

# Stepping Drives



## Introduction

Since releasing its first stepping drive in 1997, Leadshine has been designing stepping drives to satisfy the requirements of its customers. Today, Leadshine is one of the LARGEST stepping drive manufacturers around the world. Every year, over 200,000 Leadshine stepping drives are implemented in thousands of applications around the world. Those applications include electronic equipments, packaging equipments, engraving machines, textile equipments, laser machines, pick-and-place devices, and so on.

Currently, Leadshine offers two main series of 2-phase microstepping drives, the digital DM series and analog M series. The high-performance DM drives are based on powerful 32-bit DSP control technology. Their features include super-low stepping noise, anti-resonance, low-speed ripple smoothing, and low motor heating. The low-cost M drives employ precise analog current control and are characterized by superior high-speed torque, relatively low stepping noise, and low motor heating. Leadshine also supplies 3-phase digital and analog stepping drives.

## Features of Innovative DM Series Drives

### Anti-Resonance / Electronic Damping

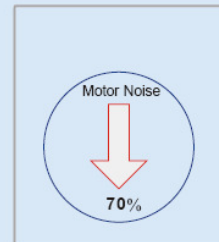
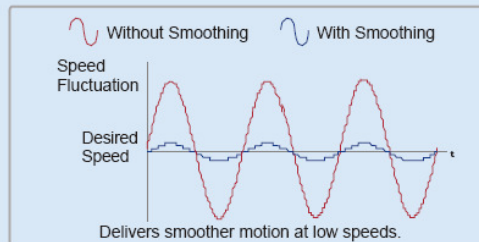
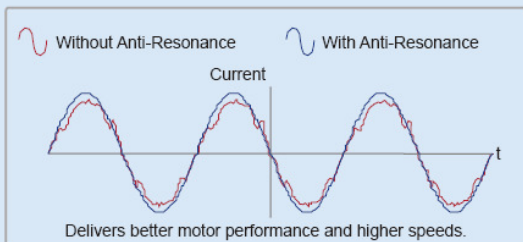
Stepping systems resonate at mid-range. The DM series drivers can calculate the system's natural frequency and apply damping to control algorithm for anti-resonance.

### Speed Ripple Smoothing

Smooth inherent low speed torque ripple making the motor motion much smoother at low speed.

### Super Low Noise

Dramatically reduces about 70% motor noise.



## Selection Table

Phase	Series	Model	Output Current (A)	Supply Voltage (V)	Microstep Resolution	Driving Motors (NEMA Size)	Weight (kg)	Size (mm)	Control Signals	
									PUL/DIR; CW/CCW	Single-ended; Differential
2	DM	DM422C	0.3 - 2.2	DC(18-40)	1-512	14, 17, 23	0.115	86*55*20	PUL/DIR; CW/CCW	Single-ended; Differential
		DM432C	0.5 - 3.2	DC(18-40)	1-512	14, 17, 23	0.19	116*69*26.5	PUL/DIR; CW/CCW	Single-ended; Differential
		DM556	0.5 - 5.6	DC(18-50)	1-512	14, 17, 23	0.28	118*75.5*33	PUL/DIR; CW/CCW	Single-ended; Differential
		DM870	0.5 - 7.0	DC(18-80)	1-512	17, 23, 34	0.28	118*75.5*33	PUL/DIR; CW/CCW	Single-ended; Differential
	M	M415B	0.21-1.5	DC(18-40)	1-64	14, 17, 23	0.115	86*55*20	PUL/DIR	Single-ended
		M325	0.39-2.5	DC(12-24)	1-8	14, 17, 23	0.115	86*55*20	PUL/DIR; CW/CCW	Single-ended
		M542	1.0-4.2	DC(20-50)	2-128, 5-125	14, 17, 23	0.28	118*75.5*33	PUL/DIR; CW/CCW	Single-ended; Differential
		M760	1.45-6.0	DC(20-75)	2-256, 5-200	17, 23, 34	0.28	118*75.5*33	PUL/DIR; CW/CCW	Single-ended; Differential
		M880A	2.8-7.8	DC(24-80)	2-256, 5-200	17, 23, 34, 42	0.57	151*97*48	PUL/DIR; CW/CCW	Single-ended; Differential
		ND882	1.8-8.2	DC(24-80)	2-50	17, 23, 34	0.52	143*97*48	PUL/DIR; CW/CCW	Single-ended; Differential
ND	ND1182	0.7-8.2	AC(70-150)	2-128, 5-125	34, 42	1.3	200*137*81	PUL/DIR; CW/CCW	Single-ended; Differential	
	ND2282	0.45-7.8	AC(80-220)	2-50	34, 42	2.0	202*167*63	PUL/DIR; CW/CCW	Single-ended; Differential	
3	DM	3DM683	2.1-8.3	DC(18-60)	200-1000s/r	17, 23, 34	0.38	118*75.5*33	PUL/DIR; CW/CCW	Single-ended; Differential
		3DM883	2.1-8.3	DC(18-80)	200-25600s/r	17, 23, 34	1.05	143*97*48	PUL/DIR; CW/CCW	Single-ended; Differential

Note: Please visit [www.leadshine.com](http://www.leadshine.com) for information about our latest drives.

## Part Number

