



# FRONIUS SYMO 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 Symo GEN24 Plus, with power categories of between 6 and 10 kW, is the ideal hybrid inverter for private households. With many features as standard, the three-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 SYMO GEN24 PLUS (6.0, 8.0, 10.0)

INPUT DATA	SYMO GEN24 6.0 PLUS	SYMO GEN24 8.0 PLUS	SYMO GEN24 10.0 PLUS
Number of MPP trackers		2	
Max. input current ( $I_{dc \max}$ MPPT1 / MPPT2)		25 A / 12.5 A	
Max. array short circuit current (MPPT1/MPPT2)		37.5 A / 18.75 A	
DC input voltage range ( $U_{dc \min}$ - $U_{dc \max}$ )		80 V - 1,000 V	
Nominal input voltage ( $U_{dc,r}$ )		610 V	
Feed-in start voltage ( $U_{dc \text{ start}}$ )		80 V	
Usable MPP voltage range		80 V - 800 V	
Number of DC connections (MPPT1 / MPPT2)		2 / 1	
Max. PV generator output ( $P_{dc \max}$ )	9 kW <sub>peak</sub>	12 kW <sub>peak</sub>	15 kW <sub>peak</sub>

OUTPUT DATA	SYMO GEN24 6.0 PLUS	SYMO GEN24 8.0 PLUS	SYMO GEN24 10.0 PLUS
AC nominal output ( $P_{ac,r}$ )	6,000 W	8,000 W	10,000 W
Max. output power	6,000 VA	8,000 VA	10,000 VA
Max. output current ( $I_{ac \max}$ )		16.4 A	
Grid connection (voltage range)		3~NPE 400 V / 230 V or 3~NPE 380 V / 220 V (+20 % / - 30%)	
Frequency (frequency range)		50 Hz / 60 Hz (45 Hz - 66 Hz)	
Total harmonic distortion		< 3.5 %	
Power factor ( $\cos \phi_{ac,r}$ )		0.7 - 1 ind. / cap.	
Back-up power		3~NPE 400 V / 230 V	

OUTPUT DATA PV POINT / FULL BACKUP <sup>1)</sup>	SYMO GEN24 6.0 PLUS	SYMO GEN24 8.0 PLUS	SYMO GEN24 10.0 PLUS
Nom. output power PV Point / full backup	3,000 VA / 6,000 VA	3,000 VA / 8,000 VA	3,000 VA / 10,000 VA
Nominal power per phase full backup		3.68 kVA	
Grid connection (voltage range) PV Point		1 ~ NPE 220 V / 230 V	
Grid connection (voltage range) full backup		3~NPE 400V/230V oder 3~NPE 380V/220V	
Switchover time		< 90 seconds	

BATTERY CONNECTION	SYMO GEN24 6.0 PLUS	SYMO GEN24 8.0 PLUS	SYMO GEN24 10.0 PLUS
Number of DC connections		1	
Max. input current ( $I_{dc \max}$ )		22 A	
DC input voltage range ( $U_{dc \min}$ - $U_{dc \max}$ )		160 V - 500 V	
Max. input / output power <sup>1)</sup>	6,220 W	8,260 W	10,300 W
Max. AC charging power	6,000 W	8,000 W	10,000 W

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

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GENERAL DATA	SYMO GEN24 6.0 PLUS	SYMO GEN24 8.0 PLUS	SYMO GEN24 10.0 PLUS
Dimensions (height x width x depth)	594 x 527 x 180 mm		
Weight (inverter / with packaging)	24 / 28,5 kg		
Degree of protection	IP 66		
Protection class	1		
Nighttime power loss	< 10 W		
Overvoltage category (DC/AC) <sup>3)</sup>	2 / 3		
Inverter design	Transformerless		
Cooling	Regulated air cooling		
Installation	Indoor and outdoor installation		
Ambient temperature range	-25 - +60 °C		
Permitted humidity	0 - 100 %		
Max. altitude	3,000 m / 4,000 m (unrestricted / restricted voltage range)		
DC PV connection technology	3x DC+ and 3x DC- push-in spring terminals 2.5 - 10 mm <sup>2</sup>		
DC battery connection technology	1x BATT+ and 1x BATT- push-in spring terminals 2.5 - 10 mm <sup>2</sup> 5 pole AC push-in spring terminals 1.5 - 10 mm <sup>2</sup>		
AC connection technology	3 pole backup power push-in spring terminals 1.5mm <sup>2</sup> - 10mm <sup>2</sup> 5x PE-screw terminals 2.5 - 16 mm <sup>2</sup>		
Certificates and compliance with standards	IEC 62109, IEC 62116, IEC 61727, IEC 62909, VDE 0126, VDE AR-N4105, AS/NZS 4777.2, EN 50549, CEI 0-21, G 98, R25 <sup>5)</sup>		
Back-up power functions	PV Point or full backup		
Compatible batteries	BYD Battery-Box Premium HVS/HVM <sup>4)</sup>		

EFFICIENCY	SYMO GEN24 6.0 PLUS	SYMO GEN24 8.0 PLUS	SYMO GEN24 10.0 PLUS
Max. efficiency		98.2 %	
Europ. efficiency (η <sub>EU</sub> )	97.7 %	97.8 %	97.9 %
MPP-tracking efficiency		> 99.9 %	

PROTECTIVE DEVICES	SYMO GEN24 6.0 PLUS	SYMO GEN24 8.0 PLUS	SYMO GEN24 10.0 PLUS
DC insulation measurement		Yes	
Overload behaviour		Operating point shift. Power limitation	
DC disconnect		Yes	
Reverse polarity protection		Yes	

INTERFACES	SYMO GEN24 6.0 PLUS	SYMO GEN24 8.0 PLUS	SYMO GEN24 10.0 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		

<sup>2)</sup> Depending on the connected battery <sup>3)</sup> According to IEC 62109-1 <sup>4)</sup> Except HVS 12.8 and HVM 8.3

<sup>5)</sup> For the current certificates, please see [www.fronius.com](http://www.fronius.com)

For further information on the availability of this inverter in your country please see [www.fronius.com](http://www.fronius.com).

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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.

Further information about all Fronius products and our global sales partners and representatives can be found at [www.fronius.com](http://www.fronius.com)

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