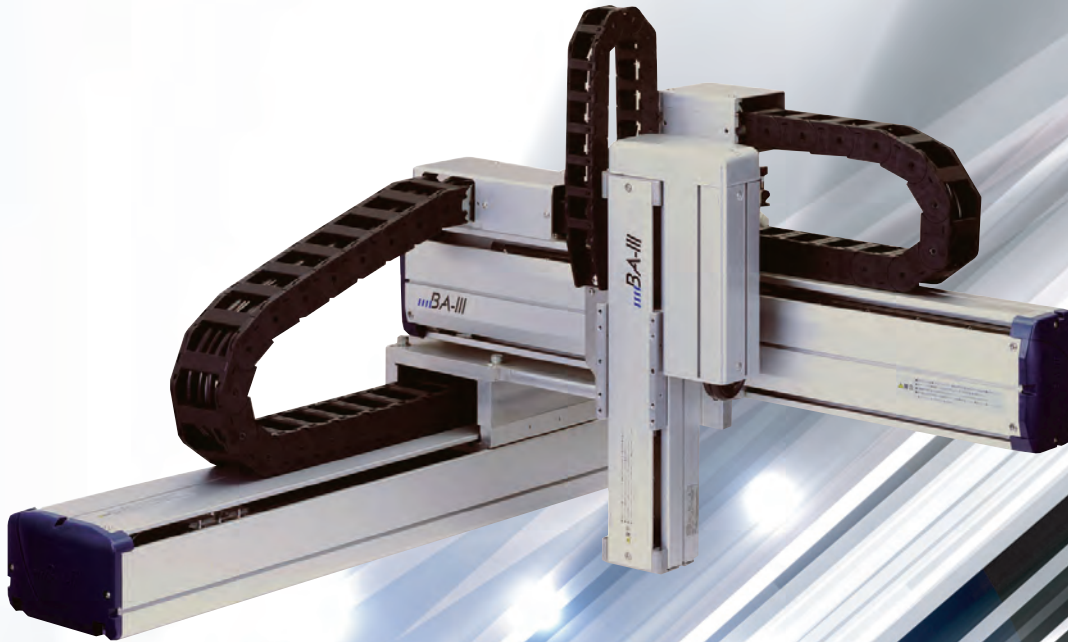


**TOSHIBA MACHINE**

**COMPO ARM**  
ARM ROBOT

**BA-III** SERIES



# COMPO ARM

## BA-III

Launched in 1986, the Cartesian robot COMPO ARM has developed a proven track record among many devoted customers because of its features of high reliability and ease of operation. For this reason, today, it is used as an integral part in many different types of production lines.

The new BA-III series carries on the features of the previous BA-II series while also providing enhanced functions for even greater ease of operation. Models are available from single-axis to Cartesian axes (2 to 4 axes) and in a wide range of variations for also meeting the future needs of customers.

### ● High load

<Maximum loadable weight>

Single-axis specifications: Horizontal 250 kg, Vertical 100 kg, X-Y2 axis combination specifications: 100 kg

\*When driven by BE60J ball screw

### ● Long stroke

<Maximum stroke>

Maximum stroke: 4450 mm \*When driven by BE60J timing belt

### ● High tact

<Maximum speed>

Driven by ball screw: 1200 mm/s, Driven by timing belt: 2000 mm/s

### ● High accuracy

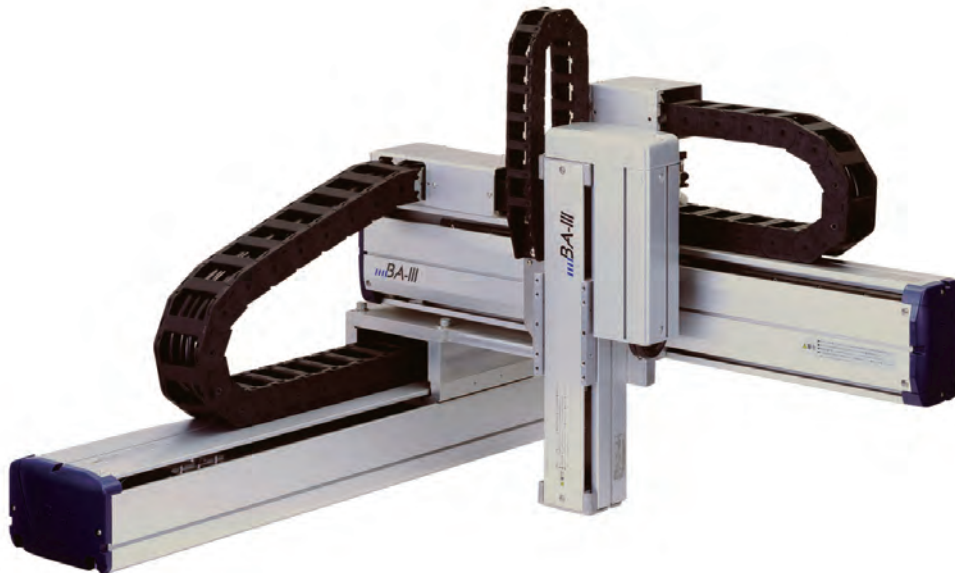
<Position repeatability>

Driven by ball screw (grinding ball screw grade C7):  $\pm 0.01$  mm, Driven by timing belt:  $\pm 0.04$  mm

### ● Absolute specifications for all models

Includes AC servomotor not requiring home return (absolute specifications)

## Robot Features



***BA-III series aims for even greater ease of operation!***

- Oilless seals are used in the LM guide and ball screw for enabling maintenance-free operation over extended periods of time.
- Compact AC servomotor is installed for enabling a shorter total axis length.
- Models with long strokes were added to the line-up for expanding the robot operating range.

# Controller Features



CA25-M10



CA25-M40  
CA25-M80



For four-axis

## Enhanced Functions!

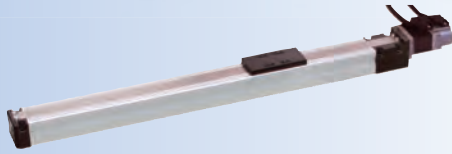
- A high-performance servo control engine is used to enable handling of even complex sealing work.
- A special line-up of controllers for high loads (motor capacity: 750 W) is available for reducing the cost of high-load systems.
- A master unit with a built-in driver for one axis can handle up to a maximum of four control axes (two axes in previous models) for eliminating the need for a high-function master unit, which was required for 3- and 4-axis combinations before. This enables lower costs and reduced space requirements.
- The processing speed of the controller has been increased for further reducing the cycle time.
- The "external point designation mode" has been enhanced so that after positioning is completed, external output of the point table number is possible.
  - \* "External point designation mode" is an operation mode that performs positioning operation by output signals from the PLC or other device without using commands.

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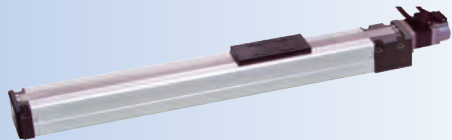
For Transfer of Light Loads ◆ Maximum payload 4kg  30kg



### BA3-T5D (Ball screw drive)

- Motor output (W) ..... 50
- Stroke (mm) ..... 50 - 500
- Maximum payload (kg) (Note 1) ..... 5 - 10 (horizontal), 1.5 - 3 (vertical)
- Maximum speed (mm/s) (Note 2) .... 800 (stroke 450mm max., lead 12mm)
- Positioning repeatability (mm) ..... ±0.02

Available models: Pages 8-9 Description: Page 22



### BA3-T7D (Ball screw drive)

- Motor output (W) ..... 50
- Stroke (mm) ..... 50 - 700
- Maximum payload (kg) (Note 1) ..... 12 - 30 (horizontal), 4 - 8 (vertical)
- Maximum speed (mm/s) (Note 2) .... 800 (stroke 550mm max., lead 12mm)
- Positioning repeatability (mm) ..... ±0.02

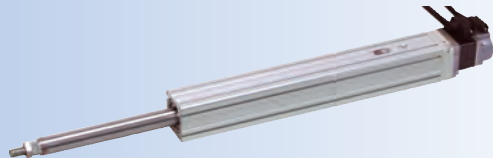
Available models: Pages 8-9 Description: Page 23



### BA3-T3D (Ball screw drive) Pushrod type

- Motor output (W) ..... 50
- Stroke (mm) ..... 50 - 150
- Maximum payload (kg) ..... 4 (horizontal), 1.9 (vertical)
- Maximum speed (mm/s) ..... 600
- Positioning repeatability (mm) ..... ±0.02

Available models: Pages 9-10 Description: Page 52



### BA3-T4D (Ball screw drive) Pushrod type

- Motor output (W) ..... 50
- Stroke (mm) ..... 50 - 200
- Maximum payload (kg) ..... 7 (horizontal), 3.1 (vertical)
- Maximum speed (mm/s) ..... 600
- Positioning repeatability (mm) ..... ±0.02

Available models: Pages 9-10 Description: Page 53

### BA3-T5E (Ball screw drive) Pushrod type

- Motor output (W) ..... 100
- Stroke (mm) ..... 50 - 300
- Maximum payload (kg) ..... 25 (horizontal), 6.5 (vertical)
- Maximum speed (mm/s) (Note 2) .... 600 (stroke 250mm max)
- Positioning repeatability (mm) ..... ±0.02

Available models: Pages 9-10 Description: Page 54



### BA3-00D (Harmonic drive)

- Motor output (W) ..... 50
- Maximum payload (kg) ..... 10
- Rotation range ..... 360°
- Maximum speed (deg/s) ..... 360
- Positioning repeatability (deg) ..... ±0.025

Available models: Pages 10 Description: Page 50



### BA3-00-RP (Planet gear)

- Motor output (W) ..... 50
- Maximum payload (kg) ..... 10
- Rotation range ..... 360°
- Maximum speed (deg/s) ..... 857
- Positioning repeatability (deg) ..... ±0.125

Available models: Pages 10 Description: Page 51

Note 1: The payload varies depending on the lead and motor output.

Note 2: The speed varies depending on the lead and stroke.



# For Transfer of Medium Loads ◆ Maximum payload 15kg 80kg



## BA3-10 (Ball screw drive)

- Motor output (W) ..... 100
- Stroke (mm) ..... 100 - 1250
- Maximum payload (kg) (Note 1) ..... 20 - 80 (horizontal), 3 - 22 (vertical)
- Maximum speed (mm/s) (Note 2) .... 1200 (stroke 600mm max., lead 20mm)
- Positioning repeatability (mm) ..... ±0.01

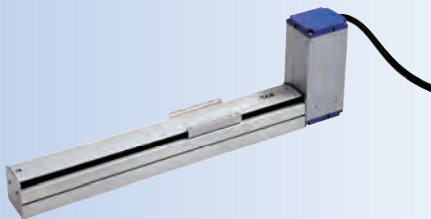
Available models: Pages 8-9  
Description: Page 24-25



## BA3-30 (Ball screw drive)

- Motor output (W) ..... 100, 200
- Stroke (mm) ..... 100 - 1250
- Maximum payload (kg) (Note 1) ..... 30 - 100 (horizontal), 3 - 40 (vertical)
- Maximum speed (mm/s) (Note 2) .... 1200 (stroke 600mm max., lead 20mm)
- Positioning repeatability (mm) ..... ±0.01

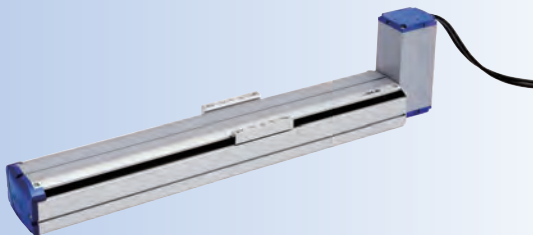
Available models: Pages 8-9  
Description: Page 26-29



## BA3-10 (Timing belt drive)

- Motor output (W) ..... 100, 200
- Stroke (mm) ..... 100 - 2550
- Maximum payload (kg) (Note 1) ..... 15 - 20 (horizontal)
- Maximum speed (mm/s) (Note 2) .... 2000 (lead 42mm)
- Positioning repeatability (mm) ..... ±0.04

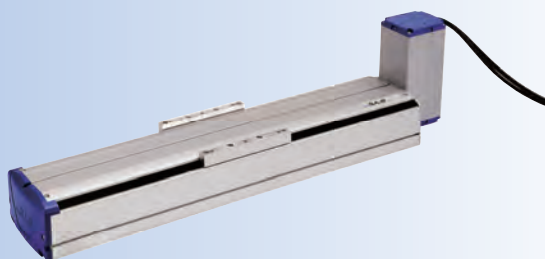
Available models: Pages 8  
Description: Page 36-39



## BA3-30 (Timing belt drive)

- Motor output (W) ..... 100, 200
- Stroke (mm) ..... 100 - 2550
- Maximum payload (kg) (Note 1) ..... 15 - 20 (horizontal)
- Maximum speed (mm/s) (Note 2) .... 2000 (lead 42mm)
- Positioning repeatability (mm) ..... ±0.04

Available models: Pages 8  
Description: Page 40-43



## BA3-50 (Timing belt drive)

- Motor output (W) ..... 200, 400
- Stroke (mm) ..... 200 - 3500
- Maximum payload (kg) (Note 1) ..... 20 - 40 (horizontal)
- Maximum speed (mm/s) (Note 2) .... 2000 (lead 42mm)
- Positioning repeatability (mm) ..... ±0.04

Available models: Pages 8  
Description: Page 44-47

Note 1: The payload varies depending on the lead and motor output.  
Note 2: The speed varies depending on the lead and stroke.

**For Transfer of Heavy Loads** ♦ **Maximum payload 60kg** ||||||||| ▶ **250kg**



**BA3-50 (Ball screw drive)**

- Motor output (W) ..... 200, 400
- Stroke (mm) ..... 200 - 1600
- Maximum payload (kg) (Note 1) .... 60 - 150 (horizontal), 3 - 60 (vertical)
- Maximum speed (mm/s) (Note 2) .. 1200 (stroke 600mm max., lead 20mm)
- Positioning repeatability (mm) ..... ±0.01

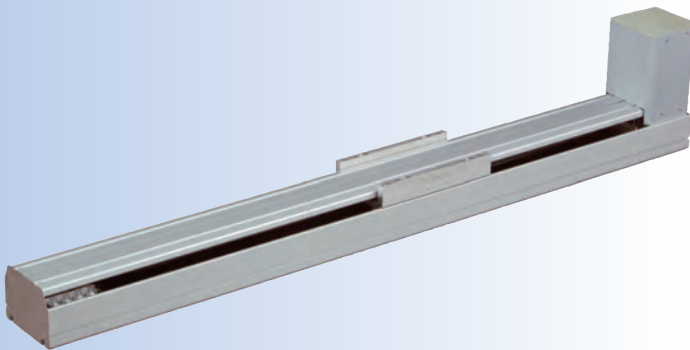
Available models: Pages 8-9 Description: Page 30-33



**BA3-60 (Ball screw drive)**

- Motor output (W) ..... 400, 750
- Stroke (mm) ..... 150 - 1700
- Maximum payload (kg) (Note 1) .... 25 - 250 (horizontal), 25 - 100 (vertical)
- Maximum speed (mm/s) (Note 2) .. 2400 (stroke 700mm max., lead 40mm 400W)  
2300 (stroke 1000mm max., lead 40mm 750W)
- Positioning repeatability (mm) ..... ±0.01

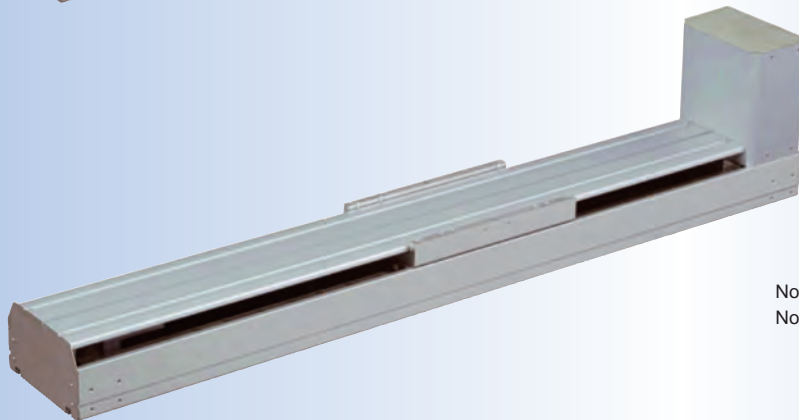
Available models: Pages 8-9 Description: Page 34-35



**BA3-50 (Timing belt drive)**

- Motor output (W) ..... 400
- Stroke (mm) ..... 150 - 4450
- Maximum payload (kg) ..... 100 (horizontal)
- Maximum speed (mm/s) ..... 1000
- Positioning repeatability (mm) ..... ±0.05

Available models: Pages 8 Description: Page 48



**BA3-60 (Timing belt drive)**

- Motor output (W) ..... 750
- Stroke (mm) ..... 150 - 4450
- Maximum payload (kg) ..... 200 (horizontal)
- Maximum speed (mm/s) ..... 1000
- Positioning repeatability (mm) ..... ±0.05

Available models: Pages 8 Description: Page 49

Note 1: The payload varies depending on the lead and motor output.

Note 2: The speed varies depending on the lead and stroke.

## [Cartesian axes] Typical Examples

Other combinations of multiple models are possible.

### ■ 2 axes (X-Y)

Type selection: Page 11  
See Pages 56 - 76



### ■ 2 axes (X-Z)

Type selection: Page 11  
See Pages 77 - 88



### ■ 2 axes (Y-Z)

Type selection: Page 12  
See Pages 89 - 101



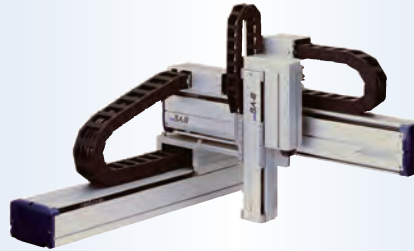
### ■ 2 axes (Z-Y)

Type selection: Page 12  
See Pages 102 - 112



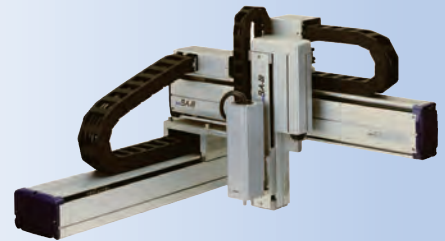
### ■ 3 axes (X-Y-Z)

Type selection: Page 13 - 14  
See Pages 113 - 133



### ■ 4 axes (X-Y-Z-R)

Type selection: Page 15  
See Pages 134 - 141



## [Components of control system] Controller

### Master unit

See Pages 164 - 170



CA25-M10



CA25-M40  
CA25-M80

### Slave unit

See Pages 171 - 175



CA25-S10

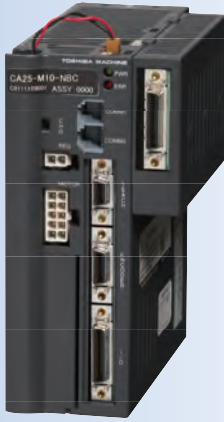


CA25-S40  
CA25-S80



# [Components of control system] Controller

## Other optional units



**With extension I/O Unit**  
See Pages 178 - 179



**With CC-Link Unit**  
See Pages 180 - 182



**With DeviceNet Unit**  
See Pages 183 - 185

## Regenerative discharge unit

See Pages 186 - 190



ABSU-2000  
ABSU-4000\*

\* ABSU-4000 is attached to the fan bottom.



ABSU-8000

## Teach pendant

See page 191



TPH-4C

# Type Selection

## Single Axis Specifications

Single axis payload table (horizontal) .....8

Single axis payload table (vertical, rotation) .....9

## 2-Axis Combination

2-axis (X-Y) combination payload table .....11

2-axis (X-Z) combination payload table .....11

2-axis (Y-Z) combination payload table .....12

2-axis (Z-Y) combination payload table .....12

## 3-Axis Combination

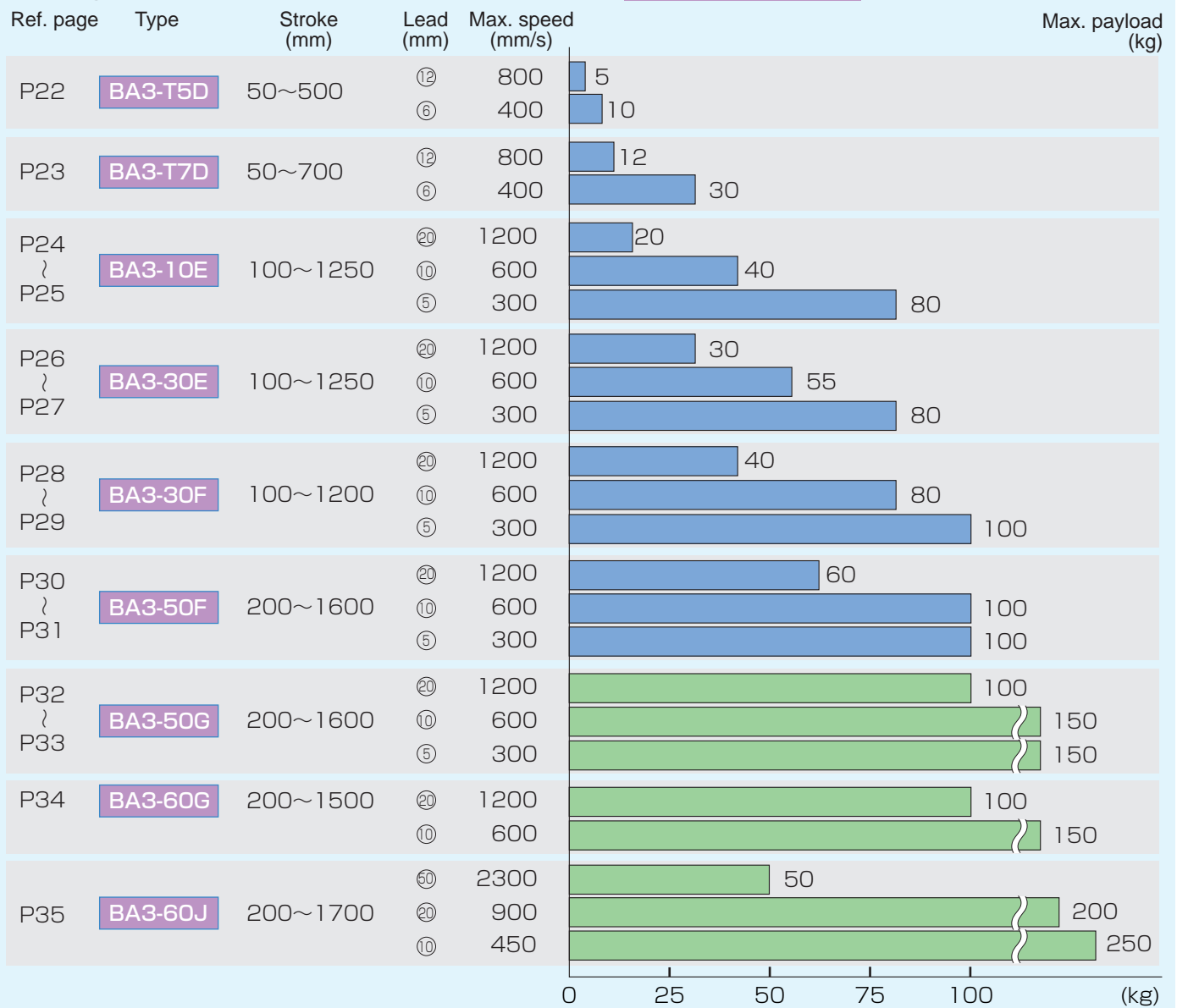
3-axis (X-Y-Z) combination payload table .....13

## 4-Axis Combination

4-axis (X-Y-Z-R) combination payload table .....15

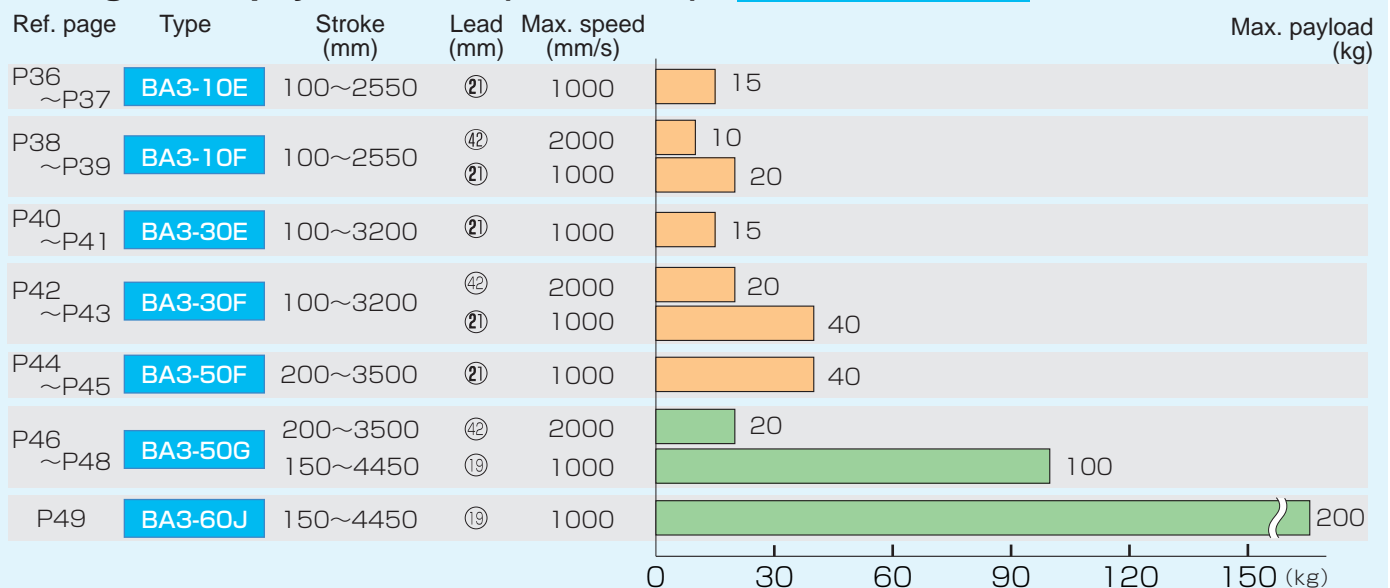
## Single axis payload table (horizontal)

Ball screw driven



## Single axis payload table (horizontal)

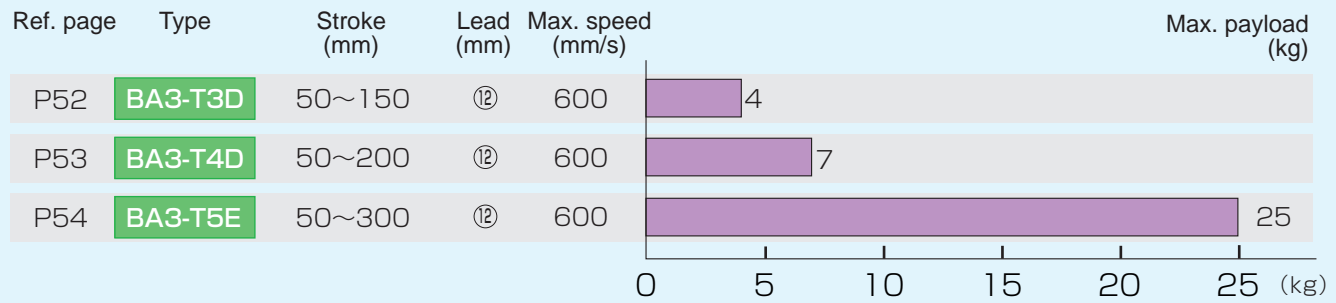
Timing belt driven



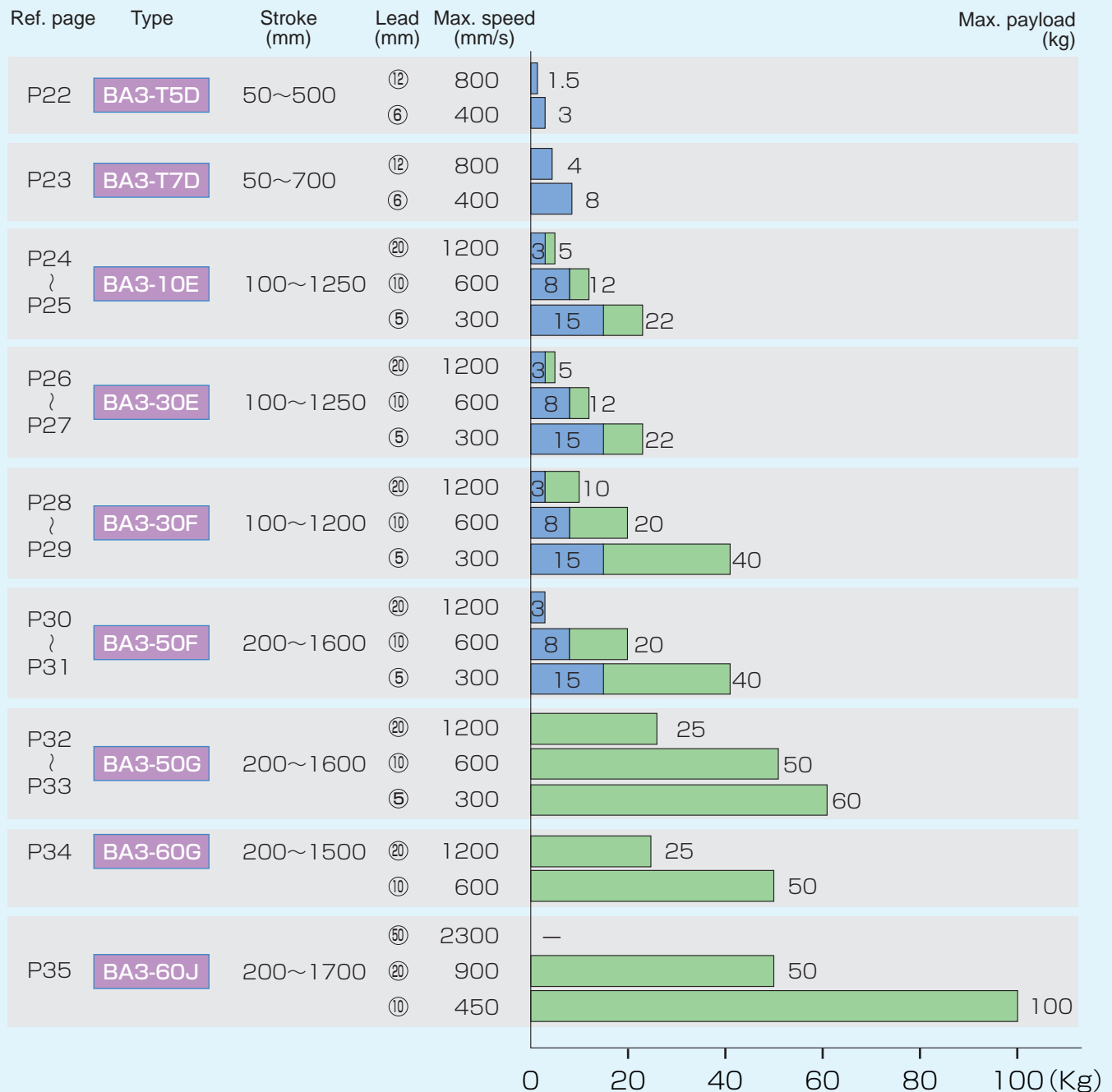
\* When a regenerative discharge unit is used.



## Single axis payload table (horizontal) Ball screw driven (pushrod type)

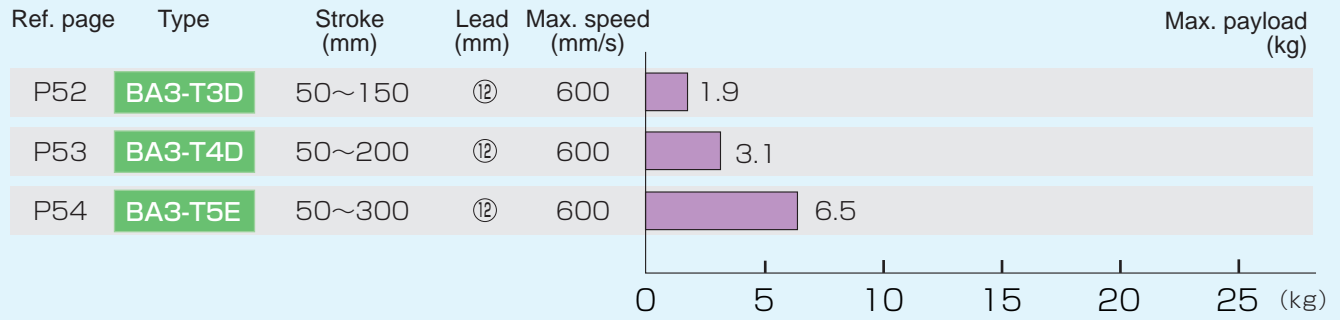


## Single axis payload table (vertical) Ball screw driven

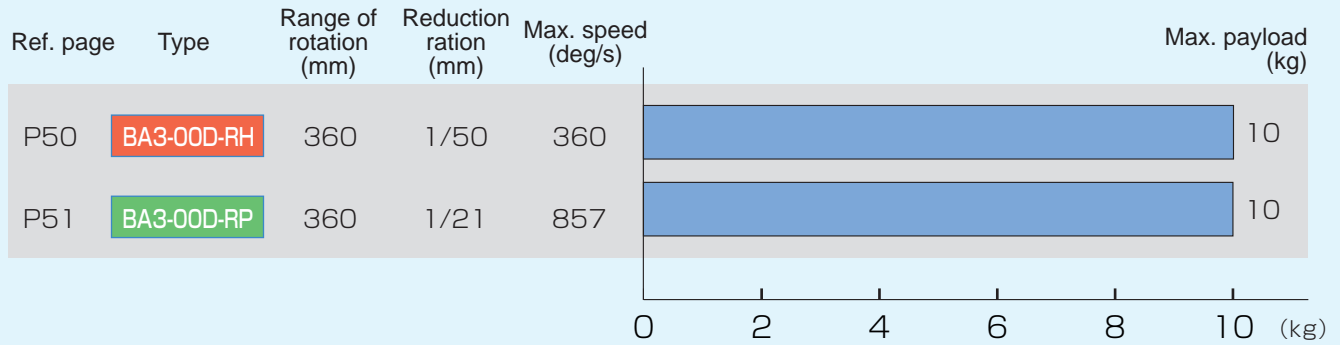


   \* When a regenerative discharge unit is used.

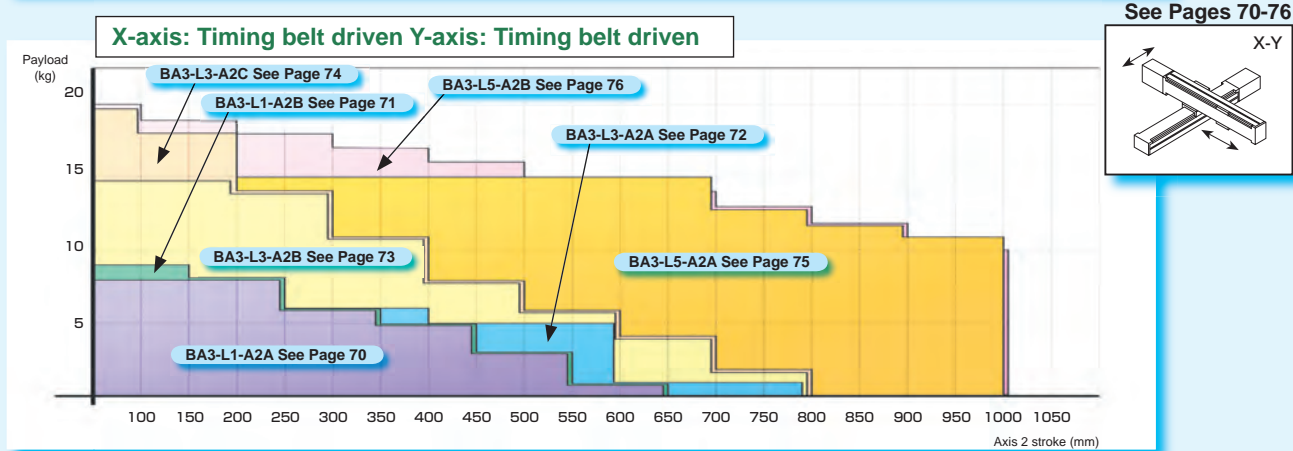
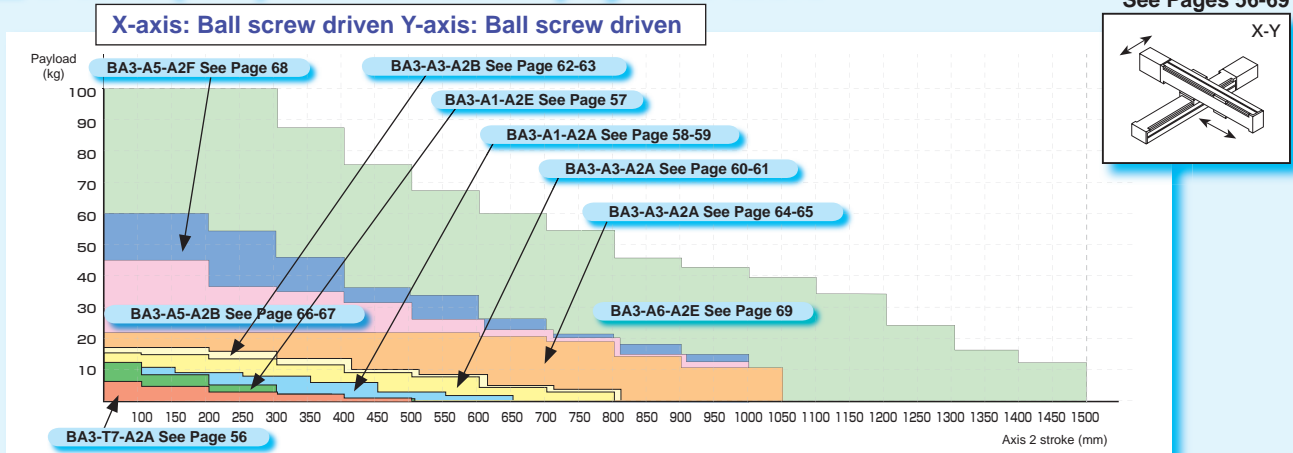
## Single axis payload table (vertical) **Ball screw driven (pushrod type)**



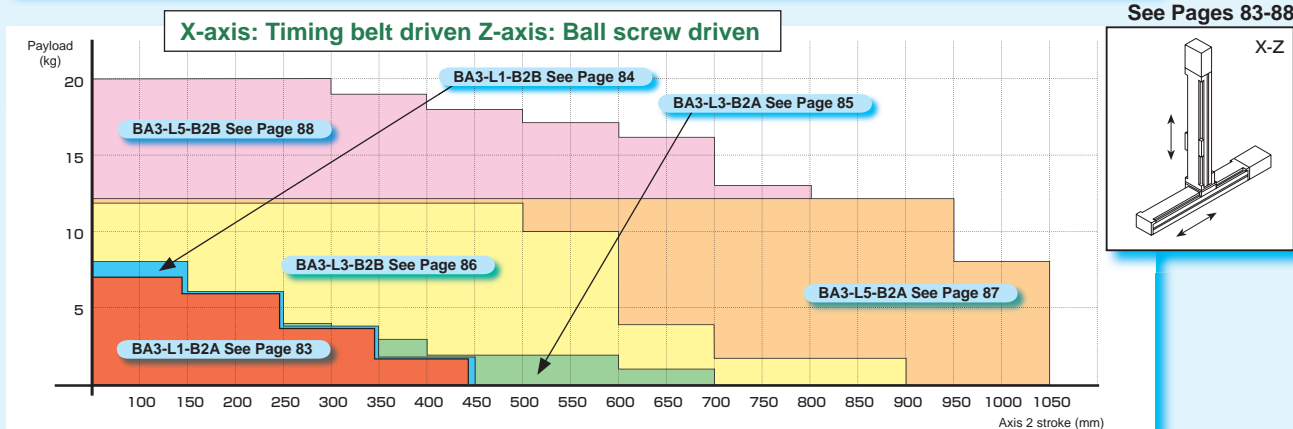
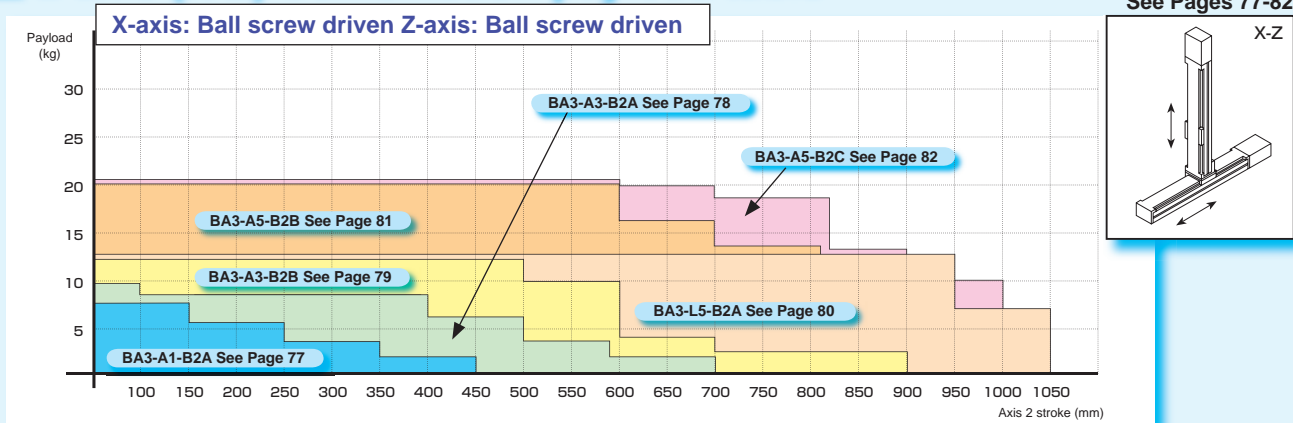
## Single axis payload table (rotation) **Harmonic drive** **Planet gear**



## 2-axis (X-Y) Combination payload table

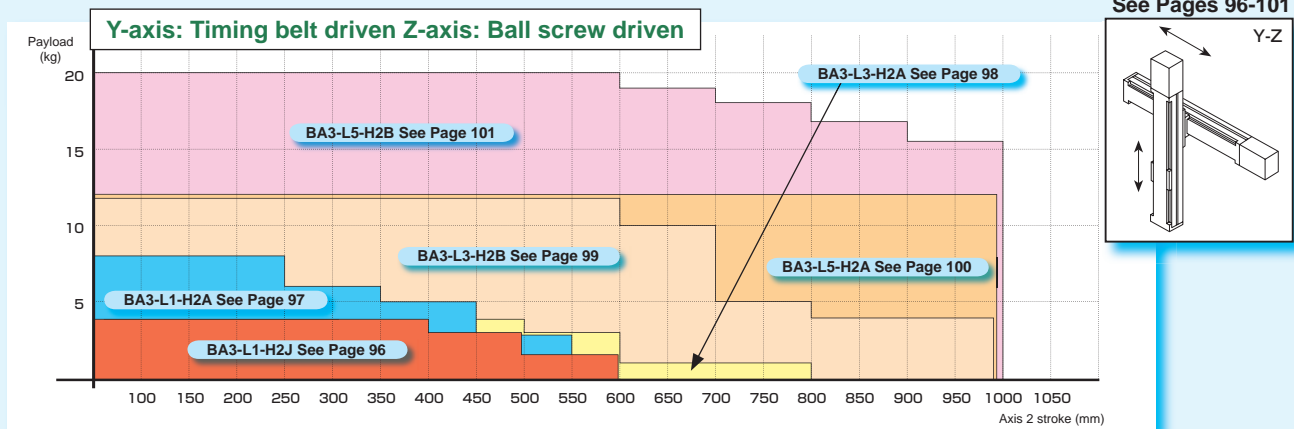
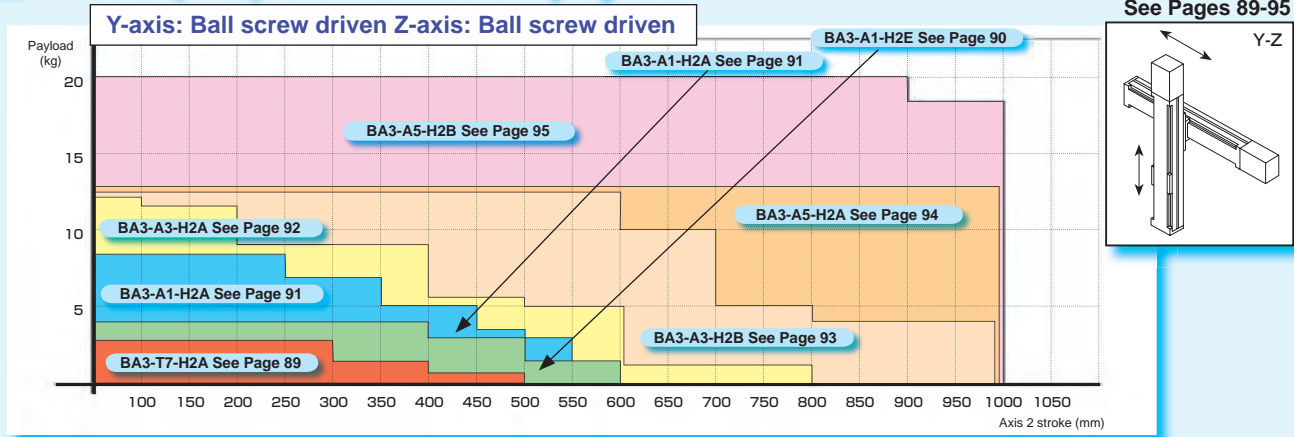


## 2-axis (X-Z) Combination payload table

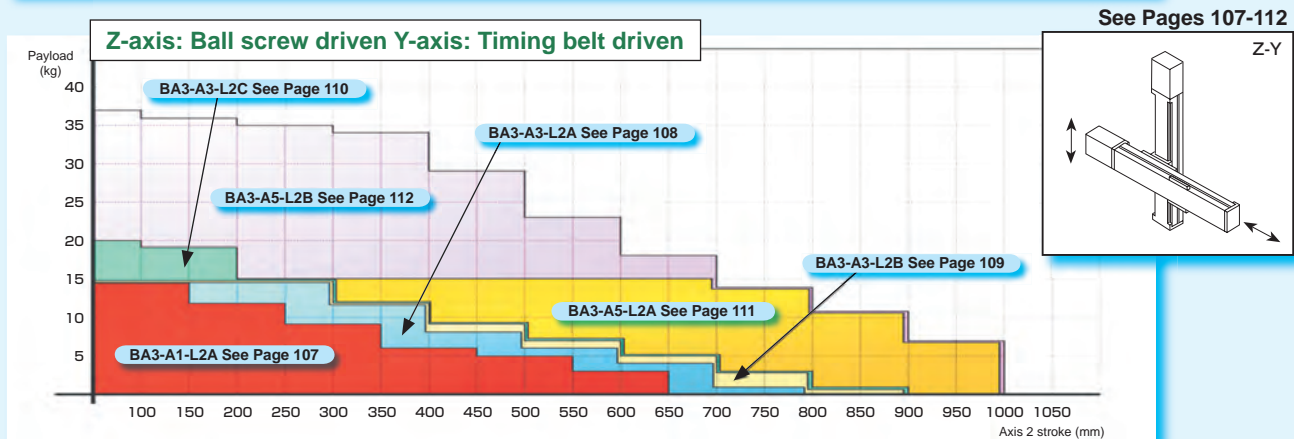
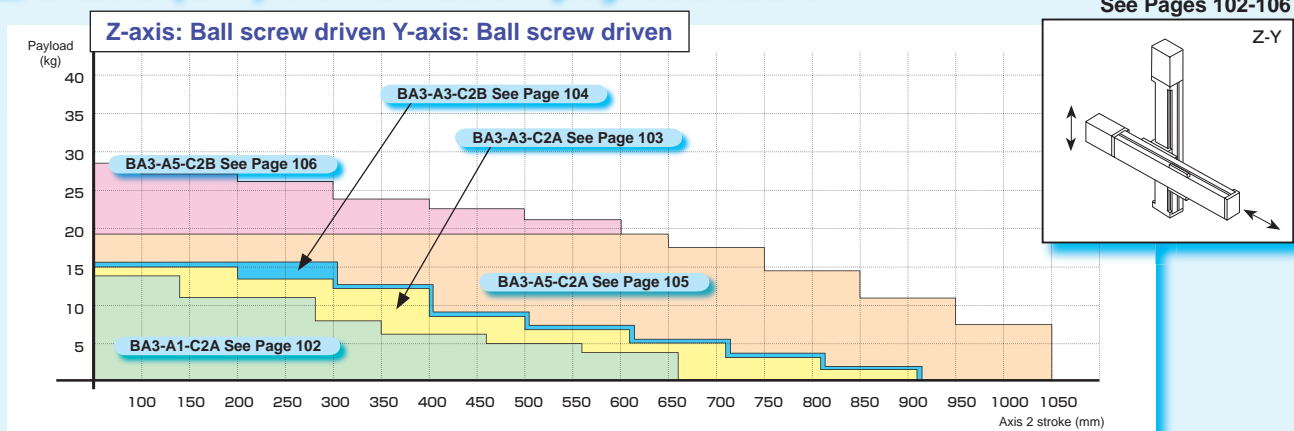




## 2-axis (Y-Z) Combination payload table



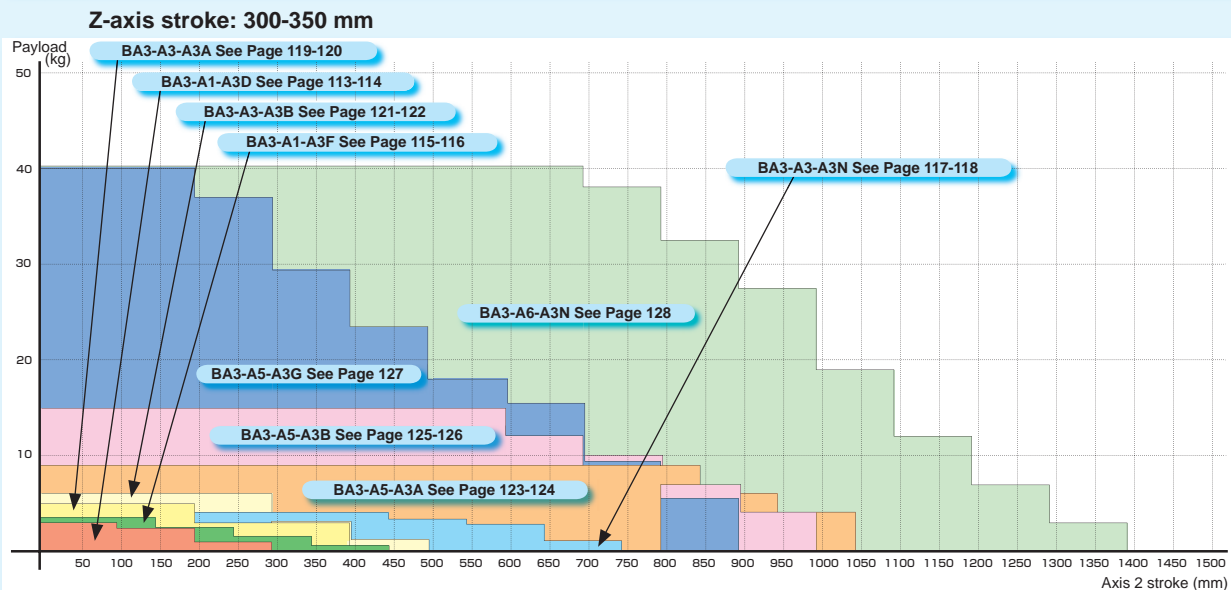
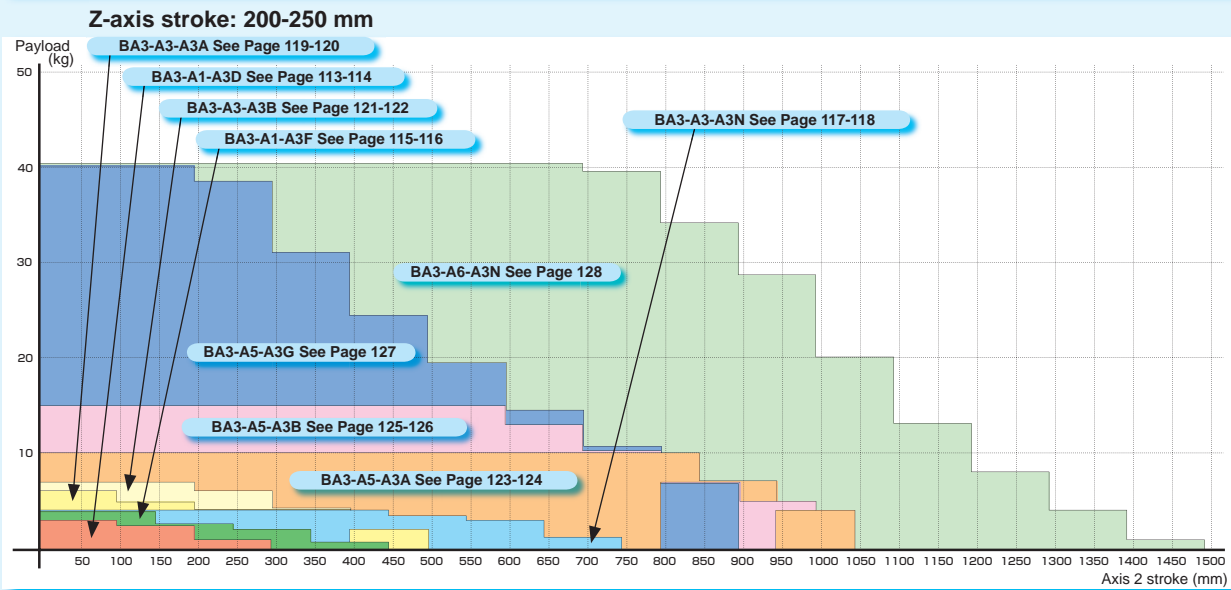
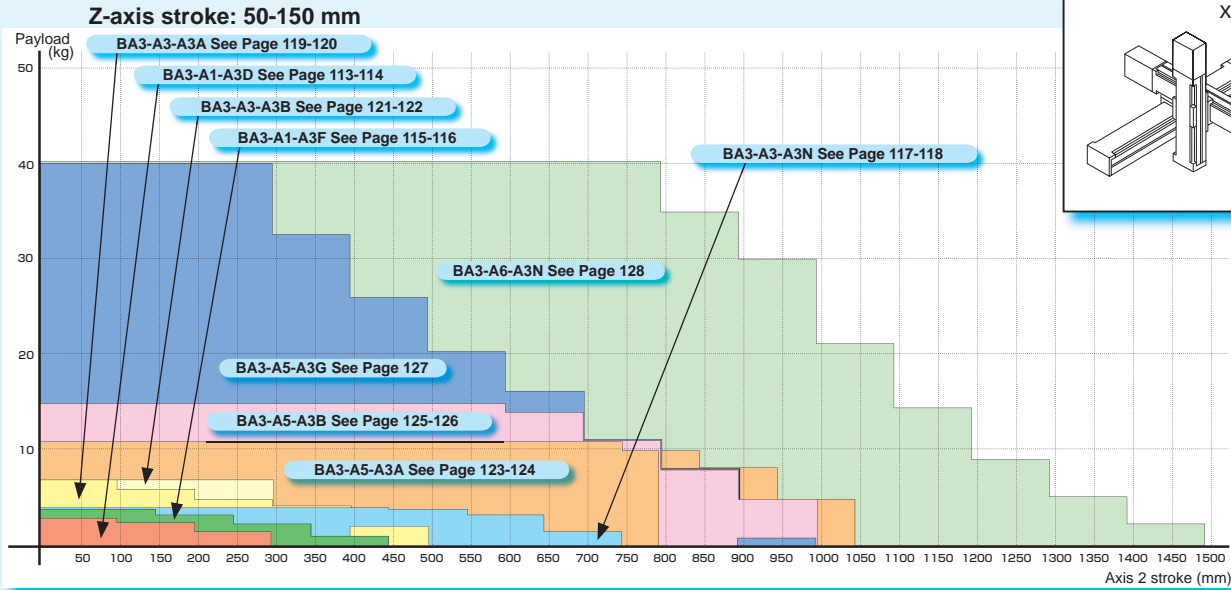
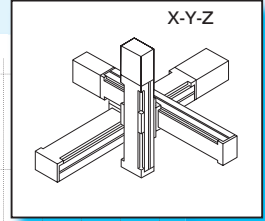
## 2-axis (Z-Y) Combination payload table



# 3-axis (X-Y-Z) Combination payload table

X-axis: Ball screw driven Y-axis: Ball screw driven Z-axis: Ball screw driven

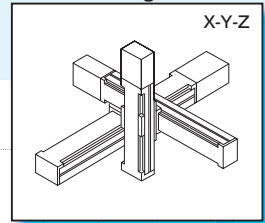
See Pages 113-128



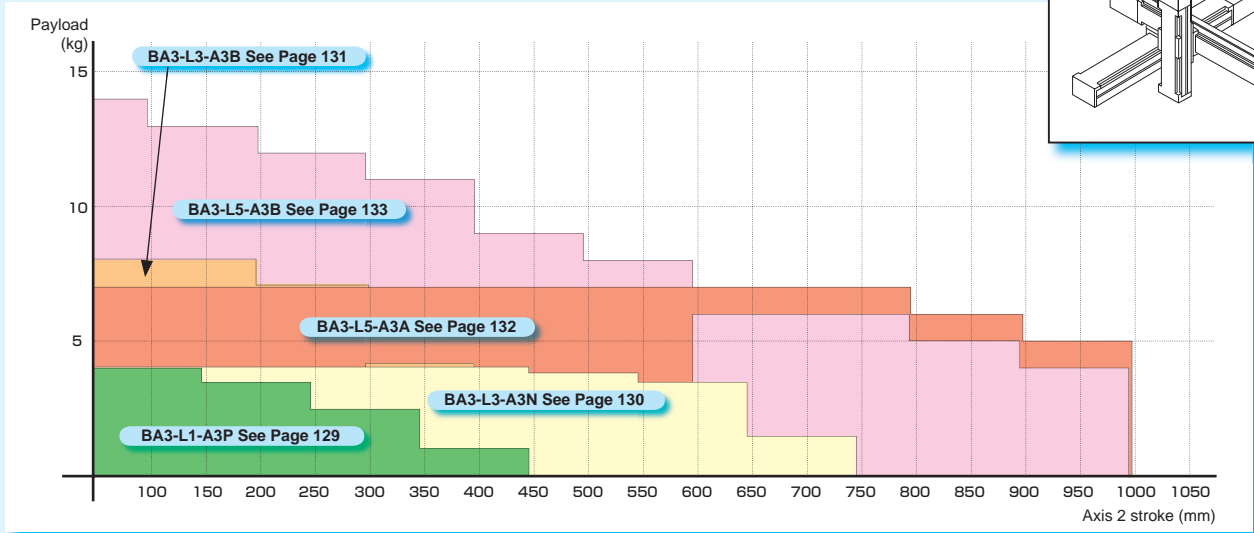
# 3-axis (X-Y-Z) Combination payload table

X-axis: Timing belt driven Y-axis: Timing belt driven Z-axis: Ball screw driven

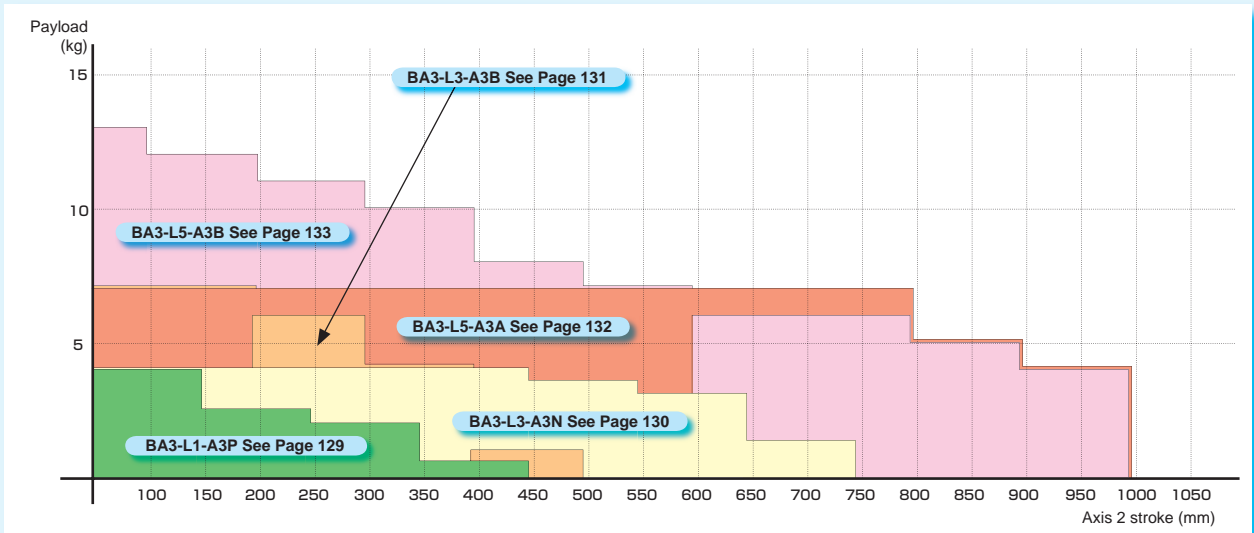
See Pages 129-133



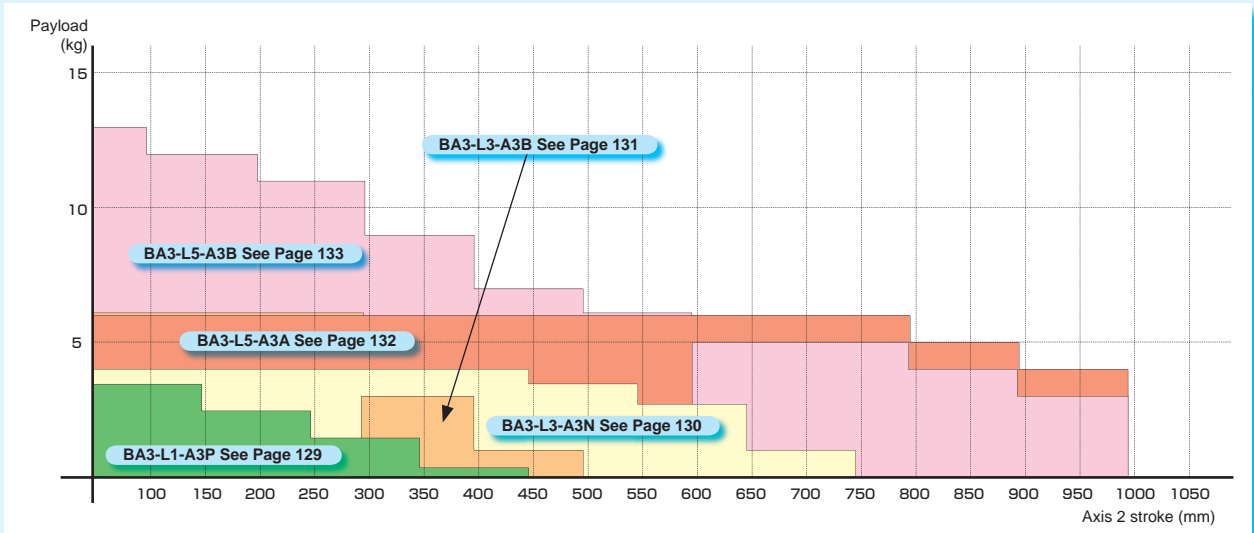
Z-axis stroke: 50-150 mm



Z-axis stroke: 200-250 mm



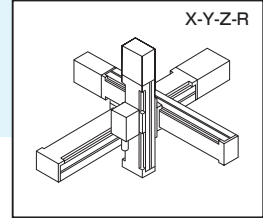
Z-axis stroke: 300-350 mm



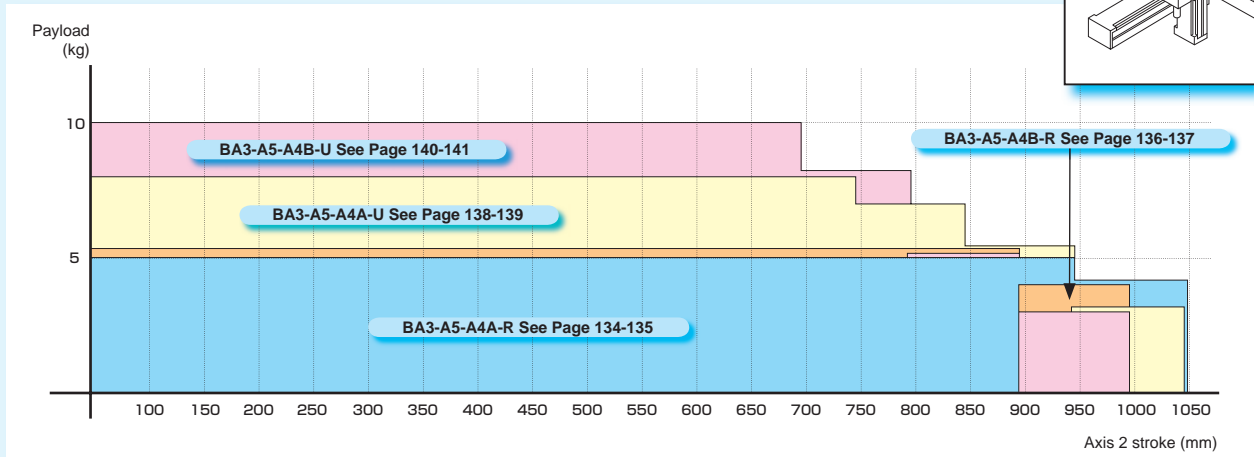
# 4-axis (X-Y-Z-R) Combination payload table

X-axis: Ball screw driven Y-axis: Ball screw driven Z-axis: Ball screw driven R-axis: Rotating axis

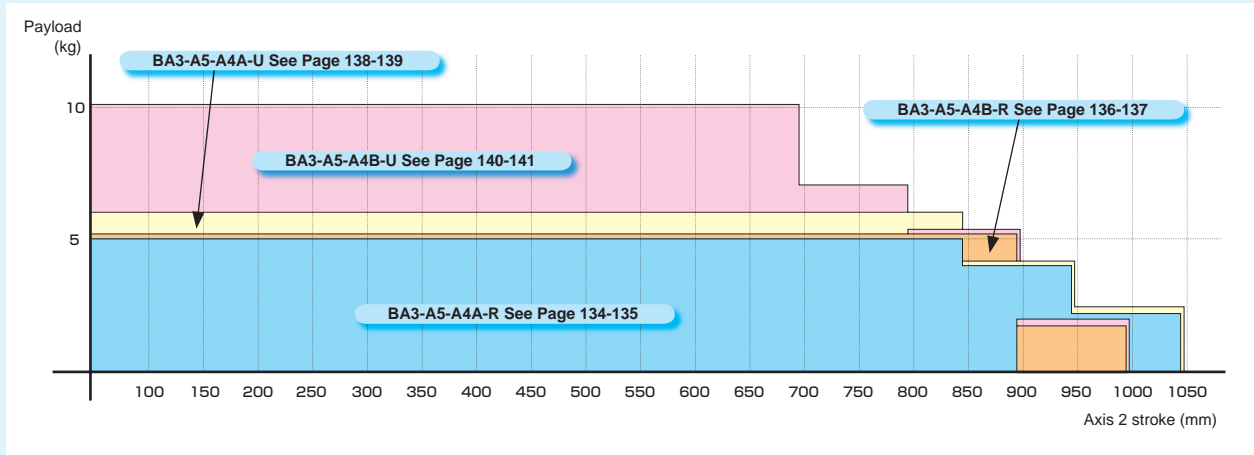
See Pages 134-141



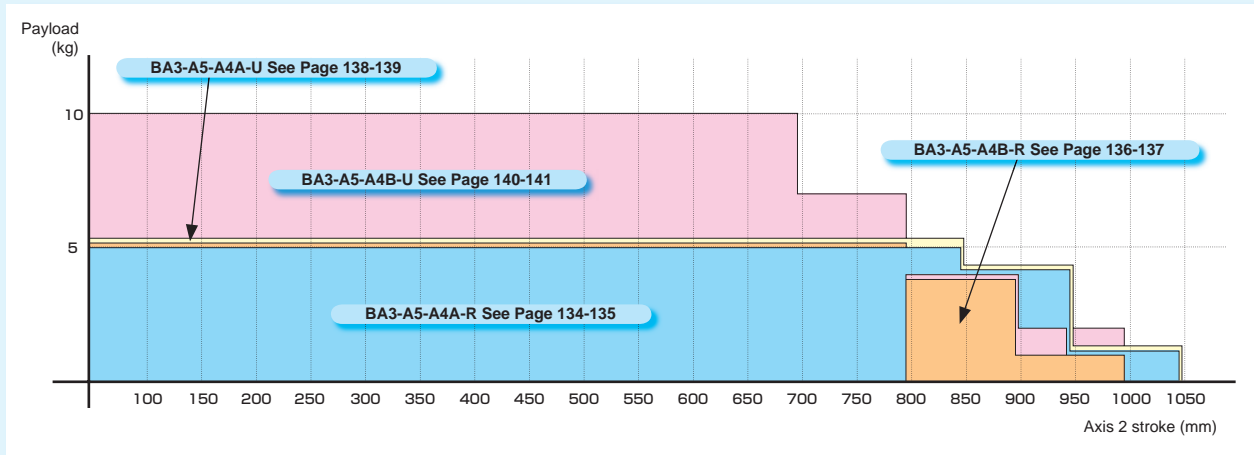
Z-axis stroke:100 mm



Z-axis stroke:200 mm

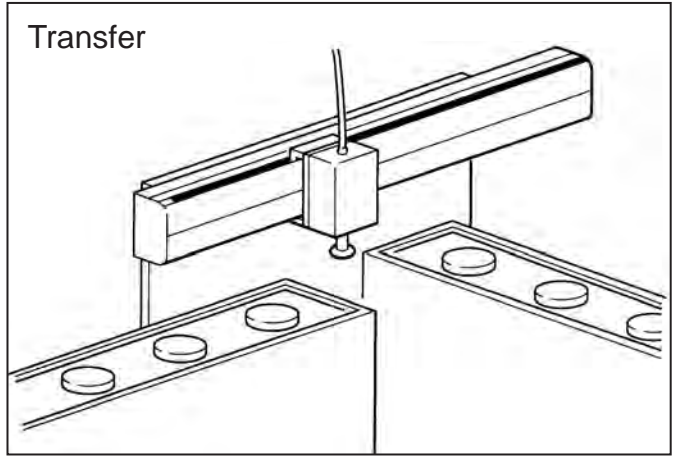


Z-axis stroke:300 mm

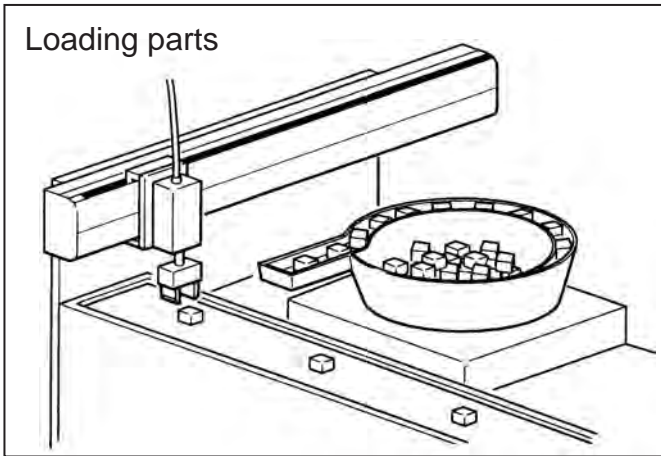


## ■ Example applications

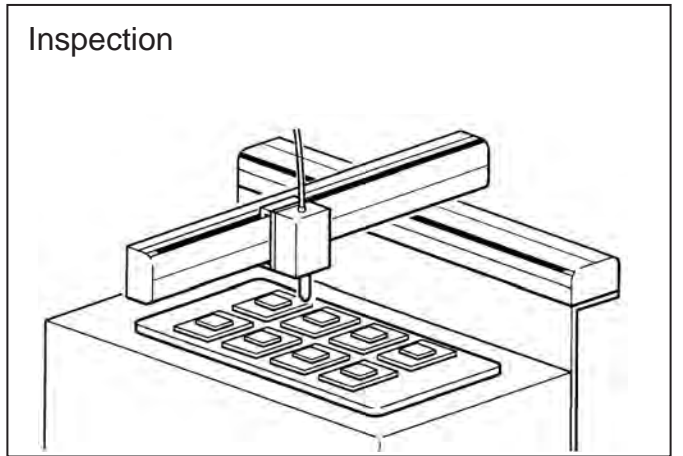
Transfer



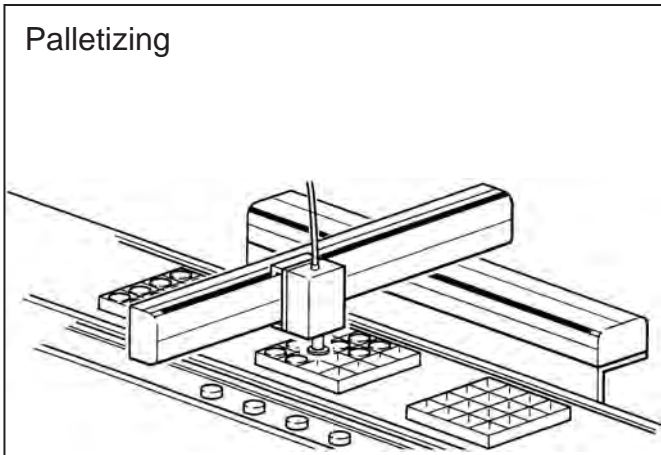
Loading parts



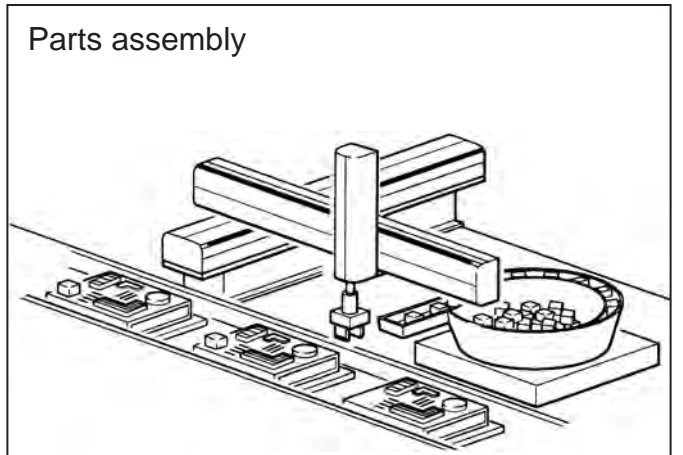
Inspection



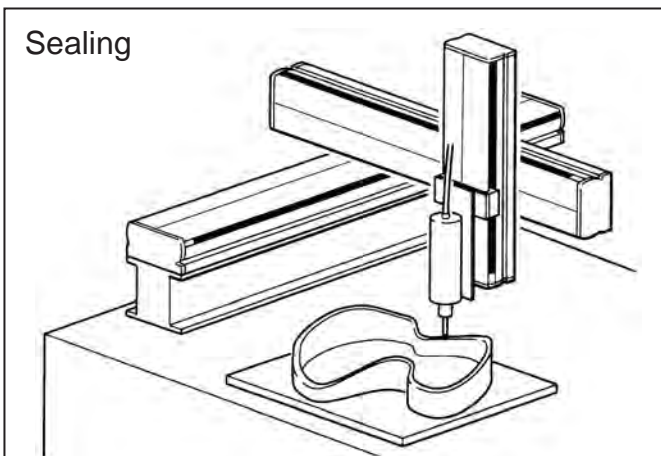
Palletizing



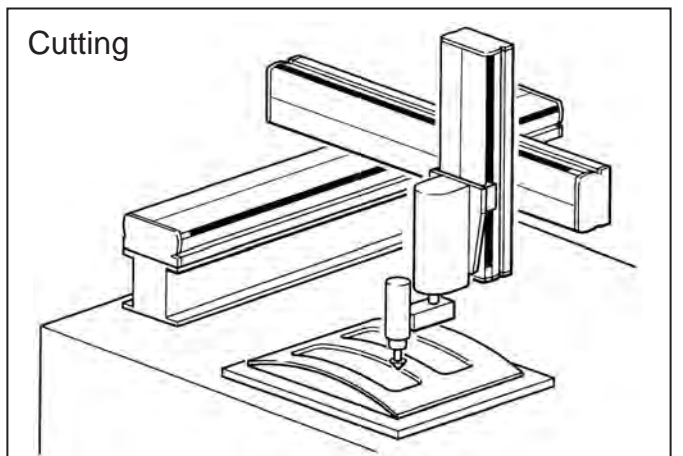
Parts assembly



Sealing



Cutting





# Before you read this manual

## ■ Definition of terms ■

**[Axis1 and Axis2]:** When forming a Cartesian axes configuration, an axis which is mounted directly on the user-provided equipment is called the “Axis 1”, and the other axis which is mounted on the Axis 1 with a bracket is called the “Axis 2”.

