

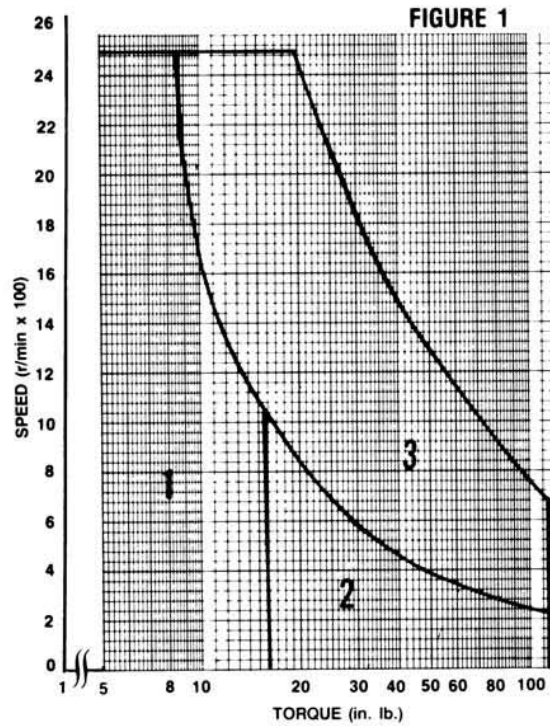
Motor Specifications

Typical at 25°C			4" Diameter Motors		
	Symbol	Unit	M111	M112	M113
Operating Parameters					
Continuous Rated Torque at stall (TENV)	T_s	lb-in	16	25	36
Continuous Rated RMS Current at Stall (TENV)	I_c	ampere	5.6	8.6	12.5
Maximum Winding Temperature by Resistance	Θ_a	°C	155	155	155
Absolute Maximum Peak Current before Demagnetization	I_m	ampere	40	48	70
Mechanical Parameters					
Rotor Inertia	J_m	lb-in-sec ²	.010	.013	.020
Maximum Theoretical Acceleration at Stall	$\ddot{\Theta}_{max}$	rad/sec ²	10375	9773	9103
Mechanical Time Constant	t_m	second	.014	.013	.014
Thermal Time Constant	t	minute	50	50	55
Static Friction	T_f	lb-in	1	1.25	1.5
Weight		lb	12.3	14.0	18.9
Electrical Parameters					
Back EMF Constant ±10%	K_e	v/1000 r/min	34.1	34.8	34.2
	K_v	v-sec/rad	.325	.332	.326
Torque Constant ±10%	K_t	lb-in/amp	2.88	2.94	2.89
Armature DC Resistance: (less brushes) ±10% (including brushes)	R_a	Ohm	1.045	.840	.548
	R_m		1.313	1.010	.668
Armature Inductance	L_a	mH	3.5	3.0	2.2
Electrical Time Constant	t_e	ms	2.7	.29	3.2
Viscous Damping Coefficient (Zero Z Source)	F_o	lb-in-sec/rad	.715	.966	1.410

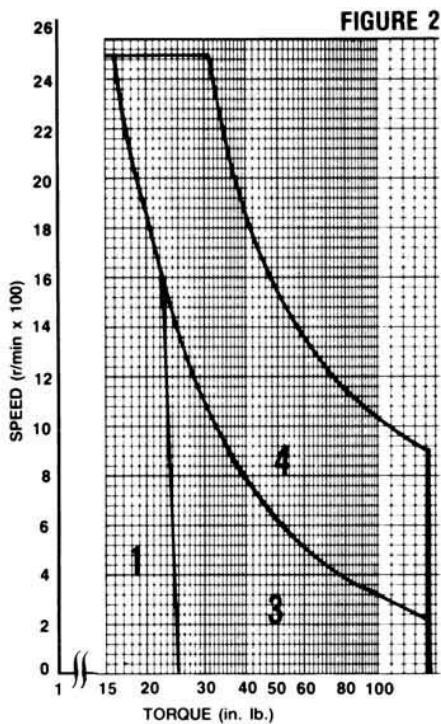
* This data is intended to aid you in making motor application decisions. Should you desire assistance in interpretation of data, please consult a Gettys application specialist.

Motor Performance Information*

D.C. OPERATION FOR M111 MOTOR



D.C. OPERATION FOR M112 MOTOR



D.C. OPERATION FOR M113 MOTOR

