Electric Actuator with Motor Specification

EBR-G/M

Rod type with built-in guide

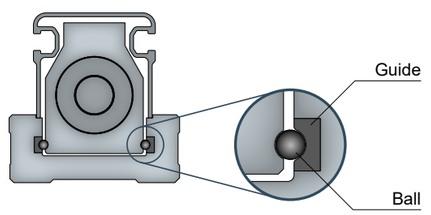
CONTENTS

EBR-G/M Series

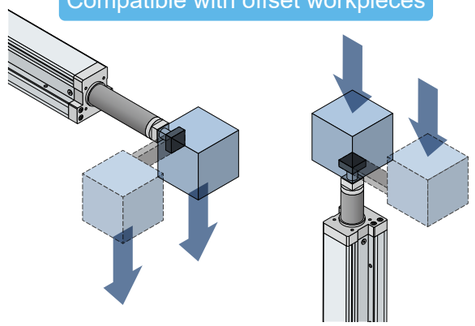
Built-in Guide Type

High rigidity | Space saving | Reduced design | Reduced parts | Reduced man-hours

It has the same built-in guide as the slider type EBS. It has a strong structure even for offset workpieces.



Compatible with offset workpieces

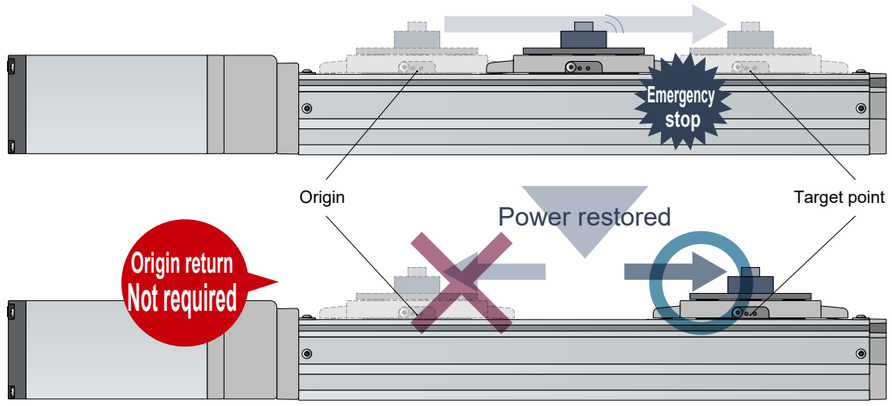


Battery-less Absolute Encoder

Easy maintenance | Reduced parts

Equipped with an absolute encoder that retains current position information. Because it is a battery-less specification, battery replacement maintenance is not required.

* Option for all series



Built-in guide makes it ideal for press-fitting and lifting

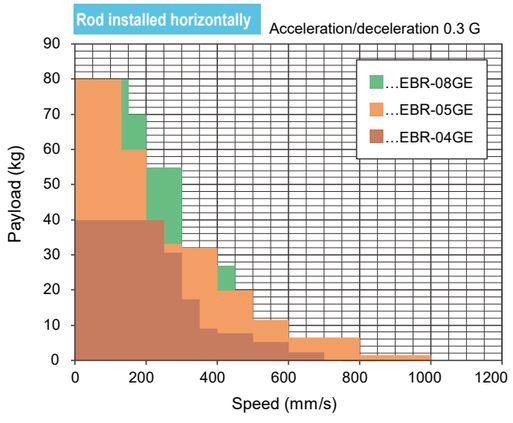
Line-up		Size 04	Size 05	Size 08	Catalog page
Actuator	Guide integrated Rod EBR-G/M	●	●	●	162
Application Controller	ECMG	●	●	●	535
	ECG-A *1	●	●	●	565
	ECR *2	●	●	●	595

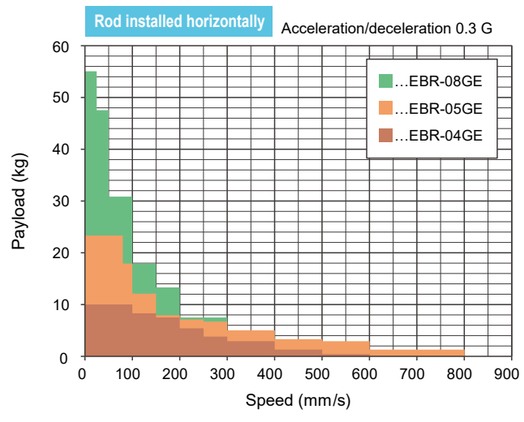
*1. EBR-P4 (for rechargeable battery manufacturing processes) can be connected to only Controllers ECG-A.
*2. EBS/EBR-FPI (for food production processes) can only be connected to the ECR controller.

System Table

Controller	Actuator Model No.		Motor Size	Motor Mounting Direction	Body Width (mm)	Screw Lead (mm)	Max. Payload (kg) Horizontal	Max. Payload (kg) Vertical	Max. Pushing Force (N)	Stroke (mm) and Max. Speed (mm/s) 50 mm	100	150	200	250	300	350	400	450	500	550	600	650	700	Page
ECMG Series		EBR-04GE-06	□35	Straight	44	6	40.0	10.0	155	400 mm/s				300		250								166
		EBR-04GE-12				12	12.5	2.9	77	700				600		430								
		EBR-04GR/D/L-06		Reverse Parallel		6	40.0	10.0	155	350				300		250								170
		EBR-04GR/D/L-12				12	12.5	2.9	77	600						490								
		EBR-05GE-02	□42	Straight	54	2	80.0	23.3	550	130						85								176
		EBR-05GE-05				5	60.0	14.2	220	375				330		210								
		EBR-05GE-10				10	41.7	7.1	110	750				650		420								
		EBR-05GE-20				20	11.7	2.9	55	1,000				800										
		EBR-05GR/D/L-02		Reverse Parallel		2	80.0	23.3	550	130						85								180
		EBR-05GR/D/L-05				5	60.0	14.2	220	375				330		210								
		EBR-05GR/D/L-10				10	38.3	6.7	110	650						420								
		EBR-05GR/D/L-20				20	11.7	1.7	55	1,000				800										
		EBR-08GE-05	□56	Straight	82	5	80.0	55.0	965	250				230				200						
		EBR-08GE-10				10	70.0	23.3	482	470				450				400						186
		EBR-08GE-20				20	35.0	10.0	241	750				600										
		EBR-08GR/D/L-05		Reverse Parallel		5	80.0	55.0	965	230						200								
		EBR-08GR/D/L-10				10	70.0	23.3	482	450						400								190
		EBR-08GR/D/L-20				20	35.0	10.0	241	750				600										

* This data is for an acceleration/deceleration of 0.3 G.
* For wall mounting, the payload is the same as for horizontal installation.



