



# **DALY Dongguan Daly Electronics Co.,Ltd**

## Product Specification Confirmation

**Product Model:** DL-24B-L20S060ATJ-MM00  
**Customer Name:** \_\_\_\_\_  
**Customer P/N:** \_\_\_\_\_  
**Product Name:** Li-ion 20s 72V 60A Common port  
**Version:** \_\_\_\_\_  
**Company P/N:** \_\_\_\_\_  
**Sample send date:** \_\_\_\_\_

Confirmation		
Verified	Approved	Operation

Customer Acknowledgement
Remarks:   <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <span>Sign:</span> <span>Date:</span> </div>

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Note:

1. After receiving the prototype confirmation, please return it in time. There is no return and problem feedback within 7 days. Our default customer test is qualified;

The picture in the book is a general-purpose model picture, which may be different from the sample delivery machine. This specification book reaches the final interpretation right of Lithium Electronics.

2. Before the customer batches, please sign and return in the specification, and explain the detailed function description.

## 1. Product Summary:

- Adopt foreign premium IC in class A protection.
- Use professional high current trace design and process to withstand large current surge.
- Complete overcharge, over discharge, over current, short circuit function.

## 2. Electrical Parameters:

	Description	Specification	Unite	Remarks
<b>Discharge</b>	Continue discharge current	60	A	
	Sparkle current	260	A	
<b>Charge</b>	Charge voltage	73	V	
	Charge current	60 (MAX)	A	
<b>Over charge protection</b>	Over charge detect voltage	$4.25 \pm 0.05$	V	
	over charge protection delay	0.5	S	
	over charge release voltage	$4.19 \pm 0.05$	V	
<b>Balance</b>	Balance detect Voltage	/	V	
	Balance release voltage	/	V	
	Balance current	/	mA	
<b>Over discharge protection</b>	Over discharge detect voltage	$2.8 \pm 0.1$	V	
	Over discharge detect delay	20	mS	
	Over discharge release voltage	$2.8 \pm 0.1$	V	
<b>Over current protection</b>	Over current detect voltage	/		
	Over current detect delay	100	MS	

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	Over current protection current	260±30	A	as required
	Over current protection release condition	Off load		
<b>Short Circuit protection</b>	Short Circuit protection condition	Short circuit of external load		
	Short circuit detect delay	250	uS	
	Short circuit protection release condition	Off load		
<b>Temp Protect</b>				No
<b>Inner Resistance</b>	Main Circuit Conduct Inner resistance	≤20	mΩ	
<b>Self Consumption</b>	Working current	≤100	uA	
	Sleeping current(when in discharge)	≤20	uA	
<b>Working Temp</b>	Temp range	-20/+70	℃	

