

BBOX – 51.2V – 100Ah (with BMS)

Warranty: 6,000 cycles OR 6 years

B-BOX	
Manufacturer	BCell Group
Battery Name	BBox-51.2V-100Ah
Warranty Duration	6,000 cycles OR 6 years
Technology	LiFePO ₄ (Lithium Iron Phosphate)
Cell Configuration	16S
Nominal Capacity	100 Ah
Nominal Voltage	51.2 V
Nominal Energy	5.12 kWh
Nominal Energy (90% DoD)	4.61 kWh
Nominal Energy (80% DoD)	4.10 kWh
Nominal Energy (70% DoD)	3.58 kWh
Energy Density	≥ 160 Wh/Kg
Cycle Life (80% DoD / 25°C @ 0.5P / 0.5P)	≥ 6000 (@70% EOL)
CONFIGURATION	
Series Configuration	None
Parallel Configuration	Up to 16
CHARGING	
Charge C-rate (Recommended)	0.3 C
Charge C-rate (Maximum Continuous)	0.5 C
C-rate charge (Maximal 10 secondes)	1 C
Charge Current (Recommended)	30 A (0.3 C)
Charge Current (Maximum Continuous)	50 A (0.5 C)
Charge Current (Maximum 10 Seconds)	100 A (1 C)
Charge Voltage (Recommended)	55.1 V
Charge Voltage (Maximum)	≤ 56.4 V
Charge Voltage (Minimum)	53.6 V

DISCHARGE	
Discharge C-rate (Recommended)	0.3 C
Discharge C-rate (Maximum Continuous)	0.5 C
Discharge C-rate (Maximum 10 Seconds)	1 C
Discharge Current (Recommended)	30 A (0.3 C)
Discharge Current (Maximum Continuous)	50 A (0.5 C)
Discharge Current (Maximum 10 Seconds)	100 A (1 C)
Discharge Cut-off Voltage	41.5 V
Monthly Self-discharge Rate	≈ 3%
TEMPERATURE	
Charging Temperature (Min / Max)	0 °C / 50 °C
Discharging Temperature (Min / Max)	-10 °C / 50 °C
MECHANICAL	
Enclosure Type	Stainless Steel
Power Connections	M8 Studs (Maximum 15 Nm)
Protection Class	IP20 — optional IP21 available
Cooling	Air
Dimensions (L * I * h)	460 * 353 * 225 mm
Total Weight	54 Kg (±5 Kg)
SAFETY	
Battery Management System (BMS)	Integrated Master / Slave BMS
Balancing	Passive
Communication	Bus CAN / RS-485
Fire Protection System	Optional
Fuse	Internal Fuse 200A
INTEGRATED BMS (100 A)	
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	105 A

Display	LCD
Communication Ports	Bus CAN / RS-485
Bluetooth monitoring	Yes
STANDARDS	
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
OPERATING CONDITIONS	
Operating Temperature Range	-10 °C / 50 °C
Humidity	95% Maximum (non-condensing)
STORAGE CONDITIONS	
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

E-mail : sales@bcellgroup.com

www.bcellgroup.com