

# GLENTEK BRUSHLESS SERVO MOTORS GMB2000 SERIES

Revision: 3/14/23



Glenetek's GMB2000 series of high performance, permanent magnet Brushless servo motors utilize high-energy Neodymium-Iron- Boron (NdFeB) magnets, which provide more torque in a smaller package with higher dynamic performance than traditional ferrite magnet designs. In addition, due to high torque to inertia ratio of these motors, they are ideal for applications which require high acceleration and deceleration characteristics or where the physical size of the motor is a major concern.

- Continuous Torque Range:  
2.4 Lb-in (0.27 Nm) to 13.0 Lb-in (1.50 Nm)
- Peak Torque Range:  
7.2 Lb-in (0.81 Nm) to 40.0 Lb-in (4.50 Nm)

## GMB2000 SERIES FEATURES

- High-energy Neodymium-Iron-Boron (NdFeB) magnet design with low inertia rotors provides a high dynamic performance.
- Special design provides ultra smooth operation (i.e. low cogging torque) at all speeds.
- Worldwide standard mounting configurations are available (English, Metric, and NEMA 23).  
Optional custom mounting configurations are available to meet virtually any requirement.
- Normally closed thermal switch provides over temperature protection.
- Encoder with commutation tracks, brushless resolvers or Hall sensors are standard feedback devices offered
- Various electrical windings are available as standard to suit both low (120 VAC) and high (230 VAC) voltage drives in order to provide optimum speed and torque characteristics. Optional custom electrical windings are available.
- Shaft Keyway.
- Class H insulation standard.
- Standard operating temperature is dependent on the feedback device installed. Motors with resolver feedback can be specially configured to operate down to -40°C.
- Optional 24VDC holding brakes are available.
- Constructed to withstand the toughest industrial environment with rugged, high performance bearings and TENV construction with IP65 sealing standard
- RoHS compliant
- CE marked.
- UL Recognized Component for US and Canada.

## GMB2000 SERIES ENVIRONMENTAL CONDITIONS

- Storage Temperature:** -20°C to 70°C
- Operating Temperature:** Standard: -20°C to 40°C, without derating, derate torque 10% per 10°C above 40°C  
Special: -40°C to 40°C, without derating, derate torque 10% per 10°C above 40°C
- Humidity:** 5% to 95% relative humidity, non-condensing
- Altitude:** Up to 1000m without derating, derate torque 10% per 1000m above 1000m

## GMB2000 SERIES SELECTION TABLE

$K_t$  = Torque Constant •  $K_v$  = BEMF =  $V_{RMS}$  Phase-to-Phase/1000 RPM •  $R_A$  = Phase-to-Phase Resistance •  $L_A$  = Phase-to-Phase Inductance

Model Number	Power @ Rated Speed		Speed, RPM		Cont. Stall Rating			Peak Stall Rating			$K_t$		$K_v$	$R_A$	$L_A$	Rotor Inertia	
	HP	KW	Max	Rated	Lb-in	Nm	Amps	Lb-in	Nm	Amps	Lb-in/A	Nm/A	V	$\Omega$	mH	Lb-in-sec <sup>2</sup>	Kg-m <sup>2</sup>
<b>GMB2005-8</b>	0.12	0.09	5000*	4000*	2.4	0.27	2.7	7.2	0.81	8.1	0.90	0.10	8	6.3	5.8	0.000054	0.000006
<b>GMB2005-17</b>	0.12	0.09	5000*	4000*	2.4	0.27	1.2	7.2	0.81	3.6	1.92	0.22	17	26.0	25	0.000054	0.000006
<b>GMB2010-8</b>	0.25	0.19	5000*	4000*	5	0.56	5.5	15.0	1.68	16.5	0.90	0.10	8	1.8	2.3	0.000074	0.000008
<b>GMB2010-17</b>	0.25	0.19	5000*	4000*	5	0.56	2.6	15.0	1.68	7.8	1.92	0.22	17	8.1	9.3	0.000074	0.000008
<b>GMB2010-28</b>	0.25	0.19	5000*	4000*	5	0.56	1.6	15.0	1.68	4.8	3.16	0.36	28	20.0	23	0.000074	0.000008
<b>GMB2015-8</b>	0.36	0.27	5000*	4000*	7	0.79	7.7	21.0	2.37	23.1	0.90	0.10	8	0.9	1.6	0.000099	0.000011
<b>GMB2015-17</b>	0.36	0.27	5000*	4000*	7	0.79	3.6	21.0	2.37	10.8	1.92	0.22	17	5.3	8.3	0.000099	0.000011
<b>GMB2020-8</b>	0.51	0.38	5000*	4000*	10	1.13	11.1	30.0	3.39	33.3	0.90	0.10	8	0.6	0.9	0.000113	0.000013
<b>GMB2020-17</b>	0.51	0.38	5000*	4000*	10	1.13	5.2	30.0	3.39	15.6	1.92	0.22	17	3.0	4.7	0.000113	0.000013
<b>GMB2020-28</b>	0.51	0.38	5000*	4000*	10	1.13	3.2	30.0	3.39	9.6	3.16	0.36	28	7.8	14	0.000113	0.000013
<b>GMB2030-28</b>	0.66	0.49	5000*	4000*	13	1.50	4.1	40	4.52	12.3	3.16	0.36	28	5.4	10.1	0.000133	0.000015

**NOTE:** All ratings based on a 25°C ambient temperature with the motor face mounted to a 14" x 14" x 3/4" aluminum heatsink.

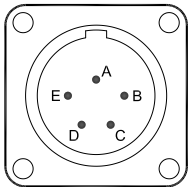
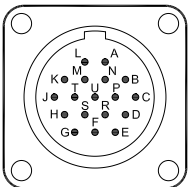
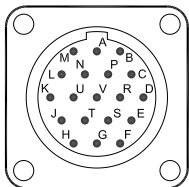
The values for Max and Rated Speed are for motors operated with a 230 VAC power supply.  
\* Higher speeds may be attainable depending on the application, contact Glentek for more info.

