NCPower
Your Lithium Partner

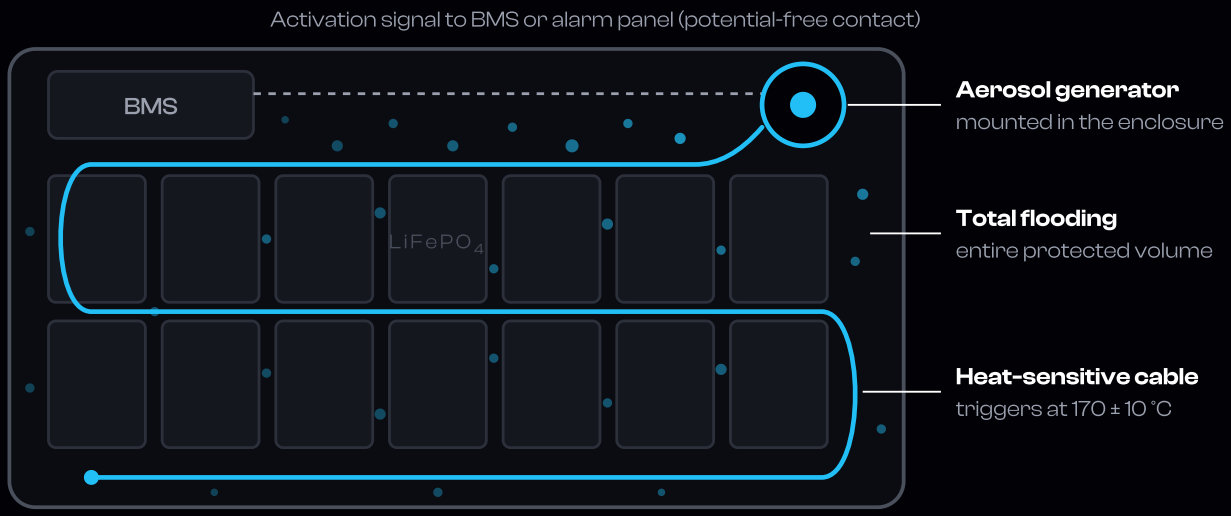
STANDARD ON EVERY BATTERY

AUTOMATIC AEROSOL FIRE SUPPRESSION SYSTEM

Automatic fire suppression built into the battery

NCPower $LiFePO_4$ batteries come fitted as standard with a condensed-aerosol fire suppression system installed inside the battery enclosure. It detects fire through a heat-sensitive cable or an electrical signal and discharges the extinguishing agent in under 5 seconds, with no pressurisation, no piping and no maintenance for 10 years.





OPERATING SEQUENCE

01
Detection

A heat-sensitive cable runs through the critical areas of the enclosure and triggers at 170 ± 10 °C with no external power. Electrical activation (12 V DC, ≥ 0.7 A) from the BMS or an alarm panel is also supported.

02
Discharge

The generator activates in under 5 s, releasing sub-micron particles that spread through the entire protected volume.

03
Suppression and alert

The agent works by cooling and by chemical inhibition of combustion. A potential-free contact confirms activation to the monitoring system.

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Suppression principle

Physical action: heat absorption

The metal salts and carbonates in the aerosol decompose endothermically, lowering the temperature at the fire source and the energy available to sustain combustion.

Chemical action: radical inhibition

Potassium and strontium ions, in gas and solid phase, capture the free radicals H•, OH• and O• and break the combustion chain reaction.

< 1 µm	< 5 s	10 years	−50 / +95 °C
particle size	activation time	maintenance-free service life	operating temperature

Key features

Autonomous activation

Thermal triggering does not depend on external power or on the state of the machine.

Maintenance-free

10-year service life with no refilling or pressure checks. Only the wiring needs inspecting.

Unpressurised

Stored at atmospheric pressure. No pressure vessels and no piping network.

Compact integration

Ø 72 × 27 mm and 230 g in the standard format. Minimal impact on usable enclosure space.

Monitoring signal

Normally-open potential-free contact that closes on activation, ready for the BMS or an alarm panel.

Environmentally sound

Halon-free with zero ozone depletion. Non-toxic, non-corrosive agent.

Technical data

	Compact format	Standard format
Protected volume	**up to 0.2 m³**	**up to 0.6 m³**
Thermal activation	Heat-sensitive cable · 170 ± 10 °C	Heat-sensitive cable
Electrical activation	12 V DC · ≥ 0.7 A	≥ 700 mA
Discharge time	< 5 s	≤ 12 s
Operating temperature	−50 to +95 °C	−50 to +100 °C
Feedback signal	Potential-free contact (NO)	Potential-free contact
Dimensions · weight	80 × 70 mm (body)	Ø 72 × 27 mm · 230 g
Service life	10 years	10 years

Technical data supplied by the device manufacturer (standard XF 499.1-2010). The system extinguishes the flame and limits fire spread inside the enclosure; it complements the BMS protections and does not replace them.

Standard on every NCPower battery

Every battery leaves our factory protected, with no extra set-up.

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