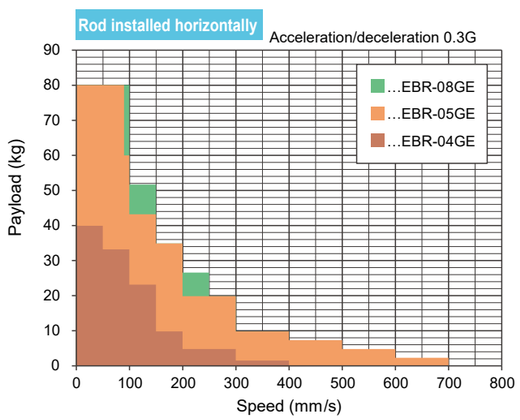


System Table

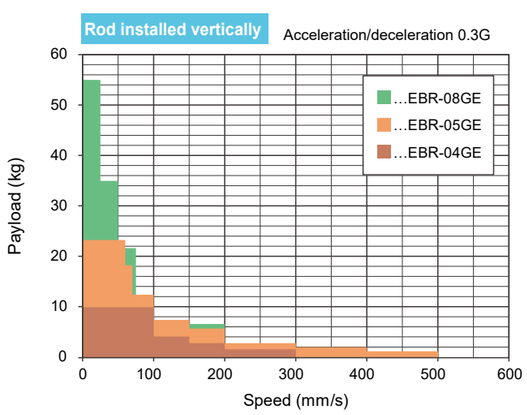
Controller	Actuator Model No.		Motor Size	Motor Mounting Direction	Body Width (mm)	Screw Lead (mm)	Max. Payload (kg) Horizontal	Max. Payload (kg) Vertical	Max. Pushing Force (N)	Stroke (mm) and Max. Speed (mm/s) 50 mm	100	150	200	250	300	350	400	450	500	550	600	650	700	Page
ECG Series		EBR-04GE-06	□35	Straight	44	6	40.0	10.0	155	200 mm/s														166
		EBR-04GE-12				12	12.5	2.9	77	400														
		EBR-04GR/D/L-06		Reverse Parallel		6	40.0	8.3	155	200														170
		EBR-04GR/D/L-12				12	12.5	2.9	77	350														
		EBR-05GE-02	□42	Straight	54	2	80.0	23.3	550	90					85									176
		EBR-05GE-05				5	60.0	14.0	220	300					210									
		EBR-05GE-10				10	41.7	7.0	110	500					420									
		EBR-05GE-20				20	11.7	2.9	55	700														
		EBR-05GR/D/L-02		Reverse Parallel		2	80.0	23.3	550	90					85									180
		EBR-05GR/D/L-05				5	60.0	14.0	220	250					210									
		EBR-05GR/D/L-10				10	38.3	6.7	110	400														
		EBR-05GR/D/L-20				20	11.7	1.7	55	600														
		EBR-08GE-05	□56	Straight	82	5	80.0	55.0	965	125														186
		EBR-08GE-10				10	70.0	23.3	482	300														
		EBR-08GE-20				20	35.0	10.0	241	500														
		EBR-08GR/D/L-05		Reverse Parallel		5	80.0	55.0	965	125														190
		EBR-08GR/D/L-10				10	70.0	20.0	482	250														
		EBR-08GR/D/L-20				20	35.0	8.3	241	400														

* This data is for an acceleration/deceleration of 0.3 G.
* For wall mounting, the payload is the same as for horizontal installation.

Rod installed horizontally



Rod installed vertically



Electric Actuator Guided Rod Type

EBR-04□E

Inline Motor Mount Type

□35 Stepping Motor

For compatible detailed model numbers, please see our website.

Model No. Notation Method

EBR - 04 M E - 0 - 06 300 N A N - C S03

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

❶Body Size

04	Body width 44 mm

❷Connected Controller *1

G	ECMG/ECG
M	ECR

❸Motor Mounting Direction

E	Inline Mount

❹Mounting Type

00	Basic type
FA	Rod side flange type

❺Screw Lead

06	6 mm
12	12 mm

❻Stroke

0050 to 0400	50 mm (every 50 mm) 400 mm

❼Brake *2

N	None
B	Yes

❽Encoder

A	Battery-less Absolute Encoder (for ECR)
B	Battery-less Absolute Encoder (for ECMG/ECG)
C	Incremental Encoder (for ECMG/ECG)

❾Relay Cable *3

N00	None
S01	Fixed cable 1 m
S03	Fixed cable 3 m
S05	Fixed cable 5 m
S10	Fixed cable 10 m
R01	Flexible cable 1 m
R03	Flexible cable 3 m
R05	Flexible cable 3 m
R10	Flexible cable 10 m

*1 Select the controller from P. 529.
*2 Select "Yes" for vertical use.
*3 For the external dimension drawing of the relay cable, refer to P. 607 for ECR and P. 576 for ECMG/ECG.

EAR-subject item (product incorporating EAR99)

Specifications

Connected Controller		ECMG		ECG		ECR	
Motor		□35 Stepping Motor					
Encoder Type		Battery-less Absolute Encoder/Incremental Encoder				Battery-less Absolute Encoder	
Drive Method		Ball screw ø10					
Stroke mm		50 to 400					
Screw lead mm		6	12	6	12	6	12
Max. Payload kg *1*2	Horizontal	40.0	12.5	40.0	12.5	33.3 (33.3)	18.3 (18.3)
	Vertical	10.0	2.9	10.0	2.9	9.1 (10.0)	4.5 (5.0)
Operating Speed Range *1*3 mm/s		7 to 400	15 to 700	7 to 200	15 to 400	7 to 250 (350)	15 to 500 (600)
Max. Acceleration/ Deceleration G *1	Horizontal	1.0		0.7		0.7 (1.0)	
	Vertical	0.5		0.3		0.3 (0.5)	
Max. Pushing Force N		155	77	155	77	131	69
Pushing Operation Speed Range mm/s		5 to 20		5 to 20		5 to 20	5 to 30
Repeatability mm		±0.01					
Lost Motion mm		0.1 or less					
Motor Power Supply Voltage		24 VDC ±10%				24 VDC ±10% or 48 VDC ±10%	
Brake	Type, Power Supply Voltage	Non-excitation operating type, 24 VDC ±10%					
	Power Consumption W	6.1				7	
	Holding Force N	140	70	140	70	126	63
Insulation Resistance		10 MΩ, 500 VDC					
Dielectric Strength		500 VAC for 1 minute					
Operating Ambient Temperature, Humidity		10°C to 40°C (no freezing) 35 to 80% RH (no condensation)				0 to 40°C (no freezing) 35 to 80% RH (no condensation)	
Storage Ambient Temperature, Humidity		-10°C to 50°C (no freezing) 35 to 80% RH (no condensation)					
Atmosphere		No corrosive gas, explosive gas, or dust					
Protection Structure		IP40					

*1 Values in ( ) are for 48 VDC.
*2 Payload varies depending on acceleration/deceleration and speed. Refer to the following page (ECMG, ECG) or P. 202 (ECR) for details.
*3 Maximum speed may decrease depending on conditions.

