



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 | | | | | 65 V - 480 V |
| Number of DC connections (MPPT1 / MPPT2) | 2 / 2 | | | | | |
| Max. PV generator output | 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. | | | | | |
| Backup power | 1~NPE 220 V / 230 V | | | | | |

| OUTPUT DATA PV POINT / FULL BACKUP ¹ | 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 / 3000 VA | 3,000 VA / 3600 VA | 3,000 VA / 4000 VA | 3,000 VA / 4600 VA | 3,000 VA / 5000 VA | 3,000 VA / 6000 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 | < 90 seconds | | | | | |

¹⁾ For the Full Backup, additional external components for grid separation are required. You can find more information on this in the operating instructions.

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

| 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 ²⁾ | 3,130 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 |

| 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) ³⁾ | 2 / 3 | | | | | |
| Inverter design | Transformerless | | | | | |
| Cooling | Regulated air cooling | | | | | |
| Installation | Indoor and outdoor installation | | | | | |
| Ambient temperature range | -40 - +60 °C | | | | | |
| Permitted humidity | 0 - 100 % | | | | | |
| Noise Emission | < 42 dB (A) | | | | | |
| 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 2x PE screw terminals 2.5 - 16 mm ² and 3x 2.5 - 10mm ² | | | | | |
| Certificates and compliance with standards | IEC 62109, IEC 62909, AS/NZS 4777.2, CEI 0-21, ABNT BNR 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 ⁵⁾ | | | | | |

| 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 disconnecter | 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 | | | | | |

²⁾ Depending on the connected battery

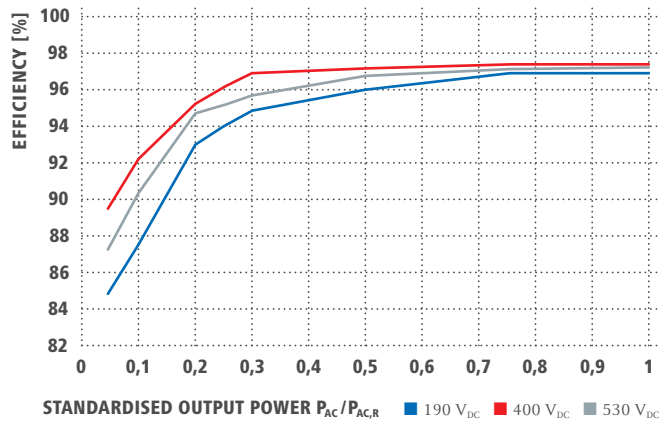
³⁾ According to IEC 62109-1. Optional retrofit surge protection device DC SPD type 1+2 for 2 MPP trackers available under the following article number: 4,240,313,CK

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

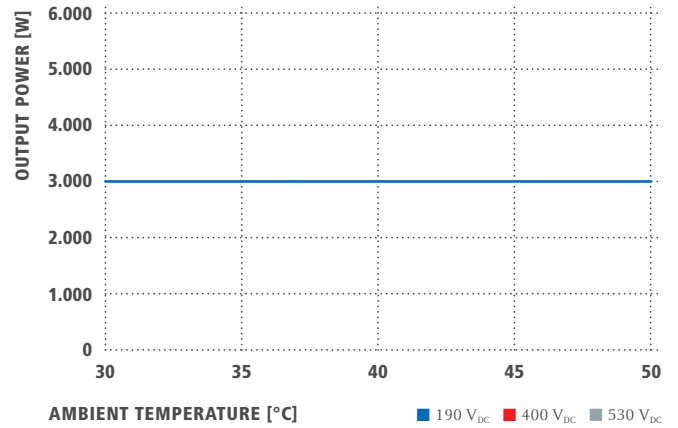
⁵⁾ Except HVS 10.2, HVS 12.8, HVM 8.3 and HVM 22.1

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

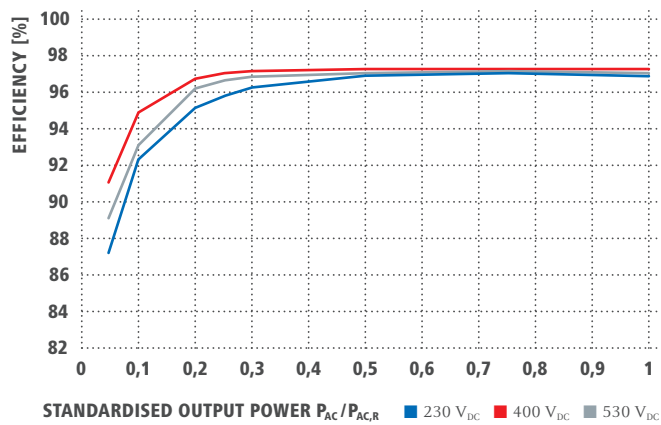
FRONIUS PRIMO GEN24 PLUS 3.0 EFFICIENCY CURVE



