



Dynamic Servo Actuators

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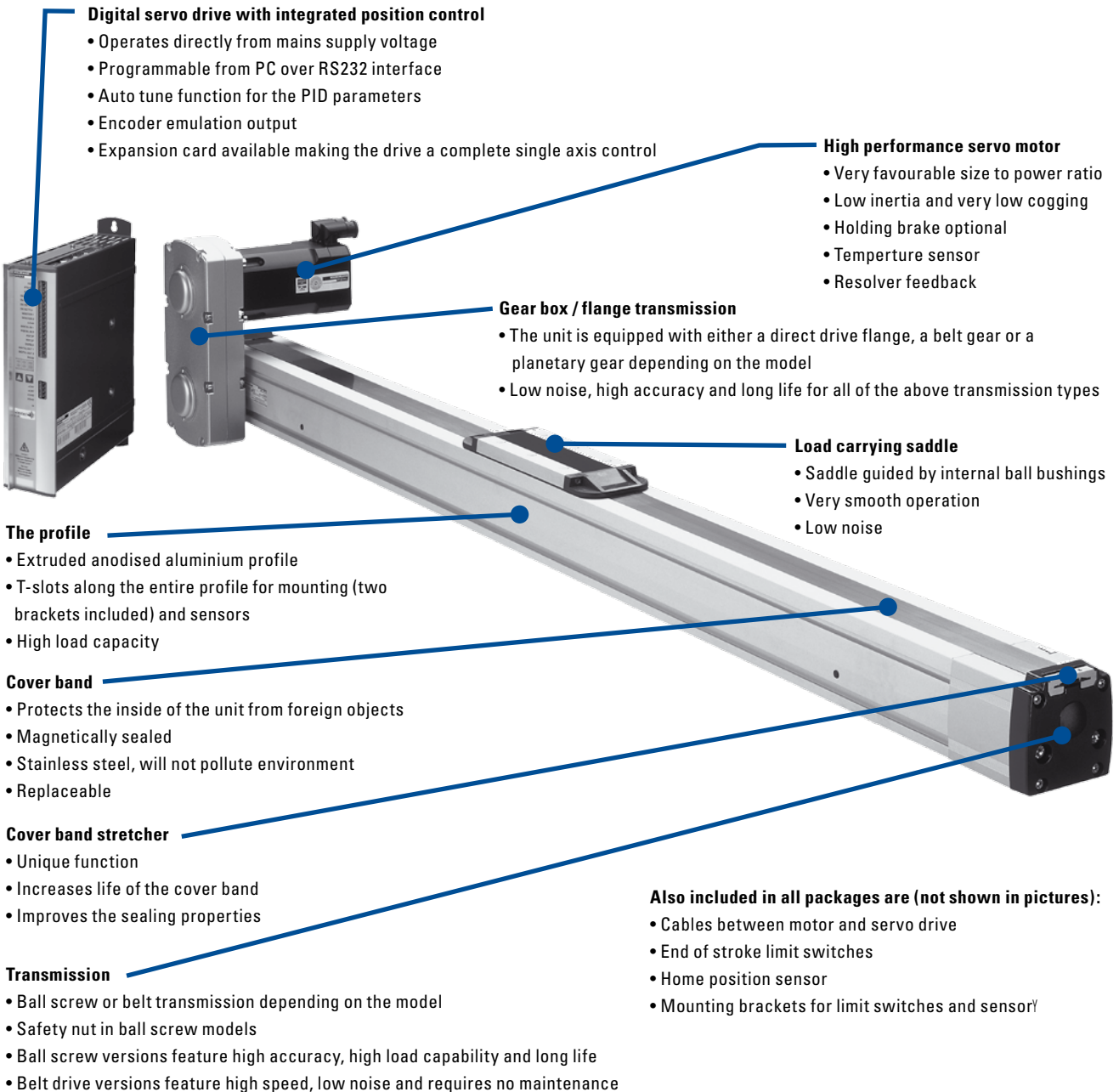
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Presentation

