# PRODUCT SPECIFICATIONS Lithium Iron Phosphate (LifePO4) Battery



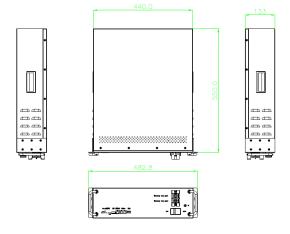
# EDLF - 48100 (48V 100Ah)

PART NUMBERS	
Description	Part No.
Lithium Iron Phosphate (LifePO4) Battery	LB-48100



# FETURE OF LIFEPO4 BATTARY

- Longer Cycle Life: Offers up to 10 times longer cycle life and five times longer float/ calendar life than lead acid battery, helping ti minimize replacement cost and reduce total cost of ownership.
- Lighter Weight: About 40% of the weight of a comparable lead acid battery. A'drop in' replacement for lead acid batteries.
- Higher Power: Delivers twice power of lead acid battery, even high discharge rate, while maintaining high energy capacity.
- Wider Temperature Range: 20~60°C.
- Superior Safety: Lithium Iron Phosphate chemistry eliminates the risk of explosion or combustion due to high impact, overcharging or short circuit situation



#### **APPLICATION**

- Indoor/outdoor telecom base stations ETC.
- UPS.
- Household energy storage system.
- Smart transportation backup power supply.

#### PRODUCT CLASSIFICATION

Country Of Origin Jordan

Portfolio TechLine

Page 1 of 1

Technical Fiber Optics Lines Company.
Al Qastal industrial area, Amman, Jordan www.techlinefactory.com

Jordan

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**E:** sales@techlinefactory.com

PRODUCT SPEC	IFICATIONS			
	Nominal Voltage	48.0V		
	Nominal Capacity	100Ah		
	Nominal Energy	4800W		
Electrical	Combination Method	15S1 P		
Characteristics	Cycle Life	>=6000cycles @80%DOD @25°C (0.2C charge)		
	Months Self Discharge	3%/M		
	Efficiency of Charge	>= 97%		
	Efficiency of Discharge	>= 98%		
	Recommended Charging Voltage	54.0V		
Standard	Recommended Charging Current	20A		
Charge	Max. Charging Voltage	54.75V		
	Max. Charging Current	100A		
	Recommended Discharging Current	50A		
Standard Discharge	Max. Pulse Current	100A		
Discharge	Discharge Cut-off Voltage	40.0V		
	Charge Temperature	0°C~4 5°C		
Environmental	Discharge Temperature	-20°C~60°C		
	Storage Temperature	0°C~40°C		
	IP Class	IP 30		
	Case	Metal		
Other	Dimensions (W)x(H)x(D) (mm)	505*133*440mm		
	Weight (kg)	43 kg		
	optional	Anti-theft function,		

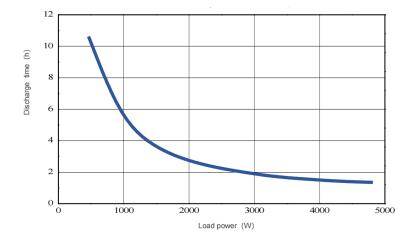
### EDLF-48100 Series Constant Current Discharge Characteristics (25°C, 77°F)

Current/A Time/h Voltage	0.1C	0. 2C	0. 3C	0. 4C	0. 5C	0.60	0.7C	0.80	0.90	1C
46. 5V	9. 55	4. 70	3. 04	2. 20	1. 67	1. 33	1.06	0.87	0.69	0.54
45. 0V	9.89	4. 87	3. 19	2. 34	1.82	1. 49	1. 24	1.03	0.87	0.72
43. 5V	10. 12	4. 97	3. 27	2. 42	1. 90	1. 55	1. 30	1. 13	0. 99	0.87
42. 0V	10. 30	5. 10	3. 34	2. 47	1. 95	1.62	1. 36	1. 18	1. 03	0. 92
40. 0V	10. 50	5. 20	3. 41	2. 54	2.00	1. 65	1. 40	1. 22	1. 07	0. 95

