



Guangdong Meishang New Energy Co.,Ltd

48V/100AH

**Telecommunication base station
lithium battery System proposal**

Catalogue

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Customer requirement

Battery pack system basic requirement

System rated voltage	48V
System voltage capacity	100Ah
System rated power	4.8KWh
Battery system layout space	Box size: 442*450*177mm(宽W*深D*高H)
Charging current range	0~100A
放电电流范围discharge current range	0~100A
充电限流 charge limit current	10A
使用场合/用途 applicaton	机房通讯电源 communication power of machine
电气件要求BMS requirment	BMS(保护板) protection plate
充放电类型 charge and discharge type	Same port
Communication mode	RS232, RS485*2

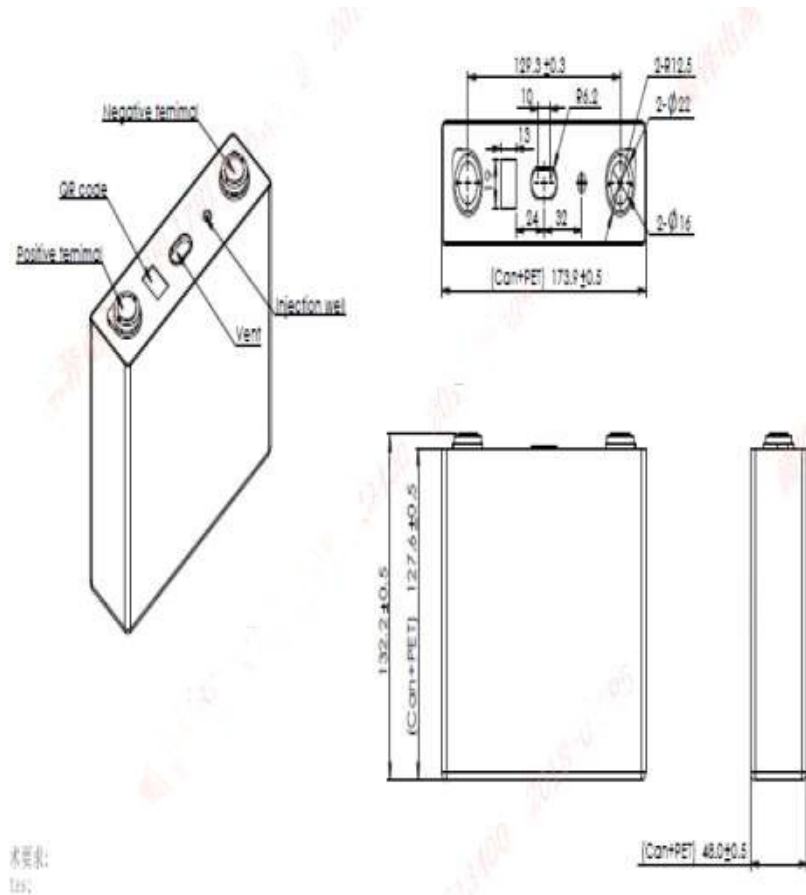
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Single cell

电池类型Cell type	磷酸铁锂(方型铝壳)LFP
电池型号Cell model	FFH4D3
标称电压nominal Voltage	3.2V
标称容量nominal capacity	100AH
工作电压范围working voltage range	2.5V-3.65V
内阻internal resistance	$\leq 0.35\text{m}\Omega$ (new cell 150%SOC state)
单体重量single cell weight	$\leq 2.25\text{kg}$
工作温度(充电) working Tem (charge)	0~55℃
工作温度(放电) working Tem (discharge)	-20℃~55℃
标准充电电流nominal charge current	0.5C, 25℃
标准放电电流 nominal discharge current	0.5C, 25℃
Single cell size	$(48\pm 0.5) * (173.9\pm 0.5) * (132.2\pm 0.5)$ (mm)

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Battery scheme - cell structure and size



