

SOLARPLEX SPX-800-5

The SolarPlex SPX-800-5 is a solar powered horizontal multistage centrifugal water pump which can operate with solar PV panel configurations rated anywhere from 100W-800W, straight from the box. This allows head and flow to increase simply by adding more PV panels. Advanced MPPT software and electronics, combined with low-light operability means more water per day at a lower cost.

SOLUTION OVERVIEW

Flow Rate	max. 5.4m ³ /h
Head	max. 75 m
Power Range	100W to 800W / ¼hp to 1hp

DIMENSIONS AND WEIGHTS

Length	380mm
Height	250mm
Width	140mm
Weight	10kg
Thread size	1"
Hose size	1¼"



Box dimensions	430 x 200 x 260mm
Total shipping weight	12kg

BENEFITS

- More water per day at a range of heads
- Reliable design
- 2 year warranty
- No fuel required
- Easily user maintained

KEY FEATURES

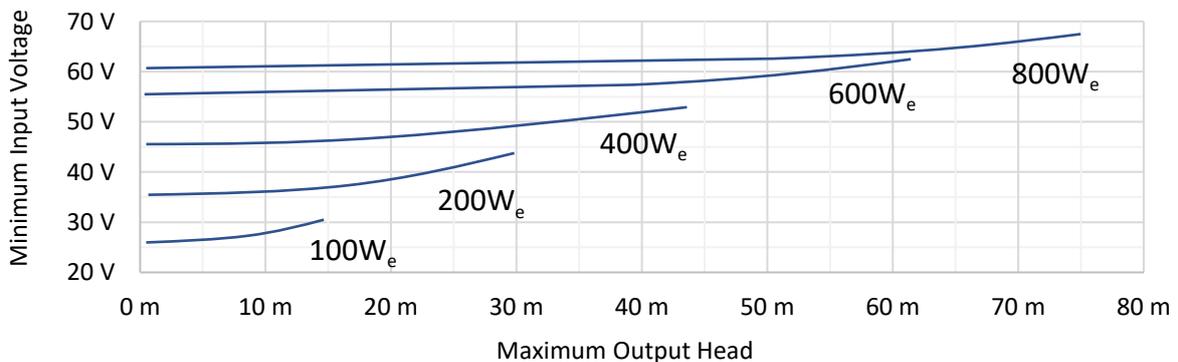
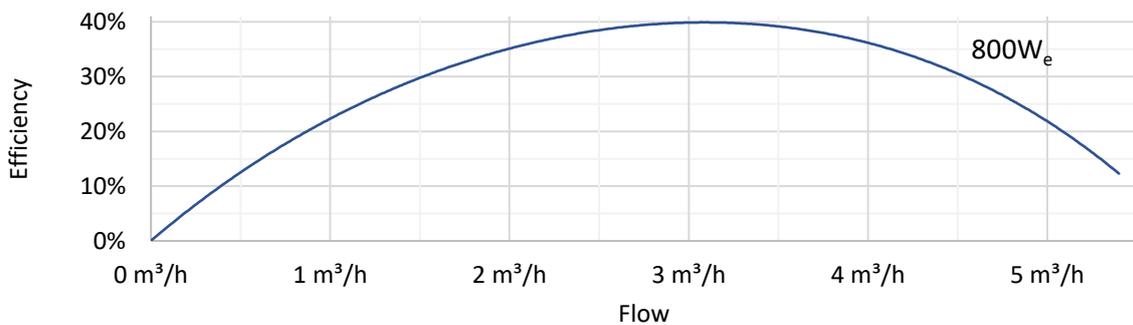
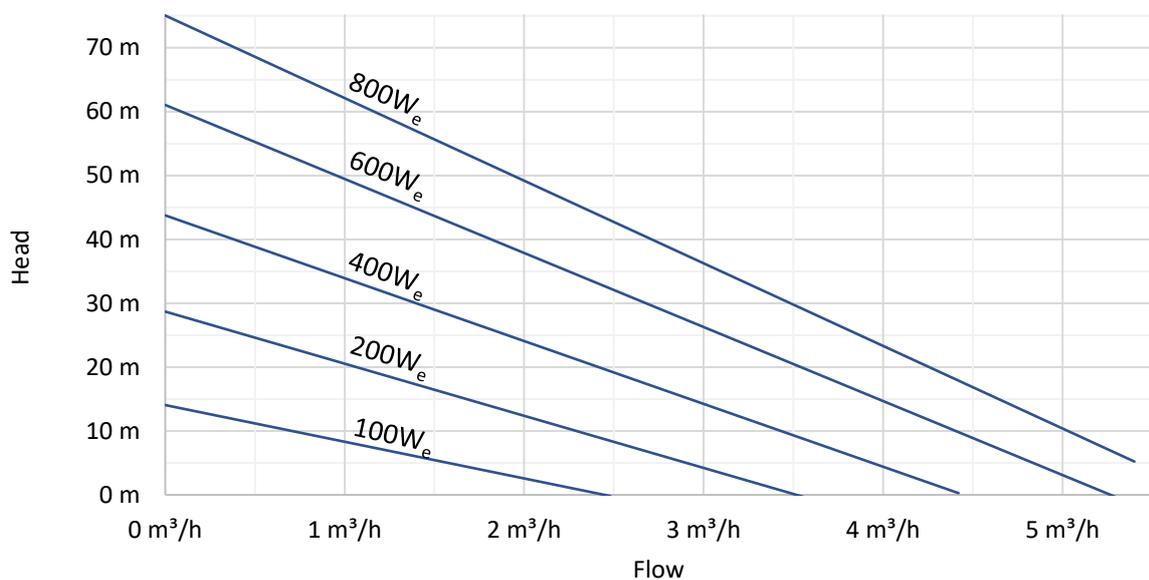
- Direct PV connection and pump operation from integrated controller (no separate controller)
- Integrated high efficiency MPPT (incremental conductance Maximum Power Point Tracking)
- Automatic protection from overload, overtemperature, reverse polarity & locked rotor (i.e. impedance protected)
- Continuous duty pump with a fan-cooled motor and temperature sensor integrated into motor windings
- Maintenance-free brushless DC (BLDC) motor, pump-end all stainless steel 304, NSK bearings, and unlimited lifetime metal-film capacitors for voltage regulation
- Power limiter control mode allows users to set maximum flow rate to prevent dry running
- Switch control inputs for dry run protection and tank overflow

