



08GS61 ****.3

Electrical Data	****	107	105	105C	
1 Nominal Voltage	V	2	4.5	6	Volt
2 No-Load Speed	n_0	7,000	10,670	11,000	rpm
3 No-Load Current	I_0	6.0	4.0	3.0	mA
4 Terminal Resistance	R	12.6	30.0	45.8	Ω
5 Output Power	P_{2max}	0.5	0.5	0.5	W
6 Stall Torque	mNm	0.42 (0.06)	0.59 (0.09)	0.64 (0.1)	mNm (oz-in)
7 Efficiency	η_{max}	65	70	72	%
8 Max continuous speed	$n_{e max}$	12,000	12,000	12,000	rpm
9 Max continuous torque	$M_{e max}$	0.64 (0.1)	0.64 (0.1)	0.66 (0.1)	mNm (oz-in)
10 Max continuous current	$I_{e max}$	0.25	0.17	0.13	A
11 Back-EMF Constant	k_E	0.28	0.41	0.53	mV/rpm
12 Torque Constant	k_M	2.63	3.92	5.10	mNm/A
13 Motor Regulation	R/k^2	1,820.0	1,950.0	1,760.0	$10^3/Nms$
14 Friction Torque	T_F	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	mNm (oz-in)
15 Rotor Inductance	L	0.06	0.11	0.20	mH
16 Mechanical Time Constant	τ_m	5.5	5.9	5.3	ms
17 Rotor Inertia	J	0.03	0.03	0.03	$g \cdot cm^2$
18 Thermal Resistance (rotor/body)	R_{th1} / R_{th2}	20/100	20/100	20/100	$^{\circ}C/W$
19 Thermal Time Constant (rotor/stator)	τ_{w1}/τ_{w2}	5/100	5/100	5/100	$^{\circ}C/W$
20 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F)			$^{\circ}C (^{\circ}F)$
	rotor	100°C (212°F)			$^{\circ}C (^{\circ}F)$
21 Shaft Load max.:		With sleeve bearings			
at 3,000 rpm (2mm from bearing)	-radial	0.5 (1.8)			N (oz)
at 3,000 rpm	-axial	30 (107.9)			N (oz)
22 Shaft play:	-radial	<0.015 (0.0006)			mm (inch)
	-axial	0.100 (0.0039)			mm (inch)
23 Weight	g	3.8 (0.14)			g (oz)

Execution	
Gearbox	Single Shaft
R10	5
MR2	Contact Us

Max. Recommended Speed

