



**ENERGY**

INITIATIVES

OFFGRID AUSTRALIA

**JULY 2019**

# BLACKMAX

SHED POWER

**DIY Power Packs are the ideal solution if you want to power an outlying area that has no grid-connected power**

**Whether you live in a rural location without reliable grid power access, or simply want a more sustainable lifestyle, our Off Grid Solar Kit systems provide the perfect power solution. Our systems are ideal for the man cave, your back shed, a small cabin or a shack. The systems are pre-built, packaged, and shipped to you – ready for you and your local electrician to install.**

**The BlackMax DIY Kit systems are designed for applications with a daily power usage from 2 up to 10kWh plus during daytime the excess generated energy from the chosen solar PV array. We've done all the running around for you. All the hardware, cabling, mounting equipment for metal roof and electronics are all included saving you precious time.**



**Off-Grid Australia - Phone: 1300 614 8176 - Email: [info@offgridaustralia.com.au](mailto:info@offgridaustralia.com.au)**

**Website: [www.offgridaustralia.com.au](http://www.offgridaustralia.com.au)**



JUNE 2019

# BLACKMAX 4.3

## Items.

4.0kWh LFP 4840 Lithium battery  
3.3kVA inverter Alino by Outback Power  
240AC outlet – 10amp  
5 volt USB Charger (twin)  
12 volt Power Plug  
Combiner Box (at 8 panels)  
Gen set input – 15amp  
Weight: 100kg  
1 x Cabinet  
Dimensions:  
810H x 600W x 360D

## Description.

48V system  
DIY Off-Grid Solar Kit  
Small foot print  
Single phase  
Indoor or Outdoor  
No CEC Accredited Installer required  
5000 cycles at 70% DOD  
3000 cycles at 90% DOD  
Battery bank for applications  
with a daily power usage of 3.6kWh\* plus  
during daytime the excess generated  
energy from your chosen Solar PV array  
\* Varies depending on required autonomy in bad weather

**\$8,733**

Excl. panels



290W Tier 1 panels.

Solar PV Array kit: 1.16kW, 1.74kW, 2.32kW

Amount of panels: 4 6 8



**Complete system price including solar PV: \$9,920 \$10,513 11,107**

All prices incl. GST. For Door-to-Door delivery contact us.

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# BLACKMAX 0.6

## Items.

8.0kWh LFP 4840 Lithium battery  
3.3kVA inverter Alino by Outback Power  
240AC outlet – 10amp  
5 volt USB Charger (twin)  
12 volt Power Plug  
Combiner Box (at 8 panels)  
Gen set input – 15amp  
Weight: 164kg  
1 x Cabinets  
Cabinet's dimensions:  
938H x 607W x 427D

## Description.

48V system  
DIY Off-Grid Solar Kit  
Small foot print  
Single phase  
Indoor or Outdoor  
No CEC Accredited Installer required  
5000 cycles at 70% DOD  
3000 cycles at 90% DOD  
Battery bank for applications  
with a daily power usage of 7-8kWh\* plus  
during daytime the excess generated  
energy from your chosen Solar PV array  
\* Varies depending on required autonomy in bad weather

**\$13,493**

Excl. panels



310W Tier 1 panels.

Solar PV Array kit: 1.16kW, 1.74kW, 2.32kW  
Amount of panels: 4 6 8

**Complete system price including solar PV: \$14,681 \$15,274 \$15,867**

All prices incl. GST. For Door-to-Door delivery contact us.

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## Calculating your energy requirements

To find out which one of the DIY Off-Grid Solar Kits would suit your circumstances, you'll need to find out your average daily power usage.

The electrical power rating of a typical appliance is generally given in Watts which you can find by either looking at the appliance's identification sticky label or by the products data given in the user manual. Some manufacturers give the appliances wattage value in volt-amps, for example, 200VA (two hundred volt-amps). This volt-amps rating is more or less the same as that given in Watts because Watts is just voltage times current, that is volts times amps, or  $V \times A$  which is shortened to just VA.

The appliances daily energy consumption is simply calculated as the Wattage rating multiplied by the number of hours per day it is switched on or being used (watts times hours or  $W \times hr$ ). So, for example, if our 200W appliance is used for 5 hours during a 24-hour period, then the total consumption of energy would be 200W multiplied by 5 hours which gives 1,000 watt-hours or 1 kWh (one kilowatt hours), as 1,000 watts is equal to 1 kilowatt (kW).

Likewise, if you had a 60W lamp switched on at night for 3 hours, its energy consumption would be 60 multiplied by 3 which equals 180Whr (one hundred and eighty watt hours), or 0.18kWhr. The advantage of using watts is that wattage always represents the electrical power of an appliance regardless of the supply voltage. Once done, repeat the above calculations for all the electrical items you want to power from your DIY Off Grid Solar Kit and add them up.



