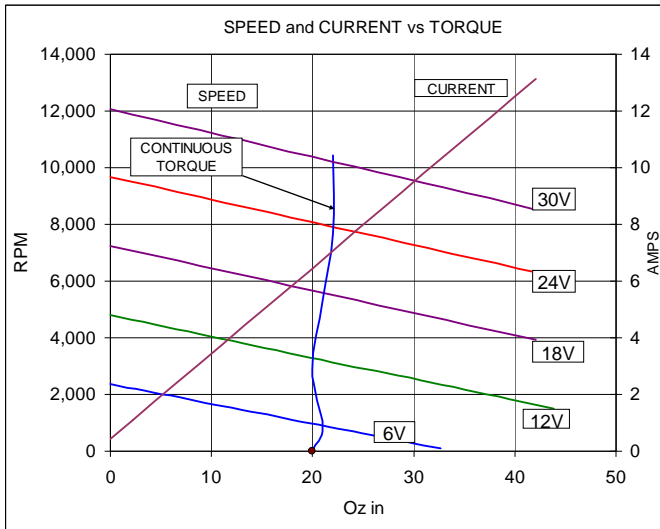


- High power density
- High peak torque
- High efficiency
- No cogging or hysteresis torque
- No iron losses
- No laminations
- Rapid acceleration
- Low inductance armature
- Compact and lightweight

