



**BE RESPONSIBLE.
GO SOLAR.**

**ROYAL INSTRUMENT
INDIA**

**HIGH-
PERFORMANCE**

SOLAR WATER PUMPING SOLUTION

Updated technology

Our resin-packed motors were born from the bold idea of completely replacing the motor housings with resin. This, in combination with the reduced noise of the motors themselves, makes it possible to design very silent, energy-efficient and quiet operation.



#FACT

One advantage of resin-packed water-filled motors lies in their improved heat dissipation, as a result of the thermal conductivity of the resin being indeed higher than that of the surrounding air which allows for more compact designs.



ABOUT ROYAL INDIA

A local brand with big sustainable dreams.

Royal India is one of the leading and fastest-growing company in the country dealing with solar products and solutions. It has established in 2015 with the objective of providing best-in-class solar products and solutions.

Within a short span of time, Royal India is now a renowned name in the solar industry and providing solutions for solar water pumps, solar street lights, and other related products. Its state-of-the-art technology and robust systems produce superior quality and long-lasting products and solutions.

Why us?

Royal India solar-powered water pumps are a low-cost solution enabling residents in these areas to spend more time increasing their income by growing crops etc., rather than ferrying water from far off distances.

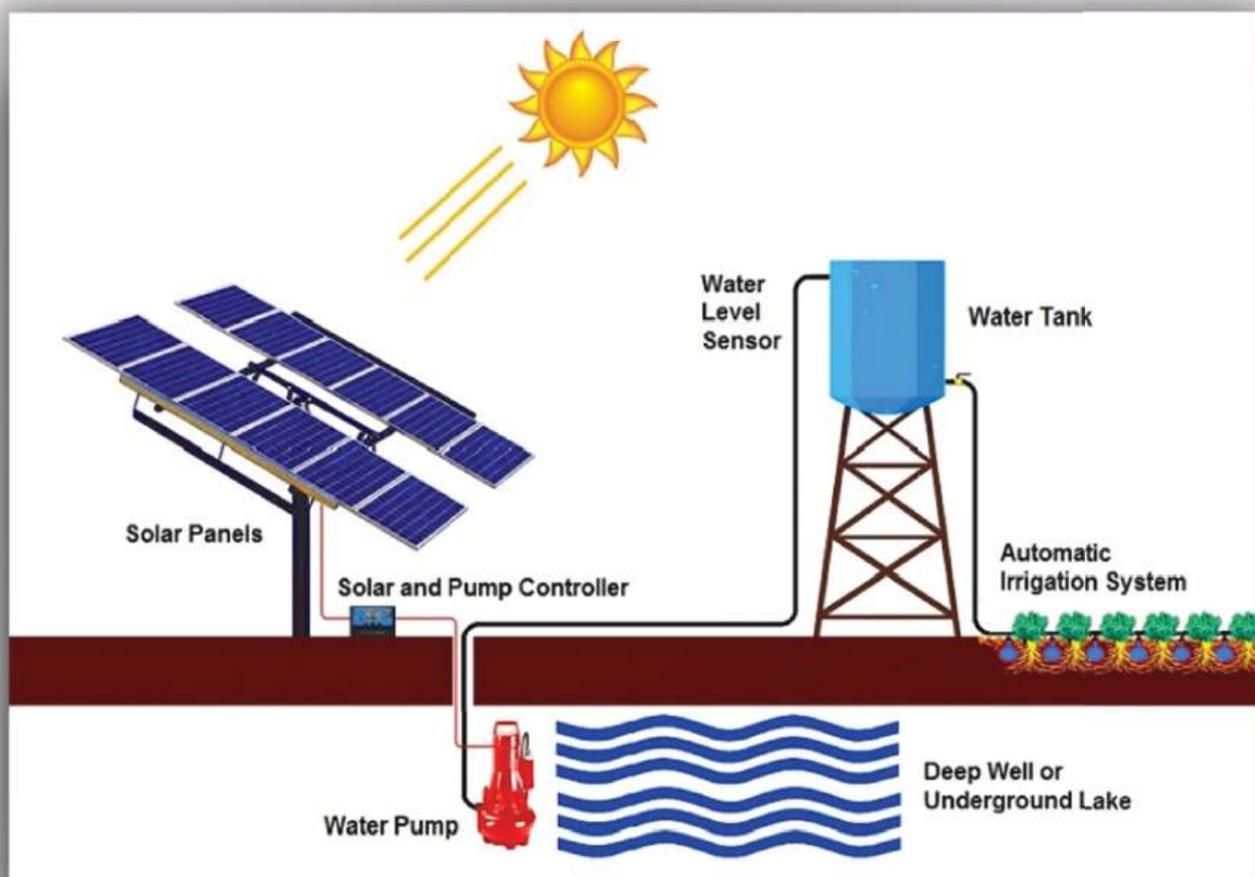


INTRODUCTION

SPC WATER PUMPING SYSTEM

Diagram of SPC Water Pumping

SPC water pumping system set uses the irradiance available through the SPC array. The SPC array produces SDC power, which can be utilized to drive a DC or an AC pump set using a pump controller.





