

/ Perfect Welding / Solar Energy / Perfect Charging



SHIFTING THE LIMITS

# FRONIUS IG PLUS V

/ The inverter series for advanced PV systems



/ MIX Technology



/ Smart Transformer Switching



/ Quick Service Technology



/ Smart Grid Ready



/ Wi-Fi\* Interface



/ The Fronius IG Plus V inverter builds on a successful model with multiple enhancements from the Fronius IG series including maximum power harvest, a built-in six circuit string combiner, integrated, lockable DC disconnect, significantly improved efficiency, and unbeatable reliability. New, larger power stages expand the proven Fronius IG family from 2 to 12 kW in a single inverter.

## TECHNICAL DATA: FRONIUS IG PLUS V

INPUT DATA	3.0-1 <sub>UNI</sub>	3.8-1 <sub>UNI</sub>	5.0-1 <sub>UNI</sub>	6.0-1 <sub>UNI</sub>	7.5-1 <sub>UNI</sub>	10.0-1 <sub>UNI</sub>	10.0-3 <sub>DELTA</sub>	11.4-1 <sub>UNI</sub>	11.4-3 <sub>DELTA</sub>	12.0-3 <sub>WYE277</sub>
Recommended PV-Power (kWp)	2.50 - 3.45	3.20 - 4.40	4.25 - 5.75	5.10 - 6.90	6.35 - 8.60	8.50 - 11.50	8.50 - 11.50	9.70 - 13.10	9.70 - 13.10	10.20 - 13.80
Nominal Input Current	8.3 A	10.5 A	13.8 A	16.5 A	20.7 A	27.6 A	27.6 A	31.4 A	31.4 A	33.1 A
Max. Usable Input Current	14.0 A	17.8 A	23.4 A	28.1 A	35.1 A	46.7 A	46.7 A	53.3 A	53.3 A	56.1 A
MPPT - Voltage Range	230 - 500 V									
DC Startup	260 V									
Max. Input Voltage	600 V									
Admissible Conductor Size (DC)	No. 14 to 6 AWG. For larger wire, use Fronius connecting distributor.									
Max. Current per DC Input Terminal	20 Amps. For higher input current, use Fronius connecting distributor.									

OUTPUT DATA		3.0-1 <sub>UNI</sub>	3.8-1 <sub>UNI</sub>	5.0-1 <sub>UNI</sub>	6.0-1 <sub>UNI</sub>	7.5-1 <sub>UNI</sub>	10.0-1 <sub>UNI</sub>	10.0-3 <sub>DELTA</sub>	11.4-1 <sub>UNI</sub>	11.4-3 <sub>DELTA</sub>	12.0-3 <sub>WYE277</sub>
Nominal Output Power		3,000 W	3,800 W	5,000 W	6,000 W	7,500 W	9,995 W	9,995 W	11,400 W	11,400 W	12,000 W
Max. Continuous Output Power		3,000 W	3,800 W	5,000 W	6,000 W	7,500 W	9,995 W	9,995 W	11,400 W	11,400 W	12,000 W
AC Output Voltage		208/240/277						208/240	208/240/277	208/240	480/277 WYE
Number of Phases		1						3	1	3	
Admissible Conductor Size (AC)		No. 14 - 4 AWG									
Max. Continuous Utility Backfeed Current		0A									
Nominal Output Frequency		60 Hz									
Operating Frequency Range		59.3 - 60.5 Hz									
Total Harmonic Distortion		< 3 %									
Power Factor		0.85 – 1 ind. / cap.									
Operating AC Voltage Range	208 V	183 - 229 V (-12 / +10 %)					211 - 269 V (-12 / +10 %)				
	240 V	244 - 305 V (-12 / +10%)									
	277 V										
Max. Continuous Output Current	208 V	14.4 A	18.3 A	24.0 A	28.8 A	36.1 A	48.1 A	27.7 A*	54.8 A	31.6 A*	n.a.
	240 V	12.5 A	15.8 A	20.8 A	25.0 A	31.3 A	41.7 A	24.0 A*	47.5 A	27.4 A*	n.a.
	277 V	10.8 A	13.7 A	18.1 A	21.7 A	27.1 A	36.1 A	n.a.	41.2 A	n.a.	14.4 A*

\*Pre phase

\*The term Wi-Fi® is a registered trademark of the Wi-Fi Alliance.

