



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

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■ 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
N 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
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

Brake
N None
K With brake

Limit switch
N None
W B contact specification 2 pcs.

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

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

50WHigh Rigidity
Direct Acting
Guide

Ground Ball Screw

ø12mm/12mm lead**How to Order****LJ1H101 1 PB Stroke F 2**

Power supply voltage

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

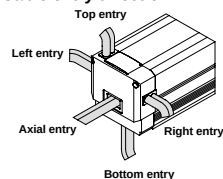
Cable entry direction

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				
Main parts	Positioning repeatability	mm	±0.02				
	Motor		AC servomotor (50W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw ø12mm, 12mm lead				
	Guide		High rigidity direct acting guide				
Controller	Motor/Screw connection		With coupling				
	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) LJ1H101PB-150-F2-X2

Allowable Moment (N·m)**Allowable static moment**

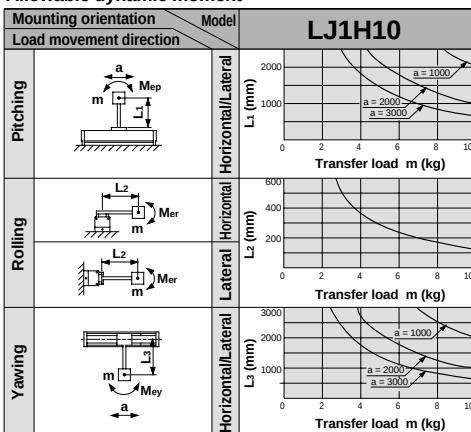
Pitching	10.2
Rolling	12.8
Yawing	10.2

m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me: Dynamic moment

L : Overhang to work piece center of gravity (mm)

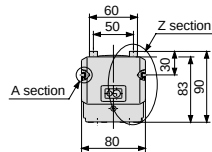
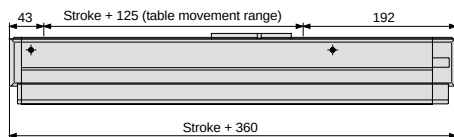
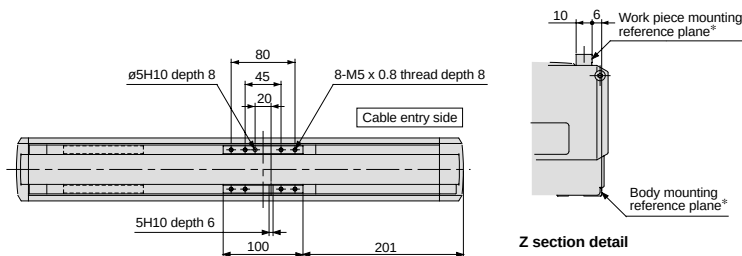
Allowable dynamic moment

Refer to page 145 for deflection data.

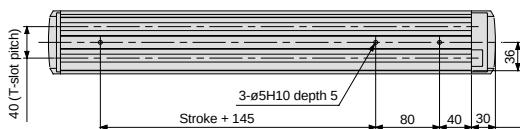
Standard Motor/Horizontal Mount Specification *Series LJ1H10*

Dimensions/LJ1H101□PB

Scale: 15%



A section detail
(Switch groove)



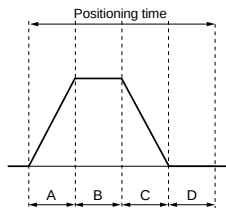
T-slot dimensions

* 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
	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

Standard Motor

Horizontal Mount

Series LJ1H10

Motor Output
50W

High Rigidity
Direct Acting
Guide

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

How to Order

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

Power supply voltage

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

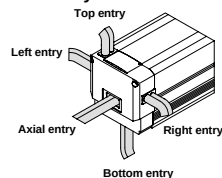
Cable entry direction

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				
Main parts	Positioning repeatability	mm	±0.05				
	Motor		AC servomotor (50W)				
	Encoder		Incremental system				
	Lead screw		Rolled ball screw $\phi 12\text{mm}$, 12mm lead				
	Guide		High rigidity direct acting guide				
Controller	Motor/Screw connection		With coupling				
	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

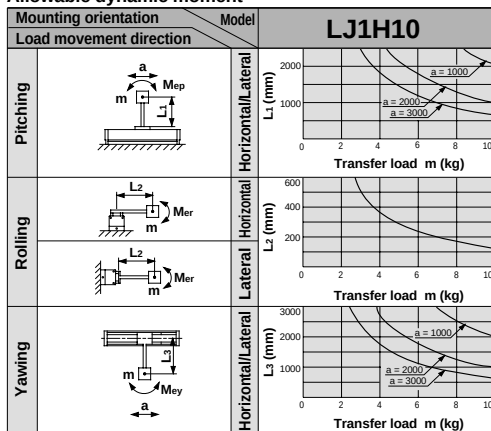
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me: Dynamic moment

L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment

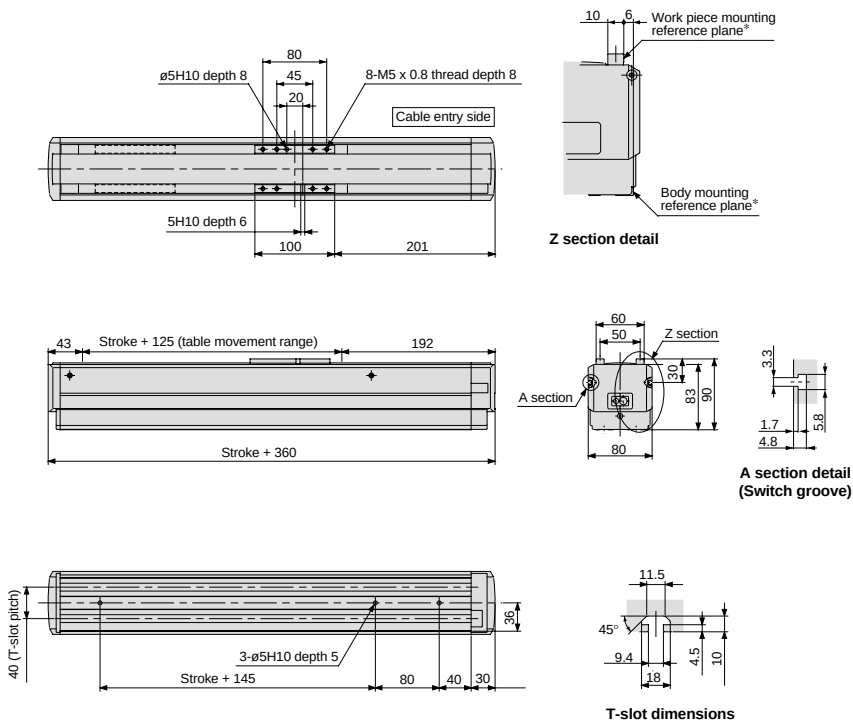


Refer to page 145 for deflection data.

Standard Motor/Horizontal Mount Specification *Series LJ1H10*

Dimensions/LJ1H101□NB

Scale: 15%

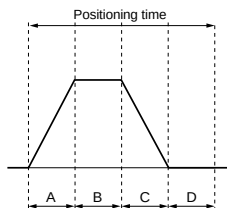


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
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
	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

Standard Motor**Horizontal Mount****Series LJ1H10**

Motor Output

50WHigh Rigidity
Direct Acting
Guide

Slide Screw

Ø20mm/20mm lead

How to Order**LJ1H101 1 SC Stroke F 2**

Power supply voltage

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

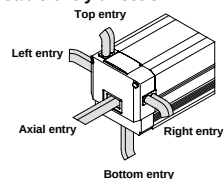
Cable entry direction

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 Ø20mm, 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) LJ1H101SC-150-F2-X2

Allowable Moment (N·m)**Allowable static moment**

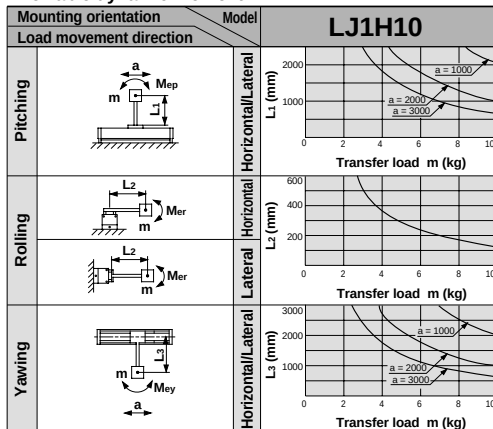
Pitching	10.2
Rolling	12.8
Yawing	10.2

m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

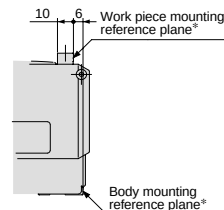
Me: Dynamic moment

L : Overhang to work piece center of gravity (mm)

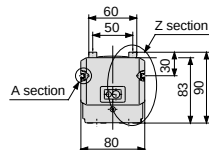
Allowable dynamic moment

Refer to page 145 for deflection data.

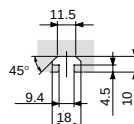
Scale: 15%



Z section detail



**A section detail
(Switch groove)**

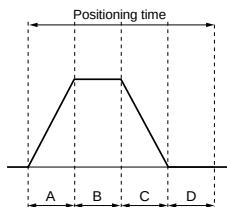


T-slot dimensions

* 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 (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

Standard Motor**Horizontal Mount****Series LJ1H20**

Motor Output

100WHigh Rigidity
Direct Acting
Guide

Ground Ball Screw

Ø15mm/10mm lead

How to Order**LJ1H202 1 PA Stroke F 2**

Power supply voltage

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

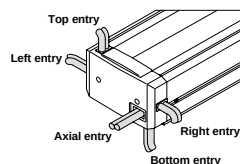
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable length

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

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					
Main parts	Positioning repeatability	mm	±0.02					
	Motor		AC servomotor (100W)					
	Encoder		Incremental system					
	Lead screw		Ground ball screw Ø15mm, 10mm lead					
	Guide		High rigidity direct acting guide					
Controller	Motor/Screw connection		With coupling					
	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**

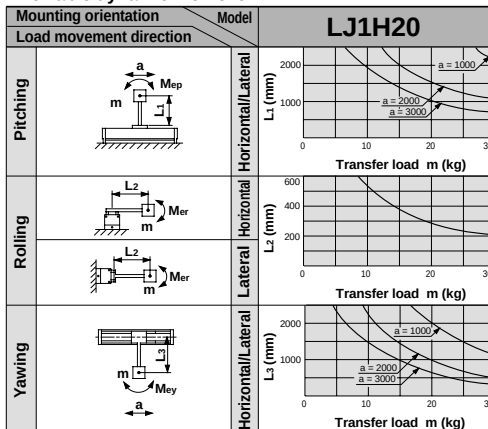
Pitching	71
Rolling	83
Yawing	75

m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me : Dynamic moment

L : Overhang to work piece center of gravity (mm)

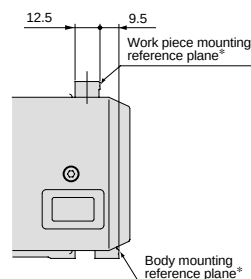
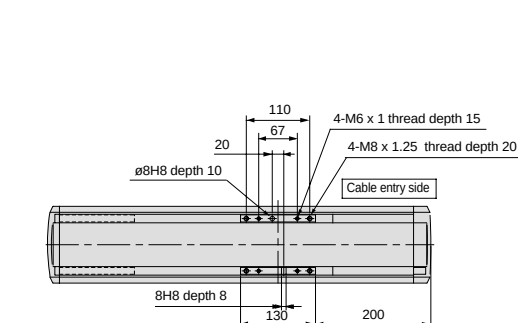
Allowable dynamic moment

Refer to page 145 for deflection data.

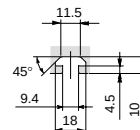
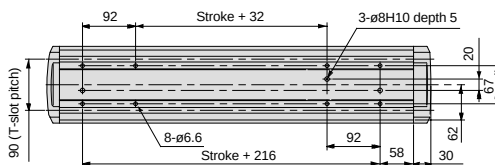
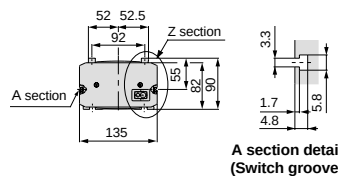
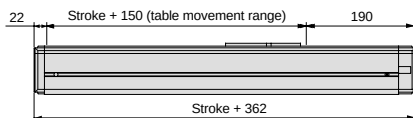
Standard Motor/Horizontal Mount Specification *Series LJ1H20*

Dimensions/LJ1H20□PA

Scale: 10%



Z section detail



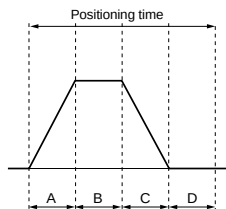
T-slot dimensions

* 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	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

Standard Motor**Horizontal Mount****Series LJ1H20**

Motor Output

100WHigh Rigidity
Direct Acting
Guide

Ground Ball Screw

Ø15mm/20mm lead

How to Order**LJ1H202 1 PC Stroke F 2**

Power supply voltage

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

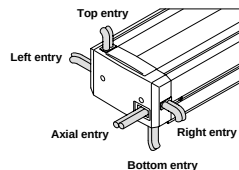
Cable entry direction

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
Main parts	Positioning repeatability	mm	±0.02					
	Motor		AC servomotor (100W)					
	Encoder		Incremental system					
	Lead screw		Ground ball screw Ø15mm, 20mm lead					
	Guide		High rigidity direct acting guide					
Controller	Motor/Screw connection		With coupling					
	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) LJ1H201PC-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**

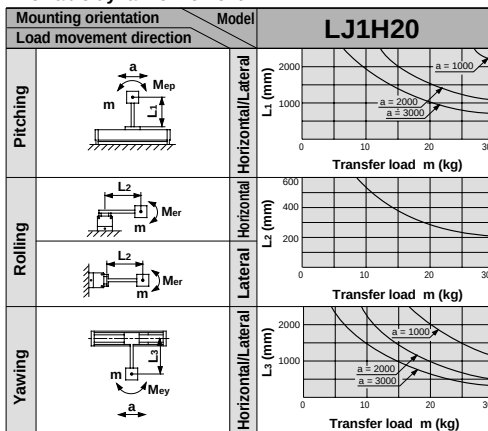
Pitching	71
Rolling	83
Yawing	75

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

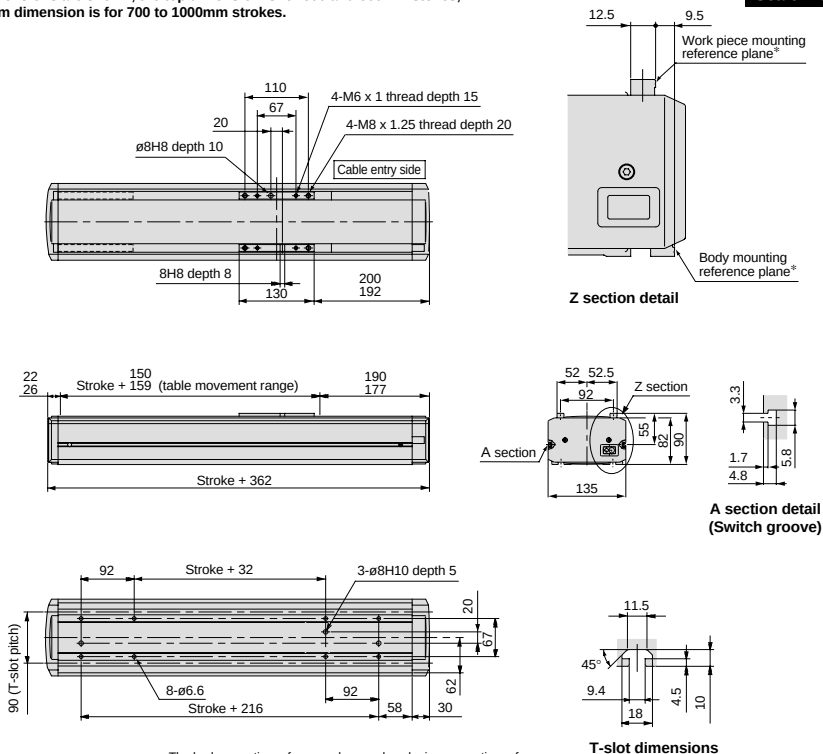
Refer to page 145 for deflection data.

Standard Motor/Horizontal Mount Specification *Series LJ1H20*

Dimensions/LJ1H20□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%

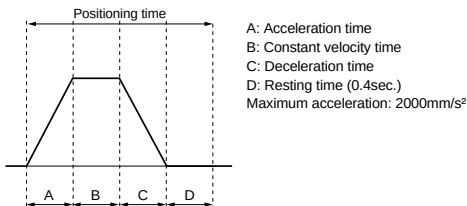


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning 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□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	
LJ1H20□PC-900-□□	600	500	500	500	Power supply: 200/220(V)AC ±10% Compatible controller: LC1-1B2H2-□□
LJ1H20□PC-1000-□□	500	500	500	500	

Standard Motor**Horizontal Mount****Series LJ1H20**

Motor Output

100WHigh Rigidity
Direct Acting
Guide

Rolled Ball Screw

Ø15mm/10mm lead

How to Order**LJ1H202 1 NA Stroke F 2**

Power supply voltage

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

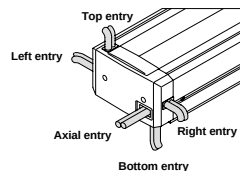
Cable entry direction

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 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) 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

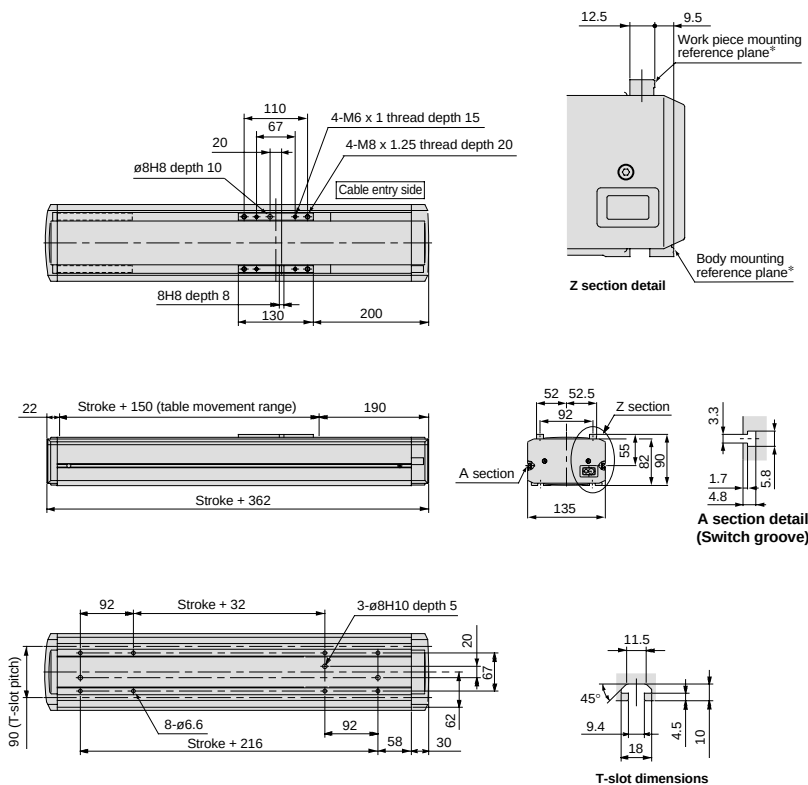
Mounting orientation		Model
Load movement direction		LJ1H20
Pitching		Horizontal/Lateral
Rolling		Horizontal
Yawing		Lateral

Refer to page 145 for deflection data.

Standard Motor/Horizontal Mount Specification *Series LJ1H20*

Dimensions/LJ1H20□NA

Scale: 10%

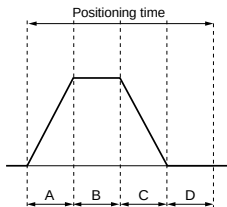


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)					
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

Standard Motor

Horizontal Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
Ø15mm/20mm lead

How to Order

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

Power supply voltage

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

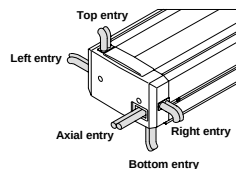
Cable entry direction

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 Ø15mm, 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.

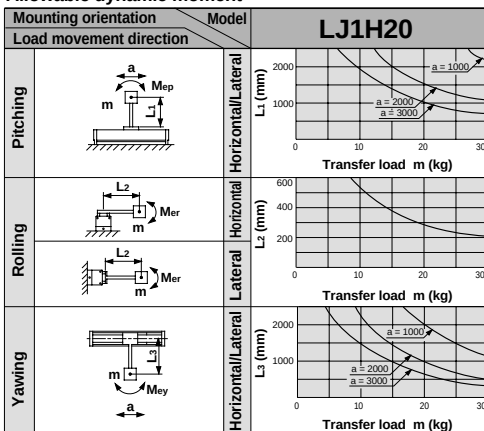
Allowable Moment (N·m)

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



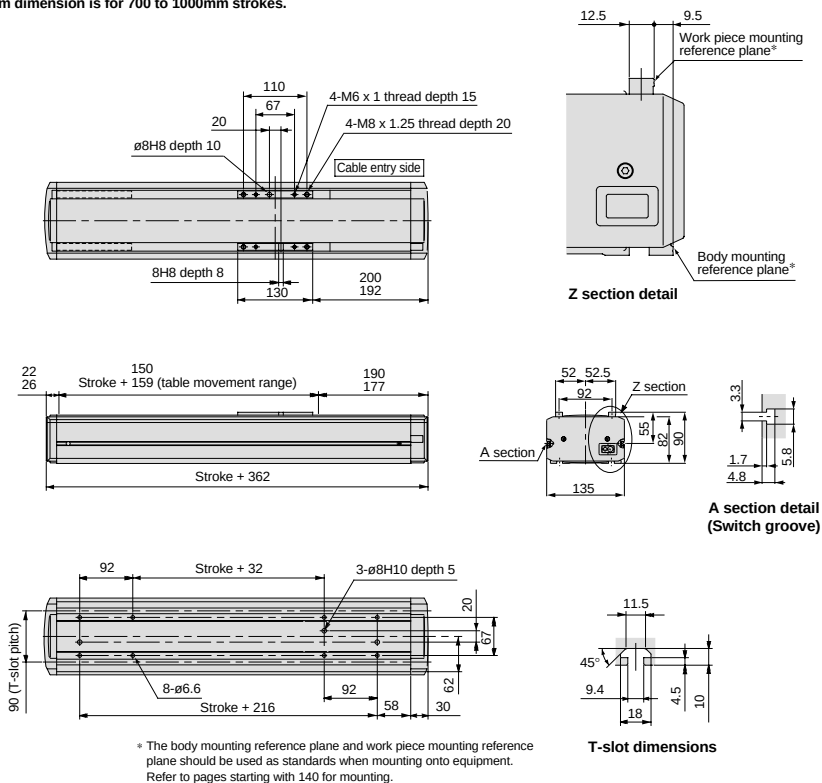
Refer to page 145 for deflection data.

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.

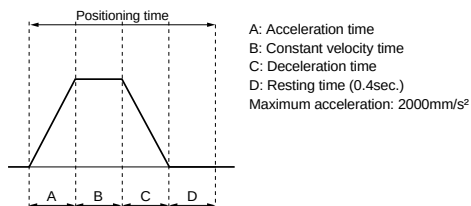
Scale: 10%



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	

Standard Motor**Horizontal Mount****Series LJ1H20**

Motor Output

100WHigh Rigidity
Direct Acting
Guide

Slide Screw

Ø20mm/20mm lead

How to Order**LJ1H202 1 SC — Stroke — F 2**

Power supply voltage

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

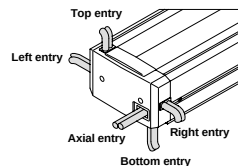
Cable entry direction

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										
Main parts	Positioning repeatability	mm	±0.1										
	Motor		AC servomotor (100W)										
	Encoder		Incremental system										
	Lead screw		Slide screw Ø20mm, 20mm lead										
	Guide		High rigidity direct acting guide										
Controller	Motor/Screw connection		With coupling										
	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**

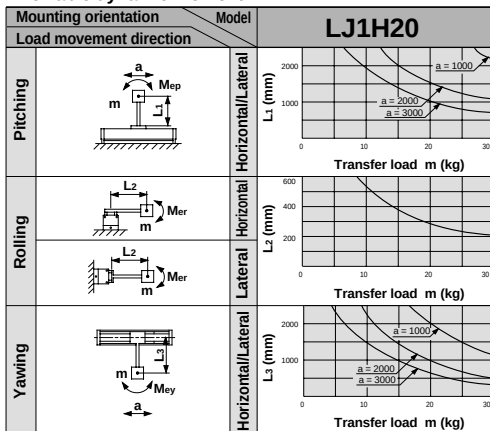
Pitching	71
Rolling	83
Yawing	75

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

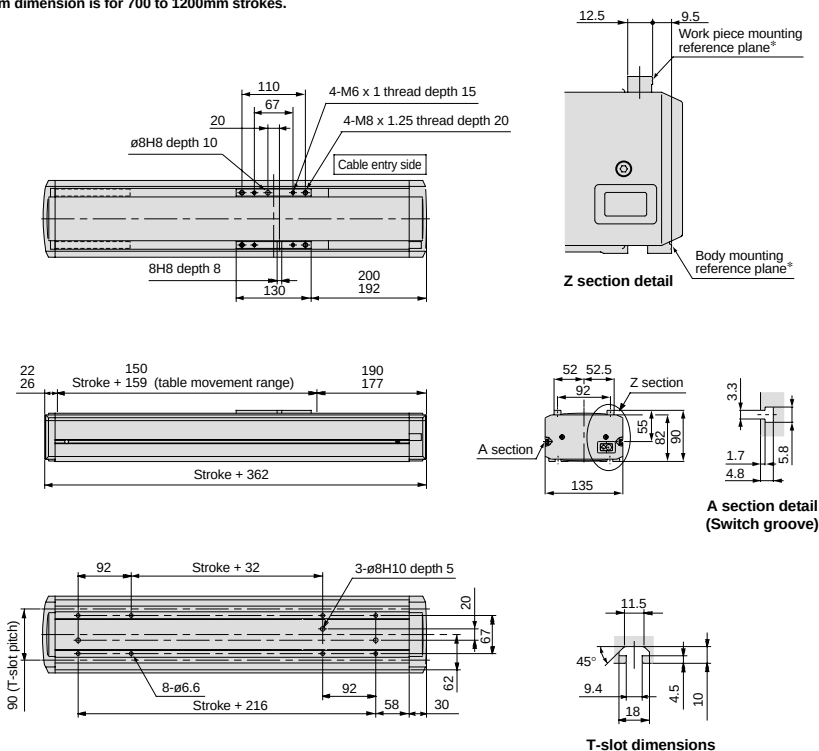
Refer to page 145 for deflection data.

Standard Motor/Horizontal Mount Specification *Series LJ1H20*

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%

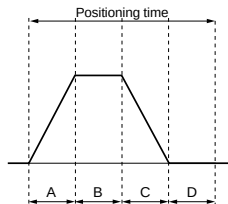


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		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

Standard Motor**Horizontal Mount****Series LJ1H30**

Motor Output

200WHigh Rigidity
Direct Acting
Guide

Ground Ball Screw

Ø25mm/25mm lead

How to Order**LJ1H303 1 PD Stroke F 2****Power supply voltage**

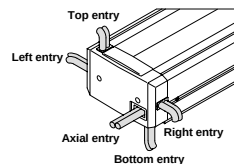
1	100/110VAC (50/60Hz)
2	200VAC (50/60Hz)

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	500
Main parts	Positioning repeatability	mm	±0.02								
	Motor		AC servomotor (200W)								
	Encoder		Incremental system								
	Lead screw		Ground ball screw Ø25mm, 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**

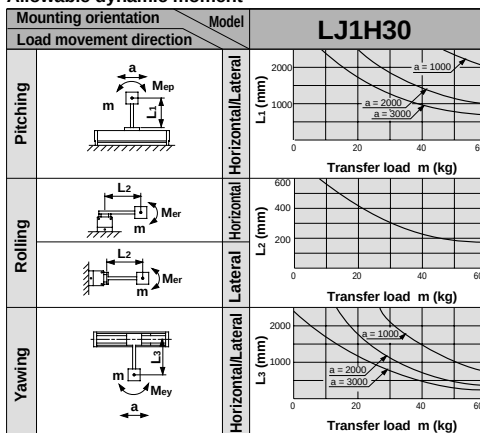
Pitching	117
Rolling	137
Yawing	123

m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me : Dynamic moment

L : Overhang to work piece center of gravity (mm)

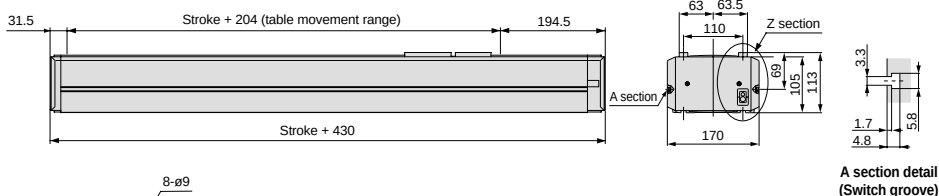
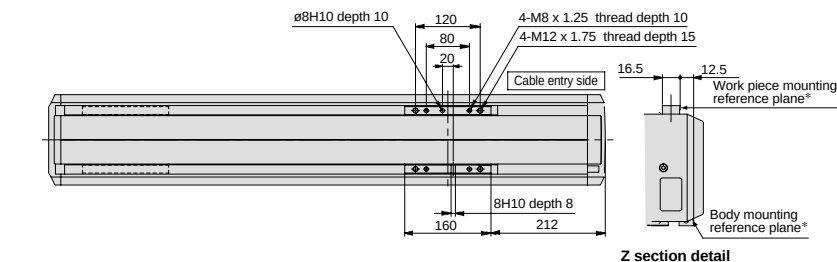
Allowable dynamic moment

Refer to page 145 for deflection data.

Standard Motor/Horizontal Mount Specification *Series LJ1H30*

Dimensions/LJ1H303□PD

Scale: 10%



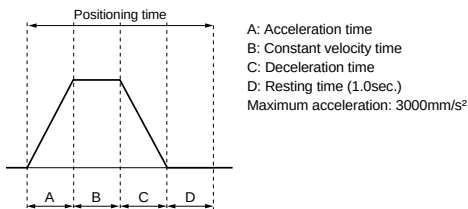
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment.
Refer to pages starting with 140 for mounting.

T-slot dimensions

Positioning Time Guide

		Positioning time (sec.)					
Positioning distance (mm)		1	10	100	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.



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	
LJ1H3032PD-200 to 1000-□□	1000	900	800	700	650	600	Power supply: 200(V)AC ±10% Compatible controller: LC1-1B3H2-□□
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

Ø25mm/25mm lead

How to Order

LJ1H303 1 ND Stroke F 2

Power supply voltage

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

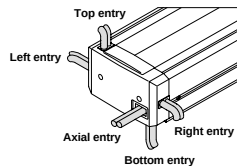
Cable entry direction

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 Ø25mm, 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

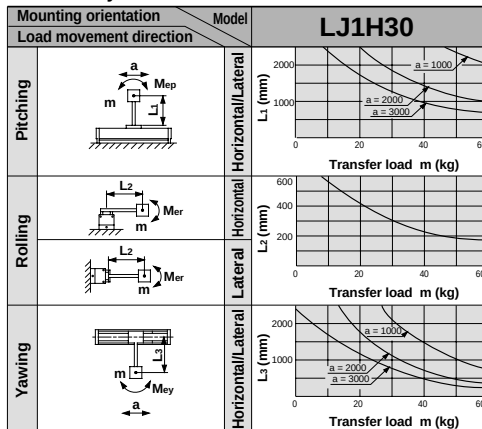
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me : Dynamic moment

L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment

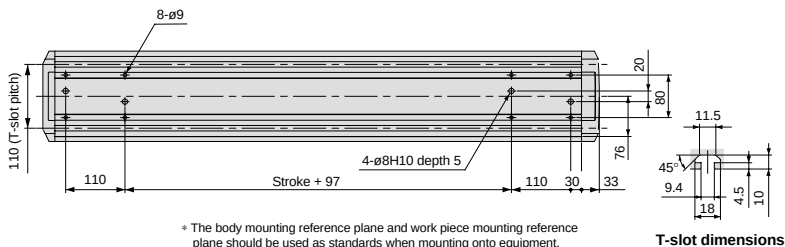
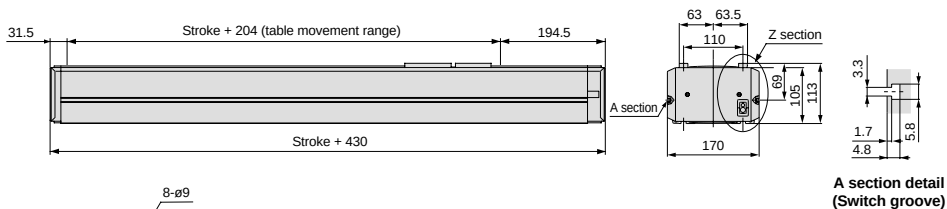
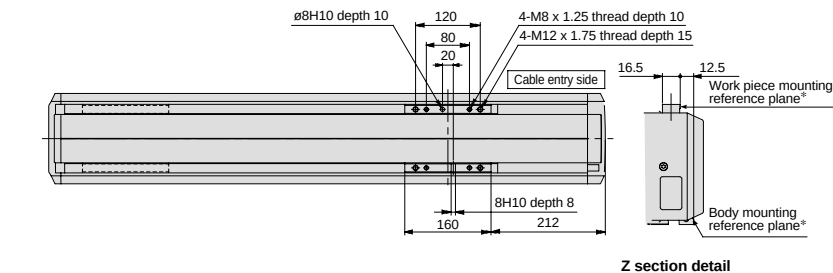


Refer to page 145 for deflection data.

Standard Motor/Horizontal Mount Specification *Series LJ1H30*

Dimensions/LJ1H303□ND

Scale: 10%

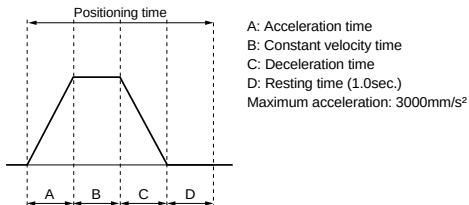


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment.
Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)					
Positioning distance (mm)		1	10	100	750	1500	
Speed (mm/s)	10	1.1	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.



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

200WHigh Rigidity
Direct Acting
Guide

Slide Screw

Ø30mm/40mm lead

How to Order

LJ1H303 1 SE — Stroke — F 2

Power supply voltage

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

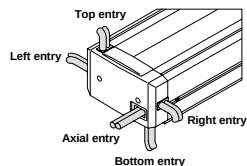
Cable entry direction

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	Positioning repeatability	mm	±0.1								
	Motor		AC servomotor (200W)								
	Encoder		Incremental system								
	Lead screw		Slide screw Ø30mm, 40mm lead								
	Guide		High rigidity direct acting guide								
Controller	Motor/Screw connection		With coupling								
	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

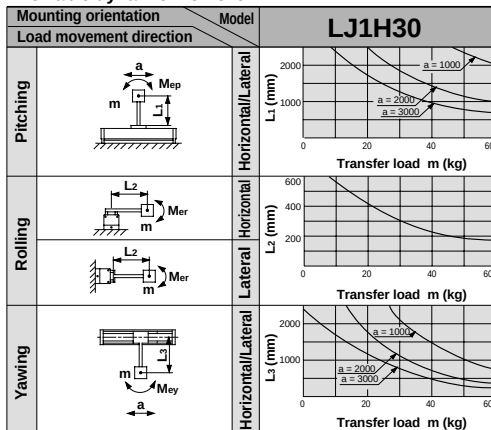
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me: Dynamic moment

L : Overhang to work piece center of gravity (mm)

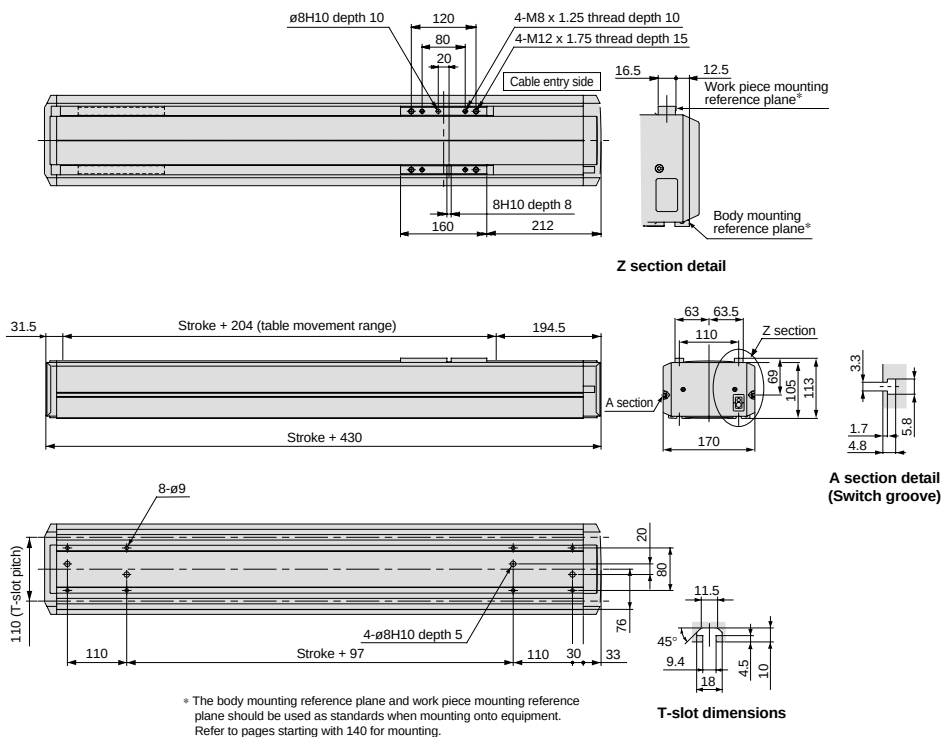
Allowable dynamic moment



Refer to page 145 for deflection data.

Standard Motor/Horizontal Mount Specification *Series LJ1H30*

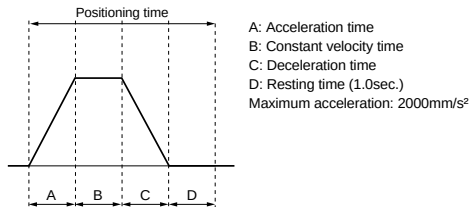
Dimensions/LJ1H30□SE

Scale: 10%


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.



