A123 SYSTEMS

ALM 12V7

A123 Systems Nanophosphate® lithium ion ALM 12V7 solution designed as a lighter-weight, longer-lasting replacement for lead acid batteries. Based on A123's field-proven ANR26650 cells, the ALM 12V7 delivers higher power, greater energy density and increased safety to deliver superior performance and reduced operating costs as compared to lead acid for data center and telecommunications backup systems, uninterruptible power supplies (UPS), medical equipment and a number of other commercial applications.

Long Life

A123's ALM 12V7 is designed to deliver up to 20 times longer cycle life and five times longer float/calendar life than lead acid, helping to minimize replacement costs and reduce total cost of ownership.

Light Weight

The ALM 12V7 weighs less than half of comparable lead acid batteries, providing customers with a lighter-weight solution to optimize their product design and avoid unnecessary oversizing, which helps minimize cost and system complexity.

High Power Capability

A123's ALM 12V7 is designed to deliver twice the power of lead acid, including at high discharge rates, while maintaining high energy capacity to maximize product performance.

Robust Safety

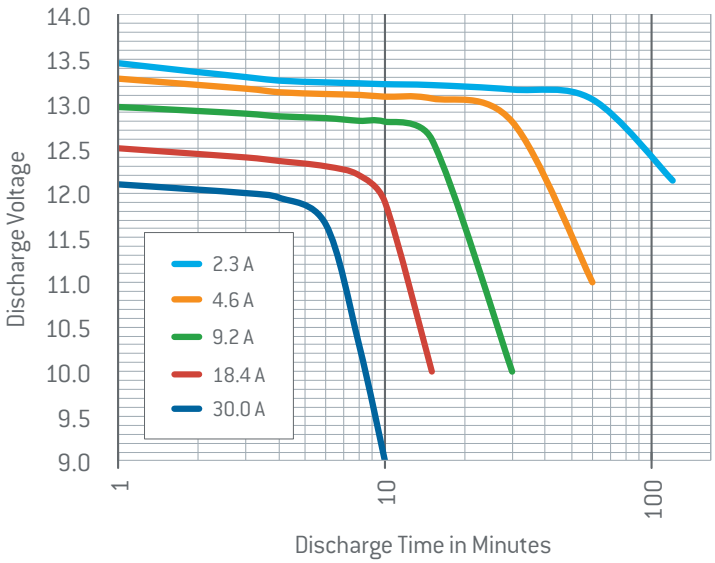
A123's proprietary Nanophosphate technology offers excellent abuse tolerance, establishing a foundation of safety at the cell level. In addition, multiple system-level layers of protection are employed to deliver greater durability and reliability compared to lead acid and competing lithium ion battery technologies.

Increased Flexibility

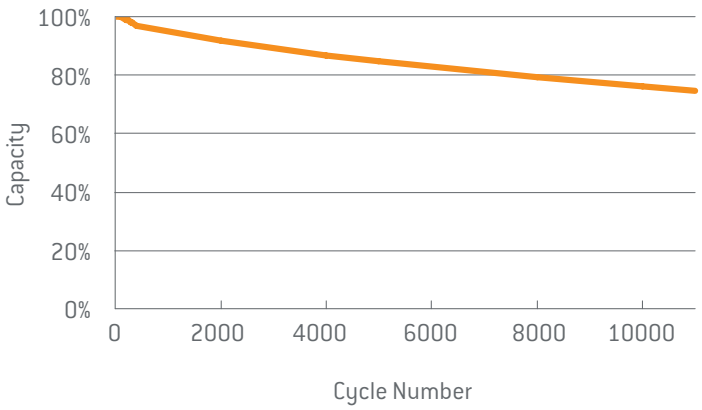
A modular design enables the deployment of up to four ALM 12V7s in series and up to 10 in parallel without requiring additional electronics, helping to reduce system complexity while increasing durability.

ELECTRICAL SPECIFICATIONS			
Nominal Voltage	13.2 V	Charging Continuous Current	10 A
Nominal Capacity	4.6 Ah	Recharge Voltage	14.4 V
Available Energy *(Beginning of Life)*	60 Wh	Recommended Float Voltage	13.8 V
Maximum Output Power *(followed by a rest period of 2 hours)*	345 W	Fuse	30 A
Maximum Output Current	30 A *(600 s max)*	Modularity Maximum Configuration	4 in series 10 in parallel
Operating Temperature	–20° C to +58° C	Storage Temperature	–40° C to +60° C

ALM 12V7 Discharge Voltage Versus Discharge Time at 25°C



1C-1C, 100% Depth Of Discharge (DOD) Cycle Life at 25°C



ALM 12V7 Applications

DATA CENTER

- IT Server Backup
- Storage Power Backup

TELECOM

- Tower Backup
- Cable/Fiber Node Backup

SECURITY SYSTEMS

- Battery Backup
- Cameras
- Lights

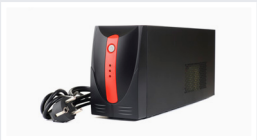
MEDICAL

- Beds
- Cart Batteries

ELECTRIC MOBILITY

- Wheelchairs
- Scooters, E-bikes, Electric Toys

UPS SYSTEMS



MECHANICAL SPECIFICATIONS

Length	Width	Height	Weight
151 mm	64.5 mm	99.7 mm	855 g

Integrated safety systems including short circuit, overvoltage and overdischarge protection | The first lithium ion battery pack to be UL Recognized. (UL Subject 1973 testing) | Meets REACH, RoHS, and Battery Directive requirements | Meets FCC 47CFR 15B class B | CE certified (IEC 61000-6-2, IEC 61000-6-4) | UNDOT 38.3

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