

# EasyGrid Lithium

## Hybrid Power Units for Sustainable 24/7 Electricity

Our EasyGrid range offers a sustainable and efficient alternative to using a diesel generator alone in off grid or remote locations. From construction sites to rural homes they can deliver power as needed.



The EasyGrid unit connects to a generator, and renewables if available, storing energy in its battery bank until needed. When power requirements are low – silent, emission free electricity is supplied from the battery bank, allowing more cost efficient use of the generator. The generator now only needs to run when the loads are high or the batteries need to be topped up.

The EasyGrid range features five capacities each one utilising lithium batteries for the battery bank. Lithium batteries have numerous advantages over traditional batteries – they are faster to charge, offer a longer life expectancy and deliver greater power capacity from a lighter unit – which can be a huge benefit in remote locations.

## Why use an EasyGrid hybrid power system rather than a generator alone?



### Connect renewables

connect solar and wind for free, sustainable energy input



### Lower emissions

reduce your carbon footprint and meet new legislative requirements



### Reduce fuel costs

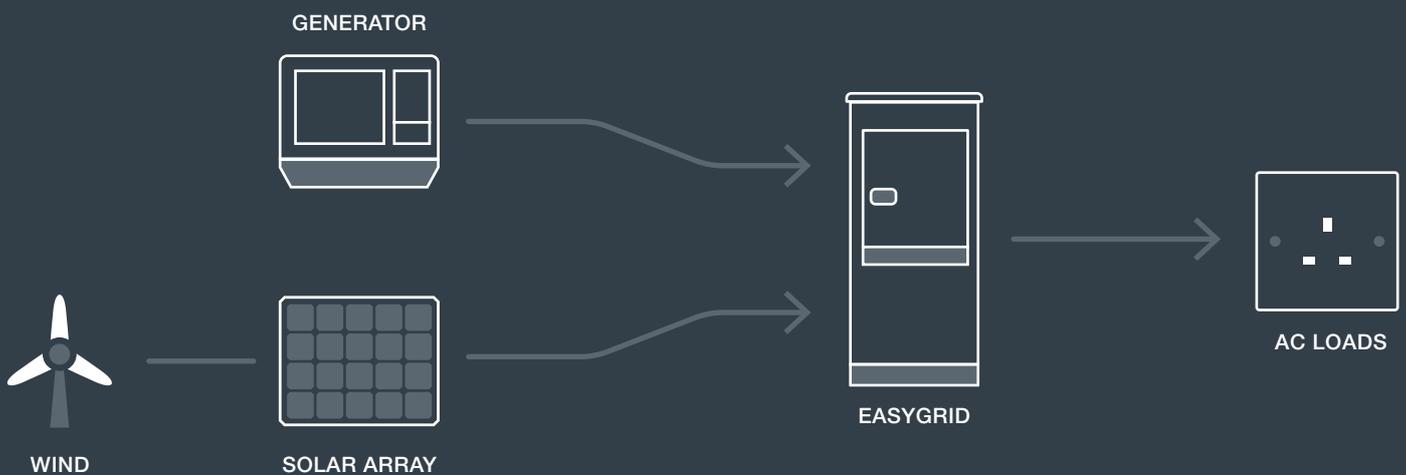
less generator run time means less fuel, servicing and refuelling visits



### Silent running

For quiet periods or at night run from battery power

## An EasyGrid hybrid power system



	EasyGrid 5000Li	EasyGrid 10000Li	EasyGrid 15000Li
			
Inverter Charger Model	Victron MultiPlus 48V 5000VA	Victron Quattro 48V 10000VA	Victron Quattro 48V 15000VA
Transfer switch	100A		
AC Input	187 - 265VAC 1PH		
DC voltage range	38 – 66V		
Output Voltage	230VAC ± 2% Frequency: 50Hz ± 0.1% (1)		
Cont. output at 25 °C	4000W	9000W	12000W
Cont. output at 40 °C	3700W	8000W	10000W
Peak power	10000W	20000W	25000W
Inlets (Standard)	1 x 32A 1PH	1 x 63A 1PH	
Outlets (Standard)	1 x 32A 1PH and 1 x 16A 1PH	1 x 63A 1PH and 1 x 16A 1PH	
	<b>SOLAR CHARGE CONTROLLER (STANDARD)</b>		
Model	Victron BlueSolar Charge Controller		
Max output current	70A	85A	100A
Max PV power suggested	4kW max.	6.8kW max.	9kW max.
Max PV open circuit voltage	150V	250V	
Operating temp. range	-20 to +50°C (fan assisted cooling)		
	<b>MONITORING</b>		
Type	Victron VRM With Waterproof Touchscreen		
	<b>BATTERIES</b>		
Type / Quantity	2 X 24V	4 X 24V	
Cyclic Life	3250		
Type	Lithium Ion NCA (Nickel, Cobalt and Aluminium)		
Capacity (80% DOD)	10kWh (Usable 8kWh)	20kWh (Usable 16kWh)	30kWh (Usable 24kWh)
	<b>ENCLOSURE</b>		
Dimensions (mm) (WxDxH)	675 x 925 x 1450		960 x 1420 x 1410
Weight	278kg	355kg	602kg
Lifting options	Fork		
	<b>UPGRADE OPTIONS</b>		
Solar	•	•	•
Additional Solar	✓	✓	✓
Wind	✓	✓	✓
Integral 3G Router	✓	✓	✓
Centre Lifting Point	✗	✗	✓
HEMS	✗	✗	✓

