

INTILION

Safety first.

INTILION | FLEPS

Fire Limiter & Environmental Protection System – Comprehensive fire protection concept for INTILION battery systems

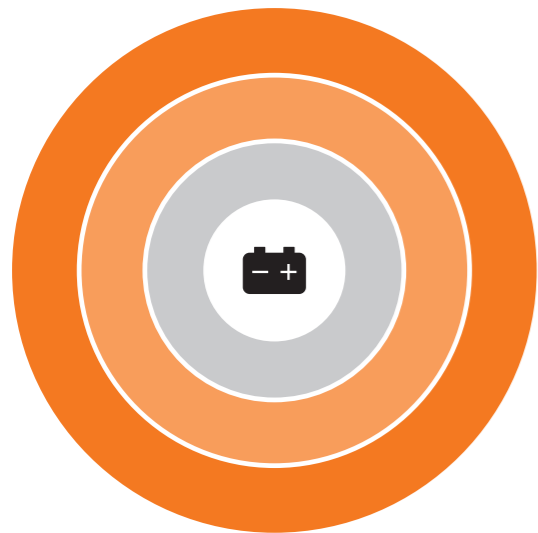




Your safety is our top priority – Triple protection

INTILION fire protection system at a glance

As a company committed to sustainable energy supply, we place the highest value on the quality and reliability of our products. For this reason, we exclusively use high-quality lithium-ion high-voltage batteries from renowned manufacturers that are characterised by their outstanding performance and durability. However, we acknowledge that every battery storage system carries a certain level of risk. Therefore, we have decided to equip our battery storage systems with additional safety components.



1. Safety level: Battery management system

The integrated battery management system constantly monitors the battery and switches it off in case any operating parameters are exceeded.

2. Safety level: Overall system control

System control ensures that the battery storage is constantly operating in the optimal range. System control handles thermal management, monitoring, remote access, and plausibility checks of the system control values.

3. Safety level: Fire protection enclosure FLEPS

The innovative fire protection enclosure FLEPS completes the comprehensive safety concept.



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Reliability guaranteed by INTILION | FLEPS fire protection system

Feel completely safe with FLEPS – like a fire door for your energy storage

Modern lithium-ion batteries are generally considered safe today. However, there are occasional reports of fires. These fires can cause significant damage and release potentially hazardous gases. To minimise the resulting risks, the highest safety standards must be met. This is where INTILION | FLEPS - Fire Limiter and Environmental Protection System comes in! FLEPS ensures the highest level of safety and environmental protection.

Although rare, lithium fires are not impossible. If external factors cause the defined battery operating range to be exceeded, this can lead to an increase in temperature in one or more cells. This temperature increase could cause a self-reinforcing reaction (thermal runaway) that cannot be stopped. This chain reaction can even trigger a major fire.

Our solution

INTILION | Fire Limiter & Environmental Protection System (FLEPS) is an innovative and ingenious fire protection concept for lithium-ion batteries. It reliably and safely prevents the spread of a module fire to adjacent modules and thus prevents a complete failure of the entire battery storage system. It meets the test criteria of VDE-AR-E 2510-50 (safety requirements for storage, transport, installation, operation, maintenance, dismantling, and recycling of stationary battery storage systems with lithium-ion batteries) and ensures highest reliability due to its purely mechanical design*. In the event of the gas emission of one or more cells of a module, the escaping gas is fed to the outside through a kind of labyrinth. The increased flow resistance compresses and oversaturates the gas, making it no longer flammable. Additionally, potentially occurring sparks are extinguished. With the help of gas oversaturation and the cleverly constructed labyrinth, fire or explosion are reliably prevented, thus minimising financial loss and health damage.



INTILION | FLEPS:

Doesn't burn nor explode

Prevents a fire or even an explosion by discharging the outgassing through a specially designed labyrinth system

Doesn't spread

Limits propagation to max. one module. Thus, a fire is prevented because no open flames are emitted

Protects water & environment

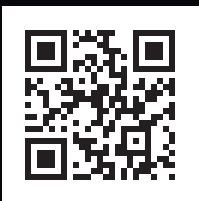
In the event of an accident, electrolytes cannot leak nor enter groundwater or wastewater due to extinguishing water



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* INTILION ensures compliance with safety criteria through demonstrated and certified tests at recognised testing institutes.

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All information in this brochure are based on the current status of technology. Our products are subject to continuous further development, therefore we reserve the right to make changes. All illustrations similar.