### BRAKE OPTION

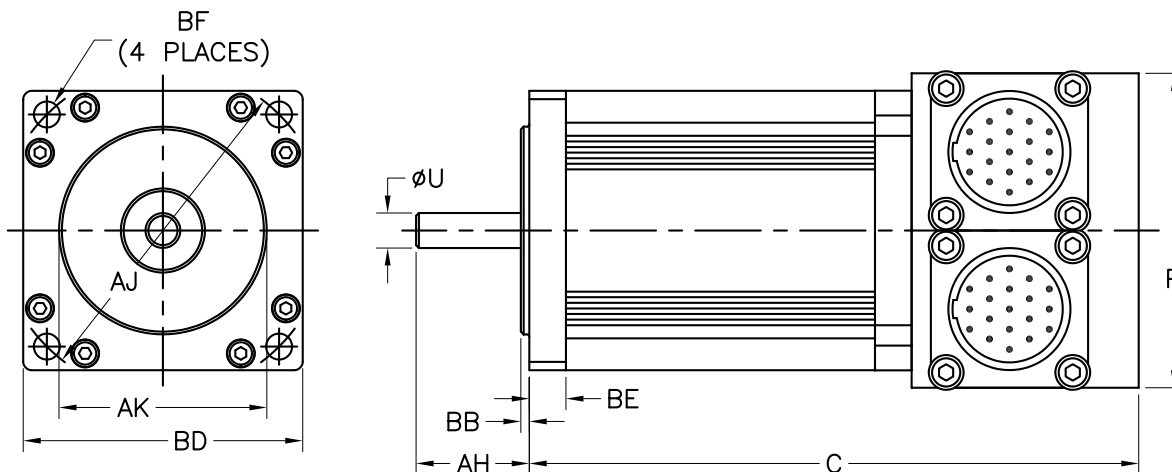
Brake requires 24V DC input voltage. The values for "Extension" represent the nominal maximum length that the brake will add to the motor. For some models, the extension will be less. Please contact one of our sales engineers for the exact values.

Extension	Torque		Power
in. (mm)	Lb-in	Nm	Watts
1.37 (35)	17.7	2.0	11

### CONNECTORS & PIN-OUT INFORMATION

5-Pin MS connector MS3112E14-5P		18-Pin MS connector MS3112E14-18P		19-Pin MS connector MS3112E14-19P	
 <b>FRONT VIEW</b> Straight Mating Connector, MS316F14-5S		 <b>FRONT VIEW</b> Straight Mating Connector, MS3116F14-18S		 <b>FRONT VIEW</b> Straight Mating Connector, MS3116F14-19S	
Pin#	Function	Pin#	Function	Pin#	Function
		Resolver		Encoder with Commutation Track	
<b>A</b>	Phase R	<b>A</b>	Brake +	<b>A</b>	Temperature Switch
<b>B</b>	Phase S	<b>B</b>	Brake -	<b>B</b>	Temperature Switch
<b>C</b>	Phase T	<b>C</b>	Brake Shield	<b>C</b>	Temperature Switch
<b>D</b>	Case Ground	<b>D</b>	Resolver Shield	<b>C</b>	Resolver Shield
		<b>E</b>	Reference	<b>D</b>	Encoder Shield
<b>Special mounting options are available. Please contact a Glentek Sales Engineer for detailed information.</b>		<b>F</b>	Since Ground	<b>D</b>	Encoder +5VDC
		<b>G</b>	Cosine Ground	<b>E</b>	Encoder Common
		<b>H</b>	Sine	<b>F</b>	Channel A+
		<b>J</b>	N/C	<b>G</b>	Channel A-
		<b>K</b>	N/C	<b>H</b>	Channel B+
		<b>L</b>	N/C	<b>J</b>	Channel B-
		<b>M</b>	N/C	<b>K</b>	Channel Z+
		<b>N</b>	Temperature Switch	<b>L</b>	Channel Z-
		<b>P</b>	N/C	<b>M</b>	Comm. Track S1+
		<b>R</b>	Reference Ground	<b>N</b>	Comm. Track S1-
		<b>S</b>	Cosine	<b>P</b>	Comm. Track S2+
		<b>T</b>	N/C	<b>R</b>	Comm. Track S2-
		<b>U</b>	Temperature Switch	<b>S</b>	Comm. Track S3+
				<b>T</b>	Comm. Track S3-
		<b>U</b>	Brake +		
		<b>V</b>	Brake -		

## GMB2000 SERIES DIMENSIONS

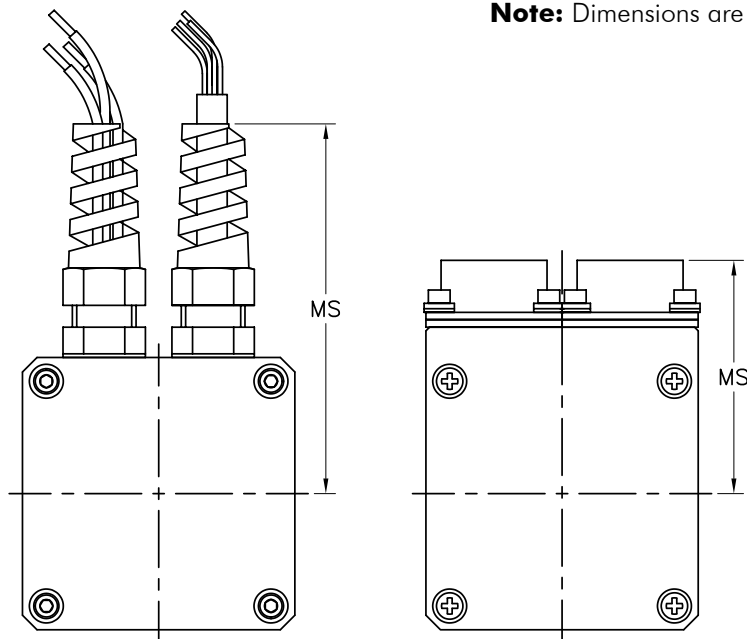


Model Number	Kg (lbs)	C (max.)	P (max.)	Shaft				Flange/Face				Mounting Hole		
				AH	U	KEY	KS	AK	BB	BD	BE	AJ	BF Dia.	Tap
<b>GMB2005-M</b>	<b>0.7</b> (1.5)	<b>99.6</b> (3.9)	<b>57.2</b> (2.25)	<b>30.0</b> (1.18)	<b>14.00</b> (0.551)	<b>M5 SQ. x 20</b>	<b>10.9 - 11.0</b>	<b>50.00</b> (1.969)	<b>2.50</b> (0.10)	<b>60.0</b> (2.36)	<b>6.1</b> (0.24)	<b>70.00</b> (2.756)	<b>4.50</b> (0.177)	<b>THRU</b>
<b>GMB2010-M</b>	<b>0.9</b> (2.0)	<b>110.7</b> (4.4)	<b>57.2</b> (2.25)	<b>30.0</b> (1.18)	<b>14.00</b> (0.551)	<b>M5 SQ. x 20</b>	<b>10.9 - 11.0</b>	<b>50.00</b> (1.969)	<b>2.50</b> (0.10)	<b>60.0</b> (2.36)	<b>6.1</b> (0.24)	<b>70.00</b> (2.756)	<b>4.50</b> (0.177)	<b>THRU</b>
<b>GMB2015-M</b>	<b>1.1</b> (2.5)	<b>123.4</b> (4.9)	<b>57.2</b> (2.25)	<b>30.0</b> (1.18)	<b>14.00</b> (0.551)	<b>M5 SQ. x 20</b>	<b>10.9 - 11.0</b>	<b>50.00</b> (1.969)	<b>2.50</b> (0.10)	<b>60.0</b> (2.36)	<b>6.1</b> (0.24)	<b>70.00</b> (2.756)	<b>4.50</b> (0.177)	<b>THRU</b>
<b>GMB2020-M</b>	<b>1.4</b> (3.1)	<b>146.0</b> (5.7)	<b>57.2</b> (2.25)	<b>30.0</b> (1.18)	<b>14.00</b> (0.551)	<b>M5 SQ. x 20</b>	<b>10.9 - 11.0</b>	<b>50.00</b> (1.969)	<b>2.50</b> (0.10)	<b>60.0</b> (2.36)	<b>6.1</b> (0.24)	<b>70.00</b> (2.756)	<b>4.50</b> (0.177)	<b>THRU</b>
<b>GMB2030-M</b>	<b>1.8</b> (4.0)	<b>169.4</b> (6.7)	<b>57.2</b> (2.25)	<b>30.0</b> (1.18)	<b>14.00</b> (0.551)	<b>M5 SQ. x 20</b>	<b>10.9 - 11.0</b>	<b>50.00</b> (1.969)	<b>2.50</b> (0.10)	<b>60.0</b> (2.36)	<b>6.1</b> (0.24)	<b>70.00</b> (2.756)	<b>4.50</b> (0.177)	<b>THRU</b>

