



LFP48100LCD

Lithium Iron Phosphate LiFePO₄ Battery



Extended Cycle Life

3500 cycles @ 100% DOD - Cost-effective investment.



Long Life

Its stable chemistry ensures maintenance-free operation and enhanced safety, while extending overall lifespan.



Complete Built-in Protection

Intelligent Battery Management System (BMS) with safeguards against overcharge, over-discharge, overcurrent, and other fault conditions.



3 Year Warranty



Fast Charging

Saves time and boosts productivity by minimizing recharge downtime.



Extreme Heat Tolerance

Exceptional high-temperature performance with minimal capacity degradation.



Ultra-lightweight + High Energy

OSONIX Lithium delivers higher Wh/kg energy density while weighing just 1/3 of equivalent SLA (Sealed Lead-Acid) batteries.



Superior Energy Retention

Up to >12 month energy retention, extremely low self-discharge rate (>3% per month) zero sulfation risk (non-lead chemistry).



Anti-Theft Protection System

BMS lockout mode: Immediately cuts power supply and activates audible alarm upon tampering detection.

PHYSICAL SPECIFICATIONS

Dimensions	Width	17.4 in (442 mm)
	Deep	17.71 in (450 mm)
	Height	5.19 in (132 mm)
Rack units		3U
Weight		90.38 lb (41 kg)
Terminal		M6
Container Mat.		Oven-Cured Stainless Steel
IP protection		IP30

FUNCTIONS

LCD Screen	Real-Time Battery Module (& Cell) Status
Communication ports	RS232, RS485
LED status indicator	ALM / RUN / SOC%
Parallel communication	Máx. 15 units
BMS (Alarm & Protection)	Against overcurrent, short circuit, overvoltage, overtemperature, low temperature.
External protection / disconnection	Thermal-Magnetic Circuit Breaker

CONDITION OF USE (ENVIRONMENT)

Temperature	Charge	32°F - 122°F (0°C - 50°C)
	Discharge	-4°F - 140°F (-20°C - 60°C)
	Storage	-4°F - 140°F (-20°C - 60°C)
Altitude (without derating)		≤ 2000m
Humidity		≤ 95%
Cooling System		Using heat sinks

APPLICATIONS



Telecom



UPS



Renewable Energy



Emergency Lighting

TECHNICAL SPECIFICATIONS

Nominal Voltage		48V
Nominal Capacity		100Ah
Nominal Energy Capacity		4800Wh
Voltage Range		37.5 - 54.7V
Charging Voltage	Floatation	51 - 51.7V
	Equalization	52.5 - 54V
Charging current		20A
Max. Continuous Charging current		100A
Discharge current		20A
Max. Continuous discharge current		100A
Cycles (25°C, 100% DOD)		3500 Cycles
Final voltage		42V
Energy charging efficiency (0.2C @ 25°C)		≥95%
Initial resistance (25 °C, 50% SOC)		≤15mΩ
Self-discharge		≤3%
Useful life		≥15 years



Certified to:
IEC 62619:2017 (Clause 5.2.3 compliance)
CE Directive 2014/35/EU
UN Manual of Tests and Criteria, Rev. 7
ISO 9001:2015 & ISO 14001:2015

LFP48100LCD

Lithium Iron Phosphate LiFePO₄ Battery



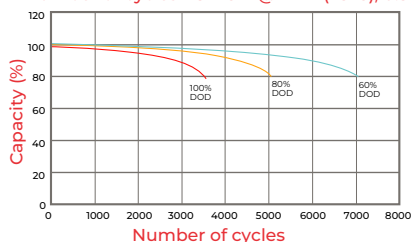
CONSTANT CURRENT DISCHARGE (AMPERES) AT 77°F (25°C)

Final voltage/Time	1 h	2 h	3 h	5 h	8h	10h	15h	20h
42	95	49	33	20	12.5	10	6.66	5

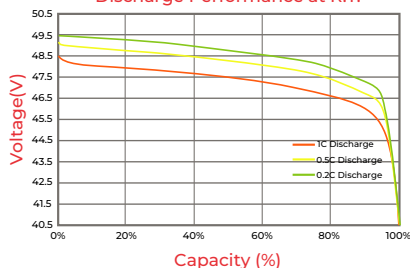
CONSTANT POWER DISCHARGE (WATT/CELL) AT 77°F (25°C)

