

Oswal Pumps Ltd.



MNRE · ISI · ISO 9001:2015 · BEE



OSSL/OMSL SERIES

AC/DC Solar Stainless-Steel Submersible Borewell Pumps & Monoblock Surface Pumps



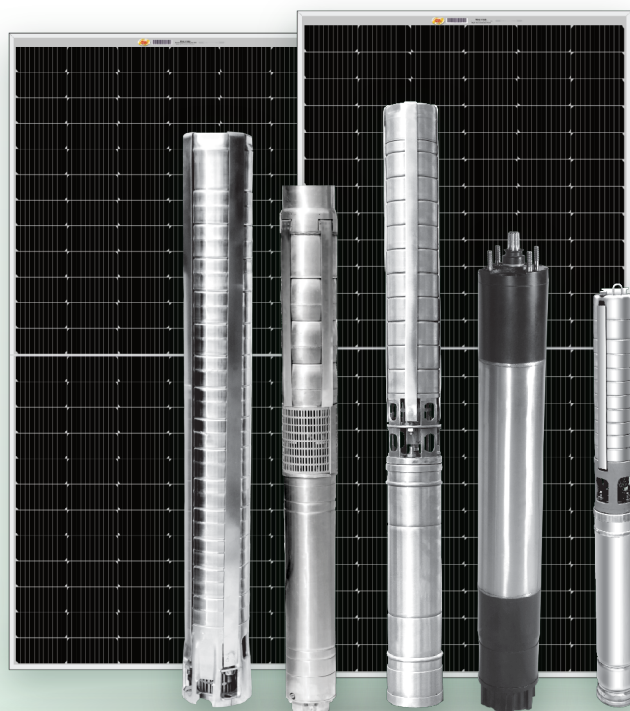
Infinite Solar Pumping Energy

Complete solar pumping systems — PV array, MPPT controller & pump



Solar Water Pump

AC & DC · submersible & surface



1-10 HP
0.75-7.5 kW

150 m
max. head

9.9 lakh L/day
max. flow

AC & DC
drive options

www.oswalpumps.com

OVERVIEW

Reliable water where the grid doesn't reach

Clean water for people, livestock and crops is the foundation of rural prosperity — yet across much of India, reliable power for homes and irrigation is scarce. Oswal **OSSL/OMSL** solar pumping systems turn sunlight directly into dependable water supply, with no fuel cost and virtually no maintenance.

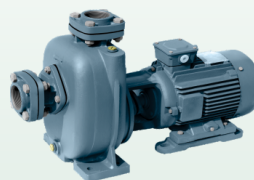
Each system is a matched, high-efficiency package: a stainless-steel pump set, solar PV array and an intelligent MPPT controller engineered to deliver green, energy-efficient water supply wherever grid electricity is unavailable.



OSSL

Solar stainless-steel submersible borewell pumps

Drive	AC induction or DC PMSM motor
Power	1–10 HP (0.75–7.5 kW)
Duty head	20–100 m (shut-off up to 150 m)
Borewell	5" and 7" minimum bore
Models	20 AC · 21 DC

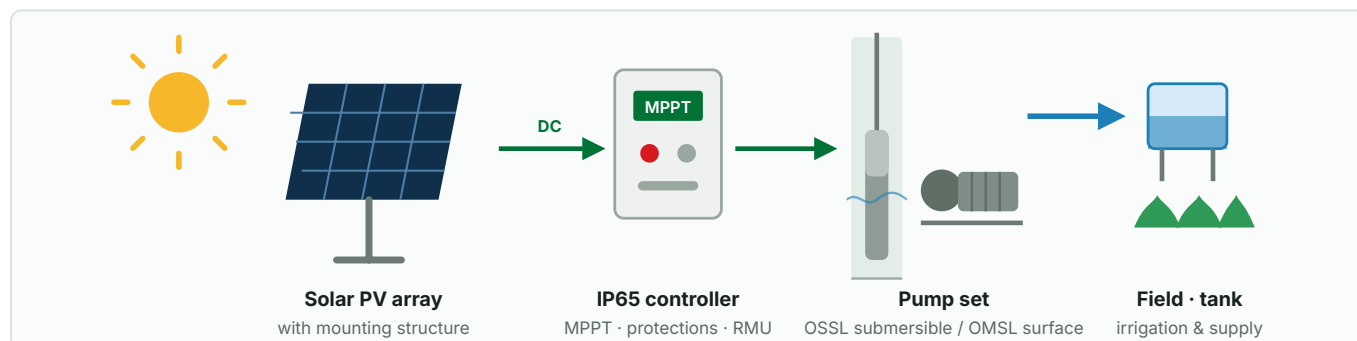


OMSL

Solar monoblock surface pumps

Drive	AC or DC motor
Power	2–10 HP (1.5–7.5 kW)
Duty head	10–30 m (shut-off up to 45 m)
Pump size	50 × 50 to 100 × 100 mm
Models	11 AC · 11 DC

