

# ABB string inverters

## UNO-DM-1.2/2.0/3.3/4.0/4.6/5.0-TL-PLUS

### 1.2 to 5.0 kW



#### Technical data and types

Type code	UNO-DM-1.2-TL-PLUS	UNO-DM-2.0-TL-PLUS	UNO-DM-3.3-TL-PLUS
<b>Input side</b>			
Absolute maximum DC input voltage ( $V_{max,abs}$ )	600 V		
Start-up DC input voltage ( $V_{start}$ )	120 V (adj. 100...150 V)	150 V (adj. 100...250 V)	200 V (adj. 120...350 V)
Operating DC input voltage range ( $V_{dcmin}...V_{dcmax}$ )	0.7 x $V_{start}...580$ V (min 90 V)		
Rated DC input voltage ( $V_{dcr}$ )	185 V	300 V	360 V
Rated DC input power ( $P_{dcr}$ )	1500 W	2500 W	3500 W
Number of independent MPPT	1	1	2
Maximum DC input power for each MPPT ( $P_{MPPTmax}$ )	1500 W	2500 W	2000 W
DC input voltage range with parallel configuration of MPPT at $P_{acr}$	100...530 V	210...530 V	170...530 V
DC power limitation with parallel configuration of MPPT	N/A	N/A	Linear derating from Max to Null [530 V ≤ $V_{MPPT}$ ≤ 580 V] 2000 W [200 V ≤ $V_{MPPT}$ ≤ 530 V] the other channel: $P_{dcr}$ -2000 W [112 V ≤ $V_{MPPT}$ ≤ 530 V]
DC power limitation for each MPPT with independent configuration of MPPT at $P_{acr}$ , max unbalance example	N/A	N/A	
Maximum DC input current ( $I_{dcmax}$ ) / for each MPPT ( $I_{MPPTmax}$ )	10.0 A	10.0 A	20.0 / 10.0 A
Maximum input short circuit current for each MPPT	12.5 A	12.5 A	12.5 / 25.0 A
Number of DC input pairs for each MPPT	1		
DC connection type <sup>1)</sup>	Quick Fit PV Connector		
<b>Input protection</b>			
Reverse polarity protection	Yes, from limited current source		
Input over voltage protection for each MPPT-varistor	Yes		
Photovoltaic array isolation control	According to local standard		
DC switch rating for each MPPT (version with DC switch)	25 A / 600 V		
<b>Output side</b>			
AC grid connection type	Single-phase		
Rated AC power ( $P_{acr}@cos\phi=1$ )	1200 W	2000 W	3300 W
Maximum AC output power ( $P_{acmax}@cos\phi=1$ )	1200 W	2000 W	3300 W
Maximum apparent power ( $S_{max}$ )	1200 VA	2000 VA	3300 VA
Rated AC grid voltage ( $V_{acr}$ )	230 V		
AC voltage range <sup>3)</sup>	180...264 V		
Maximum AC output current ( $I_{ac,max}$ )	5.5 A	10.0 A	14.5 A
Contributory fault current	10.0 A	12.0 A	16.0 A
Rated output frequency ( $f$ ) <sup>4)</sup>	50/60 Hz		
Output frequency range ( $f_{min}...f_{max}$ ) <sup>4)</sup>	47...53/57...63 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		
<b>Output protection</b>			
Anti-islanding protection	According to local standard		
Maximum external AC overcurrent protection	10.0 A	16.0 A	20.0 A
Output overvoltage protection - varistor	2 (L - N / L - PE)		

# UNO-DM-PLUS:

Efficient, connected, smart.



## Technical data and types

Type code	UNO-DM-4.0-TL-PLUS	UNO-DM-4.6-TL-PLUS	UNO-DM-5.0-TL-PLUS
<b>Input side</b>			
Absolute maximum DC input voltage ( $V_{max,abs}$ )	600 V		
Start-up DC input voltage ( $V_{start}$ )	200 V (adj. 120...350 V)		
Operating DC input voltage range ( $V_{dcmin}...V_{dcmax}$ )	0.7 x $V_{start}...580$ V (min 90 V)		
Rated DC input voltage ( $V_{dcr}$ )	360 V		
Rated DC input power ( $P_{dcr}$ )	4250 W	4750 W	5150 W
Number of independent MPPT	2		
Maximum DC input power for each MPPT ( $P_{MPPTmax}$ )	3000 W	3000 W	3500 W
DC input voltage range with parallel configuration of MPPT at $P_{acr}$	130...530 V	150...530 V	145...530 V
DC power limitation with parallel configuration of MPPT	Linear derating from Max to Null [ $530V \leq V_{MPPT} \leq 580V$ ]		
DC power limitation for each MPPT with independent configuration of MPPT at $P_{acr}$ , max unbalance example	3000 W [ $190 V \leq V_{MPPT} \leq 530 V$ ] the other channel: $P_{dcr}=3000$ W [ $90 V \leq V_{MPPT} \leq 530 V$ ]	3000 W [ $190 V \leq V_{MPPT} \leq 530 V$ ] the other channel: $P_{dcr}=3000$ W [ $90 V \leq V_{MPPT} \leq 530 V$ ]	3500 W [ $200 V \leq V_{MPPT} \leq 530 V$ ] the other channel: $P_{dcr}=3500$ W [ $90 V \leq V_{MPPT} \leq 530 V$ ]
Maximum DC input current ( $I_{dcr,max}$ ) / for each MPPT ( $I_{MPPTmax}$ )	32.0 / 16.0 A	32.0 / 16.0 A	38.0 / 19.0 A
Maximum input short circuit current for each MPPT	20.0 / 40.0 A	20.0 / 40.0 A	22.0 / 44.0 A
Number of DC input pairs for each MPPT	1		
DC connection type <sup>3)</sup>	Quick Fit PV Connector		
<b>Input protection</b>			
Reverse polarity protection	Yes, from limited current source		
Input over voltage protection for each MPPT-varistor	Yes		
Photovoltaic array isolation control	According to local standard		
DC switch rating for each MPPT (version with DC switch)	25 A / 600 V		
<b>Output side</b>			
AC grid connection type	Single-phase		
Rated AC power ( $P_{acr}@cos\phi=1$ )	4000 W	4600 W	5000 W
Maximum AC output power ( $P_{acmax}@cos\phi=1$ )	4000 W <sup>2)</sup>	4600 W	5000 W
Maximum apparent power ( $S_{max}$ )	4000 VA <sup>2)</sup>	4600 VA	5000 VA
Rated AC grid voltage ( $V_{acr}$ )	230 V		
AC voltage range <sup>3)</sup>	180...264 V		
Maximum AC output current ( $I_{ac,max}$ )	17.2 A	20.0 A	22.0 A
Contributory fault current	19.0 A	22.0 A	24.0 A
Rated output frequency ( $f$ ) <sup>4)</sup>	50/60 Hz		
Output frequency range ( $f_{min}...f_{max}$ ) <sup>4)</sup>	47...53/57...63 Hz		
Nominal power factor and adjustable range	> 0.995, adj. $\pm 0.1 - 1$ (over/under excited)		
Total current harmonic distortion	< 3.5		
AC connection type	Female connector from panel		
<b>Output protection</b>			
Anti-islanding protection	According to local standard		
Maximum external AC overcurrent protection	25.0 A	25.0 A	32.0 A
Output overvoltage protection - varistor	2 (L - N / L - PE)		