



LC 50 L LiFePO₄ Lithium Battery

12.8 V | 50 Ah | 640 Wh

Electrical Specifications

Nominal Voltage	12,8 V
Nominal Capacity	50 Ah
Capacity @ 25 A	120 min
Energy	640 Wh
Resistance	≤30 mΩ @ 50% SOC
Self Discharge	<3% / month
Cell Type	IFR26650EC - LiFePO ₄

Discharge Specifications

Max. Continuous Discharge Current	50 A
Peak Discharge Current	100 A (3 s)
BMS Discharge Cut-Off Current	160 A ±20 A (5 ~13 ms)
Recommended Low Voltage Disconnect	11 V
BMS Discharge Cut-Off Voltage	>8.0 V (120 ~ 180 ms)
Reconnect Voltage	>8.64 V (2.16 V / Cell)
Short Circuit Protection	200 ~ 600 μs

Charge Specifications

Recommended Charge Current	10 A
Maximum Charge Current	50 A
Recommended Charge Voltage	14.6 V
BMS Charge Cut-Off Voltage	<15.6 V (3.9 V/Cell)
Reconnect Voltage	>15.2 V (3.8 V/Cell)
Balancing Voltage	<14.4 V (3.6 V/Cell)
Maximum Batteries in Series	4

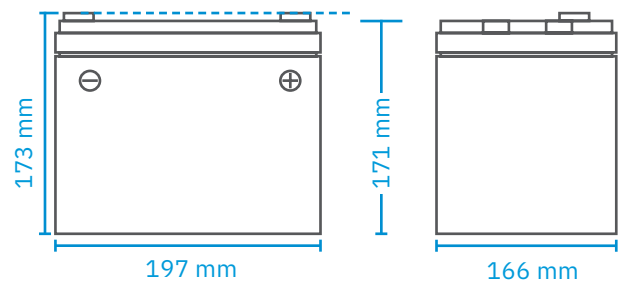
Mechanical Specifications

Measurements (L x W x H)	197 x 166 x 173 mm
Approx. Weight	6.7 kg
Terminal Type	M8
Terminal Torque	9 ~ 11 N m
Case Material	ABS
Enclosure Protection	IP65

Temperature Specifications

Discharge Temperature	-20 ~ 60 °C
Charge Temperature	0 ~ 45 °C
Storage Temperature	-5 ~ 35 °C
BMS High Temperature Cut-Off	75 °C
Reconnect Temperature	53 °C

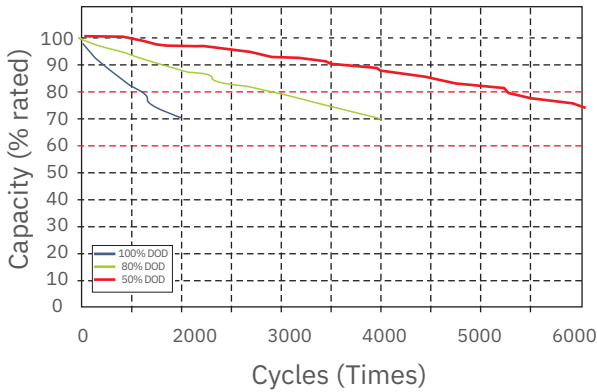
Measurements



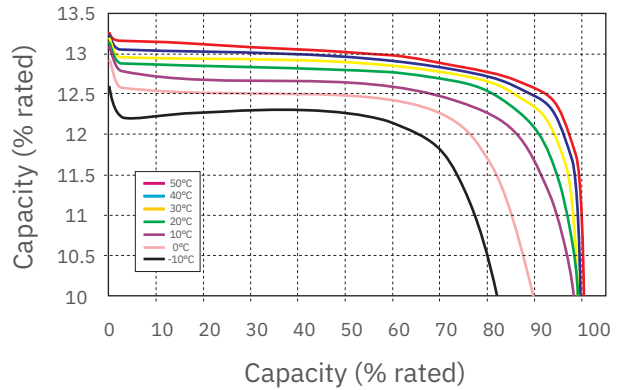
Compliance

Certifications	CE (Battery) UN38.3 (Battery) RoHS
Shipping Classification	UN 3480, CLASS 9

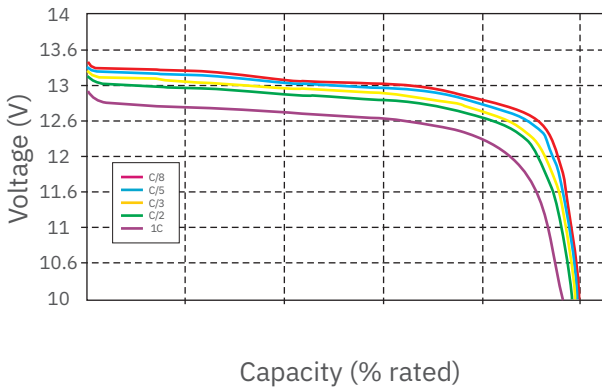
Cycle Life vs. Depth of Discharge (DOD)
Discharge 0.5C / Charge 0.5C (25°C)



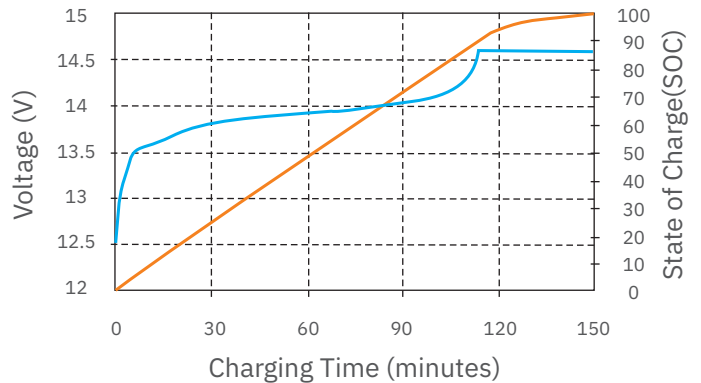
Discharge Voltage Profiles
at 0.5C Discharge Rate
(Various Ambient Temperatures)



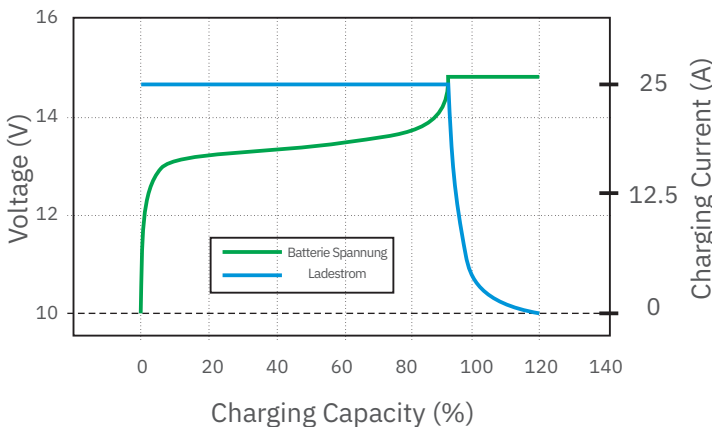
Discharge Voltage Profiles at Various Rates (25°C Ambient Temperature)



Typical Voltage and SOC Profiles at 0.5C Charging (25°C Ambient Temperature)



Charging Characteristics
(0.5C at 20°C)



Constant Power
Discharge Characteristics
(25°C Ambient Temperature)

