

Motors and gearboxes

Linear motors

MLF - powerful and robust



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Documentation
Project Planning
Manual



Linear motor with iron core

- Maximum force of up to 21,500 N
- Maximum velocity up to 600m/min
- Compact dimensions
- Complete stainless steel encapsulation in IP65
- Heat dissipation minimized by liquid cooling

Compact construction, high protection class and maximum forces of up to 21,500 N – these are the features that enable the MLF synchronous linear motors to meet the challenges of the machine tool.

Given their low force ripple, these motors are particularly suitable for rapidly moving large masses in raw environments. The motors are fully encapsulated in a stainless steel/titanium alloy sheet metal case, and they can be installed right in the machining area.

There is a choice of sizes geared to typical requirements supplied in standard encapsulation or thermal encapsulation for minimum heat penetration into the machine. The combination of several linear motors – whether in series or parallel – gives rise to completely new machine concepts with greatly enhanced machining forces.

Technical data**Electrical data**

Type	Continuous nominal force	Maximum force	Rated speed	Max. speed at F _{max}	Rated current	Maximum current
	F _N	F _{Max}	V _N	V _{F Max}	I _N	I _{Max}
	[N]	[N]	[m/min]	[m/min]	[A]	[A]
MLP040A-0300	250	800	500	300	4.2	20
MLP040B-0150	370	1150	300	150		
MLP040B-0250			400	250	5.3	27
MLP040B-0300			500	300	6	35
MLP070A-0150	550	2000	200	150	5.5	36
MLP070A-0220			360	220	6.3	42
MLP070A-0300			450	300	10.5	55
MLP070B-0100	820	2600	200	100	5.5	28
MLP070B-0120			220	120	5.8	42
MLP070B-0150			260	150	6.2	48
MLP070B-0250			400	250	10	55
MLP070B-0300			450	300	12	70
MLP070C-0120	1200	3800	180	120	8.9	55
MLP070C-0150			250	150	11.7	70
MLP070C-0240			350	240	13	90
MLP070C-0300			450	300	19	110

