Technical data and types

Type code	UNO-DM-1.2-TL-PLUS-Q	UNO-DM-2.0-TL-PLUS-Q	UNO-DM-3.0-TL-PLUS-Q	UNO-DM-3.3-TL-PLUS-Q
Input side				
Absolute maximum DC input voltage ($V_{max,abs}$)	600 V			
Start-up DC input voltage (V_{start})	120 V (adj. 120...150 V)	150 V (adj. 120...250 V)	150 V (adj. 120...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	300 V	360 V
Rated DC input power (P_{dcr})	1500 W	2500 W	3300 W	3500 W
Number of independent MPPT	1	1	1	2
Maximum DC input power for each MPPT ($P_{MPPTmax}$)	1500 W	2500 W	3300 W	2000 W
DC input voltage range with parallel configuration of MPPT at P_{acr}	100...530 V	210...530 V	320...530 V	170...530 V
DC power limitation with parallel configuration of MPPT	N/A	N/A	N/A	Linear derating from Max to Null [530 V≤V_{MPPT}≤580 V]
DC power limitation for each MPPT with independent configuration of MPPT at P_{acr}, max unbalance example	N/A	N/A	N/A	2000 W [200 V≤V_{MPPT}≤530 V] the other channel: P_{dcr}-2000 W [112 V≤V_{MPPT}≤530 V]
Maximum DC input current (I_{dcmax}) / for each MPPT ($I_{MPPTmax}$)	10.0 A	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 A	20.0 A
Number of DC input pairs for each MPPT	1			
DC connection type [1]	Quick Fit PV Connector			
Input protection				
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			
Output side				
AC grid connection type	Single-phase			
Rated AC power (P_{acr} @cosφ=1)	1200 W	2000 W	3000 W	3300 W
Maximum AC output power (P_{acmax} @ cosφ=1)	1200 W	2000 W	3000 W	3300 W
Maximum apparent power (S_{max})	1200 VA	2000 VA	3000 VA	3300 VA
Rated AC grid voltage ($V_{ac,r}$)	230 V			
AC voltage range [2]	180...264 V			
Maximum AC output current ($I_{ac,max}$)	5.5 A	10.0 A	14.5 A	14.5 A
Contributory fault current	10.0 A	12.0 A	16.0 A	16.0 A
Rated output frequency (f_r) [3]	50/60 Hz			
Output frequency range (f_{min}...f_{max}) [3]	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%			
AC connection type	Female connector from panel			
Output protection				
Anti-islanding protection	According to local standard			
Maximum external AC overcurrent protection	10.0 A	16.0 A	16.0 A	20.0 A
Output overvoltage protection - varistor	2 (L - N / L - PE)			
Operating performance				
Maximum efficiency (η_{max})	94.8%	96.7%	96.7%	97.0%
Weighted efficiency (EURO/CEC)	92.0%/-	95.0%/-	95.0%/-	96.5% / -
Feed in power threshold	8 W			
Night consumption	<0.4 W			
Embedded communication				
Embedded communication interface [4]	Wireless			
Embedded communication protocol	ModBus TCP (SunSpec)			
Commissioning tool	Web User Interface, Aurora Manager Lite			
Monitoring	Plant Portfolio Manager, Plant Viewer, Plant Viewer for Mobile, Energy Viewer			

Technical data and types

Type code	UNO-DM-1.2-TL-PLUS-Q	UNO-DM-2.0-TL-PLUS-Q	UNO-DM-3.0-TL-PLUS-Q	UNO-DM-3.3-TL-PLUS-Q
Optional board UNO-DM-COM kit				
Optional communication interface	RS485 (use with meter for dynamic feed-in control), Alarm/Load manager relay, Remote ON/OFF			
Optional communication protocol	ModBus RTU (SunSpec), Aurora Protocol			
Optional board UNO-DM-PLUS Ethernet COM kit				
Optional communication interface	Ethernet, RS485 (use with meter for dynamic feed-in control), Alarm/Load manager relay, Remote ON/OFF			
Optional communication protocol	ModBus TCP (SunSpec), ModBus RTU (SunSpec), Aurora Protocol			
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 50°C/122°F	-25...+60°C/-13...140°F con derating above 50°C/122°F	-25...+60°C /-13...140°F with derating above 50°C/122°F
Relative humidity	0...100 % condensing			
Acoustic noise emission level	50 dBA @ 1 m			
Maximum operating altitude without derating	2000 m / 6560 ft			
Physical				
Environmental protection rating	IP 65			
Cooling	Natural			
Dimension (H x W x D)	553 x 418 x 175 mm / 21.8" x 16.5" x 6.9"			
Weight	15 kg / 33 lbs			
Mounting system	Wall bracket			
Safety				
Isolation level	Transformerless			
Marking	CE , RCM			
Safety and EMC standard	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 61000-3-2, EN 61000-3-3			
Grid standard (check your sales channel for availability) [5]	CEI 0-21, DIN V VDE V 0126-1-1, VDE-AR-N 4105, G83/2, G59/3, G98/1, G99/1, EN 50549-1, RD 413, ITC-BT-40, AS/NZS 4777.2, IEC 61727, IEC 62116			
Available products variants				
Standard	UNO-DM-1.2-TL-PLUS-B-Q	UNO-DM-2.0-TL-PLUS-B-Q	UNO-DM-3.0-TL-PLUS-B-Q	UNO-DM-3.3-TL-PLUS-B-Q
With DC switch	UNO-DM-1.2-TL-PLUS-SB-Q	UNO-DM-2.0-TL-PLUS-SB-Q	UNO-DM-3.0-TL-PLUS-SB-Q	UNO-DM-3.3-TL-PLUS-SB-Q

