FIMER

Solar Inverter PowerTRIO

FIM-HY-4.0/5.0/6.0/7.5/8.0/8.5/10.0-SE-A-3PH

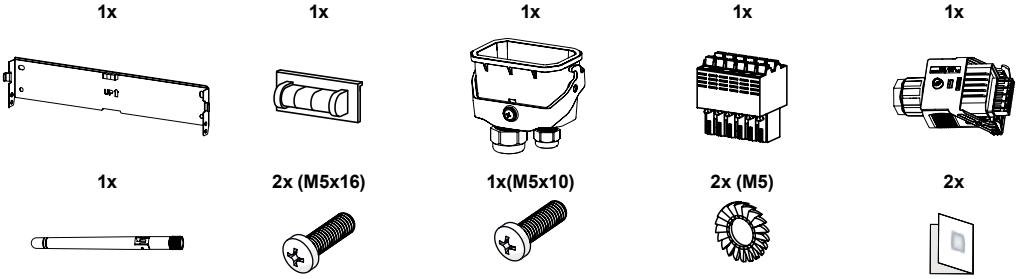
Quick Installation Guide

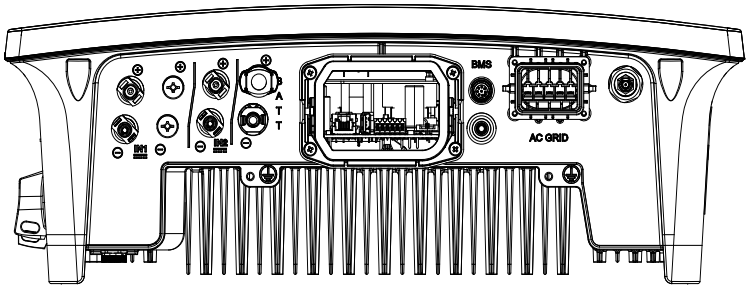
EN: Operative manual

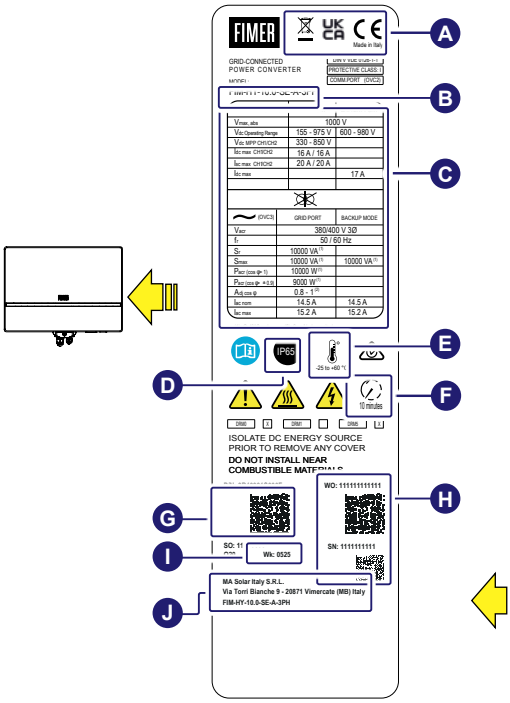
APPLY HERE THE COMMUNICATION IDENTIFICATION LABEL

In addition to what is explained in this quick installation guide, the safety and installation information provided in the product manual must be read and followed. The technical documentation for the product is available at the website.
The device must be used in the manner described in the manual. If this is not the case the safety devices guaranteed by the inverter might be ineffective.

