

Electric Actuator High Rigidity Slider Type



RoHS

Low-profile/Low centre of gravity

Height dimension: **58** mm



LEJS40

AC Servo Motor

Ball Screw Drive *LEJS* Series

Size: 40, 63

Work load: **85** kg

Positioning repeatability: **± 0.01** mm (High-precision type)

Max. speed: **1800** mm/s

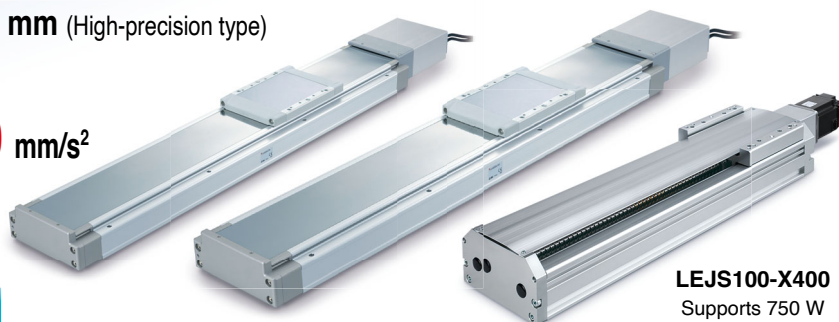
Max. acceleration/deceleration: **20000** mm/s²

*1 ISO14644-1

*2 The particle generation characteristics change depending on the suction flow rate.

Clean Room Specification

11-LEJS
ISO Class 4*1 *2



LEJS100-X400
Supports 750 W

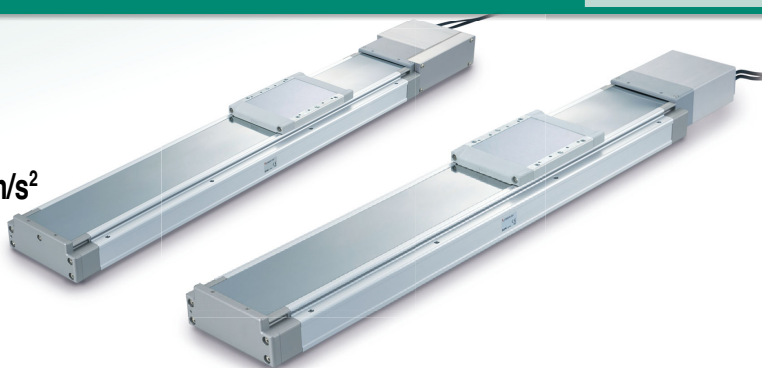
Belt Drive *LEJB* Series

Size: 40, 63

Max. stroke: **3000** mm

Max. speed: **3000** mm/s

Max. acceleration/deceleration: **20000** mm/s²



AC Servo Motor Drivers

► For incremental encoders

- Pulse input type/
Positioning type
LECSA Series



► For absolute encoders

- Pulse input type/Positioning
LECSB-T Series
- CC-Link direct input type
LECSC-T Series
- SSCNET III/H type
LECSS-T Series
- Network card type
LECSN-T Series
- MECHATROLINK type
LECY-T Series



LEJ Series

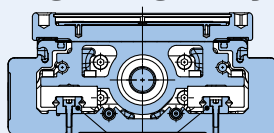


CAT.EUS100-104Ccc-UK

High Rigidity Slider Type *LEJ Series*

●High precision/High rigidity

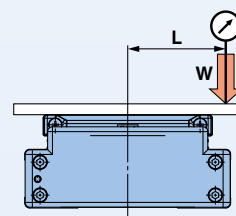
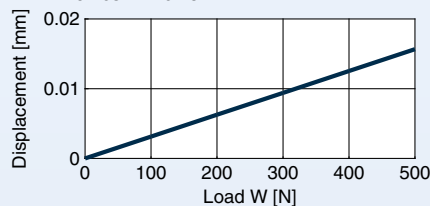
Double axis linear guide reduces deflection



Linear guide (Double axis)

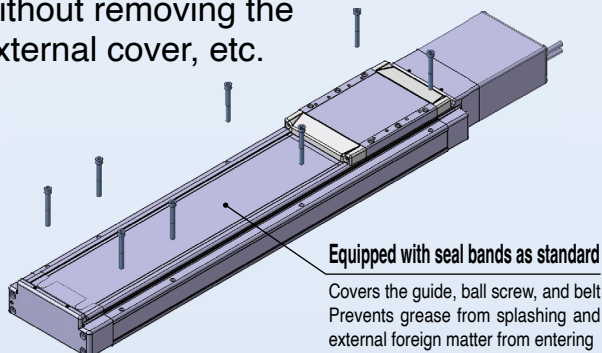
Table displacement

* LEJ□63: L = 64.5 mm



●Reduction in installation labour

It is possible to mount the main body without removing the external cover, etc.

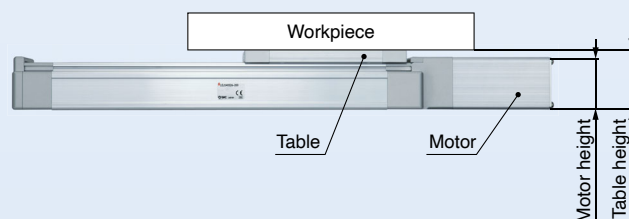


Equipped with seal bands as standard

Covers the guide, ball screw, and belt
Prevents grease from splashing and external foreign matter from entering

●Workpiece does not interfere with the motor.

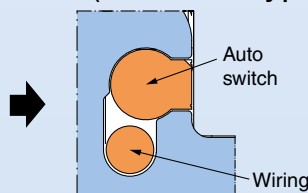
Table height > Motor height



●Solid state auto switch can be mounted.

(For checking the limit and the intermediate signal)

- Switch wiring can be placed in the body
- A contact and B contact types available
- D-M9□W (2-colour indicator), D-M9□, D-M9□E (B contact type)



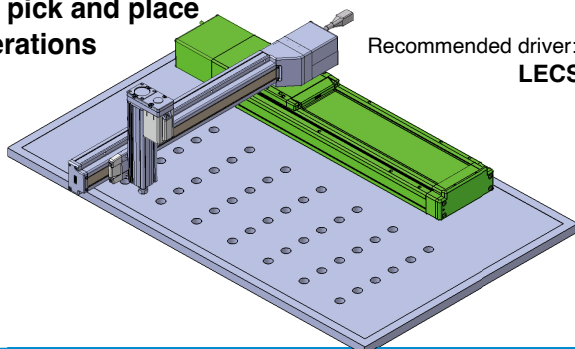
2-colour indicator solid state auto switch

Appropriate setting of the mounting position can be performed without mistakes.



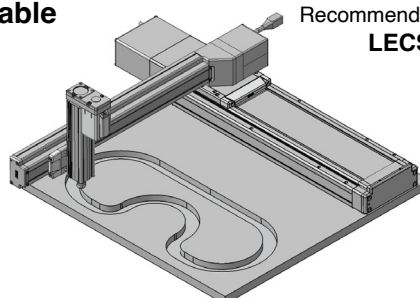
Application Examples

For pick and place operations



Recommended driver:
LECS□

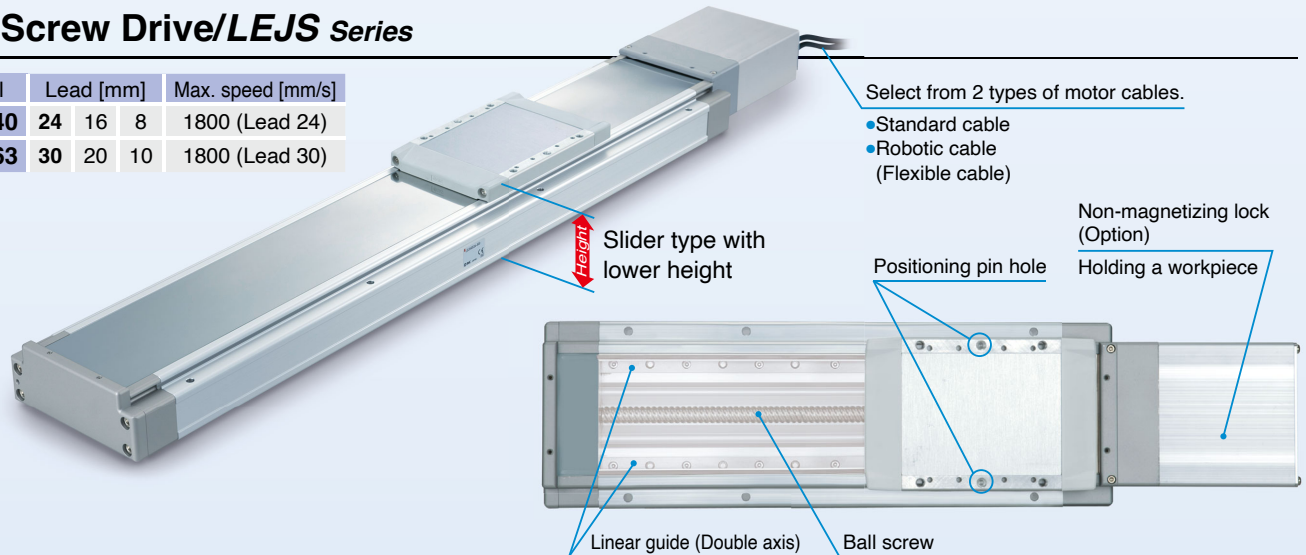
For glue dispensing/High speed trajectory is available



Recommended driver:
LECSS (SSCNET III)

Ball Screw Drive/*LEJS* Series

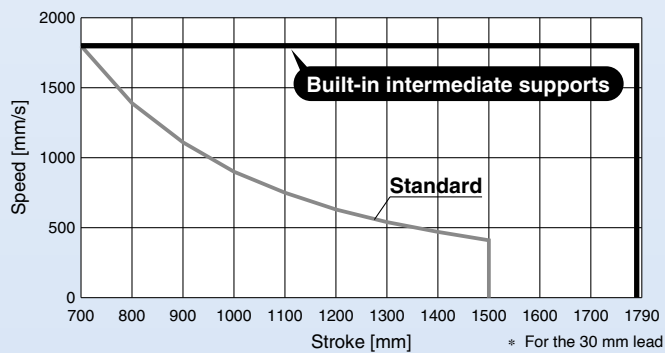
Model	Lead [mm]			Max. speed [mm/s]
LEJS40	24	16	8	1800 (Lead 24)
LEJS63	30	20	10	1800 (Lead 30)



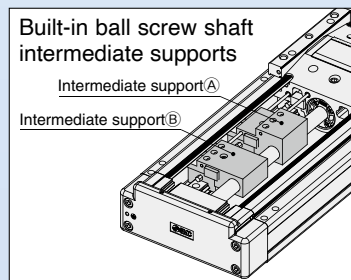
Built-in Intermediate Supports Type

Ball Screw Drive *LEJS63* - *M* Series

A maximum speed of 1800 mm/s* has been achieved throughout the entire stroke



The use of intermediate supports results in reduced deflection of the ball screw when a long stroke is used.



Clean Room Specification

Ball Screw Drive *11-LEJS* Series

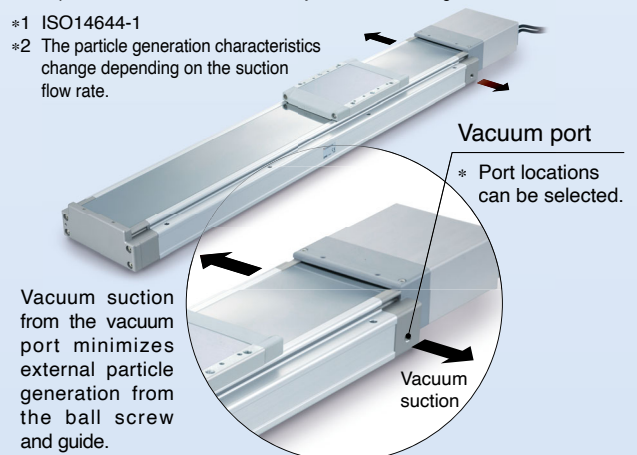
Size: 40, 63

ISO Class 4*1 *2

- Built-in vacuum piping
- It is possible to mount the main body without removing the external cover, etc.

*1 ISO14644-1

*2 The particle generation characteristics change depending on the suction flow rate.



Ball Screw Drive *LEJS100-X400* Series

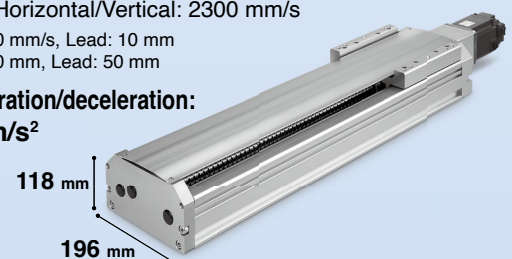
Supports 750 W (Motor output)

- Work load*1 Horizontal: 400 kg, Vertical: 80 kg
- Speed*2 Horizontal/Vertical: 2300 mm/s

*1 Speed: 500 mm/s, Lead: 10 mm

*2 Stroke: 800 mm, Lead: 50 mm

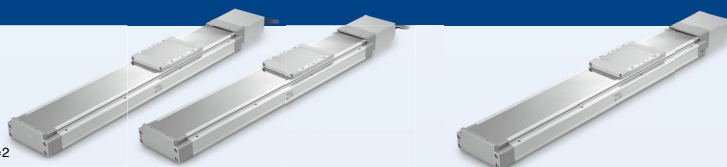
Max. acceleration/deceleration:
10000 mm/s²



Belt Drive/*LEJB* Series



High Rigidity Slider Type *LEJ Series*

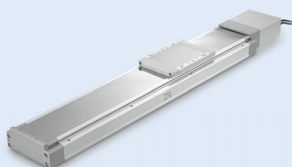


Ball Screw Drive/*LEJS Series* Clean room compatible ^{*2}

Size	Lead [mm]	Stroke [mm] ^{*1}	Work load: Horizontal [kg]									Work load: Vertical [kg]			Speed [mm/s]									Page
			10	20	30	40	50	60	70	80	90	10	20	30	200	400	600	800	1000	1200	1400	1600	1800	
40	8	200, 300, 400																						7, 21
	16	500, 600, 700																						
	24	800, 900 1000, 1200																						
63	10	300, 400, 500																						
	20	600, 700, 800																						
	30	900, 1000 1200, 1500																						

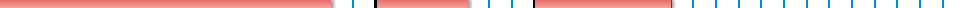
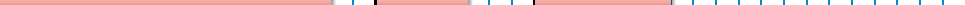
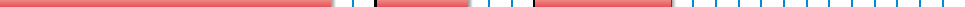
*1 Please contact SMC for non-standard strokes as they are produced as special orders.

*2 Excludes 24 and 30 mm leads



Built-in Intermediate Supports Type

Ball Screw Drive/*LEJS-M Series*

Size	Lead [mm]	Stroke [mm]*1	Work load: Horizontal [kg]										Work load: Vertical [kg]			Speed [mm/s]										Page
			10	20	30	40	50	60	70	80	90	10	20	30	200	400	600	800	1000	1200	1400	1600	1800			
63	10	790, 890, 990 1190, 1490, 1790																								7, 21
	20																									
	30																									

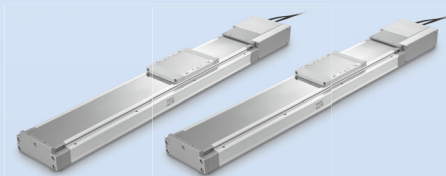
*1 Please contact SMC for non-standard strokes as they are produced as special orders.



Ball Screw Drive/*LEJS-X400 Series*

Size	Lead [mm]	Stroke [mm] ^{*1}	Work load: Horizontal [kg]			Work load: Vertical [kg]			Speed [mm/s]										Page
			100	200	400	20	40	80	500	750	1000	1250	1500	1750	2000	2250	2500		
100	10	200, 300, 400 500, 600, 800 1000, 1200 1500																	18
	25																		
	50																		

*1 Please contact SMC for non-standard strokes as they are produced as special orders.



Belt Drive/*LEJB Series*

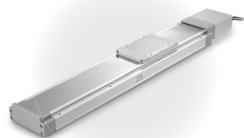
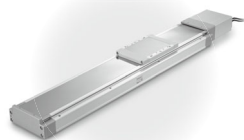
Size	Equivalent lead [mm]	Stroke [mm]*1	Work load: Horizontal [kg]*2						Speed [mm/s]						Page
			5	10	15	20	25	30	500	1000	1500	2000	2500	3000	
40	27	200, 300, 400, 500, 600, 700, 800 900, 1000, 1200, 1500, 2000													7, 21
63	42	300, 400, 500, 600, 700, 800 900, 1000, 1200, 1500, 2000, 3000													

*1 Please contact SMC for non-standard strokes as they are produced as special orders.

*2 The belt drive actuator cannot be used for vertical applications.

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AC Servo Motor

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LEJS-M (Built-in Intermediate Supports Type)/LECS□ Series

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LEJS/LECY□ Series

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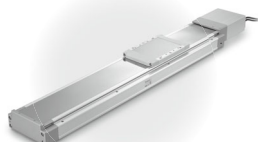
LEJS-M (Built-in Intermediate Supports Type)/LECY□ Series

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LEJS100-X400

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Environment



AC Servo Motor

Ball Screw Drive 11-LEJS Series

Clean Room Specification

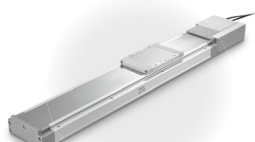
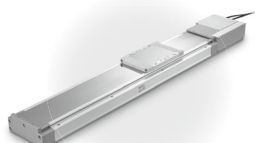
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Ball Screw Drive 25A-LEJS Series

Secondary Battery Compatible

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High Rigidity Slider Type Belt Drive LEJB Series



AC Servo Motor

LECS□ Series

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LECY□ Series

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AC Servo Motor Drivers



LECSA Series

LECSB-T/LECS-C-T/LECSS-T Series

LECSN□-T Series

LECYM/LECYU Series

For more information, please visit www.smc.eu

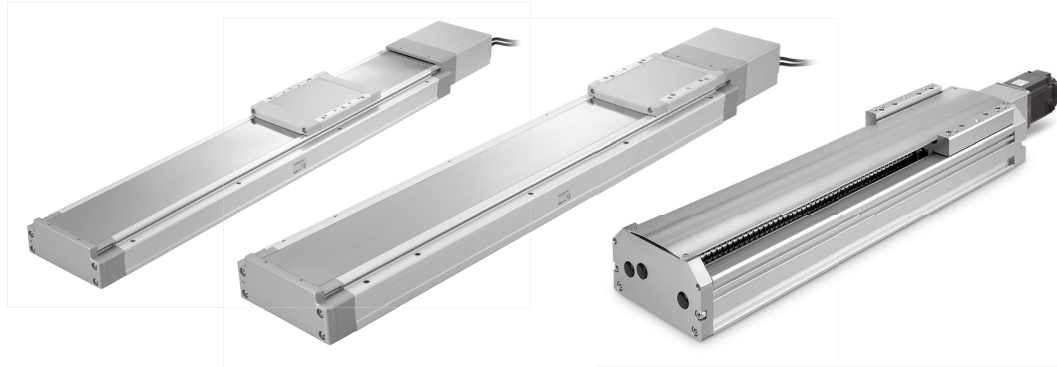


High Rigidity Slider Type

Ball Screw Drive *LEJS Series*

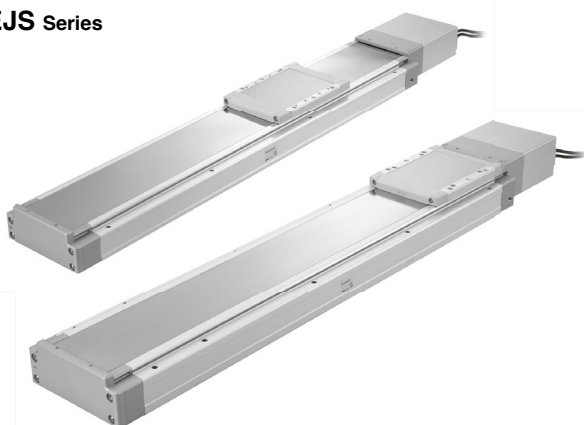
AC Servo Motor

LEJS Series
LEJS-M Series
LEJS-X400



Clean Room Specification

11-LEJS Series



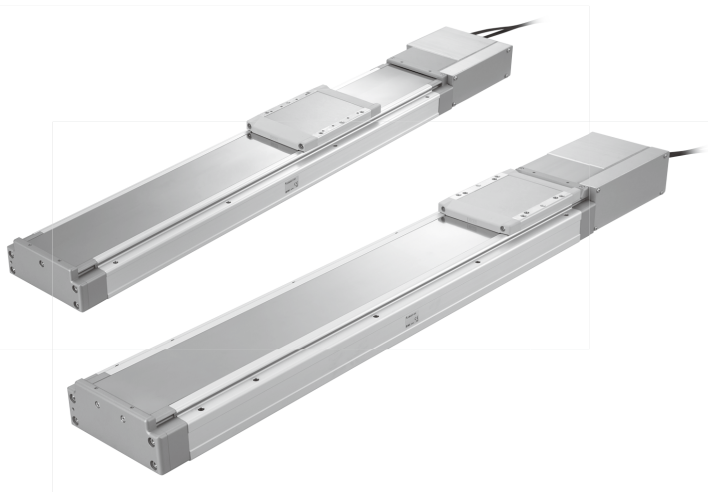
Secondary Battery Compatible

25A-LEJS Series



Belt Drive *LEJB Series*

AC Servo Motor



Model Selection



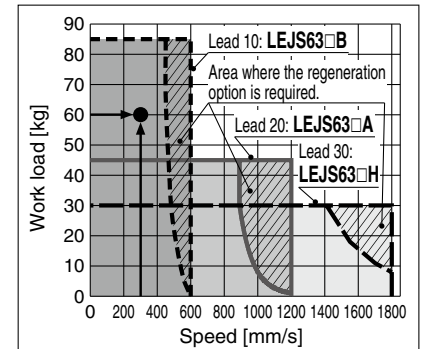
Selection Procedure



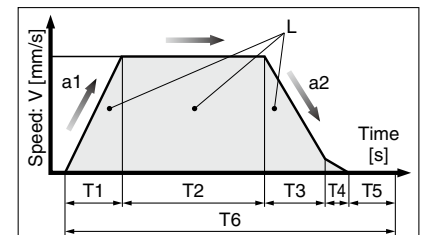
Selection Example

Operating conditions

- Workpiece mass: 60 [kg]
 - Speed: 300 [mm/s]
 - Acceleration/Deceleration: 3000 [mm/s²]
 - Stroke: 300 [mm]
 - Mounting orientation: Horizontal
 - Motor type: Incremental encoder
 - External force: 10 [N]
- Workpiece mounting condition:
-



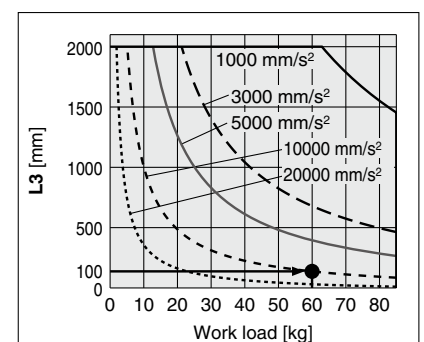
<Speed-Work load graph>
(LEJS63)



L : Stroke [mm]
V : Speed [mm/s]
a1 : Acceleration [mm/s²]
a2 : Deceleration [mm/s²]

- T1: Acceleration time [s]
Time until reaching the set speed
T2: Constant speed time [s]
Time while the actuator is operating at a constant speed
T3: Deceleration time [s]
Time from the beginning of the constant speed operation to stop
T4: Settling time [s]
Time until positioning is completed
T5: Resting time [s]
Time the product is not running
T6: Total time [s]
Total time from T1 to T5

Duty ratio: Ratio of T to T6
 $T \div T6 \times 100$



<Dynamic allowable moment>
(LEJS63)

Step 1 Check the work load-speed. <Speed-Work load graph> (Page 8)

Select a model based on the workpiece mass and speed while referencing the speed-work load graph. Selection example) The LEJS63S3B-300 can be temporarily selected as a possible candidate based on the graph shown on the right side.

The regeneration option may be necessary.

Refer to Page 8 for the "Required Conditions for the Regeneration Option."

Step 2 Check the cycle time.

Refer to method 1 for a rough estimate, and method 2 for a more precise value.

Method 1: Check the cycle time graph (Pages 9, 10)

The graph is based on the maximum speed of each size.

Method 2: Calculation

Cycle time:

T can be found from the following equation.

$$T = T1 + T2 + T3 + T4 \text{ [s]}$$

- T1 and T3 can be found by the following equation.

$$T1 = V/a1 \text{ [s]} \quad T3 = V/a2 \text{ [s]}$$

The acceleration and deceleration values have upper limits depending on the workpiece mass and the duty ratio.

Check that they do not exceed the upper limit, by referring to "Work Load-Acceleration/Deceleration Graph (Guide)" (Pages 11 to 13).

For the ball screw type, there is an upper limit of the speed depending on the stroke. Check that it does not exceed the upper limit, by referring to the specifications (Page 24).

- T2 can be found from the following equation.

$$T2 = \frac{L - 0.5 \cdot V \cdot (T1 + T3)}{V} \text{ [s]}$$

- T4 varies depending on the motor type and load. The value below is recommended.

$$T4 = 0.05 \text{ [s]}$$

Calculation example)

T1 to T4 can be calculated as follows.

$$T1 = V/a1 = 300/3000 = 0.1 \text{ [s]}$$

$$T3 = V/a2 = 300/3000 = 0.1 \text{ [s]}$$

$$T2 = \frac{L - 0.5 \cdot V \cdot (T1 + T3)}{V} = \frac{300 - 0.5 \cdot 300 \cdot (0.1 + 0.1)}{300} = 0.90 \text{ [s]}$$

$$T4 = 0.05 \text{ [s]}$$

The cycle time can be found as follows.

$$T = T1 + T2 + T3 + T4 = 0.1 + 0.90 + 0.1 + 0.05 = 1.15 \text{ [s]}$$

Step 3 Check the allowable moment. <Static allowable moment> (page 13)

<Dynamic allowable moment> (page 14)

Confirm the moment that applies to the actuator is within the allowable range for both static and dynamic conditions.

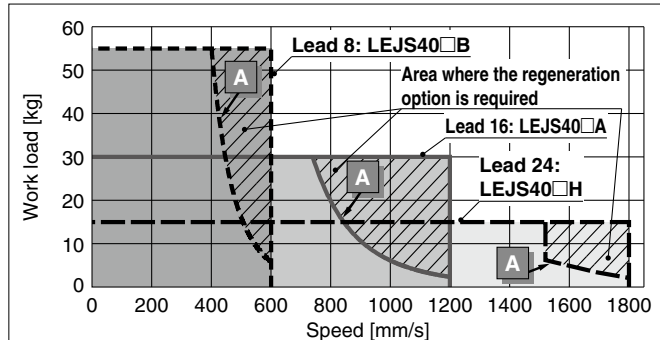


Selection example)
Select the LEJS63S3B-300 from the graph on the right side.
Confirm that the external force is 20 [N] or less.
(The external force is the resistance due to cable duct, flexible trunking or air tubing.)

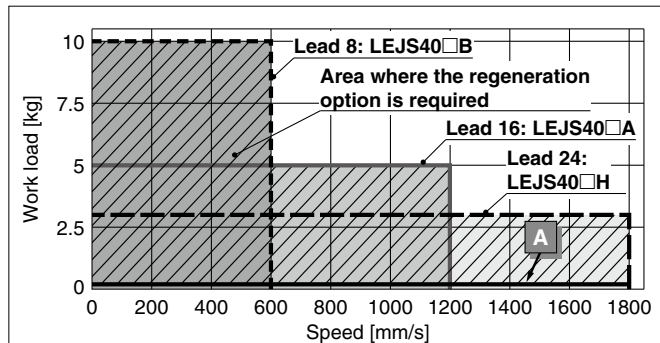
Speed-Work Load Graph/Required Conditions for the Regeneration Option (Guide)

LEJS40/Ball Screw Drive

Horizontal

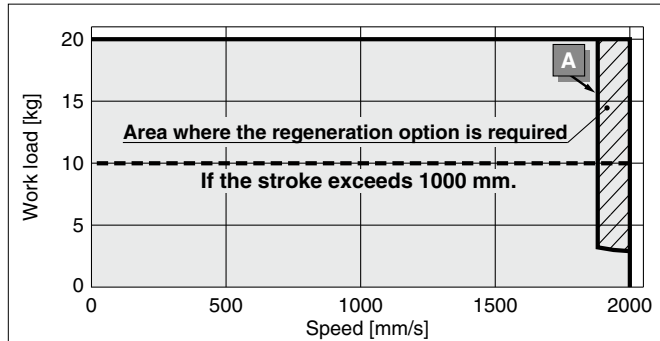


Vertical



LEJB40/Belt Drive

Horizontal



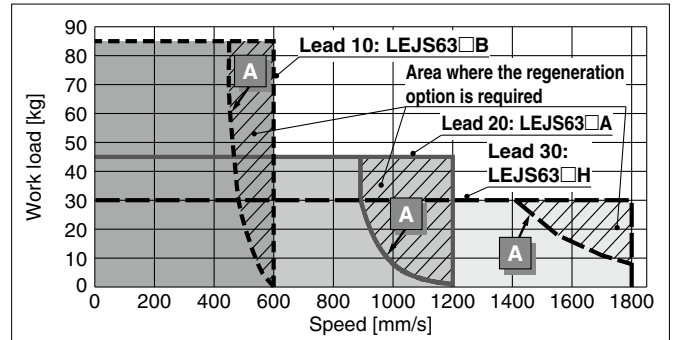
* When the stroke of the LEJB40 series exceeds 1000 mm, the work load is 10 kg.

Required conditions for the regeneration option

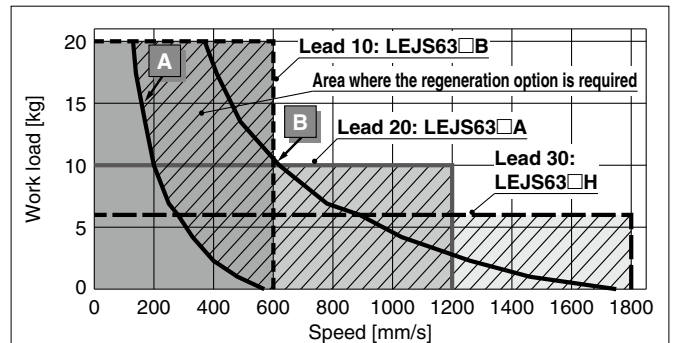
* The regeneration option is required when using the product above the regeneration line in the graph. (It must be ordered separately.)

