

MLSH60Z

Belt Drive, Wheel Guide

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- » Accessories - see page 131
- » Additional data - see page 180

General Specifications

Parameter	MLSH60Z
Profile size (w × h) [mm]	160 × 65
Type of belt	32ATL5
Carriage sealing system	plastic cover band
Adjustable belt tensioning	the belt can be retensioned by the customer if necessary
Lubrication	no lubrication required
Included accessories	4 × mounting clamps

Performance Specifications

for Units with Single Standard Carriage (N)¹

Parameter		MLSH60Z
Stroke length (S _{max}), maximum	[mm]	5500
Total length (L _{tot}), maximum	[mm]	5980
Linear speed, maximum	[m/s]	6,5
Acceleration, maximum	[m/s ²]	40
Repeatability	[± mm]	0,05
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (F _x), maximum	[N]	1480 ²
Dynamic load (F _y), maximum	[N]	3000
Dynamic load (F _z), maximum	[N]	3000
Dynamic load torque (M _x), maximum	[Nm]	165
Dynamic load torque (M _y), maximum	[Nm]	310
Dynamic load torque (M _z), maximum	[Nm]	310
Drive shaft force (F _{rd}), maximum ³	[N]	200
Input/drive shaft torque (M _{ta}), maximum	[Nm]	45
Pulley diameter	[mm]	42,97
Stroke per shaft revolution	[mm]	135
Weight	[kg]	
of unit with zero stroke		12,60
of every 100 mm of stroke		1,33
of each carriage		3,90

¹ See next page for deviating values of units with other carriage types.

² See diagram Force F_x.

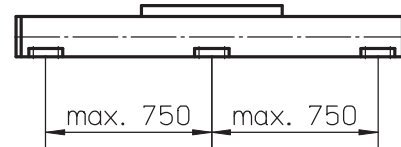
³ Only relevant for units without RediMount flange.

Carriage Idle Torque, (M_{idle}) [Nm]

Input speed [rpm]	Idle torque [Nm]
150	4,6
1500	9,0
3000	12,0

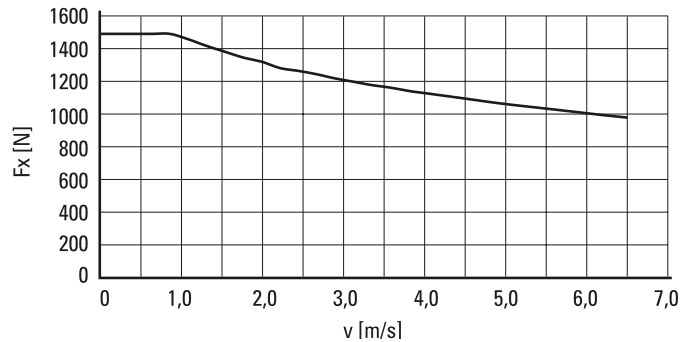
M_{idle} = the input torque needed to move the carriage with no load on it.

Deflection of the Profile

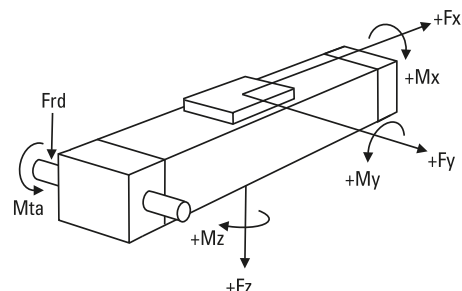


A mounting clamp must be installed at least every 750 mm to be able to operate at maximum load. Less clamps may be required if less load is being operated, see the additional technical data for more information.