Note: Dimensions are in **mm** (inches)

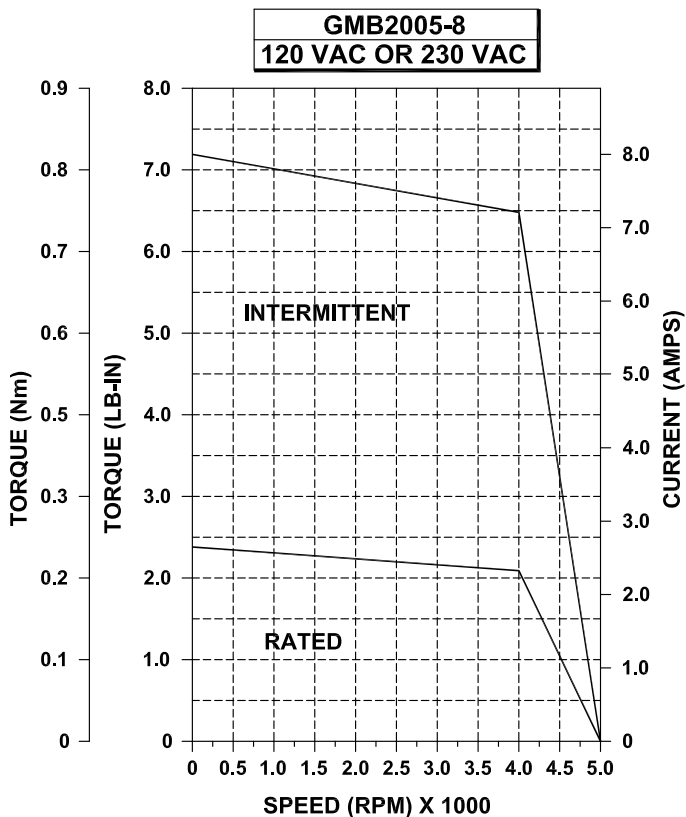
Model Number	Kg (lbs)	C (max.)	P (max.)	Shaft				Flange/Face				Mounting Hole		
				AH	U	KEY	KS	AK	BB	BD	BE	AJ	BF Dia.	Tap
<b>GMB2005-E</b>	<b>1.5</b> (0.7)	<b>3.92</b> (99.6)	<b>2.25</b> (57.2)	<b>0.81</b> (20.6)	<b>0.3750</b> (9.53)	-	-	<b>1.500</b> (38.10)	<b>0.06</b> (1.52)	<b>2.25</b> (57.15)	<b>0.26</b> (6.60)	<b>2.625</b> (66.68)	<b>0.200</b> (5.08)	<b>THRU</b>
<b>GMB2010-E</b>	<b>2.0</b> (0.9)	<b>4.36</b> (110.7)	<b>2.25</b> (57.2)	<b>0.81</b> (20.6)	<b>0.3750</b> (9.53)	-	-	<b>1.500</b> (38.10)	<b>0.06</b> (1.52)	<b>2.25</b> (57.15)	<b>0.26</b> (6.60)	<b>2.625</b> (66.68)	<b>0.200</b> (5.08)	<b>THRU</b>
<b>GMB2015-E</b>	<b>2.5</b> (1.1)	<b>4.86</b> (123.4)	<b>2.25</b> (57.2)	<b>0.81</b> (20.6)	<b>0.3750</b> (9.53)	-	-	<b>1.500</b> (38.10)	<b>0.06</b> (1.52)	<b>2.25</b> (57.15)	<b>0.26</b> (6.60)	<b>2.625</b> (66.68)	<b>0.200</b> (5.08)	<b>THRU</b>
<b>GMB2020-E</b>	<b>3.1</b> (1.4)	<b>5.75</b> (146.0)	<b>2.25</b> (57.2)	<b>0.81</b> (20.6)	<b>0.3750</b> (9.53)	-	-	<b>1.500</b> (38.10)	<b>0.06</b> (1.52)	<b>2.25</b> (57.15)	<b>0.26</b> (6.60)	<b>2.625</b> (66.68)	<b>0.200</b> (5.08)	<b>THRU</b>
<b>GMB2030-E</b>	<b>4.0</b> (1.8)	<b>6.67</b> (169.4)	<b>2.25</b> (57.2)	<b>0.81</b> (20.6)	<b>0.3750</b> (9.53)	-	-	<b>1.500</b> (38.10)	<b>0.06</b> (1.52)	<b>2.25</b> (57.15)	<b>0.26</b> (6.60)	<b>2.625</b> (66.68)	<b>0.200</b> (5.08)	<b>THRU</b>
<b>NEMA 23</b>				<b>0.81</b> (20.6)	<b>0.2500</b> (6.35)	-	-	<b>1.500</b> (38.10)	<b>0.06</b> (1.52)	<b>2.25</b> (57.15)	<b>0.30</b> (7.62)	<b>2.625</b> (66.68)	<b>0.200</b> (5.08)	<b>THRU</b>

Note: Dimensions are in **inches** (mm)



Connectors	MS inches (mm)	MS mm (inches)
<b>5-Pin</b>	<b>1.93</b> (49.0)	<b>49.0</b> (1.93)
<b>18-Pin</b>	<b>1.93</b> (49.0)	<b>49.0</b> (1.93)
<b>19-Pin</b>	<b>1.93</b> (49.0)	<b>49.0</b> (1.93)
<b>Strain Relief</b>	<b>3.06</b> (78.0)	<b>78.0</b> (3.06)

