

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