

## SOLAR PUMPTEC

SOLAR PUMPING SPECIALISTS

## NERA

NERA Solar Pump Custom Packaged Systems









> we move it faster >

Manufactured in Italy



NERA The most compact and reliable solution for solar pumping applications.

NERA solar pumps have been developed to meet the needs of low-power and low-cost pumping systems without sacrificing quality, reliability and performance. For this reason, unique technological features are concentrated in NFRA.

Based on the varying conditions of solar irradiation and tem-perature, MPPT (Maximum Power Point Tracking) maximises the electrical power drawn from the panels and therefore the amount of water pumped. The greater the solar irradiation the faster the pump's rotation speed, and consequently water flow increases. When solar irradiation decreases (due to clouds or the different times of day), the pump reduces frequency and therefore the flow, but it continues to provide water until the irradiation falls below a minimum level necessary to ensure operation.

### **Pump Selection**

For the correct selection of NERA pump to be used in a photovoltaic system, it is necessary to know the desired daily water flow, total head and installation location. Based on the location it is possible to calculate average daily radiation [kWh/m2/day]. Average daily radiation can then be considered as the number of hours the pump works with 1kW/m2, standard for defining solar panel performance. Dividing the required water quantity by the hours, nominal flow is calculated and. in addition to the required head, the right pump can be selected.

### Helical Rotor Pump

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

#### Motor

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

### Centrifugal Pump

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

#### Motor

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

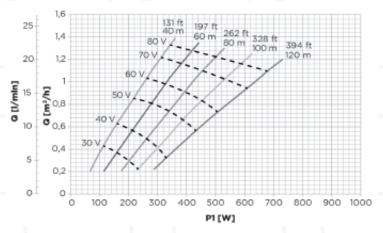




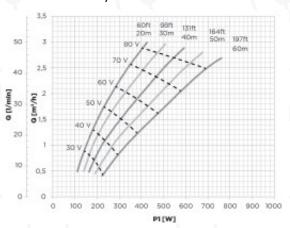


## Performance

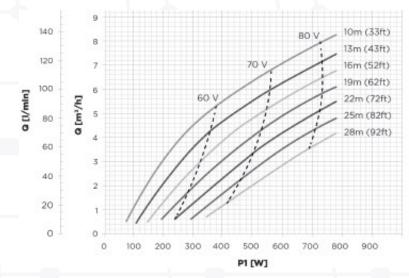
## NERA 01/02H



## NERA 02/01H



## NERA 06/04



NERA	VOLTAGE	MAX	MAX POWER	LENGTH	DISCUADOR	PUMP	MAX DIAMETER*	PACKAGING	TOTAL	
MODEL	[VDC]	CURRENT[A]	P1[W]	[mm]	DISCHARGE	WEIGHT[kg]	[mm]	DIMENSIONS[cm]	WEIGHT[kg]	
01/02HF	26-190	10	800	930	1 1/4"	11	99*	77 x 21 x 26	13	
02/01HF	26-190	10	880	890	1 1/4"	10	99*	77 x 21 x 26	12	
06/04F	26-190	10	800	520	1 1/2"	9	99*	57 x 21 x 26	11	
*Max external diameter including cable and cable cover										

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MODEL	PANELS	AVERAGE LPD	BASED ON HEAD	MAX FLOW	MAX HEAD
NERA 01/02HF	1 X 400W	5,000	30M	13LPM	80M
NERA 01/02HF	2 X 400W	10,000	60M	25LPM	120M
NERA 01/02HF	3 X 400W	12,000	90M	25LPM	120M
NERA 01/02HF	4 X 330W	14,000	120M	25LPM	120M
NERA 02/01HF	1 X 400W	10,000	10M	26LPM	30M
NERA 02/01HF	2 X 400W	20,000	30M	50LPM	60M
NERA 02/01HF	3 X 400W	25,000	50M	50LPM	60M
NERA 02/01HF	4 X 330W	28,000	60M	50LPM	60M
NERA 06/04	2 X 400W	50,000	10M	140LPM	28M
NERA 06/04	3 X 400W	60,000	20M	140LPM	28M
NERA 06/04	4 X 330W	70,000	25M	140LPM	28M







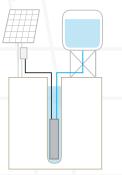


## Tier 1 Solar Panels 10 Year Warranty. 25 Year Lineal Power Warranty. Wieland Connectors Plug and Play. Manufactured in Germany. Low Water Level Sensor Automatic 5 Stage Progressive Time Delay Safety System

## Package Control Options

### Option 1 - Manual on/off

The most simple solution to turn the pump on and off by hand.





