



12V LiFePO<sub>4</sub>



## Auxiliary Power for Modern Work Trucks

ELiMENT® 12V LiFePO<sub>4</sub> Batteries are high performance auxiliary power solutions designed to support the increasing electrical demands of modern work trucks. When integrated with the EPEQ® 12V Electrification Platform, ELiMENT® batteries provide reliable, engine-off power for 12V loads and inverters while protecting the vehicle starting system and supporting idle reduction requirements.

### ELiMENT® 5kWh Electrical Specifications (All Models – 12V)

Parameter	100Ah Model	200Ah Model	300Ah Model
Nominal Voltage	12.8V	12.8V	12.8V
Capacity	1280Wh	2560Wh	3840Wh
Low Voltage Cutoff	9.6V	9.6V	9.6V
High Voltage Cutoff	15.6V	15.6V	15.6V
Max Charge Current	100A	200A	300A
Continuous Charge Current	50A	100A	150A
Max Discharge Current (3 sec)	500A	1000A	1500A
Continuous Discharge Current	100A	200A	300A
Efficiency	99%	99%	99%
Battery Group Size	Group 31	Group 31	8D
Dimensions (L × W × H)	13" × 7" × 10"	13" × 7" × 10"	20.5" × 10.7" × 8.9"
Weight	31 lbs	44 lbs	62.5 lbs
Terminal Type	3/8 16 UNC Thread	3/8 16 UNC Thread	3/8 16 UNC Thread
Enclosure Rating	IP65 – Water Resistant	IP65	IP65



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# ELiMENT<sup>®</sup> 12V LiFePO<sub>4</sub> Battery Systems



## Key Features & Benefits

- Lithium Iron Phosphate (LiFePO<sub>4</sub>) chemistry for superior safety and stability
- High energy density with significant weight reduction vs. AGM / lead acid
- Full rated power output down to 10% state-of-charge
- Fast charge capability with high acceptance rates
- Zero maintenance – no watering, no sulfation
- Integrated Battery Management System (BMS) with multi-level protections
- Integrated heaters for cold weather charging and operation
- Parallel connect capable for scalable runtime and inverter capacity

## Battery Management & Protection

Integrated EPEQ<sup>®</sup> Battery Management System (BMS) provides:

- Over current protection
- Over charge protection
- Over discharge protection
- Over temperature protection
- Under temperature protection

## Lifespan & Reliability

- Cycle life: 3,000 cycles @ 80% depth of discharge
- Typical service life: 8–10 years (application dependent)
- Shelf life: 24+ months
- Zero sulfation or memory effect

## System Configuration

- Parallel connection supported for increased capacity and runtime
- Compatible with alternator charging, DC-DC charging, and shore power systems

## Applications

- Hydraulic power units
- Lube skids and transfer pumps
- Electric cranes
- Dump bodies
- Lifting jacks, winches, fans

## General & Mission Critical Loads

- Inverter powered AC tools
- Communications and telematics equipment
- Safety lighting and beacons
- Monitoring and control systems
- UPS style backup for critical electronics

## AGM / Lead Acid Replacement

- Direct replacement for Group 31 and 8D AGM / lead acid batteries
- Up to 100% usable capacity vs ~50% for lead acid
- Over 2× service life compared to AGM
- Reduced system weight and total cost of ownership

## Certifications

- UL1642 (Cells)
- IEC62133 (Cells)

## Warranty

- 24 month limited warranty



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