Standard Motor Vertical Mount

Series LJ1H10

Motor Output
100W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
Ø12mm/8mm lead

How to Order

LJ1H102 1 PH Stroke K F 2

Power supply voltage

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

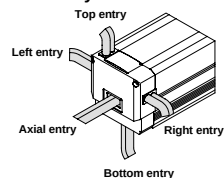
Cable entry direction

	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				
Main parts	Positioning repeatability	mm	±0.02				
	Motor		AC servomotor (100W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw Ø12mm, 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

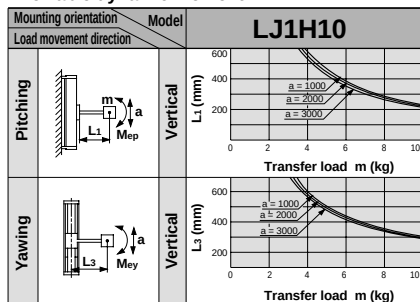
Allowable Moment (N·m)

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)

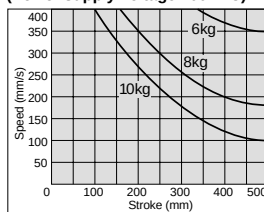
Allowable dynamic moment



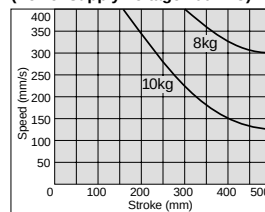
Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

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



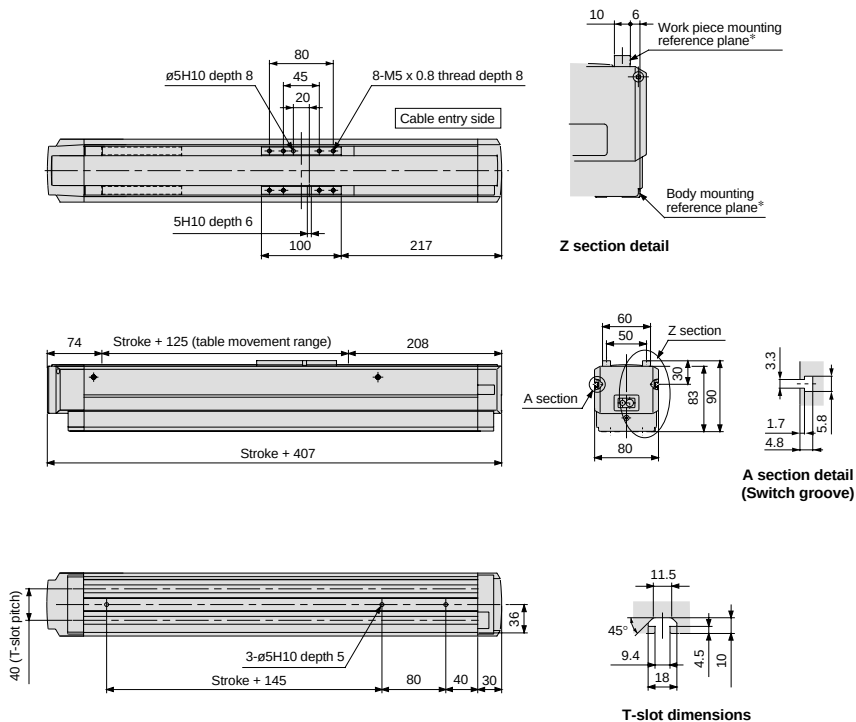
LJ1H1022PH-□□□K
(Power supply voltage 200VAC)



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.

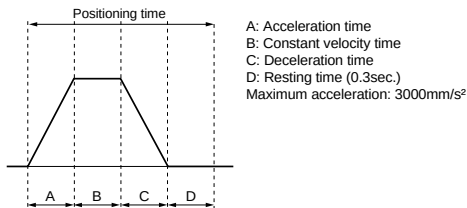
Dimensions/LJ1H102□PH**Scale: 15%**

* 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.



Standard Motor

Vertical Mount

Series LJ1H10

Motor Output
100W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
Ø12mm/12mm lead

How to Order

LJ1H102 1 PB — Stroke K — F 2

Power supply voltage

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

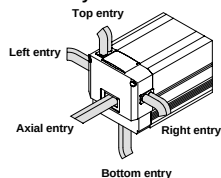
Cable entry direction

	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 Ø12mm, 12mm lead				
	Guide		High rigidity direct acting guide				
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□□□ (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

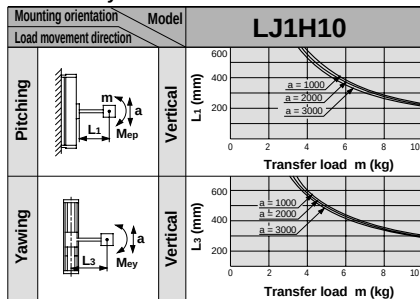
Allowable Moment (N·m)

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.

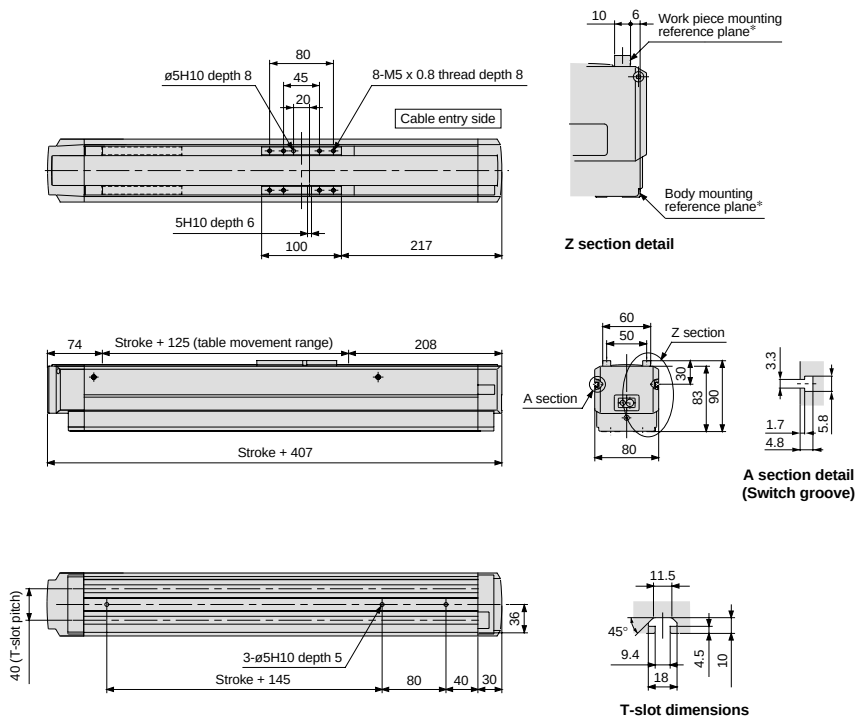
Actuator rating

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

Refer to page 204 regarding brake wiring.

Dimensions/LJ1H102□PB

Scale: 15%

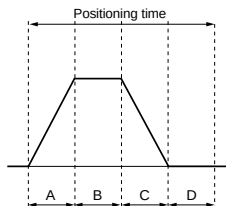


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

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
	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

Standard Motor

Vertical Mount

Series LJ1H10

Motor Output

100W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw

ø12mm/8mm lead

How to Order

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

Power supply voltage

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

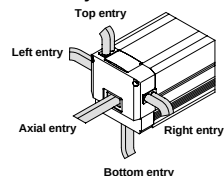
Cable entry direction

	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 ø12mm, 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

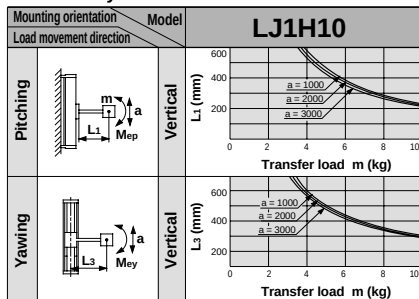
Allowable Moment (N·m)

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)

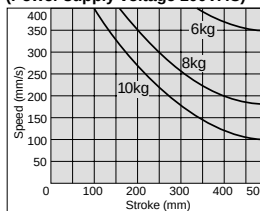
Allowable dynamic moment



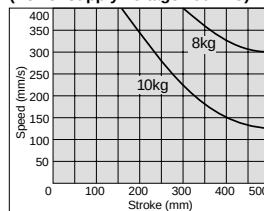
Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

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



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

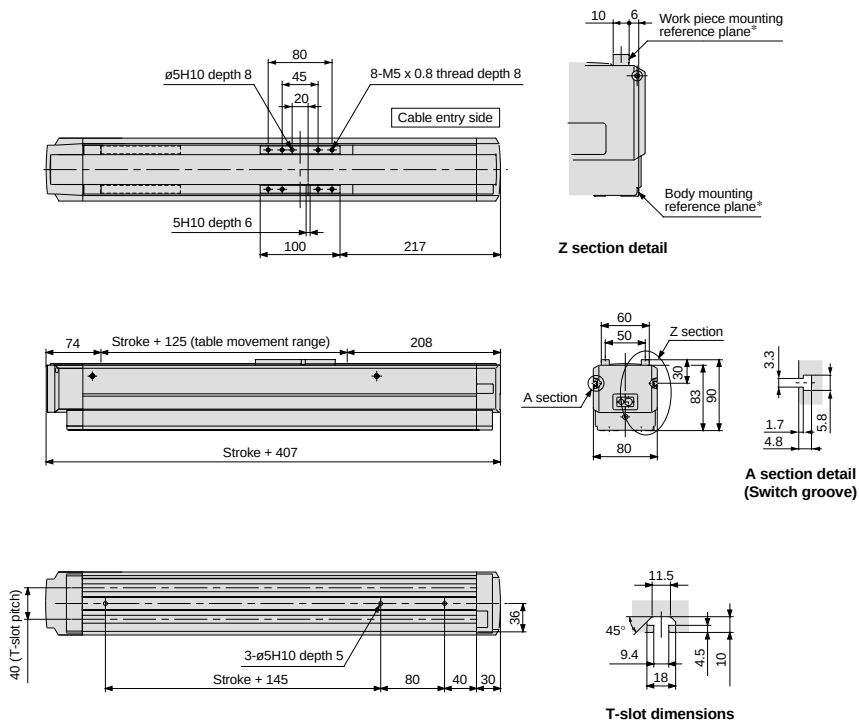


When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

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

Standard Motor/Vertical Mount Specification *Series LJ1H10*

Dimensions/LJ1H102□NH

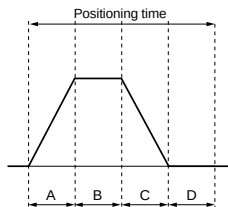
Scale: 15%


* 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.)				
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.



Standard Motor

Vertical Mount

Series LJ1H10

Motor Output
100W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
Ø12mm/12mm lead

How to Order

LJ1H102 1 NB — Stroke K — F 2

Power voltage

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

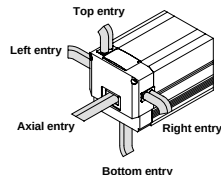
Cable entry direction

	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 ø12mm, 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

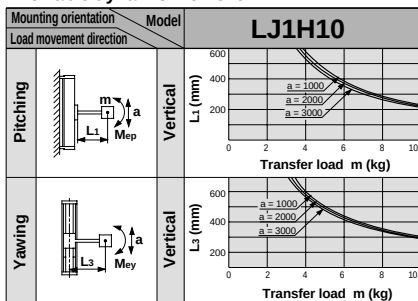
Allowable Moment (N·m)

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.

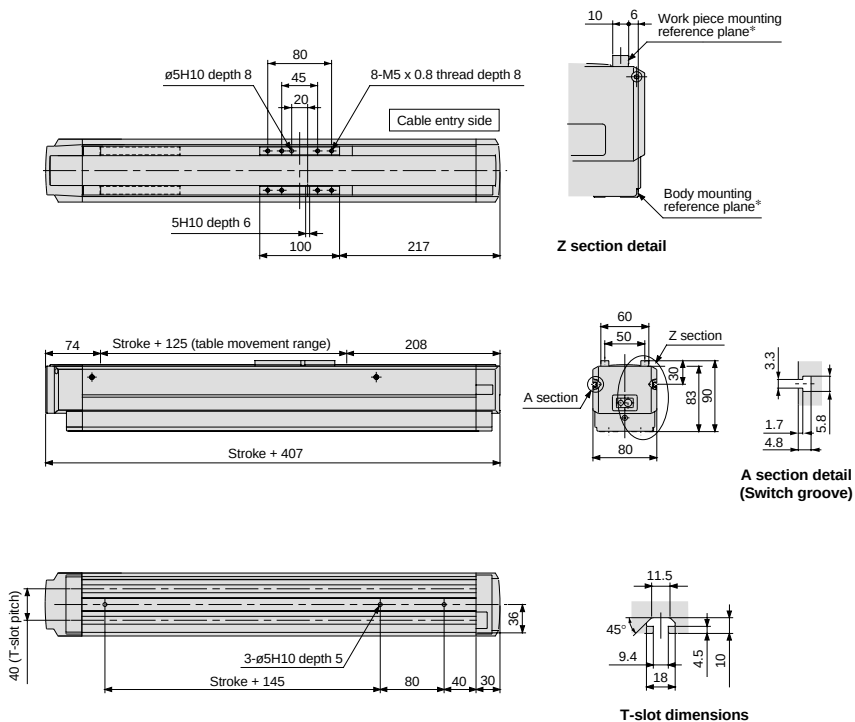
Actuator rating

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

Refer to page 204 regarding brake wiring.

Standard Motor/Vertical Mount Specification *Series LJ1H10*

Dimensions/LJ1H102□NB

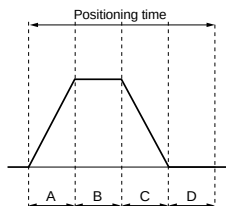
Scale: 15%


* 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.)				
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
	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

Standard Motor Vertical Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
Ø15mm/5mm lead

How to Order

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

Power supply voltage

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

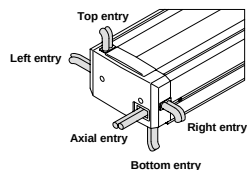
Cable entry direction

	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 ø15mm, 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

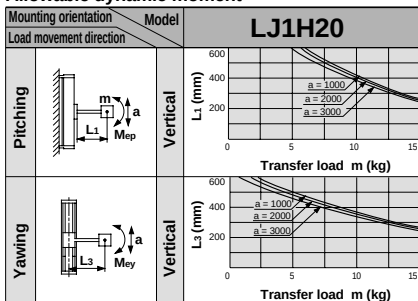
Allowable Moment (N·m)

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)

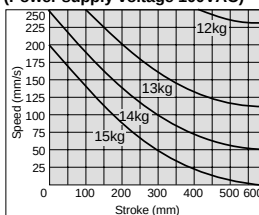
Allowable dynamic moment



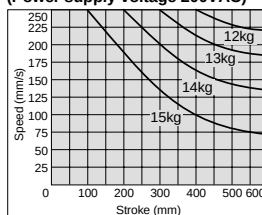
Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

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



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



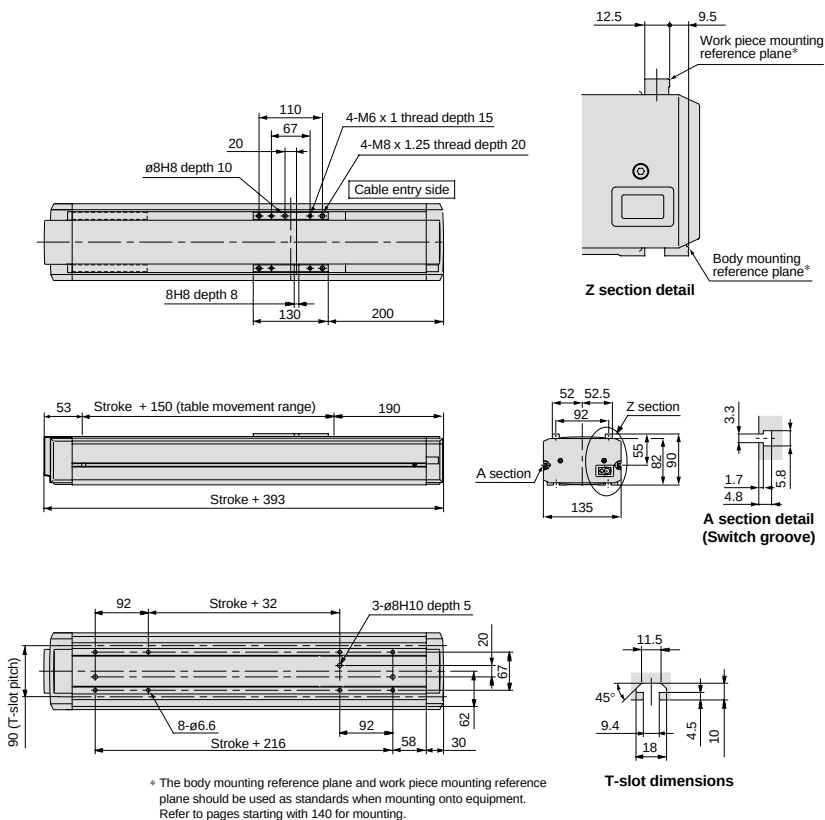
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

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

Standard Motor/Vertical Mount Specification *Series LJ1H20*

Dimensions/LJ1H20□PF

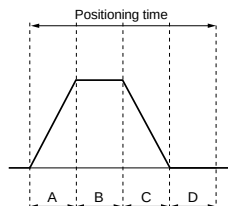
Scale: 10%



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

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)

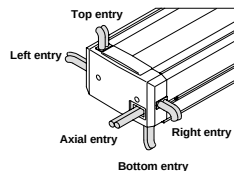
Cable entry direction ●

	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					
Main parts	Positioning repeatability	mm	±0.02					
	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

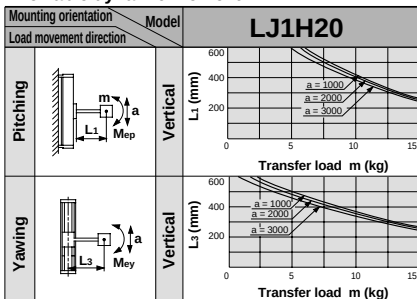
Allowable Moment (N·m)

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

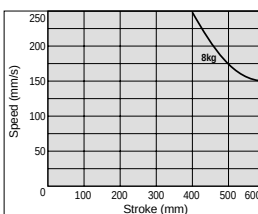
LJ1H2021PA-□□□K (Power supply voltage 100VAC)

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.**

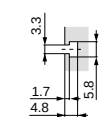
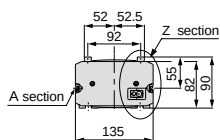
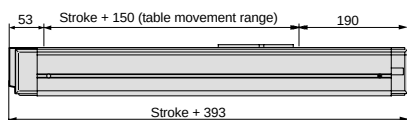
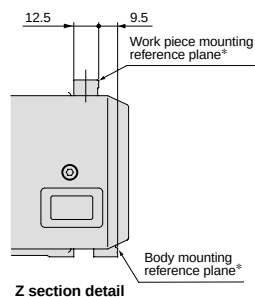
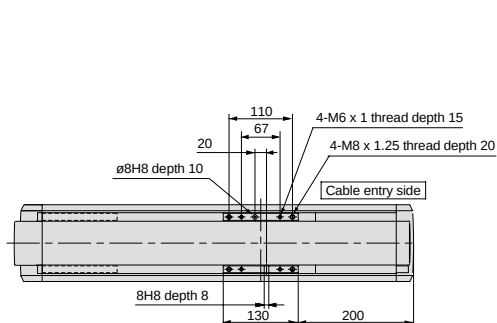
Be sure to refer to page 200 regarding regenerative absorption units.

Refer to page 204 regarding brake wiring.

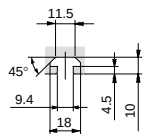
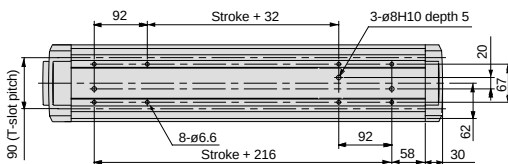
Standard Motor/Vertical Mount Specification *Series LJ1H20*

Dimensions/LJ1H20□PA

Scale: 10%



A section detail
(Switch groove)



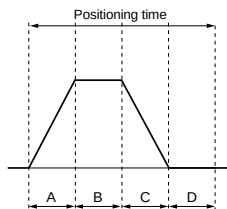
T-slot dimensions

* 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	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

Standard Motor Vertical Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
Ø15mm/5mm lead

How to Order

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

Power supply voltage ●

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

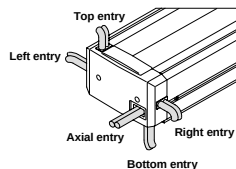
Cable entry direction ●

	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 ø15mm, 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□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) LJ1H2021NF-150K-F2-X2

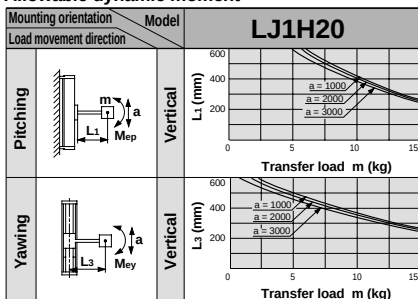
Allowable Moment (N·m)

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)

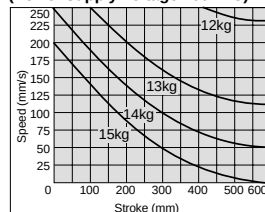
Allowable dynamic moment



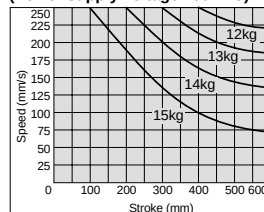
Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

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



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



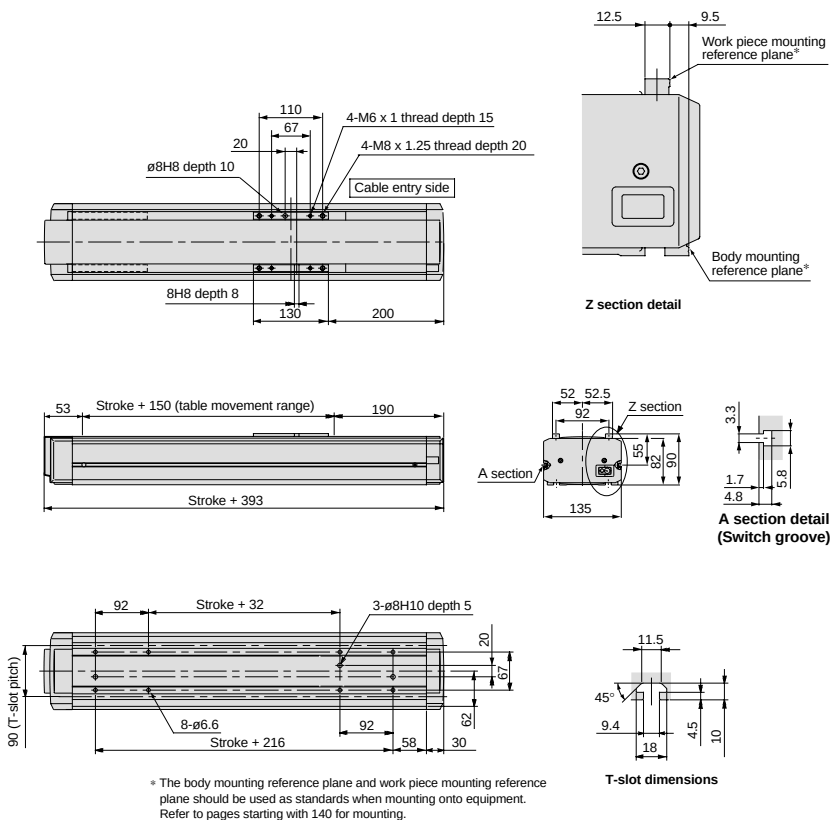
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

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

Refer to page 204 regarding brake wiring.

Standard Motor/Vertical Mount Specification *Series LJ1H20*

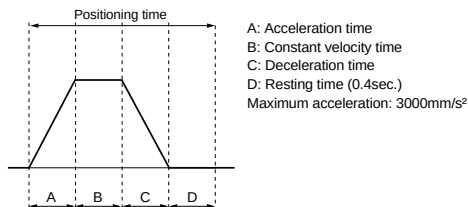
Dimensions/LJ1H20□NF

Scale: 10%


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.



Standard Motor

Vertical Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
ø15mm/10mm lead

How to Order

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

Power supply voltage

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

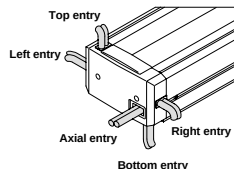
Cable entry direction

	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

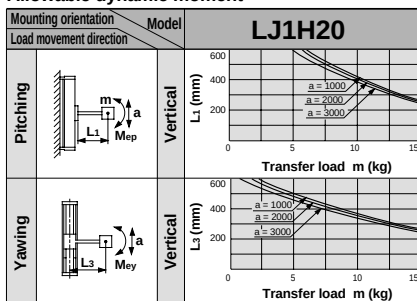
Allowable Moment (N·m)

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

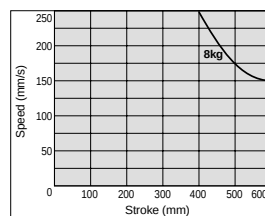
LJ1H2021NA-□□□K (Power supply voltage 100VAC)

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)



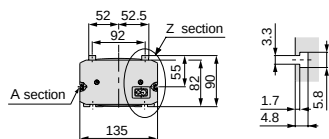
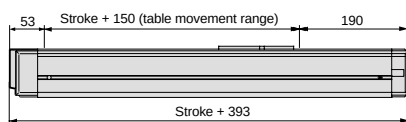
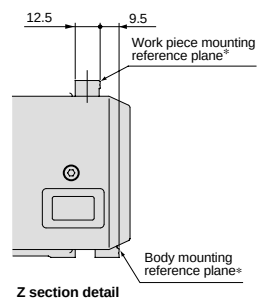
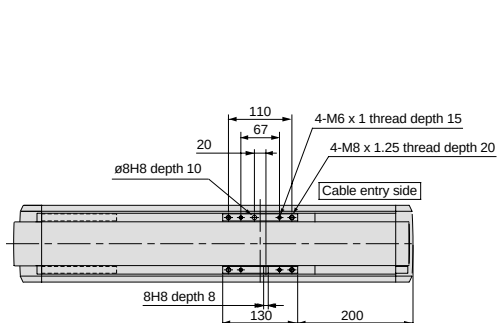
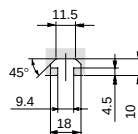
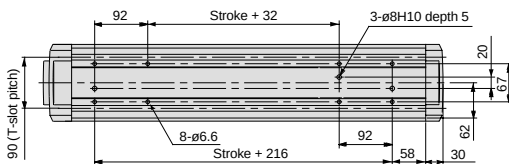
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

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

Refer to page 204 regarding brake wiring.

Standard Motor/Vertical Mount Specification *Series LJ1H20*

Dimensions/LJ1H20□NA

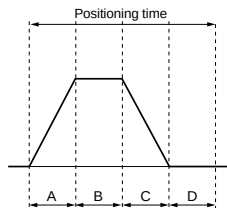
Scale: 10%

**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	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

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)

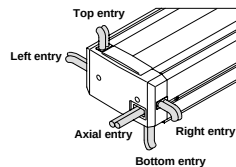
Cable entry direction

	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				
	Positioning repeatability	mm	±0.02				
Main parts	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				
Controller	Model		LC1-1B3VA□□□ (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: 250, 350, 450, 550
Example) LJ1H3031PA-250K-F2-X2

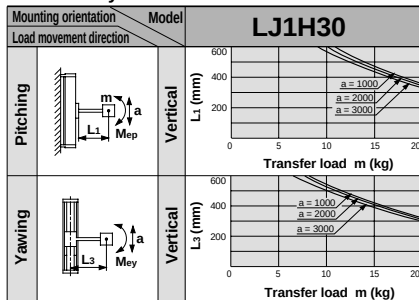
Allowable Moment (N·m)

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)

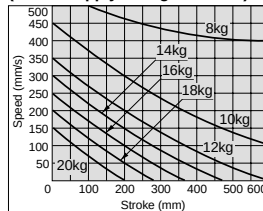
Allowable dynamic moment



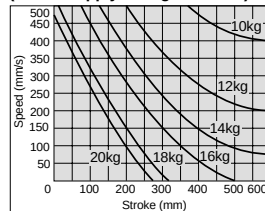
Refer to page 145 for deflection data.

Regenerative Absorption Unit Selection Guide

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



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



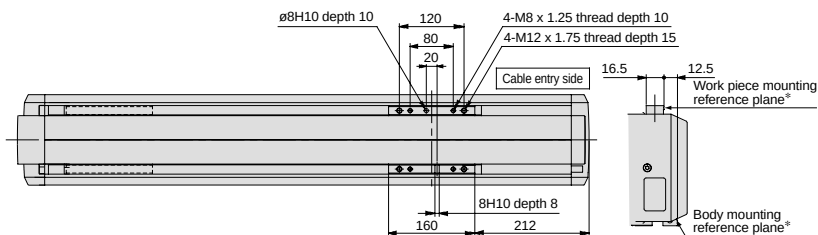
When an actuator is operated under conditions that exceed the lines in the graphs above, **be sure to use a regenerative absorption unit.**

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

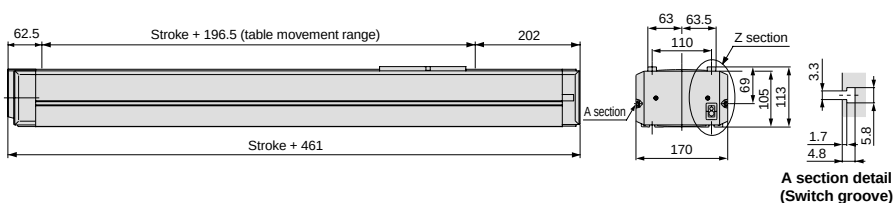
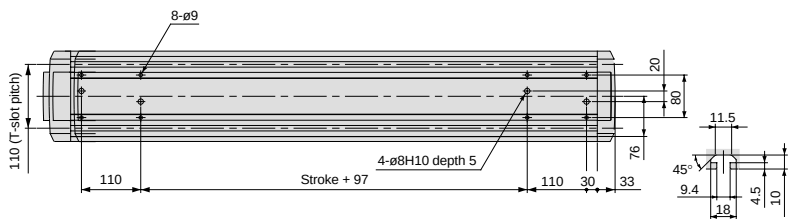
Standard Motor/Vertical Mount Specification *Series LJ1H30*

Dimensions/LJ1H30□PA

Scale: 10%



Z section detail

A section detail
(Switch groove)

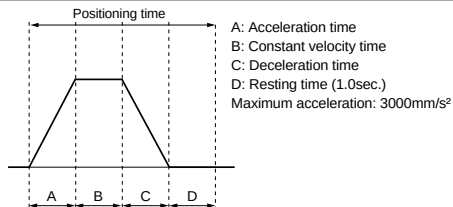
T-slot dimensions

* 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.



Standard Motor

Vertical Mount

Series LJ1H30

Motor Output

200WHigh Rigidity
Direct Acting
Guide

Rolled Ball Screw

Ø20mm/10mm lead

How to Order

LJ1H303 1 NA — Stroke K — F 2

Power supply voltage

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

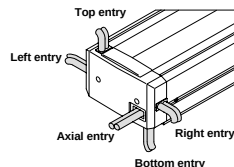
Cable entry direction

	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 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) LJ1H3031NA-250K-F2-X2

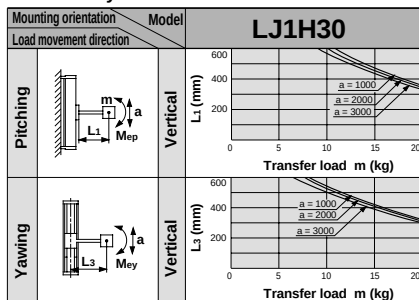
Allowable Moment (N·m)

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)

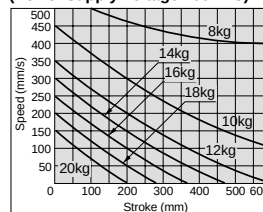
Allowable dynamic moment



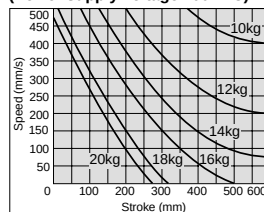
Refer to page 145 for deflection data.

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.**

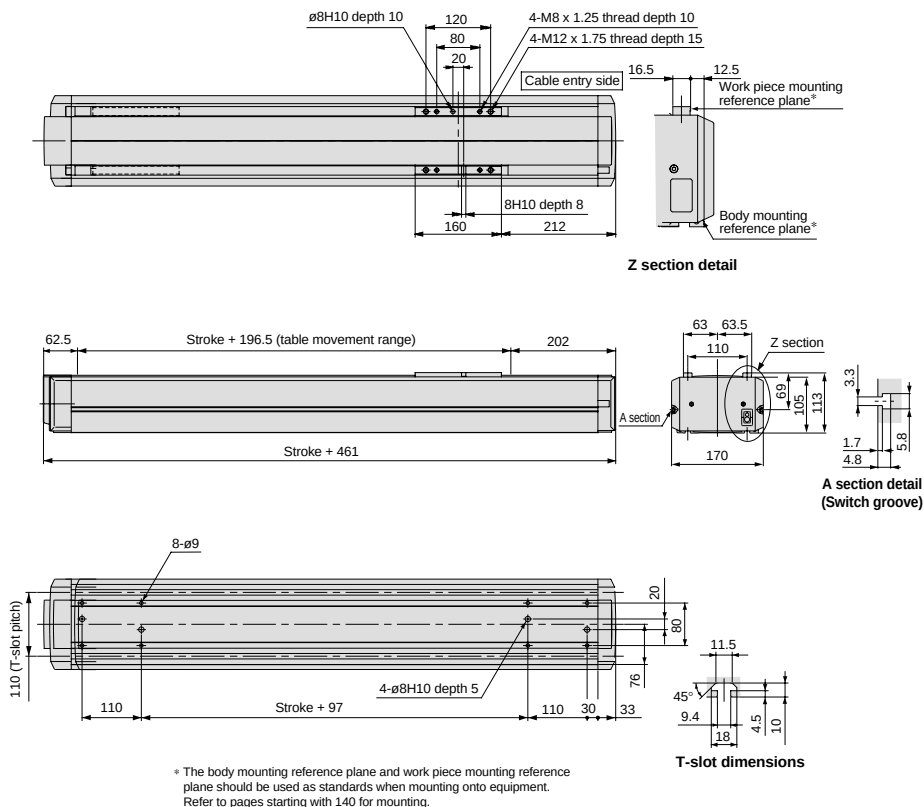
Be sure to refer to page 200 regarding regenerative absorption units.

Refer to page 204 regarding brake wiring.

Standard Motor/Vertical Mount Specification *Series LJ1H30*

Dimensions/LJ1H303□NA

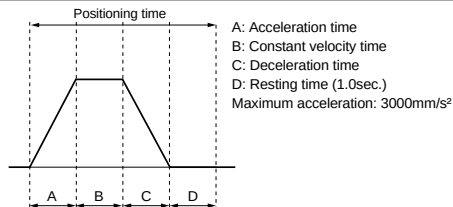
Scale: 10%



Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		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.



Non-standard Motor**Horizontal Mount****Series LJ1H10****Motor Output**
50W**High Rigidity**
Direct Acting
Guide**Ground Ball Screw**
Ø12mm/12mm lead**How to Order****LJ1H10** **G** **1** **1** **PB** — **Stroke** — **F** **W** — **X10****Motor specification**

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

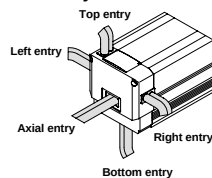
1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction**Specifications**

	Standard stroke	mm	100	200	300	400	500
Performance	Body weight (without motor)	kg	4.8	5.6	6.4	7.1	7.9
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	10				
	Maximum speed	mm/s	600				
	Positioning repeatability	mm	±0.02				
Main parts	Motor		AC servomotor (50W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw Ø12mm, 12mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
Switch	Model		D-Y7GL				
	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less				

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

Allowable Moment (N·m)**Allowable static moment**

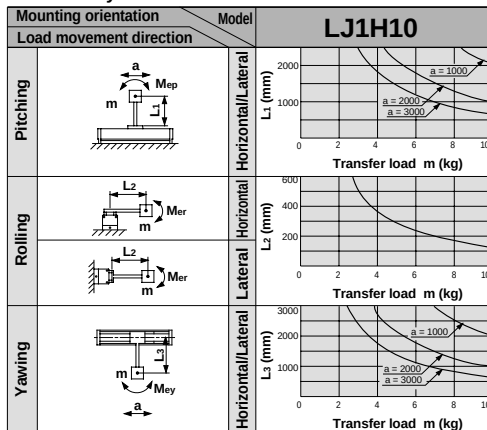
Pitching	10.2
Rolling	12.8
Yawing	10.2

m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me: Dynamic moment

L : Overhang to work piece center of gravity (mm)

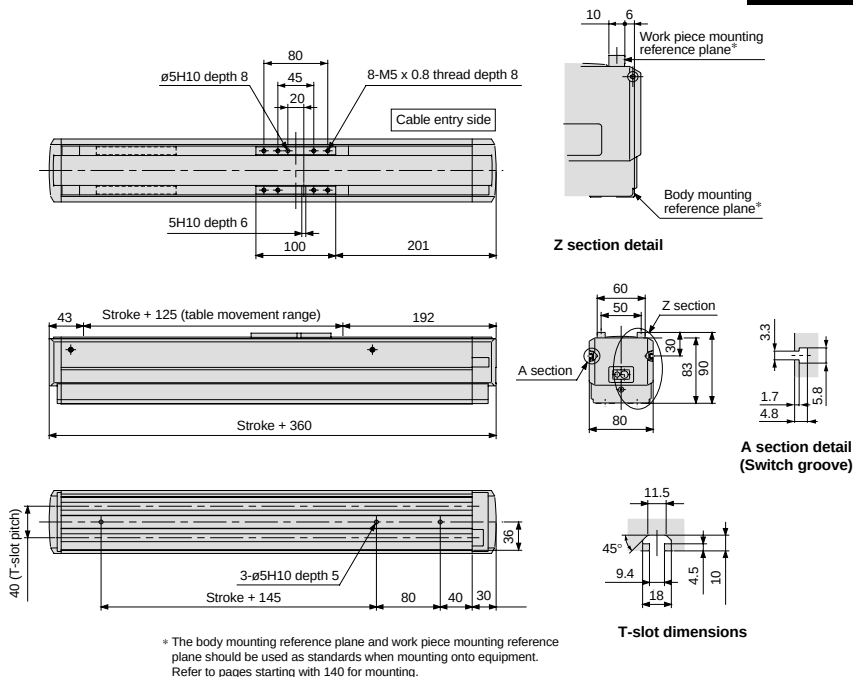
Allowable dynamic moment

Refer to page 145 for deflection data.

Non-standard Motor/Horizontal Mount Specification *Series LJ1H10*

Dimensions/LJ1H10□1□PB(X10)

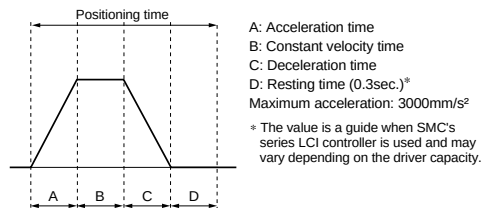
Scale: 15%



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	
	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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	50	100/115	MSM5AZP1A	MSD5A1P1E
		200/230		MSD5A3P1E
Mitsubishi Electric Corporation	50	100/115	HC-PQ053	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	50	100/115	SGME-A5BF12	SGDE-A5BP
		200/230		SGDE-A5AP

* For motor mounting dimensions, refer to the dimensions for series LJ1H10 on page 143 as a reference for mounting and design.