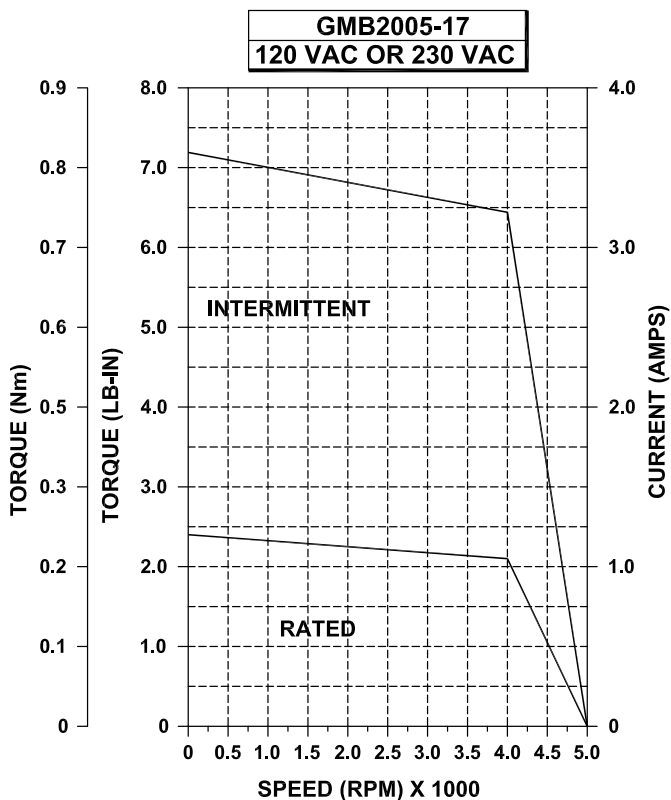
## GMB2005-8 PERFORMANCE DATA



<b>Power @ Rated Speed</b>	<b>HP</b>	0.12
	<b>KW</b>	0.09
<b>Speed, RPM</b>	<b>Max.</b>	5000*
	<b>Rated</b>	4000*
<b>Cont. Stall Rating</b>	<b>Lb-in</b>	2.4
	<b>Nm</b>	0.27
	<b>Amps</b>	2.7
<b>Peak Stall Rating</b>	<b>Lb-in</b>	7.2
	<b>Nm</b>	0.81
	<b>Amps</b>	8.1
<b>Torque Constant</b>	<b>Lb-in/A</b>	0.90
	<b>Nm/A</b>	0.10
<b>Back EMF</b>	<b>V/Krpm</b>	8
<b>Resistance</b>	<b>Ohms</b>	6.3
<b>Inductance</b>	<b>mH</b>	5.8
<b>Armature Inertia</b>	<b>Lb-in-sec<sup>2</sup></b>	0.000054
	<b>Kg-m<sup>2</sup></b>	0.000006

\* Higher speeds may be attainable depending on the application, contact Glentek for more info

## GMB2005-17 PERFORMANCE DATA

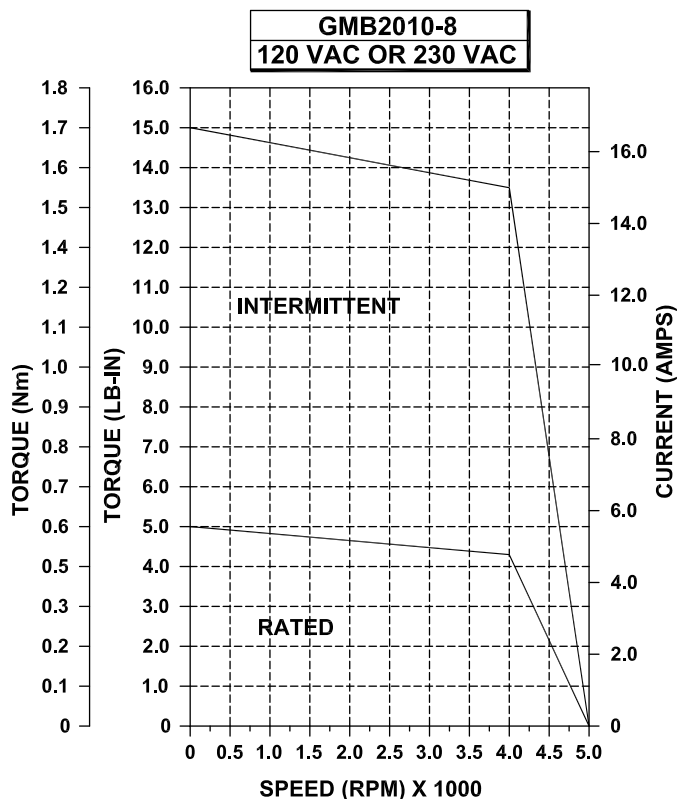


<b>Power @ Rated Speed</b>	<b>HP</b>	0.12
	<b>KW</b>	0.09
<b>Speed, RPM</b>	<b>Max.</b>	5000*
	<b>Rated</b>	4000*
<b>Cont. Stall Rating</b>	<b>Lb-in</b>	2.4
	<b>Nm</b>	0.27
	<b>Amps</b>	1.2
<b>Peak Stall Rating</b>	<b>Lb-in</b>	7.2
	<b>Nm</b>	0.81
	<b>Amps</b>	3.6
<b>Torque Constant</b>	<b>Lb-in/A</b>	1.92
	<b>Nm/A</b>	0.22
<b>Back EMF</b>	<b>V/Krpm</b>	17
<b>Resistance</b>	<b>Ohms</b>	26
<b>Inductance</b>	<b>mH</b>	25
<b>Armature Inertia</b>	<b>Lb-in-sec<sup>2</sup></b>	0.000054
	<b>Kg-m<sup>2</sup></b>	0.000006

\* Higher speeds may be attainable depending on the application, contact Glentek for more info

**NOTE:** All ratings based on a 25°C ambient temperature with the motor face mounted to a 14" x 14" x 3/4" aluminum heatsink.

