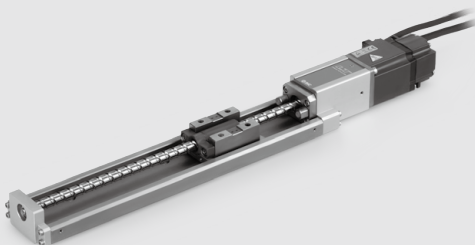


Electric Actuator with Integrated Guide

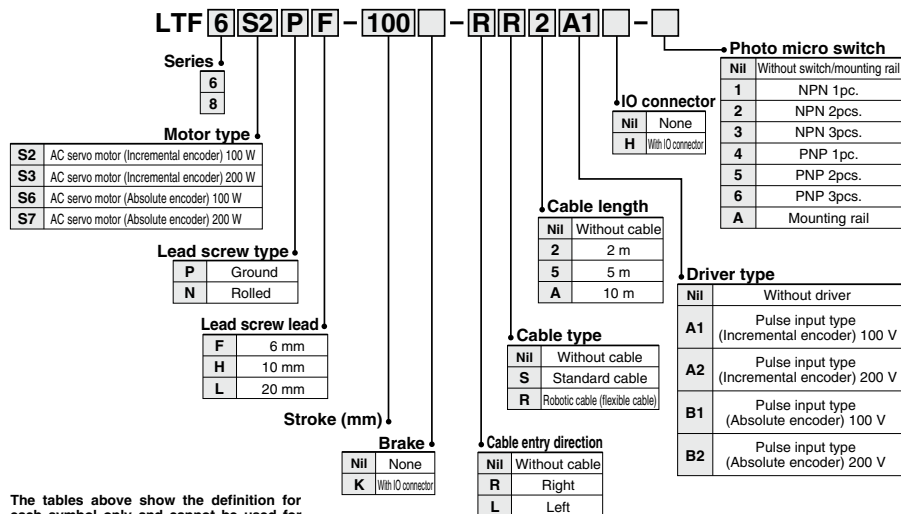
Series LTF



Series	Motor type	Guide type	Mounting orientation	Model	Lead screw lead mm		Page
					Ground ball screw	Rolled ball screw	
LTF	Standard motor	Frame-type linear guide	Horizontal	LTF6	6 10	6 10	Page 848 to
				LTF8	10 20	10 20	Page 856 to
			Vertical	LTF6	6 10	6 10	Page 864 to
				LTF8	10 20	10 20	Page 872 to

- Construction ————— Page 880
- Mounting ————— Page 881
- Deflection Data ————— Page 882

Part Number Designations



- LJ1
- LG1
- LTF
- LECS □
- LXF
- LXP
- LXS
- LC6 □
- LZ □
- LC3F2
- D- □
- E-MY

Standard Motor Horizontal Mount Series LTF6

Motor Output **100 W** Ground Ball Screw $\varnothing 10$ mm/6 mm lead



How to Order

LTF6 S2 PF - 300 - R R 2 A1

Motor type
S2 AC servo motor (Incremental encoder) 100W
S6 AC servo motor (Absolute encoder) 100W

Stroke (mm)
Refer to the standard stroke.

Cable type
Nil Without cable
S Standard cable
R Robotic cable (flexible cable)

Cable length
Nil Without cable
2 2 m
5 5 m
A 10 m

Cable entry direction
Nil Without cable
R Right
L Left

IO connector
Nil None
H With IO connector

Photo micro switch
Nil Without switch/mounting rail
1 NPN 1pc.
2 NPN 2pcs.
3 NPN 3pcs.
4 PNP 1pcs.
5 PNP 2pc.
6 PNP 3pcs.
A Mounting rail

Driver type
Nil Without driver
A1 Pulse input type (Incremental encoder) 100 V
A2 Pulse input type (Incremental encoder) 200 V
B1 Pulse input type (Absolute encoder) 100 V
B2 Pulse input type (Absolute encoder) 200 V

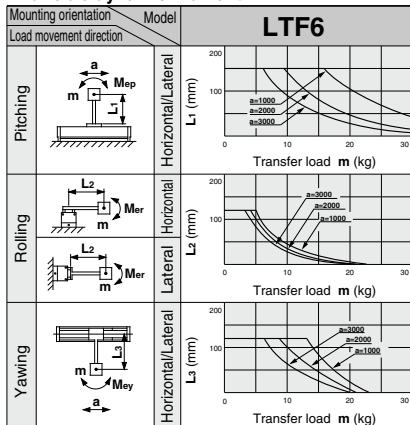
Left entry
Right entry
Motor/switch entry direction

Specifications

		100	200	300	400	500	600
Performance	Standard stroke (mm)	100	200	300	400	500	600
	Body weight (kg)	2.2	2.7	3.2	3.7	4.2	4.7
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	30					
	Maximum speed (mm/s)	300					230
Main parts	Positioning repeatability (mm)	±0.02					
	Motor	AC servo motor (100 W)					
	Encoder	Incremental system/Absolute type					
	Lead screw	Ground ball screw $\varnothing 10$ mm, 6 mm lead					
	Guide	Frame-type linear guide					
	Motor/Screw connection	With coupling					
Switch	Model	Photo micro sensor EE-SX674 (Refer to page 883 for details.)					
Driver	Model	LECS□□□□ (Refer to page 885 for details.)					

Allowable Moment (N·m)

Allowable dynamic moment



Investigation of the regeneration option

Depending on the conditions (speed, addition-subtraction speed, down time, load, etc.), the regeneration option may be required. The results of consideration in each case of maximum load or half load for the product specification are below. Please consult SMC when considering the necessity of the regeneration option.

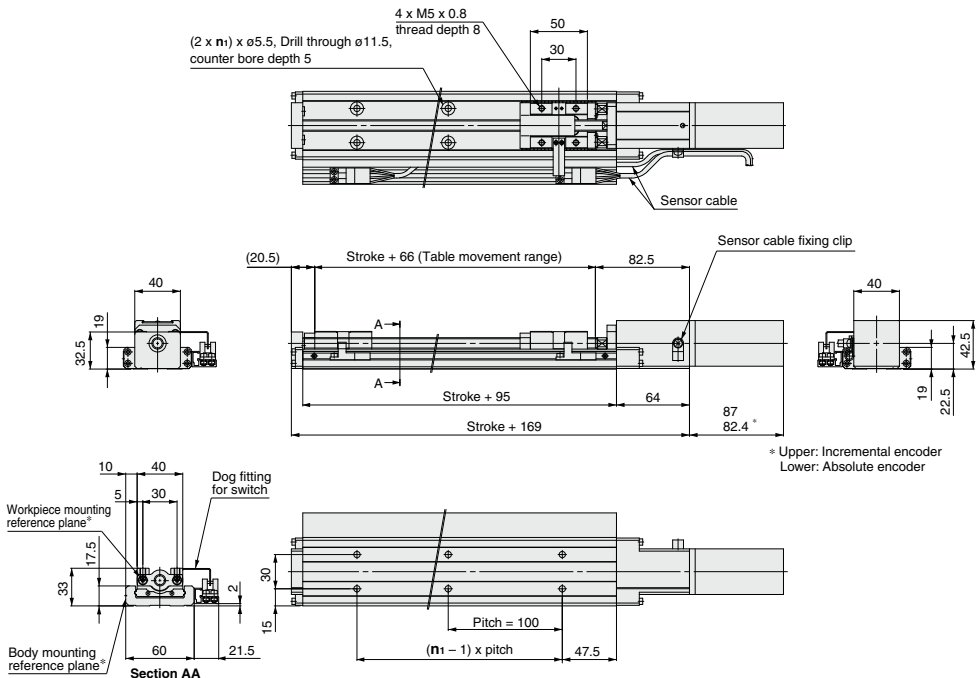
Maximum load

Driver type	Regeneration option model
A1	Not required.
A2	Not required.
B1	Not required.
B2	Not required.

Half load

Driver type	Regeneration option model
A1	Not required.
A2	Not required.
B1	Not required.
B2	Not required.