LEJS63/Ball Screw Drive

Horizontal

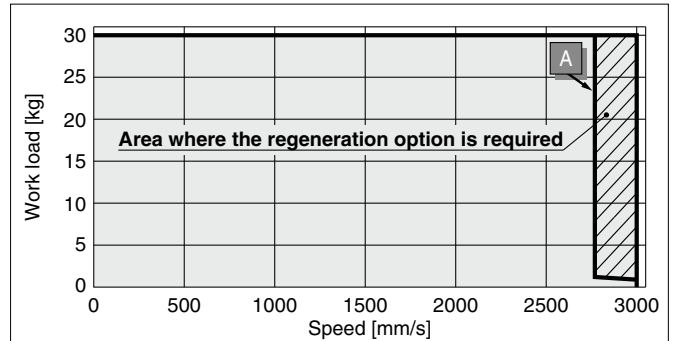


Vertical



LEJB63/Belt Drive

Horizontal



Regeneration Option Models

Operating condition	Regenerative condition	Regeneration option
A	Duty ratio 100 %	LEC-MR-RB-032
B		LEC-MR-RB-12

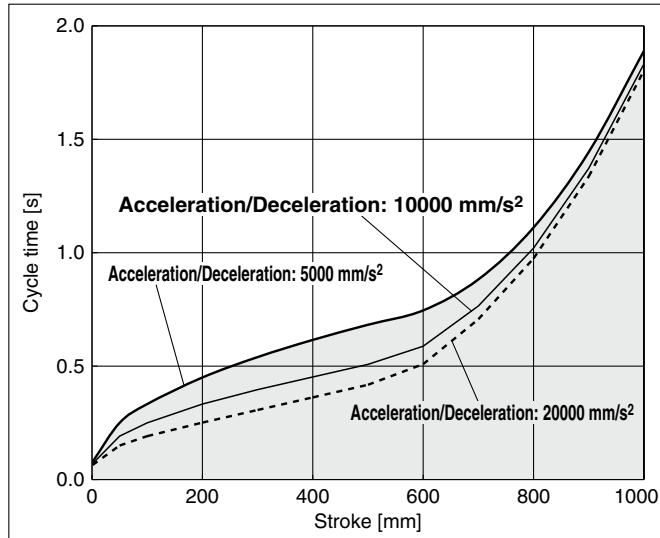
Allowable Stroke Speed

[mm/s]																	
Model	AC servo motor	Lead		Stroke [mm]													
		Symbol	[mm]	Up to 200	Up to 300	Up to 400	Up to 500	Up to 600	Up to 700	Up to 800	Up to 900	Up to 1000	Up to 1100	Up to 1200	Up to 1300	Up to 1400	Up to 1500
LEJS40	100 W/ □40	H	24	1800				1580	1170	910	720	580	480	410	—	—	—
		A	16	1200				1050	780	600	480	390	320	270	—	—	—
		B	8	600				520	390	300	240	190	160	130	—	—	—
		(Motor rotation speed)	(4500 rpm)				(3938 rpm)	(2925 rpm)	(2250 rpm)	(1800 rpm)	(1463 rpm)	(1200 rpm)	(1013 rpm)	—	—	—	
LEJS63	200 W/ □60	H	30	—	1800				1390	1110	900	750	630	540	470	410	
		A	20	—	1200				930	740	600	500	420	360	310	270	
		B	10	—	600				460	370	300	250	210	180	150	130	
		(Motor rotation speed)	—	(3600 rpm)				(2790 rpm)	(2220 rpm)	(1800 rpm)	(1500 rpm)	(1260 rpm)	(1080 rpm)	(930 rpm)	(810 rpm)		

Cycle Time Graph (Guide)

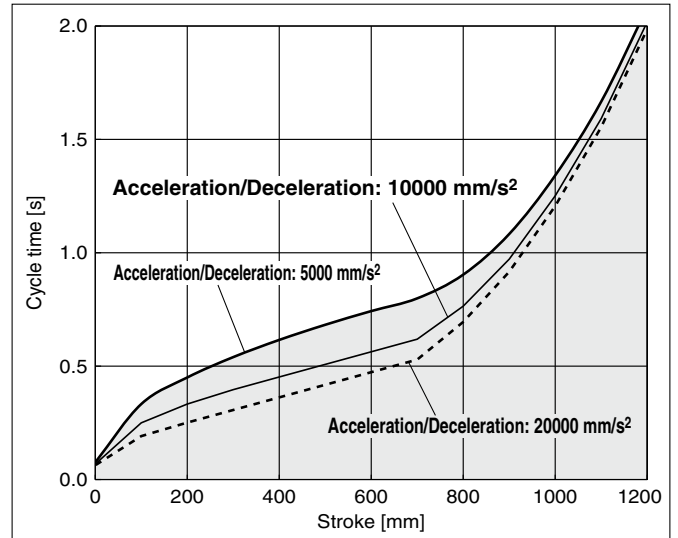
LEJS40/Ball Screw Drive

LEJS40□H

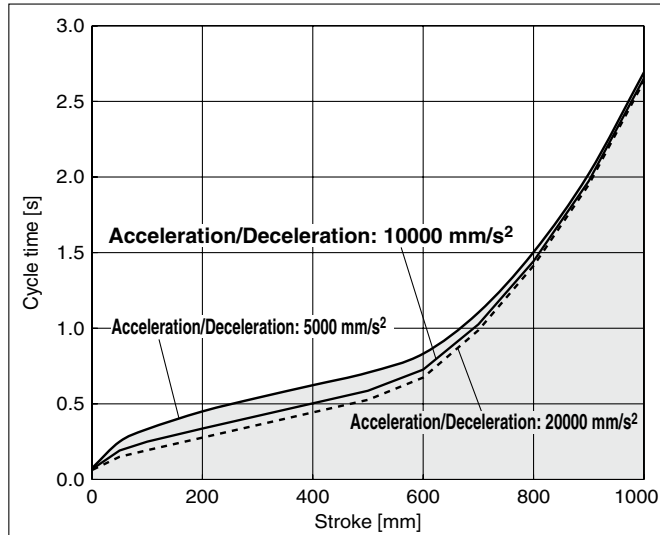


LEJS63/Ball Screw Drive

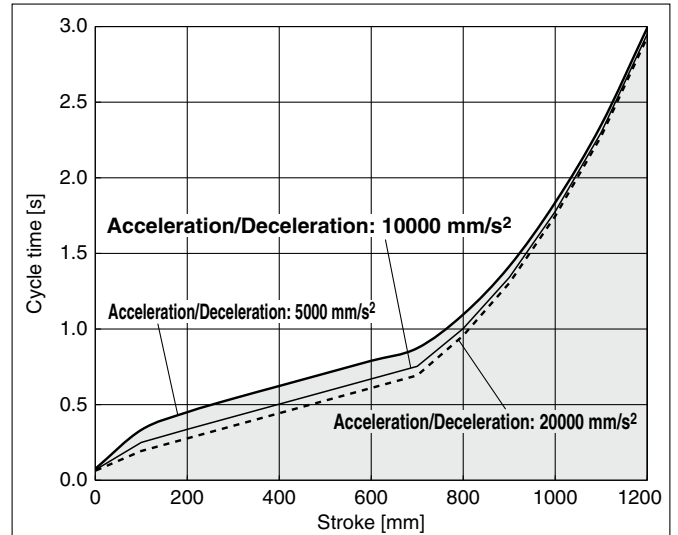
LEJS63□H



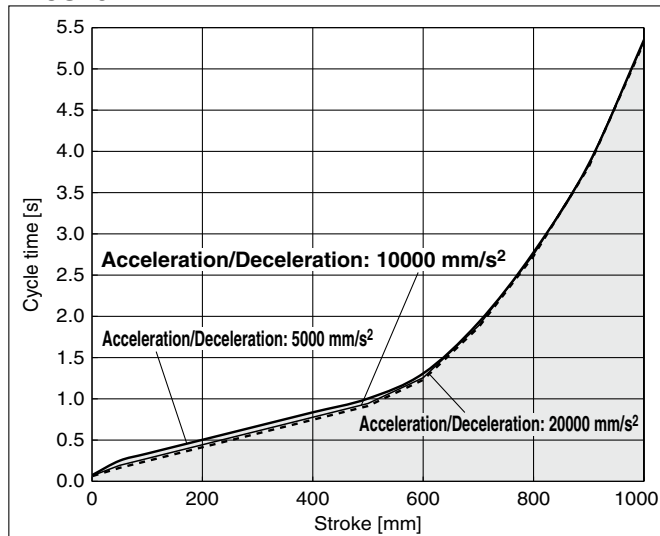
LEJS40□A



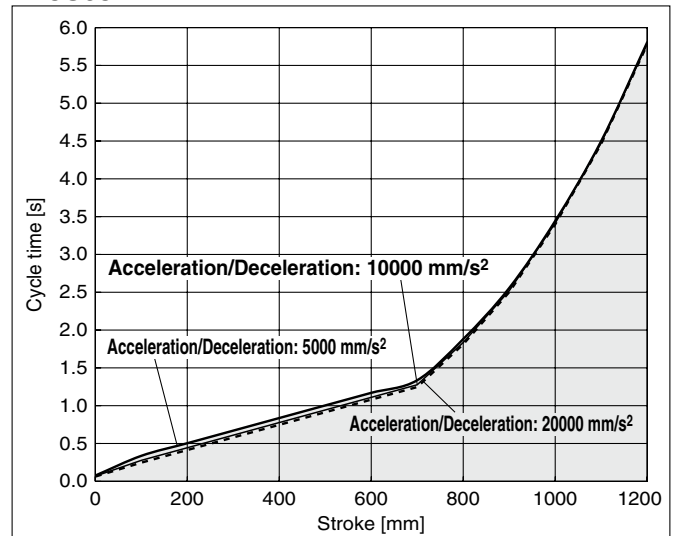
LEJS63□A



LEJS40□B



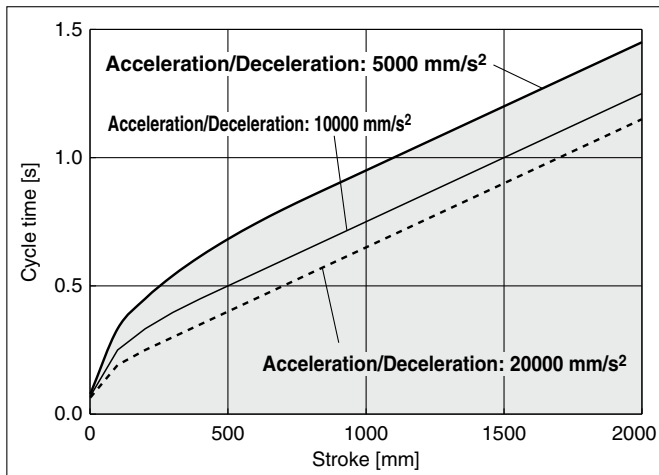
LEJS63□B



* Maximum speed/acceleration/deceleration values graph for each stroke

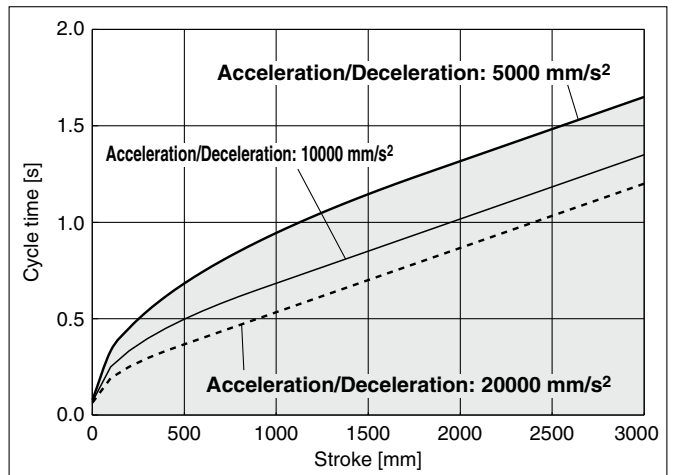
Cycle Time Graph (Guide)

LEJB40/Belt Drive



* Maximum speed/acceleration/deceleration values graph for each stroke

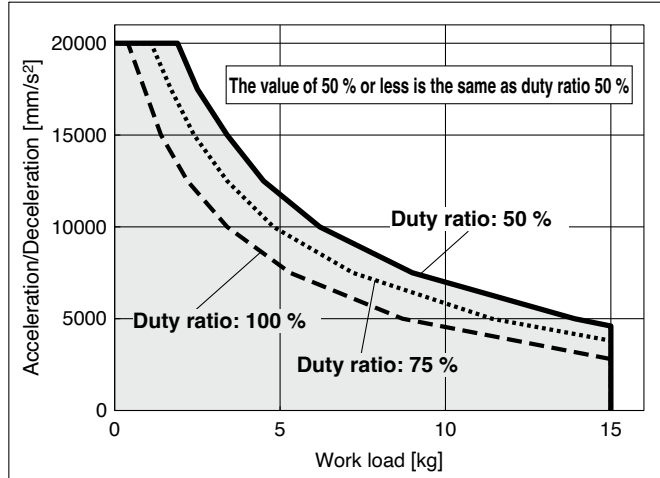
LEJB63/Belt Drive



Work Load–Acceleration/Deceleration Graph (Guide)

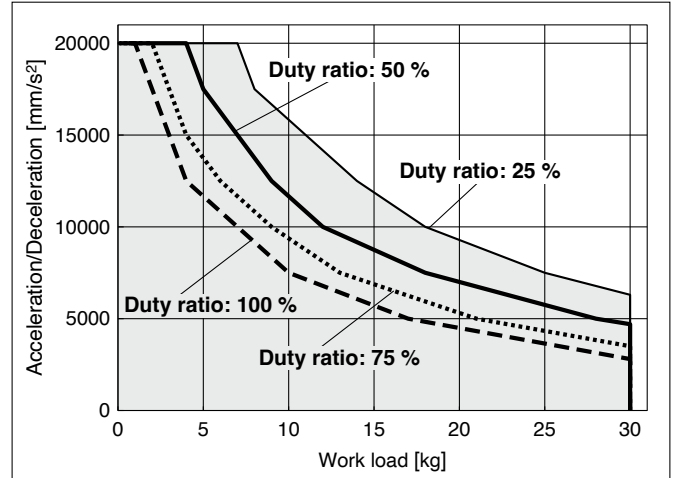
LEJS40/Ball Screw Drive: Horizontal

LEJS40□H

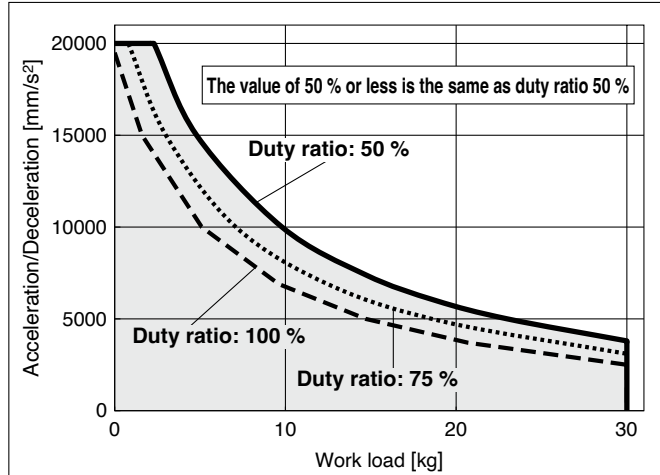


LEJS63/Ball Screw Drive: Horizontal

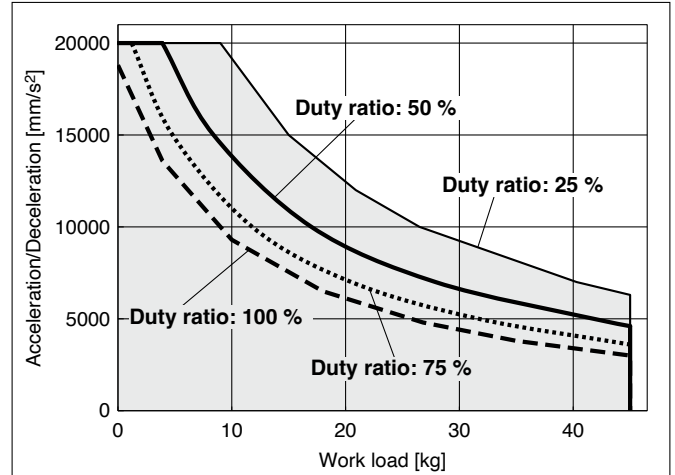
LEJS63□H



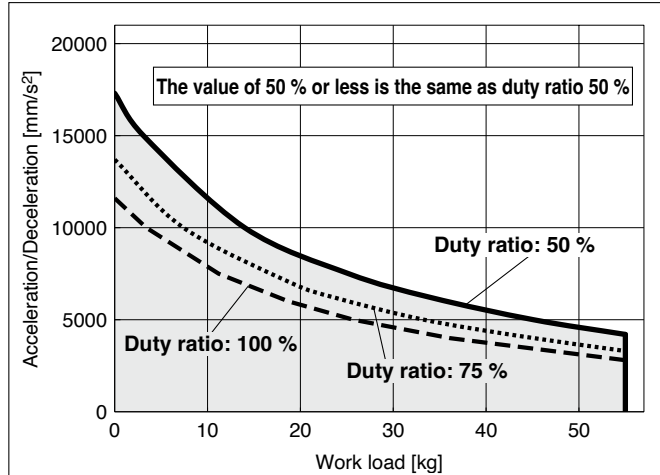
LEJS40□A



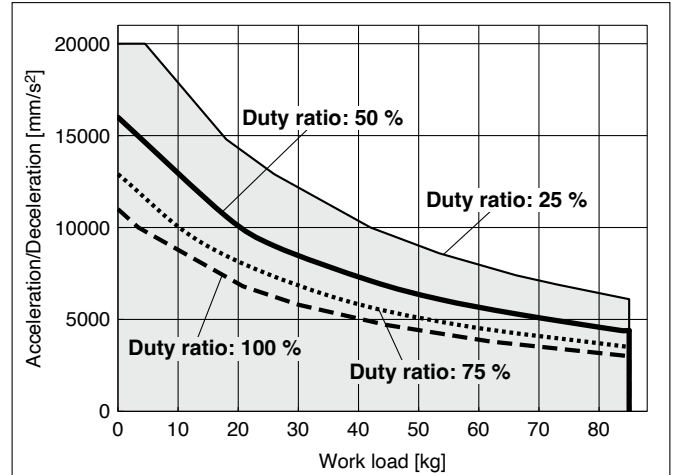
LEJS63□A



LEJS40□B



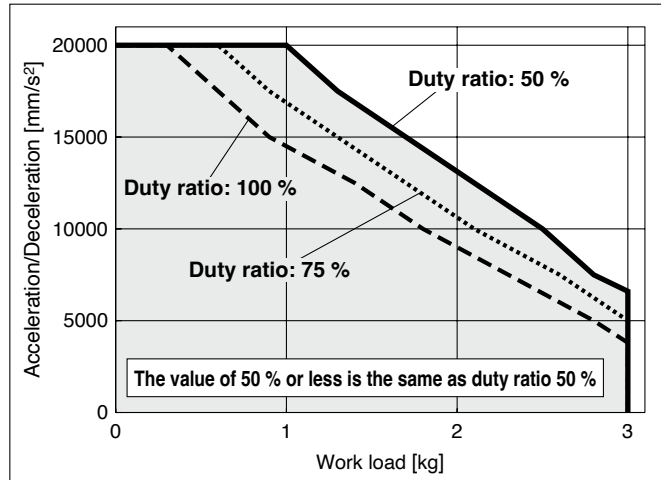
LEJS63□B



Work Load–Acceleration/Deceleration Graph (Guide)

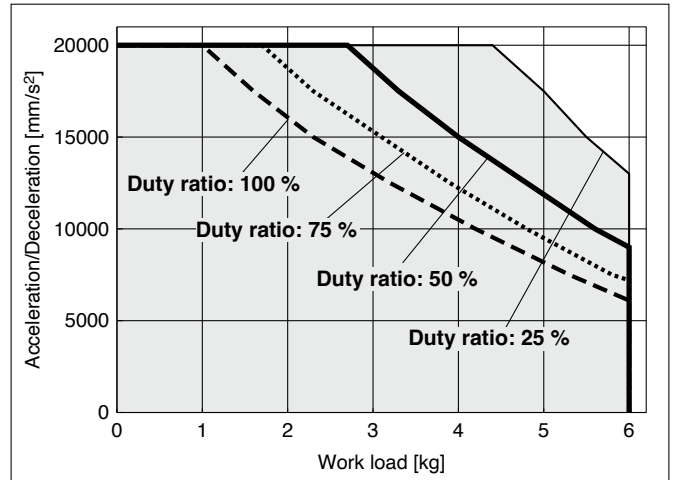
LEJS40/Ball Screw Drive: Vertical

LEJS40□H

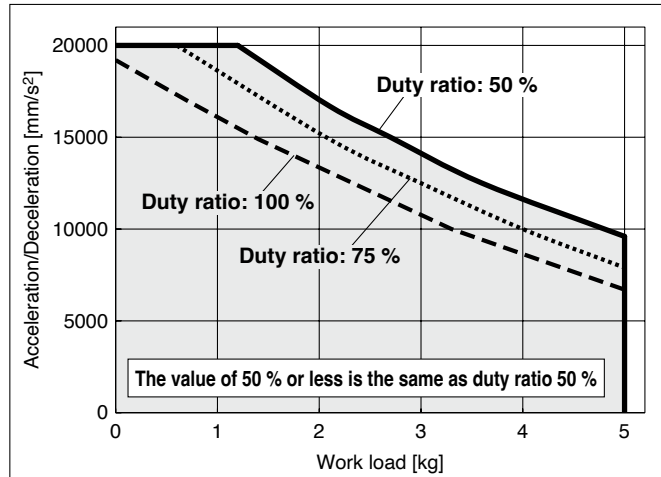


LEJS63/Ball Screw Drive: Vertical

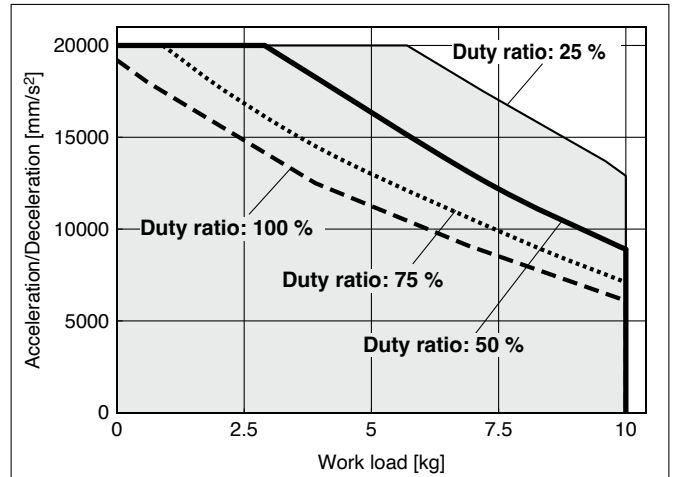
LEJS63□H



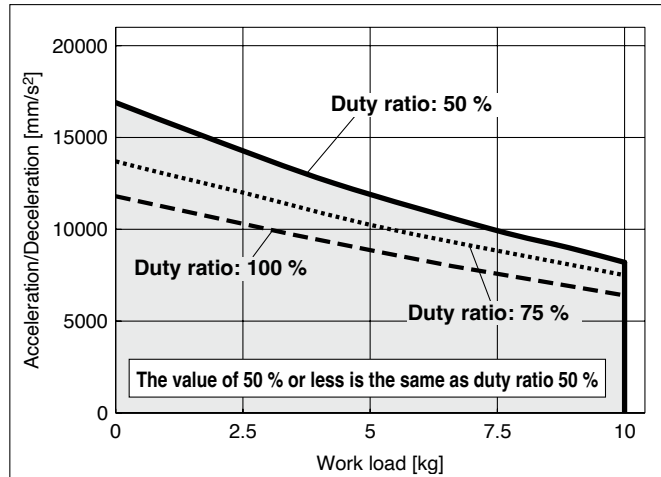
LEJS40□A



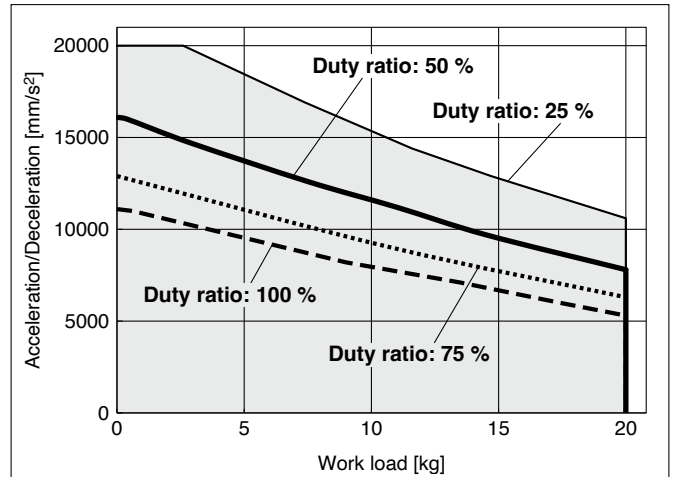
LEJS63□A



LEJS40□B

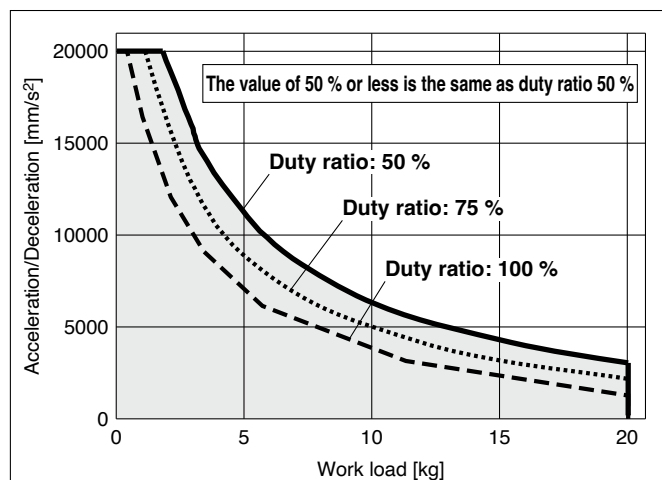


LEJS63□B

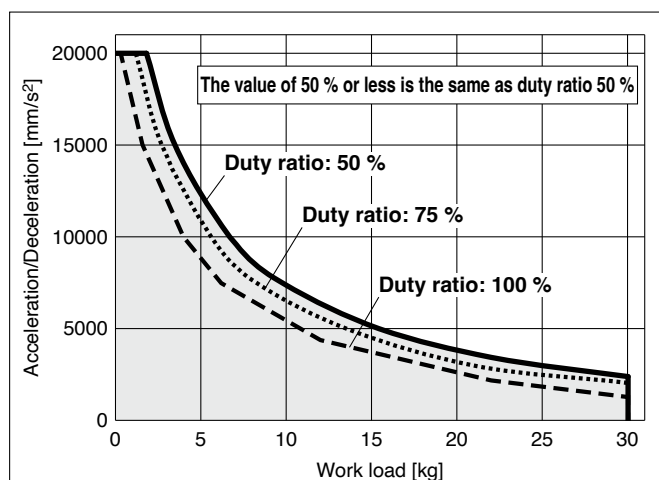


Work Load–Acceleration/Deceleration Graph (Guide)

LEJB40/Belt Drive: Horizontal



LEJB63/Belt Drive: Horizontal



Static Allowable Moment^{*1}

[N·m]

Model	Size	Pitching	Yawing	Rolling
LEJS	40	83.9	88.2	88.2
	63	121.5	135.1	135.1
LEJB	40	83.9	88.2	88.2
	63	121.5	135.1	135.1

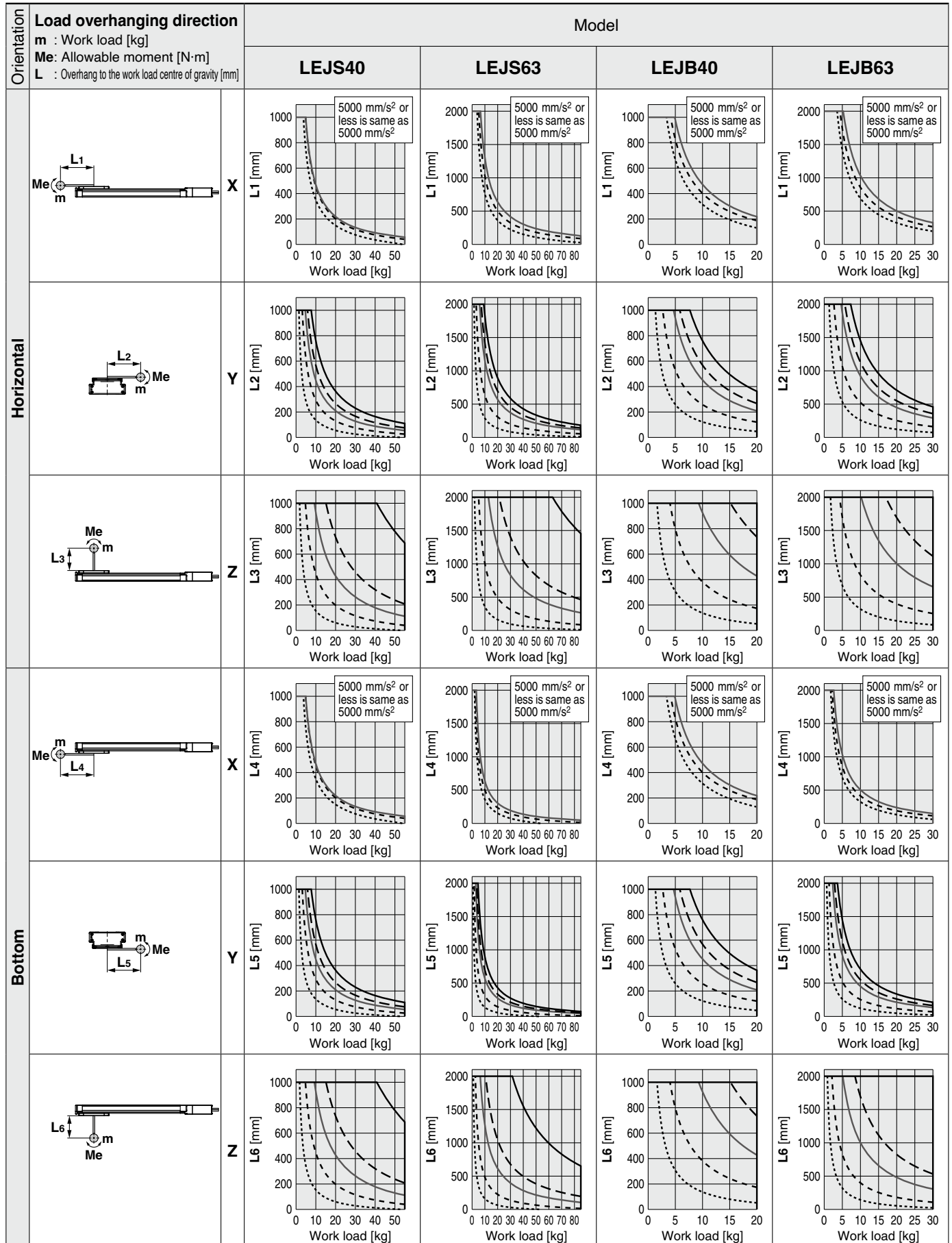
*1 The static allowable moment is the amount of static moment which can be applied to the actuator when it is stopped.

If the product is exposed to impact or repeated load, be sure to take adequate safety measures when using the product.

* These graphs show the amount of allowable overhang (guide unit) when the centre of gravity of the workpiece overhangs in one direction. When selecting the overhang, refer to the "Calculation of Guide Load Factor" or the Electric Actuator Model Selection Software for confirmation: <https://www.smc.eu>

Dynamic Allowable Moment

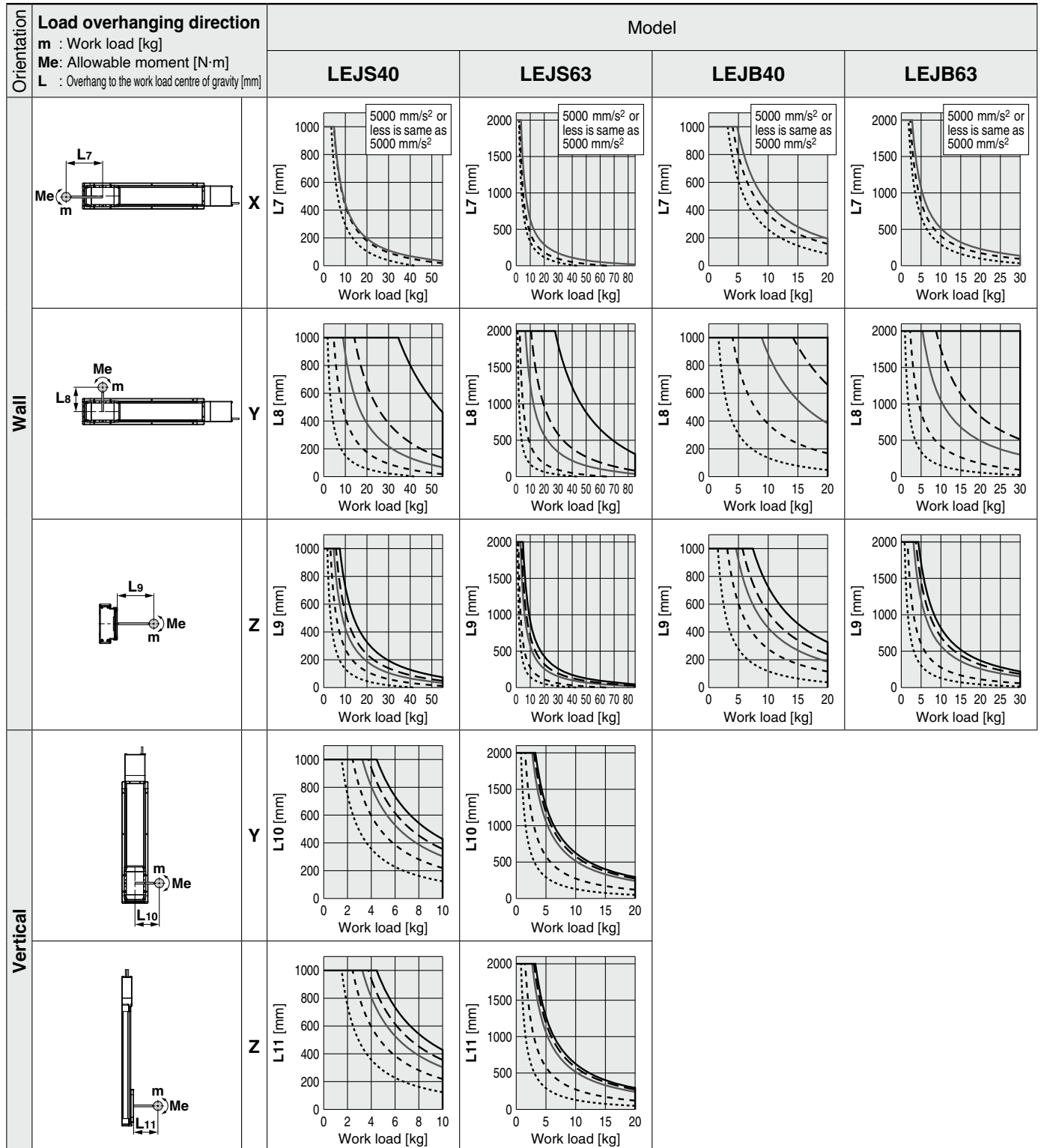
Acceleration/Deceleration ——— 1000 mm/s² --- -3000 mm/s² ——— 5000 mm/s² - - - - 10000 mm/s² 20000 mm/s²



* These graphs show the amount of allowable overhang (guide unit) when the centre of gravity of the workpiece overhangs in one direction. When selecting the overhang, refer to the "Calculation of Guide Load Factor" or the Electric Actuator Model Selection Software for confirmation: <https://www.smc.eu>

Dynamic Allowable Moment

Acceleration/Deceleration ——— 1000 mm/s² --- 3000 mm/s² ——— 5000 mm/s² - - - - 10000 mm/s² 20000 mm/s²



Calculation of Guide Load Factor

1. Decide operating conditions.

Model: LEJS/LEJB

Size: 40/63

Mounting orientation: Horizontal/Bottom/Wall/Vertical

Acceleration [mm/s²]: **a**

Work load [kg]: **m**

Work load centre position [mm]: **Xc/Yc/Zc**

2. Select the target graph while referencing the model, size, and mounting orientation.

3. Based on the acceleration and work load, find the overhang [mm]: **Lx/Ly/Lz** from the graph.

4. Calculate the load factor for each direction.

$$\alpha x = Xc/Lx, \alpha y = Yc/Ly, \alpha z = Zc/Lz$$

5. Confirm the total of αx , αy , and αz is 1 or less.

$$\alpha x + \alpha y + \alpha z \leq 1$$

When 1 is exceeded, please consider a reduction of acceleration and work load, or a change of the work load centre position and series.

