

SOLAR POWERED DC WATER PUMP

manufactured by **LORENTZ** 

Consultance and Installation:



What is a DC solar pump?

A normal water pump runs with 220 V AC (grid power or diesel generator) while a DC solar pump is supplied directly by a solar array or by a batterie.

The DC solar pump has a higher efficiency and in the long term lower pumping costs.

What can I do with a DC solar pump?

The **main applications** are drinking water supply, pond management and irrigation. Depending on the necessary vertical lift and model they can pump up to 20 m³/day, while the needed DC voltage varies between 12 V and 48 V.



How does it work?

The **controller** controls the pump system and monitors the operational state. It is protected against reverse polarity, overload and high temperature. In solar operation an integrated MPPT (Maximum Power Point Tracking) ensures the highest efficiency. In battery operation it will disconnect in time of low voltage and restart after battery has recovered. The enclosure is sealed and waterproof.

The **submersible pump** has a brushless motor, no electronics inside! The wetted materials are stainless steel, POM and rubber, the cable is drinking water approved. The pump end has a none-return valve and a optional dry-running protection. The **helictor rotor pump** has just two main parts: The stator and the rotor, both are more resistant to damage by sand than any other pump system and it is self-cleaning.

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Vertical lift [m]	Discharge [Liter/day]	Voltage	Solar modul [Watt-peak]
10	1.000	12 V	80
10	10.000	24 V	160
30	1.000	24 V	160
50	1.000	36 V	240
50	10.000	48 V	480

LORENTZ is the world leading manufacturer for DC powered submersible pumps. **A LORENTZ pump is simple to install, maintenance-free and high reliable.**