

ARTISAN®
TECHNOLOGY GROUP

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so your equipment works exactly as you specify.

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Find the *Parker / Bayside Motion Group NE23-005* at our website: *Click HERE*

NE NEMA Series:
Lightweight, Compact and Low Friction

Bayside's NEMA gearheads feature a high efficiency spur gear design, in a light, compact package. Designed to mount directly to the face of NEMA face stepper and servo motors, NEMA gearheads are ideal for applications requiring smooth operation and low starting torque. Ratios from 3:1 to 100:1 are available in NEMA 23, 34 and 42 frame sizes.

3 Frame Sizes
NE23
NE34
NE42

Ratios	
3:1	20:1
5:1	30:1
8:1	50:1
10:1	100:1
15:1	



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NE NEMA Series



Performance Specifications

	Units	Ratio	Frame Size NE23	NE34	NE42
Nominal Output Torque, $T_{nom\ r}$	**in-lb**	3	**16**	**64**	**123**
	Nm		2	7	14
	in lb	5	**27**	**107**	**205**
	Nm		3	12	23
	in lb	8-10	**40**	**142**	**250**
	Nm		5	16	28
	in lb	15	**46**	**170**	**300**
	Nm		5	19	34
	in lb	20-100	**50**	**180**	**350**
	Nm		6	20	40
Max. Acceleration Output Torque, $T_{acc\ r}$	**in lb**	3	**24**	**95**	**185**
	Nm		3	11	21
	in lb	5	**40**	**160**	**307**
	Nm		5	18	35
	in lb	8-10	**60**	**210**	**375**
	Nm		7	24	42
	in lb	15	**70**	**255**	**450**
	Nm		8	29	51
	in lb	20-100	**75**	**270**	**525**
	Nm		9	31	59
Nominal Input Speed, $N_{nom\ r}$	RPM	All	4,000	4,000	4,000
Max. Input Speed, N_{maxr}	RPM	All	5,500	5,000	4,500
Standard Backlash	arc min	3, 5, 8, 10	30	25	25
	arc min	15-100	20	20	20
Low Backlash	arc min	3, 5, 8, 10	15	15	15
	arc min	15-100	10	10	10
Efficiency at Nominal Torque	%	All	98%	98%	98%
Moment of Inertia	**oz in sec^2**	All	**0.00007**	**0.0005**	**0.004**
	gm cm sec^2		0.0051	0.0408	0.306
Maximum Weight	**lb**	All	**1.0**	**3.0**	**6.0**
	kg		0.5	1.4	3.0
Radial Load (1)	**lb**	All	**20**	**80**	**200**
	N		90	350	890
Axial Load	**lb**	All	**10**	**30**	**60**
	N		45	135	265

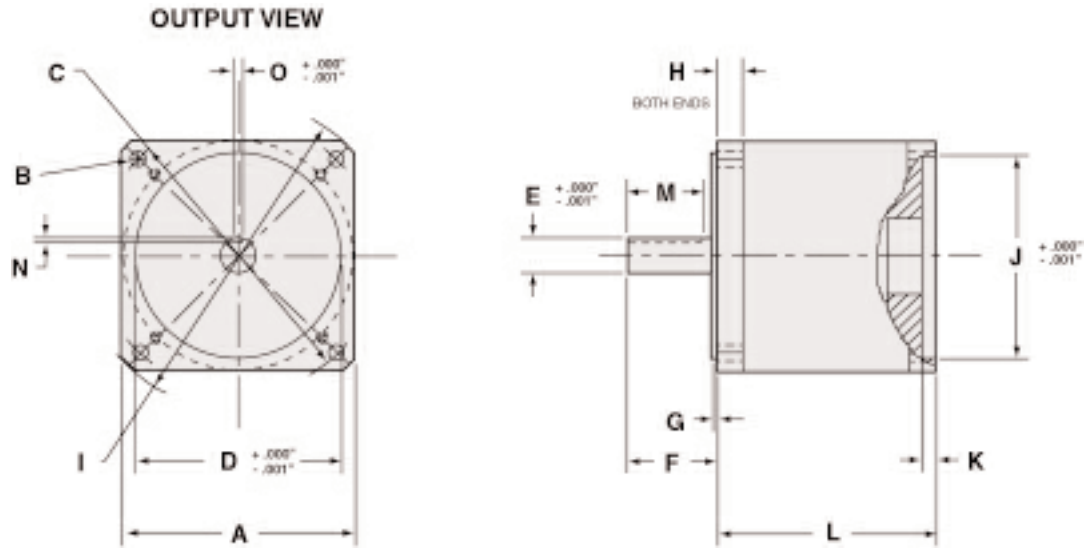
(1) Radial Loads are measured at 12.7mm (0.5in) from the gearhead mounting surface. These ratings are based on gearhead making more than one revolution on output shaft.

