



The better 1phase PowerUNO

The better flexibility

Battery ready inverter, DC or AC coupled
Backup power up to 6 kW

The better security

Patented AFCI
Patented RCD (Residual Current Device)

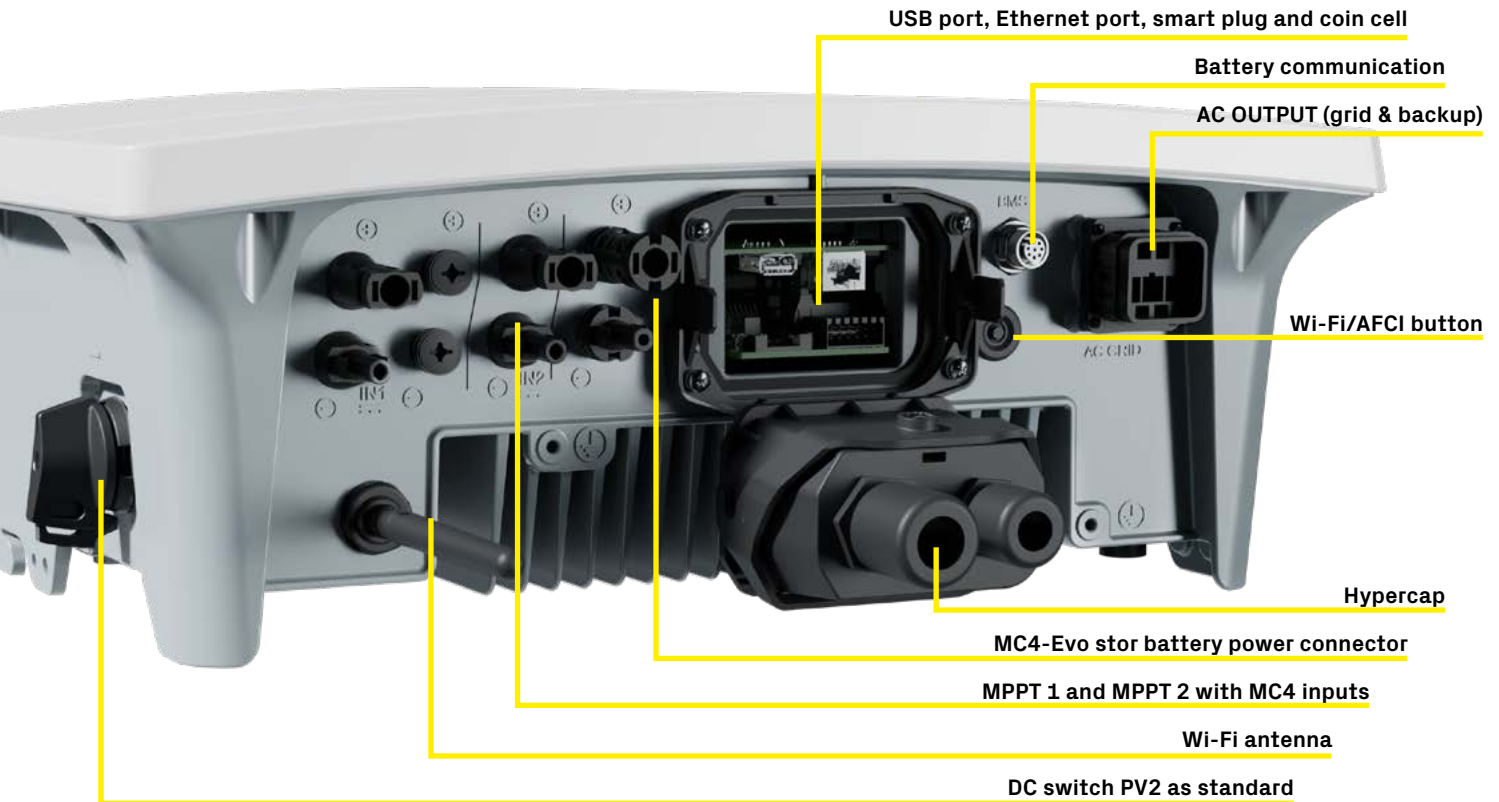
The better installability

Plug & play connections
Integrated spirit level

The better connectivity

Embedded Wi-Fi, Ethernet and USB
Blockchain ready

Go for the better



One size for all

from 2 kW to 6 kW

x2 faster

switching frequency

<20 dB (A)

