

OUTBACK PATHFINDER

SPECIFICATIONS

Reliable. Efficient. Built for Australian Conditions.



Low flows



AC/DC hybrid controller



Medium head requirements



AUSTRALIAN DESIGNED



QUALITY ASSURED



LOCAL SUPPORT



outbacksolarpumps.com.au



WHAT'S INCLUDED IN THE KIT

Every Outback Solar Pump kit comes complete with premium components, carefully selected for performance, reliability and ease of installation.

1



OUTBACK SOLAR PUMP & MOTOR

High efficiency surface pump with brushless DC motor & 10m pre-wired cable

2



AC/DC MPPT SOLAR PUMP CONTROLLER

Advanced MPPT technology for maximum water output and built-in system protection.

3



2 X 450W SOLAR PANEL

High efficiency, durable panel built to perform in tough Australian conditions.

4



10M PUMP POWER CABLE

Heavy duty submersible cable with plug & play connector

5



30M STAINLESS LOW LEVEL PROBE

Stainless steel probe with 30m cable for dry run protection.

6



2 X 3M MC4 CONNECTORS

Pre-terminated, waterproof connectors for quick and secure solar connections.

7



40MM PHILMAC FOOT VALVE

High quality foot valve to keep the suction line primed & protect your pump.

8



INSTALLATION GUIDE

Step-by-step guide to help you install with confidence.

9



PREMIUM PACKAGING

All components securely packed to ensure safe delivery.



BUILT FOR RELIABILITY

Every component in this kit is selected for quality and compatibility, so you can install with confidence and pump with peace of mind.

RELIABLE. EFFICIENT.
BUILT FOR AUSTRALIAN CONDITIONS.



PATHFINDER

800W



SURFACE SOLAR WATER TRANSFER PUMP KIT

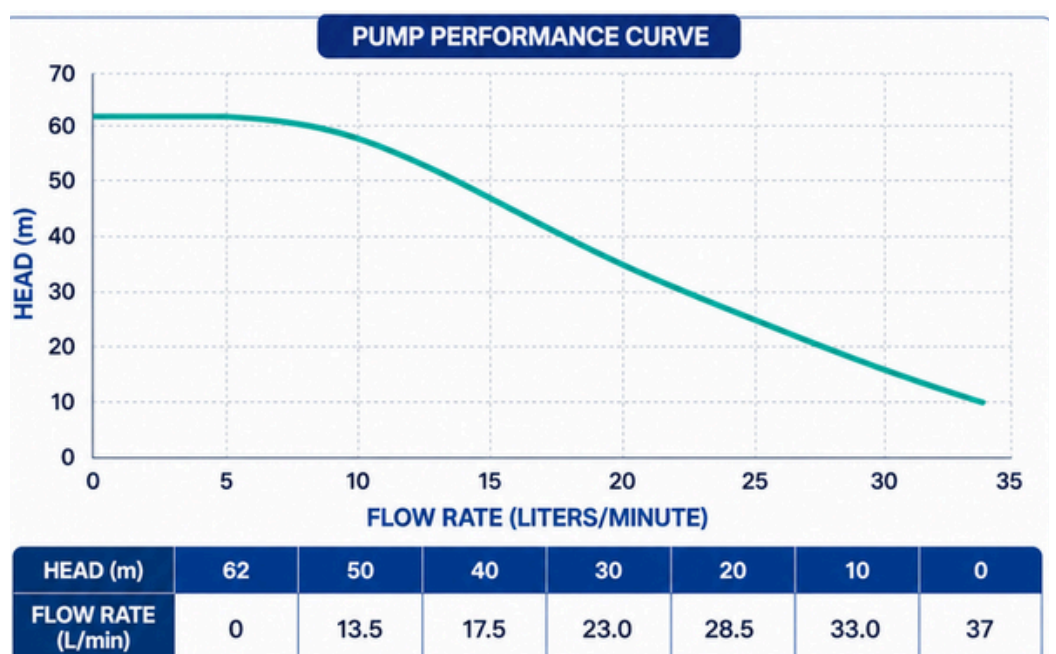
The Outback Pathfinder is an AC/DC hybrid surface solar water transfer pump kit designed for moving water from dams, tanks, creeks, and storage systems. Unlike bore pump models, Pathfinder is surface-mounted and ideal for applications where water needs to be transferred across a property, lifted into storage tanks, or supplied to stock watering systems. With efficient solar operation, intelligent MPPT control, and the flexibility of generator backup, Pathfinder offers reliable performance for remote and off-grid installations. Built for practical rural water movement, it is ideal for farms, lifestyle properties, irrigation supply, and general water transfer duties.



