FIMER



The better 3phase PowerTRIO

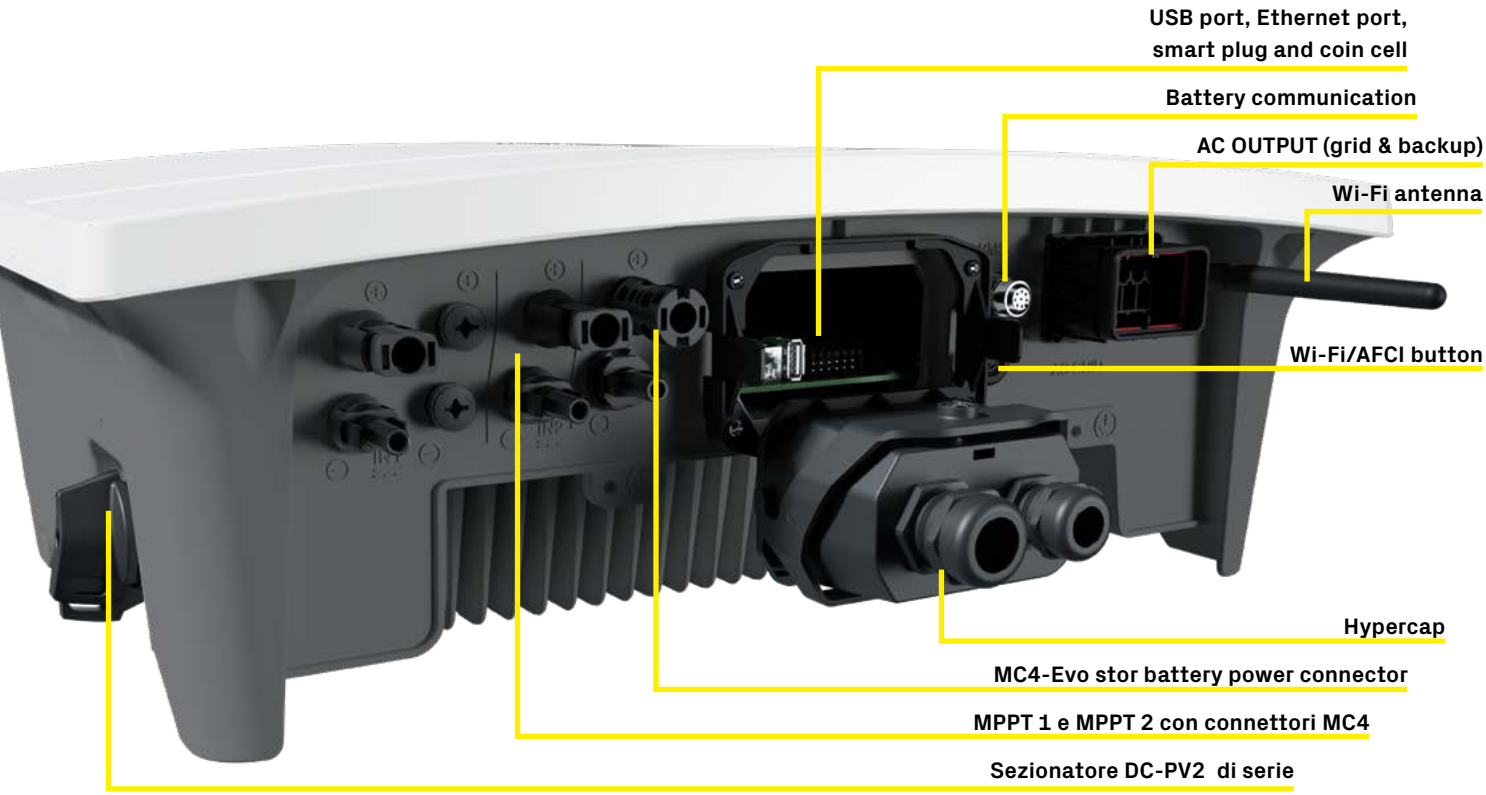
The better flexibility
Battery ready inverter, DC or AC coupled
Full power 100% unbalanced backup

