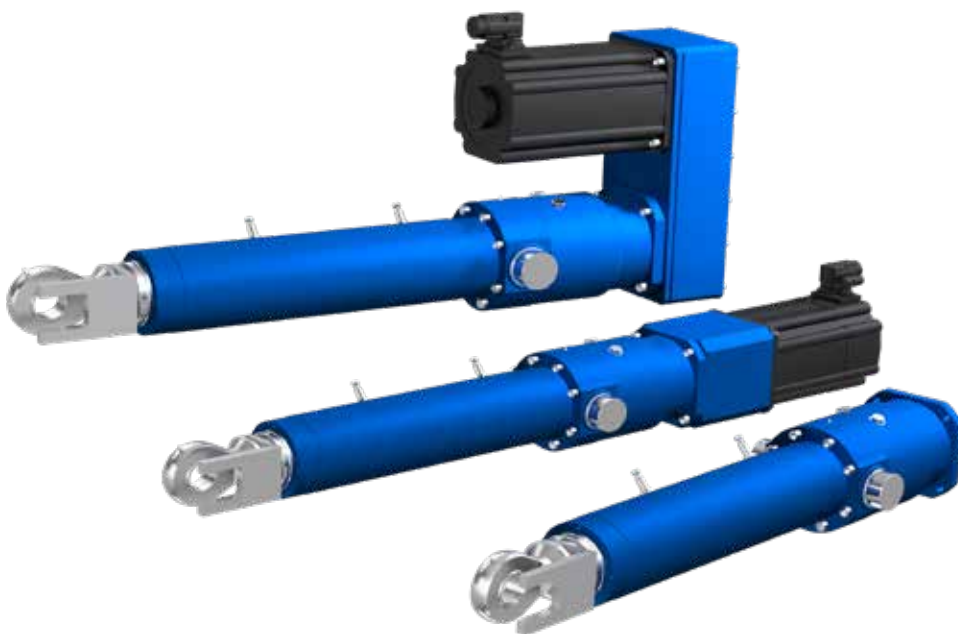


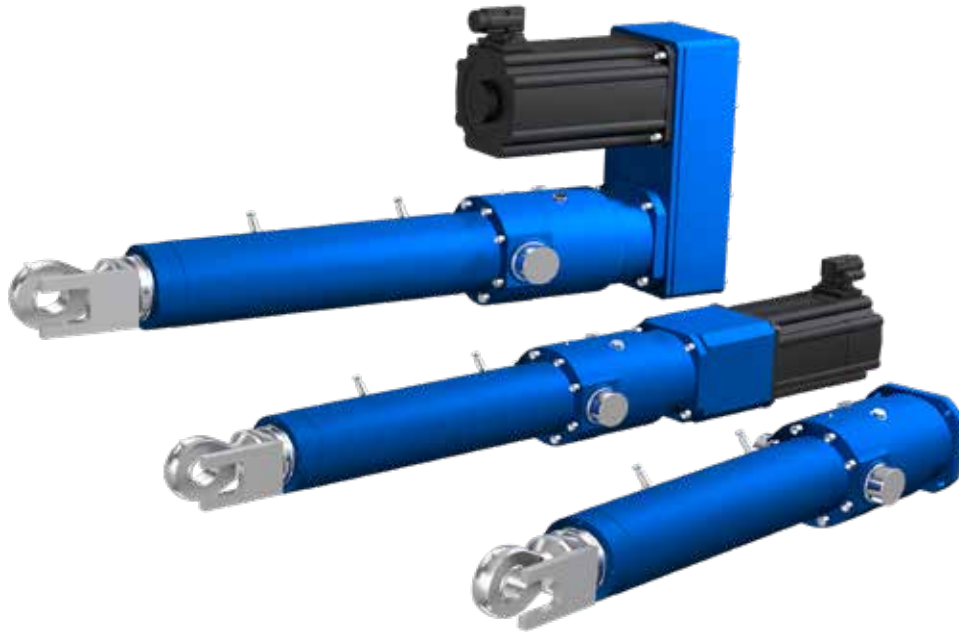
EWELLIX

MAKERS IN MOTION

Electric cylinders SRSA, SVSA, SLSA



Electric cylinders SRSA, SVSA and SLSA



Features

- High performance roller screw
- Steel push tube and protection tube
- Modular concept
- Anti-rotation with profile rail guide
- Possibility to re-lubricate the roller screw nut with direct access
- Optional low lead roller screw or high-lead ball screw available.
- Brushless servo motors and customized motor adapters

Benefits

- High load with long life capacity as well as high acceleration and speed capabilities
- High stiffness and robustness
- Multiple combinations to fit a wide range of applications
- Extreme push tube torque resistance
- Low maintenance requirements
- Optimal solution for a wide range of applications where high load, high positioning accuracy or high speed is needed.

Product description

Electric cylinders SRSA are a straight forward combination of Ewellix's high quality planetary roller screws, Ewellix's angular contact ball bearings that will hold load and servomotors so they can perform highly efficient linear movements with full controllability. The SRSA housing is made of steel for high stiffness and robustness. The wide range consists of cylinders with screw sizes from 39 mm up to 75 mm. This enables the use of electric SRSA cylinders in applications with peak forces up to 500 kN, where – in the past – only hydraulic cylinders were an option.

For long strokes, the free end of the screw shaft is supported and guided inside the push-tube to prevent any vibration.

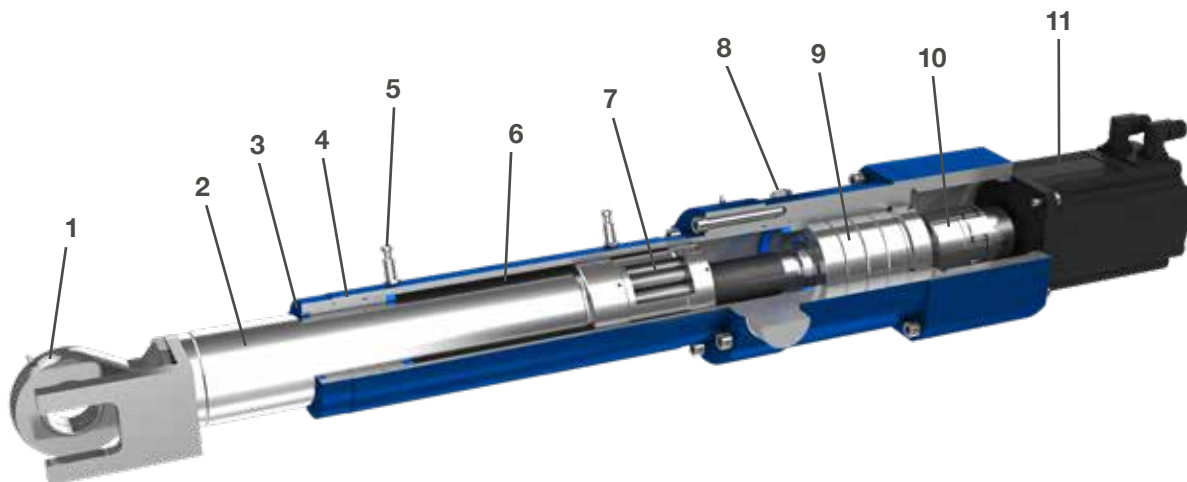
The optional anti-rotation device is made of profile rail guides. This pre-loaded design provides very high torsional stiffness and durability.

Two internal bumpers secure the mechanism during the adjustment phase, protecting the screw nut from damage due to impact with the mechanical end stops.

For very high positioning accuracy, Ewellix offers the slow moving SVSA range with high precision recirculating roller-screws. Thanks to the very short screw lead of 1 mm only, it is easier to control the actuator while doing fine positioning adjustments.

To cover the high speed applications as well, Ewellix equipped the SLSA versions with high lead ball screws. Those cylinders provide fast acceleration and speeds up to 1,5 m/s thanks to the long screw lead of up to 40 mm.

The full range of SRSA, SVSA and SLSA is available in inline configurations as well as in parallel configurations to fit most applications.



1. Rod end
2. Steel push tube
3. Scraper seal to protect against contaminants
4. Guiding bushing
5. Home and limit switches
6. Steel protection tube
7. High quality Ewellix planetary roller screw for highest axial loads with low play and high efficiency
8. Sinter filter for high airflow
9. High quality Ewellix angular contact ball bearings
10. Coupling
11. Servomotor

Motors and gearboxes

Servo motors

The SRSA can be ordered with a servo motor. In this case, Ewellix has selected a series of Lenze motors and drives that best matches the performance of the actuator to the end-user application. To complete the design, several options can be selected such as absolute encoder (EnDat, Hyperface), safety brake or associated servodrive. It is also possible to equip the SRSA with your preferred brand of servo motor so that it integrates best into your system. Please contact Ewellix to check the feasibility of your configuration. For more information, please visit the following sites:

Motors:

<http://www.lenze.com/en-us/products/motors/>

Drives:

<http://www.lenze.com/en-us/products/inverters/>

Drive options

The performance attributes shown in the table on the previous page are the result of specific Lenze servo motor and drive combinations. The SRSA can be offered with or without the servodrive. The servodrive can be in the recommended configuration or any other configuration that fits your installation.

In the case of a different combination, please contact Ewellix to determine what effect the different configuration will have on the performance of the actuator.

Performance overview of linear units

Linear unit	F_{\max} kN	$F_{\max 0}$	V_{\max} mm/s
SRSA-U-3905	150	150	342
SRSA-U-3910	150	150	683
SRSA-U-3915	150	150	1 025
SRSA-U-4805	260	260	278
SRSA-U-4810	260	260	556
SRSA-U-4815	260	260	833
SRSA-U-4820	260	260	1 111
SRSA-U-6010	370	370	444
SRSA-U-6015	370	370	667
SRSA-U-6020	370	370	889
SRSA-U-7510	500	500	356
SRSA-U-7515	500	500	533
SRSA-U-7520	500	500	711
SVSA-U-3201	60	60	10,4
SVSA-U-4001	80	80	8,3
SVSA-U-5001	175	175	6,7
SLSA-U-2525	22	22	1 500
SLSA-U-4040	50	50	1 500

Performance overview of actuators with servomotors

Linear unit	Interface and gear ratio	Motor	F _{c0} kN	F _{p0}	V _{max} mm/s
SRSA3905	L10/ P10	LC9	25,8 / 25	47,2 / 45,7	269
SRSA3905	L30/ P30	LA6	41,1 / 39,9	88,5 / 85,8	113
SRSA3905	L40/ P40	LA6	54,8 / 53,1	118 / 114,4	84
SRSA3910	L30/ P30	LC1	29,8 / 28,9	62,4 / 60,6	179
SRSA3910	L50/ P50	LC1	49,6 / 48,1	104,1 / 100,9	108
SRSA3910	L70/ P70	LC1	69,5 / 67,4	145,7 / 141,3	77
SRSA3915	L10/ P10	LB6	12 / 11,7	20,1 / 19,5	806
SRSA3915	L30/ P30	LD3	42,6 / 41,3	68,7 / 66,7	219
SRSA3915	L50/ P50	LD3	71 / 68,9	114,6 / 111,1	131
SRSA4805	L10/ P10	LD3	40 / 38,8	64,5 / 62,6	219
SRSA4805	L30/ P30	LD1	61,2 / 59,4	117,6 / 114,1	77
SRSA4805	L40/ P40	LD1	81,6 / 79,2	156,8 / 152,1	58
SRSA4810	L30/ P30	LD2	49,5 / 48	87 / 84,4	167
SRSA4810	L40/ P40	LD2	66 / 64,1	116 / 112,5	125
SRSA4810	L50/ P50	LD2	82,5 / 80,1	145 / 140,6	100
SRSA4815	L10/ P10	LD6	28,9 / 28,1	51,8 / 50,3	713
SRSA4815	L50/ P50	LD5	83,2 / 80,7	137,8 / 133,6	150
SRSA4815	L70/ P70	LD5	116,5 / 113	192,9 / 187,1	107
SRSA4820	L10/ P10	LD6	21,7 / 21,1	38,9 / 37,7	950
SRSA4820	L50/ P50	LD7	78,3 / 76	185,4 / 179,9	200
SRSA4820	L70/ P70	LD7	109,7 / 106,4	259,6 / 251,8	143
SRSA6010	L30/ P30	LD2	49 / 47,5	86 / 83,4	167
SRSA6010	L40/ P40	LD5	96,5 / 93,6	159,8 / 155	125
SRSA6010	L50/ P50	LD5	120,6 / 117	199,7 / 193,7	100
SRSA6015	L30/ P30	LD6	83,3 / 80,8	149,2 / 144,7	238
SRSA6015	L50/ P50	LD7	103,3 / 100,2	244,4 / 237,1	150
SRSA6015	L70/ P70	LD7	144,6 / 140,2	342,2 / 331,9	107
SRSA6020	L10/ P10	LD6	21,7 / 21,1	38,9 / 37,7	889
SRSA6020	L70/ P70	LD7	109,7 / 106,4	259,6 / 251,8	143
SRSA6020	L100/ P100	LD7	156,7 / 152	370,8 / 359,7	100
SRSA7510	L30/ P30	LD7	88,7 / 86,1	210 / 203,7	167
SRSA7510	L50/ P50	LD7	147,9 / 143,4	350 / 339,5	100
SRSA7510	L70/ P70	LD7	207 / 200,8	490 / 475,3	71
SRSA7515	L30/ P30	LD6	82,3 / 79,8	147,5 / 143,1	238
SRSA7515	L50/ P50	LD6	137,2 / 133,1	245,8 / 238,4	143
SRSA7515	L70/ P70	LD6	192,1 / 186,3	344,1 / 333,8	102
SRSA7520	L10/ P10	LD6	21,5 / 20,8	38,4 / 37,3	711
SRSA7520	L70/ P70	LD6	145,7 / 141,3	261,1 / 253,2	136
SRSA7520	L100/ P100	LD6	208,1 / 201,9	373 / 361,8	95
SVSA3201	L10/ P10	LC7	13,8 / 13,4	42,8 / 41,5	10
SVSA3201	L10/ P10	LD9	24,7 / 23,9	57,8 / 56,1	10
SVSA4001	L10/ P10	LA1	19,2 / 18,7	54,1 / 52,5	8
SVSA4001	L10/ P10	LA3	34,3 / 33,2	79,1 / 79,1	8
SVSA5001	L10/ P10	LA5	40 / 38,8	93 / 90,2	7
SVSA5001	L10/ P10	LE3	74,6 / 72,4	174,2 / 169,6	7
SLSA2525	L10/ P10	LA4	2,4 / 2,3	6,1 / 5,9	1 469
SLSA2525	L10/ P10	LC9	5,8 / 5,6	10,6 / 10,2	1 344
SLSA4040	L10/ P10	LD3	5,7 / 5,6	9,2 / 9	1 500
SLSA4040	L10/ P10	LD6	11,3 / 11	20,3 / 19,7	1 500

Standard motor types

Motor	Lenze servo motor	Lenze 9400 Highline servoamplifier
LA1	MCS12D20	E94ASHE0044
LA3	MCS12H15	E94ASHE0074
LA4	MCS12H35	E94ASHE0134
LA5	MCS12L20	E94ASHE0074
LA6	MCS12L41	E94ASHE0134
LB6	MCS14P32	E94ASHE0244
LC1	MCS14H32	E94ASHE0174
LC7	MCS09F38	E94ASHE0044
LC9	MCS14L32	E94ASHE0244
LD1	MCS14H28	E94ASHE0174
LD2	MCS14L30	E94ASHE0324
LD3	MCS14P26	E94ASHE0324
LD5	MCS19J30	E94ASHE0324
LD6	MCS19P29	E94ASHE0474
LD7	MCS19P30	E94ASHE0474
LD9	MCS09L41	E94ASHE0074
LE3	MCS14L15	E94ASHE0134

Manuals

Supporting documents are available for downloading on ewellix.com

3D Models

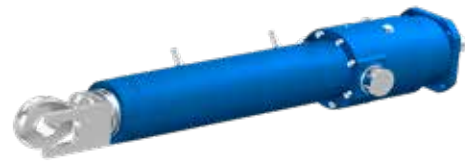
Product configurators for 3D models download are available on ewellix.com



3D model configurator

SRSA-U-39xx

Linear unit



Technical data

Designation	Symbol	Unit	SRSA-U-3905	SRSA-U-3910	SRSA-U-3915
Performance Data					
Max. dynamic axial force	F_{max}	kN	150	150	150
Max. dynamic axial force L10 ¹⁾	F_{L10}	kN	90	90	90
Max. static axial force	F_{max0}	kN	150	150	150
Dynamic load capacity	C	kN	129	153	168
Maximum torque to reach Fmax	M_{max}	Nm	159	301	446
Max. linear speed	v_{max}	mm/s	342	683	1 025
Max. rotational speed	n_{max}	1/min	4 100	4 100	4 100
Max. acceleration	a_{max}	m/s ²	9,5	19,1	28,6
Duty cycle	D_{unit}	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	39	39	39
Screw lead	p_{screw}	mm	5	10	15
Lead accuracy	–	–	G5	G5	G5
Stroke ²⁾	s	mm	100...900	100...900	100...900
Internal overstroke each side	s_0	mm	5	5	5
Backlash ³⁾	$s_{backlash}$	mm	0	0	0
Efficiency	η_{lu}	%	75	79	80
Inertia @ 0 mm stroke	J_{lu}	10 ⁻⁴ kgm ²	21,3	21,3	21,3
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,8	1,8	1,8
Weight @ 0 mm stroke	m_{lu}	kg	33,8	33,8	33,8
Δ weight per 100 mm stroke	Δm	kg	4,3	4,3	4,3
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,3	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,5	0,5	0,5
Environment					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ⁴⁾	IP	–	54	54	54

¹⁾ Maximum dynamic axial force usable to apply the theoretical lifetime calculation (L10)

²⁾ By 100 mm steps

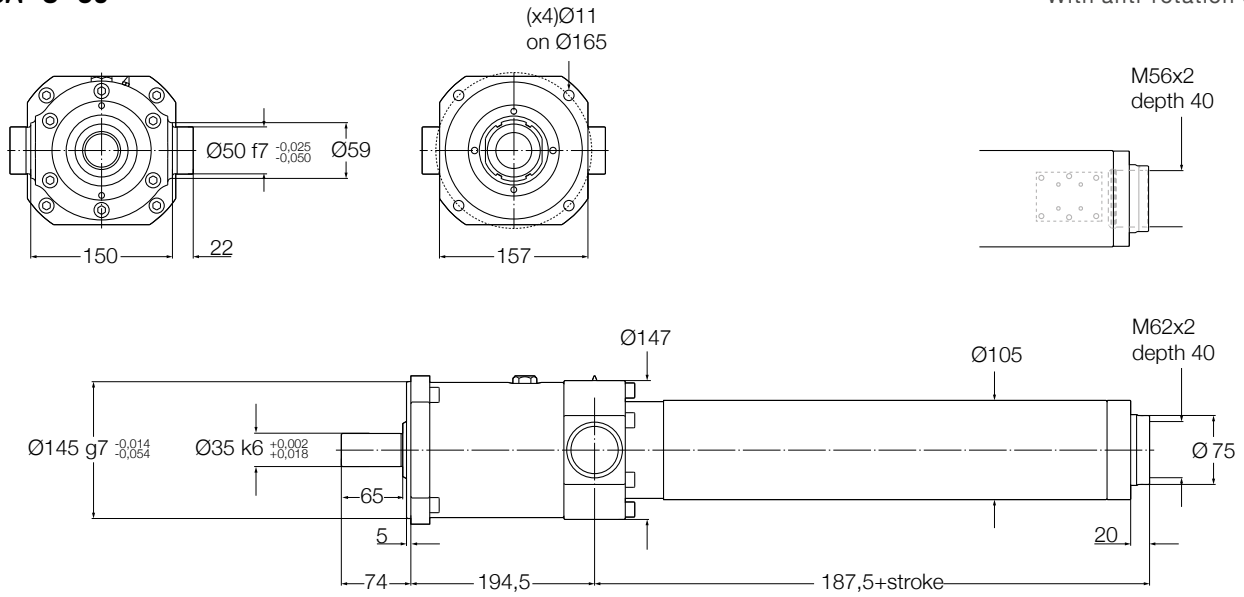
³⁾ Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

⁴⁾ With anti-rotation option IP44

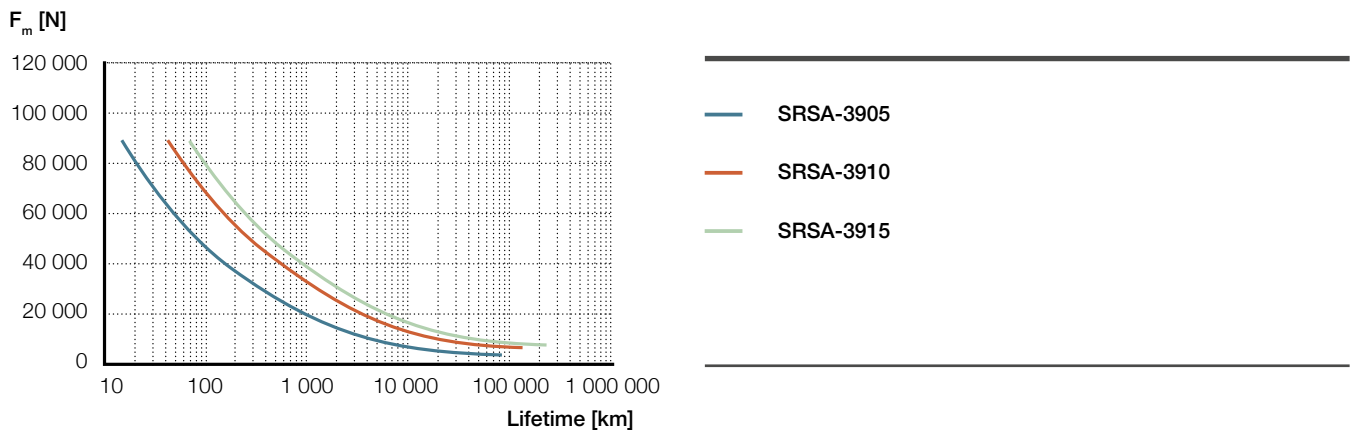
Dimensional drawing

SRSA-U-39

With anti-rotation option



Performance diagrams

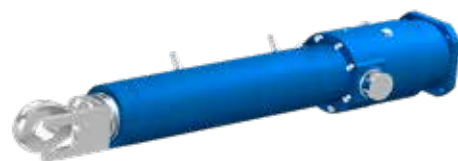


Ordering key

See page 236

SRSA-U-48xx

Linear unit



Technical data

Designation	Symbol	Unit	SRSA-U-4805	SRSA-U-4810	SRSA-U-4815	SRSA-U-4820
Performance Data						
Max. dynamic axial force	F_{max}	kN	260	260	260	260
Max. dynamic axial force L10 ¹⁾	F_{L10}	kN	140	140	140	140
Max. static axial force	F_{max0}	kN	260	260	260	260
Dynamic load capacity	C	kN	198	232	258	266
Maximum torque to reach Fmax	M_{max}	Nm	283	527	773	1 031
Max. linear speed	v_{max}	mm/s	278	556	833	1 111
Max. rotational speed	n_{max}	1/min	3 333	3 333	3 333	3 333
Max. acceleration	a_{max}	m/s ²	9,5	19,1	28,6	38,2
Duty cycle	D_{unit}	%	100	100	100	100
Mechanical Data						
Screw type	–	–	Roller screw	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	48	48	48	48
Screw lead	p_{screw}	mm	5	10	15	20
Lead accuracy	–	–	G5	G5	G5	G5
Stroke ²⁾	s	mm	100...1 200	100...1 200	100...1 200	100...1 200
Internal overstroke each side	s_0	mm	5	5	5	5
Backlash ³⁾	$s_{backlash}$	mm	0	0	0	0
Efficiency	η_{lu}	%	73%	79%	80%	80%
Inertia @ 0 mm stroke	J_{lu}	10 ⁻⁴ kgm ²	54,3	54,3	54,3	54,3
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	4,1	4,1	4,1	4,1
Weight @ 0 mm stroke	m_{lu}	kg	53,2	53,2	53,2	53,2
Δ weight per 100 mm stroke	Δm	kg	5,7	5,7	5,7	5,7
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	3,6	3,6	3,6	3,6
Δ Weight of anti-rot. per 100 mm stroke	Δm _{arot}	kg	0,7	0,7	0,7	0,7
Environment						
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40	0...+40
Degree of protection ⁴⁾	IP	–	54	54	54	54

¹⁾ Maximum dynamic axial force usable to apply the theoretical lifetime calculation (L10)

²⁾ By 100 mm steps

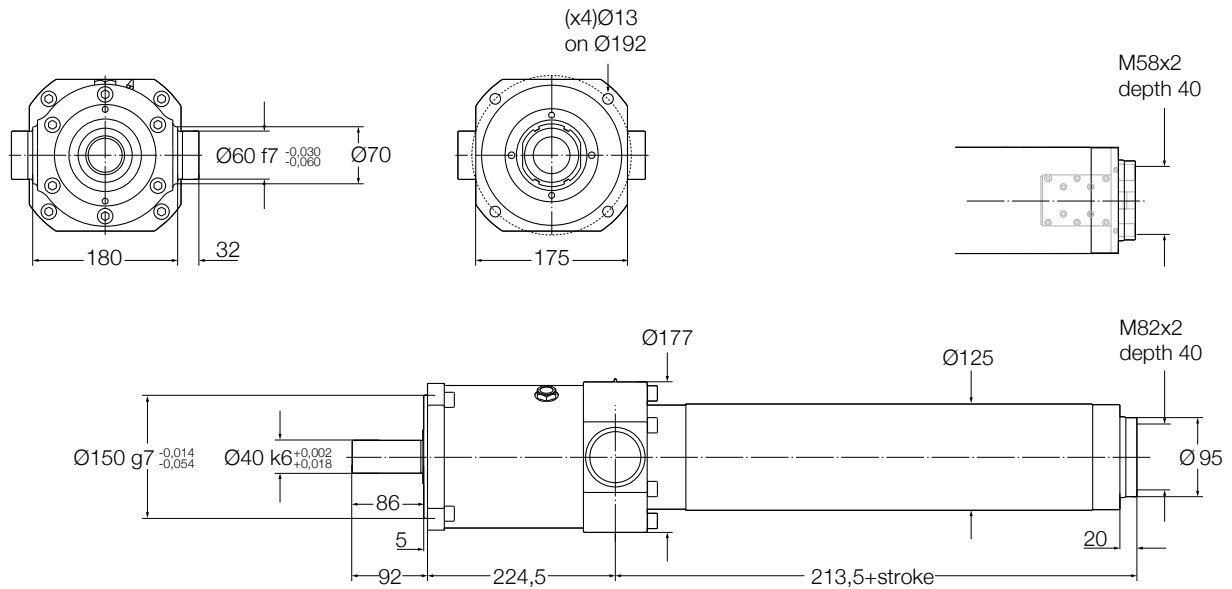
³⁾ Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

⁴⁾ With anti-rotation option IP44

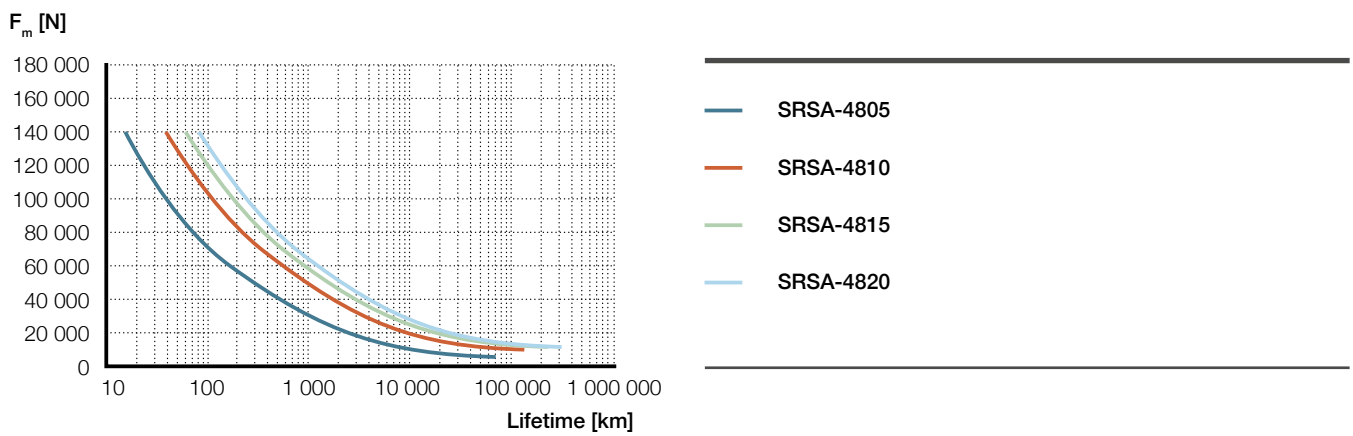
Dimensional drawing

SRSA-U-48

With anti-rotation option



Performance diagrams

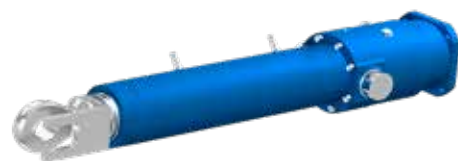


Ordering key

See page 236

SRSA-U-60xx

Linear unit



Technical data

Designation	Symbol	Unit	SRSA-U-6010	SRSA-U-6015	SRSA-U-6020
Performance Data					
Max. dynamic axial force	F_{max}	kN	370	370	370
Max. dynamic axial force L10 ¹⁾	F_{L10}	kN	250	250	250
Max. static axial force	F_{max0}	kN	370	370	370
Dynamic load capacity	C	kN	339	373	395
Maximum torque to reach Fmax	M_{max}	Nm	759	1 112	1 467
Max. linear speed	v_{max}	mm/s	444	667	889
Max. rotational speed	n_{max}	1/min	2 667	2 667	2 667
Max. acceleration	a_{max}	m/s ²	19,1	28,6	38,2
Duty cycle	D_{unit}	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	60	60	60
Screw lead	p_{screw}	mm	10	15	20
Lead accuracy	–	–	G5	G5	G5
Stroke ²⁾	s	mm	100...1 300	100...1 300	100...1 300
Internal overstroke each side	s_0	mm	10	10	10
Backlash ³⁾	$s_{backlash}$	mm	0	0	0
Efficiency	η_{lu}	%	78%	79%	80%
Inertia @ 0 mm stroke	J_{lu}	10 ⁻⁴ kgm ²	178	178	178
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	10,1	10,1	10,1
Weight @ 0 mm stroke	m_{lu}	kg	83,6	83,6	83,6
Δ weight per 100 mm stroke	Δm	kg	8,9	8,9	8,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	5,2	5,2	5,2
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,8	0,8	0,8
Environment					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ⁴⁾	IP	–	54	54	54

¹⁾ Maximum dynamic axial force usable to apply the theoretical lifetime calculation (L10)

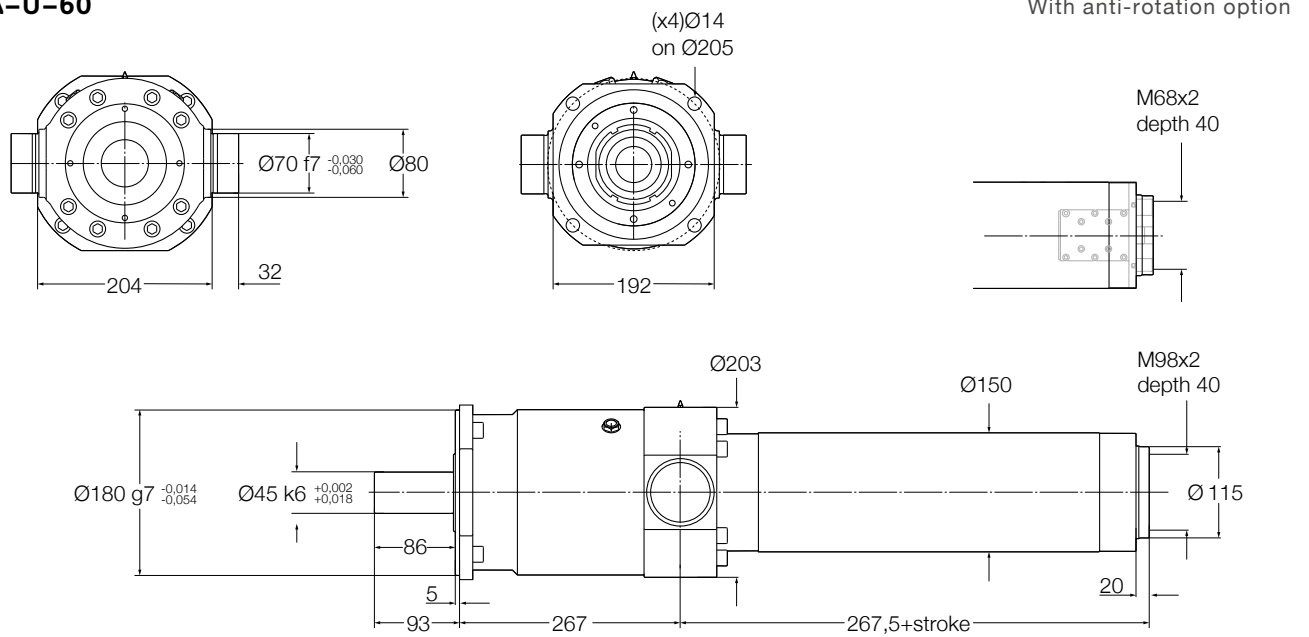
²⁾ By 100 mm steps

³⁾ Backlash elimination up to stroke 800 mm. For longer strokes $s_{backlash} = 0,02$ mm

⁴⁾ With anti-rotation option IP44

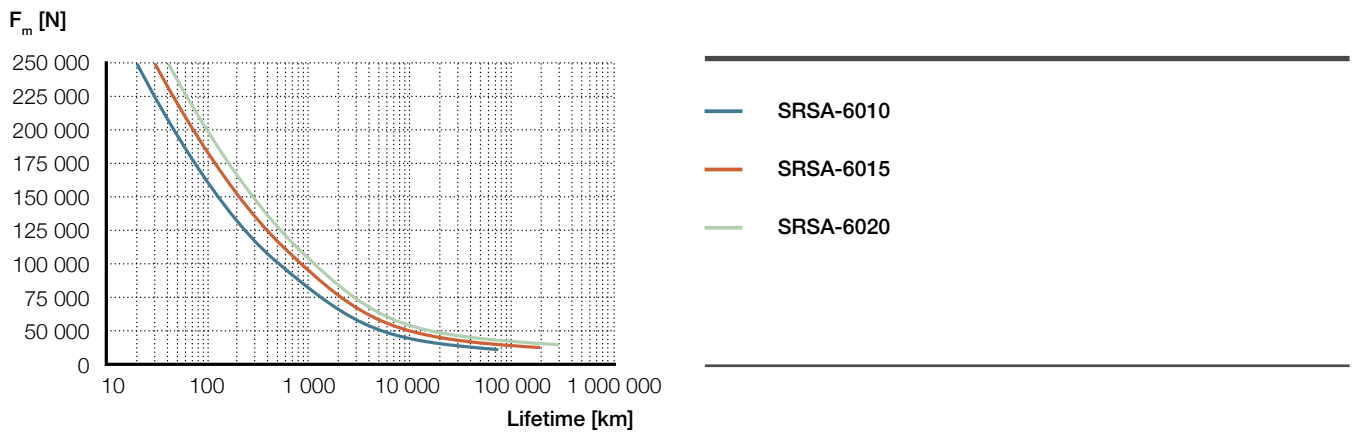
Dimensional drawing

SRSA-U-60



3

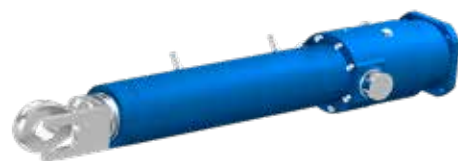
Performance diagrams



Ordering key
See page 236

SRSA-U-75xx

Linear unit



Technical data

Designation	Symbol	Unit	SRSA-U-7510	SRSA-U-7515	SRSA-U-7520
Performance Data					
Max. dynamic axial force	F_{max}	kN	500	500	500
Max. dynamic axial force L10 ¹⁾	F_{L10}	kN	450	450	450
Max. static axial force	F_{max0}	kN	500	500	500
Dynamic load capacity	C	kN	505	561	572
Maximum torque to reach Fmax	M_{max}	Nm	1 050	1 521	2 004
Max. linear speed	v_{max}	mm/s	356	533	711
Max. rotational speed	n_{max}	1/min	2 133	2 133	2 133
Max. acceleration	a_{max}	m/s ²	19,1	28,6	38,2
Duty cycle	D_{unit}	%	100%	100%	100%
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	75	75	75
Screw lead	p_{screw}	mm	10	15	20
Lead accuracy	–	–	G5	G5	G5
Stroke ²⁾	s	mm	100...1 500	100...1 500	100...1 500
Internal overstroke each side	s_0	mm	10	10	10
Backlash ³⁾	$s_{backlash}$	mm	0	0	0
Efficiency	η_{lu}	%	76%	79%	79%
Inertia @ 0 mm stroke	J_{lu}	10 ⁻⁴ kgm ²	625	625	625
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	24,6	24,6	24,6
Weight @ 0 mm stroke	m_{lu}	kg	156,5	156,5	156,5
Δ weight per 100 mm stroke	Δm	kg	11,3	11,3	11,3
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	7,5	7,5	7,5
Δ Weight of anti-rot. per 100 mm stroke	Δm _{arot}	kg	2,7	2,7	2,7
Environment					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ⁴⁾	IP	–	54	54	54

