

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 ABB is known for. These inverters are fully integrated with a DC disconnect and wiring box that saves installation time and cost. The high-speed MPPT offers real-time power tracking and improved energy harvesting.

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

The high-speed and precise Multiple Power Point Tracking (MPPT) algorithm and industry-leading MPPT enable 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% 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 conditions.

Additional highlights:

- Flexible data monitoring options allow you to view inverter performance where and how you need it.
- This inverter comes with a standard 10 year warranty, and available extensions to 15 and 20 years.

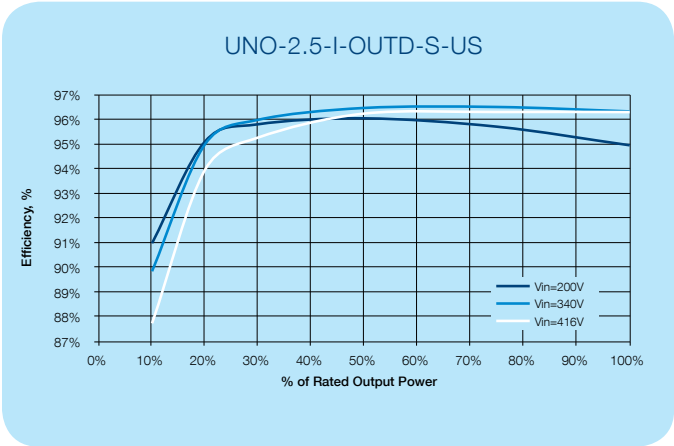
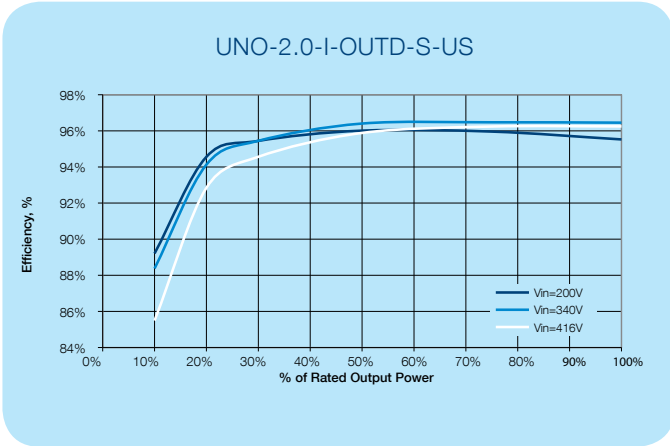
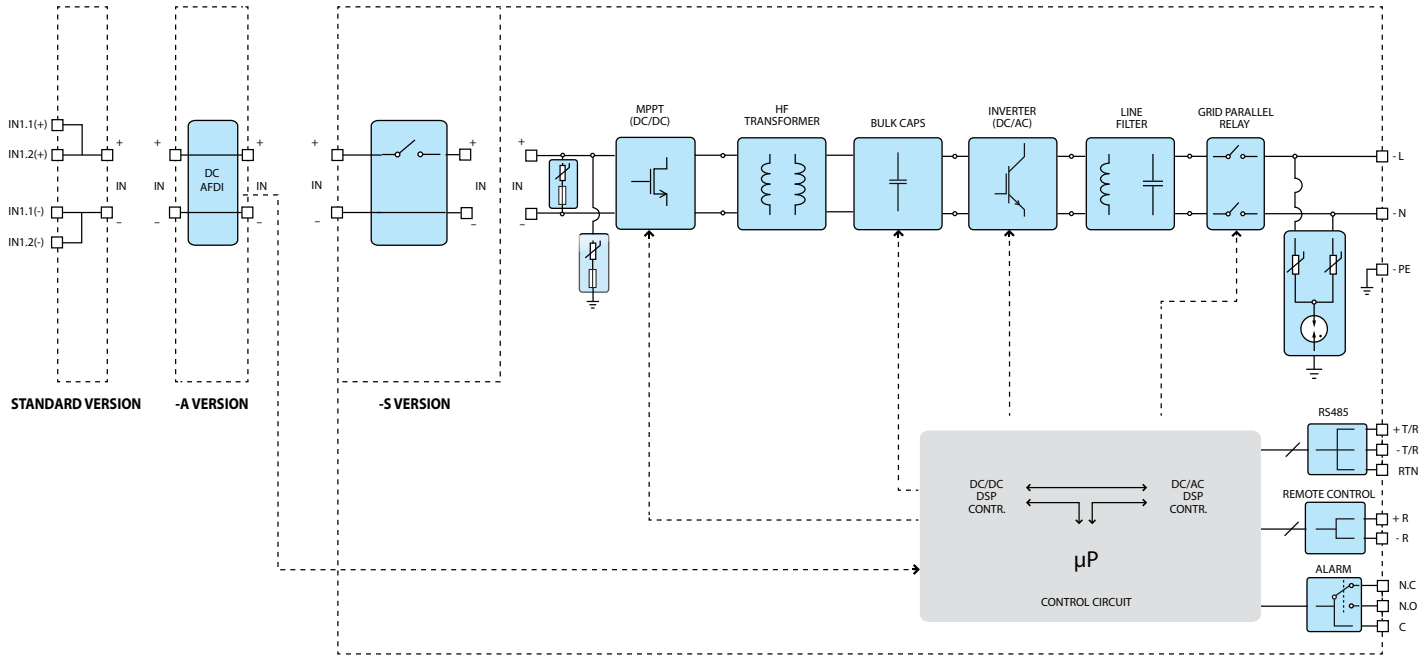


