

**Built-in Intermediate Supports**

**AC Servo Motor**

**Motorless**

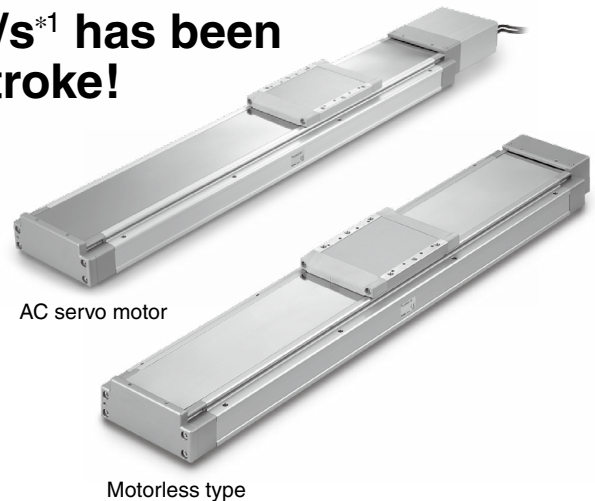
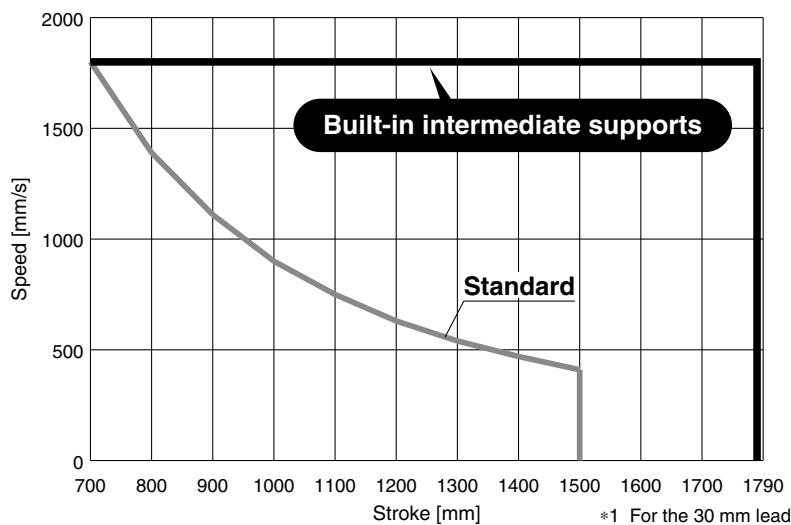
# Electric Actuator: High Rigidity Slider Type Ball Screw Drive



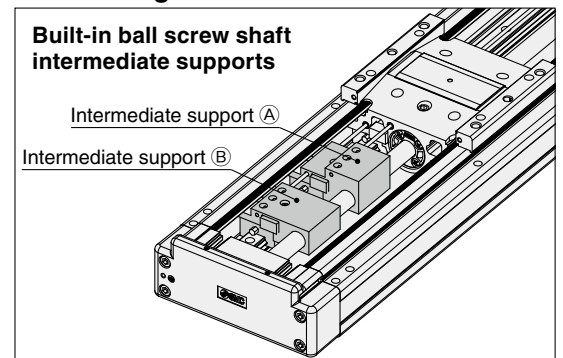
RoHS

[Excludes the motorless type]

- A maximum speed of 1,800 mm/s<sup>\*1</sup> 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.



- Max. stroke: 1,790 mm
- Horizontal work load: 85 kg (For the 10 mm lead)
- Positioning repeatability:  $\pm 0.01$  mm (High-precision type)

## AC Servo Motor

### For absolute encoders

- Pulse input type  
LECSB Series
- CC-Link direct input type  
LECSC Series
- SSCNET III type  
LECSS Series
- SSCNET III/H type  
LECSS-T Series
- MECHATROLINK type  
LECY□ Series



### For incremental encoders

- Pulse input type/  
Positioning type  
LECSA Series



## Motorless Manufacturers of compatible motors: 13 companies

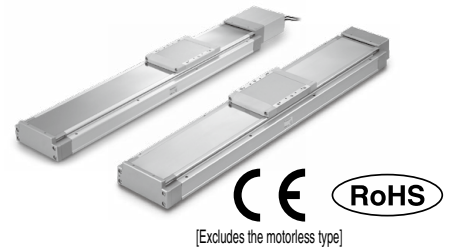
- Mitsubishi Electric Corporation ● YASKAWA Electric Corporation ● SANYO DENKI CO., LTD. ● OMRON Corporation ● Panasonic Corporation
- FANUC CORPORATION ● NIDEC SANKYO CORPORATION ● KEYENCE CORPORATION ● FUJI ELECTRIC CO., LTD.
- Rockwell Automation, Inc. (Allen-Bradley) ● Beckhoff Automation GmbH ● Siemens AG ● Delta Electronics, Inc.

