EC-S6□H

High Rigidity | Slider Type | Motor Unit Type | Coupled Motor | Body Width 63 mm | 24v Stepper Motor

■ Model Specification Items

EC — S6 — [Lead] — H — [Stroke] — [Cable Length] — ([Options])

Series	Type	Lead	High Rigidity	Stroke	Cable Length	Options
EC	S6	S : 20mm H : 12mm M : 6mm L : 3mm	H	50: 50mm ~ 400:400mm (Every 50mm)	0: With terminal block type connector 1: 1m ~ 10:10m	Refer to Options below.

* Please refer to P.16 for more information about the model specification items.

CE RoHS

Horizontal | Vertical | Side | Ceiling

* Depending on the model, there may be some limitations to using the vertical, side, and ceiling mount positions. Please contact IAI for more information regarding mounting positions.

POINT Selection Notes

(1) The maximum acceleration/deceleration is 1G for horizontal, and 0.5G for vertical use.
(2) The actuator specifications display the payload's maximum value, but it will vary depending on the acceleration and speed. Please refer to "Table of Payload by Speed/Acceleration" at right for more details.
(3) When performing push-motion operation, refer to P.65.
(4) Depending on the ambient operating temperature, duty control is necessary. Please refer to P.67 for more information.
(5) The power capacity can be reduced according to the setting. Please refer to P.63 for the relevant "Table of Payload by Speed/Acceleration."

Table of Payload by Speed/Acceleration

Lead 20

Orientation	Horizontal				Vertical	
Speed	Acceleration (G)					
(mm/s)	0.3	0.5	0.7	1	0.3	0.5
0	15	10	8	7	1	1
160	15	10	8	7	1	1
320	12	10	8	6	1	1
480	12	9	8	6	1	1
640	12	8	6	5	1	1
800	10	6.5	4.5	3	1	1

Lead 12

Orientation	Horizontal				Vertical	
Speed	Acceleration (G)					
(mm/s)	0.3	0.5	0.7	1	0.3	0.5
0	26	18	16	14	2.5	2.5
80	26	18	16	14	2.5	2.5
200	26	18	16	14	2.5	2.5
320	26	18	14	12	2.5	2.5
440	26	18	12	10	2.5	2.5
560	20	12	8	7	2.5	2.5
700	15	9	5	4	2	1

Lead 6

Orientation	Horizontal				Vertical	
Speed	Acceleration (G)					
(mm/s)	0.3	0.5	0.7	1	0.3	0.5
0	32	26	24	20	6	6
40	32	26	24	20	6	6
100	32	26	24	20	6	6
160	32	26	24	20	6	6
220	32	26	24	20	6	6
280	32	26	24	15	6	5.5
340	32	20	18	12	5	4.5
400	22	12	11	8	3.5	3.5
450	15	8	6	4	2	2

Lead 3

Orientation	Horizontal				Vertical	
Speed	Acceleration (G)					
(mm/s)	0.3	0.5	0.7	1	0.3	0.5
0	40	35	35	35	12.5	12.5
50	40	35	35	35	12.5	12.5
80	40	35	35	30	12.5	12.5
110	40	35	35	30	12.5	12.5
140	40	35	35	28	12.5	12.5
170	40	32	32	24	12.5	12
200	35	28	23	20	10	9
225	28	20	16	12	6	

Actuator Specifications

■ Lead and Payload

Model number	Lead (mm)	Max. payload Horizontal (kg)	Max. payload Vertical (kg)	Max. push force (N)*
EC-S6SH-①-②(-③)	20	15	1	56
EC-S6HH-①-②(-③)	12	26	2.5	93
EC-S6MH-①-②(-③)	6	32	6	185
EC-S6LH-①-②(-③)	3	40	12.5	370

Legend: ① Stroke ② Cable Length ③ Option

■ Stroke and Max Speed

(Unit: mm/s)

Lead (mm)	50~200 (Every 50mm)	250 (mm)	300 (mm)	350 (mm)	400 (mm)
20	800			717	559
12	700		513	386	301
6	450	364	261	196	152
3	225	184	131	98	76

*Speed limitation applies to push motion. See the manual or contact IAI.

① Stroke

① Stroke (mm)	EC-S6□H	① Stroke (mm)	EC-S6□H
50	○	**250**	○
100	○	**300**	○
150	○	**350**	○
200	○	**400**	○

② Cable Length

Cable code	Cable length
0	No cable (with connector)
1~3	1~3m
4~5	4~5m
6~10	6~10m

③ Options

Name	Option code	Reference page
Brake	**B**	See P.59
Non-motor end specification	**NM**	See P.62
PNP specification	**PN**	See P.62
Battery-less Absolute Encoder specification	**WA**	See P.62
Wireless communication specification	**WL**	See P.62

Actuator Specifications

Item	Description
Drive system	Ball screw ϕ10mm, rolled C10
Positioning repeatability	±0.05mm
Base	Material: Aluminum, black alumite treatment
Allowable static moment	Ma direction: 48.5N·m, Mb direction: 69.3N·m, Mc direction: 103N·m
Allowable dynamic moment (*)	Ma direction: 33.7N·m, Mb direction: 40.2N·m, Mc direction: 55.3N·m
Ambient operating temperature/humidity	0 to 40°C, 85% RH or less (Non-condensing)

