

# TYPE 20 BRUSHLESS PERMANENT MAGNET MOTOR

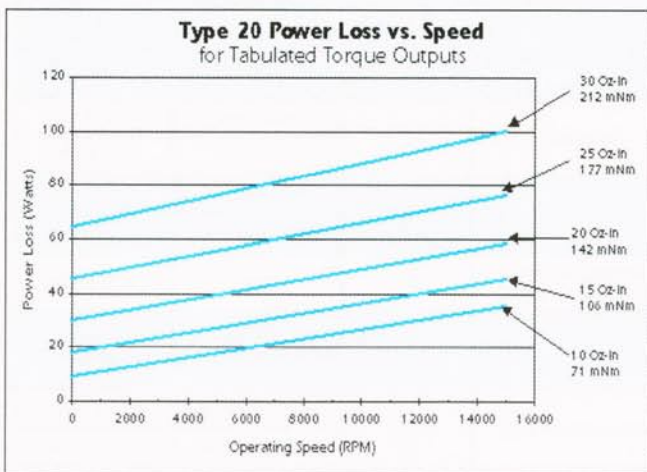
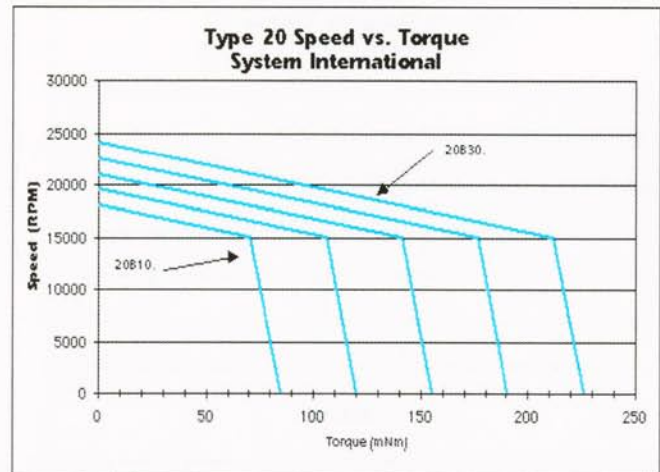
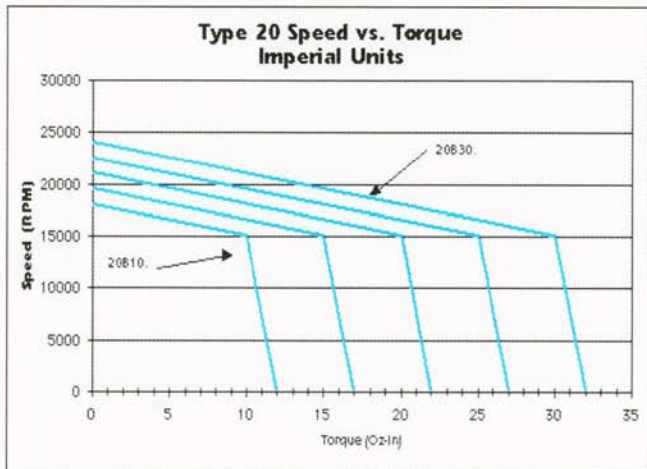
PERFORMANCE AT +25° C UNIT TEMPERATURE

**K<sub>m</sub>=4.0**

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
20B10.	10	71	15000	111	35	12	85	9	18500	19.1	135
20B15.	15	106	15000	166	45	17	120	18	19000	18.5	131
20B20.	20	141	15000	222	58	22	155	30	20000	17.4	123
20B25.	25	177	15000	277	76	27	191	45	21000	16.7	118
20B30.	30	212	15000	333	100	32	226	64	24000	15.1	107

**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 20 CONSTANTS (@ 25° C - For Reference Only)			
Parameter	Symbol	Units	Value
Inertia	$J_M$	Oz-In-sec <sup>2</sup>	1.0 E-04
		kgm <sup>2</sup>	7.1 E-07
Motor Constant	$K_M$	Oz-In/w <sup>-5</sup>	4.0
		mNm/w <sup>-5</sup>	28
Electrical Time Constant (L/R)	$\tau_e$	sec	9.0 E-04
Coulomb Friction	$F_C$	Oz-In	0.6
		mNm	4.2
Viscous Friction	$B_V$	Oz-In/rpm	1.33 E-04
		mNm/rpm	9.41 E-04