# LEJS63□-□M Series



18-E691

# Electric Actuator: High Rigidity Slider Type Ball Screw Drive LEJS63□-□M Series



## How to Order

### AC Servo Motor

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

1 2 3 4 5 6 7 8 9 10 11

#### 1 Accuracy

|     |                     |
|-----|---------------------|
| Nil | Basic type          |
| H   | High-precision type |

#### 2 Size

|    |
|----|
| 63 |
|----|

#### 3 Motor type

| Symbol | Type                                 | Output [W] | Actuator size | Compatible driver                  |
|--------|--------------------------------------|------------|---------------|------------------------------------|
| S3     | AC servo motor (Incremental encoder) | 200        | 63            | LECSA□-S3                          |
| S7     | AC servo motor (Absolute encoder)    | 200        | 63            | LECSB□-S7<br>LECS□-S7<br>LECSC□-S7 |
| T7     | AC servo motor (Absolute encoder)    | 200        | 63            | LECSS2-T7                          |
| V7     | AC servo motor (Absolute encoder)    | 200        | 63            | LECYM2-V7<br>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 consult with SMC for non-standard strokes as they are produced as special orders.

#### 6 Motor option

|     |           |
|-----|-----------|
| Nil | None      |
| B   | With lock |

#### 7 Built-in intermediate supports

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

#### 8 Cable type\*2 \*3

|     |                                |
|-----|--------------------------------|
| Nil | Without cable                  |
| S   | Standard cable                 |
| R   | Robotic cable (Flexible 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 (LECSC2)

S2: Standard cable (2 m)

Nil: Without cable and driver

\*3 The motor and encoder cables are included. (The lock cable is included when the motor with lock option is selected.)

#### 11 I/O connector\*5

|     |                                |
|-----|--------------------------------|
| Nil | Without cable                  |
| H   | Without cable (Connector only) |
| 1   | 1.5 [m]                        |

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

#### 9 Cable length\*2 \*4

| Nil | Without cable | Motor type |    |
|-----|---------------|------------|----|
|     |               | S□/T□      | V□ |
| 2   | 2             | ●          | —  |
| 3   | 3             | —          | ●  |
| 5   | 5             | ●          | ●  |
| A   | 10            | ●          | ●  |
| C   | 20            | —          | ●  |

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

#### 10 Driver type\*2

| Symbol | Compatible driver | Power supply voltage [V] |
|--------|-------------------|--------------------------|
| Nil    | Without driver    | —                        |
| A1     | LECSA1-S□         | 100 to 120               |
| A2     | LECSA2-S□         | 200 to 230               |
| B1     | LECSB1-S□         | 100 to 120               |
| B2     | LECSB2-S□         | 200 to 230               |
| C1     | LECSC1-S□         | 100 to 120               |
| C2     | LECSC2-S□         | 200 to 230               |
| S1     | LECSC1-S□         | 100 to 120               |
| S2     | LECSC2-S□         | 200 to 230               |
|        | LECSC2-T□         | 200 to 240               |
| M2     | LECYM2-V□         | 200 to 230               |
| U2     | LECYU2-V□         | 200 to 230               |

## How to Order

### Motorless

**LEJS H 63 NZ A - 790 M**

① ② ③ ④ ⑤ ⑥

#### ① Accuracy

|     |                     |
|-----|---------------------|
| Nil | Basic type          |
| H   | High-precision type |

#### ② Size

63

#### ③ Motor type

|    |                 |
|----|-----------------|
| NZ | Mounting type Z |
| NY | Mounting type Y |
| NX | Mounting type X |
| NW | Mounting type W |
| NV | Mounting type V |
| NU | Mounting type U |
| NT | Mounting type T |

#### 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 consult with SMC for non-standard strokes as they are produced as special orders.

