



New Planetary PMDC Gearmotors

The new type 24A4-60P gearmotor combines our high-performance 24A PMDC motor with the all-new type-60P planetary (60mm) gearhead. The gearmotor's small diameter and predictable variable speed performance make it an ideal drive for industrial automation, pumps, packaging equipment and many other industrial applications.

All-new type 60P Planetary Gearhead Features

- Up to twice the torque of conventional helical / spur parallel shaft gearboxes of similar size
- Unvented gearhousing mounts in any orientation
- Permanently lubricated with high-performance lubricant
- Hardened steel gears for long life and maximum performance
- Standard backlash < 60 arc minutes
- Contact Bodine for models with accessory shafts and mounting options for **encoders**

24A Permanent Magnet DC Motor

- Totally enclosed non-ventilated
- Class "F" insulation and ratings. High starting torque
- Pre-seated motor brushes for optimum performance and quiet operation
- Permanently lubricated, noise-tested, sealed, ball bearings
- Environmental protection IP-66 (motor protected from dust ingress and against powerful water jets*)



Typical Applications

Ideal for applications that require higher torque than conventional helical/spur gearheads can provide, and where very low backlash is not required: conveyors, pumps, packaging and other industrial automation equipment.

Gearmotor Specifications and Ratings

U.S./Imperial Models									
Speed (rpm)	Rated Torque (lb-in.)	Rate Current (Amps)	Peak Torque (lb-in.)	Power (HP)	Form Factor	Gear Ratio	Radial Load (lbs.)	Product Type	Item Number
90/130VDC, Totally Enclosed, Non-ventilated, Class F Insulation									
11/15	176/226	0.56 / 0.81	315	1/23 / 1/11	1.4 / 1.0	162:1	145	24A4BEPM-60P3	7011
19/28	96/151		278			89:1	120	24A4BEPM-60P3	7009
27/39	72/113		254			64:1	107	24A4BEPM-60P2	7008
57/83	34/54		245			30:1	86	24A4BEPM-60P2	7006
101/147	19/30		182			17:1	72	24A4BEPM-60P2	7004
136/197	14/22		136			13:1	66	24A4BEPM-60P2	7003
216/313	10/15		91			8:1	56	24A4BEPM-60P1	7002
454/658	4.6/7.1		43			4:1	44	24A4BEPM-60P1	7001
Metric Models									
Speed (1/min)	Rated Torque (Nm)	Rate Current (Amps)	Peak Torque (Nm)	Power (Watts)	Form Factor	Gear Ratio (i)	Radial Load (N)	Product Type	Item Number
24VDC, Totally Enclosed, Non-ventilated, Class F Insulation									
15	26	4.1	36	63	1.0	162:1	645	24A4BEPM-60P3	7411
28	16		31			89:1	538	24A4BEPM-60P3	7409
39	12		29			64:1	480	24A4BEPM-60P2	7408
82	5.5		28			30:1	387	24A4BEPM-60P2	7406
146	3.1		20			17:1	320	24A4BEPM-60P2	7404
197	2.3		15			13:1	294	24A4BEPM-60P2	7403
313	1.5		10			8:1	249	24A4BEPM-60P1	7402
658	0.7		5			4:1	196	24A4BEPM-60P1	7401
12VDC, Totally Enclosed, Non-ventilated, Class F Insulation									
15	19	6.9	36	46	1.0	162:1	658	24A4BEPM-60P3	7211
28	11		31			89:1	547	24A4BEPM-60P3	7209
39	8		29			64:1	489	24A4BEPM-60P2	7208
82	4		19			30:1	391	24A4BEPM-60P2	7206
146	2		10			17:1	325	24A4BEPM-60P2	7204
197	1.6		8			13:1	294	24A4BEPM-60P2	7203
313	1.1		5			8:1	254	24A4BEPM-60P1	7202
658	0.5		2			4:1	196	24A4BEPM-60P1	7201

Ratings are based on operation from DC power. Performance may vary with a speed control.

