

Model	Description
MBP 60 AC	AC Surface Solar pumps, Model: MBP 60 AC, Rated head:10mtr., 2 HP, Shut off head 12 mtr.
MBP 90 AC	AC Surface Solar pumps, Model: MBP 90 AC, Rated head:20mtr., 3 HP, Shut off head 25 mtr.
MBP 120 AC	AC Surface Solar pumps, Model: MBP 120 AC, Rated head:20mtr., 5 HP, Shut off head 25 mtr.

Model	MBP 60 AC	MBP 90 AC	MBP 120 AC	
Rated head (mtr.)	10	20	20	Motor : AC Motor
Discharge (LPD)	1,62,000 [#]	1,21,500 [#]	2,16,000 [#]	
Shut Off head (mtr.)	12	25	25	Water output figures are on a clear sunny day with 3 times tracking of SPV panel, under "Average Daily Solar Radiation" condition of 7.15 KWh/sq.m on the surface of PV Array (i.e. coplanar with PV module) Standard Test Condition : AM=1.5, E=1000W/m ² , Cell Temperature : 25°C
Array Rating	1800 Wp	2700 Wp	4800 Wp	
Input Voltage (Vmp.)	> 190 V	> 300 V	> 550 V	
Input Max. Current	9 Adc			
Ambient Temperature Range	Up to 50° C			
MNRE test certificate reference (Report no.)	-			

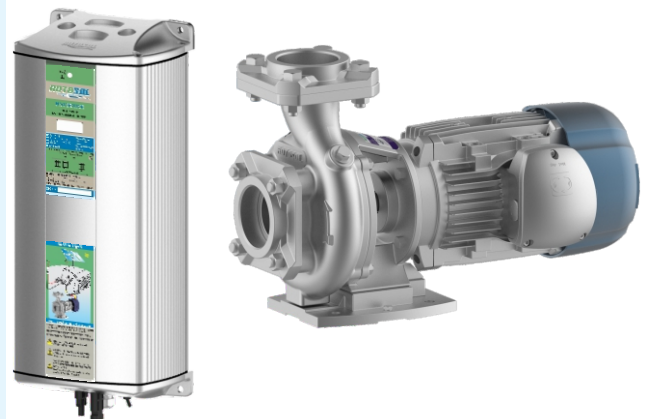
[#] This water output is at STC conditions and testing as per MNRE's latest specifications for Solar water pumps.

Product Introduction

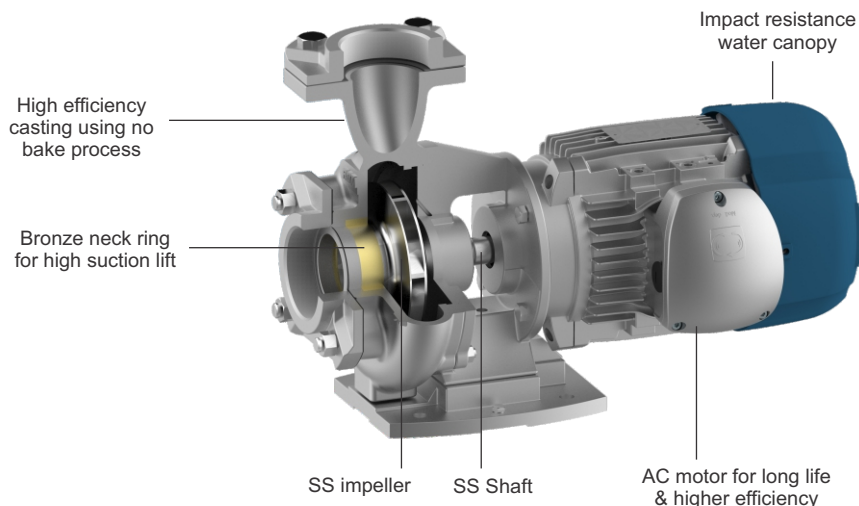
Rotosol's AC Surface pumps are the most efficient and reliable solution for conditions where the suction head is limited to 7 meters. Surface pumps are of mono block construction with the impeller mounted directly on the motor shaft.

Application

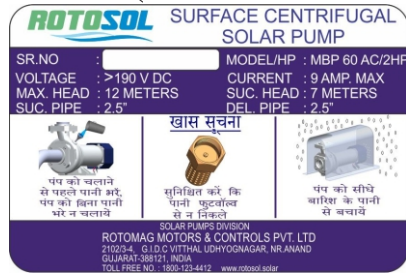
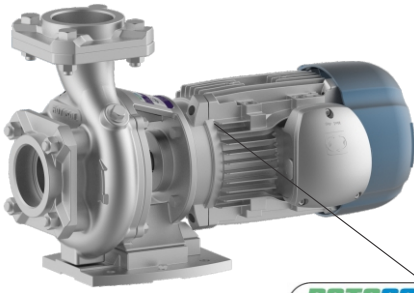
- Drinking water supply
- Livestock watering
- Pond management
- Irrigation
- Village water supply



