

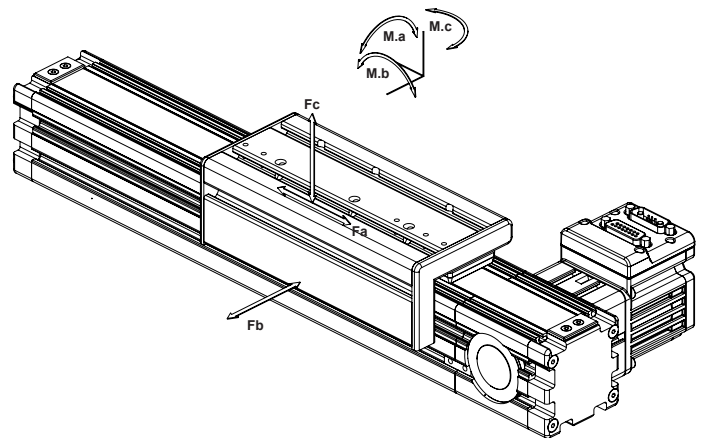
HLD60 with Internal Roller Specifications

Parameter	Value				Units
Configuration & Physical Parameters					
Motor	23 Frame SmartMotors, D and M series				-
Coupling	Flexible Jaw				-
Displacement/rev	2.5, 5, 10, 12.5				mm/rev
Position sensors	Optional Home & EOT limits				-
Stroke	100 – 600mm in 50mm steps 600 – 1000mm in 100mm steps 1000 – 2200mm in 200mm steps Custom lengths are available				mm
Overall length (L)	Stroke + 332				mm
Overtravel	25				mm
Unit mass	2.3 + 0.0031 x (stroke, mm) + (motor mass, kg)				kg
Performance					
Unidirectional repeatability	<20				µm
Bidirectional repeatability	60 – 180 (belt tension dependent)				µm
Linear Accuracy*	0.5/300				mm/mm
Displacement/rev	2.5	5	10	12.5	mm/rev
Max linear speed (no load)*	200	391	782	977	mm/s
Payload Mass**	45	42	18	13	kg
Continuous Thrust (Fa)					
SM23165D @ 48V @ 4500RPM	270	120	35	-	N
SM23165DT @ 48V @ 3800RPM	450	420	185	135	N
SM23375D @ 48V @ 4500RPM	175	70	10	-	N
SM23375DT @ 48V @ 3200 RPM	450	290	125	90	N
Load Rating, Dynamic** (Static)					
Fb	56 (110)	44 (110)	35 (110)	33 (110)	N
Fc	56 (200)	44 (200)	35 (200)	33 (200)	N
Carriage moments, Dynamic** (Static)					
M.a***	1.0 (2.4)	0.8 (2.4)	0.6 (2.4)	0.55 (2.4)	Nm
M.b***	3.2 (8)	2.5 (8)	2.0 (8)	1.9 (8)	Nm
M.c***	3.2 (12)	2.5 (12)	2.0 (12)	1.9 (12)	Nm

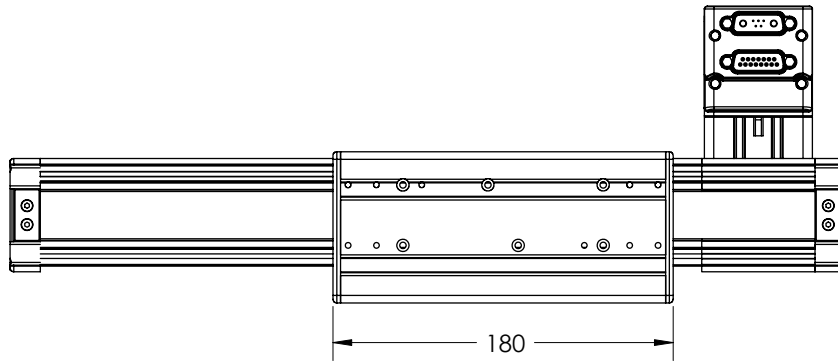
*Based on using SM23165DT @ 48V @ 4200 RPM no load.

**Based on a 15000HR service life @ 75/150/300 & 375mm/s (1800 RPM) average speed at given payload, subject to routine lubrication.

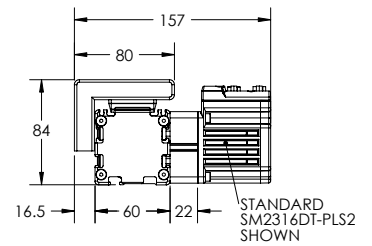
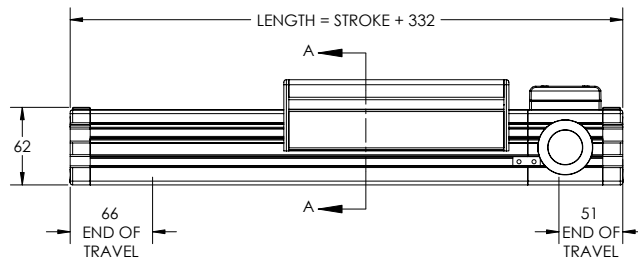
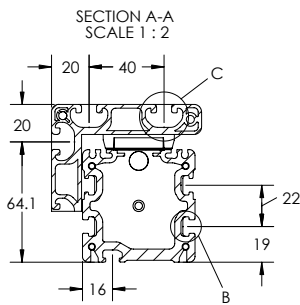
***Moment capacities given about center of carriage mounting surface.



WARNING: Exceeding thrust, speed, or moment loading specifications could result in immediate damage to the actuators. Doing so will void the warranty.



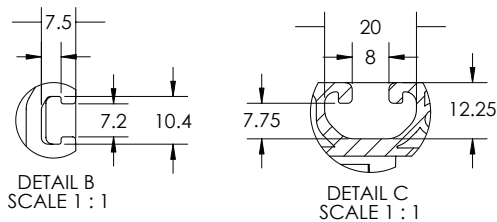
TOP VIEW



SIMPLE END VIEW

RIGHT SIDE VIEW

MOTOR END VIEW



DETAILED END VIEW

Dimensions in millimeters

NOTE: For part numbers please refer to our website at www.animatics.com

For Thrust Curve performance data, see pages 158–173.