The better installability
Plug & play connections
Integrated spirit level

The better security
Patented AFCI
Patented RCD (Residual Current Device)

The better connectivity
Embedded Wi-Fi, Ethernet and USB
Modbus TCP (Sunspec)

Go for the better



One size for all
from 4 kW to 10 kW

x2
switching frequency

<20 dB (A)
noise reduction

+40%
time saving for commissioning



24 / 7
real time monitoring

Battery ready

100%

Semplice
plug & play

100%
Full power unbalanced backup

Patented
ARC fault detection

Small
High power density

+55%
CPU performance

Integrated
SG ready

Built-in
Ethernet and Wi-Fi

Setup
Anytime

Technical data and types

Inverter	FIM-HY-4.0-SE-A-3PH	FIM-HY-5.0-SE-A-3PH	FIM-HY-6.0-SE-A-3PH	FIM-HY-7.5-SE-A-3PH	FIM-HY-8.0-SE-A-3PH	FIM-HY-8.5-SE-A-3PH	FIM-HY-10.0-SE-A-3PH
Input side							
Absolute maximum DC voltage ($V_{max,abs}$)	1000 V						
Start-up DC voltage (V_{start})	200 V adj. 150...500 V	200 V adj. 170...500 V	200 V adj. 200...500 V	215 V adj. 215...500 V	215 V adj. 215...500 V	215 V adj. 215...500 V	215 V adj. 215...500 V
Operating DC voltage range (V_{dcmin}...V_{dcmax})	0.7 x V_{start}...975 V (min 110 V)	0.7 x V_{start}...975 V (min 130 V)	0.7 x V_{start}...975 V (min 145 V)	0.7 x V_{start}...975 V (min 155 V)	0.7 x V_{start}...975 V (min 155 V)	0.7 x V_{start}...975 V (min 155 V)	0.7 x V_{start}...975 V (min 155 V)
Rated DC voltage (V_{dcr})	625 V						
Rated DC power (P_{dcr})	4128 W	5176 W	6205 W	7732 W	8247 W	8763 W	10256 W
Suggested maximum DC power [1]	6000 W	7500 W	9000 W	11250 W	12000 W	12750 W	12750 W
DC/AC ratio	Up to 150%, according to location						
Number of independent MPPT	1	2	2	2	2	2	2
Maximum DC power for each MPPT ($P_{MPPTmax}$)	5625 W [2] Linear derating 800≤V_{MPPT}≤950V	3882 W Linear derating 800≤V_{MPPT}≤950V	4654 W Linear derating 800≤V_{MPPT}≤950V	5799 W Linear derating 850≤V_{MPPT}≤975V	6186 W Linear derating 850≤V_{MPPT}≤975V	6572 W Linear derating 850≤V_{MPPT}≤975V	6572 W Linear derating 850≤V_{MPPT}≤975V
DC voltage range of MPPT ($V_{MPPTmin}$ ... $V_{MPPTmax}$) at P_{acr}	265...800 V	170...800 V	200...800 V	250...850 V	265...850 V	285...850 V	330...850 V
Maximum DC current ($I_{dc\ max}$) / for each MPPT ($I_{MPPT\ max}$)	16 A	32A / 16 A - 16 A (MPPT1 - MPPT2)	32A / 16 A - 16 A (MPPT1 - MPPT2)	32A / 16 A - 16 A (MPPT1 - MPPT2)	32A / 16 A - 16 A (MPPT1 - MPPT2)	32A / 16 A - 16 A (MPPT1 - MPPT2)	32A / 16 A - 16 A (MPPT1 - MPPT2)
Maximum short circuit current per MPPT	20 A						
Number of DC inputs pairs for each	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)
DC connection type	Quick fit PV connector [3]						
