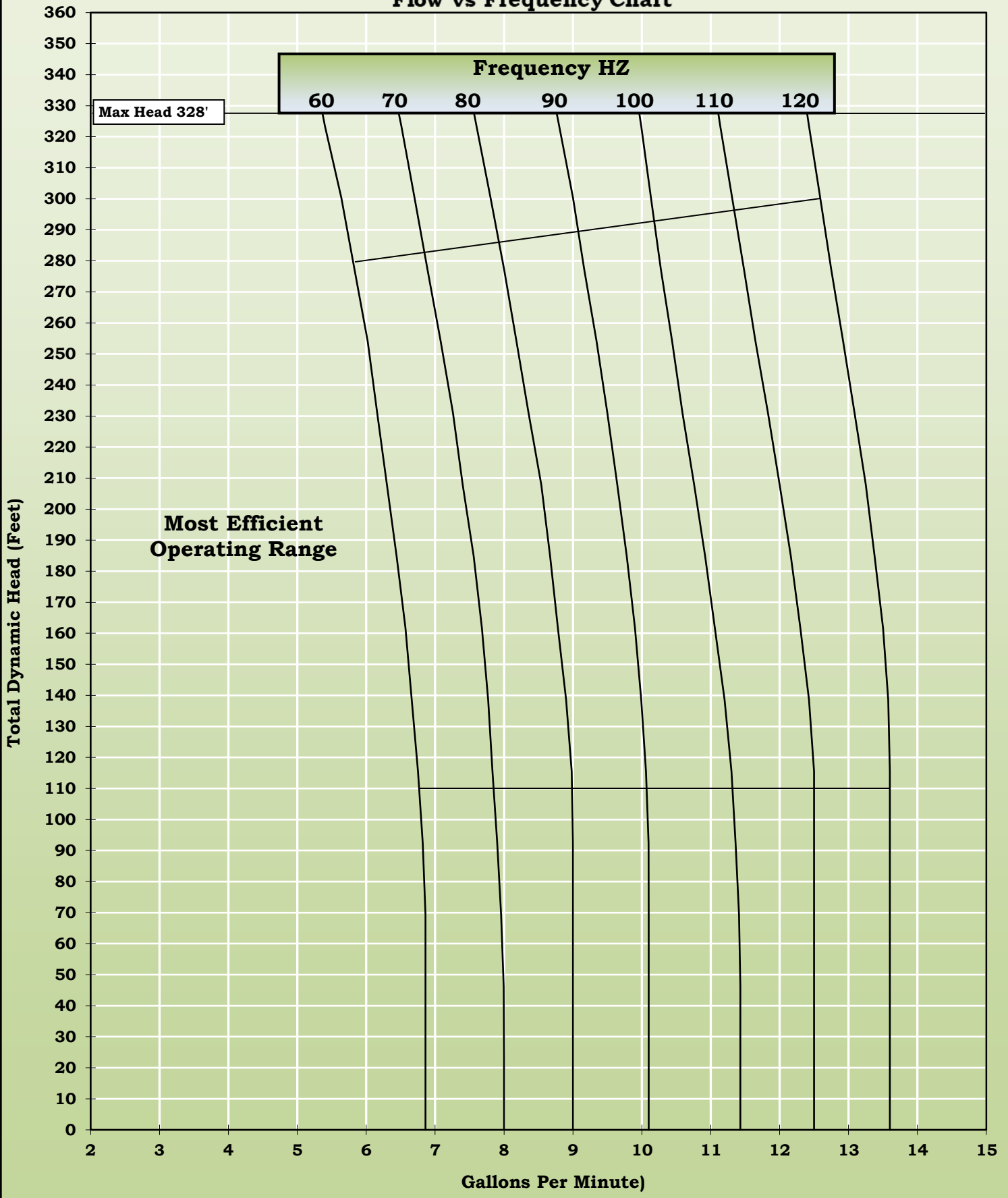


SunPumps Helical Rotor Submersible Model HR 12-328 AC/DC

Flow vs Frequency Chart



SunPumps Helical Rotor Submersible Model HR 12-328 AC/DC

120 HZ

PSI	TDH Feet	TDH Meters	Motor Volts	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pump Effic.
0	0	0.0	160	2.05	13.6	51.5	328	410	0%
10	23	7.0	160	2.30	13.6	51.5	368	460	16%
20	46	14.1	160	2.65	13.6	51.5	424	530	28%
30	69	21.1	160	3.04	13.6	51.5	486	608	37%
40	92	28.2	160	3.45	13.6	51.5	552	690	43%
50	116	35.2	160	3.88	13.6	51.5	621	776	48%
60	139	42.3	160	4.33	13.6	51.4	693	866	51%
70	162	49.3	160	4.76	13.5	51.1	762	952	54%
80	185	56.3	160	5.26	13.4	50.6	842	1052	55%
90	208	63.4	160	5.70	13.3	50.2	912	1140	57%
100	231	70.4	160	6.19	13.1	49.5	990	1238	58%
110	254	77.5	160	6.68	12.9	48.9	1069	1336	58%
120	277	84.5	160	7.18	12.8	48.3	1149	1436	58%
130	300	91.6	160	7.67	12.6	47.6	1227	1534	58%
140	323	98.6	160	8.19	12.4	47.0	1310	1638	58%
150	347	105.6	160	8.62	12.3	46.4	1379	1724	58%

* Array Watts using a 20% deration factor.

110 HZ

PSI	TDH Feet	TDH Meters	Motor Volts	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pump Effic.
0	0	0.0	160	1.71	12.50	47.3	274	342	0%
10	23	7.0	160	1.99	12.50	47.3	318	398	17%
20	46	14.1	160	2.34	12.50	47.3	374	468	29%
30	69	21.1	160	2.71	12.50	47.3	434	542	38%
