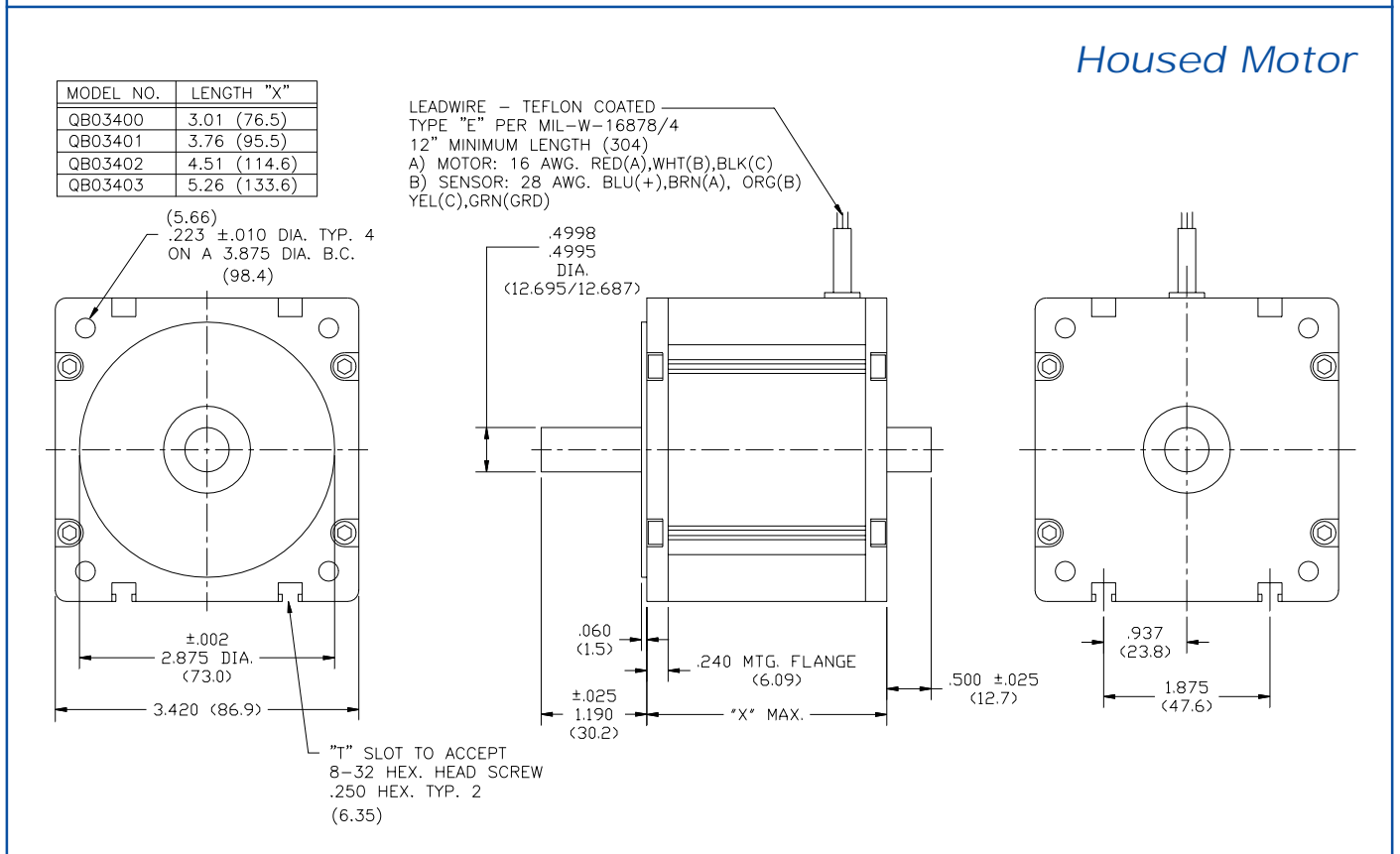


1. MOTOR SUPPLIED AS TWO SEPARATE COMPONENTS, ROTOR ASSEMBLY AND STATOR ASSEMBLY.
2. DIAMETERS "A" AND "B" TO BE CONCENTRIC WITHIN .002 WHEN MOUNTED.
3. STD. HUB LENGTH IS 1.250" LG. .750" HUBS ARE PROVIDED FOR CUSTOMER STACKING BEYOND 1.250"

