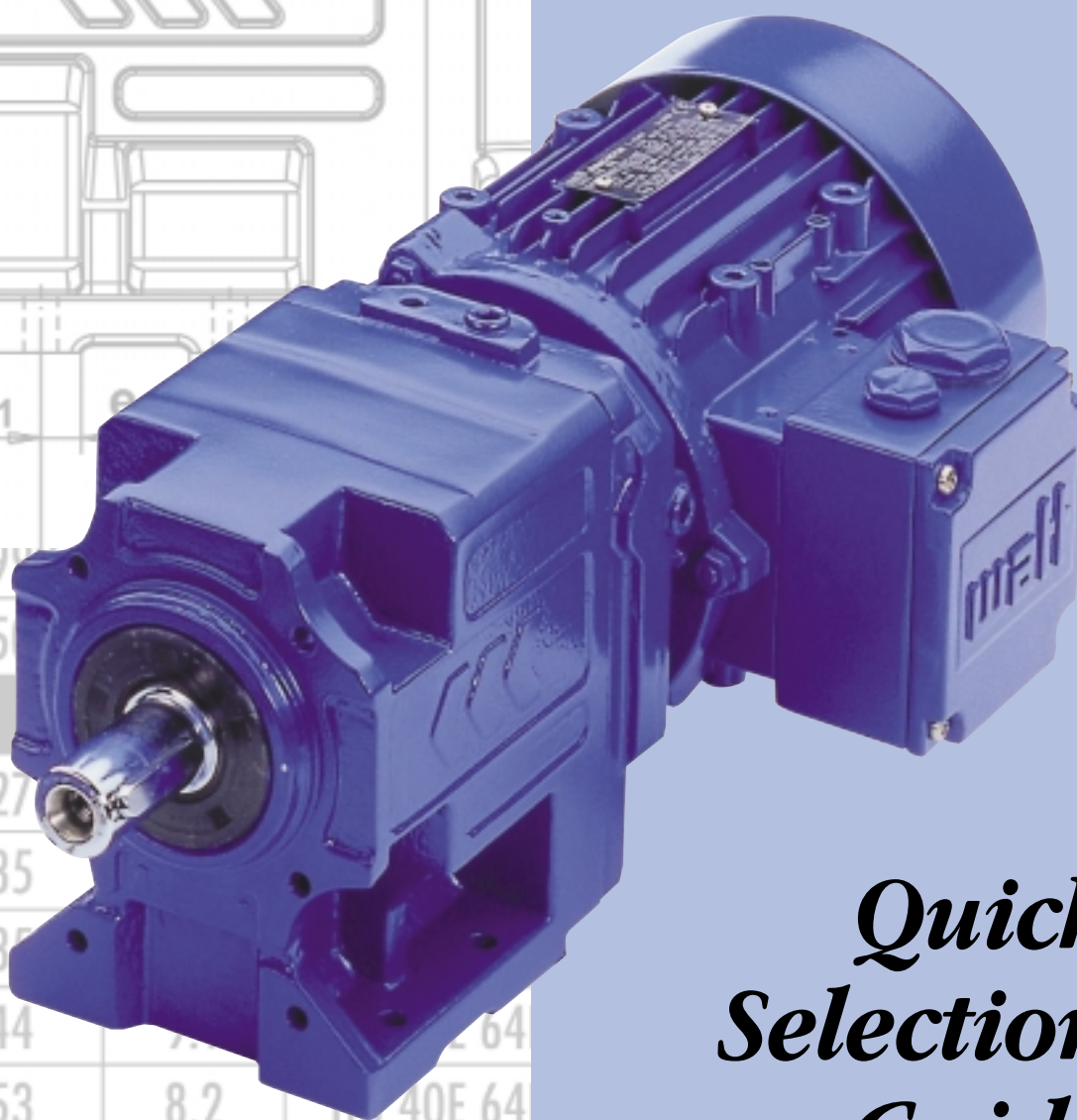


Inline Helical

Series H



*Quick
Selection
Guide*

Inline Helical Gearmotors and Speed Reducers

WATT Drive has been a global supplier of cutting edge drive technology for over 30 years. With manufacturing, assembly, warehousing, and tech center facilities throughout Europe, North America, and Asia, WATT Drive provides local personal service along with worldwide customer support.

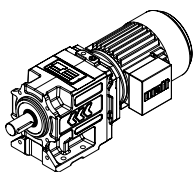
The WATT Drive philosophy is to provide the optimal drive solution for each unique application. By combining the most appropriate reducer, motor and drive, or just individual components, the result is maximum design versatility, outstanding operating performance, and extreme reliability.

This catalog has been designed merely as a quick selection guide, highlighting the available solutions for basic applications. A wide variety of features, options, speeds, and ratios are offered by WATT Drive. Please contact DieQua Corporation, WATT Drive's manufacturing, engineering, and marketing partner in North America, for additional technical information or capabilities not found in this selection guide.

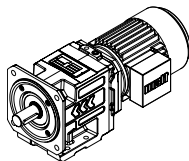
Program Benefits:

- Optimized gearing for high power density
- Multi Volts/Hz inverter duty integral motors
- NEMA, IEC, or servo motor adapters
- High efficiency and low backlash
- Multiple mounting configurations
- Inch or metric shafts and bores
- Special design options
- Complete drive packages

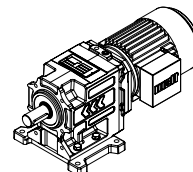
Designs Available



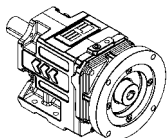
HU
Uniblock



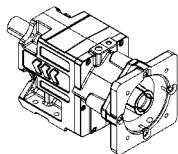
HF
Flange Mount



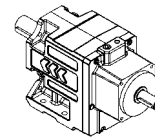
HG
Foot Mount



H. ... NA..
NEMA Adapter



H. ... SA..
Servo Adapter



H. ... WN
Input Shaft

Selection Guide Contents

Selection Information pg. 3
Gearmotor Data pgs. 4-17
Speed Reducer Data pgs. 18-21

Dimensions. pgs. 22-25
Technical Data. pgs. 26-28
Ordering Examples pg. 29

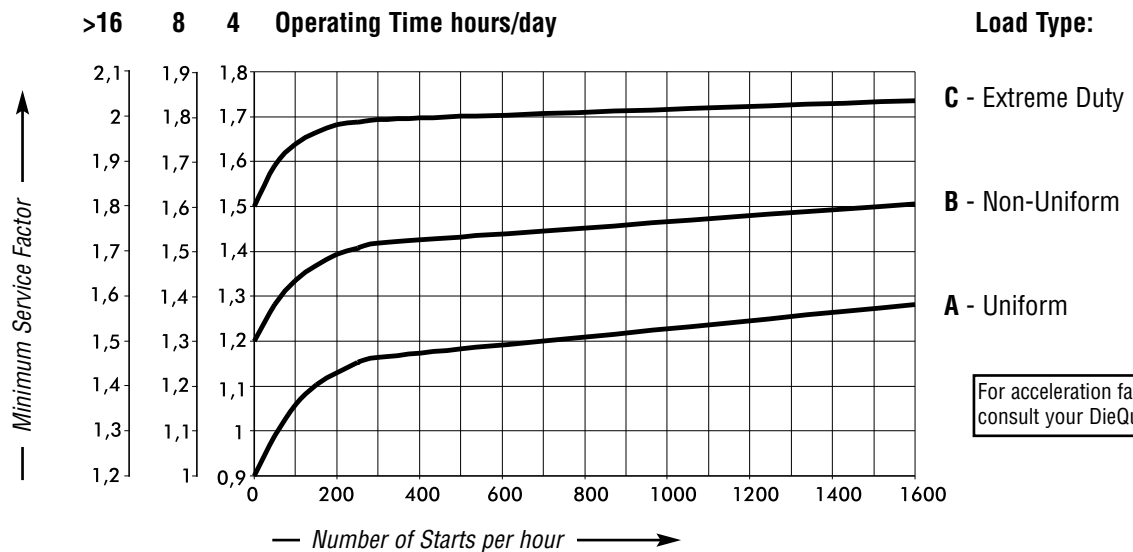
The ratings in this guide are based on 3 phase, 60 Hz, 230 or 460 volt operation. For additional technical data and design options, please contact your WAT Drive/DieQua Corporation representative or request the complete MAS 2000 engineering catalog.

1. Determine horsepower or torque required:

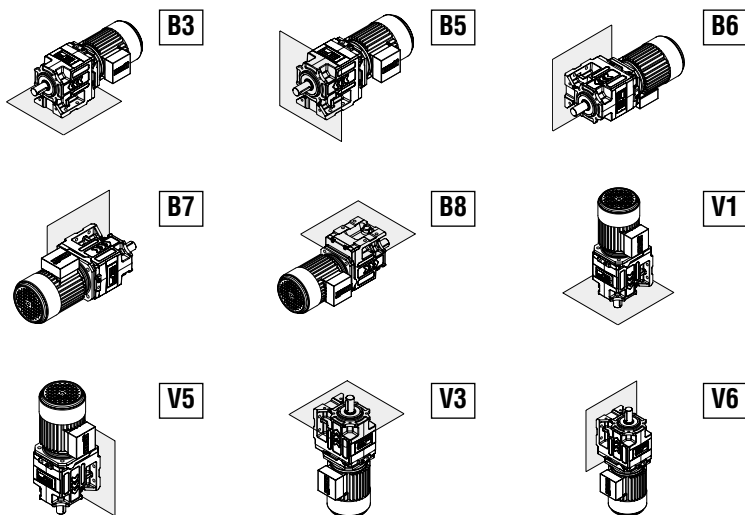
$$\text{Horsepower} = \frac{\text{Torque (in-lbs)} \times \text{Output Speed}}{63025}$$

$$\text{Output Torque (in-lbs)} = \frac{63025 \times \text{HP} \times \text{Ratio}}{\text{Input Speed}}$$

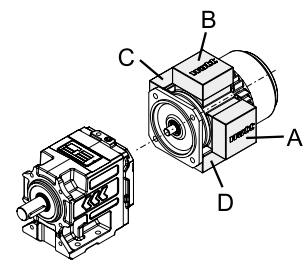
2. Determine service factor:



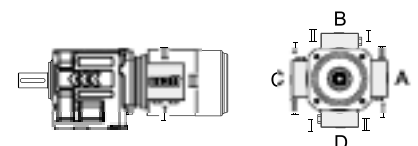
3. Determine: a) Mounting Position



b) Terminal Box Position



c) Cable Entry Position



4. Select appropriate drive and contact DieQua for complete ordering description.



WATT Drive gearmotors are known the world over for offering superior performance and reliable operation in the most demanding applications. An optimized gear tooth design provides high power density, resulting in greater torque capacities in a smaller size. The inverter duty WATT Drive EUSAS motor can be connected to any volts/hertz combination for global usage and is available with a wide variety of options.

In the American market, the unique design of this motor generates up to 20% more power than competitive motors of similar frame sizes. Therefore, a

major benefit of the WATT Drive gearmotor is the ability to generate higher torque in an overall smaller and more cost effective package.

Engineering Note:

The torque values and service factors in the selection charts have been calculated with the actual motor horsepower capacities. When considering nominal horse power ratings, please note that the torque generated will be lower while the service factor will increase by up to 20%. Contact your representative with any questions regarding proper selection.

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
1/8 HP nominal (0.2 HP actual)				
252	44	7.15	6.42	HU 40E 64K4
228	53	5.85	7.09	HU 40E 64K4
205	62	4.65	7.9	HU 40E 64K4
182	71	3.6	8.89	HU 40E 64K4
140	87	10.2	11.55	HU 40A 64K4
119	106	8.7	13.61	HU 40A 64K4
100	124	7.3	16.19	HU 40A 64K4
87	142	6.35	18.67	HU 40A 64K4
75	159	5.5	21.54	HU 40A 64K4
68	177	4.95	23.92	HU 40A 64K4
56	221	4.1	29.08	HU 40A 64K4
45	266	3.35	35.64	HU 40A 64K4
40	310	2.9	40.92	HU 40A 64K4
36	336	2.65	44.92	HU 40A 64K4
33	372	2.4	49.64	HU 40A 64K4
29	416	2.15	55.3	HU 40A 64K4
26	469	1.9	62.22	HU 40A 64K4
19	628	2.55	83.34	HU 50C 64K4
15	832	1.95	110.89	HU 50C 64K4
14	1381	1.2	123.14	HU 50C 64K4
13	929	1.75	149.7	HU 50C 64K4
12	991	2.45	131.7	HU 55C 64K4
11	1124	1.45	165.18	HU 50C 64K4
10	1204	2	160.11	HU 55C 64K4
9.8	1239	1.3	183.48	HU 50C 64K4
9.2	1328	1.85	176.67	HU 55C 64K4
8.9	1372	2.6	182.17	HU 60C 64K4
8.8	1381	1.2	210.7	HU 50C 64K4
8.3	1478	1.65	196.23	HU 55C 64K4
7.7	1584	1.05	231.26	HU 50C 64K4
7.3	1664	2.15	221.48	HU 60C 64K4
7.2	1690	1.45	225.34	HU 55C 64K4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
7	1735	0.95	255.56	HU 50C 64K4
6.6	1832	1.95	244.38	HU 60C 64K4
6.5	1859	1.3	247.33	HU 55C 64K4
6	2036	1.75	271.44	HU 60C 64K4
5.9	2053	1.2	273.32	HU 55C 64K4
5.3	2283	1.05	304.51	HU 55C 64K4
5.2	2345	1.55	311.71	HU 60C 64K4
5.1	2398	2.1	318.86	HU 65C 64K4
4.7	2575	0.95	342.63	HU 55C 64K4
4.7	2567	1.4	342.13	HU 60C 64K4
4.6	2628	1.9	349.98	HU 65C 64K4
4.3	2841	1.25	378.07	HU 60C 64K4
4.2	2903	1.75	386.75	HU 65C 64K4
3.8	3168	1.15	421.21	HU 60C 64K4
3.8	3239	1.55	430.88	HU 65C 64K4
3.4	3558	1	473.94	HU 60C 64K4
3.3	3646	1.4	484.81	HU 65C 64K4
2.7	3912	1.85	596.47	HU 70D 64K4
2.4	4558	1.6	687.82	HU 70D 64K4
2	5310	1.35	793.64	HU 70D 64K4
1.7	6195	2.05	952.78	HU 80D 64K4
1.5	7275	1	1071.42	HU 70D 64K4
1.4	7655	1.65	1158.35	HU 80D 64K4
1.1	9505	1.35	1419.66	HU 80D 64K4
1/4 HP nominal (0.3 HP actual)				
608	27	14.15	2.67	HU 40E 64N4
527	35	12.3	3.08	HU 40E 64N4
390	44	9.1	4.15	HU 40E 64N4
318	53	6.9	5.09	HU 40E 64N4
277	62	5.65	5.85	HU 40E 64N4
228	80	3.9	7.09	HU 40E 64N4
205	89	3.1	7.9	HU 40E 64N4
182	97	2.4	8.89	HU 40E 64N4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
166	106	8.1	9.75	HU 40A 64N4
140	133	6.8	11.55	HU 40A 64N4
119	150	5.8	13.61	HU 40A 64N4
100	186	4.9	16.19	HU 40A 64N4
87	212	4.25	18.67	HU 40A 64N4
75	239	3.65	21.54	HU 40A 64N4
68	266	3.3	23.92	HU 40A 64N4
56	327	2.75	29.08	HU 40A 64N4
45	398	2.25	35.64	HU 40A 64N4
40	460	1.95	40.92	HU 40A 64N4
36	504	1.75	44.92	HU 40A 64N4
33	558	1.6	49.64	HU 40A 64N4
32	566	2.85	50.22	HU 50A 64N4
29	620	1.45	55.3	HU 40A 64N4
27	681	2.35	60.58	HU 50A 64N4
26	699	1.3	62.22	HU 40A 64N4
24	761	2.1	67.32	HU 50A 64N4
21	850	1.9	75.56	HU 50A 64N4
18	1009	2.4	89.14	HU 55C 64N4
16	1159	2.1	102.79	HU 55C 64N4
14	1336	1.8	118.6	HU 55C 64N4
13	1389	2.55	123.3	HU 60C 64N4
12	1487	1.65	131.7	HU 55C 64N4
11	1602	2.25	142.18	HU 60C 64N4
10	1805	1.35	160.11	HU 55C 64N4
9.9	1850	1.95	164.06	HU 60C 64N4
9.8	1859	0.9	165.18	HU 50C 64N4
9.7	1894	2.65	167.82	HU 65C 64N4
9.2	1991	1.25	176.67	HU 55C 64N4
8.9	2053	1.75	182.17	HU 60C 64N4
8.7	2097	2.4	186.35	HU 65C 64N4
8.3	2213	1.1	196.23	HU 55C 64N4
7.3	2496	1.45	221.48	HU 60C 64N4

* These units have thermal limitations. Please contact a DieQua representative for details.
⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.



Gearmotor Selection Tables

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
7.2	2540	0.95	225.34	HU 55C 64N4
7.2	2549	1.95	226.56	HU 65C 64N4
6.6	2752	1.3	244.38	HU 60C 64N4
6.5	2788	0.9	247.33	HU 55C 64N4
6.5	2814	1.8	249.98	HU 65C 64N4
6	3062	1.2	271.44	HU 60C 64N4
5.8	3133	1.6	277.67	HU 65C 64N4
5.2	3513	1.05	311.71	HU 60C 64N4
5.2	3540	2.05	314.12	HU 70C 64N4
5.1	3593	1.4	318.86	HU 65C 64N4
4.7	3859	0.95	342.13	HU 60C 64N4
4.6	3947	1.3	349.98	HU 65C 64N4
4.5	4053	1.75	359.38	HU 70C 64N4
4.2	4354	1.15	386.75	HU 65C 64N4
3.8	4859	1.05	430.88	HU 65C 64N4
3.7	4885	1.45	433.58	HU 70C 64N4
3.3	5460	0.95	484.41	HU 65C 64N4
3	6098	1.2	540.74	HU 70C 64N4
1.8	9000	2	920.64	HU 85D 64N4
1.6	10071	1.8	1022.3	HU 85D 64N4
1.4	11744	1.1	1158.35	HU 80D 64N4
1.3	13018	1	1278.12	HU 80D 64N4
1.3	12425	1.45	1242.87	HU 85D 64N4
1.1	14514	0.9	1419.66	HU 80D 64N4
1/3 HP nominal (0.4 HP actual)				
833	27	14	1.94	HU 40E 72K4
701	35	11.75	2.31	HU 40E 72K4
608	44	10.2	2.67	HU 40E 72K4
527	44	8.85	3.08	HU 40E 72K4
474	53	7.95	3.42	HU 40E 72K4
390	62	6.55	4.15	HU 40E 72K4
353	71	5.9	4.58	HU 40E 72K4
318	79	4.95	5.09	HU 40E 72K4
296	89	10.2	5.47	HU 40S 72K4
285	89	10	5.68	HU 40A 72K4
277	89	4.05	5.85	HU 40E 72K4
252	97	3.45	6.42	HU 40E 72K4
247	106	8.65	6.57	HU 40S 72K4
238	106	8.35	6.79	HU 40A 72K4
228	115	2.8	7.09	HU 40E 72K4
219	116	4.9	7.38	HU 50E 72K4
208	124	7.3	7.78	HU 40S 72K4
205	124	2.25	7.9	HU 40E 72K4
200	127	4.2	8.08	HU 50E 72K4
199	124	7	8.13	HU 40A 72K4
182	142	1.75	8.89	HU 40E 72K4
182	140	3.4	8.91	HU 50E 72K4
177	142	6.2	9.17	HU 40S 72K4
166	150	5.8	9.75	HU 40A 72K4
164	155	2.65	9.9	HU 50E 72K4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
149	168	5.2	10.9	HU 40S 72K4
146	174	2	11.11	HU 50E 72K4
140	177	4.9	11.55	HU 40A 72K4
129	195	4.5	12.57	HU 40S 72K4
119	212	4.2	13.61	HU 40A 72K4
112	230	3.9	14.51	HU 40S 72K4
100	257	3.5	16.19	HU 40A 72K4
87	292	3.05	18.67	HU 40A 72K4
75	336	2.65	21.54	HU 40A 72K4
68	372	2.4	23.92	HU 40A 72K4
56	451	1.95	29.08	HU 40A 72K4
50	504	1.8	32.08	HU 40A 72K4
45	558	1.6	35.64	HU 40A 72K4
45	566	2.85	36.09	HU 50A 72K4
41	620	2.6	39.67	HU 50A 72K4
40	637	1.4	40.92	HU 40A 72K4
37	690	2.35	43.89	HU 50A 72K4
36	699	1.3	44.92	HU 40A 72K4
33	779	1.15	49.64	HU 40A 72K4
32	788	2.05	50.22	HU 50A 72K4
30	841	2.85	53.71	HU 55A 72K4
29	867	1.05	55.3	HU 40A 72K4
29	858	1.9	54.97	HU 50A 72K4
28	920	2.6	58.79	HU 55A 72K4
27	947	1.7	60.58	HU 50A 72K4
26	974	0.95	62.22	HU 40A 72K4
25	1018	2.4	64.79	HU 55A 72K4
24	1053	1.55	67.32	HU 50A 72K4
23	1124	2.15	72	HU 55A 72K4
21	1186	1.35	75.56	HU 50A 72K4
20	1266	1.85	80.81	HU 55A 72K4
18	1381	2.6	87.98	HU 60C 72K4
16	1620	2.2	103.67	HU 60C 72K4
15	1664	3	106.05	HU 65C 72K4
13	1929	1.85	123.3	HU 60C 72K4
13	1974	2.55	126.13	HU 65C 72K4
11	2221	1.6	142.18	HU 60C 72K4
11	2274	2.2	145.44	HU 65C 72K4
10	2505	1	160.11	HU 55C 72K4
9.9	2567	1.4	164.06	HU 60C 72K4
9.7	2628	1.9	167.82	HU 65C 72K4
9.5	2664	2.7	170.33	HU 70C 72K4
9.2	2761	0.9	176.67	HU 55C 72K4
8.9	2850	1.25	182.17	HU 60C 72K4
8.7	2921	1.7	186.35	HU 65C 72K4
8.3	3044	2.35	194.67	HU 70C 72K4
7.5	3363	2.15	214.94	HU 70C 72K4
7.3	3469	1.05	221.48	HU 60C 72K4
7.2	3549	1.4	226.56	HU 65C 72K4
6.6	3823	0.95	244.38	HU 60C 72K4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
6.5	3912	1.3	249.98	HU 65C 72K4
6.3	4044	1.8	258.31	HU 70C 72K4
5.8	4345	1.15	277.67	HU 65C 72K4
5.7	4443	1.6	283.89	HU 70C 72K4
5.2	4921	1.45	314.12	HU 70C 72K4
5.1	4991	1	318.86	HU 65C 72K4
4.6	5478	0.95	349.98	HU 65C 72K4
4.5	5629	1.3	359.38	HU 70C 72K4
4.2	6080	2.05	388.54	HU 80C 72K4
4.1	6160	1.15	393.39	HU 70C 72K4
3.8	6655	1.9	425.31	HU 80C 72K4
3.7	6788	1.05	433.58	HU 70C 72K4
3.5	7337	1.7	468.76	HU 80C 72K4
3.4	7540	0.95	481.8	HU 70C 72K4
3.1	8151	1.55	520.89	HU 80C 72K4
2.8	9151	1.4	584.62	HU 80C 72K4
1.8	12806	1.4	920.64	HU 85D 72K4
1.6	13328	2	982.17	HG 110D 72K4
1.6	14310	1.25	1022.3	HU 85D 72K4
1.4	15390	1.75	1122.48	HG 110D 72K4
1.3	17134	1.55	1239.4	HG 110D 72K4
1.3	17541	1.05	1242.87	HU 85D 72K4
1.2	19435	0.95	1371.38	HU 85D 72K4
1/2 HP nominal (0.6 HP actual)				
1108	32	12.75	1.39	HU 40E 72N4
996	38	11.3	1.65	HU 40E 72N4
845	44	9.6	1.94	HU 40E 72N4
711	53	8.05	2.31	HU 40E 72N4
617	62	7	2.67	HU 40E 72N4
534	71	6.05	3.08	HU 40E 72N4
481	80	5.45	3.42	HU 40E 72N4
430	89	9.1	3.82	HU 40S 72N4
396	97	4.5	4.15	HU 40E 72N4
359	106	4.05	4.58	HU 40E 72N4
359	106	8	4.58	HU 40S 72N4
323	115	3.4	5.09	HU 40E 72N4
300	124	7	5.47	HU 40S 72N4
290	133	6.85	5.68	HU 40A 72N4
281	133	2.8	5.85	HU 40E 72N4
256	150	2.4	6.42	HU 40E 72N4
255	150	4.25	6.45	HU 50E 72N4
250	150	5.95	6.57	HU 40S 72N4
242	159	5.75	6.79	HU 40A 72N4
232	159	1.95	7.09	HU 40E 72N4
223	168	3.35	7.38	HU 50E 72N4
211	177	5	7.78	HU 40S 72N4
208	177	1.55	7.9	HU 40E 72N4
203	186	2.85	8.08	HU 50E 72N4
202	186	4.8	8.13	HU 40A 72N4
185	204	1.2	8.89	HU 40E 72N4

* These units have thermal limitations. Please contact a DieQua representative for details.
⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.