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 / 700 V - 12 A / 1000 V						
Battery input/output							
Operating DC voltage range (U_{dmin} ... U_{dM})	600...850 V	600...850 V	600...850 V	600...980 V	600...980 V	600...980 V	600...980 V
Nominal operating DC voltage range (U_{dNmin} ... U_{dNM})	620 V						
Nominal operating DC voltage (U_N)	605 ... 635						
Withstand voltage(U_M)	980 V						
PowerX Max. units	2						
Max operating current [4]	17 A						
Maximum charge power from DC side [5]	5625 W	7764 W	9308 W	10256 W	10256 W	10256 W	10256 W
Maximum discharge power	4000 W	5000 W	6000 W	7500 W	8000 W	8500 W	10000 W
AC Output							
AC Grid connection type	Three-phase						
Rated AC power (P_{acr} @cosφ=1)	4000 W	5000 W	6000 W	7500 W	8000 W	8500 W	10000 W
Maximum AC output power (P_{acmax} @cosφ=1)	4000 W	5000 W	6000 W	7500 W	8000 W	8500 W	10000 W
Maximum apparent power (S_{max})	4000 VA	5000 VA	6000 VA	7500 VA	8000 VA	8500 VA	10000 VA
Rated AC grid voltage ($V_{ac,r}$)	380 / 400 V						
AC voltage range [6]	320 / 480 V						
Rated Output Current at Vac 400 V($I_{ac,r}$)	5.8 A	7.2 A	8.7 A	10.9 A	11.6 A	12.3 A	14.5 A
Maximum AC current ($I_{ac\ max}$)	6.1 A	7.6 A	9.1 A	11.4 A	12.2 A	12.9 A	15.2 A
Contributory fault current	6.1 A	7.6 A	9.1 A	11.4 A	12.2 A	12.9 A	15.2 A
Rated frequency (f_r)	50 Hz / 60 Hz						
Frequency range (f_{min}...f_{max}) [7]	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 % di $I_{ac,max}$						
AC connection type	Female panel connector						
Grid connected output protection							
Anti-islanding protection	According to local standard						
Maximum external AC overcurrent protection	10.0 A	10.0 A	10.0 A	16.0 A	16.0 A	16.0 A	20.0 A
Output overvoltage protection - varistor	4 (L1-PE, L2-PE, L3-PE, N-PE), TYPE II protection class [8]						
Efficiency							
Maximum efficiency	97.7 %	97.9 %	97.9 %	97.9 %	97.9 %	97.9 %	98.3 %
Euro efficiency	95.9 %	96.8 %	97.0 %	97.3 %	97.3 %	97.4 %	97.9 %
MPPT efficiency	99.9 %						
Backup mode [9]							
Voltage waveform	S (sine)						
Dynamic output performance	1 (linear load), 2 (non-linear load)						
Maximum apparent 3-PHASE power (S_{max})	4000 VA	5000 VA	6000 VA	7500 VA	8000 VA	8500 VA	10000 VA
Maximum apparent 1-PHASE power (S_{max})	1333 VA	1667 VA	2000 VA	2500 VA	2667 VA	2833 VA	3333 VA
Rated AC grid Voltage (V_{acr})	380 / 400 V						
AC Voltage range	320 ... 480 V						
Maximum AC current ($I_{ac\ max}$)	6.1 A	7.6 A	9.1 A	11.4 A	12.2 A	12.9 A	15.2 A
Rated output frequency (f_r)	50 Hz / 60 Hz						
Frequency range (f_{min}...f_{max})	45...55 Hz / 55...65 Hz						
Maximum neutral point compensation current (INP_{max}) [10]	2.5 A rms						

