



Fronius IG Plus / IG Plus V 5.0-1 UNI / 6.0-1 UNI / 7.5-1 UNI



- + Maximum Earnings Security
- + Highest Reliability
- + First Universal Inverter

This two power stage inverter is available in 5.0, 6.0 and 7.5 kW and is field programmable to 208, 240 or 277 volts. Best suited for residential and smaller commercial applications.

Available Fronius IG Plus / IG Plus V Two Stage Inverters:

- 5.0-1 UNI
- 6.0-1 UNI
- 7.5-1 UNI

[Operating Manual](#)

Technical Data

Fronius IG Plus	5.0-1 _{UNI}	6.0-1 _{UNI} < DIV >	7.5-1 _{UNI}
-----------------	----------------------	------------------------------	----------------------

Input data

Recommended PV-Power (kWp)	4..25-5.75	5.10-6.90	6.35-8.600
MPPT-Voltage range	230 - 500 V		
Max. Input voltage range (at 1000 W/m ² 14°F (-10°C) in open circuit operation)	600 V		
Nominal Input Current	13.8 A	16.6 A	20.7 A
Max. usable Input Current	23.4 A	28.1 A	35.1 A
Admissible conductor size (DC)	No. 14-6 AWG		

Output data

Nominal output power (PAC nom)	5000 W	6000 W	7500 W
Max. continuous output power			

104°F (40°C) 208 V / 240 V / 277 V 5000 W 6000 W 7500 W

Nominal AC output voltage 208 V / 240 V / 277 V

Operating AC voltage range
(default)
208 V 183 - 229 V (-12 / +10 %)
240 V 211 - 264 V (-12 / +10 %)
277 V 244 - 305 V (-12 / +10 %)

Maximum continuous output
current
208 V 24.0 A 28.8 A 36.1 A
240 V 20.8 A 25.0 A 31.3 A
277 V 18.1 A 21.7 A 27.1 A

Admissible conductor size (AC) No. 14 - 4 AWG

Max. continuous utility back
feed current 0 a

Nominal frequency 60 Hz

Operating frequency range 59.3 - 60.5 Hz

Total harmonic distortion < 3 %

Power factor 1

General data

Max. Efficiency 96.2 %

CEC Efficiency
208 V 95.5 % 95.5 % 95.0 %
240 V 95.5 % 96.0 % 95.5 %
277 V 96.0 % 96.0 % 96.0 %

Consumption in standby (night) < 1 W

Consumption during operation 15 W

Cooling Controlled forced ventilation, variable speed fan

Enclosure Type NEMA 3R

Unit Dimensions (W x H x D) 17.1 x 36.4 x 9.6. in.

Power Stage Weight 57 lbs. (26 kg)

Wiring Compartment Weight 24 lbs. (11 kg)

Admissing ambient operating
temperature -13 ... 131°F (-25 ... + 55°C)

Compliance UL 1741-2005, IEEE1547-2003, IEEE 1547.1, ANSI/IEEE
C62.41,
FCC Part 15 A&B, NEC Article 690, C22. 2 No. 107.1-01
(Sept. 2001)

Safety equipment

Ground fault protextion Internal GFDI (Ground Fault Detector/Interrupter); in
accordance with UL 1741-2005 and NEC Art. 690

DC reverse polarity protevtion Internal diode

Islanding protection Internal; in accordance with UL 1741-2005, IEEE 1547-2003
and NEC

Over temperature

Output power derating / active cooling

The right to make technical modifications is reserved.

Fronius IG Plus V 5.0-1_{UNI} 6.0-1_{UNI<DIV>} 7.5-1_{UNI}

Input data

Recommended PV-Power (kWp)	4.25-5.75	5.10-6.90	6.35-8.60
MPPT-Voltage range	230 - 500 V		
Max. Input voltage range (at 1000 W/m ² 14°F (-10°C) in open circuit operation)	600 V		
Nominal Input Current	13.8 A	16.6 A	20.7 A
Max. usable Input Current	23.4 A	28.1 A	35.1 A
Admissible conductor size (DC)	No. 14-6 AWG		

Output data

Nominal output power (PAC nom)	5000 W	6000 W	7500 W
Max. continuous output power 104°F (40°C) 208 V / 240 V / 277 V	5000 W	6000 W	7500 W
Nominal AC output voltage	208 V / 240 V / 277 V		
Operating AC voltage range (default) 208 V 240 V 277 V	183 - 229 V (-12 / +10 %) 211 - 264 V (-12 / +10 %) 244 - 305 V (-12 / +10 %)		
Maximum continuous output current 208 V 240 V 277 V	24.0 A 20.8 A 18.1 A	28.8 A 25.0 A 21.7 A	36.1 A 31.3 A 27.1 A
Admissible conductor size (AC)	No. 14 - 4 AWG		
Max. continuous utility back feed current	0 a		
Nominal frequency	60 Hz		
Operating frequency range	59.3 - 60.5 Hz		
Total harmonic distortion	< 3 %		
Power factor	1		