Example

1. Operating conditions

Model: LEJS

Size: 40

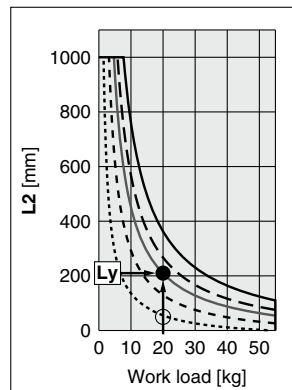
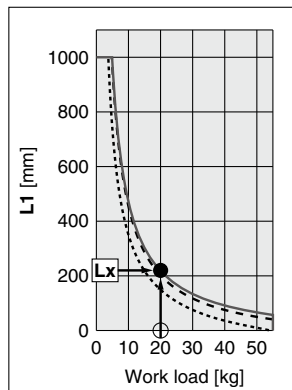
Mounting orientation: Horizontal

Acceleration [mm/s²]: 5000

Work load [kg]: 20

Work load centre position [mm]: **Xc = 0, Yc = 50, Zc = 200**

2. Select the graph on page 14, top and left side first row.



3. **Lx = 220 mm, Ly = 210 mm, Lz = 430 mm**

4. The load factor for each direction can be found as follows.

$$\alpha x = 0/220 = 0$$

$$\alpha y = 50/210 = 0.24$$

$$\alpha z = 200/430 = 0.47$$

5. **$\alpha x + \alpha y + \alpha z = 0.71 \leq 1$**

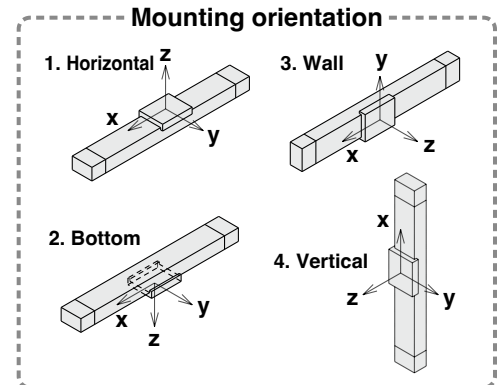
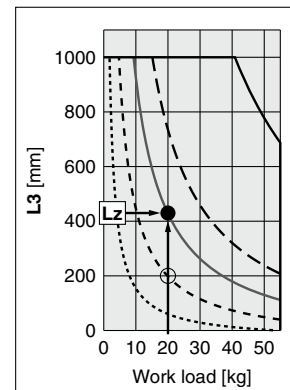
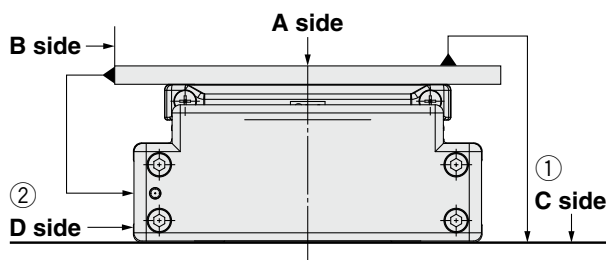


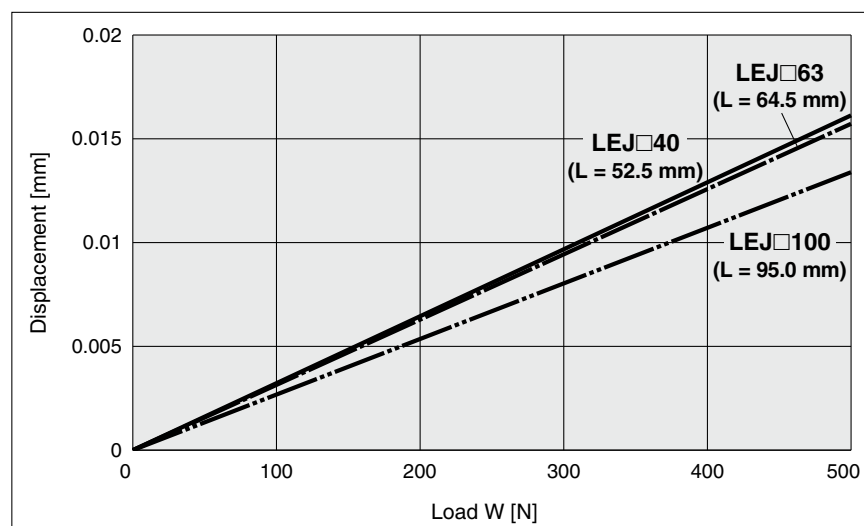
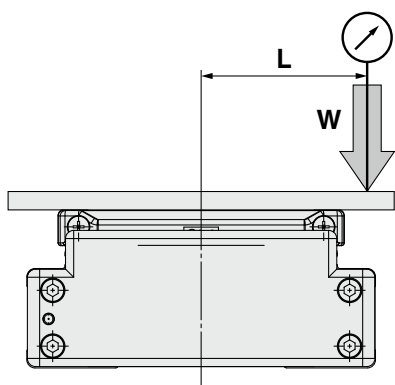
Table Accuracy (Reference Value)



Model	Traveling parallelism [mm] (Every 300 mm)	
	① C side traveling parallelism to A side	② D side traveling parallelism to B side
LEJ□40	0.05	0.03
LEJ□63	0.05	0.03
LEJ□100	0.05	0.04

* Traveling parallelism does not include the mounting surface accuracy.

Table Displacement (Reference Value)



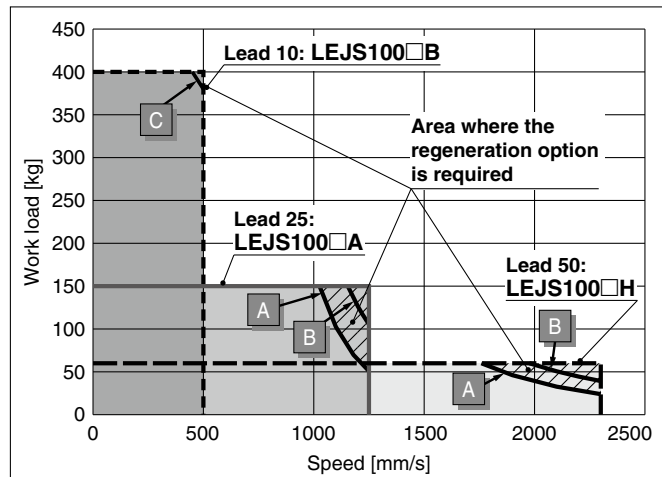
* This displacement is measured when a 15 mm aluminium plate is mounted and fixed on the table. (Table clearance is included.)

Model Selection

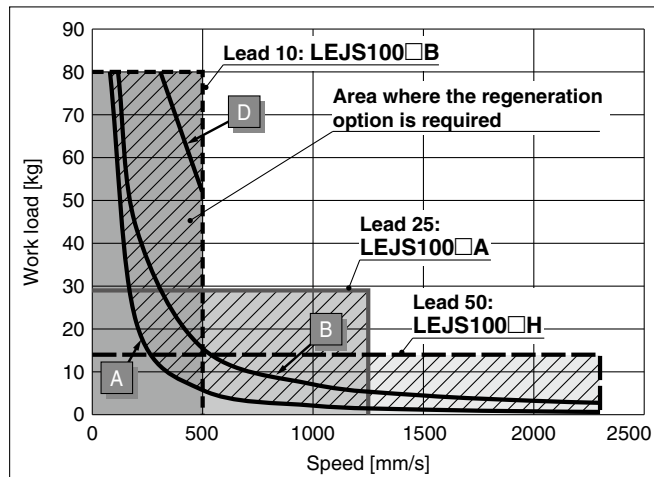


Speed–Work Load Graph/Required Conditions for the Regeneration Option (Guide)

Horizontal



Vertical



Required conditions for the regeneration option

* The regeneration option is required if the product is to be used in the "area beyond the regeneration line (A, B, C, or D)" in the graph. (Order separately.)

Regeneration Option Models

Operating condition	Regenerative condition Duty ratio	Regeneration option
A	100 %	LEC-MR-RB-032
B		
C	80 %	LEC-MR-RB-12
D	65 %	

* Confirm the operating area, and order the regeneration option if needed.

Static Allowable Moment^{*1}

[N·m]

Model	Size	Pitching	Yawing	Rolling
LEJS	100	805	771	939

*1 The static allowable moment is the amount of static moment which can be applied to the actuator when it is stopped.

If the product is exposed to impact or repeated load, be sure to take adequate safety measures when using the product.

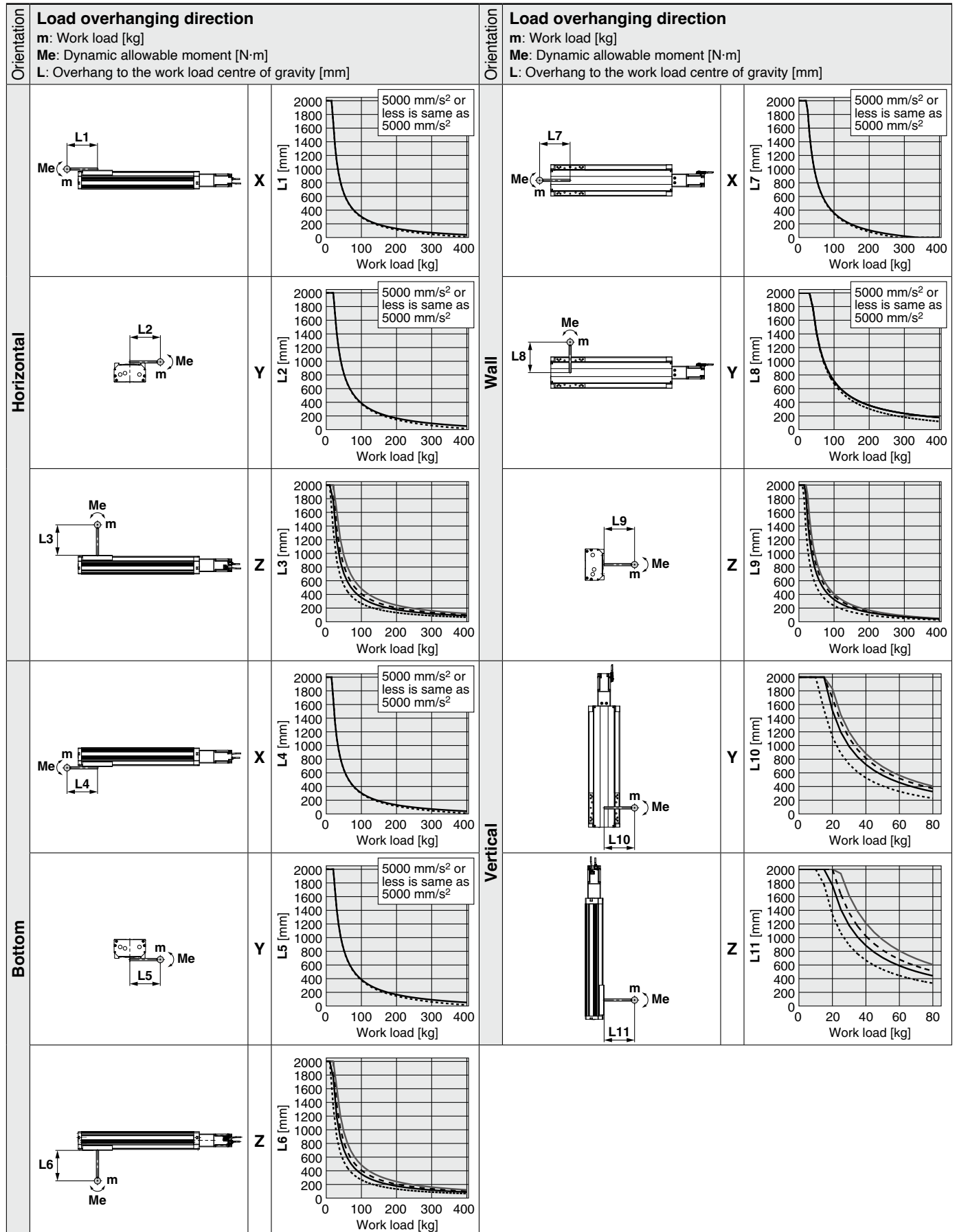
LEJS100-X400

AC Servo Motor

* These graphs show the amount of allowable overhang (guide unit) when the centre of gravity of the workpiece overhangs in one direction. When selecting the overhang, refer to "Calculation of Guide Load Factor" for confirmation.

Dynamic Allowable Moment

Acceleration/Deceleration ——— 1000 mm/s² - - - - 3000 mm/s² ——— 5000 mm/s² ······ 9800 mm/s²



Calculation of Guide Load Factor

1. Decide operating conditions.

Model: LEJS-X400

Size: 100

Mounting orientation: Horizontal/Bottom/Wall/Vertical

Acceleration [mm/s²]: **a**

Work load [kg]: **m**

Work load centre position [mm]: **Xc/Yc/Zc**

2. Select the target graph with reference to the model, size, and mounting orientation.

3. Based on the acceleration and work load, obtain the overhang [mm]: **Lx/Ly/Lz** from the graph.

4. Calculate the load factor for each direction.

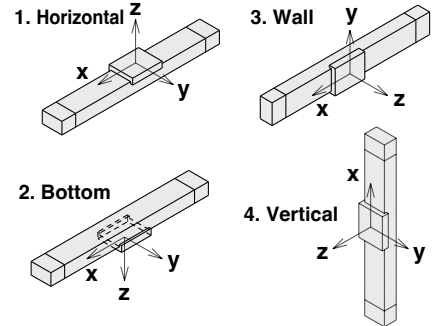
$$\alpha x = Xc/Lx \quad \alpha y = Yc/Ly \quad \alpha z = Zc/Lz$$

5. Confirm the total of αx , αy , and αz is 1 or less.

$$\alpha x + \alpha y + \alpha z \leq 1$$

When 1 is exceeded, please consider a reduction of acceleration and work load, or a change of the work load centre position and series.

Mounting orientation



Example

1. Operating conditions

Model: LEJS-X400

Size: 100

Mounting orientation: Horizontal

Acceleration [mm/s²]: 5000

Work load [kg]: 100

Work load centre position [mm]: **Xc = 50, Yc = 100, Zc = 200**

2. Select the graph on page 19, top and left side first row.

3. **Lx = 300 mm, Ly = 380 mm, Lz = 650 mm**

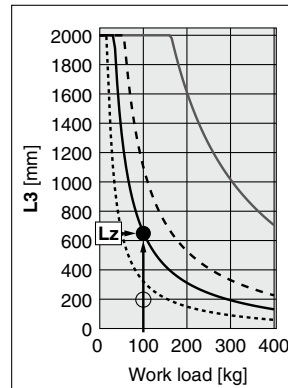
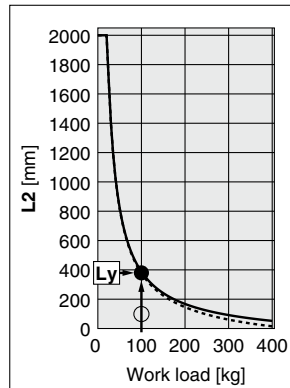
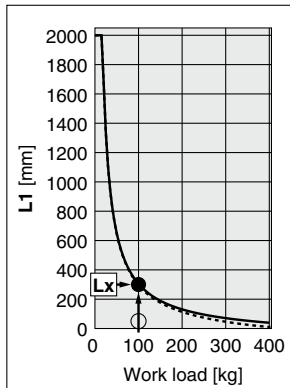
4. The load factor for each direction can be obtained as follows.

$$\alpha x = 50/300 = 0.17$$

$$\alpha y = 100/380 = 0.26$$

$$\alpha z = 200/650 = 0.31$$

5. **$\alpha x + \alpha y + \alpha z = 0.74 \leq 1$**



Model Selection



Selection Procedure

The Cycle Time Graph, Work Load–Acceleration/Deceleration Graph, Dynamic Allowable Moment, Calculation of Guide Load Factor, and Table Accuracy/Displacement are the same as those of the LECS AC servo motor. For details, refer to page 9 and onward.

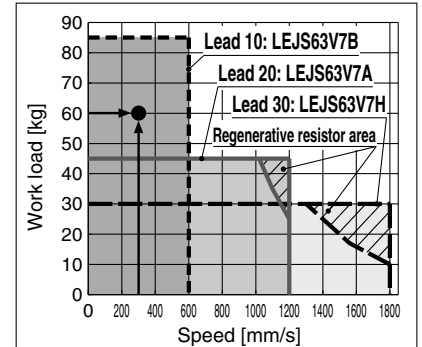
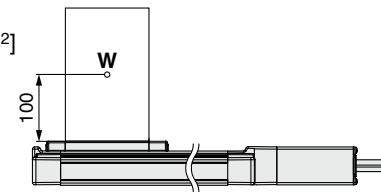


Selection Example

Operating conditions

- Workpiece mass: 60 [kg]
- Speed: 300 [mm/s]
- Acceleration/Deceleration: 3000 [mm/s²]
- Stroke: 300 [mm]
- Mounting orientation: Horizontal
- External force: 10 [N]

• Workpiece mounting condition:



<Speed-Work load graph>
(LEJS63)

Step 1 Check the work load-speed. <Speed-Work load graph> (Page 22)

Select a model based on the workpiece mass and speed while referencing the speed-work load graph. Selection example) The **LEJS63V7B-300** can be temporarily selected as a possible candidate based on the graph shown on the right side.

The regenerative resistor may be necessary.

Refer to page 22 for the "Required Conditions for the Regenerative Resistor (Guide)."

Step 2 Check the cycle time.

Refer to method 1 for a rough estimate, and method 2 for a more precise value.

Method 1: Check the cycle time graph (Pages 9, 10)

The graph is based on the maximum speed of each size.

Method 2: Calculation

Cycle time:

T can be found from the following equation.

$$T = T1 + T2 + T3 + T4 \text{ [s]}$$

- T1 and T3 can be found by the following equation.

$$T1 = V/a1 \text{ [s]} \quad T3 = V/a2 \text{ [s]}$$

The acceleration and deceleration values have upper limits depending on the workpiece mass and the duty ratio.

Check that they do not exceed the upper limit, by referring to "Work Load–Acceleration/Deceleration Graph (Guide)" (Pages 11 to 13).

For the ball screw type, there is an upper limit of the speed depending on the stroke. Check that it does not exceed the upper limit, by referring to the specifications (Page 27).

- T2 can be found from the following equation.

$$T2 = \frac{L - 0.5 \cdot V \cdot (T1 + T3)}{V} \text{ [s]}$$

- T4 varies depending on the motor type and load. The value below is recommended.

$$T4 = 0.05 \text{ [s]}$$

Calculation example)

T1 to T4 can be calculated as follows.

$$T1 = V/a1 = 300/3000 = 0.1 \text{ [s]},$$

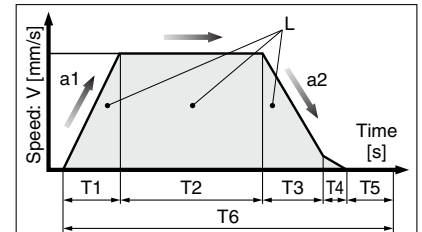
$$T3 = V/a2 = 300/3000 = 0.1 \text{ [s]}$$

$$T2 = \frac{L - 0.5 \cdot V \cdot (T1 + T3)}{V} = \frac{300 - 0.5 \cdot 300 \cdot (0.1 + 0.1)}{300} = 0.90 \text{ [s]}$$

$$T4 = 0.05 \text{ [s]}$$

The cycle time can be found as follows.

$$T = T1 + T2 + T3 + T4 = 0.1 + 0.90 + 0.1 + 0.05 = 1.15 \text{ [s]}$$



L : Stroke [mm]

V : Speed [mm/s]

a1 : Acceleration [mm/s²]

a2 : Deceleration [mm/s²]

T1: Acceleration time [s]

Time until reaching the set speed

T2: Constant speed time [s]

Time while the actuator is operating at a constant speed

T3: Deceleration time [s]

Time from the beginning of the constant speed operation to stop

T4: Settling time [s]

Time until positioning is completed

T5: Resting time [s]

Time the product is not running

T6: Total time [s]

Total time from T1 to T5

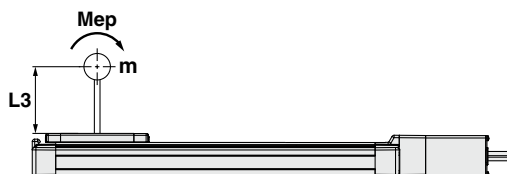
Duty ratio: Ratio of T to T6

$$T \div T6 \times 100$$

Step 3 Check the allowable moment. <Static allowable moment> (Page 13)

<Dynamic allowable moment> (Page 14)

Confirm the moment that applies to the actuator is within the allowable range for both static and dynamic conditions.

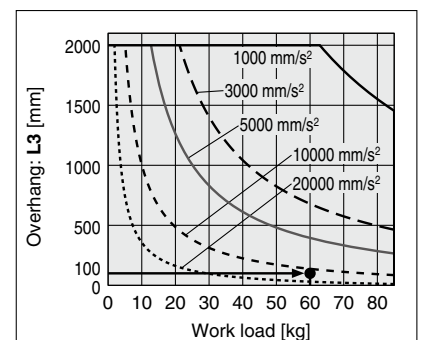


Selection example)

Select the **LEJS63V7B-300** from the graph on the right side.

Confirm that the external force is 20 [N] or less.

(The external force is the resistance due to cable duct, flexible trunking or air tubing.)

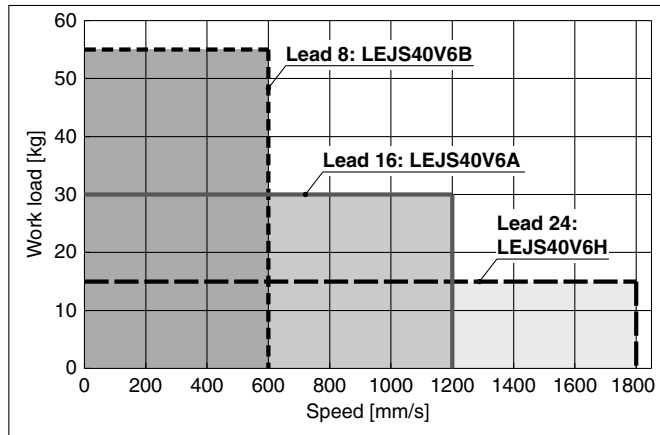


<Dynamic allowable moment>
(LEJS63)

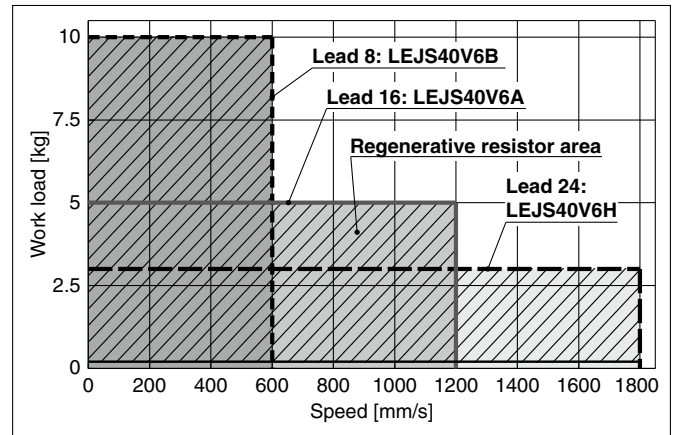
Speed–Work Load Graph/Required Conditions for the Regenerative Resistor (Guide)

LEJS40V6□/Ball Screw Drive

Horizontal

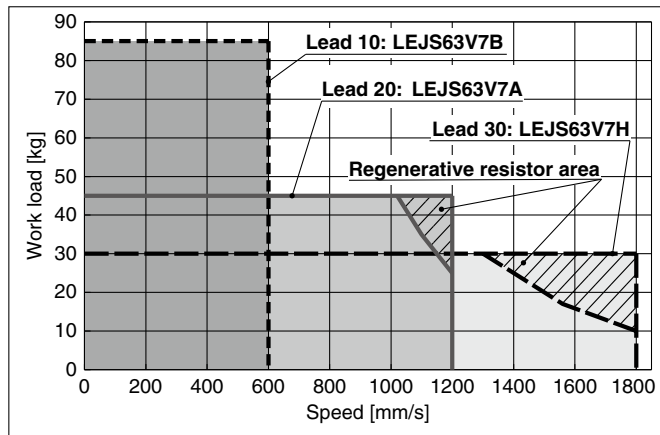


Vertical

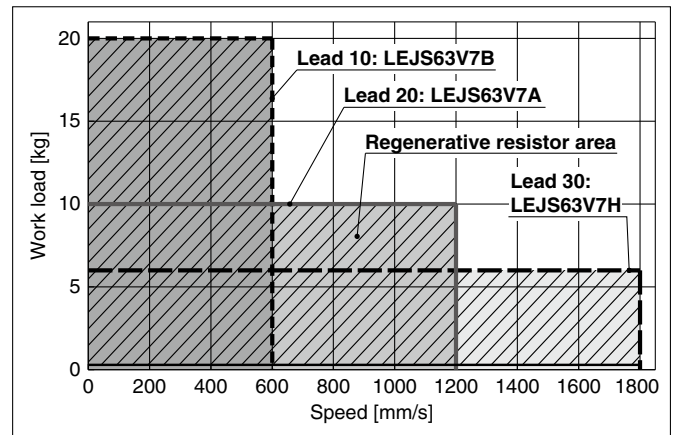


LEJS63V7□/Ball Screw Drive

Horizontal

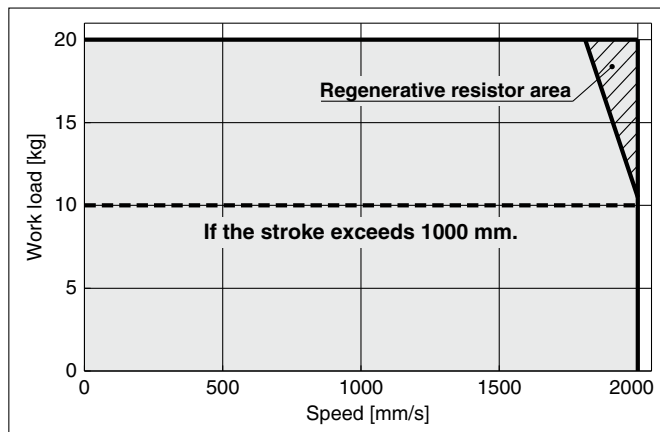


Vertical



LEJB40V6T/Belt Drive

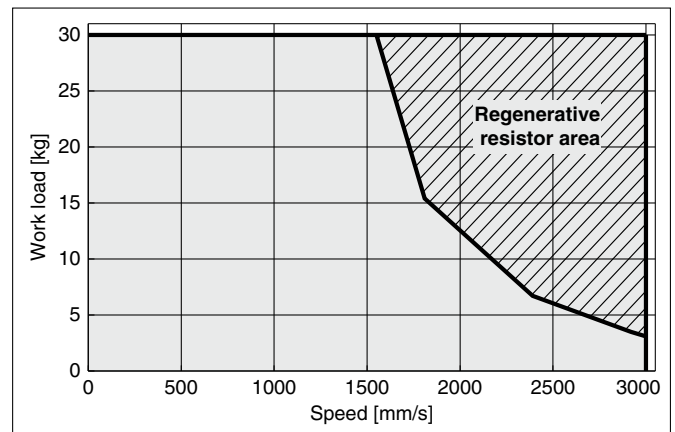
Horizontal



* When the stroke of the LEJB40 series exceeds 1000 mm, the work load is 10 kg.

LEJB63V7T/Belt Drive

Horizontal



Regenerative resistor area

- * When using the actuator in the regenerative resistor area, download the “AC servo capacity selection program/SigmaJunmaSize+” from the SMC website. Then, calculate the necessary regenerative resistor capacity to prepare an appropriate external regenerative resistor.
- * The regenerative resistor should be provided by the customer.

Applicable Motors/Drivers

Model	Applicable model	
	Motor	Servopack (SMC driver)
LEJ□40□	SGMJV-01A3A	SGDV-R90A11□ (LECYM2-V5)
		SGDV-R90A21□ (LECYU2-V5)
LEJ□63□	SGMJV-02A3A	SGDV-1R6A11□ (LECYM2-V7)
		SGDV-1R6A21□ (LECYU2-V7)

High Rigidity Slider Type Ball Screw Drive

LEJS Series



* For details, refer to www.smc.eu

How to Order

LEJS **H** **40** **S2** **A** - **500** □ - □ - □ - □ - □

1 2 3 4 5 6 7 8 9 10

1 Accuracy

—	Basic type
H	High-precision type

2 Size

40
63

4 Lead [mm]

Symbol	LEJS40	LEJS63
H	24	30
A	16	20
B	8	10

5 Stroke [mm]*3

200 to 1500

*3 Refer to the applicable stroke table for details.

6 Motor option

—	Without option
B	With lock

7 Cable type*5 *6 *7

—	Without cable
S	Standard cable
R	Robotic cable

*6 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)

*7 Standard cable entry direction is "(A) Axis side."

8 Cable length [m]*5 *8

—	Without cable
2	2
5	5
A	10

*8 The length of the motor, encoder, and lock cables are the same.

3 Motor type

Symbol	Type	Output [W]	Actuator size	Compatible drivers
S2*1	AC servo motor (Incremental encoder)	100	40	LECSA□-S1
S3		200	63	LECSA□-S3
T6*2	AC servo motor (Absolute encoder)	100	40	LECSB2-T5
				LECS2-T5
				LECSN2-T5-□
				LECSS2-T5
T7		200	63	LECSB2-T7
				LECS2-T7
				LECSN2-T7-□
				LECSS2-T7

*1 For motor type S2, the compatible driver part number suffix is S1.

*2 For motor type T6, the compatible driver part number is LECS□2-T5.

9 Driver type*5

	Compatible drivers	Power supply voltage [V]
—	Without driver	—
A1	LECSA1-S□	100 to 120
A2	LECSA2-S□	200 to 230
B2	LECSB2-T□	200 to 240
C2	LECS2-T□	200 to 230
S2	LECSS2-T□	200 to 240
N2	LECSN2-T5	200 to 240
E2	LECSN2-T5-E	200 to 240
92	LECSN2-T5-9	200 to 240
P2	LECSN2-T5-P	200 to 240
ND2	LECSND2-T□	200 to 240
ED2	LECSND2-T□-E	200 to 240
9D2	LECSND2-T□-9	200 to 240
PD2	LECSND2-T□-P	200 to 240

*5 When a driver type is selected, a cable is included. Select the cable type and cable length.

Example)

S2S2: Standard cable (2 m) + Driver (LECSS2)

S2: Standard cable (2 m)

—: Without cable and driver

* When selecting "T6" for the motor type, select one of the following LECSN□-T series drivers: "N2," "E2," "92," or "P2."

10 I/O cable length*9

—	Without cable
H	Without cable (Connector only)
1	1.5 [m]

*9 When "—: Without driver" is selected for the driver type, only "—: Without cable" can be selected. Refer to the driver catalogue if an I/O cable is required.

Applicable Stroke Table*4

Stroke Model	200	300	400	500	600	700	800	900	1000	1200	1500
LEJS40	●	●	●	●	●	●	●	●	●	●	—
LEJS63	—	●	●	●	●	●	●	●	●	●	●

*4 Please contact SMC for non-standard strokes as they are produced as special orders.

