

# ≡ Bridge module BM4...NZ...L/R XL with toothed belt drive and lateral support rail left/right

BM	Toothed belt drive				Axial load F [N]	Positioning accuracy [μ/mm]	Repeating accuracy .../1000 mm [mm]	Acceleration $a_{max}$ [m/s <sup>2</sup> ]
	Type/division	Pinion $d_3 \times l_r$ [mm]	Stroke/rev [mm]	Tension <sup>3)</sup> [mm/m]				
BM4...Z...	HTD5M	65.25 x 45	205	0.105	... <sup>1)</sup>	200/1000 <sup>2)</sup>	< 0.20 <sup>2)</sup>	50.0 <sup>1)</sup>

$d_3 \times l_r$  = pinion diameter x pinion width

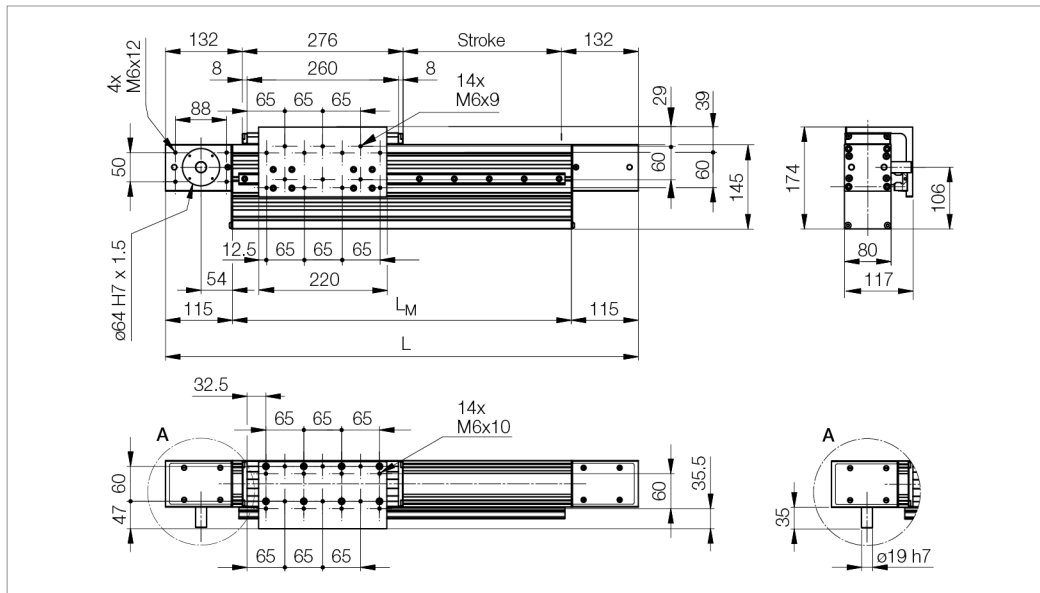
<sup>1)</sup> depending on speed and load

<sup>2)</sup> backlash not factored in

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

BM	Movement speed		Moments of inertia		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 <sup>4</sup> ]	$I_z$ [cm <sup>4</sup> ]				
BM4...Z...L/R	5.0	<sup>4)</sup>	721	401	XL: 12 480	without with	50.00 60.00	4.080 4.100

<sup>4)</sup> 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]
BM4...NZ...L/R	Stroke + 540	L - 230	2 x Stroke + 900	12.39 kg + 1.59 kg/100 mm Stroke

Variants/dimensions with protective strip (BM4...BZ...L/R) see catalogue

Bridge module Type	Maximum permissible load [kN]				Maximum permissible torque [Nm]					
	static		dynamic		static			dynamic		
	$C_{y0,1,2}$	$C_{z0,1,2}$	$C_{y1,2}$	$C_{z1,2}$	$M_{x0}$	$M_{y0}$	$M_{z0}$	$M_x$	$M_y$	$M_z$
BM4...Z...L/R	119.9	119.9	68.4	68.4	3030	3860	3860	1868	2432	2432

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.