

OUTBACK JOEY

SPECIFICATIONS

Reliable. Efficient. Built for
Australian Conditions.

-  **Low-yield bores**
-  **Entry-level packaged kit**
-  **Budget-friendly bore kit**



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 helical rotor pump with brushless DC motor & 1.5m starter cable

2



DC MPPT SOLAR PUMP CONTROLLER

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

3



1 X 450W SOLAR PANEL

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

4



HEATSHRINK JOINT KIT

Joint kit to connect starter cable to your cable

5



40M STAINLESS LOW LEVEL BORE PROBE

Stainless steel probe with 40m cable for dry run protection.

6



2 X 3M MC4 CONNECTORS

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

7



25MM 304SS CHECK VALVE

Stainless steel check valve to prevent backflow and 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.



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JOEY SOLAR PUMP

SPECIFICATIONS

The Outback Joey Solar Pump is a compact and affordable solar submersible pump kit. Designed for low-yield bores and simple rural water supply, it offers reliable performance for stock watering, small tanks, garden irrigation and entry-level off-grid applications.



HIGH EFFICIENCY

Maximises water output from solar power



BUILT TO LAST

Stainless steel construction for corrosion resistance



HIGHLY RELIABLE

Made for harsh conditions & remote locations



EASY TO INSTALL

Simple setup with minimal maintenance

SPECIFICATIONS

Model	Joey 1-60
Power	300 W
Voltage (Vmp)	20 – 40 VDC
Maximum Input Current	15 A
Outlet Size	3/4" (20 mm)
Maximum Flow	18 L/min
Maximum Head	60 m
Pump Diameter	75 mm (3")
Pump Length	330 mm
Net Weight	3.9 kg
Protection Rating	IPX8
Insulation Class	F
Water Temperature	0 – 40 °C
Sand Tolerance	120 g/m ³ Max

Specifications are subject to change without notice.

KEY FEATURES



Brushless DC motor



Run-Dry protection



High efficiency



Low start voltage



Solar MPPT controller



Stock Watering



Light Irrigation Support



Domestic Water Supply

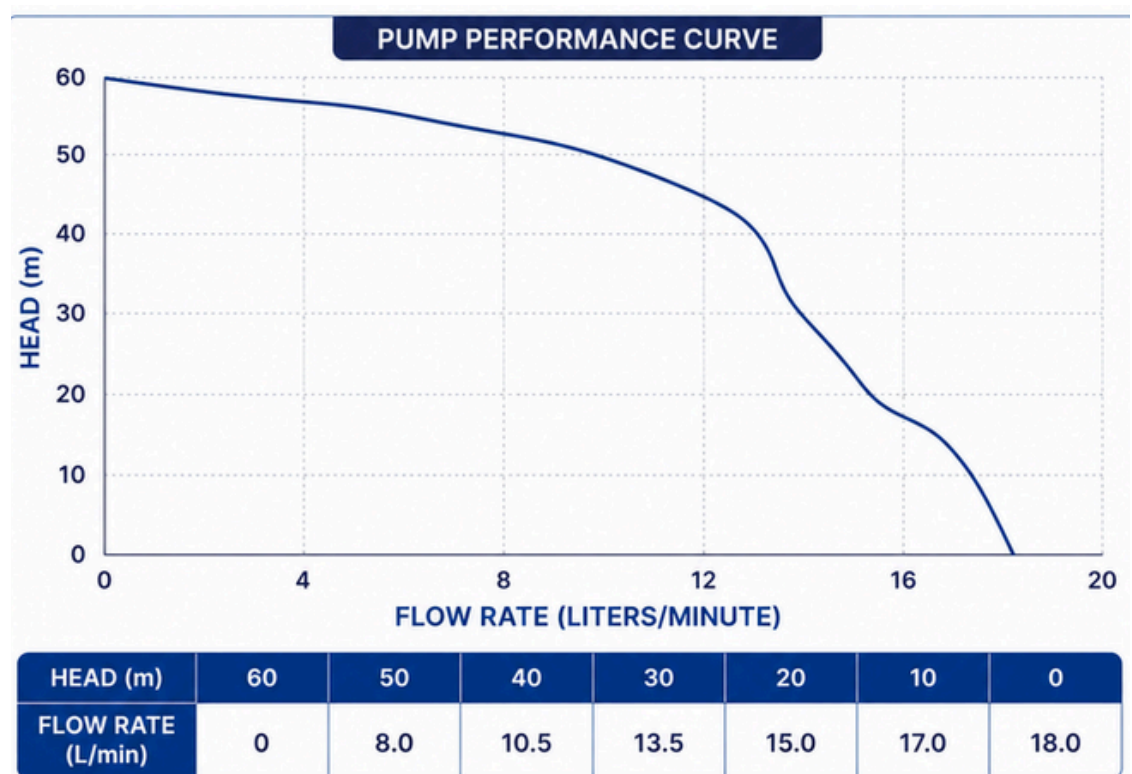


Off-Grid Locations

APPLICATIONS

RELIABLE. EFFICIENT.
BUILT FOR AUSTRALIAN
CONDITIONS.