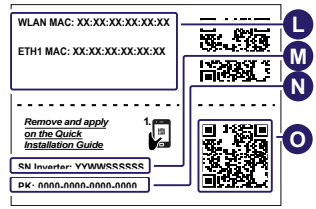
List of supplied components



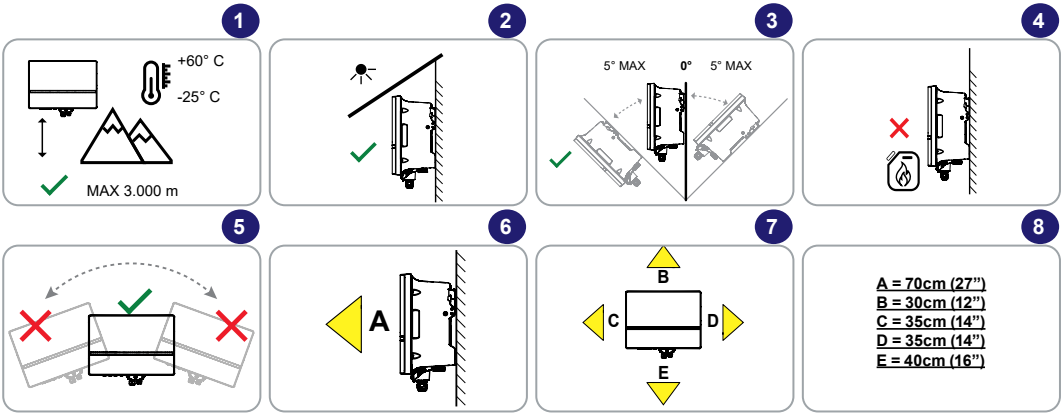




A	Certification marks
B	Inverter model
C	Main technical data
D	Degrees of protection provided by enclosures (IP Code)
E	Operating temperature range
F	Discharge time
G	Inverter Part Number
H	Serial Number (YYWWSSSSSS) - Inverter access point SSID: FIMER-YYWWSSSSSS - "Host Name": http://FIMER-YYWWSSSSSS.local - It is required to register the inverter in Aurora Vision.
I	Production date: WWYY where: WW (week) YY (year)
J	Manufacturer
L	WLAN (Wi-Fi) and ETH1 (Ethernet) MAC addresses
M	Inverter Serial Number (YYWWSSSSSS)
N	Product Key
O	QR Code: To be used to commission inverter using FIMER internal WebUI

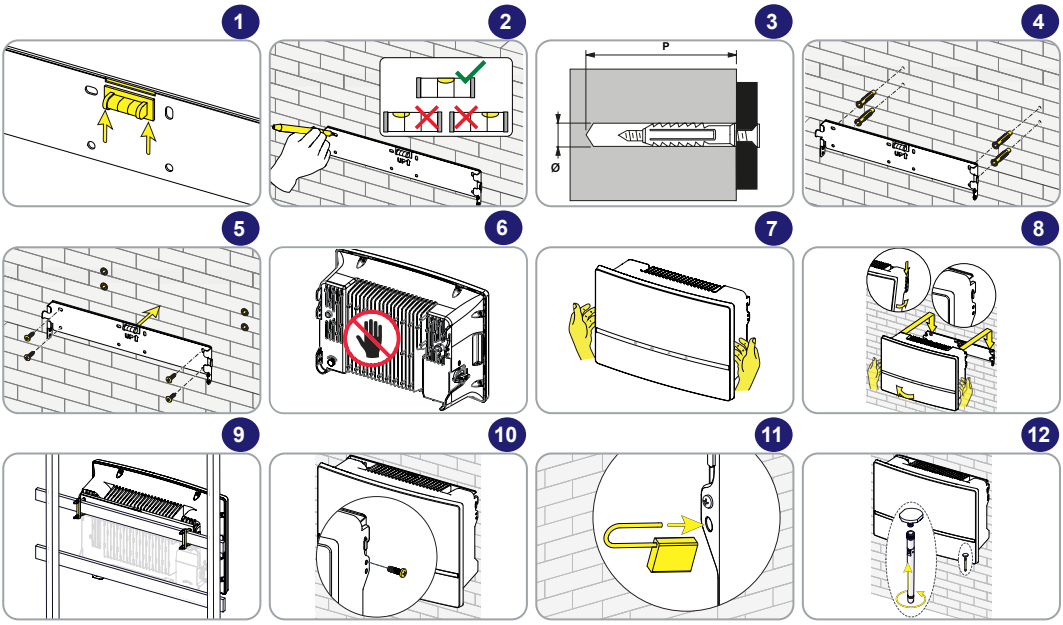


1. Mounting location

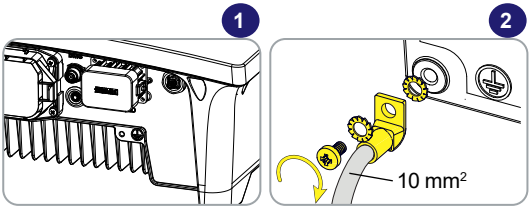


Environmental	
Ambient temperature range	-25...+60°C
Relative humidity	4...100 % condensing
Acoustic noise emission level	< 40 dBA @ 1 m
Acoustic noise emission level (worst case)	< 50 dBA @ 1 m
Maximum operating altitude	3000 m (9842 ft) with derating above 2000 m (6561 ft)
Physical	
Environmental protection rating	IP65
Cooling	Natural
Dimension (HxWxD)	373 mm x 518 mm x 183 mm
Weight	18 kg
Mounting system	Wall bracket

