

# Brushless Limited Angle Torodial Motors

## TD-1500-H-1SC SPECIFICATIONS @ 25°C

Size Constants	Value	Units
Peak Torque, $T_p$	22	oz-in
Motor Constant, $K_M$	2.4	oz-in/ $\sqrt{W}$
Excursion Angle	$\pm 35$	degrees
Number of Poles	4	
Weight	2.5	oz (nom)
Motor Inertia, $J_M$	1.55E-04	oz-in-s <sup>2</sup>
Friction Torque, $T_F$	0.35	oz-in
Electrical Time Constant, $\tau_E$	0.348	ms
Mechanical Time Constant, $\tau_M$	3.81	ms
Winding Constants	Value	Units
Torque Sensitivity, $K_T$	5.75	oz-in/amp
Back EMF, $K_E$	0.0406	V per rad/s
Terminal Resistance, $R_M$	5.75	ohms (nom)
Terminal Inductance, $L_M$	2	mH (nom)
Voltage, Stalled at Peak Torque, $V_p$	27	volts
Amps at Peak Torque, $I_p$	4.25	amps

### TD-1500-H-1SC Typical Outline Drawing

