

Designed to empower.



Fronius Symo
GEN24 SC

Product advantages

- 01 Backup power for every situation
- 02 Built-in freedom
- 03 Versatility as standard
- 04 Sustainably future-proof
- 05 Maximum independence

Product advantages



01 Backup power for every situation

A reliable energy supply: the Fronius GEN24 offers just that with an integrated basic backup power function, the PV Point. With the Fronius GEN24 Plus, you can choose between the PV Point and the Full Backup option, which provides backup power for the entire home.

02 Built-in freedom

The Fronius GEN24 and Fronius GEN24 Plus have open interfaces. This makes it easy to integrate components from Fronius or third-party suppliers for a tailor-made photovoltaic system.

03 Versatility as standard

More functions. More control. More power. Thanks to their energy management functions, the Fronius GEN24 and Fronius GEN24 Plus continuously save time and money. What's more, the integrated active cooling extends the service life of the inverter, protecting your investment for many years to come.

04 Sustainably future-proof

For those who don't want to decide right away: Thanks to the Fronius UP.storage* software upgrade, your device can be retrofitted with the battery connection and therefore the Full Backup power supply at any time.

05 Maximum independence


By combining the Fronius GEN24 Plus with a battery, you can get even more out of your photovoltaic system, even at night. Use more of your own electricity and become more independent of electricity providers and prices.

* Available in the Fronius webshop in selected countries.

Technical data

12.0 kW

| | | | Symo GEN24 / GEN24 Plus SC | | |
|---------------------------------------|---|---------------------|--|---------|--------|
| | | | 12.0 | | |
| Input data | Number of MPP trackers | | 2 | | |
| | DC input voltage range (U _{dc min} - U _{dc max}) | V | 80 - 1,000 | | |
| | Rated input voltage (U _{dc,r}) | V | 610 | | |
| | Feed-in start-up input voltage (U _{dc start}) | V | 80 | | |
| | Usable MPP voltage range | V | 80 - 800 | | |
| | MPP voltage range (at rated power) (U _{mpp min} - U _{mpp max}) | V | 295 - 800 | | |
| | | | MPPT1 | MPPT2 | |
| | Max. usable input current (I _{dc max}) | A | 28 | 14 | |
| | Max. array short circuit current (I _{sc pv}) ¹ | A | 40 | 20 | |
| | Number of DC connections | | 2 | 1 | |
| | | | MPPT1 | MPPT2 | Total |
| | Max. usable DC power | W | 12,360 | 8,600 | 12,360 |
| Max. PV generator output | W _{peak} | 14,000 | 9,000 | 18,000 | |
| Output data | AC rated power (P _{ac,r}) | W | 12,000 | | |
| | Apparent power | VA | 12,000 | | |
| | Max. output power | VA | 12,000 | | |
| | | | 380 Vac | 400 Vac | |
| | Rated AC output current | A | 18.2 | 17.4 | |
| | Grid connection (U _{ac,r}) | V | 3~ NPE 400/230 or 3~ NPE 380/220 (+20%/-30%) | | |
| | Frequency (frequency range f _{min} - f _{max}) | Hz | 50/60 (45 - 65) | | |
| | Total harmonic distortion | % | < 3.5 | | |
| Power factor (cos φ _{ac,r}) | | 0.7 - 1 ind. / cap. | | | |
| Output data PV Point | Rated output power PV Point (Comfort) | VA | 3,000 | | |
| | Grid connection PV Point (Comfort) | V | 1~ NPE 220/230 | | |
| | Switching time | sec. | ~15 | | |

 Full Backup power and battery function only available with GEN24 Plus

| | | | Symo GEN24 Plus SC | | |
|--------------------------------------|---|--|---|--|--|
| | | | 12.0 | | |
| Output data Full Backup ² | Rated output power Full Backup | VA | 12,000 | | |
| | Grid connection Full Backup | V | 3~ NPE 400/230 or 3~ NPE 380/220 | | |
| | Switching time | sec. | ~10 | | |
| Battery connection | Number of DC inputs | | 1 | | |
| | Max. input current (I _{dc max}) | A | 22 | | |
| | DC input voltage range (U _{dc min} - U _{dc max}) | V | 160 - 531 | | |
| | DC battery connection technology | | 1x BATT+ and 1x BATT- push-in spring terminals 2.5 - 10 mm ² | | |
| | Max. DC input/output power ³ | W | 11,682 | | |
| | Max. charging power for AC coupling ³ | W | 11,682 | | |
| Compatible batteries ⁴ | | BYD Battery-Box Premium HVS/HVM ⁵ | | | |

¹ I_{sc pv} = I_{sc max} >= I_{sc (STC)} x 1,25 according to e.g. IEC 60364-7-712, NEC 2020, AS/NZS 5033:2021.

² Additional external components for grid switchover are required for the Full Backup. See the Operating Instructions for further details.

