

Orientalmotor

PRODUCT GUIDE

Standard AC Motors

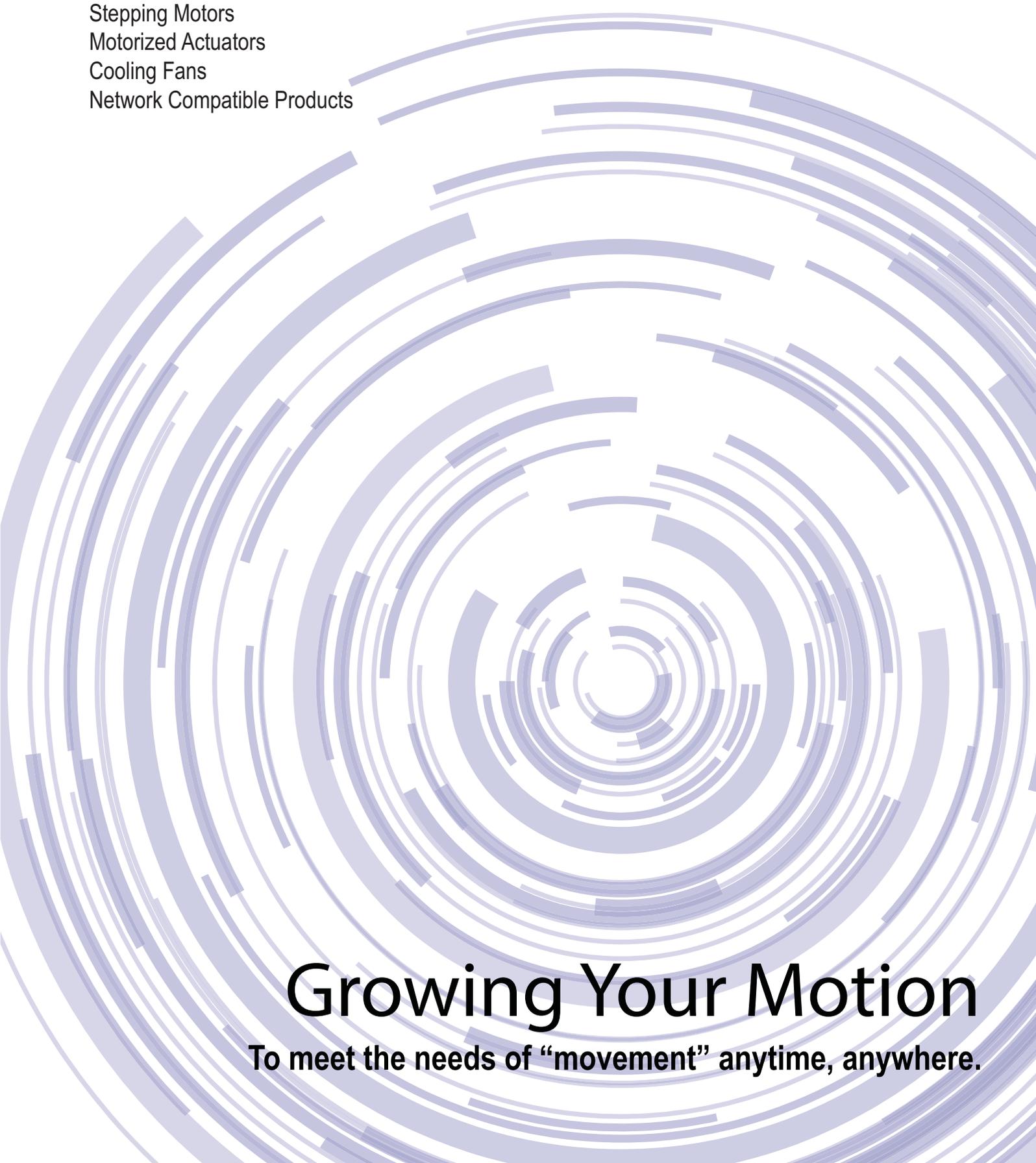
Speed Control Motors

Stepping Motors

Motorized Actuators

Cooling Fans

Network Compatible Products



Growing Your Motion

To meet the needs of “movement” anytime, anywhere.

HOW TO USE THIS PRODUCT GUIDE



① Header Information, Index

Product category and series names are indicated at the sides of the pages. It is convenient to check the category and series on the current page in one glance.

