

# S1-200 PAYGo pump system

## Description

The **S1-200 PAYGo** is a portable and flexible solar pumping system designed for distributors can offer water pumping as part of their **PAYGo** portfolio.

All equipment is rated for outdoor use. The system consists of a submersible helical rotor pump attached to a high efficiency brushless ECDRIVE motor. The **OpenPAYGo Token-enabled** system controller digitally controls the motor and monitors the system operation. Inputs for accessory connection are provided for system automation.

## Features

- High-efficiency ECDRIVE DC brushless motor and helical rotor pump.
- System controller with plugged connections
- Integrated MPPT controller with Bluetooth® for local configuration and control.
- Simple S-Connect app for speed control, timers and extended trouble shooting
- **OpenPAYGo** credit (time-based). Top-up using a **token** through S-Connect app
- With **OpenPAYGo Token** compatibility, any **PAYGo** software platform can be integrated to manage **S1-200 PAYGo**

## Technical data

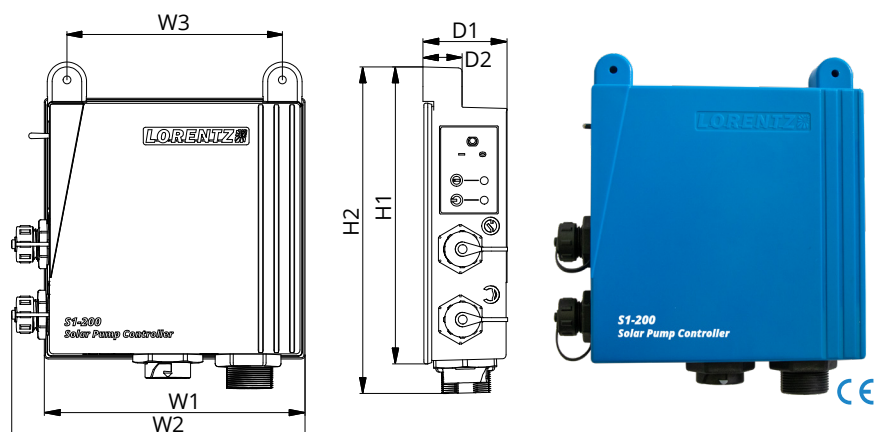
Pump system	S1-200 PAYGo HR-07	S1-200 PAYGo HR-14	S1-200 PAYGo HR-23
Max. flow rate	1 m³/h [4 US gpm]	1.9 m³/h [8 US gpm]	3 m³/h [13 US gpm]
Max. head	40 m [130 ft]	30 m [100 ft]	17 m [55 ft]

## S1-200 PAYGo controller data

Input (DC)	
Max. voltage (Voc)	55 V DC
Operating voltage	24 ... 55 V DC
Max. current (DC)	6 A
Max. PV short circuit current (Isc)	25 A
Output (DC)	
Rated output voltage	39 EC PWM 3-Phase
Max. frequency	170 Hz
Max. continuous current	6 A
Max. continuous power	250 W
Casing	
Enclosure / Protective class	IP 68 / II
Sensor inputs	Dry run protection - Tank full switch or Remote tank switch
Casing material	Polycarbonate
PAYGo	
Token generation mode	Add time (days)
Compatibility	OpenPAYGo Token System
General	
CONNECTED App	LORENTZ S-Connect
Ambient temperature	-30 ... +50 °C [-22 ... 122 °F]
Max. altitude rating	2000 m [6560 ft]
Pollution degree classification	3
Protection against	Overtemperature, overvoltage, overcurrent, short circuit, reverse polarity
Bluetooth® module	
Operating frequency	2402-2480MHz
Max. RF output power	10dBm
Miscellaneous	
Adaptor cable to MC4	2 x 2.5 mm² [AWG 14] - L = 0.5 m [1.64 ft]
Mounting screws to PV module	2 x M4.8 x16 mm [#10 x 5/8 in] - AISI 304
Butterfly hose clamp	1 x 21 to 44 mm [13/16 to 1-3/4 in] - SS

## S1-200 PAYGo Controller dimensions and weights

W1	133.2 mm [5.2 in]
W2	150.0 mm [5.9 in]
W3	110.0 mm [4.3 in]
D1	43.0 mm [1.6 in]
D2	20.0 mm [0.8 in]
H1	151.7 mm [5.9 in]
H2	166.9 mm [6.5 in]
Net weight	0.3 kg [0.7 lb]



## Pump end data

Pump type	HR - helical rotor
Pump outlet	26 mm [1.0 in] - hose push connection
Min. borehole diameter	100 mm [4 in]
Max. pump end efficiency	61 %
Rotor material	AISI 630
Stator material	polyphenylene sulfide

