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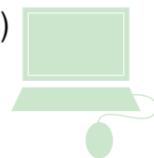
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Posted on the CKD website.

<https://www.ckd.co.jp/kiki/en/>



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Search by Product System List

You can select by the appearance and product overview of each series.

Servo motor compatible >>> P. 1



Slider Type (Ball Screw Driven)

Model No.	Servo motor size (W)	Max. speed *1	Max. Payload (Horizontal)	Page
EBS-04L	50	600 mm/s	20 kg	14
EBS-05L	100	1000 mm/s	30 kg	20
EBS-08L	200	1000 mm/s	50 kg	26
EBS-12L	400	1600 mm/s	110 kg	32
EBS-04L-C	50	600 mm/s	20 kg	44
EBS-05L-C	100	1000 mm/s	30 kg	46
EBS-08L-C	200	1000 mm/s	50 kg	48

*1 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not drive at speeds beyond the limit.



Rod type with built-in guide

Model No.	Servo motor size (W)	Max. speed *1	Max. Payload (Horizontal)	Page
EBR-04L	50	600 mm/s	20 kg	78
EBR-05L	100	1000 mm/s	30 kg	84
EBR-08L	200	1000 mm/s	50 kg	90
EBR-12L	400	1600 mm/s	110 kg	96

*1 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not drive at speeds beyond the limit.



Slider Type (Ball Screw Driven, Low Dust Generation Specification)

Model No.	Servo motor size (W)	Max. speed *1	Max. Payload (Horizontal)	Page
ECS-14	200/400	1000 mm/s	110 kg	240
ECS-17	400/750	2000 mm/s	120 kg	248
ECS-22	750	2000 mm/s	150 kg	256

*1 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not drive at speeds beyond the limit.



Slider Type (Belt Driven)

Model No.	Servo motor size (W)	Max. speed *1	Max. Payload (Horizontal)	Page
ETV-14	200	2000 mm/s	25 kg	288
ETV-17	400	2000 mm/s	45 kg	296
ETV-22	750	2000 mm/s	85 kg	304

*1 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm.



Slider Type (Ball Screw Driven)

Model No.	Servo motor size (W)	Max. speed *2	Max. Payload (Horizontal)	Page
ETS-13	100 *// 200/400	1000 mm/s	70 kg	124
ETS-14	200/400	1000 mm/s	110 kg	132
ETS-17	400/750	2000 mm/s	120 kg	140
ETS-22	750	2000 mm/s	150 kg	148

*1 ETS-13 100 W is only compatible with metal stopper (ETS-X) specifications.

*2 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not drive at speeds beyond the limit.



Slider type (ball screw drive) (combination model)

Model No.	Axis combination	Servo motor size (W)	Page
ETS-650A	X-Y	X: 400 Y: 200	176
ETS-760A	X-Y	X: 400 Y: 200	182
ETS-870A	X-Y	X: 750 Y: 400	188
ETS-650P	X-Z	X: 400 Y: 200	196
ETS-760P	X-Z	X: 400 Y: 400	200
ETS-880P	X-Z	X: 750 Y: 750	204
ETS-760F	Y-Z	X: 400 Y: 400	208



Slider type (belt drive low dust specifications)

Model No.	Servo motor size (W)	Max. speed *1	Max. Payload (Horizontal)	Page
ECV-14	200	2000 mm/s	25 kg	332
ECV-17	400	2000 mm/s	45 kg	340
ECV-22	750	2000 mm/s	85 kg	348

*1 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm.



Slider Type (Ball Screw Driven)

Model No.	Servo motor size (W)	Max. speed *1	Max. Payload (horizontal) *2	Page
EKS-04L	50/100	800 mm/s	19 kg	378
EKS-05L	100	1000 mm/s	26 kg	386
EKS-06L	200	1500 mm/s	42 kg	394
EKS-08L	400	2000 mm/s	83.5 kg	402
EKS-10L	750	2500 mm/s	118.5 kg	410

*1 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not drive at speeds beyond the limit.

*2 Values for max. payload are at acceleration/deceleration 0.5 G and straight motor mounting. Refer to the Load Capacity by Acceleration/Deceleration table on the specifications page for each model for details.

