



LSY SERIES

DC **SOLAR** CENTRIFUGAL MONOBLOCK PUMPS



INFINITE **SOLAR** PUMPING ENERGY





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 **LSY** series of Solar Surface Pumping systems can make a remarkable contribution.

The LSY Solar Surface Pumping systems 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 LSY Solar Surface Pumping systems comprises of the following equipment.

- ☐ Solar Surface 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	: 990 m ³ /day
Maximum head	: 30 metres.
Rating	: 2.0 hp to 10.0 hp (1.5 kW to 7.5 kW)

Features & Benefits

- State-of-the art design.
- Highly energy efficient surface solar water pump with energy efficient inverter duty motor.
- High efficiency solar photovoltaic panels with a service life of minimum 25 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.
- 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 +60°C
Water pH	: 6.5 - 8
Sand content	: 25 g/m ³

Type Keys

LSY	D030	53	2.7k
Type range	Motor type	Pump type	Total solar panel Watt
LSY = Solar Centrifugal Monoblock Pumps	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	21 53 47 18 15L 27L 28 38 37L	1.8k = 1800 watt solar panels 2.7k = 2700 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)	Head (m)	Suc. x Del. Size (Inch)	Discharge (LPD)	Recommended SPV Power (Wp)	PV Module Configuration (535 Wp)
01	LSYD020211.8K	2	110	10	3.0 " X 3.0"	198000	1800	4 X 1
02	LSYD030532.7K	3	160	10	4.0 " X 4.0"	330000	2700	6 X 1
03	LSYD030472.7K	3	160	20	3.0 " X 3.0"	165000	2700	6 X 1
04	LSYD050184.8K	5	260	10	4.0 " X 4.0"	528000	4800	9 X 1
05	LSYD05015L4.8K	5	260	20	2.5 " X 2.0"	264000	4800	9 X 1
06	LSYD07527L7K	7.5	380	10	4.0 " X 4.0"	742500	6750	13 X 1
07	LSYD075287K	7.5	380	20	3.0 " X 2.5"	371250	6750	13 X 1
08	LSYD1003810K	10	470	10	4.0 " X 4.0"	990000	9000	17 X 1
09	LSYD10037L10K	10	470	20	3.0 " X 2.5"	495000	9000	17 X 1

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

Farming



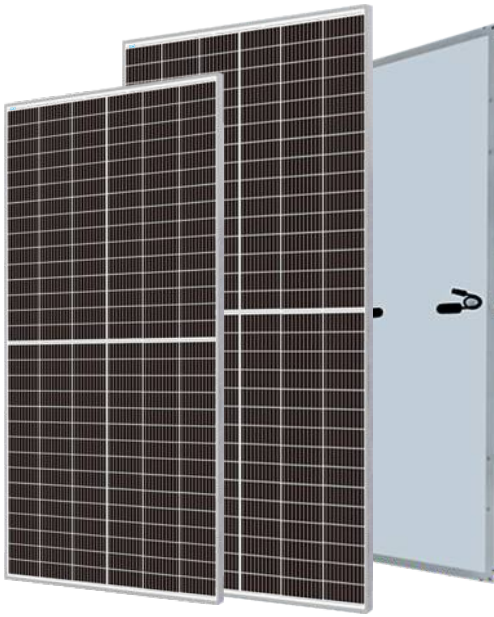
Drinking Water & Sanitation



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