Compatible Drivers

For auto switches, refer to pages 50 to 53.

Driver type	Pulse input type/ Positioning type	Pulse input type	CC-Link direct input type	SSCNET III/H type	Network card type
Series	LECSA	LECSB-T	LECS2-T	LECSS-T	LECSN□-T
Number of point tables*10	Up to 7	Up to 255	Up to 255 (2 stations occupied)	—	Up to 255
Pulse input	○	○	—	—	—
Applicable network	—	—	CC-Link	SSCNET III/H	PROFINET® EtherCAT® EtherNet/IP™
Control encoder	Incremental 17-bit encoder	Absolute 22-bit encoder	Absolute 18-bit encoder	Absolute 22-bit encoder	Absolute 22-bit encoder
Communication function	USB communication	USB communication, RS422 communication	USB communication, RS422 communication	USB communication	USB communication
Power supply voltage [V]	100 to 120 VAC (50/60 Hz) 200 to 230 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)	200 to 230 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)

*10 The LECSN□-T point table mode is only available for PROFINET® and EtherCAT®.

Specifications

Model			LEJS40S2/T6			LEJS63S3/T7			
Actuator specifications	Stroke [mm]*1		200, 300, 400, 500, 600, 700, 800 900, 1000, 1200			300, 400, 500, 600, 700, 800, 900 1000, 1200, 1500			
	Work load [kg]*2		Horizontal	15	30	55	30	45	85
			Vertical	3	5	10	6	10	20
	Speed*3 [mm/s]	Stroke range	Up to 500	1800	1200	600	1800	1200	600
			501 to 600	1580	1050	520	1800	1200	600
			601 to 700	1170	780	390	1800	1200	600
			701 to 800	910	600	300	1390	930	460
			801 to 900	720	480	240	1110	740	370
			901 to 1000	580	390	190	900	600	300
			1001 to 1100	480	320	160	750	500	250
			1101 to 1200	410	270	130	630	420	210
			1201 to 1300	—	—	—	540	360	180
			1301 to 1400	—	—	—	470	310	150
	1401 to 1500	—	—	—	410	270	130		
	Max. acceleration/deceleration [mm/s ²]		20000 (Refer to pages 11 and 12 for limit according to work load and duty ratio.)						
	Positioning repeatability [mm]		Basic type	±0.02					
			High-precision type	±0.01					
	Lost motion [mm]*4		Basic type	0.1 or less					
			High-precision type	0.05 or less					
	Lead [mm]			24	16	8	30	20	10
Impact/Vibration resistance [m/s ²]*5			50/20						
Actuation type			Ball screw						
Guide type			Linear guide						
Static allowable moment*6 [N·m]		Mep (Pitching)	83.9			121.5			
		Mey (Yawing)	88.2			135.1			
		Mer (Rolling)	88.2			135.1			
Operating temperature range [°C]			5 to 40						
Operating humidity range [%RH]			90 or less (No condensation)						
Enclosure			IP30						
Regeneration option			May be required depending on speed and work load. (Refer to Page 8.)						
Electric specifications	Motor output [W]/Size [mm]		100/□40			200/□60			
	Motor type		AC servo motor (100/200 VAC)						
	Encoder*7		Motor type S2, S3: Incremental 17-bit encoder (Resolution: 131072 p/rev) Motor type T6, T7: Absolute 22-bit encoder (Resolution: 4194304 p/rev) (For LECSB-T□, LECS-S-T□) Motor type T6, T7: Absolute 18-bit encoder (Resolution: 262144 p/rev) (For LECS-C-T□)						
	Power [W]*8		Max. power 445			Max. power 725			
Lock unit specifications	Type*9		Non-magnetizing lock						
	Holding force [N]		67	101	203	220	330	660	
	Power consumption at 20 °C [W]		6.3			7.9			
	Rated voltage [V]		24 VDC						

*1 Please contact SMC for non-standard strokes as they are produced as special orders.

*2 For details, refer to the "Speed-Work Load Graph (Guide)" on Page 8.

*3 The allowable speed changes according to the stroke.

*4 A reference value for correcting errors in reciprocal operation

*5 Impact resistance: No malfunction occurred when the actuator was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. The test was performed in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

*6 The static allowable moment is the amount of static moment which can

be applied to the actuator when it is stopped.

If the product is exposed to impact or repeated load, be sure to take adequate safety measures when using the product.

*7 The resolution will change depending on the driver type.

*8 Indicates the max. power during operation (including the driver)

When selecting the power supply capacity, refer to the power supply capacity in the operation manual of each driver.

*9 Only when motor option "With lock" is selected

* Sensor magnet position is located in the table centre. For detailed dimensions, refer to the "Auto Switch Mounting Position" on page 50.

* Do not allow collisions at either end of the table traveling distance. Additionally, when running the positioning operation, do not set within 2 mm of both ends.

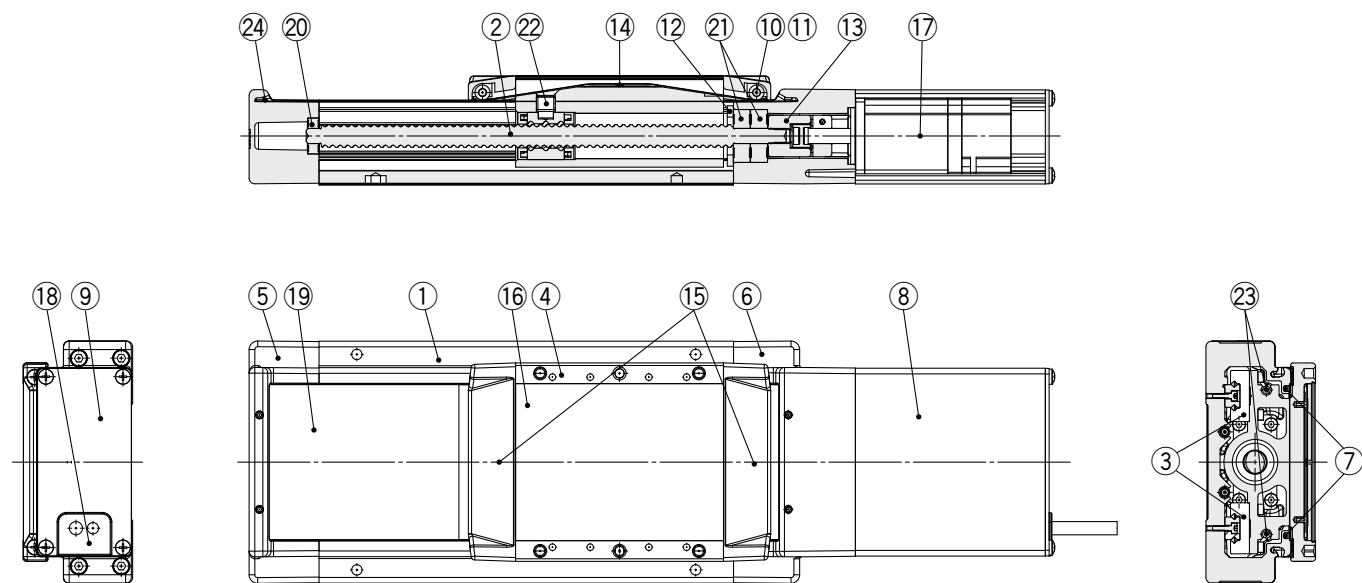
* For the manufacture of intermediate strokes, please contact SMC. (LEJS40/Manufacturable stroke range: 200 to 1200 mm, LEJS63/Manufacturable stroke range: 300 to 1500 mm)

Weight

Model	LEJS40									
Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200
Product weight [kg]	5.6	6.4	7.1	7.9	8.7	9.4	10.2	11.0	11.7	13.3
Additional weight with lock [kg]	S2: 0.2/T6: 0.2									

Model	LEJS63									
Stroke [mm]	300	400	500	600	700	800	900	1000	1200	1500
Product weight [kg]	11.4	12.7	13.9	15.2	16.4	17.7	18.9	20.1	22.6	26.4
Additional weight with lock [kg]	S3: 0.4/T7: 0.4									

Construction



Component Parts

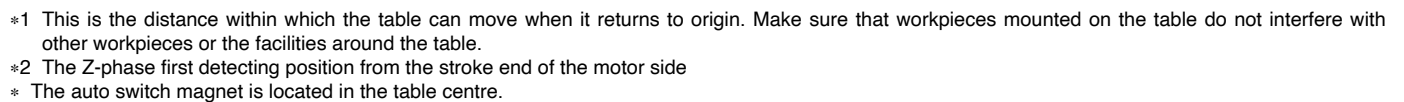
No	Description	Material	Note
1	Body	Aluminium alloy	Anodised
2	Ball screw assembly	—	
3	Linear guide assembly	—	
4	Table	Aluminium alloy	Anodised
5	Housing A	Aluminium alloy	Coating
6	Housing B	Aluminium alloy	Coating
7	Seal magnet	—	
8	Motor cover	Aluminium alloy	Anodised
9	End cover A	Aluminium alloy	Anodised
10	Roller shaft	Stainless steel	
11	Roller	Synthetic resin	
12	Bearing stopper	Carbon steel	

No	Description	Material	Note
13	Coupling	—	
14	Table cap	Synthetic resin	
15	Seal band holder	Synthetic resin	
16	Blanking plate	Aluminium alloy	Anodised
17	Motor	—	
18	Grommet	NBR	
19	Dust seal band	Stainless steel	
20	Bearing	—	
21	Bearing	—	
22	Nut fixing pin	Carbon steel	
23	Magnet	—	
24	Seal band stopper	Stainless steel	

Replacement Parts/Grease Pack

Applied portion	Order no.
Ball screw	GR-S-010 (10 g)
Linear guide	GR-S-020 (20 g)
Dust seal band	

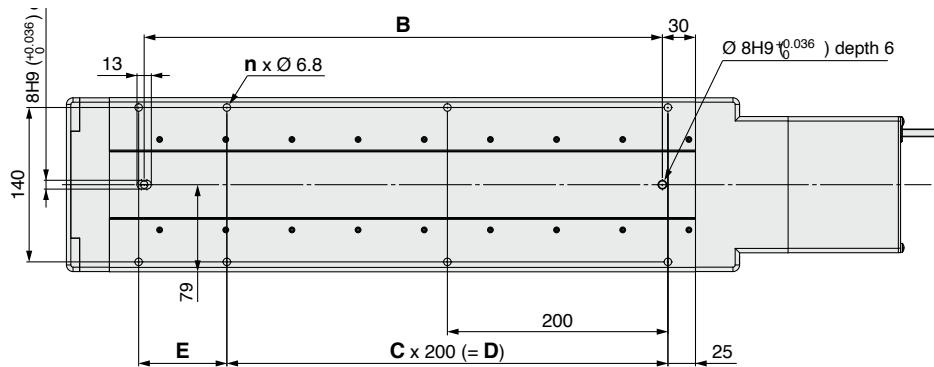
LEJS40



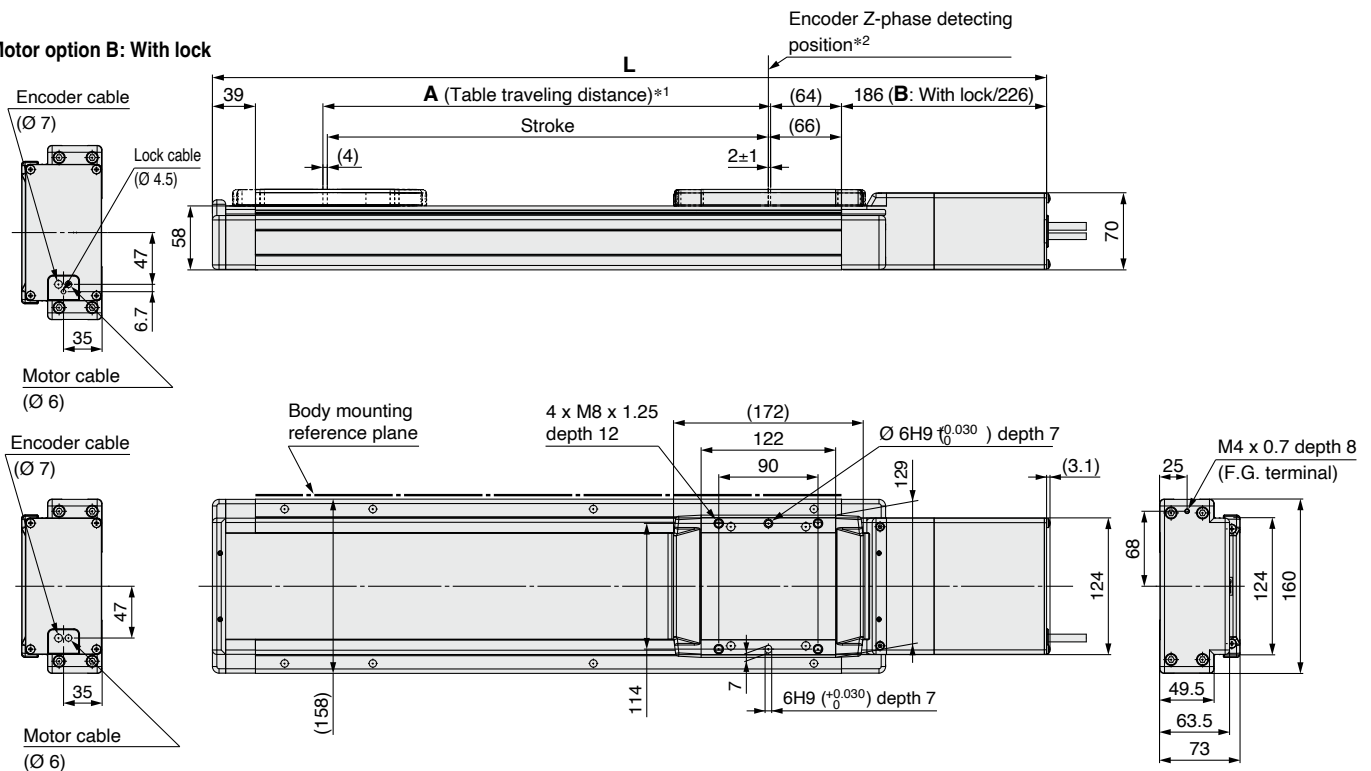
								[mm]
Model	L		A	B	n	C	D	E
	Without lock	With lock						
LEJS□40□□□-200□-□□□□	523.5	563.5	206	260	6	1	200	80
LEJS□40□□□-300□-□□□□	623.5	663.5	306	360	6	1	200	180
LEJS□40□□□-400□-□□□□	723.5	763.5	406	460	8	2	400	80
LEJS□40□□□-500□-□□□□	823.5	863.5	506	560	8	2	400	180
LEJS□40□□□-600□-□□□□	923.5	963.5	606	660	10	3	600	80
LEJS□40□□□-700□-□□□□	1023.5	1063.5	706	760	10	3	600	180
LEJS□40□□□-800□-□□□□	1123.5	1163.5	806	860	12	4	800	80
LEJS□40□□□-900□-□□□□	1223.5	1263.5	906	960	12	4	800	180
LEJS□40□□□-1000□-□□□□	1323.5	1363.5	1006	1060	14	5	1000	80
LEJS□40□□□-1200□-□□□□	1523.5	1563.5	1206	1260	16	6	1200	80

Dimensions: Ball Screw Drive

LEJS63



Motor option B: With lock



*1 This is the distance within which the table can move when it returns to origin. Make sure that workpieces mounted on the table do not interfere with other workpieces or the facilities around the table.

*2 The Z-phase first detecting position from the stroke end of the motor side

* The auto switch magnet is located in the table centre.

Model	L		A	B	n	C	D	E
	Without lock	With lock						
LEJS□63□□□-300□-□□□□	656.5	696.5	306	370	6	1	200	180
LEJS□63□□□-400□-□□□□	756.5	796.5	406	470	8	2	400	80
LEJS□63□□□-500□-□□□□	856.5	896.5	506	570	8	2	400	180
LEJS□63□□□-600□-□□□□	956.5	996.5	606	670	10	3	600	80
LEJS□63□□□-700□-□□□□	1056.5	1096.5	706	770	10	3	600	180
LEJS□63□□□-800□-□□□□	1156.5	1196.5	806	870	12	4	800	80
LEJS□63□□□-900□-□□□□	1256.5	1296.5	906	970	12	4	800	180
LEJS□63□□□-1000□-□□□□	1356.5	1396.5	1006	1070	14	5	1000	80
LEJS□63□□□-1200□-□□□□	1556.5	1596.5	1206	1270	16	6	1200	80
LEJS□63□□□-1500□-□□□□	1856.5	1896.5	1506	1570	18	7	1400	180

High Rigidity Slider Type Ball Screw Drive LEJS63□-□M Series



* For details, refer to
www.smc.eu

RoHS

Please contact SMC for clean room specification and the models compatible with secondary batteries.

How to Order

LEJS **H** **63** **S3** **A** - **790** □ **M** - □ □ □ □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

① Accuracy

—	Basic type
H	High-precision type

② Size

63

③ Motor type

Symbol	Type	Output [W]	Actuator size	Compatible drivers
S3	AC servo motor (Incremental encoder)	200	63	LECSA□-S3
T7	AC servo motor (Absolute encoder)	200	63	LECSB2-T7 LECSC2-T7 LECSND2-T7-□ LECSS2-T7

④ Lead [mm]

H	30
A	20
B	10

⑤ Stroke [mm]*1 ●: Standard ○: Produced upon receipt of order

790	890	990	1190	1490	1790
●	●	○	○	○	○

*1 Please contact SMC for non-standard strokes as they are produced upon receipt of order.

⑥ Motor option

—	Without option
B	With lock

⑦ Built-in intermediate supports

M	Built-in intermediate supports
----------	--------------------------------

⑧ Cable type*2 *3

—	Without cable
S	Standard cable
R	Robotic cable

*2 When a driver type is selected, a cable is included. Select the cable type and cable length. Example)

S2S2: Standard cable (2 m) + Driver (LECSS2)

S2: Standard cable (2 m)

—: Without cable and driver

*3 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)

⑨ Cable length*2 *4

—	Without cable
2	2
5	5
A	10

*4 The length of the motor, encoder, and lock cables are the same.

⑪ I/O connector*5

—	Without cable
H	Without cable (Connector only)
1	1.5 [m]

*5 When "—: Without driver" is selected, only "—: Without cable" can be selected.

⑩ Driver type*2

Symbol	Compatible drivers	Power supply voltage [V]
—	Without driver	—
A1	LECSA1-S□	100 to 120
A2	LECSA2-S□	200 to 230
B2	LECSB2-T□	200 to 240
C2	LECSC2-T□	200 to 230
S2	LECSS2-T□	200 to 240
ND2	LECSND2-T□	200 to 240
ED2	LECSND2-T□-E	200 to 240
9D2	LECSND2-T□-9	200 to 240
PD2	LECSND2-T□-P	200 to 240

Compatible Drivers

For auto switches, refer to pages 50 to 53.

Driver type	Pulse input type/ Positioning type	Pulse input type	CC-Link direct input type	SSCNET□/H type	Network card type
Series	LECSA	LECSB-T	LECSC-T	LECST	LECSN□-T
Number of point tables*6	Up to 7	Up to 255	Up to 255 (2 stations occupied)	—	Up to 255
Pulse input	○	○	—	—	—
Applicable network	—	—	CC-Link	SSCNET□/H	PROFINET® EtherCAT® EtherNet/IP™
Control encoder	Incremental 17-bit encoder	Absolute 22-bit encoder	Absolute 18-bit encoder	Absolute 22-bit encoder	Absolute 22-bit encoder
Communication function	USB communication	USB communication, RS422 communication	USB communication, RS422 communication	USB communication	USB communication
Power supply voltage [V]	100 to 120 VAC (50/60 Hz) 200 to 230 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)	200 to 230 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)

*6 The LECSN□-T point table mode is only available for PROFINET® and EtherCAT®.

LEJS63□-□M Series

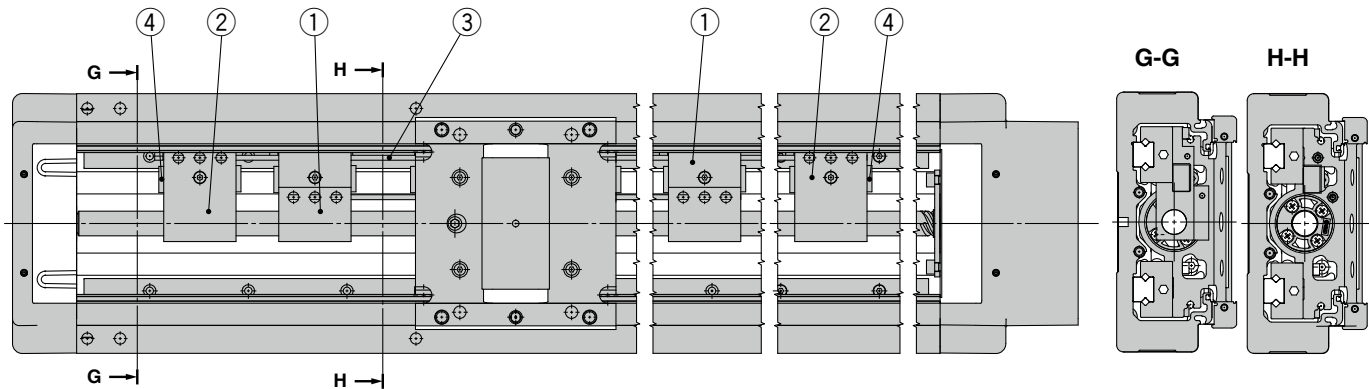
Specifications

Lead [mm]		30	20	10	
Work load [kg]	Horizontal		30	45	85
	Vertical		6	10	20
Speed [mm/s]	Stroke range	790	1800	1200	600
		890			
		990			
		1190			
		1490			
		1790			

For the model selection method, refer to page 7. Other specifications that are not listed are the same as those of the standard product. Refer to Page 24 for details.

Construction

Top view of actuator (Shown with the dust seal band removed)

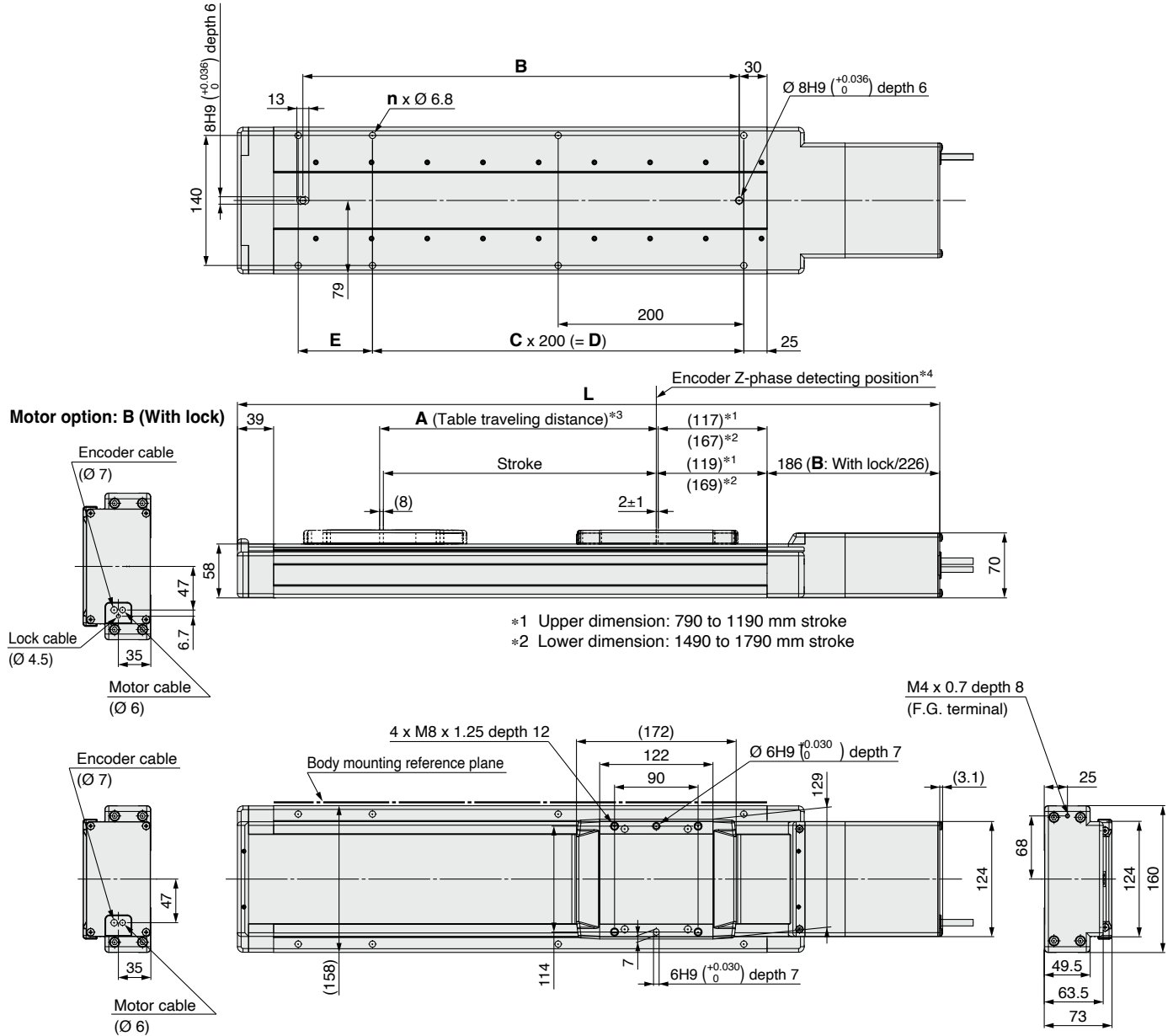


Component Parts

No.	Description	Material
1	Support A	Synthetic resin
2	Support B	Synthetic resin
3	Connection pipe	Stainless steel
4	Bumper	Low-elasticity rubber

Dimensions: Ball Screw Drive

AC servo motor



*3 This is the distance within which the table can move when it returns to origin. Make sure that workpieces mounted on the table do not interfere with other workpieces or the facilities around the table.

*4 The Z-phase first detecting position from the stroke end of the motor side

* The auto switch magnet is located in the table centre.

⚠ Caution

- During operation, the intermediate support mechanism emits a collision noise due to the structure.
- Compared to the standard product, the entire length of the product will be longer for each stroke. For details, refer to the dimensions.
- The stopper type origin position return method cannot be used as the return to origin method (due to the bumper as shown in Construction ④).

Dimensions and Weight

Model	L		A	B	n	C	D	E	Product weight*1 [kg]
	Without lock	With lock							
LEJS□63□□-790□M-□□□□	1256.5	1296.5	800	970	12	4	800	180	19.4
LEJS□63□□-890□M-□□□□	1356.5	1396.5	900	1070	14	5	1000	80	20.7
LEJS□63□□-990□M-□□□□	1456.5	1496.5	1000	1170	14	5	1000	180	21.9
LEJS□63□□-1190□M-□□□□	1656.5	1696.5	1200	1370	16	6	1200	180	24.4
LEJS□63□□-1490□M-□□□□	2056.5	2096.5	1500	1770	20	8	1600	180	29.9
LEJS□63□□-1790□M-□□□□	2356.5	2396.5	1800	2070	24	10	2000	80	33.7

*1 When using a lock, add 0.4 (incremental encoder) or 0.7 (absolute encoder).

High Rigidity Slider Type Ball Screw Drive LEJS100-X400



* For details, refer to
www.smc.eu

How to Order

LEJS100 T9 B - 500 T - - - - - X400

Motor type: AC servo motor
(Absolute encoder) 750 W

• With top cover type

1 Lead [mm]

H	50
A	25
B	10

2 Stroke [mm]*1

200
to
1500

*1 Refer to the
applicable stroke
table for details.

Applicable Stroke Table*2

●: Standard

Stroke [mm]	200	300	400	500	600	800	1000	1200	1500
Model									
LEJS100	●	●	●	●	●	●	●	●	●

*2 Please contact SMC for non-standard strokes as they
are produced as special orders.

3 Motor option

—	Without option
B	With lock

4 Cable type*3 *4

—	Without cable
S	Standard cable
R	Robotic cable

*3 When a driver type is selected, a cable is included.
Select the cable type and cable length.

Example)

S2B2 : Standard cable (2 m) + Driver (LECSB2)

S2 : Standard cable (2 m)

— : Without cable and driver

*4 A motor cable and encoder cable are included with the
product. (A lock cable is also included if motor option
“B: With lock” is selected.)

5 Cable length [m]*5

—	Without cable
2	2
5	5
A	10

*5 The length of the motor, encoder, and lock cables are
the same.

6 Driver type*3

	Compatible driver Model	Power supply voltage [V]	Control method
—	Without driver	—	—
B2	LECSB2-T9	200 to 240	Pulse input/Point table
C2	LECSC2-T9	200 to 230	CC-Link
S2	LECSS2-T9	200 to 240	SSCNET III/H
ND2	LECSND2-T9	200 to 240	Without network card type
ED2	LECSND2-T9-E	200 to 240	EtherCAT®
9D2	LECSND2-T9-9	200 to 240	EtherNet/IP
PD2	LECSND2-T9-P	200 to 240	PROFINET®

7 I/O cable length [m]*6

—	Without cable
H	Connector only
1	1.5

*6 When “—: Without driver” is selected for the driver
type, only “—: Without cable” can be selected.

Compatible Drivers

For auto switches, refer to pages 50 to 53.

Driver type	Pulse input type	CC-Link direct input type	SSCNET III/H type	Network card type
Series	LECSB-T	LECSC-T	LECSS-T	LECSN□-T
Number of point tables*7	Up to 255	Up to 255 (2 stations occupied)	—	Up to 255
Pulse input	○	—	—	—
Applicable network	—	CC-Link	SSCNET III/H	PROFINET®/EtherCAT®/EtherNet/IP™
Control encoder	Absolute 22-bit encoder	Absolute 18-bit encoder	Absolute 22-bit encoder	Absolute 22-bit encoder
Communication function	USB communication, RS422 communication	USB communication, RS422 communication	USB communication	USB communication
Power supply voltage [V]	200 to 240 VAC (50/60 Hz)	200 to 230 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)

*7 The LECSN□-T point table mode is only available for PROFINET® and EtherCAT®.

Specifications

Actuator specifications	Stroke [mm]*1			200, 300, 400, 500, 600, 800, 1000, 1200, 1500		
	Lead [mm]			50	25	10
	Work load*2 [kg]	Horizontal	3000 (mm/s²)	60	150	400
			5000 (mm/s²)	43	93	150
			10000 (mm/s²)	22	36	—
		Vertical	3000 (mm/s²)	14	29	80
			5000 (mm/s²)	12	29	30
			10000 (mm/s²)	8	9	—
	Max. speed*3 [mm/s]	Stroke range	200 to 800	2300	1250	500
			1000	1600	800	320
			1200	1200	600	240
			1500	900	450	180
	Max. acceleration/deceleration [mm/s²]			10000		
	Positioning repeatability [mm]			±0.01		
	Lost motion [mm]*4			0.05 or less		
	Impact/Vibration resistance [m/s²]*5			50/20		
	Actuation type			Ball screw		
	Guide type			Linear guide		
	Static allowable moment*6 [N·m]	Mep (Pitching)		805		
		Mey (Yawing)		771		
		Mer (Rolling)		939		
	Operating temperature range [°C]			5 to 40		
	Operating humidity range [%RH]			90 or less (No condensation)		
Enclosure			IP30			
Regeneration option			May be required depending on speed and work load. (Refer to page 18.)			
Electric specifications	Motor output [W]/Size [mm]		750□80			
	Motor type		AC servo motor (200 VAC)			
	Encoder		Absolute 22-bit encoder (Resolution: 4194304 p/rev)			
	Power [W]*7		Max. power 1100			
Lock unit specifications	Type*8		Non-magnetizing lock			
	Holding force [N]		240	480	1200	
	Power consumption [W] at 20 °C		10			
	Rated voltage [V]		24 VDC ⁰ _{-10 %}			

*1 Strokes other than those listed in the table above are available as special orders. Please contact SMC for further details.

*2 For details, refer to the "Speed-Work Load Graph (Guide)" on page 18.

*3 The allowable speed changes according to the stroke.

*4 A reference value for correcting errors in reciprocal operation

*5 Impact resistance: No malfunction occurred when the actuator was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. The test was performed in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

*6 The static allowable moment is the amount of static moment which can be applied to the actuator when it is stopped.

If the product is exposed to impact or repeated load, be sure to take adequate safety measures when using the product.

*7 Indicates the max. power during operation (including the driver)

When selecting the power supply capacity, refer to the power supply capacity in the operation manual of each driver.

