



### Lithium-Ion Battery Pack for Telecom



Shown Above: Front Panel of LIO-48100



Shown Above: Rear Panel of LIO-48100



Shown Above: Eight Battery Packs with 42RU Rack System

The La Marche LiFePO<sub>4</sub> Battery Pack series is a powerful addition to your new or existing UPS, Telecom, Backup power, Energy Storage and Solar site application. Compared to other battery alternatives, this 48V Lithium Iron Phosphate battery is the perfect combination of size, long life, environmental adaptability and capacity.

LiFePO<sub>4</sub> batteries can be discharged up to 100% without risk of damage and the life time at Standby Mode can be greater than 10 Years.

#### Standard Features

Built-in BMS with Charging Current Limitation

Built-in Automatic Protection for Over-Charge, Over-Discharge and Over-Temperature Conditions

Internal Cell Balancing

LEDs for State of Charge Indication

Built-in Battery Control for Efficient Operation

Communication Protocol: RS485

Compatible with Standard Telecom Rectifiers and Energy Storage System

Parallel Operation with Lead Acid and LFP Battery

High Surge Discharging Current up to 3C

Wide Operating Voltage Range

## Specifications

Model	LIO-4850	LIO-48100
Rated Voltage	48V	
Rated Capacity	50Ah	100Ah
Charging Current (ADC) <small>(Recommended)</small>	<25A	<50A
Charging Current (Max.)	50A (1C)	100A (1C)
Charging Voltage (VDC)	52.5VDC	
Discharge End Voltage (VDC)	42VDC	
Discharge Current <small>(Recommended)</small>	50A	100A
Battery Connector Max. Current	300V/75A MAX	
Protection	BMS, Breaker	
Parallel Operation	10 Modules in Maximum	
Reset Key	Available	
<b>Indicators</b>		
LED	Battery Status, Battery Level, Battery Fault, Alarm	
<b>Physical</b>		
Dimension (D x W x H) mm	630 x 438 x 88 (2U)	630 x 438 x 133 (3U)
Weight (lbs)	62	132
<b>Operational Environment</b>		
Operation Temperature	Charge: 0°C to 50°C Discharge: 0°C to 50°C	
Storage Temperature	25°C to 45°C < 3 Months	
	45°C to 60°C < 1 Months	
20°C +/- 5°C is Recommended Storage Temperature		

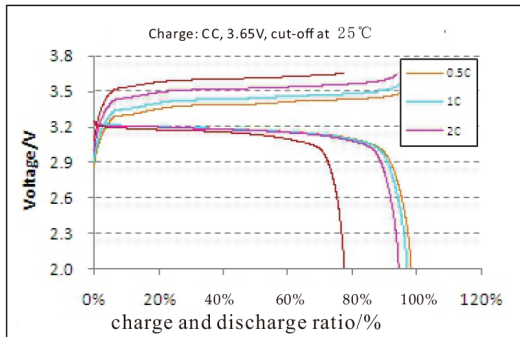
### Constant Current Discharge Characteristics (25°C/77°F)

End Voltage	Constant Discharge Current (A)*								
	10%	15%	25%	30%	40%	50%	60%	80%	100%
	Backup Time (in minutes)								
46.5	574	381	227	188	138	108	87	62	42
45	586	390	233	193	144	114	95	69	53
43.5	594	395	236	195	146	116	96	72	55
42	599	399	238	198	147	117	97	73	56
40.5	603	401	240	199	148	118	98	74	56
39	605	402	241	200	149	119	99	74	57

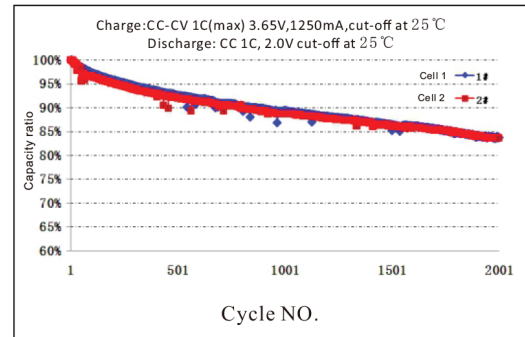
\*of rated Ah

## Cell Performance Graph

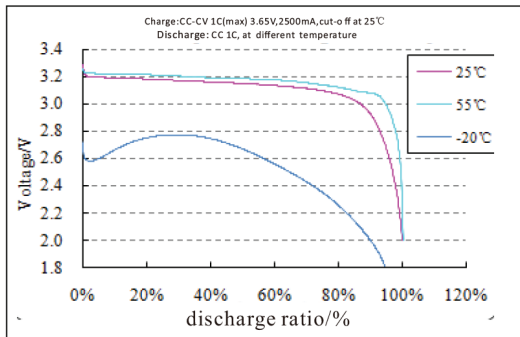
Charge Characteristics@RT



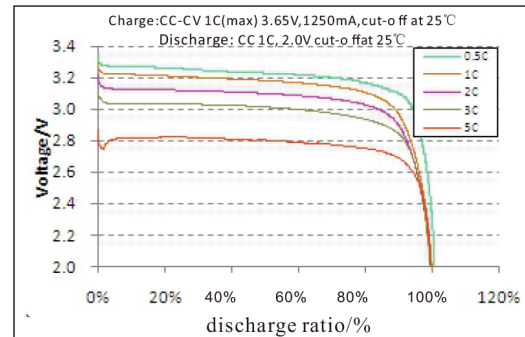
Cycle Life Characteristics



Discharge Characteristics(@ temperature)

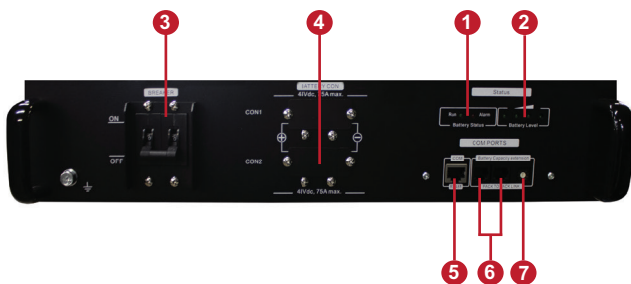


Discharge Characteristics@RT

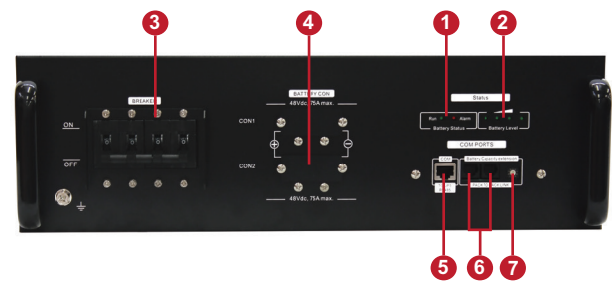


## Rear Panel View

LIO-4850  
Rear Picture



LIO-48100  
Rear Picture



1- Battery Status LEDs  
2- Battery Level LEDs

3- Breaker  
4- Battery Connector

5- Communication Port  
6- Extension Port  
7- ID Switch