

# EC-S6

Model Specification Items

EC — S6  
Series — Type

Lead

S : 20mm  
H : 12mm  
M : 6mm  
L : 3mm

Stroke

50: 50mm  
400: 400mm  
(Every 50mm)

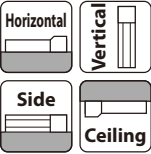
Cable Length

0: With terminal block type connector  
1: 1m  
10: 10m

Options

Refer to Options below.

\* Please refer to P.13 for more information about the model specification items.



\* 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.



Table of Payload by Speed/Acceleration

Lead 20

Speed (mm/s)	Acceleration (G)					
	Horizontal		Vertical			
	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

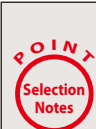
Speed (mm/s)	Acceleration (G)					
	Horizontal		Vertical			
	0.3	0.5	0.7	1	0.3	0.5
0	26	18	16	14	2.5	2.5
80	26	18	16	14	2.5	2.5
200	26	18	16	14	2.5	2.5
320	26	18	14	12	2.5	2.5
440	26	18	12	10	2.5	2.5
560	20	12	8	7	2.5	2.5
700	15	9	5	4	2	1

Lead 6

Speed (mm/s)	Acceleration (G)					
	Horizontal		Vertical			
	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

Speed (mm/s)	Acceleration (G)					
	Horizontal		Vertical			
	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	



- (1) The maximum acceleration/deceleration is 1G for horizontal, and 0.5G for vertical use.
- (2) The actuator specifications displays 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 operation, refer to P.31.
- (4) Depending on the ambient operating temperature, duty control is necessary. Please refer to P.32 for more information.

Actuator Specifications

Lead and Payload

Model	Lead (mm)	Max. payload		Max. Push force (N)
		Horizontal (kg)	Vertical (kg)	
EC-S6S-①-②(-③)	20	15	1	56
EC-S6H-①-②(-③)	12	26	2.5	93
EC-S6M-①-②(-③)	6	32	6	185
EC-S6L-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			727	566
12	700		521	392	305
6	450	371	265	199	155
3	225	188	134	100	78

① Stroke

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

② Cable Length

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

③ Options

Type	Option code	Reference page
Brake	B	See P.29
Foot bracket	FT	See P.29
Non-motor end specification	NM	See P.30
PNP specification	PN	See P.30
Battery-less		
Absolute Encoder specification	WA	See P.30

Actuator Specifications

Item	Description
Drive system	Ball screw φ10mm, rolled C10
Positioning repeatability	±0.05mm
Base	Material: Aluminum, alumite treatment
Static allowable moment	Ma direction: 48.5N·m, Mb direction: 69.3N·m, Mc direction: 97.1N·m
Dynamic allowable moment (*)	Ma direction: 11.6N·m, Mb direction: 16.6N·m, Mc direction: 23.3N·m
Ambient operating temperature/humidity	0 to 40°C, 85% RH or less (Non-condensing)

