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 / ⅛hp to 1hp

DIMENSIONS AND WEIGHTS

Length	380mm
Height	250mm
Width	140mm
Weight	9kg
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, 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

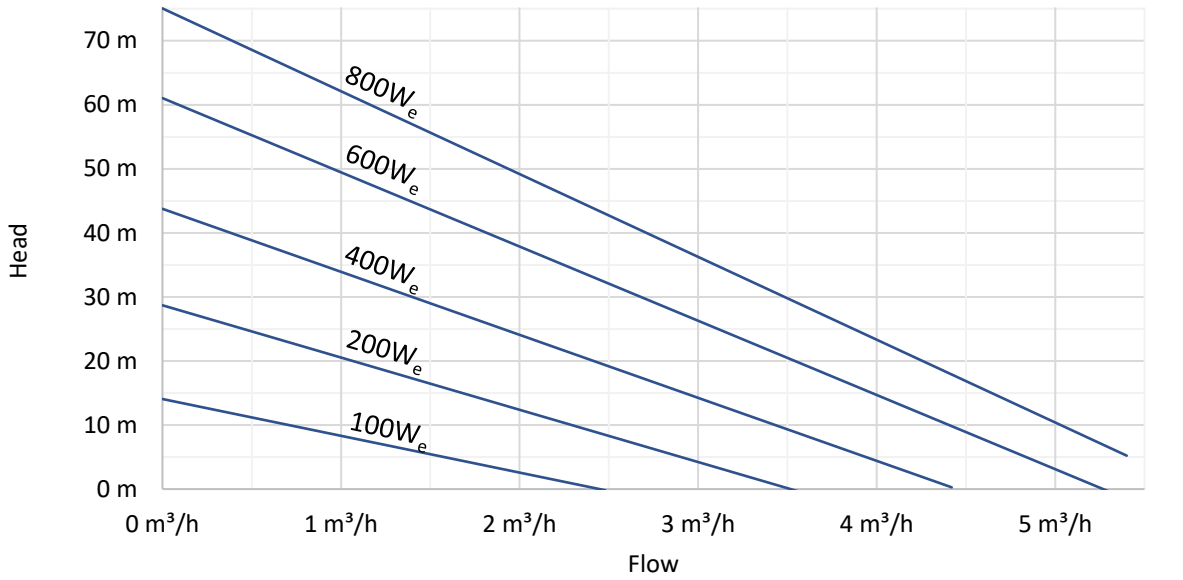
Switch control inputs for dry run protection and tank overflow

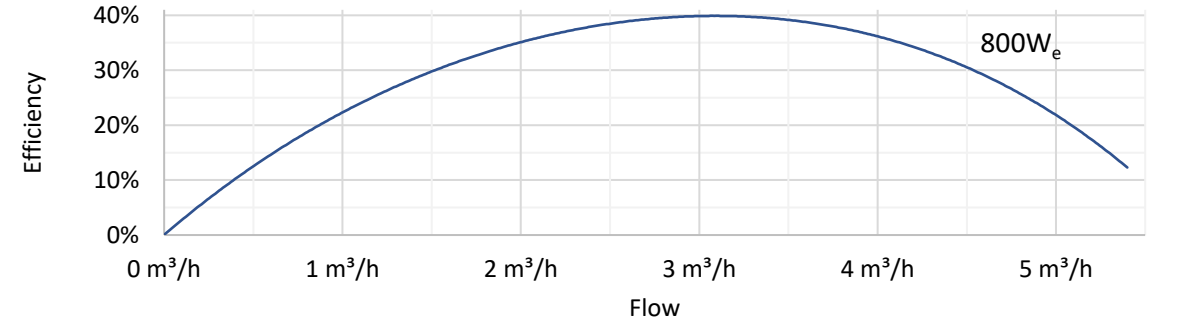
TECHNICAL DATA

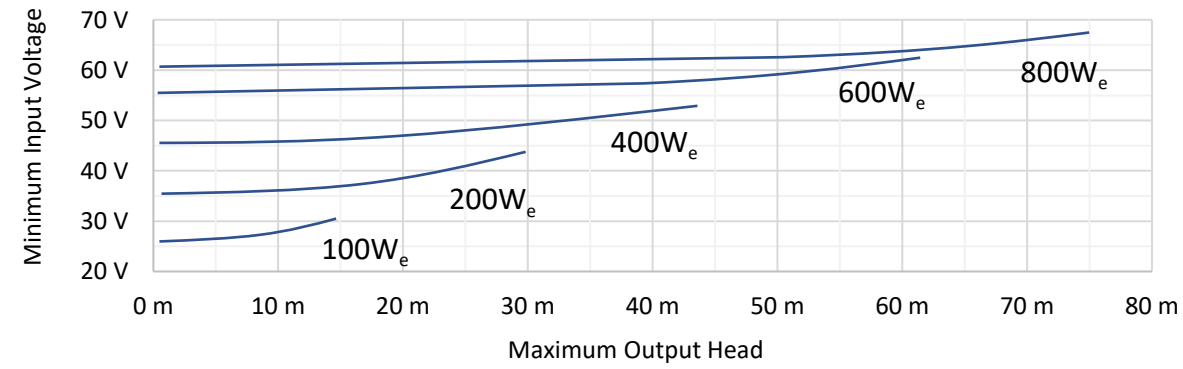
Efficiency	max. 40%	Insulation Class	F
Max Input Voltage (Voc)	105 VDC	Water Temperature	0°C - 50°C
Min Input Voltage (Vmp)	See chart below	Ambient Temperature	max. 50°C
Motor Current	max. 14 A	Premium Materials	Stainless steel AISI 304
Enclosure Class	IP56	Impeller Stages	5

