NEWMAR
A MISSION CRITICAL ELECTRONICS BRAND

POWERING THE NETWORK
www.poweringthenetwork.com | 800.854.3906

LITHIUM-ION BATTERY

48V 200AH | $LiFePO_4$ Battery

Newmar's 48V Lithium Iron Phosphate battery modules are ideally suited for telecom, OSP, and renewable energy applications with a max charge voltage of 54.5V.

Newmar's LiFePO4 series offer long cycle life, small size, reduced weight, and simplified installation as 19"/23" rack mountable modules. LiFePO4 batteries are ideal for telecom growth and as direct replacement for VRLA.

KEY FEATURES

- Simple installation and load/charge system integration (Pos/Neg termination)
- Advanced intelligent lithium-ion battery management technology
- Configuration flexibility, support parallel connection expansion up to 8 units
- SOC Status Indicator
- Modbus communication for active battery monitoring

BMS - ALARMING

- System monitoring of voltage, current, temperature of cells and module. Built-in protection against; over-current on discharge and recharge, over-temperature, low temperature, low and high voltage, and short circuit
- BMS maintenance and service communication via RS232 or RS485 along with Modbus for simple interface withInverters and other equipment
- 2 levels of remote alarming through dry contacts

BATTERY SPECIFICATIONS

	48V200A-LIPO4-5U
Rated Voltage	48 V
Rated Capacity	200 Ah (0.5–40.5 V @ 25°C)
Discarge Current (Max.)	200 A
Discharge End Voltage	40.5 V
Charge Current (Recommended)	20 A
Charge Current (Max.)	100 A
Charge Voltage	54.0 ±0.5 V

FRONT PANEL SPECIFICATIONS

Status Indicators	SOC/ALM/RUN
Communications Port	RS232/RS485x2
Communications in Parallel	8 battery maximum
Terminal Size	M8
Circuit Breaker	125 A

GENERAL SPECIFICATIONS

Dimensions (W x H x D)	442.5 x 480 x 222 mm [17.42 x 19 x 8.74 in]
Weight	71.5 kg [157.6 lb]
Rack Units	5U
Terminal	M6

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COMPLIANCES

UL Certification	UL1642, Standard for Lithium Batteries
	UL2054, Standard for Household and Commercial Batteries
	UL1973, Batteries for Use in Light Electric/ Rail (LER) and Stationary Applications
EN Certification	EN 61000-6-1:2007, Electromagnetic compatibility (EMC)
	EN 61000-6-3:2007+A1:2011, Electromagnetic compatibility (EMC)
IEC Certification	IEC 62133:2012, Battery Safety Testing
UN Certification	UN 38.3 Transportation Testing for Lithium Batteries and Cells

ENVIRONMENTAL REQUIREMENTS

MAXIMUM RECOMMENDED TEMPERATURE RANGE (°C)

Temperature Range	
Discharge	-20–55°C [-4–131°F]
Charge	0–45°C [32–113°F]
Storage	0–35°C [32–95°F]

RECOMMENDED TEMPERATURE (°C)

Temperature Range	
Discharge	15–35°C [59–95°F]
Charge	15–35°C [59–95°F]
Storage	15–30°C [59–86°F]

Constant Current Discharge Rates @25°C in Hours (Amps)

Current (A)	20	40	66	50/100
46.5 V	9.73	4.85	2.93	1.90
45.0 V	9.92	4.96	3.00	1.96
43.5 V	10.05	5.03	3.05	2.00
42.0 V	10.13	5.07	3.08	2.02
40.5 V	10.18	5.10	3.09	2.03

Constant Current Discharge Rates @25°C in Hours (Watts)

Power (W)	480	960	1580	2300	3800	4400
46.5 V	18.93	9.39	5.60	3.70	2.00	1.64
45.0 V	19.27	9.58	5.78	3.91	2.25	1.89
43.5 V	19.48	9.69	5.86	3.95	2.30	1.94
42.0 V	19.62	9.77	5.90	4.00	2.33	1.95
40.5 V	19.70	9.81	5.94	4.02	2.34	1.97

BMS/Battery Operating Parameters

Parameters	Units	Value
Capacity	Ah	200
Rated Voltage	V	48
Charge Voltage	V	54.5 ± 0.5
No Equalization Required	V	NA
Nominal charge current	A	40A
Charge current limitation	A	100A
LVBD (Low voltage battery disconnect)	V	>40.5

Cycles - Temperature vs. Depth of Discharge

	Depth of Discharge (DoD)				
Temp (°C)	100%	80%	60%	40%	20%
25	2500	3100	4200	63000	11500
35	2000	2500	3350	5000	8200
45	1400	1750	2300	3300	5400