

BATTERY ENERGY STORAGE SYSTEM (BESS) – SPEC SHEET



Product Features

A powerful, silent battery power unit, the GAP BESS has a 45kVA inverter and 90kwh of useable stored power – enough to power most small to medium site applications. It delivers reliable, clean, energy and can be combined with renewable and generator charging.

The GAP BESS has unparalleled performance – reducing both harmful emissions and noise pollution. We are committed to delivering the best option for our clients' needs with a bespoke frame. Other applications include remote telemetry for construction sites, demolition areas, road side traffic monitoring, temperature monitoring, gas monitoring, weather monitoring and borehole water levels. With access to each individual GAP BESS's energy consumption data, you can see when, where and how much energy is being used. Demonstrate to supervisors and clients the savings on CO2 and fuel that are being made. Using the web-based app,



adjustments can be made to the GAP BESS's energy management. All your power consumption data is available in a live feed and can be accessed 24/7 by phone, tablet or laptop – from anywhere in the world.

ACOutput	
AC Voltage Range	230-400 VAC +/- 2%
Frequency Range	50 Hz +/- 0.1%
Stored Battery Power (c10)	90kwh
Inverter Rated Power	45kVA
Continuous Power at 25°C (VA)	45kVA
Maximum Feed Through Current (A)	3 x 200

ACInput- Inverter	
Input Voltage Range (V DC)	38 - 66V
Input Frequency	45 - 65 Hz
Maximum Feed Through Current (A)	3 x 200
Weight	72kg
Dimensions LxWxH (mm)	572 x 488 x 344 (per inverter)

Battery	Lithium Ion Phosphate
Pod Dimensions LxWxH (mm)	2200mm x 1350mm x 2000mm
Weight	2300kg

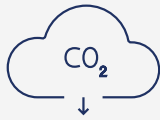
Connections	
Input	1 x 125A (3 Phase), 1 x 63A (3 Phase)
Output	1 x 125A (3 Phase), 1 x 63A (3 Phase), 1 x 32A (3 Phase), 2 x 32A (Single Phase), 1 x 16A (Single Phase)

General Data	90kw
Depth of Discharge	90% (Maximum depth – 100%)
Battery Configuration	Battery Module 100ah; 51.2V
Useable Capacity	4kw
Nominal Output	5kw
Nominal Voltage	51,2 VDC
Efficiency	> 97%
Battery Management	Yes
Active Balancing	Yes
Voltage Range	48,8-57,6 V
Interfaces	RS485/CAN
No. of Cycle	5.000 (+25°C; 0,4C)
Weight	38kg
Dimensions LxWxH (mm)	483 x 490 x 130



A uniquely designed battery pack for industry

The unique design of the PNP control system and the build quality of GAP BESS allows for a number of market leading features that are not available on other battery power units.



Reduced Emissions



Fuel Saving



Cost Savings



Silent Operation

Unique Features	Unique Features
Automatically powers high loads starting such as electric motors even if the load is larger than the GAP BESS's capability (subject to the generator being appropriately rated).	This enables you use the generator when demand is required on start up without human intervention which is normally required. This saves the cost of labour, diesel and also CO2 emissions.
When the battery pack is in automatic mode and not being used, you get a saving of 6.9kwh per 24 hours v a standard Victron battery pack in standby mode.	This means that you do not have to replace this lost energy, which will save £'s and CO2 because you are not having to charge a battery pack that is not being used.
The ability to dynamically charge the battery based on the generator size for optimal performance.	This will reduce charge times and increase generator loads to ensure less soot build up on Stage 5 machines.
A calendar allows you to specify when you want the GAP BESS to go into energy saving mode / standard mode / run the generator.	This will enable you to get your maximum kW savings and decrease Carbon footprint.
Can set what time you want the GAP BESS to be at 100% charge level. The GAP BESS will then work out when to start the generator to do this.	The GAP BESS will be ready to use for it maximum possible duration when you need it.
Communications with the generator to provide more accurate data directly from the engine such as fuel usage and engine hours. *if PNP telematics is installed on the generator.	Provides the ability for accurate corporate CO2 reporting.
You can input float contacts as standard to allow a more convenient auto start stop method.	Provides quick and easy site installation reducing labour time and £'s.
You can input a single remote start input to allow the system to be started like a standard generator. This will control the generator and the GAP BESS based on demand.	Provides quick and easy site installation reducing labour time and £'s.

Market Leading Telematics

PNP telematics enables you to remotely view all of your assets location, CO2 data and accurate fuel burn figures directly from the generators engine. You also have the ability to turn the battery off, start the battery and turn it in to automatic mode (if the engineer allows this feature locally on the control panel).