

ERC2-SA6C

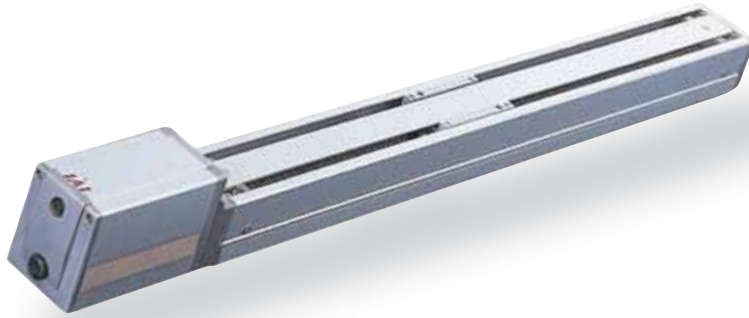
Controller-Integrated Slider Type 58mm Width Pulse Motor Straight Type

■ Configuration: **ERC2** — **SA6C** — **I** — **PM** — — — — —

Series — Type — Encoder — Motor — Lead — Stroke — I/O Type — Cable Length — Option

I: Incremental PM: Pulse motor 12:12mm 50: 50mm NP: PIO N: None P: 1m B: Brake
 6: 6mm PSEL (NPN) Type S: 3m M: 5m NM: Reversed-home
 3: 3mm 600:600mm PN: PIO X : Custom Length W : Cable with connectors on both ends
 (50mm pitch increments) (PNP) Type R : Robot cable
 SE :SIO Type RW : Robot cable with connectors on both ends

* See page Pre-35 for explanation of each code that makes up the configuration name.

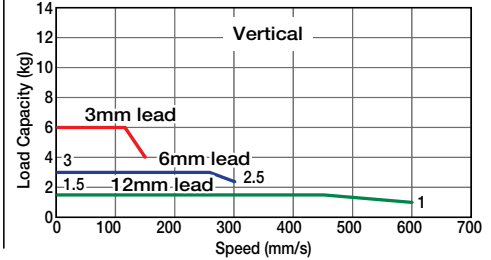
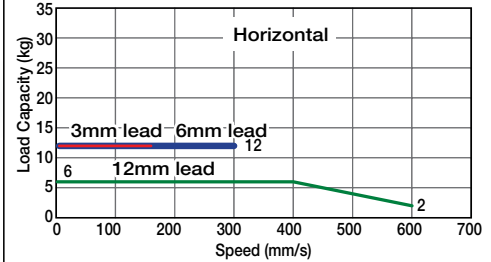


Technical References P. A-5



- When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.
- Since the ERC2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when using vertically). These values are the upper limits for the acceleration.

■ Speed vs. Load Capacity
 Due to the characteristics of the pulse motor, the ERC2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

Lead and Load Capacity

(Note 1) Please note that the maximum load capacity decreases as the speed increases.

Stroke and Maximum Speed

Model	Lead (mm)	Max. Load Capacity (Note 1)		Stroke (mm)
		Horizontal (kg)	Vertical (kg)	
ERC2-SA6C-I-PM-12-①-②-③-④	12	~ 6	~ 1.5	50 ~ 600 (50mm increments)
ERC2-SA6C-I-PM-6-①-②-③-④	6	12	~ 3	
ERC2-SA6C-I-PM-3-①-②-③-④	3	12	~ 6	

Stroke / Lead	50 ~ 550 (50mm increments)	600 (mm)
	12	600
6	300	255
3	150	125

Legend ① Stroke ② I/O type ③ Cable length ④ Options

(Unit: mm/s)

① Stroke List

Stroke (mm)	Standard Price
50	-
100	-
150	-
200	-
250	-
300	-
350	-
400	-
450	-
500	-
550	-
600	-

③ Cable List

Type	Cable Symbol	Standard Price
Standard	P (1m)	-
	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
Connectors on Both Ends	W01(1m) ~ W03(3m)	-
	W04(4m) ~ W05(5m)	-
	W06(6m) ~ W10(10m)	-
Robot Cable	R01 (1m) ~ R03 (3m)	-
	R04 (4m) ~ R05 (5m)	-
	R06 (6m) ~ R10 (10m)	-
Connectors on Both Ends Robot Cable	RW01 (1m) ~ RW03 (3m)	-
	RW04 (4m) ~ RW05 (5m)	-
	RW06 (6m) ~ RW10 (10m)	-

< > values are applicable to the SE type.
 * See page A-39 for cables for maintenance.

