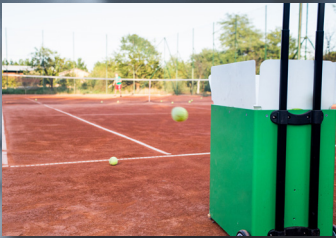


DC (PMD) Gearmotors



An extensive line of permanent magnet brushed DC motors and gearboxes providing motion to numerous applications and industries.



From Sporting Goods...



To Agriculture...



To Gaming and Amusement...

Tailor-Engineered Gearmotors for Your Application.

High quality, attention to detail, on-time delivery, and quick lead times have been the pillars of Multi for over 60 years. We are committed to being the partner you can count on.

Two PMDC Motor Line Options

Economical Motor Line



Our assortment of economical PMDC gearmotor input motors features performance to rival that of more expensive options. With high starting torque, ideal for intermittent duty applications, these motors have proven durable in demanding applications while remaining cost effective. Available frame sizes from 28mm - 52mm

Economical DC motors can be mounted to a variety of Multi Products parallel shaft gearbox / reducers.

Applications: Foodservice Equipment, Agriculture, Industrial Machinery, Gaming, HVAC, and Fluid Control.

Features:

- 3 frame sizes available
- Stamped steel and ventilated housing
- Prelubed bronze bushings
- Optional custom wiring harnesses
- Best for intermittent duty
- High power density
- Permanent ferrite magnets
- Optional EMI filters
- Carbon brushes 1000+ hour lifespan*

	Large	Medium	Small
DC Model	983 DC - 52mm	615 DC - 36mm	315 DC - 28mm
Voltage	12-24V	12-24V	12-24V
Speed	3100-4800 RPM	1450-5745 RPM	2900-5740 RPM
Torque	20-40 oz-in.	1.4-2.5 oz-in.	0.5-1.1 oz-in.
Frame Size	52mm	36mm	28mm
Reversible	Yes	Yes	Yes
Brush Life*	1000+ Hours	1000+ Hours	1000+ Hours

*Estimated life — Brush life dependent on duty cycle, application, and environment.

Use DCM part numbers for inquiry reference **DCM - 10XX**

Precision Motor Line



Precision brush-commutated PMDC input motors. 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.

Precision PMDC motors can be mounted to a variety of parallel shaft, compact miniature in-line, and planetary gearboxes / reducers.

Applications: Foodservice Equipment, Medical/Laboratory Equipment, Agriculture, Industrial Machinery, Material Handling, and Gaming.

Features:

- 3 frame sizes available
- Machined steel and cast zinc housing
- Heavy-duty ball bearings
- Copper graphite brushes 3000+ hour lifespan*
- Rated for continuous or intermittent duty
- Permanent neodymium magnet
- Large frame - replaceable brushes
- Optional encoders

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

*Estimated life — Brush life dependent on duty cycle, application, and environment.



DC Gearboxes / Reducers

Crafted gearmotors to drive commercial, industrial, and consumer applications.

302 SERIES



Compatible DC Motors:
Economical - 615 & 983
Precision - 28Y, 30Y, 55Y & Brushless

Heavy Duty - Compact Package

DC Motor	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
Medium - Economical	12 / 24V	2 - 90 in.-lbs.	4 - 400 RPM	Reversible	1/4" to 3/8"
Medium - Precision	12 / 24V	4 - 100 in.-lbs.	4 - 150 RPM	Reversible	1/4" to 3/8"
Large Frame	12 / 24V	5.5 - 150 in.-lbs.	10 - 400 RPM	Reversible	1/4" to 3/8"

440 SERIES



Compatible DC Motors:
Economical - 315 & 615
Precision - 12Y & 28Y

Low Profile - Oscillation Option

DC Motor	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
Small Frame	12 / 24V	0.5 - 80 in.-lbs.	0.5 - 200 RPM	Reversible / Oscillator	1/4" or 5/16"
Medium - Economical	12 / 24V	2 - 80 in.-lbs.	0.25 - 400 RPM	Reversible / Oscillator	1/4" or 5/16"
Medium - Precision	12 / 24V	4 - 80 in.-lbs.	4 - 150 RPM	Reversible / Oscillator	1/4" or 5/16"

1600 SERIES



Compatible DC Motors:
Economical - 615 & 983
Precision - 28Y, 30Y, 55Y & Brushless

Heavy Duty - Sealed Housing

DC Motor	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
Medium Frame	12 / 24V	4 - 100 in.-lbs.	4 - 150 RPM	Reversible	1/4" to 1/2"
Large Frame	12 / 24V	5.5 - 150 in.-lbs.	4 - 200 RPM	Reversible	1/4" to 1/2"

3000 SERIES



Compatible DC Motors:
Economical - 615
Precision - 12Y, 28Y & Brushless

Medium Duty - Dual Mounting

DC Motor	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
Medium - Economical	12 / 24V	19 - 75 in.-lbs.	4 - 50 RPM	Reversible	1/4" to 3/8"
Medium - Precision	12 / 24V	5 - 75 in.-lbs.	4 - 50 RPM	Reversible	1/4" to 3/8"