Stroke and Max. Speed

[EBR-04G (Connected Controller: ECMG)]

(mm/s)

Screw Lead (mm)	Power supply voltage	Stroke (mm)				
		50 to 200	250	300	350	400
6	24 VDC	400	300	250		
12	24 VDC	700	600	490		

[EBR-04G (Connected Controller: ECG)]

(mm/s)

Screw Lead (mm)	Power supply voltage	Stroke (mm)
		50 to 400
6	24 VDC	200
12	24 VDC	400

* For EBR-04M (connected controller ECR), please refer to P. 209.

Speed and Payload

[EBR-04G (Connected Controller: ECMG)]

[Horizontal Installation]

■ EBR-04GE (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	1.0 Screw Lead (mm) 6	12
7	40.0		30.0	
15	40.0	12.5	30.0	9.6
100	40.0	12.5	30.0	9.6
150	40.0	12.5	16.7	7.1
200	40.0	12.5	12.5	7.1
250	40.0	9.2	12.5	5.4
300	30.8	9.2	12.5	5.4
350	17.5	9.2	12.1	5.4
400	2.5	9.2	2.5	5.4
500		7.9		2.5
600		5.4		
700		2.5		

[Vertical Installation]

■ EBR-04GE (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	0.5 Screw Lead (mm) 6	12
7	10.0		10.0	
15	10.0	2.9	10.0	2.9
100	10.0	2.9	10.0	2.9
150	8.3	2.9	8.3	2.9
200	7.5	2.9	7.5	2.9
250	5.4	2.9	5.0	2.9
300	3.8	2.9	2.5	2.9
350	1.7	2.9	0.8	2.9
400		2.9		2.9
500		1.3		1.3
600		0.4		

[EBR-04G (Connected Controller: ECG)]

[Horizontal Installation]

■ EBR-04GE (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	0.7 Screw Lead (mm) 6	12
7	40.0		40.0	
15	40.0	12.5	40.0	6.7
50	40.0	12.5	40.0	6.7
100	33.3	12.5	25.8	6.7
150	23.3	12.5	17.5	6.7
200	10.0	10.0	8.3	6.7
300		5.0		2.5
350		1.7		1.3
400		1.7		1.3

[Vertical Installation]

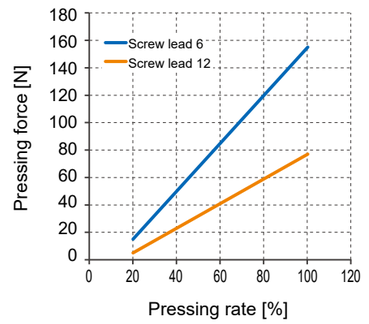
■ EBR-04GE (kg)

Speed (mm/s)	Acceleration/ Deceleration (G) 0.3 Screw Lead (mm) 6	12
7	10.0	
15	10.0	2.9
100	10.0	2.9
150	4.2	2.9
175	2.5	2.9
200	2.5	2.9
225	0.8	1.7
250		1.7
300		1.7

* This is for an acceleration/deceleration of 0.3 G.
* For ECR, please refer to P. 202.

Pushing Force

[EBR-04G (Connected Controller ECMG/ECG)]

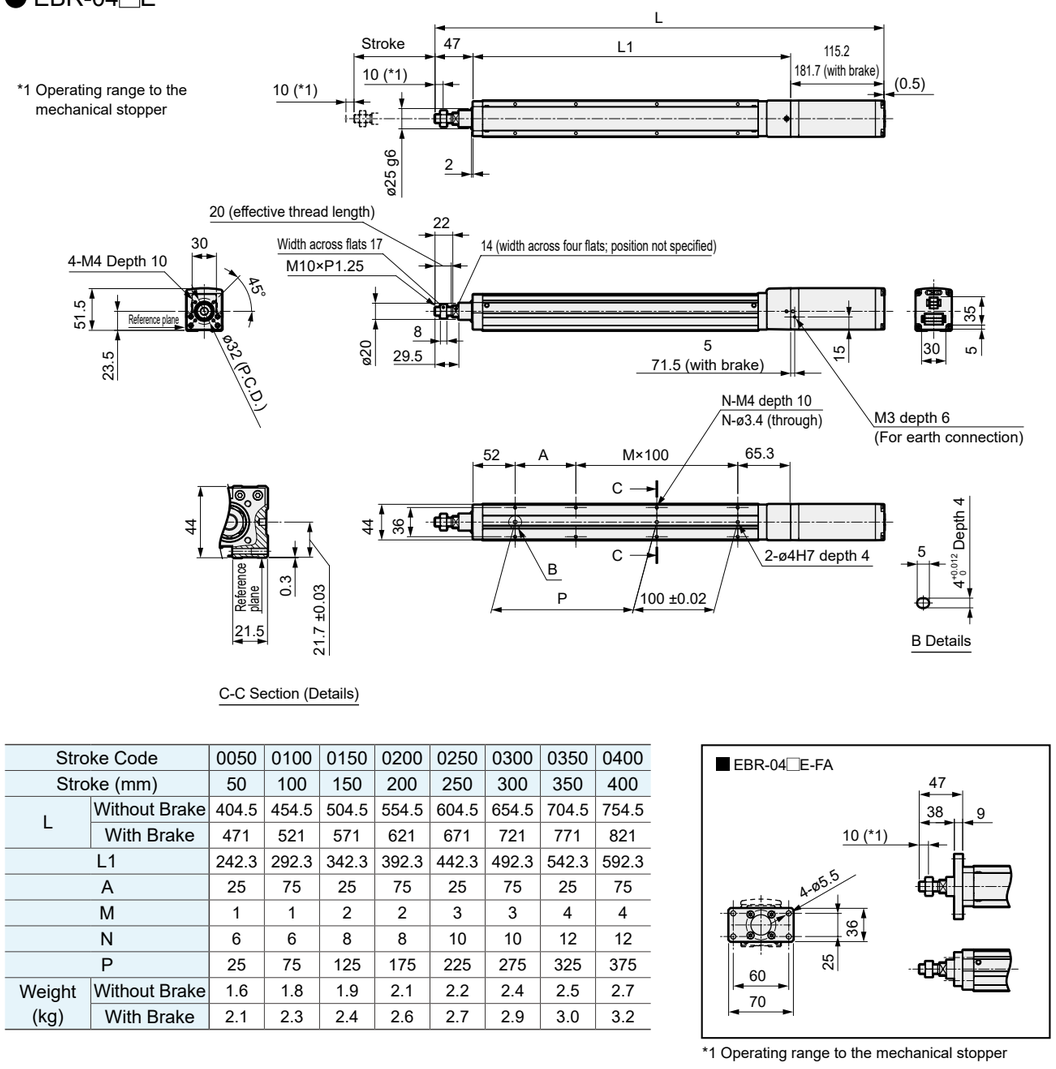


* The pushing force above is a reference value.
  It may vary depending on conditions such as pushing speed.
* For ECR, please refer to P. 209.