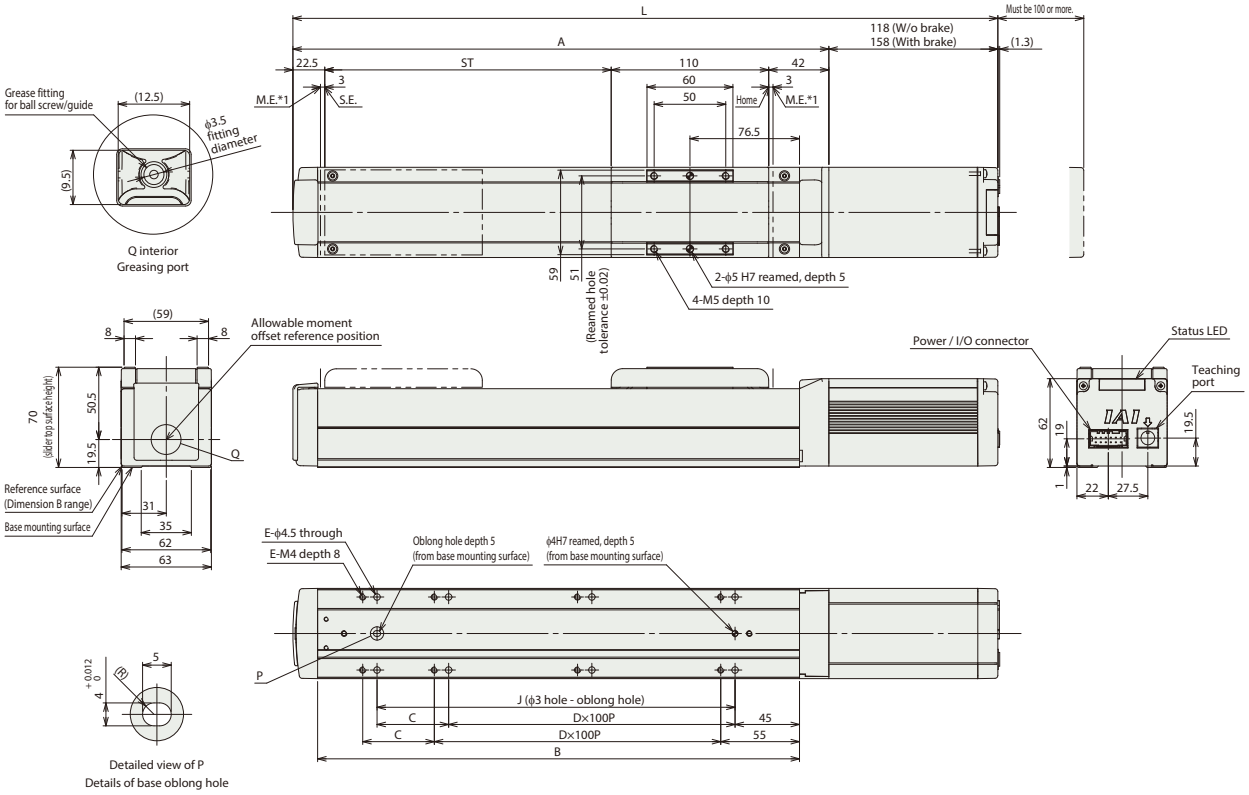
· Overhang load length guideline: 300mm or less
(*) For reference rated life of 5,000km. The service life differs according to operation conditions and mounting status.
Contact IAI to check the service life.
Contact IAI to check the allowable moment direction and overhang load length.

Dimensions

CAD drawings can be downloaded from our website.
www.intelligentactuator.com

2D CAD 3D CAD

*1 When the slider is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the M.E.
M.E: Mechanical end S.E: Stroke end



■ Dimensions and Mass by Stroke

Stroke		50	100	150	200	250	300	350	400
L	W/o Brake	342.5	392.5	442.5	492.5	542.5	592.5	642.5	692.5
	With Brake	382.5	432.5	482.5	532.5	582.5	632.5	682.5	732.5
A		224.5	274.5	324.5	374.5	424.5	474.5	524.5	574.5
B		186.5	236.5	286.5	336.5	386.5	436.5	486.5	536.5
C		0	50	0	50	0	50	0	50
D		1	1	2	2	3	3	4	4
E		4	6	6	8	8	10	10	12
J		100	150	200	250	300	350	400	450
Weight (kg)	W/o Brake	2.0	2.2	2.4	2.6	2.9	3.1	3.3	3.5
	With Brake	2.3	2.5	2.7	2.9	3.2	3.4	3.6	3.8

Controller side Options/Accessories

Name	Touch Panel Teaching Pendant	PC software	24VDC power supply
External view			
Model	☐ TB-02 (for wired connection only) ☐ TB-03 (for wired/wireless connection)	☐ RCM-101-MW (RS232 connection version) ☐ RCM-101-USB (USB connection version)	☐ PS-241 (100V input) ☐ PS-242 (200V input)
Overview	● TB-02 A teaching pendant equipped with functions such as start point, end point, and AVD input, trial operation, and monitoring. ● TB-03 A data setter that supports wireless connection. The start point, end point and AVD can be input with wireless connection.	Software for start point input, end point input and AVD input, trial operation, and monitoring using a PC. Both the RS232C version and USB version are available for PC connection.	A 24VDC power supply that can instantaneously output up to 17A. Input voltage 200VAC and 100VAC specifications are available.

* For system configurations using the above tools, refer to P.68.