

Type	Description
RD075H050	DC Submersible Solar pump type: RD075H050
	Rated head: 50mtr., 7.5 HP, Shut off head 70 mtr., With RS7500 controller
RD075H070	DC Submersible Solar pump type: RD075H070
	Rated head: 70mtr., 7.5 HP, Shut off head 100 mtr., With RS7500 controller
RD075H100	DC Submersible Solar pump type: RD075H100
	Rated head: 100mtr., 7.5 HP, Shut off head 150 mtr., With RS7500 controller

Type	RD075H050	RD075H070	RD075H100	
Rated head (mtr.)	50	70	100	Motor : DC Motor
Optimum Head range (mtr.)	40-60	60-80	90-110	Pump : SS-304 material (In contact with water)
Discharge (LPD)	1,41,750 <sup>#</sup>	94,500 <sup>#</sup>	64,125 <sup>#</sup>	
Shut Off head (mtr.)	70	100	150	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)
Array Rating	6750 Wp (Min.)			
Input Voltage (Vmp.)	> 396 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

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

## Product Introduction

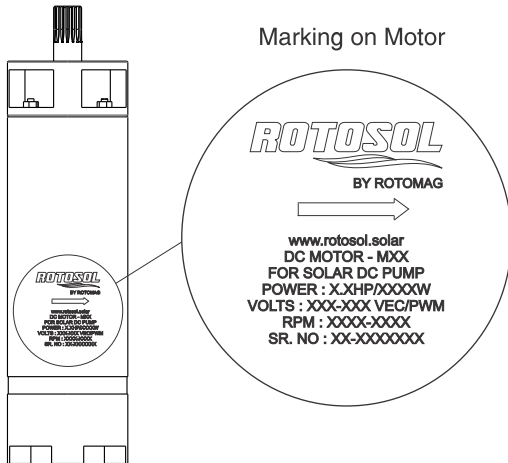
Rotosol solar submersible pump has a stainless steel SS-304 pump bowl and impellers which are precision laser welded. This ensures long life and high reliability against dust, sand and abrasive elements. The pump elements are driven by a sealed "DC motor" filled with water. The motor is made from stainless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

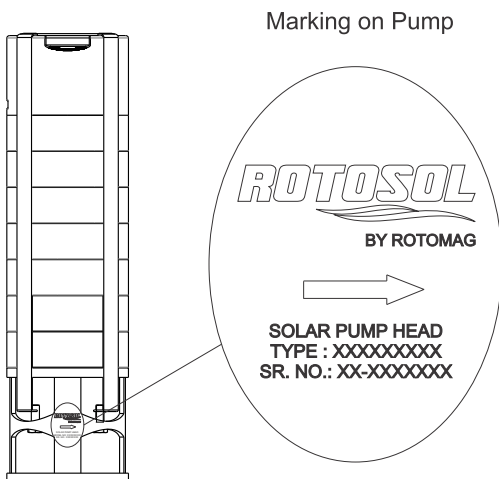


### Specifications of DC Submersible motor:



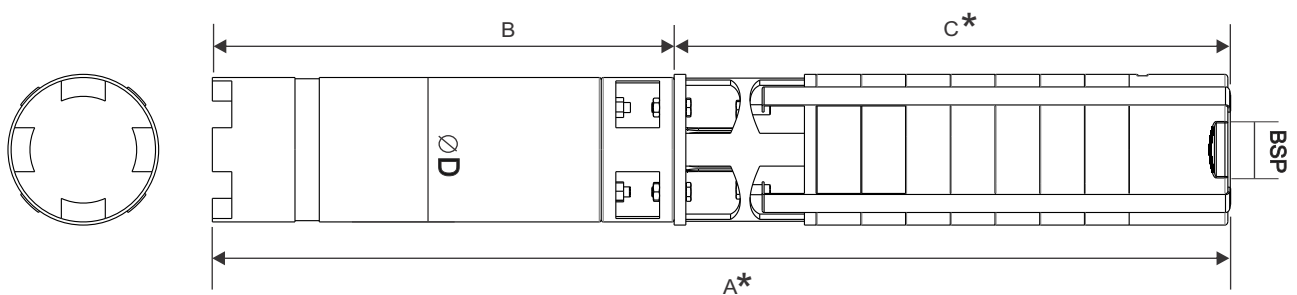
BLDC motor type	M75
Power	7.5HP/5.62kW
Output VEC/PWM	290 - 340
RPM	1800-3300

### Specifications of solar pump head:



Type	Rated head (mtr.)
RD075H050	50
RD075H070	70
RD075H100	100

### Dimension of DC 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 max (mm)	BSP	Module Size (Wp)	No. of Module		
RS7500	RD075H050	1425	715	710	144	2.5"	315	22	-	64
	RD075H070	1665	715	950	144	2.5"	315	22	-	67
	RD075H100	1865	715	1150	144	2.5"	315	22	-	71