**[Straight axis]:** An axis whose ball screw and servo motor shaft centers are placed along a straight line.

**[Right side mounted axis, Left side mounted axis and Bottom side mounted axis]:** An axis whose servo motor is turned back, which is coupled with a ball screw via a timing belt. When the motor is located on the right side when seen from the end block side of the actuator with the slider of the actuator facing up, this axis is called the “right side mounted motor axis.” Likewise, when it is located on the left side and bottom side, the axis is called the “left side mounted motor axis” and “bottom side mounted motor axis”, respectively.

**[Long slider type]:** Used for the moving-axis (BB30, BB50) or for an axis on which large load moment is exerted.

**[Medium slider type]:** Used for the axis 1 of a Cartesian axes configuration or as the standard axis of a single axis configuration.

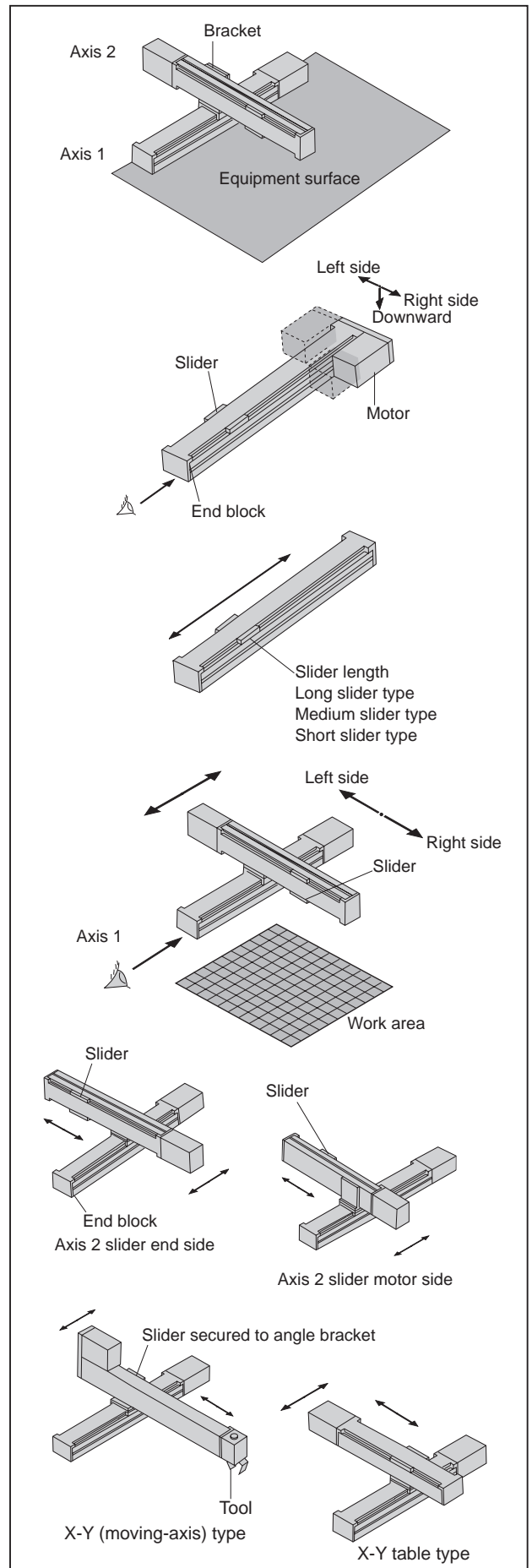
**[Short slider type]:** Used for a single axis with relatively small load moment or for the axis 2 and axis 3 of a Cartesian axes configuration.

**[Work area]:** The location of the work area is defined by the side (right or left) when viewed from the end block side of the axis 1 in a Cartesian axes configuration.

**[Axis 2 slider motor side]:** When the Axis 2 slider is seen from the end block side of the Axis 1 in a Cartesian axes configuration, it is located on the rear side of the axis. (When the slider is located on the front side (standard), it is called the “slider end side”.

**[Moving-axis type]:** Generally, the frame of the actuator (axis) is secured and the slider moves. For the moving-axis type, the slider is secured and the frame of the actuator moves. A hand or other tooling is attached to the end block at the end of the frame.

**[Table type]:** In a single or a Cartesian axes configuration, the slider surface is horizontal and faces up to allow the work from the upper side.



# Terms used in the manual

Terms used throughout this publication are classified into the two groups; general robot terms and those specific to Toshiba Machine robots.

## Terms used for actuator (or axis)

### [Slider]

The part of the actuator which moves along a straight line. A hand or other tooling is assembled to the slider.

When a bracket for axis combination is mounted on the slider, a two axes system can be configured.

This is also called the "saddle" in overseas nations.

### [Drive system]

Components for power transformation, such as the ball screw and timing belt, which are used to drive the movable part of the actuator.

### [Maximum speed]

Maximum speed (mm/s) which the actuator can attain under specified conditions (payload, for instance).

### [Maximum payload]

Maximum Payload (kg) under specified conditions (acceleration/ deceleration time, speed, rigidity, service life, etc.).

### [Allowable load moment]

Allowable force (moment) in N·m (kg·m) which acts on the movable part (slide) of the actuator. It comes in two types; static and dynamic.

### [Positioning repeatability]

Repeatability of positioning operations obtained under the same conditions using the same method. The difference between the maximum and minimum values of the result is figured out, then "±" sign is attached to half the difference.

### [Resolution]

Minimum travel distance of an axis, which can be set during robot teaching.

### [Acceleration/deceleration time (ta)]

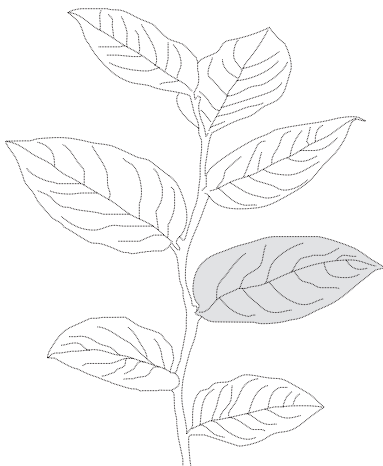
The time (seconds) spent until the movable part of the actuator accelerates and reaches its set speed, or the time (seconds) spent until it slows down from its set speed and stops.

This factor is used as a condition for determining the maximum Payload and tact (or cycle) time.

Normally, this value can be specified in a program.

### [Lead]

Lead is the distance advanced by one turn of the ball screw. For the belt type, this is expressed as the ball screw equivalent lead.



## Terms used for controller

### [Sequential mode]

A mode in which program steps are executed one by one in order.

### [Palletizing mode]

A mode in which traveling and loading operations (i.e., palletizing operation) can be executed easily by specifying points to move, the number of points, etc.

The following motions are available.

- From a given point to another point on a matrix (1 to M)
- From a point on a matrix to a given point (M to 1)
- From a point on a matrix to another point on another matrix (M to M)

### [External point designation mode]

A mode in which only positioning motions are executed by specifying a PLC (i.e., sequencer) connected to inputs and digital switches, without using normal controller instruction words. Coordinates, speed and acceleration of specified points should be set in the table registered in the controller beforehand.

### [Continuous mode]

A mode in which each step of a program is executed sequentially in either of sequential, easy and palletizing modes every time the START pushbutton switch on the teach pendant is pressed. (Normally used mode)

### [Step mode]

A mode in which each single step of a program is executed and stopped in either sequential, easy or palletizing modes every time the START pushbutton switch on the teach pendant is pressed. (Program check mode)

### [Manual mode]

A mode in which a program is executed and stopped after the axis feed or input/output command is executed in either sequential, easy or palletizing modes every time the START pushbutton switch on the teach pendant is pressed or the start input is given. (Test run mode, check mode before day's operation)

### [Remote teaching]

A method of teaching the robot to move to a desired position by pressing move keys on the teach pendant (remote operation) in the servo ON condition.

### [Direct teaching]

A method of directly teaching the robot arm by operator's hand to a desired position and of teaching the robot such a position in the servo OFF condition.

### [MDI (Manual data input)]

A method of directly entering desired coordinates through the keyboard (numerical input) according to the display shown on the teach pendant.

### Notes on selecting and operating Cartesian robots

- The position accuracy uses the position repeat accuracy as the specification value.

The position repeat accuracy is the value for single-direction positioning at a fixed ambient temperature and fixed robot temperature.

Note that errors occur in the position repeat accuracy and absolute position accuracy using  $\pm$ bidirectional positioning.

- The position repeat accuracy is the specification value for a single axis. For the position repeat accuracy of combination specifications, the position repeat accuracy of each single axis is the specification value.

# Selection of single axis specifications

The set designation is shown below. Also refer to Pages 20 to 47.

This page can be used as an order sheet. Enter each quantity, including options.

Set designation	<b>BA3</b> - <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> - <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> - <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> - <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> - <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">Q'ty</td></tr> <tr><td style="height: 20px;"> </td></tr> </table>	Q'ty	
Q'ty				
	<div style="display: flex; justify-content: space-around; font-size: small;"> <span>①</span> <span>②</span> <span>③</span> <span>④</span> <span>⑤</span> <span>⑥</span> <span>⑦</span> <span>⑧</span> <span>⑨</span> </div>			

<p><b>① Type of axis</b></p> <p>10 : BE10 30 : BE30 50 : BE50 60 : BE60 T3 : BET3 T4 : BET4 T5 : BET5 T7 : BET7 00 : R-axis</p>	<p><b>② Type of motor</b></p> <p><b>D</b> : 50W absolute <b>E</b> : 100W absolute <b>F</b> : 200W absolute <b>G</b> : 400W absolute <b>J</b> : 750W absolute</p>	<p><b>③ Axis structure</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Ball screw driven</th> <th>Timing belt driven</th> <th>R-axis</th> </tr> </thead> <tbody> <tr> <td><b>ST</b> : Straight axis</td> <td><b>BT</b> : Motor facing up</td> <td><b>RH</b> : Harmonic drive</td> </tr> <tr> <td><b>UR</b> : Right side mounted motor axis</td> <td><b>BU</b> : Motor facing down</td> <td><b>RP</b> : Planet gear</td> </tr> <tr> <td><b>UL</b> : Left side mounted motor axis</td> <td><b>BR</b> : Motor facing right</td> <td></td> </tr> <tr> <td><b>UU</b> : Bottom side mounted motor axis</td> <td><b>BL</b> : Motor facing left</td> <td></td> </tr> <tr> <td><b>LT</b> : Nut rotation drive with flexible duct left mounted</td> <td></td> <td></td> </tr> <tr> <td><b>RT</b> : Nut rotation drive with flexible duct right mounted</td> <td></td> <td></td> </tr> </tbody> </table>	Ball screw driven	Timing belt driven	R-axis	<b>ST</b> : Straight axis	<b>BT</b> : Motor facing up	<b>RH</b> : Harmonic drive	<b>UR</b> : Right side mounted motor axis	<b>BU</b> : Motor facing down	<b>RP</b> : Planet gear	<b>UL</b> : Left side mounted motor axis	<b>BR</b> : Motor facing right		<b>UU</b> : Bottom side mounted motor axis	<b>BL</b> : Motor facing left		<b>LT</b> : Nut rotation drive with flexible duct left mounted			<b>RT</b> : Nut rotation drive with flexible duct right mounted		
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<p><b>④ Type of slider</b></p> <p><b>S</b> : Short slider <b>M</b> : Medium slider <b>L</b> : Long slider <b>A</b> : L type bracket (R-axis) <b>F</b> : Flange type (R-axis) <b>C</b> : Pushrod type</p>	<p><b>⑤ Lead</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Ball screw driven</th> <th>Timing belt driven</th> </tr> </thead> <tbody> <tr> <td><b>05</b> : 5 mm</td> <td><b>19</b> : 19.555 mm</td> </tr> <tr> <td><b>06</b> : 6 mm</td> <td><b>21</b> : 21 mm</td> </tr> <tr> <td><b>10</b> : 10 mm</td> <td><b>42</b> : 42 mm</td> </tr> <tr> <td><b>12</b> : 12 mm</td> <td style="text-align: center;">R-axis</td> </tr> <tr> <td><b>20</b> : 20 mm</td> <td><b>00</b> : Fixation</td> </tr> <tr> <td><b>40</b> : 40 mm</td> <td></td> </tr> </tbody> </table>	Ball screw driven	Timing belt driven	<b>05</b> : 5 mm	<b>19</b> : 19.555 mm	<b>06</b> : 6 mm	<b>21</b> : 21 mm	<b>10</b> : 10 mm	<b>42</b> : 42 mm	<b>12</b> : 12 mm	R-axis	<b>20</b> : 20 mm	<b>00</b> : Fixation	<b>40</b> : 40 mm		<p><b>⑥ Brake</b></p> <p><b>N</b> : Without brake <b>B</b> : With brake</p>							
Ball screw driven	Timing belt driven																						
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<b>20</b> : 20 mm	<b>00</b> : Fixation																						
<b>40</b> : 40 mm																							
<p><b>⑦ Stroke</b></p> <p><b>05</b> : 50 mm ~ <b>95</b> : 950 mm <b>A0</b> : 1000 mm ~ <b>H5</b> : 1750 mm <b>J0</b> : 1800 mm ~ <b>N5</b> : 2250 mm <b>P0</b> : 2300 mm ~ <b>V5</b> : 2950 mm <b>W00</b> : 3000 mm ~ <b>W95</b> : 3950mm <b>X00</b> : 4000 mm ~ <b>X95</b> : 4950mm <b>36</b> : 360 deg. (R-axis)</p>	<p><b>⑧ CA25-M*0 (Master unit)</b></p> <p><b>0</b> : Without controller <b>1</b> : Input/output NPN specifications General-purpose I/O (Inputs: 4, Outputs: 4) <b>2</b> : NPN with extension input/output unit specifications General-purpose I/O (Inputs: 28, Outputs: 12) <b>3</b> : NPN with CC-Link unit specifications <b>4</b> : NPN with DeviceNet unit specifications <b>5</b> : Input/output PNP specifications General-purpose I/O (Inputs: 4, Outputs: 4) <b>6</b> : PNP with extension input/output unit specifications General-purpose I/O (Inputs: 28, Outputs: 12) <b>7</b> : PNP with CC-Link unit specifications <b>8</b> : PNP with DeviceNet unit specifications</p>	<p><b>⑨ Cable length (between axis (actuator) and controller)</b></p> <p><b>3</b> : 3 m <b>5</b> : 5 m <b>7</b> : 7 m <b>9</b> : 9 m <b>B</b> : 11 m <b>D</b> : 13 m</p>																					

## Options

Designation	Type	Remarks	Q'ty
I/O cable	CA10-IC-A <input type="checkbox"/> 0	For master unit, slave unit, and extension I/O unit Cable length 3: 3 m, 5: 5 m	
Regenerative discharge unit	ABSU-2000	Servomotor capacity (for 50 W, 100 W, 200 W)	
	ABSU-4000	Servomotor capacity (for 400 W)	
	ABSU-8000	Servomotor capacity (for 750 W)	
Home position change sensor	HBS-BA10	For ball screw driven axis	
	HBS-BA20	For timing belt driven axis	
	HBS-BA20L		
Teach pendant *1	TPH-4C	For programming and parameter setting	
Software for personal computer *2	SF-98D	Tool for creating programs and data maintenance	
Communication cable	PCBL-31	RS-232C communication cable between PC and controller	
Link cable	CA10-LC-A <input type="checkbox"/>	Cable length 01: 150 mm, 03: 300 mm, 10: 1000 mm	

\*1) Version 2.26 or higher is supported in the CA25 series.

\*2) Version 3.1.0 or higher is supported in the CA25 series.

# Selection of cartesian axes specifications

The set designation is shown below. Also refer to Pages 56 to 141.

This page can be used as an order sheet. Enter each quantity, including options.

Set designation	<b>BA3</b> - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Q'ty
	<span style="margin-right: 20px;">①</span> <span style="margin-right: 20px;">②</span> <span style="margin-right: 20px;">③</span> <span style="margin-right: 20px;">④</span> <span style="margin-right: 20px;">⑤</span> <span style="margin-right: 20px;">⑥</span> <span style="margin-right: 20px;">⑦</span> <span style="margin-right: 20px;">⑧</span> <span style="margin-right: 20px;">⑨</span> <span style="margin-right: 20px;">⑩</span> <span style="margin-right: 20px;">⑪</span>	

Type of combined axes structure: Select the combined axes structure (motor direction).  
 Type of combined axes: Select the type of the Axis 2 and on.

See Pages 56 to 141

## ① Main load axis

Ball screw driven	Timing belt driven
<b>T7</b> : BET7	<b>L1</b> : BE10
<b>A1</b> : BE10	<b>L3</b> : BE30
<b>A3</b> : BE30	<b>L5</b> : BE50
<b>A5</b> : BE50	
<b>A6</b> : BE60	

## ② Combined axes structure

- A** : X-Y, X-Y-Z, X-Y-Z-R
- B** : X-Z
- C** : Z-Y (All axes are driven by ball screws.)
- H** : Y-Z
- L** : Z-Y (Z-axis is driven by ball screw and Y-axis by timing belt.)

## ③ No. of axes

- 2** : 2 axis
- 3** : 3 axis
- 4** : 4 axis

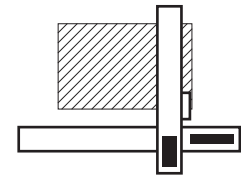
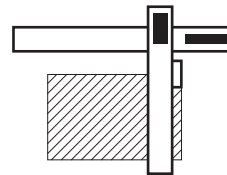
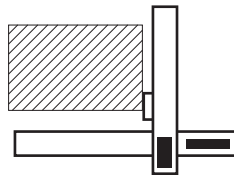
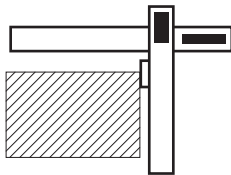
## ④ Type of slider

R: Right-handed, 2 slider end side

L: Left-handed, 2 slider end side

S: Right-handed, 2 slider motor side

M: Left-handed, 2 slider motor side



■ : Motor

## ⑤ Axis 1 stroke ⑥ Axis 2 stroke ⑦ Axis 3 stroke

- 05** : 50 mm ~ **95** : 950 mm
- A0** : 1000 mm ~ **H5** : 1750 mm
- J0** : 1800 mm ~ **N5** : 2250 mm
- P0** : 2300 mm ~ **V5** : 2950 mm
- W00** : 3000 mm ~ **W95** : 3950 mm
- X00** : 4000 mm ~ **X95** : 4950 mm

36 : 360 deg. (R-axis)

## ⑧ R-axis (axis 4)

- 0** : None
- R** : Harmonic drive
- U** : Planet gear

## ⑨ Piping method

- 0** : None
- F** : Flexible duct
- T** : Flexible tube

## ⑩ CA25-M\*0 (Master unit)

- 0** : Without controller
- 1** : Input/output NPN specifications  
General-purpose I/O (Inputs: 4, Outputs: 4)
- 2** : NPN with extension input/output unit specifications  
General-purpose I/O (Inputs: 28, Outputs: 12)
- 3** : NPN with CC-Link unit specifications
- 4** : NPN with DeviceNet unit specifications
- 5** : Input/output PNP specifications  
General-purpose I/O (Inputs: 4, Outputs: 4)
- 6** : PNP with extension input/output unit specifications  
General-purpose I/O (Inputs: 28, Outputs: 12)
- 7** : PNP with CC-Link unit specifications
- 8** : PNP with DeviceNet unit specifications

Note: The unit cannot be installed by the customer.

## Options

Designation	Type	Remarks	Q'ty
I/O cable	CA10-IC-A <input type="checkbox"/> 0	For master unit, slave unit, and extension I/O unit Cable length 3: 3 m, 5: 5 m	
Regenerative discharge unit	ABSU-2000	Servomotor capacity (for 50 W, 100 W, 200 W)	
	ABSU-4000	Servomotor capacity (for 400 W)	
	ABSU-8000	Servomotor capacity (for 750 W)	
Home position change sensor	HBS-BA10	For ball screw driven axis	
	HBS-BA20	For timing belt driven axis	
	HBS-BA20L		
Teach pendant *1	TPH-4C	For programming and parameter setting	
Software for personal computer *2	SF-98D	Tool for creating programs and data maintenance	
Communication cable	PCBL-31	RS-232C communication cable between PC and controller	
Link cable	CA10-LC-A <input type="checkbox"/>	Cable length 01: 150 mm, 03: 300 mm, 10: 1000 mm	

\*1) Version 2.26 or higher is supported in the CA25 series.

\*2) Version 3.1.0 or higher is supported in the CA25 series.

# Single Axis Specifications

## Ball Screw Driven

BA3-T5.....	22
BA3-T7 .....	23
BA3-10.....	24
BA3-30.....	26
BA3-50.....	30
BA3-60.....	34

## Timing Belt Driven

BA3-10.....	36
BA3-30.....	40
BA3-50.....	44
BA3-60.....	49

## R-Axis

BA3-00D-RH.....	50
BA3-00D-RP .....	51

## Pushrod

BA3-T3.....	52
BA3-T4.....	53
BA3-T5.....	54



[Set designation]

**BA3 – T5D – ST – M 12 N – 40 – 1 3**

Type of slider M : Medium slider	Lead 06 : 6mm 12 : 12mm	Brake N : Without brake B : With brake	Stroke Type designation	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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[Specifications]

Motor	50 W AC servo motor (absolute)		
Drive system	Precisely rolled ball screw, thread outer diameter 8 mm		
Stroke (mm) (in increments of 50 mm)	Medium slider	50 ~ 450	500
	Type designation	05 ~ 45	50
Maximum speed (mm/s)	Lead 12 mm	800	680
	Lead 6 mm	400	340
Maximum payload (kg) Acceleration/deceleration time: 0.3 sec or over	Lead 12 mm	Horizontal transfer: 5 Vertical transfer: 1.5	
	Lead 6 mm	Horizontal transfer: 10 Vertical transfer: 3	
Positioning repeatability (mm)	± 0.02		
Resolution (mm)	0.01		
Allowable static load moment (N·m)	Medium slider MR : 31 MP : 12 MY : 12		
Brake	Brake voltage DC24 V		
Master controller	CA25-M10		

- Notes:
- \* When using the axis as a vertical axis, select the type with brake.
  - \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.
  - \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

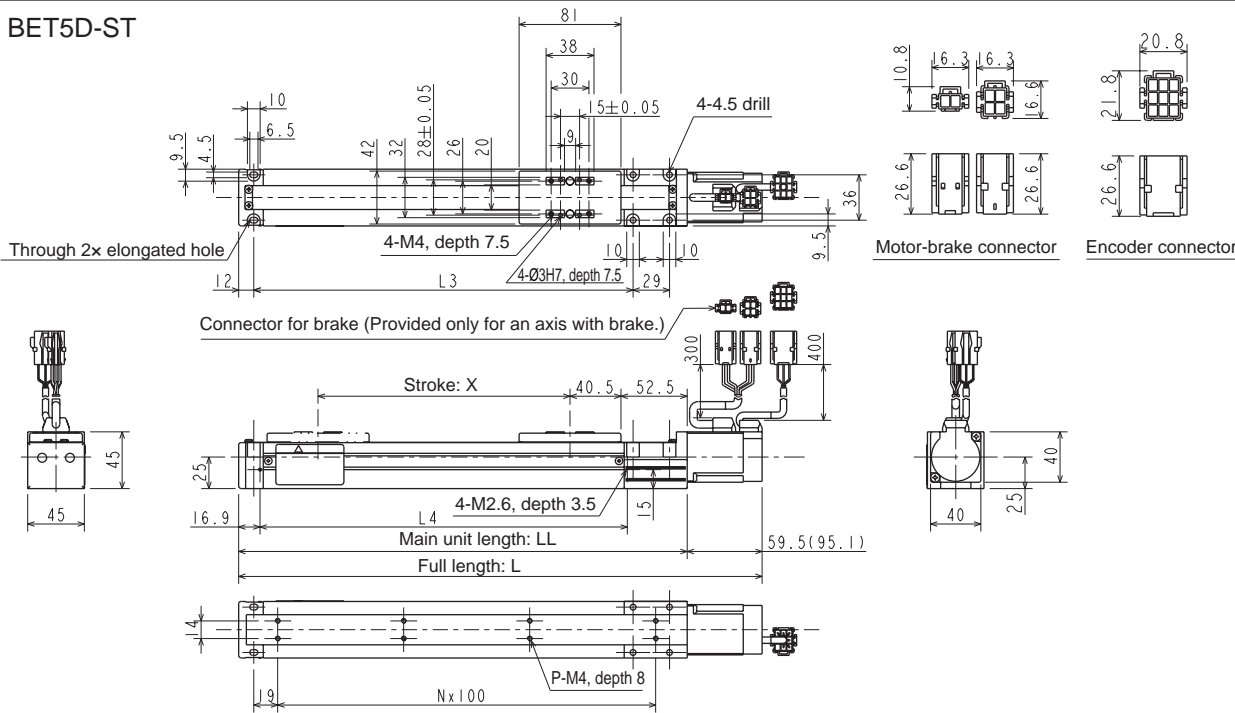
[Axis designation]

**BET5D – ST – M 12 N – 40**

Type of slider M : Medium slider	Lead 06 : 6mm 12 : 12mm	Brake N : Without brake B : With brake	Stroke Type designation
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Ball-screw driven

**BET5D-ST**



Stroke X (mm)	50	100	150	200	250	300	350	400	450	500
Full length L (mm)	265.5 (301.1)	315.5 (351.1)	365.5 (401.1)	415.5 (451.1)	465.5 (501.1)	515.5 (551.1)	565.5 (601.1)	615.5 (651.1)	665.5 (701.1)	715.5 (751.1)
Main unit length LL (mm)	206	256	306	356	406	456	506	556	606	656
L3 (mm)	151	201	251	301	351	401	451	501	551	601
L4 (mm)	141.6	191.6	241.6	291.6	341.6	391.6	441.6	491.6	541.6	591.6
No. of holes P (q'ty)	4	6	6	8	8	10	10	12	12	14
Intervals between mounting holes N	1	2	2	3	3	4	4	5	5	6
Weight (kg)	1.2 (1.4)	1.3 (1.5)	1.4 (1.6)	1.5 (1.7)	1.6 (1.8)	1.7 (1.9)	1.8 (2.0)	1.9 (2.1)	2.0 (2.2)	2.1 (2.3)

\* Values in parentheses are for the axis with brake.

## [Set designation]

### BA3 – T7D – ST – M 12 N – 40 – 13

Type of slider M : Medium slider	Lead 06 : 6mm 12 : 12mm	Brake N : Without brake B : With brake	Stroke Type designation	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
-------------------------------------	-------------------------------	--	----------------------------	---	---

## [Specifications]

Motor	50 W AC servo motor (absolute)			
Drive system	Precisely rolled ball screw, thread outer diameter 12 mm			
Stroke (mm) (in increments of 50 mm)	Medium slider	50 ~ 550	600	700
	Type designation	05 ~ 55	60	70
Maximum speed (mm/s)	Lead 12 mm	800	680	500
	Lead 6 mm	400	340	250
Maximum payload (kg) Acceleration/deceleration time: 0.3 sec or over	Lead 12 mm	Horizontal transfer: 12 Vertical transfer: 4		
	Lead 6 mm	Horizontal transfer: 30 Vertical transfer: 8		
Positioning repeatability (mm)	± 0.02			
Resolution (mm)	0.01			
Allowable static load moment (N·m)	Medium slider MR : 58 MP : 25.7 MY : 25.7			
Brake	Brake voltage DC24 V			
Master controller	CA25-M10			

Notes: \* When using the axis as a vertical axis, select the type with brake.

\* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.

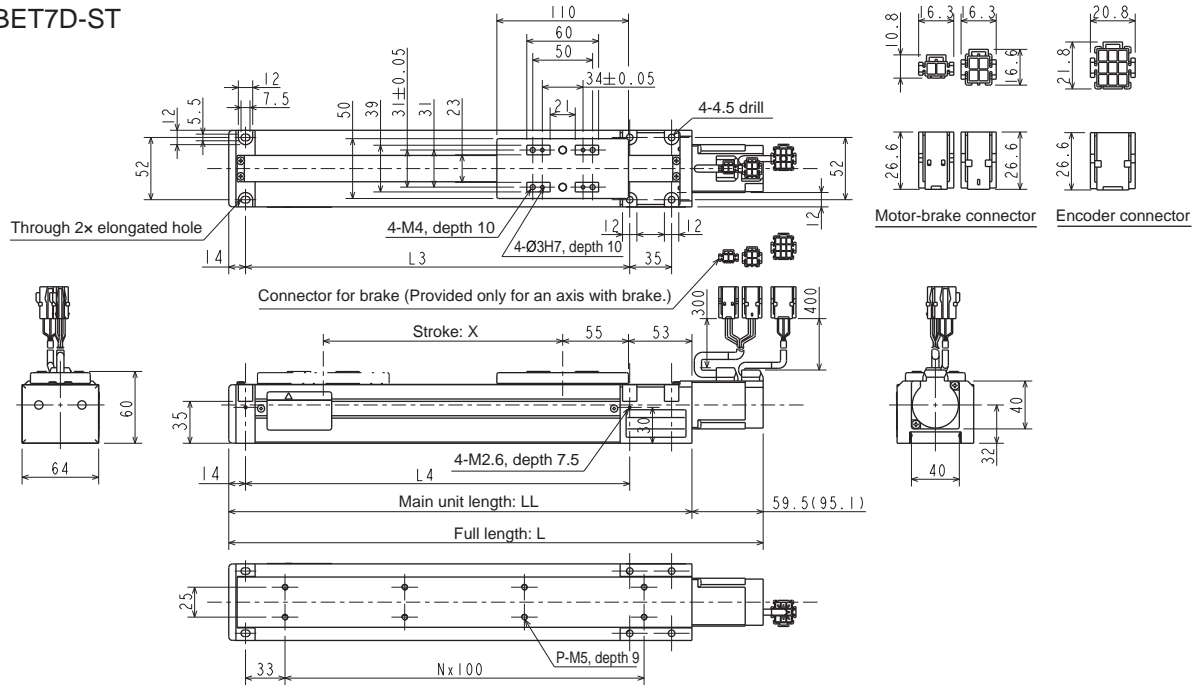
\* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

## [Axis designation]

### BET7D – ST – M 12 N – 40

Type of slider M : Medium slider	Lead 06 : 6mm 12 : 12mm	Brake N : Without brake B : With brake	Stroke Type designation
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### BET7D-ST



Stroke X (mm)	50	100	150	200	250	300	350	400	450	500	550	600	700
Full length L (mm)	296.5 (332.1)	346.5 (382.1)	396.5 (432.1)	446.5 (482.1)	496.5 (532.1)	546.5 (582.1)	596.5 (632.1)	646.5 (682.1)	696.5 (732.1)	746.5 (782.1)	796.5 (832.1)	846.5 (882.1)	946.5 (982.1)
Main unit length LL (mm)	237	287	337	387	437	487	537	587	637	687	737	787	887
L3 (mm)	171	221	271	321	371	421	471	521	571	621	671	721	821
L4 (mm)	171	221	271	321	371	421	471	521	571	621	671	721	821
No. of holes P (q'ty)	4	6	6	8	8	10	10	12	12	14	14	16	18
Intervals between mounting holes N	1	2	2	3	3	4	4	5	5	6	6	7	8
Weight (kg)	2.3 (2.5)	2.5 (2.7)	2.7 (2.9)	2.9 (3.1)	3.1 (3.3)	3.3 (3.5)	3.5 (3.7)	3.7 (3.9)	3.9 (4.1)	4.1 (4.3)	4.3 (4.5)	4.5 (4.7)	4.9 (5.1)

\* Values in parentheses are for the axis with brake.

[Set designation]

**BA3 – 10E – ST – M 20 N – 40 – 1 3**

Axis structure	Type of slider	Lead	Brake	Stroke	Controller (CA25-M10)	Cable length
ST : Straight axis UR : Right side mounted motor axis UL : Left side mounted motor axis UU : Bottom side mounted motor axis	S : Short slider M : Medium slider	05 : 5mm 10 : 10mm 20 : 20mm	N : Without brake B : With brake	Type designation	0 : None 1 : NPN output specifications Other : See page 19	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

[Specifications]

Motor	100 W AC servo motor (absolute)					
Drive system	Ground ball screw (C7), thread outer diameter 15 mm					
Stroke (mm) (in increments of 100 mm)	Short slider	150~650	750	850	950, 1050	1150, 1250
	Type designation	15~65	75	85	95, A5	B5, C5
	Medium slider	100~600	700	800	900, 1000	1100, 1200
	Type designation	10~60	70	80	90, A0	B0, C0
Maximum speed (mm/s) Values in < > signify the acceleration/deceleration time in seconds when the maximum payload is loaded.	Lead 20 mm	1200<0.36>	1000<0.3>	800<0.24>	600<0.18>	400<0.12>
	Lead 10 mm	600<0.36>	500<0.3>	400<0.24>	300<0.18>	200<0.12>
	Lead 5 mm	300<0.36>	250<0.3>	200<0.24>	150<0.18>	
Maximum payload (kg)	Lead 20 mm	Horizontal transfer: 20		Vertical transfer: 3 (5)		
	Lead 10 mm	Horizontal transfer: 40		Vertical transfer: 8 (12)		
	Lead 5 mm	Horizontal transfer: 80		Vertical transfer: 15 (22)		
Positioning repeatability (mm)	± 0.01					
Resolution (mm)	0.01					
Allowable static load moment (N·m)	Short slider MR : 49 MP : 14 MY : 13 Medium slider MR : 59 MP : 59 MY : 54					
Brake	Brake voltage DC24 V					
Master controller	CA25-M10					

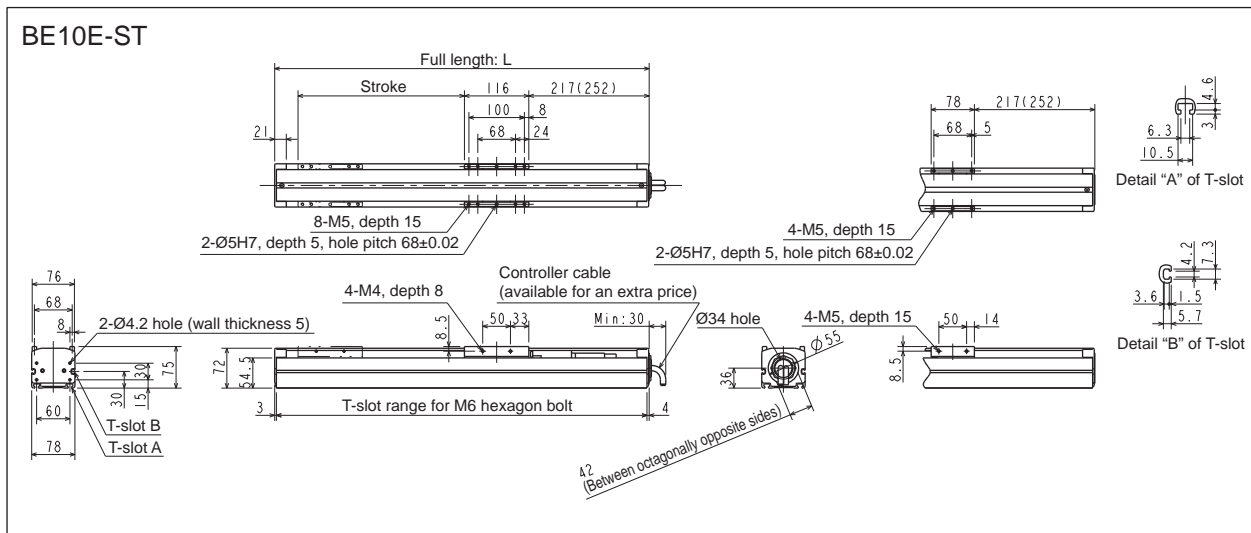
- Notes: \* When using the axis as a vertical axis, select the type with brake.  
 \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.  
 \* The values in parentheses under "Maximum payload" are applicable when a regenerative discharge unit ABSU-2000 is equipped.  
 \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

[Axis designation]

**BE10E – ST – M 20 N – 40**

Axis structure	Type of slider	Lead	Brake	Stroke
ST : Straight axis UR : Right side mounted motor axis UL : Left side mounted motor axis UU : Bottom side mounted motor axis	S : Short slider M : Medium slider	05 : 5mm 10 : 10mm 20 : 20mm	N : Without brake B : With brake	Type designation

[Dimensions]



Straight axis

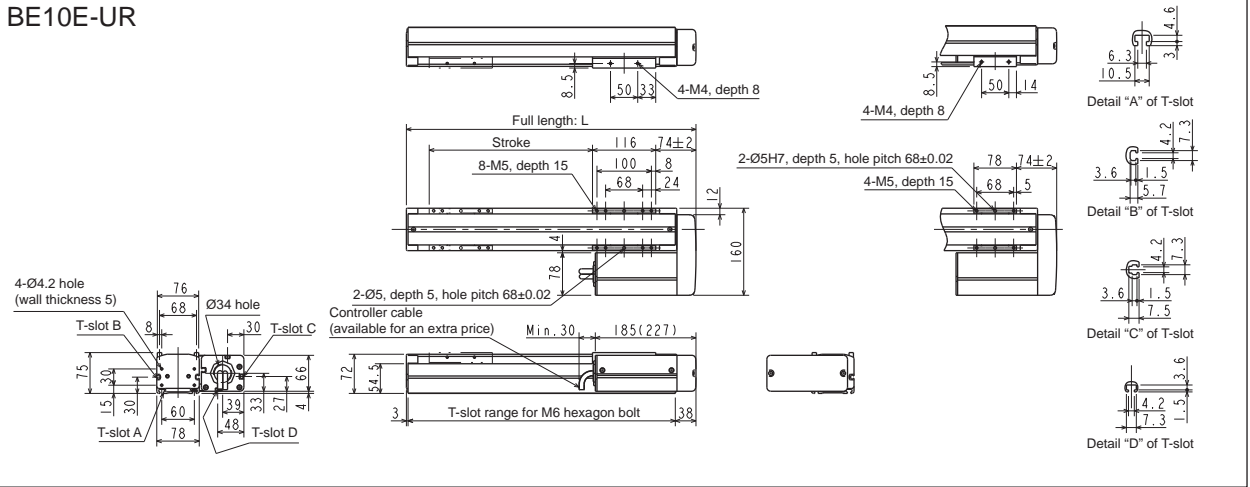
Medium slider stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
Full length L (mm)	475 (510)	575 (610)	675 (710)	775 (810)	875 (910)	975 (1010)	1075 (1110)	1175 (1210)	1275 (1310)	1375 (1410)	1475 (1510)	1575 (1610)
Weight (kg)	4.8 (5.1)	5.5 (5.8)	6.2 (6.5)	6.9 (7.2)	7.6 (7.9)	8.3 (8.6)	9.0 (9.3)	9.7 (10.0)	10.4 (10.7)	11.1 (11.4)	11.8 (12.1)	12.5 (12.8)

\* Values in parentheses are for the axis with brake.

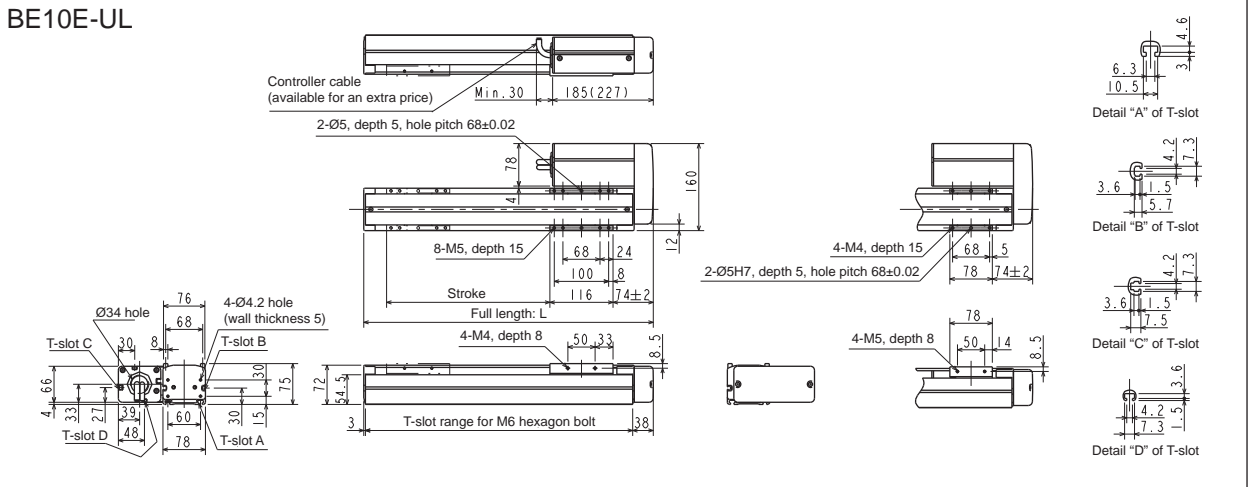
Short slider stroke (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250
Full length L (mm)	475 (510)	575 (610)	675 (710)	775 (810)	875 (910)	975 (1010)	1075 (1110)	1175 (1210)	1275 (1310)	1375 (1410)	1475 (1510)	1575 (1610)
Weight (kg)	4.5 (4.8)	5.2 (5.5)	5.9 (6.2)	6.6 (6.9)	7.3 (7.6)	8.0 (8.3)	8.7 (9.0)	9.4 (9.7)	10.1 (10.4)	10.8 (11.1)	11.5 (11.8)	12.2 (12.5)

\* Values in parentheses are for the axis with brake.

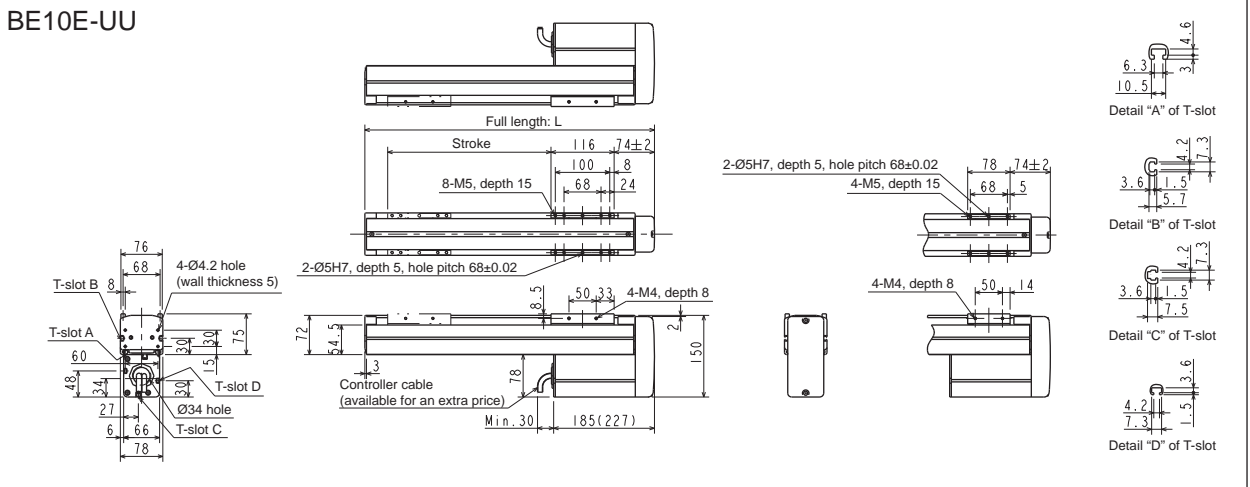
## BE10E-UR



## BE10E-UL



## BE10E-UU



### Mounted motor axis

Medium slider stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
Full length L (mm)	332	432	532	632	732	832	932	1032	1132	1232	1332	1432
Weight (kg)	5.0 (5.3)	5.7 (6.0)	6.4 (6.7)	7.1 (7.4)	7.8 (8.1)	8.5 (8.8)	9.2 (9.5)	9.9 (10.2)	10.6 (10.9)	11.3 (11.6)	12.0 (12.3)	12.7 (13.0)

Note 1: Values in parentheses are for axis with brake.  
 Note 2: The BE10-UU type supports strokes of 200 mm or more.

Short slider stroke (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250
Full length L (mm)	332	432	532	632	732	832	932	1032	1132	1232	1332	1432
Weight (kg)	4.7 (5.0)	5.4 (5.7)	6.1 (6.4)	6.8 (7.1)	7.5 (7.8)	8.2 (8.5)	8.9 (9.2)	9.6 (9.9)	10.3 (10.6)	11.0 (11.3)	11.7 (12.0)	12.4 (12.7)

Note 1: Values in parentheses are for axis with brake.  
 Note 2: The BE10-UU type supports strokes of 250 mm or more.

[Set designation]

**BA3 – 30E – ST – M 20 N – 45 – 13**

Axis structure	Type of slider	Lead	Brake	Stroke	Controller (CA25-M10)	Cable length
ST : Straight axis UR : Right side mounted motor axis UL : Left side mounted motor axis UU : Bottom side mounted motor axis	M : Medium slider L : Long slider	05 : 5mm 10 : 10mm 20 : 20mm	N : Without brake B : With brake	Type designation	0 : None 1 : NPN output specifications Other : See page 19	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

[Specifications]

Motor	100 W AC servo motor (absolute)					
Drive system	Ground ball screw (C7), thread outer diameter 15 mm					
Stroke (mm) (in increments of 100 mm)	Medium slider	100~600 [150~650]	700 [750]	800 [850]	900, 1000 [950, 1050]	1100, 1200 [1150, 1250]
	Type designation	10~60 [15~65]	70 [75]	80 [85]	90, A0 [95, A5]	B0, C0 [B5, C5]
Maximum speed (mm/s) Values in <> signify the acceleration/deceleration time in seconds when the maximum payload is loaded.	Long slider	150~550 [150~650]	650 [750]	750 [850]	850, 950 [950, 1050]	1050, 1150 [1150, 1250]
	Type designation	15~55	65 [75]	75 [85]	85, 95 [95, A5]	A5, B5 [B5, C5]
Maximum payload (kg)	Lead 20 mm	Horizontal transfer: 30		Vertical transfer: 3 (5)		
	Lead 10 mm	Horizontal transfer: 55		Vertical transfer: 8 (12)		
	Lead 5 mm	Horizontal transfer: 80		Vertical transfer: 15 (22)		
Positioning repeatability (mm)	± 0.01					
Resolution (mm)	0.01					
Allowable static load moment (N-m)	Medium slider MR : 510 MP : 430 MY : 370 Long slider MR : 510 MP : 750 MY : 650					
Brake	Brake voltage DC24 V					
Master controller	CA25-M10					

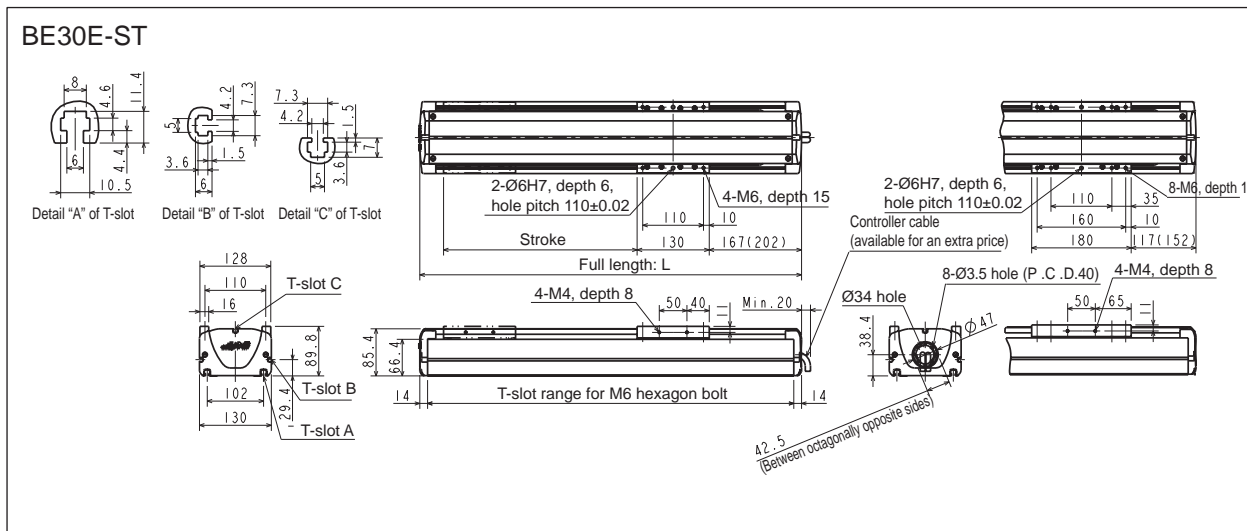
- Notes:
- \* When using the axis as a vertical axis, select the type with brake.
  - \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.
  - \* The values in parentheses under "Maximum payload" are applicable when a regenerative discharge unit ABSU-2000 is equipped.
  - \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

[Axis designation]

**BE30E – ST – M 20 N – 45**

Axis structure	Type of slider	Lead	Brake	Stroke
ST : Straight axis UR : Right side mounted motor axis UL : Left side mounted motor axis UU : Bottom side mounted motor axis	M : Medium slider L : Long slider	05 : 5mm 10 : 10mm 20 : 20mm	N : Without brake B : With brake	Type designation

[Dimensions]



Straight axis

Medium slider stroke (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250
Full length L (mm)	490 (525)	590 (625)	690 (725)	790 (825)	890 (925)	990 (1025)	1090 (1125)	1190 (1225)	1290 (1325)	1390 (1425)	1490 (1525)	1590 (1625)
Weight (kg)	8.1 (8.6)	9.3 (9.8)	10.5 (11.0)	11.7 (12.2)	12.9 (13.4)	14.1 (14.6)	15.3 (15.8)	16.5 (17.0)	17.7 (18.2)	18.9 (19.4)	20.1 (20.6)	21.3 (21.8)

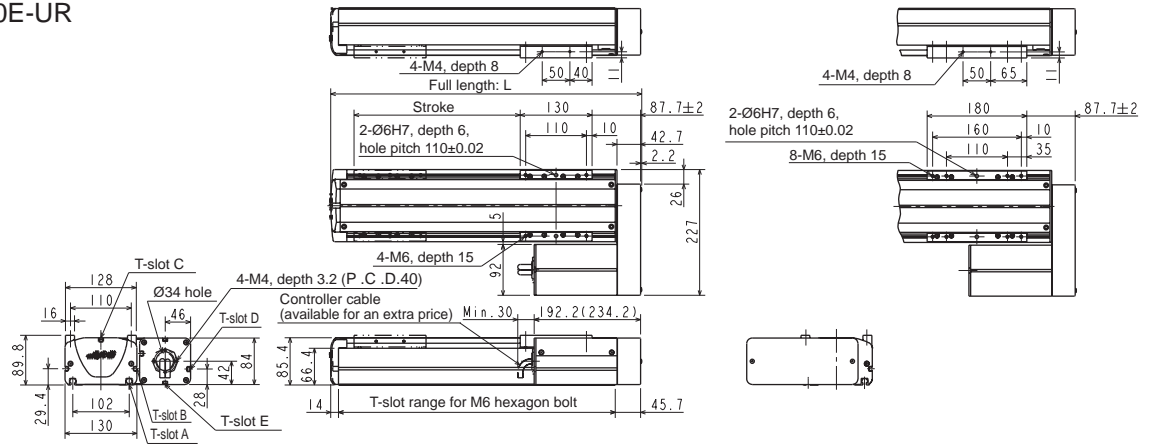
\* Values in parentheses are for the axis with brake.

Long slider stroke (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250
Full length L (mm)	490 (525)	590 (625)	690 (725)	790 (825)	890 (925)	990 (1025)	1090 (1125)	1190 (1225)	1290 (1325)	1390 (1425)	1490 (1525)	1590 (1625)
Weight (kg)	8.4 (8.9)	9.6 (10.1)	10.8 (11.3)	12.0 (12.5)	13.2 (13.7)	14.4 (14.9)	15.6 (16.1)	16.8 (17.3)	18.0 (18.5)	19.2 (19.7)	20.4 (20.9)	21.6 (22.1)

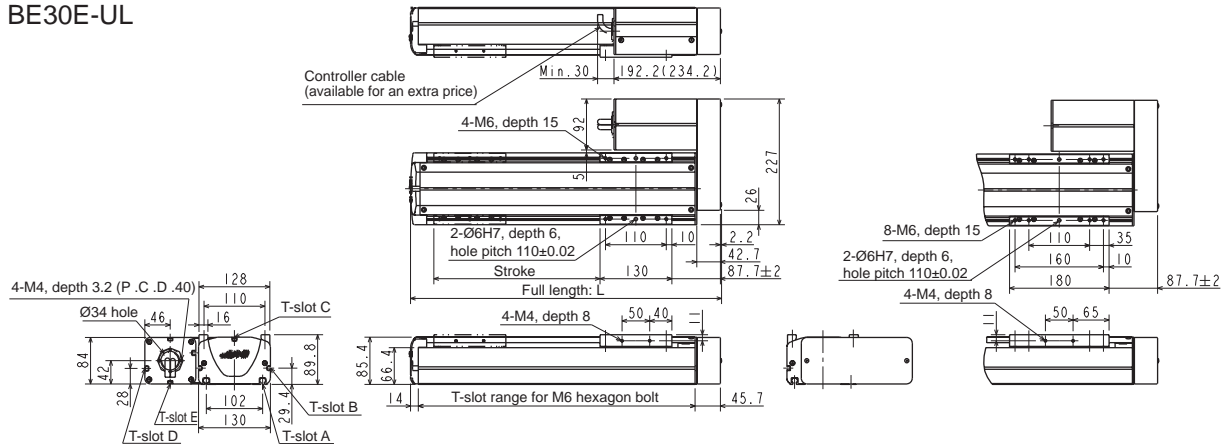
\* Values in parentheses are for the axis with brake.



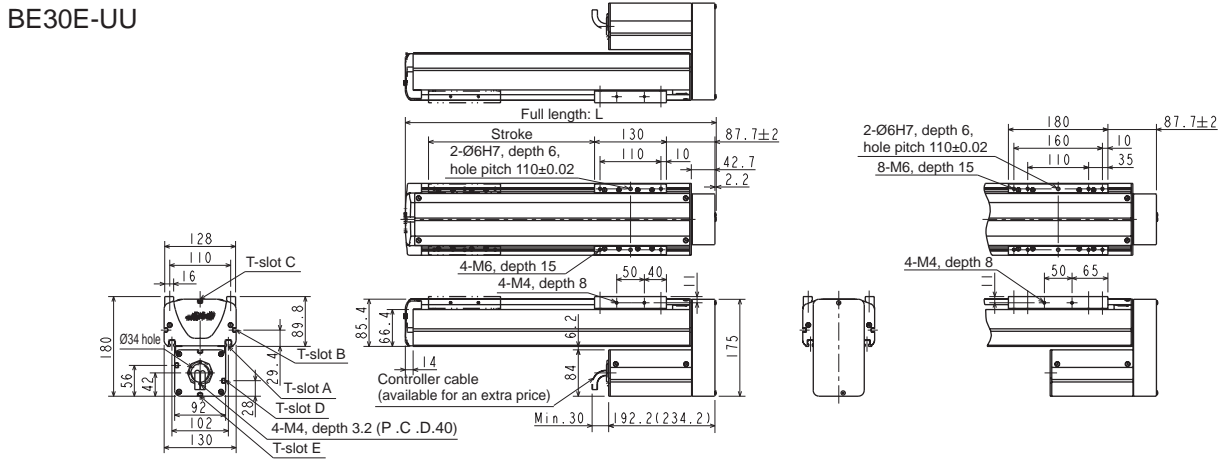
## BE30E-UR



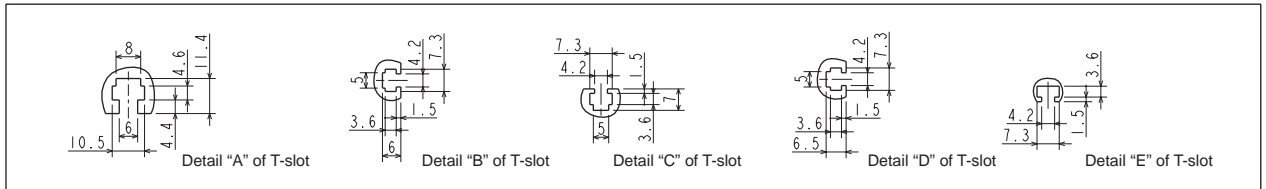
## BE30E-UL



## BE30E-UU



Common to BE30E-UR, UL and UU.



### Mounted motor axis

Medium slider stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
Full length L (mm)	361.9	461.9	561.9	661.9	761.9	861.9	961.9	1061.9	1161.9	1261.9	1361.9	1461.9
Weight (kg)	7.8 (8.1)	9.0 (9.3)	10.2 (10.5)	11.4 (11.7)	12.6 (12.9)	13.8 (14.1)	15.0 (15.3)	16.2 (16.5)	17.4 (17.7)	18.6 (18.9)	19.8 (20.1)	21.0 (21.3)

\* Values in parentheses are for the axis with brake.

Long slider stroke (mm)	150	250	350	450	550	650	750	850	950	1050	1150
Full length L (mm)	461.9	561.9	661.9	761.9	861.9	961.9	1061.9	1161.9	1261.9	1361.9	1461.9
Weight (kg)	9.3 (9.6)	10.5 (10.8)	11.7 (12.0)	12.9 (13.2)	14.1 (14.4)	15.3 (15.6)	16.5 (16.8)	17.7 (18.0)	18.9 (19.2)	20.1 (20.4)	21.3 (21.6)

\* Values in parentheses are for the axis with brake.

[Set designation]

**BA3 – 30F – ST – M 20 N – 40 – 1 3**

Axis structure	Type of slider	Lead	Brake	Stroke	Controller (CA25-M10)	Cable length
ST : Straight axis UR : Right side mounted motor axis UL : Left side mounted motor axis UU : Bottom side mounted motor axis	M : Medium slider L : Long slider	05 : 5mm 10 : 10mm 20 : 20mm	N : Without brake B : With brake	Type designation	0 : None 1 : NPN output specifications Other : See page 19	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

[Specifications]

Motor	200 W AC servo motor (absolute)					
Drive system	Ground ball screw (C7), thread outer diameter 15 mm					
Stroke (mm) (in increments of 100 mm)	Medium slider	100~600	700	800	900, 1000	1100, 1200
	Type designation	10~60	70	80	90, A0	B0, C0
	Long slider	150~550	650	750	850, 950	1050, 1150
	Type designation	15~55	65	75	85, 95	A5, B5
Maximum speed (mm/s) Values in < > signify the acceleration/deceleration time in seconds when the maximum payload is loaded.	Lead 20 mm	1200<0.36>	1000<0.3>	800<0.24>	600<0.18>	400<0.12>
	Lead 10 mm	600<0.36>	500<0.3>	400<0.24>	300<0.18>	200<0.12>
	Lead 5 mm	300<0.36>	250<0.3>	200<0.24>	150<0.18>	
Maximum payload (kg)	Lead 20 mm	Horizontal transfer: 40 Vertical transfer: 3 (10)				
	Lead 10 mm	Horizontal transfer: 80 Vertical transfer: 8 (20)				
	Lead 5 mm	Horizontal transfer: 100 Vertical transfer: 15 (40)				
Positioning repeatability (mm)	± 0.01					
Resolution (mm)	0.01					
Allowable static load moment (N·m)	Medium slider	MR : 510	MP : 430	MY : 370	Long slider	MR : 510 MP : 750 MY : 650
Brake	Brake voltage DC24 V					
Master controller	CA25-M10					

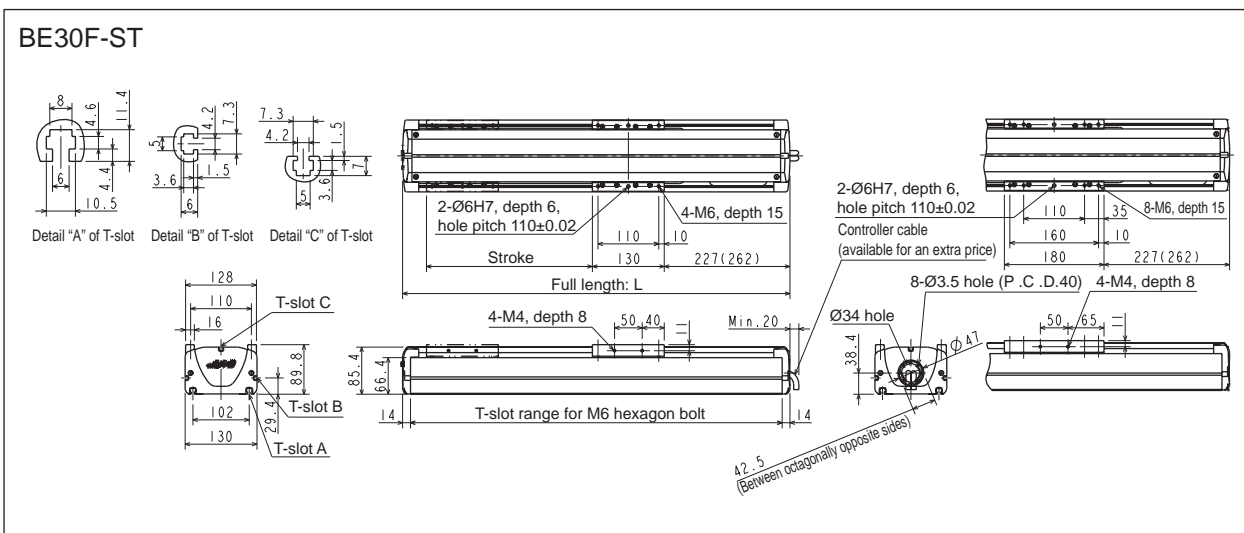
- Notes:
- \* When using the axis as a vertical axis, select the type with brake.
  - \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.
  - \* The values in parentheses under "Maximum payload" are applicable when a regenerative discharge unit ABSU-2000 is equipped.
  - \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

[Axis designation]

**BE30F – ST – M 20 N – 40**

Axis structure	Type of slider	Lead	Brake	Stroke
ST : Straight axis UR : Right side mounted motor axis UL : Left side mounted motor axis UU : Bottom side mounted motor axis	M : Medium slider L : Long slider	05 : 5mm 10 : 10mm 20 : 20mm	N : Without brake B : With brake	Type designation

[Dimensions]



Straight axis

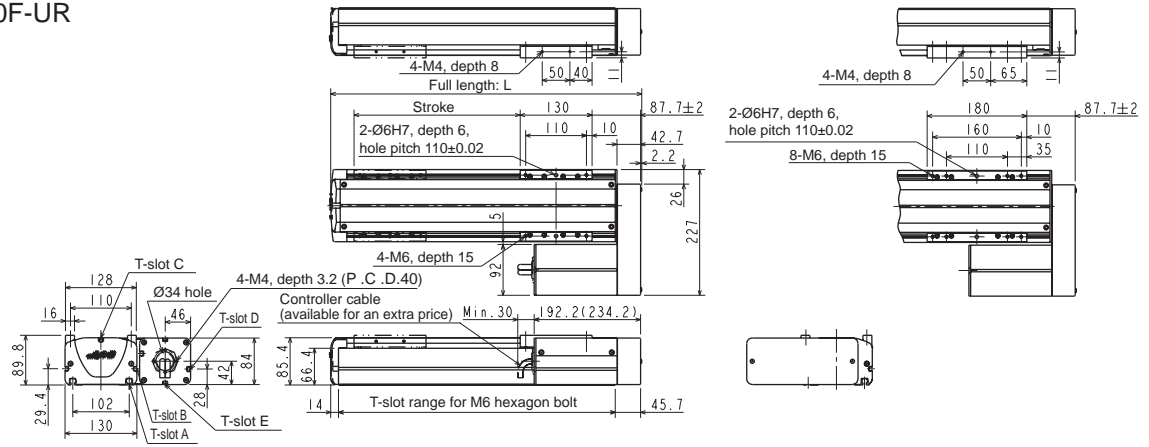
Medium slider stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
Full length L (mm)	500 (535)	600 (635)	700 (735)	800 (835)	900 (935)	1000 (1035)	1100 (1135)	1200 (1235)	1300 (1335)	1400 (1435)	1500 (1535)	1600 (1635)
Weight (kg)	9.2 (9.8)	10.4 (11.0)	11.6 (12.2)	12.8 (13.4)	14.0 (14.6)	15.2 (15.8)	16.4 (17.0)	17.6 (18.2)	18.8 (19.4)	20.0 (20.6)	21.2 (21.8)	22.4 (23.0)

\* Values in parentheses are for the axis with brake.

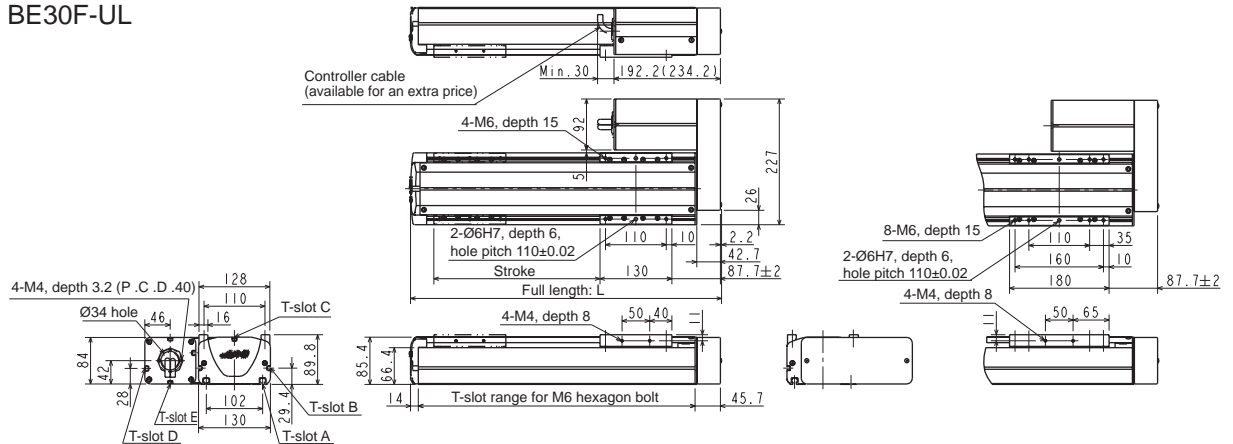
Long slider stroke (mm)	150	250	350	450	550	650	750	850	950	1050	1150
Full length L (mm)	600 (635)	700 (735)	800 (835)	900 (935)	1000 (1035)	1100 (1135)	1200 (1235)	1300 (1335)	1400 (1435)	1500 (1535)	1600 (1635)
Weight (kg)	10.7 (11.3)	11.9 (12.5)	13.1 (13.7)	14.3 (14.9)	15.5 (16.1)	16.7 (17.3)	17.9 (18.5)	19.1 (19.7)	20.3 (20.9)	21.5 (22.1)	22.7 (23.3)

\* Values in parentheses are for the axis with brake.

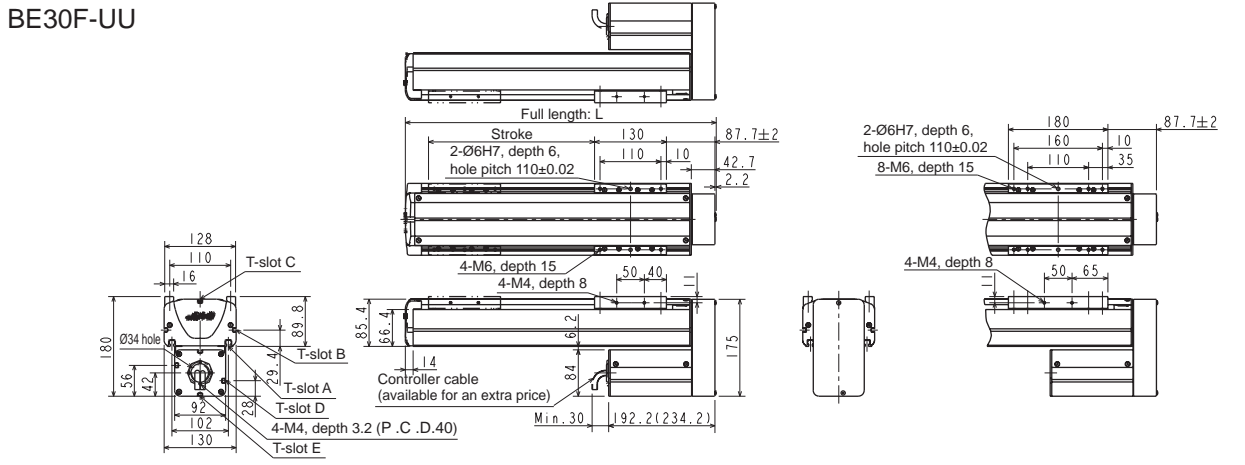
## BE30F-UR



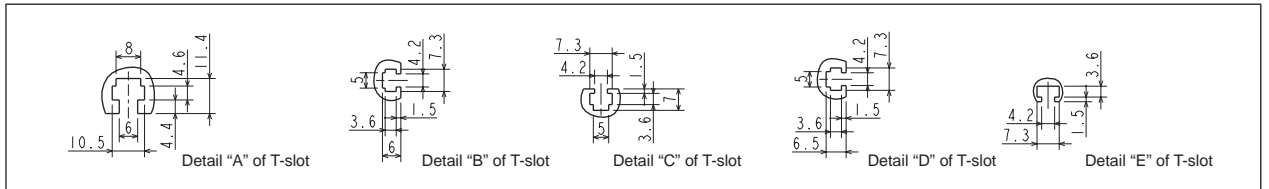
## BE30F-UL



## BE30F-UU



Common to BE30F-UR, UL and UU.



### Mounted motor axis

Medium slider stroke (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200
Full length L (mm)	361.9	461.9	561.9	661.9	761.9	861.9	961.9	1061.9	1161.9	1261.9	1361.9	1461.9
Weight (kg)	8.3 (8.9)	9.5 (10.1)	10.7 (11.3)	11.9 (12.5)	13.1 (13.7)	14.3 (14.9)	15.5 (16.1)	16.7 (17.3)	17.9 (18.5)	19.1 (19.7)	20.3 (20.9)	21.5 (22.1)

\* Values in parentheses are for the axis with brake.

Long slider stroke (mm)	150	250	350	450	550	650	750	850	950	1050	1150
Full length L (mm)	461.9	561.9	661.9	761.9	861.9	961.9	1061.9	1161.9	1261.9	1361.9	1461.9
Weight (kg)	9.8 (10.3)	11.0 (11.6)	12.2 (12.8)	13.4 (14.0)	14.6 (15.2)	15.8 (16.4)	17.0 (17.6)	18.2 (18.8)	19.4 (20.0)	20.6 (21.2)	21.8 (22.4)

\* Values in parentheses are for the axis with brake.

### [Set designation]

**BA3 – 50F – ST – M 20 N – 40 – 1 3**

Axis structure ST : Straight axis UR : Right side mounted motor axis UL : Left side mounted motor axis UU : Bottom side mounted motor axis	Type of slider M : Medium slider L : Long slider	Lead 05 : 5mm 10 : 10mm 20 : 20mm	Brake N : Without brake B : With brake	Stroke Type designation	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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### [Specifications]

Motor	200 W AC servo motor (absolute)									
Drive system	Ground ball screw (C7), thread outer diameter 20 mm									
Stroke (mm) (in increments of 100 mm)	Medium slider	200~600	700, 800	900, 1000	1100, 1200	1300	1400	1500	1600	
	Type designation	20~60	70, 80	90, A0	B0, C0	D0	E0	F0	G0	
	Long slider	250~550	650, 750	850, 950	1050, 1150	1250	1350	1450	1550	
	Type designation	25~55	65, 75	85, 95	A5, B5	C5	D5	E5	F5	
Maximum speed (mm/s) Values in < > signify the acceleration/deceleration time in seconds when the maximum payload is loaded.	Lead 20 mm	1200<0.36>	1100<0.33>	1000<0.3>	700<0.21>	500<0.15>	400<0.12>	300<0.1>	300<0.10>	
	Lead 10 mm	600<0.36>	550<0.33>	500<0.3>	350<0.21>	250<0.15>	200<0.12>	150<0.1>	150<0.10>	
	Lead 5 mm	300<0.36>	280<0.33>	250<0.3>	180<0.21>	130<0.15>	100<0.12>	80<0.1>	80<0.10>	
Maximum payload (kg)	Lead 20 mm	Horizontal transfer: 60 (Note 1)				Vertical transfer: 3				
	Lead 10 mm	Horizontal transfer: 100				Vertical transfer: 8 (25)				
	Lead 5 mm	Horizontal transfer: 100				Vertical transfer: 15 (50)				
Positioning repeatability (mm)	±0.01									
Resolution (mm)	0.01									
Allowable static load moment (N·m)	Medium slider MR : 2080 MP : 2160 MY : 1820 Long slider MR : 2080 MP : 3150 MY : 2640									
Brake	Brake voltage DC24 V									
Master controller	CA25-M10									

- Notes: \* When using the axis as a vertical axis, select the type with brake.  
 \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.  
 \* The values in parentheses under "Maximum payload" are applicable when a regenerative discharge unit ABSU-2000 is equipped.  
 \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

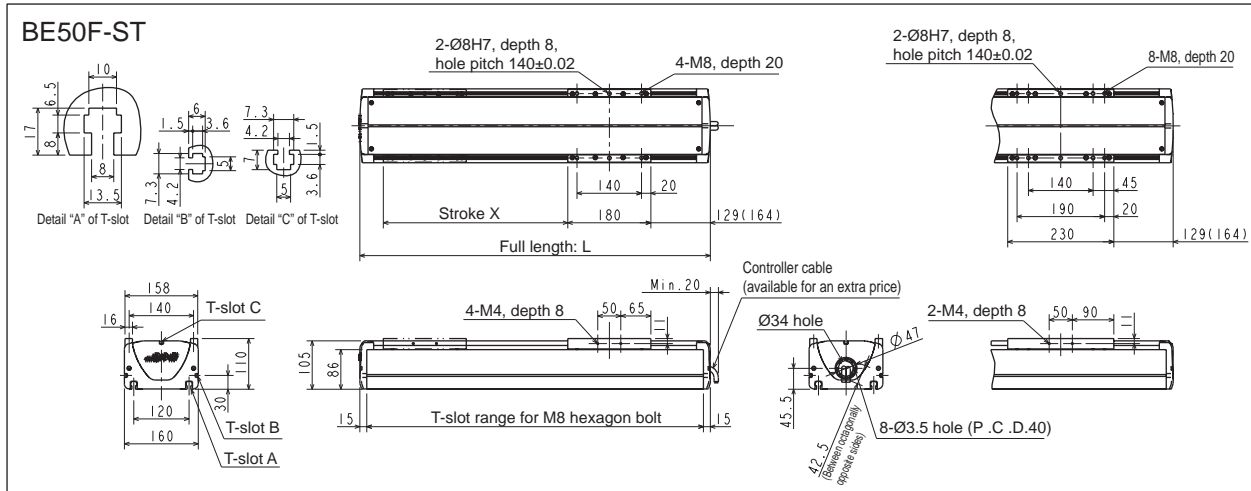
Note 1: When master power voltage is 110 to 120 V or 220 V to 240 V with payload larger than 50 kg, a regenerative discharge unit (ABSU-2000) is required. When the axis speed exceeds 1,000 mm/s, allowable payload is 50 kg.

