



LITHIUM

MODEL: ATLS12-100

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, over current, high temperature, short circuit, cell balancing	
	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	
	Standard Current	20A	
	Max Current	50A	
Discharge Specifications	Standard Current	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 LiFePO ₄	

Circuit Protection	Characteristic	Parameters
Overcharge protection	High voltage protection	15V \pm 0.15V
	Reset/Recovery voltage	14.2V \pm 0.15V
	Reset trigger	below reset value
	Time delay	5s
Over discharge protection	Low voltage protection	8.8V \pm 0.15V
	Reset/Recovery voltage	10.8V \pm 0.15V
	Reset trigger	Cut Load, Auto release
	Time delay	5s
Overcurrent	Max discharge current protection	500A \pm 50A
	Discharge current protection reset	Cut Load, Auto release
	Time delay	300ms

Circuit Protection	Characteristic	Parameters
High temperature	Max charge temperature	65°C \pm 3°C
	Recovery point	45°C \pm 3°C
	Time delay	10s
	Max discharge temperature	65°C \pm 3°C
	Recovery point	45°C \pm 3°C
	Time delay	10s
Cell balance	MOSFET over temperature protection	90°C \pm 5°C
	Balance condition voltage (per cell)	$\geq 3.6V$
Short circuit protection	Cell balance current	116 \pm 10mA
	Short circuit protection	700A
	Time delay	$\leq 800\mu s$



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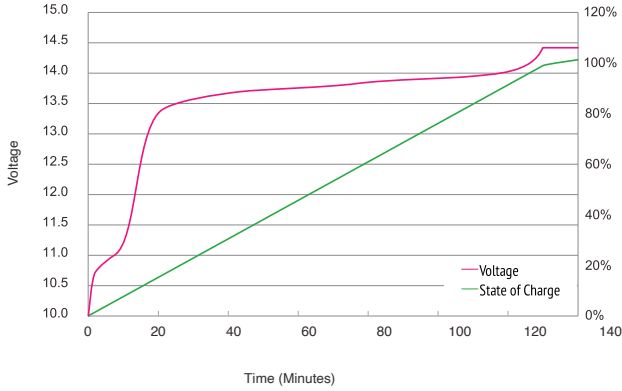
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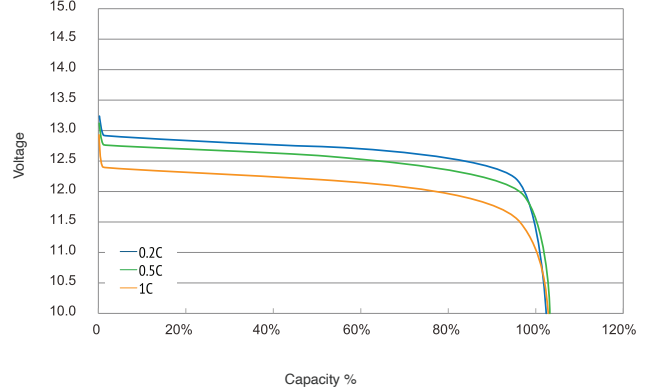


Characteristics Curve

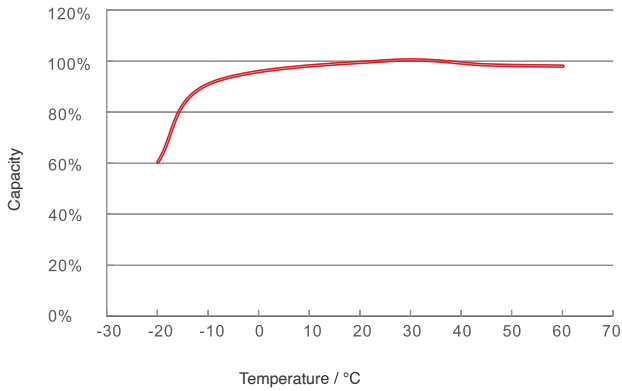
Charging Characteristics (0.5C @ 25°C)



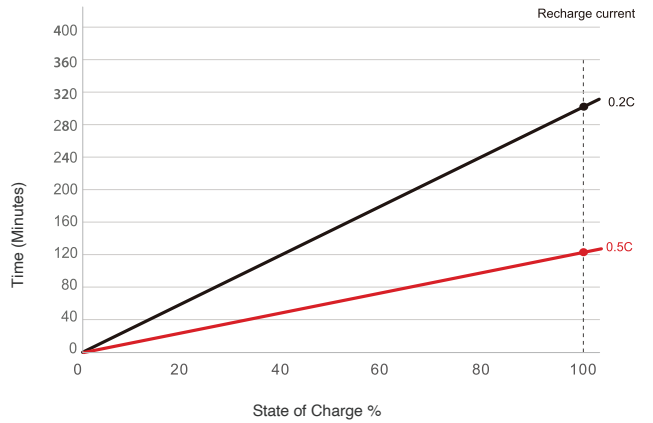
Discharging Characteristics (0.2C, 0.5C, 1C @ 25°C)



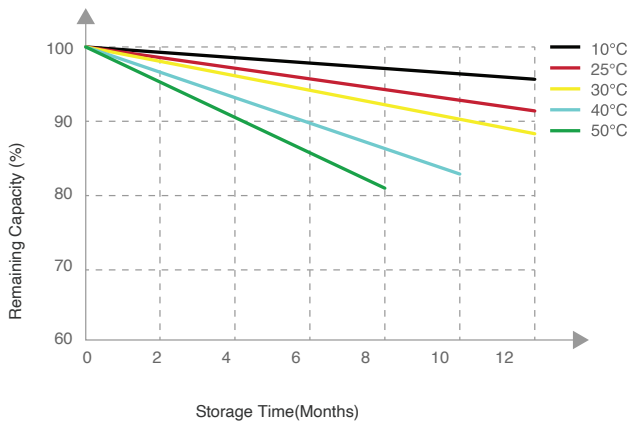
Different Temperature Capacity Curve



Typical Charge Time Curve



Different Temperature Self Discharge Curve



Different DOD Discharge Cycle Life Curve

