

# E-LPB/51.2/100

## LITHIUM PHOSPHATE (LiFePO<sub>4</sub>) BATTERY

### 51.2V - 100AH

ENETRA's lithium phosphate (LiFePO<sub>4</sub>) batteries are designed and engineered with utmost reliability, equipped with Grade A cells these battery packs feature an advanced Battery Management System (BMS) promising increased system efficiency and battery's lifespan.

With unmatched performance these battery packs guarantees extended cycle life while prioritizing safety.



## KEY FEATURES



**Longer Cycle Life:** Offers up to 15 times longer cycle life and 5 times longer float/calendar life than lead acid battery.



**Lighter Weight:** About 40% weight of a comparable lead acid battery, save up to 60% in weight.



**Quick Charge:** Short charge time compared with lead acid battery.



**Low Self-Discharge:** Lower self-discharge compared with lead acid battery, longer storage time without recharging.



**Superior Safety:** Multi-protection methods built inside to protect the battery from overcharge, over discharge and short circuit situation.



**High Efficient:** Higher round-trip energy efficiency of the average (92%) than lead acid battery 80% (discharge from 100% to 0% and back to 100% charged).

### ELECTRICAL PARAMETERS

Nominal electrical parameters	Nominal voltage	48V
	Nominal capacity	100Ah
Electrical parameters (25°C)	Rated voltage	51.2V
	Rated capacity (C <sub>5</sub> )	100Ah
	Energy	5120Wh
	Months self-discharge	<3%
	Charge efficiency	99.5% at 0.2C
	Discharge efficiency	96-99% at 1C

### TEMPERATURE CHARACTERISTICS

Capacities affected by temperature	40°C	101%
	25°C	100%
	0°C	90%
	-10°C	75%
Nominal operating temperature	25°C +/-3°C (77°F +/-5°F)	
Nominal operating temperature	Discharge	-20°C~60°C (-4°F~140°F)
	Charge	0°C~45°C (32°F~113°F)
	Storage	0°C~40°C (32°F~104°F)

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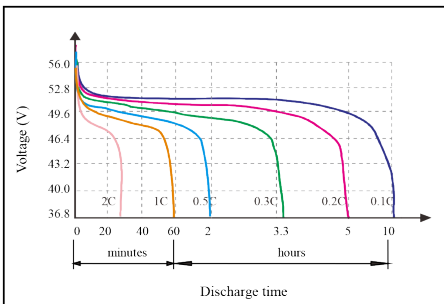
### 51.2V - 100AH

ELECTRICAL CHARACTERISTICS	
Terminal diameter	M8
Internal resistance	<=200 m (fully charged, 25°C)
Cycle life	>6000 cycles at 0.2C
Water dust resistance	IP50
Charge voltage	58.4
Standard charge mode (25°C+/-2°C, <75%RH)	0.2CA Constant Current to 58.4V, then Constant Voltage 58.4V until the current drops to 0.02CA, before use, rest 30 minutes
Charge current	20A
Maximum charge current	50A
Charge cut-off voltage	59.2V
Continuous discharge current	100A
Maximum pulse current	150A(<1S)
Discharge cut-off voltage	44.8V
Communicate protocol (optional)	RS485/RS232/CAN
SOC (optional)	Screen/LED/PC Software
Application connection	1 string 1 parallel
Mechanical cells	16 strings
Mechanical container	Metal

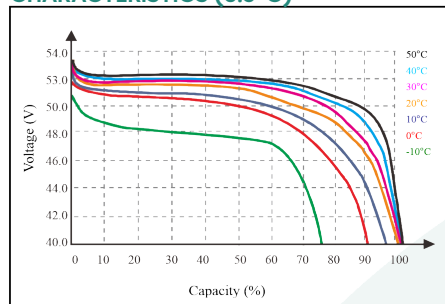
DIMENSIONS & WEIGHT	
Length	370 +/-2mm (13.78")
Width	160 +/-2mm (7.48")
Height	600 +/-2mm (19.69")
Total height	600 +/-2mm (19.69")
Approx. weight	46.5Kg +/-2Kg (102.53lbs)



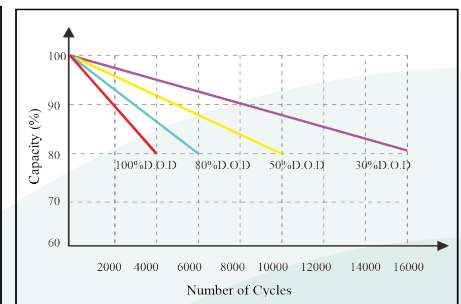
#### DISCHARGE CHARACTERISTICS (25°C)



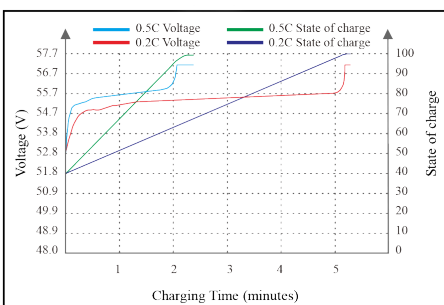
#### TEMPERATURE AFFECT ON DISCHARGE CHARACTERISTICS (0.5°C)



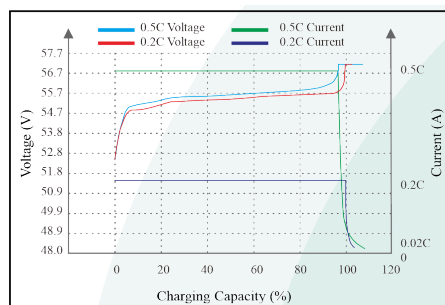
#### CYCLE LOIFE ON D.O.D (25°C)



#### STATE OF CHARGE CURVE (25°C)



#### CHARGE CHARACTERISTICS (25°C)



#### SELFDISCHARGE CHARACTERISTICS CURVE (25°C)

