

# Kostal Piko BA – The energy storage system for numerous applications

## Intelligent and powerful

The Kostal Piko BA energy storage system combines the best inverter technology with an intelligent energy management and a high-quality as well as powerful battery system. Optimum coordination of all components and their high quality bring about a system which achieves best efficiencies and ensures many years of efficient utilization.

## Innovative inverter technology

With a module power between 4 and 11 kWp, the Piko BA provides charge regulator and inverter in one housing. Controlled by an intelligent energy management system, the Piko BA achieves a maximum efficiency of 96.5 %. While feed-in is effected on a demand-oriented basis, the integrated CAN interface enables the connection to the battery management system of the external storage – thus the system is optimally equipped for novel storage technologies. The overall Piko BA package is rounded off by the integrated communications and monitoring package, as well as the two independent MPP trackers.

## Energy storage at a high level

The Piko battery is the optimum energy storage for the direct consumption of photovoltaic energy. High energy yield, long life, small space requirement, as well as a modular design for simple installation – all that results in a complete storage solution from one source. Moreover, operating costs are saved thanks to the system's maintenance-free battery technology. Optimum storage and management of the generated energy is ensured together with the integrated battery management system.

## Advantages in brief

- High-quality individual components, optimally adjusted to each other
- Three-phase storage system
- High efficiency due to the energy management of the Piko BA inverter and charge regulator
- Energy storage with an integrated battery management system for high energy yields
- Home consumption recording with the Piko BA sensor



Energy for home consumption, for storage or for grid feed-in – very simple with the intelligent Piko BA system.



Home consumption is recorded by analogue current measurement of the Piko BA sensor.

STORAGE SYSTEMS DC System

Art. No. 1700001



Model	Kostal Piko BA
AC nominal power	10000 W
Number of phases	3
Output voltage	Sine wave
Line voltage	230 V (184 - 264.5 V)
Frequency	50 Hz
AC rated current	14.5 A
Short circuit current (peak)	20 A
Harmonic distortion (output voltage)	< 3 %
Power factor at nominal power	0.9 - 1 - 0.9
Recommended PV system power	4 - 11 kWp
DC inputs	2
Independent MPP trackers	2
DC input voltage PV	180 - 950 V
MPP voltage range (one-tracker operation / two-tracker operation)	180 - 850 V / 440 - 850 V
Max. DC input current PV	12 A
DC input voltage batteries	228 V (211 - 314 V)
Max. battery charging current	12 A
Max. battery discharge current	12 A
Max. efficiency	96.5 %
Capable of emergency power	Yes
Operating temperature	-20 to +60 °C
Protection mode	IP55
Electronic isolation unit	Integrated
Data communication	RS485, 2 x Ethernet, 50, 4 x analogue inputs, CAN interface
Connection (input / output)	MC4 / spring-loaded terminal strip
Dimensions (W / H / D)	520 mm / 450 mm / 230 mm
Weight	33 kg
Warranty*	5 years
Norms	Protection class I according to IEC 62103, overvoltage category II according to IEC 60664-1 input side, overvoltage category III according to IEC 60664-1 output side

\* - Can optionally be extended to 10 / 20 years

Continued on next page

Accessories

Art. No.	1700004	1700002
----------	---------	---------



Model	Kostal Piko Battery	Kostal Piko BA Sensor
Battery type	Hoppecke 12 V OPzV blocsolar.power 70	-
Battery technology	Maintenance-free, cycle-optimized lead-gel battery	-
Number of cycles (50 % DoD)	2500	-
Storage capacity of batteries (C10)	11.6 kWh	-
Max. output power	2.7 kW (approx.)	-
Number of batteries	19 pc. (each 12 V nominal voltage)	-
Rated voltage	228 V	-
Battery capacity (C100)	70 Ah	-
Ventilation	Inlet and outlet air vent with 154 cm <sup>2</sup> cross-sectional area	-
Operating temperature	+10 to +30 °C	-
Protection mode	IP21	-
Weight	850 kg (approx.)	-
Rated current primary	-	50 A
Rated current secondary	-	1 A
Burden	-	1 VA
Accuracy class	-	1
Max. line diameter	-	13.5 mm
Dimensions (W / H / D)	900 mm / 1584 mm / 388 mm	105 mm / 90 mm / 54 mm
Norms	IEC 60896-21, IEC 61427	EN 60715

Photos © Kostal

