LSZ SERIES
DC Helical Rotor Solar Submersible Pumps

Infinite Solar Pumping Energy
Existence of human life in rural India depends largely on the availability of clean water to people, livestock and crops. Farmers in rural India can only become prosperous if there is availability of clean water for their farms, homes and livestock. In many parts of India there is a shortage of reliable power for homes and irrigation of fields where Lubi LSZ series of submersible solar Helical Rotor pumping systems can make a remarkable contribution.

The LSZ submersible solar Helical Rotor pumping system offered by Lubi is a state-of-the-art high technology product designed to provide a green and energy efficient solution for a reliable water supply where there is no access of clean water and electricity.

The Lubi LSZ series submersible Helical Rotor pumps are high quality products designed specifically to pump larger volumes of water applications effectively using solar power. These highly efficient pump can achieve flow rates of 12 m³/day.

The LSZ submersible solar Helical Rotor pumping systems comprises of the pump, pump motor and a controller. This modular concept keeps all electronics above ground providing, simple servicing, ease of access and a low cost of ownership.

### Feature& Benefits
- State-of-the art design
- Material : Stainless Steel (AISI 304, 316, Rubber) pump construction.
- ECDRIVE brushless DC motors, designed for solar, with over 90% efficiency.
- High technology automatic controller with dynamic MPPT (Maximum Power Point Tracking) control method to maximize power use from PV modules.
- High reliability and life expectancy
- Designed for use in remote and harsh conditions
- Simple and easy installation
- Cost efficient pumping
- Easy and cost effective serviceability
- Very strong ROI against diesel powered pumping systems which reduces production costs and carbon foot print
- Large range of pumps to closely match each application specific demands and optimize efficiency.
- Helical Rotor Pump (positive displacement pump)
- Two main parts only: stator and rotor, field serviceable
- Stator: geometry made of abrasion resistant rubber
- Rotor: stainless steel, hard chrome plated, abrasion resistant
- More resistant to damage by sand than other pump types self-cleaning

### Dimensions
- A = 900 mm
- B = 315 mm
- C = 585 mm
- D = 97 mm
- E = 147 mm
- S = 1.25 INCH BSP

### Application
- Drinking water supply
- Pond management
- Livestock watering
- Irrigation, etc.

### Sand & Silt Tolerance
The pump (HR) has a higher resistance to wear from sand, clay etc. than any other pump type. In properly constructed wells the amount of solid particles is within the tolerance of the pump.

A concentration of particles higher than 2% (by volume) may cause blockage in the pump or the drop pipe, especially at low flow rates.

Do not use the pump to clean out a dirty well.

### Pump Cable & Splice
Standard submersible cable, 3-wire + ground (total four wires).
Connection to the pump is made using industry-standard splicing methods.

### Temperature Limits
- Pump end, motor: water temperature up to +40°C (+104°F)
- Specify temperature range on order.
- Controller: ambient temperature -30°C to +55°C (-22°F to +131°F)

### Performance Curve
- Irradiation on a tilted surface
- Sun Irradiation = 7.15 Kwh/m² per day
- Ambient temperature : 25°C

### Controller Model

<table>
<thead>
<tr>
<th>Feature</th>
<th>LUBI PS1800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. total dynamic head</td>
<td>150</td>
</tr>
<tr>
<td>Max. flow rate</td>
<td>1.2</td>
</tr>
<tr>
<td>Solar operation:</td>
<td></td>
</tr>
<tr>
<td>Max. power voltage (Vmp)*</td>
<td>&gt; 102</td>
</tr>
<tr>
<td>Open circuit voltage (Voc)</td>
<td>max. 200</td>
</tr>
<tr>
<td>Nominal voltage</td>
<td>72 - 96</td>
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<tr>
<td>Battery operation:</td>
<td></td>
</tr>
<tr>
<td>Nominal voltage</td>
<td>96</td>
</tr>
</tbody>
</table>

Note: *PV modules at standard test condition: AM = 1.5, E = 1000 W/m², cell temperature: 25°C