

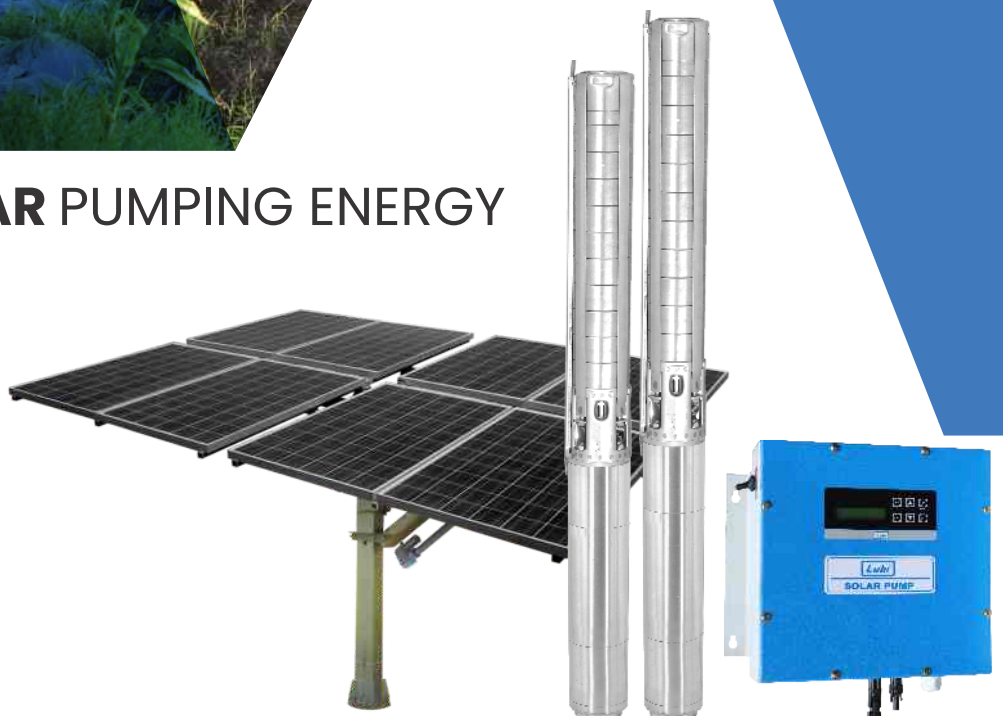
Lubi

LSZ SERIES

DC **SOLAR** STAINLESS STEEL SUBMERSIBLE BORE WELL PUMPS



INFINITE **SOLAR** PUMPING ENERGY





DC Solar SS Submersible Bore well Pumps

Introduction

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 Solar Submersible Pumping systems can make a remarkable contribution.

The LSZ Solar Submersible 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 LSZ Solar Submersible Pumping system comprises of the following equipment.

- ☐ Solar stainless steel submersible bore well pump
- ☐ Solar photovoltaic panels with mounting structure
- ☐ Automatic controller for the solar pump
- ☐ Cables and accessories.

Application

- ☐ Flood irrigation of small fields
- ☐ Drip irrigation for farms
- ☐ Cattle watering
- ☐ Water supply for small villages, schools, hospitals and homes.

Range of Performance

Maximum flow	: 342 m ³ /day
Maximum head	: 100 metres.
Rating	: 1.0 hp to 10.0 hp (0.75 kW to 7.5 kW)

Features & Benefits

- State-of-the art design.
- Highly energy efficient submersible solar water pump with energy efficient inverter duty motor.
- High efficiency solar photovoltaic panels with a service life of minimum 20 years.
- Robust design Galvanized steel mounting structure for long life.
- High technology automatic controller with dynamic MPPT (Maximum Power Point Tracking) control method.
- The Controller offers complete protection against under and over voltage and dry run protection for the pump.
- Highly efficient controller with a conversion efficiency of 97%.
- The controller is tropicalized to operate satisfactorily with an ambient temperature of up to 50°C.
- Virtually no maintenance cost.
- Environmentally friendly air and noise pollution free solution.
- Material : Stainless Steel (AISI 304, AISI 316) pump construction.
- PMSM motors, designed for solar, with higher efficiency.
- Simple and easy installation.
- Cost efficient pumping.
- 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.

Operating Conditions

Ambient temperature	: +50°C
Liquid temperature range	: 0°C to +80°C
Water pH	: 6.5 - 8
Sand content	: 25 g/m ³

Type Keys

LSZ	D030	09	09	3k
Type range	Motor type	Pump type	Nos. of impellers	Total solar panel Watt
LSZ = Solar stainless steel submersible bore well pump series	D010=1.0 hp (0.75kW) DC D020=2.0 hp (1.55kW) DC D030 = 3.0 hp (2.20 kW) DC D050 = 5.0 hp (3.70 kW) DC D075 = 7.5 hp (5.50 kW) DC D100 = 10.0 hp (7.50 kW) DC	02 = W2A 03 = W3A 05 = W5A 09 = W9A 17 = W17 30 = W30 46 = W46 60 = W60		1.2k = 1200 watt solar panels 1.8k = 1800 watt solar panels 3k = 3000 Watt solar panel 4.8k = 4800 Watt solar panel 7k = 6750 Watt solar panel 9k = 9000 Watt solar panel

Minimum Cost of Ownership

Very often investment decisions for pumps are based only on the purchase cost of the pump. This initial purchase cost is a fraction of owning and operating a pump over its entire life span. The initial cost for diesel engine driven pumps is just 5% of the total life cycle cost with operation (energy) and maintenance cost contributing to 85% and 10% respectively.