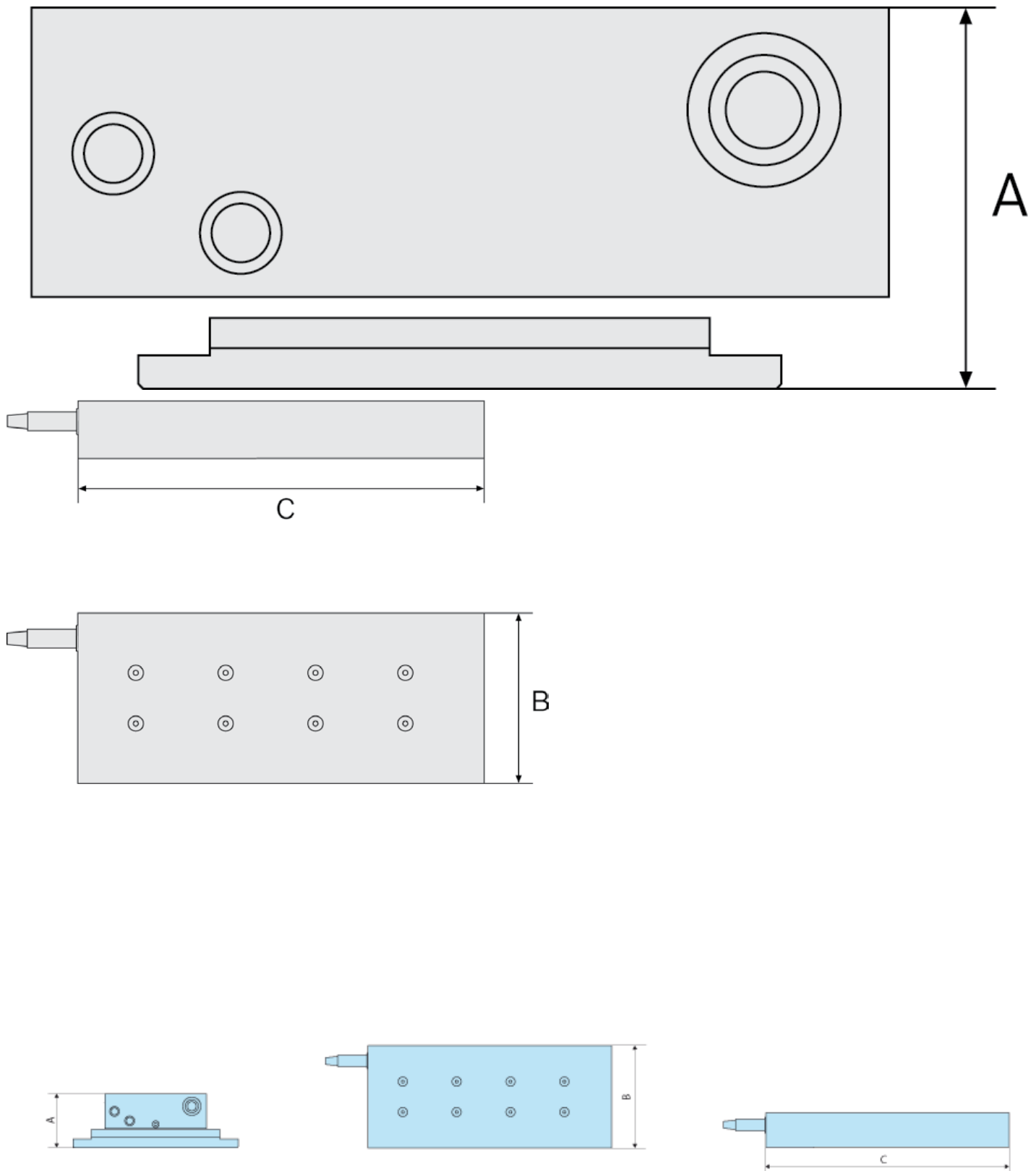
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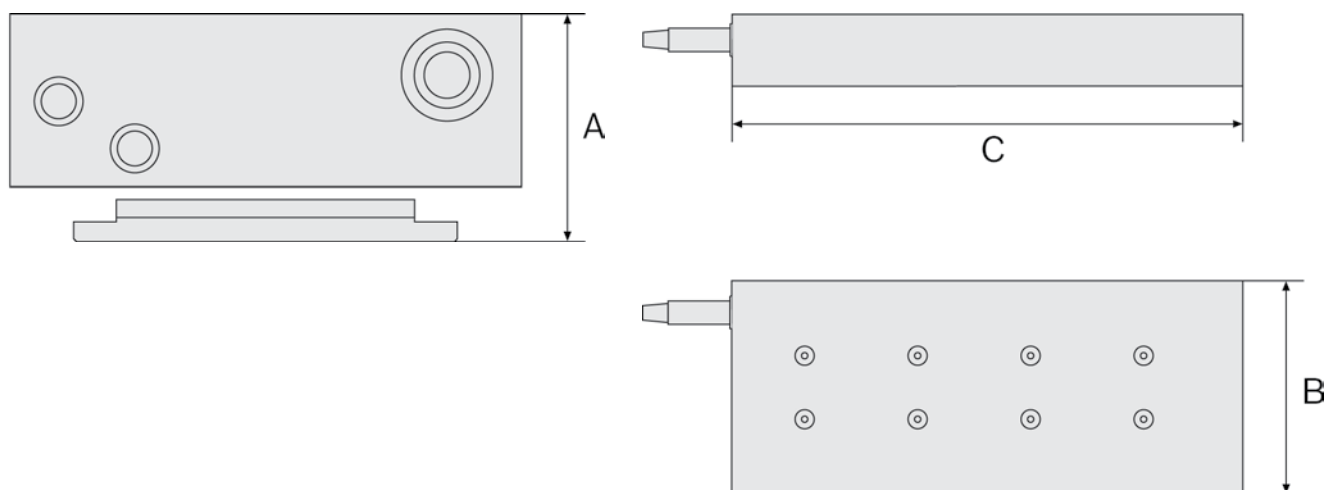
Type	Continuous nominal force	Maximum force	Rated speed	Max. speed at F _{max}	Rated current	Maximum current
	F _N	F _{Max}	V _N	V _{F Max}	I _N	I _{Max}
	[N]	[N]	[m/min]	[m/min]	[A]	[A]
MLP100A-0090	1180	3750	150	90	6.6	38
MLP100A-0120			190	120	8	44
MLP100A-0150			220	150	10	55
MLP100A-0190			290	190	12	70
MLP100B-0120	1785	5600	190	120		
MLP100B-0250			350	250	22	130
MLP100C-0090	2310	7150	170	90	13	90
MLP100C-0120			190	120	15	85
MLP100C-0190			290	190	23	140
MLP140A-0120	1680	5200	190	120	12	70
MLP140B-0090	2415	7650	160	90	15	85
MLP140B-0120			190	120	18	105
MLP140C-0050	3150	10000	110	50	13	70
MLP140C-0120			190	120	21	125
MLP140C-0170			250	170	29	140
MLP140C-0350			400	350	53	260
MLP200A-0090	2415	7450	170	90	13	70
MLP200A-0120			190	120	16	88
MLP200B-0040	3465	10900	100	40	13	70
MLP200B-0120			190	120	22	130
MLP200C-0090	4460	14250	170	90	23.3	120
MLP200C-0120			190	120	30	175
MLP200C-0170			220	170	46	210
MLP200D-0060	5560	17750	140	60	28	140
MLP200D-0100			180	100	46	210
MLP200D-0120			190	120	53	225
MLP300A-0090	3350	11000	160	90	19	110
MLP300A-0120			190	120	23	138
MLP300B-0070	5150	16300	140	70	28	140
MLP300B-0120			190	120	35	205
MLP300C-0060	6720	21500	110	60	29	140
MLP300C-0090			150	90	37	212

All the specifications relate to operation with liquid cooling and 540 V DC bus voltage.

Dimensions



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