SOLAR

Pump Controller

(Specification)

- 1 Easy to connect and disconnect the motor by IP68 push-type Connector.
- 2 Seven segment ICD display to easy run parameter and type of fault.
- 3 External keypad provided to change parameter and copy parameter.
- 4 Having easy to power ON/OFF by DC switch
- 5 Provided Protection as per MNRE.
- 6 Solar pump controller must have IP65 protection and shall be housed in a cabinet.
- 7 A maximum Powerpoint tracker (MPPT) shall be included to optimally use the power and maximize water discharge.
- 8 Solar pump controller shall be integrated with inbuilt GSN.GPRS gateway with GEO Tagging.



Smart SPC Features

Dry Running	Open Circuit	Short Circuit
Reverse polarity	Over Voltage/Under Voltage	SPD to Arrest High current surge



Suitable For AC/PMSM/ BLDC Motor
Keypad to copy/paste parameter



Inbuilt RMS/GPRS with IoT system
Compaq in Design

Certified by Underwriter Laboratories |
MNRE approved

SPC IP65 1HP to 10HP

Pump Controller converts the DC voltage of the SPC array into a suitable DC or AC, single or multi-phase power, and may also include equipment for MPPT, remote monitoring, and protection vices.

OUR PRODUCTS SIZE

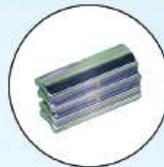
Model No	Rating	L	B	H	Weight
RIIPL20201	2.2Kw, 3 HP	400 mm	300 mm	187 mm	4 KG
RIIPL00405	4 Kw, 5 HP	400 mm	300 mm	187 mm	6 KG
RIIPL70510	7.5 Kw, 10 HP	540 mm	540 mm	280 mm	6 KG

SPC FEATURES

[Remote Monitoring System Device]

- Control Motor: PMSM/BLDC Motor
- MPPT
- Keypad: Parameter copy and paste
- RMS and IoT System
- IOT online software is update
- All kind of protection function





RESIN-PACKED WATER FILLED MOTOR PUMP SET - 1HP

Specifications

Pump Model No
Motor Model No
Motor Rating (HP/kW)
Total Head, M at the Duty Point
Capacity (LPD) at Head of 10 mtr
Operating Head Range Maximum
Maximum Current(A)
Voltage Range (V)
Type-AC OPR DC Pump Set
PV Array Rating in Watts Peak (Wp)

1 HP BLDC Pump

Pump-RYL 30 / 60 / 90
RYL MT 01
1.0 / 0.75
90 MTR
5000 LPD
120 MTR
8.0A
96-110 VDC
BLDC
900 WP

1 HP DC SOLAR

Monoblock Pump Set

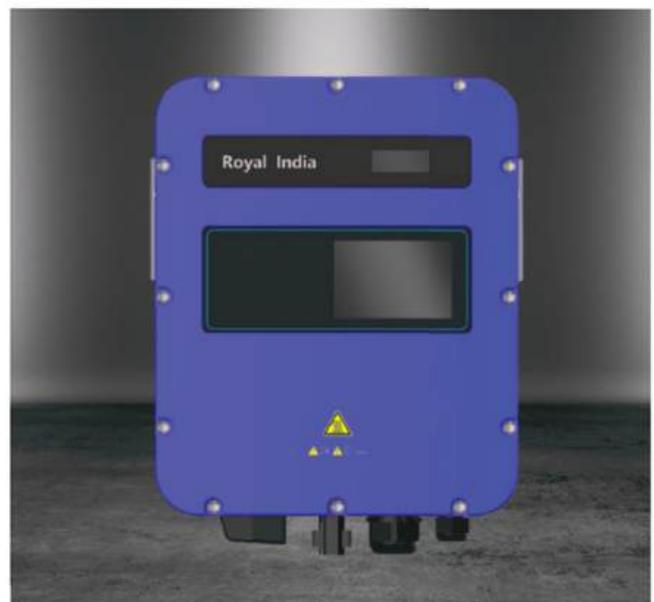


Monoblock Pump 2800 RPM Motor with High Discharge

Specifications	1 HP Surface Pump
HP	1
kW	0.75
Shut of Dynamic Head	12 m
LPD with Head 30 mtr	104000L
Outlet	40 mm
Suction	40 mm
PV Input	>900 W

"SPC Series IP65 Category Solar Pump Controller with Compact Design and Low Weight. Product Life is Greater than IP54 Controller."