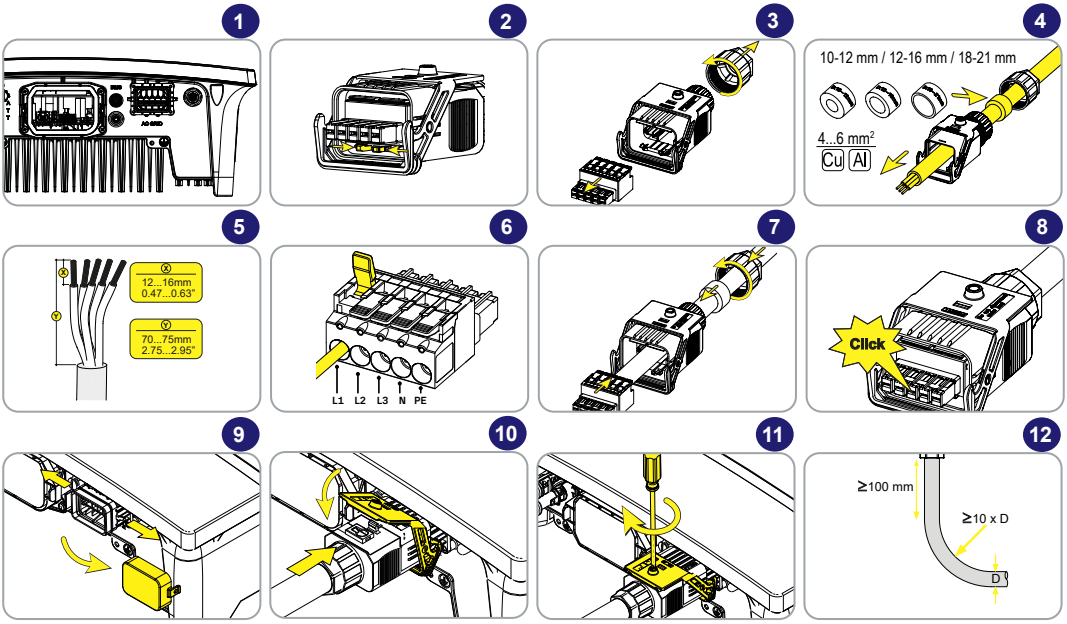
2. Mounting Instruction



3. Protective earthing (PE)



4. Line cable and protection device

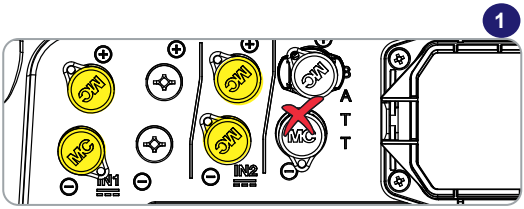


Load protection breaker	
Type	Automatic circuit breaker with thermal magnetic protection
Voltage/Current raiting	**FIM-HY-4.0 -** 400Vac min. 10A **FIM-HY-5.0 -** 400Vac min. 10A **FIM-HY-6.0 -** 400Vac min. 10A **FIM-HY-7.5 -** 400Vac min. 16A **FIM-HY-8.0 -** 400Vac min. 16A **FIM-HY-8.5 -** 400Vac min. 16A **FIM-HY-10.0 -** 400Vac min. 20A
Magnetic protection characteristic	Magnetic curve B/C
Number of poles	3W (3 phases without neutral wire) 4W (3 phases with neutral wire)