## Water temperature range

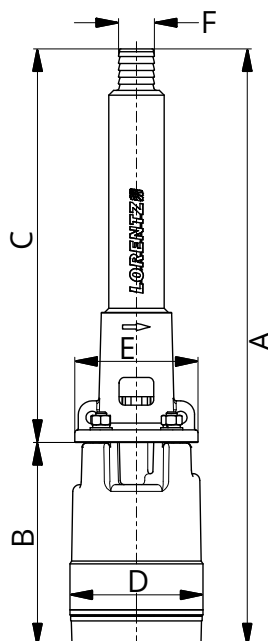
Temp. class 2	+20 – +30 °C [68 – 86 °F]
Temp. class 3	+30 – +40 °C [86 – 104 °F]
Temp. class 4	+40 – +50 °C [104 – 122 °F]

## Motor ECDRIVE data

Rated power	0.25 kW [0.3 HP]
Motor speed	750 ... 2,500 rpm
Insulation class	F
Enclosure class	IP 68
Max. motor efficiency	86 %
No. poles	8
Max. submersion	50 m [164 ft]
Max. water temperature	50 °C [122 °F]
Motor material	polycarbonate
Length of cable	15 m [50 ft]
Cable size	3 x 2.5 mm <sup>2</sup> [AWG 14]
Cable plug	3-pin male

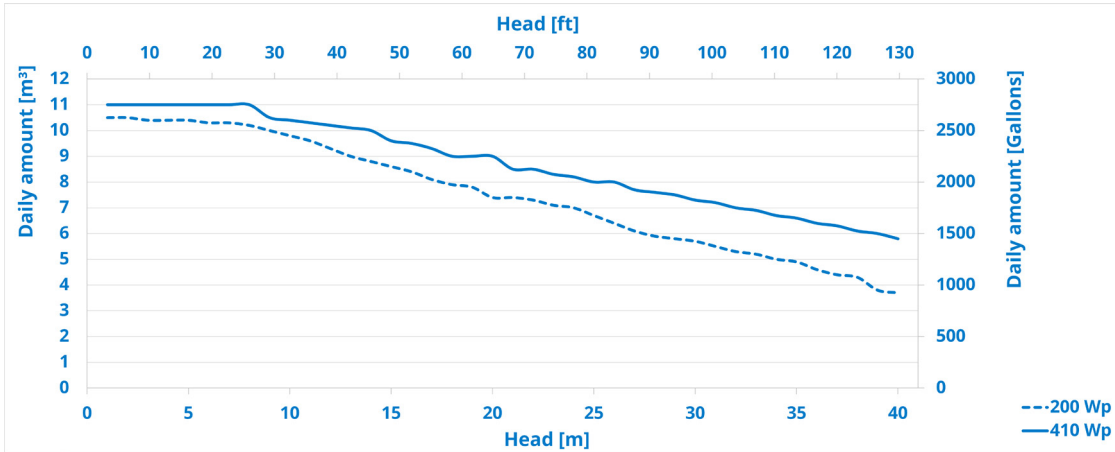
## Pump with motor dimensions and weights

A	431.6 mm [16.9 in]
B	147.1 mm [5.7 in]
C	284.5 mm [11.2 in]
D	96.0 mm [3.7 in]
E	89.0 mm [3.5 in]
F	26.0 mm [1.0 in]
Pump end net weight	0.7 kg [1.5 lb]
Motor net weight	2.5 kg [5.5 lb]

