



SHIFTING THE LIMITS

FRONIUS PRIMO

/ The future of residential solar is here - Introducing the new Fronius Primo.



/ PC board replacement process



/ SnapINverter mounting system



/ Wi-Fi* interface



/ SuperFlex Design



/ Smart Grid Ready



/ Arc Fault Circuit Interruption

/ With power categories ranging from 3.8 kW to 8.2 kW, the transformerless Fronius Primo is the ideal compact single-phase inverter for residential applications. The sleek design is equipped with the SnapINverter hinge mounting system which allows for lightweight, secure and convenient installation and service.

/ The Fronius Primo has several integrated features that set it apart from competitors including dual powerpoint trackers, high system voltage, a wide input voltage range and unrestricted use indoors and outdoors. Other standard features include a Wi-Fi* and SunSpec Modbus interface for seamless monitoring and datalogging, Arc Fault Circuit Interruption (AFCI), and Fronius's superb online and mobile platform Fronius Solar.web. The Fronius Primo is NEC 2014 ready and designed to adjust to future standards, offering a complete solution to code restrictions and technical innovations of tomorrow.

TECHNICAL DATA FRONIUS PRIMO

GENERAL DATA	STANDARD WITH ALL PRIMO MODELS
Dimensions (width x height x depth)	16.9 x 24.7 x 8.1 in.
Weight	47.29 lb.
Degree of protection	NEMA 4X
Night time consumption	< 1 W
Inverter topology	Transformerless
Cooling	Variable speed fan
Installation	Indoor and outdoor installation
Ambient operating temperature range	-40 ... 131°F (-40 ... +55°C)
Permitted humidity	0 - 100 %
DC connection terminals	4x DC+ and 4x DC- screw terminals for copper (solid / stranded / fine stranded) or aluminum (solid / stranded)
AC connection terminals	Screw terminals 12-6 AWG
Certificates and compliance with standards	UL 1741-2010, UL1998 (for functions: AFCI and isolation monitoring), IEEE 1547-2003, IEEE 1547.1-2003, ANSI/IEEE C62.41, FCC Part 15 A & B, NEC Article 690, C22. 2 No. 107.1-01 (September 2001), UL1699B Issue 2 -2013, CSA TIL M-07 Issue 1-2013

PROTECTIVE DEVICES	STANDARD WITH ALL PRIMO MODELS
AFCI & 2014 NEC Ready	Yes
Ground Fault Protection with Isolation Monitor Interrupter	Yes
DC disconnect	Yes
DC reverse polarity protection	Yes

INTERFACES	STANDARD WITH ALL PRIMO MODELS
Wi-Fi*/Ethernet/Serial	Wireless standard 802.11 b/g/n / Fronius Solar.web, SunSpec Modbus TCP, JSON / SunSpec Modbus RTU
6 inputs or 4 digital inputs/outputs	External relay controls
USB (A socket)	Datalogging and/or updating via USB
2x RS422 (RJ45 socket)	Fronius Solar Net, interface protocol
Datalogger and Webserver	Included

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

TECHNICAL DATA FRONIUS PRIMO

INPUT DATA	PRIMO 3.8-1	PRIMO 5.0-1	PRIMO 6.0-1	PRIMO 7.6-1	PRIMO 8.2-1
Recommended PV power (kWp)	3	4.0 - 7.8 kW	4.8 - 9.3 kW	6.1 - 11.7 kW	6.6 - 12.7 kW
Max. usable input current (MPPT 1/MPPT 2)	18 A / 18 A	18 A / 18 A	18 A / 18 A	18 A / 18 A	18 A / 18 A
Operating voltage range	80* - 600 V				
Max. input voltage	600 V				
Nominal input voltage	410 V	420 V	420 V	420 V	420 V
Admissible conductor size DC	AWG 14 ... AWG 6				
MPP Voltage Range	200 - 480 V	240 - 480 V	240 - 480 V	250 - 480 V	270 - 480 V
Number of MPPT	2				

* Current value 150 V until late March 2015

OUTPUT DATA	PRIMO 3.8-1	PRIMO 5.0-1	PRIMO 6.0-1	PRIMO 7.6-1	PRIMO 8.2-1
Max. output power	208	3800 W	5000 W	6000 W	7900 W
	240	3800 W	5000 W	6000 W	8200 W
Max. continuous output current	208	18.3 A	24.0 A	28.8 A	38.0 A
	240	15.8 A	20.8 A	25.0 A	34.2 A
Recommended OCPD/AC breaker size	208	25 A	30 A	40 A	50 A
	240	20 A	30 A	35 A	45 A
Max. Efficiency		96.7 %	96.9 %	96.9 %	97.0 %
CEC Efficiency	240	95.0 %	95.5 %	96.0 %	96.5 %
Admissible conductor size AC	AWG 14 - AWG 6				
Grid connection	208 / 240				
Frequency	60 Hz				
Total harmonic distortion	< 5.0 %				
Power factor (cos $\varphi_{ac,r}$)	0.85-1 ind./cap				

/ Perfect Welding / Solar Energy / Perfect Charging

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 record of over 1,000 granted patents is 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



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PRODUCT POSITIONING

Fronius USA



ABB



SMA



Product Line	Primo	PVI / Uno	Sunny Boy TL
Power Classes (kW)	3.8, 5.0, 6.0, 7.6, 8.2	3.8, 4.2, 5.0, 6.0, 7.6, 8.6	3.0, 3.8, 4.0, 5.0, 6.0, 7.0, 7.7
Dual MPPT	✓	✓	✓
Field Serviceable	✓	X	X
Onboard AFCI & DC Disconnect	✓	X	X
Operating Voltage Range	80*–1000 V	200 – 580 V	125-500
Onboard Wi-Fi, Datalogger & Modbus	✓	X	X
NEMA 4X	✓	✓	X
X-Factor	1.09	1.19	1.19
Weight (Maximum)	47 lbs.	81.5 lbs.	57.4 lbs.
Temperature Range	-40 +141	-13 +140	-40 +140
Max efficiency	97.9	97.5	97.2
Grid Connection	208/240	208/240	208/240
Horizontal and Pole Mounting	✓	X	X
Free Monitoring	✓	X	X

*150 V until late March 2015