

Type	Description
RA020H030	AC Submersible Solar pump type: RA020H030
	Rated head: 30mtr., 2.0HP, Shut off head 45 mtr., With RA1800 controller
RA020H050	AC Submersible Solar pump type: RA020H050
	Rated head: 50mtr., 2.0HP, Shut off head 75 mtr., With RA1800 controller
RA020H070	AC Submersible Solar pump type: RA020H070
	Rated head: 70mtr., 2.0HP, Shut off head 100 mtr., With RA1800 controller
RA020H100	AC Submersible Solar pump type: RA020H100
	Rated head: 100mtr., 2.0HP, Shut off head 150 mtr., With RA1800 controller

Type	RA020H030	RA020H050	RA020H070	RA020H100	
Rated head (mtr.)	30	50	70	100	Motor : AC Induction Motor
Optimum Head range (mtr.)	20-40	40-60	60-80	90-110	
Discharge (LPD)	57,600 <sup>#</sup>	34,200 <sup>#</sup>	23,400 <sup>#</sup>	15,300 <sup>#</sup>	Pump : SS-304 material (In contact with water)
Shut Off head (mtr.)	45	75	100	150	
Array Rating	1800 Wp				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)
Input Voltage (Vmp.)	> 216 Vdc				
Input Max. Current	9 Adc				
Ambient Temperature Range	Up to 50° C				
MNRE test certificate reference (Report no.)	-				
					Standard Test Condition : AM=1.5, E=1000W/m <sup>2</sup> , Cell Temperature : 25°C

<sup>#</sup> This water output is at STC conditions and testing as per MNRE's latest specifications for Solar water pumps.

## Product Introduction

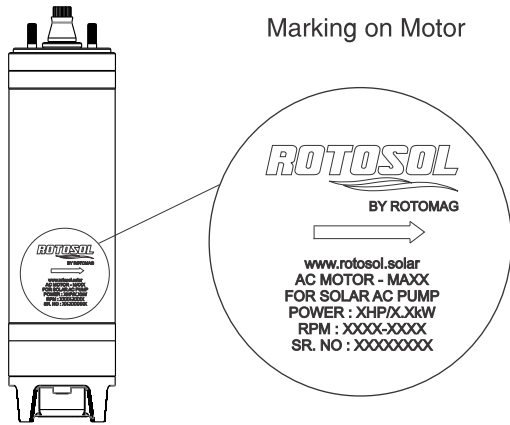
Rotosol solar submersible pump has a stainless steel SS-304 pump. This ensures long life and high reliability against dust, sand and abrasive elements. The pump elements are driven by a sealed "AC motor" filled with water. The motor is made from stainless steel 304 and sealed for life. High efficiency AC motors are used. The motor is driven by a controller which has inbuilt MPPT (Maximum power point tracker), dry running protection and overheating protection. A special thrust bearing supports the rotor of the motor to withstand the axial thrust of the water column when the pump is switched off. .



## Application

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

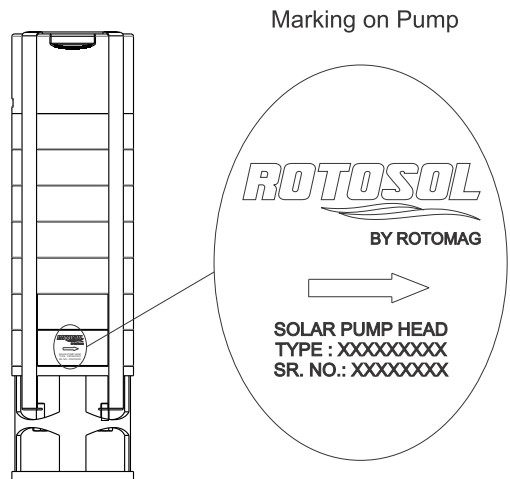
**Specifications of AC Submersible motor:**