Search by Product System List

You can select by the appearance and product overview of each series.



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Electric Shuttle Mover (Belt Driven)

ESM

Model No.	Servo motor size (W)	Max. Payload	Max. Conveyance Distance	Page
ESM	750	4 kg	20 m	438

Stepper motor compatible >>> P. 451



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Slider Type (Ball Screw Driven)

EBS-L

Model No.	Stepping Motor Size	Max. speed *1	Max. Payload (Horizontal)	Page
EBS-04L	□42	600 mm/s	20 kg	460
EBS-05L	□42	1000 mm/s	30 kg	466
EBS-08L	□56/□60	1000 mm/s	50 kg	472

*1 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not drive at speeds beyond the limit.



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Rod type with built-in guide

EBR-L

Model No.	Stepping Motor Size	Max. speed *1	Max. Payload (Horizontal)	Page
EBR-04L	□42	600 mm/s	20 kg	500
EBR-05L	□42	1000 mm/s	30 kg	506
EBR-08L	□56/□60	1000 mm/s	50 kg	512

*1 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not drive at speeds beyond the limit.



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Slider Type (Ball Screw Driven)

ETS

Model No.	Stepping Motor Size	Max. speed *2	Max. Payload (Horizontal)	Page
ETS-13	□56/□60	1000 mm/s	70 kg	540
ETS-14	□56/□60	1000 mm/s	110 kg	546

*1 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not drive at speeds beyond the limit.



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Slider Type (Ball Screw Driven Low Dust Generation Specification)

ECS

Model No.	Stepping Motor Size	Max. speed *1	Max. Payload (Horizontal)	Page
ECS-14	□56/□60	1000 mm/s	110 kg	570

*1 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000 rpm. The max. speed is restricted by the stroke. Do not drive at speeds beyond the limit.

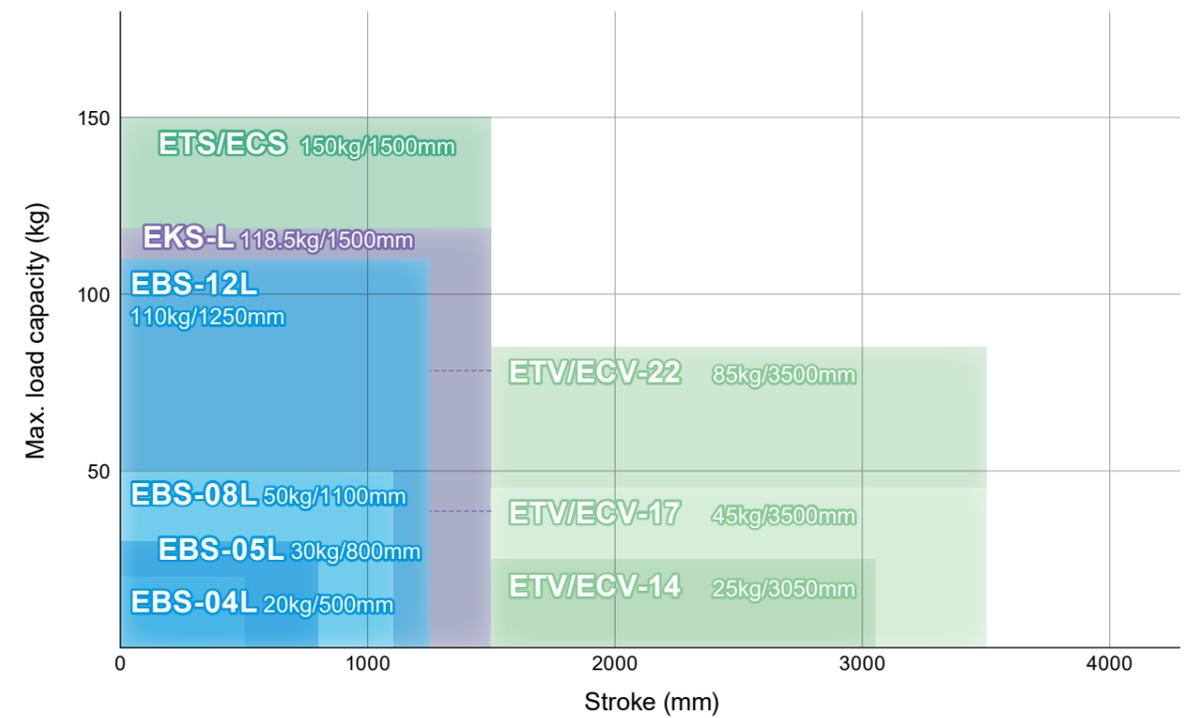
Actuator slider/rod types list (servo motor compatible)

