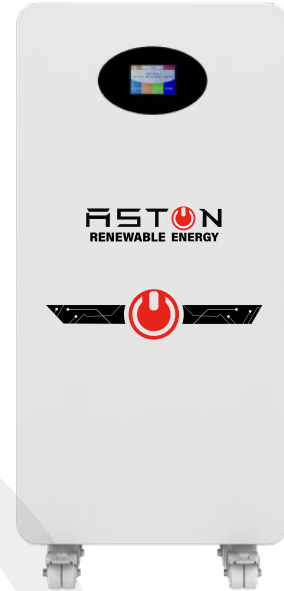


STA280-51.2 W (300Ah 51.2V)

Lithium ion Battery (LiFePO4)

ASTON lithium series batteries provide superior performance, capacities and reliability. Using state of high power cell technology, the lithium series is designed for environmentally sensitive areas that require enhanced cycle life capabilities in commercial.

ASTON lithium batteries are widely used in industrial, residential, commercial and private applications. The maintenance free construction and advanced design features makes the lithium series the definitive choice for a wide variety of markets.



BATTERY SPECIFICATIONS

Battery type-Chemistry	LiFePO4	Voltage Window	43.2V-58.4V
Nominal Voltage	51.2V	Recommend Charge Voltage	56V
Nominal Capacity	300Ah	Max Charge Voltage	58.4V
Energy Density	15360Wh	Recommend Charge Current	60A
Dimensions(LxWxH)	897*413.4*233mm	Max Continuous Current	150A
Weight	130KGS	Recommend Discharge Voltage	44.8V
Terminal Type	Plug-in	Max Discharging Voltage	43.2V
Terminal Torque	8.5NM	Max Continuous Discharge Current	150A
Case Material	SPCC	Peak Discharge Current	200A
BMS build-in	Yes	Cycle Life(0.2C, 25°C@80% DOD)	8000 Cycles
AH Efficiency – round trip	>98%	Discharge Temperature	(- 20 to 55)°C
Self Discharge per Month	<3%	Charge Temperature	(0 to 55)°C
Max in Parallel	16PCS	Storage Temperature	(- 20 to 45)°C
Max in Series	Not Allowed	Bluetooth(App)	Optional
LCD Screen	Optional	Heating Function	Optional
WiFi Function	Optional		

BMS CHARACTERISTICS

Primary Charging Protection	Current :155A	Delay Time: 20s
Second Charging Protection	Current :160A	Delay Time: 2~3s
Primary Discharging Protection	Current :155A	Delay Time: 10s
Second Discharging Protection	Current :200A	Delay Time: 100ms
Over charge Voltage Protection	Voltage :58.4V	Delay Time: 1~2s
Over Discharge Voltage Protection	Voltage :43.2V	Delay Time: 1~2s
Temperature Protection	PCB Temperature≥95 Recover≤85	°C °C
Communication Port	Major RS485, optional for CAN / Dry port, customized acceptable	

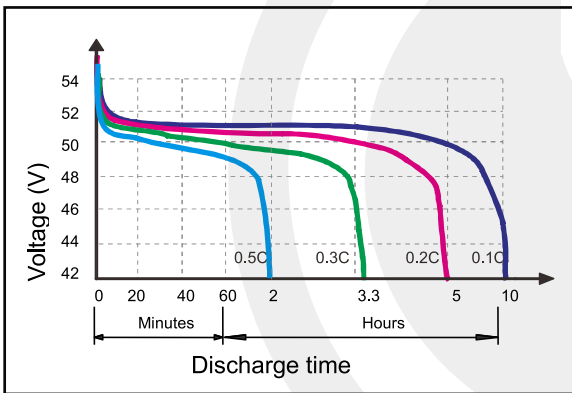
Constant Current Discharge Data (Amperes @ 25°C)

Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut off voltage (44.8V)	–	140A	93A	70A	56A	28A	14A

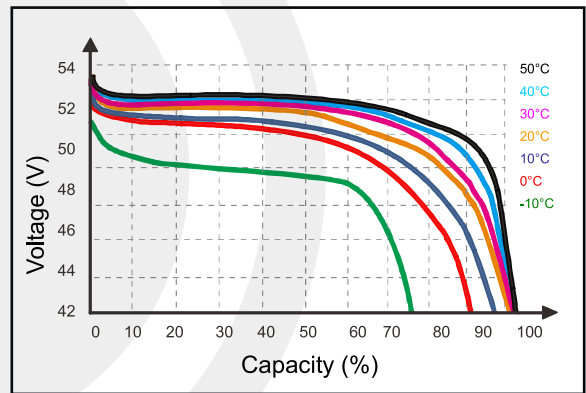
Constant Power Discharge Data (Watts @ 25°C)

Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut off voltage (44.8V)	--	7168W	4779W	3584W	2867W	1434W	717W

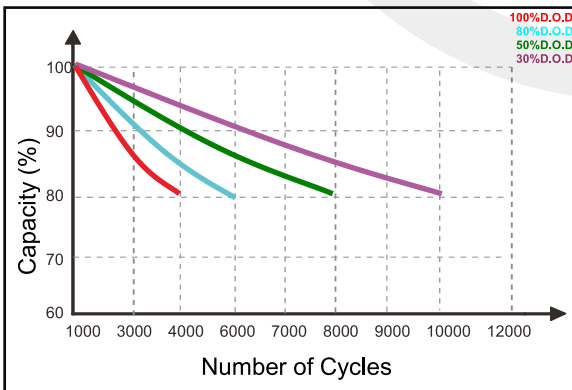
Discharge characteristics (25°C)



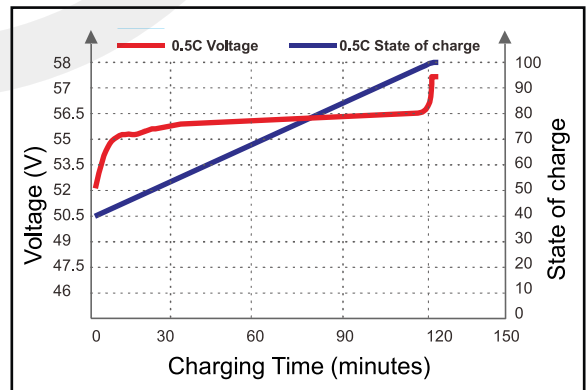
Different Temperature Discharge Curve (0.5C)



Different DOD Discharge cycle life Curve 0.2C 25°C



State of Charge Curve (0.5C, 25°C)



Note 1: Please always refer to the latest edition of our technical manual that published on our website to ensure safe and efficient operation.

Note 2: When make parallel connection, please full discharge batteries, then recharge after parallel connected; when series connect, please keep batteries with same remain capacity/

Note 3: Parallel connection is only for longer backup time, not for larger output power.