1) "Refer to the document "String inverter – Product Manual appendix" available at www.fimer.com to know the brand and the model of the quick fit connector"
2) The AC voltage range may vary depending on specific country grid standard
3) The frequency range may vary depending on specific country grid standard; CE is valid for 50 Hz only
4) As per IEEE 802.11 b/g/n standard
5) Further grid standard will be added, please refer to FIMER Solar page for further details

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

Technical data and types

Type code	UNO-DM-4.0-TL-PLUS-Q	UNO-DM-4.6-TL-PLUS-Q	UNO-DM-5.0-TL-PLUS-Q	UNO-DM-6.0-TL-PLUS-Q
Input side				
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	6200 W
Number of independent MPPT	2			
Maximum DC input power for each MPPT ($P_{MPPTmax}$)	3000 W	3000 W	3500 W	4000W
DC input voltage range with parallel configuration of MPPT at P_{acr}	130...530 V	150...530 V	170....480 V	200...480V
DC power limitation with parallel configuration of MPPT P_{acr}	Linear derating from Max to Null [530V≤V_{MPPT}≤580V]	Linear derating from Max to Null [530V≤V_{MPPT}≤580V]	Linear derating from Max to Null [480V≤V_{MPPT}≤580V]	Linear derating from Max to 500W [480V≤V_{MPPT}≤580V]
DC power limitation for each MPPT with independent configuration of MPPT at P_{acr}, max unbalance example	3000 W [190 V≤V_{MPPT}≤530 V] the other channel: P_{dcr}-3000 W [90 V≤V_{MPPT}≤530 V]	3000 W [190 V≤V_{MPPT}≤530 V] the other channel: P_{dcr}-3000 W [90 V≤V_{MPPT}≤530 V]	On MPPT 1: 3500 W [185 V≤V_{MPPT}≤480 V] On MPPT 2: P_{dcr}-3500 W [145 V≤V_{MPPT}≤480 V] or 3500 W (305 V≤V_{MPPT}≤480 V) with no power on MPPT1	4000 W [220V≤V_{MPPT}≤480V] the other channel: P_{dcr}-4000W [195V≤V_{MPPT}≤480V]
Maximum DC input current (I_{dcmax}) / for each MPPT ($I_{MPPTmax}$)	32.0/16.0 A	32.0/16.0 A	30.5/19-11.5 A (MPPT 1 - MPPT 2)	40 A / 20.0 A
Maximum input short circuit current for each MPPT	20.0 A	20.0 A	22.0 A	25 A
Number of DC input pairs for each MPPT	1			2
DC connection type [1]	Quick Fit PV Connector [1]			
Input protection				
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			32A / 600 V
Output side				
AC grid connection type	Single-phase			
Rated AC power (P_{acr} @cosφ=1)	4000 W	4600 W	5000 W	6000 W
Maximum AC output power (P_{acmax} @cosφ=1)	4000 W [2]	4600 W	5000 W	6000 W
Maximum apparent power (S_{max})	4000 VA [2]	4600 VA	5000 VA	6650 VA
Rated AC grid voltage ($V_{ac,r}$)	230 V			
AC voltage range [3]	180...264 V			180...264 V [2]
Maximum AC output current ($I_{ac,max}$)	17.2 A	20.0 A	22.0 A	30.0 A
Contributory fault current	19.0 A	22.0 A	24.0 A	40.0 A
Rated output frequency (f_r) [4]	50/60 Hz			
Output frequency range (f_{min}...f_{max}) [4]	47...53/57...63 Hz			
Nominal power factor and adjustable range	> 0.995, adj. ± 0.1 - 1 (over/under excited)			> 0.995, adj. ± 0.8
Total current harmonic distortion	< 3%			
AC connection type	Female connector from panel			Terminal Block
Output protection				
Anti-islanding protection	According to local standard			
Maximum external AC overcurrent protection	25.0 A	25.0 A	32.0 A	40.0 A
Output overvoltage protection - varistor	2 (L - N / L - PE)			
Operating performance				
Maximum efficiency (η_{max})	97.0%	97.0%	97.4%	97,4%
Weighted efficiency (EURO/CEC)	96.5% / -	96.5% / -	97.0% / -	97.0% / -
Feed in power threshold	8 W			
Night consumption	<0.4 W			
Embedded communication				
Embedded communication interface [5]	Wi-Fi			
Embedded communication protocol	ModBus TCP (SunSpec)			
Commissioning tool	Web User Interface			Web User Interface
Monitoring	Plant Portfolio Manager, Plant Viewer, Plant Viewer for Mobile, Energy Viewer			Plant Portfolio Manager, Plant Viewer, Plant Viewer for Mobile, Display, Energy Viewer

