Product specification

Type: Battery Protection Board

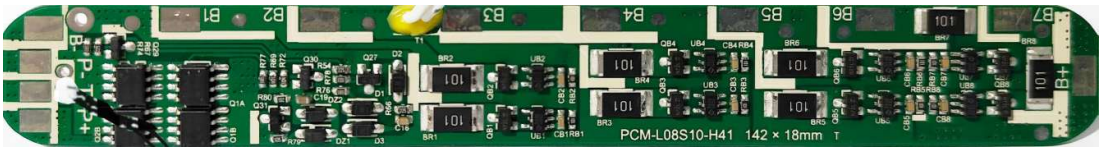
Name: 8S LiFePO4 Battery Protection Board

Model: PCM-L08S05-H41

1.Production description:

■ Product Part Number:

PCM-L08S05-H41 is a protection management system specifically designed for 8 series LiFePO4 rechargeable batteries.



■ **Features:**

- It has multifunctional safety protection of over charge, over discharge, over current, short-circuited, temperature. (detailed as below parameters)
- It has balancing function under the state of charging.
- The FET temperature is lower than 100°C after discharging for over 1 hours at 7A under ambient temperature 30°C.

2. Configuration:

Function	Configuration
Number of strings supported	8S
Continuous current	7A
Number of NTC / temperature switches	2 way external
Balance Function	Yes, passive equilibrium
Battery packs in series	Not supported
Battery packs in parallel	Not supported

3. Max Applicable Range:

- **Impedance and Current:**

NO	Items		condition	Remarks
1	Impedance		≤10mΩ	Resistance from B- to P-
2	Current consumption	Operation mode	≤50uA	The actual self - Power consumption is constantly beating and should be the average

- **Nominal parameters:**

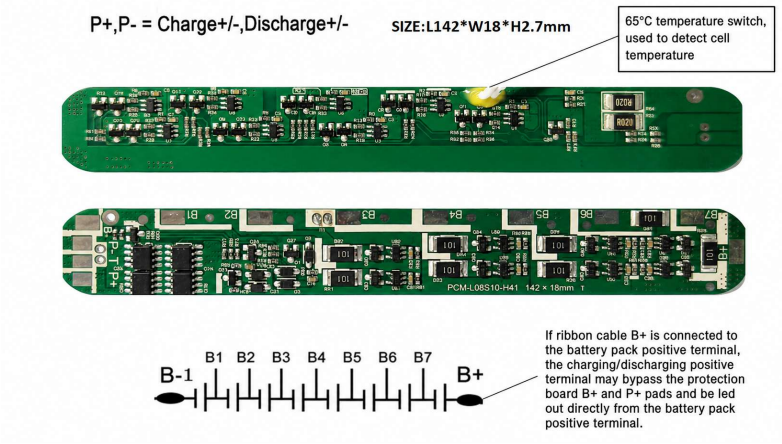
Item	Terminals	Nominal value	Unit
Charge voltage	P+,P-	28.8	**V**
Continue charge current	P+,P-	7	**A**
Continue discharge current	P+,P-	7	**A**
Input voltage for terminals	B-.....B+	5	**V**
Work temperature	-	-20 ~ +65	**°C**
Storage temperature	-	-40 ~ +125	**°C**
Work humidity	-	<65	**%RH**
Storage humidity	-	<85	**%RH**

4. Detailed parameters (Test at normal temperature 25±2°C and relative humidity≤90%):

- **Basic protection item from PCM:**

NO	Item		Protection parameters	Notes
1	Single-section overcharge protection	Overcharge protection	3900mV±50mV	
		Overcharge protection delay	0.5S-2S	
	Single-session overcharge is lifted	Overcharge lifted	3500mV±100mV	
2	Single-section over-discharge protection	Over-discharge protection	2000mV±100mV	
		Over-discharge protection delay	10ms-200ms	
	Single-section over-discharge recovery	Over-discharge recovery	2500mV±100mV	
3	Overcurrent Discharge	Overcurrent Discharge	20A±3A	
		Discharge overcurrent delay	5ms±60ms	
		Discharge overcurrent recovery	Disconnect load recovery	
4	Short-circuit protection	Short-circuit protection	External short circuit	
		Short-circuit protection delay	≤800us	
		Short-circuit protection recovery	Disconnect load recovery	
5	Temperature protection	High discharge temperature	65±5°C	
		Discharge high temperature delay	2s±0.5s	
		Discharge high temperature recovery	48±12°C	
8	Cell Balancing	Cut-in voltage	3.6±0.10V	
		Balance current	36±10mA	
9	(L*W*H) Dimensions	L142*W18*2.7mm		

5. PCB Port distribution and definition:



port	Terminal No	Descriptions
	B-	Negative terminal for cell 1
	B1	Positive terminal for Cell1 and negative terminal for Cell2
	B2	Positive terminal for Cell2 and negative terminal for Cell3
	B3	Positive terminal for Cell3 and negative terminal for Cell4
	B4	Positive terminal for Cell4 and negative terminal for Cell5
	B5	Positive terminal for Cell5 and negative terminal for Cell6
	B6	Positive terminal for Cell6 and negative terminal for Cell7
	B7	Positive terminal for Cell7 and negative terminal for Cell8
	B8	Connect to the positive of the Cell8

Note: The connection between cells and PCB should be followed this order: B-.....→B+, Or it will cause potential damage to the BMS if not go by this connection order.

Warranty clause

The warranty period of this product is 12 months, during which, any damage under normal usage should be within warranty service by AA Portable Power Corp. Any damage caused by below abnormal conditions should be not covered by the Warranty policy.

1. **Incorrect operation or use**
2. **The use of environmental conditions exceeds the specifications**
3. **Unauthorized disassembly and maintenance**
4. **Human deliberate destruction**
5. **Water or dampness**
6. **Irresistible natural factors**
7. **PCB bar code damage or tear**

Important notifications

Only AA Portable Power Corp has the right to change and update this specification datasheet. And will not inform the customer when changing and updating to new version. The customer should get the latest information before the order, and confirm whether the latest information can meet the current use.