# EDLF-48100 Constant Power Discharge Characteristics (25°C, 77°F)

Power/W Time/h Voltage	480	960	1440	1920	2400	2880	3360	3840	4320	4800
46. 5V	9. 54	4.69	3.02	2. 18	1.65	1. 32	1.05	0.86	0.68	0. 53
45. OV	9.88	4.85	3. 17	2. 32	1.8	1. 47	1. 22	1.01	0.85	0.7
43. 5V	10. 1	4. 95	3. 24	2.41	1.89	1. 53	1. 28	1. 11	0.98	0.86
42. 0V	10. 28	5. 1	3. 33	2. 43	1.92	1. 58	1.31	1. 15	1.01	0.9
40. 0V	10. 35	5. 15	3. 37	2. 44	1.95	1.6	1.35	1.18	1.04	0. 92

#### **Discharge Curves**



# PRODUCT SPECIFICATIONS Lithium Iron Phosphate (LifePO4) Battery



### EDLF - 48150 (48V 150Ah)

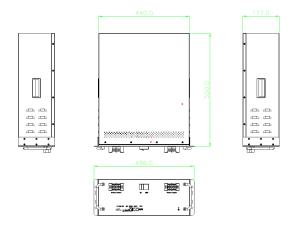
PART NUMBERS	
Description	Part No.
Lithium Iron Phosphate (LifePO4) Battery	LB-48150



#### **FETURE OF LIFEPO4 BATTARY**

- Longer Cycle Life: Offers up to 10 times longer cycle life and five times longer float/ calendar life than lead acid battery, helping ti minimize replacement cost and reduce total cost of ownership.
- Lighter Weight: About 40% of the weight of a comparable lead acid battery. A'drop in' replacement for lead acid batteries.
- Higher Power: Delivers twice power of lead acid battery, even high discharge rate, while maintaining high energy capacity.
- Wider Temperature Range: 20-60°C.
- Superior Safety: Lithium Iron Phosphate chemistry eliminates the risk of explosion or combustion due to high impact, overcharging or short circuit situation

# PHYSICAL DIMENSION (MM)



#### **APPLICATION**

- Indoor/outdoor telecom base stations ETC.
- UPS.
- Household energy storage system.
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PRODUCT SPECIFICATIONS							
	Nominal Voltage	48.0V					
	Nominal Capacity	150Ah					
	Nominal Energy	7200W					
Electrical	Combination Method	15S1 P					
Characteristics	Cycle Life	>=6000cycles @80%DOD @25°C (0.2C charge)					
	Months Self Discharge	3%/M					
	Efficiency of Charge	>= 97%					
	Efficiency of Discharge	>= 98%					
	Recommended Charging Voltage	54.0V					
Standard	Recommended Charging Current	30A					
Charge	Max. Charging Voltage	54.75V					
	Max. Charging Current	100A					
<b>0</b> / 1 1	Recommended Discharging Current	75A					
Standard Discharge	Max. Pulse Current	150A					
Bioonargo	Discharge Cut-off Voltage	40.0V					
	Charge Temperature	0°C~45°C					
Environmental	Discharge Temperature	-20°C~60°C					
	Storage Temperature	0°C~40°C					
	IP Class	IP 30					
	Case	Metal					
Other	Dimensions (W)x(H)x(D) (mm)	440*177*550mm					
	Weight (kg)	67 kg					
	optional	Anti-theft function					

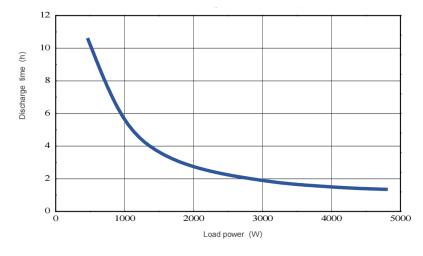
#### EDLF-48150 Series Constant Current Discharge Characteristics (25°C, 77°F)

