		
Maximum output power	2200W <sup>1</sup>			2750W <sup>1</sup>		
Rated grid AC voltage	208V	240V	277V	208V	240V	277V
<b>Input side (DC)</b>						
Number of independent MPPT channels				1		
Maximum usable power for each channel	2300W			2900W		
Absolute maximum voltage (Vmax)				520V		
Start-up voltage (Vstart)				200V (adj. 120-350V)		
Full power MPPT voltage range	170-470V			200-470V		
Operating MPPT voltage range				0.7xVstart-520 (≥90V)		
Maximum usable current per channel	12.5A			12.8A		
Maximum short circuit current limit per channel				15A		
Number of wire landing terminals per channel				2 pairs		
Array wiring termination	Terminal block, pressure clamp, 20 AWG - 6 AWG					
<b>Output side (AC)</b>						
Grid connection type	1Ø/2W	Split-Ø/3W	1Ø/2W	1Ø/2W	Split-Ø/3W	1Ø/2W
Adjustable voltage range	183-228V	211-264V	244-304V	183-228V	211-264V	244-304V
Nominal grid frequency				60Hz		
Adjustable grid frequency range				57-63Hz		
Maximum current	10A			12A		
Power factor				>0.995		
Total harmonic distortion (@ rated output power)				<2%		
Grid wiring termination type	Terminal block, pressure clamp 20 AWG - 6 AWG					
<b>Input protection devices</b>						
Reverse polarity protection				Yes		
Over-voltage protection type				Varistor, 2		
PV array ground fault detection	Meets UL1741 / NEC 690.5 requirements					
PV array isolation control	GFDI (for use with either positive or negative grounded arrays)					
<b>Output protection devices</b>						
Anti-islanding protection	Meets UL 1741 / IEEE1547 requirements					
Over-voltage protection type				Varistor, 2 (L <sub>1</sub> - L <sub>2</sub> / L <sub>1</sub> - G)		
Maximum AC OCPD rating				15A		
<b>Efficiency</b>						
Maximum efficiency				96.6%		
CEC efficiency	95.5%	95.5%	95.5%	95.5%	96%	96%
<b>Operating performance</b>						
Nighttime consumption				<0.6W		
Stand-by consumption				<8W		
<b>Communication</b>						
User-interface				5.5" x 1.25" graphic display		
Remote monitoring (1xRS485 incl.)				VSN700 Data Logger (opt.)		
<b>Environmental</b>						
Ambient air operating temperature range	-13°F to 140°F (-25°C to +60°C) with derating above 122°F (50°C)					
Ambient air storage temperature range	-40°F to 176°F (-40°C to +80°C)					
Relative humidity	0-100% condensing					
Acoustic noise emission level	<50 db (A) @ 1m					
Maximum operating altitude without derating	6560ft (2000m)					

1. At nominal AC voltage and with sufficient DC power available

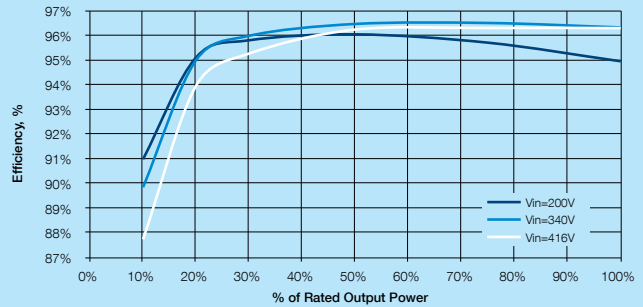
## Block diagram of UNO 2.0/2.5-I-OUTD



UNO-2.0-I-OUTD-S-US



UNO-2.5-I-OUTD-S-US



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Type code	UNO-2.0-I-OUTD-S-US	UNO-2.5-I-OUTD-S-US
<b>Mechanical specifications</b>		
Enclosure rating	NEMA 4X	
Cooling	Natural convection	
Dimensions (H x W x D)	30.3 x 14.4 x 6.3in (769 x 367 x 161mm)	
Weight	<42.5lb (19.3kg)	
Mounting system	Wall bracket	
Conduit connections	Bottom: (2) 3/4" KO, (3) 1/2" KO / Left and right side: (1) 3/4" KO / Back: (4) 3/4" KO	
DC switch rating (per contact) (A/V)	16A / 600Vdc	
<b>Safety</b>		
Isolation	High-frequency transformer	
Safety and EMC standard	UL 1741, IEEE1547, IEEE1547.1, CSA-C22.2 N. 107.1-01, FCC Part 15 Class B	
Safety approval	cCSA <sub>us</sub>	
<b>Warranty</b>		
Standard warranty	10 years	
Extended warranty	15 & 20 years	
<b>Available models</b>		
With DC switch and wiring box	UNO-2.0-I-OUTD-S-US	UNO-2.5-I-OUTD-S-US
All data is subject to change without notice		

### Support and service

ABB supports its customers with a dedicated, global service organization in more than 60 countries, with strong regional and national technical partner networks providing a complete range of life cycle services.

For more information please contact your local ABB representative or visit:

**[www.abb.com/solarinverters](http://www.abb.com/solarinverters)**

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