Qel j pl k fp well known for manufacturing both electrical and mechanical motion control products such as servo motors, servo drives, planetary gears and linear actuators

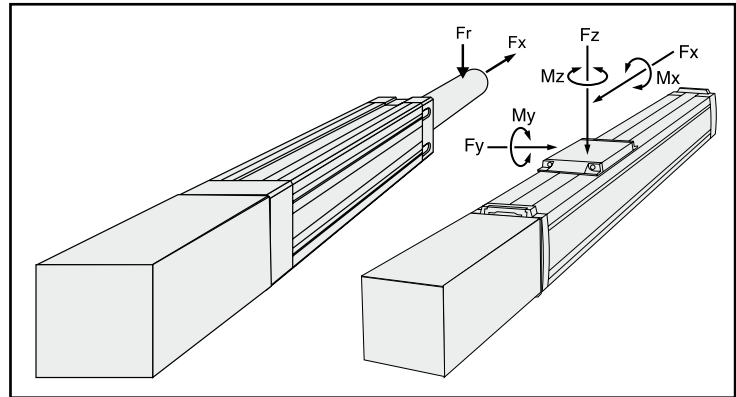
Qel j pl k offerp these state of the art products in one complete, ready-to-use, assembly called Dynamic Servo Actuators. One part number will include everything: a linear actuator, a gear, a flange, necessary couplings, a servo motor and a servo drive. All necessary cables, a set of limit switches and a mounting kit are also included. This will significantly reduce the time spent on engineering, component selection and comissioning for an application. A free user friendly sizing and selection program is available to assist you in the process of getting the ultimate package for your specific application.



General Information

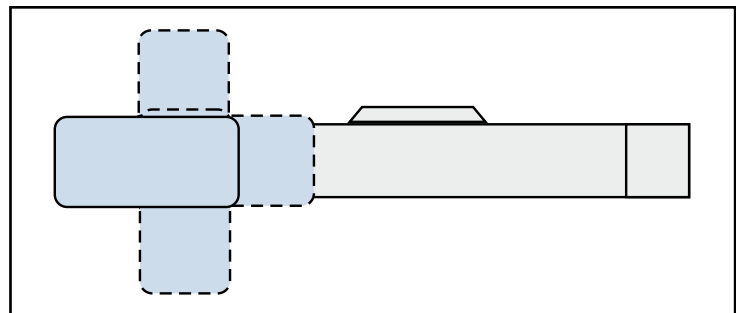
Definition of Forces

Please use these definitions in all contacts with QeI j p l k to avoid any confusion.



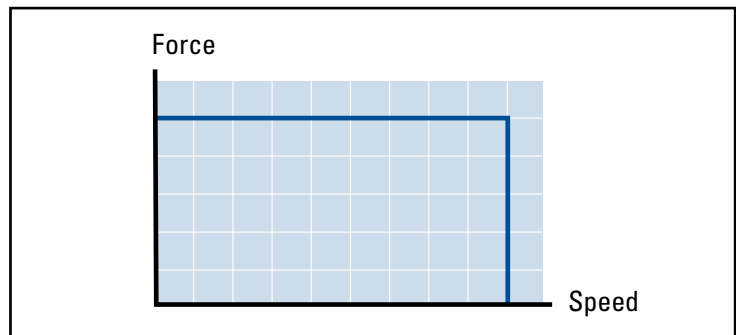
Belt Gear Position

All belt gears can be rotated in steps of 90° . The drawings however show the default position of the belt gears.



Speed and Force Relationship

All units are capable of running at the maximum force (F_x) from zero speed to the maximum speed.