PERFORMANCE CURVE





TECHNICAL SPECIFICATIONS

The Outback Joey features a compact stainless steel pump body, brushless DC motor and helical rotor pump end designed for efficient low-flow pumping from shallow bore applications.

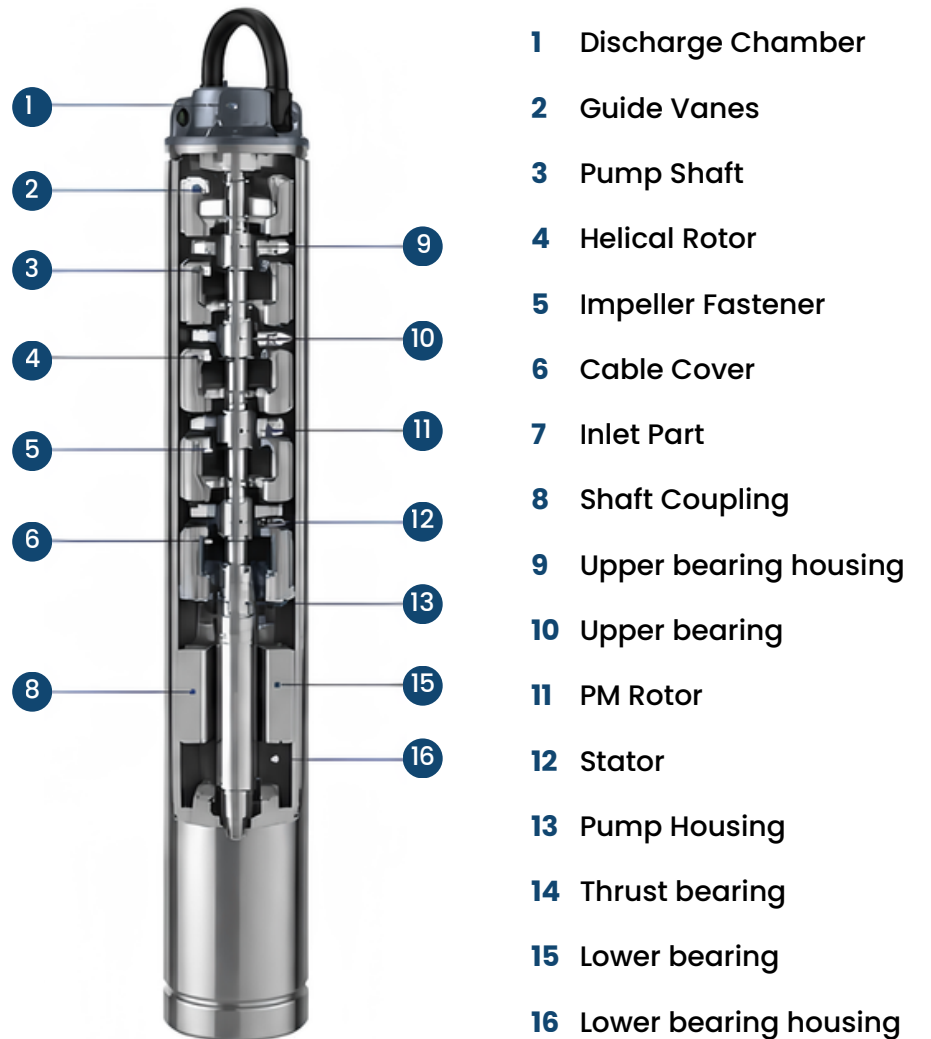
HYDRAULIC DESIGN

Pump Type	Submersible bore pump
Pump Design	Helical rotor
Water Source	Bore, well or low-yield
Application	Stock watering, tank filling
Operating Style	Direct solar operation
Water Delivery	At steady pressure

MOTOR & PUMP CONSTRUCTION

- ✓ Brushless DC (BLDC) motor
- ✓ Rated Power: 300W (0.3 kW)
- ✓ Motor Efficiency: Up to 85%
- ✓ Motor Speed: 500 – 4000 RPM
- ✓ Waterfilled encapsulated motor for superior cooling
- ✓ Maximum Water Temperature: 40°C
- ✓ Helical rotor design with AISI 304 stainless steel and thrust bearing system for reliable pressure performance

