

EC-RR6□H

Motor
straight

Body width
60
mm

24v
Stepper
Motor

Model Specification Items

EC	RR6	H			
Series	Type	Lead	Specification	Stroke	Cable Length
		S 20mm H 12mm M 6mm L 3mm	H High rigidity	50 50mm 100 100mm 150 150mm 300 300mm (Every 50mm)	0 With terminal block type connector 1 1m □ 10 10m
				Options Refer to Options below.	



Horizontal

Vertical

Side

Ceiling

for radial load



Stroke	
Stroke (mm)	Stroke (mm)
50	200
100	250
150	300

Options					
Name	Option code	Reference page	Name	Option code	Reference page
Brake	B	(Note1)	Non-motor end specification	NM	(Note1)
Tip adapter (flange)	FFA	5	PNP specification	PN	(Note1)
Flange (front)	FL	5	Clevis bracket (Note 2)	QR	6
Tip adapter (Female thread)	NFA	5	Clevis bracket + oscillation receiving bracket	QRPB	6
Knuckle joint (Note 2)	NJ	5	Battery-less Absolute Encoder specification	WA	(Note1)
Knuckle joint + oscillation receiving bracket	NJPB	6	Wireless communication specification	WL	(Note1)

(Note 1) Please refer to the eleycylinder catalog (CJ0250-5A) for details.
 (Note 2) The clevis (QR) and knuckle joint (NJ) are sold as a set. Please assemble by customer.

POINT
Selection
Notes

- (1) Payload values shown in "Main spec" are the highest values at low speed.
- (2) The radial cylinder is equipped with a built-in guide. For the radial load acting on the rod, refer to P.7.
- (3) Horizontal load capacity is when using an external guide.
- (4) For push motion refer to the graph "Correlation of push force and current limit value". The value in the graph is a guideline push force.
- (5) Depending on the ambient operating temperature, duty control is necessary. Please refer to (CE0250-5A) P. 67 eleycylinder catalog for more information.
- (6) Attention is required depending on the mounting position. Please refer to the instruction manual for details.

Cable length	
Cable code	Cable length
0	
1 ~ 3	1 ~ 3m
4 ~ 5	4 ~ 5m
6 ~ 10	6 ~ 10m

*Refer to eleycylinder catalog (CJ0250-5A) for details of cables.

Specifications						
		Item	Description			
Lead	Payload	Ball screw lead (mm)	20	12	6	3
		Maximum payload (kg)	6	25	40	60
Horizontal	Speed / acceleration / deceleration	Maximum speed (mm/s)	800	700	450	225
		Minimum speed (mm/s)	25	15	8	4
		Rated acceleration / deceleration (G)	0.3	0.3	0.3	0.3
		Maximum acceleration / deceleration (G)	1	1	1	1
		Maximum payload (kg)	1.5	4	10	20
Vertical	Speed / acceleration / deceleration	Maximum speed (mm/s)	800	700	450	225
		Minimum speed (mm/s)	25	15	8	4
		Rated acceleration / deceleration (G)	0.3	0.3	0.3	0.3
		Maximum acceleration / deceleration (G)	0.5	0.5	0.5	0.5
		Maximum push force (N)	56	93	185	370
Push force		Maximum push force speed (mm/s)	20	20	20	20
		Brake specification	Non-excitation actuated electromagnetic brake			
Brake		Brake holding force (kgf)	1.5	4	10	20
		Minimum stroke (mm)	50	50	50	50
Stroke		Maximum stroke (mm)	300	300	300	300
		Stroke pitch (mm)	50	50	50	50

Item	Description
Drive system	Ball screw φ10mm rolled C10
Positioning repeatability	±0.05mm
Lost motion	-
Linear guide	Direct acting infinite circulation type
Rod	φ25mm Material: Aluminum, hard alumite treatment
Rod non-rotation precision (Note 3)	0 degrees
Ambient operating temperature/humidity	0~40°C, 85%RH or less (Non-condensing)
Degree of protection	IP30
Vibration resistant, shock resistant	4.9m/s ² 100Hz or less
Overseas standards	CE and RoHS compliant
Motor type	Stepper motor
Encoder Type	Incremental / Battery-less absolute
Number of encoder pulses	800 pulse/rev

(Note 3) The angle of rotation of the rod when no load is applied.

Table of Payload by Speed/Acceleration

The unit of payload quantity is kg. Blank spaces cannot be achieved.

Lead20

Orientation Speed (mm/s)	Horizontal Acceleration (G)			Vertical	
	0.3	0.5	0.7	0.3	0.5
0	6	6	5	5	1.5
160	6	6	5	5	1.5
320	6	6	5	3	1.5
480	6	6	5	3	1.5
640	6	4	3	2	1.5
800	4	3		1	1

Lead12

Orientation Speed (mm/s)	Horizontal Acceleration (G)				Vertical	
	0.3	0.5	0.7	1	0.3	0.5
0	25	18	16	12	4	4
100	25	18	16	12	4	4
200	25	18	16	10	4	4
400	20	14	10	6	4	4
500	15	8	6	4	3.5	3
700	6	2			2	1

Lead6

Orientation Speed (mm/s)	Horizontal Acceleration (G)					Vertical	
	0.3	0.5	0.7	1	0.3	0.5	
0	40	35	30	25	10	10	
50	40	35	30	25	10	10	
100	40	35	30	25	10	10	
200	40	30	25	20	10	10	
250	40	27.5	22.5	18	9	8	
350	30	14	12	10	5	5	
400	18	10	6	5	3	3	
450	8	3			2	1	

