



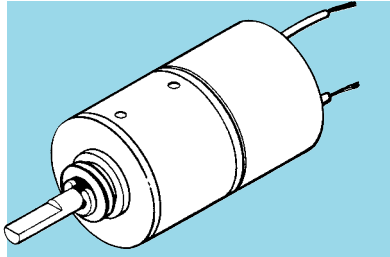
■ 3 VOLTS

■ 12 mm DIAMETER

MOTOR SPECIFICATIONS:

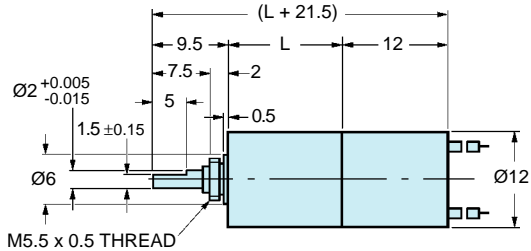
- Rated Voltage – 3V
- Rated Torque – 0.1 N • mm
- Rated Speed – 12000 rpm
- Rated Current – ≤ 110 mA
- No Load Speed – 15000 rpm
- No Load Current – ≤ 45 mA
- Weight – 10 g
- Rated Output – 0.12W
- Operating Temperature – -10°C to +60°C

For replacement gearheads, see A 2G12M... Series.

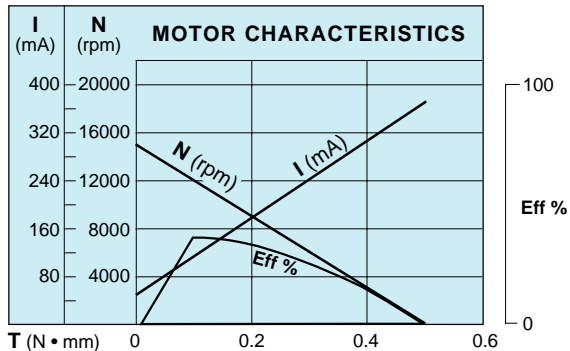


MATERIAL:

- Housing – Stainless Steel
- Shafts – Steel
- Gears – Steel
 - Input – Acetal
- Bearings – Bronze



Catalog Number	Ratio to 1	L	Rated Torque N • mm (oz. in.)	Speed rpm	
				Rated	No Load
D33S12M1200015	15	12	0.98 (.14)	817	1000
D33S12M1200032	32		1.96 (.28)	380	469
D33S12M1200052	52	14.2	2.94 (.42)	238	288
D33S12M1200070	70		4.41 (.62)	173	216
D33S12M1200103	103		5.89 (.83)	117	146
D33S12M1200144	144	15.6	7.85 (1.11)	85	104
D33S12M1200209	209		9.81 (1.39)	60	72





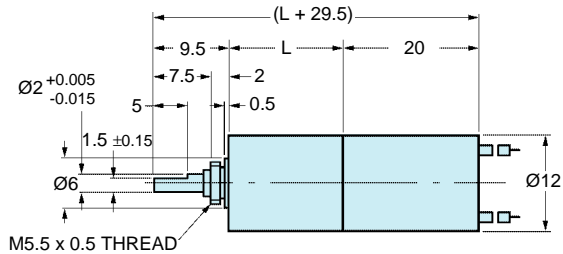
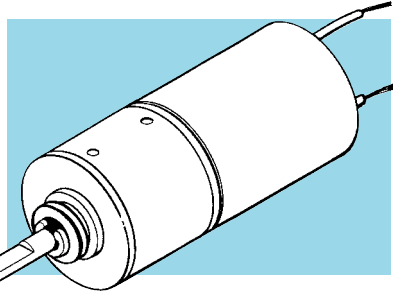
■ 4.5 VOLTS

■ 12 mm DIAMETER

MOTOR SPECIFICATIONS:

- Rated Voltage – 4.5V
- Rated Torque – 0.294 N • mm
- Rated Speed – 7200 rpm
- Rated Current – ≤ 95 mA
- No Load Speed – 9000 rpm
- No Load Current – ≤ 20 mA
- Rated Output – 0.22W
- Operating Temperature – -10°C to +60°C

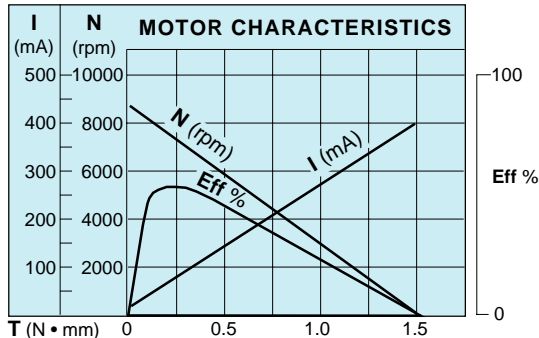
For replacement gearheads, see A 2G12M... Series.



