

# Protection Circuit Module

## PCM / BMS / PCB

For 44.4V 12S Li-ion/Li-Polymer Battery Packs

Item		Contents	Criteria(Adjustable)
1	Model	HCX-D482L12S120A-08 / 77905	12S-120A working current
2	Voltage	Charging voltage	50.4V
3	Current	Maximal continuous charging current	120A
		Maximal continuous discharging current	120A
		Current consumption	≤50μA
4	Overcharge Protection	Over charge detection voltage	4.25V±0.02V
		Over charge detection delay time	1S
		Over charge release voltage	4.05V±0.05V
5	Over Discharge Protection	Over discharge detection voltage	2.70V±0.05V
		Over discharge detection delay time	1S
		Over discharge release voltage	2.90V±0.1V
6	Over Current Protection (1st Protection)	Over current detection current	240A±25A
		Detection delay time	700mS
		Release condition	Cut load, automatically recover
7	Over Current Protection (2nd Protection)	Over current detection current	338A±35A
		Detection delay time	350mS
		Release condition	Cut load, automatically recover
8	Temperature Protection (Multi NTC's are available)	Charge overtemperature protection	50°C
		Discharge overtemperature protection	70°C
		Charge undertemperature protection	-5°C
		Discharge undertemperature protection	-20°C
9	Short Circuit Protection	Short circuit detection current	≥960A
		Detection delay time	360uS
		Release condition	Cut load, automatically recover
10	Balance	Balance voltage for single cell	4.20V±0.025V
		Balance current for single cell	126mA±15mA
11	Resistance	Inner resistance	≤20mΩ
12	Temperature	Operating temperature range	0 ~ +85°C
		Storage temperature range	0 ~ +85°C
13	Size (L*W*H)	L220mm*W120mm*H32mm	

Note: Characteristics subject to change without notice

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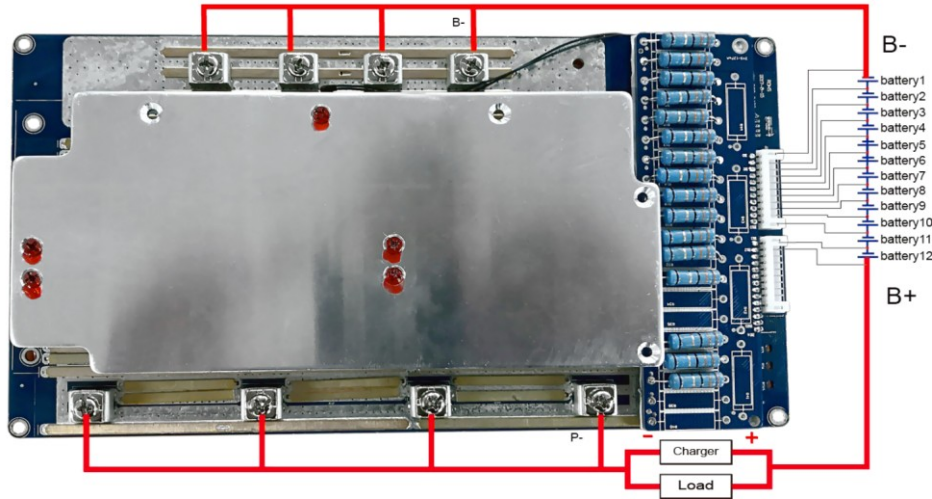
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Connection Diagram:

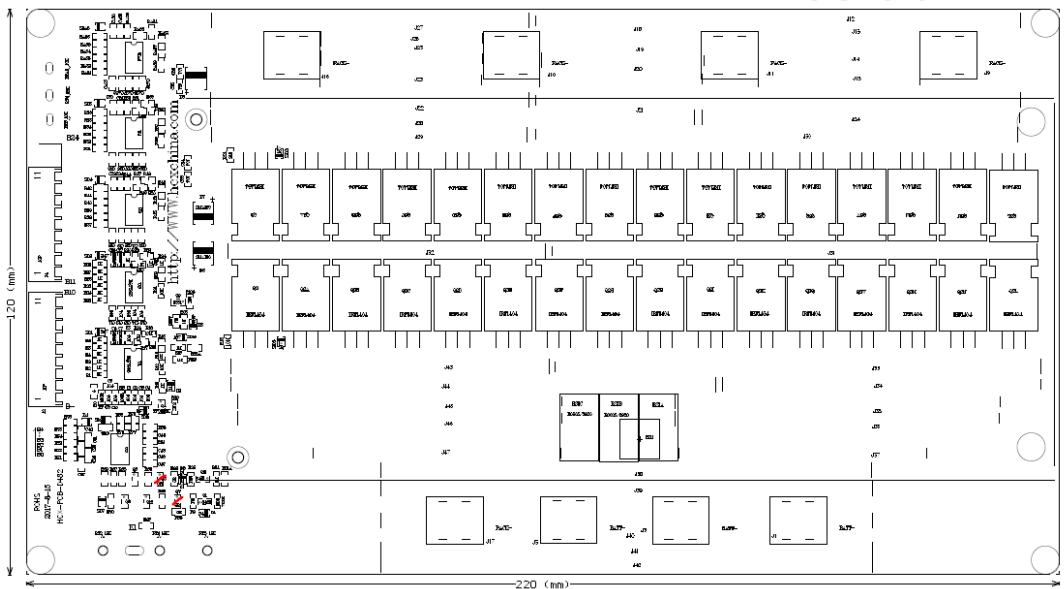


Remarks:

Charge, Discharge at same Port  
 P+=B+/Charge+/Discharge+  
 P-=Charge-/Discharge-

\* BMS without E-Switch//ON-OFF Switch

PCB Layout:



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