

LORENTZ PS2-100

Self-install, high efficiency solar pump system

*A retail ready pump system
to expand your business
opportunities*



pick it up

a ready to go,
system in a box



plug it in

no wiring to do, just
plug in and go



pump water

from any source:
pond, stream, well



LORENTZ PS2-100 is a high quality, high efficiency, cost effective solar pump system designed for self-installation

LORENTZ PS2-100 is a system that sets a new level of quality and reliability for small pumping systems. This pump system allows LORENTZ Partners to access a market segment that was previously served by poor quality, poor performance or consumer only type products.

This submersible pump is flexible to serve a wide range of flow and head requirements and designed for the long life needed in productive use cases such as livestock water and irrigation.

There is a simple message for your customers:

**pick it up,
plug it in and
pump water.**

The Solar Water Pumping Company

New opportunities with a self-install pump



Serving the smaller applications

The PS2-100 is a small 100W system designed to fit mass market low cost systems. This off the shelf product provides a solution which is very simply deployed and self-installed (no wiring, cable splicing or special connections required!). This solution complements the LORENTZ professional channel model while extending access of LORENTZ products to more customers.

“System in a box” with customizable retail sleeve

This solution comes in a single box design (600 x 160 x 230 mm) making it simple to stock and sell. It includes the controller, pump unit, cable with motor plug and the MC4 adapter cable. The multi-language retail sleeve wrapped around the box allows for use in several countries and provides space to add any desired local information for retail use.

Perfect for any water application and diverse environments

The PS2-100 system provides over 20,000 liters of water per day and pumps up to 40 meter heads. Being a submersible pump, it can be used in various water sources such as wells, ponds, rivers, lakes or tanks. Common applications include livestock water, irrigation, gardens and households. With a small size and plugged connections it is easy to move the pump from place to place.

Efficient and long lifetime

The PS2-100 maintains the LORENTZ and Partner standard of extremely high-quality materials, reliability and efficiency for optimum performance and a long lifetime.

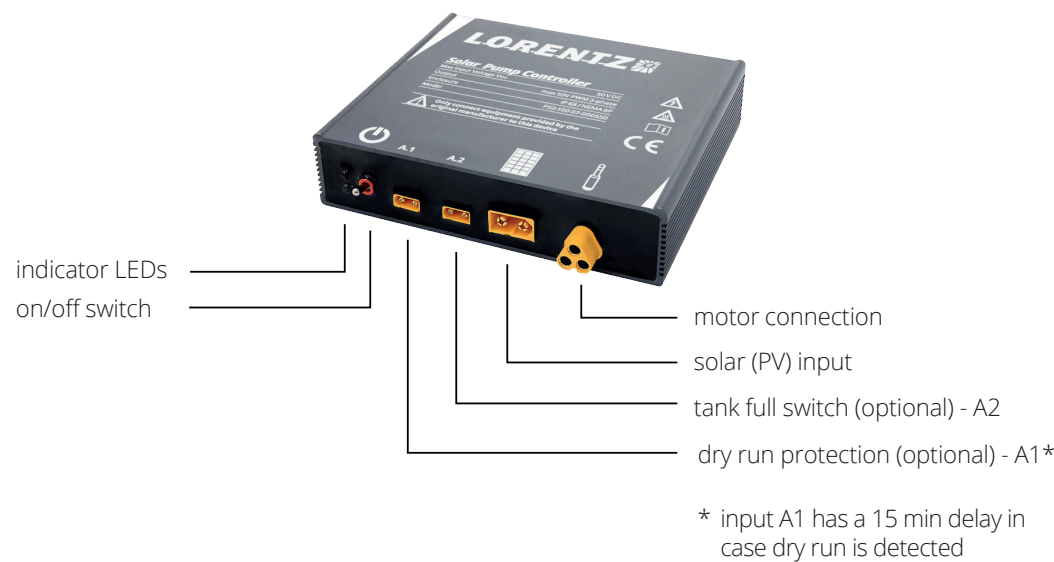
Although it is a small system it still has many of the same components as LORENTZ larger systems and still has the build quality and attention to detail you would expect.

The Solar Water Pumping Company

Features and description

General description		
<ul style="list-style-type: none">high efficiency solar powered water pumping systemsubmersible helical rotor pump and high efficiency DC brushless motorplugged connections for customer self-installreplaceable cables for long lifemultiple pump ends to match local pumping requirements: HR-07/-14/-23maximum 40 m head and 2.8 m³/h flow rate		
Dimensions and weights		
	Pump unit	Controller
	<ul style="list-style-type: none">length 455 mmwidth (diameter) 88 mmweight 5.5 kg	<ul style="list-style-type: none">height 29 mmlength 115 mmwidth 122 mmweight 700 g
Materials		
	Pump unit	Controller
	<ul style="list-style-type: none">motor cast stainless steelrotor solid stainless steelstator housing polyphenylene sulfide with glass fillwater filled motor	<ul style="list-style-type: none">aluminum housingfully resin encapsulated