¹⁾ Maximum dynamic axial force usable to apply the theoretical lifetime calculation (L10)

²⁾ By 100 mm steps

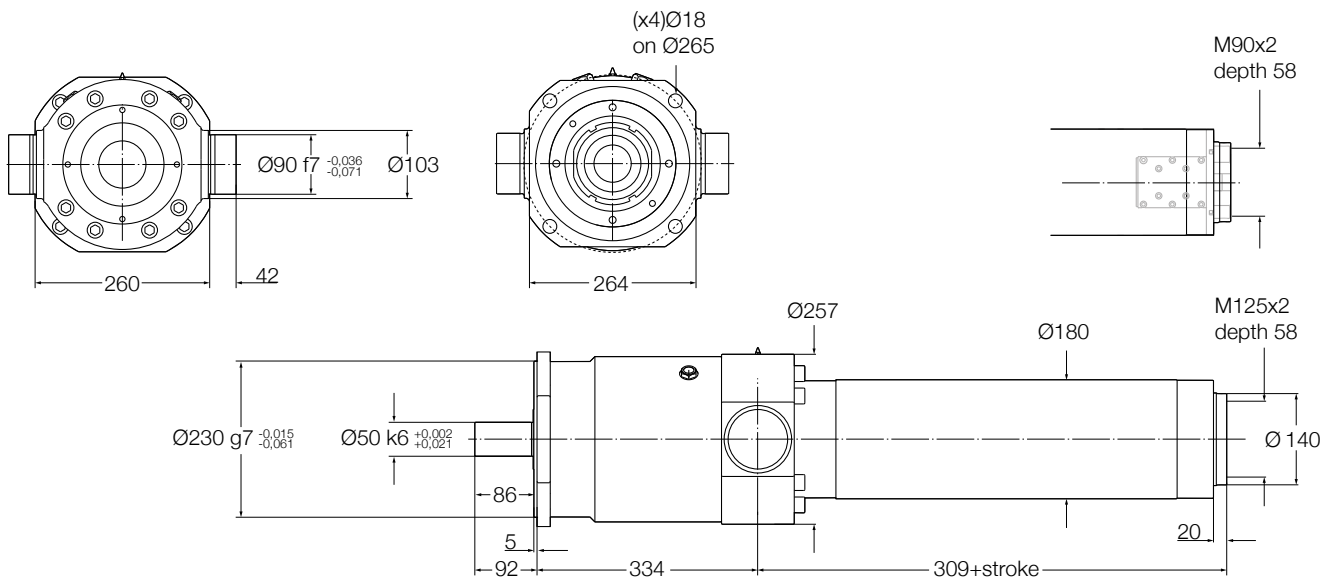
³⁾ Backlash elimination up to stroke 1 000 mm. For longer strokes $s_{backlash} = 0,02$ mm

⁴⁾ With anti-rotation option IP44

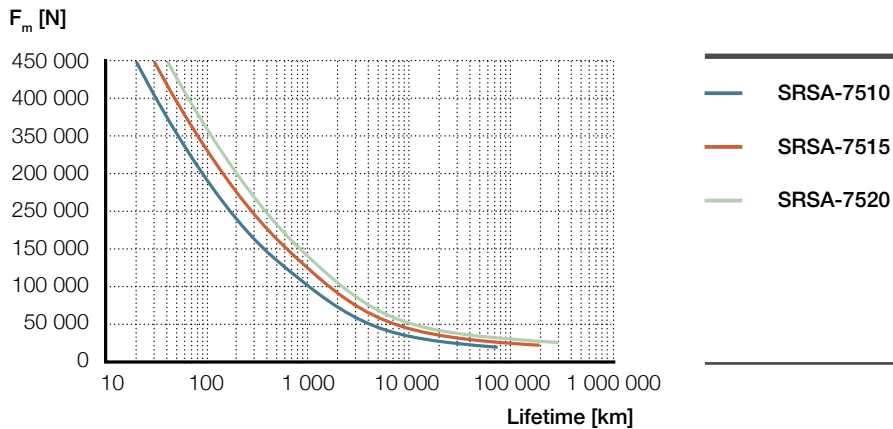
Dimensional drawing

SRSA-U-75

With anti-rotation option



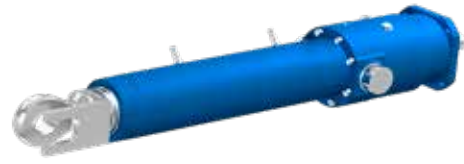
Performance diagrams



Ordering key
See page 236

SVSA-U-xx01

Linear unit



Technical data

Designation	Symbol	Unit	SVSA-U-3201	SVSA-U-4001	SVSA-U-5001
Performance Data					
Max. dynamic axial force	F_{max}	kN	60	80	175
Max. dynamic axial force L10 ¹⁾	F_{L10}	kN	40	50	60
Max. static axial force	F_{max0}	kN	60	80	175
Dynamic load capacity	C	kN	64	79	174
Maximum torque to reach Fmax	M_{max}	Nm	18,3	26,6	65,7
Max. linear speed	v_{max}	mm/s	10	8	7
Max. rotational speed	n_{max}	1/min	625	500	400
Max. acceleration	a_{max}	m/s ²	0,6	0,6	0,6
Duty cycle	D_{unit}	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	32	40	50
Screw lead	p_{screw}	mm	1	1	1
Lead accuracy	–	–	G5	G5	G5
Stroke ²⁾	s	mm	100...600	100...800	100...900
Internal overstroke each side	s_0	mm	5	5	5
Backlash ³⁾	$s_{backlash}$	mm	0	0	0
Efficiency	η_{lu}	%	52%	48%	42%
Inertia @ 0 mm stroke	J_{lu}	10 ⁻⁴ kgm ²	3,4	6,8	21,3
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,31	0,64	1,8
Weight @ 0 mm stroke	m_{lu}	kg	10,8	17,4	34,2
Δ weight per 100 mm stroke	Δm	kg	2,4	3,2	4,8
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	2,6	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δm_{arot}	kg	0,3	0,2	0,4
Environment					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ⁴⁾	IP	–	54	54	54

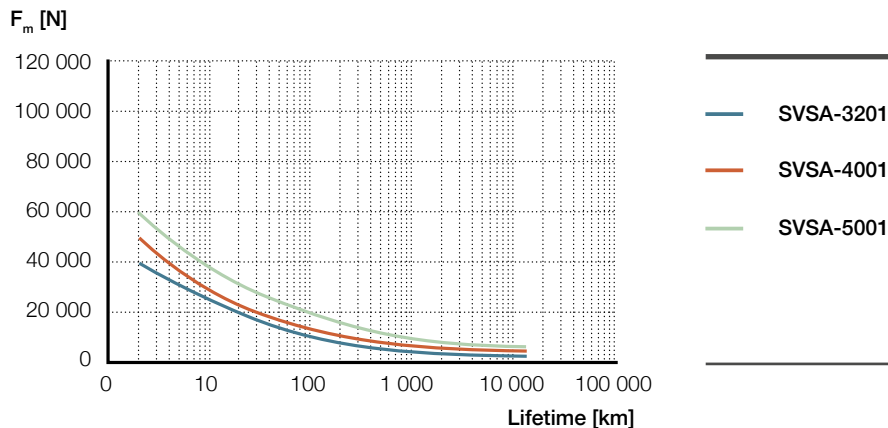
¹⁾ Maximum dynamic axial force usable to apply the theoretical lifetime calculation (L10)

²⁾ By 100 mm steps

³⁾ Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

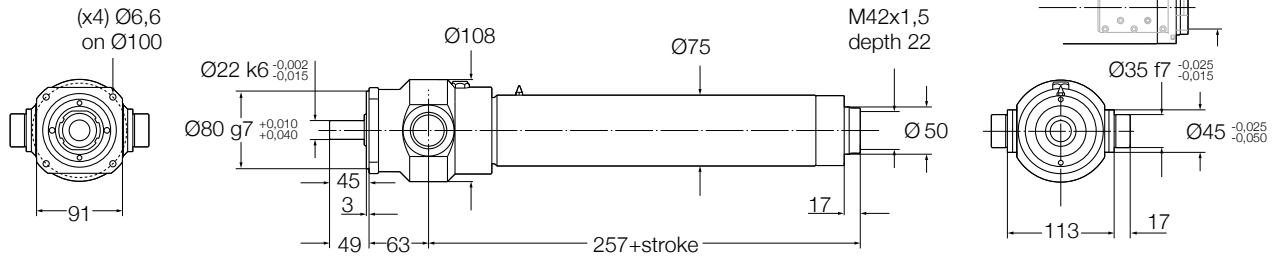
⁴⁾ With anti-rotation option IP44

Performance diagrams

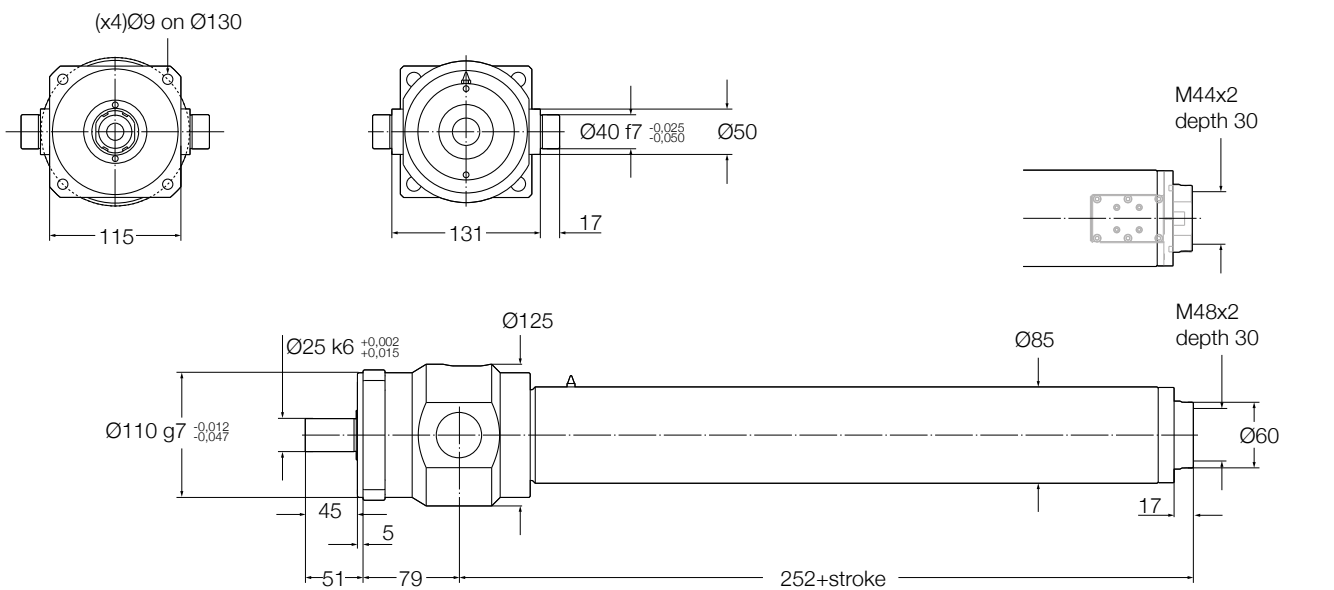


Dimensional drawing

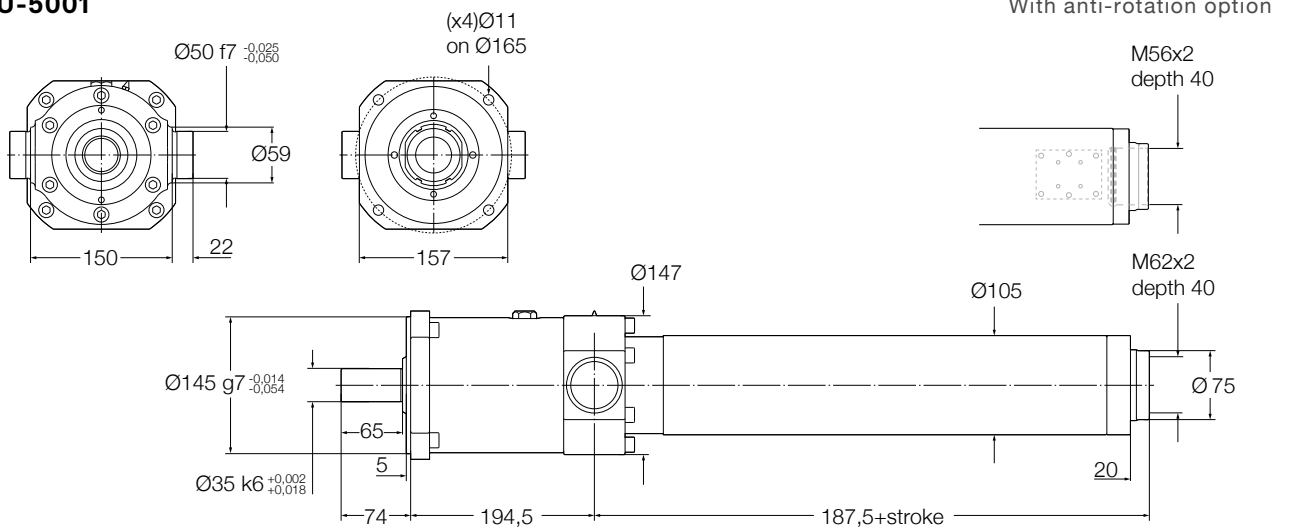
SVSA-U-3201



SVSA-U-4001



SVSA-U-5001

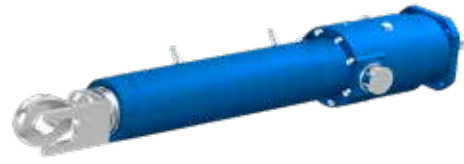


Ordering key

See page 236

SLSA-U-xxxx

Linear unit



Technical data

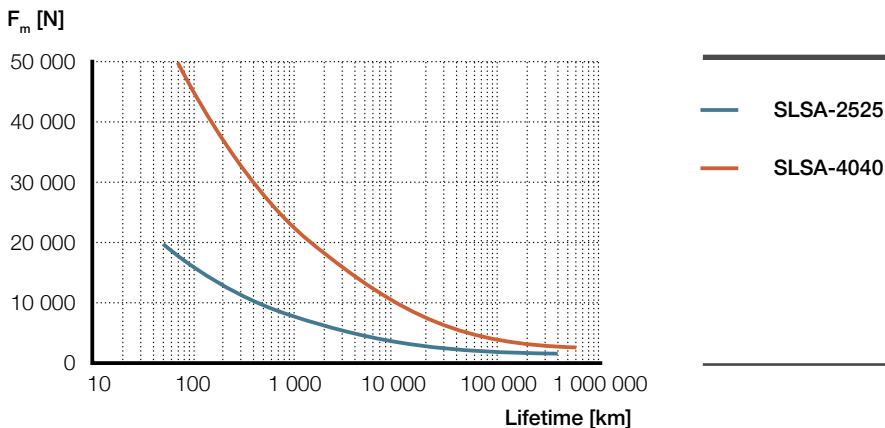
Designation	Symbol	Unit	SLSA-U-2525	SLSA-U-4040
Performance Data				
Max. dynamic axial force	F_{max}	kN	22	50
Max. dynamic axial force L10 ¹⁾	F_{L10}	kN	20	50
Max. static axial force	F_{max0}	kN	22	50
Dynamic load capacity	C	kN	22	52
Maximum torque to reach Fmax	M_{max}	Nm	104,2	378,9
Max. linear speed	v_{max}	mm/s	1 500	1 500
Max. rotational speed	n_{max}	1/min	3 600	2 250
Max. acceleration	a_{max}	m/s ²	15,9	25,5
Duty cycle	D_{unit}	%	100	100
Mechanical Data				
Screw type	–	–	Ball screw	Ball screw
Screw diameter	d_{screw}	mm	25	40
Screw lead	p_{screw}	mm	25	40
Lead accuracy	–	–	G9	G9
Stroke ²⁾	s	mm	100...800	100...1200
Internal overstroke each side	s_0	mm	5	5
Backlash	$s_{backlash}$	mm	0,08	0,1
Efficiency	η_{lu}	%	84%	84%
Inertia @ 0 mm stroke	J_{lu}	10 ⁻⁴ kgm ²	6,8	54,3
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,21	1,33
Weight @ 0 mm stroke	m_{lu}	kg	14,9	49,6
Δ weight per 100 mm stroke	Δm	kg	2,6	7
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,4	-2
Δ Weight of anti-rot. per 100 mm stroke	Δm_{arot}	kg	-0,1	-1,3
Environment				
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54

¹⁾ Maximum dynamic axial force usable to apply the theoretical lifetime calculation (L10)

²⁾ By 100 mm steps

³⁾ With anti-rotation option IP44

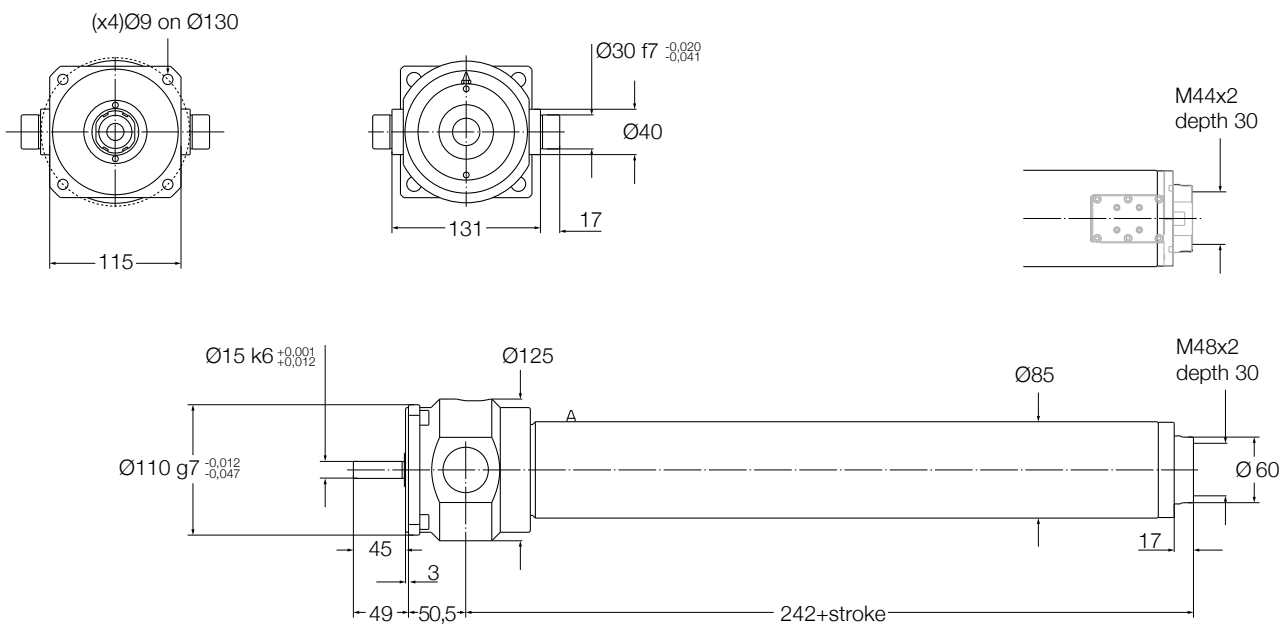
Performance diagrams



Dimensional drawing

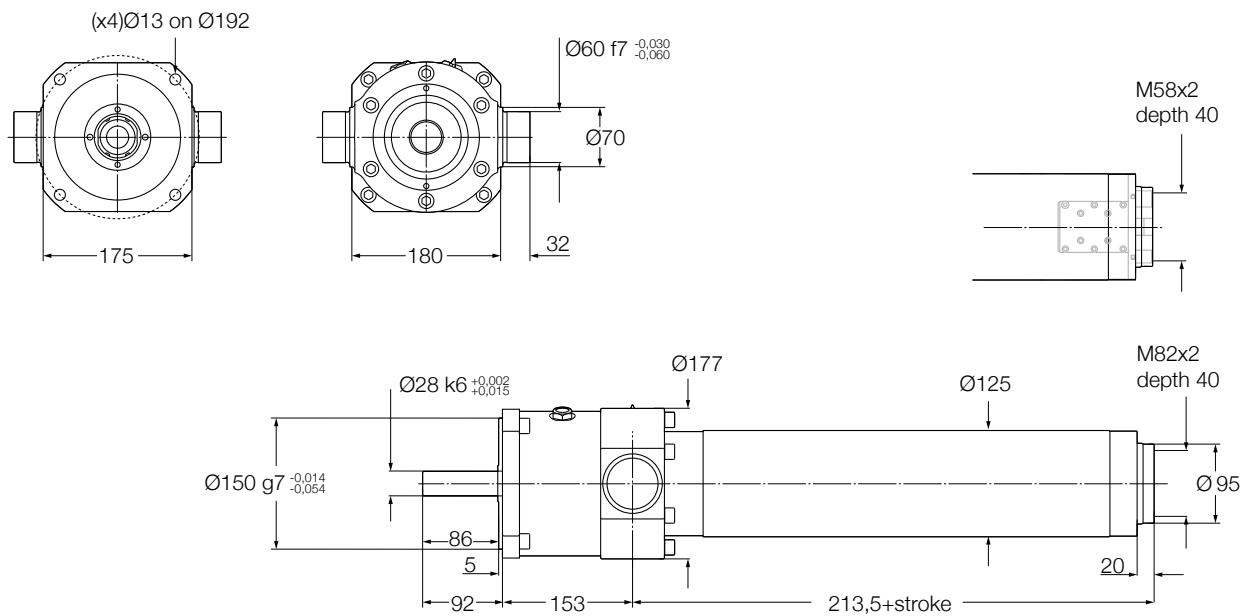
SLSA-U-2525

With anti-rotation option



SLSA-U-4040

With anti-rotation option



Ordering key

See page 236

Ordering key

Linear unit

S R S A - U - 4 8 1 0 - 0 2 0 0 - T R A F - N

Type

- R Planetary roller screw
- V Recirculating roller screw
- L Long lead ball screw

Linear unit only

Screw diameter

Screw lead

Stroke

Rear attachment

- T Trunnions
- Z Special
- N No attachment

Front attachment

- R Rod end
- F Rod end with fork
- Z Non standard
- N No attachment (female thread)

Anti-rotation

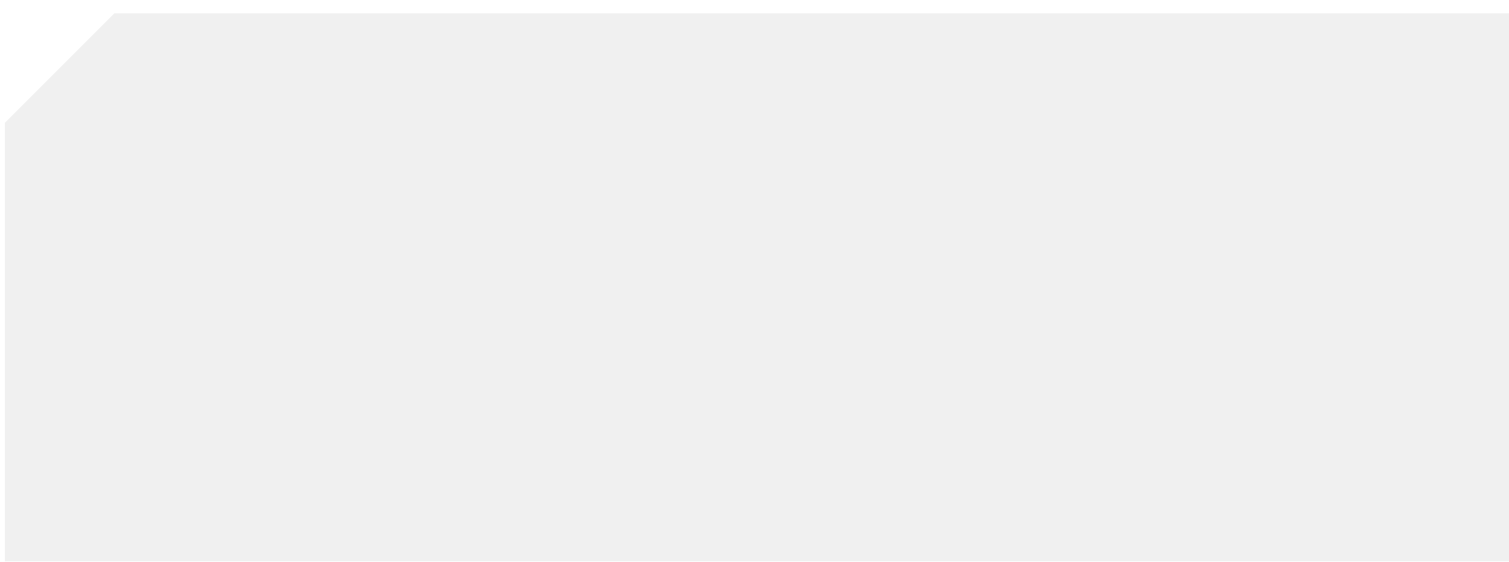
- A Anti-rotation
- N No anti-rotation

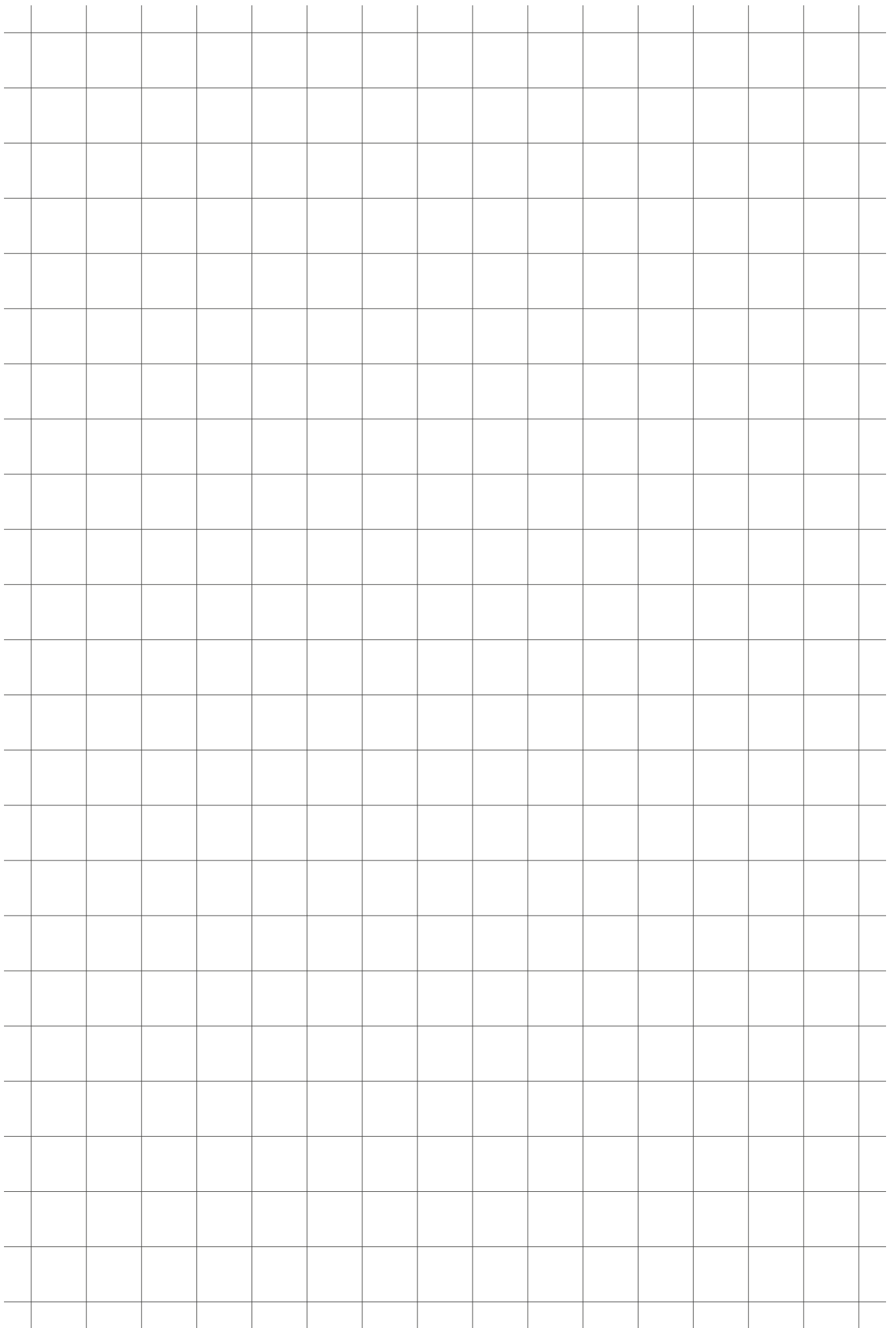
Limit switches

- F 2 limit switches and 1 home switch
- S 2 limit switches only
- M 1 limit switch and 1 home switch
- L 1 limit switch only
- H 1 home switch only
- N No switch

Motor interface

- N No interface
- L Inline interface (on request)
- P Parallel interface (on request)





SRSA-S-3905

Electric cylinder
servo motor, inline configuration



Technical data

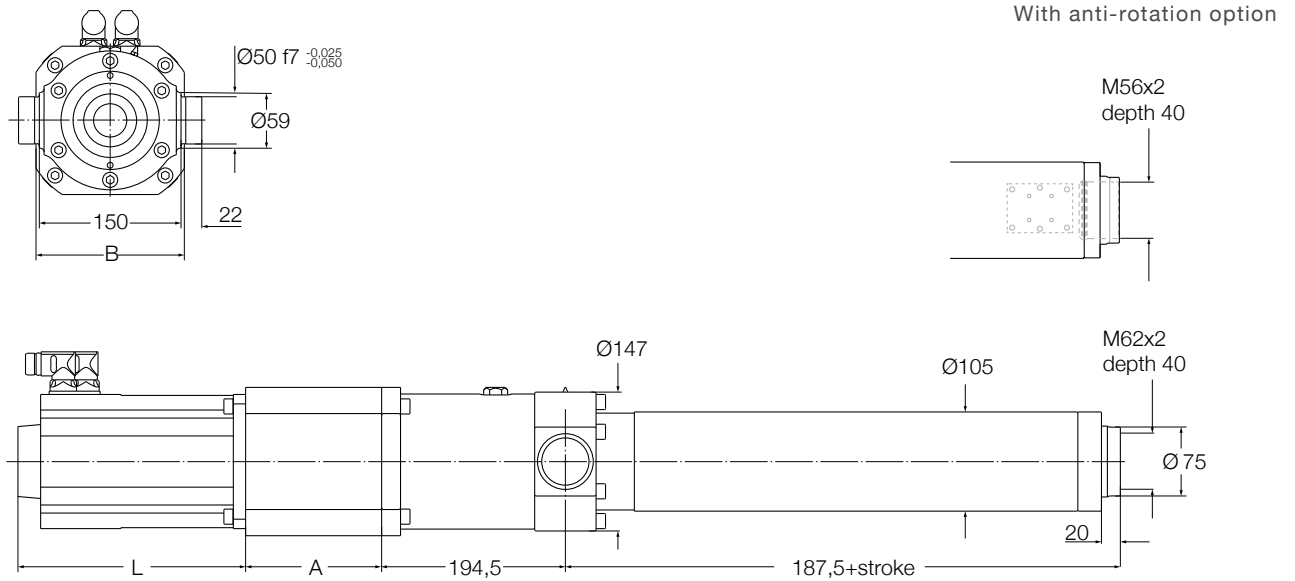
Designation	Symbol	Unit	Servo motor and inline adapter		
			L10 LC9	L30 LA6	L40 LA6
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	25,8	41,1	54,8
Continuous force @ max. speed	F_c	kN	16,2	30,1	40,2
Peak force @ zero speed	F_{p0}	kN	47,2	88,5	118
Peak force @ max. speed	F_p	kN	28,2	63,3	84,4
Dynamic load capacity	C	kN	129	129	129
Holding force (motorbrake option)	F_{Hold}	kN	35	58	78
Max. linear speed	v_{max}	mm/s	269	113	85
Max. acceleration	a_{max}	m/s ²	7,2	5,5	3,9
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	39	39	39
Screw lead	p_{screw}	mm	5	5	5
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...900	100...900	100...900
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i		1	3	4
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	53,58	15,36	16,54
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,8	0,2	0,11
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,2	1,07	1,07
Weight @ 0 mm stroke	m	kg	65,4	66,1	74
Δ weight per 100 mm stroke	Δm	kg	4,3	4,3	4,3
Weight of optional brake	m_{brake}	kg	1,9	0,9	0,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,3	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,5	0,5	0,5
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	23,5	12,4	12,4
Peak current	I_{peak}	A	47	31,2	31,2
Nominal power	P	kW	5,81	4,67	4,67
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

¹⁾ By 100 mm steps

²⁾ Backlash elimination up to stroke 500 mm. For longer strokes sbacklash = 0,02 mm

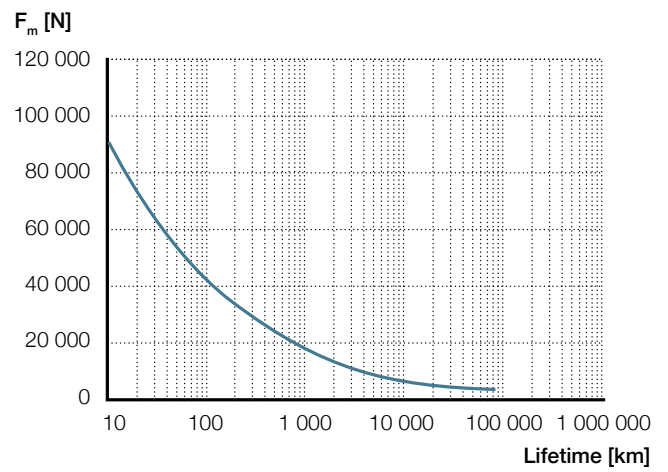
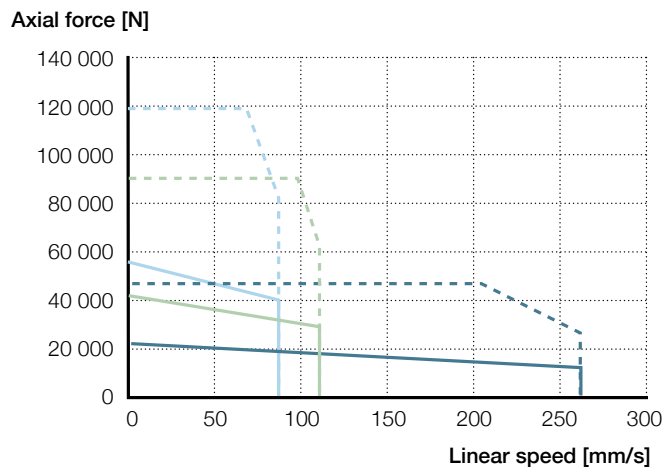
³⁾ With anti-rotation option IP44

Dimensional drawing



Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LC9	144	281	185	28	50
L30LA6	150	403	185	20	49
L40LA6	186	415	185	20	49

Performance diagrams



P10LC9 — F_{cont} **P30LA6** — F_{cont} **P40LA6** — F_{cont}
 — F_{peak} — F_{peak} — F_{peak}

Ordering key
See page 310

3

SRSA-S-3905

Electric cylinder
servo motor, parallel configuration



Technical data

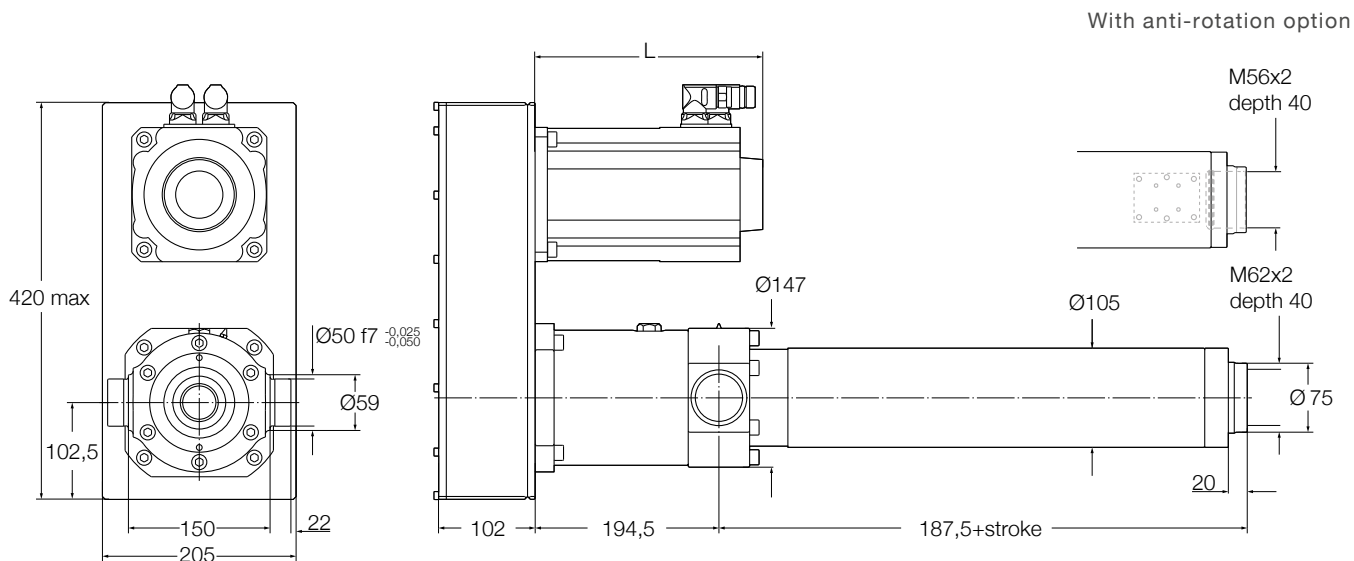
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P10 LC9	P30 LA6	P40 LA6
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	25	39,9	53,1
Continuous force @ max. speed	F_c	kN	15,7	29,2	39
Peak force @ zero speed	F_{p0}	kN	45,7	85,8	114,4
Peak force @ max. speed	F_p	kN	27,4	61,4	81,8
Dynamic load capacity	C	kN	129	129	129
Holding force (motorbrake option)	F_{Hold}	kN	36	60	80
Max. linear speed	v_{max}	mm/s	269	113	85
Max. acceleration	a_{max}	m/s ²	3,3	1,6	1
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	39	39	39
Screw lead	p_{screw}	mm	5	5	5
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...900	100...900	100...900
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	1	3	4
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	117,58	54,85	66,45
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,8	0,2	0,11
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,2	1,07	1,07
Weight @ 0 mm stroke	m	kg	79,8	76,3	80,3
Δ weight per 100 mm stroke	Δm	kg	4,3	4,3	4,3
Weight of optional brake	m_{brake}	kg	1,9	0,9	0,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,3	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,5	0,5	0,5
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	23,5	12,4	12,4
Peak current	I_{peak}	A	47	31,2	31,2
Nominal power	P	kW	5,81	4,67	4,67
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

