

SunPumps Brushless DC Submersible

MODEL SCS 4-650

2HP Motor

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Panel Watts*	System Efficiency
0	0	0.0	120	5.67	6.0	22.7	680	851	0%
20	46	14.1	120	5.67	5.7	21.6	680	851	7%
40	92	28.2	120	5.67	5.4	20.2	680	851	14%
60	139	42.3	120	5.65	5.0	18.9	678	848	19%
80	185	56.3	120	5.62	4.6	17.2	674	843	23%
100	231	70.4	120	5.57	4.1	15.5	668	836	27%
120	277	84.5	120	5.50	3.5	13.2	660	825	28%
140	323	98.6	120	5.33	2.9	11.0	640	800	28%
160	370	112.7	120	5.09	2.3	8.5	611	764	26%
180	416	126.8	120	4.70	1.4	5.5	564	705	20%
200	462	140.9	120	4.08	0.0	0.0	490	612	0%

Suggested solar module array: 8-100 to 120 watt modules wired in series.

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Panel Watts*	System Efficiency
0	0	0.0	135	6.59	6.7	25.4	890	1112	0%
20	46	14.1	135	6.55	6.4	24.2	884	1105	6%
40	92	28.2	135	6.56	6.1	23.1	886	1107	12%
60	139	42.3	135	6.57	5.8	22.0	887	1109	17%
80	185	56.3	135	6.55	5.4	20.4	884	1105	21%
100	231	70.4	135	6.56	5.0	18.9	886	1107	25%
120	277	84.5	135	6.49	4.6	17.4	876	1095	27%
140	323	98.6	135	6.40	4.1	15.7	864	1080	29%
160	370	112.7	135	6.27	3.7	14.0	846	1058	30%
180	416	126.8	135	6.11	3.1	11.7	825	1031	29%
200	462	140.9	135	5.86	2.4	9.1	791	989	26%
220	508	154.9	135	5.47	1.7	6.4	738	923	22%
240	554	169.0	135	4.97	0.8	3.2	671	839	13%
260	601	183.1	135	4.71	0.0	0.0	636	795	0%

* Peak panel watts using a 20% deration factor.

Suggested solar module array: 18-60 to 70 watt modules wired in 2 parallel strings of 9 in series.

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PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Panel Watts*	System Efficiency
0	0	0.0	150	7.50	7.3	27.6	1125	1406	0%
20	46	14.1	150	7.58	7.0	26.5	1137	1421	5%
40	92	28.2	150	7.59	6.7	25.4	1139	1423	10%
60	139	42.3	150	7.56	6.4	24.2	1134	1418	15%
80	185	56.3	150	7.55	6.1	23.1	1133	1416	19%
100	231	70.4	150	7.58	5.8	22.0	1137	1421	22%
120	277	84.5	150	7.51	5.4	20.6	1127	1408	25%
140	323	98.6	150	7.50	5.1	19.1	1125	1406	27%
160	370	112.7	150	7.39	4.7	17.8	1109	1386	30%
180	416	126.8	150	7.28	4.3	16.1	1092	1365	30%
200	462	140.9	150	7.19	3.8	14.2	1079	1348	30%
220	508	154.9	150	6.97	3.1	11.9	1046	1307	29%
240	554	169.0	150	6.71	2.5	9.5	1007	1258	26%
260	601	183.1	150	6.39	1.8	6.8	959	1198	21%
280	647	197.2	150	5.88	1.1	4.2	882	1103	15%
300	693	211.3	150	5.58	0.0	0.0	837	1046	0%

Suggested solar module array: 20-70 to 80 watt modules wired in 2 parallel strings of 10 in series.

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Panel Watts*	System Efficiency
0	0	0.0	180	9.42	8.5	32.1	1696	2120	0%
20	46	14.1	180	9.37	8.2	31.0	1687	2108	4%
40	92	28.2	180	9.36	8.0	30.1	1685	2106	8%
60	139	42.3	180	9.41	7.7	29.1	1694	2117	12%
80	185	56.3	180	9.34	7.4	28.0	1681	2102	15%
100	231	70.4	180	9.40	7.1	26.9	1692	2115	18%
120	277	84.5	180	9.35	6.8	25.7	1683	2104	21%
140	323	98.6	180	9.30	6.5	24.6	1674	2093	24%
160	370	112.7	180	9.33	6.2	23.5	1679	2099	26%
180	416	126.8	180	9.26	5.9	22.3	1667	2084	28%
200	462	140.9	180	9.19	5.6	21.1	1654	2068	29%
220	508	154.9	180	9.09	5.2	19.7	1636	2045	30%
240	554	169.0	180	8.97	4.8	18.3	1615	2018	31%
260	601	183.1	180	8.87	4.4	16.8	1597	1996	31%
280	647	197.2	180	8.73	4.0	15.1	1571	1964	31%
300	693	211.3	180	8.56	3.6	13.4	1541	1926	30%
320	739	225.4	180	8.42	3.0	11.4	1516	1895	28%
340	785	239.5	180	8.05	2.4	9.1	1449	1811	25%
360	832	253.5	180	7.78	1.8	6.8	1400	1751	20%
380	878	267.6	180	7.30	1.1	4.2	1314	1643	14%
400	924	281.7	180	6.65	0.0	0.0	1197	1496	0%

* Peak panel watts using a 20% deration factor.

Suggested solar module array: 24-80 to 90 watt modules wired in 2 parallel strings of 12 in series.