/ Perfect Welding / Solar Energy / Perfect Charging

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 15.0 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. 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, Wi-Fi* and SunSpec Modbus interface, and Fronius' online and mobile monitoring platform Fronius Solar.web. The Fronius Primo also works seamlessly with the Fronius Rapid Shutdown Box for a reliable NEC 2014 solution** and offers a Revenue Grade Metering option completely integrated.

## TECHNICAL DATA FRONIUS PRIMO

| GENERAL DATA | FRONIUS PRIMO 3.8 - 8.2 | FRONIUS PRIMO 10.0-15.0 |
|---|---|---|
| Dimensions (width x height x depth) | 16.9 x 24.7 x 8.1 in. | 20.1 x 28.5 x 8.9 in. |
| Weight | 47.29 lb. | 82.5 lbs. |
| 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) | -40 - 140°F (-40 - 60°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) | 4x DC+1, 2x DC+2 and 6x DC- screw terminals for copper (solid / stranded / fine stranded) or aluminum (solid / stranded) |
| AC connection terminals | Screw terminals 12 - 6 AWG | |
| Revenue Grade Metering | Optional (ANSI C12.1 accuracy) | |
| 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 | UL 1741-2015, UL1998 (for functions: AFCI, RCMU and isolation monitoring), IEEE 1547-2003, IEEE 1547.1-2003, ANSI/IEEE C62.41, FCC Part 15 A & B, NEC Article 690-2014, 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.

**Fronius Primo 10.0-15.0 kW requires an external disconnect button for code compliance.

## 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) | 3.0 - 6.0 kW | 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 |
| Total max. DC current | 36 A | | | | |
| Max. array short circuit current (1.25 Imax) (MPPT 1/MPPT 2) | 22.5 A / 22.5 A | | | | |
| Operating voltage range | 80 V - 600 V | | | | |
| Max. input voltage | 600 V | | | | |
| Nominal input voltage | 410 V | 420 V | 420 V | 420 V | 420 V |
| Admissable 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 | | | | |

| 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 | 240 V | 3800 W | 5000 W | 6000 W | 7600 W | 8200 W |
| | 208 V | 3800 W | 5000 W | 6000 W | 7600 W | 7900 W |
| Max. continuous output current | 240 V | 15.8 A | 20.8 A | 25.0 A | 31.7 A | 34.2 A |
| | 208 V | 18.3 A | 24.0 A | 28.8 A | 36.5 A | 38.0 A |
| Recommended OCPD/AC breaker size | 240 V | 20 A | 30 A | 35 A | 40 A | 45 A |
| | 208 V | 25 A | 30 A | 40 A | 50 A | 50 A |
| Max. Efficiency | | 96.7 % | 96.9 % | 96.9 % | 96.9 % | 97.0 % |
| CEC Efficiency | 240 V | 95.0 % | 95.5 % | 96.0 % | 96.0 % | 96.5 % |
| Admissable conductor size AC | | AWG 14 - AWG 6 | | | | |
| Grid connection | | 208 / 240 V | | | | |
| Frequency | | 60 Hz | | | | |
| Total harmonic distortion | | < 5.0 % | | | | |
| Power factor (cos $\varphi_{ac,r}$) | | 0.85-1 ind./cap | | | | |

| INPUT DATA | PRIMO 10.0-1 | PRIMO 11.4-1 | PRIMO 12.5-1 | PRIMO 15.0-1 |
|---|---|---|---|---|
| Recommended PV power (kWp) | 8.0 - 12.0 kW | 9.1 - 13.7 kW | 10.0 - 15.0 kW | 12.0 - 18.0 kW |
| Max. usable input current (MPPT 1/MPPT 2) | 33.0 A / 18.0 A | | | |
| Total max. DC current | 51 A | | | |
| Max. array short circuit current (1.25 Imax) (MPPT 1/MPPT 2) | 41.3 A / 22.5 A | | | |
| Operating voltage range | 80 V - 600 V | | | |
| Max. input voltage | 600 V | | | |
| Nominal input voltage | 415 V | 420 V | 425 V | 440 V |
| Admissable conductor size DC | AWG 14 - AWG 6 copper direct, AWG 6 aluminum direct (AWG 10 copper or AWG 8 aluminium for overcurrent protective devices up to 60A, from 61 to 100A minimum AWG 8 for copper or AWG 6 aluminium has to be used), AWG 4 - AWG 2 copper or aluminum with optional input combiner | | | |
| MPP Voltage Range | 220 - 480 V | 240 - 480 V | 260 - 480 V | 320 - 480 V |
| Integrated DC string fuse holders | 4- and 4+ for MPPT 1 / no fusing required on MPPT 2 | | | |
| Number of MPPT | 2 | | | |

| OUTPUT DATA | | PRIMO 10.0-1 | PRIMO 11.4-1 | PRIMO 12.5-1 | PRIMO 15.0-1 |
|---|---|---|---|---|---|
| Max. output power | 240 V | 9995 W | 11400 W | 12500 W | 15000 W |
| | 208 V | 9995 W | 11400 W | 12500 W | 13750 W |
| Max. continuous output current | 240 V | 41.6 A | 47.5 A | 52.1 A | 62.5 A |
| | 208 V | 48.1 A | 54.8 A | 60.1 A | 66.1 A |
| Recommended OCPD/AC breaker size | 240 V | 60 A | 60 A | 70 A | 80 A |
| | 208 V | 70 A | 70 A | 80 A | 90 A |
| Max. Efficiency | | 96.7 % | | | |
| CEC Efficiency | | 96.0 % | | | 96.5 % |
| Admissable conductor size AC | | AWG 10 - AWG 2 copper (solid / stranded / fine stranded)(AWG 10 copper or AWG 8 aluminium for overcurrent protective devices up to 60A, from 61 to 100A minimum AWG 8 for copper or AWG 6 aluminium has to be used) , AWG 6 - AWG 2 copper(solid / stranded) MultiContactWiringable with AWG 12 | | | |
| Grid connection | | 208 / 240 V | | | |
| Frequency | | 60 Hz | | | |
| Total harmonic distortion | | < 2.5 % | | | |
| Power factor (cos $\varphi_{ac,r}$) | | 0-1 ind./cap. | | | |

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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 3,300 employees worldwide, we shift the limits of what's possible - our record of over 900 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.

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