

SunPumps Brushless DC Submersible

MODEL SCS 16-300

2 HP Motor

PSI	TDH Feet	TDH Meters	Voltage	Amps	U.S. GPM	LPM	Motor Watts	Panel Watts*	System Efficiency
0	0	0.0	90	4.76	17.0	64.3	428	536	0%
10	23	7.0	90	4.78	15.6	59.0	430	538	16%
20	46	14.1	90	4.77	14.0	53.0	429	537	28%
30	69	21.1	90	4.69	11.7	44.3	422	528	36%
40	92	28.2	90	4.51	9.2	34.8	406	507	39%
50	116	35.2	90	4.27	6.0	22.7	384	480	34%
60	139	42.3	90	3.89	2.0	7.6	350	438	15%
70	162	49.3	90	3.77	0.0	0.0	339	424	0%

Suggested solar module array: 6-85 to 90 watt modules wired in series.

PSI	TDH Feet	TDH Meters	Voltage	Amps	U.S. GPM	LPM	Motor Watts	Panel Watts*	System Efficiency
0	0	0.0	105	5.85	19.5	73.8	614	768	0%
10	23	7.0	105	5.87	18.0	68.1	616	770	13%
20	46	14.1	105	5.87	16.5	62.5	616	770	23%
30	69	21.1	105	5.85	15.0	56.8	614	768	32%
40	92	28.2	105	5.75	13.0	49.2	604	755	37%
50	116	35.2	105	5.58	11.0	41.6	586	732	41%
60	139	42.3	105	5.38	9.0	34.1	565	706	42%
70	162	49.3	105	5.15	6.0	22.7	541	676	34%
80	185	56.3	105	4.75	3.0	11.4	499	623	21%
90	208	63.4	105	4.62	0.0	0.0	485	606	0%

Suggested solar module array: 7-110 to 120 watt modules wired in series.

PSI	TDH Feet	TDH Meters	Voltage	Amps	U.S. GPM	LPM	Motor Watts	Panel Watts*	System Efficiency
0	0	0.0	120	6.93	22.0	83.3	832	1040	0%
10	23	7.0	120	6.97	20.7	78.3	836	1046	11%
20	46	14.1	120	6.99	19.5	73.8	839	1049	20%
30	69	21.1	120	6.99	18.0	68.1	839	1049	28%
40	92	28.2	120	6.95	16.5	62.5	834	1043	34%
50	116	35.2	120	6.87	14.8	56.0	824	1031	39%
60	139	42.3	120	6.71	13.0	49.2	805	1007	42%
70	162	49.3	120	6.52	11.2	42.4	782	978	44%
80	185	56.3	120	6.32	9.0	34.1	758	948	41%
90	208	63.4	120	6.04	6.0	22.7	725	906	32%
100	231	70.4	120	5.64	3.0	11.4	677	846	19%
110	254	77.5	120	5.49	0.0	0.0	659	824	0%

Suggested solar module array: 16-65 to 75 watt modules wired in 2 parallel strings of 8 in series.

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PSI	TDH Feet	TDH Meters	Voltage	Amps	U.S. GPM	LPM	Motor Watts	Panel Watts*	System Efficiency
0	0	0.0	135	8.04	24.5	92.7	1085	1357	0%
10	23	7.0	135	8.08	23.4	88.6	1091	1364	9%
20	46	14.1	135	8.11	22.2	84.0	1095	1369	18%
30	69	21.1	135	8.12	21.0	79.5	1096	1370	25%
40	92	28.2	135	8.11	19.5	73.8	1095	1369	31%
50	116	35.2	135	8.06	18.0	68.1	1088	1360	36%
60	139	42.3	135	7.96	16.4	62.1	1075	1343	40%
70	162	49.3	135	7.80	14.7	55.6	1053	1316	43%
80	185	56.3	135	7.67	13.0	49.2	1035	1294	44%
90	208	63.4	135	7.48	11.0	41.6	1010	1262	43%
100	231	70.4	135	7.28	9.0	34.1	983	1229	40%
110	254	77.5	135	7.01	6.5	24.6	946	1183	33%
120	277	84.5	135	6.63	3.9	14.8	895	1119	23%
130	300	91.6	135	6.30	0.0	0.0	851	1063	0%

* Peak panel watts using a 20% deration factor.

Suggested solar module array: 18-75 to 80 watt modules wired in 2 parallel strings of 9 in series.

