

PowerQub™-XL



PowerQub™-XL offers a battery as a service module which utilises re-lifed electric vehicle (EV) batteries to create cost effective and environmentally friendly grid-scale energy storage.

Offering a 1 MWh solution, the PowerQub™-XL provides a sustainably sourced energy storage solution that is ideally suited for diesel replacement, grid storage, renewable energy storage, and remote community / facility power systems.

It also provides a solution to the large number of partially used automotive EV battery units, extending their life and preventing the need for complex recycling processes.

System features



Temperature

The system can either be air cooled or liquid cooled depending on the usage case, making it suitable for operation between 0°C and 50°C.



Higher efficiency

Adopting a cluster management technology increases system efficiency.

Cell to Cell active balance ensures the consistency between cells.



Intelligent Ops & Maintenance

Smart management and real time monitoring ensures high, efficient commissioning of the system.



Safe

The system has a multi-layered safety management system that constantly monitors every battery's cell health and temperature.

Gas/heat venting, fire protection and water suppression can be added as required.



Size

The system uses a compact modular design to deliver up to 1 MWh of storage per 20 ft shipping container.

Modules can be added or removed to customise the system to the required output.



Use Cases



Hydrocarbon Replacement

e.g. Diesel genset replacement.



Remote Community Power System

Battery module can be integrated with solar, wind, hydropower and diesel systems to provide a resilient micro-grid power system.



Grid storage

Frequency Control and Ancillary Services – FCAS, Energy Arbitrage and Stationary Storage.

Benefits



Carbon footprint

Enlivens ESG performance and the pursuit of net zero emissions.



Waste reduction

Achieved through Re-use and Re-purpose of EV batteries.



Modular and temporary

Easy to deploy without the need for building permits.

Items	Parameters
Type of cell	Nickel Cobalt Magnesium (NCM) or Lithium Iron Phosphate (LFP)
Cell parameters	400 V / 200 Ah or 400 V / 176 Ah
Max. charge/discharge power	450 kW
Energy system	3 phase, 50 Hz
Rated capacity	1000 kWh
Rated voltage	400 V AC Supply
Voltage tolerance	+10% -6%
Cooling method	Air / Liquid Cooling
Environmental temperature	0°C to 50°C
Operating temperature	0°C to 60°C
Cell provider	Tesla
Noise level	Very quiet
IP Grade	IP54
Paint system	C3 - medium (AS2312)
Fire systems	Temperature Sensors + Fume Venting
External communication interface	4G or WiFi
Dimensions (L x W x H)	6058 x 2438 x 2896 mm
Weight	≈ 13,500 kg