01	Model No	RIIPL20201
02	Voltage Range	100-440 VDC
03	Power Range	2.2 KW
04	Current Rating (A)	10.0A





RESIN-PACKED WATER FILLED MOTOR PUMP SET - 2HP

Specifications

Pump Model No
Motor Model No
Motor Rating (HP/kW)
Total Head, Mtr at the Duty Point
Capacity (LPD) at Head
Operating Head Range M
Maximum Current(A)
Voltage Range (V)
Type-AC OPR DC Pump Set
PV Array Rating in Watts Peak (Wp)

2 HP BLDC Pump

Pump-RYL 30 / 90
 RYL MT 02
 2.0 / 1.5
 30 MTR
 68400 LPD
 45 MTR
 9.0A
 160 VDC
 BLDC
 1800 WP

2 HP DC SOLAR

Monoblock Pump Set



Monoblock Pump 2800 RPM Motor with High Discharge

Specifications	2 HP Surface Pump
HP	2
kW	1.5
Shut of Dynamic Head	12 m
LPD (from total Head of 10 mtr)	208000L
Outlet	50 mm
Suction	50 mm
PV Input	>1800 W

"Royal India IP65 solar water pump controller has an efficiency of 97% (as certified by Underwriter Laboratories) which is much higher than VFD products at 85%."

01	Model No	RIIPL20201
02	Voltage Range	100-440 VDC
03	Power Range	2.2 KW
04	Current Rating (A)	10.0A





MOTOR PUMP SET - 3 HP

Specifications

Pump Model No
Motor Model No
Motor Rating (HP/kW)
Total Head, 50 Mtr at the Duty Point
Capacity (LPD) at Head of 50 mtr
Operating Head Range M
Maximum Current(A)
Voltage Range (V)
Type-AC OPR DC Pump Set
PV Array Rating in Watts Peak (Wp)

3 HP BLDC Pump

Pump-RYL 30 / 50 / 70
RYL MT 03
3.0 / 2.2
70 MTR
45000 LPD
100 MTR
10.0A
220 VDC
BLDC
2700 WP

3 HP DC SOLAR

Monoblock Pump Set

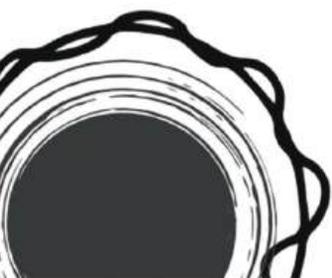


Monoblock Pump 2800 RPM
Motor with High Discharge

Specifications	3 HP Surface Pump
HP	3
kW	2.2
Shut of Dynamic Head	25 m
LPD (from total Head of 20 mtr)	156000L
Outlet	50 mm
Suction	50 mm
PV Input	>3000 W

"Built-in troubleshooting, identifying issues ahead of time, and accurate diagnosis IP65. "

01	Model No	RIIPL20201
02	Voltage Range	100-440 VDC
03	Power Range	2.2 KW
04	Current Rating (A)	10.0A





MOTOR PUMP SET - 5 HP

Specifications

Pump Model No
Motor Model No
Motor Rating (HP/kW)
Total Head, M at the Duty Point
Capacity (LPD) at Head of 70 mtr
Operating Head Range M
Maximum Current(A)
Voltage Range (V)
Type-AC OPR DC Pump Set
PV Array Rating in Watts Peak (Wp)

