

IN PARTNERSHIP

**V-TAC ENERGY**

POWER meets INTELLIGENCE

**pas safe**  
SOLUTIONS



# SMART ENERGY MANAGEMENT SOLUTIONS

Powering Homes \ Empowering Businesses \ Supporting Installers

[www.passafesolutions.co.uk](http://www.passafesolutions.co.uk)

# WHO WE ARE

## PAS SAFE SOLUTIONS

PAS Safe Solutions Ltd is the UK's emerging Super Distributor for Midea Hiconics by V-TAC, created to lead the market in advanced energy systems distribution, delivery, and commercial rollout. We exist to bridge world-class manufacturing with real UK market execution including best of breed support. We combine product, stock, logistics, sales capability, and technical expertise into one powerful platform that enables installers, developers, and housing providers to scale faster, install smarter, and deliver with confidence.

Our role is simple, to make premium energy technology easy to access, easy to sell, and easy to deploy across the UK alongside our vast range of complementary retrofit products for homes and businesses. We are not just a supplier. We are the commercial engine behind Midea by V-TAC in the UK. We're also your delivery partner. PAS Safe Solutions stands for strong partnerships enabling power, access and scale and above all, the type of support we'd like to receive if we were getting this excellent technology installed in the UK's drive to clean energy.

## V-TAC

Founded in 2009, V-TAC is a global company offering high-quality products in the Renewables Space ranging from LED Lighting to Solar PV to Battery Storage and Heat Pumps.

Leveraging its innovative green solutions, the company rapidly grew to enable 70+ countries throughout Europe, Asia Pacific, Africa, the Middle East, and the USA. As a result of a relentless pursuit of excellence, V-TAC has been listed in the London Stock Exchange Group's 1000 Companies to Inspire Europe.

Presence in

**70+**

Countries

**4000+**

Products

**45+**

Categories

**£150M+**

Global Turnover – FY24

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### C&I Solutions

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- Liquid-Cooled ESS
- AIO Air-Cooled ESS
- Liquid-Cooled ESS
- C&I Case Study



