

Preliminary technical data

Primo GEN24 Plus							
		Unit	8.0			10.0	
Input data	Number of MPP trackers		2			2	
	DC input voltage range (U _{dc min} - U _{dc max})	V	65 - 600			65 - 600	
	Nominal input voltage (U _{dc,r})	V	400			400	
	Feed-in start voltage (U _{dc start})	V	80			80	
	Usable MPP voltage range	V	65 - 480			65 - 480	
			MPPT1	MPPT2		MPPT1	MPPT2
	Max. usable input current (I _{dc max})	A	22	22		22	22
	Max. Short-circuit current module field (I _{sc pv}) ¹⁾	A	41.25	36		41.25	36
	Number of DC connections		2	2		2	2
			MPPT1	MPPT2	Total	MPPT1	MPPT2
	Max. usable DC power	W	8,260	8,260	8,260	10,360	10,360
	Max. PV generator output	W _{peak}	10,000	10,000	12,000	12,500	15,000

1) $I_{sc\ pv} = I_{sc\ max} \geq I_{sc\ (STC)} \times 1.25$ according to e.g.: IEC 60364-7-712, NEC 2020, AS/NZS 5033:2021.

Output data	AC rated power (P _{ac,r})	W	8,000			10,000	
	Apparent power	VA	8,000			10,000	
	Max. Output power	VA	8,000			10,000	
			220 Vac	230 Vac		220 Vac	230 Vac
	Nom. AC output current	A	36.4	34.8		45.5	43.5
	Mains connection (U _{ac,r})	V	1~ NPE 220/230 (+20 %/-30 %)				
	Frequency (frequency range f _{min} - f _{max})	Hz	50/60 (45 - 65)				
	Distortion factor	%	< 3				
	Power factor (cos φ _{ac,r})		0.8 - 1 ind. / cap.				

Output data PV Point	Nom. Output power PV Point	VA	3,000	3,000
	Grid connection PV Point	V	1~ NPE 220/230	
	Switching time	sec.	< 35	

Output data Full Backup 2)	Nom. Output power Full Backup	VA	8,000	10,000
	Mains connection Full Backup	V	1~ NPE 220/230	
	Switching time	sec.	< 45	

2) For the Full Backup, additional external components are required for grid switchover are required for the Full Backup. See the Operating Instructions for further details.

Battery connection	Number of DC inputs		1	1
	Max. Input current (Idc max)	A	22	22
	DC input voltage range (Udc min - Udc max) ³⁾	V	150 - 455	150 - 455
	Connection technology DC battery		1 × BATT+ and 1× BATT- Push-in spring-loaded terminals 2.5 - 10 mm ²	
	Max. DC input / output power ⁴⁾	W	8,260	10,360
	Max. Charging power with AC coupling ⁴⁾	W	8,000	10,000
	Compatible batteries ⁵⁾		BYD Battery-Box Premium HVS/HVM & LG RESU FLEX ⁶⁾	

3) AC power derating of the inverter occurs with a DC battery input voltage of 419.7 V and higher.

4) Depending on the connected battery.

5) Depending on the country-specific certification and availability.

6) Excluding BYD Battery-Box Premium HVS 10.2, HVS 12.8, HVM 8.3, HVM 22.1 & LG RESU FLEX 17.2.

General data	Dimensions (height × width × depth)	mm	595 x 529 x 180	
	Weight (inverter / with packaging)	kg	21 / 26	
	Protection class		IP 66	IP 66
	Protection class		1	1
	Night consumption	W	< 10	< 10
	Overvoltage category (DC/AC) ⁷⁾		2 / 3	2 / 3
	Inverter concept		Transformerless	
	Cooling		Active Cooling Technology	
	Installation		Indoor and outdoor installation	
	Ambient temperature range	°C	-40 to +60	-40 to +60
	Permissible humidity	%	0 - 100	0 - 100
	Noise emissions	dB (A)	< 51	< 51
	Max. altitude	m	4,000	4,000

	Connection technology DC PV		4 × DC+ and 4 × DC- push-in spring terminals 2.5 - 10 mm ²
	Connection technology AC		3-pole AC push-in spring terminals 2.5 - 16 mm ² 3-pole emergency current push-in spring terminals 1.5 - 10 mm ² 2 × PE screw terminals 2.5 - 16 mm ² and 3 × 2.5 - 10 mm ²
	Certificates and standard compliance ⁸⁾		IEC 62109, IEC 62909, AS/NZS 4777.2, IEC 62116, IEC 61727, IEC 62116, IEC 61727
	Backup power functions		PV Point or Full Backup
	Country of manufacture		Austria

Efficiency	Max. Efficiency	%	97.3	97.3
	European efficiency (η _{EU})	%	96.9	97
	MPP adjustment efficiency	%	> 99.9	> 99.9

Protective equipment	DC insulation measurement		Integrated	Integrated
	Overload performance		Operating point shift, power limitation	
	DC disconnect		Integrated	Integrated
	Reverse polarity protection		Integrated	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 shutdown (WSD)		Integrated
	Data logger and web server		Integrated
	2 × RS485		Modbus RTU SunSpec (third-party) / Fronius Smart Meter, Battery (GEN24 Plus), Fronius Ohmpilot

7) According to IEC 62109-1. Optional retrofittable overvoltage protection DC SPD type 1+2 for 2 MPP trackers available under the following item number: 4,240,313,CK 8

8) The current certificates can be found at www.fronius.com/primo-gen24-plus-cert

For more information on the availability of the inverters in your country, please visit www.fronius.com.