

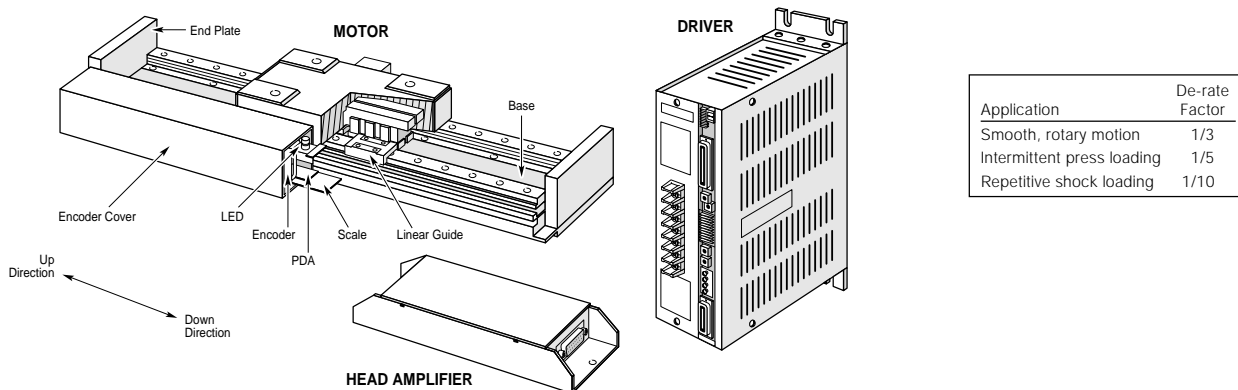
LM1000 Series Motor Specifications

LM1000 Series Motor Data

		LM1050	LM1100	LM1300
Performance				
Maximum force	lb	11.25	22.5	67.5
	N	50	100	300
Positional accuracy ^B	in x 10 ⁻⁴	3.9 ^C	3.9 ^C	3.9 ^C
	µm	10 ^C	10 ^C	10 ^C
Maximum speed	in/s	32 (6) ^A	32 (6) ^A	32 (6) ^A
	m/s	0.83 (0.16) ^A	0.83 (0.16) ^A	0.83 (0.16) ^A
Encoder resolution	in x 10 ⁻⁶ /pulse	1.95 (0.39) ^A	1.95 (0.39) ^A	1.95 (0.39) ^A
	µm/pulse	0.5 (±0.1) ^A	0.5 (±0.1) ^A	0.5 (±0.1) ^A
Repeatability	in x 10 ⁻⁵	±1.95 (±0.39) ^A	±1.95 (±0.39) ^A	±1.95 (±0.39) ^A
	µm	±0.5 (±0.1) ^A	±0.5 (±0.1) ^A	±0.5 (±0.1) ^A
Parallelism	in x 10 ⁻⁵	39	39	39
	µm	10	10	10
Max load*	lb	45	45	225
	N	200	200	1,000
Max transportable moment loads*	Rolling moment			
Pitching moment	ft-lb	3.69	5.16	45.73
	N-m	5.0	7.0	62.0
Yaw moment	ft-lb	5.16	5.16	45.73
	N-m	7.0	7.0	62.0
Slider weight	lb	2.2	3.1	11.0
	kg	1.0	1.4	5.0
Rail weight	lb/in	0.73	0.84	1.40
	kg/m	13	15	25
Z-channel	pulse/in	1/0.0806	1/0.0806	1/0.0806
	pulse/mm	1/2.048	1/2.048	1/2.048
Stroke length	in	1.9-59	1.9-59	1.9-59
	mm	50-1,500	50-1,500	50-1,500
Life	km	[2,000/(200+W/4)] ³ x 50	[2,000/(200+W/4)] ³ x 50	[8,330/(600+W/4)] ³ x 50
		W: Load (N)	W: Load (N)	W: Load (N)

- Notes:**
- ^A Shown the specification of ±0.1 (µm) version, which can be requested through Custom Products.
 - ^B Shown the value at 22°C (coefficient of linear expansion 8 x 10⁻⁶/°C)
 - ^C Shown here is the positional accuracy for L_s ≤ 700 mm (27.5 in), positional accuracy for L_s ≥ 800 mm (31.5 in) = 50 + (50/1,000) * L_s [µm]
English units are provided for convenience.
 - * When designing a system, de-rate the maximum loads to the values specified.