- 1000 Volt DC isolator
- Wieland Connector Plug & Play
- 2 Metre MC4 leads Genuine
- Earth cable to ground
- Earth cable for panels
- SS mounting bracket for post & clamp

### Option 2 - Pressure Switch Kit Post Mount or Bore Cap Mounting Option

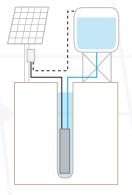
Suitable for tank filling in conjunction with a DUAL LEVEL float valve in the tank, once the tank is full the pump will automatically switch off until the water level in the tank is reduced to a level the pump will automatically turn back on and refill the tank.



- 1000 volt DC isolator
- Wieland Connector Plug & Play
- XMP Pressure Switch
- 3LT Pressure Tank
- 5 Way Brass Tee
- Pressure Gauge
- 2 Metre MC4 leads Genuine
- Earth cable to ground
- Earth cable for panels

### Option 3 - Float Switch Kit

Suitable for tank filling in conjunction with a FLOAT SWITCH in the tank, once the tank is full the pump will automatically switch off until the water level in the tank is reduced to a level the pump will automatically turn back on and refill the tank.





- 1000 volt DC isolator
- Wieland Connector Plug & Play
- Float switch with 10m lead & weight
- 2 Metre MC4 leads Genuine
- Earth cable to ground
- Earth cable for panels
- Mounted under the DC Isolator
- Nera stop module mounted under ISO







### Solar Panels

To ensure you achieve the best results from your new NERA pumping system, we only offer high quality, Tier One solar panels.

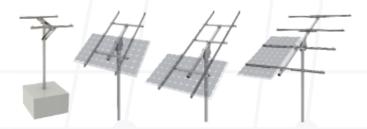
Employing split cell technology, these high performance panels from either Trina Solar or JA Solar will reliably and consistently power your operation for the long term. Backed up by our ten year warranty, you can be confident knowing the panels we supply are ideal for your system.





## Mounting System

Clenergy's PV-ezRack PostMount-A delivers flexible and durable designs to mount from one to four panels per post. It's ideal for remote off-grid applications such as water pumps or small residential and commercial systems. The panel tilt is easily adjustable between 0° and 60° throughout the year and comes with hassle-free mounting thanks to patented components such as the PV-ezRack rails and clamps. The combination of high quality aluminium, stainless steel and galvanised steel components make this a robust, reliable system with excellent corrosion resistance.







## Floating Pontoon

Our range of quality built NERA systems are not only exclusively to be used with bores, but also work for dams, rivers and multiple other natural water sources. We have developed a specialised floating pontoon which enables you to utilise that water and pump to your header tank, dam or another location.









## Why Nastec?

Solar Pumptec pride ourselves on providing our customers with quality products for maximum impact and reliability. That's why we only align ourselves with the best, proudly offering and highly recommending a range of either 100% European or Australian made pumps and accessories.

Our major partnership is with the highly respected Italian company Nastec. Nastec was established in 2007 with the purpose of achieving a range of pumps and accessories which combined the knowledge of electronics and hydraulics. This resulted in a new generation of products with higher

reliability, simplicity, flexibility and ease of use together with lower energy consumption. This allows us to proudly offer a 2 year warranty on all of our Nastec range, demonstrating our confidence in supplying a highly efficient, high quality, reliable solar pump.

## **Our Stamps**



All of our units are plug and play, reducing costly set up fees and ensuring you can begin using your new system straight away.



We provide peace of mind by testing each and every pump in South Australia before distribution, to help provide a smooth and hassle free installation and start up.



Genuine 2 Year warranty on all Nastec products, with a 10 year warranty on solar panels and arrays. We also give a 25 year linear power warranty.





# NERA

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