

VL-ST60 Product Specifications

Parameter	Value	Units
Configuration & Physical Parameters		
Motor	23 Frame SmartMotors, D and M series	-
Coupling	Beam	-
Displacement/rev	6, 12	mm/rev
Position Sensors	consult factory	-
Stroke Lengths	50 – 600mm in 50mm steps	mm
Overall Length	Stroke + 222 + motor	mm
Overtravel	10	mm
Unit Mass	1.3349 + (stroke, mm)*0.0039	kg
Performance		
Unidirectional Repeatability	20	µm
Bidirectional Repeatability	40	µm
Linear Accuracy	0.21/300	mm/mm
Max Velocity	up to 1000 (stroke dependent)	mm/s
Max Acceleration	0.3	G
Displacement/rev	6 12	mm/rev
Payload Mass	13 10	kg
Rated Velocity	200 400	mm/s
Lifetime*	15000	hr
Load Rating, Dynamic* (Static)		
Displacement/rev	6 12	mm/rev
Max Continuous Thrust	490 250	N
Max Peak Thrust	768 394	N
Carriage moments, Dynamic** (Static)		
M.a, Carriage Moment***	11.47 (58) 9 (58)	N*m
M.b, Carriage Moment***	3.57 (25) 2.75 (25)	N*m
M.c, Carriage Moment***	3.57 (25) 2.75 (25)	N*m

*Based on 15000 hr service life @ 200 mm/s and 400 mm/s (2000 RPM) average speed at the given payload, subject to routine lubrication.

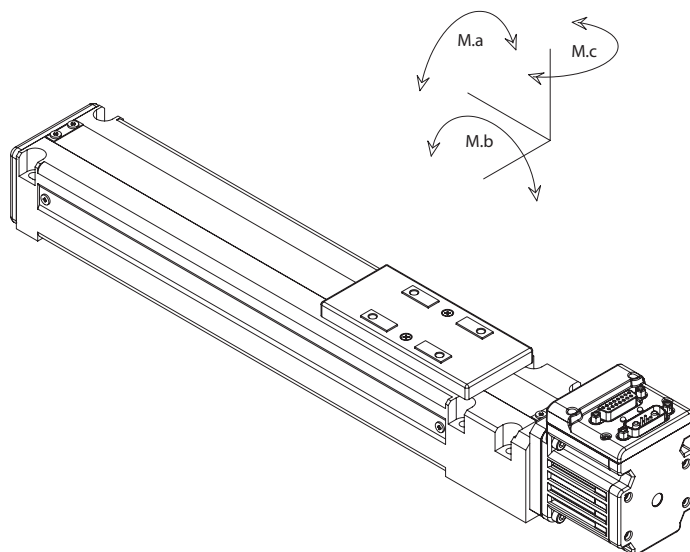
**Based on using SM23165DT @ 48V @ 2000 RPM. Refer to corresponding thrust curves for details.

Consult the factory if your application exceeds these values.

