



LSZ SERIES

DC Solar Stainless Steel Submersible Bore well Pumps



Infinite Solar Pumping Energy



SOLAR PUMP

Introduction

Existence of human life in rural India depends largely on the availability of clean water to 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 Lubi **LSZ** series of Solar Submersible Pumping systems can make a remarkable contribution.

The LSZ Solar Submersible Pumping system offered by Lubi 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 LSZ Solar Submersible Pumping system comprises of the following equipment.

- Solar stainless steel submersible bore well pump
- Solar photovoltaic panels with mounting structure
- Automatic controller for the solar pump
- Cables and accessories.

Application

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

Range of Performance

Maximum flow : 540 m³/day
 Maximum head : 463 metres.
 Rating : 0.5 hp to 10.0 hp (0.37 kW to 7.5 kW)

Features & Benefits

State-of-the art design
 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 to 50°C
 Virtually no maintenance cost.
 Environmentally friendly air and noise pollution free solution.
 Material : Stainless Steel (AISI 304, AISI 316) pump construction.
 ECDRIVE brushless DC motors, designed for solar, with over 90% efficiency.
 Simple and easy installation
 Cost efficient pumping
 Very strong ROI against diesel powered pumping systems which reduces production costs and carbon foot print
 Large range of pumps to closely match each application specific demands and optimize efficiency.

Operating Conditions

Ambient temperature : +50°C
 Liquid temperature range: 0°C to +80°C
 Water pH : 6.5 - 8
 Sand content : 25 g/m³

Type Keys

LSZ	D005	01	09	0.7k
Type range	Motor type	Pump type	Nos. of impellers	Total solar panel Watt
LSZ = Solar stainless steel submersible bore well pump series	D005 = 0.5 hp (0.37 kW) DC D007 = 0.75 hp (0.55 kW) DC D010 = 1.0 hp (0.75 kW) DC D015 = 1.5 hp (1.10 kW) DC D020 = 2.0 hp (1.50 kW) DC D030 = 3.0 hp (2.20 kW) DC D050 = 5.0 hp (3.70 kW) DC D075 = 7.5 hp (5.50 kW) DC D100 = 10.0 hp (7.50 kW) DC	01 = W1A 02 = W2A 03 = W3A 05 = W5A 08 = W8A 14 = W14A 10 = W10 15 = W15 17 = W17 30 = W30 46 = W46 60 = W60		0.7k = 700 Watt solar panel 1k = 1000 Watt solar panel 1.2k = 1200 Watt solar panel 1.6k = 1620 Watt solar panel 1.8k = 1800 Watt solar panel 3k = 3000 Watt solar panel 4.8k = 4800 Watt solar panel 7k = 7000 Watt solar panel 9k = 9000 Watt solar panel

Minimum Cost of Ownership

Very often investment decisions for pumps are based only on the purchase cost of the pump. This initial purchase cost is a fraction of owning 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 85% 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.

