

The LSE 10 motor series is characterized by high continuous forces and an extremely compact design. Due to these features, it is ideal for use in applications in extremely confined spaces.

LSE 10 linear motors are also available with water cooling for applications with maximum continuous load requirements, alternating loads or high processing forces.

- High velocities and accelerations
- Optimum start/stop characteristics
- Maximum dynamic response
- Maximum accuracy down to 2 μm (high-resolution encoder systems)
- Maximum guidance system precision
- Maximum power density due to minimum air gap (approx. 1 mm)
- Available with a brake as an option



LSE 10 linear motors are available in uncooled, externally ventilated and water cooled versions.



LSE 10 G XXXX - Technical data - G = closed (convection-cooled)

	Length l1 [mm]	Width b1 [mm]	Mass [kg]	Speed		Trust force		FAnz [N]	Rated current	
				v(/Fnenn) [m/s]	v(Fmax) [m/s]	Fnenn [N]	Fmax [N]		IN [A]	Imax [A]
LSE10 G 0804	182	85	3,1	3,68	2,01	110	530	1803	0,8	4,8
LSE10 G 0806	254	85	4,6	3,79	1,97	160	840	2706	1,2	7,8
LSE10 G 0808	326	85	6,1	3,85	1,99	210	1160	3608	1,6	10,8

LSE10 G 0810	398	85	7,6	3,89	1,97	250	1470	4510	1,9	13,7
LSE10 G 0814	542	85	10,6	3,95	2,02	340	2100	6314	2,7	19,8
LSE10 G 0818	686	85	13,6	3,92	1,95	430	2730	8118	3,3	25,5
LSE10 G 1004	182	105	3,9	3,46	2,01	150	740	2514	1,0	6,2
LSE10 G 1006	254	105	5,9	3,55	1,98	220	1180	3771	1,5	10,0
LSE10 G 1008	326	105	7,8	3,62	2,02	280	1620	5028	2,0	13,9
LSE10 G 1010	398	105	9,7	3,65	2,02	340	2060	6286	2,4	17,9
LSE10 G 1014	542	105	13,6	3,67	2,00	460	2930	8800	3,3	25,5
LSE10 G 1018	686	105	17,5	3,67	1,99	590	3810	11314	4,2	33,1
LSE10 G 1304	182	135	5,2	3,27	2,00	210	1060	3580	1,4	8,3
LSE10 G 1314	542	135	18,1	3,50	2,03	640	4180	12529	4,4	34,3
LSE10 G 1318	686	135	23,2	3,50	2,01	810	5430	16108	5,5	44,6
LSE10 G 1604	182	165	6,5	3,14	1,98	270	1370	4645	1,7	10,3
LSE10 G 1606	254	165	9,7	3,27	2,00	3,80	2180	6967	2,4	16,8
LSE10 G 1608	326	165	12,9	3,33	2,03	500	2990	9290	3,2	23,5
LSE10 G 1610	398	165	16,1	3,33	2,00	600	3800	11612	3,9	29,8
LSE10 G 1614	542	165	22,5	3,34	1,98	830	5430	16257	5,4	42,5

LSE10 G 1618	686	165	28,9	3,39	2,01	1040	7050	20902	6,8	55,8
As of this size, data for air gap of 1,0 mm										
LSE10 G 3204	182	325	13,4	3,05	1,96	550	2880	8791	3,3	20,8
LSE10 G 3206	254	325	20,0	3,20	2,03	780	4580	13187	4,8	34,3
LSE10 G 3208	326	325	26,6	3,20	1,99	1000	6270	17583	6,2	47,0
LSE10 G 3210	398	325	33,2	3,20	1,97	1210	7970	21979	7,5	59,5
LSE10 G 3214	542	325	46,3	3,38	2,10	1650	11360	30770	10,8	89,3
LSE10 G 3218	686	325	59,5	3,26	1,98	2080	14750	39561	13,1	111,6

Alle LSE 10 G XXXX are 42 high!