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

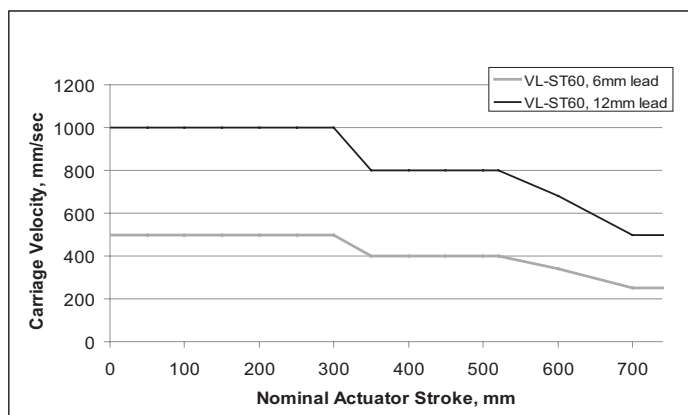


VL-ST60

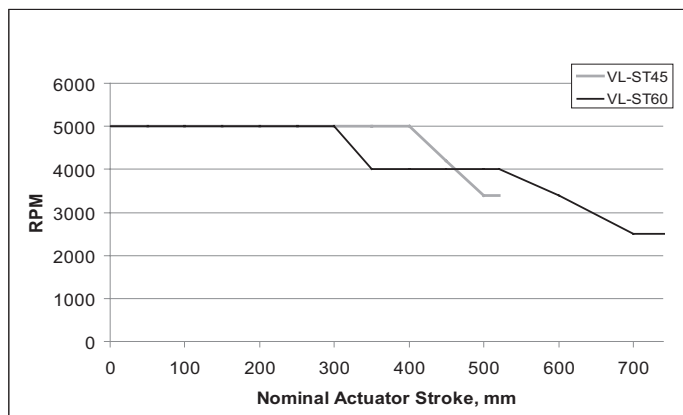


WARNING: Do not exceed these limits

VL-ST60 - Maximum Permissible Carriage Velocity

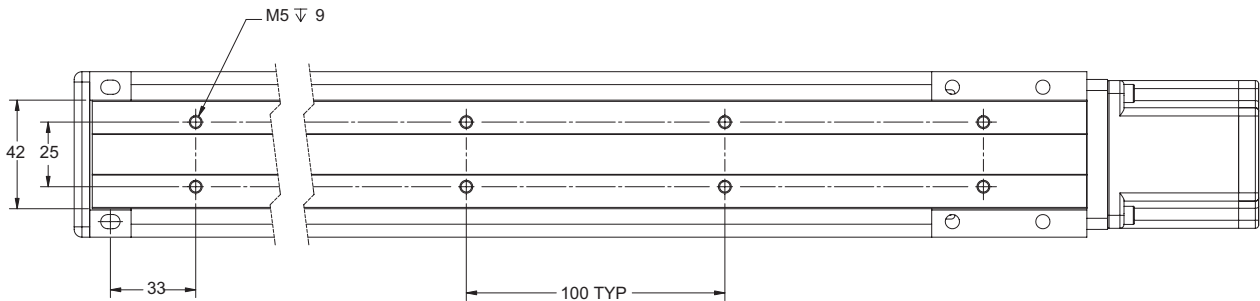
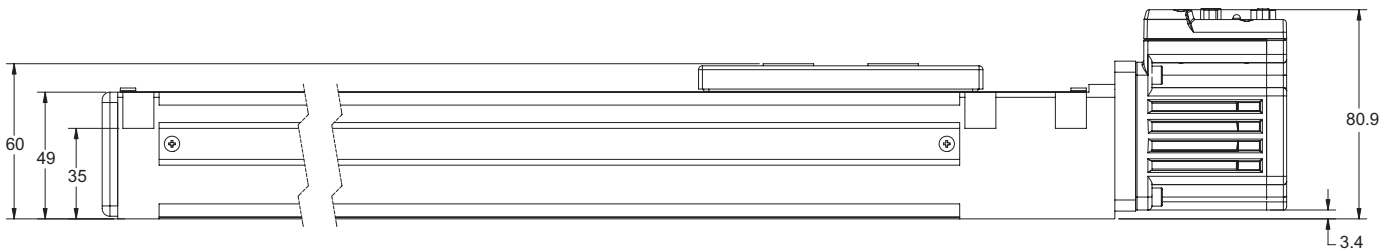
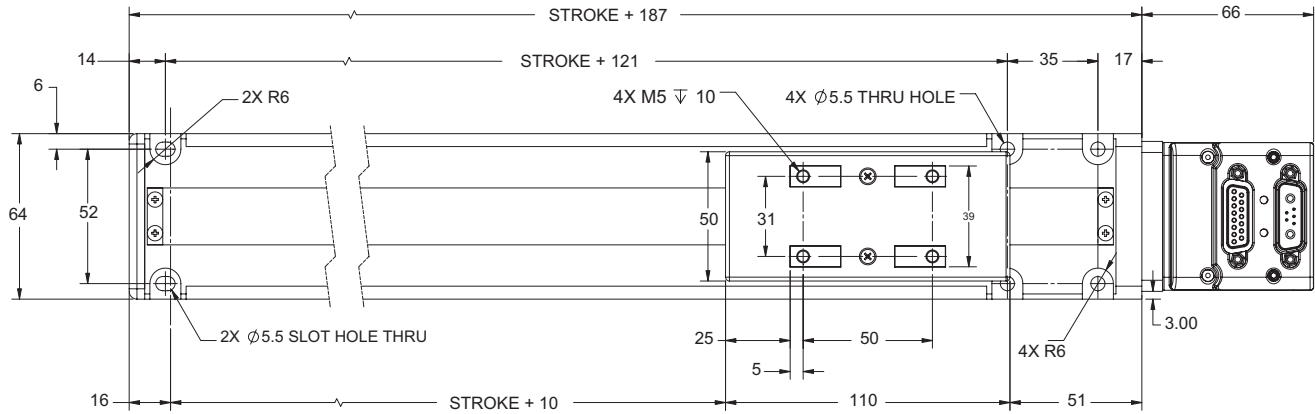


VL-ST series - Maximum Permissible Screw Speed



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

OVERVIEW
SOFTWARE
D-STYLE MOTORS
D-STYLE CONNECTIVITY
PERIPHERALS
M-STYLE MOTORS
M-STYLE CONNECTIVITY
LINEAR SYSTEMS
POWER SUPPLIES & SHUNTS
GEAR HEADS
APPENDIX



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.