*IP-66 rating excludes mounting surface and driveshaft

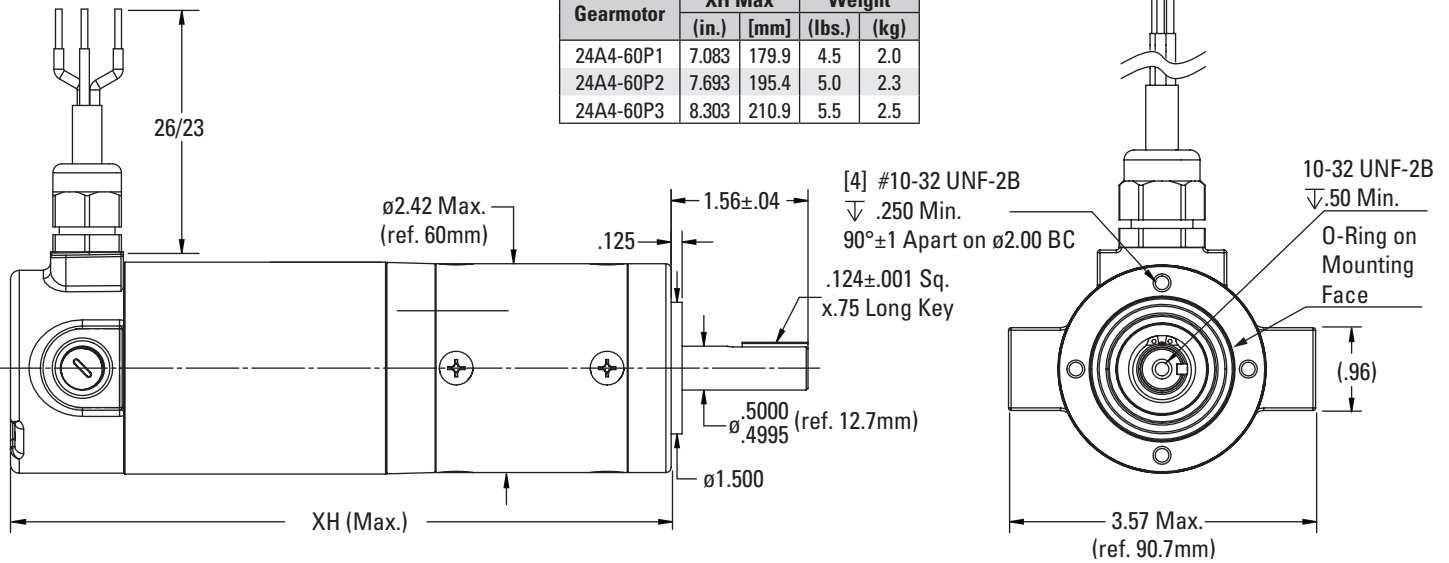


24A-60P PMDC Planetary Gearmotor

(90/130VDC dimensions shown. Visit our web site for metric mounting and shaft details.)

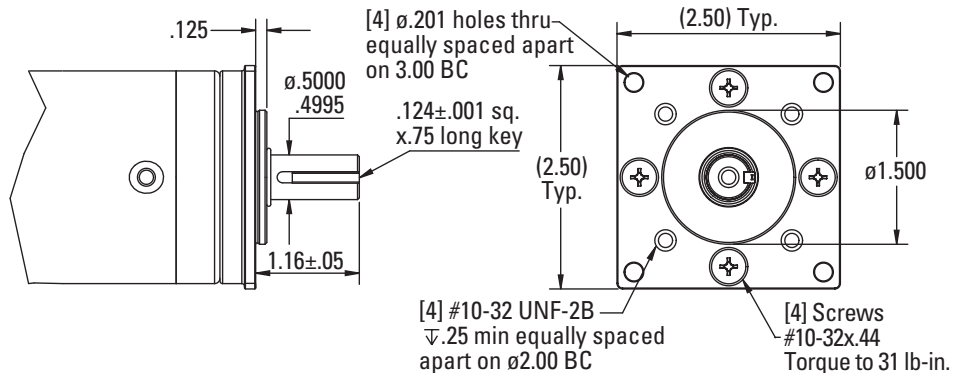
Dimensions (inches) [mm as indicated]

Gearmotor	XH Max		Weight	
	(in.)	[mm]	(lbs.)	(kg)
24A4-60P1	7.083	179.9	4.5	2.0
24A4-60P2	7.693	195.4	5.0	2.3
24A4-60P3	8.303	210.9	5.5	2.5



24A-60P with Accessory IP-66 Flange Kit Installed

	Model Number	
	U.S.	Metric
Mounting Flange	0960	0961
IP-66 Seal Kit	0962	0963



System Matched DC Speed Controls

Buy a Bodine gearmotor and speed control as a set and get our Extended 2-Year System Warranty

Bodine DC speed controls are designed to deliver optimal performance from our 12, 24, 90, or 130 Volt PMDC motors and gearmotors. Stock controls are available with either filtered or unfiltered DC output. Current limit, torque limit, maximum/minimum speed, and acceleration/deceleration time can all be adjusted to fit your application. Chassis models feature either $\frac{1}{4}$ inch quick connect tabs or terminal block connections. Enclosed models meet NEMA-1 or NEMA-4 standards for environmental protection. For more information, visit www.bodine-electric.com.