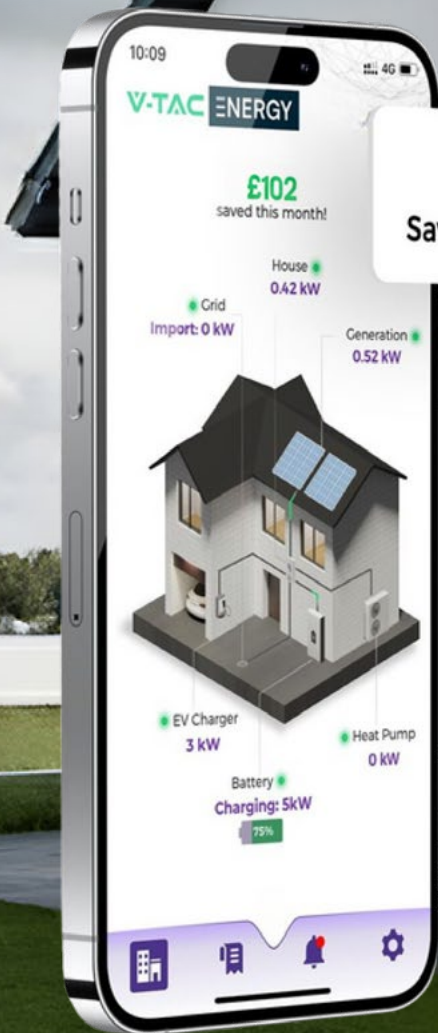
## 17

### Utility BESS Solutions

- BESS
- BESS Case Study



# RESIDENTIAL ENERGY SOLUTIONS



£102  
Saved this month



# STRING / ON-GRID INVERTERS

Single Phase



Technical sheet

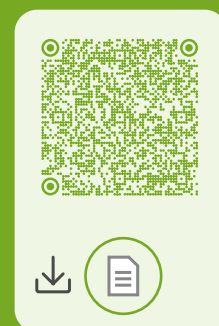


**3.6kW**

SKU: 11726



Technical sheet



**5kW**

SKU: 11832



Up to 98% efficiency for maximum energy output



Dual MPPT design for optimized solar performance



Smart monitoring with I-V curve diagnostics



Remote monitoring via RS485 / USB / WiFi / GPRS / Ethernet



IP65 outdoor design with built-in safety & surge protection



# HYBRID INVERTERS

Single Phase



Technical sheet

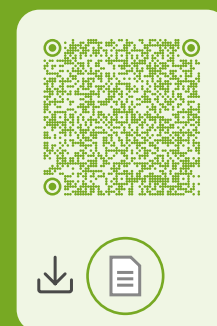


**3.6kW**

SKU: 11576



Technical sheet



**5kW**

SKU: 11819



Dual MPPT with up to 1.5x PV oversizing



Smart I-V curve scanning & diagnostics



Flexible power input & energy optimization



Smart monitoring & communication ready  
(Wi-Fi / Ethernet / GPRS / Modbus)



Advanced safety protections  
(AFCl, anti-islanding, surge protection)

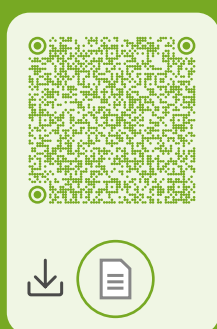


# COMPATIBLE BATTERIES

Lithium Battery



Technical sheet



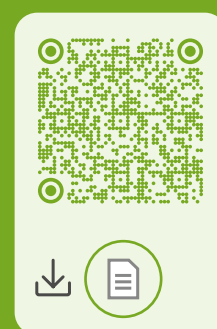
**5kWh**

SKU: 12315

Lithium-ION LFP Battery



Technical sheet



**10.24kWh**

SKU: 12653



High charge & discharge current



Wide operating temperature range (-20°C to +60°C)



Wall-mounted installation



Built-in intelligent BMS



IP65-rated, space-saving design

**10** YEAR WARRANTY

**IP65** RATING

# HiENERGY ALL-IN-ONE ESS

System Expansion – Single Phase

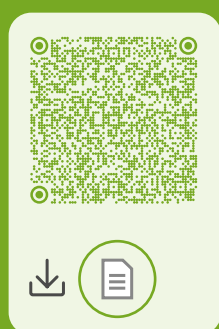
Technical sheet



Inverter | Battery

**3.6kW | 5kWh**

SKU: 119881



**1 Extra Battery**



**3.6kW | 10kWh**

SKU: 119881-2

**2 Extra Batteries**



**3.6kW | 15kWh**

SKU: 119881-3

**3 Extra Batteries**



**3.6kW | 20kWh**

SKU: 119881-4  
(2 x BMS Stacks)

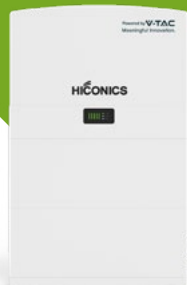
**5 Extra Batteries**



**3.6kW | 30kWh**

SKU: 119881-6  
(2 x BMS Stacks)

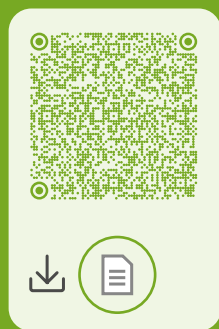
Technical sheet



Inverter | Battery

**6kW | 10kWh**

SKU: 119821



**1 Extra Battery**



**6kW | 15kWh**

SKU: 119821-3

**2 Extra Batteries**



**6kW | 20kWh**

SKU: 119821-4  
(2 x BMS Stacks)

**3 Extra Batteries**



**6kW | 30kWh**

SKU: 119821-6  
(2 x BMS Stacks)