Outline Dimensions, Inline Motor Mount

● EBR-04□E

*1 Operating range to the mechanical stopper



Stroke Code		0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)		50	100	150	200	250	300	350	400
L	Without Brake	404.5	454.5	504.5	554.5	604.5	654.5	704.5	754.5
	With Brake	471	521	571	621	671	721	771	821
L1		242.3	292.3	342.3	392.3	442.3	492.3	542.3	592.3
A		25	75	25	75	25	75	25	75
M		1	1	2	2	3	3	4	4
N		6	6	8	8	10	10	12	12
P		25	75	125	175	225	275	325	375
Weight (kg)	Without Brake	1.6	1.8	1.9	2.1	2.2	2.4	2.5	2.7
	With Brake	2.1	2.3	2.4	2.6	2.7	2.9	3.0	3.2

■ EBR-04□E-FA

*1 Operating range to the mechanical stopper

MEMO

Electric Actuator Guided Rod Type

EBR-04□□

Reverse Parallel Motor Mount Type

□35 Stepping Motor

For compatible detailed model numbers, please see our website.

Model No. Notation Method

EBR - 04 M R - 0 - 06 300 N A N - C S03

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

❶Body Size

04	Body width 44 mm

❷Connected Controller*1

G	ECMG/ECG
M	ECR

❸Motor Mounting Direction *2

R	Right Side Return Mount
D	Bottom Side Return Mount
L	Left-Side Reverse Parallel Mount

❹Mounting Type

00	Basic type
FA	Rod side flange type

❺Screw Lead

06	6 mm
12	12 mm

❻Stroke*2

0050 to 0400	50 mm (every 50 mm) 400 mm

❼Brake*2

N	None
B	Yes

❽Encoder

A	Battery-less Absolute Encoder (for ECR)
B	Battery-less Absolute Encoder (for ECMG/ECG)
C	Incremental Encoder (for ECMG/ECG)

❾Relay Cable*4

N00	None
S01	Fixed cable 1 m
S03	Fixed cable 3 m
S05	Fixed cable 5 m
S10	Fixed cable 10 m
R01	Flexible cable 1 m
R03	Flexible cable 3 m
R05	Flexible cable 3 m
R10	Flexible cable 10 m

*1 Select the controller from P. 529.
*2 When "D" is selected for the motor mounting direction, the stroke can be selected from "0250 (250 mm)" to "0400 (400 mm)".
*3 Select "Yes" for vertical use.
*4 For the external dimension drawing of the relay cable, refer to P. 607 for ECR and P. 576 for ECMG/ECG.

EAR-Subject Item (product incorporating EAR99)

Specifications

Connected Controller		ECMG		ECG		ECR	
Motor		□35 Stepping Motor					
Encoder Type		Battery-less Absolute Encoder/Incremental Encoder				Battery-less Absolute Encoder	
Drive Method		Ball screw ø10					
Stroke mm		50 to 400					
Screw lead mm		6	12	6	12	6	12
Max. Payload kg *1*2	Horizontal	40.0	12.5	40.0	12.5	33.3 (33.3)	18.3 (18.3)
	Vertical	10.0	2.9	8.3	2.9	9.1 (9.1)	4.5 (5.0)
Operating Speed Range *1*3 mm/s		7 to 350	15 to 600	7 to 200	15 to 350	7 to 200 (350)	15 to 400 (600)
Max. Acceleration/ Deceleration G *1	Horizontal	1.0		0.7		0.7 (1.0)	
	Vertical	0.5		0.3		0.3 (0.5)	
Max. Pushing Force N		155	77	155	77	131	69
Pushing Operation Speed Range mm/s		5 to 20		5 to 20		5 to 20	5 to 30
Repeatability mm		±0.01					
Lost Motion mm		0.1 or less					
Motor Power Supply Voltage		24 VDC ±10%				24 VDC ±10% or 48 VDC ±10%	
Brake	Type, Power Supply Voltage	Non-excitation operating type, 24 VDC ±10%					
	Power Consumption W	6.1				7	
	Holding Force N	140	70	140	70	126	63
Insulation Resistance		10 MΩ, 500 VDC					
Dielectric Strength		500 VAC for 1 minute					
Operating Ambient Temperature, Humidity		10°C to 40°C (no freezing) 35 to 80% RH (no condensation)				0 to 40°C (no freezing) 35 to 80% RH (no condensation)	
Storage Ambient Temperature, Humidity		-10°C to 50°C (no freezing) 35 to 80% RH (no condensation)					
Atmosphere		No corrosive gas, explosive gas, or dust					
Protection Structure		IP40					

*1 Values in ( ) are for 48 VDC.
*2 Payload varies depending on acceleration/deceleration and speed. Refer to the following page (ECMG, ECG) or P. 202 (ECR) for details.
*3 Maximum speed may decrease depending on conditions.

Stroke and Max. Speed

[EBR-04G (Connected Controller: ECMG)]

(mm/s)

Screw Lead (mm)	Power supply voltage	Stroke (mm)				
		50 to 200	250	300	350	400
6	24 VDC	350	300	250		
12	24 VDC	600		490		

[EBR-04G (Connected Controller: ECG)]

(mm/s)

Screw Lead (mm)	Power supply voltage	Stroke (mm)
		50 to 400
6	24 VDC	200
12	24 VDC	350

* For EBR-04M (connected controller ECR), please refer to P. 209.

