



**“... the most compact and reliable solution for your solar pumping applications ...”**



#### **Helical rotor pump**

- Highest hydraulic efficiency.
- Hard chromed rotor.
- High quality EPDM stator.



#### **Centrifugal pump**

- Impellers and diffusers in stainless steel AISI 304.
- Built-in no return valve.

#### **Motor**

- High efficiency permanent magnet motor.
- Resined and encapsulated stator made of stainless steel AISI 304.
- Water cooled rotor.
- Kingsbury thrust bearing.

#### **Encapsulated electronic**

- High efficiency encapsulated inverter.
- MPPT for maximum flow in all weather conditions.
- Overcurrent, overtemperature and dry-run protected.
- Removable power cable.
- Water level sensor

MPPT function (Maximum Power Point Tracking) maximizes the input power for various conditions of radiation and temperature.

When radiation grows, pump increases the rotation speed as well as the water flow.

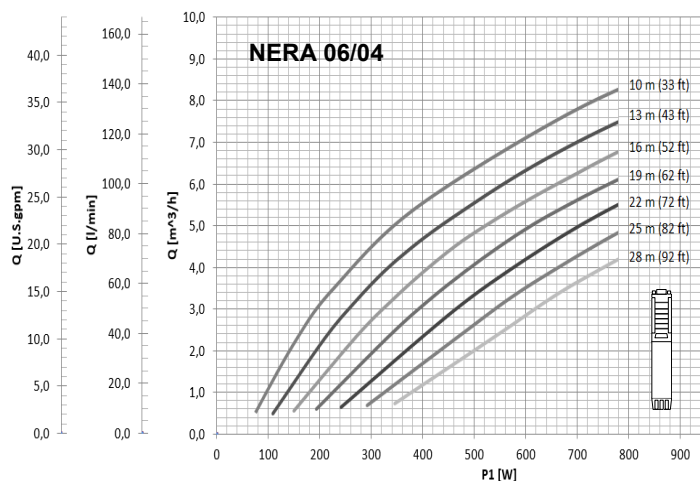
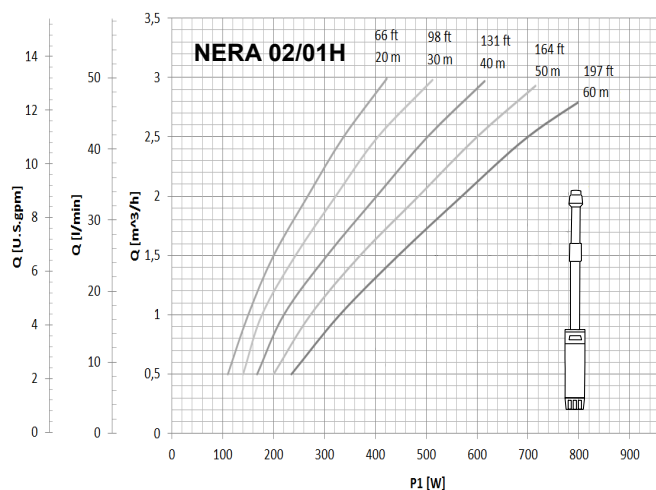
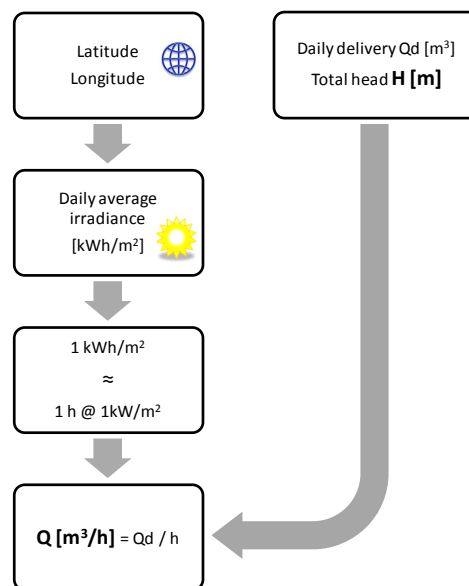
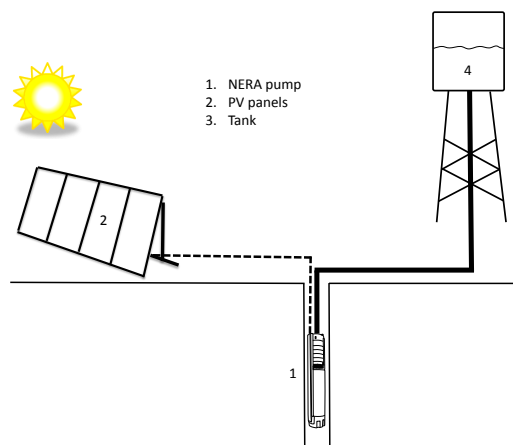
When radiation decreases (presence of clouds or different hours of the day), pump reduces the speed and thus the water flow but still provides water until the radiation falls below the minimum value to ensure the operation.

For the correct selection of NERA pump to be used in a photovoltaic system, it is necessary to know:

- Desired daily water flow.
- Total head
- Installation location.

Based on location it is possible to get average daily radiation [kWh/m<sup>2</sup>/day].

Average daily radiation could be then considered as the number of hours pump works with 1 kW/m<sup>2</sup>, standard value to which PV panels performances are referred. Dividing the required water quantity by the hours, nominal flow is calculated and, in addition to the required head, the right pump could be selected.



Model	Voltage	Max. absorbed current	Max absorbed power	Dimension	Delivery	Pump weight	Max. diameter
<b>NERA</b>	[VDC]	[A]	P1 [W]	[mm]		[kg]	[mm]
<b>02/01H</b>	70 - 190	10	800	890	1 1/4 "	11	99 *
<b>06/04</b>	70 - 190	10	800	520	1 1/2 "	9	99 *

\* Max. external diameter including cable and cable cover