## Expansion components



**5kWh Battery 1ph**

SKU: 11983



**BMS Box 1ph**

SKU: 11984



**2m Connection Cable**

SKU: 12153

Powered by



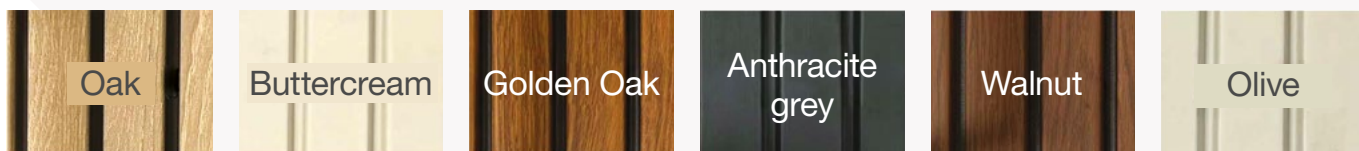
Starter Unit Includes: 1 x Hybrid Inverter, 1 or 2 x 5kWh Single Phase (1ph) Battery Pack, Single Phase (1ph) BMS Control Box and Base, WiFi Dongle (Basic Monitoring) and CT Clamp.

# BATTERY AND INVERTER COVERS



Improve the aesthetics, function and security of your Inverter and Battery Systems

## Available finishes



Available in all combinations of the **All-in-One ESS from 5kWh up to 40kWh**

### Unmatched Security

Visual deterrent.  
Lockable and traceable.

### Installation Flexibility

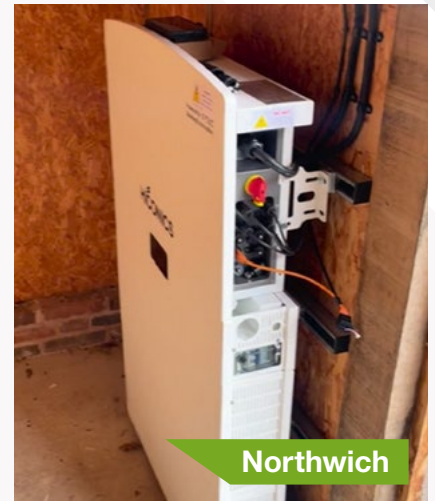
Enables external fitting of non-IP rated equipment. Increased customer satisfaction. Disregard sunlight and place on any elevation.

### Performance and Design

Optional insulation improves system performance.  
Wood effect cladding for visual harmony.



# LIVE INSTALLS ALL-IN-ONE ESS



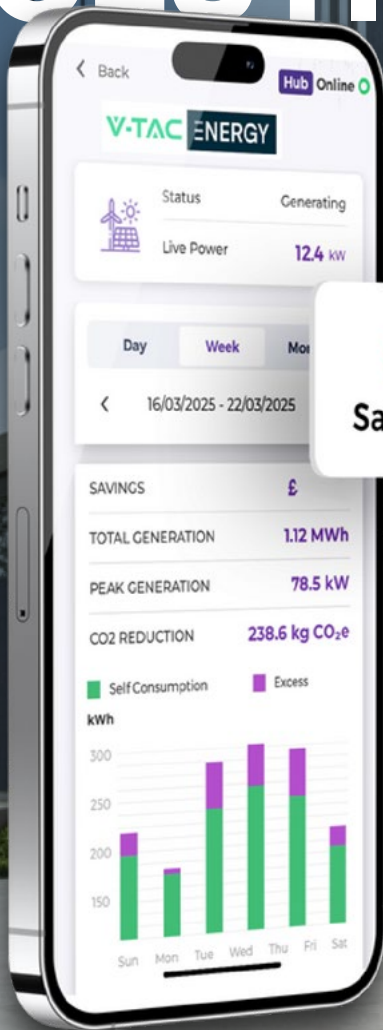
📍 Come and see the units for yourself at our showroom/warehouse in Preston, Lancashire.



📍 Units also installed at the National Energy Efficiency Centre in Leighton Buzzard.