¹⁾ By 100 mm steps

²⁾ Backlash elimination up to stroke 500 mm. For longer strokes $s_{backlash} = 0,02$ mm

³⁾ With anti-rotation option IP44

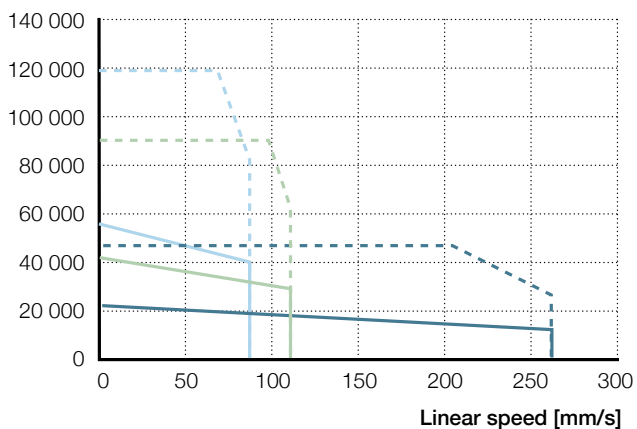
Dimensional drawing



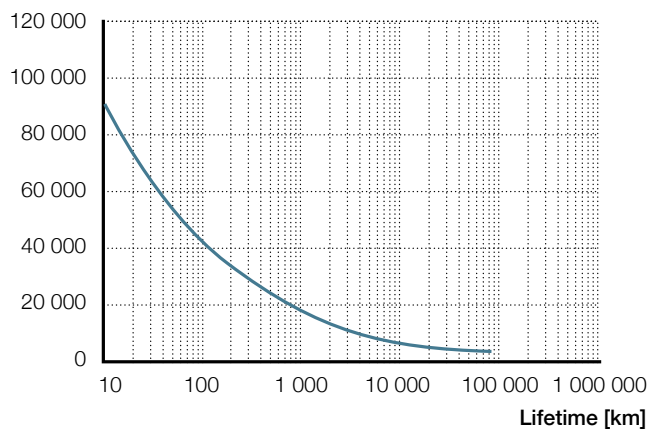
Reference	L mm	Added length for brake option	Added length for encoder option
-			
P10LC9	281	28	50
P30LA6	403	20	49
P40LA6	415	20	49

Performance diagrams

Axial force [N]



F_m [N]



P10LC9	— F _{cont}	P30LA6	— F _{cont}	P40LA6	— F _{cont}
	- - - F _{peak}		- - - F _{peak}		- - - F _{peak}

Ordering key

See page 310

SRSA-S-3910

Electric cylinder
servo motor, inline configuration



Technical data

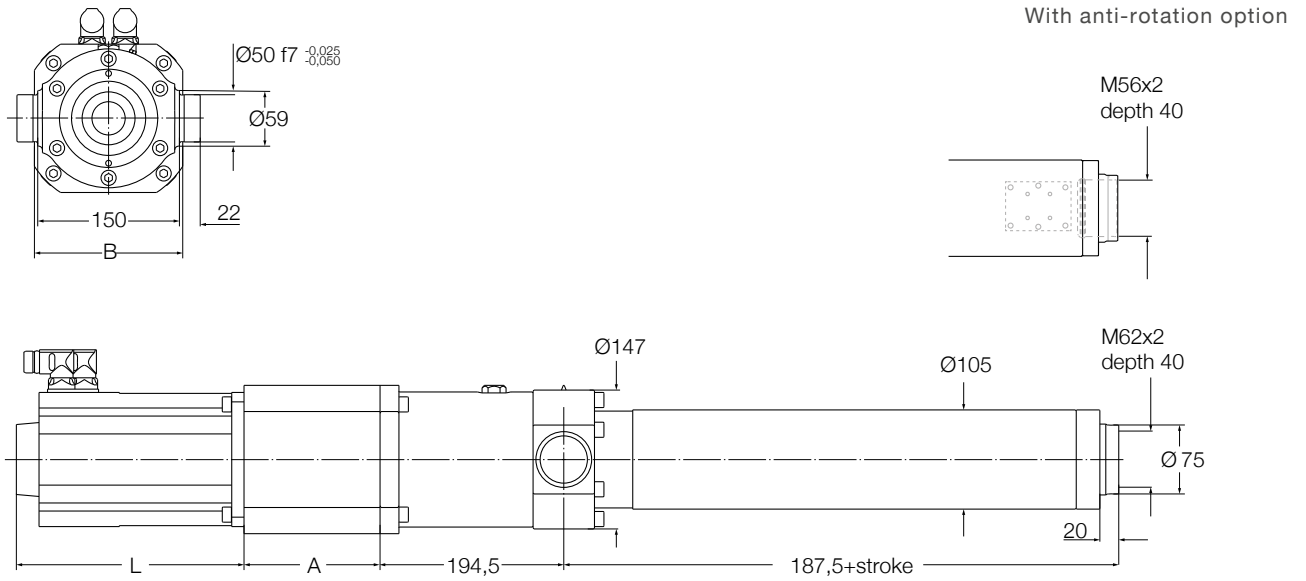
Designation	Symbol	Unit	Servo motor and Inline adapter		
			L30 LC1	L50 LC1	L70 LC1
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	29,8	49,6	69,5
Continuous force @ max. speed	F_c	kN	20,3	33,9	47,4
Peak force @ zero speed	F_{p0}	kN	62,4	104,1	145,7
Peak force @ max. speed	F_p	kN	28,8	47,9	67,1
Dynamic load capacity	C	kN	153	153	153
Holding force (motorbrake option)	F_{Hold}	kN	49	82	115
Max. linear speed	v_{max}	mm/s	179	107	77
Max. acceleration	a_{max}	m/s ²	9,2	7,2	4,2
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	39	39	39
Screw lead	p_{screw}	mm	10	10	10
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...900	100...900	100...900
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	3	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	24,60	19,04	23,05
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,20	0,07	0,04
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	3,20	3,20
Weight @ 0 mm stroke	m	kg	72,2	72,2	88,4
Δ weight per 100 mm stroke	Δm	kg	4,3	4,3	4,3
Weight of optional brake	m_{brake}	kg	1,9	1,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,3	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,5	0,5	0,5
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	16,5	16,5	16,5
Peak current	I_{peak}	A	39,6	39,6	39,6
Nominal power	P	kW	4,73	4,73	4,73
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 500 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

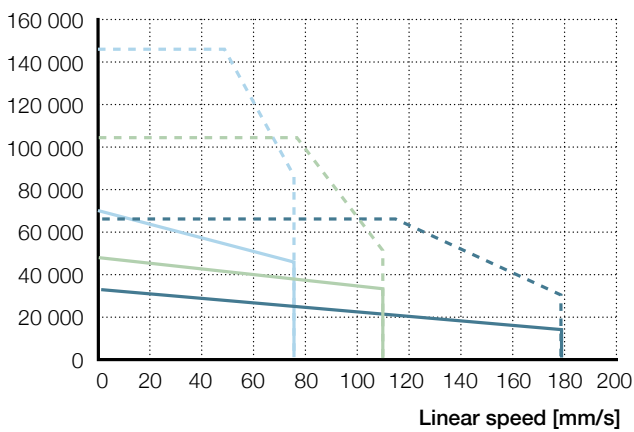
Dimensional drawing



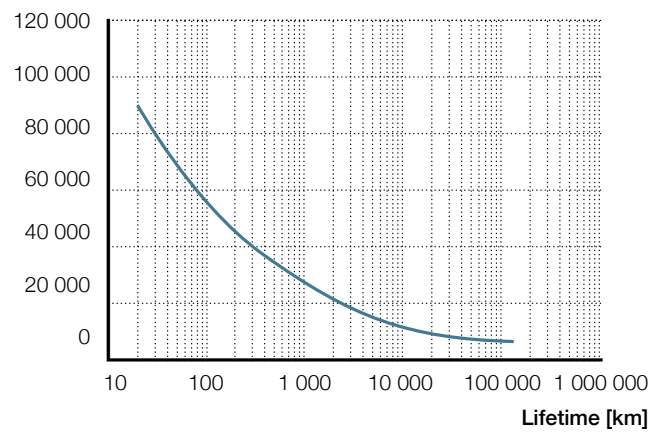
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L30LC1	186	455	185	28	50
L50LC1	186	455	185	28	50
L70LC1	216	483	185	28	50

Performance diagrams

Axial force [N]



F_m [N]



L30LC1	— F _{cont}	L50LC1	— F _{cont}	L70LC1	— F _{cont}
	- - - F _{peak}		- - - F _{peak}		- - - F _{peak}

Ordering key

See page 310

3

SRSA-S-3910

Electric cylinder
servo motor, parallel configuration



Technical data

Designation	Symbol	Unit	Servo motor and parallel adapter		
			P30 LC1	P50 LC1	P70 LC1
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	28,9	48,1	67,4
Continuous force @ max. speed	F_c	kN	19,7	32,9	46
Peak force @ zero speed	F_{p0}	kN	60,6	100,9	141,3
Peak force @ max. speed	F_p	kN	27,9	46,5	65,1
Dynamic load capacity	C	kN	153	153	153
Holding force (motorbrake option)	F_{Hold}	kN	51	84	118
Max. linear speed	v_{max}	mm/s	179	107	77
Max. acceleration	a_{max}	m/s ²	3	1,5	0,5
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	39	39	39
Screw lead	p_{screw}	mm	10	10	10
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...900	100...900	100...900
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i		3	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	75,55	93,74	213,66
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,20	0,07	0,04
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	3,20	3,20
Weight @ 0 mm stroke	m	kg	83,2	86,3	97,6
Δ weight per 100 mm stroke	Δm	kg	4,3	4,3	4,3
Weight of optional brake	m_{brake}	kg	1,9	1,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,3	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,5	0,5	0,5
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	16,5	16,5	16,5
Peak current	I_{peak}	A	39,6	39,6	39,6
Nominal power	P	kW	4,73	4,73	4,73
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–			

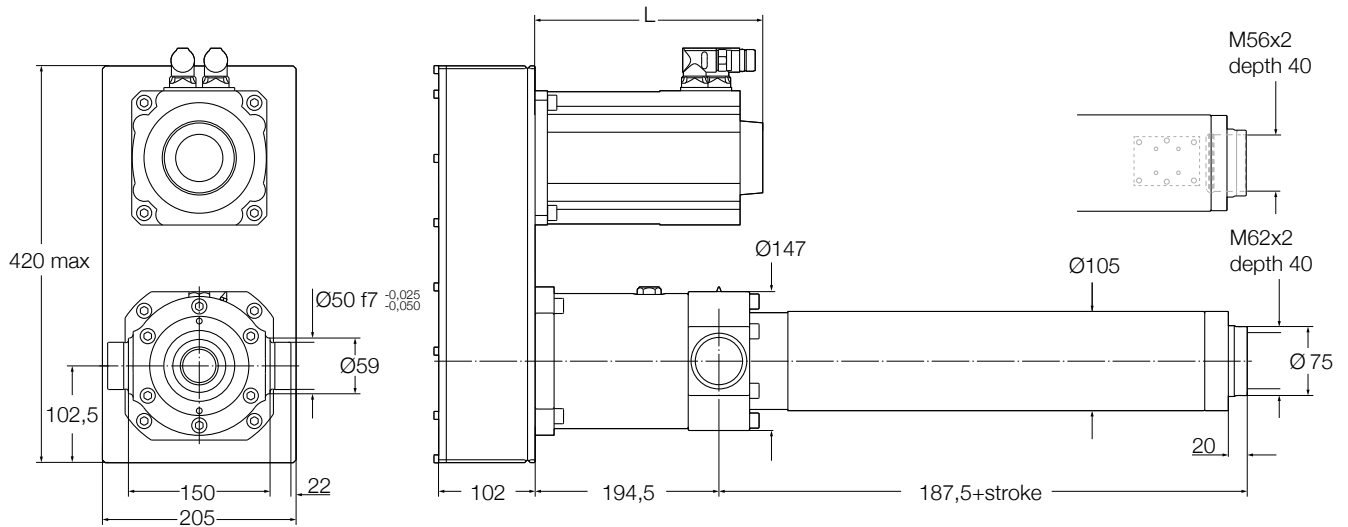
1) By 100 mm steps

2) Backlash elimination up to stroke 500 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

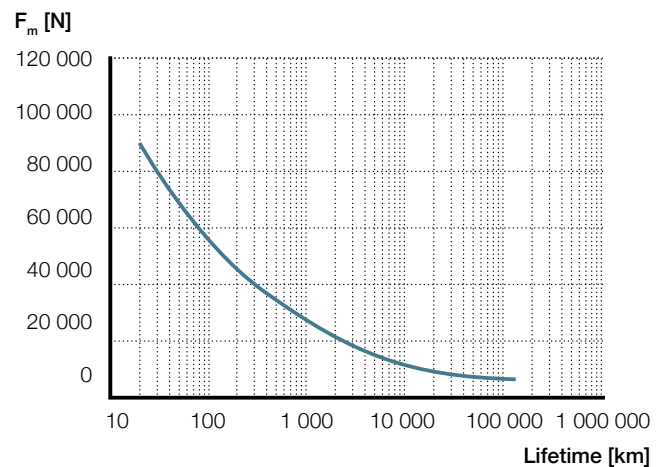
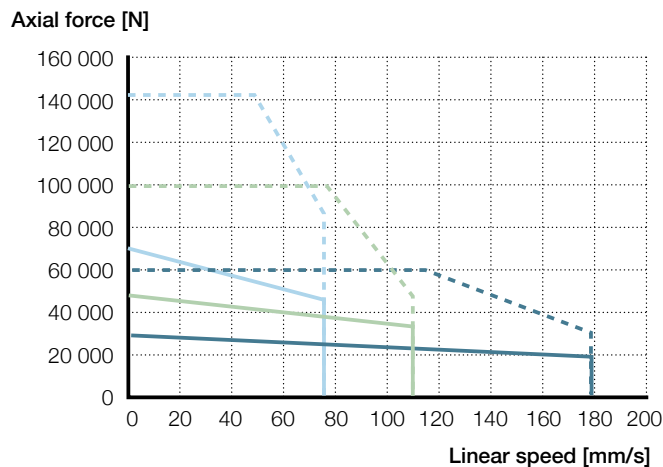
Dimensional drawing

With anti-rotation option



Reference	L mm	Added length for brake option	Added length for encoder option
-			
P30LC1	455	28	50
P50LC1	455	28	50
P70LC1	483	28	50

Performance diagrams



P30LC1	P50LC1	P70LC1
— F _{cont}	— F _{cont}	— F _{cont}
- - - F _{peak}	- - - F _{peak}	- - - F _{peak}

Ordering key
See page 310

3

SRSA-S-3915

Electric cylinder
servo motor, inline configuration



Technical data

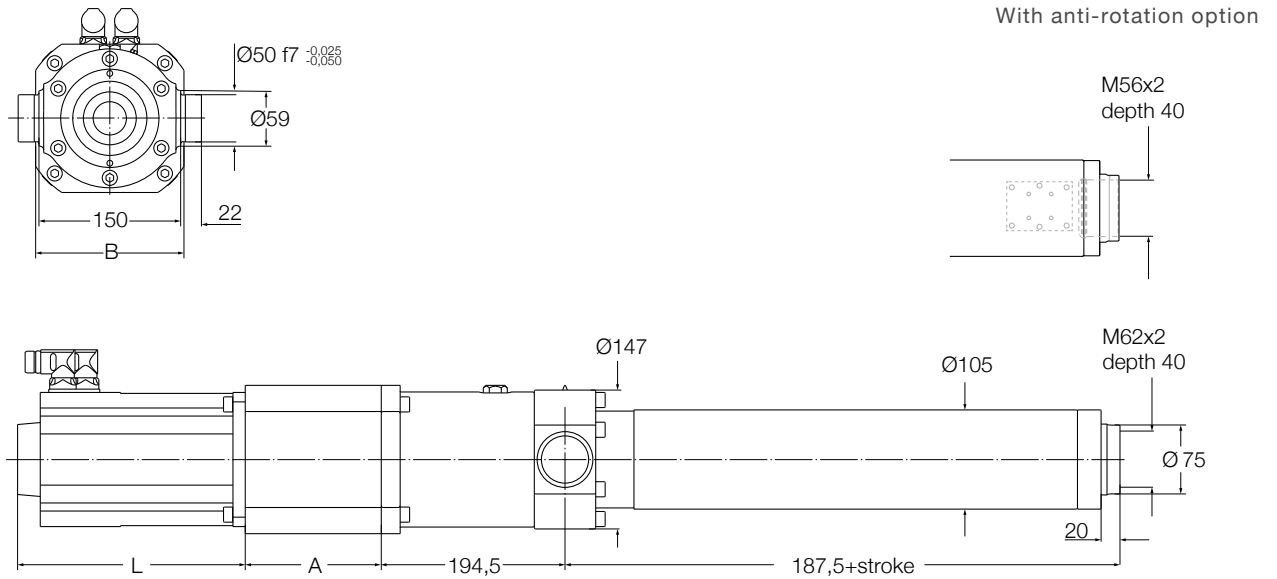
Designation	Symbol	Unit	Servo motor and inline adapter		
			L10 LB6	L30 LD3	L50 LD3
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	12	42,6	71
Continuous force @ max. speed	F_c	kN	7,1	32,3	53,8
Peak force @ zero speed	F_{p0}	kN	20,1	68,7	114,6
Peak force @ max. speed	F_p	kN	9,1	38,2	63,6
Dynamic load capacity	C	kN	168	168	168
Holding force (motorbrake option)	F_{Hold}	kN	10	32	54
Max. linear speed	v_{max}	mm/s	807	219	131
Max. acceleration	a_{max}	m/s ²	21,4	7,7	6,8
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	39	39	39
Screw lead	p_{screw}	mm	15	15	15
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...900	100...900	100...900
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	1	3	5
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	64,88	72,65	49,30
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,80	0,20	0,07
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	3,20	3,20
Weight @ 0 mm stroke	m	kg	70,2	101,9	101,9
Δ weight per 100 mm stroke	Δm	kg	4,3	4,3	4,3
Weight of optional brake	m_{brake}	kg	1,9	1,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,3	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,5	0,5	0,5
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	23,5	28,3	28,3
Peak current	I_{peak}	A	47	56	56
Nominal power	P	kW	7,09	9,07	9,07
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–			

1) By 100 mm steps

2) Backlash elimination up to stroke 500 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

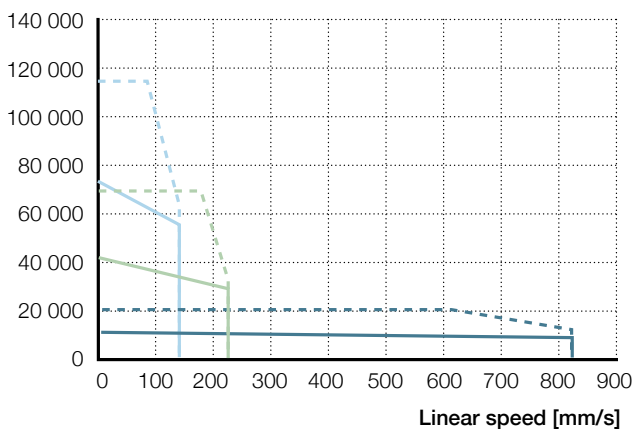
Dimensional drawing



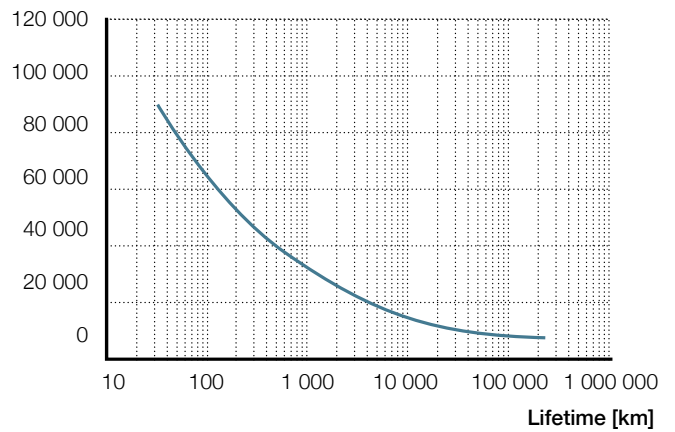
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LB6	144	321	185	28	50
L30LD3	216	584	185	28	50
L50LD3	216	584	185	28	50

Performance diagrams

Axial force [N]



F_m [N]



L10LB6	— F _{cont}	L30LD3	— F _{cont}	L50LD3	— F _{cont}
	- - - F _{peak}		- - - F _{peak}		- - - F _{peak}

Ordering key

See page 310

SRSA-S-3915

Electric cylinder
servo motor, parallel configuration



Technical data

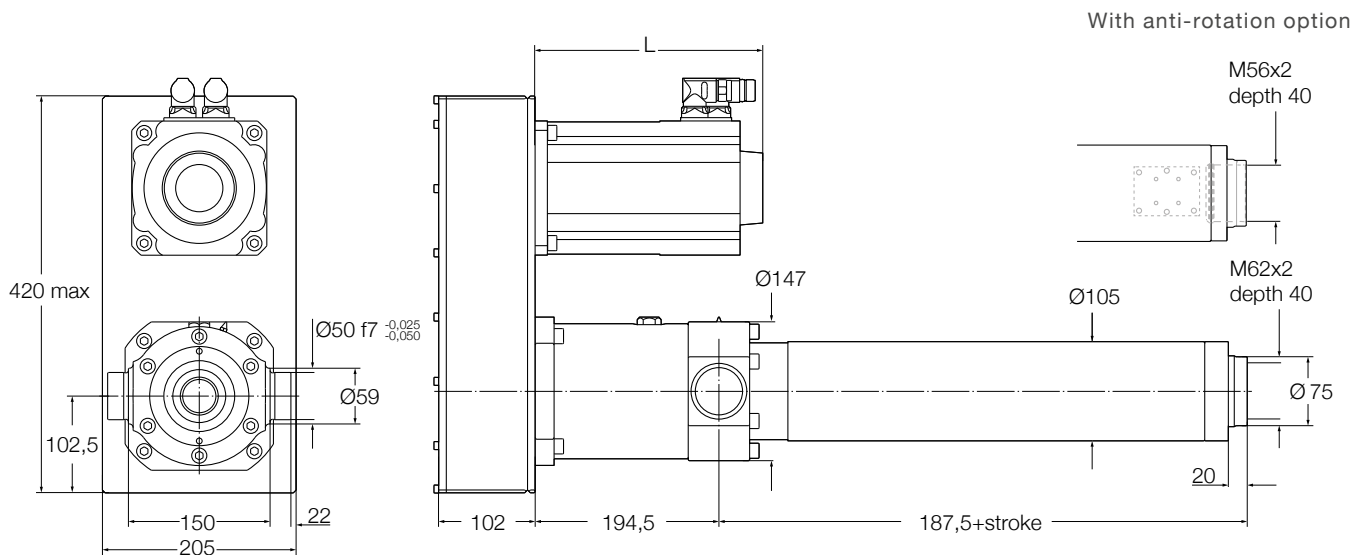
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P10 LB6	P30 LD3	P50 LD3
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	11,7	41,3	68,9
Continuous force @ max. speed	F_c	kN	6,9	31,3	52,2
Peak force @ zero speed	F_{p0}	kN	19,5	66,7	111,1
Peak force @ max. speed	F_p	kN	8,8	37	61,7
Dynamic load capacity	C	kN	168	168	168
Holding force (motorbrake option)	F_{Hold}	kN	11	33	56
Max. linear speed	v_{max}	mm/s	807	219	131
Max. acceleration	a_{max}	m/s ²	10,9	4,3	1,4
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	39	39	39
Screw lead	p_{screw}	mm	15	15	15
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...900	100...900	100...900
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	1	3	5
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	64,88	72,65	49,30
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,80	0,20	0,07
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	3,20	3,20
Weight @ 0 mm stroke	m	kg	70,2	101,9	101,9
Δ weight per 100 mm stroke	Δm	kg	4,3	4,3	4,3
Weight of optional brake	m_{brake}	kg	1,9	1,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,3	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,5	0,5	0,5
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	23,5	28,3	28,3
Peak current	I_{peak}	A	47	56	56
Nominal power	P	kW	7,09	9,07	9,07
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 500 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

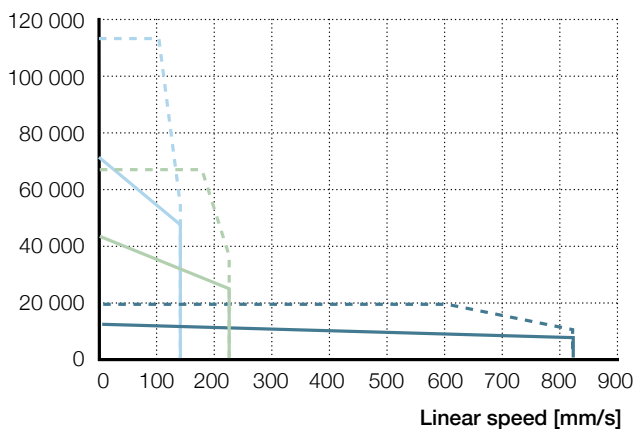
Dimensional drawing



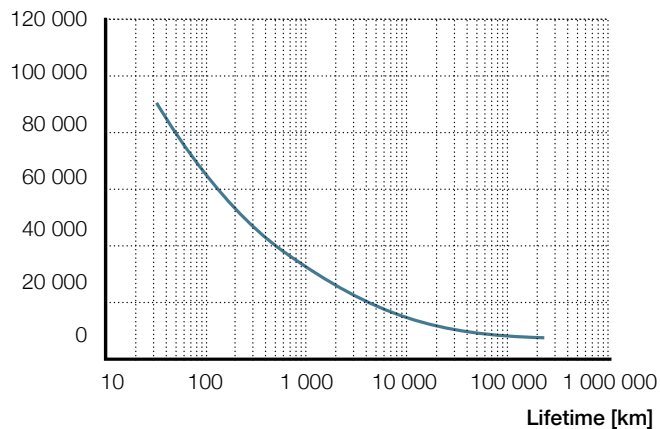
Reference	L mm	Added length for brake option	Added length for encoder option
-			
P10LB6	321	28	50
P30LD3	584	28	50
P50LD3	584	28	50

Performance diagrams

Axial force [N]



F_m [N]



P10LB6 — F_{cont} **P30LD3** — F_{cont} **P50LD3** — F_{cont}
 - - - F_{peak} - - - F_{peak} - - - F_{peak}

Ordering key

See page 310



SRSA-S-4805

Electric cylinder
servo motor, inline configuration



Technical data

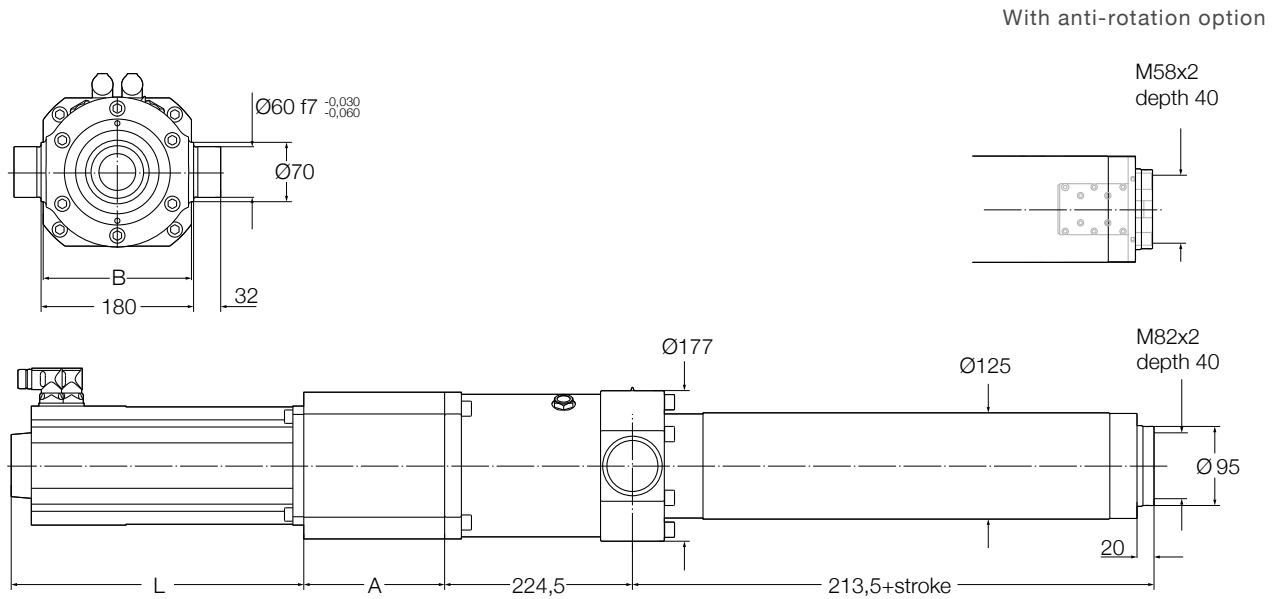
Designation	Symbol	Unit	Servo motor and inline adapter		
			L10 LD3	L30 LD1	L40 LD1
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	40	61,2	81,6
Continuous force @ max. speed	F_c	kN	30,3	54,8	73,1
Peak force @ zero speed	F_{p0}	kN	64,5	117,6	156,8
Peak force @ max. speed	F_p	kN	35,8	63,4	84,5
Dynamic load capacity	C	kN	198	198	198
Holding force (motorbrake option)	F_{Hold}	kN	36	113	150
Max. linear speed	v_{max}	mm/s	219	77	58
Max. acceleration	a_{max}	m/s ²	3,5	3,5	3,5
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	48	48	48
Screw lead	p_{screw}	mm	5	5	5
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 200	100...1 200	100...1 200
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	1	3	4
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	154,58	32,5	24,98
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	4,12	0,46	0,26
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	3,20	3,20
Weight @ 0 mm stroke	m	kg	107,3	109,1	109,1
Δ weight per 100 mm stroke	Δm	kg	5,7	5,7	5,7
Weight of optional brake	m_{brake}	kg	1,9	1,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	3,6	3,6	3,6
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,7	0,7	0,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	28,3	16,5	16,5
Peak current	I_{peak}	A	56	39,6	39,6
Nominal power	P	kW	9,07	5,96	5,96
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

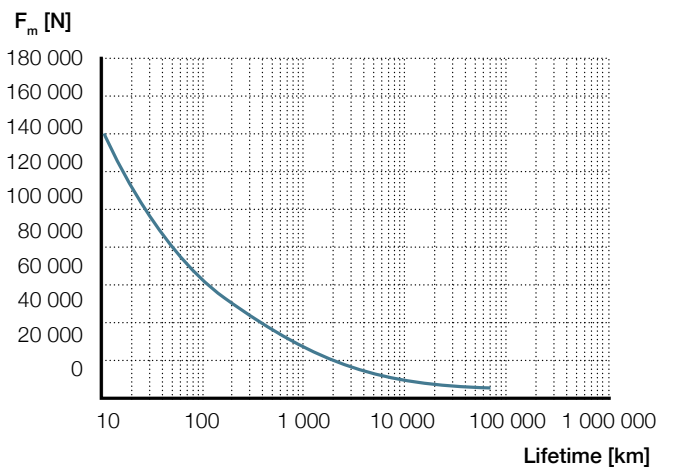
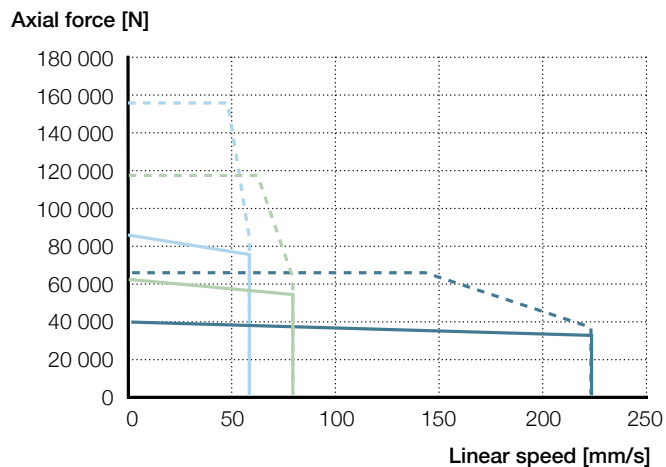
3) With anti-rotation option IP44

Dimensional drawing



Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LD3	168	409	192	28	50
L30LD1	206	476	192	28	50
L40LD1	206	476	192	28	50

Performance diagrams



L10LD3	— F _{cont}	L30LD1	— F _{cont}	L40LD1	— F _{cont}
	- - - F _{peak}		- - - F _{peak}		- - - F _{peak}

Ordering key
See page 310

3

SRSA-S-4805

Electric cylinder
servo motor, parallel configuration



Technical data

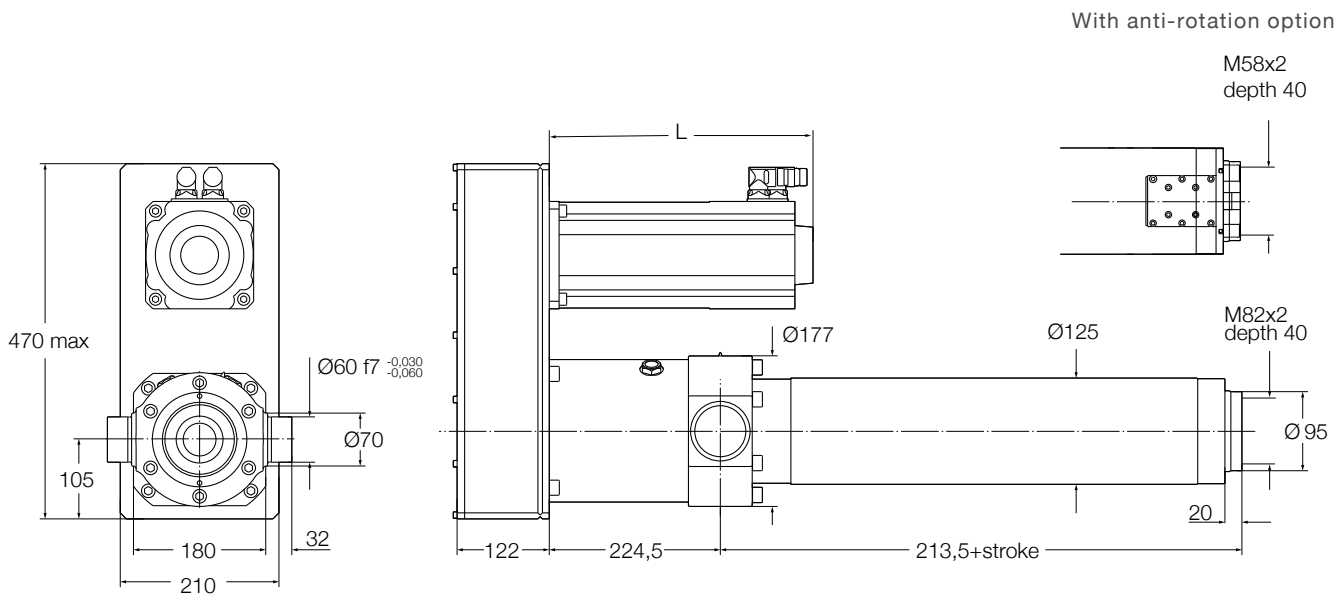
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P10 LD3	P30 LD1	P40 LD1
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	38,8	59,4	79,2
Continuous force @ max. speed	F_c	kN	29,4	53,2	70,9
Peak force @ zero speed	F_{p0}	kN	62,6	114,1	152,1
Peak force @ max. speed	F_p	kN	34,8	61,5	81,9
Dynamic load capacity	C	kN	198	198	198
Holding force (motorbrake option)	F_{Hold}	kN	38	116	155
Max. linear speed	v_{max}	mm/s	219	77	58
Max. acceleration	a_{max}	m/s ²	3,4	1,5	0,9
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	48	48	48
Screw lead	p_{screw}	mm	5	5	5
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 200	100...1 200	100...1 200
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	1	3	4
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	161,88	79,22	98,33
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	4,12	0,46	0,26
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	3,20	3,20
Weight @ 0 mm stroke	m	kg	112,9	111,5	114,6
Δ weight per 100 mm stroke	Δm	kg	5,7	5,7	5,7
Weight of optional brake	m_{brake}	kg	1,9	1,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	3,6	3,6	3,6
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,7	0,7	0,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	28,3	16,5	16,5
Peak current	I_{peak}	A	56	39,6	39,6
Nominal power	P	kW	9,07	5,96	5,96
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

