

- Speed of the output shaft (after gearbox) = (Motor Speed)/(Gear Ratio)
- Torque of the output shaft (after gearbox) = (Motor Torque) X (Gear Ratio)
- Rotor Inertia of the output (shaft after gearbox) = (Rotor Motor Inertia) X (Gear Ratio)²
- Create a complete Model Number by selecting a motor from Table 1 and a Gearbox from Table 2.

17YPG001S-LW4-R3.7

Table 1	Output Shaft of Motor Before Gearbox									
Model #	NEMA Size	Bipolar Torque (oz-in)	Bipolar Current (A)	Bipolar Voltage (V)	Bipolar Resistance (ohm)	Bipolar Inductance (mH)	Rotor Inertia (oz-in-sec ²)	# of Lead Wires	Weight (lbs)	L2 Length (inch)
17YPG001S-LW4	17	34	0.40	9.6	24	30	0.00028	4	0.33	1.024
17YPG101S-LW4	17	31	0.28	12.04	43	48.7	0.00050	4	0.5	1.339
17YPG102S-LW4	17	31	0.67	4.2	6.4	16.8	0.00050	4	0.5	1.339
17YPG201S-LW4	17	50	0.28	15.68	56	120	0.00076	4	0.6	1.575
17YPG202S-LW4	17	50	0.85	5.61	6.6	10	0.00076	4	0.6	1.575
17YPG301S-LW4	17	62	0.28	19.32	69	100	0.00096	4	0.8	1.890
17YPG302S-LW4	17	62	0.85	5.61	6.6	11	0.00096	4	0.8	1.890
17YPG402S-LW4	17	100	0.85	10.2	12	29	0.00143	4	1.1	2.362

Table 2	Output Shaft of Gearbox													
Parameters/Gearbox Ratio	3.7	5.2	14	19	27	51	71	100	139	189	264	369	516	720
Exact Reduction Ratio	3.71	5.18	13.76	19.22	26.83	51.06	71.30	99.55	138.99	189.45	264.52	369.32	515.66	719.98
Rated Torque (oz-in)	42	42	139	139	139	278	278	278	278	417	417	417	417	417
Max Torque (oz-in)	125	125	417	417	417	833	833	833	833	1250	1250	1250	1250	1250
Efficiency	90%	90%	81%	81%	81%	73%	73%	73%	73%	66%	66%	66%	66%	66%
L1 Length (inch)	1.28	1.28	1.56	1.56	1.56	1.97	1.97	1.97	1.97	2.24	2.24	2.24	2.24	2.24
Weight (lbs)	0.42	0.42	0.46	0.46	0.46	0.63	0.63	0.63	0.63	0.69	0.69	0.69	0.69	0.69

Notes: Custom leadwires, cables, connectors, and windings are available upon request.

Housing Material:	Metal	Radial Play at Shaft:	0.04 mm
Bearing at Output:	Ball Bearing	Thrust Play at Shaft:	0.3 mm
Radial Load:	11.02 lbs	Backlash, at No-Load:	3°
Shaft Axial Load:	7.72 lbs	Shaft Press Fit Force, Max:	33.07 lbs
Gearbox Shaft Diameter:	8 mm		