# LIGHT COMMERCIAL ENERGY SOLUTIONS



**£2,715.45**  
Saved this month!



# HiENERGY ALL-IN-ONE ESS

System Expansion – Three Phase

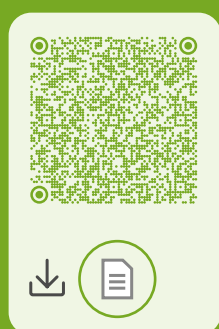


Inverter | Battery

**10kW | 10kWh**

SKU: 119901

Technical sheet



**1 Extra Battery**



**10kW | 15kWh**

SKU: 119901-3

**2 Extra Batteries**



**10kW | 20kWh**

SKU: 119901-4  
119901-4v2  
(2 x BMS Stacks)

**4 Extra Batteries**



**10kW | 30kWh**

SKU: 119901-6  
(2 x BMS Stacks)

**6 Extra Batteries**



**10kW | 40kWh**

SKU: 119901-8  
(2 x BMS Stacks)



Inverter | Battery

**15kW | 15kWh**

SKU: 122431

Technical sheet



**1 Extra Battery**



**15kW | 20kWh**

SKU: 122431-4  
SKU: 122431-4v2  
(2 x BMS Stacks)

**2 Extra Batteries**



**15kW | 30kWh**

SKU: 122431-6  
(2 x BMS Stacks)

**3 Extra Batteries**



**15kW | 40kWh**

SKU: 122431-8  
(2 x BMS Stacks)

## Expansion components



**5kWh Battery 3ph**

SKU: 11999



**BMS Box 3ph**

SKU: 12000



**2m Connection Cable**

SKU: 12153

Powered by



Starter Unit Includes: 1 x Hybrid Inverter, 2 or 3 x 5kWh Three Phase (3ph) Battery Pack, Three Phase (3ph) BMS Control Box and Base, WiFi Dongle (Basic Monitoring) and CT Clamp.

# COMMERCIAL & INDUSTRIAL ENERGY SOLUTIONS (C&I)

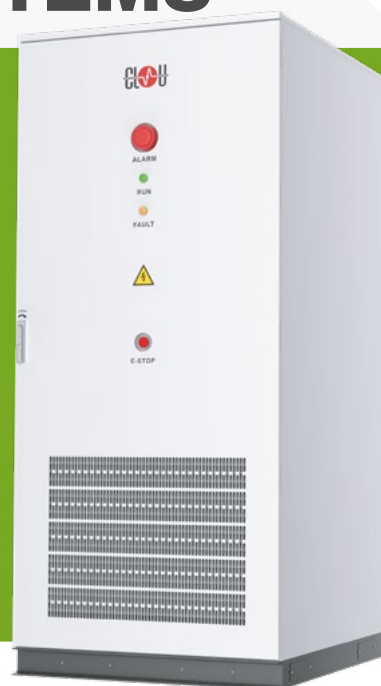
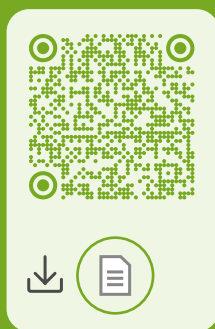


# AQUA-E-233 C&I LIQUID-COOLED ENERGY STORAGE SYSTEMS

Suitable for AC Coupled Systems

110kW | 233kWh

Technical sheet



05 YEAR WARRANTY

UP TO 10 YEAR EXTENDABLE

Globally Certified



**Low CAPEX:** Integrated design with a compact footprint of ~1.42 m<sup>2</sup>



**Intelligent BMS:** Extends system life by 2 years and boosts discharge capacity by 10%



**High Performance:** System efficiency exceeding 87% for maximum revenue output



**Advanced Temperature Control** ≤4°C temperature difference to extend battery lifespan



**Extreme Stability:** AI-driven risk prediction with precise fault detection and repair guidance.



**Suitable for extreme environments:** Corrosion protection rating of up to C5

## Intelligent Operation & Maintenance:

- ▶ Panoramic monitoring + AI algorithms - enables dynamic strategy optimization.
- ▶ OTA remote maintenance reduces labour costs.
- ▶ AI + Cloud-edge: Complete intelligence, incorporating data governance, secure operation, and energy management.

