



Smart
connections.

Data sheet

PLENTICORE BI 5.5/13

BI
Battery Inverter

PLENTICORE BI: The efficient AC storage inverter

All-in-one

Storage inverter for connection of one battery^{1,3)}

Compatible with the high voltage battery Battery Box HV by BYD³⁾

Application range for single-family homes to commercial

Ideal for retrofitting existing PV systems

Smart connected

Smart Communication Board – future proof, new functions can be added via the integrated Web Application

Display, data logger, system monitoring, network and control interfaces integrated as standard, WLAN Ready via external USB WLAN adapter²⁾

Free Solar Portal for monitoring the PV system

Smart Home integration

Smart performance

Low conversion losses due to high-voltage battery

Battery charging from various AC energy sources³⁾

Flexible Scalable by connecting battery storage sizes in the size 5.1 - 22.1 kWh

Peak shaving (short-term and rapid reduction of peak loads)³⁾

Eigenverbrauchsoptimierung³⁾

Timed Battery Control - Charging / Discharging when power consumption is low / high^{2,3)}

Easy to install

Simple device configuration using commissioning wizard

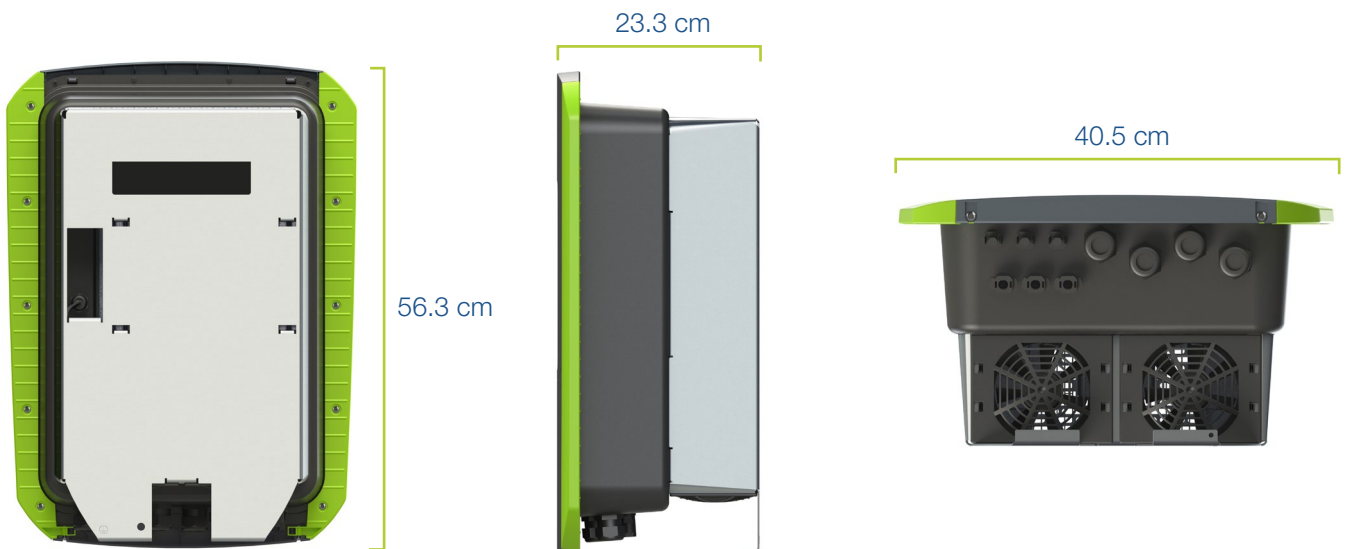
Safe installation due to clearly arranged, separate terminal compartment and protected power electronics

Compatible with RCD type A

Auto update and remote support²⁾



PLENTICORE BI: compact and rapidly deployable



¹⁾ Depending on the inverter type - Battery function enabled at the factory (no battery activation code required).

