

ALM 12V7

A123 Energy's ALM line of monoblock lithium Nanophosphate® battery modules are designed as a **lighter-weight, longer-lasting** replacement for lead acid batteries.

They deliver **higher power, increased safety** and **exceptional calendar and cycle life** compared with lead acid. The ALM 12V7 features integrated safety systems including short circuit, over-voltage and over-discharge protection. **Superior performance** and **reduced operating costs** benefits applications such as data center and telecommunications backup systems, uninterruptible power supplies (UPS), medical equipment, unattended monitoring stations and other commercial applications.

ALM 12V7 Applications



UPS SYSTEMS

- IT Server Backup
- Data Centers
- Desk Top UPS



MEDICAL

- Beds
- Computer Carts



TELECOM BACKUP POWER

- Micro Cell Base Stations
- Microwave Backhaul Sites
- Cable/Fiber Nodes



ELECTRIC MOBILITY

- Wheelchairs
- Scooters, E-bikes, Electric Toys



SECURITY SYSTEMS

- Panel Backup
- Cameras
- Lights



AUTONOMOUS ROBOTS

- Warehouse Logistics
- Medical/Hospital Logistics
- Hazardous Environments

A123 ENERGY

SOLUTIONS



ALM 12V7 CHARACTERISTICS

Nominal Voltage	13.2V
Nominal Capacity (1C)	5Ah
Nominal Capacity (4C)	5Ah
Dimensions excl terminals L x W x H	151 x 64.5 x 99.7mm (5.9 x 2.5 x 3.9in)
Weight (approx)	855g (1.9lbs)
Available Energy (Beginning of Life)	66Wh
Maximum Pulse Current	30A
Maximum Continuous Current	22.5A
Recommended Charge Method	3A CCCV to 14.4V
Max Continuous Charge	10A
Maximum Charge Voltage	14.4
Recommended Float Voltage	14.0
Operating Temperature	-20 to +58°C
Recommended Storage Temperature	-40 to +35°C

SAFETY AND COMPLIANCE

UL 1973 Recognized

REACH, RoHS and Battery Directive (2006/66/EC)

Meets FCC 47CFR 15B Class B

CE Mark (IEC61000-6-2, IEC 61000-6-4)

UN Manual of Tests and Criteria Part III 38.3





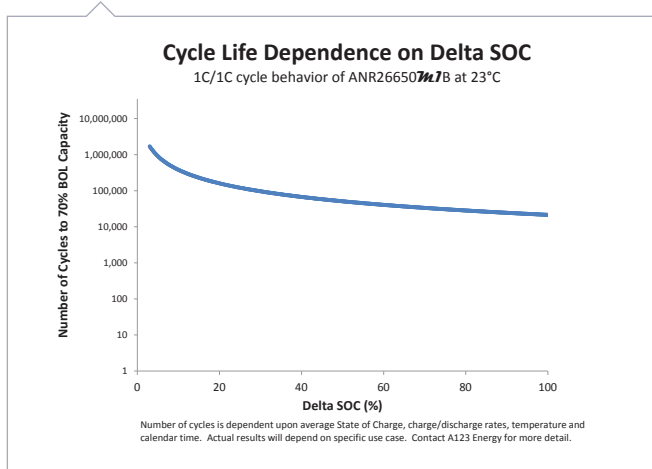
High Power Capability

- Designed to deliver high discharge rates, while maintaining high energy capacity to maximize product performance.
- May be combined in arrays to deliver up to 48V, 10Ah. (4S2P)



Long Life

Delivers over 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



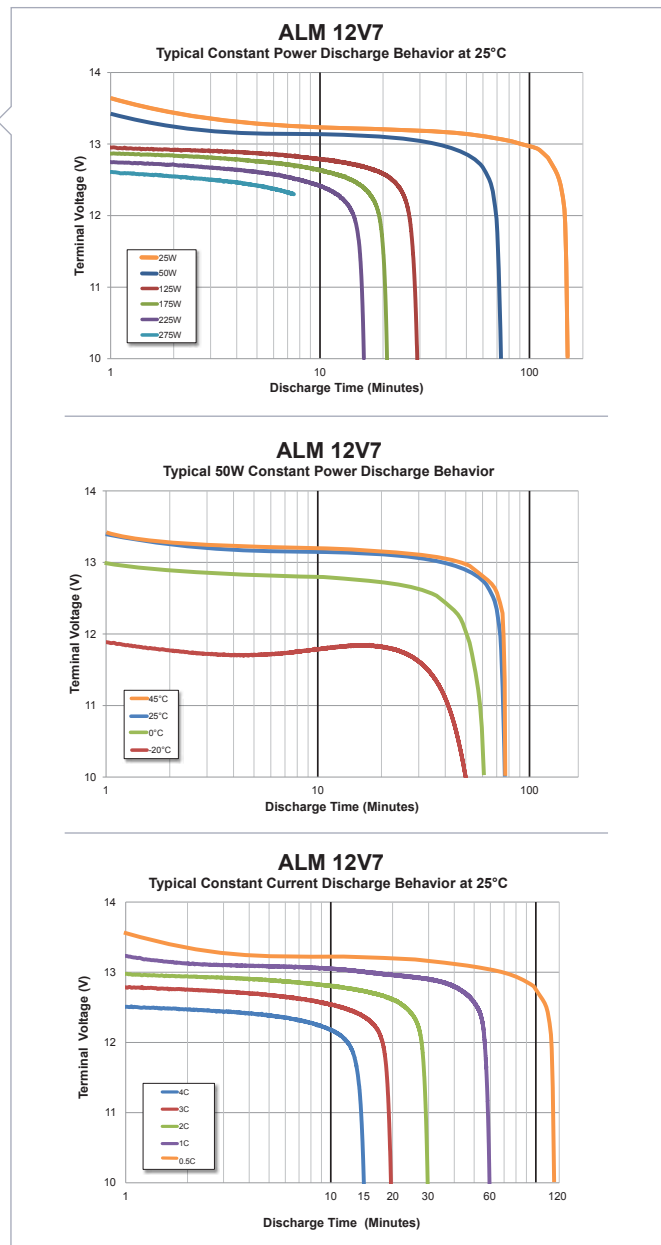
Light Weight

The ALM 12V7 weighs less than half that of comparable lead acid batteries, providing customers with a lighter-weight solution to optimize their product design, ease installation effort and lower logistics costs.



Robust Safety

- Integrated over-voltage and under-voltage protection
- Replaceable 30A fuse
- Proven safety of A123 Nanophosphate® based Lithium Iron Phosphate chemistry
- UL 1973 Recognized



Increased Flexibility

- Compatible with most 12V lead acid chargers up to 10A
- Designed with 0.250" faston terminal tabs
- Cells contain no lead or cadmium
- 2+ year shelf life before recharge required

Constant Power Discharge Characteristics in Watts @ 25°C	End Voltage	Up to 7.5 min	15 min	30 min	45 min	60 min	90 min	120 min
	10V	275	239	124	84	64	44	33

Constant Current Discharge Characteristics in Amps @ 25°C	End Voltage	Up to 7.5 min	15 min	30 min	45 min	60 min	90 min	120 min
	10V	22.5	19.2	9.6	6.4	4.8	3.2	2.4