### Please Note!

If AC output requires hard wiring into an earthed switchboard, for safety reasons it'll need to be installed by a qualified electrician. PV may be installed by a competent person if using extra low voltages, otherwise, this will also need to be installed by a qualified electrician.



4kWh LiFePo  
coming soon!





## DIY - PLUG & PLAY 3.3 kVA POWER WITH 6 kW SURGE TO HANDLE TYPICAL SHED TOOLS

- 3.3kVA inverter
- 4.3kWh LiFe-Po battery
- Connect up to 2.5kWp solar PV
- 6 x modules (2 in series for DIY)
- 8 x modules on request (requires electrician)
- IP 56 for indoor or outdoor installation
- USB and Power Point outlet
- Intelligent charge management with 4-stage battery charging for improved performance and lifespan.
- All-In-One integrated design with pre-wired battery and PV cables with MC4 connectors.
- Generator Input
- 3 years inverter warranty
- 10 year pro-rata warranty lithium battery

# BlackMax – Applications

- Sheds & Workshops
- Portable Site Offices
- Container Offices
- Small Granny Flats
- Beach Houses
- Caravans and Motorhomes
- Temporary Roadwork Signs
- Billboard Lighting



# BlackMax – How it works

## Loads



Optional generator

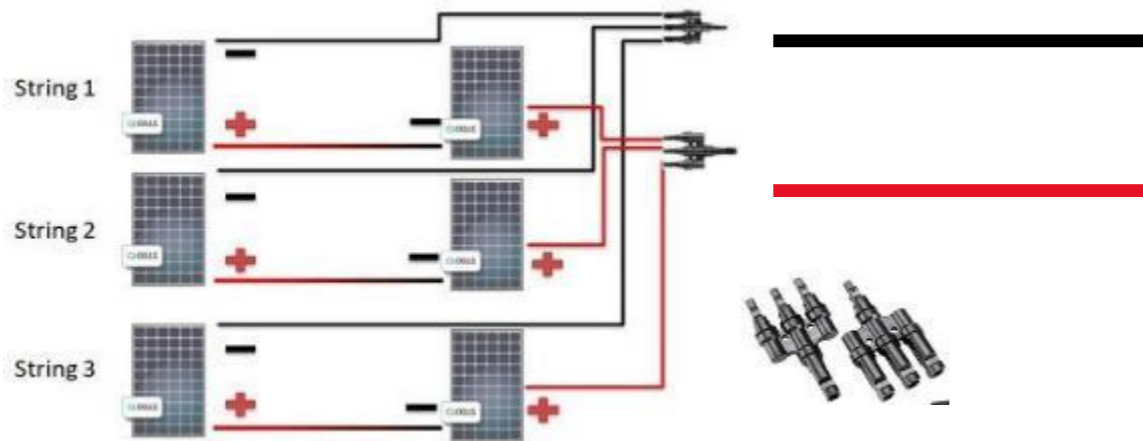


BlackMax unit



Solar PV array

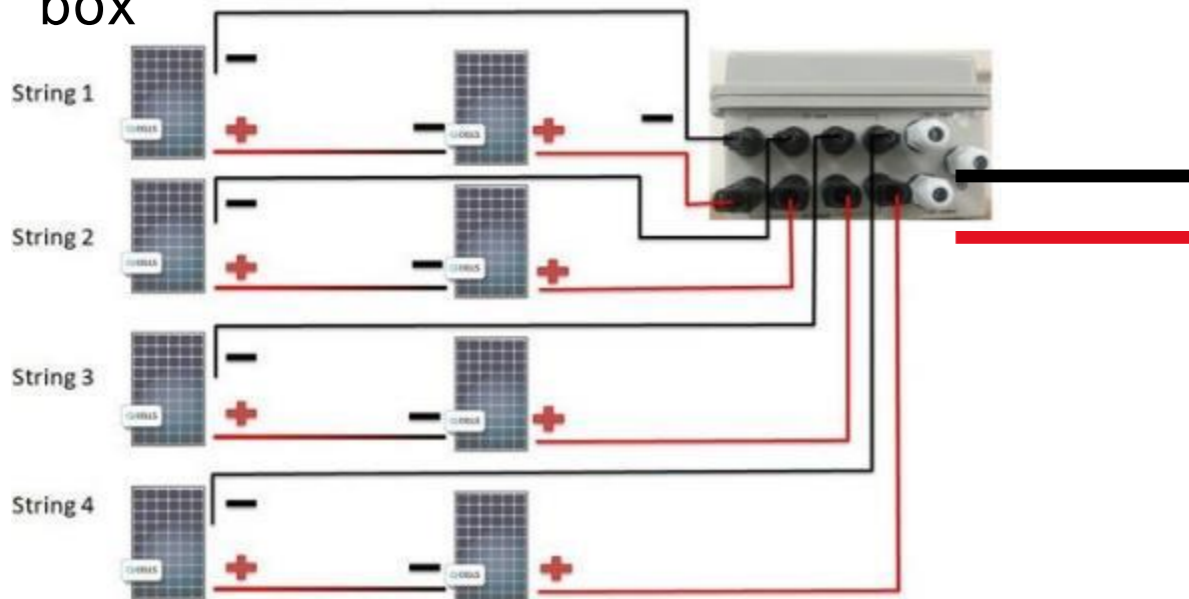
# BlackMax – Wiring



DIY  
Option



8 Module wiring with combiner box\*



ELECTRICIAN  
Required



Standard DIY version  
6 module option supplied  
with triple-gang branch  
plugs, DIY installation.  
(3 strings x 2 modules)

Upgrade version  
8 module option supplied  
with combiner box.  
\*Licensed Electrician  
required for installation.

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# AC SIDE

Power outlet plug – 10amp

Power inlet plug – 15amp

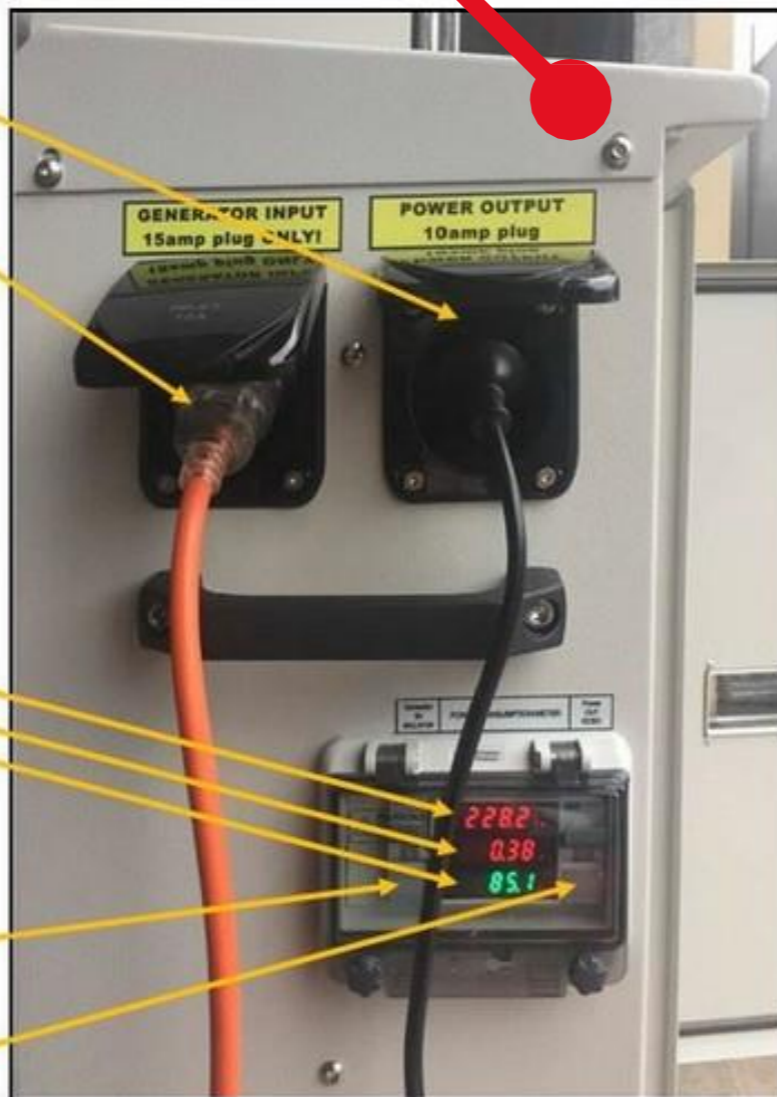
Power Meter:

Shows the power being used by the loads plugged into the 10amp Power Output plug

- AC Voltage
- AC Current (Amps)
- AC Power (Watts)

Power inlet – breaker

Power outlet – RCBO



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# DC SIDE

5 volt USB charger (twin)

12 volt power plug



DC Power & Energy Meter:

Shows the battery voltage, current and power. Also shows the cumulative energy delivered FROM the battery

Solar DC Isolator

Solar input from PV panels

