

# HarmonicDrive®

## AC Servo Actuator

# CollaborationSeries

Mitsubishi Electric  
Corporation



Panasonic  
Corporation



YASKAWA Electric  
Corporation



Flat hollow AC servo actuator  
SHA series SG/CG type



Flat hollow AC servo motor  
MMA/PMA/YMA series



Small flat AC servo actuator  
FHA-C mini series



Supermini AC servo actuator  
RSF supermini series

## What are the collaboration products?

The collaboration products are AC servo actuator and AC servo motor products that can be connected to servo amplifiers made by leading servo motor manufacturers.

Connecting the product with a servo amplifier made by these manufacturers makes Harmonic Drive Systems' mechatronics products as user-friendly as the servo motors with speed reducers made by the manufacturer.

## Outline of the collaboration servo amplifier

### Mitsubishi Electric Corporation AC servo amplifier MELSERVO-J4

**Servo amplifier supporting SSCNET III/H**  
**MR-J4-B-S033/MX940J/RJ920J**

This is a servo amplifier supporting the advanced high-speed motion network SSCNET III/H. This product achieves a speed frequency response of 2.5 kHz.



### Panasonic Corporation AC servo amplifier MINAS A6

**AC servo amplifier MINAS A6N supporting Realtime Express**  
**AC servo amplifier MINAS A6B supporting EtherCAT**

In addition to the high-speed synchronous communication networks Realtime Express and EtherCAT, the general-purpose communication networks pulse, analog, and Modbus are also selectable.



### YASKAWA Electric Corporation AC servo pack $\Sigma$ -7 series

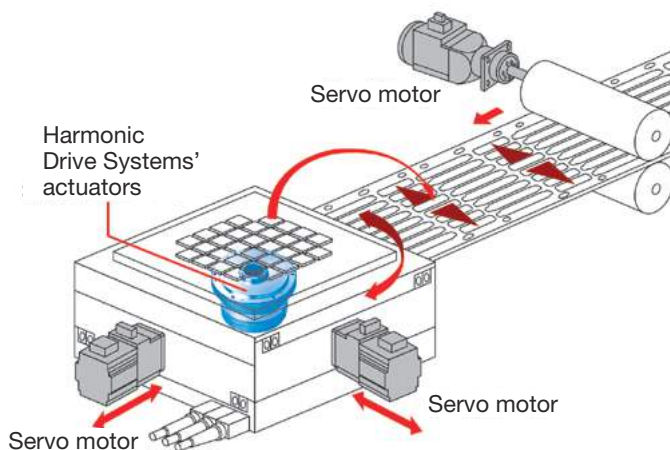
**AC servo pack supporting MECHATROLINK-III**  
**SGD7S- □□□ A20A ■■■ F81**

The servo pack that has achieved a speed frequency response of 3.1 kHz and MECHATROLINK-III whose shortest transmission cycle is 125  $\mu$ s are usable.

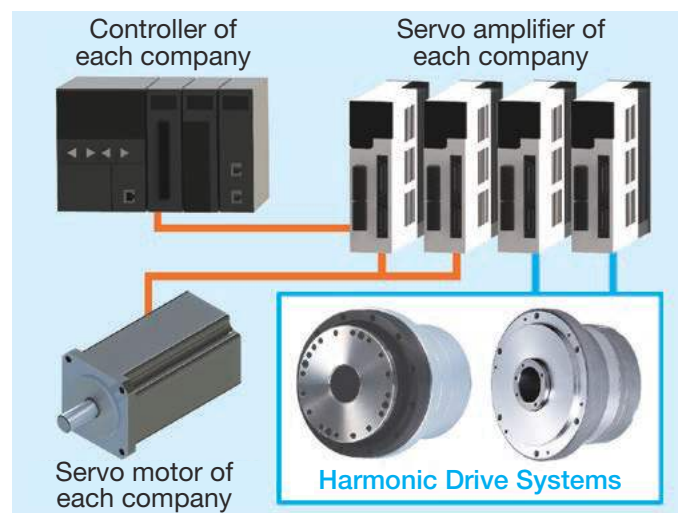
\*"■■■" indicates whether there is a dynamic brake resistor or not (without: 000, with: 020).