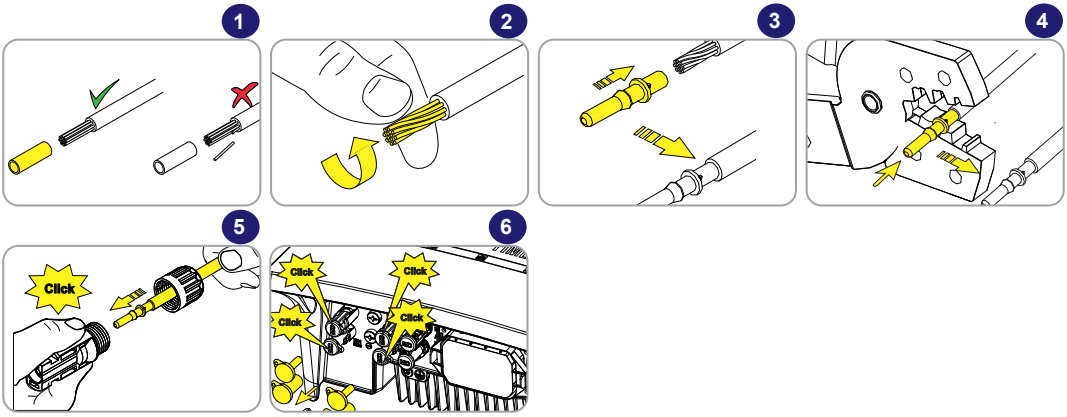
Residual current protection device requirements	All PowerTRIO models
Type	A / AC
Sensitivity	300mA

Inverter model	Line conductor maximum length (m)	
	4mm²	6mm²
FIM-HY-4.0	63	94
FIM-HY-5.0	50	76
FIM-HY-6.0	42	63
FIM-HY-7.5	34	50
FIM-HY-8.0	31	47
FIM-HY-8.5	30	44
FIM-HY-10.0	25	38

5. DC inputs

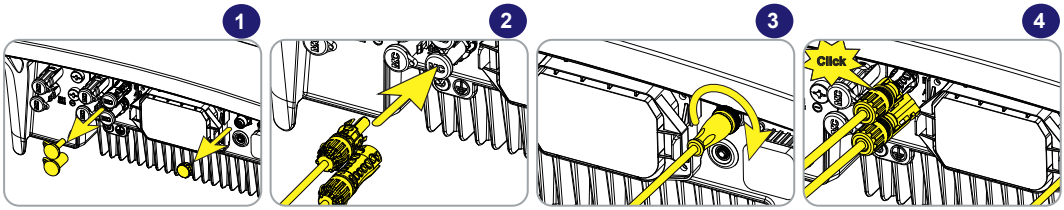


	IN1	IN2
FIM-HY-4.0-SE-A-3PH	16 A	-
FIM-HY-5.0 to 10.0-SE-A-3PH	16 A	16 A

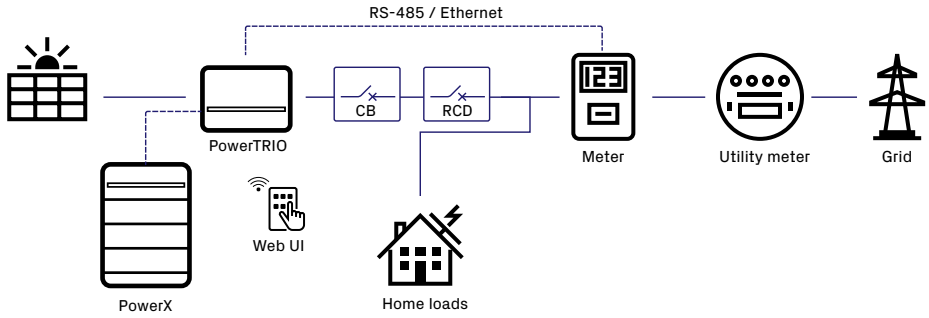


6. Battery PowerX connection

(optional PowerX wiring kit needed)

