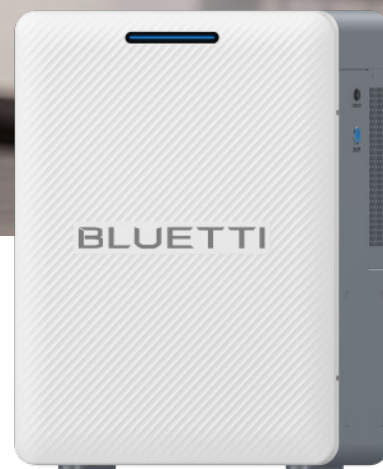




BLUETTI Balco 500

Advanced All-in-One Balcony Solar + Home Storage System



True 2-in-1 Balcony Solar Solution

800W - 3,680W AC Output for
Direct Plug-in Power



High-Voltage Solar Solution

4,600W PV input,
70V-470V input voltage



Ai-EMS

Dynamic Pricing & Maximum
Energy Saving



Simultaneous Use of On-grid & Off-grid Power

Integrates both grid-tied and off-grid
output capabilities



Power for Different Use Case

Plug-in with Schuko, Wieland & Cable Outlet;
Or connect to home circuit



BLUETTI Space

Connect up to 6 Balco units via AC
Coupling Wireless Network



Zero Feed In, Smart Home Compatible

BLUETTI / Shelly / Everhome /
Google / Alexa



Third-party System Compatible

Compatible with existing inverter via
AC coupling

Balco 500

PV Input

Max. PV Input	4,600 W
MPPT Trackers	1 / 1
PV Input Voltage Range	70 – 470 d.c.V
Max. PV Input Voltage	500 d.c.V
MPPT Voltage Range / Rated Voltage	40 V ~ 450 V / 350 V
PV Start-up Voltage	70 d.c.V
Max. PV Input Current	16 d.c.A
Max. PV Input Isc	20 d.c.A

Grid

Rated AC Output Voltage / Frequency		230 a.c.V, L+N+PE			
Rated Grid Frequency		50 Hz			
Mode	BM1	BM2	IM	HM	
Max. Power from Grid (VA)	3,680 (EU), 2,990 (UK)				5,750
Max. Current from Grid (a.c.A)	16 (EU), 13 (UK)				25
Rated Power Output to Grid (VA)	800	1,200	2,000	3,680	
Rated Current Output to Grid (a.c.A)	3.47	5.21	8.7	16	
Power Factor		-0.9 ~ 0.9			
AC Output Method		Plug-in: Schuko & Wieland Home Integration via Distribution Panel			

Back-up

Rated Voltage	230 a.c.V, L / N / PE
Rated Frequency	50 Hz
Rated Output Power	3,680 VA
Rated Output Current	16 a.c.A
Power Factor Range	-0.8 ~ 0.8
Overload Capacity	3,865 VA < Load ≤ 4,050 VA, 10 min; 4,050 VA < Load ≤ 5,520 VA, 10s; Load > 5,520 VA, 500ms
AC Output Method	AC Output Adapter Cable

Battery

Battery Type	LFP
Rated Energy	5,024 Wh
Rated Voltage	16 d.c.V
Rated Capacity	314 Ah
Usable Energy	4,772.8 Wh (95% DoD @ 25 °C, 0.5C/0.5C)
Max. Charge Current	157 d.c.A
Max. Discharge Current	277 d.c.A

General

Smart Meters Compatibility	BLUETTI S Meter & Shelly 3EM Pro & Everhome Eco Tracker IR
Weight	63 kg
Dimensions (L × W × H)	465 × 232.2 × 630 mm
Cooling Method	Air cooling
Operating Temperature	-20 °C to 50 °C (> 40°C Derating)
Cooling	Passive Cooling
Protection Rating	IP65
Noise Level	< 50 dB (max.) / < 40 dB (typical)
Relative Humidity	0 ~ 95% (non-condensing)
Max. Operating Altitude	≤ 2,000 m (< 2000m derating)
Battery Charge Cycles	8,000 to 70% remaining
PV Array Type	Floating (ungrounded)
Overvoltage Category	PV Side: Class II / AC Side: Class III
Communication	Bluetooth, Wi-Fi, CAN, RS485
Warranty	10 Years

Certifications & Compliance

Safety	EN/IEC62109.
	EN/IEC62109-1:2010
	EN/IEC 62109-2:2011
EMC	EN IEC 62619
	EN IEC61000-6-3:2021
	EN IEC61000-6-1:2019
Radio Frequency (RF)	ETSIEN 300328 V2.2.2(2019-07)
	ETSI EN 301489-1 V2.2.3(2019-11)
	ETSI EN 30189-17 V 3.3. (2024-09)
Ingress Protection	IEC 60529:1989+A1:1999+A2:2013
Grid Connection (Germany)	EN IEC 62619
Grid Connection (France)	EN 50549-1
	EN 50549-10 + French national deviations
Grid Connection (UK)	G99 / G98
Grid Connection (Netherlands)	Electricity Grid Code (10-06-2023)
Grid Connection (Italy)	CEI 0-21
Grid Connection (Hungary)	EN 50549-10 & -1 / IEC 62116
Grid Connection (Poland)	PTPiREE (2024-10-01)

*This datasheet covers Balco 500 standalone operation only.
Specifications for 3-unit parallel operation will be released in a future update.

Packing List

Balco 500 Balcony Solar System

					
Balco 500 Balcony Solar System	Top Cover	M5 x 12 Screw X4	M6 x 16 Screw	M8 x 60 Expansion Bolt	3-Pin Connector x 2 (1 blue, 1 black)
					
MC4 disassembly tool	Mounting bracket	Bidirectional AC Output Cable (3 m)	AC Output Cable (1 m)	Ferrule x 6	Quick Start Guide & Warranty Card