Mounting of the Units

Rodless models

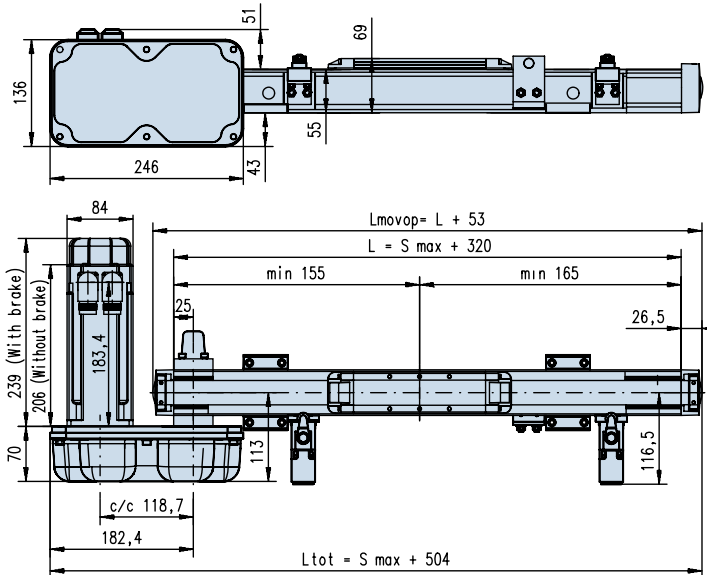
All rodless models are shipped with an adequate number of mounting feet with respect to the length of the unit. The Dynamic Servo Actuator Selection Software will instruct you where to put these mounting feet in order to keep the deflection (L_f) within the permissible limits. If you should require more mounting feet then these can be ordered from QeI j pon.

Rod models

The rod models are as default mounted using the mounting holes in the bottom and the top of the front and the rear housing of the actuator. The rod models can also be mounted using either trunnion mounting or clevis to clevis mounting. Mounting kits for trunnion or clevis to clevis are available from QeI j p l k. For further details, please see the Thomson Linear Units Catalogue.

Drawing #1

Models: D06002●●●44G●●1, D06003●●●44G●●1



Technical data

Actuator Designation	D06002●●●44G●●1	D06003●●●44G●●1
Actuator model	M55	M55
Transmission type	belt	belt
Gear / flange model	belt gear BGM08	belt gear BGM08
Motor model	AKM44	AKM44
Servo model	SR610	SR610
Max. force Fx [N]	102	230
Max. speed [m/s]	3,2	2,1
Max. stroke [mm]	7000	7000
Temperature range [°C]	- 20 – + 70	- 20 – + 70
Repeatability [± mm]	0,1	0,1
Resolution [mm]	0,2	0,2

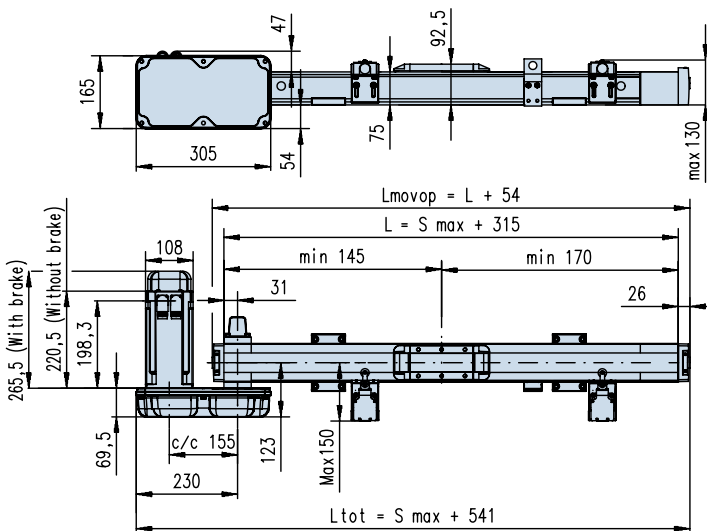
Dimension data

Ordering length [mm]*	$L = S_{max} + 320$
Maximum stroke [mm]	$S_{max} = L - 320$
Total length [mm]	$L_{tot} = S_{max} + 504$

* In the ordering key the ordering length should be expressed in cm.

