



# Solartive®

MANUFACTURER OF

Solar Pump Sets | Solar Steel Structures | Solar Pump Controllers



# Solartive Highly Efficient AC & DC Motors

Submersible Motor Details				
Motor Type	Cooling Type	Motor Rating	Voltage Rating	Thrust Capacity in kN
AC-V4	O/F	1HP	65	8.2
DC-V4			65	
DC-V4	W/F	1HP	65-72	8.2
DC-V4		2HP	90-135	
DC-V4		3HP	165-220	
DC-V4		5HP	255-350	
DC-V4		7.5HP	300	
AC-V4		2HP	95-135	
AC-V4		3HP	160-205	
AC-V4		5HP	260-340	
AC-V6	W/F	5HP	340	15
AC-V6		7.5HP	300	
AC-V6		10HP	320-340	
AC-V6		15HP	380	
DC-V6	W/F	7.5HP	300	15
DC-V6		10HP	320-340	
DC-V6		15HP	380	



Motor Dimensions & Weight														
		MAKE	HP	D	N	P	C	M	H	A	E	X	TL	B
DC		DC	1	96.5	87.2	40	10	15.75	38.1	42.8	52.8	238	247	87.75
			2	96.5	87.2	40	10	15.75	38.1	42.8	52.8	268	277	87.75
			3	96.5	87.2	40	10	15.75	38.1	42.8	52.8	298	307	87.75
			5	96.5	87.2	40	10	15.75	38.1	42.8	52.8	358	367	87.75
		AC	2	96.5	87.2	40	10	15.75	38.1	42.8	52.8	440	449	87.75
AC		AC	3	96.5	87.2	40	10	15.75	38.1	42.8	52.8	515	524	87.75
			5	96.5	87.2	40	10	15.75	38.1	42.8	52.8	640	649	87.75
DC		DC	5	143	76.2	51	10	25	72.8	80.8	90.8	379	391	115.4
			7.5	143	76.2	51	10	25	72.8	80.8	90.8	429	441	115.4
			10	143	76.2	51	10	25	72.8	80.8	90.8	464	476	115.4
			15	143	76.2	51	10	25	72.8	80.8	90.8	539	551	115.4
		DC	7.5	143	76.2	51	10	25	72.8	80.8	90.8	300	312	115.4
			10	143	76.2	51	10	25	72.8	80.8	90.8	320	332	115.4
			15	143	76.2	51	10	25	72.8	80.8	90.8	350	362	115.4

# Solartive Submersible Solar Pump Family

Solartive Submersible DC Solar Pump Family				
S. No.	MODEL NUMBER	HEAD IN 'M'	POWER IN 'HP'	DISCHARGE IN "LPD"
1	1 S DC S 30	30	1	45600
2	2 S DC S 30	30	2	68400
3	3 S DC S 30	30	3	114000
4	3 S DC S 50	50	3	69000
5	3 S DC S 70	70	3	45000
6	5 S DC S 50	50	5	110400
7	5 S DC S 70	70	5	72000
8	5 S DC S 100	100	5	50400
9	7.5 S DC S 50	50	7.5	155250
10	7.5 S DC S 70	70	7.5	101250
11	7.5 S DC S 100	100	7.5	70875
12	10 S DC S 50	50	10	207000
13	10 S DC S 70	70	10	135000
14	10 S DC S 100	100	10	94500
15	15 S DC S 70	70	15	202500
16	15 S DC S 100	100	15	141750
17	15 S DC S 120	120	15	128250
18	15 S DC S 150	150	15	101250

Solartive Submersible AC Solar Pump Family				
S. No.	MODEL NUMBER	HEAD IN 'M'	POWER IN 'HP'	DISCHARGE IN "LPD"
1	1 S AC S 30	30	1	42000
2	2 S AC S 30	30	2	63000
3	3 S AC S 30	30	3	105000
4	3 S AC S 50	50	3	63000
5	3 S AC S 70	70	3	42000
6	5 S AC S 50	50	5	100800
7	5 S AC S 70	70	5	67200
8	5 S AC S 100	100	5	43200
9	7.5 S AC S 50	50	7.5	141750
10	7.5 S AC S 70	70	7.5	94500
11	7.5 S AC S 100	100	7.5	60750
12	10 S AC S 50	50	10	189000
13	10 S AC S 70	70	10	126000
14	10 S AC S 100	100	10	81000
15	15 S AC S 70	70	15	189000
16	15 S AC S 100	100	15	121500
17	15 S AC S 120	120	15	114750
18	15 S AC S 150	150	15	90450