Technical data and types

Type code	UNO-DM-4.0-TL-PLUS-Q	UNO-DM-4.6-TL-PLUS-Q	UNO-DM-5.0-TL-PLUS-Q	UNO-DM-6.0-TL-PLUS-Q
Optional board UNO-DM-COM kit				
Optional communication interface	RS485 (use with meter for dynamic feed-in control), Alarm/Load manager relay, Remote ON/OFF			
Optional communication protocol	ModBus RTU (SunSpec), Aurora Protocol			
Optional board UNO-DM-PLUS Ethernet COM kit				
Optional communication interface	Ethernet, RS485 (use with meter for dynamic feed-in control), Alarm/Load manager relay, Remote ON/OFF			
Optional communication protocol	ModBus TCP (SunSpec), ModBus RTU (SunSpec), Aurora Protocol			
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 40°C/113°F	-25...+60°C /-13...140°F with derating above 45°C/113°F	
Relative humidity	0...100 % condensing			
Maximum operating altitude without derating	2000 m / 6560 ft			
Physical				
Environmental protection rating	IP 65			
Cooling	Natural			
Dimension (H x W x D)	553 x 418 x 175 mm / 21.8" x 16.5" x 6.9"			418 mm x 553 mm x 180 mm
Weight	15 kg / 33 lbs			20,5 kg
Mounting system	Wall bracket			
Safety				
Isolation level	Transformerless			
Marking	CE , RCM			CE (50 Hz only), RCM
Safety and EMC standard	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			EN 50178, IEC/EN 62109-1, IEC/EN 62109-2, AS/NZS 3100, EN 61000-6-1, EN 61000-6-3, EN 61000-3-11, EN 61000-3-12
Grid standard (check your sales channel for availability) [6]	CEI 0-21, DIN V VDE V 0126-1-1, VDE-AR-N 4105, G83/2, G59/3, G98/1, G99/1, EN 50549-1,RD 413, ITC-BT-40, AS/NZS 4777.2, C10/11, IEC 61727, IEC 62116			CEI 0-21, DIN V VDE V 0126-1-1, ITC-BT-40, AS 4777, G99/1, EN 50549-1
Available products variants				
Standard	UNO-DM-4.0-TL-PLUS-B-Q	UNO-DM-4.6-TL-PLUS-B-Q	UNO-DM-5.0-TL-PLUS-B-QU	UNO-DM-6.0-TL-PLUS-B-G
With DC switch	UNO-DM-4.0-TL-PLUS-SB-Q	UNO-DM-4.6-TL-PLUS-SB-Q	UNO-DM-5.0-TL-PLUS-SB-QU	UNO-DM-6.0-TL-PLUS-SB-G

1) "Refer to the document "String inverter – Product Manual appendix" available at www.fimer.com to know the brand and the model of the quick fit connector"
2) For UK G83/2 setting, maximum output current limited to 16 A up to a maximum output Pacr of 3600 W and a maximum apparent power of 3600 VA
3) The AC voltage range may vary depending on specific country grid standard
4) The Frequency range may vary depending on specific country grid standard; CE is valid for 50Hz only
5) As per IEEE 802.11 b/g/n standard
6) Further grid standard will be added, please refer to FIMER Solar page for further details

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