AST-320 12.8V 320AH Lithium Battery

Solmax New Energy B.V.
www.solarfam.nl
1.2025

Advantages of AST-320



Standard size &light weight: AST-320 has the same standard size (353mm*198mm*250mm) as conventional lead acid batteries and weighs less than half of the capacity-equivalent lead acid battery.

Cycle life: Longer than traditional lithium batteries, with up to 6,000 charge and discharge cycles, while other types of lithium batteries (such as lithium cobalt batteries) generally last for 500-1,000 cycles.

Body design: The entire body is made of ABS+PC flame-retardant material using a single mold. The product is aesthetically pleasing, has a robust structure and designed for easy standardization. The front of the battery displays the brand and specifications. Handrails are provided on both sides for easy handling. The cover features a QR code sticker that provides user instructions and supports mobile app connectivity.

BMS Protection: The Battery Management System (BMS) balances voltage to ensure optimal battery performance. Each AST-320 battery has an integrated BMS that protects it from extreme conditions, enhancing safety and reliability.

Anti-swelling Protection: An aluminum alloy plate is used to secure and position the battery cells, while the stainless steel hoop provide reinforcement for the entire battery cell group. Square battery cells have the tendency to swell after long-term use. When fixed with tape, the cells may swell over time, potentially damaging the battery shell. The purpose of the stainless steel hoop is to ensure adequate strength, preventing swelling and maintaining the structural integrity of the battery during extended use.

Heating function: Solve performance issues in low temperature environments and ensure that batteries can still work safely and efficiently in cold conditions.

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Electrical Specifications

Nominal Voltage	12.8V
Nominal Capacity	320Ah
Nominal Energy	4096Wh
Internal Resistance	≤30mΩ
Self Discharge	3%/per month
Parallel connection	Support
Series connection	Support and up to 4 units in series (≤51.2V)

Mechanical Specifications

Terminal Type	M8
Weight	27.2kg
Dimension	353*198*250mm
Cell type / Chemistry	LiFePO4
Case type	ABS+PC
Function	Bluetooth+WiFi
BMS: low voltage, high voltage, over temperature, over current, short-circuit protection, etc.	

Discharge Current and Voltage Specifications

Max Discharge Current	300A (5s)
BMS Low Voltge Cut-off	10V
BMS Reconnect Voltage	10.2V
Short Circuit Protection	560μs Auto release within 5s after disconnecting the load

Charge Current and Voltage Specifications

Max Charge Current	300A (5s)
Recommend Charge Voltage	14.6V
BMS Over Charge Voltage Cut-off	15V
BMS Reconnect Voltage	14.6V
Balancing Voltage	3.3V

Temperature Ranges

Discharge Temperature	-30~65℃
Charge Temperature	0~75℃
Storage Temperature Range	-40~65℃
MOS High Temperature Protection	105℃

Email:info@solarfam.nl
Tel: 0031-307855708