<p>EBS-L (ball screw)</p> <ul style="list-style-type: none"> High rigidity & Space saving Pursuit of Maintainability 	<p>Ball screw</p> <ul style="list-style-type: none"> High rigidity & Space saving Pursuit of Maintainability 	<p>ETS (ball screw)</p> <ul style="list-style-type: none"> Supports transport of high loads Wide variations 	<p>ECS (ball screw)</p> <ul style="list-style-type: none"> ETS low dust specifications Wide variations 
<p>ETV (belt)</p> <ul style="list-style-type: none"> Compatible with long stroke Supports high speed transport 	<p>ECV (belt)</p> <ul style="list-style-type: none"> ETV low dust specifications Supports long strokes 	<p>Ball screw</p> <ul style="list-style-type: none"> Iron body adopted Fast tact & High rigidity 	

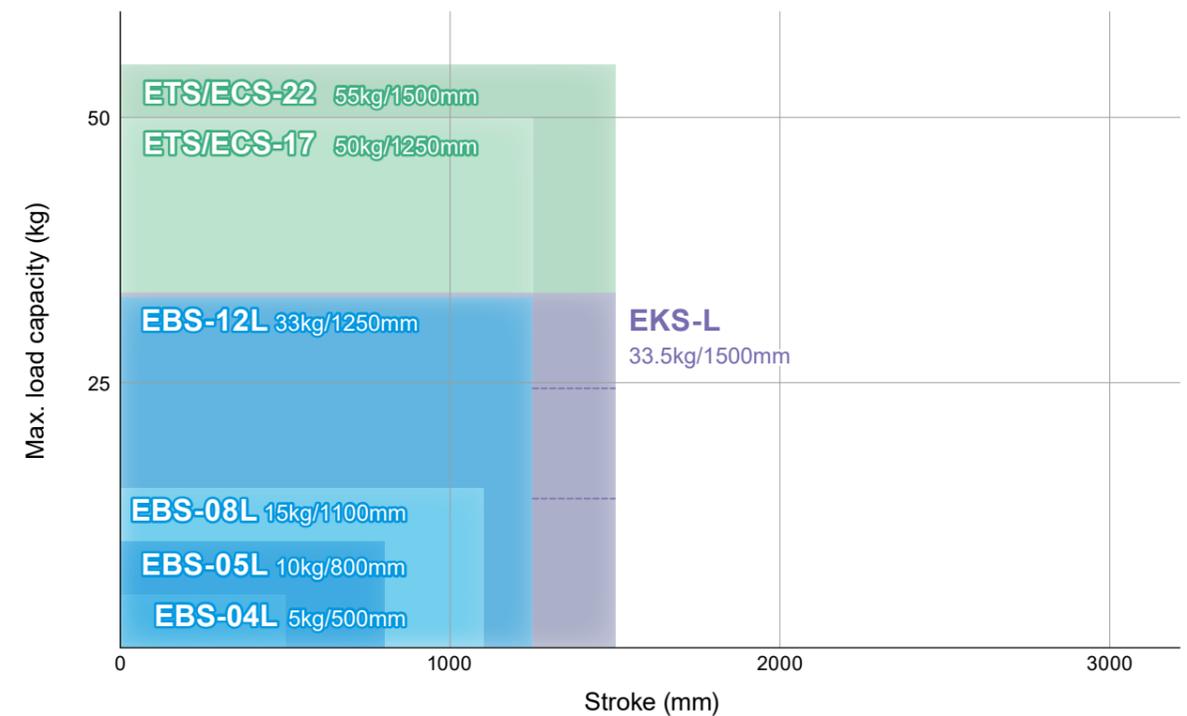
List of specifications by model

Type	Model No.	Drive Method	Servo motor capacity (W)	Body Width (mm)	Max. Payload (kg)			Max. Speed (mm/s)	Max. Stroke (mm)
					Horizontal	Wall-mounted	Vertical		