Drawing #2

Models: D07002●●●54K●●2, D07003●●●54K●●2



Technical data

Actuator Designation	D07002●●●54K●●2	D07003●●●54K●●2
Actuator model	M75	M75
Transmission type	belt	belt
Gear / flange model	belt gear BGM40	belt gear BGM40
Motor model	AKM54	AKM54
Servo model	SR614	SR614
Max. force Fx [N]	445	920
Max. speed [m/s]	3	2,1
Max. stroke [mm]	9999	9999
Temperature range [°C]	- 20 – + 70	- 20 – + 70
Repeatability [± mm]	0,1	0,1
Resolution [mm]	0,2	0,2

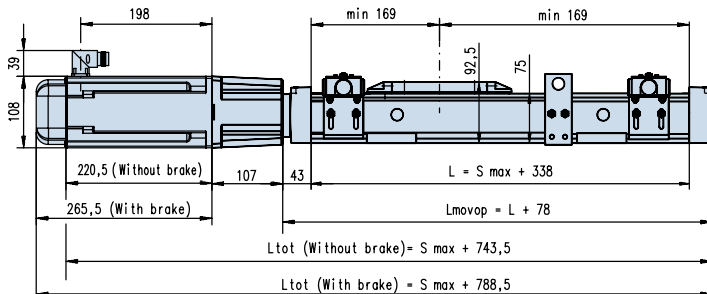
Dimension data

Ordering length [mm]*	$L = S_{max} + 315$
Maximum stroke [mm]	$S_{max} = L - 315$
Total length [mm]	$L_{tot} = S_{max} + 541$

* In the ordering key the ordering length should be expressed in cm.

Drawing #3

Model: D07201•••54K••2



Technical data

Actuator Designation	D07201•••54K••2
Actuator model	M75
Transmission type	ball screw
Gear / flange model	flange
Motor model	AKM54
Servo model	SR614
Max. force Fx [N]	2000
Max. speed [m/s]	0,99
Max. stroke [mm]	9999
Temperature range [°C]	- 20 – + 70
Repeatability [± mm]	0,05
Resolution [mm]	0,1

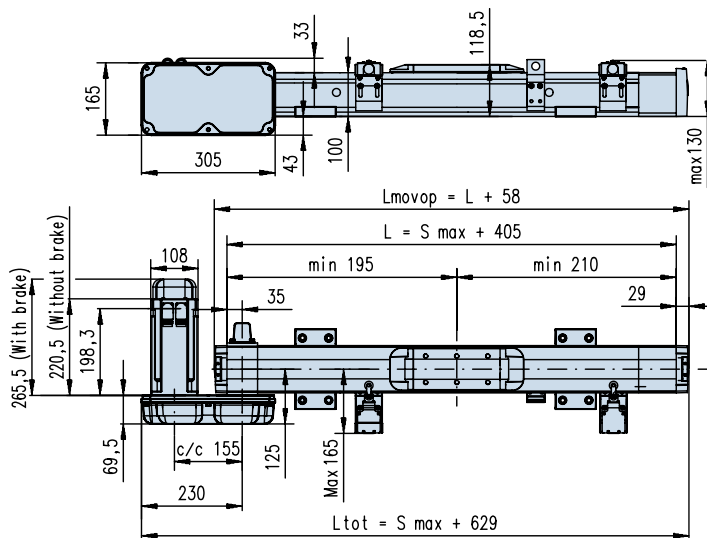
Dimension data

Ordering length [mm]*	L = S max + 338
Maximum stroke [mm]	S max = L - 338
Total length without brake [mm]	L tot = S max + 743,5
Total length with brake [mm]	L tot = S max + 788,5

* In the ordering key the ordering length should be expressed in cm.