²⁾ Available later on via software update

³⁾ KOSTAL Smart Energy Meter necessary

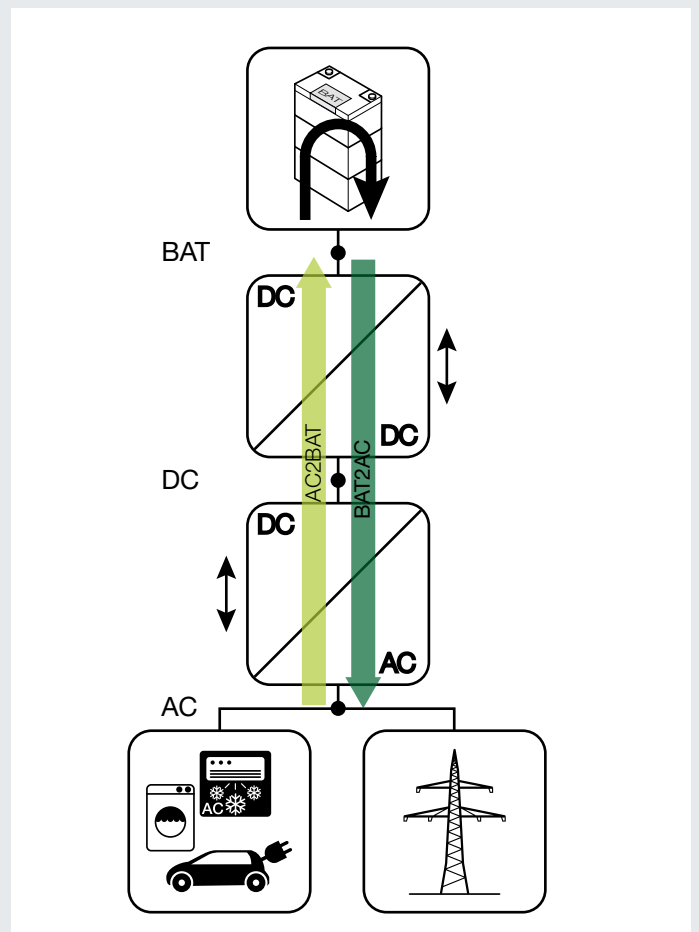
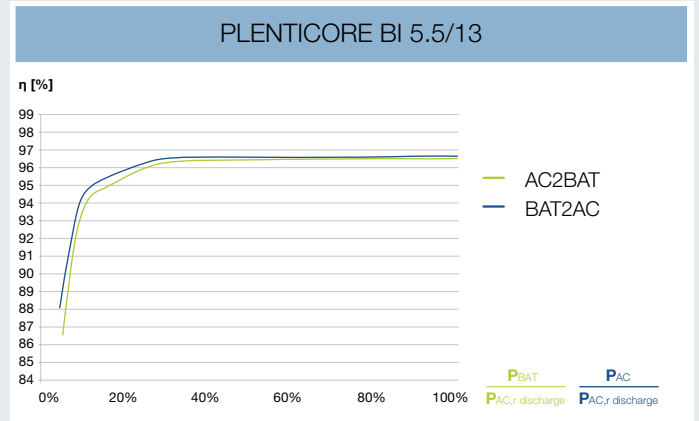
Technical data PLENTICORE BI

Power class PLENTICORE BI		5.5/13	
Input (DC)	Working voltage for battery input ($U_{DCworkbatmin} - U_{DCworkbatmax}$)	V	120...650
	Charging current/discharging current at battery input	A	13/13
	Number of DC inputs		1
	Rated power, $\cos \varphi = 1$ ($P_{AC,r}$)	kW	5.5
Output (AC)	Max. apparent output power, $\cos \varphi_{adj}$	kVA	5.5
	Min. output voltage (U_{ACmin})	V	320
	Max. output voltage (U_{ACmax})	V	460
	Rated output current ($I_{AC,r}$)	A	7.94
	Max. output current (I_{ACmax})	A	8.82
	Short-circuit current (peak/RMS)	A	12.5/8.8
	Grid connection		3N~, 400V, 50 Hz
	Rated frequency (f_r)	Hz	50
	Min/max grid frequency (f_{min}/f_{max})	Hz	47 / 53
	Setting range of the power factor ($\cos \varphi_{AC,r}$)		0.8...1...0.8
	Power factor for rated power ($\cos \varphi_{AC,r}$)		1
	Max. THD	%	3
	Standby	W	8.45
	η	Max. efficiency Bat2AC	%
Max. efficiency AC2Bat		%	96.6

	Power class PLENTICORE BI		5.5/13
System data	Topology: Without galvanic isolation – transformerless		✓
	Protection class according to IEC 60529		IP 65
	Protective class according to IEC 62103		I
	Overvoltage category according to IEC 60664-1, output side (grid connection)		III
	Degree of contamination		4
	Environmental category (indoor installation)		✓
	UV resistance		✓
	AC cable diameter (min-max)	mm	8...17
	AC cable cross-section (min-max)	mm ²	1.5...6
	DC cable cross-section (min-max)	mm ²	2.5...6
	Max. fuse protection on output side		B16/C16
	Internal operator protection according to EN 62109-2 (compatible with RCD type A)		✓
	Independent disconnection device according to VDE 0126-1-1		✓
	Height/width/depth	mm (in)	563/405/233 (22.17/15.94/9.17)
	Weight	kg (lb)	19.6 (43.21)
	Cooling principle – regulated fans		✓
	Max. air throughput	m ³ /h	184
	Noise emission (typical)	dB(A)	39
	Ambient temperature	°C (°F)	-20...60 (-4...140)
	Max. installation altitude above sea level	m (ft)	2000 (6562)
	Relative humidity	%	4...100
	Connection technology, DC side		SUNCLIX plug
	Connection technology, AC side		Spring-type terminal strip
Interfaces	Ethernet LAN (RJ45)		1
	Connection of energy meter for collecting energy data (Modbus RTU)		1
	Digital inputs (e.g. for digital ripple control receiver)		4
	USB 2.0		1
	Webserver (user interface)		✓
	KOSTAL Smart Warranty / Warranty ¹⁾	Years	5 (2)
	Optional warranty extension for (years)		5/10/15
Directives/Certification		CE, GS, IEC62109-1, IEC62109-2, EN60529, DIN VDE 0126-1-1:2013-08, VDE AR-N4105:2018, VDE AR-N4100:2018, TOR Erzeuger, ÖNORM E8001-4-712/A2:2016, NA/EEA-CH 2014, IEC62116:2014	

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⁾ KOSTAL Smart Warranty: 5-year warranty only after registration in the KOSTAL Solar online shop



Services for our products

FAQs:

kostal-solar-electric.com/Service_Support

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

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