### [Axis designation]

**BE50F – ST – M 20 N – 40**

Axis structure ST : Straight axis UR : Right side mounted motor axis UL : Left side mounted motor axis UU : Bottom side mounted motor axis	Type of slider M : Medium slider L : Long slider	Lead 05 : 5mm 10 : 10mm 20 : 20mm	Brake N : Without brake B : With brake	Stroke Type designation
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### [Dimensions]



#### Straight axis

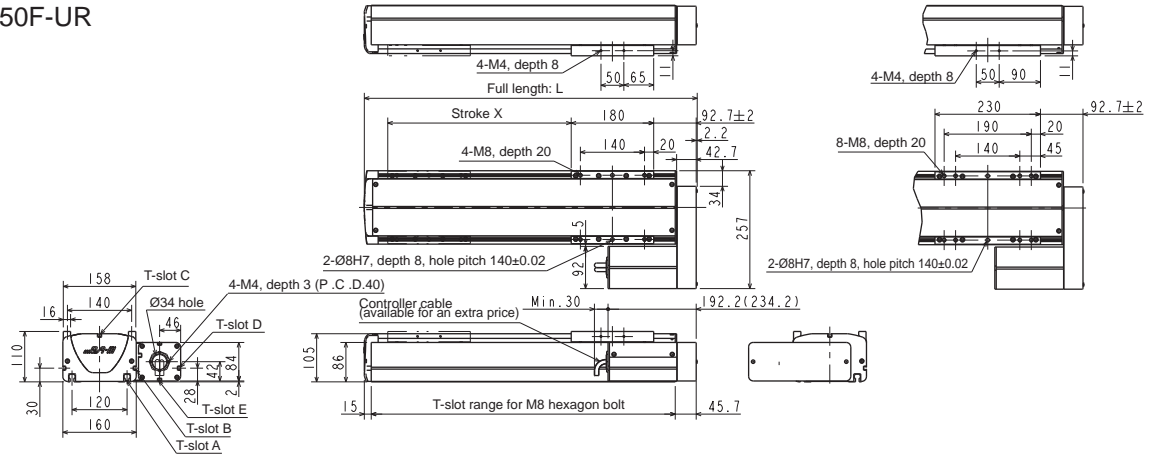
Medium slider stroke (mm)	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
Full length L (mm)	560 (595)	660 (695)	760 (795)	860 (895)	960 (995)	1060 (1095)	1160 (1195)	1260 (1295)	1360 (1395)	1460 (1495)	1560 (1595)	1660 (1695)	1760 (1795)	1860 (1895)	1960 (1995)
Weight (kg)	15.6 (16.4)	17.5 (18.3)	19.4 (20.2)	21.3 (22.1)	23.2 (24.0)	25.1 (25.9)	27.0 (27.8)	28.9 (29.7)	30.8 (31.6)	32.7 (33.5)	34.6 (35.4)	36.5 (37.3)	38.4 (39.2)	40.3 (41.1)	42.2 (43.0)

\* Values in parentheses are for the axis with brake.

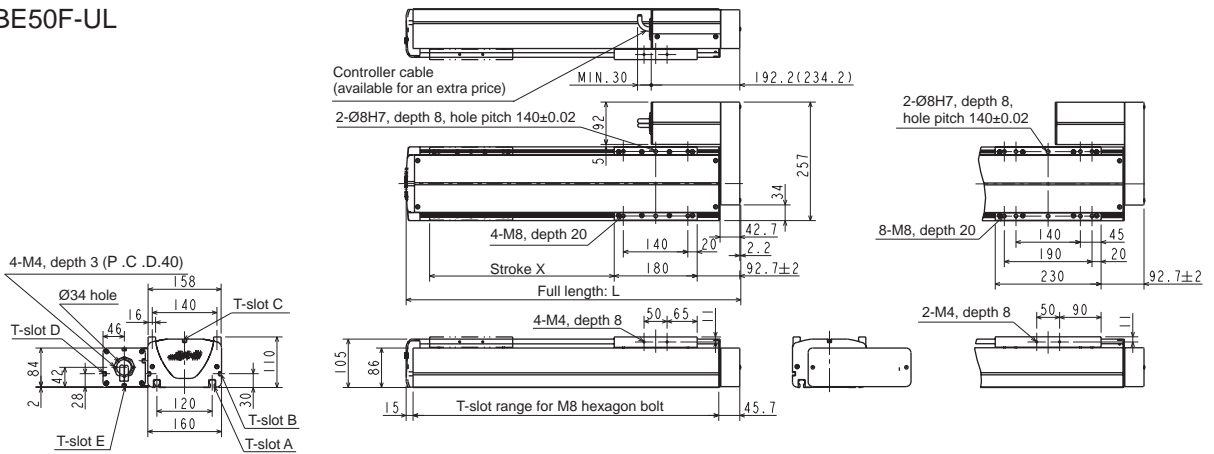
Long slider stroke (mm)	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550
Full length L (mm)	660 (695)	760 (795)	860 (895)	960 (995)	1060 (1095)	1160 (1195)	1260 (1295)	1360 (1395)	1460 (1495)	1560 (1595)	1660 (1695)	1760 (1795)	1860 (1895)	1960 (1995)
Weight (kg)	18.1 (18.9)	20.0 (20.8)	21.9 (22.7)	23.8 (24.6)	25.7 (26.5)	27.6 (28.4)	29.5 (30.3)	31.4 (32.2)	33.3 (34.1)	35.2 (36.0)	37.1 (37.9)	39.0 (39.8)	40.9 (41.7)	42.8 (43.6)

\* Values in parentheses are for the axis with brake.

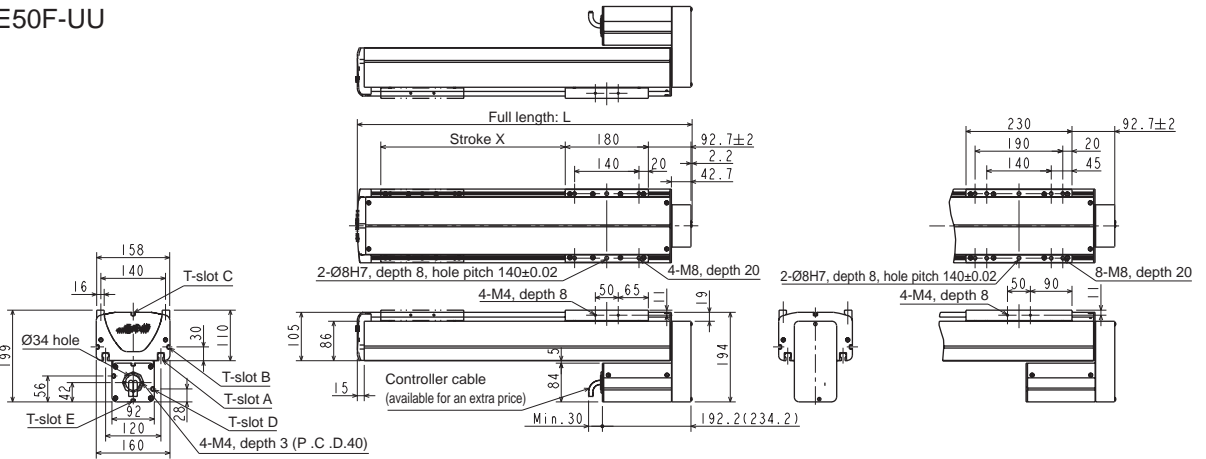
## BE50F-UR



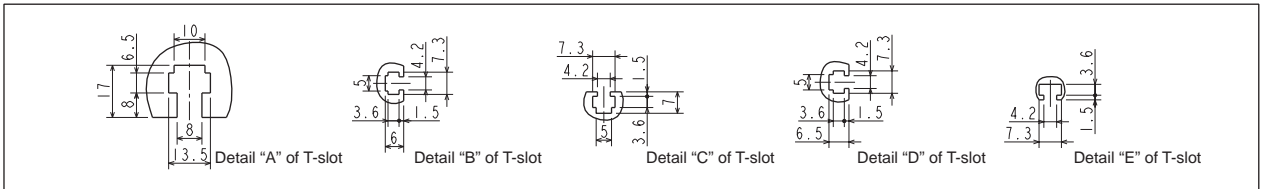
## BE50F-UL



## BE50F-UU



Common to BE50F-UR, UL and UU.



### Mounted motor axis

Medium slider stroke (mm)	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
Full length L (mm)	525.9	625.9	725.9	825.9	925.9	1025.9	1125.9	1225.9	1325.9	1425.9	1525.9	1625.9	1725.9	1825.9
Weight (kg)	12.3 (12.9)	14.2 (14.8)	16.1 (16.7)	18.0 (18.6)	19.9 (20.5)	21.8 (22.4)	23.7 (24.3)	25.6 (26.2)	27.5 (28.1)	29.4 (30.0)	31.3 (31.9)	33.2 (33.8)	35.1 (35.7)	37.0 (37.6)

\* Values in parentheses are for the axis with brake.

Long slider stroke (mm)	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450
Full length L (mm)	625.9	725.9	825.9	925.9	1025.9	1125.9	1225.9	1325.9	1425.9	1525.9	1625.9	1725.9	1825.9
Weight (kg)	14.8 (15.4)	16.7 (17.3)	18.6 (19.2)	20.5 (21.1)	22.4 (23.0)	24.3 (24.9)	26.2 (26.8)	28.1 (28.7)	30.0 (30.6)	31.9 (32.5)	33.8 (34.4)	35.7 (36.3)	37.6 (38.2)

\* Values in parentheses are for the axis with brake.



[Set designation]

**BA3 – 50G – ST – M 20 N – 40 – 1 3**

Axis structure	Type of slider	Lead	Brake	Stroke	Controller (CA25-M40)	Cable length
ST : Straight axis UR : Right side mounted motor axis UL : Left side mounted motor axis UU : Bottom side mounted motor axis	M : Medium slider L : Long slider	05 : 5mm 10 : 10mm 20 : 20mm	N : Without brake B : With brake	Type designation	0 : None 1 : NPN output specifications Other : See page 19	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

[Specifications]

Motor	200 W AC servo motor (absolute)								
Drive system	Ground ball screw (C7), thread outer diameter 20 mm								
Stroke (mm) (in increments of 100 mm)	Medium slider	200~600	700, 800	900, 1000	1100, 1200	1300	1400	1500	1600
	Type designation	20~60	70, 80	90, A0	B0, C0	D0	E0	F0	G0
	Long slider	250~550	650, 750	850, 950	1050, 1150	1250	1350	1450	1550
	Type designation	25~55	65, 75	85, 95	A5, B5	C5	D5	E5	F5
Maximum speed (mm/s) Values in <> signify the acceleration/deceleration time in seconds when the maximum payload is loaded.	Lead 20 mm	1200<0.36>	1100<0.33>	1000<0.30>	700<0.21>	500<0.15>	400<0.12>	300<0.10>	300<0.10>
	Lead 10 mm	600<0.36>	550<0.33>	500<0.30>	350<0.21>	250<0.15>	200<0.12>	150<0.10>	150<0.10>
	Lead 5 mm	300<0.36>	280<0.33>	250<0.30>	180<0.21>	130<0.15>	100<0.12>	80<0.10>	80<0.10>
Maximum payload (kg)	Lead 20 mm	Horizontal transfer: 100			Vertical transfer: 25				
	Lead 10 mm	Horizontal transfer: 150			Vertical transfer: 50				
	Lead 5 mm	Horizontal transfer: 150			Vertical transfer: 60				
Positioning repeatability (mm)	±0.01								
Resolution (mm)	0.01								
Allowable static load moment (N·m)	Medium slider	MR : 2080	MP : 2160	MY : 1820	Long slider	MR : 2080	MP : 3150	MY : 2640	
Brake	Brake voltage DC24 V								
Master controller	CA25-M40								

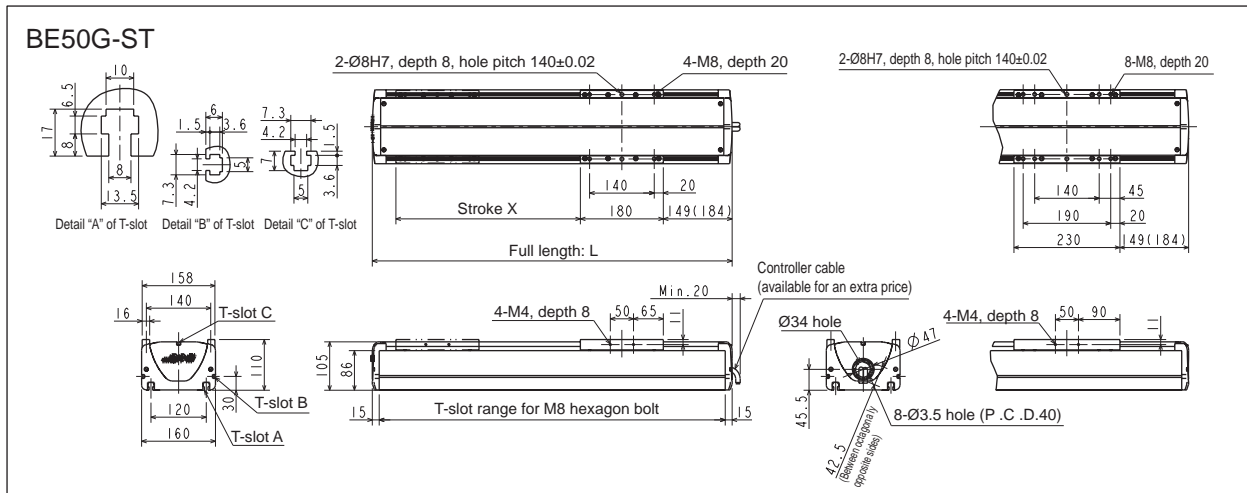
- Notes:
- \* When using the axis as a vertical axis, select the type with brake.
  - \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.
  - \* The values in parentheses under "Maximum payload" are applicable when a regenerative discharge unit ABSU-4000 is equipped.
  - \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

[Axis designation]

**BE50G – ST – M 20 N – 40**

Axis structure	Type of slider	Lead	Brake	Stroke
ST : Straight axis UR : Right side mounted motor axis UL : Left side mounted motor axis UU : Bottom side mounted motor axis	M : Medium slider L : Long slider	05 : 5mm 10 : 10mm 20 : 20mm	N : Without brake B : With brake	Type designation

[Dimensions]



Straight axis

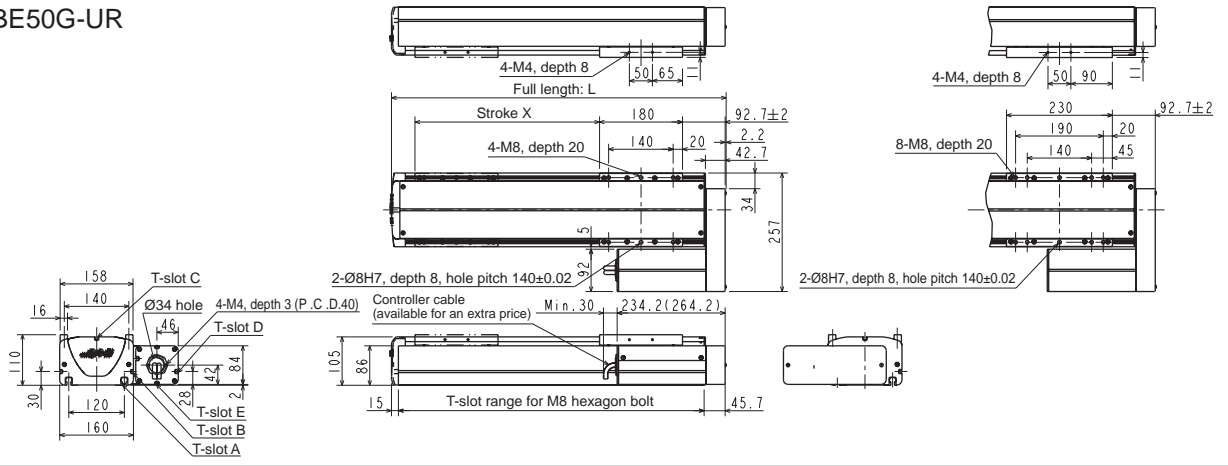
Medium slider stroke (mm)	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
Full length L (mm)	580 (615)	680 (715)	780 (815)	880 (915)	980 (1015)	1080 (1115)	1180 (1215)	1280 (1315)	1380 (1415)	1480 (1515)	1580 (1615)	1680 (1715)	1780 (1815)	1880 (1915)	1980 (2015)
Weight (kg)	16.3 (17.2)	18.2 (19.1)	20.1 (21.0)	22.0 (22.9)	23.9 (24.8)	25.8 (26.7)	27.7 (28.6)	29.6 (30.5)	31.5 (32.4)	33.4 (34.3)	35.3 (36.2)	37.2 (38.1)	39.1 (40.0)	41.0 (41.9)	42.9 (43.8)

\* Values in parentheses are for the axis with brake.

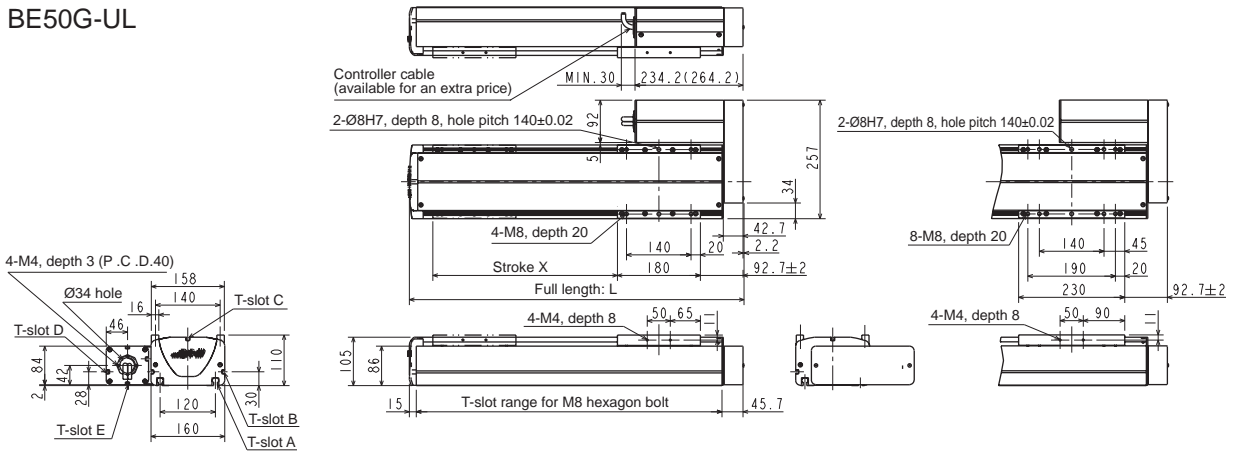
Long slider stroke (mm)	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550
Full length L (mm)	680 (715)	780 (815)	880 (915)	980 (1015)	1080 (1115)	1180 (1215)	1280 (1315)	1380 (1415)	1480 (1515)	1580 (1615)	1680 (1715)	1780 (1815)	1880 (1915)	1980 (2015)
Weight (kg)	18.8 (19.7)	20.7 (21.6)	22.6 (23.5)	24.5 (25.4)	26.4 (27.3)	28.3 (29.2)	30.2 (31.1)	32.1 (33.0)	34.0 (34.9)	35.9 (36.8)	37.8 (38.7)	39.7 (40.6)	41.6 (42.5)	43.5 (44.4)

\* Values in parentheses are for the axis with brake.

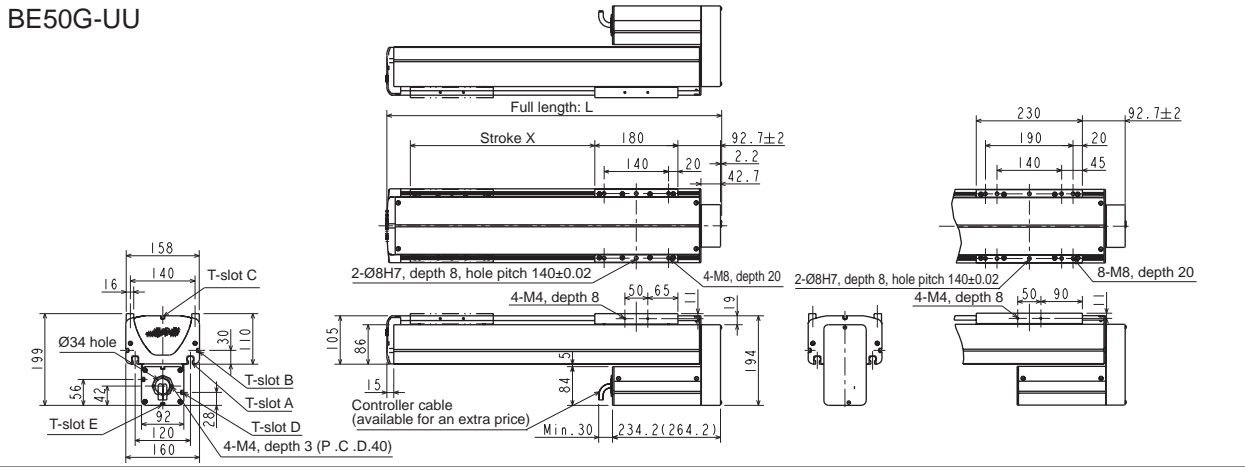
## BE50G-UR



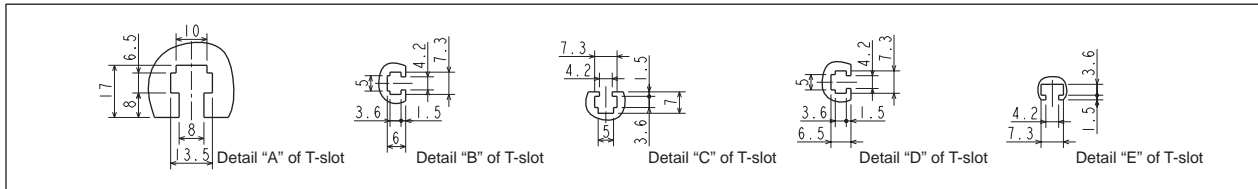
## BE50G-UL



## BE50G-UU



Common to BE50G-UR, UL and UU.



### Mounted motor axis

Medium slider stroke (mm)	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
Full length L (mm)	525.9	625.9	725.9	825.9	925.9	1025.9	1125.9	1225.9	1325.9	1425.9	1525.9	1625.9	1725.9	1825.9
Weight (kg)	12.8 (13.4)	14.7 (15.3)	16.6 (17.2)	18.5 (19.1)	20.4 (21.0)	22.3 (22.9)	24.2 (24.8)	26.1 (26.7)	28.0 (28.6)	29.9 (30.5)	31.8 (32.4)	33.7 (34.3)	35.6 (36.2)	37.5 (38.1)

\* Values in parentheses are for the axis with brake.

Long slider stroke (mm)	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450
Full length L (mm)	625.9	725.9	825.9	925.9	1025.9	1125.9	1225.9	1325.9	1425.9	1525.9	1625.9	1725.9	1825.9
Weight (kg)	15.3 (15.9)	17.2 (17.8)	19.1 (19.7)	21.0 (21.6)	22.9 (23.5)	24.8 (25.4)	26.7 (27.3)	28.6 (29.2)	30.5 (31.1)	32.4 (33.0)	34.3 (34.9)	36.2 (36.8)	38.1 (38.7)

\* Values in parentheses are for the axis with brake.

[Set designation]

**BA3 - 60G - ST - M 20 N - 40 - 13**

Type of slider	Lead	Brake	Stroke	Controller (CA25-M40)	Cable length
M : Medium slider L : Long slider	10 : 10mm 20 : 20mm 40 : 40mm	N : Without brake B : With brake	Type designation	0 : None 1 : NPN output specifications Other : See page 19	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

[Specifications]

Motor	400 W AC servo motor (absolute)								
Drive system	Ball screw (nut rotation type), thread outer diameter 20 mm								
Stroke (mm) (in increments of 100 mm)	Medium slider	200 ~ 700	800	900	1000	1100	1200	1300	1400,1500
	Type designation	20 ~ 70	80	90	A0	B0	C0	D0	E0,F0
Maximum speed (mm/s) <small>Values in &lt;&gt; signify the acceleration/deceleration time in seconds when the maximum payload is loaded.</small>	Long slider	150 ~ 650	750	850	950	1050	1150	1250	1350,1450
	Type designation	15 ~ 65	75	85	95	A5	B5	C5	D5,E5
Maximum payload (kg)	Lead 20 mm	Horizontal transfer: 100			Vertical transfer: 25				
	Lead 10 mm	Horizontal transfer: 150			Vertical transfer: 50				
Positioning repeatability (mm)	± 0.01								
Resolution (mm)	0.01								
Allowable static load moment (N-m)	Medium slider MR : 2700 MP : 3000 MY : 2250 Long slider MR : 2700 MP : 4750 MY : 3450								
Brake	Brake voltage DC24 V								
Master controller	CA25-M40								

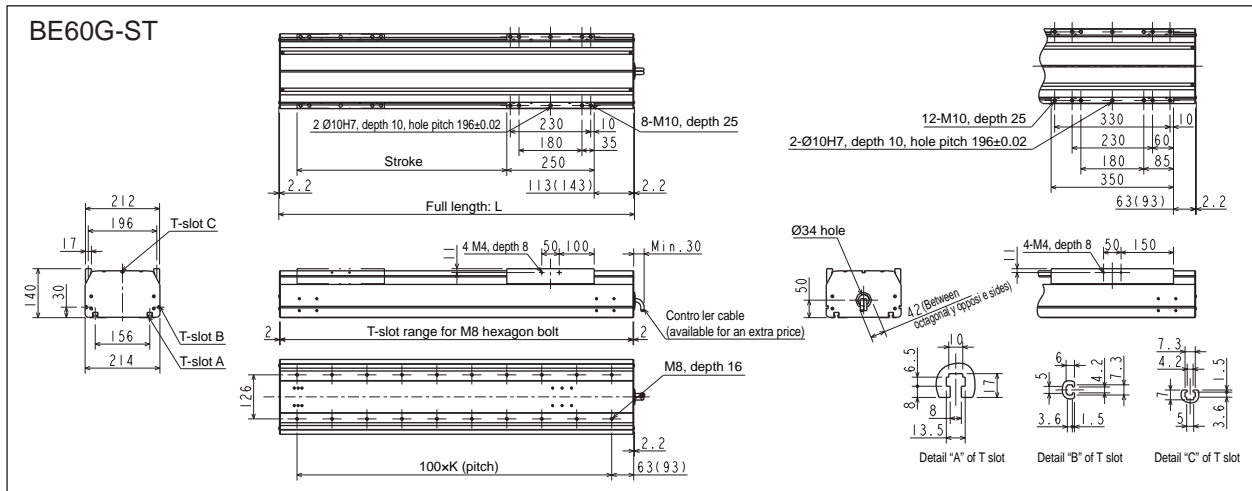
- Notes:
- \* When using the axis as a vertical axis, select the type with brake.
  - \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.
  - \* The values in parentheses under "Maximum payload" are applicable when a regenerative discharge unit ABSU-4000 is equipped.
  - \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

[Axis designation]

**BE60G - ST - M 20 N - 40**

Type of slider	Lead	Brake	Stroke
M : Medium slider L : Long slider	10 : 10mm 20 : 20mm 40 : 40mm	N : Without brake B : With brake	Type designation

[Dimensions]



Straight axis

Medium slider stroke (mm)	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
Full length L (mm)	617.4 (647.4)	717.4 (747.4)	817.4 (847.4)	917.4 (947.4)	1017.4 (1047.4)	1117.4 (1147.4)	1217.4 (1247.4)	1317.4 (1347.4)	1417.4 (1447.4)	1517.4 (1547.4)	1617.4 (1647.4)	1717.4 (1747.4)	1817.4 (1847.4)	1917.4 (1947.4)
Weight (kg)	24.0 (25.2)	26.8 (28.0)	29.5 (30.7)	32.3 (33.5)	35.0 (36.2)	37.8 (39.0)	40.5 (41.7)	43.3 (44.5)	46.0 (47.2)	48.8 (50.0)	51.5 (52.7)	54.3 (55.5)	57.0 (58.2)	59.8 (61.0)

\* Values in parentheses are for the axis with brake.

Long slider stroke (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450
Full length L (mm)	617.4 (647.4)	717.4 (747.4)	817.4 (847.4)	917.4 (947.4)	1017.4 (1047.4)	1117.4 (1147.4)	1217.4 (1247.4)	1317.4 (1347.4)	1417.4 (1447.4)	1517.4 (1547.4)	1617.4 (1647.4)	1717.4 (1747.4)	1817.4 (1847.4)	1917.4 (1947.4)
Weight (kg)	25.5 (26.7)	28.3 (29.5)	31.0 (32.2)	33.8 (35.0)	36.5 (37.7)	39.3 (40.5)	42.0 (43.2)	44.8 (46.0)	47.5 (48.7)	50.3 (51.5)	53.0 (54.2)	55.8 (57.0)	58.5 (59.7)	61.3 (62.5)

\* Values in parentheses are for the axis with brake.

Ball-screw driven

[Set designation]

BA3 – 60J – ST – M 20 N – 40 – 13

Type of slider	Lead	Brake	Stroke	Controller (CA25-M80)	Cable length
M : Medium slider L : Long slider	10 : 10mm 20 : 20mm 50 : 50mm	N : Without brake B : With brake	Type designation	0 : None 1 : NPN output specifications Other : See page 19	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

[Specifications]

Motor	750 W AC servo motor (absolute)						
Drive system	Ground ball screw (C7), thread outer diameter 25 mm						
Stroke (mm) (in increments of 100 mm)	Medium slider	200 ~ 1000	1100	1200	1300	1400,1500	1600,1700
	Type designation	20 ~ A0	B0	C0	D0	E0,F0	G0,H0
Maximum speed (mm/s) Values in < > signify the acceleration/deceleration time in seconds when the maximum payload is loaded.	Long slider	150 ~ 950	1050	1150	1250	1350,1450	1550,1650
	Type designation	15 ~ 95	A5	B5	C5	D5,E5	F5,G5
Maximum payload (kg)	Lead 50 mm	2300<0.27>		1800<0.21>	1500<0.18>	1300<0.15>	1000<0.12>
	Lead 20 mm	900<0.27>		700<0.21>	600<0.18>	500<0.15>	400<0.12>
	Lead 10 mm	450<0.27>		350<0.21>	300<0.18>	250<0.15>	200<0.12>
Positioning repeatability (mm)	Horizontal transfer: 50 Vertical transfer: -						
	Horizontal transfer: 200 Vertical transfer: 50						
	Horizontal transfer: 250 Vertical transfer: 100						
Resolution (mm)	± 0.01						
Allowable static load moment (N·m)	0.01						
Brake	Medium slider MR : 3500 MP : 4000 MY : 3000 Long slider MR : 3500 MP : 6200 MY : 4750						
Master controller	Brake voltage DC24 V						
	CA25-M80						

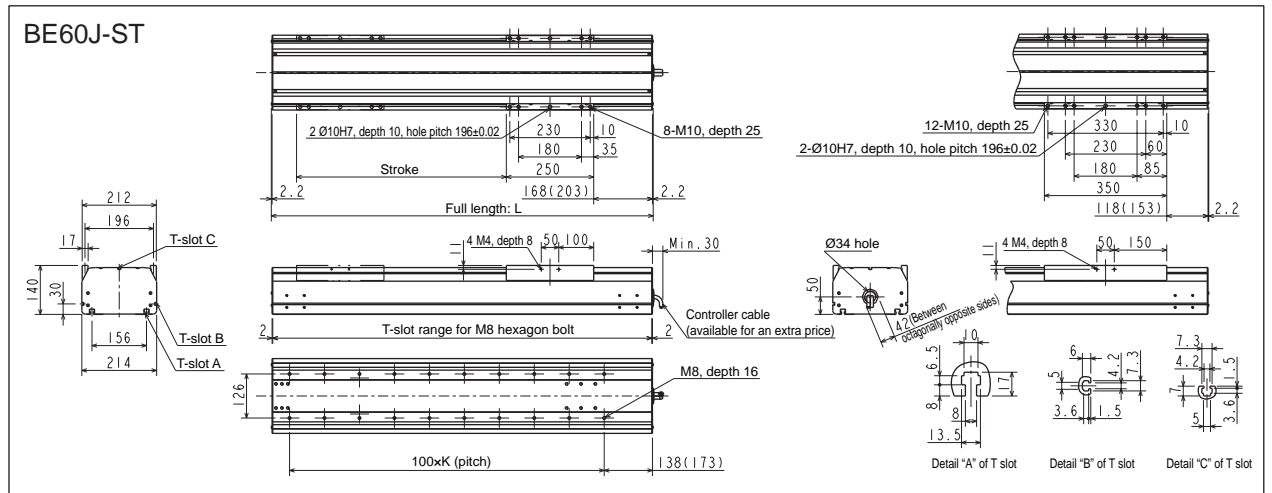
- Notes:
- \* When using the axis as a vertical axis, select the type with brake.
  - \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.
  - \* The values in parentheses under "Maximum payload" are applicable when a regenerative discharge unit ABSU-8000 is equipped.
  - \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

[Axis designation]

BE60J – ST – M 20 N – 40

Type of slider	Lead	Brake	Stroke
M : Medium slider L : Long slider	10 : 10mm 20 : 20mm 50 : 50mm	N : Without brake B : With brake	Type designation

[Dimensions]



Straight axis

Medium slider stroke (mm)	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
Full length L (mm)	692.4 (727.4)	792.4 (827.4)	892.4 (927.4)	992.4 (1027.4)	1092.4 (1127.4)	1192.4 (1227.4)	1292.4 (1327.4)	1392.4 (1427.4)	1492.4 (1527.4)	1592.4 (1627.4)	1692.4 (1727.4)	1792.4 (1827.4)	1892.4 (1927.4)	1992.4 (2027.4)	2092.4 (2127.4)	2192.4 (2227.4)
K	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Weight (kg)	37.2 (38.8)	40.0 (41.6)	42.7 (44.3)	45.5 (47.1)	48.2 (49.8)	51.0 (52.6)	53.7 (55.3)	56.5 (58.1)	59.2 (60.8)	62.0 (63.6)	64.7 (66.3)	67.5 (69.1)	70.2 (71.8)	73.0 (74.6)	75.7 (77.3)	78.5 (80.1)

\* Values in parentheses are for the axis with brake.

Long slider stroke (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650
Full length L (mm)	692.4 (727.4)	792.4 (827.4)	892.4 (927.4)	992.4 (1027.4)	1092.4 (1127.4)	1192.4 (1227.4)	1292.4 (1327.4)	1392.4 (1427.4)	1492.4 (1527.4)	1592.4 (1627.4)	1692.4 (1727.4)	1792.4 (1827.4)	1892.4 (1927.4)	1992.4 (2027.4)	2092.4 (2127.4)	2192.4 (2227.4)
K	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Weight (kg)	38.7 (40.3)	41.5 (43.1)	44.2 (45.8)	47.0 (48.6)	49.7 (51.3)	52.5 (54.1)	55.2 (56.8)	58.0 (59.6)	60.7 (62.3)	63.5 (65.1)	66.2 (67.8)	69.0 (70.6)	71.7 (73.3)	74.5 (76.1)	77.2 (78.8)	80.0 (81.6)

\* Values in parentheses are for the axis with brake.

[Set designation]

**BA3 - 10E - BT - M 21 N - 40 - 1 3**

Motor set direction BT : Facing up BR : Facing right BL : Facing left BU : Facing down	Type of slider S : Short slider M : Medium slider	Lead 21 : 21mm	Brake N : Without brake	Stroke Type designation	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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[Specifications]

Motor	100 W AC servo motor (absolute)																	
Drive system	Timing belt																	
Ball screw lead (mm)	21																	
Stroke (mm) (in increments of 100 mm)	Short slider	150~950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550
	Type designation	15~95	A5	B5	C5	D5	E5	F5	G5	H5	J5	K5	L5	M5	N5	P5	Q5	R5
	Medium slider	100~900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
	Type designation	10~90	A0	B0	C0	D0	E0	F0	G0	H0	J0	K0	L0	M0	N0	P0	Q0	R0
Maximum speed (mm/s)	1000																	
Maximum payload (kg) Acceleration/deceleration time: 0.3 sec or over	Horizontal transfer: 15																	
Positioning repeatability (mm)	± 0.04																	
Resolution (mm)	0.01																	
Allowable static load moment (N·m)	Short slider MR : 49 MP : 14 MY : 13				Medium slider MR : 59 MP : 59 MY : 54													
Master controller	CA25-M10																	

Notes: \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.

\* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

Timing Belt Driven

[Axis designation]

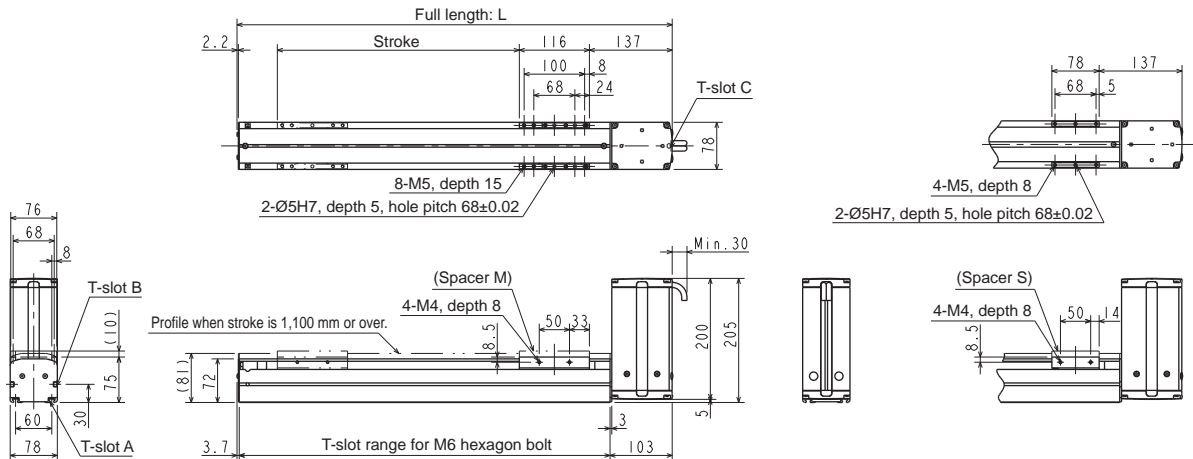
**BE10E - BT - M 21 N - 40**

Motor set direction BT : Facing up BR : Facing right BL : Facing left BU : Facing down	Type of slider S : Short slider M : Medium slider	Lead 21 : 21mm	Brake N : Without brake	Stroke Type designation
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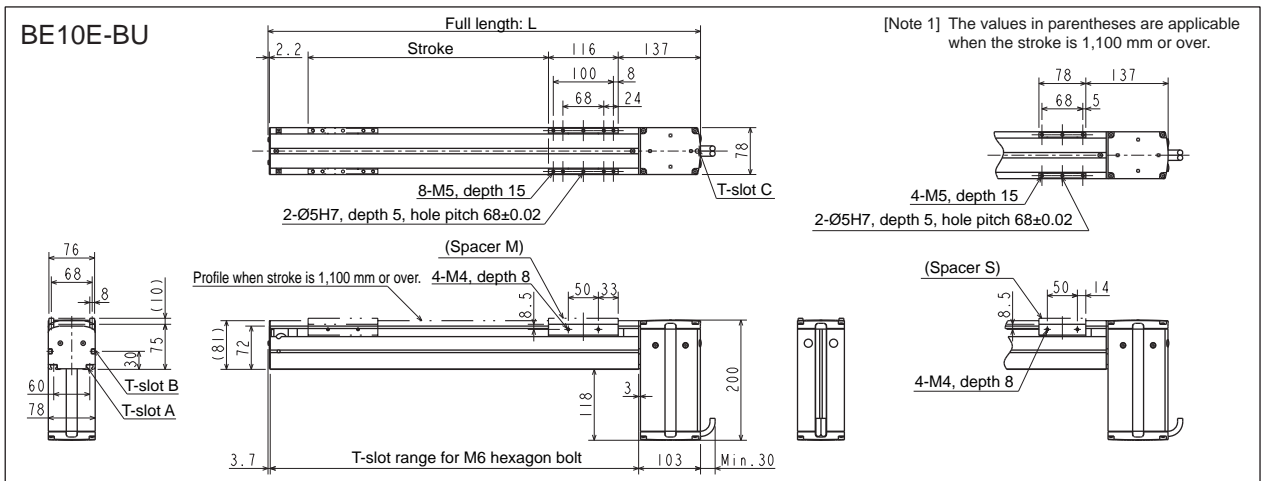
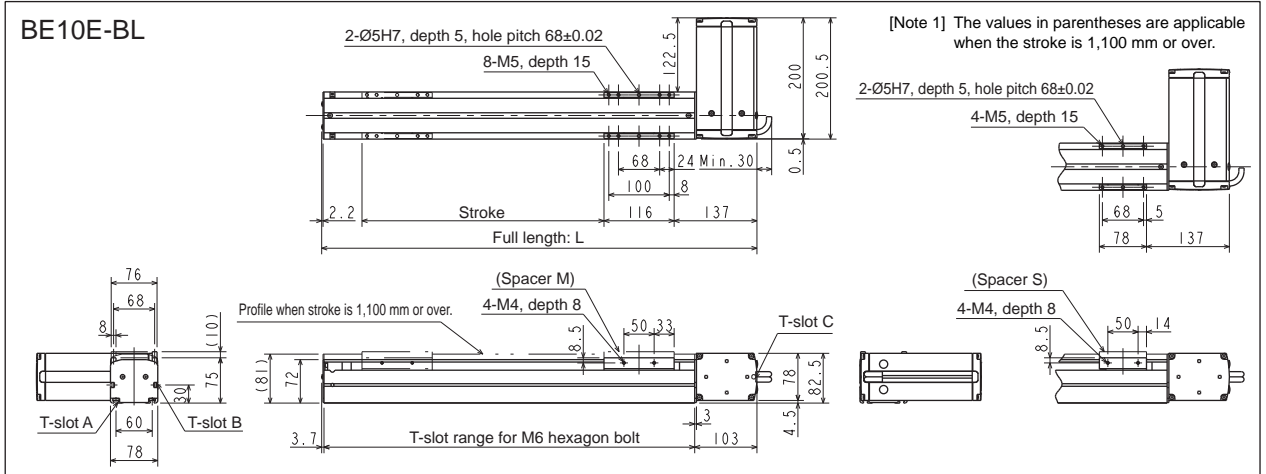
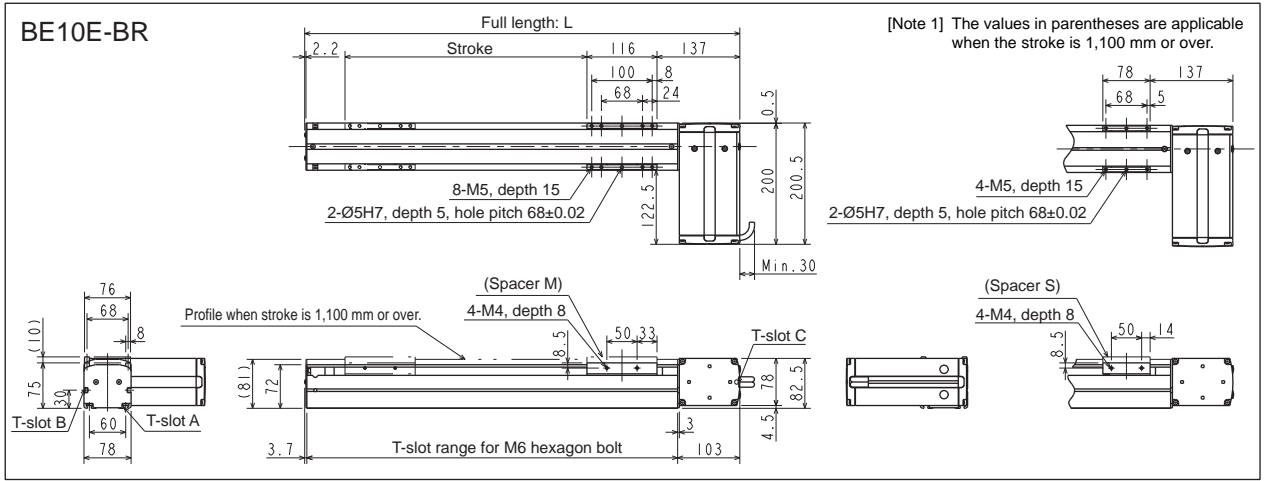
[Dimensions]

BE10E-BT

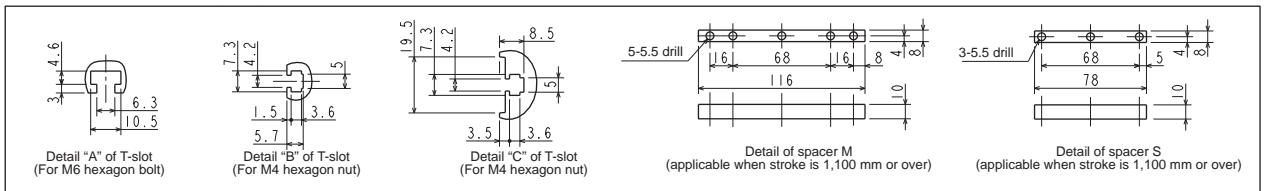
[Note 1] The values in parentheses are applicable when the stroke is 1,100 mm or over.







Common to BE10E-BT, BR, BL and BU.



Medium slider Common to BE10E-BT, BR, BL and BU.

Stroke X (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
Full length L (mm)	419.7	519.7	619.7	719.7	819.7	919.7	1019.7	1119.7	1219.7	1319.7	1419.7	1519.7	1619.7	1719.7	1819.7	1919.7	2019.7	2119.7	2219.7	2319.7	2419.7	2519.7	2619.7	2719.7	2819.7
Weight (kg)	4.9	5.6	6.2	6.9	7.6	8.2	8.9	9.6	10.2	10.9	12.1	12.8	13.5	14.2	14.9	15.6	16.3	17.0	17.8	18.5	19.2	19.9	20.6	21.3	22.0

Short slider Common to BE10E-BT, BR, BL and BU.

Stroke X (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550
Full length L (mm)	419.7	519.7	619.7	719.7	819.7	919.7	1019.7	1119.7	1219.7	1319.7	1419.7	1519.7	1619.7	1719.7	1819.7	1919.7	2019.7	2119.7	2219.7	2319.7	2419.7	2519.7	2619.7	2719.7	2819.7
Weight (kg)	4.5	5.2	5.9	6.5	7.2	7.9	8.5	9.2	9.8	10.5	11.7	12.4	13.1	13.8	14.5	15.2	15.9	16.6	17.3	18.0	18.7	19.4	20.1	20.8	21.5

[Set designation]

**BA3 - 10F - BT - M 21 N - 40 - 13**

Motor set direction BT : Facing up BR : Facing right BL : Facing left BU : Facing down	Type of slider S : Short slider M : Medium slider	Lead 21 : 21mm 42 : 42mm	Brake N : Without brake	Stroke Type designation	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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[Specifications]

Motor	200 W AC servo motor (absolute)																	
Drive system	Timing belt																	
Ball screw lead (mm)	21, 42																	
Stroke (mm) (in increments of 100 mm)	Short slider	150~950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550
	Type designation	15~95	A5	B5	C5	D5	E5	F5	G5	H5	J5	K5	L5	M5	N5	P5	Q5	R5
Maximum speed (mm/s)	Lead 21	1000																
	Lead 42	2000																
Maximum payload (kg)	Lead 21	Horizontal transfer: 20, acceleration/deceleration time: 0.3 sec. or over																
	Lead 42	Horizontal transfer: 10, acceleration/deceleration time: 0.5 sec. or over																
Positioning repeatability (mm)	± 0.04																	
Resolution (mm)	0.01																	
Allowable static load moment (N·m)	Short slider MR : 49 MP : 14 MY : 13 Medium slider MR : 59 MP : 59 MY : 54																	
Master controller	CA25-M10																	

Notes: \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.

\* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

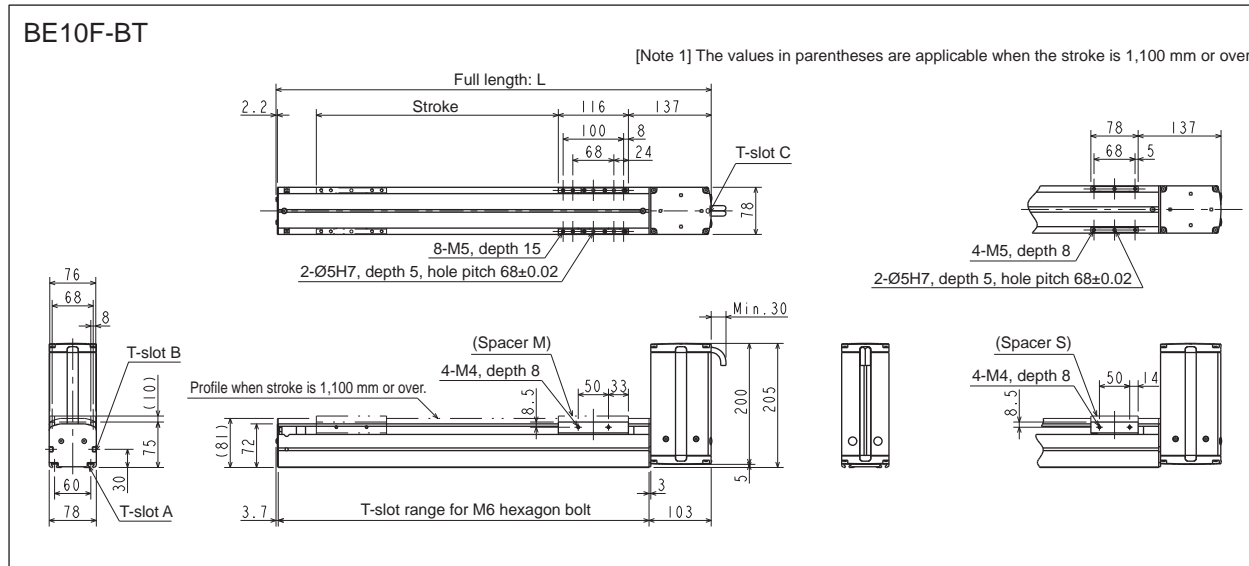
Timing Belt Driven

[Axis designation]

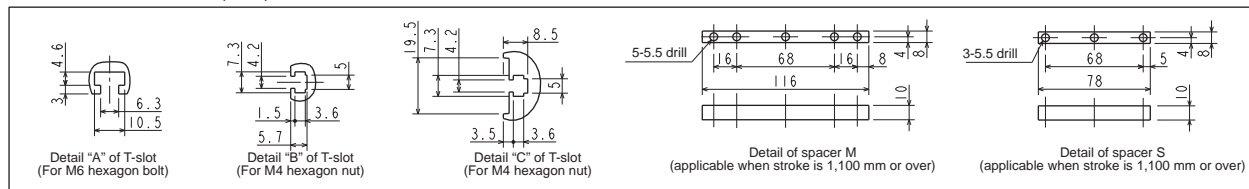
**BE10F - BT - M 21 N - 40**

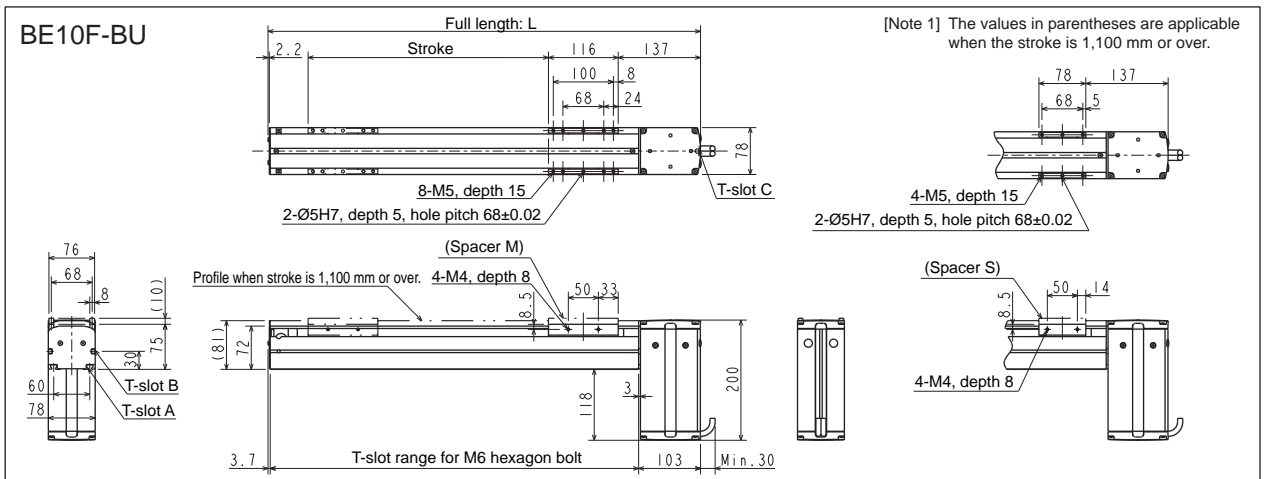
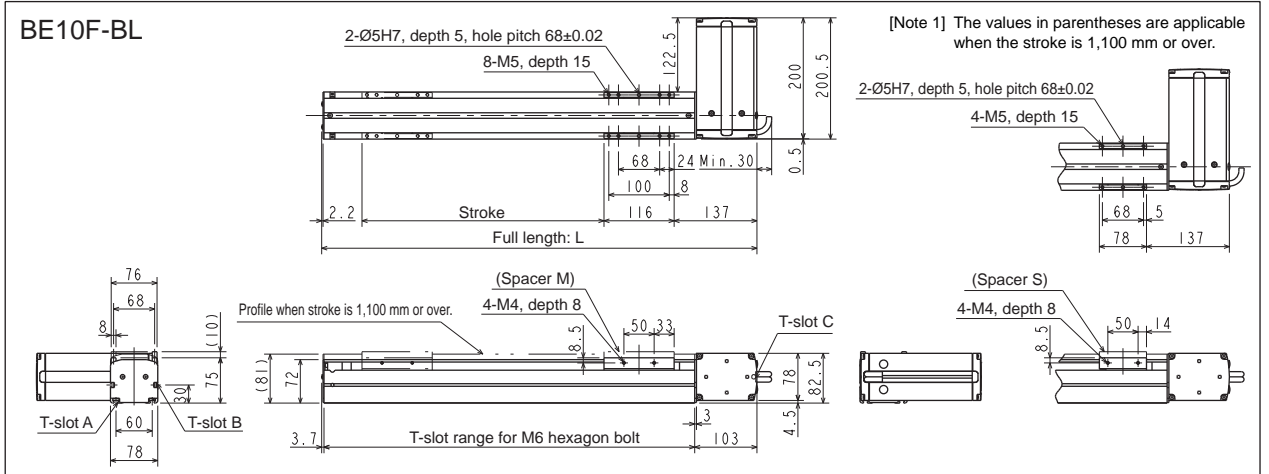
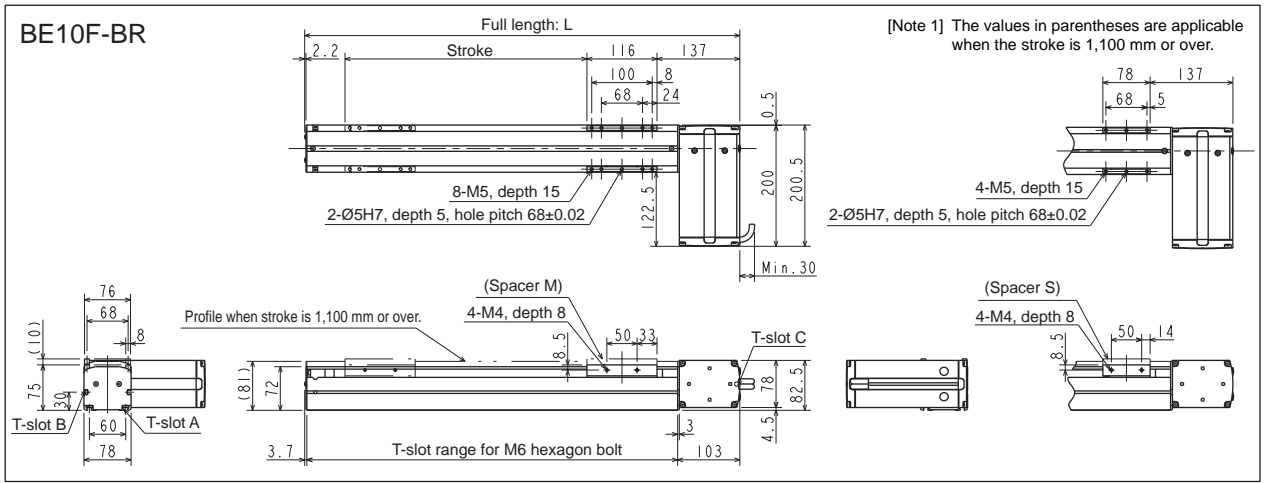
Motor set direction BT : Facing up BR : Facing right BL : Facing left BU : Facing down	Type of slider S : Short slider M : Medium slider	Lead 21 : 21mm 42 : 42mm	Brake N : Without brake	Stroke Type designation
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[Dimensions]



Common to BE10F-BT, BR, BL and BU.





Medium slider Lead 21mm common to BE10F-BT, BR, BL and BU.

Stroke X (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	
Full length L (mm)	419.7	519.7	619.7	719.7	819.7	919.7	1019.7	1119.7	1219.7	1319.7	1419.7	1519.7	1619.7	1719.7	1819.7	1919.7	2019.7	2119.7	2219.7	2319.7	2419.7	2519.7	2619.7	2719.7	2819.7
Weight (kg)	5.5	6.2	6.8	7.5	8.2	8.8	9.5	10.2	10.8	11.5	12.7	13.4	14.1	14.8	15.5	16.2	16.9	17.6	18.4	19.1	19.8	20.5	21.2	21.9	22.6

Short slider Lead 21mm common to BE10F-BT, BR, BL and BU.

Stroke X (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550
Full length L (mm)	419.7	519.7	619.7	719.7	819.7	919.7	1019.7	1119.7	1219.7	1319.7	1419.7	1519.7	1619.7	1719.7	1819.7	1919.7	2019.7	2119.7	2219.7	2319.7	2419.7	2519.7	2619.7	2719.7	2819.7
Weight (kg)	5.1	5.8	6.5	7.1	7.8	8.5	9.1	9.8	10.4	11.1	12.3	13.0	13.7	14.4	15.1	15.8	16.5	17.2	17.9	18.6	19.3	20.0	20.7	21.4	22.1

Medium slider Lead 42mm common to BE10F-BT, BR, BL and BU.

Stroke X (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
Full length L (mm)	419.7	519.7	619.7	719.7	819.7	919.7	1019.7	1119.7	1219.7	1319.7	1419.7	1519.7	1619.7	1719.7	1819.7	1919.7	2019.7	2119.7	2219.7	2319.7	2419.7	2519.7	2619.7	2719.7	2819.7
Weight (kg)	4.9	5.6	6.2	6.9	7.6	8.2	8.9	9.6	10.2	10.9	12.1	12.8	13.5	14.2	14.9	15.6	16.3	17.0	17.8	18.5	19.2	19.9	20.6	21.3	22.0

Short slider Lead 42mm common to BE10F-BT, BR, BL and BU.

Stroke X (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550
Full length L (mm)	419.7	519.7	619.7	719.7	819.7	919.7	1019.7	1119.7	1219.7	1319.7	1419.7	1519.7	1619.7	1719.7	1819.7	1919.7	2019.7	2119.7	2219.7	2319.7	2419.7	2519.7	2619.7	2719.7	2819.7
Weight (kg)	4.5	5.2	5.9	6.5	7.2	7.9	8.5	9.2	9.8	10.5	11.7	12.4	13.1	13.8	14.5	15.2	15.9	16.6	17.3	18.0	18.7	19.4	20.1	20.8	21.5

[Set designation]

**BA3 – 30E – BT – M 21 N – 40 – 1 3**

Motor set direction BT : Facing up BR : Facing right BL : Facing left BU : Facing down	Type of slider M : Medium slider L : Long slider	Lead 21 : 21mm	Brake N : Without brake	Stroke Type designation	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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[Specifications]

Motor	100 W AC servo motor (absolute)																									
Drive system	Timing belt																									
Ball screw lead (mm)	21																									
Stroke (mm) (in increments of 100 mm)	Medium slider	100~900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	
	Type designation	10~90	A0	B0	C0	D0	E0	F0	G0	H0	JO	K0	LO	MO	NO	PO	Q0	R0	S0	T0	U0	V0	W00	W10	W20	
	Long slider	150~950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	3150		
	Type designation	15~95	A5	B5	C5	D5	E5	F5	G5	H5	J5	K5	L5	M5	N5	P5	Q5	R5	S5	T5	U5	V5	W05	W15		
Maximum speed (mm/s)	1000																									
Maximum payload (kg) Acceleration/deceleration time: 0.3 sec or over	Horizontal transfer: 15																									
Positioning repeatability (mm)	± 0.04																									
Resolution (mm)	0.01																									
Allowable static load moment (N-m)	Medium slider MR : 510 MP : 430 MY : 370 Long slider MR : 510 MP : 750 MY : 650																									
Master controller	CA25-M10																									

Notes: \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.  
\* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

Timing Belt Driven

[Axis designation]

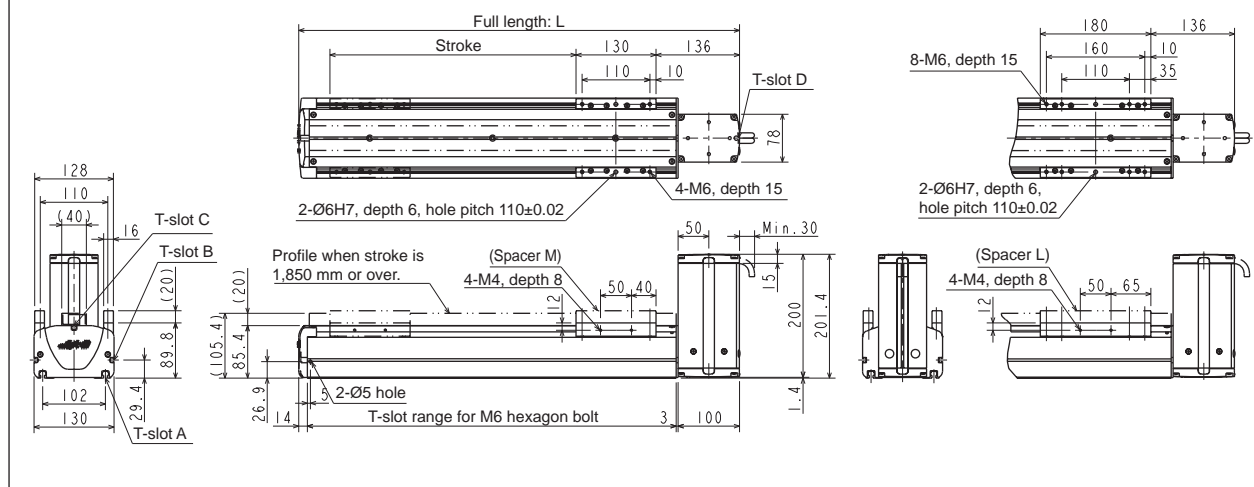
**BE30E – BT – M 21 N – 40**

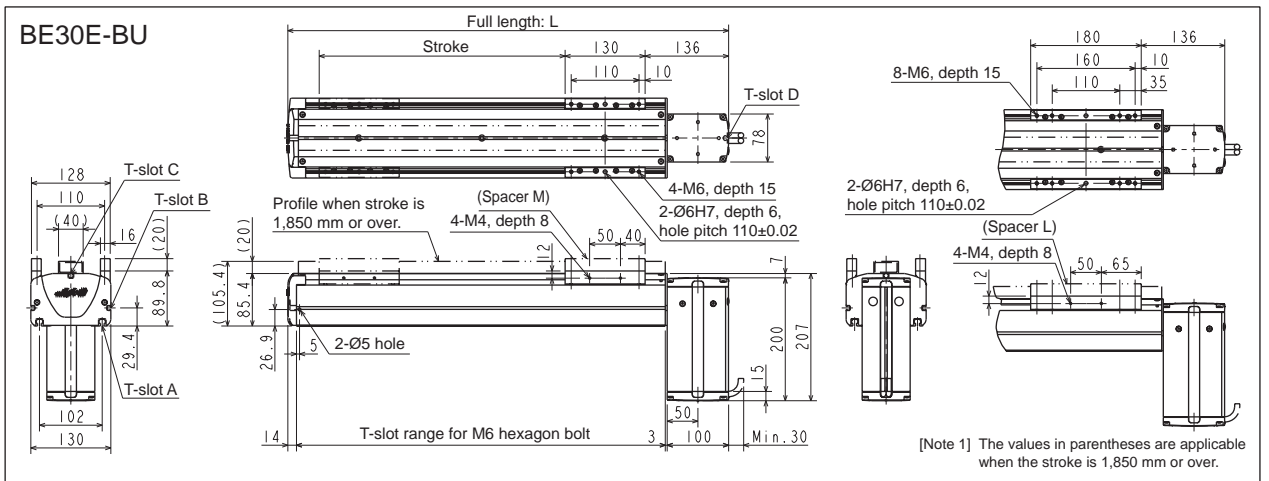
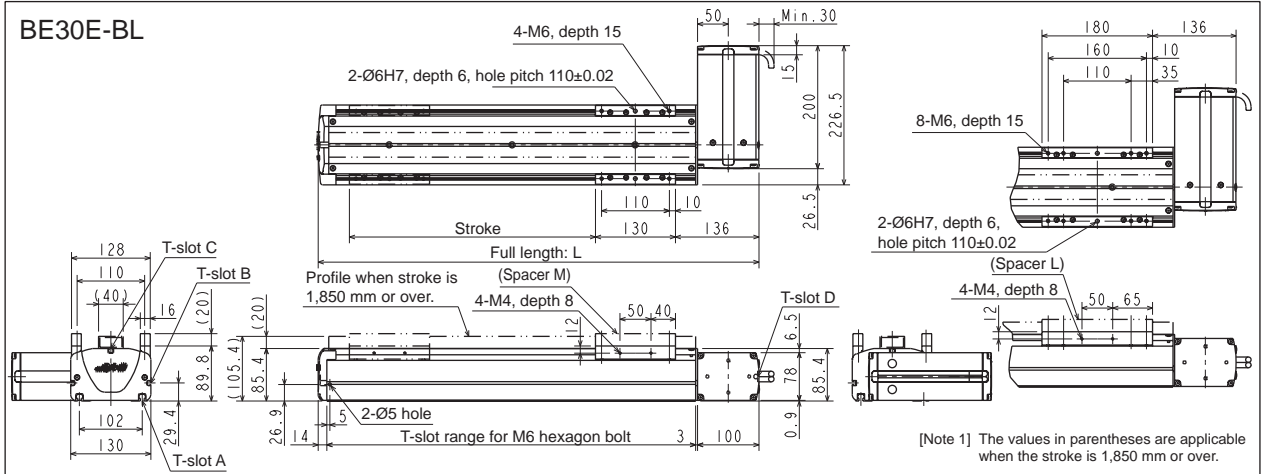
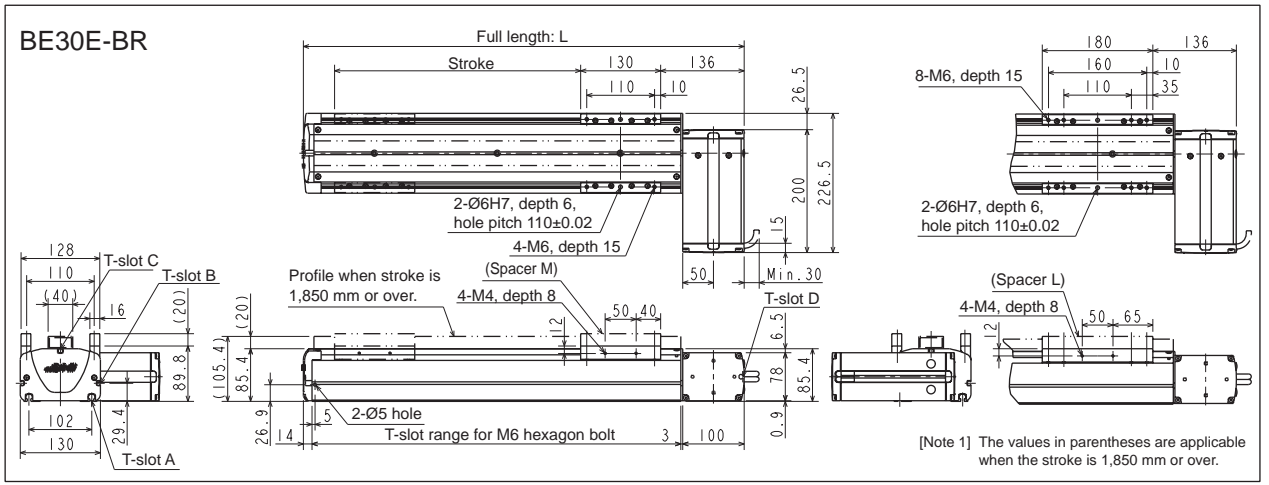
Motor set direction BT : Facing up BR : Facing right BL : Facing left BU : Facing down	Type of slider M : Medium slider L : Long slider	Lead 21 : 21mm	Brake N : Without brake	Stroke Type designation
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[Dimensions]

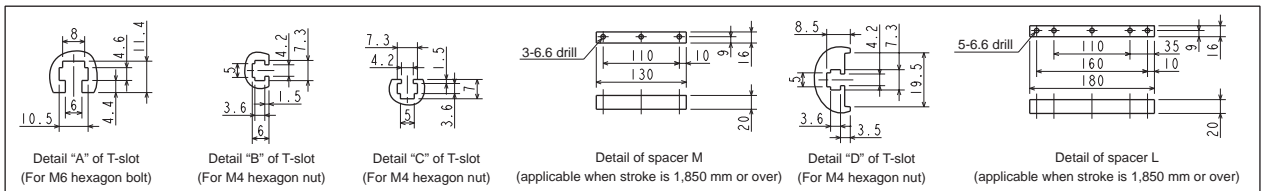
BE30E-BT

[Note 1] The values in parentheses are applicable when the stroke is 1,850 mm or over.





Common to BE30E-BT, BR, BL and BU.



Medium slider Common to BE30E-BT, BR, BL and BU.

Stroke X (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200
Full length L (mm)	417	517	617	717	817	917	1017	1117	1217	1317	1417	1517	1617	1717	1817	1917	2017	2117	2217	2317	2417	2517	2617	2717	2817	2917	3017	3117	3217	3317	3417	3517
Weight (kg)	9.2	10.2	11.2	12.2	13.2	14.1	15.1	16.1	17.1	18.1	19.1	20.1	21.1	22.1	23.0	24.0	25.0	26.0	28.3	29.3	30.4	31.4	32.5	33.5	34.6	35.6	36.7	37.7	38.8	39.8	40.9	41.9

Long slider Common to BE30E-BT, BR, BL and BU.

Stroke X (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	3150
Full length L (mm)	517	617	717	817	917	1017	1117	1217	1317	1417	1517	1617	1717	1817	1917	2017	2117	2217	2317	2417	2517	2617	2717	2817	2917	3017	3117	3217	3317	3417	3517
Weight (kg)	10.5	11.5	12.5	13.5	14.4	15.4	16.4	17.4	18.4	19.4	20.4	21.4	22.4	23.3	24.3	25.3	26.3	28.6	29.6	30.7	31.7	32.8	33.8	34.9	35.9	37.0	38.0	39.1	40.1	41.2	42.2

[Set designation]

**BA3 – 30F – BT – M 21 N – 40 – 13**

Motor set direction BT : Facing up BR : Facing right BL : Facing left BU : Facing down	Type of slider M : Medium slider L : Long slider	Lead 21 : 21mm 42 : 42mm	Brake N : Without brake	Stroke Type designation	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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[Specifications]

Motor	200 W AC servo motor (absolute)																								
Drive system	Timing belt																								
Ball screw lead (mm)	21, 42																								
Stroke (mm) (in increments of 100 mm)	Medium slider	100~900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200
	Type designation	10~90	A0	B0	C0	D0	E0	F0	G0	H0	J0	K0	L0	M0	N0	P0	Q0	R0	S0	T0	U0	V0	W00	W10	W20
	Long slider	150~950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	3150	
Type designation	15~95	A5	B5	C5	D5	E5	F5	G5	H5	J5	K5	L5	M5	N5	P5	Q5	R5	S5	T5	U5	V5	W05	W15		
Maximum speed (mm/s)	Lead 21	1000																							
	Lead 42	2000																							
Maximum payload (kg)	Lead 21	Horizontal transfer: 40, acceleration/deceleration time: 0.3 sec. or over																							
	Lead 42	Horizontal transfer: 20, acceleration/deceleration time: 0.5 sec. or over																							
Positioning repeatability (mm)	± 0.04																								
Resolution (mm)	0.01																								
Allowable static load moment (N·m)	Medium slider MR : 510 MP : 430 MY : 370 Long slider MR : 510 MP : 750 MY : 650																								
Master controller	CA25-M10																								

Notes: \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.

\* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

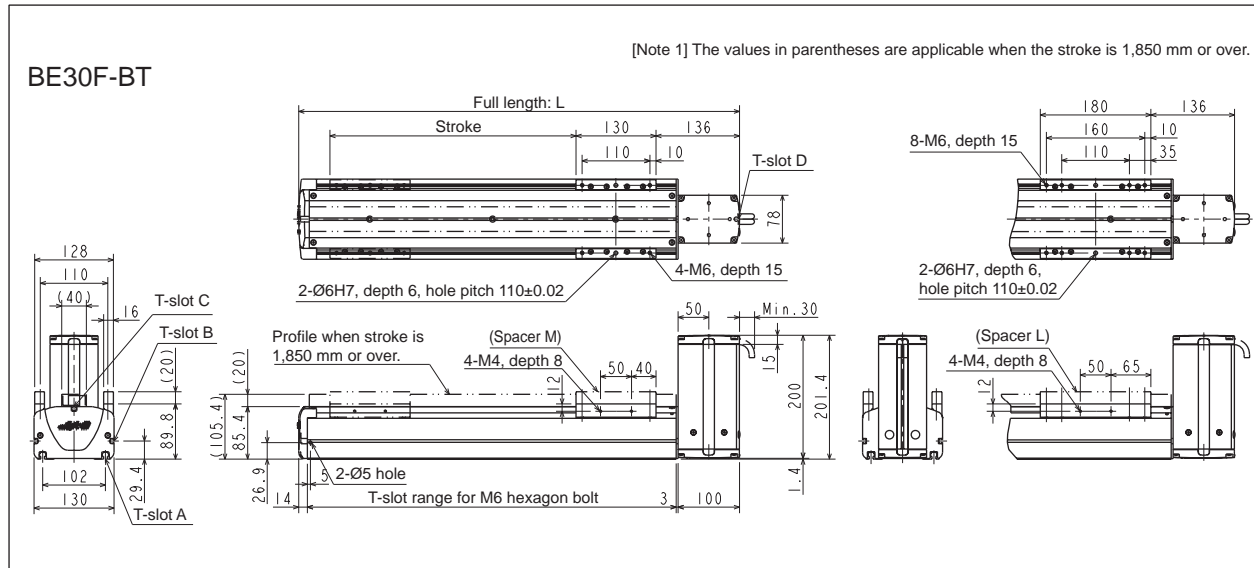
[Axis designation]

**BE30F – BT – M 21 N – 40**

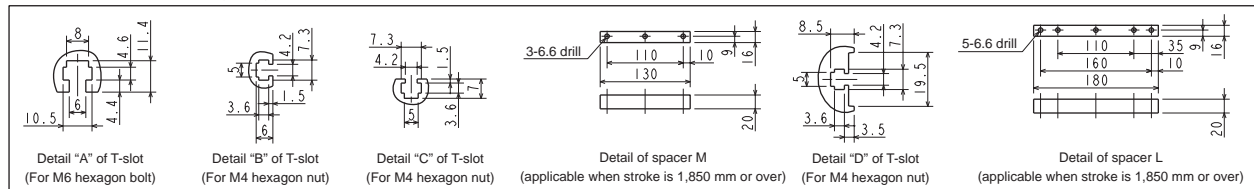
Motor set direction BT : Facing up BR : Facing right BL : Facing left BU : Facing down	Type of slider M : Medium slider L : Long slider	Lead 21 : 21mm 42 : 42mm	Brake N : Without brake	Stroke Type designation
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Timing Belt Driven

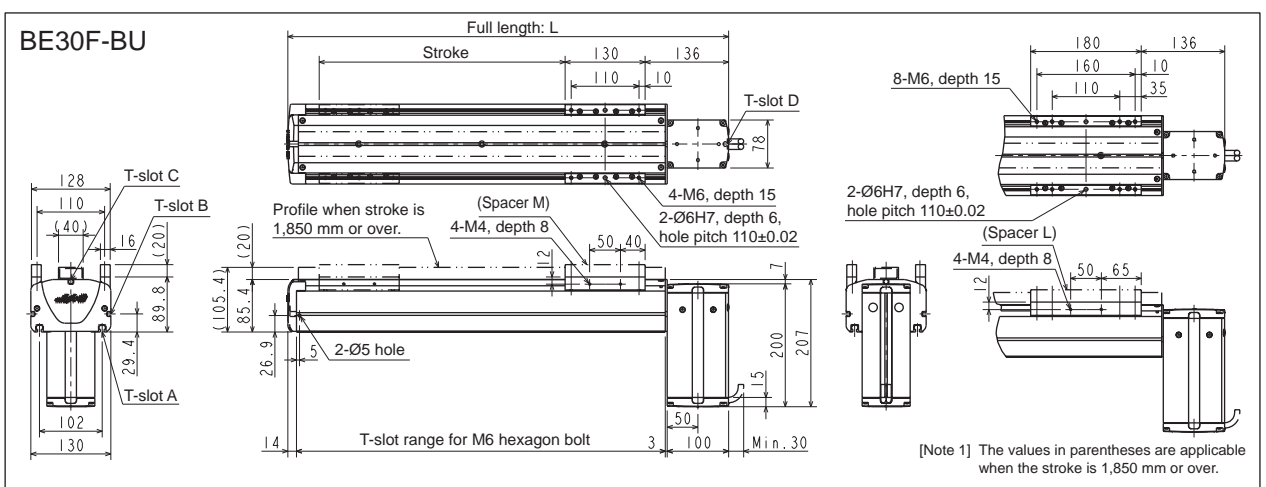
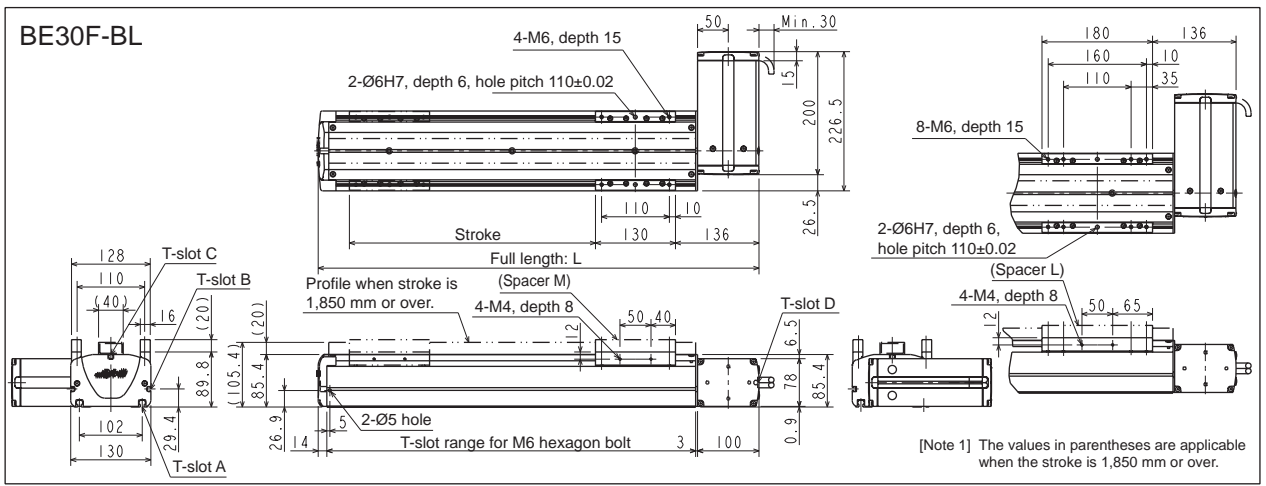
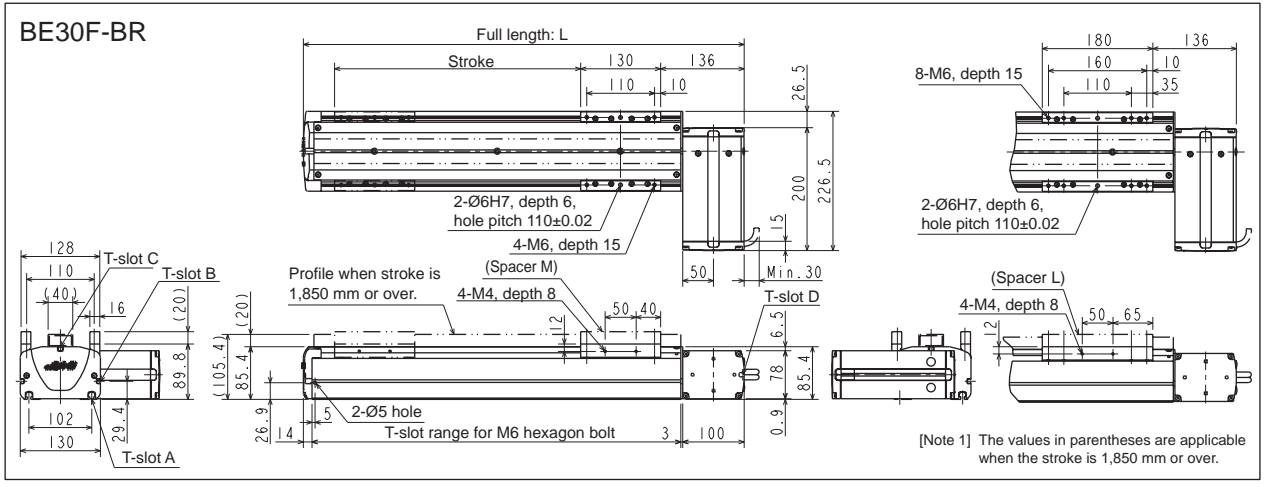
[Dimensions]



Common to BE30F-BT, BR, BL and BU.







Medium slider Lead 21mm common to BE30F-BT, BR, BL and BU.

Stroke X (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200
Full length L (mm)	417	517	617	717	817	917	1017	1117	1217	1317	1417	1517	1617	1717	1817	1917	2017	2117	2217	2317	2417	2517	2617	2717	2817	2917	3017	3117	3217	3317	3417	3517
Weight (kg)	9.8	10.8	11.8	12.8	13.8	14.7	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.6	24.6	25.6	26.6	28.9	29.9	31.0	32.0	33.1	34.1	35.2	36.2	37.2	38.2	39.3	40.3	41.4	42.4

Long slider Lead 21mm common to BE30F-BT, BR, BL and BU.

Stroke X (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	3150
Full length L (mm)	517	617	717	817	917	1017	1117	1217	1317	1417	1517	1617	1717	1817	1917	2017	2117	2217	2317	2417	2517	2617	2717	2817	2917	3017	3117	3217	3317	3417	3517
Weight (kg)	11.1	12.1	13.1	14.1	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	23.9	24.9	25.9	26.9	29.2	30.2	31.3	32.3	33.4	34.4	35.5	36.5	37.6	38.6	39.7	40.7	41.8	42.8

Medium slider Lead 42mm common to BE30F-BT, BR, BL and BU.

Stroke X (mm)	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200
Full length L (mm)	417	517	617	717	817	917	1017	1117	1217	1317	1417	1517	1617	1717	1817	1917	2017	2117	2217	2317	2417	2517	2617	2717	2817	2917	3017	3117	3217	3317	3417	3517
Weight (kg)	9.2	10.2	11.2	12.2	13.2	14.1	15.1	16.1	17.1	18.1	19.1	20.1	21.1	22.1	23.0	24.0	25.0	26.0	28.3	29.3	30.4	31.4	32.5	33.5	34.6	35.6	36.7	37.7	38.8	39.8	40.9	41.9

Long slider Lead 42mm common to BE30F-BT, BR, BL and BU.

Stroke X (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	3150
Full length L (mm)	517	617	717	817	917	1017	1117	1217	1317	1417	1517	1617	1717	1817	1917	2017	2117	2217	2317	2417	2517	2617	2717	2817	2917	3017	3117	3217	3317	3417	3517
Weight (kg)	10.5	11.5	12.5	13.5	14.4	15.4	16.4	17.4	18.4	19.4	20.4	21.4	22.4	23.3	24.3	25.3	26.3	28.6	29.6	30.7	31.7	32.8	33.8	34.9	35.9	37.0	38.0	39.1	40.1	41.2	42.2

Timing Belt Driven

[Set designation]

**BA3 - 50F - BT - M 21 N - 40 - 1 3**

Motor set direction	Type of slider	Lead	Brake	Stroke	Controller (CA25-M10)	Cable length
BT : Facing up BR : Facing right BL : Facing left BU : Facing down	M : Medium slider L : Long slider	21 : 21mm	N : Without brake	Type designation	0 : None 1 : NPN output specifications Other : See page 19	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

[Specifications]

Motor	200 W AC servo motor (absolute)																											
Drive system	Timing belt																											
Ball screw lead (mm)	21																											
Stroke (mm) (in increments of 100 mm)	Medium slider	200~900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500
	Type designation	20~90	A0	B0	C0	D0	E0	F0	G0	H0	J0	K0	L0	M0	N0	P0	Q0	R0	S0	T0	U0	V0	W00	W10	W20	W30	W40	W50
	Long slider	250~950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	3150	3250	3350	3450	
Maximum speed (mm/s)	1000																											
Maximum payload (kg) Acceleration/deceleration time: 0.3 sec or over	Horizontal transfer : 40																											
Positioning repeatability (mm)	± 0.04																											
Resolution (mm)	0.01																											
Allowable static load moment (N·m)	Medium slider	MR : 2080	MP : 2160	MY : 1820	Long slider	MR : 2080	MP : 3150	MY : 2640																				
Master controller	CA25-M10																											

Notes: \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.

\* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

Timing Belt Driven

[Axis designation]

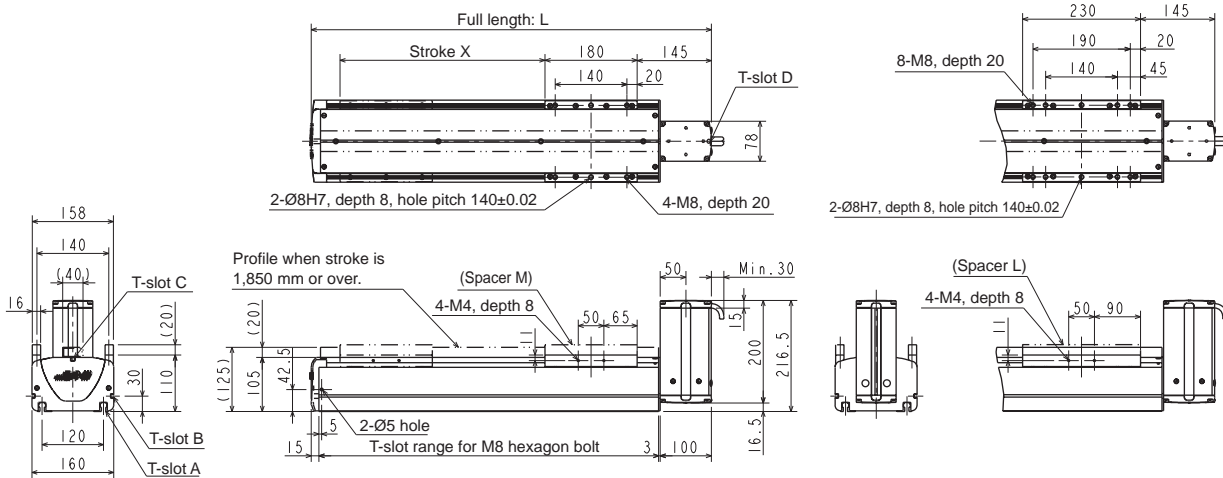
**BE50F - BT - M 21 N - 40**

Motor set direction	Type of slider	Lead	Brake	Stroke
BT : Facing up BR : Facing right BL : Facing left BU : Facing down	M : Medium slider L : Long slider	21 : 21mm	N : Without brake	Type designation

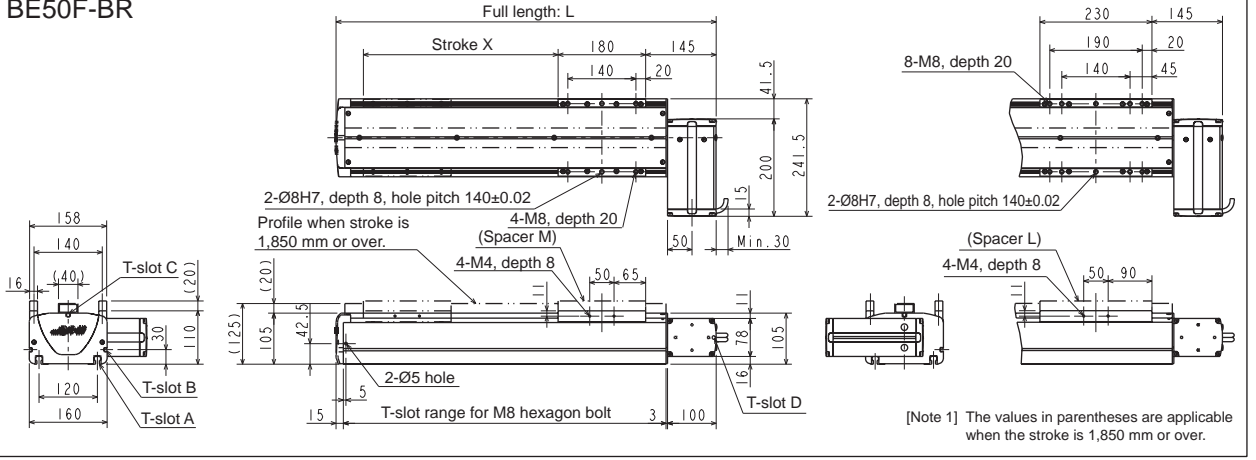
[Dimensions]

BE50F-BT

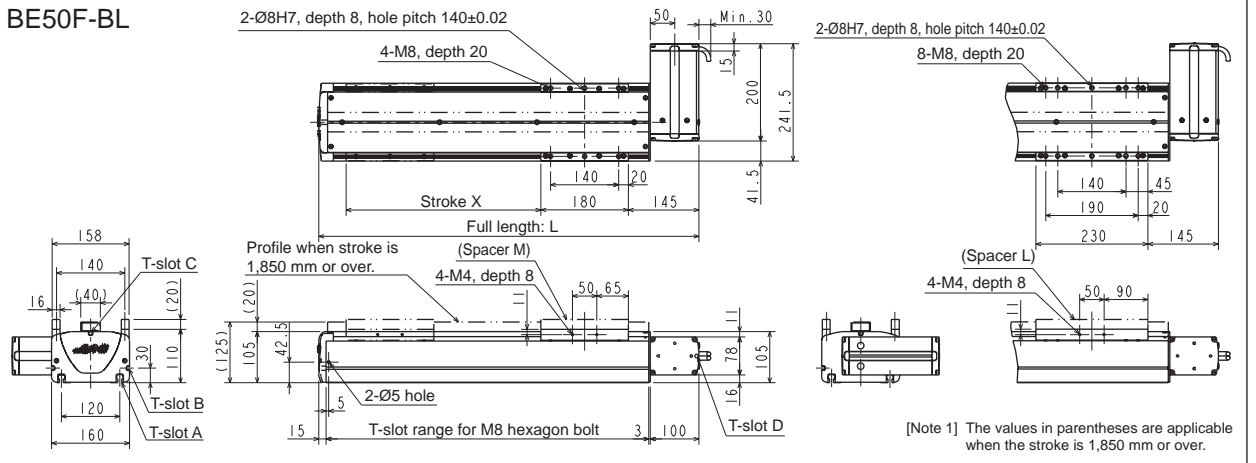
[Note 1] The values in parentheses are applicable when the stroke is 1,850 mm or over.



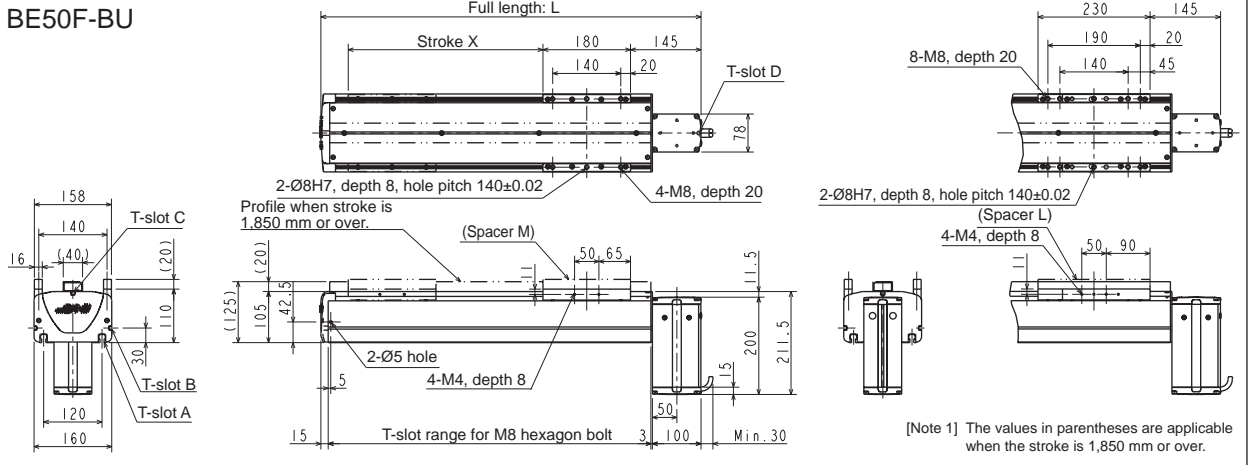
## BE50F-BR



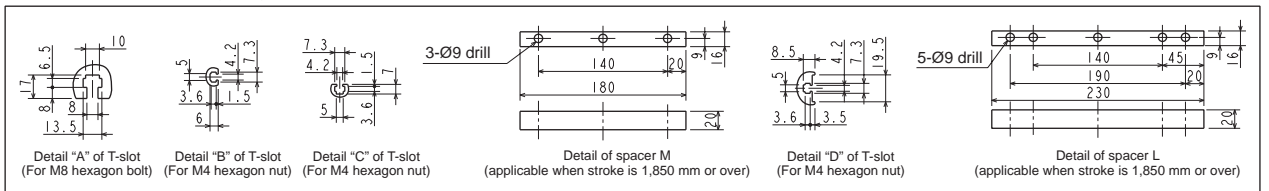
## BE50F-BL



## BE50F-BU



Common to BE50F-BT, BR, BL and BU.



Medium slider Common to BE50F-BT, BR, BL and BU.

Stroke X (mm)	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500
Full length L (mm)	581	681	781	881	981	1081	1181	1281	1381	1481	1581	1681	1781	1881	1981	2081	2181	2281	2381	2481	2581	2681	2781	2881	2981	3081	3181	3281	3381	3481	3581	3681	3781	3881
Weight (kg)	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0	31.5	33.0	34.5	36.0	37.5	39.0	41.8	43.4	44.9	46.5	48.1	49.6	51.2	52.7	54.3	55.9	57.4	59.0	60.6	62.1	63.7	65.2	66.8

Long slider Common to BE50F-BT, BR, BL and BU.

Stroke X (mm)	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	3150	3250	3350	3450
Full length L (mm)	681	781	881	981	1081	1181	1281	1381	1481	1581	1681	1781	1881	1981	2081	2181	2281	2381	2481	2581	2681	2781	2881	2981	3081	3181	3281	3381	3481	3581	3681	3781	3881
Weight (kg)	17.1	18.6	20.1	21.6	23.1	24.6	26.1	27.6	29.1	30.6	32.1	33.6	35.1	36.6	38.1	39.6	42.4	44.0	45.5	47.1	48.4	50.2	51.8	53.3	54.9	56.5	58.0	59.6	61.2	62.7	64.3	65.8	67.4

[Set designation]

**BA3 – 50G – BT – M 42 N – 40 – 1 3**

Motor set direction BT : Facing up BR : Facing right BL : Facing left BU : Facing down	Type of slider M : Medium slider L : Long slider	Lead 42 : 42mm	Brake N : Without brake	Stroke Type designation	Controller (CA25-M40) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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[Specifications]

Motor	400 W AC servo motor (absolute)																											
Drive system	Timing belt																											
Ball screw lead (mm)	42																											
Stroke (mm) (in increments of 100 mm)	Medium slider	200~900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500
	Type designation	20~90	A0	B0	C0	D0	E0	F0	G0	H0	J0	K0	L0	M0	N0	P0	Q0	R0	S0	T0	U0	V0	W00	W10	W20	W30	W40	W50
	Long slider	250~950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	3150	3250	3350	3450	
	Type designation	25~95	A5	B5	C5	D5	E5	F5	G5	H5	J5	K5	L5	M5	N5	P5	Q5	R5	S5	T5	U5	V5	W05	W15	W25	W35	W45	
Maximum speed (mm/s)	2000																											
Maximum payload (kg) Acceleration/deceleration time: 0.5 sec or over	Horizontal transfer : 20																											
Positioning repeatability (mm)	± 0.04																											
Resolution (mm)	0.01																											
Allowable static load moment (N·m)	Medium slider MR : 2080 MP : 2160 MY : 1820 Long slider MR : 2080 MP : 3150 MY : 2640																											
Master controller	CA25-M40																											

Notes: \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.

\* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

\* The regenerative discharge unit ABSU-4000 is required regardless of the payload.

[Axis designation]

**BE50G – BT – M 42 N – 40**

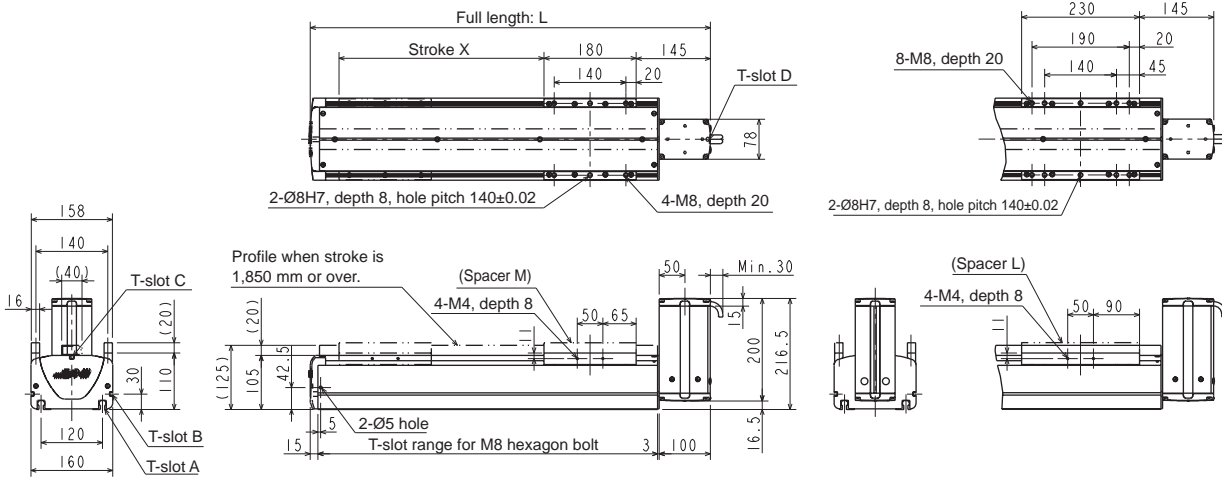
Motor set direction BT : Facing up BR : Facing right BL : Facing left BU : Facing down	Type of slider M : Medium slider L : Long slider	Lead 42 : 42mm	Brake N : Without brake	Stroke Type designation
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Timing Belt Driven

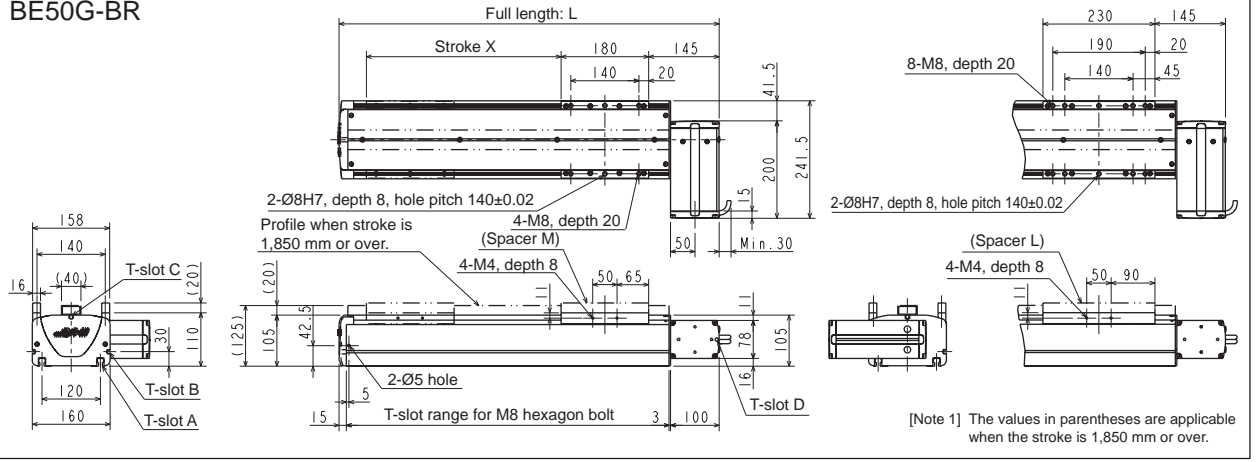
[Dimensions]

BE50G-BT

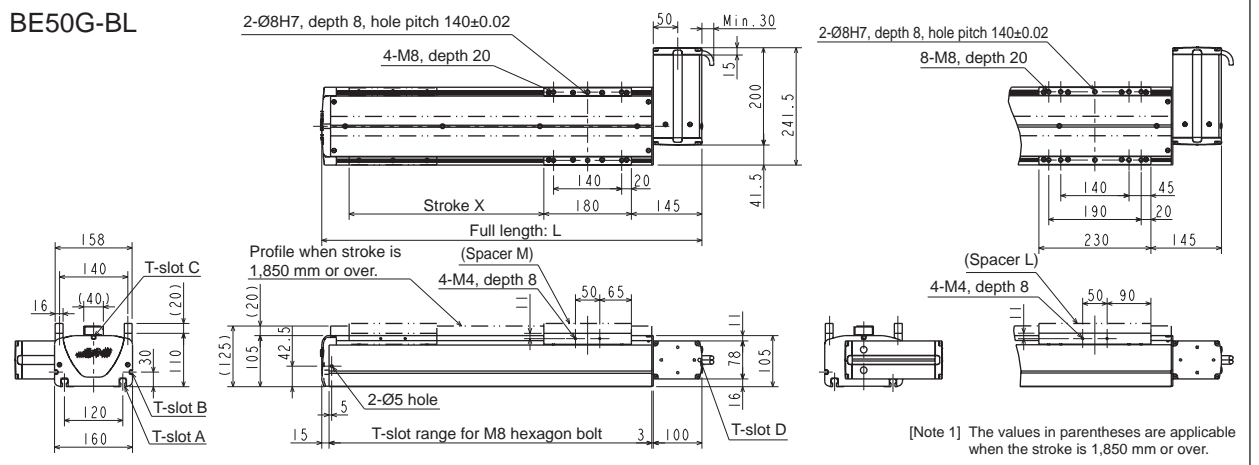
[Note 1] The values in parentheses are applicable when the stroke is 1,850 mm or over.



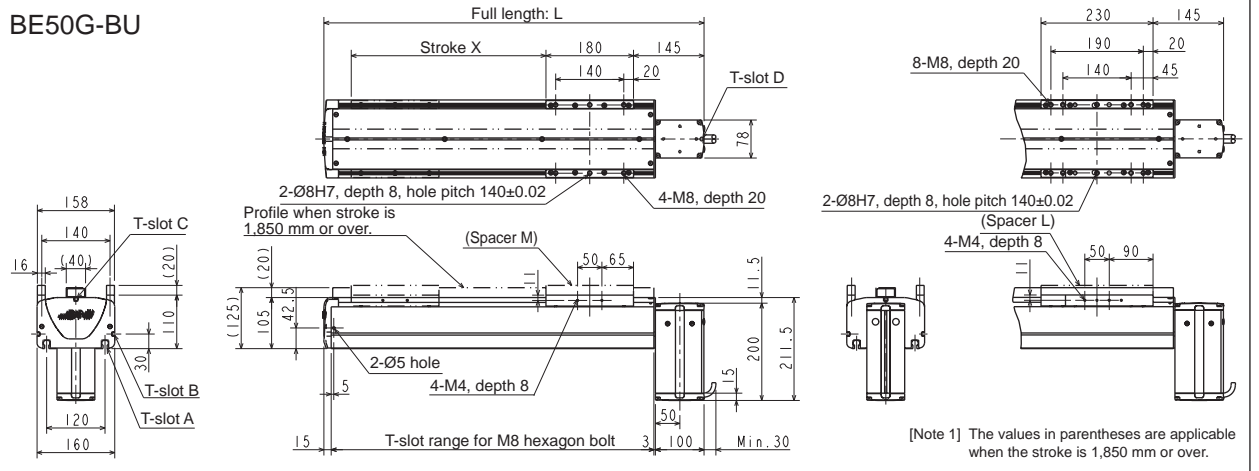
## BE50G-BR



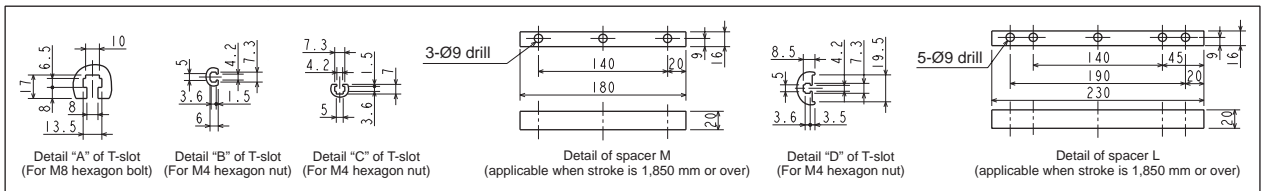
## BE50G-BL



## BE50G-BU



Common to BE50G-BT, BR, BL and BU.



Medium slider Common to BE50G-BT, BR, BL and BU.

Stroke X (mm)	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500
Full length L (mm)	581	681	781	881	981	1081	1181	1281	1381	1481	1581	1681	1781	1881	1981	2081	2181	2281	2381	2481	2581	2681	2781	2881	2981	3081	3181	3281	3381	3481	3581	3681	3781	3881
Weight (kg)	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0	31.5	33.0	34.5	36.0	37.5	39.0	41.8	43.4	44.9	46.5	48.1	49.6	51.2	52.7	54.3	55.9	57.4	59.0	60.6	62.1	63.7	65.2	66.8

Long slider Common to BE50G-BT, BR, BL and BU.

Stroke X (mm)	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850	2950	3050	3150	3250	3350	3450
Full length L (mm)	681	781	881	981	1081	1181	1281	1381	1481	1581	1681	1781	1881	1981	2081	2181	2281	2381	2481	2581	2681	2781	2881	2981	3081	3181	3281	3381	3481	3581	3681	3781	3881
Weight (kg)	17.1	18.6	20.1	21.6	23.1	24.6	26.1	27.6	29.1	30.6	32.1	33.6	35.1	36.6	38.1	39.6	42.4	44.0	45.5	47.1	48.4	50.2	51.8	53.3	54.9	56.5	58.0	59.6	61.2	62.7	64.3	65.8	67.4

[Set designation]

BA3 – 50G – BT – L 19 N – A5 – 1 3

Type of slider  
L : Long slider

Stroke  
Type designation

Controller (CA25-M40)  
0 : None  
1 : NPN output specifications  
Other : See page 19

Cable length  
3 : 3m 9 : 9m  
5 : 5m B : 11m  
7 : 7m D : 13m

[Specifications]

Motor	400 W AC servo motor (absolute)	
Drive system	Timing belt	
Ball screw lead (mm)	19.555	
Maximum speed (mm/s)	1000	
Maximum payload (kg) Acceleration/deceleration time: 0.3 sec or over (Note 1)	Horizontal transfer : 100	
Stroke (mm) (in increments of 100 mm)	Long slider	150-950 1050 1150 1250 1350 1450 1550 1650 1750 1850 1950 2050 2150 2250 2350 2450 2550 2650 2750 2850 2950 3050 3150 3250 3350 3450 3550 3650 3750 3850 3950 4050 4150 4250 4350 4450
Allowable static load moment (N·m)	Long slider MR : 1800 MP : 2700 MY : 2150	
Positioning repeatability (mm)	±0.05	
Resolution (mm)	0.01	
Master controller	CA25-M40	

- Notes: \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.  
 \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.  
 \* The regenerative discharge unit ABSU-4000 is required regardless of the payload.  
 Note 1: A stroke of 1050 mm or more results in an acceleration time of 0.6 seconds or longer.

Timing Belt Driven

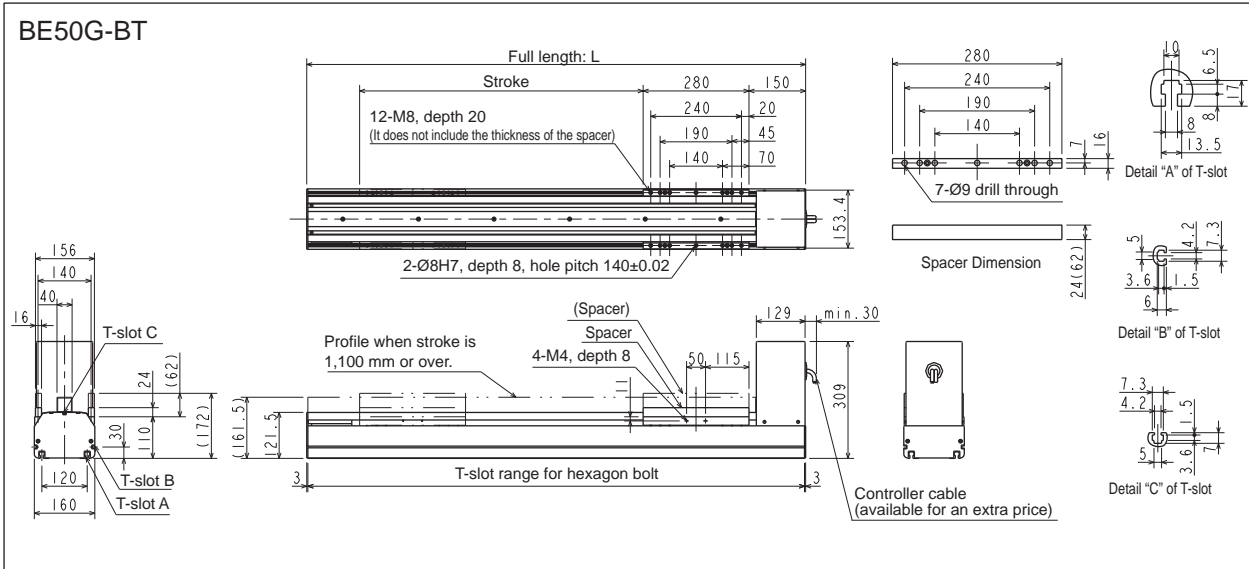
[Axis designation]

BE 50 G – BT – L 19 N – A5

Type of slider  
L : Long slider

Stroke  
Type designation

[Dimensions]



Long slider BE50G-BT-L19N

Stroke X (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250
Full length L (mm)	720	820	920	1020	1120	1220	1320	1420	1520	1620	1720	1820	1920	2020	2120	2220	2320	2420	2520	2620	2720	2820
Weight (kg)	26.6	28.0	29.3	30.7	32.0	33.4	34.7	36.1	37.4	37.2	40.2	41.5	42.9	44.2	45.6	46.9	48.3	49.6	51.0	52.3	53.7	55.0
Stroke X (mm)	2350	2450	2550	2650	2750	2850	2950	3050	3150	3250	3350	3450	3550	3650	3750	3850	3950	4050	4150	4250	4350	4450
Full length L (mm)	2920	3020	3120	3220	3320	3420	3520	3620	3720	3820	3920	4020	4120	4220	4320	4420	4520	4620	4720	4820	4920	5020
Weight (kg)	56.4	57.7	59.1	60.4	61.8	63.1	64.5	65.9	67.2	68.6	69.9	71.3	72.6	74.0	75.3	76.7	78.0	79.1	80.7	82.1	83.4	84.8



## [Set designation]

**BA3 – 60J – BT – M 19 N – A5 – 1 3**

Type of slider  
M : Medium slider  
L : Long slider

Stroke  
Type designation

Controller (CA25-M80)  
0 : None  
1 : NPN output specifications  
Other : See page 19

Cable length  
3 : 3m 9 : 9m  
5 : 5m B : 11m  
7 : 7m D : 13m

## [Specifications]

Motor	750 W AC servo motor (absolute)	
Drive system	Timing belt	
Ball screw lead (mm)	19.555	
Maximum speed (mm/s)	1000	
Maximum payload (kg) Acceleration/deceleration time: 0.3 sec or over (Note 1)	Horizontal transfer : 200	
Stroke (mm) (in increments of 100 mm)	Medium, Long slider Type designation	150-90 1060 1150 1250 1350 1450 1550 1650 1750 1850 1950 2050 2150 2250 2350 2450 2550 2650 2750 2850 2950 3050 3150 3250 3350 3450 3550 3650 3750 3850 3950 4050 4150 4250 4350 4450 (Note: 1)
Allowable static load moment (N·m)	Medium slider MR : 3350 MP : 3850 MY : 3100 Long slider MR : 3350 MP : 6250 MY : 5000	
Positioning repeatability (mm)	±0.05	
Resolution (mm)	0.01	
Master controller	CA25-M80	

- Notes: \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.  
 \* The maximum payload signifies a load exerted on top of the slider. Also refers to the description on the dynamic load moment appearing later in this document.  
 \* The regenerative discharge unit ABSU-8000 is required regardless of the payload.  
 Note 1: The long slider does not have a stroke of 4450 mm.

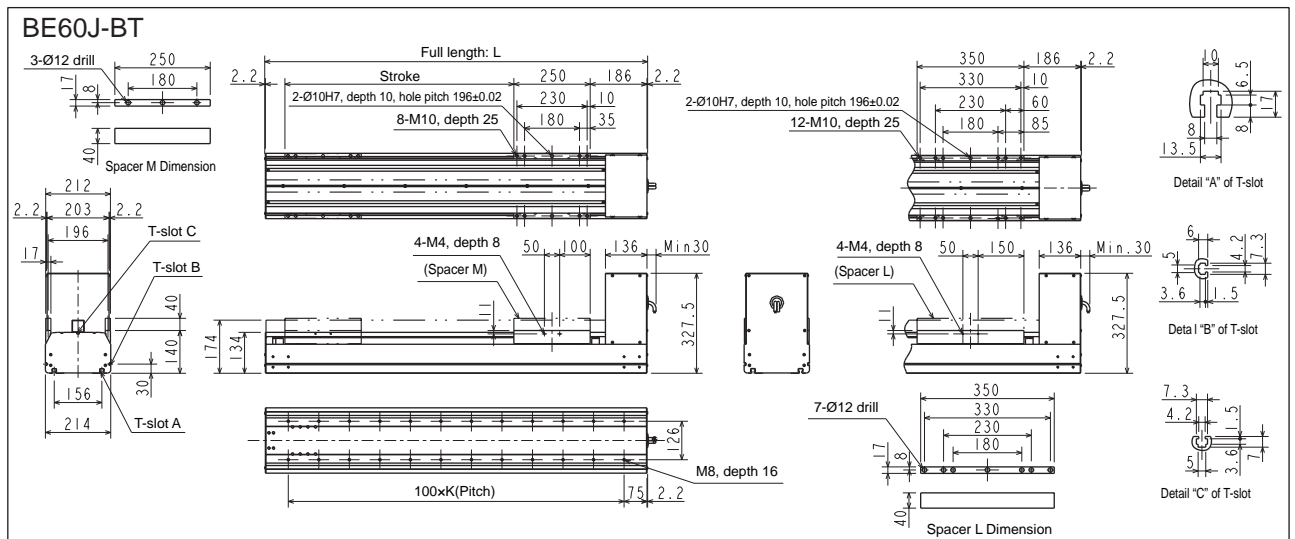
## [Axis designation]

**BE 60 J – BT – M 19 N – A5**

Type of slider  
M : Medium slider  
L : Long slider

Stroke  
Type designation

## [Dimensions]



### Medium slider BE60J-BT-M19N

Stroke X (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250
Full length L (mm)	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750
K	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Weight (kg)	40.8	43.1	45.4	47.7	50.0	52.3	54.6	56.9	59.2	61.5	63.8	66.1	68.4	70.7	73.0	75.3	77.6	79.9	82.2	84.5	86.9	89.2

Stroke X (mm)	2350	2450	2550	2650	2750	2850	2950	3050	3150	3250	3350	3450	3550	3650	3750	3850	3950	4050	4150	4250	4350	4450
Full length L (mm)	2850	2950	3050	3150	3250	3350	3450	3550	3650	3750	3850	3950	4050	4150	4250	4350	4450	4550	4650	4750	4850	4950
K	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Weight (kg)	91.5	93.8	96.1	98.4	100.7	103.0	105.3	107.6	109.9	112.2	114.5	116.8	119.1	121.4	123.7	126.0	128.3	130.6	132.9	135.2	137.6	139.9

### Long slider BE60J-BT-M19N

Stroke X (mm)	150	250	350	450	550	650	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250
Full length L (mm)	750	850	950	1050	1150	1250	1350	1450	1550	1650	1750	1850	1950	2050	2150	2250	2350	2450	2550	2650	2750	2850
K	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Weight (kg)	44.1	46.4	48.7	51.0	53.3	55.6	57.9	60.2	62.5	64.8	67.1	69.4	71.7	74.0	76.3	78.6	80.9	83.2	85.5	87.9	90.2	92.5

Stroke X (mm)	2350	2450	2550	2650	2750	2850	2950	3050	3150	3250	3350	3450	3550	3650	3750	3850	3950	4050	4150	4250	4350	4450
Full length L (mm)	2950	3050	3150	3250	3350	3450	3550	3650	3750	3850	3950	4050	4150	4250	4350	4450	4550	4650	4750	4850	4950	5050
K	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Weight (kg)	94.8	97.1	99.4	101.7	104.0	106.3	108.6	110.9	113.2	115.5	117.8	120.1	122.4	124.7	127.0	129.3	131.6	133.9	136.2	138.6	140.9	143.2

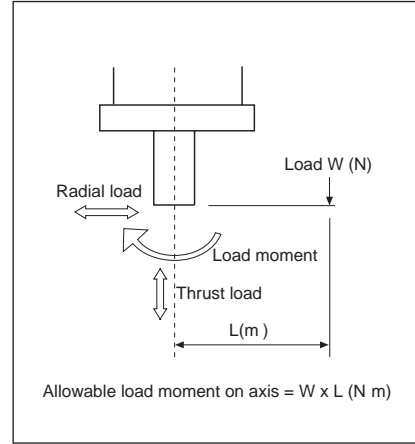
[Set designation]

**BA3 - 00D - RH - A 00N - 36 - 1 3**

Drive system RH: Harmonic	Mounting A: L-shaped bracket F: Flange type	Range of rotation 360°	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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[Specifications]

Motor	50 W AC servo motor (absolute)	
Drive system	Harmonic drive	
Reduction ratio (deg.)	1/50	
Range of rotation (deg.)	360	
Maximum speed (deg./s)	360	
Maximum payload (kg)	10	
Acceleration/deceleration time: 0.3 sec. or over		
Rated output torque (N·m)	5.4	
Allowable load inertia (kg·m <sup>2</sup> )	0.0485	
Allowable thrust load on axis (N)	98	
Allowable radial load on axis (N)	196	
Allowable load moment on axis (N·m)	1.3	
Positioning repeatability (deg.)	± 0.025	
Resolution (deg.)	0.01	
Mass of axis (kg)	L-shaped bracket	1.9
	Flange type	1.7
Master controller	CA25-M10	



Notes: \* The maximum payload signifies a load measured when only thrust load is exerted on the vertically installed axis.  
\* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

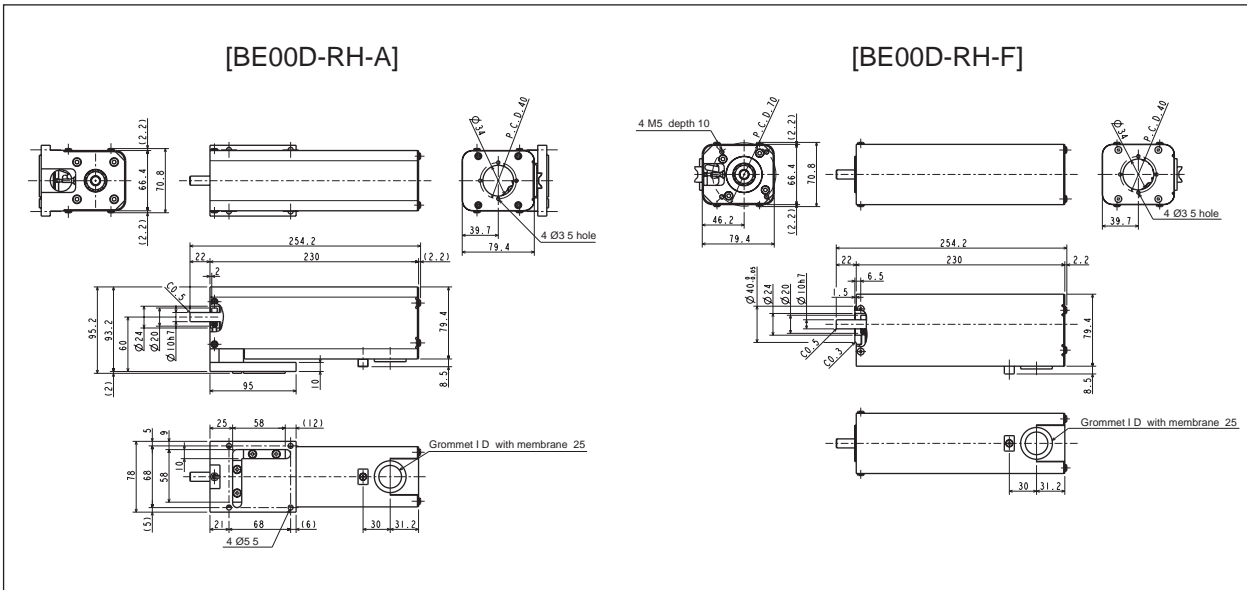
R-AXIS

[Axis designation]

**BE00D - RH - A**

Drive system RH: Harmonic	Mounting A: L-shaped bracket F: Flange type
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[Dimensions]



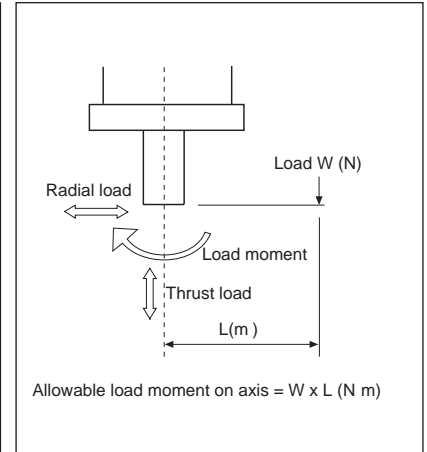
## [Set designation]

**BA3 – 00D – RP – A 00N – 36 – 1 3**

<b>Drive system</b> RP : Planet gear	<b>Mounting</b> A: L-shaped bracket F: Flange type	<b>Range of rotation</b> 360°	<b>Controller (CA25-M10)</b> 0 : None 1 : NPN output specifications Other : See page 19	<b>Cable length</b> 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## [Specifications]

Motor	50 W AC servo motor (absolute)	
Drive system	Planet gear	
Reduction ratio (deg.)	1/21	
Range of rotation (deg.)	360	
Maximum speed (deg. /s)	857	
Maximum payload (kg)	10	
Acceleration/deceleration time: 0.3 sec. or over		
Rated output torque (N·m)	3.1	
Allowable load inertia (kg·m <sup>2</sup> )	0.0125	
Allowable thrust load on axis (N)	98	
Allowable radial load on axis (N)	196	
Allowable load moment on axis (N·m)	1.3	
Positioning repeatability (deg.)	±0.125	
Resolution (deg.)	0.01	
Mass of axis (kg)	L-shaped bracket	2.4
	Flange type	2.2
Master controller	CA25-M10	



Notes: \* The maximum payload signifies a load measured when only thrust load is exerted on the vertically installed axis.  
\* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

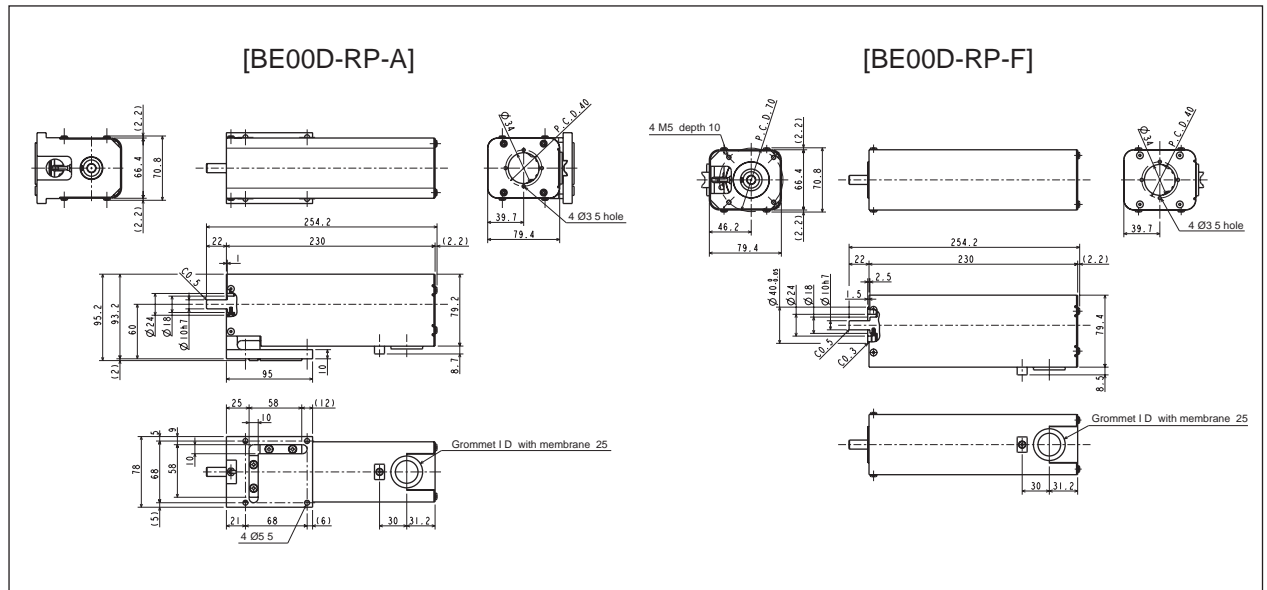
R-AXIS

## [Axis designation]

**BE00D – RP – A**

<b>Drive system</b> RP : Planet gear	<b>Mounting</b> A: L-shaped bracket F: Flange type
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## [Dimensions]



[Set designation]

BA3 – T3D – ST – C 12 N – 10 – 13

Type of slider C : Pushrod type	Lead 12 : 12mm	Brake N : Without brake B : With brake	Stroke Type designation	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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[Specifications]

Motor	50 W AC servo motor (absolute)		
Drive system	Precisely rolled ball screw, thread outer diameter 8 mm		
Stroke (mm) (in increments of 50 mm)	Pushrod	50 ~ 150	
	Type designation	05 ~ 15	
Maximum speed (mm/s)	600		
Maximum payload (kg) Acceleration/deceleration time: 0.3 sec or over	Horizontal transfer: 4 Vertical transfer: 1.9		
Positioning repeatability (mm)	± 0.02		
Resolution (mm)	0.01		
Allowable static load moment (N·m)	Do not apply load moment to the rod		
Brake	Brake voltage DC24 V		
Master controller	CA25-M10		

- Notes: \* When using the axis as a vertical axis, select the type with brake.  
 \* A dynamic moment of inertia for the load cannot be applied to the rod. Take precautions by using together with a linear guide and other components to ensure that a radial load is not applied to the rod.  
 \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

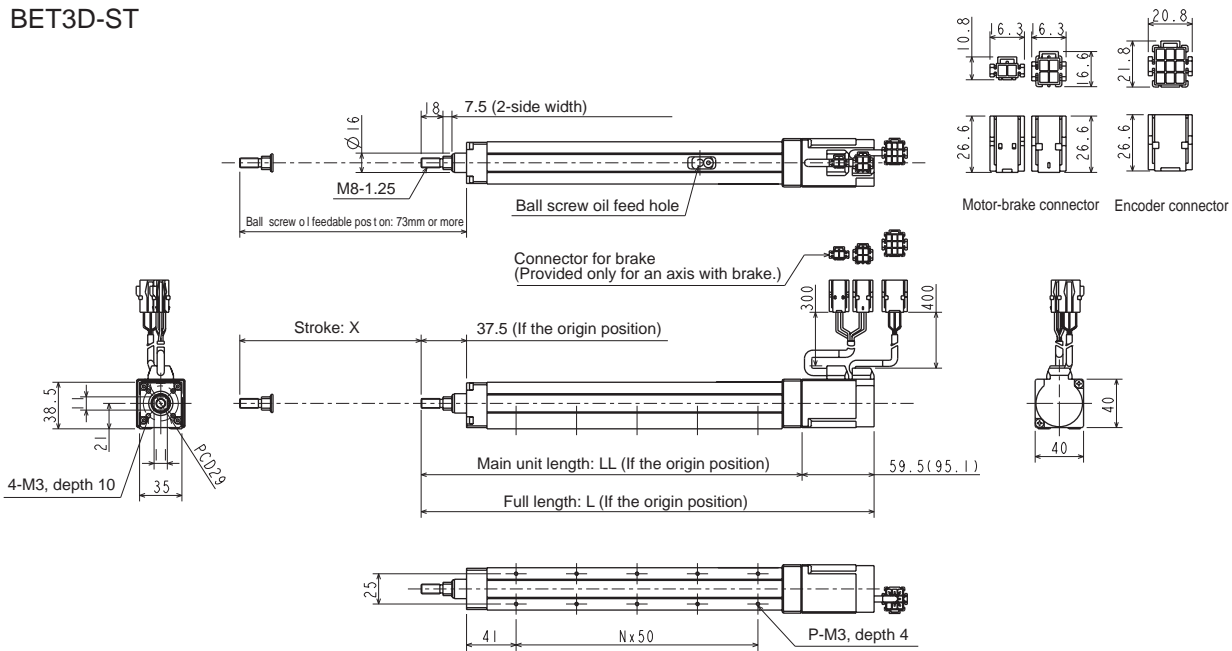
[Axis designation]

BET3D – ST – C 12 N – 10

Type of slider C : Pushrod type	Lead 12 : 12mm	Brake N : Without brake B : With brake	Stroke Type designation
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Pushrod

BET3D-ST



Stroke X (mm)	50	100	150
Full length L (mm)	274.5 (310.1)	324.5 (360.1)	374.5 (410.1)
Main unit length LL (mm)	215	265	315
No. of holes P (q'ty)	6	8	10
Intervals between mounting holes N	2	3	4
Weight (kg)	1.0 (1.2)	1.2 (1.4)	1.3 (1.5)

\* Values in parentheses are for axis with brake.

## [Set designation]

**BA3 – T4D – ST – C 12 N – 10 – 13**

Type of slider C : Pushrod type	Lead 12 : 12mm	Brake N : Without brake B : With brake	Stroke Type designation	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## [Specifications]

Motor	50 W AC servo motor (absolute)	
Drive system	Precisely rolled ball screw, thread outer diameter 8 mm	
Stroke (mm) (in increments of 50 mm)	Pushrod	50 ~ 200
	Type designation	05 ~ 20
Maximum speed (mm/s)	600	
Maximum payload (kg) Acceleration/deceleration time: 0.3 sec or over	Horizontal transfer: 7 Vertical transfer: 3.1	
Positioning repeatability (mm)	± 0.02	
Resolution (mm)	0.01	
Allowable static load moment (N·m)	Do not apply load moment to the rod	
Brake	Brake voltage DC24 V	
Master controller	CA25-M10	

Notes: \* When using the axis as a vertical axis, select the type with brake.

\* A dynamic moment of inertia for the load cannot be applied to the rod. Take precautions by using together with a linear guide and other components to ensure that a radial load is not applied to the rod.

\* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

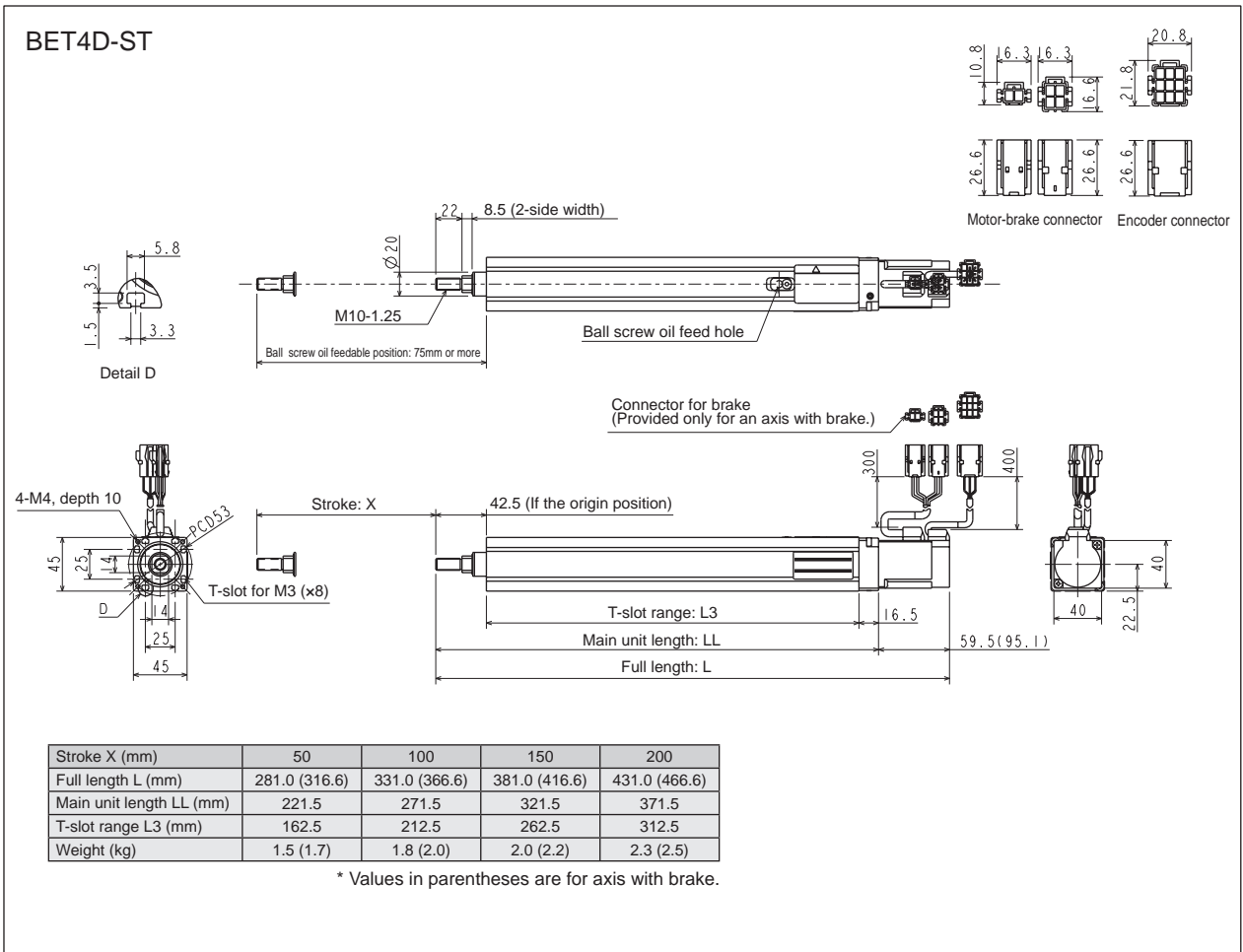
## [Axis designation]

**BET4D – ST – C 12 N – 10**

Type of slider C : Pushrod type	Lead 12 : 12mm	Brake N : Without brake B : With brake	Stroke Type designation
------------------------------------	-------------------	--	----------------------------

Pushrod

### BET4D-ST



[Set designation]

BA3 – T5E – ST – C 12 N – 10 – 13

Type of slider C : Pushrod type	Lead 12 : 12mm	Brake N : Without brake B : With brake	Stroke Type designation 05 ~ 25	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 19	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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[Specifications]

Motor	100 W AC servo motor (absolute)		
Drive system	Precisely rolled ball screw, thread outer diameter 12 mm		
Stroke (mm) (in increments of 50 mm)	Pushrod	50 ~ 250	300
	Type designation	05 ~ 25	30
Maximum speed (mm/s)	Lead12mm	600	470
Maximum payload (kg) Acceleration/deceleration time: 0.3 sec or over	Horizontal transfer: 25 Vertical transfer: 6.5		
Positioning repeatability (mm)	± 0.02		
Resolution (mm)	0.01		
Allowable static load moment (N·m)	Do not apply load moment to the rod		
Brake	Brake voltage DC24 V		
Master controller	CA25-M10		

- Notes:
- \* When using the axis as a vertical axis, select the type with brake.
  - \* A dynamic moment of inertia for the load cannot be applied to the rod. Take precautions by using together with a linear guide and other components to ensure that a radial load is not applied to the rod.
  - \* The acceleration/deceleration time represents the time until the axis reaches a programmed speed.

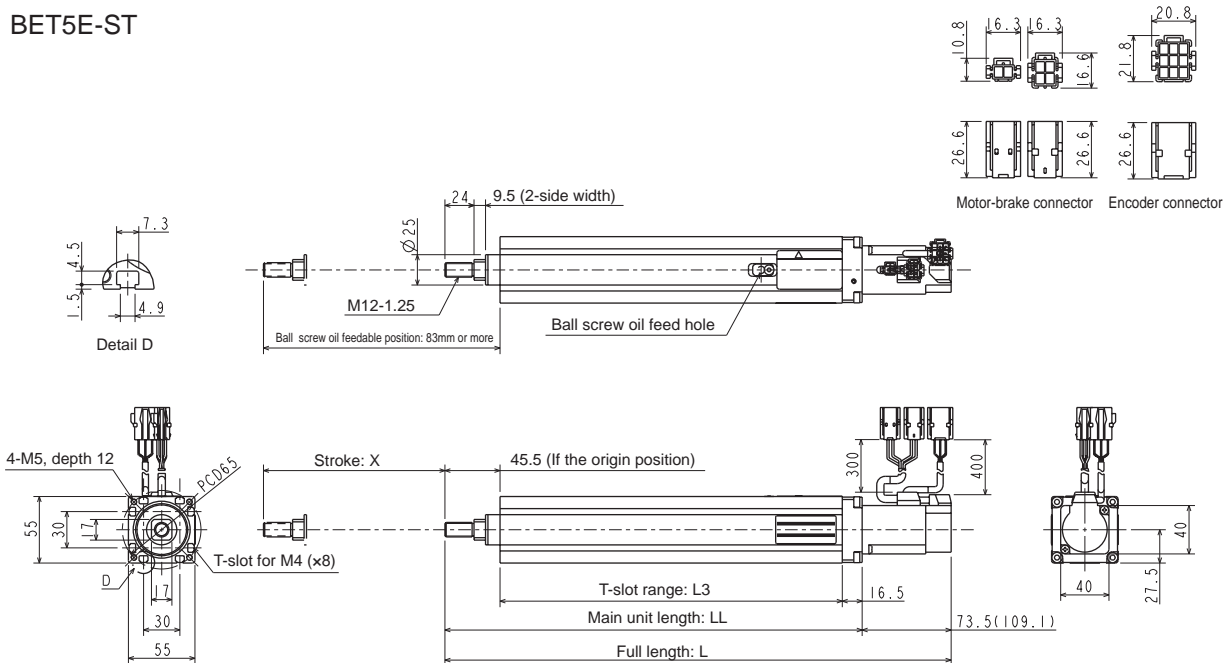
[Axis designation]

BET5E – ST – C 12 N – 10

Type of slider C : Pushrod type	Lead 12 : 12mm	Brake N : Without brake B : With brake	Stroke Type designation
------------------------------------	-------------------	--	----------------------------

Pushrod

BET5E-ST



Stroke X (mm)	50	100	150	200	250	300
Full length L (mm)	318.5 (354.1)	368.5 (404.1)	418.5 (454.1)	468.5 (504.1)	518.5 (554.1)	568.5 (604.1)
Main unit length LL (mm)	245.0	295.0	345.0	395.0	445.0	495.0
T-slot range L3 (mm)	183.0	233.0	283.0	333.0	383.0	433.0
Weight (kg)	2.2 (2.4)	2.6 (2.8)	3.0 (3.2)	3.3 (3.5)	3.7 (3.9)	4.1 (4.3)

\* Values in parentheses are for axis with brake.