Dimensions/LTF6□PF



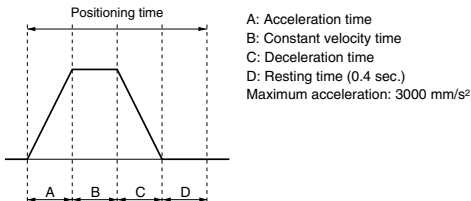
Model	Stroke	n ₁
LTF6□PF-100-□	100	2
LTF6□PF-200-□	200	3
LTF6□PF-300-□	300	4
LTF6□PF-400-□	400	5
LTF6□PF-500-□	500	6
LTF6□PF-600-□	600	7

* The body mounting reference plane and workpiece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 881 for mounting.

Positioning Time Guide

		Positioning time (sec.)					
		1	10	100	300	600	
Speed (mm/s)	10	0.5	1.5	10.5	30.5	60.5	
	100	0.5	0.6	1.5	3.5	6.5	
	150	0.5	0.6	1.2	2.5	4.5	
	300	0.5	0.6	0.9	1.6	2.6	

* Values will vary slightly depending on the operating conditions.



LJ1

LG1

LTF

LECS□

LXF

LXP

LXS

LC6□

LZ□

LC3F2

D-□

E-MY

Standard Motor Horizontal Mount Series LTF6

Motor Output
100 W

Ground Ball Screw
∅10 mm/10 mm lead



How to Order

LTF6 S2 PH - 300 - R R 2 A1

Motor type

S2	AC servo motor (Incremental encoder) 100 W
S6	AC servo motor (Absolute encoder) 100 W

Stroke (mm)
Refer to the standard stroke.

Cable type

Nil	Without cable
S	Standard cable
R	Robotic cable (flexible cable)

Cable length

Nil	Without cable
2	2 m
5	5 m
A	10 m

Cable entry direction

Nil	Without cable
R	Right
L	Left

IO connector

Nil	None
H	With IO connector

Photo micro switch

Nil	Without switch/mounting rail
1	NPN 1pc.
2	NPN 2pcs.
3	NPN 3pcs.
4	PNP 1pc.
5	PNP 2pcs.
6	PNP 3pcs.
A	Mounting rail

Driver type

Nil	Without driver
A1	Pulse input type (Incremental encoder) 100 V
A2	Pulse input type (Incremental encoder) 200 V
B1	Pulse input type (Absolute encoder) 100 V
B2	Pulse input type (Absolute encoder) 200 V

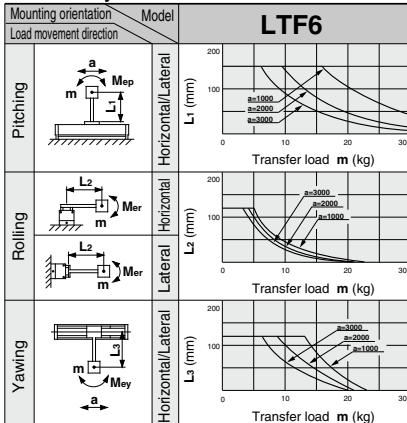
Motor/switch entry direction

Specifications

Standard stroke (mm)		100	200	300	400	500	600
Performance	Body weight (kg)	2.2	2.7	3.2	3.7	4.2	4.7
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	15					
	Maximum speed (mm/s)	500					
	Positioning repeatability (mm)	±0.02					
Main parts	Motor	AC servo motor (100 W)					
	Encoder	Incremental system/Absolute type					
	Lead screw	Ground ball screw ∅10 mm, 10 mm lead					
	Guide	Frame-type linear guide					
	Motor/Screw connection	With coupling					
Switch	Model	Photo micro sensor EE-SX674 (Refer to page 883 for details.)					
Driver	Model	LECS□□□□ (Refer to page 885 for details.)					

Allowable Moment (N·m)

Allowable dynamic moment



Refer to page 882 for deflection data.

Investigation of the regeneration option

Depending on the conditions (speed, addition-subtraction speed, down time, load, etc.), the regeneration option may be required. The results of consideration in each case of maximum load or half load for the product specification are below. Please consult SMC when considering the necessity of the regeneration option.

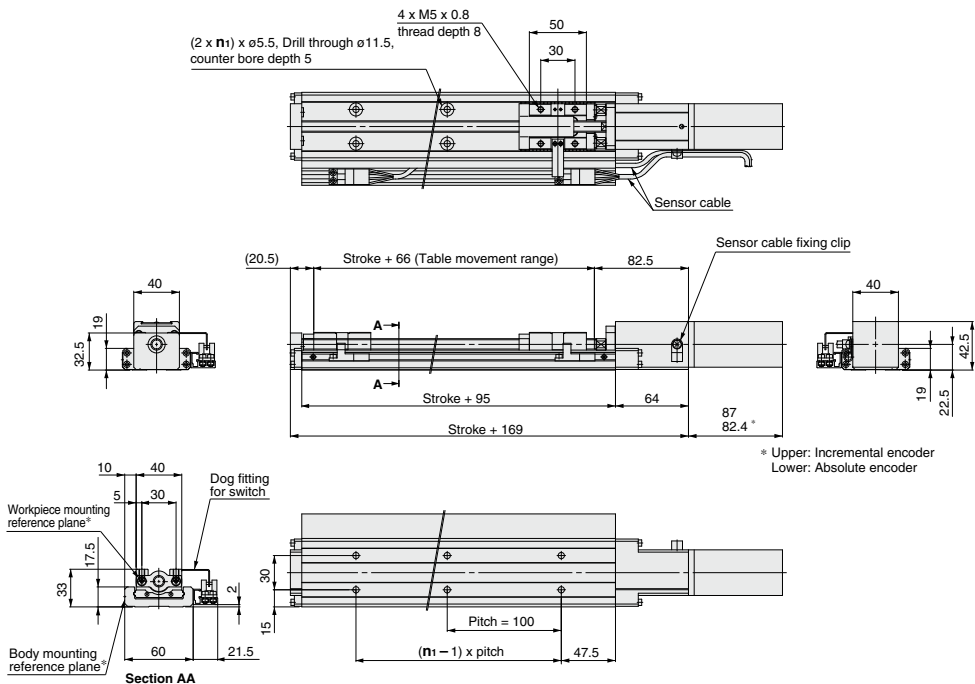
Maximum load

Driver type	Regeneration option model
A1	Not required.
A2	Not required.
B1	Not required.
B2	Not required.

Half load

Driver type	Regeneration option model
A1	Not required.
A2	Not required.
B1	Not required.
B2	Not required.

Dimensions/LTF6□PH



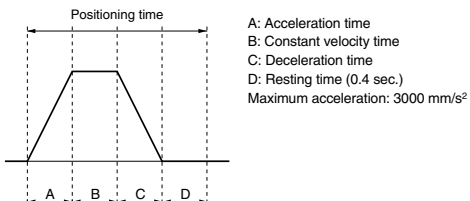
Model	Stroke	n ₁
LTF6□PH-100-□	100	2
LTF6□PH-200-□	200	3
LTF6□PH-300-□	300	4
LTF6□PH-400-□	400	5
LTF6□PH-500-□	500	6
LTF6□PH-600-□	600	7

* The body mounting reference plane and workpiece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 881 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	300	600
Speed (mm/s)	10	0.5	1.5	10.5	30.5	60.5
	100	0.5	0.6	1.5	3.5	6.5
	250	0.5	0.6	0.9	1.7	2.9
	500	0.5	0.6	0.8	1.2	1.8

* Values will vary slightly depending on the operating conditions.



- LJ1
- LG1
- LTF**
- LECS□
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- D-□
- E-MY

Standard Motor Horizontal Mount Series LTF6

Motor Output
100 W

Rolled Ball Screw
 $\varnothing 10$ mm/6 mm lead



How to Order

LTF6 S2 NF - 300 - R R 2 A1

Motor type

S2	AC servo motor (Incremental encoder) 100 W
S6	AC servo motor (Absolute encoder) 100 W

Stroke (mm)
Refer to the standard stroke.