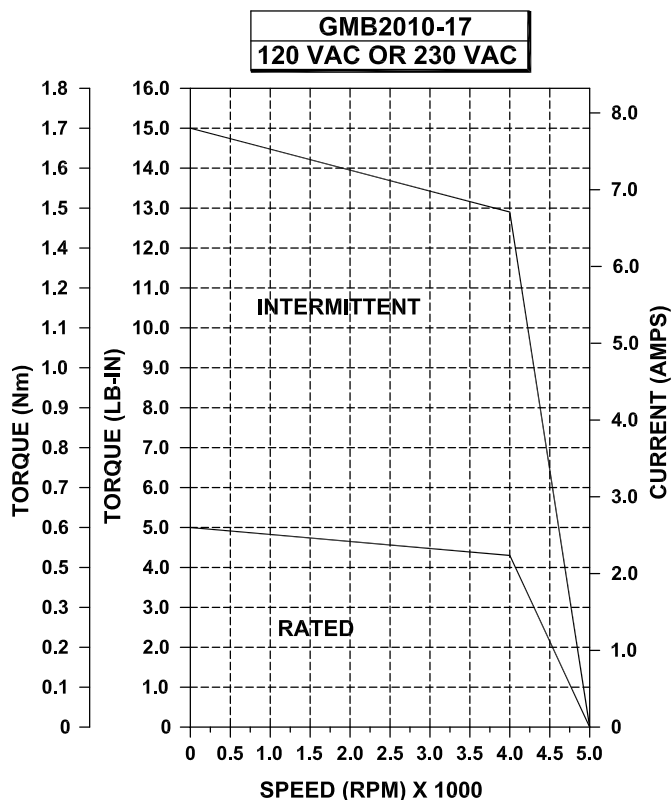
## GMB2010-8 PERFORMANCE DATA



<b>Power @ Rated Speed</b>	<b>HP</b>	0.25
	<b>KW</b>	0.19
<b>Speed, RPM</b>	<b>Max.</b>	5000*
	<b>Rated</b>	4000*
<b>Cont. Stall Rating</b>	<b>Lb-in</b>	5
	<b>Nm</b>	0.56
	<b>Amps</b>	5.5
<b>Peak Stall Rating</b>	<b>Lb-in</b>	15.0
	<b>Nm</b>	1.68
	<b>Amps</b>	16.5
<b>Torque Constant</b>	<b>Lb-in/A</b>	0.90
	<b>Nm/A</b>	0.10
<b>Back EMF</b>	<b>V/Krpm</b>	8
<b>Resistance</b>	<b>Ohms</b>	1.8
<b>Inductance</b>	<b>mH</b>	2.3
<b>Armature Inertia</b>	<b>Lb-in-sec<sup>2</sup></b>	0.000074
	<b>Kg-m<sup>2</sup></b>	0.000008

\* Higher speeds may be attainable depending on the application, contact Glentek for more info

## GMB2010-17 PERFORMANCE DATA

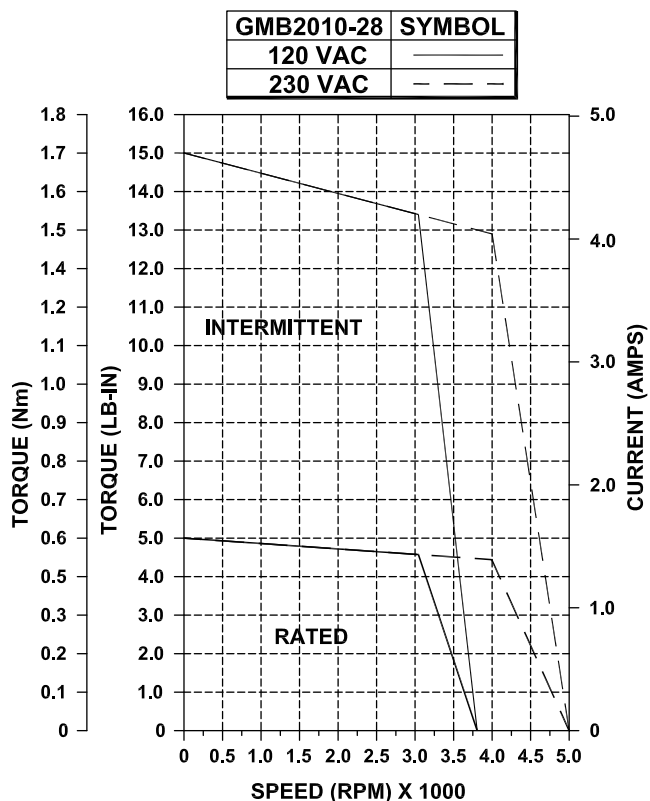


<b>Power @ Rated Speed</b>	<b>HP</b>	0.25
	<b>KW</b>	0.19
<b>Speed, RPM</b>	<b>Max.</b>	5000*
	<b>Rated</b>	4000*
<b>Cont. Stall Rating</b>	<b>Lb-in</b>	5
	<b>Nm</b>	0.56
	<b>Amps</b>	2.6
<b>Peak Stall Rating</b>	<b>Lb-in</b>	15.0
	<b>Nm</b>	1.68
	<b>Amps</b>	7.8
<b>Torque Constant</b>	<b>Lb-in/A</b>	1.92
	<b>Nm/A</b>	0.22
<b>Back EMF</b>	<b>V/Krpm</b>	17
<b>Resistance</b>	<b>Ohms</b>	8.1
<b>Inductance</b>	<b>mH</b>	9.3
<b>Armature Inertia</b>	<b>Lb-in-sec<sup>2</sup></b>	0.000074
	<b>Kg-m<sup>2</sup></b>	0.000008

\* Higher speeds may be attainable depending on the application, contact Glentek for more info

**NOTE:** All ratings based on a 25°C ambient temperature with the motor face mounted to a 14" x 14" x 3/4" aluminum heatsink.

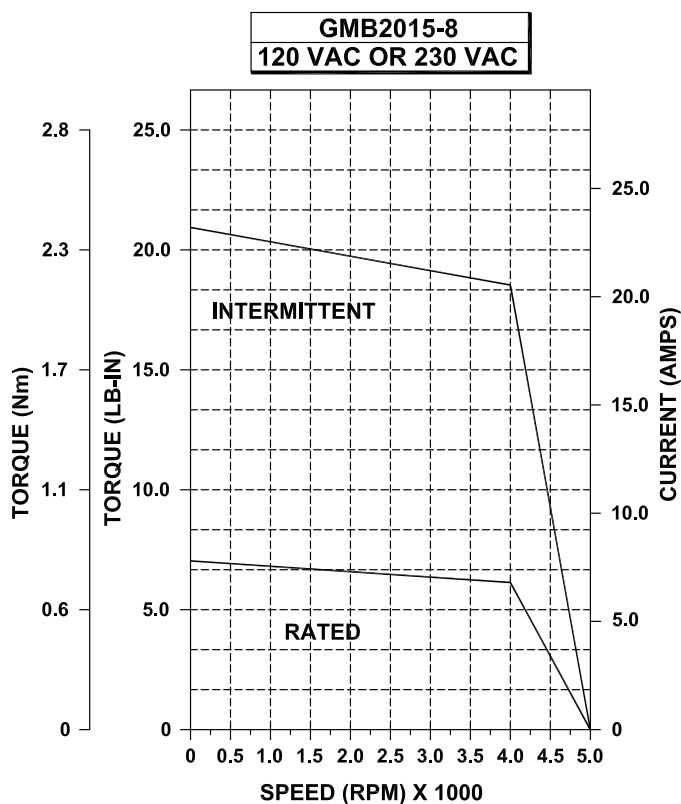
## GMB2010-28 PERFORMANCE DATA



<b>Power @ Rated Speed</b>	<b>HP</b>	0.25
	<b>KW</b>	0.19
<b>Speed, RPM</b>	<b>Max.</b>	5000*
	<b>Rated</b>	4000*
<b>Cont. Stall Rating</b>	<b>Lb-in</b>	5
	<b>Nm</b>	0.56
	<b>Amps</b>	1.6
<b>Peak Stall Rating</b>	<b>Lb-in</b>	15.0
	<b>Nm</b>	1.68
	<b>Amps</b>	4.8
<b>Torque Constant</b>	<b>Lb-in/A</b>	3.16
	<b>Nm/A</b>	0.36
<b>Back EMF</b>	<b>V/Krpm</b>	28
<b>Resistance</b>	<b>Ohms</b>	20
<b>Inductance</b>	<b>mH</b>	23
<b>Armature Inertia</b>	<b>Lb-in-sec<sup>2</sup></b>	0.000074
	<b>Kg-m<sup>2</sup></b>	0.000008