PUMP CONSTRUCTION OVERVIEW



- 1 Discharge Chamber
- 2 Guide Vanes
- 3 Pump Shaft
- 4 Helical Rotor
- 5 Impeller Fastener
- 6 Cable Cover
- 7 Inlet Part
- 8 Shaft Coupling
- 9 Upper bearing housing
- 10 Upper bearing
- 11 PM Rotor
- 12 Stator
- 13 Pump Housing
- 14 Thrust bearing
- 15 Lower bearing
- 16 Lower bearing housing

MATERIALS & BUILD QUALITY

- 🛡️ 304 Stainless steel construction
- 💧 Corrosion-resistant internal components
- 🔧 Silicon carbide mechanical seals
- ⚙️ Heavy-duty thrust bearing system

Built for durability in harsh environments where reliability and longevity are critical.

HELICAL ROTOR ADVANTAGE

The helical rotor design provides consistent pressure at lower flow rates, making it ideal for shallow bores and low-yield water sources where traditional centrifugal pumps struggle.



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.









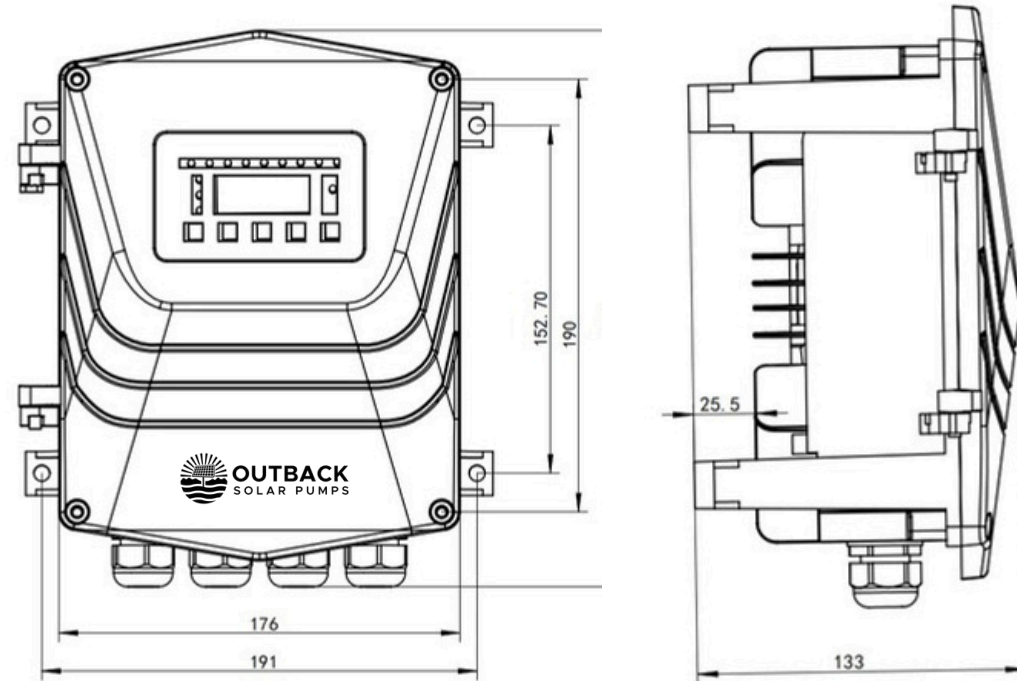
SOLAR PUMP CONTROLLER SPECIFICATIONS

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	DC MPPT Solar Pump Controller
MPPT Efficiency	Up to 98%
Operating Voltage (Vmp)	20 – 40V DC
Max Open Circuit Voltage (Voc)	55V DC
Maximum Input Current	15 A DC
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

