



# KSBSol Solar Pumping Solution



**The complete, efficient,  
solar water pumping solution**

# The most compact and reliable solution for solar pumping applications



## Working of Solar Pumping System

A Solar Pumping system is basically a pumping system driven by solar power.

It has mainly three key components, **Solar PV panels** that convert solar energy into DC power, **Solar Pump Controller** converts power as per the motor requirements to drive the **solar pump set**. These pumps are specially designed in such a way that it gives optimum output even in the limited available solar power.

These pumps further can lift the water from a well, river, lake, artificial lake or tubewell and circulate in the farms or any other applications.

## Benefits you will get

Whether your need is to reduce operational costs, improve water security, or be more sustainable, KSB provides the right solution.



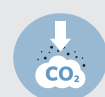
Approved by **MNRE** models available



Wide range of pumps to match every need of customer. Complete **SS pumps** option is also available for 4" & 6" upto 26 HP



More discharge than any other equivalent pump



Reduction in CO<sub>2</sub> emission



Proven performance & durability



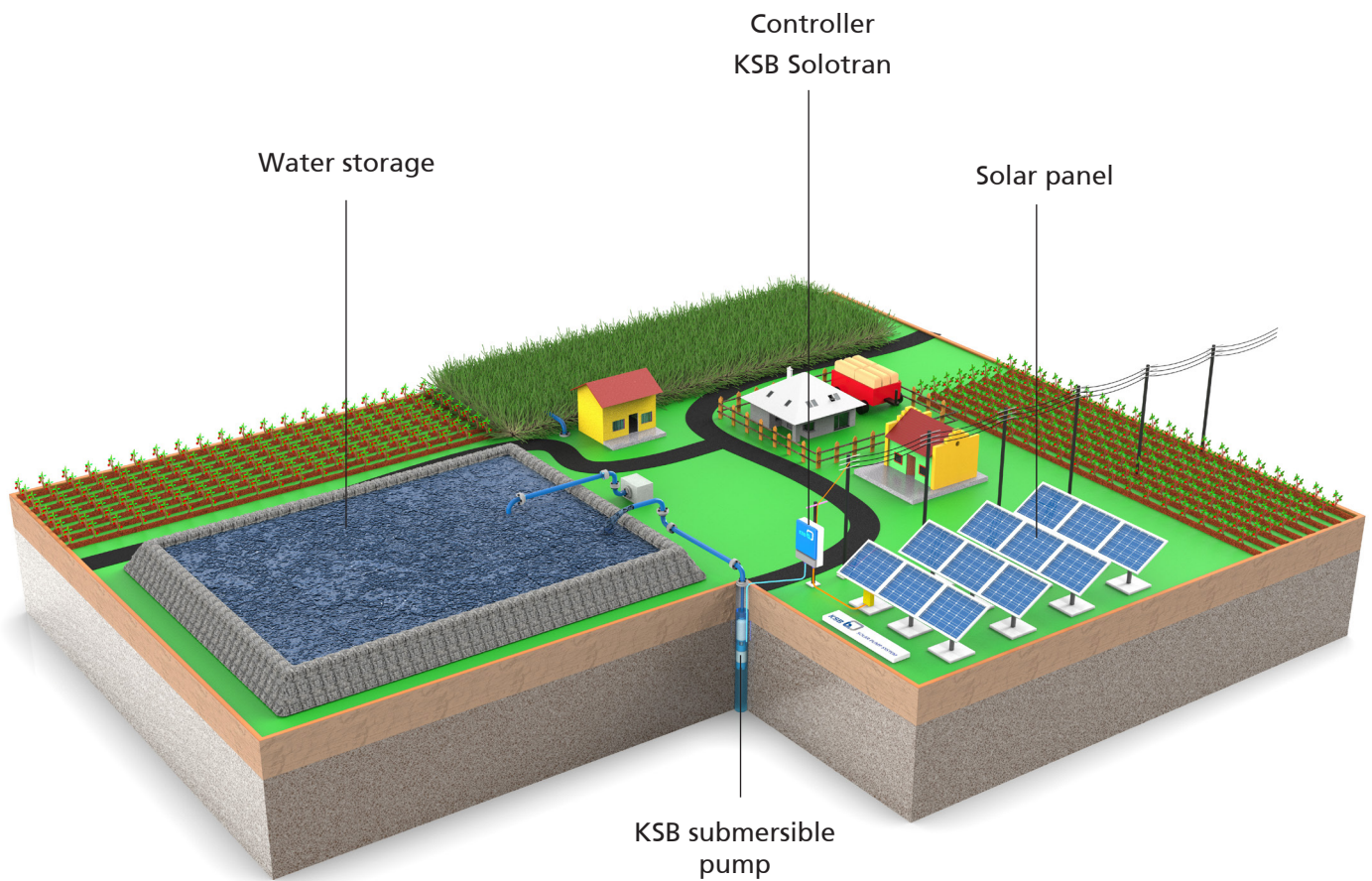
Lower maintenance Cost



No dependency on expensive fuel or electricity



Strong Service & spare support available across India



### Solar Pump :

A solar pumps comprises a KSB pumps & high efficiency motor that drives the pump. Wide range of submersible pumps & surface pumps are available with KSB to cater various need whether it is in agriculture or drinking water.

