SOLAR ELECTRIC



PLENTICORE plus

Hybrid inverter - G2 3.0–10 kW



Data sheet

All-in-one

- PV hybrid inverter with battery input with optional activation code ^{1, 2)}
- Compatibility with various high-voltage batteries ²⁾
- 3 MPP trackers suited to the layout of almost all roofs
- Extended MPP range perfect for repowering

Smart connected

- Smart Communication Board: control interfaces integrated as standard
- Future-proof: new functions via software update
- Display, data logger and system monitoring
- Free Solar Portal for monitoring the PV system
- 2 x LAN, WiFi, 4 x digital switching outputs for self-consumption control or event reporting, "SG Ready" compatible, Evaluation of external overvoltage protection modules
- Modbus/SunSpec (TCP) for Smart Home integration



Smart performance

- Fast, self-learning shadow management – adapts individually to the installation site
- Dynamic active power control and 24-hour homeconsumption measurement ²⁾
- Self-learning generation and consumption forecast – for optimum self-consumption²⁾
- Low conversion losses due to DC coupling and highvoltage battery
- Prepared for additional battery charge via AC energy sources²

Easy to install

- Simple device configuration using commissioning wizard via display or smartphone
- Safe installation due to clearly arranged, separate terminal compartment with Push-In terminals and protected power electronics
- Compatible with RCD type A
- Auto Update: Always at the cutting edge of technology

PLENTICORE plus G2: compact and rapidly deployable







¹⁾ Activation code battery available at: shop.kostal-solar-electric.com

²⁾ Compatible energy meter required (see document Released energy meters in the download area for the product)

Technical data PLENTICORE plus G2

	PLENTICORE plus G2		3.0	4.2	5.5	7.0	8.5	10			
	Power class		3.0	4.2	5.5	7.0	8.5	10			
Input side (DC)	Max. PV power(cos $\varphi = 1$)	kWp	4.5	6.3	8.25	10.5	12.75	15			
	Max. PV power per DC input	kWp	6.5								
	Nominal DC power	kW	3.09	4.33	5.67	7.22	8.76	10.31			
	Rated input voltage (U _{DC,r})	V	570								
	Start-up input voltage (U _{DCstart})	V	150								
	Max. system voltage (U _{DOmax})	V	1000								
	MPP range at rated output $(U_{\text{MPPmin}})^{\scriptscriptstyle (3)}$	V	180	180	225	290	345	405			
	MPP range at rated output $(U_{\text{MPPmax}})^{ 3)}$	V	720	720	720	720	720	720			
	Working voltage range (U_{DCworkmin} - U_{DCworkmax})^{4)}	V	120900								
	Max. input current (I_{DCmax}) per DC input	А	13								
	Max. PV short-circuit current (I_{SC_PV}) per DC input	А	16.25								
	Number of DC inputs		3								
	Number of combined DC inputs (PV or battery)		1								
	Number of independent MPP trackers		3								
	DC 3 – battery input optional										
	Min. working voltage for battery input ($U_{\text{DCworkbatmin}}$)	V	120								
	Max. working voltage for battery input ($U_{\text{DCworkbatmax}}$)	V	650								
	Max. charging current/discharging current at battery input	А	13/13								
	Rated power, $\cos \phi = 1 \ (P_{AC,r})$	kW	3.0	4.2	5.5	7.0	8.5	10			
	Apparent output power (S_{AC,Nom}, S_{AC,max})	kVA	3.0/3.0	4.2/4.2	5.5/5.5	7.0/7.0	8.5/8.5	10/10			
	Min. output voltage (U_{ACmin})	V	320								
	Max. output voltage (U _{ACmax})	V	500								
	Rated output current $(I_{AC,r})$	А	4.33	6.06	7.94	10.10	12.27	14.43			
AC)	Max. output current (I_{ACmax})	А	4.81	6.74	8.82	11.23	13.63	16.04			
ide (Short-circuit current (peak/RMS)	А	6.8/4.8	9.5/6.7	12.5/8.8	15.9/11.2	19.3/13.6	22.8/16.1			
Output side (AC)	Grid connection		3N~, 230/400V, 50Hz								
Out	Rated frequency (fr)	Hz	50								
	$Min/max \ grid \ frequency \ (f_{min}/f_{max})$	Hz	47/53								
	Setting range of the power factor (cos $\phi_{\text{AC},r})$		0.8 1								
	Power factor for rated power (cos $\phi_{AC,r})$		1								
	Max. THD	%	3								
	Standby	W	7.9								
c	Max. efficiency	%	97.1	97.1	97.1	97.2	97.2	97.2			
	European efficiency	%	95.3	95.5	96.2	96.5	96.5	96.5			
	MPP adjustment efficiency	%	99.9	99.9	99.9	99.9	99.9	99.9			

