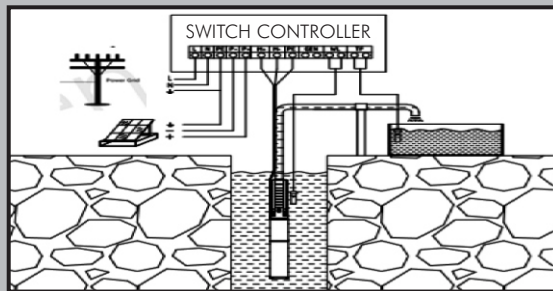


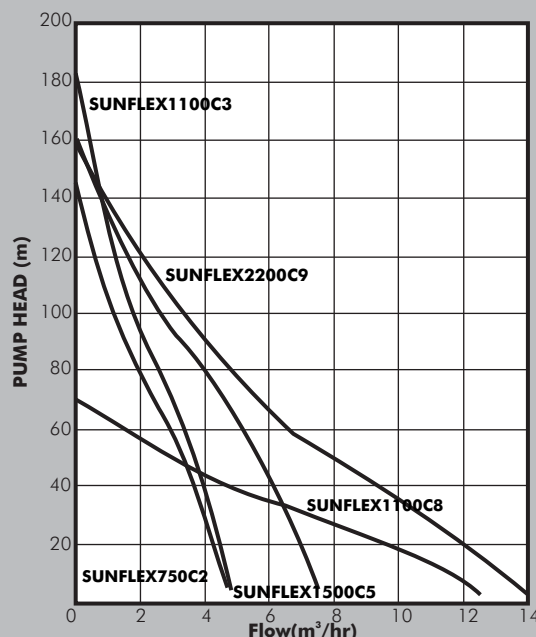
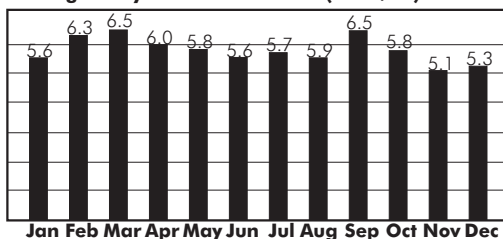


SUNFLEX

Hybrid AC/DC Solar Pump



Average Daily Irradiation Values (Kwhr/m²)



PUMP

Dayliff Sunflex is a multistage centrifugal submersible pump designed for water supply from boreholes and wells. A particular feature is hybrid capability with the option of running the pump on DC solar or AC mains supply or generator power with the inbuilt intelligent controller incorporating a frequency converter automatically configuring to the connected input power source. Other features include:-

- Pump construction is of hard-wearing stainless steel throughout including impellers and stages with water lubricated bearings.
- Built in motor controller incorporating MPPT capability for DC power input and Power Factor Correction for AC power input to maximise power input efficiency with DC power automatically prioritized.
- Wide voltage range and flexibility for both AC and DC power sources.
- Built-in dry running protection.
- Soft start operation to extend motor and pump life.
- Motor protection including overload/underload and overvoltage/undervoltage sensing.

Dayliff Sunflex is a cost-effective and reliable solution for hybrid water supply where both solar and mains power supplies are available. The pump incorporates a number of innovative technology features to optimize system efficiency and minimize operating costs and provides unbeatable flexibility for all borehole applications.

MOTOR

The pump is coupled to a canned type water filled brushless permanent magnet variable speed motor that can be powered either by AC or DC power supply. The motor is fitted with an integral control module which uses MPPT technology to continuously optimize DC input efficiency and provides protection against over and under voltage and electrical and mechanical overload.

For optimal performance it is recommended to size the PV solar module array with a nominal output about 30% greater than the specified motor size and ensure that the input voltage is between the specified limits.

SF200 CONTROL UNIT

An optional external controller is available to enhance pump functionality which primarily provides for power source selection of either DC only, AC only or Auto which prioritizes the use of DC solar over mains/generator AC power and switches to AC when DC solar power is insufficient or unavailable. It also provides for on/off switching, digital VAC and VDC values, connection for a high-level control switch with 'Full' indication, 'Low' warning for low borehole water level and system Error warning.

Enclosure Class: IP68

Insulation Class: F

Max DC Input Voltage: 450VDC

Speed Range: 500–4,500rpm

PUMP OUTPUTS

Performance curves are given at standard test conditions of 1000W/m² solar irradiance and 25°C temperature. 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 the graph. 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.

OPERATING CONDITIONS

Pumped Liquid: Thin, clean, non-aggressive liquids without fibres or particles with a sediment concentration not exceeding 50gms/m³

Max. Liquid Temperature: 40°C

Max Immersion Depth: 100m

PUMP DATA

Model	Power (kW)	Current (A)	Input AC Voltage	Input DC Voltage	Max Input VOC	Panels		Outlet DN (")	Dimensions (mm)	Weight (kg)
						No.	Total Watt		H	
SUNFLEX 750C2	0.75	7.4	90-240	60-380	450	6x200W	1200W	1.25	1250	28
SUNFLEX 1100C3	1.1	6.6				8x200W	1600W		1360	30
SUNFLEX 1100C8						10x200W	2000W	2	1100	29
SUNFLEX 1500C5	1.5	11				16x200W	3200W		760	
SUNFLEX 2200C9	2.2									