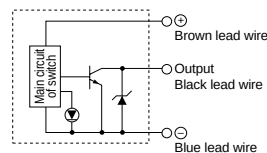
* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.



Switch Internal Circuit

D-Y7GL



LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Non-standard Motor**Horizontal Mount****Series LJ1H10**Motor Output
50WHigh Rigidity
Direct Acting
GuideRolled Ball Screw
Ø12mm/12mm lead**How to Order****LJ1H10** **G** **1** **1** **NB** — **Stroke** — **F** **W** — **X10****Motor specification**

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

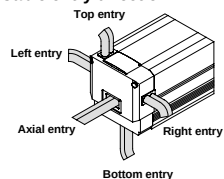
1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction**Specifications**

	Standard stroke	mm	100	200	300	400	500
Performance	Body weight (without motor)	kg	4.8	5.6	6.4	7.1	7.9
	Operating temperature range	°C	5 to 40 (with no condensation)				
	Work load	kg	10				
	Maximum speed	mm/s	600				
	Positioning repeatability	mm	±0.05				
Main parts	Motor		AC servomotor (50W)				
	Encoder		Incremental system				
	Lead screw		Rolled ball screw Ø12mm, 12mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
Switch	Model		D-Y7GL				
	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less				

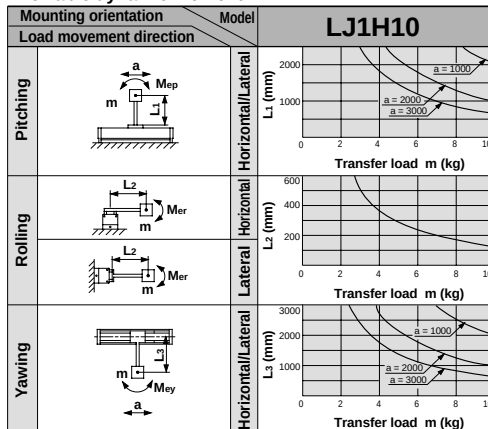
Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

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.

Non-standard Motor

Horizontal Mount

Series LJ1H10

Motor Output
50W

High Rigidity
Direct Acting
Guide

Slide Screw
Ø20mm/20mm lead

How to Order

LJ1H10 **G** **1** **1** **SC** — **Stroke** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

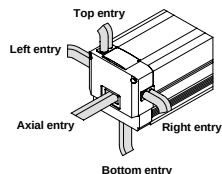
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000
Performance	Body weight (without motor)	kg	4.9	5.8	6.8	7.6	8.4	9.3	10.1	10.9	11.8	12.6
	Operating temperature range	°C	5 to 40 (with no condensation)									
	Work load	kg	10									
	Maximum speed	mm/s	500									
	Positioning repeatability	mm	±0.1									
Main parts	Motor		AC servomotor (50W)									
	Encoder		Incremental system									
	Lead screw		Slide screw Ø20mm, 20mm lead									
	Guide		High rigidity direct acting guide									
	Motor/Screw connection		With coupling									
Switch	Model		D-Y7GL									
	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									

Intermediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

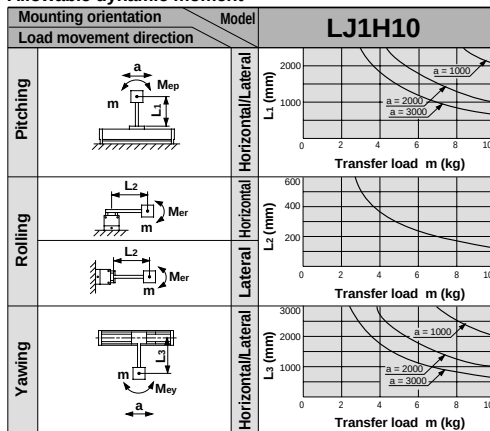
Allowable Moment (N·m)

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

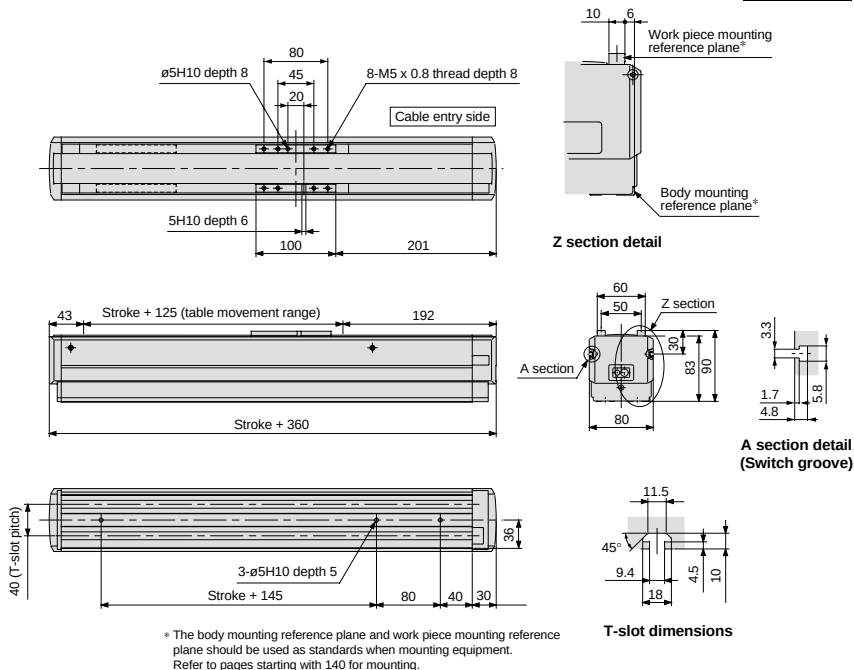


Refer to page 145 for deflection data.

Non-standard Motor/Horizontal Mount Specification *Series LJ1H10*

Dimensions/LJ1H10□1□SC(X10)

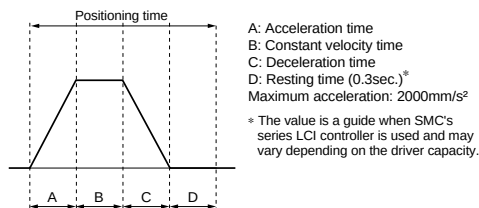
Scale: 15%



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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	50	100/115	MSM5AZP1A	MSD5A1P1E
		200/230		MSD5A3P1E
Mitsubishi Electric Corporation	50	100/115	HC-PQ053	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	50	100/115	SGME-A5BF12	SGDE-A5BP
		200/230	SGME-A5AF12	SGDE-A5AP

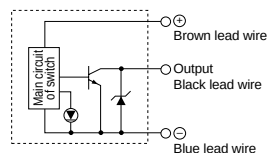
* For motor mounting dimensions, refer to the dimensions for series LJ1H10 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Horizontal Mount

Series **LJ1H20**

Motor Output

100W

High Rigidity

Direct Acting
Guide

Ground Ball Screw

Ø15mm/10mm lead

How to Order

LJ1H20 G 2 1 PA — Stroke — F W — X10

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

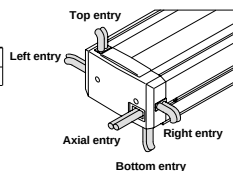
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

Standard stroke		mm	100	200	300	400	500	600
Performance	Body weight (without motor)	kg	7.2	8.4	9.6	10.7	12.1	13.2
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	30					
	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					
Switch	Model		D-Y7GL					
	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less					

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

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)

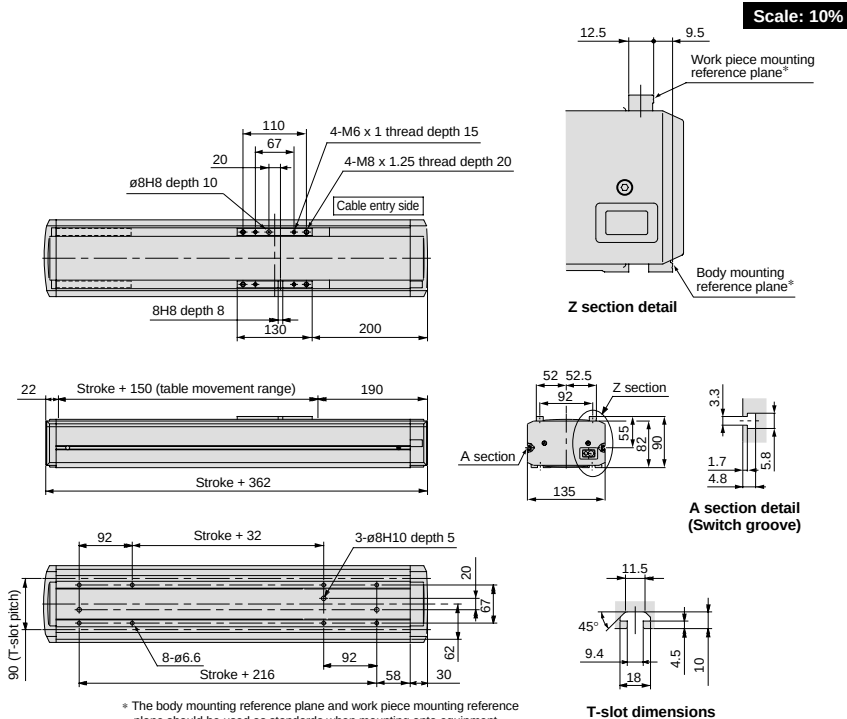
Allowable dynamic moment

Mounting orientation		Model	LJ1H20	
Load movement direction				
Pitching		Horizontal/Lateral		
		Horizontal		
Rolling		Horizontal		
		Lateral		
Yawing		Horizontal/Lateral		

Refer to page 145 for deflection data.

Non-standard Motor/Horizontal Mount Specification *Series LJ1H20*

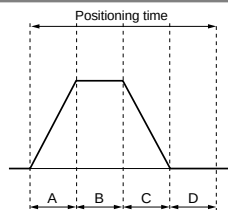
Dimensions/LJ1H20□2□PA(X10)



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.



* The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

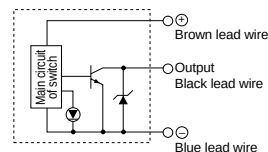
* For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Horizontal Mount

Series **LJ1H20**

Motor Output

100W

High Rigidity

Direct Acting

Guide

Ground Ball Screw

ø15mm/20mm lead

How to Order

LJ1H20 G 2 1 PC — Stroke — F W — X10

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

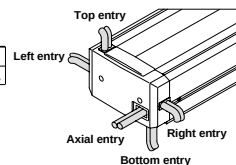
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

	Standard stroke	mm	500	600	700	800	900	1000
Performance	Body weight (without motor)	kg	12.1	13.2	14.4	15.6	16.8	18.0
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	30					
	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 ø15mm, 20mm lead						
	Guide	High rigidity direct acting guide						
	Motor/Screw connection	With coupling						
Switch	Model	D-Y7GL						
	Specifications	Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less						

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

Note) The speed is limited by the transfer load.

Consult each motor manufacturer regarding the maximum speed for each transfer load.

Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

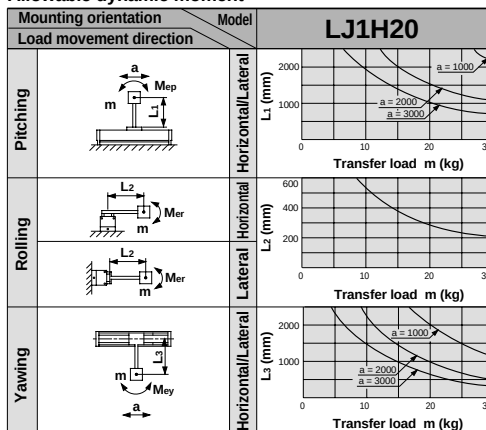
m : Transfer load (kg)

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.

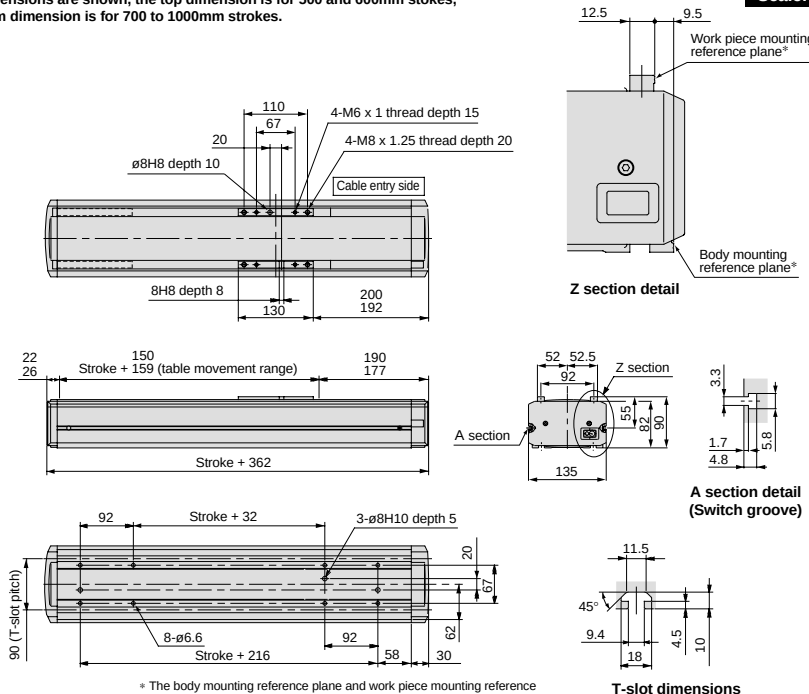
Non-standard Motor/Horizontal Mount Specification *Series LJ1H20*

Dimensions/LJ1H20□2□PC(X10)



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

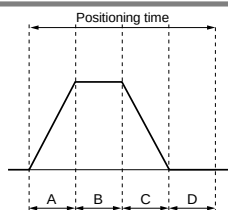
Scale: 10%



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.



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

* The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

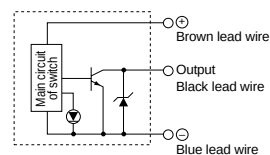
* For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Horizontal Mount

Series **LJ1H20**

Motor Output

100WHigh Rigidity
Direct Acting
Guide

Rolled Ball Screw

Ø15mm/10mm lead

How to Order

LJ1H20 **G** **2** **1** **NA** — **Stroke** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

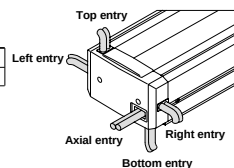
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

	Standard stroke	mm	100	200	300	400	500	600
Performance	Body weight (without motor)	kg	7.2	8.4	9.6	10.7	12.1	13.2
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	30					
	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					
Switch	Model		D-Y7GL					
	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector Load current: 40mA or less, Internal voltage drop: 1.5V or less					

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

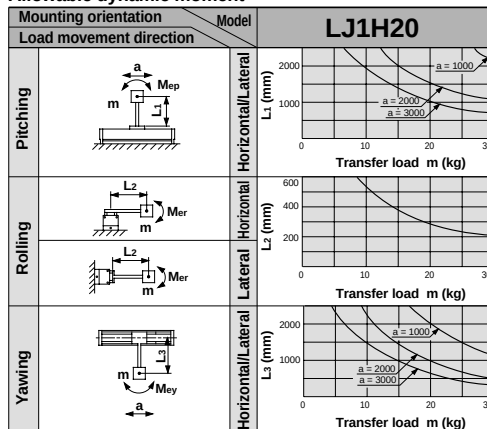
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me: Dynamic moment

L : Overhang to work piece center of gravity (mm)

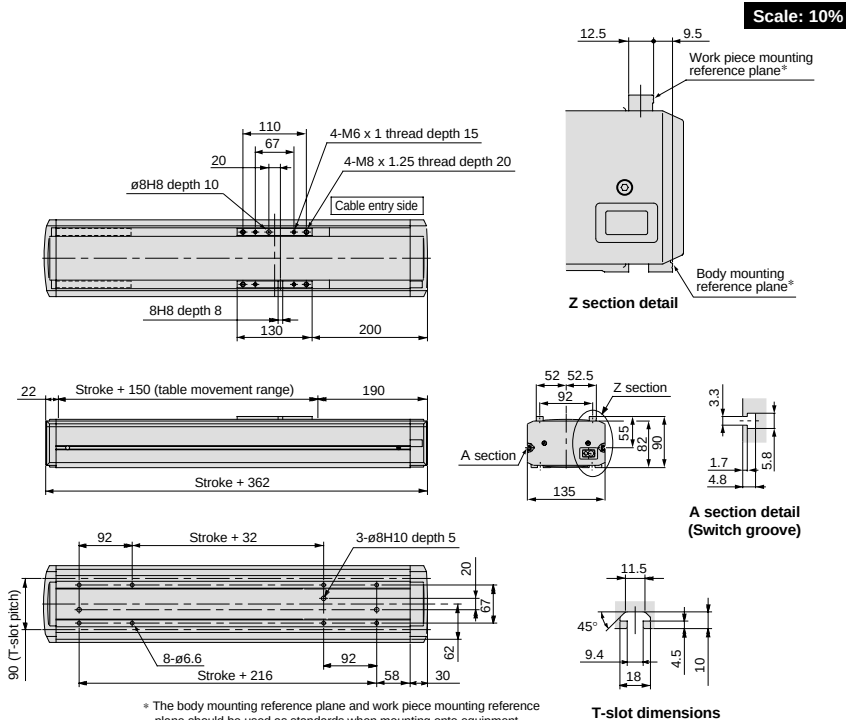
Allowable dynamic moment



Refer to page 145 for deflection data.

Non-standard Motor/Horizontal Mount Specification *Series LJ1H20*

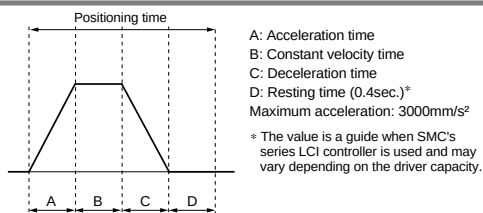
Dimensions/LJ1H20□□NA(X10)



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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

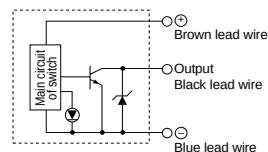
* For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Horizontal Mount

Series **LJ1H20**Motor Output
100WHigh Rigidity
Direct Acting
GuideRolled Ball Screw
Ø15mm/20mm lead

How to Order

LJ1H20 **G** **2** **1** **NC** — **Stroke** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

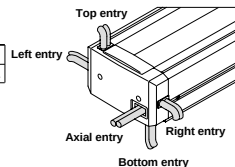
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

	Standard stroke	mm	500	600	700	800	900	1000
Performance	Body weight (without motor)	kg	12.1	13.2	14.4	15.6	16.8	18.0
	Operating temperature range	°C	5 to 40 (with no condensation)					
	Work load	kg	30					
	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 Ø15mm, 20mm lead					
	Guide		High rigidity direct acting guide					
Switch	Motor/Screw connection		With coupling					
	Model		D-Y7GL					
	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less					

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

Note) The speed is limited by the transfer load.

Consult each motor manufacturer regarding the maximum speed for each transfer load.

Allowable Moment (N·m)

Allowable static moment

Pitching	71
Rolling	83
Yawing	75

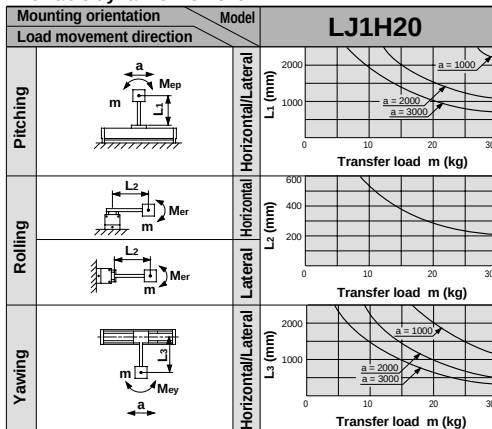
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me : Dynamic moment

L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment



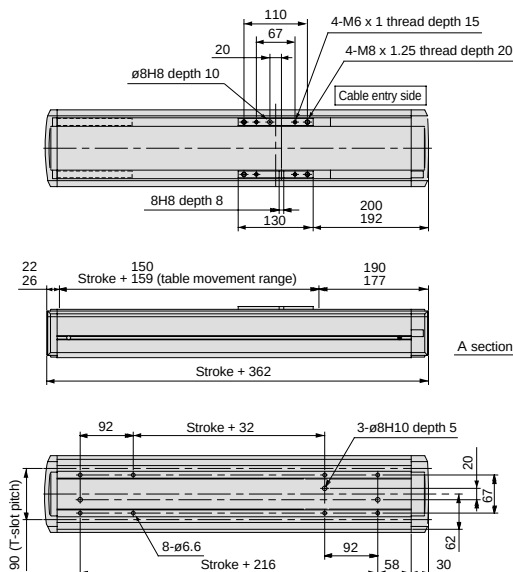
Refer to page 145 for deflection data.

Non-standard Motor/Horizontal Mount Specification *Series LJ1H20*

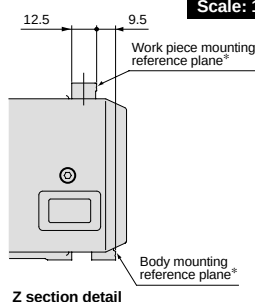
Dimensions/LJ1H20□2□NC(X10)



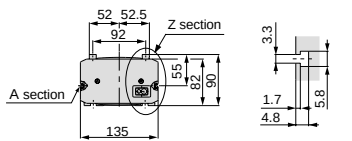
When two dimensions are shown, the top dimension is for 500 and 600mm strokes, and the bottom dimension is for 700 to 1000mm strokes.



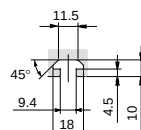
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment.
Refer to pages starting with 140 for mounting.



7 section detail



A section detail
(Switch groove)

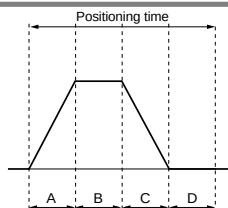


T-slot dimensions

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.



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

* The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGMF-01AF12	SGDF-01AP

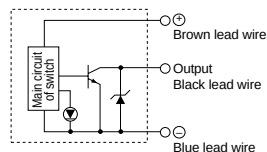
* For motor mounting dimensions, refer to the dimensions for series LJ1^HS20 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Horizontal Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Slide Screw
ø20 mm/20 mm lead

How to Order

LJ1H20 **G** **2** **1** **SC** — **Stroke** — **F** **W** — **X10**

Motor specification

G	Matsumita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

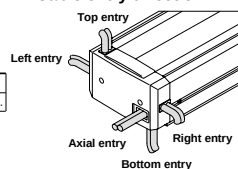
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000	1200
Performance	Body weight (without motor)	kg	7.5	8.5	9.6	10.8	12.3	13.8	16.3	16.8	18.6	20.4	24.2
	Operating temperature range	°C	5 to 40 (with no condensation)										
	Work load	kg	15										
	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										
Switch	Model		D-Y7GL										
	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less										

Immediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

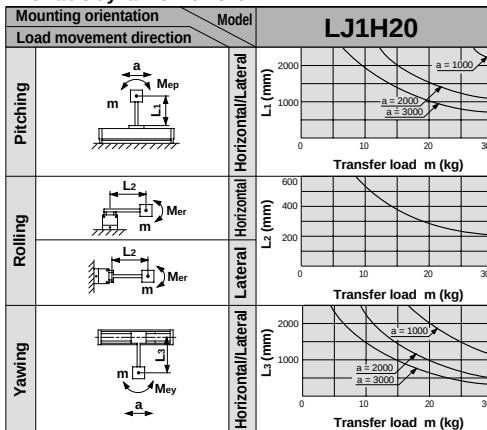
Allowable Moment (N·m)

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



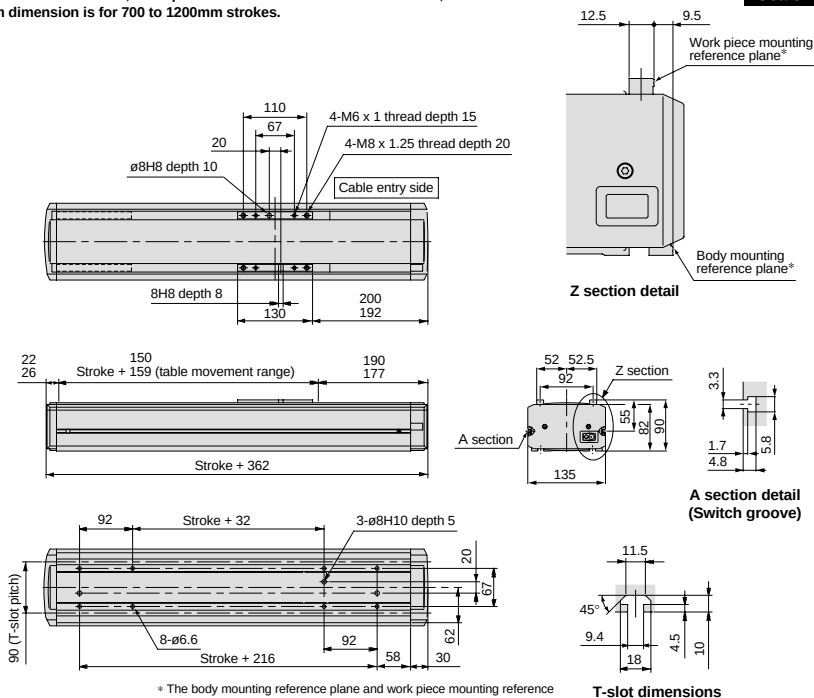
Refer to page 145 for deflection data.

Non-standard Motor/Horizontal Mount Specification *Series LJ1H20*

Dimensions/LJ1H20□2□PC(X10)

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%

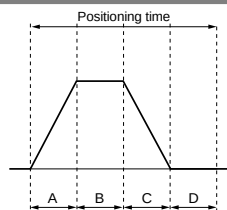


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)					
Positioning distance (mm)		1	10	100	500	1000	
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

* The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

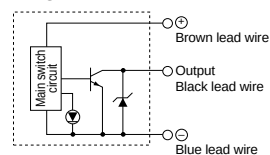
* For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Horizontal Mount

Series LJ1H30

Motor Output
200W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
Ø25mm/25mm lead

How to Order

LJ1H30 **G** **3** **1** **PD** — **Stroke** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

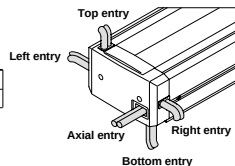
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

	Standard stroke	mm	200	300	400	500	600	800	1000	1200	1500
Performance	Body weight (without motor)	kg	14.9	16.9	18.9	20.9	22.9	27.4	31.9	35.9	41.9
	Operating temperature range	°C	5 to 40 (with no condensation)								
	Work load	kg	60								
	Maximum speed	mm/s	1000							700	500
	Positioning repeatability	mm	±0.02								
Main parts	Motor		AC servomotor (200W)								
	Encoder		Incremental system								
	Lead screw		Ground ball screw Ø25mm, 25mm lead								
	Guide		High rigidity direct acting guide								
	Motor/Screw connection		With coupling								
Switch	Model		D-Y7GL								
	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								

Immediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

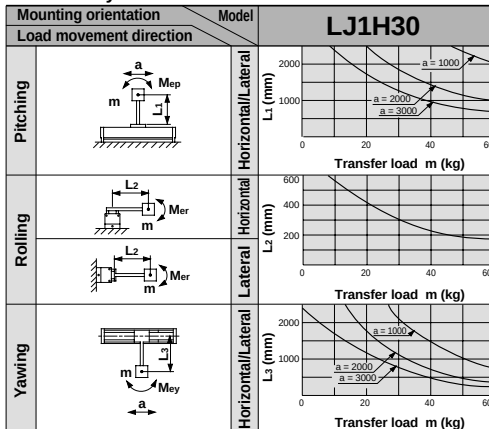
Allowable Moment (N·m)

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

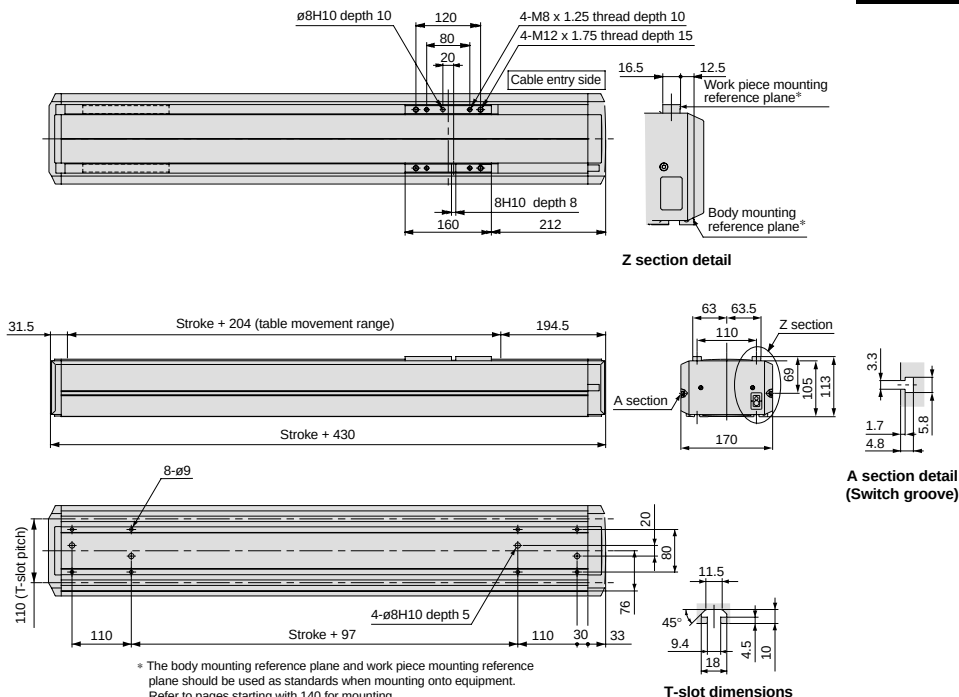


Refer to page 145 for deflection data.

Non-standard Motor/Horizontal Mount Specification *Series LJ1H30*

Dimensions/LJ1H30□3□PD(X10)

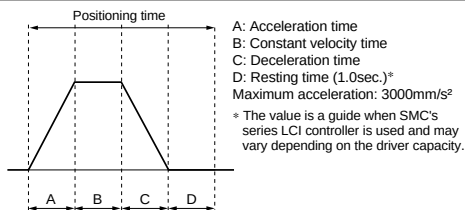
Scale: 10%



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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	200	100/115	MSM021P1A	MSD021P1E
		200/230	MSM022P1A	MSD023P1E
Mitsubishi Electric Corporation	200	100/115	HC-PQ23	MR-C20A1
		200/230		MR-C20A
Yaskawa Electric Corporation	200	100/115	SGME-02BF12	SGDE-02BP
		200/230	SGME-02AF12	SGDE-02AP

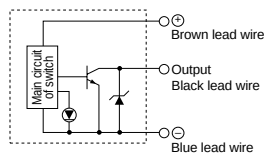
* For motor mounting dimensions, refer to the dimensions for series LJ1H30 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Horizontal Mount

Series **LJ1H30**

Motor Output

200W

High Rigidity

Direct Acting

Guide

Rolled Ball Screw

Ø25mm/25mm lead

How to Order

LJ1H30 **G** **3** **1** **ND** — Stroke — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

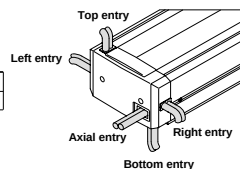
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

	Standard stroke	mm	200	300	400	500	600	800	1000	1200	1500
Performance	Body weight (without motor)	kg	14.9	16.9	18.9	20.9	22.9	27.4	31.9	35.9	41.9
	Operating temperature range	°C	5 to 40 (with no condensation)								
	Work load	kg	60								
	Maximum speed	mm/s	1000							700	500
	Positioning repeatability	mm	±0.05								
Main parts	Motor	AC servomotor (200W)									
	Encoder	Incremental system									
	Lead screw	Rolled ball screw ø25mm, 25mm lead									
	Guide	High rigidity direct acting guide									
	Motor/Screw connection	With coupling									
Switch	Model	D-Y7GL									
	Specifications	Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									

Immediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

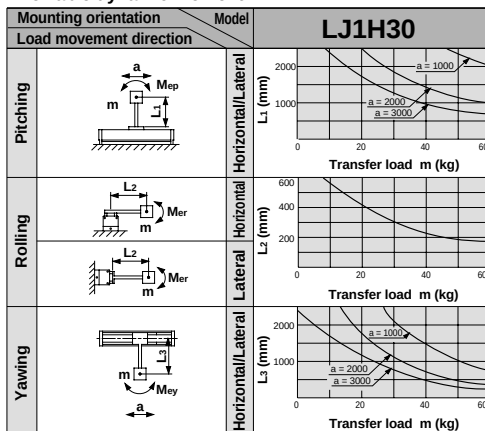
Allowable Moment (N·m)

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

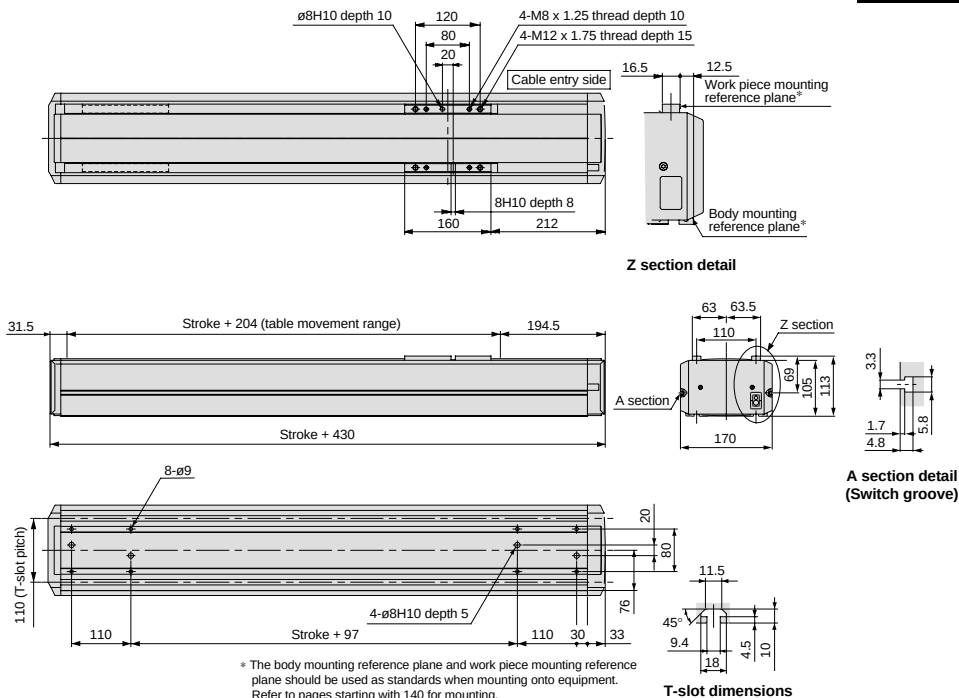


Refer to page 145 for deflection data.

Non-standard Motor/Horizontal Mount Specification *Series LJ1H30*

Dimensions/LJ1H30□3□ND(X10)

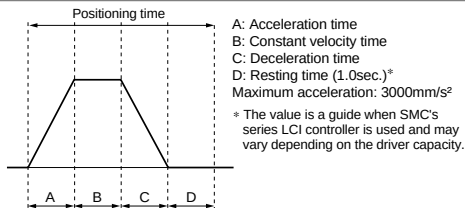
Scale: 10%



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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	200	100/115	MSM021P1A	MSD021P1E
		200/230	MSM022P1A	MSD023P1E
Mitsubishi Electric Corporation	200	100/115	HC-PQ23	MR-C20A1
		200/230		MR-C20A
Yaskawa Electric Corporation	200	100/115	SGME-02BF12	SGDE-02BP
		200/230	SGME-02AF12	SGDE-02AP

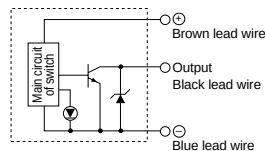
* For motor mounting dimensions, refer to the dimensions for series LJ1H30 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor**Horizontal Mount****Series LJ1H30**

Motor Output

200W

High Rigidity

Direct Acting

Guide

Slide Screw

Ø30mm/40mm lead**How to Order****LJ1H30 G 3 1 SE — Stroke — F W — X10****Motor specification**

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

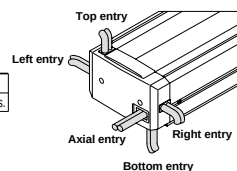
1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction**Specifications**

Standard stroke		mm	200	300	400	500	600	800	1000	1200	1500
Performance	Body weight (without motor)	kg	13.8	15.9	17.9	20.0	22.1	26.2	30.4	34.5	40.8
	Operating temperature range	°C	5 to 40 (with no condensation)								
	Work load	kg	30								
	Maximum speed	mm/s	500								
	Positioning repeatability	mm	±0.1								
Main parts	Motor		AC servomotor (200W)								
	Encoder		Incremental system								
	Lead screw		Slide screw Ø30mm, 40mm lead								
	Guide		High rigidity direct acting guide								
	Motor/Screw connection		With coupling								
Switch	Model		D-Y7GL								
	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								

Immediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

Allowable Moment (N·m)**Allowable static moment**

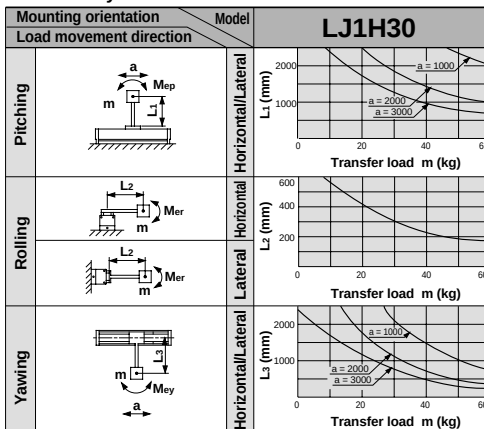
Pitching	117
Rolling	137
Yawing	123

m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me : Dynamic moment

L : Overhang to work piece center of gravity (mm)

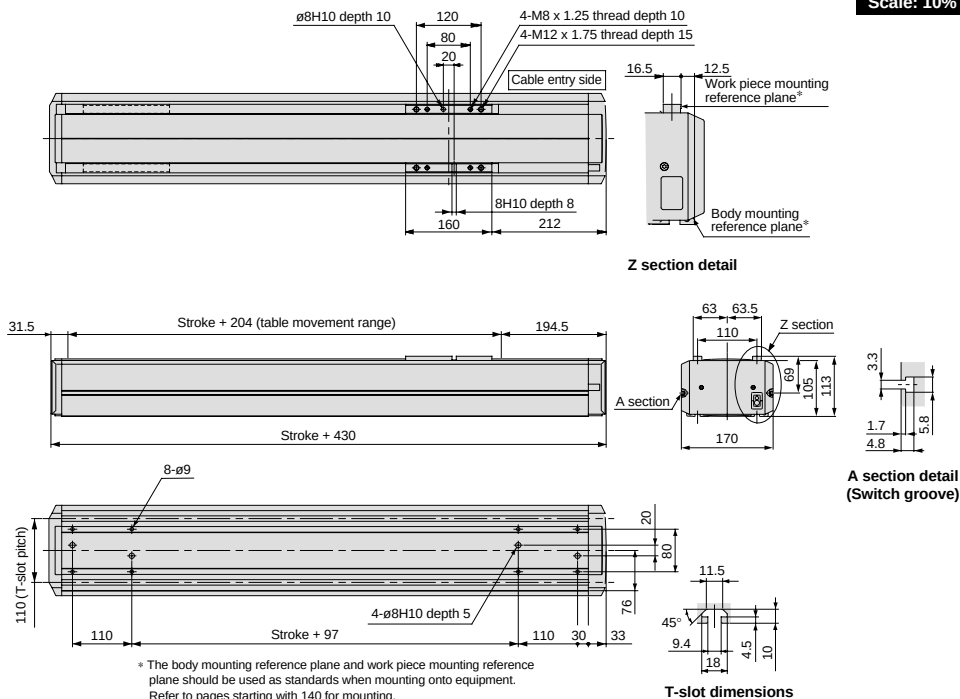
Allowable dynamic moment

Refer to page 145 for deflection data.