How the system works



System components

- 
Pump set
 Stainless-steel submersible borewell pump or solar monoblock surface pump
- 
Solar PV modules
 High-efficiency modules with galvanised-steel mounting structure
- 
Automatic IP65 controller
 MPPT drive with RMU (remote monitoring unit)
- 
Cables & accessories
 Jointless cables and installation accessories

Applications

- 
Flood irrigation
 of small fields
- 
Drip irrigation
 for farms & orchards
- 
Cattle watering
 livestock & dairy
- 
Community supply
 villages, schools, hospitals & homes

FEATURES & BENEFITS

Engineered for decades of sun-powered duty

High-efficiency pump

Energy-efficient, inverter-duty motor for maximum water per watt.

Dynamic MPPT

Automatic controller tracks the maximum power point through the day.

98% conversion efficiency

High-efficiency controller minimises losses between array and motor.

Full protection

Protection against under-voltage, over-voltage and dry running.

Built for Indian summers

Tropicalised controller operates satisfactorily at ambient temperatures up to 50 °C.

Long-life array

High-efficiency PV modules with a minimum service life of 20 years on a robust galvanised-steel structure.

Virtually maintenance-free

No fuel, no engine servicing — minimal running cost.

Clean & quiet

Environmentally friendly: no air or noise pollution.

OPERATING LIMITS	AMBIENT TEMPERATURE up to +50 °C	LIQUID TEMPERATURE 0 to +40 °C	WATER PH 6.5 – 8	SAND CONTENT max. 25 g/m ³	MAX. FREQUENCY AC 0–60 Hz · DC 0–120 Hz
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Model code

OSSL	4800	30	DC
SERIES OSSL = solar stainless-steel submersible borewell pump OMSL = solar monoblock surface pump	PV ARRAY (WP) 1200 · 1800 · 3000 · 4800 · 6750 · 9000	DUTY HEAD (M) 10 · 20 · 30 · 50 · 70 · 100	MOTOR TYPE AC = AC motor DC = PMSM (permanent-magnet synchronous motor)

Table key

L/day litres per day (LPD)
L/min litres per minute (LPM)
m metres of head
NRV non-return valve
Wp watt-peak (PV array rating)

Range at a glance — available models by power and duty head

Power HP / kW	10 m	20 m	30 m	50 m	70 m	100 m
1 / 0.75	—	—	DC	—	—	—
2 / 1.5	AC DC	AC DC	AC DC	—	—	—
3 / 2.2	AC DC	AC DC	AC DC	AC DC	AC DC	—
5 / 3.7	AC DC	AC DC	AC DC	AC DC	AC DC	AC DC
7.5 / 5.5	AC DC	AC DC	AC DC	AC DC	AC DC	AC DC
10 / 7.5	AC DC	AC DC	AC DC	AC DC	AC DC	AC DC

AC DC **OSSL** submersible
 AC DC **OMSL** surface

Full specifications for every model follow on pages 4–7.

OSSL · AC

AC Solar Submersible Pumps

Stainless-steel borewell pump set with AC motor and solar pump controller

MODELS
20POWER
2-10 HPDUTY HEAD
20-100 mMAX FREQ.
0-60 Hz

TECHNICAL SPECIFICATION — SOLAR AC SUBMERSIBLE PUMP (MONO MODULE)