Slider Type	EBS-L	Ball screw	50 to 400	44 to 120	110	110	33	1600	1250
	ETS	Ball screw	100 to 750	135 to 220	150	150	55	2,000	1500
	ECS	Ball screw	200 to 750	135 to 220	150	150	55	2,000	1500
	ETV	Belt	200 to 750	135 to 220	85	85	-	2,000	3500
	ECV	Belt	200 to 750	135 to 220	85	85	-	2,000	3500
	EKS-L	Ball screw	50 to 750	43 to 104	118.5	76	33.5	2500	1500
Rod Type	EBR-L	Ball screw	50 to 400	44 to 120	110	110	33	1600	800

During horizontal transport



During vertical transport



* The specification is the max. value. They depend on the motor specification conditions.

Actuator slider/rod types list (stepper motor compatible)

EBS-L (ball screw)

- High rigidity & Space saving
- Pursuit of Maintainability



Ball screw

- High rigidity & Space saving
- Pursuit of Maintainability



ETS (ball screw)

- Supports transport of high loads
- Wide variations

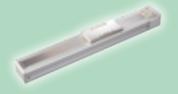


ECS (ball screw)

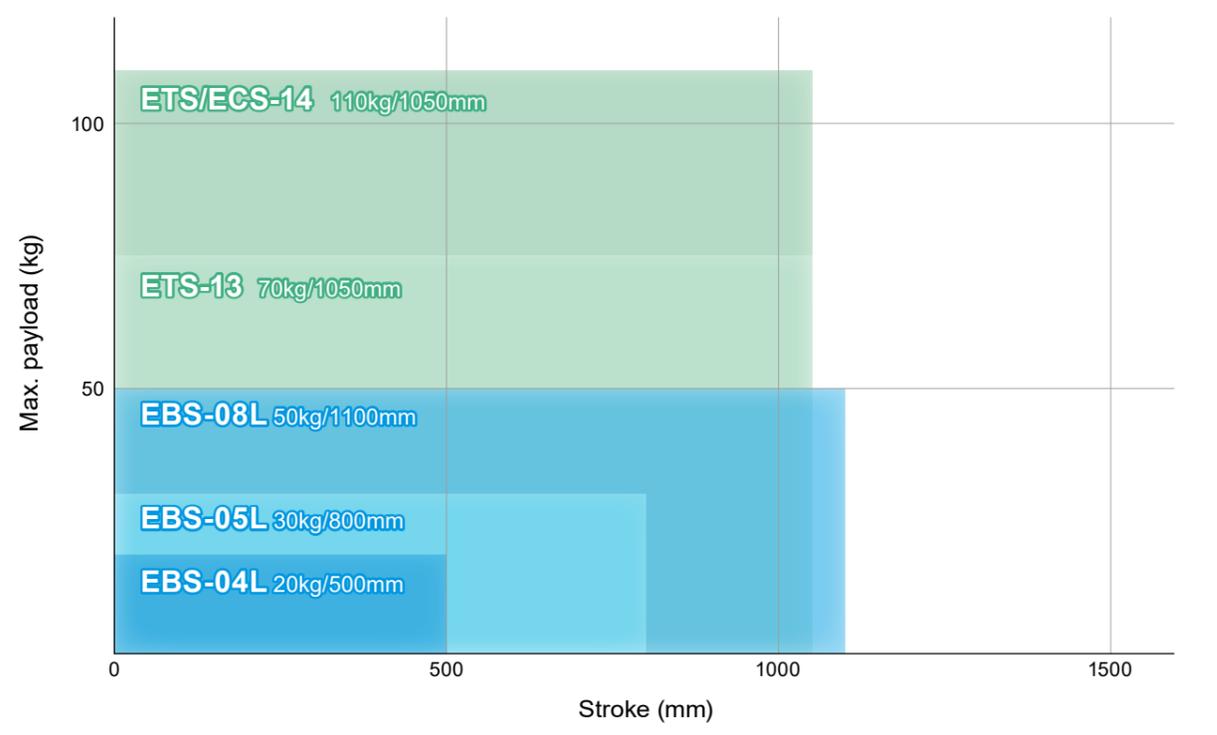
- ETS low dust specifications
- Wide variations