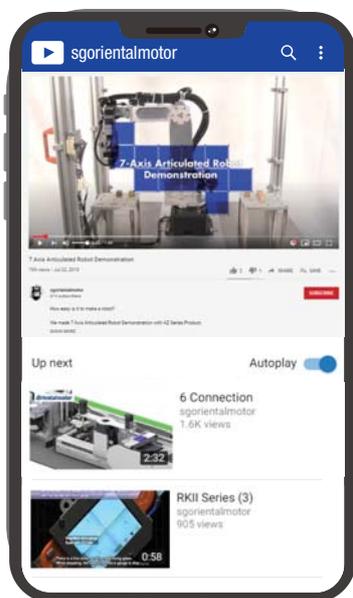
Product Categories and Colors

- Standard AC Motors
- Speed Control Motors
- Stepping Motors
- Motorized Actuators
- Cooling Fans
- Network Compatible Products

② PURPOSE OF QR CODE

When scanning the QR code it will direct you to the indicated page below:

- ✓ Website
- ✓ Videos
- ✓ Price/Lead Time
- ✓ Technical Guide



③ GET CONNECTED WITH US!



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Standard AC Motors

01 - Constant Speed Motors
World **K** Series



Speed Control Motors

02 - AC Speed Control Motors
US Series

03 - Brushless Motors
BMU Series

04 - Brushless Motors
BLH/BLV Series



Stepping Motors

05 - α STEP Battery-Free Absolute Sensor Equipped
AZ Series

06 - 2-Phase Stepping Motors
PKP Series / **CVD** Series



Motorized Actuators

07 - Motorized Linear Slides / Motorized Cylinders
EZS/EAC Series

08 - Hollow Rotary Actuators
DGI Series



Cooling Fans

09 - Axial Flows Fans
MU Series



Network Compatible Products

10 - Network Controller
Multi-Axis Drivers



Short Lead Time

Delivering What is Needed, When it is Needed.

Our manufacturing system allows the manufacturing of an order with little notice. Additionally, our one-by-one process allows us to manufacture one product as easily as one hundred.

Look out for the icon on the right through this product guide, the icon represents our highlighted products with a shorter lead time. Scan the QR code located at the bottom of the page for the lead time and price.

Please note that our short lead time varies depending on the overall product quantity requested.



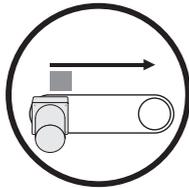
Standard AC Motors

Standard AC Motors and Gear Motors operate by simply connecting a capacitor and supplying power from a commercial power supply. Standard AC Motors and Gear Motors include the basic induction motor.



- Belt Conveyor Application

Standard AC Motors Features



Optimal for Uni-Directional and Continuous Operation

These products are ideal for uni-directional continuous applications such as driving a conveyor.



Cost Saving

As Standard AC motors do not require any controllers for it to operate, this translates to cost-saving without having to purchase additional parts.



High Torque

The maximum torque that can be used during motor operation is now wider. Various type of applications can be equipped with our Standard AC Motors.



Technical Guide

World K Series

The World **K** Series motors that conform to the power supply voltages in Asia are electric motors that rotate by using power from a commercial AC power supply. They are easy to handle and have features that can be configured at a low cost. They are widely used to power various devices. Refer to the table below for our overview of this product line up.



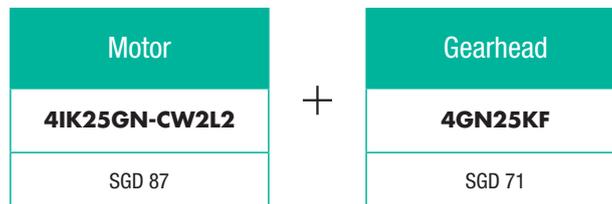
Play Video



Type of Motor	Constant Speed
Output Power (W)	6 ~ 90
Frame Size (mm)	60 ~ 90
Gearhead Reduction Ratio	5 ~ 100
Output Speed Range (r/min)	1200*
Power Supply Input	Single-Phase (VAC) 230 (50/60 Hz)

*(r/min) - Revolutions per minute. Speed range varies when equipped with a gearhead.

● Example of System Configuration Pricing



- The system configuration shown above is an example. Other combinations are also available.
- Prices shown are accurate as of the date of publishing.



View Price and Lead Time

AC Speed Control Motors

Speed Control Motors combined with an easy to use Speed Controller. AC Speed Control packages provide easy installation and many performance advantages with high reliability.



- Grip Conveyor (Speed Control)

AC Speed Control Motors Features



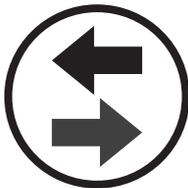
Easy Operation

The speed can easily be set using the potentiometer on the front panel of the speed control unit.



