

UE-HP SERIES

UE-192LI27

LiFePO4 Battery system

192V 27Ah

OVERVIEW

UE-192LI27 is Lithium iron phosphate battery system which designed for high voltage UPS system application. This battery system consists of battery racks and control pcb circuit inside. And this system has big advantages on safety, cycle life, energy density, fast charging, temperature range and environmental protection.



ADVANTAGES

The battery module consists of battery racks and CBMS.

- Packed with high performance LFP single cell, long life, safety and wide temperature range.
- High energy density, small size, light weight, no pollution.
- Use integrated design, protect voltage, current, temperature in whole process.
- Integrated communication interface, CAN2.0, RS485 and TCP/IP communicate with UPS or PC.
- Integrated LCD indicator, display the SOC and operating status.
- Balance between cells.
- Packed in 19 inches standard container, easily for installation and capacity expansion.
- Can customize the battery system with neutral line.
- 15 years design life, Stable performance, maintenance-free.

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BATTERY SYSTEM SPECIFICATION

ITEM	SPECIFICATION	REMARKS
Normal Voltage	192V	
Normal Capacity	27Ah	0.2C, @25°C
Weight	64kg	1pcs
Dimmension	442mm*650mm*181mm	60S1P
Charge Voltage	210V~216V	
Discharge Voltage	168V	
Charge Current	Max. constant charge: 27A	Recommended 10A
Discharge Current	Max. constant discharge: 80A	
Charge range	0°C~45°C	
Discharge range	-20°C~50°C	
Storage range	-20°C~45°C	
Thermal Management	Natural wind	
Built-in BMS	Voltage, current, temperature management & cell balance	RS485 communication
Design life	15	
Cycle life	4000 cycles @90%DOD, 25°C, 0.5C	

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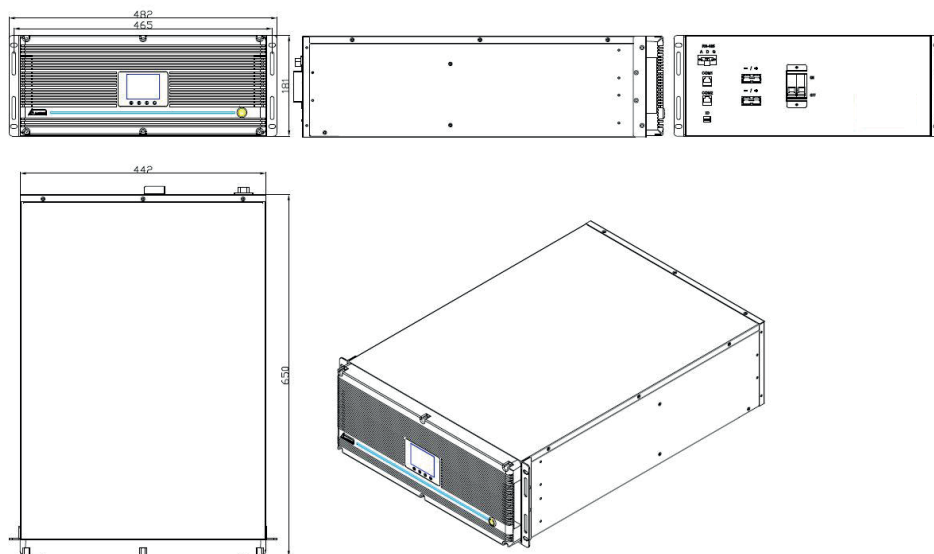
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BATTERY SYSTEM PARAMETERS

BMS provides complete management and protection for the battery.

- Voltage warning and protection for module and each single cell.
- Current warning and protection, and the maximum operating current can be customized.
- Temperature warning and protection.
- Battery module SOC and SOH calculation, display the accurate battery status.
- Integrated LCD indicator, display the SOC and operating status
- Communicate with the inverter or monitor device.
- Pre-discharge logic, make sure soft start.
- Switch-off mode, sleep mode, and operating mode, different mode for different condition.