Model	HP / kW	INSTALLATION			ELECTRICAL				HYDRAULIC PERFORMANCE				
		Min. bore size	Motor joining	NRV size	Max input power (W)	Rated VDC	Motor rated voltage (V)	Max freq. (Hz)	Duty head (m)	Flow (L/day)	Flow (L/min)	Head range (m)	Shut-off head (m)
OSSL-1800-30-AC	2 / 1.5	5"	4" × 4"	2"	1,800	165	120	0-60	30	63,000	147	22-33	45
OSSL-3000-20-AC	3 / 2.2	7"	6" × 6"	2"	3,000	248	180	0-60	20	1,47,000	343	15-22	30
OSSL-3000-30-AC	3 / 2.2	7"	6" × 6"	2"	3,000	248	180	0-60	30	1,05,000	245	22-33	45
OSSL-3000-50-AC	3 / 2.2	7"	6" × 4"	2"	3,000	248	180	0-60	50	63,000	147	37-55	75
OSSL-3000-70-AC	3 / 2.2	7"	6" × 4"	2"	3,000	248	180	0-60	70	42,000	98	52-77	105
OSSL-4800-20-AC	5 / 3.7	7"	6" × 6"	3"	4,800	368	270	0-60	20	2,35,200	548	15-22	30
OSSL-4800-30-AC	5 / 3.7	7"	6" × 6"	2.5"	4,800	368	270	0-60	30	1,68,000	392	22-33	45
OSSL-4800-50-AC	5 / 3.7	7"	6" × 6"	2"	4,800	368	270	0-60	50	1,00,800	235	37-55	75
OSSL-4800-70-AC	5 / 3.7	7"	6" × 4"	2"	4,800	368	270	0-60	70	67,200	157	52-77	105
OSSL-4800-100-AC	5 / 3.7	7"	6" × 4"	2"	4,800	368	270	0-60	100	43,200	101	75-110	150
OSSL-6750-20-AC	7.5 / 5.5	7"	6" × 6"	3"	6,750	535	380	0-60	20	3,30,750	771	15-22	30
OSSL-6750-30-AC	7.5 / 5.5	7"	6" × 6"	3"	6,750	535	380	0-60	30	2,36,250	551	22-33	45
OSSL-6750-50-AC	7.5 / 5.5	7"	6" × 6"	2.5"	6,750	535	380	0-60	50	1,41,750	330	37-55	75
OSSL-6750-70-AC	7.5 / 5.5	7"	6" × 6"	2.5"	6,750	535	380	0-60	70	94,500	220	52-77	105
OSSL-6750-100-AC	7.5 / 5.5	7"	6" × 4"	2"	6,750	535	380	0-60	100	60,750	142	75-110	150
OSSL-9000-20-AC	10 / 7.5	7"	6" × 8"	4"	9,000	700	460	0-60	20	4,41,000	1,028	15-22	30
OSSL-9000-30-AC	10 / 7.5	7"	6" × 6"	4"	9,000	700	460	0-60	30	3,15,000	734	22-33	45
OSSL-9000-50-AC	10 / 7.5	7"	6" × 6"	2.5"	9,000	700	460	0-60	50	1,89,000	441	37-55	75
OSSL-9000-70-AC	10 / 7.5	7"	6" × 6"	2.5"	9,000	700	460	0-60	70	1,26,000	294	52-77	105
OSSL-9000-100-AC	10 / 7.5	7"	6" × 6"	2.5"	9,000	700	460	0-60	100	81,000	189	75-110	150

Specifications as per MNRE guideline for mono-module pumpsets. Flow (L/day) is daily water output at the duty head; L/min is the corresponding average flow rate. Min. bore size, motor joining and NRV size in inches.

OSSL · DC

DC Solar Submersible Pumps

Stainless-steel borewell pump set with high-efficiency PMSM motor and solar pump controller

MODELS

21

POWER

1-10 HP

DUTY HEAD

20-100 m

MAX FREQ.

0-120 Hz



TECHNICAL SPECIFICATION — SOLAR DC SUBMERSIBLE PUMP (MONO MODULE)