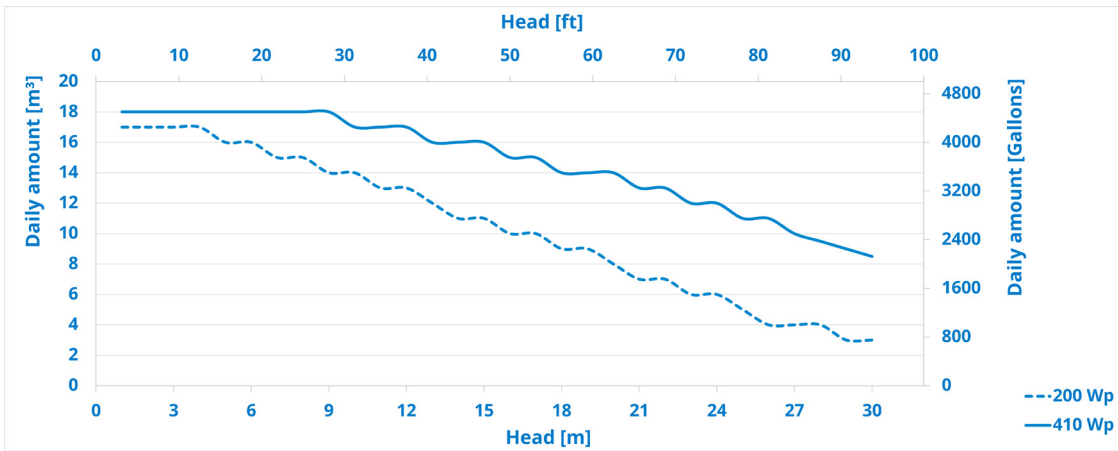


**Performance Range**

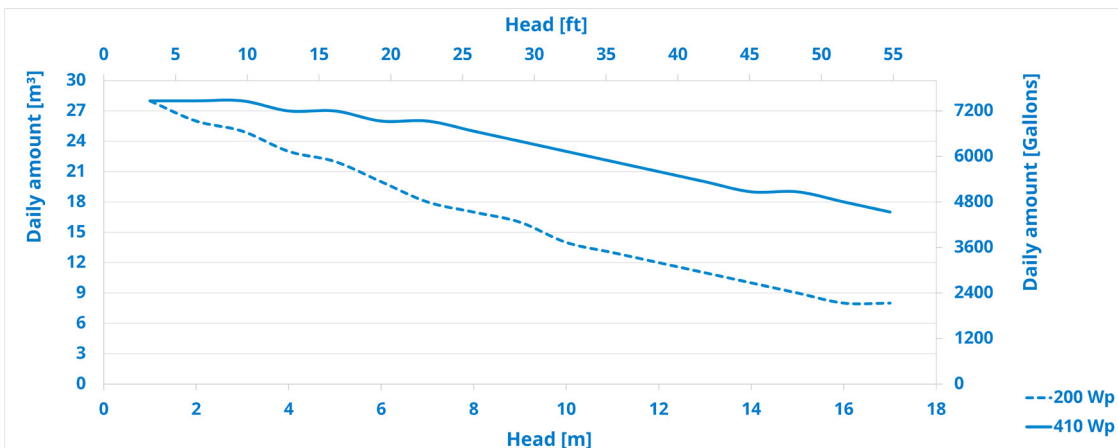
**S1-200 PAYGo pump system HR-07**



**S1-200 PAYGo pump system HR-14**



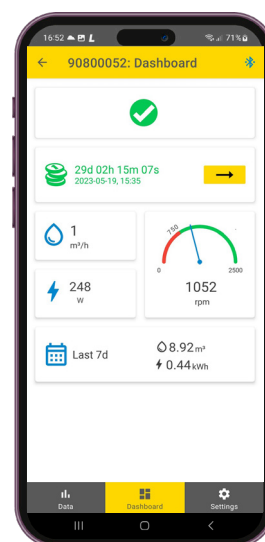
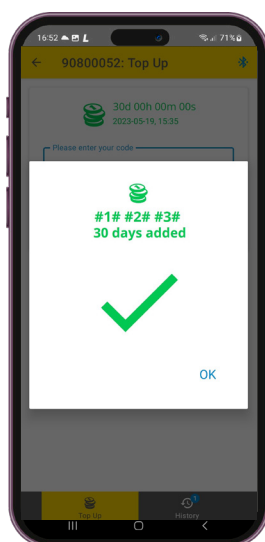
**S1-200 PAYGo pump system HR-23**



## LORENTZ S-Connect App

With LORENTZ S-Connect App easily configure and control your **S1-200 PAYGo** pumping system via Bluetooth® connectivity locally.

- Download it for free on Android™ devices from the Google Play Store or on iOS devices from the App Store.
- Enabled to work with **OpenPAYGo** in a simple and easy method, just enter a valid **OpenPAYGo Token** to access to more solar pumping time (days) besides the history of top-ups.
- Connect to your pumping system and access multiple functions such as: Control and measurement of daily/weekly flow, speed, power, performance of connected sensors, timers setting, detailed troubleshooting scheme.



## Order and packaging information

Product name	Temp. class 2	Temp. class 3	Temp. class 4
S1-200 <b>PAYGo</b> pump system HR-07	01-001210	01-001220	01-001230
S1-200 <b>PAYGo</b> pump system HR-14	01-001260	01-001270	01-001280
S1-200 <b>PAYGo</b> pump system HR-23	01-001310	01-001320	01-001330
Box content	1 x S1-200 PAYGo controller		
	1 x pump with motor (includes 15 m [50 ft] cable)		
	1 x PV adapter cable MC4 (L = 0.5 m [1.64 ft])		
	1 x hose clamp (21 to 44 mm [13/16 to 1-3/4 in])		
	2 x screws - controller PV mount (M4.8 x16 mm [#10 x 5/8 in])		
	1 x manual		
Packed gross weight	7.2 kg [15.4 lb]		
Packaging dimensions [LxWxH]	580 x 170 x 150 mm [23 x 6.7 x 5.9 in]		
Packed volume	0.015 m <sup>3</sup> [0.53 ft <sup>3</sup> ]		
Systems per pallet	54		
Storage temperature	-20 °C... +65 °C [-4 °F...+149 °F]		