Non-standard Motor/Horizontal Mount Specification *Series LJ1H30*

Dimensions/LJ1H30□3□SE(X10)

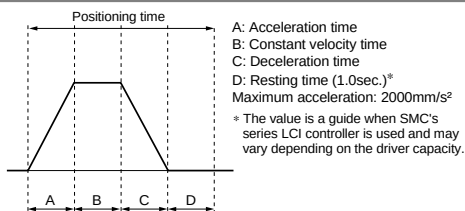
Scale: 10%



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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	200	100/115	MSM021P1A	MSD021P1E
		200/230	MSM022P1A	MSD023P1E
Mitsubishi Electric Corporation	200	100/115	HC-PQ23	MR-C20A1
		200/230		MR-C20A
Yaskawa Electric Corporation	200	100/115	SGME-02BF12	SGDE-02BP
		200/230	SGME-02AF12	SGDE-02AP

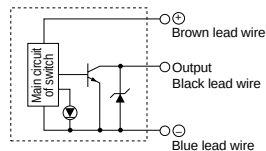
* For motor mounting dimensions, refer to the dimensions for series LJ1H30 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Vertical Mount

Series **LJ1H10**

Motor Output

100WHigh Rigidity
Direct Acting
Guide

Ground Ball Screw

Ø12mm/8mm lead

How to Order

LJ1H10 **G** **2** **1** **PH** — **Stroke** **K** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

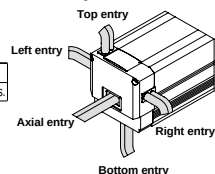
Cable entry direction

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

Switch

NII	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

	Standard stroke	mm	100	200	300	400	500
Performance	Body weight (without motor)	kg	5.1	5.9	6.7	7.4	8.2
	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 Ø12mm, 8mm lead				
	Guide		High rigidity direct acting guide				
	Motor/Screw connection		With coupling				
	Electromagnetic brake						
Switch	Specifications		De-energized operation type, Rated voltage 24VDC ±10%, 0.4A				
	Holding torque		0.4N·m				
	Connection method		Ball screw mounting				
	Model		D-Y7GL				
Regenerative absorption unit	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less				
			Refer to the selection guide below.				

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

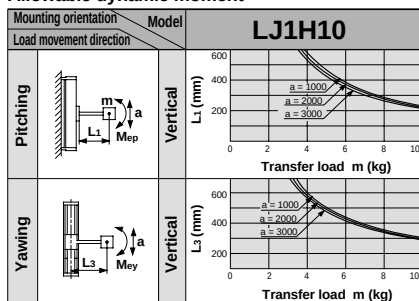
Allowable Moment (N·m)

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/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

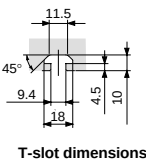
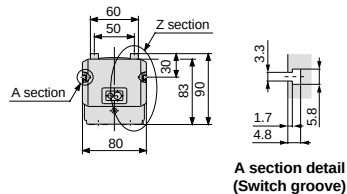
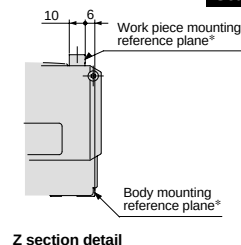
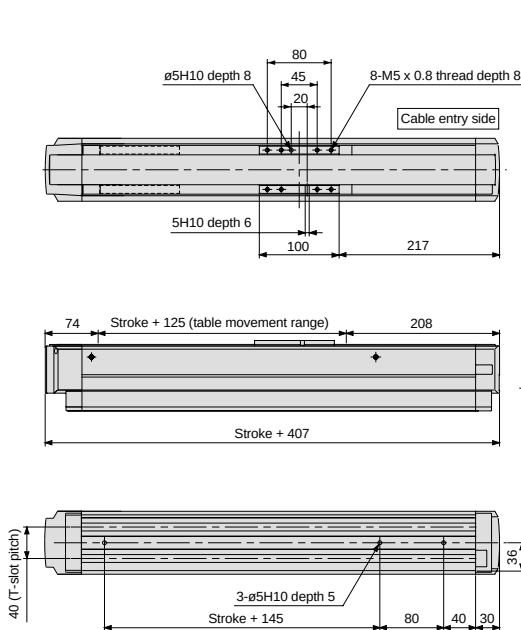
+ Driver capacitor energy consumption (A)

+ Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.

Non-standard Motor/Vertical Mount Specification **Series LJ1H10**

Dimensions/LJ1H10□2□PH(X10)

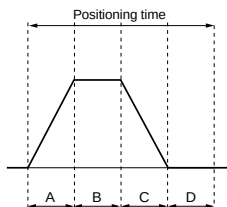
Scale: 15%


* 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.)					
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
* The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

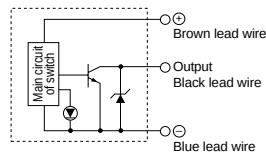
* For motor mounting dimensions, refer to the dimensions for series LJ1H10 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor Vertical Mount

Series LJ1H10

Motor Output
100W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
ø12mm/12mm lead

How to Order

LJ1H10 **G** **2** **1** **PB** — Stroke **K** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

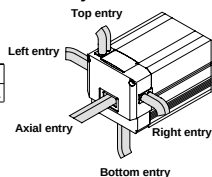
Cable entry direction

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

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

	Standard stroke	mm	100	200	300	400	500
Performance	Body weight (without motor)	kg	5.1	5.9	6.7	7.4	8.2
	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	±0.02				
Main parts	Motor		AC servomotor (100W)				
	Encoder		Incremental system				
	Lead screw		Ground ball screw ø12mm, 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				
Switch		Holding torque	0.4N·m				
		Connection method	Ball screw mounting				
	Model		D-Y7GL				
	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less				
Regenerative absorption unit			Refer to the selection guide below.				

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

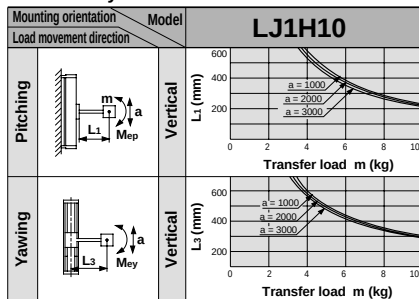
Allowable Moment (N·m)

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/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mounting specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

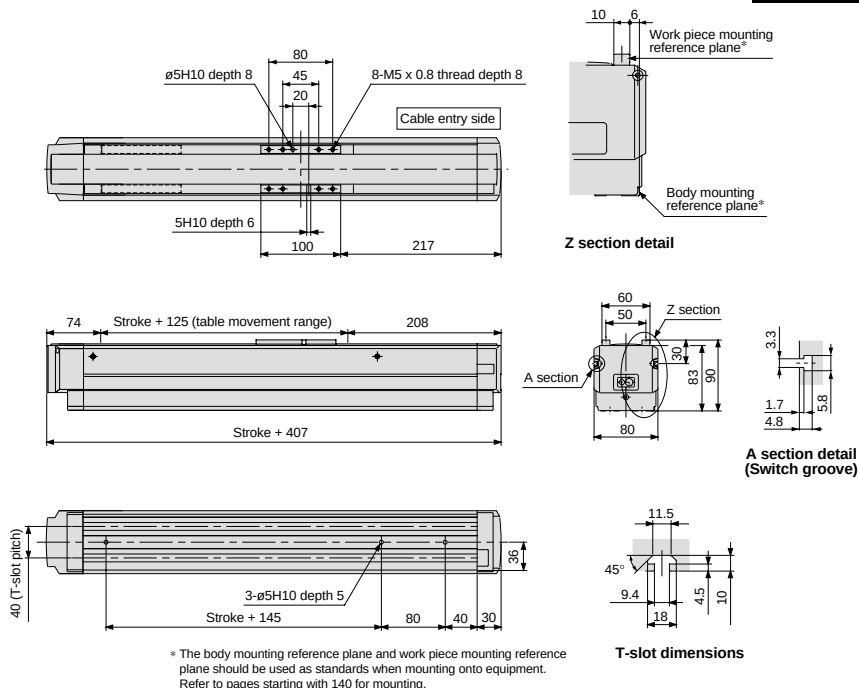
+ Driver capacitor energy consumption (A)

+ Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.

Non-standard Motor/Vertical Mount Specification *Series LJ1H10*

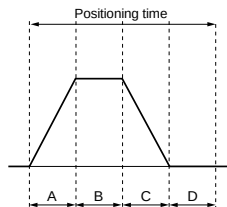
Dimensions/LJ1H10□2□PB(X10)

Scale: 15%


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
	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

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

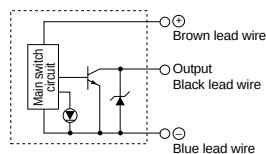
* For motor mounting dimensions, refer to the dimensions for series LJ1H10 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Vertical Mount

Series **LJ1H10**

Motor Output

100W

High Rigidity

Direct Acting
Guide

Rolled Ball Screw

Ø12mm/8mm lead

How to Order

LJ1H10 **G** **2** **1** **NH** — **Stroke** **K** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

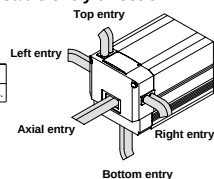
Cable entry direction

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

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

Standard stroke			mm	100	200	300	400	500
Performance	Body weight (without motor)		kg	5.1	5.9	6.7	7.4	8.2
	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 ø12mm, 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					
Switch	Model			D-Y7GL				
	Specifications			Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less				
Regenerative absorption unit				Refer to the selection guide below.				

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

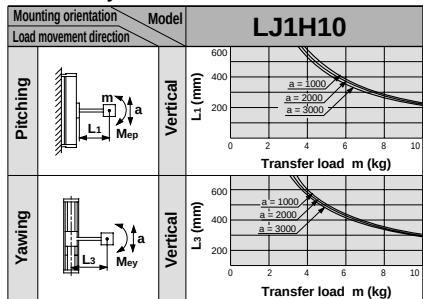
Allowable Moment (N·m)

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/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mounting specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

+ Driver capacitor energy consumption (A)

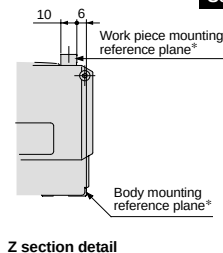
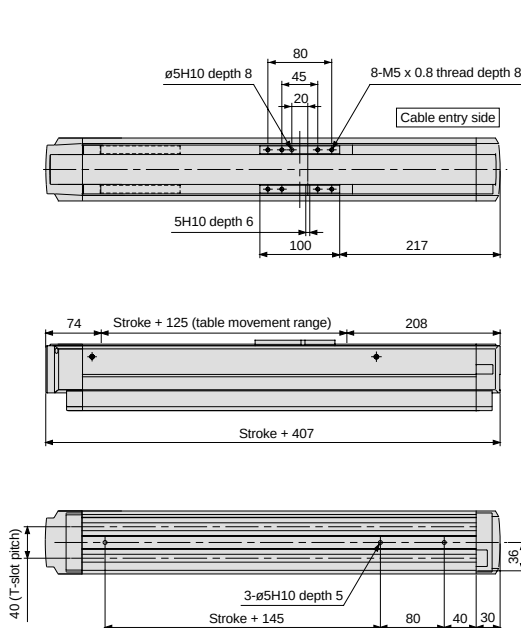
+ Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.

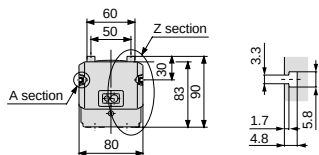
Non-standard Motor/Vertical Mount Specification *Series LJ1H10*

Dimensions/LJ1H10□2□NH(X10)

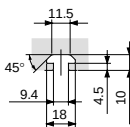
Scale: 15%



Z section detail



A section detail (Switch groove)



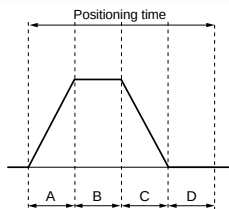
T-slot dimensions

* 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

* The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

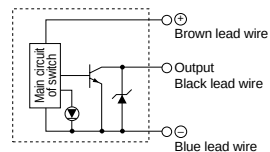
* For motor mounting dimensions, refer to the dimensions for series LJ1H10 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor**Vertical Mount****Series LJ1H10**

Motor Output

100WHigh Rigidity
Direct Acting
Guide

Rolled Ball Screw

Ø12mm/12mm lead

How to Order**LJ1H10 G 2 1 NB — Stroke K — F W — X10****Motor specification**

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

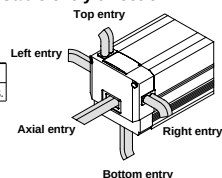
1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

Cable entry direction

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

Switch

NII	None
W	N.C. (B contact) 2 pcs.

Cable entry direction**Specifications**

	Standard stroke	mm	100	200	300	400	500
Performance	Body weight (without motor)	kg	5.1	5.9	6.7	7.4	8.2
	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 Ø12mm, 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				
Switch		Holding torque	0.4N·m				
		Connection method	Ball screw mounting				
	Model		D-Y7GL				
	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less				
Regenerative absorption unit			Refer to the selection guide below.				

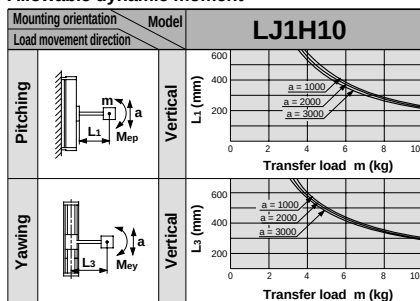
Intermediate strokes

Manufacture of strokes other than the standard strokes on the left will be treated as a special order. Consult SMC.

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/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mounting specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

+ Driver capacitor energy consumption (A)

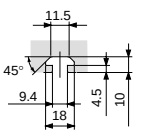
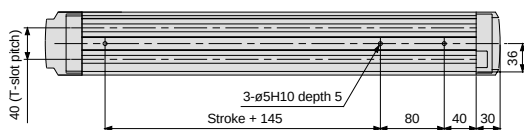
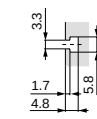
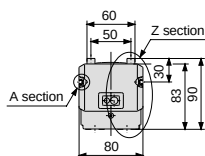
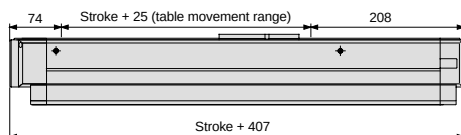
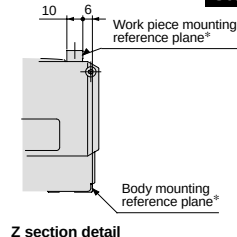
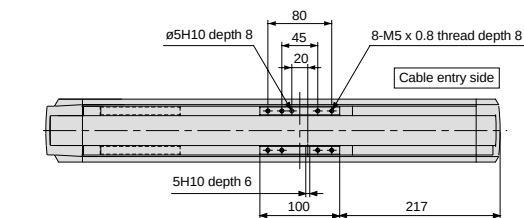
+ Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.

Non-standard Motor/Vertical Mount Specification *Series LJ1H10*

Dimensions/LJ1H10□2□NB(X10)

Scale: 15%

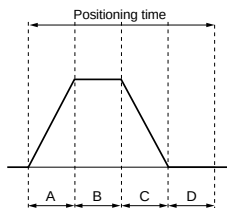


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
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
	300	0.4	0.5	0.8	1.3	2.1
	600	0.4	0.5	0.7	2.0	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
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

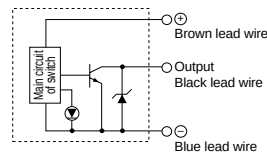
* For motor mounting dimensions, refer to the dimensions for series LJ1H10 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Vertical Mount

Series **LJ1H20**

Motor Output

100WHigh Rigidity
Direct Acting
Guide

Ground Ball Screw

Ø15mm/5mm lead

How to Order

LJ1H20 G 2 1 PF — Stroke K — F W — X10

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

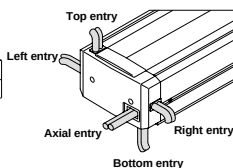
Cable entry direction

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

Switch

NiI	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

Standard stroke		mm	100	200	300	400	500	600
Performance	Body weight (without motor)	kg	7.5	8.7	9.9	11.0	12.4	13.5
	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 Ø15mm, 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					
Switch		Holding torque	0.4N·m					
		Connection method	Ball screw mounting					
	Model		D-Y7GL					
	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less					
	Regenerative absorption unit		Refer to the selection guide below.					

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

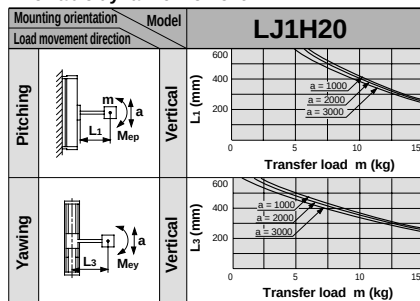
Allowable Moment (N·m)

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/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

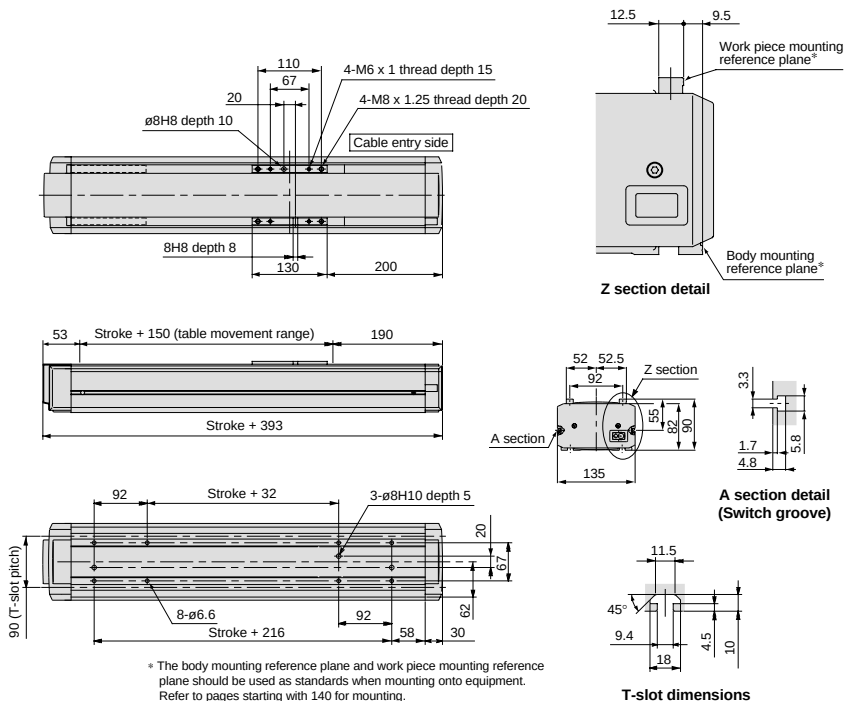
+ Driver capacitor energy consumption (A)

+ Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.

Dimensions/LJ1H20□2□PF(X10)

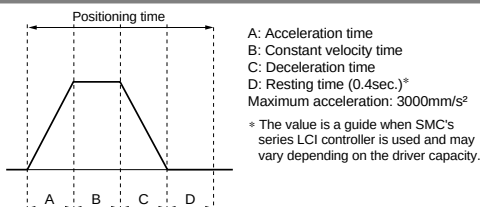
Scale: 10%



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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

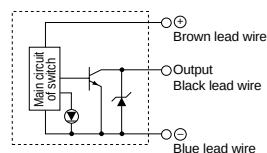
* For motor mounting dimensions, refer to the dimensions for series LJ1_S20 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor Vertical Mount

Series LJ1H20

Motor Output
100W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
Ø15mm/10mm lead

How to Order

LJ1H20 **G** **2** **1** **PA** — Stroke **K** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

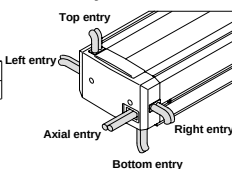
Cable entry direction

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

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

Standard stroke			mm	100	200	300	400	500	600
Performance	Body weight (without motor)		kg	7.5	8.7	9.9	11.0	12.4	13.5
	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							
Switch	Model			D-Y7GL					
	Specifications			Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less					
Regenerative absorption unit				Refer to the selection guide below.					

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

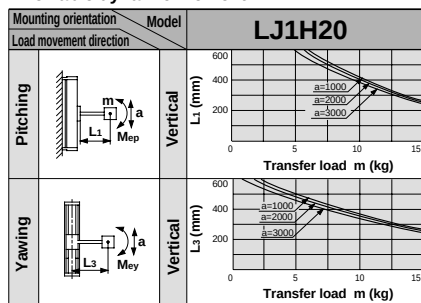
Allowable Moment (N·m)

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/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

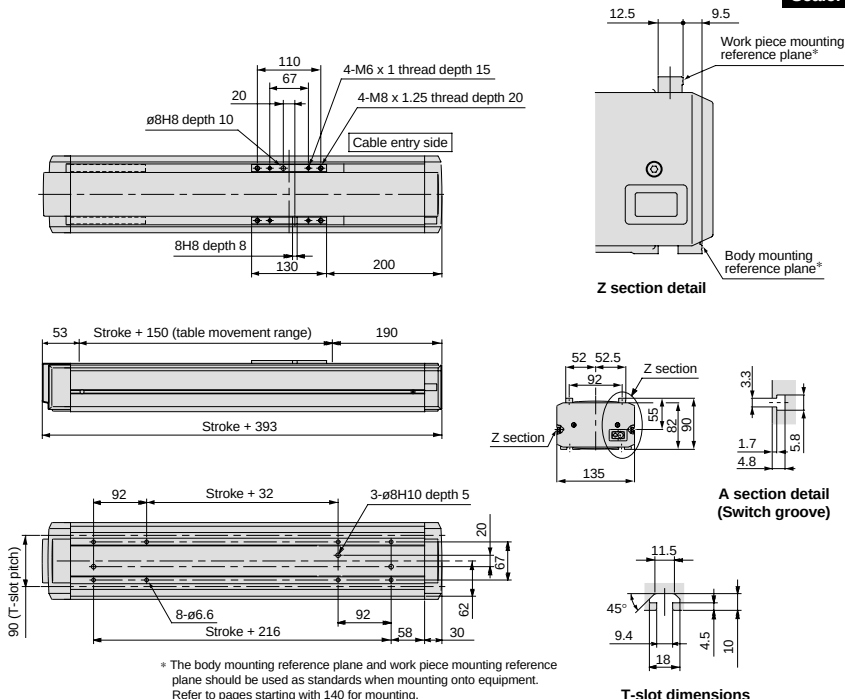
+ Driver capacitor energy consumption (A)

+ Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.

Non-standard Motor/Vertical Mount Specification **Series LJ1H20**

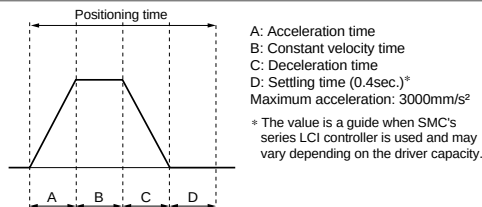
Dimensions/LJ1H20□2□PA(X10)

Scale: 10%


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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

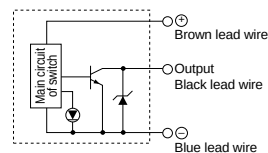
* For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Vertical Mount

Series **LJ1H20**

Motor Output

100WHigh Rigidity
Direct Acting
Guide

Rolled Ball Screw

ø15mm/5mm lead

How to Order

LJ1H20 **G** **2** **1** **NF** — Stroke **K** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

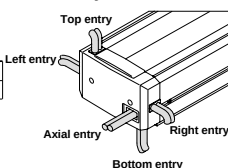
Cable entry direction

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

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

Standard stroke			mm	100	200	300	400	500	600
Performance	Body weight (without motor)		kg	7.5	8.7	9.9	11.0	12.4	13.5
	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 ø15mm, 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	0.4Nm						
Connection method		Ball screw mounting							
Switch	Model		D-Y7GL						
	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less						
Regenerative absorption unit				Refer to the selection guide below.					

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

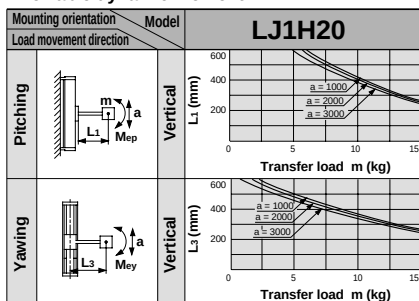
Allowable Moment (N·m)

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/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

+ Driver capacitor energy consumption (A)

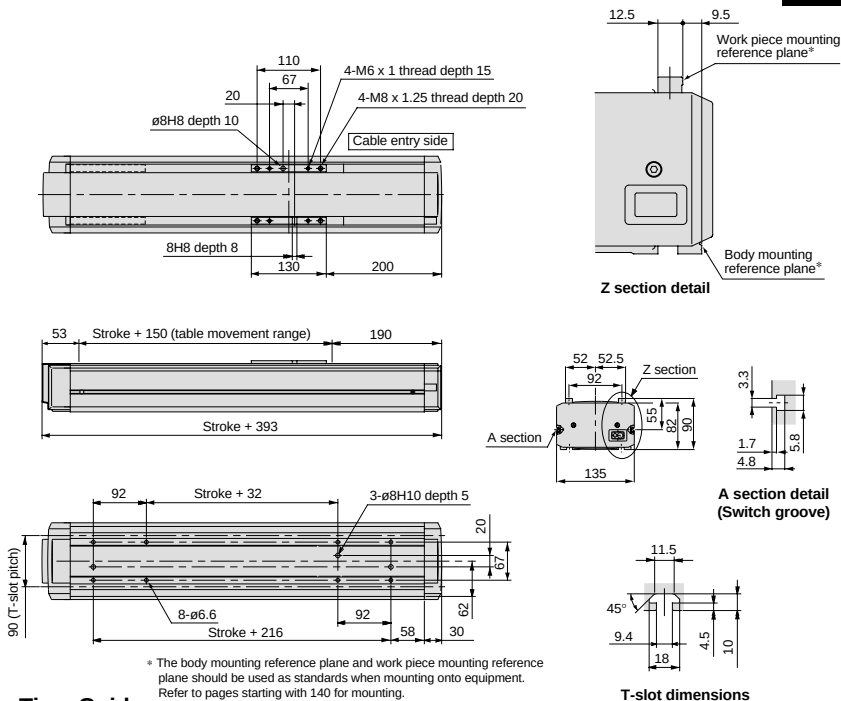
+ Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.

Non-standard Motor/Vertical Mount Specification *Series LJ1H20*

Dimensions/LJ1H20□2□NF(X10)

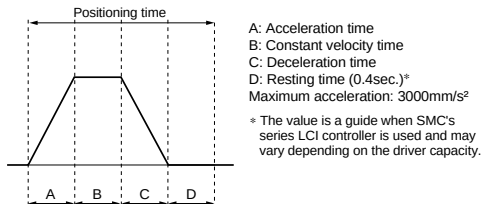
Scale: 10%



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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

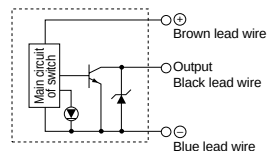
* For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor**Vertical Mount****Series LJ1H20**

Motor Output

100WHigh Rigidity
Direct Acting
Guide

Rolled Ball Screw

Ø15mm/10mm lead

How to Order**LJ1H20 G 2 1 NA — Stroke K — F W — X10****Motor specification**

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

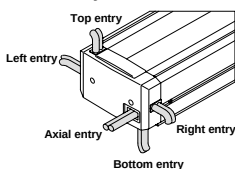
1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

Cable entry direction

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

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction**Specifications**

	Standard stroke	mm	100	200	300	400	500	600
Performance	Body weight (without motor) kg		7.5	8.7	9.9	11.0	12.4	13.5
	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					
Switch		Holding torque	0.4N·m					
		Connection method	Ball screw mounting					
	Model		D-Y7GL					
	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less					
Regenerative absorption unit			Refer to the selection guide below.					

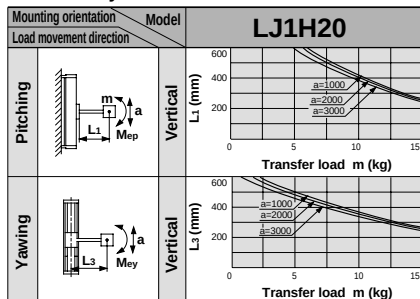
Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

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/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

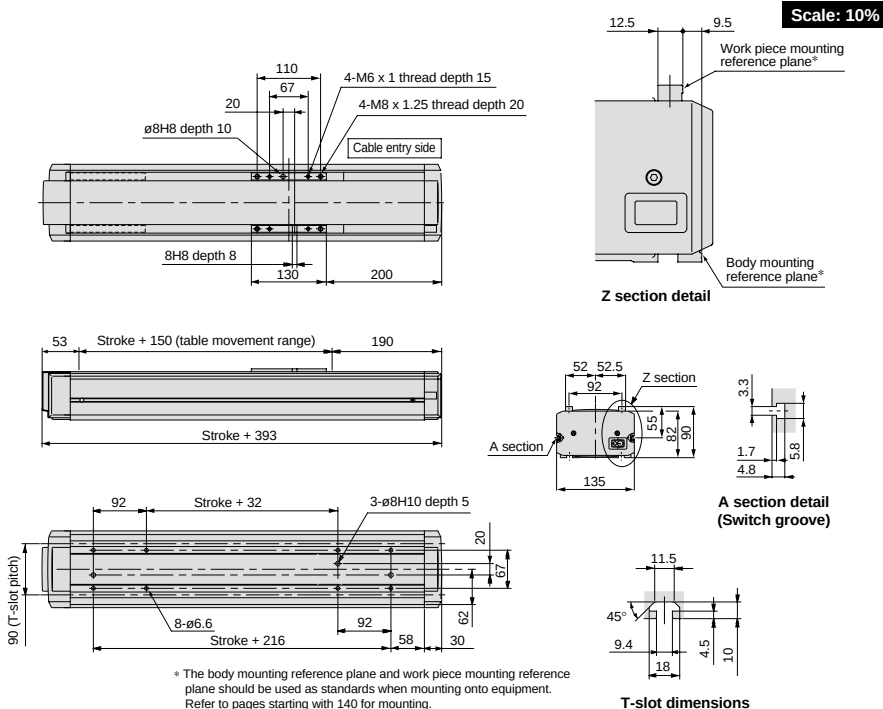
+ Driver capacitor energy consumption (A)

+ Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.

Non-standard Motor/Vertical Mount Specification *Series LJ1H20*

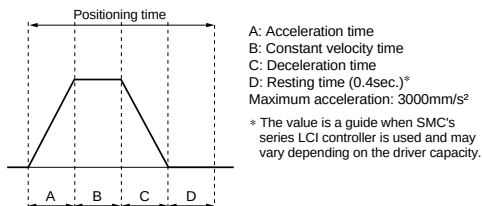
Dimensions/LJ1H20□□NA(X10)



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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

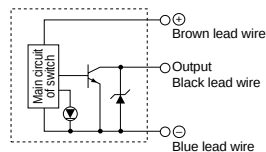
* For motor mounting dimensions, refer to the dimensions for series LJ1H20 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Vertical Mount

Series LJ1H30

Motor Output
200W

High Rigidity
Direct Acting
Guide

Ground Ball Screw
ø20mm/10mm lead

How to Order

LJ1H30 **G** **3** **1** **PA** — Stroke **K** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

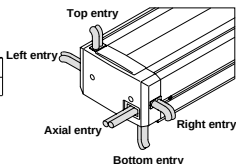
Cable entry direction

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

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

Standard stroke			mm	200	300	400	500	600	
Performance	Body weight (without motor)			kg	15.2	17.2	19.2	21.2	23.2
	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	±0.02				
Main parts	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							
Switch	Model			D-Y7GL					
	Specifications			Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less					
Regenerative absorption unit				Refer to the selection guide below.					

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

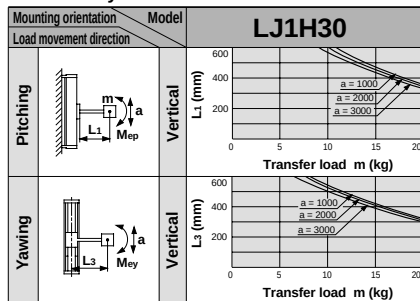
Allowable Moment (N·m)

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/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

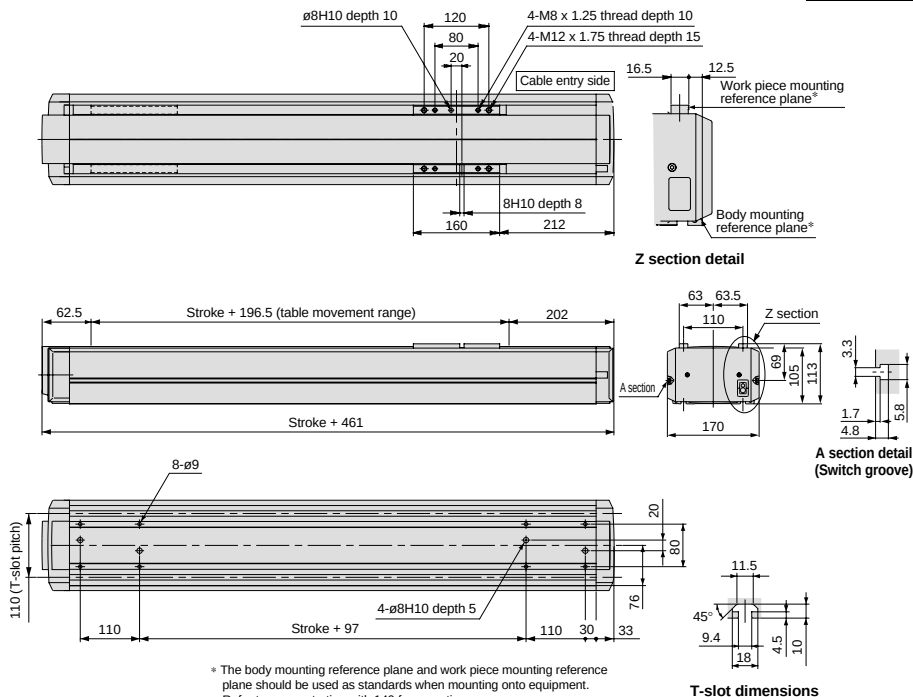
- + Driver capacitor energy consumption (A)
- + Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.

Non-standard Motor/Vertical Mount Specification *Series LJ1H30*

Dimensions/LJ1H30□3□PA(X10)

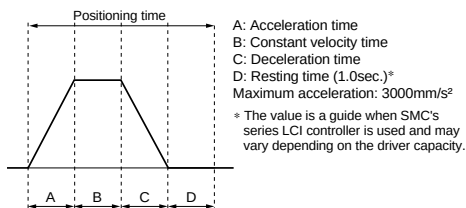
Scale: 10%



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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	200	100/115	MSM021P1A	MSD021P1E
		200/230	MSM022P1A	MSD023P1E
Mitsubishi Electric Corporation	200	100/115	HC-PQ23	MR-C20A1
		200/230		MR-C20A
Yaskawa Electric Corporation	200	100/115	SGME-02BF12	SGDE-02BP
		200/230	SGME-02AF12	SGDE-02AP

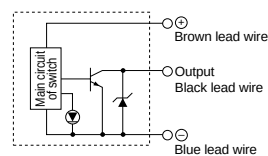
* For motor mounting dimensions, refer to the dimensions for series LJ1H30 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Vertical Mount

Series LJ1H30

Motor Output
200W

High Rigidity
Direct Acting
Guide

Rolled Ball Screw
Ø20mm/10mm lead

How to Order

LJ1H30 **G** **3** **1** **NA** — Stroke **K** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

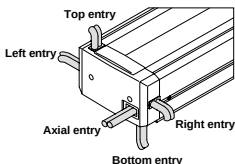
Cable entry direction

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

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

Standard stroke		mm	200	300	400	500	600
Performance	Body weight (without motor) kg		15.2	17.2	19.2	21.2	23.2
	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 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					
Switch	Model		D-Y7GL				
	Specifications		Power supply voltage: 4.5 to 28VDC Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less Internal voltage drop: 1.5V or less				
Regenerative absorption unit			Refer to the selection guide below.				

Intermediate strokes

Strokes other than the standard strokes on the left are available by special order. Consult SMC.

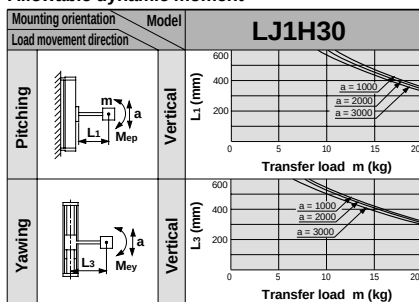
Allowable Moment (N·m)

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/Regenerative Resistor Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.

Regenerative energy = Motor coil energy consumption

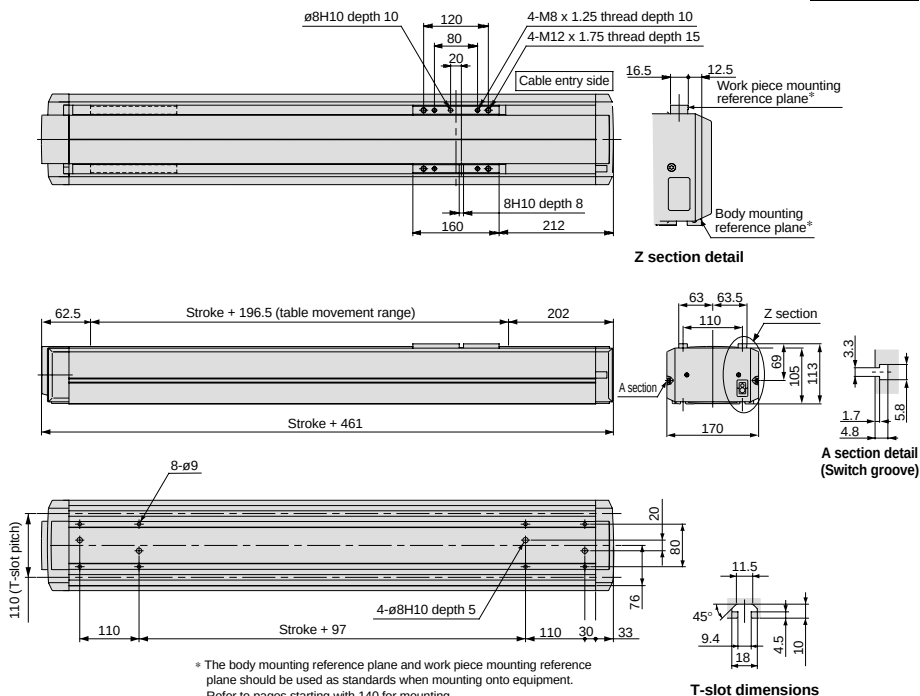
- + Driver capacitor energy consumption (A)
- + Regenerative resistor energy consumption (B)

(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections. Regenerative absorption units and regenerative resistors are available as options, therefore, separately order a model compatible with the motor and driver selection from the options ordering procedures on page 100.

