

Orientalmotor

COMING SOON

Imagination Becomes Movement.

Speed That Stays With You—From Selection to Delivery and Installation.
Oriental Motor Achieves All Motions.



Servo Motors
KXR Series

A Servo Motor That Keeps Your Development Moving

Our various support systems such as stable supply of products, convenient features for quick startup, will help accelerate the development of your equipment.

Servo Motors KXR Series

■ **Product Lineup** (With/without holding brake)

Servo Motor	200 W*	400 W	750 W	1 kW*
Servo Driver	EtherCAT compatible, Pulse input*			

* 200 W and 1 kW servo motor, pulse input type servo drivers are under development.

Register Here for
Servo News



- Functional safety, CE, UL, KC, and other certifications are not obtained.
- Product with expanded functions and standard certifications are planned in the future. The product name is scheduled to be changed.

Motors, Drivers, and Gearheads

We ship all the necessary products for your equipment, such as motors, drivers, and gearheads, with quick delivery.

- Allows for securing design time without worrying about products delivery time
- Enables quick response to short-deadline projects and motor replacements in case of trouble



[Motor](#)



[Driver](#)



[Gearhead](#)



[Actuator](#)



[Cable *2](#)

*2 Some cable lengths may take more than 5 days.

Equipped With Convenient Features That Can Be Used Right Away

It is equipped with easy-to-use and convenient features such as tuning function for quick startup, automatic holding brake control function to reduce the effort of design and wiring work.

Reliable Support System for Design and Startup to Maintenance

Our comprehensive support system, covering design and startup to maintenance, ensures peace of mind during implementation and operation.

Design Stage

- Free motor sizing service by dedicated staff
- Technical consultation (Customer support center)



Startup Stage

- Documentation for connecting with other manufactured products (PLCs, etc.)



Maintenance Stage

- Inspection, repair
- Field service



High Speed, High Response, and High Resolution Contribute to Improved Equipment Performance

Fully prepared high level of functionality and characteristics required in a variety of industries and applications.

- Contributes to improving the production capacity of the equipment by reducing the takt time
- Contributes to improving the inspection and processing accuracy of the equipment by high-precision operation

Maximum Speed 7000 r/min

Reducing positioning time improves the production capacity of the equipment.

Encoder Resolution 26 bit

Contribute to improving the machining accuracy of the equipment due to the smooth movements that follow even the detailed commands.

Speed Frequency Response 3.5 kHz or Higher

Increased responsiveness to commands, and contributes to improving the machining accuracy and production capacity of the equipment.

No External Battery Required

It retains position data without an external battery (battery-free).

EtherCAT/FSoE*

It supports high-speed communication via EtherCAT and FSoE compatible safety systems.

Equipped With Safety Function* (STO, SS1-t)

It contributes to ensuring human safety and reducing wiring requirements by optimizing safety shutdowns.

* STO, SS1-t and FSoE functions are planned to be equipped in the future.

A Wide Range of Products Reduces the Effort Required for Design and Ordering

We offer a wide range of products necessary for equipment configuration, including gearheads.

- Reduces design and ordering effort by unified point of contact such as technical consultations, quotations and orders

Planetary Gear PS Gearhead



- Planetary Gear Mechanism
- High Permissible Torque
- Low Backlash (15 arcmin)

Item	Applicable Motor Output [W]	Frame Size [mm]	Gear Ratio	Maximum Speed [r/min]	Rated Torque [N·m]
	400	90	5, 10, 25	1100 (Gear ratio 5) 550 (Gear ratio 10) 220 (Gear ratio 25)	4.5, 9.5 23.5
	750	90	5		9.5
	750	120	10, 25		19, 49

Hollow Rotary Actuator DGII Series



- Large-Diameter
It is suitable for wiring and piping with complex routing by using hollow holes
- High-Strength
Permissible Axial Load: 4000 N

