

DC Solar Water Pump 1.8T/h

This DC solar water pump is designed for various water pumping applications. It is suitable for irrigation, livestock watering, and domestic water supply in off-grid locations.



Overview

High-Efficiency DC Solar Pumping Solution

This 3-inch DC solar water pump is engineered for high-efficiency water delivery using a permanent magnet brushless motor powered directly by solar PV arrays. The integrated controller utilizes sine wave start commutation and automatic control technology to optimize voltage and current, significantly extending the service life of the equipment. It is an ideal solution for off-grid applications including irrigation, livestock watering, and domestic water supply.

Key Performance Metrics

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1.8 m³/h

Rated Flow Rate

3600 r/min

Rated Speed

3 inch

Pump Diameter

Intelligent Controller Functions

Safety & Protection Systems

- Under-voltage protection to preserve battery life
- Overvoltage protection against power surges
- Water shortage protection (auto-stop after 3 minutes)
- Automatic overload protection (auto-stop after 2 minutes)
- Automatic card machine protection with reverse operation
- High-temperature thermal protection

Technical Specifications



Detailed performance curves and PV array configuration guide for the 1.8m³/h pump series.

Model Performance Data

| Model | Power (W) | Voltage (VDC) | Max Head (m) |
|--------------------------|-----------|---------------|--------------|
| 3TY1.8-21/7-300W/30V | 300 | 30 | 36 |
| 3TY1.8-30/10-400W/30V | 400 | 30 | 49 |
| 3TY1.8-45/14-550W/60V | 550 | 60 | 70 |
| 3TY1.8-62/16-750W/72V | 750 | 72 | 95 |
| 3TY1.8-98/22-1200W/90V | 1200 | 90 | 142 |
| 3TY1.8-120/25-1500W/110V | 1500 | 110 | 170 |

Motor Type Permanent magnet brushless motor

Start Method Sine wave start commutation

Applications

Recommended Use Cases Irrigation, Livestock Watering, Domestic Water Supply, Off-grid Locations

Solar Configuration

PV Array Compatibility

- 300W/30V models: 1x 330W/36V or 1x 380W/40V
- 750W/72V models: 3x 270W/30V (Series)
- 1500W/110V models: 6x 330W/36V (2 Parallel 3 Series)