

MLSM60D

Ball Screw Drive, Ball Guide

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General Specifications

Parameter	MLSM60D
Profile size (w × h) [mm]	160 × 65
Type of screw	ball screw with double nuts
Carriage sealing system	plastic cover band
Screw supports	included in all units that require screw supports
Lubrication	central lubrication of all parts that require lubrication
Included accessories	4 × mounting clamps

Performance Specifications

Parameter		MLSM60D
Stroke length (S max), maximum	[mm]	5500
Linear speed, maximum	[m/s]	2,5
Acceleration, maximum	[m/s ²]	20
Repeatability	[± mm]	0,01
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (F _x), maximum	[N]	5000
Dynamic load (F _y), maximum	[N]	6000 ¹ / 55090 ²
Dynamic load (F _z), maximum	[N]	6000 ¹ / 55090 ²
Dynamic load torque (M _x), maximum	[Nm]	400 ¹ / 2890 ²
Dynamic load torque (M _y), maximum	[Nm]	460 ¹ / 4490 ²
Dynamic load torque (M _z), maximum	[Nm]	460 ¹ / 4490 ²
Drive shaft force (F _{rd}), maximum	[N]	350
Drive shaft torque (M _{ta}), maximum	[Nm]	60
Ball screw diameter (d ₀)	[mm]	25
Ball screw lead (p)	[mm]	5, 10, 20, 50
Weight	[kg]	
of unit with zero stroke		14,40
of every 100 mm of stroke		1,65
of each carriage		5,70

¹ Value for the complete unit

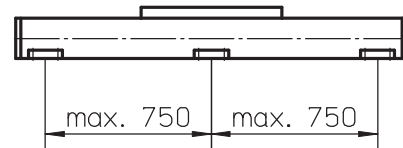
² Value for the ball guide only

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

Input speed [rpm]	Screw lead [mm]			
	p = 5	p = 10	p = 20	p = 50
150	1,0	1,6	1,9	2,7
1500	1,6	2,2	2,3	3,4
3000	2,0	2,6	2,6	4,0

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

Definition of Forces