Controller connections



Equipment

Included	Optional
<ul style="list-style-type: none">controller with inputs for PV, pump, run dry protection and tank full float switchmotor with sockethelical rotor pumpmotor cable with plug (15 m)bracket for controller mounting under PV modulesolar input to MC4 adapter cable	<ul style="list-style-type: none">PV moduleswell probe for dry run protection with cablefloat switch for tanks with cable15 m motor extension cable with plug15 m well probe / float switch extension cable with plug
PV Module options	
<p>This system would typically be powered by a single 60 or 72 cell module in the power range of 180 Wp to 260 Wp (larger is also ok). The maximum input voltage Voc is 50 VDC. Where systems need to be mobile, folding module sets are a good solution. LORENTZ have an LC-200 portable module kit available.</p>	

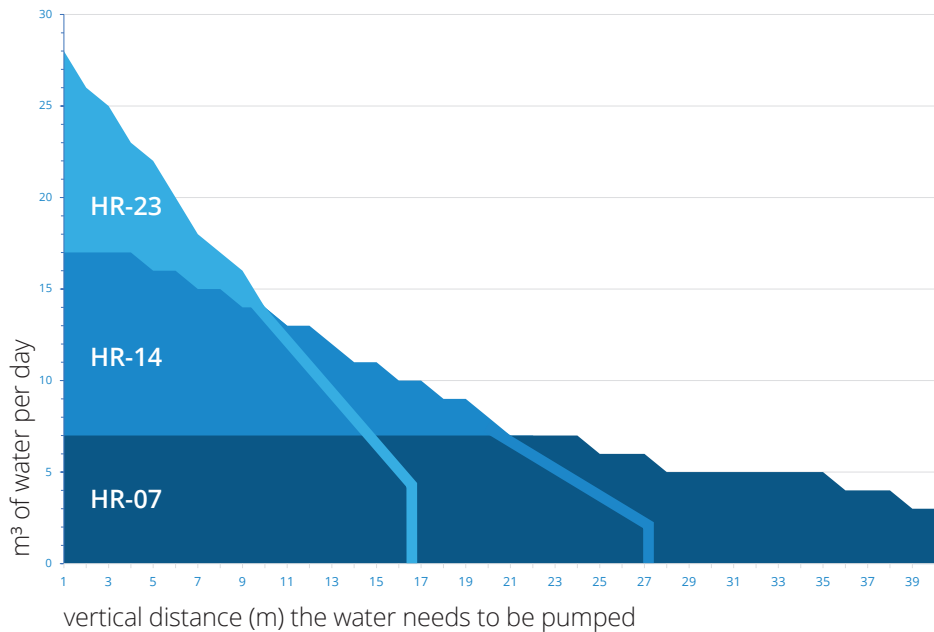


Three pump variants: HR-23, HR-14, HR-07

There are three different pumps to choose from in the PS2-100 range: HR-23, HR-14 and HR-07.

The chart shows the daily water that will be pumped at different vertical heads.

Measure the vertical distance that you need to pump water and look on the bottom axis, read across to the left to see how much water to expect per day.



Data provided is the annual daily average based on using a single 205 Wp PV module at location 15N 0E. There are three pump end variants that cover the range of head and flows, please ask your retailer for advice on choosing the one to meet your needs.

Technical data

Controller	power	max. 0.15 kW
	input voltage	max. 50 V
	optimum Vmp**	> 34 V
	motor current	max. 6.0 A
	efficiency	max. 98 %
	ambient temp.	-40 ... 50 °C
	Enclosure class	IP68
Motor ECDRIVE 100-AHR-S	rated power	0.15 kW
	efficiency	max. 83 %
	motor speed	700 ... 2,500 rpm
	insulation class	F
	enclosure class	IP68
	submersion	max. 50 m
	maintenance-free brushless DC motor water filled	premium materials, stainless steel: AISI 304

**Vmp: MPP voltage under Standard Test Conditions (STC): 1,000 W/m² solar irradiance, 25°C cell temperature

Plug in accessories to extend application use

A range of accessories are available for the PS2-100 pumps. All accessories have plugged connections to make installation simple for the customer. The well probe accessory prevents the pump from running dry and the float switch allows for pump control when a tank is filled.

The well probe and float switch accessories come with fixed length cables. An extension cable is also available which uses an innovative “no tool” joining system to provide a waterproof and mechanically good connection.

A motor extension cable is also available allowing customers that need to have longer distances between the pump and controller to accommodate this without the need for cable splicing. The motor extension uses a similar “no tool” connector.



The Solar Water Pumping Company

How customers are using the PS2-100



About LORENTZ

LORENTZ is the global market leader in solar powered water pumping solutions. Founded in Germany during 1993 LORENTZ has pioneered, innovated and excelled in the engineering and manufacturing of solar powered water pumping. Today LORENTZ is active in over 130 countries through a dedicated network of professional partners. LORENTZ technology uses the power of the sun to pump water, sustaining and enhancing the life of millions of people, their livestock and crops.

Simply – **Sun. Water. Life.**



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