MATERIAL:

- Housing – Stainless Steel
- Shafts – Steel
- Gears – Steel
 - Input – Acetal
- Bearings – Bronze

Catalog Number	Ratio to 1	L	Rated Torque N • mm (oz. in.)	Speed rpm	
				Rated	No Load
D33S12M2040015	15	12	2.94 (.42)	490	600
D33S12M2040032	32	14.2	5.89 (.83)	228	281
D33S12M2040052	52		9.81 (1.4)	139	173
D33S12M2040070	70		9.81 (1.4)	111	129
D33S12M2040103	103	15.6	14.72 (2.1)	73	87
D33S12M2040144	144		19.62 (2.8)	53	63
D33S12M2040209	209		19.62 (2.8)	38	43





■ 12 VOLTS

■ 12 mm DIAMETER

MOTOR SPECIFICATIONS:

Rated Voltage – 12V

Rated Torque – 0.16 N • mm

Rated Speed – 10500 rpm

Rated Current – ≤ 30 mA

No Load Speed – 11200 rpm

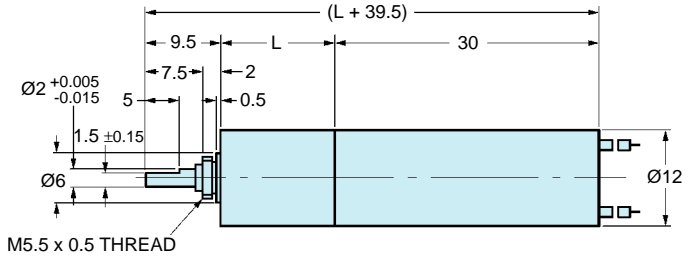
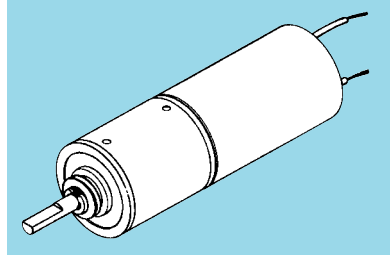
No Load Current – ≤ 10 mA

Weight – 22 g

Rated Output – 0.17W

Operating Temperature – -10°C to $+60^{\circ}\text{C}$

For replacement gearheads, see A 2G12M... Series.



MATERIAL:

Housing – Stainless Steel

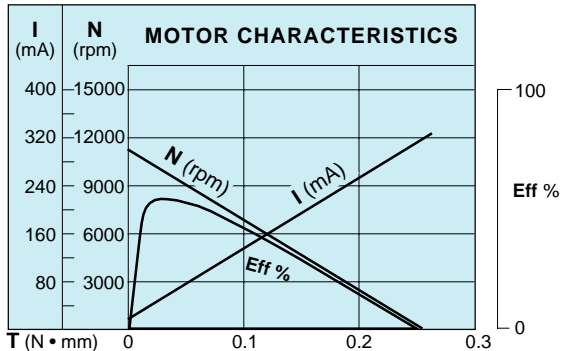
Shafts – Steel

Gears – Steel

– Input – Acetal

Bearings – Bronze

Catalog Number	Ratio to 1	L	Rated Torque N • mm (oz. in.)	Speed rpm	
				Rated	No Load
D33S12M3040015	15	12	1.47 (.21)	707	747
D33S12M3040032	32		2.94 (.42)	331	350
D33S12M3040052	52	14.2	4.91 (.70)	202	215
D33S12M3040070	70		6.87 (.97)	151	161
D33S12M3040103	103		9.81 (1.4)	102	109
D33S12M3040144	144	15.6	13.73 (1.9)	74	78
D33S12M3040209	209		19.62 (2.8)	51	54





METRIC

Heavy-Duty D.C. Gearmotors - Size 12

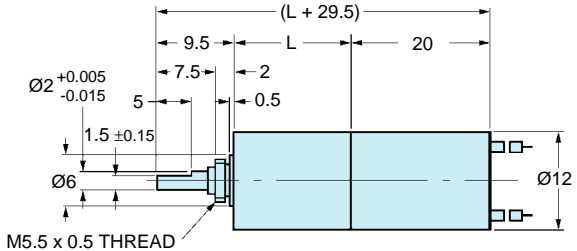
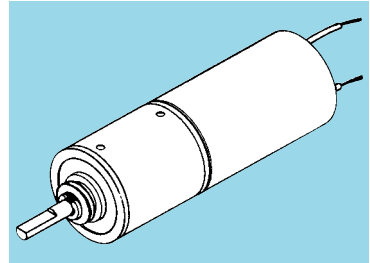
■ 12 VOLTS

■ 12 mm DIAMETER

MOTOR SPECIFICATIONS:

- Rated Voltage – 12V
- Rated Torque – 0.25 N • mm
- Rated Speed – 13050 rpm
- Rated Current – ≤ 55 mA
- No Load Speed – 16300 rpm
- No Load Current – ≤ 12 mA
- Weight – 12 g
- Rated Output – 0.33W
- Operating Temp. – -10°C to +60°C

For replacement gearheads, see A 2G12M... Series.



MATERIAL:

- Housing – Stainless Steel
- Shafts – Steel
- Gears – Steel
- Bearings – Bronze

Catalog Number	Ratio to 1	L	Rated Torque N • mm (oz. in.)	Speed rpm	
				Rated	No Load
D33S57M28F0015	15	12	2.45 (.35)	889	1087
D33S57M28F0032	32		4.9 (.69)	413	509
D33S57M28F0052	52	14.2	8.3 (1.2)	251	313
D33S57M28F0070	70		9.8 (1.4)	194	234
D33S57M28F0103	103		14.7 (2.1)	127	158
D33S57M28F0144	144	15.6	19.6 (2.8)	92	113
D33S57M28F0209	209		19.6 (2.8)	68	78