SPECIFICATIONS

Model	Pathfinder QB60
Power	800 W
Voltage (Vmp)	50 – 380 VDC
Maximum Input Current	10 A
Outlet Size	1" (25 mm)
Maximum Flow	37 L/min
Maximum Head	62 m
Net Weight	12.5 kg
Protection Rating	IP68
Insulation Class	F
Water Temperature	0 – 35 °C
Sand Tolerance	120 g/m ³ Max

PERFORMANCE CURVE



Specifications are subject to change without notice.

KEY FEATURES

- Brushless DC motor
- Run-Dry protection
- High efficiency
- Low start voltage

APPLICATIONS

- Solar MPPT controller
- Stock Watering
- Light Irrigation Support
- Domestic Water Supply
- Off-Grid Locations








TECHNICAL SPECIFICATIONS

HYDRAULIC DESIGN

Pump Type	Surface pump
Pump Design	Centrifugal
Water Source	Dam, creek, river or tank
Application	Water transfer, light irrigation
Operating Style	Direct solar operation






MOTOR & PUMP CONSTRUCTION

-  Motor Type: Brushless DC (BLDC)
-  Rated Power: 800W (1.0 HP)
-  Motor Efficiency: Up to 85%
-  Motor Speed: 500 – 4000 RPM
-  Maximum Water Temperature: 40°C

PROTECTIONS INCLUDED

- Dry-run protection (no additional sensor required)
- Over-current and overload protection
- Over-voltage and low-voltage protection
- Thermal protection
- Reverse polarity alarm
- Fault reporting

CONTROLLER SPECIFICATIONS

-  **Controller Type:**
External MPPT Solar Pump Controller
-  **MPPT Efficiency:**
Up to 98%
-  **Operating Voltage (Vmp):**
50–380 V
-  **Max Open Circuit Voltage (VOC):**
165 V
-  **Maximum Current:**
10 A DC

SOLAR POWER REQUIREMENTS

Designed for direct solar operation only. No batteries or inverter required.

Recommended Solar Configuration:

- 2 × solar panels in series
- Typical total array: 1000W–1650W (configuration dependent)

IMPORTANT:

Exceeding voltage limits may cause permanent damage. Always follow recommended panel configurations.

Performance figures are based on optimal conditions. Actual performance will vary depending on installation, solar input, and system configuration.

MAXIMUM ENERGY YIELD

More power output throughout the day, every day.

TRUSTED RELIABILITY

Built to perform in tough Australian conditions.

ENGINEERED TO LAST

Proven technology for long-term peace of mind.

SMART INVESTMENT

Lower operating costs and higher return over time.