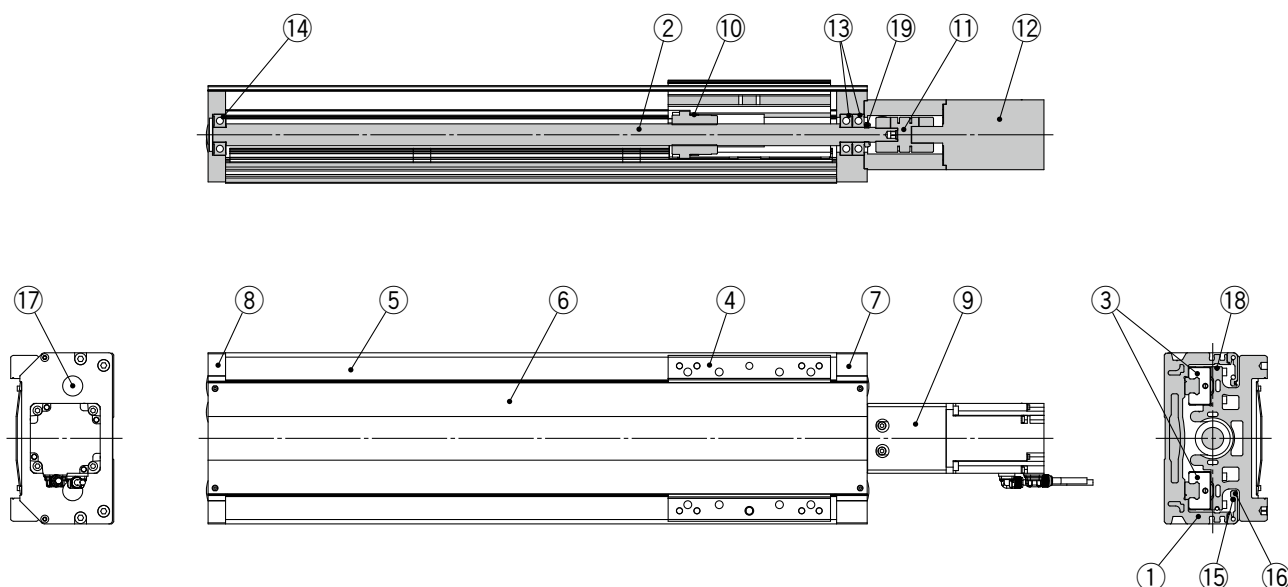
*8 Only when motor option "With lock" is selected

* Do not allow collisions at either end of the table traveling distance. Additionally, when running the positioning operation, do not set within 7 mm of both ends.

LEJS100-X400

AC Servo Motor

Construction



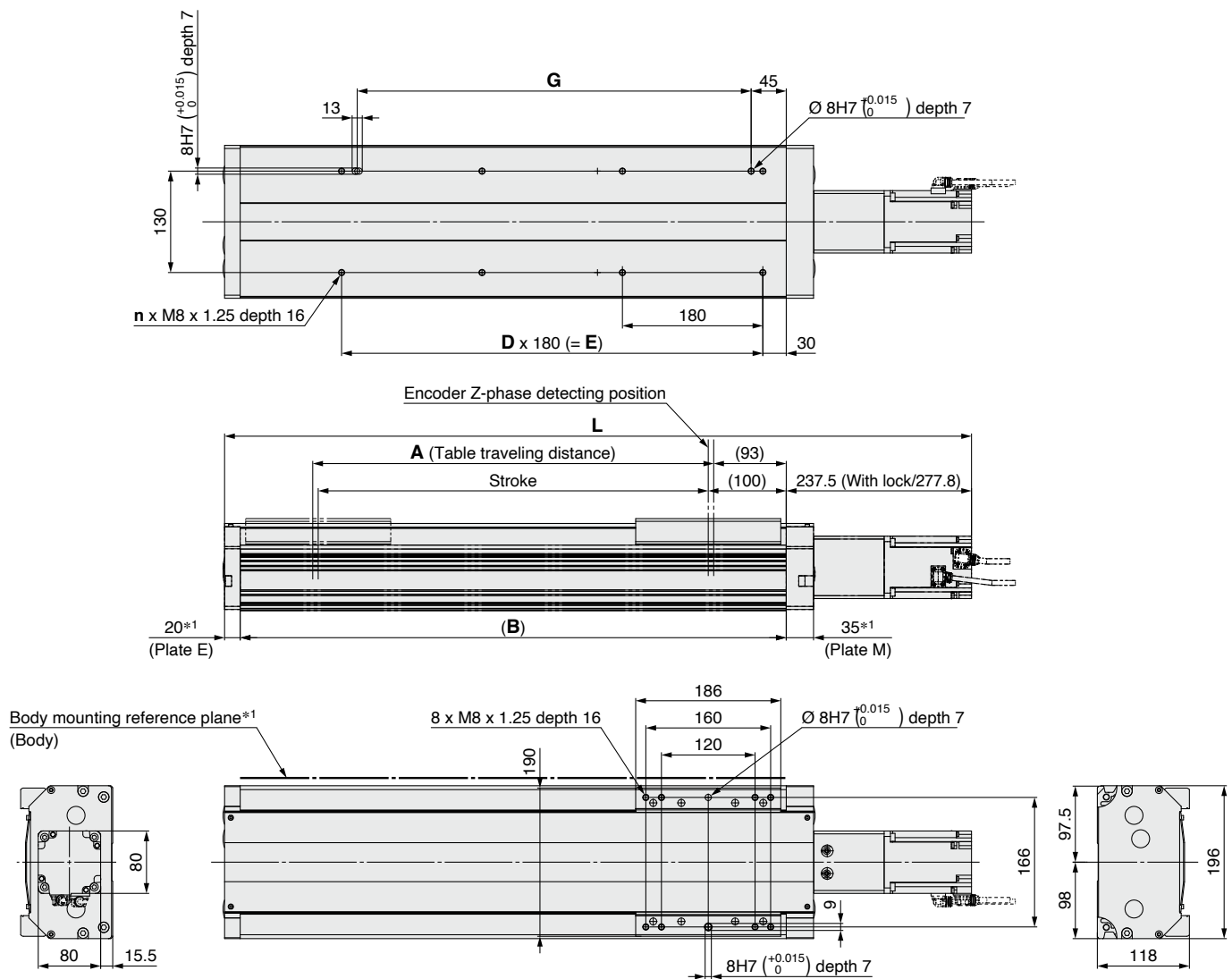
Component Parts

No.	Description	Material	Note
1	Body	Aluminium alloy	Anodised
2	Ball screw assembly	—	
3	Linear guide assembly	—	
4	Table	Aluminium alloy	Anodised
5	Side cover	Aluminium alloy	Anodised
6	Dust cover	Aluminium alloy	Anodised
7	Plate M	Aluminium alloy	Anodised
8	Plate E	Aluminium alloy	Anodised
9	Motor block	Aluminium alloy	Anodised
10	Spacer	Aluminium alloy	"Lead: H" only
11	Coupling	—	
12	Motor	—	
13	Bearing	—	
14	Bearing	—	
15	Pin	Carbon steel	
16	Pin	Carbon steel	
17	Cap	Polyethylene	
18	Magnet	—	
19	Lock nut	—	

Replacement Parts/Grease Pack

Applied portion	Order no.
Ball screw	GR-S-010 (10 g)
Linear guide portion	GR-S-020 (20 g)

Dimensions: Ball Screw Drive



*1 When mounting the actuator using the body mounting reference plane, set the height of the opposite surface or pin to be 5 mm or more. (Recommended height: 6 mm)

The surfaces of plates M and E on the ends of the product may slightly protrude from the body mounting reference plane (Body/B dimension range). Be sure to provide a clearance of 1 mm or more to avoid interference.

* Please contact SMC for adjusting the Z-phase detecting position at the stroke end of the end side.

Dimensions and Weight

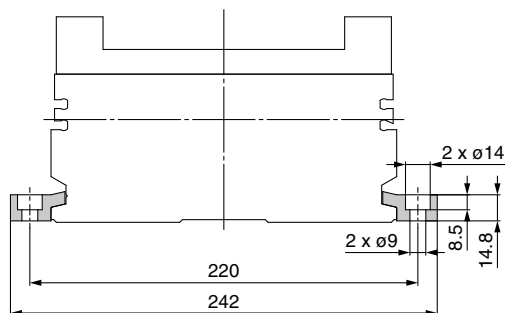
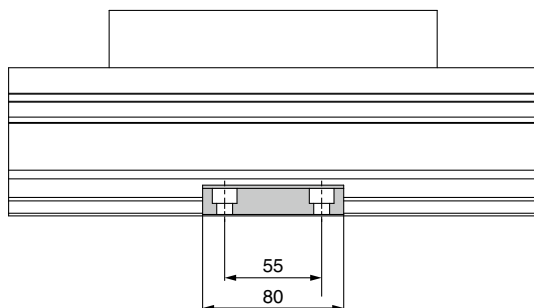
Model	L		A	B	n	D	E	G	Weight [kg]	
	Without lock	With lock							Without lock	With lock
LEJS100T9□-200□T-□□□□-X400	657.5	697.8	214	400	6	2	360	325	20.4	21.4
LEJS100T9□-300□T-□□□□-X400	757.5	797.8	314	500	6	2	360	325	22.5	23.5
LEJS100T9□-400□T-□□□□-X400	857.5	897.8	414	600	8	3	540	505	24.6	25.6
LEJS100T9□-500□T-□□□□-X400	957.5	997.8	514	700	8	3	540	505	26.7	27.7
LEJS100T9□-600□T-□□□□-X400	1057.5	1097.8	614	800	10	4	720	685	28.8	29.8
LEJS100T9□-800□T-□□□□-X400	1257.5	1297.8	814	1000	12	5	900	865	33.0	34.0
LEJS100T9□-1000□T-□□□□-X400	1457.5	1497.8	1014	1200	14	6	1080	1045	37.1	38.1
LEJS100T9□-1200□T-□□□□-X400	1657.5	1697.8	1214	1400	16	7	1260	1225	41.3	42.3
LEJS100T9□-1500□T-□□□□-X400	1957.5	1997.8	1514	1700	20	9	1620	1585	47.6	48.6

LEJS100-X400

AC Servo Motor

Side Supports

Side supports: MY-S50A



* The side supports consist of a set of right and left brackets.

Usage Guide for Side Supports

When mounting with the side supports, be sure to use the number of side supports (N) and the support spacing (L1) shown in the figure and table below as a guide.



* Number of side supports: N is the combined number of left and right supports.

Stroke	N (Qty.)	L1 [mm]	Screw size	Max. tightening torque [N·m]
200	6	15	M8 x 1.25	12.5
300	6			
400	6			
500	6			
600	8			
800	8			
1000	10			
1200	10			
1500	14			

- Secure the side supports using the support spacing (L) in the table above.
- When mounting with the side supports, use in combination with the pin on the bottom of the body.
- For vertical or bottom mounting, please refrain from using only the side supports.

High Rigidity Slider Type Ball Screw Drive

LEJS Series LEJS40, 63



* For details, refer to
www.smc.eu

Please contact SMC for clean room specification and the models compatible with secondary batteries.

How to Order

LEJS H 40 V6 A - 500 - - - -

1 2 3 4 5 6 7 8 9 10

1 Accuracy

—	Basic type
H	High-precision type

2 Size

40
63

3 Motor type*1

Symbol	Type	Output [W]	2 Size	9 Driver type	Compatible drivers
V6	AC servo motor (Absolute encoder)	100	40	M2	LECYM2-V5
				U2	LECYU2-V5
V7		200	63	M2	LECYM2-V7
				U2	LECYU2-V7

*1 For motor type V6, the compatible driver part number suffix is V5.

4 Lead [mm]

Symbol	LEJS40	LEJS63
H	24	30
A	16	20
B	8	10

5 Stroke [mm]*2

200
to
1500

*2 Refer to the applicable stroke table for details.

6 Motor option

—	Without option
B	With lock

7 Cable type*4 *5

—	Without cable
S	Standard cable
R	Robotic cable

*5 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)

8 Cable length [m]*4 *6

—	Without cable
3	3
5	5
A	10
C	20

*6 The length of the motor, encoder, and lock cables are the same.

*4 When a driver type is selected, a cable is included. Select the cable type and cable length.

9 Driver type*4

	Compatible drivers	Power supply voltage [V]
—	Without driver	—
M2	LECYM2-V□	200 to 230
U2	LECYU2-V□	200 to 230

10 I/O cable length*7

—	Without cable
H	Without cable (Connector only)
1	1.5 [m]

*7 When "—: Without driver" is selected for the driver type, only "—: Without cable" can be selected. Refer to the driver catalogue if an I/O cable is required.

Applicable Stroke Table*3

●: Standard

Model \ Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200	1500
LEJS40	●	●	●	●	●	●	●	●	●	●	—
LEJS63	—	●	●	●	●	●	●	●	●	●	●

*3 Please contact SMC for non-standard strokes as they are produced as special orders.

For auto switches, refer to pages 50 to 53.

Compatible Drivers

Driver type	MECHATROLINK-II type	MECHATROLINK-III type
Series	LECYM	LECYU
Applicable network	MECHATROLINK-II	MECHATROLINK-III
Control encoder	Absolute 20-bit encoder	
Communication device	USB communication, RS-422 communication	
Power supply voltage [V]	200 to 230 VAC (50/60 Hz)	

Specifications

AC Servo Motor (100/200 W)

Model			LEJS40V6			LEJS63V7			
Actuator specifications	Stroke [mm]*1		200, 300, 400, 500, 600, 700, 800 900, 1000, 1200			300, 400, 500, 600, 700, 800, 900 1000, 1200, 1500			
	Work load [kg]*2		Horizontal	15	30	55	30	45	85
			Vertical	3	5	10	6	10	20
	Speed*3 [mm/s]	Stroke range	Up to 500	1800	1200	600	1800	1200	600
			501 to 600	1580	1050	520	1800	1200	600
			601 to 700	1170	780	390	1800	1200	600
			701 to 800	910	600	300	1390	930	460
			801 to 900	720	480	240	1110	740	370
			901 to 1000	580	390	190	900	600	300
			1001 to 1100	480	320	160	750	500	250
			1101 to 1200	410	270	130	630	420	210
			1201 to 1300	—	—	—	540	360	180
			1301 to 1400	—	—	—	470	310	150
	1401 to 1500	—	—	—	410	270	130		
	Max. acceleration/deceleration [mm/s ²]		20000 (Refer to pages 11 and 12 for limit according to work load and duty ratio.)						
	Positioning repeatability [mm]		Basic type	±0.02					
			High-precision type	±0.01					
	Lost motion [mm]*4		Basic type	0.1 or less					
			High-precision type	0.05 or less					
	Lead [mm]		24	16	8	30	20	10	
Impact/Vibration resistance [m/s ²]*5		50/20							
Actuation type		Ball screw							
Guide type		Linear guide							
Static allowable moment*6 [N·m]		Mep (Pitching)	83.9			121.5			
		Mey (Yawing)	88.2			135.1			
		Mer (Rolling)	88.2			135.1			
Operating temperature range [°C]		5 to 40							
Operating humidity range [%RH]		90 or less (No condensation)							
Enclosure		IP30							
Regenerative resistor		May be required depending on speed and work load. (Refer to page 22.)							
Electric specifications	Motor output [W]/Size [mm]		100/□40			200/□60			
	Motor type		AC servo motor (200 VAC)						
	Encoder		Absolute 20-bit encoder (Resolution: 1048576 p/rev)						
	Power [W]*7		Max. power 445			Max. power 725			
Lock unit specifications	Type*8		Non-magnetizing lock						
	Holding force [N]		67	101	202	108	162	324	
	Power consumption at 20 °C [W]		5.5			6			
	Rated voltage [V]		24 VDC ^{+10%} ₀						

*1 Please contact SMC for non-standard strokes as they are produced as special orders.

*2 Check the "Speed-Work Load Graph (Guide)" on page 22.

*3 The allowable speed changes according to the stroke.

*4 A reference value for correcting errors in reciprocal operation

*5 Impact resistance: No malfunction occurred when the actuator was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. The test was performed in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

*6 The static allowable moment is the amount of static moment which can

be applied to the actuator when it is stopped.

If the product is exposed to impact or repeated load, be sure to take adequate safety measures when using the product.

*7 Indicates the max. power during operation (including the driver)

When selecting the power supply capacity, refer to the power supply capacity in the operation manual of each driver.

*8 Only when motor option "With lock" is selected

* Sensor magnet position is located in the table centre. For detailed dimensions, refer to the "Auto Switch Mounting Position."

* Do not allow collisions at either end of the table traveling distance. Additionally, when running the positioning operation, do not set within 2 mm of both ends.

* For the manufacture of intermediate strokes, please contact SMC. (LEJS40/Manufacturable stroke range: 200 to 1200 mm, LEJS63/Manufacturable stroke range: 300 to 1500 mm)

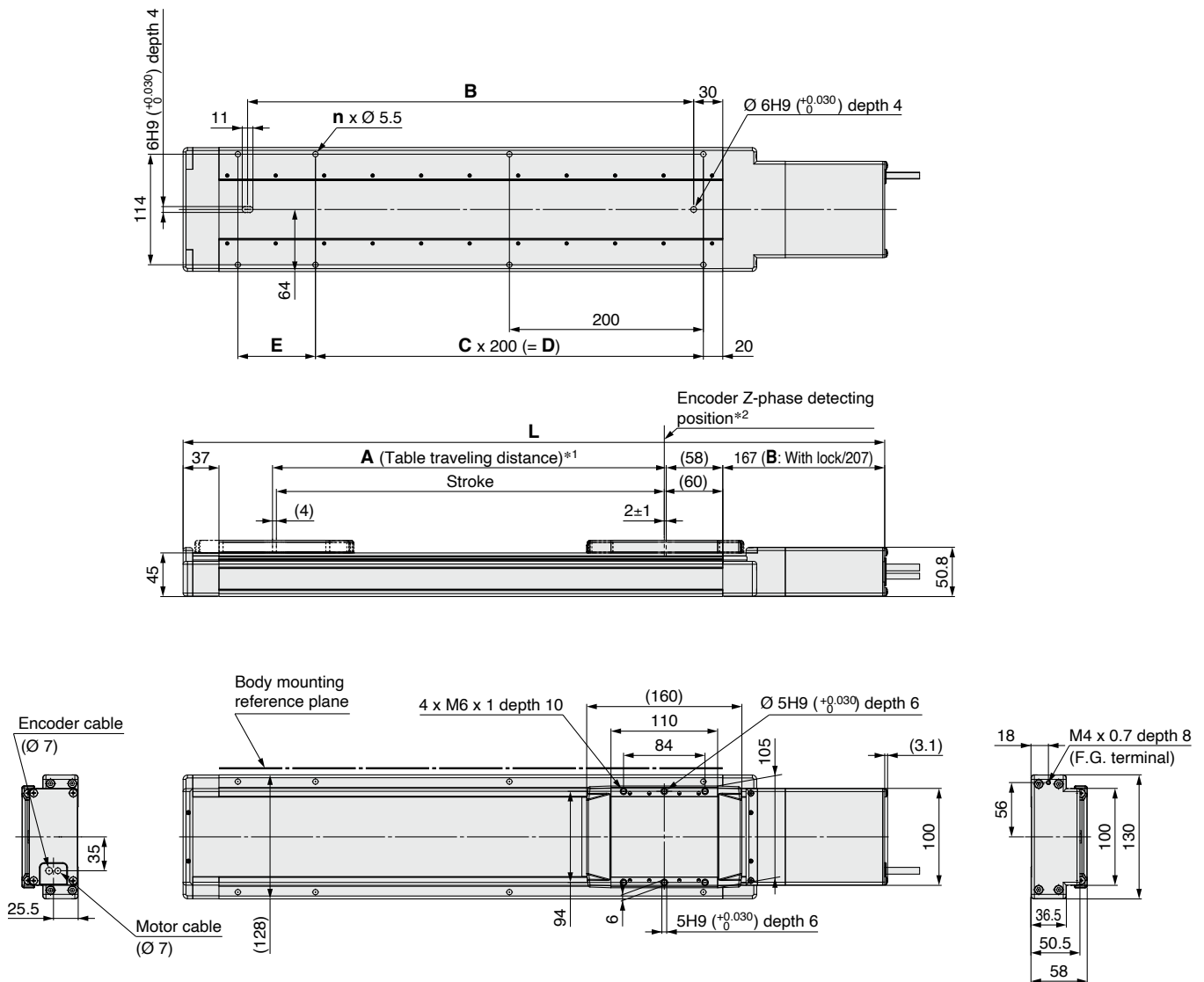
Weight

Model	LEJS40									
Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200
Product weight [kg]	5.6	6.4	7.1	7.9	8.7	9.4	10.2	11.0	11.7	13.3
Additional weight with lock [kg]	0.3 (Absolute encoder)									

Model	LEJS63									
Stroke [mm]	300	400	500	600	700	800	900	1000	1200	1500
Product weight [kg]	11.4	12.7	13.9	15.2	16.4	17.7	18.9	20.1	22.6	26.4
Additional weight with lock [kg]	0.7 (Absolute encoder)									

Dimensions: Ball Screw Drive

LEJS40

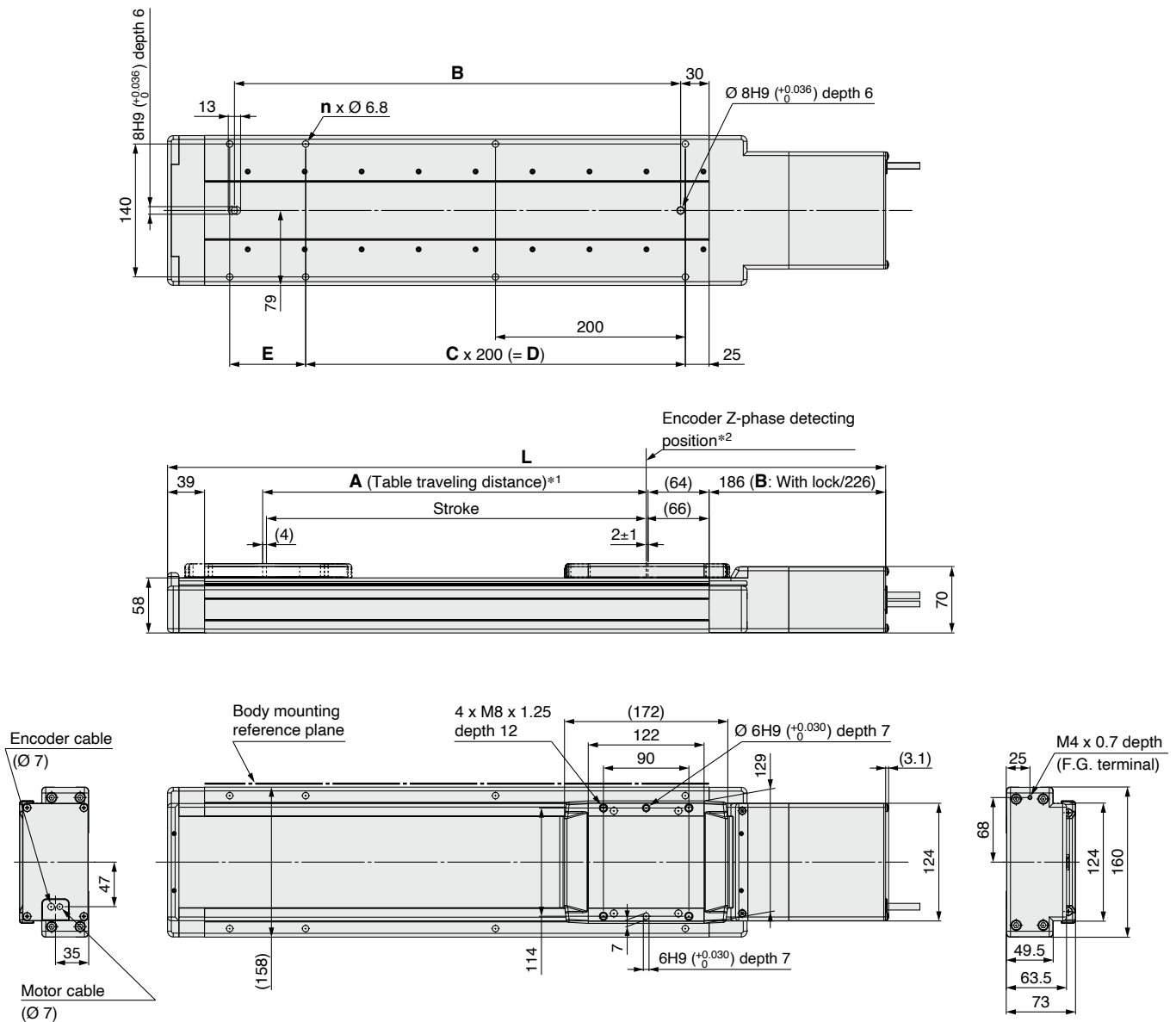


- *1 This is the distance within which the table can move when it returns to origin. Make sure that workpieces mounted on the table do not interfere with other workpieces or the facilities around the table.
 *2 The Z-phase first detecting position from the stroke end of the motor side
 * The auto switch magnet is located in the table centre.

Model	L		A	B	n	C	D	E
	Without lock	With lock						
LEJS40V□□-200□-□□□□	523.5	563.5	206	260	6	1	200	80
LEJS40V□□-300□-□□□□	623.5	663.5	306	360	6	1	200	180
LEJS40V□□-400□-□□□□	723.5	763.5	406	460	8	2	400	80
LEJS40V□□-500□-□□□□	823.5	863.5	506	560	8	2	400	180
LEJS40V□□-600□-□□□□	923.5	963.5	606	660	10	3	600	80
LEJS40V□□-700□-□□□□	1023.5	1063.5	706	760	10	3	600	180
LEJS40V□□-800□-□□□□	1123.5	1163.5	806	860	12	4	800	80
LEJS40V□□-900□-□□□□	1223.5	1263.5	906	960	12	4	800	180
LEJS40V□□-1000□-□□□□	1323.5	1363.5	1006	1060	14	5	1000	80
LEJS40V□□-1200□-□□□□	1523.5	1563.5	1206	1260	16	6	1200	80

Dimensions: Ball Screw Drive

LEJS63



*1 This is the distance within which the table can move when it returns to origin. Make sure that workpieces mounted on the table do not interfere with other workpieces or the facilities around the table.

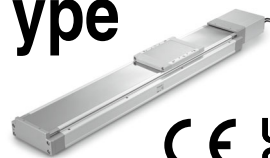
*2 The Z-phase first detecting position from the stroke end of the motor side

* The auto switch magnet is located in the table centre.

Model	L		A	B	n	C	D	E
	Without lock	With lock						
LEJS63V□□-300□-□□□□	656.5	696.5	306	370	6	1	200	180
LEJS63V□□-400□-□□□□	756.5	796.5	406	470	8	2	400	80
LEJS63V□□-500□-□□□□	856.5	896.5	506	570	8	2	400	180
LEJS63V□□-600□-□□□□	956.5	996.5	606	670	10	3	600	80
LEJS63V□□-700□-□□□□	1056.5	1096.5	706	770	10	3	600	180
LEJS63V□□-800□-□□□□	1156.5	1196.5	806	870	12	4	800	80
LEJS63V□□-900□-□□□□	1256.5	1296.5	906	970	12	4	800	180
LEJS63V□□-1000□-□□□□	1356.5	1396.5	1006	1070	14	5	1000	80
LEJS63V□□-1200□-□□□□	1556.5	1596.5	1206	1270	16	6	1200	80
LEJS63V□□-1500□-□□□□	1856.5	1896.5	1506	1570	18	7	1400	180

Built-in Intermediate Supports Type

These specifications enable the maximum speed to be realized throughout the entire stroke.

**High Rigidity Slider Type
Ball Screw Drive
LEJS63□-□M Series*** For details, refer to
www.smc.eu

Please contact SMC for clean room specification and the models compatible with secondary batteries.

For the model selection method, refer to page 21, and for details on the specifications, construction, and dimensions, refer to page 29 and onward.

How to Order

LEJS **H** **63** **V7** **A** - **790** **□** **M** - **□** **□** **□** **□**

1 2 3 4 5 6 7 8 9 10 11

1 Accuracy

—	Basic type
H	High-precision type

2 Size

63

3 Motor type

Symbol	Type	Output [W]	2 Size	10 Driver type	Compatible drivers
V7	AC servo motor (Absolute encoder)	200	63	M2 U2	LECYM2-V7 LECYU2-V7

4 Lead [mm]

H	30
A	20
B	10

5 Stroke [mm]*1 ●: Standard ○: Produced upon receipt of order

790	890	990	1190	1490	1790
●	●	○	○	○	○

*1 Please contact SMC for non-standard strokes as they are produced upon receipt of order.

6 Motor option

—	Without option
B	With lock

7 Built-in intermediate supports

M	Built-in intermediate supports
----------	--------------------------------

10 Driver type*2

Symbol	Compatible driver	Power supply voltage [V]
—	Without driver	—
M2	LECYM2-V□	200 to 230
U2	LECYU2-V□	200 to 230

8 Cable type*2 *3

—	Without cable
S	Standard cable
R	Robotic cable

*2 When a driver type is selected, a cable is included. Select the cable type and cable length.

*3 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)

9 Cable length*2 *4

—	Without cable
3	3
5	5
A	10
C	20

*4 The length of the motor, encoder, and lock cables are the same.

11 I/O connector*5

—	Without cable
H	Without cable (Connector only)
1	1.5 [m]

*5 When "—: Without driver" is selected, only "—: Without cable" can be selected.

For auto switches, refer to pages 50 to 53.

Compatible Drivers

Driver type	MECHATROLINK-II type	MECHATROLINK-III type
		
Series	LECYM	LECYU
Applicable network	MECHATROLINK-II	MECHATROLINK-III
Control encoder	Absolute 20-bit encoder	
Communication device	USB communication, RS-422 communication	
Power supply voltage [V]	200 to 230 VAC (50/60 Hz)	

High Rigidity Slider Type Belt Drive

LEJB Series



* For details, refer to www.smc.eu

How to Order

LEJB **40** **S2** **T** - **500** □ - □ □ □ □ □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Size

40
63

③ Lead [mm]

Symbol	LEJB40	LEJB63
T	27	42

④ Stroke [mm]*3

200
to
3000

*3 Refer to the applicable stroke table for details.

⑤ Motor option

—	Without option
B	With lock

⑥ Cable type*5 *6 *7

—	Without cable
S	Standard cable
R	Robotic cable

② Motor type

Symbol	Type	Output [W]	Actuator size	Compatible drivers
*1 S2	AC servo motor (Incremental encoder)	100	40	LECSA□-S1
S3		200	63	LECSA□-S3
*2 T6	AC servo motor (Absolute encoder)	100	40	LECSB2-T5 LECS2-T5 LECSN2-T5-□ LECSS2-T5
T7		200	63	LECSB2-T7 LECS2-T7 LECSN2-T7-□ LECSS2-T7

*1 For motor type S2, the compatible driver part number suffix is S1.

*2 For motor type T6, the compatible driver part number is LECS□2-T5.

⑦ Cable length [m]*5 *8

—	Without cable
2	2
5	5
A	10

*8 The length of the motor, encoder, and lock cables are the same.

⑨ I/O cable length*9

—	Without cable
H	Without cable (Connector only)
1	1.5 [m]

*9 When "—: Without driver" is selected for the driver type, only "—: Without cable" can be selected. Refer to the driver catalogue if an I/O cable is required.

*6 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)

*7 Standard cable entry direction is "(A) Axis side." (Refer to page 1126 for details.)

⑧ Driver type*5

	Compatible drivers	Power supply voltage [V]
—	Without driver	—
A1	LECSA1	100 to 120
A2	LECSA2	200 to 230
B2	LECSB2-T□	200 to 240
C2	LECS2-T□	200 to 230
S2	LECSS2-T□	200 to 240
N2	LECSN2-T5	200 to 240
E2	LECSN2-T5-E	200 to 240
92	LECSN2-T5-9	200 to 240
P2	LECSN2-T5-P	200 to 240
ND2	LECSND2-T□	200 to 240
ED2	LECSND2-T□-E	200 to 240
9D2	LECSND2-T□-9	200 to 240
PD2	LECSND2-T□-P	200 to 240

*5 When a driver type is selected, a cable is included. Select the cable type and cable length.

Example)

S2S2: Standard cable (2 m) + Driver (LECSS2)

S2: Standard cable (2 m)

—: Without cable and driver

* When selecting "T6" for the motor type, select one of the following LECSN□-T series drivers: "N2," "E2," "92," or "P2."

Applicable Stroke Table*4

●: Standard

Model	Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200	1500	2000	3000
LEJB40		●	●	●	●	●	●	●	●	●	●	●	●	—
LEJB63		—	●	●	●	●	●	●	●	●	●	●	●	●

*4 Please contact SMC for non-standard strokes as they are produced as special orders.

Compatible Drivers

For auto switches, refer to pages 50 to 53.

Driver type	Pulse input type/ Positioning type	Pulse input type	CC-Link direct input type	SSCNETⅢ/H type	Network card type
Series	LECSA	LECSB-T	LECS2-T	LECSS-T	LECSN□-T
Number of point tables*10	Up to 7	Up to 255	Up to 255 (2 stations occupied)	—	Up to 255
Pulse input	○	○	—	—	—
Applicable network	—	—	CC-Link	SSCNETⅢ/H	PROFINET® EtherCAT® EtherNet/IP™
Control encoder	Incremental 17-bit encoder	Absolute 22-bit encoder	Absolute 18-bit encoder	Absolute 22-bit encoder	Absolute 22-bit encoder
Communication function	USB communication	USB communication, RS422 communication	USB communication, RS422 communication	USB communication	USB communication
Power supply voltage [V]	100 to 120 VAC (50/60 Hz) 200 to 230 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)	200 to 230 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)

*10 The LECSN□-T point table mode is only available for PROFINET® and EtherCAT®.