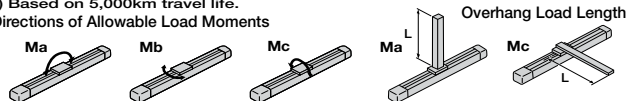
④ Option List

Name	Option Code	See Page	Standard Price
Brake	B	→ A-25	-
Reversed-home	NM	→ A-33	-

Actuator Specifications

Item	Description
Drive System	Ball screw Ø10mm C10 grade
Positioning Repeatability	±0.02mm
Lost Motion	0.1mm or less
Allowable Static Moment	Ma: 38.3N·m Mb: 54.7N·m Mc: 81.0N·m
Allowable Dynamic Moment(*)	Ma: 8.9N·m Mb: 12.7N·m Mc: 18.6N·m
Overhang Load Length	150mm or less along Ma; 150mm or less along Mb/Mc
Ambient Operating Temp./Humidity	0~40°C, 85%RH or less (Non-condensing)

(*) Based on 5,000km travel life.
 Directions of Allowable Load Moments



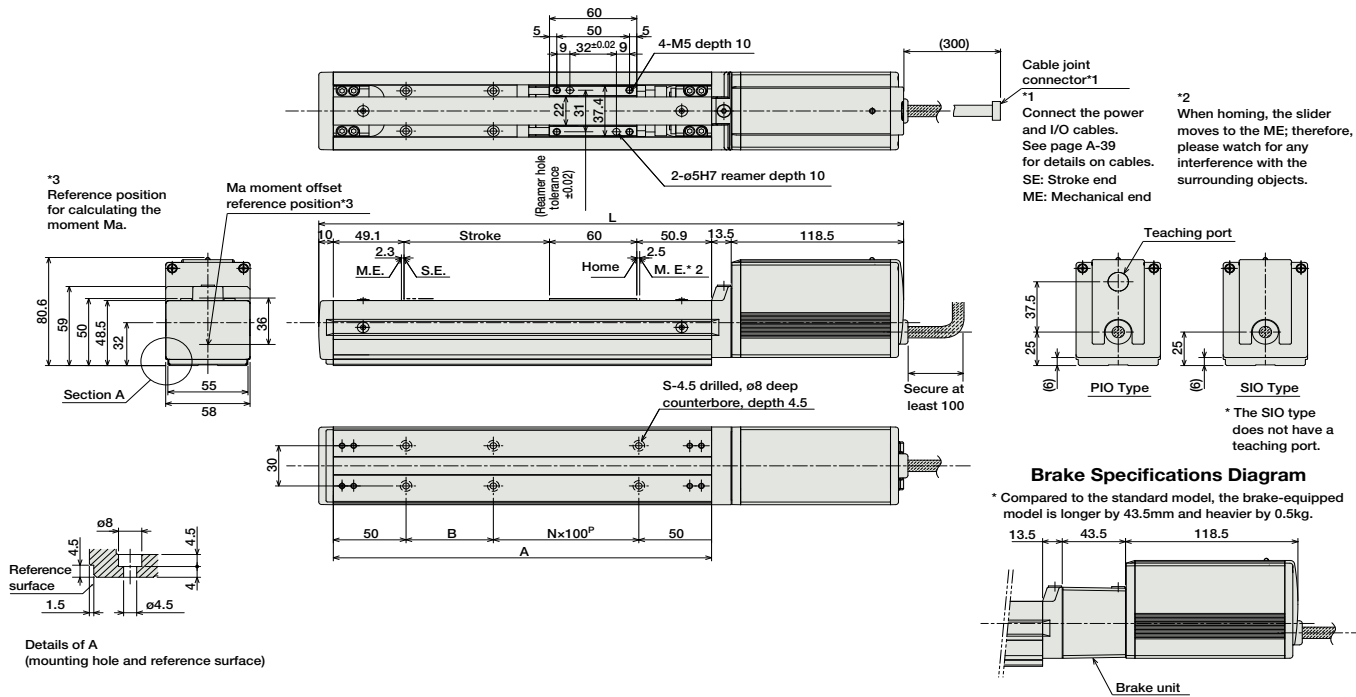
Dimensions

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



* For the reversed-home model, the dimensions (distance from the ME to home) on the motor-side and that on the opposite side are flipped.

For Special Orders P. A-9



■ Dimensions/Weight by Stroke

Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	352	402	452	502	552	602	652	702	752	802	852	902
A	210	260	310	360	410	460	510	560	610	660	710	760
B	10	60	10	60	10	60	10	60	10	60	10	60
N	1	1	2	2	3	3	4	4	5	5	6	6
S	6	6	8	8	10	10	12	12	14	14	16	16
Weight (kg)	1.9	2.0	2.1	2.3	2.4	2.6	2.7	2.8	3.0	3.1	3.3	3.4

I/O Type (Controller built into the actuator)

② I/O type

The integrated controller in the ERC2 Series can be selected from the following 3 types based on the type of external input and output (I/O). Select the type according to your application.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
PIO Type (NPN Specification)		ERC2-SA6C-I-PM-□-□-NP-□-□	Simple control type with up to 16-point positioning	16	DC24V	2A Max.	-	→ P515
PIO Type (PNP Specification)		ERC2-SA6C-I-PM-□-□-PN-□-□	Supports the PNP I/O commonly used overseas.	16				
SIO Type		ERC2-SA6C-I-PM-□-□-SE-□-□	Field Network Connection Serial (Gateway unit used)	64				

- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/Arm/Flat Type
- Mini
- Standard
- Controllers Integrated
- Gripper/Rotary Type
- Linear Servo Type
- Cleanroom Type
- Splash-Proof
- Controllers
- PMEC/AMEC
- PSEP/ASEP
- ROBO NET
- ERC2
- PCON
- ACON
- SCON
- PSEL
- ASEL
- SSEL
- XSEL
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor