



Single Axis Electric Actuator Series **LJ1H** High Rigidity Direct Acting Guide

Series	Motor type	Guide type	Mounting orientation	Model	Lead screw lead mm			Page
					Ground ball screw	Rolled ball screw	Slide screw	
LJ1H	Standard motor	High rigidity direct acting guide	Horizontal	LJ1H10	12	12	20	2
				LJ1H20	10 20	10 20	20	8
				LJ1H30	25	25	40	18
			Vertical	LJ1H10	8 12	8 12		24
				LJ1H20	5 10	5 10		32
				LJ1H30	10	10		40
	Non-standard motor	High rigidity direct acting guide	Horizontal	LJ1H10	12	12	20	44
				LJ1H20	10 20	10 20	20	50
				LJ1H30	25	25	40	60
			Vertical	LJ1H10	8 12	8 12		66
				LJ1H20	5 10	5 10		74
				LJ1H30	10	10		82

■ Options	Page 100
■ Made to Order	101
• Clean room specification	104
• Dust seal specification	110
• TSUBAKI CABLEVEYOR specification	122
■ Construction	134
■ Mounting	140
■ Non-standard Motor Mounting	143
■ Deflection Data	145

Part Number Designations

LJ1 H 10 G 1 1 N B - 100 - F W - X10

Guide type
H High rigidity direct acting guide

Series
10 Series 10
20 Series 20
30 Series 30

Motor specification
Nil Standard motor
G Matsushita Electric Industrial Co., Ltd.
R Mitsubishi Electric Corporation
Y Yaskawa Electric Corporation

Motor output
1 50W
2 100W
3 200W

Power supply voltage
1 100/110VAC 50/60Hz
2 200/220VAC 50/60Hz
3 200/230VAC 50/60Hz
0 Without motor

Lead screw type
P Ground ball screw
N Rolled ball screw
S Slide screw

Stroke
H 8mm
B 12mm
C 20mm
F 5mm
A 10mm
D 25mm
E 40mm

Lead screw lead
H 8mm
B 12mm
C 20mm
F 5mm
A 10mm
D 25mm
E 40mm

Cable entry direction
F Axial
R Right
L Left
T Top
B Bottom

Limit switch
Nil None
W B contact specification 2 pcs.

Cable length
2 2m
3 3m
4 4m
5 5m

Brake
Nil None
K With brake

X10 Non-standard motor

The tables above show the definition for each symbol only and cannot be used for actual model selection.

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor

Horizontal Mount

Series LJ1H10

Motor Output
50W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
∅12mm/12mm lead

How to Order

LJ1H101 **1** **PB** — **Stroke** — **F** **2**

Power supply voltage

1	100/110VAC (50/60Hz)
2	200/220VAC (50/60Hz)

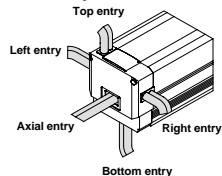
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

		Standard stroke	mm	100	200	300	400	500	
Performance	Body weight	kg		5.2	6.0	6.8	7.5	8.3	
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg		10					
	Rated thrust	N		74					
	Maximum speed	mm/s		600					
	Positioning repeatability	mm		±0.02					
Main parts	Motor	AC servomotor (50W)							
	Encoder	Incremental system							
	Lead screw	Ground ball screw ∅12mm, 12mm lead							
	Guide	High rigidity direct acting guide							
	Motor/Screw connection	With coupling							
Controller	Model	LC1-1B1H□□□□ (Refer to page 185 for details.)							

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example) LJ1H1011PB-150-F2-X2

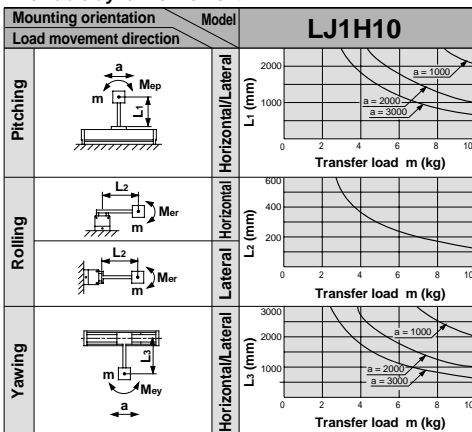
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

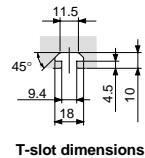
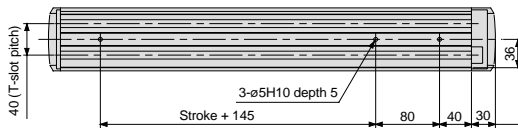
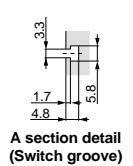
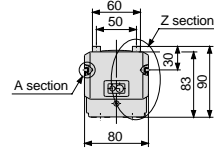
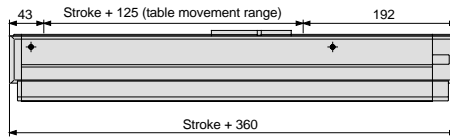
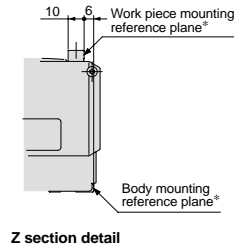
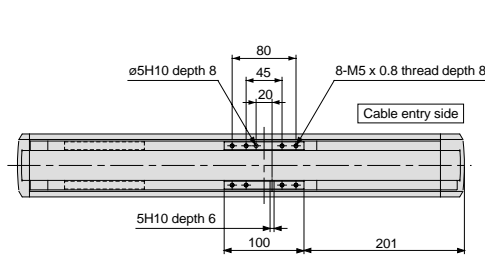
Allowable dynamic moment



Refer to page 145 for deflection data.

Dimensions/LJ1H10□PB

Scale: 15%

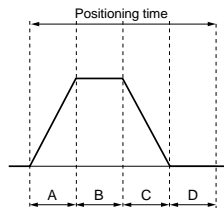


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	300	0.4	0.5	0.8	1.3	2.1
	600	0.4	0.5	0.7	1.0	1.4

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.3sec.)
 Maximum acceleration: 3000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor

Horizontal Mount

Series LJ1H10

Motor Output
50W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
 $\varnothing 12\text{mm}/12\text{mm}$ lead

How to Order

LJ1H101 **1** **NB** — **Stroke** — **F** **2**

Power supply voltage

1	100/110VAC (50/60Hz)
2	200/220VAC (50/60Hz)

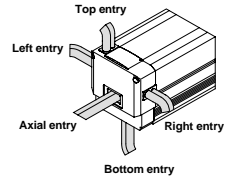
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

		Standard stroke	mm	100	200	300	400	500
Performance	Body weight	kg		5.2	6.0	6.8	7.5	8.3
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	10					
	Rated thrust	N	74					
	Maximum speed	mm/s	600					
	Positioning repeatability	mm	±0.05					
Main parts	Motor	AC servomotor (50W)						
	Encoder	Incremental system						
	Lead screw	Rolled ball screw $\varnothing 12\text{mm}$, 12mm lead						
	Guide	High rigidity direct acting guide						
	Motor/Screw connection	With coupling						
Controller	Model	LC1-1B1H□-□□ (Refer to page 185 for details.)						

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example) **LJ1H1011NB-150-F2-X2**

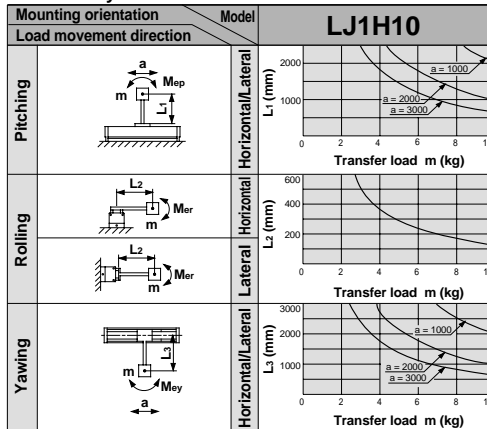
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

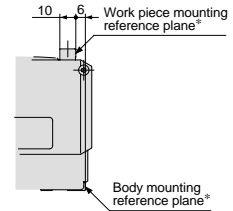
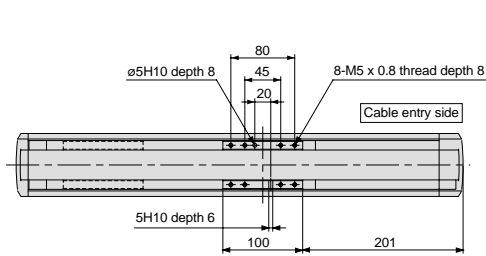
Allowable dynamic moment



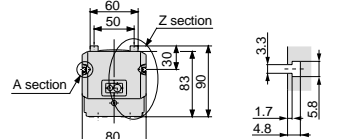
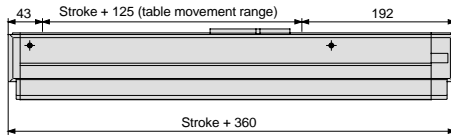
Refer to page 145 for deflection data.

Dimensions/LJ1H101□NB

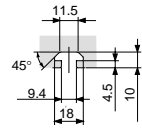
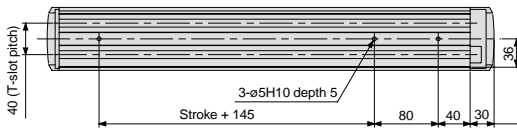
Scale: 15%



Z section detail



A section detail (Switch groove)



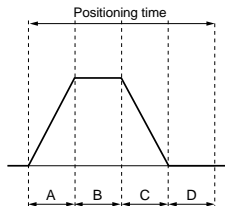
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	300	0.4	0.5	0.8	1.3	2.1
	600	0.4	0.5	0.7	1.0	1.4

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.3sec.)
 Maximum acceleration: 3000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

How to Order

LJ1H101 **1** **SC** — **Stroke** — **F** **2**

Power supply voltage

1	100/110VAC (50/60Hz)
2	200/220VAC (50/60Hz)

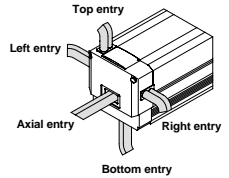
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	100	200	300	400	500	600	700	800	900	1000
Performance	Body weight	kg	5.3	6.2	7.2	8.0	8.8	9.7	10.5	11.3	12.2	13.0
	Operating temperature range	°C	5 to 40 (with no condensation)									
	Work load	kg	10									
	Rated thrust	N	24									
	Maximum speed	mm/s	500									
Main parts	Positioning repeatability	mm	±0.1									
	Motor		AC servomotor (50W)									
	Encoder		Incremental system									
	Lead screw		Slide screw ∅20mm, 20mm lead									
	Guide		High rigidity direct acting guide									
Controller	Motor/Screw connection		With coupling									
	Model		LC1-1B1M□-□□ (Refer to page 185 for details.)									

Intermediate strokes

For manufacture of strokes other than the standard strokes above, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550, 650, 750, 850, 950
Example) LJ1H1011SC-150-F2-X2

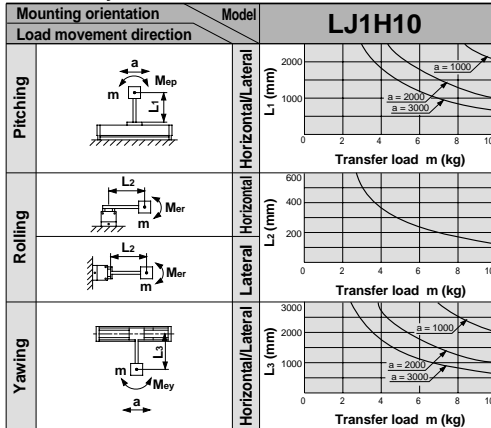
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Rolling	12.8
Yawing	10.2

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

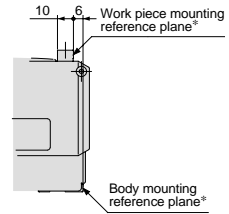
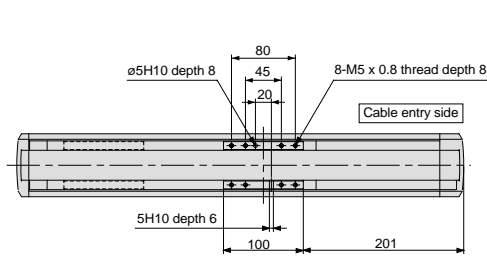
Allowable dynamic moment



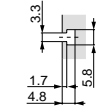
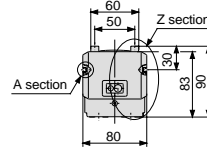
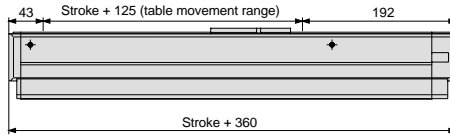
Refer to page 145 for deflection data.

