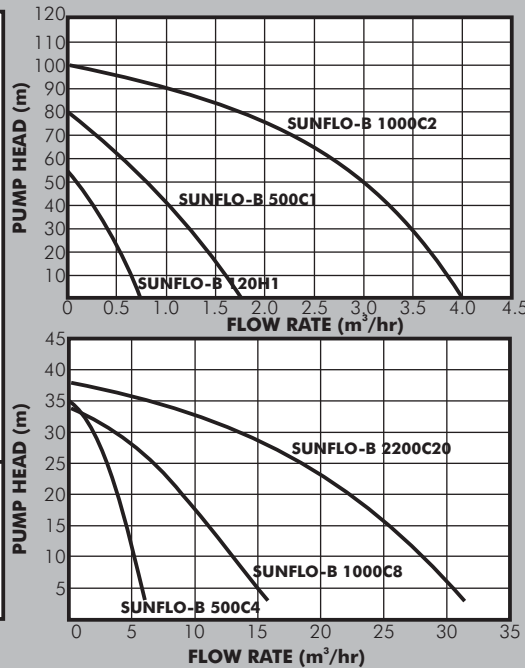
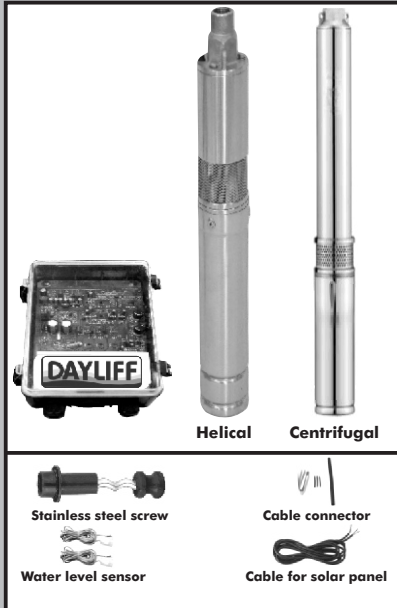


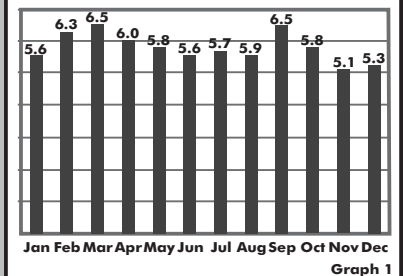


SUNFLO-B

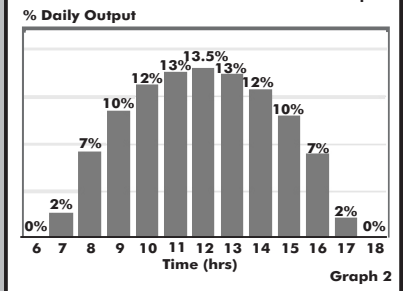
DC Solar Submersible Pump



Average Daily Irradiation Values (Kwhr/m)



Graph 1



Graph 2

PUMP

DAYLIFF SUNFLO-B pumps are specifically designed for PV solar powered water supply from wells and boreholes. They are of centrifugal and rotary screw design and material of construction for rotary screw design are principally stainless steel with a rubber stator while centrifugal design features noryl impellers and stainless steel chambers. Pumps are supplied complete with a controller, cable connectors, water level sensor, solar PV connecting cables and spare rotor for helical type.

MOTOR

Permanent magnet, oil filled, brushless, DC motor specifically designed for maximum efficiency from solar module power sources. It should be powered by a solar array configured to provide the input voltage required and sized at approximately 130% of the rated motor power.

Enclosure Class: IP68

Insulation Class: B

Speed: 2900rpm

CONTROLLER

The pump is supplied with a self-contained multifunction MPPT (Maximum Power Point Tracking) controller that tracks the solar module's maximum power output voltage which varies with module temperature and irradiation levels. This ensures maximum current output, typically +25% higher than conventional module controllers and a similar increase in daily water output. The controller also protects from over and under voltage, over current and low water level (if electrodes are fitted) and features various indicator lights that give the pump's operating status. The system can be installed either with or without batteries. If batteries are included, the pump will operate when there is insufficient solar irradiation for direct power.

PUMP OUTPUTS

Performance curves are given at standard test conditions of 1000W/m² 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 the Tropics. Output will vary throughout the day as a proportion of the estimated hourly irradiation as shown in Graph 2.

OPERATING PARAMETERS

Pumped Liquid: Thin, clean, chemically non-aggressive liquids with a sand content of less than 0.1%.

Ambient Temperature: -20°C - +50°C

Maximum Liquid Temperature: +40°C

Minimum Immersion Depth: 0.5m

Maximum Immersion Depth: 40m

Minimum Borehole Diameter: 125mm

PUMP DATA

Model	Type	Motor Rating (W)	Input Voltage (V)	Max Input Voltage (V)	Peak Voltage (V)	Open Circuit Voltage (VOC)	PV Modules (W)	DN (")	Dimensions (mm)		Wt (kg)	
									C	D		
SUNFLO-B 120H1	Helical Rotor	120	24	50	≥30	<50	1x200W	3/4"	76	820	12	
SUNFLO-B 500C1	Centrifugal	500	48	100	≥60	<100	4x200W (2 No. Series, 2No. Parallel Strings)	1"	76	1020	17	
SUNFLO-B 500C4		500	48	800	>60	100	4x200W (2 No. Series, 2No. Parallel Strings)	1.25"	102	658	34	
SUNFLO-B 1000C2		1000	110	200	≥112	<200	8x200W (4 No. Series, 2No. Parallel Strings)	1.25"	100	860	21	
SUNFLO-B 1000C8		1000	110	1600	>112	200	8x200W (4 No. Series, 2No. Parallel Strings)	2"	102	793	38	
SUNFLO-B 2200C20		Centrifugal	2200	220	3200	>220	350	16x200W (8 No. Series, 2No. Parallel Strings)	3"	125	764	50