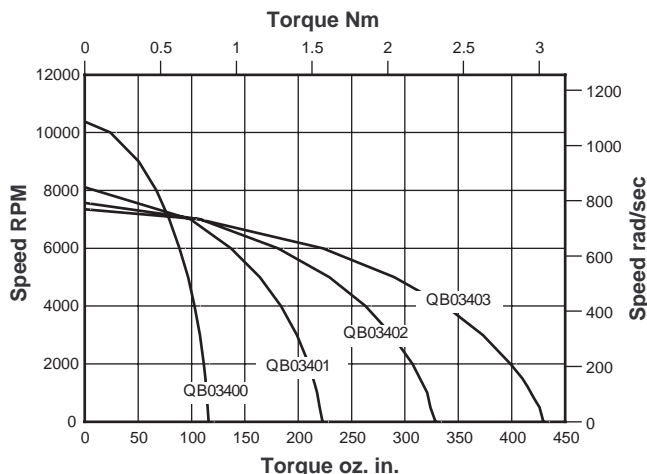
MODEL NO.	"A" STATOR	"B" ROTOR
QB03400	.750 (19.05)	1.250 (31.75)
QB03401	1.500 (38.10)	2.000 (50.80)
QB03402	2.250 (57.15)	2.750 (69.85)
QB03403	3.000 (76.20)	3.500 (88.90)



Electrical and Mechanical Data

Size Constants	SYMBOL	UNIT	QB03400			QB03401			QB03402			QB03403		
Max Cont. Stall Torque	T_C	Nm	0.81			1.57			2.32			3.03		
Max Rated Torque, 25%	T_R	Nm	5.38			10.8			16.2			20.9		
Motor Constant,	K_M	Nm/V	0.142			0.245			0.316			0.369		
Electrical Time Constant	T_E	msec	1.89			2.57			2.78			2.37		
Mechanical Time Constant	T_M	msec	2.59			1.74			1.57			1.53		
Thermal Resistance	TPR	°C/Watt	1.87			1.51			1.15			0.92		
Viscous Damping	F_V	Nm/rpm	5.1E-6			1.0E-5			1.6E-5			2.2E-5		
Max Cogging Torque	T_F	Nm	0.025			0.035			0.046			0.056		
Mechanical Constants														
Frameless Motor Inertia	J_M	Kg.m ²	5.2E-5			1.0E-4			1.5E-4			2.1E-4		
Frameless Motor Weight	Wt	Kg	0.60			1.17			1.73			2.29		
Housed Motor Inertia	J_M	Kg.m ²	5.3E-5			1.0E-4			1.5E-4			2.1E-4		
Housed Motor Weight	Wt	Kg	1.55			2.24			2.92			3.6		
Number of Poles	-	-	6			6			6			6		
Winding Constants														
			A	B	C	A	B	C	A	B	C	A	B	C
Design Voltage	V_P	Volts	24	40	130	24	40	130	24	40	130	24	40	130
Peak Torque	T_P	Nm	5.00	5.38	5.38	10.8	10.8	10.8	14.7	16.2	16.2	17.7	21.1	20.9
Peak Current	I_P	Amperes	51	49	34	81	65	40	91	81	51	96	100	74
Torque Constant, ±10%	K_T	Nm/A	0.098	0.109	0.154	0.133	0.166	0.266	0.162	0.200	0.318	0.184	0.208	0.280
No Load Speed	S_{NL}	RPM	2367	3499	8037	1722	2286	4665	1413	1913	3802	1244	1835	4430
		Rad/s	247	366	841	180	240	488	148	200	408	130	192	464
BEMF Constant, ±10%	K_B	V/KRPM	10.1	11.4	16.1	13.9	17.4	27.8	16.9	20.9	33.3	19.2	21.7	29.3
		V/rad/s	0.097	0.109	0.154	0.133	0.166	0.266	0.162	0.200	0.318	0.184	0.208	0.280
Terminal Resistance, ±12%	R_M	Ohms	0.46	0.58	1.17	0.29	0.46	1.24	0.26	0.40	1.03	0.24	0.31	0.56
Terminal Inductance, ±30%	L_M	mH	0.88	1.11	2.24	0.75	1.18	3.03	0.73	1.11	2.82	0.59	0.75	1.36

Speed/Torque Curves



Continuous Duty Speed/Torque Curves for 100°C Temperature rise.

The continuous duty speed/torque curves provide a guide to the operational capability of the motors. Continuous operation at a loadpoint on or under the curve limits the temperature rise of the motor to 100°C. Although the duration of acceleration or deceleration periods should be checked, the RMS speed and torque combination should also lie on or under the continuous duty curve. The curves assume housed motors mounted to a nominal size of aluminum heatsink in a 25°C ambient environment and still air cooling. Higher ambient temperatures will generally decrease the continuous duty capability of a motor. With increased heatsink areas or improved cooling such as forced air or water, the continuous duty capability of the motor may be increased. However, for most applications, the practical maximum motor temperature is 150°C with Hall effect