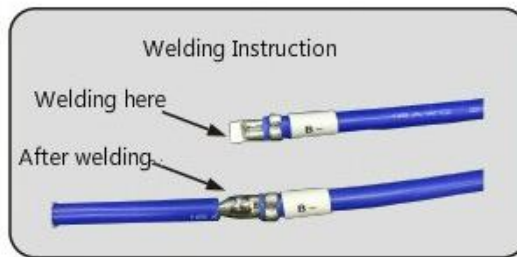
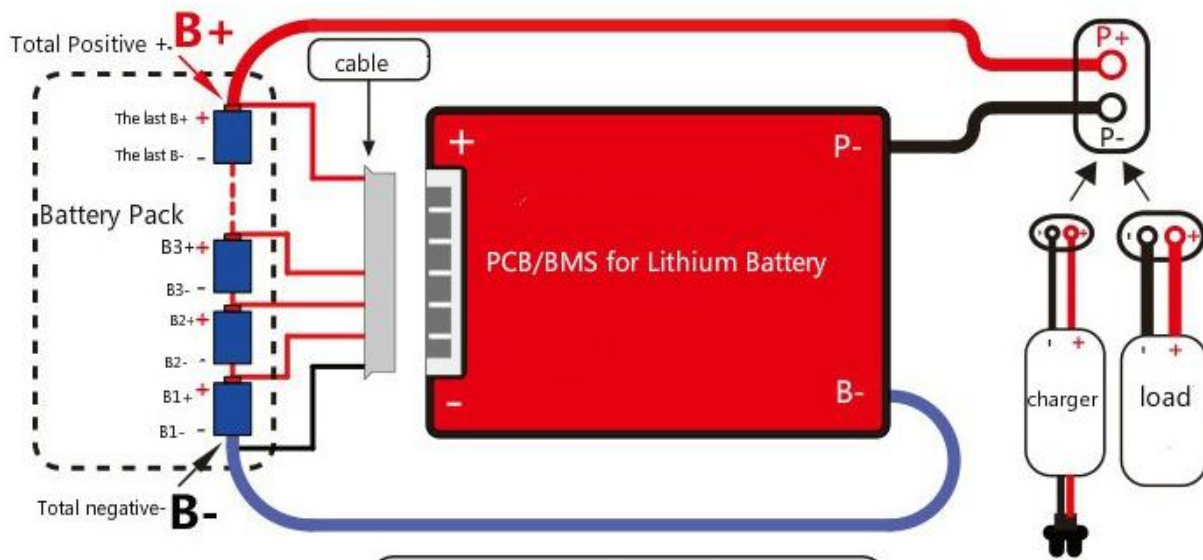
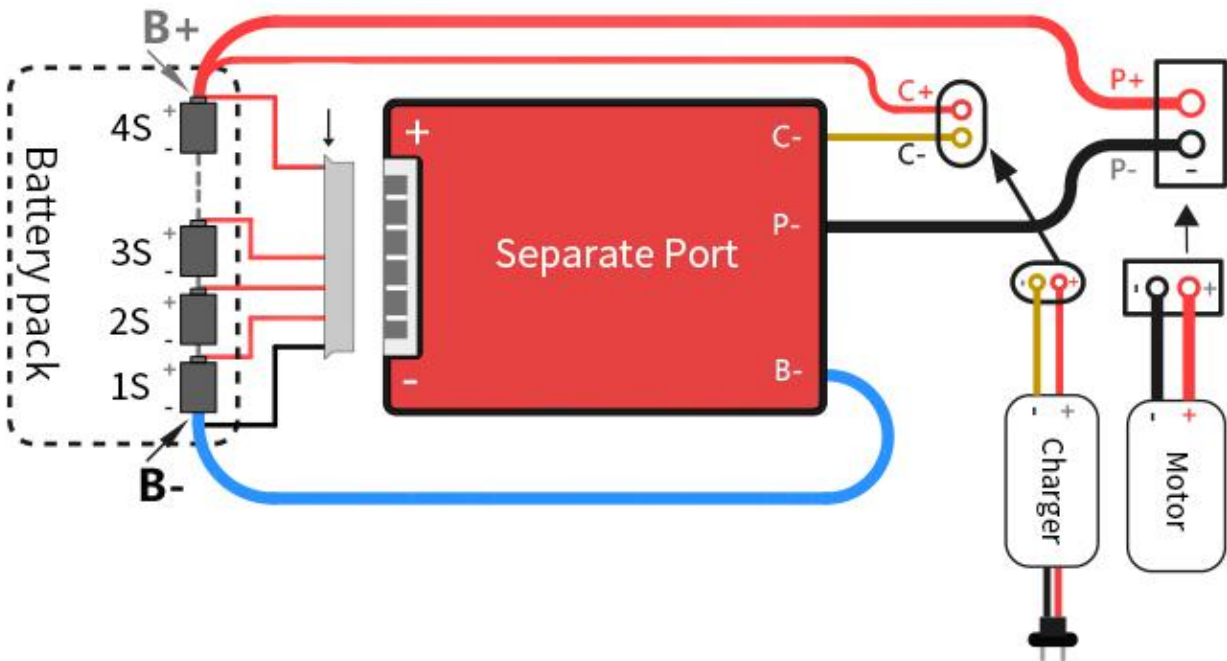
### 3. BMS wiring

#### (1). Product picture



#### (2) . Wiring diagram

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### (3).Wiring operation

- (1) First connect the B-line of the protection board to the total negative pole of the battery pack;
- (2) The cable starts from the thin black line connecting B-, the second line connects the positive

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pole of the first string of batteries, and the next string is connected in turn.

The positive pole of the pool; then insert the cable into the protection board;

(3) After the wiring is completed, measure whether the battery B+, B-voltage and P+, P-voltage values are the same, the same, that is, the protection board works positively. otherwise please follow the above re-operation;

(4) When removing the protection board, first pull out the cable (if there are two cables, pull the high-voltage cable first, then pull the low-voltage cable), then remove Power line B-.

## 4. Warranty

All our produced Lithium battery BMS, we guarantee 3 years warranty in quality, if the damage is caused by human improper operation, we will conduct repair with charge

## 5. Attention Items

1. Lithium battery BMS with different voltage platform can not be used mutually, eg., Life Po4 BMS can not be used for Li-ion battery.

2. In utilization, please to make sure to Follow up the designed parameter and utilization conditions.

3. Charge and discharge current can not be higher than the quoted current value in specification.

4. Please to utilize the BMS in the the regulated working temperature range, and make sure of the well heat dissipation environment.

5. No self taking off and change parts in BMS.

6. Our product has the function of waterproof, but still suggest avoid of long time water immersion.

7. We conduct Anode Oxidation process in BMS dissipation plate, but when the Oxidation layer destroyed, it still may electricity conductive, it is still suggest to avoid Dissipation plate contact with Cell and Nickel band.

8. If the protection board is abnormal, please stop using it, and then solve the problem and use it again;

9. Do not use two protective plates in series or in parallel.

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**NOTE:**

Our products undergo strict factory inspection tests, but because the environment used by customers is different (especially at high temperatures, Ultra-low temperature, under the sun, etc.), it is inevitable that there will be a protection board failure, so customers need to be friends when choosing and using the protection board.  
Use in a good environment, and choose a certain amount of protection board.