

# Instruction manual

## Solar pond pump set

### Napoli LED and Siena LED



These instructions relate **ONLY** to this product and contain important information for using the product for the first time. Please keep these instructions for later reference and should always accompany the product in the event of transference to a new user.

## 1. Introduction

Dear Customer, thank you for purchasing the solar pump kit. With this solar pump kit you purchased a product manufactured according to the current state of technology.

**CE** This product fulfils all requirements of the valid European and national regulations. The conformity was proved. The relevant declarations and documentation are deposited with the manufacturer.

To maintain this state and guarantee a safe operation, you as the user will have to follow this operating manual!

## 2. Safety Instructions



- In case of damages caused by not following this operating manual, the warranty rights will expire! We exclude liability for any consequential damages!
- We exclude liability for property or personal damages caused by inappropriate handling or not following the safety instructions.
- In these cases any guarantee rights will expire.

Due to safety and admission reasons (CE) it is not allowed to arbitrarily reconstruct and/or change the solar pump kit.

Therefore, please keep to the operating manual.

The accident prevention rules of the association of the industrial trade cooperative association for electric plants and working material are to be considered in industrial environments

## 3. Appropriate Use

- The pumping system is designed for the outdoor use in garden ponds. The accumulator storage is charged during sunshine. The solar pump may be switched "on" and "off" via a switch. An LED-display informs you about the charge condition of the accumulator.
- **Direct solar radiation is required for the correct function.**
- The pumping system is characterized by its easy assembly. Tools are not required for the assembly.
- The pump must not be used for the raising of drinking water.
- The performance may be adjusted via a controller on the pump.
- In order to avoid any disturbing gurgling, simply attach fewer standpipes to the pump.
- In order to safely interrupt the pumping it is required to interrupt the cable connection between solar module and pump.

## 4. Assembly/installation and start of operation

For the details of assembly/installation and start of operation, please see the instruction manuals of the accumulator box and the pond pump.

## 5. Service and Maintenance

In order to preserve the performance of the pump, it is required to wash out the pump and its parts with warm water depending on the pollution of the water.

For directions for the service and maintenance of the pump and accumulator storage, please see the instruction of the pump and accumulator storage.

Occasionally wipe the solar module clean with a soft and slightly moistened cloth.

**Note:** Before carrying out operations on the pump, interrupt the plug connection between pump and battery pack in order to avoid any unintentional starting during the operations.

## 6. Technical Data

Solar pumping system	Napoli LED	Siena LED
- System voltage:	12 -24 VDC	12 -24 VDC
<b>Solar module</b>		
- Nominal power:	10 Wp	20 Wp
- Nominal voltage:	17,5 V	17 V
- Nominal current:	580 mA	1,2 A
- Open-circuit voltage:	21,6 V	21 V
- Short-circuit current:	680 mA	1,32 A
- Projection system:	IP 65	IP 65
- Temperature range:	-30°C to +75°C	-30°C to +75°C
- Dimensions:	400 x 255 x 25 mm	520 x 355 x 25 mm

Water pump:		
- Operating voltage:	12 to 24 V DC	12 to 24 V DC
- Power consumption (12/24V):	3 W/ 12 W	5 W/ 22 W
- Max. delivery height (12/24V):	0,8 m/ 2 m	0,9 m/ 2,8 m
- Delivery rate (12/24V):	470 l/h/ 750 l/h	900 l/h/ 1500 l/h
- Protection system:	IP 68	IP 68
- Temperature range:	+4 to +40°C	+4 to +40°C
- Dry running:	dry protected	dry protected

Accumulator storage:		
- Accumulator (lead gel):	12V/ 7Ah	12V/ 7Ah
- Output voltage:	12 to 24 VDC	12 to 24 VDC
- Runtime with fully charged accumulator:	max. 6 h	max. 6 h
- Max. module capacity:	20 Wp (36 cells)	20 Wp (36 cells)
- Max. output current:	800 mA	800 mA

**Attention: Do not put the housing into the blazing sun! Overheating risk!**

### LED Light ring:

- Activation:	via twilight sensor on the light ring	
- Illuminants:	6 LEDs	6 LEDs
- Operating voltage:	12 to 24 VDC	12 to 24 VDC
- Protection class:	IP 68	IP 68
- Operating temperature range:	+4 to +40°C	+4 to +40°C

### Note: Protect the pump from frost!

In cold winter months, it is required to take the pump out of the water and store it in a warm place. The solar module may be left outside during the winter.

## 7. Safety Instructions:

**DANGER for children!** Keep children away from swallowable small parts (ascending pipe and sprinklers) and the packaging material. Danger of suffocation!

**WARNING:** risk of stumbling! Lay the connecting cable so that it will not become a trip hazard!

**CAUTION Material damage!** When setting up the solar module without module bracket, please pay attention to an adequate stability. The solar module may be damaged in case of tipping or in case of an impact of a foreign object.

### Disposal instruction for electric appliances:

Dear customer, if you want to get rid of the article, please dispose it according to the current regulations. The municipal authority will provide you with information.



### Customer support:

If you have problems or questions regarding this product, simply contact us!

**Monday to Friday 9 am to 12 noon and 1 pm to 4 pm.**

By phone: +49 9605-92206-0

By e-mail for ordering spare parts: [ersatzteil@esotec.de](mailto:ersatzteil@esotec.de)

By e-mail for questions about the product: [technik@esotec.de](mailto:technik@esotec.de)

**Product manufacturer item No.:**

solar pump system Napoli LED: 101773

solar pump system Siena LED: 101780

### Manufacturer:

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### Additional parts:

5 m extender cable for water pump and solar module: 101738  
 5 m extender cable for fountain light: 101740