Lead3

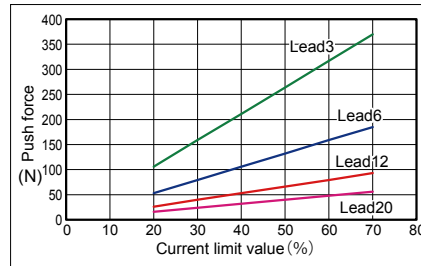
Orientation Speed (mm/s)	Horizontal Acceleration (G)					Vertical	
	0.3	0.5	0.7	1	0.3	0.5	
0	60	50	45	40	20	20	
50	60	50	45	40	20	20	
100	60	50	45	40	20	20	
125	60	50	40	30	10	10	
175	40	35	25	20	6	5	
200	35	30	20	14	5	4.5	
225	16	16	10	6	5	4	

Stroke and Max Speed

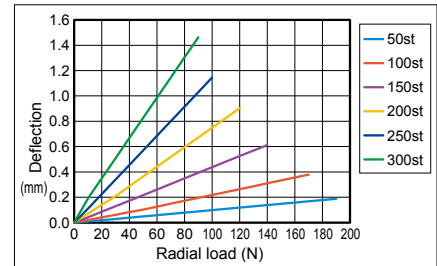
Lead (mm)	50~200 (every 50mm)	250 (mm)	300 (mm)
20		800	
12	700	660	480
6	450	325	235
3	225	160	115

(Unit: mm/s)

Correlation of push force and current limit value



Rod Deflection (Reference Values)



Dimensions

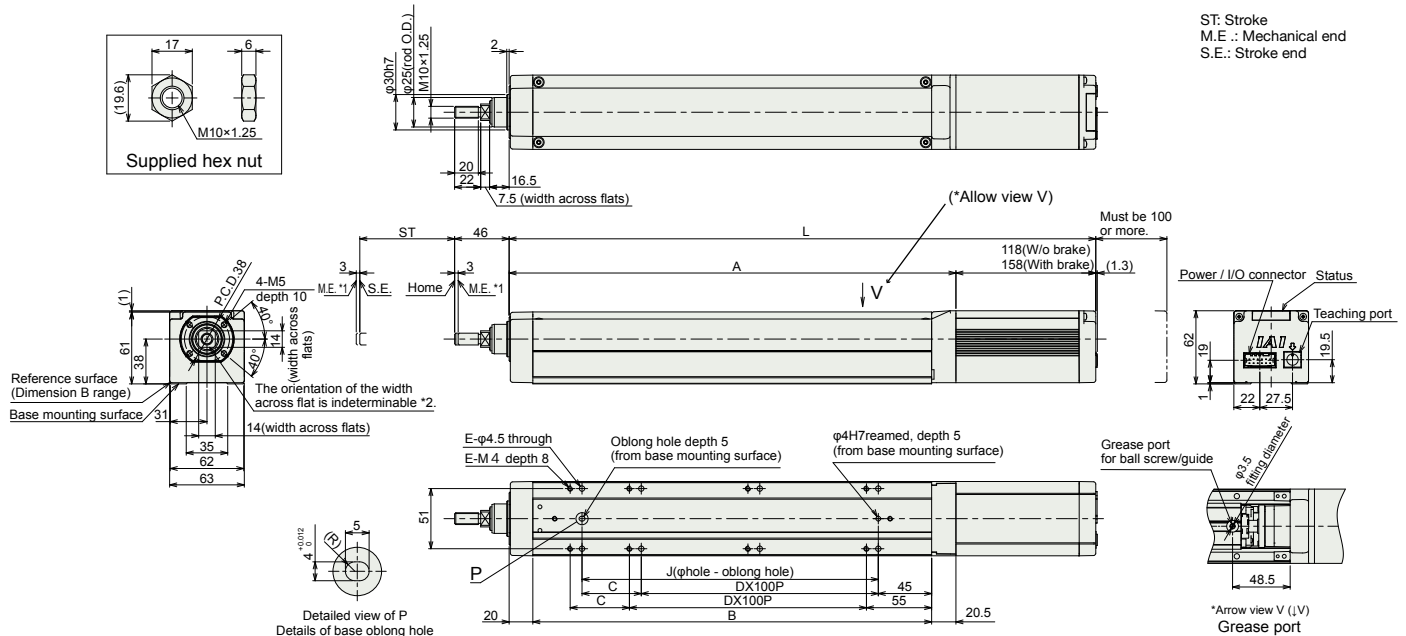
- *1 When the rod is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the M.E.
- *2 The direction of width across flats varies depending on the product. Those flats cannot be used for reference plane.

CAD drawings can be downloaded from our website.

www.intelligentactuator.com



ST: Stroke
M.E.: Mechanical end
S.E.: Stroke end



Dimensions by Stroke

Stroke	50	100	150	200	250	300
L	W/o Brake	345	395	445	495	545
	With Brake	385	435	485	535	585
A	227	277	327	377	427	477
B	186.5	236.5	286.5	336.5	386.5	436.5
C	0	50	0	50	0	50
D	1	1	2	2	3	3
E	4	6	6	8	8	10
J	100	150	200	250	300	350

Mass by Stroke

Stroke	50	100	150	200	250	300
Weight (kg)	W/o Brake	2	2.2	2.5	2.8	3
	With Brake	2.3	2.5	2.8	3.1	3.3

Adaptive controller

* EC series has built in controller. For details of the built-in controller, please refer to page 68 of the elecylinder catalog (CJ0250-5A).