Non-standard Motor/Vertical Mount Specification *Series LJ1H30*

Dimensions/LJ1H30□3□NA(X10)

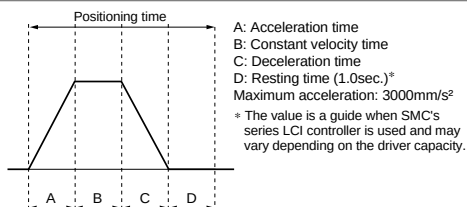
Scale: 10%



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.



Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	200	100/115	MSM021P1A	MSD021P1E
		200/230	MSM022P1A	MSD023P1E
Mitsubishi Electric Corporation	200	100/115	HC-PQ23	MR-C20A1
		200/230		MR-C20A
Yaskawa Electric Corporation	200	100/115	SGME-02BF12	SGDE-02BP
		200/230	SGME-02AF12	SGDE-02AP

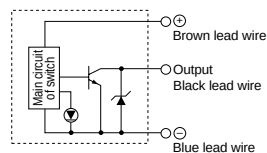
* For motor mounting dimensions, refer to the dimensions for series LJ1H30 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL





Single Axis Electric Actuator

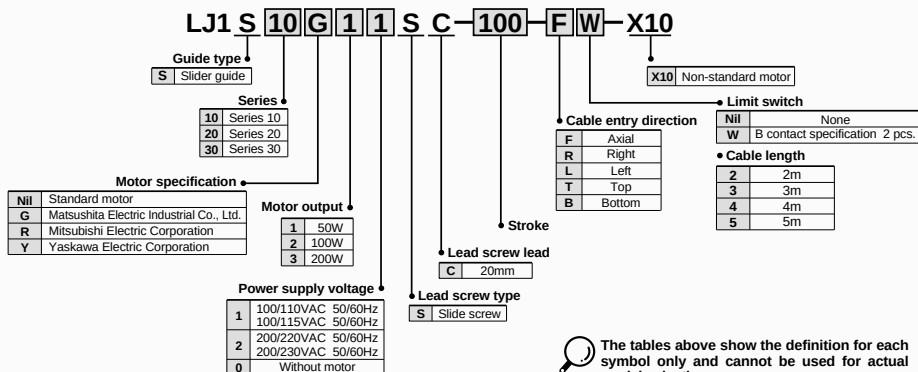
Series **LJ1S**

Slider Guide

Series	Motor type	Guide type	Mounting orientation	Model	Lead screw	Page
					Lead mm	
LJ1S	Standard motor	Slider guide	Horizontal	LJ1S10	20	88
				LJ1S20	20	90
				LJ1S30	20	92
	Standard motor			LJ1S10	20	94
				LJ1S20	20	96
				LJ1S30	20	98

■ Option specifications	Page 100
■ Made to Order	101
• Dust seal specification	116
• TSUBAKI CABLEVEYOR specification	128
■ Construction	137
■ Mounting	140
■ Non-standard Motor Mounting	143
■ Deflection Data	145

Part Number Designations



Standard Motor

Horizontal Mount

Series LJ1S10

Motor Output
50W

Slider
Guide

Slide Screw
Ø20mm/20mm lead

How to Order

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

Power supply voltage

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

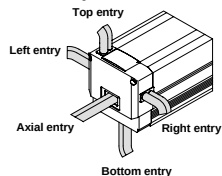
Cable entry direction

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	5.4	6.1	6.9	7.7	8.5	9.3	10.0	10.8	11.6	12.4
	Operating temperature range	°C	5 to 40 (with no condensation)									
	Work load	kg	5									
	Rated thrust	N	24									
	Maximum speed	mm/s	300									
	Positioning repeatability	mm	±0.1									
Main parts	Motor		AC servomotor (50W)									
	Encoder		Incremental system									
	Lead screw		Slide screw Ø20mm, 20mm lead									
	Guide		Slider guide									
	Motor/Screw connection		With coupling									
Controller	Model		LC1-1B1S□□□□ (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) LJ1S1011SC-150-F2-X2

Allowable Moment (N·m)

Allowable static moment

Pitching	1.3
Rolling	1.5
Yawing	0.7

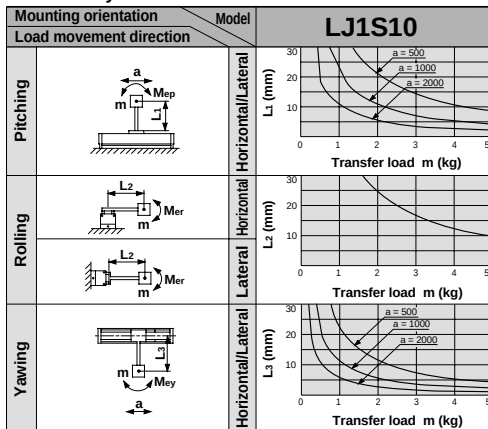
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me: Dynamic moment

L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment

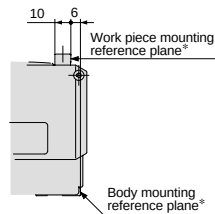
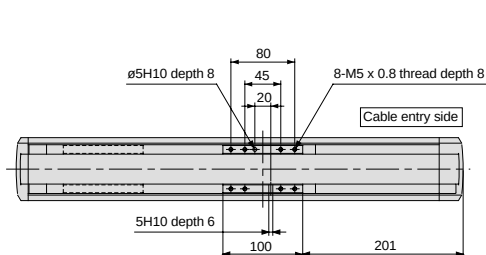


Refer to page 145 for deflection data.

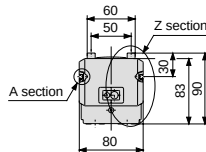
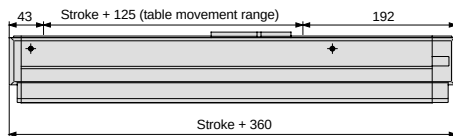
Standard Motor/Horizontal Mount Specification *Series LJ1S10*

Dimensions/LJ1S10□SC

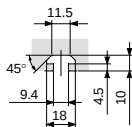
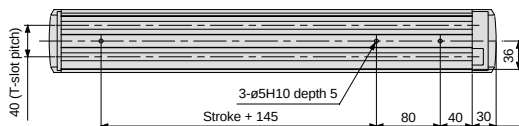
Scale: 15%



Z section detail



A section detail (Switch groove)



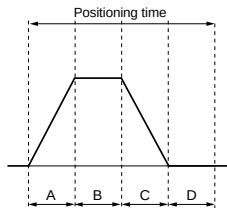
T-slot dimensions

* 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
	150	0.4	0.5	1.1	3.8	7.1
	300	0.4	0.5	0.8	2.2	3.8

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.1sec.)
Maximum acceleration: 2000mm/s²

Standard Motor**Horizontal Mount****Series LJ1S20**

Motor Output

100WSlider
Guide

Slide Screw

Ø20mm/20mm lead

How to Order**LJ1S202 1 SC — Stroke — F 2**

Power supply voltage

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

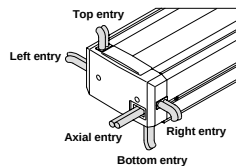
Cable entry direction

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	6.8	7.9	9.0	10.1	11.1	12.2	13.3	14.3	15.4	16.4	18.6
	Operating temperature range	°C	5 to 40 (with no condensation)										
	Work load	kg	10										
	Rated thrust	N	50										
	Maximum speed	mm/s	300										
Main parts	Positioning repeatability	mm	±0.1										
	Motor		AC servomotor (100W)										
	Encoder		Incremental system										
	Lead screw		Slide screw Ø20mm, 20mm lead										
	Guide		Slider guide										
Controller	Motor/Screw connection		With coupling										
	Model		LC1-1B2S□-□□ (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, 1050

Example) LJ1S2021SC-150-F2-X2

Allowable Moment (N·m)**Allowable static moment**

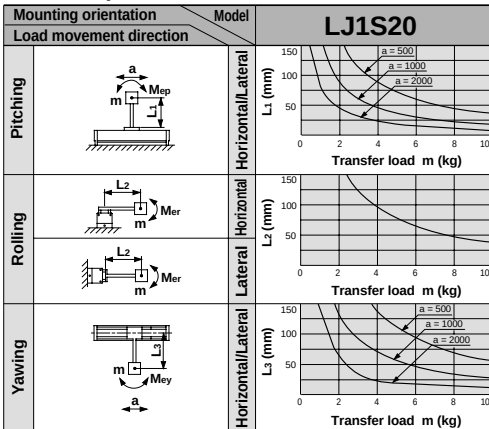
Pitching	5.5
Rolling	6.0
Yawing	8.5

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

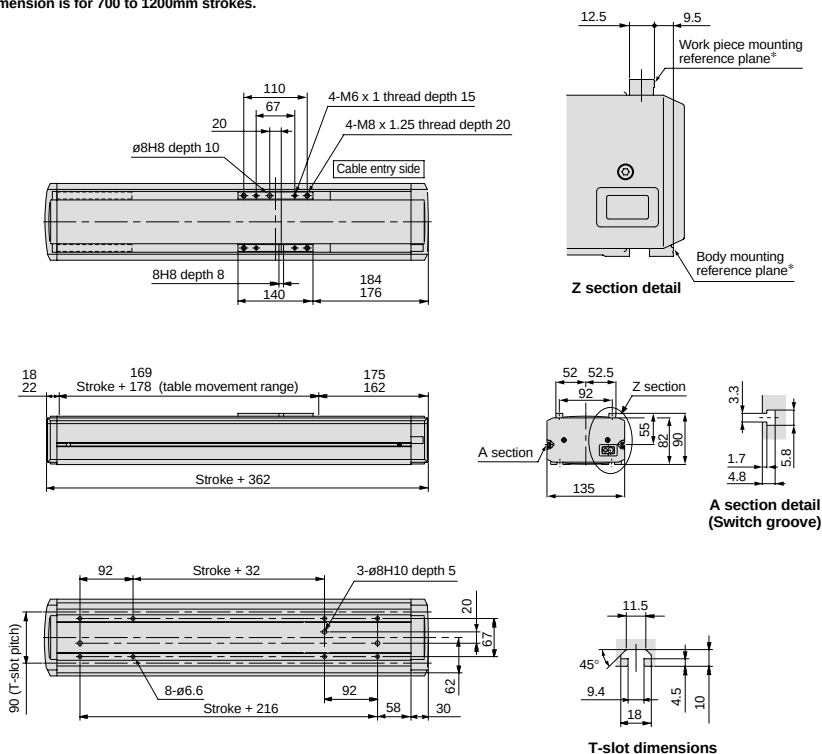
Refer to page 145 for deflection data.

Standard Motor/Horizontal Mount Specification *Series LJ1S20*

Dimensions/LJ1S20□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%

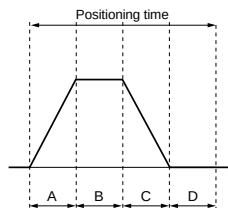


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		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
	150	0.5	0.6	1.2	4.5	8.5
	300	0.5	0.6	0.9	2.6	4.6

* 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

Standard Motor

Horizontal Mount

Series LJ1S30

Motor Output
200W

Slider
Guide

Rolled Ball Screw
ø25mm/20mm lead

How to Order

LJ1S303 **1** **SC** — **Stroke** — **F** **2**

Power supply voltage

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

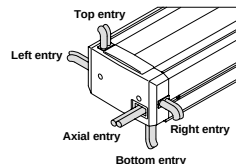
Cable entry direction

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	200	300	400	500	600	800	1000	1200	1500
Performance	Body weight	kg	14.4	16.2	18.0	19.8	21.5	25.7	29.7	33.3	38.7
	Operating temperature range	°C	5 to 40 (with no condensation)								
	Work load	kg	20								
	Rated thrust	N	50								
	Maximum speed	mm/s	300								
Main parts	Positioning repeatability	mm	±0.1								
	Motor		AC servomotor (200W)								
	Encoder		Incremental system								
	Lead screw		Slide screw ø25mm, 20mm lead								
	Guide		Slider guide								
Controller	Motor/Screw connection		With coupling								
	Model		LC1-1B3S□-□□ (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) LJ1S3031SC-250-F2-X2

Allowable Moment (N·m)

Allowable static moment

Pitching	26.6
Rolling	40.2
Yawing	25.8

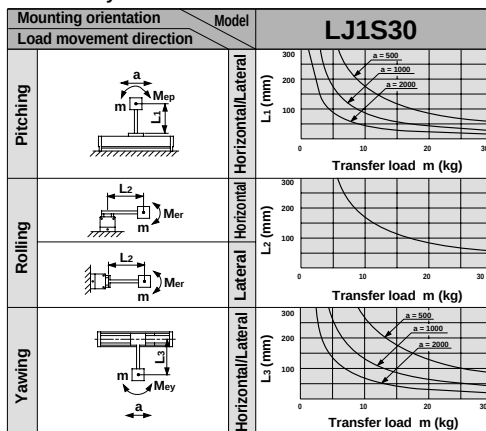
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me: Dynamic moment

L : Overhang to work piece center of gravity (mm)

Allowable dynamic moment

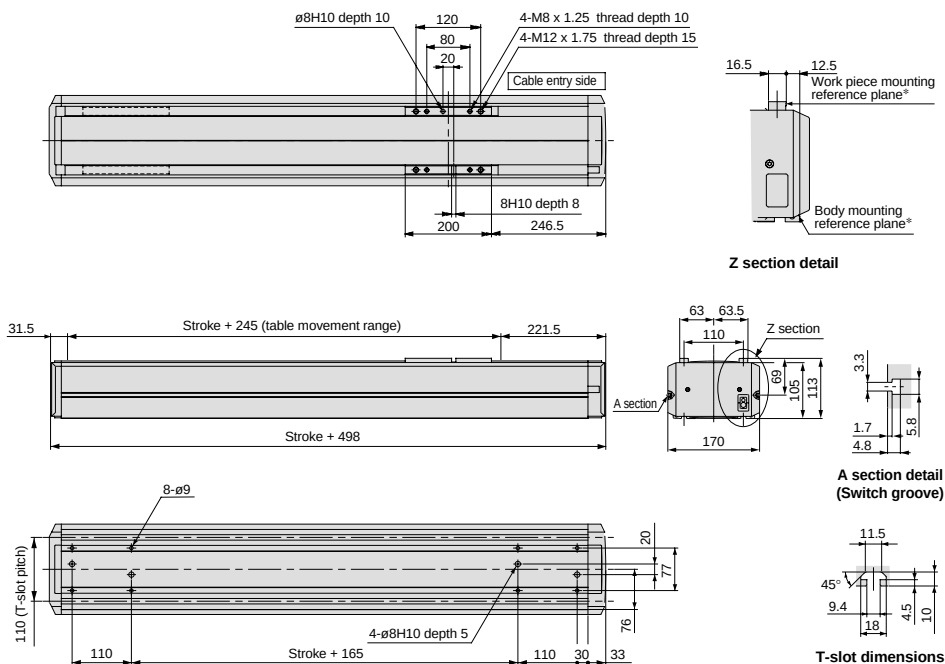


Refer to page 145 for deflection data.

Standard Motor/Horizontal Mount Specification *Series LJ1S30*

Dimensions/LJ1S30□SC

Scale: 10%

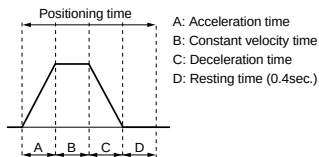


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)				
Positioning distance (mm)		1	10	100	750	1500
Speed (mm/s)	10	0.5	2.1	11.1	76.1	151.1
	100	1.1	1.2	2.1	8.6	16.1
	500	1.1	1.2	1.6	4.2	7.2
	1000	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

Non-standard Motor

Horizontal Mount

Series **LJ1S10**

Motor Output

50W

Slider
Guide

Slide Screw

Ø20mm/20mm lead

How to Order

LJ1S10 **G** 1 1 **SC** — Stroke — **F** **W** — X10

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

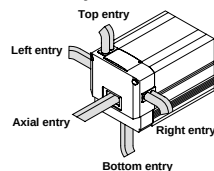
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000
Performance	Body weight (without motor)	kg	5.0	5.7	6.5	7.3	8.1	8.9	9.6	10.4	11.2	12.0
	Operating temperature range	°C	5 to 40 (with no condensation)									
	Work load	kg	5									
	Maximum speed	mm/s	300									
	Positioning repeatability	mm	±0.1									
Main parts	Motor		AC servomotor (50W)									
	Encoder		Incremental system									
	Lead screw		Slide screw Ø20mm, 20mm lead									
	Guide		Slider guide									
	Motor/Screw connection		With coupling									
Switch	Model		D-Y7GL									
	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									

Intermediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

Allowable Moment (N·m)

Allowable static moment

Pitching	1.3
Rolling	1.5
Yawing	0.7

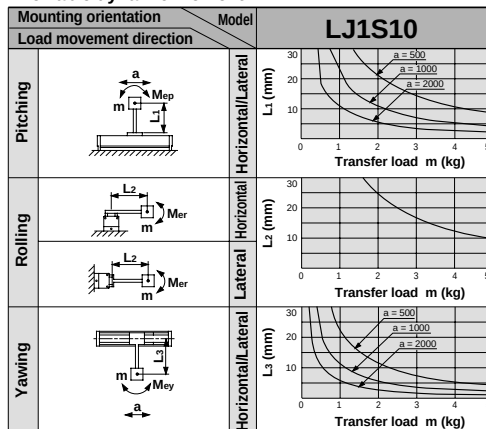
m : Transfer load (kg)

a : Work piece acceleration (mm/s²)

Me : Dynamic moment

L : Overhang to work piece center of gravity (mm)

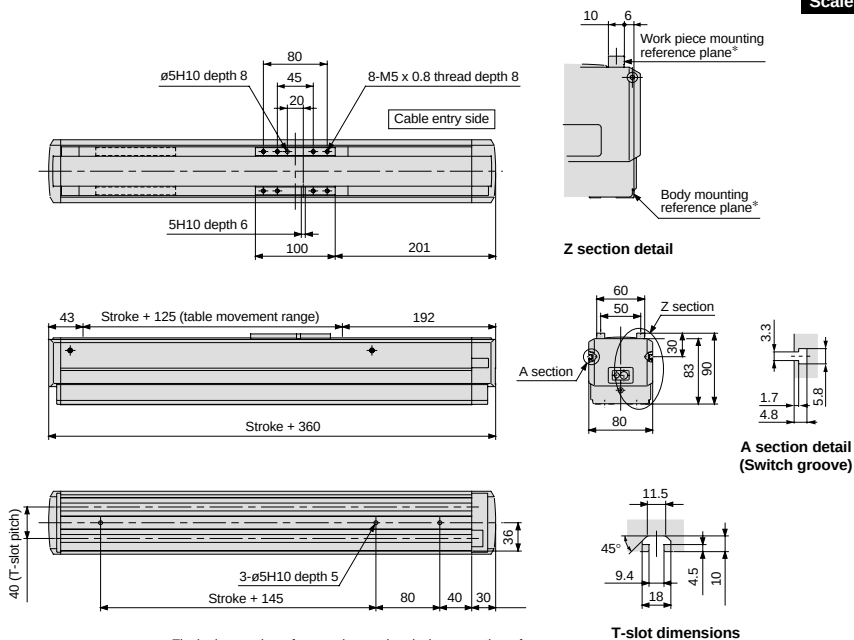
Allowable dynamic moment



Refer to page 145 for deflection data.

Dimensions/LJ1S10□1□SC(X10)

Scale: 15%

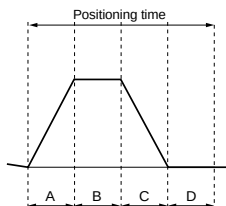


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting equipment.
Refer to pages starting with 140 for mounting.

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
	150	0.4	0.5	1.1	3.8	7.1
	300	0.4	0.5	0.8	2.2	3.8

* Values will vary slightly depending on the operating conditions.



A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.1sec.)*
Maximum acceleration: 2000mm/s²
* The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

* The value is a guide when SMC's series LCI controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	50	100/115	MSM5AZP1A	MSD5A1P1E
		200/230		MSD5A3P1E
Mitsubishi Electric Corporation	50	100/115	HC-PQ053	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	50	100/115	SGME-A5BF12	SGDE-A5BP
		200/230	SGME-A5AF12	SGDE-A5AP

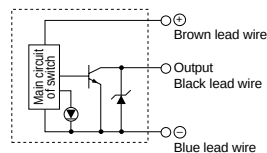
* For motor mounting dimensions, refer to the dimensions for series LJ1S10 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor**Horizontal Mount****Series LJ1S20**

Motor Output

100WSlider
Guide

Ground Ball Screw

ø20mm/20mm lead

How to Order**LJ1S20 G 2 1 SC — Stroke — F W — X10****Motor specification**

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

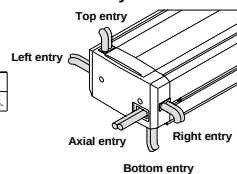
1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction**Specifications**

	Standard stroke	mm	100	200	300	400	500	600	700	800	900	1000	1200
Performance	Body weight (without motor)	kg	6.3	7.4	8.5	9.6	10.6	11.7	12.8	13.8	14.9	15.9	18.1
	Operating temperature range	°C	5 to 40 (with no condensation)										
	Work load	kg	10										
	Maximum speed	mm/s	300										
	Positioning repeatability	mm	±0.1										
Main parts	Motor		AC servomotor (100W)										
	Encoder		Incremental system										
	Lead screw		Slide screw ø20mm, 20mm lead										
	Guide		Slider guide										
	Motor/Screw connection		With coupling										
Switch	Model		D-Y7GL										
	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less										

Immediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

Allowable Moment (N·m)**Allowable static moment**

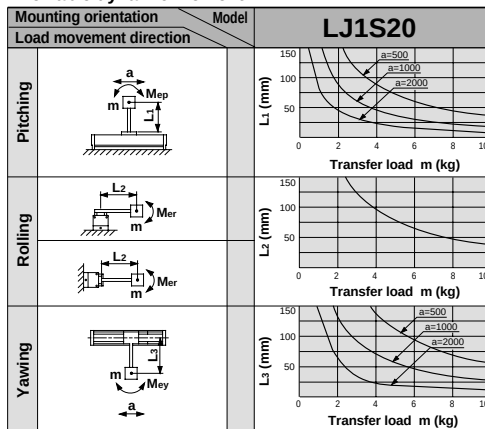
Pitching	5.5
Rolling	6.0
Yawing	8.5

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.

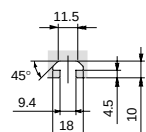
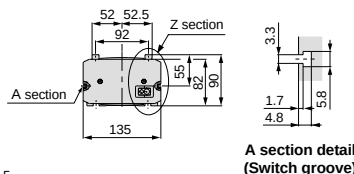
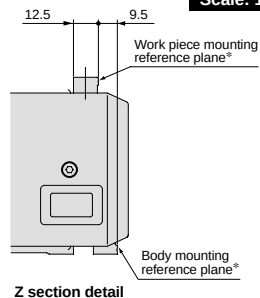
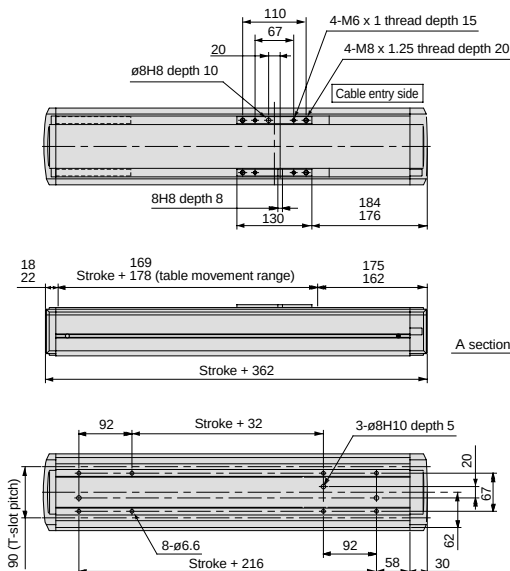
Non-standard Motor/Horizontal Mount Specification *Series LJ1S20*

Dimensions/LJ1S20□2□SC(X10)



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%

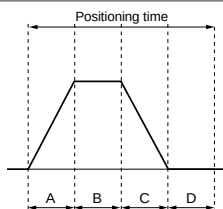


* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to pages starting with 140 for mounting.

Positioning Time Guide

		Positioning time (sec.)					
Positioning distance (mm)		1	10	100	500	1000	
Speed (mm/s)	10	0.6	1.5	10.5	50.5	120.5	
	100	0.5	0.6	1.5	6.5	12.5	
	150	0.5	0.6	1.2	4.5	8.5	
	300	0.5	0.6	0.9	2.6	4.6	

* 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

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	100	100/115	MSM011P1A	MSD011P1E
		200/230	MSM012P1A	MSD013P1E
Mitsubishi Electric Corporation	100	100/115	HC-PQ13	MR-C10A1
		200/230		MR-C10A
Yaskawa Electric Corporation	100	100/115	SGME-01BF12	SGDE-01BP
		200/230	SGME-01AF12	SGDE-01AP

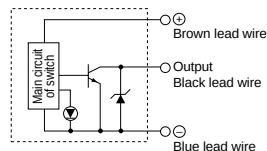
* For motor mounting dimensions, refer to the dimensions for series LJ1S20 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Non-standard Motor

Horizontal Mount

Series **LJ1S30**

Motor Output

200_WSlider
Guide

Ground Ball Screw

Ø25mm/20mm lead

How to Order

LJ1S30 **G** **3** **1** **SC** — **Stroke** — **F** **W** — **X10**

Motor specification

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Power supply voltage

1	100/115VAC (50/60Hz)
2	200/230VAC (50/60Hz)
0	Without motor

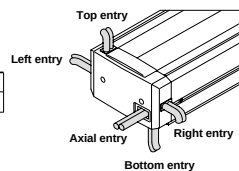
Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction



Specifications

Standard stroke		mm	200	300	400	500	600	800	1000	1200	1500
Performance	Body weight (without motor)	kg	13.3	15.1	16.9	18.7	20.4	24.6	28.6	32.2	37.6
	Operating temperature range	°C	5 to 40 (with no condensation)								
	Work load	kg	20								
	Maximum speed	mm/s	300								
	Positioning repeatability	mm	±0.1								
Main parts	Motor		AC servomotor (200W)								
	Encoder		Incremental system								
	Lead screw		Slide screw Ø25mm, 20mm lead								
	Guide		Slider guide								
	Motor/Screw connection		With coupling								
Switch	Model		D-Y7GL								
	Specifications		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								

Immediate strokes

Strokes other than the standard strokes above are available by special order. Consult SMC.

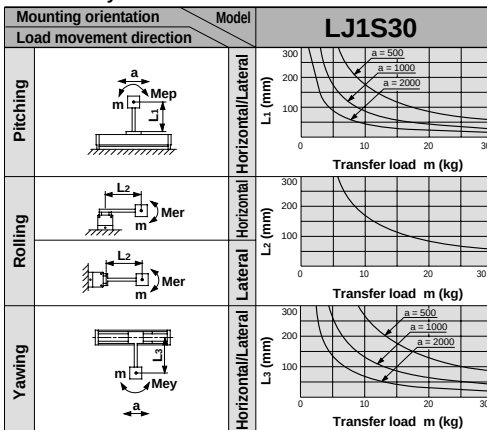
Allowable Moment (N·m)

Allowable static moment

Pitching	26.6
Rolling	40.2
Yawing	25.8

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

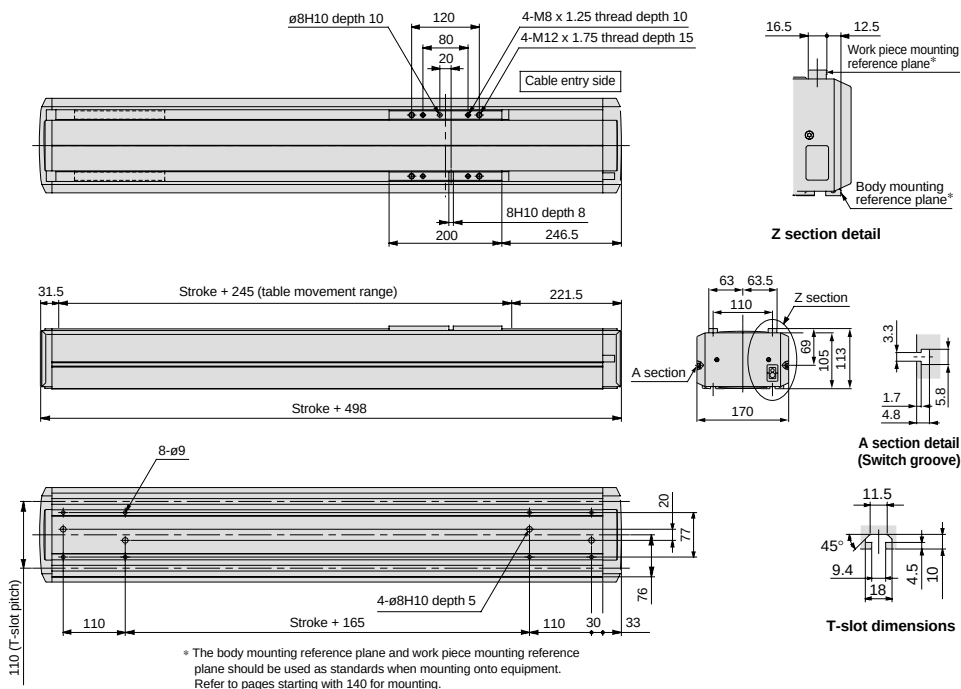


Refer to page 145 for deflection data.

Non-standard Motor/Horizontal Mount Specification *Series LJ1S30*

Dimensions/LJ1S30□3□SC(X10)

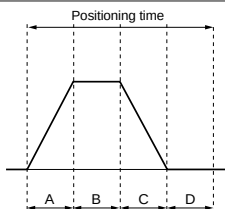
Scale: 10%



Positioning Time Guide

		Positioning time (sec.)					
Positioning distance (mm)		1	10	100	750	1500	
Speed (mm/s)	10	0.5	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.



A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time (0.4sec.)*
Maximum acceleration: 2000mm/s²
* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

	Motor output (W)	Power supply voltage (VAC)	Motor model	Compatible driver model
Matsushita Electric Industrial Co., Ltd.	200	100/115	MSM021P1A	MSD021P1E
		200/230	MSM022P1A	MSD023P1E
Mitsubishi Electric Corporation	200	100/115	HC-PQ23	MR-C20A1
		200/230		MR-C20A
Yaskawa Electric Corporation	200	100/115	SGME-02BF12	SGDE-02BP
		200/230	SGME-02AF12	SGDE-02AP

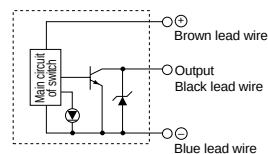
* For motor mounting dimensions, refer to the dimensions for series LJ1S30 on page 143 as a reference for mounting and design.

* Refer to pages starting with 205 for driver dimensions, etc. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification, when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

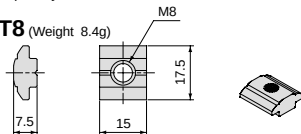
D-Y7GL



T-nuts for mounting electric actuators

Use T-nuts for T-slot mounting of an actuator. When mounting by means of T-nuts alone, the quantity of nuts indicated below should be used as a minimum.

Model **LJ1-T8** (Weight 8.4g)



T-nut quantity

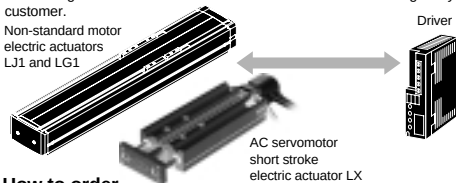
Model	Quantity
LJ1¹10	200mm stroke or less: 6 pcs. 300mm stroke or more: 8 pcs.
LJ1²20	8 pcs.
LJ1³30	8 pcs.

* Only series LJ1¹10 has the T-nuts built into the body.

Non-standard Motor Cables

These are cables for connecting non-standard motors and drivers. Cable lengths other than those shown below should be arranged by the customer.

Non-standard motor
electric actuators
LJ1 and LG1



How to order

LJ1 - 1 - **G** **05** **B**

Compatible model

G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Brake

Nil	Without brake
B	With brake

Cable length

05	5m
-----------	----

Applicable cables

LJ1 (non-standard motor), LXP/LXS (AC servomotor)

Model	Manufacturer part no.
LJ1-1-G05¹	MFMA0050AEB (for motor) MFCEA0050EAB (for encoder)
LJ1-1-G05B	MFCEA0050FAB (for motor) MFMA0050AEB (for encoder) MFMCB0050CET (for brake)
LJ1-1-R05	(for motor) ² MR-JCCBL5M (for encoder)
LJ1-1-Y05³	DP9320081-2 (for motor) DP9320089-2 (for encoder)
LJ1-1-Y05B	DP9320083-2 (for motor/brake) DP9320089-2 (for encoder)

LXF (AC servomotor by Mitsubishi Electric Corporation)

Model	Manufacturer part no.
LJ1-1-RJ-05	MR-JRCBL5M-H (motor/encoder/brake)

*1 When the Matsushita Electric Industrial Co., Ltd. motor driver is selected, in addition to the cable, a power connector (MOLEX 5569 - 10R) and an interface connector (Sumitomo/3-M Limited 10126-3000VE) are also required.

*2 A cable is not provided for the Mitsubishi Electric Corporation motor and brake, and therefore, the customer should arrange a 4 core, 0.75mm² electric cable.

*3 When the Yaskawa Electric Corporation motor driver is selected, a digital operator and PC are required for selecting the various parameters.

Please refer to the technical literature of each manufacturer for further details.

Non-standard Motor Driver

Regenerative Absorption Unit/Regenerative Resistor

This is a regenerative absorption unit and regenerative resistor for a non-standard motor. Make a selection providing an allowance beyond the calculated capacity.

How to order

LJ1 - 7 - **G**

Compatible model

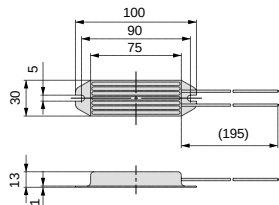
G	Matsushita Electric Industrial Co., Ltd.
R	Mitsubishi Electric Corporation
Y	Yaskawa Electric Corporation

Applicable types

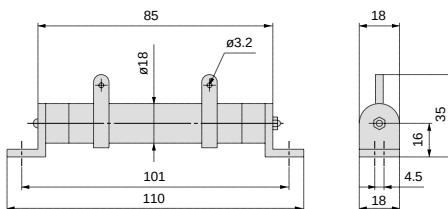
LJ1 (non-standard motor), LXP/LXS (AC servomotor)

Model	Manufacturer part no.
LJ1-7-G	DVO P0820
LJ1-7-R	MR-RB013
LJ1-7-Y	JUSP-RG08

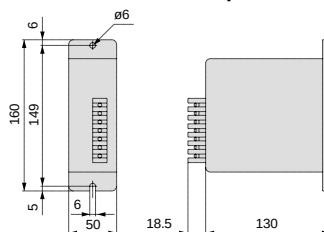
LJ1-7-G/Matsushita Electric Industrial Co., Ltd.



LJ1-7-R/Mitsubishi Electric Corporation

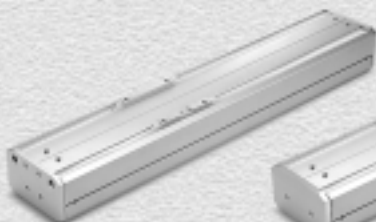


LJ1-7-Y/Yaskawa Electric Corporation

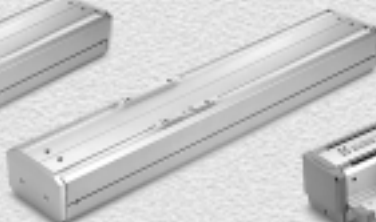


Electric Actuator *Series LJ1H/LJ1S*

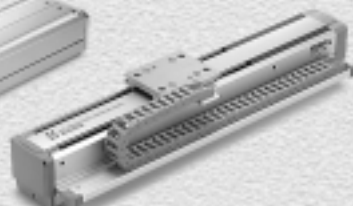
Made to Order Specifications



Clean room specification



Dust seal specification



TSUBAKI CABLEVEYOR specification

■ Clean room specification (-X60)	
LJ1H 10/20/30 (Horizontal mount/Vertical mount)	Page 104
■ Dust seal specification (-X70)	
LJ1H 10/20/30 (Horizontal mount/Vertical mount)	110
LJ1S 10/20/30 (Horizontal mount)	116
■ TSUBAKI CABLEVEYOR specification (-X40)	
LJ1H 10/20/30 (Horizontal mount)	122
LJ1S 10/20/30 (Horizontal mount)	128

LJ1

LG1

LC1

LX

LC6D/LC6C

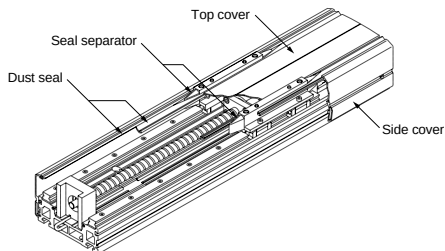
Switches

Series LJ1H/LJ1S

Made to Order Specifications

Clean Room Specification (-X60)

Change of materials, anti-corrosive treatment, use of a special grease, and vacuum cleaning of the inside of the actuator allow operation in a clean room.



Particulate Generation Performance

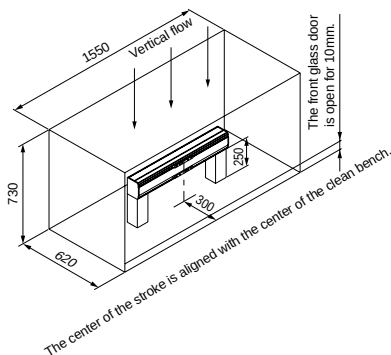
Test method

An actuator was placed inside a clean bench and particle concentration was measured at each neighboring point.

