

HarmonicDrive® AC Servo Actuator SHA Series



Panasonic Corporation-manufactured

MINAS A5II/A5IIN Series

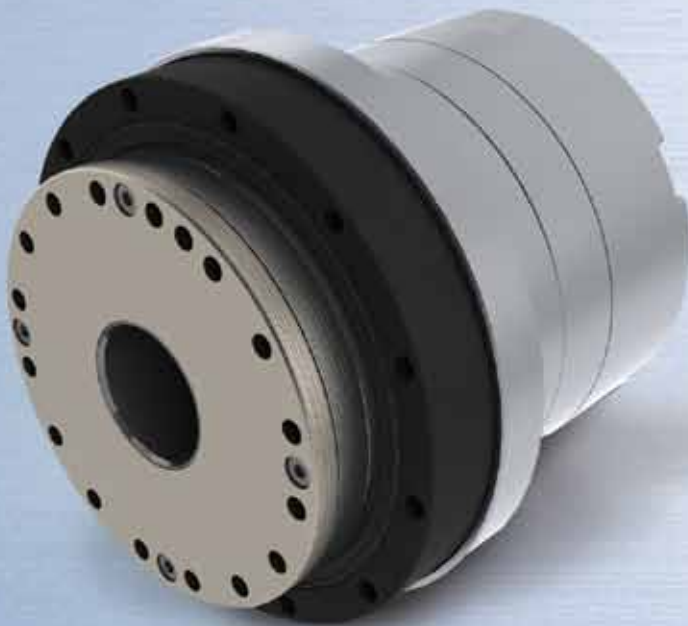
Collaboration Realized

HarmonicDrive® AC servo actuator SHA series

has been remodeled to apply to the Panasonic Corporation-manufactured "MINAS A5II/A5IIN series" Realtime Express (RTEX).

The connection network options can be further extended.

HarmonicDrive®



Panasonic Corporation-manufactured

Realtime Express (RTEX)

■ Feature

- The AC Servo Actuator which is a combination of a HarmonicDrive®reducer for precision control and a flat-type AC servo motor.
- A simple device design can be realized by utilizing the through-hole at the center of the hollow structure. (Piping and wiring processes, etc.)
- The flat shape can realize a compact device design. (All mounting directions are available.)
- It has excellent precision with uni-directional positional accuracy: Reduction ratio of 1/51=50 seconds (0.014 degrees), decelerating ratio of 1/81 or more = 40 seconds (0.011 degrees).
- A volume ratio of 5-times or more of the direct drive motors has been realized.
- The SHA-P series can be easily employed in the device which configures the system with the "MINAS A5IIN series" Realtime Express (RTEX).

