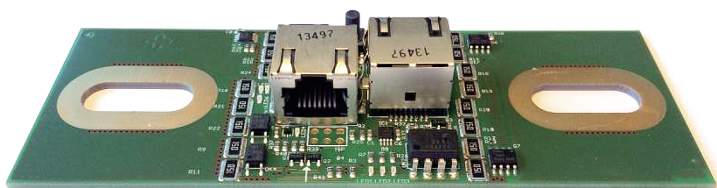


# essMoni® BMS Data sheet

essMoni® BMS is a battery management system for monitoring and diagnosis of Lithium-Ion based battery cells. Each individual cell is monitored and for safety reasons an emergency load disconnect is engaged if one of the cells reaches a voltage below the configurable threshold. The wiring is very simple. Only one bus cable is needed to connect all the units. The balancing mechanism ensures an equal voltage level across all cells. All important data like voltages, temperatures and failure of each individual cell and the current state of charge can be displayed. These data are also saved on a micro SD-card for long term data collection. Via internet, an online monitoring of the battery and every single cell is possible. Diagrams of cell voltage and temperature can be displayed.



essMoni® BMS cell unit



essMoni® BMS control unit

Cell-Units	
Max. cell voltage [V]	4,5 V DC
Min. cell voltage [V]	2,8 V DC
Measurement of temperature	Per cell
Balancing current [A]	Ca. 4,5 A DC
Balancing threshold	2,8 – 4,0 V DC
Bus power	5 V DC 10mA/Zelle
Control-Unit	
Baud rate	9600
Bus power	5 V DC
Isolated communication	Yes
Max count of cell units	246
Wiring	CAT 5 Patchkabel
Bus technology	RS 485
Internal Protocol	Modbus RTU
External protocol	CANBUS
Supply voltage for control unit	12/24 V DC
Supply current for control unit	190/95 mA DC
connections	Bitte Datenblatt entnehmen

essMoni® BMS technical overview