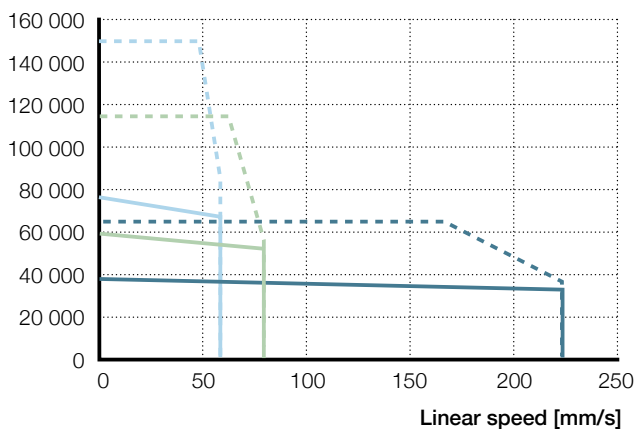
Dimensional drawing



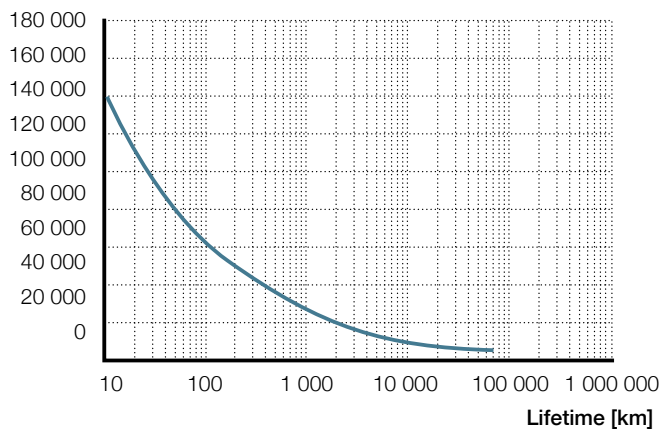
Reference	L mm	Added length for brake option	Added length for encoder option
P10LD3	409	28	50
P30LD1	476	28	50
P40LD1	476	28	50

Performance diagrams

Axial force [N]



F_m [N]



P10LD3 — F_{cont} P30LD1 — F_{cont} P40LD1 — F_{cont}
 - - - F_{peak} - - - F_{peak} - - - F_{peak}

Ordering key

See page 310

SRSA-S-4810

Electric cylinder
servo motor, inline configuration



Technical data

Designation	Symbol	Unit	Servo motor and inline adapter		
			L30 LD2	L40 LD2	L50 LD2
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	49,5	66	82,5
Continuous force @ max. speed	F_c	kN	36,6	48,8	61
Peak force @ zero speed	F_{p0}	kN	87	116	145
Peak force @ max. speed	F_p	kN	48,4	64,5	80,6
Dynamic load capacity	C	kN	232	232	232
Holding force (motorbrake option)	F_{Hold}	kN	50	67	84
Max. linear speed	v_{max}	mm/s	167	125	100
Max. acceleration	a_{max}	m/s ²	7,6	7	4,1
Duty cycle	D	%	100%	100%	100%
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	48	48	48
Screw lead	p_{screw}	mm	10	10	10
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 200	100...1 200	100...1 200
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	3	4	5
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	41,70	34,18	46,45
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,46	0,26	0,16
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	3,20	3,20
Weight @ 0 mm stroke	m	kg	113,6	113,6	126,6
Δ weight per 100 mm stroke	Δm	kg	5,7	5,7	5,7
Weight of optional brake	m_{brake}	kg	1,9	1,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	3,6	3,6	3,6
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,7	0,7	0,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	26,7	26,7	26,7
Peak current	I_{peak}	A	56	56	56
Nominal power	P	kW	8,01	8,01	8,01
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

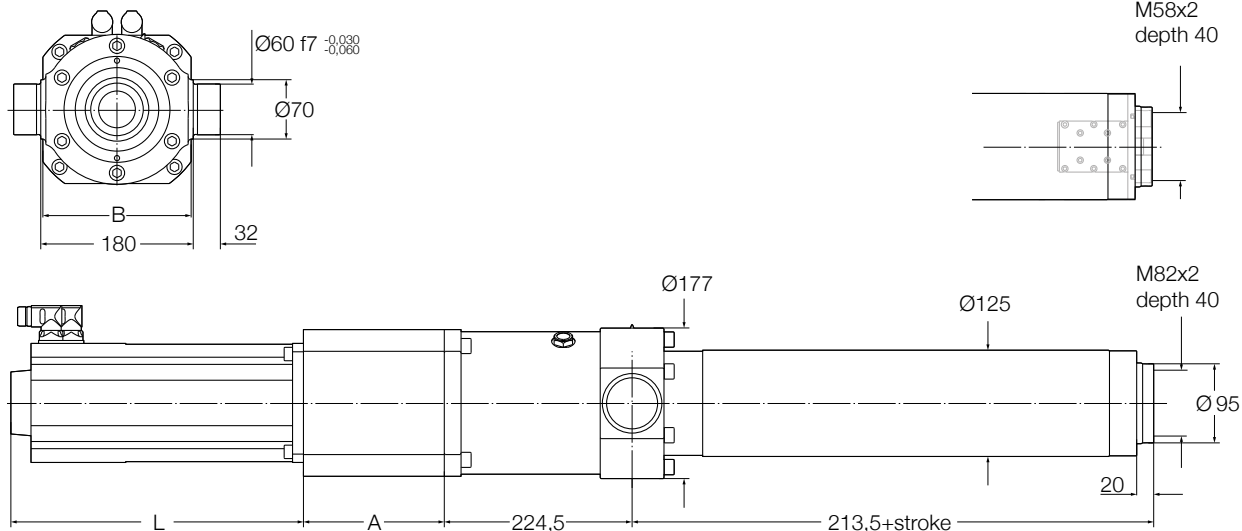
1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

Dimensional drawing

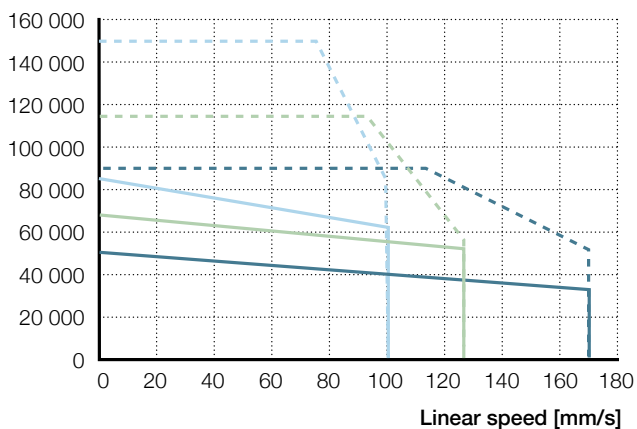
With anti-rotation option



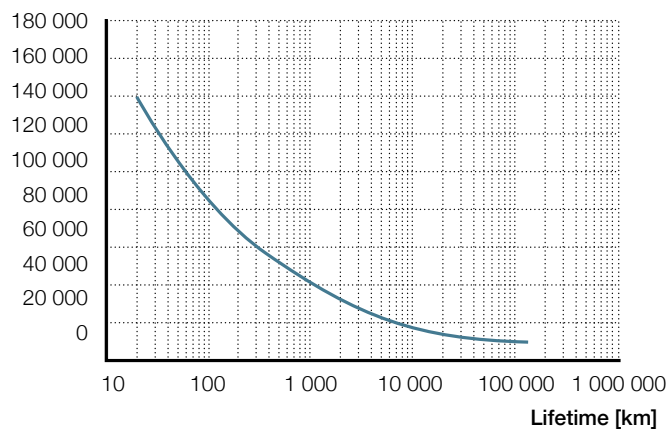
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L30LD2	206	516	192	28	50
L40LD2	206	516	192	28	50
L50LD2	239	544	192	28	50

Performance diagrams

Axial force [N]



F_m [N]



P30LD2 F_{cont} P40LD2 F_{cont} P50LD2 F_{cont}
 --- F_{peak} --- F_{peak} --- F_{peak}

Ordering key

See page 310

SRSA-S-4810

Electric cylinder
servo motor, parallel configuration



Technical data

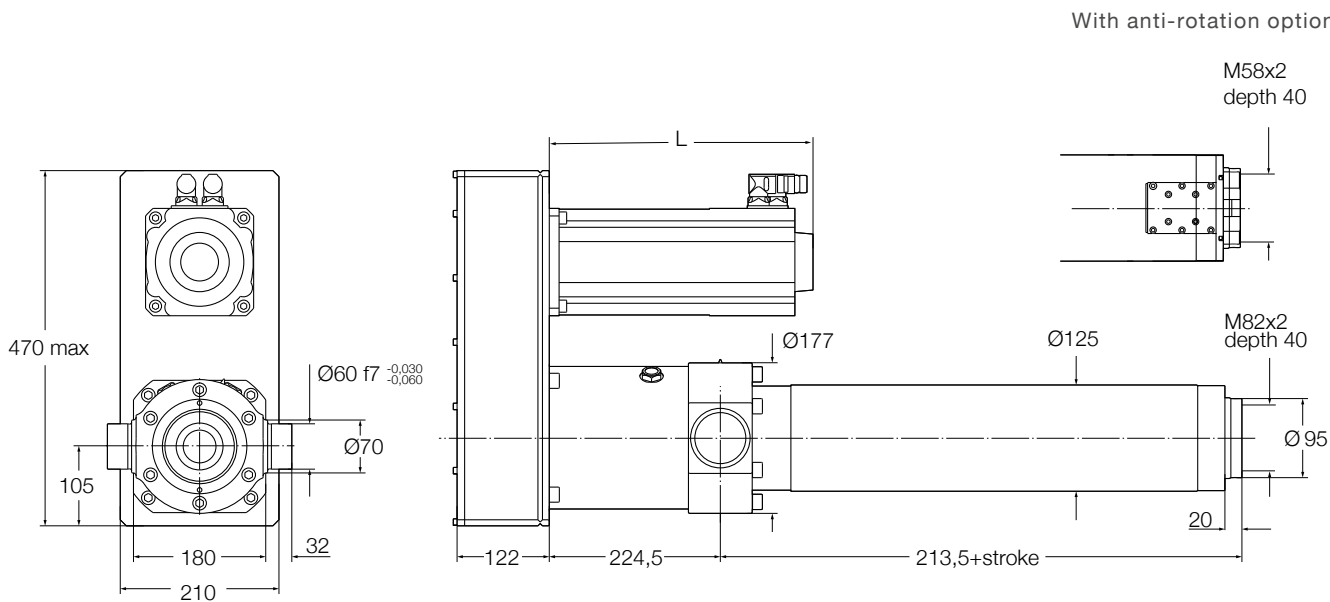
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P30 LD2	P40 LD2	P50 LD2
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	48	64,1	80,1
Continuous force @ max. speed	F_c	kN	35,5	47,3	59,2
Peak force @ zero speed	F_{p0}	kN	84,4	112,5	140,6
Peak force @ max. speed	F_p	kN	46,9	62,6	78,2
Dynamic load capacity	C	kN	232	232	232
Holding force (motorbrake option)	F_{Hold}	kN	52	69	86
Max. linear speed	v_{max}	mm/s	167	125	100
Max. acceleration	a_{max}	m/s ²	2,8	2,2	1,4
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	48	48	48
Screw lead	p_{screw}	mm	10	10	10
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 200	100...1 200	100...1 200
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i		3	4	5
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	115,41	107,53	137,82
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,46	0,26	0,16
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	3,20	3,20
Weight @ 0 mm stroke	m	kg	119,1	119,1	126,3
Δ weight per 100 mm stroke	Δm	kg	5,7	5,7	5,7
Weight of optional brake	m_{brake}	kg	1,9	1,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	3,6	3,6	3,6
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,7	0,7	0,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	26,7	26,7	26,7
Peak current	I_{peak}	A	56	56	56
Nominal power	P	kW	8,01	8,01	8,01
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

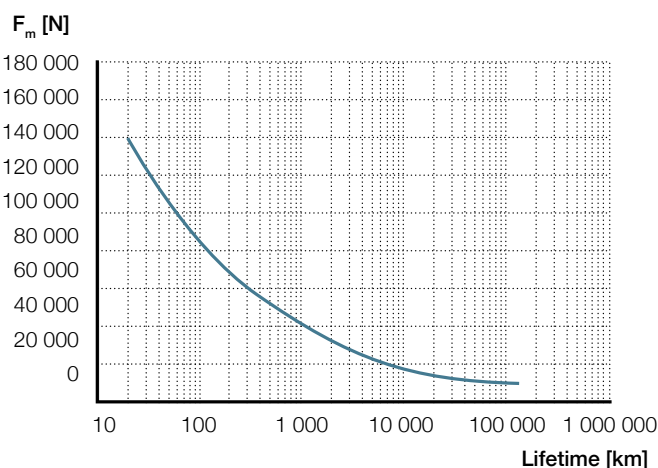
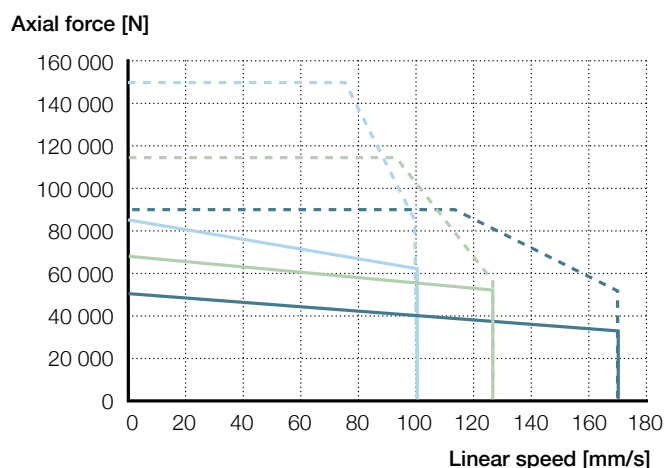
3) With anti-rotation option IP44

Dimensional drawing



Reference	L mm	Added length for brake option	Added length for encoder option
-			
P30LD2	516	28	50
P40LD2	516	28	50
P50LD2	544	28	50

Performance diagrams



P30LD2	F_{cont}	P40LD2	F_{cont}	P50LD2	F_{cont}
	F_{peak}		F_{peak}		F_{peak}

Ordering key
See page 310

SRSA-S-4815

Electric cylinder
servo motor, inline configuration



Technical data

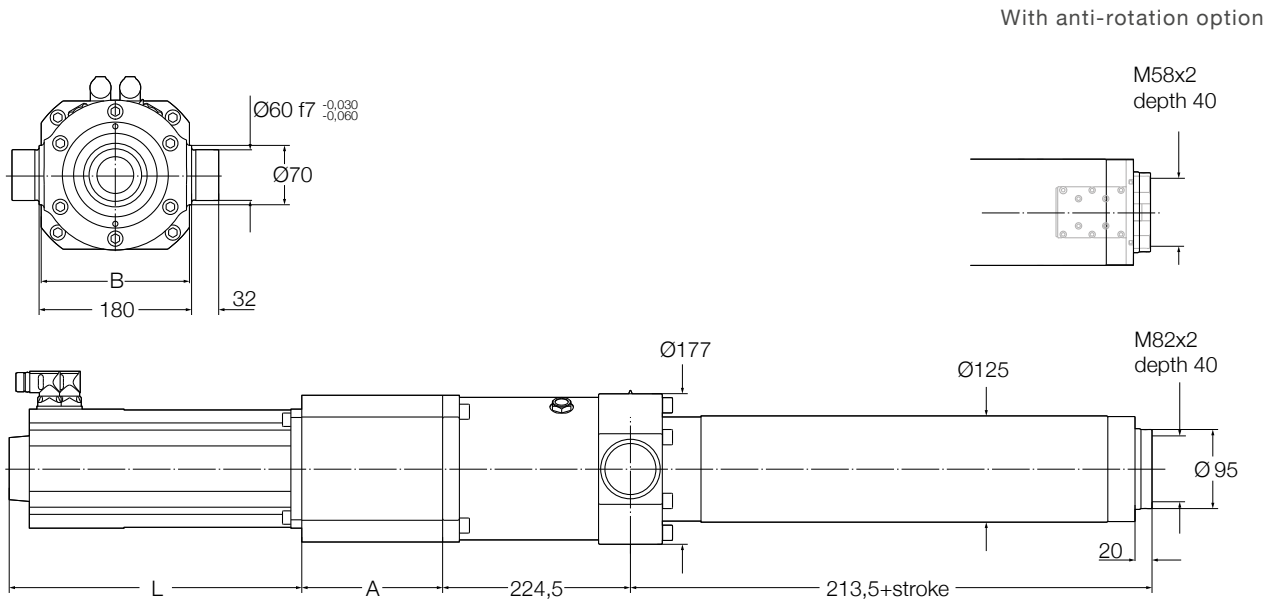
Designation	Symbol	Unit	Servo motor and inline adapter		
			L10 LD6	L50 LD5	L70 LD5
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	28,9	83,2	116,5
Continuous force @ max. speed	F_c	kN	17,8	47,3	66,3
Peak force @ zero speed	F_{p0}	kN	51,8	137,8	192,9
Peak force @ max. speed	F_p	kN	29,3	100,4	140,5
Dynamic load capacity	C	kN	258	258	258
Holding force (motorbrake option)	F_{Hold}	kN	18	91	127
Max. linear speed	v_{max}	mm/s	713	150	107
Max. acceleration	a_{max}	m/s ²	13	3,1	2,4
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	48	48	48
Screw lead	p_{screw}	mm	15	15	15
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 200	100...1 200	100...1 200
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	1	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	279,8	129,05	120,06
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	4,12	0,16	0,08
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	128,8	144	144
Δ weight per 100 mm stroke	Δm	kg	5,7	5,7	5,7
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	3,6	3,6	3,6
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,7	0,7	0,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	30,5	30,5
Peak current	I_{peak}	A	94	56	56
Nominal power	P	kW	15,82	9,11	9,11
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

Dimensional drawing

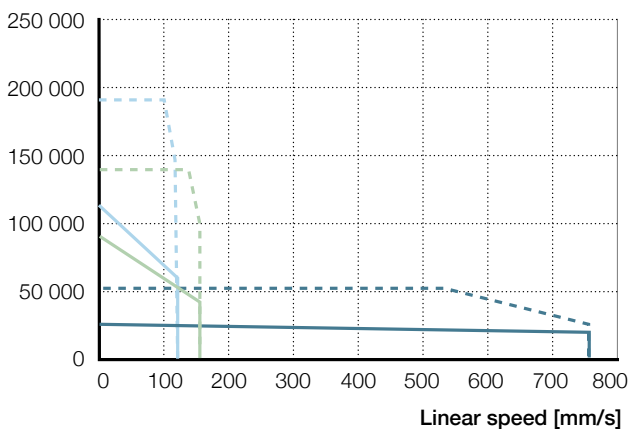


With anti-rotation option

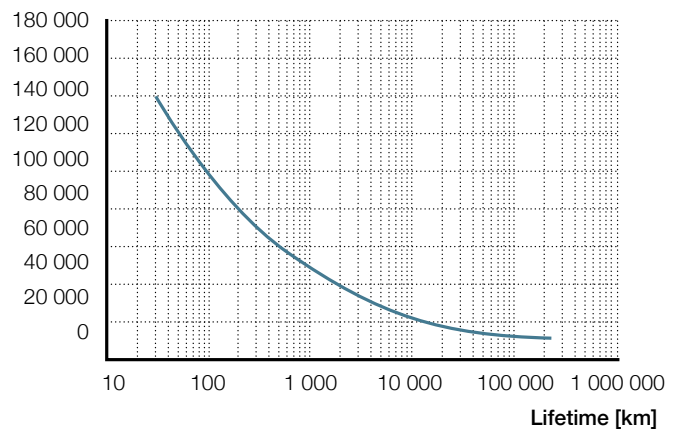
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LD6	178	427	192	44	49
L50LD5	239	435	192	44	49
L70LD5	239	435	192	44	49

Performance diagrams

Axial force [N]



F_m [N]



L10LD6 — F_{cont} L50LD5 — F_{cont} L70LD5 — F_{cont}
 - - - F_{peak} - - - F_{peak} - - - F_{peak}

Ordering key
 See page 310

SRSA-S-4815

Electric cylinder
servo motor, parallel configuration



Technical data

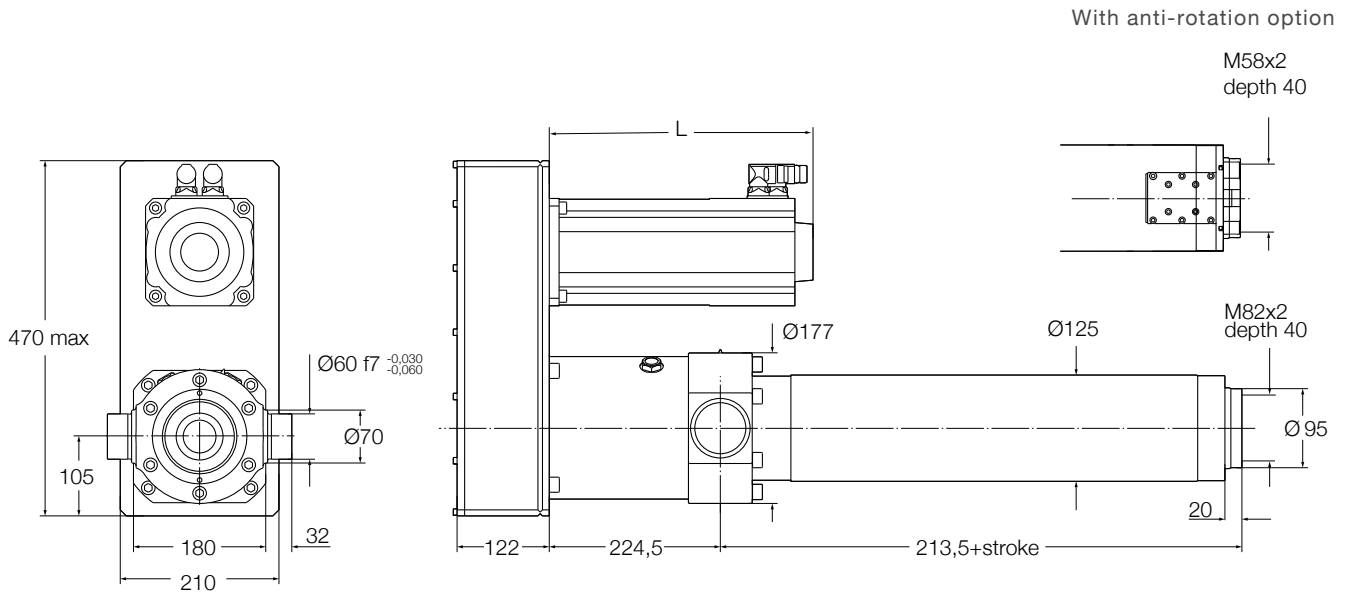
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P10 LD6	P50 LD5	P70 LD5
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	28,1	80,7	113
Continuous force @ max. speed	F_c	kN	17,3	45,9	64,3
Peak force @ zero speed	F_{p0}	kN	50,3	133,6	187,1
Peak force @ max. speed	F_p	kN	28,4	97,3	136,3
Dynamic load capacity	C	kN	258	258	258
Holding force (motorbrake option)	F_{Hold}	kN	18	94	131
Max. linear speed	v_{max}	mm/s	713	150	107
Max. acceleration	a_{max}	m/s ²	10,1	0,9	0,6
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	48	48	48
Screw lead	p_{screw}	mm	15	15	15
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 200	100...1 200	100...1 200
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	1	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	360,05	458,17	448,18
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	4,12	0,16	0,08
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	134,6	141,9	139,7
Δ weight per 100 mm stroke	Δm	kg	5,7	5,7	5,7
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	3,6	3,6	3,6
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,7	0,7	0,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	30,5	30,5
Peak current	I_{peak}	A	94	56	56
Nominal power	P	kW	15,82	9,11	9,11
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

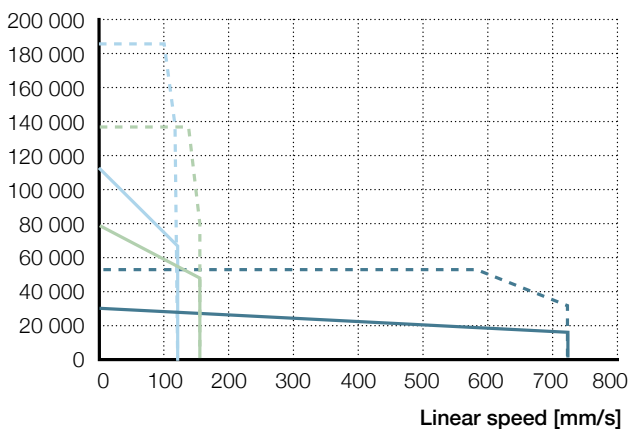
Dimensional drawing



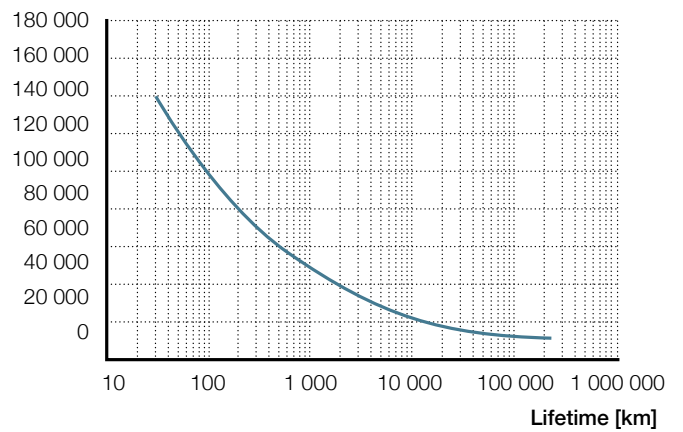
Reference	L mm	Added length for brake option	Added length for encoder option
-			
P10LD6	427	44	49
P50LD5	435	44	49
P70LD5	435	44	49

Performance diagrams

Axial force [N]



F_m [N]



P10LD6 — F_{cont} **P50LD5** — F_{cont} **P70LD5** — F_{cont}
 - - - F_{peak} - - - F_{peak} - - - F_{peak}

Ordering key

See page 310

SRSA-S-4820

Electric cylinder
servo motor, inline configuration



Technical data

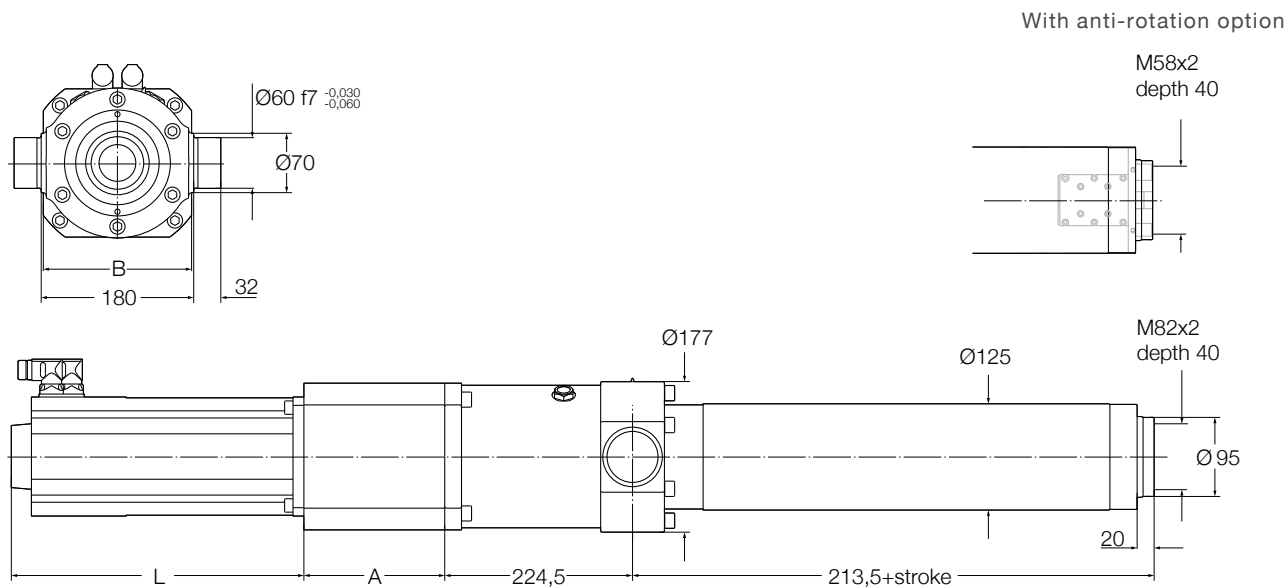
Designation	Symbol	Unit	Servo motor and inline adapter		
			L10 LD6	L50 LD7	L70 LD7
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	21,7	78,3	109,7
Continuous force @ max. speed	F_c	kN	13,4	39,2	54,8
Peak force @ zero speed	F_{p0}	kN	38,9	185,4	259,6
Peak force @ max. speed	F_p	kN	22	83,8	117,4
Dynamic load capacity	C	kN	261	261	261
Holding force (motorbrake option)	F_{Hold}	kN	13	68	95
Max. linear speed	v_{max}	mm/s	950	200	143
Max. acceleration	a_{max}	m/s ²	17,3	4,5	3,6
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	48	48	48
Screw lead	p_{screw}	mm	20	20	20
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 200	100...1 200	100...1 200
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	1	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	279,8	214,25	191,98
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	4,12	0,16	0,08
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	128,5	168,2	168,2
Δ weight per 100 mm stroke	Δm	kg	5,7	5,7	5,7
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	3,6	3,6	3,6
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,7	0,7	0,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	34,9	34,9
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	15,82	10,05	10,05
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

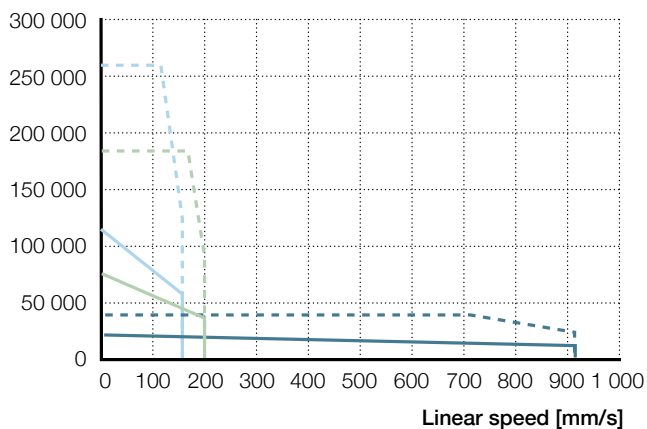
Dimensional drawing



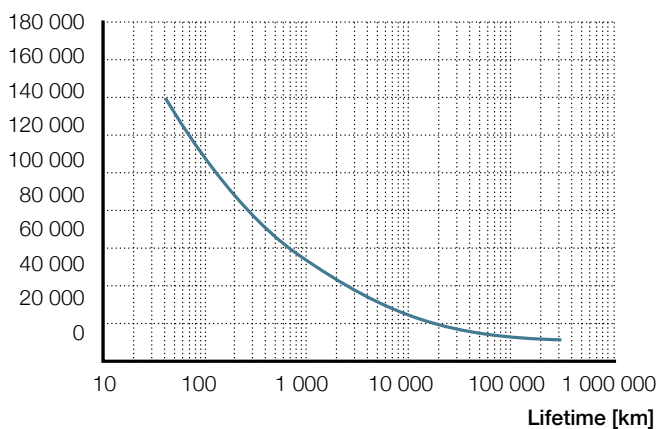
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LD6	178	427	192	44	49
L50LD7	247	529	192	44	49
L70LD7	247	529	192	44	49

Performance diagrams

Axial force [N]



F_m [N]



L10LD6 — F_{cont} **L50LD7** — F_{cont} **L70LD7** — F_{cont}
 - - - F_{peak} - - - F_{peak} - - - F_{peak}

Ordering key

See page 310

SRSA-S-4820

Electric cylinder
servo motor, parallel configuration



Technical data

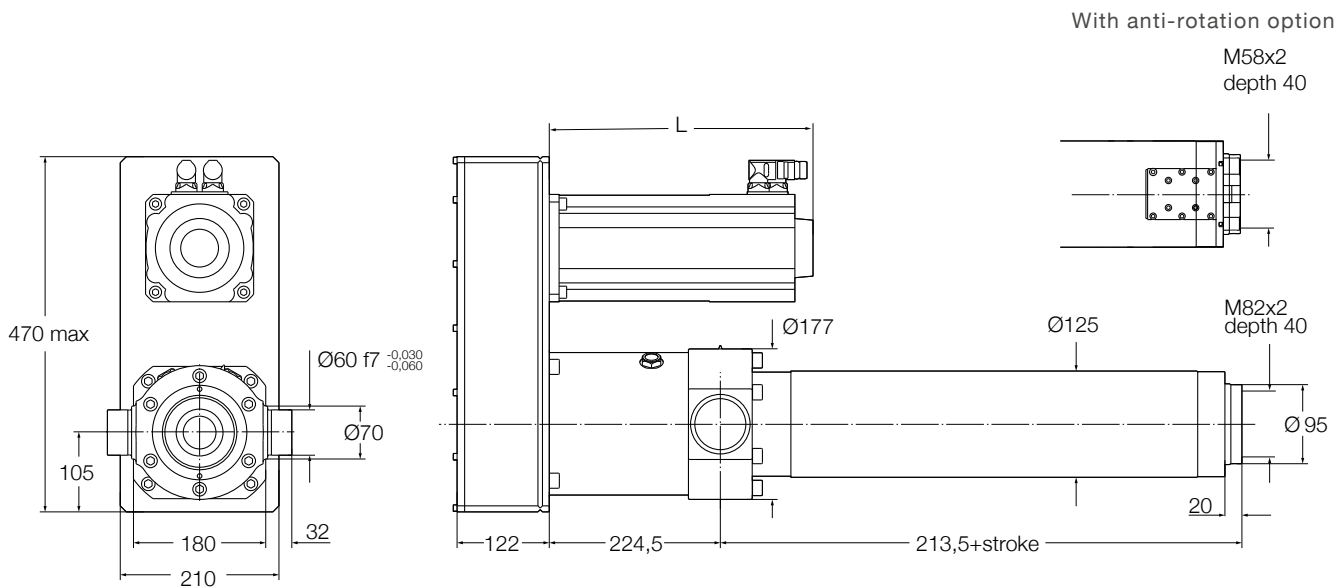
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P10 LD6	P50 LD7	P70 LD7
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	21,1	76	106,4
Continuous force @ max. speed	F_c	kN	13	38	53,2
Peak force @ zero speed	F_{p0}	kN	37,7	179,9	251,8
Peak force @ max. speed	F_p	kN	21,3	81,3	113,8
Dynamic load capacity	C	kN	261	261	261
Holding force (motorbrake option)	F_{Hold}	kN	14	70	98
Max. linear speed	v_{max}	mm/s	950	200	143
Max. acceleration	a_{max}	m/s ²	13,5	1,3	1
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	48	48	48
Screw lead	p_{screw}	mm	20	20	20
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 200	100...1 200	100...1 200
Internal overstroke each side	s_0	mm	5	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i		1	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	360,05	728,22	711,85
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	4,12	0,16	0,08
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	134,6	174,6	174,6
Δ weight per 100 mm stroke	Δm	kg	5,7	5,7	5,7
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	3,6	3,6	3,6
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,7	0,7	0,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	34,9	34,9
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	15,82	10,05	10,05
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