Speed and Payload

[EBR-04G (Connected Controller: ECMG)]

[Horizontal Installation]

■ EBR-04GR/L/D (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	1.0 Screw Lead (mm) 6	12
7	40.0		30.0	
15	40.0	12.5	30.0	10.0
50	40.0	12.5	30.0	9.2
100	40.0	12.5	17.9	9.2
150	40.0	11.7	15.0	5.0
200	32.1	11.7	11.3	5.0
250	26.7	8.3	11.3	5.0
300	15.0	8.3	11.3	5.0
350	2.1	8.3		5.0
400		8.3		5.0
500		6.7		2.5
600		0.4		

[Vertical Installation]

■ EBR-04GR/L/D (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	0.5 Screw Lead (mm) 6	12
7	10.0		10.0	
15	10.0	2.9	10.0	2.9
50	10.0	2.9	10.0	2.9
100	10.0	2.9	10.0	2.9
150	8.3	2.9	8.3	2.9
200	7.1	2.9	5.8	2.9
250	3.3	0.8	3.3	0.8
300	1.3	0.8	1.3	0.8
400		0.8		0.8
500		0.4		0.4

[EBR-04G (Connected Controller: ECG)]

[Horizontal Installation]

■ EBR-04GR/L/D (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	0.7 Screw Lead (mm) 6	12
7	40.0		35.0	
15	40.0	12.5	35.0	6.7
50	40.0	12.5	35.0	6.7
100	33.3	12.5	25.8	6.7
150	23.3	7.5	17.5	5.0
200	10.0	7.5	8.3	5.0
300		5.0		2.5
350		0.8		0.8

[Vertical Installation]

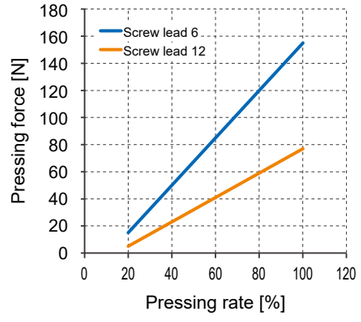
■ EBR-04GR/L/D (kg)

Speed (mm/s)	Acceleration/ Deceleration (G) 0.3 Screw Lead (mm) 6	12
7	8.3	
15	8.3	2.9
50	8.3	2.9
100	6.7	2.9
150	4.2	2.9
175	0.8	2.9
200		2.9
250		0.8

* This is for an acceleration/deceleration of 0.3 G.
* For ECR, please refer to P. 202.

Pushing Force

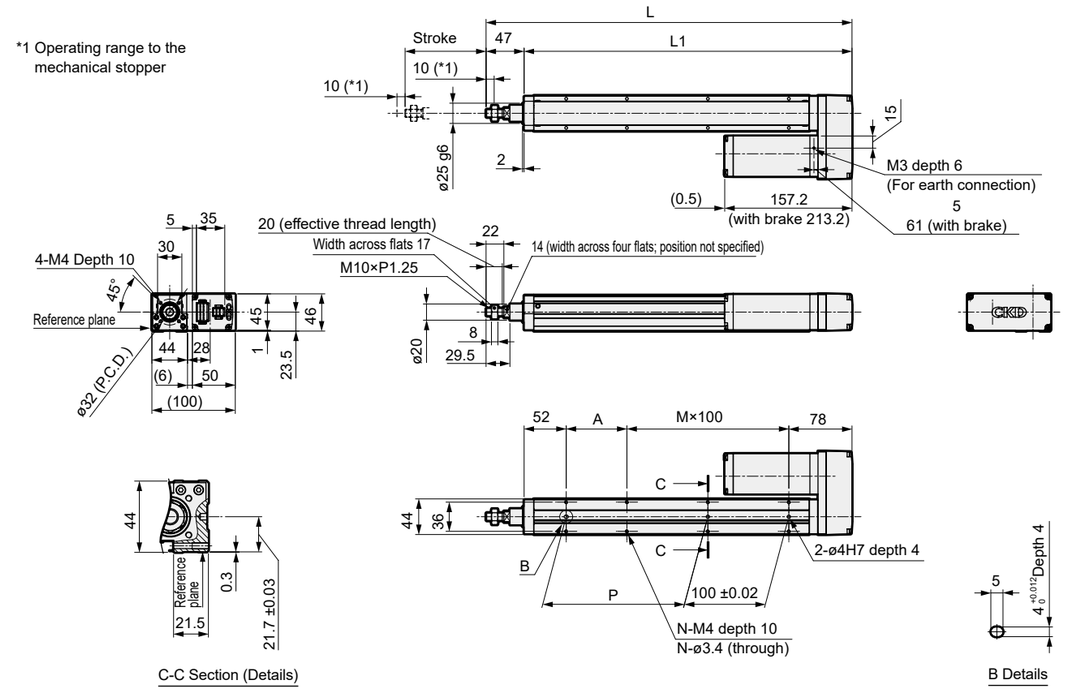
[EBR-04G (Connected Controller ECMG/ECG)]



* The pushing force above is a reference value. It may vary depending on conditions such as pushing speed.
* For ECR, please refer to P. 209.

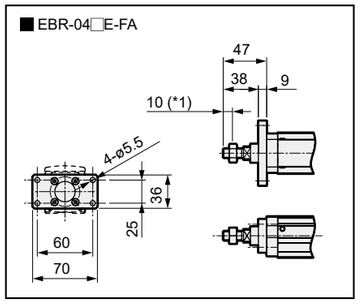
External Dimension Drawing Motor Right Side Return Mount

● EBR-04□R



Stroke Code		0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)		50	100	150	200	250	300	350	400
L		302	352	402	452	502	552	602	652
L1		255	305	355	405	455	505	555	605
A		25	75	25	75	25	75	25	75
M		1	1	2	2	3	3	4	4
N		6	6	8	8	10	10	12	12
P		25	75	125	175	225	275	325	375
Weight (kg)	Without Brake	1.6	1.8	1.9	2.1	2.3	2.5	2.6	2.8
	With Brake	2.1	2.3	2.4	2.6	2.8	3.0	3.1	3.3

