

Technical Specifications 1.4

LITHIUM IRON PHOSPHATE BATTERY

48V LiFePO₄



OPERATING CONDITIONS	
Nominal Voltage	51.2 V
Nominal Capacity	25 Ah
Total Energy	1.4 kWh
Impedance	50 mΩ
Self Discharge	~3% per month
Cycle Life at 100% DoD@ 0.2C	5,000 cycles
Series connection	1
Parallel Connection	10

MECHANICAL	
Chemistry	Cylindrical – LiFePO ₄
Case Dimensions	L330xW170xH240(mm)
Weight	Circa 15 kg
Terminal Type	M8 brass threaded insert
Terminal Torque	≤5 Nm
Casing Type	V0 Plastic Case
Casing IP	TBC
Communication	RS485 via USB-A port

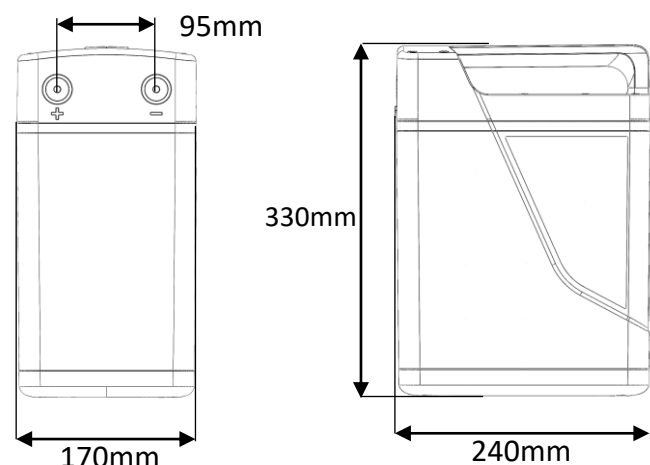
DISCHARGE	
Standard Continuous discharge	10 A (20+ min)
Maximum Continuous Discharge Current	25 A (10 min)
Peak Discharge Current	30 A (1 min)
PCM Discharge Current Cut-off	40 A (3 seconds)
Max Solar Recommended Low Voltage Disconnect	42 V
Short Circuit Protection	200-500μs

BATTERY MANAGEMENT	
BMS Type	Passive
BMS Location	Internal
Balance Current per Cell	50 mA
Overcharge / Discharge Current	40 A

CHARGE	
Charge/discharge efficiency	>97% @ 0.5C
Recommended Charge Current	10 A
Peak Charge Current	25 A
PCM Charge Current Cut-Off	28 A

SAFETY	
Transportation Classification	UN3480, Class 9
Battery Certification	CE, UN38.3, RoHS
UN Certification (Cells)	UN38.3

TEMPERATURE	
Storage Temperature	-20 to 60°C
Discharge Temperature Range	-10 to 60°C
Charge Temperature Range	0 to 45°C



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DISCHARGE SPECIFICATIONS	
Nominal Voltage	51.2 V
1 second rate constant power to 10.5 V at 20°C	2048 W/40 A
1 min rate constant power to 10.5 V at 20°C	1536 W/30 A
10 min rate constant power to 10.5 V at 20°C	1280 W/25 A
20+ min rate constant power to 10.5 V at 20°C	512 W/10 A
Short circuit current	+40 A BMS regulated
10 hr rate capacity to 10.5V	23.53 Ah





CHARGE SPECIFICATIONS	
Bulk Charge Voltage	56.8-58.4 V
Float charge Voltage*	56.8-58.4 V
Cyclic (or boost charge) at 20°C	N/A
Charge current	10 A recommended
Charge current peak	25 A max
Charge time at 12 A Bulk charge to 29.2V	2.5 hours
Charge time at 12 A Bulk charge to 28.8V	2.25 hours

* Lithium iron phosphate batteries do not require a float charge hence the bulk charge voltage and float charge voltage are the same

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LITHIUM IRON PHOSPHATE BATTERY

The Advantage

-  **Same Group size, New Voltage**
48V 25Ah
-  **High Performance**
25A continuous current to 40A surge
-  **Greater flexibility**
Available in 12,24 &48V, Easy maintenance,
Upgrade
-  **Improved Usability**
Easy carry handle