Test environment: <Clean bench> Nippon Airtek: VS-1603L
 <Size> W x L x H = 620mm x 1550mm x 730mm
 <Clean level> Fed-st class 10
 <Down flow velocity> Approx. 0.3m/s

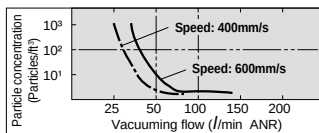
Test equipment: <Test equipment> Laser particle counter
 Hitachi Electric Engineering: TS-3500
 <Target particle size> $> 0.17\mu\text{m}$ or larger
 <Sampling flow rate> 28l/min (ANR)
 <Sampling time> 1min
 <Holding time> 2min
 <Number of tests> 6

Actuator placement and test points

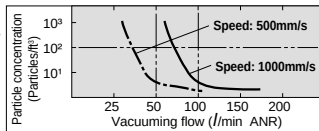


Vacuumping Graphs

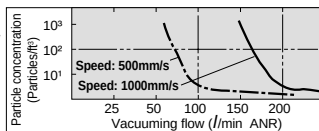
LJ1H10 Vacuumping flow characteristics



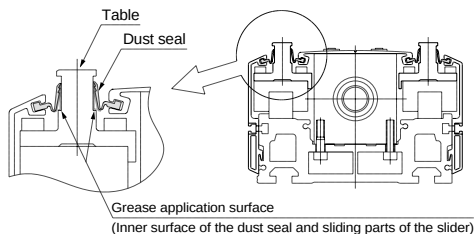
LJ1H20 Vacuumping flow characteristics



LJ1H30 Vacuumping flow characteristics



Grease Application Areas



⚠ Caution

① Maintenance of the greased parts of the dust seal is necessary.

With this specification, a vacuum grease is applied to the sliding parts of the dust seal in order to prevent particulate generation. Maintenance should be performed at 4000km, 4 million reciprocations or within 6 months, whichever occurs first.

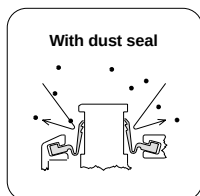
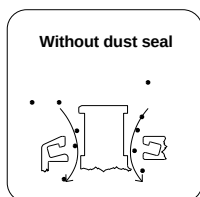
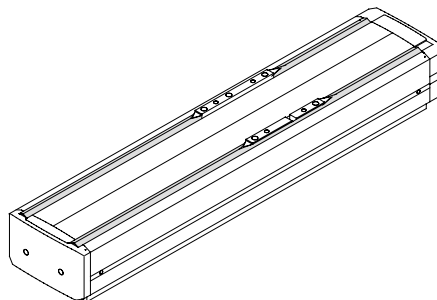
Specified grease: Barrierta IEL/V [fluorine grease (70g) for vacuum equipment manufactured by NOK Kluber]

② A down flow environment with a flow velocity of 0.3m/s or more is required.

The particulate generation performance of this specification has been tested in the environment shown on the left.

Dust Seal Specification (-X70)

The dust seal (dust cover) prevents the entry of dust, paper dust and scraps, etc.

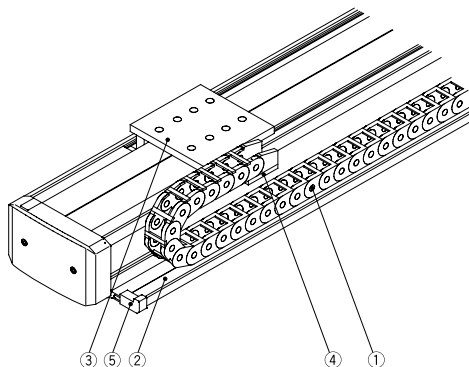
**Dust Cover**

Note 1) Dust seal material: Polyurethane
Consult SMC for details.

Note 2) Measures for use in an mist environment are not provided.
Also, depending on the environment, it may not be possible to use the dust seal. Consult SMC.

TSUBAKI CABLEVEYOR Specification (-X40)

Able to compactly arrange supporting guides for cables and hoses.

Construction**Parts list**

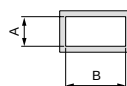
No.	Description	Material	Note
1	TSUBAKI CABLEVEYOR	—	—
2	Cable side cover	Aluminum alloy	—
3	Mounting plate	Aluminum alloy	—
4	Cable flange	Aluminum alloy	—
5	End cap	EP	—

Precautions on handling of the TSUBAKI CABLEVEYOR

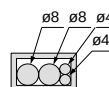
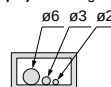
- When handling, connecting or disconnecting the TSUBAKI CABLEVEYOR:
 - Wear suitable clothing and appropriate protective gear (safety glasses, gloves, safety shoes, etc.).
 - Use suitable tools.
 - Provide support so that the TSUBAKI CABLEVEYOR and parts do not move freely.
- Implement protective measures (safety cover, etc.).
- Be sure to turn off the power and ensure that it cannot be turned on accidentally before installation, removal or maintenance of the equipment.
- In order to prevent secondary accidents, put the surrounding area in good order and operate under safe conditions.
- The total cross-sectional area of the cable inserted into the TSUBAKI CABLEVEYOR should be no more than 60% of the TSUBAKI CABLEVEYOR cross-sectional area.
- The minimum clearance between the cable and TSUBAKI CABLEVEYOR internal width should be "the larger of 10% of the cable O.D. or 2mm".

TSUBAKI CABLEVEYOR cross-sectional dimensions (mm)

Series	A	B
LJ1 ¹⁰ ₁₀	10	20
LJ1 ²⁰ ₂₀	10	20
LJ1 ³⁰ ₃₀	14	40



Example) For LJ1¹⁰₁₀



Made to Order

High Rigidity Direct Acting Guide Type

Motor Output: 50W/100W

Series **LJ1H10**Clean Room
Specification

How to Order

Motor output: 50W

Horizontal Mount Specification **LJ1H10** **1** **1** **P** **B** — Stroke — **F** **2** **X60**

Vertical Mount Specification **LJ1H10** **2** **1** **P** **H** — Stroke — **K** **F** **2** **X60**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	Non-standard motor
G	Matsushita Electric Industrial Co., Ltd.	
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 100W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type

Refer to Table ① to the right.

P	Ground ball screw
N	Rolled ball screw

Refer to Table ① below.

With brake

Cable entry direction: Axial

Lead screw lead

H	8mm
B	12mm

Clean room specification

Standard motor cable length

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

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)				
	100	200	300	400	500
LJ1H10 1 PB - Stroke F - X60	●	●	●	●	●
LJ1H10 1 NB - Stroke F - X60	●	●	●	●	●
LJ1H10 2 PH - Stroke K - F - X60	●	●	●	●	●
LJ1H10 2 NH - Stroke K - F - X60	●	●	●	●	●
LJ1H10 2 PB - Stroke K - F - X60	●	●	●	●	●
LJ1H10 2 NB - Stroke K - F - X60	●	●	●	●	●

Combinations other than the above cannot be manufactured.

Specifications

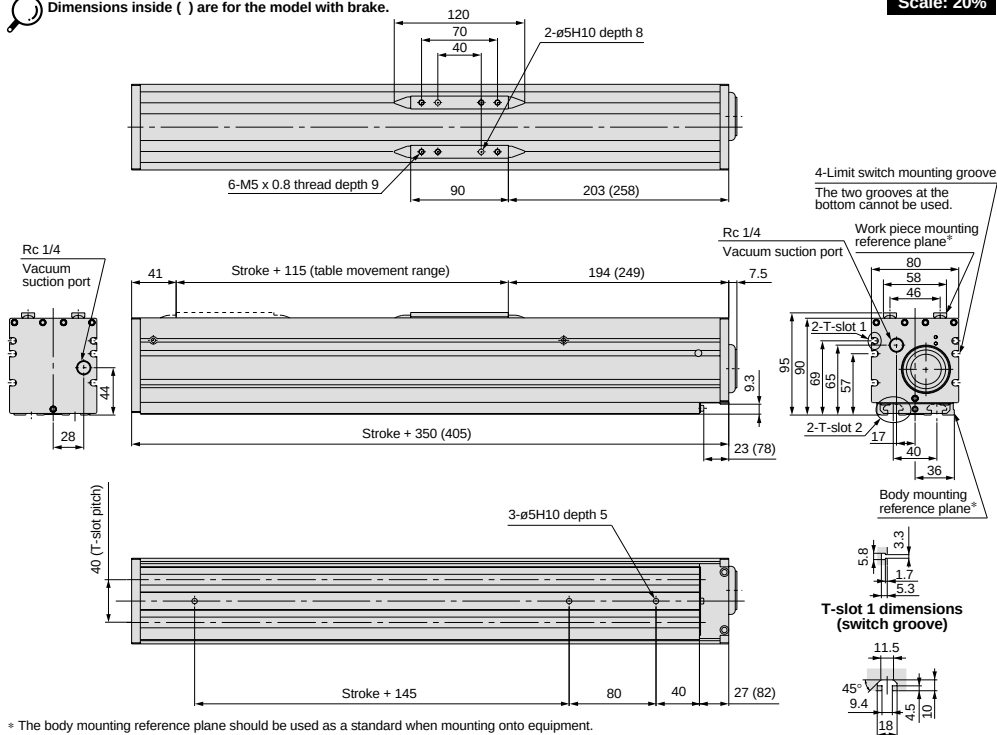
Standard stroke mm				100	200	300	400	500
Weight kg	Without brake	With motor (standard)		5.4	6.2	7.0	7.7	8.5
		Without motor (non-standard)		5.0	5.8	6.6	7.3	8.1
	With brake	With motor (standard)		5.9	6.7	7.5	8.2	9.0
		Without motor (non-standard)		5.5	6.3	7.1	7.8	8.6
Operating temperature range °C				5 to 40 (with no condensation)				
Work load kg	Horizontal specification	12mm lead	50W	10				
		12mm lead	100W	5				
	Vertical specification	8mm lead	100W	10				
Horizontal specification		12mm lead	50W	600				
	Vertical specification	12mm lead	100W	600				
8mm lead		100W	400					
Positioning repeatability mm		Rolled ball screw		±0.05				
		Ground ball screw		±0.02				
Motor output		Horizontal specification		AC servomotor (50W)				
		Vertical specification		AC servomotor (100W) with brake				
Lead screw	Black chroming + Special fluoro resin coating and grease application	Horizontal specification	Rolled ball screw		ø12mm, 12mm lead			
			Ground ball screw		ø12mm, 12mm lead			
		Vertical specification	Rolled ball screw		ø12mm, 12mm/8mm lead			
			Ground ball screw		ø12mm, 12mm/8mm lead			
Guide				High rigidity direct acting guide, Stainless steel rail, AFE grease (made by THK) applied				
Switch				Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less				
Table specification				With dust seal				
Grease for dust seal application				Fluorine grease for vacuum equipment made by NOK Kluber				
Grease maintenance schedule				Traveling distance of 4000km, 4 million reciprocations, or operation period of 6 months, whichever comes first				
Vacuum suction port				Rc 1/4, one each on both axial surfaces Seal the unused port with a plug.				
Suction flow rate				50l/min (ANR)				

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1H10 $\square\frac{1}{2}$ (X60)

 Dimensions inside () are for the model with brake.

Scale: 20%



* The body mounting reference plane should be used as a standard when mounting onto equipment.
Refer to pages starting with 140 for mounting.

Compatible Motors

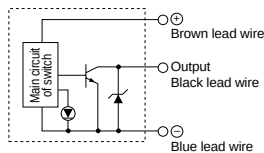
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	50	100/110 200/220	—	LC1-1B1H1- $\square\square$ LC1-1B1H2- $\square\square$
		With brake (Vertical specification)	100	100	—	LC1-1B1V $\square$ 1- $\square\square$
			200	200	—	LC1-1B1V $\square$ 2- $\square\square$
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	50	100/115 200/230	MSM5AZP1A	MSD5A1P1E MSD5A3P1E
		With brake (Vertical specification)	100	100/115 200/230	MSM011P1B	MSD011P1E
			200	200/230	MSM012P1B	MSD012P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	50	100/115 200/230	HC-PQ053	MR-C10A1 MR-C10A
		With brake (Vertical specification)	100	100/115 200/230	HC-PQ13B	MR-C10A1 MR-C10A
			200	200/230		
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	50	100/115 200/230	SGME-A5BF12	SGDE-A5BP SGDE-A5AP
		With brake (Vertical specification)	100	100/115 200/230	SGME-01BF12B	SGDE-01BP SGDE-01AP
			200	200/230	SGME-01AF12B	

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Made to Order

High Rigidity Direct Acting Guide Type

Motor Output: 100W

Series **LJ1H20**Clean Room
Specification

How to Order

Horizontal Mount Specification **LJ1H20** ☐ 2 ☐ 1 ☐ P ☐ A — Stroke — ☐ F 2 ☐ X60

Vertical Mount Specification **LJ1H20** ☐ 2 ☐ 1 ☐ P ☐ F — Stroke — ☐ K — ☐ F 2 ☐ X60

Motor specification •

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 100W •

Power supply voltage •

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw lead • Refer to Table ① below.

F	5mm
A	10mm
C	20mm

Lead screw type • Refer to Table ① below.

P	Ground ball screw
N	Rolled ball screw

Stroke • Refer to Table ① below.

With brake •

Cable entry direction • Axial

Clean room specification • Standard motor cable length

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

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)									
	100	200	300	400	500	600	700	800	900	1000
LJ1H20-2-PA-Stroke-F-X60	●	●	●	●	●	●				
LJ1H20-2-NA-Stroke-F-X60	●	●	●	●	●	●				
LJ1H20-2-PC-Stroke-F-X60					●	●	●	●	●	●
LJ1H20-2-NC-Stroke-F-X60					●	●	●	●	●	●
LJ1H20-2-PF-Stroke-K-F-X60	●	●	●	●	●	●				
LJ1H20-2-NF-Stroke-K-F-X60	●	●	●	●	●	●				
LJ1H20-2-PA-Stroke-K-F-X60	●	●	●	●	●	●				
LJ1H20-2-NA-Stroke-K-F-X60	●	●	●	●	●	●				

Specifications

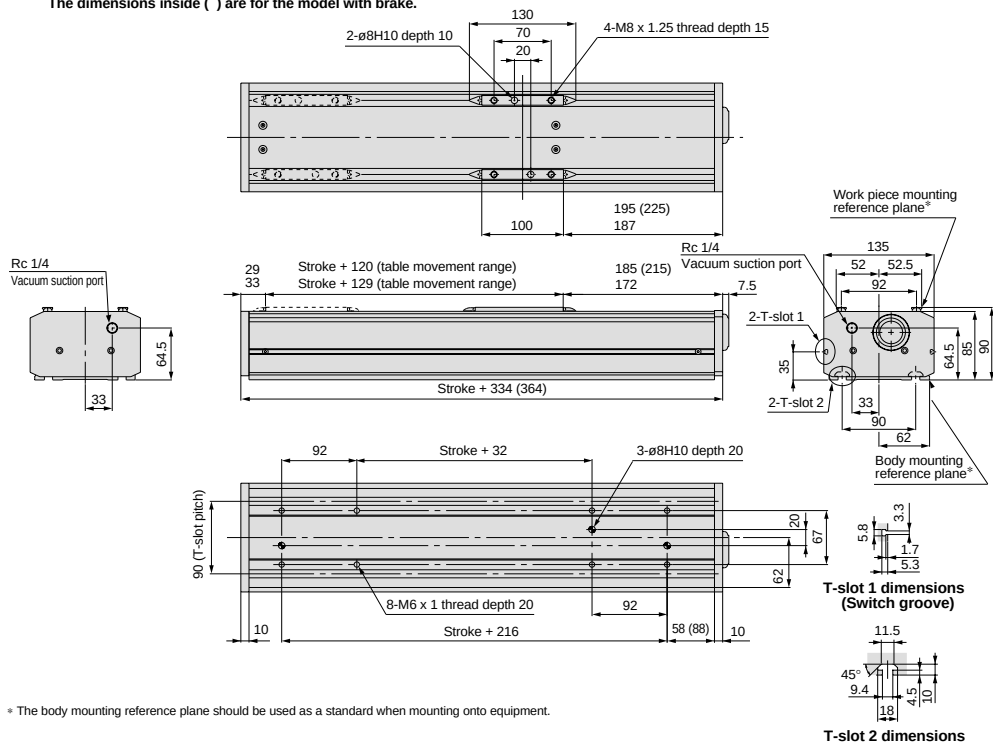
Combinations other than the above cannot be manufactured.

Standard stroke mm				100	200	300	400	500	600	700	800	900	1000
Weight kg	Without brake	With motor	7.9	9.1	10.3	11.4	12.8	13.9	15.1	16.3	17.5	18.7	
		Without motor	7.4	8.6	9.8	10.9	12.3	13.4	14.6	15.8	17.0	18.2	
	With brake	With motor	8.6	9.8	11.0	12.1	13.5	14.6	—	—	—	—	
		Without motor	8.1	9.3	10.5	11.6	13.0	14.1	—	—	—	—	
Operating temperature range °C				5 to 40 (with no condensation)									
Work load kg	Horizontal specification	10mm lead	100W	30					—				
		20mm lead		—					15				
	Vertical specification	5mm lead		15					—				
		10mm lead		8					—				
Maximum speed mm/s	Horizontal specification	10mm lead	100W	500					—				
		20mm lead		—					1000				
	Vertical specification	5mm lead		250					930				
		10mm lead		500					740				
Positioning repeatability mm	Rolled ball screw		±0.05										
	Ground ball screw		±0.02										
Motor output	Horizontal specification		AC servomotor (100W)										
	Vertical specification		AC servomotor (100W) with brake										
Lead screw	Black chroming + Special fluoro resin coating and grease application	Horizontal specification	Rolled ball screw	ø15mm, 10mm lead					—				
				—					ø15mm, 20mm lead				
		Vertical specification	Ground ball screw	ø15mm, 5mm lead					—				
				ø15mm,10mm lead					—				
Guide			High rigidity direct acting guide, Stainless steel rail, AFE grease (made by THK) applied										
Switch			Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less										
Table specification			Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less										
Grease for dust seal application			With dust seal										
Grease maintenance schedule			Fluorine grease for vacuum equipment made by NOK Kluber										
Vacuum suction port			Traveling distance of 4000km, 4 million reciprocations, or operation period of 6 months, whichever comes first										
Vacuum suction port			Rc 1/4, one each on both axial surfaces										
Vacuum suction port			Seal the unused port with a plug.										
Vacuum suction port			Suction at either end or both ends.										
Suction flow rate	Stroke: 500mm or less		Suction at both ends.										
	Stroke: 500mm or more		50l/min (ANR)										
Suction flow rate			100l/min (ANR)										

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1H20□2 (X60)

When two dimensions are shown, the top dimension is for 100 to 600mm strokes, and the bottom dimension is for 700 to 1200mm strokes.
The dimensions inside () are for the model with brake.

Scale: 15%

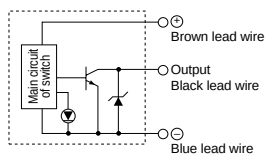
* The body mounting reference plane should be used as a standard when mounting onto equipment.

Compatible Motors

Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	100	100/110	—	LC1-1B2H1-□□
		Without brake (Horizontal specification)	100	200/220	—	LC1-1B2H2-□□
		With brake (Vertical specification)	100	100	—	LC1-1B2V□1-□□
		With brake (Vertical specification)	100	200	—	LC1-1B2V□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	100	100/115	MSM011P1A	MSD011P1E
		Without brake (Horizontal specification)	100	200/230	MSM012P1A	MSD013P1E
		With brake (Vertical specification)	100	100/115	MSM011P1B	MSD011P1E
		With brake (Vertical specification)	100	200/230	MSM012P1B	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	100	100/115	HC-PQ013	MR-C10A1
		Without brake (Horizontal specification)	100	200/230	HC-PQ013	MR-C10A
		With brake (Vertical specification)	100	100/115	HC-PQ13B	MR-C10A1
		With brake (Vertical specification)	100	200/230	HC-PQ13B	MR-C10A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	100	100/115	SGME-01BF12	SGDE-01BP
		Without brake (Horizontal specification)	100	200/230	SGME-01AF12	SGDE-01AP
		With brake (Vertical specification)	100	100/115	SGME-01BF12B	SGDE-01BP
		With brake (Vertical specification)	100	200/230	SGME-01AF12B	SGDE-01AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit**D-Y7GL**

Made to Order

High Rigidity Direct Acting Guide Type

Motor Output: 200W

Series **LJ1H30**Clean Room
Specification

How to Order

Lead screw lead: 25mm

Horizontal Mount Specification LJ1H30 **3** **1** **P** **D** — **Stroke** — **F** **2** — **X60**

Vertical Mount Specification LJ1H30 **3** **1** **P** **A** — **Stroke** **K** — **F** **2** — **X60**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 200W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Refer to Table ① below.

Stroke

Refer to Table ① below.

Lead screw type

P	Ground ball screw
N	Rolled ball screw

Cable entry direction: Axial

With brake

Lead screw lead: 10mm

Refer to Table ① below.

Clean room specification

Standard motor cable length	
2	2m
3	3m
4	4m
5	5m

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)							
	200	300	400	500	600	800	1000	1200
LJ1H30□3□PD-Stroke-F□-X60	●	●	●	●	●	●	●	●
LJ1H30□3□ND-Stroke-F□-X60	●	●	●	●	●	●	●	●
LJ1H30□3□PA-Stroke-K-F□-X60	●	●	●	●	●	●	●	●
LJ1H30□3□NA-Stroke-K-F□-X60	●	●	●	●	●	●	●	●

Combinations other than the above cannot be manufactured.

Specifications

Standard stroke mm				200	300	400	500	600	800	1000	1200	1500
Weight kg	Without brake	With motor		16.2	18.2	20.2	22.2	24.2	28.7	33.2	37.2	43.2
		Without motor		15.1	17.1	19.1	21.1	23.1	27.6	32.1	36.1	42.1
	With brake	With motor		17.2	19.2	21.2	23.2	25.2	—	—	—	—
		Without motor		16.1	18.1	20.1	22.1	24.1	—	—	—	—
Operating temperature range °C				5 to 40 (with no condensation)								
Maximum work load kg	Horizontal specification	25mm lead	200W	60								
	Vertical specification	10mm lead		20						—		
Maximum speed mm/s	Horizontal specification	25mm lead	200W	1000						700		500
	Vertical specification	10mm lead		500						—		
Positioning repeatability mm	Rolled ball screw			±0.05								
	Ground ball screw			±0.02								
Motor output	Horizontal specification			AC servomotor (200W)								
	Vertical specification			AC servomotor (200W) with brake								
Lead screw	Black chroming + Special fluoro resin coating and grease application	Horizontal specification	Rolled ball screw Ground ball screw	ø25mm, 25mm lead								
		Vertical specification		ø20mm, 10mm lead						—		
Guide				High rigidity direct acting guide, Stainless steel rail, AFE grease (made by THK) applied								
Switch				Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								
Table specification				With dust seal								
Grease for dust seal application				Fluorine grease for vacuum equipment made by NOK Kluber								
Grease maintenance schedule				Traveling distance of 4000km, 4 million reciprocations, or operation period of 6 months, whichever comes first								
Vacuum suction port				Rc 1/4, one each on both axial surfaces Seal the unused port with a plug, suction at both ends								
Suction flow rate	Speed: 500 mm/s or less			100/min (ANR)								
	Speed: 500 mm/ or more			200/min (ANR)								

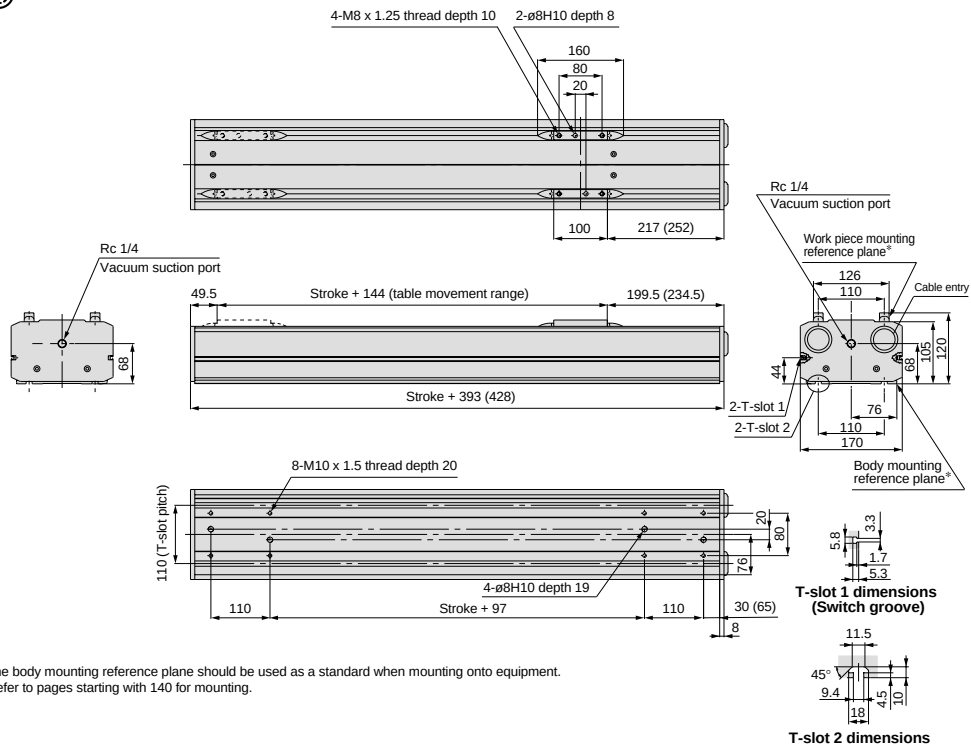
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Made to Order/Clean Room Specification *Series LJ1H30*

Dimensions/LJ1H30□3 (X60)

 Dimensions inside () are for the model with brake.

Scale: 15%



* The body mounting reference plane should be used as a standard when mounting onto equipment.
Refer to pages starting with 140 for mounting.

Compatible Motors

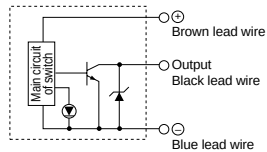
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	200	100/110	—	LC1-1B3H1-□□
			200	200	—	LC1-1B3H2-□□
		With brake (Vertical specification)	200	100	—	LC1-1B3VA1-□□
			200	200	—	LC1-1B3VA2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	200	100/115	MSM021P1A	MSD021P1E
			200/230	200/230	MSM022P1A	MSD023P1E
		With brake (Vertical specification)	200	100/115	MSM021P1B	MSD021P1E
			200/230	200/230	MSM022P1B	MSD023P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	200	100/115	HC-PQ23	MR-C20A1
			200/230	200/230		MR-C20A
		With brake (Vertical specification)	200	100/115	HC-PQ23B	MR-C20A1
			200/230	200/230		MR-C20A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	200	100/115	SGME-02BF12	SGDE-02BP
			200/230	200/230	SGME-02AF12	SGDE-02AP
		With brake (Vertical specification)	200	100/115	SGME-02BF12B	SGDE-02BP
			200/230	200/230	SGME-02AF12B	SGDE-02AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Made to Order

High Rigidity Direct Acting Guide Type

Motor Output: 50W/100W

Series **LJ1H10**Dust Seal
Specification

How to Order

Motor output: 50W

Horizontal Mount Specification **LJ1H10** **1** **1** **P** **B** — Stroke — **F** **2** — **X70**

Vertical Mount Specification **LJ1H10** **2** **1** **P** **B** — Stroke — **K** — **F** **2** — **X70**

Motor specification

Nil	Standard motor (SMC controller Series LC1 compatible)	
G	Mitsubishi Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 100W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Refer to Table ① below.

With brake

Cable entry direction: Axial

Lead screw lead

H	8mm
B	12mm
C	20mm

Lead screw type

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

Dust seal specification

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

Standard motor cable length

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Table ① Lead screw/Lead/Stroke combinations

Model	100	200	300	400	500	600	700	800	900	1000
LJ1H10□1□PB-Stroke-F□-X70	●	●	●	●	●					
LJ1H10□1□NB-Stroke-F□-X70	●	●	●	●	●					
LJ1H10□1□SC-Stroke-F□-X70	●	●	●	●	●	●	●	●	●	●
LJ1H10□2□PH-Stroke-K-F□-X70	●	●	●	●	●					
LJ1H10□2□NH-Stroke-K-F□-X70	●	●	●	●	●					
LJ1H10□2□PB-Stroke-K-F□-X70	●	●	●	●	●					
LJ1H10□2□NB-Stroke-K-F□-X70	●	●	●	●	●					

Combinations other than the above cannot be manufactured.

Specifications

Standard stroke mm				100	200	300	400	500	600	700	800	900	1000
Weight kg	Ball screw	Without brake	With motor	5.4	6.2	7.0	7.7	8.5	—	—	—	—	—
			Without motor	5.0	5.8	6.6	7.3	8.1	—	—	—	—	—
	With brake	With motor	5.9	6.7	7.5	8.2	9.0	—	—	—	—	—	—
		Without motor	5.5	6.3	7.1	7.8	8.6	—	—	—	—	—	—
	Slide screw	Without brake	With motor	5.3	6.2	7.2	8.0	8.8	9.7	10.5	11.3	12.2	13.0
			Without motor	4.9	5.8	6.8	7.6	8.4	9.3	10.1	10.9	11.8	12.6
Operating temperature range °C				5 to 40 (with no condensation)									
Work load kg		Horizontal specification	12mm lead 50W	10									
			20mm lead 50W	10									
		Vertical specification	12mm lead 100W	5								—	
			8mm lead 100W	10								—	
Maximum speed mm/s		Horizontal specification	12mm lead 50W	600									
			20mm lead 50W	500									
		Vertical specification	12mm lead 100W	600								—	
			8mm lead 100W	400								—	
Positioning repeatability mm		Rolled ball screw		±0.05									
		Ground ball screw		±0.02									
		Slide screw		±0.1									
Motor output		Horizontal specification		AC servomotor (50W)									
		Vertical specification		AC servomotor (100W) with brake									
Lead screw		Horizontal specification	Rolled ball screw	ø12mm, 12mm lead									
			Ground ball screw	ø12mm, 12mm lead									
			Slide screw	ø20mm, 20mm lead									
		Vertical specification	Rolled ball screw	ø12mm, 12mm/8mm lead								—	
			Ground ball screw	ø12mm, 12mm/8mm lead								—	
Guide				High rigidity direct acting guide									
Switch				Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									
Table specification				With dust seal									
Grease for dust seal application				Special lubricant									

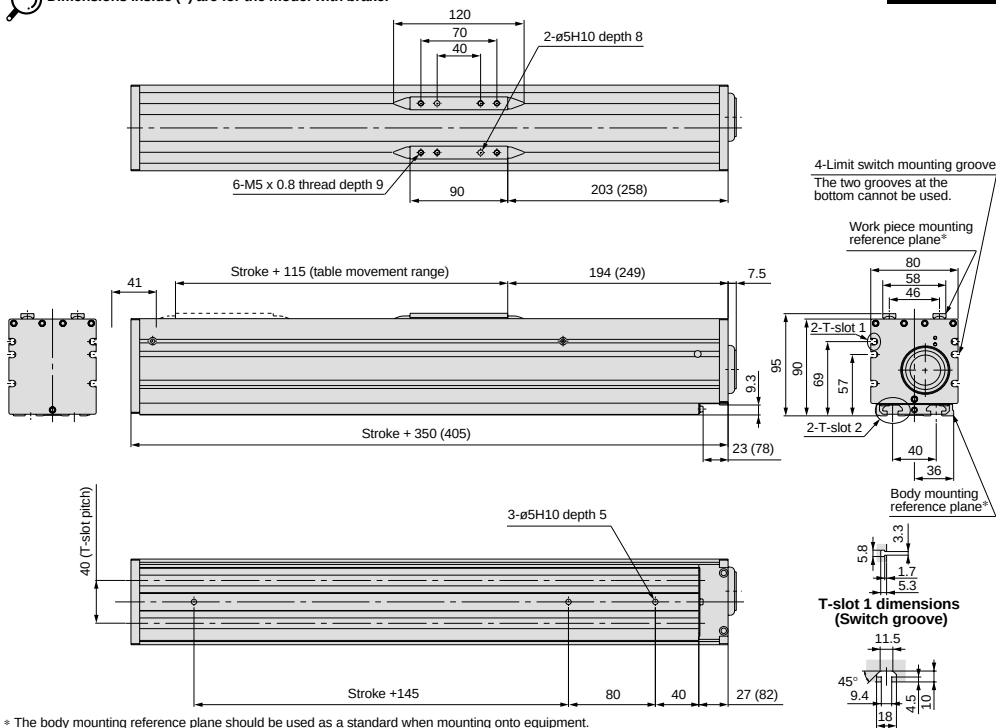
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Made to Order/Dust Seal Specification *Series LJ1H10*

Dimensions/LJ1H10 $\square\frac{1}{2}$ (X70)

 Dimensions inside () are for the model with brake.

Scale: 20%



* The body mounting reference plane should be used as a standard when mounting onto equipment.
Refer to pages starting with 140 for mounting.

Compatible Motors

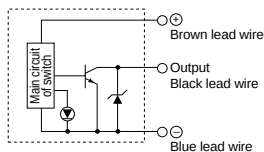
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	50	100/110	—	LC1-1B1 $\square$ 1- $\square$
		Without brake (Horizontal specification)	100	200/220	—	LC1-1B1 $\square$ 2- $\square$
		With brake (Vertical specification)	100	100	—	LC1-1B1V $\square$ 1- $\square$
		With brake (Vertical specification)	100	200	—	LC1-1B1V $\square$ 2- $\square$
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	50	100/115	MSM5AZP1A	MSD5A1P1E
		Without brake (Horizontal specification)	100	200/230	MSM011P1B	MSD5A3P1E
		With brake (Vertical specification)	100	100/115	MSM011P1B	MSD011P1E
		With brake (Vertical specification)	100	200/230	MSM012P1B	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	50	100/115	HC-PQ053	MR-C10A1
		Without brake (Horizontal specification)	100	200/230	HC-PQ053	MR-C10A1
		With brake (Vertical specification)	100	100/115	HC-PQ13B	MR-C10A1
		With brake (Vertical specification)	100	200/230	HC-PQ13B	MR-C10A1
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	50	100/115	SGME-A5BF12	SGDE-A5BP
		Without brake (Horizontal specification)	100	200/230	SGME-A5AF12	SGDE-A5AP
		With brake (Vertical specification)	100	100/115	SGME-01BF12B	SGDE-01BP
		With brake (Vertical specification)	100	200/230	SGME-01AF12B	SGDE-01AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Made to Order

High Rigidity Direct Acting Guide Type

Motor Output: 100W

Series **LJ1H20**Dust Seal
Specification

How to Order

Horizontal Mount Specification **LJ1H20** **2** **1** **P** **A** — **Stroke** — **F** **2** — **X70**

Vertical Mount Specification **LJ1H20** **2** **1** **P** **A** — **Stroke** **K** — **F** **2** — **X70**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	Non-standard motor
G	Matsushita Electric Industrial Co., Ltd.	
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 100W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Refer to Table ① below.

Lead screw type

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

Refer to Table ① below.

Lead screw lead

F	5mm
A	10mm
C	20mm

Stroke entry direction: Axial

With brake

Dust seal specification

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

Standard motor cable length

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)											
	100	200	300	400	500	600	700	800	900	1000	1200	
LJ1H20□2□PA-Stroke-F□-X70	●	●	●	●	●	●						
LJ1H20□2□NA-Stroke-F□-X70	●	●	●	●	●	●						
LJ1H20□2□PC-Stroke-F□-X70				●	●	●	●	●	●	●	●	
LJ1H20□2□NC-Stroke-F□-X70				●	●	●	●	●	●	●	●	
LJ1H20□2□SC-Stroke-F□-X70	●	●	●	●	●	●	●	●	●	●	●	
LJ1H20□2□PF-Stroke-K-F□-X70	●	●	●	●	●	●						
LJ1H20□2□NF-Stroke-K-F□-X70	●	●	●	●	●	●						
LJ1H20□2□PA-Stroke-K-F□-X70	●	●	●	●	●	●						
LJ1H20□2□NA-Stroke-K-F□-X70	●	●	●	●	●	●						

Combinations other than the above cannot be manufactured.

Specifications

Standard stroke mm				100	200	300	400	500	600	700	800	900	1000	1200			
Weight kg	Ball screw	Without brake	With motor	7.9	9.1	10.3	11.4	12.8	13.9	15.1	16.3	17.5	18.7	—			
			Without motor	7.4	8.6	9.8	10.9	12.3	13.4	14.6	15.8	17.0	18.2	—			
	With brake	With motor	8.6	9.8	11.0	12.1	13.5	14.6	—	—	—	—	—	—			
		Without motor	8.1	9.3	10.5	11.6	13.0	14.1	—	—	—	—	—	—			
	Slide screw	Without brake	With motor	9.0	10.0	11.1	12.2	13.3	14.3	15.3	17.2	19.1	20.6	24.7			
			Without motor	7.5	8.5	9.6	10.8	12.3	13.8	16.3	18.6	20.4	24.2	—			
Operating temperature range °C				5 to 40° (with no condensation)													
Work load kg		Horizontal specification	Ball screw	10mm lead	100W	30					15					—	
			Slide screw	20mm lead		—					—					—	
		Vertical specification	Ball screw	5mm lead		15					8					—	
			Slide screw	10mm lead		8					—					—	
Maximum speed mm/s		Horizontal specification	Ball screw	10mm lead	100W	500					—						
			Slide screw	20mm lead		—					—						
		Vertical specification	Ball screw	5mm lead		—					—						
			Slide screw	10mm lead		—					—						
Positioning repeatability mm		Horizontal specification	Ball screw	10mm lead	100W	250					500						
			Slide screw	20mm lead		500					—						
		Vertical specification	Ball screw	5mm lead		—					—						
			Slide screw	10mm lead		—					—						
Motor output		Horizontal specification	Rolled ball screw	±0.05										—			
			Ground ball screw	±0.02										—			
		Vertical specification	Slide screw	±0.1										—			
			AC servomotor (100W)			AC servomotor (100W) with brake										—	
Lead screw		Horizontal specification	Rolled/Grand ball screw	ø15mm, 10mm lead							—						
			Slide screw	—							ø15mm, 20mm lead					—	
		Vertical specification	Rolled/Grand ball screw	ø15mm, 5mm lead							—						
			Slide screw	ø15mm, 10mm lead							—						
Guide				High rigidity direct acting guide													
Switch				Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less													
Table specifications				With dust seal													
Grease for dust seal application				Special lubricant													

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

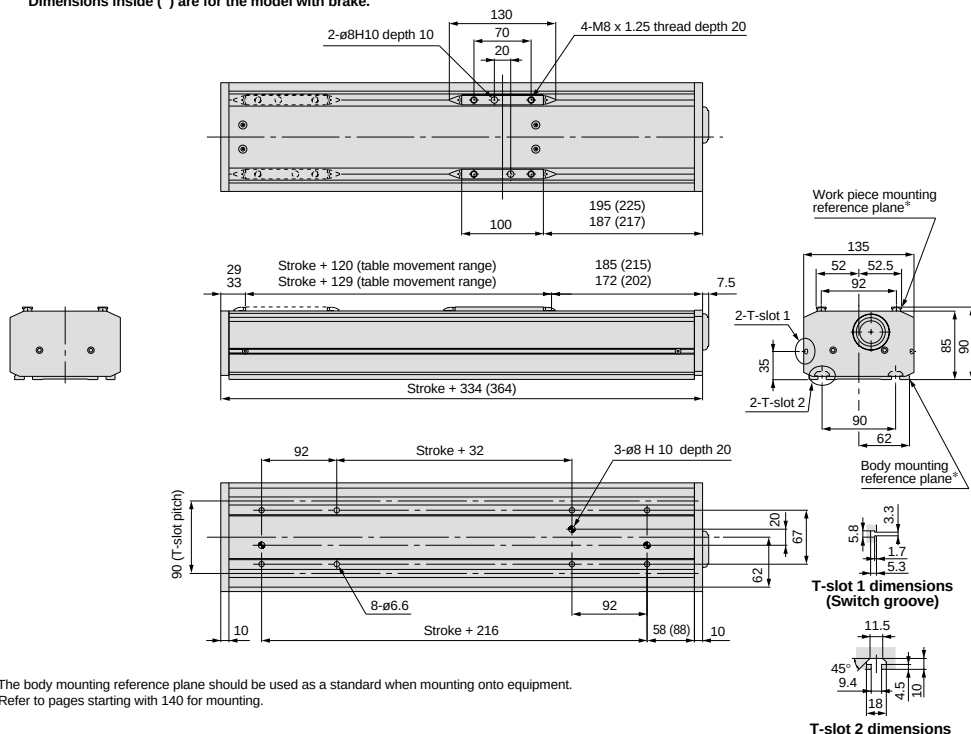
Made to Order/Dust Seal Specification *Series LJ1H20*

Dimensions/LJ1H20□2 (X70)



When two dimensions are shown, the top dimension is for 100 to 600mm strokes, and the bottom dimension is for 700 to 1200mm strokes.
Dimensions inside () are for the model with brake.