Specification are subject to change without notice

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Dimensions

OUTPUT VIEW **SIDE VIEW**



Frame Size	A Square Flange (in)	A (mm)	B Bolt Hole (in)	B (mm)	C Bolt Circle (in)	C (mm)	D Pilot Diameter (in)	D (mm)	E Output Shaft Diameter (in)	E (mm)	F Output Shaft Length (in)	F (mm)	G Pilot Thickness (in)	G (mm)	H Flange Thickness (in)	H (mm)
NE 23	**2.27**	58	**0.195**	5.0	**2.625**	66.7	**1.500**	38.1	**0.375**	9.5	**1.00**	25.4	**0.062**	1.6	**0.19**	5
NE 34	**3.25**	83	**0.218**	5.5	**3.875**	98.4	**2.875**	73.0	**0.500**	12.7	**1.25**	31.8	**0.067**	1.7	**0.38**	10
NE 42	**4.20**	107	**0.281**	7.1	**4.950**	125.7	**2.187**	55.5	**0.625**	15.9	**1.50**	38.1	**0.093**	2.4	**0.50**	13

Frame Size	I Housing Diameter (in)	I (mm)	J Input Pilot Diameter (in)	J (mm)	K Input Pilot Depth (in)	K (mm)	L Housing Length (in)	L (mm)	M Keyway Length (in)	M (mm)	N Keyway Depth (in)	N (mm)	O Keyway Width (in)	O (mm)
NE 23	**3.00**	76	**1.501**	38.13	**0.125**	3.2	**2.30**	58	**0.75 flat**	19 flat	**0.015 flat**	0.4 flat	—	—
NE 34	**4.38**	111	**2.876**	73.05	**0.200**	5.1	**3.00**	76	**1.06**	27	**0.072**	1.8	**0.124**	3.15
NE 42	**5.63**	143	**2.188**	55.58	**0.187**	4.7	**3.75**	95	**1.13**	29	**0.108**	2.7	**0.187**	4.75

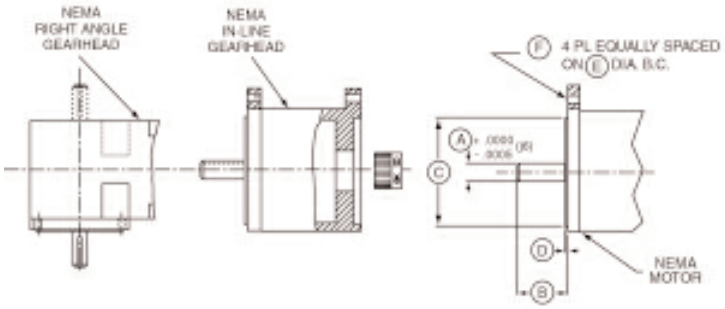
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NE NEMA Series:
How to Order



MOUNTING TO NEMA FRAMED MOTORS: DIRECT MOUNT

Gearheads attach directly to motors with NEMA mounting dimensions (see table). Bayside's Clamp-on-Pinion and mounting hardware is included with gearheads, so your motor can be up and running in a matter of minutes.





NEMA DIMENSIONS

	Dimension	Motor Mounting Dimensions					
		NE23		NE34		NE42	
		in	(mm)	in	(mm)	in	(mm)
A	Motor Shaft Diameter	0.250	(6.4)	.375/.500	(9.5/12.7)	0.625	(15.9)
B	Motor Shaft Length	0.810	(20.6)	1.250	(31.8)	1.380	(35.1)
C	Pilot Diameter	1.500	(38.1)	2.875	(73.0)	2.186	(55.5)
D	Pilot Length	0.063	(1.6)	0.063	(1.6)	0.093	(2.4)
E	Mounting Bolt Circle	2.625	(66.7)	3.875	(98.4)	4.950	(125.7)
F	Bolt Hole Size	0.195	(5.0)	0.218	(5.5)	0.281	(7.1)

All dimensions are in inches (millimeters).

MOUNTING TO NON-NEMA FRAMED MOTORS: ADAPTER MOUNT

For motors with non-NEMA dimensions, Bayside supplies a mounting kit including a Clamp-On-Pinion, adapter plate and all necessary hardware. When ordering, simply provide the part number or outline drawing of your motor, and the gearhead will be shipped ready-to-mount.

How to Order

Order Numbering Example: **NE34-010-XXXLB**

FRAME SIZE	RATIO		SPECIAL	OPTIONAL
23	003	020	(Factory	LOW BACKLASH
34	005	030	Issued)	
42	008	050		
	010	100		
	015			
	(all ratios are exact)			

1. Pick frame size and ratio.
2. Pick options.
3. Specify motor make and model for mounting kit.

NEMA Gearheads are supported by a worldwide network of offices and local distributors. Call **1-800-305-4555** for application engineering assistance or for the name of your local distributor. Information can also be obtained at **www.baysidemotion.com**.

Gearmotors & Gearheads

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