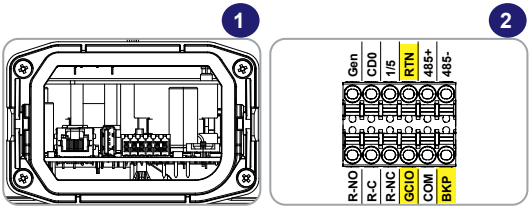


7. AC On-Grid connection

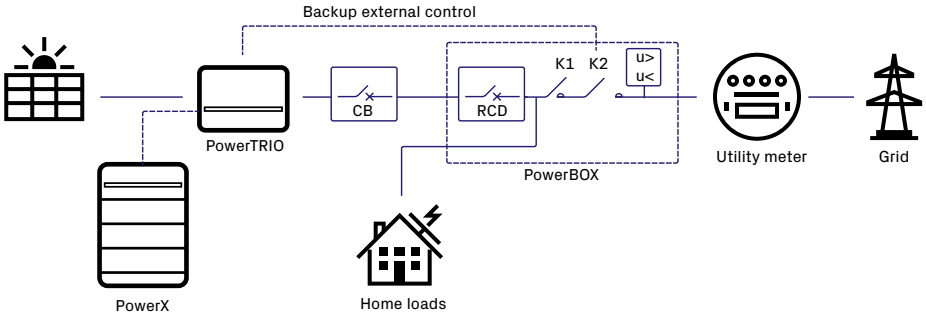


8. AC On-Grid connection with backup functionality

(optional PowerBox needed)

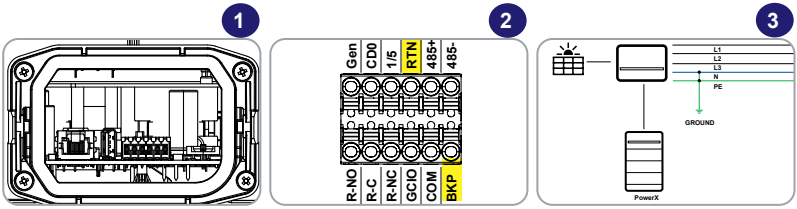


Terminal	Description
BKP	Backup mode inhibition
GCIO (+12V)	Grid Connection Inhibition Output (+12V)
RTN	Common return path



9. Off-Grid Stand Alone

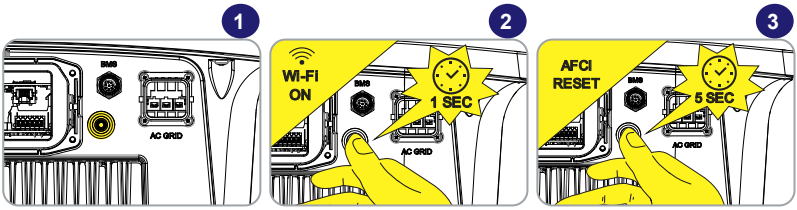
(PowerBox not needed)



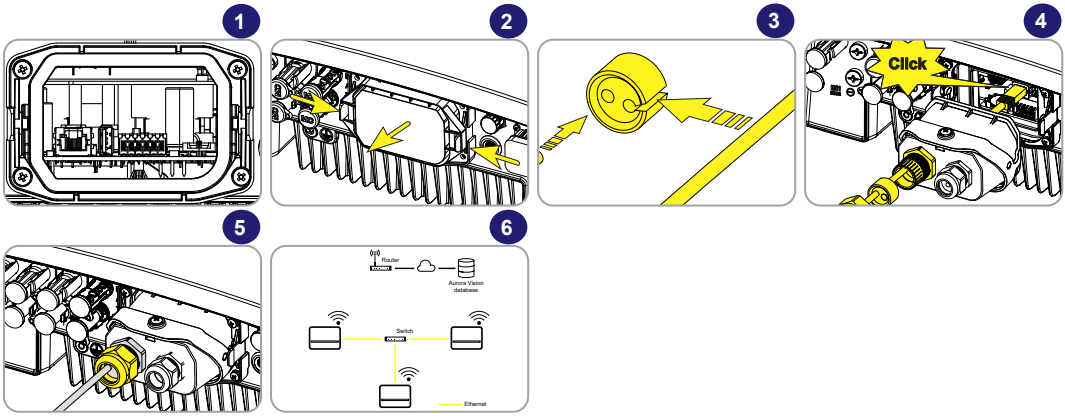
Terminal	Description
BKP	Backup mode inhibition
RTN	Common return path

NOTE – Shorting BKP and RTN produces the stand-alone voltage.