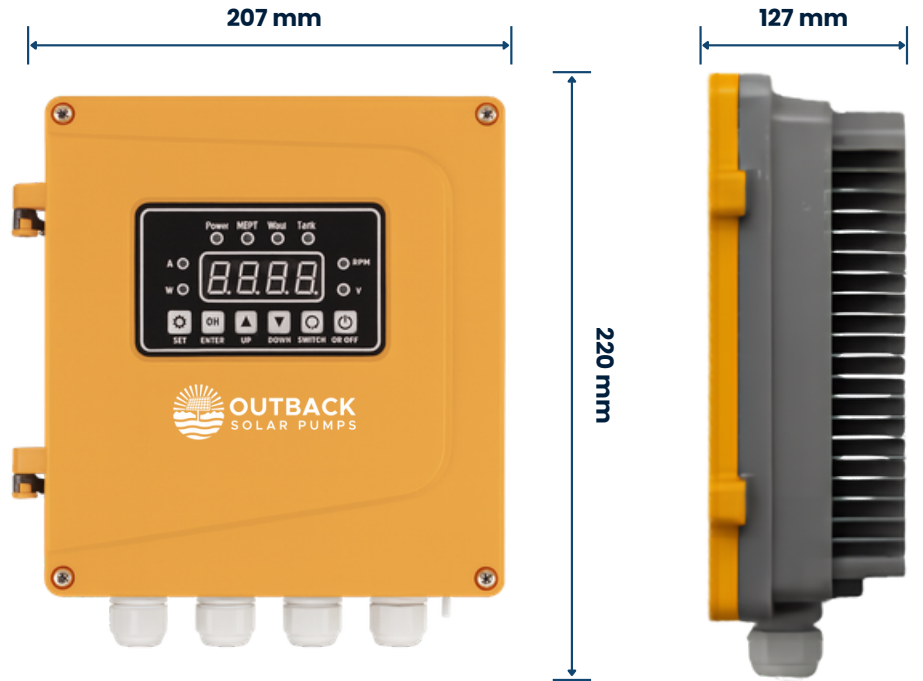
SOLAR PUMP CONTROLLER SPECIFICATIONS

OUTBACK MPPT SOLAR PUMP CONTROLLER

Dedicated DC MPPT controller designed specifically for submersible solar bore pumps. Optimises solar input under varying sunlight conditions while protecting the pump system from electrical and hydraulic faults. Designed for direct solar operation without batteries or inverters.

KEY FEATURES

-  MPPT solar tracking for maximum daily water output
-  Direct solar operation (no batteries or inverter required)
-  Soft start to reduce mechanical and electrical stress
-  Automatic restart after fault or low sunlight recovery
-  Digital display for real-time system status
-  Installer-friendly terminal layout







ELECTRICAL SPECIFICATIONS

Specification	Value
Controller Type	AC/DC MPPT Solar Controller
MPPT Efficiency	Up to 98%
Operating Voltage (Vmp)	50 - 380 V DC
Max Open Circuit Voltage (Voc)	165V DC
Maximum Input Current	10 A
Output	DC (matched to pump motor)







Voltage range varies by model. Refer to individual pump kit specifications.






INSTALLATION NOTES

-  Verify solar panel open circuit voltage (Voc) does not exceed controller limits
-  Follow recommended panel configuration only
-  Mount controller in a shaded, ventilated location
-  Ensure all connections are secure and weatherproof