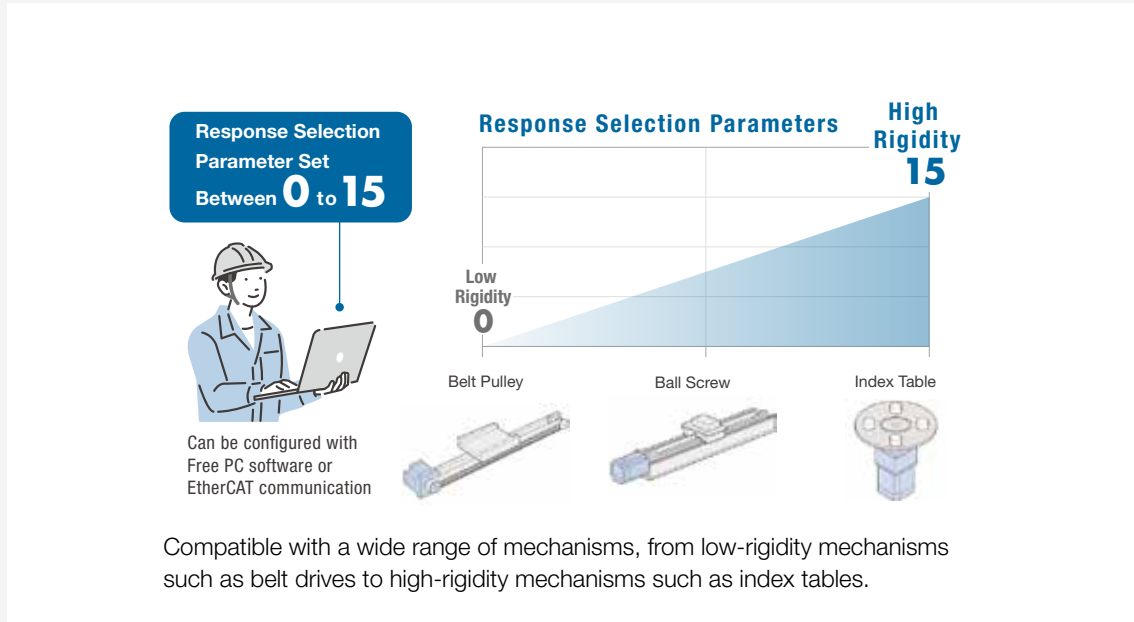
Item	Applicable Motor Output [W]	Frame Size [mm]	Gear Ratio	Maximum Input Speed [r/min]	Permissible Torque [N·m]
	400	170	18	5500	16
	750	200			30

Easy Tuning Enables Quick Startup

• One Parameter Tuning

Simply select one of the 16 response selection parameters to match the mechanism, and the adjustment can be completed. Eliminates the need for multiple parameter adjustments.