## TECHNICAL DATA: FRONIUS IG PLUS V

GENERAL DATA	3.0-1 <sub>UNI</sub>	3.8-1 <sub>UNI</sub>	5.0-1 <sub>UNI</sub>	6.0-1 <sub>UNI</sub>	7.5-1 <sub>UNI</sub>	10.0-1 <sub>UNI</sub>	10.0-3 <sub>DELTA</sub>	11.4-1 <sub>UNI</sub>	11.4-3 <sub>DELTA</sub>	12.0-3 <sub>WYE277</sub>
Max. Efficiency	96.2%									
Unit Dimensions (W x H x D)	17.1 x 24.8 x 9.6 in.		17.1 x 36.4 x 9.6 in.			17.1 x 48.1 x 9.6 in.				
CEC Efficiency	208 V	95.0 %	95.0 %	95.5 %	95.5 %	95.0 %	95.0 %	95.5 %	95.5 %	n.a.
	240 V	95.5 %	95.5 %	95.5 %	96.0 %	95.5 %	95.5 %	96.0 %	96.0 %	n.a.
	277 V	95.5 %	95.5 %	96.0 %	96.0 %	96.0 %	96.0 %	n.a.	96.0 %	96.0 %
Consumption in Standby (Night)	< 1.5 W									
Consumption During Operation	8 W			15 W				20 W		
Cooling	Controlled forced ventilation, variable speed fan									
Enclosure Type	NEMA 3R									
Power Stack Weight	31 lbs. (14 kg)			57 lbs. (26 kg)			84 lbs. (38 kg)			
Wiring Compartment Weight	24 lbs. (11 kg)						26 lbs. (12 kg)			
Admissable Ambient Operating Temperature	-13°F...+131° F (-13° C...+55° C)									
Advanced Grid Features	Active and reactive power control, low voltage ride-through									
Compliance	UL 1741-2010, IEEE 1547-2003, IEEE 1547.1, UL 1699B-2013, ANSI/IEEE C62.41, FCC Part 15 A & B, NEC Article 690, C22. 2 No. 107.1-01 (Sept. 2011) California Solar Initiative - Program Handbook - Appendix C: Inverter Integral 5% Meter Performance Specification									

PROTECTIVE EQUIPMENT	3.0-1 <sub>UNI</sub>	3.8-1 <sub>UNI</sub>	5.0-1 <sub>UNI</sub>	6.0-1 <sub>UNI</sub>	7.5-1 <sub>UNI</sub>	10.0-1 <sub>UNI</sub>	10.0-3 <sub>DELTA</sub>	11.4-1 <sub>UNI</sub>	11.4-3 <sub>DELTA</sub>	12.0-3 <sub>WYE277</sub>
Ground Fault Protection	Internal GFDI (Ground Fault Detector/Interrupter) in accordance with UL 1741-2010 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 Protection	Output power derating / active cooling									

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### WE HAVE THREE DIVISIONS AND ONE PASSION: SHIFTING THE LIMITS OF POSSIBILITY.

/ Whether welding technology, photovoltaics or battery charging technology – our goal is clearly defined: to be the innovation leader. With around 3,000 employees worldwide, we shift the limits of what's possible - our more than 850 active patents are testimony to this. While others progress step by step, we innovate in leaps and bounds. Just as we've always done. The responsible use of our resources forms the basis of our corporate policy.

Further information about all Fronius products and our global sales partners and representatives can be found at [www.fronius.com](http://www.fronius.com)

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