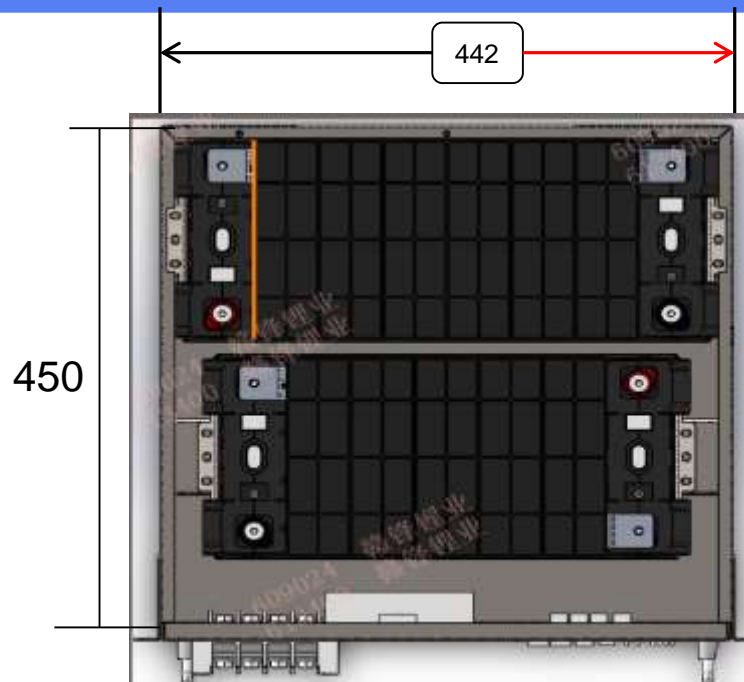
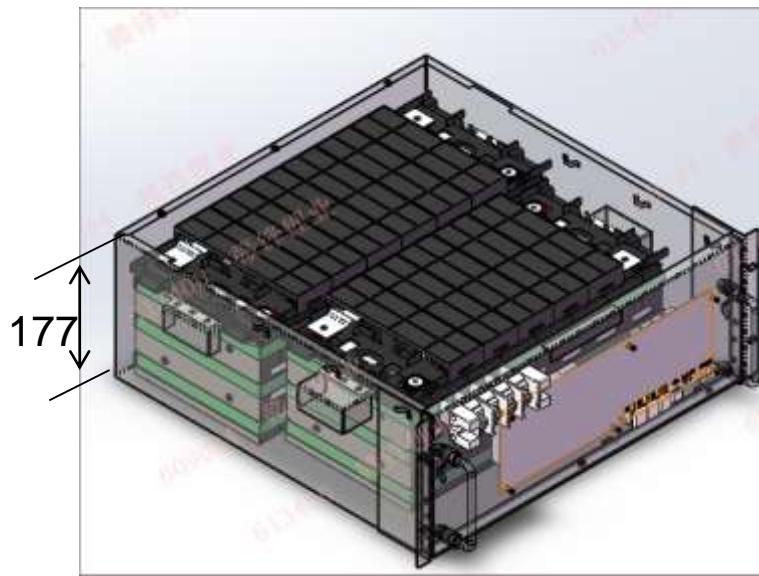
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Battery scheme -- battery system matching parameters

系统额定电压system rated voltage	48V
系统额定容量system rated capacity	100AH
系统常温电压范围system normal tem voltage range	37.5V~54.7V
电池组串并数battery module series-parallel	1P15S
电池系统重量battery pack system weight	50KG ()
电池箱体尺寸battery box size	442*450*177mm(宽*深*高)
系统工作环境温度system working ambient Tem	-20℃~55℃ (放电温度) 0℃~55℃ (充电温度)
系统电量 system power	4.8KWh

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Structure plan -- box size diagram

**Explain:**

1. 整个电池系统规格：48V100Ah，额定电量4.8KWh；

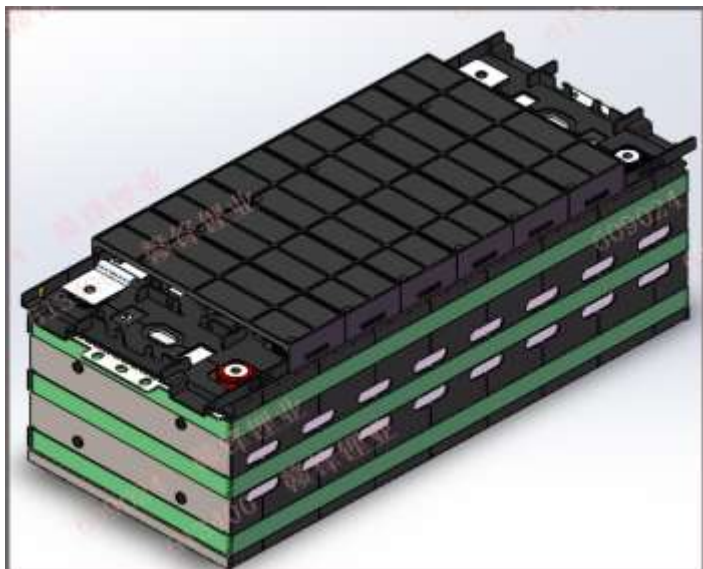
Whole battery pack system spec :48V100ah ,rated power 4.8kwh

