







BlackMax

OFF-GRID, ON-GRID, HYBRID

-  Two solar MPPT trackers
-  Dual AC outputs
-  EV charger and energy trading ready (on-grid only)
-  Maximum capacity of 6kWh
-  Flashing indicator light at low state of charge
-  Australian made and owned



BLACKMAX TECHNICAL SPECIFICATIONS

BlackMax Model

6kW 1-phase
BM1-DY6-xRE4.1

Battery capacity of BlackMax system (Troppos)	1 to 3
Battery capacity of BlackMax system (kWh nominal)	4.1 to 12.3
Inverter model	6K-SG04LP1-AU

Battery Specifications

Battery type	Troppo 4841 LFP self-managed lithium
Battery capacity (nominal)	4.1kWh per Troppo battery
Battery operating voltage range (V)	48-57.6V
Max. charging current (A)	135A
Max. discharging current (A)	135A

PV String Input Data

Maximum allowable PV (W)	12,000W
Maximum usable PV (W)	9,000W
Maximum PV input voltage (V)	500V
MPPT range (V)	150 to 425V
Start-up voltage (V)	125V
PV input current (A)	13A+13A
Max. PV Isc (A)	19.5A+19.5A
No. of MPPT trackers	2
No. of strings per MPPT tracker	1+1

AC Output Data

6kW 1-phase BM1-DY6-xRE4.1

Rated AC output and UPS power (W)	6,000
Max. AC output power (W)	6,000
Peak power (off-grid)	2 times of rated power, 10 S
Rated AC output current (A)	26.1A
Max. AC output current (A)	26.1A
Max. continuous AC passthrough (A) * When installed in the BlackMax system AC passthrough is current limited to 25A	40A*
Generator Total Harmonic Distortion (THDi)	<3% (of nominal power)
Power factor	0.8 leading to 0.8 lagging
Output frequency and voltage	50Hz; 230V/400V, 240/415V
Grid connection type	Single phase L/N/E

Protection

Integrated	Anti-islanding Protection, Surge protection, Output Shorted Protection, PV String Input Reverse Polarity Protection, Output Over Current Protection, Insulation Resistor Detection, Residual Current Monitoring Unit
Over voltage category	DC Type II / AC Type III

Certifications and Standards

Grid regulation	AS/NZS 4777.2
EMC / Safety regulation	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2

Did you know?

BlackMax was RedEarth's **original** product and the very **first** Australian-made off-grid battery energy storage system approved by the Clean Energy Council.



BLACKMAX TECHNICAL SPECIFICATIONS

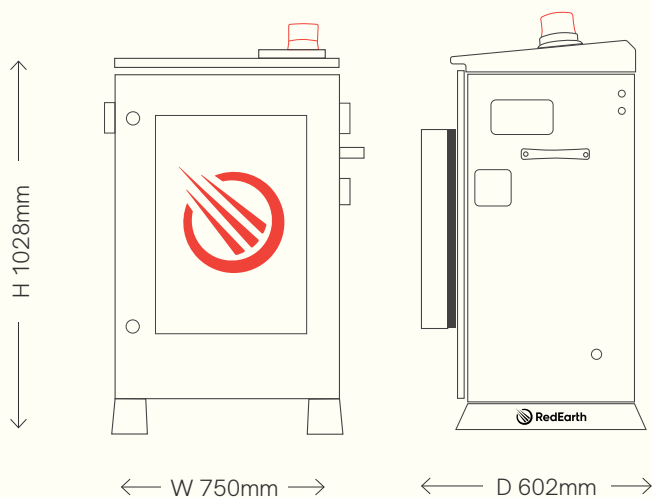
General Data

Operating temperature range (°C)	-40~60°C, 45°C derating
Cooling	Smart cooling with temperature-controlled fans
Protection degree of BlackMax system	IP43
RedEarth Warranty	10 years (AU & NZ and South Pacific region)

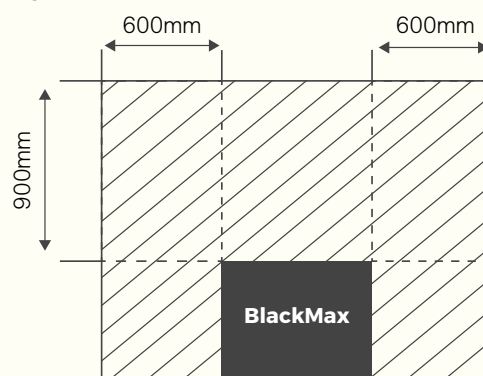
Measurements

Weight of BlackMax system (excluding batteries) (kg)	74kg
--	------

Dimensions



Positioning



The BlackMax is designed to be a freestanding weatherproof system (suitable for outdoor locations). It is recommended to locate the system in a shaded area to reduce the chances of overheating. It should also be placed close to the solar panels to minimise voltage drop and power loss. Minimum clearance around BlackMax (no windows/doors/etc are allowed). In addition, if it is a habitable room, the wall should be made of non-flammable material. Note: if the system is >300mm off the wall this does not apply.

Overview

RedEarth's BlackMax battery system is a complete ready-to-run energy storage system for off-grid and on-grid applications. As an Australian-made product built in Brisbane, RedEarth can provide best-in-class support for BlackMax owners and installers.

The battery system arrives fully assembled and factory tested. It includes a 6kVA hybrid inverter with two built-in single string MPPTs for connecting solar panels. It can be supplied with up to three (3) of RedEarth's Troppo lithium batteries (12.3kWh total). In order to use the full power available from the inverter at least two Troppo batteries are required.