Technical Data

Suitable for bore size		Flow range	Head range	Model*	Pump type	Nos. of stages	Discharge size		Pump power		Minimum Solar panel total Watt
mm	Inch	m ³ /day	Mtrs.				mm	Inch	HP	kW	
100	4"	6 - 9	43 - 30	LSZ-D005-01-09-0.7k	W1A	9	32	1¼"	0.5	0.37	700
100	4"	6 - 9	63 - 43	LSZ-D005-01-14-0.7k	W1A	14	32	1¼"	0.5	0.37	700
100	4"	6 - 9	84 - 57	LSZ-D007-01-18-1k	W1A	18	32	1¼"	0.75	0.55	1000
100	4"	6 - 9	96 - 65	LSZ-D007-01-21-1k	W1A	21	32	1¼"	0.75	0.55	1000
100	4"	6 - 9	129 - 88	LSZ-D010-01-28-1.2k	W1A	28	32	1¼"	1	0.75	1200
100	4"	6 - 9	151 - 103	LSZ-D015-01-36-1.6k	W1A	36	32	1¼"	1.5	1.1	1620
100	4"	6 - 9	174 - 119	LSZ-D015-01-42-1.6k	W1A	42	32	1¼"	1.5	1.1	1620
100	4"	6 - 9	207 - 141	LSZ-D020-01-50-1.8k	W1A	50	32	1¼"	2	1.5	1800
100	4"	6 - 9	234 - 160	LSZ-D020-01-57-1.8k	W1A	57	32	1¼"	2	1.5	1800
100	4"	10 - 17	32 - 22	LSZ-D005-02-06-0.7k	W2A	6	32	1¼"	0.5	0.37	700
100	4"	10 - 17	46 - 30	LSZ-D005-02-09-0.7k	W2A	9	32	1¼"	0.5	0.37	700
100	4"	10 - 17	65 - 44	LSZ-D007-02-13-1k	W2A	13	32	1¼"	0.75	0.55	1000
100	4"	10 - 17	91 - 62	LSZ-D010-02-18-1.2k	W2A	18	32	1¼"	1	0.75	1200
100	4"	10 - 17	118 - 80	LSZ-D015-02-23-1.6k	W2A	23	32	1¼"	1.5	1.1	1620
100	4"	10 - 17	145 - 99	LSZ-D020-02-28-1.8k	W2A	28	32	1¼"	2	1.5	1800
100	4"	10 - 17	169 - 115	LSZ-D020-02-33-1.8k	W2A	33	32	1¼"	2	1.5	1800
100	4"	10 - 17	210 - 143	LSZ-D030-02-40-3k	W2A	40	32	1¼"	3	2.2	3000
100	4"	10 - 17	250 - 167	LSZ-D030-02-48-3k	W2A	48	32	1¼"	3	2.2	3000
100	4"	10 - 17	392 - 265	LSZ-D050-02-75-4.8k	W2A	75	32	1¼"	5	3.7	4800
100	4"	10 - 17	463 - 308	LSZ-D050-02-90-4.8k	W2A	90	32	1¼"	5	3.7	4800
100	4"	13 - 26	33 - 22	LSZ-D005-03-06-0.7k	W3A	6	32	1¼"	0.5	0.37	700
100	4"	13 - 26	48 - 33	LSZ-D007-03-09-1k	W3A	9	32	1¼"	0.75	0.55	1000
100	4"	13 - 26	66 - 45	LSZ-D010-03-12-1.2k	W3A	12	32	1¼"	1	0.75	1200
100	4"	13 - 26	84 - 57	LSZ-D015-03-15-1.6k	W3A	15	32	1¼"	1.5	1.1	1620
100	4"	13 - 26	99 - 67	LSZ-D015-03-18-1.6k	W3A	18	32	1¼"	1.5	1.1	1620
100	4"	13 - 26	121 - 83	LSZ-D020-03-22-1.8k	W3A	22	32	1¼"	2	1.5	1800
100	4"	13 - 26	136 - 93	LSZ-D020-03-25-1.8k	W3A	25	32	1¼"	2	1.5	1800
100	4"	13 - 26	162 - 110	LSZ-D030-03-29-3k	W3A	29	32	1¼"	3	2.2	3000
100	4"	13 - 26	183 - 123	LSZ-D030-03-33-3k	W3A	33	32	1¼"	3	2.2	3000
100	4"	13 - 26	290 - 209	LSZ-D050-03-52-4.8k	W3A	52	32	1¼"	5	3.7	4800
100	4"	13 - 26	332 - 237	LSZ-D050-03-60-4.8k	W3A	60	32	1¼"	5	3.7	4800
100	4"	23 - 42	22 - 15	LSZ-D005-05-04-0.7k	W5A	4	40	1½"	0.5	0.37	700
100	4"	23 - 42	31 - 21	LSZ-D007-05-06-1k	W5A	6	40	1½"	0.75	0.55	1000
100	4"	23 - 42	42 - 29	LSZ-D010-05-08-1.2k	W5A	8	40	1½"	1	0.75	1200
100	4"	23 - 42	63 - 43	LSZ-D015-05-12-1.6k	W5A	12	40	1½"	1.5	1.1	1620
100	4"	23 - 42	88 - 60	LSZ-D020-05-17-1.8k	W5A	17	40	1½"	2	1.5	1800
100	4"	23 - 42	111 - 76	LSZ-D030-05-21-3k	W5A	21	40	1½"	3	2.2	3000
100	4"	23 - 42	131 - 89	LSZ-D030-05-25-3k	W5A	25	40	1½"	3	2.2	3000
100	4"	23 - 42	205 - 141	LSZ-D050-05-38-4.8k	W5A	38	40	1½"	5	3.7	4800
100	4"	23 - 42	229 - 156	LSZ-D050-05-44-4.8k	W5A	44	40	1½"	5	3.7	4800
100	4"	23 - 42	274 - 188	LSZ-D075-05-52-7k	W5A	52	40	1½"	7.5	5.5	7000
100	4"	23 - 42	311 - 213	LSZ-D075-05-60-7k	W5A	60	40	1½"	7.5	5.5	7000
100	4"	23 - 42	391 - 267	LSZ-D100-05-75-9k	W5A	75	40	1½"	10	7.5	9000
100	4"	23 - 42	438 - 296	LSZ-D100-05-85-9k	W5A	85	40	1½"	10	7.5	9000
100	4"	53 - 77	22 - 15	LSZ-D010-08-05-1.2k	W8A	5	50	2"	1	0.75	1200
100	4"	53 - 77	32 - 22	LSZ-D015-08-07-1.6k	W8A	7	50	2"	1.5	1.1	1620
100	4"	53 - 77	44 - 30	LSZ-D020-08-10-1.8k	W8A	10	50	2"	2	1.5	1800
100	4"	53 - 77	55 - 38	LSZ-D030-08-12-3k	W8A	12	50	2"	3	2.2	3000
100	4"	53 - 77	67 - 46	LSZ-D030-08-15-3k	W8A	15	50	2"	3	2.2	3000
100	4"	53 - 77	95 - 67	LSZ-D050-08-21-4.8k	W8A	21	50	2"	5	3.7	4800
100	4"	53 - 77	112 - 79	LSZ-D050-08-25-4.8k	W8A	25	50	2"	5	3.7	4800
100	4"	53 - 77	133 - 90	LSZ-D075-08-30-7k	W8A	30	50	2"	7.5	5.5	7000
100	4"	53 - 77	162 - 108	LSZ-D075-08-37-7k	W8A	37	50	2"	7.5	5.5	7000
100	4"	53 - 77	193 - 130	LSZ-D100-08-44-9k	W8A	44	50	2"	10	7.5	9000
100	4"	53 - 77	216 - 145	LSZ-D100-08-50-9k	W8A	50	50	2"	10	7.5	9000
100	4"	74 - 122	28 - 19	LSZ-D020-14-05-1.8k	W14A	5	50	2"	2	1.5	1800
100	4"	74 - 122	41 - 28	LSZ-D030-14-07-3k	W14A	7	50	2"	3	2.2	3000
100	4"	74 - 122	73 - 51	LSZ-D050-14-13-4.8k	W14A	13	50	2"	5	3.7	4800
100	4"	74 - 122	103 - 70	LSZ-D075-14-18-7k	W14A	18	50	2"	7.5	5.5	7000
100	4"	74 - 122	141 - 96	LSZ-D100-14-25-9k	W14A	25	50	2"	10	7.5	9000