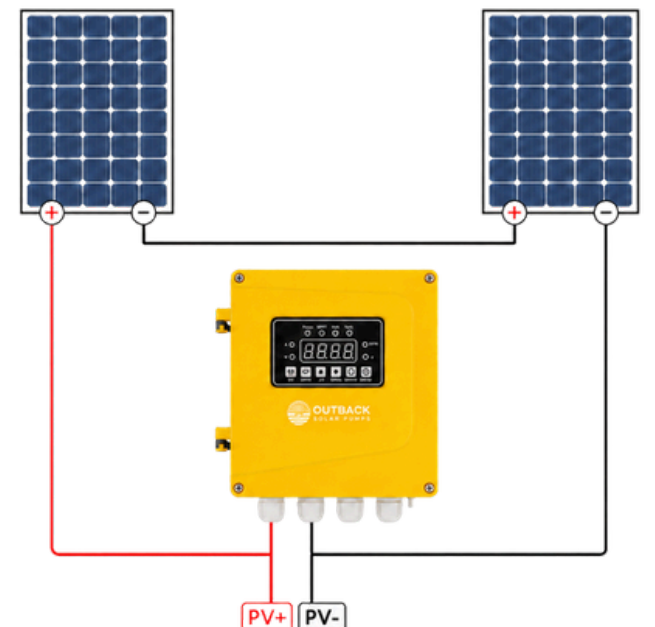
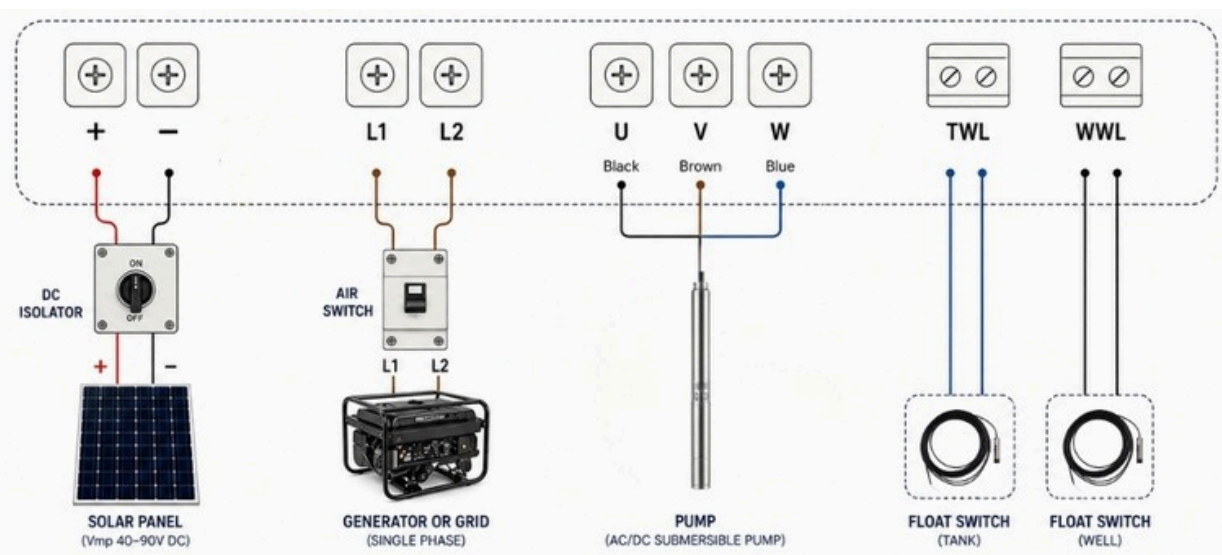
INTEGRATED PROTECTION FUNCTIONS

-  Dry-run protection
-  Overcurrent and overload protection
-  High and low voltage protection
-  Thermal protection
-  Reverse polarity alarm
-  Automatic shutdown with auto-restart

CONTROL INPUTS & AUTOMATION

-  Tank float switch (Normally Open – N/O)
-  Pressure switch (Normally Open – N/O)
-  Remote start / stop terminals

TYPICAL SYSTEM CONNECTION





HIGH EFFICIENCY N-TYPE SOLAR PANEL SPECIFICATIONS

OUTBACK 440-460 WATT BIFACIAL MODULE PANEL

Every solar panel supplied with an Outback Solar Pump kit is selected for durability, consistency, and long-term output, not just headline wattage. These panels are built to perform reliably in demanding outdoor environments where heat, wind, dust, and exposure are a daily reality.



N-TYPE TOPCON TECHNOLOGY

The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.



EXCELLENT ANTI- PID PERFORMANCE

Excellent Anti-Pid performance guarantee via optimized mass-production process and materials control.



SUPERIOR WEAK LIGHT PERFORMANCE

More power output in weak light condition, such as cloudy, morning and sunset.



HIGHER BIFACIALITY

Higher bifaciality, higher power output and lower BOS cost.



HOT 2.0 TECHNOLOGY

Better light trapping and current collection to improve module power output and reliability.

