



WINNER
**MOST EFFICIENT PV-
STORAGE SYSTEM**



Smart
connections.

Technical Specification

PLENTICORE plus with BYD Battery-Box HV

Energy efficiency of PV storage systems

Technical data according to the efficiency guideline for PV storage systems

PLENTICORE plus power class		4.2	5.5	7.0	8.5	10	
Energy conversion (paths ¹⁾)	PV2AC / PV2BAT / BAT2AC / AC2BAT	✓ / ✓ / ✓ / -	✓ / ✓ / ✓ / -	✓ / ✓ / ✓ / -	✓ / ✓ / ✓ / -	✓ / ✓ / ✓ / -	
	System Performance Index (SPI) - Load reference profiles 1 ²⁾	%	---	91.4	---	---	---
	System Performance Index (SPI) - Load reference profiles 2 ³⁾	%	---	---	---	---	---
	Efficiency PV2AC ($\eta_{PV2AC,t} U_{MPP,nom}$)	%	94.8	95.4	95.6	95.8	95.8
	Efficiency PV2BAT ($\eta_{PV2BAT,t} U_{MPP,nom}$) ⁴⁾	%	95.7	95.7	95.5	95.5	95.5
	Efficiency BAT2AC ($\eta_{BAT2AC,t} U_{MPP,nom}$) ⁴⁾	%	94.6	95.1	95.1	95.1	95.1
	Idle consumption ($P_{neutral, AC + DC}$)	W	9.03	9.03	9.18	9.18	9.18
	Mean dead time / settling time	s	0.98 / 4.97	0.98 / 4.97	1.08 / 4.20	1.08 / 4.20	1.08 / 4.20
	Rated power ($P_{AC,r}$)	kWp	4.2	5.5	7.0	8.5	10
	Rated power ($P_{AC,r discharge}$)	kWp	4.2	5.5	5.8	5.8	5.8
	Rated power ($P_{BAT,r}$)	kWp	6.2	6.2	6.2	6.2	6.2
Input side (DC)	Max. PV power ($\cos \varphi = 1$)	kWp	6.3	8.25	10.5	12.75	15
	Nominal DC power	kW	4.33	5.67	7.22	8.76	10.31
	Input voltage range ($U_{DCmin} - U_{DCmax}$)	V	120...1000				
	MPP working voltage range ($U_{MPPworkmin} - U_{MPPworkmax}$)	V	120...720				
	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 - Activation code battery available at: shop.kostal-solar-electric.com						
	Working voltage for battery input ($U_{DCworkbatmin} - U_{DCworkbatmax}$)	V	120...500				
	Max. charging current/discharging current at battery input	A	13/13				

BYD Battery-Box HV power class		H 6.4	H 7.7	H 9.0	H 10.2	H 11.5	
System data	Max. Power consumption in connection with PLENTICORE plus 4.2-10 ⁵⁾	kW	3.33	4.00	4.65	5.32	6.00
	Usable capacity ⁶⁾	kWh	6.08	7.30	8.51	9.73	10.94
	Number of battery modules		5	6	7	8	9
	Battery type		Lithium iron phosphate (LiFePO ₄)				
	Nominal voltage	V	256	307	358	409	460
	Voltage range	V	200...282	240...338	280...395	320...451	360...500

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⁾ Measurement results determined according to the efficiency guideline for PV storage systems. Battery system consisting of PLENTICORE plus with BYD Battery-Box HV 11.5

²⁾ Load reference profiles 1 = Standard 4 persons household with approx. 5010 kWh annual consumption