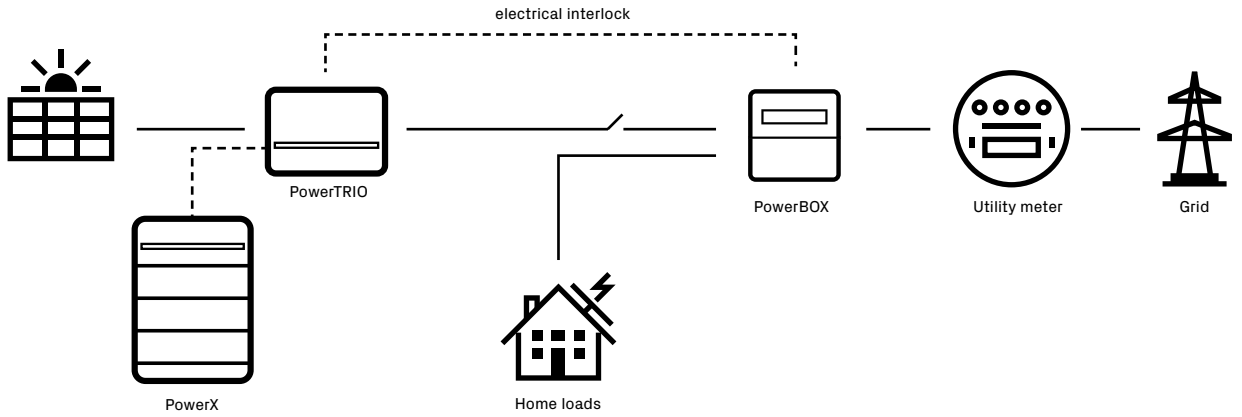
Technical data and types

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Embedded communication							
Embedded physical interface	Wi-Fi [11], Ethernet, RS-485						
Embedded communication protocols	Modbus TCP (SunSpec)						
Datalogger data retention	30 days						
Remote monitoring	Energy Viewer (mobile APP), Energy Viewer Web, Plant Portfolio Manager						
Local monitoring	Energy Viewer (mobile APP) / Internal web server (WEB UI)						
Commissioning (Energy policy included)	Internal web server (Web UI)						
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 45°C	-25...+60°C with derating above 45°C	-25...+60°C with derating above 45°C	-25...+60°C with derating above 45°C	-25...+60°C with derating above 40°C
Wet locations	Yes						
Relative humidity	4...100 % condensing						
Acoustic noise emission level (at rated DC voltage V_{dcr})	< 40 dBA @ 1 m						
Acoustic noise emission level (worst case)	< 50 dbA @ 1 m						
Maximum operating altitude	3000 m (9842 ft) with derating above 2000 m (6561 ft)						
Ambient storage/transport temperature	-40 °C...+85 °C						
Humidity storage/transport	4 % ÷ 100 %						
Environmental classification	4K6 (IEC 62477-1:2022) /4K26 (IEC 60721-3-4:2019)						
Physical							
Environmental protection rating	IP65						
Cooling	Natural						
Dimension (H x W x D)	373 mm x 518 mm x 183 mm						
Weight	18 kg						
Mounting system	Wall bracket						
Safety							
Isolation level	Transformerless						
Overvoltage category according IEC 62109-1	OVC III (AC Port), OVCII (PV port and Battery port)						
Marking	CE, RCM						
Safety and EMC standards	IEC 62109-1, IEC 62109-2, IEC 62477-1, EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12						
Grid standards (check your sales channel for availability) [12]	CEI 0-16, CEI 0-21, DIN V VDE V 0126-1-1, VDE-AR-N 4105, G98 Issue 2, G99 Issue 2, AS/NZS 4777.2, EN 50549-10, IEC 61727, IEC 62116, EN 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						