Linear Series Standard Product Configuration



Drives & Drive/Controllers

controllers
drives
motors

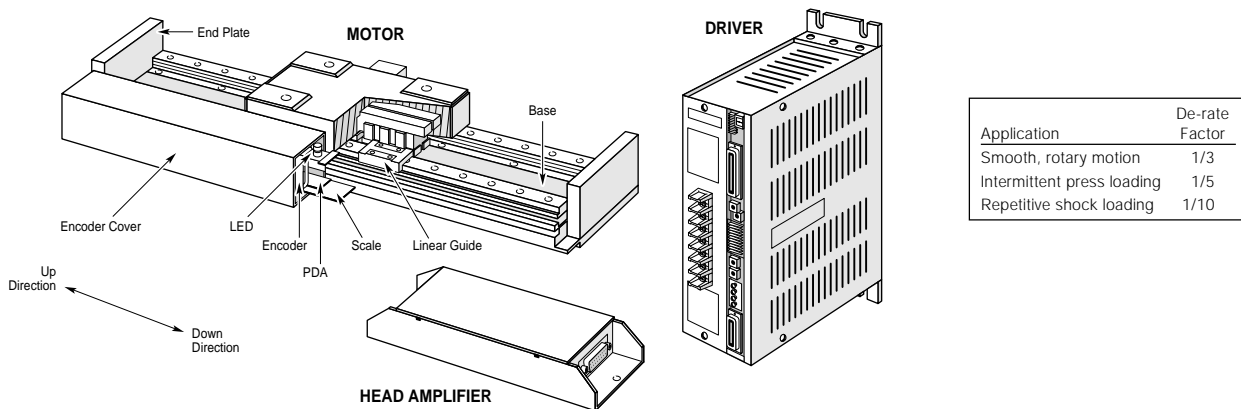
LM5000 Series Motor Specifications

LM5000 Series Motor Data

		LM5040	LM5090	LM5270	
Performance					
Maximum force	lb	9.0	20.2	60.7	
	N	40	90	270	
Positional accuracy ^B	in x 10 ⁻⁴	19.5 + (0.0195) * L _s ^C	19.5 + (0.0195) * L _s ^C	19.5 + (0.0195) * L _s ^C	
	µm	50 + (50/1,000) * L _s ^A	50 + (50/1,000) * L _s ^A	50 + (50/1,000) * L _s ^A	
Maximum speed	in/s	78	78	78	
	m/s	2.0	2.0	2.0	
Encoder resolution	in x 10 ⁻⁵ /pulse	3.9	3.9	3.9	
	µm/pulse	1.0	1.0	1.0	
Repeatability	in x 10 ⁻⁵	±3.9	±3.9	±3.9	
	µm	±1	±1	±1	
Parallelism	in x 10 ⁻⁵	39	39	39	
	µm	10	10	10	
Max load*	lb	45	45	225	
	N	200	200	1,000	
Max transportable moment loads*	Rolling moment	ft-lb	3.69	5.16	45.73
		N-m	5.0	7.0	62.0
Pitching moment	ft-lb	5.16	5.16	45.73	
	N-m	7.0	7.0	62.0	
Yaw moment	ft-lb	5.16	5.16	45.73	
	N-m	7.0	7.0	62.0	
Slider weight	lb	2.2	3.1	11.0	
	kg	1.0	1.4	5.0	
Rail weight	lb/in	0.73	0.84	1.40	
	kg/m	13	15	25	
Z-channel	pulse/in	1/0.161	1/0.161	1/0.161	
	pulse/mm	1/4.096	1/4.096	1/4.096	
Stroke length	in	1.9-59	1.9-59	1.9-59	
	mm	50-1,500	50-1,500	50-1,500	
Life	km	[2,000/(200+W/4)] ³ x 50	[2,000/(200+W/4)] ³ x 50	[8,330/(600+W/4)] ³ x 50	
		W: Load (N)	W: Load (N)	W: Load (N)	

- Notes:
- A L_s = stroke length in mm
 - B Shown the value at 22°C (Coefficient of linear expansion 8 x 10⁻⁶/°C)
 - C L_s = stroke length in inches
- English units are provided for convenience.
- * When designing a system, de-rate the maximum loads to the values specified.

Linear Series Standard Product Configuration



Find Your Local Factory Authorized Distributor at www.compumotor.com or Call 1-800-358-9070.