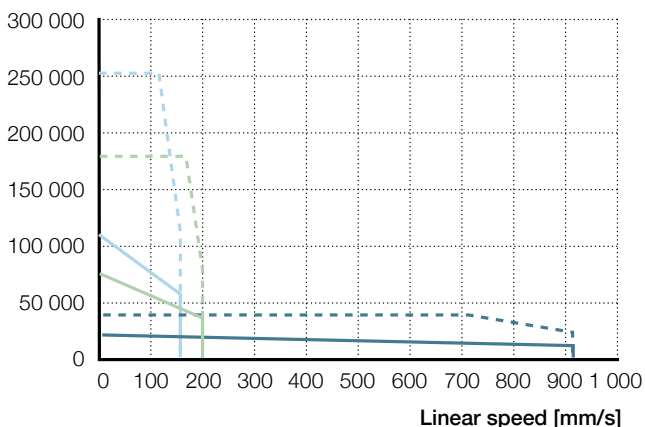
Dimensional drawing



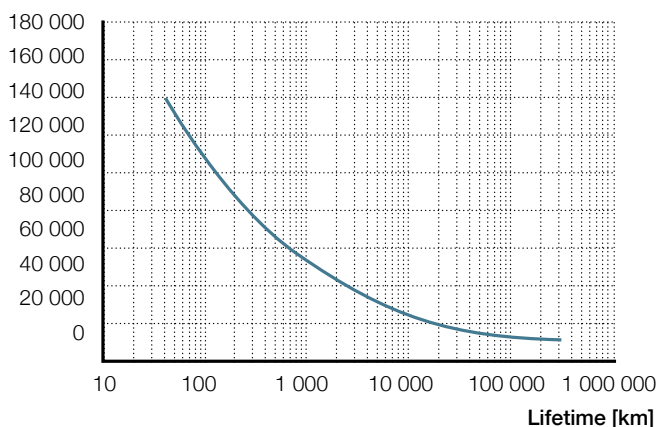
Reference	L mm	Added length for brake option	Added length for encoder option
-			
P10LD6	427	44	49
P50LD7	529	44	49
P70LD7	529	44	49

Performance diagrams

Axial force [N]



F_m [N]



P10LD6 — F_{cont} **P50LD7** — F_{cont} **P70LD7** — F_{cont}
 - - - F_{peak} - - - F_{peak} - - - F_{peak}

Ordering key

See page 310

SRSA-S-6010

Electric cylinder
servo motor, inline configuration



Technical data

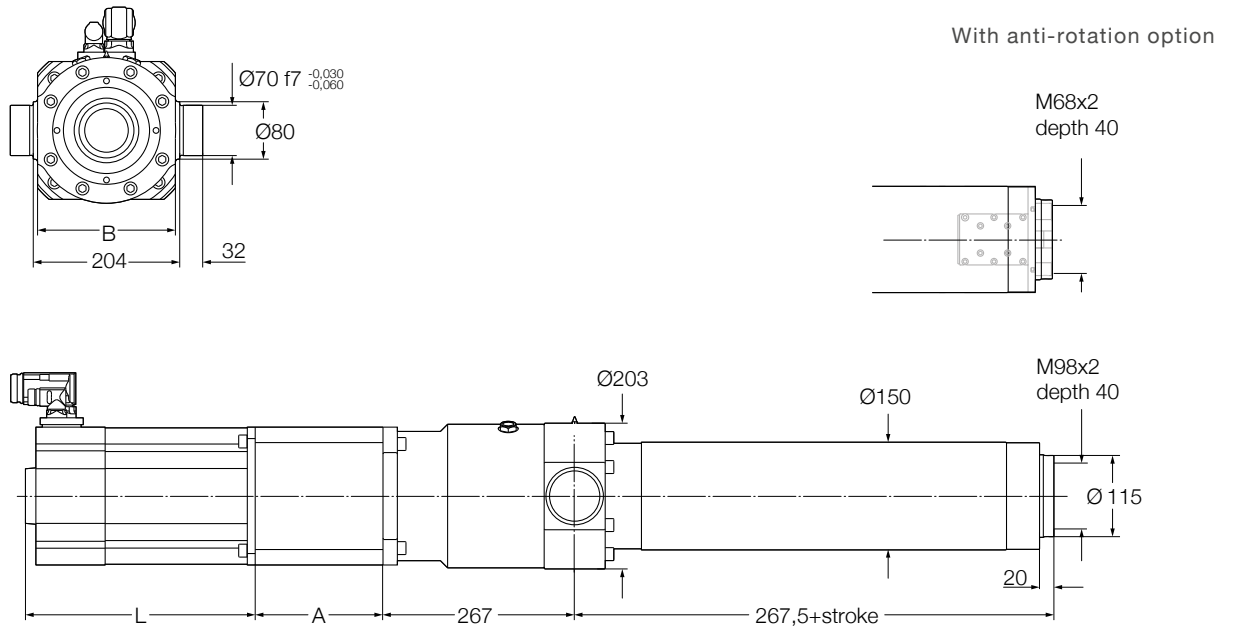
Designation	Symbol	Unit	Servo motor and inline adapter		
			L30 LD2	L40 LD5	L50 LD5
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	49	96,5	120,6
Continuous force @ max. speed	F_c	kN	36,2	54,9	68,6
Peak force @ zero speed	F_{p0}	kN	86	159,8	199,7
Peak force @ max. speed	F_p	kN	47,8	116,4	145,5
Dynamic load capacity	C	kN	339	339	339
Holding force (motorbrake option)	F_{Hold}	kN	52	116	144
Max. linear speed	v_{max}	mm/s	167	125	100
Max. acceleration	a_{max}	m/s ²	5,2	2,3	2
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	60	60	60
Screw lead	p_{screw}	mm	10	10	10
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 300	100...1 300	100...1 300
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	3	4	5
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	60,21	148,5	134,01
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,12	0,63	0,40
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	12,40	12,40
Weight @ 0 mm stroke	m	kg	153,5	165,1	165,1
Δ weight per 100 mm stroke	Δm	kg	8,9	8,9	8,9
Weight of optional brake	m_{brake}	kg	1,9	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	5,2	5,2	5,2
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,8	0,8	0,8
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	26,7	30,5	30,5
Peak current	I_{peak}	A	56	56	56
Nominal power	P	kW	8,01	9,11	9,11
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 800 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

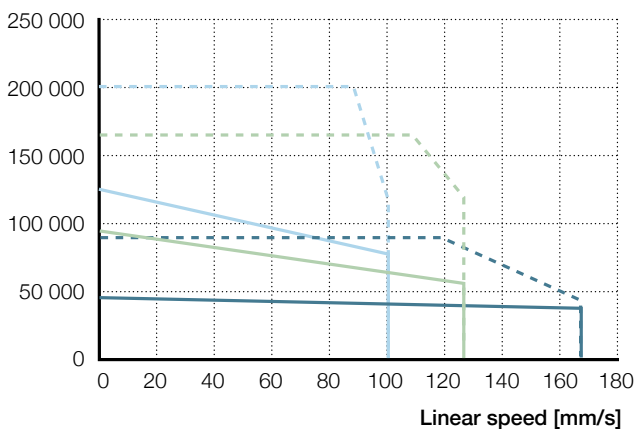
Dimensional drawing



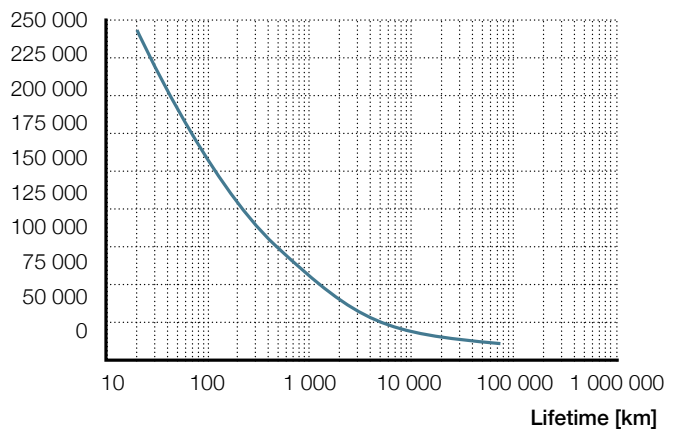
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L30LD2	209	516	192	28	50
L40LD5	240	435	192	44	49
L50LD5	240	435	192	44	49

Performance diagrams

Axial force [N]



F_m [N]



L30LD2	— F _{cont}	L40LD5	— F _{cont}	L50LD5	— F _{cont}
	- - - F _{peak}		- - - F _{peak}		- - - F _{peak}

Ordering key

See page 310

SRSA-S-6010

Electric cylinder
servo motor, parallel configuration



Technical data

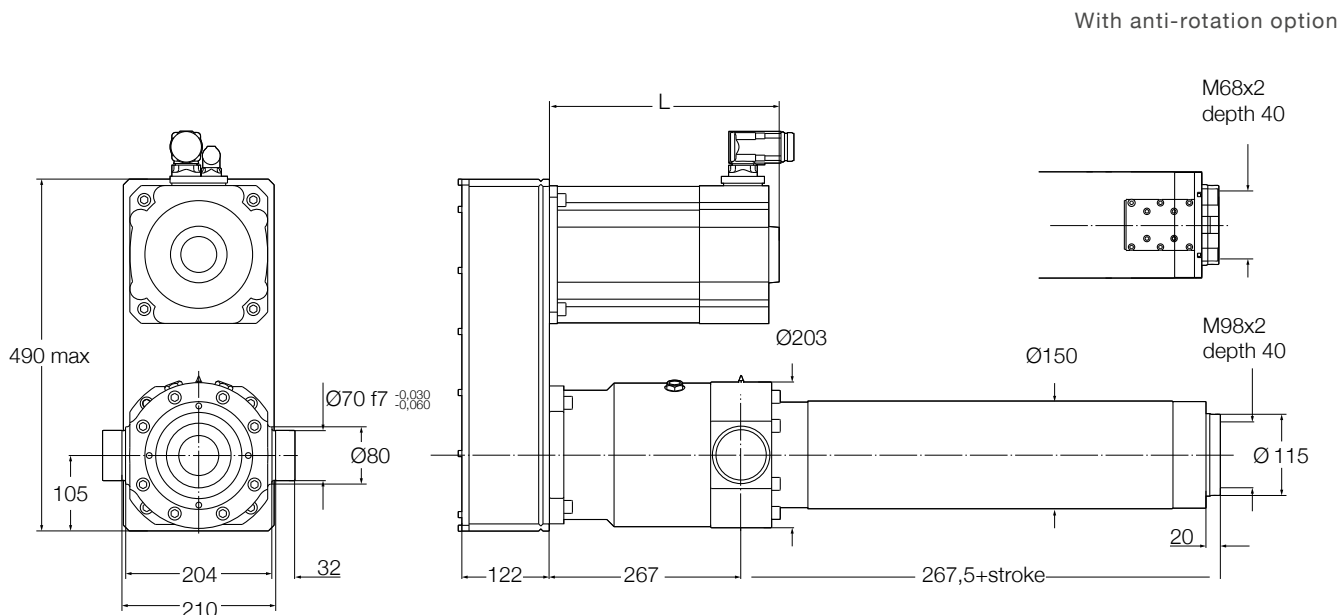
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P30 LD2	P40 LD5	P50 LD5
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	47,5	93,6	117
Continuous force @ max. speed	F_c	kN	35,1	53,2	66,5
Peak force @ zero speed	F_{p0}	kN	83,4	155	193,7
Peak force @ max. speed	F_p	kN	46,4	112,9	141,1
Dynamic load capacity	C	kN	339	339	339
Holding force (motorbrake option)	F_{Hold}	kN	53	119	149
Max. linear speed	v_{max}	mm/s	167	125	100
Max. acceleration	a_{max}	m/s ²	2,5	0,7	0,6
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	60	60	60
Screw lead	p_{screw}	mm	10	10	10
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 300	100...1 300	100...1 300
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	3	4	5
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	129,16	476,09	463,12
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,12	0,63	0,40
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	12,40	12,40
Weight @ 0 mm stroke	m	kg	150,4	173,3	173,3
Δ weight per 100 mm stroke	Δm	kg	8,9	8,9	8,9
Weight of optional brake	m_{brake}	kg	1,9	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	5,2	5,2	5,2
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,8	0,8	0,8
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	26,7	30,5	30,5
Peak current	I_{peak}	A	56	56	56
Nominal power	P	kW	8,01	9,11	9,11
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 800 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

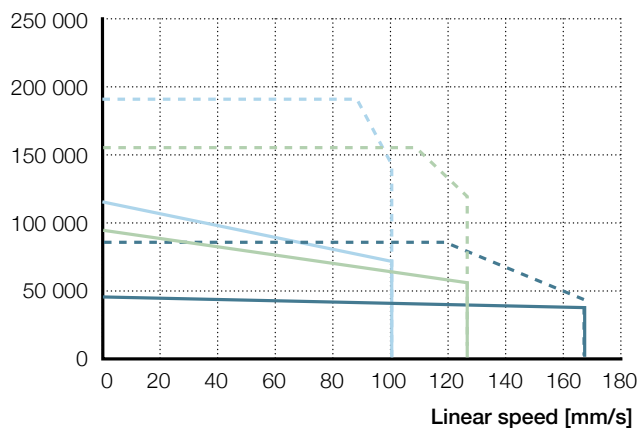
Dimensional drawing



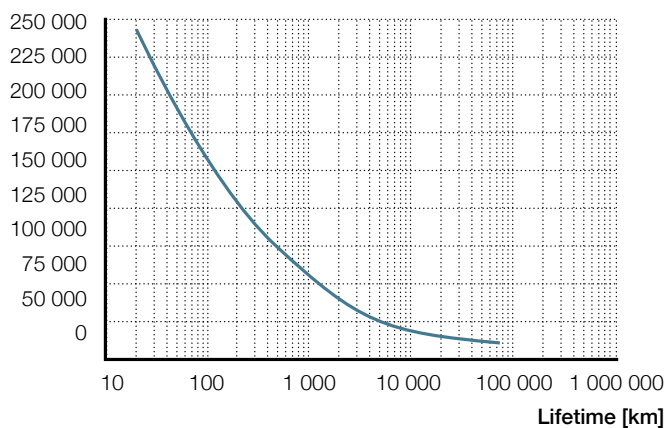
Reference	L mm	Added length for brake option	Added length for encoder option
-	-	-	-
P30LD2	516	28	50
P40LD5	435	44	49
P50LD5	435	44	49

Performance diagrams

Axial force [N]



F_m [N]



P30LD2 — F_{cont} **P40LD5** — F_{cont} **P50LD5** — F_{cont}
 - - - F_{peak} - - - F_{peak} - - - F_{peak}

Ordering key
See page 310

SRSA-S-6015

Electric cylinder
servo motor, inline configuration



Technical data

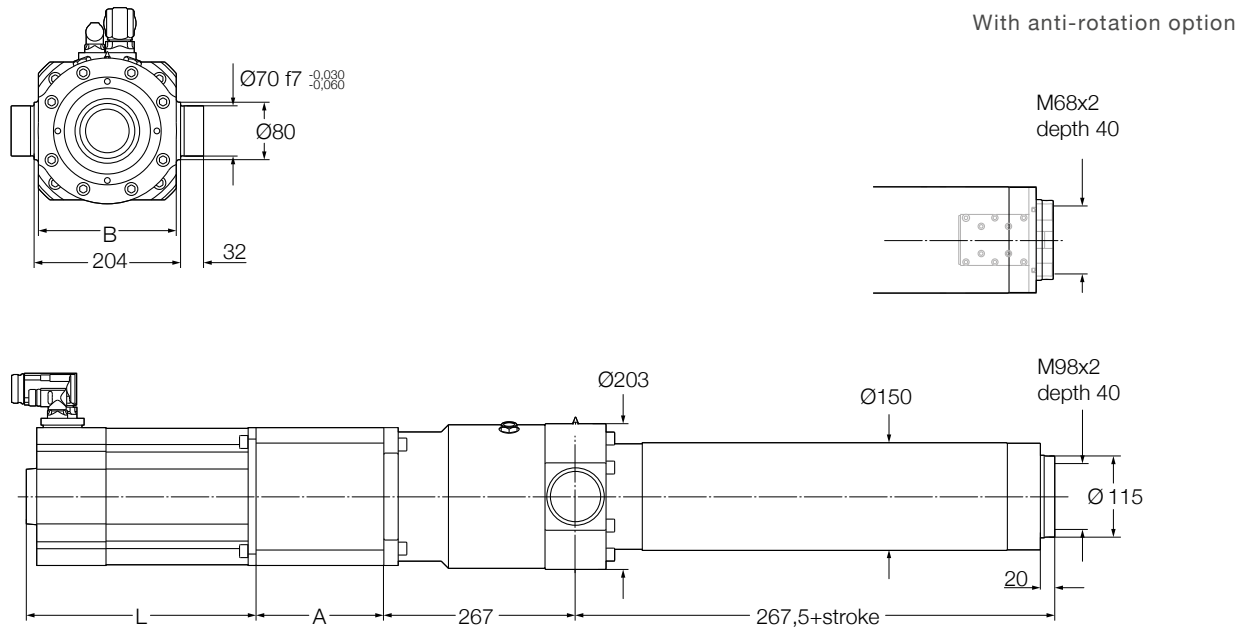
Designation	Symbol	Unit	Servo motor and inline adapter		
			L30 LD6	L50 LD7	L70 LD7
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	83,3	103,3	144,6
Continuous force @ max. speed	F_c	kN	51,3	51,6	72,3
Peak force @ zero speed	F_{p0}	kN	149,2	244,4	342,2
Peak force @ max. speed	F_p	kN	84,2	110,5	154,7
Dynamic load capacity	C	kN	373	373	373
Holding force (motorbrake option)	F_{Hold}	kN	55	92	129
Max. linear speed	v_{max}	mm/s	238	150	107
Max. acceleration	a_{max}	m/s ²	5,2	3,3	2,7
Duty cycle	D	%	100%	100%	100%
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	60	60	60
Screw lead	p_{screw}	mm	15	15	15
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 300	100...1 300	100...1 300
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	3	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	236,18	219,2	194,51
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,12	0,40	0,21
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	181,1	197,2	197,2
Δ weight per 100 mm stroke	Δm	kg	8,9	8,9	8,9
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	5,2	5,2	5,2
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,8	0,8	0,8
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	34,9	34,9
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	15,82	10,05	10,05
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 800 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

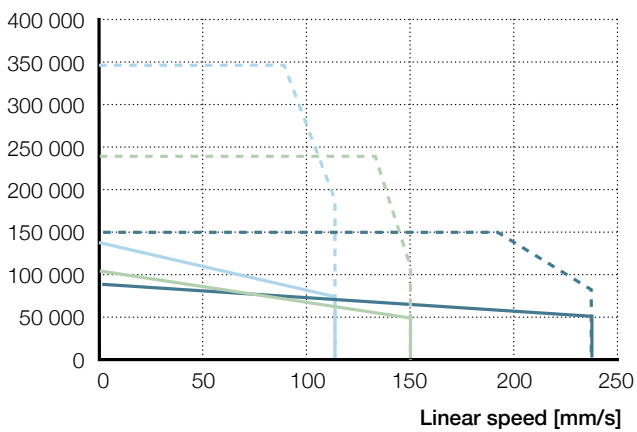
Dimensional drawing



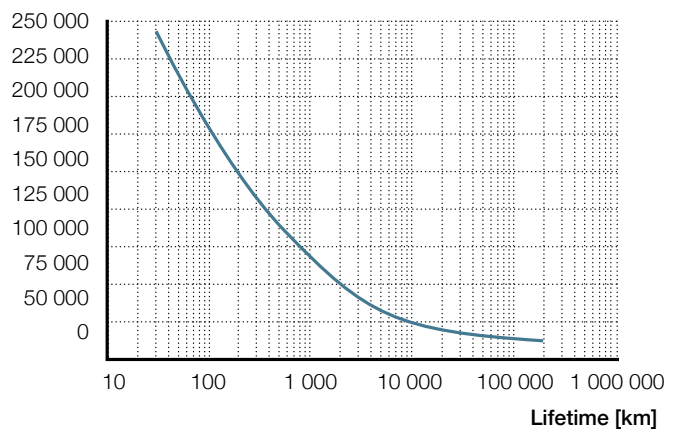
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L30LD6	240	602	192	44	49
L50LD7	248	529	192	44	49
L70LD7	248	529	192	44	49

Performance diagrams

Axial force [N]



F_m [N]



L30LD6 — F_{cont} **L50LD7** — F_{cont} **L70LD7** — F_{cont}
 - - - F_{peak} - - - F_{peak} - - - F_{peak}

Ordering key

See page 310

SRSA-S-6015

Electric cylinder
servo motor, parallel configuration



Technical data

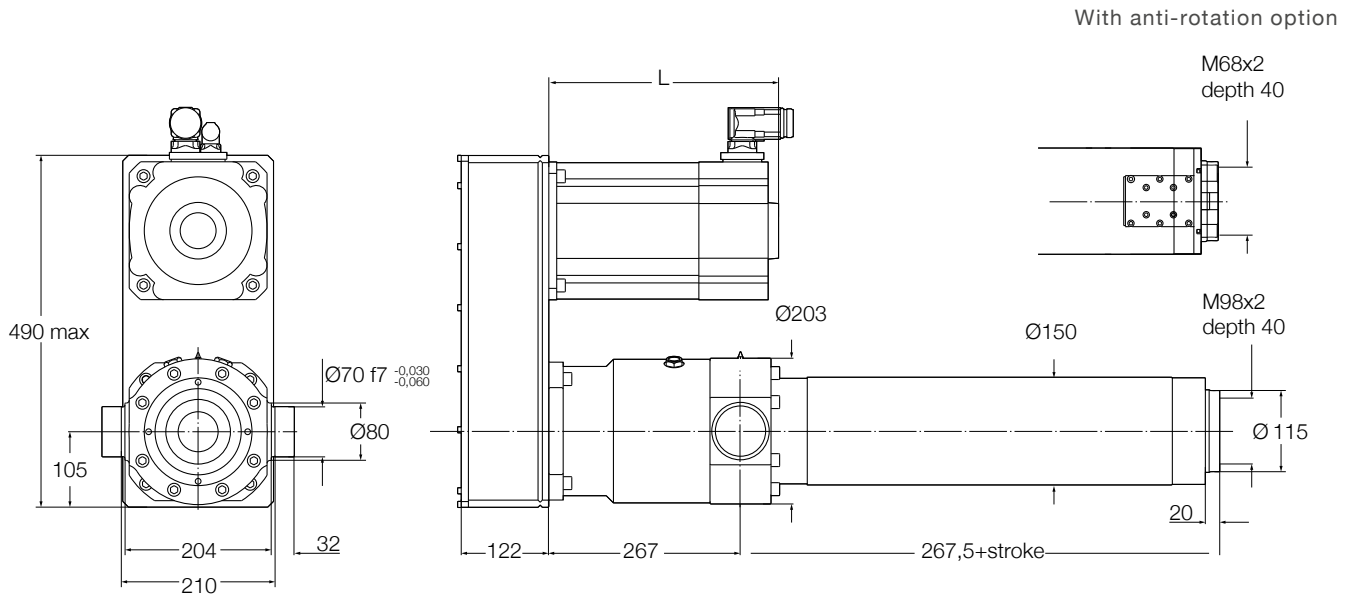
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P30 LD6	P50 LD7	P70 LD7
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	80,8	100,2	140,2
Continuous force @ max. speed	F_c	kN	49,8	50,1	70,1
Peak force @ zero speed	F_{p0}	kN	144,7	237,1	331,9
Peak force @ max. speed	F_p	kN	81,7	107,2	150,1
Dynamic load capacity	C	kN	373	373	373
Holding force (motorbrake option)	F_{Hold}	kN	57	95	133
Max. linear speed	v_{max}	mm/s	238	150	107
Max. acceleration	a_{max}	m/s ²	2,2	1	0,7
Duty cycle	D	%	100%	100%	100%
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	60	60	60
Screw lead	p_{screw}	mm	15	15	15
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 300	100...1 300	100...1 300
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	3	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	557,95	733,18	714,38
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,12	0,40	0,21
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	187	206	206
Δ weight per 100 mm stroke	Δm	kg	8,9	8,9	8,9
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	5,2	5,2	5,2
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,8	0,8	0,8
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	34,9	34,9
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	15,82	10,05	10,05
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 800 mm. For longer strokes $s_{backlash} = 0,02$ mm

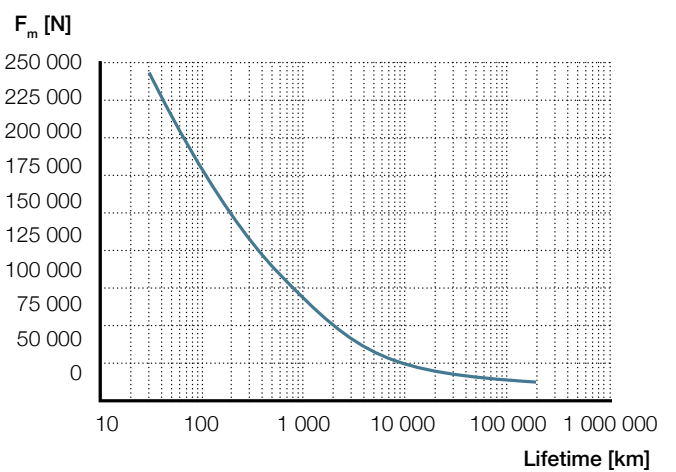
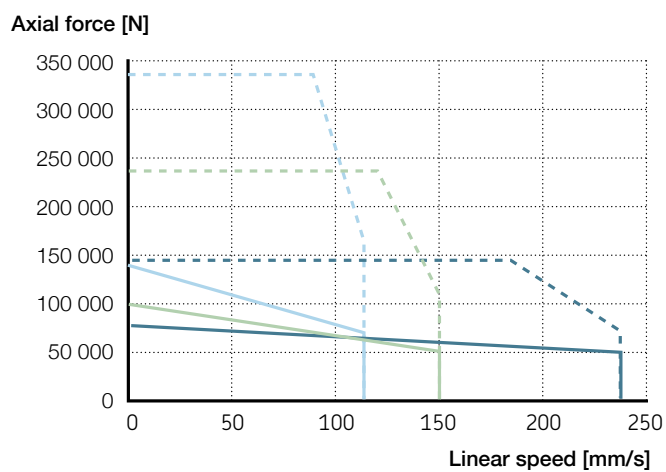
3) With anti-rotation option IP44

Dimensional drawing



Reference	L mm	Added length for brake option	Added length for encoder option
-	-	-	-
P30LD6	602	44	49
P50LD7	529	44	49
P70LD7	529	44	49

Performance diagrams



P30LD6	F_{cont}	P50LD7	F_{cont}	P70LD7	F_{cont}
	F_{peak}		F_{peak}		F_{peak}

Ordering key
See page 310

SRSA-S-6020

Electric cylinder
servo motor, inline configuration



Technical data

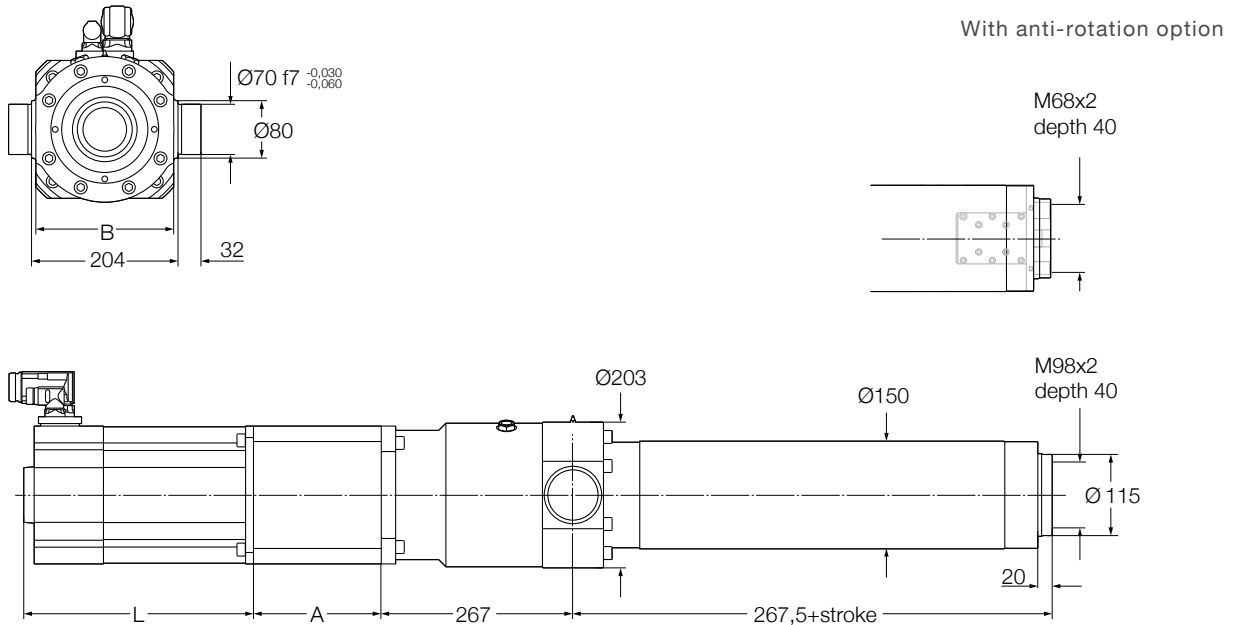
Designation	Symbol	Unit	Servo motor and Inline adapter		
			L10 LD6	L70 LD7	L100 LD7
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	21,7	109,7	156,7
Continuous force @ max. speed	F_c	kN	13,4	54,8	78,3
Peak force @ zero speed	F_{p0}	kN	38,9	259,6	370,8
Peak force @ max. speed	F_p	kN	22	117,4	167,7
Dynamic load capacity	C	kN	395	395	395
Holding force (motorbrake option)	F_{Hold}	kN	13	95	136
Max. linear speed	v_{max}	mm/s	889	143	100
Max. acceleration	a_{max}	m/s ²	11,9	3,5	2,2
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	60	60	60
Screw lead	p_{screw}	mm	20	20	20
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 300	100...1 300	100...1 300
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i		1	7	10
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	403,60	194,51	219,94
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	10,05	0,21	0,10
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	152,4	197,2	223,1
Δ weight per 100 mm stroke	Δm	kg	8,9	8,9	8,9
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	5,2	5,2	5,2
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,8	0,8	0,8
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	34,9	34,9
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	15,82	10,05	10,05
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 800 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

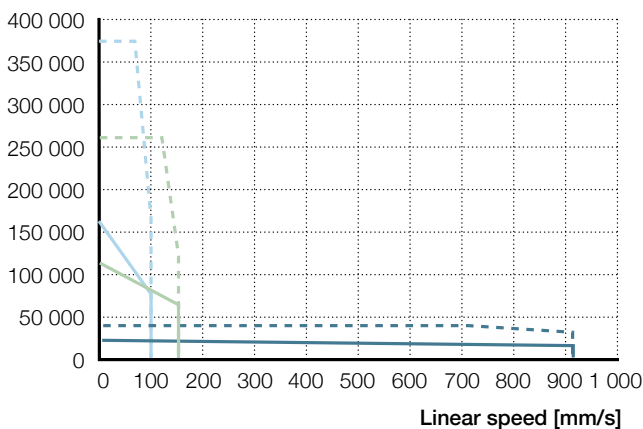
Dimensional drawing



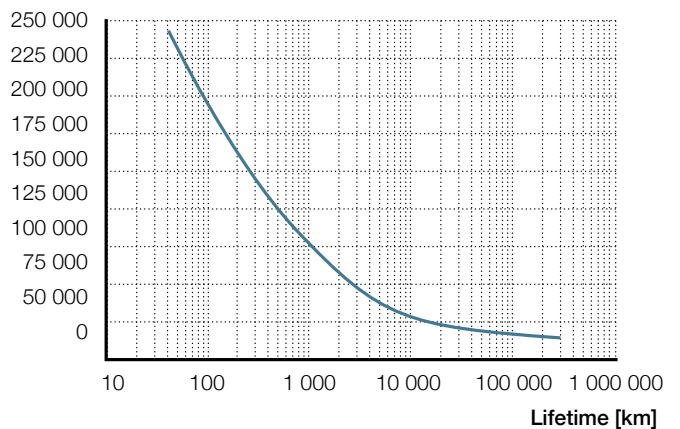
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LD6	179	427	192	44	49
L70LD7	248	529	192	44	49
L100LD7	276	599	225	44	49

Performance diagrams

Axial force [N]



F_m [N]



L10LD6 — F_{cont} **L70LD7** — F_{cont} **L100LD7** — F_{cont}
 - - - F_{peak} - - - F_{peak} - - - F_{peak}

Ordering key

See page 310

3

SRSA-S-6020

Electric cylinder
servo motor, parallel configuration



Technical data

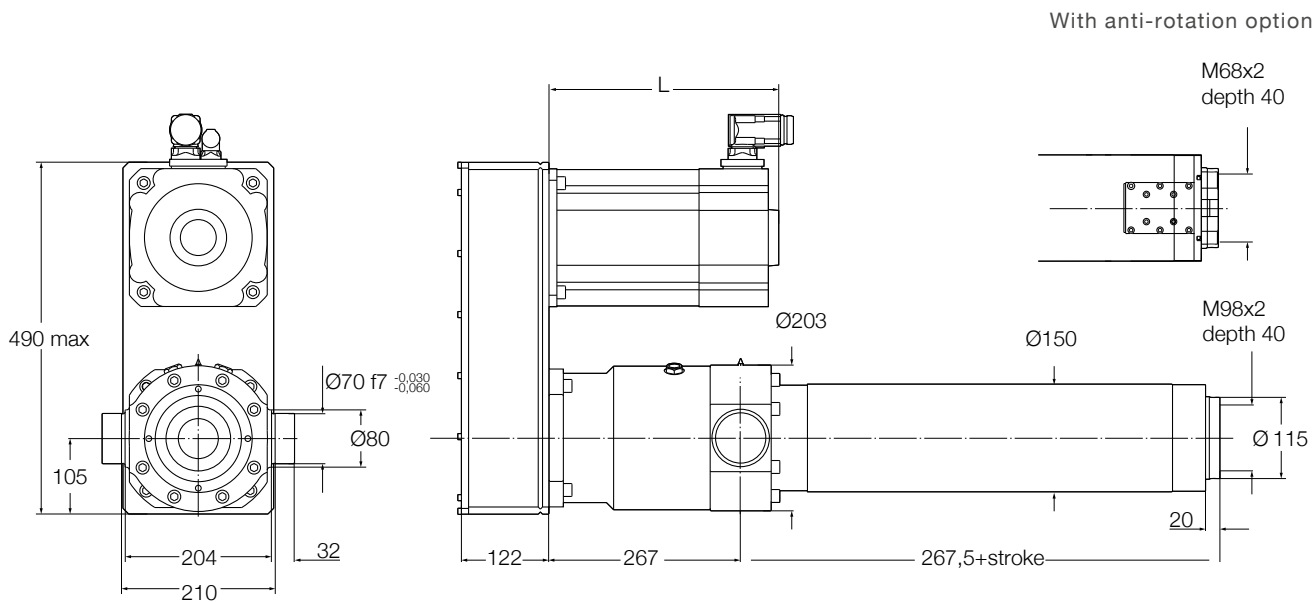
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P10 LD6	P70 LD7	P100 LD7
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	21,1	106,4	152
Continuous force @ max. speed	F_c	kN	13	53,2	76
Peak force @ zero speed	F_{p0}	kN	37,7	251,8	359,7
Peak force @ max. speed	F_p	kN	21,3	113,8	162,6
Dynamic load capacity	C	kN	395	395	395
Holding force (motorbrake option)	F_{Hold}	kN	14	98	140
Max. linear speed	v_{max}	mm/s	889	143	100
Max. acceleration	a_{max}	m/s ²	10,5	1	0,4
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	60	60	60
Screw lead	p_{screw}	mm	20	20	20
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 300	100...1 300	100...1 300
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	1	7	10
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	458,52	714,38	1166,76
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	10,05	0,21	0,10
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,4
Weight @ 0 mm stroke	m	kg	163,1	206	240
Δ weight per 100 mm stroke	Δm	kg	8,9	8,9	8,9
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	5,2	5,2	5,2
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,8	0,8	0,8
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	34,9	34,9
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	15,82	10,05	10,05
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 800 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

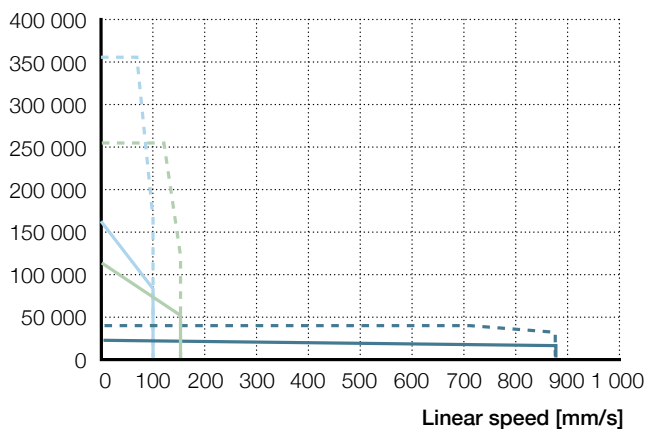
Dimensional drawing



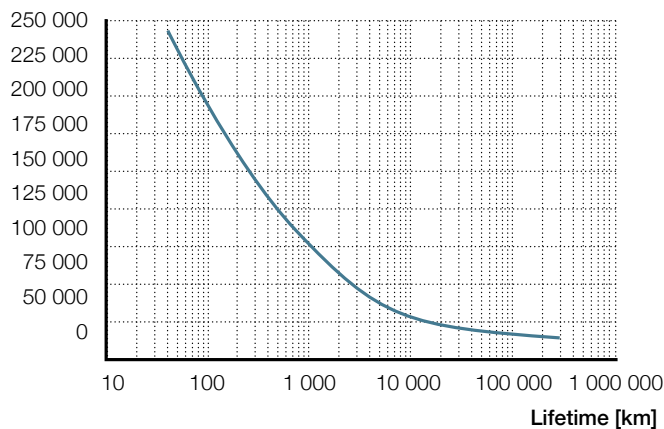
Reference	L mm	Added length for brake option	Added length for encoder option
-			
P10LD6	427	44	49
P70LD7	529	44	49
P100LD7	599	44	49