#### ⑥ Built-in intermediate supports

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

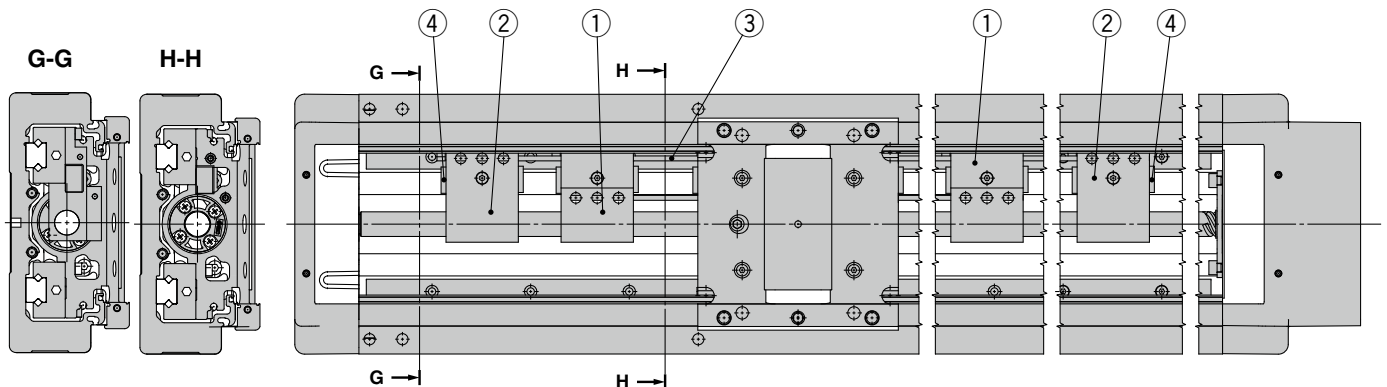
## Specifications

| 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 |      |      |     |

Other specifications that are not listed are the same as those of the standard product. For details, refer to the **Web Catalog**.

## 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 |



**Refer to the “Motor Mounting” on page 5 for details about motor mounting and included parts.**

Technical drawing of the LEJS63 series motor showing three views: front, side, and end view.

**Front View Dimensions:**

- Overall height: 160
- Overall width: 124
- Base width: 73
- Terminal box width: 49.5
- Terminal box height: 68
- Mounting hole diameter: M4 x 0.7 depth 8 (F.G. terminal)

**Side View Dimensions:**

- Overall length: 172
- Terminal box length: 122
- Terminal box width: 90
- Terminal box height: 129
- Mounting hole diameter: 4 x M8 x 1.25 depth 12
- Mounting hole diameter: 6H9 (+0.030/0) depth 7

**End View Dimensions:**

- Overall diameter: 124
- Mounting hole diameter: 4 x FA thread depth FB
- Mounting angle: 45°
- Central shaft diameter: øFD

**Mounting type: Y, X, V**

**LEJS63NY□-□**

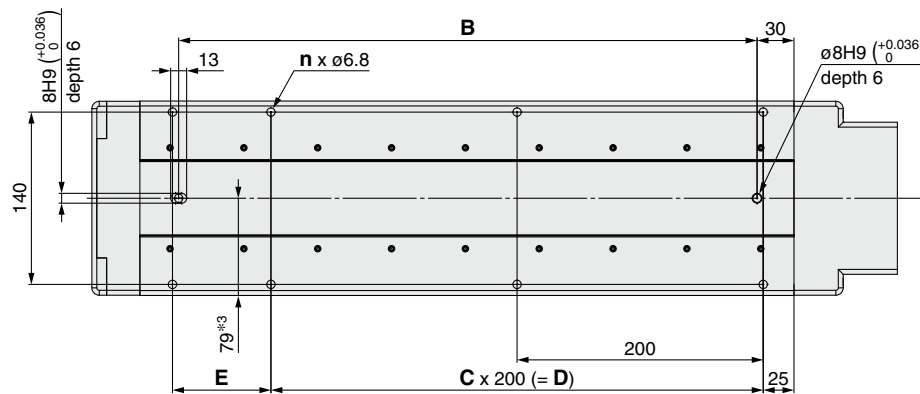
**LEJS63NX□-□**

**LEJS63NV□-□**

**Mounting type: Y, X, V**  
**LEJS63NY**□-□  
**LEJS63NX**□-□  
**LEJS63NV**□-□



\*1 Upper dimension: 790 to 1190 mm stroke  
\*2 Lower dimension: 1490 to 1790 mm stroke



\*3 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)

## [mm]

| Model            | L      | B    | n  | C  | D    | E   | Product weight [kg] |
|------------------|--------|------|----|----|------|-----|---------------------|
| LEJS□63N□□-790M  | 1154.5 | 970  | 12 | 4  | 800  | 180 | 18.4                |
| LEJS□63N□□-890M  | 1254.5 | 1070 | 14 | 5  | 1000 | 80  | 19.7                |
| LEJS□63N□□-990M  | 1354.5 | 1170 | 14 | 5  | 1000 | 180 | 20.9                |
| LEJS□63N□□-1190M | 1554.5 | 1370 | 16 | 6  | 1200 | 180 | 23.4                |
| LEJS□63N□□-1490M | 1954.5 | 1770 | 20 | 8  | 1600 | 180 | 28.9                |
| LEJS□63N□□-1790M | 2254.5 | 2070 | 24 | 10 | 2000 | 80  | 32.7                |

