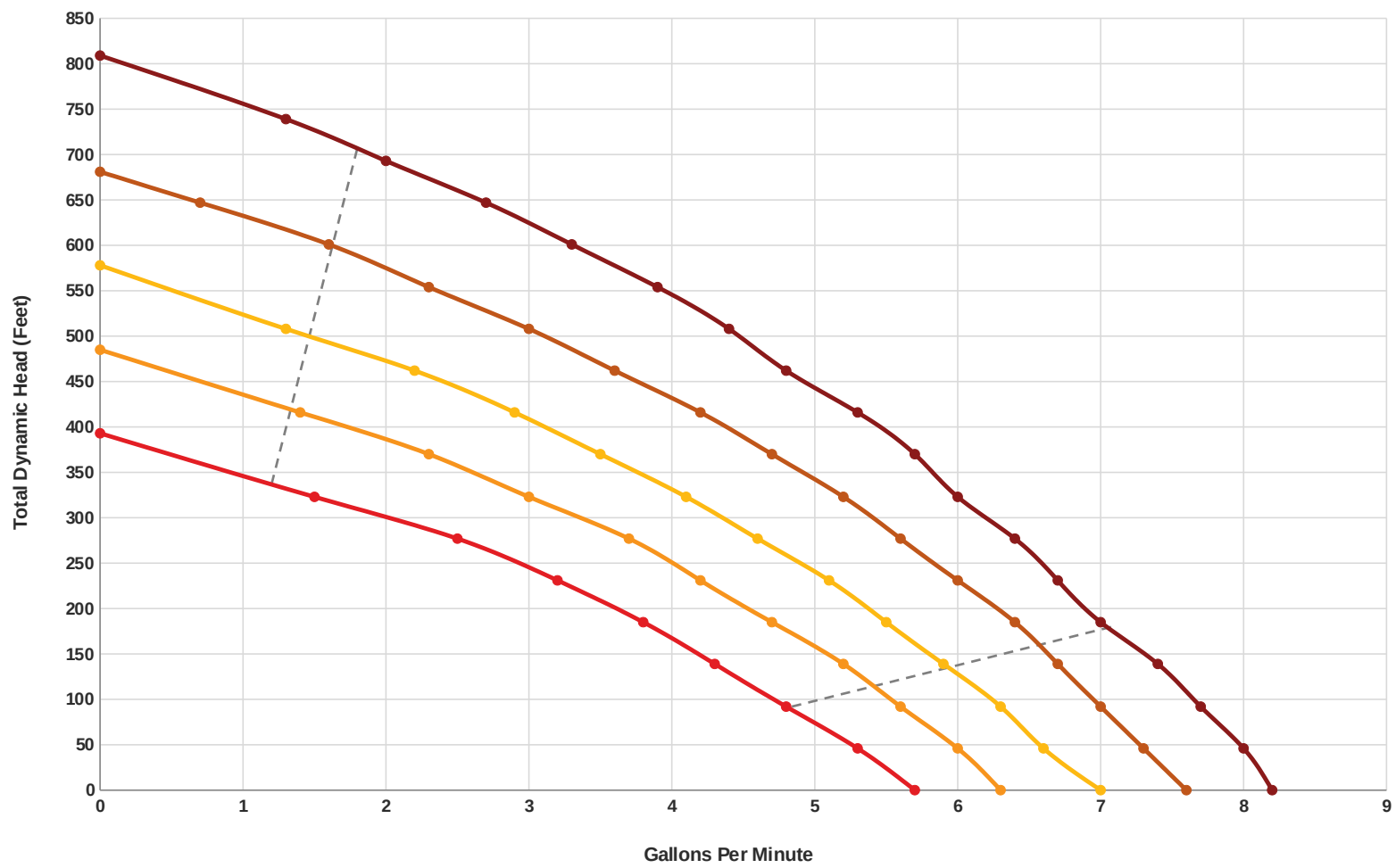


**SunPumps SCS 4.5-500-180 BL Brushless DC Submersible
180 Volt Panel Direct, 3 HP Brushless DC Motor**



120 Volts 135 Volts 150 Volts
 165 Volts 180 Volts - - - - - Design area limits

SunPumps SCS 4.5-500-180 BL Brushless DC Submersible

Model SCS 4.5-500-180 BL, 3 HP Brushless DC Motor

120 Volt Panel Direct

PSI	TDH	TDH	Motor	Motor	U.S.		Motor	Solar Array	System
	Feet	Meters	Voltage	Amps	GPM	LPM	Watts	*Watts	Efficiency
0	0	0.0	120	4.89	5.7	21.4	587	734	0%
20	46	14.1	120	4.90	5.3	20.0	588	735	8%
40	92	28.2	120	4.91	4.8	18.3	589	737	14%
60	139	42.3	120	4.91	4.3	16.4	589	737	19%
80	185	56.3	120	4.89	3.8	14.5	587	734	23%
100	231	70.4	120	4.79	3.2	12.1	575	719	24%
120	277	84.5	120	4.63	2.5	9.3	556	695	23%
140	323	98.6	120	4.27	1.5	5.7	512	641	18%
170	393	119.7	120	3.48	0.0	0.0	418	522	0%

