

Battery Management System

Lithium battery technology



BMS

-Total control of lithium battery technology

The Battery Management System allows for optimal charge and discharge control of every single cell, cell temperature control and cell balancing of each single cell.

The Battery Management System uses a triple security system based on a combination of software and hardware security. The system is equipped with an analogue and digital fuel gauge output that makes it possible to add a sophisticated display showing all relevant data about the lithium battery pack.

As an extra service feature the BMS models are equipped with a diagnostic output system which can be accessed from a laptop. It provides an extensive update on the system, information about the status of the lithium battery, information about battery health, statistics of the charge cycles as well as other features.

Models:

Battery Management Systems

12VDC - BMS 4C / 4CF

24VDC - BMS 8C / 8CF

36VDC - BMS 12C / 12CF

48VDC - BMS 15C / 15CF

60VDC - BMS 19C / 19CF

72VDC - BMS 23C / 23CF

C - Conventional cooling

CF - Fan cooling



Data

Model	4C / 4CF	8C / 8CF	12C / 12CF	15C / 15CF	19C / 19CF	23C / 23CF
Amount of Cells	4	8	12	15	19	23
Nominal Voltage	12VDC	24VDC	36VDC	48VDC	60VDC	72VDC
Min Voltage	8VDC	16VDC	24VDC	30VDC	38VDC	46VDC
Max Voltage	18VDC	34VDC	54VDC	65VDC	84VDC	98VDC
Cells						
Cell Voltage Range	0.8 – 4.5 Volt					
Cell Voltage Accuracy	+/- 5mv					
Cell Balance Current	0 – 1.5A @ 4V/Cell					
Algorithms for	LiFePO4 (TS-LFP series)					
Mosfet Switch						
Continuous Current	200A / 300A	150A / 300A	140A / 300A	140A / 270A	125A / 250A	125A / 250A
Peak Current 10Sec.	600A	500A	500A	500A	400A	400A
Peak Current 1Sec.	1000A	1000A	800A	800A	800A	800A
Cooling	Models: C - Conventional - Model: CF - Fan					
Interfaces						
Inputs	4 Inputs (High / Low)					
Outputs (Program able)	4 Outputs (Open Collector)					
Analogue Output	1 Output (0-10V / SOC)					
CAN	2 Modules (125,250,500Kbps – SAE J1939)					
USART	9600Baud (CP Single wire Topology and Protocol)					
Thermal management						
Operating Temperature	-20°C to +50°C					
Cooling	Models: C - Conventional - Model: CF - Fan					
Enclosure						
Dimensions (LxWxH)	315x186x67					
Weight	4 kg					
Protection Category	IP 54					
Safety						
Approvals	EN55022, Class B – 2004/104/EC – 2002/95/EC					