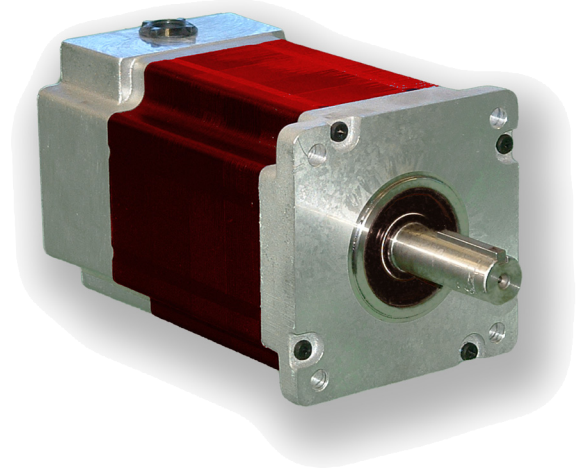


# 42K Series - High Torque Stepper Motors



FEATURES

- **NEMA 42 Frame Size**
- **1.8° Natural Step Angle**
- **Holding Torque Ratings Up To 5700 oz-in**
- **Substantial Increase In Torque Over Standard**
- **High Acceleration and Increased Rotor Inertia**
- **3 Stack Lengths**
- **Microstep Increments as Small as 0.0072° (with our MBC082561 driver)**
- **1.5% Typical Step Accuracy - Non Cumulative**
- **Rugged Construction**
- **Higher Temperature Characteristics**
- **CE Certified and RoHS Compliant**



DESCRIPTION

The 42K Series High Torque Stepper Motors use advance magnetic technologies to provide significant higher torque levels than what is available in standard round motors. These motors are available in a variety of windings to meet any application specific requirement. The torque levels reached with this step motor line make them cost-effective alternatives to servo motors in many applications. These motors can be specified in place of standard motors to reduce system size and cost, or increase system performance, without the need to go to larger sized motors or drivers. The 42K Series is the closest match to the Pacific Scientific 42K Series.

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 for the 42K Series: MBC10641, MBC12101, MBC082561, MLA10641, and Driver Packs.

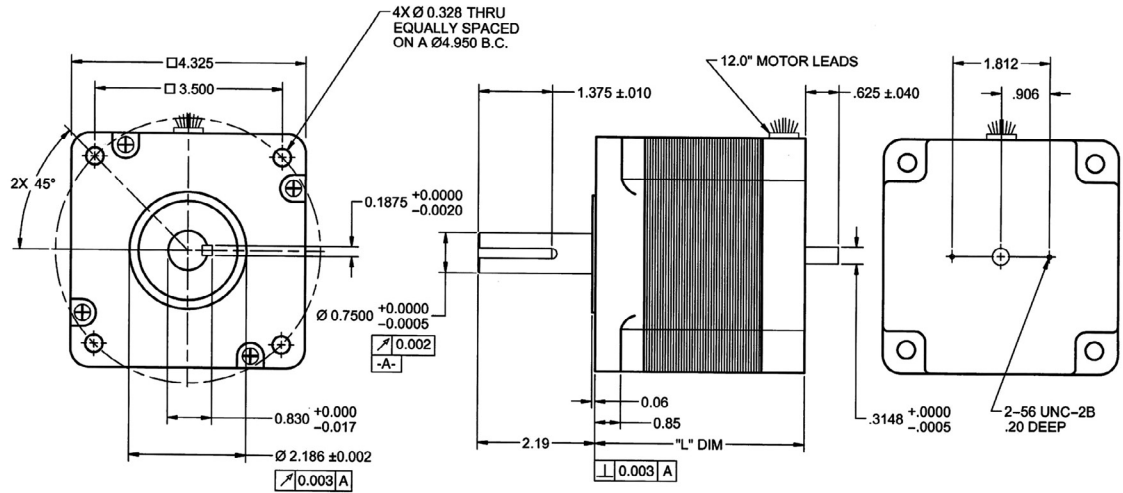
SPECIFICATIONS

Model #	NEMA Size	Bipolar Torque (oz-in)	Series Current (A)	Unipolar Current (A)	Parallel Current (A)	Unipolar Inductance (mH)	Rotor Inertia (oz-in-sec <sup>2</sup> )	Shaft Diameter (in)	# Lead Wires	Weight (lbs)	"L" Length (in)
42K112S-CB8	42	2090	4.4	6.2	8.7	3.10	0.0783	0.750	8	11.4	5.2
42K115S-CB8	42	2135	5.3	7.5	10.7	2.20	0.0783	0.750	8	11.4	5.2
42K209S-CB8	42	3965	3.2	4.5	6.4	9.80	0.1546	0.750	8	18.8	7.2
42K214S-CB8	42	4025	4.9	7.0	9.9	4.20	0.1546	0.750	8	18.8	7.2
42K222S-CB8	42	4000	7.9	11.2	15.8	1.60	0.1546	0.750	8	18.8	7.2
42K314S-CB8	42	5630	4.9	7.0	9.9	5.90	0.2293	0.750	8	27.0	9.2
42K322S-CB8	42	5700	7.7	10.9	15.4	2.50	0.2293	0.750	8	27.0	9.2

Notes: The 7<sup>th</sup> character "S" denotes a single shaft, use "D" for double shaft and replace CB8 with LW8. Custom leadwires, cables, connectors, and windings are available upon request.

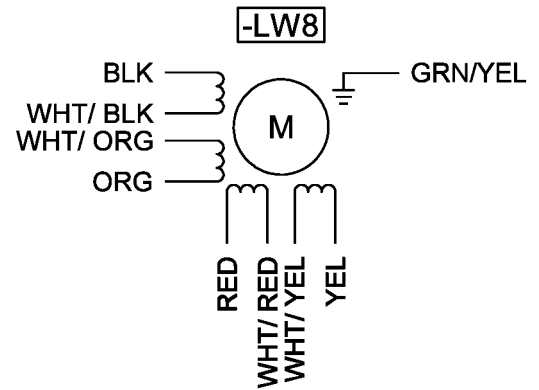
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DIMENSIONS



WIRING INFORMATION

Connection	Lead Wire Connection	Lead Wire Color	Terminal #
4 - Lead Bipolar Series MBC or MLP Series	A	Black	1
	A/	Orange	3
	B	Red	2
	B/	Yellow	4
	None	White/Black & White/Orange White/Red & White/Yellow	6 & 5 8 & 7
4 - Lead Bipolar Parallel Series MBC or MLP Series	A	Black & White/Orange	1 & 5
	A/	Orange & White/Black	3 & 6
	B	Red & White/Yellow	2 & 6
	B/	Yellow & White/Red	4 & 8
6 - Lead Unipolar BLD, TM Series	Phase 1	Black	1
	Phase 3	Orange	3
	Phase 2	Red	2
	Phase 4	Yellow	4
	Common Phase 1 & 3 Common Phase 2 & 4	White/Black & White/Orange White/Red & White/Yellow	6 & 5 8 & 7
Ground		Green/Yellow	Motor Frame



SPECIFICATIONS

Step Angle Accuracy:	±1.5% (Full Step, No Load)	Insulation Type:	Class B
Resistance Accuracy:	±10%	Insulation Resistance:	100M ohms @ 500VDC
Full Step Angle:	1.8°	Max Radial Force:	110lbs
Ambient Temperature:	-20°C - +40°C	Max Axial Force:	404lbs