Technical data and types

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 ¹			2750W ¹		
Rated grid AC voltage	208V	240V	277V	208V	240V	277V
Input side (DC)						
Number of independent MPPT channels				1		
Maximum usable power for each channel				2300W		
Absolute maximum voltage (V _{max})				520V		
Start-up voltage (V _{start})				200V (adj. 120-350V)		
Full power MPPT voltage range	170-470V			205-470V		
Operating MPPT voltage range				0.7xV _{start} -520		
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, 20AWG-6AWG					
Output side (AC)						
Grid connection type	1Ø/2W	Split-Ø/3W	1Ø/2W	1Ø/2W	Split-Ø/3W	1Ø/2W
Adjustable voltage range	183V-228V	211V-264V	244V-304V	183V-228V	211V-264V	244V-304V
Grid frequency	60Hz					
Adjustable grid frequency range	57Hz-60.5Hz					
Maximum current	10A			12A		
Power Factor	>0.990					
Total harmonic distortion (@ rated output power)	<2%					
Grid wiring termination type	Terminal block, pressure clamp AWG20-AWG6					
Input protection devices						
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)					
Output protection devices						
Anti-islanding protection	Meets UL 1741/IEEE 1547 requirements					
Over-Voltage protection type	Varistor, 2 (L ₁ - L ₂ / L ₁ - G)					
Maximum AC OCPD Rating	15A					
Efficiency						
Maximum efficiency	96.6%					
CEC efficiency	95.5%	95.5%	95.5%	95.5%	96%	96%
Operating performance						
Night time consumption	<0.6W _{RMS}					
Stand by consumption	< 8W _{RMS}					
Communication						
User-interface	5.5" x 1.25" graphic display					
Remote monitoring (1xRS485 incl.)	VSN700 Data Logger (opt.)					
Environmental						
Ambient air operating temperature range	-13°F to 140°F (-25°C to +°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	6560 ft (2000m)					

1. Capability enabled at nominal AC voltage and with sufficient DC power available

Block diagram of UNO 2.0/2.5-TL-OUTD



Technical data and types

Type code

UNO-2.0-I-OUTD-S-US

UNO-2.5-I-OUTD-S-US

Mechanical specifications

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 (19.3 kg)

Mounting system

Wall bracket

Conduit connections²

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 / 6000Vdc

Safety

Isolation level

High-frequency transformer

Safety and EMC standard

UL 1741, IEE1547, IEE1547.1, CSA-C22.2N. 107.1-01, UL1998 UL 1699B, FCC Part 15

Safety Approval

Class B

CSA_{us}

Warranty

Standard warranty

10 years

Extended warranty

15 & 20 years

Available models

Standard

UNO-2.0-I-OUTD-US

UNO-2.5-I-OUTD-US

With DC switch and wiring box

UNO-2.0-I-OUTD-S-US

UNO-2.5-I-OUTD-S-US

With DC switch, wiring box and Arc Fault detector and interruptor

UNO-2.0-OUTD-S-US-A

UNO-2.5-OUTD-S-US-A

² When equipped with optional DC switch and wiring box

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

www.abb.com

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