noise reduction

+40%

time saving
for commissioning



24 / 7

real time monitoring

Battery

ready

100%



No tools

for commissioning

<2 s

backup transition

Patented

ARC fault detection

Blockchain

ready

+55%

CPU performance

Integrated

SG ready

Built-in

Ethernet and Wi-Fi

Setup

anytime

Technical data and types

Inverter	FIM-HY-2.0-SE-A	FIM-HY-3.0-SE-A	FIM-HY-3.3-SE-A	FIM-HY-3.6-SE-A	FIM-HY-4.0-SE-A	FIM-HY-4.6-SE-A	FIM-HY-5.0-SE-A	FIM-HY-6.0-SE-A
Input side								
Absolute maximum DC voltage ($V_{max,abs}$)	600 V							
Start-up DC voltage (V_{start})	150 V adj. 120...350 V	150 V adj. 120...350 V	150 V adj. 120...350 V	150 V adj. 120...350 V	200 V adj. 150...350 V	200 V adj. 180...350 V	200 V adj. 180...350 V	200 V adj. 200...350 V
Operating DC voltage range ($V_{dc,min}...V_{dc,max}$)	0.7 x $V_{start}...570$ V (min 95 V)	0.7 x $V_{start}...570$ V (min 95 V)	0.7 x $V_{start}...570$ V (min 95 V)	0.7 x $V_{start}...570$ V (min 95 V)	0.7 x $V_{start}...570$ V (min 110 V)	0.7 x $V_{start}...570$ V (min 130 V)	0.7 x $V_{start}...570$ V (min 130 V)	0.7 x $V_{start}...570$ V (min 145 V)
Rated DC voltage ($V_{dc,r}$)	390 V							
Rated DC power ($P_{dc,r}$)	2051 W	3077 W	3385 W	3692 W	4103 W	4718 W	5128 W	6154 W
Suggested maximum DC power	3000 W	4500 W	4950 W	5400 W	6000 W	7040 W	7500 W	9000 W
DC/AC ratio	Up to 200%, according to location							
Number of independent MPPT	1	2	2	2	2	2	2	2
Maximum DC power for each MPPT ($P_{MPPT,max}$)	3060 W ¹⁾ Linear derating 500 ≤ V_{MPPT} ≤ 570 V	2300 W Linear derating 500 ≤ V_{MPPT} ≤ 570 V	2520 W Linear derating 500 ≤ V_{MPPT} ≤ 570 V	2755 W Linear derating 500 ≤ V_{MPPT} ≤ 570 V	3060 W Linear derating 500 ≤ V_{MPPT} ≤ 570 V	3520 W Linear derating 500 ≤ V_{MPPT} ≤ 570 V	3820 W Linear derating 500 ≤ V_{MPPT} ≤ 570 V	4592 W Linear derating 500 ≤ V_{MPPT} ≤ 570 V
DC voltage range of MPPT ($V_{MPPT,min}...V_{MPPT,max}$) at $P_{ac,r}$	120...500 V	135...500 V	135...500 V	145...500 V	165...500 V	170...500 V	180...500 V	200...500 V
Maximum DC current ($I_{dc,max}$) / for each MPPT ($I_{MPPT,max}$)	16 A (MPPT1)	32 A / 16 A - 16 A (MPPT1 - MPPT2)	32 A / 16 A - 16 A (MPPT1 - MPPT2)	32 A / 16 A - 16 A (MPPT1 - MPPT2)	32 A / 16 A - 16 A (MPPT1 - MPPT2)	32 A / 16 A - 16 A (MPPT1 - MPPT2)	32 A / 16 A - 16 A (MPPT1 - MPPT2)	32 A / 16 A - 16 A (MPPT1 - MPPT2)
Maximum short circuit current per MPPT	20 A							
Number of DC inputs pairs for each MPPT	1 (MPPT1)	1 - 1 (MPPT1 - MPPT2)	1 - 1 (MPPT1 - MPPT2)	1 - 1 (MPPT1 - MPPT2)	1 - 1 (MPPT1 - MPPT2)	1 - 1 (MPPT1 - MPPT2)	1 - 1 (MPPT1 - MPPT2)	1 - 1 (MPPT1 - MPPT2)