Performance diagrams

Axial force [N]



F_m [N]



P10LD6 — F_{cont} **P70LD7** — F_{cont} **P100LD7** — F_{cont}
 - - - F_{peak} - - - F_{peak} - - - F_{peak}

Ordering key
 See page 310

SRSA-S-7510

Electric cylinder
servo motor, inline configuration



Technical data

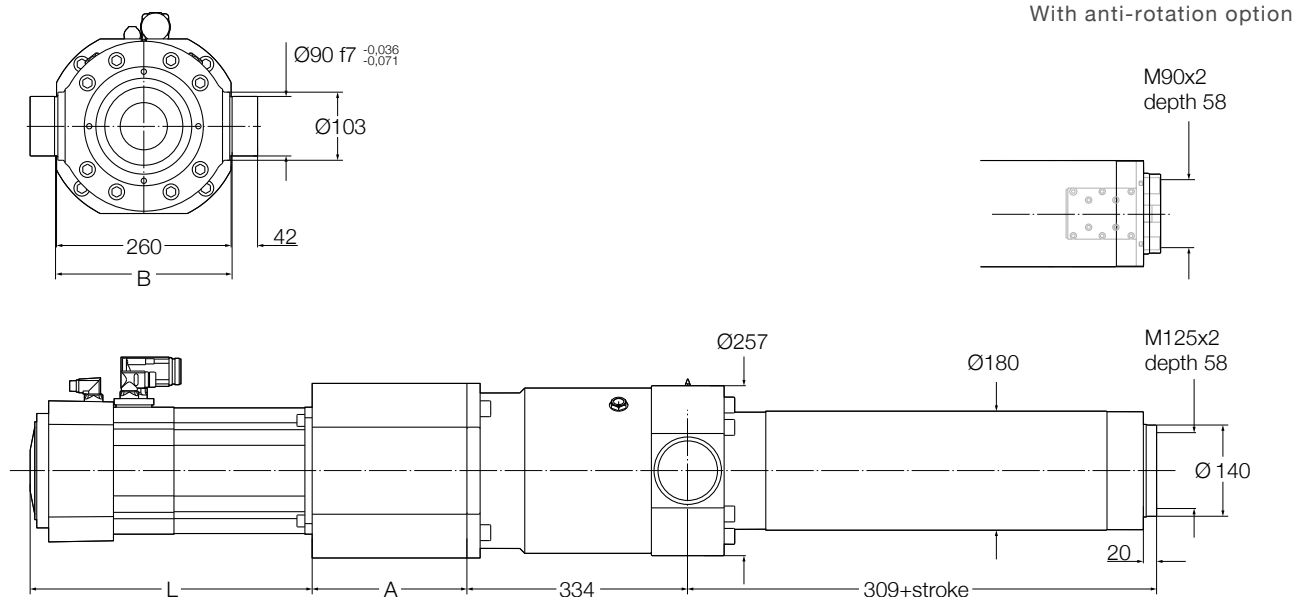
Designation	Symbol	Unit	Servo motor and inline adapter		
			L30 LD7	L50 LD7	L70 LD7
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	88,7	147,9	207
Continuous force @ max. speed	F_c	kN	44,4	73,9	103,5
Peak force @ zero speed	F_{p0}	kN	210	350	490
Peak force @ max. speed	F_p	kN	94,9	158,2	221,5
Dynamic load capacity	C	kN	505	505	505
Holding force (motorbrake option)	F_{Hold}	kN	90	150	210
Max. linear speed	v_{max}	mm/s	167	100	71
Max. acceleration	a_{max}	m/s ²	2,8	2	1,7
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	75	75	75
Screw lead	p_{screw}	mm	10	10	10
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 500	100...1 500	100...1 500
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	3	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	285,71	237,03	263,61
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	2,73	0,98	0,50
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	271,8	292,1	292,1
Δ weight per 100 mm stroke	Δm	kg	11,3	11,3	11,3
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	7,5	7,5	7,5
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	2,7	2,7	2,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	34,9	34,9	34,9
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	10,05	10,05	10,05
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 1 000 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

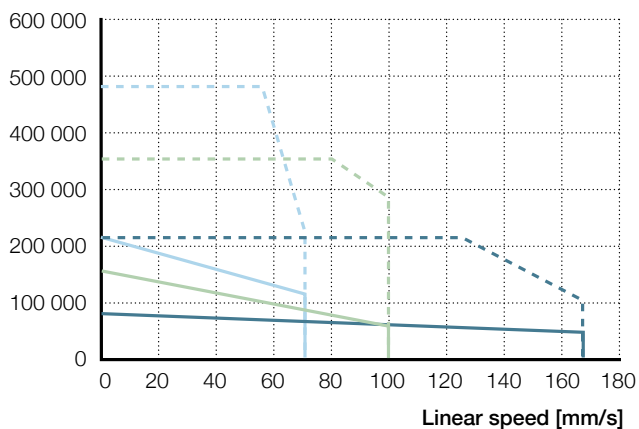
Dimensional drawing



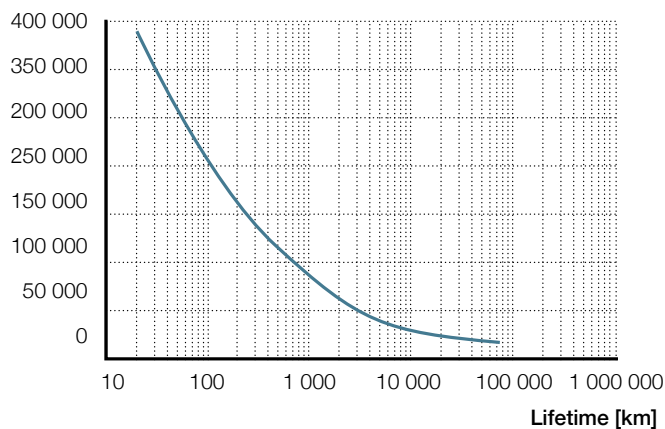
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L30LD7	239	495	264	44	49
L50LD7	247	529	264	44	49
L70LD7	247	529	264	44	49

Performance diagrams

Axial force [N]



F_m [N]



L30LD7	— F _{cont}	L50LD7	— F _{cont}	L70LD7	— F _{cont}
	- - - F _{peak}		- - - F _{peak}		- - - F _{peak}

Ordering key
See page 310

SRSA-S-7510

Electric cylinder
servo motor, parallel configuration



Technical data

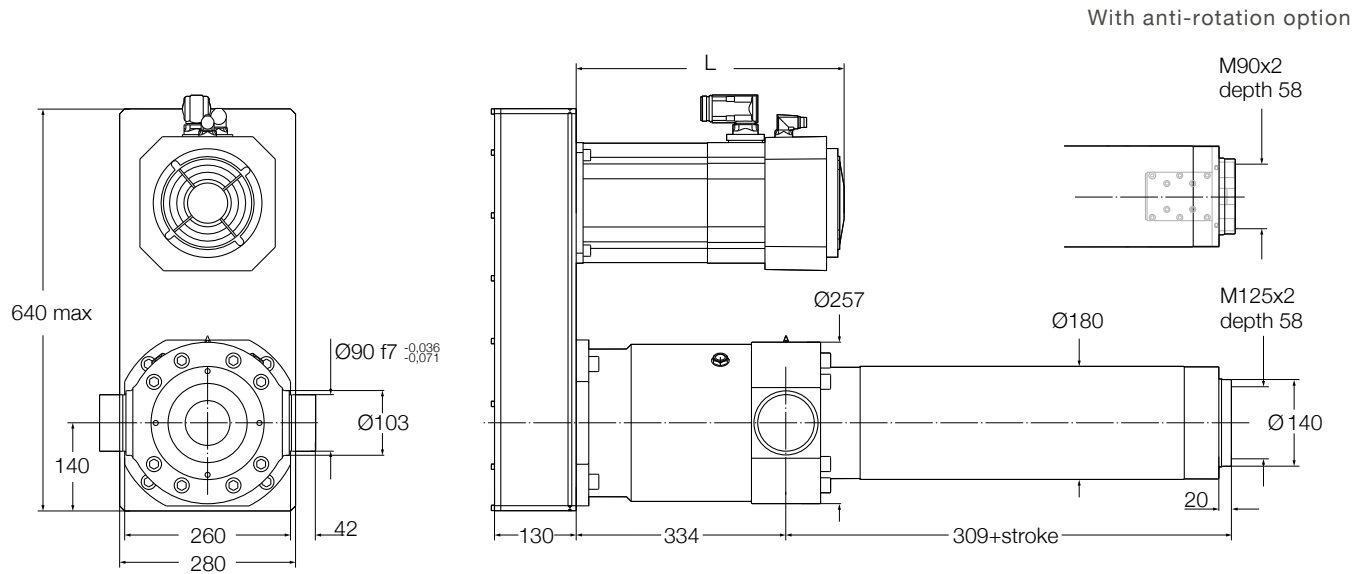
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P30 LD7	P50 LD7	P70 LD7
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	86,1	143,4	200,8
Continuous force @ max. speed	F_c	kN	43	71,7	100,4
Peak force @ zero speed	F_{p0}	kN	203,7	339,5	475,3
Peak force @ max. speed	F_p	kN	92,1	153,5	214,9
Dynamic load capacity	C	kN	505	505	505
Holding force (motorbrake option)	F_{Hold}	kN	93	154	216
Max. linear speed	v_{max}	mm/s	167	100	71
Max. acceleration	a_{max}	m/s ²	1,3	0,6	0,5
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	75	75	75
Screw lead	p_{screw}	mm	10	10	10
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 500	100...1 500	100...1 500
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	3	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	607,59	751,04	723,5
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	2,73	0,98	0,50
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	278,6	303,5	303,5
Δ weight per 100 mm stroke	Δm	kg	11,3	11,3	11,3
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	7,5	7,5	7,5
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	2,7	2,7	2,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	34,9	34,9	34,9
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	10,05	10,05	10,05
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 1 000 mm. For longer strokes $s_{backlash} = 0,02$ mm

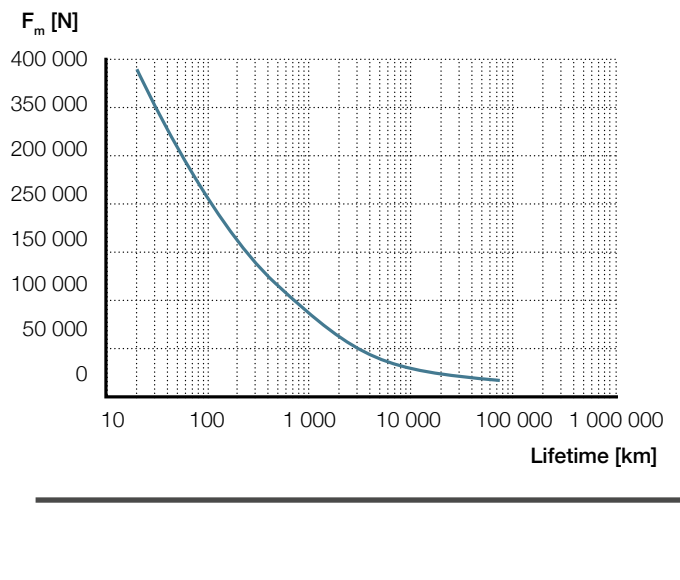
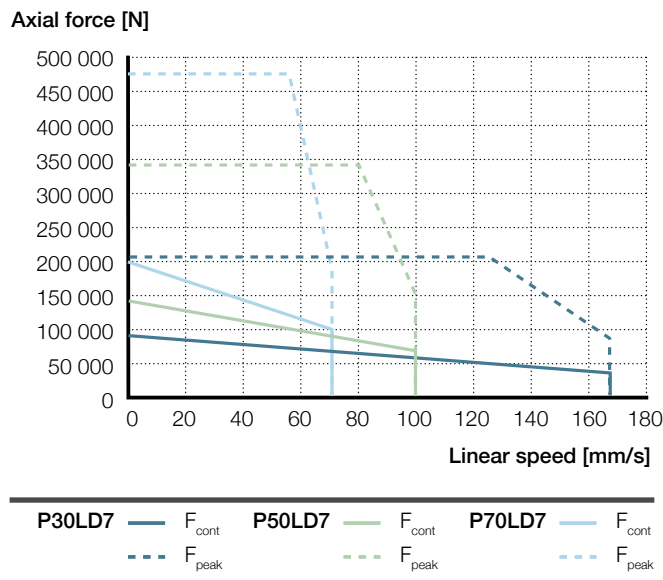
3) With anti-rotation option IP44

Dimensional drawing



Reference	L mm	Added length for brake option	Added length for encoder option
-			
P30LD7	495	44	49
P50LD7	529	44	49
P70LD7	529	44	49

Performance diagrams



Ordering key
See page 310

SRSA-S-7515

Electric cylinder
servo motor, inline configuration



Technical data

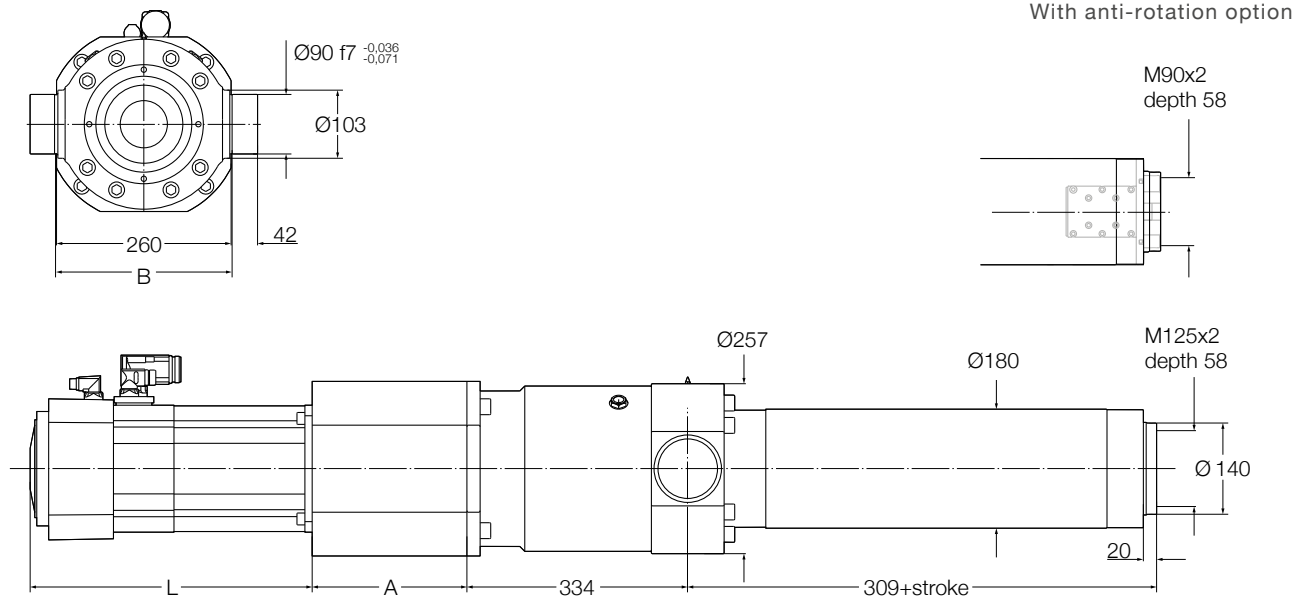
Designation	Symbol	Unit	Servo motor and inline adapter		
			L30 LD6	L50 LD6	L70 LD6
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	82,3	137,2	192,1
Continuous force @ max. speed	F_c	kN	50,7	84,5	118,4
Peak force @ zero speed	F_{p0}	kN	147,5	245,8	344,1
Peak force @ max. speed	F_p	kN	83,3	138,8	194,3
Dynamic load capacity	C	kN	561	561	561
Holding force (motorbrake option)	F_{Hold}	kN	56	94	132
Max. linear speed	v_{max}	mm/s	238	143	102
Max. acceleration	a_{max}	m/s ²	4,3	3,1	2,6
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	75	75	75
Screw lead	p_{screw}	mm	15	15	15
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 500	100...1 500	100...1 500
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	3	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	285,71	237,03	203,61
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	2,73	0,98	0,50
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	277,8	298,1	298,1
Δ weight per 100 mm stroke	Δm	kg	11,3	11,3	11,3
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	7,5	7,5	7,5
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	2,7	2,7	2,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	44,7	44,7
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	15,82	15,82	15,82
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 1 000 mm. For longer strokes $s_{backlash} = 0,02$ mm

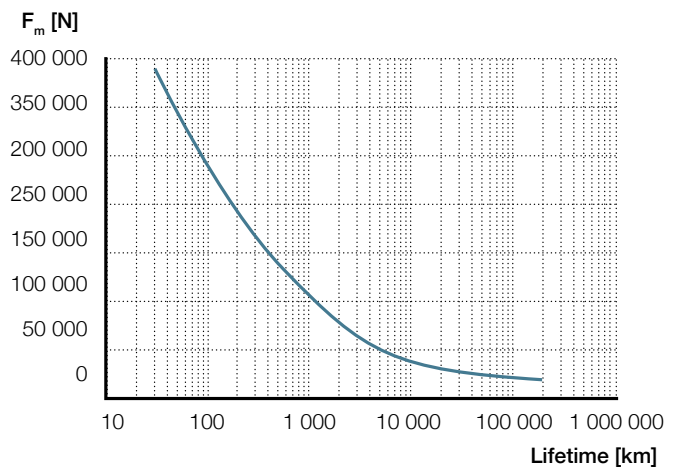
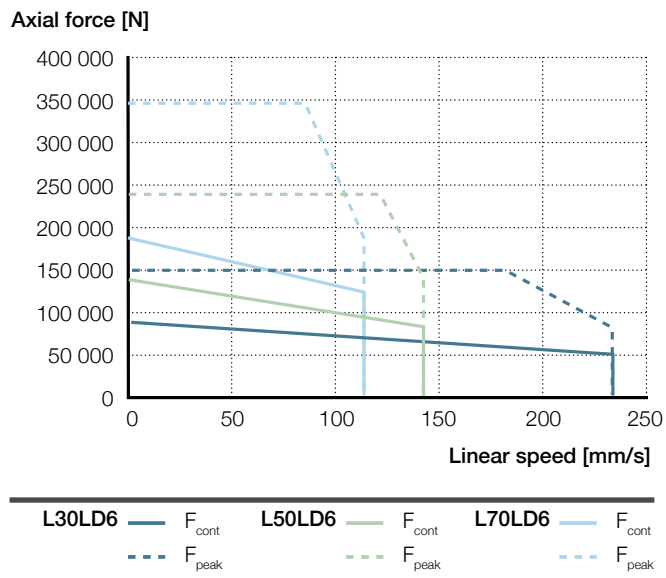
3) With anti-rotation option IP44

Dimensional drawing



Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-	mm				
L30LD6	239	602	264	44	49
L50LD6	247	636	264	44	49
L70LD6	247	636	264	44	49

Performance diagrams



Ordering key
 See page 310

SRSA-S-7515

Electric cylinder
servo motor, parallel configuration



Technical data

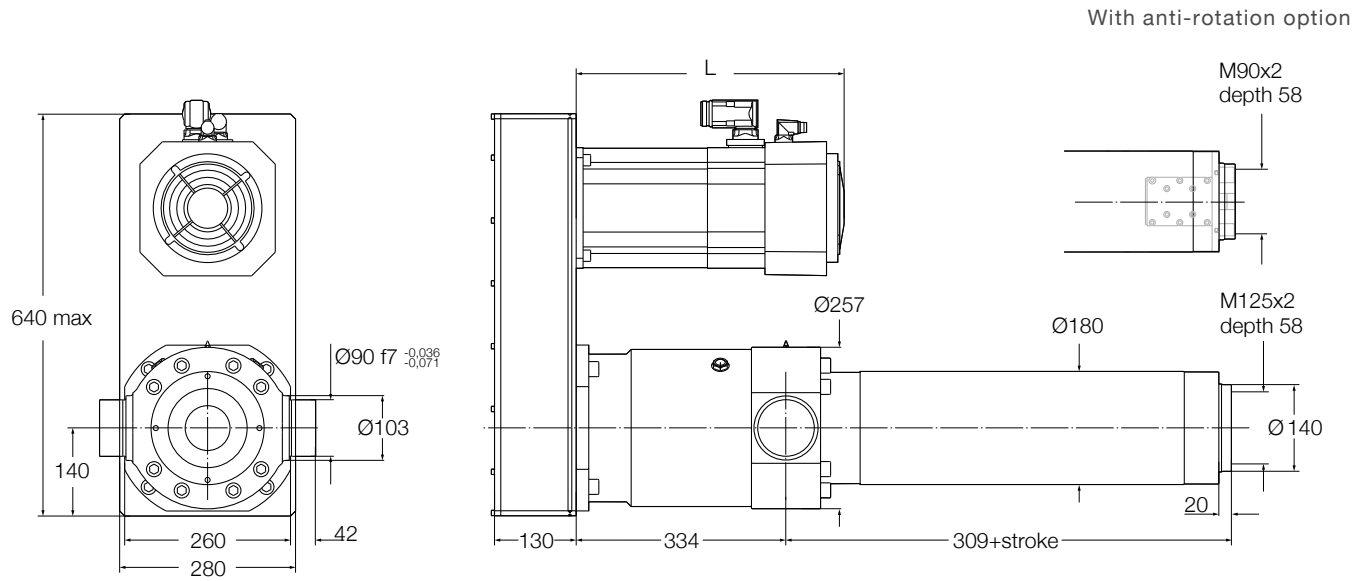
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P30 LD6	P50 LD6	P70 LD6
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	79,8	133,1	186,3
Continuous force @ max. speed	F_c	kN	49,2	82	114,8
Peak force @ zero speed	F_{p0}	kN	143,1	238,4	333,8
Peak force @ max. speed	F_p	kN	80,8	134,6	188,5
Dynamic load capacity	C	kN	561	561	561
Holding force (motorbrake option)	F_{Hold}	kN	58	97	136
Max. linear speed	v_{max}	mm/s	238	143	102
Max. acceleration	a_{max}	m/s ²	2	1	0,7
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	75	75	75
Screw lead	p_{screw}	mm	15	15	15
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 500	100...1 500	100...1 500
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i	–	3	5	7
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	607,59	751,04	723,50
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	2,73	0,98	0,50
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	284,6	309,5	309,5
Δ weight per 100 mm stroke	Δm	kg	11,3	11,3	11,3
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	7,5	7,5	7,5
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	2,7	2,7	2,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	44,7	44,7
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	15,82	15,82	15,82
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 1 000 mm. For longer strokes $s_{backlash} = 0,02$ mm

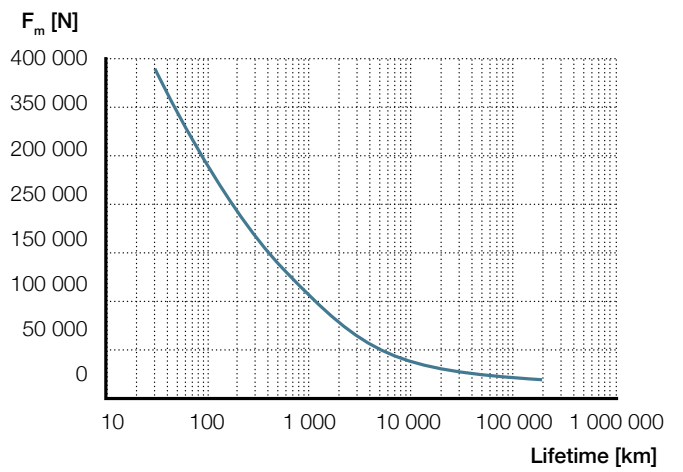
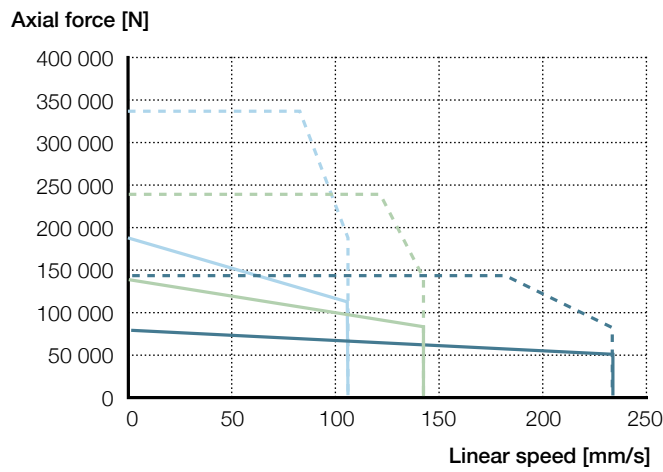
3) With anti-rotation option IP44

Dimensional drawing



Reference	L mm	Added length for brake option	Added length for encoder option
-			
P30LD6	602	44	49
P50LD6	636	44	49
P70LD6	636	44	49

Performance diagrams



P30LD6	F_{cont}	P50LD6	F_{cont}	P70LD6	F_{cont}
	F_{peak}		F_{peak}		F_{peak}

Ordering key
 See page 310

SRSA-S-7520

Electric cylinder
servo motor, inline configuration



Technical data

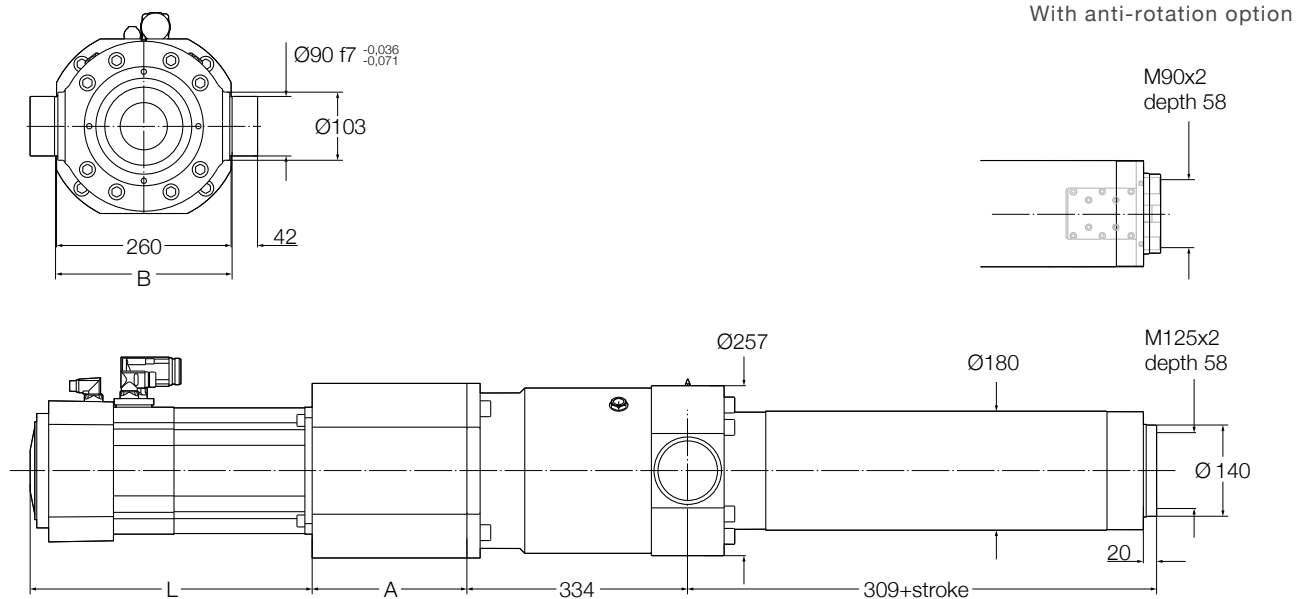
Designation	Symbol	Unit	Servo motor and inline adapter		
			L10 LD6	L70 LD6	L100 LD6
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	21,5	145,7	208,1
Continuous force @ max. speed	F_c	kN	13,2	89,8	128,3
Peak force @ zero speed	F_{p0}	kN	38,4	261,1	373
Peak force @ max. speed	F_p	kN	21,7	147,4	210,6
Dynamic load capacity	C	kN	572	572	572
Holding force (motorbrake option)	F_{Hold}	kN	13	96	138
Max. linear speed	v_{max}	mm/s	711	136	95
Max. acceleration	a_{max}	m/s ²	5,6	3,4	2,2
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	75	75	75
Screw lead	p_{screw}	mm	20	20	20
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 500	100...1 500	100...1 500
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i		1	7	10
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	849,72	203,61	224,40
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	21,60	0,44	0,22
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	242,5	298,1	326,1
Δ weight per 100 mm stroke	Δm	kg	11,3	11,3	11,3
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	7,5	7,5	7,5
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	2,7	2,7	2,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	44,7	44,7
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	15,82	15,82	15,82
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 1 000 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

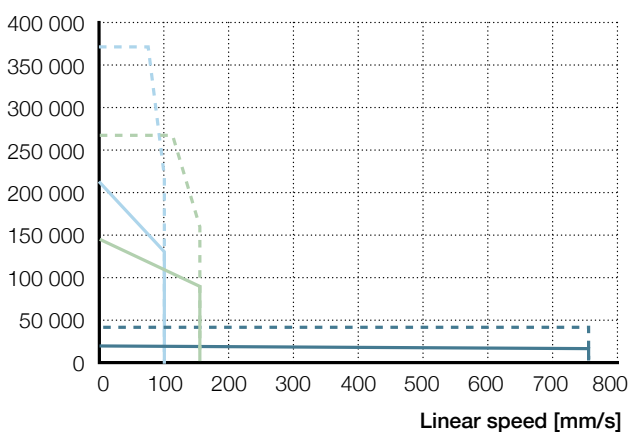
Dimensional drawing



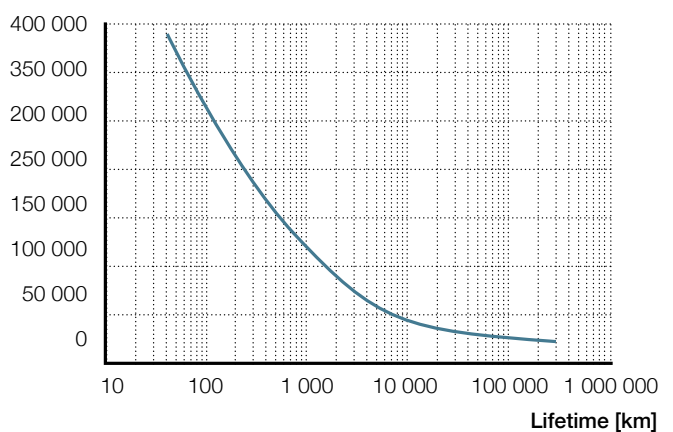
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LD6	178	427	264	44	49
L70LD6	247	636	264	44	49
L100LD6	275	706	264	44	49

Performance diagrams

Axial force [N]



F_m [N]



L10LD6	— F _{cont}	L70LD6	— F _{cont}	L100LD6	— F _{cont}
	- - - F _{peak}		- - - F _{peak}		- - - F _{peak}

Ordering key
See page 310

3

SRSA-S-7520

Electric cylinder
servo motor, parallel configuration



Technical data

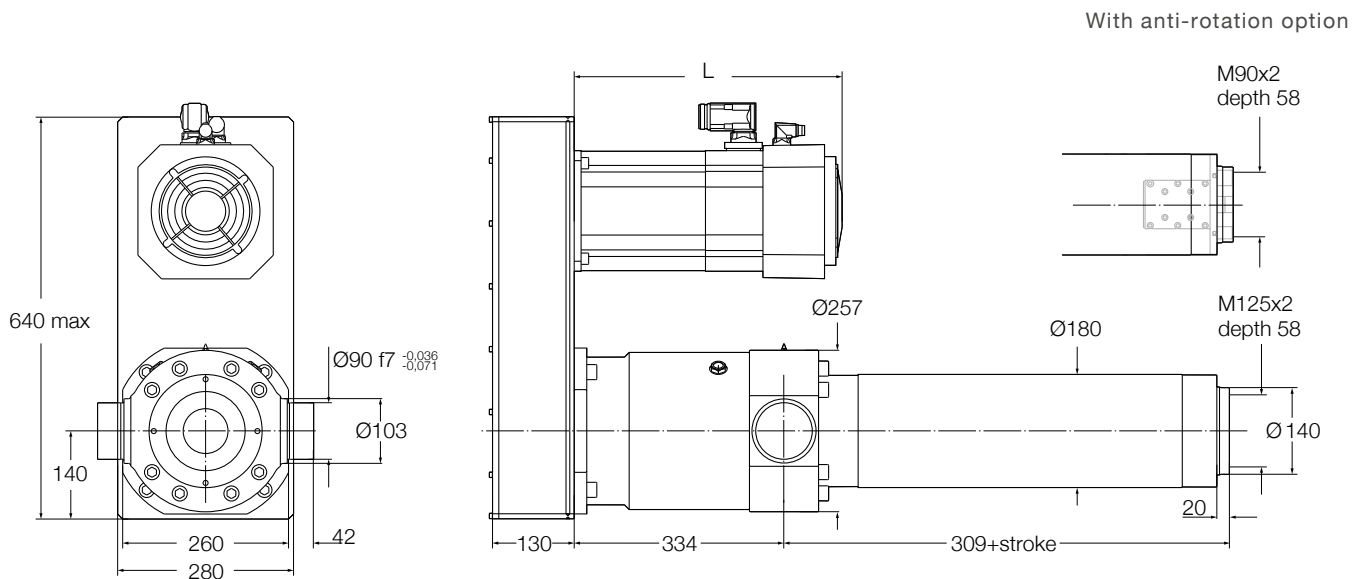
Designation	Symbol	Unit	Servo motor and parallel adapter		
			P10 LD6	P70 LD6	P100 LD6
Performance Data					
Continuous force @ zero speed	F_{c0}	kN	20,8	141,3	201,9
Continuous force @ max. speed	F_c	kN	12,8	87,1	124,4
Peak force @ zero speed	F_{p0}	kN	37,3	253,2	361,8
Peak force @ max. speed	F_p	kN	21,1	143	204,2
Dynamic load capacity	C	kN	572	572	572
Holding force (motorbrake option)	F_{Hold}	kN	14	99	142
Max. linear speed	v_{max}	mm/s	711	136	95
Max. acceleration	a_{max}	m/s ²	4,6	1	0,4
Duty cycle	D	%	100	100	100
Mechanical Data					
Screw type	–	–	Roller screw	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	75	75	75
Screw lead	p_{screw}	mm	20	20	20
Lead accuracy	–	–	G5	G5	G5
Stroke ¹⁾	s	mm	100...1 500	100...1 500	100...1 500
Internal overstroke each side	s_0	mm	10	10	10
Backlash ²⁾	$s_{backlash}$	mm	0	0	0
Gear reduction	i		1	7	10
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	1039,76	723,5	1171,22
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	21,60	0,44	0,22
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	12,40	12,40	12,40
Weight @ 0 mm stroke	m	kg	264,2	309,5	343,5
Δ weight per 100 mm stroke	Δm	kg	11,3	11,3	11,3
Weight of optional brake	m_{brake}	kg	3,1	3,1	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	7,5	7,5	7,5
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	2,7	2,7	2,7
Electrical Data					
Motor type	–	–	Servo	Servo	Servo
Nominal voltage	U	V AC	400	400	400
Nominal current	I	A	44,7	44,7	44,7
Peak current	I_{peak}	A	94	94	94
Nominal power	P	kW	15,82	15,82	15,82
Environment and Standards					
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 1 000 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

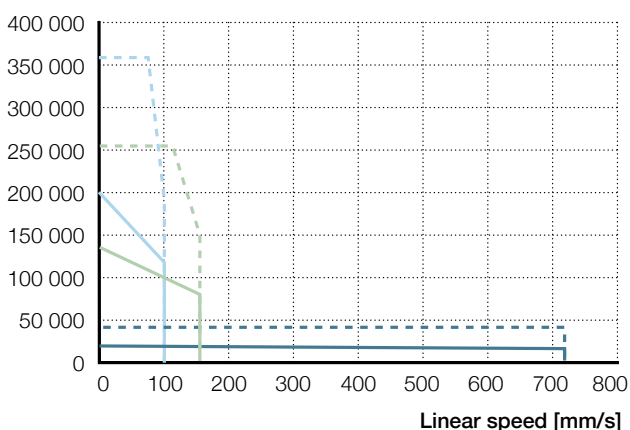
Dimensional drawing



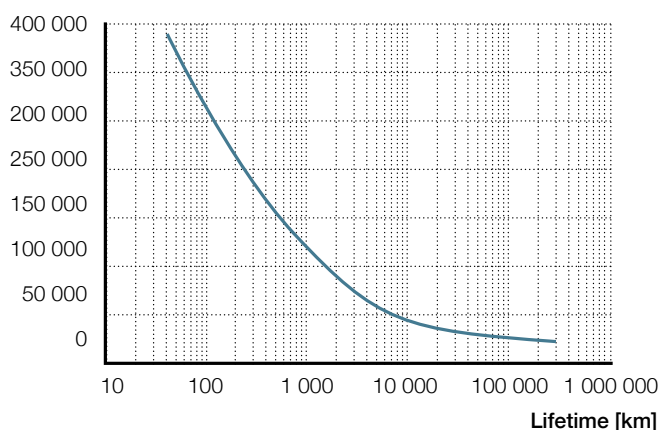
Reference	L mm	Added length for brake option	Added length for encoder option
-			
P10LD6	427	44	49
P70LD6	636	44	49
P100LD6	706	44	49

