

Lithium-ion Battery Solution



Reliable, lightweight and compact UPS energy storage for critical applications such as data centres, healthcare, building infrastructures, transportation, and manufacturing.

Lithium-ion battery systems

Each battery cabinet has dedicated battery management systems at single module and rack level, plus fuse, circuit breaker protection and a dedicated 24 V power supply.

A single cabinet configuration of 34.6kWh comprises one switchgear, one switched mode power supply (SMPS) and 17 battery modules.

For additional battery capacity, cabinets can be installed in parallel to increase capacity up to 5 MW per single system.

Switchgear collects all information about each battery cell and controls all battery module management systems calculating state of charge (SoC) and state of health (SoH). It also contains a moulded case circuit breaker and a shunt resistor.

SMPS supplies the power for BMS and communicates with UPS and other racks in parallel. It is available in two versions with or without BMS for single or multiple parallel configuration.

Battery module contains eight series-connected 67 Ah, 3.8 V cells and a dedicated battery module management system (BMS), which measures major parameters, controls cell balancing and interacts with the switchgear.

When you want power protection for a data centre, production line or any other type of critical process, lithium-ion battery solutions provide peace of mind and the performance you need.

Housed in a tough enclosure, lithium-ion battery technology provides reliable, lightweight and compact energy storage for UPS systems.

Why lithium-ion batteries?

Valve-regulated lead acid (VRLA) batteries – sometimes known as sealed lead-acid batteries – have many advantages and have traditionally been the battery of choice for backup power in UPS systems. However, battery technology has progressed rapidly in recent years. Today, lithium-ion battery technology is an attractive option – especially where high energy density and low weight are important. Advantages such as longer lifespan, smaller size and weight, shorter recharging times and falling prices only add to the appeal of lithium-ion battery solutions.

Key benefits

Outstanding performance	Lightweight
Higher reliability than VRLA	Longer battery life
Single cell temperature, current, voltage and charge status are all monitored	Increased power density
Fast charge and discharge rate	Reduced footprint and volume
Higher power and efficiency	Wide operating temperature range
Low total cost of ownership	High safety level
Lower maintenance overhead	Scalable
Less need for cooling	Low weight (60–80% less than VRLA)



Switchgear

Switched-mode power supply (SMPS)

Battery module





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