## Solar Submersible Pumping System

Component	CONSTRUCTION TYPE
	Standard Water Well
Castings	304 SS Over Iron
Stator Shell	304 SS
Shaft Extension	304 SS
Fasteners	304 SS or 302 SS
Seal Cover	304 SS
Seal	Nitrile Rubber Lip
Diaphragm	NBR
Slinger	NBR
Lead Wire (or Cable)	XLPE
Lead Potting	Epoxy
Lead Jam Nut	304 SS



## Solartive Surface Solar Pump Family

Solartive DC Surface Solar Pump Family				
S. No.	MODEL NUMBER	HEAD IN 'M'	POWER IN 'HP'	DISCHARGE IN "LPD"
1	1 S DC M 10	10	1	99000
2	2 S DC M 10	10	2	198000
3	3 S DC M 10	10	3	297000
4	3 S DC M 20	20	3	148500
5	5 S DC M 10	10	5	528000
6	5 S DC M 20	20	5	264000
7	5 S DC M 30	30	5	182400
8	7.5 S DC M 10	10	7.5	742500
9	7.5 S DC M 20	20	7.5	371250
10	7.5 S DC M 30	30	7.5	256500
11	10 S DC M 10	10	10	990000
12	10 S DC M 20	20	10	495000
13	10 S DC M 30	30	10	342000
14	15 S DC M 20	20	15	742500
15	15 S DC M 30	30	15	513000
16	15 S DC M 50	50	15	310500
17	15 S DC M 70	70	15	202500

Solartive AC Surface Solar Pump Family				
S. No.	MODEL NUMBER	HEAD IN 'M'	POWER IN 'HP'	DISCHARGE IN "LPD"
1	1 S AC M 10	10	1	89100
2	2 S AC M 10	10	2	178200
3	3 S AC M 10	10	3	267300
4	3 S AC M 20	20	3	132300
5	5 S AC M 10	10	5	475200
6	5 S AC M 20	20	5	235200
7	5 S AC M 30	30	5	168000
8	7.5 S AC M 10	10	7.5	668250
9	7.5 S AC M 20	20	7.5	330750
10	7.5 S AC M 30	30	7.5	236250
11	10 S AC M 10	10	10	891000
12	10 S AC M 20	20	10	441000
13	10 S AC M 30	30	10	315000
14	15 S AC M 20	20	15	661500
15	15 S AC M 30	30	15	472500
16	15 S AC M 50	50	15	283500
17	15 S AC M 70	70	15	189000





# Solartive Solar Pump Controller

## Features

- High-cost performance, pump more water with less cost.
- Perfect drive synchronous, asynchronous, BLDC, three phase.
- Small and exquisite, palm-sized, saving installation space, and transportation costs.
- Simple and stylish aesthetic appearance, integrating technology and art.
- Intelligent IoT, which integrates online, offline, and WiFi functions.
- MPPT, real-time output maximum power.
- Simple operation, easy wiring, no trouble.
- Multiple protection functions escort the water pump



## Powerful Software Function to Escort the Water Pump

- MPPT-99%: Adjust the output frequency according to the sunlight intensity, and get the maximum point in real time.
- Special protection functions for the photovoltaic pumps: sleep, low frequency, dry, overcurrent, minimum power, etc. to ensure safe and reliable operation of the pump.

## Smart IOT, Smart Irrigation

- It integrates online, offline, and WiFi functions and WiFi self-organizing networks can be used in areas without network.
- It supports a wide range of frequency bands and can be used in any area of the world.
- A powerful internet management platform can control water and fertilizer requirements anytime and anywhere



