

Hybrid Interactive

Our new flagship Grid-Interactive ESS range

Aimed at the new installation sector of the market, as well as those refused a G59 connection, has many USPs in the context of power capability.



ESS – HYBRID INTERACTIVE

For the first time the end user can have a system installed that meets their requirement, as opposed to a system limited by grid codes, opening a massive new market in the UK.

Our grid-interactive ESS, which is also modular, enables any size of renewable generation system to be grid-connected under G83.

ZHYPHEN DOMESTIC ESS RANGE

The domestic ESS range has a continuous power output capability from 2.5kW to 24kW depending on number of modules installed, whilst capable of exporting up to 3.68kW to the national grid if desired.

Our Powerhouse Z8.12 is an example standard model for a medium to large home. This has 8kW continuous power output capability, with 12kWh installed storage capacity, 10kWh usable capacity, and would be installed with a renewable generation system, e.g. a 3 to 6kW Solar PV array or wind turbine.

Fully autonomous off-grid capability applies to our Hybrid Grid-Interactive ESS, aimed at new installations.

During a power outage there is full generation capability from connected wind or solar source, and all load circuits in the property can be powered, up to the rating of the integrated inverter.



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Domestic

Grid Tied Energy Storage



High Power Output

Unique architecture in all Zhyphen systems produce more useable energy. Our ESS has only one power conversion process, therefore offering far more output. This process is greater than 98% efficient. Our ESS can provide a complete autonomous power supply, where other market leading ESS may not.

Connectivity and Monitoring

The Zhyphen proprietary Battery Management System (BMS) allows for connectivity to district network operators (DNOs) future digital platforms to create revenue streams such as demand side response (DSR) or frequency balancing further enhancing the ROI for the consumer. Excellent proprietary central energy management systems (EMS) measure all power going in and out of the batteries and calculates the available capacity to a high degree of accuracy. This is completed via the internal processor and 24bit ADC measurement devices. The battery capacity can be read on the installed display and on any Wi-Fi enabled device in %, Ah and kWh.

Excellent ROI

Due to the numerous design features allowing for more usable energy, compact design and increased battery life, Zhyphen ESS offers an extremely high ROI for end users. The unique proprietary BMS allows for only 80% deep discharge (DoD) typically doubling the lifespan compared to 100% DoD. All in one system: simply connect solar panels, grid and load consumer unit - there are no external components, making for a truly fully integrated unit which reduces time & costs therefore creating a very high ROI. The "plug & play" attribute also allows for our ESS to be installed in developing countries where high level electrical knowledge is scarce.

Proprietary Intelligent Battery Management system (BMS)/Greener

The BMS constantly monitors the condition of the battery cells. 3U modules can be replaced individually in the Zhyphen system. Other competitor systems require complete unit replacement. When the replaced modules eventually reach their end of life they are recyclable. LiFePO₄ protected with Solar BMS can last 20 to 30 years, where a typical lead acid will only last four to six years.



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