DC connection type	Quick fit PV connector ²⁾							
Input protection								
Reverse polarity protection	Yes, from limited current source							
Over voltage protection for each MPPT - varistor	Yes							
Photovoltaic array isolation control	According to local standard							
DC switch rating for each MPPT	25 A / 600 V							
Battery input/output								
Operating DC voltage range	330...560 V							
PowerX Max. units	2							
Max operating current	15 A							
Maximum charge power from DC side ³⁾	3060 W	4600 W	5040 W	5510 W	6120 W	6200 W	6200 W	6200 W
Maximum discharge power	2000 W	3000 W	3300 W	3600 W	4000 W	4600 W	5000 W	6000 W
AC Output								
AC Grid connection type	Single-phase							
Rated AC power ($P_{ac,r}$ @ $\cos\phi=1$)	2000 W	3000 W	3300 W	3600 W	4000 W	4600 W	5000 W	6000 W
Maximum AC output power ($P_{ac,max}$ @ $\cos\phi=1$)	2000 W	3000 W	3300 W	3600 W	4000 W	4600 W	5000 W	6000 W
Maximum apparent power (S_{max})	2000 VA	3000 VA	3300 VA	3600 VA	4000 VA	4600 VA	5000 VA	6000 VA
Rated AC grid voltage ($V_{ac,r}$)	220 / 230 / 240 V							
AC voltage range ⁴⁾	180...264 V							
Maximum AC current ($I_{ac,max}$)	10.0 A	14.5 A	16.0 A	16.0 A	19.5 A	22.3 A	22.8 A	27.3 A
Contributory fault current	10.0 A	14.5 A	16.0 A	16.0 A	19.5 A	22.3 A	22.8 A	27.3 A
Rated frequency (f_r)	50 Hz / 60 Hz							
Frequency range ($f_{min}...f_{max}$) ⁵⁾	45...55 Hz / 55...65 Hz							
Nominal power factor and adj. range	> 0.995, adj. ± 0.8 - 1 (over/under exited)							
Total current harmonic distortion	< 3 % of $I_{ac,max}$							
AC connection type	Female panel connector							
Grid connected output protection								
Anti-islanding protection	According to local standard							
Maximum external AC overcurrent protection	16.0 A	20.0 A	20.0 A	20.0 A	25.0 A	25.0 A	25.0 A	32.0 A
Output overvoltage protection - varistor	2 (L - N / L - PE), TYPE II protection class ⁶⁾							
Efficiency								
Maximum	97.97 %	97.97 %	97.97 %	97.96 %	98.01 %	98.08 %	98.07 %	98.09 %
Euro efficiency	97.51 %	97.51 %	97.51 %	97.57 %	97.66 %	97.76 %	97.76 %	97.80 %
MPPT efficiency	99.90 %							
Backup mode ⁷⁾								
Maximum apparent power (S_{max})	2000 VA	3000 VA	3300 VA	3600 VA	4000 VA	4600 VA	5000 VA	6000 VA
Rated AC grid Voltage ($V_{ac,r}$)	220 / 230 / 240 V							
AC Voltage range	180...264 V							
Maximum AC current ($I_{ac,max}$)	10.0 A	14.5 A	16.0 A	16.0 A	19.5 A	22.3 A	22.8 A	27.3 A
Rated output frequency (f_r)	50 Hz / 60 Hz							
Frequency range ($f_{min}...f_{max}$)	45...55 Hz / 55...65 Hz							

