

Fronius Symo GEN24 5.0 Plus

Product code: F.Fronius.3F.H.wifi.00050-gen24



Manufacturer	FRONIUS
Inverter type	Hybrid
Inverter phases	3
Max. AC power	5000
Output power	5000
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

Hybrid inverter Fronius Symo GEN24 5.0 Plus in a three-phase version is the perfect core for individual PV installations. With the PV Point feature, the Fronius GEN24 Plus offers built-in basic backup power and the possibility of full backup power on a larger scale by connecting a battery. After connecting the battery, the Fronius GEN24 Plus hybrid inverter enables achieving energy self-sufficiency in terms of electricity, heating, cooling, and e-mobility.

Product variants

Index	Price
Fronius Symo GEN24 5.0 Plus F.Fronius.3F.H.wifi.00050-gen24	Product prices only visible after login. If you do not have an account, please register.

Product description

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After connecting the battery, the Fronius GEN24 Plus hybrid inverter enables achieving energy self-sufficiency in terms of electricity, heating, cooling, and e-mobility.

The main features of the Fronius Symo GEN24 5.0 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, providing efficient monitoring of the PV installation. Additionally, interfaces like Modbus TCP, Modbus RTU SunSpec, or Fronius Solar API (JSON) allow easy connection of components from other companies. Furthermore, open interfaces are available for additional flexibility via the Fronius Solar.web online portal.

DYNAMIC PEAK MANAGER - The Dynamic Peak Manager is a modern MPPT tracking algorithm that dynamically adjusts in the quest for the optimal operating point. It is characterized by its ability to find the global Maximum Power Point (GMPP), even under partial shading.

MULTI FLOW TECHNOLOGY - With Multi Flow technology, the inverter allows simultaneous processing of various DC and AC energy flows. It can deliver power from panels and the battery simultaneously to the household and transfer energy from panels to the battery and home network. Additionally, the battery can be charged both through DC and AC circuits (e.g., from existing PV installations or other energy sources). This enables effective cooperation with the AC network and energy flow regulation, ensuring high self-supply with energy.

SUPERFLEX DESIGN - Fronius SuperFlex Design is an innovative combination of technical features that significantly simplifies the design of PV 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, panel shading, or the variety 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, a socket powered in emergency situations, allows essential devices to be used 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 electronic power circuit. This process positively impacts device longevity, optimizes performance, and reduces costs. Active Cooling is a standard technology in all Fronius products.

Technical specifications of the Fronius Symo GEN24 5.0 Plus inverter:

INPUT DATA

Number of MPP trackers: 2

Photovoltaic input power: 5200 W

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

Maximum module field short-circuit current*: 20.0 A / 20.0 A

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

Start-up voltage (U_{dc start}): 80 V

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

MPP voltage range (U_{mpp min} - U_{mpp max}): 210-800 V

Useful MPP voltage range: 80-800 V

Number of DC connections: 2+1

Maximum photovoltaic generator power (Pdc max): 7.5 kW_{peak}

OUTPUT DATA

AC nominal power (Pac,r): 5000 W

Maximum output power (Pac max): 5000 VA

Maximum power drawn from the grid: 10 VA

Maximum 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

AC output nominal current (380VAC): 7.6 A

AC output nominal current (400VAC): 7.2 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

Degree of protection: IP66

Protection class: 1

Overvoltage category (DC/AC) 1): 2/3

Nighttime power consumption: <10 W

Inverter construction concept: Transformerless

Cooling: Adjustable ventilation

Mounting: Indoor and outdoor installation

Ambient temperature range: -25 - +60°C

Permissible air humidity: 0 - 100%

Maximum altitude above sea level: 3000m / 4000m

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

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

AC connection technology: 5-pin spring-loaded AC terminals push-in 1.5-10 mm², 3-pin spring-loaded terminals push-in 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 in case of overload: Shift of operating point, power limiter

DC switch: Yes

DC protection against polarity reversal: Yes

Fronius products are covered by a two-year factory warranty, which can be extended to 5 years free of charge by 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 PV system performance on the Fronius Solar.web portal.

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