

FRONIUS PRIMO GEN24 PLUS

The hybrid allrounder with individual backup power



PRELIMINARY DATA



Integrated Data
Communication



Dynamic Peak
Manager



Multi Flow
Technology



SuperFlex
Design



Full backup



PV Point
basic grid backup

The Fronius Primo GEN24 Plus, with power categories of between 3 and 6 kW, is the ideal hybrid inverter for private households. With many features as standard, the one-phase device covers all customer requirements.

The GEN24 Plus leaves nothing to be desired with numerous features such as energy management functions, WLAN connection as standard, Ethernet connectivity and easy integration of third-party components. Thanks to a selection of emergency power options (PV Point, full backup) in particular, it ensures the highest degree of power supply reliability.

TECHNICAL DATA FRONIUS PRIMO GEN24 PLUS (3.0, 3.6, 4.0, 4.6, 5.0, 6.0)

INPUT DATA	PRIMO GEN24 3.0 PLUS	PRIMO GEN24 3.6 PLUS	PRIMO GEN24 4.0 PLUS	PRIMO GEN24 4.6 PLUS	PRIMO GEN24 5.0 PLUS	PRIMO GEN24 6.0 PLUS
Number of MPP trackers	2					
Max. input current ($I_{dc \max}$ MPPT1 / MPPT2)	22 A / 12 A					
Max. array short circuit current (MPPT1/MPPT2)	33 A / 18 A					
DC input voltage range ($U_{dc \min}$ - $U_{dc \max}$)	65 V - 600 V					
Nominal input voltage ($U_{dc, n}$)	400 V					
Feed-in start voltage ($U_{dc \text{ start}}$)	80 V					
Usable MPP voltage range	65 V - 530 V					
Number of DC connections (MPPT1 / MPPT2)	2 / 2					
Max. PV generator output ($P_{dc \max}$)	4.5 kW _{peak}	5.5 kW _{peak}	6.0 kW _{peak}	6.9 kW _{peak}	7.5 kW _{peak}	9.0 kW _{peak}

OUTPUT DATA	PRIMO GEN24 3.0 PLUS	PRIMO GEN24 3.6 PLUS	PRIMO GEN24 4.0 PLUS	PRIMO GEN24 4.6 PLUS	PRIMO GEN24 5.0 PLUS	PRIMO GEN24 6.0 PLUS
AC nominal output ($P_{ac, n}$)	3,000 W	3,680 W	4,000 W	4,600 W	5,000 W	6,000 W
Max. output power	3,000 VA	3,680 VA	4,000 VA	4,600 VA	5,000 VA	6,000 VA
Max. output current ($I_{ac \max}$)	19.40 A	23.70 A	25.80 A	27.50 A	27.50 A	27.50 A
Grid connection (voltage range)	1~NPE 220 V / 230 V (+ 20 % / - 30 %)					
Frequency (frequency range)	50 Hz / 60 Hz (45 Hz - 65 Hz)					
Total harmonic distortion	< 3.5 %					
Power factor ($\cos \phi_{ac, n}$)	0.8 - 1 ind. / cap.					
Back-up power	1~NPE 220 V / 230 V					

OUTPUT DATA PV POINT / FULL BACKUP	PRIMO GEN24 3.0 PLUS	PRIMO GEN24 3.6 PLUS	PRIMO GEN24 4.0 PLUS	PRIMO GEN24 4.6 PLUS	PRIMO GEN24 5.0 PLUS	PRIMO GEN24 6.0 PLUS
Nom. output power PV Point / full backup	3,000 VA / 3,000 VA	3,000 VA / 3,600 VA	3,000 VA / 4,000 VA	3,000 VA / 4,600 VA	3,000 VA / 5,000 VA	3,000 VA / 6,000 VA
Grid connection (voltage range) PV Point	1 ~ NPE 220 V / 230 V					
Grid connection (voltage range) full backup	1 ~ NPE 220 V / 230 V					
Switchover time	< 40 seconds					