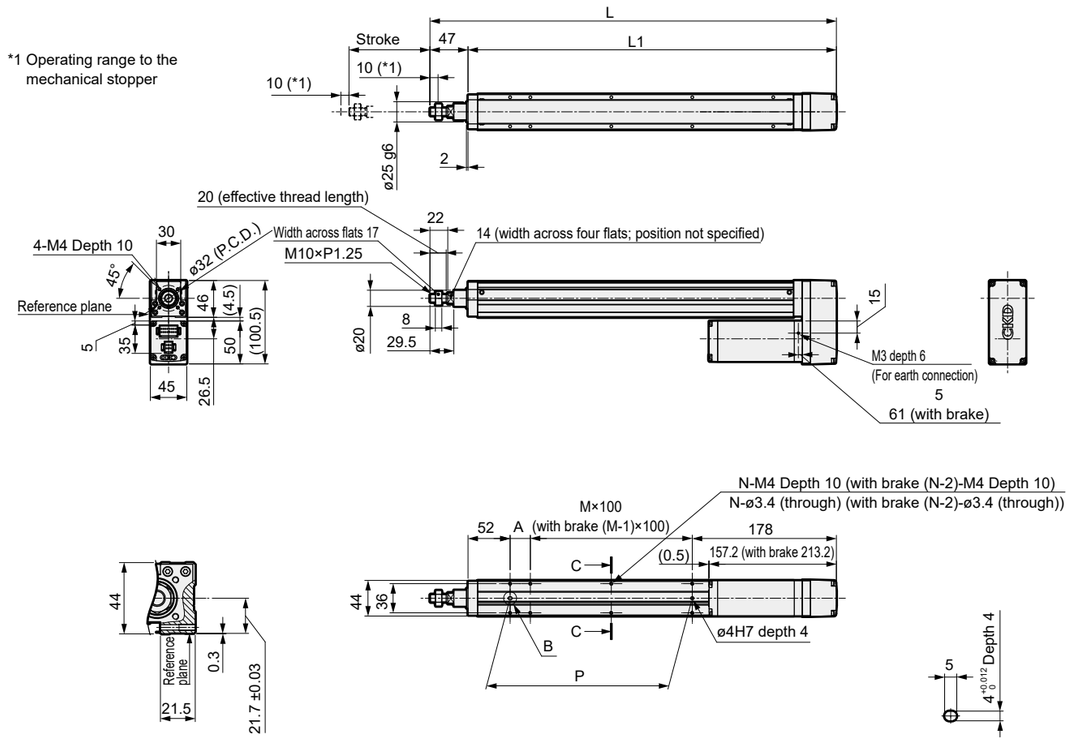
■ EBR-04□E-FA



*1 Operating range to the mechanical stopper

External Dimension Drawing Motor Bottom Side Return Mount

● EBR-04□D

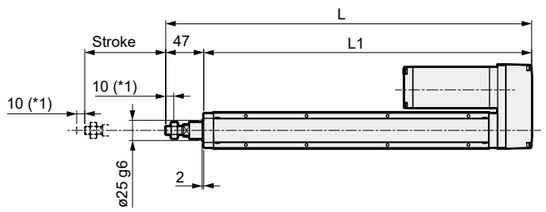


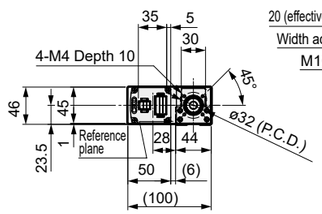
Stroke Code		0250	0300	0350	0400
Stroke (mm)		250	300	350	400
L		502	552	602	652
L1		455	505	555	605
A		25	75	25	75
M		2	2	3	3
N		8	8	10	10
P		225	275	325	375
Weight (kg)	Without Brake	2.3	2.5	2.6	2.8
	With Brake	2.8	3.0	3.1	3.3

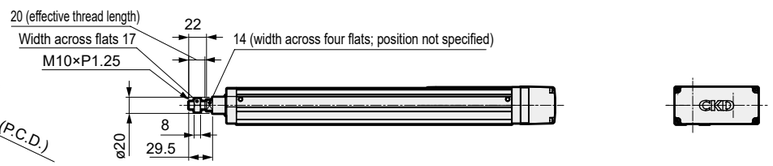
External Dimension Drawing Motor Left Side Return Mount

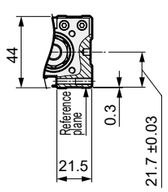
● EBR-04□L

*1 Operating range to the mechanical stopper

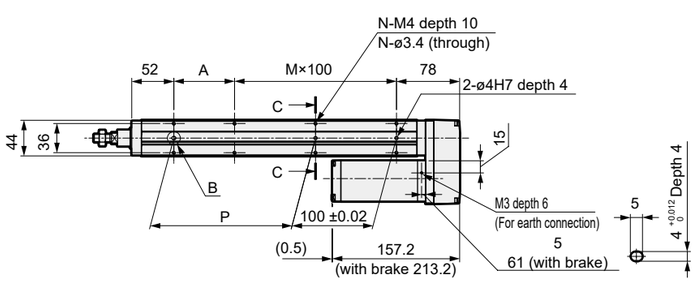








C-C Section (Details)



B Details

Stroke Code		0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)		50	100	150	200	250	300	350	400
L		302	352	402	452	502	552	602	652
L1		255	305	355	405	455	505	555	605
A		25	75	25	75	25	75	25	75
M		1	1	2	2	3	3	4	4
N		6	6	8	8	10	10	12	12
P		25	75	125	175	225	275	325	375
Weight (kg)	Without Brake	1.6	1.8	1.9	2.1	2.3	2.5	2.6	2.8
	With Brake	2.1	2.3	2.4	2.6	2.8	3.0	3.1	3.3

MEMO

Electric Actuator Guided Rod Type

EBR-05□E

Inline Motor Mount Type

□42 Stepping Motor

For compatible detailed model numbers, please see our website.

Model No. Notation Method

EBR - 05 M E - 00 - 05 0300 N A N - C S03

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

❶Body Size

05	Body width 54 mm

❷Connected Controller *1

G	ECMG/ECG
M	ECR

❸Motor Mounting Direction

E	Inline Mount

❹Mounting Type

00	Basic type
FA	Rod side flange type

❺Screw Lead

02	2 mm
05	5 mm
10	10 mm
20	20 mm

❻Stroke

0050 to 0400	50 mm (every 50 mm) 400 mm

❼Brake *2

N	None
B	Yes

❽Encoder

A	Battery-less Absolute Encoder (for ECR)
B	Battery-less Absolute Encoder (for ECMG/ECG)
C	Incremental Encoder (for ECMG/ECG)

❾Relay Cable *3

N00	None
S01	Fixed cable 1 m
S03	Fixed cable 3 m
S05	Fixed cable 5 m
S10	Fixed cable 10 m
R01	Flexible cable 1 m
R03	Flexible cable 3 m
R05	Flexible cable 3 m
R10	Flexible cable 10 m

*1 Select the controller from P. 529.
*2 Select "Yes" for vertical use.
*3 For the external dimension drawing of the relay cable, refer to P. 607 for ECR and 576 for ECMG/ECG.