General data

Max. Efficiency	96.2 %		
CEC Efficiency			
208 V	95.5 %	95.5 %	95.0 %
240 V	95.5 %	96.0 %	95.5 %
277 V	96.0 %	96.0 %	96.0 %
Consumption in standby (night)	< 1 W		
Consumption during operation	15 W		
Cooling	Controlled forced ventilation, variable speed fan		
Enclosure Type	NEMA 3R		
Unit Dimensions (W x H x D)	17.1 x 38.1 x 9.9. in.		
Power Stage Weight	57 lbs. (26 kg)		
Wiring Compartment Weight	24 lbs. (11 kg)		
Admitting ambient operating temperature	-13 ... 131°F (-25 ... + 55°C)		
Compliance	UL 1741-2010, IEEE1547-2003, IEEE 1547.1, ANSI/IEEE C62.41, FCC Part 15 A&B, NEC Article 690, C22. 2 No. 107.1-01 (Sept. 2001), California Solar Initiative - Program Handbook - Appendix C: Inverter Integral 5 % Meter Performance Specification		

Safety equipment

Ground fault protection	Internal GFDI (Ground Fault Detector/Interrupter); in accordance with UL 1741-2005 and NEC Art. 690
DC reverse polarity protection	Internal diode
Islanding protection	Internal; in accordance with UL 1741-2010, IEEE 1547-2003 and NEC
Over temperature	Output power derating / active cooling

The right to make technical modifications is reserved.

Equipment features

Grounding selectable on site.

Decide on site what type of grounding is required as the Fronius IG Plus is field programmable for either positive or negative module grounding.

Designed for indoor and outdoor installations.

All Fronius IG Plus inverters have a robust, well designed aluminum housing. UV resistance and corrosion protection enable them to be used either indoors or outdoors. Fronius is proud to be one of the only inverters tested and approved to operate at 122° F.

Integrated DC disconnect.

No external DC disconnect installation or cabling is necessary. The Fronius IG Plus comes complete with an approved, built-in, lockable and load breakable DC Disconnect.

The new power plug system.

The connection area and power stages are installed separately from each other. Very easy and extremely safe: The connection area is attached to the wall as normal. Then the power module is simply plugged in. The power plug connects both parts into one secure unit. If service is required, the connector remains on the wall maintaining all settings and configurations.

Field Programmable AC output voltage.

The Fronius IG Plus inverter line from 3.0 to 11.4 kW is field programmable to 208, 240 or 277 volts (Fronius IG Plus 12.0 kW only available in 277 volts), eliminating the need to install different inverter models to accommodate three-phase installations.

>

Documents and downloads

Fronius IG Plus V Information

EA

Fronius IG Plus V Datasheet 

EA

Fronius IG Plus V Brochure 

EA


Fronius IG Plus V Operating Manual 

Fronius IG Plus Information


EA

Fronius IG Plus Operating Manual 

EA

Fronius IG Plus Brochure 

EA

Fronius IG Plus Datasheet 

Technology

Three efficiency peaks.

Greater power harvest for every system size: The unique automatic transformer switching function of the Fronius IG Plus makes enables not one, but three equal efficiency peaks. The result: Consistently high efficiency over a wide input voltage range.

In comparison: The efficiency of inverters without transformer switching declines steadily with an increasing input voltage. Devices without a transformer only have one efficiency peak.

With a 96.2 % maximum efficiency, the Fronius IG Plus series scores the highest grade among HF devices.

MIX™ Concept.

Get the maximum power harvest out of partial load ranges, e.g. on cloudy days, through a clever combination of multiple power stages in each inverter. The power stages in Fronius inverters divide up the work depending on operating hours and only operate as many power stages as required to efficiently process available power from the PV array.

Module Manager™.

The Module Manager™ keeps all Fronius IG inverters at the maximum power point (MPP) with fast and exact MPP tracking, ensuring that you get the most power out of each ray of sunlight. This is especially important for amorphous modules whose MPP can be more challenging to track.

Smart Ventilation Design.

Disruptive ambient factors such as dust or moisture remain on the outside: The reason: Cooling air is drawn in on the wall side and routed through a closed channel over the heat sink. This prevents contact with the circuit board. At the same time, the components are kept cool - the device operates with a stable consistency.