PLENTICORE plus G2		3.0	4.2	5.5	7.0	8.5	10			
Topology: Without galvanic isolation – transformerless		yes								
Protection class according to IEC 60529										
Protective class according to IEC 62103		I								
Overvoltage category according to IEC 60664-1, input side (PV generator)		ll								
Overvoltage category according to IEC 60664-1, output side (grid connection)										
Degree of contamination		4								
Environmental category (outdoor installation)		yes								
Environmental category (indoor installation)		yes								
UV resistance		yes								
AC cable diameter (min-max)	mm	817								
AC cable cross-section (min-max)	mm ²	1.56 2.56					46			
DC cable cross-section (PV/BAT) (min-max)	mm ²	2.56 / 46								
Max. fuse protection on output side		B16/C16 B25/C25								
Internal operator protection according to EN 62109-2 (compatible with RCD type A from FW 01.14)		yes								
Independent disconnection device according to VDE 0126-1-1		yes								
Height/width/depth	mm (in)	563/405/233 (22.17/15.94/9.17)								
Weight	kg (lb)	19.6 (43.21) 21.6 (46,62)								
Cooling principle – regulated fans		yes								
Max. air throughput	m³/h	184								
Noise emission (typical)	dB(A)	39								
Ambient temperature	°C (°F)	-2060 (-4140)								
Max. installation altitude above sea level	m (ft)	2000 (6562)								
Relative humidity	%	4100								
Connection technology, DC side		SUNCLIX plug								
Connection technology, AC side		Spring-type terminal strip								
Connection technology, interfaces		Push-In terminal								
Ethernet LAN (RJ45) / WiFi (IEEE 802.11b/g/n 2.4GHz)		2 / yes								
Connection of energy meter for collecting energy data (Modbus RTU)		1								
Digital inputs		Ripple control receiver or external battery control, CEI, OVP monitoring								
Digital outputs		4 (24 V, 100 mA)								
Webserver (user interface)		yes								
Warranty (Smart Warranty / Smart Warranty plus ¹⁾)	Years	10 (5 + 5)								
Directives/Certification	198, G99, EIFS 3.1. TOR Erzeu	-1, EN 62109-2, EN 60529, EN 50438 ²⁾ , S2018, IEC 61727, IEC 62116, RD 1699, Jger, UNE 206006, UNE 206007-1, AR-N 4105, VJV2018								

Subject to technical changes. Errors excepted. You can find current information at www.kostal-solar-electric.com. Manufacturer: KOSTAL Industrie Elektrik GmbH, Hagen, Germany

¹⁾ Activate your free warranty (Smart Warranty) now in the KOSTAL Solar online shop (shop.kostal-solar-electric.com). This does not affect your statutory warranty. You will find more information about the service and warranty conditions in the download area for your product.

²⁾ Does not apply to all national annexes

System data

Interfaces

³⁰ MPP range at rated output: Outside the MPP range, MPP control takes place below the nominal power. Based on full occupancy of all MPP trackers.
⁴⁰ Working voltage range: No feed-in takes place outside the working voltage range.

PLENTICORE plus G2 available in 6 power classes



PLENTICORE plus 4.2 G2













Services for our products

FAQs:

kostal-solar-electric.com/Service_Support

Product registration, KOSTAL Smart Warranty, warranty extension, battery activation code or purchase of accessories: shop.kostal-solar-electric.com

Get in touch: service-solar@kostal.com