EAR-subject item (product incorporating EAR99)

Specifications

Connected Controller		ECMG				ECG				ECR		
Motor		□42 Stepping Motor										
Encoder Type		Battery-less Absolute Encoder/Incremental Encoder								Battery-less Absolute Encoder		
Drive Method		Ball screw ø12										
Stroke mm		50 to 400										
Screw lead mm		2	5	10	20	2	5	10	20	2	5	10	20
Max. Payload kg *1*2	Horizontal	80.0	60.0	41.7	11.7	80.0	60.0	41.7	11.7	80.0 (80.0)	60.0 (60.0)	50.0 (50.0)	20.0 (20.0)
	Vertical	23.3	14.2	7.1	2.9	23.3	14.0	7.0	2.9	24.0 (24.0)	15.0 (16.6)	6.6 (10.0)	4.1 (4.1)
Operating Speed Range *1*3 mm/s		2 to 130	6 to 375	12 to 750	25 to 1000	2 to 90	6 to 300	12 to 500	25 to 700	2 to 80 (130)	6 to 275 (300)	12 to 500 (600)	25 to 700 (800)
Max. Acceleration/ Deceleration G *1	Horizontal	0.5	1.0			0.5	0.7			0.5 (0.5)	0.7 (1.0)		
	Vertical	0.5				0.3				0.3 (0.5)			
Max. Pushing Force N		550	220	110	55	550	220	110	55	397	193	94	33
Pushing Operation Speed Range mm/s		5 to 20				5 to 20				5 to 20		5 to 30	
Repeatability mm		±0.01											
Lost Motion mm		0.1 or less											
Motor Power Supply Voltage		24 VDC ±10%								24 VDC ±10% or 48 VDC ±10%			
Brake	Type, Power Supply Voltage	Non-excitation operating type, 24 VDC ±10%											
	Power Consumption W	6.1								7			
	Holding Force N	420	168	84	42	420	168	84	42	471	188	94	47
Insulation Resistance		10 MΩ, 500 VDC											
Dielectric Strength		500 VAC for 1 minute											
Operating Ambient Temperature, Humidity		10°C to 40°C (no freezing) 35 to 80% RH (no condensation)								0 to 40°C (no freezing) 35 to 80% RH (no condensation)			
Storage Ambient Temperature, Humidity		-10°C to 50°C (no freezing) 35 to 80% RH (no condensation)											
Atmosphere		No corrosive gas, explosive gas, or dust											
Protection Structure		IP40											

*1 Values in ( ) are for 48 VDC.
*2 Payload varies depending on acceleration/deceleration and speed. For details, please refer to the next P. (ECMG, ECG) or P. 202 (ECR).
*3 Maximum speed may decrease depending on conditions.

Stroke and Max. Speed

[EBR-05G (Connected Controller: ECMG)]

(mm/s)

Screw lead (mm)	Power supply voltage	Stroke (mm)				
		50 to 200	250	300	350	400
2	24 VDC	130		85		
5	24 VDC	375	330	210		
10	24 VDC	750	650	420		
20	24 VDC	1,000	800			

* For EBR-05M (connected controller ECR), please refer to P. 209.

[EBR-05G (Connected Controller: ECG)]

(mm/s)

Screw lead (mm)	Power supply voltage	Stroke (mm)			
		50 to 250	300	350	400
2	24 VDC	90	85		
5	24 VDC	300	210		
10	24 VDC	500	420		
20	24 VDC	700			

Speed and Payload

[EBR-05G (Connected Controller: ECMG)]

[Horizontal Installation]

■ EBR-05GE (kg)

Speed (mm/s)	Acceleration/Deceleration (G)							
	0.3				0.5	1.0		
	Screw Lead (mm)							
	2	5	10	20	2	5	10	20
2	80.0				80.0			
6	80.0	60.0			80.0	60.0		
12	80.0	60.0	41.7		80.0	60.0	20.0	
25	80.0	60.0	41.7	11.7	80.0	60.0	20.0	8.3
100	80.0	60.0	41.7	11.7	80.0	60.0	20.0	8.3
130	80.0	60.0	41.7	11.7	80.0	42.5	11.7	8.3
150		60.0	41.7	11.7		42.5	11.7	8.3
200		60.0	41.7	11.7		25.8	11.7	8.3
250		38.3	33.3	11.7		21.7	11.7	8.3
300		32.5	33.3	11.7		14.6	11.7	8.3
350		30.0	32.1	11.7		9.2	11.7	6.7
375		21.7	32.1	11.7		5.0	11.7	6.7
400			32.1	11.7			11.7	6.7
500			20.0	11.7			10.0	6.7
600			11.7	11.7			5.8	6.7
700			6.7	6.7			1.7	4.6
750			3.8	6.7			0.4	4.6
800				6.7				4.6
1,000				1.7				0.8

[Vertical Installation]

■ EBR-05GE (kg)

Speed (mm/s)	Acceleration/Deceleration (G)							
	0.3				0.5			
	Screw Lead (mm)							
	2	5	10	20	2	5	10	20
2	23.3				23.3			
6	23.3	14.2			23.3	14.2		
12	23.3	14.2	7.1		23.3	14.2	7.1	
20	23.3	14.2	7.1		23.3	14.2	7.1	
25	23.3	14.2	7.1	2.9	23.3	14.2	7.1	2.1
80	23.3	14.2	7.1	2.9	23.3	14.2	7.1	2.1
100	17.9	14.2	7.1	2.9	16.7	14.2	7.1	2.1
110	10.0	12.1	7.1	2.9	10.0	12.1	7.1	2.1
130	2.1	12.1	7.1	2.9	2.1	12.1	7.1	2.1
150		12.1	7.1	2.9		12.1	7.1	2.1
200		7.9	7.1	2.9		7.9	7.1	2.1
250		7.1	6.7	2.9		7.1	6.7	2.1
300		6.7	6.7	2.9		6.3	6.7	2.1
350		2.5	5.0	2.9		2.5	5.0	2.1
375		1.7	5.0	2.9		1.3	5.0	2.1
400			5.0	2.9			5.0	2.1
500			3.3	2.9			2.9	2.1
600			1.7	2.9			1.7	2.1
700				1.3				0.4
800				1.3				0.4

[EBR-05G (Connected Controller: ECG)]

[Horizontal Installation]

■ EBR-05GE (kg)

Speed (mm/s)	Acceleration/Deceleration (G)							
	0.3				0.5	0.7		
	Screw Lead (mm)							
	2	5	10	20	2	5	10	20
2	80.0				80.0			
6	80.0	60.0			80.0	60.0		
12	80.0	60.0	41.7		80.0	60.0	20.0	
25	80.0	60.0	41.7	11.7	80.0	60.0	20.0	11.7
50	80.0	60.0	41.7	8.3	80.0	60.0	20.0	8.3
90	80.0	60.0	41.7	8.3	80.0	53.3	20.0	8.3
100		60.0	41.7	8.3		53.3	20.0	8.3
150		43.3	35.0	7.5		35.0	20.0	5.8
200		35.0	35.0	7.5		20.0	20.0	5.8
250		13.3	20.0	7.5		8.3	8.3	5.8
275		10.0	20.0	7.5		6.7	8.3	5.8
300		6.7	20.0	7.5		6.7	8.3	5.8
400			10.0	7.5			5.0	3.3
500			5.0	7.5			1.7	3.3
600				5.0				1.7
700				2.5				0.8