LSE 10 W XXXX - Technical data - W = water-cooled

	Length l1 [mm]	Width b1 [mm]	Mass [kg]	Speed		Trust force		FAnz [N]	Rated current	
				v(/Fnenn) [m/s]	v(Fmax) [m/s]	Fnenn [N]	Fmax [N]		IN [A]	Imax [A]
LSE10 W 0804	182	95	3,8	2,89	2,01	360	530	1804	2,6	4,8
LSE10 W 0806	254	95	5,7	3,06	1,97	510	840	2706	3,8	7,8
LSE10 W 0808	326	95	7,6	3,16	1,99	650	1160	3608	4,9	10,8
LSE10 W 0810	398	95	9,5	3,20	1,97	800	1470	4510	6,1	13,7
LSE10 W 0814	542	95	13,3	3,29	2,02	1090	2100	6313	8,4	19,8

LSE10 W 0818	686	95	17,2	3,26	1,95	1380	2730	8118	10,6	25,5
LSE10 W 1304	182	145	6,4	2,70	2,00	680	1060	3580	4,4	8,3
LSE10 W 1306	254	145	9,6	2,86	2,01	960	1680	5369	6,3	13,5
LSE10 W 1308	326	145	12,8	2,91	1,99	1230	2310	7159	8,2	18,6
LSE10 W1310	398	145	16,0	2,91	1,97	1500	2930	8949	9,9	23,5
LSE10 W 1314	542	145	22,3	3,02	2,03	2040	4180	12529	13,8	34,3
LSE10 W 1318	686	145	28,7	3,04	2,01	2580	5430	16108	17,5	44,6
LSE10 W 1604	182	175	8,0	2,62	1,98	870	1370	4645	5,3	10,3
LSE10 W 1606	254	175	12,0	2,79	2,00	1220	2180	6967	7,7	16,8
LSE10 W 1608	326	175	15,9	2,88	2,03	1560	2990	9290	10,1	23,5
LSE10 W 1610	398	175	19,8	2,89	2,00	1910	3800	11612	12,3	29,8
LSE10 W 1614	542	175	27,7	2,92	1,98	2600	5430	16257	16,8	42,5
LSE10 W 1618	686	175	35,6	2,97	2,01	3280	7050	20902	21,4	55,8
As of this size, data for air gap of 1,0 mm										
LSE10 W 3204	182	335	16,4	2,60	1,96	1740	2880	8791	10,3	20,8
LSE10 W 3206	254	335	24,4	2,79	2,03	2430	4580	13187	15,0	34,3
LSE10 W 3208	326	335	32,4	2,81	1,99	3110	6270	17583	19,2	47,0
LSE10 W	398	335	40,4	2,82	1,97	3790	7970	21979	23,3	59,5

3210										
LSE10 W 3214	542	335	56,5	3,01	2,10	5130	11360	30770	33,2	89,3
LSE10 W 3218	686	335	72,6	2,90	1,98	6480	14750	39561	40,4	111,6

Alle LSE 10 W XXXX are 50 mm high!

Subject to change. The values specified are maximum values. For details, please refer to the relevant technical documentation.

The Baumüller LSA linear axis is designed to give maximum performance and enables velocities of up to 10 m/s, accelerations of up to 150 m/s² and, depending on the length measuring system used, a repeat accuracy of down to 2 µm to be achieved.

Very compact design, minimum installation space required
Individual fixing options
Minimum weight
Maximum velocities of up to 10 m/s
Maximum acceleration of up to 150 m/s²
Repeat accuracy of down to 2 µm
Defined mechanical and electrical interfaces

Clean solution with complete linear axis that is food safe

Baumüller has developed a cost-optimized concept specifically for use in packaging and handling applications, consisting of a complete linear axis with synchronous linear motors. The integrated complete linear axis is an alternative to drives that generate linear motion by means of belts, chains and spindles.

As the complete linear axis is easy to mount, food safe and integrated in terms of its design, the user can save both costs and time when performing commissioning, for example.

LSA 20

Middle performance linear axis

The middle performance linear axis is based on an aluminum press-drawn section, which provides highly flexible and variable fixing options for the mechanical system and peripherals (such as a brake for vertical applications, cable drag chain, etc.) by means of slots. The slots are sealed in order to prevent dirt penetrating them, for example. The sealing material can be removed if necessary. This, along with the material used, means that the entire linear axis is completely food safe. The aluminum alloy used is particularly well suited for use with foodstuffs.



The Baumüller LSA middle performance linear axis (LSA 14 xxx) has been primarily designed for use in medium-performance linear packaging and handling applications and is particularly impressive thanks to the following features, as well as its excellent price/performance ratio:

Food safe

Very compact design, minimum installation space required

Individual fixing options for cable drag chain, brake, etc.

