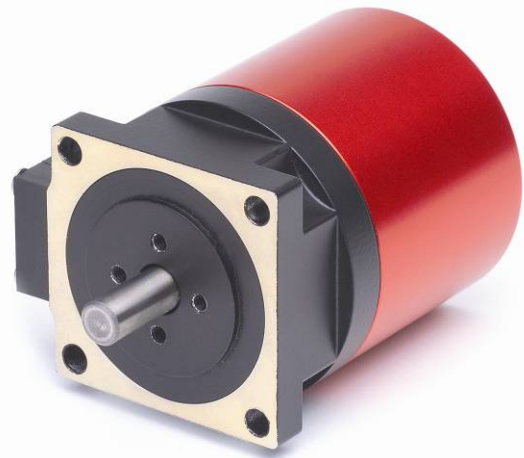
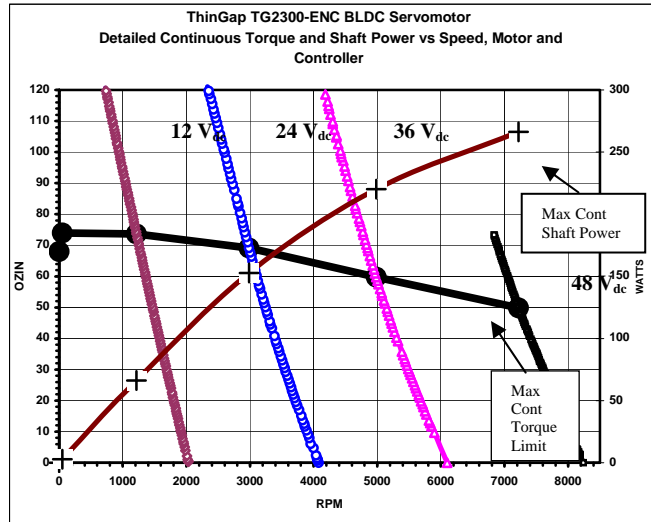
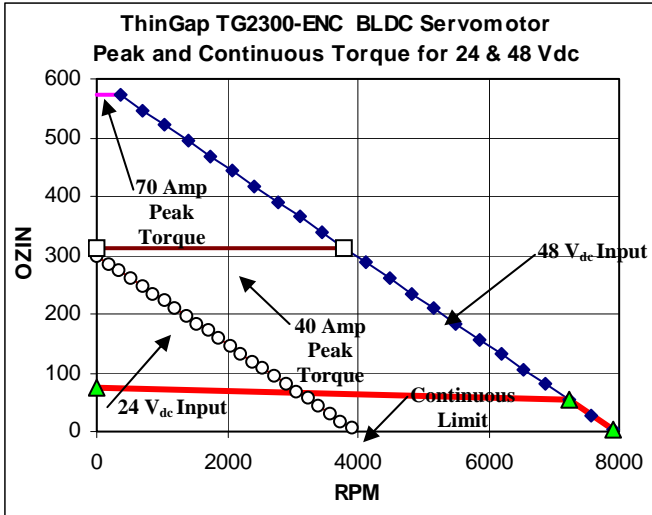
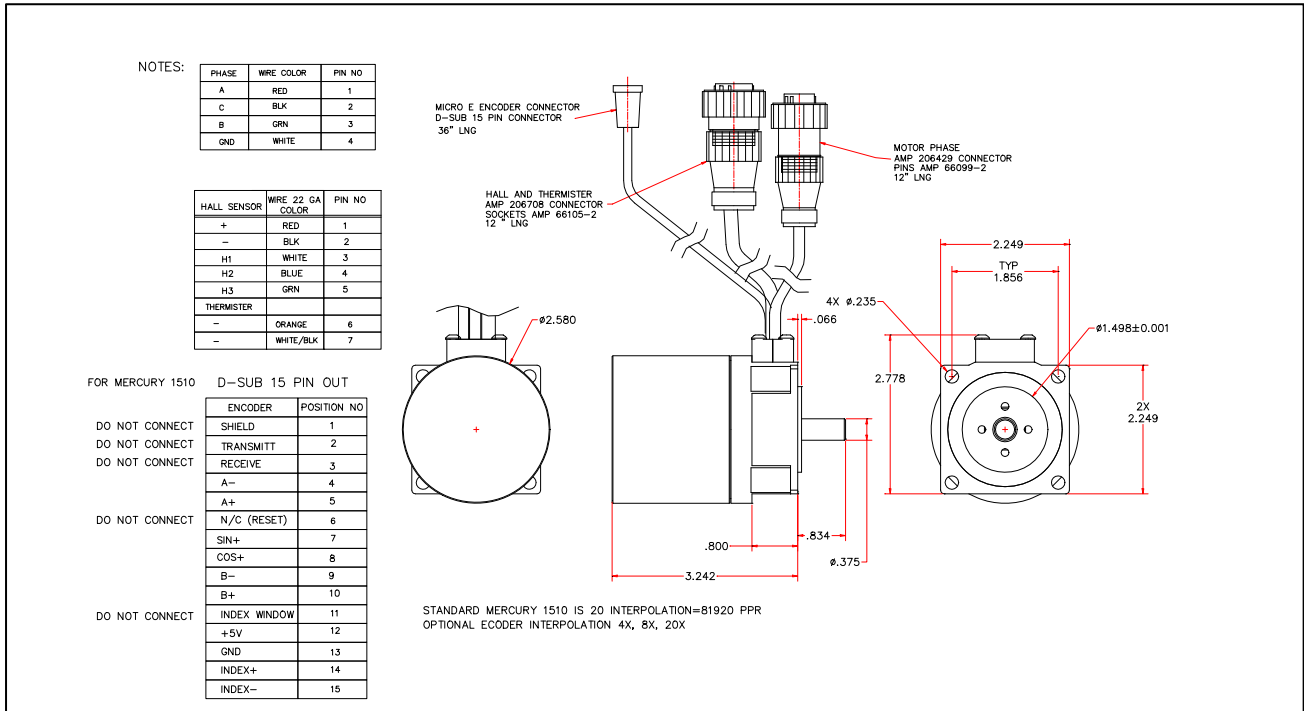


