



Dimensions in mm.

Electrical Data	Symbol	107C	10NS61 .... 5 105C	104C	Unit
1 Nominal Voltage	V	3	6	9	Volt
2 No-Load Speed	$n_0$	10,100	10,400	10,700	rpm
3 No-Load Current	$I_0$	11.0	4.2	3.6	mA
4 Terminal Resistance	R	10.8	43.0	98.0	$\Omega$
5 Output Power	$P_{2max.}$	0.7	0.7	0.7	W
6 Stall Torque	mNm	0.76 (0.11)	0.75 (0.11)	0.71 (0.1)	mNm (oz-in)
7 Efficiency	$h_{max.}$	64	68	64	%
8 Max Continuous Speed	$n_{e max.}$	10,000	10,000	10,000	rpm
9 Max Continuous Torque	$M_{e max.}$	0.9 (0.13)	0.9 (0.13)	0.85 (0.13)	mNm (oz-in)
10 Max Continuous Current	$I_{e max.}$	0.34	0.17	0.12	A
11 Back-EMF Constant	$k_E$	0.29	0.57	0.81	mV/rpm
12 Torque Constant	$k_M$	2.72	5.40	7.70	mNm/A
13 Motor Regulation	R/k <sup>2</sup>	1,500.0	1,500.0	1,600.0	10 <sup>3</sup> /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	0.01	0.02	0.03	mH
16 Mechanical Time Constant	$\tau_m$	7.3	7.3	8.1	ms
17 Rotor Inertia	J	0.05	0.05	0.05	g-cm <sup>2</sup>

General Data					
18 Thermal Resistance (rotor/body)	$R_{th1}/R_{th2}$	23/48			°C/W
19 Thermal Time Constant (rotor/stator)	$t_{W1}/t_{W2}$	5/150			S
20 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F) 100°C (212°F)			°C (°F)
	rotor				°C (°F)
21 Shaft Load Max.: (2 mm. from bearing)	-radial	With sleeve bearings 0.5 (1.8)			N (oz)
	-axial	30 (107.9)			N (oz)
	-radial	<0.015 (0.0006)			mm (inch)
22 Shaft Play:	-axial	0.100 (0.0039)			mm (inch)
	-axial				mm (inch)
23 Weight	g	7 (0.25)			g (oz)

Execution Table

Gearbox	Single Shaft
R10	3