Dimensions/LJ1H10□SC

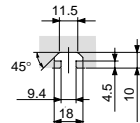
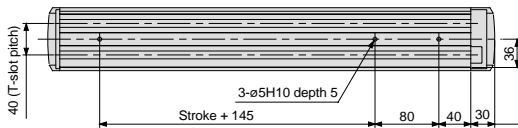
Scale: 15%



Z section detail



A section detail (Switch groove)



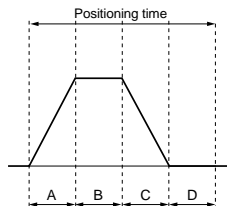
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	500	1000
Speed (mm/s)	10	0.5	1.4	10.4	50.4	100.4
	100	0.4	0.5	1.4	5.4	10.4
	250	0.4	0.5	0.9	2.5	4.5
	500	0.4	0.5	0.8	1.6	2.6

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.3sec.)
 Maximum acceleration: 2000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

How to Order

LJ1H202 **1** **PA** — **Stroke** — **F** **2**

Power supply voltage

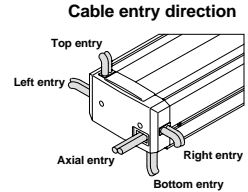
1	100/110VAC (50/60Hz)
2	200/220VAC (50/60Hz)

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

2	2m
3	3m
4	4m
5	5m



Specifications

		Standard stroke	mm	100	200	300	400	500	600
Performance	Body weight	kg		7.7	8.9	10.1	11.2	12.6	13.7
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	30						
	Rated thrust	N	180						
	Maximum speed	mm/s	500						
	Positioning repeatability	mm	±0.02						
Main parts	Motor	AC servomotor (100W)							
	Encoder	Incremental system							
	Lead screw	Ground ball screw ø15mm, 10mm lead							
	Guide	High rigidity direct acting guide							
	Motor/Screw connection	With coupling							
Controller	Model	LC1-1B2H□□□□ (Refer to page 185 for details.)							

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550
Example) **LJ1H2021PA-150-F2-X2**

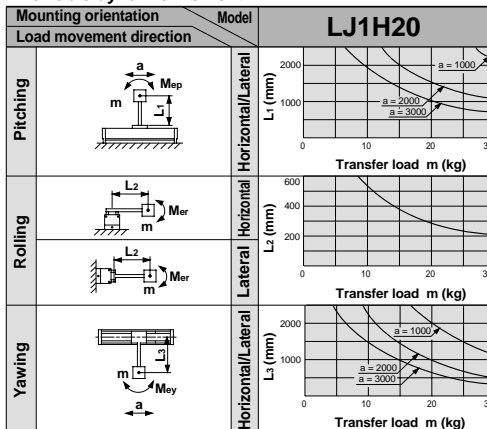
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

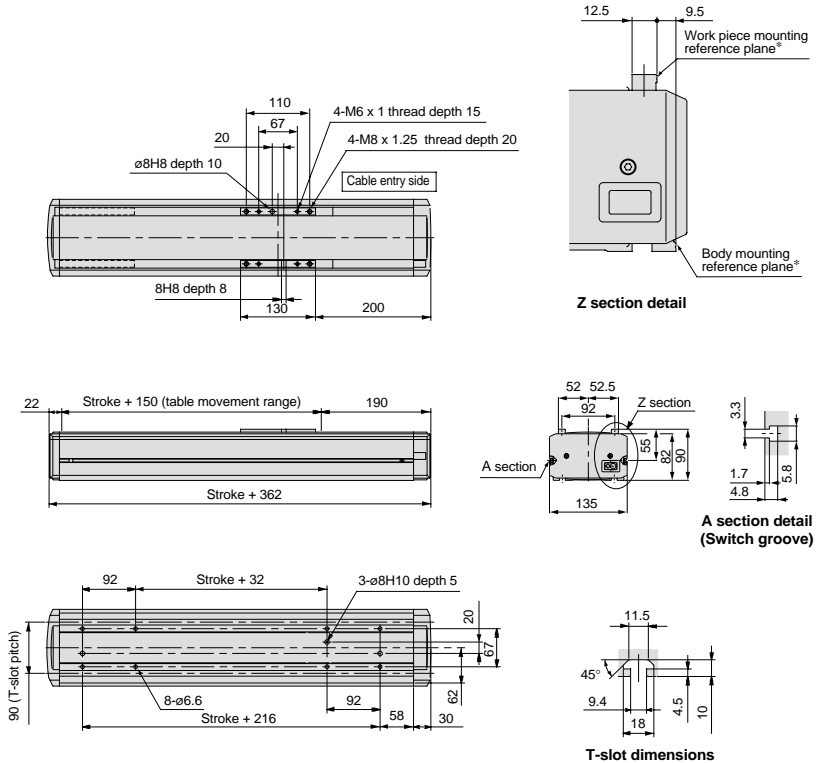
Allowable dynamic moment



Refer to page 145 for deflection data.

Dimensions/LJ1H20□PA

Scale: 10%

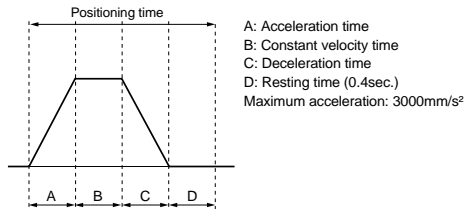


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	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

LC1

LX

LC6D/LC6C

Switches

Standard Motor
Horizontal Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
∅15mm/20mm lead

How to Order

LJ1H202 **1** **PC** — Stroke — **F** **2**

Power supply voltage

1	100/110VAC (50/60Hz)
2	200/220VAC (50/60Hz)

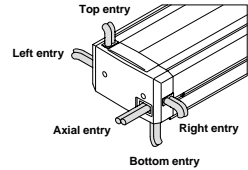
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	500	600	700	800	900	1000
Performance	Body weight	kg	12.6	13.7	14.5	15.3	17.2	18.6
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	30					
	Rated thrust	N	90					
	Maximum speed (Note)	mm/s	1000	1000	930	740	600	500
	Positioning repeatability	mm	±0.02					
Main parts	Motor	AC servomotor (100W)						
	Encoder	Incremental system						
	Lead screw	Ground ball screw ∅15mm, 20mm lead						
	Guide	High rigidity direct acting guide						
	Motor/Screw connection	With coupling						
Controller	Model	LC1-1B2H□□□□ (Refer to page 185 for details.)						

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 550, 650, 750, 850, 950
Example) **LJ1H2021PC-550-F2-X2**

(Note) The speed is limited by the transfer load. Refer to the maximum speeds for each transfer load on the next page.

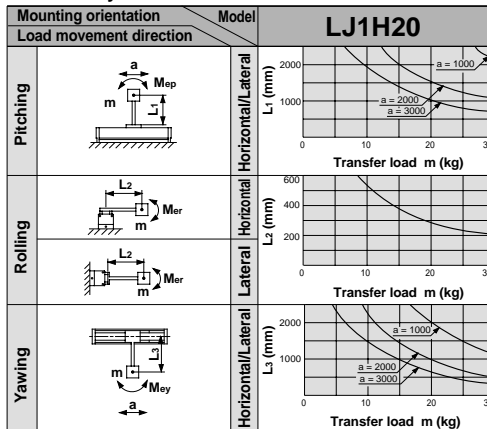
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment

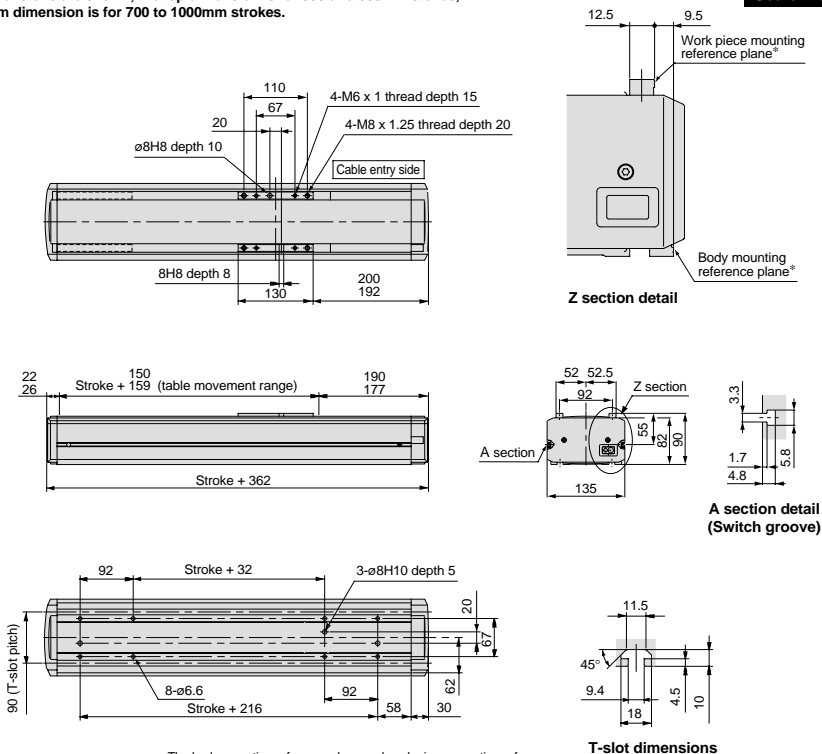


Refer to page 145 for deflection data.

Dimensions/LJ1H20□PC

When two dimensions are shown, the top dimension is for 500 and 600mm strokes, and the bottom dimension is for 700 to 1000mm strokes.

Scale: 10%

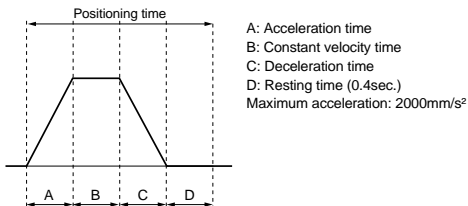


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

Positioning distance (mm)	Positioning time (sec.)					
	1	10	100	500	1000	
Speed (mm/s)	10	0.6	1.5	10.5	50.5	100.5
	100	0.5	0.6	1.5	5.5	10.5
	500	0.5	0.6	0.9	1.7	2.7
	1000	0.5	0.6	0.9	1.4	1.9

* Values will vary slightly depending on the operating conditions.



Maximum Speeds for Each Transfer Load

Model	Transfer load (kg)				Note
	15	20	25	30	
LJ1H20□PC-500-□□	1000	700	500	500	Power supply: 100/110(V)AC ±10% Compatible controller: LC1-1B2H1-□□
LJ1H20□PC-600-□□	1000	700	500	500	
LJ1H20□PC-700-□□	930	600	500	500	
LJ1H20□PC-800-□□	740	600	500	500	Power supply: 200/220(V)AC ±10% Compatible controller: LC1-1B2H2-□□
LJ1H20□PC-900-□□	600	500	500	500	
LJ1H20□PC-1000-□□	500	500	500	500	

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor
Horizontal Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
 $\varnothing 15\text{mm}/10\text{mm}$ lead

How to Order

LJ1H202 **1** **NA** — **Stroke** — **F** **2**

Power supply voltage

1	100/110VAC (50/60Hz)
2	200/220VAC (50/60Hz)

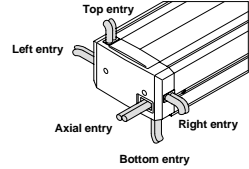
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	100	200	300	400	500	600
Performance	Body weight	kg	7.7	8.9	10.1	11.2	12.6	13.7
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	30					
	Rated thrust	N	180					
	Maximum speed	mm/s	500					
	Positioning repeatability	mm	±0.05					
Main parts	Motor	AC servomotor (100W)						
	Encoder	Incremental system						
	Lead screw	Rolled ball screw $\varnothing 15\text{mm}$, 10mm lead						
	Guide	High rigidity direct acting guide						
	Motor/Screw connection	With coupling						
Controller	Model	LC1-1B2H□□□□ (Refer to page 185 for details.)						

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550
Example) LJ1H2021NA-150-F2-X2

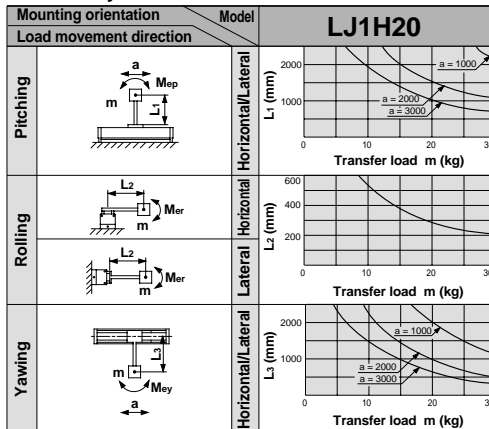
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

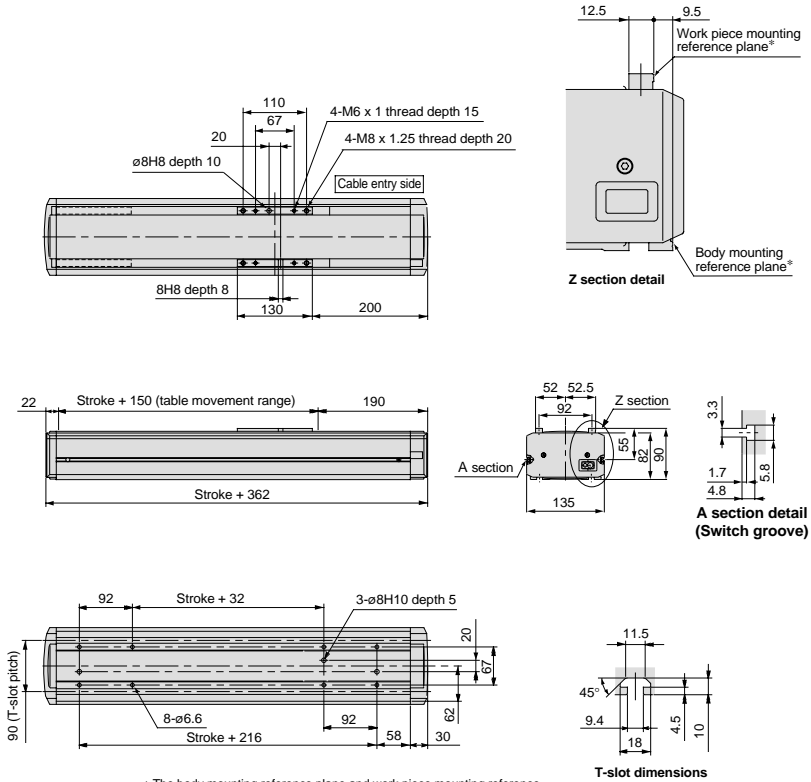
Allowable dynamic moment



Refer to page 145 for deflection data.

Dimensions/LJ1H20□NA

Scale: 10%

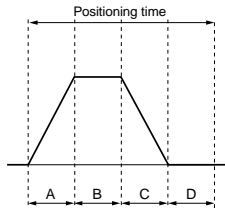


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)					
		1	10	100	300	600	
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4	
	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 (0.4sec.)
 Maximum acceleration: 3000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor
Horizontal Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
∅15mm/20mm lead

How to Order

LJ1H202 **1** **NC** — **Stroke** — **F** **2**

Power supply voltage

1	100/110VAC (50/60Hz)
2	200/220VAC (50/60Hz)

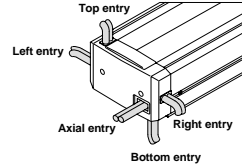
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	500	600	700	800	900	1000
Performance	Body weight	kg	12.6	13.7	14.5	15.3	17.2	18.6
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	30					
	Rated thrust	N	90					
	Maximum speed ^(Note)	mm/s	1000	1000	930	740	600	500
Positioning repeatability		mm	±0.05					
Main parts	Motor	AC servomotor (100W)						
	Encoder	Incremental system						
	Lead screw	Rolled ball screw ∅15mm, 20mm lead						
	Guide	High rigidity direct acting guide						
Motor/Screw connection		With coupling						
Controller	Model	LC1-1B2H□-□□ (Refer to page 185 for details.)						

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number. Applicable strokes: 550, 650, 750, 850, 950
Example) **LJ1H2021NC-550-F2-X2**

(Note) The speed is limited by the transfer load. Refer to the maximum speeds for each transfer load on the next page.

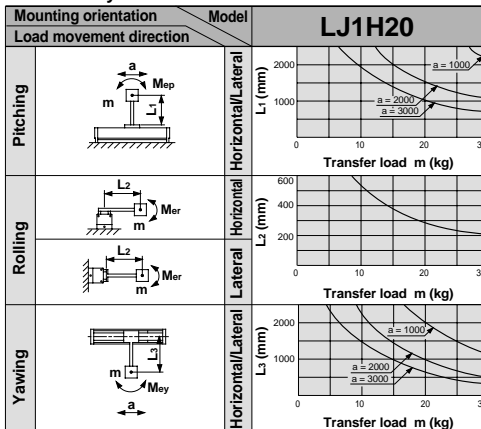
Allowable Moment (N.m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



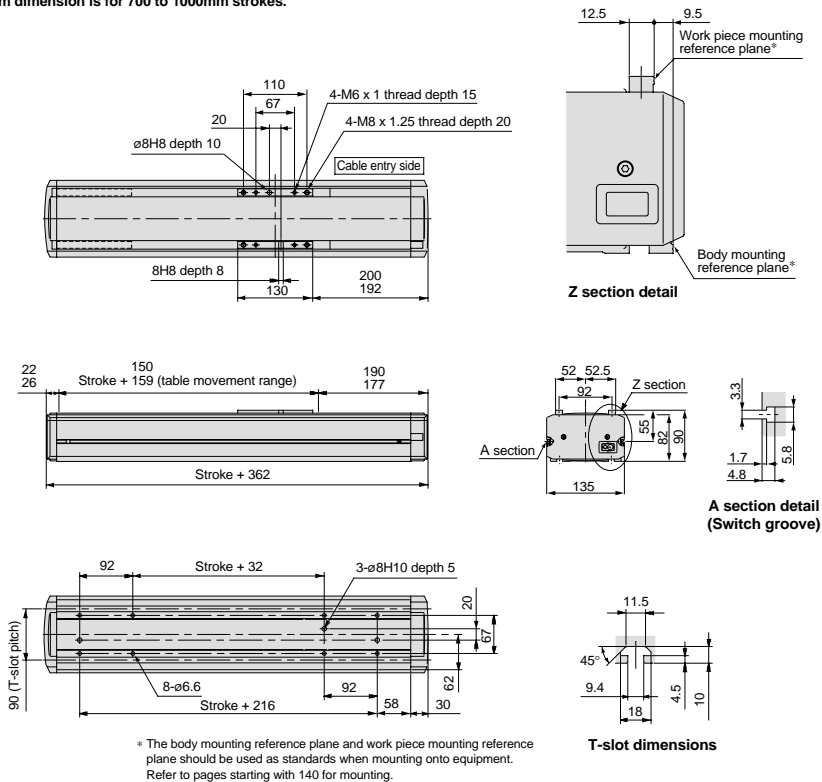
Refer to page 145 for deflection data.

Standard Motor/Horizontal Mount Specification *Series LJ1H20*

Dimensions/LJ1H20□NC

When two dimensions are shown, the top dimension is for 500 and 600mm strokes, and the bottom dimension is for 700 to 1000mm strokes.

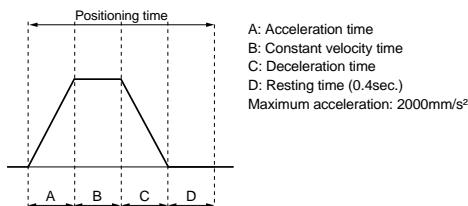
Scale: 10%



Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	500	1000
Speed (mm/s)	10	0.6	1.5	10.5	50.5	100.5
	100	0.5	0.6	1.5	5.5	10.5
	500	0.5	0.6	0.9	1.7	2.7
	1000	0.5	0.6	0.9	1.4	1.9

* Values will vary slightly depending on the operating conditions.



Maximum Speeds for Each Transfer Load

Model	Transfer load (kg)				Note
	15	20	25	30	
LJ1H20□NC-500-□□	1000	700	500	500	Power supply: 100/110(V)AC ±10% Compatible controller: LC1-1B2H1-□□
LJ1H20□NC-600-□□	1000	700	500	500	
LJ1H20□NC-700-□□	930	600	500	500	
LJ1H20□NC-800-□□	740	600	500	500	Power supply: 200/220(V)AC ±10% Compatible controller: LC1-1B2H2-□□
LJ1H20□NC-900-□□	600	500	500	500	
LJ1H20□NC-1000-□□	500	500	500	500	

How to Order

LJ1H202 1 SC Stroke F 2

Power supply voltage

1	100/110VAC (50/60Hz)
2	200/220VAC (50/60Hz)

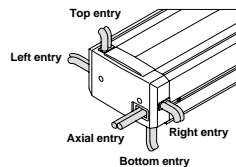
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

		Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000	1200
Performance	Body weight	kg		9.0	10.0	11.1	12.2	13.3	14.3	15.3	17.2	19.1	20.6	24.7
	Operating temperature range	°C	5 to 40 (with no condensation)											
	Work load	kg	15											
	Rated thrust	N	50											
	Maximum speed	mm/s	500											
	Positioning repeatability	mm	±0.1											
Main parts	Motor	AC servomotor (100W)												
	Encoder	Incremental system												
	Lead screw	Slide screw ø20mm, 20mm lead												
	Guide	High rigidity direct acting guide												
	Motor/Screw connection	With coupling												
Controller	Model	LC1-1B2M□-□□ (Refer to page 185 for details.)												

Intermediate strokes

For manufacture of strokes other than the standard strokes above, add "-X2" at the end of the part number.
Applicable strokes:150, 250, 350, 450, 550, 650, 750, 850, 950
Example) LJ1H2021SC-150-F2-X2

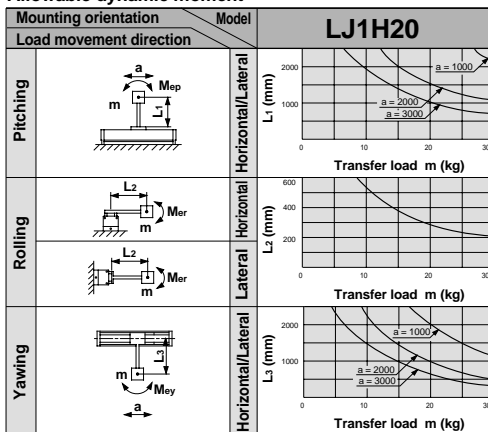
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment

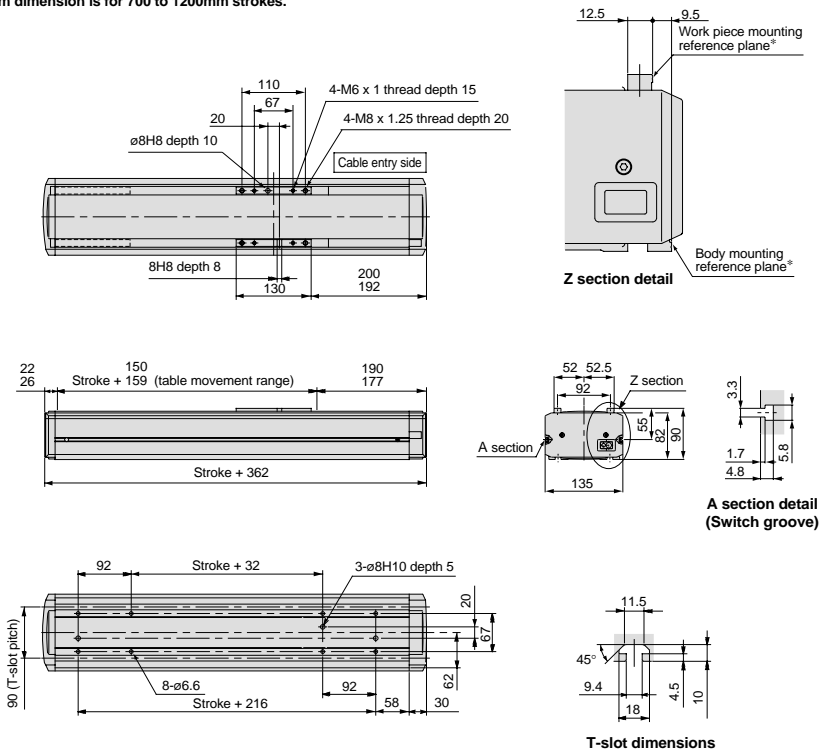


Refer to page 145 for deflection data.

Dimensions/LJ1H20□SC

When two dimensions are shown, the top dimension is for 100 to 600mm strokes, and the bottom dimension is for 700 to 1200mm strokes.

Scale: 10%

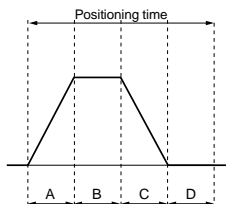


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	600	1200
Speed (mm/s)	10	0.6	1.5	10.5	60.5	120.5
	100	0.5	0.6	1.5	6.5	12.5
	250	0.5	0.6	1.0	3.0	5.4
	500	0.5	0.6	0.9	1.9	3.1

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.4sec.)
 Maximum acceleration: 2000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor

Horizontal Mount

Series LJ1H30

Motor Output

200W

High Rigidity
Direct Acting
Guide

Ground Ball Screw

∅25mm/25mm lead

How to Order

LJ1H303 1 PD Stroke F 2

Power supply voltage

1	100/110VAC (50/60Hz)
2	200VAC (50/60Hz)

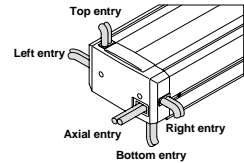
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	200	300	400	500	600	800	1000	1200	1500
Performance	Body weight	kg	16.0	18.0	20.0	22.0	24.0	28.5	33.0	37.0	43.0
	Operating temperature range	°C	5 to 40 (with no condensation)								
	Work load	kg	60								
	Rated thrust	N	144								
	Maximum speed ^{Note)}	mm/s	1000								700
Main parts	Positioning repeatability	mm	±0.02								
	Motor	AC servomotor (200W)									
	Encoder	Incremental system									
	Lead screw	Ground ball screw ∅25mm, 25mm lead									
	Guide	High rigidity direct acting guide									
Controller	Motor/Screw connection	With coupling									
	Model	LC1-1B3H□-□□ (Refer to page 185 for details.)									

Note) The speed is limited by the transfer load. Refer to the maximum speeds for each transfer load on the next page.

Intermediate strokes

For manufacture of strokes other than the standard strokes above, add "-X2" at the end of the part number.
Applicable strokes: 250, 350, 450, 550, 650, 700, 750, 850, 900, 950, 1050, 1100, 1150, 1250, 1300, 1350, 1400, 1450
Example) LJ1H3031PD-250-F2-X2

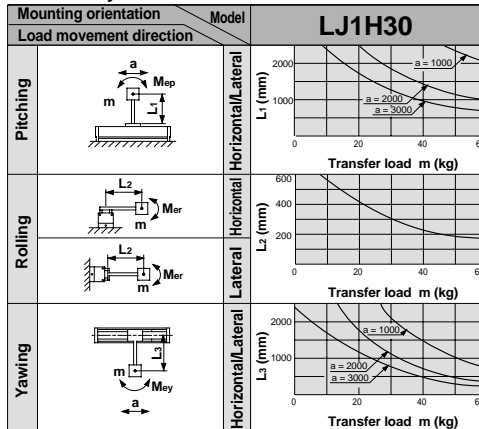
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

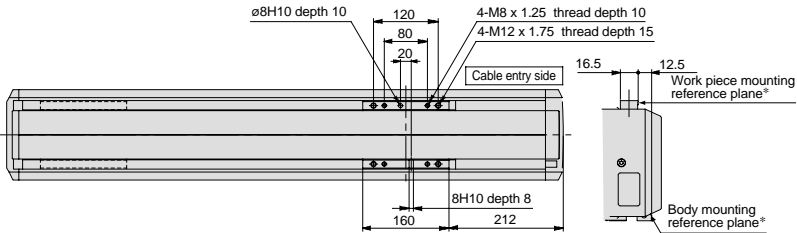
Allowable dynamic moment



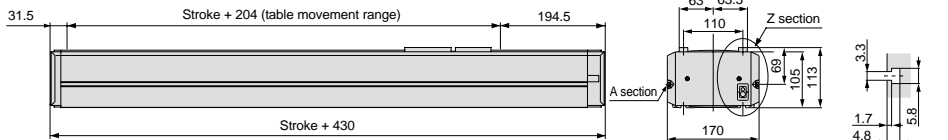
Refer to page 145 for deflection data.

Dimensions/LJ1H30□PD

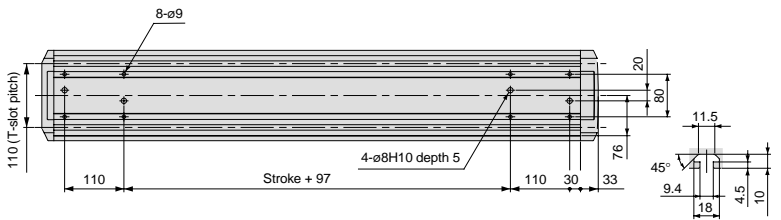
Scale: 10%



Z section detail



A section detail (Switch groove)



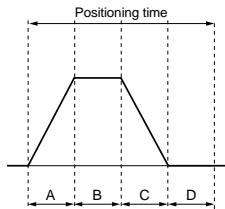
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)					
Positioning distance (mm)		1	10	100	750	1500	
Speed (mm/s)	10	1.1	2.0	11.0	76.0	151.0	
	100	1.1	1.2	2.1	8.6	16.1	
	500	1.1	1.2	1.4	2.7	4.2	
	1000	1.1	1.2	1.4	2.1	2.9	

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (1.0sec.)
 Maximum acceleration: 3000mm/s²

Maximum Speeds for Each Transfer Load

Model	Transfer load (kg)						Note
	10	20	30	40	50	60	
LJ1H3031PD-200 to 1000-□□	1000	1000	1000	1000	900	800	Power supply: 100/110(V)AC ±10% Compatible controller: LC1-1B3H1-□□
LJ1H3031PD-1200-□□	700	700	700	700	700	700	
LJ1H3031PD-1500-□□	500	500	500	500	500	500	Power supply: 200(V)AC ±10% Compatible controller: LC1-1B3H2-□□
LJ1H3032PD-200 to 1000-□□	1000	900	800	700	650	600	
LJ1H3032PD-1200-□□	700	700	700	700	650	600	
LJ1H3032PD-1500-□□	500	500	500	500	500	500	

* Consult SMC if outside of the above conditions.

Standard Motor

Horizontal Mount

Series LJ1H30

Motor Output

200W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw

∅25mm/25mm lead

How to Order

LJ1H303 1 ND Stroke F 2

Power supply voltage

1	100/110VAC (50/60Hz)
2	200VAC (50/60Hz)

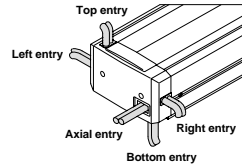
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

	Standard stroke	mm	200	300	400	500	600	800	1000	1200	1500
Performance	Body weight	kg	16.0	18.0	20.0	22.0	24.0	28.5	33.0	37.0	43.0
	Operating temperature range	°C	5 to 40 (with no condensation)								
	Work load	kg	60								
	Rated thrust	N	144								
	Maximum speed (Note)	mm/s	1000							700	500
Main parts	Positioning repeatability	mm	±0.05								
	Motor		AC servomotor (200W)								
	Encoder		Incremental system								
	Lead screw		Rolled ball screw ∅25mm, 25mm lead								
	Guide		High rigidity direct acting guide								
Controller	Motor/Screw connection		With coupling								
	Model		LC1-1B3H□-□□ (Refer to page 185 for details.)								

Note) The speed is limited by the transfer load. Refer to the maximum speeds for each transfer load on the next page.

Intermediate strokes

For manufacture of strokes other than the standard strokes above, add "X2" at the end of the part number.
Applicable strokes: 250, 350, 450, 550, 650, 700, 750, 850, 900, 950, 1050, 1100, 1150, 1250, 1300, 1350, 1400, 1450
Example) LJ1H3031ND-250-F2-X2

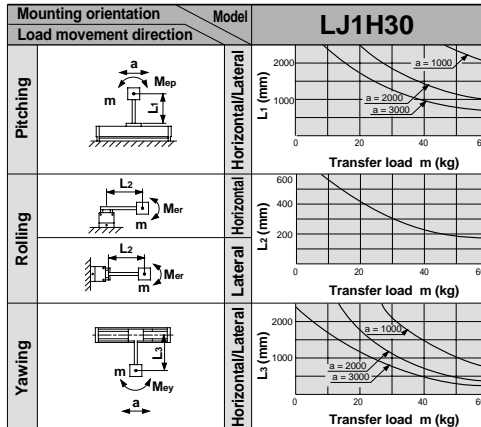
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me : Dynamic moment
L : Overhang to work piece center of gravity (mm)

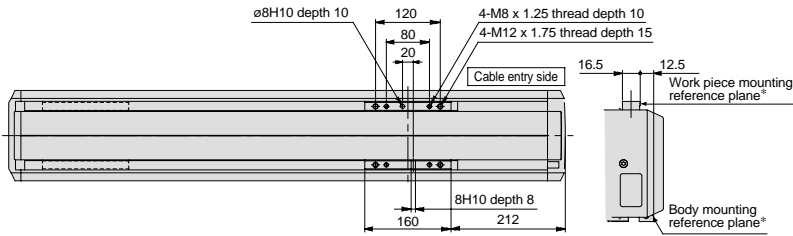
Allowable dynamic moment



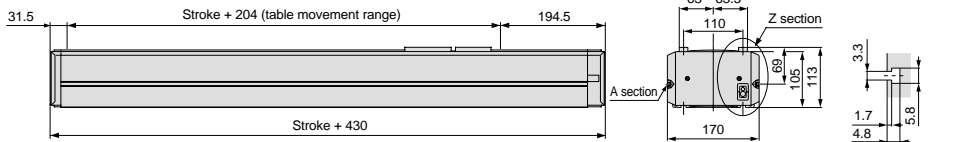
Refer to page 145 for deflection data.

Dimensions/LJ1H303□ND

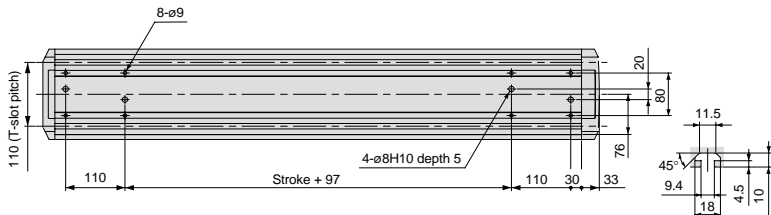
Scale: 10%



Z section detail



A section detail (Switch groove)



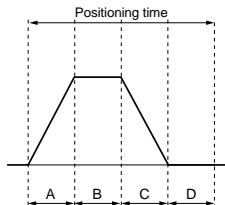
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	750	1500
Speed (mm/s)	10	1.1	2.0	11.0	76.0	151.0
	100	1.1	1.2	2.1	8.6	16.1
	500	1.1	1.2	1.4	2.7	4.2
	1000	1.1	1.2	1.4	2.1	2.9

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (1.0sec.)
 Maximum acceleration: 3000mm/s²

Maximum Speeds for Each Transfer Load

Model	Transfer load (kg)						Note
	10	20	30	40	50	60	
LJ1H3031ND-200 to 1000-□□	1000	1000	1000	1000	900	800	Power supply: 100/110(V)AC ±10% Compatible controller: LC1-1B3H1-□□
LJ1H3031ND-1200-□□	700	700	700	700	700	700	
LJ1H3031ND-1500-□□	500	500	500	500	500	500	
LJ1H3032ND-200 to 1000-□□	1000	900	800	700	650	600	Power supply: 200(V)AC ±10% Compatible controller: LC1-1B3H2-□□
LJ1H3032ND-1200-□□	700	700	700	700	650	600	
LJ1H3032ND-1500-□□	500	500	500	500	500	500	

* Consult SMC if outside of the above conditions.

Standard Motor

Horizontal Mount

Series LJ1H30

Motor Output

200W

High Rigidity
Direct Acting
Guide

Slide Screw

∅30mm/40mm lead

How to Order

LJ1H303 1 SE Stroke F 2

Power supply voltage

1	100/110VAC (50/60Hz)
2	200/220VAC (50/60Hz)

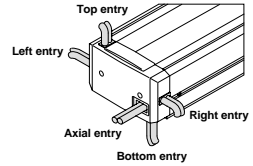
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

	Standard stroke	mm	200	300	400	500	600	800	1000	1200	1500	
Performance	Body weight	kg	14.9	17.0	19.0	21.1	23.2	27.3	31.5	35.6	41.9	
	Operating temperature range	°C	5 to 40 (with no condensation)									
	Work load	kg	30									
	Rated thrust	N	50									
	Maximum speed	mm/s	500									
Main parts	Motor		AC servomotor (200W)									
	Encoder		Incremental system									
	Lead screw		Slide screw ∅30mm, 40mm lead									
	Guide		High rigidity direct acting guide									
	Motor/Screw connection		With coupling									
Controller	Model		LC1-1B3M□□□ (Refer to page 185 for details.)									

Intermediate strokes

For manufacture of strokes other than the standard strokes above, add "-X2" at the end of the part number.
Applicable strokes: 250, 350, 450, 550, 650, 700, 750, 850, 900, 950, 1050, 1100, 1150, 1250, 1300, 1350, 1400, 1450
Example) LJ1H3031SE-250-F2-X2

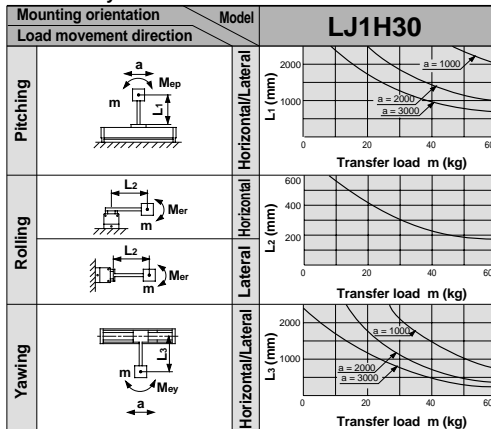
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Rolling	137
Yawing	123

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

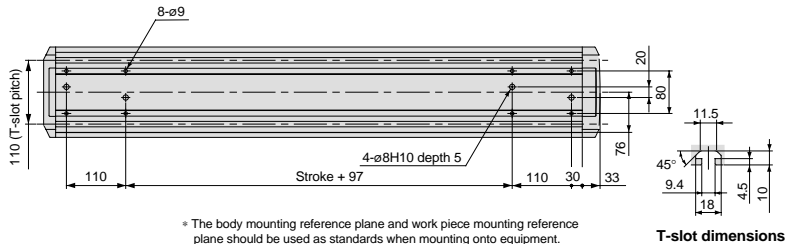
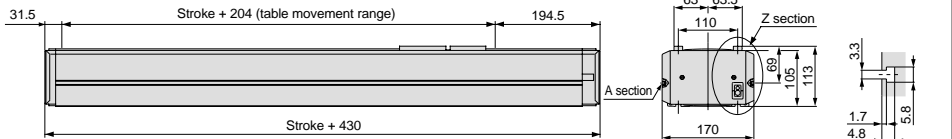
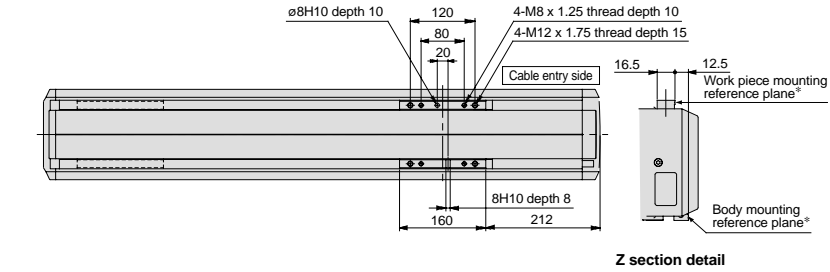
Allowable dynamic moment



Refer to page 145 for deflection data.

Dimensions/LJ1H30□SE

Scale: 10%

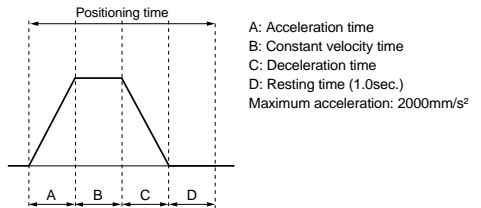


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	750	1500
Speed (mm/s)	10	1.2	2.1	11.1	76.1	151.1
	100	1.1	1.2	2.1	8.6	16.1
	250	1.1	1.2	1.6	4.2	7.2
	500	1.1	1.2	1.5	2.8	4.3

* Values will vary slightly depending on the operating conditions.



LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor Vertical Mount

Series LJ1H10

Motor Output
100W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
∅12mm/8mm lead

How to Order

LJ1H102 **1** **PH** — Stroke **K** — **F** **2**

Power supply voltage

1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

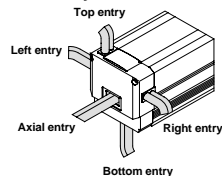
Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

		Standard stroke	mm	100	200	300	400	500
Performance	Body weight	kg		5.5	6.3	7.1	7.8	8.6
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	10					
	Rated thrust	N	225					
	Maximum speed	mm/s	400					
	Positioning repeatability	mm	±0.02					
Main parts	Motor	AC servomotor (100W)						
	Encoder	Incremental system						
	Lead screw	Ground ball screw ∅12mm, 8mm lead						
	Guide	High rigidity direct acting guide						
	Motor/Screw connection	With coupling						
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A					
Holding torque		0.4N·m						
Connection method		Ball screw mounting						
Controller	Model	LC1-1B1VH□□□□ (Refer to page 185 for details.)						
Regenerative absorption unit	Model	LC7R-K1□A□□□ (Refer to page 200 for details.)						

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example) LJ1H1021PH-150K-F2-X2

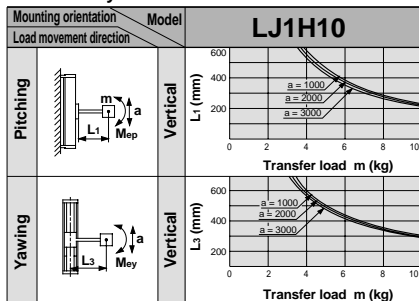
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Yawing	10.2

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

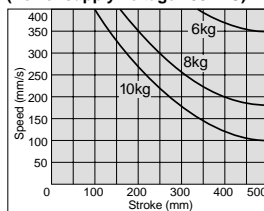
Allowable dynamic moment



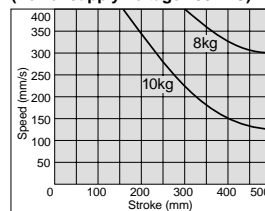
Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H1021PH-□□□K
(Power supply voltage 100VAC)



LJ1H1022PH-□□□K
(Power supply voltage 200VAC)



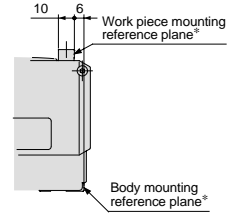
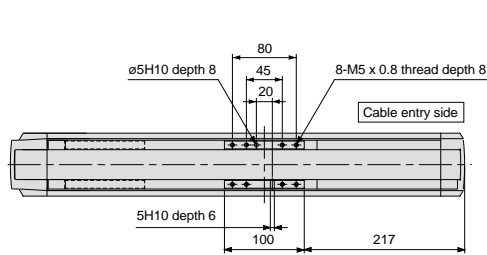
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 200 regarding regenerative absorption units.

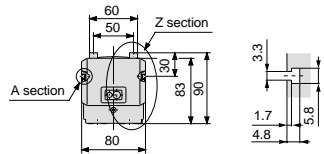
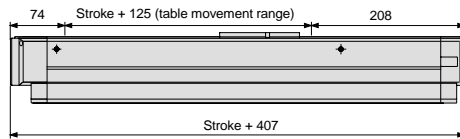
Refer to page 204 regarding brake wiring.

Dimensions/LJ1H102□PH

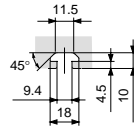
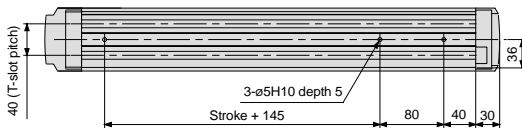
Scale: 15%



Z section detail



A section detail (Switch groove)



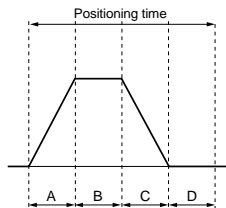
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	200	0.4	0.5	0.9	1.7	2.9
	400	0.4	0.5	0.7	1.1	1.7

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.3sec.)
 Maximum acceleration: 3000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor Vertical Mount

Series LJ1H10

Motor Output
100W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
∅12mm/12mm lead

How to Order

LJ1H102 **1** **PB** — Stroke **K** — **F** **2**

Power supply voltage

1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

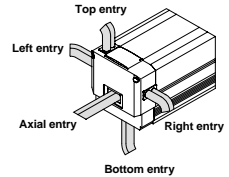
Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	100	200	300	400	500
Performance	Body weight	kg	5.5	6.3	7.1	7.8	8.6
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	5				
	Rated thrust	N	150				
	Maximum speed	mm/s	600				
Main parts	Positioning repeatability	mm	±0.02				
	Motor		AC servomotor (100W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw ∅12mm, 12mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
Electromagnetic brake	Specifications		De-energized operation type, Rated voltage 24VDC ±10%, 0.4A				
	Holding torque		0.4N·m				
	Connection method		Ball screw mounting				
Controller	Model		LC1-1B1VB□□□□ (Refer to page 185 for details.)				
Regenerative absorption unit	Model		LC7R-K1□A□□□ (Refer to page 200 for details.)				

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example) LJ1H1021PB-150K-F2-X2

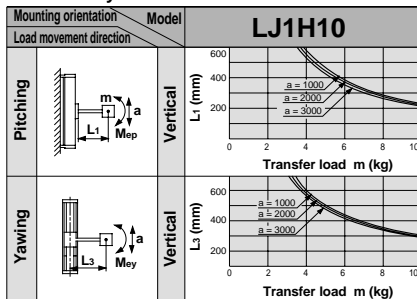
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Yawing	10.2

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

It is not necessary to mount a regenerative absorption unit when the work piece load, speed, and stroke are within the actuator rating. However, use of the regenerative absorption unit is recommended under all conditions.

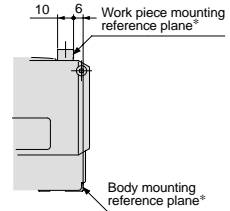
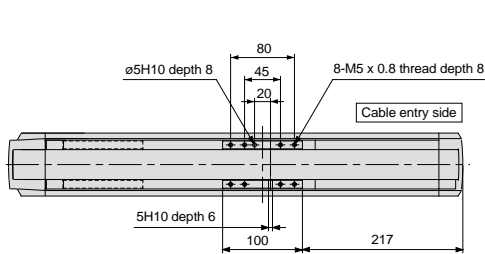
Actuator rating

Work load	5kg
Maximum speed	600mm/s
Maximum stroke	500mm

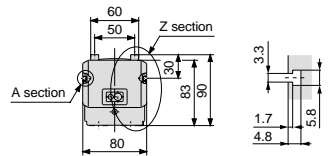
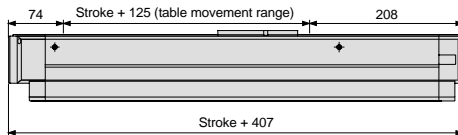
Refer to page 204 regarding brake wiring.