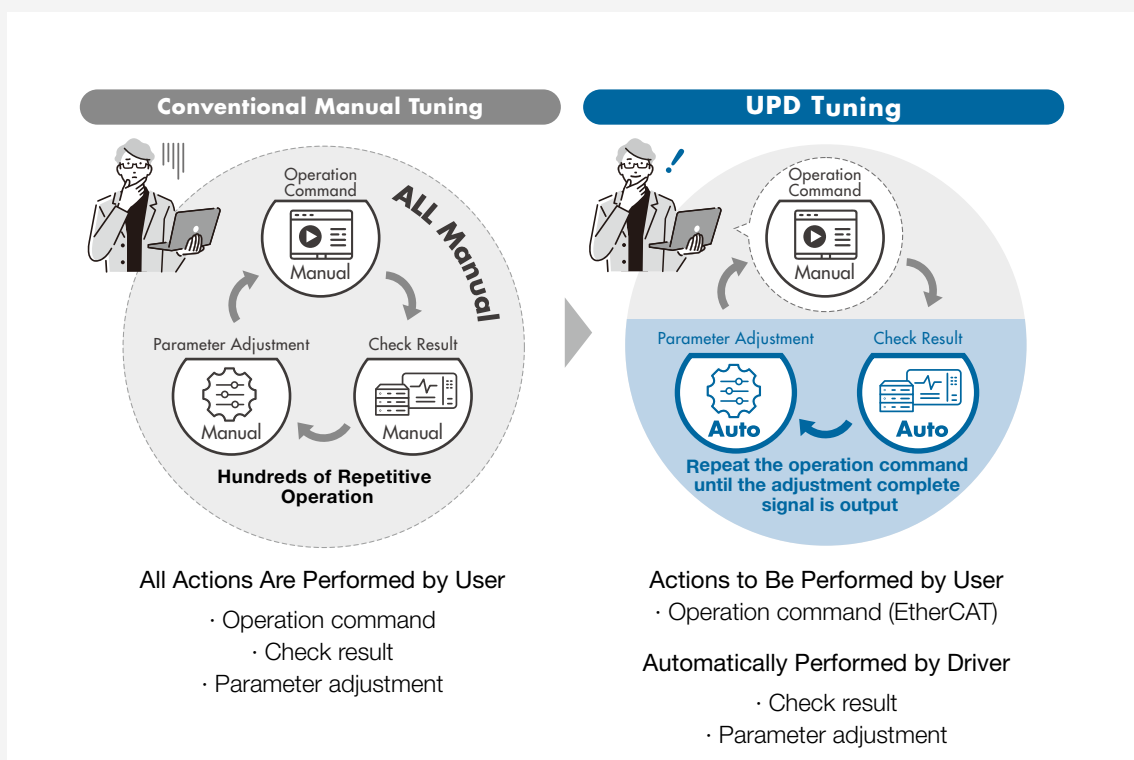
- Simply select one parameter. Startup time can be reduced



• UPD (User Profile Drive-based) Tuning

A tuning function that automatically adjusts the optimal parameters in the same condition as the actual mechanism and operating conditions. Automatically set the optimal parameters by enabling the function and repeatedly performing actual operation via EtherCAT communication.

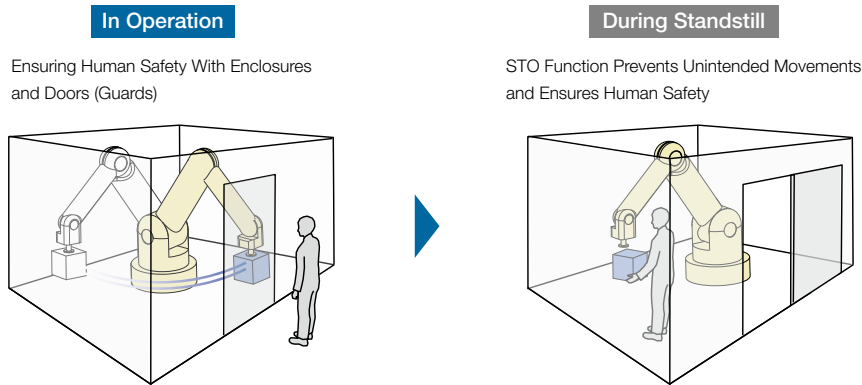
- Eliminates the need to check the operating results or adjust parameters, and startup time can be reduced



