



DAYLIFF DSOLARX range of pumps are high specification solar powered centrifugal and helical rotor DC pumps specifically designed for borehole applications and feature a remote surface mounted controller. Pumps are constructed principally from AISI 304 stainless steel and are engineered to the highest standards to give serviceability, excellent efficiency, high reliability and long life. Helical rotor type are supplied with spare rotor.

### Motor

Pumps are fitted with Permanent Magnet brushless high efficiency, maintenance free DC motors without integrated electronics specifically designed for maximum efficiency for solar module per sun. They should be powered by solar arrays configured to provide the input voltage required and sized at approximately 130% of the rated motor power.

**Speed:** 3300rpm

**Insulation Class:** F

**Enclosure Class:** IP68

### Controller

Pumps are provided with matched controllers for monitoring, protecting and controlling pump operations with the following features:-

- Protection against reverse polarity, overload and over temperature.
- Integrated MPPT (Maximum Power Point Tracking) with 99% energy conversion efficiency to maximize module power output.
- Fully automatic operation and complete protection including low level control, dry running and over/under voltage.
- Enhanced pump start on low sun intensity e.g in the morning.
- Easy trouble shooting, where fault code is displayed on LCD screen for fast identification and problem solving.
- Enclosure Class: IP52.

### Power Outputs

Pump output curves are given at standard test conditions of 1000W/m<sup>2</sup> solar irradiance and 25°C. Output will vary throughout the year depending upon prevailing irradiation levels. For estimated daily outputs at continuous pumping multiply the indicated output at the duty point by the daily irradiation given in Graph 1. For indicative purposes factors of 1.1 can be applied for hot arid areas and 0.9 for temperate high altitude areas in East Africa. Output will vary throughout the day as a proportion of the estimated hourly irradiation as shown in Graph 2.

### Operating Conditions

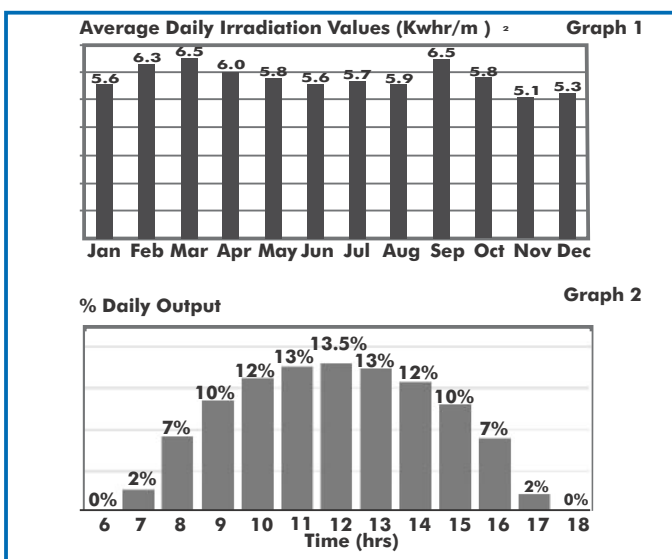
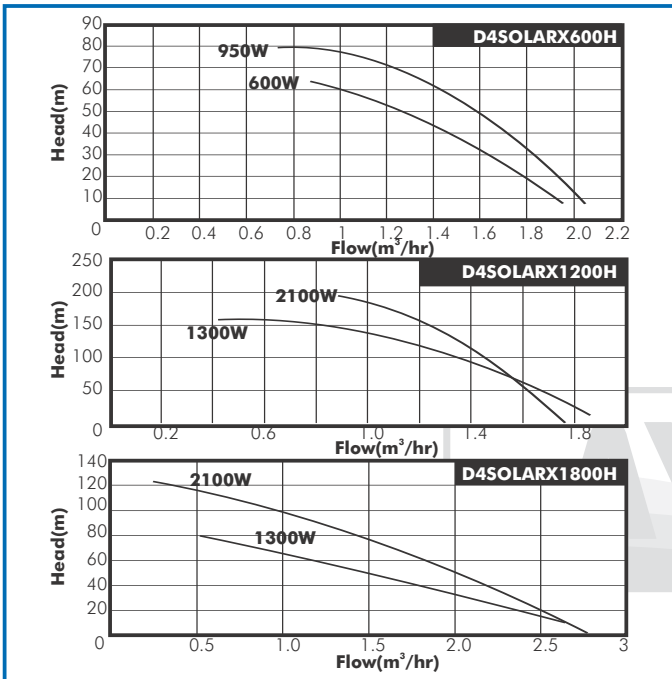
**Pumped Liquid:** Thin, clean, chemically non-aggressive liquids without solid and fibres.

**Maximum Liquid Temperature:** 0-35°C

**Controller Ambient Temperature:** -20°C to +60°C

**Max Immersion Depth:** 250m

**Minimum Borehole Diameter:** 125mm



Model	Type	Motor Power			MPP Voltage	Dimensions (mm)							Weight (kgs)	
		kW	Input	V		A	B	C	D	D1	Ø	E		H
D4SOLARX0600H	Helical Rotor	0.6	15	150	60-120VDC	560	351	209	146	113	32	202	244	16
D4SOLARX1200H	Helical Rotor	1.2	15	200	120-160VDC	600	358	242	146	113	32	202	284	20
D4SOLARX1800C	Centrifugal	1.8	15	200	120-160VDC	1040	389	651	146	113	40	202	284	24

