



LITHIUM

ATLS12-100-BT

CERTIFICATIONS

UL1642 (Cell), CE (Pack), IEC62133 (Cell), UN38.3 (Cell / Pack), IEC62619 (Cell), ROHS (Cell)



Specifications

Electrical Specifications	Nominal Voltage	12.8V	
	Nominal Capacity	100 Ah	
	Nominal Power	1280 Wh	
	Parallel Connection	max 6 units	
	Series Connection	max 4 units	
	Circuit Protection	Overcharge, Over Discharge, Short Circuit, High Temperature, Cell Imbalance	
	Cycle life	"3000 cycles @100% DOD, 6000 cycles @80%DOD"	
Charge Specifications	Charge Profile	CC @ 0.2C to 14.4V, then CV @ 14.4V until current $\leq 0.01C$ (CC/CV)	
	Max Charge Voltage	14.4 $\pm$ 0.2V	
	Charge Current	$\leq 50A$ (0.2C @ 20A)	
	Max Current	50A	
Discharge Specifications	Recommended Discharge Current	$\leq 50A$ (0.2C @ 20A)	
	Max Continuous Current	100A	
	Cut-off Voltage	10V	
Environmental Specifications	Charge Temperature	0°C to 55°C	60 $\pm$ 25% Relative Humidity
	Discharge Temperature	-20°C to 60°C	
	Storage Temperature	-5°C to 45°C	
Mechanical Specifications	Dimensions, mm	260x170x208 (Group 24)	
	Approx Weight, kg	11.5	
	Terminal type	M8	
	Case Material	Plastic ABS	
	IP Rating	IP65	
	Cell Type	Cylindrical LiFePO4	

Circuit Protection	Characteristic	Parameters
Over charge protection battery	High voltage protection	15V
	Recovery point	14.4V
	Reset trigger	auto release below recovery point
	Time delay	1s
	Max charge current protection	95A
	Charge current protection reset	85A
	Time delay	1s
Over discharge protection battery	Low voltage protection	10V
	Recovery point	10.4V
	Reset trigger	cut load, charge/apply voltage >12V
	Time delay	1s
	Max discharge current protection	700A
	Reset trigger	cut load, auto release
	Time delay	1s

Circuit Protection	Characteristic	Parameters
Short circuit protection	Short circuit protection	750A
	Time delay	100 μ s
High temperature protection	Max charge temperature	65°C
	Recovery point	55°C
	Time delay	1s
	Max discharge temperature	65°C
	Recovery point	55°C
	Time delay	1s
	MOSFET over temperature protection	85°C
Cell imbalance protection	Vcell balancing condition	$\geq 3.3V$
	Vcell, open difference	$\leq 30mV$
	Vcell, closed difference	$\leq 20mV$
	Balancing current	30mA



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MSDS

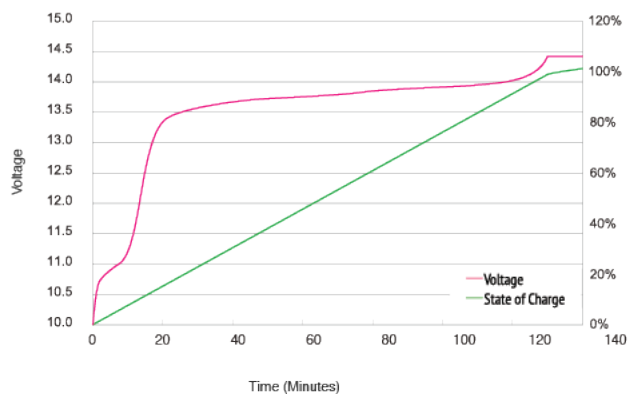


UN38.3

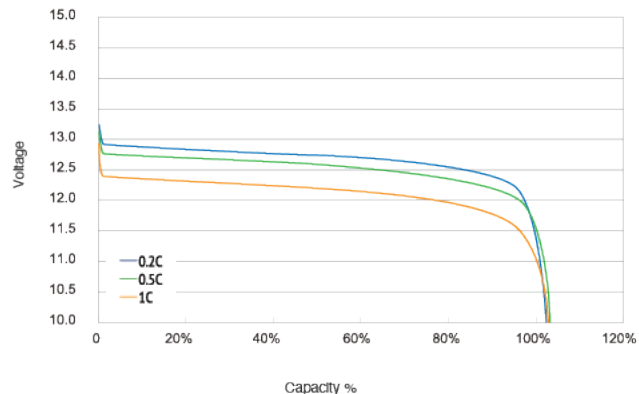


Characteristics Curve

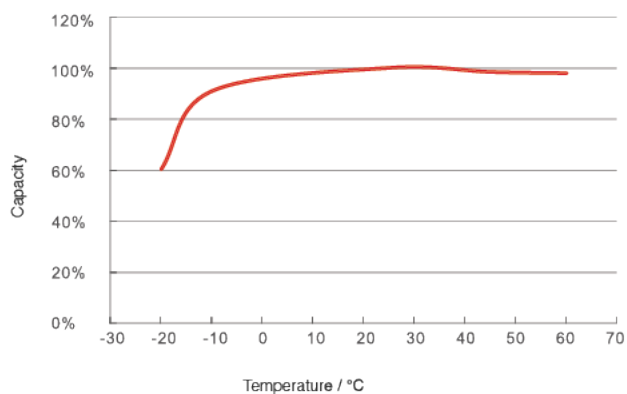
Charging Characteristics (0.5C @25°C)



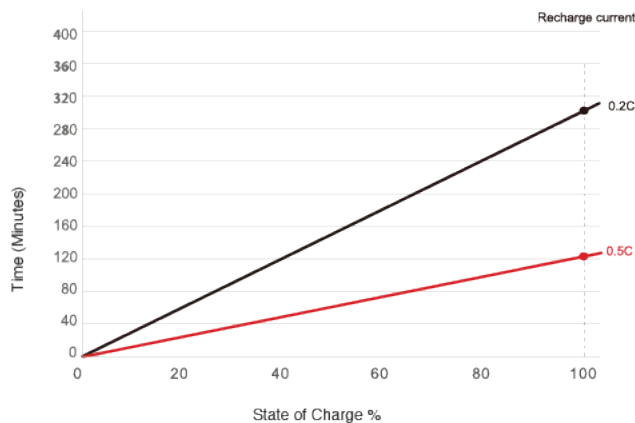
Discharging Characteristics (0.2C, 0.5C, 1C @25°C)



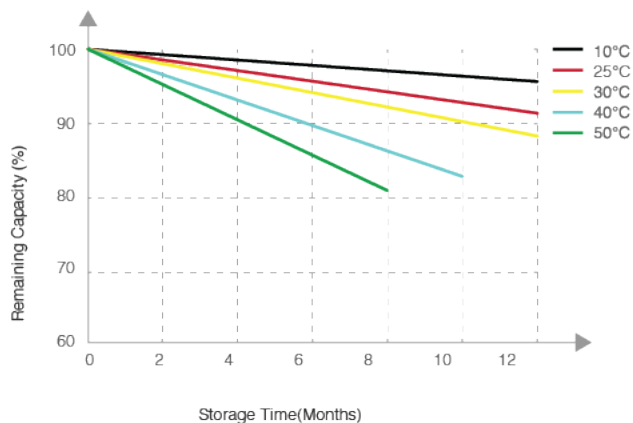
Different Temperature Capacity Curve



Typical Charge Time Curve



Different Temperature Self Discharge Curve



Different DOD Discharge Cycle Life Curve