10. Wi-Fi / AFCI button

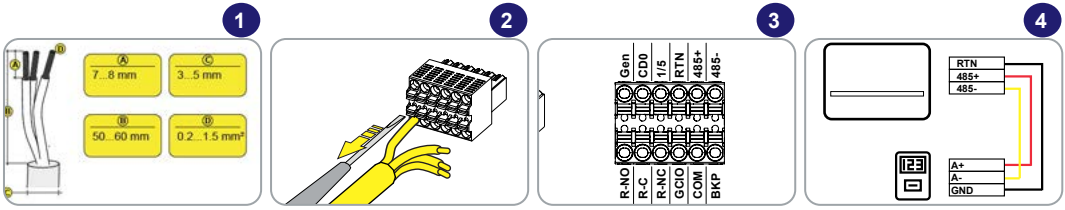


11. Ethernet

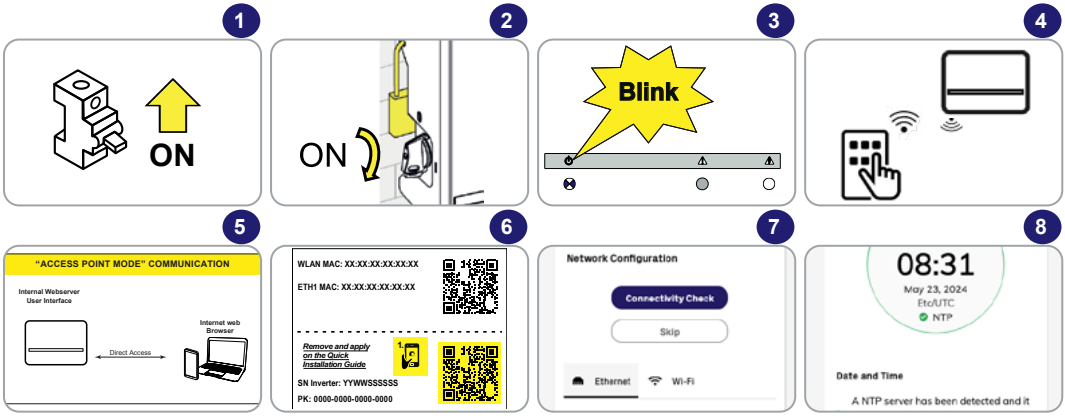


Embedded communication	
Embedded physical interface	Wi-Fi, Ethernet, RS-485
Embedded communication protocols	Modbus TCP (SunSpec)
Datalogger data retention	30 days
Remote monitoring	Energy Viewer (mobile APP), Energy Viewer Web, Plant Portfolio Manager
Local monitoring	Energy Viewer (mobile APP) / Internal web server (Web UI)
Commissioning (Energy policy included)	Internal web server (Web UI)

12. DRM, Remote OFF, RS-485, Load Manager relay



13. Commissioning



14. Characteristics and technical data

Inverter	FIM-HY-4.0	FIM-HY-5.0	FIM-HY-6.0	FIM-HY-7.5	FIM-HY-8.0	FIM-HY-8.5	FIM-HY-10.0
DC Input (PV)							
Absolute maximum DC voltage ($V_{max,abs}$)				1000 V			
Start-up DC voltage (V_{start})	200 V	200 V	200 V	215 V	215 V	215 V	215 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
Number of independent MPPT	1	2	2	2	2	2	2
Max DC power for each MPPT [2] ($P_{MPPTmax}$)	5625 W	3882 W	4654 W	5799 W	6186 W	6572 W	6572 W
DC voltage range of MPPT ($V_{MPPTmin}$ … $V_{MPPTmax}$) at P_{acr}	265...800V	170…800 V	200…800 V	250…850 V	265…850 V	285…850 V	330…850 V
Max DC current ($I_{dc\ max}$)	16 A			32 A /16 A - 16 A			
MPPT ($I_{MPPT\ max}$)	MPPT1			MPPT1-MPPT2			
Max short circuit current per MPPT				20 A			
DC connection type				Quick fit PV connector [3]			
Battery DC input/output							
Max operating current [4]				17 A			
Maximum charge power [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
Grid connected output side							
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
Rated AC grid voltage ($V_{ac,r}$)				380 / 400 V			
AC voltage range [6]				320...480 V			
Rated Output Current at Vac 230V ($I_{ac,r}$)	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
Rated frequency (f_r)				50 Hz / 60 Hz			

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

For complete data refer to the technical data sheet on www.fimer.com