Speed Control

Speed control refers to the ability to manipulate the rotational speed of the motor. Typically, a speed feedback device is needed together with a speed controller.



Bi-directional

This product can operate in both the clockwise (CW) and counter-clockwise (CCW) directions.



Technical Guide

US Series

The **US** Series is a panel mounted control unit and speed control motor package, which complies with the RoHS directive. Wiring is performed by connecting with an easy-to-use one-touch connector. This series is perfect for easy speed control applications.



Play Video



Type of Motor	Speed Control
Output Power (W)	6 ~ 90
Frame Size (mm)	60 ~ 90
Gearhead Reduction Ratio	5 ~ 100
Output Speed Range (r/min)	90 ~ 1200*
Power Supply Input	Single-Phase (VAC) 230 (50/60 Hz)

*(r/min) - Revolutions per minute. Speed range varies when equipped with a gearhead.

● Example of System Configuration Pricing

Motor + Controller	+	Gearhead
US540-402E2		5GN25KF
SGD 296		SGD 85

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View Price and Lead Time

Brushless Motors

For applications where variable speeds are necessary, typically an AC motor with an Inverter or brush motors are used. Brushless DC motors are an advanced option due to their wide speed range, low heat, and maintenance-free operation.



- Mixing Machine

Brushless Motors Features



Speed Stability

Speed remains stable even if the weight of the work changes. This is also known as "Speed Regulation".



Alarm

Various protective functions such as overload/overvoltage protective functions are equipped. An alarm is an output when a protective function activates.



Speed Control

Speed control refers to the ability to manipulate the rotational speed of the motor. Typically, a speed feedback device is needed together with a speed controller.



Technical Guide

BMU Series

Easy speed control with Spin and Push. Once the motor and the driver are connected, all you need to do for this simple wiring is turn on the switch. The **BMU** Series is a compact, high-power, and high-efficiency motor which does not compromise on user-friendly features at affordable prices.



Play Video



Type of Motor	Speed Control	
Output Power (W)	30 ~ 120	
Frame Size (mm)	60 ~ 90	
Gearhead Reduction Ratio	10, 30	
Output Speed Range (r/min)	80 ~ 4000*	
Power Supply Input	Single-Phase (VAC)	200 - 240 (50/60 Hz)
	Three-Phase (VAC)	200 - 240 (50/60 Hz)

* (r/min) - Revolutions per minute. Speed range varies when equipped with a gearhead.

● Example of System Configuration Pricing



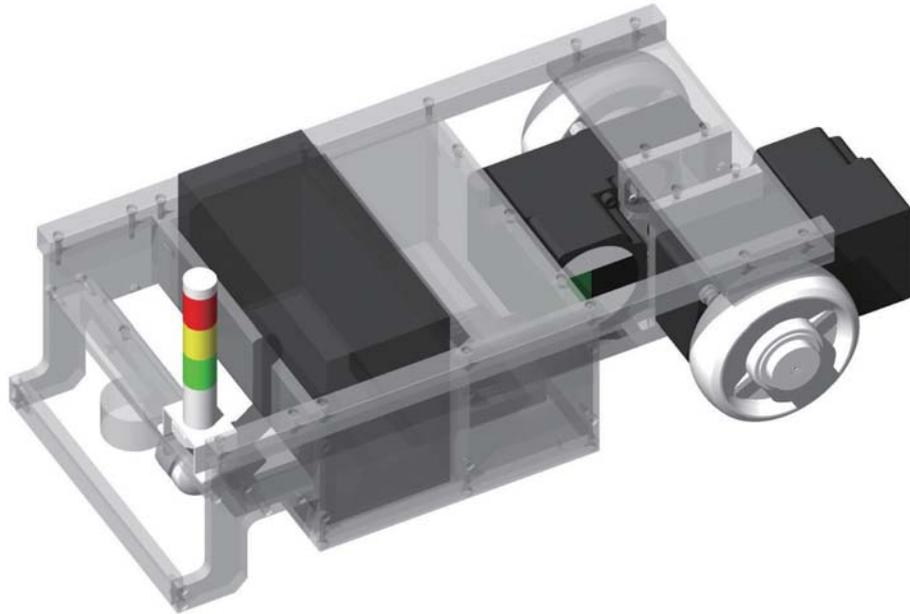
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View Price and Lead Time

Brushless Motors

For applications where variable speeds are necessary, typically an AC motor with an Inverter or brush motors are used. Brushless DC motors are an advanced option due to their wide speed range, low heat, and maintenance-free operation.



