

Invest for
the long
term.



centiel
continuous power availability

Centiel LiFePO₄ Batteries

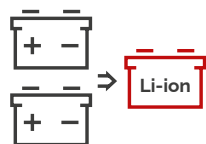


Li-ion batteries

Li-ion batteries' high-power density means that a larger amount of energy can be stored in a smaller surface. Combining this with its lightweight material makes Lithium batteries an ideal solution for projects with limited floor space.

Total cost of ownership is another major benefit of Li-ion's solutions. Extended life expectancy removes the need for multiple battery replacements during the lifecycle of the UPS. High operating temperatures lowers the investments in cooling, reducing the overall total cost of the system.

One of the major concerns with Lithium devices is safety. At high temperatures, the chemical decomposition of most lithium-based storage devices generates O_2 , increasing the risk of thermal runaway. $LiFePO_4$ chemical composition is the safest and most reliable li-ion battery solution available. $LiFePO_4$ can operate at higher temperatures without generating O_2 .



Optimised
footprint
and weight

up to **70%** smaller

up to **80%** lighter



Reduced
TCO

Extended **LIFE**

LOWER cooling
needs



Highly
safe

O₂ free at high
temperatures

24/7 Battery
monitoring





Exceptionally flexible and scalable solution

Compatible with Centiel's 3-phase product family



Up to **3.6MW** | Up to **15** battery cabinets

Centiel's LiFe product range has been designed with flexibility and scalability in mind.

Each cabinet can hold 10 or 12 battery modules with rating of **20, 40, 50, 60 and 100Ah**, achieving up to 61.4 kWh per frame.

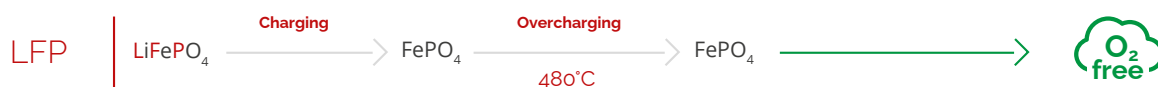
Parallelable for up to 15 cabinets offering various configurations to achieve a flexible and scalable solution for all power protection requirements.

Centiel's Li-ion batteries are compatible with all Centiel's 3-phase Uninterruptible Power Supplies (UPS) and can be integrated into existing installations.

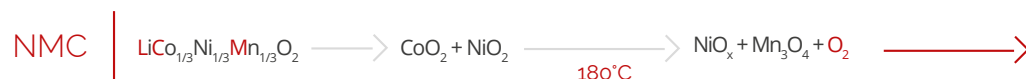
For modular and parallel UPS systems, both common, and separate battery configurations are available. For redundancy at battery level a separate battery system can be used to supply each individual unit or UPS module. In the event of a failure of one battery set, autonomy at full load can still be maintained.

The Technology

LiFePO₄ chemical reactions



Other batteries' chemical reactions





Multi-Level Monitoring

Monitoring at a cell, module, and frame level delivers a comprehensive overview of the battery health and runtime and increases the reliability and safety of the entire system.

The Battery Monitoring System (BMS) incorporates both cell and module balancing controls to optimize

the voltages and charging currents of each module, maximising performance and increasing service life.

Monitoring at frame level ensures clear visibility of the battery's status. Alerts and events are displayed on the unit and delivered to external monitoring devices through various communication protocols.

Benefits

Flexibility

Various configurations and cabinet ratings

Adaptability

Easily integrated with existing Centiel installations

Redundancy on autonomy

Common or separate battery

Long lifespan

No need to replace at 3-5 years or 7-10 Years

High operating temperature

Reduced cooling requirements

High power efficiency

Reduced operational costs

Reduced Footprint

Up to 70% less than VRLA

Scalability

Ideal for redundancy or power upgrades

Service friendly

Front access for simple service and installation
In-frame frontal access DC battery line protection

