



## 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 **DC Solar Stainless steel Pumping systems** can make a remarkable contribution.

The LSY Solar 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 LSY Solar Pumping system comprises of the following equipment.

- ▣ DC Solar Stainless Steel centrifugal water pump
- ▣ Solar photovoltaic panels with mounting structure
- ▣ Automatic MPPT controller for the solar pump
- ▣ Cables and accessories.

## Applications

- ▣ Flood irrigation of small fields
- ▣ Drip irrigation for farms
- ▣ Cattle watering
- ▣ Water supply for small villages, schools, hospitals and homes.
- ▣ Pressure boiler feeding
- ▣ Pure water treating system
- ▣ Pharmaceutical and food stuff
- ▣ Industrial washing and sprinkler system



## Features & Benefits

- ▣ Highly durable Stainless Steel construction of pump end.
- ▣ Highly energy efficient centrifugal 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 98%.
- ▣ 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.



## Tracking System

Trackers allow Photovoltaic panels to follow the sun from sunrise to sunset. Tracking increases power production from PV modules by 30% or more, depending on tracker configuration

Fixed Mount structures are less expensive and tolerate higher wind loading. By fixing the modules due south/north, less water is pumped than a tracking system which orients the modules towards the sun as it arcs across the southern/northern sky. Tracking mount structures keep the modules at a 90 degree angle to the sun all day long. This provides more power to the pump over a longer period of the day, which produces 20 to 40 percent more water daily in the summer time.

Trackers offer a great advantage when pumping water. Our auto/manual trackers are known for their excellent reliability, robustness and long life, it has both seasonal tilt as well as azimuth rotation provision from east to west during day. Our trackers come with Galvanized coating and are highly recommended in all but the windiest locations. High winds can pull the array off the correct sun angle and will negatively affect power production if winds are consistent.

### Manual Tracking



### Advantages

- ▄ No any electronics for tracking.
- ▄ Generates 48% more power than static mounting structures.
- ▄ Less expensive & robust.
- ▄ Better wind load capacity.
- ▄ Require less space.

### Applications

- ▄ Solar water pumping where better output is required.
- ▄ Home/Village electrification.
- ▄ Power plants.

### Disadvantages

- ▄ Less performance.
- ▄ Not suitable for remote areas because manpower is required.

## Solar Module



Fully Automatic  
**150MW**  
Manufacturing Line



# Lubi Electronics

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