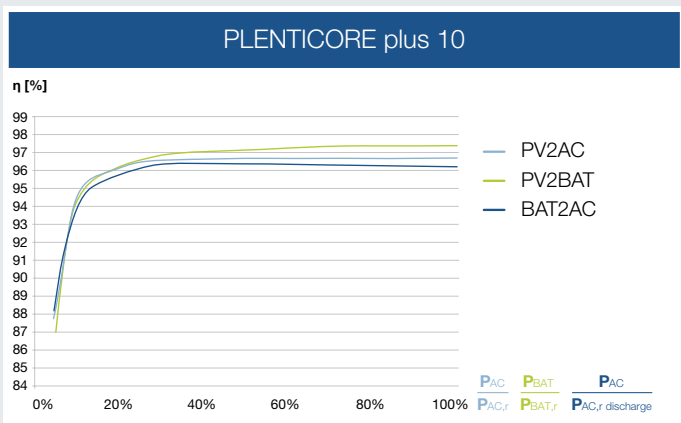
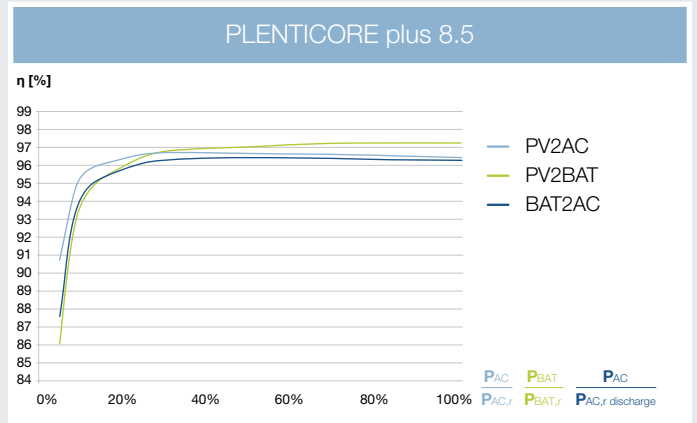
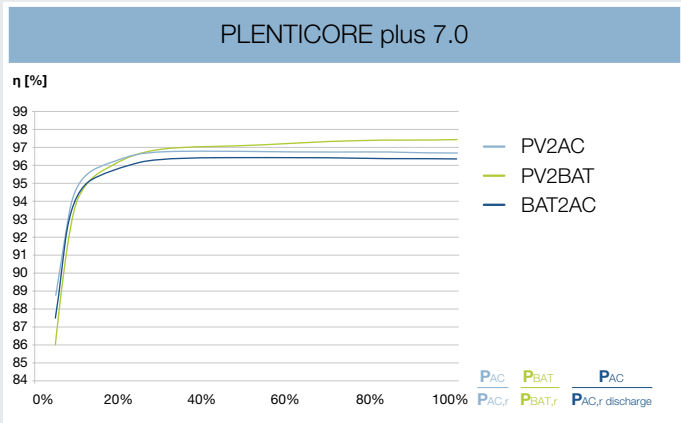
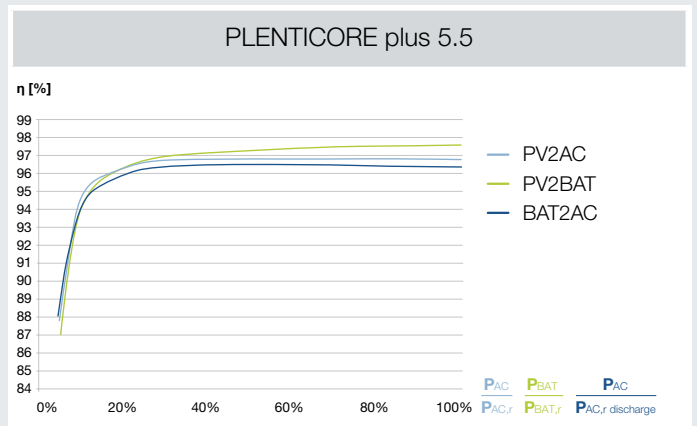
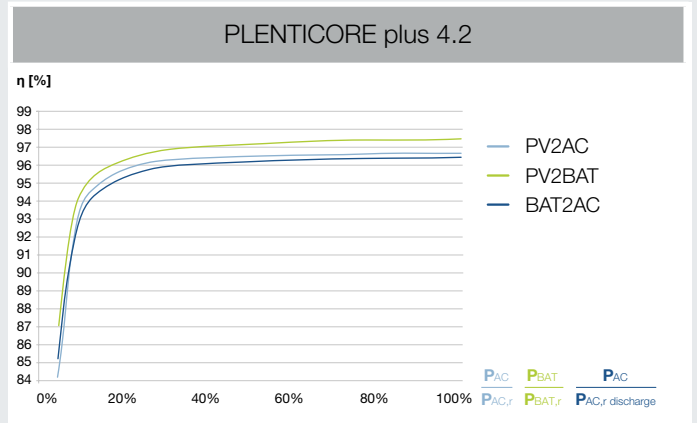
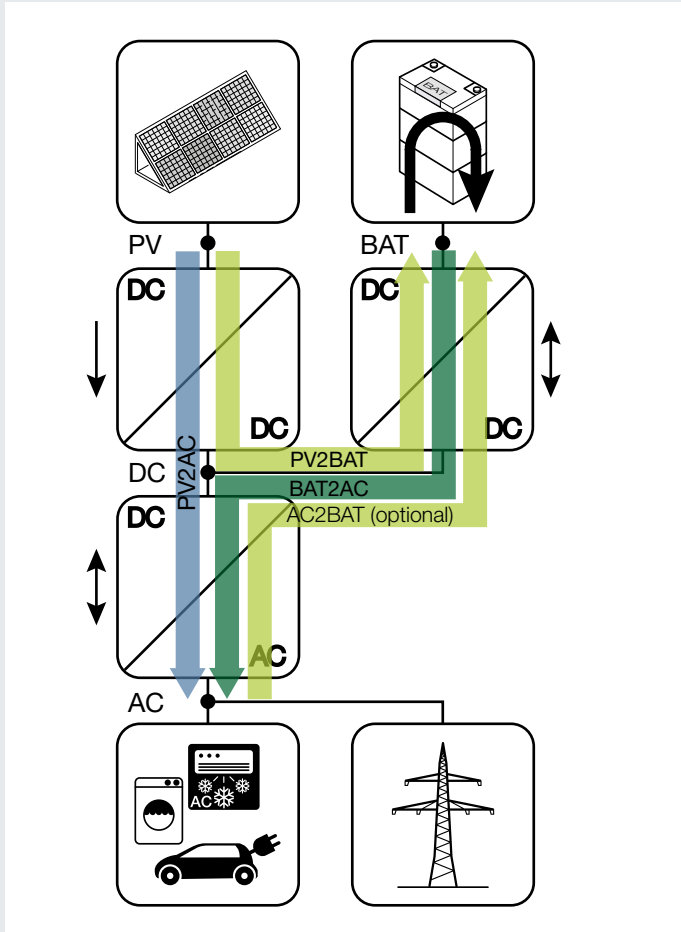
³⁾ Load reference profiles 2 = Standard 4 persons household with approx. 10010 kWh annual consumption including heat pump and electric vehicle

⁴⁾ Measured at a battery voltage of 470 V

⁵⁾ Depending on the max. rated power AC of the inverter (4.2 max 4.2 kW and 5.5 max 5.5 kW)

⁶⁾ Test Conditions: 95% DOD, 0,2 C charge and discharge at + 25 ° C

Efficiency curves of energy conversion paths



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FAQs:
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Product registration, warranty extension,
 activation code battery or purchase of accessories:
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