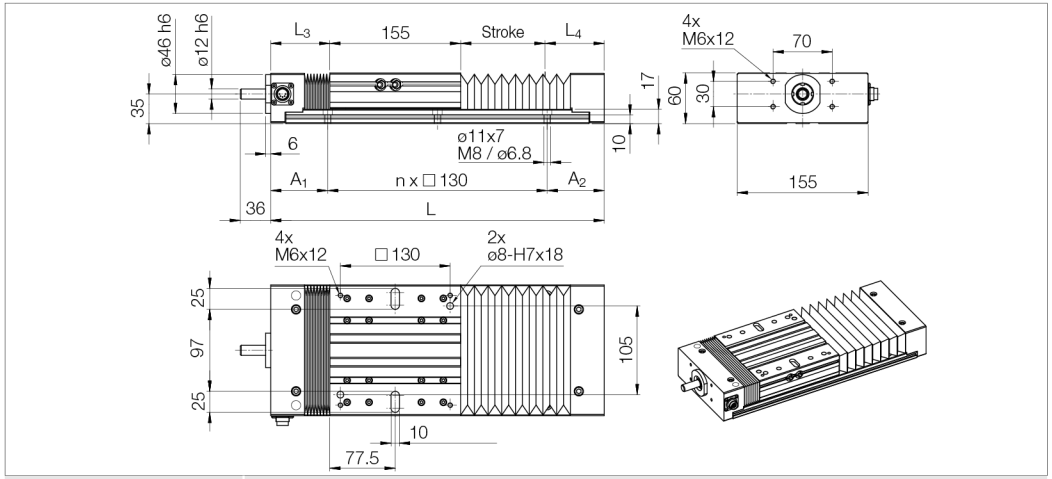
Positioning unit PE2...R... with ball screw drive



Nominal size		Dimensions							
Designation	Stroke [mm]	L [mm]	L_3	L_4	n	A_1	A_2	Ball screw length	Weight [kg]
PE2.4...FR...	50	330	62.5	62.5	1	100	100	343	9.8
with expansion	¦ *	¦ *	¦ *	¦ *	¦ *	¦ *	¦ *	¦ *	¦ *
bellows	2000	2850	347.5	347.5	21	60	60	2588	30.0
PE2.4...NR...	50	330	62.5	62.5	1	100	100	343	9.8
without protec-	¦ *	¦ *	¦ *	¦ *	¦ *	¦ *	¦ *	¦ *	¦ *
tive covering	2570	2850	62.5	62.5	21	60	60	2863	30.0

* For intermediate dimensions, see catalogue

CAD data

Enquiry (technical/quote)

PE	BSD	Axial load rates		Positioning accuracy	Repeating accuracy	Accelera-tion	Axial play		Idle torque
Size	d x p [mm]	C_0 [N]	C_{dyn} [N]	[µm/mm]	[mm]	a_{max} [m/s²]	Type	Axial play [mm]	[Nm]
PE2...R...	20 x 5	5705	4912	52/300 [2]	< 0.01 [1]	10.0	V	—	0.120
	20 x 20						V	—	0.400

d x p = screw diameter x thread pitch

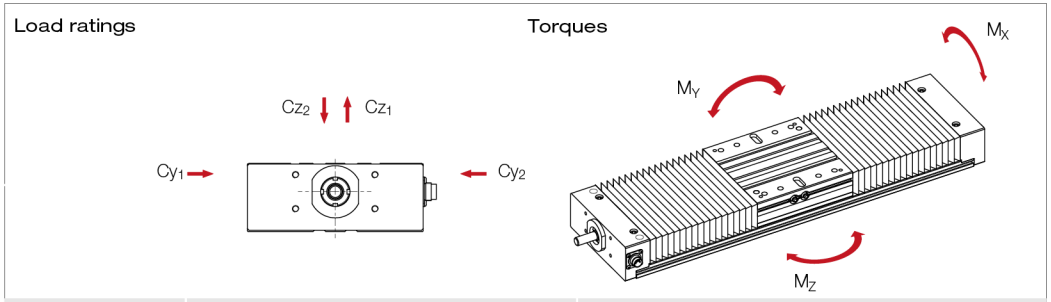
[1] backlash not factored in

[2] also available with 23 µm / 300 mm

V = preloaded

PE	Movement speed		Moments of inertia		Stroke max.	Expansion bellow	Feed and friction force	Moved mass
Type	Guide v_{max} [m/s]	Drive v_{max} [m/s]	I_Y [cm⁴]	I_Z [cm⁴]	[mm]		F_V [N]	m_b [kg]
PE2.4...R...	1.6	[2]	9.7	513.7	2570	without	12.00	2.700
					2000	with	12.00	

[2] for ball screw drive, dependent on rotational speed characteristics, spindle length and relevant critical rotational speed.



Positioning unit	Maximum permissible force [kN]					Maximum permissible torque [Nm]					
Type	static			dynamic		static			dynamic		
	$C_{y0\,1,2}$	$C_{Z0\,1}$	$C_{Z0\,2}$	$C_{y\,1,2}$	$C_{Z\,1,2}$	M_{X0}	M_{y0}	M_{Z0}	M_X	M_y	M_Z
PE2.4...R...	42.5	50.7	67.8	29.3	33.4	2457	2230	1872	1618	1469	1290

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.

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