

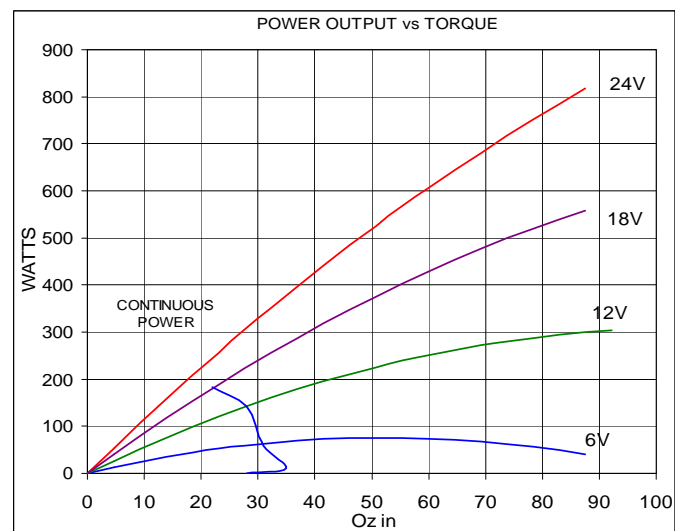
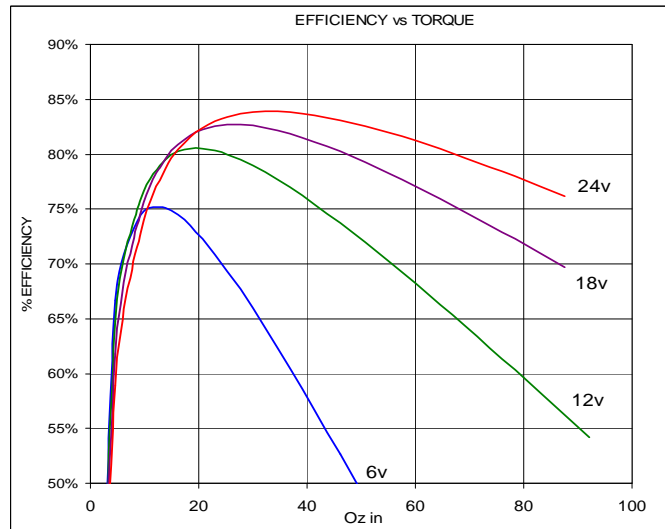
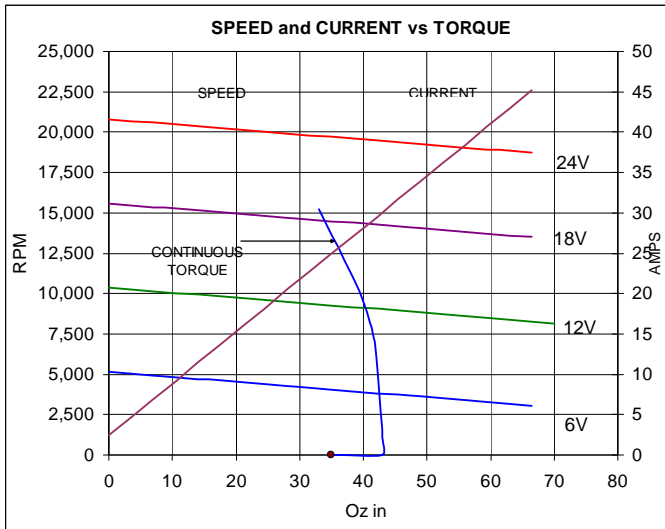


- High power density
- High peak torque
- High efficiency
- No cogging or hysteresis torque
- No iron losses
- No laminations
- Rapid acceleration
- Low inductance armature
- Compact and lightweight

TGB1710 BRUSH MOTOR					
	UNITS	IMPERIAL		SI	
Peak torque ¹	Tpk	160	oz-in.	1.13	Nm
Peak current	Ipk	79	amps		
Maximum continuous rating ² :					
Torque -	Tc	22	oz-in.	0.16	Nm
Speed -	Wc	11,234	rpm		
Current -	Ic	18.2	amps		
Voltage -	Vc	18.2	VDC		
Shaft Power	Pc	183	watts		
Maximum Locked Rotor Torque ²	Tlr	28	ozin	0.20	Nm
Maximum Locked Rotor Current	Ilr	23.5	Amps		
No load speed	Wnl	11,947	Rpm		
No load voltage	Vnl	18	Volts		
No load current	Inl	1.3			
Motor constant	Km	6.0	oz-in./sqrt (W)	0.042	Nm/sqrt(W)
Torque constant ⁵	Kt	2.02	oz-in./amp	0.014	Nm/amp
Back EMF constant ⁵	Kv	0.014	v/rad./s		
Back EMF constant ⁵	Ke	669	rpm/volt		
Internal winding resistance	Rint	0.072	ohms		
Terminal Resistance	Rt	0.115	ohms		
Cogging and hysteresis torque	Tc, Th	0	oz-in.		
Viscous drag torque	Tac	0.1	oz-in./krpm	0.71	mNm/krpm
Friction torque	Tfr	1.5	oz-in.	10.6	mNm
Aramature inductance	L	1.1	micro H		
Mechanical time constant	Tm	6.4	mS		
Electrical time constant	Te	0.010	mS		
Maximum system Efficiency	Efficiency	84	%		
Motor weight, total	Wt. Total	22.0	oz	624	grams
Rotor inertia	J	1.60E-03	oz-in.-sec2	1.13E-05	Kg-m^2
Max housing temperature ³	Temp rot	70	°C		
Max armature winding temperature ⁴	Temp wdg	200	°C		
NOTES:					
1-Torque vs current curve is linear. Limit peak current duration to 200 msec max					
2-Tested with the motor on a 3"x 0.5"x 5.5" bracket.					
3-Limited by maximum magnet temperature.					
4-Coil is tested at 100 deg C, maximum coil capability limited to 200C by coil resin.					
5- Tolerances on Kt, Ke & Kv = +/- 10%, Rt = +/- 12%					

Model TGB1710 Performance Curves

English Units



Metric Units

