

AC Submersible Solar Pump

Model: RA7500

Type	Description
RA075H020	AC Submersible Solar pump type: RA075H020
	Rated head:20mtr., 7.5 HP, Shut off head 25 mtr., With RA7500 controller
RA075H030	AC Submersible Solar pump type: RA075H030
	Rated head:30mtr., 7.5 HP, Shut off head 45 mtr., With RA7500 controller
RA075H050	AC Submersible Solar pump type: RA075H050
	Rated head:50mtr., 7.5 HP, Shut off head 70 mtr., With RA7500 controller
RA075H070	AC Submersible Solar pump type: RA075H070
	Rated head:70mtr., 7.5 HP, Shut off head 100 mtr., With RA7500 controller
RA075H100	AC Submersible Solar pump type: RA075H100
	Rated head:100mtr., 7.5 HP, Shut off head 150 mtr., With RA7500 controller

Type	RA075H020	RA075H030	RA075H050	RA075H070	RA075H100	
Rated head (mtr.)	20	30	50	70	100	Motor : AC Induction Motor
Optimum Head range (mtr.)	10-30	20-40	40-60	60-80	90-110	
Discharge (LPD)	3,03,750 [#]	2,16,000 [#]	1,28,250 [#]	87,750 [#]	57,375 [#]	Pump : SS-304
Shut Off head (mtr.)	25	45	70	100	150	material (In contact with water)
Array Rating	6750 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.)	> 400 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 ² ,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

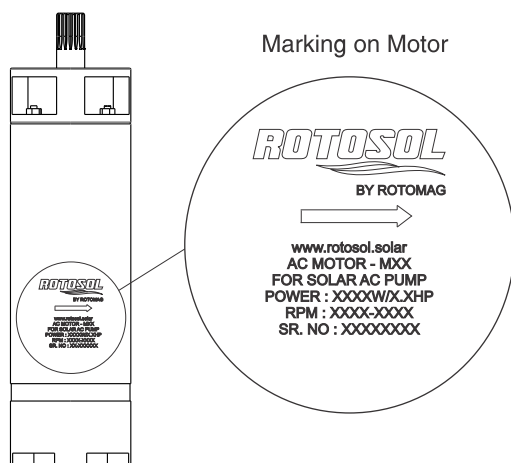
Rotosol solar submersible pump has a stainless steel SS-304 pump. This ensures long life and high reliability against dust, sand and abrasive elements. The pump elements are driven by a sealed "AC motor" filled with water. The motor is made from stainless steel 304 and sealed for life. High efficiency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

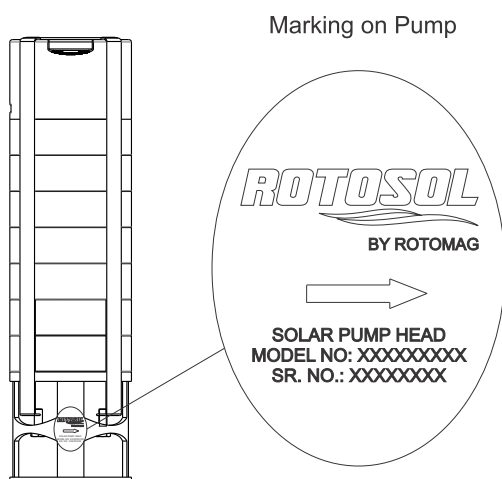


Specifications of AC Submersible motor:



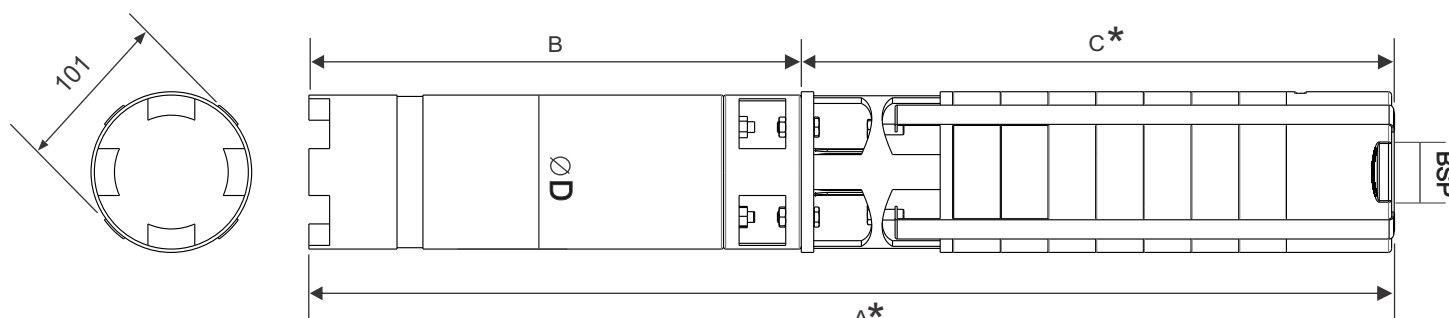
AC motor type	MA75
Power	7.5HP/5.62kW
RPM	1800-3300

Specifications of solar pump head:



Type	Rated head (mtr.)
RA075H020	20
RA075H030	30
RA075H050	50
RA075H070	70
RA075H100	100

Dimension of AC submersible solar pump head:



Model	Type	Dimensional Details					Module Details		Performance Curves No.
		A	B	C	D	BSP	Module Size	No. of Module	
RA7500	RA075H020	1460	620	840	142	3"	315	22	-
	RA075H030	1460	620	840	142	3"	315	22	-
	RA075H050	1640	620	1020	142	2.5"	315	22	-
	RA075H070	1800	620	1180	142	2.5"	315	22	-
	RA075H100	1800	620	1180	142	2.5"	315	22	-

* 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:

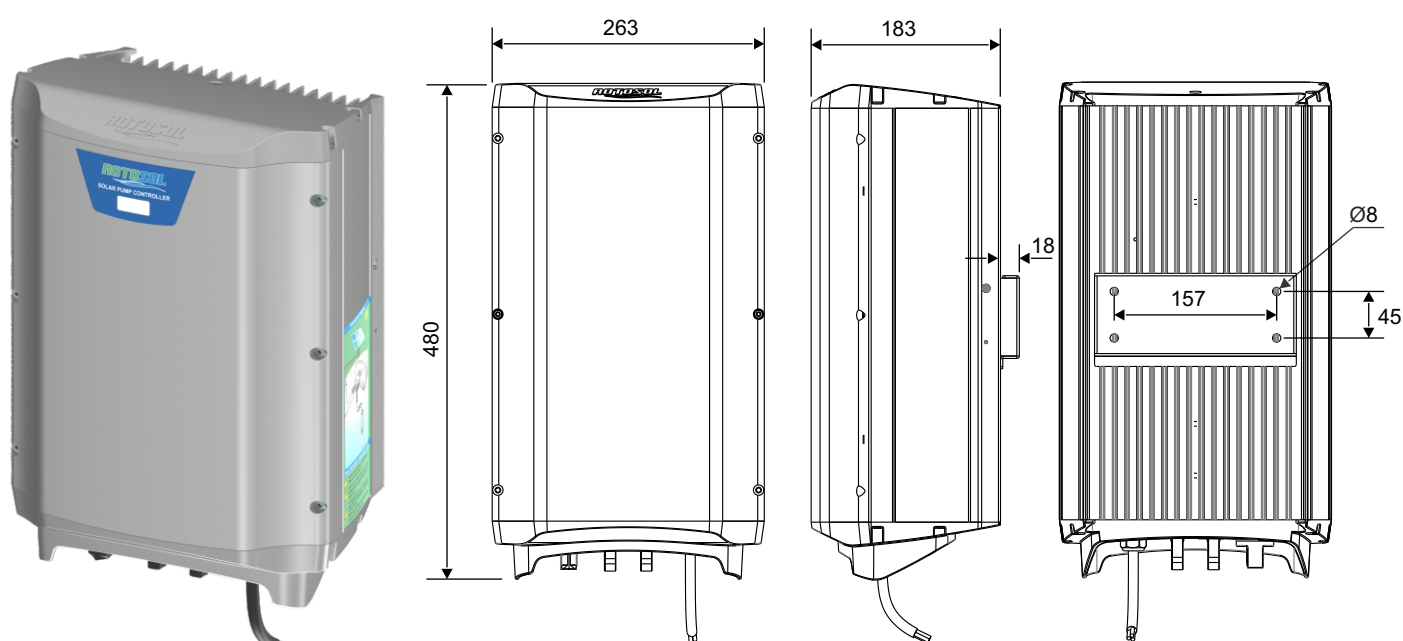
Model	Input PV array	Input voltage (Vmp.)	Max. Open circuit voltage (Voc.)
RA7500	6750 W	> 400 Vdc	600 Vdc

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

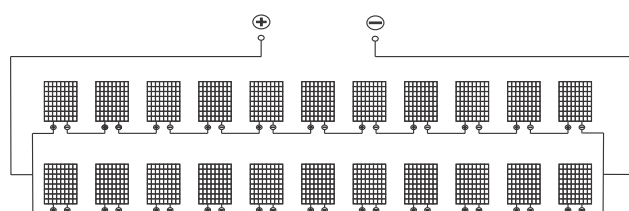
Controller Nett weight
11 ± 1 kg.

315 Wp, 72 Cell x 22 Panels

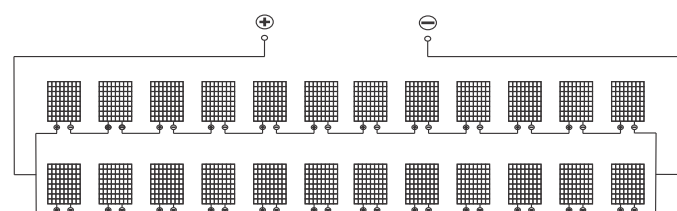
Wattage Wp	6930W
Voltage at maximum power Vmax	38.88 V
Open circuit voltage Voc	44.56 V
Current at maximum power Imax	8.00 A
Short circuit current Isc	8.70 A

300 Wp, 72 Cell x 24 Panels

Wattage Wp	7200W
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.