Solar water pumping systems when compared to diesel engine driven pump sets are much higher in the initial purchase cost but over the life cycle of the solar pumping system they provide significant financial savings in terms of operation (energy) and maintenance costs. Typically when solar pumps are compared with diesel engine pumps they offer a breakeven in costs within 4 to 8 years depending on site conditions, installations cost, and model specification. After the breakeven, the solar pumping systems provide significant cost savings to the owners.

Technical Data

Sr. No.	Item Code	HP	Voltage (V)	Stage	Head (m)	Delivery Size (Inch)	Discharge (LPD)	Recommended SPV Power (Wp)	PV Module Configuration (535Wp)
01	LSZD0105A071.2K	1	60	7	30	1.5"	20000	900-1200	2X1
02	LSZD0103A121.2K	1	60	12	60	1.25"	10000	900-1200	2X1
03	LSZD0102A151.2K	1	60	15	90	1.25"	5000	900-1200	2X1
04	LSZD0208A071.8K	2	110	7	30	2"	68400	1800	4x1
05	LSZD0205A121.8K	2	110	12	50	1.5"	41400	1800	4x1
06	LSZD0205A141.8K	2	110	14	70	1.5"	27000	1800	4x1
07	LSZD03017033K	3	160	3	30	2"	114000	3000	6X1
08	LSZD03009093K	3	160	9	50	2"	69000	3000	6X1
09	LSZD03009123K	3	160	12	70	2"	45000	3000	6X1
10	LSZD03005213K	3	160	21	100	1.5"	31500	3000	6X1
11	LSZD05030034.8K	5	260	3	30	2.5"	182400	4800	9X1
12	LSZD05017054.8K	5	260	5	50	2"	110400	4800	9X1
13	LSZD05009144.8K	5	260	14	70	2"	72000	4800	9X1
14	LSZD05009184.8K	5	260	18	100	2"	50400	4800	9X1
15	LSZD07546037K	7.5	380	3	30	3"	256500	6750	13X1
16	LSZD07517067K	7.5	380	6	50	2"	155250	6750	13X1
17	LSZD07517077K	7.5	380	7	70	2"	101250	6750	13X1
18	LSZD07509197K	7.5	380	19	100	2"	70875	6750	13X1
19	LSZD10060049K	10	470	4	30	4"	342000	9000	17X1
20	LSZD10030079K	10	470	7	50	2.5"	207000	9000	17X1
21	LSZD10017099K	10	470	9	70	2"	135000	9000	17X1
22	LSZD10017129K	10	470	12	100	2"	94500	9000	17X1

Note : PV Array Configuration should be suitable to Controller Technical Specification and Motor Voltage Design.

Farming



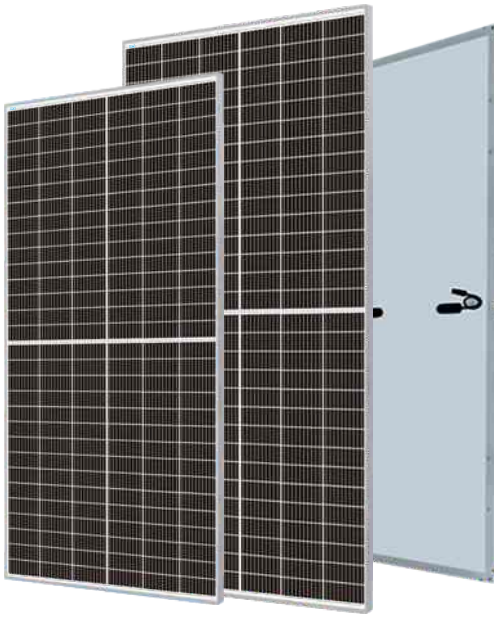
Drinking Water & Sanitation



Drip Irrigation



Solar Module



Fully Automatic
150MW
Manufacturing Line

Other Range of Solar Water Pumps



- AC Submersible Pumps Range : 0.5 HP ~ 20 HP
- AC Surface Pumps Range : 1.0 HP ~ 10.0 HP
- DC Surface Pumps Range : 2.0 HP ~ 10.0 HP



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Product Improvement is a continuous process at 'LUBI'. The data given in this publication is therefore subject to revision.

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ISO 9001



ISO 14001