- Automated Guided Vehicles (AGVs)

Brushless Motors Features



Speed Stability

Speed remains stable even if the weight of the work changes. This is also known as "Speed Regulation".



Alarm

Various protective functions such as overload/overvoltage protective functions are equipped. An alarm is an output when a protective function activates.



Speed Control

Speed control refers to the ability to manipulate the rotational speed of the motor. Typically, a speed feedback device is needed together with a speed controller.



Technical Guide

BLH / BLV Series

When moving objects from point A to B, an AGVs is continuously running and carrying loads. In order to carry its maximum payloads at different speeds, the motor must be able to handle various speeds at constant torque. The wide speed range and flat torque characteristics of the **BLH** and **BLV** Series brushless motors allows designers maximum flexibility in their designs. Brushless motors are continuous duty due to their high efficiency. They can be run continuously without additional heat sinks which can help increase productivity.



● **BLH** Series



● **BLV** Series



Play Video



Type of Motor	Speed Control, Electromagnetic Brake
Output Power (W)	15 ~ 400
Frame Size (mm)	42 ~ 104
Gearhead Reduction Ratio	10, 20, 50, 100
Output Speed Range (r/min)	80 ~ 3000*
Power Supply Input (VDC)	24 (Up to 200 W Type) 48 (400 W Type)

*(r/min) - Revolutions per minute. Speed range varies when equipped with a gearhead.

● Example of System Configuration Pricing

Motor + Gearhead	+	Controller	+	Connection Cable	+	Cable Set
BLHM015K-10		BLH2D15-K		CC02BLH		LHS003CC
SGD 249		SGD 117		SGD 51		SGD 8

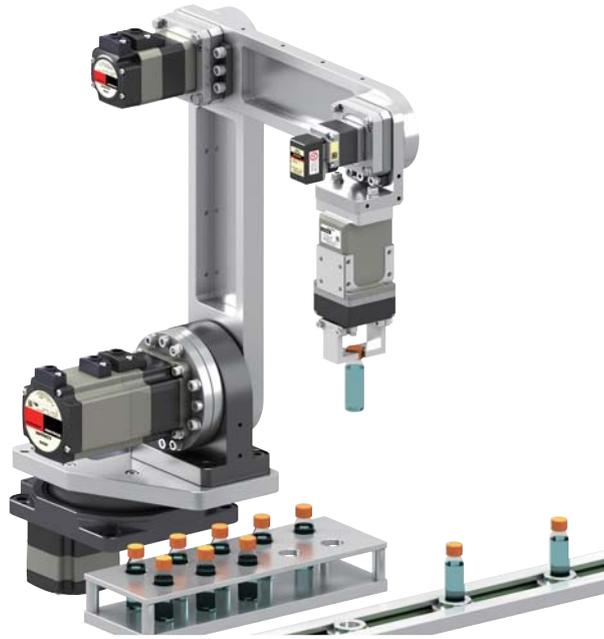
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View Price and Lead Time

Stepping Motors

Stepping or Stepper motors are used to achieve precise positioning via digital control. The motor operates by accurately synchronizing with the pulse signal output from the controller to the driver. Stepper motors, with their ability to produce high torque at low speed while minimizing vibration, are ideal for applications requiring quick positioning over a short distance.



- Robot Arm Application

Close-Loop Stepping Motors Features



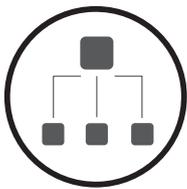
Easy-to-Use

Unlike Servo motors which require high maintenance in terms of tuning. Stepping motors nowadays perform on equal footing hassle-free.



Operation Setting/Data Setting

You can set and edit operation data and each parameter by a computer. Besides, it can do teaching and monitoring the condition of each model. A communication cable is required for connecting an applicable product and a computer.



Network Compatible

We have developed our FLEX system which is a general term of products that can be connected to multiple industrial networks. This includes I/O control, Modbus RTU and Factory Automation (FA) network control such as EtherCAT, EtherNET/IP, CC-Link or MECHATROLINK-III.



Technical Guide

AZ Series

The **AZ** Series Closed Loop Stepping Motors is the new generation of high precision positioning motors. Equipped with a batteryless (ABZO) sensor and with a closed-loop configuration, the **AZ** Series achieves productivity improvement and cost reduction.



Play Video



Type of Motor	Precision, Close-Loop	
Resolution (Standard Type) (P/R) (Step)	1000 (0.36 degrees)	
Holding Torque (N.m)	0.3 ~ 1.2	
Frame Size (mm)	28 ~ 60	
Power Supply Input	Single-Phase (VAC)	200 ~ 230 (50/60 Hz)
	Three-Phase (VAC)	200 ~ 230 (50/60 Hz)
	(VDC)	24/48

*FLEX is a general term of the products that support I/O control, Modbus (RTU) control, and FA network control via a network converter.