### Solar Panel :

Solar PV-Modules collects the photon rays and convert them into useable electricity the solar cells are silicon or semiconductor materials which produce Direct Current Electricity (DC)

Power generated from the PV-Module will be based on the sun intensity

### Controller :

Electronic system - controller is the heart of a solar pumping system which converts DC Power from PV modules to suitable power as per the motor requirement. It manages the seamless operations of the motor with reference to the sun intensity

**KSB Solotran** analyses inputs and constantly optimizes the system for maximum water outputs



## Applications



### Domestic application & General water supplies:

KSBSol is able to provide economical solution for pressure boosting systems & other water requirements.

### Agriculture Irrigation :

Existing irrigation system can be converted to cost effective solar power without any replacement with proper consultation at KSB. KSBSol provides facility of productive farming in lands even without any power infrastructure.

### Drinking water :

KSBSol makes it possible to supply water for a village, an individual residence or a resort. Water is made available at the most remote location with KSBSol.

## One stop Solar pumping Solution

An effective solar water pumping system is made up of more than one component. When you choose KSB system you will get an integrated solution design specifically for solar water pumping

### Submersible borehole Pumps



Wide range of Submersible boreholes pumps - 4", 5", 6", 7", 8" that means your hydraulic needs can be closely matched for maximum efficiency.

4" & 6" (CORACHrom) are available in complete Stainless Steel (including CORACHrom motor) upto 30 HP

### Surface Pumps



Agri Monosol - Single stage, monobloc, pump in compact and light weight design. Suitable for solar application Available in 2 to 20 HP

### Accessories

To complete your system KSB provide a wide range of compatible probes, sensors, solar power connection equipment, racking and PV modules. This enables a single source of tested, ready to integrate components to give you a complete solution.






### Control Panel





KSB Controller **Solotran** have been developed in accordance with state-of-the-art of design & manufactured with extreme care and rigid quality control. These are used to drive KSB solar pumps with a high efficiency MPPT algorithm & wide operating DC voltage range, which makes the PV module connection extremely easy.

## Technical Details

Pump Type			
	Submersible (AC)	SS - Submersible (AC)	SS - Submersible (DC)
Pump Día (Inch)	4 - 8 Inch	4 - 6 Inch	4 - 6 Inch
Motor Rating (HP)	1 - 75 HP	0.5 - 15 HP	0.5 - 10 HP
Head Range (Mt's)	up to 400 m	up to 400 m	up to 250 m
Flow (m <sup>3</sup> /hr)	up to 200 m <sup>3</sup> /hr.	up to 80 m <sup>3</sup> /hr.	up to 35 m <sup>3</sup> /hr.

Pump Type			
	Surface Pump (DC)	Surface Pump (AC)	Openwell Pump (AC)
Motor Rating (HP)	1 - 10 HP	1 - 20 HP	3 - 10 HP
Head Range (Mt's)	up to 20 m	up to 50 m	up to 50 mtr
Flow (m <sup>3</sup> /hr)	up to 38 m <sup>3</sup> /hr.	up to 73 m <sup>3</sup> /hr.	up to 110 m <sup>3</sup> /hr.

	Model	Motor Type	Motor rating (HP)	Application
	KDCSOL 100 (Water filled)	DC	3 - 5 HP	For minimum 4 inch borewell
	KDCSOL 100E (Oil filled)	DC	1 - 7.5 HP	For minimum 4 inch borewell
	KDCSOL 150 (Water filled)	DC	7.5 - 15 HP	For minimum 6 inch borewell
	UMASOL 100CH (Water Filled)	AC	1 - 5 HP	For minimum 4 inch borewell
	UMASOL150CH (Water Filled)	AC	7.5 - 15 HP	For minimum 6 inch borewell

	Pump Type	MOC	Pump Flow
	CORACHROM as per MNRE guidelines	Stainless steel	Mixed / Radial
	# We have range of all type of pumps available in mixed and radial flow for solar application		

### SOLOTRAN Controller



#### Salient Features

- Maximum Power Point Tracker (MPPT) for optimally use of Solar Energy from Photovoltaic panel and as a result maximize the water discharge
- Wide Input MPPT voltage range for early start & late stop of solar Pump
- IP 65/IP 54 Controller Cabinet of sheet metal with powder coating.
- Protections inbuilt Dry Run, Open circuit, Accidental short circuit, reverse polarity, Input surge
- Provision for DC/AC input operation with suitable breakers & Surge protection device
- Provision for Float Switch operation for Tank Level detection
- Provision for Remote Monitoring System (RMS)



E-Warranty QR Code

Subject to technical modification without prior notice