PSI	TDH Feet	TDH Meters	Voltage	Amps	U.S. GPM	LPM	Motor Watts	Panel Watts*	System Efficiency
0	0	0.0	150	9.21	27.0	102.2	1382	1727	0%
10	23	7.0	150	9.23	25.9	98.0	1385	1731	8%
20	46	14.1	150	9.27	24.9	94.2	1391	1738	16%
30	69	21.1	150	9.29	23.7	89.7	1394	1742	22%
40	92	28.2	150	9.29	22.4	84.8	1394	1742	28%
50	116	35.2	150	9.26	21.2	80.2	1389	1736	33%
60	139	42.3	150	9.21	20.0	75.7	1382	1727	38%
70	162	49.3	150	9.12	18.4	69.6	1368	1710	41%
80	185	56.3	150	9.01	16.9	64.0	1352	1689	44%
90	208	63.4	150	8.85	15.4	58.3	1328	1659	45%
100	231	70.4	150	8.68	13.7	51.9	1302	1628	46%
110	254	77.5	150	8.50	12.0	45.4	1275	1594	45%
120	277	84.5	150	8.31	10.0	37.9	1247	1558	42%
130	300	91.6	150	8.02	7.6	28.8	1203	1504	36%
140	323	98.6	150	7.68	5.0	18.9	1152	1440	26%
150	347	105.6	150	7.35	1.5	5.7	1103	1378	9%
160	370	112.7	150	7.15	0.0	0.0	1073	1341	0%

Suggested solar module array: 20-80 to 90 watt modules wired in 2 parallel strings of 10 in series.

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PSI	TDH Feet	TDH Meters	Voltage	Amps	U.S. GPM	LPM	Motor Watts	Panel Watts*	System Efficiency
0	0	0.0	165	10.37	29.0	109.8	1711	2139	0%
10	23	7.0	165	10.40	28.0	106.0	1716	2145	7%
20	46	14.1	165	10.43	27.0	102.2	1721	2151	14%
30	69	21.1	165	10.44	26.0	98.4	1723	2153	20%
40	92	28.2	165	10.45	24.9	94.2	1724	2155	25%
50	116	35.2	165	10.45	23.8	90.1	1724	2155	30%
60	139	42.3	165	10.42	22.5	85.2	1719	2149	34%
70	162	49.3	165	10.37	21.3	80.6	1711	2139	38%
80	185	56.3	165	10.27	20.0	75.7	1695	2118	41%
90	208	63.4	165	10.17	18.8	71.2	1678	2098	44%
100	231	70.4	165	10.04	17.3	65.5	1657	2071	45%
110	254	77.5	165	9.87	15.8	59.8	1629	2036	46%
120	277	84.5	165	9.71	14.2	53.7	1602	2003	46%
130	300	91.6	165	9.54	12.5	47.3	1574	1968	45%
140	323	98.6	165	9.36	10.5	39.7	1544	1931	41%
150	347	105.6	165	9.09	8.5	32.2	1500	1875	37%
160	370	112.7	165	8.75	6.0	22.7	1444	1805	29%
170	393	119.7	165	8.38	3.0	11.4	1383	1728	16%
180	416	126.8	165	7.97	0.0	0.0	1315	1644	0%

Suggested solar module array: 22-90 to 100 watt modules wired in 2 parallel strings of 11 in series.

PSI	TDH Feet	TDH Meters	Voltage	Amps	U.S. GPM	LPM	Motor Watts	Panel Watts*	System Efficiency
0	0	0.0	180	11.53	31.2	118.1	2075	2594	0%
10	23	7.0	180	11.55	30.2	114.3	2079	2599	6%
20	46	14.1	180	11.58	29.2	110.5	2084	2606	12%
30	69	21.1	180	11.60	28.1	106.4	2088	2610	18%
40	92	28.2	180	11.61	27.1	102.4	2090	2612	23%
50	116	35.2	180	11.61	26.0	98.4	2090	2612	27%
60	139	42.3	180	11.59	25.0	94.6	2086	2608	31%
70	162	49.3	180	11.56	23.8	90.1	2081	2601	35%
80	185	56.3	180	11.51	22.6	85.5	2072	2590	38%
90	208	63.4	180	11.42	21.3	80.6	2056	2570	41%
100	231	70.4	180	11.33	20.1	76.1	2039	2549	43%
110	254	77.5	180	11.21	18.7	70.8	2018	2522	44%
120	277	84.5	180	11.06	17.5	66.2	1991	2489	46%
130	300	91.6	180	10.91	16.0	60.6	1964	2455	46%
140	323	98.6	180	10.75	14.5	54.9	1935	2419	46%
150	347	105.6	180	10.56	13.0	49.2	1901	2376	45%
160	370	112.7	180	10.40	11.4	43.1	1872	2340	42%
170	393	119.7	180	10.15	9.5	36.0	1827	2284	38%
180	416	126.8	180	9.80	7.5	28.4	1764	2205	33%
190	439	133.8	180	9.53	5.4	20.4	1715	2144	26%
200	462	140.9	180	9.15	2.5	9.5	1647	2059	13%
210	485	147.9	180	8.77	0.0	0.0	1579	1973	0%

* Peak panel watts using a 20% deration factor.

Suggested solar module array: 24-100 to 120 watt modules wired in 2 parallel strings of 12 in series.