



CYLINDRICAL FRAMELESS LINEAR VOICE COIL ACTUATORS (VCA)

Introduction

Frameless voice coil actuators (VCA), also known as un-housed VCAs, are sold in pairs, featuring both the coil and the field assemblies, which are required to be aligned within the customer's application. Frameless VCAs are the most cost effective and versatile types of linear actuators, allowing customers to integrate them into their systems in a way that is best suited for the application. VCA technology features many inherent advantages, such as direct-drive, zero backlash and cog free operation for accurate motion, as well as high acceleration and use of a single phase.



Features

- Capable of withstanding billions of cycles of use
- Constructed with high energy product rare earth magnets
- Moving coil and moving magnet designs available
- Wide offering of standard products, reducing lead time and cost

SPECIFICATIONS

Part Number	Peak Force (N / lb)	Total Stroke (mm / in)	Continuous Stall Force (N / lb)	Actuator Constant (N/√watt lb/√watt)	Outside Diameter/Width (mm / in)	Length at Mid-stroke (mm / in)
LA05-05-000A	0.70 / 0.15	1.02 / 0.04	0.31 / 0.07	0.28 / 0.06	12.7 / 0.50	12.7 / 0.50
LA08-10-000A	6.67 / 1.50	4.06 / 0.16	1.96 / 0.44	0.97 / 0.21	19.0 / 0.75	24.5 / 0.96
LA10-08-000A	6.67 / 1.50	5.08 / 0.20	2.71 / 0.60	1.14 / 0.25	24.1 / 0.95	19.6 / 0.77
LA10-12-027A	13.3 / 3.00	9.14 / 0.36	4.94 / 1.11	1.76 / 0.39	25.4 / 1.00	28.5 / 1.12
LA12-17-000A	44.4 / 10.0	7.62 / 0.30	15.5 / 3.50	4.38 / 0.98	30.4 / 1.20	43.1 / 1.70
LA13-11-000A	15.5 / 3.50	6.36 / 0.25	5.07 / 1.14	2.36 / 0.53	31.6 / 1.24	27.3 / 1.07
LA13-12-000A	15.5 / 3.50	6.36 / 0.25	7.12 / 1.60	2.36 / 0.53	31.6 / 1.25	28.5 / 1.13
LA14-17-000A	22.2 / 5.00	10.1 / 0.40	7.12 / 1.60	2.18 / 0.49	35.5 / 1.40	41.9 / 1.65
LA15-16-002A	62.6 / 14.1	6.36 / 0.25	19.6 / 4.40	4.72 / 1.06	38.1 / 1.50	39.6 / 1.56
LA15-16-020A	33.8 / 7.60	10.1 / 0.40	11.6 / 2.60	2.80 / 0.62	38.1 / 1.50	39.6 / 1.56
LA15-16-024A	88.9 / 20.0	6.35 / 0.25	24.4 / 5.50	5.82 / 1.31	38.1 / 1.50	39.6 / 1.56
LA15-26-000A	44.4 / 10.0	25.4 / 1.00	11.5 / 2.60	2.93 / 2.60	37.5 / 1.48	65.4 / 2.58
LA16-16-000A	89.0 / 20.0	6.36 / 0.25	24.4 / 5.50	5.83 / 1.31	40.0 / 1.57	39.6 / 1.16
LA16-19-001A	22.2 / 5.00	12.7 / 5.00	9.30 / 2.10	2.31 / 0.52	40.0 / 1.58	47.6 / 1.88

Part Number	Peak Force (N / lb)	Total Stroke (mm / in)	Continuous Stall Force (N / lb)	Actuator Constant (N $\sqrt{\text{watt}}$ / lb $\sqrt{\text{watt}}$)	Outside Diameter/Width (mm / in)	Length at Mid-stroke (mm / in)
LA17-28-000A	71.1 / 16.0	15.2 / 0.60	28.4 / 6.40	6.89 / 1.55	58.4 / 2.30	66.0 / 2.60
LA18-12-000A	44.5 / 10.0	6.10 / 0.24	15.1 / 3.40	4.80 / 1.10	44.4 / 1.75	28.4 / 1.12
LA18-12-001A	27.2 / 6.10	6.10 / 0.24	8.13 / 1.80	3.10 / 0.70	44.4 / 1.75	28.4 / 1.12
LA18-12-006Z	44.4 / 10.0	6.10 / 0.24	15.1 / 3.40	4.84 / 1.09	44.4 / 1.75	28.4 / 1.12
LA19-40-000A	22.2 / 5.00	45.7 / 1.80	8.54 / 1.92	2.37 / 0.53	47.6 / 1.88	101 / 4.00
LA23-55-000A	89.0 / 20.0	57.1 / 2.25	27.1 / 6.10	4.34 / 0.98	57.1 / 2.25	139 / 5.50
LA24-20-000A	111 / 25.0	16.5 / 0.65	26.3 / 5.90	7.51 / 1.69	60.3 / 2.37	50.8 / 2.00
LA24-33-000A	35.6 / 8.00	22.9 / 0.90	13.8 / 3.10	3.02 / 0.68	59.7 / 2.35	82.5 / 3.25
LA25-42-000A	266 / 60.0	25.4 / 1.00	86.3 / 19.4	13.78 / 3.10	63.5 / 2.50	105.9 / 4.17
LA28-22-000A	266 / 60.0	11.4 / 0.45	87.7 / 19.7	13.78 / 3.10	69.8 / 2.75	55.8 / 2.20
LA28-22-001A	201 / 45.2	11.4 / 0.45	45.7 / 10.3	10.4 / 2.34	69.8 / 2.75	55.9 / 2.20
LA28-43-000A	266 / 60.0	25.0 / 0.98	75.6 / 17.0	13.0 / 2.90	70.0 / 2.76	109 / 4.30
LA30-43-000A	445 / 100	25.4 / 1.00	185 / 41.6	21.8 / 4.90	76.2 / 3.00	112 / 4.42
LA30-48-000A	445 / 100	25.4 / 1.00	133 / 30.1	21.8 / 4.90	76.2 / 3.00	120 / 4.72
LA30-75-001A	444 / 100	50.8 / 2.00	96.2 / 21.7	16.6 / 3.75	76.2 / 3.00	188 / 7.43
LA34-37-000A	444 / 100	19.0 / 0.75	127 / 28.6	20.2 / 4.56	85.8 / 3.38	95.2 / 3.75
LA43-67-000A	1378 / 110	31.7 / 1.25	282 / 63.6	28.0 / 6.30	107.9 / 4.25	169 / 6.69
LA50-65-000A	1861 / 418	25.4 / 1.00	500 / 112	57.8 / 13.0	127 / 5.00	163 / 6.43

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