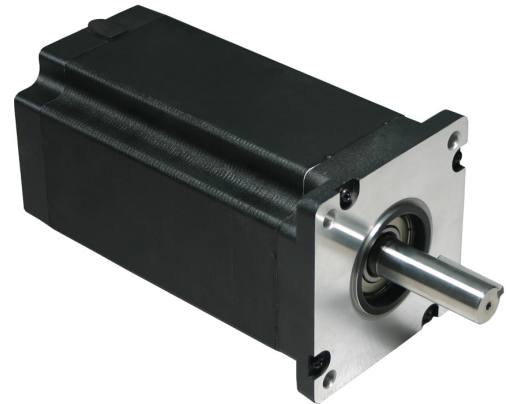


# 42Y Series - High Torque Stepper Motors

FEATURES

- **NEMA 42 Frame Size**
- **1.8° Step Angle**
- **IP50 Rated**
- **Holding Torque Ratings Up To 4036 oz-in**
- **High Step Accuracy and Resolution**
- **Keyed Shaft Standard**
- **Can Be Customized for**
  - **Winding Current**
  - **Shaft Options**
  - **Cables and Connectors**
- **CE Certified and RoHS Compliant**



DESCRIPTION

The 42Y Series High Torque Step 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 8-lead motors can be connected in all possible configurations: series, unipolar, or parallel, to allow the maximum flexibility for your application. Anaheim Automation can also customize the winding to perfectly match your voltage, current, and maximum operating speed.

See [Accessories](#) on our website for optional motor adders such as encoders, brakes, cables, and connectors. Gearbox options can be found in [Gearboxes](#) See compatible drivers consider [MBC10641](#), [MLA10641](#), and [Driver Packs](#).

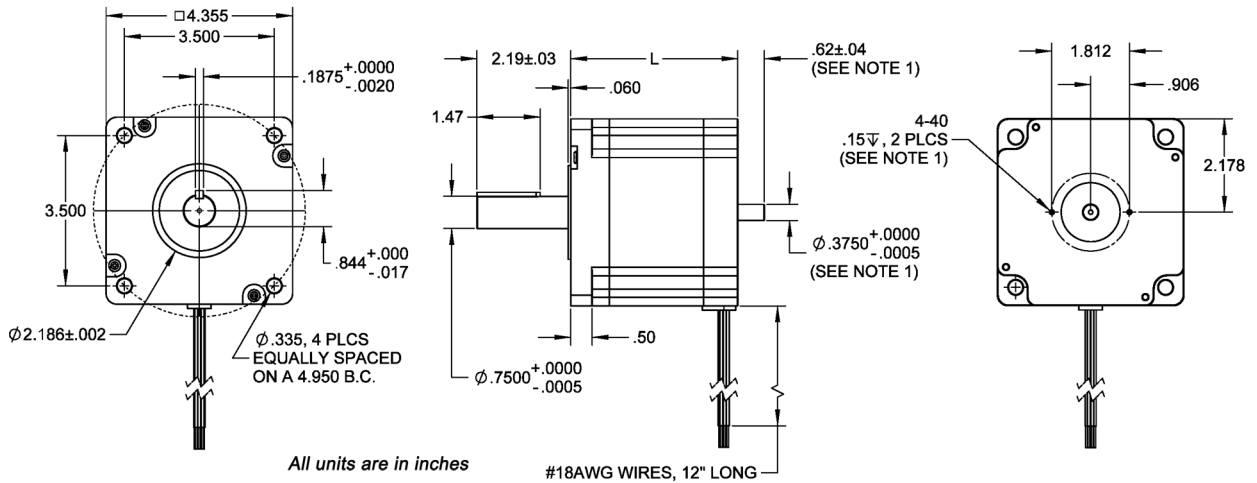
SPECIFICATIONS

Model #	NEMA Size	Bipolar Torque (oz-in)	Series Current (A)	Bipolar Voltage (V)	Series Resistance (ohm)	Series Inductance (mH)	Rotor Inertia (oz-in-sec <sup>2</sup> )	Shaft Diameter (in)	# Lead Wires	Weight (lbs)	"L" Length (in)
42Y012S-LW8	42	1625	4.25	4.845	1.14	16.8	0.071	0.75	8	11.0	3.9
42Y112S-LW8	42	1700	4.25	3.658	0.86	11.6	0.102	0.75	8	13.5	4.5
42Y212S-LW8	42	2974	4.25	9.69	2.28	42	0.154	0.75	8	18.5	5.9
42Y312S-LW8	42	4036	4.25	10.455	2.46	48	0.229	0.75	8	26.0	7.9

Notes: LW8 is for the 8 leadwires, other leadwire options are available. All Shafts have keyways unless otherwise noted. The 7<sup>th</sup> "S" denotes a single shaft, use a "D" for double shaft. Double shafts include encoder mounting provisions. Custom leadwires, cables, connectors, and windings are available upon request.

L010180

DIMENSIONS

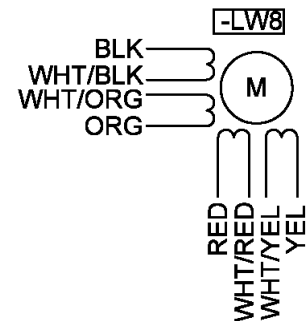


Notes: On dual shaft models 42XXXD-LWX

WIRING INFORMATION

SPECIFICATION CONVERSION TABLE			
Connection	Current (A)	Resistance (R)	Inductance (L)
Series Standard	A	R	L
Parallel	2A	R / 4	L / 4
Unipolar	1.414A	R / 2	L / 4

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
	Connect Wires with Wire Nut	White/Black & White/Orange
4 - Lead Bipolar Parallel MBC Series	Phase 1 (A)	Black & White/Orange
	Phase 3 (A)	Orange & White/Black
	Phase 2 (B)	Red & White/Yellow
	Phase 4 (B)	Yellow & White/Red
	Connect Wires with Wire Nut	White/Red & White/Yellow
6 - Lead Unipolar BLD Series	Phase 1	Black
	Phase 3	Orange
	Phase 2	Red
	Phase 4	Yellow
	Common Phase 1 & 3	White/Black & White/Orange
Common Phase 2 & 4	White/Red & White/Yellow	



SPECIFICATIONS

Step Angle Accuracy:	± 5% (Full Step, No Load)	Insulation Resistance:	100M Ohm Min, 500VDC
Resistance Accuracy:	± 10%	Dielectric Strength:	1800VAC for 1 minute
Inductance Accuracy:	± 20%	Shaft Radial Play:	0.02" Max (1.0 lbs)
Temperature Rise:	80°C Max (2 Phases On)	End Play:	0.08" Max (1.0 lbs)
Ambient Temperature:	-20° to +50° C	Max Radial Force:	49.46 lbs (0.79" from flange)
Insulation Type:	Class B (130°C Internal)	Max Axial Force:	13.5 lbs-Force