# ALL-IN-ONE AIR-COOLED ESS

50kW | 100kWh

The V-TAC 100 kWh Rechargeable Li-ion Battery System is a premium energy storage solution designed for commercial and industrial solar environments. Offering flexible DC or AC coupling and compatibility with hybrid inverters for direct solar connection, it integrates effortlessly into modern energy ecosystems. Powered by advanced LiFePO<sub>4</sub> technology and protected within an IP55 outdoor-rated enclosure, it delivers reliable performance in real-world conditions. With efficient air-cooling, strong power handling, and a 10-year warranty, it provides dependable energy security and long-term confidence for forward-thinking projects.

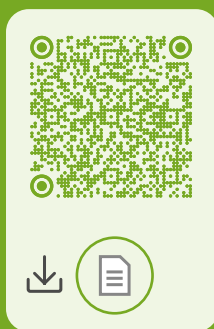


# ALL-IN-ONE AIR-COOLED ESS

Hybrid Inverters for Direct Solar Connection

50kW | 100kWh

Technical sheet



SKU: 12683



10 YEAR WARRANTY

IP55 RATING

Globally Certified



Safe LiFePO<sub>4</sub> Battery Technology



DC Coupled or AC Coupled



High Charge & Discharge Performance



Efficient Air-Cooling System



Wide Operating Voltage Range



Wide Operating Temperature Range



IP55 Outdoor-Rated Enclosure



100 kWh Energy Storage Capacity

# LIQUID-COOLED ENERGY STORAGE SYSTEMS

156kWh | 261kWh

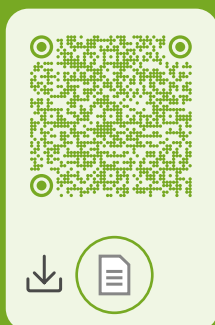
Engineered for reliability and performance, our Liquid-Cooled Energy Storage System delivers scalable energy capacity from 156kWh to 261kWh using high-density LiFePO<sub>4</sub> (LFP) cells and intelligent BMS protection. Supporting both DC-coupled and AC-coupled configurations, and compatible with hybrid inverters for direct solar connection, it integrates seamlessly into diverse PV and grid environments. Designed for industrial and commercial applications, it ensures optimal safety, long cycle life, and stable output through precision control, modular expandability, and real-time monitoring all within a compact, floor-mounted, IP65-certified design.



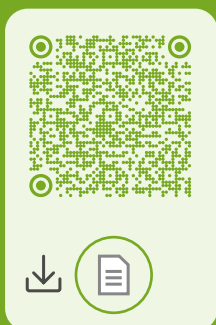
# LIQUID-COOLED ENERGY STORAGE SYSTEMS



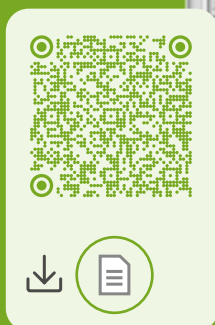
Technical sheets



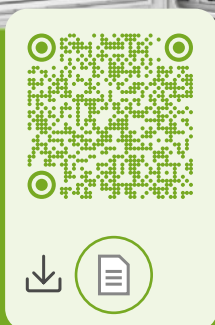
50kW | 156kWh



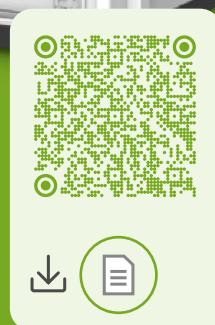
50kW | 208kWh



80kW | 156kWh



80kW | 208kWh



125kW | 261kWh

Globally Certified



## RECHARGEABLE LI-ION BATTERY SYSTEM

Designed for Direct Solar Connection. Compatible with 50kW, 80kW & 125kW Hybrid Inverter Systems.