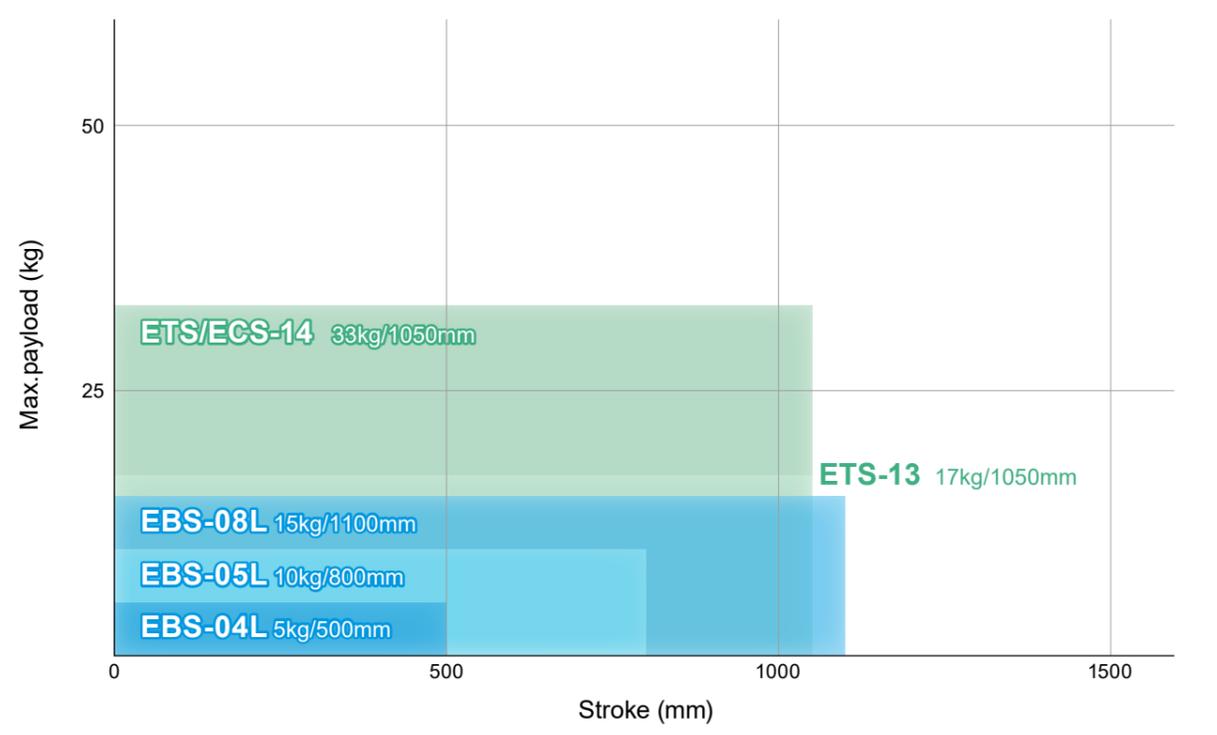
List of specifications by model

Type	Model No.	Drive Method	Stepping Motor Size	Body Width (mm)	Max. Payload (kg)			Max. Speed (mm/s)	Max. Stroke (mm)
					Horizontal	Wall-mounted	Vertical		
Slider Type	EBS-L 	Ball screw	□42 to 60	44 to 82	50	50	15	1,000	1100
	ETS 	Ball screw	□56 to 60	135	110	110	33	1,000	1050
	ECS 	Ball screw	□56 to 60	135	110	110	33	1,000	1050
Rod Type	EBR-L 	Ball screw	□42 to 60	44 to 82	50	50	15	1,000	700

During horizontal transport



During vertical transport



* The specification is the max. value. They depend on the motor specification conditions.

CKD How to use CAD data

Pneumatic valve manifold specifications and CAD data are easily available on the Web.

Free download!

This is what makes CKD's CAD great!

Comprehensive list of CKD's leading products



Japanese, English, Chinese (Simplified and Traditional), and Korean are supported.