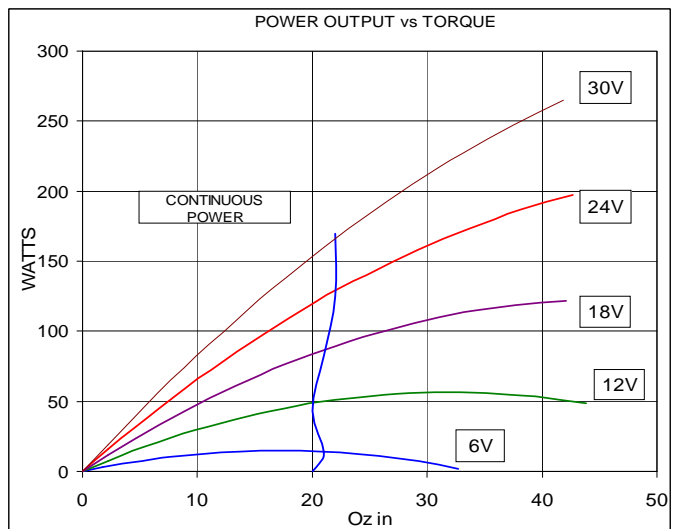
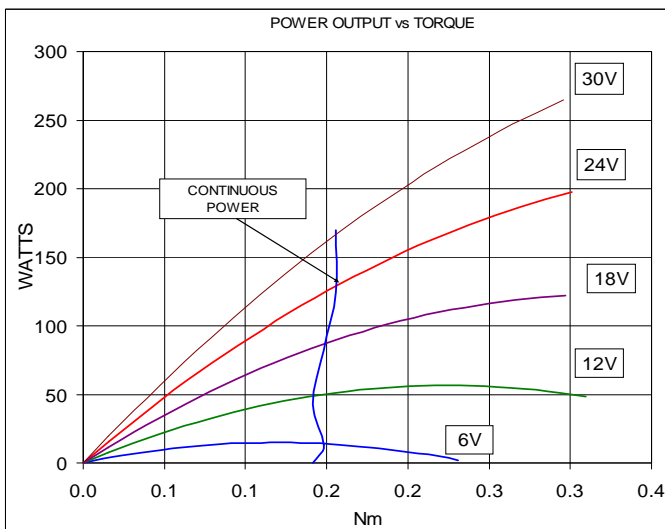
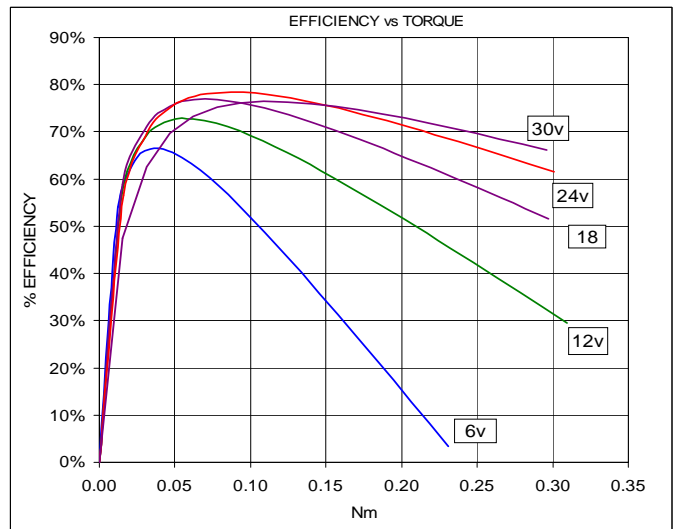
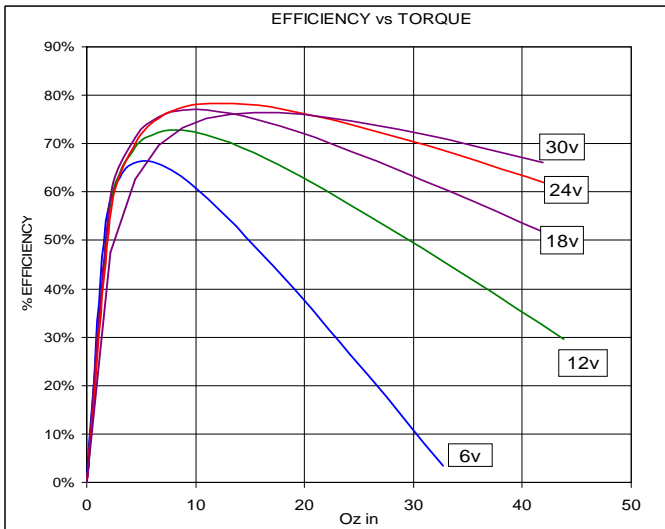
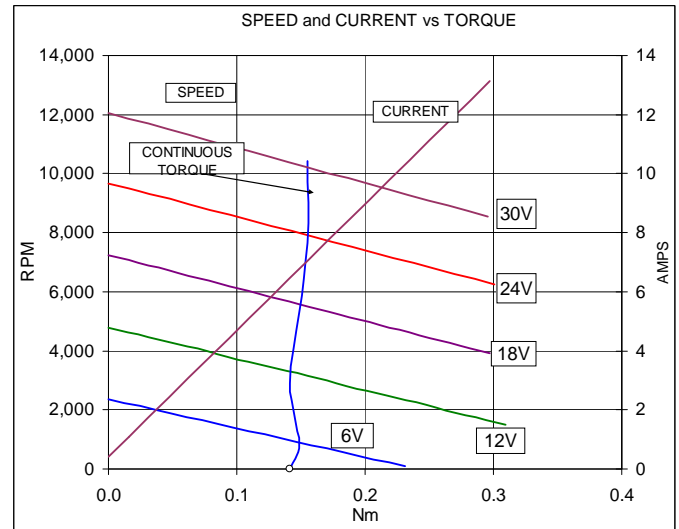
TGB1612 BRUSH MOTOR					
	UNITS	IMPERIAL		SI	
Peak torque ¹	Tpk	110	oz-in.	0.78	Nm
Peak current	Ipk	33	amps		
Maximum continuous rating ² :					
Torque -	Tc	22	oz-in.	0.16	Nm
Speed -	Wc	10,439	rpm		
Current -	Ic	7.4	amps		
Voltage -	Vc	30	VDC		
Shaft Power	Pc	170	watts		
Maximum Locked Rotor Torque ²	Tlr	20	ozin	0.14	Nm
Maximum Locked Rotor Current	Ilr	6.6	Amps		
No load speed	Wnl	12,063	Rpm		
No load voltage	Vnl	30	Volts		
No load current	Inl	0.8			
Motor constant	Km	4.2	oz-in./sqrt (W)	0.030	Nm/sqrt(W)
Torque constant ⁵	Kt	3.30	oz-in./amp	0.023	Nm/amp
Back EMF constant ⁵	Kv	0.023	v/rad./s		
Back EMF constant ⁵	Ke	410	rpm/volt		
Internal winding resistance	Rint	0.57	ohms		
Terminal resistance ⁵	Rt	0.62	ohms		
Cogging and hysteresis torque	Tc, Th	0	oz-in.		
Viscous drag torque	Tac	0.05	oz-in./krpm	0.35	mNm/krpm
Friction torque	Tfr	1.7	oz-in.	12.0	mNm
Aramture inductance	L	6.3	micro H		
Mechanical time constant	Tm	9.1	mS		
Electrical time constant	Te	0.010	mS		
Maximum system Efficiency	Efficiency	84	%		
Motor weight, total	Wt. Total	12.0	oz	340	grams
Rotor inertia	J	1.13E-03	oz-in.-sec2	7.98E-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 TGB1612 Performance Curves

