

Protection Circuit Module Specifications For 12.8V LiFePO4 Battery Packs		
Model: PCM-L04S30-566 (LFP-4S)		
No.	Test item ($T_a = 25^\circ C$)	Criterion
1	Voltage	Charging voltage
		DC: 14.2V CC/CV (3.55V/cell)
2	Current	Balance voltage for single cell
		3.6V±0.03V
		Balance current for single cell
		72mA±5mA
3	Over charge Protection (single cell)	Current consumption for single cell
		≤20 μA
		Maximal continuous charging current
	Maximal continuous discharging current	20A
	Over charge release voltage	30A
4	Over discharge protection (single cell)	Over charge detection voltage
		3.90±0.025V
		Over charge detection delay time
5	Over current protection	Maximal continuous discharging current
		2.0±0.05V
		Over discharge detection voltage
		100—200mS
	Over discharge detection delay time	2.3±0.05V
6	Over current protection	Over current detection voltage
		0.6±0.1V
		Over current detection current
		90-110A
7	Resistance	Detection delay time
		5ms—15ms
8	Temperature	Release condition
		cut load
		Detection condition
6	Short protection	Exterior short circuit
		Detection delay time
		100-500us
7	Resistance	Release condition
		cut load
8	Temperature	Protection circuitry (B- TO P-)
		≤30m Ω
8	Temperature	Operating Temperature Range
		-40~+85°C
		Storage Temperature Range
		-40~+125°C

P-=Charge-/Discharge- Size:L60*W60*T5mm

The photograph shows the physical hardware of the PCM-L04S30-566 module. It is a red printed circuit board (PCB) with a complex layout of electronic components. Four battery terminals are visible at the bottom, labeled B-, B1, B2, B3, and B+. A white ribbon cable is attached to the top right. Below the photograph is a schematic diagram illustrating the connection of four batteries in series. The schematic shows a horizontal line with four vertical branches. The leftmost branch is labeled 'B-' at its top end. The other three branches are labeled 'Battery1', 'Battery2', 'Battery3', and 'Battery4' from left to right. At the far right end of the horizontal line, there is a terminal labeled 'B+'. This represents a 12.8V connection (4x 3.2V batteries in series).