



Smart connections.

Technical Specification

PIKO MP plus
with BYD Battery-Box Premium HVS/HVM

PIKO MP plus plus power class		1.5-1	2.0-1	2.5-1	3.0-1	3.0-2	3.6-1	3.6-2	4.6-2	5.0-2 ⁹⁾	
Input side (DC)	Max. PV-power (cos φ = 1)	kWp	2.3	3.0	3.75	4.5		5.4		6.9	7.5
	Nominale DC power	kW	1.54	2.05	2.56	3.07		3.77		4.74	5.2
	Input voltage range (U _{DCmin} - U _{DCmax})	V	75-450			75-750					
	MPP working voltage range (U _{MPPworkmin} - U _{MPPworkmax})	V	75-360			75-600					
	MPP range at nominal power (U _{MPPmin} - U _{MPPmax})	V	120-360	160-360	200-360	230-600		280-600		360-600	360-600
	Number of DC inputs		1	1	1	1	2	1	2	2	2
	Number of combined DC inputs (PV or battery)		1	1	1	1	1	1	1	1	1
	Number of independent MPP trackers		1	1	1	1	2	1	2	2	2
	One DC battery input - optional Activation code battery and KOSTAL Smart Energy Meter available at: shop.kostal-solar-electric.com										
	Working voltage for battery input (U _{Dworkbatmin} - U _{Dworkbatmax})	V	75-360			75-600					
Max. charging current/discharging current at battery input	A	13/13									
Output side (AC)	Rated power, cos φ = 1 (P _{AC,r})	kW	1.5	2.0	2.5	3.0		3.68		4.6	5.0
	Output voltage (U _{ACmin} - U _{ACmax})	V	185...276								
	Rated output current (I _{AC,r})	A	6.6	8.7	10.9	13.1		16		20	22
	Max. output current (I _{ACmax})	A	12	12	14	14		16		20	22
	Grid connection		1N~, 400V, 50 Hz								
	Standby/standby incl. 24h home-consumption measurement	W	<3.0/<20.0								
η	Max. efficiency	%	97.4	97.4	97.4	97.0		97.0		97.4	97.4
	European efficiency	%	96.1	96.5	96.6	96.3		96.3		96.9	96.8
System data	Protection class according to IEC 60529		IP 65								
	Height/width/depth	mm	657/399/222								
	Weight	kg	12.6	12.6	12.6	13.8	14.0	13.8	14.0	14.0	14.0
	Ambient temperature	°C	-20...60								
	Connection technology, DC side		SUNCLIX plug								
Directives/Certification ¹⁾		IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 60730, IEC 62116, VDE-AR-N 4105, DIN VDE 0126 1-1, G59/3-2, G83/2, UTE C 15-712-1, CEI 0-21, TOR D4, RD1699, RD 413, UNE 206007-1, IEC 61727, EN 50438*									

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 these variants of the BYD Battery-Box Premium are not approved for the PIKO MP plus

³⁾ When using the PIKO MP plus as a hybrid inverter in combination with the BYD Battery-Box Premium, the charging power can be greater than the discharging power if the corresponding range of services is high (calculation of the maximum charging power of the battery: maximum charging current PIKO MP plus battery input (13A) x nominal voltage battery)

⁴⁾ Test conditions: 0.2 C charge and discharge at + 25 ° C, 95% real usable capacity with PIKO MP plus system / theoretically usable capacity acc. BYD battery data sheet at 100% DoD

⁵⁾ HVS (High Voltage Small), HVM (High Voltage Medium)

⁶⁾ PIKO MP plus 5.0-2: available from Q2/2020

Technical Specification BYD Battery-Box Premium HVS/HVM

BYD Battery-Box Premium HVS/HVM ⁶⁾			HVS 5.1	HVS 7.7	HVS 10.2	HVS 12.8	HVM 8.3	HVM 11.0	HVM 13.8	HVM 16.6	HVM 19.3	HVM 22.1	
Module type			2.56kWh, 102.4V, 25Ah, 38kg, LiFePO ₄				2.76kWh, 51.2V, 53Ah, 38kg, LiFePO ₄						
System data	Max. Power consumption / charging capacity ³⁾ battery in connection with	PIKO MP plus 1.5-1	kW	1.5	1.5			1.5	1.5				
		PIKO MP plus 2.0-1	kW	2.0	2.0	--- ²⁾		2.0	2.0	--- ²⁾			
		PIKO MP plus 2.5-1	kW	2.5	2.5			2.5	2.5				
		PIKO MP plus 3.0-1	kW	2.66	3.0	3.0	3.0	2.0	2.66	3.0	3.0	3.0	3.0
		PIKO MP plus 3.0-2	kW	2.66	3.0	3.0	3.0	2.0	2.66	3.0	3.0	3.0	3.0
		PIKO MP plus 3.6-1	kW	2.66	3.6	3.6	3.6	2.0	2.66	3.33	3.6	3.6	3.6
		PIKO MP plus 3.6-2	kW	2.66	3.6	3.6	3.6	2.0	2.66	3.33	3.6	3.6	3.6
		PIKO MP plus 4.6-2	kW	2.66	3.99	4.6	4.6	2.0	2.66	3.33	3.99	4.66	4.66
		PIKO MP plus 5.0-2 ⁶⁾	kW	2.66	3.99	5.0	5.0	2.0	2.66	3.33	3.99	4.66	5.0
Usable capacity 95%/100% DoD ⁴⁾		kWh	4.86/ 5.12	7.30/ 7.68	9.73/ 10.24	12.16/ 12.8	7.87/ 8.28	10.49/ 11.04	13.11/ 13.8	15.73/ 16.56	18.35/ 19.32	20.98/ 22.08	
Number of battery modules			2	3	4	5	3	4	5	6	7	8	
Nominal voltage		V	204	307	409	512	153	204	256	307	358	409	
Voltage range		V	160- 240	240- 360	320- 480	400- 600	120- 180	160- 240	200- 300	240- 360	280- 420	320- 480	
Interface to KOSTAL Smart Energy Meter			RS485										
Height		mm	712	945	1178	1411	945	1178	1411	1644	1871	2110	
Width/depth		mm	585/298										
Weight		kg	91	129	167	205	129	167	205	243	281	319	
Ambient temperature		°C	-10...50										
Housing protection class			IP 55										
Safety Standard / Certification			VDE2510-50 / IEC62619 / CEC / CE / UN38.3										

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