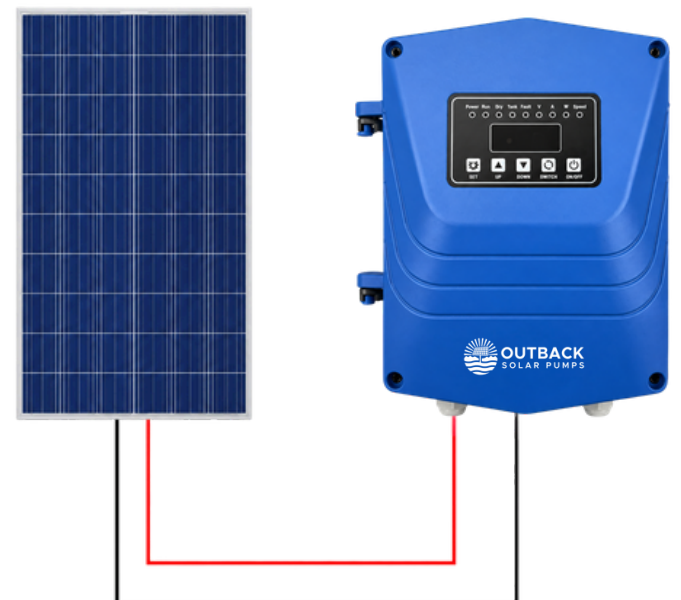
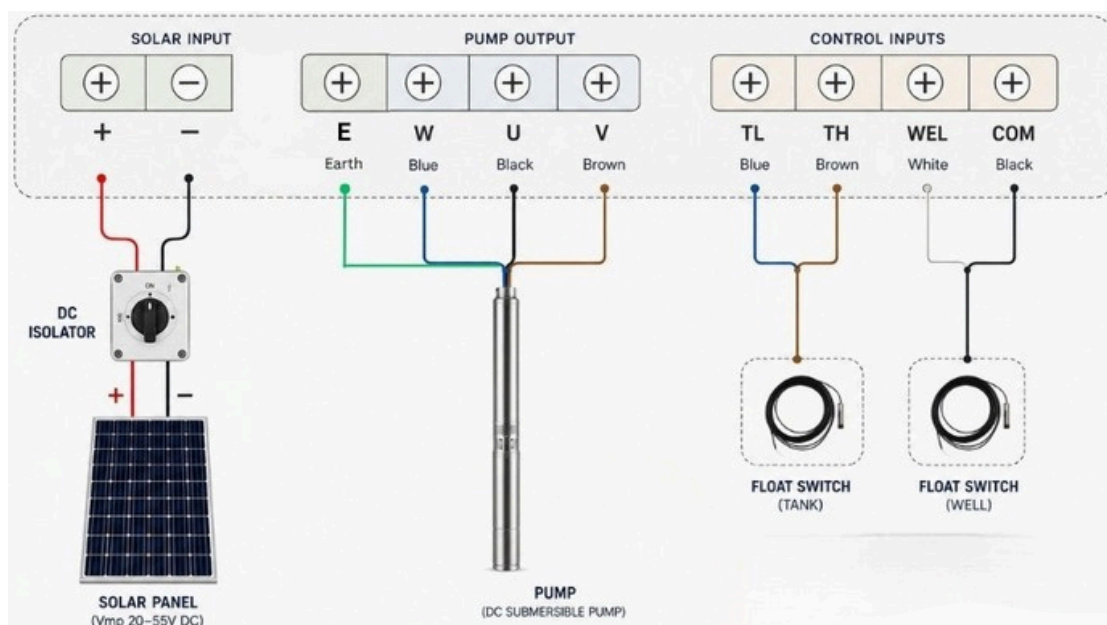
INTEGRATED PROTECTION FUNCTIONS

-  Dry-run protection
-  Thermal protection
-  Overcurrent and overload protection
-  Reverse polarity alarm
-  High and low voltage protection
-  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.

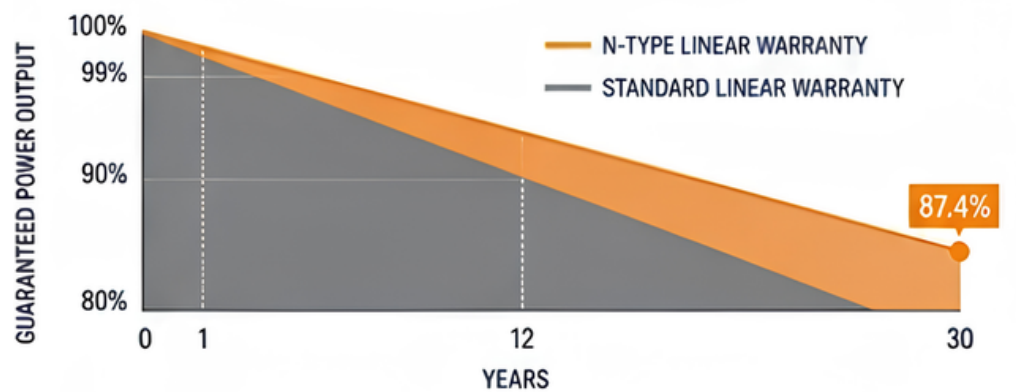


EXTREME WEATHER RESISTANCE

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.



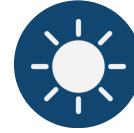
AUSTRALIAN DESIGNED

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 Joey 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 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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OUTBACK
SOLAR PUMPS

Thank you for supporting
Australian business.

G'day!