Motor type

Nil	Without cable
S	Standard cable
R	Robotic cable (flexible cable)

Cable length

Nil	Without cable
2	2 m
5	5 m
A	10 m

Cable entry direction

Nil	Without cable
R	Right
L	Left

IO connector

Nil	None
H	With IO connector

Photo micro switch

Nil	Without switch/mounting rail
1	NPN 1pc.
2	NPN 2pcs.
3	NPN 3pcs.
4	PNP 1pc.
5	PNP 2pcs.
6	PNP 3pcs.
A	Mounting rail

Driver type

Nil	Without driver
A1	Pulse input type (Incremental encoder) 100 V
A2	Pulse input type (Incremental encoder) 200 V
B1	Pulse input type (Absolute encoder) 100 V
B2	Pulse input type (Absolute encoder) 200 V

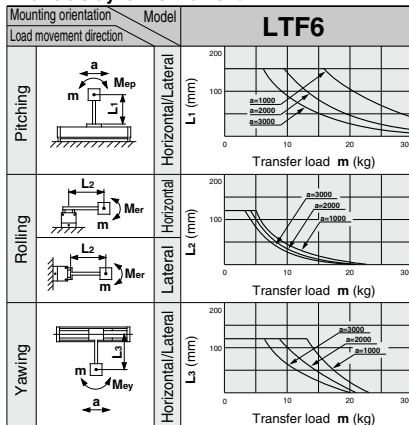
Left entry
Right entry
Motor/switch entry direction

Specifications

		Standard stroke (mm)	100	200	300	400	500	600
Performance	Body weight (kg)		2.2	2.7	3.2	3.7	4.2	4.7
	Operating temperature range (°C)		5 to 40 (No condensation)					
	Work load (kg)		30					
	Maximum speed (mm/s)		300					
	Positioning repeatability (mm)		±0.05					
Main parts	Motor		AC servo motor (100 W)					
	Encoder		Incremental system/Absolute type					
	Lead screw		Rolled ball screw $\varnothing 10$ mm, 6 mm lead					
	Guide		Frame-type linear guide					
	Motor/Screw connection		With coupling					
Switch	Model		Photo micro sensor EE-SX674 (Refer to page 883 for details.)					
Driver	Model		LECS□□□□ (Refer to page 885 for details.)					

Allowable Moment (N·m)

Allowable dynamic moment



Investigation of the regeneration option

Depending on the conditions (speed, addition-subtraction speed, down time, load, etc.), the regeneration option may be required. The results of consideration in each case of maximum load or half load for the product specification are below. Please consult SMC when considering the necessity of the regeneration option.

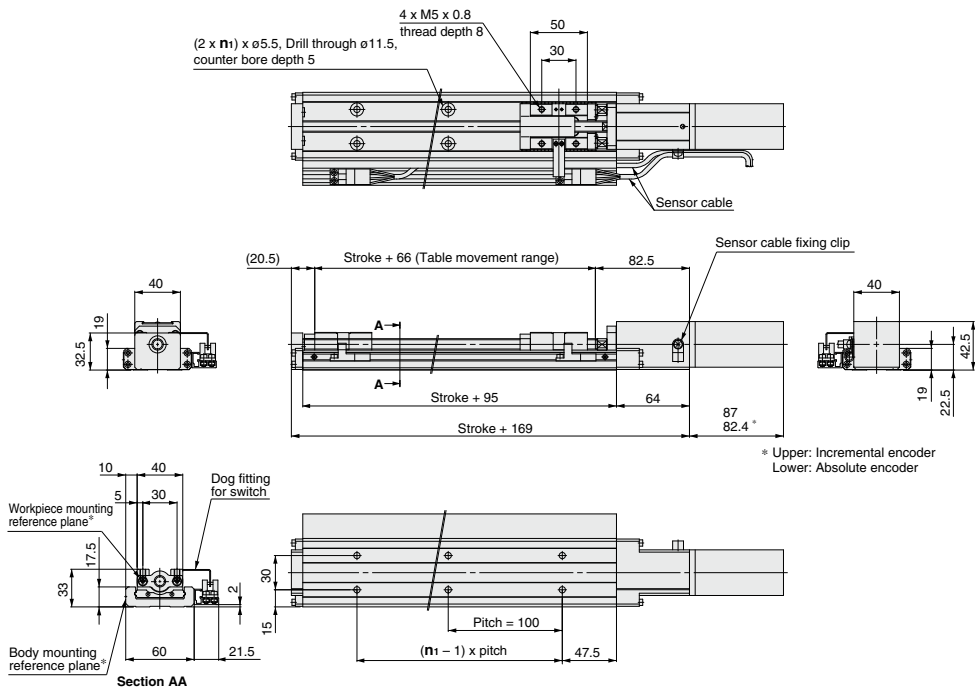
Maximum load

Driver type	Regeneration option model
A1	Not required.
A2	Not required.
B1	Not required.
B2	Not required.

Half load

Driver type	Regeneration option model
A1	Not required.
A2	Not required.
B1	Not required.
B2	Not required.

Dimensions/LTF6□NF



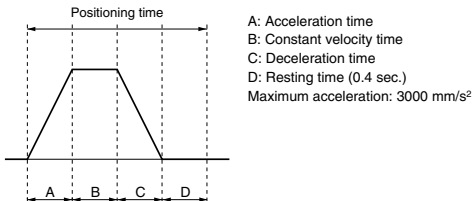
Model	Stroke	n ₁
LTF6□NF-100-□	100	2
LTF6□NF-200-□	200	3
LTF6□NF-300-□	300	4
LTF6□NF-400-□	400	5
LTF6□NF-500-□	500	6
LTF6□NF-600-□	600	7

* The body mounting reference plane and workpiece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 881 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	300	600
Speed (mm/s)	10	0.5	1.5	10.5	30.5	60.5
	100	0.5	0.6	1.5	3.5	6.5
	150	0.5	0.6	1.2	2.5	4.5
	300	0.5	0.6	0.9	1.6	2.6

* Values will vary slightly depending on the operating conditions.



- LJ1
- LG1
- LTF**
- LECS□
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- D-□
- E-MY

Standard Motor Horizontal Mount Series LTF6

Motor Output
100 W

Rolled Ball Screw
∅10 mm/10 mm lead



How to Order

LTF6 S2 NH-300-R R 2 A1

Motor type

S2	AC servo motor (Incremental encoder) 100 W
S6	AC servo motor (Absolute encoder) 100 W

Stroke (mm)
Refer to the standard stroke.

Cable type

Nil	Without cable
S	Standard cable
R	Robotic cable (flexible cable)

Cable length

Nil	Without cable
2	2 m
5	5 m
A	10 m

IO connector

Nil	None
H	With IO connector

Photo micro switch

Nil	Without switch/mounting rail
1	NPN 1pc.
2	NPN 2pcs.
3	NPN 3pcs.
4	PNP 1pc.
5	PNP 2pcs.
6	PNP 3pcs.
A	Mounting rail

Driver type

Nil	Without driver
A1	Pulse input type (Incremental encoder) 100 V
A2	Pulse input type (Incremental encoder) 200 V
B1	Pulse input type (Absolute encoder) 100 V
B2	Pulse input type (Absolute encoder) 200 V

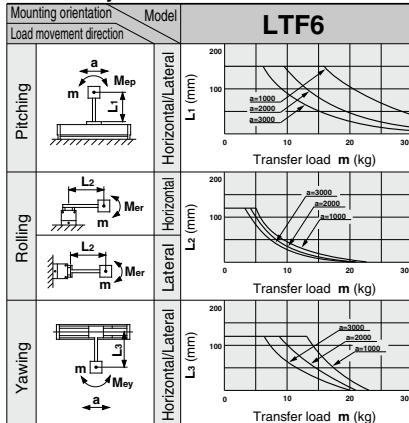
Motor/switch entry direction

Specifications

Performance	Standard stroke (mm)	100	200	300	400	500	600
	Body weight (kg)	2.2	2.7	3.2	3.7	4.2	4.7
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	15					
	Maximum speed (mm/s)	500					
Main parts	Positioning repeatability (mm)	±0.05					
	Motor	AC servo motor (100 W)					
	Encoder	Incremental system/Absolute type					
	Lead screw	Rolled ball screw ∅10 mm, 10 mm lead					
	Guide	Frame-type linear guide					
Switch	Motor/Screw connection	With coupling					
	Model	Photo micro sensor EE-SX674 (Refer to page 883 for details.)					
Driver	Model	LECS□□□□ (Refer to page 885 for details.)					

Allowable Moment (N·m)

Allowable dynamic moment



Investigation of the regeneration option

Depending on the conditions (speed, addition-subtraction speed, down time, load, etc.), the regeneration option may be required. The results of consideration in each case of maximum load or half load for the product specification are below. Please consult SMC when considering the necessity of the regeneration option.

