

Type	Description
RD100H020	DC Submersible Solar pump type: RD100H020
	Rated head:20mtr., 10 HP, Shut off head 25 mtr., With RS10000 controller
RD100H030	DC Submersible Solar pump type: RD100H030
	Rated head:30mtr., 10 HP, Shut off head 45 mtr., With RS10000 controller
RD100H050	DC Submersible Solar pump type: RD100H050
	Rated head:50mtr., 10 HP, Shut off head 70 mtr., With RS10000 controller
RD100H070	DC Submersible Solar pump type: RD100H070
	Rated head:70mtr., 10 HP, Shut off head 100 mtr., With RS10000 controller
RD100H100	DC Submersible Solar pump type: RD100H100
	Rated head:100mtr., 10 HP, Shut off head 150 mtr., With RS10000 controller

Type	RD100H020	RD100H030	RD100H050	RD100H070	RD100H100	
Rated head (mtr.)	20	30	50	70	100	Motor : Permanent Magnet Brushless DC Motor
Optimum Head range (mtr.)	10-30	20-40	40-60	60-80	90-110	
Discharge (LPD)	4,50,000#	3,15,000#	1,89,000#	1,26,000#	85,500#	Pump : SS-304 material (In contact with water)
Shut Off head (mtr.)	25	45	70	100	150	
Array Rating	9000 Wp (Min.)					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.)	> 540 V					
Input Max. Current	17 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

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

## Product Introduction

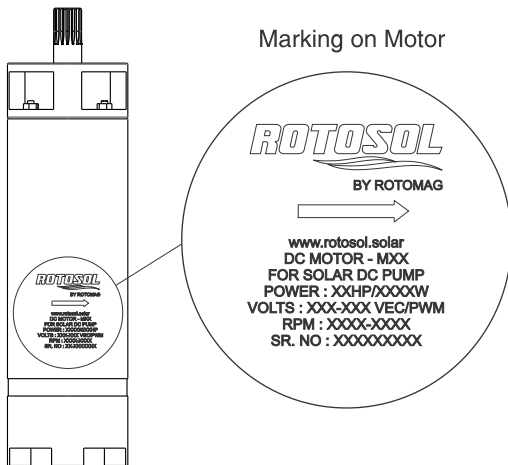
Rotosol solar submersible pump has a stainless steel SS-304 pump bowl and impellers which are precision laser welded. This ensures long life and high reliability against dust, sand and abrasive elements. The pump elements are driven by a sealed "DC motor" filled with water. The motor is made from stainless steel 304 shell and sealed for life. High efficiency DC 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

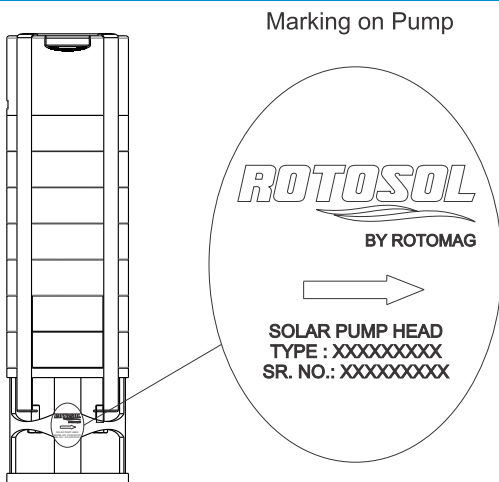


### Specifications of DC Submersible motor:



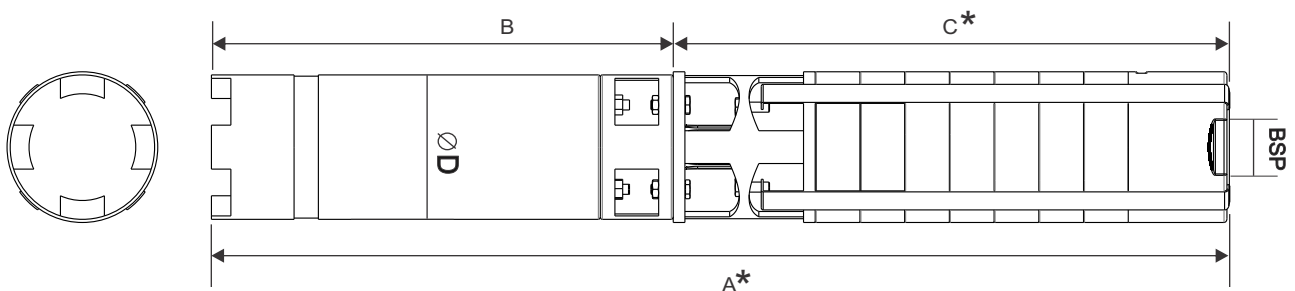
BLDC motor type	M100
Power	7500W/10HP
Output VEC/PWM	290 - 340
RPM	1800-3300

### Specifications of solar pump head:



Type	Rated head (mtr.)
RD100H020	20
RD100H030	30
RD100H050	50
RD100H070	70
RD100H100	100

