

# 34Y Series - High Torque Step Motors



## FEATURES

- NEMA 34 Frame Size
- 1.8° Step Angle
- High Torque - Up to 1700 oz-in
- High Step Accuracy and Resolution
- Low Vibration and Noise
- Can be Customized for
  - Winding Current
  - Shaft Options
  - Cables and Connectors
- CE Certified and RoHS Compliant



## DESCRIPTION

The 34Y Series High Torque Step Motors offer a great value without sacrificing quality. These motors were 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, and 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.

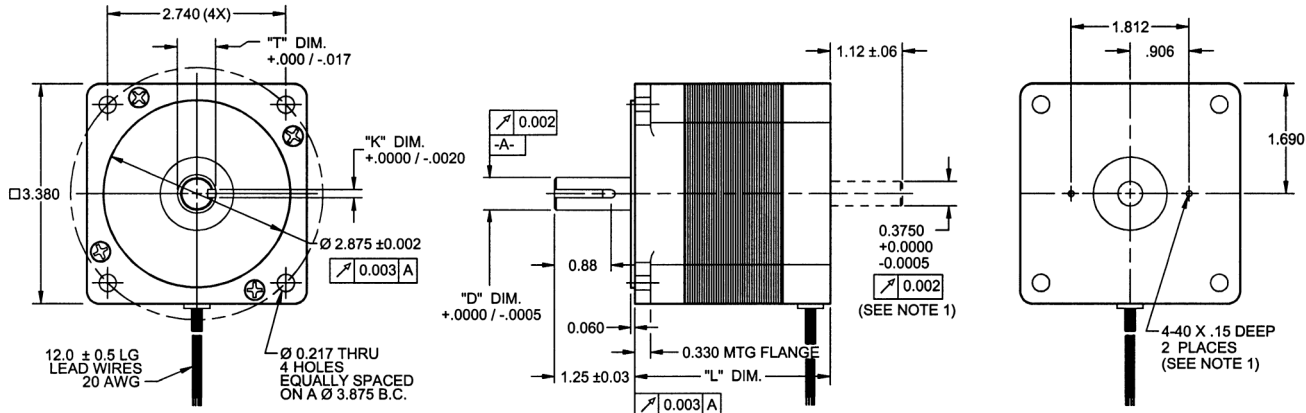
**See Accessories on our website for optional motor adders such as encoders, brakes, cables, and connectors. For gearbox options, see Gearboxes. For compatible drivers, consider the MBC25081TB, MBC05641, MBC10641, MBC12101, MLA10641 and Driver Packs.**

## 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 <sup>2</sup> )	Shaft Diameter (in)	# of Lead Wires	Weight (lbs)	L Length (in)
34Y004S-LW8	34	467	1.4	2.0	2.8	11.3	0.014	0.5	8	3.7	2.56
34Y006S-LW8	34	467	2.1	3.0	4.2	3.9	0.014	0.5	8	3.7	2.56
34Y008S-LW8	34	467	2.8	4.0	5.7	2.12	0.014	0.5	8	3.7	2.56
34Y010S-LW8	34	467	3.5	5.0	7.0	1.5	0.014	0.5	8	3.7	2.56
34Y104S-LW8	34	637	1.4	2.0	2.8	14.2	0.020	0.5	8	5.1	3.15
34Y108S-LW8	34	637	2.8	3.9	5.5	3.8	0.020	0.5	8	5.1	3.15
34Y112S-LW8	34	637	4.3	6.1	8.6	1.7	0.020	0.5	8	5.1	3.15
34Y207S-LW8	34	1200	2.5	3.5	5.0	8.3	0.038	0.5	8	8.4	4.65
34Y214S-LW8	34	1200	5.0	7.0	9.9	2.0	0.038	0.5	8	8.4	4.65
34Y307S-LW8	34	1700	2.5	3.5	5.0	12.5	0.057	0.625	8	12.0	6.14
34Y314S-LW8	34	1700	5.0	7.0	9.9	3.5	0.057	0.625	8	12.0	6.14

Notes: LW8 is for 8 leadwires, other leadwire options are available. The 7th 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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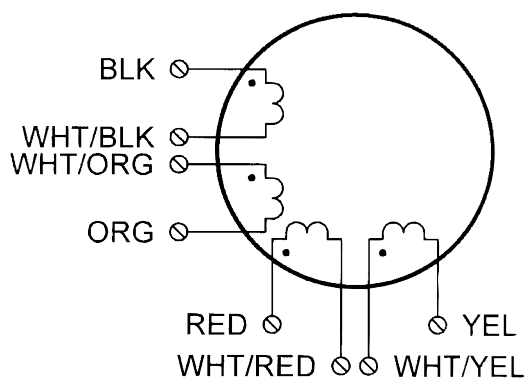


(All units are inches)

Note 1: Double shaft option only.

Part Number	"D"	"K"	"T"	"L"
34Y0XXX-LWX	.5000	.1250	.555	2.56
34Y1XXX-LWX	.5000	.1250	.555	3.15
34Y2XXX-LWX	.5000	.1250	.555	4.65
34Y3XXX-LWX	.6250	.1875	.705	6.14

Connection	Lead Wire Connection	Lead Wire Color
4 - Lead Bipolar Series MBC or MLP 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
	Connect Wires with Wire Nut	White/Red & White/Yellow
4 - Lead BipolarParallel MBC or MLP 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
6 - Lead Unipolar BLD, TM 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



Step Angle Accuracy:	+/- 5% (Full Step, No Load)	Insulation Resistance:	100M Ohm Min, 500VDC
Resistance Accuracy:	+/- 10%	Dielectric Strength:	820VAC/s for 3mA
Inductance Accuracy:	+/- 20%	Shaft Radial Play:	0.02" Max (1.0 lb load)
Temperature Rise:	80° C Max (2 Phases On)	Shaft Axial Play:	0.08" Max (1.0 lb load)
Ambient Temperature:	-20° to +50° C	Max Radial Force:	49.5 lbs (0.79" from flange)
Insulation Type:	Class B	Max Axial Force:	13.5 lbs-Force