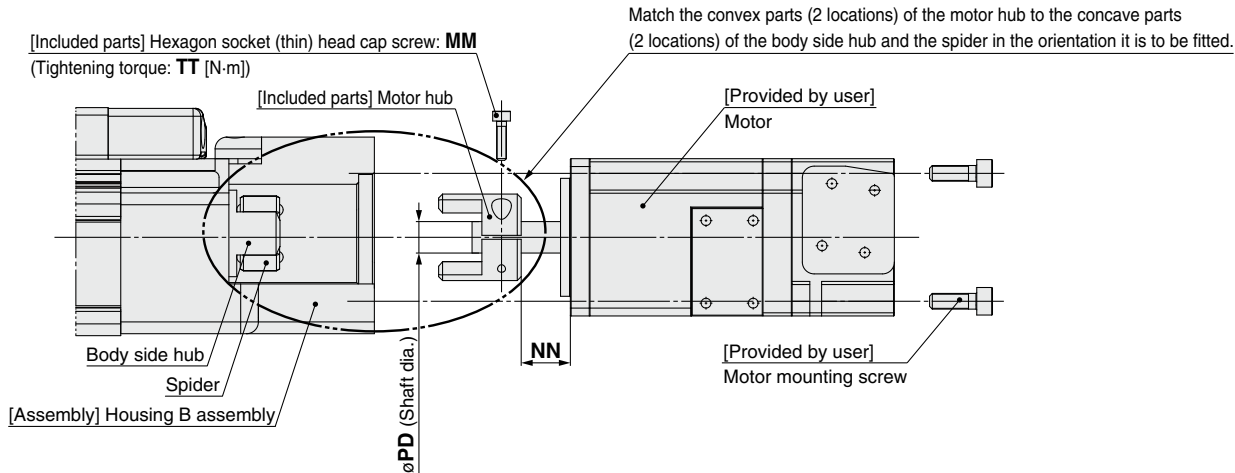
## [mm]

| Motor type                | FA       | FB | FD |
|---------------------------|----------|----|----|
| <b>NZ/Mounting type Z</b> | M5 x 0.8 | 7  | 70 |
| <b>NY/Mounting type Y</b> | M4 x 0.7 | 6  | 70 |
| <b>NX/Mounting type X</b> | M5 x 0.8 | 6  | 63 |
| <b>NW/Mounting type W</b> | M5 x 0.8 | 7  | 70 |
| <b>NV/Mounting type V</b> | M4 x 0.7 | 6  | 63 |
| <b>NU/Mounting type U</b> | M5 x 0.8 | 7  | 70 |
| <b>NT/Mounting type T</b> | M5 x 0.8 | 7  | 70 |

# LEJS63□-□M Series

## Motor Mounting

- When mounting a hub, remove all oil content, dust, and dirt adhered to the shaft and the inside of the hub.
- This product does not include the motor and motor mounting screws. (Provided by user)  
Prepare a motor with a round shaft end.
- Take measures to prevent the loosening of the motor mounting screws.



### Mounting procedure

- 1) Secure the motor hub to the motor (provided by user) with the MM hexagon socket head cap screw.
- 2) Check the motor hub position, and then insert it.
- 3) Secure the motor to the housing B assembly with the motor mounting screws (provided by user).

### Dimensions

| Size | Motor type         | MM      | TT  | NN | PD |
|------|--------------------|---------|-----|----|----|
| 63   | NZ/Mounting type Z | M3 x 12 | 1.5 | 18 | 14 |
|      | NY/Mounting type Y | M4 x 12 | 2.7 | 18 | 11 |
|      | NX/Mounting type X | M4 x 12 | 2.7 | 8  | 9  |
|      | NW/Mounting type W | M4 x 12 | 2.7 | 12 | 9  |
|      | NV/Mounting type V | M4 x 12 | 2.7 | 8  | 9  |
|      | NU/Mounting type U | M4 x 12 | 2.7 | 12 | 11 |
|      | NT/Mounting type T | M3 x 12 | 1.5 | 18 | 12 |

### Included Parts List

#### Size: 63

| Description                                               | Qty. | Note                                      |
|-----------------------------------------------------------|------|-------------------------------------------|
| Motor hub                                                 | 1    | —                                         |
| Hexagon socket head cap screw<br>(to secure the hub)      | 1    | M3 x 12: Motor type NZ, NT                |
| Hexagon socket thin head cap screw<br>(to secure the hub) |      | M4 x 12:<br>Motor type NY, NX, NW, NV, NU |

### ⚠ Caution

1. During operation, the intermediate support mechanism emits a collision noise due to the structure.
2. Compared to the standard product, the entire length of the product will be longer for each stroke. For details, refer to the dimensions.
3. 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).