Call 01634 290772 or email [sales@energy-solutions.co.uk](mailto:sales@energy-solutions.co.uk) for your quotation

EasyGrid 3000Li		EasyGrid 45000Li		
				
3 x Victron Quattro 48V 10000VA		3 x Victron Quattro 48V 15000VA		Inverter Charger Model
3 x 100A				Transfer switch
380-415VAC 3PH				AC Input
38 – 66V				DC voltage range
400VAC +- 2% Frequency: 50Hz +- 0.1%				Output Voltage
27000W		12000W		Cont. output at 25 °C
24000W		10000W		Cont. output at 40 °C
60000W		25000W		Peak power
1 x 63A 3PH and 1 x 16A 1PH				Inlets (Standard)
1 x 63A 3PH and 1 x 16A 1PH				Outlets (Standard)
<b>SOLAR CHARGE CONTROLLER (ADDITIONAL UPGRADE)</b>				
Victron BlueSolar Charge Controller				Model
100A				Max output current
9kW max.				Max PV power suggested
250V				Max PV open circuit voltage
-20 to +50°C (fan assisted cooling)				Operating temp. range
<b>MONITORING</b>				
Victron VRM With Waterproof Touchscreen				Type
<b>BATTERIES</b>				
6 X 24V				Type / Quantity
3250				Cyclic Life
Lithium Ion NCA (Nickel, Cobalt and Aluminium)				Type
45kWh (Usable 36kWh)				Capacity (80% DOD)
<b>ENCLOSURE</b>				
1110 x 1810 x 1770				Dimensions (mm) (WxDxH)
894kg		975kg		Weight
Fork & Centre Lifting Point				Lifting options
<b>UPGRADE OPTIONS</b>				
✓		✓		Solar
✓		✓		Additional Solar
✓		✓		Wind
✓		✓		Integral 3G Router
•		•		Centre Lifting Point
✓		✓		HEMS

# System Options and Upgrades

## Renewable Inputs



### Solar

Adding renewable energy to your EasyGrid is an excellent way of further reducing your fuel costs and emissions. Solar is the most popular upgrade option

on the EasyGrid range and gives a reliable input when sized and positioned correctly. Our team can help with determining the correct solar array size for your needs and each unit has detail on the sizing options that work to optimise your power for peak loads.

Each solar panel kit & extension packs comes complete with panels, cables and connectors for your project. Please ask for prices and we can include this with your quotation.



### Wind

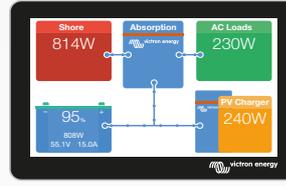
All EasyGrid systems have an upgrade option that allows owners to integrate a wind turbine as part of their renewable power input either at time of

order or retrospectively. Whilst solar arrays are a good source of renewable power, wind turbines can also deliver valuable additional energy.

Solar power can produce great results when the sun is shining but that may be only for a few hours a day, particularly in the UK. A wind turbine, whilst it may not be as powerful, can be producing power at any point during the course of 24 hours.

By integrating this additional renewable source, further reductions in generator run time, emissions and running costs can be achieved.

## Advanced Monitoring and Control



All EasyGrid units are fitted with our standard monitoring and control system which uses touch screen technology and integrates generator start/stop, quiet time pre-sets, battery monitoring and much more.

However for sites with a more complex set up and requirements we offer an upgrade to our advanced monitoring and control system – HEMS.



### HEMS

HEMS (Hybrid Energy Management System). This advanced option helps optimise the delivery of power to a site and gives specific, in depth efficiency controls as to how loads

are managed on site. The system still gives access to the VRM online portal but offers additional features including:

- Load shedding
- Improved energy storage
- Improved battery management
- Sophisticated quiet time settings
- Intelligent renewable energy management
- Detailed monitoring and data collection including emissions savings
- Multiple outlets on the hybrid unit which can be used and independently controlled.
- Light / rain / temperature sensors can be used to control power to certain sockets
- Shedding of non-critical loads to keep total consumption low.
- Intelligent generator starting via multiple start/stop parameters
- Sophisticated quiet time settings

These additional features can be particularly useful for cost savings, emissions reductions, sustainability improvements and reporting.



### Made in the UK

Designed and built in the UK by Energy Solutions – with over 20 years of electrical power experience, each unit is manufactured to the exacting standards required for standalone power sources.

Images are for illustrative purposes only and actual products and examples may differ from those shown. All details correct at time of going to press but subject to change. E & EO."