Simultaneous with new product launch

NEW Model No. **AX1R**
ABSODEX



Supports various data formats

- + PDF (A4) (2D)
- + PDF DataSheet (2D)
- + CAD-DataSheet (3D)
- + SAT (3D)
- + Solid Edge 2019 (3D)
- + Solid Edge 2023 (3D)
- + Solid Edge 2021 (3D)
- + Solid Edge 2022 (3D)
- + AutoCAD (2021) (2D)
- + AutoCAD (2022) (2D)
- + STEP (AP214) (3D)
- + STEP (AP214) (3D)
- + IFC (3D)
- + JT (3D)
- + TMX (3D model) (3D)
- + Triang (3D model) (3D)

More than 25 types of 2D and more than 35 types of 3D
Supports PDF and JPEG formats!

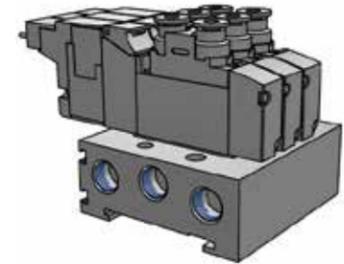
*To use 3D CAD, you must register as a CKD plus member.

Specifications are available



Manifold specifications for pneumatic valves can be prepared and shipped assembled to the customer.

Get CAD data



2D and 3D CAD data available for pneumatic valve manifold assemblies

Specifications and download method of CAD data

CKD plus How to register as a member

STEP 1

From the CKD components product top page, click "New member registration"



STEP 2

Enter your name, company name, contact information, and email address

Registration complete!



Easy registration in 2 STEPS

How to download CAD

STEP 1

Click on "3D CAD" from the product detail page



STEP 2

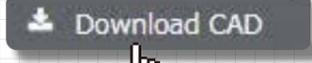
Select model No.

STEP 3

Specify CAD format

Generate CAD data

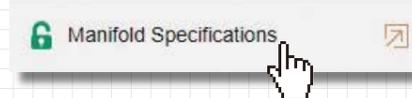
Download CAD



Download complete!

STEP 1

CKD components product TOP page > Product details page > Click "Manifold specifications sheet"



STEP 2

Select model No.

STEP 3

Create specifications sheet



STEP 4

Download complete!

- For specifications output, **Specification output** Click
- If downloading CAD data **2D/3D CAD** Click



Significantly reduces work time

Website Guide

Various information is provided on our website.
Please make use of it.



You can find the information you need here.

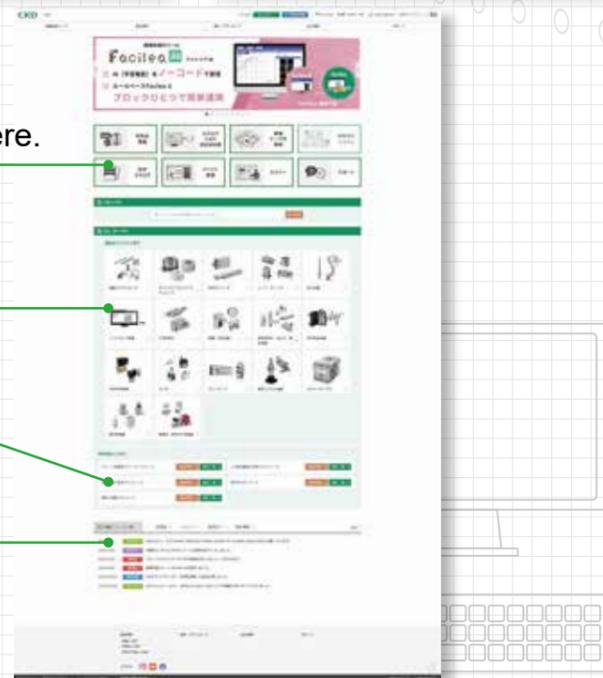
You can search for desired products.

You can find suitable products by application.

You can check the latest news.



Each product page provides various information.



Various information is published by product axis and application.

Model Selection System Guide

About Using the Model Selection System

We provide a system that supports the selection of the following items. Please use it when selecting models and designing.