● Example of System Configuration Pricing



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View Price and Lead Time

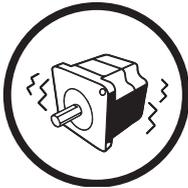
Stepping Motors

Stepper motors enable accurate positioning with ease. They are used in various types of equipment for accurate rotation angle and speed control using pulse signals. Stepper motors generate high torque with a compact body and are ideal for quick acceleration and response. Stepper motors also hold their standstill position, due to their mechanical design. Stepper motor solutions consist of a driver (takes pulse signals in and converts them to motor motion) and a stepper motor.



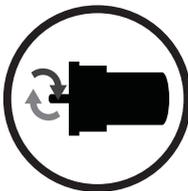
- Visual Inspection Stage

Open-Loop Stepping Motors Features



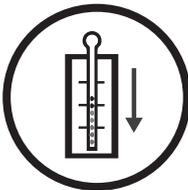
Low Vibration

Revising the magnetic design has achieved lower vibration than with conventional products.



High Torque

The maximum torque that can be used during motor operation is now wider. Various type of applications can be equipped with our Standard AC Motors.



Reduced Temperature Rise

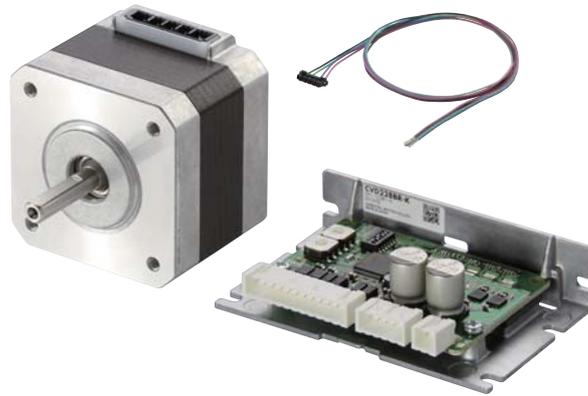
Comparison of motor surface temperature rise between low-speed torque and **PK** Series Standard type.



Technical Guide

PKP Series / CVD Series

The **PKP** Series is a 2-Phase stepping motor. A 2-Phase motor offers higher torque and lower vibration in low operating speed regions. High current is now possible by the revised motor winding design and the highly efficient design of the drive circuit.



Play Video



Type of Motor	Precision, Open-Loop
Resolution (Standard Type) (P/R) (Step)	200 (1.8 degrees)
Holding Torque (N.m)	0.48 ~ 2.5
Frame Size (mm)	42 ~ 56.4
Power Supply Input (VDC)	24

● Example of System Configuration Pricing

Motor	+	Driver	+	Connection Cable	+	Controller
PKP266D28A2		CVD228BR-K		LC2B10E		Pulse Generator*
SGD 83		SGD 156		SGD 9		

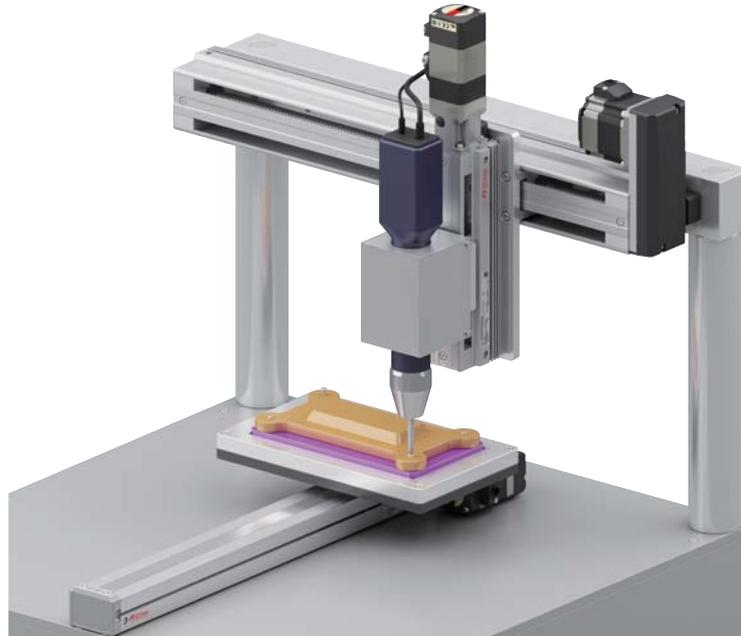
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- *Pulse Generator is Not Supplied.



