

34Y Series - High Torque Stepper Motors

FEATURES

- **NEMA 34 Frame Size**
- **1.8° Step Angle**
- **IP50 Rated**
- **High Torque - Up To 1700 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 34Y 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, 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.

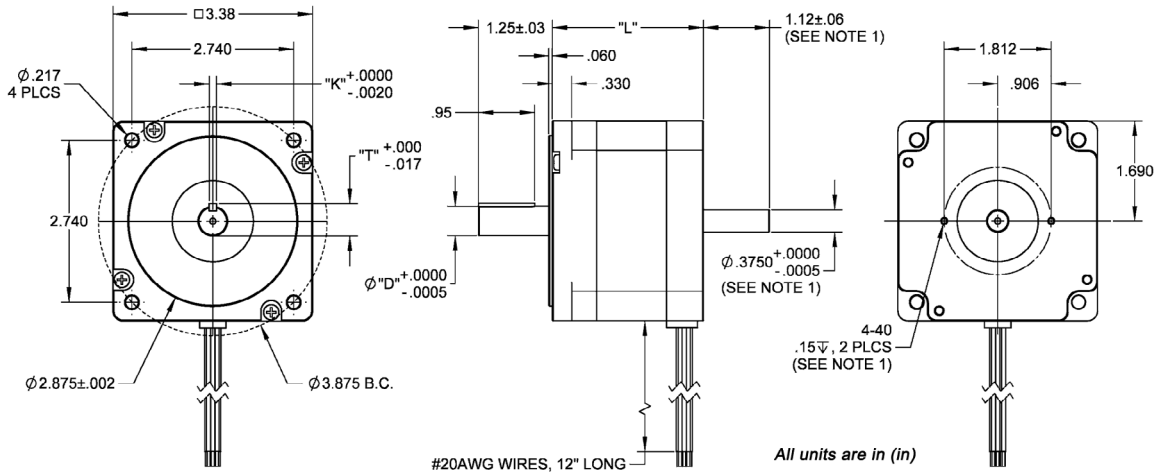
See [Accessories](#) on our website for optional motor adders such as encoders, cables, and connectors. Gearbox options can be found in [Gearboxes](#). See compatible drivers for the 34Y Series: [MBC05641](#), [MBC10641](#), [MBC12101](#), [MLA10641](#) and [Driver Packs](#).

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 ²)	Shaft Diameter (in)	# Lead Wires	Weight (lbs)	"L" Length (in)
34Y004S-LW8	34	467	1.4	7.42	5.3	34	0.014	0.5	8	3.7	2.56
34Y006S-LW8	34	467	2.1	7.2	2.4	15.4	0.014	0.5	8	3.7	2.56
34Y008S-LW8	34	467	2.8	3.64	1.3	8.5	0.014	0.5	8	3.7	2.56
34Y010S-LW8	34	467	3.5	3.36	0.8	4.9	0.014	0.5	8	3.7	2.56
34Y104S-LW8	34	637	1.4	10.08	6.2	56.8	0.020	0.5	8	5.1	3.15
34Y108S-LW8	34	637	2.8	4.7	1.68	15.2	0.020	0.5	8	5.1	3.15
34Y112S-LW8	34	637	4.3	3.35	0.78	6.8	0.020	0.5	8	5.1	3.15
34Y207S-LW8	34	1200	2.5	6.5	2.6	33.2	0.038	0.5	8	8.4	4.56
34Y214S-LW8	34	1200	5.0	4.1	0.82	9.2	0.038	0.5	8	8.4	4.56
34Y307S-LW8	34	1700	2.5	9	3.6	48	0.057	0.625	8	12.0	6.14
34Y314S-LW8	34	1700	5.0	4.8	0.56	14.2	0.057	0.625	8	12.0	6.14

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 (130°C Internal)	Max Axial Force:	13.5 lbs-Force

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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Note 1: Applies to dual shaft option only

PART NUMBER	"D"	"K"	"I"	"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
34Y4XXX-LWX	.6250	.1875	.705	7.68

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