## Image of the device



## Image of the system



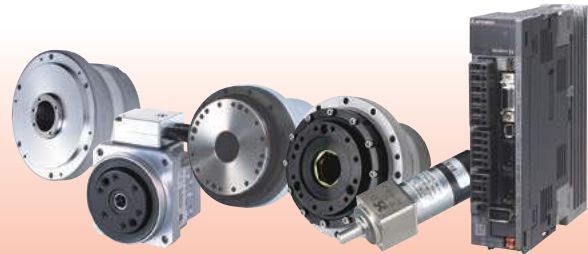
## Lineup of collaboration products

Collaboration with each company's servo amplifier is achieved. Furthermore, the options of the connection network increase.



"MELSERVO-J4" SSCNET III/H made by Mitsubishi Electric Corporation is supported.

HarmonicDrive®  
AC servo  
actuator/  
motor + **MELSERVO  
J4**



Series	SHA-SG	SHA-CG	FHA-C mini (INC)	RSF supermini (INC)	MMA
Size	25 / 32 / 40 / 58 / 65	25 / 32 / 40	8 / 11 / 14	3 / 5	09 / 12 / 15 / 21A



EtherCAT® "MINAS A6" RTEX/EtherCAT made by Panasonic Corporation is supported.

HarmonicDrive®  
AC servo  
actuator/  
motor + **MINAS  
A6N (RTEX)  
A6B (EtherCAT)  
A6S (General  
communication)**

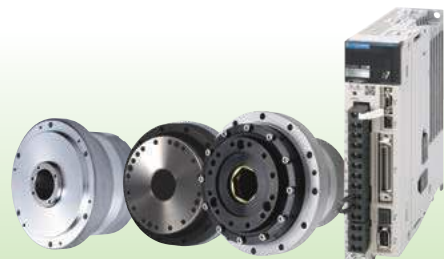


Series	SHA-SG	SHA-CG	FHA-C mini	PMA
Size	20 / 25 / 32 / 40 / 45 / 58 / 65	20 / 25 / 32 / 40	8 / 11 / 14	08 / 09 / 12 / 15 / 21A



"Σ-7 series" MECHATROLINK- III made by YASKAWA Electric Corporation is supported.

HarmonicDrive®  
AC servo  
actuator/  
motor + **AC servo drive  
Σ-7series**



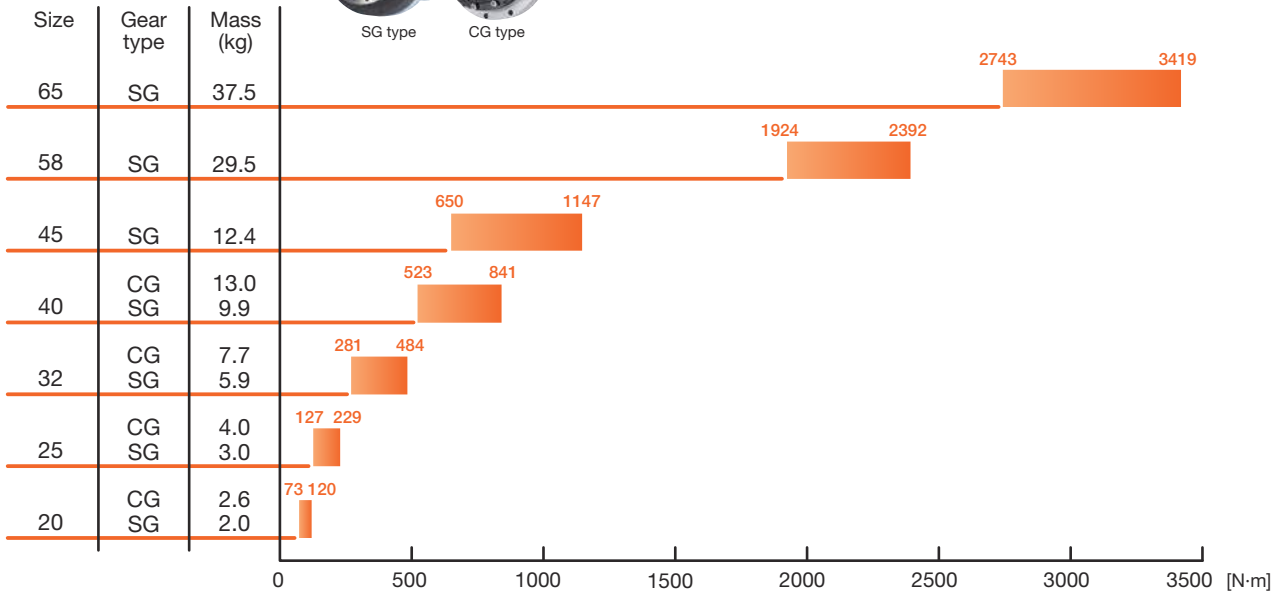
Series	SHA-SG	SHA-CG	YMA
Size	25 / 32 / 40 / 58 / 65	25 / 32 / 40	09 / 12 / 15 / 21A

