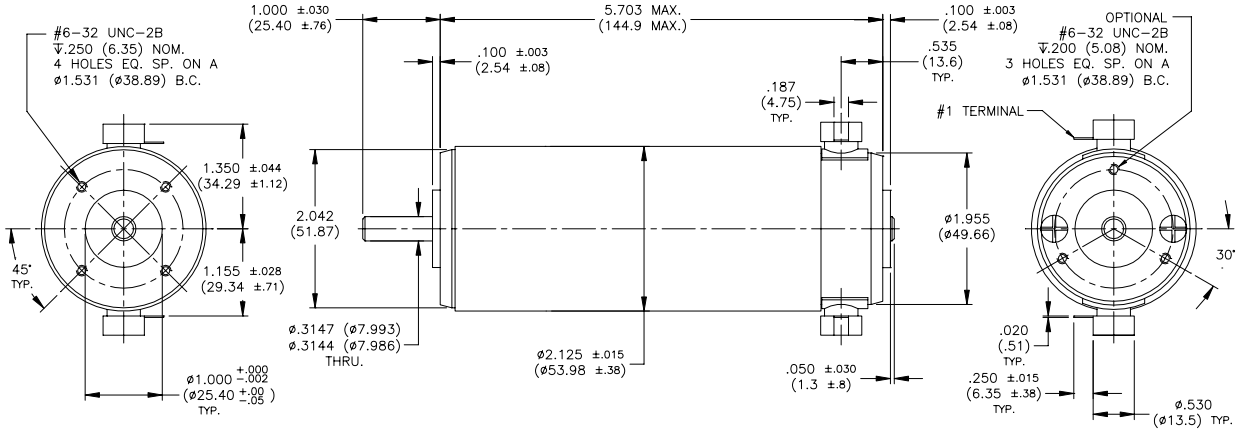
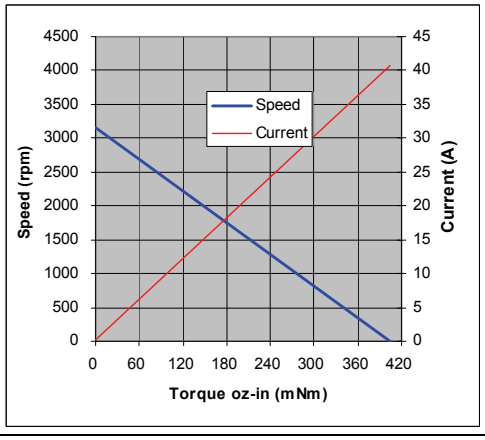
14207 SERIES DC SERVO MOTOR



Motor Data	Symbol	Units	Winding Designation							
			15.2 V	19.1 V	24.0 V	30.3 V	38.2 V	48.0 V	60.0 V	76.4 V
Supply Voltage (Reference)	V_s	V	15.2	19.1	24.0	30.3	38.2	48.0	60.6	76.4
Continuous Torque	T_c	oz-in	50	50	50	50	50	50	50	50
		Nm	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Speed @ Cont. Torque	S_c	rpm	3260	3110	3170	3170	3190	3200	3200	3200
Current @ Cont. Torque	I_c	A	11.8	8.83	7.06	5.56	4.41	3.53	2.79	2.20
Continuous Output Power	$P_{o,c}$	W	121	115	117	117	118	118	118	118
Motor Constant	K_M	oz-in/√W	12	13	13	13	13	13	13	13
		Nm/√W	0.086	0.090	0.092	0.093	0.094	0.093	0.094	0.094
Torque Constant	K_T	oz-in/A	6.00	8.00	10.0	12.7	16.0	20.0	25.3	32.0
		Nm/A	0.0424	0.0565	0.0706	0.0897	0.113	0.141	0.179	0.226
Voltage Constant	K_E	V/krpm	4.44	5.92	7.39	9.39	11.8	14.8	18.7	23.7
		V s/rad	0.0424	0.0565	0.0706	0.0897	0.113	0.141	0.179	0.226
Terminal Resistance	R_{mt}	Ω	0.24	0.39	0.59	0.93	1.46	2.29	3.64	5.78
Inductance	L	mH	0.31	0.56	0.87	1.40	2.23	3.48	5.58	8.93
No-Load Current	I_{nl}	A	0.51	0.38	0.30	0.24	0.19	0.15	0.12	0.090
No-Load Speed	S_{nl}	rpm	3330	3140	3160	3140	3140	3160	3150	3140
Peak Current (Stall)	I_{pk}	A	63.3	49.0	40.7	32.6	26.2	21.0	16.6	13.2
Peak Torque (Stall)	T_{pk}	oz-in	377	389	404	411	416	416	418	420
		Nm	2.66	2.75	2.85	2.90	2.93	2.94	2.95	2.97
Coulomb Friction Torque	T_f	oz-in	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
		Nm	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016
Viscous Damping Factor	D	oz-in/krpm	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
		Nm s/rad	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05
Electrical Time Constant	τ_e	ms	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.5
Mechanical Time Constant	τ_m	ms	6.3	5.8	5.6	5.5	5.4	5.4	5.4	5.4
Thermal Time Constant	τ_{th}	min	32	32	32	32	32	32	32	32
Thermal Resistance	R_{th}	°C/W	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max. Winding Temperature	θ_{max}	°C	155	155	155	155	155	155	155	155
Rotor Inertia	J_r	oz-in-sec^2	6.7E-03	6.7E-03	6.7E-03	6.7E-03	6.7E-03	6.7E-03	6.7E-03	6.7E-03
		kg m^2	4.7E-05	4.7E-05	4.7E-05	4.7E-05	4.7E-05	4.7E-05	4.7E-05	4.7E-05
Motor Weight (Mass)	w_M	oz	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
		g	1545	1545	1545	1545	1545	1545	1545	1545

Performance (24 V Winding)



Standard Features

- Sintered Bronze Bearings
- 2-pole Stator
- Ceramic Magnets
- 11-slot Armature
- Heavy-gauge Steel Housing
- Silicon Steel Laminations
- Copper-graphite Brushes
- Diamond-Turned Commutator

Complementary Products

- G42A Planetary Gearbox
- G42B Planetary Gearbox
- G51A Spur Gearbox
- E30A Optical Encoder
- E30B Optical Encoder
- E35A Optical Encoder
- E60A Optical Encoder
- E60B Optical Encoder

Notes:

[1] All values specified at 25°C ambient temperature and without heat sink.

[2] Peak values are theoretical and supplied for reference only.

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