

MicroMo[®] MOTORS

PM DC Motors Series GNM 21

- Fits our Gearhead Series G1.1, G4, G4A, and G5
- Available with Optical Encoder (96 - 1024 CPR)
- Available with Driver Board SR 63.05
- Ball Bearings Standard

Continuous Duty Ratings:⁽¹⁾

Speeds up to 6,000 rpm
 Torque up to 2.70 oz-in
 Output Power up to 12 Watts

Electrical Specifications:

For Motor Type GNM	@22°C (72°F)			
	2130	2130	2145	2145
Nominal Supply Voltage (Volts DC)	12	24	12	24
Armature Resistance (Ohms) ±10%	2.1	8.2	1.4	5.5
Maximum Output Power (Watts)	11	11.7	19.3	19.2
Maximum Efficiency (%)	40	41	51	50
No Load Speed (rpm) ± ~7%	6,960	7,103	7,354	7,263
No Load Current (mA) +10% -25%	670	339	660	325
Stall Torque (oz-in)	8.63	8.92	14.2	14.3
Friction Torque (at no load speed)(oz-in)	1.32	1.32	1.32	1.32
Velocity Constant (rpm/Volt)	685	347	675	333
Back EMF Constant (mV/rpm)	1.46	2.88	1.48	3.00
Torque Constant (oz-in/A)	1.97	3.89	2.00	4.05
Maximum Peak Current (Amps) ⁽²⁾	12.8	6.4	18.5	9
Armature Inductance (mH)	1.5	4.8	.85	3.3

Mechanical Specifications:

Mechanical Time Constant (ms)	35.5	35.6	30.2	29.7
Armature Inertia (x10 ⁻⁴ oz-in-sec ²)	4.53	4.53	6.1	6.1
Thermal Resistances (°C/W)				
Rotor to Ambient	6.6	6.6	6.4	6.4
Thermal Time Constant (minutes)	15	15	15	15
Motor Weight (oz)	9.7	9.7	12.3	12.3
Maximum Ambient Temperature	40°C (104°F) All Types			
Motor Operating Temperature Range	-20°C to 100°C (-4°F to 212°F)			

NOTE: All motor specifications at DC voltage with ripple voltage not exceeding 5%. For greater ripple voltage values, derate specifications by 30%.

(1)Ratings are presented independent of each other.

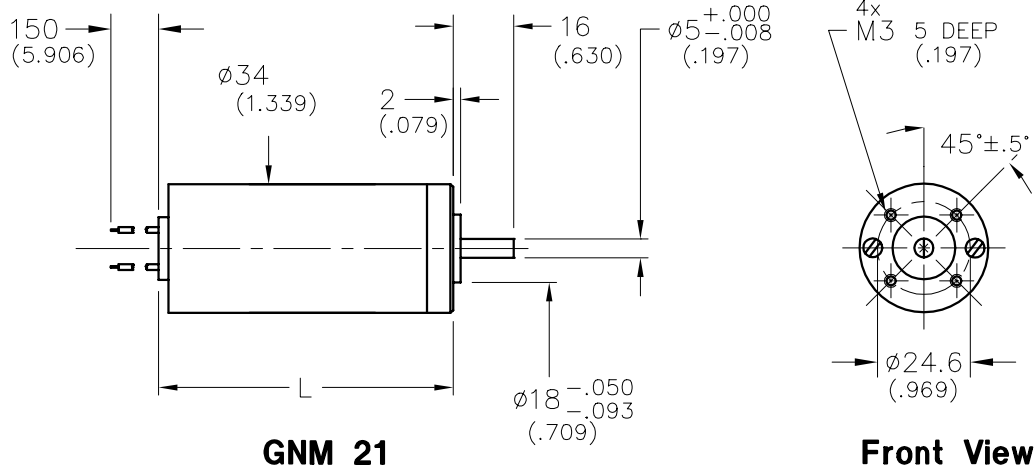
(2)Rated at 40°C. Exceeding this value may cause field demagnetization. For lower temperatures, derate value at 0.5% / °C.

—Specifications Subject to Change—

MOTORS

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Dimensional Outlines:



Dimensions are given in mm (in)
 Dimensions with no tolerance indicated are as follows:

For Dimensions:	Tolerance
Less than or equal to 6 mm	± 0.1 mm (.0039in)
Less than or equal to 30 mm	± 0.2 mm (.0079in)
Less than or equal to 120 mm	± 0.3 mm (.0118in)
Less than or equal to 400mm	± 0.5 mm (.0197in)
Less than or equal to 1000 mm	± 0.8 mm (.0315in)

MODEL	DIM L
GNM2130	78 (3.071)
GNM2145	94 (3.701)

Ordering Information:

