

SUBMERSIBLE SOLAR WATER PUMPS

Ratings: 3/ 5/ 7.5 HP



Submersible Solar Water Pumps

Jakson Submersible Solar Water Pumps are state-of-the-art DC water pumps that are designed to operate with varied PV array power inputs ranging from 3100 Wp to 7150 Wp. Our solar DC pump units are made from high grade stainless steel with laser welded SS impellers and brushless DC motors. The high torque and efficient motor with encapsulated windings provide optimal performance for varied applications. The entire unit is hermetically sealed ensuring longer life.

Our solar pump controllers feature built in Maximum Power Point Tracker (MPPT) that is housed in an IP 54 enclosure. This ensures an early start and operation at maximum V x L combination during various irradiation conditions resulting in maximum water output. It also offers excellent protection against reverse polarity, over load, open circuit, short circuit, overheating and dry running along with integrated fault diagnostics.



Technical Features

Submersible Pump

- High efficiency BLDC motor
- Encapsulated winding with thermal protection
- Stainless Steel parts for enhanced durability
- Laser welded impellers for high discharge
- Thrust bearing ensures dampening of axial forces
- Self-cleaning provision to reduce the possibilities of clogging
- Various head and discharge combinations

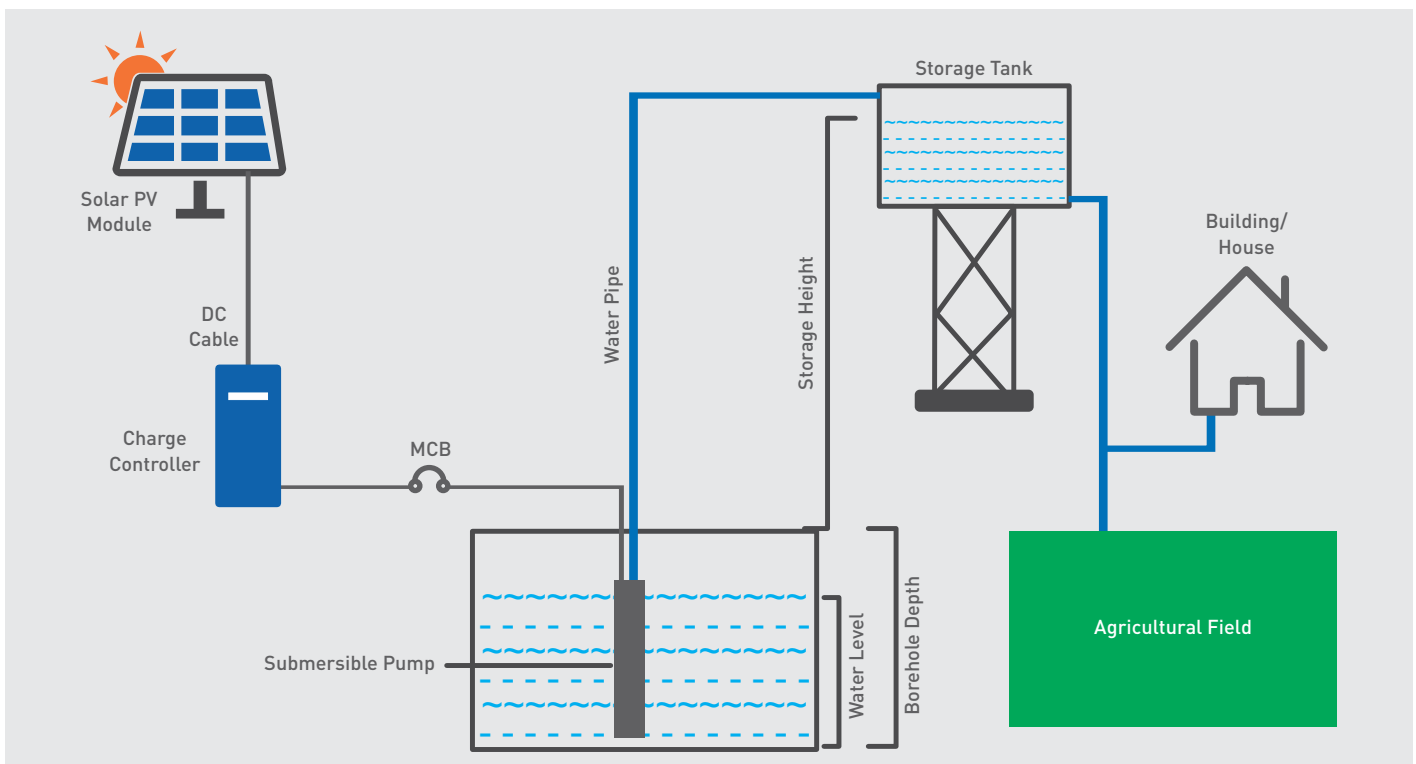
Pump Controller

- Fully enclosed with IP-54 protection. As per IS/IEC 60529:2001-08
- Multiple fault diagnosis indication
- Integrated MPPT & Remote Monitoring System.
- Option of "Tank Full" / "Source Empty" sensor for auto start and auto stop
- Tested as per IEC 60529:2013-08 Edition 2.2 for IP-54 protection

Technical Specifications

Model No	JS-DCP-SM-3-100	JS-DCP-SM-5-100	JS-DCP-SM-7.5-100
SOLAR PV MODULE			
Module Rating (Wp) / Qty. (Nos) / Cells	310/10/72	325/15/72	325/22/72
Voc/Vmp of module (Volt)	45.5/37.0	45.9/37.2	45.9/37.2
Isc /Imp of module (Amp)	8.85/8.38	9.25/8.76	9.25/8.76
