



FRONIUS PRIMO GEN24 PLUS

The hybrid allrounder with individual backup power



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 single-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 backup 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 ($U_{dc,r}$) | 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 ($P_{ac,r}$) | 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 | < 2 % | | | | | |
| Power factor ($\cos \phi_{ac,r}$) | 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⁾ | 3,110 W | 3,810 W | 4,140 W | 4,750 W | 5,170 W | 6,200 W |
| Max. AC charging power | 3,000 W | 3,680 W | 4,000 W | 4,600 W | 5,000 W | 6,000 W |

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

| 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 163 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 3 pole AC push-in spring terminals 2.5 - 10 mm ² | | | | | |
| AC connection technology | 3 pole backup power push-in spring terminals 1.5mm ² - 10mm 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 BNR 16149 and 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⁾ 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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