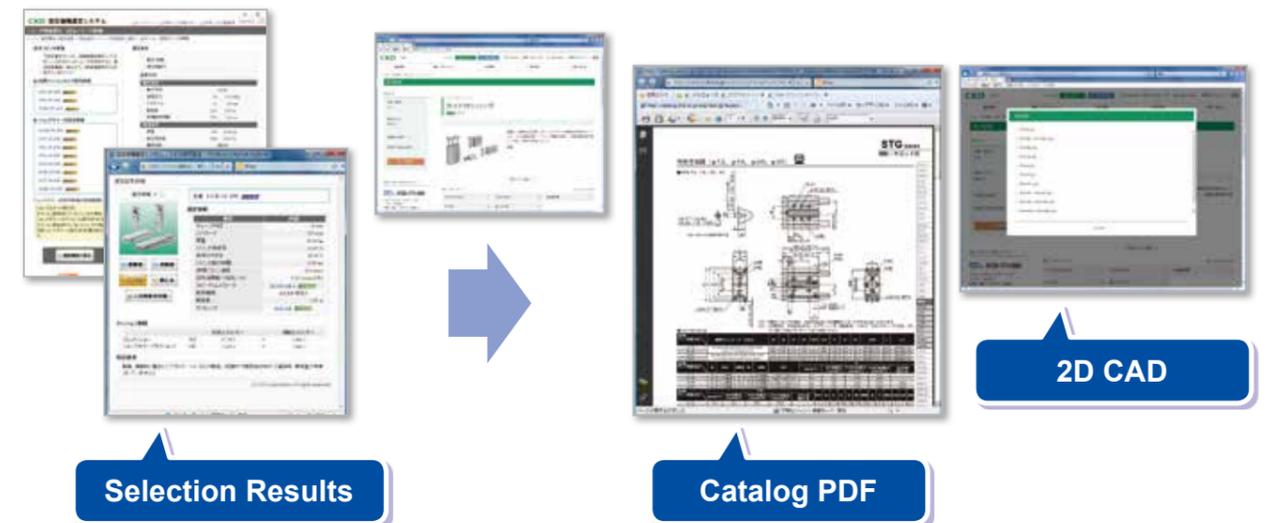
Published on our website

This system is for selecting products according to your application and operating conditions.



*Downloadable software may not be able to be downloaded due to your company's security policy. In that case, please contact us.

Link from selection results to catalog PDFs and CAD data!



No registration required, available anytime!

We offer various services for CKD products, including catalogs, PDFs, CAD data, and model selection. Please take a look.

<https://www.ckd.co.jp/en/>



Safety Precautions

Always read this section before use.

When designing equipment using electric actuators, the manufacturer is obligated to ensure that the safety of the mechanism and the electrically controlled system are secured.

It is important to select, use, handle and maintain CKD products appropriately to ensure their safe usage.

Observe warnings and precautions to ensure device safety.

Check that device safety is ensured and a safe device is manufactured.