Module Connection Combination (Series-Paraller)	10(S)	15(S)	11(S) 2(P)
PUMP & CONTROLLER			
Rating (HP)	3 HP Submersible	5 HP Submersible	7.5 HP Submersible
Discharge (LPD)	28500	45600	64125
Discharge calculated at (m)	100	100	100
Shut Off Head (m)	150	150	150
Controller	BLDC type		
SPV Array Voc (V)	250-450	400-770	484-530
MODULE MOUNTING STRUCTURE			
Module Mounting Structure	Hot Dip-Galvanized, Flat-roof / Ground Mounted		
BOS Items (Optional)			
AC Cable	As per current rating		
DC Cable With MC4 Connector	1C x 4 sqmm, PVC insulated, UV Protected Cu. Cable		
MC4 Connector/Y-Shape Connector	As per requirement		

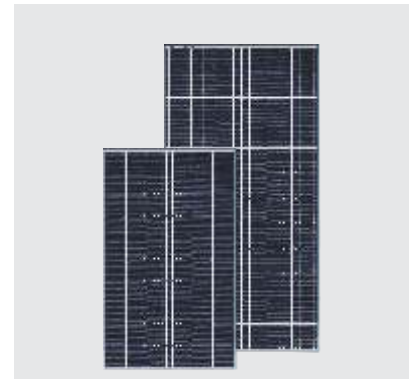
Block Diagram of System



Other System Components

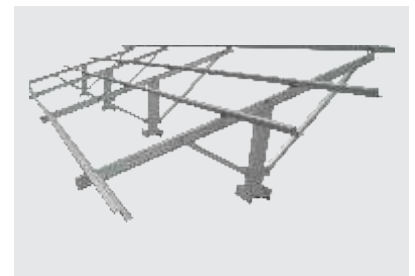
PV MODULES

- Superior quality modules manufactured as per IEC & BIS standards
- Manufactured in state-of-the-art facility located in Greater Noida, UP
- Sand & dust storm resistant, ensures long life
- Good quality tempered glass with Anti - reflective coating improves light transmission
- Excellent performance in low light ensures better output
- High Efficiency modules ensures better yield
- 5 years of manufacturing & 25 Years of Limited Power Output Warranty**



MODULE MOUNTING STRUCTURE

- In-house manufacturing facility
- Superior quality pre-galvanized / post GI material used for longer life
- Strong mechanical strength which is capable of handling wind speed of up to 150km/hr
- Pre-galvanized sheets / hot dip makes the manufacturing process fast, providing uniform finishing
- Good quality rust free hardware ensure better structural life
- 10 Years of Manufacturing Warranty**



BALANCE OF SYSTEM

- Interconnecting DC Cables for solar array connection
- Interconnecting AC Cables for controller to pump connection
- MC4 Connectors: Male and Female Connectors
- DP MCB and others



Images shown are indicative. Actual product may vary

Applications



Irrigation



Village water supply



Live Stock Watering



Drinking Water Supply

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