



Specifications for

Hybrid Inverter

EP2000

Version: V2.0

2025-08-23

Specifications

AC (Grid-tied)		
Item	Parameter	Note
Rated Output Apparent Power	20 kVA	
Wiring	3L/N/PE	
Rated Voltage	230/400 VAC	
Rated Output Current	29 A	
Input Frequency	50 Hz	
Max. Input Apparent Power	40 kVA	Bypass + Grid Charging
Max. Input Current	60 A	
Maximum Output Fault Current (Peak	131 A/100 us	
Output Inrush Current (Peak Duration)	830 A/75 us	
Maximum Output Overcurrent Protection	71 A	
Power Factor (PF)	0.8 leading - 0.8 lagging	
Current THD (Rated Power)	<3%	
Protection	Integrated residual current device , Anti-islanding protection, Output overcurrent protection, Short-circuit protection.	
AC (Off-grid)		
Item	Parameter	Note
Rated Output Apparent Power	20 kVA	
Wiring	3L/N/PE	
Rated Voltage	230/400 VAC	
Rated Output Current	29 A	
Output Frequency	50 Hz	
Output Voltage THD	<3%	Pure resistive load
Overload	1.1 times rated power, 10 minutes, 1.5 times rated power, 10 seconds.	
On and Off-grid Switching Time	<10 ms	
Protection	Integrated residual current device , Output overcurrent protection, Short-circuit protection, Over-temperature protection.	
PV Side		
Item	Parameter	Note
Maximum PV Input Power	30 kW	
MPPT Operating Voltage Range	160 V to 850 V	
Rated PV Input Voltage	500 V	
Maximum PV Input Voltage	1000 V	

PV start voltage	180 V	
MPPT Voltage Range for Full Load	500 V to 800 V	
Number/Array of MPP Tracker	2/2	4 routes
Maximum PV Input Current	30 A/30 A	15 A *4
Maximum PV Short-Circuit Current	40 A/40 A	20 A *4
Max. Inverter Backfeed Current to Array	0.005 d.c.mA	
Protection	Reverse polarity protection, Insulation resistance detection.	
Battery Side		
Item	Parameter	Note
Battery Chemistry	LiFePO ₄	
Rated Charging/Discharging Power	21 kW	
Battery Voltage Range	160 V to 800 V	Input current decreases with battery voltage below 200 V.
Maximum Charging/Discharging Current	60 A	Actual current subject to BMS strategy.
Charging Strategy	BMS Orders	
Efficiency		
Item	Parameter	Note
MPPT Efficiency	99.9%	
Max. Inverter Efficiency	98.0%	
European Efficiency	97.5%	
General		
Item	Parameter	Note
Max. Parallel Units	3	
Operation Temperature Range	-20°C to 60°C/-4°F to 140°F	Output decreases above 45°C/113°F
Relative Humidity	0%-95%	
Operating Altitude	≤4.000 m/13,123 ft	Output decreases above 2.000 m/6,561.68 ft
Degree of Protection	IP65	
Cooling	Fan cooling	
Noise Emission (Typical)	≤ 50dB (A)	
Self-consumption (At Night)	<15 W	
PV Array Type	Ungrounded PV array	
Topology	Transformerless	
Inverter Technology	Non-isolated	
Off-Grid Output Type	Float ground	
Protective Class	Class I	
Overvoltage Category	PV and Battery (II), AC (III)	

Active Anti-islanding Method	Frequency Disturbance	
Weight	60 kg/132.3 lb	
Dimensions (W × H × D)	670 mm × 280 mm × 460 mm /26.38 in × 11.02 in × 18.11 in	
Communication	The EP2000 inverter offers versatile connectivity options for device and system monitoring, such as RS485, Ethernet, Bluetooth, WLAN, and CAN. These ports allow for flexible configuration of parameters to optimize performance. Access all inverter data conveniently through the BLUEETTI App.	
Country of manufacture/assembly.	Made in China	
Warranty	10 years	
Compliance		
Safety	IEC 62109-1:2010, IEC 62109-2:2011, EN 62109-1:2010, EN 62109-2:2011.	
Grid Connections	VDE-AR-N 4105:2018-11, DIN VDE V 0124-100 (VDE V 0124-100):2020-06, TOR Erzeuger Typ A Version 1.2: 18 April 2022, OVE-Richtlinie R 25:2020-03-01, AS/NZS 4777.2: 2020+A1:2021+A2:2024.	
EMC	EN IEC 61000-6-3:2021, EN IEC 61000-6-1:2019.	
RoHS	Directive 2011/65/EU and (EU) 2015/863	
IP65	Refer to IEC/EN 62109-1:2010 clause 6.3 (Accordance with IEC 60529).	