Gearmotor Selection Tables



RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
185	204	2.35	8.91	HU 50E 72N4
179	212	4.25	9.17	HU 40S 72N4
169	221	4	9.75	HU 40A 72N4
166	230	1.85	9.9	HU 50E 72N4
151	248	3.6	10.9	HU 40S 72N4
148	257	1.4	11.11	HU 50E 72N4
142	266	3.4	11.55	HU 40A 72N4
131	283	3.1	12.57	HU 40S 72N4
121	310	2.85	13.61	HU 40A 72N4
113	327	2.7	14.51	HU 40S 72N4
102	372	2.4	16.19	HU 40A 72N4
88	425	2.1	18.67	HU 40A 72N4
76	496	1.85	21.54	HU 40A 72N4
69	549	1.65	23.92	HU 40A 72N4
69	540	2.95	23.8	HU 50A 72N4
60	620	2.6	27.2	HU 50A 72N4
57	664	1.35	29.08	HU 40A 72N4
55	681	2.35	30.03	HU 50A 72N4
51	735	1.25	32.08	HU 40A 72N4
46	814	1.1	35.64	HU 40A 72N4
46	823	1.95	36.09	HU 50A 72N4
43	885	2.75	38.6	HU 55A 72N4
41	903	1.8	39.67	HU 50A 72N4
40	938	0.95	40.92	HU 40A 72N4
39	965	2.5	42.42	HU 55A 72N4
37	1027	0.9	44.92	HU 40A 72N4
37	1000	1.6	43.89	HU 50A 72N4
35	1071	2.25	46.94	HU 55A 72N4
33	1151	1.4	50.22	HU 50A 72N4
31	1230	1.95	53.71	HU 55A 72N4
30	1257	1.3	54.97	HU 50A 72N4
28	1345	1.8	58.79	HU 55A 72N4
27	1381	1.2	60.58	HU 50A 72N4
25	1478	1.65	64.79	HU 55A 72N4
24	1540	1.05	67.32	HU 50A 72N4
23	1646	1.5	72	HU 55A 72N4
22	1726	0.95	75.56	HU 50A 72N4
20	1841	1.25	80.81	HU 55A 72N4
15	2496	2.85	109.5	HU 70C 72N4
13	2814	1.3	123.3	HU 60C 72N4
13	2876	1.75	126.13	HU 65C 72N4
13	2903	2.45	127.07	HU 70C 72N4
12	3248	1.1	142.18	HU 60C 72N4
11	3319	1.5	145.44	HU 65C 72N4
11	3398	2.1	149.04	HU 70C 72N4
10	3744	0.95	164.06	HU 60C 72N4
9.8	3832	1.3	167.82	HU 65C 72N4
9.7	3885	1.85	170.33	HU 70C 72N4
9	4160	0.9	182.17	HU 60C 72N4
8.9	4204	2.95	184.15	HU 80C 72N4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
8.8	4257	1.2	186.35	HU 65C 72N4
8.4	4443	1.6	194.67	HU 70C 72N4
7.8	4806	2.6	210.46	HU 80C 72N4
7.6	4903	1.45	214.94	HU 70C 72N4
7.3	5168	1	226.56	HU 65C 72N4
7.1	5301	2.35	232.38	HU 80C 72N4
6.6	5708	0.9	249.98	HU 65C 72N4
6.4	5894	1.25	258.31	HU 70C 72N4
5.9	6372	1.95	279.27	HU 80C 72N4
5.8	6478	1.1	283.89	HU 70C 72N4
5.5	6841	2.6	299.64	HU 85C 72N4
5.4	7009	1.8	306.92	HU 80C 72N4
5.2	7169	1	314.12	HU 70C 72N4
5	7514	2.4	329.32	HU 85C 72N4
4.8	7753	1.6	339.61	HU 80C 72N4
4.6	8204	0.9	359.38	HU 70C 72N4
4.5	8319	2.15	364.39	HU 85C 72N4
4.2	8868	1.4	388.54	HU 80C 72N4
3.9	9708	1.3	425.31	HU 80C 72N4
3.9	9514	1.9	416.9	HU 85C 72N4
3.6	10416	1.7	456.34	HU 85C 72N4
3.5	10700	1.2	468.76	HU 80C 72N4
3.3	11478	1.55	502.96	HU 85C 72N4
3.2	11886	1.05	520.89	HU 80C 72N4
2.9	12762	1.4	558.9	HU 85C 72N4
2.8	13346	0.95	584.62	HU 80C 72N4
2.6	14319	1.25	627.27	HU 85C 72N4
2.2	14594	1.85	732.73	HG 110D 72N4
1.9	17328	1.55	859.4	HG 110D 72N4
1.7	19974	1.35	982.17	HG 110D 72N4
1.5	22966	1.2	1122.48	HG 110D 72N4
1.4	23364	1.9	1175.64	HG 130D 72N4
1.3	25515	1.05	1239.4	HG 110D 72N4
1.2	28435	1.6	1412.81	HG 130D 72N4
3/4 HP nominal (0.8 HP actual)				
1015	55	7.75	1.65	HU 40E 81K4
861	55	6.6	1.94	HU 40E 81K4
724	80	5.55	2.31	HU 40E 81K4
628	89	4.8	2.67	HU 40E 81K4
544	106	4.15	3.08	HU 40E 81K4
490	115	3.75	3.42	HU 40E 81K4
438	124	6.25	3.82	HU 40S 81K4
403	142	3.1	4.15	HU 40E 81K4
366	150	5.5	4.58	HU 40S 81K4
365	150	2.8	4.58	HU 40E 81K4
329	168	2.35	5.09	HU 40E 81K4
315	177	4.1	5.31	HU 50E 81K4
306	186	4.8	5.47	HU 40S 81K4
295	186	4.7	5.68	HU 40A 81K4
287	195	3.5	5.83	HU 50E 81K4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
286	195	1.9	5.85	HU 40E 81K4
261	212	1.65	6.42	HU 40E 81K4
259	212	2.9	6.45	HU 50E 81K4
255	221	4.05	6.57	HU 40S 81K4
246	230	3.95	6.79	HU 40A 81K4
237	239	4.6	7.08	HU 60E 81K4
236	239	1.35	7.09	HU 40E 81K4
227	248	2.3	7.38	HU 50E 81K4
216	257	3.9	7.75	HU 60E 81K4
215	257	3.45	7.78	HU 40S 81K4
212	239	1.35	7.9	HU 40E 81K4
207	266	2	8.08	HU 50E 81K4
206	274	3.3	8.13	HU 40A 81K4
196	283	3.2	8.55	HU 60E 81K4
188	301	1.6	8.91	HU 50E 81K4
183	310	2.9	9.17	HU 40S 81K4
172	327	2.75	9.75	HU 40A 81K4
171	327	2.45	9.77	HU 60E 81K4
169	327	1.25	9.9	HU 50E 81K4
157	354	2.1	10.67	HU 60E 81K4
154	363	2.45	10.9	HU 40S 81K4
151	372	0.95	11.11	HU 50E 81K4
145	381	2.3	11.55	HU 40A 81K4
143	389	1.7	11.73	HU 60E 81K4
133	416	2.15	12.57	HU 40S 81K4
123	451	2	13.61	HU 40A 81K4
115	487	1.85	14.51	HU 40S 81K4
103	540	1.65	16.19	HU 40A 81K4
94	593	2.7	17.76	HU 50A 81K4
90	620	1.45	18.67	HU 40A 81K4
80	690	2.3	20.83	HU 50A 81K4
78	717	1.25	21.54	HU 40A 81K4
70	797	1.15	23.92	HU 40A 81K4
70	797	2.05	23.8	HU 50A 81K4
66	850	2.85	25.45	HU 55A 81K4
62	903	1.8	27.2	HU 50A 81K4
58	965	0.95	29.08	HU 40A 81K4
58	974	2.5	29.09	HU 55A 81K4
56	1000	1.6	30.03	HU 50A 81K4
52	1071	2.25	32.12	HU 55A 81K4
46	1204	1.35	36.09	HU 50A 81K4
44	1257	2.85	37.64	HU 60A 81K4
43	1283	1.9	38.6	HU 55A 81K4
42	1319	1.25	39.67	HU 50A 81K4
39	1416	1.7	42.42	HU 55A 81K4
38	1460	1.1	43.89	HU 50A 81K4
38	1478	2.4	44.39	HU 60A 81K4
36	1566	1.55	46.94	HU 55A 81K4
34	1620	2.2	48.61	HU 60A 81K4
33	1673	1	50.22	HU 50A 81K4

* These units have thermal limitations. Please contact a DieQua representative for details.

⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.



Gearmotor Selection Tables

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
31	1788	1.35	53.71	HU 55A 81K4
31	1788	2	53.6	HU 60A 81K4
30	1832	0.9	54.97	HU 50A 81K4
28	1956	1.25	58.79	HU 55A 81K4
27	2044	1.75	61.28	HU 60A 81K4
26	2159	1.15	64.79	HU 55A 81K4
25	2230	1.6	66.91	HU 60A 81K4
23	2398	1	72	HU 55A 81K4
23	2451	1.45	73.56	HU 60A 81K4
21	2664	2.7	80.06	HU 70C 81K4
18	3124	2.3	93.86	HU 70C 81K4
15	3646	1.95	109.5	HU 70C 81K4
13	4204	1.2	126.13	HU 65C 81K4
13	4230	1.7	127.07	HU 70C 81K4
12	4850	1.05	145.44	HU 65C 81K4
12	4575	2.75	137.38	HU 80C 81K4
11	4965	1.45	149.09	HU 70C 81K4
10	5593	0.9	167.82	HU 65C 81K4
10	5372	2.35	161.13	HU 80C 81K4
9.8	5673	1.25	170.33	HU 70C 81K4
9.1	6133	2.05	184.15	HU 80C 81K4
8.6	6487	1.1	194.67	HU 70C 81K4
8.5	6584	2.7	197.59	HU 85C 81K4
8	7009	1.8	210.46	HU 80C 81K4
7.8	7160	1	214.94	HU 70C 81K4
7.4	7523	2.4	225.82	HU 85C 81K4
7.2	7744	1.65	232.38	HU 80C 81K4
6.7	8310	2.15	249.34	HU 85C 81K4
6.5	8611	0.85	258.31	HU 70C 81K4
6	9310	1.35	279.27	HU 80C 81K4
5.6	10974	1.8	299.64	HU 85C 81K4
5.5	10231	1.25	306.92	HU 80C 81K4
5.1	10974	1.65	329.32	HU 85C 81K4
4.9	11319	1.1	339.61	HU 80C 81K4
4.6	12142	1.5	364.39	HU 85C 81K4
4.3	12948	1	388.54	HU 80C 81K4
4	13895	1.3	416.9	HU 85C 81K4
3.9	14169	0.9	425.31	HU 80C 81K4
3.7	15204	1.2	456.34	HU 85C 81K4
3.3	16762	1.1	502.96	HU 85C 81K4
3	18620	1	558.9	HU 85C 81K4
2.7	18665	1.45	631.39	HG 110D 81K4
2.3	21842	1.25	732.73	HG 110D 81K4
2.1	23656	1.45	815.18	HG 130D 81K4
1.9	25824	1.05	859.4	HG 110D 81K4
1.8	27311	1.25	931.64	HG 130D 81K4
1.7	29701	0.9	982.17	HG 110D 81K4
1.6	31471	1.05	1064.73	HG 130D 81K4
1.4	34966	0.9	1175.64	HG 130D 81K4

1 HP nominal (1.2 HP actual)

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
1015	75	5.7	1.65	HU 40E 81N4
861	89	4.85	1.94	HU 40E 81N4
724	106	4.05	2.31	HU 40E 81N4
628	124	3.55	2.67	HU 40E 81N4
544	142	3.05	3.08	HU 40E 81N4
490	159	2.75	3.42	HU 40E 81N4
478	159	4.85	3.5	HU 50E 81N4
438	177	4.55	3.82	HU 40S 81N4
419	186	4.25	4	HU 50E 81N4
403	186	2.3	4.15	HU 40E 81N4
379	204	3.85	4.42	HU 50E 81N4
366	204	4.05	4.58	HU 40S 81N4
365	212	2.05	4.58	HU 40E 81N4
329	230	1.75	5.09	HU 40E 81N4
315	239	3	5.31	HU 50E 81N4
306	248	3.55	5.47	HU 40S 81N4
295	257	3.45	5.68	HU 40A 81N4
287	266	2.6	5.83	HU 50E 81N4
286	266	1.4	5.85	HU 40E 81N4
279	274	4.5	6	HU 60E 81N4
261	292	1.2	6.42	HU 40E 81N4
259	292	2.15	6.45	HU 50E 81N4
255	301	3	6.57	HU 40S 81N4
246	310	2.9	6.79	HU 40A 81N4
237	319	3.35	7.08	HU 60E 81N4
236	319	1	7.09	HU 40E 81N4
227	336	1.7	7.38	HU 50E 81N4
216	354	2.85	7.75	HU 60E 81N4
215	354	2.55	7.78	HU 40S 81N4
207	372	1.45	8.08	HU 50E 81N4
206	372	2.4	8.13	HU 40A 81N4
196	389	2.35	8.55	HU 60E 81N4
188	407	1.2	8.91	HU 50E 81N4
183	416	2.15	9.17	HU 40S 81N4
172	443	2	9.75	HU 40A 81N4
171	443	1.8	9.77	HU 60E 81N4
169	451	0.95	9.9	HU 50E 81N4
157	487	1.55	10.67	HU 60E 81N4
154	496	1.8	10.9	HU 40S 81N4
145	522	1.7	11.55	HU 40A 81N4
143	531	1.25	11.73	HU 60E 81N4
133	575	1.55	12.57	HU 40S 81N4
128	593	2.7	3.25	HU 50A 81N4
123	620	1.45	13.61	HU 40A 81N4
115	655	1.35	14.51	HU 40S 81N4
109	699	2.3	2.75	HU 50A 81N4
103	735	1.25	16.19	HU 40A 81N4
94	805	2	2.4	HU 50A 81N4
90	850	1.05	18.67	HU 40A 81N4
88	867	2.8	18.99	HU 55A 81N4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
80	947	1.7	2.05	HU 50A 81N4
78	982	0.95	21.54	HU 40A 81N4
75	1009	2.4	22.27	HU 55A 81N4
70	1080	1.5	1.8	HU 50A 81N4
66	1159	2.1	25.45	HU 55A 81N4
63	1212	2.95	26.66	HU 60A 81N4
62	1239	1.3	1.55	HU 50A 81N4
58	1319	1.85	19.09	HU 55A 81N4
56	1363	1.2	1.45	HU 50A 81N4
55	1381	2.6	30.32	HU 60A 81N4
52	1460	1.65	32.12	HU 55A 81N4
49	1558	2.3	34.26	HU 60A 81N4
46	1637	1	1.2	HU 50A 81N4
44	1708	2.1	37.64	HU 60A 81N4
43	1752	1.4	38.6	HU 55A 81N4
43	1752	2.85	38.5	HU 65A 81N4
42	1805	0.9	1.1	HU 50A 81N4
39	1929	1.25	42.42	HU 55A 81N4
38	2018	1.8	44.39	HU 60A 81N4
37	2062	2.45	45.41	HU 65A 81N4
36	2133	1.15	46.94	HU 55A 81N4
34	2213	1.65	48.61	HU 60A 81N4
34	2257	2.2	49.73	HU 65A 81N4
31	2443	1	53.71	HU 55A 81N4
31	2434	1.5	53.6	HU 60A 81N4
31	2496	2	54.83	HU 65A 81N4
28	2673	0.9	58.79	HU 55A 81N4
27	2788	1.3	61.28	HU 60A 81N4
27	2850	1.75	62.69	HU 65A 81N4
25	3044	1.2	66.91	HU 60A 81N4
24	3106	1.5	68.44	HU 65A 81N4
23	3345	1.1	73.56	HU 60A 81N4
22	3416	1.2	75.25	HU 65A 81N4
16	4611	2.7	101.47	HU 80C 81N4
15	4974	1.45	109.5	HU 70C 81N4
14	5381	2.35	118.38	HU 80C 81N4
13	5770	1.25	127.07	HU 70C 81N4
12	6239	2	137.38	HU 80C 81N4
11	6770	1.05	149.04	HU 70C 81N4
11	6699	2.65	147.41	HU 85C 81N4
10	7319	1.7	161.13	HU 80C 81N4
9.8	7744	0.95	170.33	HU 70C 81N4
9.7	7859	2.3	172.89	HU 85C 81N4
9.1	8372	1.5	184.15	HU 80C 81N4
8.5	8983	2	197.59	HU 85C 81N4
8	9567	1.3	210.46	HU 80C 81N4
7.4	10257	1.75	225.82	HU 85C 81N4
7.2	10558	1.2	232.38	HU 80C 81N4
6.7	11328	1.6	249.34	HU 85C 81N4
6	12691	1	279.27	HU 80C 81N4

* These units have thermal limitations. Please contact a DieQua representative for details.
⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.

Gearmotor Selection Tables



RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
5.6	13611	1.3	299.64	HU 85C 81N4
5.5	13948	0.9	306.92	HU 80C 81N4
5.1	14965	1.2	329.32	HU 85C 81N4
4.6	16558	1.1	364.39	HU 85C 81N4
4	18948	0.95	416.9	HU 85C 81N4
3.7	20736	0.9	456.34	HU 85C 81N4
2.8	23700	1.9	598.91	HG 130D 81N4
2.7	25877	1.05	631.39	HG 110D 81N4
2.4	27842	1.6	695.03	HG 130D 81N4
2.3	30213	0.9	732.73	HG 110D 81N4
2.1	32993	1.35	815.18	HG 130D 81N4
1.8	37940	1.2	931.64	HG 130D 81N4
1.7	40046	1.8	1008	HG 133D 81N4
1.6	43631	1.05	1064.73	HG 130D 81N4
1.5	46250	1.55	1152	HG 133D 81N4
1.4	48374	0.95	1175.64	HG 130D 81N4
1.3	51383	1.4	1272	HG 133D 81N4
1.5 HP nominal (1.7 HP actual)				
1025	106	3.95	1.65	HU 40E 91S4
870	124	3.35	1.94	HU 40E 91S4
732	150	2.45	2.31	HU 40E 91S4
648	168	4.5	2.61	HU 50E 91S4
635	177	2.45	2.67	HU 40E 91S4
573	195	7.2	2.95	HU 50S 91S4
552	204	3.85	3.06	HU 50E 91S4
550	204	2.1	3.08	HU 40E 91S4
495	221	1.9	3.42	HU 40E 91S4
483	230	3.35	3.5	HU 50E 91S4
472	239	6.25	3.59	HU 50S 91S4
443	248	3.15	3.82	HU 40S 91S4
423	266	2.95	4	HU 50E 91S4
407	274	1.6	4.15	HU 40E 91S4
398	283	4.95	4.25	HU 60E 91S4
388	292	5.4	4.36	HU 50S 91S4
383	292	2.65	4.42	HU 50E 91S4
370	301	2.8	4.58	HU 40S 91S4
369	301	1.4	4.58	HU 40E 91S4
350	319	4.35	4.83	HU 60E 91S4
334	336	4.8	5.07	HU 50S 91S4
332	336	1.2	5.09	HU 40E 91S4
319	354	2.05	5.31	HU 50E 91S4
310	363	3.6	5.46	HU 60E 91S4
309	363	2.45	5.47	HU 40S 91S4
298	372	2.4	5.68	HU 40A 91S4
290	381	1.8	5.83	HU 50E 91S4
289	389	1	5.85	HU 40E 91S4
287	389	4.1	5.9	HU 50S 91S4
282	398	3.1	6	HU 60E 91S4
262	425	1.5	6.45	HU 50E 91S4
258	434	2.05	6.57	HU 40S 91S4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
249	451	2	6.79	HU 40A 91S4
245	460	3.5	6.92	HU 50S 91S4
239	469	2.35	7.08	HU 60E 91S4
229	487	1.2	7.38	HU 50E 91S4
218	513	1.75	7.78	HU 40S 91S4
218	513	2	7.75	HU 60E 91S4
210	531	3	8.07	HU 50S 91S4
209	531	1	8.08	HU 50E 91S4
208	540	1.7	8.13	HU 40A 91S4
205	539	2.95	8.27	HU 50A 91S4
198	566	1.65	8.55	HU 60E 91S4
185	602	1.5	9.17	HU 40S 91S4
181	620	2.6	9.37	HU 50S 91S4
176	637	2.55	9.6	HU 50A 91S4
174	646	1.4	9.75	HU 40A 91S4
173	646	1.25	9.77	HU 60E 91S4
159	699	1.1	10.67	HU 60E 91S4
155	717	1.25	10.9	HU 40S 91S4
154	726	2.2	10.99	HU 50S 91S4
151	735	2.2	11.19	HU 50A 91S4
146	761	1.2	11.55	HU 40A 91S4
135	832	1.1	12.57	HU 40S 91S4
135	832	1.95	12.56	HU 50S 91S4
129	867	1.85	13.11	HU 50A 91S4
124	894	1	13.61	HU 40A 91S4
121	920	2.6	14.03	HU 55A 91S4
118	947	1.7	14.35	HU 50S 91S4
117	956	0.95	14.51	HU 40S 91S4
111	1009	1.6	15.3	HU 50A 91S4
103	1080	2.25	16.36	HU 55A 91S4
95	1168	1.4	17.16	HU 50A 91S4
89	1248	1.95	18.99	HU 55A 91S4
84	1328	2.7	20.07	HU 60A 91S4
81	1372	1.2	20.83	HU 50A 91S4
76	1469	1.65	22.27	HU 55A 91S4
74	1513	2.35	23	HU 60A 91S4
71	1566	1.05	23.8	HU 50A 91S4
66	1682	1.45	25.45	HU 55A 91S4
63	1761	2.05	26.66	HU 60A 91S4
62	1797	0.9	27.2	HU 50A 91S4
62	1797	2.8	27.27	HU 65A 91S4
58	1920	1.25	29.09	HU 55A 91S4
56	2000	1.8	30.32	HU 60A 91S4
55	2044	2.45	31.01	HU 65A 91S4
53	2115	1.15	32.12	HU 55A 91S4
49	2257	1.6	34.26	HU 60A 91S4
48	2310	2.15	35.04	HU 65A 91S4
46	2443	2.95	37.01	HU 70A 91S4
45	2478	1.45	37.64	HU 60A 91S4
44	2549	0.95	38.6	HU 55A 91S4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
44	2540	2	38.5	HU 65A 91S4
40	2797	0.9	42.42	HU 55A 91S4
40	2779	2.55	42.12	HU 70A 91S4
38	2929	1.25	44.39	HU 60A 91S4
37	2991	1.7	45.41	HU 65A 91S4
37	3044	2.35	46.13	HU 70A 91S4
35	3204	1.15	48.61	HU 60A 91S4
34	3275	1.55	49.73	HU 65A 91S4
32	3531	1.05	53.6	HU 60A 91S4
31	3620	1.4	54.83	HU 65A 91S4
31	3549	2	53.81	HU 70A 91S4
29	3876	1.85	58.81	HU 70A 91S4
28	4044	0.9	61.28	HU 60A 91S4
27	4133	1.2	62.69	HU 65A 91S4
26	4266	1.7	64.7	HU 70A 91S4
26	4221	2.95	63.99	HU 80C 91S4
25	4514	1.05	68.44	HU 65A 91S4
23	4894	2.55	74.28	HU 80C 91S4
20	5708	2.2	86.56	HU 80C 91S4
18	6124	2.9	92.88	HU 85C 91S4
17	6691	1.9	101.47	HU 80C 91S4
16	7177	2.5	108.88	HU 85C 91S4
14	7806	1.6	118.38	HU 80C 91S4
13	8372	2.15	127.02	HU 85C 91S4
12	9602	2.8	145.57	HG 110C 91S4
12	9062	1.4	137.38	HU 80C 91S4
11	10629	1.2	161.13	HU 80C 91S4
11	9717	1.85	147.41	HU 85C 91S4
10	10921	2.45	165.64	HG 110C 91S4
9.8	11399	1.6	172.89	HU 85C 91S4
9.2	12142	1.05	184.15	HU 80C 91S4
8.9	12576	2.15	190.73	HG 110C 91S4
8.6	13027	1.4	197.59	HU 85C 91S4
8	13877	0.9	210.46	HU 80C 91S4
7.9	14072	1.9	213.39	HG 110C 91S4
7.5	14886	1.2	225.82	HU 85C 91S4
7	16010	1.7	242.84	HG 110C 91S4
6.8	16443	1.1	249.34	HU 85C 91S4
6.4	17541	1.55	266	HG 110C 91S4
5.6	19753	0.9	299.64	HU 85C 91S4
5.5	20461	1.3	310.3	HG 110C 91S4
5	22355	1.2	339.08	HG 110C 91S4
4.5	24603	1.1	373.1	HG 110C 91S4
3.9	25302	1.75	437.91	HG 130D 91S4
3.3	29966	1.5	513.35	HG 130D 91S4
2.8	35250	1.3	598.91	HG 130D 91S4
2.6	37126	1.95	648	HG 133D 91S4
2.4	41241	1.1	695.03	HG 130D 91S4
2.3	43622	1.65	752	HG 133D 91S4
2.1	48675	0.95	815.18	HG 130D 91S4

* These units have thermal limitations. Please contact a DieQua representative for details.

⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.



Gearmotor Selection Tables

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
1.9	51693	1.4	882	HG 133D 91S4
1.7	59569	1.2	1008	HG 133D 91S4
1.5	68499	1.05	1152	HG 133D 91S4
1.3	75951	0.95	1272	HG 133D 91S4
2 HP nominal (2.3 HP actual)				
1036	150	4.4	1.65	HU 50E 91L4
1033	150	2.9	1.65	HU 40E 91L4
884	168	3.95	1.93	HU 50E 91L4
876	177	2.45	1.94	HU 40E 91L4
757	204	3.85	2.25	HU 50E 91L4
737	204	2.1	2.31	HU 40E 91L4
653	230	3.35	2.61	HU 50E 91L4
639	239	1.8	2.67	HU 40E 91L4
556	274	2.85	3.06	HU 50E 91L4
554	274	1.55	3.08	HU 40E 91L4
499	301	1.4	3.42	HU 40E 91L4
487	310	2.5	3.5	HU 50E 91L4
475	319	4.6	3.59	HU 50S 91L4
465	327	0.95	3.67	HU 60E 91L4
446	345	2.35	3.82	HU 40S 91L4
426	354	2.2	4	HU 50E 91L4
410	372	1.15	4.15	HU 40E 91L4
401	381	1.2	4.25	HU 60E 91L4
390	389	4	4.36	HU 50S 91L4
386	398	2	4.42	HU 50E 91L4
372	407	1.05	4.58	HU 40E 91L4
372	407	2.05	4.58	HU 40S 91L4
353	434	1.45	4.83	HU 60E 91L4
336	451	3.55	5.07	HU 50S 91L4
335	451	0.9	5.09	HU 40E 91L4
321	478	1.55	5.31	HU 50E 91L4
313	487	4.45	5.44	HU 70E 91L4
312	487	1.75	5.46	HU 60E 91L4
311	487	1.8	5.47	HU 40S 91L4
305	496	3.2	5.59	HU 50A 91L4
300	504	1.75	5.68	HU 40A 91L4
292	522	1.3	5.83	HU 50E 91L4
289	531	3.05	5.9	HU 50S 91L4
284	540	2.3	6	HU 60E 91L4
280	540	4.35	6.08	HU 70E 91L4
264	575	1.1	6.45	HU 50E 91L4
260	584	1.55	6.57	HU 40S 91L4
251	611	1.5	6.79	HU 40A 91L4
251	611	2.65	6.8	HU 50A 91L4
246	620	2.6	6.92	HU 50S 91L4
246	620	3.25	6.92	HU 70E 91L4
241	628	2.7	7.08	HU 60E 91L4
231	655	0.9	7.38	HU 50E 91L4
225	681	2.8	7.58	HU 70E 91L4
220	690	3.2	7.75	HU 60E 91L4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
219	690	1.3	7.78	HU 40S 91L4
211	717	2.25	8.07	HU 50S 91L4
210	726	1.25	8.13	HU 40A 91L4
206	735	2.2	8.27	HU 50A 91L4
199	761	3.65	8.55	HU 60E 91L4
193	788	2.1	8.85	HU 70E 91L4
186	814	1.1	9.17	HU 40S 91L4
182	841	1.95	9.37	HU 50S 91L4
178	858	1.9	9.6	HU 50A 91L4
176	867	1.8	9.67	HU 70E 91L4
175	867	1.05	9.75	HU 40A 91L4
174	876	4.2	9.77	HU 60E 91L4
166	920	2.65	10.27	HU 55A 91L4
160	956	4.75	10.67	HU 60E 91L4
160	947	1.45	10.64	HU 70E 91L4
155	982	1.65	10.99	HU 50S 91L4
152	1000	1.6	11.19	HU 50A 91L4
148	1035	0.9	11.55	HU 40A 91L4
142	1071	2.25	11.96	HU 55A 91L4
136	1124	1.45	12.56	HU 50S 91L4
130	1168	1.4	13.11	HU 50A 91L4
121	1248	1.95	14.03	HU 55A 91L4
119	1283	1.25	14.35	HU 50S 91L4
116	1310	2.75	14.64	HU 60A 91L4
111	1363	1.2	15.3	HU 50A 91L4
104	1460	1.65	16.36	HU 55A 91L4
101	1505	2.4	16.84	HU 60A 91L4
96	1584	1.05	17.76	HU 50A 91L4
90	1699	1.45	18.99	HU 55A 91L4
85	1788	2	20.07	HU 60A 91L4
83	1832	2.75	20.53	HU 65A 91L4
82	1859	0.9	20.83	HU 50A 91L4
77	1991	1.25	22.27	HU 55A 91L4
74	2053	1.75	23	HU 60A 91L4
72	2097	2.4	23.53	HU 65A 91L4
67	2274	1.1	25.45	HU 55A 91L4
64	2381	1.5	26.66	HU 60A 91L4
62	2434	2.05	27.27	HU 65A 91L4
59	2593	0.95	29.09	HU 55A 91L4
59	2567	2.8	28.73	HU 70A 91L4
56	2708	1.35	30.32	HU 60A 91L4
55	2770	1.8	31.01	HU 65A 91L4
52	2956	2.4	33.08	HU 70A 91L4
50	3062	1.2	34.26	HU 60A 91L4
49	3133	1.6	35.04	HU 65A 91L4
46	3301	2.15	37.01	HU 70A 91L4
45	3363	1.1	37.64	HU 60A 91L4
44	3434	1.45	38.5	HU 65A 91L4
40	3761	1.9	42.12	HU 70A 91L4
38	3965	0.9	44.39	HU 60A 91L4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
38	4053	1.25	45.41	HU 65A 91L4
37	4115	1.75	46.13	HU 70A 91L4
34	4443	1.15	49.73	HU 65A 91L4
32	4806	1.5	53.81	HU 70A 91L4
31	4894	1.05	54.83	HU 65A 91L4
29	5248	1.35	58.81	HU 70A 91L4
27	5593	0.9	62.69	HU 65A 91L4
26	5779	1.25	64.7	HU 70A 91L4
25	6133	2.9	68.66	HU 85C 91L4
21	7115	2.5	79.7	HU 85C 91L4
18	8292	2.15	92.88	HU 85C 91L4
17	9062	1.4	101.47	HU 80C 91L4
16	9540	2.8	106.9	HG 110C 91L4
16	9717	1.85	108.88	HU 85C 91L4
14	10877	2.45	121.85	HG 110C 91L4
14	10567	1.2	118.38	HU 80C 91L4
13	11337	1.6	127.02	HU 85C 91L4
12	13001	2.05	145.57	HG 110C 91L4
12	12266	1.05	137.38	HU 80C 91L4
12	13160	1.35	147.41	HU 85C 91L4
11	14390	0.9	161.13	HU 80C 91L4
10	14788	1.8	165.64	HG 110C 91L4
9.9	15434	1.15	172.89	HU 85C 91L4
8.9	17027	1.6	190.73	HG 110C 91L4
8.6	17638	1.05	197.59	HU 85C 91L4
8	19054	1.4	213.39	HG 110C 91L4
7.5	20160	0.9	225.82	HU 85C 91L4
7	21683	1.25	242.84	HG 110C 91L4
6.4	23745	1.15	266	HG 110C 91L4
5.5	27701	1	310.3	HG 110C 91L4
5	30276	0.9	339.08	HG 110C 91L4
3.3	41250	1.1	513.35	HG 130D 91L4
3.1	43631	1.65	555.43	HG 133D 91L4
2.8	48418	0.95	598.91	HG 130D 91L4
2.6	51427	1.4	648	HG 133D 91L4
2.5	56534	0.8	695.03	HG 130D 91L4
2.3	60171	1.2	752	HG 133D 91L4
1.9	71163	1	882	HG 133D 91L4
1.7	81659	0.9	1008	HG 133D 91L4
3 HP nominal (3.4 HP actual)				
1036	212	3	1.65	HU 50E 101L4
884	257	2.7	1.93	HU 50E 101L4
757	292	2.65	2.25	HU 50E 101L4
730	310	4.55	2.33	HU 60E 101L4
653	345	2.3	2.61	HU 50E 101L4
635	354	3.95	2.68	HU 60E 101L4
587	381	7.05	2.9	HU 60S 101L4
578	389	3.65	2.95	HU 50S 101L4
556	398	1.95	3.06	HU 50E 101L4
533	416	3.25	3.2	HU 60E 101L4

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⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.

Gearmotor Selection Tables



RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
495	451	6.3	3.44	HU 60S 101L4
487	460	1.7	3.5	HU 50E 101L4
475	469	3.15	3.59	HU 50S 101L4
465	478	2.85	3.67	HU 60E 101L4
426	522	1.5	4	HU 50E 101L4
417	540	5.55	4.09	HU 60S 101L4
411	540	3.95	4.15	HU 70E 101L4
401	558	2.5	4.25	HU 60E 101L4
390	575	2.75	4.36	HU 50S 101L4
386	575	1.35	4.42	HU 50E 101L4
361	620	3.5	4.72	HU 70E 101L4
353	637	2.2	4.83	HU 60E 101L4
350	637	4.9	4.87	HU 60S 101L4
336	664	2.45	5.07	HU 50S 101L4
321	699	1.05	5.31	HU 50E 101L4
313	708	3.05	5.44	HU 70E 101L4
312	717	1.85	5.46	HU 60E 101L4
305	735	2.2	5.59	HU 50A 101L4
292	761	0.9	5.83	HU 50E 101L4
292	761	4.25	5.83	HU 60S 101L4
289	770	2.1	5.9	HU 50S 101L4
284	788	1.55	6	HU 60E 101L4
280	797	2.95	6.08	HU 70E 101L4
251	894	1.8	6.8	HU 50A 101L4
246	903	1.8	6.92	HU 50S 101L4
246	903	2.25	6.92	HU 70E 101L4
242	920	3.65	7.04	HU 60S 101L4
241	929	1.2	7.08	HU 60E 101L4
225	991	1.9	7.58	HU 70E 101L4
220	1018	1	7.75	HU 60E 101L4
212	1053	3.25	8.04	HU 60S 101L4
211	1053	1.55	8.07	HU 50S 101L4
206	1080	1.5	8.27	HU 50A 101L4
193	1159	1.45	8.85	HU 70E 101L4
184	1212	2.9	9.25	HU 60S 101L4
182	1230	1.3	9.37	HU 50S 101L4
178	1257	1.3	9.6	HU 50A 101L4
176	1266	1.25	9.67	HU 70E 101L4
161	1389	2.55	10.62	HU 60A 101L4
160	1389	1	10.64	HU 70E 101L4
155	1443	1.15	10.99	HU 50S 101L4
155	1443	2.5	11.02	HU 60S 101L4
152	1469	1.1	11.19	HU 50A 101L4
136	1646	1	12.56	HU 50S 101L4
135	1655	2.15	12.63	HU 60S 101L4
133	1682	2.15	12.82	HU 60A 101L4
130	1717	0.95	13.11	HU 50A 101L4
130	1717	2.9	13.11	HU 65A 101L4
116	1920	1.85	14.64	HU 60A 101L4
116	1920	1.85	14.64	HU 60S 101L4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
114	1965	2.55	14.97	HU 65A 101L4
101	2204	1.65	16.84	HU 60A 101L4
99	2257	2.2	17.22	HU 65A 101L4
92	2425	2.95	18.54	HU 70A 101L4
85	2628	1.35	20.07	HU 60A 101L4
83	2690	1.85	20.53	HU 65A 101L4
81	2770	2.6	21.13	HU 70A 101L4
74	3009	1.2	23	HU 60A 101L4
72	3080	1.65	23.53	HU 65A 101L4
67	3310	2.15	25.25	HU 70A 101L4
64	3487	1.05	26.66	HU 60A 101L4
62	3567	1.4	27.27	HU 65A 101L4
59	3761	1.9	28.73	HU 70A 101L4
56	3974	0.9	30.32	HU 60A 101L4
55	4062	1.25	31.01	HU 65A 101L4
54	4124	1.6	31.48	HU 80A 101L4
52	4328	1.65	33.08	HU 70A 101L4
49	4593	1.1	35.04	HU 65A 101L4
49	4531	1.85	34.59	HU 80A 101L4
46	4850	1.5	37.01	HU 70A 101L4
44	5045	1	38.5	HU 65A 101L4
41	5425	2.05	41.41	HU 80A 101L4
40	5514	1.3	42.12	HU 70A 101L4
37	6045	1.2	46.13	HU 70A 101L4
36	6124	2.3	46.77	HU 80A 101L4
33	6699	2.75	51.15	HU 80A 101L4
32	7045	1.05	53.81	HU 70A 101L4
29	7700	0.95	58.81	HU 70A 101L4
28	7832	3.05	59.81	HU 80A 101L4
25	8868	3	67.74	HG 110C 101L4
21	10425	2.55	79.6	HG 110C 101L4
18	12381	2.15	94.56	HG 110C 101L4
17	13284	0.95	101.47	HU 80C 101L4
16	14001	1.9	106.9	HG 110C 101L4
16	14257	1.25	108.88	HU 85C 101L4
14	15957	1.7	121.85	HG 110C 101L4
14	16098	2.75	122.97	HG 130C 101L4
13	16629	1.1	127.02	HU 85C 101L4
12	19063	1.4	145.57	HG 110C 101L4
12	18780	2.4	143.44	HG 130C 101L4
12	19302	0.95	147.41	HU 85C 101L4
11	20851	2.15	159.25	HG 130C 101L4
10	21691	1.25	165.64	HG 110C 101L4
9.7	22913	1.95	174.99	HG 130C 101L4
9	24789	2.9	189.33	HG 133C 101L4
8.9	24975	1.1	190.73	HG 110C 101L4
8.1	27435	1.65	209.49	HG 130C 101L4
8	27939	1	213.39	HG 110C 101L4
7.5	29683	2.4	226.67	HG 133C 101L4
7.2	30984	1.45	236.61	HG 130C 101L4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
6.7	33524	2.15	256	HG 133C 101L4
6.6	33887	1.35	258.79	HG 130C 101L4
6.1	36666	1.95	280	HG 133C 101L4
5.6	39621	1.15	302.58	HG 130C 101L4
5.2	42869	1.5	327.38	HG 133C 101L4
3.1	65455	1.1	555.43	HG 133D 101L4
2.8	69782	1.8	609.44	HG 136D 101L4
2.6	76836	0.95	648	HG 133D 101L4
2.5	79464	1.6	688.31	HG 136D 101L4
2.3	87447	1.45	752.84	HG 136D 101L4
1.9	103306	1.2	880.24	HG 136D 101L4
4 HP nominal (4.6 HP actual)				
1036	292	2.2	1.65	HU 50E 101L4A
1007	301	4.5	26.66	HU 60E 101L4A
884	345	2	1.93	HU 50E 101L4A
834	363	3.8	1.69	HU 60E 101L4A
757	398	1.95	2.25	HU 50E 101L4A
730	416	3.35	2.04	HU 60E 101L4A
653	469	1.7	2.61	HU 50E 101L4A
635	478	2.9	2.33	HU 60E 101L4A
632	478	4.85	2.7	HU 70E 101L4A
587	522	5.2	7.08	HU 60S 101L4A
578	531	2.65	2.95	HU 50S 101L4A
559	540	4.35	3.05	HU 70E 101L4A
556	549	1.45	3.06	HU 50E 101L4A
533	575	2.4	2.68	HU 60E 101L4A
495	611	4.6	3.44	HU 60S 101L4A
491	620	3.9	3.47	HU 70E 101L4A
487	628	1.25	3.5	HU 50E 101L4A
475	637	2.3	3.59	HU 50S 101L4A
465	655	2.1	3.2	HU 60E 101L4A
426	717	1.1	4	HU 50E 101L4A
417	735	4.1	4.09	HU 60S 101L4A
411	743	2.9	4.15	HU 70E 101L4A
401	761	1.85	3.67	HU 60E 101L4A
390	779	2	4.36	HU 50S 101L4A
386	788	1	4.42	HU 50E 101L4A
361	841	2.6	4.72	HU 70E 101L4A
353	867	1.6	4.25	HU 60E 101L4A
350	867	3.6	4.87	HU 60S 101L4A
336	903	1.8	5.07	HU 50S 101L4A
313	974	2.25	5.44	HU 70E 101L4A
312	974	1.35	5.46	HU 60E 101L4A
305	1000	1.6	5.59	HU 50A 101L4A
292	1044	3.15	5.83	HU 60S 101L4A
289	1053	1.55	5.9	HU 50S 101L4A
288	1053	3.85	5.92	HU 80E 101L4A
284	1071	1.15	6	HU 60E 101L4A
280	1089	2.2	6.08	HU 70E 101L4A
251	1212	1.35	6.8	HU 50A 101L4A

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⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.



Gearmotor Selection Tables

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
246	1239	1.3	6.92	HU 50S 101LA4
246	1239	1.65	6.92	HU 70E 101LA4
242	1257	2.7	7.04	HU 60S 101LA4
241	1266	0.9	7.08	HU 60E 101LA4
241	1266	2.8	7.08	HU 80E 101LA4
229	1328	2.7	7.45	HU 60A 101LA4
225	1354	1.4	7.58	HU 70E 101LA4
213	1425	2.15	8	HU 80E 101LA4
212	1434	2.4	8.04	HU 60S 101LA4
211	1443	1.15	8.07	HU 50S 101LA4
206	1478	1.1	8.27	HU 50A 101LA4
195	1566	1.8	8.75	HU 80E 101LA4
193	1575	1.05	8.85	HU 70E 101LA4
192	1584	2.25	8.87	HU 60A 101LA4
184	1655	2.15	9.25	HU 60S 101LA4
182	1673	1	9.37	HU 50S 101LA4
178	1717	0.95	9.6	HU 50A 101LA4
176	1726	0.9	9.67	HU 70E 101LA4
167	1823	1.3	10.23	HU 80E 101LA4
161	1894	1.9	10.62	HU 60A 101LA4
157	1938	2.6	10.86	HU 65A 101LA4
155	1965	0.85	10.99	HU 50S 101LA4
155	1965	1.8	11.02	HU 60S 101LA4
135	2257	1.6	12.63	HU 60S 101LA4
133	2292	1.55	12.82	HU 60A 101LA4
130	2345	2.15	13.11	HU 65A 101LA4
123	2469	2.9	13.8	HU 70A 101LA4
116	2611	1.4	14.64	HU 60A 101LA4
116	2611	1.4	14.64	HU 60S 101LA4
114	2673	1.9	14.97	HU 65A 101LA4
104	2929	2.45	16.4	HU 70A 101LA4
101	3009	1.2	16.84	HU 60A 101LA4
99	3080	1.65	17.22	HU 65A 101LA4
92	3310	2.15	18.54	HU 70A 101LA4
85	3584	1	20.07	HU 60A 101LA4
83	3664	1.4	20.53	HU 65A 101LA4
81	3770	1.9	21.13	HU 70A 101LA4
74	4106	0.9	23	HU 60A 101LA4
72	4204	1.2	23.53	HU 65A 101LA4
70	4337	2.9	24.31	HU 80A 101LA4
67	4505	1.6	25.25	HU 70A 101LA4
62	4868	1.05	27.27	HU 65A 101LA4
60	5062	2.45	28.35	HU 80A 101LA4
59	5133	1.4	28.73	HU 70A 101LA4
55	5540	0.9	31.01	HU 65A 101LA4
54	5620	2.25	31.48	HU 80A 101LA4
52	5903	1.2	33.08	HU 70A 101LA4
50	6027	2.95	33.78	HU 85A 101LA4
49	6177	2.05	34.59	HU 80A 101LA4
46	6611	1.1	37.01	HU 70A 101LA4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
46	6629	2.7	37.11	HU 85A 101LA4
41	7390	1.7	41.41	HU 80A 101LA4
40	7523	0.95	42.12	HU 70A 101LA4
38	7930	2.25	44.43	HU 85A 101LA4
37	8239	0.9	46.13	HU 70A 101LA4
36	8354	1.5	46.77	HU 80A 101LA4
34	8947	3	50.11	HG 110C 101LA4
34	8956	2	50.18	HU 85A 101LA4
33	9133	1.4	51.15	HU 80A 101LA4
31	9797	1.7	54.89	HU 85A 101LA4
29	10372	2.6	58.1	HG 110C 101LA4
28	10682	1.2	59.81	HU 80A 101LA4
27	11461	1.25	64.17	HU 85A 101LA4
25	12098	2.2	67.74	HG 110C 101LA4
21	14213	1.9	79.6	HG 110C 101LA4
21	14620	3.05	81.9	HG 130C 101LA4
18	16886	1.6	94.56	HG 110C 101LA4
18	17222	2.6	96.44	HG 130C 101LA4
16	19089	1.4	106.9	HG 110C 101LA4
16	19364	2.3	108.44	HG 130C 101LA4
16	19443	0.95	108.88	HU 85C 101LA4
14	21753	1.25	121.85	HG 110C 101LA4
14	21957	2.05	122.97	HG 130C 101LA4
13	23753	3	133.05	HG 133C 101LA4
12	25992	1.05	145.57	HG 110C 101LA4
12	25612	1.75	143.44	HG 130C 101LA4
11	28435	1.6	159.25	HG 130C 101LA4
11	27709	2.6	155.2	HG 133C 101LA4
10	29577	0.9	165.64	HG 110C 101LA4
9.9	30763	2.35	172.31	HG 133C 101LA4
9.7	31249	1.45	174.99	HG 130C 101LA4
9	33807	2.1	189.33	HG 133C 101LA4
8.1	37409	1.2	209.49	HG 130C 101LA4
7.5	40471	1.75	226.67	HG 133C 101LA4
7.2	42250	1.05	236.61	HG 130C 101LA4
6.7	45710	1.55	256	HG 133C 101LA4
6.6	46206	1	258.79	HG 130C 101LA4
6.1	49994	1.45	280	HG 133C 101LA4
5.2	58454	1.1	327.38	HG 133C 101LA4
4.1	64747	1.95	417.29	HG 136D 101LA4
3.7	72482	1.75	463.28	HG 136D 101LA4
3.3	80305	1.55	509.06	HG 136D 101LA4
2.8	97138	1.3	609.44	HG 136D 101LA4
2.5	110386	1.15	688.31	HG 136D 101LA4
2.3	121227	1.05	752.84	HG 136D 101LA4
1.9	142618	0.9	880.24	HG 136D 101LA4
5 HP nominal (6.1 HP actual)				
1021	398	3.4	1.69	HU 60E 114M4
895	451	4.75	1.93	HU 70E 114M4
846	478	2.9	2.04	HU 60E 114M4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
761	531	4.2	2.27	HU 70E 114M4
741	549	2.55	2.33	HU 60E 114M4
644	628	2.2	2.68	HU 60E 114M4
641	637	3.7	2.7	HU 70E 114M4
596	681	3.95	2.9	HU 60S 114M4
567	717	3.3	3.05	HU 70E 114M4
548	743	6.75	3.16	HU 70S 114M4
540	752	1.8	3.2	HU 60E 114M4
502	805	3.5	3.44	HU 60S 114M4
497	814	2.95	3.47	HU 70E 114M4
471	858	1.6	3.67	HU 60E 114M4
453	894	6	3.81	HU 70S 114M4
422	965	3.1	4.09	HU 60S 114M4
416	974	2.25	4.15	HU 70E 114M4
416	974	3.85	4.16	HU 80E 114M4
407	1000	1.4	4.25	HU 60E 114M4
375	1080	5.25	4.6	HU 70S 114M4
366	1106	1.95	4.72	HU 70E 114M4
358	1133	1.25	4.83	HU 60E 114M4
356	1142	2.85	4.85	HU 80E 114M4
355	1142	2.75	4.87	HU 60S 114M4
327	1239	2.9	5.28	HU 60A 114M4
325	1248	4.7	5.32	HU 70S 114M4
321	1266	3.4	5.38	HU 80E 114M4
318	1274	1.7	5.44	HU 70E 114M4
316	1283	1.05	5.46	HU 60E 114M4
296	1372	2.4	5.83	HU 60S 114M4
292	1389	2.95	5.92	HU 80E 114M4
288	1407	0.9	6	HU 60E 114M4
284	1425	1.65	6.08	HU 70E 114M4
280	1451	4.2	6.16	HU 70S 114M4
275	1469	2.45	6.27	HU 60A 114M4
250	1628	1.25	6.92	HU 70E 114M4
244	1664	2.1	7.08	HU 80E 114M4
240	1690	3.7	7.19	HU 70S 114M4
232	1752	2.05	7.45	HU 60A 114M4
228	1779	1.1	7.58	HU 70E 114M4
216	1876	1.65	8	HU 80E 114M4
215	1885	1.85	7.04	HU 60S 114M4
205	1982	3.25	8.45	HU 70S 114M4
197	2053	1.35	8.75	HU 80E 114M4
195	2080	1.75	8.87	HU 60A 114M4
190	2133	2.35	9.07	HU 65A 114M4
187	2168	1.65	8.04	HU 60S 114M4
172	2354	2.8	10.03	HU 70S 114M4
169	2398	1	10.23	HU 80E 114M4
163	2496	1.45	10.62	HU 60A 114M4
159	2549	1.95	10.86	HU 65A 114M4
157	2584	1.4	9.25	HU 60S 114M4
152	2664	2.55	11.34	HU 70S 114M4

* These units have thermal limitations. Please contact a DieQua representative for details.
⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.