40	92	28.2	160	3.09	12.50	47.3	494	618	44%
50	116	35.2	160	3.51	12.50	47.3	562	702	48%
60	139	42.3	160	3.90	12.43	47.0	624	780	52%
70	162	49.3	160	4.30	12.30	46.6	688	860	54%
80	185	56.3	160	4.72	12.16	46.0	755	944	56%
90	208	63.4	160	5.18	12.00	45.4	829	1036	57%
100	231	70.4	160	5.64	11.83	44.8	902	1128	57%
110	254	77.5	160	6.10	11.65	44.1	976	1220	57%
120	277	84.5	160	6.57	11.48	43.5	1051	1314	57%
130	300	91.6	160	7.04	11.31	42.8	1126	1408	57%
140	323	98.6	160	7.51	11.14	42.2	1202	1502	56%
150	347	105.6	160	8.00	10.98	41.6	1280	1600	56%

* 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	Pump Effic.
0	0	0.0	160	1.52	11.43	43.3	243	304	0%
10	23	7.0	160	1.75	11.43	43.3	280	350	18%
20	46	14.1	160	2.04	11.43	43.3	326	408	30%
30	69	21.1	160	2.37	11.41	43.2	379	474	39%
40	92	28.2	160	2.73	11.36	43.0	437	546	45%
50	116	35.2	160	3.09	11.30	42.8	494	618	50%
60	139	42.3	160	3.50	11.20	42.4	560	700	52%
70	162	49.3	160	3.86	11.06	41.9	618	772	55%
80	185	56.3	160	4.26	10.92	41.3	682	852	56%
90	208	63.4	160	4.68	10.76	40.7	749	936	56%
100	231	70.4	160	5.08	10.59	40.1	813	1016	57%
110	254	77.5	160	5.50	10.44	39.5	880	1100	57%
120	277	84.5	160	5.92	10.28	38.9	947	1184	57%
130	300	91.6	160	6.34	10.13	38.4	1014	1268	57%
140	323	98.6	160	6.81	9.99	37.8	1090	1362	56%
150	347	105.6	160	7.24	9.83	37.2	1158	1448	55%