\* Higher speeds may be attainable depending on the application, contact Glentek for more info

## GMB2015-8 PERFORMANCE DATA

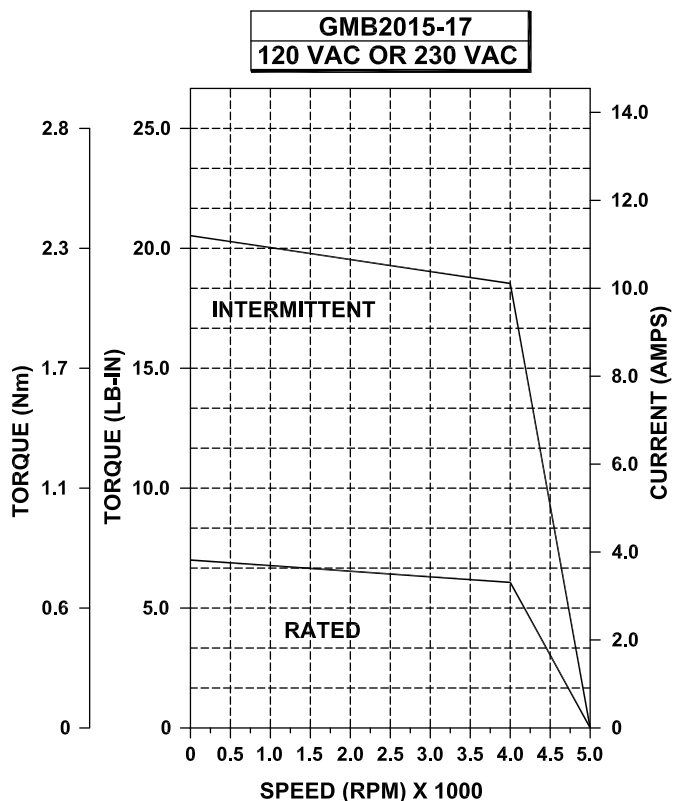


<b>Power @ Rated Speed</b>	<b>HP</b>	0.36
	<b>KW</b>	0.27
<b>Speed, RPM</b>	<b>Max.</b>	5000*
	<b>Rated</b>	4000*
<b>Cont. Stall Rating</b>	<b>Lb-in</b>	7
	<b>Nm</b>	0.79
	<b>Amps</b>	7.7
<b>Peak Stall Rating</b>	<b>Lb-in</b>	21.0
	<b>Nm</b>	2.37
	<b>Amps</b>	23.1
<b>Torque Constant</b>	<b>Lb-in/A</b>	0.90
	<b>Nm/A</b>	0.10
<b>Back EMF</b>	<b>V/Krpm</b>	8
<b>Resistance</b>	<b>Ohms</b>	0.9
<b>Inductance</b>	<b>mH</b>	1.6
<b>Armature Inertia</b>	<b>Lb-in-sec<sup>2</sup></b>	0.000099
	<b>Kg-m<sup>2</sup></b>	0.000011

\* Higher speeds may be attainable depending on the application, contact Glentek for more info

**NOTE:** All ratings based on a 25°C ambient temperature with the motor face mounted to a 14" x 14" x 3/4" aluminum heatsink.

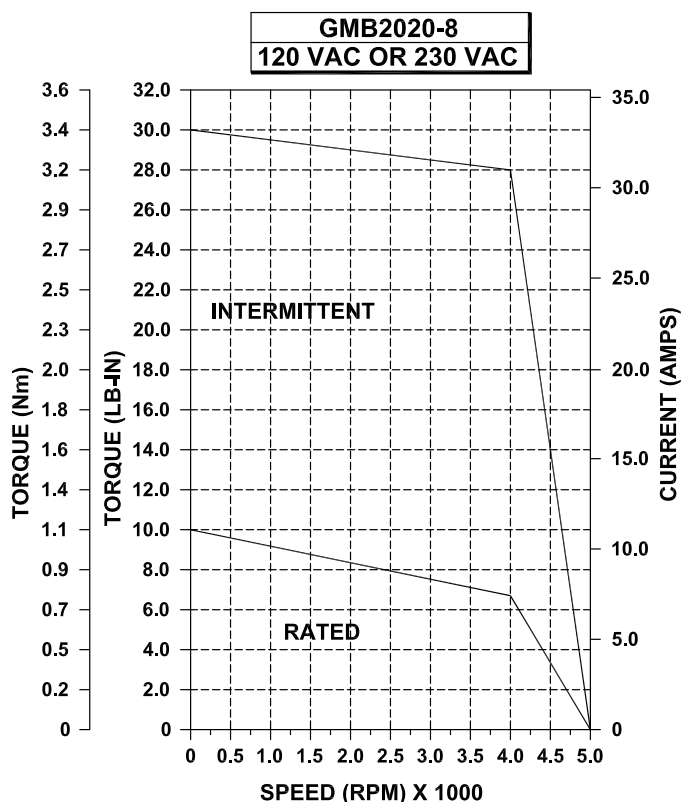
## GMB2015-17 PERFORMANCE DATA



<b>Power @ Rated Speed</b>	<b>HP</b>	0.36
	<b>KW</b>	0.27
<b>Speed, RPM</b>	<b>Max.</b>	5000*
	<b>Rated</b>	4000*
<b>Cont. Stall Rating</b>	<b>Lb-in</b>	7
	<b>Nm</b>	0.79
	<b>Amps</b>	3.6
<b>Peak Stall Rating</b>	<b>Lb-in</b>	21.0
	<b>Nm</b>	2.37
	<b>Amps</b>	10.8
<b>Torque Constant</b>	<b>Lb-in/A</b>	1.92
	<b>Nm/A</b>	0.22
<b>Back EMF</b>	<b>V/Krpm</b>	17
<b>Resistance</b>	<b>Ohms</b>	5.3
<b>Inductance</b>	<b>mH</b>	8.3
<b>Armature Inertia</b>	<b>Lb-in-sec<sup>2</sup></b>	0.000099
	<b>Kg-m<sup>2</sup></b>	0.000011

\* Higher speeds may be attainable depending on the application, contact Glentek for more info