5 HP BLDC Pump

Pump-RYL 50 / 70 / 100
 RYL MT 05
 5.0 / 3.7
 70 MTR
 72000 LPD
 100 MTR
 16A
 380 VDC
 BLDC
 4800 WP

5 HP DC SOLAR

Monoblock Pump Set



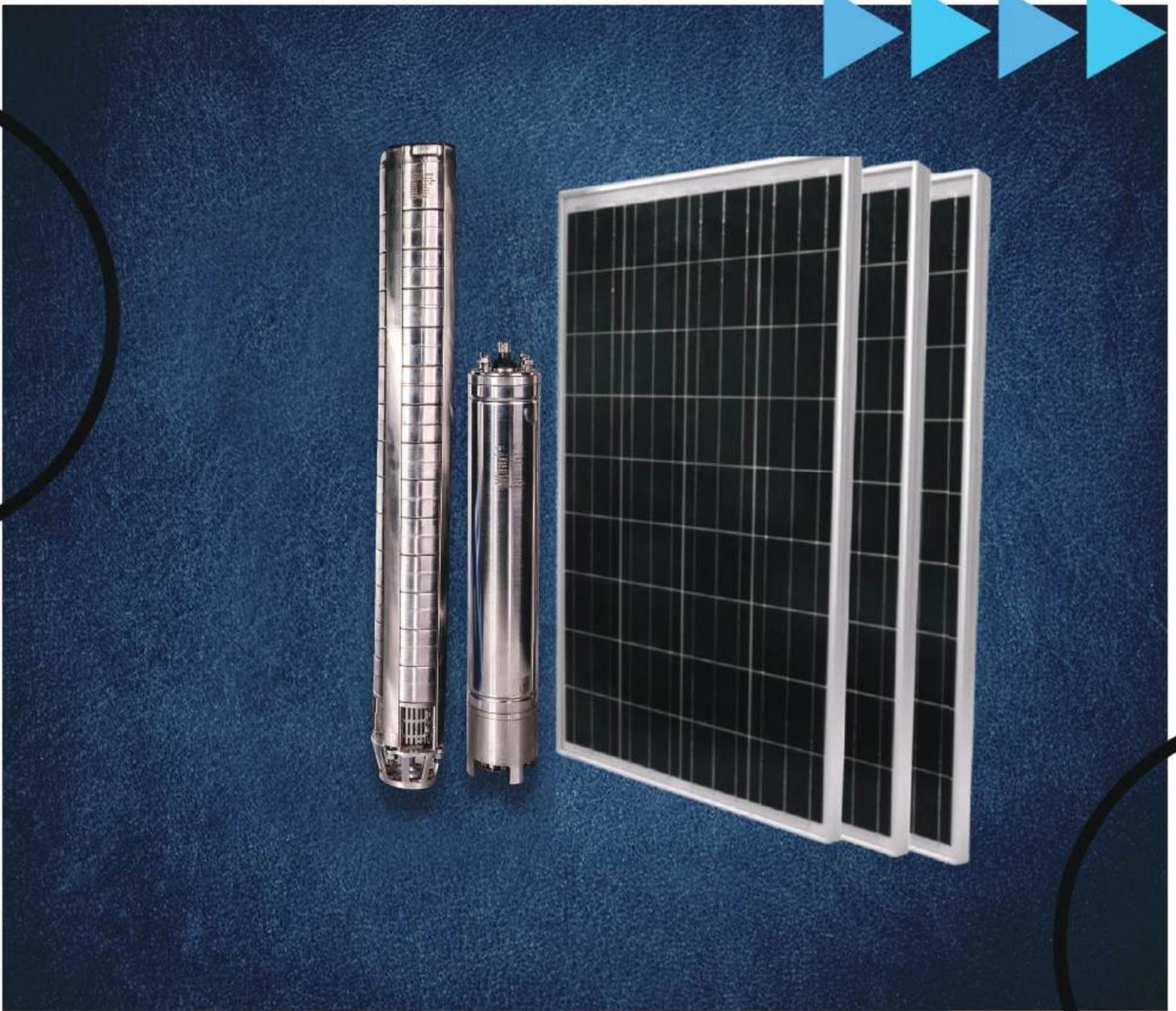
Monoblock Pump 2800 RPM
Motor with High Discharge

Specifications	5 HP Surface Pump
HP	5
kW	3.7
Shut of Dynamic Head	25 m
LPD (from total Head of 20 mtr)	277000L
Outlet	50 mm
Suction	65 mm
PV Input	>4800 W

"Royal India Solar Water Pump Controller with enabled GPS and Remote Monitoring for Solar Irrigation System."