Drawing #4

Models: D10002•••54K••2, D10003•••54K••2



Technical data

Actuator Designation	D10002•••54K••2	D10003•••54K••2
Actuator model	M100	M100
Transmission type	belt	belt
Gear / flange model	belt gear BGM40	belt gear BGM40
Motor model	AKM54	AKM54
Servo model	SR614	SR614
Max. force Fx [N]	200	455
Max. speed [m/s]	4	2,9
Max. stroke [mm]	9999	9999
Temperature range [°C]	- 20 – + 70	- 20 – + 70
Repeatability [± mm]	0,1	0,1
Resolution [mm]	0,2	0,2

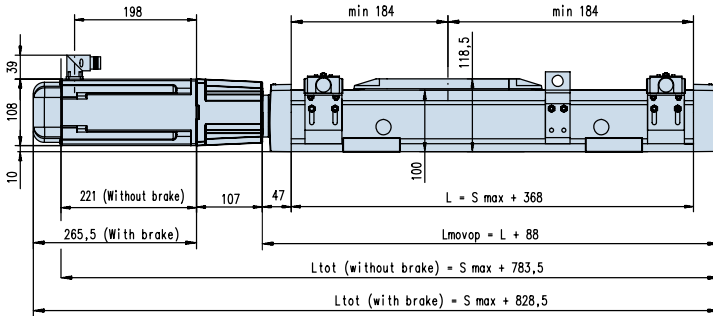
Dimension data

Ordering length [mm]*	L = S max + 404
Maximum stroke [mm]	S max = L - 405
Total length [mm]	L tot = S max + 629

* In the ordering key the ordering length should be expressed in cm.

Drawing #5

Model: D10251•••54K••2



Technical data

Actuator Designation	D10251•••54K••2
Actuator model	M100
Transmission type	ball screw
Gear / flange model	flange
Motor model	AKM54
Servo model	SR614
Max. force Fx [N]	3990
Max. speed [m/s]	0,85
Max. stroke [mm]	9999
Temperature range [°C]	- 20 – + 70
Repeatability [± mm]	0,05
Resolution [mm]	0,1

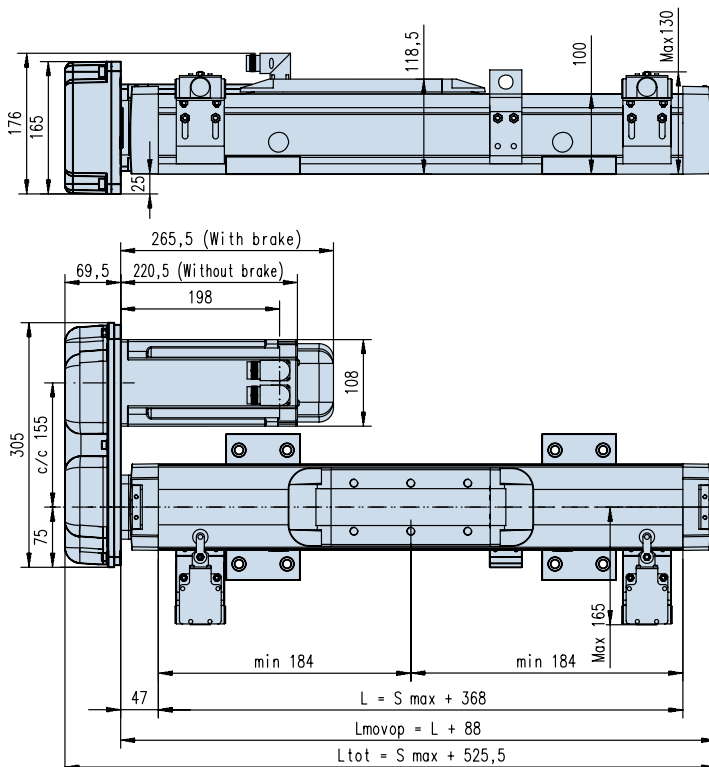
Dimension data

Ordering length [mm]*	L = S max + 368
Maximum stroke [mm]	S max = L - 368
Total length without brake [mm]	L tot = S max + 783,5
Total length with brake [mm]	L tot = S max + 828,5

* In the ordering key the ordering length should be expressed in cm.