Performance diagrams

Axial force [N]



F_m [N]



P10LD6 — F_{cont} **P70LD6** — F_{cont} **P100LD6** — F_{cont}
 - - - F_{peak} - - - F_{peak} - - - F_{peak}

Ordering key

See page 310



SVSA-S-3201

Electric cylinder
servo motor, inline configuration

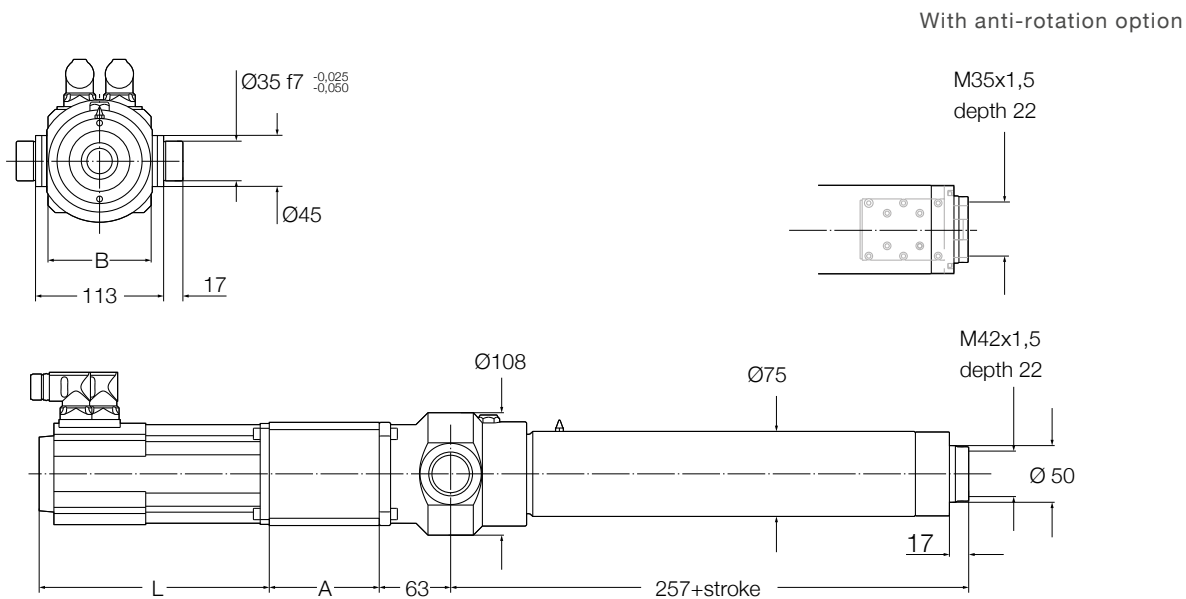


Technical data

Designation	Symbol	Unit	Servo motor and inline adapter	
			L10 LC7	L10 LD9
Performance Data				
Continuous force @ zero speed	F_{c0}	kN	13,8	24,7
Continuous force @ max. speed	F_c	kN	10,2	14,8
Peak force @ zero speed	F_{p0}	kN	42,8	57,8
Peak force @ max. speed	F_p	kN	18,7	38,8
Dynamic load capacity	C	kN	64	64
Holding force (motorbrake option)	F_{Hold}	kN	64	64
Max. linear speed	v_{max}	mm/s	10,4	10,4
Max. acceleration	a_{max}	m/s ²	0,6	0,6
Duty cycle	D	%	100	100
Mechanical Data				
Screw type	–	–	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	32	32
Screw lead	p_{screw}	mm	1	1
Lead accuracy	–	–	G5	G5
Stroke ¹⁾	s	mm	100...600	100...600
Internal overstroke each side	s_0	mm	5	5
Backlash	$s_{backlash}$	mm	0	0
Gear reduction	i		1	1
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	8,88	10,18
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,31	0,31
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	1,07	1,07
Weight @ 0 mm stroke	m	kg	19,1	21,8
Δ weight per 100 mm stroke	Δm	kg	2,4	2,4
Weight of optional brake	m_{brake}	kg	0,8	0,8
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	2,6	2,6
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,3	0,3
Electrical Data				
Motor type	–	–	Servo	Servo
Nominal voltage	U	V AC	400	400
Nominal current	I	A	3	6,2
Peak current	I_{peak}	A	12,8	16,8
Nominal power	P	kW	1,22	1,91
Environment and Standards				
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40
Degree of protection ²⁾	IP	–	54	54

¹⁾ By 100 mm steps
²⁾ With anti-rotation option IP44

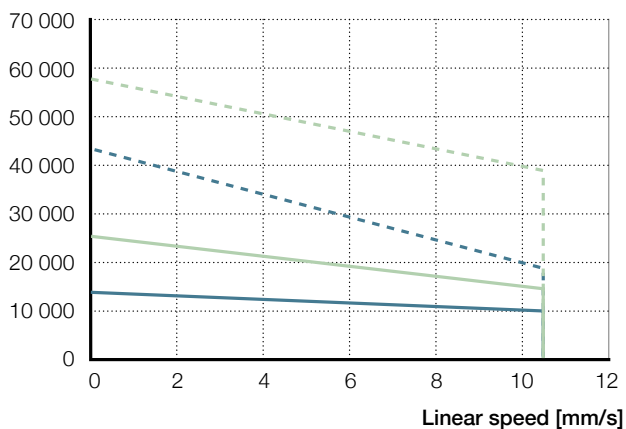
Dimensional drawing



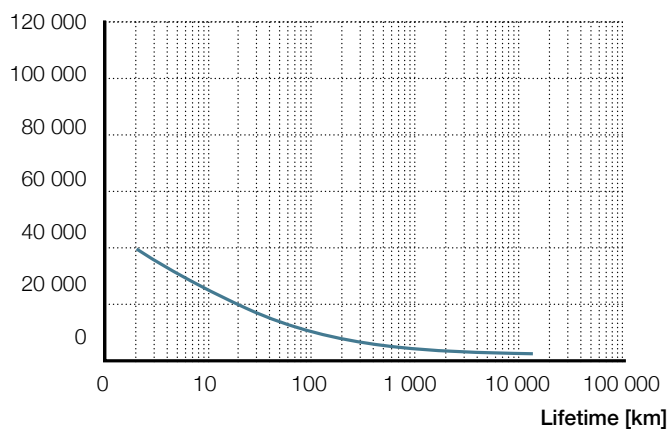
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LC7	97	203	91	20	51
L10LD9	97	263	91	20	51

Performance diagrams

Axial force [N]



F_m [N]



L10LC7 — F_{cont} **L10LD9** — F_{cont}
 - - - F_{peak} - - - F_{peak}

Ordering key
See page 310

3

SVSA-S-3201

Electric cylinder
servo motor, parallel configuration

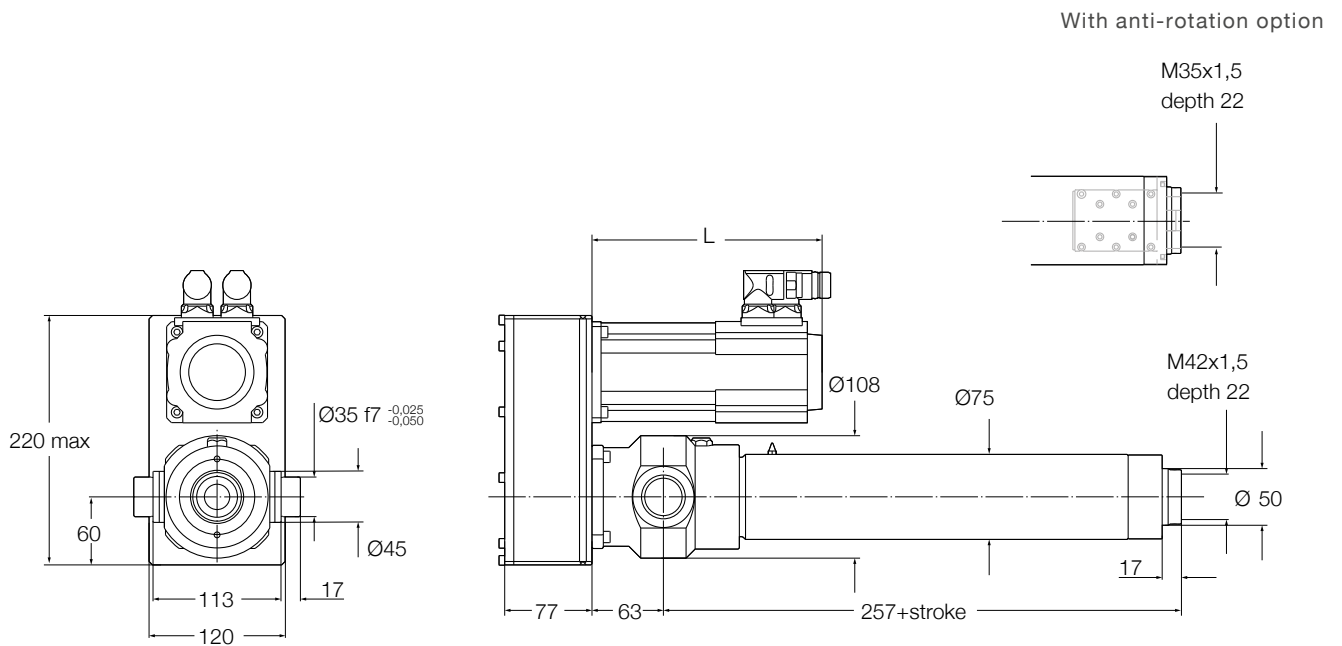


Technical data

Designation	Symbol	Unit	Servo motor and inline adapter	
			L10 LC7	L10 LD9
Performance Data				
Continuous force @ zero speed	F_{c0}	kN	13,4	23,9
Continuous force @ max. speed	F_c	kN	9,9	14,4
Peak force @ zero speed	F_{p0}	kN	41,5	56,1
Peak force @ max. speed	F_p	kN	18,2	37,6
Dynamic load capacity	C	kN	64	64
Holding force (motorbrake option)	F_{Hold}	kN	64	64
Max. linear speed	v_{max}	mm/s	10,4	10,4
Max. acceleration	a_{max}	m/s ²	0,6	0,6
Duty cycle	D	%	100	100
Mechanical Data				
Screw type	–	–	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	32	32
Screw lead	p_{screw}	mm	1	1
Lead accuracy	–	–	G5	G5
Stroke ¹⁾	s	mm	100...600	100...600
Internal overstroke each side	s_0	mm	5	5
Backlash	$s_{backlash}$	mm	0	0
Gear reduction	i		1	1
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	7,70	9
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,31	0,31
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	1,07	1,07
Weight @ 0 mm stroke	m	kg	24	26,7
Δ weight per 100 mm stroke	Δm	kg	2,4	2,4
Weight of optional brake	m_{brake}	kg	0,8	0,8
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	2,6	2,6
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,3	0,3
Electrical Data				
Motor type	–	–		
Nominal voltage	U	V AC	Servo	Servo
Nominal current	I	A	400	400
Peak current	I_{peak}	A	3	6,2
Nominal power	P	kW	12,8	16,8
			1,220	1,910
Environment and Standards				
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40
Degree of protection ²⁾	IP	–	54	54

¹⁾ By 100 mm steps
²⁾ With anti-rotation option IP44

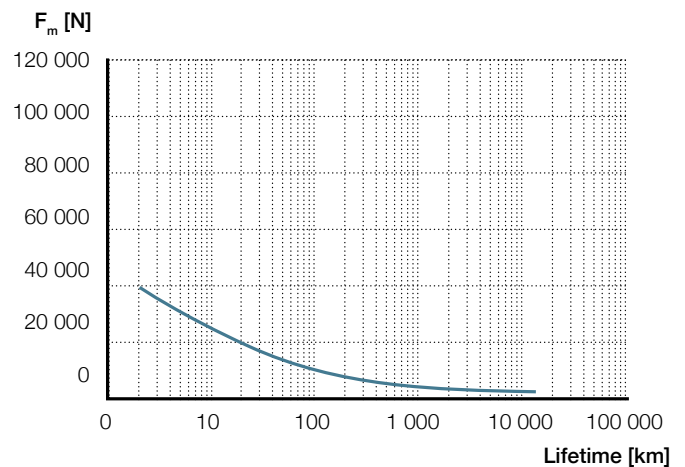
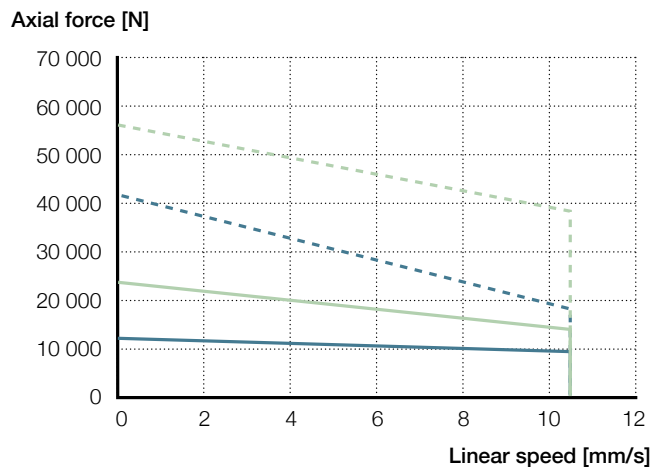
Dimensional drawing



3

Reference	L mm	Added length for brake option	Added length for encoder option
-			
P10LC7	203	20	51
P10LD9	263	20	51

Performance diagrams



P10LC7 — F_{cont} P10LD9 — F_{cont}
 - - - F_{peak} - - - F_{peak}

Ordering key
 See page 310

SVSA-S-4001

Electric cylinder
servo motor, inline configuration



Technical data

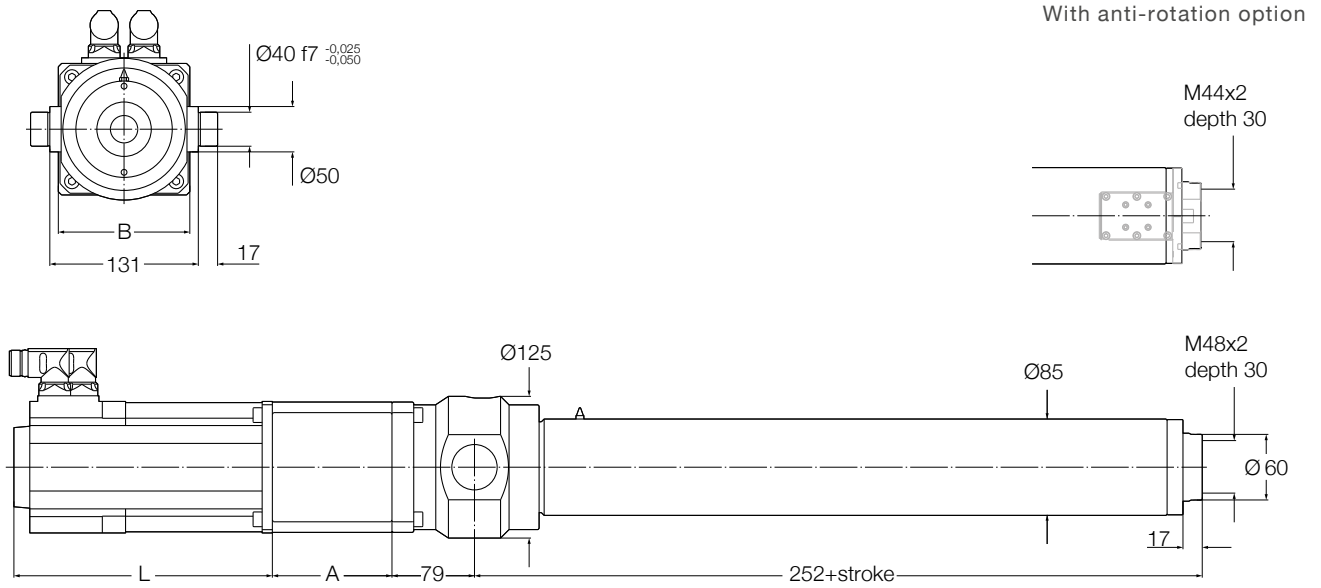
Designation	Symbol	Unit	Servo motor and inline adapter	
			L10 LA1	L10 LA3
Performance Data				
Continuous force @ zero speed	F_{c0}	kN	19,2	34,3
Continuous force @ max. speed	F_c	kN	16,5	30,1
Peak force @ zero speed	F_{p0}	kN	54,1	79,1
Peak force @ max. speed	F_p	kN	18,3	43,6
Dynamic load capacity	C	kN	79	79
Holding force (motorbrake option)	F_{Hold}	kN	79,0	79,0
Max. linear speed	v_{max}	mm/s	8,3	8,3
Max. acceleration	a_{max}	m/s ²	0,6	0,6
Duty cycle	D	%	100%	100%
Mechanical Data				
Screw type	–	–	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	40	40
Screw lead	p_{screw}	mm	1	1
Lead accuracy	–	–	G5	G5
Stroke ¹⁾	s	mm	100...800	100...800
Internal overstroke each side	s_0	mm	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0
Gear reduction	i		1	1
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	19,95	23,25
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,64	0,64
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	1,07	1,07
Weight @ 0 mm stroke	m	kg	30,1	33,2
Δ weight per 100 mm stroke	Δm	kg	3,2	3,2
Weight of optional brake	m_{brake}	kg	0,9	0,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,2	0,2
Electrical Data				
Motor type	–	–	Servo	Servo
Nominal voltage	U	V AC	400	400
Nominal current	I	A	2,7	4,1
Peak current	I_{peak}	A	10	12
Nominal power	P	kW	1,12	1,57
Environment and Standards				
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

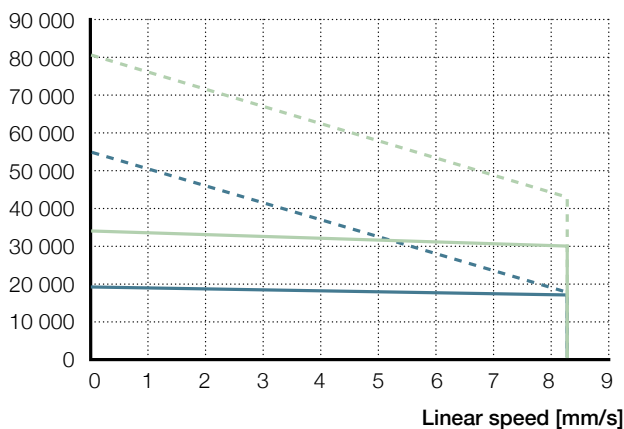
Dimensional drawing



Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LA1	111	188	116	20	49
L10LA3	111	228	116	20	49

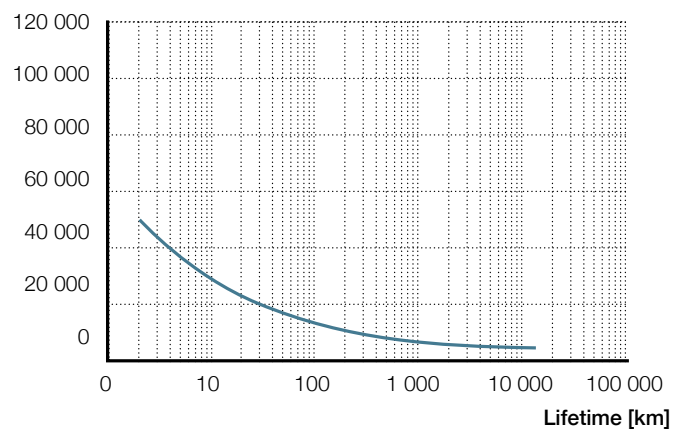
Performance diagrams

Axial force [N]



L10LA1 — F_{cont} L10LA3 — F_{cont}
 - - - F_{peak} - - - F_{peak}

F_m [N]



Ordering key
 See page 310

3

SVSA-S-4001

Electric cylinder
servo motor, parallel configuration



Technical data

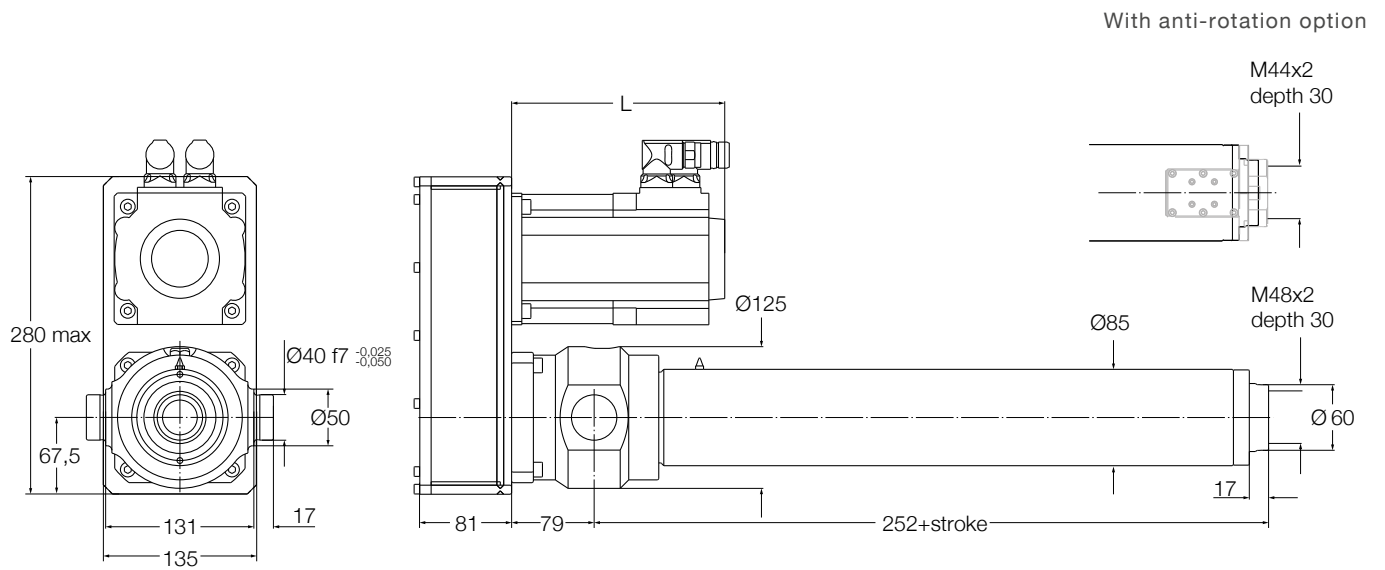
Designation	Symbol	Unit	Servo motor and parallel adapter	
			P10 LA1	P10 LA3
Performance Data				
Continuous force @ zero speed	F_{c0}	kN	19,2	34,3
Continuous force @ max. speed	F_c	kN	16,5	30,1
Peak force @ zero speed	F_{p0}	kN	54,1	79,1
Peak force @ max. speed	F_p	kN	18,3	43,6
Dynamic load capacity	C	kN	79	79
Holding force (motorbrake option)	F_{Hold}	kN	79	79
Max. linear speed	v_{max}	mm/s	8,3	8,3
Max. acceleration	a_{max}	m/s ²	0,6	0,6
Duty cycle	D	%	100	100
Mechanical Data				
Screw type	–	–	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	40	40
Screw lead	p_{screw}	mm	1	1
Lead accuracy	–	–	G5	G5
Stroke ¹⁾	s	mm	100...800	100...800
Internal overstroke each side	s_0	mm	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0
Gear reduction	i		1	1
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	19,95	23,25
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,64	0,64
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	1,07	1,07
Weight @ 0 mm stroke	m	kg	30,1	33,2
Δ weight per 100 mm stroke	Δm	kg	3,2	3,2
Weight of optional brake	m_{brake}	kg	0,9	0,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,2	0,2
Electrical Data				
Motor type	–	–	Servo	Servo
Nominal voltage	U	V AC	400	400
Nominal current	I	A	2,7	4,1
Peak current	I_{peak}	A	10	12
Nominal power	P	kW	1,120	1,57
Environment and Standards				
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

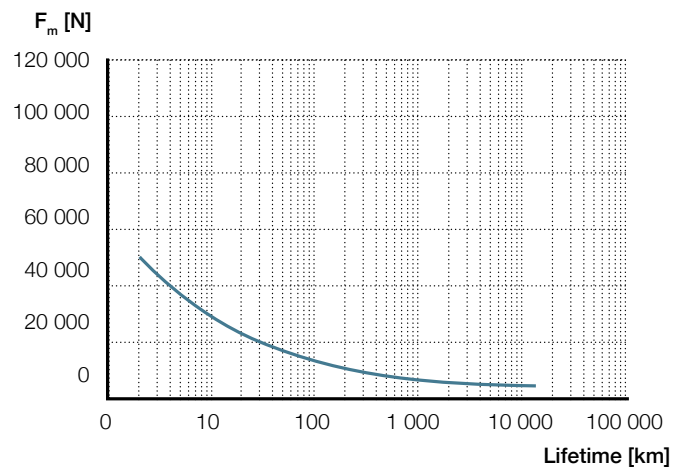
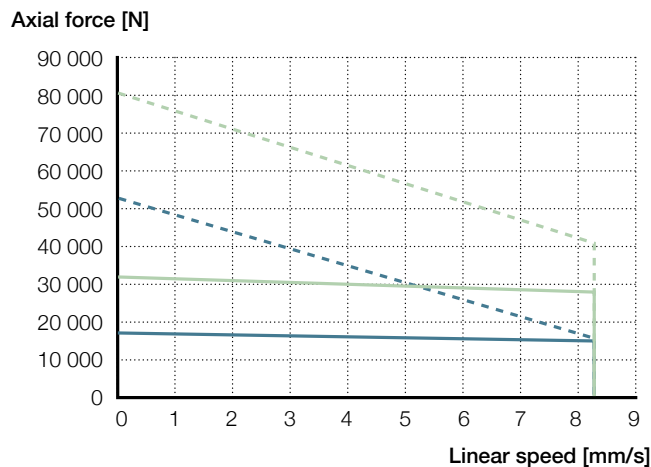
3) With anti-rotation option IP44

Dimensional drawing



Reference	L mm	Added length for brake option	Added length for encoder option
P10LA1	188	20	49
P10LA3	228	20	49

Performance diagrams



P10LA1 — F_{cont} P10LA3 — F_{cont}
 - - - F_{peak} - - - F_{peak}

Ordering key
 See page 310

3

SVSA-S-5001

Electric cylinder
servo motor, inline configuration



Technical data

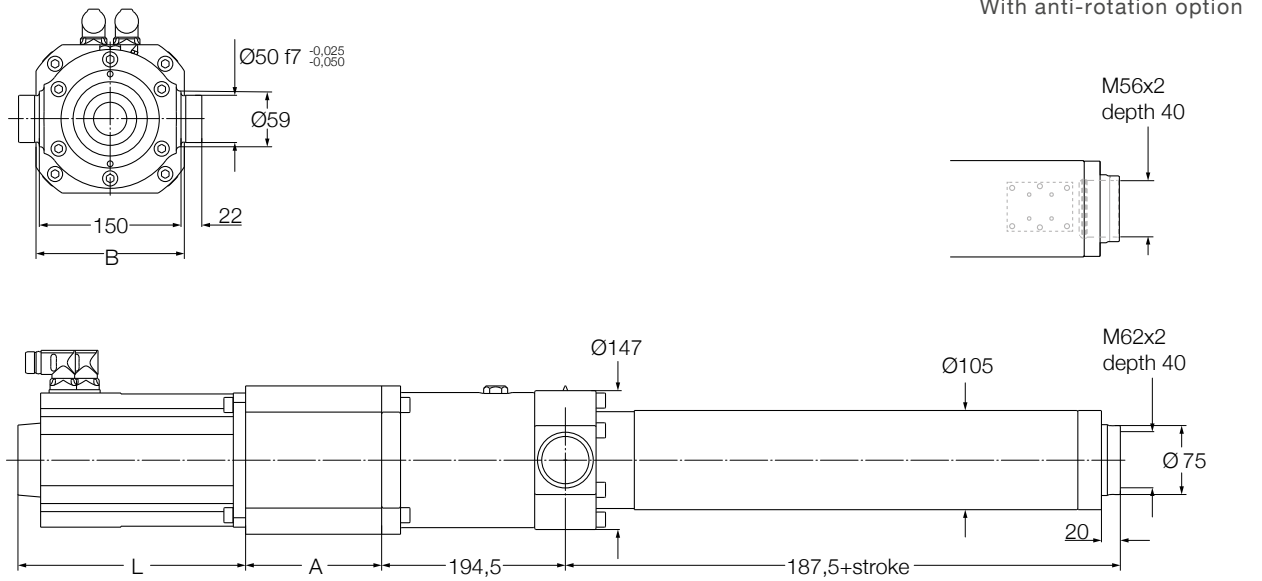
Designation	Symbol	Unit	Servo motor and parallel adapter	
			P10 LA1	P10 LA3
Performance Data				
Continuous force @ zero speed	F_{c0}	kN	40	74,6
Continuous force @ max. speed	F_c	kN	36	61,3
Peak force @ zero speed	F_{p0}	kN	93	174,2
Peak force @ max. speed	F_p	kN	45,3	79,2
Dynamic load capacity	C	kN	174	174
Holding force (motorbrake option)	F_{Hold}	kN	174	174
Max. linear speed	v_{max}	mm/s	6,7	6,7
Max. acceleration	a_{max}	m/s ²	0,6	0,6
Duty cycle	D	%	100	100
Mechanical Data				
Screw type	–	–	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	50	50
Screw lead	p_{screw}	mm	1	1
Lead accuracy	–	–	G5	G5
Stroke ¹⁾	s	mm	100...900	100...900
Internal overstroke each side	s_0	mm	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0
Gear reduction	i		1	1
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	40,82	72,22
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,8	1,8
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	1,07	3,2
Weight @ 0 mm stroke	m	kg	62,4	73,1
Δ weight per 100 mm stroke	Δm	kg	4,8	4,8
Weight of optional brake	m_{brake}	kg	0,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,4	0,4
Electrical Data				
Motor type	–	–	Servo	Servo
Nominal voltage	U	V AC	400	400
Nominal current	I	A	6,2	12
Peak current	I_{peak}	A	26,8	31,2
Nominal power	P	kW	2,76	3,61
Environment and Standards				
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

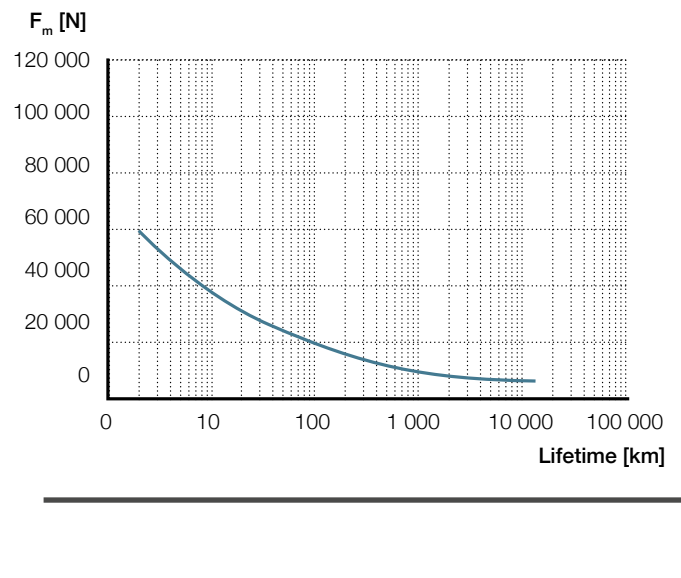
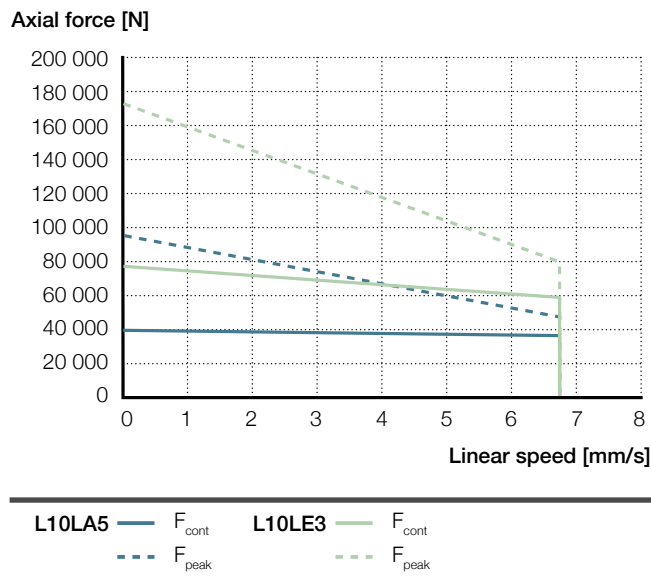
3) With anti-rotation option IP44

Dimensional drawing



Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LA5	134	268	185	20	49
L10LE3	148	281	135	28	50

Performance diagrams



Ordering key
See page 310

3

SVSA-S-5001

Electric cylinder
servo motor, parallel configuration



Technical data

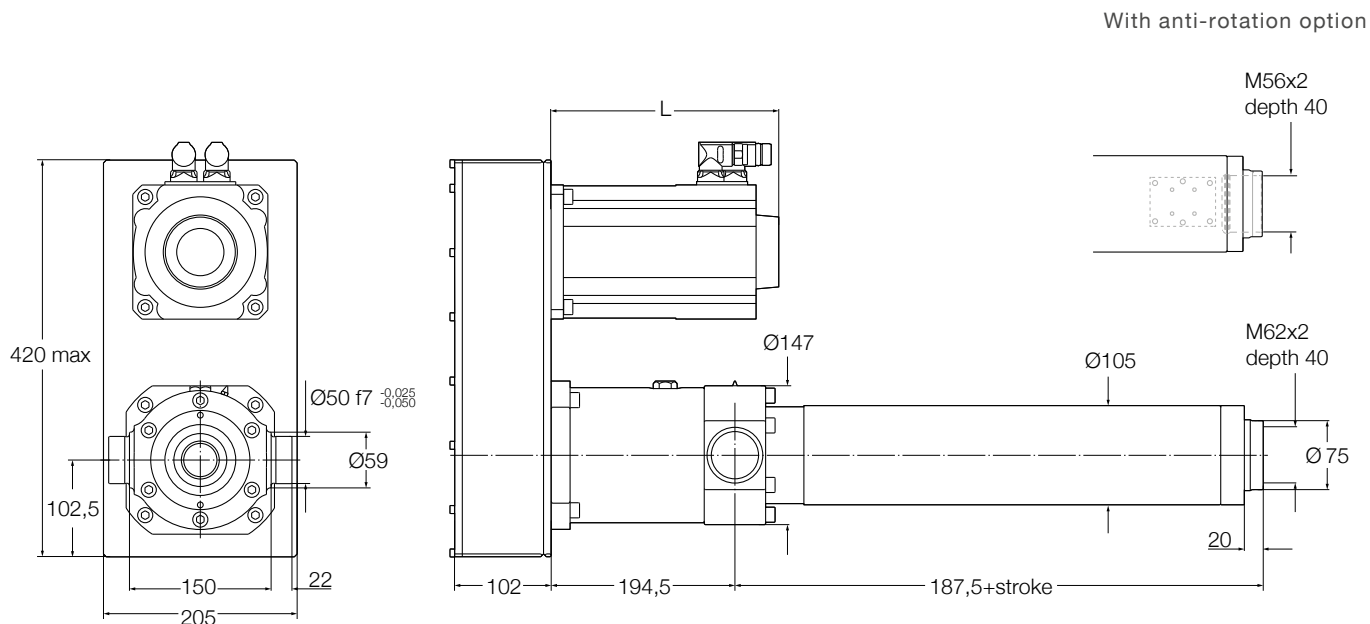
Designation	Symbol	Unit	Servo motor and parallel adapter	
			P10 LA5	P10 LE3
Performance Data				
Continuous force @ zero speed	F_{c0}	kN	40	74,6
Continuous force @ max. speed	F_c	kN	36	61,3
Peak force @ zero speed	F_{p0}	kN	93	174,2
Peak force @ max. speed	F_p	kN	45,3	79,2
Dynamic load capacity	C	kN	174	174
Holding force (motorbrake option)	F_{Hold}	kN	174	174
Max. linear speed	v_{max}	mm/s	6,7	6,7
Max. acceleration	a_{max}	m/s ²	0,6	0,6
Duty cycle	D	%	100	100
Mechanical Data				
Screw type	–	–	Roller screw	Roller screw
Screw diameter	d_{screw}	mm	50	50
Screw lead	p_{screw}	mm	1	1
Lead accuracy	–	–	G5	G5
Stroke ¹⁾	s	mm	100...900	100...900
Internal overstroke each side	s_0	mm	5	5
Backlash ²⁾	$s_{backlash}$	mm	0	0
Gear reduction	i		1	1
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	40,82	72,22
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,80	1,80
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	1,07	3,20
Weight @ 0 mm stroke	m	kg	62,4	73,1
Δ weight per 100 mm stroke	Δm	kg	4,8	4,8
Weight of optional brake	m_{brake}	kg	0,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,3	-0,3
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	0,4	0,4
Electrical Data				
Motor type	–	–	Servo	Servo
Nominal voltage	U	V AC	400	400
Nominal current	I	A	6,2	12
Peak current	I_{peak}	A	26,8	31,2
Nominal power	P	kW	2,760	3,610
Environment and Standards				
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40
Degree of protection ³⁾	IP	–	54	54