BATTERY MODULE



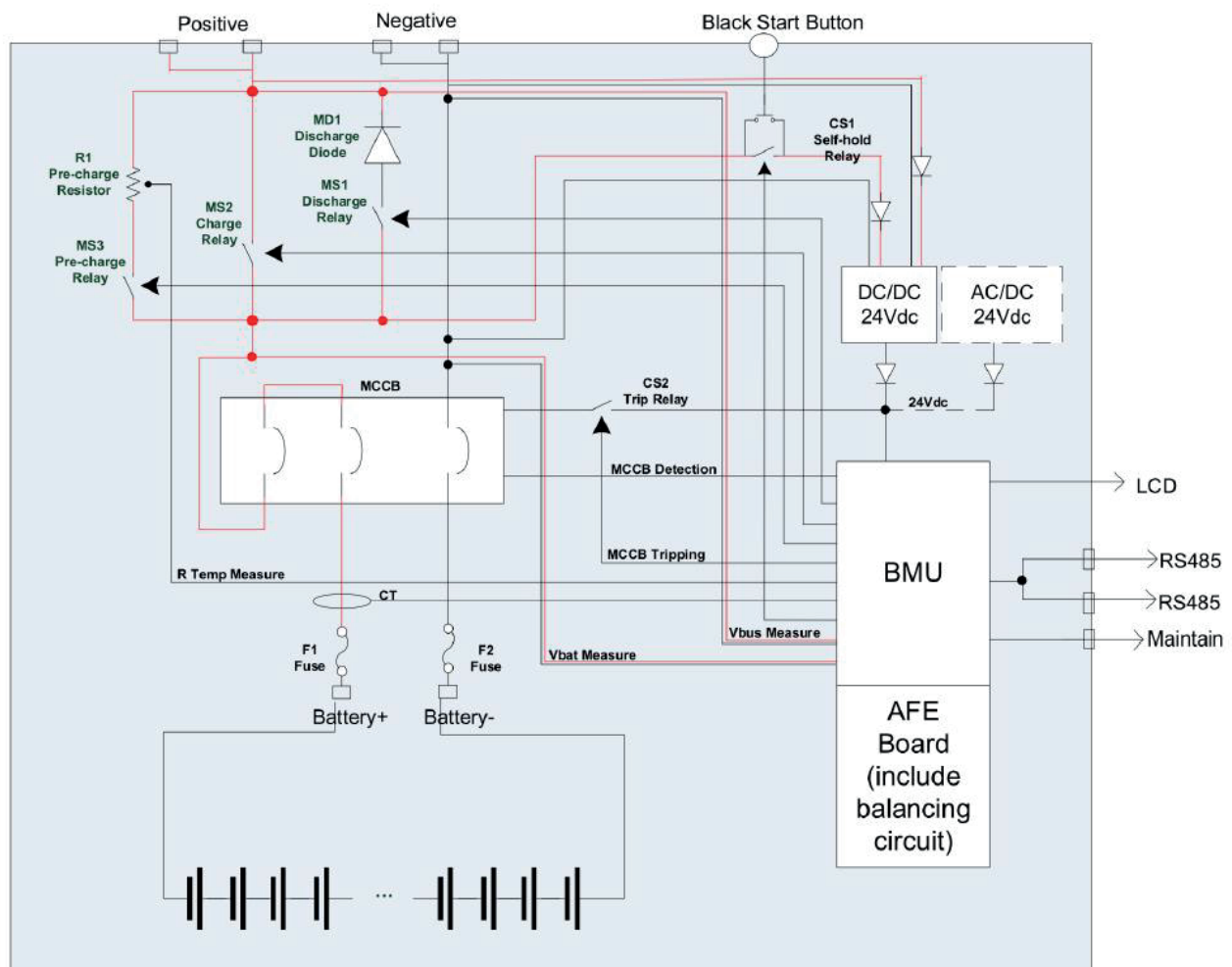
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BMS ELECTRICAL SCHEMATIC DIAGRAM



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CONTROL PARAMETERS

ITEM		PARAMETERS		CONDITION
Charge	Cell voltage protection 1	3.8V		Recovery 3.45V
	Cell voltage protection 2	3.85V		
	Module voltage protection 1	222.0V		Recovery 207V
	Module voltage protection 2	225.0V		
	Over charging current 1	>40A	Delay 10s	
	Over charging current 2	≥50A	Delay 3s	
	Low temperature protection 1	<-5°C		Recovery 0°C
	High temperature protection 1	> 70°C		Recovery 60°C
	High temperature protection 2	> 75°C		
Discharge	Cell voltage protection 1	2.7V		Recovery 3.1V
	Cell voltage protection 2	2.5V		
	Module voltage protection 1	162.0V		Recovery 186V
	Module voltage protection 2	150.0V		
	Over charging current 1	>95A	Delay 10s	
	Over charging current 2	≥100A	Delay 3s	
	Low temperature protection 1	<-20°C		Recovery -10°C
	High temperature protection 1	>75°C		Recovery 65°C
	High temperature protection 2	>80°C		