Drawing #6

Model: D10252•••54K••2



Technical data

Actuator Designation	D10252•••54K••2
Actuator model	M100
Transmission type	ball screw
Gear / flange model	belt gear BGM40
Motor model	AKM54
Servo model	SR614
Max. force Fx [N]	5000
Max. speed [m/s]	0,55
Max. stroke [mm]	9999
Temperature range [°C]	- 20 – + 70
Repeatability [± mm]	0,05
Resolution [mm]	0,1

Dimension data

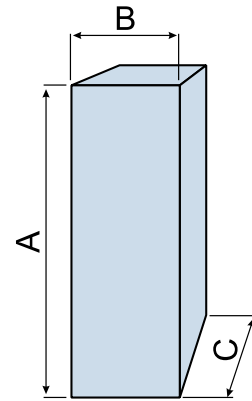
Ordering length [mm]*	L = S max + 368
Maximum stroke [mm]	S max = L - 368
Total length [mm]	L tot = S max + 525,5

* In the ordering key the ordering length should be expressed in cm.

Servo Drive Technical Data

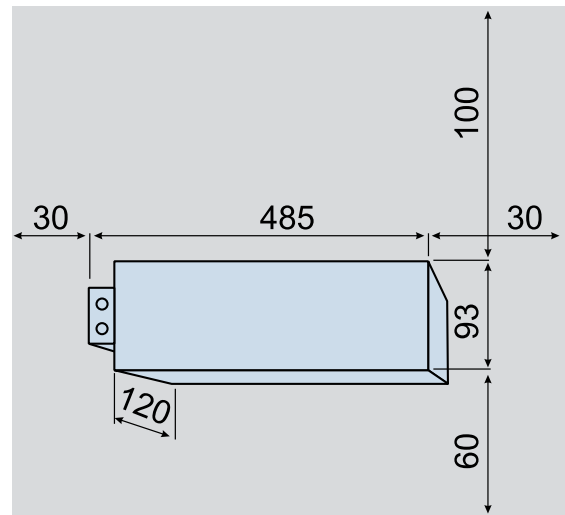
Servo drive dimensions

Servo drive model	SR610	SR614	SR620
A [mm]	275	275	275
B [mm]	70	100	120
C [mm]	273	273	273



Brake module dimensions

The brake module is used when the energy generated back in to the drive at decelerations is too much for the drive to handle. The Selection Software will tell you when you need to use a brake module. The grey area indicates the amount of free space the module needs for its cooling. The module should also be mounted in shown position to ensure correct airflow.



Servo drive technical data

Servo drive model	SR610	SR614	SR620
Supply voltage [Vac]	3 × 230 – 480 ±10%, 50 Hz	3 × 230 – 480 ±10%, 50 Hz	3 × 230 – 480 ±10%, 50 Hz
Rated power [kVA]	7	10	14
Rated output current, rms [A]	10	14	20
Peak output current, 5 sec. [A]	20	28	40
Encoder emulation output	yes, R0D426 or SSI selectable	yes, R0D426 or SSI selectable	yes, R0D426 or SSI selectable
Programming	directly on the drive or on PC setup software via RS232	directly on the drive or on PC setup software via RS232	directly on the drive or on PC setup software via RS232
Positioning control	built-in	built-in	built-in
Options	One of the cards below can be integrated: <ul style="list-style-type: none"> • PROFIBUS DP • SERCOS • DeviceNet • Ethernet • Single Axis Controller • I/O expansion 	One of the cards below can be integrated: <ul style="list-style-type: none"> • PROFIBUS DP • SERCOS • DeviceNet • Ethernet • Single Axis Controller • I/O expansion 	One of the cards below can be integrated: <ul style="list-style-type: none"> • PROFIBUS DP • SERCOS • DeviceNet • Ethernet • Single Axis Controller • I/O expansion

Ordering Key

Designation example	D10252	191	54N	N	2	1
Actuator type	See quick selection guide*					
Ordering length L [cm]					
Servo motor size			See quick selection guide*			
Holding brake and brake module options				N		
No brake				1		
Brake				2		
Brake module				3		
Length of cables between motor and drive [m]					1	
5					2	
10					3	
Servo drive size					See quick selection guide*	

*The Quick Selection Guide on page 6 or the Selection Software will give you the only available combinations of actuator type, motor size and drive size. The other options can be chosen freely.

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