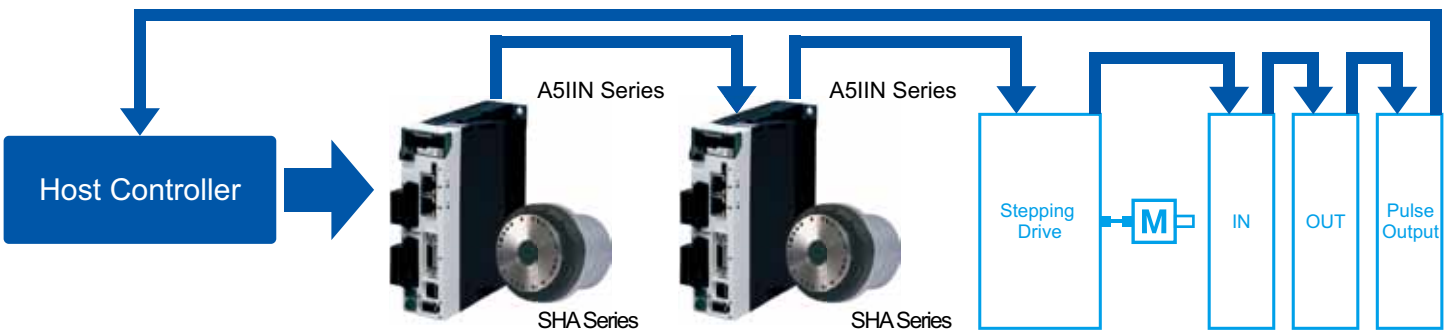
■ Specification

Model		SHA25P					SHA32P				
		51	81	101	121	161	51	81	101	121	161
Combination Amplifier	A5II series ⁴	MCDKT3520/MCDKT3520E					MDDKT3530/MDDKT3530E				
	A5IIN series ^{5,6}	MCDHT3520N21/MCDHT3520ND1					MDDHT3530N21/MDDHT3530ND1				
Maximum Torque ²	Nm	127	178	204	217	229	277	395	433	459	484
Permissible Continuous Torque ^{2,3}	Nm	41	67	81	81	81	92	153	178	178	178
Maximum Speed	r/min	109.8	69.1	55.4	46.3	34.8	94.1	59.3	47.5	39.7	29.8
Permissible moment load	Nm	258					580				
Unidirectional Positioning Accuracy	Second	50	40	40	40	40	50	40	40	40	40
Encoder Method		Magnetic Type Absolute Encoder									
Output Resolution	Pulse / Rotation	6.684.672	10.616.832	13.238.272	15.859.712	21.102.592	6.684.672	10.616.832	13.238.272	15.859.712	21.102.592
Mass (without brake)	kg	2.95					5.9				
Mass (with brake)	kg	3.1					6.2				

Model		SHA40P					SHA58P				SHA65P			
		51	81	101	121	161	81	101	121	161	81	101	121	161
Combination Amplifier	A5II series ⁴	MDDKT5540/MDDKT5540E					MFDKTA390/MFDKTA390E				MFDKTB3A2/MFDKTB3A2E			
	A5IIN series ^{5,6}	MDDHT5540N21/MDDHT5540ND1					MFDHTA390N21/MFDHTA390ND1				MFDHTB3A2N21/MFDHTB3A2ND1			
Maximum Torque ²	Nm	523	675	738	802	841	1924	2067	2236	2392	2743	2990	3263	3419
Permissible Continuous Torque ^{2,3}	Nm	160	263	330	382	382	714	905	969	969	921	1149	1236	1236
Maximum Speed	r/min	78.4	49.4	39.6	33.1	24.8	37.0	29.7	24.8	18.6	34.6	27.7	23.1	17.4
Permissible moment load	Nm	849					2180				2740			
Unidirectional Positioning Accuracy	Second	50	40	40	40	40	40	40	40	40	40	40	40	40
Encoder Method		Magnetic type absolute encoder												
Output Resolution	Pulse / Rotation	6.684.672	10.616.832	13.238.272	15.859.712	21.102.592	10.616.832	13.238.272	15.859.712	21.102.592	10.616.832	13.238.272	15.859.712	21.102.592
Mass (without brake)	kg	9.9					29.5				37.5			
Mass (with brake)	kg	10.7					32				40			

- ¹: The values in the table above express typical values for the output shaft. They also express the values of the SG type of speed reducer.
²: They are typical characteristics in the case of combinations with amplifiers (driven with the ideal sine wave).
³: They are the values produced at the saturation temperature when actuators are mounted on the aluminum radiation plate.
SHA25P: 350×350×18 [mm] SHA32P: 400×400×20 [mm]
SHA40P: 500×500×25 [mm] SHA58P/65P: 650×650×30 [mm]
- ⁴: M*DKT****: Applicable to the speed, position, torque, full-close controls and safety standard.
M*DKT****E: The position-control-only type, non-applicable for the safety standard.
⁵: M*DHT****N21: Applicable to the safety standard.
M*DHT****ND1: Non-applicable to the safety standard.
⁶: The A5IIN series require system parameter setting changes at the initial setting.
For details, please contact Harmonic Drive Systems Inc. (The A5II series do not require setting changes.)

■ Example of System Configuration



* Please contact the sales office of Harmonic Drive Systems Inc. for more information.

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