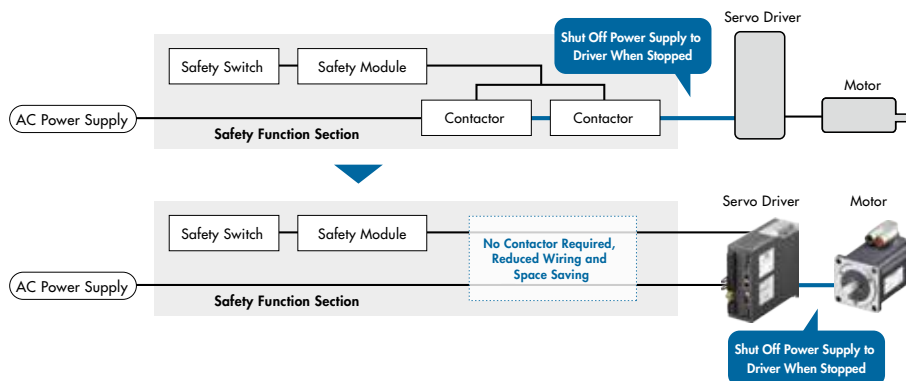
• STO (Safe Torque OFF) Function Simplifies Wiring

The STO function that cuts off the power supply to the motor is planned to be equipped.

By cutting off the power supply to the motor, prevents unintended movement of the movable parts of the equipment and reduces the risk of danger to people.



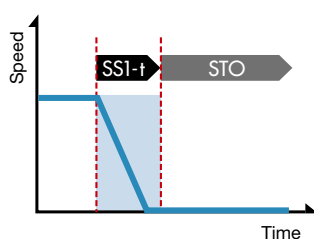
Eliminates the need for contactors, reducing wiring work. It also contributes to simplifying wiring and saving space.



• SS1-t (Safe Stop 1) Function Shuts Off the Power After Stop Control

The SS1-t function that perform a deceleration control stop within the specified time and cut off the power is planned to be equipped.

- Prevents synchronization errors in each motor during an emergency stops, thus preventing damage to the product and mechanism