Specifications

AC Servo Motor

Model			LEJB40S2/T6	LEJB63S3/T7
Actuator specifications	Stroke [mm]*1		200, 300, 400, 500, 600, 700, 800 900, 1000, 1200, 1500, 2000	300, 400, 500, 600, 700, 800 900, 1000, 1200, 1500, 2000, 3000
	Work load [kg]	Horizontal	20 (If the stroke exceeds 1000 mm: 10)	30
	Speed [mm/s]*2		2000	3000
	Max. acceleration/deceleration [mm/s ²]		20000 (Refer to Page 13 for limit according to work load and duty ratio.)	
	Positioning repeatability [mm]		±0.04	
	Lost motion [mm]*3		0.1 or less	
	Lead [mm]		27	42
	Impact/Vibration resistance [m/s ²]*4		50/20	
	Actuation type		Belt	
	Guide type		Linear guide	
	Static allowable moment*5 [N·m]	Mep (Pitching)	83.9	121.5
		Mey (Yawing)	88.2	135.1
		Mer (Rolling)	88.2	135.1
	Allowable external force [N]		20	
	Operating temperature range [°C]		5 to 40	
	Operating humidity range [%RH]		90 or less (No condensation)	
Electric specifications	Enclosure		IP30	
	Regeneration option		May be required depending on speed and work load. (Refer to Page 8.)	
	Motor output [W]/Size [mm]		100/□40	200/□60
	Motor type		AC servo motor (100/200 VAC)	
	Encoder*6		Motor type S2, S3: Incremental 17-bit encoder (Resolution: 131072 p/rev) Motor type T6, T7: Absolute 22-bit encoder (Resolution: 4194304 p/rev) (For LECSB-T□, LECSST-T□) Motor type T6, T7: Absolute 18-bit encoder (Resolution: 262144 p/rev) (For LECSCT-T□)	
Lock unit specifications	Power [W]*7		Max. power 445	Max. power 725
	Type*8		Non-magnetizing lock	
	Holding force [N]		60	157
	Power consumption at 20 °C [W]		6.3	7.9
	Rated voltage [V]		24 VDC	

*1 Please contact SMC for non-standard strokes as they are produced as special orders.

*2 For details, refer to the "Speed-Work Load Graph (Guide)" on Page 8.

*3 A reference value for correcting errors in reciprocal operation

*4 Impact resistance: No malfunction occurred when the actuator was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. The test was performed in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

*5 The static allowable moment is the amount of static moment which can be applied to the actuator when it is stopped.

If the product is exposed to impact or repeated load, be sure to take adequate safety measures when using the product.

*6 The resolution will change depending on the driver type.

*7 Indicates the max. power during operation (including the driver)

When selecting the power supply capacity, refer to the power supply capacity in the operation manual of each driver.

*8 Only when motor option "With lock" is selected

* Sensor magnet position is located in the table centre.

For detailed dimensions, refer to the "Auto Switch Mounting Position" on page 50.

* Do not allow collisions at either end of the table traveling distance. Additionally, when running the positioning operation, do not set within 2 mm of both ends.

* For the manufacture of intermediate strokes, please contact SMC.

(LEJB40/Manufacturable stroke range: 200 to 2000 mm, LEJB63/Manufacturable stroke range: 300 to 3000 mm)

Weight

Model	LEJB40											
Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200	1500	2000
Product weight [kg]	5.7	6.4	7.1	7.7	8.4	9.1	9.8	10.5	11.2	12.6	14.7	18.1
Additional weight with lock [kg]	S2: 0.2/T6: 0.2											

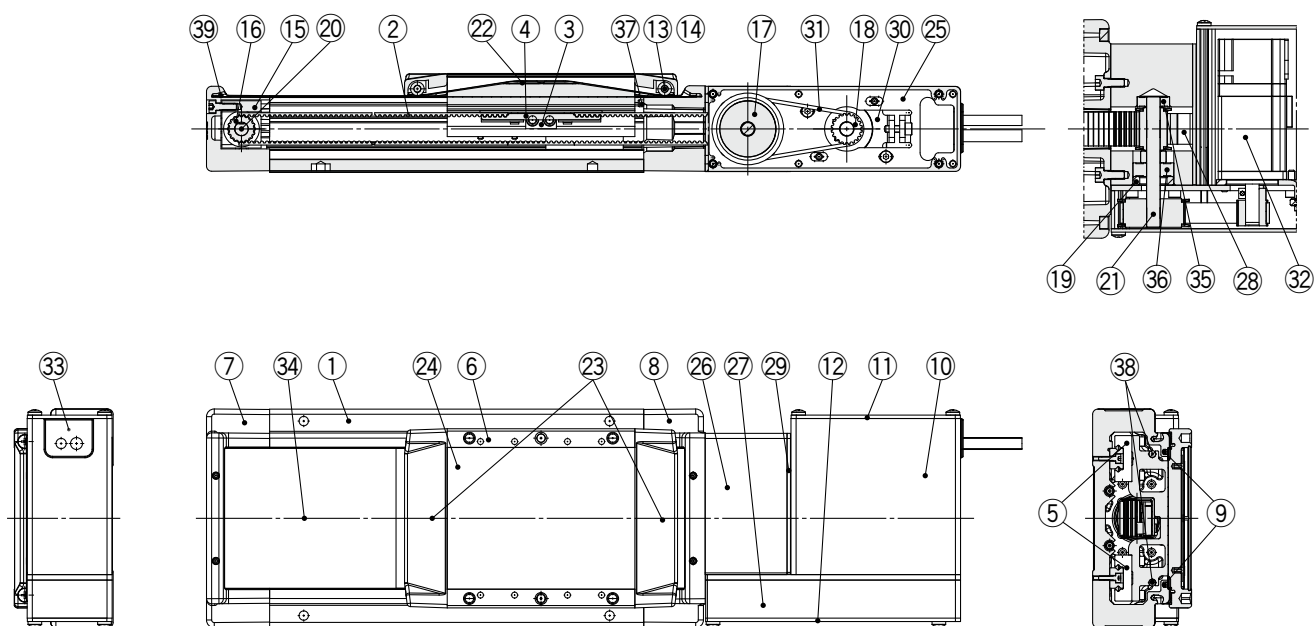
Model	LEJB63											
Stroke [mm]	300	400	500	600	700	800	900	1000	1200	1500	2000	3000
Product weight [kg]	11.5	12.7	13.8	15.0	16.2	17.4	18.6	19.7	22.1	25.7	31.6	43.4
Additional weight with lock [kg]	S3: 0.4/T7: 0.4											

LEJB Series

AC Servo Motor

Construction

Motor details



Component Parts

No.	Description	Material	Note
1	Body	Aluminium alloy	Anodised
2	Belt	—	
3	Belt holder	Carbon steel	
4	Belt stopper	Aluminium alloy	
5	Linear guide assembly	—	
6	Table	Aluminium alloy	Anodised
7	Housing A	Aluminium alloy	Coating
8	Housing B	Aluminium alloy	Coating
9	Seal magnet	—	
10	Motor cover	Aluminium alloy	Anodised
11	End cover A	Aluminium alloy	Anodised
12	End cover B	Aluminium alloy	Anodised
13	Roller shaft	Stainless steel	
14	Roller	Synthetic resin	
15	Pulley holder	Aluminium alloy	
16	Drive pulley	Aluminium alloy	
17	Speed reduction pulley	Aluminium alloy	
18	Motor pulley	Aluminium alloy	
19	Spacer	Aluminium alloy	
20	Pulley shaft A	Stainless steel	
21	Pulley shaft B	Stainless steel	
22	Table cap	Synthetic resin	

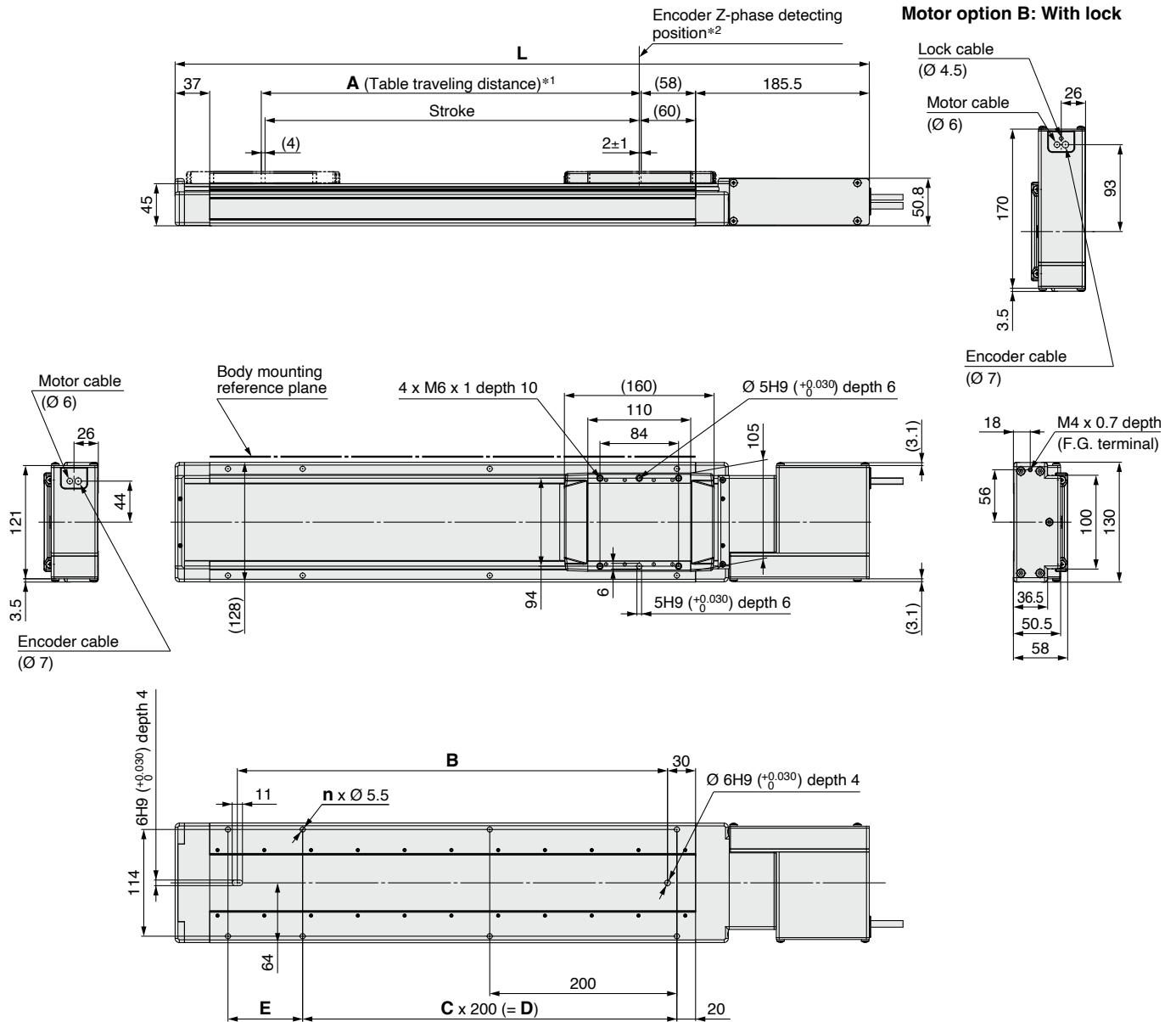
No.	Description	Material	Note
23	Seal band holder	Synthetic resin	
24	Blanking plate	Aluminium alloy	Anodised
25	Motor mount plate	Carbon steel	
26	Pulley block	Aluminium alloy	Anodised
27	Pulley cover	Aluminium alloy	Anodised
28	Belt stopper	Aluminium alloy	
29	Side plate	Aluminium alloy	Anodised
30	Motor plate	Carbon steel	
31	Belt	—	
32	Motor	—	
33	Grommet	NBR	
34	Dust seal band	Stainless steel	
35	Bearing	—	
36	Bearing	—	
37	Stopper pin	Stainless steel	
38	Magnet	—	
39	Seal band stopper	Stainless steel	

Replacement Parts/Grease Pack

Applied portion	Order no.
Linear guide	GR-S-010 (10 g)
Dust seal band	GR-S-020 (20 g)

Dimensions: Belt Drive

LEJB40



*1 This is the distance within which the table can move when it returns to origin. Make sure that workpieces mounted on the table do not interfere with other workpieces or the facilities around the table.

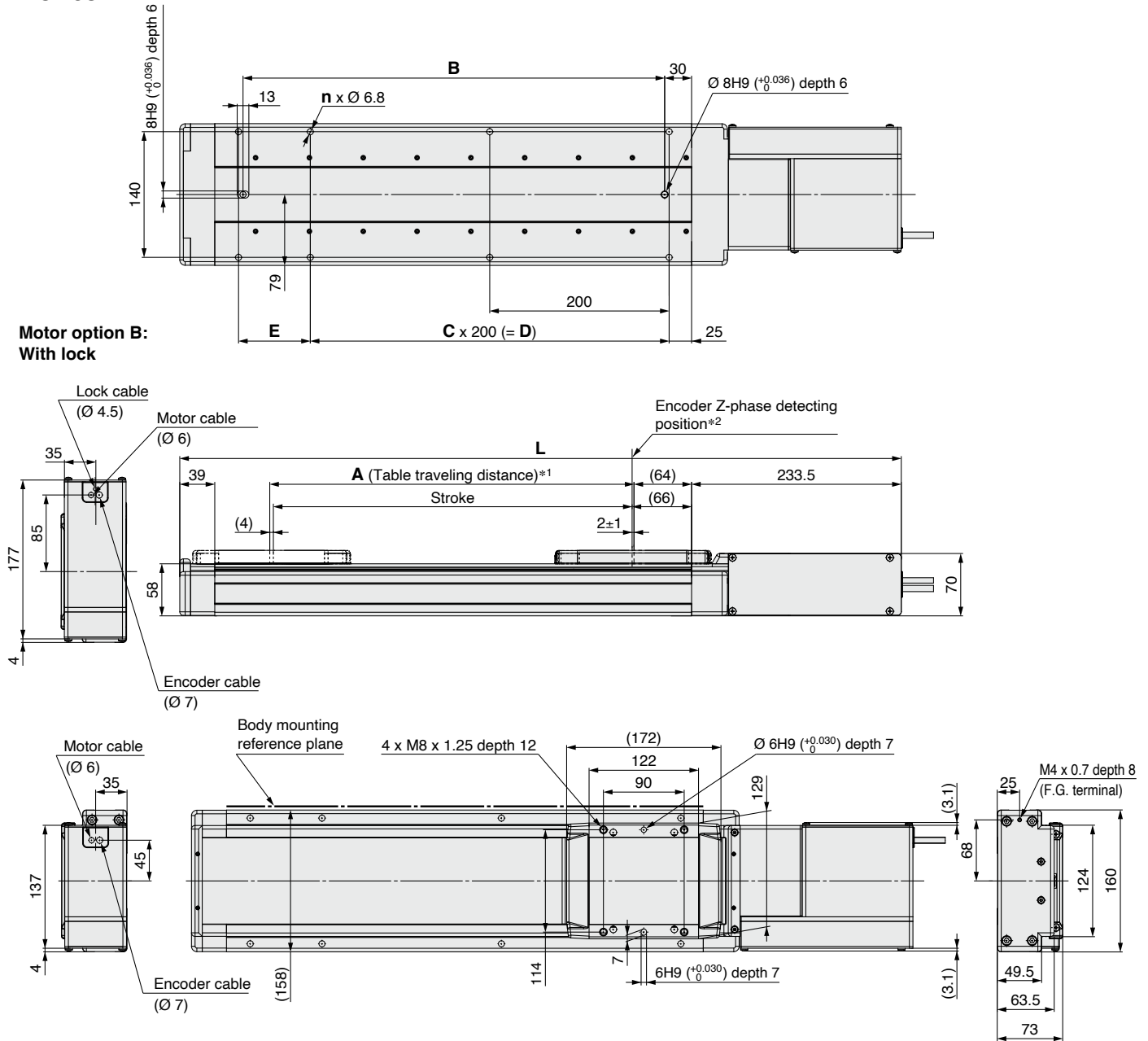
*2 The Z-phase first detecting position from the stroke end of the motor side

* The auto switch magnet is located in the table centre.

Model	L	A	B	n	C	D	E
LEJB40□□□-200□-□□□□	542	206	260	6	1	200	80
LEJB40□□□-300□-□□□□	642	306	360	6	1	200	180
LEJB40□□□-400□-□□□□	742	406	460	8	2	400	80
LEJB40□□□-500□-□□□□	842	506	560	8	2	400	180
LEJB40□□□-600□-□□□□	942	606	660	10	3	600	80
LEJB40□□□-700□-□□□□	1042	706	760	10	3	600	180
LEJB40□□□-800□-□□□□	1142	806	860	12	4	800	80
LEJB40□□□-900□-□□□□	1242	906	960	12	4	800	180
LEJB40□□□-1000□-□□□□	1342	1006	1060	14	5	1000	80
LEJB40□□□-1200□-□□□□	1542	1206	1260	16	6	1200	80
LEJB40□□□-1500□-□□□□	1842	1506	1560	18	7	1400	180
LEJB40□□□-2000□-□□□□	2342	2006	2060	24	10	2000	80

Dimensions: Belt Drive

LEJB63



*1 This is the distance within which the table can move when it returns to origin. Make sure that workpieces mounted on the table do not interfere with other workpieces or the facilities around the table.

*2 The Z-phase first detecting position from the stroke end of the motor side

* The auto switch magnet is located in the table centre.

Model	L	A	B	n	C	D	E
LEJB63□□□-300□-□□□□	704	306	370	6	1	200	180
LEJB63□□□-400□-□□□□	804	406	470	8	2	400	80
LEJB63□□□-500□-□□□□	904	506	570	8	2	400	180
LEJB63□□□-600□-□□□□	1004	606	670	10	3	600	80
LEJB63□□□-700□-□□□□	1104	706	770	10	3	600	180
LEJB63□□□-800□-□□□□	1204	806	870	12	4	800	80
LEJB63□□□-900□-□□□□	1304	906	970	12	4	800	180
LEJB63□□□-1000□-□□□□	1404	1006	1070	14	5	1000	80
LEJB63□□□-1200□-□□□□	1604	1206	1270	16	6	1200	80
LEJB63□□□-1500□-□□□□	1904	1506	1570	18	7	1400	180
LEJB63□□□-2000□-□□□□	2404	2006	2070	24	10	2000	80
LEJB63□□□-3000□-□□□□	3404	3006	3070	34	15	3000	80

High Rigidity Slider Type Belt Drive

LEJB Series LEJB40, 63



* For details, refer to
www.smc.eu

How to Order

LEJB **40** **V6** **T** - **500** □ - □ - □ - □ - □

1 2 3 4 5 6 7 8 9

1 Size

40
63

2 Motor type*1

Symbol	Type	Output [W]	1 Size	8 Driver type	Compatible drivers
V6	AC servo motor (Absolute encoder)	100	40	M2	LECYM2-V5
				U2	LECYU2-V5
V7		200	63	M2	LECYM2-V7
				U2	LECYU2-V7

*1 For motor type V6, the compatible driver part number suffix is V5.

3 Lead [mm]

Symbol	LEJB40	LEJB63
T	27	42

4 Stroke [mm]*2

200
to
3000

*2 Refer to the applicable stroke table for details.

5 Motor option

—	Without option
B	With lock

6 Cable type*4 *5

—	Without cable
S	Standard cable
R	Robotic cable

*5 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)

*4 When a driver type is selected, a cable is included. Select the cable type and cable length.

7 Cable length [m]*4 *6

—	Without cable
3	3
5	5
A	10
C	20

*6 The length of the motor, encoder, and lock cables are the same.

8 Driver type*4

	Compatible drivers	Power supply voltage [V]
—	Without driver	—
M2	LECYM2-V□	200 to 230
U2	LECYU2-V□	200 to 230

9 I/O cable length*7

—	Without cable
H	Without cable (Connector only)
1	1.5 [m]

*7 When "—: Without driver" is selected for the driver type, only "—: Without cable" can be selected. Refer to the driver catalogue if an I/O cable is required.

Applicable Stroke Table*3

●: Standard

Model \ Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200	1500	2000	3000
LEJB40	●	●	●	●	●	●	●	●	●	●	●	●	—
LEJB63	—	●	●	●	●	●	●	●	●	●	●	●	●

*3 Please contact SMC for non-standard strokes as they are produced as special orders.

For auto switches, refer to pages 50 to 53.

Compatible Drivers

Driver type	MECHATROLINK-II type	MECHATROLINK-III type
Series	LECYM	LECYU
Applicable network	MECHATROLINK-II	MECHATROLINK-III
Control encoder	Absolute 20-bit encoder	
Communication device	USB communication, RS-422 communication	
Power supply voltage [V]	200 to 230 VAC (50/60 Hz)	

Specifications

AC Servo Motor

Model			LEJB40V6	LEJB63V7
Actuator specifications	Stroke [mm]*1		200, 300, 400, 500, 600, 700, 800 900, 1000, 1200, 1500, 2000	300, 400, 500, 600, 700, 800 900, 1000, 1200, 1500, 2000, 3000
	Work load [kg]	Horizontal	20 (If the stroke exceeds 1000 mm: 10)	30
	Speed [mm/s]*2		2000	3000
	Max. acceleration/deceleration [mm/s ²]		20000 (Refer to Page 13 for limit according to work load and duty ratio.)	
	Positioning repeatability [mm]		±0.04	
	Lost motion [mm]*3		0.1 or less	
	Lead [mm]		27	42
	Impact/Vibration resistance [m/s ²]*4		50/20	
	Actuation type		Belt	
	Guide type		Linear guide	
	Static allowable moment*5 [N·m]	Mep (Pitching)	83.9	121.5
		Mey (Yawing)	88.2	135.1
		Mer (Rolling)	88.2	135.1
	Allowable external force [N]		20	
	Operating temperature range [°C]		5 to 40	
	Operating humidity range [%RH]		90 or less (No condensation)	
Enclosure		IP30		
Regenerative resistor		May be required depending on speed and work load. (Refer to page 22.)		
Electric specifications	Motor output [W]/Size [mm]		100/□40	200/□60
	Motor type		AC servo motor (200 VAC)	
	Encoder		Absolute 20-bit encoder (Resolution: 1048576 p/rev)	
	Power [W]*6		Max. power 445	Max. power 725
Lock unit specifications	Type*7		Non-magnetizing lock	
	Holding force [N]		59	77
	Power consumption at 20 °C [W]		5.5	6
	Rated voltage [V]		24 VDC ^{+10 % 0}	

*1 Please contact SMC for non-standard strokes as they are produced as special orders.

*2 Check the "Speed-Work Load Graph (Guide)" on page 22.

*3 A reference value for correcting errors in reciprocal operation

*4 Impact resistance: No malfunction occurred when the actuator was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. The test was performed in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

*5 The static allowable moment is the amount of static moment which can be applied to the actuator when it is stopped.

If the product is exposed to impact or repeated load, be sure to take adequate safety measures when using the product.

*6 Indicates the max. power during operation (including the driver)

When selecting the power supply capacity, refer to the power supply capacity in the operation manual of each driver.

*7 Only when motor option "With lock" is selected

* Sensor magnet position is located in the table centre.

For detailed dimensions, refer to the "Auto Switch Mounting Position."

* Do not allow collisions at either end of the table traveling distance. Additionally, when running the positioning operation, do not set within 2 mm of both ends.

* For the manufacture of intermediate strokes, please contact SMC.

(LEJB40/Manufacturable stroke range: 200 to 2000 mm, LEJB63/Manufacturable stroke range: 300 to 3000 mm)

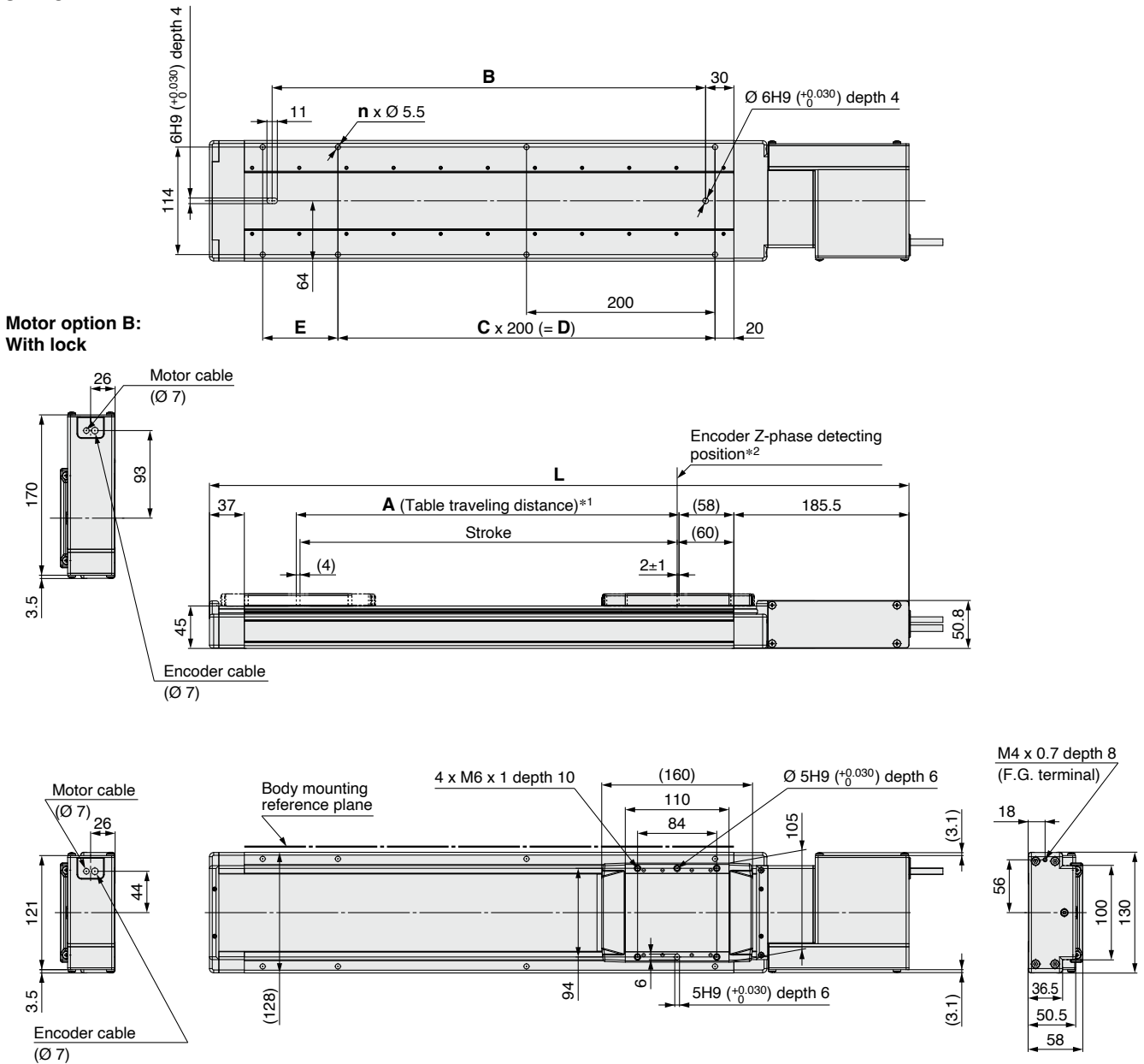
Weight

Model	LEJB40											
Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200	1500	2000
Product weight [kg]	5.7	6.4	7.1	7.7	8.4	9.1	9.8	10.5	11.2	12.6	14.7	18.1
Additional weight with lock [kg]	0.3 (Absolute encoder)											

Model	LEJB63											
Stroke [mm]	300	400	500	600	700	800	900	1000	1200	1500	2000	3000
Product weight [kg]	11.5	12.7	13.8	15.0	16.2	17.4	18.6	19.7	22.1	25.7	31.6	43.4
Additional weight with lock [kg]	0.7 (Absolute encoder)											

Dimensions: Belt Drive

LEJB40



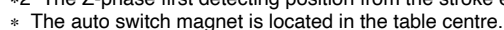
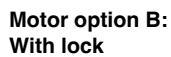
*1 This is the distance within which the table can move when it returns to origin. Make sure that workpieces mounted on the table do not interfere with other workpieces or the facilities around the table.

*2 The Z-phase first detecting position from the stroke end of the motor side

* The auto switch magnet is located in the table centre.

Model	L	A	B	n	C	D	E
LEJB40V□□-200□-□□□□	542	206	260	6	1	200	80
LEJB40V□□-300□-□□□□	642	306	360	6	1	200	180
LEJB40V□□-400□-□□□□	742	406	460	8	2	400	80
LEJB40V□□-500□-□□□□	842	506	560	8	2	400	180
LEJB40V□□-600□-□□□□	942	606	660	10	3	600	80
LEJB40V□□-700□-□□□□	1042	706	760	10	3	600	180
LEJB40V□□-800□-□□□□	1142	806	860	12	4	800	80
LEJB40V□□-900□-□□□□	1242	906	960	12	4	800	180
LEJB40V□□-1000□-□□□□	1342	1006	1060	14	5	1000	80
LEJB40V□□-1200□-□□□□	1542	1206	1260	16	6	1200	80
LEJB40V□□-1500□-□□□□	1842	1506	1560	18	7	1400	180
LEJB40V□□-2000□-□□□□	2342	2006	2060	24	10	2000	80

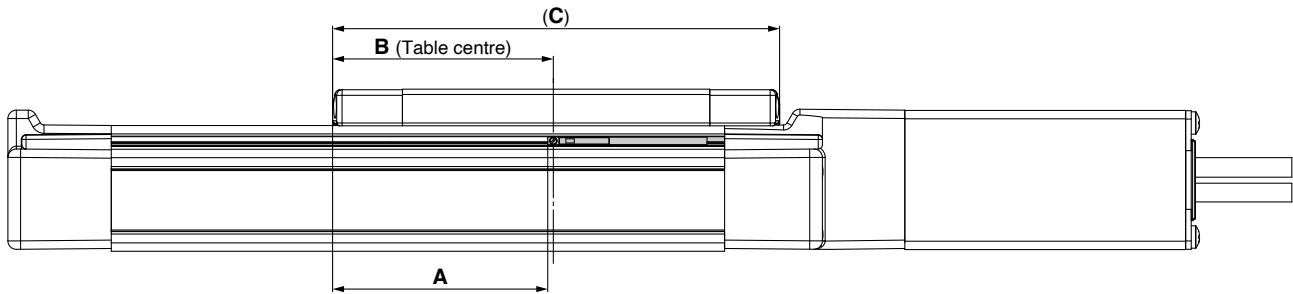
LEJB63



							[mm]
Model	L	A	B	n	C	D	E
LEJB63V□□-300□-□□□□	704	306	370	6	1	200	180
LEJB63V□□-400□-□□□□	804	406	470	8	2	400	80
LEJB63V□□-500□-□□□□	904	506	570	8	2	400	180
LEJB63V□□-600□-□□□□	1004	606	670	10	3	600	80
LEJB63V□□-700□-□□□□	1104	706	770	10	3	600	180
LEJB63V□□-800□-□□□□	1204	806	870	12	4	800	80
LEJB63V□□-900□-□□□□	1304	906	970	12	4	800	180
LEJB63V□□-1000□-□□□□	1404	1006	1070	14	5	1000	80
LEJB63V□□-1200□-□□□□	1604	1206	1270	16	6	1200	80
LEJB63V□□-1500□-□□□□	1904	1506	1570	18	7	1400	180
LEJB63V□□-2000□-□□□□	2404	2006	2070	24	10	2000	80
LEJB63V□□-3000□-□□□□	3404	3006	3070	34	15	3000	80

LEJ Series Auto Switch Mounting

Auto Switch Mounting Position



Model	Size	A	B	C	Operating range
LEJS40	40	77	80	160	5.5
LEJB40					5.0
LEJS63	63	83	86	172	7.0
LEJB63					6.5

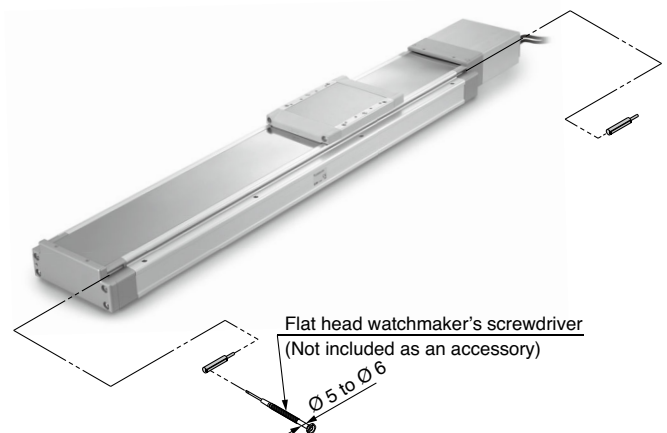
* The operating range is a guideline including hysteresis, not meant to be guaranteed. There may be large variations (as much as $\pm 30\%$) depending on the ambient environment.

