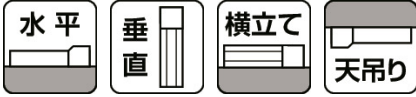


# EC-S8□AHCR

## Product Features



## Mounting position



[Dimensional drawing](#) [Selection Notes](#) [Adaptive controller](#)

## Main specifications

Specification 1		Specification 2				
item		Content				
	Lead	Ball screw lead (mm)	30	20	10	5
horizontal	Payload	Maximum payload (kg)	twenty three	40	70	90
		Speed/acceleration/deceleration	Maximum speed (mm/s)	1200	900	450
		Minimum speed (mm/s)	38	twenty five	13	7
		Rated acceleration/deceleration (G)	0.3	0.3	0.3	0.3
		Maximum acceleration/deceleration (G)	1	1	0.5	0.3
vertical	Payload	Maximum payload (kg)	2	4	twenty five	55
		Speed/acceleration/deceleration	Maximum speed (mm/s)	850	650	450
		Minimum speed (mm/s)	38	twenty five	13	7
		Rated acceleration/deceleration (G)	0.3	0.3	0.3	0.3
		Maximum acceleration/deceleration (G)	0.5	0.5	0.5	0.3
Press		Maximum thrust when pressed (N)	98	147	294	588
		Maximum pressing speed (mm/s)	20	20	20	20
Cleanroom specifications		Suction amount (NL/min) (Note 5)	121	112	75	61
brake		Brake specifications	Non-excitation operated electromagnetic brake			
		Brake holding force (kgf)	2	4	twenty five	55
stroke		Minimum stroke (mm)	50	50	50	50
		Maximum stroke (mm)	1100	1100	1100	1100
		Stroke pitch (mm)	50	50	50	50

(Note 5) This is an estimate of the suction volume at maximum speed.

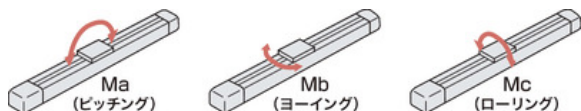
## Specification 1

## Specification 2

item	Content
Drive system	Ball screw, $\phi$ 16mm, rolled C10
Repeatable positioning accuracy	Lead 5/10: $\pm 0.02\text{mm}$ , Lead 20: $\pm 0.03\text{mm}$ , Lead 30: $\pm 0.04\text{mm}$
Lost Motion	0.1mm
base	Specially designed aluminum extruded material (equivalent to A6063SS-T6), black anodized finish.
Linear guide	Linear infinite loop type
Static allowable moment	Ma: 327 N·m
	Mb: 389 N·m
	Mc: 629 N·m
Dynamic allowable moment (Note 6)	Ma: 120 N·m
	Mb: 143 N·m
	Mc: 226 N·m
Cleanliness	ISO Class 2.5 (ISO 14644-1 standard)
Operating ambient temperature and humidity	0 to 40° C, 85% RH or less (non-condensing)
Protection class	IP20
Vibration-resistant and shock-resistant	4.9 m/ s <sup>2</sup>
International Standards	CE mark, RoHS directive, UL standard
Motor types	Pulse motor ( $\square$ 56SP) (Power supply capacity: Maximum 6A)
Encoder types	Incremental/Battery-less Absolute
Encoder pulse count	800 pulses/rev
deadline	Listed on the website under [Delivery Date Inquiry].

(Note 6) This is based on a standard rated lifespan of 5,000 km. Actual lifespan varies depending on driving conditions and installation. Please refer to pages [1-280 for details on actual lifespan.](#)

## Slider type Moment direction



### ▶ Payload table by speed/acceleration

The unit of payload capacity is kg. A blank space indicates that the device is not operational.

	Lead 30	Lead 20	Lead 10	Lead 5		
posture	horizontal				vertical	
Speed (mm/s)	Acceleration (G)					
	0.3	0.5	0.7	1	0.3	0.5
0	twenty three	16	13	12	2	2
200	twenty three	16	13	12	2	2
450	20	16	13	11	1	1
650	18	15	12	8	1	1
850	14	10	7	5	1	1
1000	8	6	3	2		
1200	4	2	1			

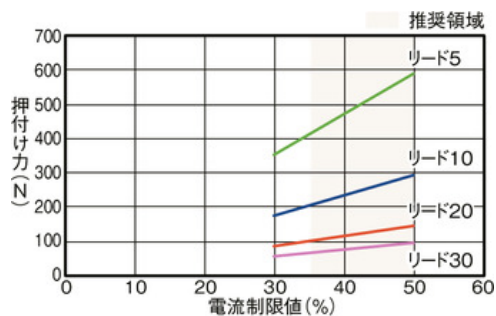
### ▶ Stroke and maximum speed

(Units are mm/s)

Lead (mm)	50-700	750	800	850	900	950	1000	1050	1100
	(Every 50mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
30	1200 < 850 >		1160 < 850 >	1040 < 850 >	940 < 850 >	860 < 850 >	780	720	660
20	900 < 650 >	880 < 650 >	780 < 650 >	700 < 650 >	640	580	530	480	440
10	450	430	380	340	310	280	260	240	220
5	225	215	190	170	150	140	130	115	110

(Note) The values in < > refer to vertical use.

## Correlation diagram between pressing force and current limit value



## Adaptive controller

(Note) The EC series has a built-in controller. For details on the built-in controller, please refer to page [2-845](#).

## International standards



## Selection Notes



- (1) As the stroke length increases, the maximum speed decreases due to the critical rotational speed of the ball screw. Please check the maximum speed.
- (2) The payload capacity listed in "Main Specifications" is the maximum value. For details, please refer to the "Payload Capacity Table by Speed and Stroke".
- (3) When performing a pressing operation, please refer to the "Correlation Diagram between Pressing Force and Current Limit Value". The pressing force must be within the limit value for important points.
- (4) Duty cycle limits may be required depending on the ambient operating temperature. For details, please refer to page [1-332](#).
- (5) Caution is required depending on the mounting position. For details, please check page [1-313](#).
- (6) The guideline for the overhang load length is 400 mm or less in the Ma, Mb, and Mc directions. For details on overhang load length, please refer to page [1-313](#).
- (7) The center of gravity of the mounted object should be less than or equal to half the overhang distance. Even if the overhang distance and load are within the limit, the center of gravity must be within the limit.
- (8) When connecting the RCON-EC connection specification (ACR) to the EC connection unit (RCON-EC-4), there is a limit to the number of connections.

[↑ Return to top of page](#)

## Dimensional drawing

CAD図面がホームページよりダウンロード出来ます。

[www.iai-robot.co.jp](http://www.iai-robot.co.jp)



ST: Stroke

ME: Mechanical End

SE: Stroke End

(Note) When returning to the origin, the slider will move to ME, so please be careful of interference with surrounding objects.

(Note) Please pay attention to the length of the mounting bolts. If you use the mounting screws on the back of the base, if the bolts are too long, they may interfere with internal parts, potentially causing sliding abnormalities or damage to the parts.

(Note) When fixing the actuator using the through-holes in the base, the side cover and stainless steel sheet must be removed.

(Note) For strokes of 50/100, some through-holes cannot be used. Please attach the main unit using the screw holes on the bottom of the base.