A

System Monitoring

B

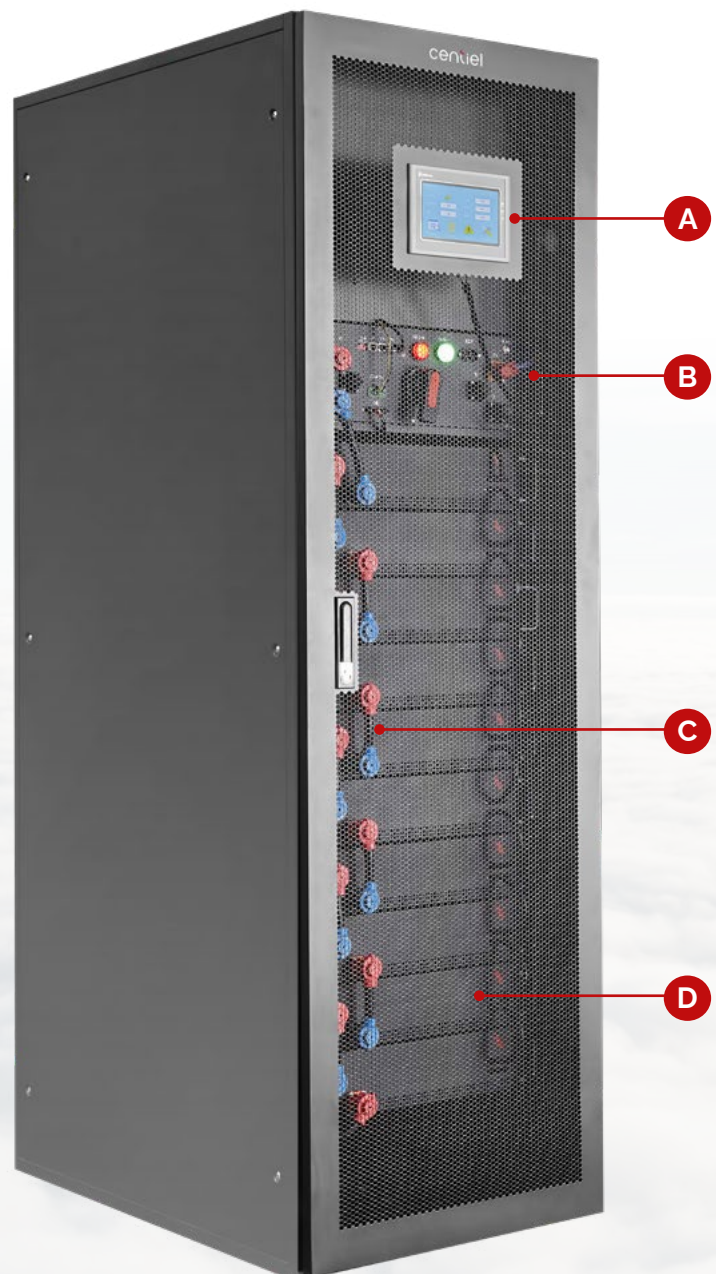
**Cabinet Battery
Management System (CBMS)**

C

Connection links

D

Battery Modules





- Fast battery recharge times
- Swappable battery modules
- Improved serviceability and installation
- Reduced maintenance of battery components
- No single-point of failure in communication with UPS between battery modules
- 24/7 monitoring
- Safest LiFePO₄ Li-ion technology with multi-level monitoring

Technical data

Model	LIB-512V-20	LIB-614.4V-20	LIB-512V-40	LIB-614.4V-40	LIB-512V-50	LIB-614.4V-50	LIB-512V-60	LIB-614.4V-60	LIB-512V-100	LIB-614.4V-100
# of battery modules	10	12	10	12	10	12	10	12	10	12
Rated capacity (Ah)	20Ah	20Ah	40Ah	40Ah	50Ah	50Ah	60Ah	60Ah	100Ah	100Ah
Rated Energy (kWh)	10.2	12.3	20.5	24.6	25.6	30.7	30.7	36.9	51.2	64.4
Nominal voltage (Vdc)	512	614.4	512	614.4	512	614.4	512	614.4	512	614.4
Operating temperature	0 – 50 C									
Operating humidity	60 ±25% R.H.									
Weight (kg)	370	400	600	680	550	620	950	1100	900	1040
Dimensions (WxDxH) mm	600 x 800 x 2000				600 x 1000 x 2000				600 x 2000 x 1000	600 x 1000 x 2300
Colour	Black									



centiel
continuous power availability

