

## OSSL/OMSL SERIES

AC/DC Solar Stainless Steel Submersible Bore well Pumps & Monoblock Pumps



Infinite Solar Pumping Energy



Solar Water Pump



### Introduction

Existence of human life in rural India depends largely on the availability of clean water of people, livestock and crops. Farmers in rural India can only become prosperous if there is availability of clean water for their farms, homes and livestock. In many parts of India there is a shortage of reliable power for homes and irrigation of fields where **OSSL/ OMSL** series of Solar Water Pumping systems can make a remarkable contribution.

The **OSSL/ OMSL** Solar Submersible Pumping system offered by **OSSL/ OMSL** is a state of the art high technology product designed to provide a green and energy efficient solution for a reliable water supply where there is no access of clean water and electricity.

The **OSSL/ OMSL** Solar Water Pumping system comprises of the following equipment.

- Solar Stainless steel submersible bore well pump & Solar Monoblock Pump
- Solar photovoltaic panels with mounting structure
- Automatic **IP 65** controller for solar pump with RMU
- With Joint less Cables and accessories.

### Application

- Flood irrigations of small fields
- Drip irrigation for farms
- Cattle watering
- Water supply for small villages, Schools, hospitals and homes.

### Features & Benefits

- Highly energy efficient submersible solar water pump with energy efficient inverter duty motor.
- High efficiency solar photovoltaic panels with a service life of minimum 20 years.
- Robust design Galvanized steel mounting structure for long life.
- High technology automatic controller with dynamic MPPT (Maximum Power Point Tracking) control method.
- The controller offers complete protection against under and over voltage and dry run protection for the pump.
- Highly efficient controller with a conversion efficiency of 98%.
- The controller is tropicalized to operate satisfactorily with an ambient temperature of up 50°C
- Virtually no maintenance cost.
- Environmentally friendly air and noise pollution free solution.

### Range of Performance

Maximum Flow	: 540 m <sup>3</sup> /day
Maximum Head	: 463 metres.
Rating	: 0.5 hp to 20 hp (0.3kW to 15 kW)

### Features & Benefits

Ambient Temperature	: +50°C
Liquid Temperature Range	: 0°C to +80°C
Water pH	: 6.5 - 8
Sand Content	: 25g/m <sup>3</sup>

### Type Keys

OSSL	900	30	32 (AC)	OSSL	900	30	DC
Type Range	Total PV Module Capacity	Head MTR.	LTR Per Watt	Type Range	Total PV Module Capacity	Head MTR.	Motor Type
OSSL = Solar Stainless Steel				OSSL = Solar Stainless Steel			
Submersible bore	900	30	32	Submersible bore	900	30	PMSM
well pump series	1200	50	19	well pump series	1200	50	Or
OMSL = Solar Monoblock	1800	70	13	OMSL = Solar Monoblock	1800	70	BLDC
Pump Series	3000	100	8.5	Pump Series	3000	100	
	4800				4800		
	6750				6750		
	9000				9000		

### Minimum Cost of Ownership

Very often investment decision for pumps are based only on the purchase cost of the pump. this initial purchase cost is a fraction of owing and operating a pump over its entire life span. The initial cost for diesel engine driven pumps is just 5% of the total life cycle cost with operation (energy) and maintenance cost contributing to 58% and 10 % respectively.

Solar water pumping systems when compared to diesel engine driven pump sets are much higher in the initial purchase cost but over the life cycle of the solar pumping system they provide significant financial savings in terms of operation (energy) and maintenance costs.

Typically when solar pumps are compared with diesel engine pumps they offer a breakeven in costs within 4 to 8 years depending on site conditions, installations cost, and model specification. After the breakeven, the solar pumping systems provide significant cost savings to the owners.