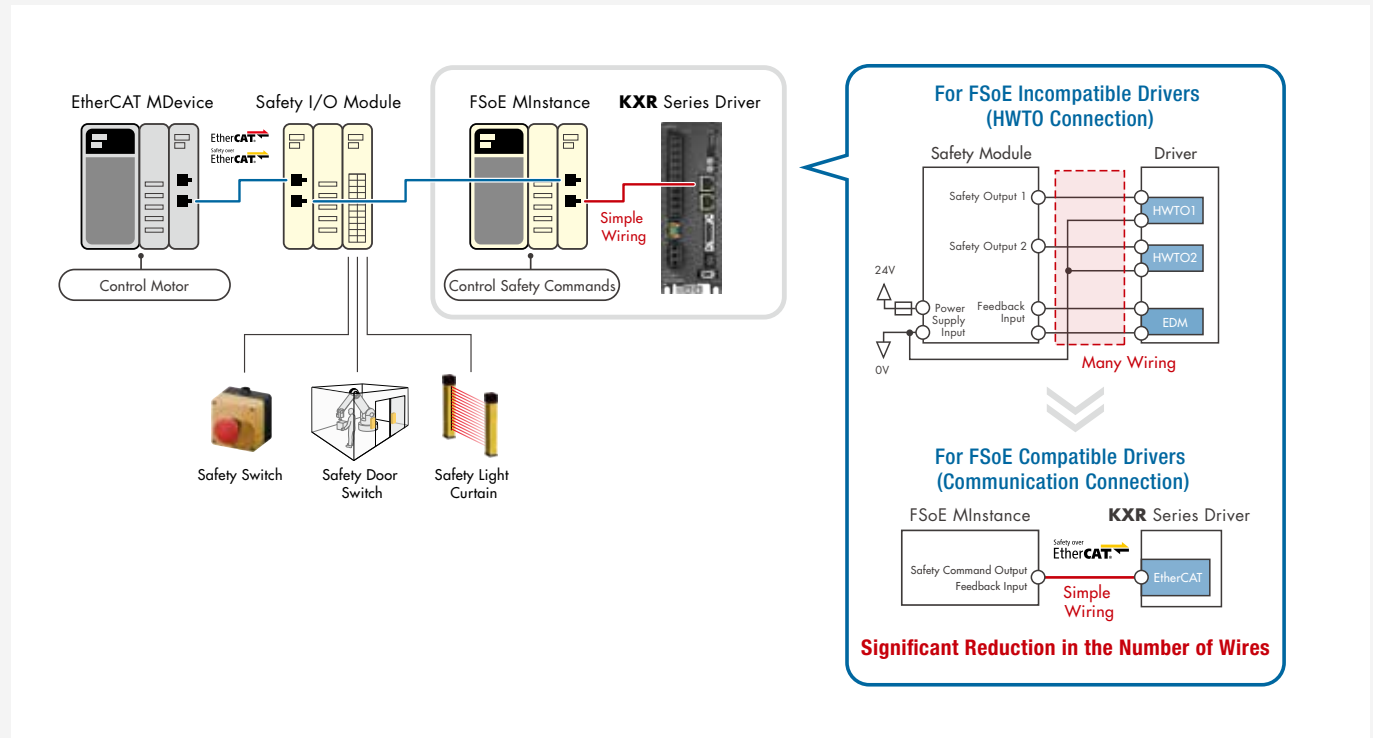


When the SS1-t function is activated, deceleration control is stopped within the specified time, and then the STO function cuts off the power supply to the motor.

• Reduced Wiring With FSoE (Safety over EtherCAT) Compatible

The FSoE of safety communication protocol is planned to be supported. Safety control and motor control can be integrated into the same communication.

- Contributes to reducing wiring work effort and space saving by reducing the number of wires
- Compliant with functional safety (STO, SS1-t), achieving both high safety and a simple system configuration

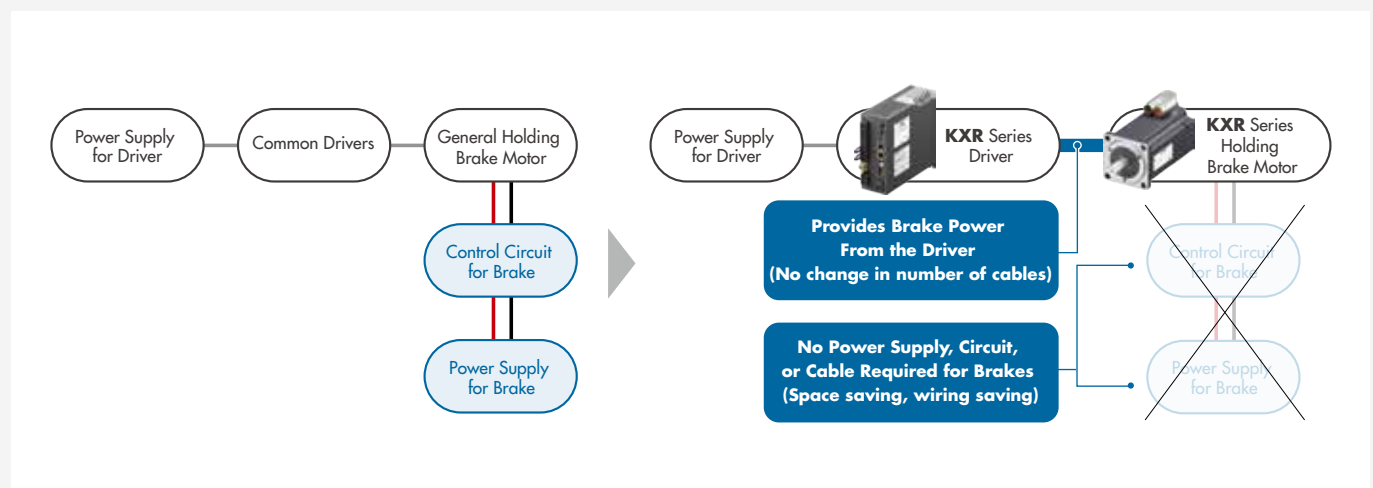


■ Automatic Holding Brake Control Function Reduces Design Time and Wiring

Equipped with a function to automatically turn the holding brake ON/OFF as standard.

