



ABB SINGLE-PHASE INVERTERS

UNO-DM-2.0/3.3/4.0/5.0-TL-PLUS-B

The new UNO-DM-PLUS single-phase inverter family, with power ratings from 2.0 to 5.0 kW, is the optimal solution for residential installations.

The new design wraps ABB's quality and engineering into a lightweight and compact package, includes a streamlined physical design with a reduced component count. Its embedded wireless connectivity and smart grid capabilities provide home owners with advanced monitoring, control and maintenance.

All service software is embedded within the inverter and wirelessly accessible using any smart device or PC. This reduces the operation and maintenance burden for installers and associated costs for home owners.



ABB



**SUITABLE FOR
INSTALLATIONS WITH
TWO DIFFERENT
ORIENTATIONS[~]**

[~]This feature excludes model UNO-DM-2.0-TL-PLUS-B

HOW YOU BENEFIT



HIGH EFFICIENCY

Transformerless technology for high efficiency of up to 97.4%, generating more power from your PV system.



FLEXIBLE DESIGN

Offers a wide range of features to enable an economical solution for a variety of installation conditions.



SAFE OPERATION

External AC & DC connections allow a quick installation without the need of opening the inverter cover.



INNOVATIVE

Built in Wi-Fi enables wireless access to the embedded Web User Interface and free system monitoring on Aurora Vision.



SOLAHART WARRANTY

Enjoy a 5-year warranty, for peace of mind.*

Technical Data

MODEL	UNO-DM-2.0-TL-PLUS-B	UNO-DM-3.3-TL-PLUS-B	UNO-DM-4.0-TL-PLUS-B	UNO-DM-5.0-TL-PLUS-B
Input Side				
Absolute Max. DC input voltage ($V_{max, abs}$)		600 V		
Start-up DC input voltage (V_{start})	150 V (adj. 100...250 V)	200 V (adj. 120...350 V)	200 V (adj. 120...350 V)	200 V (adj. 120...350 V)
Operating DC input voltage range		0.7 x V_{start} ...580 V (min 90 V)		
Rated DC input voltage (V_{dcr})	300 V	360 V	360 V	360 V
Rated DC input power (P_{dcr})	2500 W	3500 W	4250 W	5150 W
Number of independent MPPT	1	2	2	2
Max. DC input power for each MPPT	2500 W	2000 W	3000 W	3500 W
DC input voltage range with parallel configuration of MPPT at P_{acr}	210...530 V	170...530 V	130...530 V	145...530 V
DC power limitation with parallel configuration of MPPT	N/A	Linear derating from Max to Null [530 V \leq $V_{MPPT} \leq$ 580 V]	Linear derating from Max to Null [530 V \leq $V_{MPPT} \leq$ 580 V]	Linear derating from Max to Null [530 V \leq $V_{MPPT} \leq$ 580 V]
DC power limitation for each MPPT with independent configuration of MPPT at P_{acr} ,	N/A	2000 W [200 V \leq $V_{MPPT} \leq$ 530 V] other channel: P_{dcr} -2000 W	3000 W [190 V \leq $V_{MPPT} \leq$ 530 V] other channel: P_{dcr} -3000 W	3500 W [190 V \leq $V_{MPPT} \leq$ 530 V] other channel: P_{dcr} -3500 W
Max. DC input current / for each MPPT	10.0 A	20.0 / 10.0 A	32.0 / 16.0 A	38.0 / 19.0 A
Max. input short circuit current for each MPPT	12.5 A	12.5 / 25.0 A	20.0 / 40.0 A	22.0 / 44.0 A
Number of DC input pairs for each MPPT		1		
DC connection type		MC4 Connectors		
Input Protection				
Reverse polarity protection		Yes, from limited current source		
Input over voltage protection for each MPPT-varistor		YES		
Output Side				
AC grid connection type		Single-phase		
Rated AC power ($P_{acr} @ \cos\phi=1$)	2000 W	3300 W	4000 W	5000 W
Max. AC output power ($P_{acmax} @ \cos\phi=1$)	2000 W	3300 W	4000 W	5000 W
Max. apparent power (S_{max})	2000 VA	3300 VA	4000 VA	5000 VA
Rated AC grid voltage ($V_{ac,r}$)		230 V		
AC voltage range ⁽¹⁾		180...264 V		
Max. AC output current ($I_{ac,max}$)	10.0 A	14.5 A	17.2 A	22.0 A
Contributory fault current	12.0 A	16.0 A	19.0 A	24.0 A
Rated output frequency (f_r) ⁽²⁾		50 Hz		
Output frequency range ($f_{min}...f_{max}$) ⁽²⁾		47...53 Hz		
Nominal power factor and adjustable range		> 0.995, adj. ± 0.1 - 1 (over/under excited)		
Total current harmonic distortion		< 3.5%		
AC connection type		Female connector from panel		
Output Protection				
Anti-islanding protection		According to local standard		
Max. external AC overcurrent protection	16.0 A	20.0 A	25.0 A	32.0 A
Output overvoltage protection - varistor		2 (L - N / L - PE)		
Operating Performance				
Maximum efficiency (η_{max})	96.7%	97.0%	97.0%	97.4%
Weighted Euro efficiency	95.0%	96.5%	96.5%	97.0%
Feed in power threshold / Night consumption		8 W / <0.4 W		
Safety				
Isolation level		Transformerless		
Marking		CE , RCM		
Safety and EMC standard	EN 50178, IEC/EN 62109-1, IEC/EN 62109-2, AS/NZS 3100, EN 61000-6-1, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3	IEC/EN 62109-1, IEC/EN 62109-2, AS/NZS 4777.2, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-11, EN 61000-3-12		
Grid standard ⁽³⁾	CEI 0-21, DIN V VDE V 0126-1-1, VDE-AR-N 4105, G83/2, G59/3, RD 413, ITC-BT-40, AS/NZS 4777.2, C10/11, IEC 61727, IEC 62116			
Environmental				
Ambient temperature range	-25...+60°C with derating above 50°C	-25...+60°C with derating above 50°C	-25...+60°C with derating above 50°C	-25...+60°C with derating above 45°C
Relative humidity		0...100 % condensing		
Acoustic noise emission level		< 50 dB (A) @ 1 m		
Max. operating altitude without derating		2000 m		
Physical		Embedded Communication and Warranty		
Environmental protection rating	IP 65	Interface	Wireless	
Cooling	Natural	Protocol	ModBus TCP (SunSpec)	
Dimensions (H x W x D)	553 x 418 x 175 mm	Commissioning tool	Web UI and Display	
Weight	15 kg	Monitoring	Plant Portfolio Manager and Plant Viewer	
Mounting system	Wall bracket	Solahart Warranty	5 Years*	

⁽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; CE is valid for 50Hz only. ⁽³⁾As per IEEE 802.11 b/g/n standard. *For full details see Solahart Owner's Guide & Installation Instructions.

Specifications and designs included in this data sheet are subject to change without notice.

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