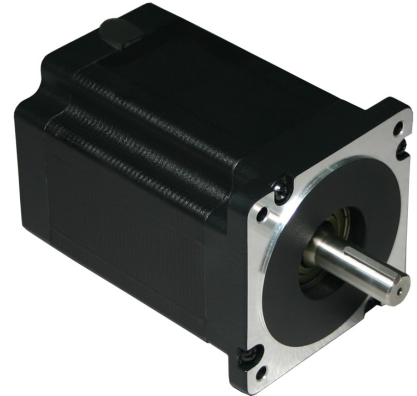


34Y Series - High Torque Stepper Motors

FEATURES

- **NEMA 34 Frame Size**
- **1.8° Step Angle**
- **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: MBC25081TB, MBC05641, MBC10641, MBC12101, MLA10641 and Driver Packs.

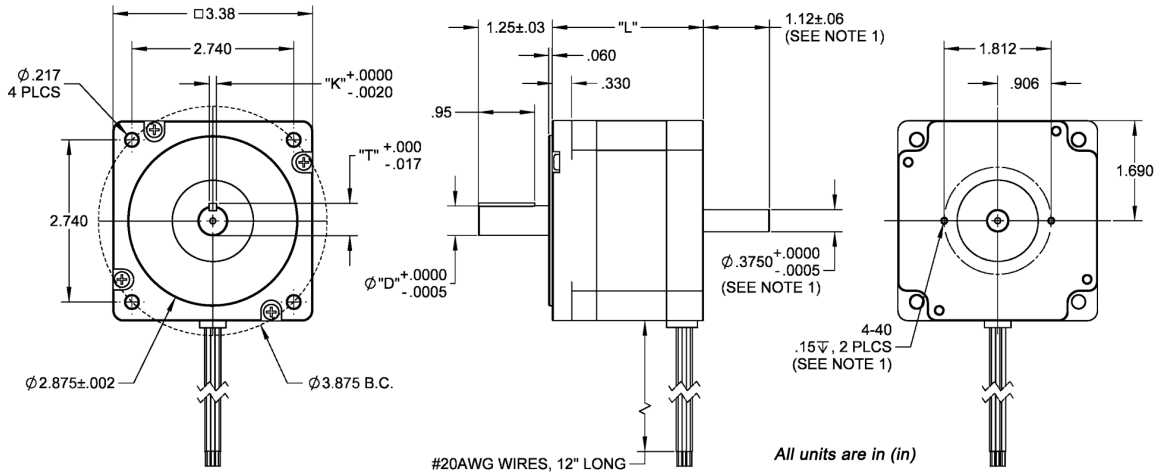
SPECIFICATIONS

| 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.

L010165



| 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 |

Note 1: Applies to dual shaft option only

| 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 |

