

Smart Battery Management System (Smart BMS): LFP-4S-100A

Configurable From 4S To 8S

General Specifications

Product Name	BMS4S-100A
Model No.	SQ4-8-100A V8.10
Type of BMS	Smart
Cell Chemistry	LFP
Number of cells in series	4 to 8
Communication	RS485
Temperature Sensor	4 (Cells) +1 (MOSFET) +1 (AMBIENT)
Application	Inverter
Dimension	214X80X18mm

Technical Specifications

Cycle	Functions	Conditions	Specification			Unit	Remark
			Min	Typical	Max		
Charging	Over Charge Protection	Over Charge Voltage Protection	3.60	3.65	3.70	V	Configurable
		Over Charge Protection Delay	3	5	7	S	Configurable
		Over Charge Protection Release Voltage	3.50	3.55	3.60	V	Configurable
		Over Charge Release Protection Delay	9	10	11	S	
	Balancing Function	Balance Start Voltage	3.25	3.30	3.35	V	Configurable
		Balance Current	140	180	220	mA	
		Delta Voltage among cells (on which balancing starts) *	45	50	55	mV	
	Charge Current Protection	Normal Charging Current	50			A	
		Charging Over Current	51	-	79	A	Configurable
		Charging Over Current Detection Delay	3	4	5	S	Configurable
		Charging Peak Current	≥80			A	Configurable
		Charging Peak Current Detection Delay	2			S	Configurable
		Charging Over Current Release Delay	59	60	61	S	
	Temperature Protection During Charge	High Temperature	58	60	62	°C	Configurable
		High Temperature Recovery	53	55	57	°C	Configurable
		Low Temperature	-12	-10	-8	°C	Configurable
		Low Temperature Recovery	-7	-5	-3	°C	Configurable
		Temperature Cut-off Delay	1	2	3	S	
Discharging	Over Discharge Protection	Over Discharge Protection Voltage	2.65	2.7	2.75	V	Configurable
		Over Discharge Protection Delay	8	10	12	S	Configurable
		Over Discharge Protection Release Voltage	2.8	2.85	2.9	V	Configurable
		Over Discharge Release Protection Delay	1			S	
	Discharge Current Protection	Max Constant Current	100			A	Configurable
		Discharging Overcurrent Protection-1	101	-	150	A	
		Discharging Overcurrent Detection Delay-1	9	10	11	S	
		Discharging Overcurrent Protection-2	151	-	200	A	Configurable
		Discharging Overcurrent Detection Delay -2	3	4	5	S	Configurable
		Discharging Overcurrent Protection-3	≥201			A	Configurable
		Discharging Overcurrent Detection Delay -3	1			mS	Configurable
		Discharging Overcurrent Release Delay	29	30	31	S	Configurable
	Temperature Protection During Discharge	High Temperature	63	65	67	°C	Configurable
		High Temperature Recovery	58	60	62	°C	Configurable
		Low Temperature	-12	-10	-8	°C	Configurable
		Low Temperature Recovery	-7	-5	-3	°C	Configurable
		Temperature Cut-off Delay	1	2	3	S	

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Short Circuit Protection	Short Circuit Protection	Enabled		
	Short circuit current (approximate)	550	A	
	Short Circuit detection time (approximate)	75	μ S	
	Short Circuit Recovery	Load removal		

