

# CELL POWER

CLF battery series



## A durable and high capacity battery for many applications

### Highlights

- Up to 6.000 charging cycles at 50% Depth of Discharge (DoD)
- Up to 10 times more cycles and 2 times longer range compared with AGM batteries
- Compact and lightweight (1/3 of the weight and 1/2 of the size of a lead-acid battery)
- IoT module available for constant monitoring – ideal for service and maintenance purposes
- Long operating range compared to other lithium batteries
- High resistance to short and deep discharges
- CAN-bus communication

## Exploring the world of LiFePO4 batteries

LiFePO<sub>4</sub>, or Lithium Iron Phosphate, batteries have revolutionised the landscape of energy storage solutions. These batteries have gained immense popularity among various user segments. Understanding the fundamentals of LiFePO<sub>4</sub> batteries sheds light on their remarkable features, advantages, and diverse applications across different industries.

### Chemistry

LiFePO<sub>4</sub> batteries derive their name from their chemical components, which include lithium as the active element, iron phosphate as the cathode material, and a porous separator. This unique chemistry offers inherent stability, increased safety, and exceptional resistance to thermal and chemical stress, distinguishing them from traditional lithium-ion batteries.

### Advantages

The remarkable advantages of LiFePO<sub>4</sub> batteries lie in their high energy density and extended cycle life. These batteries can endure approximately 2.000 to 6.000 charge cycles, far exceeding conventional options. Their low self-discharge rate ensures they retain up to 80% of their charge even after prolonged storage. Additionally, their safety features, including a Battery Management System (BMS), resistance to thermal runaway and overcharging, makes the CLF series an ideal choice for applications where safety is a top priority.

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## BMS AND CAN-COMMUNICATION

Easy communication with CAN-compatible monitoring systems

Several types of monitoring systems available

IoT module available for constant monitoring – ideal for service and maintenance purposes

Wide range of parameters/information available for optimal monitoring of your battery:

- State of Charge (SoC), Voltage, and Ah
- Temperature
- Individual cell voltage
- Service life – number of cycles up to 6.000
- State of Health (SoH)
- Active logging information

## CAPACITY

Available in various power ratings and capacities:

- **CLF 80-24**  
(80Ah – 24V) (L 329 x W 169 x H 224)
- **CLF 60-24**  
(60Ah – 24V) (L 259 x W 169 x H 229)
- **CLF 40-24**  
(40Ah – 24V) (L 197 x W 165 x H 185)
- **CLF 40-48**  
(40Ah – 48V) (L 329 x W 169 x H 224)

Up to 6 batteries can be connected in parallel (higher parallel amount on request)

Extremely high Depth of Discharge (DoD)

Charging and discharging with a maximum of 1C

## THE PERFECT COMBINATION WITH CELLPPOWER ACCESSORIES

For optimal operation and lifespan, we recommend using our Cellpower Lithium chargers

Various monitoring systems available

Our CLF Series batteries are best paired with our CCL battery chargers for optimal performance and longevity



## QUALITY

UN 38.3 certified

IEC 62133:2017 certified

Housing: Coated and galvanised steel

Very robust internal construction capable of withstanding shock and vibration levels typical for EV applications and transport

5-year warranty