

DB-6000 Matrix Series Specifications

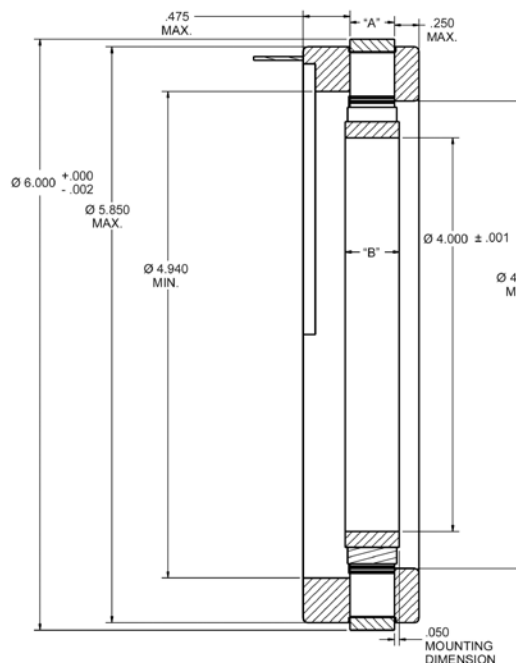
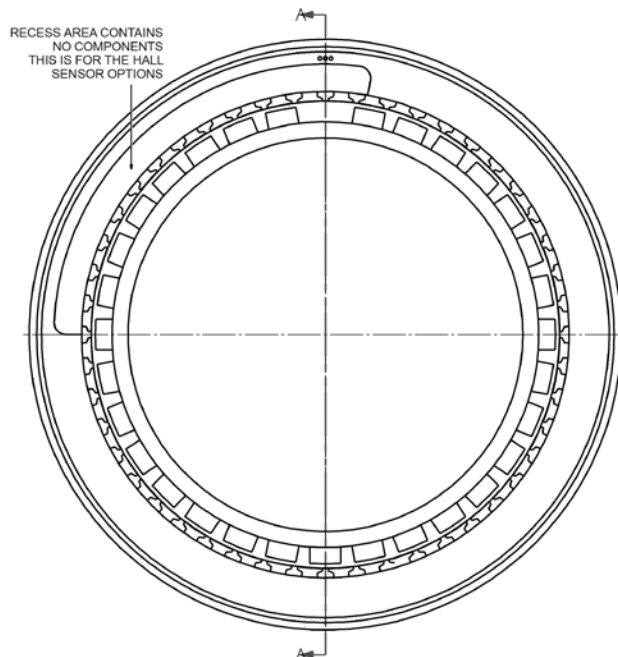
DB-6000 SERIES SPECIFICATIONS @ 25°C

Part Number		DB-6000-B-2ES	DB-6000-C-2ES	DB-6000-D-2ES	DB-6000-E-2ES	DB-6000-F-2ES	DB-6000-G-2ES
Size Constants							
Peak Torque, T_P	oz-in	10083	8407	6727	5048	3368	1686
Motor Constant, K_M	oz-in/ \sqrt{W}	270	243	213	178	137	80.4
Number of Poles		32	32	32	32	32	32
Number of Phases		3"Y"	3"Y"	3"Y"	3"Y"	3"Y"	3"Y"
Weight	oz (nom)	160	139	114	88	62	37
Motor Inertia, J_M	oz-in-s ²	0.637	0.532	0.427	0.321	0.216	0.111
Friction Torque, T_F	oz-in	125	104	83	62	42	19
Electrical Time Constant, τ_E	ms	1.92	1.87	1.76	1.65	1.47	0.91
Mechanical Time Constant, τ_M	ms	1.24	1.27	1.34	1.43	1.62	2.43
*Temperature Rise, Housed TPR	°C/W	0.72	0.90	1.1	1.3	1.7	2.4
Sensors		No	No	No	No	No	No
Winding Constants							
**Torque Sensitivity, K_T	oz-in/amp	504	420	336	252	168	84.3
Back EMF, K_E	V per rad/s	3.56	2.97	2.38	1.78	1.19	0.595
Terminal Resistance, R_M	ohms (nom)	3.48	2.99	2.50	2.00	1.50	1.10
Terminal Inductance, L_M	mH (nom)	6.7	5.6	4.4	3.3	2.2	1.0
Voltage, Stalled at Peak Torque, V_P	volts	69.8	59.9	50.0	40.0	30.0	22.0
Amps at Peak Torque, I_P	amps	20	20	20	20	20	20

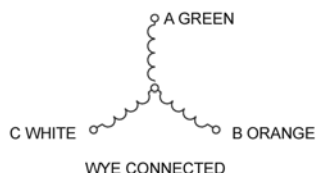
*TPR as listed on the data sheets, is for an un-mounted condition unless otherwise noted. Mounted TPR values are often 50% or less than the un-mounted TPR. For air flow, the TPR may be less than 25% the un-mounted amount and for fluid cooling it may be 10% or less. Many factors affect the TPR value and its change relative to the mounting or external cooling applied. Consult the factory for an more accurate estimate of the motor's TPR.

**Stack lengths from 0.25 to 12.00 inches (6.35 to 304.8 mm) with K_T to 232 N.m/amp

DB-6000 Series Typical Outline Drawing



Modular	"A"	"B"
	inches	inches
DB-6000-B-2ES	2.950	3.050
DB-6000-C-2ES	2.450	2.550
DB-6000-D-2ES	1.950	2.050
DB-6000-E-2ES	1.450	1.550
DB-6000-F-2ES	0.950	1.050
DB-6000-G-2ES	0.450	0.550



Dimensions are in inches

Dimensions and tolerances are in accordance with ASME Y14.5 - 1994

REVISED 04/2015