Model	HP / kW	INSTALLATION			ELECTRICAL				HYDRAULIC PERFORMANCE				
		Min. bore size	Motor joining	NRV size	Max input power (W)	Rated VDC	Motor rated voltage (V)	Max freq. (Hz)	Duty head (m)	Flow (L/day)	Flow (L/min)	Head range (m)	Shut-off head (m)
OSSL-1200-30-DC	1 / 0.75	5"	4" × 4"	1.5"	1,200	120	90	0-120	30	45,600	106	22-33	45
OSSL-1800-30-DC	2 / 1.5	5"	4" × 4"	2"	1,800	165	120	0-120	30	68,400	159	22-33	45
OSSL-3000-20-DC	3 / 2.2	7"	4" × 6"	2"	3,000	248	180	0-120	20	1,65,000	385	15-22	30
OSSL-3000-30-DC	3 / 2.2	7"	4" × 6"	2"	3,000	248	180	0-120	30	1,14,000	266	22-33	45
OSSL-3000-50-DC	3 / 2.2	5"	4" × 4"	2"	3,000	248	180	0-120	50	69,000	161	37-55	75
OSSL-3000-70-DC	3 / 2.2	5"	4" × 4"	2"	3,000	248	180	0-120	70	45,000	105	52-77	105
OSSL-4800-20-DC	5 / 3.7	7"	4" × 6"	3"	4,800	368	270	0-120	20	2,64,825	617	15-22	30
OSSL-4800-30-DC	5 / 3.7	7"	4" × 6"	2.5"	4,800	368	270	0-120	30	1,82,970	427	22-33	45
OSSL-4800-50-DC	5 / 3.7	7"	4" × 6"	2"	4,800	368	270	0-120	50	1,10,746	258	37-55	75
OSSL-4800-70-DC	5 / 3.7	5"	4" × 4"	2"	4,800	368	270	0-120	70	72,225	168	52-77	105
OSSL-4800-100-DC	5 / 3.7	5"	4" × 4"	2"	4,800	368	270	0-120	100	50,558	118	75-110	150
OSSL-6750-20-DC	7.5 / 5.5	7"	4" × 6"	3"	6,750	535	380	0-120	20	3,71,800	867	15-22	30
OSSL-6750-30-DC	7.5 / 5.5	7"	4" × 6"	3"	6,750	535	380	0-120	30	2,56,880	599	22-33	45
OSSL-6750-50-DC	7.5 / 5.5	7"	4" × 6"	2.5"	6,750	535	380	0-120	50	1,55,480	362	37-55	75
OSSL-6750-70-DC	7.5 / 5.5	7"	4" × 6"	2.5"	6,750	535	380	0-120	70	1,01,400	236	52-77	105
OSSL-6750-100-DC	7.5 / 5.5	5"	4" × 4"	2"	6,750	535	380	0-120	100	70,980	165	75-110	150
OSSL-9000-20-DC	10 / 7.5	7"	4" × 6"	4"	9,000	700	460	0-120	20	5,00,225	1,166	15-22	30
OSSL-9000-30-DC	10 / 7.5	7"	4" × 6"	4"	9,000	700	460	0-120	30	3,45,610	806	22-33	45
OSSL-9000-50-DC	10 / 7.5	7"	4" × 6"	2.5"	9,000	700	460	0-120	50	2,09,185	488	37-55	75
OSSL-9000-70-DC	10 / 7.5	7"	4" × 6"	2.5"	9,000	700	460	0-120	70	1,36,425	318	52-77	105
OSSL-9000-100-DC	10 / 7.5	7"	4" × 6"	2.5"	9,000	700	460	0-120	100	95,498	223	75-110	150

Specifications as per MNRE guideline for mono-module pumpsets. Flow (L/day) is daily water output at the duty head; L/min is the corresponding average flow rate. Min. bore size, motor joining and NRV size in inches.

OMSL · AC

AC Solar Surface Pumps

Solar monoblock surface pump with AC motor and controller

MODELS

11

POWER

2–10 HP

DUTY HEAD

10–30 m

MAX FREQ.

0–60 Hz



TECHNICAL SPECIFICATION — SOLAR AC SURFACE PUMP (MONO MODULE)

Model	HP / kW	PUMP		ELECTRICAL			HYDRAULIC PERFORMANCE				
		Pump size (mm)	Max input power (W)	Rated VAC	Motor rated voltage (V)	Max freq. (Hz)	Duty head (m)	Flow (L/day)	Flow (L/min)	Head range (m)	Shut-off head (m)
OMSL-1800-10-AC	2 / 1.5	80 × 65	1,800	165	120	0–60	10	1,78,200	415	8–11	15
OMSL-1800-20-AC	2 / 1.5	50 × 50	1,800	165	120	0–60	20	88,200	206	15–22	25
OMSL-3000-10-AC	3 / 2.2	80 × 80	2,700*	206	150	0–60	10	2,67,300	623	8–11	15
OMSL-3000-20-AC	3 / 2.2	65 × 50	2,700*	206	150	0–60	20	1,32,300	308	15–22	25
OMSL-4800-10-AC	5 / 3.7	100 × 100	4,800	368	270	0–60	10	4,75,200	1,108	8–11	15
OMSL-4800-20-AC	5 / 3.7	80 × 80	4,800	368	270	0–60	20	2,35,200	548	15–22	25
OMSL-4800-30-AC	5 / 3.7	65 × 50	4,800	368	270	0–60	30	1,68,000	392	22–33	45
OMSL-6750-10-AC	7.5 / 5.5	100 × 100	6,750	535	380	0–60	10	6,68,250	1,558	8–11	15
OMSL-6750-20-AC	7.5 / 5.5	80 × 80	6,750	535	380	0–60	20	3,30,750	771	15–22	25
OMSL-9000-10-AC	10 / 7.5	100 × 100	9,000	700	460	0–60	10	8,91,000	2,077	8–11	15
OMSL-9000-20-AC	10 / 7.5	80 × 80	9,000	700	460	0–60	20	4,41,000	1,028	15–22	25