Dimensions/LJ1H102□PB

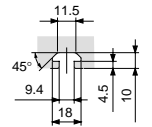
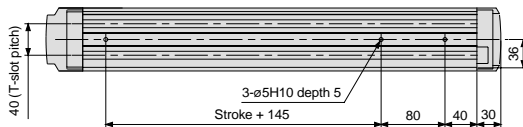
Scale: 15%



Z section detail



A section detail (Switch groove)



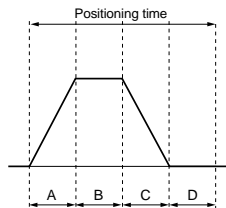
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	300	0.4	0.5	0.8	1.3	2.1
	600	0.4	0.5	0.7	1.0	1.4

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.3sec.)
 Maximum acceleration: 3000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor Vertical Mount

Series LJ1H10

Motor Output
100W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
∅ 12mm/8mm lead

How to Order

LJ1H102 **1** **NH** — Stroke **K** — **F** **2**

Power supply voltage

1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

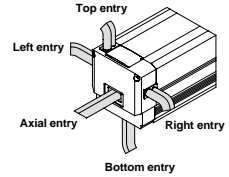
Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	100	200	300	400	500
Performance	Body weight	kg	5.5	6.3	7.1	7.8	8.6
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	10				
	Rated thrust	N	225				
	Maximum speed	mm/s	400				
	Positioning repeatability	mm	±0.05				
Main parts	Motor	AC servomotor (100W)					
	Encoder	Incremental system					
	Lead screw	Rolled ball screw ∅12mm, 8mm lead					
	Guide	High rigidity direct acting guide					
	Motor/Screw connection	With coupling					
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A				
Holding torque		0.4N·m					
Connection method		Ball screw mounting					
Controller	Model	LC1-1B1VH□□□□ (Refer to page 185 for details.)					
Regenerative absorption unit	Model	LC7R-K1□A□□ (Refer to page 200 for details.)					

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example) LJ1H1021NH-150K-F2-X2

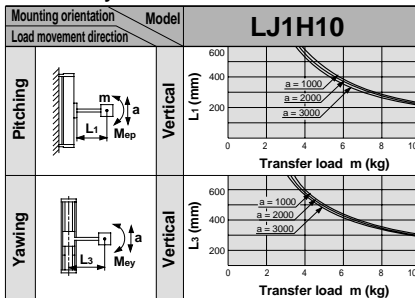
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Yawing	10.2

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

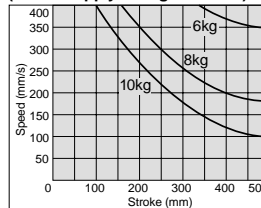
Allowable dynamic moment



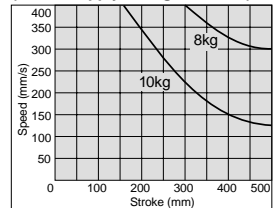
Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H1021NH-□□□K (Power supply voltage 100VAC)



LJ1H1022NH-□□□K (Power supply voltage 200VAC)



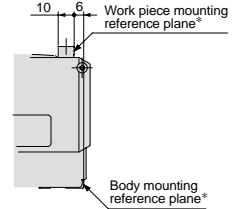
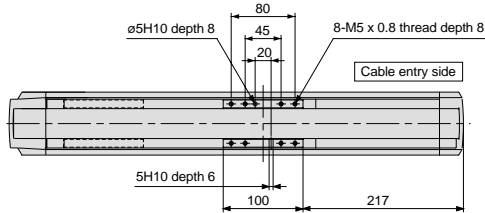
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 200 regarding regenerative absorption units.

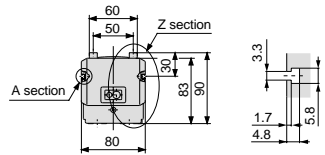
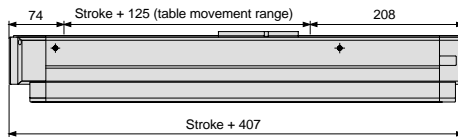
Refer to page 204 regarding brake wiring.

Dimensions/LJ1H102□NH

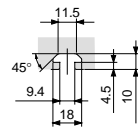
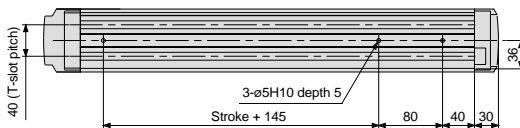
Scale: 15%



Z section detail



A section detail (Switch groove)



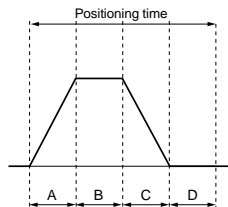
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	200	0.4	0.5	0.9	1.7	2.9
	400	0.4	0.5	0.7	1.1	1.7

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.3sec.)
 Maximum acceleration: 3000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor Vertical Mount

Series LJ1H10

Motor Output
100W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
∅12mm/12mm lead

How to Order

LJ1H102 **1** **NB** — Stroke **K** — **F** **2**

Power voltage

1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

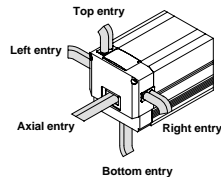
Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	100	200	300	400	500
Performance	Body weight	kg	5.5	6.3	7.1	7.8	8.6
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	5				
	Rated thrust	N	150				
	Maximum speed	mm/s	600				
	Positioning repeatability	mm	±0.05				
Main parts	Motor	AC servomotor (100W)					
	Encoder	Incremental system					
	Lead screw	Rolled ball screw ∅12mm, 12mm lead					
	Guide	High rigidity direct acting guide					
	Motor/Screw connection	With coupling					
Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A					
	Holding torque	0.4N·m					
	Connection method	Ball screw mounting					
Controller	Model	LC1-1B1VB□□□□ (Refer to page 185 for details.)					
Regenerative absorption unit	Model	LC7R-K1□A□□□ (Refer to page 200 for details.)					

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450
Example) LJ1H1021NB-150K-F2-X2

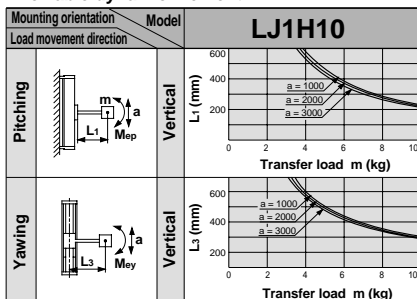
Allowable Moment (N·m)

Allowable static moment

Pitching	10.2
Yawing	10.2

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

It is not necessary to mount a regenerative absorption unit when the work piece load, speed, and stroke are within the actuator rating. However, use of a regenerative absorption unit is recommended under all conditions.

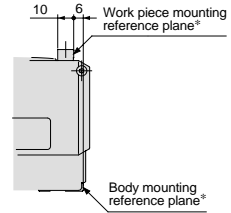
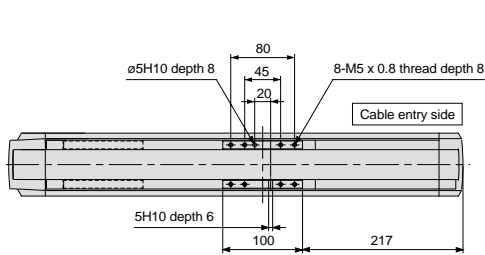
Actuator rating

Work load	5kg
Maximum speed	600mm/s
Maximum stroke	500mm

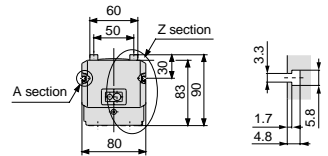
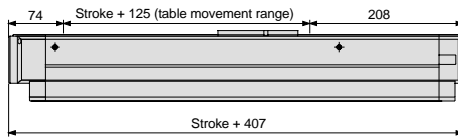
Refer to page 204 regarding brake wiring.

Dimensions/LJ1H102□NB

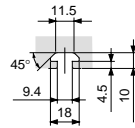
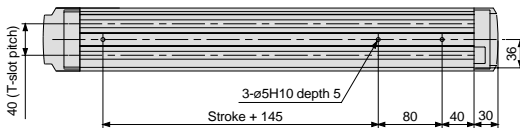
Scale: 15%



Z section detail



A section detail (Switch groove)



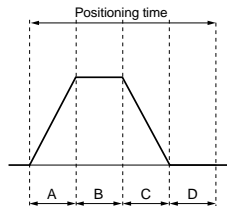
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	250	500
Speed (mm/s)	10	0.4	1.3	10.3	25.3	50.3
	100	0.4	0.5	1.4	2.9	5.4
	300	0.4	0.5	0.8	1.3	2.1
	600	0.4	0.5	0.7	1.0	1.4

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (0.3sec.)
 Maximum acceleration: 3000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor Vertical Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
∅15mm/5mm lead

How to Order

LJ1H202 **1** **PF** — Stroke **K** — **F** **2**

Power supply voltage

1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

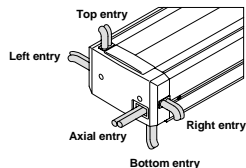
Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	100	200	300	400	500	600
Performance	Body weight	kg	8.0	9.2	10.4	11.5	12.9	14.0
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	15					
	Rated thrust	N	360					
	Maximum speed	mm/s	250					
	Positioning repeatability	mm	±0.02					
Main parts	Motor	AC servomotor (100W)						
	Encoder	Incremental system						
	Lead screw	Ground ball screw ∅15mm, 5mm lead						
	Guide	High rigidity direct acting guide						
	Motor/Screw connection	With coupling						
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A					
Holding torque		0.4N·m						
Connection method		Ball screw mounting						
Controller	Model	LC1-1B2VF□□□□ (Refer to page 185 for details.)						
Regenerative absorption unit	Model	LC7R-K1□□□□ (Refer to page 200 for details.)						

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550
Example) **LJ1H2021PF-150K-F2-X2**

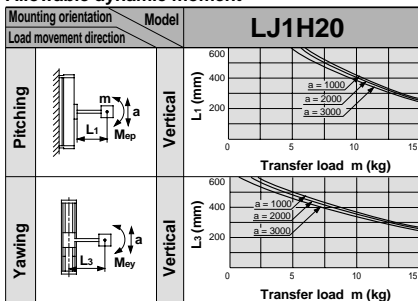
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Yawing	75

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

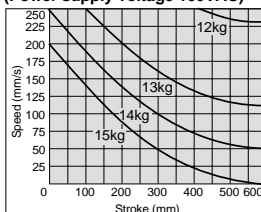
Allowable dynamic moment



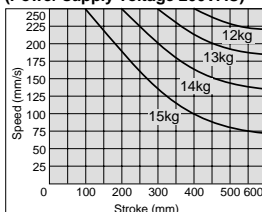
Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H2021PF-□□□K
(Power supply voltage 100VAC)



LJ1H2022PF-□□□K
(Power supply voltage 200VAC)

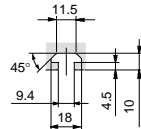
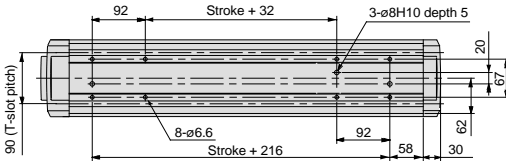
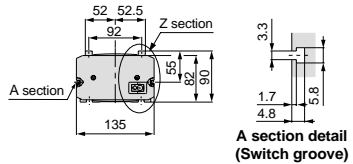
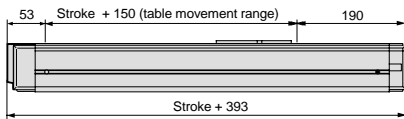
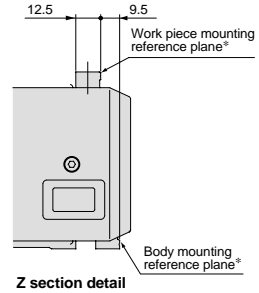
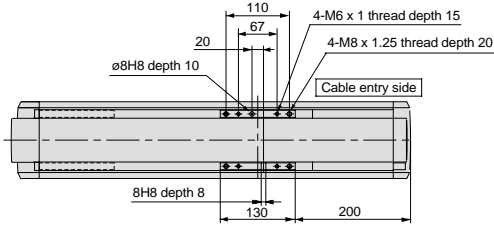


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 200 regarding regenerative absorption units.
Refer to page 204 regarding brake wiring.

Dimensions/LJ1H20□PF

Scale: 10%



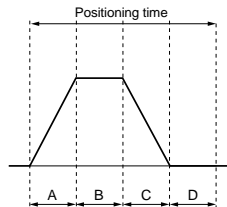
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	125	0.5	0.6	1.3	2.9	5.3
	250	0.5	0.6	0.9	1.7	2.9

* Values will vary slightly depending on the operating conditions.



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

LJ1
 LG1
 LC1
 LX
 LC6D/LC6C
 Switches

Standard Motor Vertical Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
ø15mm/10mm lead

How to Order

LJ1H202 **1** **PA** — Stroke **K** — **F** **2**

Power supply voltage

1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

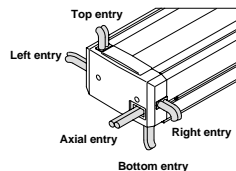
Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	100	200	300	400	500	600	
Performance	Body weight	kg	8.0	9.2	10.4	11.5	12.9	14.0	
	Operating temperature range	°C	5 to 40 (with no condensation)						
	Work load	kg	8						
	Rated thrust	N	180						
	Maximum speed	mm/s	500						
	Positioning repeatability	mm	±0.02						
Main parts	Motor	AC servomotor (100W)							
	Encoder	Incremental system							
	Lead screw	Ground ball screw ø15mm, 10mm lead							
	Guide	High rigidity direct acting guide							
	Motor/Screw connection	With coupling							
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A						
		Holding torque	0.4N·m						
Connection method		Ball screw mounting							
Controller	Model	LC1-1B2VA□□□□ (Refer to page 185 for details.)							
Regenerative absorption unit	Model	LC7R-K1□A□□□ (Refer to page 200 for details.)							

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number. Applicable strokes: 150, 250, 350, 450, 550
Example) LJ1H2021PA-150K-F2-X2

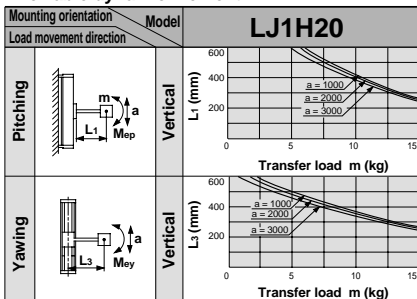
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Yawing	75

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

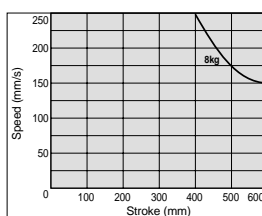
LJ1H2021PA-□□□K (Power supply voltage 100VAC)

It is not necessary to mount a regenerative absorption unit when the work piece load, speed, and stroke are within the actuator rating. However, use of a regenerative absorption unit is recommended under all conditions.

Actuator rating

Work load	8kg
Maximum speed	500mm/s
Maximum stroke	600mm

LJ1H2022PA-□□□K (Power supply voltage 200VAC)



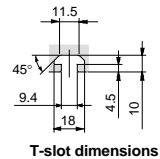
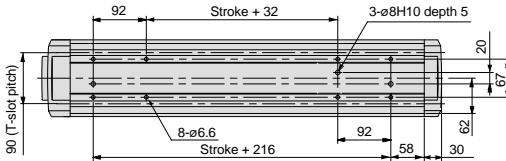
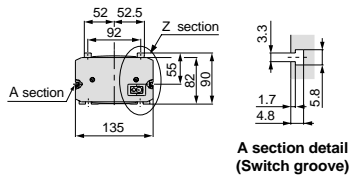
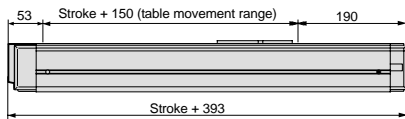
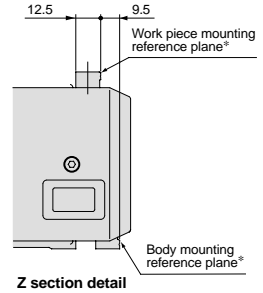
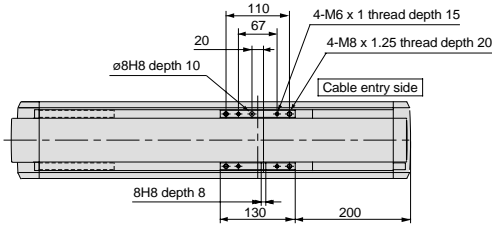
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 200 regarding regenerative absorption units.

Refer to page 204 regarding brake wiring.

Dimensions/LJ1H20□PA

Scale: 10%

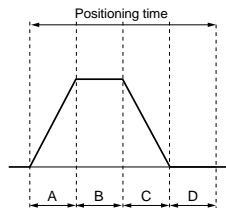


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	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 (0.4sec.)
 Maximum acceleration: 3000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor Vertical Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
∅15mm/5mm lead

How to Order

LJ1H202 **1** **NF** — Stroke **K** — **F** **2**

Power supply voltage

1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

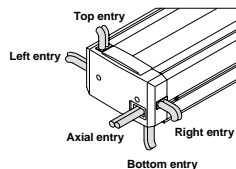
Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	100	200	300	400	500	600
Performance	Body weight	kg	8.0	9.2	10.4	11.5	12.9	14.0
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	15					
	Rated thrust	N	360					
	Maximum speed	mm/s	250					
	Positioning repeatability	mm	±0.05					
Main parts	Motor	AC servomotor (100W)						
	Encoder	Incremental system						
	Lead screw	Rolled ball screw ∅15mm, 5mm lead						
	Guide	High rigidity direct acting guide						
	Motor/Screw connection	With coupling						
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A					
Holding torque		0.4N·m						
Connection method		Ball screw mounting						
Controller	Model	LC1-1B2VF□□□□ (Refer to page 185 for details.)						
Regenerative absorption unit	Model	LC7R-K1□□□□ (Refer to page 200 for details.)						

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550
Example) LJ1H2021NF-150K-F2-X2

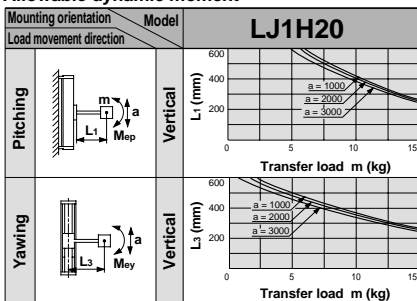
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Yawing	75

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

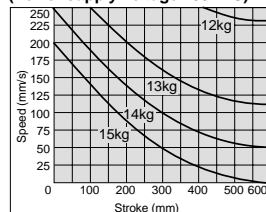
Allowable dynamic moment



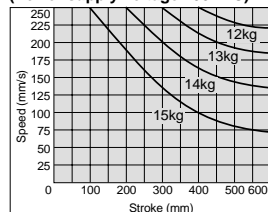
Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H2021NF-□□□K
(Power supply voltage 100VAC)



LJ1H2022NF-□□□K
(Power supply voltage 200VAC)

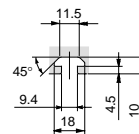
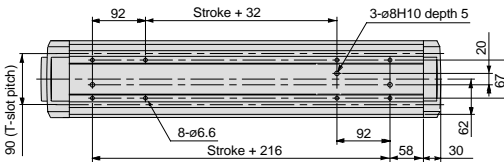
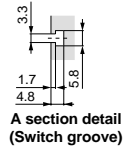
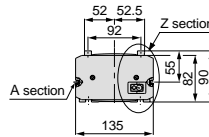
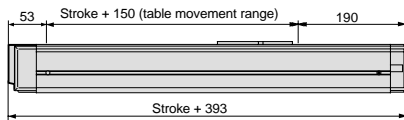
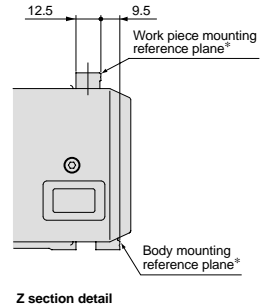
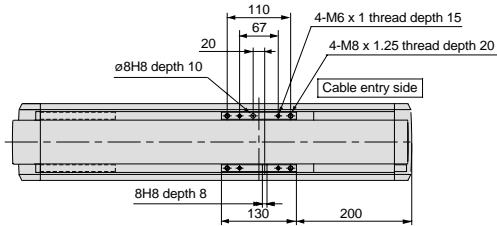


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 200 regarding regenerative absorption units.
Refer to page 204 regarding brake wiring.

Dimensions/LJ1H20□NF

Scale: 10%



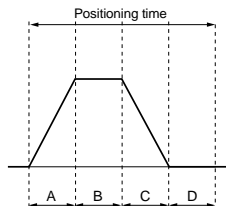
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	100	0.5	0.6	1.5	3.5	6.5
	125	0.5	0.6	1.3	2.9	5.3
	250	0.5	0.6	0.9	1.7	2.9

* Values will vary slightly depending on the operating conditions.



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

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor Vertical Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
ø 15mm/10mm lead

How to Order

LJ1H202 **1** **NA** — Stroke **K** — **F** **2**

Power supply voltage

1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

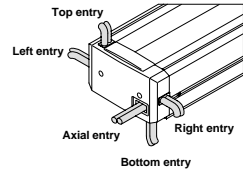
Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

		Standard stroke	mm	100	200	300	400	500	600	
Performance	Body weight	kg		8.0	9.2	10.4	11.5	12.9	14.0	
	Operating temperature range	°C	5 to 40 (with no condensation)							
	Work load	kg	8							
	Rated thrust	N	180							
	Maximum speed	mm/s	500							
	Positioning repeatability	mm	±0.05							
Main parts	Motor	AC servomotor (100W)								
	Encoder	Incremental system								
	Lead screw	Rolled ball screw ø15mm, 10mm lead								
	Guide	High rigidity direct acting guide								
	Motor/Screw connection	With coupling								
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24VDC ±10%, 0.4A							
		Holding torque	0.4N·m							
Connection method		Ball screw mounting								
Controller	Model	LC1-1B2VA□-□□ (Refer to page 185 for details.)								
Regenerative absorption unit	Model	LC7R-K1□A□□ (Refer to page 200 for details.)								

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 150, 250, 350, 450, 550
Example) LJ1H2021NA-150K-F2-X2

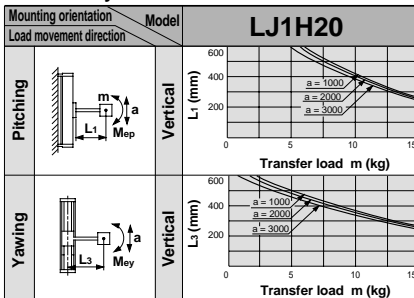
Allowable Moment (N·m)

Allowable static moment

Pitching	71
Yawing	75

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

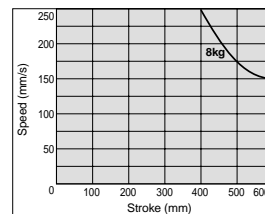
LJ1H2021NA-□□□K (Power supply voltage 100VAC)

It is not necessary to mount a regenerative absorption unit when the work piece load, speed, and stroke are within the actuator rating. However, use of a regenerative absorption unit is recommended under all conditions.