Technical data and types

Inverter	FIM-HY-2.0-SE-A	FIM-HY-3.0-SE-A	FIM-HY-3.3-SE-A	FIM-HY-3.6-SE-A	FIM-HY-4.0-SE-A	FIM-HY-4.6-SE-A	FIM-HY-5.0-SE-A	FIM-HY-6.0-SE-A
Embedded communication								
Embedded physical interface	Wi-Fi [®] , Ethernet, RS-485							
Embedded communication protocols	Modbus TCP (SunSpec), Modbus RTU (SunSpec)							
Datalogger data retention	30 days							
Remote monitoring	Energy Viewer (mobile APP), Energy Viewer Web, Plant Portfolio Manager							
Local monitoring	Energy Viewer (mobile APP)							
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 50°C	-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	4...100 % condensing							
Acoustic noise emission level	< 40 dBA @ 1 m							
Maximum operating altitude ⁹⁾	3000 m / 9842 ft							
Physical								
Environmental protection rating	IP65							
Cooling	Natural							
Dimension (H x W x D)	330 mm x 460 mm x 160 mm							
Weight	14 kg							
Mounting system	Wall bracket							
Safety								
Isolation level	Transformerless							
Marking	CE, RCM							
Safety and EMC standards	IEC/EN 62109-1, IEC/EN 62109-2, IEC 62477-1, EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12							
Grid standards (check your sales channel for availability) ¹⁰⁾	CEI 0-21, DIN V VDE V 0126-1-1, VDE-AR-N 4105, G83/2, G59/3, G98-1, G99-1, RD 413, ITC-BT-40, AS/NZS 4777.2, C10/11, IEC 61727, IEC 62116							
Other features								
Load manager	Yes, with integrated relay							
AC backup, off grid	Yes							
Battery charge from AC	Yes, it can be enabled							
AC-coupled mode	Yes, settable during commissioning							

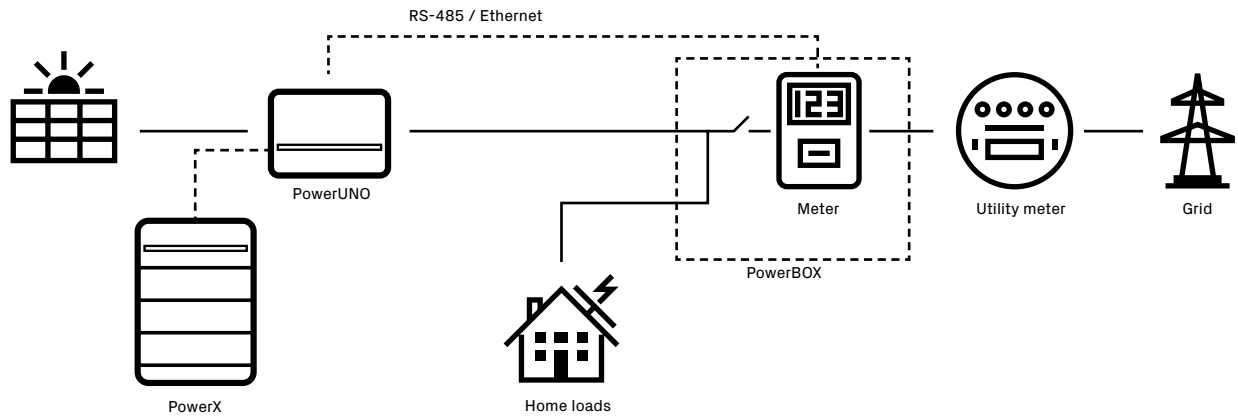
- 1) Extra power available in conjunction with Battery ESS
- 2) Refer to the document "String inverter – Product Manual appendix" available at www.fimer.com/solarinverters to know the brand and the model of the quick fit connector
- 3) Also limited by the capability of the installed Battery ESS
- 4) The AC voltage range may vary depending on specific country grid standards
- 5) The Frequency range may vary depending on specific country grid standards
- 6) As per test defined in EN/IEC 61643-11
- 7) PowerBOX required