# AC Solar Pumpset With Controller

Sr. No.	Suitable for bore size		Flow Range	RPM	Model	Operating Head	Head Range in Feet	Delivery Size		Pump Power		Minimum Solar Panel Total Watt	Outer Dimension M X P	Motor Voltage
	mm / inch	Litre Per day						mm	inch	HP	kW			
1	150	6"	31500	0-2880	OSSL-900-30-32	30	98	40	1.5"	0.75	0.55	900	4" X 4"	72 VAC
2	150	6"	42000	0-2880	OSSL-1200-30-32	30	98	50	2"	1	0.75	1200	4" X 4"	110 VAC
3	150	6"	25200	0-2880	OSSL-1200-50-19	50	164	40	1.5"	1	0.75	1200	4" X 4"	110 VAC
4	150	6"	63000	0-2880	OSSL-1800-30-32	30	98	50	2"	2	1.5	1800	4" X 4"	160 VAC
5	150	6"	37800	0-2880	OSSL-1800-50-19	50	164	40	1.5"	2	1.5	1800	4" X 4"	160 VAC
6	150	6"	25200	0-2880	OSSL-1800-70-13	70	230	40	1.5"	2	1.5	1800	4" X 4"	160 VAC
7	150	6"	105000	0-2880	OSSL-3000-30-32	30	98	50	2"	3	2.2	3000	4" X 4"	230 VAC
8	150	6"	63000	0-2880	OSSL-3000-50-19	50	164	50	2"	3	2.2	3000	4" X 4"	230 VAC
9	150	6"	42000	0-2880	OSSL-3000-70-13	70	230	50	2"	3	2.2	3000	4" X 4"	230 VAC
10	150	6"	27000	0-2880	OSSL-3000-100-8.5	100	328	40	1.5"	3	2.2	3000	4" X 4"	230 VAC
11	200	8"	105000	0-2880	OSSL-3000-30-32	30	98	50	2"	3	2.2	3000	6" X 6"	230 VAC
12	200	8"	63000	0-2880	OSSL-3000-50-19	50	164	50	2"	3	2.2	3000	6" X 4"	230 VAC
13	200	8"	42000	0-2880	OSSL-3000-70-13	70	230	50	2"	3	2.2	3000	6" X 4"	230 VAC
14	200	8"	27000	0-2880	OSSL-3000-100-8.5	100	328	40	1.5"	3	2.2	3000	6" X 4"	230 VAC
15	200	8"	168000	0-2880	OSSL-4800-30-32	30	98	75	2.5"	5	3.75	4800	6" X 6"	380 VAC
16	200	8"	100800	0-2880	OSSL-4800-50-19	50	164	50	2"	5	3.75	4800	6" X 6"	380 VAC
17	200	8"	67200	0-2880	OSSL-4800-70-13	70	230	50	2"	5	3.75	4800	6" X 6"	380 VAC
18	200	8"	43200	0-2880	OSSL-4800-100-8.5	100	328	50	2"	5	3.75	4800	6" X 4"	380 VAC
19	200	8"	236000	0-2880	OSSL-6750-30-32	30	98	75	3"	7.5	5.5	6750	6" X 6"	300 VAC
20	200	8"	142000	0-2880	OSSL-6750-50-19	50	164	50	2"	7.5	5.5	6750	6" X 6"	300 VAC
21	200	8"	94500	0-2880	OSSL-6750-70-13	70	230	50	2"	7.5	5.5	6750	6" X 6"	300 VAC
22	200	8"	60750	0-2880	OSSL-6750-100-8.5	100	328	50	2"	7.5	5.5	6750	6" X 6"	300 VAC
23	200	8"	315000	0-2880	OSSL-9000-30-32	30	98	100	4"	10	7.5	9000	6" X 6"	380 VAC
24	200	8"	189000	0-2880	OSSL-9000-50-19	50	164	75	2.5"	10	7.5	9000	6" X 6"	380 VAC
25	200	8"	126000	0-2880	OSSL-9000-70-13	70	230	50	2"	10	7.5	9000	6" X 6"	380 VAC
26	200	8"	81000	0-2880	OSSL-9000-150-6.5	100	328	50	2"	10	7.5	9000	6" X 6"	380 VAC
27	Monoblock pump	178200	0-2880	OSSL-1800-10	10	33	75x50	2.5"/2"		2	1.5	1800	N/A	160 VAC
28		147000	0-2880	OSSL-3000-20	20	66	75x50	2.5"/2"		3	2.2	3000	N/A	230 VAC
29		235200	0-2880	OSSL-4800-20	20	66	75x50	2.5"/2"		5	3.7	4800	N/A	380 VAC
30		330750	0-2880	OSSL-6750-20	20	66	75x50	2.5"/2"		7.5	5.5	6750	N/A	300 VAC



