OMNIPV

4SPF2.8-140 1.5HP AC/DC

Solar Submersible Pump System

INTRODUCTION

OMNIPV provides the ideal solution for water supply in remote area for you. Our powerful solar submersible pumps deliver clean water with no energy cost as they solely consume electricity generated by solar panels. These pumps are designed and engineered specifically such that they are easy to use and require no maintenance, and accept electricity from the power grid when the renewable energy source is unstable/ unavailable. Extra protection mechanisms also come along with our high-quality solar water pumps to ensure our customers' safety.

KEY FEATURES

- BLDC High Efficiency Motor
- Double Shielded Water Filled Motor (No Pollution Leakage)
- Prolonged System Life Under Soft Start Running
- Hybrid Powered by DC/AC (50Hz & 60Hz)
- Dry Protection (No Additional Float Sensor Required)
- Reverse Polarity Protection
- Over-Head Protection (Monitor and Flow Meter Required)
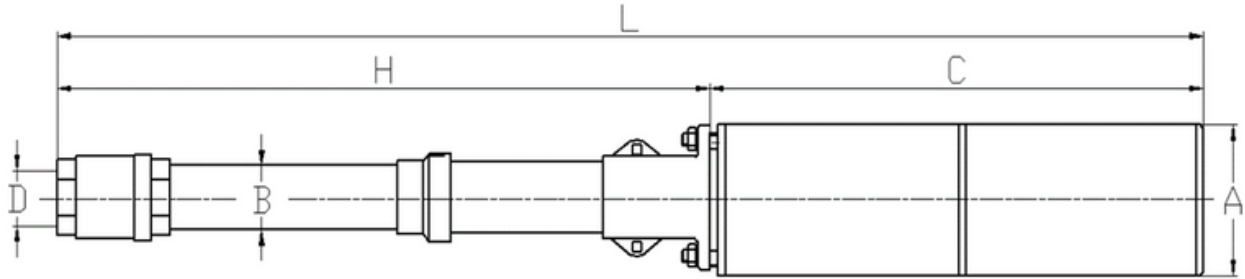- 2 Years Warranty
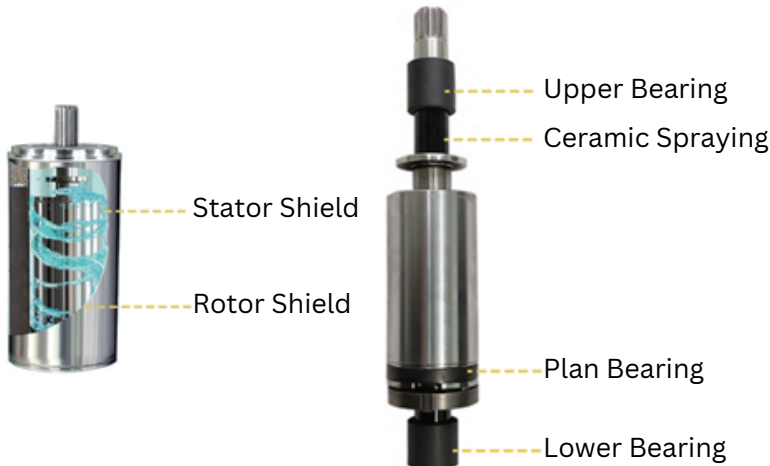
TECHNICAL PARAMETERS

Model	4SPF2.8-140 (1.5HP AC&DC)
Recommended Solar Panel	1500 Wp (5 pcs × 300 W)
Water Temperature	77 °F (25 °C)
Dirt Loss	3%
Static Head	262.47 ft (80 m)
Head	Max. 459.32 ft (140 m)
Flow	Max. 12.15 gal/min (46 L/min)
Input Power	Max. 1.5 kW
Minimum Well Diameter	Min. 4 In
Pump Discharge	Rp 1 In
Controller	
Controller Type	Build-in
MPPT Efficiency	Max. 98%
Protection	Over Temperature/Over-load/Over-current/Over-voltage/Low-voltage/Losing-phase/Dry Protection
Motor	
Voltage	AC 90–240 V DC Max. Voc 440 V, Vmp 60–380 V
Current	AC Max. 10 A DC Max. 12 A
Motor Efficiency	Max. 88%
Insulation Class	F
Enclosure Class	IP X8
Submersion	Max. 492.13 ft (or 150 m)
Required Cooling Flow	Max. 0.21 gal/s (or 0.8 L/s)
Connect Standard	40
Speed	500–3600
Pump End	
Material	Stainless Steel AISI 304 (316 optional)
Pump Type	Helical Pump

* AC/DC switching needs 1 minute.

