

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 _{peak}	12 kW _{peak}	15 kW _{peak}

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.		
Backup power	3~NPE 400 V / 230 V		

OUTPUT DATA PV POINT / FULL BACKUP ¹⁾	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 or 3~NPE 380V/220V		
Switchover time	< 90 seconds		

¹⁾ The Full Backup Option is available for the Symo GEN24 6.0 - 10.0 Plus. 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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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 ²⁾	6,220 W	8,260 W	10,300 W
Max. AC charging power	6,000 W	8,000 W	10,000 W

GENERAL DATA	SYMO GEN24 6.0 PLUS	SYMO GEN24 8.0 PLUS	SYMO GEN24 10.0 PLUS
Dimensions (height x width x depth)		595 x 529 x 180 mm	
Weight (inverter / with packaging)		23,4 / 28,5 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		-25 - +60 °C	
Permitted humidity		0 - 100 %	
Noise Emission		< 47 dB (A)	
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 ²	
DC battery connection technology		1x BATT+ and 1x BATT- push-in spring terminals 2.5 - 10 mm ²	
AC connection technology		5 pole AC push-in spring terminals 1.5 - 10 mm ² 3 pole backup power push-in spring terminals 1.5mm ² - 10mm ² 5x PE-screw terminals 2.5 - 16 mm ²	
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 ⁴⁾	
Back-up power functions		PV Point or Full Backup	
Compatible batteries		BYD Battery-Box Premium HVS/HVM ⁵⁾	

EFFICIENCY	SYMO GEN24 6.0 PLUS	SYMO GEN24 8.0 PLUS	SYMO GEN24 10.0 PLUS
Max. efficiency		98.2 %	
Europ. efficiency (η_{EU})	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 disconnecter		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	

²⁾ Depending on the connected battery

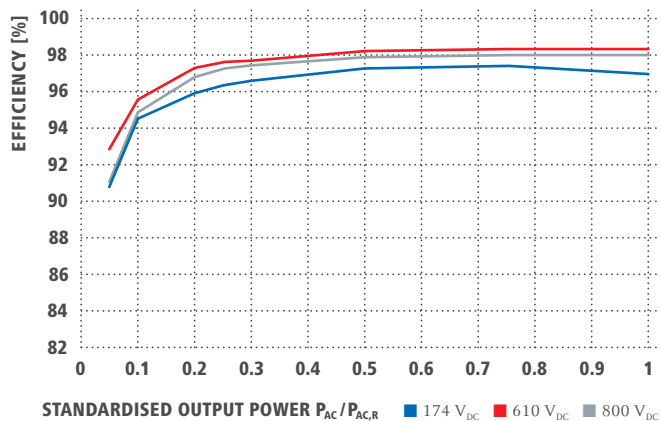
³⁾ According to IEC 62109-1. Optional retrofit surge protection device DC SPD type 1+2 for 2 MPP trackers available under the following article number: 4,240,313,CK

⁴⁾ For the current certificates, please see www.fronius.com

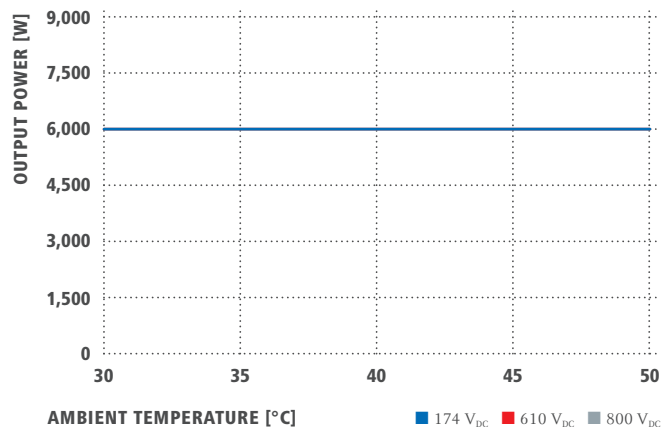
⁵⁾ Except HVS 12.8 and HVM 8.3

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

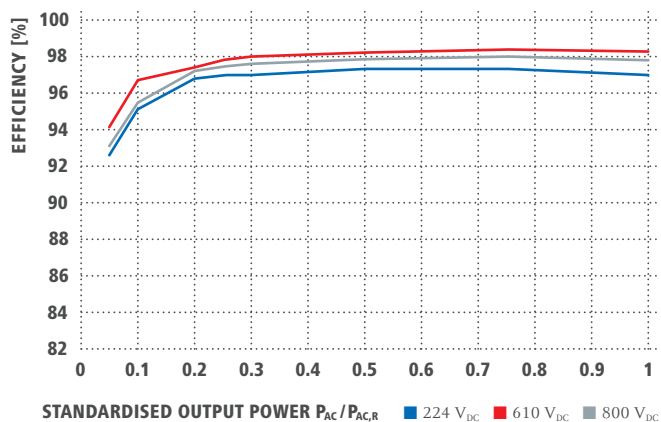
FRONIUS SYMO GEN24 PLUS 6.0 EFFICIENCY CURVE



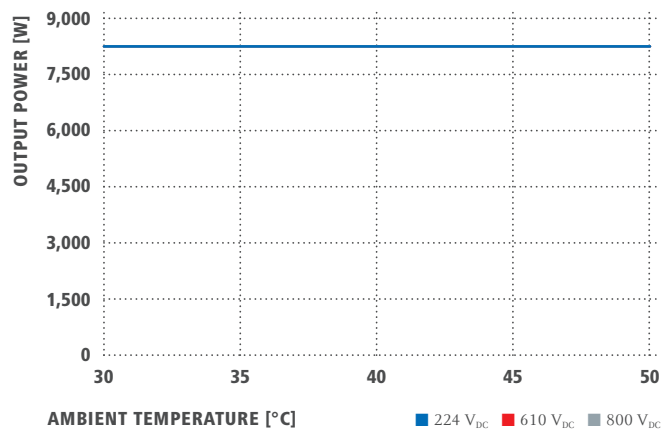
FRONIUS SYMO GEN24 PLUS 6.0 TEMPERATURE DERATING



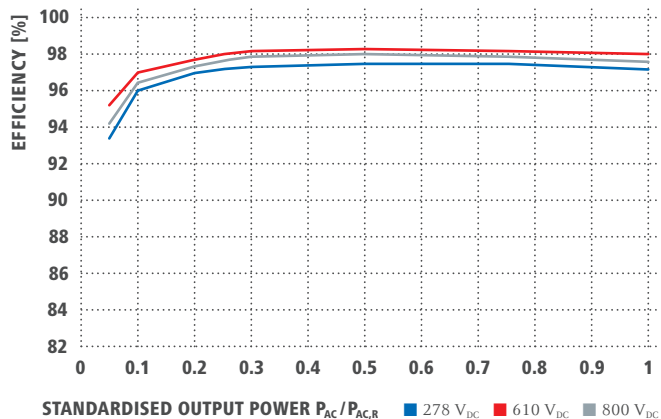
FRONIUS SYMO GEN24 PLUS 8.0 EFFICIENCY CURVE



FRONIUS SYMO GEN24 PLUS 8.0 TEMPERATURE DERATING



FRONIUS SYMO GEN24 PLUS 10.0 EFFICIENCY CURVE



FRONIUS SYMO GEN24 PLUS 10.0 TEMPERATURE DERATING