Gearmotor Selection Tables



RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
146	1655	2.05	11.02	HU 60S 114M4
137	2965	1.2	12.63	HU 60S 114M4
135	3009	1.2	12.82	HU 60A 114M4
134	3036	2.25	12.93	HU 70S 114M4
132	3080	1.65	13.11	HU 65A 114M4
125	3239	2.2	13.8	HU 70A 114M4
118	3434	1.05	14.64	HU 60A 114M4
118	3434	1.05	14.64	HU 60S 114M4
115	3513	1.45	14.97	HU 65A 114M4
112	3629	1.95	15.45	HU 70S 114M4
105	3850	1.85	16.4	HU 70A 114M4
103	3956	0.9	16.84	HU 60A 114M4
100	4044	1.25	17.22	HU 65A 114M4
93	4354	1.65	18.54	HU 70A 114M4
84	4823	1.05	20.53	HU 65A 114M4
82	4965	1.45	21.13	HU 70A 114M4
73	5522	0.9	23.53	HU 65A 114M4
71	5708	2.2	24.31	HU 80A 114M4
68	5930	1.2	25.25	HU 70A 114M4
61	6655	1.9	28.35	HU 80A 114M4
60	6744	1.05	28.73	HU 70A 114M4
55	7390	1.7	31.48	HU 80A 114M4
52	7761	0.95	33.08	HU 70A 114M4
51	7930	2.25	33.78	HU 85A 114M4
50	8124	1.55	34.59	HU 80A 114M4
47	8717	2.05	37.11	HU 85A 114M4
42	9726	1.3	41.41	HU 80A 114M4
40	10186	2.65	43.39	HG 110C 114M4
39	10434	1.7	44.43	HU 85A 114M4
37	10983	1.15	46.77	HU 80A 114M4
37	10894	1.65	46.42	HU 85C 114M4
34	11762	2.3	50.11	HG 110C 114M4
34	12009	1.05	51.15	HU 80A 114M4
34	11779	1.55	50.18	HU 85A 114M4
31	12886	1.3	54.89	HU 85A 114M4
31	13257	1.35	56.45	HU 85C 114M4
30	13638	1.95	58.1	HG 110C 114M4
29	14045	0.9	59.81	HU 80A 114M4
27	15063	0.95	64.17	HU 85A 114M4
26	15903	1.7	67.74	HG 110C 114M4
25	16116	1.1	68.66	HU 85C 114M4
22	18691	1.45	79.6	HG 110C 114M4
22	18709	0.95	79.7	HU 85C 114M4
18	22196	1.2	94.56	HG 110C 114M4
18	22638	2	96.44	HG 130C 114M4
17	24497	2.9	104.35	HG 133C 114M4
16	25099	1.1	106.9	HG 110C 114M4
16	25461	1.75	108.44	HG 130C 114M4
15	27550	2.6	117.33	HG 133C 114M4
14	28603	0.95	121.85	HG 110C 114M4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
14	28872	1.55	122.97	HG 130C 114M4
13	31241	2.3	133.05	HG 133C 114M4
12	33674	1.35	143.44	HG 130C 114M4
11	37391	1.2	159.25	HG 130C 114M4
11	36435	1.95	155.2	HG 133C 114M4
10	40453	1.8	172.31	HG 133C 114M4
9.9	41082	1.1	174.99	HG 130C 114M4
9.1	44454	1.6	189.33	HG 133C 114M4
8.2	49179	0.9	209.49	HG 130C 114M4
7.6	53215	1.35	226.67	HG 133C 114M4
6.8	60100	1.2	256	HG 133C 114M4
6.2	65738	1.1	280	HG 133C 114M4
6.2	56649	2.2	280.56	HG 136D 114M4
5.5	64357	1.95	315.47	HG 136D 114M4
5.3	76862	0.85	327.38	HG 133C 114M4
4.8	73738	1.7	357.74	HG 136D 114M4
4.1	86907	1.45	417.29	HG 136D 114M4
3.7	97085	1.3	463.28	HG 136D 114M4
3.4	107120	1.2	509.06	HG 136D 114M4
2.8	129299	1	609.44	HG 136D 114M4
7.5 HP nominal (8.4 HP actual)				
1040	540	3.8	1.66	HU 70E 114ML4
1018	549	2.5	1.69	HU 60E 114ML4
892	628	3.45	1.93	HU 70E 114ML4
843	664	2.1	2.04	HU 60E 114ML4
759	735	3.05	2.27	HU 70E 114ML4
738	752	1.85	2.33	HU 60E 114ML4
656	991	2.4	2.7	HU 70E 114ML4
642	867	1.6	2.68	HU 60E 114ML4
639	876	2.7	3.05	HU 70E 114ML4
622	894	4.05	2.77	HU 80E 114ML4
594	938	2.85	2.9	HU 60S 114ML4
546	1027	1.4	3.16	HU 70S 114ML4
538	1035	1.3	3.2	HU 60E 114ML4
528	1053	3.5	3.26	HU 80E 114ML4
500	1115	2.55	3.44	HU 60S 114ML4
496	1124	2.15	3.47	HU 70E 114ML4
470	1186	1.15	3.67	HU 60E 114ML4
470	1186	3.15	3.67	HU 80E 114ML4
452	1230	1.65	3.81	HU 70S 114ML4
421	1328	2.25	4.09	HU 60S 114ML4
415	1345	1.6	4.15	HU 70E 114ML4
414	1345	2.8	4.16	HU 80E 114ML4
405	1381	1.05	4.25	HU 60E 114ML4
374	1496	1.85	4.6	HU 70S 114ML4
365	1531	1.45	4.72	HU 70E 114ML4
356	1566	0.9	4.83	HU 60E 114ML4
355	1575	2.05	4.85	HU 80E 114ML4
354	1575	2	4.87	HU 60S 114ML4
326	1708	2.1	5.28	HU 60A 114ML4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
324	1726	2.05	5.32	HU 70S 114ML4
320	1743	2.45	5.38	HU 80E 114ML4
319	1752	2.85	5.4	HU 65A 114ML4
317	1761	1.25	5.44	HU 70E 114ML4
295	1885	1.75	5.83	HU 60S 114ML4
291	1920	2.15	5.92	HU 80E 114ML4
283	1974	1.2	6.08	HU 70E 114ML4
279	2000	2.35	6.16	HU 70S 114ML4
275	2036	1.75	6.27	HU 60A 114ML4
268	2080	2.4	6.42	HU 65A 114ML4
249	2239	0.9	6.92	HU 70E 114ML4
245	2283	1.5	7.04	HU 60S 114ML4
243	2292	1.55	7.08	HU 80E 114ML4
240	2328	2.7	7.19	HU 70S 114ML4
231	2416	1.5	7.45	HU 60A 114ML4
229	2434	2.95	7.52	HU 70A 114ML4
226	2469	2.05	7.62	HU 65A 114ML4
215	2593	1.2	8	HU 80E 114ML4
214	2602	1.35	8.04	HU 60S 114ML4
204	2735	3.05	8.45	HU 70S 114ML4
198	2814	2.55	8.69	HU 70A 114ML4
197	2832	1	8.75	HU 80E 114ML4
194	2876	1.25	8.87	HU 60A 114ML4
190	2938	1.7	9.07	HU 65A 114ML4
186	2991	1.2	9.25	HU 60S 114ML4
172	3248	3.4	10.03	HU 70S 114ML4
171	3266	2.2	10.08	HU 70A 114ML4
162	3443	1.05	10.62	HU 60A 114ML4
159	3513	1.45	10.86	HU 65A 114ML4
156	3567	1	11.02	HU 60S 114ML4
152	3673	3.8	11.34	HU 70S 114ML4
147	3806	1.9	11.75	HU 70A 114ML4
136	4089	0.9	12.63	HU 60S 114ML4
134	4151	0.9	12.82	HU 60A 114ML4
133	4186	4.35	12.93	HU 70S 114ML4
131	4248	1.2	13.11	HU 65A 114ML4
125	4469	1.6	13.8	HU 70A 114ML4
124	4505	2.75	13.91	HU 80A 114ML4
115	4850	1.05	14.97	HU 65A 114ML4
111	5000	4.9	15.45	HU 70S 114ML4
106	5248	2.4	16.19	HU 80A 114ML4
105	5310	1.35	16.4	HU 70A 114ML4
100	5576	0.9	17.22	HU 65A 114ML4
93	6009	1.2	18.54	HU 70A 114ML4
90	6177	2.05	19.06	HU 80A 114ML4
84	6629	2.7	20.45	HU 85A 114ML4
81	6841	1.05	21.13	HU 70A 114ML4
80	6947	1.8	21.44	HU 80A 114ML4
75	7452	2.4	23	HU 85A 114ML4
71	7877	1.6	24.31	HU 80A 114ML4

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⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.



Gearmotor Selection Tables

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
68	8177	0.9	25.25	HU 70A 114ML4
66	8452	2.1	26.08	HU 85A 114ML4
61	9177	2.9	28.74	HG 110A 134S4
61	9186	1.35	28.35	HU 80A 114ML4
57	9859	1.8	30.42	HU 85A 114ML4
55	10195	1.25	31.48	HU 80A 114ML4
51	11027	2.45	34.51	HG 110A 134S4
51	10939	1.65	33.78	HU 85A 114ML4
50	11204	1.15	34.59	HU 80A 114ML4
46	12204	2.2	38.19	HG 110A 134S4
46	12018	1.5	37.11	HU 85A 114ML4
42	13417	0.95	41.41	HU 80A 114ML4
41	13611	2	42.6	HG 110A 134S4
39	14390	1.25	44.43	HU 85A 114ML4
37	15266	1.75	47.79	HG 110A 134S4
37	15240	2.95	47.69	HG 130A 134S4
37	15036	1.2	46.42	HU 85C 114ML4
34	16257	1.1	50.18	HU 85A 114ML4
33	16700	1.6	52.26	HG 110A 134S4
33	17036	2.6	53.32	HG 130A 134S4
31	17780	0.95	54.89	HU 85A 114ML4
31	18284	1	56.45	HU 85C 114ML4
30	18603	2.4	58.23	HG 130A 134S4
28	19851	1.35	62.13	HG 110A 134S4
25	22249	1.15	69.63	HG 110A 134S4
23	24329	2.95	76.14	HG 133C 134S4
20	28311	2.55	88.62	HG 133C 134S4
18	30816	1.45	96.44	HG 130C 134S4
17	33338	2.15	104.35	HG 133C 134S4
16	34648	1.3	108.44	HG 130C 134S4
15	37489	1.9	117.33	HG 133C 134S4
14	39285	1.15	122.97	HG 130C 134S4
13	42507	1.7	133.05	HG 133C 134S4
13	44321	2.8	138.74	HG 136C 134S4
12	45825	1	143.44	HG 130C 134S4
11	50879	0.9	159.25	HG 130C 134S4
11	49587	1.45	155.2	HG 133C 134S4
11	49560	2.55	155.12	HG 136C 134S4
10	55047	1.3	172.31	HG 133C 134S4
10	54118	2.3	169.39	HG 136C 134S4
9.2	60490	1.2	189.33	HG 133C 134S4
7.7	72420	1	226.67	HG 133C 134S4
6.8	81792	0.9	256	HG 133C 134S4
6.2	79022	1.6	280.56	HG 136D 134S4
5.5	89597	1.4	315.47	HG 136D 134S4
4.9	102226	1.25	357.74	HG 136D 134S4
4.2	120227	1.05	417.29	HG 136D 134S4
3.8	134033	0.95	463.28	HG 136D 134S4
10 HP nominal (12 HP actual)				
1054	726	2.85	1.66	HU 70E 134M4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
970	788	4.1	1.8	HU 80E 134M4
904	841	2.55	1.93	HU 70E 134M4
847	903	3.75	2.06	HU 80E 134M4
769	991	2.3	2.27	HU 70E 134M4
734	1035	3.4	2.38	HU 80E 134M4
648	1177	2	2.7	HU 70E 134M4
631	1204	3	2.77	HU 80E 134M4
573	1328	1.8	3.05	HU 70E 134M4
553	1372	3.65	3.16	HU 70S 134M4
535	1425	2.6	3.26	HU 80E 134M4
503	1513	1.6	3.47	HU 70E 134M4
476	1593	2.35	3.67	HU 80E 134M4
458	1664	3.25	3.81	HU 70S 134M4
421	1805	1.2	4.15	HU 70E 134M4
420	1814	2.1	4.16	HU 80E 134M4
379	2009	2.85	4.6	HU 70S 134M4
370	2053	1.05	4.72	HU 70E 134M4
360	2115	1.55	4.85	HU 80E 134M4
328	2319	2.55	5.32	HU 70S 134M4
324	2345	1.85	5.38	HU 80E 134M4
321	2372	0.95	5.44	HU 70E 134M4
295	2575	1.6	5.92	HU 80E 134M4
287	2646	0.9	6.08	HU 70E 134M4
283	2682	2.3	6.16	HU 70S 134M4
280	2717	2.65	6.23	HU 70A 134M4
246	3089	1.15	7.08	HU 80E 134M4
243	3133	2	7.19	HU 70S 134M4
232	3275	2.2	7.52	HU 70A 134M4
218	3487	0.9	8	HU 80E 134M4
207	3682	1.75	8.45	HU 70S 134M4
201	3788	1.9	8.69	HU 70A 134M4
174	4372	1.55	10.03	HU 70S 134M4
173	4390	1.65	10.08	HU 70A 134M4
166	4584	2.75	10.52	HU 80A 134M4
154	4938	1.4	11.34	HU 70S 134M4
149	5115	1.4	11.75	HU 70A 134M4
145	5257	2.4	12.06	HU 80A 134M4
135	5629	1.25	12.93	HU 70S 134M4
126	6018	1.2	13.8	HU 70A 134M4
126	6062	2.05	13.91	HU 80A 134M4
117	6505	2.75	14.92	HU 85A 134M4
113	6726	1.05	15.45	HU 70S 134M4
108	7053	1.8	16.19	HU 80A 134M4
106	7142	1	16.4	HU 70A 134M4
101	7567	2.35	17.37	HU 85A 134M4
94	8080	0.9	18.54	HU 70A 134M4
92	8301	1.5	19.06	HU 80A 134M4
85	8912	2	20.45	HU 85A 134M4
83	9169	2.9	21.04	HG 110A 134M4
81	9337	1.35	21.44	HU 80A 134M4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
76	10018	1.8	23	HU 85A 134M4
72	10629	2.5	24.41	HG 110A 134M4
72	10593	1.2	24.31	HU 80A 134M4
67	11363	1.6	26.08	HU 85A 134M4
62	12355	1.05	28.35	HU 80A 134M4
61	12523	2.15	28.74	HG 110A 134M4
57	13257	1.35	30.42	HU 85A 134M4
55	13718	0.95	31.48	HU 80A 134M4
52	14718	1.25	33.78	HU 85A 134M4
51	15036	1.8	34.51	HG 110A 134M4
47	16169	1.1	37.11	HU 85A 134M4
46	16638	1.6	38.19	HG 110A 134M4
45	16912	2.65	38.82	HG 130A 134M4
41	18558	1.45	42.6	HG 110A 134M4
41	18665	2.4	42.85	HG 130A 134M4
39	19355	0.95	44.43	HU 85A 134M4
37	20815	1.3	47.79	HG 110A 134M4
37	20780	2.15	47.69	HG 130A 134M4
35	22010	3.25	50.53	HG 133C 134M4
33	22771	1.2	52.26	HG 110A 134M4
33	23231	1.95	53.32	HG 130A 134M4
30	25364	1.75	58.23	HG 130A 134M4
30	25090	2.85	57.6	HG 133C 134M4
29	26577	1.7	61	HG 130C 134M4
28	27063	1	62.13	HG 110A 134M4
26	28754	2.5	66	HG 133C 134M4
25	30656	1.45	70.37	HG 130C 134M4
23	33170	2.15	76.14	HG 133C 134M4
21	35683	1.25	81.9	HG 130C 134M4
20	38604	1.85	88.62	HG 133C 134M4
18	42020	1.1	96.44	HG 130C 134M4
18	41161	3.05	94.49	HG 136C 134M4
17	45462	1.6	104.35	HG 133C 134M4
16	47241	0.95	108.44	HG 130C 134M4
15	51118	1.4	117.33	HG 133C 134M4
15	49197	2.55	112.93	HG 136C 134M4
14	54312	2.3	124.66	HG 136C 134M4
13	57968	1.25	133.05	HG 133C 134M4
13	60446	2.05	138.74	HG 136C 134M4
11	67614	1.05	155.2	HG 133C 134M4
11	67579	1.85	155.12	HG 136C 134M4
10	75066	0.95	172.31	HG 133C 134M4
10	73791	1.7	169.39	HG 136C 134M4
9.8	67455	1.85	177.45	HG 136D 134M4
9.2	82482	0.9	189.33	HG 133C 134M4
8.5	78632	1.6	204.71	HG 136D 134M4
7.3	92465	1.35	238.26	HG 136D 134M4
6.2	109775	1.15	280.56	HG 136D 134M4
5.5	124201	1	315.47	HG 136D 134M4
4.9	141423	0.9	357.74	HG 136D 134M4

* These units have thermal limitations. Please contact a DieQua representative for details.
⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.

Gearmotor Selection Tables



RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
12.5 HP <i>nominal (14 HP actual)</i>				
1047	894	2.3	1.66	HU 70E 134ML4
963	965	3.35	1.8	HU 80E 134ML4
898	1035	2.1	1.93	HU 70E 134ML4
841	1106	3.05	2.06	HU 80E 134ML4
764	1221	1.85	2.27	HU 70E 134ML4
729	1283	2.75	2.38	HU 80E 134ML4
643	1451	1.6	2.7	HU 70E 134ML4
626	1487	2.45	2.77	HU 80E 134ML4
569	1637	1.45	3.05	HU 70E 134ML4
549	1699	2.95	3.16	HU 70S 134ML4
532	1752	2.1	3.26	HU 80E 134ML4
499	1867	1.3	3.47	HU 70E 134ML4
473	1974	1.9	3.67	HU 80E 134ML4
455	2053	2.6	3.81	HU 70S 134ML4
418	2230	1	4.15	HU 70E 134ML4
417	2239	1.7	4.16	HU 80E 134ML4
377	2478	2.3	4.6	HU 70S 134ML4
358	2611	1.25	4.85	HU 80E 134ML4
336	2779	2.6	5.16	HU 70A 134ML4
326	2859	2.05	5.32	HU 70S 134ML4
322	2894	1.5	5.38	HU 80E 134ML4
293	3186	1.3	5.92	HU 80E 134ML4
281	3319	1.85	6.16	HU 70S 134ML4
278	3354	2.15	6.23	HU 70A 134ML4
245	3814	0.95	7.08	HU 80E 134ML4
241	3867	1.65	7.19	HU 70S 134ML4
233	3328	4.05	7.44	HU 85S 134ML4
230	4044	1.75	7.52	HU 70A 134ML4
222	4195	3	7.79	HU 80A 134ML4
205	4549	1.45	8.45	HU 70S 134ML4
204	3788	3.65	8.49	HU 85S 134ML4
200	4673	1.55	8.69	HU 70A 134ML4
188	4965	2.5	9.23	HU 80A 134ML4
173	5399	1.25	10.03	HU 70S 134ML4
172	5425	1.35	10.08	HU 70A 134ML4
165	5664	2.2	10.52	HU 80A 134ML4
155	5009	2.9	11.22	HU 85S 134ML4
153	6107	1.1	11.34	HU 70S 134ML4
148	6319	1.15	11.75	HU 70A 134ML4
144	6487	1.95	12.06	HU 80A 134ML4
134	6956	1	12.93	HU 70S 134ML4
134	6965	2.55	12.94	HU 85A 134ML4
126	7425	1	13.8	HU 70A 134ML4
125	7487	1.7	13.91	HU 80A 134ML4
116	8027	2.25	14.92	HU 85A 134ML4
107	8708	1.45	16.19	HU 80A 134ML4
100	9346	1.9	17.37	HU 85A 134ML4
91	10257	1.25	19.06	HU 80A 134ML4
85	11009	1.65	20.45	HU 85A 134ML4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
82	11319	2.35	21.04	HG 110A 134ML4
81	11532	1.1	21.44	HU 80A 134ML4
75	12372	1.45	23	HU 85A 134ML4
71	13133	2.05	24.41	HG 110A 134ML4
71	13080	0.95	24.31	HU 80A 134ML4
66	14036	1.3	26.08	HU 85A 134ML4
63	14921	3	27.73	HG 130A 134ML4
60	15461	1.75	28.74	HG 110A 134ML4
57	16373	1.1	30.42	HU 85A 134ML4
53	17479	2.55	32.48	HG 130A 134ML4
51	18178	1	33.78	HU 85A 134ML4
50	18576	1.45	34.51	HG 110A 134ML4
47	19974	0.9	37.11	HU 85A 134ML4
45	20550	1.3	38.19	HG 110A 134ML4
45	20886	2.15	38.82	HG 130A 134ML4
41	22922	1.2	42.6	HG 110A 134ML4
40	23054	1.95	42.85	HG 130A 134ML4
36	25718	1.05	47.79	HG 110A 134ML4
36	25665	1.75	47.69	HG 130A 134ML4
34	27762	2.85	51.6	HG 133A 134ML4
33	28125	0.95	52.26	HG 110A 134ML4
33	28692	1.55	53.32	HG 130A 134ML4
30	31329	1.45	58.23	HG 130A 134ML4
30	30993	2.3	57.6	HG 133C 134ML4
28	32825	1.35	61	HG 130C 134ML4
26	35515	2	66	HG 133C 134ML4
25	37869	1.2	70.37	HG 130C 134ML4
23	40967	1.75	76.14	HG 133C 134ML4
21	44073	1.05	81.9	HG 130C 134ML4
21	43400	2.9	80.66	HG 136C 134ML4
20	47684	1.5	88.62	HG 133C 134ML4
18	51896	0.9	96.44	HG 130C 134ML4
18	50843	2.45	94.49	HG 136C 134ML4
17	56153	1.3	104.35	HG 133C 134ML4
15	63136	1.15	117.33	HG 133C 134ML4
15	60764	2.05	112.93	HG 136C 134ML4
13	71597	1	133.05	HG 133C 134ML4
12	74659	1.7	138.74	HG 136C 134ML4
11	83473	1.5	155.12	HG 136C 134ML4
10	91146	1.4	169.39	HG 136C 134ML4
8.5	98324	1.3	204.71	HG 136D 134ML4
7.3	115386	1.1	238.26	HG 136D 134ML4
6.2	136715	0.95	280.56	HG 136D 134ML4
15 HP <i>nominal (17 HP actual)</i>				
1110	1009	3.05	1.58	HU 80E 161M4
1058	1053	1.95	1.66	HU 70E 161M4
973	1150	2.8	1.8	HU 80E 161M4
907	1230	1.75	1.93	HU 70E 161M4
849	1310	2.55	2.06	HU 80E 161M4
772	1443	1.55	2.27	HU 70E 161M4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
736	1513	2.3	2.38	HU 80E 161M4
650	1717	1.4	2.7	HU 70E 161M4
633	1761	2.05	2.77	HU 80E 161M4
575	1938	1.25	3.05	HU 70E 161M4
537	2080	1.8	3.26	HU 80E 161M4
504	2213	1.1	3.47	HU 70E 161M4
478	2336	1.6	3.67	HU 80E 161M4
421	2646	1.45	4.16	HU 80E 161M4
387	2390	4.9	4.53	HU 85S 161M4
361	3089	1.05	4.85	HU 80E 161M4
329	2814	4.35	5.33	HU 85S 161M4
325	3425	1.25	5.38	HU 80E 161M4
296	3770	1.1	5.92	HU 80E 161M4
279	3319	3.85	6.29	HU 85S 161M4
265	4213	0.95	6.61	HU 80A 161M4
247	4514	0.8	7.08	HU 80E 161M4
235	3938	3.4	7.44	HU 85S 161M4
225	4965	1.05	7.79	HU 80A 161M4
206	4487	3.05	8.49	HU 85S 161M4
190	5876	1.25	9.23	HU 80A 161M4
180	5142	2.75	9.72	HU 85S 161M4
177	6310	2.85	9.9	HU 85A 161M4
166	6699	1.4	10.52	HU 80A 161M4
156	5930	2.45	11.22	HU 85S 161M4
155	7186	2.5	11.29	HU 85A 161M4
145	7682	1.65	12.06	HU 80A 161M4
135	8239	2.15	12.94	HU 85A 161M4
134	6903	2.15	13.05	HU 85S 161M4
126	8859	1.85	13.91	HU 80A 161M4
123	9107	2.95	14.3	HG 110A 161M4
117	9505	1.9	14.92	HU 85A 161M4
114	8124	1.85	15.37	HU 85S 161M4
109	10275	2.6	16.14	HG 110A 161M4
108	10310	2.15	16.19	HU 80A 161M4
101	11063	1.65	17.37	HU 85A 161M4
96	11682	2.3	18.34	HG 110A 161M4
92	12142	2.5	19.06	HU 80A 161M4
86	13027	1.4	20.45	HU 85A 161M4
83	13399	2	21.04	HG 110A 161M4
82	13647	2.95	21.44	HU 80A 161M4
76	14647	1.25	23	HU 85A 161M4
73	15302	2.9	24.03	HG 130A 161M4
72	15479	3.5	24.31	HU 80A 161M4
72	15541	1.75	24.41	HG 110A 161M4
67	16611	1.1	26.08	HU 85A 161M4
63	17656	2.55	27.73	HG 130A 161M4
61	18302	1.5	28.74	HG 110A 161M4
58	19373	0.95	30.42	HU 85A 161M4
54	20682	2.15	32.48	HG 130A 161M4
52	21506	0.85	33.78	HU 85A 161M4

* These units have thermal limitations. Please contact a DieQua representative for details.

⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.



