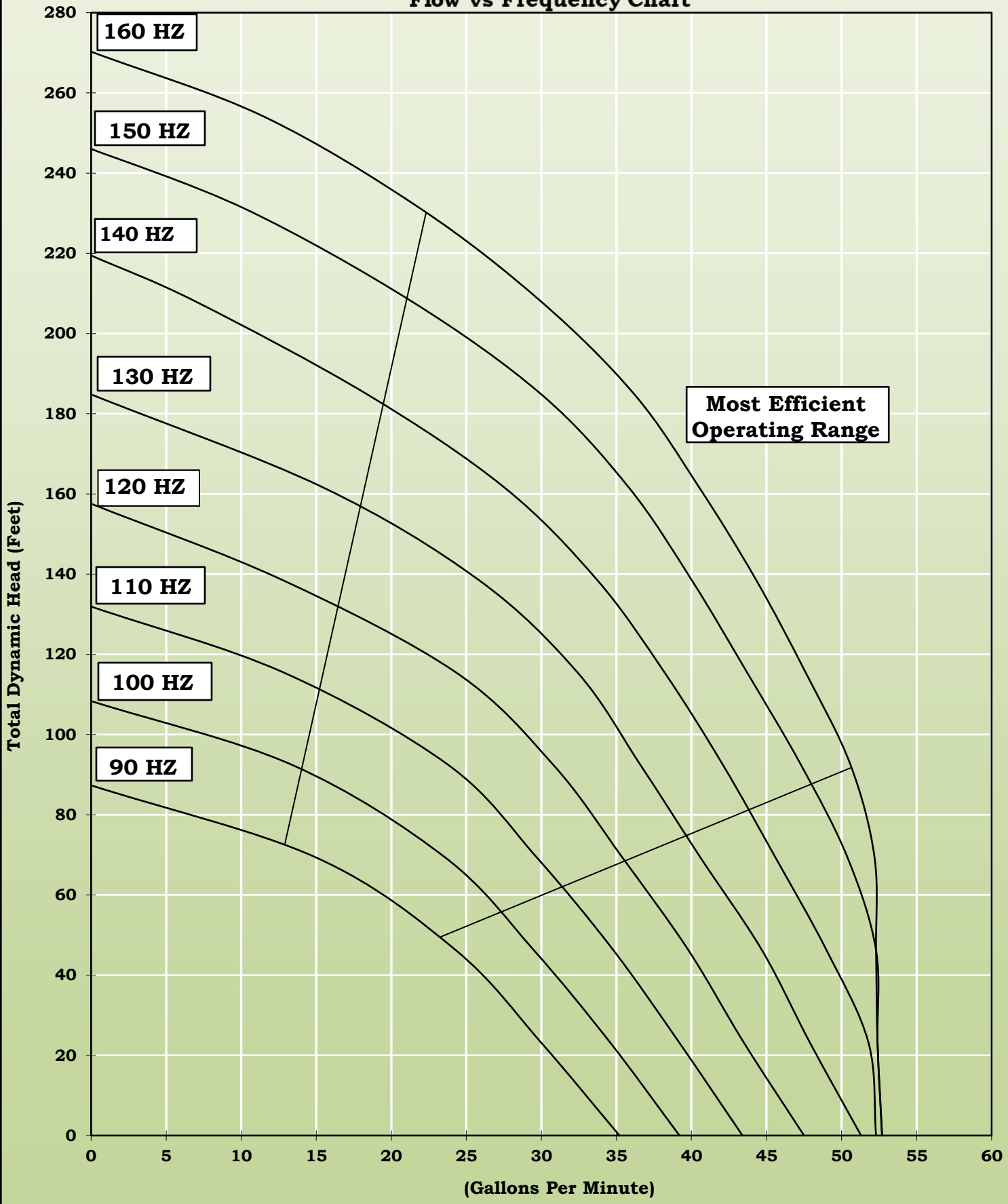


# SunPumps Centrifugal Submersible Model HS 35-190 AC/DC

## Flow vs Frequency Chart



**SunPumps Helical Rotor Submersible  
Model HS 35-190 AC/DC**

**160 HZ**

PSI	TDH Feet	TDH Meters	Motor Volts	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pump Effic.
0	0	0.0	240	9.95	52.7	199	2388	2985	0%
10	23	7.0	240	10.12	52.4	198	2429	3036	9%
20	46	14.1	240	10.46	52.3	198	2510	3138	18%
30	69	21.1	240	10.99	52.2	198	2638	3297	26%
40	92	28.2	240	11.26	50.6	192	2702	3378	33%
50	116	35.2	240	11.46	47.6	180	2750	3438	38%
60	139	42.3	240	11.60	44.3	168	2784	3480	42%
70	162	49.3	240	11.64	40.5	153	2794	3492	44%
80	185	56.3	240	11.61	36.2	137	2786	3483	45%
90	208	63.4	240	11.05	30.0	114	2652	3315	44%
100	231	70.4	240	9.96	22.0	83	2390	2988	40%
110	254	77.5	240	7.05	11.5	44	1692	2115	33%
117	270	82.4	240	5.23	0.0	0	1255	1569	0%

\* Array Watts using a 20% deration factor.