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

PERFORMANCE CHARTS





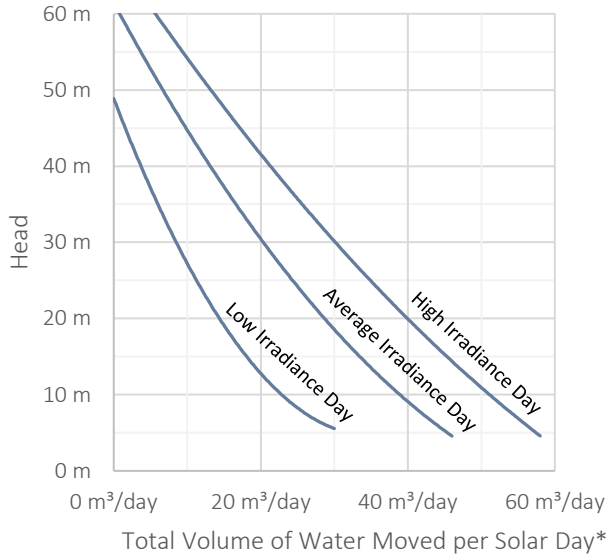


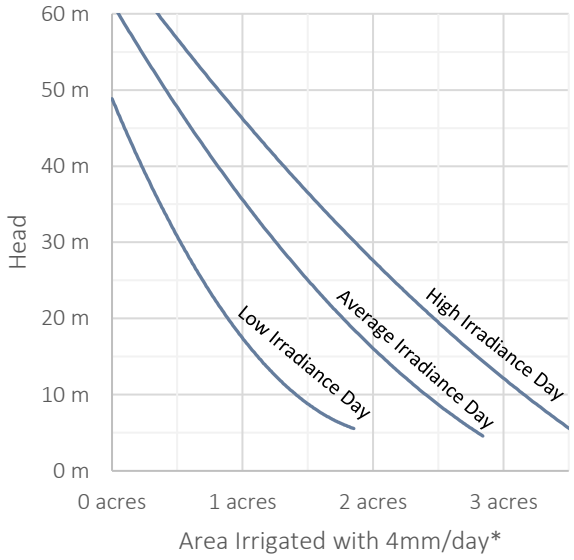
- All powers indicated (**W$_e$**) are electrical **inputs** in Watts.

ISO 9906

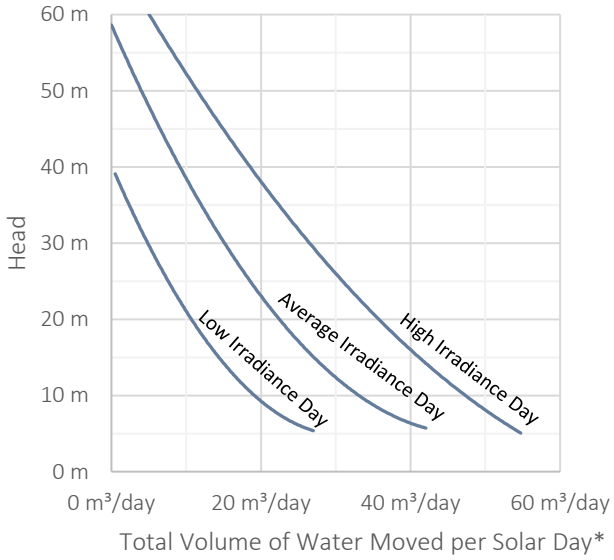
DAILY OUTPUT CHARTS

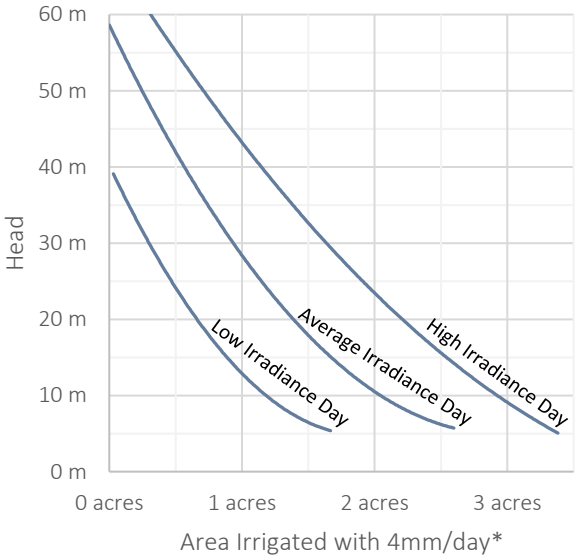
1,330Wp ARRAY OF 2x 665Wp PV PANELS





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