

23YSG Series Gear Motor



FEATURES

- **Spur Geared NEMA Size 23 Stepper Motor**
- **Gear Ratios from 3 to 150**
- **High Torque - 700 oz-in Torque**
- **Ideal for Low-Precision Applications**
- **1.8° Step Angle**
- **Can be Customized for**
 - **Winding Current**
 - **Shaft Options**
 - **Cables**
 - **Connectors**
- **CE Certified and RoHS Compliant**



DESCRIPTION

The 23YSG Series gearmotors offer a great value without sacrificing quality. A broad line of motor windings, gear ratios, and three stack lengths are available off-the-shelf, or the motors can be customized to fit your machine requirements. The standard 8-lead motors can be connected in all possible configurations: series, unipolar, or parallel, to allow the maximum flexibility for your application. We can also customize the winding to perfectly match your voltage, current, and maximum operating speed.

SPECIFICATIONS

Headers	Motor Bipolar Torque (oz-in)	Peak Torque (oz-in)	Series Current (A)	Actual Gear Ratio	L1 (inches)	L2 (inches)	Total Length (inches)	Reflected Rotor Inertia (oz-in-sec ²)	Average Backlash (deg)	Weight (lbs)
23YSG006S-LW8-R3	76	228	2.1	3:1	1.26	1.62	2.88	0.0153	4	1.56
23YSG106S-LW8-R3	175	525	2.1	3:1	1.26	2.20	3.46	0.0378	4	2.06
23YSG106S-LW8-R12.5	175	700	2.1	12.5:1	1.26	2.20	3.46	0.6563	4	2.06
23YSG106S-LW8-R50	175	700	2.1	50:1	1.65	2.20	3.85	10.500	3	2.16
23YSG206S-LW8-R75	262	700	2.1	75:1	1.65	2.99	4.64	38.25	3	2.92
23YSG306S-LW8-R75	425	700	2.1	75:1	1.65	4.53	6.18	57.9375	3	4.34

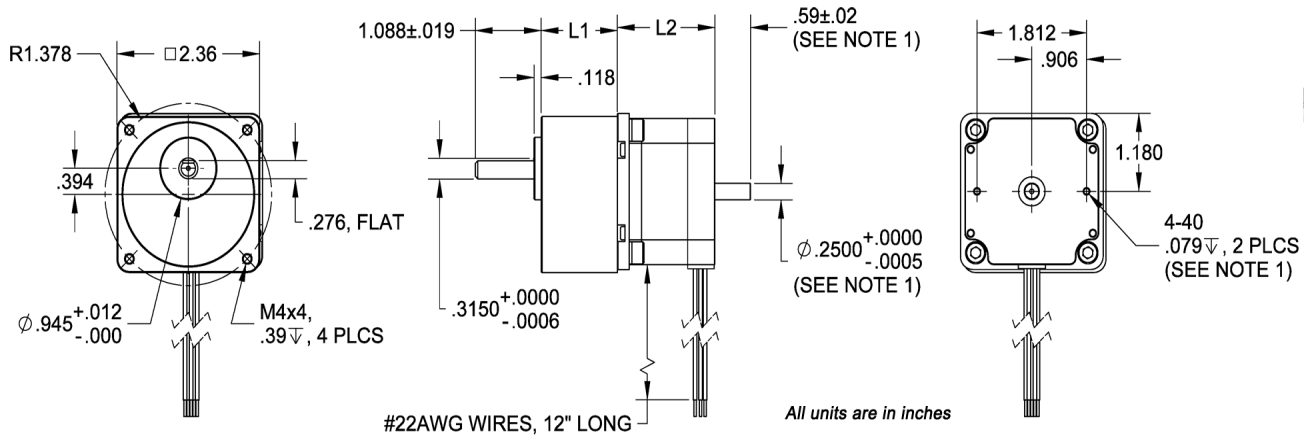
Gear Ratio	Exact Gear Ratio
3	3.649
7.5	7.5
12.5	12.353
15	15
25	26.25
30	30.333
50	53.75
75	75.469
90	90
100	99.418
120	126.295
150	150.612

**Weights for gearmotors will vary slightly, based on the gear ratio selected.*

Notes: Refer to 34Y Series Motor Specifications for complete list of available motors to match to gear ratios of 3, 5, 12.5, 15, 25, 30, 50, 75, 90, 100, 120 or 150. Peak torque values can be greater in some applications. Backlash is determined by the Gear Ratio. LW8 is for 8 leadwires, other leadwire options are available. The 9th character "S" denotes a single shaft, use "D" for double shaft. Double shafts include encoder mounting provisions. Custom leadwires, cables, connectors, and windings are available upon request.

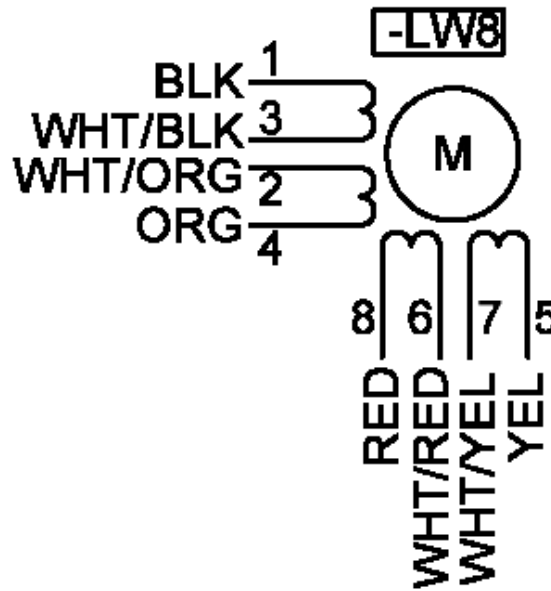
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DIMENSIONS



Note: Double Shaft Option Only

WIRING INFORMATION



SPECIFICATIONS

Step Angle Accuracy:	±5% (Full Step, No Load)	Insulation Resistance:	100M Ohm Min, 500VDC
Resistance Accuracy:	±10%	Dielectric Strength:	820VAC/s for 3 mA
Inductance Accuracy:	±20%	Shaft Radial Play:	0.02" Max (1.0 lb load)
Temperature Rise:	80°C Max (2 Phase On)	End Play:	0.08" Max (1.0 lbs)
Ambient Temperature:	-20° to +50° C	Max Radial Force:	16.9 lbs (0.79" from flange)
Insulation Type:	Class B	Max Axial Force:	3.4 lbs-Force