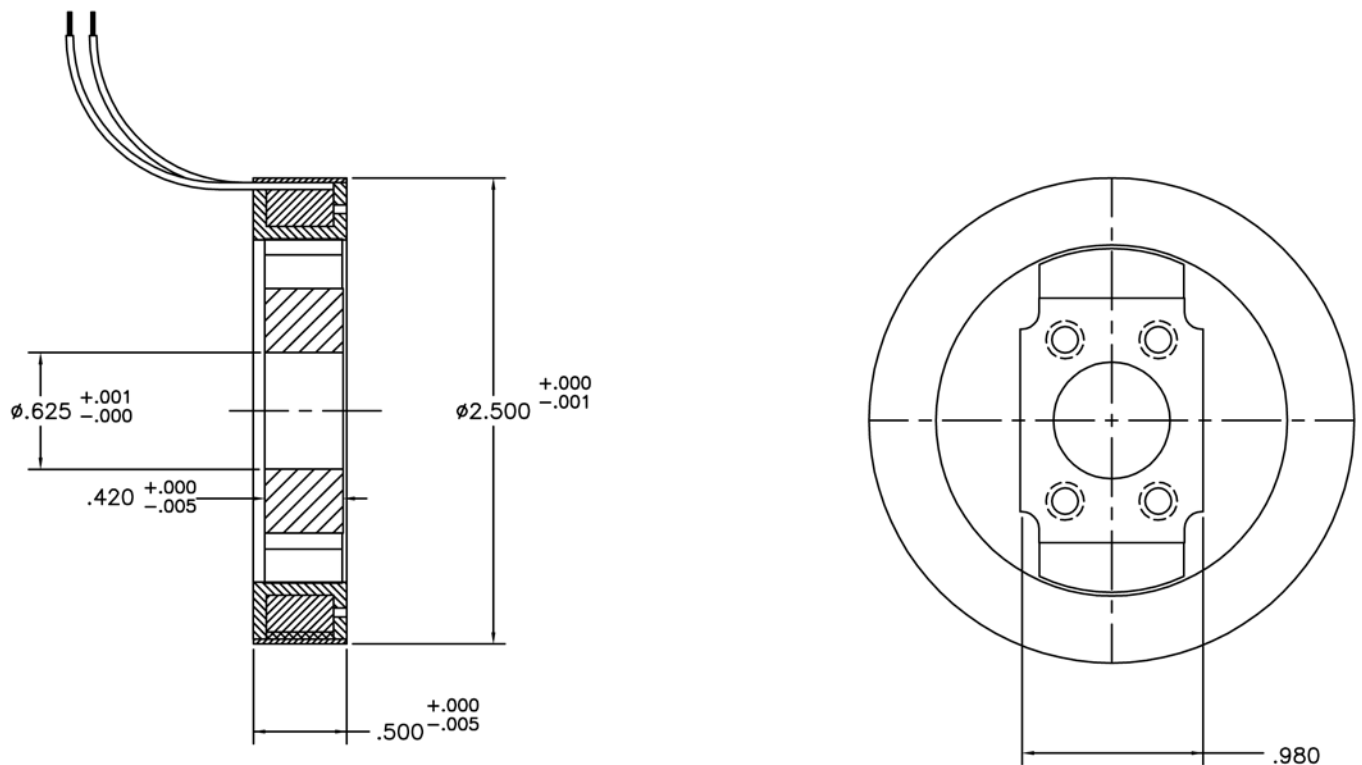


# Brushless Limited Angle Torodial Motors

## TD-2500-F SPECIFICATIONS @ 25°C

| Size Constants                         | Value    | Units                |
|--|----------|----------------------|
| Peak Torque, $T_P$                     | 18       | oz-in                |
| Motor Constant, $K_M$                  | 2.35     | oz-in/ $\sqrt{W}$    |
| Excursion Angle                        | $\pm 60$ | degrees              |
| Number of Poles                        | 2        |                      |
| Weight                                 | 6.5      | oz (nom)             |
| Motor Inertia, $J_M$                   | 2.30E-03 | oz-in-s <sup>2</sup> |
| Friction Torque, $T_F$                 | 0.3      | oz-in                |
| Electrical Time Constant, $\tau_E$     | TBD      | ms                   |
| Mechanical Time Constant, $\tau_M$     | 58.90    | ms                   |
| Winding Constants                      | Value    | Units                |
| Torque Sensitivity, $K_T$              | 5.9      | oz-in/amp            |
| Back EMF, $K_E$                        | 0.0417   | V per rad/s          |
| Terminal Resistance, $R_M$             | 6.3      | ohms (nom)           |
| Terminal Inductance, $L_M$             | TBD      | mH (nom)             |
| Voltage, Stalled at Peak Torque, $V_P$ | 20       | volts                |
| Amps at Peak Torque, $I_P$             | 3.17     | amps                 |

### TD-2500-F Typical Outline Drawing



Dimensions are in inches