01	Model No	RIIPL00405
02	Voltage Range	100-440 VDC
03	Power Range	4 kW
04	Current Rating (A)	16.A





MOTOR PUMP SET - 7.5 HP

Specifications

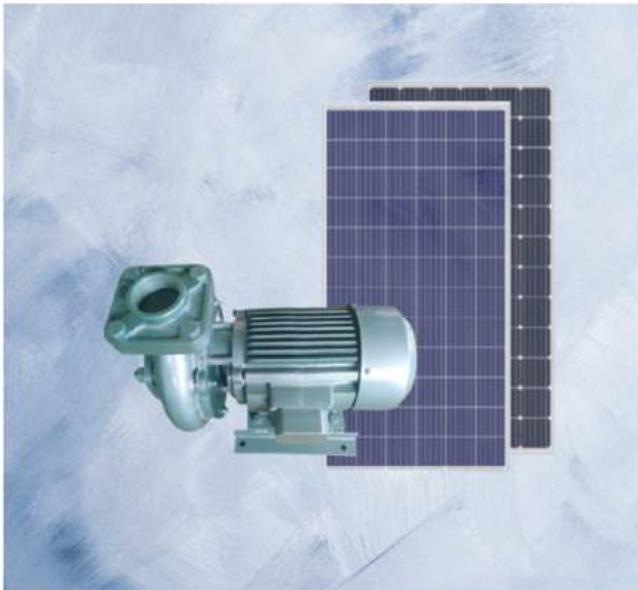
Pump Model No
Motor Model No
Motor Rating (HP/kW)
Total Head, M at the Duty Point
Capacity (LPD) at Head of 50 mtr
Operating Head Range M
Maximum Current(A)
Voltage Range (V)
Type-AC OPR DC Pump Set
PV Array Rating in Watts Peak (Wp)

7.5 HP BLDC Pump

Pump-RYL 70 /100 /150
RYL MT 7.5
5.0 / 5.5
70 MTR
101250 LPD
100 MTR
17.A
250 to 800 VDC
BLDC
6750 WP

7.5 HP DC SOLAR

Monoblock Pump Set



Monoblock Pump 2800 RPM Motor with High Discharge

Specifications	7.5 HP Surface Pump
HP	7.5
kW	5.5
Shut of Dynamic Head	45 m
LPD (from total Head of 30 mtr)	269000L
Outlet	50 mm
Suction	65 mm
PV Input	>6750 W

"PowerPoint tracking and maximize the use of solar energy. And will automatically regulate output frequency according to sun radiance intensity. maximum realize MPPT tracking function."

01	Model No	RIPL70510
02	Voltage Range	250-800 VDC
03	Power Range	7.5 KW
04	Current Rating (A)	17.A





MOTOR PUMP SET - 10 HP

Specifications

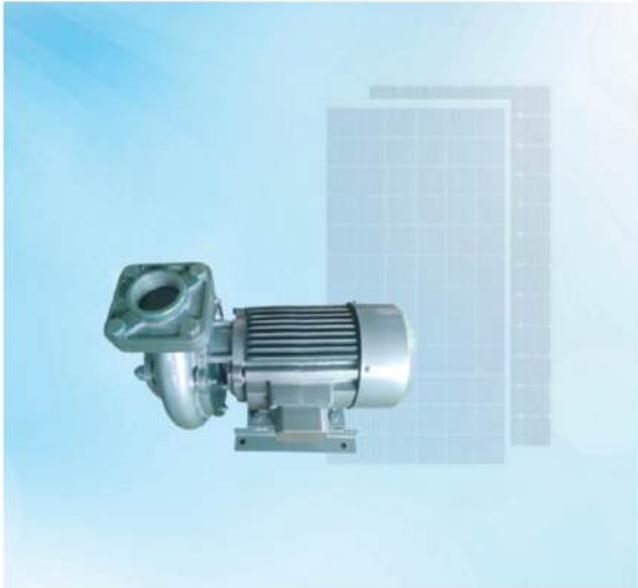
Pump Model No
Motor Model No
Motor Rating (HP/kW)
Total Head, M at the Duty Point
Capacity (LPD) at Head of 50 mtr
Operating Head Range M
Maximum Current(A)
Voltage Range (V)
Type-AC OPR DC Pump Set
PV Array Rating in Watts Peak (Wp)

10 HP BLDC Pump

Pump-RYL 70 /100 /150
RYL MT 10
10 /7.5
70 MTR
135000 LPD
100 MTR
17.A
350 to 800 VDC
BLDC
9000 WP

10 HP DC SOLAR

Monoblock Pump Set



Monoblock Pump 2800 RPM Motor with High Discharge

Specifications	10 HP Surface Pump
HP	10
kW	7.5
Shut of Dynamic Head	45 m
LPD (from total Head of 30 mtr)	269000L
Outlet	50 mm
Suction	65 mm
PV Input	>6750 W

"IP65 Solar pump controller is an important part of the PV pump system, which converts the input DC from PV array into AC for driving pump"

01	Model No	RIIPL70510
02	Voltage Range	350-800 VDC
03	Power Range	7.5 KW
04	Current Rating (A)	17.A



Notification Body



We Believe In Giving Only The Best To Our Clients
And Never Compromise On the Quality Of Our
Products And Services.



@royalsolarpump

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Royal India is committed to creating a Better, Brighter and Cleaner tomorrow!

email:
sales@royalinstrument.in

website:
www.royalinstrument.in