### Dimension of DC submersible solar pump head:



Model	Type	Dimensional Details					Module Details	
		A	B	C	D	BSP	Module Size	No. of Module
RS10000	RD100H020	1475	635	840	142	3"	300	30
	RD100H030	1475	635	840	142	3"	300	30
	RD100H050	1655	635	1020	142	2.5"	300	30
	RD100H070	1815	635	1180	142	2.5"	300	30
	RD100H100	1815	635	1180	142	2.5"	300	30

\* 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 DC Submersible controller:

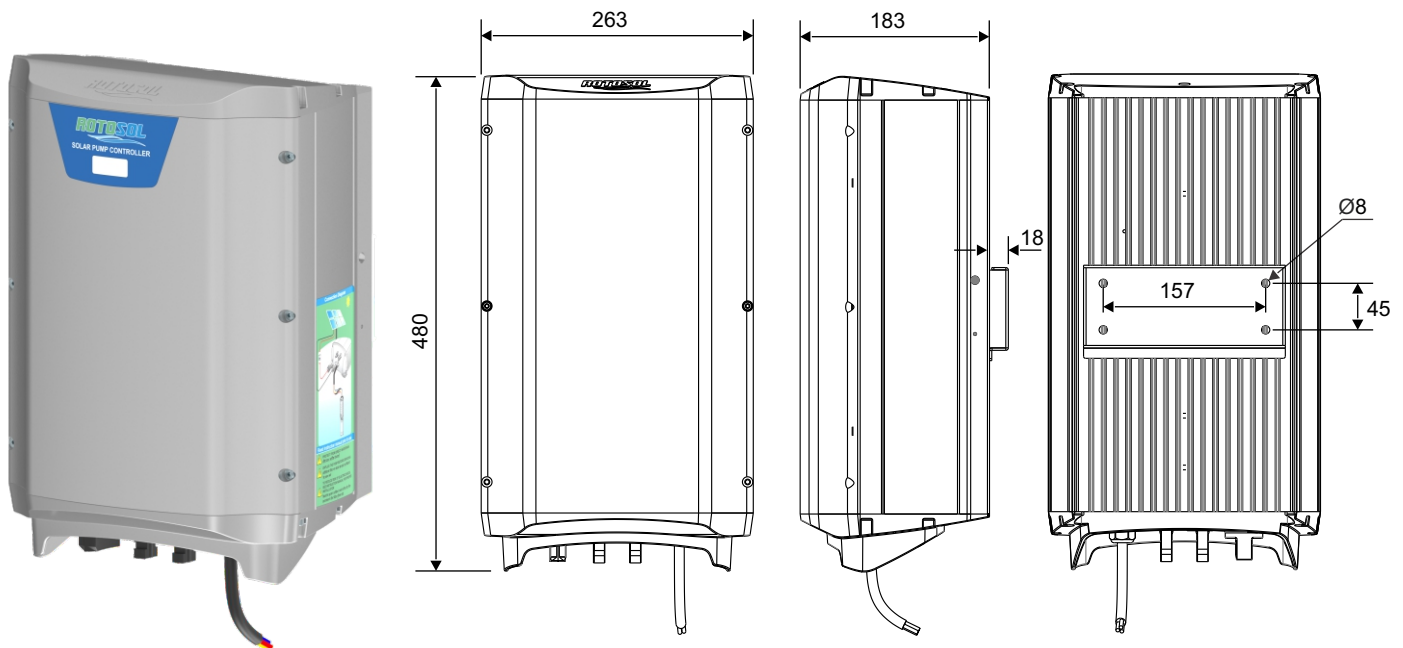
Input PV array	Input voltage (Vmp.)	Open circuit voltage (Voc)	Output VEC/PWM
8400-9600 Wp	504-576	616-704	290 - 340

### Features of Controller:

- ▶ Fully enclosed with IP65 protection. as per IEC 60529:2013-08 Edition 2.2
- ▶ Sensorless protection against “Dry Running”, “Current Overload” and “Thermal Overload”.
- ▶ Integrated MPPT (Maximum Power Point Tracking).

Protection against	
Open Circuit	Over & under voltage protection
Overload protection	
Temperature protection	Accidental Short circuit (2 min. max.)
Reverse Polarity	
Dry run	

### Mounting dimensions:



### Installation Requirements:

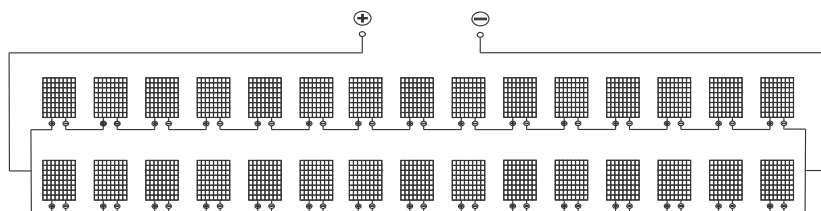
#### Preferred Solar PV Array

**Controller Nett weight**

**11 ± 1 kg.**

**300 Wp, 72 Cell x 30 Panels: 9000 W**

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



15 Series - 2 Parallel

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.