

# TYPE 40 BRUSHLESS PERMANENT MAGNET MOTOR

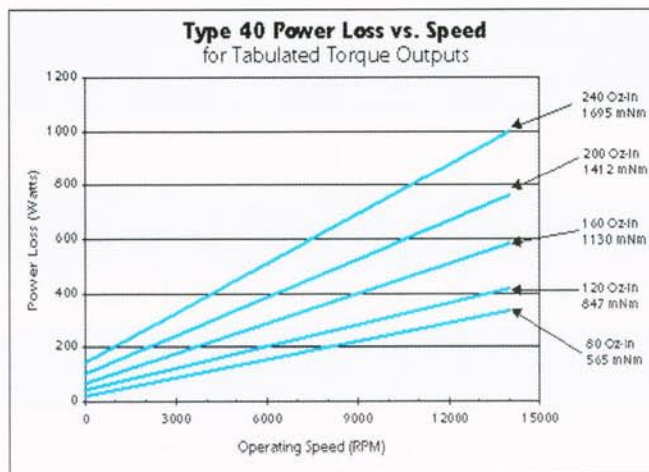
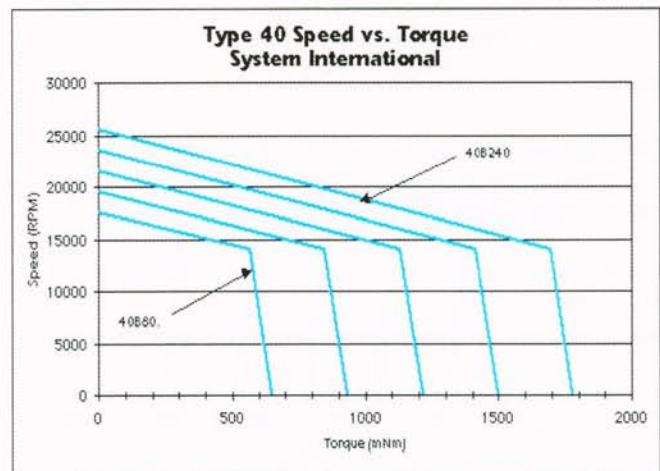
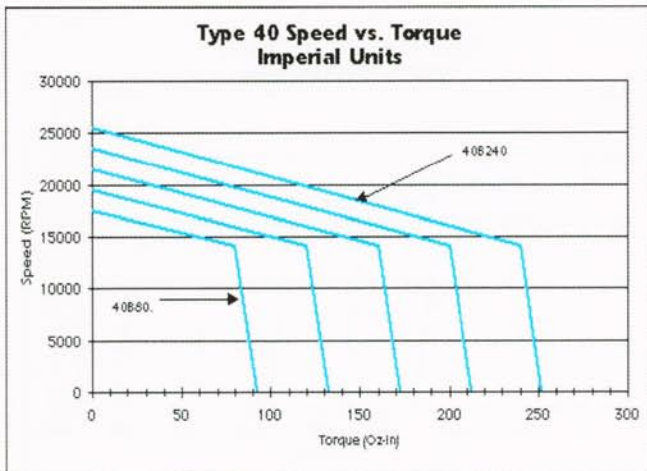
## PERFORMANCE AT +25° C UNIT TEMPERATURE

**K<sub>m</sub>=21**

MOTOR TYPE	DATA AT MAXIMUM POWER OUTPUT					DATA AT STALL			NO LOAD SPEED	TORQUE CONSTANT	
	MOTOR TORQUE		MOTOR SPEED	POWER OUTPUT	POWER LOSS	MOTOR TORQUE		POWER LOSS		270 VOLT SUPPLY (SEE NOTE 3)	
	Oz-In	mNm	RPM	WATTS	WATTS	Oz-In	mNm	Watts	RPM	Oz-In/Amp	mNm/Amp
40B80.	80	565	14000	828	330	92	650	19	17500	20	141
40B120	120	847	14000	1242	415	132	931	39	19000	18	127
40B160	160	1130	14000	1656	580	172	1214	67	22000	16	112
40B200	200	1694	14000	2071	760	212	1496	102	23500	15	106
40B240	240	2033	14000	2485	1000	252	1779	144	25000	14	99

**Notes:**

1. Other performance characteristics are available on request.
2. Two phase or three phase windings as required.
3. To determine torque constant at other supply voltages, multiply the tabulated torque constant by your operational voltage, then divide this figure by 270.
4. Unit operational temperature range: -80° C to +225° C. Wider temperature ranges available.
5. See pages 14 through 17 for motor temperature rise data.



TYPE 40 CONSTANTS (@ 25° C - For Reference Only)			
Parameter	Symbol	Units	Value
Inertia	$J_M$	Oz-In-sec <sup>2</sup>	1.5 E-03
		kgm <sup>2</sup>	1.0 E-05
Motor Constant	$K_M$	Oz-In/w <sup>-5</sup>	21
		mNm/w <sup>-5</sup>	148
Electrical Time Constant (L/R)	$\tau_e$	sec	3.0 E-03
Coulomb Friction	$F_C$	Oz-In	3.0
		mNm	21
Viscous Friction	$B_V$	Oz-In/rpm	8.57 E-04
		mNm/rpm	6.05 E-03