Specifications as per MNRE guideline for mono-module pumpsets. Flow (L/day) is daily water output at the duty head; L/min is the corresponding average flow rate. * OMSL-3000 models are named for their 3000 Wp array class; their maximum input power is 2,700 W.

TOTAL COST OF OWNERSHIP

**Pay once for the pump.
Let the sun pay for the water.**

Pump investment decisions are often based on purchase price alone — yet that price is only a fraction of the cost of owning and operating a pump over its life. For diesel-engine pump sets, the initial cost is just 5% of total life-cycle cost, while operation (energy) and maintenance account for 58% and 10% respectively.

Solar pumping systems cost more up front, but deliver significant savings in energy and maintenance over their life. Compared with diesel pumps, they typically break even within **4 to 8 years**, depending on site conditions, installation cost and model — and every year after that is savings.

4–8

years to break even vs diesel

₹0

fuel cost

20+

years PV module service life

OMSL · DC

DC Solar Surface Pumps

Solar monoblock surface pump with DC motor and controller

MODELS

11

POWER

2–10 HP

DUTY HEAD

10–30 m

MAX FREQ.

0–120 Hz



TECHNICAL SPECIFICATION — SOLAR DC SURFACE PUMP (MONO MODULE)

Model	HP / kW	PUMP		ELECTRICAL			HYDRAULIC PERFORMANCE				
		Pump size (mm)	Max input power (W)	Rated VDC	Motor rated voltage (V)	Max freq. (Hz)	Duty head (m)	Flow (L/day)	Flow (L/min)	Head range (m)	Shut-off head (m)
OMSL-1800-10-DC	2 / 1.5	80 × 65	1,800	165	120	0–120	10	1,98,000	462	8–11	15
OMSL-1800-20-DC	2 / 1.5	50 × 50	1,800	165	120	0–120	20	99,000	231	15–22	25
OMSL-3000-10-DC	3 / 2.2	80 × 80	2,700*	206	150	0–120	10	2,97,000	692	8–11	15
OMSL-3000-20-DC	3 / 2.2	65 × 50	2,700*	206	150	0–120	20	1,48,500	346	15–22	25
OMSL-4800-10-DC	5 / 3.7	100 × 100	4,800	368	270	0–120	10	5,28,000	1,231	8–11	15
OMSL-4800-20-DC	5 / 3.7	80 × 80	4,800	368	270	0–120	20	2,64,000	615	15–22	25
OMSL-4800-30-DC	5 / 3.7	65 × 50	4,800	368	270	0–120	30	1,82,400	425	22–33	45
OMSL-6750-10-DC	7.5 / 5.5	100 × 100	6,750	535	380	0–120	10	7,42,500	1,731	8–11	15
OMSL-6750-20-DC	7.5 / 5.5	80 × 80	6,750	535	380	0–120	20	3,71,250	865	15–22	25
OMSL-9000-10-DC	10 / 7.5	100 × 100	9,000	700	460	0–120	10	9,90,000	2,308	8–11	15
OMSL-9000-20-DC	10 / 7.5	80 × 80	9,000	700	460	0–120	20	4,95,000	1,154	15–22	25

Specifications as per MNRE guideline for mono-module pumpsets. Flow (L/day) is daily water output at the duty head; L/min is the corresponding average flow rate. * OMSL-3000 models are named for their 3000 Wp array class; their maximum input power is 2,700 W.

Why Oswal

Matched systems

Pump, motor, PV array and controller selected to work together as one efficient package.

Certified quality

MNRE-compliant solar pumping systems; ISI-marked and BEE-rated products; ISO 9001:2015 quality management.

Dedicated support

Call our toll-free helpline
1800 120 1882
 for selection, installation and service.

Need help selecting a pump?

Share your borewell depth, required head and daily water need — our team will recommend the right OSSL/OMSL system.

1800 120 1882

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True Partner!

Oswal Pumps Limited

Pumps & Motors · Solar | Domestic | Agriculture | Industrial

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