Features and benefits



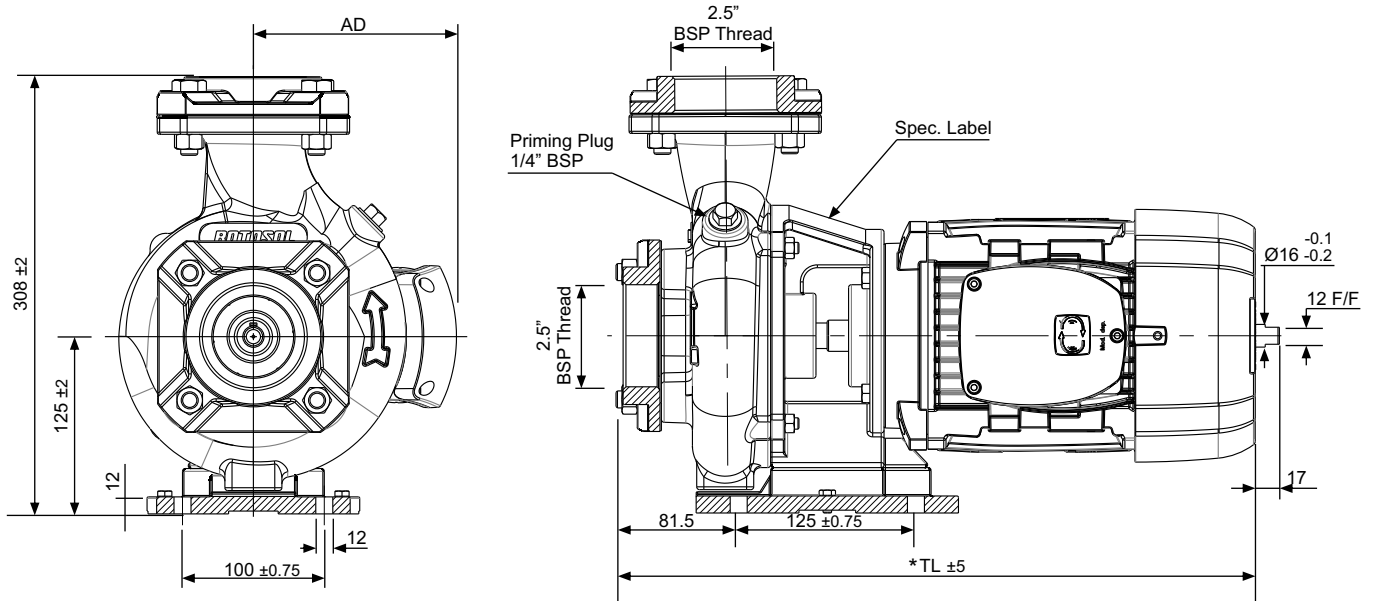
Specifications of AC Surface Solar Pumps:



Label on Pump

Model/HP	MBP 60 AC /2HP	MBP 90 AC /3HP	MBP 120 AC /5HP
Voltage	> 190 VDC	> 300 VDC	> 550 VDC
Current	9 Amp	9 Amp	9 Amp
Max. Head	12 Mtr.	25 Mtr.	25 Mtr.
Suction Head	7 Mtr	7 Mtr	7 Mtr
Suction Pipe	2.5"	2.5"	2.5"
Delivery Pipe	2.5"	2.5"	2.5"

Dimensions of AC Surface Solar Pumps



Model No.	Dimensional Details				Module Details		Approx. Net Weight in Kg. (± 1.5 kgs.)
	TL	AD	Suc. - BSP	Del. - BSP	Module Size	No. of Module	
MBP 60 AC	470	145	2.5"	2.5"	300 Wp	6	29
MBP 90 AC	491	145	2.5"	2.5"	300 Wp	9	32
MBP 120 AC	562	176	2.5"	2.5"	300 Wp	16	40

* The length is subject to change without notice as R&D is a continuous process and modification may be required to suit the I-V curves of the modules and the water output at varying heads.

Specifications of AC Surface Controller:

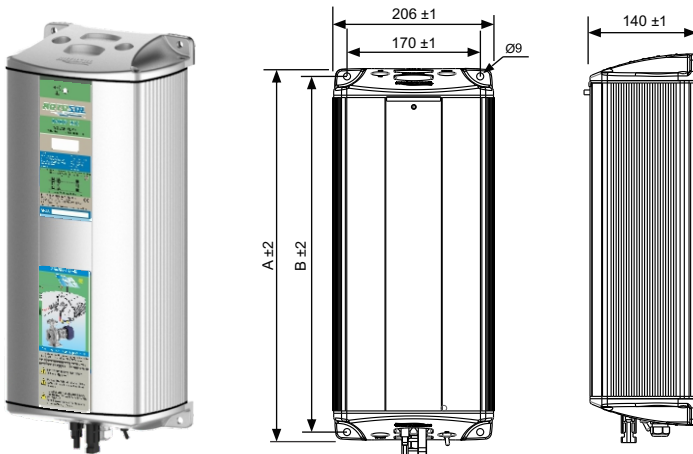
Model	Input PV array	Input voltage (Vmp.)	Max. Open circuit voltage (Voc.)
MBP 60 AC	1800 Wp	> 190 Vdc	270 Vdc
MBP 90 AC	2700 Wp	> 300 Vdc	405 Vdc
MBP 120 AC	4800 Wp	> 550 Vdc	715 Vdc

Features of Controller:

- ▶ Fully enclosed with IP54 protection. as per IS/IEC 60529:2001-08
- ▶ Multiple fault diagnosis indications.
- ▶ Integrated MPPT (Maximum Power Point Tracking).
- ▶ Option of "Tank Full" and "Source Empty" sensor for auto start and auto stop.