Leh-Ladakh



Odisha



Maharashtra



Jharkhand



Madhya Pradesh



Uttar Pradesh



Uttarakhand



Jharkhand



Haryana

## Technical Specification

Controller Models	Pump		Maximum Input power of Solar Panels (kW)	Maximum Input DC Voltage (V)	Total Voc range of Recommended Panels (V)	Rated Output Current (A)	Output Frequency Range (Hz)
	Rated Power (kW)	Rated Voltage (V)					
SLT 1.0	0.75	65-120	1.2	225	130-150	8	0-300
SLT 2.0	1.5	130-160	3.5	400	264-440V	10	0-300
SLT 3.0	2.2	200-230	3.5	400	264-440V	10	0-300
SLT 5.0	3.7	300-350	4.8	800	660-748	10	0-300
IBIS 1.0	0.75	50-65	1.2	200	120-160	12	0-300
IBIS 2.0	1.5	90	4.8	450	160-205	15	0-300
IBIS 3.0	2.2	145-165	4.8	450	240-290	15	0-300
IBIS 5.0	3.7	230-255	4.8	450	365-415	15	0-300
IBIS 7.5	5.5	300-360	10	900	550-615	20	0-300
IBIS 10	7.5	340-380	10	900	700-740	20	0-300

# RMS (Remote Monitoring System)

## Technical Specification

Usage/Application	Solar Pump.
Brand	Solartive.
Origin	Made in India.
Input Voltage	05 to 30V DC
Technology	2G (900/1800MHz)/ 4G GSM module(LTE-FDD B1/B3/B5/B8), LTE category 4 module optimized for M2M and IoT applications, Worldwide LTE, UMTS/HSPA+ and GSM/GPRS/EDGE coverage.
GNSS	GPS Supported.
SIM Type and GNSS	3V and 1.8V - Micro SIM-Card and GPS Supported.
Antenna	High dBi Flexible Sticker Antenna LTE + High dBi Flexible Sticker Antenna for GPS
Communication Channel	RS-485 with Transient Voltage Protection.
Communication Type	Modbus-Master- RTU.
Bluetooth	BLE 4.2 Supported.
Digital Input	2 Channel 24v Potential Inputs.
Analog Input	2 Channel - Current: 4 to 20mA..
Display	2 Line x 16 Character Alpha Numeric Display.
Applications	Web-Portal and Android Application for monitoring and handling the pump
Memory	Internal memory for Offline Storage in the RMS that can be retrieve through the SD card.



## Technical Specifications of 500V, 15A Solar Powered Pump Controller Model

The Pump controller printed circuit board (PCB) is a subset of the Solartive Pump set for high-performance Permanent Magnet Synchronous Motor (PMSM) drive. With the proper selection of Solar array voltage/current/power, the PCB can be used to build 2/3/5 HP nominal rating pump controller suitable for Mono- Crystalline Solar PV Modules.

Controller Model	IBIS 2.0/IBIS 3.0/IBIS 5.0
Max.Output Current rating	15.00A with 150% overload for one minute
Applicable Power	1.5kW/2.0HP,2.2kW/3.0HP & 3.70kW/5.00HP
Maximum Three Phase Output Voltage	270V RMS
Absolute Maximum DC Bus Voltage	500V in all conditions
MPPT Voltage Range	150~450V DC
Recommended Solar PV wattage for Submersible or Surface (VOC should not be more than absolute maximum DC Bus voltage)	4 x 505~550Wp for 2HP 6 x 505~550Wp for 3HP 9 x 505~550Wp for 5HP
Recommended Motor Voltage (Output voltage can be set from 150 ~ 300V)	90V for 2HP, 145~165V for 3HP, 230~255V for 5HP
Max.Input DC Current	15A
Input Surge protection rating	8kA, 500V MOVs used, SPD
Protections	<ul style="list-style-type: none"> <li>• Output Short/open Circuit</li> <li>• Over Temperature</li> <li>• Over/Under Voltage</li> <li>• Unbalance</li> <li>• Thermal Overload</li> <li>• Dry Run</li> <li>• Reverse Polarity</li> </ul>
Communication	Isolated RS485 signals for RMU TTL serial TTL serial communication for proprietary display unit
Enclosure	IP 65
Installation Site	Indoor Altitude Less Than 1000M, Free Corrosive Gases and Direct Sunlight
Temperature Humidity	(-10 to -60° C), 20% to 95% RH (No Condensation)
Vibration	Less Than 0.5g When Frequency Less Than 20HZ
Storage Temperature	-20-60° C
Installation Mode	Hanging Machine
Cooling Method	Natural Cooling/Forced Air Cooling
Operation	PV only
Motor types that can be used	3- $\phi$ Induction Motor/PMSM motor

- **Warranty:** 5 Years at 55 °C ambient.
- Dedicated functions can be made available based on customer demand.
- **Control:** for PMSM Sensor-less field- oriented motor control and for Induction
- **Communication:** RS485 is with MODBUS RTU protocol Motor OpenLoop V/F control

**Notes:** The selection of the Drive module should be based on the current rating. The Current rating should be equal to or more than the Motor's current rating. The details like Power, kVA, etc. are indicative only.