Current/A Time/h Voltage	0.1C	0. 2C	0.3C	0.4C	0.5C	0.6C	0.67C
46. 5V	9. 55	4. 70	3. 04	2. 20	1. 67	1. 33	1.06
45. 0V	9.89	4. 87	3. 19	2. 34	1.82	1. 49	1. 24
43. 5V	10. 12	4. 97	3. 27	2. 42	1. 90	1. 55	1.30
42. 0V	10. 30	5. 10	3. 34	2. 47	1. 95	1. 62	1. 36
40. 0V	10. 50	5. 20	3. 41	2. 54	2.00	1.65	1.40

# EDLF-48150 Constant Power Discharge Characteristics (25°C, 77°F)

Power/W Time/h Voltage	720	1440	2160	2880	3600	4320	4800
46. 5V	9. 54	4. 69	3. 02	2. 18	1.65	1. 32	1.05
45. OV	9.88	4. 85	3. 17	2. 32	1.8	1. 47	1. 22
43. 5V	10. 1	4. 95	3. 24	2.41	1.89	1. 53	1. 28
42. OV	10. 28	5. 1	3. 33	2. 43	1. 92	1. 58	1. 31
40. 0V	10. 35	5. 15	3. 37	2. 44	1. 95	1.6	1. 35

# **Discharge Curves**



# PRODUCT SPECIFICATIONS Lithium Iron Phosphate (LifePO4) Battery



# EDLF - 48200 (48V 200Ah)

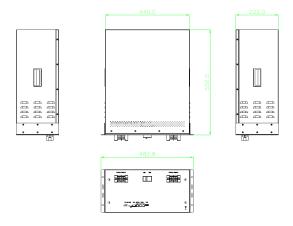
PART NUMBERS	
Description	Part No.
Lithium Iron Phosphate (LifePO4) Battery	LB-48200



#### **FETURE OF LIFEPO4 BATTARY**

- Longer Cycle Life: Offers up to 10 times longer cycle life and five times longer float/ calendar life than lead acid battery, helping ti minimize replacement cost and reduce total cost of ownership.
- Lighter Weight: About 40% of the weight of a comparable lead acid battery. A'drop in' replacement for lead acid batteries.
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#### **PHYSICAL DIMENSION (MM)**



#### **APPLICATION**

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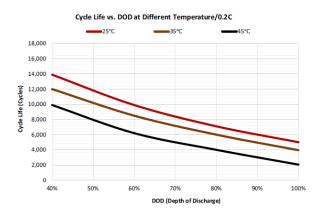
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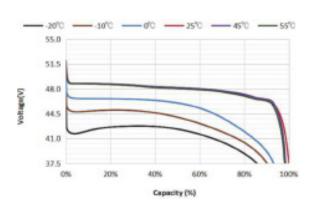
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PRODUCT SPEC	IFICATIONS				
	Nominal Voltage	48.0V			
	Nominal Capacity	200Ah			
	Nominal Energy	9600W			
Electrical	Combination Method	15S1 P			
Characteristics	Cycle Life	>=6000cycles @80%DOD @25°C (0.2C charge)			
	Months Self Discharge	3%/M			
	Efficiency of Charge	>= 97%			
	Efficiency of Discharge	>= 98%			
	Recommended Charging Voltage	54.0V			
Standard	Recommended Charging Current	40A			
Charge	Max. Charging Voltage	54.75V			
	Max. Charging Current	100A			
	Recommended Discharging Current	100A			
Standard Discharge	Max. Pulse Current	200A			
Discharge	Discharge Cut-off Voltage	41.0V			
	Charge Temperature	0°C~60°C			
Environmental	Discharge Temperature	-20°C~60°C			
	Storage Temperature	-5°C~45°C			
	IP Class	IP 30			
	Case	Metal			
Other	Dimensions (W)x(H)x(D) (mm)	442*222*550mm			
	Weight (kg)	81 kg			
	optional	Anti-theft function			

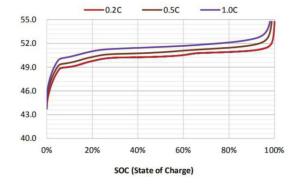
# Cycle life vs. DOD at different temperature



#### Discharge curve at different temperature



#### Charge curve with different current rate@25°C



# Discharge curve with different current @ 25°C