AC motor type	MA18
Power	2HP/1.5kW
RPM	1800-3300

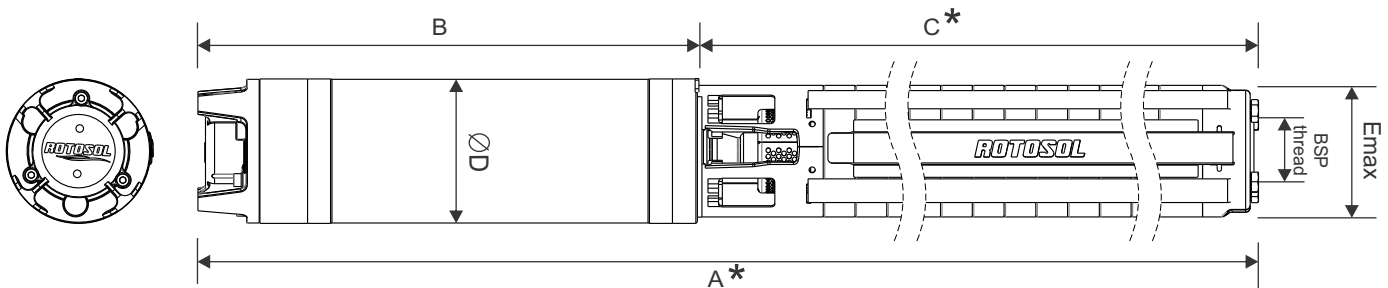
► Protection : IP68

**Specifications of solar pump head:**



Type	Rated head
RA020H030	30
RA020H050	50
RA020H070	70
RA020H100	100

**Dimension of AC submersible solar pump head:**



Model	Type	Dimensional Details						Module Details		Performance Curves No.	Approx. Nett Weight in Kg. (± 1.5 kgs.)
		A (mm)	B (mm)	C (mm)	D (mm)	E max (mm)	BSP	Module Size (Wp)	No. of Module		
RA1800	RA020H030	895	530	365	96	92	2"	300	6	-	13
	RA020H050	992	530	462	96	92	1.5"	300	6	-	14
	RA020H070	1060	530	530	96	92	1.25"	300	6	-	15
	RA020H100										

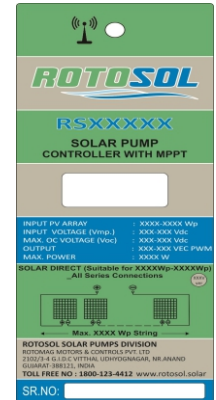
\* The length is subject to change without notice as R&D is a continuous process and the modification may be required to suit the modification in I-V curves of the modules and the water output at varying heads.

## Specifications of AC Submersible controller:

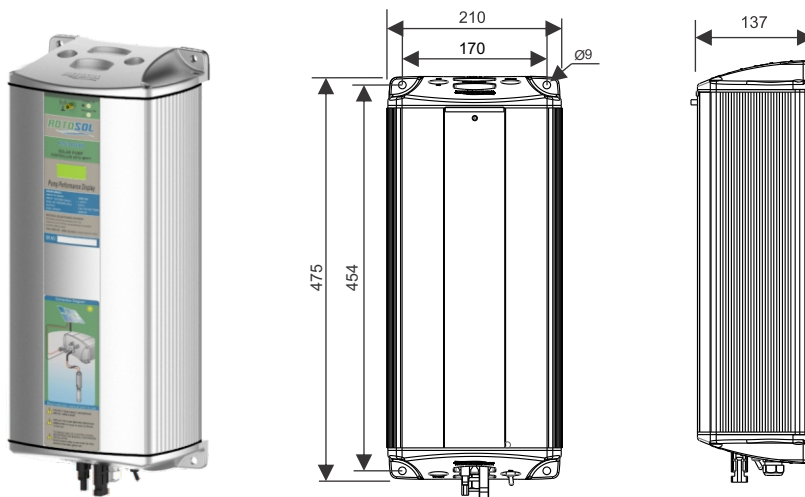
Model	Input PV array	Input voltage (Vmp.)	Max. Open circuit voltage (Voc.)
RA1800	1800 Wp	> 216 Vdc	360 Vdc

## Features of Controller:

- ▶ Fully enclosed with IP54 protection. as per IEC 60529:2013-08 Edition 2.2
- ▶ Trip and RESET indications.
- ▶ Sensorless protection against “Dry Running”, “Current Overload” and “Thermal Overload”.
- ▶ Integrated MPPT (Maximum Power Point Tracking).



## Mounting Dimensions:



**IEC certificate nos.  
for controller:**

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

**Controller Nett  
weight**

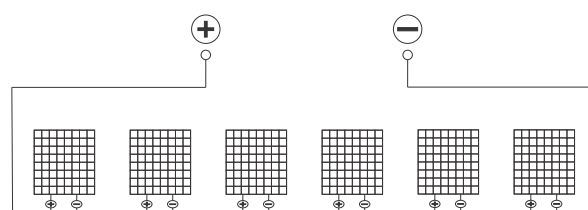
**6 ± 1 kg.**

## Installation Requirements:

### Preferred Solar PV Array

300 Wp, 72 Cell x 6 Panels

Wattage Wp	1800W
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



6 Series

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.