Force F_x as a Function of the Speed



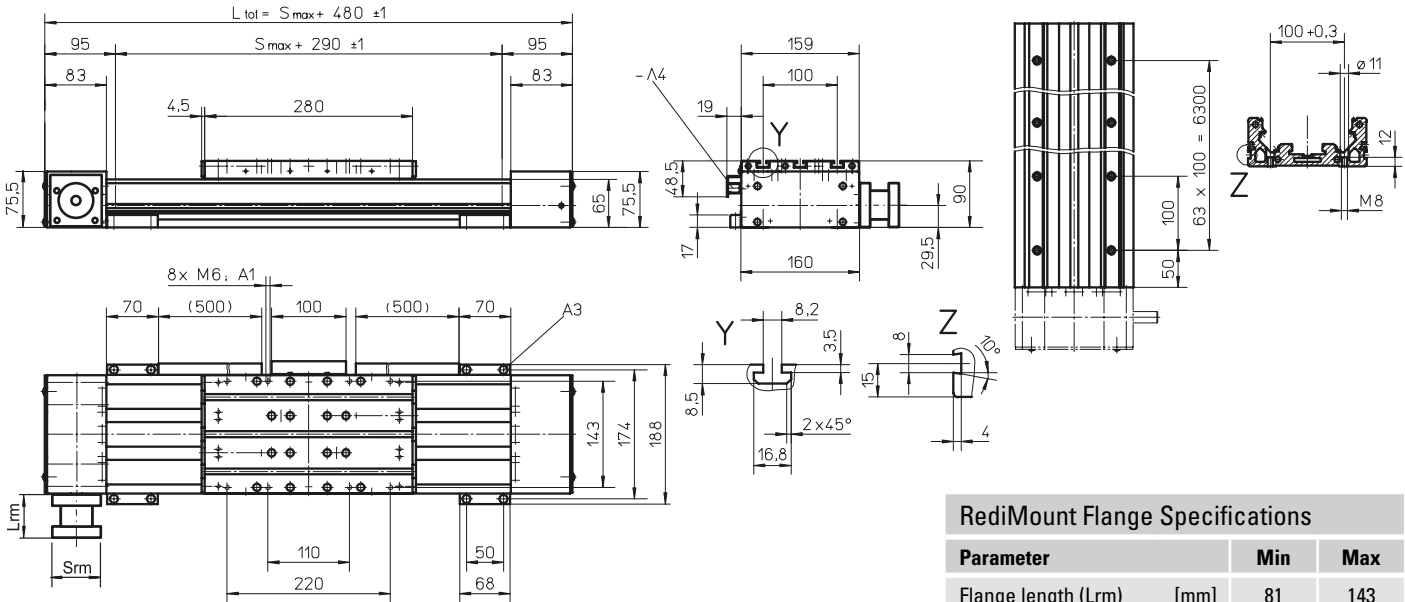
Definition of Forces



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Dimensions	Projection	Online Sizing & Selection!
METRIC		www.LinearMotioneering.com



- A1: depth 10
- A2: depth 4
- A3: socket cap screw ISO4762-M6x20 8.8
- A4: ENF inductive sensor rail kit (optional - see page 166)

Parameter	Min	Max
Flange length (Lrm)	[mm] 81	143
Flange square (Srm)	[mm] 90	200
Flange weight *	[kg]	5,58

* Max. weight including coupling and fastening screws

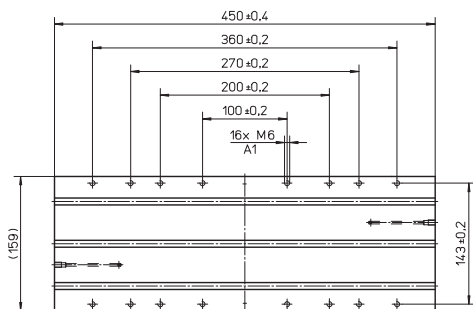
Performance Specifications for Units with Single Long Carriage (L)

Parameter	MLSH60Z
Stroke length (Smax), maximum	[mm] 5500
Total length (L tot), maximum	[mm] 6150
Carriage length	[mm] 450
Dynamic load torque (My), maximum	[Nm] 585
Dynamic load torque (Mz), maximum	[Nm] 585
Weight	[kg] 6

Performance Specifications for Units with Double Standard Carriage (Z)

Parameter	MLSH60Z
Stroke length (Smax), maximum	[mm] 5380
Total length (L tot), maximum	[mm] 6150
Minimum distance between carriages (Lc)	[mm] 290
Dynamic load (Fy), maximum	[N] 6000
Dynamic load (Fz), maximum	[N] 6000
Dynamic load torque (My), maximum	[Nm] Lc ¹ × 3
Dynamic load torque (Mz), maximum	[Nm] Lc ¹ × 3
Force required to move second carriage	[N] 10
Total length (L tot)	[mm] Smax + 480 + Lc

¹ Value in mm



A1: depth 10

