

Technical data

6.0 / 8.0 / 10.0 kW

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			Symo GEN24 SC / GEN24 Plus SC								
			6.0			8.0			10.0		
Input data	Number of MPP trackers		2			2			2		
	DC input voltage range (U _{dc min} - U _{dc max})	V	80 - 1,000			80 - 1,000			80 - 1,000		
	Rated input voltage (U _{dc,r})	V	610			610			610		
	Feed-in start-up input voltage (U _{dc start})	V	80			80			80		
	Usable MPP voltage range	V	80 - 800			80 - 800			80 - 800		
	MPP voltage range (at rated power) (U _{mpp min} - U _{mpp max})	V	148 - 800			197 - 800			246 - 800		
			MPPT1	MPPT2		MPPT1	MPPT2		MPPT1	MPPT2	
	Max. usable input current (I _{dc max})	A	28	14		28	14		28	14	
	Max. array short circuit current (I _{sc pv}) ¹	A	40	20		40	20		40	20	
	Number of DC connections		2	1		2	1		2	1	
			MPPT1	MPPT2	Total	MPPT1	MPPT2	Total	MPPT1	MPPT2	Total
	Max. usable DC power	W	6,180	6,180	6,180	8,240	8,240	8,240	10,300	8,600	10,300
	Max. PV generator output	W _{peak}	7,500	7,500	9,000	10,000	8,500	12,000	12,500	9,000	15,000

Output data	AC rated power (P _{ac,r})	W	6,000		8,000		9,999	
	Apparent power	VA	6,000		8,000		9,999	
	Max. output power	VA	6,000		8,000		9,999	
			380 Vac	400 Vac	380 Vac	400 Vac	380 Vac	400 Vac
	Rated AC output current	A	9.1	8.7	12.1	11.6	15.2	14.5
	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		< 3,5		< 3,5	
	Power factor (cos φ _{ac,r})		0,7 - 1 ind. / cap.					

Output data PV Point	Rated output power PV Point	VA	3,000	3,000	3,000
	Grid connection PV Point	V	1~ NPE 220/230		
	Switching time	sec.	~15	~15	~15



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Output data Full Backup ²	Rated output power Full Backup	VA	6,000	8,000	9,999
	Nominal Full Backup phase power	VA	4,133	4,133	4,133
	Grid connection Full Backup	V	3~ NPE 400/230 or 3~ NPE 380/220		
	Switching time	sec.	~10	~10	~10

Battery connection	Number of DC inputs		1	1	1
	Max. input current (I _{dc max})	A	22	22	22
	DC input voltage range (U _{dc min} - U _{dc max})	V	160 - 700	160 - 700	160 - 700
	DC battery connection technology		1x BATT+ and 1x BATT- push-in spring terminals 2.5 - 10 mm²		
	Max. DC input/output power ³	W	6,180	8,240	10,300
	Max. charging power for AC coupling ³	W	6,000	8,000	9,999
	Compatible batteries ⁴		Fronius Reserva & BYD Battery-Box Premium HVS/HVM		

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 Compatibility with the Fronius GEN24 Plus varies depending on the battery storage type and capacity class, country-specific certification and availability. More information: www.fronius.com/battery-overview

			Symo GEN24 SC / GEN24 Plus SC		
			6.0	8.0	10.0
General data	Dimensions (height × width × depth)	mm	595 × 529 × 180		
	Weight (inverter/with packaging)	kg	22,8 / 28,0	22,8 / 28,0	22,8 / 28,0
	Protection class		IP 66	IP 66	IP 66
	Safety class		1	1	1
	Night consumption	W	< 10	< 10	< 10
	Overvoltage category (DC/AC) ⁵		2/3	2/3	2/3
	Cooling		Active Cooling technology		
	Installation		Indoor and outdoor installation		
	Ambient temperature range	°C	-25 to +60	-25 to +60	-25 to +60
	Permissible humidity	%	0 - 100	0 - 100	0 - 100
	Noise emissions	dB (A)	< 47	< 47	< 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 ⁶		IEC 62109, IEC 62116, IEC 61727, IEC 62909, VDE AR-N4105, AS/NZS 4777.2, EN 50549, CEI 0-21, G 98, R25		
Efficiency	Max. efficiency	%	98,3	98,3	98,3
	Euro. efficiency (η _{EU})	%	97,9	98	98,1
	MPP adaptation efficiency	%	> 99,9	> 99,9	> 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		

⁵ 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

⁶ You can find the current certificates under www.fronius.com/symo-gen24-plus-cert

⁷ Full Backup power is only available with GEN24 Plus SC.