# Solartive RMS Application

- Customers choose Solartive Solar Pumps because of the advanced system features that are available via Solartive Web and Android applications.
- All our partners and customers can now from our Web Portal and Android Applications that can easily be from Google Play Store.
- Our Solar Water Pumps are integrated with Remote Monitoring System, due to which they are easy to configure, provide rich information to technicians and customers plus they can be managed remotely.
- Solartive has in-house Solar Pump RMS solution (Web and Android Applications) with 2G and 4G communication as per MNRE (Ministry Of New and Renewable Energy) guidelines and all features covered as per PM - Kusum (Energy Efficiency Services Limited) which allows users and Government to monitor all data regarding Solar generation, consumption, pump run time, pump water supply in Lpm and if any fault it will instantly give an alert through SMS/Call and give data on the cloud of any analysis. This gateway can enhance your ability to monitor remotely. Interactive web portal represents previous and aggregated data, comparative analytical diagnosis, and a guided root cause for fault analysis. All data are logged and can be reviewed and analyzed at any time from any location of the pump. Users can also switch ON/OFF and schedule the timing if there is a limited water requirement on a specific location so that wastage can be avoided.



# Power Transmission and Distribution

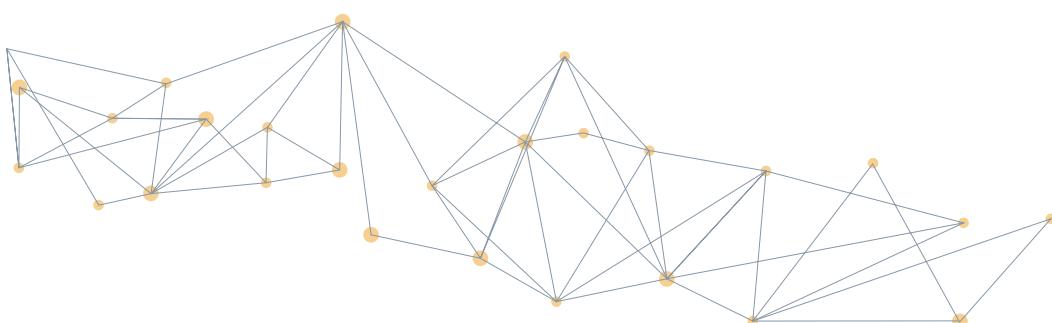
- At Solartive Techno Industries Pvt. Ltd., we are committed to powering progress through our robust solutions in power transmission and distribution. Our expertise extends beyond solar energy into the realm of electrical infrastructure, where we play a pivotal role in enhancing the efficiency and reliability of power systems across India.

## A Landmark Achievement

- Solartive is proud to have secured a prestigious tender from the Jharkhand Bijli Vitran Nigam Limited (JBVNL) to develop a transmission line under the Mukhyamantri Ujjawal Jharkhand Yojana. This project is a significant milestone in our journey, as it aims to electrify un-electrified habitations and households across rural and urban areas.

## Key Highlights:

- Scope of Work:** The project involves the development of a state-of-the-art transmission line that will facilitate efficient power distribution to the remotest corners, ensuring that every household enjoys the benefits of reliable electricity.
- Economic Impact:** By bolstering the state's power infrastructure, this project is set to drive economic growth, fostering industrial development, and improving the overall quality of life for millions of residents.
- Technological Excellence:** The transmission line will be equipped with the latest technology to minimize transmission losses and maximize efficiency, thereby contributing to a sustainable and resilient power supply system.
- Community Empowerment:** Access to electricity is a critical enabler of progress. This project will empower local communities by providing them with the energy needed to support education, healthcare, agriculture, and small businesses.



## Solartive's Commitment:

- With our extensive experience and dedication to green energy, Solartive is well-positioned to make a profound impact on nation's infrastructure. We are not just building a transmission line; we are building a brighter, more sustainable future for all. Our work is a testament to our commitment to excellence, innovation, and community empowerment.
- As we continue to expand our footprint in power transmission and distribution, projects like these underscore our role as a trusted partner in India's journey toward energy independence and sustainable development.

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### Registered Office

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### Manufacturing Plant

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