Minimum weight

Maximum velocities of up to 8 m/s

Maximum accelerations of up to 40 m/s²

Repeat accuracy of down to 5 µm

Technical data

	LSA 20 with LSE 20X 1004	LSA 20 with LSE 20X 1008	LSA 20 with LSE 20X 1014
FN [N]	180	385	720
Fmax [N]	480	1140	1880
Vmax [m/s]	5 1)	5 1)	5 1)
amax [m/s ²]	150	150	150
Breite x Höhe [mm]	210 x 92	210 x 92	210 x 92
Länge max. [mm]	6000	6000	6000
	LSA 20 with LSE 20X 1004	LSA 20 with LSE 20X 1008	LSA 20 with LSE 20X 1014
FN [lbf]	40	87	162
Fmax [lbf]	108	256	422
Vmax [ft/s]	17 1)	17 1)	17 1)
amax [ft/s ²]	491	491	491
Breite x Höhe [in]	ca. 8,3 x 3,62	ca. 8,3 x 3,62	ca. 8,3 x 3,62

Länge max. [in]	ca. 236	ca. 236	ca. 236
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Safety function: safety shock absorber, thermal protection (motor); Power chain: IGUS;

Length measuring systems: magnetic/optical

Subject to change. The values specified are maximum values. For details, please refer to the relevant technical documentation.

LSA 33

Technical data

	LSA 33 XXX
FN [N]	3280
Fmax [N]	75050
Vmax [m/s]	5 1)
amax [m/s ²]	150
Breite x Höhe [mm]	330 x 120
Länge max. [mm]	3000
	LSA 33 XXX
FN [lbf]	737
Fmax [lbf]	1584
Vmax [ft/s]	17 1)
amax [ft/s ²]	491
Breite x Höhe [in]	ca. 13 x 4,7
Länge max. [in]	ca. 118

Safety function: safety shock absorber, thermal protection (motor); Power chain: IGUS;

Length measuring systems: magnetic/optical

Subject to change. The values specified are maximum values. For details, please refer to the relevant technical documentation.

Baumüller's LSC ironless linear motors achieve maximum rates of current and force rise and are, therefore, suited to highly dynamic applications with maximum stiffness relative to disturbing forces.

Due to its principle of operation, this ironless linear motor does not generate any forces of attraction, thus enabling it to achieve a unique degree of synchronism.

The secondary takes the form of a U-shaped profile in standardized lengths, provided with magnets on both sides.

IP65 enclosure

No magnetic forces of attraction or latching forces due to the design

- Maximum rates of current and force rise
- Maximum dynamic response for small masses with maximum degree of synchronism



LSC 50 linear motors are available in an uncooled version.



LSC - Technical data

	LSC 50G 0804	LSC 50G 0808	
FN [N]	60	120	
Fmax [N]	260	520	
Vmax [m/s]	10	10	
amax [m/s ²]	150	150	
	LSC 50G	LSC 50G	LSC 50G



	0804	0808	
FN [lbf]	14	28	
Fmax [lbf]	59	118	
Vmax [ft/s]	33	33	
amax [ft/s ²]	491	491	



Subject to change. The values specified are maximum values. For details, please refer to the relevant technical documentation.

LSE 50 - 90, motors for standard drives and logistics applications, are based on the “long-stator principle”. According to this principle, one primary or several primaries mark out the traverse path. Therefore, this path is longer than the magnetic strip found on the moving carriage. As the secondary does not require any energy to be fed to it, practically limitless traverse paths are possible.

Long to very long traverse paths
 Lower dynamic requirements
 Lower repeat accuracy requirements
 Simple guidance system (e.g., steel construction)
 Large air gap between primary and magnetic strip (up to approx. 13 mm)



LSE 50 – 90 linear motors are available in an uncooled version.



Technical data

	LSE 50	LSE 80	LSE 90
FN 1)[N]	175	500	2300
Fmax [N]	550	2310	6200
Vmax [m/s]	5	5	5
amax [m/s²]	10	10	10
	LSE 50	LSE 80	LSE 90
FN [lbf]	39	112	517
Fmax [lbf]	124	519	1393

Vmax [ft/s]	16	16	16
amax [ft/s ²]	33	33	33

Subject to change. The values specified are maximum values. For details, please refer to the relevant technical documentation.