Scale: 15%



* The body mounting reference plane should be used as a standard when mounting onto equipment.
Refer to pages starting with 140 for mounting.

Compatible Motors

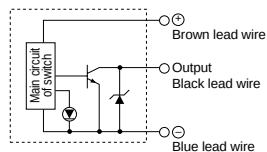
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	100	100/110	—	LC1-1B2□1-□□
				200/220	—	LC1-1B2□2-□□
		With brake (Vertical specification)	100	100	—	LC1-1B2V□1-□□
				200	—	LC1-1B2V□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	100	100/115	MSM011P1A	MSD011P1E
				200/230	MSM012P1A	MSD013P1E
		With brake (Vertical specification)	100	100/115	MSM011P1B	MSD011P1E
				200/230	MSM012P1B	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	100	100/115	HC-PQ13	MR-C10A1
				200/230		MR-C10A
		With brake (Vertical specification)	100	100/115	HC-PQ13B	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	100	100/115	SGME-01BF12	SGDE-01BP
				200/230	SGME-01AF12	SGDE-01AP
		With brake (Vertical specification)	100	100/115	SGME-01BF12B	SGDE-01BP
				200/230	SGME-01AF12B	SGDE-01AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Made to Order

High Rigidity Direct Acting Guide Type

Motor Output: 200W

Series **LJ1H30**Dust Seal
Specification

How to Order

Horizontal Mount Specification **LJ1H30** **3** **1** **P** **D** **200** **F** **2** **X70**

Vertical Mount Specification **LJ1H30** **3** **1** **P** **A** **200** **K** **F** **2** **X70**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 200W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type
Refer to Table ① below.

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

Stroke
Refer to Table ① below.

With brake

Lead screw lead
Refer to Table ① below.

A	10mm
B	25mm
E	40mm

Standard motor cable length

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

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction: Axial

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)									
	200	300	400	500	600	800	1000	1200	1500	
LJ1H30-3-PD-Stroke-F-X70	●	●	●	●	●	●	●	●	●	●
LJ1H30-3-ND-Stroke-F-X70	●	●	●	●	●	●	●	●	●	●
LJ1H30-3-SE-Stroke-F-X70	●	●	●	●	●	●	●	●	●	●
LJ1H30-3-PA-Stroke-K-F-X70	●	●	●	●	●	●	●	●	●	●
LJ1H30-3-NA-Stroke-K-F-X70	●	●	●	●	●	●	●	●	●	●

Combinations other than the above cannot be manufactured.

Specifications

Standard stroke mm				200	300	400	500	600	800	1000	1200	1500
Weight kg	Ball screw	Without brake	With motor	16.2	18.2	20.2	22.2	24.2	28.7	33.2	37.2	43.2
			Without motor	15.1	17.1	19.1	21.1	23.1	27.6	32.1	36.1	42.1
		With brake	With motor	17.2	19.2	21.2	23.2	25.2	—	—	—	—
			Without motor	16.1	18.1	20.1	22.1	24.1	—	—	—	—
	Slide screw	Without brake	With motor	14.9	17.0	19.0	21.1	23.2	27.3	31.5	35.6	41.9
			Without motor	13.8	15.9	17.9	20.0	22.1	26.2	30.4	34.5	40.8
Operating temperature range °C				5 to 40 (with no condensation)								
Work load kg	Horizontal specification	Ball screw	25mm lead	200W	60							
		Slide screw	40mm lead		30							
	Vertical specification	Ball screw	10mm lead	20					—			
Maximum speed mm/s	Horizontal specification	Ball screw	25mm lead	200W	1000					700	500	
		Slide screw	40mm lead		500							
	Vertical specification	Ball screw	10mm lead	500					—			
Positioning repeatability mm	Rolled ball screw			±0.05								
	Ground ball screw			±0.02								
	Slide screw			±0.1								
Motor output	Horizontal specification			AC servomotor (200W)								
	Vertical specification			AC servomotor (200W) with brake								
Lead screw	Horizontal specification	Rolled/Ground ball screw		ø25mm, 25mm lead								
		Slide screw		ø30mm, 40mm lead								
	Vertical specification	Rolled/Ground ball screw		ø20mm, 10mm lead						—		
Guide				High rigidity direct acting guide								
Switch				Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								
Table specifications				With dust seal								
Grease for dust seal application				Special lubricant								

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Made to Order

Slider Guide Type
Motor Output: 50W

Series LJ1S10

Dust Seal Specification

How to Order

Horizontal Mount Specification

LJ1S10 **1** **1** **S** **C** — **100** — **F** **2** — **X70**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 50W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type: Slide screw

Lead screw lead: 20mm

Cable entry direction: Axial

Dust seal specification

Standard motor cable length

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

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Stroke

100	100mm
200	200mm
300	300mm
400	400mm
500	500mm
600	600mm
700	700mm
800	800mm
900	900mm
1000	1000mm

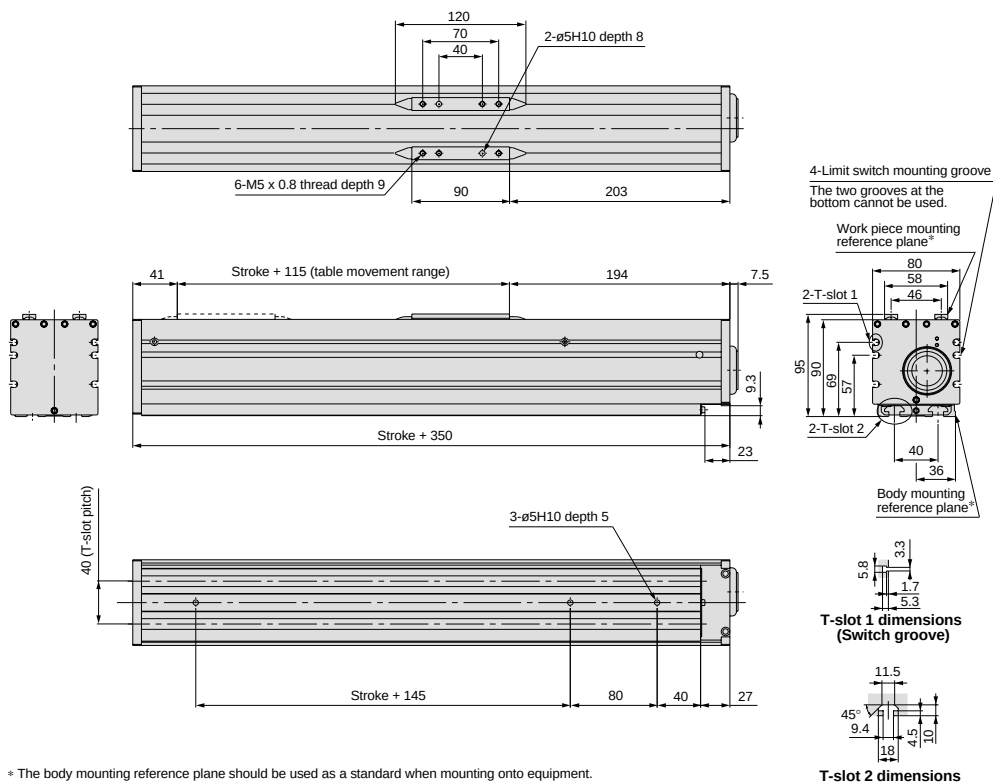
Specifications

Standard stroke mm		100	200	300	400	500	600	700	800	900	1000
Weight kg	With motor (Standard)	5.4	6.1	6.9	7.7	8.5	9.3	10.0	10.8	11.6	12.4
	Without motor (Non-standard)	5.0	5.7	6.5	7.3	8.1	8.9	9.6	10.4	11.2	12.0
Operating temperature range °C		5 to 40 (with no condensation)									
Work load kg		5									
Maximum speed mm/s		300									
Positioning repeatability mm		±0.1									
Motor output		AC servomotor (50W)									
Lead screw		Slide screw ø20mm, 20mm lead									
Guide		Slider guide									
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									
Table specifications		With dust seal									
Grease for dust seal application		Special lubricant									

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1S10□1SC (X70)

Scale: 15%



* The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 140 for mounting.

Compatible Motors

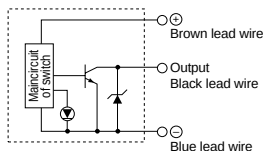
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	50	100/110 200/220	— —	LC1-1B1S1-□□ LC1-1B1S2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	50	100/115 200/230	MSM5AZP1A	MSD5A1P1E
						MSD5A3P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	50	100/115 200/230	HC-PQ053	MR-C10A1 MR-C10A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	50	100/115 200/230	SGME-A5BF12 SGME-A5AF12	SGDE-A5BP SGDE-A5AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Made to Order		
Slider Guide Type	Series LJ1S20	Dust Seal Specification
Motor Output: 100W		

How to Order

Horizontal Mount Specification

LJ1S20 **2** **1** **S** **C** — **100** — **F** **2** — **X70**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 100W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type: Slide screw

Lead screw lead: 20mm

Cable entry direction:
Axial

Dust seal specification

Standard motor cable length

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

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Stroke

100	100mm
200	200mm
300	300mm
400	400mm
500	500mm
600	600mm
700	700mm
800	800mm
900	900mm
1000	1000mm
1200	1200mm

Specifications

Standard stroke mm		100	200	300	400	500	600	700	800	900	1000	1200
Weight kg	With motor (Standard)	6.8	7.9	9.0	10.1	11.1	12.2	13.3	14.3	15.4	16.4	18.6
	Without motor (Non-standard)	6.3	7.4	8.5	9.6	10.7	11.7	12.8	13.8	14.9	15.9	18.1
Operating temperature range °C		5 to 40 (with no condensation)										
Work load kg		10										
Maximum speed mm/s		300										
Positioning repeatability mm		±0.1										
Motor output		AC servomotor (100W)										
Lead screw		Slide screw ø20mm, 20mm lead										
Guide		Slider guide										
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less										
Table specifications		With dust seal										
Grease for dust seal application		Special lubricant										

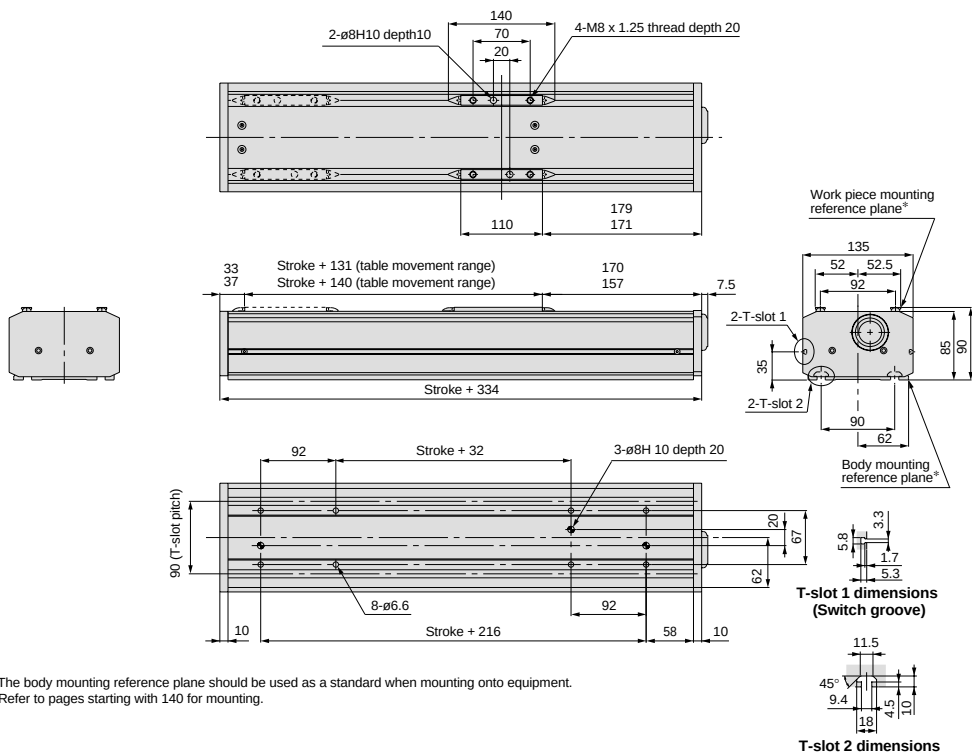
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Made to Order/Dust Seal Specification *Series LJ1S20*

Dimensions/LJ1S20□2□SC (X70)

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: 15%



* The body mounting reference plane should be used as a standard when mounting onto equipment. Refer to pages starting with 140 for mounting.

Compatible Motors

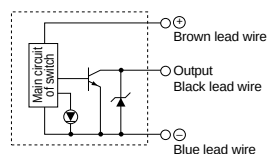
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	100	100/110	—	LC1-1B2S1-□□
				200/220	—	LC1-1B2S2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	100	100/115	MSM011P1A	MSD011P1E
				200/230	MSM012P1A	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	100	100/115	HC-PQ13	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	100	100/115	SGME-01BF12	SGDE-01BP
				200/230	SGME-01AF12	SGDE-01AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Made to Order		
Slider Guide Type	Series LJ1S30	Dust Seal Specification
Motor Output: 200W		

How to Order

Horizontal Mount Specification **LJ1S30** **3** **1** **S** **C** **200** **F** **2** **X70**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 200W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type: Slide screw

Lead screw lead: 20mm

Cable entry direction: Axial

Stroke

200	200mm
300	300mm
400	400mm
500	500mm
600	600mm
800	800mm
1000	1000mm
1200	1200mm
1500	1500mm

Dust seal specification

Standard motor cable length

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

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Specifications

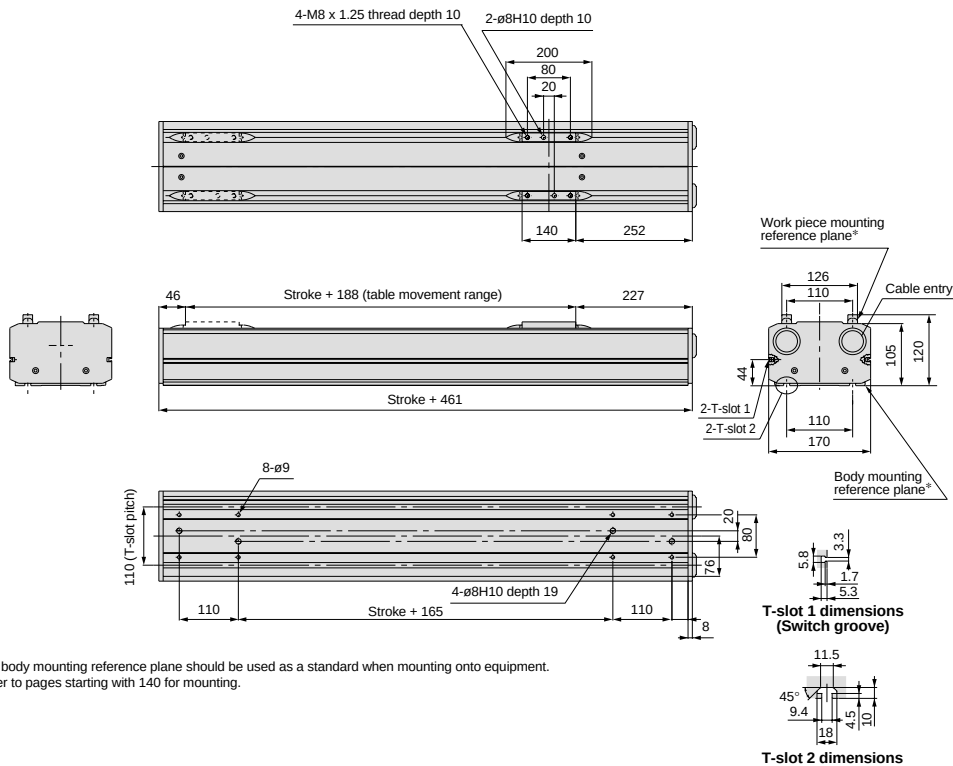
Standard stroke mm		200	300	400	500	600	800	1000	1200	1500
Weight kg	With motor (Standard)	14.4	16.2	18.0	19.8	21.5	25.7	29.7	33.3	38.7
	Without motor (Non-standard)	13.3	15.1	16.9	18.7	20.4	24.6	28.6	32.2	37.6
Operating temperature range °C		5 to 40 (with no condensation)								
Work load kg		20								
Maximum speed mm/s		300								
Positioning repeatability mm		±0.1								
Motor output		AC servomotor (200W)								
Lead screw		Slide screw ø25mm, 20mm lead								
Guide		Slider guide								
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								
Table specifications		With dust seal								
Grease for dust seal application		Special lubricant								

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Made to Order/Dust Seal Specification *Series LJ1S30*

Dimensions/LJ1S30□3□SC (X70)

Scale: 15%



Compatible Motors

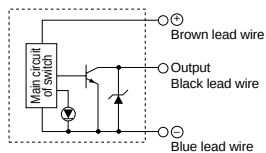
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	200	100/110	—	LC1-1B3S1-□
				200	—	LC1-1B3S2-□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	200	100/115	MSM021P1A	MSD021P1E
				200/230	MSM022P1A	MSD023P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	200	100/115	HC-PQ023	MR-C20A1
				200/230		MR-C20A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	200	100/115	SGME-02BF12	SGDE-02BP
				200/230	SGME-02AF12	SGDE-02AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Made to Order

High Rigidity Direct Acting Guide Type

Motor Output: 50W

Series **LJ1H10**TSUBAKI CABLEVEYOR
Specification

How to Order

Horizontal Mount Specification **LJ1H10** **1** **1** **P** **B** **100** **-** **F** **2** **X40** **L**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 50W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Stroke
Refer to Table ① below.

Lead screw lead
Refer to Table ① below.

B	12mm
C	20mm

Lead screw type
Refer to Table ① below.

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

TSUBAKI CABLEVEYOR specification

TSUBAKI CABLEVEYOR entry direction

L	Left
R	Right

Standard motor cable length

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

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable/TSUBAKI CABLEVEYOR entry direction

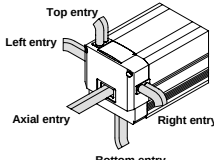


Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)									
	100	200	300	400	500	600	700	800	900	1000
LJ1H10□1□PB-Stroke□□-X40□	●	●	●	●	●					
LJ1H10□1□NB-Stroke□□-X40□	●	●	●	●	●					
LJ1H10□1□SC-Stroke□□-X40□	●	●	●	●	●	●	●	●	●	●

Combinations other than the above cannot be manufactured.

Specifications

Standard stroke mm			100	200	300	400	500	600	700	800	900	1000
Weight kg	With motor (Standard)	Ball screw	6.0	6.9	7.9	8.7	9.6	—	—	—	—	—
		Slide screw	6.1	7.1	8.3	9.2	10.1	11.1	12.0	13.0	14.0	14.9
	Without motor (Non-Standard)	Ball screw	5.6	6.5	7.5	8.3	9.2	—	—	—	—	—
Slide screw		5.7	6.7	7.9	8.8	9.7	10.7	11.6	12.6	13.6	14.5	
Mounting orientation			Horizontal									
Operating temperature range °C			5 to 40 (with no condensation)									
Work load kg	Ball screw	12mm lead	10							—		
	Slide screw	20mm lead	10							—		
Maximum speed mm/s	Ball screw	12mm lead	600							—		
	Slide screw	20mm lead	500							—		
Positioning repeatability mm	Rolled ball screw		±0.05					—				
	Ground ball screw		±0.02					—				
	Slide screw		±0.1									
Motor output			AC servomotor (50W)									
Lead screw	Rolled ball screw		ø12mm, 12mm lead					—				
	Ground ball screw							—				
	Slide screw		ø20mm, 20mm lead									
Guide			High rigidity direct acting guide									
Switch			Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									
TSUBAKI CABLEVEYOR			TKP0130-2BR18 manufactured by TSUBAKIMOTO CHAIN CO.									
Side cover			Cover with switch groove									

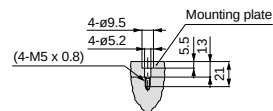
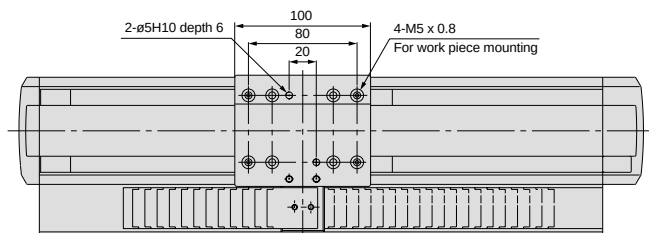
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Made to Order/TSUBAKI CABLEVEYOR Specification *Series LJ1H10*

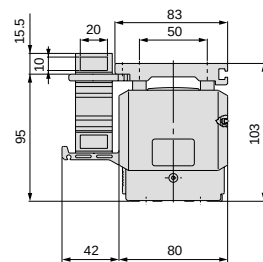
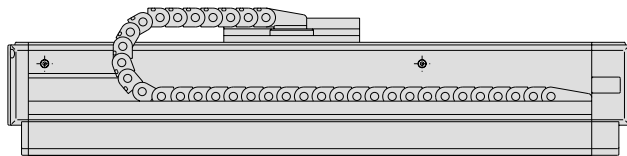
Dimensions/LJ1H10□1 (X40)

 Dimensions other than those shown in the drawing are the same as standard.

Scale: 25%



Work piece mounting dimensions



* This drawing shows the TSUBAKI CABLEVEYOR with left hand entry.

Compatible Motors

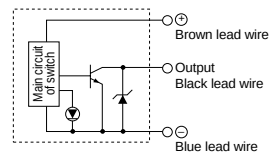
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	50	100/110	—	LC1-1B1□1-□□
				200/220	—	LC1-1B1□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	50	100/115	MSM5AZP1A	MSD5A1P1E
				200/230		MSD5A3P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	50	100/115	HC-PQ053	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	50	100/115	SGME-A5BF12	SGDE-A5BP
				200/230	SGME-A5AF12	SGDE-A5AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



LJ1

LG1

LC1

LX

LC6D/LC6C

Switches

Made to Order

High Rigidity Direct Acting Guide Type

Motor Output: 100W

Series **LJ1H20**TSUBAKI CABLEVEYOR
Specification

How to Order

Horizontal Mount
Specification**LJ1H20** **2** **1** **P** **A** - **100** - **F** **2** - **X40** **L**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 100W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Stroke
Refer to
Table ① below.Lead screw lead
Refer to Table ① below.

A	10mm
C	20mm

Lead screw type
Refer to Table ① below.

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

TSUBAKI
CABLEVEYOR
specificationTSUBAKI
CABLEVEYOR
entry direction

L	Left
R	Right

Cable
entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Standard motor cable length

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

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

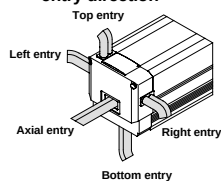
Cable/TSUBAKI CABLEVEYOR
entry direction

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)										
	100	200	300	400	500	600	700	800	900	1000	1200
LJ1H20-2-PA-Stroke-□-X40□	●	●	●	●	●	●					
LJ1H20-2-NA-Stroke-□-X40□	●	●	●	●	●	●					
LJ1H20-2-PC-Stroke-□-X40□					●	●	●	●	●	●	
LJ1H20-2-NC-Stroke-□-X40□					●	●	●	●	●	●	
LJ1H20-2-SC-Stroke-□-X40□	●	●	●	●	●	●	●	●	●	●	●

Combinations other than the above cannot be manufactured.

Specifications

Standard stroke mm			100	200	300	400	500	600	700	800	900	1000	1200
Weight kg	With motor (Standard)	Ball screw	8.7	9.9	11.1	12.3	13.5	14.7	15.9	17.1	18.3	19.5	—
	Without motor (Non-Standard)	Slide screw	10.0	11.2	12.4	13.6	14.8	16.0	17.2	18.4	19.6	20.8	23.2
		Ball screw	8.2	9.4	10.6	11.8	13.0	14.2	15.4	16.6	17.8	19.0	—
		Slide screw	9.5	10.7	11.9	13.1	14.3	15.5	16.7	17.9	19.1	20.3	22.7
Mounting orientation			Horizontal										
Operating temperature range °C			5 to 40 (with no condensation)										
Work load kg	Ball screw	10mm lead	30						—				
		20mm lead	—				15				—		
	Slide screw	20mm lead	15										
Maximum speed mm/s	Ball screw	10mm lead	500						—				
		20mm lead	—				1000		930	740	600	500	—
	Slide screw	20mm lead	500										
Positioning repeatability mm	Rolled ball screw		±0.05										
	Ground ball screw		±0.02										
	Slide screw		±0.1										
Motor output			AC servomotor (100W)										
Lead screw	Rolled ball screw		ø15mm, 10mm lead						—				
	Ground ball screw		—				ø15mm, 20mm lead				—		
	Slide screw		ø20mm, 20mm lead										
Guide			High rigidity direct acting guide										
Switch			Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less										
TSUBAKI CABLEVEYOR			TKP0130-2BR28 manufactured by TSUBAKIMOTO CHAIN CO.										
Side cover			Cover with switch groove										

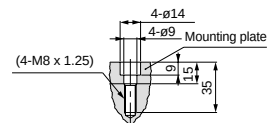
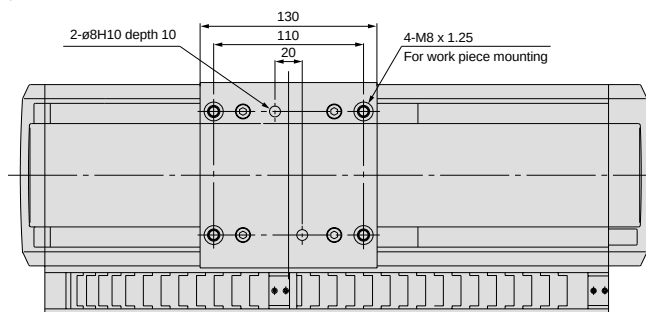
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Made to Order/TSUBAKI CABLEVEYOR Specification *Series LJ1H20*

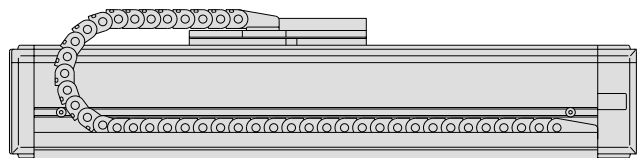
Dimensions/LJ1H20□2 (X40)

 Dimensions other than those shown in the drawing are the same as standard.

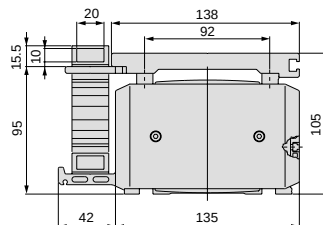
Scale: 25%



Work piece mounting dimensions



* This drawing shows the TSUBAKI CABLEVEYOR with left hand entry.



Compatible Motors

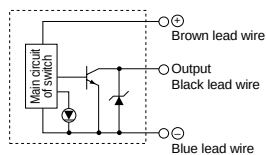
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	100	100/110	—	LC1-1B2□1-□□
				200/220	—	LC1-1B2□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	100	100/115	MSM011P1A	MSD011P1E
				200/230	MSM012P1A	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	100	100/115	HC-PQ13	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	100	100/115	SGME-01BF12	SGDE-01BP
				200/230	SGME-01AF12	SGDE-01AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Made to Order

High Rigidity Direct Acting Guide Type

Motor Output: 200W

Series LJ1H30**TSUBAKI CABLEVEYOR
Specification**

How to Order

Horizontal Mount
Specification**LJ1H30** **3** **1** **P** **D** - **200** - **F** **2** - **X40** **L**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 200W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Stroke
Refer to Table ① below.Lead screw lead
Refer to Table ① below.

D	25mm
E	40mm

Lead screw type
Refer to Table ① below.

P	Ground ball screw
N	Rolled ball screw
S	Slide screw

TSUBAKI
CABLEVEYOR
specificationTSUBAKI
CABLEVEYOR
entry direction

L	Left
R	Right

Standard motor cable length

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

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

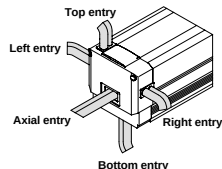
Cable/TSUBAKI CABLEVEYOR
entry direction

Table ① Lead screw/Lead/Stroke combinations

Model	Stroke (mm)							
	200	300	400	500	600	800	1000	1200 1500
LJ1H30□3□PD-Stroke-□□□X40□	●	●	●	●	●	●	●	●
LJ1H30□3□ND-Stroke-□□□X40□	●	●	●	●	●	●	●	●
LJ1H30□3□SE-Stroke-□□□X40□	●	●	●	●	●	●	●	●

Combinations other than the above cannot be manufactured.

Specifications

Standard stroke mm			200	300	400	500	600	800	1000	1200	1500
Weight kg	With motor (Standard)	Ball screw	17.5	19.7	21.9	24.1	26.2	31.1	36.0	40.3	46.9
		Slide screw	16.4	18.7	20.9	23.2	25.4	29.9	34.5	39.0	45.8
	Without motor (Non-Standard)	Ball screw	16.4	18.6	20.8	23.0	25.1	30.0	34.9	39.2	45.8
		Slide screw	15.3	17.6	19.8	22.1	24.3	28.8	33.4	37.8	44.7
Mounting orientation			Horizontal								
Operating temperature range °C			5 to 40 (with no condensation)								
Work load kg	Ball screw	25mm lead	60								
	Slide screw	40mm lead	30								
Maximum speed mm/s	Ball screw	25mm lead	1000							700	500
	Slide screw	40mm lead	500								
Positioning repeatability mm	Rolled ball screw		±0.05								
	Ground ball screw		±0.02								
	Slide screw		±0.1								
Motor output			AC servomotor (200W)								
Lead screw	Rolled ball screw		ø25mm, 25mm lead								
	Ground ball screw										
	Slide screw		ø30mm, 40mm lead								
Guide			High rigidity direct acting guide								
Switch			Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								
TSUBAKI CABLEVEYOR			TKP0180-2BR28 manufactured by TSUBAKIMOTO CHAIN CO.								
Side cover			Cover with switch groove								

For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

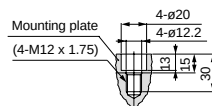
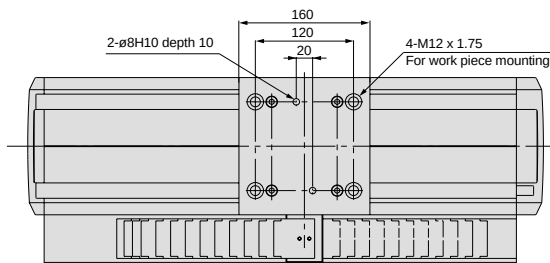
Made to Order/TSUBAKI CABLEVEYOR Specification *Series LJ1H30*

Dimensions/LJ1H30□3 (X40)

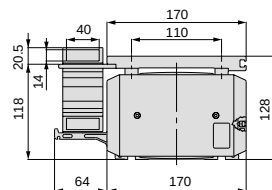
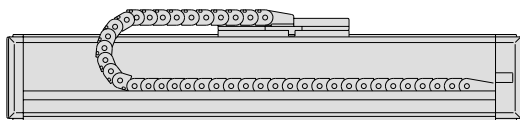


Dimensions other than those shown in the drawing are the same as standard.

Scale: 20%



Work piece mounting dimensions



* This drawing shows the TSUBAKI CABLEVEYOR with left hand entry.

Compatible Motors

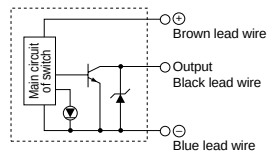
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	200	100/110	—	LC1-1B3□1-□□
				200	—	LC1-1B3□2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	200	100/115	MSM021P1A	MSD021P1E
				200/230	MSM022P1A	MSD023P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	200	100/115	HC-PQ23	MR-C20A1
				200/230		MR-C20A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	200	100/115	SGME-02BF12	SGDE-02BP
				200/230	SGME-02AF12	SGDE-02AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Made to Order		
Slider Guider Type	Series LJ1S10	TSUBAKI CABLEVEYOR Specification
Motor Output: 50W		

How to Order

Horizontal Mount Specification **LJ1S10** **1** **1** **S** **C** **100** **F** **2** **X40** **L**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 50W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type: Slide screw

Lead screw lead: 20mm

Stroke

100	100mm
200	200mm
300	300mm
400	400mm
500	500mm
600	600mm
700	700mm
800	800mm
900	900mm
1000	1000mm

TSUBAKI CABLEVEYOR specification

TSUBAKI CABLEVEYOR entry direction

L	Left
R	Right

Standard motor cable length

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

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable/TSUBAKI CABLEVEYOR entry direction

Specifications

Standard stroke mm		100	200	300	400	500	600	700	800	900	1000
Weight kg	With motor (Standard)	6.2	7.0	8.0	8.9	9.8	10.7	11.5	12.5	13.4	14.3
	Without motor (Non-Standard)	5.8	6.6	7.6	8.5	9.4	10.3	11.1	12.1	13.0	13.9
Mounting orientation		Horizontal									
Operating temperature range °C		5 to 40 (with no condensation)									
Work load kg		5									
Maximum speed mm/s		300									
Positioning repeatability mm		±0.1									
Motor output		AC servomotor (50W)									
Lead screw		ø20mm, 20mm lead									
Guide		Slide guide									
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less									
TSUBAKI CABLEVEYOR		TKP0130-2BR18 manufactured by TSUBAKIMOTO CHAIN CO.									
Side cover		Cover with switch groove									

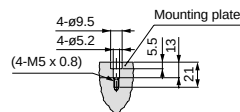
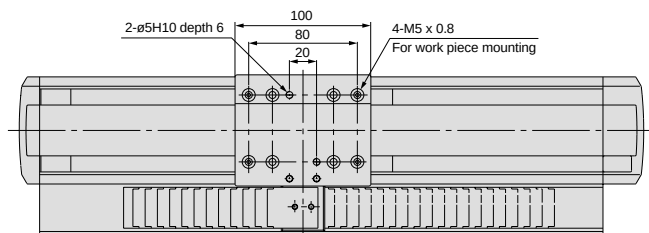
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Made to Order/TSUBAKI CABLEVEYOR Specification *Series LJ1S10*

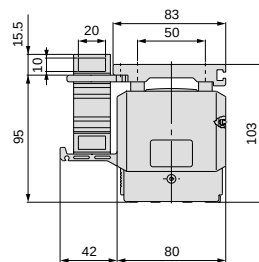
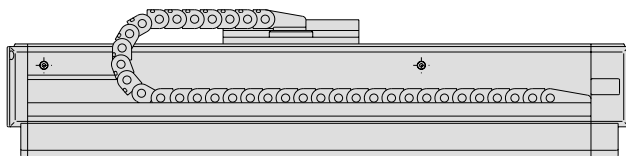
Dimensions/LJ1S10□1□SC (X40)

 Dimensions other than those shown in the drawing are the same as standard.

Scale: 20%



Work piece mounting dimensions



* This drawing shows the TSUBAKI CABLEVEYOR with left hand entry.

Compatible Motors

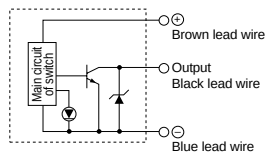
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model*
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	50	100/110	—	LC1-1B1S1-□□
				200/220	—	LC1-1B1S2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	50	100/115	MSM5AZP1A	MSD5A1P1E
				200/230		MSD5A3P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	50	100/115	HC-PQ053	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	50	100/115	SGME-A5BF12	SGDE-A5BP
				200/230	SGME-A5AF12	SGDE-A5AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



Made to Order		
Slider Guide Type	Series LJ1S20	TSUBAKI CABLEVEYOR Specification
Motor Output: 100W		

How to Order

Horizontal Mount Specification **LJ1S20** **2** **1** **S** **C** - **200** - **2** **X40** **L**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 100W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type: Slide screw

Lead screw lead: 20mm

Stroke

200	200mm
300	300mm
400	400mm
500	500mm
600	600mm
700	700mm
800	800mm
900	900mm
1000	1000mm
1200	1200mm

TSUBAKI CABLEVEYOR specification

TSUBAKI CABLEVEYOR entry direction

L	Left
R	Right

Standard motor cable length

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

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

Cable/TSUBAKI CABLEVEYOR entry direction

Top entry
Left entry
Axial entry
Right entry
Bottom entry

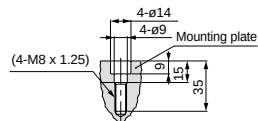
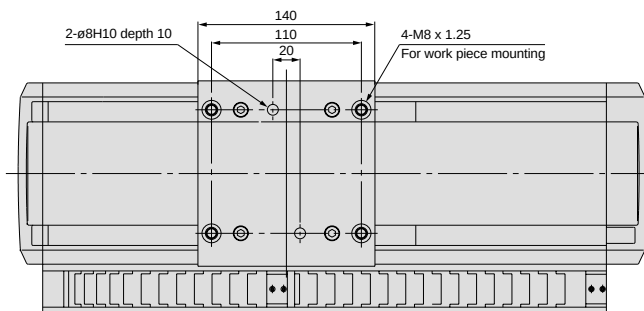
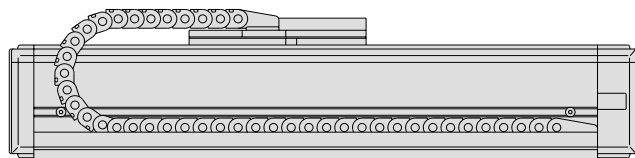
Specifications

Standard stroke mm		100	200	300	400	500	600	700	800	900	1000	1200
Weight kg	With motor (Standard)	7.8	9.0	10.3	11.5	12.6	13.8	15.0	16.2	17.4	18.5	20.9
	Without motor (Non-Standard)	7.3	8.5	9.8	11.0	12.1	13.3	14.5	15.7	16.9	18.0	20.4
Mounting orientation		Horizontal										
Operating temperature range °C		5 to 40 (with no condensation)										
Work load kg		10										
Maximum speed mm/s		300										
Positioning repeatability mm		±0.1										
Motor output		AC servomotor (100W)										
Lead screw		ø20mm, 20mm lead										
Guide		Slide guide										
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less										
TSUBAKI CABLEVEYOR		TKP0130-2BR28 manufactured by TSUBAKIMOTO CHAIN CO.										
Side cover		Cover with switch groove										

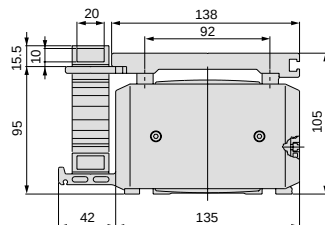
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Dimensions/LJ1S20□2□SC (X40)

 Dimensions other than those shown in the drawing are the same as standard.

