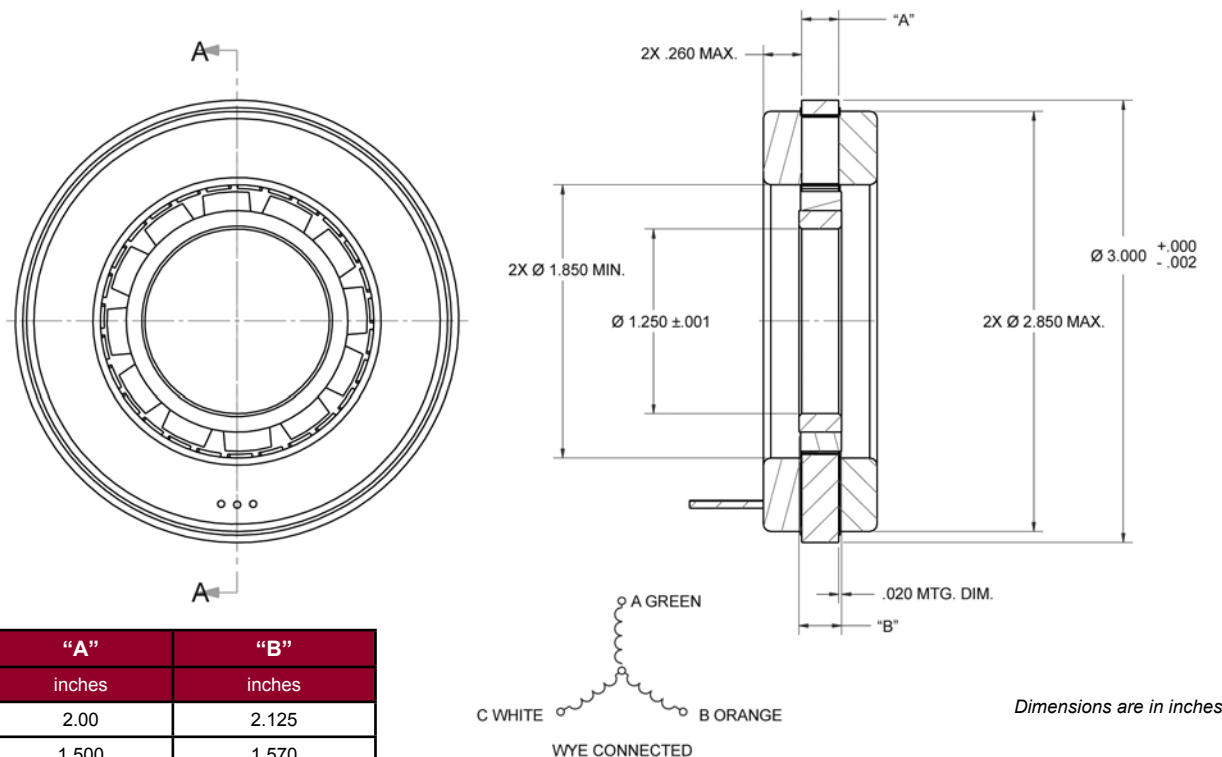


Brushless Torque Motors

DB-3000 SERIES SPECIFICATIONS @ 25°C

Part Number		DB-3000-F-1ES	DB-3000-G-1ES	DB-3000-H-1ES	DB-3000-J-1ES	DB-3000-K-1ES	DB-3000-L-1ES
Size Constants							
	Units						
Peak Torque, T_P	oz-in	151	302	454	604	909	1210
Motor Constant, K_M	oz-in/ \sqrt{W}	10.4	18.7	25.8	31.8	42.4	51.2
Number of Poles		12	12	12	12	12	12
Number of Phases		3"Y"	3"Y"	3"Y"	3"Y"	3"Y"	3"Y"
Weight	oz (nom)	8	13	18	22	31	41
Motor Inertia, J_M	oz-in-s ²	2.11E-03	4.17E-03	6.25E-03	8.32E-03	1.17E-02	1.58E-02
Friction Torque, T_F	oz-in	3.0	5.0	8.0	10	16	20
Electrical Time Constant, τ_E	ms	0.7	1.1	1.4	1.6	1.9	2.0
Mechanical Time Constant, τ_M	ms	2.76487	1.68976	1.33105	1.16256	0.92031	0.85420
Temperature Rise, Housed TPR'	°C/W	6.3	5.0	4.1	3.5	2.7	2.2
Sensors		No	No	No	No	No	No
Winding Constants							
	Units						
Torque Sensitivity, K_T	oz-in/amp	15.1	30.2	45.4	60.4	90.9	121
Back EMF, K_E	V per rad/s	0.107	0.213	0.321	0.427	0.642	0.855
Terminal Resistance, R_M	ohms (nom)	2.11	2.61	3.10	3.60	4.59	5.59
Terminal Inductance, L_M	mH (nom)	1.4	2.9	4.3	5.7	8.6	11
Voltage, Stalled at Peak Torque, V_P	volts	21.1	26.1	31.0	36.0	45.9	55.9
Amps at Peak Torque, I_P	amps	10	10	10	10	10	10

DB-3000 Series Typical Outline Drawing



Modular	"A"	"B"
	inches	inches
DB-3000-L-1ES	2.00	2.125
DB-3000-K-1ES	1.500	1.570
DB-3000-J-1ES	1.000	1.120
DB-3000-H-1ES	.750	.845
DB-3000-G-1ES	.500	.565
DB-3000-F-1ES	.250	.290