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FRONIUS PRIMO LITE

Solutions for a brighter tomorrow

PC board replacement concept

SnapINverter mounting system

Smart Grid Ready

Design Flexibility

With power categories ranging from 3.8 kW to 15.0 kW, the transformerless Fronius Primo Lite 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 Lite has several integrated features that set it apart from competitors including dual power point trackers, high system voltage, and a wide input voltage range.

TECHNICAL DATA FRONIUS PRIMO LITE

GENERAL DATA	FRONIUS PRIMO LITE 3.8 - 8.2	FRONIUS PRIMO LITE 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 lbs.	82.5 lbs.
Protection Class	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 %	
Elevation	4,000 m (13,123 ft)	
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	
Warranty	10 years / extensions up to 15 and 20 years available [1]	
Certificates and compliance with standards	UL 1741-2010 Second Edition (incl. UL1741 Supplement SA 2016-09 for California Rule 21 and Hawaiian Electric Code Rule 14H), 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 2017 Article 690, C22. 2 No. 107.1-16, UL1699B Issue 2 -2013, CSA TIL M-07 Issue 1 – 2013	

PROTECTIVE DEVICES	STANDARD WITH ALL PRIMO LITE MODELS
DC reverse polarity protection	Yes
Anti Islanding	Internal; in accordance with UL 1741-2016-09, IEEE 1547-2003 and NEC 2017
Over temperature protection	Output power derating/ Active cooling
AFCI	Yes
Rapid shutdown compliant	Yes
Ground Fault Protection with Isolation Monitor Interrupter	Yes
DC disconnect	Yes

INTERFACES	STANDARD WITH ALL PRIMO LITE MODELS
USB (A socket)	Inverter update possible via USB
2x RS422 (RJ45 socket)	Fronius Solar Net, interface protocol

[1] Fronius Limited Warranty Conditions for the USA. Different terms or restrictions may apply in other countries. More Information www.fronius.us/warranty

TECHNICAL DATA FRONIUS PRIMO LITE

INPUT DATA	PRIMO LITE 3.8-1	PRIMO LITE 5.0-1	PRIMO LITE 6.0-1	PRIMO LITE 7.6-1	PRIMO LITE 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				
Max. usable input current (MPPT 1+MPPT 2)	36 A				
Max. array short circuit current (1.5* Imax) (MPPT1/MPPT2)	27 A / 27 A				
Nominal input voltage	410 V	420 V	420 V	420 V	420 V
Operating voltage range	80 V - 600 V				
DC startup voltage	80 V				
MPP Voltage Range	200 - 480 V	200 - 400 V	240 - 480 V	250 - 480 V	270 - 480 V
Max. input voltage	600 V (1,000 V optional[2])				
Admissible conductor size DC	AWG 14 - AWG 6 copper (solid / stranded / fine stranded) (AWG 10 copper or AWG 8 aluminium for overcurrent protective devices up to 60 A, from 61 to 100 A minimum AWG 8 for copper or AWG 6 aluminium has to be used), AWG 6 - AWG 2 copper (solid / stranded) Multi Contact Wiring able with AWG 12				
Number of MPPT	2				

OUTPUT DATA		PRIMO LITE 3.8-1	PRIMO LITE 5.0-1	PRIMO LITE 6.0-1	PRIMO LITE 7.6-1	PRIMO LITE 8.2-1
Max. output power	208 V/240 V	3,800 VA/3,800 VA	5,000 VA/5,000 VA	6,000 VA/6,000 VA	7,600 VA/7,600 VA	7,900 VA/8,200 VA
Output configuration		208/240 V				
Frequency range (adjustable)		45.0 - 55.0 Hz / 50 - 66 Hz				
Operating frequency range default for CAL setups		--/ 58.5 - 60.5 Hz				
Operating frequency range default for HI setups		--/ 57.0 - 63.0 Hz				
Nominal operating frequency		60 Hz				
Admissable conductor size AC		AWG 14 - AWG 6				
Total harmonic distortion		< 5.0 %				
Power factor range		0.85 - 1 ind./cap				
Max. continuous output current	208 V	18.3 A	24.0 A	28.8 A	36.5 A	38.0 A
	240 V	15.8 A	20.8 A	25.0 A	31.7 A	34.2 A
OCPD/AC breaker size	208 V	25 A	30 A	40 A	50 A	50 A
	240 V	20 A	30 A	35 A	40 A	45 A
Max. Efficiency		96.7 %	96.9 %	96.9 %	96.9 %	97.0 %
CEC Efficiency		95.0 %	95.5 %	96.0 %	96.0 %	96.5 %

INPUT DATA	PRIMO LITE 10.0-1	PRIMO LITE 11.4-1	PRIMO LITE 12.5-1	PRIMO LITE 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 / 18.0 A			
Max. usable input current (MPPT 1+MPPT 2)	51 A			
Max. array short circuit current (1.5 * Imax)	49.5 A / 27.0			
Nominal input voltage	655 V	660 V	665 V	680 V
Operating voltage range	80 V - 1,000 V			
DC startup voltage	80 V			
MPP Voltage Range	220 - 800 V	240 - 800 V	260 - 800 V	320 - 800 V
Max. input voltage	1,000 V			
Admissible 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 60 A, from 61 to 100 A minimum AWG 8 for copper or AWG 6 aluminium has to be used), AWG 4 - AWG 2 copper or aluminum with optional input combiner			
Number of MPPT	2			
Integrated DC string fuse holders	4- and 4+ for MPPT 1 / no fusing required on MPPT 2			

OUTPUT DATA		PRIMO LITE 10.0-1	PRIMO LITE 11.4-1	PRIMO LITE 12.5-1	PRIMO LITE 15.0-1
Max. output power	208 V/240 V	9,995 VA/9,995 VA	11,400 VA/11,400 VA	12,500 VA/12,500 VA	13,750 VA/15,000 VA
Output configuration		1~NPE 208/240 V			
Frequency range (adjustable)		45-55 Hz / 50 - 66 Hz			
Operating frequency range default for CAL setups		--/ 58.5 - 60.5 Hz			
Operating frequency range default for HI setups		--/ 57.0 - 63.0 Hz			
Nominal operating frequency		60 Hz			
Admissible conductor size AC		AWG 10- AWG 2 copper (solid/stranded/fine stranded) (AWG 10 copper or AWG 8 aluminum for overcurrent protective devices up to 60 A, from 61 to 100 A minimum AWG 6 aluminum has to be used), AWG 6-AWG 2 copper (solid/stranded) Multi Contact Wiring able with AWG 12			
Total harmonic distortion		< 2.5 %			
Power factor range		0-1 ind./cap.			
Max. continuous output current	208 V	48.1 A	54.8 A	60.1 A	66.1 A
	240 V	41.6 A	47.5 A	52.1 A	62.5 A
OCPD/AC breaker size	208 V	70 A	70 A	80 A	90 A
	240 V	60 A	60 A	70 A	80 A
Max. Efficiency		96.7 %			
CEC Efficiency 600 V/1,000 V	240 V	96.0 % / 96.5 %			96.5 % / 97.0 %

[2] inverter rated for up to 1,000 V open-circuit. Nominal, Operating, and MPP voltages based on 600 V system design. Actual DC system voltage is dependent on PV string-sizing, not inverter input capacity.

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THREE BUSINESS UNITS, ONE GOAL: TO SET THE STANDARD THROUGH TECHNOLOGICAL ADVANCEMENT.

What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 5,660 employees worldwide and 1,321 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

Further information about all Fronius products and our global sales partners and representatives can be found at **www.fronius.com**

Rapid Shutdown CERTIFIED

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