



# SOLAR ESS



LITHIUM ION PHOSPHATE  
BATTERY(LIFEPO4)

# KVLi 48/51.2 100A-LCD

## LITHIUM ION PHOSPHATE BATTERY(LiFePO4)



### High cycle life

4000 cycles @80% DoD for effectively lower total of ownership cost.

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### Longer service life

Low maintenance batteries with stable chemistry

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### Built in circuit protection

Battery Management System (BMS) is incorporated against abuse

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### Better storage

up to 6 months thanks to its extremely low self discharge (LSD) rate and no risk of sulphation

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### Quickly recharge

Save time and increase productivity with less down time thanks to superior charge/discharge efficiency



### Extreme heat tolerance

Suitable for use in a wider range of applications where ambient temperature is unusually high: up to +60°C

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### Lightweight

Lithium batteries provide more Wh/Kg while also being up to 1/3 the weight of its SLA equivalent

## APPLICATIONS

Lithium Iron Phosphate can be used in most applications that use Lead Acid, GEL or AGM type batteries. Suitable applications include:

- Solar Storage
- Switching applications and more
- Base transceiver station
- Communication equipments
- Central office
- Telecommunication systems
- Electronic cash registers
- Microprocessor based office machine
- UPS

## CAUTIONS

- Do NOT short circuit, reverse polarity, crush or disassemble.
- Do NOT heat or incinerate.
- Do NOT immerse in any liquid.
- Store at 30~50% SOC. Recharging every 3 months is recommended. The storage area should be clean, cool, dry and ventilated

Performance may vary depending on application. All specifications are subject to change without prior notice to the user. This data is for evaluation purposes only. No guarantee is intended or implied by this data. For clarification and updated information, please contact us.

# LITHIUM ION BATTERY KVLi-100A-LCD

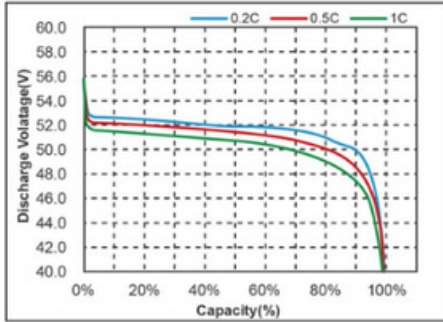
## SPECIFICATION

Model/Parameters	KVLi-48100A-LCD	KVLi-51100A-LCD
Rated Voltage	48V	51.2V
Rated Capacity (0.2C, @25°C)	100Ah	
Rated Energy	4800Wh	5120Wh
Cell & Pack	LiFePO4, Prismatic, Aluminum shell	
Output voltage range	43.2V~58.4V	
Charging voltage	58.4V, CC-CV	
	43.2V	
Max. Constant Charging current	100 A	
Recommended charging current	<50A, best @ 20A	
Recommended charging type	CC-CV until current <0.02C	
Max.Constant Discharging current	≤100A	
Efficiency	≥98%	
<b>Built-in BMS</b>		
Over-charge protection	Module>58.4V or Cell>3.65V	
Over-discharge protection	Module<43.2V or cell<2.7V	
Over-current protection	Charging: >105A,delay 5S; >110A delay 3S;	
Short circuit protection	Discharging: >105A,delay 5S; >110A delay 3S; Short circuit: >350A	
Cell balance	Passive, 100mA	
Over temperature protection	Charging: <-5°C or >65°C Discharging: <-20°C or >65°C	
Case material	ABS	
Dimension L*W*H ( mm) & Terminal	45.0±0.5	
<b>Environment</b>		
Humidity	5%~95% relative humidity	
Charging temperature	0°C~+45°C	
Discharging temperature	-20°C~+65°C	
Storage temperature	-20°C~45°C	
Cycle life	50%DOD>6000 times, @0.2C, 25°C 80%DOD>3500 times, @0.2C, 25°C	
Design life	12 Year	

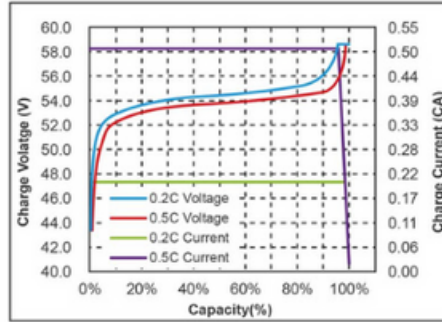
# LITHIUM ION BATTERY KKVLi-48100A-LCD

## ELECTRONIC PERFORMANCE DIAGRAM

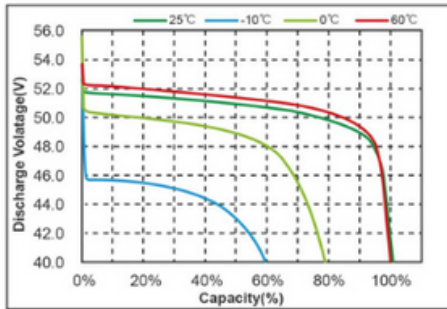
**Different Rate Discharge Curve @25°C**



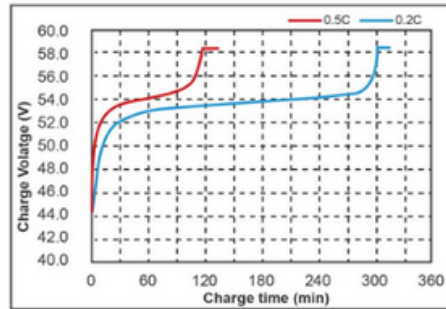
**Different Rate Charge Curve @25°C**



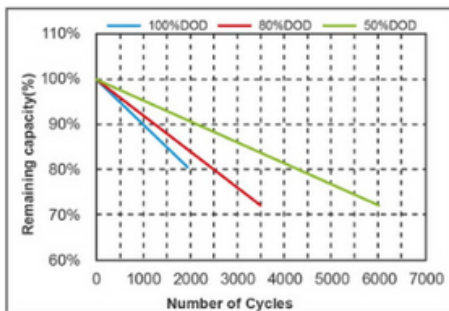
**Different Temperature Discharge Curve @0.5C,25°C**



**Charge Characteristics of time-voltage @0.2C,0.5C,25°C**



**Different DOD Discharge Cycle Life Curve @0.2C,25°C**



**Open circuit voltage VS SOC @25°C**

