Compact DC Gearmotors



Small footprint gearmotors for applications where space is at a premium. Best for precise and light-duty applications.



Cost-effective gearboxes to complement Precision DC and BLDC motors for high performance.

Motor Options

Compatible with Multi's Precision PMDC and Brushless DC

Precision PMDC - Featuring a 2 pole stator and 7 slotted armature for reduced cogging at low speeds, and precision ball bearings for smooth, quiet operation. High density brushes for extended life. Available frame sizes from 32mm - 54mm and power ranging from 1.5-55 Watts. When precision, reliability, and quality matter in your application.

Brushless DC - Electronically commutated BLDC motors. Featuring a single frame size, neodymium magnet technology, 6 pole stator, and a slotless rotor design. Brushless DC motors are quieter, have longer service life, greater power density, and no EMI.



	DC Model	12Y & 18Y - 33mm	28Y - 40mm	30Y & 55Y - 54mm	Brushless - 42mm
	Voltage	12 / 24V	12 / 24V	12/24V	12 / 24V
	Speed	2685-5570 RPM	2538-5615 RPM	1275-4700 RPM	4172 RPM
	Torque	1.0 -1.8 oz-in.	2.6-4.0 oz-in.	6.5-18.1 oz-in.	10.0 oz-in.
	Power	1.5 - 10.1 W	4.8-16.3 W	3.9-55.2 W	30.8W
	Frame Size	32mm	40mm	54mm	42mm
	Reversible	Yes	Yes	Yes	Yes
	Motor Life*	3000+ Hours	3000+ Hours	3000+ Hours	20,000+ Hours

^{*}Brush life dependent on duty cycle, application, and environment.

Compact DC Gearmotors

In-Line Shaft: Compact, quiet, and versatile. This costeffective series of compact in-line gearboxes offers engineers greater flexibility for light-duty applications. Best used for when space is at a premium. Low backlash gearing. Low life cycle costs. Stocked solutions are available immediately.

Precision Movement - Compact Power

Planetary: Especially efficient, they are suitable for continuous and intermittent operation. The right gearbox allows for a smaller motor, footprint, and increases the economic efficiency of the entire system. Zero gearing backlash, suitable for servo and positioning applications

Compact gearboxes are designed for our Precision DC and Brushless DC motor lines only. They are not designed to be sold separately.

Applications: Medical / Laboratory Equipment, Foodservice Equipment, Agriculture, Office Equipment, Material Handling, and Robotics.

- Bronze sleeve bushings In-Line
- Heavy-duty ball bearings Planetary
- Optional magnetic and optical incremental encoders
- High-precision performance at a competitive price
- Compact footprint
- All metal gearing
- Little-to-no gearing backlash
- Machined aluminum gear housing



1 Planetary Robust Construction. High Torque. High Performance. 2 In-Line Low Noise. High Precision. Lower Torque.

Planetary Gearmotors

GBP30 - 30mm - Planetary

Information & Specifications



The GBP30 is a 30mm frame size planetary gearbox with maximum efficiency, minimum backlash, and a small mechanical footprint. Ideal for precision servo applications, with Precision PMDC and Brushless DC motor options.

Compatible DC Motors: 12Y, 18Y, & 28Y

Cont. Torque	Peak Torque	Rated Speed	Ratio : 1	Rotation	Shaft Size
6.94 - 17.4 in-lbs.	20.8 - 52.1 in-lbs.	1 - 500 RPM	3.3 - 731.1	Reversible	6 or 8mm

GBP41 - 41mm - Planetary

Information & Specifications



The GBP41 is a 41mm frame size planetary gearbox with excellent efficiency and power density. Features a compact and industry-compatible design. Dual ball bearings on output to withstand high loads. Suitable for servo applications with Precision PMDC and Brushless DC motor options. Optional encoders available.

Compatible DC Motors: 28Y & Brushless

Cont. Torque	Peak Torque	Rated Speed	Ratio : 1	Rotation	Shaft Size
8.7 - 52.1 in-lbs.	26.1 - 156.2 in-lbs.	3.3 - 400 RPM	4 - 1296	Reversible	8mm

GBP52 - 52mm - Planetary

Information & Specifications



The GBP52 is a 52mm frame size planetary gearbox suitable for servo applications where high torque capacity is required. The GBP52 provides excellent efficiency in a compact and industry standard configuration. Dual ball bearings on output to withstand high loads. Designed for robustness to sustain intermittent or sudden load changes.

Compatible DC Motors: 30Y, 55Y, & Brushless

Cont. Torque	Peak Torque	Rated Speed	Ratio : 1	Rotation	Shaft Size
8.7 - 86.8 in-lbs.	26.1 - 260.4 in-lbs.	1 - 400 RPM	3 - 936	Reversible	12mm

In-line Gearmotors

GBS35/GBM35 - 35mm - In-line

Information & Specifications



The GBS35 / GBM35 is an economical 35 mm offset in-line shaft gearbox suitable for lower torque applications. Compact, quiet, and versatile with a continuous torque rating up to 10 in.-lbs. Great for low-torque intermittent duty applications such as gaming and office equipment. Different mounting patterns and output shaft diameters distinguish the GBS and GBM from each other. GBS35 features cut steel gearing, whereas the GBM35 features sintered steel gearing.

Compatible DC Motors: 12Y & 18Y

Cont. Torque	Peak Torque	Rated Speed	Ratio : 1	Rotation	Shaft Size
0.44 - 5.21 in-lbs.	1.3 - 15.6 in-lbs.	10 - 400 RPM	6.36 - 1822	Reversible	4.76mm (S) 6.35mm (M)

GBN50 - 50mm - In-line

Information & Specifications



The GBN50 is an economical 50 mm offset in-line shaft gearbox suitable for lower torque applications. Compact, quiet, and versatile with a continuous torque rating up to 30 in-lb. It is a great complement to select Precision PMDC and Brushless DC motors.

Compatible DC Motors: 28Y, 30Y, 55Y, & Brushless

Cont. Torque	Peak Torque	Rated Speed	Ratio: 1	Rotation	Shaft Size
4.4 - 26.1 in-lbs.	13 - 52.1 in-lbs.	1 - 400 RPM	3 - 936	Reversible	6.35mm

Accessories

Optional Encoders

Magnetic and Optical Encoders for Precision Control



Encoders convert motion to a digital signal that can provide feedback signals to determine position, count, speed, or direction. High-resolution encoders are usually required for precision control of speed and/or position – especially when control at very low speed is needed.

Multi Products offers magnetic and optical incremental encoders, which are only available on our precision line PMDC and Brushless DC motors. These can be easily integrated into modern control systems for precise control over your gearmotor and application. Optimize your system with accurate positioning and precision movement.

Magnetic Encoder - EM3415-XX-:

- 2 channel
- Speed and position control
- Hall Effect sensor
- Resolutions: 1 5, 7, 10, 12, 16 PPR

Optical Encoder - EE3020-XXX-:

- 2 channel
- Speed and position control
- Resolutions: 24 512 PPR

Contact Us for a Consultation

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