# Cartesian Axes Specifications

## 2-Axis Specifications

### X-Y Combination

Ball screw type .....56

Timing belt type.....70

### X-Z Combination

Ball screw type.....77

Timing belt type.....83

### Y-Z Combination

Ball screw type .....89

Timing belt type.....96

### Z-Y Combination

Ball screw type.....102

Timing belt type.....107

## 3-Axis Specifications

### X-Y-Z Combination

Ball screw type.....113

Timing belt type.....129

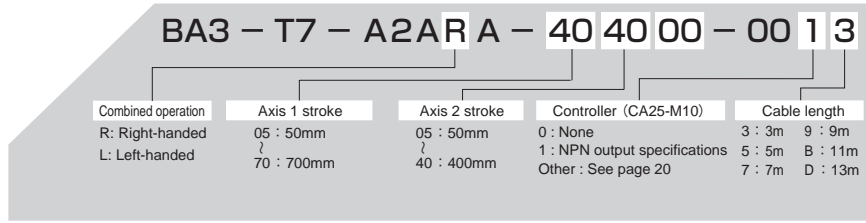
## 4-Axis Specifications

### X-Y-Z-R Combination

Harmonic drive type .....134

Planet gear type .....138

[Set designation]



**Ball screw type**

- X-axis: Ball screw driven  
Motor straight
- Y-axis: Ball screw driven  
Motor straight

[Specifications]

	X-axis	Y-axis
Type of axis	BET7D-ST-M12N- □□	BET5D-ST-M12N- □□
Stroke (mm) (in increments of 50 mm)	50 ~ 600, 700	50 ~ 400
Maximum speed (mm/s)	800 (Note 1)	800
Positioning repeatability (mm)	± 0.02	
Lead of ball screw (mm)	12	12
Motor output	50W	50W
Resolution (mm)	0.01	

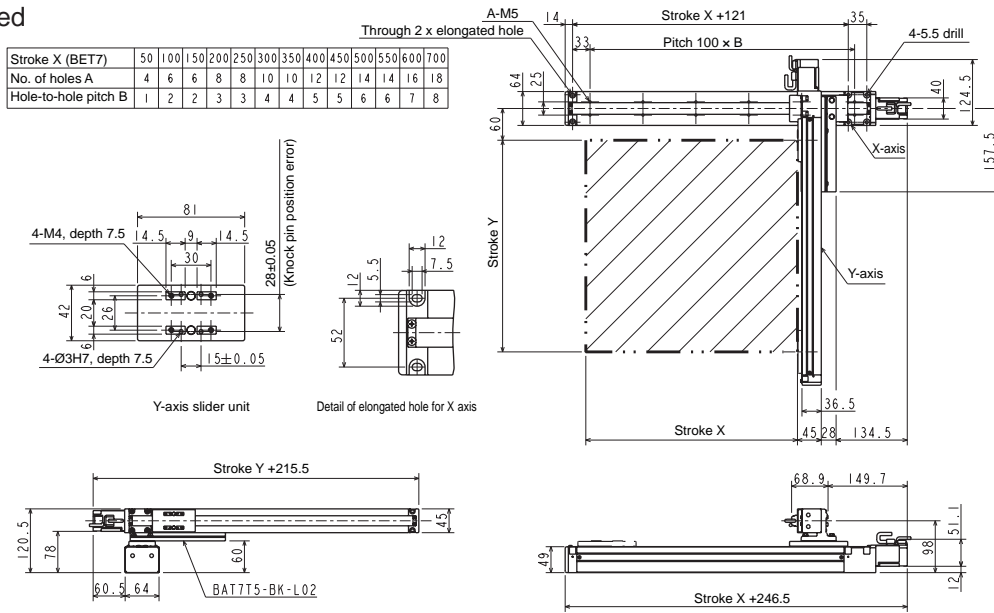
Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
X-axis	50~550	800
	600	680
	700	500

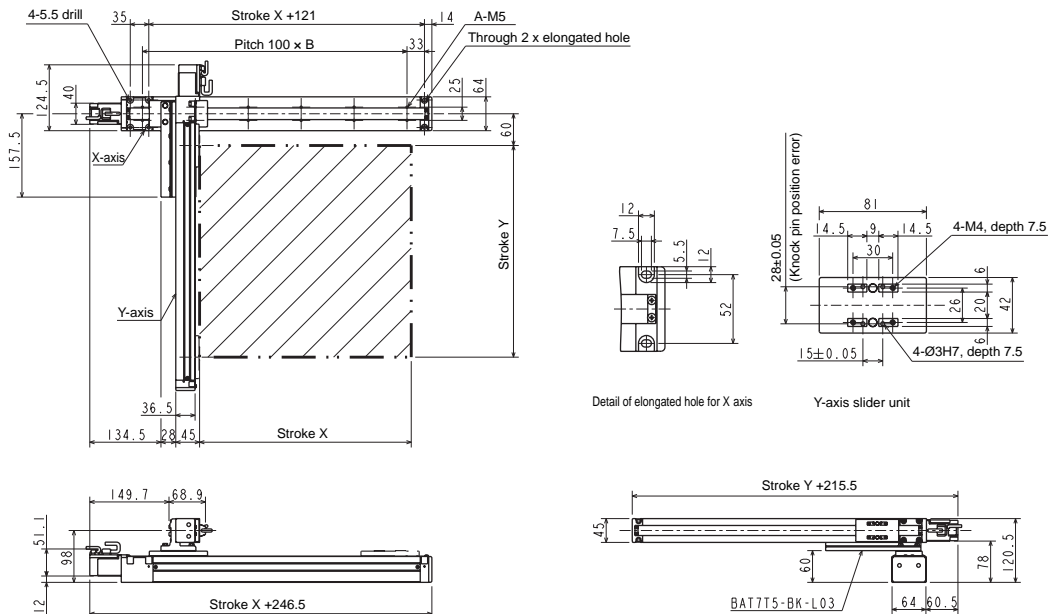
Acceleration/deceleration time when the maximum speed is set: 0.3 sec. or over

Maximum payload (kg)	Y-axis stroke							
	50mm	100mm	150mm	200mm	250mm	300mm	350mm	400mm
	5.0	5.0	4.0	4.0	2.0	2.0	1.0	1.0

**R: Right-handed**



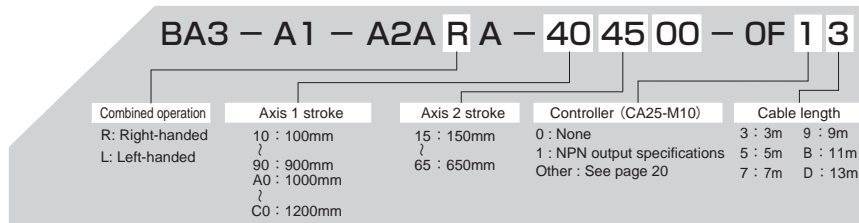
**L: Left-handed**



A-X



[Set designation]



Ball screw type

X-axis: Ball screw driven  
Motor straight

Y-axis: Ball screw driven  
Motor straight

[Specifications]

	X-axis	Y-axis
Type of axis	BE10E-ST-M20N-□0	BE10E-ST-S20N-□5
Stroke (mm) (in increments of 100 mm for X-axis, 50 mm for Y-axis)	100 ~ 1200mm	150 ~ 650mm
Maximum speed (mm/s)	1200mm/s (Note 1)	1200mm/s
Positioning repeatability (mm)	±0.01mm	
Lead of ball screw (mm)	20mm	20mm
Motor output	100W	100W
Resolution (mm)	0.01mm	

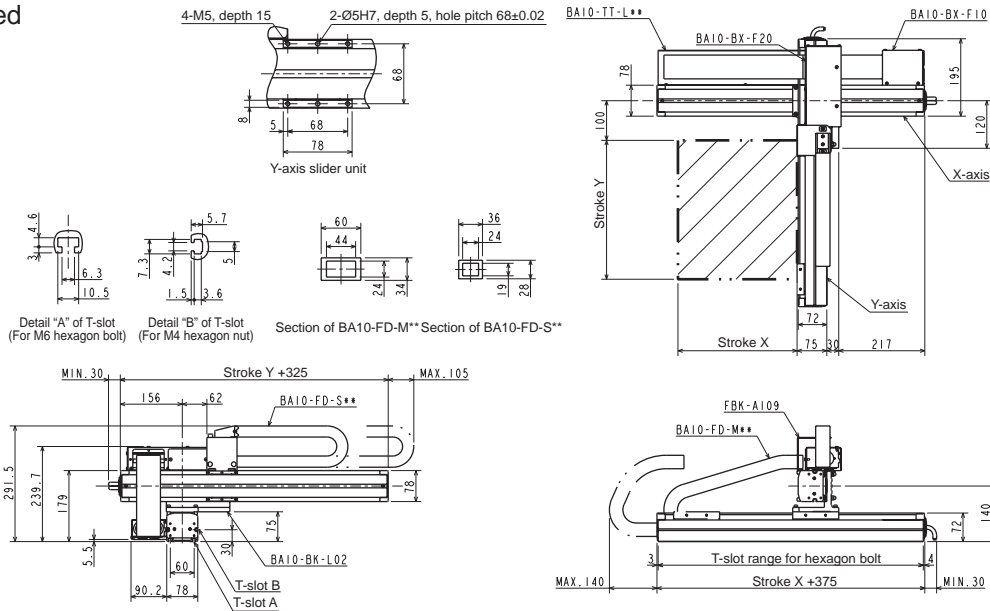
Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
X-axis	700	1000
	800	800
	900~1000	600
	1100~1200	400

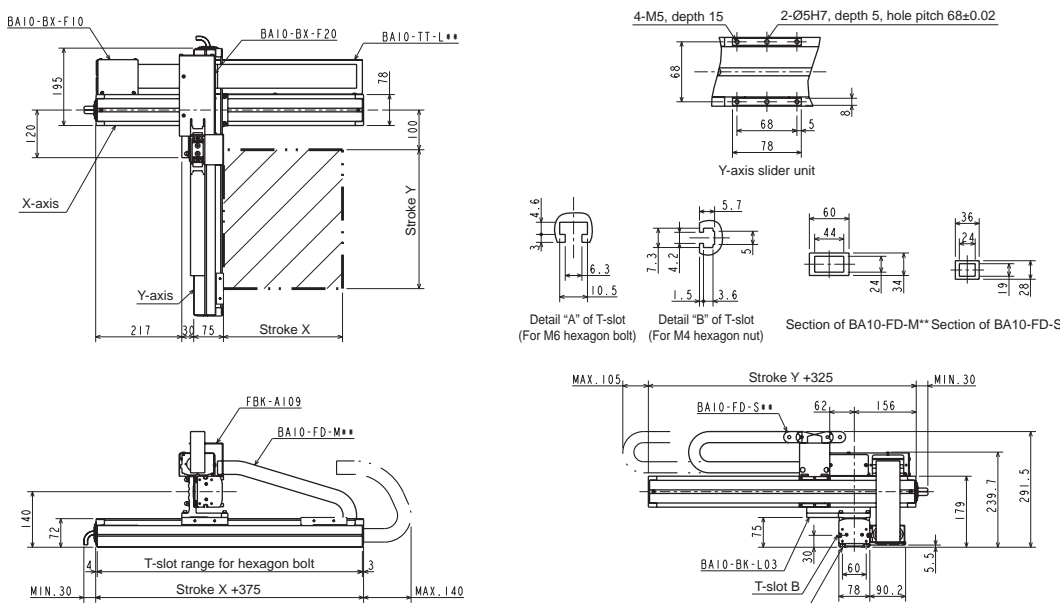
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

Maximum payload (kg)	Y-axis stroke					
	150mm	250mm	350mm	450mm	550mm	650mm
	9.0	8.0	6.5	5.0	3.0	1.0

R: Right-handed



L: Left-handed



## [Set designation]

**BA3 - A1 - A2A R E - 40 45 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 10 : 100mm 90 : 900mm A0 : 1000mm C0 : 1200mm	Axis 2 stroke 15 : 150mm 65 : 650mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## Ball screw type

X-axis: Ball screw driven  
Side mounted motor

Y-axis: Ball screw driven  
Side mounted motor

## [Specifications]

	X-axis	Y-axis
Type of axis	BE10E-U □ -M20N- □ 0	BE10E-U □ -S20N- □ 5
Stroke (in increments of 100 mm)	100 ~ 1200mm	150 ~ 650mm
Maximum speed	1200mm/s (Note 1)	1200mm/s
Positioning repeatability	± 0.01 mm	
Lead of ball screw	20mm	20mm
Motor output	100W	100W
Resolution	0.01mm	

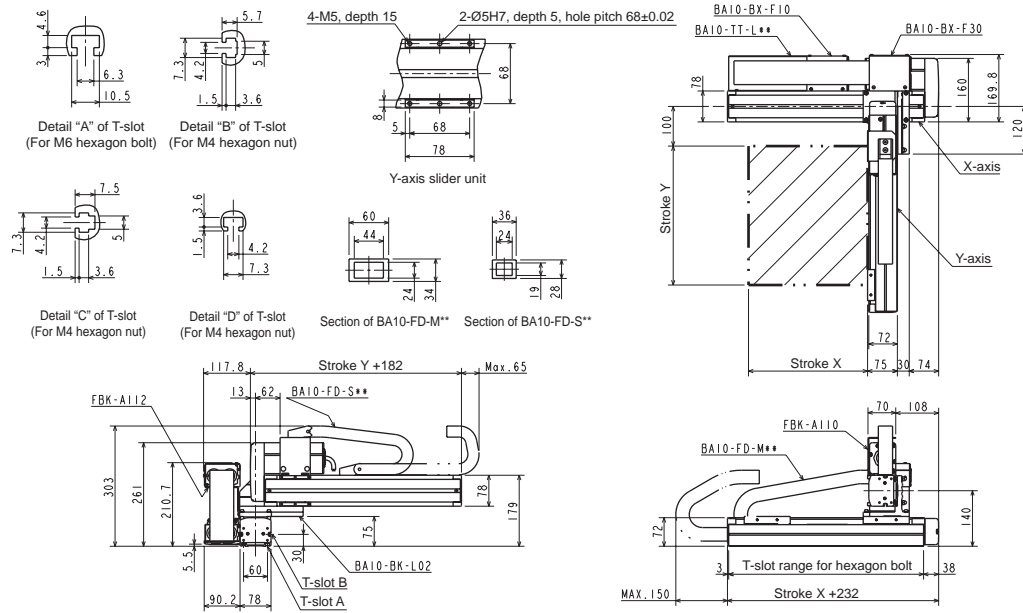
Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
X-axis	700	1000
	800	800
	900~1000	600
	1100~1200	400

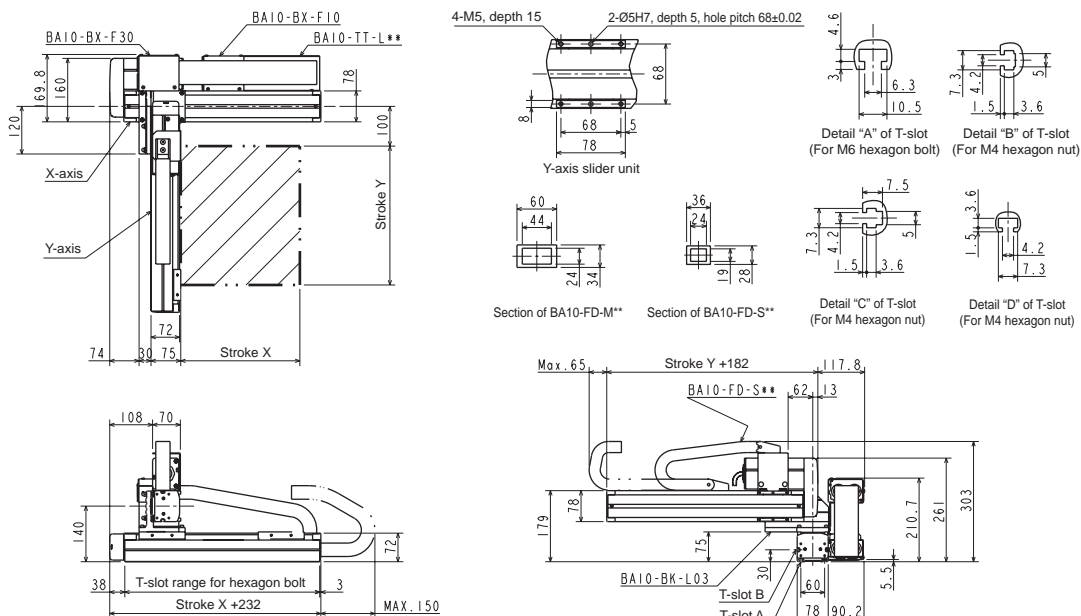
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

Maximum payload (kg)	Y-axis stroke					
	150mm	250mm	350mm	450mm	550mm	650mm
	9.0	8.0	6.5	5.0	3.0	1.0

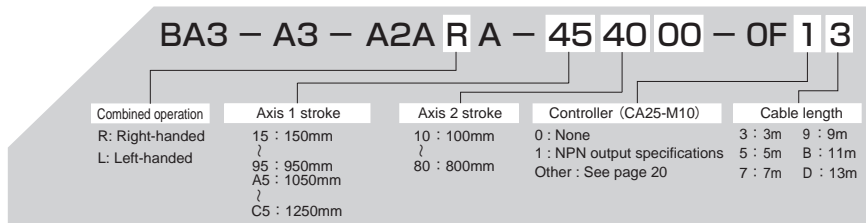
## R: Right-handed



## L: Left-handed



[Set designation]



**Ball screw type**

- X-axis: Ball screw driven  
Motor straight
- Y-axis: Ball screw driven  
Motor straight

[Specifications]

	X-axis	Y-axis
Type of axis	BE30E-ST-M20N-□ 5	BE10E-ST-M20N-□ 0
Stroke (in increments of 100 mm)	150 ~ 1250mm	100 ~ 800mm
Maximum speed	1200mm/s (Note 1)	1200mm/s (Note 1)
Positioning repeatability	± 0.01mm	
Lead of ball screw	20mm	20mm
Motor output	100W	100W
Resolution	0.01mm	

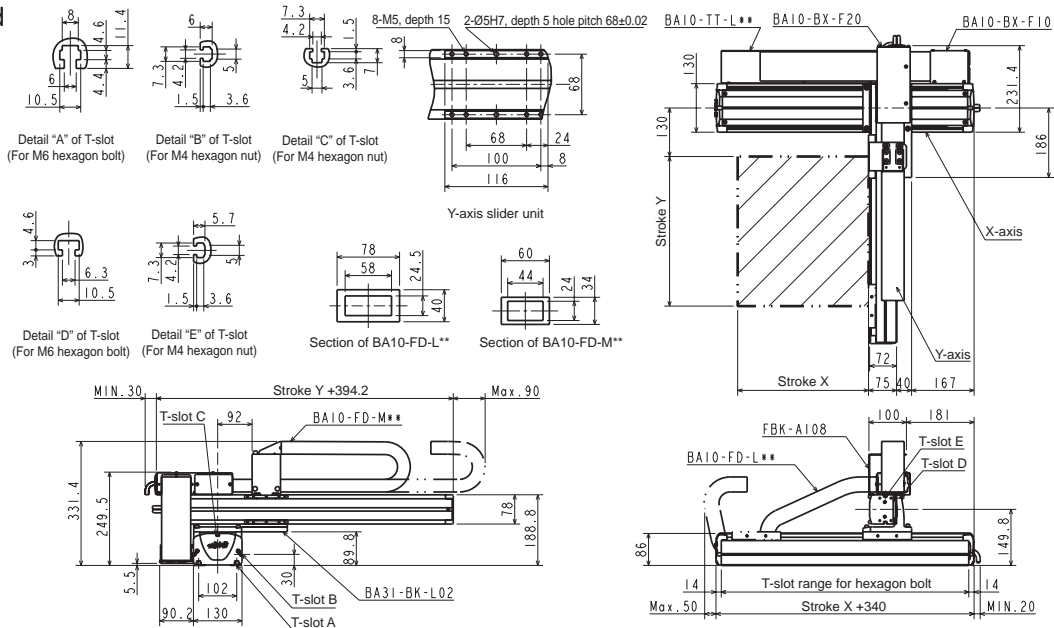
Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
X-axis	750	1000
	850	800
	950~1050	600
	1150~1250	400
Y-axis	700	1000
	800	800

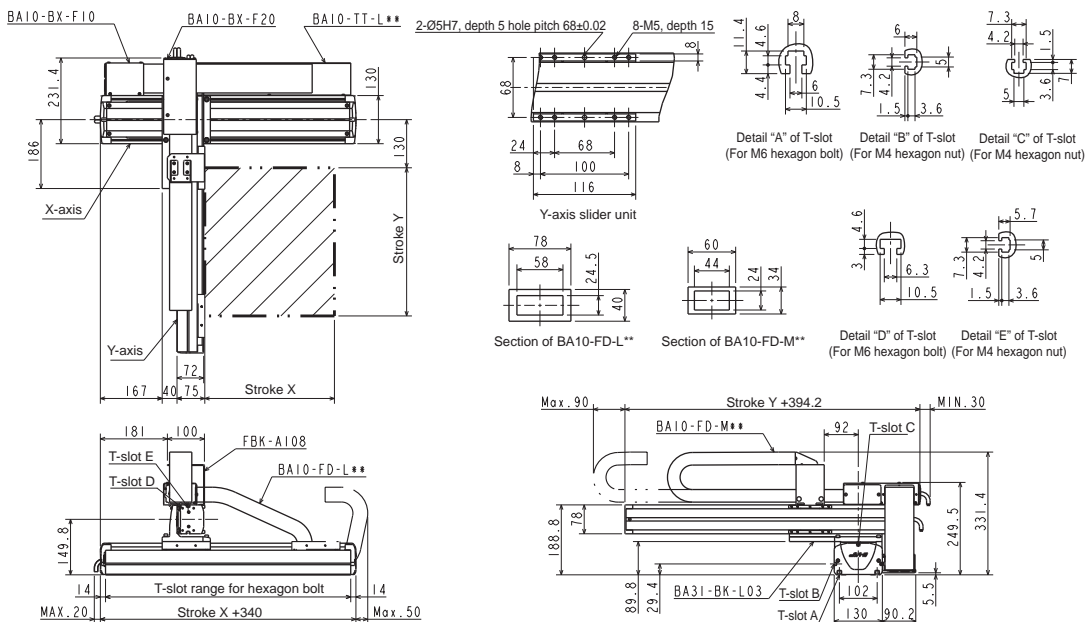
Acceleration/deceleration time when the maximum speed is set: 0.48 sec. or over

Maximum payload (kg)	Y-axis stroke							
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm
	13.0	12.0	11.0	10.0	8.0	6.0	3.0	2.0

**R: Right-handed**



**L: Left-handed**



X-Y Flexible-duct Spec.



## [Set designation]

**BA3 - A3 - A2A R E - 40 40 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 10 : 100mm 90 : 900mm A0 : 1000mm C0 : 1200mm	Axis 2 stroke 10 : 100mm 80 : 800mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## Ball screw type

- X-axis: Ball screw driven  
Side mounted motor
- Y-axis: Ball screw driven  
Side mounted motor

## [Specifications]

	X-axis	Y-axis
Type of axis	BE30E-U □ -M20N- □ 0	BE10E-U □ -M20N- □ 0
Stroke (in increments of 100 mm)	100 ~ 1200mm	100 ~ 800mm
Maximum speed	1200mm/s (Note 1)	1200mm/s (Note 1)
Positioning repeatability	± 0.01 mm	
Lead of ball screw	20mm	20mm
Motor output	100W	100W
Resolution	0.01 mm	

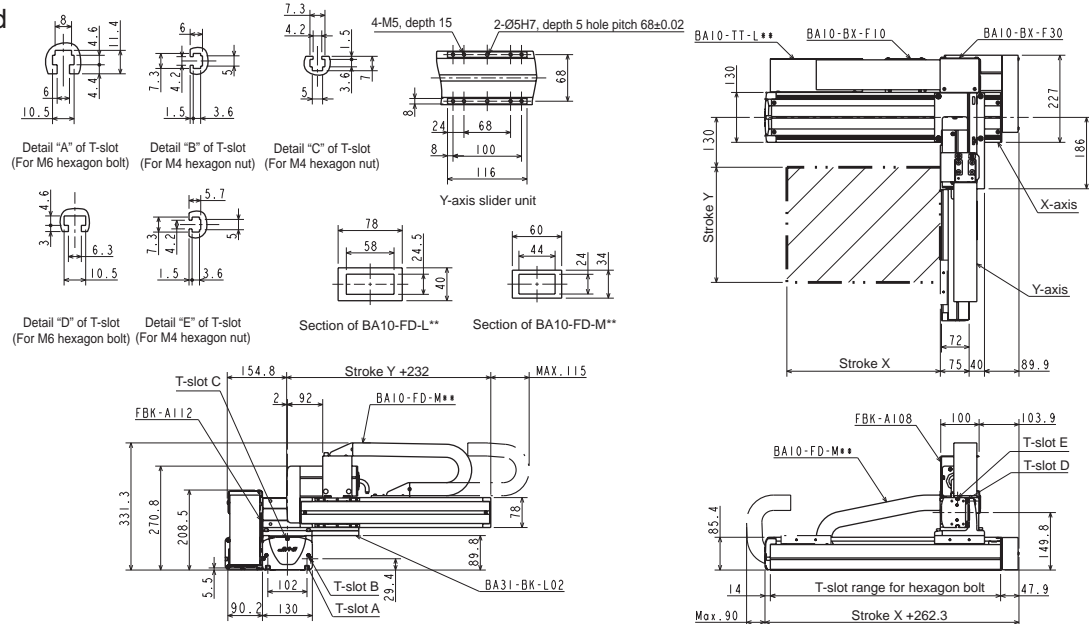
Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
X-axis	700	1000
	800	800
	900~1000	600
Y-axis	1100~1200	400
	700	1000
	800	800

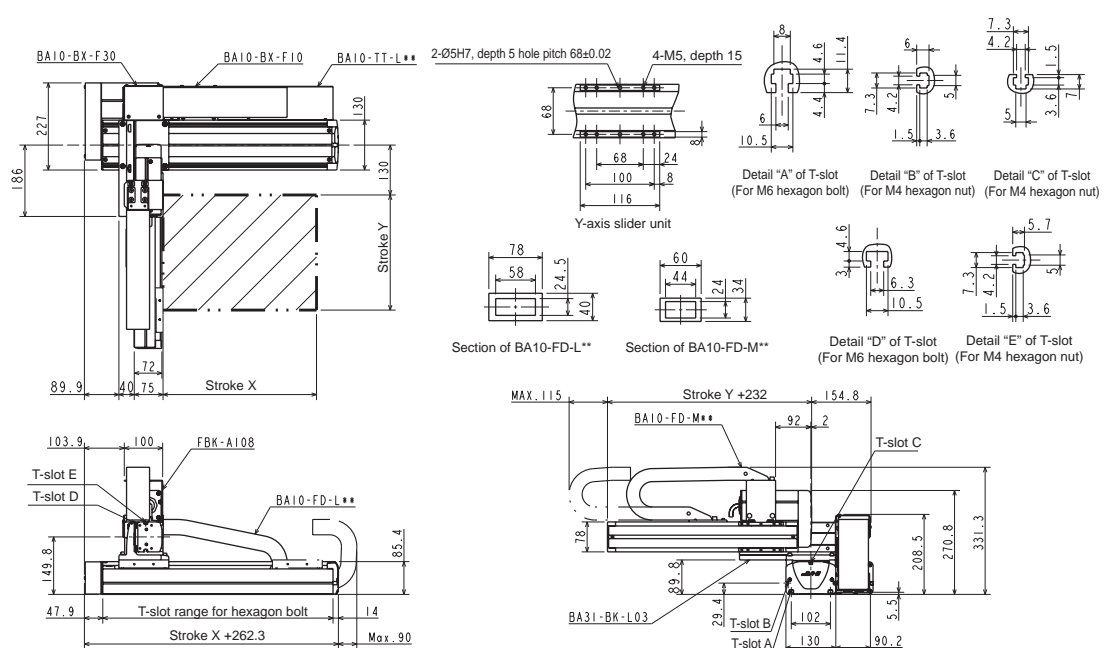
Acceleration/deceleration time when the maximum speed is set: 0.48 sec. or over

Maximum payload (kg)	Y-axis stroke							
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm
	13.0	12.0	11.0	10.0	8.0	6.0	3.0	2.0

## R: Right-handed



## L: Left-handed



[Set designation]

**BA3 – A3 – A2B R A – 40 40 00 – OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 10 : 100mm 90 : 900mm A0 : 1000mm C0 : 1200mm	Axis 2 stroke 10 : 100mm 80 : 800mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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**Ball screw type**

X-axis: Ball screw driven  
Motor straight

Y-axis: Ball screw driven  
Motor straight

[Specifications]

	X-axis	Y-axis
Type of axis	BE30F-ST-M20N-□ 0	BE10E-ST-M20N-□ 0
Stroke (in increments of 100 mm)	100 ~ 1200mm	100 ~ 800mm
Maximum speed	1200mm/s (Note 1)	1200mm/s (Note 1)
Positioning repeatability	± 0.01mm	
Lead of ball screw	20mm	20mm
Motor output	200W	100W
Resolution	0.01mm	

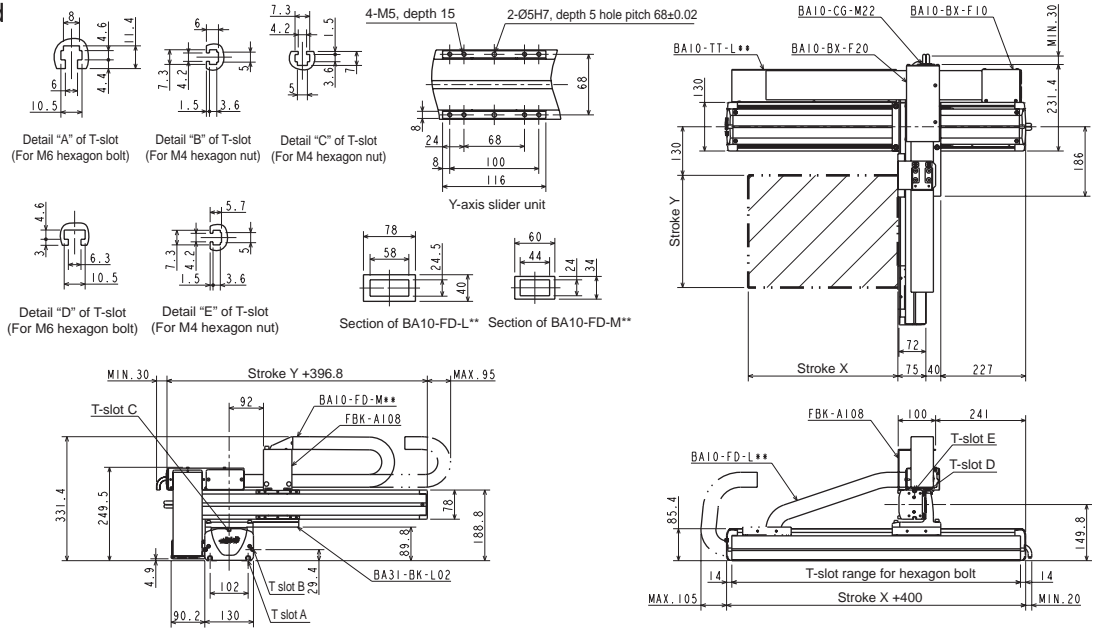
Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
X-axis	700	1000
	800	800
	900~1000	600
	1100~1200	400
Y-axis	700	1000
	800	800

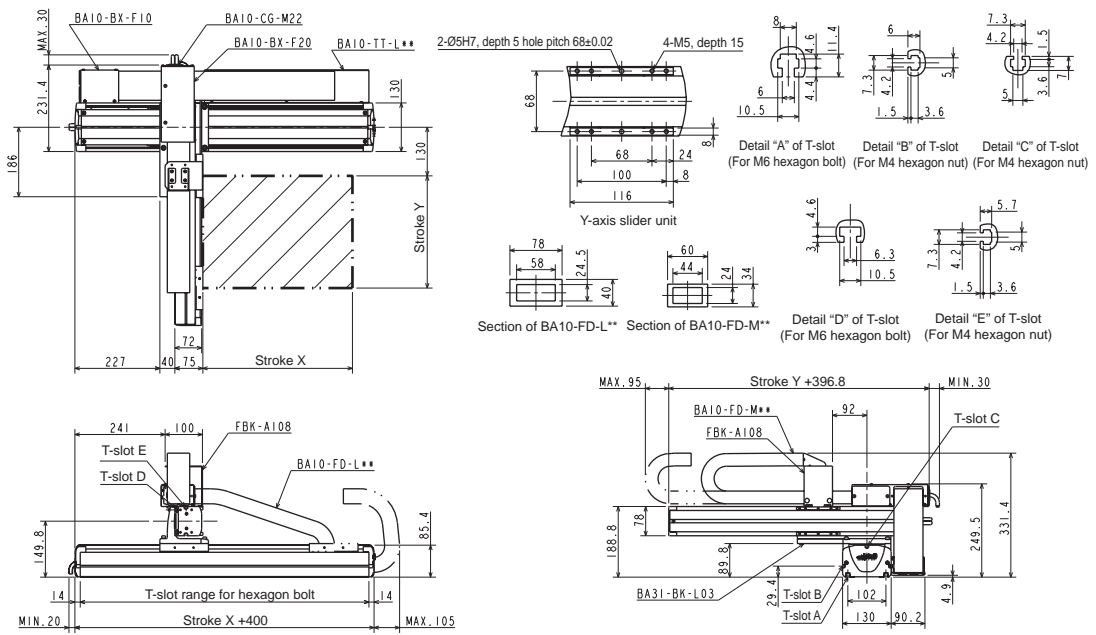
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

Maximum payload (kg)	Y-axis stroke							
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm
	15.0	15.0	14.0	11.0	8.0	6.0	4.0	2.0

**R: Right-handed**



**L: Left-handed**



X-Y Flexible-duct Spec.

## [Set designation]

**BA3 - A3 - A2B R E - 40 40 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 10 : 100mm 90 : 900mm A0 : 1000mm C0 : 1200mm	Axis 2 stroke 10 : 100mm 80 : 800mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## Ball screw type

X-axis: Ball screw driven  
Side mounted motor

Y-axis: Ball screw driven  
Side mounted motor

## [Specifications]

	X-axis	Y-axis
Type of axis	BE30F-U □ -M20N- □ 0	BE10E-U □ -M20N- □ 0
Stroke (in increments of 100 mm)	100 ~ 1200mm	100 ~ 800mm
Maximum speed	1200mm/s (Note 1)	1200mm/s (Note 1)
Positioning repeatability	± 0.01mm	
Lead of ball screw	20mm	20mm
Motor output	200W	100W
Resolution	0.01mm	

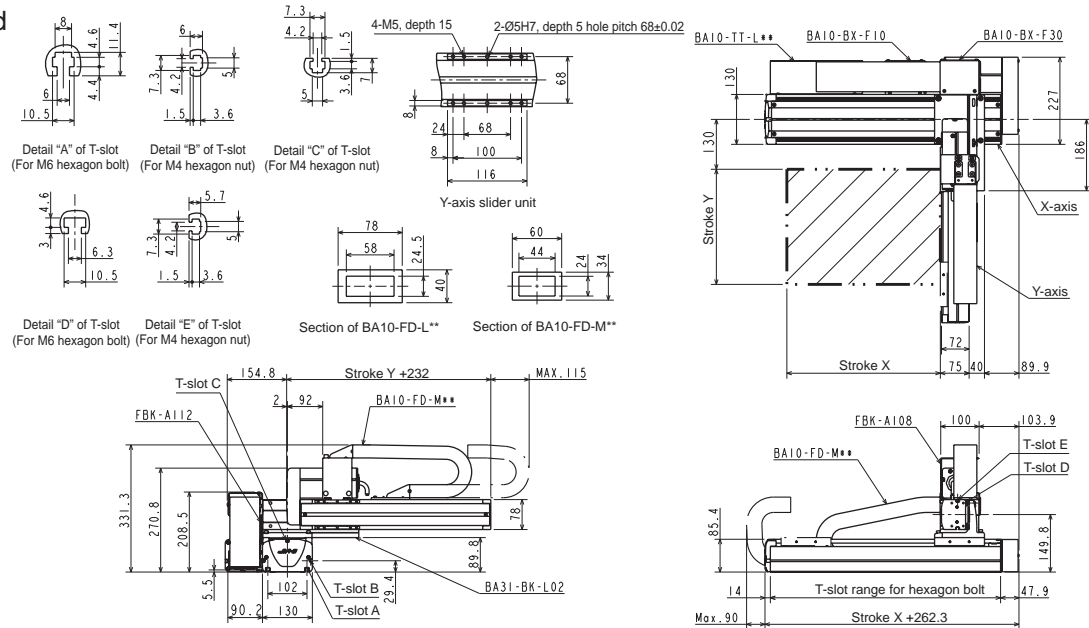
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

Note 1: When the stroke is as given below, the maximum speed differs.

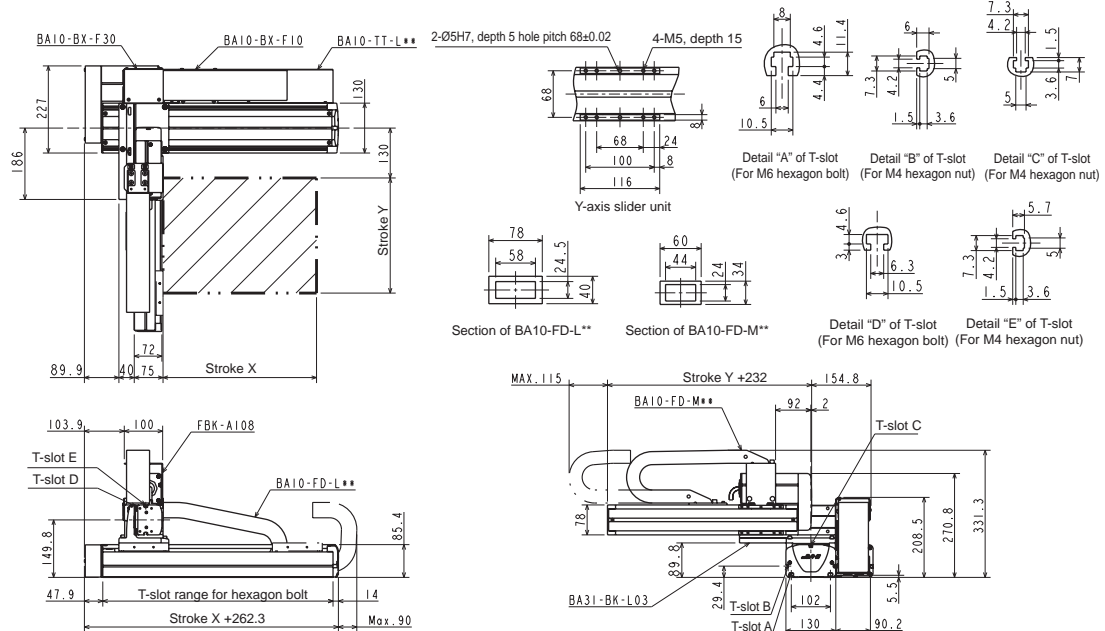
	Stroke (mm)	Maximum speed (mm/s)
X-axis	700	1000
	800	800
	900~1000	600
Y-axis	1100~1200	400
	700	1000
	800	800

Maximum payload (kg)	Y-axis stroke							
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm
	15.0	15.0	14.0	11.0	8.0	6.0	4.0	2.0

## R: Right-handed



## L: Left-handed



[Set designation]

**BA3 - A5 - A2A R A - 40 45 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 20 : 200mm 90 : 900mm A0 : 1000mm G0 : 1600mm	Axis 2 stroke 15 : 150mm 95 : 950mm A5 : 1050mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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**Ball screw type**

X-axis: Ball screw driven  
Motor straight

Y-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

[Specifications]

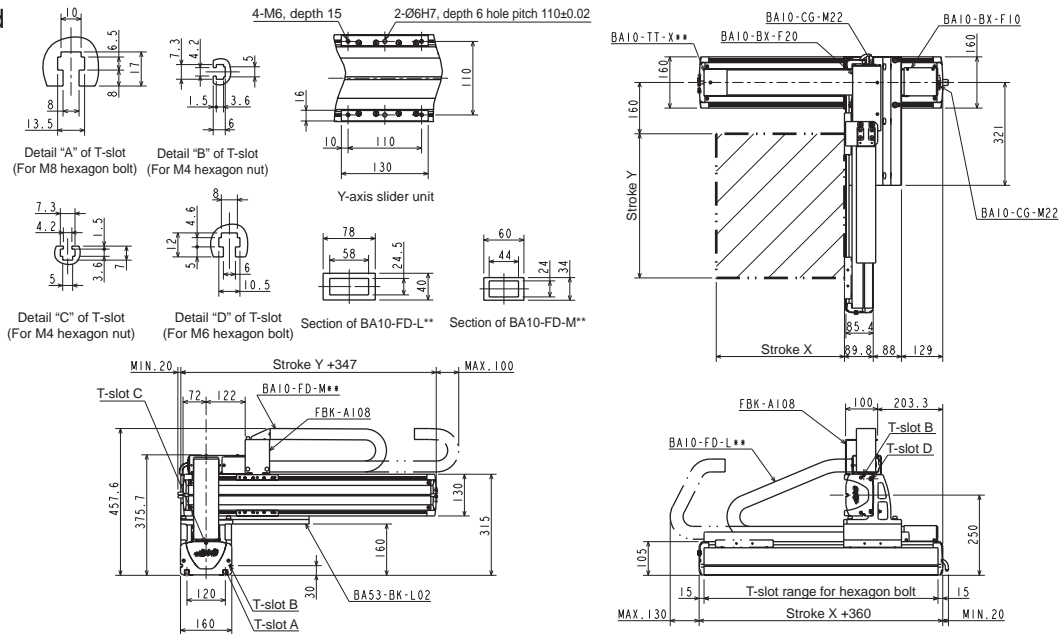
	X-axis	Y-axis
Type of axis	BE50F-ST-M20N-□ 0	BE30E-ST-M20N-□ 5
Stroke (in increments of 100 mm)	200 ~ 1600mm	150 ~ 1050mm
Maximum speed	1200mm/s (Note 1)	1200mm/s (Note 1)
Positioning repeatability	±0.01mm	
Lead of ball screw	20mm	20mm
Motor output	200W	100W
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

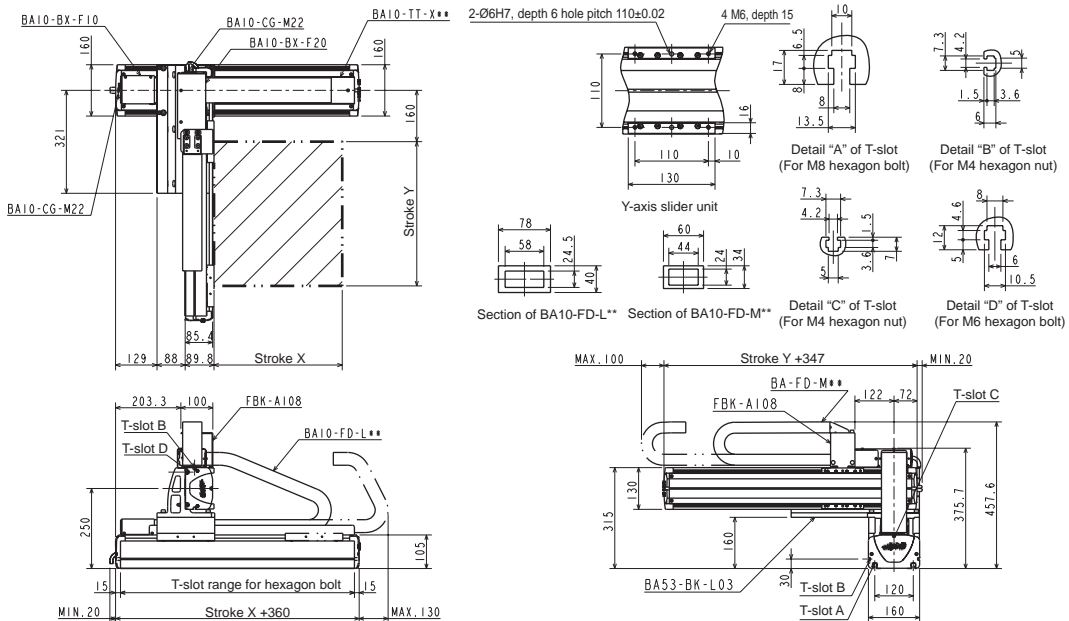
	Stroke (mm)	Maximum speed (mm/s)
X-axis	700~800	1100
	900~1000	1000
	1100~1200	700
	1300	500
	1400	400
	1500	300
Y-axis	1600	300
	750	1000
	850	800
	950~1050	600

Maximum payload (kg)	Y-axis stroke									
	150mm	250mm	350mm	450mm	550mm	650mm	750mm	850mm	950mm	1050mm
	20.0	20.0	20.0	20.0	20.0	20.0	19.0	17.0	14.0	11.0

**R: Right-handed**



**L: Left-handed**



## [Set designation]

**BA3 - A5 - A2A R G - 40 45 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 20 : 200mm 90 : 900mm A0 : 1000mm G0 : 1600mm	Axis 2 stroke 15 : 150mm 95 : 950mm A5 : 1050mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## Ball screw type

X-axis: Ball screw driven  
Side mounted motor

Y-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

## [Specifications]

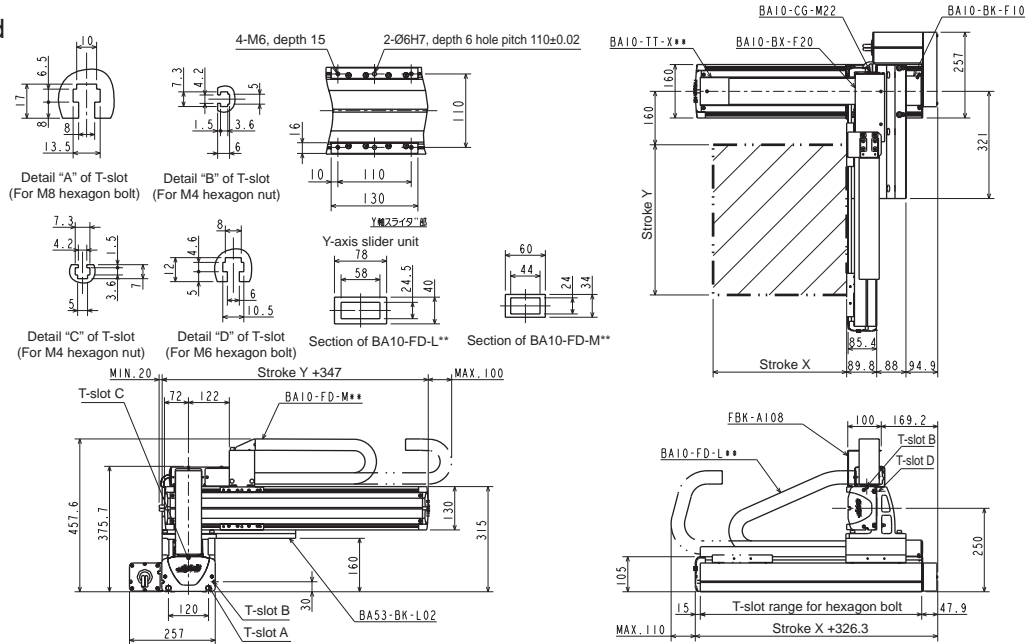
	X-axis	Y-axis
Type of axis	BE50F-U □ -M20N- □ 0	BE30E-ST-M20N- □ 5
Stroke (in increments of 100 mm)	200 ~ 1600mm	150 ~ 1050mm
Maximum speed	1200mm/ s (Note 1)	1200mm/ s (Note 1)
Positioning repeatability	± 0.01mm	
Lead of ball screw	20mm	20mm
Motor output	200W	100W
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

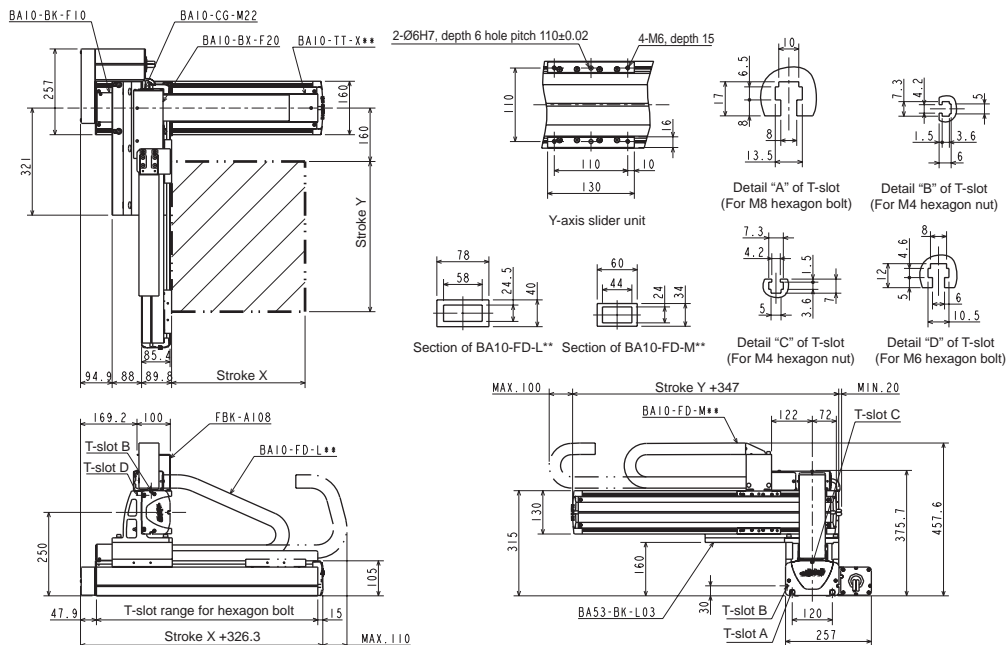
	Stroke (mm)	Maximum speed (mm/s)
X-axis	700~800	1100
	900~1000	1000
	1100~1200	700
	1300	500
	1400	400
	1500	300
Y-axis	1600	300
	750	1000
	850	800
	950~1050	600

Maximum payload (kg)	Y-axis stroke									
	150mm	250mm	350mm	450mm	550mm	650mm	750mm	850mm	950mm	1050mm
	20.0	20.0	20.0	20.0	20.0	20.0	19.0	17.0	14.0	11.0

## R: Right-handed



## L: Left-handed



[Set designation]

**BA3 - A5 - A2B R A - 40 40 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 20 : 200mm 90 : 900mm A0 : 1000mm G0 : 1600mm	Axis 2 stroke 10 : 100mm 90 : 900mm A0 : 1000mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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**Ball screw type**

X-axis: Ball screw driven  
Motor straight

Y-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

[Specifications]

	X-axis	Y-axis
Type of axis	BE50F-ST-M20N-□ 0	BE30F-ST-M20N-□ 0
Stroke (in increments of 100 mm)	200 ~ 1600mm	100 ~ 1000mm
Maximum speed	1200mm/s (Note 1)	1200mm/s (Note 1)
Positioning repeatability	±0.01mm	
Lead of ball screw	20mm	20mm
Motor output	200W	200W
Resolution	0.01mm	

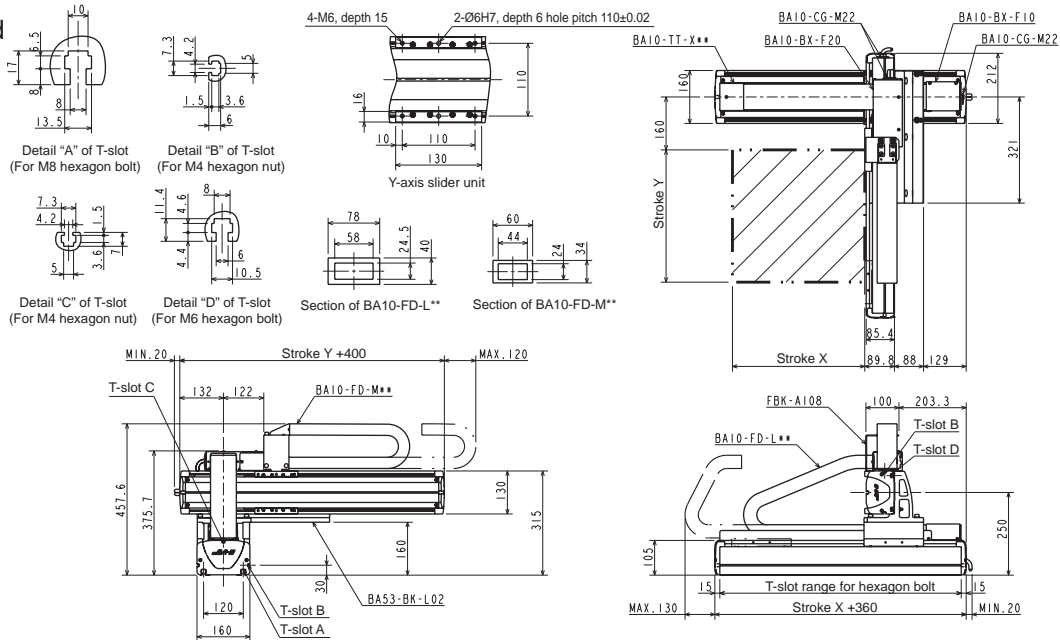
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

	Stroke (mm)	Maximum speed (mm/s)
X-axis	700~800	1100
	900~1000	1000
	1100~1200	700
	1300	500
	1400	400
	1500	300
Y-axis	1600	300
	700	1000
	800	800
	900~1000	600

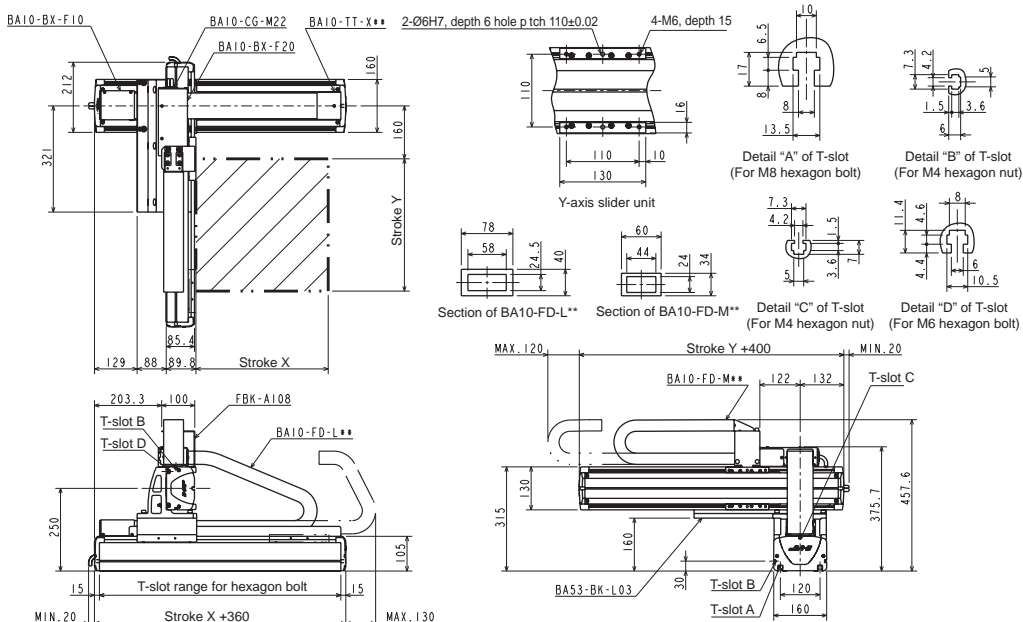
Maximum payload (kg)	Y-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	40.0 (31.0)	40.0 (30.0)	33.0 (29.0)	31.0 (28.0)	27.0	23.0	20.0	17.0	14.0	12.0

When the X-axis speed exceeds 1,000 mm/s, the values in parentheses are used for the maximum payload.

**R: Right-handed**



**L: Left-handed**





## [Set designation]

**BA3 - A5 - A2B R G - 40 40 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 20 : 200mm 90 : 900mm A0 : 1000mm G0 : 1600mm	Axis 2 stroke 10 : 100mm 90 : 900mm A0 : 1000mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## Ball screw type

X-axis: Ball screw driven  
Side mounted motor

Y-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

## [Specifications]

	X-axis	Y-axis
Type of axis	BE50F-U □ -M20N- □ 0	BE30F-ST-M20N- □ 0
Stroke (in increments of 100 mm)	200 ~ 1600mm	100 ~ 1000mm
Maximum speed	1200mm/s (Note 1)	1200mm/s (Note 1)
Positioning repeatability	± 0.01mm	
Lead of ball screw	20mm	20mm
Motor output	200W	200W
Resolution	0.01mm	

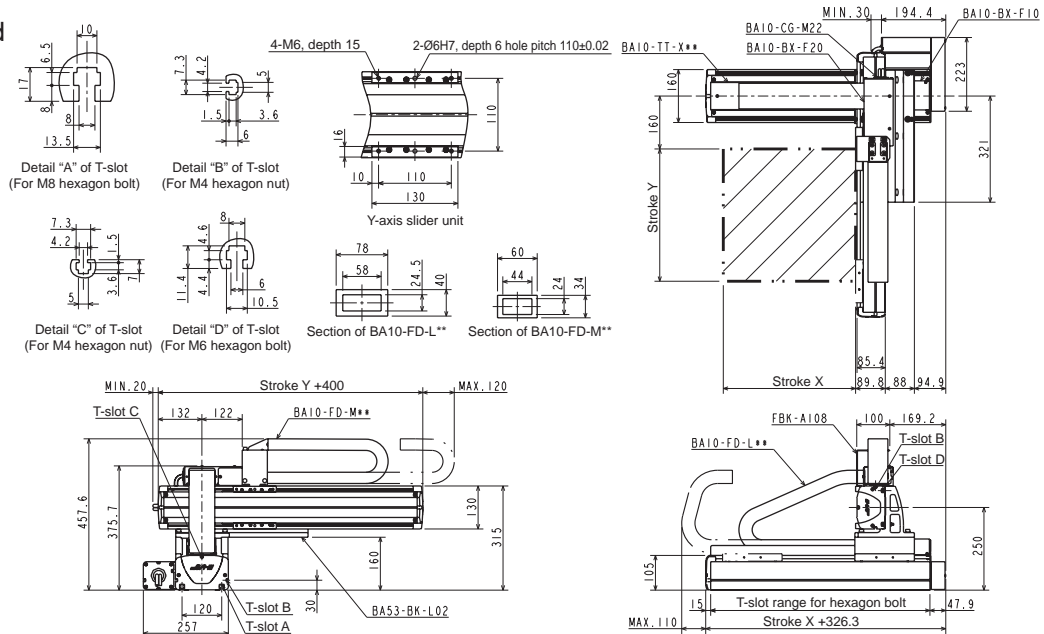
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

	Stroke (mm)	Maximum speed (mm/s)
X-axis	700~800	1100
	900~1000	1000
	1100~1200	700
	1300	500
	1400	400
	1500	300
Y-axis	1600	300
	700	1000
	900~1000	600

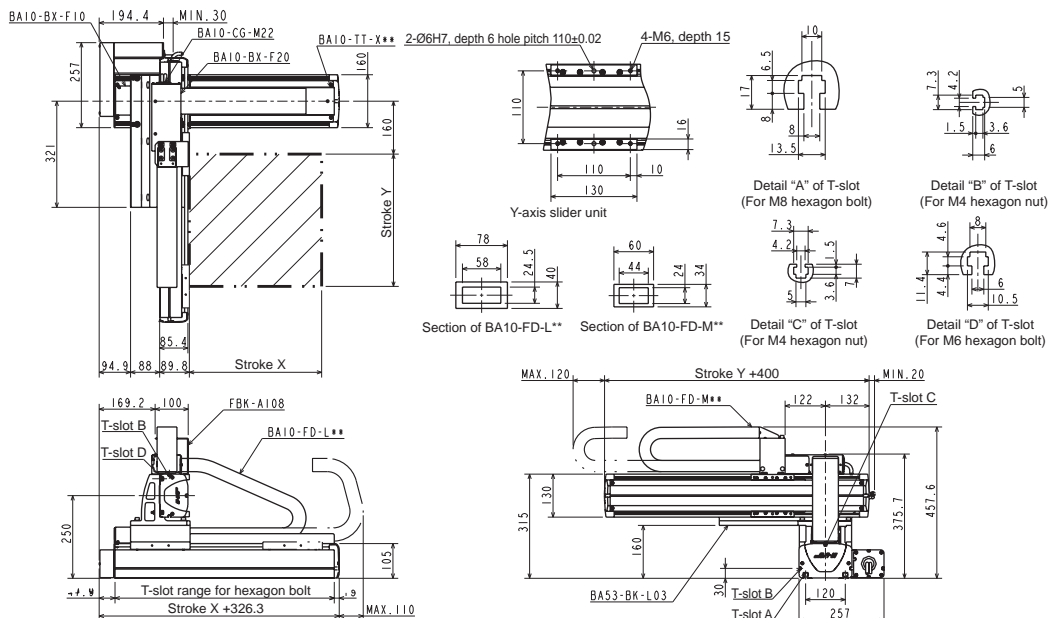
Maximum payload (kg)	Y-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	40.0 (31.0)	40.0 (30.0)	33.0 (29.0)	31.0 (28.0)	27.0	23.0	20.0	17.0	14.0	12.0

When the X-axis speed exceeds 1,000 mm/s, the values in parentheses are used for the maximum payload.

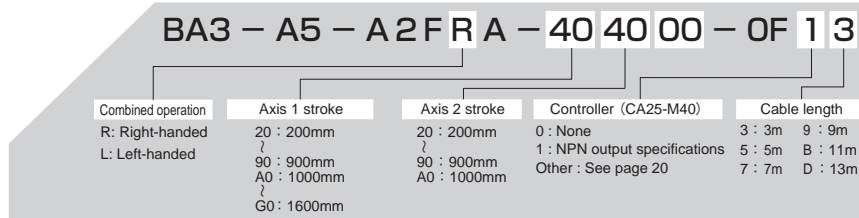
## R: Right-handed



## L: Left-handed



[Set designation]



**Ball screw type**

X-axis: Ball screw driven  
Motor straight

Y-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

[Specifications]

	X-axis	Y-axis
Type of axis	BE50G-ST-M20N-□ 0	BE50F-ST-M20N-□ 0
Stroke (mm) (in increments of 100 mm)	200 ~ 1600	200 ~ 1000
Maximum speed (mm/s)	1200 (Note 1)	1200 (Note 1)
Positioning repeatability (mm)	± 0.01	
Lead of ball screw (mm)	20	20
Motor output	400W	200W
Resolution (mm)	0.01	

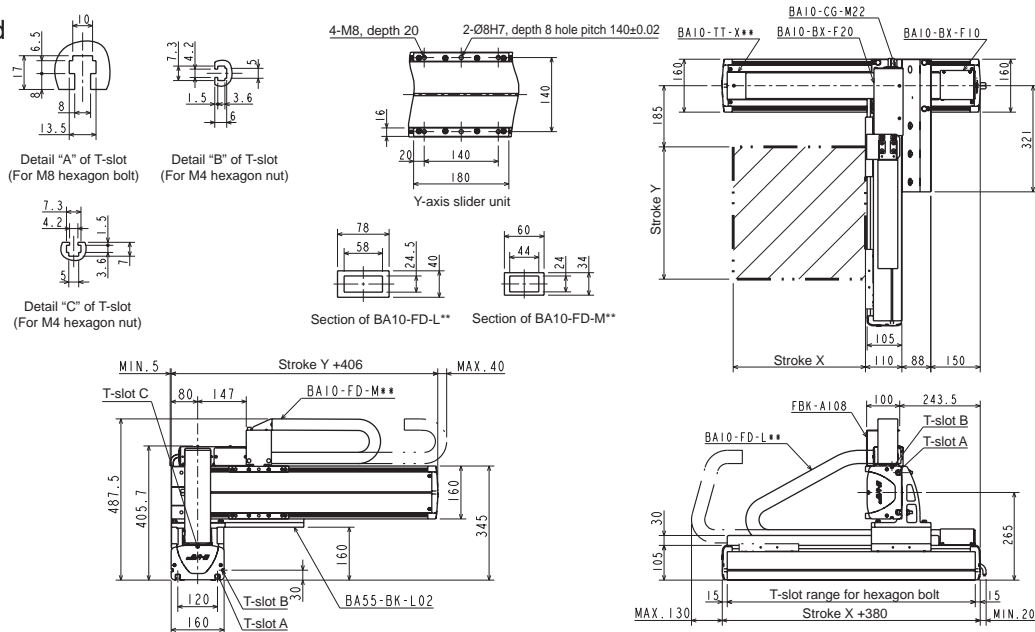
	Stroke (mm)	Maximum speed (mm/s)
X-axis	700~800	1100
	900~1000	1000
	1100~1200	700
	1300	500
	1400	400
	1500	300
Y-axis	1600	300
	700~800	1100
	900~1000	1000

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

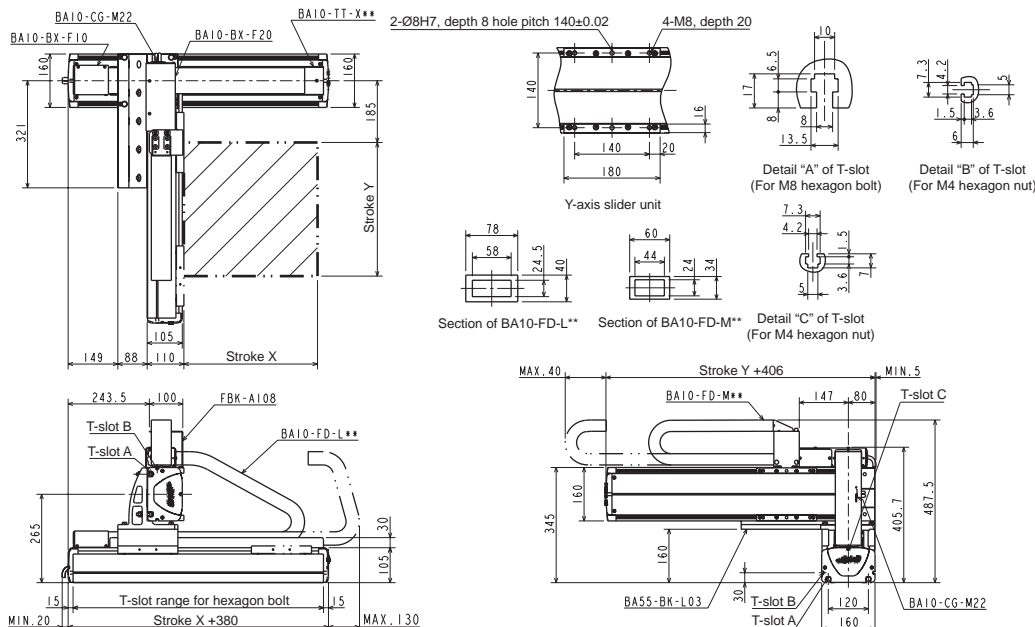
Maximum payload (kg)	Y-axis stroke									
	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm	
	60.0 (50.0)	53.5 (50.0)	45.0	38.0	32.5	27.5	23.0	19.0	13.0	

The regenerative discharge unit ABSU-4000 is required for X-axis.  
When the X-axis speed exceeds 1,000 mm/s, the values in parentheses are used for the maximum payload.

**R: Right-handed**



**L: Left-handed**



## [Set designation]

**BA3 - A6 - A2 ERA - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M80)	Cable length
R: Right-handed	20 : 200mm	20 : 200mm	0 : None	3 : 3m 9 : 9m
L: Left-handed	90 : 900mm	90 : 900mm	1 : NPN output specifications	5 : 5m B : 11m
	A0 : 1000mm	A0 : 1000mm	Other : See page 20	7 : 7m D : 13m
	H0 : 1700mm	F0 : 1500mm		

## Ball screw type

X-axis: Ball screw driven  
Motor straight

Y-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

## [Specifications]

	X-axis	Y-axis
Type of axis	BE60J-ST-M20N-□ 0	BE50G-ST-M20N-□ 0
Stroke (mm) (in increments of 100 mm)	200 ~ 1700	200 ~ 1500
Maximum speed (mm/s)	900 (Note 1)	1200 (Note 1)
Positioning repeatability (mm)	± 0.01	
Lead of ball screw (mm)	20	20
Motor output	750W	400W
Resolution (mm)	0.01	

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

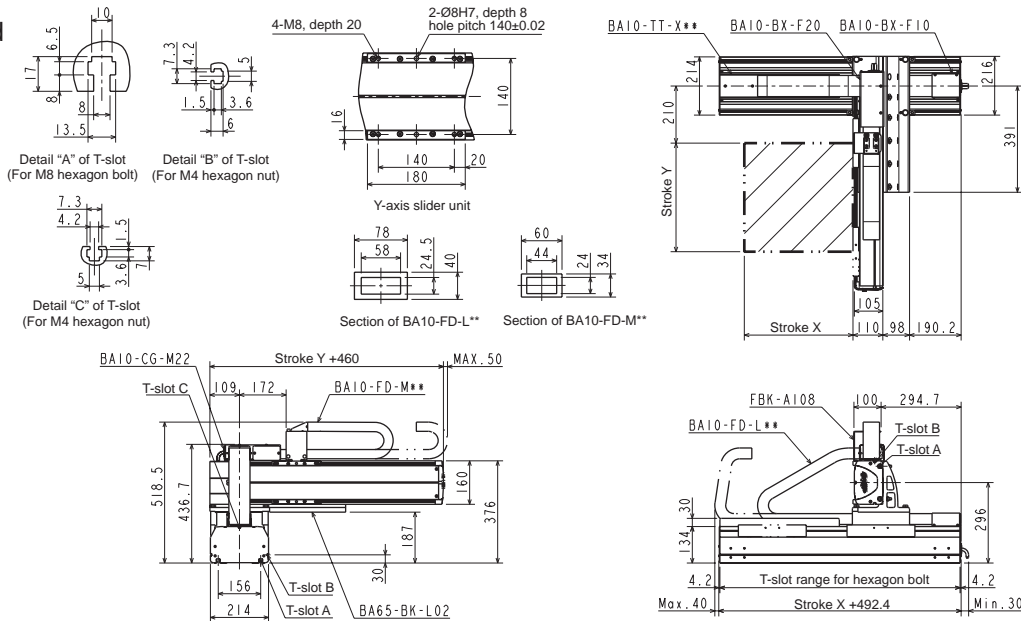
	Stroke (mm)	Maximum speed (mm/s)
X-axis	1100	700
	1200	600
	1300	500
	1400~1500	400
	1600~1700	300
Y-axis	700~800	1100
	900~1000	1000
	1100~1200	700
	1300	500
	1400	400
	1500	300

Maximum payload (kg)	Y-axis stroke													
	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm	1100mm	1200mm	1300mm	1400mm	1500mm
	100.0	100.0	89.0	77.5	68.0	60.0	53.0	47.0	42.0	33.0	26.0	21.0	17.0	14.0

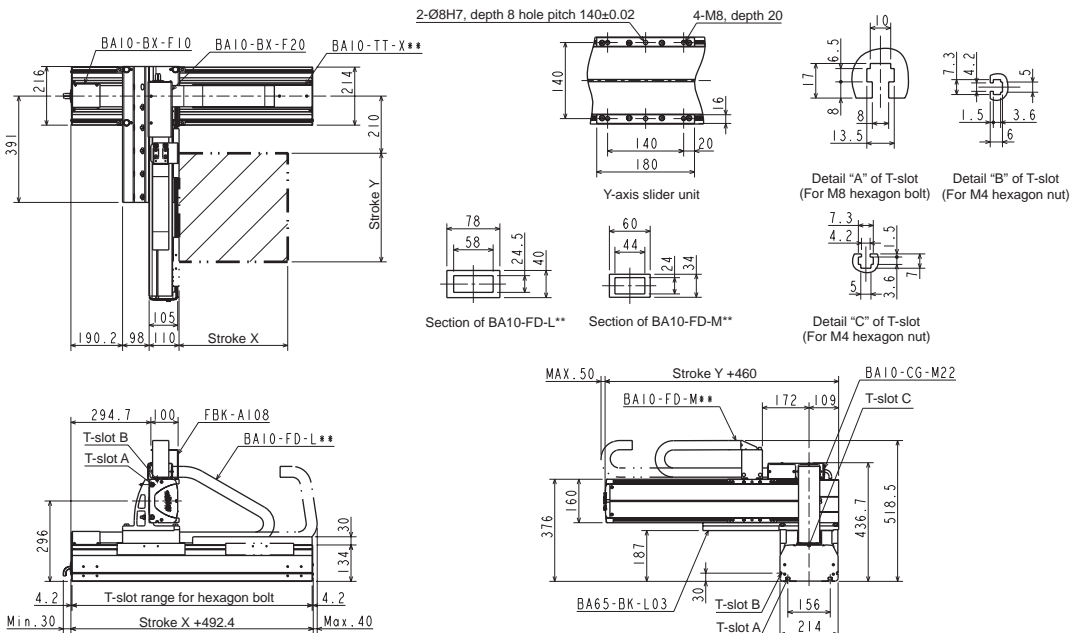
Regenerative discharge units are required for all axes.

- 1) X-axis: Regenerative discharge unit Model: ABSU-8000
- 2) Y-axis: Regenerative discharge unit Model: ABSU-4000

## R: Right-handed



## L: Left-handed



[Set designation]

**BA3 - L1 - A2A RC - 40 45 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length
R: Right-handed L: Left-handed	10 : 100mm 90 : 900mm A0 : 1000mm H0 : 1700mm	J0 : 1800mm N0 : 2200mm P0 : 2300mm R0 : 2500mm	15 : 150mm 65 : 650mm	0 : None 1 : NPN output specifications Other : See page 20
				3 : 3m 5 : 5m 7 : 7m
				9 : 9m B : 11m D : 13m

Timing belt type

X-axis: Timing belt driven  
Side mounted motor

Y-axis: Timing belt driven  
Side mounted motor

[Specifications]

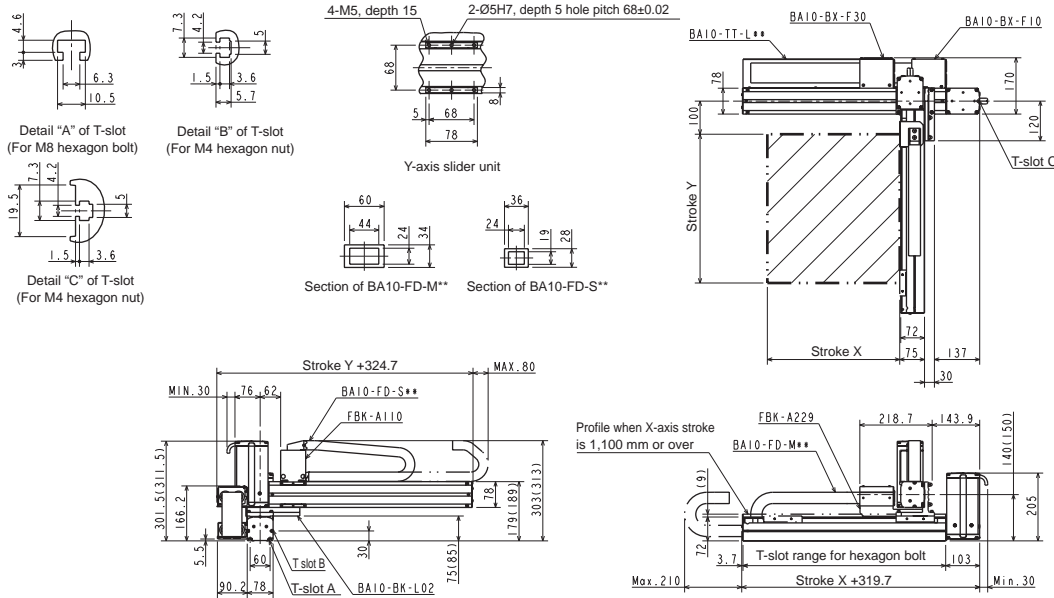
	X-axis	Y-axis
Type of axis	BE10E-BT-M21N-□ 0	BE10E-B□ -S21N-□ 5
Stroke (in increments of 100 mm)	100 ~ 2500mm	150 ~ 650mm
Maximum speed	1000mm/ s	1000mm/ s
Positioning repeatability	± 0.04mm	
Lead	21 mm	21 mm
Motor output	100W	100W
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.4 sec. or over

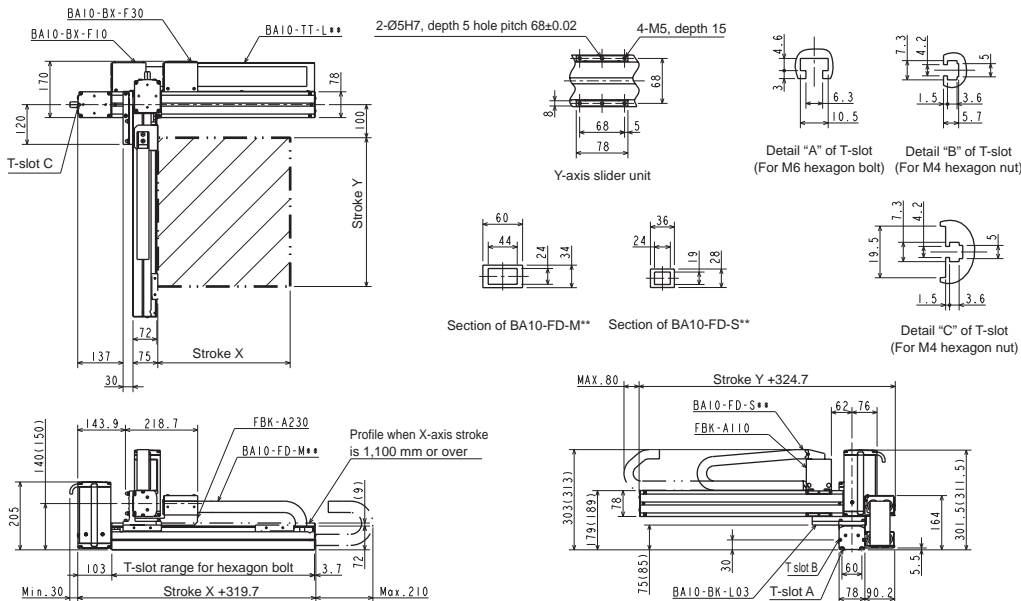
Maximum payload (kg)	Y-axis stroke					
	150mm	250mm	350mm	450mm	550mm	650mm
	8.0	8.0	6.0	5.0	3.0	1.0

R: Right-handed

The values in parentheses are applicable when the X-axis stroke is 1,050 mm or over.



L: Left-handed



X-Y Flexible-duct Spec.

## [Set designation]

**BA3 - L1 - A2B RC - 40 45 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 10: 100mm 90: 900mm A0: 1000mm H0: 1700mm	Axis 2 stroke J0: 1800mm N0: 2200mm P0: 2300mm R0: 2500mm	Axis 1 stroke 15: 150mm 65: 650mm	Controller (CA25-M10) 0: None 1: NPN output specifications Other: See page 20	Cable length 3: 3m 5: 5m 7: 7m	Cable length 9: 9m B: 11m D: 13m
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## Timing belt type

- X-axis: Timing belt driven  
Side mounted motor
- Y-axis: Timing belt driven  
Side mounted motor

## [Specifications]

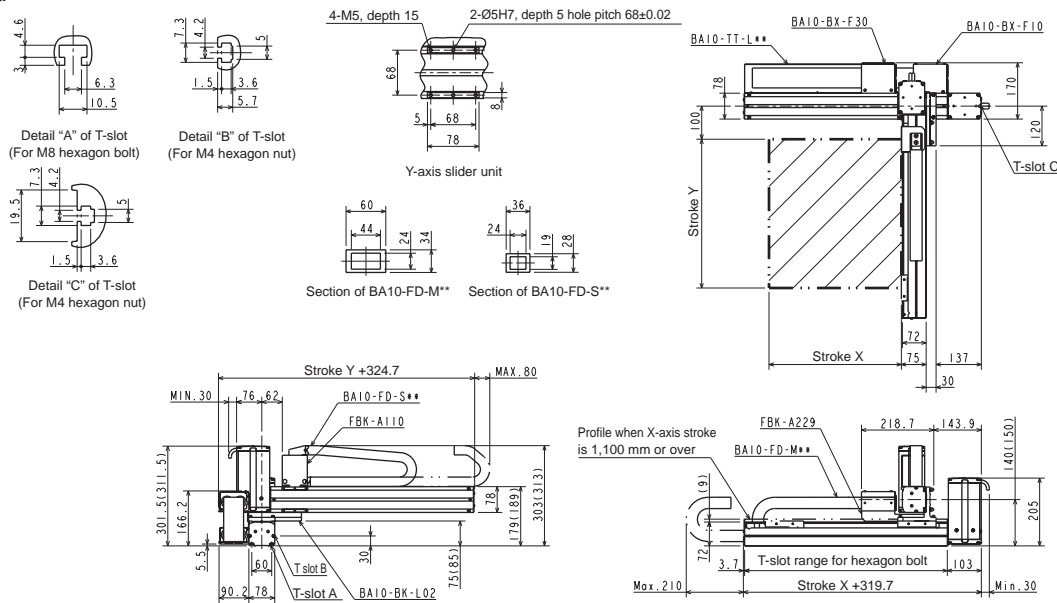
	X-axis	Y-axis
Type of axis	BE10F-BT-M21N-□ 0	BE10E-B□ -S21N-□ 5
Stroke (in increments of 100 mm)	100 ~ 2500mm	150 ~ 650mm
Maximum speed	1000mm/ s	1000mm/ s
Positioning repeatability	± 0.04mm	
Lead	21mm	21mm
Motor output	200W	100W
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.3 sec. or over

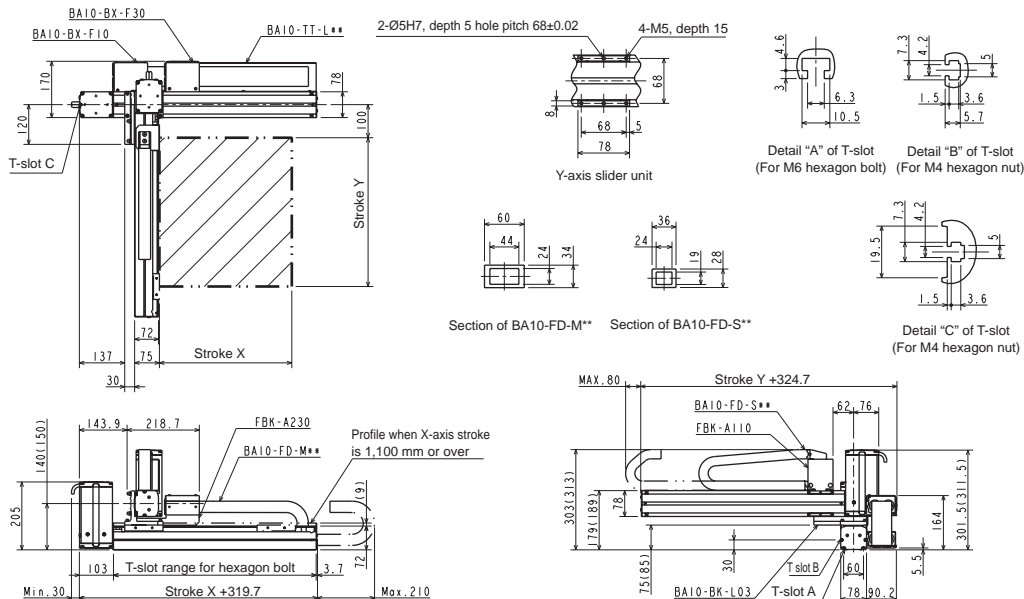
Maximum payload (kg)	Y-axis stroke					
	150mm	250mm	350mm	450mm	550mm	650mm
	9.0	8.0	6.0	5.0	3.0	1.0

## R: Right-handed

The values in parentheses are applicable when the X-axis stroke is 1,050 mm or over.