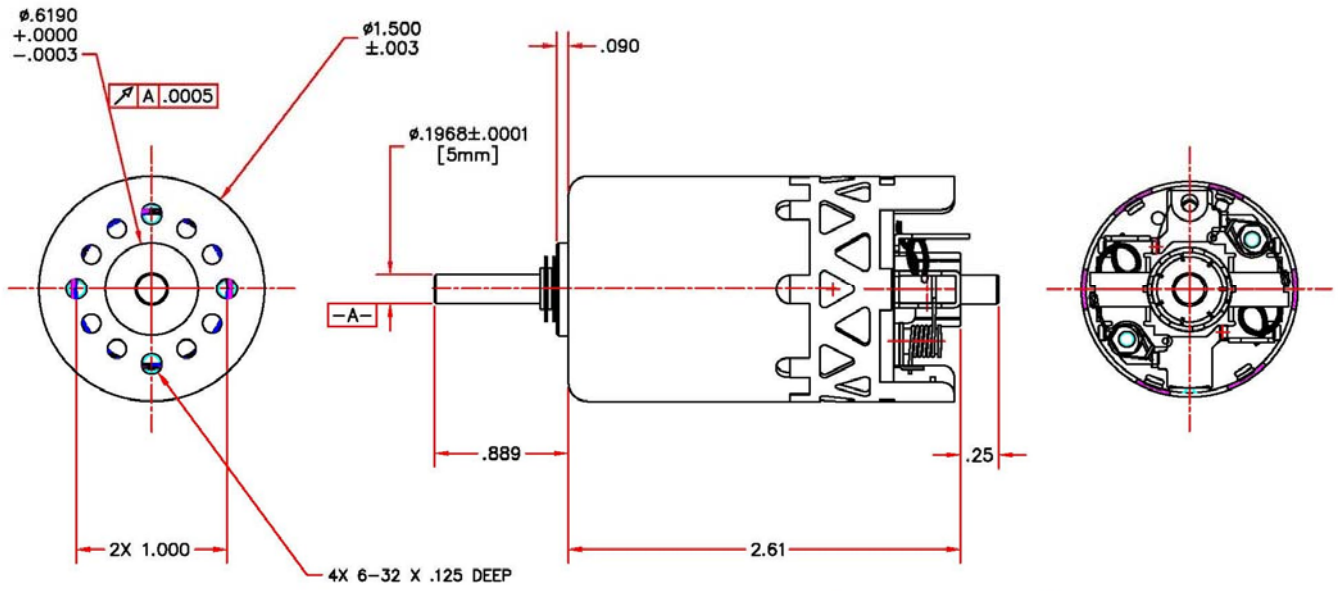
English Units



Metric Units



TGB1612 OUTLINE DRAWING



THINGAP LLC
(805) 477-9741
(805) 477-7535 Fax
www.thingap.com