Gearmotor Selection Tables

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
51	21975	1.25	34.51	HG 110A 161M4
46	24320	1.1	38.19	HG 110A 161M4
45	24718	1.8	38.82	HG 130A 161M4
42	26745	2.65	42	HG 133A 161M4
41	27285	1.65	42.85	HG 130A 161M4
41	27125	1	42.6	HG 110A 161M4
38	29524	2.4	46.36	HG 133A 161M4
37	30364	1.5	47.69	HG 130A 161M4
37	30426	0.9	47.79	HG 110A 161M4
35	32170	2.25	50.53	HG 133C 161M4
34	33276	0.8	52.26	HG 110A 161M4
33	33957	1.35	53.32	HG 130A 161M4
30	36674	1.95	57.6	HG 133C 161M4
30	37082	1.2	58.23	HG 130A 161M4
29	38843	1.15	61	HG 130C 161M4
27	42029	1.7	66	HG 133C 161M4
25	44516	2.8	69.91	HG 136C 161M4
25	44808	1	70.37	HG 130C 161M4
23	48480	1.5	76.14	HG 133C 161M4
22	51365	2.45	80.66	HG 136C 161M4
21	52153	0.85	81.9	HG 130C 161M4
20	56428	1.3	88.62	HG 133C 161M4
19	60171	2.1	94.49	HG 136C 161M4
17	66446	1.1	104.35	HG 133C 161M4
16	71906	1.75	112.93	HG 136C 161M4
15	74712	0.95	117.33	HG 133C 161M4
14	79376	1.6	124.66	HG 136C 161M4
13	88341	1.45	138.74	HG 136C 161M4
13	84721	0.85	133.05	HG 133C 161M4
11	98775	1.3	155.12	HG 136C 161M4
10	101076	1.25	177.45	HG 136D 161M4
10	107864	1.15	169.39	HG 136C 161M4
8.6	117316	1.1	204.71	HG 136D 161M4
7.4	137671	0.9	238.26	HG 136D 161M4
6.2	162778	0.8	280.56	HG 136D 161M4
20 HP nominal (23 HP actual)				
1110	1372	2.25	1.58	HU 80E 181M4
973	1566	2.1	1.8	HU 80E 181M4
849	1788	1.9	2.06	HU 80E 181M4
736	2062	1.7	2.38	HU 80E 181M4
633	2407	1.5	2.77	HU 80E 181M4
537	2832	1.3	3.26	HU 80E 181M4
478	3186	1.2	3.67	HU 80E 181M4
421	3611	1.05	4.16	HU 80E 181M4
387	3266	3.6	4.53	HU 85S 181M4
370	4115	5.6	4.74	HG 110S 181M4
361	4213	0.8	4.85	HU 80E 181M4
331	4602	5.15	5.29	HG 110S 181M4
329	3841	3.2	5.33	HU 85S 181M4
325	4673	0.95	5.38	HU 80E 181M4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
312	4876	2.55	5.61	HU 80A 161L4
296	5142	0.8	5.92	HU 80E 161L4
295	5160	4.7	5.94	HG 110S 161L4
279	4531	2.85	6.29	HU 85S 161L4
265	5735	2.2	6.61	HU 80A 161L4
261	5823	4.3	6.7	HG 110S 161L4
247	6160	2.85	7.09	HU 85A 161L4
235	5363	2.5	7.44	HU 85S 161L4
230	6620	3.85	7.62	HG 110S 161L4
225	6770	1.85	7.79	HU 80A 161L4
209	7266	2.45	8.36	HU 85A 161L4
206	6115	2.25	8.49	HU 85S 161L4
200	7593	3.4	8.74	HG 110S 161L4
190	8018	1.55	9.23	HU 80A 161L4
180	7009	2.05	9.72	HU 85S 161L4
177	8602	2.1	9.9	HU 85A 161L4
173	8806	2.95	10.14	HG 110S 161L4
166	9133	1.4	10.52	HU 80A 161L4
156	8080	1.8	11.22	HU 85S 161L4
155	9806	1.85	11.29	HU 85A 161L4
154	9912	2.7	11.41	HG 110A 161L4
145	10470	1.2	12.06	HU 80A 161L4
137	11063	2.4	12.74	HG 110A 161L4
135	11231	1.6	12.94	HU 85A 161L4
134	9408	1.6	13.05	HU 85S 161L4
126	12080	1.05	13.91	HU 80A 161L4
123	12417	2.15	14.3	HG 110A 161L4
117	12956	1.4	14.92	HU 85A 161L4
114	11080	1.4	15.37	HU 85S 161L4
109	14010	1.9	16.14	HG 110A 161L4
108	14054	0.9	16.19	HU 80A 161L4
101	15080	1.2	17.37	HU 85A 161L4
96	15930	1.7	18.34	HG 110A 161L4
94	16195	2.75	18.65	HG 130A 161L4
86	17762	1	20.45	HU 85A 161L4
83	18266	1.5	21.04	HG 110A 161L4
83	18302	2.45	21.07	HG 130A 161L4
76	19974	0.9	23	HU 85A 161L4
73	20868	2.15	24.03	HG 130A 161L4
72	21196	1.3	24.41	HG 110A 161L4
67	22576	3.15	26	HG 133A 161L4
67	22647	0.8	26.08	HU 85A 161L4
63	24081	1.85	27.73	HG 130A 161L4
61	24957	1.1	28.74	HG 110A 161L4
58	26046	2.75	30	HG 133A 161L4
54	28205	1.6	32.48	HG 130A 161L4
51	29966	0.9	34.51	HG 110A 161L4
50	30515	2.35	35.14	HG 133A 161L4
46	33161	0.85	38.19	HG 110A 161L4
45	33710	1.35	38.82	HG 130A 161L4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
42	36471	1.95	42	HG 133A 161L4
41	37205	1.2	42.85	HG 130A 161L4
37	41409	1.1	47.69	HG 130A 161L4
36	42029	2.95	48.4	HG 136C 161L4
35	43869	1.65	50.53	HG 133C 161L4
33	46303	1	53.32	HG 130A 161L4
32	47117	2.65	54.26	HG 136C 161L4
30	50560	0.9	58.23	HG 130A 161L4
30	50020	1.45	57.6	HG 133C 161L4
29	53233	2.35	61.3	HG 136C 161L4
27	57313	1.25	66	HG 133C 161L4
25	60702	2.05	69.91	HG 136C 161L4
23	66110	1.1	76.14	HG 133C 161L4
22	70039	1.8	80.66	HG 136C 161L4
20	76951	0.95	88.62	HG 133C 161L4
19	82048	1.55	94.49	HG 136C 161L4
17	90606	0.8	104.35	HG 133C 161L4
16	98058	1.3	112.93	HG 136C 161L4
14	108244	1.15	124.66	HG 136C 161L4
13	120466	1.05	138.74	HG 136C 161L4
11	134697	0.95	155.12	HG 136C 161L4
10	147087	0.85	169.39	HG 136C 161L4
25 HP nominal (28 HP actual)				
1113	1682	1.85	1.58	HU 80E 181M4
977	1920	1.7	1.8	HU 80E 181M4
852	2204	1.55	2.06	HU 80E 181M4
739	2540	1.4	2.38	HU 80E 181M4
635	2956	1.25	2.77	HU 80E 181M4
539	3478	1.1	3.26	HU 80E 181M4
479	3912	0.95	3.67	HU 80E 181M4
423	4434	0.85	4.16	HU 80E 181M4
388	4009	2.9	4.53	HU 85S 181M4
371	5062	4.55	4.74	HG 110S 181M4
332	5655	4.2	5.29	HG 110S 181M4
330	4717	2.6	5.33	HU 85S 181M4
326	5744	0.75	5.38	HU 80E 181M4
*313	5991	2.1	5.61	HU 80A 181M4
297	6319	0.65	5.92	HU 80E 181M4
296	6337	3.85	5.94	HG 110S 181M4
292	6425	2.5	6.02	HU 85A 181M4
280	5567	2.3	6.29	HU 85S 181M4
*266	7053	1.8	6.61	HU 80A 181M4
262	7160	3.5	6.7	HG 110S 181M4
248	7567	2.35	7.09	HU 85A 181M4
236	6593	2.05	7.44	HU 85S 181M4
231	8133	3.15	7.62	HG 110S 181M4
*226	8319	1.5	7.79	HU 80A 181M4
210	8930	2	8.36	HU 85A 181M4
207	7514	1.85	8.49	HU 85S 181M4
201	9328	2.8	8.74	HG 110S 181M4

* These units have thermal limitations. Please contact a DieQua representative for details.
⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.

Gearmotor Selection Tables



RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
*190	9850	1.3	9.23	HU 80A 181M4
181	8611	1.65	9.72	HU 85S 181M4
177	10567	1.7	9.9	HU 85A 181M4
173	10824	2.4	10.14	HG 110S 181M4
*167	11231	1.15	10.52	HU 80A 181M4
157	9939	1.45	11.22	HU 85S 181M4
156	12054	1.5	11.29	HU 85A 181M4
154	12178	2.2	11.41	HG 110A 181M4
*146	12868	1	12.06	HU 80A 181M4
138	13602	2	12.74	HG 110A 181M4
136	13806	1.3	12.94	HU 85A 181M4
135	11567	1.3	13.05	HU 85S 181M4
131	14372	3.1	13.47	HG 130A 181M4
*126	14841	0.85	13.91	HU 80A 181M4
123	15257	1.75	14.3	HG 110A 181M4
118	15939	2.8	14.93	HG 130A 181M4
118	15930	1.15	14.92	HU 85A 181M4
114	13620	1.15	15.37	HU 85S 181M4
109	17222	1.55	16.14	HG 110A 181M4
106	17753	2.5	16.64	HG 130A 181M4
101	18541	1	17.37	HU 85A 181M4
96	19576	1.4	18.34	HG 110A 181M4
94	19904	2.25	18.65	HG 130A 181M4
86	21833	0.85	20.45	HU 85A 181M4
84	22452	1.2	21.04	HG 110A 181M4
83	22488	2	21.07	HG 130A 181M4
77	24338	2.95	22.8	HG 133A 181M4
73	25647	1.75	24.03	HG 130A 181M4
72	26046	1.05	24.41	HG 110A 181M4
68	27754	2.6	26	HG 133A 181M4
63	29594	1.5	27.73	HG 130A 181M4
61	30674	0.9	28.74	HG 110A 181M4
59	32019	2.25	30	HG 133A 181M4
54	34665	1.3	32.48	HG 130A 181M4
50	37506	1.9	35.14	HG 133A 181M4
45	41427	1.1	38.82	HG 130A 181M4
45	41816	3	39.18	HG 136C 181M4
42	44825	1.6	42	HG 133A 181M4
41	45737	1	42.85	HG 130A 181M4
40	46356	2.7	43.43	HG 136C 181M4
38	49480	1.45	46.36	HG 133A 181M4
37	50896	0.9	47.69	HG 130A 181M4
36	51657	2.4	48.4	HG 136C 181M4
35	53923	1.35	50.53	HG 133C 181M4
33	56906	0.8	53.32	HG 130A 181M4
32	57914	2.15	54.26	HG 136C 181M4
31	61472	1.2	57.6	HG 133C 181M4
29	65428	1.9	61.3	HG 136C 181M4
27	70437	1.05	66	HG 133C 181M4
25	74614	1.7	69.91	HG 136C 181M4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
23	81261	0.9	76.14	HG 133C 181M4
22	86093	1.45	80.66	HG 136C 181M4
19	100846	1.25	94.49	HG 136C 181M4
16	120528	1.05	112.93	HG 136C 181M4
14	133042	0.95	124.66	HG 136C 181M4
13	148069	0.85	138.74	HG 136C 181M4
30 HP nominal (34 HP actual)				
*1110	2009	1.55	1.58	HU 80E 181L4
*973	2292	1.4	1.8	HU 80E 181L4
*849	2628	1.3	2.06	HU 80E 181L4
*736	3027	1.15	2.38	HU 80E 181L4
*633	3531	1.05	2.77	HU 80E 181L4
*537	4151	0.9	3.26	HU 80E 181L4
*478	4673	0.8	3.67	HU 80E 181L4
*387	4788	2.45	4.53	HU 85S 181L4
370	3381	3.8	4.74	HG 110S 181L4
331	6744	3.55	5.29	HG 110S 181L4
*329	5637	2.2	5.33	HU 85S 181L4
295	7567	3.2	5.94	HG 110S 181L4
291	7673	2.1	6.02	HU 85A 181L4
*279	6646	1.95	6.29	HU 85S 181L4
261	8540	2.95	6.7	HG 110S 181L4
247	9027	1.95	7.09	HU 85A 181L4
*235	7868	1.7	7.44	HU 85S 181L4
230	9708	2.65	7.62	HG 110S 181L4
209	10655	1.7	8.36	HU 85A 181L4
*206	8974	1.55	8.49	HU 85S 181L4
200	11133	2.35	8.74	HG 110S 181L4
*180	10275	1.4	9.72	HU 85S 181L4
177	12611	1.45	9.9	HU 85A 181L4
173	12912	2.05	10.14	HG 110S 181L4
166	13399	2.6	10.52	HG 130S 181L4
*156	11859	1.25	11.22	HU 85S 181L4
155	14381	1.25	11.29	HU 85A 181L4
154	14532	1.85	11.41	HG 110A 181L4
144	15460	3	12.14	HG 130S 181L4
137	16231	1.65	12.74	HG 110A 181L4
135	16479	1.1	12.94	HU 85A 181L4
*134	13797	1.1	13.05	HU 85S 181L4
130	17151	2.6	13.47	HG 130A 181L4
123	18213	1.5	14.3	HG 110A 181L4
117	19010	0.95	14.92	HU 85A 181L4
117	19010	2.35	14.93	HG 130A 181L4
*114	16249	0.95	15.37	HU 85S 181L4
110	20231	3.6	15.89	HG 133S 181L4
109	20550	1.3	16.14	HG 110A 181L4
105	21187	2.1	16.64	HG 130A 181L4
101	22125	0.85	17.37	HU 85A 181L4
96	23355	1.15	18.34	HG 110A 181L4
96	23346	3	18.33	HG 133S 181L4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
94	23753	1.9	18.65	HG 130A 181L4
87	25700	2.8	20.18	HG 133A 181L4
83	26789	1	21.04	HG 110A 181L4
83	26833	1.65	21.07	HG 130A 181L4
77	29037	2.45	22.8	HG 133A 181L4
73	30603	1.45	24.03	HG 130A 181L4
72	31081	0.9	24.41	HG 110A 181L4
67	33117	2.15	26	HG 133A 181L4
63	35312	1.3	27.73	HG 130A 181L4
58	38205	1.9	30	HG 133A 181L4
54	41365	1.1	32.48	HG 130A 181L4
50	44754	1.6	35.14	HG 133A 181L4
45	49436	0.9	38.82	HG 130A 181L4
45	49896	2.5	39.18	HG 136C 181L4
42	53489	1.35	42	HG 133A 181L4
41	54569	0.85	42.85	HG 130A 181L4
40	55313	2.25	43.43	HG 136C 181L4
38	59047	1.2	46.36	HG 133A 181L4
36	61631	2.05	48.4	HG 136C 181L4
35	64348	1.15	50.53	HG 133C 181L4
32	69110	1.8	54.26	HG 136C 181L4
30	73358	1	57.6	HG 133C 181L4
29	78075	1.6	61.3	HG 136C 181L4
27	84057	0.85	66	HG 133C 181L4
25	89031	1.4	69.91	HG 136C 181L4
22	102722	1.25	80.66	HG 136C 181L4
19	120333	1.05	94.49	HG 136C 181L4
16	143813	0.9	112.93	HG 136C 181L4
14	158760	0.8	124.66	HG 136C 181L4
40 HP nominal (46 HP actual)				
371	8204	2.8	4.74	HG 110S 201L4
332	9160	2.6	5.29	HG 110S 201L4
296	10284	2.35	5.94	HG 110S 201L4
262	11602	2.15	6.7	HG 110S 201L4
241	12611	3.1	7.29	HG 130S 201L4
231	13187	1.95	7.62	HG 110S 201L4
215	14142	2.8	8.17	HG 130S 201L4
201	15125	1.7	8.74	HG 110S 201L4
190	15974	2.5	9.23	HG 130S 201L4
178	17089	3.4	9.87	HG 133S 201L4
173	17550	1.5	10.14	HG 110S 201L4
167	18213	2.2	10.52	HG 130S 201L4
160	19036	3.1	11	HG 133S 201L4
154	19753	1.35	11.41	HG 110A 201L4
145	21019	1.9	12.14	HG 130S 201L4
138	22054	1.25	12.74	HG 110A 201L4
131	23311	1.9	13.47	HG 130A 201L4
123	24745	1.1	14.3	HG 110A 201L4
121	25223	2.85	14.57	HG 133A 201L4
118	25842	1.75	14.93	HG 130A 201L4

* These units have thermal limitations. Please contact a DieQua representative for details.
⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.



Gearmotor Selection Tables

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
109	27931	1	16.14	HG 110A 201L4
109	27957	2.55	16.15	HG 133A 201L4
106	28789	1.55	16.64	HG 130A 201L4
98	31152	2.3	18	HG 133A 201L4
94	32285	1.4	18.65	HG 130A 201L4
87	34931	2.05	20.18	HG 133A 201L4
83	36471	1.25	21.07	HG 130A 201L4
77	39462	1.8	22.8	HG 133A 201L4
73	41586	1.1	24.03	HG 130A 201L4
72	41993	3	24.26	HG 136A 201L4
68	45002	1.6	26	HG 133A 201L4
63	47985	0.95	27.73	HG 130A 201L4
59	51923	1.4	30	HG 133A 201L4
56	53897	2.3	31.14	HG 136A 201L4
50	60826	1.2	35.14	HG 133A 201L4
45	67809	1.85	39.18	HG 136C 201L4
42	72694	1	42	HG 133A 201L4
40	75172	1.65	43.43	HG 136C 201L4
38	80243	0.9	46.36	HG 133A 201L4
36	83765	1.5	48.4	HG 136C 201L4
32	93916	1.35	54.26	HG 136C 201L4
29	106103	1.2	61.3	HG 136C 201L4
25	120988	1.05	69.91	HG 136C 201L4
22	139600	0.9	80.66	HG 136C 201L4
50 HP nominal (57 HP actual)				
*373	10054	2.3	4.74	HG 110S 226S4
*334	11222	2.15	5.29	HG 110S 226S4
300	12505	3.05	5.9	HG 130S 226S4
*298	12594	1.95	5.94	HG 110S 226S4
271	13859	2.8	6.54	HG 130S 226S4
*264	14213	1.75	6.7	HG 110S 226S4
243	15443	2.55	7.29	HG 130S 226S4
*232	16160	1.6	7.62	HG 110S 226S4
217	17319	2.3	8.17	HG 130S 226S4
*203	18532	1.4	8.74	HG 110S 226S4
192	19567	2.05	9.23	HG 130S 226S4
179	20930	2.8	9.87	HG 133S 226S4
*175	21497	1.25	10.14	HG 110S 226S4
168	22311	1.8	10.52	HG 130S 226S4
161	23320	2.55	11	HG 133S 226S4
*155	24196	1.1	11.41	HG 110A 226S4
146	25745	1.55	12.14	HG 130S 226S4
144	26152	2.3	12.33	HG 133S 226S4
*139	27019	1	12.74	HG 110A 226S4
131	28550	1.9	13.47	HG 130A 226S4
127	29541	2.05	13.93	HG 133S 226S4
*124	30311	0.9	14.3	HG 110A 226S4
118	31656	1.75	14.93	HG 130A 226S4
*110	34214	0.8	16.14	HG 110A 226S4
110	34250	2.1	16.15	HG 133A 226S4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
106	35267	1.55	16.64	HG 130A 226S4
98	38161	1.9	18	HG 133A 226S4
94	39542	1.4	18.65	HG 130A 226S4
88	42790	1.7	20.18	HG 133A 226S4
83	44674	1.25	21.07	HG 130A 226S4
78	48339	1.5	22.8	HG 133A 226S4
73	50949	1.1	24.03	HG 130A 226S4
73	51436	2.45	24.26	HG 136A 226S4
68	55127	1.3	26	HG 133A 226S4
63	58782	0.95	27.73	HG 130A 226S4
59	63605	1.15	30	HG 133A 226S4
57	66021	1.9	31.14	HG 136A 226S4
50	74508	1	35.14	HG 133A 226S4
45	83066	1.5	39.18	HG 136C 226S4
41	92084	1.35	43.43	HG 136C 226S4
37	102607	1.25	48.4	HG 136C 226S4
33	115041	1.1	54.26	HG 136C 226S4
29	129971	1	61.3	HG 136C 226S4
60 HP nominal (69 HP actual)				
*300	15204	2.5	5.9	HG 130S 226M4
*271	16859	2.3	6.54	HG 130S 226M4
*243	18789	2.1	7.29	HG 130S 226M4
*217	21063	1.9	8.17	HG 130S 226M4
199	22957	2.5	8.9	HG 133S 226M4
*192	23798	1.7	9.23	HG 130S 226M4
179	25453	2.3	9.87	HG 133S 226M4
*168	27134	1.5	10.52	HG 130S 226M4
161	28364	2.1	11	HG 133S 226M4
*146	31311	1.3	12.14	HG 130S 226M4
144	31798	1.9	12.33	HG 133S 226M4
*131	34727	1.3	13.47	HG 130A 226M4
127	35931	1.7	13.93	HG 133S 226M4
121	37568	1.9	14.57	HG 133A 226M4
*119	38498	1.15	14.93	HG 130A 226M4
110	41595	3	16.13	HG 136A 226M4
110	41657	1.7	16.15	HG 133A 226M4
*106	42896	1.05	16.64	HG 130A 226M4
98	46409	1.55	18	HG 133A 226M4
*95	48100	0.95	18.65	HG 130A 226M4
91	50418	2.5	19.56	HG 136A 226M4
88	52038	1.4	20.18	HG 133A 226M4
78	58791	1.25	22.8	HG 133A 226M4
73	62561	2	24.26	HG 136A 226M4
68	67039	1.1	26	HG 133A 226M4
59	77358	0.95	30	HG 133A 226M4
57	80296	1.55	31.14	HG 136A 226M4
45	101023	1.25	39.18	HG 136C 226M4
41	111988	1.15	43.43	HG 136C 226M4
37	124794	1	48.4	HG 136C 226M4
33	139919	0.9	54.26	HG 136C 226M4

RPM	In-lbs.	SF ⁽¹⁾	Ratio	Model
75 HP nominal (89 HP actual)				
*199	27966	2.05	8.9	HG 133S 251M4
*161	34550	1.7	11	HG 133S 251M4
*144	38736	1.55	12.33	HG 133S 251M4
139	40197	1.3	12.8	HG 136A 251M4
*122	45763	1.55	14.57	HG 133A 251M4
110	50666	1.65	16.13	HG 136A 251M4
*99	56534	1.3	18	HG 133A 251M4
91	61419	2.05	19.56	HG 136A 251M4
*88	63393	1.15	20.18	HG 133A 251M4
*78	71614	1	22.8	HG 133A 251M4
73	76199	2.45	24.26	HG 136A 251M4
*68	81659	0.9	26	HG 133A 251M4
*59	94226	0.8	30	HG 133A 251M4
57	97801	3.1	31.14	HG 136A 251M4
*45	123050	1.05	39.18	HG 136C 251M4
*41	136414	0.95	43.43	HG 136C 251M4
*37	152008	0.85	48.4	HG 136C 251M4
100 HP nominal (120 HP actual)				
*199	38135	1.5	8.9	HG 133S 251ML4
*161	47109	1.25	11	HG 133S 251ML4
*144	52826	1.15	12.33	HG 133S 251ML4
*139	54808	2.3	12.8	HG 136A 251ML4
*127	59676	1.05	13.93	HG 133S 251ML4
*122	62410	1.15	14.57	HG 133A 251ML4
*110	69189	1.05	16.15	HG 133A 251ML4
*110	69092	1.8	16.13	HG 136A 251ML4
*99	77092	0.95	18	HG 133A 251ML4
*91	83756	1.5	19.56	HG 136A 251ML4
*73	103908	1.2	24.26	HG 136A 251ML4
*57	133370	0.95	31.14	HG 136A 251ML4
120 HP nominal (145 HP actual)				
*139	65552	1.9	12.8	HG 136A 281M4
*110	82632	1.5	16.13	HG 136A 281M4
*91	100164	1.25	19.56	HG 136A 281M4
*73	124272	1	24.26	HG 136A 281M4
*57	159504	0.8	31.14	HG 136A 281M4

* These units have thermal limitations. Please contact a DieQua representative for details.
⁽¹⁾ At nominal horsepower, the service factor (SF) will increase by up to 20%.



WATT Drive speed reducers are known the world over for offering superior performance and reliable operation in the most demanding applications. An optimized gear tooth design provides high power density resulting in greater torque capacities in a smaller size. The modular housing allows for foot or flange mounting to increase design versatility.

A variety of input styles are offered including adapters for NEMA, IEC, and servo motors, as well as a model with standard input shaft. Output shafts are available

in both inch and metric dimensions. Bolt on output flanges and mounting feet are standard options.

Engineering Note:

The torque and horsepower capacities highlighted in the selection charts are based on mechanical limitations. For continuous duty applications, some models may have lower thermal horsepower capacities. Consult your representative with any questions regarding proper selection.