\* Overhang load length guideline: 220mm or less

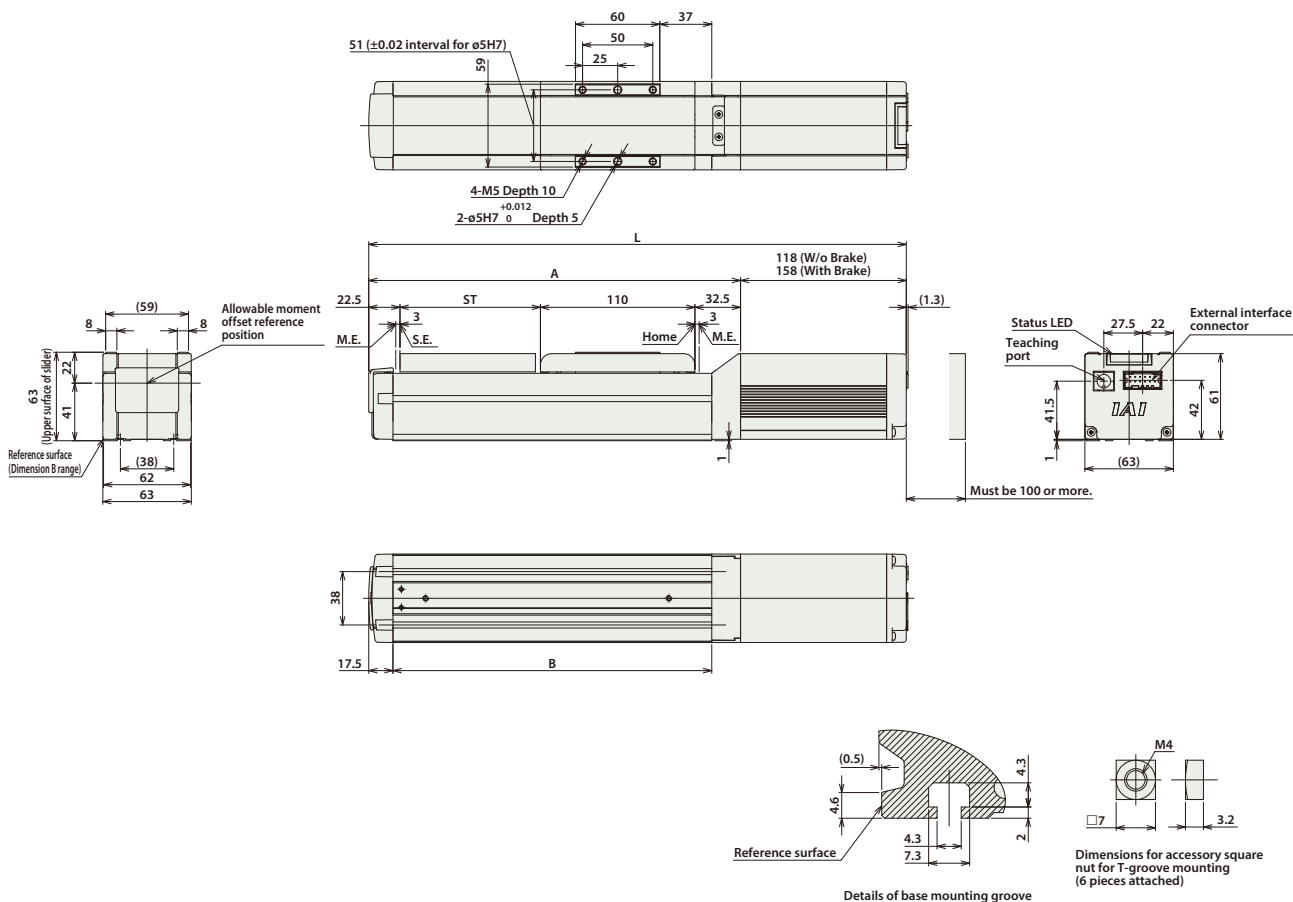
(\*) For reference rated life of 5000km. The service life will vary depending on operation and installation conditions. Please contact IAI for more details.

Dimensions

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



\*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

L	Stroke	50	100	150	200	250	300	350	400
	W/o Brake	333	383	433	483	533	583	633	683
With Brake	373	423	473	523	573	623	673	723	
A	215	265	315	365	415	465	515	565	
B	177	227	277	327	377	427	477	527	
Weight (kg)	W/o Brake	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2
	With Brake	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4

Controller Side Options

Name	Touch Panel Teaching Pendant	PC software	24VDC power supply
External view			
Model	TB-02-C	RCM-101-MW (RS232 connection version) RCM-101-USB (USB connection version)	PS-241 (100V input) PS-242 (200V input)
Overview	A teaching device equipped with functions such as start point, end point, and AVD input, trial operation, and monitoring	Software for start point input, end point input, and AVD input, trial operation, and monitoring using a PC	Power supply with maximum instantaneous output of 17A

\* For system configurations using the above tools, refer to P.33.