

LM	Toothed belt drive				Axial load	Positioning accuracy	Repeating accuracy	Acceleration
Size	Type/division	Pinion $d_g \times l_R$ [mm]	Stroke/rev [mm]	Tension ³⁾ [mm/m]	F [N]	[μm/mm]	.../1000 mm [mm]	a_{max} [m/s ²]
LM3...Z...	HTD5M	49.34 x 31	155	0.245	... ¹⁾	200/1000 ²⁾	< 0.20 ²⁾	50.0 ¹⁾

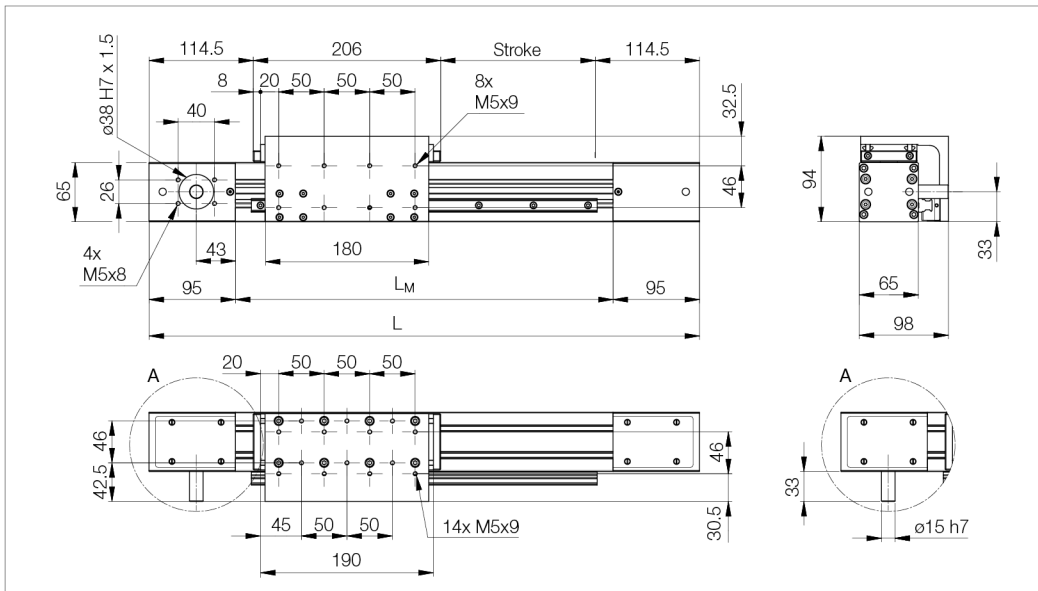
1) depending on speed and load

2) backlash not factored in

3) belt tension/metre [mm/

LM	Movement speed		Moments of inertia		Stroke max.	Steel strip	Feed and friction force	Moved mass
Type	Guide $v_{\max}$ [m/s]	Drive $v_{\max}$ [m/s]	I_y [cm ⁴]	I_z [cm ⁴]	[mm]		F_v [N]	m_b [kg]
LM3...Z...L/R	5.0	4)	67.2	82.6	7650	without	40.00	2.205
						with	50.00	2.215

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

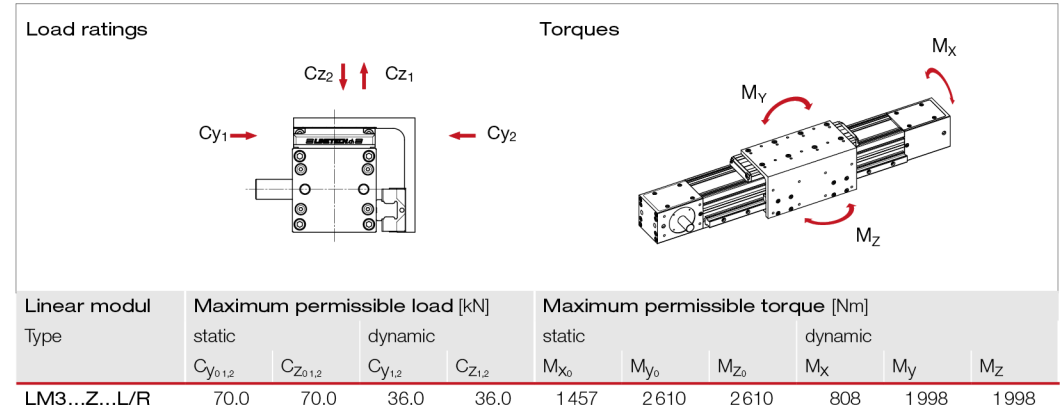


Nominal size	Dimensions			
Designation	L [mm]	L _M [mm]	Belt length [mm]	Weight [kg]
LM3...NZ...L/R	Stroke + 435	L – 190	2 x Stroke + 730	5.94 kg + 0.73 kg/100 mm Stroke

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

CAD data

Enquiry (technical/quote)

[Download data sheet \(PDF\)](#)[Download catalogue \(PDF\)](#)

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.