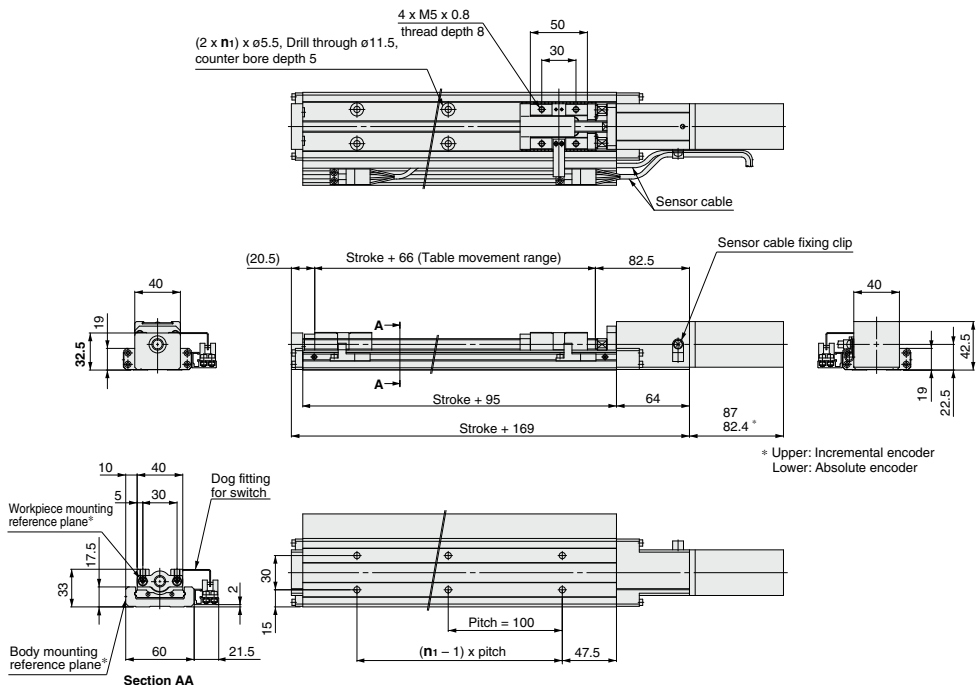
Maximum load

Driver type	Regeneration option model
A1	Not required.
A2	Not required.
B1	Not required.
B2	Not required.

Half load

Driver type	Regeneration option model
A1	Not required.
A2	Not required.
B1	Not required.
B2	Not required.

Dimensions/LTF6□NH



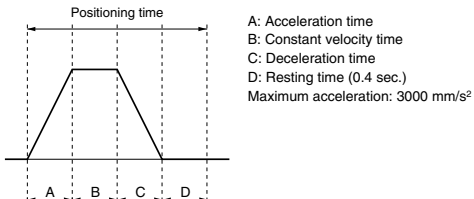
Model	Stroke	n ₁
LTF6□NH-100-□	100	2
LTF6□NH-200-□	200	3
LTF6□NH-300-□	300	4
LTF6□NH-400-□	400	5
LTF6□NH-500-□	500	6
LTF6□NH-600-□	600	7

* The body mounting reference plane and workpiece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 881 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	300	600
Speed (mm/s)	10	0.5	1.5	10.5	30.5	60.5
	100	0.5	0.6	1.5	3.5	6.5
	250	0.5	0.6	0.9	1.7	2.9
	500	0.5	0.6	0.8	1.2	1.8

* Values will vary slightly depending on the operating conditions.



- LJ1
- LG1
- LTF**
- LECS□
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- D-□
- E-MY

Standard Motor Vertical Mount Series LTF6

Motor Output **100 W** Ground Ball Screw $\varnothing 10$ mm/6 mm lead



How to Order

LTF6 S2 PF - 300 K - R R 2 A1

Motor type
S2 AC servo motor (Incremental encoder) 100 W
S6 AC servo motor (Absolute encoder) 100 W

Stroke (mm)
 Refer to the standard stroke.

Cable type
Nil Without cable
S Standard cable
R Robotic cable (flexible cable)

Cable length
Nil Without cable
2 2 m
5 5 m
A 10 m

Cable entry direction
Nil Without cable
R Right
L Left

IO connector
Nil None
H With IO connector

Photo micro switch

Nil	Without switch/mounting rail
1	NPN 1pc.
2	NPN 2pcs.
3	NPN 3pcs.
4	PNP 1pc.
5	PNP 2pcs.
6	PNP 3pcs.
A	Mounting rail

Driver type

Nil	Without driver
A1	Pulse input type (Incremental encoder) 100 V
A2	Pulse input type (Incremental encoder) 200 V
B1	Pulse input type (Absolute encoder) 100 V
B2	Pulse input type (Absolute encoder) 200 V

Left entry
Right entry
Motor/switch entry direction

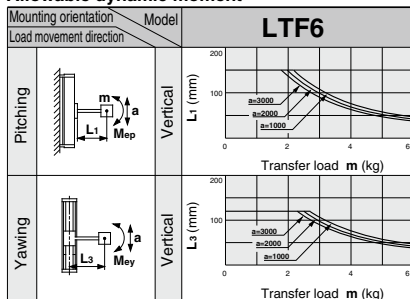
Specifications

Standard stroke (mm)		100	200	300	400	500	600
Performance	Body weight (kg)	2.4	2.9	3.4	3.9	4.4	4.9
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	6					
	Maximum speed (mm/s)	300					230
	Positioning repeatability (mm)	±0.02					
Main parts	Motor	AC servo motor (100 W) with lock					
	Encoder	Incremental system/Absolute type					
	Lead screw	Ground ball screw $\varnothing 10$ mm, 6 mm lead					
	Guide	Frame-type linear guide					
Switch	Motor/Screw connection	With coupling					
	Model	Photo micro sensor EE-SX674 (Refer to page 883 for details.)					
Driver	Model	LECS□□□□ (Refer to page 885 for details.)					

Note) When using this product, the regeneration option may be required.

Allowable Moment (N·m)

Allowable dynamic moment



m : Transfer load (kg) Me : Allowable dynamic moment
 a : Workpiece acceleration (mm/s²) L : Overhang to workpiece center of gravity (mm)

Refer to page 882 for deflection data.

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Investigation of the regeneration option

Depending on the conditions (speed, addition-subtraction speed, down time, load, etc.), the regeneration option may be required.

The results of consideration in each case of maximum load or half load for the product specification are below.

Please consult SMC when considering the necessity of the regeneration option.

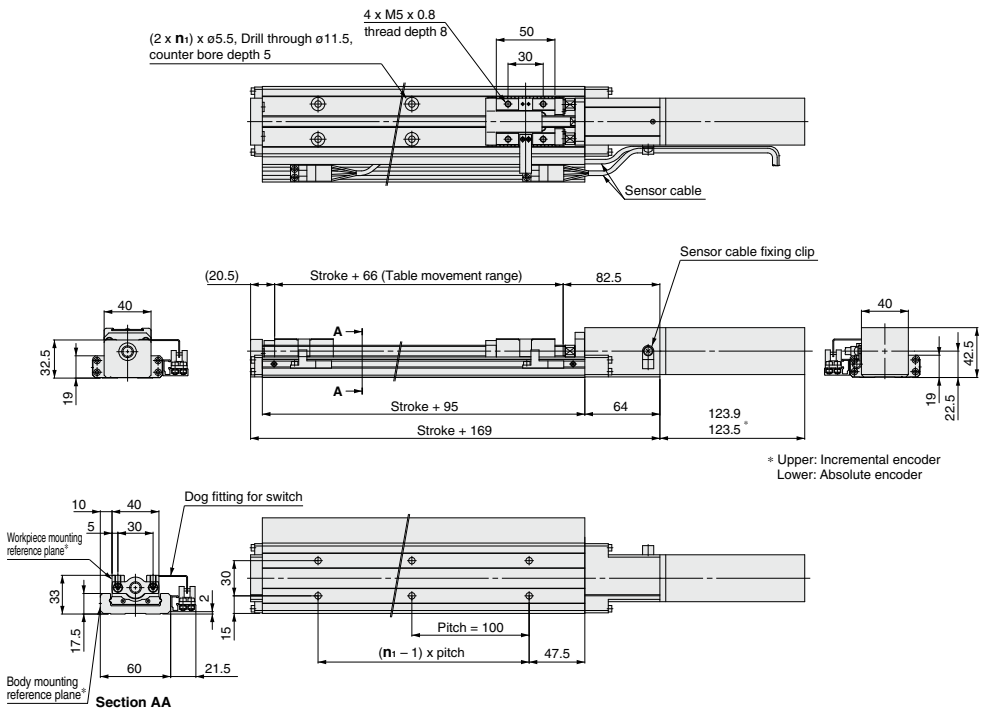
Maximum load

Driver type	Regeneration option model
A1	LEC-MR-RB-032
A2	LEC-MR-RB-032
B1	LEC-MR-RB-032
B2	LEC-MR-RB-032

