

## B-BOXB - 51.2V - 314 Ah (with BMS)

**Warranty: 10,000 cycles OR 10 years**

<b>B-BOXB</b>	
Manufacturer	BCell Group
Battery Name	B-BOXB - 51.2V - 314 Ah
Warranty Duration	10,000 cycles OR 10 years
Technology	LiFePO <sub>4</sub> (Lithium Iron Phosphate)
Cell Configuration	16S
Nominal Capacity	314 Ah
Nominal Voltage	51.2 V
Nominal Energy	16.08 kWh
Nominal Energy (90% DoD)	14.47 kWh
Nominal Energy (80% DoD)	12.86 kWh
Nominal Energy (70% DoD)	11.25 kWh
Energy Density	180 Wh/Kg
Cycle Life (80% DoD / 25°C @ 0.5P / 0.5P)	12000 (@70% EOL)
<b>CONFIGURATION</b>	
Series Configuration	None
Parallel Configuration	Up to 16
<b>CHARGING</b>	
Charge C-rate (Recommended)	0.3 C
Charge C-rate (Maximum Continuous)	0.5 C
C-rate charge (Maximal 10 secondes)	0.65 C
Charge Current (Recommended)	90 A (0.3 C)
Charge Current (Maximum Continuous)	150 A (0.5 C)
Charge Current (Maximum 10 Seconds)	200 A (0.65 C)
Charge Voltage (Recommended)	57.4 V
Charge Voltage (Maximum)	58.2 V
Charge Voltage (Minimum)	53.6 V
<b>DISCHARGE</b>	

Discharge C-rate (Recommended)	0.3 C
Discharge C-rate (Maximum Continuous)	0.5 C
Discharge C-rate (Maximum 10 Seconds)	0.65 C
Discharge Current (Recommended)	90 A (0.3 C)
Discharge Current (Maximum Continuous)	150 A (0.5 C)
Discharge Current (Maximum 10 Seconds)	200 A (0.65 C)
Discharge Cut-off Voltage	41.6 V
Monthly Self-discharge Rate	≈ 3%
<b>TEMPERATURE</b>	
Charging Temperature (Min / Max)	0 °C / 50 °C
Discharging Temperature (Min / Max)	-10 °C / 50 °C
<b>MECHANICAL</b>	
Enclosure Type	Stainless Steel
Power Connections	M8 Studs (Maximum 15 Nm)
Protection Class	IP21
Cooling	Air
Dimensions (L * I * h)	414 * 268 * 900 mm
Total Weight	124 Kg (±5 Kg)
<b>SAFETY</b>	
Battery Management System (BMS)	Integrated Master / Slave BMS
Balancing	Active / Passive
Communication	Bus CAN / RS-485
Fire Protection System	Optional
Fuse	Internal Fuse 400A
<b>INTEGRATED BMS (200 A)</b>	
Number of Internal Cells in Series	16
Maximum Number of Batteries in Parallel	16
Power Consumption (Standby)	None
Power Consumption (Active)	< 40 mA
Overcharge Protection	210 A
Display	LCD

Communication Ports	Bus CAN / RS-485
Bluetooth monitoring	Yes
<b>STANDARDS</b>	
EMC : Emission	EN-IEC 61000-6-3
EMC : Immunity	EN-IEC 61000-6-1
Low Voltage Directive	EN 60335-1
Certifications	CE Compliant, RoHS Compliant
<b>OPERATING CONDITIONS</b>	
Operating Temperature Range	-10 °C / 50 °C
Humidity	95% Maximum (non-condensing)
<b>STORAGE CONDITIONS</b>	
Storage Temperature	< 35 °C
Humidity	< 80%

## Compatible Brands:



### Notes on Specifications

DoD = Depth of Discharge. It is recommended to maintain an average daily DoD of up to 80% for extended lifespan, and 50% average DoD for ultra-long lifespan. The maximum allowable DoD is 90%.

Voltage is compatible with various low-voltage DC inverters. Please contact Bcell Group or your supplier for assistance with pairing.

End of Life (EoL) is defined as a cell reaching 60% of its Beginning of Life (BoL) capacity for the expected lifetime, and 70% of BoL capacity for warranty purposes.

**B-CELL GROUP LTD**

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