TECHNICAL DATA

Efficiency	max. 40%	Insulation Class	F
Max Input Voltage (Voc)	105 VDC	Water Temperature	0°C - 50°C
Min Input Voltage (Vmp)	See chart below	Ambient Temperature	max. 50°C
Motor Current	max. 14 A	Premium Materials	Stainless steel AISI 304
Enclosure Class	IP56	Impeller Stages	5

N.B. 2 PV panels connected in series are generally required for heads over 20m and/or power levels over 200W.

PERFORMANCE CHARTS

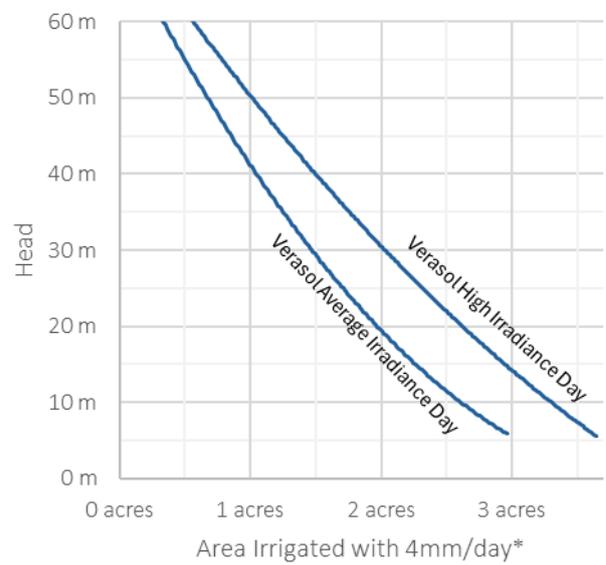
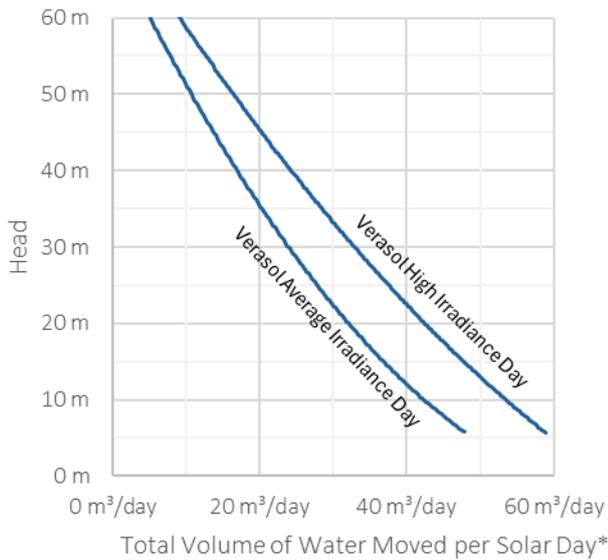


^e All powers indicated (W_e) are electrical inputs in Watts

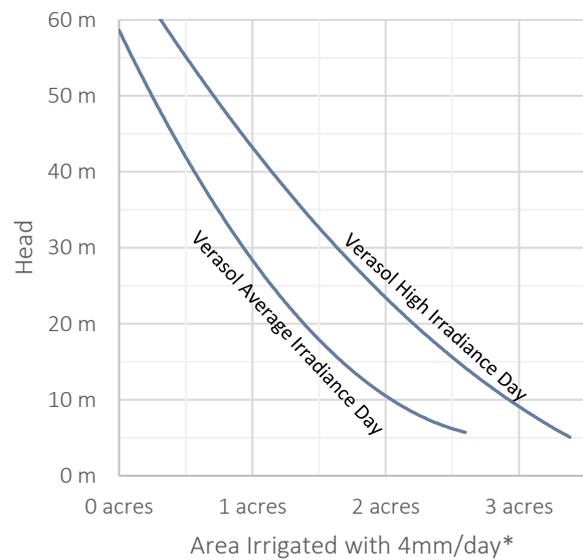
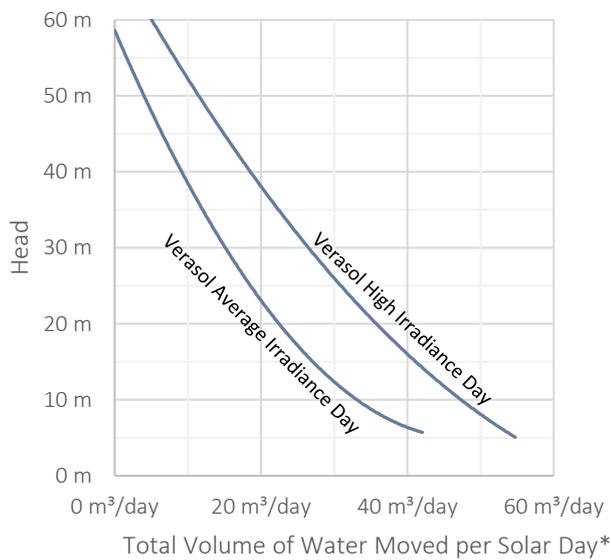
Pump tested in accordance with ISO 9906:2012 – small pump

DAILY OUTPUT CHARTS

1,400Wp ARRAY OF 2x 700Wp PV PANELS



1,100Wp ARRAY OF 2x 550Wp PV PANELS



*Daily output plotted according to section 3.8.b. of the VeraSol Global LEAP Solar Water Pump Test Method Version 2, 5th April 2021, [Global-LEAP-Solar-Water-Pump-Test-Method-v.2-Apr2021.pdf](#)