\* INC indicates the incremental encoder specification. All products without this mark indicate the absolute encoder specification.

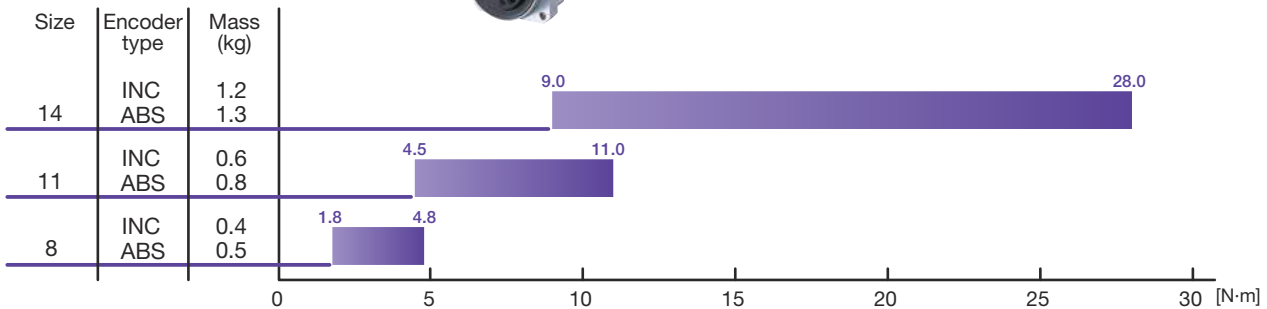
\* For details of the specifications of a product, please refer to the leaflet or technical data of the relevant product.

# Maximum torque map

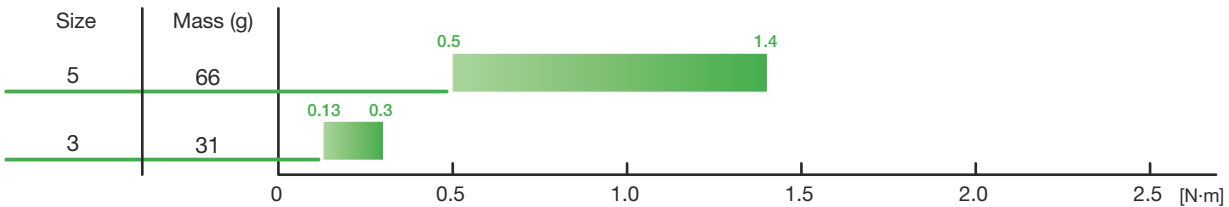
## SHA series



## FHA-C mini series



## RSF supermini series



Please contact our sales department with any questions.

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The academic or generic term of our "HarmonicDrive" products is "strain wave gearing."

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