Half load

Driver type	Regeneration option model
A1	LEC-MR-RB-032
A2	LEC-MR-RB-032
B1	LEC-MR-RB-032
B2	LEC-MR-RB-032

Dimensions/LTF6□PF



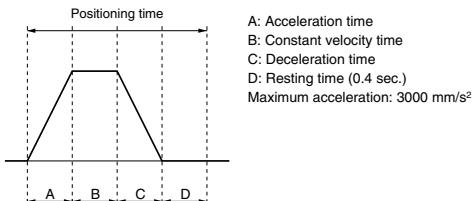
Model	Stroke	n ₁
LTF6□PF-100K-□	100	2
LTF6□PF-200K-□	200	3
LTF6□PF-300K-□	300	4
LTF6□PF-400K-□	400	5
LTF6□PF-500K-□	500	6
LTF6□PF-600K-□	600	7

* The body mounting reference plane and workpiece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 881 for mounting.

Positioning Time Guide

Positioning distance (mm)	Positioning time (sec.)				
	1	10	100	300	600
Speed (mm/s)					
10	0.5	1.5	10.5	30.5	60.5
100	0.5	0.6	1.5	3.5	6.5
150	0.5	0.6	1.2	2.5	4.5
300	0.5	0.6	0.9	1.6	2.6

* Values will vary slightly depending on the operating conditions.



LJ1

LG1

LTF

LECS□

LXF

LXP

LXS

LC6□

LZ□

LC3F2

D-□

E-MY

Standard Motor Vertical Mount

Series LTF6

Motor Output
100 W

Ground Ball Screw
∅10 mm/10 mm lead



How to Order

LTF6 **S2** **PH** - **300** **K** - **R** **R** **2** **A1** - -

Motor type

S2	AC servo motor (Incremental encoder) 100 W
S6	AC servo motor (Absolute encoder) 100 W

Stroke (mm)
Refer to the standard stroke.

Cable type

Nil	Without cable
S	Standard cable
R	Robotic cable (flexible cable)

Cable length

Cable entry direction

Nil	Without cable
R	Right
L	Left

Nil	Without cable
2	2 m
5	5 m
A	10 m

IO connector

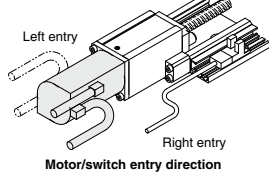
Nil	None
H	With IO connector

Driver type

Nil	Without driver
A1	Pulse input type (Incremental encoder) 100 V
A2	Pulse input type (Incremental encoder) 200 V
B1	Pulse input type (Absolute encoder) 100 V
B2	Pulse input type (Absolute encoder) 200 V

Photo micro switch

Nil	Without switch/mounting rail
1	NPN 1pc.
2	NPN 2pcs.
3	NPN 3pcs.
4	PNP 1pc.
5	PNP 2pcs.
6	PNP 3pcs.
A	Mounting rail



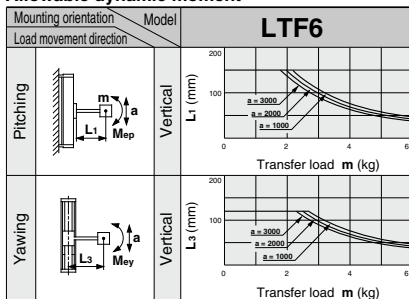
Specifications

Standard stroke (mm)		100	200	300	400	500	600
Performance	Body weight (kg)	2.4	2.9	3.4	3.9	4.4	4.9
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	3					
	Maximum speed (mm/s)	500					
	Positioning repeatability (mm)	±0.02					
Main parts	Motor	AC servo motor (100 W) with lock					
	Encoder	Incremental system/Absolute type					
	Lead screw	Ground ball screw ∅10 mm, 10 mm lead					
	Guide	Frame-type linear guide					
Motor/Screw connection	With coupling						
Switch	Model	Photo micro sensor EE-SX883 (Refer to page 883 for details.)					
Driver	Model	LECS□□□□ (Refer to page 885 for details.)					

Note) When using this product, the regeneration option may be required.

Allowable Moment (N·m)

Allowable dynamic moment



m : Transfer load (kg) Me : Allowable dynamic moment
a : Workpiece acceleration (mm/s²) L : Overhang to workpiece center of gravity (mm)
Refer to page 882 for deflection data.

866

Investigation of the regeneration option

Depending on the conditions (speed, addition-subtraction speed, down time, load, etc.), the regeneration option may be required. The results of consideration in each case of maximum load or half load for the product specification are below. Please consult SMC when considering the necessity of the regeneration option.

Maximum load

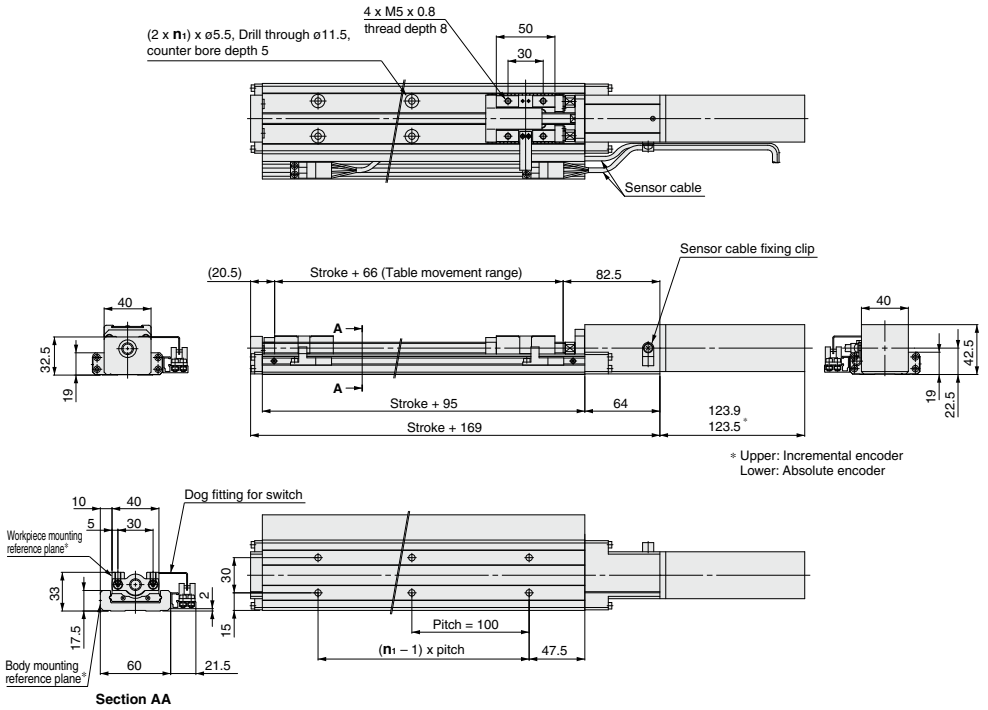
Driver type	Regeneration option model
A1	LEC-MR-RB-032
A2	LEC-MR-RB-032
B1	LEC-MR-RB-032
B2	LEC-MR-RB-032

Half load

Driver type	Regeneration option model
A1	Not required.
A2	Not required.
B1	Not required.
B2	Not required.



Dimensions/LTF6□PH



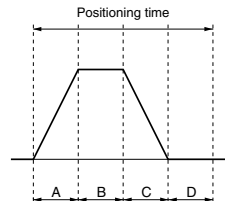
Model	Stroke	n ₁
LTF6□PH-100K-□	100	2
LTF6□PH-200K-□	200	3
LTF6□PH-300K-□	300	4
LTF6□PH-400K-□	400	5
LTF6□PH-500K-□	500	6
LTF6□PH-600K-□	600	7

* The body mounting reference plane and workpiece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 881 for mounting.

