

- 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.

23YPG106S-LW8-R3.6

Table 1		Motor								
Model #	NEMA Size	Bipolar Torque (oz-in)	Series Current (A)	Unipolar Current (A)	Parallel Current (A)	Unipolar Inductance (mH)	Rotor Inertia (oz-in-sec ²)	# of Lead Wires	Weight (lbs)	L2 Length (mm)
23YPG002S-LW8	23	76	0.7	1.0	1.4	5.4	0.0017	8	1.00	44
23YPG004S-LW8	23	76	1.4	2.0	2.8	1.4	0.0017	8	1.00	44
23YPG006S-LW8	23	76	2.1	3.0	4.2	0.6	0.0017	8	1.00	44
23YPG104S-LW8	23	175	1.4	2.0	2.8	2.5	0.0042	8	1.55	56
23YPG106S-LW8	23	175	2.1	3.0	4.2	1.1	0.0042	8	1.55	56
23YPG108S-LW8	23	175	2.8	4.0	5.7	0.65	0.0042	8	1.55	56
23YPG202S-LW8	23	262	0.7	1.0	1.4	14	0.0068	8	2.21	76
23YPG204S-LW8	23	262	1.4	2.0	2.8	3.6	0.0068	8	2.21	76
23YPG206S-LW8	23	262	2.1	3.0	4.2	1.6	0.0068	8	2.21	76
23YPG210S-LW8	23	262	3.5	5.0	7.0	0.4	0.0068	8	2.21	76

Table 2		Output Shaft of Gearbox												
Gearbox Ratio	R3.6	R4.3	R13	R15	R18	R47	R55	R65	R77	R168	R198	R234	R276	R326
Exact Reduction Ratio	3.6	4.25	12.96	15.30	18.06	46.66	55.08	65.03	76.77	167.96	198.29	234.09	276.36	326.25
Rated Torque (oz-in)	208	208	694	694	694	1389	1389	1389	1389	2083	2083	2083	2083	2083
Max Torque (oz-in)	625	625	2083	2083	2083	4166	4166	4166	4166	6250	6250	6250	6250	6250
Efficiency (%)	90	90	81	81	81	73	73	73	73	66	66	66	66	66
L1 (mm)	52.0	52.0	52.0	52.0	52.0	63.5	63.5	63.5	63.5	83.0	83.0	83.0	83.0	83.0

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

Housing material:	Metal	Thrust play of shaft:	0.3 mm
Bearing at output:	Sleeve bearings	Backlash, at no-load:	3°
Radial load:	20kg	Shaft press fit force, max:	30 kg
Shaft axial load:	10 kg	Radial play of shaft:	0.04 mm

SPECIFICATIONS