2. 整个电池系统由2个模组串联组成，共1P15S；

Whole battery pack system is series-parallel of two modules, 1P15S in total

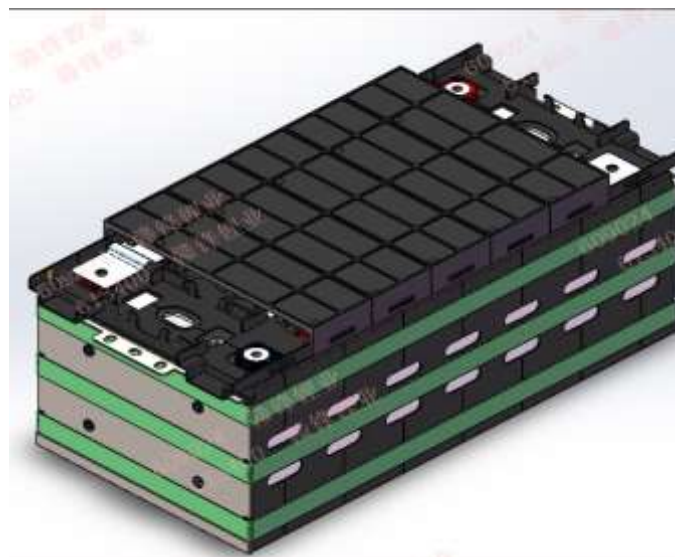
3. 电池包尺寸battery box size (mm)： **442*450*177mm**(宽W*深D*高H)。

4. 面板含1个4位接线端子，BMS通讯端口，复位，功能按键 panel contains one pcs of four-position terminal blocks ,BMS communication port,unset,function key pad



8S1P模组 Module

尺寸size:433*179*154mm



7S1P模组 Module

尺寸size: 384.3*180*154 mm

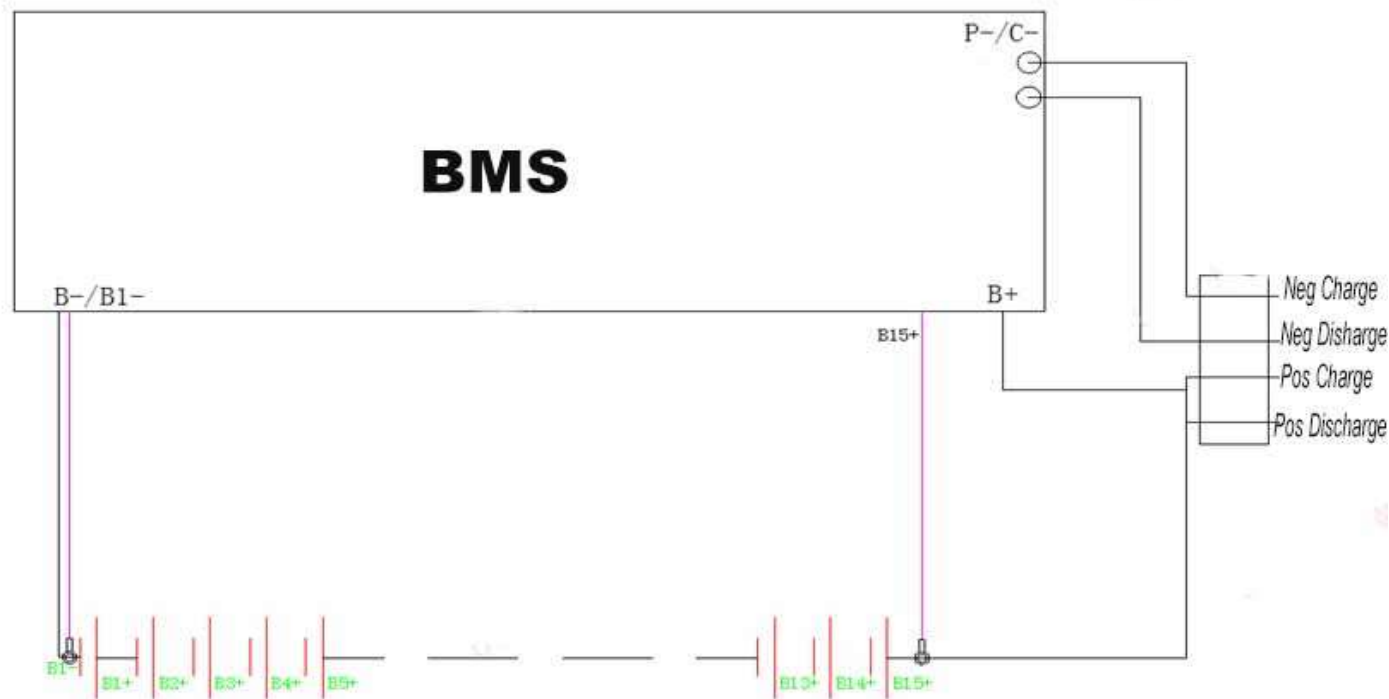
说明：

1. 模组组装方式：电芯嵌入塑胶支架内，高度绝缘；钣金端板通过聚酯扎带扎紧将塑胶箱体及电芯固定；； Module assembly: battery cell is embedded into the plastic bracket, and high insulation: the sheet metal end plate is fastened by polyester binding belt to fix the plastic frame and battery cell production process is simplified

2. 电芯串接方式：电芯极柱为螺纹极柱，铝排（汇流排）采用组合螺丝固定。 Battery series connection way: the pole column of the battery cell is threaded pole column, and the aluminum bar (bus bar) is fixed with combination screws.

4

Schematic diagram of battery system wiring



充电负 Charge negative 放电负 discharge negative

充电正 charge positive 放电负 discharge negative

保护板 protection plate