Ratio	in-lbs	HP	Model
Size 40			
0.81	319	6	H40E
0.97	345	5.8	H40E
1.16	381	5.5	H40E
1.39	407	5.3	H40E
1.65	425	5	H40E
1.94	425	4.7	H40E
2.31	425	4.4	H40E
2.67	425	4.2	H40E
3.08	425	3.7	H40E
3.42	425	3.4	H40E
3.82	788	5.6	H40S
4.15	425	2.8	H40E
4.58	425	2.5	H40E
4.58	832	4.9	H40S
5.09	398	2.1	H40E
5.47	867	4.3	H40S
5.68	885	4.2	H40A
5.85	372	1.7	H40E
6.42	345	1.5	H40E
6.57	885	3.6	H40S
6.79	885	3.5	H40A
7.09	310	1.2	H40E
7.78	885	3.1	H40S
7.9	274	0.9	H40E
8.13	885	2.9	H40A
8.89	239	0.7	H40E
9.17	885	2.6	H40S
9.75	885	2.5	H40A
10.9	885	2.2	H40S
11.55	885	2.1	H40A
12.57	885	1.9	H40S
13.61	885	1.8	H40A
14.51	885	1.7	H40S
16.11	885	1.5	H40S
16.19	885	1.5	H40A

Ratio	in-lbs	HP	Model
18.67	885	1.3	H40A
19.58	885	1.2	H40S
21.54	885	1.1	H40A
21.61	885	1.1	H40S
23.92	885	1	H40A
24	885	1	H40S
27.56	885	0.9	H40S
29.08	885	0.8	H40A
30.25	885	0.8	H40S
32.08	885	0.7	H40A
33.43	885	0.7	H40S
35.64	885	0.7	H40A
37.24	885	0.6	H40S
40.92	885	0.6	H40A
41.9	885	0.6	H40S
44.92	885	0.5	H40A
49.64	885	0.5	H40A
55.3	885	0.4	H40A
62.22	885	0.4	H40A
Size 50			
0.82	478	8.8	HU 50E
1	522	8.5	HU 50E
1.22	575	8.1	HU 50E
1.41	611	7.8	HU 50E
1.65	646	7.5	HU 50E
1.93	681	7.1	HU 50E
2.25	770	6.7	HU 50E
2.61	770	6.3	HU 50E
2.95	1390	12.7	HU 50S
3.06	770	5.8	HU 50E
3.5	770	5.5	HU 50E
3.59	1469	11.1	HU 50S
4	770	5.1	HU 50E
4.36	1549	9.5	HU 50S
4.42	770	4.7	HU 50E
5.07	1593	8.5	HU 50S

Ratio	in-lbs	HP	Model
5.31	717	3.6	HU 50E
5.59	1593	7.7	HU 50A
5.83	673	3.1	HU 50E
5.9	1593	7.3	HU 50S
6.45	620	2.6	HU 50E
6.8	1593	6.3	HU 50A
6.92	1593	6.2	HU 50S
7.38	566	2.1	HU 50E
8.07	1593	5.3	HU 50S
8.08	522	1.8	HU 50E
8.27	1593	5.2	HU 50A
8.91	469	1.4	HU 50E
9.37	1593	4.6	HU 50S
9.6	1593	4.5	HU 50A
9.9	407	1.1	HU 50E
10.99	1593	3.9	HU 50S
11.11	345	0.8	HU 50E
11.19	1593	3.8	HU 50A
12.56	1593	3.4	HU 50S
13.11	1593	3.3	HU 50A
14.35	1593	3	HU 50S
15.3	1593	2.8	HU 50A
15.85	1593	2.7	HU 50S
17.76	1593	2.4	HU 50A
19.05	1593	2.3	HU 50S
20.83	1593	2.1	HU 50A
20.93	1593	2.1	HU 50S
23.16	1593	1.9	HU 50S
23.8	1593	1.8	HU 50A
26.5	1593	1.6	HU 50S
27.2	1593	1.6	HU 50A
29	1593	1.5	HU 50S
29.22	1593	1.5	HU 50C
30.03	1593	1.4	HU 50A
31.97	1584	1.3	HU 50S
34.98	1593	1.2	HU 50C

Ratio	in-lbs	HP	Model
35.52	1354	1	HU 50S
36.09	1593	1.2	HU 50A
39.67	1593	1.1	HU 50A
39.87	1124	0.8	HU 50S
41.85	1593	1	HU 50C
43.89	1593	1	HU 50A
50.2	1593	0.9	HU 50C
50.22	1593	0.9	HU 50A
54.97	1593	0.8	HU 50A
59.47	1593	0.7	HU 50C
60.58	1593	0.7	HU 50A
67.32	1593	0.6	HU 50A
70.08	1593	0.6	HU 50C
75.56	1593	0.6	HU 50A
83.34	1593	0.5	HU 50C
96.11	1593	0.4	HU 50C
110.89	1593	0.4	HU 50C
123.14	1593	0.3	HU 50C
149.7	1593	0.3	HU 50C
165.18	1593	0.3	HU 50C
183.48	1593	0.2	HU 50C
210.7	1593	0.2	HU 50C
231.26	1593	0.2	HU 50C
255.56	1593	0.2	HU 50C
284.72	1593	0.1	HU 50C
320.36	1593	0.1	HU 50C
Size 55			
5.98	2390	10.8	HU 55A
7.27	2390	8.9	HU 55A
8.85	2390	7.3	HU 55A
10.27	2390	6.3	HU 55A
11.96	2390	5.4	HU 55A
14.03	2390	4.6	HU 55A
16.36	2390	3.9	HU 55A
18.99	2390	3.4	HU 55A
22.27	2390	2.9	HU 55A



Speed Reducer Selection Tables

Ratio	in-lbs	HP	Model
25.45	2390	2.5	HU 55A
29.09	2390	2.2	HU 55A
31.25	2390	2.1	HU 55C
32.12	2390	2	HU 55A
37.41	2390	1.7	HU 55C
38.6	2390	1.7	HU 55A
42.42	2390	1.5	HU 55A
44.76	2390	1.4	HU 55C
46.94	2390	1.4	HU 55A
53.69	2390	1.2	HU 55C
53.71	2390	1.2	HU 55A
58.79	2390	1.1	HU 55A
63.6	2390	1	HU 55C
64.79	2390	1	HU 55A
72	2390	0.9	HU 55A
74.95	2390	0.9	HU 55C
80.81	2283	0.9	HU 55A
89.14	2390	0.7	HU 55C
102.79	2390	0.6	HU 55C
118.6	2390	0.5	HU 55C
131.7	2390	0.5	HU 55C
160.11	2390	0.4	HU 55C
176.67	2390	0.4	HU 55C
196.23	2390	0.3	HU 55C
225.34	2390	0.3	HU 55C
247.33	2390	0.3	HU 55C
273.32	2390	0.2	HU 55C
304.51	2390	0.2	HU 55C
342.63	2390	0.2	HU 55C
Size 60			
0.84	1000	20.3	HU 60E
1	1089	19.6	HU 60E
1.19	1186	18.9	HU 60E
1.41	1274	18	HU 60E
1.69	1354	17	HU 60E
2.04	1381	15.9	HU 60E
2.33	1381	15.1	HU 60E
2.68	1381	13.9	HU 60E
2.9	2673	24.8	HU 60S
3.2	1345	11.4	HU 60E
3.44	2832	22.2	HU 60S
3.67	1363	10	HU 60E
4.09	2974	19.6	HU 60S
4.25	1381	8.8	HU 60E
4.83	1381	7.7	HU 60E
4.87	3106	17.2	HU 60S
5.28	3540	18.1	HU 60A
5.46	1292	6.4	HU 60E
5.83	3230	14.9	HU 60S
6	1221	5.5	HU 60E

Ratio	in-lbs	HP	Model
6.27	3540	15.2	HU 60A
7.04	3345	12.8	HU 60S
7.08	1071	4.1	HU 60E
7.45	3540	12.8	HU 60A
7.75	1000	3.5	HU 60E
8.04	3416	11.5	HU 60S
8.55	912	2.9	HU 60E
8.87	3540	10.8	HU 60A
9.25	3478	10.2	HU 60S
9.77	797	2.2	HU 60E
10.62	3540	9	HU 60A
10.67	743	1.9	HU 60E
11.02	3540	8.7	HU 60S
11.73	655	1.5	HU 60E
12.63	3540	7.6	HU 60S
12.82	3540	7.4	HU 60A
14.64	3540	6.5	HU 60S
14.64	3540	6.5	HU 60A
16.65	3540	5.7	HU 60S
16.84	3540	5.7	HU 60A
18.81	3540	5.1	HU 60S
20.07	3540	4.8	HU 60A
20.67	3540	4.6	HU 60S
23	3540	4.2	HU 60A
24.38	3513	3.9	HU 60S
26.66	3540	3.6	HU 60A
26.69	3283	3.3	HU 60S
29.43	3000	2.7	HU 60S
30.32	3540	3.2	HU 60A
33.65	2655	2.1	HU 60S
34.26	3540	2.8	HU 60A
36.74	2425	1.8	HU 60S
37.64	3540	2.5	HU 60A
40.39	2115	1.4	HU 60S
44.39	3540	2.1	HU 60A
48.61	3540	2	HU 60A
53.6	3540	1.8	HU 60A
61.28	3540	1.6	HU 60A
66.91	3540	1.4	HU 60A
73.56	3540	1.3	HU 60A
74.26	3540	1.3	HU 60C
87.98	3540	1.1	HU 60C
103.67	3540	0.9	HU 60C
123.3	3540	0.8	HU 60C
142.18	3540	0.7	HU 60C
164.06	3540	0.6	HU 60C
182.17	3540	0.5	HU 60C
221.48	3540	0.4	HU 60C
244.38	3540	0.4	HU 60C
271.44	3540	0.3	HU 60C

Ratio	in-lbs	HP	Model
311.71	3540	0.3	HU 60C
342.13	3540	0.3	HU 60C
378.07	3540	0.3	HU 60C
421.21	3540	0.2	HU 60C
473.94	3540	0.2	HU 60C
Size 65			
5.4	4956	24.7	HU 65A
6.42	4956	20.8	HU 65A
7.62	4956	17.5	HU 65A
9.07	4956	14.7	HU 65A
10.86	4956	12.3	HU 65A
13.11	4956	10.2	HU 65A
14.97	4956	8.9	HU 65A
17.22	4956	7.8	HU 65A
20.53	4956	6.5	HU 65A
23.53	4956	5.7	HU 65A
27.27	4956	4.9	HU 65A
31.01	4956	4.3	HU 65A
35.04	4956	3.8	HU 65A
38.5	4956	3.5	HU 65A
45.41	4956	3	HU 65A
49.73	4956	2.7	HU 65A
54.83	4956	2.4	HU 65A
62.69	4938	2.1	HU 65A
68.44	4522	1.8	HU 65A
75.25	3938	1.4	HU 65A
75.97	4956	1.8	HU 65C
89.99	4956	1.5	HU 65C
106.05	4956	1.3	HU 65C
126.13	4956	1.1	HU 65C
145.44	4956	0.9	HU 65C
167.82	4956	0.8	HU 65C
186.35	4956	0.7	HU 65C
226.56	4956	0.6	HU 65C
249.98	4956	0.5	HU 65C
277.67	4956	0.5	HU 65C
318.86	4956	0.4	HU 65C
349.98	4956	0.4	HU 65C
386.75	4956	0.4	HU 65C
430.88	4956	0.3	HU 65C
484.81	4956	0.3	HU 65C
Size 70			
0.85	1566	31.4	HU 70E
1.02	1655	30.3	HU 70E
1.24	1805	28.9	HU 70E
1.43	1920	27.8	HU 70E
1.66	2036	26.5	HU 70E
1.93	2142	25.1	HU 70E
2.27	2239	26.5	HU 70E
2.7	2319	21.9	HU 70E

Ratio	in-lbs	HP	Model
3.05	2363	20.8	HU 70E
3.16	5000	42.7	HU 70S
3.47	2398	18.6	HU 70E
3.81	5328	37.7	HU 70S
4.15	2142	14	HU 70E
4.6	5637	33	HU 70S
4.72	2151	12.3	HU 70E
5.16	7080	37	HU 70A
5.32	5850	29.7	HU 70S
5.44	2159	10.7	HU 70E
6.08	2345	10.4	HU 70E
6.16	6053	26.5	HU 70S
6.23	7080	30.7	HU 70A
6.92	2009	7.8	HU 70E
7.19	6239	23.4	HU 70S
7.52	7080	25.4	HU 70A
7.58	1867	6.7	HU 70E
8.45	6416	20.5	HU 70S
8.69	7080	22	HU 70A
8.85	1646	5	HU 70E
9.67	1531	4.3	HU 70E
10.03	6584	17.7	HU 70S
10.08	7080	18.9	HU 70A
10.64	1372	3.5	HU 70E
11.34	6691	15.9	HU 70S
11.75	7080	16.3	HU 70A
12.93	6797	14.2	HU 70S
13.8	7080	13.8	HU 70A
15.45	6930	12.1	HU 70S
16.4	7080	11.6	HU 70A
17.58	7009	10.8	HU 70S
18.54	7080	10.3	HU 70A
20.24	7080	9.4	HU 70S
21.13	7080	9	HU 70A
22.64	7080	8.4	HU 70S
25.25	7080	7.6	HU 70A
25.77	7080	7.4	HU 70S
28.23	6629	6.3	HU 70S
28.73	7080	6.7	HU 70A
32.93	5894	4.8	HU 70S
33.08	7080	5.8	HU 70A
35.98	5425	4.1	HU 70S
37.01	7080	5.2	HU 70A
39.59	4894	3.3	HU 70S
42.12	7080	4.5	HU 70A
46.13	7080	4.1	HU 70A
53.81	7080	3.6	HU 70A
58.81	7080	3.2	HU 70A
64.7	7080	3	HU 70A
68.71	7080	2.8	HU 70C

Speed Reducer Selection Tables



Ratio	in-lbs	HP	Model
80.06	7080	2.4	HU 70C
93.86	7080	2	HU 70C
109.5	7080	1.7	HU 70C
127.07	7080	1.5	HU 70C
149.04	7080	1.3	HU 70C
170.33	7080	1.1	HU 70C
194.67	7080	1	HU 70C
214.94	7080	0.9	HU 70C
258.31	7080	0.7	HU 70C
283.89	7080	0.7	HU 70C
314.12	7080	0.6	HU 70C
359.38	7080	0.5	HU 70C
393.39	7080	0.5	HU 70C
433.58	7080	0.4	HU 70C
481.8	7080	0.4	HU 70C
540.74	7080	0.3	HU 70C
596.47	7080	0.3	HU 70D
687.82	7080	0.3	HU 70D
793.64	7080	0.2	HU 70D
881.27	7080	0.2	HU 70D
1071.42	7080	0.2	HU 70D
1182.19	7080	0.2	HU 70D
1313.12	7080	0.1	HU 70D
1507.92	7080	0.1	HU 70D
1655.07	7080	0.1	HU 70D
1828.98	7080	0.1	HU 70D
2037.67	7080	0.1	HU 70D
2292.74	7080	0.1	HU 70D
Size 80			
0.96	2451	46.1	HU 80E
1.13	2664	44.5	HU 80E
1.33	2867	42.6	HU 80E
1.58	3062	40.5	HU 80E
1.8	3204	38.8	HU 80E
2.06	3345	36.9	HU 80E
2.38	3478	34.9	HU 80E
2.77	3593	32.7	HU 80E
3.26	3673	30.4	HU 80E
3.67	3699	27.2	HU 80E
4.16	3744	24.3	HU 80E
4.85	3213	17.9	HU 80E
5.38	4239	21.2	HU 80E
5.61	12390	59.6	HU 80A
5.92	4071	18.5	HU 80E
6.61	12390	50.6	HU 80A
7.08	3487	13.3	HU 80E
7.79	12390	42.9	HU 80A
8	3009	10.2	HU 80E
8.75	2761	8.5	HU 80E
9.23	12390	36.2	HU 80A

Ratio	in-lbs	HP	Model
10.23	2292	6	HU 80E
10.52	12390	31.8	HU 80A
12.06	12390	27.7	HU 80A
13.91	12390	24	HU 80A
16.19	12390	20.6	HU 80A
19.06	12390	17.5	HU 80A
21.44	12390	15.6	HU 80A
24.31	12390	13.7	HU 80A
28.35	12390	11.8	HU 80A
31.48	12390	10.6	HU 80A
34.59	12390	9.7	HU 80A
41.41	12390	8.1	HU 80A
46.77	12390	7.1	HU 80A
51.15	12390	6.5	HU 80A
59.81	12390	5.6	HU 80A
63.99	12390	5.2	HU 80C
74.28	12390	4.5	HU 80C
86.56	12390	3.9	HU 80C
101.47	12390	3.3	HU 80C
118.38	12390	2.8	HU 80C
137.38	12390	2.4	HU 80C
161.13	12390	2.1	HU 80C
184.15	12390	1.8	HU 80C
210.46	12390	1.6	HU 80C
232.38	12390	1.4	HU 80C
279.27	12390	1.2	HU 80C
306.92	12390	1.1	HU 80C
339.61	12390	1	HU 80C
388.54	12390	0.9	HU 80C
425.31	12390	0.8	HU 80C
468.76	12390	0.7	HU 80C
520.89	12390	0.6	HU 80C
584.62	12390	0.6	HU 80C
644.87	12390	0.5	HU 80D
743.63	12390	0.5	HU 80D
858.04	12390	0.4	HU 80D
952.78	12390	0.3	HU 80D
1278.12	12390	0.3	HU 80D
1419.66	12390	0.2	HU 80D
1789.36	12390	0.2	HU 80D
1977.38	12390	0.2	HU 80D
2478.77	12390	0.1	HU 80D
Size 85			
4.53	11611	69.2	HU 85S
5.33	12222	61.9	HU 85S
6.02	16036	71.8	HU 85A
6.29	12771	54.8	HU 85S
7.09	17461	66.4	HU 85A
7.44	13302	48.2	HU 85S
8.36	17700	57.1	HU 85A

Ratio	in-lbs	HP	Model
8.49	13673	43.5	HU 85S
9.72	14036	38.9	HU 85S
9.9	17700	48.2	HU 85A
11.22	14355	34.5	HU 85S
11.29	17700	42.3	HU 85A
12.94	17700	36.9	HU 85A
13.05	14682	30.3	HU 85S
14.92	17700	32	HU 85A
15.37	14983	26.3	HU 85S
17.29	15178	23.7	HU 85S
17.37	17700	27.5	HU 85A
19.6	15372	21.2	HU 85S
20.45	17700	23.3	HU 85A
22.86	15514	18.3	HU 85S
23	17700	20.8	HU 85A
25.38	15665	16.7	HU 85S
26.08	17700	18.3	HU 85A
27.89	15780	15.3	HU 85S
30.42	17700	15.7	HU 85A
33.39	15824	12.8	HU 85S
33.78	17700	14.1	HU 85A
37.11	17700	12.9	HU 85A
37.71	13558	9.7	HU 85S
41.25	12408	8.1	HU 85S
44.43	17700	10.7	HU 85A
46.42	17700	10.3	HU 85C
48.23	10532	5.9	HU 85S
50.18	17700	9.5	HU 85A
54.89	16505	8.1	HU 85A
56.45	17700	8.5	HU 85C
64.17	14018	5.9	HU 85A
68.66	17700	7	HU 85C
79.7	17700	6	HU 85C
92.88	17700	5.1	HU 85C
108.88	17700	4.4	HU 85C
127.02	17700	3.8	HU 85C
147.41	17700	3.2	HU 85C
172.89	17700	2.8	HU 85C
197.59	17700	2.4	HU 85C
225.82	17700	2.1	HU 85C
242.6	17700	2	HU 85D
249.34	17700	1.9	HU 85C
290.41	17700	1.6	HU 85D
299.64	17700	1.6	HU 85C
329.32	17700	1.4	HU 85C
347.47	17700	1.4	HU 85D
364.39	17700	1.3	HU 85C
416.76	17700	1.1	HU 85D
416.9	17700	1.1	HU 85C
456.34	17700	1	HU 85C

Ratio	in-lbs	HP	Model
502.96	17700	1	HU 85C
558.9	17700	0.9	HU 85C
627.27	17700	0.8	HU 85C
691.92	17700	0.7	HU 85D
797.89	17700	0.6	HU 85D
920.64	17700	0.5	HU 85D
1022.30	17700	0.5	HU 85D
1242.87	17700	0.4	HU 85D
1371.38	17700	0.3	HU 85D
1523.25	17700	0.3	HU 85D
1749.22	17700	0.3	HU 85D
1919.93	17700	0.3	HU 85D
2121.66	17700	0.2	HU 85D
2659.64	17700	0.2	HU 85D
Size 110			
4.74	22913	97.2	HU 110S
5.29	23603	89.7	HU 110S
5.94	24107	81.6	HU 110S
6.7	24824	74.5	HU 110S
7.62	25302	66.8	HU 110S
8.74	25674	59.1	HU 110S
10.14	25869	51.3	HU 110S
11.94	24807	41.8	HU 110S
12.74	26550	56.2	HU 110A
14.34	22019	30.9	HU 110S
16.14	26550	44.4	HU 110A
18.34	26550	39.1	HU 110A
21.04	26550	34	HU 110A
24.41	26550	29.3	HU 110A
28.74	26550	24.9	HU 110A
34.51	26550	20.7	HU 110A
38.19	26550	18.7	HU 110A
42.6	26550	16.8	HU 110A
47.79	26550	15	HU 110A
52.26	26550	13.7	HU 110A
62.13	26550	11.5	HU 110A
69.63	24869	9.6	HU 110A
79.6	26550	9	HU 110C
94.56	26550	7.6	HU 110C
106.9	26550	6.7	HU 110C
121.85	26550	5.9	HU 110C
145.57	26550	4.9	HU 110C
165.64	26550	4.3	HU 110C
190.73	26550	3.8	HU 110C
213.39	26550	3.4	HU 110C
230.73	26550	2.6	HU 110D
242.84	26550	3	HU 110C
266	26550	2.7	HU 110C
310.3	26550	2.3	HU 110C
339.08	26550	2.1	HU 110C



Speed Reducer Selection Tables

Ratio	in-lbs	HP	Model
373.1	26550	1.9	HU 110C
396.17	26550	1.5	HU 110D
461.66	26550	1.3	HU 110D
541.19	26550	1.1	HU 110D
631.39	26550	0.9	HU 110D
732.73	26550	0.8	HU 110D
859.4	26550	0.7	HU 110D
982.17	26550	0.6	HU 110D
1122.48	26550	0.5	HU 110D
1239.40	26550	0.5	HU 110D
1489.44	26550	0.4	HU 110D
1636.94	26550	0.4	HU 110D
1811.27	26550	0.3	HU 110D
2072.26	26550	0.3	HU 110D
2268.34	26550	0.3	HU 110D
2500.06	26550	0.2	HU 110D
3117.99	26550	0.2	HU 110D
5081.54	26550	0.2	HU 110F
7571.61	26550	0.1	HU 110F
10546.17	26550	0.1	HU 110F
13220.28	26550	0.1	HU 110F
Size 130			
5.9	37551	171.2	HU 130S
6.54	38347	158.2	HU 130S
7.29	38798	143.6	HU 130S
8.17	39551	130.6	HU 130S
9.23	39914	116.7	HU 130S
10.52	40020	102.6	HU 130S
12.14	39825	88.5	HU 130S
13.47	44250	88.6	HU 130A
14.22	38214	72.5	HU 130S
14.93	44250	79.9	HU 130A
16.64	44250	71.7	HU 130A
18.65	44250	64	HU 130A
21.07	44250	56.6	HU 130A
24.03	44250	49.7	HU 130A
27.73	44250	43	HU 130A
28.39	44250	42	HU 130C
32.48	44250	36.7	HU 130A
33.43	44250	35.7	HU 130C
38.82	44250	30.7	HU 130A
39.43	44250	30.3	HU 130C
42.85	44250	27.9	HU 130A
46.7	44250	25.6	HU 130C
47.69	44250	25	HU 130A
53.24	44250	22.4	HU 130C
53.32	44250	22.4	HU 130A
58.23	44250	20.5	HU 130A
61	44250	19.6	HU 130C
70.37	44250	17	HU 130C

Ratio	in-lbs	HP	Model
81.9	44250	14.6	HU 130C
96.44	44250	12.4	HU 130C
108.44	44250	11	HU 130C
122.97	44250	9.7	HU 130C
143.44	44250	8.3	HU 130C
159.25	44250	7.5	HU 130C
174.99	44250	6.8	HU 130C
209.49	44250	5.7	HU 130C
218.86	44250	5.5	HU 130D
236.61	44250	5	HU 130C
258.79	44250	4.6	HU 130C
266.18	44250	4.5	HU 130D
302.58	44250	3.9	HU 130C
323.73	44250	3.7	HU 130D
375.79	44250	3.2	HU 130D
437.91	44250	2.7	HU 130D
513.35	44250	2.3	HU 130D
598.91	44250	2	HU 130D
695.03	44250	1.7	HU 130D
815.18	44250	1.5	HU 130D
931.64	44250	1.3	HU 130D
1064.73	44250	1.1	HU 130D
1143.86	44250	1	HU 130F
1175.64	44250	1	HU 130D
1369.27	44250	0.9	HU 130F
1412.81	44250	0.8	HU 130D
1552.73	44250	0.8	HU 130D
1638.31	44250	0.7	HU 130F
1718.08	44250	0.7	HU 130D
1964.99	44250	0.6	HU 130F
1965.65	44250	0.6	HU 130D
2151.64	44250	0.5	HU 130D
2327.76	44250	0.5	HU 130F
2371.44	44250	0.5	HU 130D
2635.2	44250	0.5	HU 130D
2743.15	44250	0.4	HU 130F
2957.58	44250	0.4	HU 130D
3262.39	44250	0.4	HU 130F
4820.11	44250	0.2	HU 130F
7182.07	44250	0.2	HU 130F
10003.6	44250	0.1	HU 130F
Size 133			
8.9	56693	171.7	HU 133S
9.87	57888	158.2	HU 133S
11	58569	143.6	HU 133S
12.33	59711	130.6	HU 133S
13.93	60260	116.7	HU 133S
14.57	70800	131.1	HU 133A
15.89	60419	102.6	HU 133S
16.15	70800	118.2	HU 133A

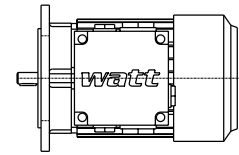
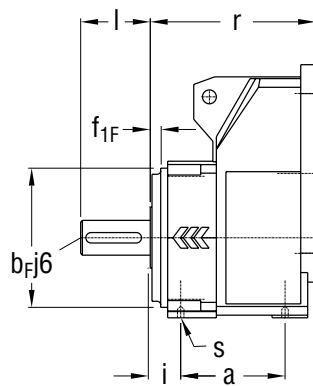
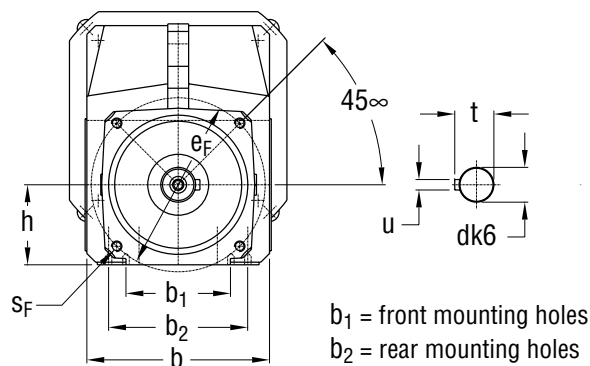
Ratio	in-lbs	HP	Model
18	70800	106.1	HU 133A
18.33	60127	88.5	HU 133S
20.18	70800	94.6	HU 133A
21.48	57693	72.5	HU 133S
22.8	70800	83.8	HU 133A
26	70800	73.4	HU 133A
30	70800	63.7	HU 133A
35.14	70800	54.3	HU 133A
42	70800	45.5	HU 133A
46.36	70800	41.2	HU 133A
51.6	63295	33.1	HU 133A
57.69	58676	27.4	HU 133A
63	49383	21.1	HU 133A
66	70800	28.9	HU 133C
76.14	70800	25.1	HU 133C
88.62	70800	21.6	HU 133C
104.35	70800	18.3	HU 133C
117.33	70800	16.3	HU 133C
133.05	70800	14.3	HU 133C
155.2	70800	12.3	HU 133C
172.31	70800	11.1	HU 133C
189.33	70800	10.1	HU 133C
226.67	70800	8.4	HU 133C
256	70800	7.5	HU 133C
280	70800	6.8	HU 133C
327.38	70800	5.2	HU 133C
350.27	70800	5.5	HU 133D
406.59	70800	4.7	HU 133D
473.81	70800	4	HU 133D
555.43	70800	3.4	HU 133D
648	70800	3	HU 133D
752	70800	2.5	HU 133D
882	70800	2.2	HU 133D
1008.00	70800	1.9	HU 133D
1152.00	70800	1.7	HU 133D
1272.00	70800	1.5	HU 133D
1528.62	70800	1.2	HU 133D
1680.00	70800	1.1	HU 133D
1858.91	70800	1	HU 133D
2126.77	70800	0.9	HU 133D
2328.00	70800	0.8	HU 133D
2565.82	70800	0.8	HU 133D
2968.00	70800	0.6	HU 133F
4070.40	70800	0.5	HU 133F
5215.20	70800	0.4	HU 133F
6996.00	70800	0.3	HU 133F
10823.60	70800	0.2	HU 133F
Size 136			
12.8	123900	261.1	HU 136A
16.13	123900	207.2	HU 136A

Ratio	in-lbs	HP	Model
19.56	123900	170.9	HU 136A
24.26	123900	137.7	HU 136A
31.14	123900	107.3	HU 136A
39.18	123900	85.3	HU 136C
43.43	123900	77	HU 136C
48.4	123900	69.1	HU 136C
54.26	123900	61.6	HU 136C
61.3	123900	54.5	HU 136C
69.91	123900	47.8	HU 136C
80.66	123900	41.4	HU 136C
94.49	123900	35.4	HU 136C
97.26	123900	34.4	HU 136D
112.93	123900	29.6	HU 136C
124.66	123900	26.8	HU 136C
138.74	123900	24.1	HU 136C
155.12	123900	21.6	HU 136C
169.39	123900	19.7	HU 136C
177.45	123900	18.8	HU 136D
204.71	123900	16.3	HU 136D
238.26	123900	14	HU 136D
280.56	123900	11.9	HU 136D
315.47	123900	9.5	HU 136D
357.74	123900	9.4	HU 136D
417.29	123900	8	HU 136D
463.28	123900	7.2	HU 136D
509.06	123900	6.6	HU 136D
609.44	123900	5.5	HU 136D
688.31	123900	4.9	HU 136D
752.84	123900	4.4	HU 136D
880.24	123900	3.8	HU 136D
1093.20	123900	3.1	HU 136F
1273.93	123900	2.6	HU 136F
1493.38	123900	2.2	HU 136F
1742.28	123900	1.9	HU 136F
2021.91	123900	1.6	HU 136F
2371.44	123900	1.4	HU 136F
2710.21	123900	1.2	HU 136F
3097.39	123900	1.1	HU 136F
4998.06	123900	0.7	HU 136F
8603.86	123900	0.4	HU 136F

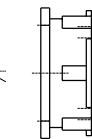
Schematics

We have provided basic dimensions only. For complete drawings, please visit our website or contact your DieQua representative.

