

Brushless Torque Motors

DB-2180-A-1S SPECIFICATIONS @ 25°C

Size Constants	Value	Units
Peak Torque, T_P	230	oz-in
Motor Constant, K_M	13.9	oz-in/ \sqrt{W}
Number of Poles	16	
Number of Phases	3"Y"	
Weight	8	oz (nom)
Motor Inertia, J_M	5.00E-03	oz-in-s ²
Friction Torque, T_F	4.0	oz-in
Electrical Time Constant, τ_E	0.17	ms
Mechanical Time Constant, τ_M	3.65	ms
Temperature Rise, Housed TPR ¹	5.5	°C/W
Sensors	No	
Winding Constants	Value	Units
Torque Sensitivity, K_T	19.2	oz-in/amp
Back EMF, K_E	0.136	V per rad/s
Terminal Resistance, R_M	1.90	ohms (nom)
Terminal Inductance, L_M	0.32	mH (nom)
Voltage, Stalled at Peak Torque, V_P	22.8	volts
Amps at Peak Torque, I_P	12.0	amps

DB-2180-A-1S Typical Outline Drawing