## L: Left-handed



[Set designation]

**BA3 - L3 - A2A R C - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length	
R: Right-handed	10 : 100mm 90 : 900mm A0 : 1000mm H0 : 1700mm	JO : 1800mm NO : 2200mm PO : 2300mm VO : 2900mm W0 : 3000mm W20 : 3200mm	10 : 100mm 80 : 800mm	0 : None 1 : NPN output specifications Other : See page 20	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

Timing belt type

X-axis: Timing belt driven  
Side mounted motor

Y-axis: Timing belt driven  
Side mounted motor

[Specifications]

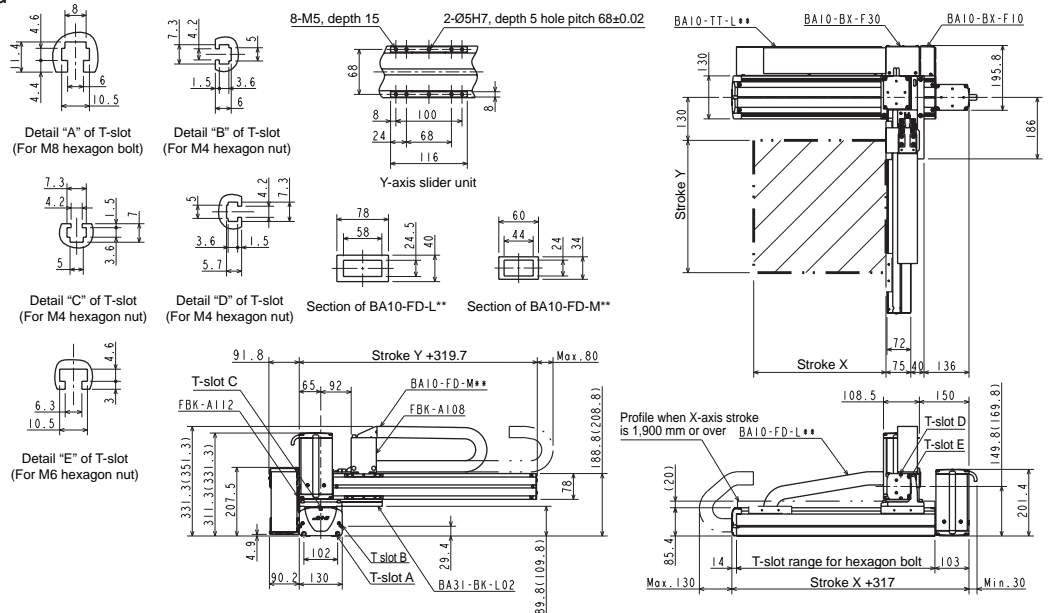
	X-axis	Y-axis
Type of axis	BE30E-BT-M21N-□ 0	BE10E-B□ -M21N-□ 0
Stroke (in increments of 100 mm)	100 ~ 3200mm	100 ~ 800mm
Maximum speed	1000mm/s	1000mm/s
Positioning repeatability	±0.04mm	
Lead	21mm	21mm
Motor output	100W	100W
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.3 sec. or over

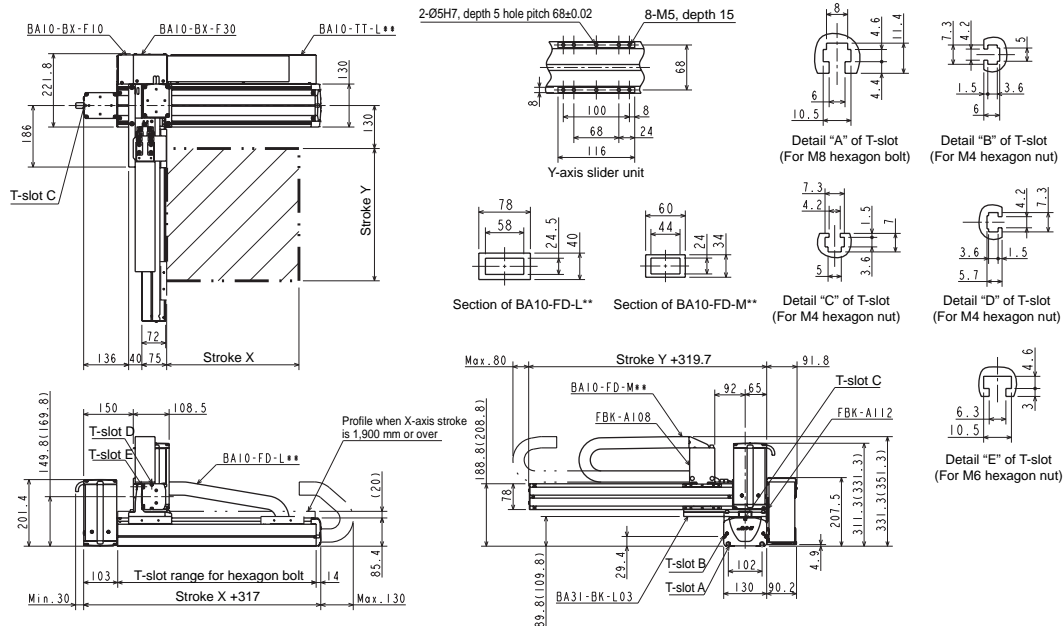
Maximum payload (kg)	Y-axis stroke							
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm
	8.0	7.0	6.0	6.0	5.0	5.0	1.0	1.0

R: Right-handed

The values in parentheses are applicable when the X-axis stroke is 1,850 mm or over.



L: Left-handed



## [Set designation]

**BA3 - L3 - A2B R C - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length
R: Right-handed	10 : 100mm JO : 1800mm	10 : 100mm	0 : None	3 : 3m 9 : 9m
L: Left-handed	90 : 900mm AO : 1000mm HO : 1700mm	NO : 2200mm PO : 2300mm VO : 2900mm W0 : 3000mm W20 : 3200mm	1 : NPN output specifications Other : See page 20	5 : 5m B : 11m 7 : 7m D : 13m

## Timing belt type

X-axis: Timing belt driven  
Side mounted motor

Y-axis: Timing belt driven  
Side mounted motor

## [Specifications]

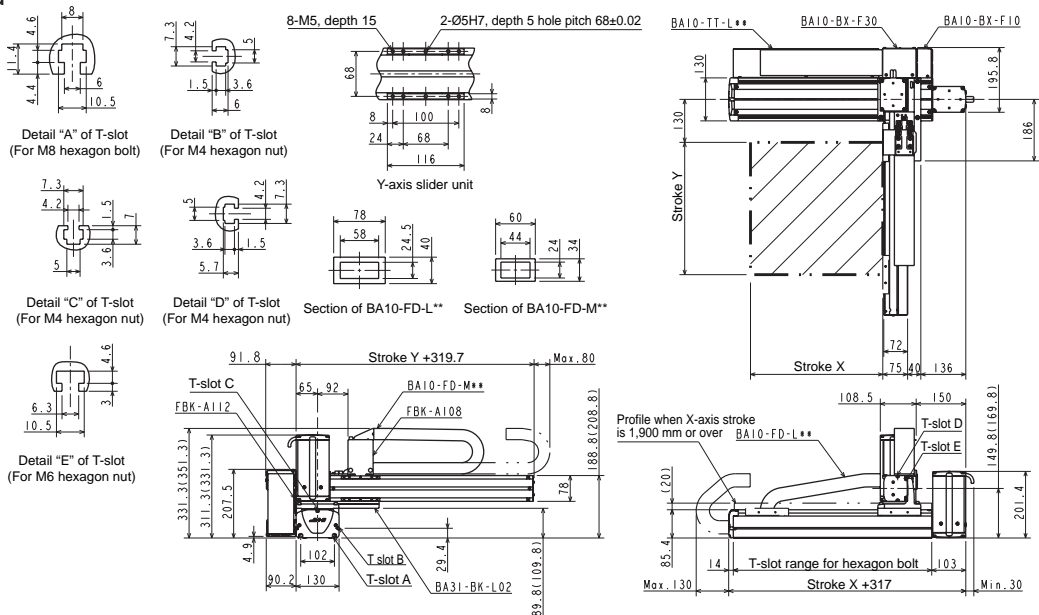
	X-axis	Y-axis
Type of axis	BE30F-BT-M21N-□ 0	BE10E-B□ -M21N-□ 0
Stroke (in increments of 100 mm)	100 ~ 3200mm	100 ~ 800mm
Maximum speed	1000mm/s	1000mm/s
Positioning repeatability	± 0.04mm	
Lead	21 mm	21 mm
Motor output	200W	100W
Resolution	0.01 mm	

Acceleration/deceleration time when the maximum speed is set: 0.3 sec. or over

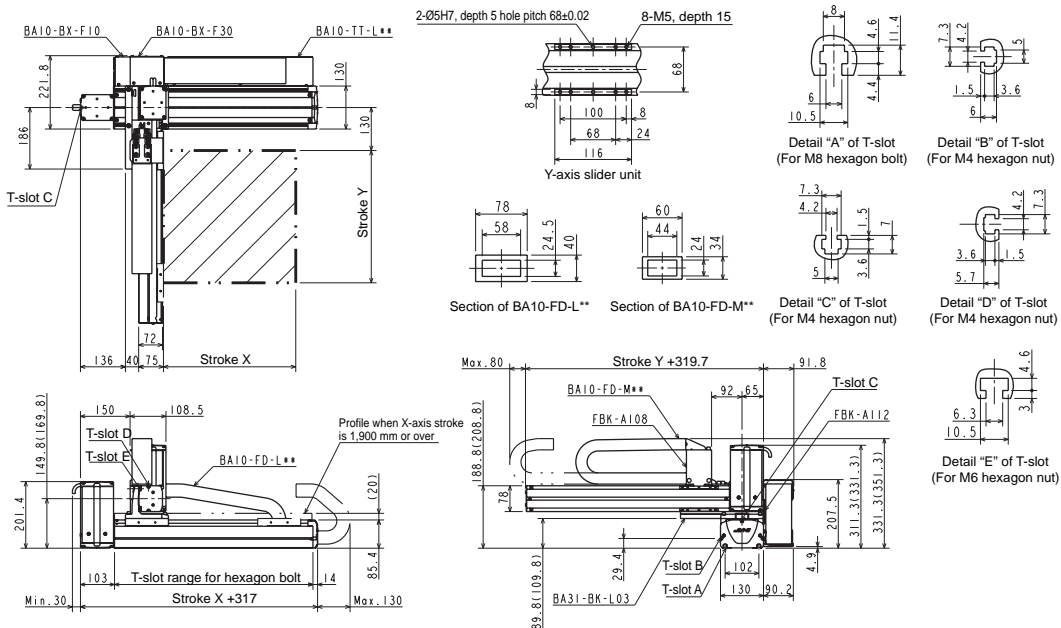
Maximum payload (kg)	Y-axis stroke							
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm
	15.0	15.0	14.0	11.0	8.0	6.0	4.0	2.0

## R: Right-handed

The values in parentheses are applicable when the X-axis stroke is 1,850 mm or over.



## L: Left-handed





[Set designation]

**BA3 - L3 - A2C R C - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length
R: Right-handed	10 : 100mm	JO : 1800mm	0 : None	3 : 3m 9 : 9m
L: Left-handed	90 : 900mm	NO : 2200mm	1 : NPN output specifications	5 : 5m B : 11m
	A0 : 1000mm	PO : 2300mm	Other : See page 20	7 : 7m D : 13m
	H0 : 1700mm	V0 : 2900mm		
	W0 : 3000mm			
	W20 : 3200mm			

Timing belt type

X-axis: Timing belt driven  
Side mounted motor

Y-axis: Timing belt driven  
Side mounted motor

[Specifications]

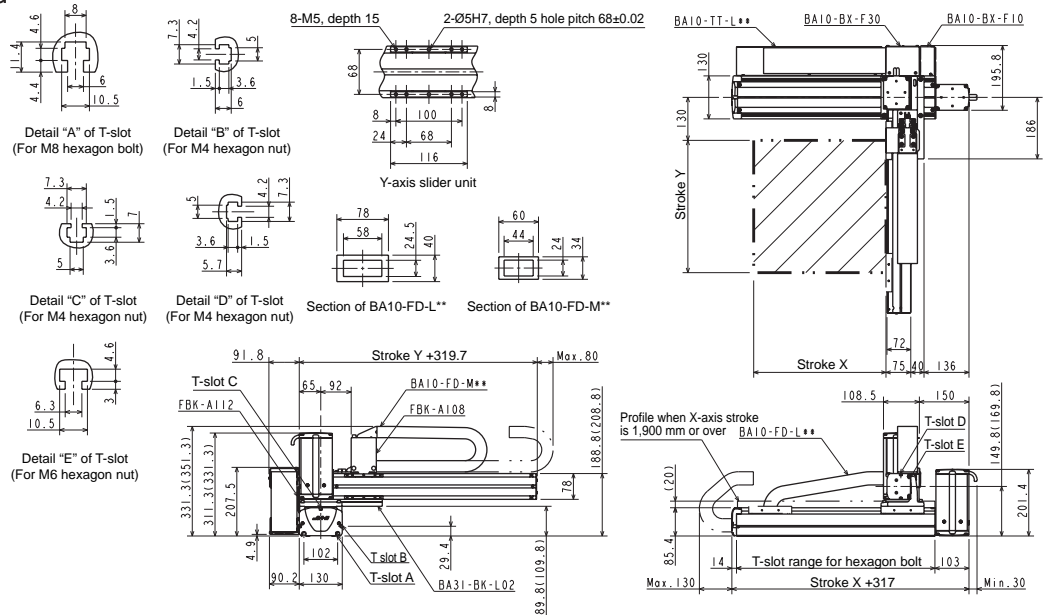
	X-axis	Y-axis
Type of axis	BE30F-BT-M21N-□ 0	BE10F-B□ -M21N-□ 0
Stroke (in increments of 100 mm)	100 ~ 3200mm	100 ~ 800mm
Maximum speed	1000mm/s	1000mm/s
Positioning repeatability	±0.04mm	
Lead	21mm	21mm
Motor output	200W	200W
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.3 sec. or over

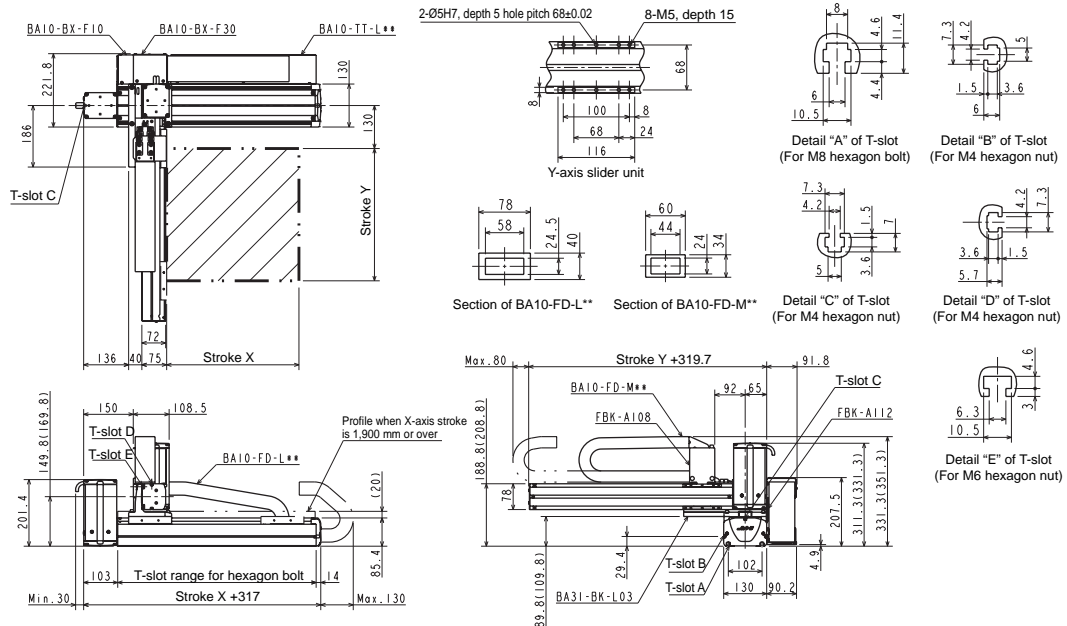
Maximum payload (kg)	Y-axis stroke							
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm
	20.0	18.0	14.0	11.0	8.0	6.0	4.0	2.0

R: Right-handed

The values in parentheses are applicable when the X-axis stroke is 1,850 mm or over.



L: Left-handed



## [Set designation]

**BA3 - L5 - A2A R C - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length	
R: Right-handed	10 : 100mm 90 : 900mm A0 : 1000mm H0 : 1700mm	J0 : 1800mm N0 : 2200mm P0 : 2300mm V0 : 2900mm W0 : 3000mm W60 : 3500mm	10 : 100mm 90 : 900mm A0 : 1000mm	0 : None 1 : NPN output specifications Other : See page 20	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

## Timing belt type

X-axis: Timing belt driven  
Side mounted motor

Y-axis: Timing belt driven  
Side mounted motor

## [Specifications]

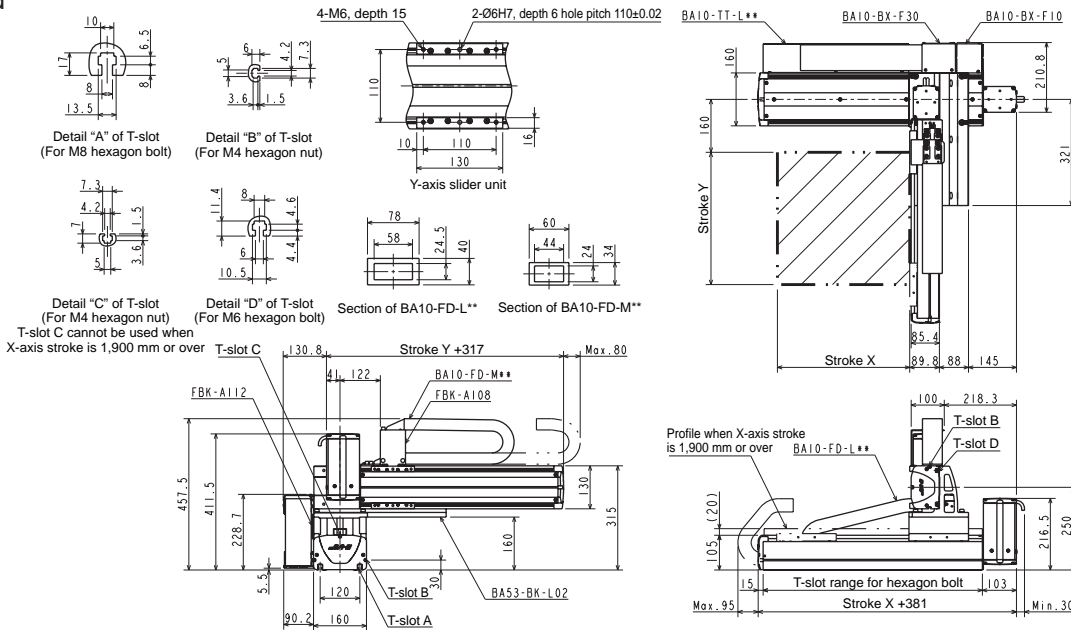
	X-axis	Y-axis
Type of axis	BE50F-BT-M21N-□ 0	BE30E-B□ -M21N-□ 0
Stroke (in increments of 100 mm)	200 ~ 3500mm	100 ~ 1000mm
Maximum speed	1000mm/s	1000mm/s
Positioning repeatability	±0.04mm	
Lead	21 mm	21 mm
Motor output	200W	100W
Resolution	0.01 mm	

Acceleration/deceleration time when the maximum speed is set: 0.3 sec. or over

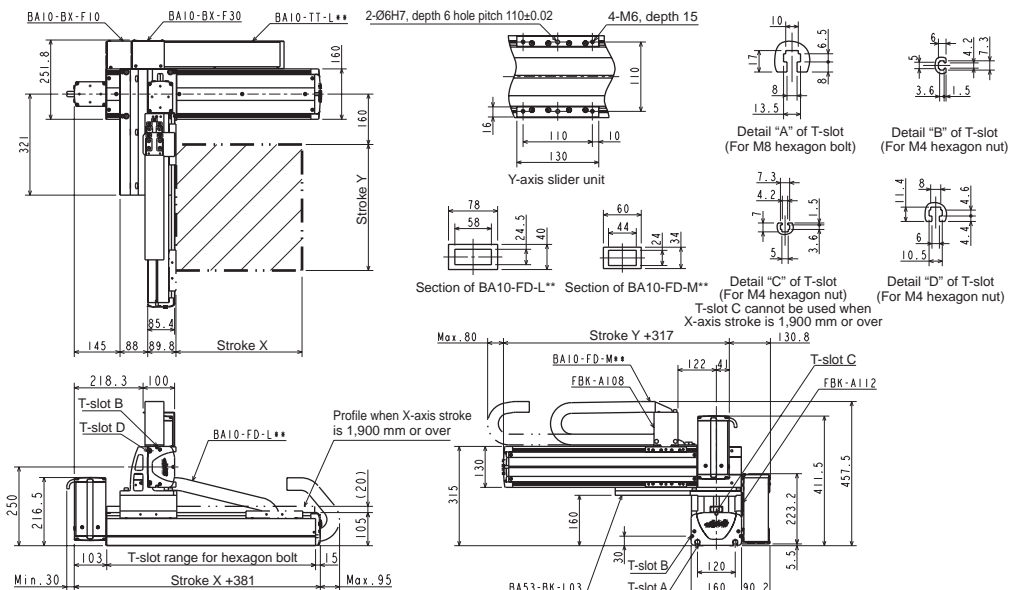
Maximum payload (kg)	Y-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	15.0	15.0	15.0	15.0	15.0	15.0	15.0	13.0	12.0	11.0

## R: Right-handed

The values in parentheses are applicable when the X-axis stroke is 1,850 mm or over.



## L: Left-handed



[Set designation]

**BA3 - L5 - A2B R C - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length	
R: Right-handed	10 : 100mm 90 : 900mm A0 : 1000mm H0 : 1700mm	JO : 1800mm NO : 2200mm PO : 2300mm V0 : 2900mm W0 : 3000mm W50 : 3500mm	10 : 100mm 90 : 900mm A0 : 1000mm	0 : None 1 : NPN output specifications Other : See page 20	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

**Timing belt type**

X-axis: Timing belt driven  
Side mounted motor

Y-axis: Timing belt driven  
Side mounted motor

[Specifications]

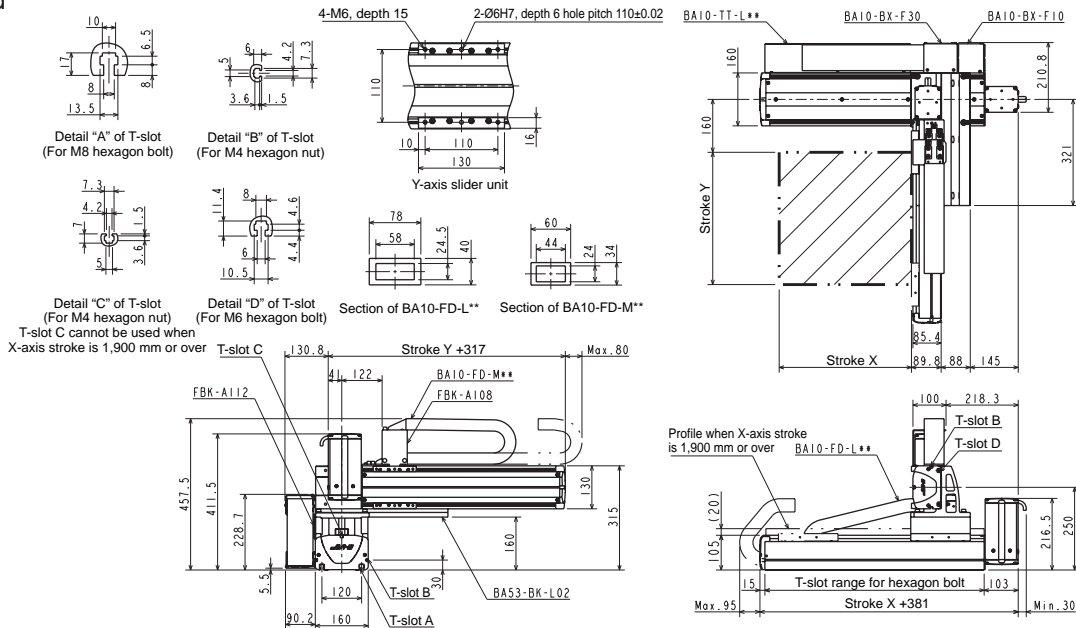
	X-axis	Y-axis
Type of axis	BE50F-BT-M21N-□ 0	BE30F-B□ -M21N-□ 0
Stroke (in increments of 100 mm)	200 ~ 3500mm	100 ~ 1000mm
Maximum speed	1000mm/s	1000mm/s
Positioning repeatability	±0.04mm	
Lead	21mm	21mm
Motor output	200W	200W
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.3 sec. or over

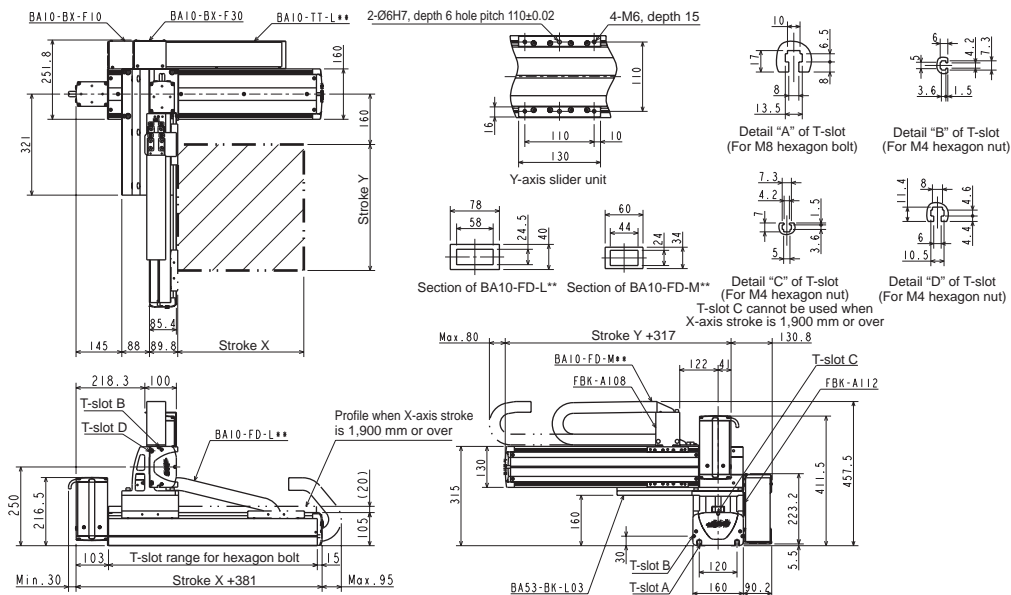
Maximum payload (kg)	Y-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	20.0	19.0	18.0	17.0	16.0	15.0	14.0	13.0	12.0	10.0

**R: Right-handed**

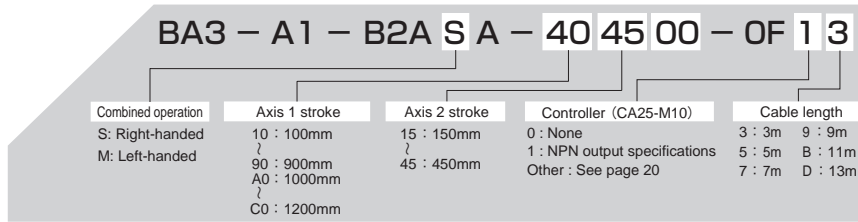
The values in parentheses are applicable when the X-axis stroke is 1,850 mm or over.



**L: Left-handed**



## [Set designation]



## Ball screw type

X-axis: Ball screw driven  
Motor straight

Z-axis: Ball screw driven  
Motor straight

## [Specifications]

	X-axis	Z-axis
Type of axis	BE10E-ST-M20N-□0	BE10E-ST-S10B-□5
Stroke (in increments of 100 mm)	100 ~ 1200mm	150 ~ 450mm
Maximum speed	1200mm/s (Note 1)	600mm/s
Positioning repeatability	±0.01mm	
Lead	20mm	10mm
Motor output	100W	100W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

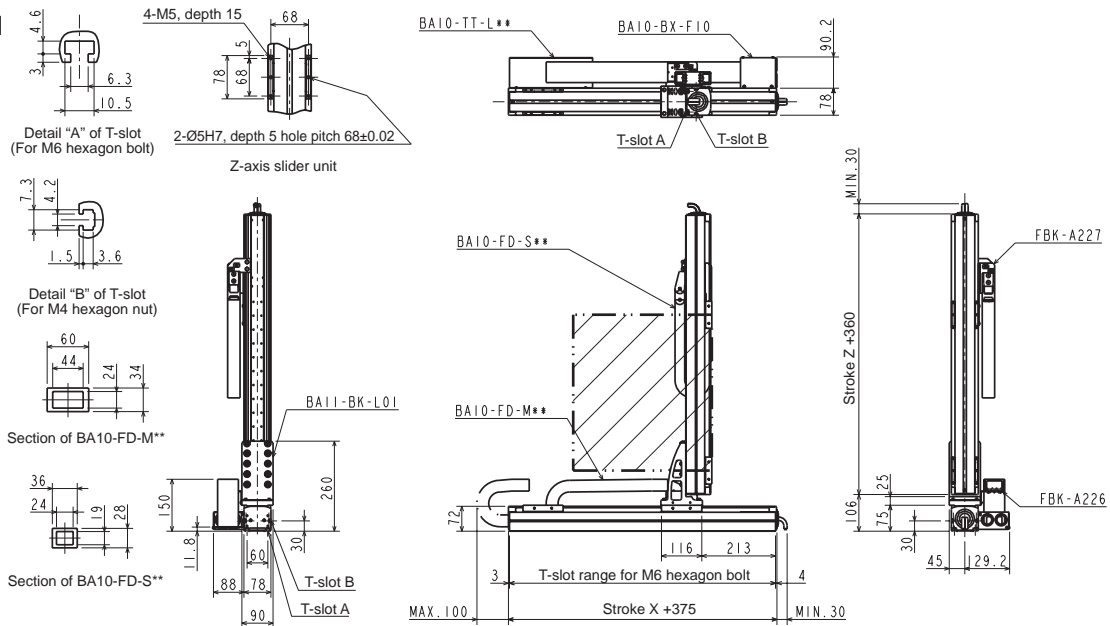
	Stroke (mm)	Maximum speed (mm/s)
X-axis	700	1000
	800	800
	900~1000	600
	1100~1200	400

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

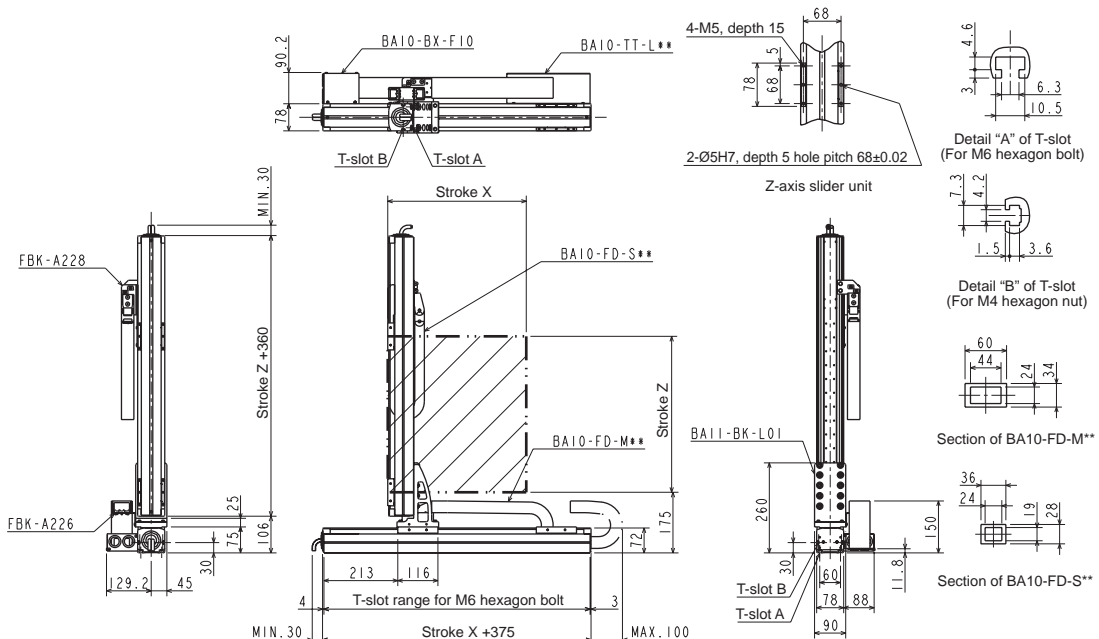
Maximum payload (kg) (Note 2)	Z-axis stroke			
	150mm	250mm	350mm	450mm
	8.0	6.0	4.0	2.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

### S: Right-handed



### M: Left-handed



[Set designation]

**BA3 - A3 - B2A S A - 45 40 00 - OF 1 3**

Combined operation S: Right-handed M: Left-handed	Axis 1 stroke 10 : 100mm 95 : 950mm A5 : 1050mm C5 : 1250mm	Axis 2 stroke 10 : 100mm 70 : 700mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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**Ball screw type**

X-axis: Ball screw driven  
Motor straight

Z-axis: Ball screw driven  
Motor straight

[Specifications]

	X-axis	Z-axis
Type of axis	BE30E-ST-M20N-□5	BE10E-ST-M10B-□0
Stroke (in increments of 100 mm)	150 ~ 1250mm	100 ~ 700mm
Maximum speed	1200mm/s (Note 1)	600mm/s (Note 1)
Positioning repeatability	±0.01mm	
Lead	20mm	10mm
Motor output	100W	100W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

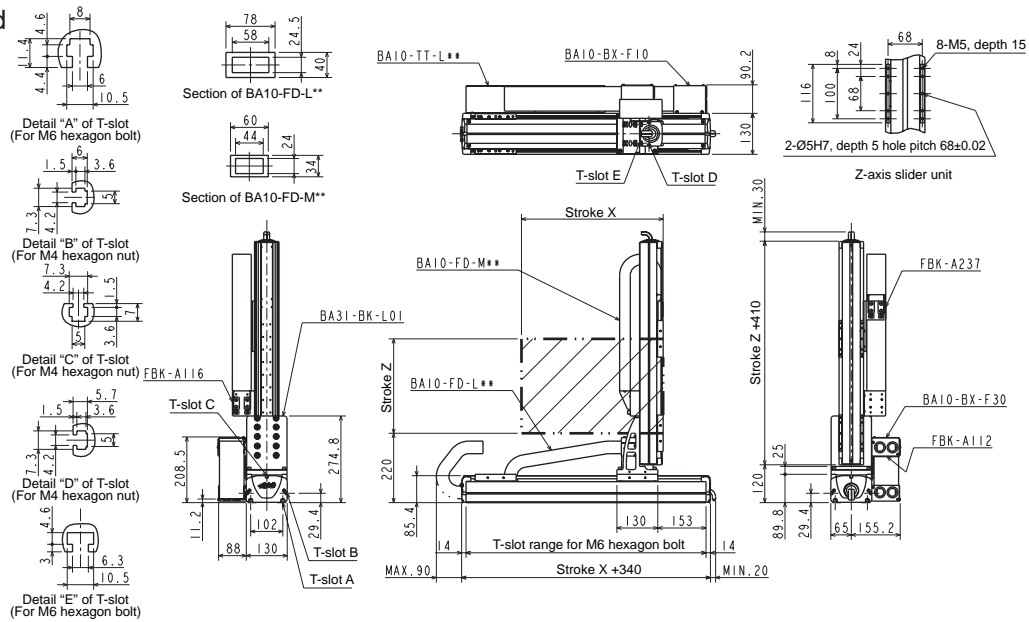
	Stroke (mm)	Maximum speed (mm/s)
X-axis	750	1000
	850	800
	950~1050	600
Z-axis	1150~1250	400
Z-axis	700	500

Acceleration/deceleration time when the maximum speed is set: 0.6 sec. or over

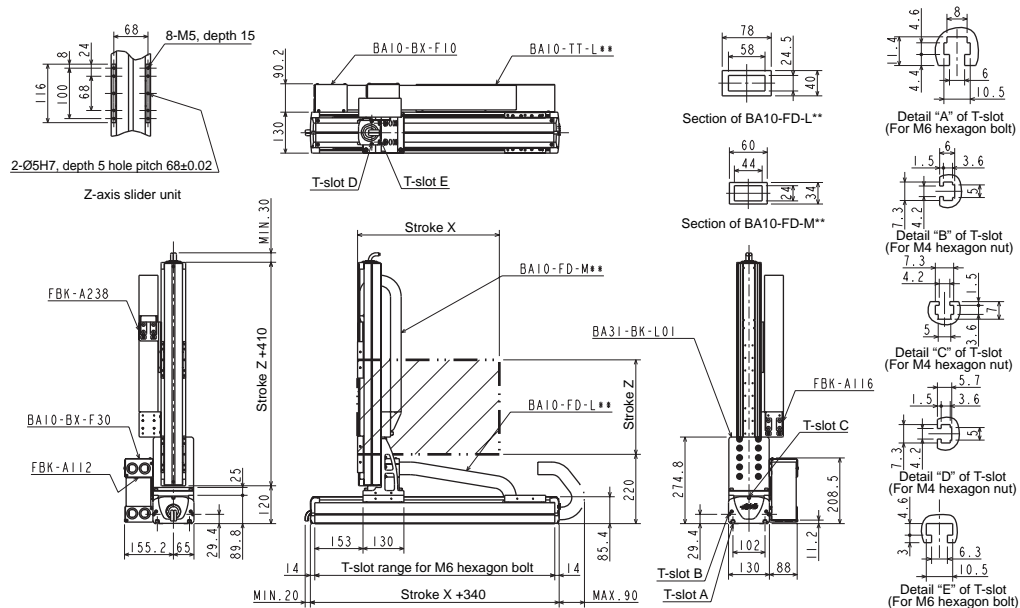
Maximum payload (kg) (Note 2)	Z-axis stroke						
	100mm	200mm	300mm	400mm	500mm	600mm	700mm
	9.0	8.0	8.0	8.0	6.0	4.0	2.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

**S: Right-handed**



**M: Left-handed**



## [Set designation]

**BA3 - A3 - B2B S A - 40 40 00 - OF 1 3**

Combined operation S: Right-handed M: Left-handed	Axis 1 stroke 10 : 100mm 90 : 900mm A0 : 1000mm C0 : 1200mm	Axis 2 stroke 10 : 100mm 90 : 900mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## Ball screw type

X-axis: Ball screw driven  
Motor straight

Z-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
X-axis	700	1000
	800	800
	900~1000	600
	1100~1200	400
Z-axis	700	500
	800	400
	900	300

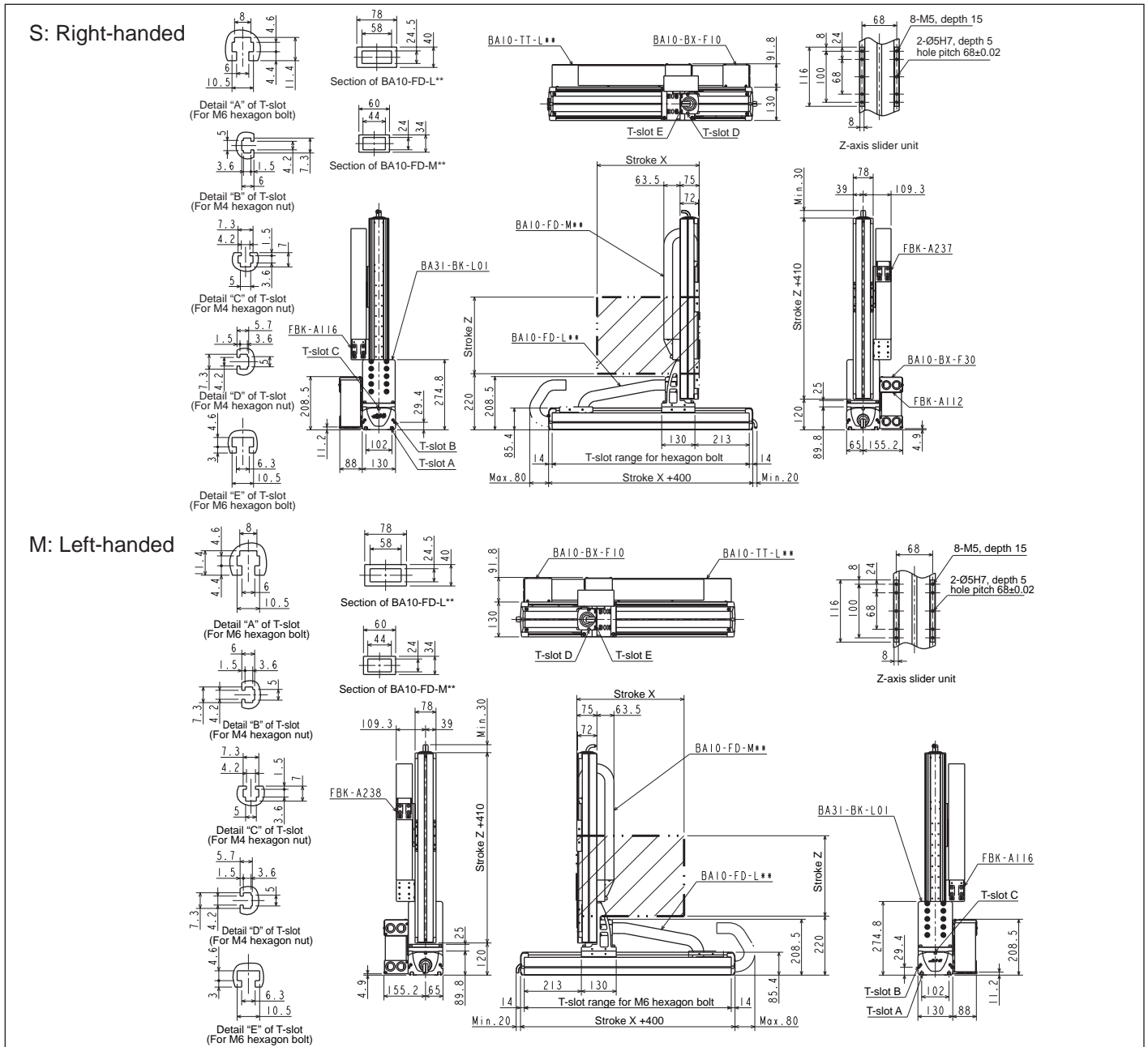
## [Specifications]

	X-axis	Z-axis
Type of axis	BE30F-ST-M20N-□ 0	BE10E-ST-M10B-□ 0
Stroke (in increments of 100 mm)	100 ~ 1200mm	100 ~ 900mm
Maximum speed	1200mm/s (Note 1)	600mm/s (Note 1)
Positioning repeatability	± 0.01mm	
Lead	20mm	10mm
Motor output	200W	100W, with brake
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

Maximum payload (kg) (Note 2)	Z-axis stroke								
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm
	12.0	12.0	12.0	12.0	12.0	10.0	4.0	2.0	2.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.



[Set designation]

**BA3 – A5 – B2A S A – 40 45 00 – OF 1 3**

Combined operation S: Right-handed M: Left-handed	Axis 1 stroke 20 : 200mm 90 : 900mm A0 : 1000mm G0 : 1600mm	Axis 2 stroke 15 : 150mm 95 : 950mm A5 : 1050mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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**Ball screw type**

X-axis: Ball screw driven  
Motor straight

Z-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

[Specifications]

	X-axis	Z-axis
Type of axis	BE50F-ST-M20N-□ 0	BE30E-ST-M10B-□ 0
Stroke (in increments of 100 mm)	200 ~ 1600mm	150 ~ 1050mm
Maximum speed	1200mm/s (Note 1)	600mm/s (Note 1)
Positioning repeatability	± 0.01mm	
Lead	20mm	10mm
Motor output	200W	100W, with brake
Resolution	0.01mm	

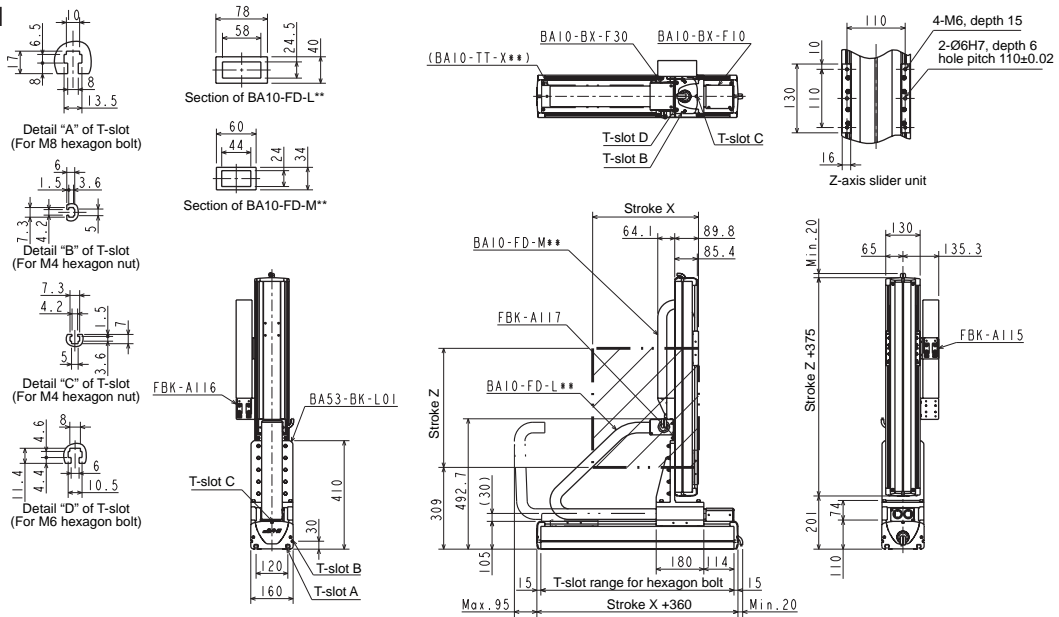
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

	Stroke (mm)	Maximum speed (mm/s)
X-axis	700~800	1100
	900~1000	1000
	1100~1200	700
	1300	500
	1400	400
	1500	300
Z-axis	1600	200
	750	500
	850	400
	950~1050	300

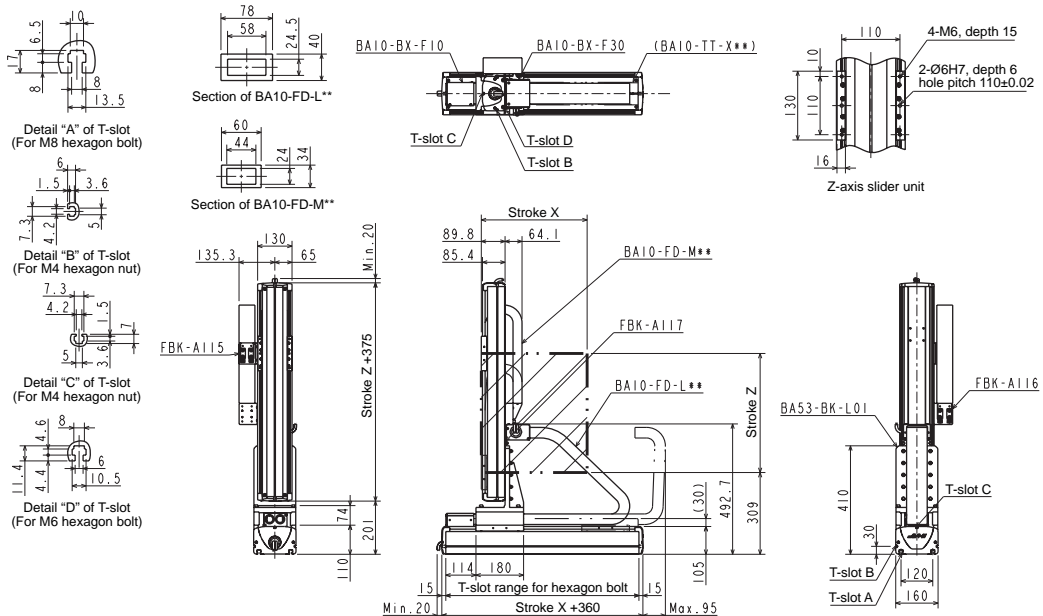
Maximum payload (kg) (Note 2)	Z-axis stroke									
	150mm	250mm	350mm	450mm	550mm	650mm	750mm	850mm	950mm	1050mm
	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	8.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

**S: Right-handed**

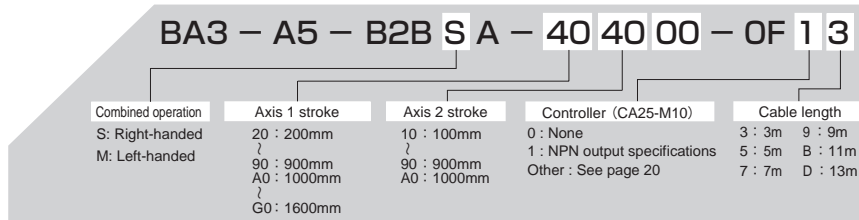


**M: Left-handed**





## [Set designation]



## Ball screw type

X-axis: Ball screw driven  
Motor straight

Z-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

## [Specifications]

	X-axis	Z-axis
Type of axis	BE50F-ST-M20N-□ 0	BE30F-ST-M10B-□ 0
Stroke (in increments of 100 mm)	200 ~ 1600mm	100 ~ 1000mm
Maximum speed	1200mm/s (Note 1)	600mm/s (Note 1)
Positioning repeatability	± 0.01mm	
Lead	20mm	10mm
Motor output	200W	200W, with brake
Resolution	0.01mm	

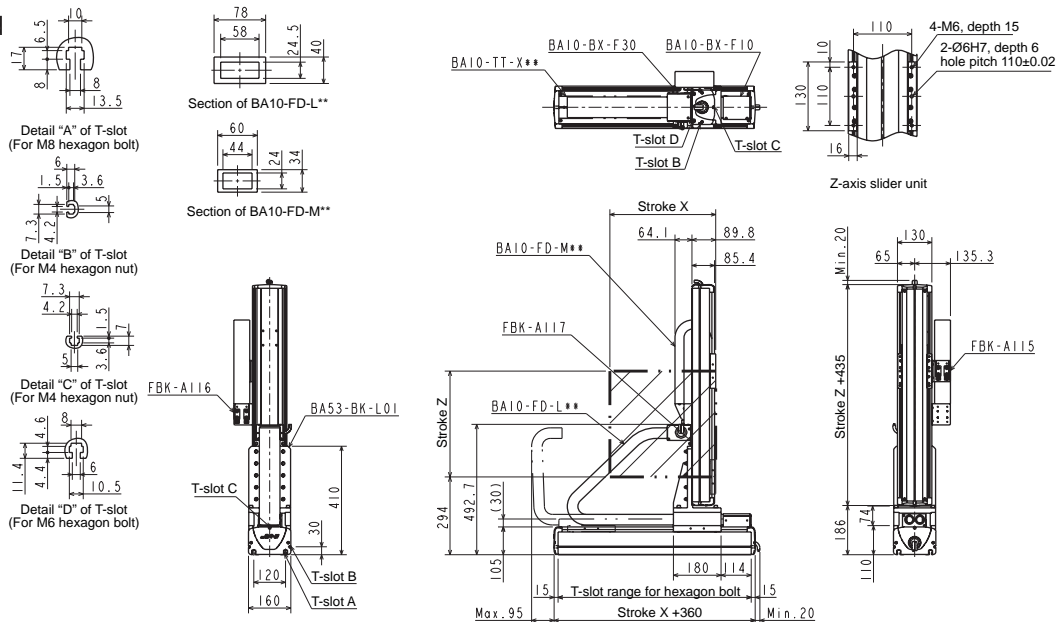
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

	Stroke (mm)	Maximum speed (mm/s)
X-axis	700~800	1100
	900~1000	1000
	1100~1200	700
	1300	500
	1400	400
	1500	300
Z-axis	1600	200
	700	500
	800~1000	400

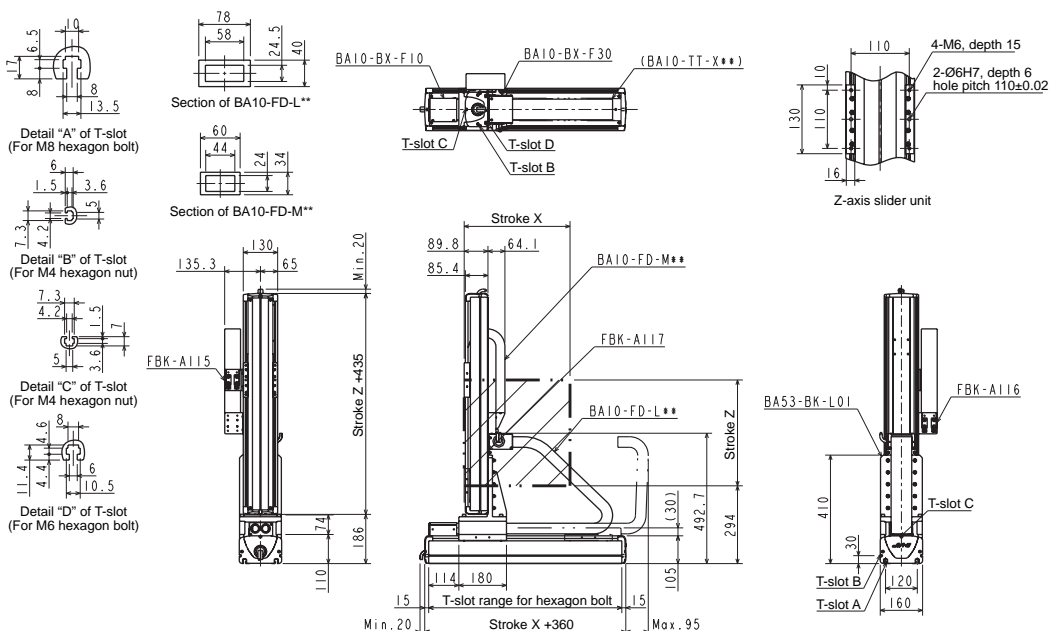
Maximum payload (kg) (Note 2)	Z-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	20.0	20.0	20.0	20.0	20.0	20.0	16.0	13.0	9.0	7.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

### S: Right-handed



### M: Left-handed



[Set designation]

**BA3 - A5 - B2C S A - 40 40 00 - OF 1 3**

Combined operation S: Right-handed M: Left-handed	Axis 1 stroke 20 : 200mm 90 : 900mm A0 : 1000mm G0 : 1600mm	Axis 2 stroke 20 : 200mm 90 : 900mm A0 : 1000mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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**Ball screw type**

X-axis: Ball screw driven  
Motor straight

Z-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

[Specifications]

	X-axis	Z-axis
Type of axis	BE50F-ST-M20N-□ 0	BE50F-ST-M10B-□ 0
Stroke (in increments of 100 mm)	200 ~ 1600mm	200 ~ 1000mm
Maximum speed	1200mm/s (Note 1)	600mm/s (Note 1)
Positioning repeatability	± 0.01mm	
Lead	20mm	10mm
Motor output	200W	200W, with brake
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.6 sec. or over

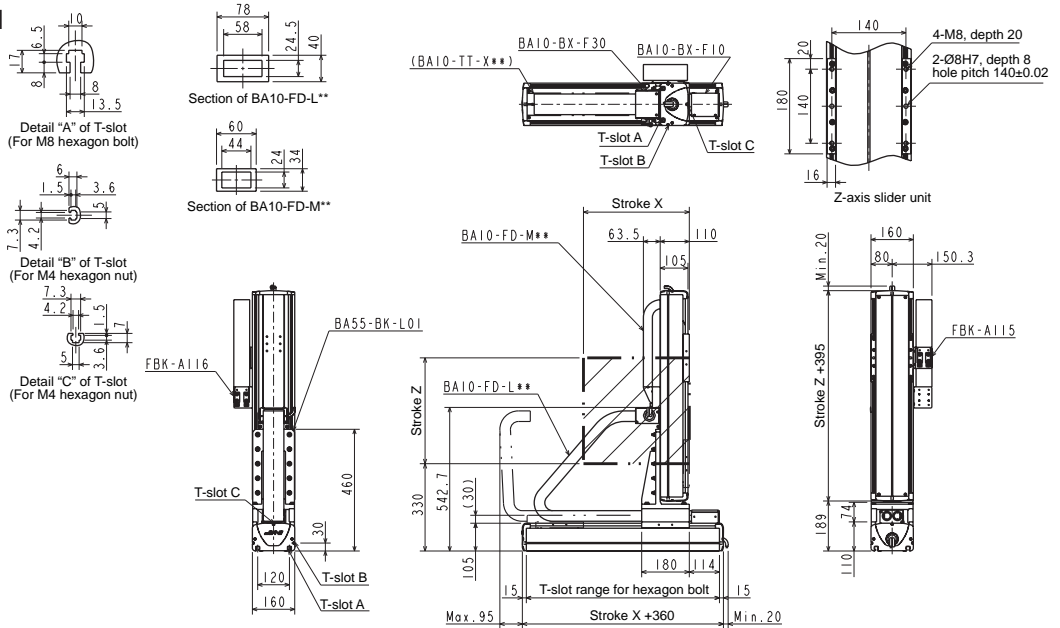
	Stroke (mm)	Maximum speed (mm/s)
X-axis	700~800	1100
	900~1000	1000
	1100~1200	700
	1300	500
	1400	400
	1500	300
Z-axis	1600	200
	750	500
	850	400
	950~1050	300

Maximum payload (kg) (Note 2)	Z-axis stroke									
	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm	
	20.0	20.0	20.0	20.0 (19.0)	20.0 (17.0)	20.0 (15.0)	19.0 (13.0)	12.0 (11.0)	10.0	

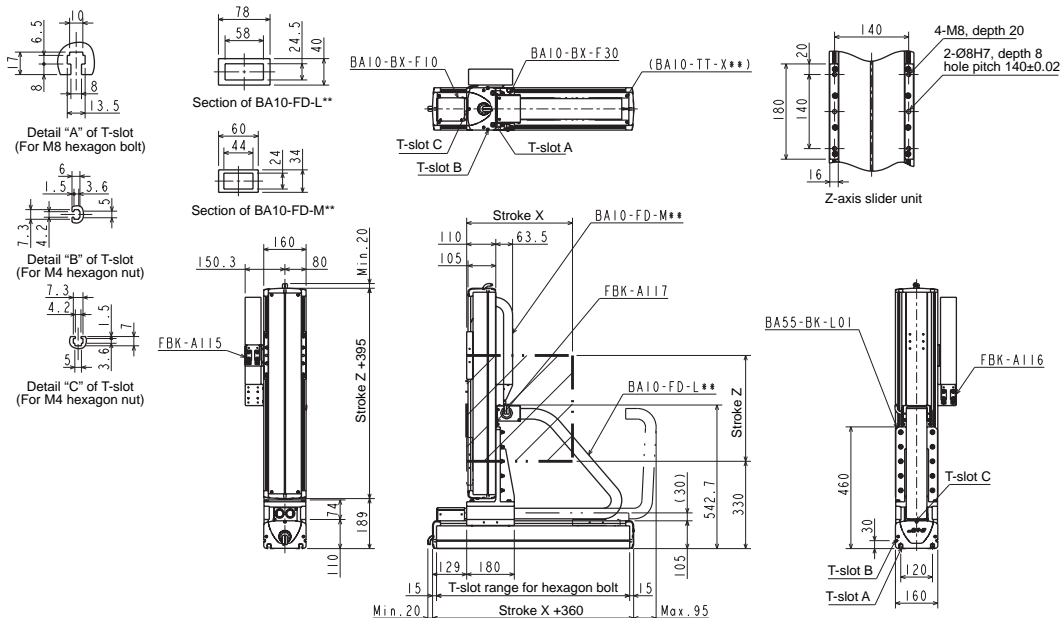
Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

When the X-axis speed exceeds 1,000 mm/s, the values in parentheses are used for the maximum payload.

**S: Right-handed**



**M: Left-handed**



## [Set designation]

**BA3 - L1 - B2A S S - 40 45 00 - OF 1 3**

Combined operation S: Right-handed M: Left-handed	Axis 1 stroke 10 : 100mm 90 : 900mm A0 : 1000mm H0 : 1700mm	Axis 2 stroke 15 : 150mm 45 : 450mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 5 : 5m 7 : 7m	9 : 9m B : 11m D : 13m
	JO : 1800mm N0 : 2200mm PO : 2300mm R0 : 2500mm				

## Timing belt type

X-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Motor straight

## [Specifications]

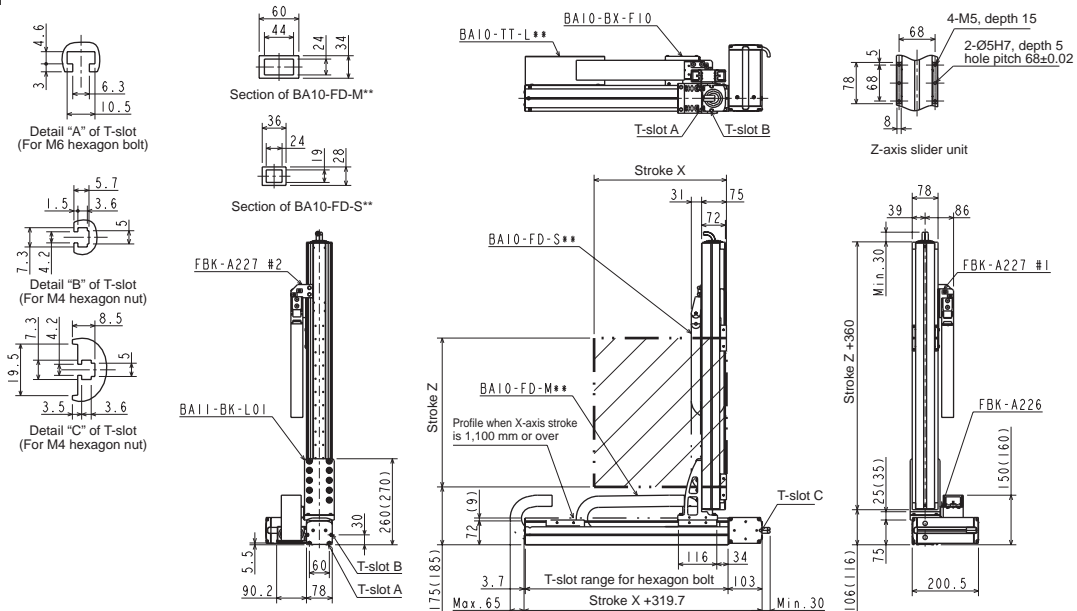
	X-axis	Z-axis
Type of axis	BE10E-B □ -M21N- □ 0	BE10E-ST-S10B- □ 5
Stroke (in increments of 100 mm)	100 ~ 2500mm	150 ~ 450mm
Maximum speed	1000mm/ s	600mm/ s
Positioning repeatability	± 0.04mm	± 0.01mm
Lead	21 mm (lead converted into ball screw)	10mm
Motor output	100W	100W, with brake
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.5 sec. or over

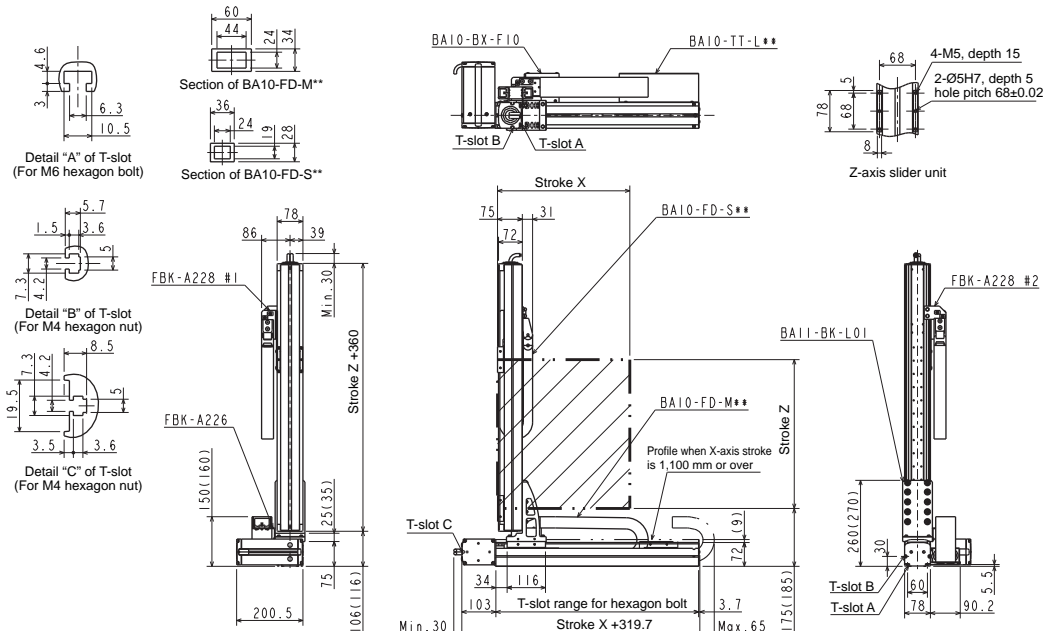
Maximum payload (kg)	Z-axis stroke			
	150mm	250mm	350mm	450mm
	7.0	6.0	4.0	2.0

## S: Right-handed

The values in parentheses are applicable when the X-axis stroke is 1,050 mm or over.



## M: Left-handed



[Set designation]

**BA3 - L1 - B2B S S - 40 45 00 - OF 1 3**

Combined operation S: Right-handed M: Left-handed	Axis 1 stroke 10 : 100mm 90 : 900mm A0 : 1000mm H0 : 1700mm	Axis 2 stroke 15 : 150mm 45 : 450mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 5 : 5m 7 : 7m	9 : 9m B : 11m D : 13m
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Timing belt type

X-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Motor straight

[Specifications]

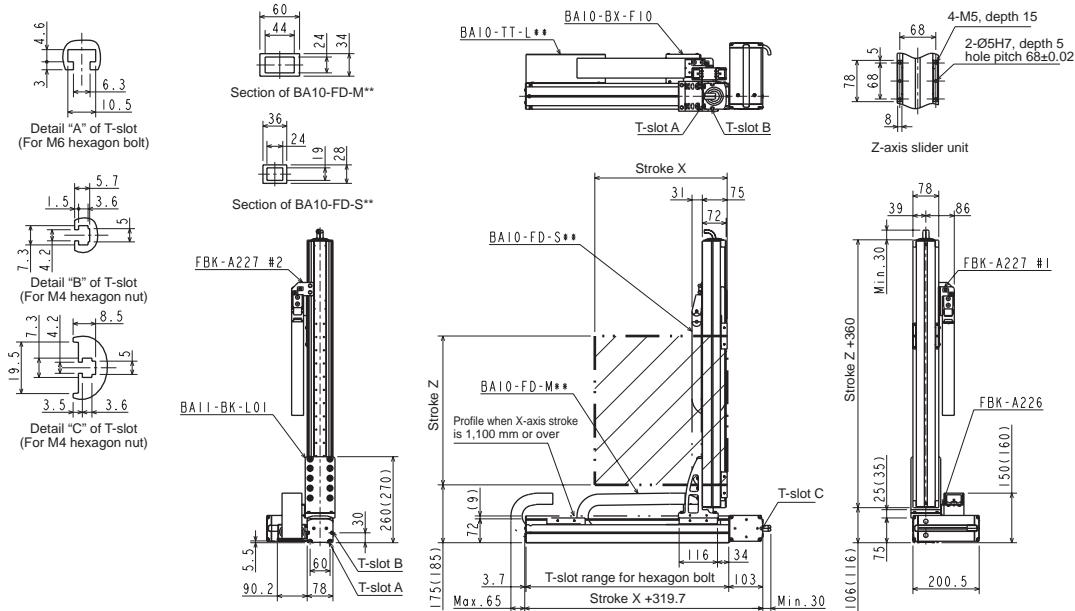
	X-axis	Z-axis
Type of axis	BE10F-B □ -M21N- □ 0	BE10E-ST-S10B- □ 5
Stroke (in increments of 100 mm)	100 ~ 2500mm	150 ~ 450mm
Maximum speed	1000mm/ s	600mm/ s
Positioning repeatability	± 0.04mm	± 0.01mm
Lead of ball screw	21 mm (lead converted into ball screw)	10mm
Motor output	200W	100W, with brake
Resolution	0.01 mm	

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

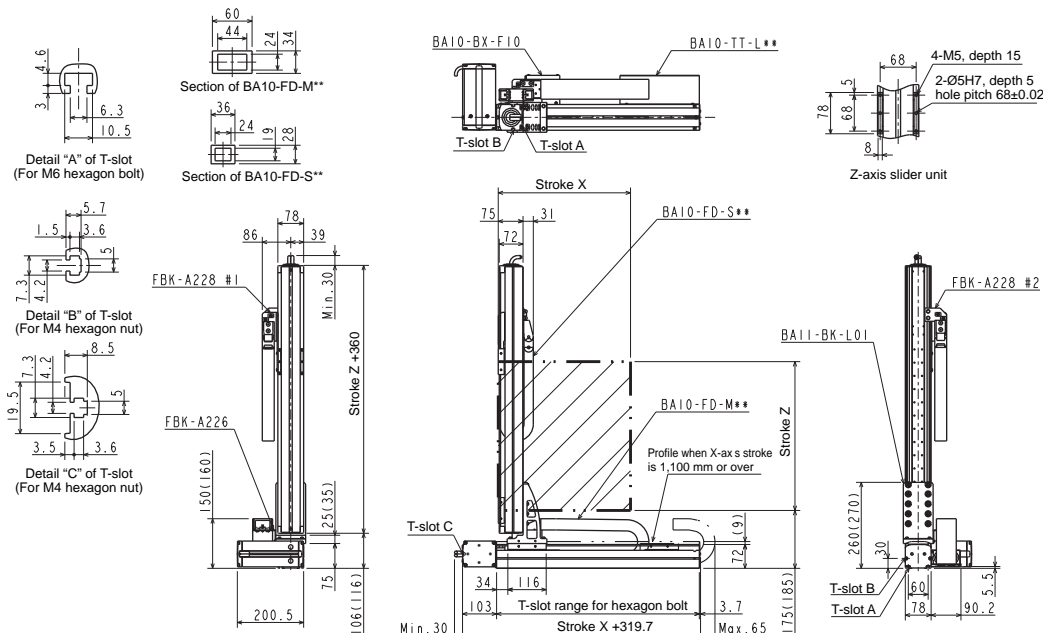
Maximum payload (kg)	Z-axis stroke			
	150mm	250mm	350mm	450mm
	8.0	6.0	4.0	2.0

S: Right-handed

The values in parentheses are applicable when the X-axis stroke is 1,050 mm or over.



M: Left-handed



## [Set designation]

**BA3 - L3 - B2A S S - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length
S: Right-handed	10 : 100mm JO : 1800mm	10 : 100mm	0 : None	3 : 3m 9 : 9m
M: Left-handed	90 : 900mm AO : 1000mm HO : 1700mm	NO : 2200mm PO : 2300mm VO : 2900mm W0 : 3000mm W20 : 3200mm	1 : NPN output specifications Other : See page 20	5 : 5m B : 11m 7 : 7m D : 13m

## Timing belt type

X-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Motor straight

## [Specifications]

	X-axis	Z-axis
Type of axis	BE30E-B □ -M21N- □ 0	BE10E-ST-M10B- □ 0
Stroke (in increments of 100 mm)	100 ~ 3200mm	100 ~ 700mm
Maximum speed	1000mm/s	600mm/s (Note 1)
Positioning repeatability	± 0.04mm	± 0.01mm
Lead	21mm(lead converted into ball screw)	10mm
Motor output	100W	100W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

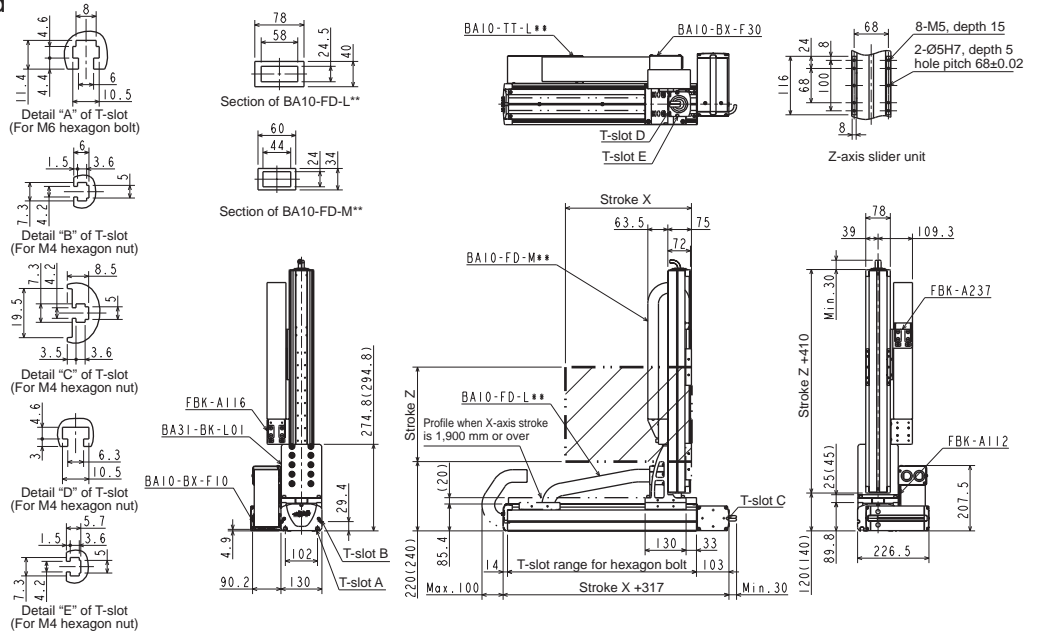
	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700	500

Acceleration/deceleration time when the maximum speed is set: 0.5 sec. or over

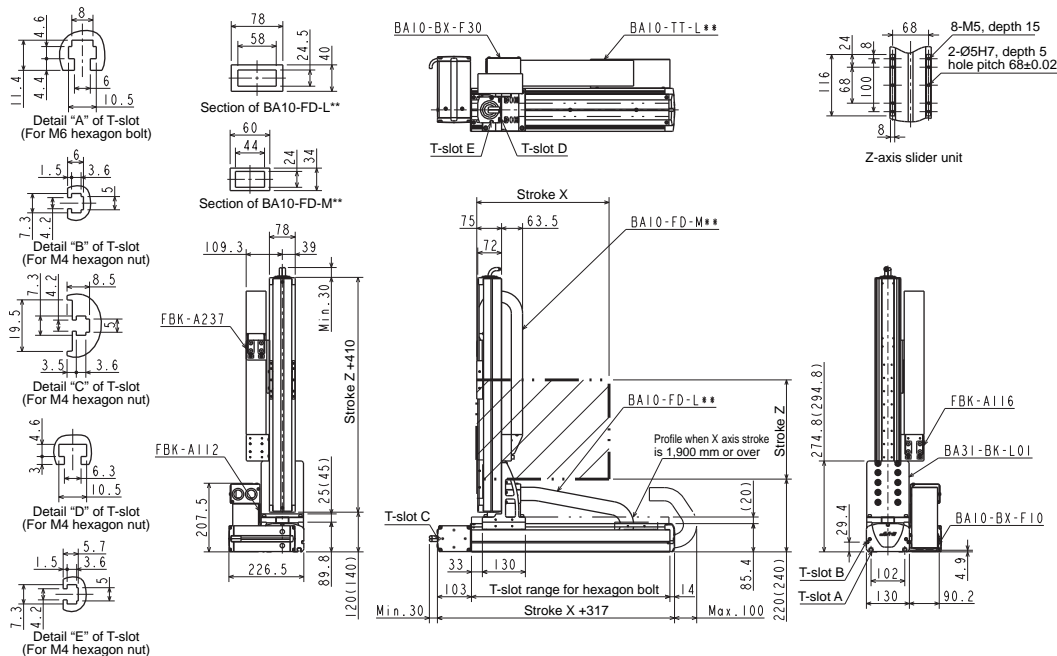
Maximum payload (kg)	Z-axis stroke						
	100mm	200mm	300mm	400mm	500mm	600mm	700mm
	5.0	4.0	4.0	3.0	2.0	2.0	1.0

## S: Right-handed

The values in parentheses are applicable when the X-axis stroke is 1,850 mm or over.