Technical Data

Suitable for bore size		Flow range	Head range	Model*	Pump type	Nos. of stages	Discharge size		Pump power		Minimum Solar panel total Watt
mm	Inch	m ³ /day	Mtrs.				mm	Inch	HP	kW	
150	6"	85-131	32-21	LSZ-D030-10-04-3k	W10	4	65	2½"	3	2.2	3000
150	6"	85-131	64-41	LSZ-D050-10-08-4.8k	W10	8	65	2½"	5	3.7	4800
150	6"	85-131	80-51	LSZ-D050-10-10-4.8k	W10	10	65	2½"	5	3.7	4800
150	6"	85-131	88-57	LSZ-D050-10-11-4.8k	W10	11	65	2½"	5	3.7	4800
150	6"	85-131	112-72	LSZ-D075-10-14-7k	W10	14	65	2½"	7.5	5.5	7000
150	6"	85-131	135-89	LSZ-D100-10-17-9k	W10	17	65	2½"	10	7.5	9000
150	6"	90-138	35-24	LSZ-D030-15-04-3k	W15	4	65	2½"	3	2.2	3000
150	6"	90-138	69-48	LSZ-D050-15-08-4.8k	W15	8	65	2½"	5	3.7	4800
150	6"	90-138	86-61	LSZ-D075-15-10-7k	W15	10	65	2½"	7.5	5.5	7000
150	6"	90-138	129-90	LSZ-D100-15-15-9k	W15	15	65	2½"	10	7.5	9000
150	6"	96 - 150	38 - 26	LSZ-D030-17-04-3k	W17	4	65	2½"	3	2.2	3000
150	6"	96 - 150	67 - 46	LSZ-D050-17-07-4.8k	W17	7	65	2½"	5	3.7	4800
150	6"	96 - 150	97 - 66	LSZ-D075-17-10-7k	W17	10	65	2½"	7.5	5.5	7000
150	6"	96 - 150	126 - 86	LSZ-D100-17-13-9k	W17	13	65	2½"	10	7.5	9000
150	6"	81 - 265	36 - 23	LSZ-D050-30-04-4.8k	W30	4	80	3"	5	3.7	4800
150	6"	181 - 265	54 - 36	LSZ-D075-30-06-7k	W30	6	80	3"	7.5	5.5	7000
150	6"	181 - 265	63 - 43	LSZ-D100-30-07-9k	W30	7	80	3"	10	7.5	9000
150	6"	315 - 425	28 - 19	LSZ-D075-46-03-7k	W46	3	80/100	3¼"	7.5	5.5	7000
150	6"	315 - 425	37 - 25	LSZ-D100-46-04-9k	W46	4	80/100	3¼"	10	7.5	9000
150	6"	424 - 540	24 - 16	LSZ-D075-60-03-7k	W60	3	80/100	3¼"	7.5	5.5	7000
150	6"	424 - 540	32 - 22	LSZ-D100-60-04-9k	W60	4	80/100	3¼"	10	7.5	9000



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