Positioning Time Guide

Positioning distance (mm)	Positioning time (sec.)					
	1	10	100	300	600	
Speed (mm/s)	10	0.5	1.5	10.5	30.5	60.5
	100	0.5	0.6	1.5	3.5	6.5
	250	0.5	0.6	0.9	1.7	2.9
	500	0.5	0.6	0.8	1.2	1.8

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.4 sec.)
 Maximum acceleration: 3000 mm/s²

- LJ1
- LG1
- LTF**
- LECS□
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- D-□
- E-MY

Standard Motor Vertical Mount

Series LTF6

Motor Output

100 W

Rolled Ball Screw

∅10 mm/6 mm lead



How to Order

LTF6 **S2** **NF** - **300** **K** - **R** **R** **2** **A1** - -

S2	AC servo motor (Incremental encoder) 100 W
S6	AC servo motor (Absolute encoder) 100 W

Motor type

Stroke (mm)
Refer to the standard stroke.

Cable type

Nil	Without cable
S	Standard cable
R	Robotic cable (flexible cable)

Cable length

Nil	Without cable
2	2 m
5	5 m
A	10 m

Cable entry direction

Nil	Without cable
R	Right
L	Left

IO connector

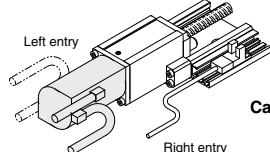
Nil	None
H	With IO connector

Driver type

Nil	Without driver
A1	Pulse input type (Incremental encoder) 100 V
A2	Pulse input type (Incremental encoder) 200 V
B1	Pulse input type (Absolute encoder) 100 V
B2	Pulse input type (Absolute encoder) 200 V

Photo micro switch

Nil	Without switch/mounting rail
1	NPN 1pc.
2	NPN 2pcs.
3	NPN 3pcs.
4	PNP 1pc.
5	PNP 2pcs.
6	PNP 3pcs.
A	Mounting rail



Motor/switch entry direction

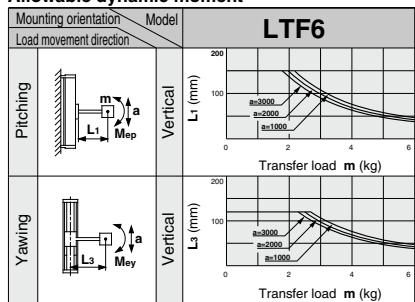
Specifications

Standard stroke (mm)		100	200	300	400	500	600
Performance	Body weight (kg)	2.4	2.9	3.4	3.9	4.4	4.9
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	6					
	Maximum speed (mm/s)	300					230
	Positioning repeatability (mm)	±0.05					
Main parts	Motor	AC servo motor (100 W) with lock					
	Encoder	Incremental system/Absolute type					
	Lead screw	Rolled ball screw ∅10 mm, 6 mm lead					
	Guide	Frame-type linear guide					
Switch	Motor/Screw connection	With coupling					
	Model	Photo micro sensor EE-SX883 (Refer to page 883 for details.)					
Driver	Model	LECS□□□□ (Refer to page 885 for details.)					

Note) When using this product, the regeneration option may be required.

Allowable Moment (N·m)

Allowable dynamic moment



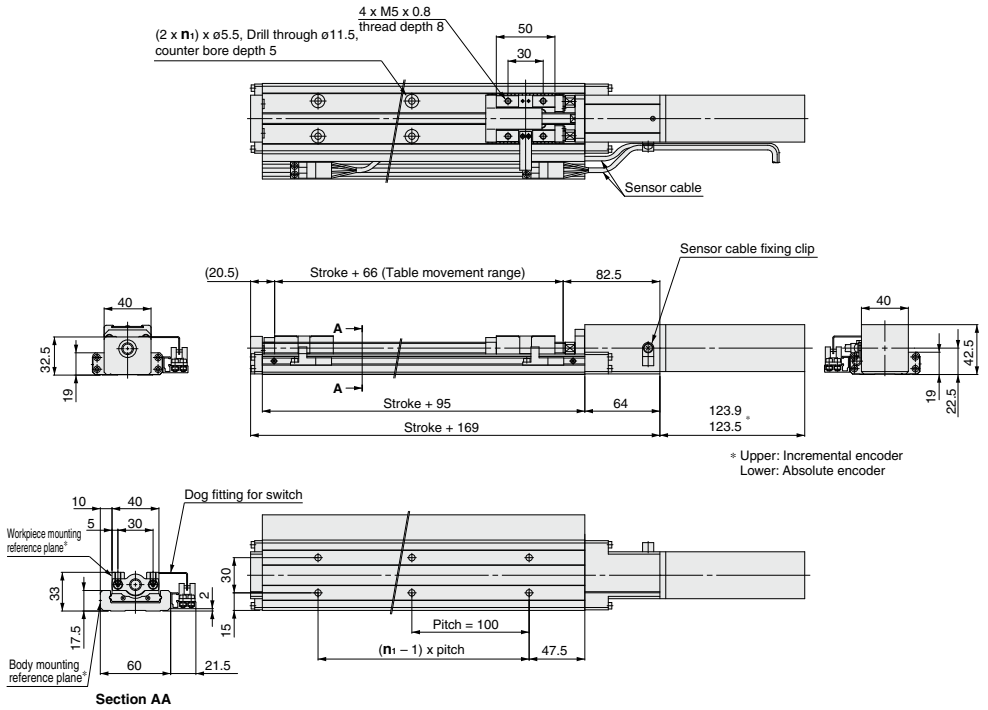
m : Transfer load (kg) Me : Allowable dynamic moment
 a : Workpiece acceleration (mm/s²) L : Overhang to workpiece center of gravity (mm)
 Refer to page 882 for deflection data.

Investigation of the regeneration option

Depending on the conditions (speed, addition-subtraction speed, down time, load, etc.), the regeneration option may be required. The results of consideration in each case of maximum load or half load for the product specification are below. Please consult SMC when considering the necessity of the regeneration option.

Maximum load		Half load	
Driver type	Regeneration option model	Driver type	Regeneration option model
A1	LEC-MR-RB-032	A1	LEC-MR-RB-032
A2	LEC-MR-RB-032	A2	LEC-MR-RB-032
B1	LEC-MR-RB-032	B1	LEC-MR-RB-032
B2	LEC-MR-RB-032	B2	LEC-MR-RB-032

Dimensions/LTF6□NF



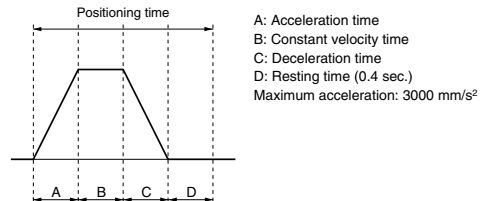
Model	Stroke	n ₁
LTF6□NF-100K-□	100	2
LTF6□NF-200K-□	200	3
LTF6□NF-300K-□	300	4
LTF6□NF-400K-□	400	5
LTF6□NF-500K-□	500	6
LTF6□NF-600K-□	600	7

* The body mounting reference plane and workpiece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 881 for mounting.

Positioning Time Guide

Positioning distance (mm)	Positioning time (sec.)					
	1	10	100	300	600	
Speed (mm/s)	10	0.5	1.5	10.5	30.5	60.5
	100	0.5	0.6	1.5	3.5	6.5
	150	0.5	0.6	1.2	2.5	4.5
	300	0.5	0.6	0.9	1.6	2.6

* Values will vary slightly depending on the operating conditions.



- LJ1
- LG1
- LTF**
- LECS□
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- D-□
- E-MY

Standard Motor Vertical Mount

Series LTF6

Motor Output

100 W

Rolled Ball Screw

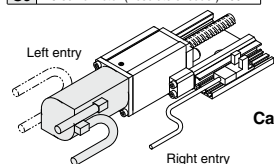
∅10 mm/10 mm lead



How to Order

LTF6 S2 NH - 300 K - R R 2 A1 - -

S2	AC servo motor (Incremental encoder) 100 W
S6	AC servo motor (Absolute encoder) 100 W



Motor/switch entry direction

Motor type

Stroke (mm)
Refer to the standard stroke.