* For helical pump, it shall not be used in the environment with poor water quality as it will cause performance degradation or damage in long term.

* Voc refers to the voltage (V) under open circuit (nothing connected); Vmp refers to the voltage (V) under maximum power point under load. Exceeding the limits may cause serious harm or irreparable damage.

Stator Shield

Rotor Shield
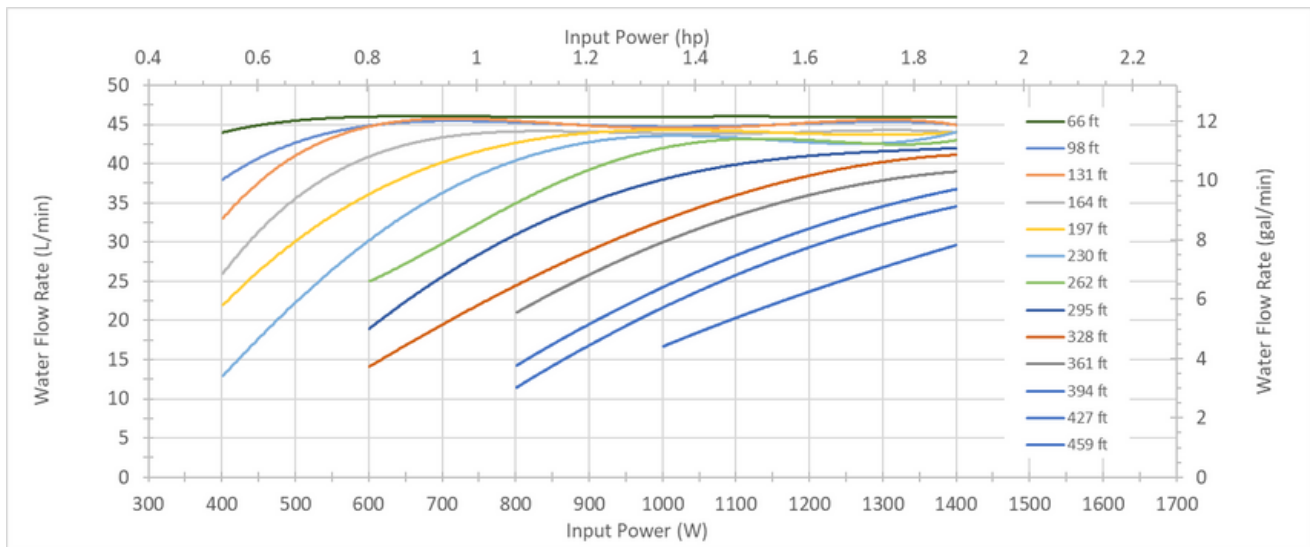
Upper Bearing

Ceramic Spraying

Plan Bearing

Lower Bearing

4SPF2.8-140   1.5HP   AC/DC

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DIMENSIONS AND WEIGHTS

	A	B	C	H	L	D
Dimension (Inch)	3.90	1.65	24.41	30.71	55.12	1.25

Pump Unit	Motor	Pump End	Package Unit	Package Volume
37.48 lbs (or 17 kg)	27.56 lbs (or 12.5 kg)	9.92 lbs (or 4.5 kg)	51.81 lbs (or 23.5 kg)	57.87*6.30*9.84 Inch

** The size and weight information may be changed, please confirm with the factory. **

PUMP CHART

SOLAR PANEL WIRING

5 Pcs of 300W solar Panel in series

Voltage:
DC : 60-380 Vmp / 440 VOC
or AC : 1 x 90-240V 50Hz&60Hz