- 574 oz-in. peak torque
- NEMA 23
- No cogging or hysteresis torque
- High power density and efficiency
- No torque-constant roll-off due to saturation
- Linear torque to current ratio
- Reduces need for gearbox
- 12 to 48 V_{DC} operation
- Smooth, predictable power
- 8 Pole


TG2300-ENC BRUSHLESS DC MOTOR

Peak torque ¹	(T _{peak})	574		oz-in.
Peak current –*	(I _{peak})	70		amps
Power density	-	7.5		W/oz
Continuous voltage	-	48	12	V _{DC}
Shaft power ²	P _{cont}	266	66	W
Speed	ω	7200	1230	rpm
Torque	T _{cont}	50	72	oz-in.
Current		6.5	9.2	amps
Thermal resistance	TPR	1.4	2.0	°C/W
No load speed	ω	4,060		rpm @ 24 V _{DC}
Motor constant	K _m	14.7		oz-in./sqrt (W)
Torque constant -trap drive	K _t	8.2		oz-in./amp
Back EMF constant	K _e	5.9		V/krpm
No load DC current	I _o	0.49		amps @ 24 V _{DC}
Terminal resistance	R _t	0.31		Ω
Cogging and hysteresis torque	T _c /T _h	0		oz-in.
Viscous drag torque	T _{ac}	0.52		oz-in./krpm
Friction torque	T _{fr}	0.5		oz-in.
Armature inductance	L	10		μH
Mechanical time constant	T _m	17		mS
Electrical time constant ()	T _e	0.032		mS
Bearing type	-	Ball		-
Motor weight ⁴	W _t	35.3		oz
Rotor inertia	J	0.0261		oz-in.-sec ²
Max armature temperature ³	-	100		°C
Max housing temperature ³	-	60		°C

1-Torque vs current relationship is linear. Thermally limited to short duration. 2-Motor testing performed at 25 °C ambient with mounting heat sink of 3" x 0.375" x 8" aluminum. 3-Magnet temperature limited. 4-Weight shown with cables, connectors, and encoder. 5- Tests performed using a 15-amp trapezoidal BLDC PWM controller with 50 μH inductor each leg that adds .027 Ω phase resistance. Input power includes driver and 50uH inductor losses. Encoder limited to 5,200 rpm.



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