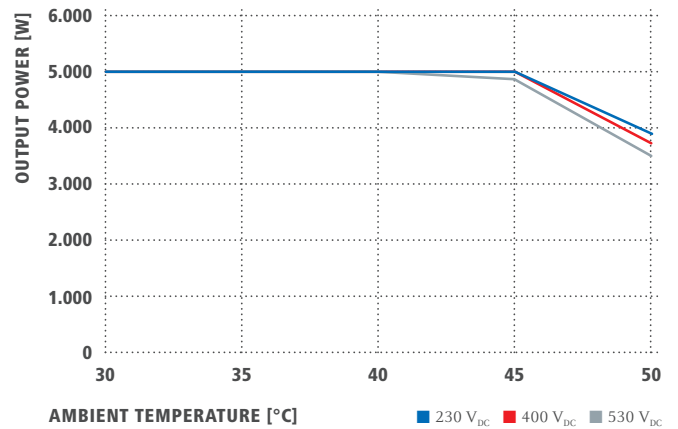
FRONIUS PRIMO GEN24 PLUS 3.0 TEMPERATURE DERATING



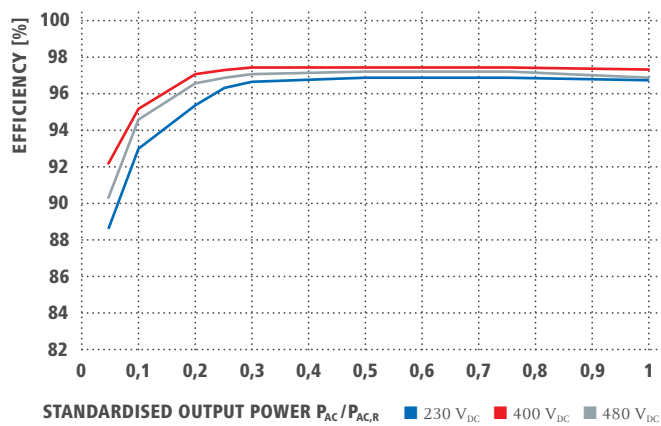
FRONIUS PRIMO GEN24 PLUS 5.0 EFFICIENCY CURVE



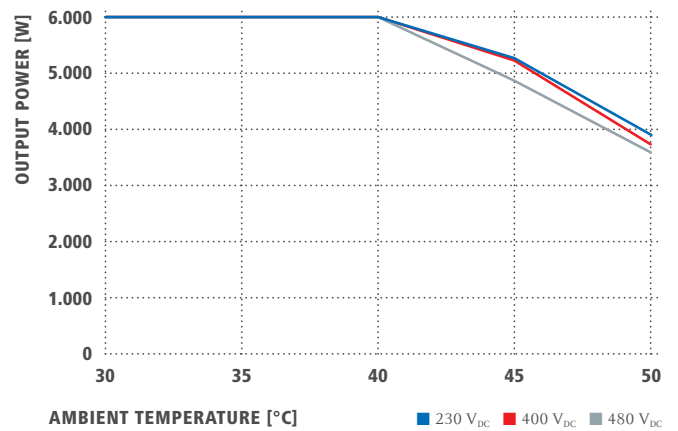
FRONIUS PRIMO GEN24 PLUS 5.0 TEMPERATURE DERATING



FRONIUS PRIMO GEN24 PLUS 6.0 EFFICIENCY CURVE



FRONIUS PRIMO GEN24 PLUS 6.0 TEMPERATURE DERATING



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 5,440 employees worldwide and 1,264 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.

PERFECT WELDING

Our mission is Perfect Welding; a task we have approached with passion and skill for decades in order that our customers can join materials with the perfect weld seam. With our outstanding technologies and services and together with our customer's applications, not only do we solve their specific welding technology problems, but we also make a substantial contribution to increasing their productivity.

SOLAR ENERGY

Our mission is to achieve 24 hours of sun. Day after day we are hard at work turning this vision of a future in which 100% of the world's energy needs are covered by renewable sources into a reality. We are therefore concentrating on solutions to intelligently, efficiently and economically generate, store, distribute and consume solar energy.

PERFECT CHARGING

As know-how leaders in the world of battery charging, we deliver exceptional solutions to create the maximum benefit for our customers. For the intralogistics sector, we are committed to energy flow optimisation for electric forklift trucks and are constantly striving for the next innovation. Our powerful charging systems for vehicle workshops guarantee safe and reliable processes.

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

Fronius India Private Limited
Plot no BG-71/2/B,
Pimpri Industrial Area,
MIDC- Bhosari,
Pune- 411026, India
pv-sales-india@fronius.com
www.fronius.in

Fronius Australia Pty Ltd.
90-92 Lambeck Drive
Tullamarine VIC 3043
Australia
pv-sales-australia@fronius.com
www.fronius.com.au

Fronius UK Limited
Maidstone Road, Kingston
Milton Keynes, MK10 0BD
United Kingdom
pv-sales-uk@fronius.com
www.fronius.co.uk

Fronius International GmbH
Froniusplatz 1
4600 Wels
Austria
pv-sales@fronius.com
www.fronius.com