Actuator rating

Work load	8kg
Maximum speed	500mm/s
Maximum stroke	600mm

LJ1H2022NA-□□□K (Power supply voltage 200VAC)



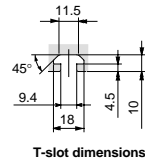
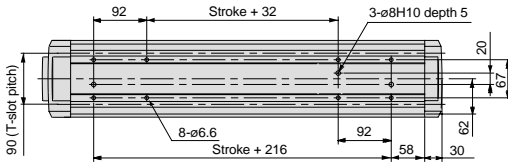
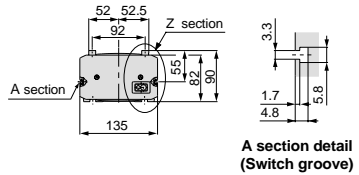
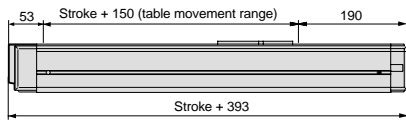
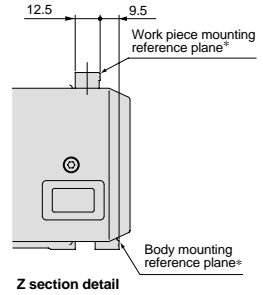
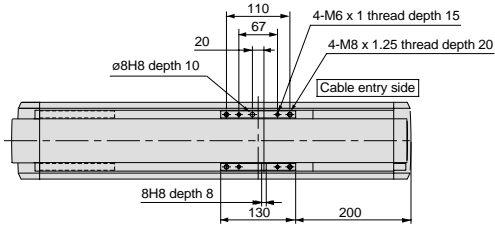
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

Be sure to refer to page 200 regarding regenerative absorption units.

Refer to page 204 regarding brake wiring.

Dimensions/LJ1H20□NA

Scale: 10%

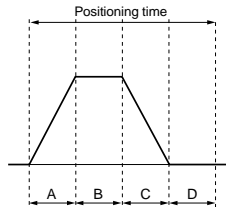


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	300	600
Speed (mm/s)	10	0.5	1.4	10.4	30.4	60.4
	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 (0.4sec.)
 Maximum acceleration: 3000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor Vertical Mount

Series LJ1H30

Motor Output
200W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
ø20mm/10mm lead

How to Order

LJ1H303 **1** **PA** — Stroke **K** — **F** **2**

Power supply voltage

1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

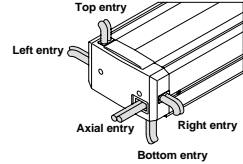
Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	200	300	400	500	600
Performance	Body weight	kg	16.3	18.3	20.3	22.3	24.3
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	20				
	Rated thrust	N	360				
	Maximum speed	mm/s	500				
Main parts	Positioning repeatability	mm	±0.02				
	Motor		AC servomotor (200W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw ø20mm, 10mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake	Specifications		De-energized operation type, Rated voltage 24VDC ±10%, 0.5A			
Holding torque			1.0N·m				
Connection method			Ball screw mounting				
Controller	Model		LC1-1B3VA□□□□ (Refer to page 185 for details.)				
Regenerative absorption unit	Model		LC7R-K1□A□□□ (Refer to page 200 for details.)				

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "X2" at the end of the part number.
Applicable strokes: 250, 350, 450, 550
Example) LJ1H3031PA-250K-F2-X2

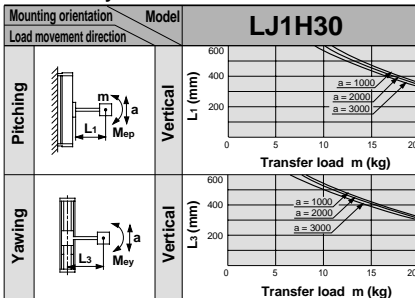
Allowable Moment (N·m)

Allowable static moment

Pitching	117
Yawing	123

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

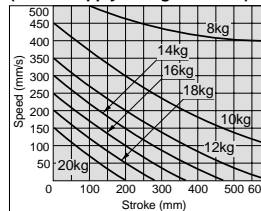
Allowable dynamic moment



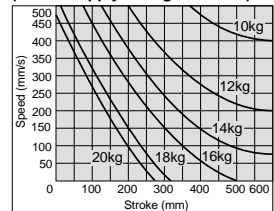
Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H3031PA-□□□K
(Power supply voltage 100VAC)



LJ1H3032PA-□□□K
(Power supply voltage 200VAC)

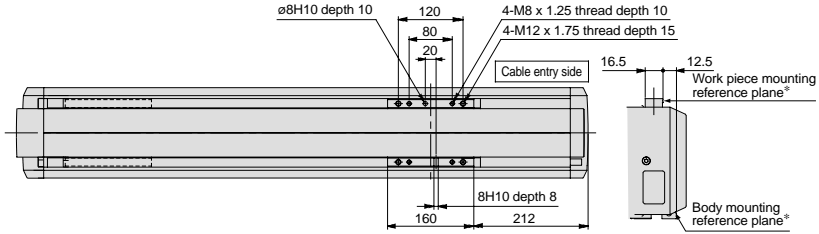


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

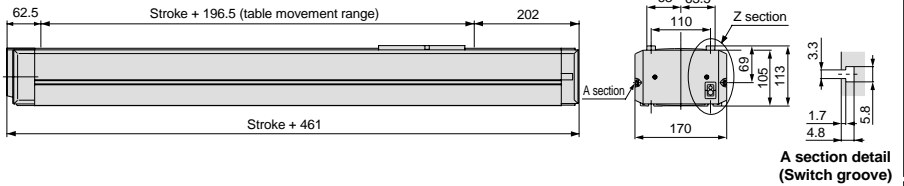
Be sure to refer to page 200 regarding regenerative absorption units.
Refer to page 204 regarding brake wiring.

Dimensions/LJ1H30□PA

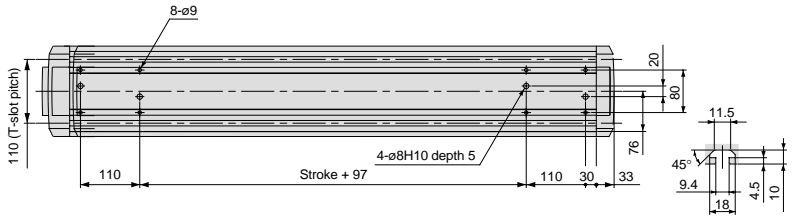
Scale: 10%



Z section detail



A section detail (Switch groove)



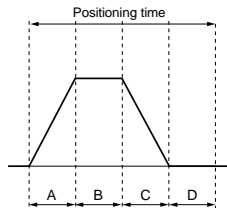
T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	300	600
Speed (mm/s)	10	1.1	2.0	11.0	31.0	61.0
	100	1.1	1.2	2.1	4.1	7.1
	250	1.1	1.2	1.5	2.3	3.5
	500	1.1	1.2	1.4	1.8	2.4

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
 B: Constant velocity time
 C: Deceleration time
 D: Resting time (1.0sec.)
 Maximum acceleration: 3000mm/s²

LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Standard Motor Vertical Mount

Series LJ1H30

Motor Output
200W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
∅20mm/10mm lead

How to Order

LJ1H303 **1** **NA** — Stroke **K** — **F** **2**

Power supply voltage

1	100VAC (50/60Hz)
2	200VAC (50/60Hz)

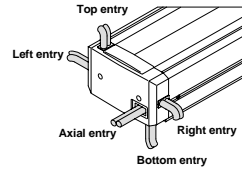
Cable entry direction

	Actuator cable	Brake cable
F	Axial	Left
R	Right	Axial
L	Left	Axial
T	Top	Axial
B	Bottom	Axial

Cable length

2	2m
3	3m
4	4m
5	5m

Cable entry direction



Specifications

Standard stroke		mm	200	300	400	500	600	
Performance	Body weight	kg	16.3	18.3	20.3	22.3	24.3	
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	20					
	Rated thrust	N	360					
	Maximum speed	mm/s	500					
	Positioning repeatability	mm	±0.05					
Main parts	Motor	AC servomotor (200W)						
	Encoder	Incremental system						
	Lead screw	Rolled ball screw ∅20mm, 10mm lead						
	Guide	High rigidity direct acting guide						
	Motor/Screw connection	With coupling						
	Electromagnetic brake	Specifications	De-energized operation type, Rated voltage 24VDC ±10%, 0.5A					
		Holding torque	1.0N-m					
Connection method		Ball screw mounting						
Controller	Model	LC1-1B3VA□□□□ (Refer to page 185 for details.)						
Regenerative absorption unit	Model	LC7R-K1□A□□□ (Refer to page 200 for details.)						

Intermediate strokes

For manufacture of strokes other than the standard strokes on the left, add "-X2" at the end of the part number.
Applicable strokes: 250, 350, 450, 550
Example) LJ1H3031NA-250K-F2-X2

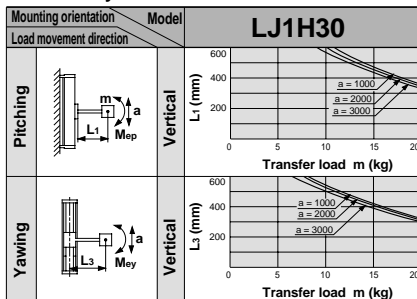
Allowable Moment (N-m)

Allowable static moment

Pitching	117
Yawing	123

m : Transfer load (kg)
a : Work piece acceleration (mm/s²)
Me: Dynamic moment
L : Overhang to work piece center of gravity (mm)

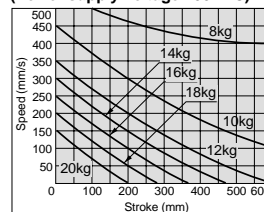
Allowable dynamic moment



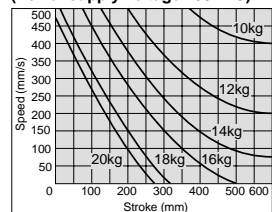
Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

LJ1H3031NA-□□□K
(Power supply voltage 100VAC)



LJ1H3032NA-□□□K
(Power supply voltage 200VAC)

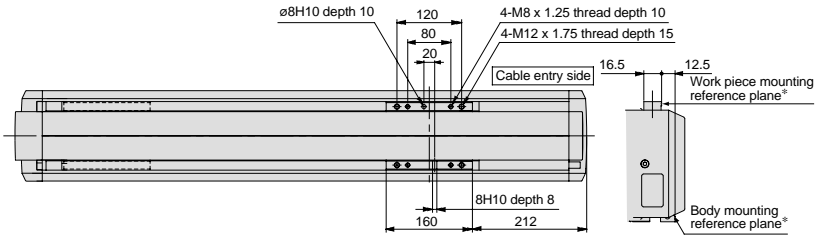


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

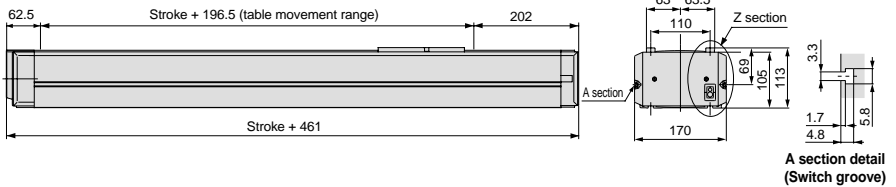
Be sure to refer to page 200 regarding regenerative absorption units.
Refer to page 204 regarding brake wiring.

Dimensions/LJ1H30□NA

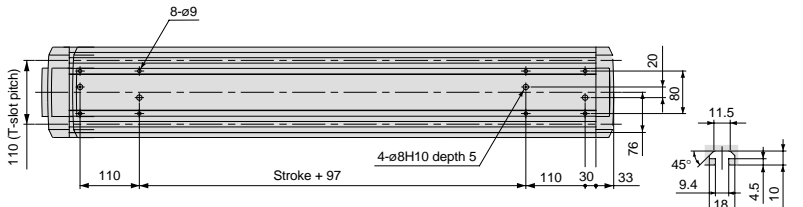
Scale: 10%



Z section detail



A section detail (Switch groove)



T-slot dimensions

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
		1	10	100	300	600
Speed (mm/s)	10	0.5	2.0	11.0	31.0	61.0
	100	1.1	1.2	2.1	4.1	7.1
	250	1.1	1.2	1.5	2.3	3.5
	500	1.1	1.2	1.4	1.8	2.4

* Values will vary slightly depending on the operating conditions.