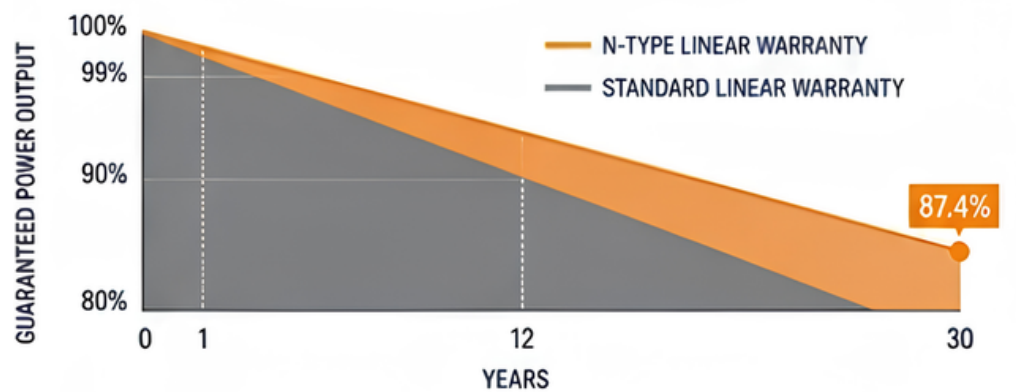


EXTREME WEATHER RESISTANCE

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal)*.



LINEAR PERFORMANCE WARRANTY



15
YEAR
PRODUCT WARRANTY

30
YEAR
LINEAR POWER WARRANTY

***0.4% Annual Degradation over 30 Years**
***15 Year Product Warranty**
***30 Year Linear Power Warranty.**

KEY FEATURES

High Module Efficiency
Up to 22.5%

Low Temperature Coefficient
Better performance in heat

PID Resistance
Enhanced durability and reliability

Wind & Snow Load Certified
2400 Pa/ 5400 Pa*

Premium Build Quality
Robust frame and strict quality control

Lower LCOE
More energy yield and long-term savings

CERTIFICATIONS



CHINA QUALITY CERTIFICATION CENTRE
SOLAR PRODUCT CERTIFICATION

MAXIMUM ENERGY YIELD
More power output throughout the day, every day.

TRUSTED RELIABILITY
Built to perform in tough Australian conditions.

ENGINEERED TO LAST
Proven technology for long-term peace of mind.

SMART INVESTMENT
Lower operating costs and higher return over time.



SMARTER WATER. POWERED BY THE SUN.

Engineered for independence.
Built for the outback.



THE OUTBACK SOLAR PUMPS DIFFERENCE

We design and supply solar pumping solutions that deliver reliable performance where it matters most. Proudly Australian owned and operated, we understand the demands of remote living because we live it too.



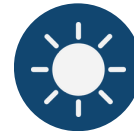
AUSTRALIAN DESIGNED

Engineered specifically for harsh Australian conditions.



RELIABLE & BUILT TO LAST

Quality solar panels and proven designs you can depend on.



MAXIMISE WATER OUTPUT

MPPT technology extracts more power from your solar panels.



SIMPLE & EASY TO INSTALL

Straight forward setup with clear instructions and local support.



LOCAL SUPPORT

We're here to help before, during and after your purchase.



WARRANTY YOU CAN COUNT ON

All Outback Pathfinder kits are backed by comprehensive warranties for complete peace of mind.



2 YEAR PRODUCT WARRANTY

We stand behind our products with confidence.



30 YEAR LINEAR POWER WARRANTY

Long-term performance you can rely on.

BUILT FOR AUSTRALIAN CONDITIONS



*Full warranty terms and conditions available on our website.

“Outback Solar Pumps are our go-to for remote properties. Reliable, efficient and backed by real local support.”

– Outback Customer

“Installed our TRAILBLAZER kit last summer and it has been faultless. Great water pressure and simple to set up.”

– Verified Buyer

“Excellent product and service. The team really understands off-grid living. Highly recommended.”

– Outback Customer

READY TO POWER YOUR WATER SUPPLY?

Let's make it simple.

Contact our team today for expert advice or to find the right kit for your needs.



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outbacksolarpumps.com.au



Proudly Australian Owned and Operated



OUTBACK SOLAR PUMPS

Thank you for supporting Australian business.

G'day!

