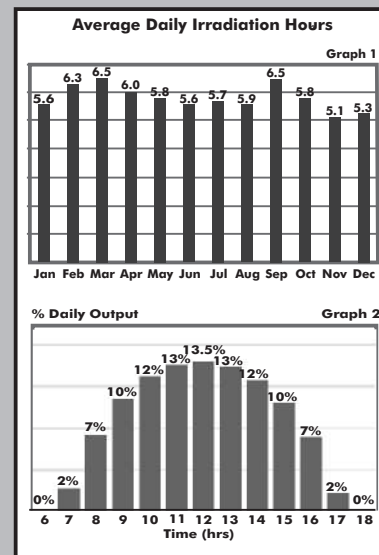
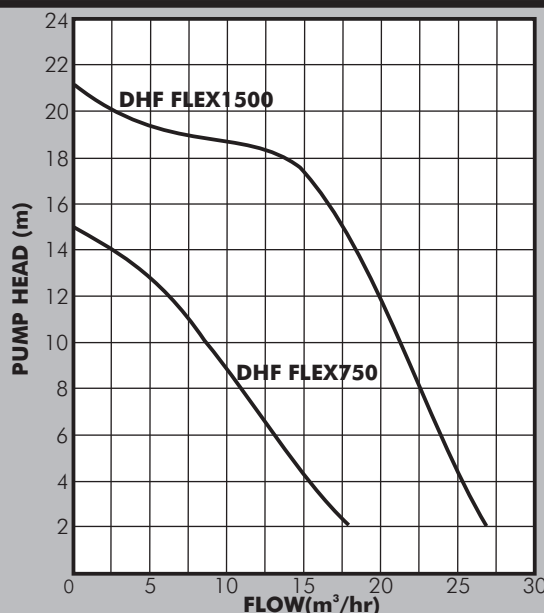




DHF FLEX

Hybrid AC/DC Surface Irrigation Pump



PUMP

DHF FLEX is a centrifugal non self priming booster pump specially designed for general water transfer and irrigation applications. A particular feature is hybrid capability with the option of running the pump on DC solar or AC mains supply or generator power with an external intelligent MPPT controller incorporating a frequency converter automatically configuring to the connected input power source. The pump material of construction is stainless steel AISI304 shaft, cast iron pump body with brass impeller and is enclosed in a sturdy carrying frame that includes the integral controller. Supplied with 2m water proof power cable.

MOTOR

The pump is coupled to high efficiency permanent magnet AC/DC powered brushless motor suitable for continuous duty. For optimal performance it is recommended to size the PV solar module array with a nominal output about 50% greater than the specified motor size and ensure that the input voltage is between the specified limits.

CONTROLLER

An external intelligent MPPT (Maximum Power Point Tracking) controller is provided offering advanced pump functionality with seamless power source management. Key features include.

- Intelligent power source selection either DC solar, AC mains, or Auto mode, prioritizing DC solar power for optimal energy efficiency and automatic switching to AC mains when the DC solar power is insufficient or unavailable ensuring continuous operation.
- Comprehensive protection including low and high voltage, over current, over temperature, reverse polarity and dry run.
- User-Friendly LED Display providing real-time data on voltage, current, power, speed and error codes for easy monitoring and troubleshooting.
- Soft start functionality to enhance the longevity of the motor and pump

Enclosure Class: Pump-IP54, Controller-IP65 **Insulation Class:** F **Max. Controller Current:** 18A **Speed:**3000rpm

POWER OUTPUTS

Pump output curve is 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 radiation 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 CONDITIONS

Pumped Liquid: Thin, clean chemically non-aggressive liquid without solids or fibres.

Max. Ambient Temperature: +35°C

Max. Liquid Temperature: +40°C

Max. Suction Lift: 6m

PUMP DATA

Model	Motor Power (kW)	MPPT Voltage (Vmp)	Input Voltage (V)		Open Circuit Voltage (VoC)	PV Modules (Connected in Series)	Inlet/Outlet (")	Dimensions (mm)			Weight (kg)	
			DC	AC, 1ph				L	W	H		
DHF FLEX750	0.75	96-350	80-430	80-280	<430	4x350W	2	63	34	44	24	
DHF FLEX1500	1.5	180-350				6x350W					25	