Scale: 20%**Work piece mounting dimensions**

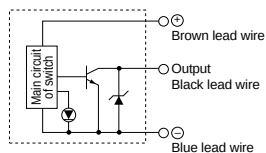
* This drawing shows the TSUBAKI CABLEVEYOR with left hand entry.

**Compatible Motors**

Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	100	100/110	—	LC1-1B2S1-□□
				200/220	—	LC1-1B2S2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	100	100/115	MSM011P1A	MSD011P1E
				200/230	MSM012P1A	MSD013P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	100	100/115	HC-PQ013	MR-C10A1
				200/230		MR-C10A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	100	100/115	SGME-01BF12	SGDE-01BP
				200/230	SGME-01AF12	SGDE-01AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit**D-Y7GL**

Made to Order		
Slider Guide Type	Series LJ1S30	TSUBAKI CABLEVEYOR Specification
Motor Output: 200W		

How to Order

Horizontal Mount Specification **LJ1S30** **G** **3** **1** **S** **C** - **200** - **F** **2** - **X40** **L**

Motor specification

Nil	Standard motor (SMC controller (Series LC1 compatible))	
G	Matsushita Electric Industrial Co., Ltd.	Non-standard motor
R	Mitsubishi Electric Corporation	
Y	Yaskawa Electric Corporation	

Motor output: 200W

Power supply voltage

	Standard motor	Non-standard motor
1	100/110VAC (50/60Hz)	100/115VAC (50/60Hz)
2	200/220VAC (50/60Hz)	200/230VAC (50/60Hz)
0	—	Without motor

Lead screw type: Slide screw

Lead screw lead: 20mm

Stroke

200	200mm
300	300mm
400	400mm
500	500mm
600	600mm
800	800mm
1000	1000mm
1200	1200mm
1500	1500mm

Cable entry direction

F	Axial
R	Right
L	Left
T	Top
B	Bottom

TSUBAKI CABLEVEYOR specification

TSUBAKI CABLEVEYOR entry direction

L	Left
R	Right

Standard motor cable length

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

Non-standard motor switch

Nil	None
W	N.C. (B contact) 2 pcs.

Cable/TSUBAKI CABLEVEYOR entry direction

Specifications

Standard stroke mm		200	300	400	500	600	800	1000	1200	1500
Weight kg	With motor (Standard)	15.9	17.9	19.9	21.9	23.8	28.3	32.7	36.6	42.6
	Without motor (Non-Standard)	14.8	16.8	18.8	20.8	22.7	27.2	31.6	35.5	41.5
Mounting orientation		Horizontal								
Operating temperature range °C		5 to 40 (with no condensation)								
Work load kg		20								
Maximum speed mm/s		300								
Positioning repeatability mm		±0.1								
Motor output		AC servomotor (200W)								
Lead screw		ø25mm, 20mm lead								
Guide		Slide guide								
Switch		Power supply voltage: 4.5 to 28VDC, Current consumption: 10mA or less Control output: Open collector, Load current: 40mA or less, Internal voltage drop: 1.5V or less								
TSUBAKI CABLEVEYOR		TKP0180-2BR28 manufactured by TSUBAKIMOTO CHAIN CO.								
Side cover		Cover with switch groove								

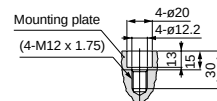
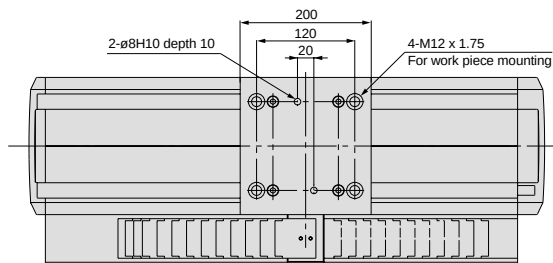
For basic specifications such as allowable moment, refer to the "Standard motor" pages for equivalent products listed on Features pages 1 and 2.

Made to Order/TSUBAKI CABLEVEYOR Specification *Series LJ1S30*

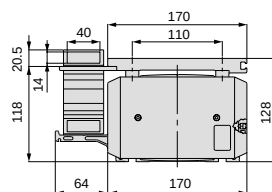
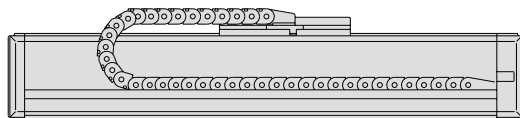
Dimensions/ LJ1S30□3□SC (X40)

 Dimensions other than those shown in the drawing are the same as standards.

Scale: 20%



Work piece mounting dimensions



* This drawing shows the TUBAKI CABLE VEYOR with left hand entry.

Compatible Motors

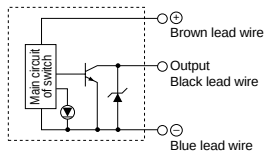
Manufacturer	Motor specification symbol	Brake	Motor output (W)	Power supply voltage (VAC)	Motor model	Controller driver model
SMC controller LC1 compatible	Nil	Without brake (Horizontal specification)	200	100/110	—	LC1-1B3S1-□□
				200/220	—	LC1-1B3S2-□□
Non-standard Matsushita Electric Industrial Co., Ltd. motor	G	Without brake (Horizontal specification)	200	100/115	MSM021P1A	MSD021P1E
				200/230	MSM022P1A	MSD023P1E
Non-standard Mitsubishi Electric Corporation motor	R	Without brake (Horizontal specification)	200	100/115	HC-PQ023	MR-C20A1
				200/230		MR-C20A
Non-standard Yaskawa Electric Corporation motor	Y	Without brake (Horizontal specification)	200	100/115	SGME-02BF12	SGDE-02BP
				200/230	SGME-02AF12	SGDE-02AP

* Refer to pages starting with 205 for driver dimensions. Furthermore, for detailed specifications, etc., contact each motor manufacturer.

* For a non-standard motor specification when the motor is mounted before shipping, the driver is included but the cable that connects the motor and driver is optional. Refer to page 100 for part numbers.

Switch Internal Circuit

D-Y7GL



LJ1

LG1

LC1

LX

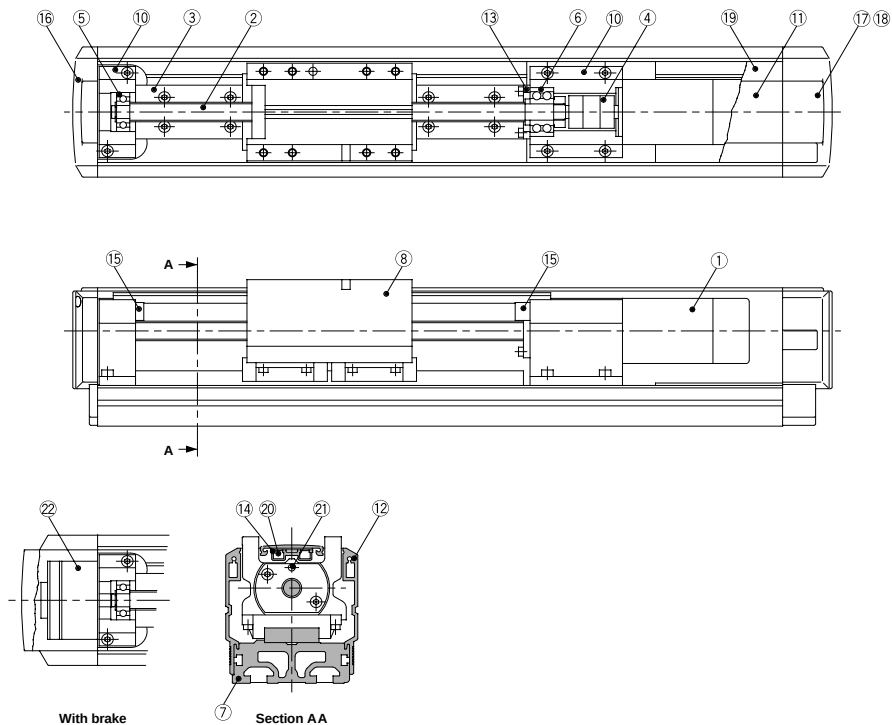
LC6D/LC6C

Switches

Series LJ1H Construction

Construction

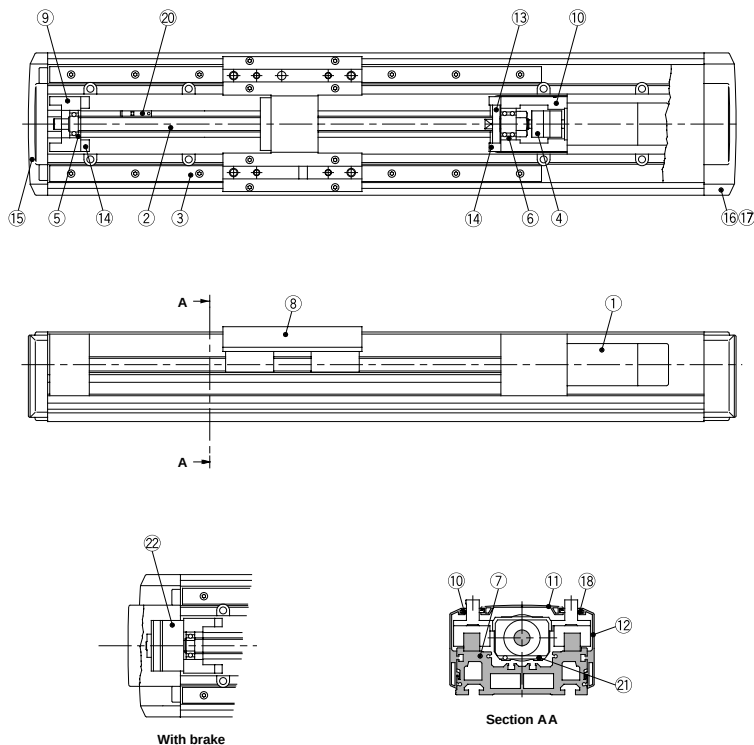
LJ1H10



Parts list

No.	Description	Material	Note
1	AC servomotor	—	50W/100W
2	Lead screw	—	Ball screw/Slide screw
3	High rigidity direct acting guide	—	
4	Coupling	—	
5	Bearing R	—	
6	Bearing F	—	
7	Body A	Aluminum alloy	
8	Table	Aluminum alloy	
9	Housing A	Aluminum alloy	
10	Housing B	Aluminum alloy	
11	Top cover	Aluminum alloy	

No.	Description	Material	Note
12	Side cover	Aluminum alloy	
13	Bearing retainer	Aluminum alloy	
14	Sensor rail	Aluminum alloy	
15	Bumper	IIIR	
16	End cover A	PC	
17	End cover B	PC	
18	Inner cover	PC	
19	Motor cover	PC	
20	Auto switch	—	
21	Magnet	Rare earth magnet	
22	Brake	—	

Construction**LJ1H20****Parts list**

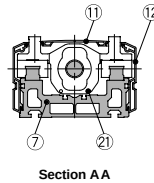
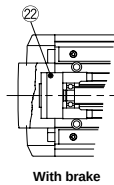
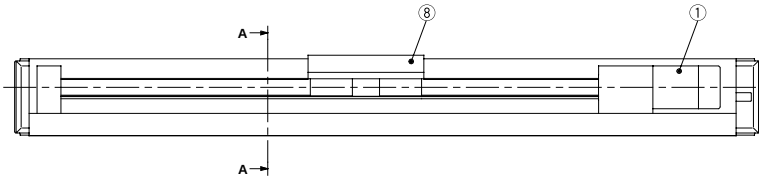
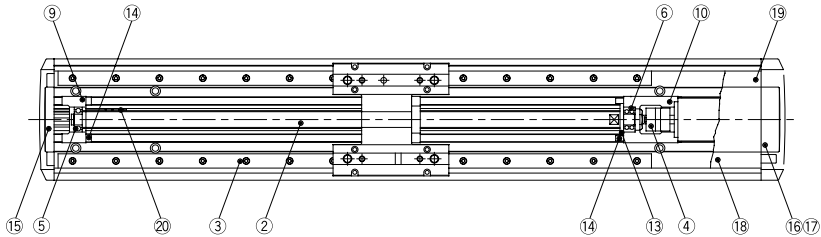
No.	Description	Material	Note
1	AC servomotor	—	100W
2	Lead screw	—	Ball screw/Slide screw
3	High rigidity direct acting guide	—	
4	Coupling	—	
5	Bearing R	—	
6	Bearing F	—	
7	Body A	Aluminum alloy	
8	Table	Aluminum alloy	
9	Housing A	Aluminum alloy	
10	Housing B	Aluminum alloy	
11	Top cover	Aluminum alloy	

No.	Description	Material	Note
12	Side cover	Aluminum alloy	
13	Bearing retainer	Aluminum alloy	
14	Bumper	IIR	
15	End cover A	PC	
16	End cover B	PC	
17	Inner cover	PC	
18	Motor cover R	PC	
19	Motor cover L	PC	
20	Auto switch	—	
21	Magnet	Rare earth magnet	
22	Brake	—	

Series LJ1H

Construction

LJ1H30

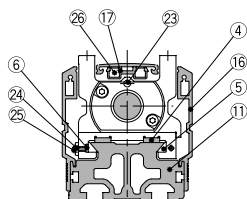
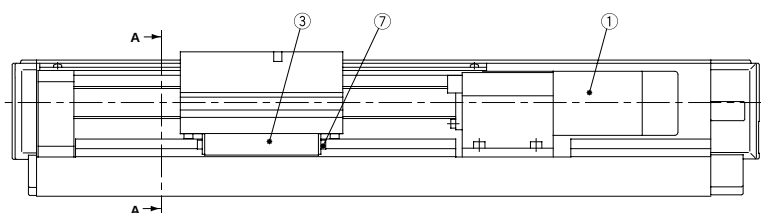
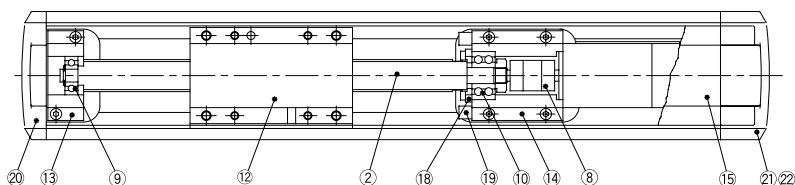


Parts list

No.	Description	Material	Note
1	AC servomotor	—	200W
2	Lead screw	—	Ball screw/Slide screw
3	High rigidity direct acting guide	—	
4	Coupling	—	
5	Bearing R	—	
6	Bearing F	—	
7	Body A	Aluminum alloy	
8	Table	Aluminum alloy	
9	Housing A	Aluminum alloy	
10	Housing B	Aluminum alloy	
11	Top cover	Aluminum alloy	

No.	Description	Material	Note
12	Side cover	Aluminum alloy	
13	Bearing retainer	Carbon steel	Electroless nickel plated
14	Bumper	IIR	
15	End cover A	PC	
16	End cover B	PC	
17	Inner cover	PC	
18	Motor cover A	PC	
19	Motor cover B	PC	
20	Auto switch	—	
21	Magnet	Rare earth magnet	
22	Brake	—	

Construction

LJ1S10

Section AA

Parts list

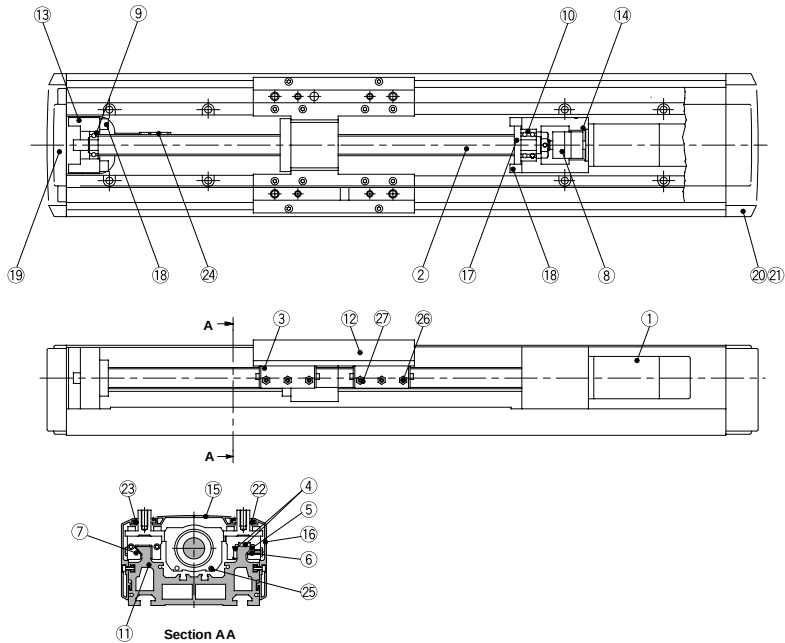
No.	Description	Material	Note
1	AC servomotor	—	50W
2	Lead screw	—	Slide screw
3	Guide frame	Aluminum alloy	
4	Guide plate A	Special resin	
5	Guide plate B	Special resin	
6	Push bar	Carbon steel	Zinc plated
7	Frame cover	Stainless steel	
8	Coupling	—	
9	Bearing R	—	
10	Bearing F	—	
11	Body A	Aluminum alloy	
12	Table	Aluminum alloy	
13	Housing B	Aluminum alloy	

No.	Description	Material	Note
14	Housing A	Aluminum alloy	
15	Top cover	Aluminum alloy	
16	Side cover	Aluminum alloy	
17	Sensor rail	Aluminum alloy	
18	Bearing retainer	Aluminum alloy	
19	Bumper	IIR	
20	End cover A	PC	
21	End cover B	PC	
22	Inner cover	PC	
23	Magnet	Rare earth magnet	
24	Hexagon socket head set screw	Chrome molybdenum steel	M3 x 8
25	Nut	Mild steel	M3
26	Auto switch	—	

Series LJ1S

Construction

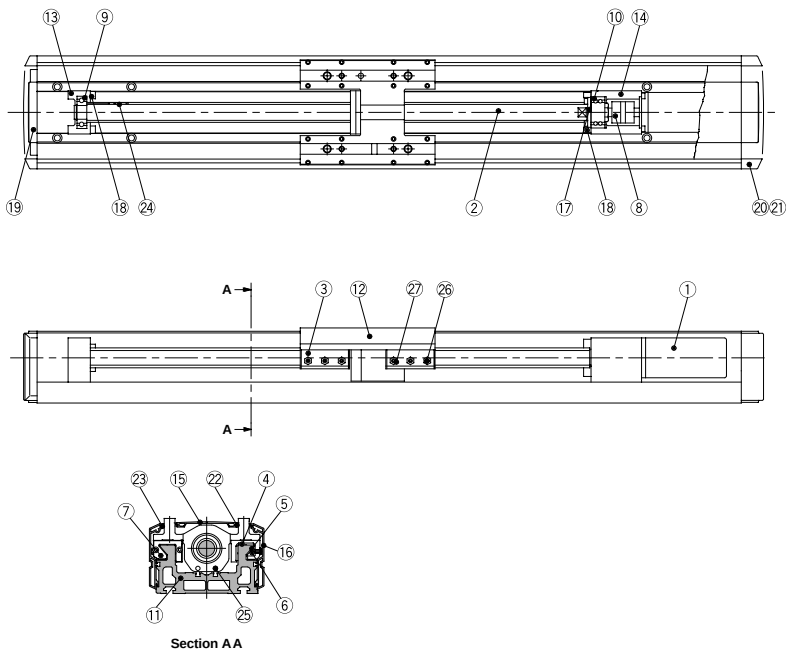
LJ1S20



Parts list

No.	Description	Material	Note
1	AC servomotor	—	100W
2	Lead screw	—	Slide screw
3	Guide frame	Aluminum alloy	
4	Guide plate A	Special resin	
5	Guide plate B	Special resin	
6	Push bar	Carbon steel	Zinc plated
7	Frame cover	Stainless steel	
8	Coupling	—	
9	Bearing R	—	
10	Bearing F	—	
11	Body A	Aluminum alloy	
12	Table	Aluminum alloy	
13	Housing A	Aluminum alloy	

No.	Description	Material	Note
14	Housing B	Aluminum alloy	
15	Top cover	Aluminum alloy	
16	Side cover	Aluminum alloy	
17	Bearing retainer	Aluminum alloy	
18	Bumper	IIR	
19	End cover A	PC	
20	End cover B	PC	
21	Inner cover	PC	
22	Motor cover R	PC	
23	Motor cover L	PC	
24	Auto switch	—	
25	Magnet	Rare earth magnet	
26	Hexagon socket head set screw	Chrome molybdenum steel	M4 x 8
27	Nut	Mild steel	M4

Construction**LJ1S30****Parts list**

No.	Description	Material	Note
1	AC servomotor	—	200W
2	Lead screw	—	Slide screw
3	Guide frame	Aluminum alloy	
4	Guide plate A	Special resin	
5	Guide plate B	Special resin	
6	Push bar	Carbon steel	Zinc plated
7	Frame cover	Stainless steel	
8	Coupling	—	
9	Bearing R	—	
10	Bearing F	—	
11	Body A	Aluminum alloy	
12	Table	Aluminum alloy	
13	Housing A	Aluminum alloy	

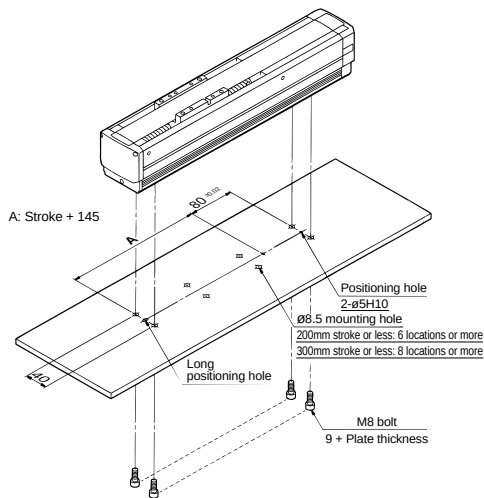
No.	Description	Material	Note
14	Housing B	Aluminum alloy	
15	Top cover	Aluminum alloy	
16	Side cover	Aluminum alloy	
17	Bearing retainer	Carbon steel	Electroless nickel plated
18	Bumper	IIR	
19	End cover A	PC	
20	End cover B	PC	
21	Inner cover	PC	
22	Motor cover R	PC	
23	Motor cover L	PC	
24	Auto switch	—	
25	Magnet	Rare earth magnet	
26	Hexagon socket head set screw	Chrome molybdenum steel	M5 x 8
27	Nut	Mild steel	M5

Series LJ1

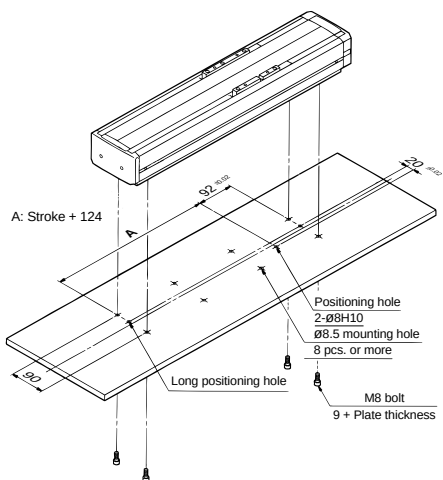
Mounting

T-slot Bottom Mount

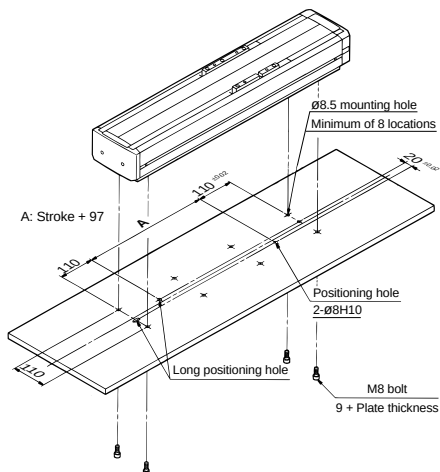
LJ1H10/LJ1S10



LJ1H20/LJ1S20



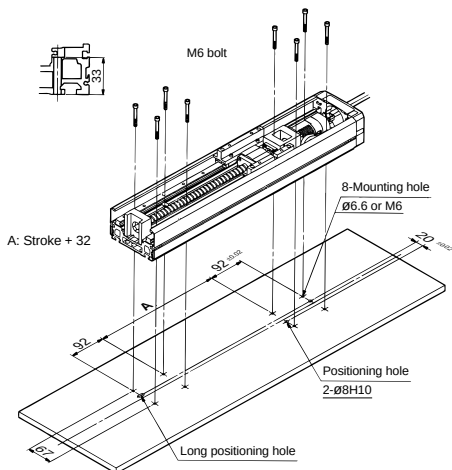
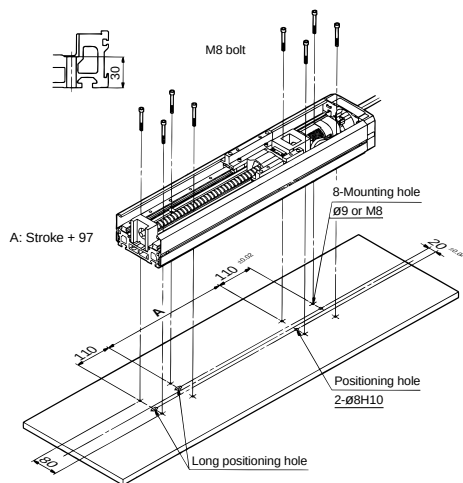
LJ1H30/LJ1S30



Note 1) Although T-nuts (LJ1-T8) for mounting are included with the body for LJ1H10/LJ1S10, they are optional for other models. (See page 100.)

Note 2) To insert the T-nuts, remove the covers at both ends of the body and insert them into the T-slots.

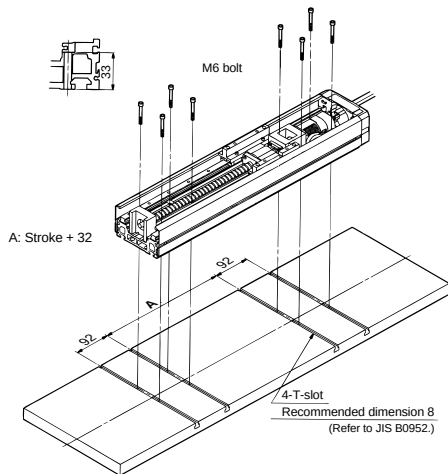
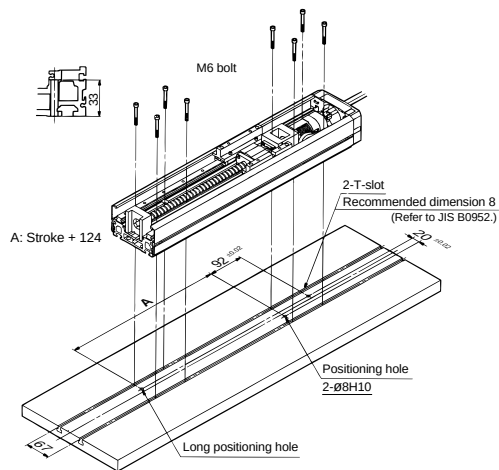
Note 3) When positioning of the body is required, also perform pin hole machining.

Top Mount**LJ1H20/LJ1S20****LJ1H30/LJ1S30****LJ1****LG1****LC1****LX****LC6D/LC6C****Switches**

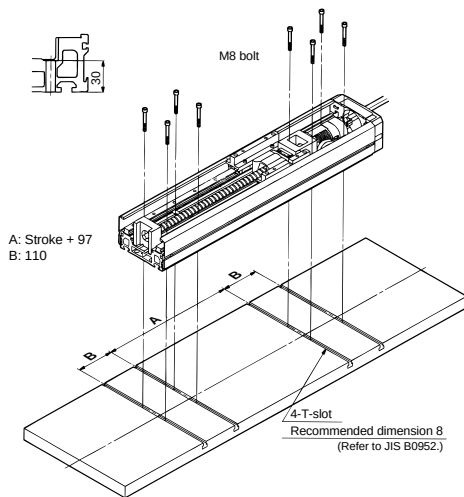
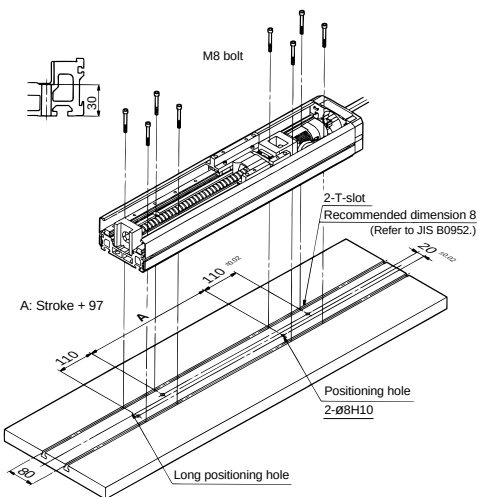
Series **LJ1**

Top Mount (Using T-slots on the Mounting Frame)

LJ1H20/LJ1S20



LJ1H30/LJ1S30

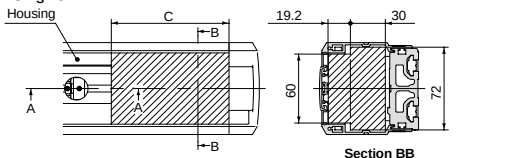


Series LJ1

Non-standard Motor Mounting Dimensions

Standard/TSUBAKI CABLEVEYOR Specifications

Series LJ1^H10



Section AA (Housing interior)

Coupling mounting dimensions*

Motor mounting area dimensions

Manufacturer	Mitsubishi Electric Corporation Yaskawa Electric Corporation	Matsushita Electric Industrial Co., Ltd.
Thread size	M4 x 0.7	M3 x 0.5
Effective thread length (mm)	8	6
Quantity	2	4
P.C.D.	46	45

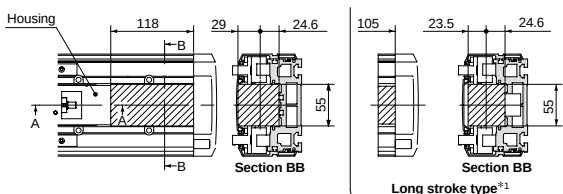
Motor mounting area

* When mounting a coupling on the motor, mount it within the dimensional range shown on the left.

Dimensions

	C	D	E	F
With brake (mm)	101	26	32	8.5
Without brake (mm)	93	19	27.5	17

Series LJ1^S20



Section AA (Housing interior)

Coupling mounting dimensions*2

Motor mounting area dimensions

Manufacturer	Mitsubishi Electric Corporation Yaskawa Electric Corporation	Matsushita Electric Industrial Co., Ltd.
Thread size	M4 x 0.7	M3 x 0.5
Effective thread length (mm)	8	6
Quantity	2	4
P.C.D.	46	45

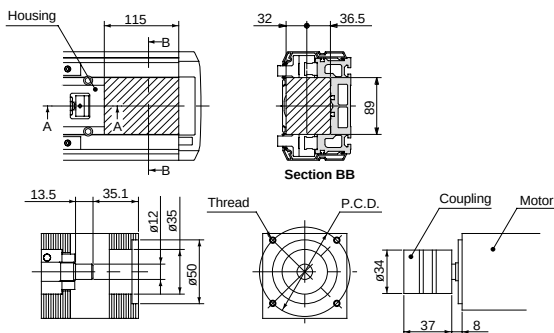
Motor mounting area

*1 For the motor mounting area dimensions of the models below, refer to the long stroke type dimensions.

LJ1H20	SC	700 to 1000mm stroke
LJ1H20	SC	700 to 1200mm stroke
LJ1S20	SC	700 to 1200mm stroke

*2 When mounting a coupling on the motor, mount it within the dimensional range shown on the left.

Series LJ1^H30



Section AA (Housing interior)

Coupling mounting dimensions*

Motor mounting area dimensions

Manufacturer	Mitsubishi Electric Corporation Yaskawa Electric Corporation	Matsushita Electric Industrial Co., Ltd.
Thread size	M5 x 0.8	M4 x 0.7
Effective thread length (mm)	6	6
Quantity	4	4
P.C.D.	70	70

Motor mounting area

* When mounting a coupling on the motor, mount it within the dimensional range shown on the left.

Deflection Data/LJ1H

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

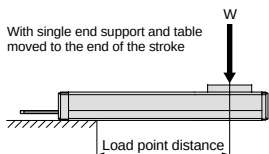


Figure 1. Horizontal

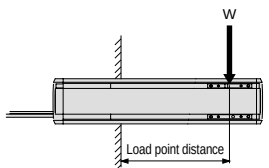
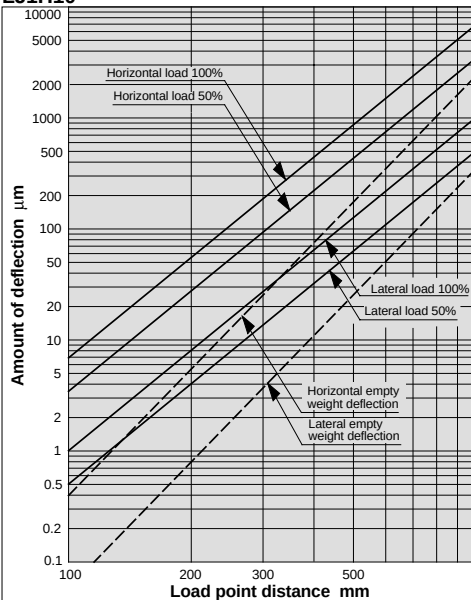
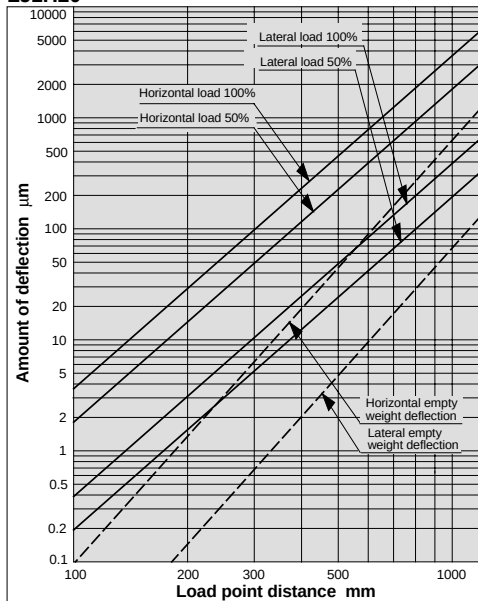
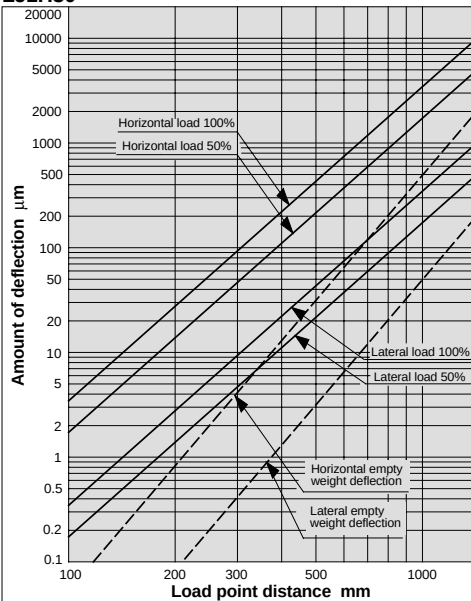


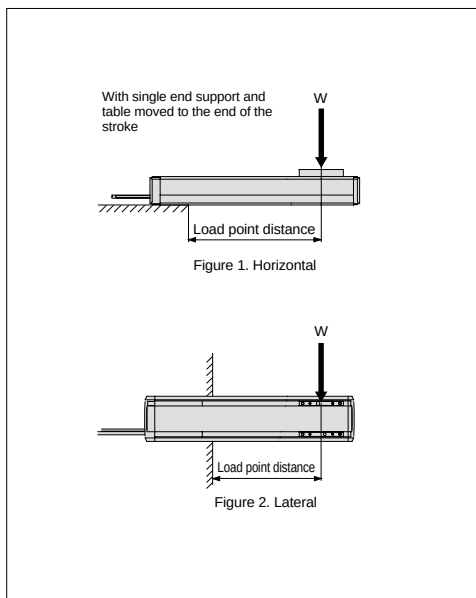
Figure 2. Lateral

LJ1H10**LJ1H20****LJ1H30**

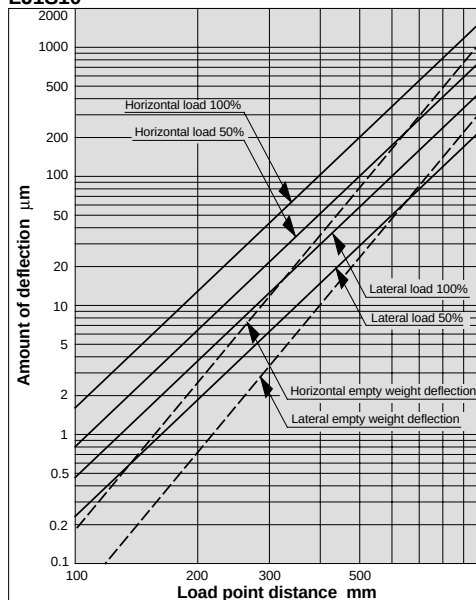
Series LJ1

Deflection Data/LJ1S

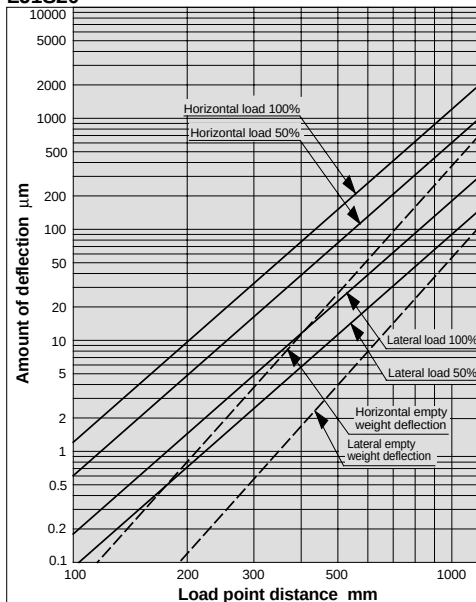
The load and the amount of deflection at load point W are shown in the graphs below for each series.



LJ1S10



LJ1S20



LJ1S30

