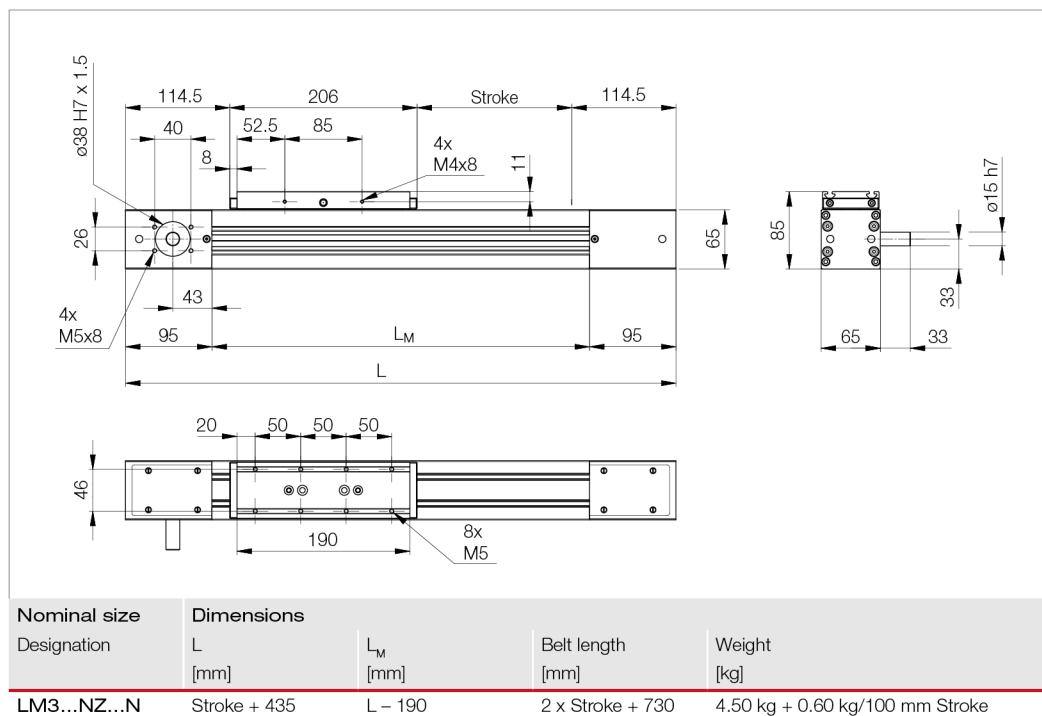


Linear module LM3...NZ...N with toothed belt drive



Variants/dimensions with protective strip (LM3...BZ...N) see catalogue

LM	Toothed belt drive				Axial load F [N]	Positioning accuracy [μm/mm]	Repeating accuracy .../1000 mm [mm]	Acceleration a _{max} [m/s ²]
	Type/division	Pinion d ₃ x l _p [mm]	Stroke/rev [mm]	Tension ³⁾ [mm/m]				
LM3...Z...	HTD5M	49.34 x 31	155	0.245	... ¹⁾	200/1000 ²⁾	< 0.20 ²⁾	50.0 ¹⁾

d₃ x l_p = pinion diameter x pinion width

¹⁾ depending on speed and load

²⁾ backlash not factored in

³⁾ belt tension/metre [mm/m] per 100 N tensile force

LM	Movement speed		Moments of inertia Z		Stroke max. [mm]	Steel strip	Feed and friction force F _V [N]	Moved mass m _b [kg]
	Guide v _{max} [m/s]	Drive v _{max} [m/s]	I _y [cm ⁴]	I _z [cm ⁴]				
LM3...Z...N	5.0	4)	66.9	82.4	7 650	without	20.00	1.100
						with	30.00	1.110

⁴⁾ for toothed belt drive, dependent on load and speed and permissible movement speed of the linear guide

Linear modul Type	Maximum permissible load [kN]				Maximum permissible torque [Nm]					
	static		dynamic		static		dynamic			
	C _{y0,2}	C _{z0,2}	C _{y1,2}	C _{z1,2}	M _{x0}	M _{y0}	M _{z0}	M _x	M _y	M _z
LM3...Z...N	35.0	35.0	18.0	18.0	286	1 185	1 185	160	923	923

The determination of dynamic load ratings and torques is based on a 50,000 m stroke. If comparative values must be calculated for a 100,000 m stroke, the values for M_x, M_y, M_z and C must be divided by the factor 1.26.

With a view to serviceable life, loads of less than 20% of the dynamic load ratings have generally proved to be expedient.

CAD data

Enquiry (technical/quote)

Download data sheet (PDF)

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