6000 SERIES



Compatible DC Motors:
Economical - 615
Precision - 12Y, 28Y & Brushless

Medium Duty - Retrofit Option

DC Motor	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
Medium - Economical	12 / 24V	9.5 - 75 in.-lbs.	8 - 25 RPM	Reversible	1/4" to 3/8"
Medium - Precision	12 / 24V	11 - 75 in.-lbs.	8 - 25 RPM	Reversible	1/4" to 3/8"

7000 SERIES



Compatible DC Motors:
Economical - 315 & 615
Precision - 12Y, 28Y & Brushless

Medium Duty - Most Versatile

DC Motor	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
Small Frame	12 / 24V	0.5 - 73 in.-lbs.	4 - 200 RPM	Reversible	1/4" to 3/8"
Medium - Economical	12 / 24V	3 - 75 in.-lbs.	4 - 200 RPM	Reversible	1/4" to 3/8"
Medium - Precision	12 / 24V	4 - 75 in.-lbs.	4 - 150 RPM	Reversible	1/4" to 3/8"

7000X SERIES



Compatible DC Motors:
Economical - 315 & 615
Precision - 12Y, 28Y & Brushless

Medium Duty - Offset Shaft

DC Motor	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
Small Frame	12 / 24V	0.5 - 73 in.-lbs.	4 - 200 RPM	Reversible	1/4" to 3/8"
Medium - Economical	12 / 24V	3 - 75 in.-lbs.	4 - 200 RPM	Reversible	1/4" to 3/8"
Medium - Precision	12 / 24V	4 - 75 in.-lbs.	4 - 150 RPM	Reversible	1/4" to 3/8"

8000 SERIES



Compatible DC Motors:
Economical - 315, 615
Precision - 12Y

Light Duty - Most Compact

DC Motor	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
Small Frame	12 / 24V	0.5 - 35 in.-lbs.	8 - 200 RPM	Reversible	1/4" to 3/8"
Medium - Economical	12 / 24V	3 - 50 in.-lbs.	8 - 200 RPM	Reversible	1/4" to 3/8"

9000 SERIES



Compatible DC Motors:
Economical - 615
Precision - 28Y & Brushless

Heavy Duty - The Strongest

DC Motor	Voltage	Rated Torque	Rated Speed	Rotation	Shaft Size
Medium - Economical	12 / 24V	12 - 100 in.-lbs.	2 - 40 RPM	Reversible	3/8" to 1/2"
Medium - Precise	12 / 24V	7 - 100 in.-lbs.	4 - 40 RPM	Reversible	3/8" to 1/2"

DC Motor Performance Matrix & Overview

PERFORMANCE DATA - TORQUE/SPEED					Data is based on in-lb running torque +/- 15%				
Reference RPM	315, 12Y & 18Y Small Frame		615 - Economical Medium Frame		28Y - Precision Medium Frame		983 & 55Y Large Frame		Gear Reducer Model RPM Range Reference
	100% Duty Cycle - Motors Are Not Designed for Stall								
	12V	24V	12V	24V	12V	24V	12V	24V	
0.25	N/A	N/A	100	100	N/A	N/A	N/A	N/A	<div><div>440 - Low Profile - 80 in.-lb. Max</div><div>302 - 150 in.-lb. Max</div><div>1600 - 150 in.-lb. Max</div><div>6000 - 75 in.-lb. Max</div><div>7000 & 7000x - 75 in.-lb. Max</div><div>3000 - 75 in.-lb. Max</div><div>8000 - 50 in.-lb. Max</div><div>9000 - 200 in.-lb. Max</div></div>
0.5	80	N/A	100	100	N/A	N/A	N/A	N/A	
1	80	80	100	100	N/A	N/A	N/A	N/A	
2	80	80	100	100	N/A	N/A	N/A	N/A	
4	55	73	80	90	50	N/A	N/A	N/A	
8	24	35	60	80	30	N/A	N/A	N/A	
10	22	29	45	75	26	100	80	N/A	
12	18.5	28	40	55	22	90	70	N/A	
15	15	22	30	50	18	70	55	150	
20	11	17	24	40	13	55	45	150	
25	9	13	19	30	11	45	35	150	
30	7	11	16	25	9	35	30	150	
40	5.5	8	12	19	7	25	21	120	
50	5	7	9.5	15	5	20	17	95	
75	3.5	5	7.5	10	4	14	15	65	
100	2.5	3.8	5.5	8	N/A	12	11	50	
150	1.5	2.5	3.5	5.5	N/A	8	7.5	40	
175	1	N/A	3.2	5	N/A	N/A	6	35	
200	0.5	N/A	3	4	N/A	N/A	5.5	20	
400	N/A	N/A	2	2	N/A	N/A	N/A	10	

Torque values apply to motors operating in room ambient temperature - 25°C

Note: Not all gear reducers are available with each motor type/frame size and speed/torque combination - Please check compatibility.

Contact Us for a Consultation

OUR SALES TEAM - YOUR PARTNERS. IN MOTION.

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