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Energy storage solutions for greener living

Offering sustainable and efficient off-grid power solutions, a new technology company focused on renewable energy storage products will be launching in the UK in January 2024. The product range includes both innovative portable power station and residential energy storage.

Marxon, sister company of Leoch Battery, aims to be at the forefront of innovative green energy storage technology and products. Its solutions are designed to provide more environmentally sustainable power alternatives and more efficient energy management solutions for residential, commercial, and industrial applications.

The brand offers a range of portable power stations that use advanced lithium battery technology. The pioneering nature of the storage solutions use advanced lithium battery technology alongside comprehensive and customisable energy storage systems.

The power stations are designed to provide clean and reliable energy for various devices, from smartphones and laptops to appliances and tools.

The company not only offers commercial options, but also provides energy storage solutions for domestic and rural applications, enabling efficient use and management of stored energy.

While the specific product offerings may vary, energy storage solutions for domestic and rural applications generally aim to provide efficient and reliable power for different needs.

Domestic energy storage systems may focus on supporting residential power usage and also might integrate with existing electrical setups. For rural applications, users may require robust and standalone systems capable of providing power in remote areas with limited infrastructure.

This unique offering provides tailored products to address the specific requirements of both domestic and rural energy storage applications.

The G1500 Portable Power Stations, also known as solar generators, convert solar energy into AC electricity that is stored within the units. The products use advanced technology like integrated MPPT controllers that enable maximum power point tracking to speed up solar recharging. This allows the power station to harness green energy sources, fulfilling the requirement for dependable off-grid power for some applications like outdoor use, camping, off-roading, over-landing, or RV living.

For RV living applications, the Marxon G1500 Portable Power Station highlights a key feature: its ability to connect up to two units in parallel. This allows users to expand the capacity to up to 2800 Wh and boost the AC output to up to 3600 W by paralleling two G1500 power stations. Namely, the parallel connection enables users to recharge larger trailers, RVs, or electric vehicles. It also boots up to 1,000 W AC fast recharging and 600 W solar input, which means you can fully charge the unit in under 1.5 hours. Besides, Marxon 1,500 automatically intelligently prioritises solar input, providing the possibility of an unlimited clean energy supply.

Apart from the G1500, the company also engineered the G300 Portable Power Station.

With 300 Wh of power capacity and 300 W of total AC output, the G300 is the perfect companion for charging smaller appliances during outdoor trips.

The G300 Portable Power Station uses fast solar power, with 120 W solar input, the integrated MPPT controller enables the solar generator set to operate at its max power point, so that it speeds up the battery recharge, allowing green power in the wild.

The high-capacity portable power station pumps out 300 Wh of power; the perfect companion to charge your devices and small appliances during an outdoor trip.

It is fully recharged by solar in less than four hours and can be fully charged by AC within 1.5 hours with a built-in battery charger, which means no AC adaptor is needed.

In the modern world, in which we are fighting the effects of climate change, we are forever in search of solutions for sustainable energy sources. This is why off-grid power has never been so important.

Leoch Battery UK's Kin Lee said, 'Off-grid power and energy storage are crucial because they provide independence from traditional power grids and offer reliable and sustainable energy solutions. They enable individuals and communities to have access to electricity in remote areas, during emergencies, or for outdoor activities. This can be life changing for those living in these places, allowing them to be able to live healthier, happier lives.

'With the current cost-of-living crisis affecting so many families and companies alike, we have found that we have been approached by more people looking for effective solutions to living off grid or to help lower their electricity bills.'

To address the urgent power needs arising from the UK's electricity price spike, Marxon develops products tailored to the unique circumstances of the UK. Its power systems integrate solar generation and battery storage to provide affordable, sustainable energy independent of the traditional grid.

And its self-generated energy technology not only ensures continuous supply but also can feed back the excess electricity to the grid to reduce carbon emissions.

The company's ESS is available in various capacity options, catering to a wide range of energy demands. From residential applications to large commercial installations, customers can choose the capacity that best suits their specific requirements.

For residential models, capacity options range from 5 kWh to 20 kWh and for commercial models, capacity options vary from 50 kWh to 500 kWh or more.

The modular design allows for easy scalability. Users can start with a smaller capacity and expand the system as their energy needs grow, making it a future-proof investment.

The system is equipped with a sophisticated Energy Management System that optimises energy usage and storage. It continuously analyses energy consumption patterns, weather forecasts, and grid conditions to ensure efficient charging and discharging, maximising energy savings.

It also boasts high energy conversion efficiency, minimising energy losses during charging and discharging cycles. The round-trip efficiency, typically exceeding 90%, ensures that more energy is stored and available for use.

Marxon's lithium-ion batteries have an impressive cycle life, with up to 5,000 charge-discharge cycles or more, depending on the model and usage conditions. This ensures long-lasting and reliable energy storage.

The ESS is also equipped with advanced communication protocols, allowing seamless integration with smart home or building automation systems. Users can monitor and control the system remotely through dedicated mobile apps or web interfaces.

Portable power stations provide several benefits, such as convenient and portable energy sources, silent operation, and the ability to power various devices simultaneously. They offer a clean and renewable alternative to traditional fuel-powered generators. However, disadvantages can include limited power capacity compared to large-scale systems and the need for recharging from a power source or solar panels.

Going off-grid and instead using a portable power station in a domestic or rural setting means you don't have to worry about power cuts caused by bad weather, damaged lines or capacity versus demand. An off-grid solution means you are totally self-sufficient, reliant solely upon the solar or wind power gathered yourself.

This can be particularly useful for rural settings which don't always have the necessary infrastructure to make it easy to access energy on-grid and because it's tricky to set up and hard to connect to, power cuts and outages can be more common.

Renewable off-grid energy also avoids having to pay ever-rising electricity bills. While the initial set up costs can be substantial, the long-term savings from creating your own power are often significant.

Kin Lee said, 'Our products are reliable natural energy conversion explorers and portable energy creators. Our commitment is to accelerate the improvement of human off-grid living and enhance the human experience of sustainable development by providing portable, sustainable and reliable power, accessible for all.'

Marxon products has the competitive advantage of being built and branched from a globally recognised company, Leoch Battery International. It has its own research and development teams as well as the manufacturing facilities worldwide to create a wide variety of energy storage solutions, with a supporting team here in the UK office.

Kin Lee said, 'This is a new and exciting venture which is still at the early stages and we are excited to see where the needs of our customers take us and what technologies and product we develop in years to come.

'Leoch will continue to focus on batteries as the needs for sustainable, remote power increases but the company is also aware of the much wider needs of energy storage. We have the resources and technical knowledge to help support the demands of the market as well as bring new ideas in the future.'

By offering high-quality portable power stations with advanced features and robust performance, they emphasise innovation, durability, and user-friendly design. Additionally, their products are backed by responsive customer support and a commitment to sustainability.

Marxon products can be viewed on the Leoch Battery exhibition stand at Solar and Storage Live at the NEC, Birmingham in October.

www.marxon.com
www.leochbattery.co.uk