# DC Solar Pumpset With Controller

Sr. No.	Suitable for Min. bore size		RPM	Model	Head Range in MTR	Head Range in Feet	Discharge Size		Pump Power		Minimum Solar Panel Total Watt	Outer Dimension M X P	Motor Voltage
	mm / inch	m3/day/LPD					mm	inch	HP	kW			
1	150	6"	34200	OSSL-900-30-DC	30	98	40	1.5"	0.75	0.55	900	4" X 4"	72 VAC
2	150	6"	1000	OSSL-900-60-DC	60	197	40	1.5"	0.75	0.55	900	4" X 4"	72 VAC
3	150	6"	45600	OSSL-1200-30-DC	30	98	50	2"	1	0.75	1200	4" X 4"	110 VAC
4	150	6"	27600	OSSL-1200-50-DC	50	164	40	1.5"	1	0.75	1200	4" X 4"	110 VAC
5	150	6"	68400	OSSL-1800-30-DC	30	98	50	2"	2	1.5	1800	4" X 4"	160 VAC
6	150	6"	41400	OSSL-1800-50-DC	50	164	40	1.5"	2	1.5	1800	4" X 4"	160 VAC
7	150	6"	27000	OSSL-1800-70-DC	70	230	40	1.5"	2	1.5	1800	4" X 4"	160 VAC
8	150	6"	114000	OSSL-3000-30-DC	30	98	50	2"	3	2.2	3000	4" X 6"	230 VAC
9	150	6"	69000	OSSL-3000-50-DC	50	164	50	2"	3	2.2	3000	4" X 4"	230 VAC
10	150	6"	45000	OSSL-3000-70-DC	70	230	50	2"	3	2.2	3000	4" X 4"	230 VAC
11	150	6"	30000	OSSL-3000-100-DC	100	328	40	1.5"	3	2.2	3000	4" X 4"	230 VAC
12	200	8"	182400	OSSL-4800-30-DC	30	98	65	2.5"	5	3.7	4800	4" X 6"	380 VAC
13	200	8"	110400	OSSL-4800-50-DC	50	164	50	2"	5	3.7	4800	4" X 6"	380 VAC
14	150	6"	72000	OSSL-4800-70-DC	70	230	50	2"	5	3.7	4800	4" X 4"	380 VAC
15	150	6"	50400	OSSL-4800-100-DC	100	328	50	2"	5	3.7	4800	4" X 4"	380 VAC
16	200	8"	256500	OSSL-6750-30-DC	30	98	75	3"	7.5	5.5	6750	4" X 6"	300 VAC
17	200	8"	155200	OSSL-6750-50-DC	50	164	50	2"	7.5	5.5	6750	4" X 6"	300 VAC
18	200	8"	101250	OSSL-6750-70-DC	70	230	50	2"	7.5	5.5	6750	4" X 6"	300 VAC
19	150	6"	70875	OSSL-6750-100-DC	100	328	50	2"	7.5	5.5	6750	4" X 4"	300 VAC
20	200	8"	342000	OSSL-9000-30-DC	30	98	75	3"	10	7.5	9000	4" X 6"	380 VAC
21	200	8"	207000	OSSL-9000-50-DC	50	164	65	2.5"	10	7.5	9000	4" X 6"	380 VAC
22	200	8"	135000	OSSL-9000-70-DC	70	230	50	2"	10	7.5	9000	4" X 6"	380 VAC
23	200	8"	94500	OSSL-9000-100-DC	100	328	50	2"	10	7.5	9000	4" X 6"	380 VAC
24	Monoblock pump		198000	OMSL-1800-10-DC	10	33	75x50	2.5"x2"	2	1.5	1800	NA	160 VAC
25	Monoblock pump		165000	OMSL-3000-20-DC	20	66	75x50	2.5"x2"	3	2.2	3000	NA	230 VAC
26	Monoblock pump		264000	OMSL-4800-20-DC	20	66	65x50	2.5"x2"	5	3.7	4800	NA	380 VAC
27	Monoblock pump		371250	OMSL-6750-20-DC	20	66	75x75	3"x3"	7.5	5.5	6750	NA	300 VAC



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