LiFe 100-48

Lithium Ferro Phosphate
48V - 100Ah

WING Battery delivers safe Lithium Ferro Phosphate battery solutions for Telecom application.

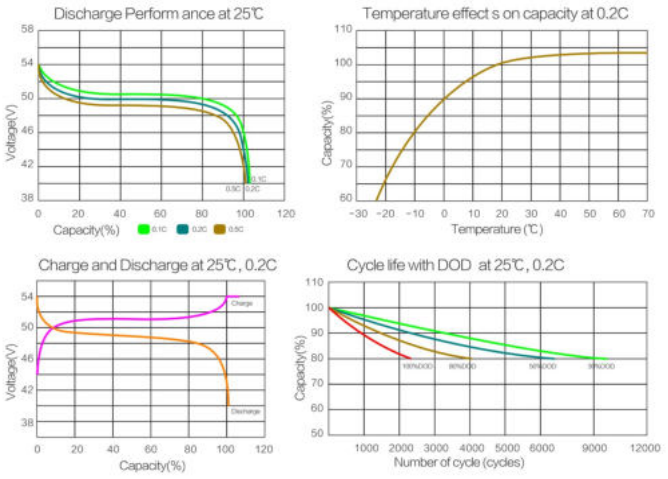
The LiFe 100-48 back-up lithium ferro phosphate battery system is developed for backup of Telecom equipment. Under normal condition, grid AC power supply to rectifier module and the Telecom loads and charge battery pack, when the AC power fail, rectifier module stop power supply, the battery serves for Telecom equipment, to ensure the Telecom equipment runs normally. When the AC power is switched on again, power rectifier module for Telecom equipment recover to while charge the battery pack.

Innovative Features

- RS485 communication output for monitoring
- Built-in BMS with Charging current limitation
- Built-in automatic protection for over-charge, over-discharge and over-temperature conditions
- State of charge and state of health indication
- Built-in battery control for efficient operation
- Internal cell balancing
- Compatible with standard Telecom rectifiers
- Maintenance free
- More energy per volume
- Weight: easy installation, one person

Specifications	
Voltage	48V
Nominal capacity (25°C, 0.2C)	100Ah
Normal energy (25°C, 0.2C)	4800 Wh
Standard discharge 25°C	
Max. constant current	100A
Cut-off voltage	42V
Standard charge 25°C	
Charge voltage	52V~54V
Float voltage	51.75V~52.5V
Maximum constant current	100A
Recommended charging current and time	30A (8.3C) for 3.5 hours
Cycle life (0.2C, 25°C)	80% DOD, 6000 cycles
Recommended operating temperature	
Charging	0°C~55°C
Discharging	-20°C~55°C
Storage temperature	-40°C~55°C
Round trip efficiency (%)	> 98%
Calendar life	≥ 12 years

Dimensions and weight	
L x W x H in mm (± 2mm)	442x480x134
Weight	40.0 (± 0.5kg)



Manufactured in ISO9001, ISO14001, OHSAS 18001 certified facility

Rev. 01/2023

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BMS Parameters.

NO.	Type		Function	Setting value	Remarks
				V-LFP48100 48V100Ah	
1	Voltage	Charge	Cell Voltage Protection	3.90V Protection	Recover at 3.66V
2			Total Voltage Protection	56.0V Warning/ 57.0V Protection	Recover at 55.0V
3		Discharge	Cell Voltage Protection	2.50V Protection	Recover at 2.80V
4			Total Voltage Protection	43.2V Warning / 42V Protection	Recover at 43.5V
5	Current	charge	Normal	≤100A	
6		Discharge	Normal	≤100A	
7			Over Current Protection 1	102A	Delay 30s, recovery in every 1min
8			Over Current Protection 2	150A	Delay 2s, recovery in every 1min
9			Short Circuit Protection	250A	Delay 1mS
10	Temp	Cell Temp 1	Low temp protection	Charging ＜ 0℃ Discharging ＜ - 20℃	Delay 1~2S
11		Cell Temp 2	High temp protection	Charging ≥70℃ Discharging ≥75℃	Delay 1~2S
12		PCB	Range	≥95℃	Recovery at 75℃
13	Cell Balance	Balance	Make all cells be balance during charging process. Current: 150mA	$V_{Max.}$≥3.40V and $V_{Max.}$ - V_{Min}≥40mV, Start balance	All cell voltages≤3.65V and $V_{Max.}$ - V_{Min}≤40mV, Stop balance

Battery Status

1) **Stop/Transport Mode**. In working mode, turn off the air switch, battery will go to Stop MODE with low self-discharge. In STOP mode, charging MOS and discharging MOS are open, battery can't charge, discharge or communicate.
2) **Working Mode**. In STOP mode, connect the battery to SMPS, turn on the air switch, battery will go to working mode. In working mode, BMS will monitor battery voltage, current and tem and communication is available, charging MOS and discharging MOS are close. Battery will operate as the settings.
3) **Sleep Mode**. After turning on the battery, if the battery voltage is below low voltage protection, BMS will go to sleep mode in 1 minute. In sleep mode, charging MOS and discharging MOS are closed, BMS will check the current every 1 minute, if there's charging current connecting, battery will turn to working mode.
4) **Error Mode**. In working mode, if there is: ① Battery cells, Δ U>2.5V, or ② any cell voltage >4.4V or <0.5V, or ③ battery temp is <30°C or +100°C, BMS will go to error mode, ALM will bright and other LED will shut down, and to STOP mode, charging MOS and discharging MOS are open. **Need to troubleshoot**.

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