17MD Series - Integrated Stepper Motors/Drivers



- NEMA 17 Step Motor and Microstep Driver
- High Torque Up to 62 oz-in
- Eliminates Motor Wires
- 12-24VDC Power Requirement
- Compact Package
- Microstep Divisors of 8, 4, 2, or Full Step
- Ideal for Precise Positioning
- 0.225° Resolution per step
- Efficient and Durable
- Long Life Expectancy
- RoHS Compliant



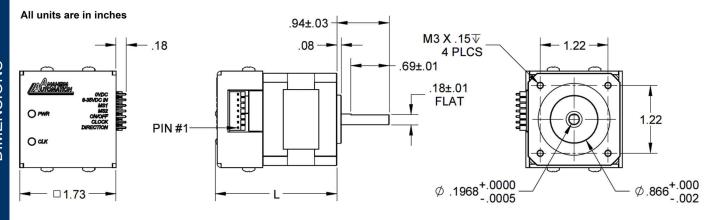
The 17MD Series has a compact construction that implements a microstepping driver and a NEMA 17 stepper motor in one streamline package. With the two parts combined into one casing, the need to include motor wires has been eliminated. The high-torque stepper motor can generate up to 62 oz-in of torque. The microstepping driver will operate with voltage from 12VDC to 24VDC. The inputs are capable of running from either open collector or TTL level logic outputs. The microstepping driver features resolutions from 200 - 1600 steps/revolution, providing smooth rotary operation. The 17MD Series comes in a single shaft version with three different motor stack lengths, allowing for varying amounts of start-up torque and inertia. The 17MD Series features built in over temperature and short circuit shut down. It also has automatic 70% reduction in current after clock pulses stop being received, and status LED's to indicate power on (green LED) and clocks being received (yellow LED).

A power supply is required (purchased separately).

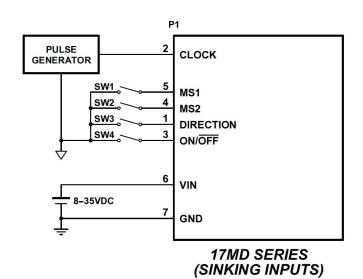
| Model # | Frame Size | Bipolar Torque (oz-in) | Rotor Inertia (oz-in-sec²) | Weight (lbs) | "L" Length (in) |
|-------------|---------------|------------------------------|----------------------------------|-----------------|-----------------------|
| 17MD102S-00 | 17 | 31 | 0.00050 | 0.54 | 2.22 |
| 17MD202S-00 | 17 | 50 | 0.00076 | 0.72 | 2.45 |
| 17MD302S-00 | 17 | 62 | 0.00096 | 0.87 | 2.77 |

L010412





| Terminal Block Pin | Description | CBL-AA4031 Wire Color |
|-----------------------|-------------|--------------------------|
| 1 | Direction | Brown |
| 2 | Clock | Red |
| 3 | On/Off | Orange |
| 4 | MS2 | Yellow |
| 5 | MS1 | Green |
| 6 | 8VDC-35VDC | Blue |
| 7 | 0VDC (Gnd) | Violet |



| Power Input: | 8 - 35 VDC | Step Resolution: | 200, 400, 800 and 1600 steps/rev |
|----------------------|---------------------------------------|------------------------|----------------------------------|
| Step Angle: | 1.8° | Insulation Resistance: | 100M ohm Min., 500 VDC |
| Step Angle Accuracy: | ±5% | Dielectric Strength: | 500 VAC for one minute |
| Resistance Accuracy: | ±10% | Shaft Radial Play: | 0.02 Max. (1lbs load) |
| Inductance Accuracy: | ±20% | Shaft Axial Play: | 0.08 Max. (1lbs load) |
| Temperature Rise: | 80°C Max. (rated current, 2 Phase on) | Max. Radial Force: | 6.3lbs (0.79 in from the flange) |
| Ambient Temperature: | -20°C to +50°C | Max. Axial Force: | 2.25lbs |