Auto Switch Mounting (Sizes 40 and 63)

When mounting the auto switches, they should be inserted into the actuator's auto switches mounting groove from the direction shown in the drawing on the below. Once in the mounting position, use a flat head watchmaker's screwdriver to tighten the included auto switch mounting screw.

Auto Switch Mounting Screw Tightening Torque [N·m]

Auto switch model	Tightening torque
D-M9□(V) D-M9□W(V) D-M9□E	0.10 to 0.15



* When tightening the auto switch mounting screw (included with the auto switch), use a watchmaker's screwdriver with a handle diameter of about 5 to 6 mm.

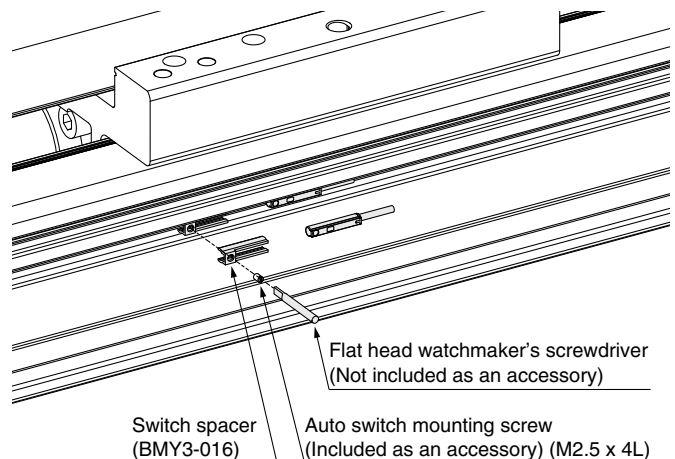
Auto Switch Mounting (Size 100)

When mounting an auto switch, first, hold a switch spacer between your fingers and press it into the slot. When doing this, confirm that it is set in the correct mounting orientation, or reinsert it if necessary. Next, insert the auto switch into the slot and slide it until it is positioned under the switch spacer.

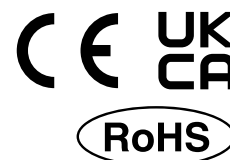
After confirming the mounting position, use a flat head watchmaker's screwdriver to tighten the included auto switch mounting screw.

Auto Switch Mounting Screw Tightening Torque [N·m]

Auto switch model	Tightening torque
D-M9□(V) D-M9□W(V)	0.10 to 0.15



Solid State Auto Switch Direct Mounting Type D-M9N(V)/D-M9P(V)/D-M9B(V)



Refer to the SMC website for details on products that are compliant with international standards.

Auto Switch Specifications

PLC: Programmable Logic Controller

D-M9□, D-M9□V (With indicator light)						
Auto switch model	D-M9N	D-M9NV	D-M9P	D-M9PV	D-M9B	D-M9BV
Electrical entry direction	In-line	Perpendicular	In-line	Perpendicular	In-line	Perpendicular
Wiring type	3-wire				2-wire	
Output type	NPN		PNP		—	
Applicable load	IC circuit, Relay, PLC				24 VDC relay, PLC	
Power supply voltage	5, 12, 24 VDC (4.5 to 28 V)				—	
Current consumption	10 mA or less				—	
Load voltage	28 VDC or less		—		24 VDC (10 to 28 VDC)	
Load current	40 mA or less				2.5 to 40 mA	
Internal voltage drop	0.8 V or less at 10 mA (2 V or less at 40 mA)				4 V or less	
Leakage current	100 μA or less at 24 VDC				0.8 mA or less	
Indicator light	Red LED illuminates when turned ON.					
Standard	CE/UKCA marking					

Oilproof Flexible Heavy-duty Lead Wire Specifications

Auto switch model		D-M9N(V)	D-M9P(V)	D-M9B(V)
Sheath	Outside diameter [mm]	Ø 2.6		
Insulator	Number of cores	3 cores (Brown/Blue/Black)		2 cores (Brown/Blue)
	Outside diameter [mm]	Ø 0.88		
Conductor	Effective area [mm²]	0.15		
	Strand diameter [mm]	Ø 0.05		
Min. bending radius [mm] (Reference values)		17		

* Refer to www.smc.eu for solid state auto switch common specifications.

* Refer to www.smc.eu for lead wire lengths.

Grommet

- 2-wire load current is reduced (2.5 to 40 mA).
- Using flexible cable as standard spec.



Caution

Precautions

Fix the auto switch with the existing screw installed on the auto switch body. The auto switch may be damaged if a screw other than the one supplied is used.

Weight

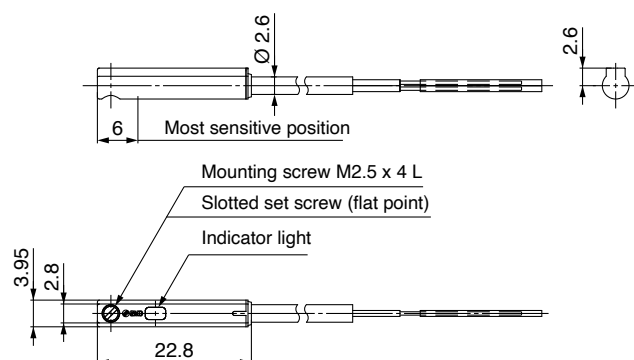
[g]

Auto switch model	D-M9N(V)	D-M9P(V)	D-M9B(V)
Lead wire length	0.5 m (—)	8	7
	1 m (M)	14	13
	3 m (L)	41	38
	5 m (Z)	68	63

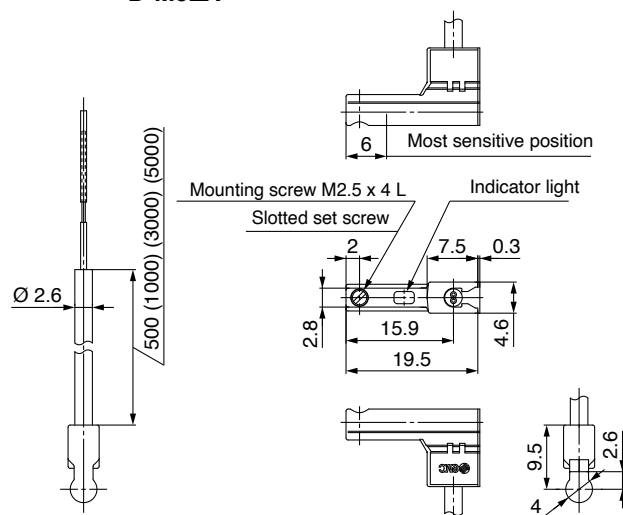
Dimensions

[mm]

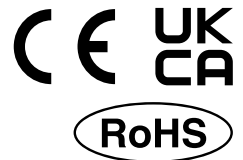
D-M9□



D-M9□V



Normally Closed Solid State Auto Switch Direct Mounting Type D-M9NE(V)/D-M9PE(V)/D-M9BE(V)



Refer to the SMC website for details on products that are compliant with international standards.

Auto Switch Specifications

PLC: Programmable Logic Controller

D-M9□E, D-M9□EV (With indicator light)						
Auto switch model	D-M9NE	D-M9NEV	D-M9PE	D-M9PEV	D-M9BE	D-M9BEV
Electrical entry direction	In-line	Perpendicular	In-line	Perpendicular	In-line	Perpendicular
Wiring type	3-wire				2-wire	
Output type	NPN		PNP		—	
Applicable load	IC circuit, Relay, PLC				24 VDC relay, PLC	
Power supply voltage	5, 12, 24 VDC (4.5 to 28 V)				—	
Current consumption	10 mA or less				—	
Load voltage	28 VDC or less		—		24 VDC (10 to 28 VDC)	
Load current	40 mA or less				2.5 to 40 mA	
Internal voltage drop	0.8 V or less at 10 mA (2 V or less at 40 mA)				4 V or less	
Leakage current	100 μA or less at 24 VDC				0.8 mA or less	
Indicator light	Red LED illuminates when turned ON.					
Standard	CE/UKCA marking					

Oilproof Flexible Heavy-duty Lead Wire Specifications

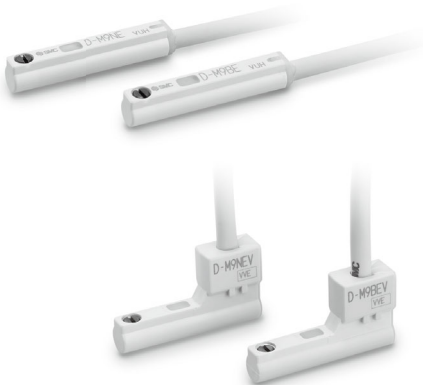
Auto switch model		D-M9NE(V)	D-M9PE(V)	D-M9BE(V)
Sheath	Outside diameter [mm]	$\varnothing$ 2.6		
Insulator	Number of cores	3 cores (Brown/Blue/Black)		2 cores (Brown/Blue)
	Outside diameter [mm]	$\varnothing$ 0.88		
Conductor	Effective area [mm ²]	0.15		
	Strand diameter [mm]	$\varnothing$ 0.05		
Min. bending radius [mm] (Reference values)		17		

* Refer to www.smc.eu for solid state auto switch common specifications.

* Refer to www.smc.eu for lead wire lengths.

Grommet

- Output signal turns on when no magnetic force is detected.
- Can be used for the actuator adopted by the solid state auto switch D-M9 series (excluding special order products)



Caution

Precautions

Fix the auto switch with the existing screw installed on the auto switch body. The auto switch may be damaged if a screw other than the one supplied is used.

Weight

[g]

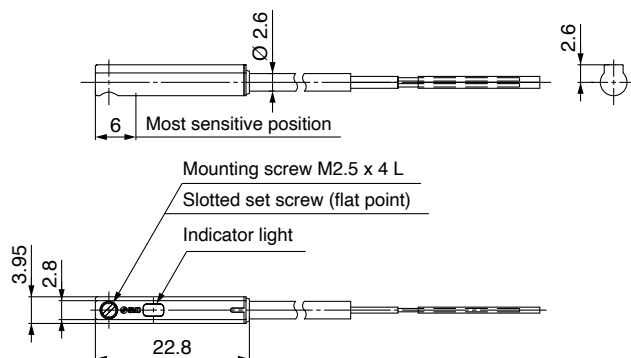
Auto switch model		D-M9NE(V)	D-M9PE(V)	D-M9BE(V)
Lead wire length	0.5 m (—)	8	—	7
	1 m (M)*1	14	—	13
	3 m (L)	41	—	38
	5 m (Z)*1	68	—	63

*1 The 1 m and 5 m options are produced upon receipt of order.

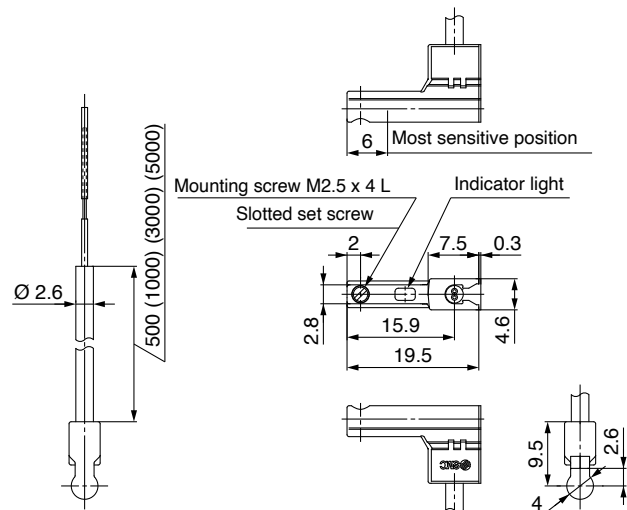
Dimensions

[mm]

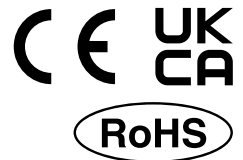
D-M9□E



D-M9□EV



2-Colour Indicator Solid State Auto Switch Direct Mounting Type D-M9NW(V)/D-M9PW(V)/D-M9BW(V)



Refer to the SMC website for details on products that are compliant with international standards.

Auto Switch Specifications

PLC: Programmable Logic Controller

D-M9□W, D-M9□WV (With indicator light)						
Auto switch model	D-M9NW	D-M9NWV	D-M9PW	D-M9PWV	D-M9BW	D-M9BWV
Electrical entry direction	In-line	Perpendicular	In-line	Perpendicular	In-line	Perpendicular
Wiring type	3-wire				2-wire	
Output type	NPN		PNP		—	
Applicable load	IC circuit, Relay, PLC				24 VDC relay, PLC	
Power supply voltage	5, 12, 24 VDC (4.5 to 28 V)				—	
Current consumption	10 mA or less				—	
Load voltage	28 VDC or less		—		24 VDC (10 to 28 VDC)	
Load current	40 mA or less				2.5 to 40 mA	
Internal voltage drop	0.8 V or less at 10 mA (2 V or less at 40 mA)				4 V or less	
Leakage current	100 μA or less at 24 VDC				0.8 mA or less	
Indicator light	Operating range Red LED illuminates. Proper operating range Green LED illuminates.					
Standard	CE/UKCA marking					

Grommet

- 2-wire load current is reduced (2.5 to 40 mA).
- Using flexible cable as standard spec.
- The proper operating range can be determined by the colour of the light. (Red → Green ← Red)



Caution

Precautions

Fix the auto switch with the existing screw installed on the auto switch body. The auto switch may be damaged if a screw other than the one supplied is used.

Oilproof Flexible Heavy-duty Lead Wire Specifications

Auto switch model		D-M9NW(V)	D-M9PW(V)	D-M9BW(V)
Sheath	Outside diameter [mm]	Ø 2.6		
	Number of cores	3 cores (Brown/Blue/Black)		
Insulator	Outside diameter [mm]	Ø 0.88		
	Effective area [mm ²]	0.15		
Conductor	Strand diameter [mm]	Ø 0.05		
	Min. bending radius [mm] (Reference values)	17		

- * Refer to www.smc.eu for solid state auto switch common specifications.
- * Refer to www.smc.eu for lead wire lengths.

Weight

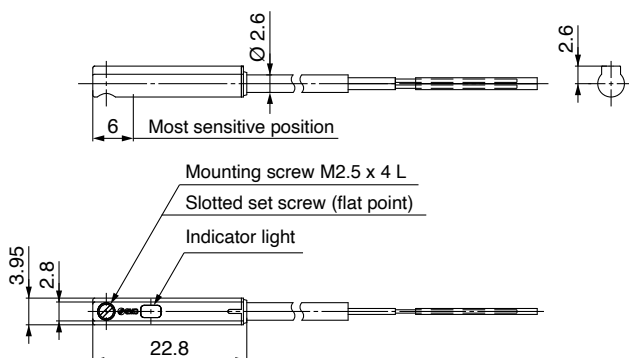
[g]

Auto switch model		D-M9NW(V)	D-M9PW(V)	D-M9BW(V)
Lead wire length	0.5 m (—)	8	—	7
	1 m (M)	14	—	13
	3 m (L)	41	—	38
	5 m (Z)	68	—	63

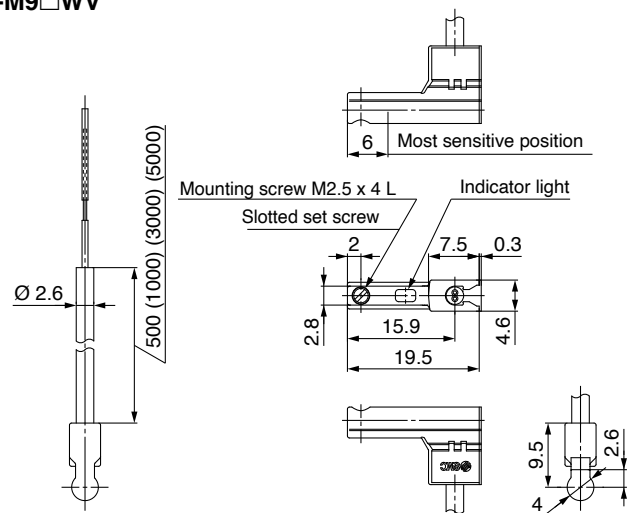
Dimensions

[mm]

D-M9□W



D-M9□WV





LEJ Series Specific Product Precautions 1

Be sure to read this before handling the products.

Design

⚠ Caution

1. Do not apply a load in excess of the specification limits.

Select a suitable actuator by work load and allowable moment. If a load in excess of the specification limits is applied to the guide, adverse effects such as the generation of play in the guide, reduced accuracy, or reduced service life of the product may occur.

2. Do not use the product in applications where excessive external force or impact force is applied to it.

The product can be damaged.

The components including the motor are manufactured to precise tolerances. So that even a slight deformation may cause a malfunction or seizure.

Selection

⚠ Warning

1. Do not increase the speed in excess of the specification limits.

Select a suitable actuator by the relationship between the allowable work load and speed, and the allowable speed of each stroke. If the product is used outside of the specification limits, adverse effects such as the generation of noise, reduced accuracy, or reduced service life of the product may occur.

2. When the product repeatedly cycles with partial strokes (100 mm or less), lubrication can run out. Operate it at a full stroke at least once a day or every a thousand cycles.

3. When external force is to be applied to the table, it is necessary to add the external force to the work load as the total carried load when selecting a size.

When a cable duct or flexible moving tube is attached to the actuator, the sliding resistance of the table will increase, which may lead to the malfunction of the product.

Handling

⚠ Caution

1. Never allow the table to collide with the stroke end.

When incorrect instructions are inputted, such as those which cause the product to operate outside of the specification limits or outside of the actual stroke through changes in the controller/driver settings and/or origin position, the table may collide with the stroke end of the actuator. Be sure to check these points before use.

If the table collides with the stroke end of the actuator, the guide, belt, or internal stopper may break. This can result in abnormal operation.



Handle the actuator with care when it is used in the vertical direction as the workpiece will fall freely from its own weight.

2. The actual speed of this actuator is affected by the work load and stroke.

Check the model selection section of the catalogue.

3. Do not apply a load, impact or resistance in addition to the transferred load during return to origin.

4. Do not dent, scratch, or cause other damage to the body or table mounting surfaces.

Doing so may cause unevenness in the mounting surface, play in the guide, or an increase in the sliding resistance.

5. Do not apply strong impact or an excessive moment while mounting the product or a workpiece.

If an external force over the allowable moment is applied, it may cause play in the guide or an increase in the sliding resistance.

6. Keep the flatness of the mounting surface within 0.1 mm/500 mm.

If a workpiece or base does not sit evenly on the body of the product, play in the guide or an increase in the sliding resistance may occur.

In the case of overhang mounting (including cantilever), use a support plate or support guide to avoid deflection of the actuator body.

7. When mounting the actuator, use all mounting holes.

If all mounting holes are not used, it influences the specifications, e.g., the amount of displacement of the table increases.

8. Do not allow a workpiece to collide with the table during the positioning operation or within the positioning range.

9. Do not apply external force to the dust seal band.

Particularly during the transportation



LEJ Series Specific Product Precautions 2

Be sure to read this before handling the products.

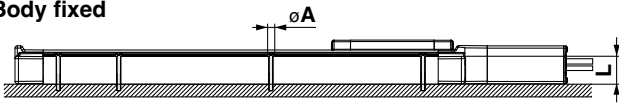
Handling

⚠ Caution

10. When mounting the product, use screws of adequate length and tighten them with adequate torque.

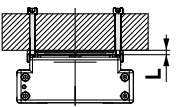
Tightening the screws with a higher torque than recommended may result in a malfunction, while tightening with a lower torque can result in the displacement of the mounting position or, in extreme conditions, the actuator could become detached from its mounting position.

Body fixed



Model	Screw size	Max. tightening torque [N·m]	Ø A [mm]	L [mm]
LEJ□40	M5	3.0	5.5	36.5
LEJ□63	M6	5.2	6.8	49.5

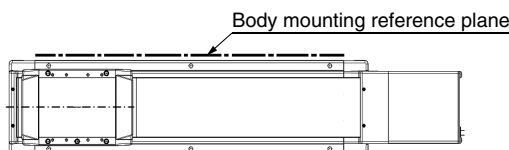
Workpiece fixed



Model	Screw size	Max. tightening torque [N·m]	L (Max. screw-in depth) [mm]
LEJ□40	M6 x 1	5.2	10
LEJ□63	M8 x 1.25	12.5	12

To prevent the workpiece retaining screws from touching the body, use screws that are 0.5 mm or shorter than the maximum screw-in depth. If long screws are used, they may touch the body and cause a malfunction.

11. Do not operate by fixing the table and moving the actuator body.
12. The belt drive actuator cannot be used for vertical applications.
13. Vibration may occur during operation, this could be caused by the operating conditions.
If it occurs, adjust response value of auto tuning of driver to be lower.
During the first auto tuning noise may occur, the noise will stop when the tuning is complete.
14. When mounting the actuator using the body mounting reference plane, use a pin. Set the height of the pin to be 5 mm or more because of round chamfering. (Recommended height 6 mm)



15. When the fluctuations in the load are caused during operation, malfunction, noise, or alarm generation may occur. (In the case of the AC servo motor)

The gain tuning may not be suitable for fluctuating loads. Adjust the gain properly by following the instructions in the driver manual.

Maintenance

⚠ Warning

Maintenance frequency

Perform maintenance according to the table below.

Frequency	Appearance check	Internal check	Belt check
Inspection before daily operation	○	—	—
Inspection every 6 months/1000 km/ 5 million cycles*1	○	○	○

*1 Select whichever comes first.

• Items for visual appearance check

1. Loose set screws, Abnormal amount of dirt, etc.
2. Check for visible damage, Check of cable joint
3. Vibration, Noise

• Items for internal check

1. Lubricant condition on moving parts
* For lubrication, use lithium grease No. 2.
2. Loose or mechanical play in fixed parts or fixing screws

• Items for belt check

Stop operation immediately and replace the belt when any of the following occur. In addition, ensure your operating environment and conditions satisfy the requirements specified for the product.

a. Tooth shape canvas is worn, out

Canvas fiber becomes fuzzy, Rubber is coming off and the fiber has become whitish, Lines of fibers have become unclear

b. Peeling off or wearing of the side of the belt

Belt corner has become rounded and frayed threads stick out

c. Belt partially cut

Belt is partially cut, Foreign matter caught in the teeth of other parts is causing damage

d. A vertical line on belt teeth is visible

Damage which is made when the belt runs on the flange

e. Rubber back of the belt is softened and sticky

f. Cracks on the back of the belt are visible

Environment

Clean Room Specification

● ISO Class 4*¹ (ISO 14644-1)

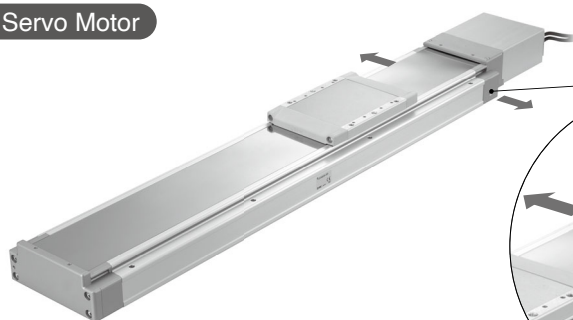
- Built-in vacuum piping
- It is possible to mount the main body without removing the external cover, etc.
- Body-integrated linear guide specification

*¹ Changes depending on the suction flow rate

High Rigidity Slider Type

Ball Screw Drive/11-LEJS Series

AC Servo Motor



Vacuum port

* Port locations can be selected.

Vacuum suction from the vacuum port minimises external particle generation from the ball screw and guide.

Vacuum suction

Secondary Battery Compatible

● Copper (Cu) and zinc (Zn) free*¹

*¹ Excludes motors, cables, controllers/drivers

● Compatible with dew points as low as -70 °C

Uses grease compatible with low dew points

High Rigidity Slider Type

Ball Screw Drive/25A-LEJS

AC Servo Motor

Type LECS□ Series, LECY□ Series



* Copper and zinc materials are used for the motors, cables, controllers/drivers.

Particle Generation Characteristics

Particle Generation Measuring Method

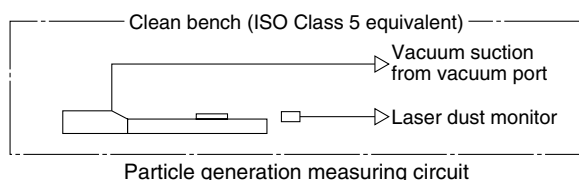
The particle generation data for the 11-LEJS series are measured in the following test method.

Test Method (Example)

Operate the specimen that is placed in an ISO Class 5 equivalent clean bench, and measure the changes of the particle concentration over time until the number of cycles reaches the specified point.

Measuring Conditions

Measuring instrument	Description	Laser dust monitor (Automatic particle counter using the light scattering method)
	Minimum measurable particle diameter	0.1 μm
	Suction flow rate	28.3 l/min (ANR)
Setting conditions	Sampling time	5 min
	Interval time	55 min
	Sampling air flow	141.5 L (ANR)



Test Conditions

Size	Speed [mm/s]	Model	Workpiece mass [kg]	Acceleration [mm/s ²]	Duty ratio [%]
40	1200	11-LEJS40□A-200	4	13000	100
	600	11-LEJS40□B-200		10000	
63	1200	11-LEJS63□A-300		13000	
	600	11-LEJS63□B-300		10000	

* Mounting position: Horizontal

Evaluation Method

To obtain the measured values of particle concentration, the accumulated value*¹ of particles captured every 5 minutes, by the laser dust monitor, is converted into the particle concentration in every 1 m³.

When determining particle generation grades, the 95 % upper confidence limit of the average particle concentration (average value), when each specimen is operated at a specified number of cycles*² is considered.

The plots in the graphs indicate the 95 % upper confidence limit of the average particle concentration of particles with a diameter within the horizontal axis range.

*¹ Sampling air flow rate: Number of particles contained in 141.5 L (ANR) of air

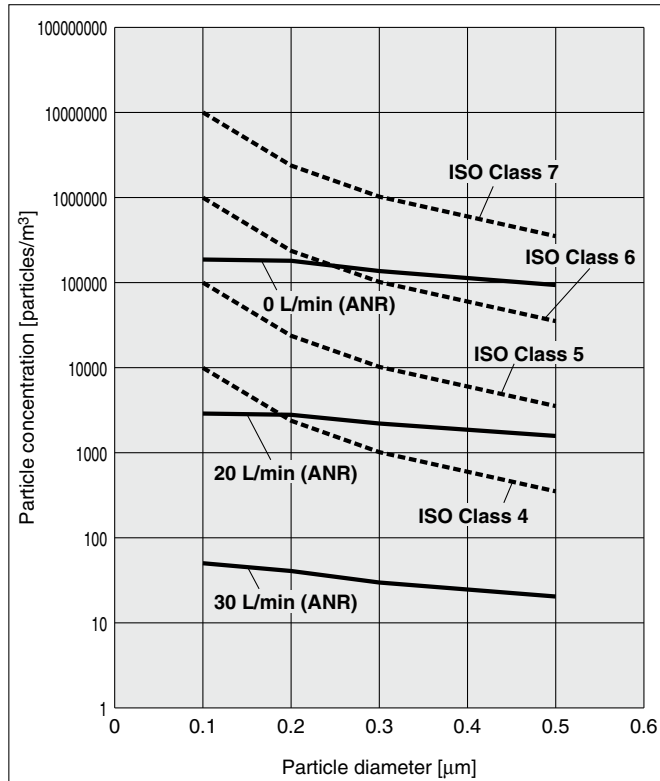
*² Actuator: 1 million cycles

* The particle generation characteristics provide a guide for selection but is not guaranteed.

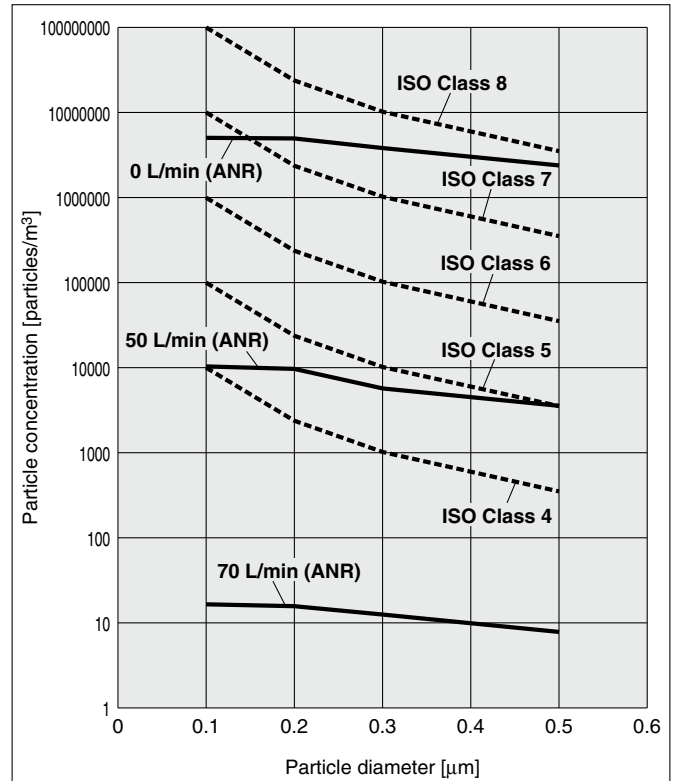
Particle Generation Characteristics

11-LEJS40/Ball Screw Drive

Speed 600 mm/s

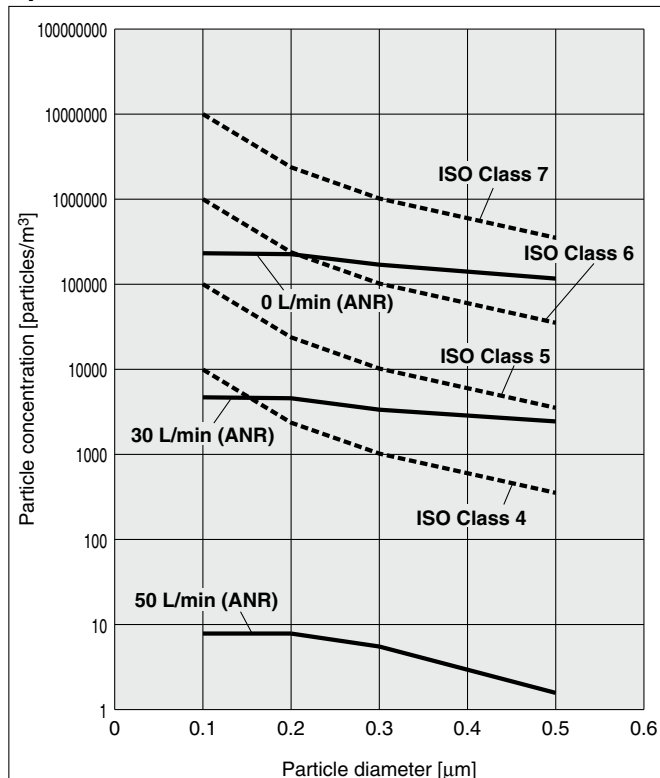


Speed 1200 mm/s

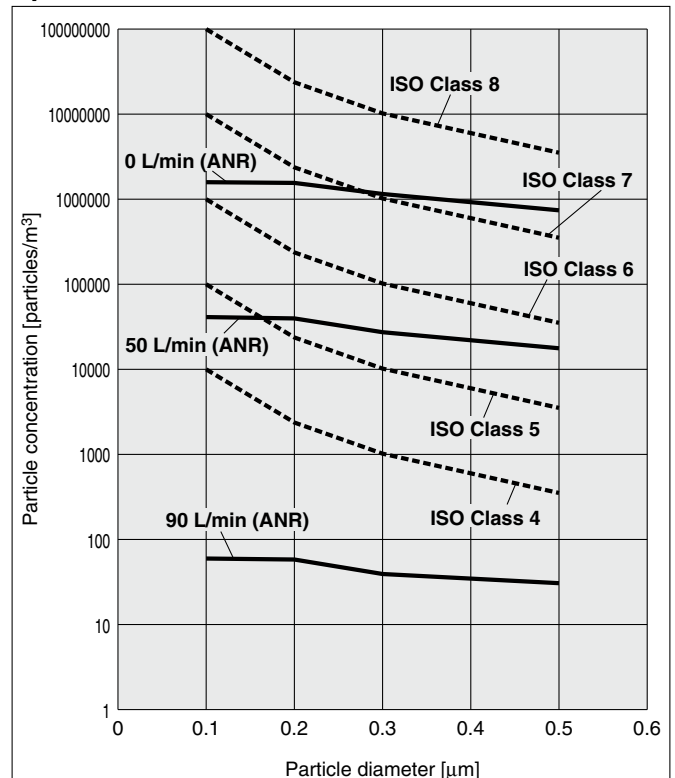


11-LEJS63/Ball Screw Drive

Speed 600 mm/s



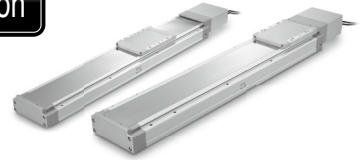
Speed 1200 mm/s



High Rigidity Slider Type Ball Screw Drive

Clean Room Specification

11-LEJS Series LEJS40, 63

* For details, refer to www.smc.eu and onward.