HU 40E - 80E



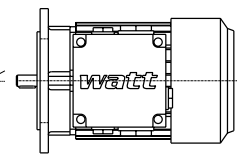
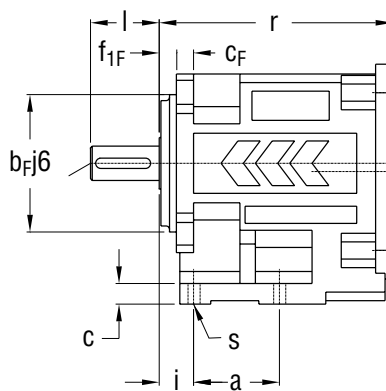
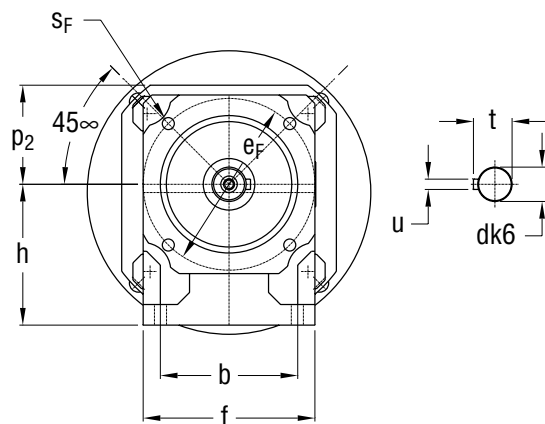
Motor - dimensions on page 24.



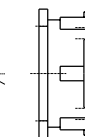
NEMA Motor Adapter - dimensions on page 25.

Note: Additional bolt-on flanges and feet are available on request.

HU 40 - 85



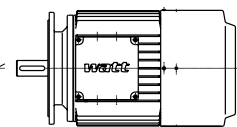
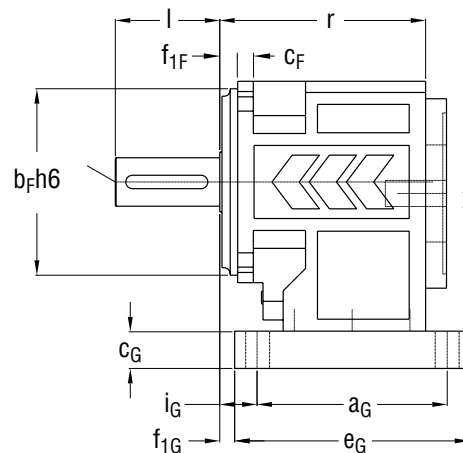
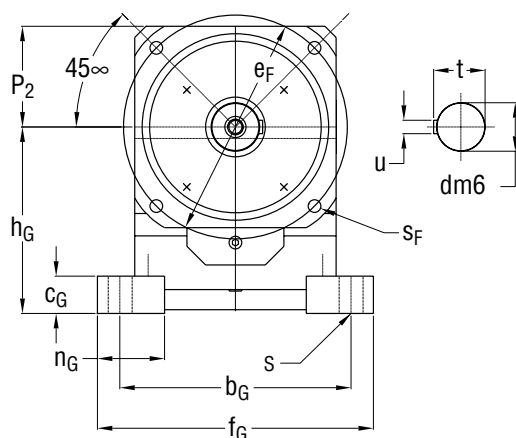
Motor - dimensions on page 24.



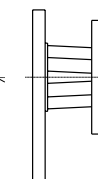
NEMA Motor Adapter - dimensions on page 25.

Note: Additional bolt-on flanges and feet are available on request.

HG 110 - 136



Motor - dimensions on page 24.



NEMA Motor Adapter - dimensions on page 25.

Note: Additional bolt-on output flanges are available on request. Standard mounting feet are removable.

HU 40E - 80E

	a	b	b ₁	b ₂	b _F	d	e _F	f _{1F}	h	i	l	r	s	s _F	t	u
H40E	2.36	4.13	1.77	3.15	3.15	0.75	3.93	0.39	1.81	0.68	1.57	3.74	M8x14	M6x15	0.83	0.18
H50E	2.36	4.52	1.77	3.15	3.15	1.00	3.93	0.39	1.96	0.68	1.96	4.33	M8x14	M6x15	1.11	0.25
H60E	2.55	5.31	2.55	4.13	4.33	1.25	5.11	0.55	2.46	0.98	2.36	4.92	M10x16	M8x14	1.36	0.25
H70E	2.95	6.49	3.54	4.92	5.11	1.625	6.49	0.63	2.95	1.18	3.15	5.70	M12x20	M10x17	1.79	0.37
H80E	3.74	7.48	3.54	5.51	5.11	2.125	6.49	0.63	3.34	1.18	3.15	6.49	M16x25	M10x17	2.35	0.50

Dimensions are in inches.

Dimensions are subject to change without notice.

HU 40 - 85

	a	b	b _F	c	c _F	d	e _F	f	f _{1F}	h	i	l	P ₂	r	s	s _F	t	u
H40A,S	1.96	3.15	3.15	0.47	0.39	0.75	3.93	3.93	0.39	3.22	0.78	1.57	2.32	5.35	0.33	0.27	0.83	0.18
H50A,S	1.96	3.74	3.15	0.59	0.39	1.00	3.93	4.52	0.39	3.93	1.57	1.96	2.75	6.37	0.33	0.27	1.11	0.25
H50C	1.96	3.74	3.15	0.59	0.39	1.00	3.93	4.52	0.39	3.93	1.57	1.96	3.22	7.71	0.33	0.27	1.11	0.25
H55A	1.96	4.33	4.33	0.63	0.47	1.25	5.11	5.11	0.55	4.25	1.77	2.36	2.40	6.73	0.41	0.35	1.36	0.25
H55C	1.96	4.33	4.33	0.63	0.47	1.25	5.11	5.11	0.55	4.25	1.77	2.36	2.91	8.07	0.41	0.35	1.36	0.25
H60A,S	2.16	4.52	4.33	0.70	0.47	1.375	5.11	5.31	0.55	4.88	1.77	2.36	2.79	7.00	0.41	0.35	1.51	0.31
H60C	2.16	4.52	4.33	0.70	0.47	1.375	5.11	5.31	0.55	4.88	1.77	2.36	3.58	8.34	0.41	0.35	1.51	0.31
H65A	2.55	4.92	5.11	0.82	0.55	1.375	6.49	5.90	0.63	5.15	1.96	2.75	3.50	7.79	0.51	0.43	1.51	0.31
H65C	2.55	4.92	5.11	0.82	0.55	1.375	6.49	5.90	0.63	5.15	1.96	2.75	3.11	9.13	0.51	0.43	1.51	0.31
H70A,S	2.55	5.51	5.11	0.90	0.55	1.625	6.49	6.49	0.63	5.94	1.96	3.15	3.66	8.03	0.51	0.43	1.79	0.37
H70C	2.55	5.51	5.11	0.90	0.55	1.625	6.49	6.49	0.63	5.94	1.96	3.15	3.78	9.64	0.51	0.43	1.79	0.37
H70D	2.55	5.51	5.11	0.90	0.55	1.625	6.49	6.49	0.63	5.94	1.96	3.15	4.37	10.98	0.51	0.43	1.79	0.37
H80A,S	3.15	6.29	7.08	1.02	0.66	2.125	8.46	7.48	0.78	6.89	2.36	3.93	4.44	9.76	0.66	0.51	2.35	0.50
H80C	3.15	6.29	7.08	1.02	0.66	2.125	8.46	7.48	0.78	6.89	2.36	3.93	3.81	11.18	0.66	0.51	2.35	0.50
H80D	3.15	6.29	7.08	1.02	0.66	2.125	8.46	7.48	0.78	6.89	2.36	3.93	4.37	12.52	0.66	0.51	2.35	0.50
H85A,S	3.15	7.28	7.08	1.10	0.66	2.375	8.46	8.46	0.78	7.36	2.36	3.93	4.01	9.84	0.66	0.51	2.65	0.62
H85C	3.15	7.28	7.08	1.10	0.66	2.375	8.46	8.46	0.78	7.36	2.36	3.93	3.46	11.26	0.66	0.51	2.65	0.62
H85D	3.15	7.28	7.08	1.10	0.66	2.375	8.46	8.46	0.78	7.36	2.36	3.93	3.93	12.59	0.66	0.51	2.65	0.62

Dimensions are in inches.

Dimensions are subject to change without notice.

HG 110 - 136

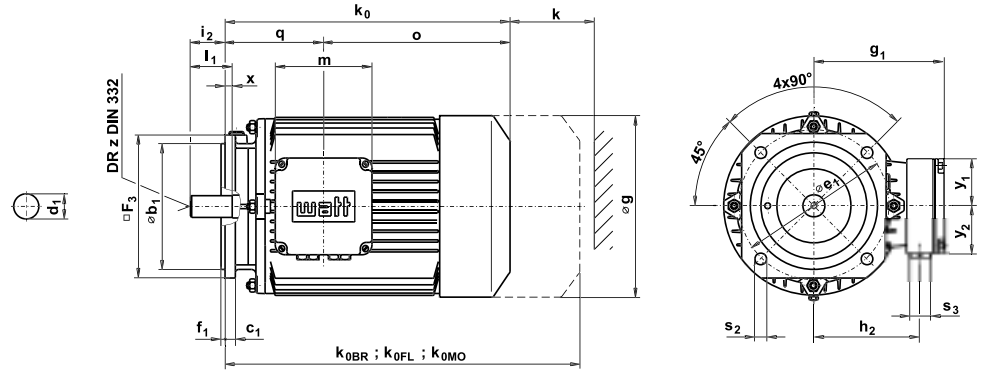
	a _G	b _G	b _F	c _F	c _G	d	e _F	f _{1F}	f _G	f _{1G}	h _G	i _G	l	n _G	P ₂	r	s	s _F	t	u
H110A,S	10.03	12.20	9.84	0.78	1.85	2.375	11.81	0.95	14.56	0.78	9.84	1.96	5.51	3.43	5.39	12.52	M20x30	18	2.65	0.62
H110C	10.03	12.20	9.84	0.78	1.85	2.375	11.81	0.95	14.56	0.78	9.84	1.96	5.51	3.43	5.39	14.64	M20x30	18	2.65	0.62
H110D	10.03	12.20	9.84	0.78	1.85	2.375	11.81	0.95	14.56	0.78	9.84	1.96	5.51	3.43	5.39	16.26	M20x30	18	2.65	0.62
H110F	10.03	12.20	9.84	0.78	1.85	2.375	11.81	0.95	14.56	0.78	9.84	1.96	5.51	3.43	5.39	17.59	M20x30	18	2.65	0.75
H130A,S	11.02	14.17	9.84	0.78	2.04	2.875	11.81	0.95	16.53	0.78	11.41	1.96	5.51	3.82	6.10	13.97	M24x36	18	3.20	0.75
H130C	11.02	14.17	9.84	0.78	2.04	2.875	11.81	0.95	16.53	0.78	11.41	1.96	5.51	3.82	6.10	16.96	M24x36	18	3.20	0.75
H130D	11.02	14.17	9.84	0.78	2.04	2.875	11.81	0.95	16.53	0.78	11.41	1.96	5.51	3.82	6.10	18.38	M24x36	18	3.20	0.75
H130F	11.02	14.17	9.84	0.78	2.04	2.875	11.81	0.95	16.53	0.78	11.41	1.96	5.51	3.82	6.10	19.72	M24x36	18	3.20	0.75
H133A,S	11.02	17.71	13.78	0.86	2.04	3.625	15.74	0.95	20.07	0.78	12.40	1.96	6.69	3.82	5.19	15.82	M24x38	17	4.01	0.87
H133C	11.02	17.71	13.78	0.86	2.04	3.625	15.74	0.95	20.07	0.78	12.40	1.96	6.69	3.82	5.19	18.81	M24x38	17	4.01	0.87
H133D	11.02	17.71	13.78	0.86	2.04	3.625	15.74	0.95	20.07	0.78	12.40	1.96	6.69	3.82	5.19	20.23	M24x38	17	4.01	0.87
H133F	11.02	17.71	13.78	0.86	2.04	3.625	15.74	0.95	20.07	0.78	12.40	1.96	6.69	3.82	5.19	21.57	M24x38	17	4.01	0.87
H136A	14.09	18.89	13.78	0.86	2.24	4.375	15.74	0.95	22.04	0.82	14.17	2.40	0.82	4.61	8.26	18.66	M24x38	17	4.82	1.00
H136C	14.09	18.89	13.78	0.86	2.24	4.375	15.74	0.95	22.04	0.82	14.17	2.40	0.82	4.61	8.26	21.02	M24x38	17	4.82	1.00
H136D	14.09	18.89	13.78	0.86	2.24	4.375	15.74	0.95	22.04	0.82	14.17	2.40	0.82	4.61	8.26	21.96	M24x38	17	4.82	1.00
H136F	14.09	18.89	13.78	0.86	2.24	4.375	15.74	0.95	22.04	0.82	14.17	2.40	0.82	4.61	8.26	23.11	M24x38	17	4.82	1.00

Dimensions are in inches.

Dimensions are subject to change without notice.

Integral Motor Dimensions

The WATT Drive EUSAS brand motor is a high quality design featuring cast housings, upgraded bearings, superior protection, and windings capable of operating in any volts/Hz combination, for worldwide usage. These motors offer up to 20% additional horsepower over similar competitive frame sizes.



Type	Motor Dimensions												
	g	g ₁	h ₂	k*	k _{OBR} *	k _{OFL} *	k _{OMO} *	m	q	s	s ₃	y ₁	y ₂
64K,N	4.76	4.61	3.35	0.87	9.53	12	14.02	3.54	2.83	Ø10	2xM25x1.5+M16x1.5	1.77	1.77
72K,N	5.47	5	3.74	0.94	10.91	13.62	15.51	3.54	2.83	Ø10	2xM25x1.5+M16x1.5	1.77	1.77
81K,N	6.14	5.35	4.09	1.02	12.24	15.39	17.13	4.8	3.31	Ø10	2xM25x1.5+M16x1.5	2.4	2.4
91S,L	6.85	5.67	4.41	1.1	14.65	17.09	19.41	4.8	3.58	Ø10	2xM25x1.5+M16x1.5	2.4	2.4
101L,LA	7.72	6.3	4.96	1.54	15.79	18.63	20.63	4.8	4.25	Ø12	2xM32x1.5	2.4	2.4
114M,ML	8.66	6.85	5.55	1.73	18.59	20.87	23.43	4.8	4.37	Ø12	2xM32x1.5	2.4	2.4
134S,M	10.2	7.68	6.18	1.97	21.42	24.02	26.42	5.51	5.08	Ø14.5	2xM32x1.5	2.76	2.76
161M,L	12.36	9.76	7.87	2.36	25.12	30	31.42	7.28	5.71	Ø15	2xM40x1.5	3.94	3.94
181M,L	14.96	10.83	8.9	2.56	30	32.52	34.3	7.44	6.26	Ø15	2xM40x1.5+M16x1.5	3.9	4.17
201L	16.34	12.6	10.12	3.15	33.05	36.12	38.01	9.33	6.89	Ø19	2xM50x1.5+M16x1.5	4.84	7.64
226S,M	17.52	13.58	10.63	3.94	33.1	36.09	39.24	9.33	7.09	Ø19	2xM50x1.5+M16x1.5	4.72	7.64
251M	19.29	14.94	11.81	3.94	38.41	39	44.71	8.58	7.87	8xØ19	2xM63x1.5+M16x1.5	5.12	7.28

Dimensions are in inches. * k = air flow space, k_{OBR} = motor with brake, k_{OFL} = motor with forced cooling, k_{OMO} = motor with forced cooling and encoder.

To determine complete gearmotor length, add basic motor length "k₀" to reducer length "r", found on page 23.

Integral Motor Length Adder "ko"									
	64	72	81	91	101	114	134	161	181
40AS	7.76	8.86	10.16	11.69	---	---	---	---	---
40E	7.76	8.86	10.16	11.69	---	---	---	---	---
50AS	7.76	8.86	10.16	11.69	13.11	15.16	---	---	---
50C	7.76	8.86	10.16	11.69	---	---	---	---	---
50E	7.76	8.86	10.16	11.69	13.11	15.16	---	---	---
55AS	7.76	8.86	10.16	11.69	13.11	15.16	---	---	---
55C	7.76	8.86	10.16	11.69	---	---	---	---	---
60AS	7.76	8.86	10.16	11.69	13.11	15.16	---	---	---
60C	7.76	8.86	10.16	11.69	---	---	---	---	---
60E	7.76	8.86	10.16	11.69	13.11	15.16	17.64	---	---
65AS	7.76	8.86	10.16	11.69	13.11	15.16	17.64	---	---
65C	7.76	8.86	10.16	11.69	---	---	---	---	---
70AS	7.76	8.86	10.16	11.69	13.11	15.16	17.64	---	---
70C	7.76	8.86	10.16	11.69	13.11	15.16	---	---	---
70D	7.76	8.86	10.16	11.69	---	---	---	---	---
70E	7.76	8.86	10.16	11.69	13.11	15.16	17.64	21.65	---
80A	---	---	---	---	12.91	14.96	17.44	21.45	24.41
80C	7.76	8.86	10.16	11.69	13.11	15.16	---	---	---
80D	7.76	8.86	10.16	11.69	---	---	---	---	---
80E	7.76	8.86	10.16	11.69	13.11	15.16	17.64	21.65	24.61

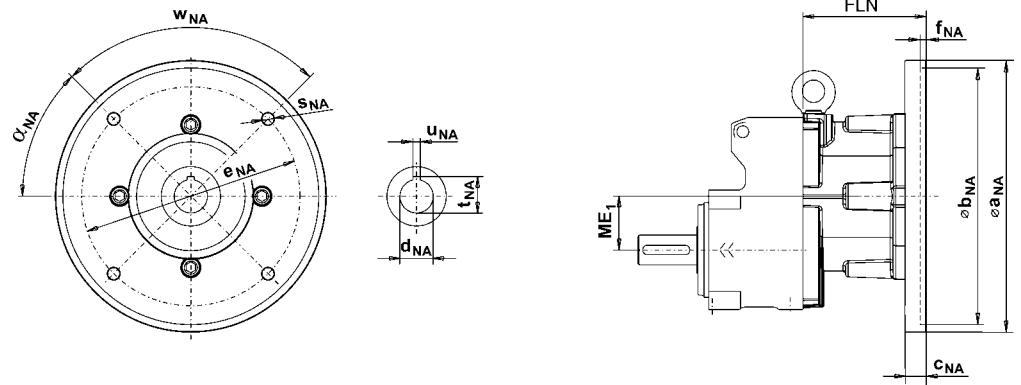
Integral Motor Length Adder "ko"												
	64	72	81	91	101	114	134	161	181	201	226	251
85AS	---	---	---	---	12.91	14.96	17.44	21.45	24.41	---	---	---
85C	7.76	8.86	10.16	11.69	13.11	15.16	---	---	---	---	---	---
85D	7.76	8.86	10.16	11.69	---	---	---	---	---	---	---	---
110AS	---	---	---	---	---	---	16.77	20.78	23.74	28.85	28.85	---
110C	7.76	8.86	10.16	11.69	13.11	15.16	17.64	21.65	24.61	---	---	---
110D	7.76	8.86	10.16	11.69	13.11	15.16	---	---	---	---	---	---
110F	7.76	8.86	10.16	11.69	---	---	---	---	---	---	---	---
130AS	---	---	---	---	---	---	16.77	20.78	23.74	---	---	---
130C	---	---	---	---	12.91	14.96	17.44	21.45	24.41	---	---	---
130D	7.76	8.86	10.16	11.69	13.11	15.16	---	---	---	---	---	---
130F	7.76	8.86	10.16	11.69	---	---	---	---	---	---	---	---
133AS	---	---	---	---	---	---	16.77	20.78	23.74	28.85	28.85	32.71
133C	---	---	---	---	12.91	14.96	17.44	21.45	24.41	---	---	---
133D	7.76	8.86	10.16	11.69	13.11	15.16	---	---	---	---	---	---
133F	7.76	8.86	10.16	11.69	---	---	---	---	---	---	---	---
136A	---	---	---	---	---	---	---	---	---	27.83	27.83	31.69
136C	---	---	---	---	---	---	16.77	20.78	23.74	28.85	28.85	32.71
136D	---	---	---	---	12.91	14.96	17.44	21.45	24.41	---	---	---
136F	7.76	8.86	10.16	11.69	13.89	15.94	---	---	---	---	---	---

Dimensions are in inches.

Dimensions are subject to change without notice.

NEMA Motor Adapter Dimensions

WATT Drive speed reducers are available with motor adapters for NEMA, IEC, and a wide variety of servo motors. For IEC and servo motor adapter dimensions, consult your DieQua representative. NEMA adapter dimensions, for the appropriate reducers, are provided on this page.



Type	NEMA Adapter Dimensions											
	a _{NA}	b _{NA}	c _{NA}	d _{NA}	d x l	e _{NA}	f _{NA}	s _{NA}	t _{NA}	u _{NA}	w _{NA}	α _{NA}
NA56	6.5	4.5	0.71	0.625	0.625 x 2.056	5.875	0.2	0.41	0.709	0.188	4x90°	45°
NA143/145	6.5	4.5	0.71	0.875	0.875 x 2.12	5.875	0.2	0.41	0.964	0.188	4x90°	45°
NA182/184	10	8.5	1.1	1.125	1.125 x 2.62	7.25	0.2	0.53	1.241	0.25	4x90°	45°
NA213/215	10	8.5	1.1	1.375	1.375 x 3.12	7.25	0.2	0.53	1.518	0.312	4x90°	45°
NA254/256	10	8.5	1.1	1.625	1.625 x 3.75	7.25	0.2	0.53	1.796	0.375	4x90°	45°
NA284/286	11.25	10.5	1.1	1.875	1.875 x 4.38	9	0.2	0.53	2.096	0.5	4x90°	45°

Dimensions are in inches.

To determine complete reducer length, add flange length "FLN" to reducer length "r", found on page 23.

