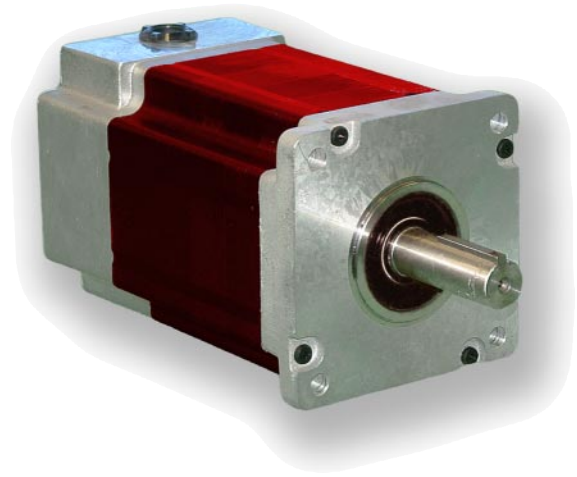


42K Series - Super High Torque Stepper Motors



FEATURES

- **NEMA 42 Frame Size**
- **1.8° Natural Step Angle**
- **Holding Torque Ratings Up to 5700 oz-in**
- **Substantial Increase In Torque Over Standard Motors**
- **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 advanced magnetic technologies to provide significantly 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 K42 Series.

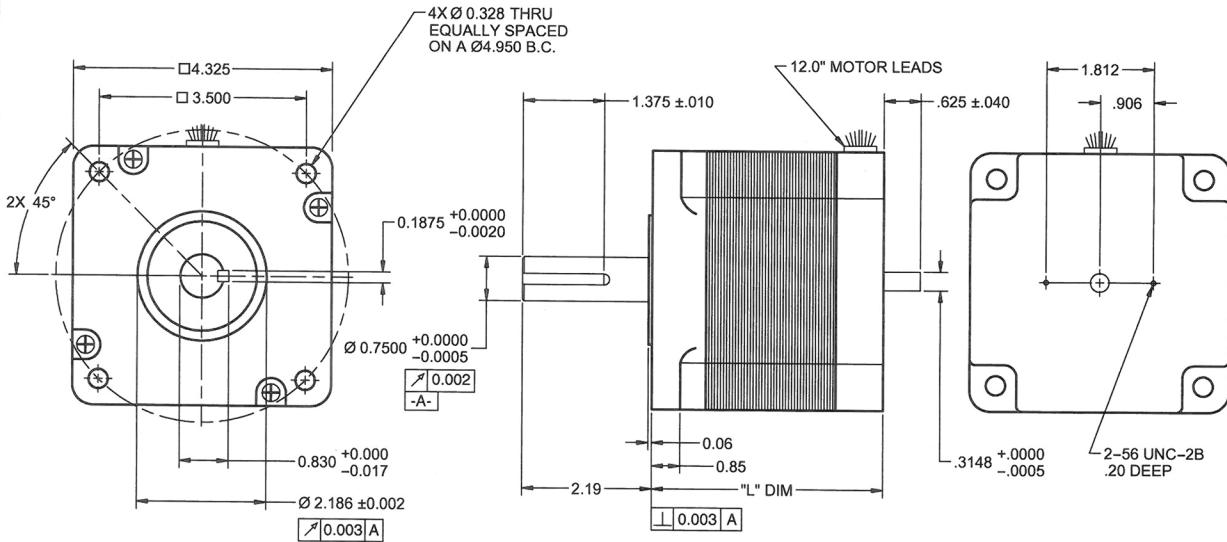
See Accessories on our website for optional motor adders such as encoders, brakes, cables and connectors. For gearbox options, see Gearboxes. For compatible drivers consider MBC10641, MBC082561, MBC12101, MLA10641 and Driver Packs.

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 ²)	Shaft Diameter (in)	# of Terminals	Weight (lbs)	L Length (in)
42K112S-CB8	42	2090	4.4	6.2	8.8	3.10	0.0783	0.750	8	11.4	5.2
42K115S-CB8	42	2135	5.3	7.5	10.6	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	5.9	0.2293	0.750	8	27.0	9.2
42K322S-CB8	42	5700	7.7	10.9	15.4	2.5	0.2293	0.750	8	27.0	9.2

Notes: The 7th character "S" denotes a single shaft, use "D" for double shaft. Custom leadwires, cables, connectors, and windings are available upon request. For double shaft motors, use -LW8 instead of -CB8 as lead wires are only available.

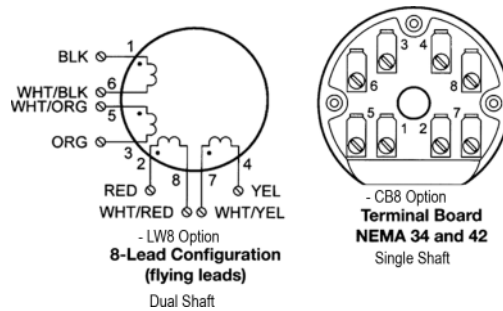
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(All units are inches)

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

PART NUMBER	"X"	"L"
42X1XXS-CB8	4.46	5.20
42X2XXS-CB8	6.48	7.22
42X3XXS-CB8	8.49	9.23



Step Angle Accuracy:	+/- 1.5%	Insulation Type:	Class B
Resistance Accuracy:	+/- 10%	Insulation Resistance:	100M ohms @ 500VDC
Full Step Angle:	1.8°	Max Radial Force:	20lbs
Ambient Temperature:	-20° C - 40° C	Max Axial Force:	13lbs