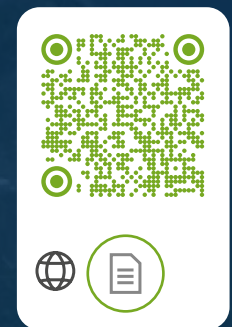
-  Compact footprint with high-density LFP technology
-  LFP battery pack with built-in aerosol fire safety
-  Expandable & modular solutions
-  Real-time monitoring
-  Temperature, over current & voltage protection
-  DC Coupled or AC Coupled
-  Over charge/discharge protection
-  Cell balance function
-  Short-circuit protection
-  Soft start function

# KEY PROJECTS

Veles Agro  
Poland



Scan or click icon to view the full case study



## Client Overview:

Veles Agro is a leading Polish enterprise in the agro production & supply space. Operating from a semi-remote area, the company plays a key role in supporting the surrounding rural economy by providing agricultural products, logistics and employment to local communities.

## The Challenge:

Located at a remote location, they faced frequent power fluctuations that resulted in operational downtime and higher energy costs. Veles Agro's existing infrastructure was

struggling to maintain stability during frequent power drops. The recurring outages caused:

- Production delays and machine shutdowns
- Loss of temperature-controlled stock
- Increased energy expenditure due to inefficiencies and reliance on backup systems

The challenge was to identify a single, compact and integrated solution that could provide a reliable and grid-independent power supply, simplify system monitoring and control, and optimize the operational costs (OPEX).

## The Solution:

V-TAC proposed the Aqua E-233 All-In-One Energy Storage System (ESS), a compact yet powerful solution integrating battery storage, energy management, and an AI-powered EMS app into one powerful system. The V-TAC team of energy experts installed three Aqua E-233 cabinets on site and strategically configured them to manage the facility's overall energy demand. The system ensured smooth power delivery during peak hours, while automatically storing surplus energy during low-demand periods.

# UTILITY BESS SOLUTIONS



## BESS

Available from 1mWh sizes; proposals will be made subject to a suitable site visit. Please ask to see one of you PAS Safe Account Managers and a member of our technical team for UK wide site suitability surveys.



Compact design delivering maximum storage capacity



Multi-layer protection with real-time monitoring



Seamless integration for diverse energy applications



Remote performance tracking and diagnostics

# KEY PROJECTS

West Country Concrete  
Exeter, United Kingdom



## Client Overview:

West Country Concrete, a leading concrete manufacturing facility, was based in a remote industrial zone in Exeter, UK. With no access to the national electricity grid, the operation was entirely diesel-powered.

The plant had a peak load requirement of 400kW for its production lines and an additional 50kW for its office operations.

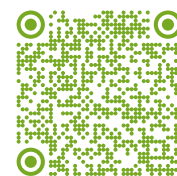
## Business Challenge:

- Off-grid location with no utility connection
- Rapidly rising fuel costs
- Environmental compliance concerns and operational emissions
- Business, brand and social repercussions

The business was seeking a reliable, sustainable and intelligent power infrastructure to support their 24x7 industrial operations.

## The Solution:

V-TAC tailored a robust and hybrid renewable energy system for uninterrupted, clean, and intelligent power supply suited for heavy industrial requirements.



Scan or click icon to view the full case study



# LOCAL TECHNICAL SUPPORT

The ability of PAS Safe Solutions, supported by V-TAC to be your complete sales and support solution in this space is unrivalled in this fast growing market-place. Together we have access to the very widest array of products, whatever the application to help you achieve your commercial objectives.

We will also be your 'full journey' installation partner getting the project finished to your original requirements and making sure it's performing in the long term supported by real-world person to person UK based support with constant product availability to support the installations we have 'in the field'.

Become one of PAS Safe Solution accredited installers and be first to see new product solutions, special pricing and leading edge software developments as and when they become available. We're looking forward to working with you.



Build your full system with full confidence of British Aftercare and Warranty!



## OUR LOCATIONS

### PAS Safe Solutions (Warehouse)

494 Holly Place, Walton Summit,  
Preston, Lancashire, PR5 8AX

### V-TAC UK (Head Office)

Unit 5a, Tungsten Park  
Colletts Way, Downs Road,  
Witney, Oxford, OX29 0AX



For more information please contact the sales team at PAS Safe Solutions.

Please call us on 01995 510 184 or visit us at [www.passafesolutions.co.uk](http://www.passafesolutions.co.uk)