NEMA Flange Length Adder "FLN"							
	ME ₁	56	143/145	182/184	213/215	254/256	284/286
40A,S	0.19	2.283	2.283	---	---	---	---
40E	1.48	2.283	2.283	---	---	---	---
50A,S	0.22	2.283	2.283	3.740	3.740	---	---
50C	0.76	2.283	2.283	---	---	---	---
50E	1.81	2.283	2.283	3.740	3.740	---	---
55A,S	0.56	2.283	2.283	3.740	3.740	---	---
55C	0.42	2.283	2.283	---	---	---	---
60A,S	0.18	2.283	2.283	3.740	3.740	---	---
60C	0.94	2.283	2.283	---	---	---	---
60E	2.32	2.283	2.283	3.740	3.740	---	---
65A,S	0.46	2.283	2.283	3.740	3.740	---	---
65C	0.66	2.283	2.283	---	---	---	---
70A,S	0.27	2.283	2.283	3.740	3.740	4.724	5.512
70C	0.95	2.283	2.283	3.740	3.740	---	---
70D	1.94	2.283	2.283	---	---	---	---
70E	2.84	2.480	2.480	3.937	3.937	4.921	5.709
80A	0.48	---	---	5.315	5.315	5.315	5.315
80C	0.96	2.283	2.283	3.740	3.740	---	---
80D	1.94	2.283	2.283	---	---	---	---
80E	3.24	---	---	5.512	5.512	5.512	5.512

NEMA Flange Length Adder "FLN"							
	ME ₁	56	143/145	182/184	213/215	254/256	284/286
85A,S	0.94	---	---	5.315	5.315	5.315	5.315
85C	0.49	2.283	2.283	3.740	3.740	---	---
85D	1.48	2.283	2.283	---	---	---	---
110A,S	0.61	---	---	---	4.646	4.646	4.646
110C	1.17	2.283	2.283	3.740	3.740	4.724	5.512
110D	2.4	2.283	2.283	3.701	3.701	---	---
110F	3.38	2.283	2.283	---	---	---	---
130A,S	0.7	---	---	---	---	4.646	4.646
130C	1.2	---	---	5.315	5.315	5.315	5.315
130D	2.64	2.283	2.283	3.701	3.701	---	---
130F	3.62	2.283	2.283	---	---	---	---
133A,S	1.68	---	---	---	---	4.646	4.646
133C	0.2	---	---	5.315	5.315	5.315	5.315
133D	1.64	2.283	2.283	3.701	3.701	---	---
133F	2.62	2.283	2.283	---	---	---	---
136A	---	---	---	---	---	---	---
136C	---	---	---	---	---	4.646	4.646
136D	2.52	---	---	7.362	7.362	7.362	7.362
136F	3.14	4.606	4.606	6.024	6.024	---	---

Dimensions are in inches.

Dimensions are subject to change without notice.

The EUSAS Motor

The WATT Drive EUSAS Motor is specially designed for worldwide operation and can accommodate all volts/Hz combinations. At 60 Hz, the actual power is up to 20% higher than similar motor frame sizes. As a special feature, the winding design can provide full torque at double nominal speed when inverter driven at a specific voltage and wire connection. Therefore, in some cases, a smaller motor may be selected to generate the required torque. The modular motor design also allows for a variety of options, many of them field retrofitable.

Component Materials

The frames of motor sizes 64 to 161 are made of cast aluminum. Motor sizes 181 to 281 are made of cast iron, as are the end shields for all sizes. Fan covers are made of plate steel. The stator windings have class F insulation, with class B temperature rise, as standard. The motor rotors have a squirrel cage design, in die cast aluminum, and are suitable for direct on line starting. The motor shaft is made of CK45 steel, which is comparable to ST 70.

Motor Protection Classifications and Options

The standard motor protection class is IP55. Protection Class IP56 and IP65 is also available. It is recommended that starters with thermal overload protection are used. Windings with Class F insulation are provided. For additional safety, temperature switches and temperature sensors can be incorporated. Condensation drainage holes, anti-condensation heating, and options for extreme climate conditions are also available.

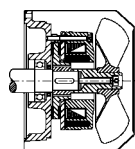
Motor cooling is achieved by integral fans. See the dimension pages for the required airflow space. For inverter controlled applications, low speed operation may require forced cooling. Consult your representative to determine when this is necessary.

Motor Speed and Design Options

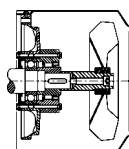
EUSAS motors are available in 2 pole, 4 pole, 6 pole, and 8 pole designs. Two speed motors in 4/2, 8/4, 6/4, 6/2, and 8/2 pole combinations are also possible. A unique asynchronous servo motor, for precise speed and positioning applications, is also offered. It provides the possibility of highly dynamic motion profiles operated by frequency inverters with closed loop control.

Modular System Options

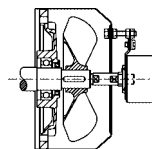
The EUSAS motor is designed to allow the integration of brakes, backstops, and encoders. In most cases kits can be provided to field retrofit these options. Brakes are offered for both holding and working applications. Encoders with a variety of resolutions and feedback are available. Consult your representative for the appropriate option selection.



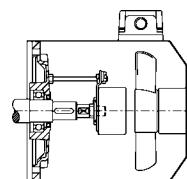
Brake



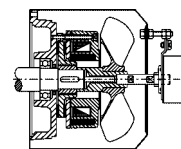
Backstop



Encoder



Forced Cooling



Brake & Encoder

Type	Nominal HP	Rated HP	Rated Speed RPM	Rated Current			Mn in-lbs ⁽²⁾	Ma/Mn ⁽³⁾	Double Power/Double Speed ⁽⁴⁾		
				In 230V [A]	In 460V [A]	Ia/In ⁽¹⁾			Rated Speed		In 460V [A]
							HP	RPM			
64K4	0.16	0.2	1660	1	0.5	3	7	1.9	0.32	2880	0.9
64N4	0.25	0.3	1650	1.2	0.6	3.2	11	2	0.48	2860	1
72K4	0.33	0.4	1630	1.6	0.8	3.1	15	1.8	0.66	2820	1.4
72N4	0.5	0.6	1650	2.2	1.1	3.7	22	1.9	1	2860	1.9
81K4	0.75	0.8	1670	3	1.5	4	32	1.9	1.5	2890	2.6
81N4	1	1.2	1680	4	2	4.6	43	2.2	2	2910	3.5
91S4	1.5	1.7	1700	5.2	2.6	5.5	63	2.5	2.9	2940	4.5
91L4	2	2.3	1710	7	3.5	6	85	2.6	4	2960	6.1
101L4	3	3.4	1710	9.4	4.7	5.9	125	2.2	6.7	3420	9.4
101LA4	4	4.6	1700	12.6	6.3	6	172	2.5	9.2	3400	12.6
114M4	5	6.1	1720	16.6	8.3	6.5	230	2.4	12	3440	16.6
114ML4	7.5	8.4	1730	25	12.5	6.7	310	3.2	17	3460	25
134S4	7.5	8.4	1740	23	11.5	7.3	310	2.4	17	3480	23
134M4	10	12	1740	30	15	7.2	416	2.4	23	3480	30
134ML4	12.5	14	1740	40	20	7.9	513	3.5	28	3480	40
161M4	15	17	1750	43	22	6.5	610	2.3	34	3500	43
161L4	20	23	1750	57	29	7.7	832	2.8	46	3500	57
181M4	25	28	1750	72	36	7	1027	2.1	57	3500	72
181L4	30	34	1760	84	42	7.4	1212	2.2	67	3520	84
201L4	40	46	1760	110	55	7	1655	2.6	92	3520	110
226S4	50	57	1760	136	68	7.9	2045	2.7	113	3520	136
226M4	60	69	1760	164	82	8.8	2487	2.9	138	3520	164
251M4	80	84	1780	198	99	6.1	3000	2.2	N/A	N/A	N/A
251ML4	110	115	1782	264	132	7	4089	2.3	N/A	N/A	N/A
281S4	110	115	1785	264	132	7.1	4080	2.3	N/A	N/A	N/A
281M4	135	138	1785	316	158	7.4	4903	2.3	N/A	N/A	N/A
281L4	165	169	1788	390	196	7.9	5983	2.6	N/A	N/A	N/A

(1) Starting current to rated current ratio.

(2) Rated torque.

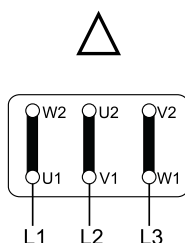
(3) Starting torque to rated torque ratio.

(4) Engineering Note: The double power/double speed option allows full torque up to 120Hz when inverter driven. This effectively doubles the power of a given motor. When incorporated with a higher ratio reducer, the same output torque can be achieved with a smaller motor than competitive gearmotors. Please be advised that the higher horsepower inverter and a 460V - 480V power source is required.

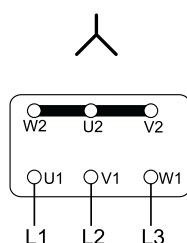
Wiring Diagrams

For Motor Sizes 64 to 91

220 - 240V at 50Hz
220 - 280V at 60Hz
Delta Connection

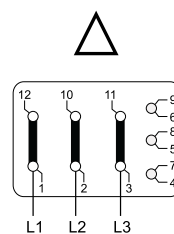


380 - 420V at 50Hz
380 - 480V at 60Hz
Star Connection, Standard

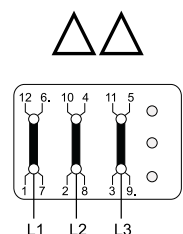


For Motor Sizes 101 to 281

380 - 420V at 50Hz
380 - 480V at 60Hz
Delta Connection, Standard Supply



190 - 210V at 50Hz
190 - 240V at 60Hz
Delta/Delta Connection



Radial Load Capacities

The output radial load capacities of these gearmotors and reducers is based on several factors. These include the output speed, percentage of unit torque utilization, direction of radial force, position of radial force on the shaft, and service factor desired, contact your representative for a precise calculation.

Lubrication

The WATT drive MAS 2000 gearmotors and speed reducers are prefilled with oil prior to shipment. The amount of oil is determined by the mounting position. The lubricant used is a standard ISO VG 220 mineral oil. A synthetic oil option is also available. After mounting it is necessary to install the included breather plug in the uppermost plug location. Contact your representative for additional operating instructions.

Backlash

Gearing and machining tolerances have been optimized to provide excellent backlash control. The level of backlash within each unit is a function of the ratio. Reduced backlash options are available for precise rotary motion such as used in servo or other positioning applications. Contact your representative for backlash values and capabilities.

Moments of Inertia

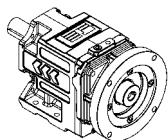
Unit moments of inertia are a function of the gear ratio. Higher ratios have lower moments of inertia. Contact your representative for inertia values of the unit selected.

Mechanical Efficiency

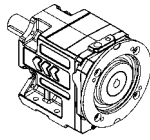
Helical gearing is one of the most efficient gear types available. Precision machining and optimized tooth geometry maximizes power and torque transmission. In general, power losses are limited to 1-2% per gear stage. Ambient conditions may affect these values. Contact your representation for efficiency values of the unit selected.

Horsepower Capacity

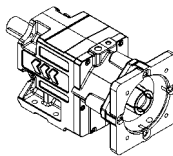
The horsepower ratings in this catalog are based on mechanical limits. The thermal capacity will vary and is a function of ambient conditions and other heat dissipation criteria. In most cases, the thermal limit will exceed the mechanical limit. However, when considering lower ratios, the mechanical limit may exceed the thermal limit. Consult your DieQua representative for the horsepower limit of the reducer selected.



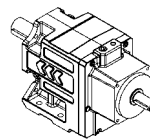
H. ... NA..
NEMA Adapter



H. ... IA..
IEC Adapter

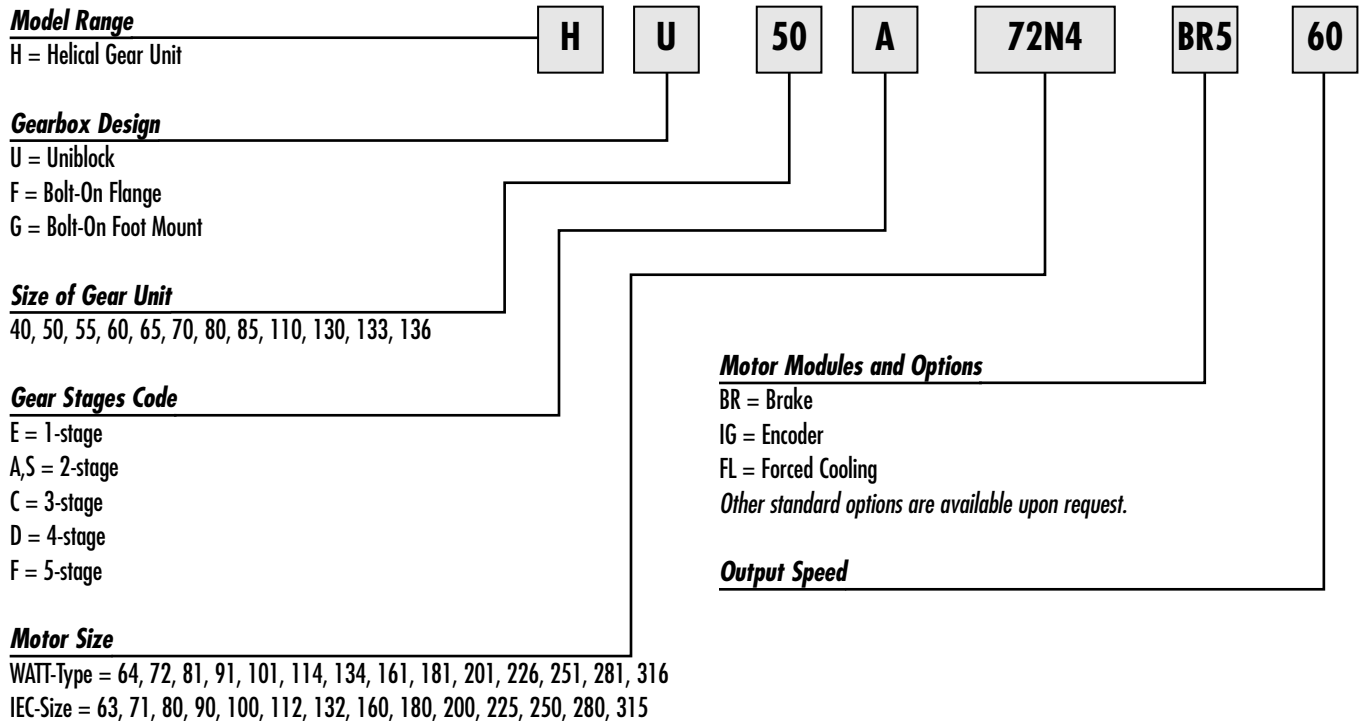


H. ... SA..
Servo Adapter

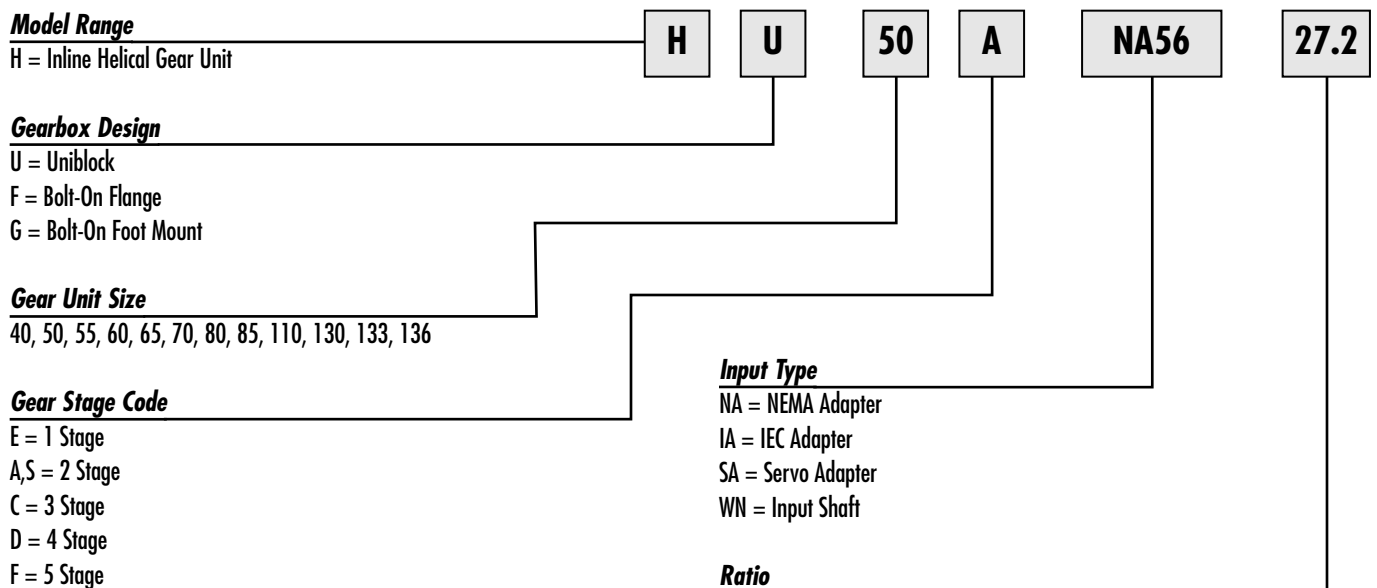


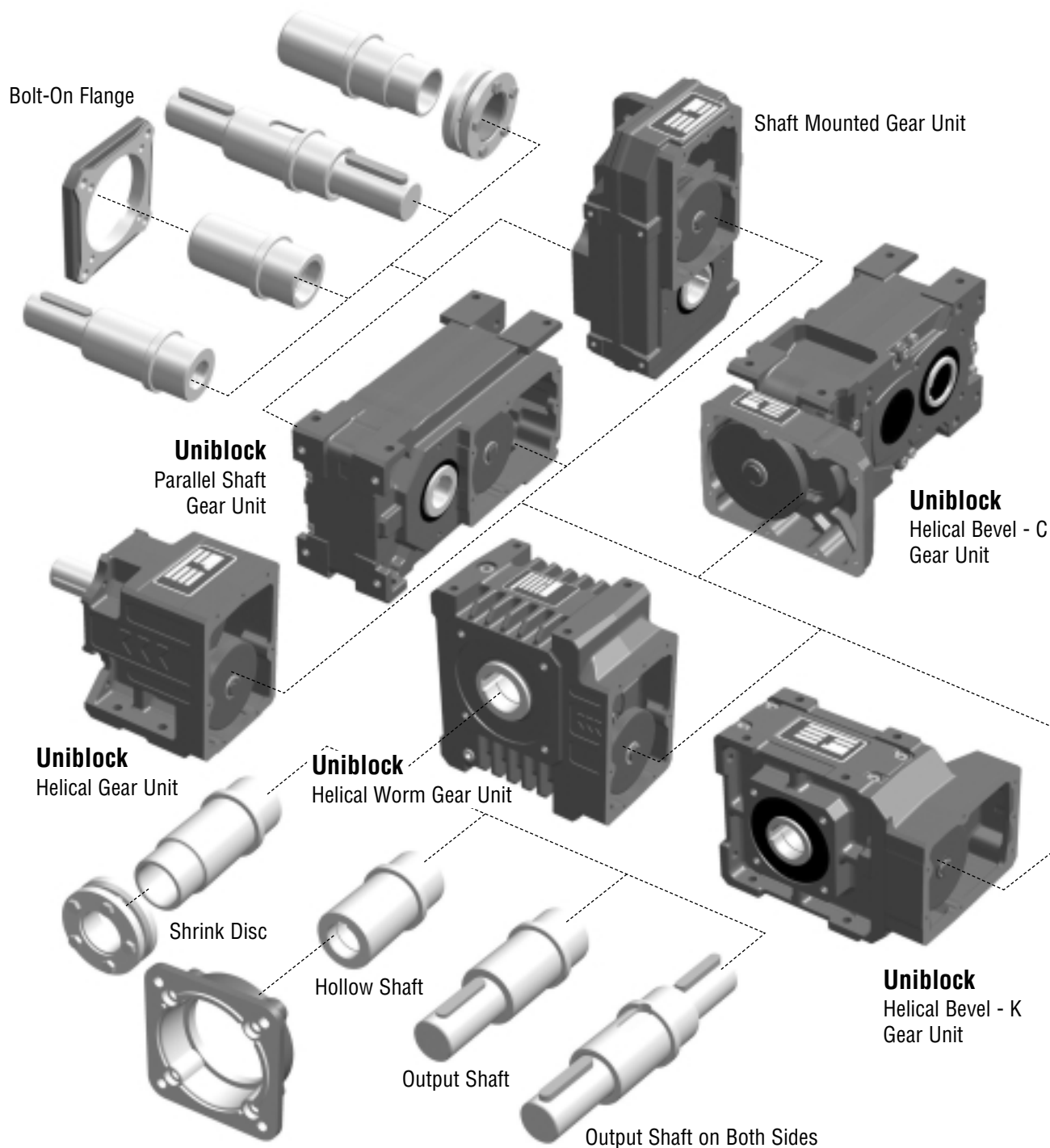
H. ... WN
Input Shaft

Gearmotor Example: HU 50A 72N4 BR5



Speed Reducer Example: HU 50A NA56





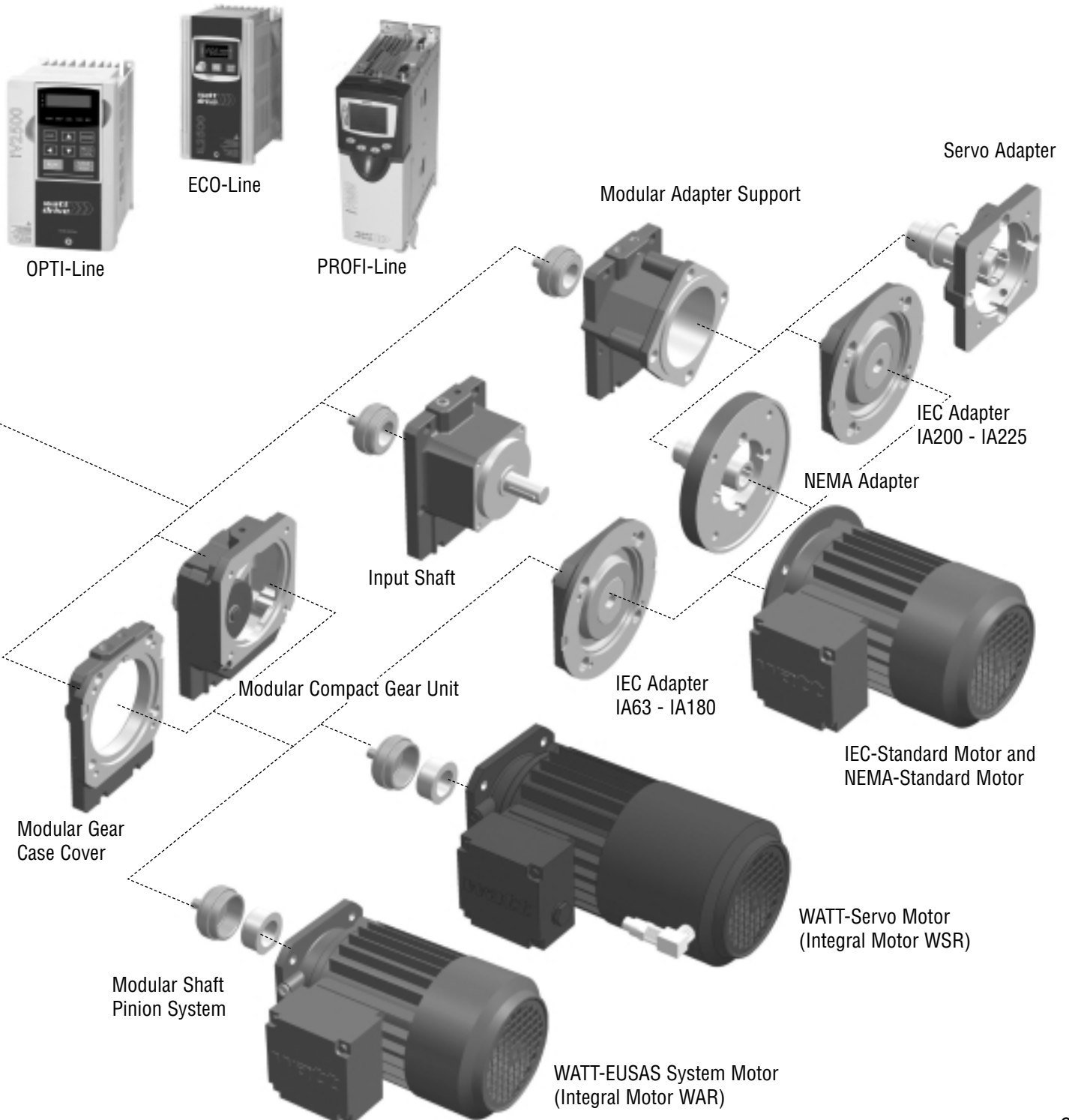
watt drive >>> - *The intelligent choice!*

The WATT Drive philosophy is to provide the optimal drive solution for each unique application. By combining the most appropriate reducer, motor and drive, or just individual components, the result is maximum design versatility, outstanding operating performance, and extreme reliability.

WATT Drive has been a global supplier of cutting edge drive technology for over 30 years. With manufacturing, assembly, warehousing, and tech center facilities throughout Europe, North America, and Asia, WATT Drive provides local personal service along with worldwide customer support.

MAS means Modular Assembly System

- **Modular Gear System** - Standard parts integrated into different gearbox designs.
- **Modular Motor System** - Standard design accommodates a variety of add-on options
- **Modular Electronic System** - Frequency inverters for speed and positioning control.



Other Products & Services



Helical Worm - S



Shaft Mount - A



Parallel Shaft - F



Helical Bevel - C



Helical Bevel - K



Motors



Controls

Engineering Support

DieQua Corporation has several decades of combined experience specifying power transmission and motion control components. This assures the proper selection of components and systems for your unique requirements.



Manufacturing

DieQua Corporation's manufacturing capabilities allow production of many of the components used in the drives we provide. Mounting components and design modifications are also available from our full service machine shop.



Assembly

DieQua Corporation has a team of factory trained technicians that assemble the majority of the drives we provide. This allows prompt delivery of your production requirements or service repairs.



Warehousing

DieQua Corporation maintains an extensive inventory of common speed reducer and motor components for quick delivery of small orders, prototypes, and spare parts.



DIEQUA
Corporation

Specialists in Precision Power Transmission Components

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