

34Y65 Series - Sealed High Torque Stepper Motors



FEATURES

- **NEMA 34 Frame Size**
- **1.8° Step Angle**
- **High Torque - Up to 1700 oz-in**
- **Splashproof IP65 Sealed Stepper Motor**
- **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 34Y65 Series High Torque Stepper Motors are designed to withstand splashdown, humid or damp environments, and water sprayback conditions. The IP65 sealed properties ensure that moisture be kept out of the motors internal electronics. In addition, these motors provide the highest possible torque available in a sealed size 34 stepper. The 34Y65 series is an excellent choice for lab automation, biotech, and semiconductor automation equipment, just to name a few.

See [Accessories](#) on our website for optional motor adders such as encoders, cables and connectors. For Gearbox options, see GBPH series gearboxes. For compatible drivers, consider MBC10641, MBC12101, MBC082561 and MLA10641 Series Driver Packs.

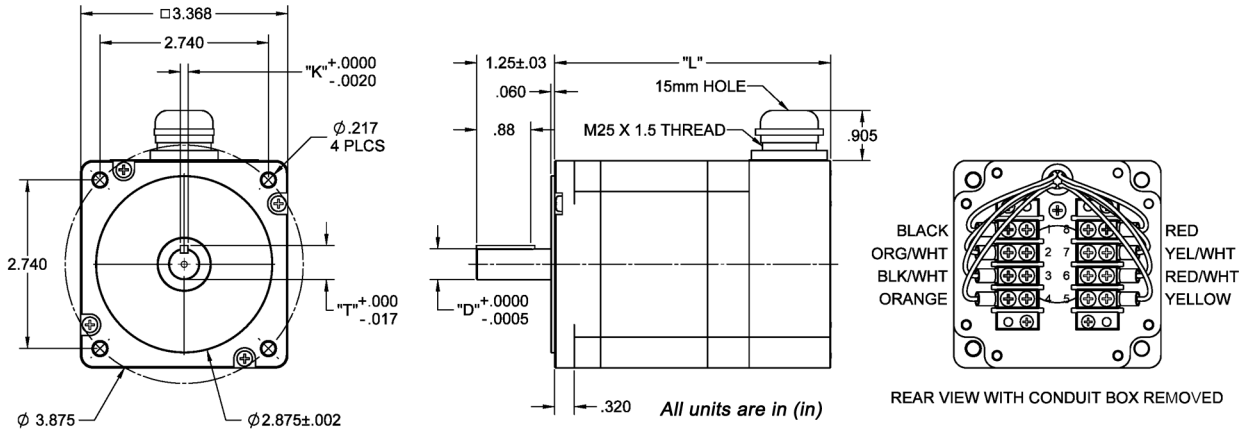
SPECIFICATIONS

| 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) |
|---------------|-----------|------------------------|--------------------|----------------------|----------------------|--------------------------|---|---------------------|----------------|--------------|---------------|
| 34Y65112S-CB8 | 34 | 637 | 4.3 | 6.1 | 8.6 | 1.7 | 0.020 | 0.5 | 8 | 5.1 | 4.49 |
| 34Y65214S-CB8 | 34 | 1200 | 5.0 | 7.0 | 9.9 | 2.3 | 0.038 | 0.5 | 8 | 8.4 | 5.98 |
| 34Y65314S-CB8 | 34 | 1700 | 5.0 | 7.0 | 9.9 | 3.6 | 0.057 | 0.625 | 8 | 12.0 | 7.48 |

Notes: Custom leadwires, cables, connectors, and windings are available upon request.

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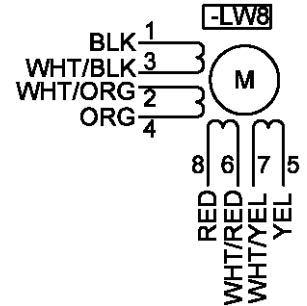
DIMENSIONS



| Part Number | "D" | "K" | "T" | "L" |
|---------------|--------|--------|-------|------|
| 34Y651XXX-CB8 | 0.5000 | 0.1250 | 0.555 | 3.15 |
| 34Y652XXX-CB8 | 0.5000 | 0.1250 | 0.555 | 4.65 |
| 34Y653XXX-CB8 | 0.6250 | 0.1875 | 0.705 | 6.14 |

WIRING INFORMATION

| Connection | Lead Wire Connection | Lead Wire Color | Terminal # |
|--|-----------------------------|----------------------------|------------|
| 4 - Lead Bipolar Series MBC or MLP Series | Phase 1 (A) | Black | 1 |
| | Phase 3 (/A) | Orange | 4 |
| | Phase 2 (B) | Red | 8 |
| | Phase 4 (/B) | Yellow | 5 |
| | Connect Wires with Wire Nut | White/Black & White/Orange | 2 & 3 |
| | Connect Wires with Wire Nut | White/Red & White/Yellow | 6 & 7 |
| 4 - Lead Bipolar Parallel MBC or MLP Series | Phase 1 (A) | Black & White/Orange | 1 & 2 |
| | Phase 3 (/A) | Orange & White/Black | 3 & 4 |
| | Phase 2 (B) | Red & White/Yellow | 7 & 8 |
| | Phase 4 (/B) | Yellow & White/Red | 5 & 6 |
| 6 - Lead Unipolar BLD, TM Series | Phase 1 | Black | 1 |
| | Phase 3 | Orange | 4 |
| | Phase 2 | Red | 8 |
| | Phase 4 | Yellow | 5 |
| | Common Phase 1 & 3 | White/Black & White/Orange | 2 & 3 |
| | Common Phase 2 & 4 | White/Red & White/Yellow | 6 & 7 |



SPECIFICATIONS

| | | | |
|----------------------|--------------------------|------------------------|-----------------------------|
| 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% | Radial Play: | 0.02" Max at 1.0lb load |
| Temperature Rise: | 80°C (2 phase on) | End Play: | 0.08" Max at 1.0lb load |
| Ambient Temperature: | -20°C - +50°C | Max Radial Force: | 49.5lbs (0.79" from flange) |
| Insulation Type: | Class B | Max Axial Force: | 13.5lbs-Force |