



# OlenBox series

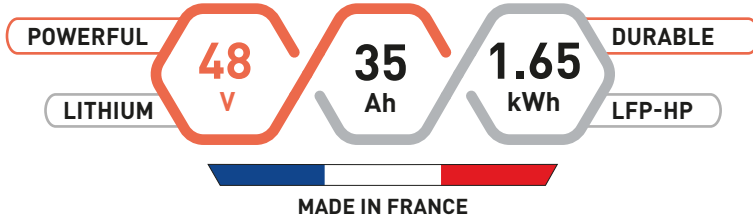
# LMax-LP

- ULTRA COMPACT
- LIGHT WEIGHT
- DESIGNED TO ENDURE
- NO MAINTENANCE
- USABLE IN ALL DIRECTIONS
- 10X PARALLEL ASSEMBLY

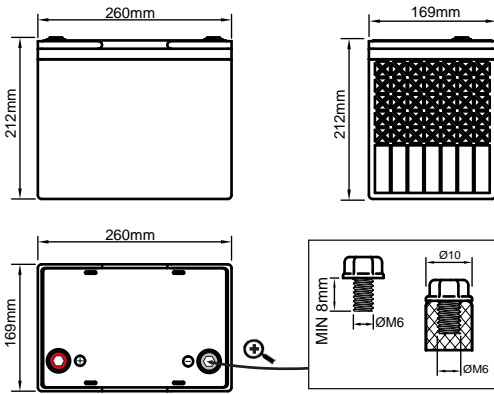
WARRANTY  
**2**  
YEARS

THE LIGHT & COMPACT  
SLOW DISCHARGE BATTERY

## TECHNICAL SHEET



### DIMENSIONS



### SPECIFICATIONS

| Electrical             |               | Mechanical                |                  |
|------------------------|---------------|---------------------------|------------------|
| Rated voltage          | 52.0 V        | Casing material           | ABS              |
| Rated capacity         | 32.0 Ah       | Dimensions (W*D*H)        | 260*169*212 mm   |
| Energy                 | 1.66 kWh      | Weight                    | <b>12.00 kg</b>  |
| Internal resistance    | < 105 mΩ      | Terminals                 | M6               |
| Monthly self discharge | < 3 %         | Ingress protection code   | IP65             |
| Charge                 |               | Discharge                 |                  |
| Charge efficiency      | > 99 %        | Discharge efficiency      | > 98%            |
| Charge voltage         | 58.0 ± 0.1 V  | Continuous current        | <b>10 A</b>      |
| Charge mode            | CC/CV         | Maximum current 10 sec.   | <b>30 A</b>      |
| Rated charge current   | 10.0 A        | Discharge cut-off voltage | 40.0 V           |
| Charge cut-off current | 0.05C         | Configurable thresholds   | No               |
| Lead-acid chargers     | Compatible    | Exceeding values          | No               |
| Temperature            |               | Quality                   |                  |
| Charge temperature     | 0°C   +50°C   | Certifications            | CE, RoHS, UN38.3 |
| Discharge temperature  | -20°C   +65°C | Warranty                  | 2 years          |
| Storage temperature    | +15°C   +35°C | Manufacturing country     | France           |

### MADE IN FRANCE INNOVATION

- ✓ High Performance Lithium LFP Technology
- ✓ Reliable energy source
- ✓ 60% lighter than a lead acid battery
- ✓ Designed to last 20 years
- ✓ Charge efficiency close to 100%
- ✓ Built-in safety mechanisms
- ✓ From 4,000 to 12,000 cycles (refer to curves)
- ✓ No « memory effect »

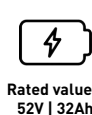
### APPLICATIONS

- Lighting & Instrumentation**  
Test & Measurement, Camera, Lighting, Energy case, Weather station, Pumping...
- Marine, mobility and robotics**  
Boats, Recreational vehicles, Robots, Construction, Forklifts...
- Critical power supply**  
UPS, Datacenter, Medical infrastructures...
- Solar storage**  
Self-consumption, Renewable energies, Vehicle to grid, Grid services...

Cluster your batteries, add a screen and join the MERLIN IoT ecosystem!



Accessories sold separately



# CURVES PROFILES



**SAFE**  
**DURABLE**  
**POWERFUL**

- ✓ 4,000 cycles @80% DoD @80% SoH
- ✓ 8,000 cycles @70% DoD @70% SoH
- ✓ 12,000 cycles @60% DoD @80% SoH



## Longest service life on the market

Our systems are designed to last up to 20 years providing the lowest Total Cost of Ownership (TCO).



## Eco-friendly

Circular Economy product.  
Recyclable battery containing neither lead nor cobalt.



## 100% secure

LFP-HP chemistry is intrinsically safe and the BMS protect the battery. No risk of fire or deflagration.