It automatically released in the excitation state and automatically activated in the non-excitation state to hold the load.

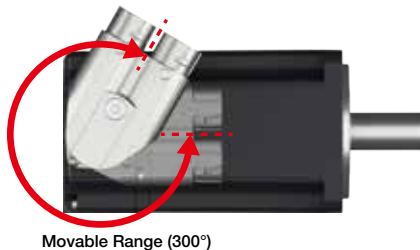
- No separate brake power supply or control circuit needs to be prepared or designed
- Contributes to reducing wiring work effort and space saving



The Connector Direction Rotates 300 Degrees, Increasing Design Flexibility

The connector position can be rotated 300 degrees.

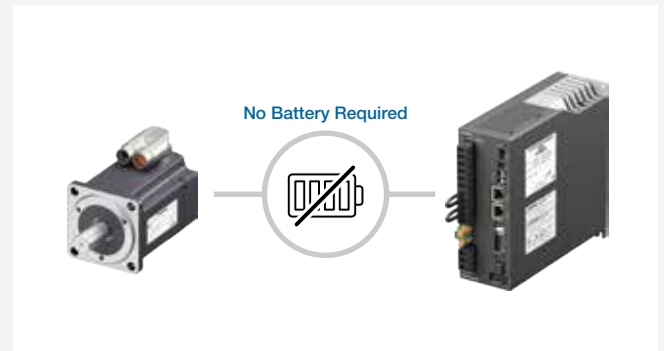
- Increased flexibility in wiring layout reduces design constraints and design man-hours



Battery-Free and Enables Position Holding

An absolute encoder containing all-solid-state battery allows motor position information can be retained without an external battery (battery-free).

- Maintenance effort and costs can be reduced, because battery is not required.