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CONTROL PARAMETERS

ITEM		PARAMETERS	CONDITION
BMS	Cell balance	50mA	Cell voltage
	Power consumption	1W	Operation condition
	Communication ports	RJ45&TCP/IP	Connect UPS

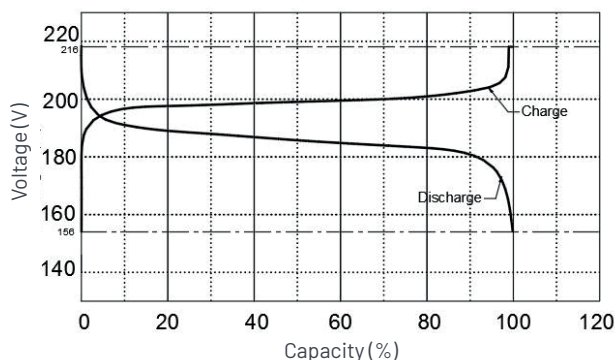
Definition :

Protection 1 : this is first protection, open the relay ;

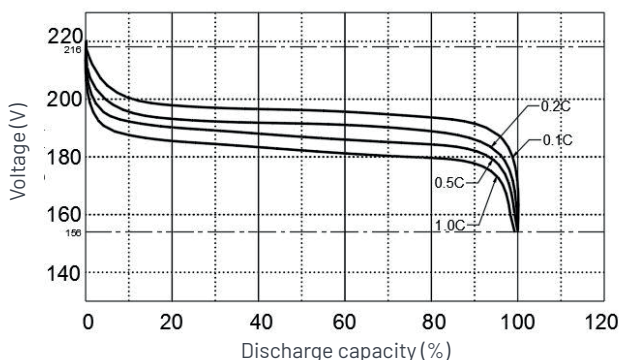
Portection 2 : this is second protection, trip the breaker ;

BATTERY PERFORMANCE CURVE

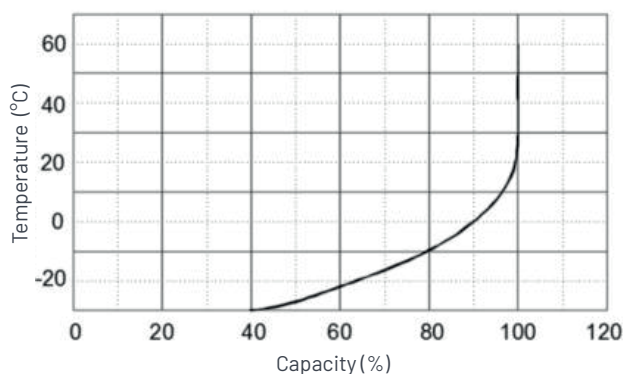
Charge & discharge curve with 1.0C @ 25°C



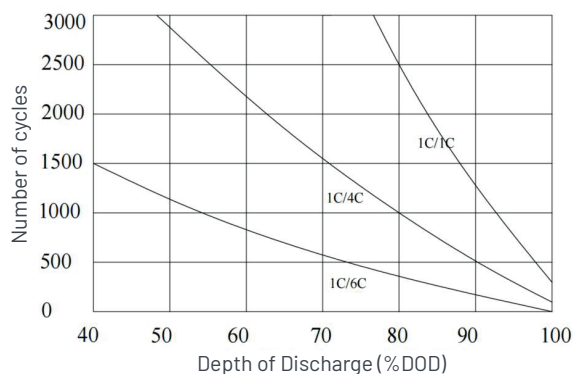
Discharge performance with different rate @ 25°C



Discharge capacity with different temperature @ 1.0C



Different discharge cycle life versus DOD at 25 °C



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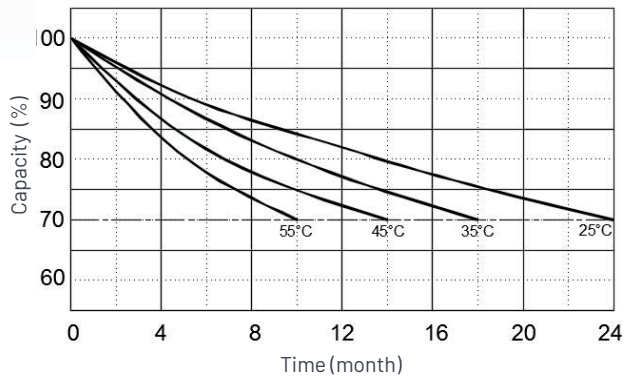
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BATTERY PERFORMANCE CURVE

Self-discharge @ different temperature



Cycle life DOD and temperature at 1C

