

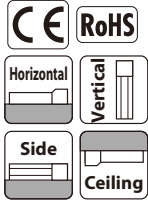
# EC-S6

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

**Model Specification Items**

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

\* Please refer to P.16 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

Orientation	Horizontal			Vertical		
	Acceleration (G)					
Speed (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

Orientation	Horizontal			Vertical		
	Acceleration (G)					
Speed (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

Orientation	Horizontal			Vertical		
	Acceleration (G)					
Speed (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

Orientation	Horizontal			Vertical		
	Acceleration (G)					
Speed (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	

- 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 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."

### 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

**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

Legend: ① Stroke ② Cable Length ③ Option

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

**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.59
Foot bracket	FT	See P.60
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
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)

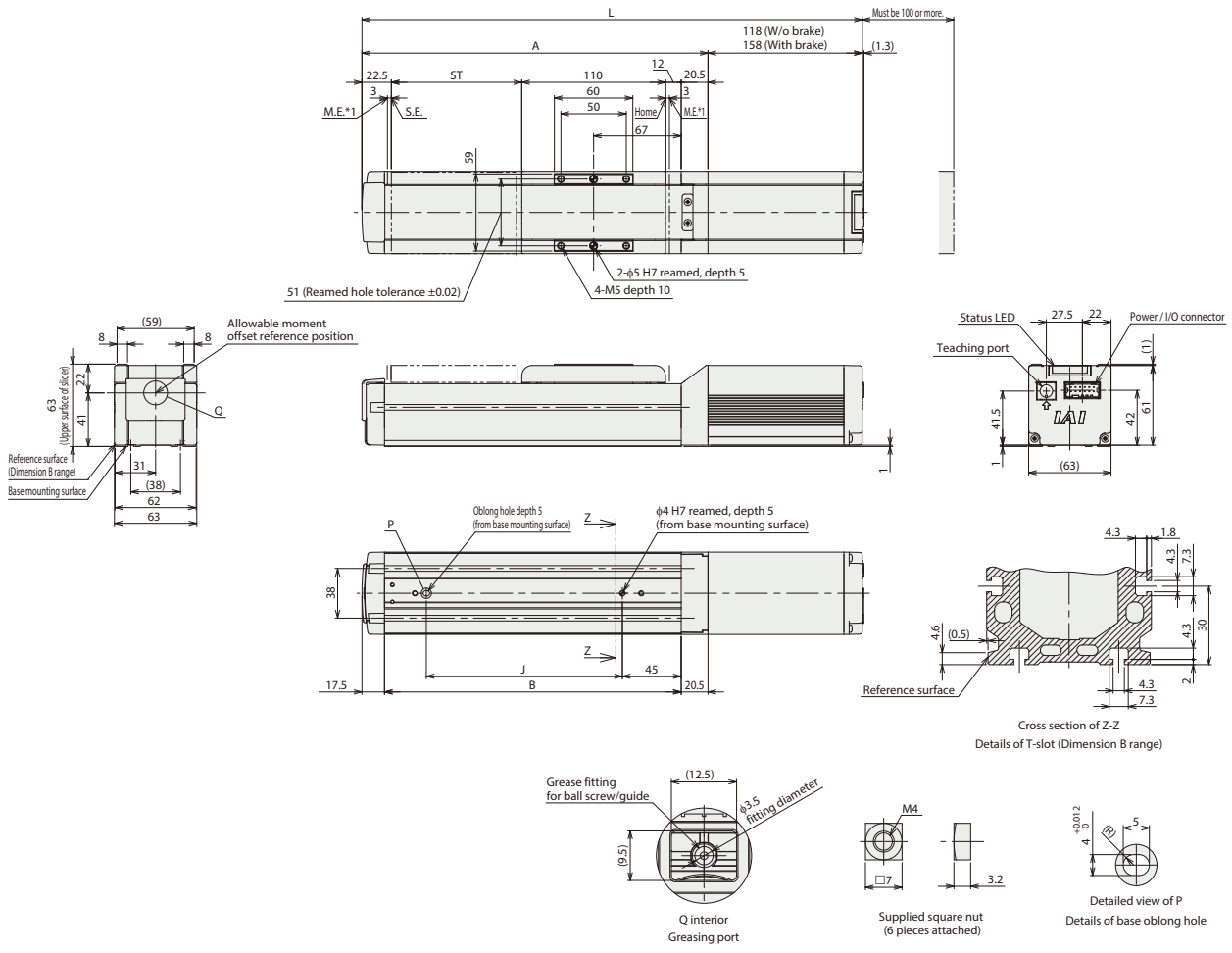
- Overhang load length guideline: 220mm or less  
 (\*) For reference rated life of 5000km. The service life will vary depending on operation and installation conditions. Please contact IAI for more details.

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	773
A	215	265	315	365	415	465	515	565	615
B	177	227	277	327	377	427	477	527	577
J	100	150	200	250	300	350	400	450	500
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/Accessories

Name	Touch Panel Teaching Pendant	PC software	24VDC power supply
External view			
Model	<input type="checkbox"/> TB-02 (for wired connection only) <input type="checkbox"/> TB-03 (for wired/wireless connection)	<input type="checkbox"/> RCM-101-MW (RS232 connection version) <input type="checkbox"/> RCM-101-USB (USB connection version)	<input type="checkbox"/> PS-241 (100V input) <input type="checkbox"/> PS-242 (200V input)
Overview	<ul style="list-style-type: none"> <li>● TB-02 A teaching pendant equipped with functions such as start point, end point, and AVD input, trial operation, and monitoring.</li> <li>● TB-03 A data setter that supports wireless connection. The start point, end point and AVD can be input with wireless connection.</li> </ul>	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.