135 Volt Panel Direct

PSI	TDH	TDH	Motor	Motor	U.S.		Motor	Solar Array	System
	Feet	Meters	Voltage	Amps	GPM	LPM	Watts	*Watts	Efficiency
0	0	0.0	135	5.77	6.3	23.9	779	974	0%
20	46	14.1	135	5.83	6.0	22.6	787	984	7%
40	92	28.2	135	5.84	5.6	21.2	788	986	12%
60	139	42.3	135	5.84	5.2	19.5	788	986	17%
80	185	56.3	135	5.84	4.7	17.9	788	986	21%
100	231	70.4	135	5.79	4.2	15.9	782	977	23%
120	277	84.5	135	5.71	3.7	13.8	771	964	25%
140	323	98.6	135	5.53	3.0	11.3	747	933	24%
160	370	112.7	135	5.27	2.3	8.7	711	889	23%
180	416	126.8	135	4.91	1.4	5.5	663	829	17%
210	485	147.9	135	4.09	0.0	0.0	552	690	0%

150 Volt Panel Direct

PSI	TDH	TDH	Motor	Motor	U.S.		Motor	Solar Array	System
	Feet	Meters	Voltage	Amps	GPM	LPM	Watts	*Watts	Efficiency
0	0	0.0	150	6.76	7.0	26.3	1014	1268	0%
20	46	14.1	150	6.77	6.6	25.0	1016	1269	6%
40	92	28.2	150	6.79	6.3	23.8	1019	1273	11%
60	139	42.3	150	6.80	5.9	22.4	1020	1275	15%
80	185	56.3	150	6.80	5.5	20.8	1020	1275	19%
100	231	70.4	150	6.79	5.1	19.2	1019	1273	22%
120	277	84.5	150	6.77	4.6	17.5	1016	1269	24%
140	323	98.6	150	6.68	4.1	15.6	1002	1253	25%
160	370	112.7	150	6.56	3.5	13.4	984	1230	25%
180	416	126.8	150	6.38	2.9	11.0	957	1196	24%
200	462	140.9	150	6.09	2.2	8.1	914	1142	20%
220	508	154.9	150	5.68	1.3	5.1	852	1065	15%
250	578	176.1	150	4.68	0.0	0.0	702	878	0%

165 Volt Panel Direct

PSI	TDH	TDH	Motor	Motor	U.S.		Motor	Solar Array	System
	Feet	Meters	Voltage	Amps	GPM	LPM	Watts	*Watts	Efficiency
0	0	0.0	165	7.94	7.6	28.9	1310	1638	0%
20	46	14.1	165	7.95	7.3	27.7	1312	1640	5%
40	92	28.2	165	7.97	7.0	26.6	1315	1644	9%
60	139	42.3	165	7.98	6.7	25.4	1317	1646	13%
80	185	56.3	165	7.99	6.4	24.0	1318	1648	17%
100	231	70.4	165	7.98	6.0	22.6	1317	1646	20%
120	277	84.5	165	7.97	5.6	21.1	1315	1644	22%
140	323	98.6	165	7.92	5.2	19.5	1307	1634	24%
160	370	112.7	165	7.84	4.7	17.8	1294	1617	25%
180	416	126.8	165	7.75	4.2	15.9	1279	1598	26%
200	462	140.9	165	7.61	3.6	13.6	1256	1570	25%
220	508	154.9	165	7.33	3.0	11.3	1209	1512	24%
240	554	169.0	165	7.06	2.3	8.7	1165	1456	21%
260	601	183.1	165	6.63	1.6	5.9	1094	1367	16%
280	647	197.2	165	6.10	0.7	2.7	1007	1258	9%
295	681	207.8	165	5.36	0.0	0.0	884	1106	0%

180 Volt Panel Direct

PSI	TDH	TDH	Motor	Motor	U.S.		Motor	Solar Array	System
	Feet	Meters	Voltage	Amps	GPM	LPM	Watts	*Watts	Efficiency
0	0	0.0	180	8.87	8.2	31.1	1597	1996	0%
20	46	14.1	180	8.89	8.0	30.1	1600	2000	4%
40	92	28.2	180	8.91	7.7	29.0	1604	2005	8%
60	139	42.3	180	8.92	7.4	27.9	1606	2007	12%
80	185	56.3	180	8.94	7.0	26.6	1609	2012	15%
100	231	70.4	180	8.95	6.7	25.4	1611	2014	18%
120	277	84.5	180	8.95	6.4	24.1	1611	2014	21%
140	323	98.6	180	8.94	6.0	22.8	1609	2012	23%
160	370	112.7	180	8.91	5.7	21.5	1604	2005	25%
180	416	126.8	180	8.81	5.3	19.9	1586	1982	26%
200	462	140.9	180	8.72	4.8	18.3	1570	1962	27%
220	508	154.9	180	8.66	4.4	16.7	1559	1949	27%
240	554	169.0	180	8.48	3.9	14.8	1526	1908	27%
260	601	183.1	180	8.25	3.3	12.6	1485	1856	25%
280	647	197.2	180	7.92	2.7	10.3	1426	1782	23%
300	693	211.3	180	7.59	2.0	7.6	1366	1708	19%
320	739	225.4	180	7.08	1.3	4.7	1274	1593	14%
350	809	246.5	180	6.07	0.0	0.0	1093	1366	0%

* Solar Array watts using a 20% deration factor.