BATTERY CONNECTION	PRIMO GEN24 3.0 PLUS	PRIMO GEN24 3.6 PLUS	PRIMO GEN24 4.0 PLUS	PRIMO GEN24 4.6 PLUS	PRIMO GEN24 5.0 PLUS	PRIMO GEN24 6.0 PLUS
Number of DC connections	1					
Max. input current ($I_{dc \max}$)	22 A					
DC input voltage range ($U_{dc \min}$ - $U_{dc \max}$)	150 V - 455 V					
Max. input / output power ¹⁾	3,170 W	3,890 W	4,230 W	4,860 W	5,290 W	6,340 W
Max. AC charging power	3,000 W	3,680 W	4,000 W	4,600 W	5,000 W	6,000 W

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GENERAL DATA	PRIMO GEN24 3.0 PLUS	PRIMO GEN24 3.6 PLUS	PRIMO GEN24 4.0 PLUS	PRIMO GEN24 4.6 PLUS	PRIMO GEN24 5.0 PLUS	PRIMO GEN24 6.0 PLUS
Dimensions (height x width x depth)	528 x 474 x 164 mm					
Weight (inverter / with packaging)	16.6 / 19.2 kg					
Degree of protection	IP 66					
Protection class	1					
Nighttime power loss	10 W					
Overvoltage category (DC/AC) ²⁾	2 / 3					
Inverter design	Transformerless					
Cooling	Regulated air cooling					
Installation	Indoor and outdoor installation					
Ambient temperature range	-40 - +60 °C					
Permitted humidity	0 - 100 %					
Max. altitude	4,000 m					
DC PV connection technology	4x DC+ and 4x DC- push-in spring terminals 2.5 - 10 mm ²					
DC battery connection technology	1x BATT+ and 1x BATT- push-in spring terminals 2.5 - 10 mm ²					
AC connection technology	3 pole AC push-in spring terminals 2.5 - 10 mm ² 5x PE screw terminals 2.5 - 16 mm ²					
Certificates and compliance with standards	IEC 62109, IEC 62909, AS/NZS 4777.2, CEI 0-21, ABNT NBR 16149 und 16150, IEC 62116, IEC 61727 ⁴⁾					
Back-up power functions	PV Point or full backup					
Compatible batteries	BYD Battery-Box Premium HVS/HVM ³⁾					

EFFICIENCY	PRIMO GEN24 3.0 PLUS	PRIMO GEN24 3.6 PLUS	PRIMO GEN24 4.0 PLUS	PRIMO GEN24 4.6 PLUS	PRIMO GEN24 5.0 PLUS	PRIMO GEN24 6.0 PLUS
Max. efficiency	97.6 %					
Europ. efficiency (η _{EU})	96.8 %	97.0 %	97.1 %	97.2 %	97.2 %	97.1 %
MPP-tracking efficiency	> 99.9 %					

PROTECTIVE DEVICES	PRIMO GEN24 3.0 PLUS	PRIMO GEN24 3.6 PLUS	PRIMO GEN24 4.0 PLUS	PRIMO GEN24 4.6 PLUS	PRIMO GEN24 5.0 PLUS	PRIMO GEN24 6.0 PLUS
DC insulation measurement	Yes					
Overload behaviour	Operating point shift. Power limitation					
DC disconnect	Yes					
Reverse polarity protection	Yes					

INTERFACES	PRIMO GEN24 3.0 PLUS	PRIMO GEN24 3.6 PLUS	PRIMO GEN24 4.0 PLUS	PRIMO GEN24 4.6 PLUS	PRIMO GEN24 5.0 PLUS	PRIMO GEN24 6.0 PLUS
WLAN / 2x Ethernet LAN	Fronius Solar.web, Modbus TCP SunSpec, Fronius Solar API (JSON)					
6x digital in/out + 6x digital in	Interface to ripple control receiver, energy management					
USB 2.0 (A-socket)	1 A supply					
Emergency stop (WSD)	Yes					
Datalogger and webserver	Included					
2x RS485	Modbus RTU SunSpec (third-party supplier) / Fronius Smart Meter, battery, Fronius Ohmpilot					

¹⁾ Depending on the connected battery ²⁾ According to IEC 62109-1 ³⁾ Except HVS 10.2, HVS 12.8, HVM 8.3 and HVM 22.1

⁴⁾ These are planned certificates. For the current certificates, please see www.fronius.com/primo-gen24-plus-cert

For further information on the availability of this inverter in your country please see www.fronius.com.

/ Perfect Welding / Solar Energy / Perfect Charging

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 4,760 employees worldwide and 1,253 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

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