- 8) As per IEEE 802.11 b/g/n standard
- 9) The output power may be affected by altitude, de-rated over 2000 m
- 10) Further grid standards will be added, please refer to FIMER's Solar page for further details

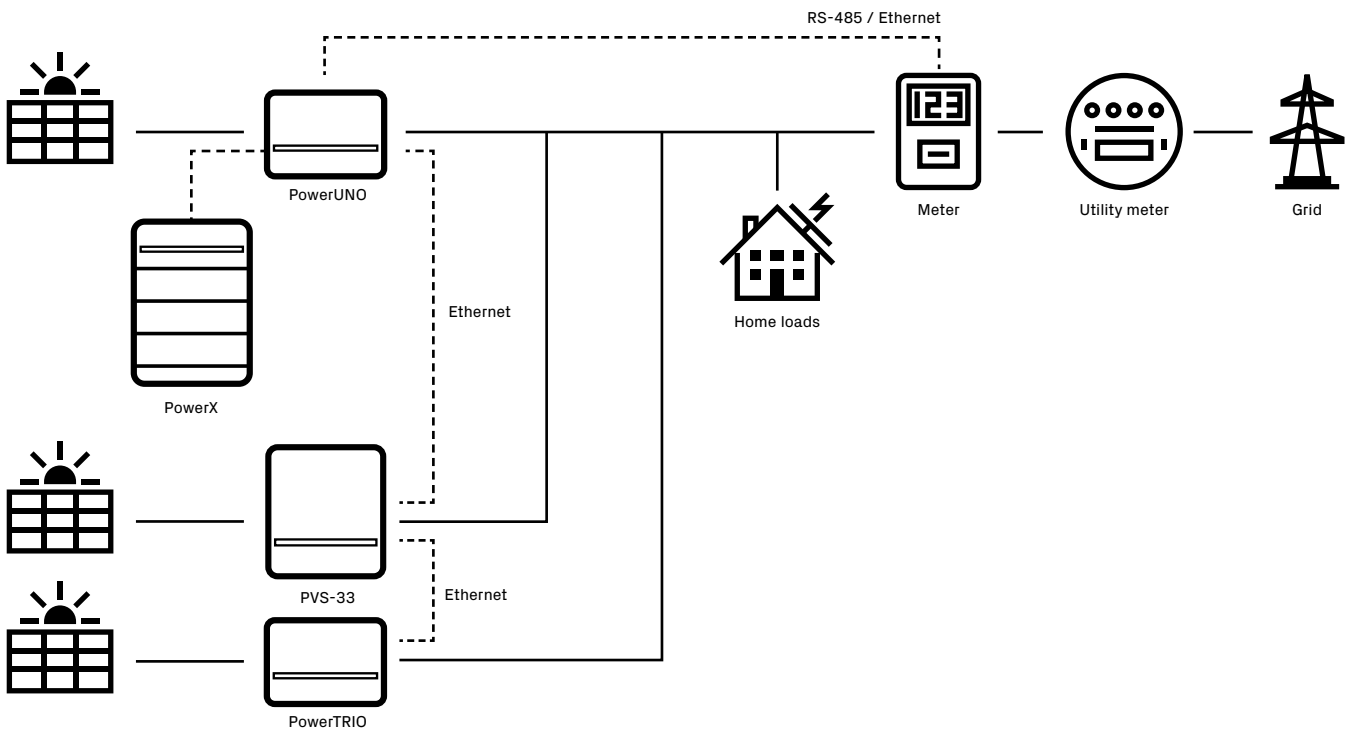
Remarks:

- **Designed and manufactured in Italy**
- **Features not specifically listed in the present data sheet are not included in the product**

PowerUNO: provides protection against blackouts



PowerUNO: multi-inverter energy management





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