## GMB2020-8 PERFORMANCE DATA

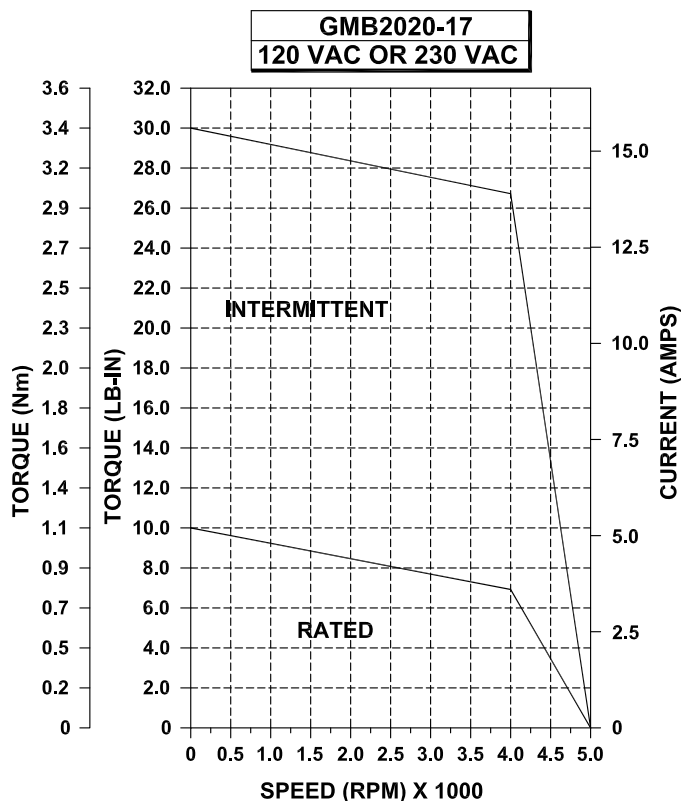


<b>Power @ Rated Speed</b>	<b>HP</b>	0.51
	<b>KW</b>	0.38
<b>Speed, RPM</b>	<b>Max.</b>	5000*
	<b>Rated</b>	4000*
<b>Cont. Stall Rating</b>	<b>Lb-in</b>	10
	<b>Nm</b>	1.13
	<b>Amps</b>	11.1
<b>Peak Stall Rating</b>	<b>Lb-in</b>	30.0
	<b>Nm</b>	3.39
	<b>Amps</b>	33.3
<b>Torque Constant</b>	<b>Lb-in/A</b>	0.90
	<b>Nm/A</b>	0.10
<b>Back EMF</b>	<b>V/Krpm</b>	8
<b>Resistance</b>	<b>Ohms</b>	0.6
<b>Inductance</b>	<b>mH</b>	0.9
<b>Armature Inertia</b>	<b>Lb-in-sec<sup>2</sup></b>	0.000113
	<b>Kg-m<sup>2</sup></b>	0.000013

\* Higher speeds may be attainable depending on the application, contact Glentek for more info

**NOTE:** All ratings based on a 25°C ambient temperature with the motor face mounted to a 14" x 14" x 3/4" aluminum heatsink.

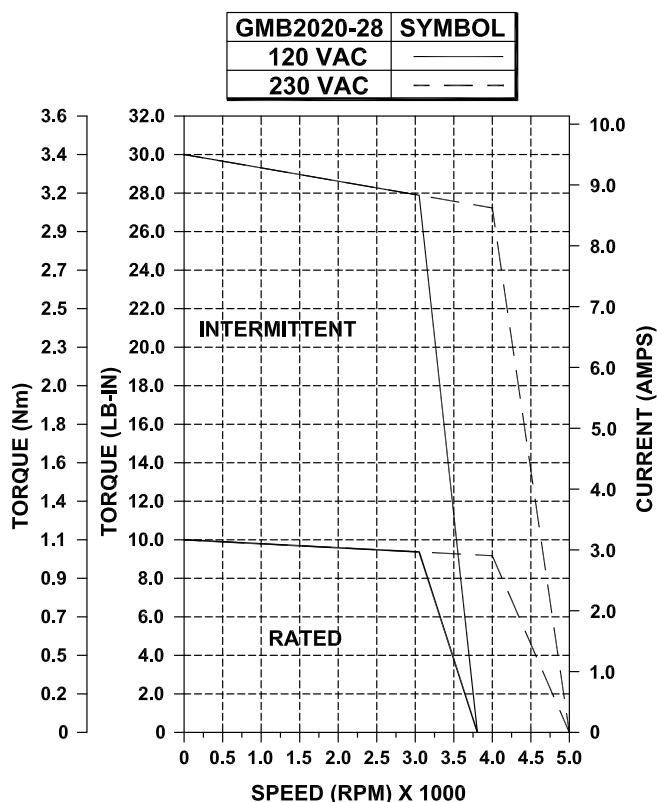
## GMB2020-17 PERFORMANCE DATA



<b>Power @ Rated Speed</b>	<b>HP</b>	0.51
	<b>KW</b>	0.38
<b>Speed, RPM</b>	<b>Max.</b>	5000*
	<b>Rated</b>	4000*
<b>Cont. Stall Rating</b>	<b>Lb-in</b>	10
	<b>Nm</b>	1.13
	<b>Amps</b>	5.2
<b>Peak Stall Rating</b>	<b>Lb-in</b>	30.0
	<b>Nm</b>	3.39
	<b>Amps</b>	15.6
<b>Torque Constant</b>	<b>Lb-in/A</b>	1.92
	<b>Nm/A</b>	0.22
<b>Back EMF</b>	<b>V/Krpm</b>	17
<b>Resistance</b>	<b>Ohms</b>	3.0
<b>Inductance</b>	<b>mH</b>	4.7
<b>Armature Inertia</b>	<b>Lb-in-sec<sup>2</sup></b>	0.000113
	<b>Kg-m<sup>2</sup></b>	0.000013

\* Higher speeds may be attainable depending on the application, contact Glentek for more info

