



Smart connections.

Technical Specification

PLENTICORE plus
with BYD Battery-Box Premium HVS/HVM

PLENTICORE plus 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
	Nominal DC power	kW	3.09	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...650						
Max. charging current/discharging current at battery input	A	13/13						
Output side (AC)	Rated power, cos $\varphi = 1$ ($P_{AC,r}$)	kW	3.0	4.2	5.5	7.0	8.5	10
	Output voltage ($U_{ACmin} - U_{ACmax}$)	V	320...460					
	Rated output current ($I_{AC,r}$)	A	4.33	6.06	7.94	10.10	12.27	14.43
	Max. output current (I_{ACmax})	A	4.81	6.74	8.82	11.23	13.63	16.04
	Grid connection		3N~, 400V, 50 Hz					
	Standby/standby incl. 24h home-consumption measurement	W	4.5/7.9					
η	Max. efficiency	%	97.1	97.1	97.1	97.2	97.2	97.2
	European efficiency	%	95.3	96.5	96.2	96.5	96.5	96.5
System data	Protection class according to IEC 60529		IP 65					
	Height/width/depth	mm	563/405/233					
	Weight	kg	19.6			21.6		
	Ambient temperature	°C	-20...60					
	Connection technology, DC side		SUNCLIX plug					
Directives/Certification ¹⁾		CE, GS, CEI 0-21, CEI10/11, EN 62109-1, EN 62109-2, EN 60529, EN 50438*, EN 50549-1*, ENA/EEA, G98, G99, IFS2018, IEC 61727, IEC 62116, RD 1699, RFG, TF3.3.1, TOR Erzeuger, UNE 206006 IN, UNE 206007-1 IN, UTE C15-712-1, VDE 0126-1-1, VDE-AR-N 4105, VJV2018						

BYD Battery-Box Premium		H5.1	H 7.7	H10.2	H12.8	H16.3 ²⁾	H19.0 ²⁾	H21.7 ²⁾
Modul type		HVS (High Voltage Small) 2.56kWh, 102.4V, 25Ah, 38kg, LiFePO ₄				HVM (High Voltage Medium) 2.71kWh, 51.2V, 53Ah, 38kg, LiFePO ₄		
Max. Power consumption in connection with PLENTICORE plus 3.0-10 ^{2,3)}	kW	2.66	3.99	5.32	6.5	3.99	4.66	5.32
Usable capacity 95%/100% DoD ⁴⁾	kWh	4.86/ 5.12	6.91/ 7.68	9.22/ 10.24	11.52/ 12.8	14.63/ 16.26	17.07/ 18.97	21.68/ 19.51
Number of battery modules		2	3	4	5	6	7	8
Nominal voltage	V	204	307	409	512	307	358	409
Voltage range	V	160- 240	240- 360	320- 480	400- 600	240- 360	280- 420	320- 480
Interface to inverter		RS485						
Height	mm	712	945	1178	1411	1644	1871	2110
Width/depth	mm	585/298						
Weight	kg	91	129	167	205	243	281	319
Ambient temperature	°C	-10...50						
IP protection class		IP 55						
Certification / Safety Standard		VDE2510-50 / IEC62619 / IEC62040 / CE / UN38.3						

Subject to technical changes. Errors excepted. You can find current information at www.kostal-solar-electric.com.

¹⁾ Does not apply to all national annexes

²⁾ The use of the BYD Battery-Box Premium HVM H16.3 / 19.0 / 21.7 is not approved for the PLENTICORE plus 3.0

³⁾ Depending on the max. Rated power AC of the inverter (3.0 max. 3.0 kW, 4.2 max 4.2 kW and 5.5 max 5.5 kW),

⁴⁾ Test Conditions: 0,2 C charge and discharge at +25 °C, real usable capacity with Plenticoe plus system / theoretically usable capacity acc. BYD battery data sheet at 100% DoD