View Price and Lead Time

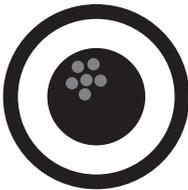
Motorized Actuators

An electric actuator is a combination product consisting of a linear or rotary mechanism and an electric motor, and when pre-assembled offers an easier design, shorter installation time, and high quality. Drawing on our expertise as a motor manufacturer, Oriental Motor offers a wide range of linear motion products in various shapes and sizes, featuring different motor types, drive methods, and power inputs.



- Screw Tightening Machine

Motorized Linear Slides / Motorized Cylinders Features



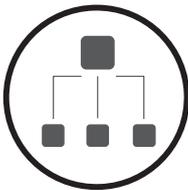
Repeatable & Accurate

The amount of error that is generated when positioning is performed repeatedly to the same position in the same direction is highly dependable with high accuracy.



Operation Setting/Data Setting

You can set and edit operation data and each parameter by a computer. Besides, it can do teaching and monitoring the condition of each model. A communication cable is required for connecting an applicable product and a computer.



Network Compatible

We have developed our FLEX system which is a general term of products that can be connected to multiple industrial networks. This includes I/O control, Modbus RTU and Factory Automation (FA) network control such as EtherCAT, EtherNET/IP, CC-Link or MECHATROLINK-III.



Technical Guide

EZS / EAC Series α STEP AZ Equipped

The motorized linear slides are positioning linear slides that adopt α STEP AZ Series motors composed of frames, guide rails, guide blocks, and ball screws. Capable of accurate and precise straight-line motion due to the rotation of ball screws and guides.



● EZS Series

● EAC Series



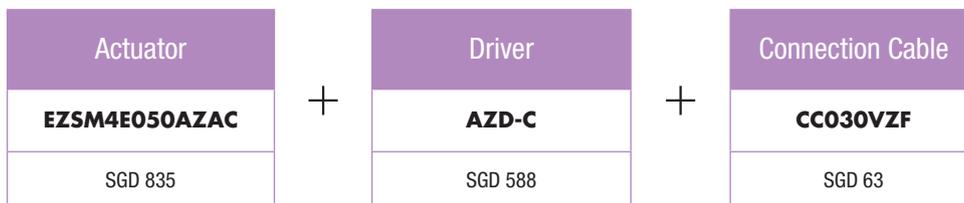
Play Video



Type of Motor	Linear, Precision, Close-Loop	
Stroke (mm)	100 ~ 850	
Maximum Speed (mm/s)	150 ~ 800	
Transportable Mass (kg)	3.5 ~ 60	
Power Supply Input	Single-Phase (VAC)	200 ~ 230 (50/60 Hz)
	Three-Phase (VAC)	200 ~ 230 (50/60 Hz)
	(VDC)	24/48

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● Example of System Configuration Pricing



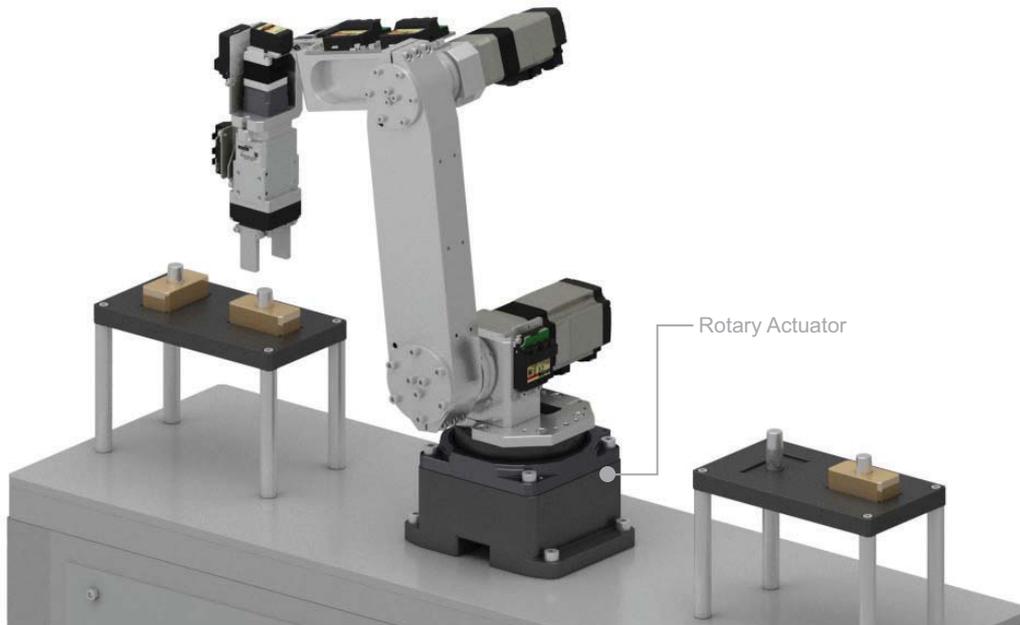
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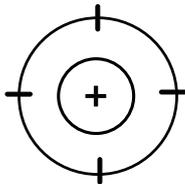
Hollow Rotary Actuators