## M: Left-handed



[Set designation]

**BA3 - L3 - B2B S S - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length
S: Right-handed M: Left-handed	10 : 100mm 90 : 900mm A0 : 1000mm H0 : 1700mm JO : 1800mm NO : 2200mm PO : 2300mm VO : 2900mm W0 : 3000mm W20 : 3200mm	10 : 100mm 90 : 900mm	0 : None 1 : NPN output specifications Other : See page 20	3 : 3m 5 : 5m 7 : 7m 9 : 9m B : 11m D : 13m

Timing belt type

X-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Motor straight

[Specifications]

	X-axis	Z-axis
Type of axis	BE30F-B □ -M21N- □ 0	BE10E-ST-M10B- □ 0
Stroke (in increments of 100 mm)	100 ~ 3200mm	100 ~ 900mm
Maximum speed	1000mm/s	600mm/s (Note 1)
Positioning repeatability	± 0.04mm	± 0.01 mm
Lead	21 mm (lead converted into ball screw)	10mm
Motor output	200W	100W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700	500
	800	400
	900	300

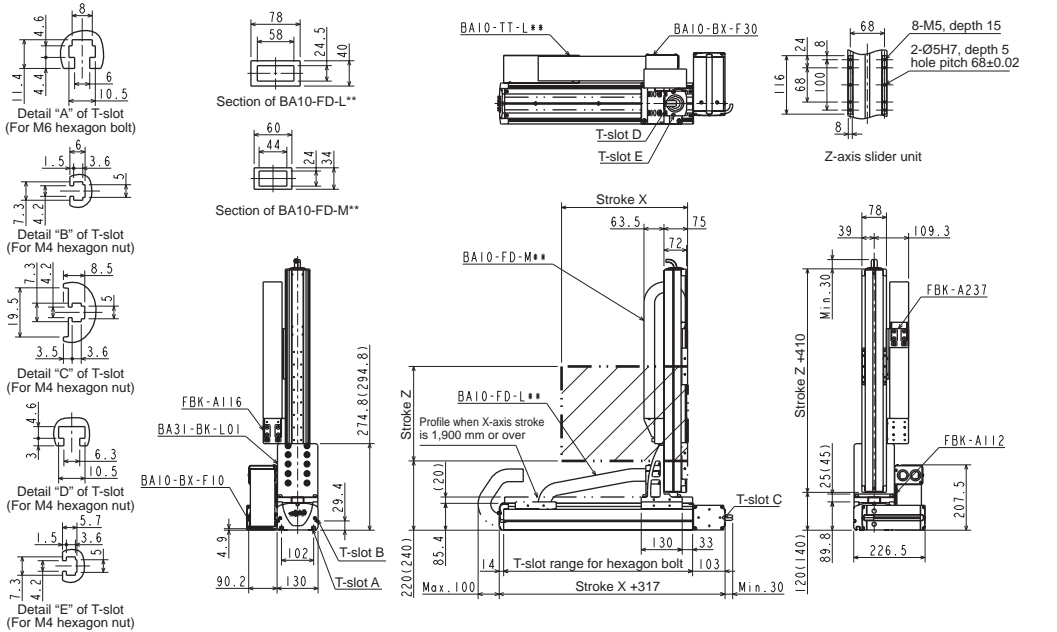
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

Maximum payload (kg) (Note 2)	Z-axis stroke								
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm
	12.0	12.0	12.0	12.0	12.0	10.0	4.0	2.0	2.0

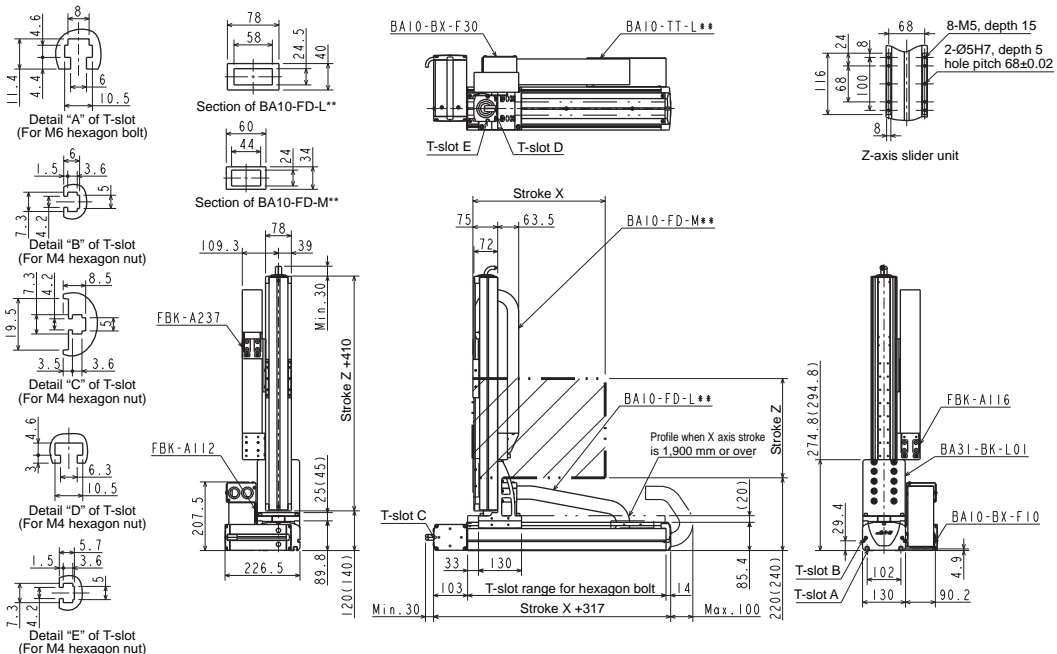
Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

S: Right-handed

The values in parentheses are applicable when the X-axis stroke is 1,850 mm or over.



M: Left-handed



## [Set designation]

**BA3 - L5 - B2A S S - 40 45 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length	
S: Right-handed M: Left-handed	20 : 200mm 90 : 900mm A0 : 1000mm H0 : 1700mm	JO : 1800mm NO : 2200mm PO : 2300mm VO : 2900mm W0 : 3000mm W50 : 3500mm	15 : 150mm 95 : 950mm A5 : 1050mm	0 : None 1 : NPN output specifications Other : See page 20	3 : 3m 5 : 5m 7 : 7m 9 : 9m B : 11m D : 13m

## Timing belt type

X-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Motor straight

## [Specifications]

	X-axis	Z-axis
Type of axis	BE50F-B □ -M21N- □ 0	BE30E-ST-M10B- □ 5
Stroke (in increments of 100 mm)	200 ~ 3500mm	150 ~ 1050mm
Maximum speed	1000mm/s	600mm/s (Note 1)
Positioning repeatability	±0.04mm	±0.01mm
Lead	21mm (lead converted into ball screw)	10mm
Motor output	200W	100W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

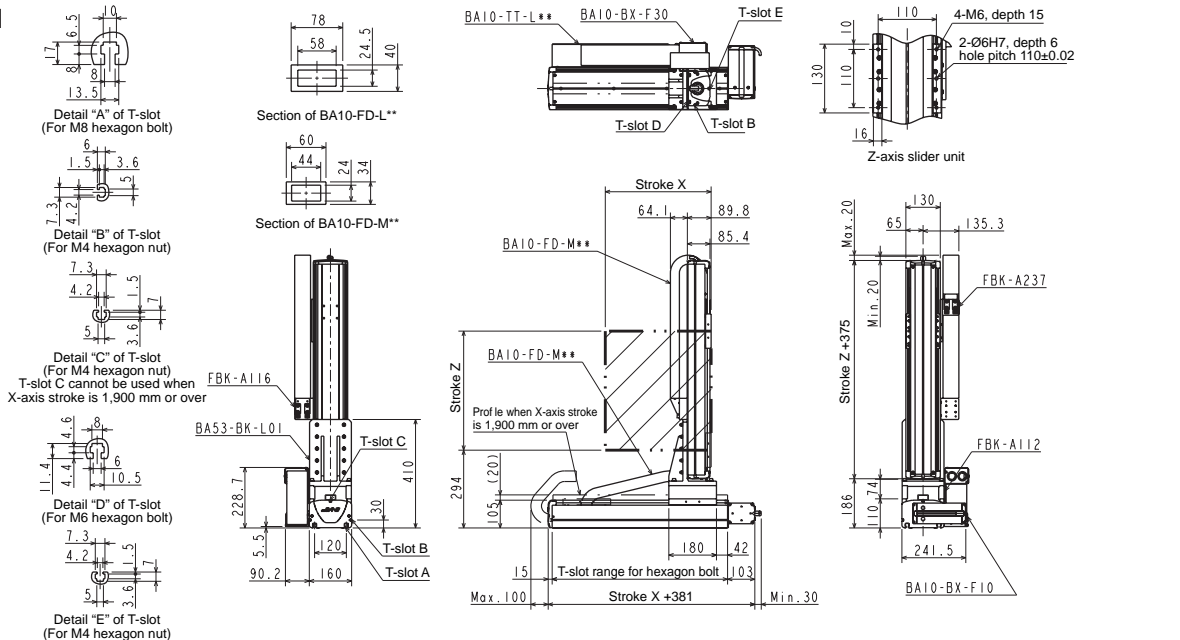
Z-axis	Stroke (mm)	Maximum speed (mm/s)
	750	500
	850	400
	950~1050	300

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

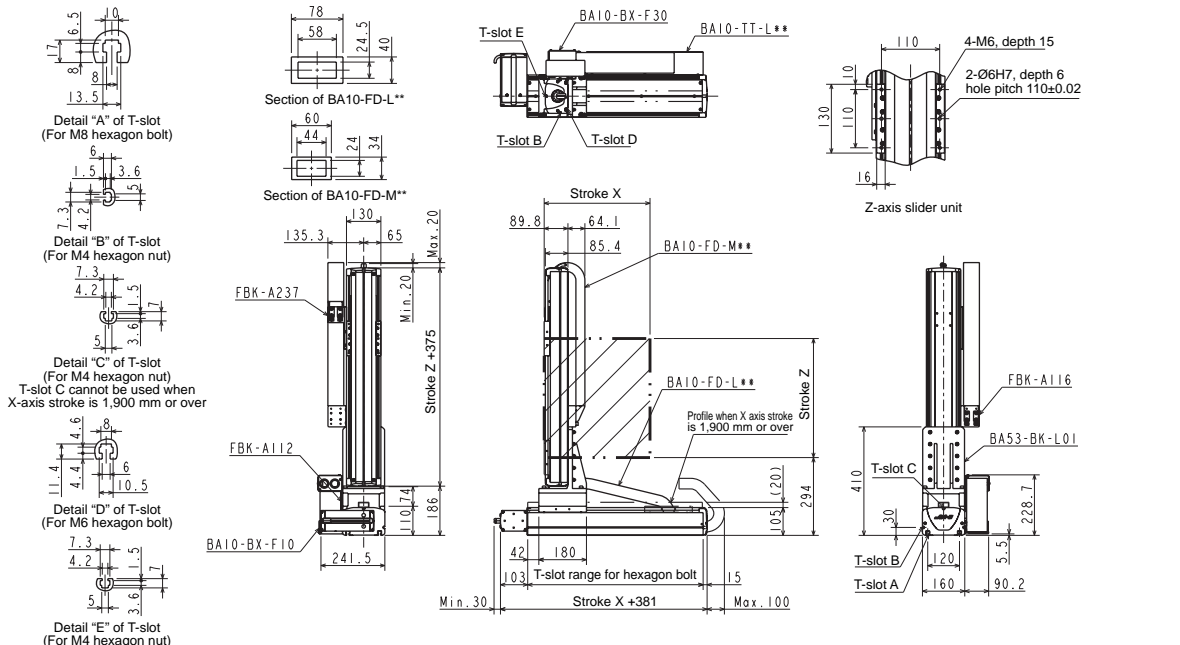
Maximum payload (kg) (Note 2)	Z-axis stroke									
	150mm	250mm	350mm	450mm	550mm	650mm	750mm	850mm	950mm	1050mm
	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	8.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

## S: Right-handed



## M: Left-handed





[Set designation]

**BA3 - L5 - B2B S S - 40 40 00 - OF 1 3**

Combined operation S: Right-handed M: Left-handed	Axis 1 stroke 20 : 200mm 90 : 900mm A0 : 1000mm H0 : 1700mm	Axis 2 stroke JO : 1800mm NO : 2200mm PO : 2300mm VO : 2900mm W0 : 3000mm W50 : 3500mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 5 : 5m 7 : 7m 9 : 9m B : 11m D : 13m
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Timing belt type

X-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Motor straight

[Specifications]

	X-axis	Z-axis
Type of axis	BE50F-B □ -M21N- □ 0	BE30F-ST-M10B- □ 0
Stroke (in increments of 100 mm)	200 ~ 3500mm	100 ~ 1000mm
Maximum speed	1000 mm/s	600 mm/s (Note 1)
Positioning repeatability	± 0.04mm	± 0.01 mm
Lead	21 mm (lead converted into ball screw)	10mm
Motor output	200W	200W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

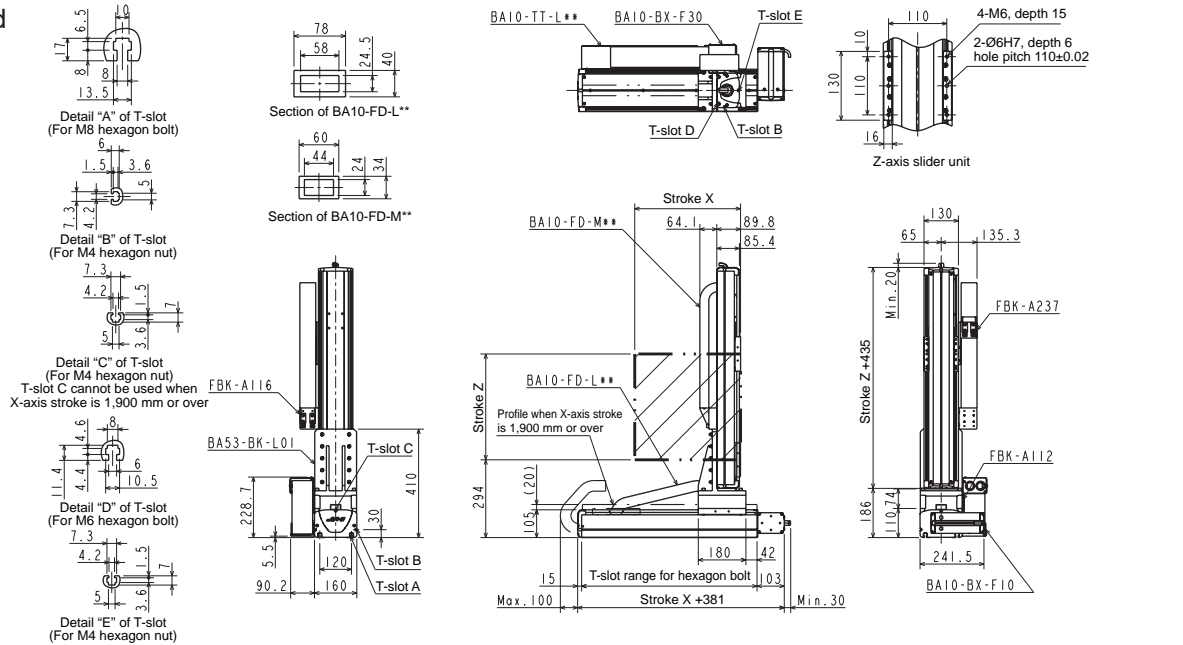
	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700	500
	800	400
	900~1000	300

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

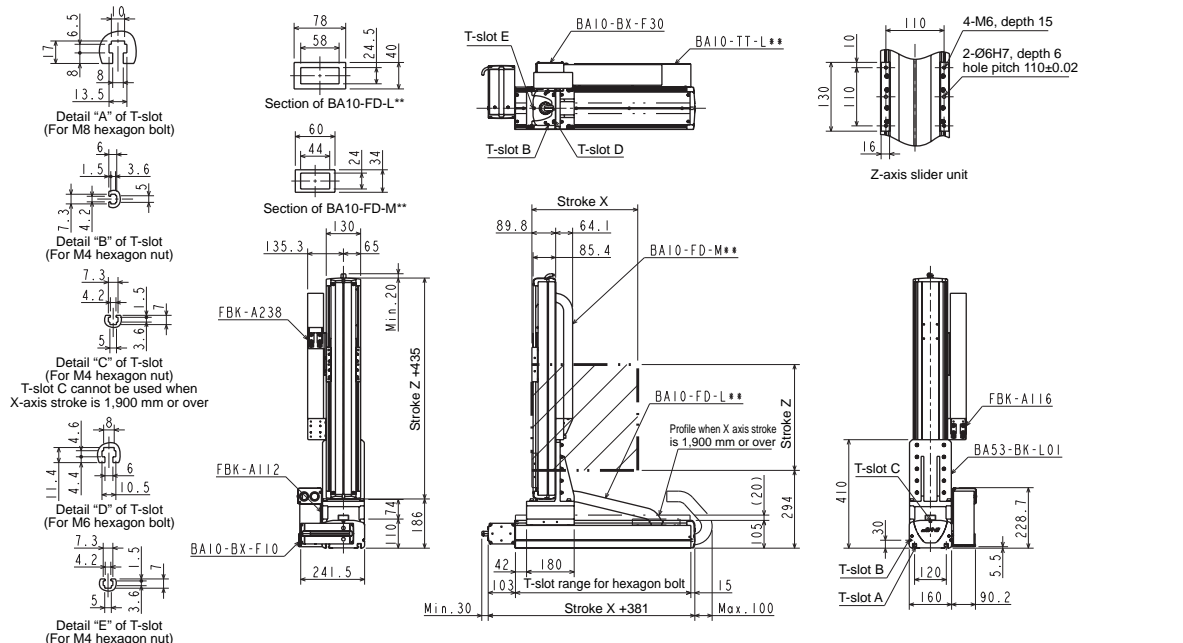
Maximum payload (kg) (Note 2)	Z-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	20.0	20.0	20.0	19.0	18.0	17.0	16.0	13.0	9.0	7.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

S: Right-handed



M: Left-handed



## [Set designation]

**BA3 - T7 - H2AR A - 40 40 00 - 00 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 05 : 50mm 70 : 700mm	Axis 2 stroke 05 : 50mm 50 : 500mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## Ball screw type

Y-axis: Ball screw driven  
Motor straight

Z-axis: Ball screw driven  
Motor straight

## [Specifications]

	Y-axis	Z-axis
Type of axis	BET7D-ST-M12N-□□	BET5D-ST-M06B-□□
Stroke (mm) (in increments of 50 mm)	50 ~ 600, 700	50 ~ 500
Maximum speed (mm/s)	800 (Note 1)	400 (Note 1)
Positioning repeatability (mm)	± 0.02	
Lead of ball screw (mm)	12	6
Motor output	50W	50W, with brake
Resolution (mm)	0.01	

Note 1: When the stroke is as given below, the maximum speed differs.

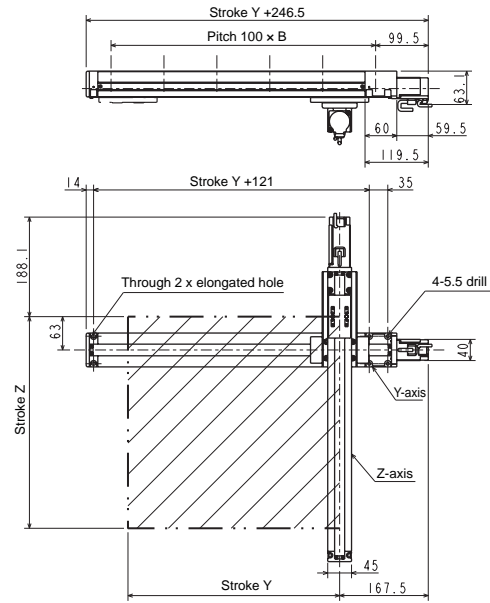
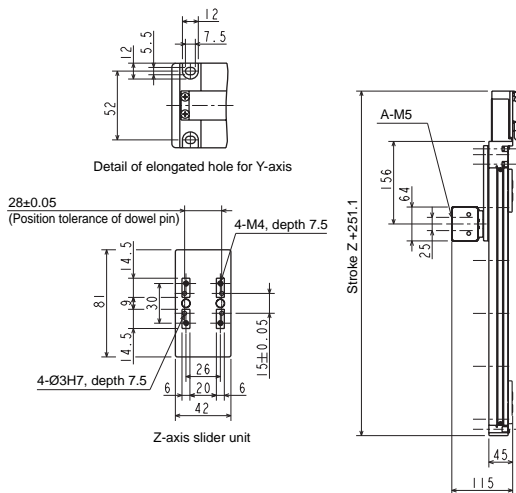
	Stroke (mm)	Maximum speed (mm/s)
Y-axis	50~550	800
	600	680
	700	500
Z-axis	500	340

Acceleration/deceleration time when the maximum speed is set: 0.3 sec. or over

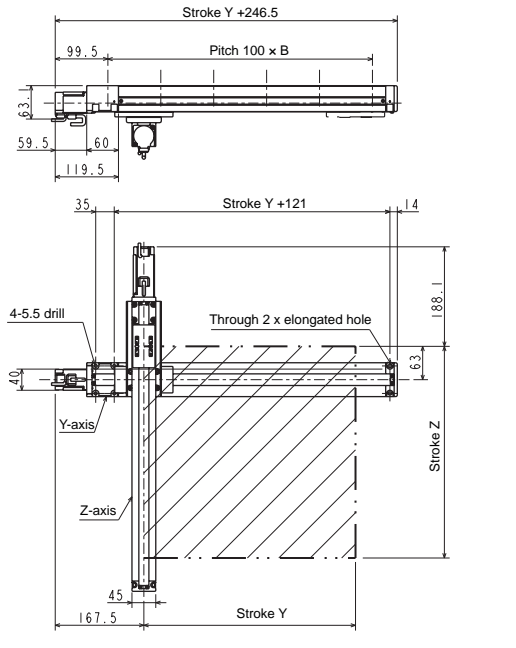
Maximum payload (kg)	Z-axis stroke									
	50mm	100mm	150mm	200mm	250mm	300mm	350mm	400mm	450mm	500mm
	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	1.0	1.0

## R: Right-handed

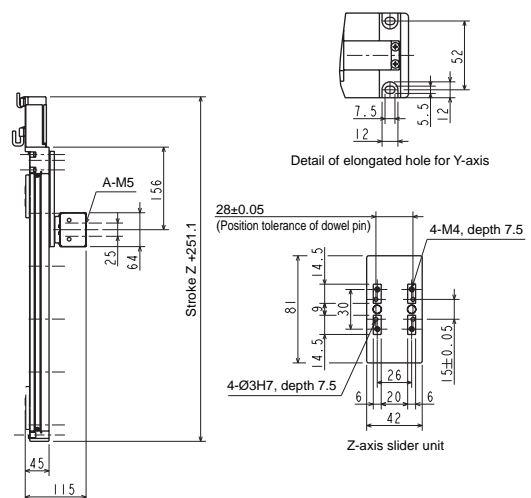
Stroke X (BET7)	50	100	150	200	250	300	350	400	450	500	550	600	700
No. of holes A	4	6	6	8	8	10	10	12	12	14	14	16	18
Hole-to-hole pitch B	1	2	2	3	3	4	4	5	5	6	6	7	8



## L: Left-handed

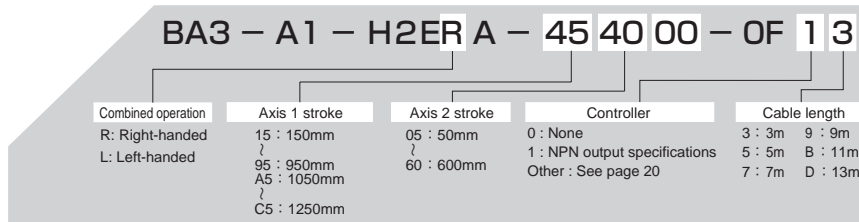


Stroke X (BET7)	50	100	150	200	250	300	350	400	450	500	550	600	700
No. of holes A	4	6	6	8	8	10	10	12	12	14	14	16	18
Hole-to-hole pitch B	1	2	2	3	3	4	4	5	5	6	6	7	8



Z-Y

[Set designation]



**Ball screw type**

Y-axis: Ball screw driven  
Motor straight

Z-axis: Ball screw driven  
Motor straight

[Specifications]

	Y-axis	Z-axis
Type of axis	BE10E-ST-S20N-□5	BET7D-ST-M06B-□□
Stroke (mm) (in increments of 100 mm for Y-axis, 50 mm for Z-axis)	150 ~ 1250	50 ~ 600
Maximum speed (mm/s)	1200 (Note 1)	400 (Note 1)
Positioning repeatability (mm)	±0.01	±0.02
Lead of ball screw (mm)	20	6
Motor output	100W	50W with brake
Resolution (mm)	0.01	

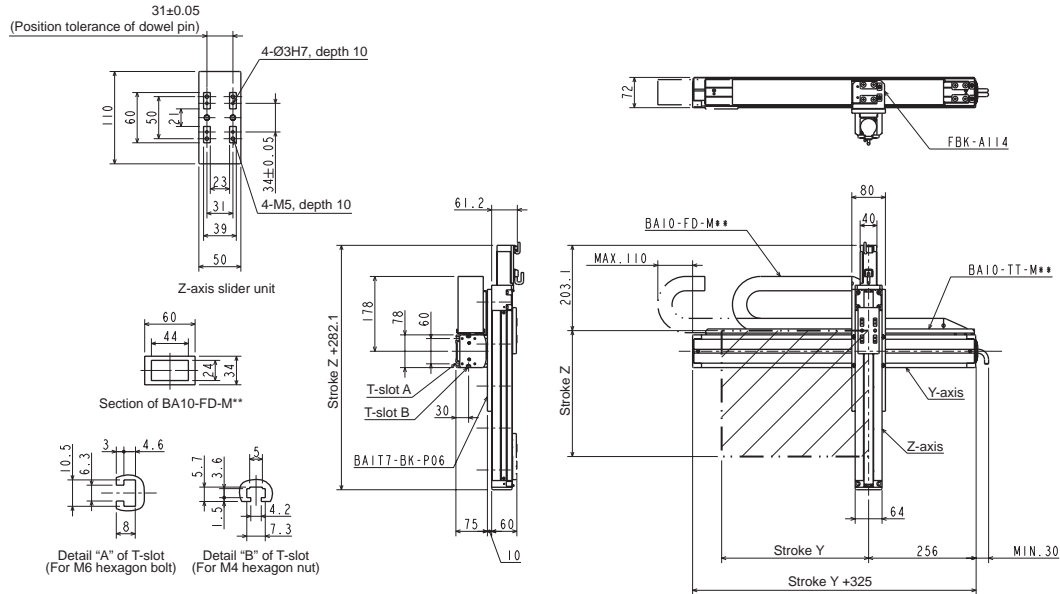
Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
Y-axis	750	1000
	850	800
	950~1050	600
	1150~1250	400
Z-axis	600	340

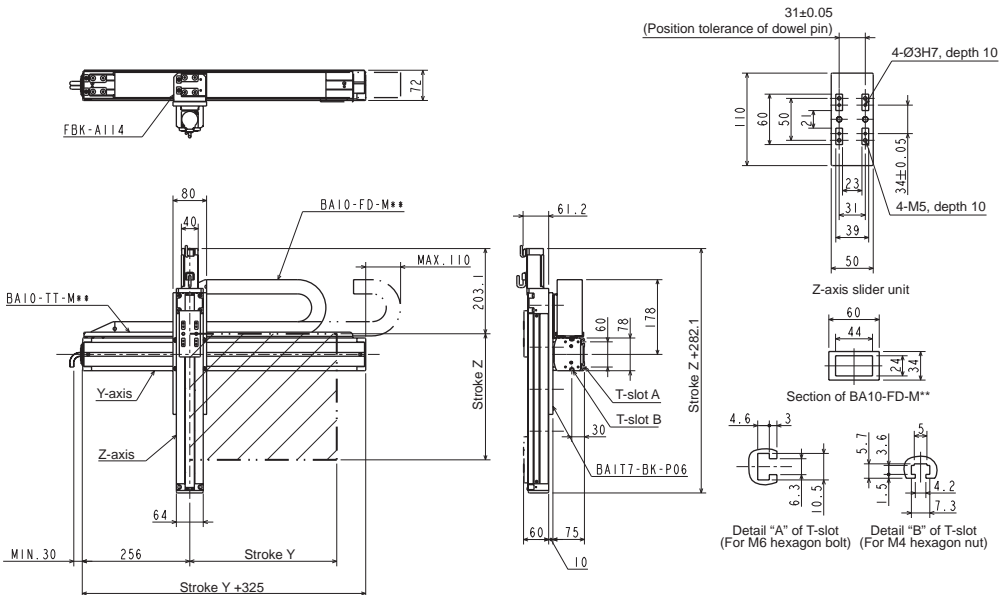
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

Maximum payload (kg)	Z-axis stroke											
	50mm	100mm	150mm	200mm	250mm	300mm	350mm	400mm	450mm	500mm	550mm	600mm
	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	2	2

**R: Right-handed**



**L: Left-handed**



## [Set designation]

**BA3 – A1 – H2A R C – 40 45 00 – OF 1 3**

<b>Combined operation</b> R: Right-handed L: Left-handed	<b>Axis 1 stroke</b> 10 : 100mm ? : 900mm A0 : 1000mm ? : 1200mm	<b>Axis 2 stroke</b> 15 : 150mm ? : 550mm	<b>Controller (CA25-M10)</b> 0 : None 1 : NPN output specifications Other : See page 20	<b>Cable length</b> 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## Ball screw type

- Y-axis: Ball screw driven  
Motor straight
- Z-axis: Ball screw driven  
Side mounted motor

## [Specifications]

	Y-axis	Z-axis
Type of axis	BE10E-ST-M20N- □ 0	BE10E-U □ -S10B- □ 5
Stroke (in increments of 100 mm)	100 ~ 1200mm	150 ~ 550mm
Maximum speed	1200mm/s (Note 1)	600mm/s
Positioning repeatability	± 0.01mm	
Lead of ball screw	20mm	10mm
Motor output	100W	100W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

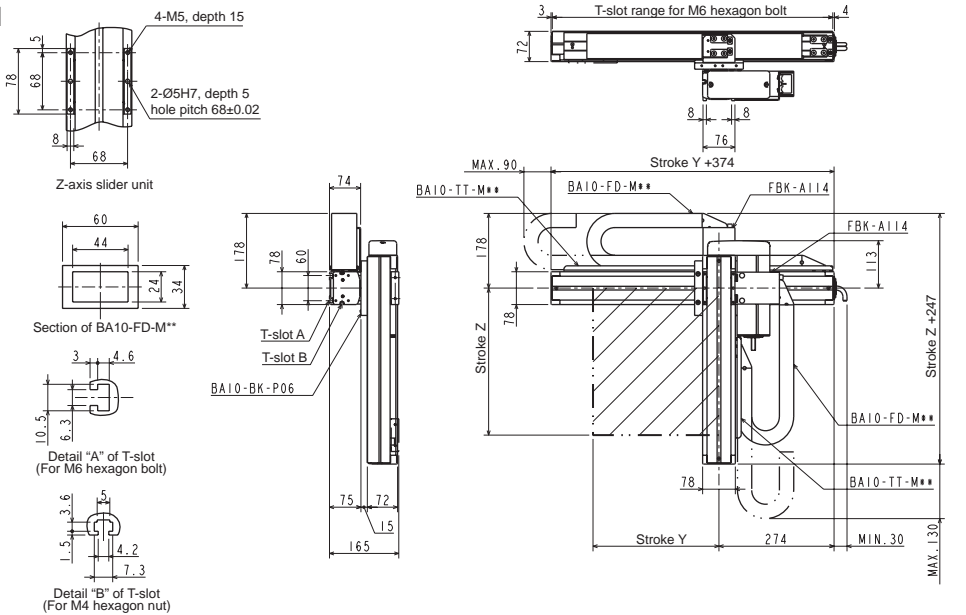
Y-axis	Stroke (mm)	Maximum speed (mm/s)
	700	1000
	800	800
	900~1000	600
	1100~1200	400

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

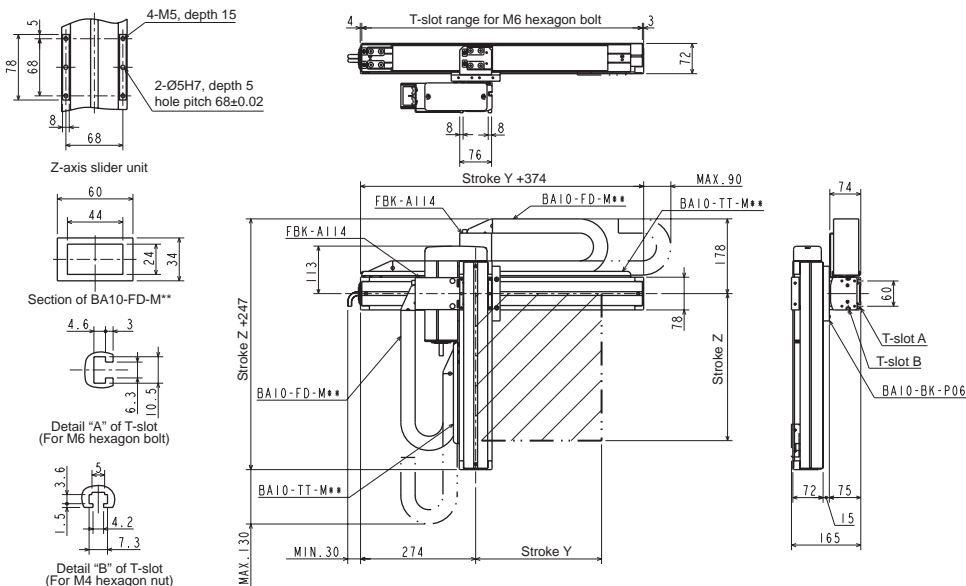
Maximum payload (kg) (Note 2)	Z-axis stroke				
	150mm	250mm	350mm	450mm	550mm
	8.0	8.0	6.5	5.0	3.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

### R: Right-handed



### L: Left-handed



[Set designation]

**BA3 - A3 - H2AR C - 45 40 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 15 : 150mm 95 : 950mm A5 : 1050mm C5 : 1250mm	Axis 2 stroke 10 : 100mm 80 : 800mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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**Ball screw type**

- Y-axis: Ball screw driven  
Motor straight
- Z-axis: Ball screw driven  
Side mounted motor

[Specifications]

	Y-axis	Z-axis
Type of axis	BE30E-ST-M20N-□ 5	BE10E-U □ -M10B-□ 0
Stroke (in increments of 100 mm)	150 ~ 1250mm	100 ~ 800mm
Maximum speed	1200mm/s (Note 1)	600mm/s (Note 1)
Positioning repeatability	±0.01mm	
Lead of ball screw	20mm	10mm
Motor output	100W	100W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

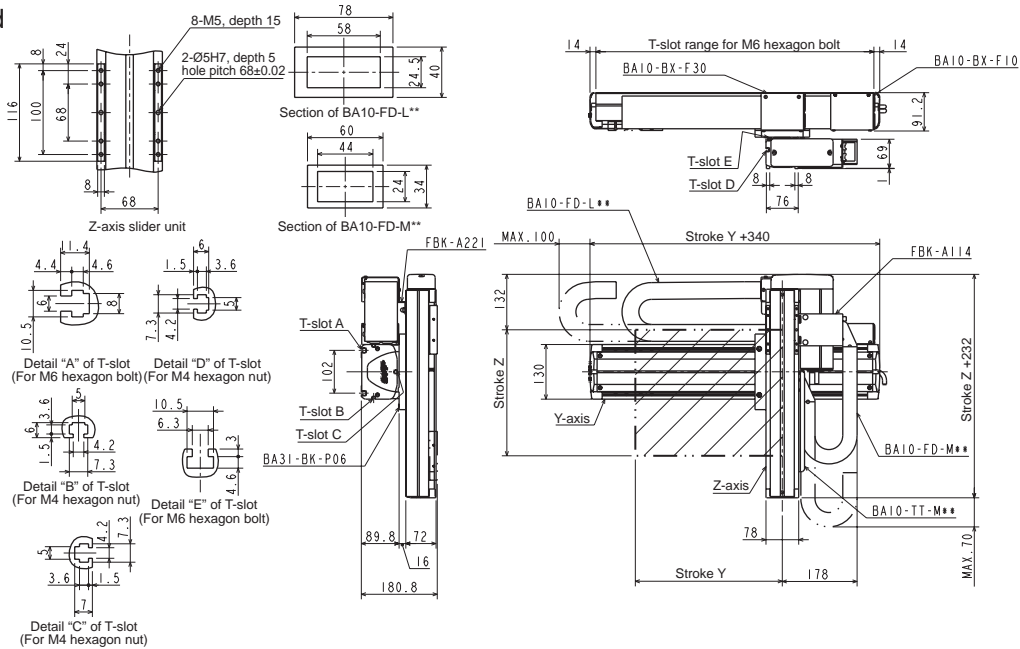
	Stroke (mm)	Maximum speed (mm/s)
Y-axis	750	1000
	850	800
	950~1050	600
	1150~1250	400
Z-axis	700	500
	800	400

Acceleration/deceleration time when the maximum speed is set: 0.48 sec. or over

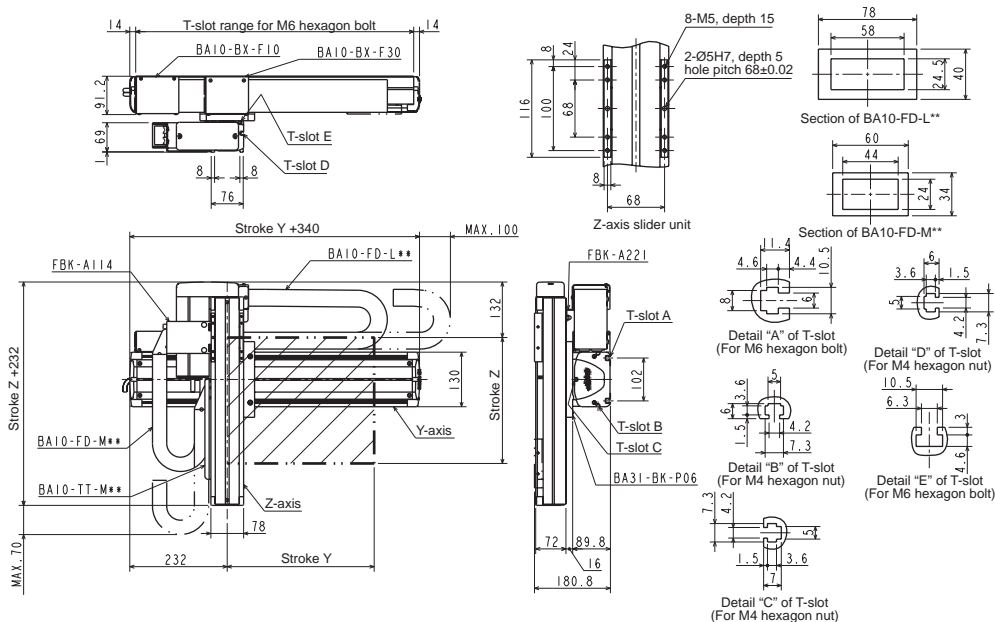
Maximum payload (kg) (Note 2)	Z-axis stroke							
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm
	12.0	11.0	9.0	9.0	6.0	5.0	1.0	1.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

**R: Right-handed**



**L: Left-handed**





[Set designation]

**BA3 - A5 - H2AR C - 40 40 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 20 : 200mm 90 : 900mm A0 : 1000mm G0 : 1600mm	Axis 2 stroke 10 : 100mm 90 : 900mm A0 : 1000mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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**Ball screw type**

- Y-axis: Ball screw driven  
Motor straight
- Z-axis: Ball screw driven  
Side mounted motor

Note 1: When the stroke is as given below, the maximum speed differs.

[Specifications]

	Y-axis	Z-axis
Type of axis	BE50F-ST-M20N-□ 0	BE30E-U □ -M10B-□ 0
Stroke (in increments of 100 mm)	200 ~ 1600mm	100 ~ 1000mm
Maximum speed	1200mm/s (Note 1)	600mm/s (Note 1)
Positioning repeatability	± 0.01mm	
Lead of ball screw	20mm	10mm
Motor output	200W	100W, with brake
Resolution	0.01mm	

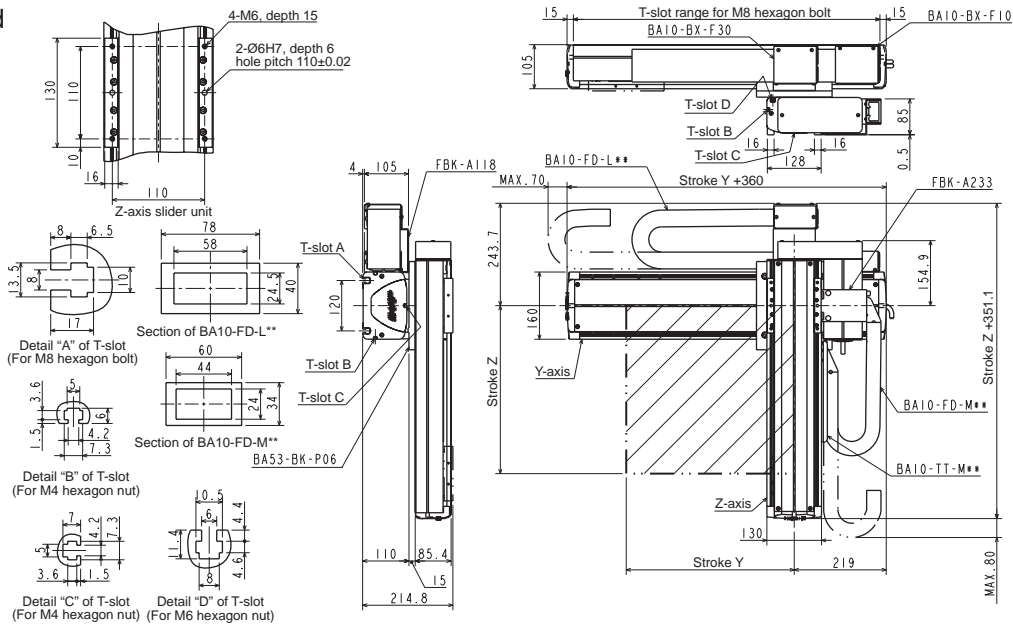
	Stroke (mm)	Maximum speed (mm/s)
Y-axis	700~800	1100
	900~1000	1000
	1100~1200	700
	1300	500
	1400	400
	1500	300
Z-axis	1600	300
	700	500
	800	400
	900~1000	300

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

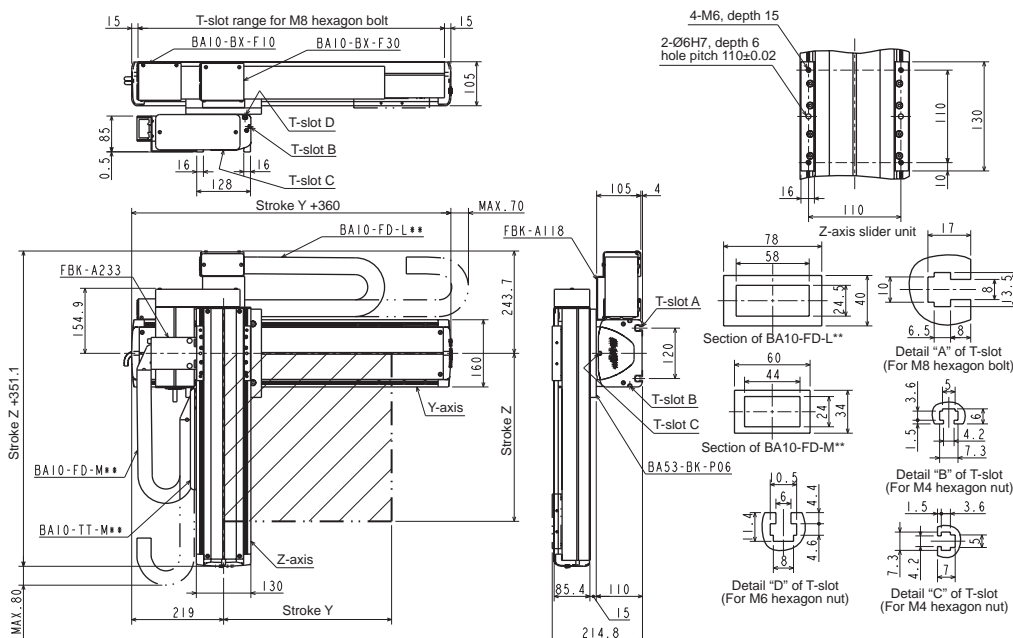
Maximum payload (kg) (Note 2)	Z-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

**R: Right-handed**



**L: Left-handed**





[Set designation]

**BA3 – A5 – H2B R C – 40 40 00 – OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length
R: Right-handed	20 : 200mm	10 : 100mm	0 : None	3 : 3m 9 : 9m
L: Left-handed	90 : 900mm	90 : 900mm	1 : NPN output specifications	5 : 5m B : 11m
	A0 : 1000mm	A0 : 1000mm	Other : See page 20	7 : 7m D : 13m
	G0 : 1600mm			

**Ball screw type**

Y-axis: Ball screw driven  
Motor straight

Z-axis: Ball screw driven  
Side mounted motor

Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
Y-axis	700~800	1100
	900~1000	1000
	1100~1200	700
	1300	500
	1400	400
	1500	300
Z-axis	1600	300
	700	500
	800	400
	900~1000	300

[Specifications]

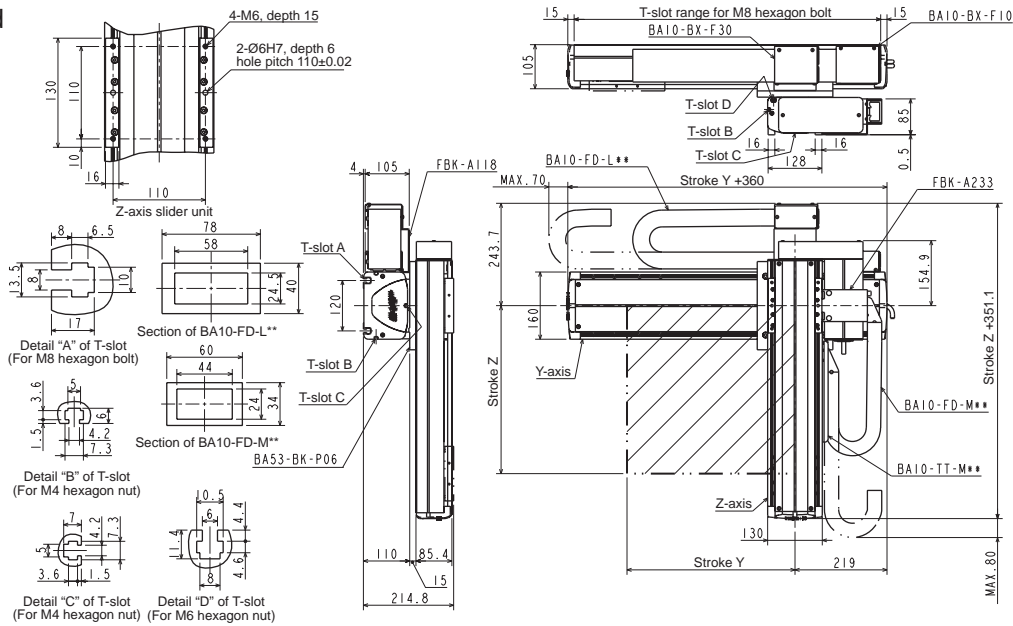
	Y-axis	Z-axis
Type of axis	BE50F-ST-M20N-□ 0	BE30F-U □ -M10B-□ 0
Stroke (in increments of 100 mm)	200 ~ 1600mm	100 ~ 1000mm
Maximum speed	1200mm/s (Note 1)	600mm/s (Note 1)
Positioning repeatability	±0.01mm	
Lead of ball screw	20mm	10mm
Motor output	200W	200W, with brake
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

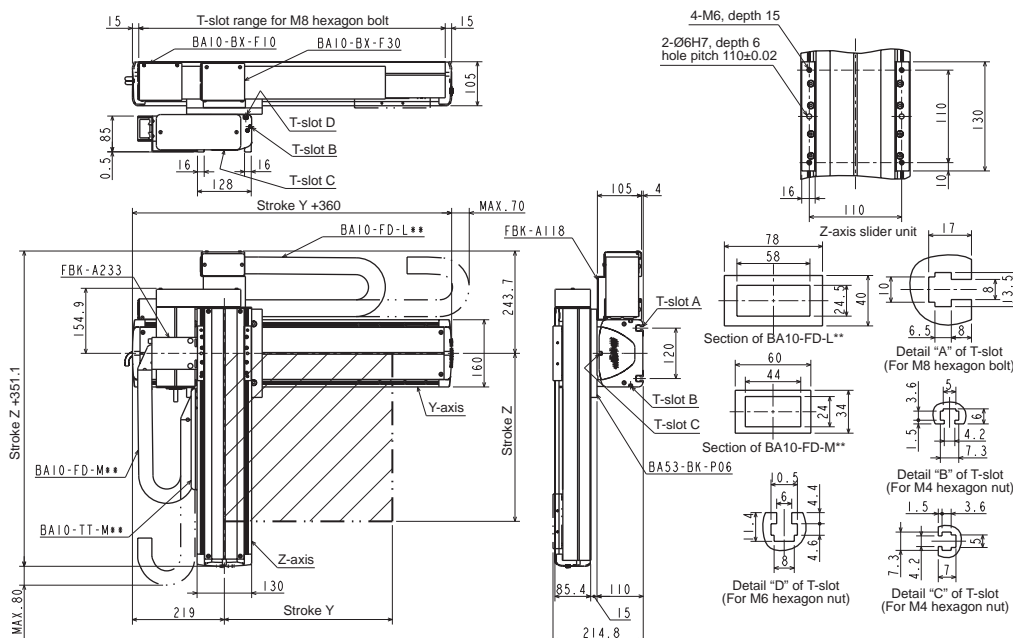
Maximum payload (kg) (Note 2)	Z-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	19.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

R: Right-handed



L: Left-handed



Y-Z Flexible-duct Spec.

[Set designation]

**BA3 - L1 - H2JR S - 45 40 00 - OF 1 3**

Combined operation	Axis 1 stroke		Axis 2 stroke	Controller (CA25-M10)	Cable length			
R: Right-handed	15 : 150mm	J5 : 1850mm	05 : 50mm	0 : None	3 : 3m	9 : 9m		
L: Left-handed	95 : 950mm	N5 : 2250mm	60 : 600mm	1 : NPN output specifications	5 : 5m	B : 11m		
	A5 : 1050mm	P5 : 2350mm		Other : See page 20	7 : 7m	D : 13m		
	H5 : 1750mm	R5 : 2550mm						

Timing belt type

Y-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Motor straight

[Specifications]

	Y-axis	Z-axis
Type of axis	BE10E-B □ -S21N- □ 5	BET7D-ST-M06B- □ □
Stroke (mm) (in increments of 100 mm for Y-axis, 50 mm for Z-axis)	150 ~ 2550	50 ~ 600
Maximum speed (mm/s)	1000	400 (Note 1)
Positioning repeatability (mm)	±0.04	±0.02
Lead of ball screw (mm)	21 (lead converted into ball screw)	6
Motor output	100W	50W, with brake
Resolution (mm)	0.01	

Note 1: When the stroke is as given below, the maximum speed differs.

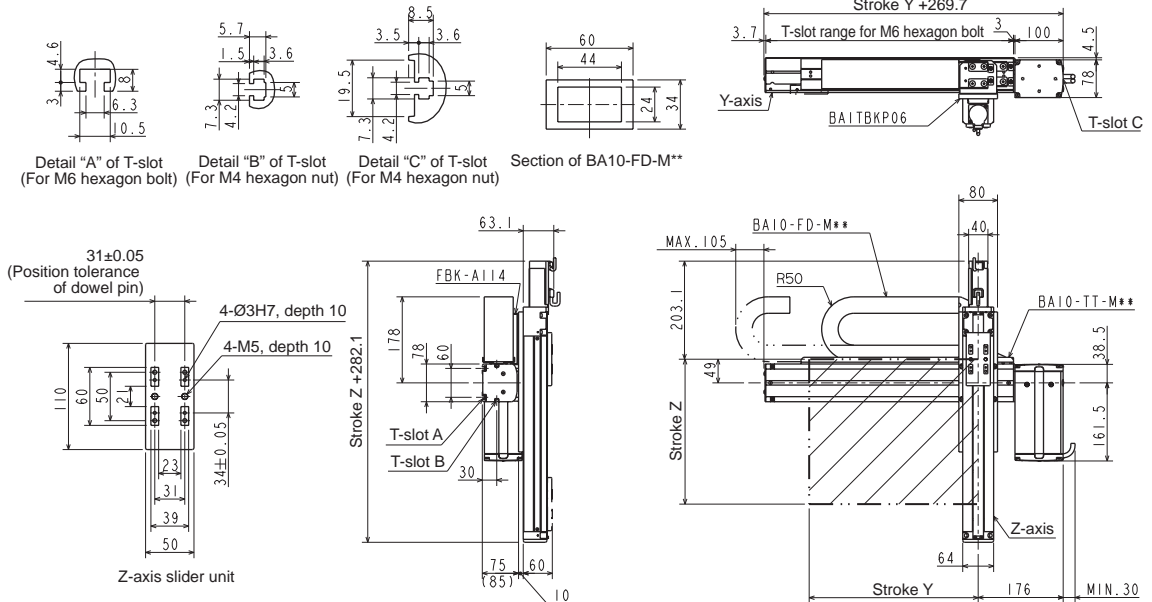
	Stroke (mm)	Maximum speed (mm/s)
Z-axis	600	340

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

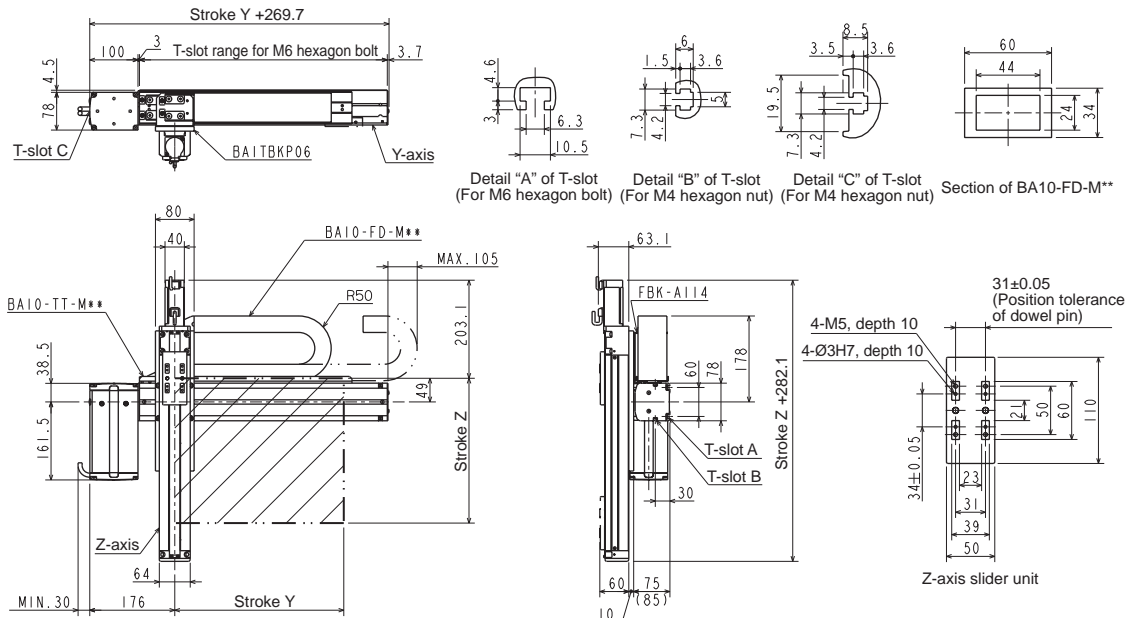
Maximum payload (kg)	Z-axis stroke											
	50mm	100mm	150mm	200mm	250mm	300mm	350mm	400mm	450mm	500mm	550mm	600mm
	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	2.0	2.0

R: Right-handed

The values in parentheses are applicable when the Y-axis stroke is 1,050 mm or less.



L: Left-handed



## [Set designation]

**BA3 - L1 - H2A RW - 40 45 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length
R: Right-handed L: Left-handed	10 : 100mm 90 : 900mm A0 : 1000mm H0 : 1700mm	J0 : 1800mm N0 : 2200mm P0 : 2300mm R0 : 2500mm	15 : 150mm 55 : 550mm	0 : None 1 : NPN output specifications Other : See page 20
				3 : 3m 5 : 5m 7 : 7m
				9 : 9m B : 11m D : 13m

## Timing belt type

Y-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Side mounted motor

## [Specifications]

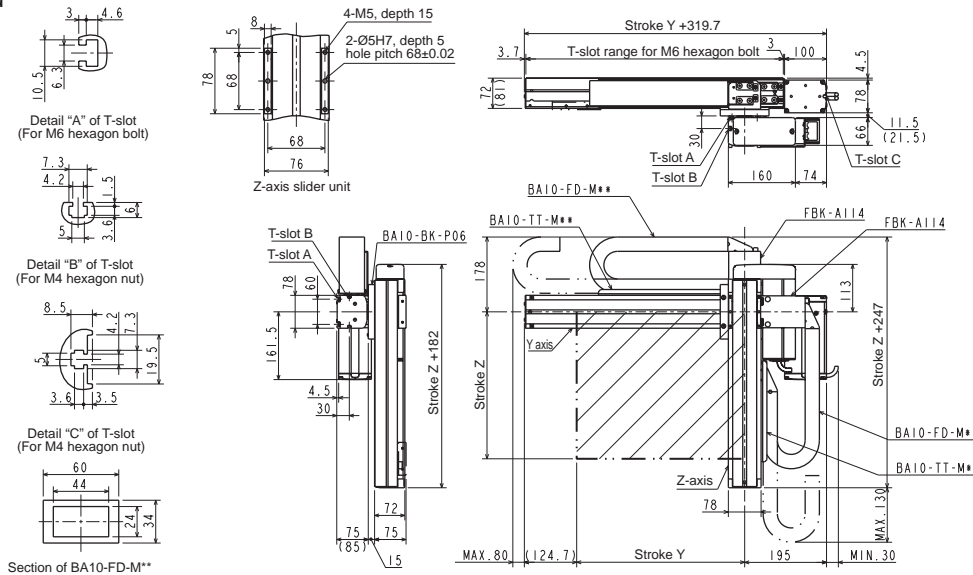
	Y-axis	Z-axis
Type of axis	BE10E-B □ -M21N- □ 0	BE10E-U □ -S10B- □ 5
Stroke (in increments of 100 mm)	100 ~ 2500mm	150 ~ 550mm
Maximum speed	1000mm/s	600mm/s
Positioning repeatability	± 0.04mm	± 0.01mm
Lead of ball screw	21mm (lead converted into ball screw)	10mm
Motor output	100W	100W, with brake
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.48 sec. or over

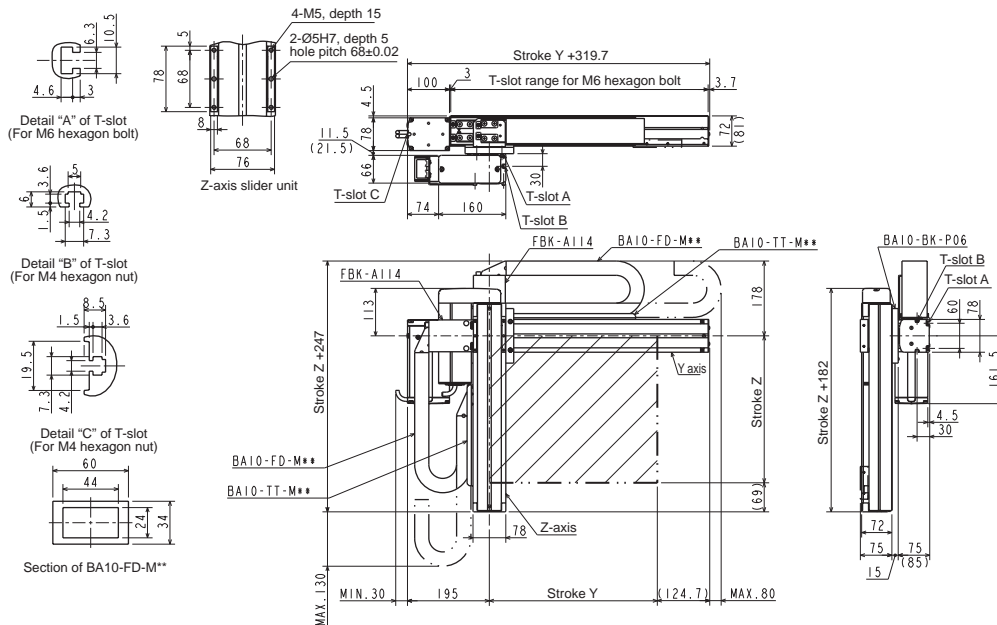
Maximum payload (kg)	Z-axis stroke				
	150mm	250mm	350mm	450mm	550mm
	8.0	8.0	6.0	5.0	3.0

## R: Right-handed

The values in parentheses are applicable when the Y-axis stroke is 1,050 mm or less.



## L: Left-handed



[Set designation]

**BA3 - L3 - H2A R W - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length	
R: Right-handed L: Left-handed	10 : 100mm 90 : 900mm A0 : 1000mm H0 : 1700mm	JO : 1800mm NO : 2200mm PO : 2300mm V0 : 2900mm W0 : 3000mm W20 : 3200mm	10 : 100mm 80 : 800mm	0 : None 1 : NPN output specifications Other : See page 20	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

**Timing belt type**

Y-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Motor straight

[Specifications]

	Y-axis	Z-axis
Type of axis	BE30E-B □ -M21N- □ 0	BE10E-U □ -M10B- □ 0
Stroke (in increments of 100 mm)	100 ~ 3200mm	100 ~ 800mm
Maximum speed	1000mm/s	600mm/s (Note 1)
Positioning repeatability	± 0.04mm	± 0.01mm
Lead	21 mm (lead converted into ball screw)	10mm
Motor output	100W	100W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

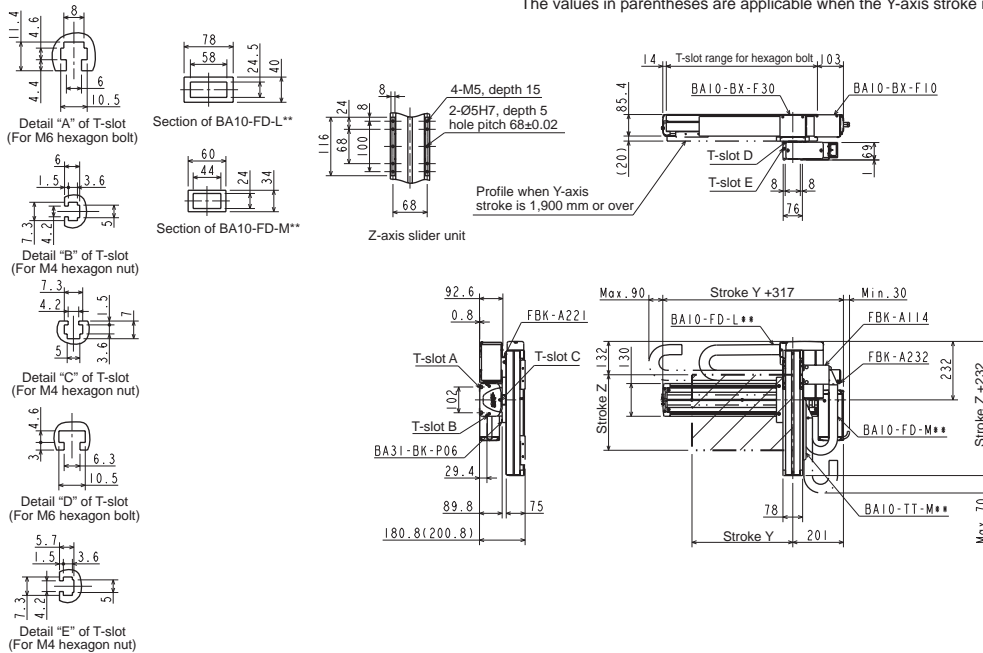
Z-axis	Stroke (mm)	Maximum speed (mm/s)
	700	500
	800	400

Acceleration/deceleration time when the maximum speed is set: 0.48 sec. or over

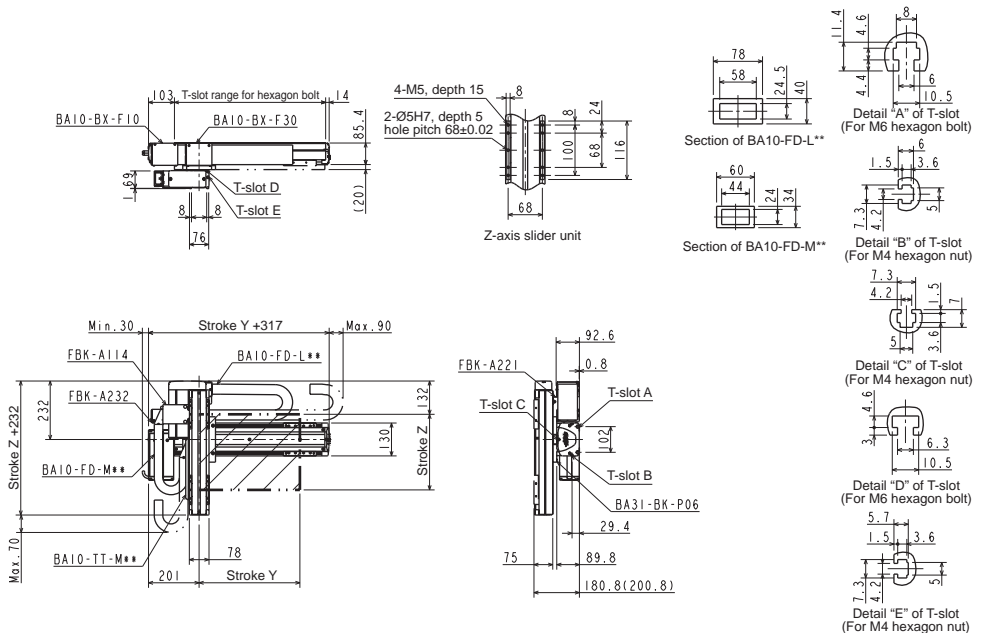
Maximum payload (kg)	Z-axis stroke							
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm
	6.0	6.0	5.0	4.0	4.0	3.0	1.0	1.0

**R: Right-handed**

The values in parentheses are applicable when the Y-axis stroke is 1,850 mm or less.



**L: Left-handed**



## [Set designation]

**BA3 - L3 - H2B R W - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length
R: Right-handed	10 : 100mm JO : 1800mm	10 : 100mm	0 : None	3 : 3m 9 : 9m
L: Left-handed	90 : 900mm NO : 2200mm A0 : 1000mm PO : 2300mm H0 : 1700mm V0 : 2900mm W0 : 3000mm W20 : 3200mm	90 : 900mm AO : 1000mm	1 : NPN output specifications Other : See page 20	5 : 5m B : 11m 7 : 7m D : 13m

## Timing belt type

Y-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Side mounted motor

## [Specifications]

	Y-axis	Z-axis
Type of axis	BE30F-B □ -M21N- □ 0	BE10E-U □ -M10B- □ 0
Stroke (in increments of 100 mm)	100 ~ 3200mm	100 ~ 1000mm
Maximum speed	1000mm/s	600mm/s (Note 1)
Positioning repeatability	± 0.04mm	± 0.01mm
Lead	21mm (lead converted into ball screw)	10mm
Motor output	200W	100W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700	500
	800	400
	900~1000	300

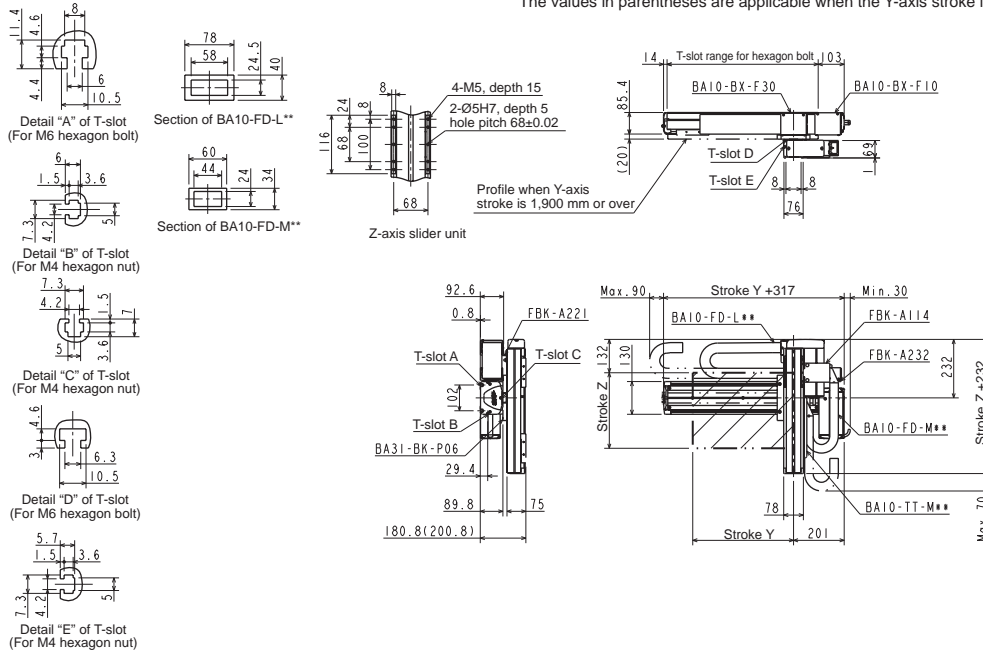
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

Maximum payload (kg) (Note 2)	Z-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	12.0	12.0	12.0	12.0	12.0	12.0	10.0	5.0	4.0	4.0

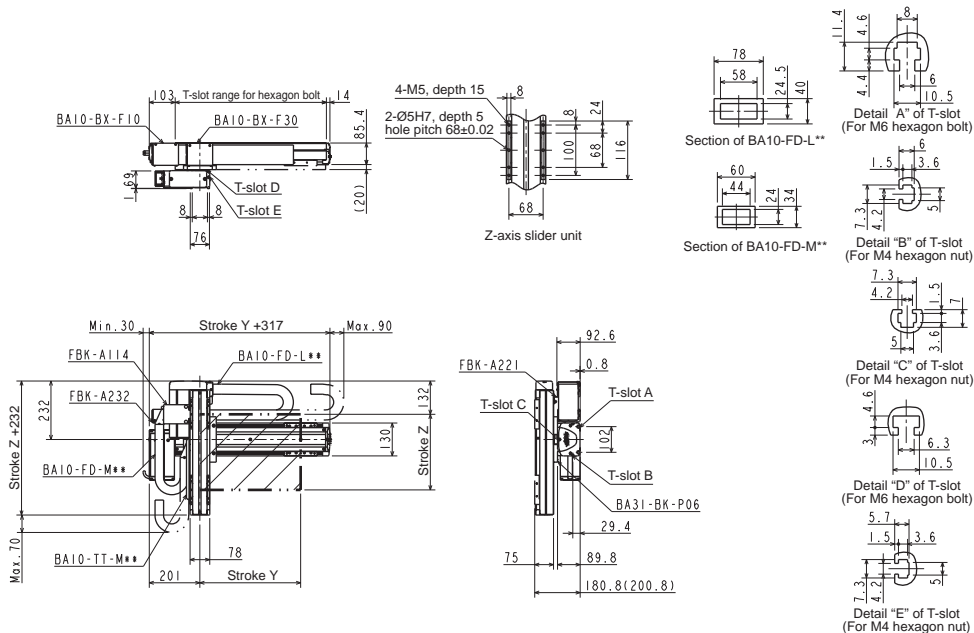
Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

## R: Right-handed

The values in parentheses are applicable when the Y-axis stroke is 1,850 mm or less.