Final voltage/Time	1 h	2 h	3 h	5 h	8h	10h	15h	20h
42	4460	2295	1550	940	593	475	315	237

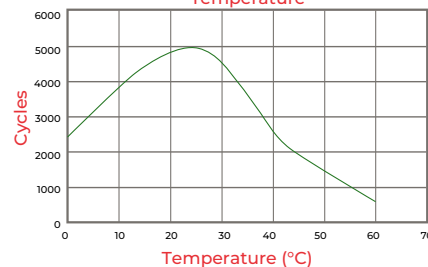
Number of cycles VS DOD @ 77°F (25°C), 0.5C



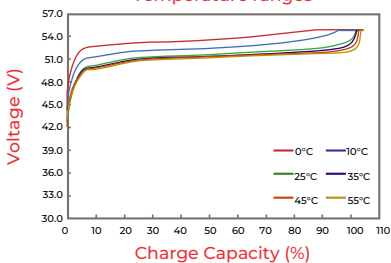
Discharge Performance at R.T.



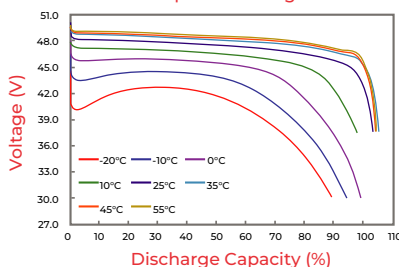
Cycle Life in Relation to Temperature



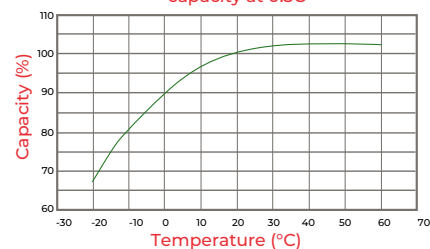
Charging curve vs. Temperature ranges



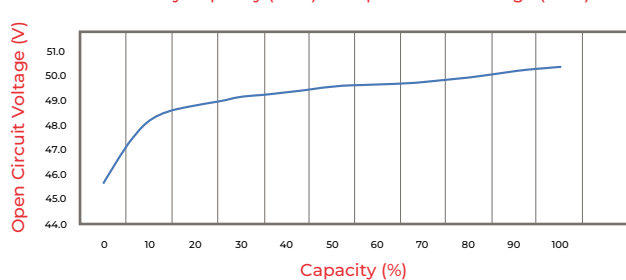
Discharge curve vs. Temperature ranges



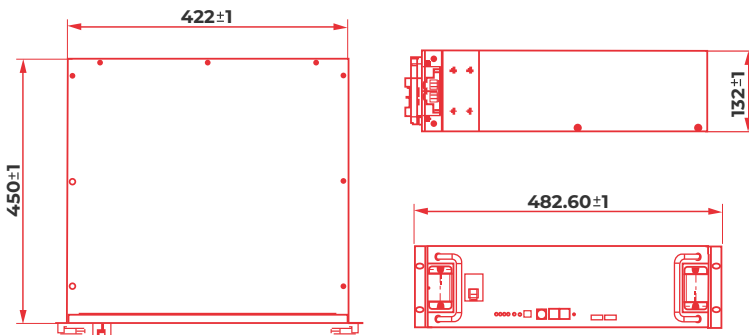
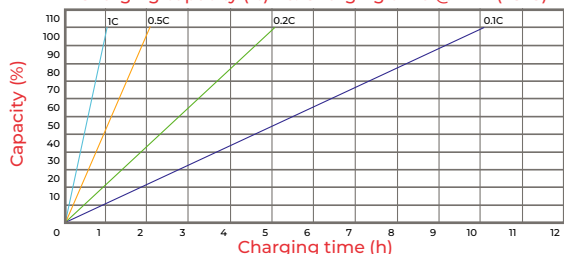
Temperature effects on capacity at 0.5C



Battery Capacity (SOC) Vs. Open Circuit Voltage (OCV)



Charging capacity (%) Vs. Charging time @77°F (25°C)



Osonix

www.osonix.com

info@osonix.com

* Product specifications are subject to change without notice.

* US-V2510-REV 1.03

Kenjitsu USA

3111 Camino Del Rio North Suite 400
Mission Valley, San Diego CA 92108

KENJITSU

AUTHORIZED DISTRIBUTOR

(619) 431 4777

sales@kenjitsuusa.com

www.kenjitsuusa.com