## GMB2020-28 PERFORMANCE DATA



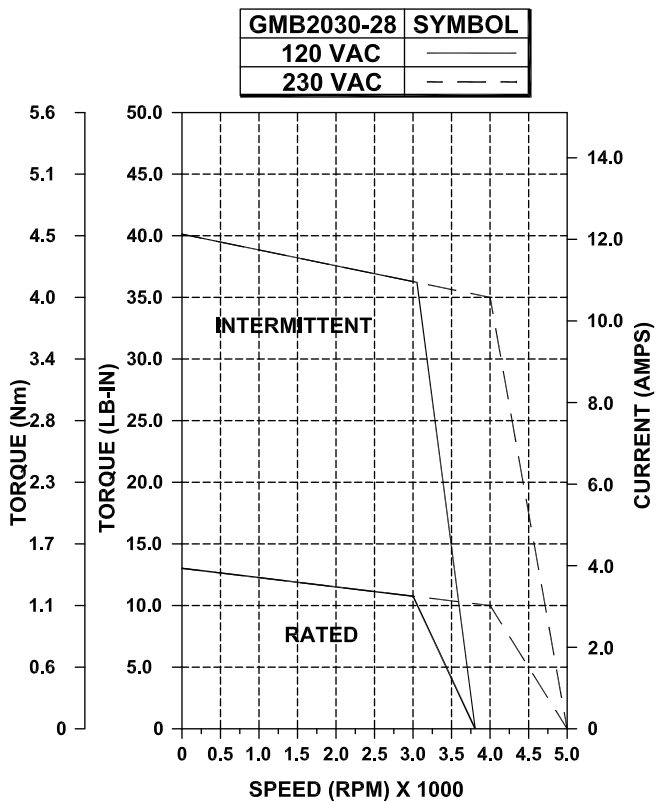
<b>Power @ Rated Speed</b>	<b>HP</b>	0.51
	<b>KW</b>	0.38
<b>Speed, RPM</b>	<b>Max.</b>	5000*
	<b>Rated</b>	4000*
<b>Cont. Stall Rating</b>	<b>Lb-in</b>	10
	<b>Nm</b>	1.13
	<b>Amps</b>	3.2
<b>Peak Stall Rating</b>	<b>Lb-in</b>	30.0
	<b>Nm</b>	3.39
	<b>Amps</b>	9.6
<b>Torque Constant</b>	<b>Lb-in/A</b>	3.16
	<b>Nm/A</b>	0.36
<b>Back EMF</b>	<b>V/Krpm</b>	28
<b>Resistance</b>	<b>Ohms</b>	7.8
<b>Inductance</b>	<b>mH</b>	14
<b>Armature Inertia</b>	<b>Lb-in-sec<sup>2</sup></b>	0.000113
	<b>Kg-m<sup>2</sup></b>	0.000013

\* Higher speeds may be attainable depending on the application, contact Glentek for more info

**NOTE:** All ratings based on a 25°C ambient temperature with the motor face mounted to a 14" x 14" x 3/4" aluminum heatsink.



## GMB2030-28 PERFORMANCE DATA



<b>Power @ Rated Speed</b>	<b>HP</b>	0.66
	<b>KW</b>	0.49
<b>Speed, RPM</b>	<b>Max.</b>	5000*
	<b>Rated</b>	4000*
<b>Cont. Stall Rating</b>	<b>Lb-in</b>	13
	<b>Nm</b>	1.50
	<b>Amps</b>	4.1
<b>Peak Stall Rating</b>	<b>Lb-in</b>	40
	<b>Nm</b>	4.52
	<b>Amps</b>	12.3
<b>Torque Constant</b>	<b>Lb-in/A</b>	3.16
	<b>Nm/A</b>	0.36
<b>Back EMF</b>	<b>V/Krpm</b>	28
<b>Resistance</b>	<b>Ohms</b>	5.4
<b>Inductance</b>	<b>mH</b>	10.1
<b>Armature Inertia</b>	<b>Lb-in-sec<sup>2</sup></b>	0.000133
	<b>Kg-m<sup>2</sup></b>	0.000015

\* Higher speeds may be attainable depending on the application, contact Glentek for more info

**NOTE:** All ratings based on a 25°C ambient temperature with the motor face mounted to a 14" x 14" x 3/4" aluminum heatsink.

## GMB2000 SERIES MODEL NUMBERING

This section explains the model numbering system for Glentek's GMB2000 Series Brushless Servo Motors. The model numbering system is designed so that you, our customer, will be able to quickly and accurately create the model number for the drive that best suits your requirements. Please complete the drive configuration code you require using the information on this page. After completing your model number, please contact a Glentek Sales Engineer to confirm that the model number you have created is correct.



- Magnet Type** blank = NdFeB
- Frame Size** 20 = 2.25" (4 pole) Motor
- Stack Length** 15 = 1.5 inch stack
- Back EMF Constant** 8 = 8 V/Krpm
- Dimensions** E = English
- Brake option** 0 = No brake installed
- Commutation Device** 0 = Brushless Resolver
- Number of Motor poles** 1 = 4 Pole
- Flange Type** 0 = Standard
- Shaft Type** 0 = Standard
- Lead Termination** 1 = Two MS Connectors
- Wiring Diagram (MS connector lead termination only)** 0 = Glentek Standard
- Encoder Option** 5 = 2000PPR
- Factory Assigned Option** leave blank



Magnet Type					
Leave blank for rare earth magnets					
Frame Size					
<b>20</b>		2.25" Motor			
Stack Length					
<b>05</b>	0.5" Stack	<b>15</b>	1.5" Stack	<b>30</b>	3.0" Stack
<b>10</b>	1.0" Stack	<b>20</b>	2.0" Stack		
Back EMF Constant					
0.5" Stack		1.0" Stack		1.5" Stack	
<b>8</b>	8V/Krpm	<b>8</b>	8V/Krpm	<b>8</b>	8V/Krpm
<b>17</b>	17V/Krpm	<b>17</b>	17V/Krpm	<b>17</b>	17V/Krpm
		<b>28</b>	28V/Krpm	<b>28</b>	28V/Krpm
For custom Back EMF, Please Contact Glentek					
Dimensions					
<b>E</b>	English	<b>M</b>	Metric	<b>N</b>	NEMA
Brake Option					
<b>0</b>	No brake installed	<b>1</b>	24 VDC Brake	<b>2</b>	Special
Commutation Device					
<b>0</b>	Brushless Resolver	<b>2</b>	Encoder with commutation tracks	<b>4</b>	Absolute Encoder
<b>1</b>	Hall Effect Sensors	<b>3</b>	Special	<b>5</b>	Sin/Cos Encoder
Number of Motor Poles					
<b>1</b>	4 pole				
Flange Type					
<b>0</b>	Standard	<b>1</b>	Special	<b>2</b>	NEMA 23
Shaft Type					
<b>0</b>	Standard	<b>1</b>	Special	<b>2</b>	NEMA 23
Lead Termination					
<b>0</b>	One MS Connector		<b>3</b>	Special	
<b>1</b>	Two MS Connectors		<b>4</b>	Liquid tight strain relief with flying leads	
<b>2</b>	NPT(s) only with flying leads		<b>5</b>	Euro-style connectors	
Wiring Diagram (MS connector lead termination only)					
<b>0</b>	Glentek Standard			<b>1</b>	Special
Encoder Option					
<b>0</b>	No encoder installed	<b>4</b>	1250 PPR	<b>8</b>	8192 PPR
<b>1</b>	500PPR	<b>5</b>	2000 PPR	<b>9</b>	5000 PPR
<b>2</b>	1000PPR	<b>6</b>	2500 PPR	<b>A</b>	512 PPR
<b>3</b>	1024PPR	<b>7</b>	Special	<b>B</b>	2048 PPR
<b>C</b>	4096 PPR				
<b>D</b>	3600 PPR				
<b>E</b>	18000 PPR				

**Factory Assigned Option**  
A numerical code will be assigned by Glentek to motors whose specifications vary from the standard configuration