\* 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:

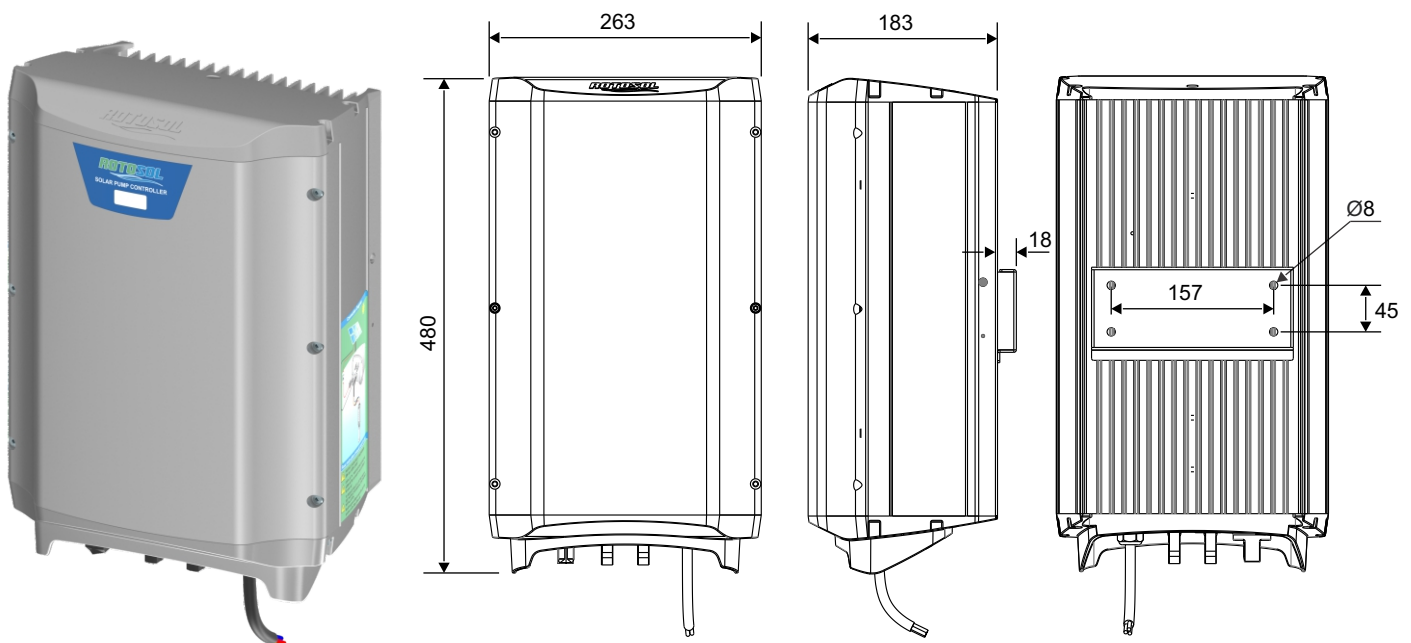
Input PV array	Input voltage (Vmp.)	Open circuit voltage (Voc)	Output VEC/PWM
6600-7200 Wp	390-432	484-530	290 - 340

## 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

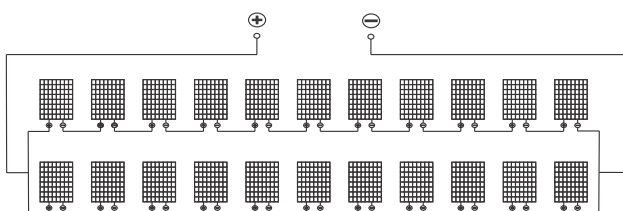
Controller Nett weight
11 ± 1 kg.

315 Wp, 72 Cell x 22 Panels: 6930 W

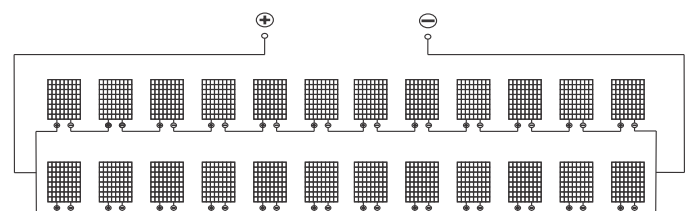
Panel specifications	
Voltage at maximum power Vmax	38.88 V
Open circuit voltage Voc	44.56 V
Current at maximum power Imax	8.00 A
Short circuit current Isc	8.70 A

300 Wp, 72 Cell x 24 Panels: 7200 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



11 Series - 2 Parallel



12 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.