An electric actuator is a combination product consisting of a linear or rotary mechanism and an electric motor, and when pre-assembled offers an easier design, shorter installation time, and high quality. Drawing on our expertise as a motor manufacturer, Oriental Motor offers a wide range of linear motion products in various shapes and sizes, featuring different motor types, drive methods, and power inputs.



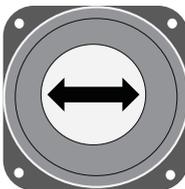
- Robot Arm Application

Hollow Rotary Actuators Features



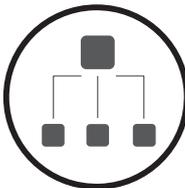
High Positioning Accuracy with Non-Backlash

The amount of error that is generated when positioning is performed repeatedly to the same position in the same direction is highly dependable with high accuracy.



High Power and High Rigidity

Tables and arms can be installed directly onto the output table. The hollow centre allows one to save the hassle and cost of designing an installation mechanism, arranging necessary mechanism parts or wiring.



Network Compatible

We have developed our FLEX system which is a general term of products that can be connected to multiple industrial networks. This includes I/O control, Modbus RTU and Factory Automation (FA) network control such as EtherCAT, EtherNET/IP, CC-Link or MECHATROLINK-III.



Technical Guide

DGII Series α STEP AZ Equipped

The **DGII** Series integrated hollow rotary tables and stepper motor product lineup now includes models with built-in **AZ** Series products. The battery-free absolute system positioning contributes to improved productivity and cost reduction.



Play Video



Type of Motor	Rotary, Precision, Close-Loop	
Resolution (Standard Type) (P/R) (Step)	36000 (0.01 degrees)	
Permissible Moment Load (N.m)	50, 100	
Frame Size (mm)	130, 200	
Power Supply Input	Single-Phase (VAC)	200 ~ 230 (50/60 Hz)
	Three-Phase (VAC)	200 ~ 230 (50/60 Hz)
	(VDC)	24/48

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● Example of System Configuration Pricing



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View Price and Lead Time

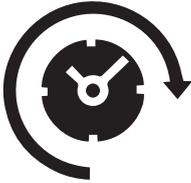
Cooling Fans

Today's comfortable life and society is supported by advanced control systems, which may present many heat sources. To operate these devices without disruption 24 hours a day, 365 days a year, the devices require appropriate heat designs and heat measures. Oriental Motor offers a wide range of heat measure products centered on cooling fans to meet these requirements.



- Control Circuit Cooling Module

Cooling Fans Features



Long Life

A highly durable and efficient design, our cooling fans have a long lifespan whilst reassuring a high level of quality performance.



Energy Saving & Low Heat Emission

Our Cooling fans have gone through rigorous testing to ensure that energy standards have been met.



Light Weight

The aluminium frame of the cooling fan coupled with polycarbonate fan blades translates to an overall reduced in weight which ensures your application remains light.



Technical Guide

MU Series

Axial flow fans use a blade (propeller) to generate airflow in the direction of the axis of rotation. Capable of generating a large airflow, axial flow fans are suited for applications requiring ventilation and cooling where the entire space inside the device must be cooled.



Play Video



Type of Motor	Fan	
Frame Size (mm)	80 ~ 119	
Thickness (mm)	25 ~ 38	
Maximum Air Flow (m ³ /min)	0.45 ~ 3	
Power Supply Input	Single-Phase (VAC)	230 (50/60 Hz)

