

BushChook

WHOLE HOME BACKUP POWER SOLUTION



The 2024 BushChook includes:

- STC rebate eligible
- EV charger ready
- Energy trading ready

RedEarth's BushChook systems offer Australian-made scalability, making them an excellent and enduring investment for your home. **Available in both single and three-phase configurations**, the BushChook provides a range of power outputs tailored to accommodate your specific needs. This versatility ensures effortless and effective power supply solutions for both residential and business applications.

Like all of RedEarth's products, BushChook is fully engineered, assembled, and tested to Australian standards at RedEarth's factory in Brisbane. Features include:

- ✔ **Versatile Power Hub:**
The BushChook seamlessly integrates grid, generator, and load ports achieving a truly unique level of flexibility.
- ✔ **Dynamic AC-Coupled Solution:**
The BushChook partners effortlessly with micro-inverters and standard string PV inverters. Its micro-grid functionality allows you to power on through a blackout and provides frequency control functionality in a grid failure.
- ✔ **Reliable Backup with Generator Support:**
No grid, no worries – in the face of grid outages, the BushChook can power up your backup generator to power loads and charge the battery.
- ✔ **Smart Load Management:**
No generator or AC-coupled solar? The generator port can be easily converted to a smart load port, providing intelligent load management, and ensuring your solar and battery is consumed as efficiently as possible.
- ✔ **Private Power Plant Ready:**
The BushChook keeps your power in your hands with native support for RedEarth's Private Power Plant.

Outdoor-rated and easy-to-install, the BushChook system comes pre-wired as a complete solution with whole house backup functionality.

Specifications	Single Phase	Three Phase
Power output options	Max. AC output power of 5000W or 8000W	Max. AC output power of 12,000W
Solar input	5kW option Connect up to 7.5kW of solar panels to the dual MPPTs 8kW option Connect up to 12kW of solar panels to the dual MPPTs (150-425Vdc max. 500Vdc)	12kW option Connect up to 18kW of solar panels to the dual MPPTs (200-650dc max. 800Vdc)
Battery	From 2 to 8 x 4.1kWh Troppos (max. 32.8kWh) Voltage: 48Vdc (nom.) Min 2 required for full inverter power rating. (Min 2 for 5KW, minimum 3 for 8KW)	4 to 8 x 4.1kWh Troppos (Max 32.8kWh) Voltage: 48Vdc (nom.) Min 5 required for full inverter power rating.
Electrical connections	Hard-wired via built-in EPS transfer switch PV cables connected directly to pre-installed MC4s. In-built support for controlling AC coupled micro inverters and solar systems, generators or smart loads via hard wired terminal block.	
Monitoring	Monitoring hardware included and activated via RedEarth's EMU app (subject to network availability and Optimum subscription).	
Energy trading	On-grid only	
EV charger	Yes	



Need support? No worries.

RedEarth is with you all the way, from technical support during installation, to ongoing monitoring and guidance for your system for years to come. Our Australian-based team is on call to make *powering yourself* as easy as possible. We also offer information sessions and training for installers at our factory in Brisbane. Give us a call today to see how you can future-proof your home with a RedEarth system.

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Power yourself.

BUSHCHOOK TECHNICAL SPECIFICATIONS

BushChook Model	5kW 1-phase BC-5-1xx	8kW 1-phase BC-8-1xx	12kW 3-phase BC-12-3xx
Battery capacity of BushChook system (Troppos)	2 to 8	3 to 8	4 to 8
Battery capacity of BushChook system (kWh nominal)	8.2 to 32.8	12.3 to 32.8	16.4 to 32.8
Inverter model	5K-SG04LP1-AU	8K-SG05LP1-AU	12K-SG04LP3-AU
Battery data			
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)	120A	190A	240A
Max. discharging current (A)	120A	190A	240A
PV string input data			
Max. DC input power (W)	7500W	12,000W	18,000W
Maximum PV input voltage (V)	500V	500V	800V
MPPT range (V)	150 to 425V	150 to 425V	200V to 650V
Start-up voltage (V)	125V	125V	160V
PV input current (A)	13A+13A	26A+26A	26A+13A
Max. PV Isc (A)	19.5A+19.5A	39A+39A	39A+19.5A
No. of MPPT trackers	2		
No. of strings per MPPT tracker	1+1	2+2	2+1
AC output data			
Rated AC output and UPS power (W)	5,000	8,000	12,000
Max. AC output power (W)	5,000	8,000	12,000
Peak power (off-grid)	2 times of rated power, 10 S		
Rated AC output current (A)	21.7A	34.8A	17.4A
Max. AC output current (A)	21.7A	34.8A	17.4A
Max. three-phase unbalanced output current (A)	N/A	N/A	26.1A
Max. continuous AC passthrough (A)	35A*	50A*	45A*
* When installed in the BushChook system AC passthrough is current limited to 40A			
Power factor	0.8 leading to 0.8 lagging		
Output frequency and voltage	50Hz; 230V/400V, 240/415V	50Hz; 230V/400V, 240/415V	50Hz; 230V/400V, 240/415V
Grid connection type	Single phase L/N/E	Single phase L/N/E	Three phase 3L/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		
General data			
Operating temperature range (°C)	-40~60°C, 45°C derating		
Cooling	Smart cooling with temperature-controlled fans		
Weight of BushChook system (excl batteries) (kg)	106	115	125
Size of BushChook system (mm)	1180W x 1040H x 580D		
Protection degree of BushChook system	IP43		
RedEarth Warranty	10 years (AU & NZ and South Pacific region)		