



Pittman Industrial Grade Gear Head Motors
Motor data supplied by the manufacturer

MOTOR DATA

Parameter	Symbol	Units	19.7:1 Reduction Standard Motor	19.7:1 Reduction Competition Motor	65.5:1 Reduction Motor	218.4:1 Reduction Motor
Model Number			GM9234E552-R2	GM9234E765-R1	GM9236E854	GM9234E853
Rated Power	Po	Watts	22.1	22.1	27.57	22.1
1. *Motor Constant	KM	oz-in/root W	3.01	3.01	4.11	3.01
2. *Peak Torque (Stall)	TP	oz-in	41.3	41.3	61.8	41.3
3. No Load Speed	SO	rpm	6151	6151	4916	6151
4. Motor Friction Torque	TF	oz-in	0.60	0.60	0.80	0.60
5. Viscous Damping Factor	D	oz-in/krpm	0.0387	0.0387	0.0525	0.0387
6. Damping Constant	KD	oz-in/krpm	6.68	6.68	12.5	6.68
7. Electrical Time Constant	~E	ms	0.85	0.85	1.06	0.85
8. Mechanical Time Constant	~M	ms	9.3	9.3	8.5	9.3
9. Thermal time Constant	~TH	min	12.0	12.0	13.5	12.0
10. Thermal Impedance	RTH	degree C/W	17.1	17.1	13.5	17.1
11. Max Winding Temperature	@MX	degree C max	155	155	155	155
12. Motor Inertia	JM	oz-in-sec ²	5.9E-04	5.9E-04	1.0E-03	5.9E-04
13. Motor and Gearbox Weight	WM	oz	17.1	17.5	13.8	18
14. Motor and gearbox Length	L1	in. max	3.676	3.676	4.326	3.676

MOTOR WINDING DATA

@ 25 degree C

15. Voltage	E	V	15.1	9.55	12.0	30.3
16. Torque Constant	KT	oz-in/amp	3.29	2.04	3.25	6.50
17. Back EMF constant	KE	v/krpm	2.43	1.91	2.40	4.81
18. Terminal Resistance	RT	ohm	1.26	0.56	0.71	4.62
19. Inductance	L	mH	1.02	0.39	0.66	3.97
20. No load Current	Io	A	0.26	0.42	0.33	0.13
21 *Peak Current (Stall)	Ip	A	12.1	17.0	16.9	6.55

OUT PUT SHAFT

22. Max Continuous Torque	T_R	oz-in	175	500	480	500
23. RPM @ rated voltage **		RPM	236 +/- 10%	300 +/- 10%	71	21

* Theoretical values supplied for reference only
 ** Motor RPM is variable