* 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	Pump Effic.
0	0	0.0	160	1.35	10.10	38.2	216	270	0%
10	23	7.0	160	1.54	10.10	38.2	246	308	18%
20	46	14.1	160	1.78	10.10	38.2	285	356	31%
30	69	21.1	160	2.07	10.10	38.2	331	414	40%
40	92	28.2	160	2.38	10.10	38.2	381	476	46%
50	116	35.2	160	2.71	10.06	38.1	434	542	50%
60	139	42.3	160	3.07	9.99	37.8	491	614	53%
70	162	49.3	160	3.42	9.90	37.5	547	684	55%
80	185	56.3	160	3.80	9.78	37.0	608	760	56%
90	208	63.4	160	4.15	9.64	36.5	664	830	57%
100	231	70.4	160	4.54	9.50	36.0	726	908	57%
110	254	77.5	160	4.93	9.34	35.4	789	986	57%
120	277	84.5	160	5.34	9.16	34.7	854	1068	56%
130	300	91.6	160	5.73	9.00	34.1	917	1146	56%
140	323	98.6	160	6.13	8.80	33.3	981	1226	55%
150	347	105.6	160	6.55	8.60	32.6	1048	1310	54%

* Array Watts using a 20% deration factor.

80 HZ

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pump Effic.
0	0	0.0	160	1.22	9.00	34.1	195	244	0%
10	23	7.0	160	1.36	9.00	34.1	218	272	18%
20	46	14.1	160	1.53	9.00	34.1	245	306	32%
30	69	21.1	160	1.76	9.00	34.1	282	352	42%
40	92	28.2	160	2.00	9.00	34.1	320	400	49%
50	116	35.2	160	2.28	8.98	34.0	365	456	54%
60	139	42.3	160	2.60	8.90	33.7	416	520	56%
70	162	49.3	160	2.93	8.78	33.2	469	586	57%
80	185	56.3	160	3.30	8.67	32.8	528	660	57%
90	208	63.4	160	3.65	8.54	32.3	584	730	57%
100	231	70.4	160	3.98	8.36	31.6	637	796	57%
110	254	77.5	160	4.28	8.18	31.0	685	856	57%
120	277	84.5	160	4.64	8.00	30.3	742	928	56%
130	300	91.6	160	5.02	7.80	29.5	803	1004	55%
140	323	98.6	160	5.38	7.60	28.8	861	1076	54%
150	347	105.6	160	5.74	7.40	28.0	918	1148	53%

* Array Watts using a 20% deration factor.

70 HZ

PSI	TDH Feet	TDH Meters	Motor Voltage	Motor Amps	U.S. GPM	LPM	Motor Watts	Array *Watts	Pump Effic.
0	0	0.0	160	0.94	8.00	30.3	150	188	0%
10	23	7.0	160	1.13	8.00	30.3	181	226	19%
20	46	14.1	160	1.33	7.99	30.3	213	266	33%
30	69	21.1	160	1.55	7.96	30.1	248	310	42%
40	92	28.2	160	1.77	7.90	29.9	283	354	49%
50	116	35.2	160	2.01	7.83	29.6	322	402	53%
60	139	42.3	160	2.31	7.77	29.4	370	462	55%
70	162	49.3	160	2.61	7.68	29.1	418	522	56%
80	185	56.3	160	2.88	7.56	28.6	461	576	57%
90	208	63.4	160	3.17	7.40	28.0	507	634	57%
100	231	70.4	160	3.52	7.26	27.5	563	704	56%
110	254	77.5	160	3.84	7.08	26.8	614	768	55%
120	277	84.5	160	4.15	6.89	26.1	664	830	54%
130	300	91.6	160	4.49	6.70	25.4	718	898	53%
140	323	98.6	160	4.85	6.51	24.6	776	970	51%
150	347	105.6	160	5.18	6.30	23.8	829	1036	50%

* Array Watts using a 20% deration factor.