Protection against
Open Circuit
Accidental Short circuit (2 min. max.)
Reverse Polarity
Dry run

Mounting dimensions:



IEC certificate nos. for controller:

- ▶ I.P. test certificate RP-1718-063907

Model	A	B	Controller Nett weight (Kg.)
MBP 60 AC	474	454	6.0 ±1
MBP 90 AC	674	654	7.6 ±1

All dimensions are in mm.

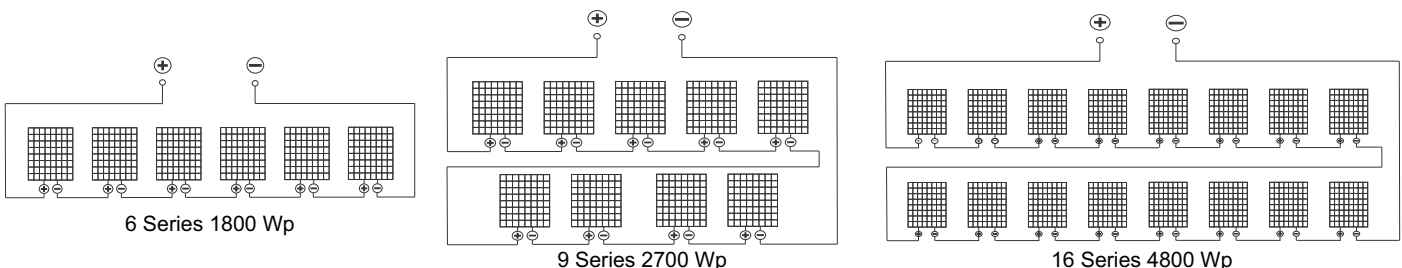
Installation Requirements:

Preferred Solar PV Array

300 Wp, 72 Cell

Panel specifications

Voltage at maximum power Vmax	38.88 V
Open circuit voltage Voc	44.56 V
Current at maximum power Imax	7.71 A
Short circuit current Isc	8.48 A



Technical specifications/details mentioned in this datasheet are subject to change without prior notice. Please contact our sales/marketing team for any updated information or any change done.

Pump Controller With Integrated Remote Monitoring System

Remote monitoring system has been integrated with pump controller so that actual field information about voltage, current, temperature and error conditions are available with time on desktop computer as well as on mobile application.

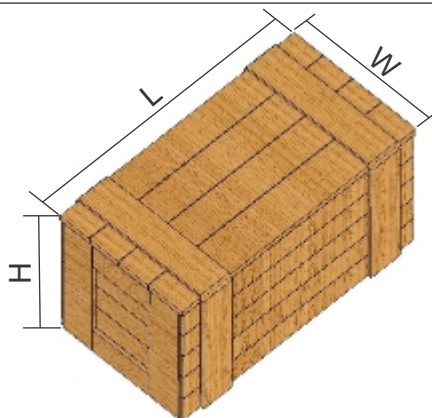
Description of system:

The remote monitoring system integrated with the DC solar pump controller comprises of GPRS based data transmission modem in an IP54 enclosure. SIM card and SD card are to be separately inserted for remote monitoring system to start transmitting data to our server.

The operational data including Input DC voltage, Input DC current, Power (kW), Pump on hour, Number and nature of faults are processed and summarized reports are available. The reports show pump performance and faults in daily, monthly and user configurable periods. This data is transmitted to our server accessed by individual users or corporate users using mobile device or on desktop using appropriate login credentials.

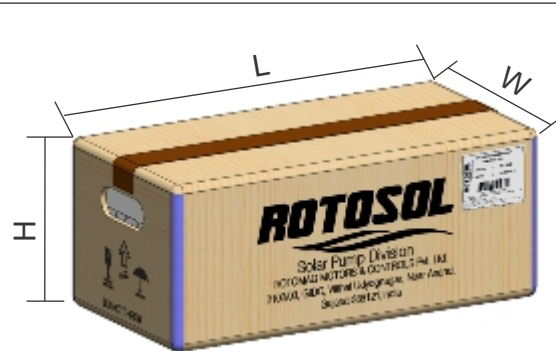
Surface Pumps Packing Dimensions & Weight

Packing for the Pump



Model	L (mm)	W (mm)	H (mm)	Approx. packing weight (kgs)
MBP 60 AC	650	300	350	36
MBP 90 AC				39
MBP 120 AC				47

Packing for the Controller



Model	L (mm)	W (mm)	H (mm)	Approx. packing weight (kgs)
MBP 60 AC	610	280	230	13
MBP 90 AC				
MBP 120 AC				

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Solar Pumps Division

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