## L: Left-handed



[Set designation]

**BA3 - L5 - H2A R W - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length
R: Right-handed	20 : 200mm	JO : 1800mm	0 : None	3 : 3m 9 : 9m
L: Left-handed	90 : 900mm	NO : 2200mm	1 : NPN output specifications	5 : 5m B : 11m
	A0 : 1000mm	PO : 2300mm	Other : See page 20	7 : 7m D : 13m
	H0 : 1700mm	V0 : 2900mm		
		W0 : 3000mm		
		W50 : 3500mm		

**Timing belt type**

Y-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Side mounted motor

[Specifications]

	Y-axis	Z-axis
Type of axis	BE50F-B □ -M21N- □ 0	BE30E-U □ -M10B- □ 0
Stroke (in increments of 100 mm)	200 ~ 3500mm	100 ~ 1000mm
Maximum speed	1000mm/s	600mm/s (Note 1)
Positioning repeatability	± 0.04mm	± 0.01mm
Lead	21mm (lead converted into ball screw)	10mm
Motor output	200W	100W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700	500
	800	400
	900~1000	300

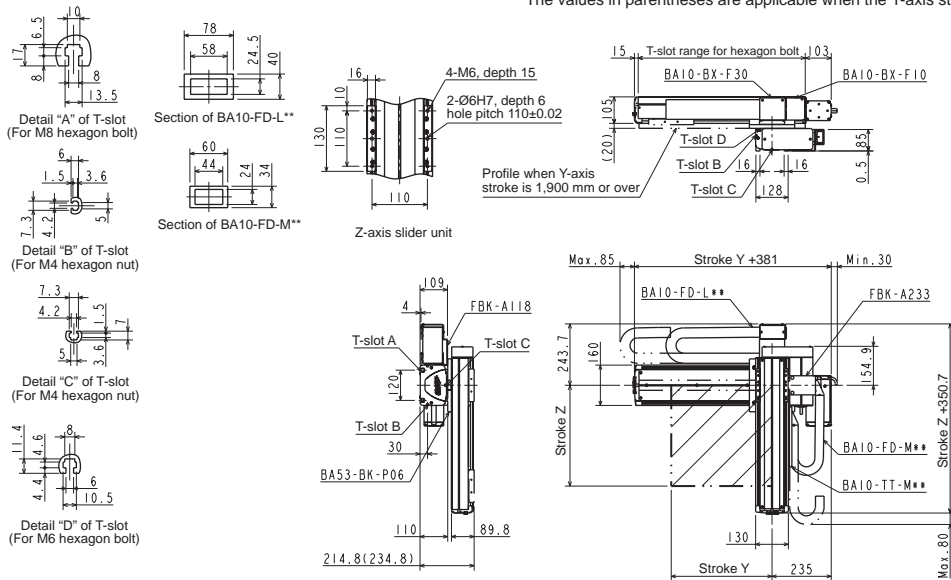
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

Maximum payload (kg) (Note 2)	Z-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0

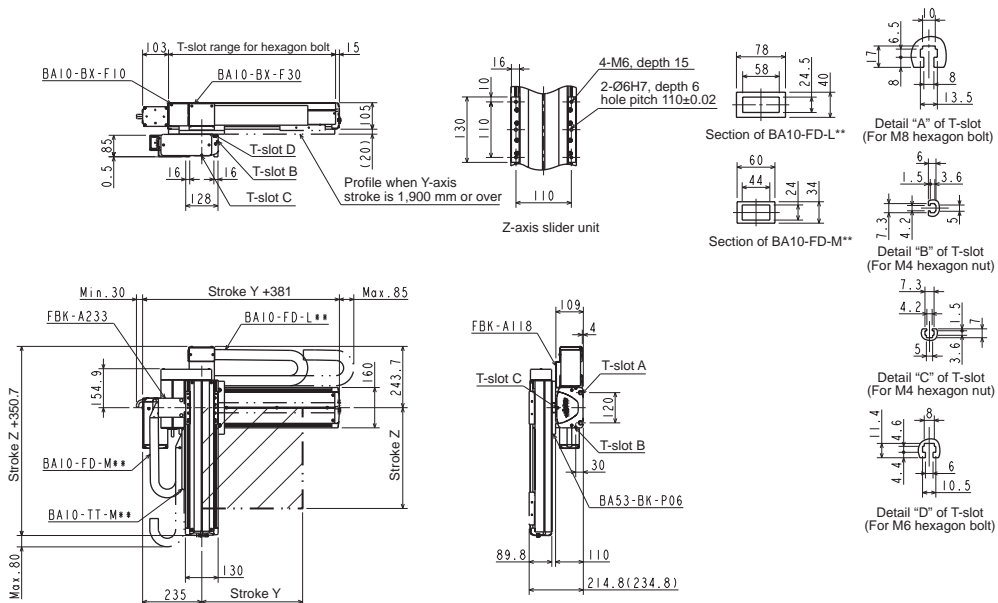
Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

**R: Right-handed**

The values in parentheses are applicable when the Y-axis stroke is 1,850 mm or less.



**L: Left-handed**



## [Set designation]

**BA3 - L5 - H2B R W - 40 40 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length	
R: Right-handed	20 : 200mm 90 : 900mm A0 : 1000mm H0 : 1700mm	JO : 1800mm NO : 2200mm PO : 2300mm VO : 2900mm W0 : 3000mm W60 : 3500mm	10 : 100mm 90 : 900mm A0 : 1000mm	0 : None 1 : NPN output specifications Other : See page 20	3 : 3m 9 : 9m 5 : 5m 7 : 7m B : 11m D : 13m

## Timing belt type

Y-axis: Timing belt driven  
Side mounted motor

Z-axis: Ball screw driven  
Side mounted motor

## [Specifications]

	Y-axis	Z-axis
Type of axis	BE50F-B □ -M21N- □ 0	BE30F-U □ -M10B- □ 0
Stroke (in increments of 100 mm)	200 ~ 3500mm	100 ~ 1000mm
Maximum speed	1000mm/s	600mm/s (Note 1)
Positioning repeatability	± 0.04mm	± 0.01mm
Lead	21mm (lead converted into ball screw)	10mm
Motor output	200W	200W, with brake
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700	500
	800	400
	900~1000	300

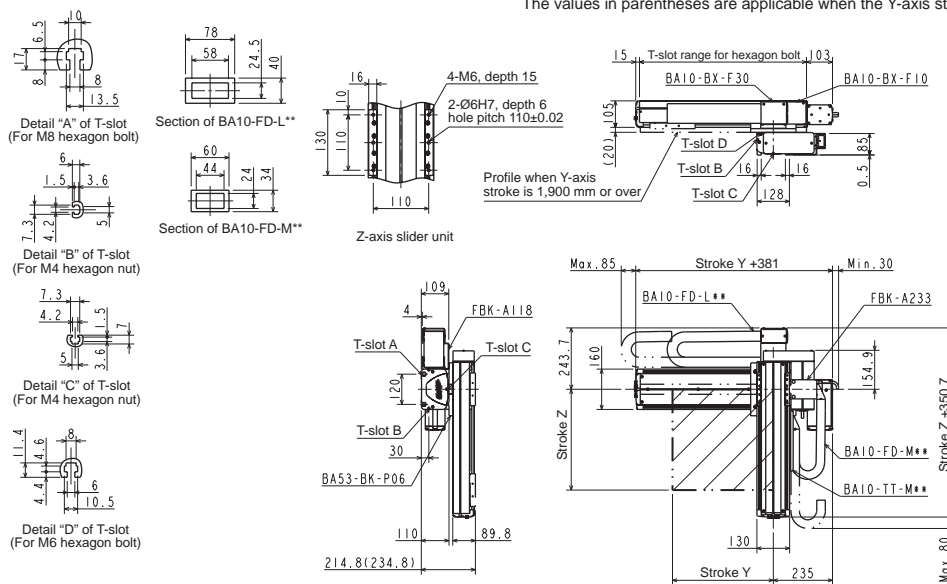
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

Maximum payload (kg) (Note 2)	Z-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	20.0	20.0	20.0	20.0	20.0	20.0	19.0	17.0	16.0	15.0

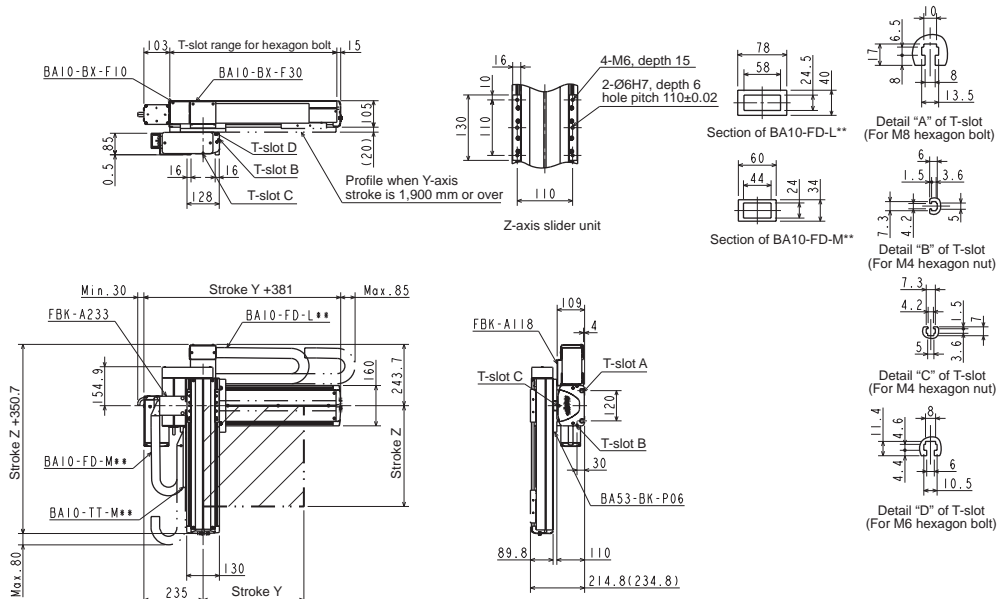
Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

## R: Right-handed

The values in parentheses are applicable when the Y-axis stroke is 1,850 mm or less.



## L: Left-handed





### [Set designation]

**BA3 - A1 - C2A RA - 40 45 00 - OF 1 3**

Combined operation	Axis 1 stroke	Axis 2 stroke	Controller (CA25-M10)	Cable length
R: Right-handed L: Left-handed	10 : 100mm 90 : 900mm A0 : 1000mm	15 : 150mm 65 : 650mm	0 : None 1 : NPN output specifications Other : See page 20	3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m

### Ball screw type

Z-axis: Ball screw driven  
Motor straight  
  
Y-axis: Ball screw driven  
Motor straight

### [Specifications]

	Z-axis	Y-axis
Type of axis	BE10E-ST-M05B-□ 0	BE10E-ST-S20N-□ 5
Stroke (in increments of 100 mm)	100 ~ 1000mm	150 ~ 650mm
Maximum speed	300mm/s (Note 1)	1200mm/s
Positioning repeatability	± 0.01mm	
Lead of ball screw	5mm	20mm
Motor output	100W, with brake	100W
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

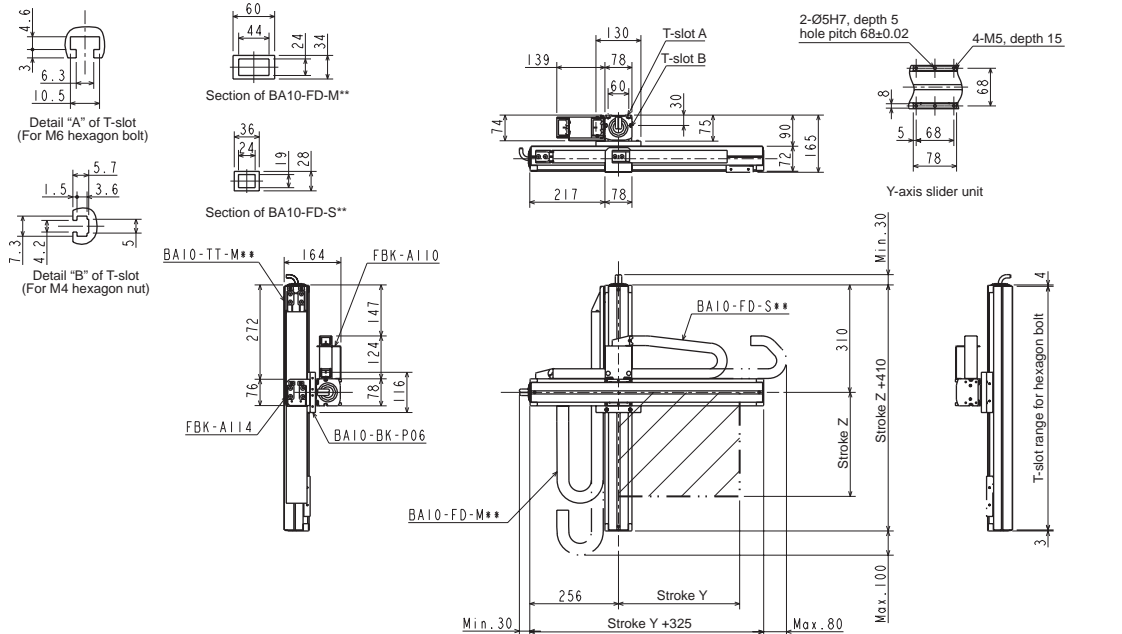
Z-axis	Stroke (mm)	Maximum speed (mm/s)
	700	250
	800	200
	900~1000	150

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

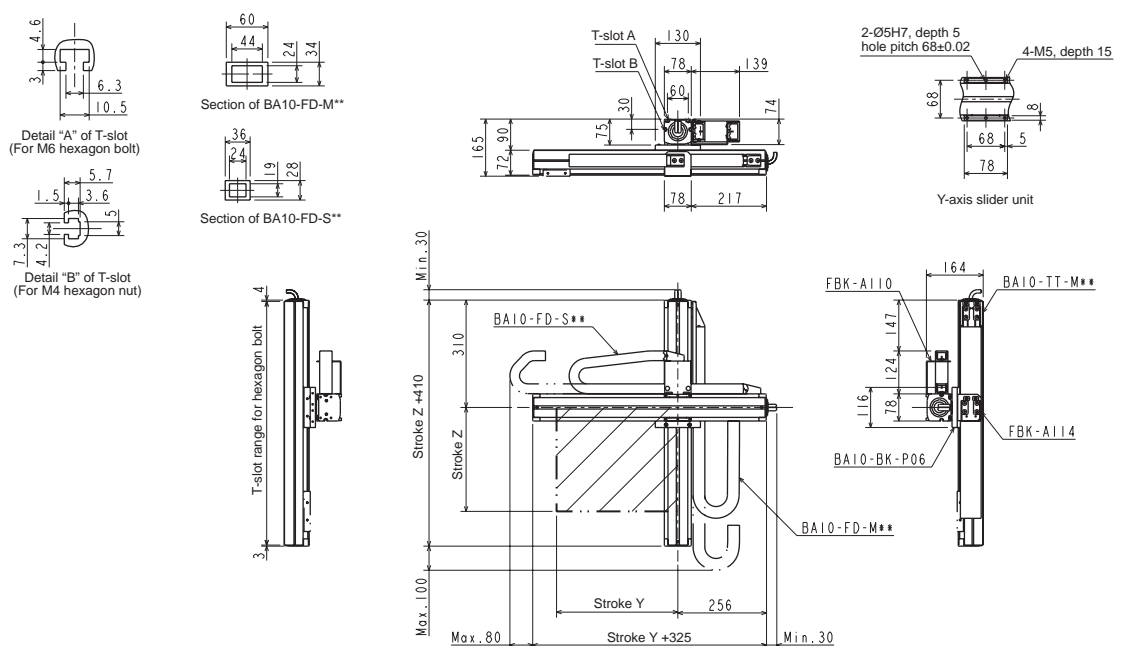
Maximum payload (kg) (Note 2)	Y-axis stroke					
	150mm	250mm	350mm	450mm	550mm	650mm
	15.0	12.0	9.0	6.5	5.0	3.5

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

### R: Right-handed



### L: Left-handed



## [Set designation]

**BA3 – A3 – C2A RA – 45 40 00 – OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 15 : 150mm 95 : 950mm A5 : 1050mm	Axis 2 stroke 10 : 100mm 90 : 900mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## Ball screw type

Z-axis: Ball screw driven  
Motor straight

Y-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
Z-axis	750	250
	850	200
	950~1050	150
Y-axis	700	1000
	800	800
	900	600

## [Specifications]

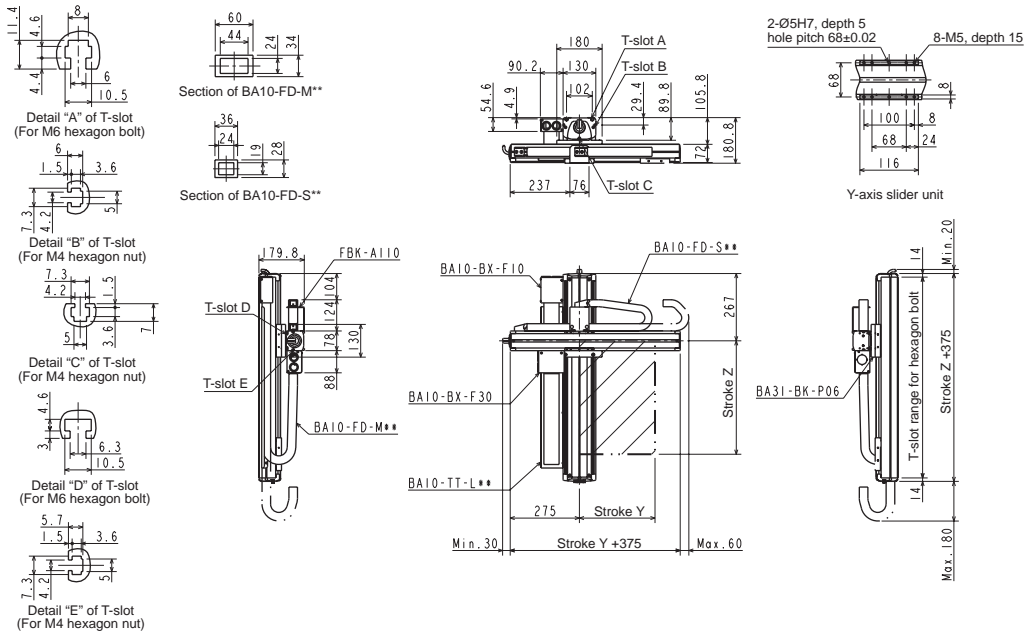
	Z-axis	Y-axis
Type of axis	BE30E-ST-M05B-□ 5	BE10E-ST-M20N-□ 0
Stroke (in increments of 100 mm)	150 ~ 1050mm	100 ~ 900mm
Maximum speed	300mm/s (Note 1)	1200mm/s (Note 1)
Positioning repeatability	± 0.01mm	
Lead of ball screw	5mm	20mm
Motor output	100W, with brake	100W
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

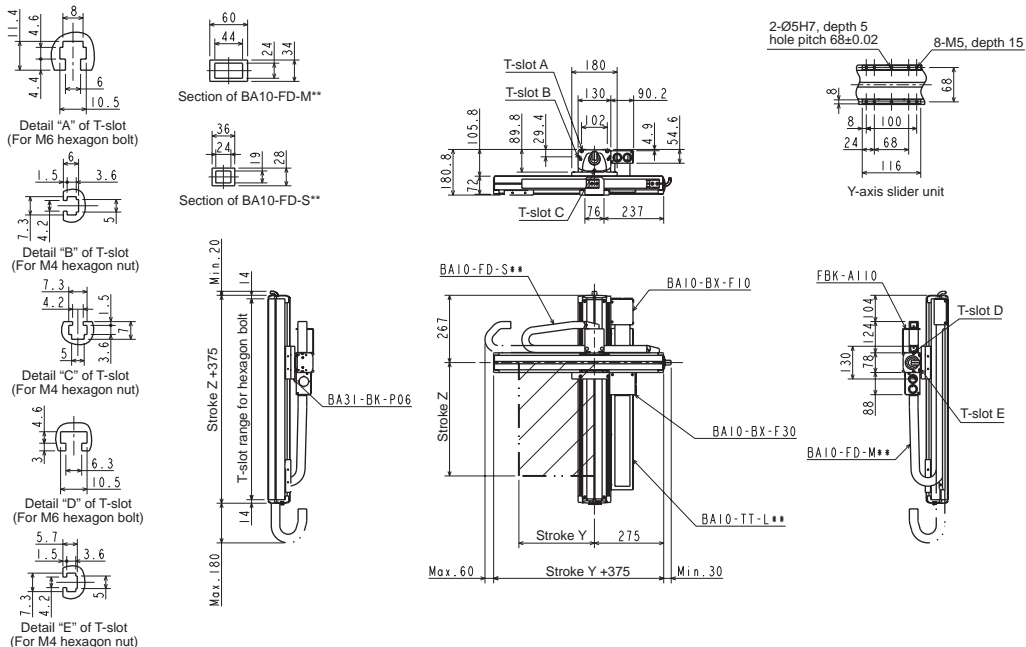
Maximum payload (kg) (Note 2)	Y-axis stroke								
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm
	15.0	15.0	14.0	12.0	9.0	7.0	5.0	3.0	1.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

## R: Right-handed



## L: Left-handed



[Set designation]

**BA3 - A3 - C2B RA - 40 40 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 10 : 100mm 90 : 900mm A0 : 1000mm	Axis 2 stroke 10 : 100mm 90 : 900mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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**Ball screw type**

Z-axis: Ball screw driven  
Motor straight

Y-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700	250
	800	200
	900~1000	150
Y-axis	700	1000
	800	800
	900	600

[Specifications]

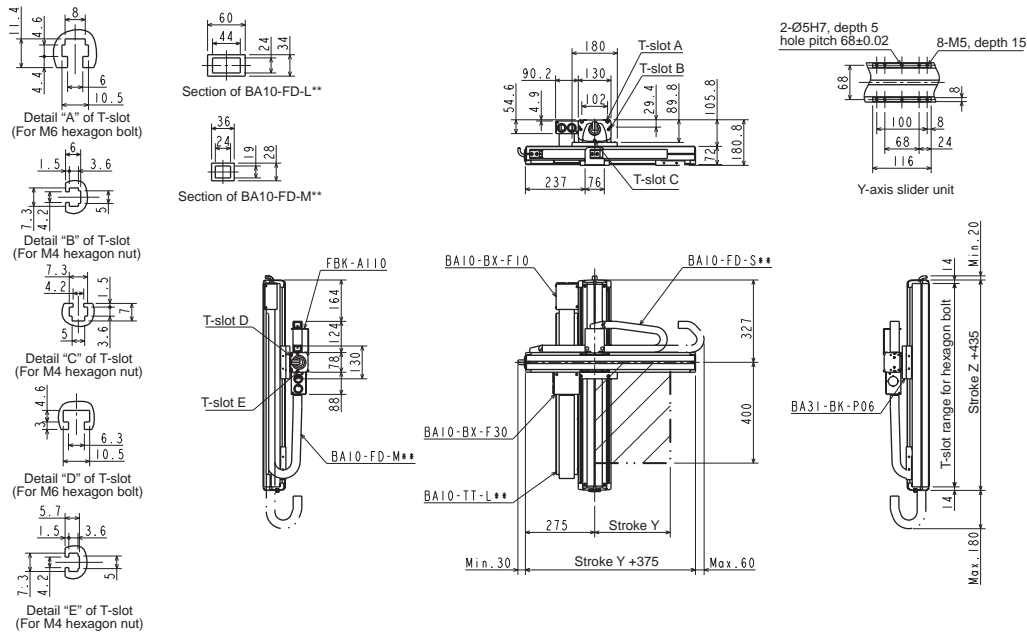
	Z-axis	Y-axis
Type of axis	BE30F-ST-M05B-□ 0	BE10E-ST-M20N-□ 0
Stroke (in increments of 100 mm)	100 ~ 1000mm	100 ~ 900mm
Maximum speed	300mm/ s (Note 1)	1200mm/ s (Note 1)
Positioning repeatability	± 0.01mm	
Lead of ball screw	5mm	20mm
Motor output	200W, with brake	100W
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

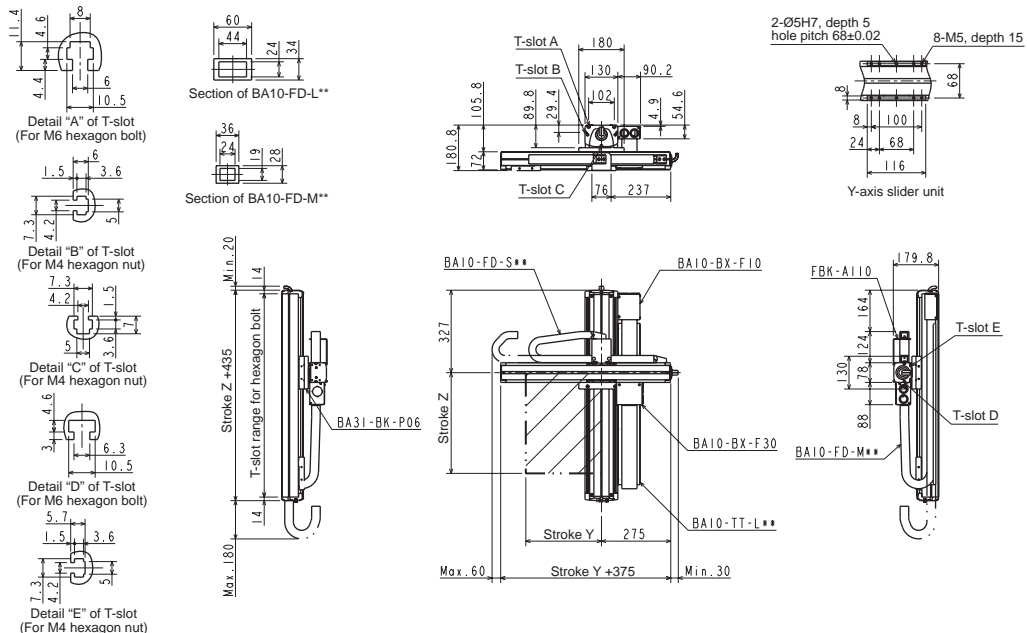
Maximum payload (kg) (Note 2)	Y-axis stroke								
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm
	15.0	15.0	15.0	12.0	9.0	7.0	5.0	3.0	1.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

**R: Right-handed**



**L: Left-handed**



Z-Y flexible-duct Spec.

## [Set designation]

**BA3 - A5 - C2A RA - 40 45 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 20 : 200mm 90 : 900mm A0 : 1000mm G0 : 1600mm	Axis 2 stroke 15 : 150mm 95 : 950mm A5 : 1050mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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## Ball screw type

Z-axis: Ball screw driven  
Motor straight

Y-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

## [Specifications]

	Z-axis	Y-axis
Type of axis	BE50F-ST-M05B-□ 0	BE30E-ST-M20N-□ 5
Stroke (in increments of 100 mm)	200 ~ 1600mm	150 ~ 1050mm
Maximum speed	300mm/s (Note 1)	1200mm/s (Note 1)
Positioning repeatability	±0.01mm	
Lead of ball screw	5mm	20mm
Motor output	200W, with brake	100W
Resolution	0.01mm	

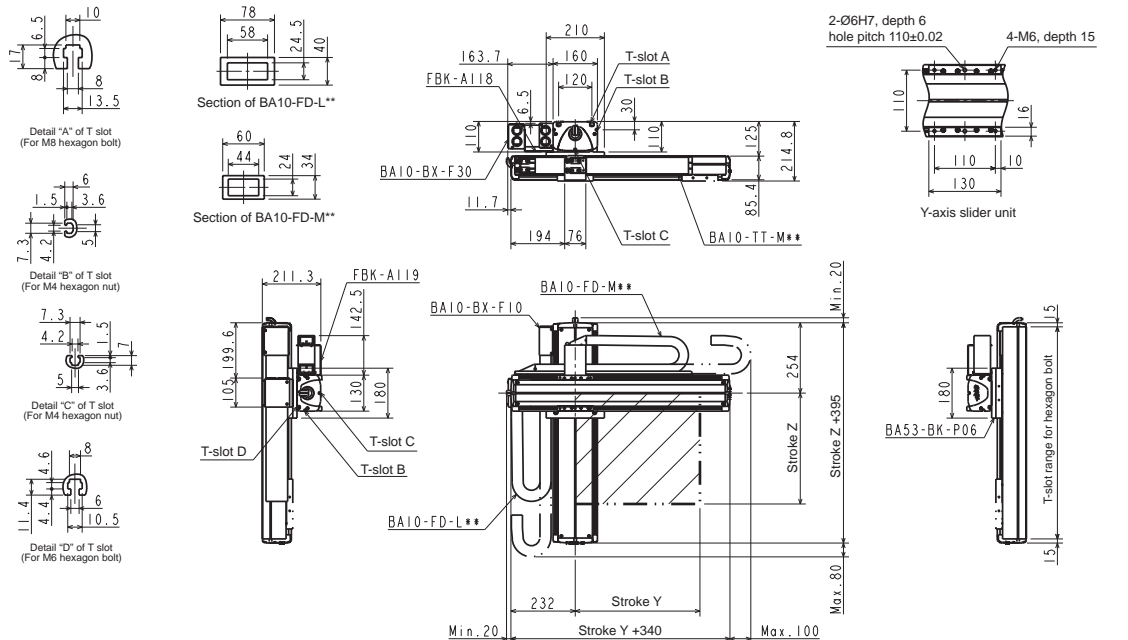
Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700~800	280
	900~1000	250
	1100~1200	180
	1300	130
	1400	100
	1500	80
Y-axis	1600	80
	750	1000
	850	800
	950~1050	600

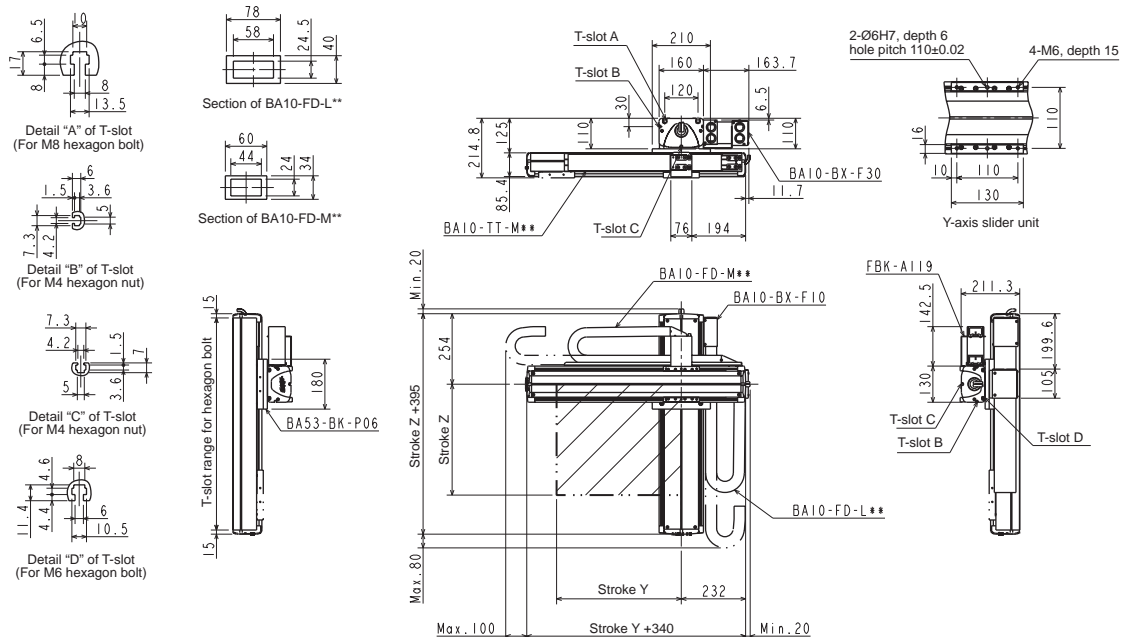
Maximum payload (kg) (Note 2)	Y-axis stroke									
	150mm	250mm	350mm	450mm	550mm	650mm	750mm	850mm	950mm	1050mm
	20.0	20.0	20.0	20.0	20.0	20.0	18.0	14.0	11.0	7.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

## R: Right-handed



## L: Left-handed



[Set designation]

**BA3 - A5 - C2B RA - 40 40 00 - OF 1 3**

Combined operation R: Right-handed L: Left-handed	Axis 1 stroke 20 : 200mm 90 : 900mm A0 : 1000mm G0 : 1600mm	Axis 2 stroke 10 : 100mm 90 : 900mm A0 : 1000mm	Controller (CA25-M10) 0 : None 1 : NPN output specifications Other : See page 20	Cable length 3 : 3m 9 : 9m 5 : 5m B : 11m 7 : 7m D : 13m
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**Ball screw type**

Z-axis: Ball screw driven  
Motor straight

Y-axis: Ball screw driven  
Motor straight

Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700~800	280
	900~1000	250
	1100~1200	180
	1300	130
	1400	100
	1500	80
Y-axis	1600	80
	700	1000
	800	800
	900~1000	600

[Specifications]

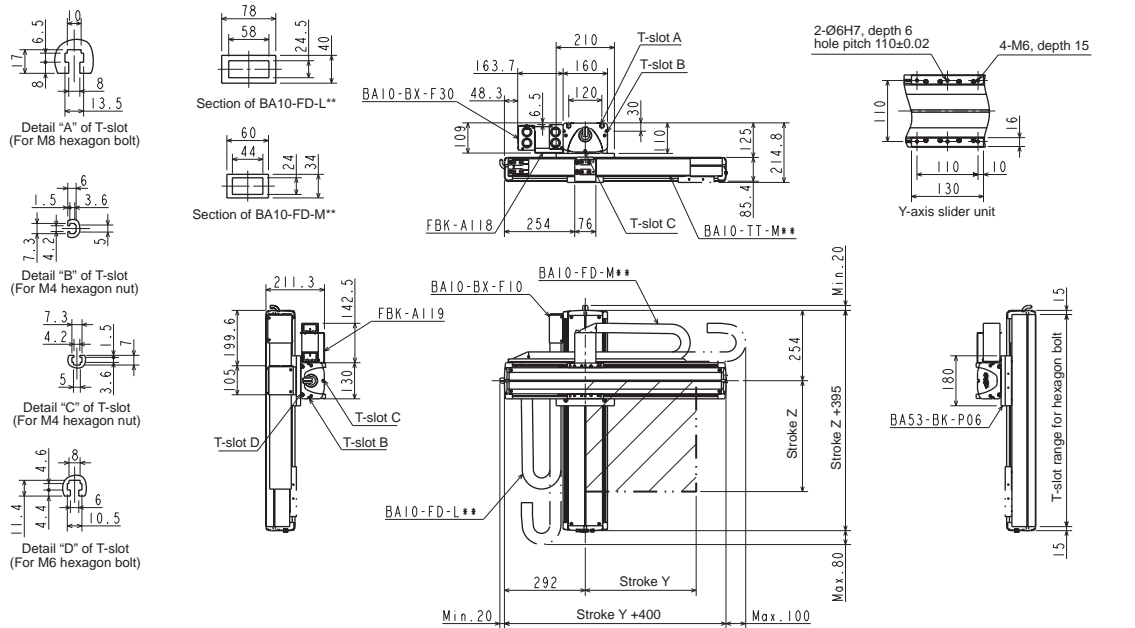
	Z-axis	Y-axis
Type of axis	BE50F-ST-M05B-□ 0	BE30F-ST-M20N-□ 0
Stroke (in increments of 100 mm)	200 ~ 1600mm	100 ~ 1000mm
Maximum speed	300mm/s (Note 1)	1200mm/s (Note 1)
Positioning repeatability	±0.01mm	
Lead of ball screw	5mm	20mm
Motor output	200W, with brake	200W
Resolution	0.01mm	

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

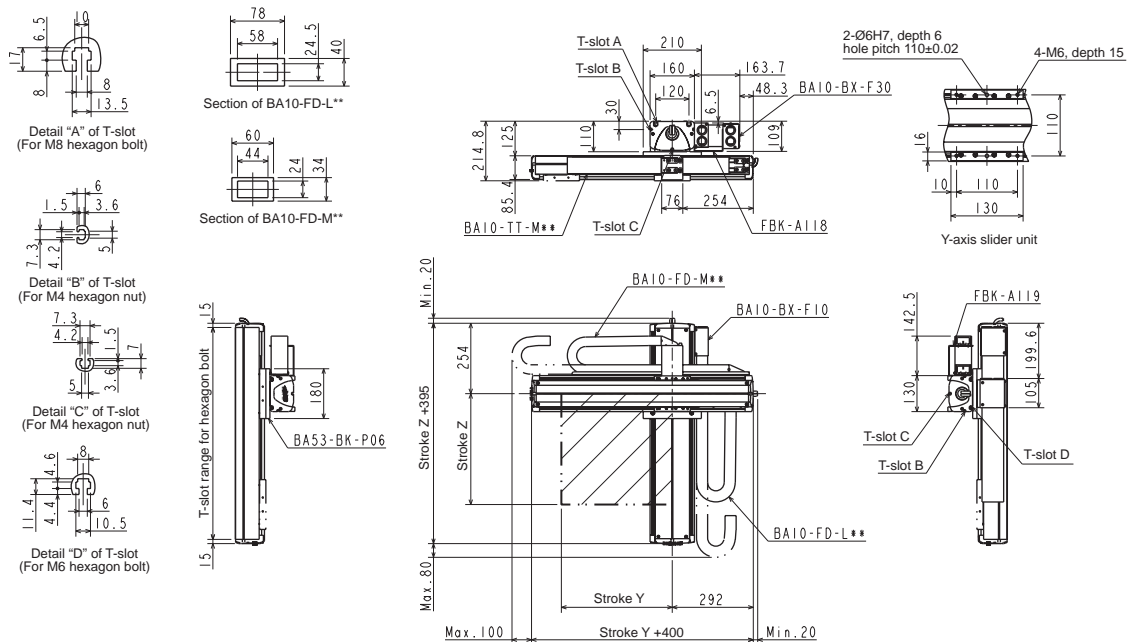
Maximum payload (kg) (Note 2)	Y-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	28.0	27.0	26.0	24.0	23.0	22.0	18.0	14.0	11.0	7.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

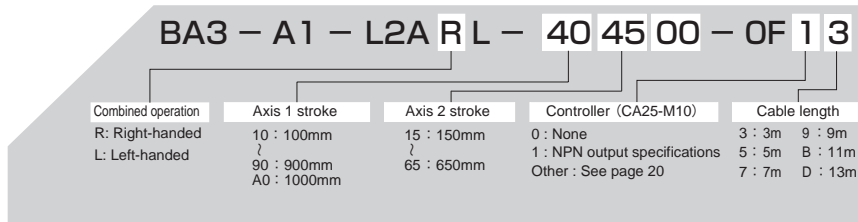
**R: Right-handed**



**L: Left-handed**



## [Set designation]



## Timing belt type

Z-axis: Ball screw driven  
Motor straight

Y-axis: Timing belt driven  
Side mounted motor

## [Specifications]

	Z-axis	Y-axis
Type of axis	BE10E-ST-M05B-□ 0	BE10E-B □ -S21N-□ 5
Stroke (in increments of 100 mm)	100 ~ 1000mm	150 ~ 650mm
Maximum speed	300mm/s (Note 1)	1000mm/s
Positioning repeatability	± 0.01 mm	± 0.04 mm
Lead	5 mm	21 mm (lead converted into ball screw)
Motor output	100W, with brake	100W
Resolution	0.01 mm	

Note 1: When the stroke is as given below, the maximum speed differs.

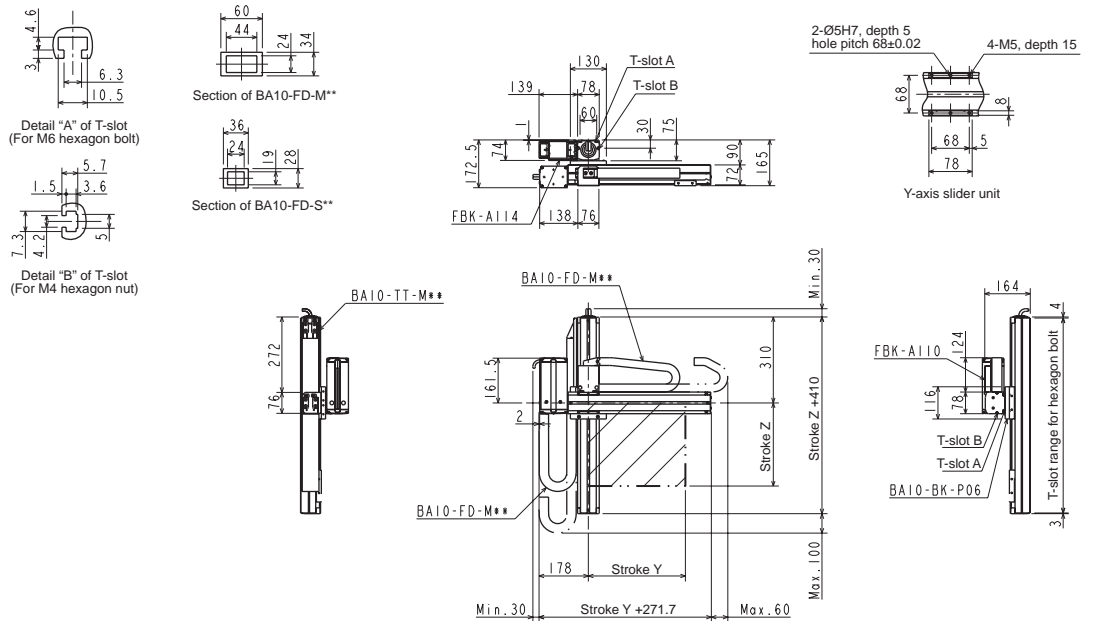
	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700	250
	800	200
	900~1000	150

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

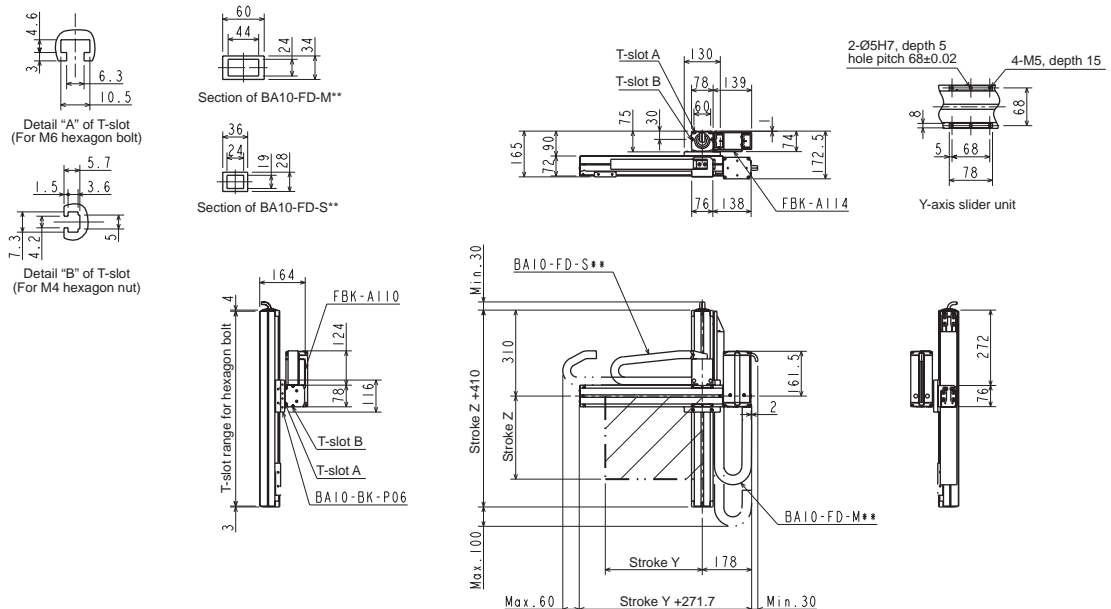
Maximum payload (kg) (Note 2)	Y-axis stroke					
	150mm	250mm	350mm	450mm	550mm	650mm
	15.0	12.0	9.0	6.0	5.0	3.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

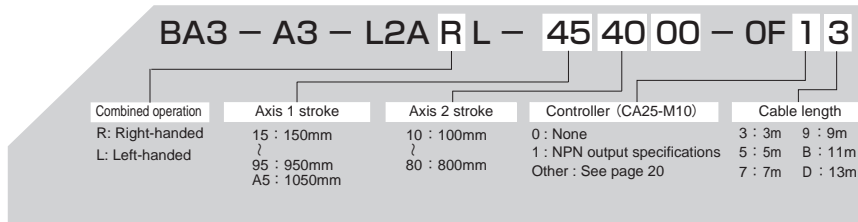
## R: Right-handed



## L: Left-handed



[Set designation]



Timing belt type

- Z-axis: Ball screw driven  
Motor straight
- Y-axis: Timing belt driven  
Side mounted motor

[Specifications]

	Z-axis	Y-axis
Type of axis	BE30E-ST-M05B-□ 5	BE10E-B□ -M21N-□ 0
Stroke (in increments of 100 mm)	150 ~ 1050mm	100 ~ 800mm
Maximum speed	300mm/s (Note 1)	1000mm/s
Positioning repeatability	± 0.01 mm	± 0.04mm
Lead	5mm	21 mm (lead converted into ball screw)
Motor output	100W, with brake	100W
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

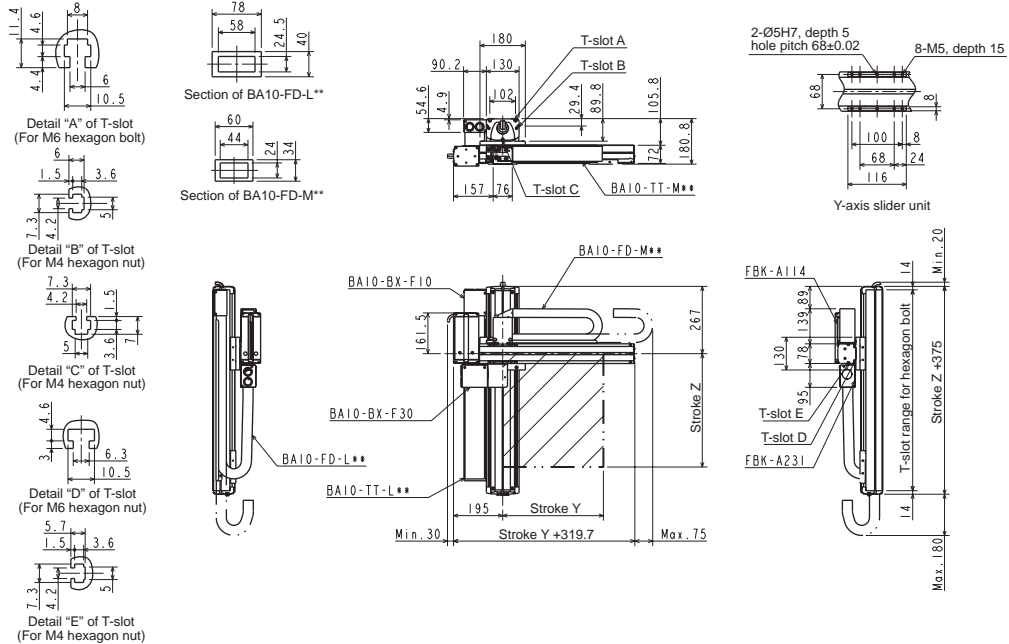
	Stroke (mm)	Maximum speed (mm/s)
Z-axis	750	250
	850	200
	950~1050	150

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

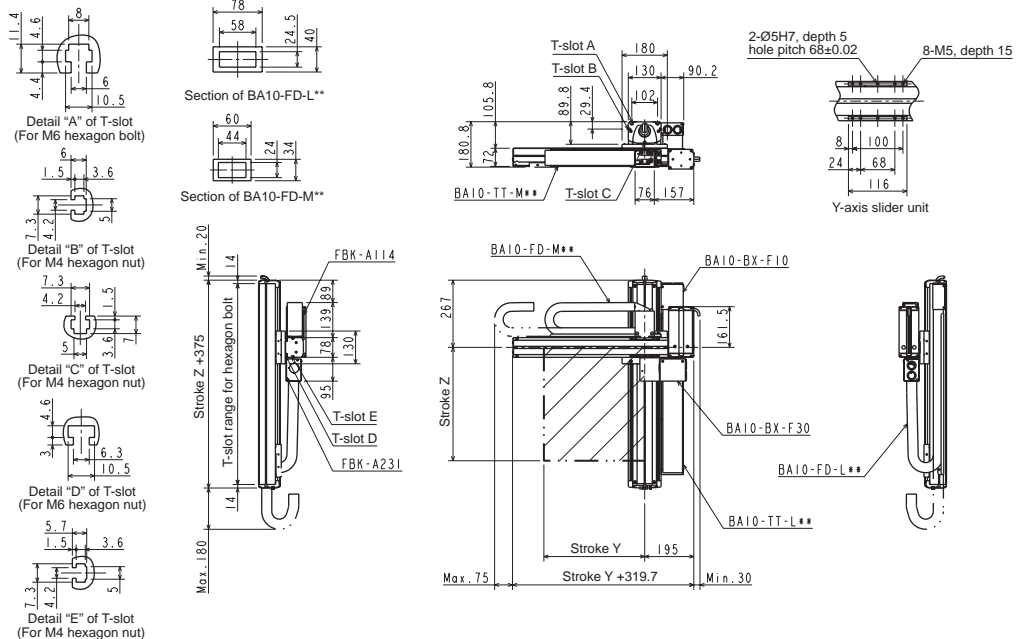
Maximum payload (kg) (Note 2)	Y-axis stroke							
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm
	15.0	15.0	15.0	12.0	8.0	6.0	4.0	1.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

R: Right-handed

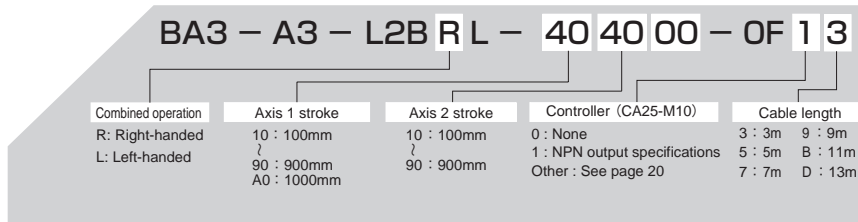


L: Left-handed





## [Set designation]



## Timing belt type

Z-axis: Ball screw driven  
Motor straight

Y-axis: Timing belt driven  
Side mounted motor

## [Specifications]

	Z-axis	Y-axis
Type of axis	BE30F-ST-M05B-□ 0	BE10E-B□ -M21N-□ 0
Stroke (in increments of 100 mm)	100 ~ 1000mm	100 ~ 900mm
Maximum speed	300mm/s (Note 1)	1000mm/s
Positioning repeatability	± 0.01 mm	± 0.04 mm
Lead	5 mm	21 mm (lead converted into ball screw)
Motor output	200W, with brake	100W
Resolution	0.01 mm	

Note 1: When the stroke is as given below, the maximum speed differs.

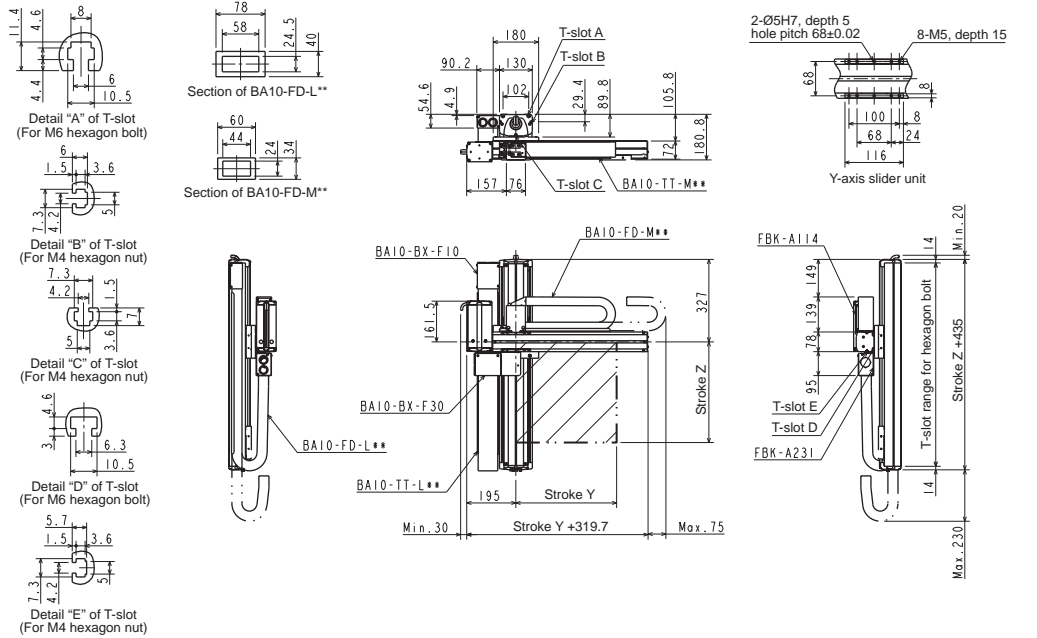
	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700	250
	800	200
	900~1000	150

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

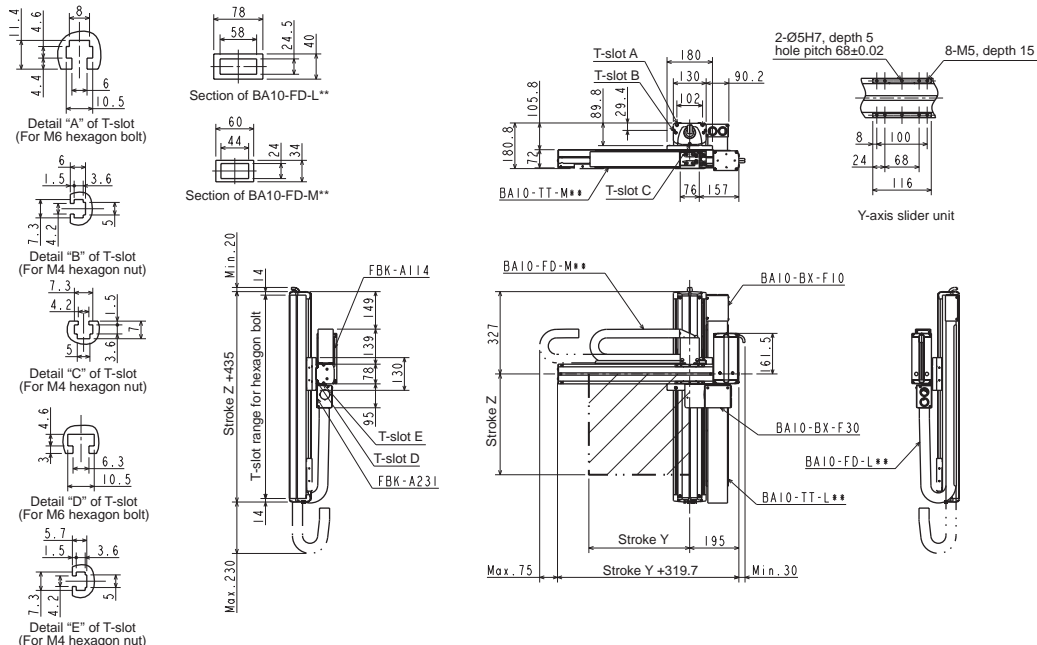
Maximum payload (kg) (Note 2)	Y-axis stroke								
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm
	15.0	15.0	15.0	12.0	9.0	7.0	5.0	3.0	1.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

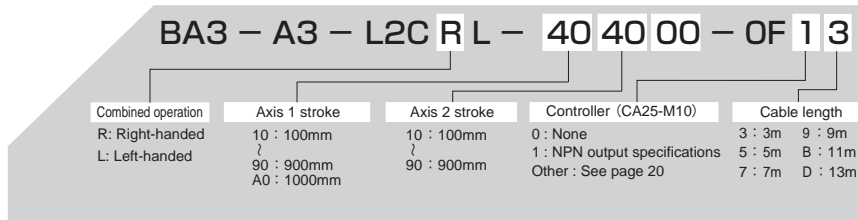
## R: Right-handed



## L: Left-handed



[Set designation]



Timing belt type

- Z-axis: Ball screw driven  
Motor straight
- Y-axis: Timing belt driven  
Side mounted motor

[Specifications]

	Z-axis	Y-axis
Type of axis	BE30F-ST-M05B-□ 0	BE10F-B□ -M21N-□ 0
Stroke (in increments of 100 mm)	100 ~ 1000mm	100 ~ 900mm
Maximum speed	300mm/s (Note 1)	1000mm/s
Positioning repeatability	± 0.01 mm	± 0.04mm
Lead	5mm	21 mm (lead converted into ball screw)
Motor output	200W, with brake	200W
Resolution	0.01mm	

Note 1: When the stroke is as given below, the maximum speed differs.

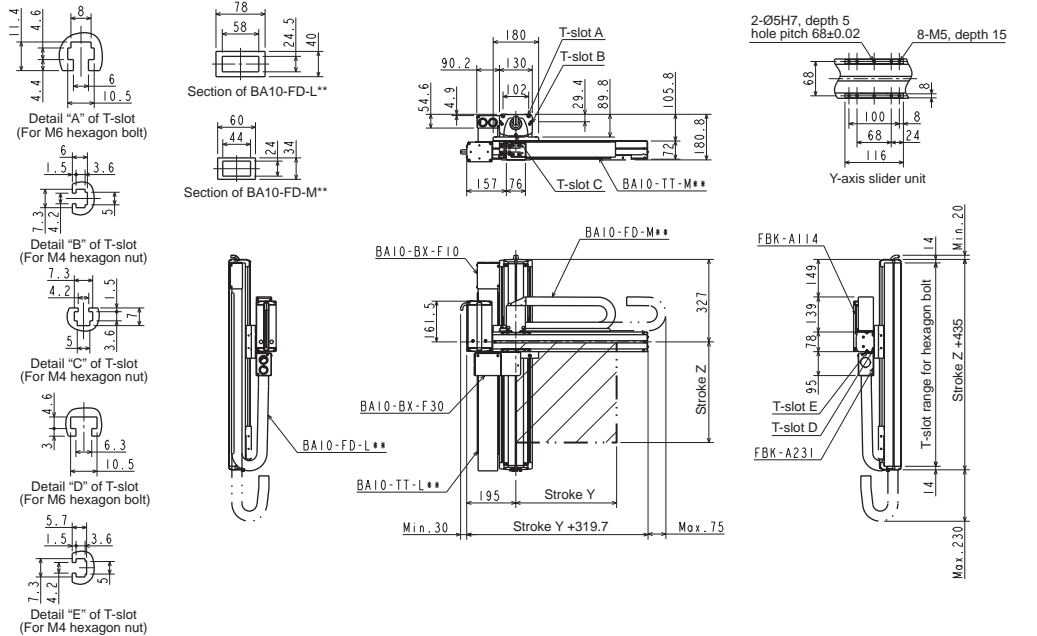
	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700	250
	800	200
	900~1000	150

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

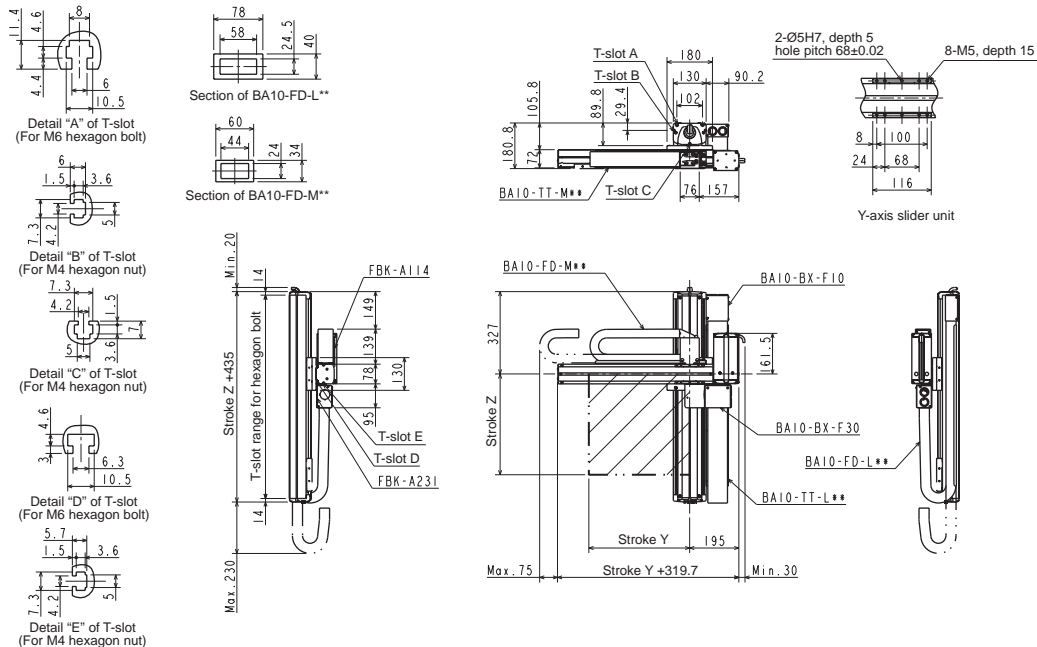
Maximum payload (kg) (Note 2)	Y-axis stroke								
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm
	20.0	19.0	15.0	12.0	9.0	7.0	5.0	3.0	1.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

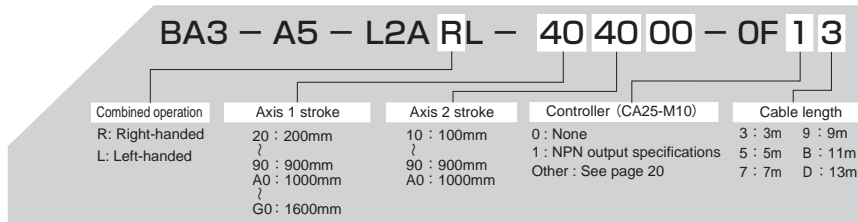
R: Right-handed



L: Left-handed



## [Set designation]



## Timing belt type

Z-axis: Ball screw driven  
Motor straight

Y-axis: Timing belt driven  
Side mounted motor

Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700~800	280
	900~1000	250
	1100~1200	180
	1300	130
	1400	100
	1500	80
	1600	80

## [Specifications]

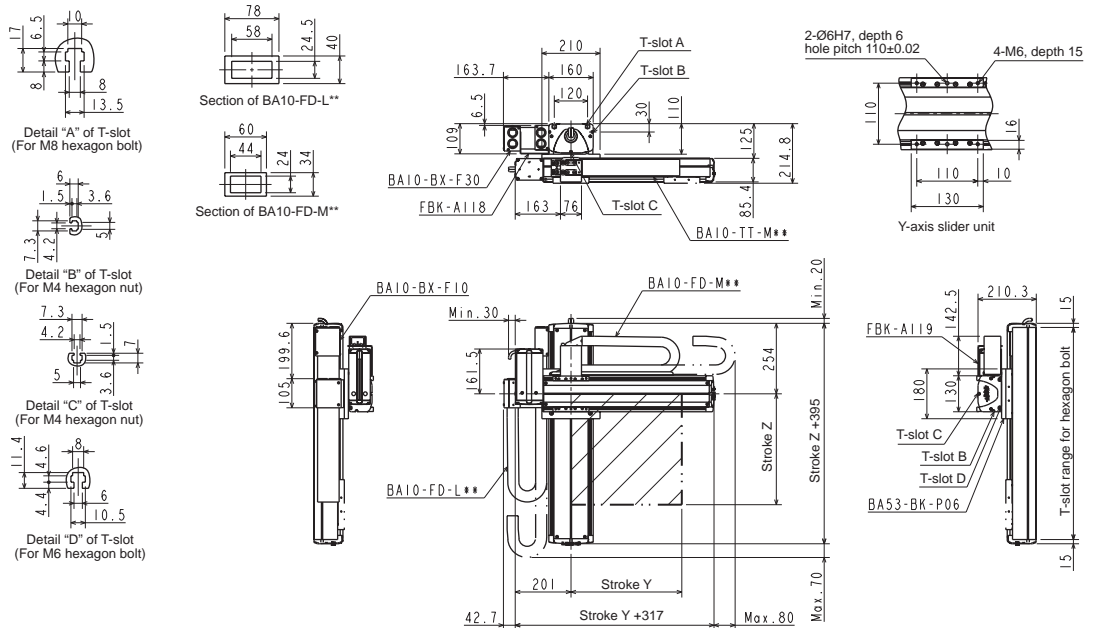
	Z-axis	Y-axis
Type of axis	BE50F-ST-M05B-□ 0	BE30E-B□ -M21N-□ 0
Stroke (in increments of 100 mm)	200 ~ 1600mm	100 ~ 1000mm
Maximum speed	300mm/s (Note 1)	1000mm/s
Positioning repeatability	± 0.01 mm	± 0.04 mm
Lead of ball screw	5 mm	21 mm (lead converted into ball screw)
Motor output	200W, with brake	100W
Resolution	0.01 mm	

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

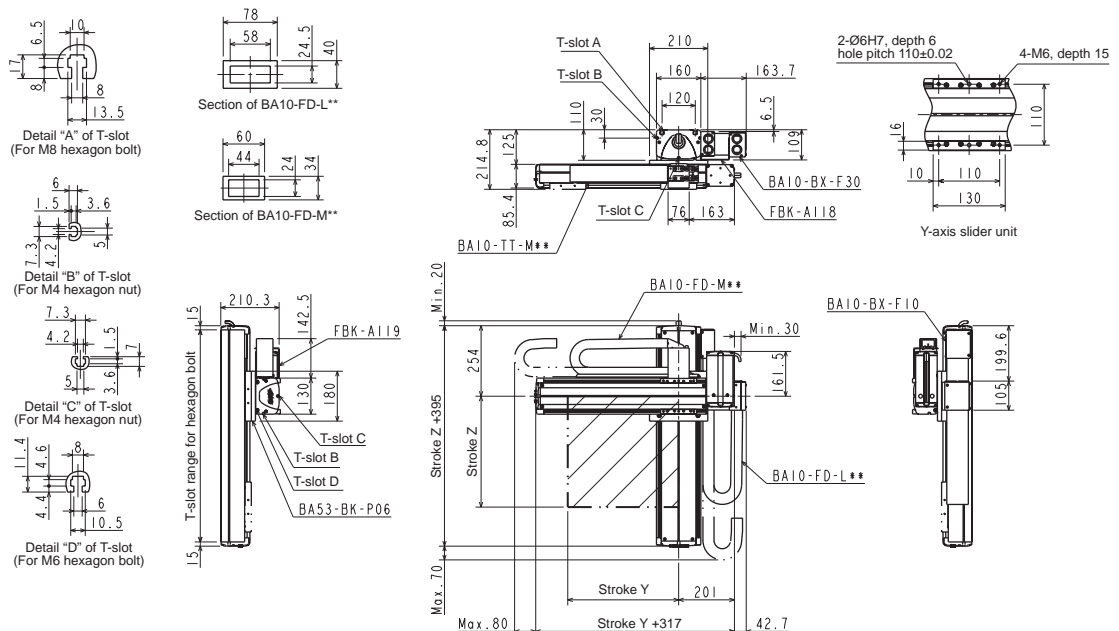
Maximum payload (kg) (Note 2)	Y-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	15.0	15.0	15.0	15.0	15.0	15.0	15.0	14.0	11.0	7.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

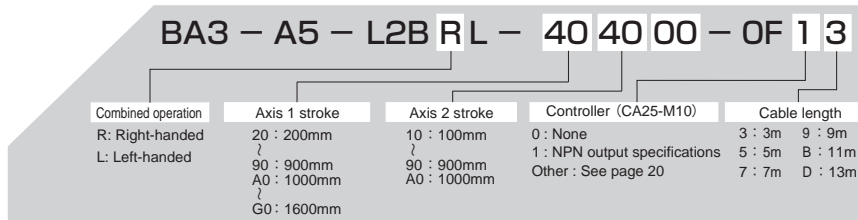
## R: Right-handed



## L: Left-handed



[Set designation]



Timing belt type

- Z-axis: Ball screw driven  
Motor straight
- Y-axis: Timing belt driven  
Side mounted motor

Note 1: When the stroke is as given below, the maximum speed differs.

	Stroke (mm)	Maximum speed (mm/s)
Z-axis	700~800	280
	900~1000	250
	1100~1200	180
	1300	130
	1400	100
	1500	80
	1600	80

[Specifications]

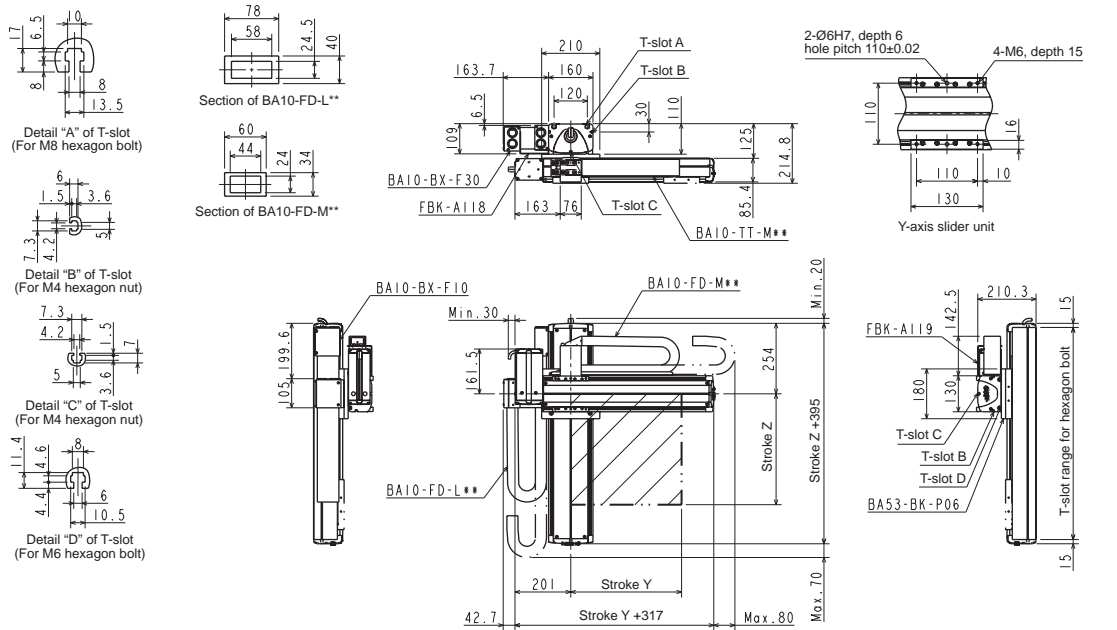
	Z-axis	Y-axis
Type of axis	BE50F-ST-M05B-□ 0	BE30F-B□ -M21N-□ 0
Stroke (in increments of 100 mm)	200 ~ 1600mm	100 ~ 1000mm
Maximum speed	300mm/s (Note 1)	1000mm/s
Positioning repeatability	± 0.01 mm	± 0.04 mm
Lead	5 mm	21 mm (lead converted into ball screw)
Motor output	200W, with brake	200W
Resolution	0.01 mm	

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

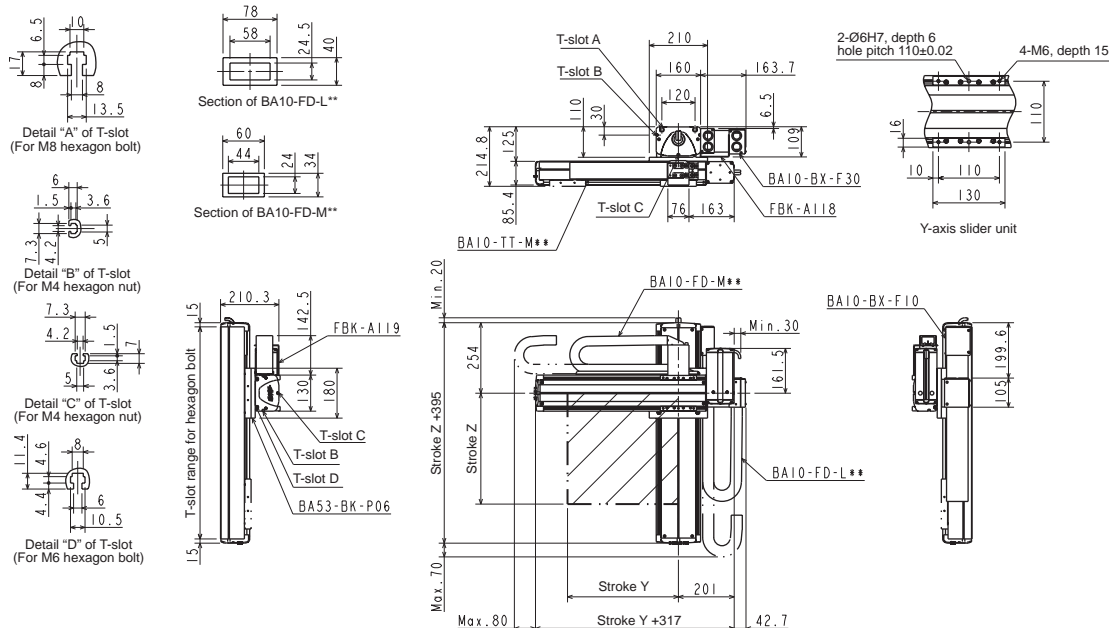
Maximum payload (kg) (Note 2)	Y-axis stroke									
	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
	27.0	26.0	25.0	24.0	23.0	22.0	18.0	14.0	11.0	7.0

Note 2: Payload when a regenerative discharge unit (ABSU-2000) is used.

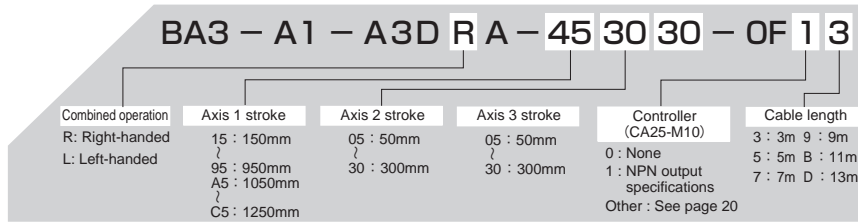
R: Right-handed



L: Left-handed



## [Set designation]



## Ball screw type

- X-axis: Ball screw driven  
Motor straight
- Y-axis: Ball screw driven  
Motor straight
- Z-axis: Ball screw driven  
Motor straight

## [Specifications]

	X-axis	Y-axis	Z-axis
Type of axis	BE10E-ST-S20N-□5	BET7D-ST-M12N-□□	BET5D-ST-M06B-□□
Stroke (mm) (X-axis in increments of 100 mm, Y- and Z-axis in increments of 50mm)	150 ~ 1250	50 ~ 300	50 ~ 300
Maximum speed (mm/s)	1200 (Note 1)	800	400
Positioning repeatability (mm)	±0.01	±0.02	
Lead of ball screw (mm)	20	12	6
Motor output	100W	50W	50W, with brake
Resolution (mm)	0.01		

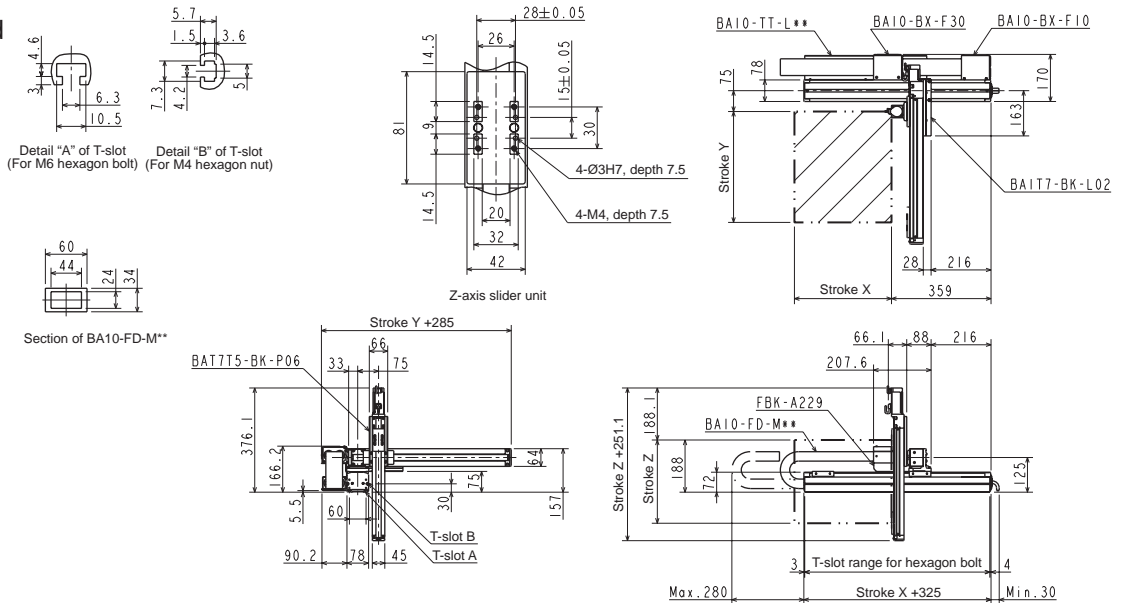
Note 1: When the stroke is as given below, the maximum speed differs.

X-axis	Stroke (mm)	Maximum speed (mm/s)
	750	1000
	850	800
	950~1050	600
	1150~1250	400

Acceleration/deceleration time when the maximum speed is set: 0.36 sec. or over

Maximum payload (kg)	Y-axis stroke					
	50mm	100mm	150mm	200mm	250mm	300mm
Z-axis stroke						
50,100mm	3.0	3.0	2.5	2.5	0.7	0.7
150,200mm	3.0	3.0	2.5	2.5	0.5	0.5
250,300mm	3.0	3.0	2.5	2.5	0.3	0.3

## R: Right-handed



## L: Left-handed

