

14Y Series - High Torque Stepper Motors



FEATURES

- **NEMA 14 Frame Size**
- **1.8° Step Angle**
- **IP50 Rated**
- **High Torque - Up to 19 oz-in**
- **High Step Accuracy and Resolution**
- **Shaft Flat as Standard**
- **Can be Customized for**
 - **Winding Current**
 - **Shaft Options**
 - **Cables and Connectors**
- **CE Certified and RoHS Compliant**



DESCRIPTION

The 14Y Series High Torque Stepper Motors offer a great value without sacrificing quality. These motors are designed to offer the highest possible torque while minimizing vibration and audible noise. A broad line of motor windings and stack lengths are available off-the-shelf, or the motors can be customized to fit your machine requirements. The standard 4-lead motors are connected in the series configuration. We can also customize the winding to perfectly match your voltage, current, and maximum torque at operating speeds.

See Accessories on our website for optional motor adders such as encoders, cables and connectors.

See compatible drivers for the 14Y Series: MBC15081, MBC25081TB

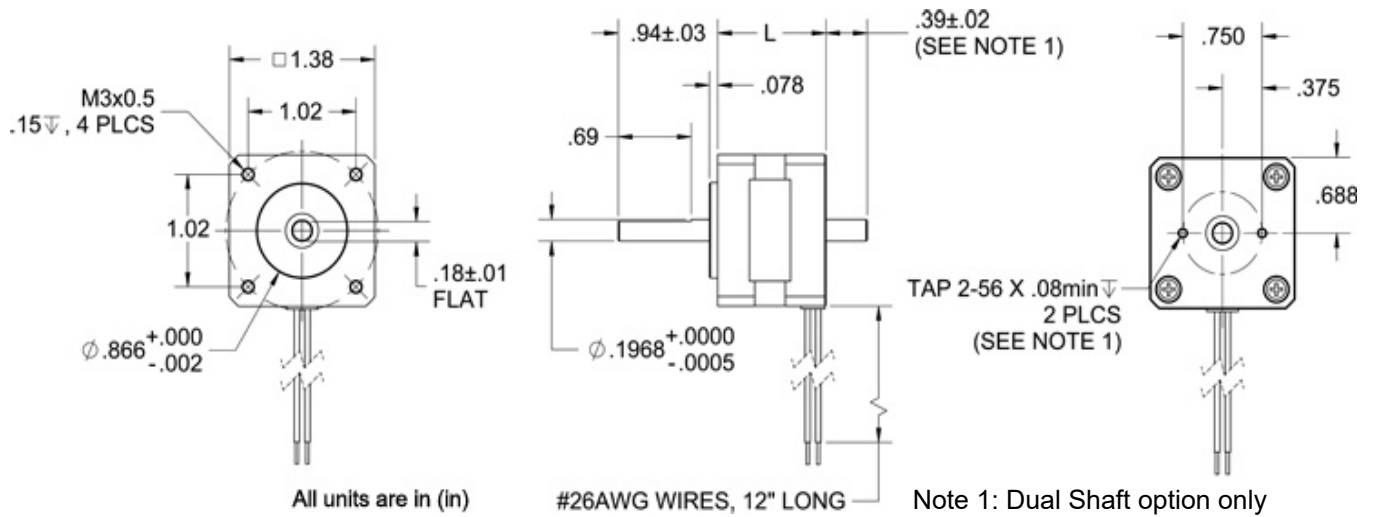
SPECIFICATIONS

Model #	NEMA Size	Bipolar Torque (oz-in)	Bipolar Voltage (V)	Bipolar Current (A)	Bipolar Resistance (Ohms)	Bipolar Inductance (mH)	Rotor Inertia (oz-in-sec ²)	Shaft Diameter (in)	# of Lead Wires	Weight (lbs)	L Length (in)
14Y001S-LW4	14	9	7.4	0.28	26	27	0.000155	0.197	4	0.27	1.02
14Y001D-LW4	14	9	7.4	0.28	26	27	0.000155	0.197	4	0.27	1.02
14Y002S-LW4	14	9	3.3	0.6	5.5	6.0	0.000127	0.197	4	0.27	1.02
14Y002D-LW4	14	9.72	3.3	0.6	5.5	6.0	0.000127	0.197	4	0.27	1.02
14Y101S-LW4	14	14	15.75	0.35	45	30	0.00016	0.197	4	0.33	1.10
14Y101D-LW4	14	14	15.75	0.35	45	30	0.00016	0.197	4	0.33	1.10
14Y102S-LW4	14	14	4.2	0.70	6.0	7.5	0.00016	0.197	4	0.33	1.10
14Y102D-LW4	14	14	4.2	0.70	6.0	7.5	0.00016	0.197	4	0.33	1.10
14Y105S-LW4	14	12.5	1.75	1.75	1.0	1.2	0.00016	0.197	4	0.33	1.10
14Y105D-LW4	14	12.5	1.75	1.75	1.0	1.2	0.00016	0.197	4	0.33	1.10
14Y202S-LW4	14	19	4.9	0.70	7.0	10	0.00020	0.197	4	0.40	1.40
14Y202D-LW4	14	19	4.9	0.70	7.0	10	0.00020	0.197	4	0.40	1.40
14Y203S-LW4	14	19	4.0	1.00	4.0	5.2	0.00020	0.197	4	0.40	1.40
14Y203D-LW4	14	19	4.0	1.00	4.0	5.2	0.00020	0.197	4	0.40	1.40
14Y304S-LW4	14	59	4.2	1.5	2.8	3.8	0.00061	0.197	4	0.66	2.05
14Y304D-LW4	14	59	4.2	1.5	2.8	3.8	0.00061	0.197	4	0.66	2.05

Note: The 7th character "S" denotes a single shaft, use "D" for double shaft. Custom leadwires, cables, connectors, and windings are available upon request.

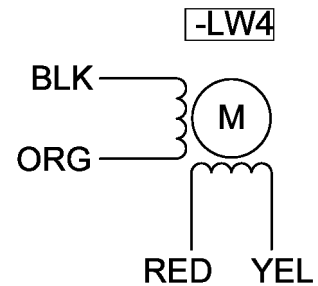
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DIMENSIONS



WIRING INFORMATION

Connection	Lead Wire Connection	Lead Wire Color
4 - Lead Bipolar Series MBC Series	Phase 1 (A)	Black
	Phase 3 (/A)	Orange
	Phase 2 (B)	Red
	Phase 4 (/B)	Yellow



SPECIFICATIONS

Step Angle Accuracy:	± 5% (Full Step, No Load)	Insulation Type:	Class B (130° C Internal)
Resistance Accuracy:	± 10%	Insulation Resistance:	100M Ohm Min, 500VDC
Inductance Accuracy:	± 20%	Dielectric Strength:	500VAC for 1 minute
Temperature Rise:	80°C Max (2 Phases On)	Max Radial Force:	4.5 lbs (0.79" from flange)
Ambient Temperature:	-20° to +50° C	Max Axial Force:	2.2 lbs Radial and Axial Play

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