## Replaces 2 lead-acid batteries

Olenergies LFP-HP batteries can be discharged at 100% of useful capacity (lead-acid = 50%) !



## Charge efficiency close to 100%

There is no need to follow a sequential curve. Charging efficiency is close to 100%.

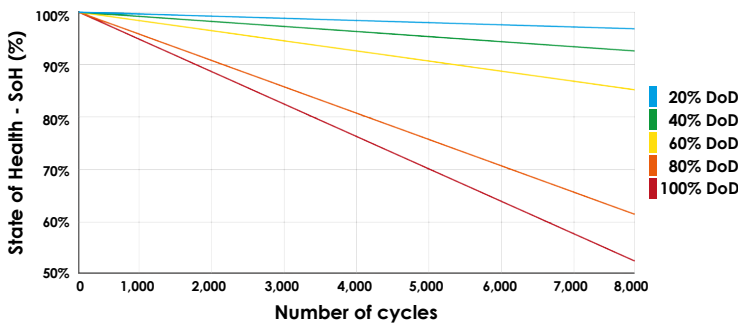


## Equal voltage throughout the discharge

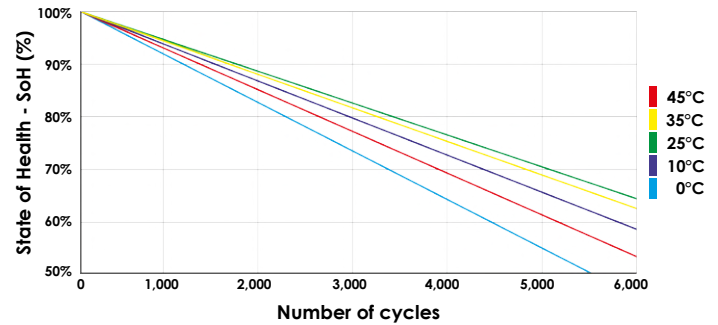
Unlike a lead-acid battery, our technology provide the same voltage levels throughout the discharge process.

## LIFETIME CURVES

State of Health (SoH) related to the number of cycles for different Depths of Discharge (DoD) @C/5 and 25°C

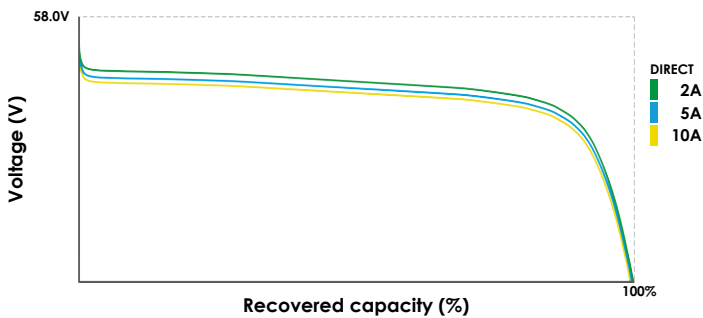


State of Health (SoH) related to the number of cycles for different temperatures @C/5 and 100% DoD

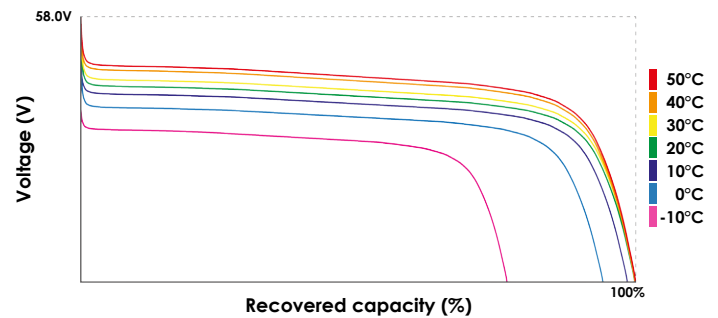


## DISCHARGE CURVES

Voltage curves @25°C for various discharge currents

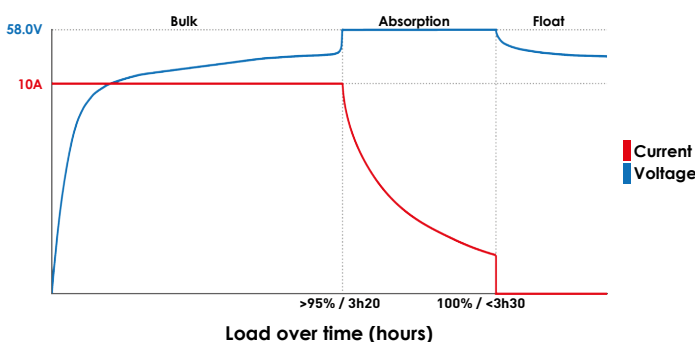


Voltage curves @C/5 for various temperatures



## CHARGE CURVE

Constant Current/ Constant Voltage (CC/CV) recommended charge



## SELF-DISCHARGE CURVE

Self-discharge according to time and storage temperature