**150 HZ**

PSI	TDH Feet	TDH Meters	Motor Volts	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pump Effic.
0	0	0.0	240	8.63	52.7	199	2071	2589	0%
10	23	7.0	240	8.93	52.4	198	2143	2679	11%
20	46	14.1	240	9.42	52.3	198	2261	2826	20%
30	69	21.1	240	9.65	50.4	191	2316	2895	28%
40	92	28.2	240	9.88	47.3	179	2371	2964	35%
50	116	35.2	240	10.02	43.7	165	2405	3006	40%
60	139	42.3	240	10.11	40.0	151	2426	3033	43%
70	162	49.3	240	10.12	35.8	136	2429	3036	45%
80	185	56.3	240	9.80	30.0	114	2352	2940	44%
90	208	63.4	240	8.68	21.4	81	2083	2604	40%
100	231	70.4	240	5.86	10.3	39	1406	1758	32%
107	246	75.0	240	4.18	0.0	0	1003	1254	0%

\* Array Watts using a 20% deration factor.

**140 HZ**

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pump Effic.
0	0	0.0	240	7.62	52.3	198	1829	2286	0%
10	23	7.0	240	7.70	51.8	196	1848	2310	12%
20	46	14.1	240	7.81	49.0	185	1874	2343	23%
30	69	21.1	240	8.03	45.6	173	1927	2409	31%
40	92	28.2	240	8.25	42.1	159	1980	2475	37%
50	116	35.2	240	8.35	38.2	145	2004	2505	41%
60	139	42.3	240	8.36	33.7	128	2006	2508	44%
70	162	49.3	240	8.07	27.5	104	1937	2421	43%
80	185	56.3	240	6.96	18.4	70	1670	2088	38%
90	208	63.4	240	4.15	7.0	26	996	1245	28%
95	219	66.9	240	3.55	0.0	0	852	1065	0%

\* Array Watts using a 20% deration factor.

**130 HZ**

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pump Effic.
0	0	0.0	240	6.11	51.3	194	1466	1833	0%
10	23	7.0	240	6.24	47.9	181	1498	1872	14%
20	46	14.1	240	6.44	44.7	169	1546	1932	25%
30	69	21.1	240	6.67	40.6	154	1601	2001	33%
40	92	28.2	240	6.81	36.6	139	1634	2043	39%
50	116	35.2	240	6.85	32.4	123	1644	2055	43%
60	139	42.3	240	6.62	25.8	98	1589	1986	42%
70	162	49.3	240	5.50	15.4	58	1320	1650	36%
80	185	56.3	240	3.01	0.0	0	722	903	0%

\* Array Watts using a 20% deration factor.

**120 HZ**

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pump Effic.
0	0	0.0	240	4.97	47.5	180	1193	1491	0%
10	23	7.0	240	5.09	43.5	165	1222	1527	15%
20	46	14.1	240	5.28	39.8	151	1267	1584	27%
30	69	21.1	240	5.47	35.4	134	1313	1641	35%
40	92	28.2	240	5.53	30.8	117	1327	1659	40%
50	116	35.2	240	5.41	24.3	92	1298	1623	41%
60	139	42.3	240	4.26	12.7	48	1022	1278	32%
68	158	48.0	240	2.57	0.0	0	617	771	0%

\* Array Watts using a 20% deration factor.

**110 HZ**

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pump Effic.
0	0	0.0	240	3.90	43.4	164	936	1170	0%
10	23	7.0	240	4.10	39.2	148	984	1230	17%
20	46	14.1	240	4.27	34.8	132	1025	1281	30%
30	69	21.1	240	4.40	29.7	112	1056	1320	37%
40	92	28.2	240	4.37	23.8	90	1049	1311	40%
50	116	35.2	240	3.61	12.8	48	866	1083	32%
57	132	40.2	240	2.26	0.0	0	542	678	0%

\* Array Watts using a 20% deration factor.

**100 HZ**

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pmp Effic.
0	0	0.0	240	3.10	####	####	744	930	0%
10	23	7.0	240	3.27	####	####	785	981	19%
20	46	14.1	240	3.44	####	####	826	1032	31%
30	69	21.1	240	3.48	####	89.3	835	1044	37%
40	92	28.2	240	3.04	####	50.7	730	912	32%
47	108	33.0	240	1.99	0.00	0.0	478	597	0%

\* Array Watts using a 20% deration factor.

**90 HZ**

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pmp Effic.
0	0	0.0	240	2.42	35.2	133	581	726	0%
10	23	7.0	240	2.58	30.0	114	619	774	21%
20	46	14.1	240	2.69	24.3	92	646	807	33%
30	69	21.1	240	2.51	15.0	57	602	753	33%
38	87	26.6	240	1.69	0.0	0	406	507	0%

\* Array Watts using a 20% deration factor.