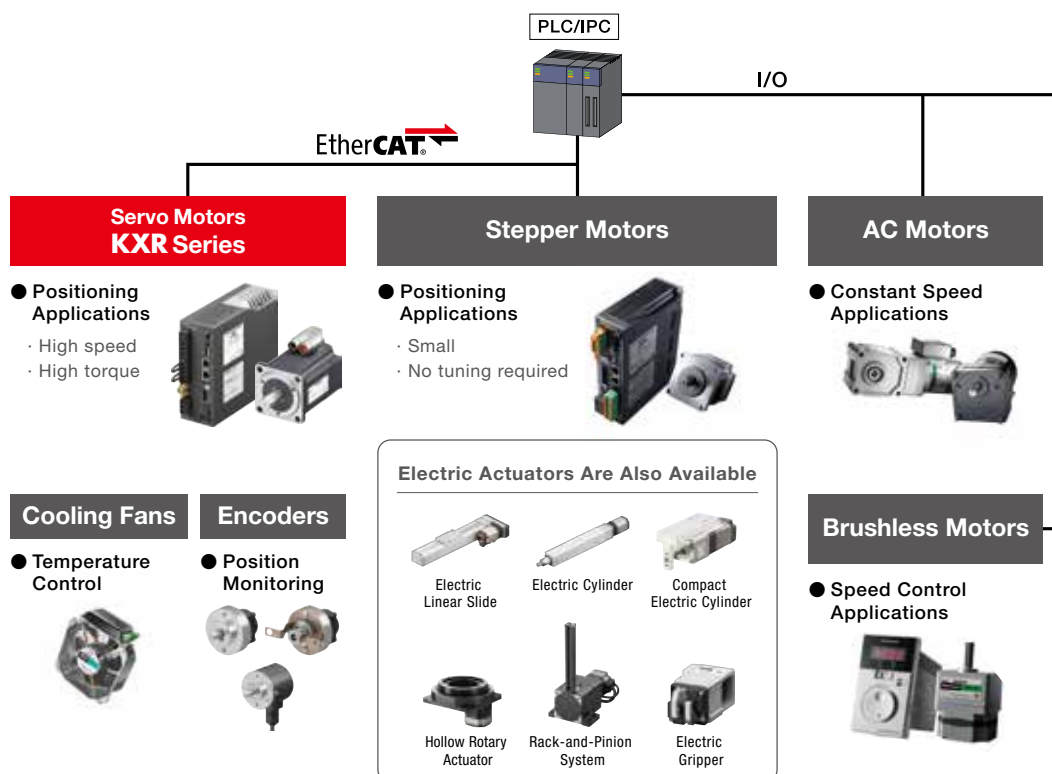


Additional Information

Extensive Motor Lineup Allows for Total Proposals

We offer a wide range of products to suitable for various applications such as constant speed, speed control and positioning. A comprehensive proposal can be provided for the most suitable products for your equipment.

- Can be reduced design and ordering effort by unified point of contact such as technical consultations, quotations and orders



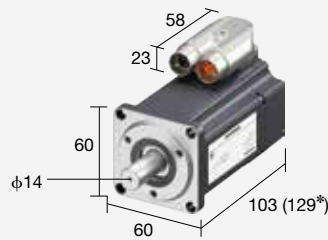
Specifications and Dimensions

Servo Motor

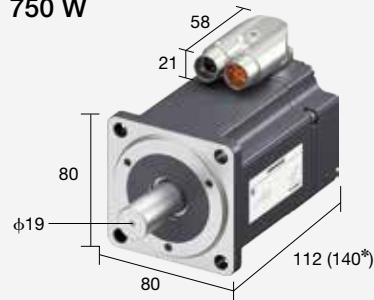
(Unit: mm)

It is compatible with other manufacturer's motor, therefore significant changes to the mechanical design are not required when replacing the motor.

400 W

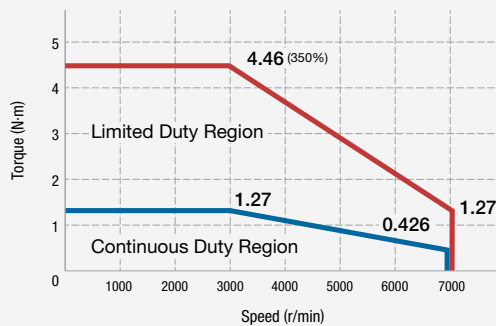


750 W

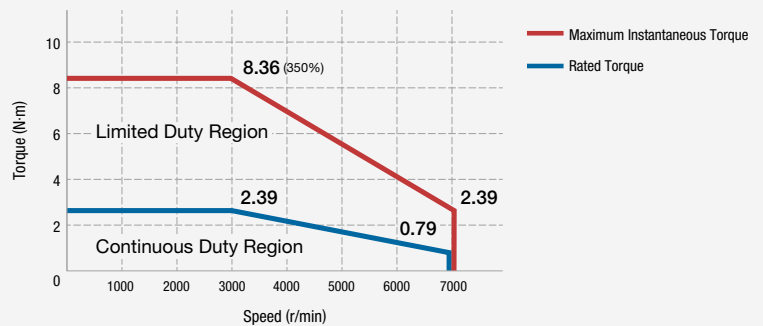


*Value of the holding brake motor.

400 W



750 W



- When using single-phase input, voltage drop becomes significant and the limited duty region narrows when the total length of the motor cable exceeds 20 m.

Servo Driver

(Unit: mm)



400 W, 750 W and 1 kW* servo motors can be driven with a common servo driver.

Using common parts improves [inventory management and maintenance efficiency](#).

The cable connection between the servo motor and servo driver can be extended up to 50 m.

*1 kW servo motor is under development.

Contact here for request materials, inquiries, or purchase considerations

- Download specifications and dimensions
- Inquiries via the WEB (Request materials, quotations)

www.orientalmotor.co.in/in/products/servo-motors/kxr-special-1