³ Depending on connected battery

⁴ Depending on the country-specific certification and availability

⁵ Excluding BYD Battery-Box Premium HVS 12.8, HVM 8.3

Technical data

12.0 kW

| | | | Symo GEN24 / GEN24 Plus SC |
|-------------------------------------|---|--|--|
| | | | 12.0 |
| General data | Dimensions (height × width × depth) | mm | 595 × 529 × 180 |
| | Weight (inverter/with packaging) | kg | 22,8 / 28,0 |
| | Protection class | | IP 66 |
| | Safety class | | 1 |
| | Night consumption | W | <10 |
| | Oversvoltage category (DC/AC) ⁶ | | 2/3 |
| | Cooling | | Active Cooling technology |
| | Installation | | Indoor and outdoor installation |
| | Ambient temperature range | °C | -25 to +60 |
| | Permissible humidity | % | 0 - 100 |
| | Noise emissions | dB (A) | < 47 |
| | Max. altitude above sea level | m | 3,000/4,000 (unrestricted/restricted voltage range) |
| | DC connection technology PV | | 3 × DC+ and 3 × DC- push-in spring terminals 2.5 - 10 mm ² |
| | AC connection technology | | 5-pin AC push-in spring terminals 1.5 - 10 mm ² 3-pin backup power push-in spring terminals 1.5 - 10 mm ² 5 × PPE screw terminals 2.5 - 16 mm ² |
| | Certificates and compliance with standards ⁷ | | IEC 62109, IEC 62116, IEC 61727, IEC 62909, VDE AR-N4105, AS/NZS 4777.2, EN 50549, CEI 0-21, R25 |
| Backup power functions ⁸ | | PV Point (Comfort) or Full Backup | |
| Life cycle analysis | | In accordance with ÖNORM EN ISO 14040 and 14044 (checked by employees from Fraunhofer IZM) | |
| Efficiency | Max. efficiency | % | 98.3 |
| | Euro. efficiency (η _{EU}) | % | 98 |
| | MPP adaptation efficiency | % | > 99.9 |
| Protection devices | DC isolation measurement | | Integrated |
| | DC disconnecter | | Integrated |
| | Reverse polarity protection | | Integrated |
| Interfaces | WLAN/2 × Ethernet LAN | | Fronius Solar.web, Modbus TCP SunSpec, Fronius Solar API (JSON) |
| | 6 digital inputs 6 digital inputs/outputs | | Connection to ripple control receiver, energy management |
| | Emergency shut-off (WSD) | | Integrated |
| | Datalogger and web server | | Integrated |
| | 2 × RS485 | | Modbus RTU SunSpec (third-party provider)/Fronius Smart Meter, battery, Fronius Ohmpilot |

⁶ In line with IEC 62109-1. Option to retrofit surge protection device DC SPD type 1+2 for 2 MPP trackers available under the following item number: 4,240,313,CK

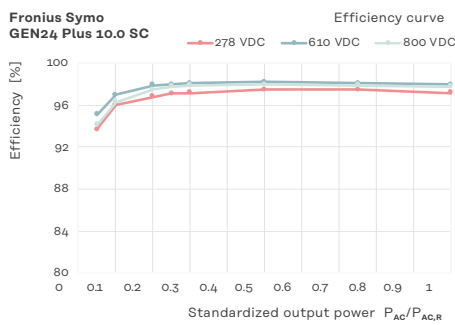
⁷ You can find the current certificates under www.fronius.com/symo-gen24-plus-cert

⁸ Full Backup power is only available with GEN24 Plus.

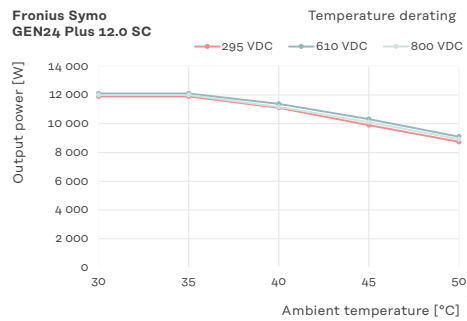
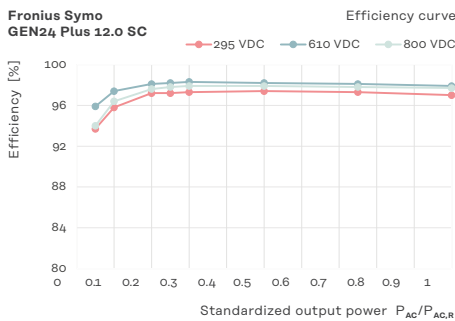
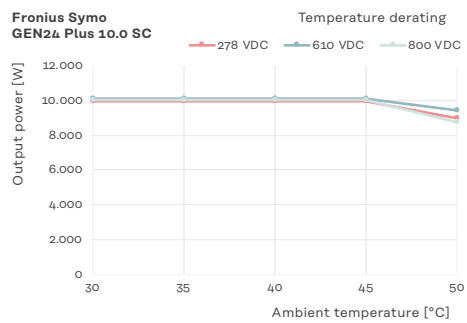
Impressive power data

The Fronius GEN24 and GEN24 Plus impress with premium efficiency and maximum power at high temperatures.

Efficiency



Power derating





Offering proven quality with even more power for the private home

For further information, please visit
www.fronius.com/gen24-inverter

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

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