AMP-TECH
DEEP CYCLE BATTERY

LITHIUM

ATLS12-100

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

MSDS UN38.3 ISO45000

3 YEARS WARRANTY

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 ≤ 0.01C (CC/CV)	
	Max Charge Voltage	14.4 ± 0.2V	
	Charge Current	≤50A (0.2C @ 20A)	
	Max Current	50A	
Discharge Specifications	Recommended Discharge Current	≤50A (0.2C @ 20A)	
	Max Continuous Current	100A	
	Cut-off Voltage	10V	
Environmental Specifications	Charge Temperature	0°C to 55°C	60 ± 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
Overcharge protection Cells	High voltage protection	3.75V±0.05V
	Recovery point	3.55V±0.05V
	Reset trigger	below reset value
	Time delay	5s
Over discharge protection Cells	Low voltage protection	2.2V±0.05V
	Reset trigger	2.7V±0.05V
	Reset trigger	cut load, auto release
	Time delay	5s
Overcurrent	Max discharge current protection	500A±50A
	Discharge current protection reset	cut load, auto release
	Time delay	300mS

Circuit Protection	Characteristic	Parameters
Short circuit protection	Short circuit protection	700A
	Time delay	≤ 800μs
High temperature protection	Max charge temperature	65°C±3°C
	Recovery point	45°C±3°C
	Time delay	10s
	Max discharge temperature	65°C±3°C
	Recovery point	45°C±3°C
	Time delay	10s
	MOSFET over temperature protection	90°C±5°C
Cell imbalance protection	Vcell balancing condition	≥3.6V
	Vcell balancing condition	25-50mV
	Balancing current	116±10mA

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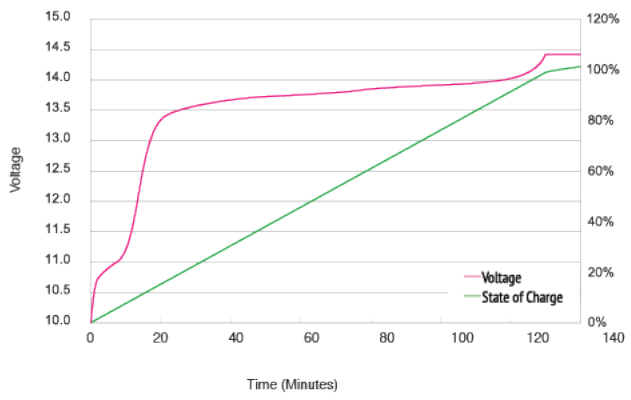
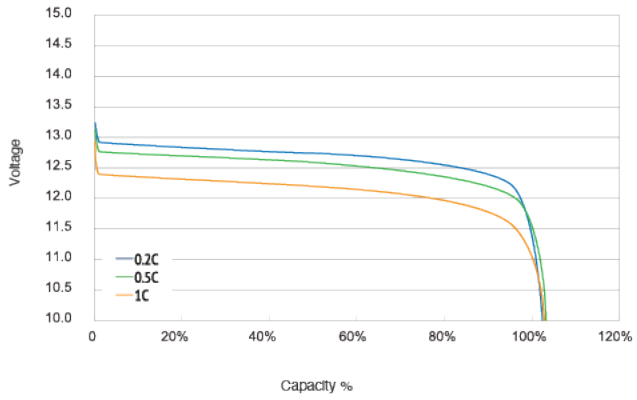
Characteristics Curve

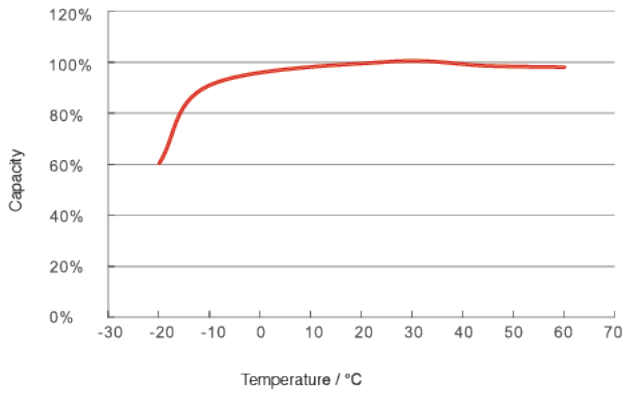
Charging Characteristics (0.5C @25°C)



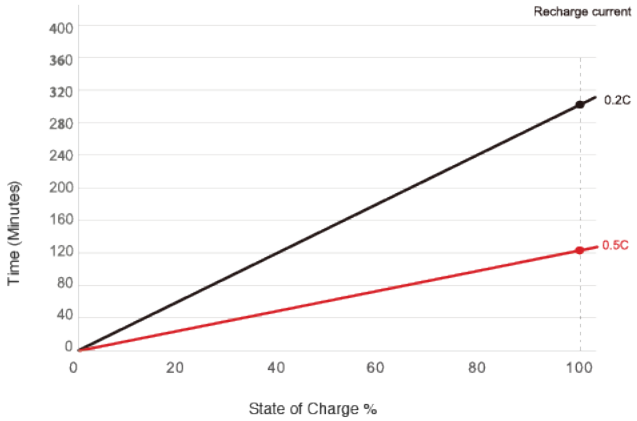
Disharging Characteristics (0.2C, 0.5C, 1C @25°C)



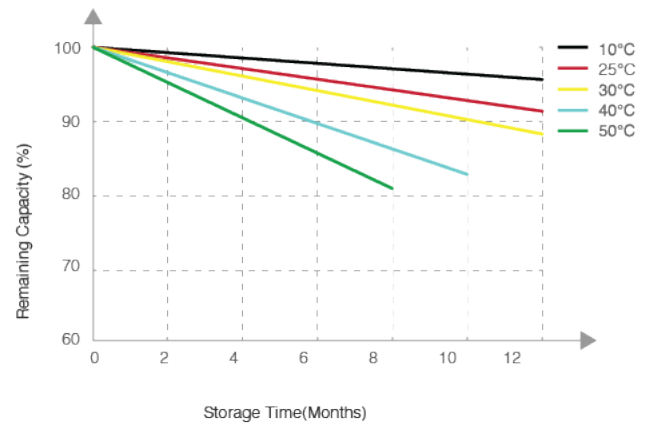
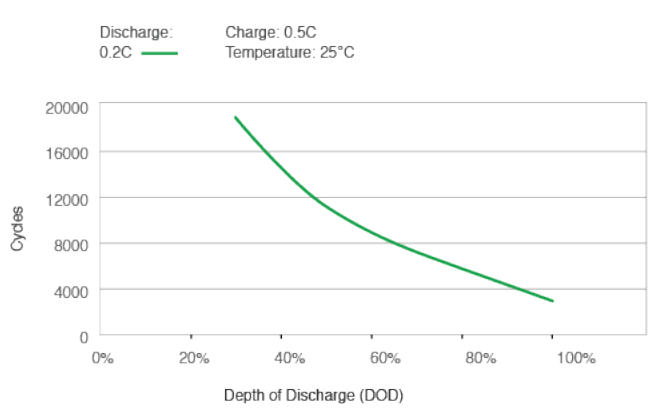
Different Temperature Capacity Curve



Typical Charge Time Curve



Different Temperature Self Discharge Curve



Different DOD Discharge Cycle Life Curve