

# Pulse Control Stepper Drives

## EM-S---Enhanced Version

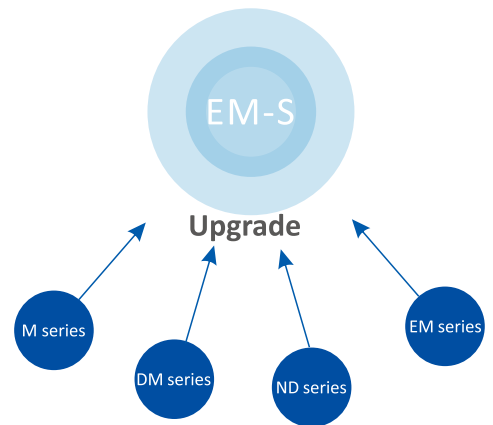


## EM-S Series---Enhanced Performance

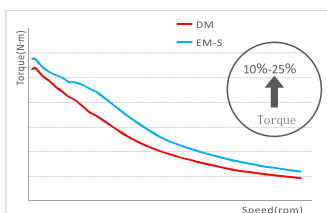
EM-S series stepper drives from Leadshine offer superior performance and exceptional high reliability. Based on Leadshine's 20+ years' experience in stepper motor control, they adopt the latest control technology and are ideal for modern machine manufactures. Not only inheriting features of smooth motion, low noise, low heating, etc. from past Leadshine stepper drives, they also offer new functions and features such as improved torque in all speed ranges, fault output, brake control, pulse command smoothing... They are capable of power wide range of stepper motors of NEMA 8, 11, 15, 17, 23, 34, and 42.

### Features

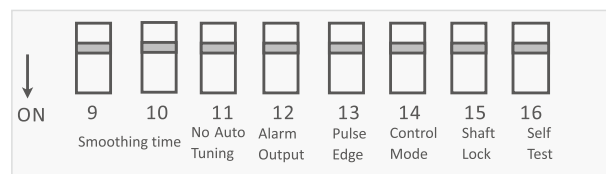
- ▶ Torque increased by 10%-25%
- ▶ Step & DIR or CW & CCW control
- ▶ Alarm and Brake outputs
- ▶ 200KHz (500KHz optional) max frequency
- ▶ 5V or 24V signal voltage optional
- ▶ Soft-start with no "jump"
- ▶ Over-voltage, over-current



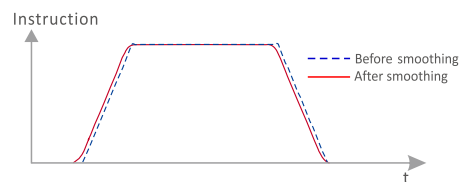
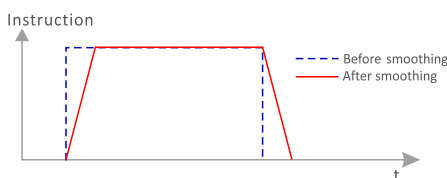
### Torque comparison (same condition)



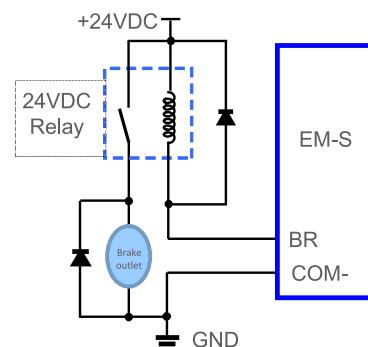
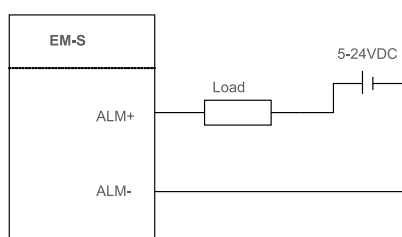
### Features of Second DIP Switch



### Pulse Smoothing Filter



### Alarm and Brake Outputs



## EM-S Series Electrical Specifications

Items	EM415S		EM422S		EM542S		EM556S		EM870S		EM882S	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Output Current (A)	0.3	1.5	0.3	22	0.5	4.2	0.5	4.2	0.5	7.0	0.5	8.2
Power Voltage (VDC)	12	40	12	40	20	50	20	50	20	80	20	80
Max Input Frequency (KHz)	-	70	-	70	-	200	-	200 or 500*	-	200	-	200 or 500*
Logical Current (mA)	7	16	7	16	7	16	7	16	7	16	7	16
Logical Voltage (VDC)	0	5	0	5	0	5 or 24	0	5 or 24	0	5 or 24	0	5
Min Pulse Width (us)	7.5		7.5		2.5		2.5 or 1		2.5		2.5 or 1	
Matched Motors Size	NEMA8/11/14/17		NEMA17		NEMA17/23		NEMA23/24		NEMA23/24/34		NEMA34	

Note: (\*) The drive with 500KHz is another model.

## EM-S Series Interface and Dimensions

(unit: mm, 1 inch=25.4 mm)