How to Order

11-LEJS H 40 S2 A - 500 □ □ □ □ □ □ □ □ □ □ □ □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

Clean series ●

11	Vacuum type
----	-------------

① Accuracy

—	Basic type
H	High-precision type

② Size

40
63

③ Motor type

Symbol	Type	Output [W]	② Size	⑩ Driver type	Compatible drivers
S2*1	AC servo motor (Incremental encoder)	100	40	A1/A2	LECSA□-S1
S3		200	63	A1/A2	LECSA□-S3
T6*2	AC servo motor (Absolute encoder)	100	40	B2	LECSB2-T5
				C2	LECS2-T5
				N2/E2/92/P2	LECSN2-T5-□
				S2	LECSS2-T5
T7	AC servo motor (Absolute encoder)	200	63	B2	LECSB2-T7
				C2	LECS2-T7
				ND2/ED2/9D2/PD2	LECSND2-T7-□
				S2	LECSS2-T7

*1 For motor type S2, the compatible driver part number suffix is S1.

*2 For motor type T6, the compatible driver part number is LECS□2-T5.

④ Lead [mm]

Symbol	LEJS40	LEJS63
A	16	20
B	8	10

⑤ Stroke [mm]*3

200
to
1500

*3 Refer to the applicable stroke table for details.

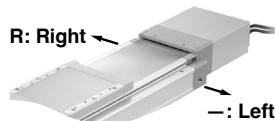
⑥ Motor option

—	Without option
B	With lock

⑦ Vacuum port*5, *6

—	Left
R	Right
D	Both left and right

*5 Select "D" for the vacuum port for suction of 50 l/min (ANR) or more.
*6 Vacuum piping is only built in on the vacuum port side selected at the time of purchase. Note that after purchase, if suction is used on the port on the opposite side, the particle generation characteristics stated in the catalogue may not apply. To make any changes after purchase, be sure to contact SMC.



⑧ Cable type*7, *8

—	Without cable
S	Standard cable
R	Robotic cable

*7 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)

*8 Standard cable entry direction is "(A) Axis side."

⑩ I/O cable length [m]*11

—	Without cable
H	Without cable (Connector only)
1	1.5

*11 When "—: Without driver" is selected for the driver type, only "—: Without cable" can be selected. Refer to www.smc.eu if an I/O cable is required.

⑨ Cable length [m]*7, *9

—	Without cable
2	2 m
5	5 m
A	10 m

*9 The length of the motor, encoder, and lock cables are the same.

⑩ Driver type*10

	Compatible drivers	Power supply voltage [V]
—	Without driver	—
A1	LECSA1-S□	100 to 120
A2	LECSA2-S□	200 to 230
B2	LECSB2-T□	200 to 240
C2	LECS2-T□	200 to 230
S2	LECSS2-T□	200 to 240
N2	LECSN2-T5	200 to 240
E2	LECSN2-T5-E	200 to 240
92	LECSN2-T5-9	200 to 240
P2	LECSN2-T5-P	200 to 240
ND2	LECSND2-T□	200 to 240
ED2	LECSND2-T□-E	200 to 240
9D2	LECSND2-T□-9	200 to 240
PD2	LECSND2-T□-P	200 to 240

*10 When a driver type is selected, a cable is included. Select the cable type and cable length.

Example) S2S2: Standard cable (2 m) + Driver (LECSS2)

S2: Standard cable (2 m)

—: Without cable and driver

* When selecting "T6" for the motor type, select one of the following LECSN□-T series drivers: "N2," "E2," "92," or "P2."

Applicable Stroke Table*4

Model	Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200	1500
11-LEJS40	●	●	●	●	●	●	●	●	●	●	●	—
11-LEJS63	—	●	●	●	●	●	●	●	●	●	●	●

*4 Please contact SMC for non-standard strokes as they are produced as special orders.

Compatible Drivers

Driver type	Pulse input type/ Positioning type	Pulse input type	CC-Link direct input type	SSCNET III/H type	Network card type
Series	LECSA	LECSB-T	LECS2-T	LECSS-T	LECSN□-T
Number of point tables*12	Up to 7	Up to 255	Up to 255 (2 stations occupied)	—	Up to 255
Pulse input	○	○	—	—	—
Applicable network	—	—	CC-Link	SSCNET III/H	PROFINET, EtherCAT, EtherNet/IP™
Control encoder	Incremental 17-bit encoder	Absolute 22-bit encoder	Absolute 18-bit encoder	Absolute 22-bit encoder	Absolute 22-bit encoder
Communication function	USB communication	USB communication, RS422 communication	USB communication, RS422 communication	USB communication	USB communication
Power supply voltage [V]	100 to 120 VAC (50/60 Hz) 200 to 230 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)	200 to 230 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)

*12 The LECSN□-T point table mode is only available for PROFINET and EtherCAT.

Specifications

11-LEJS40, 63 AC Servo Motor

Model			11-LEJS40S2/T6		11-LEJS63S3/T7		
Actuator specifications	Stroke [mm] ^{*1}		200, 300, 400, 500, 600, 700, 800 900, 1000, 1200		300, 400, 500, 600, 700, 800, 900 1000, 1200, 1500		
	Work load [kg] ^{*2}		Horizontal	30	55	45	85
			Vertical	5	10	10	20
	Speed ^{*3} [mm/s]	Stroke range	Up to 500	1200	600	1200	600
			501 to 600	1050	520	1200	600
			601 to 700	780	390	1200	600
			701 to 800	600	300	930	460
			801 to 900	480	240	740	370
			901 to 1000	390	190	600	300
			1001 to 1100	320	160	500	250
			1101 to 1200	270	130	420	210
			1201 to 1300	—	—	360	180
			1301 to 1400	—	—	310	150
	1401 to 1500	—	—	270	130		
	Max. acceleration/deceleration [mm/s ²]		20000 (Refer to pages 11 and 12 for limit according to work load and duty ratio.)				
	Positioning repeatability [mm]		Basic type	±0.02			
			High-precision type	±0.01			
	Lost motion [mm] ^{*4}		Basic type	0.1 or less			
			High-precision type	0.05 or less			
	Lead [mm]		16	8	20	10	
Impact/Vibration resistance [m/s ²] ^{*5}		50/20					
Actuation type		Ball screw					
Guide type		Linear guide					
Grease		Ball screw/Linear guide portion					
Cleanliness class ^{*6}		Low particle generation grease					
Allowable external force [N]		ISO Class 4 (ISO 14644-1)					
Operating temperature range [°C]		20					
Operating humidity range [%RH]		5 to 40					
Regeneration option		90 or less (No condensation)					
Regeneration option		May be required depending on speed and work load					
Electric specifications	Motor output [W]/Size [mm]		100/□40		200/□60		
	Motor type		AC servo motor (100/200 VAC)				
	Encoder ^{*9}		Motor type S2, S3: Incremental 17-bit encoder (Resolution: 131072 p/rev) Motor type T6, T7: Absolute 22-bit encoder (Resolution: 4194304 p/rev) (For LECSB-T□, LECS-S-T□) Motor type T6, T7: Absolute 18-bit encoder (Resolution: 262144 p/rev) (For LECS-C-T□)				
	Power [W] ^{*7}		Max. power 445		Max. power 725		
Lock unit specifications	Type ^{*8}		Non-magnetizing lock				
	Holding force [N]		101	203	330	660	
	Power [W] at 20°C		6.3		7.9		
	Rated voltage [V]		24 VDC ⁰ / ₋₁₀ %				

*1 Please contact SMC for non-standard strokes as they are produced as special orders.

*2 For details, refer to the "Speed-Work Load Graph (Guide)" on page 8.

*3 The allowable speed changes according to the stroke.

*4 A reference value for correcting errors in reciprocal operation

*5 Impact resistance: No malfunction occurred when the actuator was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. The test was performed in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

*6 The amount of particle generation changes according to the operating conditions and suction flow rate. Refer to the particle generation characteristics for details.

*7 Indicates the max. power during operation (including the driver)

When selecting the power supply capacity, refer to the power supply capacity in the operation manual of each driver.

*8 Only when motor option "With lock" is selected

*9 The resolution will change depending on the driver type.

* Sensor magnet position is located in the table centre.

For detailed dimensions, refer to the "Auto Switch Mounting Position" on page 50.

* Do not allow collisions at either end of the table centre distance.

Additionally, when running the positioning operation, do not set within 2 mm of both ends.

* For the manufacture of intermediate strokes, please contact SMC.

(11-LEJS40/Manufacturable stroke range: 200 to 1200 mm, 11-LEJS63/Manufacturable stroke range: 300 to 1500 mm)

Weight

Model	11-LEJS40									
Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200
Product weight [kg]	5.6	6.4	7.1	7.9	8.7	9.4	10.2	11.0	11.7	13.3
Additional weight with lock [kg]	S2: 0.2/T6: 0.2									
Model	11-LEJS63									
Stroke [mm]	300	400	500	600	700	800	900	1000	1200	1500
Product weight [kg]	11.4	12.7	13.9	15.2	16.4	17.7	18.9	20.1	22.6	26.4
Additional weight with lock [kg]	S3: 0.4/T7: 0.4									

High Rigidity Slider Type Ball Screw Drive

Clean Room Specification

11-LEJS Series LEJS40, 63



* For details, refer to www.smc.eu and onward.

How to Order

11-LEJS **H** **40** **V6** **A** - **500** □ □ - □ □ □ □

1 2 3 4 5 6 7 8 9 10 11

Clean series●

11 Vacuum type

1 Accuracy

—	Basic type
H	High-precision type

2 Size

40
63

3 Motor type*1

Symbol	Type	Output [W]	2 Size	10 Driver type	Compatible*2 drivers
V6	AC servo motor (Absolute encoder)	100	40	M2	LECYM2-V5
				U2	LECYU2-V5
V7	AC servo motor (Absolute encoder)	200	63	M2	LECYM2-V7
				U2	LECYU2-V7

*1 For motor type V6, the compatible driver part number suffix is V5.

*2 For details on the driver, refer to www.smc.eu.

4 Lead [mm]

Symbol	LEJS40	LEJS63
A	16	20
B	8	10

5 Stroke [mm]*3

200
to
1500

*3 Refer to the applicable stroke table for details.

6 Motor option

—	Without option
B	With lock

7 Vacuum port*5, *6

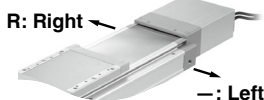
—	Left
R	Right
D	Both left and right

*5 Select "D" for the vacuum port for suction of 50 l/min (ANR) or more.

*6 Vacuum piping is only built in on the vacuum port side selected at the time of purchase.

Note that after purchase, if suction is used on the port on the opposite side, the particle generation characteristics stated in the catalogue may not apply.

To make any changes after purchase, be sure to contact SMC.



8 Cable type*7, *8, *9

—	Without cable
S	Standard cable
R	Robotic cable

*7 When a driver type is selected, a cable is included. Select the cable type and cable length.

*8 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)

*9 Standard cable entry direction is "(A) Axis side."

9 Cable length [m]*7, *10

—	Without cable
3	3
5	5
A	10
C	20

*10 The length of the motor, encoder, and lock cables are the same.

10 Driver type*7

	Compatible drivers	Power supply voltage [V]
—	Without driver	—
M2	LECYM2-V□	200 to 230
U2	LECYU2-V□	200 to 230

11 I/O cable length [m]*11

—	Without cable
H	Without cable (Connector only)
1	1.5

*11 When "—: Without driver" is selected for the driver type, only "—: Without cable" can be selected. Refer to www.smc.eu if an I/O cable is required.

Applicable Stroke Table*4

Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200	1500
Model											
11-LEJS40	●	●	●	●	●	●	●	●	●	●	—
11-LEJS63	—	●	●	●	●	●	●	●	●	●	●

*4 Please contact SMC for non-standard strokes as they are produced as special orders.

Compatible Drivers

Driver type	MECHATROLINK-II type	MECHATROLINK-III type
Series	LECYM	LECYU
Applicable network	MECHATROLINK-II	MECHATROLINK-III
Control encoder	Absolute 20-bit encoder	
Communication device	USB communication, RS-422 communication	
Power supply voltage [V]	200 to 230 VAC (50/60 Hz)	

Specifications

AC Servo Motor (100/200 W)

Model			11-LEJS40V6		11-LEJS63V7		
Actuator specifications	Stroke [mm]*1		200, 300, 400, 500, 600, 700, 800 900, 1000, 1200		300, 400, 500, 600, 700, 800, 900 1000, 1200, 1500		
	Work load [kg]*2		Horizontal	30	55	45	85
			Vertical	5	10	10	20
	Speed*3 [mm/s]	Stroke range	Up to 500	1200	600	1200	600
			501 to 600	1050	520	1200	600
			601 to 700	780	390	1200	600
			701 to 800	600	300	930	460
			801 to 900	480	240	740	370
			901 to 1000	390	190	600	300
			1001 to 1100	320	160	500	250
			1101 to 1200	270	130	420	210
			1201 to 1300	—	—	360	180
			1301 to 1400	—	—	310	150
			1401 to 1500	—	—	270	130
	Max. acceleration/deceleration [mm/s ²]		20000 (Refer to pages 11 and 12 for limit according to work load and duty ratio.)				
	Positioning repeatability [mm]		Basic type	±0.02			
			High-precision type	±0.01			
	Lost motion [mm]*4		Basic type	0.1 or less			
			High-precision type	0.05 or less			
	Lead [mm]		16	8	20	10	
	Impact/Vibration resistance [m/s ²]*5		50/20				
	Actuation type		Ball screw				
	Guide type		Linear guide				
	Grease	Ball screw/Linear guide portion		Low particle generation grease			
	Cleanliness class*6		ISO Class 4 (ISO 14644-1)				
	Operating temperature range [°C]		5 to 40				
	Operating humidity range [%RH]		90 or less (No condensation)				
	Regenerative resistor		May be required depending on speed and work load				
Electric specifications	Motor output [W]/Size [mm]		100/□40		200/□60		
	Motor type		AC servo motor (200 VAC)				
	Encoder		Absolute 20-bit encoder (Resolution: 1048576 p/rev)				
	Power [W]*7		Max. power 445		Max. power 725		
Lock unit specifications	Type*8		Non-magnetizing lock				
	Holding force [N]		101	202	162	324	
	Power [W] at 20°C		5.5		6		
	Rated voltage [V]		24 VDC ^{+10%} ₀				

*1 Please contact SMC for non-standard strokes as they are produced as special orders.

*2 For details, refer to the "Speed-Work Load Graph (Guide)" on page 22.

*3 The allowable speed changes according to the stroke.

*4 A reference value for correcting errors in reciprocal operation

*5 Impact resistance: No malfunction occurred when the actuator was tested with a drop tester in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

Vibration resistance: No malfunction occurred in a test ranging between 45 to 2000 Hz. The test was performed in both an axial direction and a perpendicular direction to the lead screw. (The test was performed with the actuator in the initial state.)

*6 The amount of particle generation changes according to the operating conditions and suction flow rate. Refer to the particle generation characteristics for details.

*7 Indicates the max. power during operation (including the driver)

When selecting the power supply capacity, refer to the power supply capacity in the operation manual of each driver.

*8 Only when motor option "With lock" is selected

* Sensor magnet position is located in the table centre.

For detailed dimensions, refer to the "Auto Switch Mounting Position."

* Do not allow collisions at either end of the table centre distance.

Additionally, when running the positioning operation, do not set within 2 mm of both ends.

* For the manufacture of intermediate strokes, please contact SMC.

(11-LEJS40/Manufacturable stroke range: 200 to 1200 mm, 11-LEJS63/Manufacturable stroke range: 300 to 1500 mm)

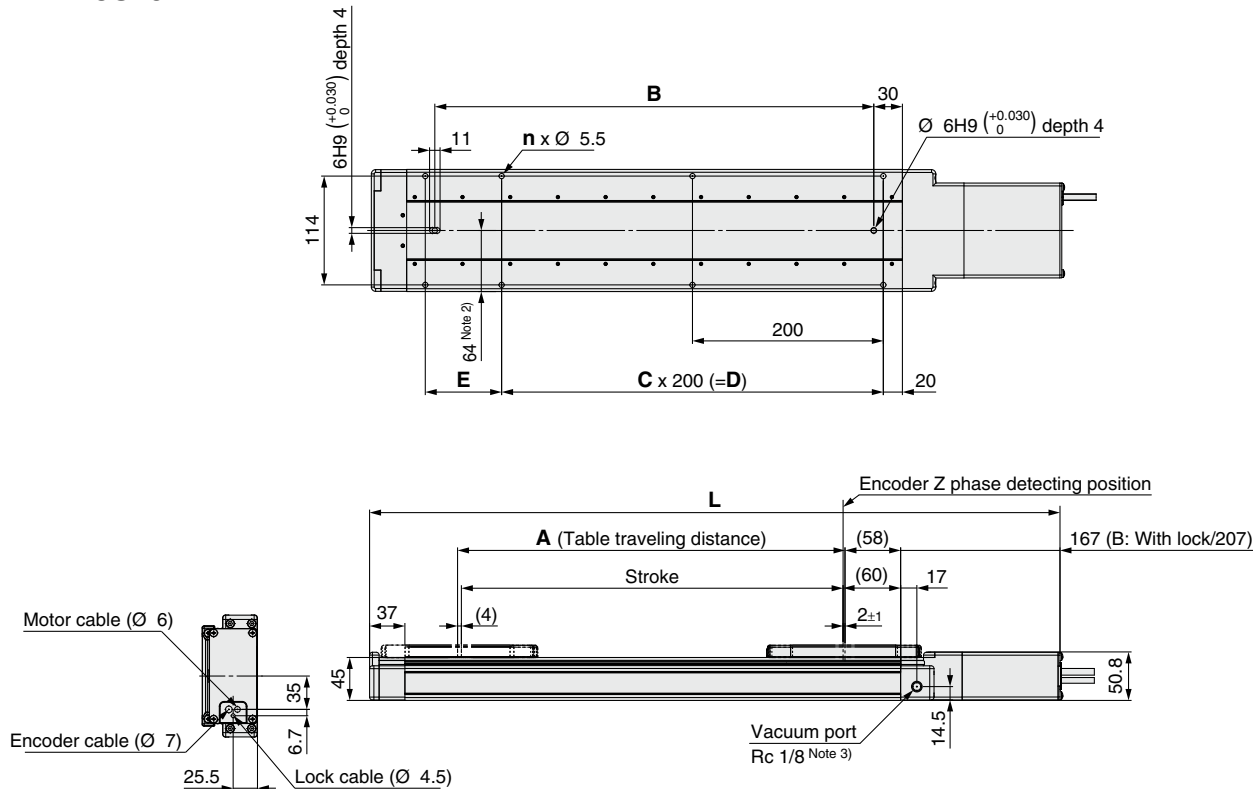
Weight

Model	11-LEJS40									
Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200
Product weight [kg]	5.6	6.4	7.1	7.9	8.7	9.4	10.2	11.0	11.7	13.3
Additional weight with lock [kg]	0.3 (Absolute encoder)									

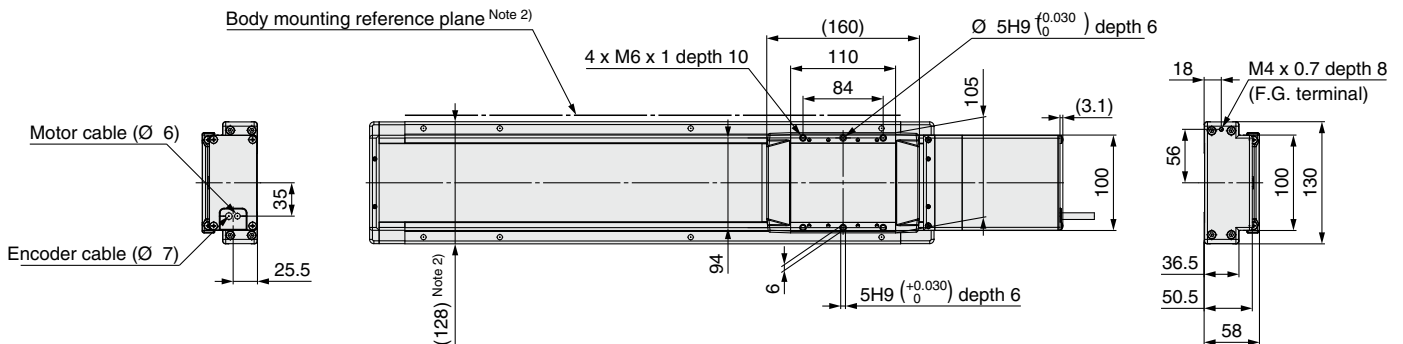
Model	11-LEJS63									
Stroke [mm]	300	400	500	600	700	800	900	1000	1200	1500
Product weight [kg]	11.4	12.7	13.9	15.2	16.4	17.7	18.9	20.1	22.6	26.4
Additional weight with lock [kg]	0.7 (Absolute encoder)									

Dimensions: Ball Screw Drive

11-LEJS40



Motor option B: With lock

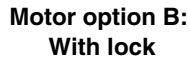


- *1 When mounting the actuator using the body mounting reference plane, use a pin. Set the height of the pin to be 5 mm or more because of round chamfering. (Recommended height: 6 mm)
- *2 This drawing shows the left type.
- * Please contact SMC for adjusting the Z-phase detecting position at the stroke end of the end side.
- * The amount of particle generation changes according to the operating conditions and suction flow rate.

[mm]

Model	L		A	B	n	C	D	E
	Without lock	With lock						
11-LEJS□40□□□-200□□-□□□□	523.5	563.5	206	260	6	1	200	80
11-LEJS□40□□□-300□□-□□□□	623.5	663.5	306	360	6	1	200	180
11-LEJS□40□□□-400□□-□□□□	723.5	763.5	406	460	8	2	400	80
11-LEJS□40□□□-500□□-□□□□	823.5	863.5	506	560	8	2	400	180
11-LEJS□40□□□-600□□-□□□□	923.5	963.5	606	660	10	3	600	80
11-LEJS□40□□□-700□□-□□□□	1023.5	1063.5	706	760	10	3	600	180
11-LEJS□40□□□-800□□-□□□□	1123.5	1163.5	806	860	12	4	800	80
11-LEJS□40□□□-900□□-□□□□	1223.5	1263.5	906	960	12	4	800	180
11-LEJS□40□□□-1000□□-□□□□	1323.5	1363.5	1006	1060	14	5	1000	80
11-LEJS□40□□□-1200□□-□□□□	1523.5	1563.5	1206	1260	16	6	1200	80

11-LEJS63



- [mm]

Model	L		A	B	n	C	D	E
	Without lock	With lock						
11-LEJS□63□□□-300□□-□□□□	656.5	696.5	306	370	6	1	200	180
11-LEJS□63□□□-400□□-□□□□	756.5	796.5	406	470	8	2	400	80
11-LEJS□63□□□-500□□-□□□□	856.5	896.5	506	570	8	2	400	180
11-LEJS□63□□□-600□□-□□□□	956.5	996.5	606	670	10	3	600	80
11-LEJS□63□□□-700□□-□□□□	1056.5	1096.5	706	770	10	3	600	180
11-LEJS□63□□□-800□□-□□□□	1156.5	1196.5	806	870	12	4	800	80
11-LEJS□63□□□-900□□-□□□□	1256.5	1296.5	906	970	12	4	800	180
11-LEJS□63□□□-1000□□-□□□□	1356.5	1396.5	1006	1070	14	5	1000	80
11-LEJS□63□□□-1200□□-□□□□	1556.5	1596.5	1206	1270	16	6	1200	80
11-LEJS□63□□□-1500□□-□□□□	1856.5	1896.5	1506	1570	18	7	1400	180

Electric Actuator/High Rigidity Slider Type Ball Screw Drive

Secondary Battery Compatible

25A-LEJS Series LEJS40, 63



How to Order

Refer to the "CE/UKCA/UL-compliance List" in the www.smc.eu.

25A-LEJS **H** **40** **S2** **A** - **500** □ - □ □ □ □

Series compatible with secondary batteries

1 2 3 4 5 6 7 8 9 10

1 Accuracy

—	Basic type
H	High-precision type

2 Size

40
63

3 Motor type

Symbol	Type	Output [W]	2 Size	9 Driver type	Compatible drivers
S2 *1	AC servo motor (Incremental encoder)	100	40	A1/A2	LECSA□-S1
S3		200	63	A1/A2	LECSA□-S3
T6 *2	AC servo motor (Absolute encoder)	100	40	B2	LECSB2-T5
				C2	LECSC2-T5
		200	63	S2	LECSS2-T5
T7				B2	LECSB2-T7
				C2	LECSC2-T7
				S2	LECSS2-T7

*1 For motor type S2, the compatible driver part number suffix is S1.

*2 For motor type T6, the compatible driver part number is LECS□2-T5.

4 Lead [mm]

Symbol	25A-LEJS40	25A-LEJS63
H	24	30
A	16	20
B	8	10

5 Stroke [mm]*3

200
to
1500

*3 Refer to the applicable stroke table for details.

6 Motor option

—	Without option
B	With lock

7 Cable type*5, *6, *7

—	Without cable
S	Standard cable
R	Robotic cable

*6 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)

*7 Standard cable entry direction is "(A) Axis side."

8 Cable length [m]*5, *8

—	Without cable
2	2
5	5
A	10

*8 The length of the motor, encoder, and lock cables are the same.

9 Driver type*5

	Compatible drivers	Power supply voltage [V]
—	Without driver	—
A1	LECSA1-S□	100 to 120
A2	LECSA2-S□	200 to 230
B2	LECSB2-T□	200 to 240
C2	LECSC2-T□	200 to 230
S2	LECSS2-T□	200 to 240

*5 When a driver type is selected, a cable is included. Select the cable type and cable length.

Example)

S2S2: Standard cable (2 m) + Driver (LECSS2)

S2: Standard cable (2 m)

—: Without cable and driver

10 I/O cable length [m]*9

—	Without cable
H	Without cable (Connector only)
1	1.5

*9 When "—: Without driver" is selected for the driver type, only "—: Without cable" can be selected. Refer to the www.smc.eu if an I/O cable is required.

Applicable Stroke Table*4

●: Standard

Model \ Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200	1500
25A-LEJS40	●	●	●	●	●	●	●	●	●	●	—
25A-LEJS63	—	●	●	●	●	●	●	●	●	●	●

*4 Please contact SMC for non-standard strokes as they are produced as special orders.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the www.smc.eu.

Compatible Drivers

Driver type	Pulse input type/ Positioning type	Pulse input type	CC-Link direct input type	SSCNET III/H type
Series	LECSA	LECSB-T	LECSC-T	LECSS-T
Number of point tables	Up to 7	Up to 255	Up to 255 (2 stations occupied)	—
Pulse input	○	○	—	—
Applicable network	—	—	CC-Link	SSCNET III/H
Control encoder	Incremental 17-bit encoder	Absolute 22-bit encoder	Absolute 18-bit encoder	Absolute 22-bit encoder
Communication function	USB communication	USB communication, RS422 communication	USB communication, RS422 communication	USB communication
Power supply voltage [V]	100 to 120 VAC (50/60 Hz) 200 to 230 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)	200 to 230 VAC (50/60 Hz)	200 to 240 VAC (50/60 Hz)

Solid state auto switches should be ordered separately.

Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

Replacement Parts/Grease Pack

Applied portion	Order no.
Ball screw	GR-D-005 (5 g)
Linear guide	GR-D-010 (10 g)
Dust seal band (Back side only)	

* Copper and zinc materials are used for the motors, cables, controllers/drivers, and auto switch magnets.

Electric Actuator/High Rigidity Slider Type Ball Screw Drive

Secondary Battery Compatible

25A-LEJS Series LEJS40, 63



Refer to the "CE/UKCA/UL-compliance List" in the www.smc.eu.

How to Order

25A-LEJS **H** **40** **V6** **A** - **500** **□** - **□** **□** **□** **□**

Series compatible with secondary batteries

1 Accuracy

—	Basic type
H	High-precision type

2 Size

40
63

3 Motor type *1

Symbol	Type	Output [W]	Actuator size	Compatible drivers
V6	AC servo motor (Absolute encoder)	100	40	LECYM2-V5 LECYU2-V5
V7	AC servo motor (Absolute encoder)	200	63	LECYM2-V7 LECYU2-V7

*1 For motor type V6, the compatible driver part number suffix is V5.

4 Lead [mm]

Symbol	25A-LEJS40	25A-LEJS63
H	24	30
A	16	20
B	8	10

5 Stroke [mm]*3

200
to
1500

*3 Refer to the applicable stroke table for details.

6 Motor option

—	Without option
B	With lock

7 Cable type*5, *6, *7

—	Without cable
S	Standard cable
R	Robotic cable (Flexible cable)

*6 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)

*7 Standard cable entry direction is "(A) Axis side."

8 Cable length [m] *5, *6

—	Without cable
3	3
5	5
A	10
C	20

*6 The length of the motor, encoder, and lock cables are the same.

9 Driver type *5

	Compatible drivers	Power supply voltage [V]
—	Without driver	—
M2	LECYM2-V□	200 to 230
U2	LECYU2-V□	200 to 230

*5 When a driver type is selected, a cable is included. Select the cable type and cable length.

Example)

S2S2: Standard cable (2 m) + Driver (LECSS2)

S2: Standard cable (2 m)

—: Without cable and driver

10 I/O cable length [m]*9

—	Without cable
H	Without cable (Connector only)
1	1.5

*9 When "—: Without driver" is selected for the driver type, only "—: Without cable" can be selected. Refer to the www.smc.eu if an I/O cable is required.

Applicable Stroke Table*4

Model	Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200	1500
25A-LEJS40	●	●	●	●	●	●	●	●	●	●	●	—
25A-LEJS63	—	●	●	●	●	●	●	●	●	●	●	●

*4 Please contact SMC for non-standard strokes as they are produced as special orders.

Solid state auto switches should be ordered separately.

Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900

D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the www.smc.eu.

Compatible Drivers

Driver type	MECHATROLINK-II type	MECHATROLINK-III type
Series	LECYM	LECYU
Applicable network	MECHATROLINK-II	MECHATROLINK-III
Control encoder	Absolute 20-bit encoder	
Communication device	USB communication, RS-422 communication	
Power supply voltage [V]	200 to 230 VAC (50/60 Hz)	

* Copper and zinc materials are used for the motors, cables, controllers/drivers.

Replacement Parts/Grease Pack

Applied portion	Order no.
Ball screw	GR-D-005 (5 g)
Linear guide	GR-D-010 (10 g)
Dust seal band (Back side only)	

Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of “Caution,” “Warning” or “Danger.” They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)¹⁾, and other safety regulations.

-  **Danger:** **Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.
-  **Warning:** **Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
-  **Caution:** **Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

- 1) ISO 4414: Pneumatic fluid power – General rules and safety requirements for systems and their components.
ISO 4413: Hydraulic fluid power – General rules and safety requirements for systems and their components.
IEC 60204-1: Safety of machinery – Electrical equipment of machines. (Part 1: General requirements)
ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1: Robots.
etc.

Warning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalogue information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

3. Do not service or attempt to remove product and machinery/equipment until safety is confirmed.

1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. SMC products cannot be used beyond their specifications. They are not developed, designed, and manufactured to be used under the following conditions or environments.

Use under such conditions or environments is not allowed.

1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Use for nuclear power, railways, aviation, space equipment, ships, vehicles, military application, equipment affecting human life, body, and property, combustion equipment, entertainment equipment, emergency shut-off circuits, press clutches, brake circuits, safety equipment, etc., and use for applications that do not conform to standard specifications such as catalogues and operation manuals.
3. Use for interlock circuits, except for use with double interlock such as installing a mechanical protection function in case of failure. Please periodically inspect the product to confirm that the product is operating properly.

Caution

SMC develops, designs, and manufactures products to be used for automatic control equipment, and provides them for peaceful use in manufacturing industries.

Use in non-manufacturing industries is not allowed.

Products SMC manufactures and sells cannot be used for the purpose of transactions or certification specified in the Measurement Act of each country.

The new Measurement Act prohibits use of any unit other than SI units in Japan.

Limited warranty and Disclaimer/Compliance Requirements

The product used is subject to the following “Limited warranty and Disclaimer” and “Compliance Requirements”. Read and accept them before using the product.

Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.²⁾ Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided. This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalogue for the particular products.

2) Suction cups (Vacuum pads) are excluded from this 1 year warranty.

A suction cup (vacuum pad) is a consumable part, so it is warranted for a year after it is delivered. Also, even within the warranty period, the wear of a product due to the use of the suction cup (vacuum pad) or failure due to the deterioration of rubber material are not allowed by the limited warranty.

Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

Safety Instructions

Be sure to read the “Handling Precautions for SMC Products” (M-E03-3) and “Operation Manual” before use.

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