

Fronius Symo GEN24 4.0 Plus

Product code: F.Fronius.3F.H.wifi.00040-gen24



Manufacturer	FRONIUS
Inverter type	Hybrid
Inverter phases	3
Max. AC power	4000
Output power	4000
Circuit breaker value	16
MPPT	2
Amperage	12.5
WIFI	Tak
Ethernet	No
Compatible energy storage	Pylontech, BYD
Compatible optimizers	Tigo
Warranty	10
CN code number	85044085
Quantity per pallet	14
Country of origin	Austria
Weight	15.6
Width	47
Height	53
Depth	17

The hybrid inverter Fronius Symo GEN24 4.0 Plus in the three-phase version serves as the perfect heart for individual PV installations. With the PV Point feature, the Fronius GEN24 Plus offers built-in basic backup power and the ability to provide full backup power on a larger scale by connecting a battery. Upon battery connection, the hybrid inverter Fronius GEN24 Plus enables achieving energy self-sufficiency in electricity, heating, cooling, and e-mobility.

Product variants

Index	Price
Fronius Symo GEN24 4.0 Plus F.Fronius.3F.H.wifi.00040-gen24	Product prices only visible after login. If you do not have an account, please register.

Product description

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Key features of the Fronius Symo GEN24 4.0 Plus inverter:

INTEGRATED DATA COMMUNICATION - The inverter offers a comprehensive data communication package, enabling full integration with Datalogging, WLAN, Ethernet, energy management, and network server. The inverter can be connected to the internet via a network cable or wirelessly through WLAN, ensuring efficient monitoring of the photovoltaic installation. Additionally, interfaces such as Modbus TCP, Modbus RTU SunSpec, or Fronius Solar API (JSON) allow easy connection of components from other companies. Furthermore, through the Fronius Solar.web online portal, open interfaces are available for additional flexibility.

DYNAMIC PEAK MANAGER - The Dynamic Peak Manager is a modern MPPT algorithm that dynamically adjusts to find the optimal operating point. It has the ability to find the Global Maximum Power Point (GMPP), even under partial shading.

MULTI FLOW TECHNOLOGY - The Multi Flow technology allows the inverter to simultaneously process different DC and AC energy flows. It can supply energy from modules and the battery simultaneously to the household and transmit energy from modules to the battery and home network. Additionally, the battery can be charged by both DC and AC circuits (e.g., from existing photovoltaic installations or other energy sources). This enables efficient cooperation with the AC network and regulation of energy flows, ensuring high self-powering from own energy.

SUPERFLEX DESIGN - Fronius SuperFlex Design is an innovative combination of technical features that greatly facilitates the design of photovoltaic installations. Key elements of SuperFlex Design include two MPP trackers, high system voltage, and a wide range of DC input voltages. Each DC input and MPP tracker can accept the full rated power of the inverter, regardless of roof orientation, module shading, or diversity of panels used. This flexibility allows the Fronius SuperFlex Design inverter to meet the requirements of any project using a single inverter model.

PV POINT - The integrated basic backup power function, powered socket in emergency situations, allows for the use of essential devices even during power outages.

ACTIVE COOLING - Active cooling technology, using one or multiple fans, not only eliminates potential overheating areas but also regulates airflow inside the inverter, maintaining a low temperature of the power electronic system. This process enhances device durability, optimizes performance, and reduces costs. Active Cooling is a standard technology in all Fronius products.

Technical data of the Fronius Symo GEN24 4.0 Plus inverter:

INPUT DATA

Number of MPP trackers: 2

Photovoltaic input power: 4180 W

Max. input current (I_{dc max}): 12.5 A / 12.5 A

Max. module field short circuit current*: 20.0 A / 20.0 A

DC input voltage range (U_{dc min} - U_{dc max}): 80-1000 V

Startup voltage (U_{dc start}): 80 V

Rated input voltage (U_{dc,r}): 610 V

MPP voltage range (U_{mpp min} - U_{mpp max}): 170-800 V

Useful MPP voltage range: 80-800 V

Number of DC connectors: 2+1

Max. photovoltaic generator power (Pdc max): 6 kWpeak

OUTPUT DATA

AC rated power (Pac,r): 4000 W

Max. output power (Pac max): 4000 VA

Max. power drawn from the grid: 10 VA

Max. AC output current: 8 A

Grid connection (Uac,r): 3NPE 230V / 400V, 3NPE 220V / 380V

AC voltage range (Umin - Umax): 154-280 V

Frequency (fr): 50 / 60 Hz

Frequency range (fmin - fmax): 45-66 Hz

Non-linear distortion factor: <3% @Pnom (230/400VAC 50Hz)

Power factor (cos φac,r): 0.7-1 ind./cap,

Backup power supply: 1 ~ NPE 220 V / 230 V

Rated AC output current (380VAC): 6.1 A

Rated AC output current (400VAC): 5.8 A

GENERAL DATA

Dimensions Length: 530 mm

Dimensions / width: 474 mm

Dimensions (height): 530 mm

Dimensions (depth): 165 mm

Weight: 15.61 kg

Weight with packaging: 19.35 kg

Protection class: IP66

Protection class: 1

Surge voltage category (DC/AC) 1): 2/3

Nighttime energy consumption: <10 W

Inverter construction concept: Transformerless

Cooling: Regulated ventilation

Mounting: Indoor and outdoor installation

Ambient temperature range: -25 - +60°C

Permissible air humidity: 0 - 100%

Max. altitude above sea level: 2): 3000m / 4000m

DC PV connection technology: 3 spring-loaded DC+ terminals and 3 DC- push-in terminals 2.5-10 mm²

DC battery connection technology: 1 spring-loaded BATT+ terminal and 1 BATT- push-in terminal 2.5-10 mm²

AC connection technology: 5-pole spring-loaded AC push-in terminals 1.5-10 mm², 3-pole push-in terminals for backup power supply 1.5 mm² - 10 mm², 5 screw terminals PE 2.5-16 mm²

Noise emission: 36 dB(A)

PROTECTIONS

DC insulation measurement: Yes

Behavior under overload: Shift of operating point, power limiter

DC disconnect: Yes

DC polarity reversal protection: Yes

Fronius products come with a two-year factory warranty, which can be extended to 5 years through simple registration on the Fronius Solar.web portal.

Registering the inverter on Solar.web offers numerous benefits, including:

Warranty protection for up to 5 years for registered products.

Free monitoring of photovoltaic installation performance on the Fronius Solar.web portal.

Regular information on new features, accessories, compatible batteries, and home automation solutions.

