

SunPumps Brushless DC Submersible **MODEL SCS 18-160**

1 HP Motor

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Peak Panel Watts*	System Efficiency
0	0	0.0	45	2.80	15.0	56.8	126	158	0%
5	12	3.5	45	2.77	12.5	47.3	125	156	22%
10	23	7.0	45	2.69	10.0	37.9	121	151	36%
15	35	10.6	45	2.43	6.0	22.7	109	137	36%
20	46	14.1	45	1.81	0.0	0.0	81	102	0%

Suggested solar module array: 3-55-70 watt modules wired in series

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Peak Panel Watts*	System Efficiency
0	0	0.0	60	4.30	18.2	68.9	258	323	0%
10	23	7.0	60	4.29	15.4	58.3	257	322	26%
20	46	14.1	60	4.05	11.0	41.6	243	304	39%
30	69	21.1	60	3.36	4.0	15.1	202	252	26%
40	92	28.2	60	2.89	0.0	0.0	173	217	0%

Suggested solar module array: 4-70-80 watt modules wired in 1 string of 4 in series, or

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Peak Panel Watts*	System Efficiency
0	0	0.0	75	5.65	22.5	85.2	424	530	0%
10	23	7.0	75	5.63	19.8	74.9	422	528	20%
20	46	14.1	75	5.55	16.8	63.6	416	520	35%
30	69	21.1	75	5.28	13.0	49.2	396	495	43%
40	92	28.2	75	4.70	7.2	27.3	353	441	36%
50	116	35.2	75	3.76	0.0	0.0	282	353	0%

Suggested solar module array: 5-100 watt modules wired in 1 string of 5 in series, or
10-53 to 60 watt modules wired in 2 parallel strings of 5 in series.

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PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Peak Panel Watts*	System Efficiency
0	0	0.0	90	6.99	26.0	98.4	629	786	0%
10	23	7.0	90	6.97	23.8	90.1	627	784	17%
20	46	14.1	90	6.95	21.1	79.9	626	782	29%
30	69	21.1	90	6.81	18.1	68.5	613	766	39%
40	92	28.2	90	6.55	14.8	56.0	590	737	44%
50	116	35.2	90	6.11	10.9	41.3	550	687	43%
60	139	42.3	90	5.43	6.0	22.7	489	611	32%
70	162	49.3	90	4.66	0.0	0.0	419	524	0%

Suggested solar module array: 12-60 to 70 watt modules wired in 2 parallel strings of 6 in series.

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Peak Panel Watts*	System Efficiency
0	0	0.0	105	8.38	29.0	109.8	880	1100	0%
10	23	7.0	105	8.35	27.0	102.2	877	1096	13%
20	46	14.1	105	8.32	25.0	94.6	874	1092	25%
30	69	21.1	105	8.24	22.6	85.5	865	1082	34%
40	92	28.2	105	8.08	20.0	75.7	848	1061	41%
50	116	35.2	105	7.82	17.0	64.3	821	1026	45%
60	139	42.3	105	7.46	13.6	51.5	783	979	45%
70	162	49.3	105	6.89	9.0	34.1	723	904	38%
80	185	56.3	105	6.15	3.3	12.5	646	807	18%
90	208	63.4	105	5.55	0.0	0.0	583	728	0%

Suggested solar module array: 14-60 to 70 watt modules wired in 2 parallel strings of 7 in series.

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Peak Panel Watts*	System Efficiency
0	0	0.0	120	9.72	33.0	124.9	1166	1458	0%
10	23	7.0	120	9.70	31.0	117.3	1164	1455	12%
20	46	14.1	120	9.68	29.0	109.8	1162	1452	22%
30	69	21.1	120	9.66	27.0	102.2	1159	1449	30%
40	92	28.2	120	9.55	25.0	94.6	1146	1433	38%
50	116	35.2	120	9.38	22.7	85.9	1126	1407	44%
60	139	42.3	120	9.13	20.0	75.7	1096	1370	48%
70	162	49.3	120	8.80	16.8	63.6	1056	1320	48%
80	185	56.3	120	8.33	13.0	49.2	1000	1250	45%
90	208	63.4	120	7.87	8.1	30.7	944	1181	34%
100	231	70.4	120	6.97	2.8	10.6	836	1046	15%
110	254	77.5	120	6.44	0.0	0.0	773	966	0%

* Peak panel watts using a 20% deration factor.

Suggested solar module array: 16-70 to 80 watt modules wired in 2 parallel strings of 8 in series.