Cable type

Nil	Without cable
S	Standard cable
R	Robotic cable (flexible cable)

Cable length

Nil	Without cable
2	2 m
5	5 m
A	10 m

Cable entry direction

Nil	Without cable
R	Right
L	Left

IO connector

Nil	None
H	With IO connector

Driver type

Nil	Without driver
A1	Pulse input type (Incremental encoder) 100 V
A2	Pulse input type (Incremental encoder) 200 V
B1	Pulse input type (Absolute encoder) 100 V
B2	Pulse input type (Absolute encoder) 200 V

Photo micro switch

Nil	Without switch/mounting rail
1	NPN 1pc.
2	NPN 2pcs.
3	NPN 3pcs.
4	PNP 1pc.
5	PNP 2pcs.
6	PNP 3pcs.
A	Mounting rail

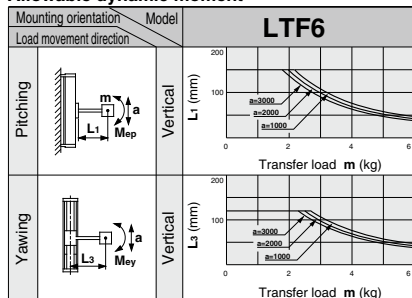
Specifications

Standard stroke (mm)		100	200	300	400	500	600
Performance	Body weight (kg)	2.4	2.9	3.4	3.9	4.4	4.9
	Operating temperature range (°C)	5 to 40 (No condensation)					
	Work load (kg)	3					
	Maximum speed (mm/s)	500					390
	Positioning repeatability (mm)	±0.05					
Main parts	Motor	AC servo motor (100 W) with lock					
	Encoder	Incremental system/Absolute type					
	Lead screw	Rolled ball screw ∅10 mm, 10 mm lead					
	Guide	Frame-type linear guide					
	Motor/Screw connection	With coupling					
Switch	Model	Photo micro sensor EE-SX674 (Refer to page 883 for details.)					
Driver	Model	LECS□□□□ (Refer to page 885 for details.)					

Note) When using this product, the regeneration option may be required.

Allowable Moment (N·m)

Allowable dynamic moment



m : Transfer load (kg) Me : Allowable dynamic moment
a : Workpiece acceleration (mm/s²) L : Overhang to workpiece center of gravity (mm)

Refer to page 882 for deflection data.

Investigation of the regeneration option

Depending on the conditions (speed, addition-subtraction speed, down time, load, etc.), the regeneration option may be required.

The results of consideration in each case of maximum load or half load for the product specification are below.

Please consult SMC when considering the necessity of the regeneration option.

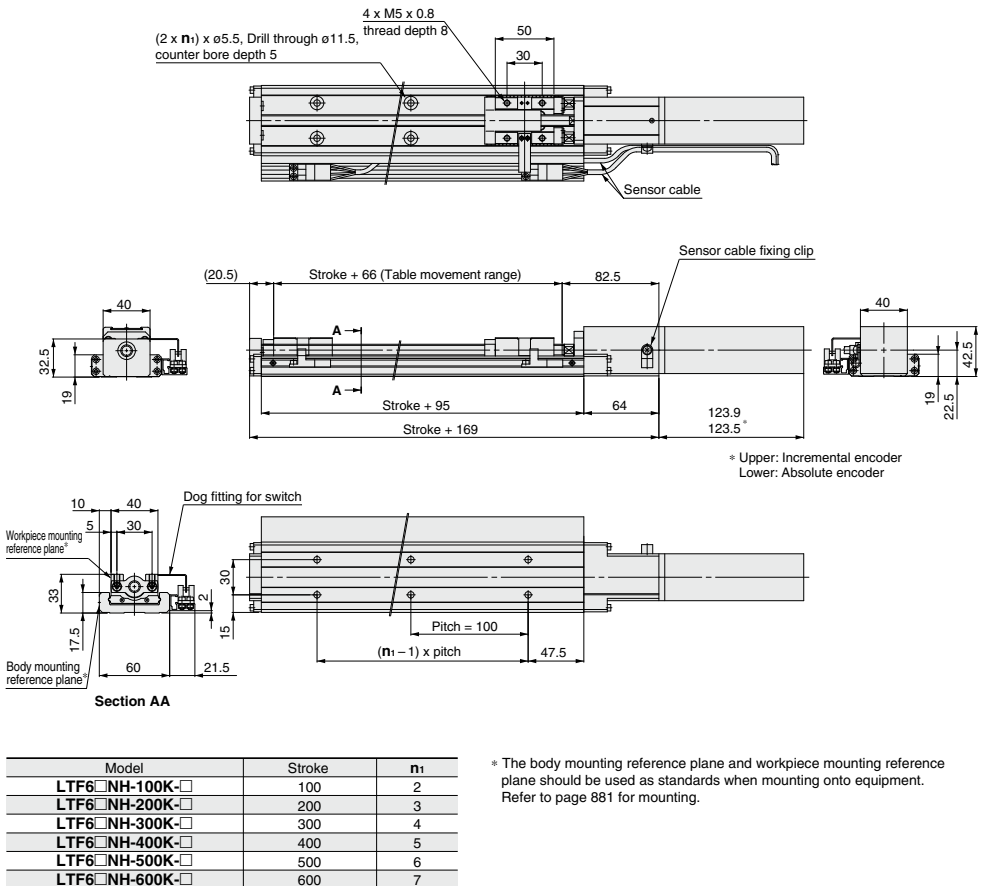
Maximum load

Driver type	Regeneration option model
A1	LEC-MR-RB-032
A2	LEC-MR-RB-032
B1	LEC-MR-RB-032
B2	LEC-MR-RB-032

Half load

Driver type	Regeneration option model
A1	Not required.
A2	Not required.
B1	Not required.
B2	Not required.

Dimensions/LTF6□NH

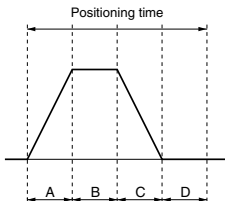


- LJ1
- LG1
- LTF**
- LECS□
- LXF
- LXP
- LXS
- LC6□
- LZ□
- LC3F2
- D-□
- E-MY

Positioning Time Guide

Positioning distance (mm)	Positioning time (sec.)					
	1	10	100	300	600	
Speed (mm/s)						
10	0.5	1.5	10.5	30.5	60.5	
100	0.5	0.6	1.5	3.5	6.5	
250	0.5	0.6	0.9	1.7	2.9	
500	0.5	0.6	0.8	1.2	1.8	

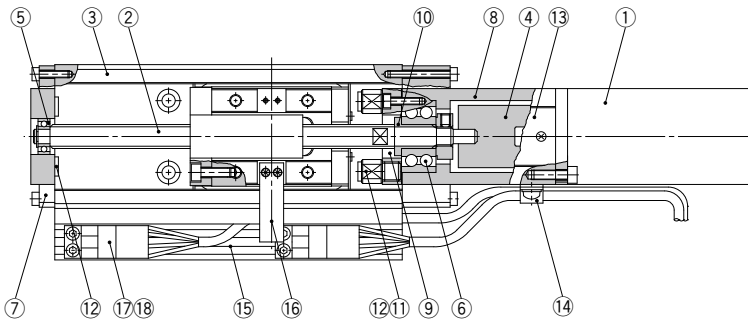
* Values will vary slightly depending on the operating conditions.