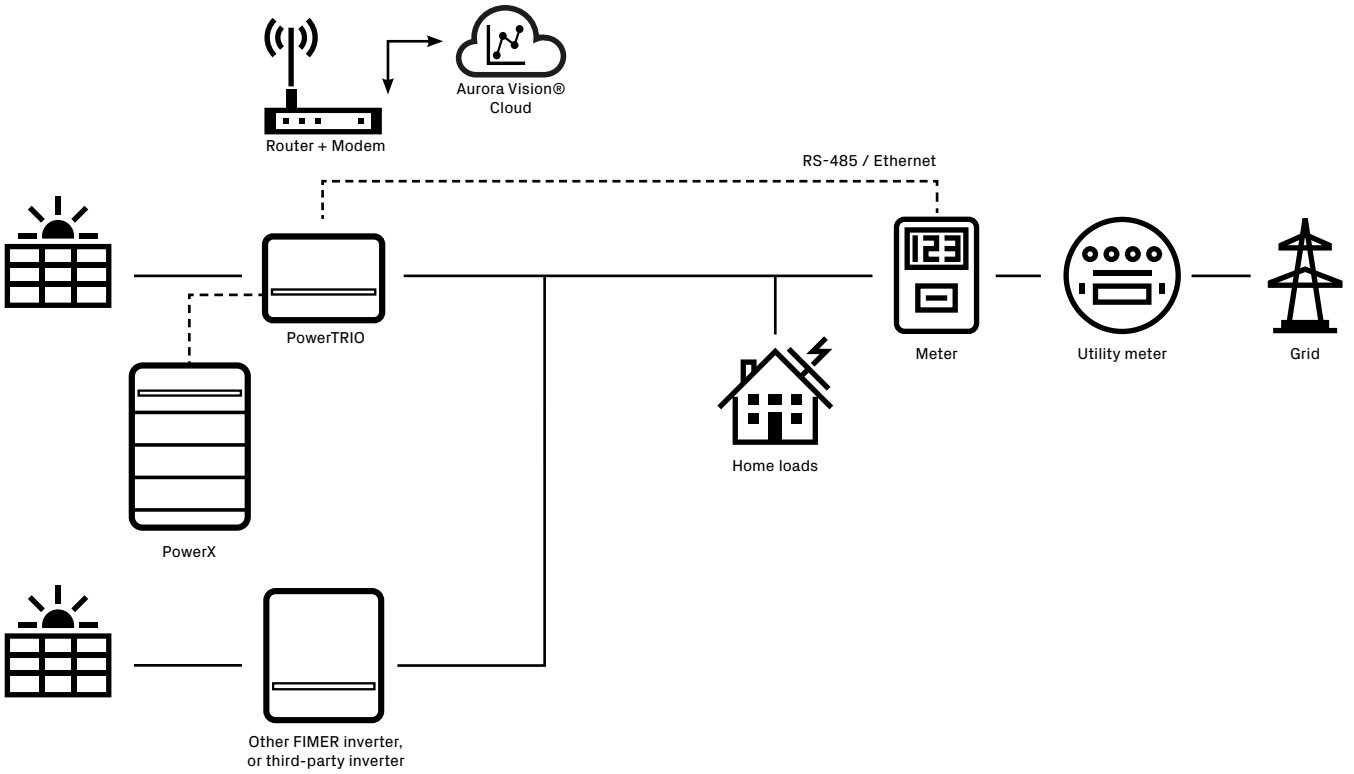
1) Value subject to derating; refer to the product documentation for further details.
2) Extra power available in conjunction with Battery ESS
3) Refer to the document “String inverter – Product Manual appendix” available at www.fimer.com/solarinverters to know the brand and the model of the quick fit connector
4) The maximum operating current applies to both the charging and discharging cases
5) Also limited by the capability of the installed Battery ESS
6) The AC voltage range may vary depending on specific country grid standards
7) The Frequency range may vary depending on specific country grid standards
8) As per test defined in EN/IEC 61643-11
9) PowerBOX required
10) A unidirectional load is an electrical load that draws current only during one polarity of the applied voltage waveform. This asymmetric current consumption results in power being drawn exclusively during either the positive or negative half-cycle of the AC voltage, depending on the load configuration. Care should be taken when connecting unidirectional loads, as these can introduce an imbalance in the inverter’s internal neutral point. The internal neutral-point balancer is designed to compensate for such imbalances within its rated current limit: 2.5 A rms.
11) As per IEEE 802.11 b/g/n standard
12) 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**

PowerTRIO: provides protection against blackouts



PowerTRIO: Multi-inverter installation



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please contact
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PowerTRIO - Hybrid string inverter - FIM-HY-4.0/5.0/6.0/7.5/8.5-SE-A-3PH_EN_Rev N 02.02.2026