WARNING

- 1** This product is designed and manufactured as a general industrial machine part. It must be handled by an operator having sufficient knowledge and experience in handling.
- 2** Use the product within specifications range.
This product must be used within its stated specifications. It must not be modified or machined additionally. This product is intended for use as a device or part for general-purpose industrial machinery. It is not intended for use outdoors (except for outdoor type) or for use under the following conditions or environment.
(Note that this product can be used under the following conditions only when CKD is consulted prior to use and the customer consents to CKD product specifications. The customer must provide safety measures to avoid risks in the event of problems.)
 - 1** Use for special applications which require the safety, including nuclear energy, railways, aircrafts, marine vessels, vehicles, medicinal devices, devices or applications coming into contact with beverages or foodstuffs, amusement devices, emergency operations (cutoff circuits, opening etc.) circuits, press machines, brake circuits, or safety devices or applications.
 - 2** Use for applications where life or assets could be adversely affected and special safety measures are required.
- 3** Observe organization standards and regulations, etc. related to the safety of device design.
- 4** Never remove devices before confirming safety.
 - 1** Inspect and service on the machine and devices after confirming safety of the entire system related to this product.
 - 2** Note that there may be hot or charged sections even after operation is stopped.
 - 3** When inspecting or maintaining device, be sure to shut down the power supply of the equipment and the relevant power supply, using caution to avoid electric shock.
- 5** Observe instruction manual and precautions attached the product surely to prevent accidents.
 - 1** The product could operate unexpectedly during teaching operation or trial operation. Be especially careful not to touch the actuator. If operating the product from a position where the shaft body cannot be seen, be sure to first confirm that the safety is secured even if the actuator moves.
- 6** Observe precautions to prevent electric shock.
 - 1** Do not touch the heat sink, cement friction, or motor inside the controller.
These will heat up, and could cause burns. Wait an appropriate amount of time prior to performing inspections or other tasks. A high voltage is applied until the electrical load stored in the internal capacitors is discharged after the power is turned OFF. Do not touch for around three minutes after the power OFF.
 - 2** Make sure to turn the switch on the controller power supply source OFF, before maintenances and inspections.
There is a danger of high voltage electric shocks.
 - 3** Do not attach or remove connector, while the power is on. Otherwise, this may cause malfunction, failure, or electric shock.
- 7** Install an overcurrent protector.
The wiring to the driver should be in accordance with JIS B 9960-1:2019 (IEC 60204-1:2016) Safety of Machinery - Electrical Equipment of Machines - Part 1: General Requirements. Install an overcurrent protector (a circuit breaker or circuit protector for wiring) on the main power, control power, and I/O power.
(Reference: JIS B 9960-1 7.2.1 General description)
If there is a possibility the circuit current may exceed the rated value of the component or the allowable current of the conductor, an overcurrent protection must be provided. The details of the ratings or set values to be selected shall be provided in 7.2.10.
- 8** Observe precautions below to prevent accidents.
■ The precautions are ranked as "DANGER", "WARNING" and "CAUTION" in this section.

 **DANGER:** When a dangerous situation may occur if handling is mistaken leading to fatal or serious injuries, and when there is a high degree of emergency to a warning.

 **WARNING:** When a dangerous situation may occur if handling is mistaken leading to fatal or serious injuries.

 **CAUTION:** When a dangerous situation may occur if handling is mistaken leading to minor injuries or physical damage.

Note that some items described as "CAUTION" may lead to serious results depending on the situation. Every item provides important information and must be observed.

Warranty

- 1** Warranty period
The product specified herein is warranted for one (1) year from the date of delivery to the location specified by the customer.
- 2** Warranty coverage
If the product specified herein fails for reasons attributable to CKD within the warranty period specified above, CKD will promptly provide a replacement for the faulty product or a part thereof or repair the faulty product at one of CKD's facilities free of charge.
However, following failures are excluded from this warranty:
 - 1) Failure caused by handling or use of the product under conditions and in environments not conforming to those stated in the catalog, the Specifications, or the Instruction Manual.
 - 2) Failure caused by use of the product exceeding its durability (cycles, distance, time, etc.) or caused by consumable parts.
 - 3) Failure not caused by the product.
 - 4) Failure caused by use not intended for the product.
 - 5) Failure caused by modifications/alterations or repairs not carried out by CKD.
 - 6) Failure caused by reasons unforeseen at the level of technology available at the time of delivery.
 - 7) Failure caused by acts of nature and disasters beyond control of CKD.The warranty stated herein covers only the delivered product itself. Any loss or damage induced by failure of the delivered product is excluded from this warranty.
Note: For details on the durability and consumable parts, contact your nearest CKD sales office.
- 3** Compatibility confirmation
The customer is responsible for confirming the compatibility of CKD products with the customer's systems, machines and equipment.
- 4** Range of service
The delivered product price does not include engineer dispatch service fees. Separate fees will be charged in the following cases.
 - (1) Instruction of installation and adjustment, and presence on test operation
 - (2) Maintenance and inspection, adjustment, and repair
 - (3) Technical instructions and technical education (operation, program, wiring method, safety education, etc.)

Precautions for export

Products and related technologies in this catalog

Those of the products and related technologies in this catalog which are subject to US Export Administration Regulations (EAR) are marked on the product page as "Product subject to the EAR (EAR99) or (EAR99 and 3A991)". For export or provision of products or related technologies subject to EAR regulations, we request that the US Export Administration Regulations (EAR) be observed appropriately.