Series LTF Construction

Construction

LTF6/LTF8



Parts list

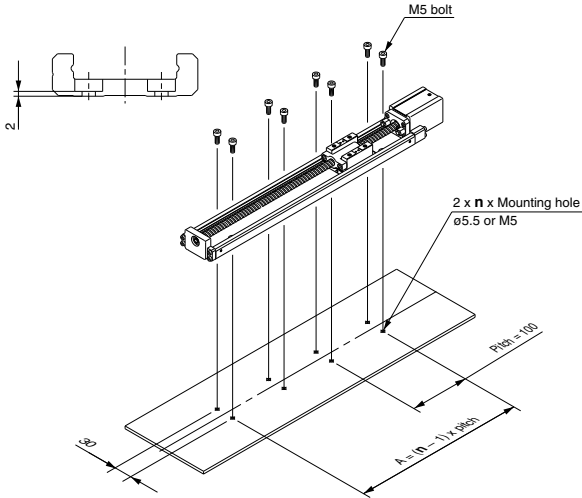
No.	Description	Material	Note
1	AC servo motor	—	100/200 W
2	Lead screw	—	Ball screw
3	Frame-type linear guide	—	
4	Coupling	—	
5	Bearing R	—	
6	Bearing F	—	
7	Housing A	Aluminum alloy	
8	Housing B	Aluminum alloy	
9	Bearing retainer	Carbon steel	

No.	Description	Material	Note
10	Spacer	Stainless steel	
11	Bumper bolt	Alloy steel	
12	Bumper	Resin	
13	Housing plate	Mild steel	
14	Cable clip	Resin	
15	Photo micro sensor rail	Aluminum alloy	
16	Dog fitting for switch	Mild steel	Chromate
17	Photo micro sensor		
18	Connector cable for sensor		

Series LTF Mounting

Top Mount

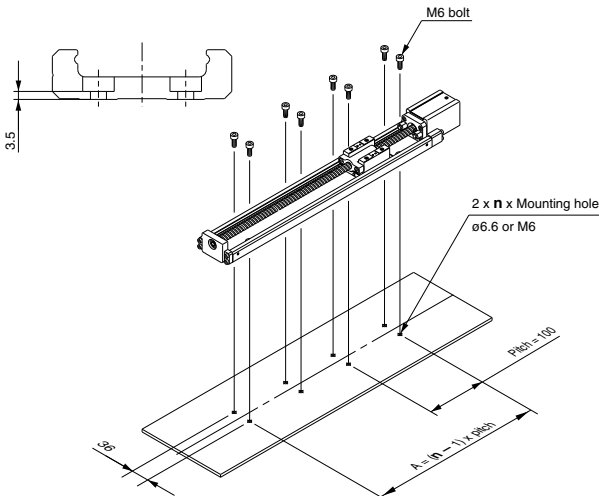
LTF6



Mounting hole quantity

Stroke	n	Quantity
100	2	4
200	3	6
300	4	8
400	5	10
500	6	12
600	7	14

LTF8



Mounting hole quantity

Stroke	n	Quantity	Stroke	n	Quantity
100	2	4	600	7	14
200	3	6	700	8	16
300	4	8	800	9	18
400	5	10	900	10	20
500	6	12	1000	11	22

LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

Series LTF

Deflection Data

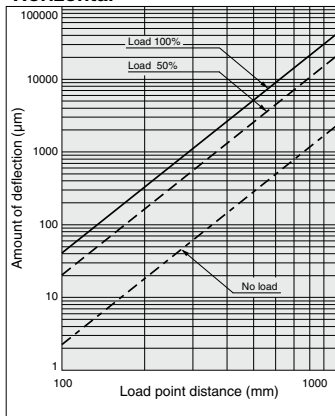
Deflection Data

* Calculated values based on the body's sectional secondary moment.

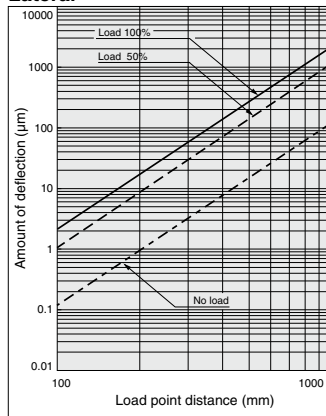
The load and the amount of deflection at load point W are shown in the graphs below for each series.

LTF6

Horizontal

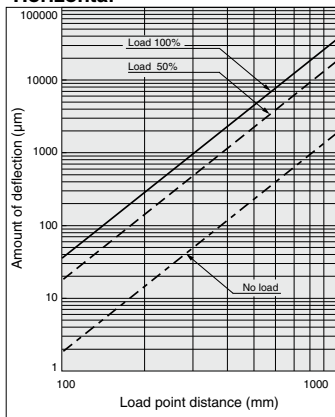


Lateral

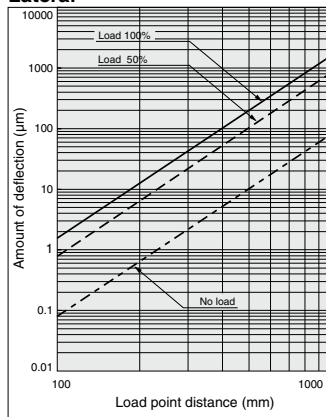


LTF8

Horizontal



Lateral



With single end support and table moved to the end of the stroke

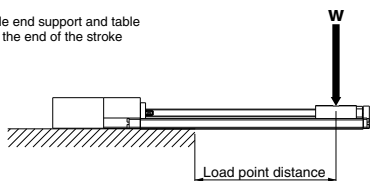


Figure 1. Horizontal

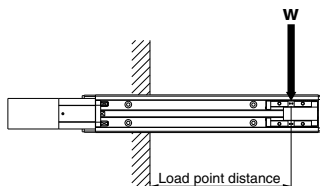


Figure 2. Lateral

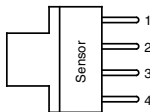
Series LTF/Switches Photo Micro Sensor



Standard Photo Micro Sensor for Home Position (OMRON Corporation)

Rating

Power supply voltage	5 to 24 VDC $\pm 10\%$, Ripple (p-p) 10% or less	
Current consumption	35 mA or less	
Control output	5 to 24 VDC load current (Ic) 100 mA, Residual voltage 0.8 V or less Load current (Ic) 40 mA, Residual voltage 0.4 V or less	
Ambient temperature	Operation: -25 to 55°C (When stored: -30 to 80°C)	
Ambient humidity	Operation: 5 to 85%RH (When stored: 5 to 95%RH)	
Part no.	EE-SX674	EE-SX674P
Output type	NPN	PNP
Part no. of connector with code	EE-1010	
Standard	CE marking	



Terminal arrangement

1	Brown	Vcc (+)
2	White	L*
3	Black	OUTPUT
4	Blue	GND (OV) (-)

* Normally ON when light is blocked. However, if the (L) terminal and (+) terminal are shorted, it changes to ON when light enters.

Output level circuit

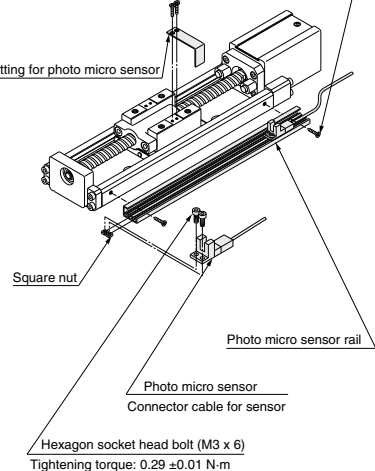
Operating condition of output transistor	ON when light enters	ON when light is blocked
Output circuit	<p>NPN</p> <p>* Normally ON when light is blocked. However, if the (L) terminal and (+) terminal are shorted, it changes to ON when light enters.</p>	
	<p>PNP</p>	
Time chart	<p>(“L” and “+” shorted)</p> <p>Light enters: [Pulse]</p> <p>Light blocked: [Pulse]</p> <p>Lighted indicator light (Red) Light Off: [Pulse]</p> <p>Output transistor ON: [Pulse]</p> <p>OFF: [Pulse]</p> <p>Load 1 (Relay) Operate: [Pulse]</p> <p>Return: [Pulse]</p> <p>Load 2 H: [Pulse]</p> <p>L: [Pulse]</p>	<p>(“L” and “+” open)</p> <p>Light enters: [Pulse]</p> <p>Light blocked: [Pulse]</p> <p>Lighted indicator light (Red) Light Off: [Pulse]</p> <p>Output transistor ON: [Pulse]</p> <p>OFF: [Pulse]</p> <p>Load 1 (Relay) Operate: [Pulse]</p> <p>Return: [Pulse]</p> <p>Load 2 H: [Pulse]</p> <p>L: [Pulse]</p>

Photo Micro Sensor/Dog Fitting for Photo Micro Sensor Mounting

Phillips countersunk machine screw (Class 1)(M2.6 x 5)
Tightening torque: 0.16 ± 0.01 N·m

Phillips countersunk machine screw (Class 1)(M2 x 4)
Tightening torque: 0.07 ± 0.01 N·m

Dog fitting for photo micro sensor



LJ1

LG1

LTF

LECS

LXF

LXP

LXS

LC6

LZ

LC3F2

D-

E-MY

Be sure to use the attached mounting screws. Mount the photo micro sensor as illustrated to the right. Mount the dog fitting for photo micro sensor as illustrated to the right. Be sure to observe the prescribed tightening torque. Use special adhesive for screws for locking.