1) By 100 mm steps

2) Backlash elimination up to stroke 600 mm. For longer strokes $s_{backlash} = 0,02$ mm

3) With anti-rotation option IP44

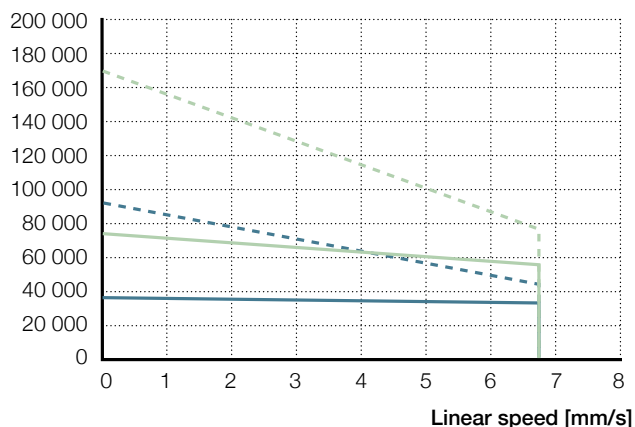
Dimensional drawing



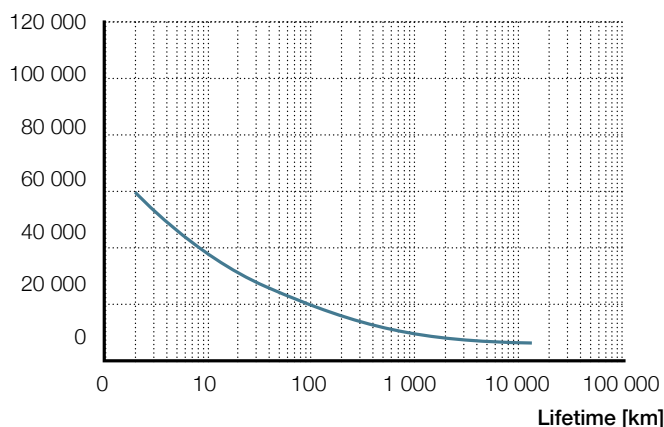
Reference	L mm	Added length for brake option	Added length for encoder option
-			
P10LA5	268	20	49
P10LE3	281	28	50

Performance diagrams

Axial force [N]



F_m [N]



P10LA5 — F_{cont} **P10LE3** — F_{cont}
 - - - F_{peak} - - - F_{peak}

Ordering key

See page 310

SLSA-S-2525

Electric cylinder
servo motor, inline configuration

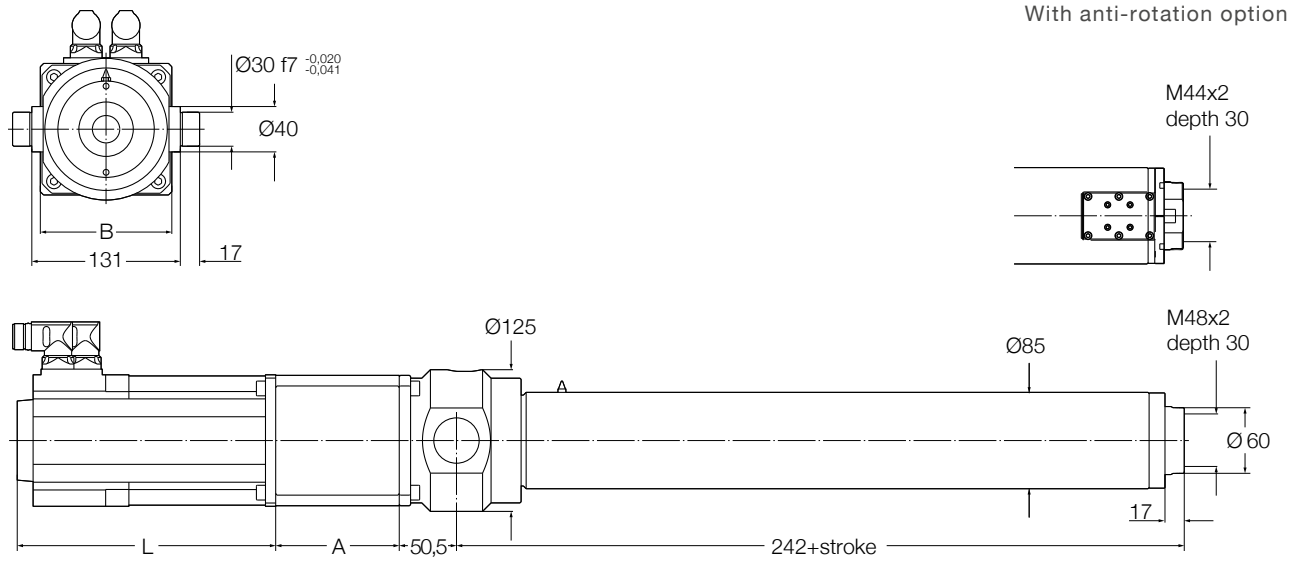


Technical data

Designation	Symbol	Unit	Servo motor and inline adapter	
			L10 LA4	L10 LC9
Performance Data				
Continuous force @ zero speed	F_{c0}	kN	2,4	5,8
Continuous force @ max. speed	F_c	kN	1,6	3,6
Peak force @ zero speed	F_{p0}	kN	6,1	10,6
Peak force @ max. speed	F_p	kN	2,8	6,3
Dynamic load capacity	C	kN	22	22
Holding force (motorbrake option)	F_{Hold}	kN	3	6
Max. linear speed	v_{max}	mm/s	1 469	1 344
Max. acceleration	a_{max}	m/s ²	15,9	15,9
Duty cycle	D	%	100	100
Mechanical Data				
Screw type	–	–	Ball screw	Ball screw
Screw diameter	d_{screw}	mm	25	25
Screw lead	p_{screw}	mm	25	25
Lead accuracy	–	–	G9	G9
Stroke ¹⁾	s	mm	100...800	100...800
Internal overstroke each side	s_0	mm	5	5
Backlash	$s_{backlash}$	mm	0,08	0,08
Gear reduction	i	–	1	1
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	23,29	39,35
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,21	0,21
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	1,07	3,20
Weight @ 0 mm stroke	m	kg	30,7	45,8
Δ weight per 100 mm stroke	Δm	kg	2,6	2,6
Weight of optional brake	m_{brake}	kg	0,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,4	-0,4
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	-0,1	-0,1
Electrical Data				
Motor type	–	–	Servo	Servo
Nominal voltage	U	V AC	400	400
Nominal current	I	A	8,2	23,5
Peak current	I_{peak}	A	24	47
Nominal power	P	kW	2,77	5,81
Environment and Standards				
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40
Degree of protection ²⁾	IP	–	54	54

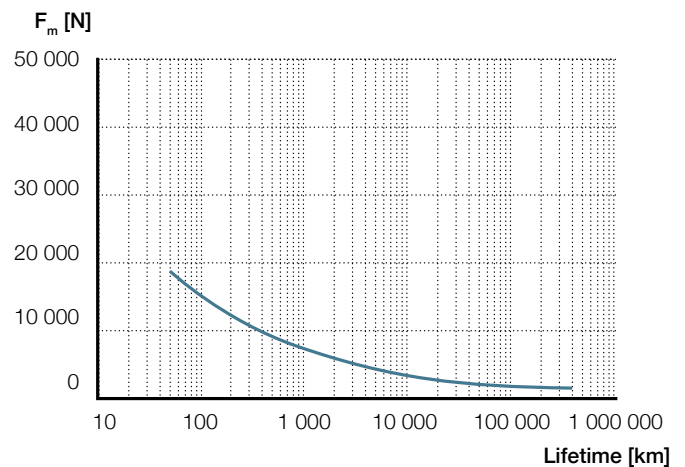
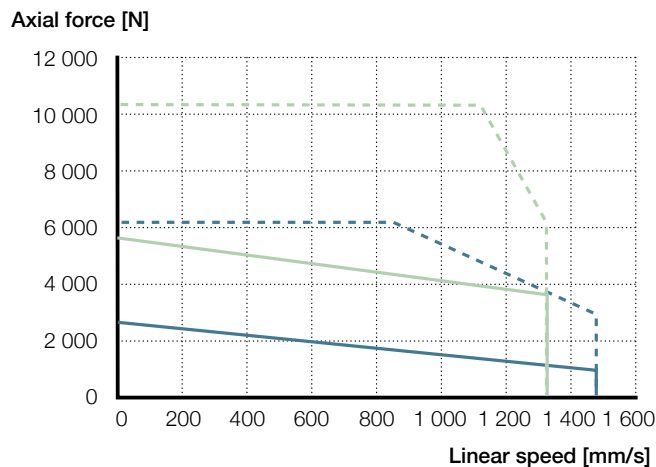
¹⁾ By 100 mm steps
²⁾ With anti-rotation option IP44

Dimensional drawing



Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LA4	109	228	116	20	49
L10LC9	119	281	143	28	50

Performance diagrams



L10LA4 — F_{cont} **L10LC9** — F_{cont}
 - - - F_{peak} - - - F_{peak}

Ordering key
 See page 310

3

SLSA-S-2525

Electric cylinder
servo motor, parallel configuration



Technical data

Designation	Symbol	Unit	Servo motor and parallel adapter	
			P10 LA4	P10 LC9
Performance Data				
Continuous force @ zero speed	F_{c0}	kN	2,3	5,6
Continuous force @ max. speed	F_c	kN	1,5	3,5
Peak force @ zero speed	F_{p0}	kN	5,9	10,2
Peak force @ max. speed	F_p	kN	2,8	6,1
Dynamic load capacity	C	kN	22	22
Holding force (motorbrake option)	F_{Hold}	kN	3	6
Max. linear speed	v_{max}	mm/s	1 469	1 344
Max. acceleration	a_{max}	m/s ²	15,9	15,9
Duty cycle	D	%	100	100
Mechanical Data				
Screw type	–	–	Ball screw	Ball screw
Screw diameter	d_{screw}	mm	25	25
Screw lead	p_{screw}	mm	25	25
Lead accuracy	–	–	G9	G9
Stroke ¹⁾	s	mm	100...800	100...800
Internal overstroke each side	s_0	mm	5	5
Backlash	$s_{backlash}$	mm	0,08	0,08
Gear reduction	i	–	1	1
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	46,76	62,86
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	0,21	0,21
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	1,07	3,20
Weight @ 0 mm stroke	m	kg	37,2	47,8
Δ weight per 100 mm stroke	Δm	kg	2,6	2,6
Weight of optional brake	m_{brake}	kg	0,9	1,9
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-0,4	-0,4
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	-0,1	-0,1
Electrical Data				
Motor type	–	–	Servo	Servo
Nominal voltage	U	V AC	400	400
Nominal current	I	A	8,2	23,5
Peak current	I_{peak}	A	24	47
Nominal power	P	kW	2,77	5,81
Environment and Standards				
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40
Degree of protection ²⁾	IP	–	54	54

¹⁾ By 100 mm steps
²⁾ With anti-rotation option IP44

SLSA-S-4040

Electric cylinder
servo motor, inline configuration

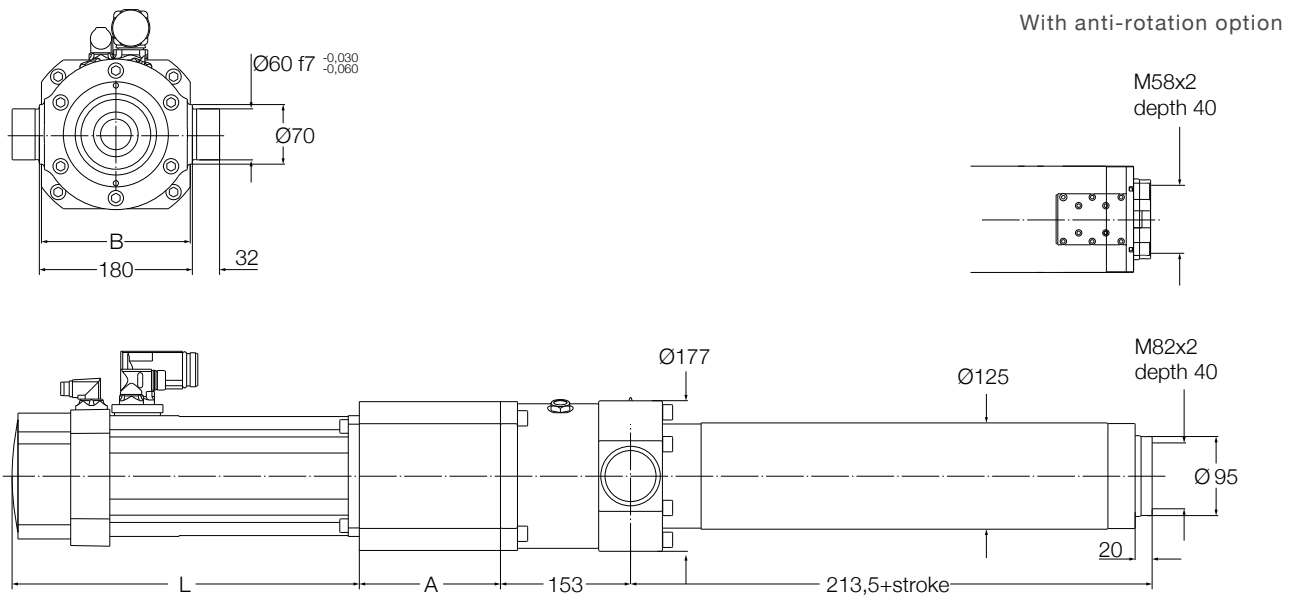


Technical data

Designation	Symbol	Unit	Servo motor and inline adapter	
			L10 LD3	L10 LD6
Performance Data				
Continuous force @ zero speed	F_{c0}	kN	5,7	11,3
Continuous force @ max. speed	F_c	kN	4,3	7
Peak force @ zero speed	F_{p0}	kN	9,2	20,3
Peak force @ max. speed	F_p	kN	5,1	11,5
Dynamic load capacity	C	kN	52	52
Holding force (motorbrake option)	F_{Hold}	kN	4	6
Max. linear speed	v_{max}	mm/s	1 500	1 500
Max. acceleration	a_{max}	m/s ²	25,5	25,5
Duty cycle	D	%	100	100
Mechanical Data				
Screw type	–	–	Ball screw	Ball screw
Screw diameter	d_{screw}	mm	40	40
Screw lead	p_{screw}	mm	40	40
Lead accuracy	–	–	G9	G9
Stroke ¹⁾	s	mm	100...1 200	100...1 200
Internal overstroke each side	s_0	mm	5	5
Backlash	$s_{backlash}$	mm	0,1	0,1
Gear reduction	i	–	1	1
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	116,82	242,04
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,33	1,33
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	12,40
Weight @ 0 mm stroke	m	kg	96,1	118,2
Δ weight per 100 mm stroke	Δm	kg	7	7
Weight of optional brake	m_{brake}	kg	1,9	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-2	-2
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	-1,3	-1,3
Electrical Data				
Motor type	–	–	Servo	Servo
Nominal voltage	U	V AC	400	400
Nominal current	I	A	28,3	44,7
Peak current	I_{peak}	A	56	94
Nominal power	P	kW	9,07	15,82
Environment and Standards				
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40
Degree of protection ²⁾	IP	–	54	54

¹⁾ By 100 mm steps
²⁾ With anti-rotation option IP44

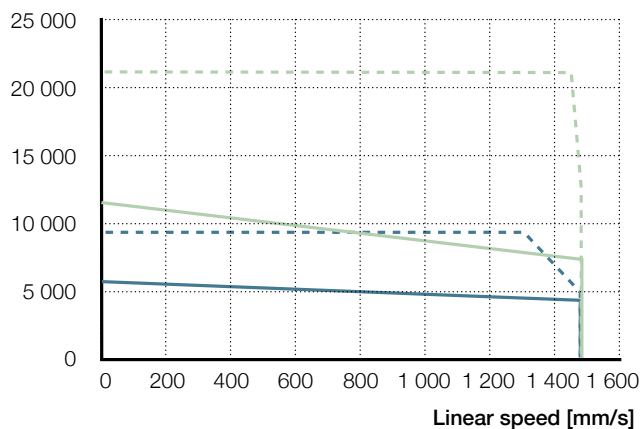
Dimensional drawing



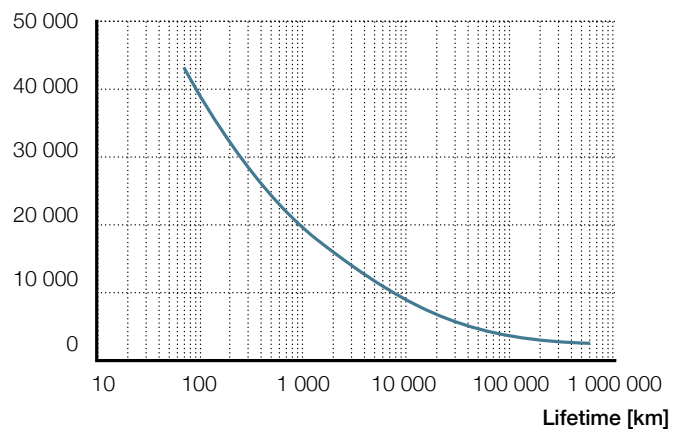
Reference	A mm	L	B	Added length for brake option	Added length for encoder option
-					
L10LD3	166	409	192	28	50
L10LD6	176	427	192	44	49

Performance diagrams

Axial force [N]



F_m [N]



L10LD3 — F_{cont} **L10LD6** — F_{cont}
 - - - F_{peak} - - - F_{peak}

Ordering key
See page 310

3

SLSA-S-4040

Electric cylinder
servo motor, parallel configuration

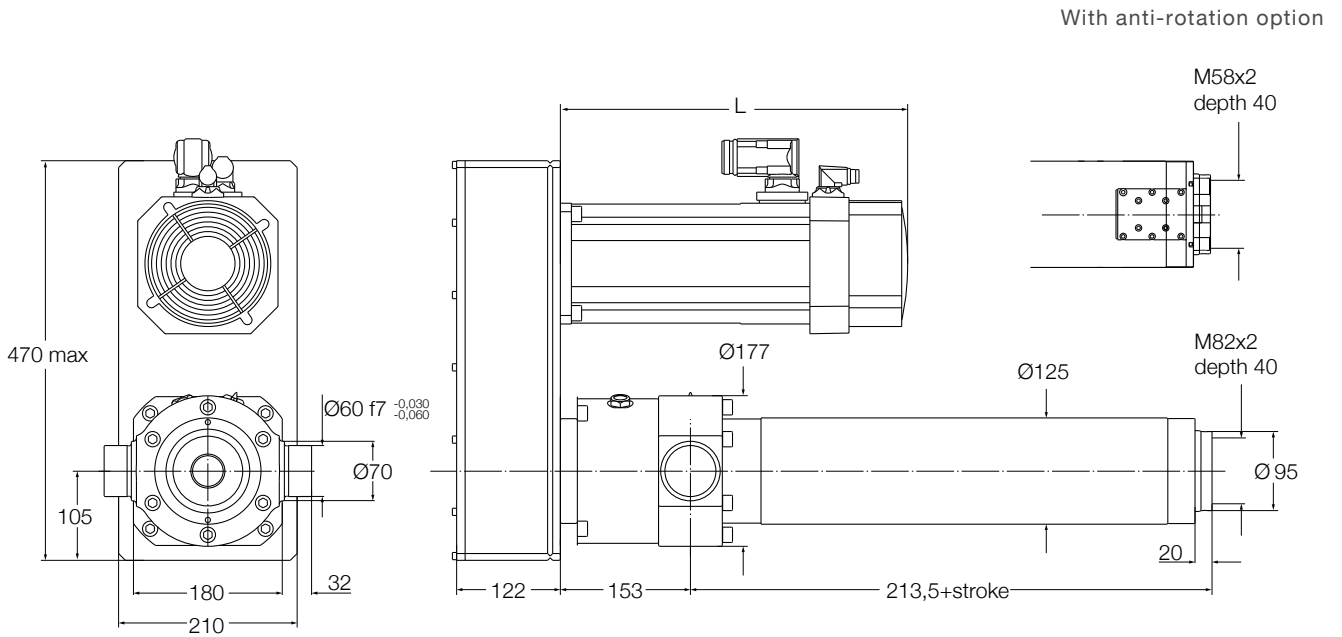


Technical data

Designation	Symbol	Unit	Servo motor and parallel adapter	
			P10 LD3	P10 LD6
Performance Data				
Continuous force @ zero speed	F_{c0}	kN	5,6	11
Continuous force @ max. speed	F_c	kN	4,2	6,8
Peak force @ zero speed	F_{p0}	kN	9	19,7
Peak force @ max. speed	F_p	kN	5	11,1
Dynamic load capacity	C	kN	52	52
Holding force (motorbrake option)	F_{Hold}	kN	4	6
Max. linear speed	v_{max}	mm/s	1 500	1 500
Max. acceleration	a_{max}	m/s ²	25,5	25,5
Duty cycle	D	%	100	100
Mechanical Data				
Screw type	–	–	Ball screw	Ball screw
Screw diameter	d_{screw}	mm	40	40
Screw lead	p_{screw}	mm	40	40
Lead accuracy	–	–	G9	G9
Stroke ¹⁾	s	mm	100...1 200	100...1 200
Internal overstroke each side	s_0	mm	5	5
Backlash	$s_{backlash}$	mm	0,1	0,1
Gear reduction	i		1	1
Inertia @ 0 mm stroke	J	10 ⁻⁴ kgm ²	161,88	266,27
Δ Inertia per 100 mm stroke	ΔJ	10 ⁻⁴ kgm ²	1,33	1,33
Inertia of optional brake	J_{brake}	10 ⁻⁴ kgm ²	3,20	12,40
Weight @ 0 mm stroke	m	kg	109,3	127,2
Δ weight per 100 mm stroke	Δm	kg	7	7
Weight of optional brake	m_{brake}	kg	1,9	3,1
Weight of anti-rotation @ 0 mm stroke	m_{arot0}	kg	-2	-2
Δ Weight of anti-rot. per 100 mm stroke	Δ m_{arot}	kg	-1,3	-1,3
Electrical Data				
Motor type	–	–	Servo	Servo
Nominal voltage	U	V AC	400	400
Nominal current	I	A	28,3	44,7
Peak current	I_{peak}	A	56	94
Nominal power	P	kW	9,07	15,82
Environment and Standards				
Ambient temperature	$T_{ambient}$	°C	0...+40	0...+40
Degree of protection ²⁾	IP	–	54	54

¹⁾ By 100 mm steps
²⁾ With anti-rotation option IP44

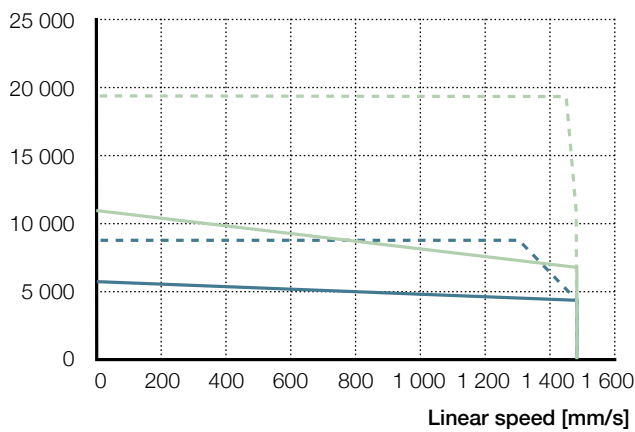
Dimensional drawing



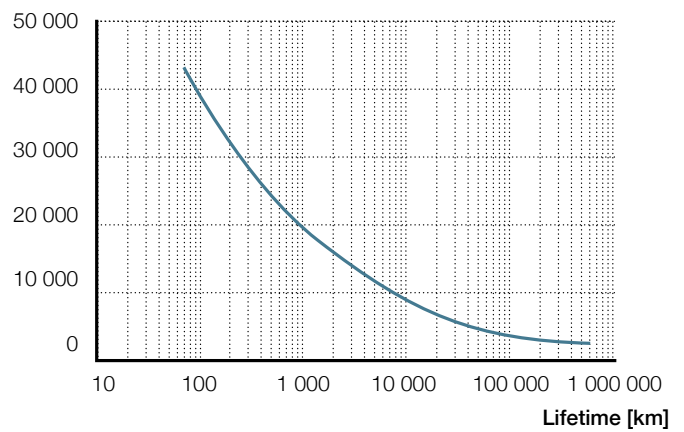
Reference	L mm	Added length for brake option	Added length for encoder option
P10LD3	409	28	50
P10LD6	427	44	49

Performance diagrams

Axial force [N]



F_m [N]

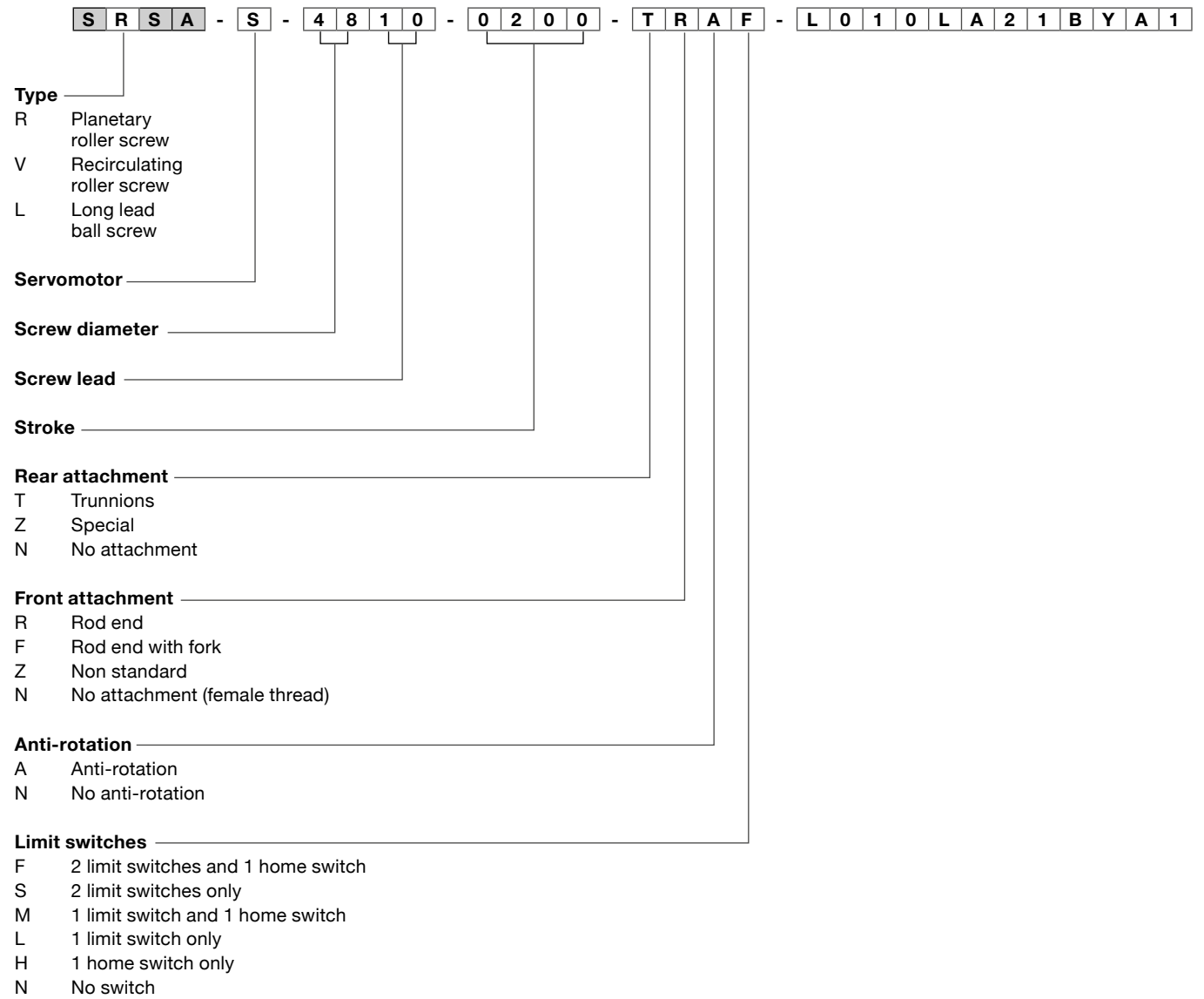


P10LD3 — F_{cont} **P10LD6** — F_{cont}
 - - - F_{peak} - - - F_{peak}

Ordering key
See page 310

Ordering key

Actuator with servo motors



S R S A - S - 4 8 1 0 - 0 2 0 0 - T R A F - L 0 1 0 L A 2 1 B Y A 1

Interface and gear ratio

see page 221

Motor

see page 221

Feedback

- 1 Resolver
- 2 Absolute encoder Hiperface
- 3 Absolute encoder Endat

EM brake

- B Brake 24 V DC
- N No brake

Motor drive

- Y Drive included
- N No drive

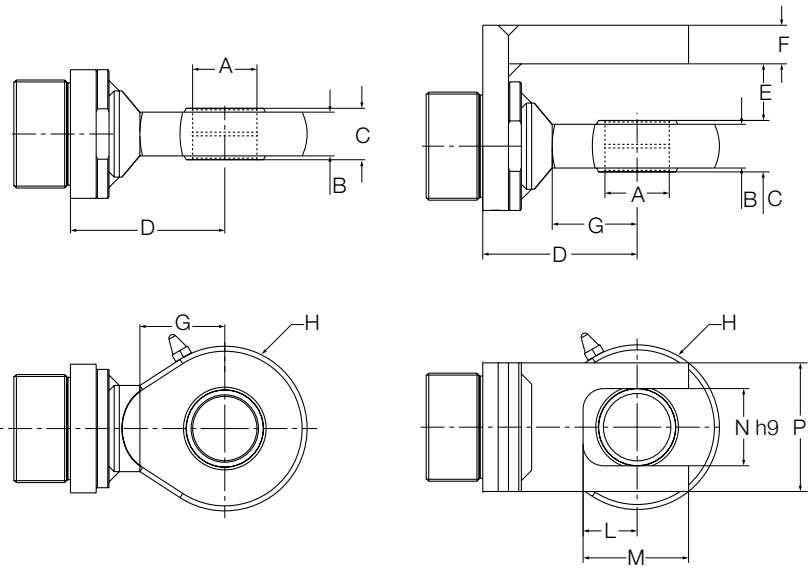
Drive fieldbus

- A CanOpen
- B DeviceNet
- C EtherCAT
- D Ethernet
- E Powerlink MN/CN
- F Powerlink CN
- G Profibus
- H Profinet
- N No fieldbus

Power and signal cables

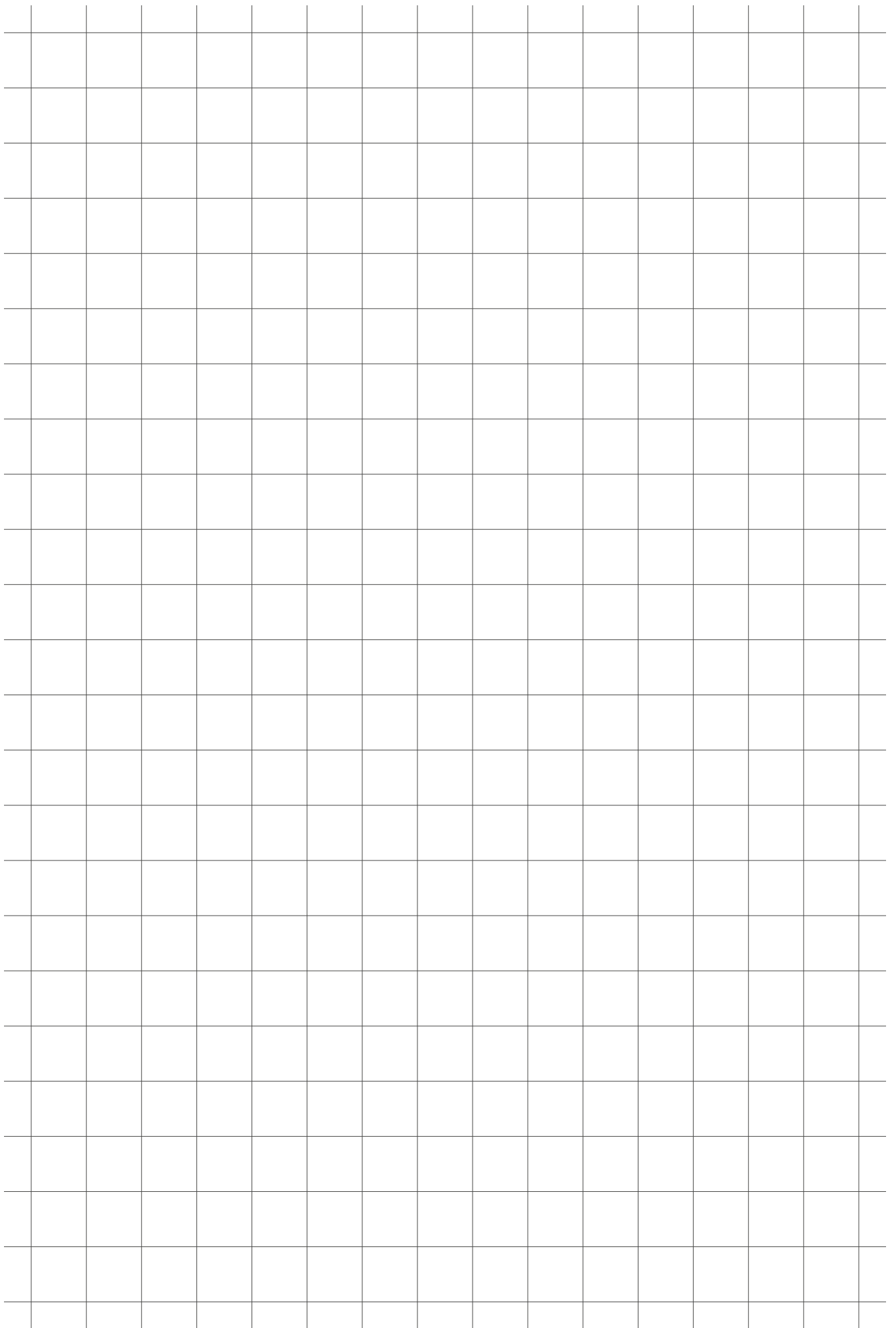
- 1 5 m
- 2 10 m
- 3 15 m
- 4 20 m
- N No cable

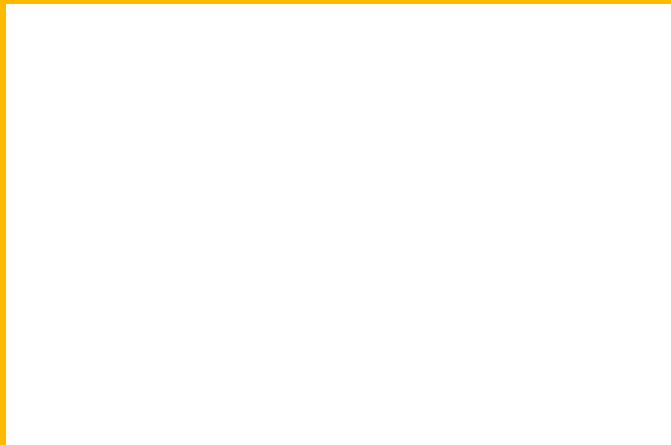
Front attachment



Type	F _{max} kN	A ¹⁾ mm	B	C	D	E	F	G	H	L	M	N	P
SVSA-x-32xx	25	Ø25	17	20 ⁰ _{-0,12}	60	22	15	33	Ø64	21	41	30	50
SVSA-x-40xx/SLSA-x-25xx	33	Ø30	19	22 ⁰ _{-0,12}	71	24	15	37,5	Ø73	23	45	35	60
SRSA-x-39xx/SVSA-x-50xx	46	Ø40	23	28 ⁰ _{-0,12}	89	30	15	48	Ø92	29	58	45	75
SRSA-x-48xx/SLSA-x-40xx	77	Ø50	30	35 ⁰ _{-0,12}	110	38	15	59	Ø112	36	71	55	95
SRSA-x-60xx	117	Ø60	38	44 ⁰ _{-0,12}	122	46	15	72,5	Ø135	43	83	65	115
SRSA-x-75xx	192	Ø80	47	55 ⁰ _{-0,12}	98	50	15	168	Ø180	50	95	85	140

¹⁾ Rod-end inner diameter A tolerance: m6.
Tolerance of axis which will be inserted in rod-end has to be in accordance with recommendations given in Ewellix spherical plain bearings and rod-end catalogue - publication PUB BU/P1 06116/1 EN.





ewellix.com

© Ewellix

All contents of this publication are the property of Ewellix, and may not be reproduced or given to third parties (even extracts) without permission. Although great care has been taken in the production of this catalog, Ewellix does not take any responsibility for damage or other loss resulting from omissions or typographical errors. The photo may differ slightly in appearance from the actual product. Due to continuous improvements being made in our products, the product's appearance and specifications are subject to change without notice.

PUB IL-06011-EN-October 2019

Certain image(s) used under license from Shutterstock.com.
SKF and SKF logo are trademarks of the SKF Group