● Example of System Configuration Pricing

Cooling Fan
MU1238A-51B
SGD 35

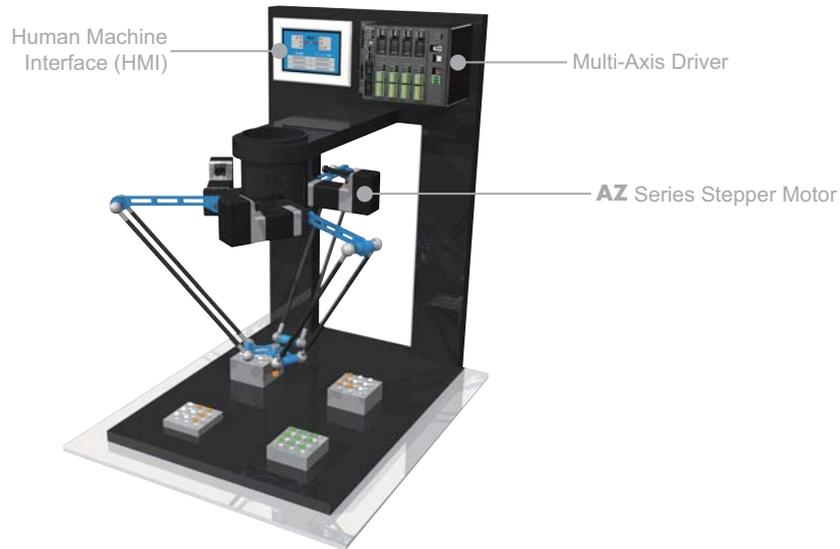
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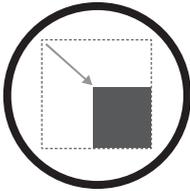
Network Compatible Products

There are various demands and needs regarding production equipment, such as cost reduction, shortened launch time for new equipment, productivity improvement, energy-saving, and traceability. However, it is never a good idea to impair equipment performance just to achieve reducing equipment costs because it jeopardizes our competitiveness. To compete against low-cost equipment manufacturers, it has become important to focus on "cost performance" that lowers the cost while maintaining equipment performance, rather than focusing on the mere "cost reduction" aspect. Also, it is essential to bring machines to market as early as possible, to gain an upper hand over competitors. This demand has become even tougher in recent years.



- Spider-Arm Robot Demonstration Unit

Network Compatible Products Features



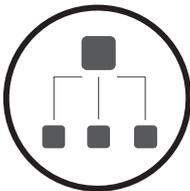
Space Saving

Multi-axis drivers allows multiple drivers to be combined as one, this translates to space saving in overall dimensions.



Cost Saving

As Standard AC motors do not require any controllers for it to operate, this translates to cost-saving without having to purchase additional parts.



Network Compatible

We have developed our FLEX system which is a general term of products that can be connected to multiple industrial networks. This includes I/O control, Modbus RTU and Factory Automation (FA) network control such as EtherCAT, EtherNET/IP, CC-Link or MECHATROLINK-III.



Technical Guide

Multi-Axis Drivers

The FLEX Industrial Network Communications products that respond to demands such as "cost reduction" and "shortened equipment launch time" answers this need. Our multi-axis drivers are compatible with the EtherCAT network which are commonly used in today's meta.



Play Video



Type of Motor	Multi Axis
Number of Axes	2 ~ 4
Compatible Networks	EtherCAT Drive Profile
Power Supply Input (VDC)	24/48

*EtherCAT® is a registered trademark and patented technology licensed by Beckhoff Automation Co., Ltd. of Germany.
 *Other network protocols such as EtherNET/IP, CC-Link and MECHATROLINK-III are available. Please contact our nearest sales office for more information.

● Example of System Configuration Pricing

Motor	+	Driver	+	Connection Cable Set	+	Cable for Main Power Supply	Cable for Control Power Supply
AZM26AK (4 Axes)		AZD4A-KED		CC030VZ2FA (4 Cables)		LC03D06A	LC02D06A
SGD 1252		SGD 1600		SGD 364		SGD 19	SGD 16

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View Price and Lead Time

We provide a full range of services to assist our customers, from consideration of a purchase through to aftersales service.



Customer Support Centre

Dedicated staff provide answers to various questions and advice regarding selection and usage of a motor, technical problems, etc via E-mail, the phone or Live Chat.



Field Service

Dedicated service engineers will visit you when assistance is required on the usage of our products. Please feel free to contact the your nearest sales offices.



Inspection and Repair

Oriental Motor offers free inspection services. Feel free to contact us if you have encountered any problems with or damage to Oriental Motor products. If repair is required, we will advise on the applicable charges. Kindly note that free repair is available if products are used in accordance with the warranty conditions.



Sizing Selection Service

We provide motor selection services, such as calculation of torque, to assist our customers in selecting the right motor.



Technical Seminars / Webinars

Dedicated trainers will go through from the basic motor knowledge to the applied technology and selection of the right motor. In addition, on-site seminars are also available.

You can register for our seminars from our Website.



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(Excluding Weekends and Public Holidays)



About Us

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