[Vertical Installation]

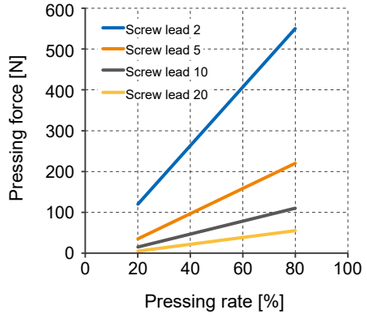
■ EBR-05GE (kg)

Speed (mm/s)	Acceleration/Deceleration (G)			
	0.3			
	Screw Lead (mm)			
	2	5	10	20
2	23.3			
6	23.3	14.0		
12	23.3	14.0	7.0	
20	23.3	14.0	7.0	
25	23.3	14.0	7.0	2.9
50	23.3	14.0	7.0	2.9
60	23.3	12.5	7.0	2.9
70	18.3	12.5	7.0	2.9
90	11.7	12.5	7.0	2.9
100		12.5	7.0	2.9
150		7.5	5.8	2.9
200		4.2	5.8	2.9
250		2.5	1.7	2.9
300			1.7	2.9
400				2.1
500				1.3

* For ECR, please refer to P. 202. *This is for an acceleration/deceleration of 0.3G.

Pushing Force

[EBR-05G (Connected Controller ECMG/ECG)]



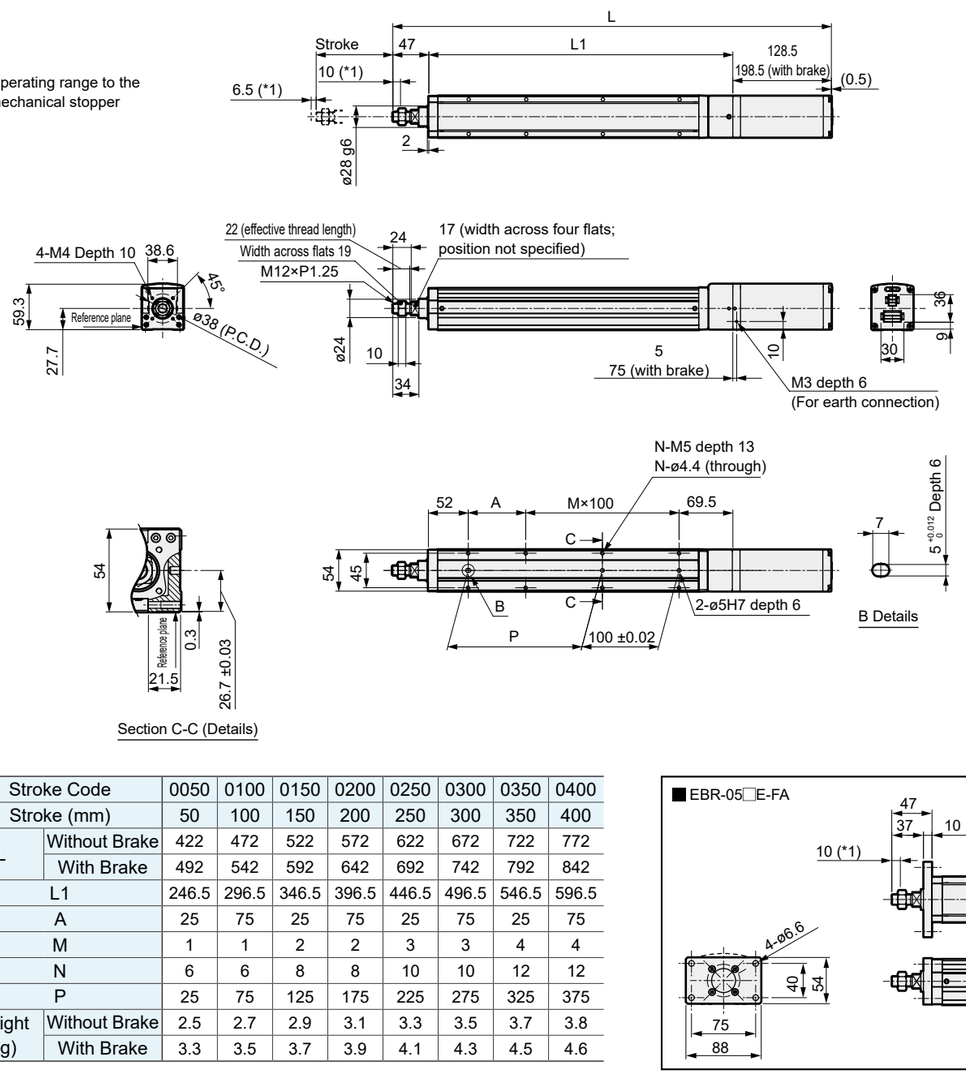
* The pushing force above is a reference value. It may vary depending on conditions such as pushing speed.
* For ECR, please refer to P. 209.

EBR-05□E

External Dimension Drawing

● EBR-05□E

*1 Operating range to the mechanical stopper



Section C-C (Details)

Stroke Code		0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)		50	100	150	200	250	300	350	400
L	Without Brake	422	472	522	572	622	672	722	772
	With Brake	492	542	592	642	692	742	792	842
L1		246.5	296.5	346.5	396.5	446.5	496.5	546.5	596.5
A		25	75	25	75	25	75	25	75
M		1	1	2	2	3	3	4	4
N		6	6	8	8	10	10	12	12
P		25	75	125	175	225	275	325	375
Weight (kg)	Without Brake	2.5	2.7	2.9	3.1	3.3	3.5	3.7	3.8
	With Brake	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.6

■ EBR-05□E-FA

*1 Operating range to the mechanical stopper

MEMO

Electric Actuator Guided Rod Type

EBR-05□□

Reverse Parallel Motor Mount Type

□42 Stepping Motor

For compatible detailed model numbers, please see our website.

Model No. Notation Method

EBR - 05 M R - 0 - 05 0300 N A N - C S03

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

❶Body Size

05	Body width 54 mm

❷Connected Controller*1

G	ECMG/ECG
M	ECR

❸Motor Mounting Direction *2

R	Right Side Return Mount
D	Bottom Side Return Mount
L	Left-Side Reverse Parallel Mount

❹Mounting Type

00	Basic type
FA	Rod side flange type

❺Screw Lead

02	2 mm
05	5 mm
10	10 mm
20	20 mm

❻Stroke*2

0050 to 0400	50 mm (every 50 mm) 400 mm

❼Brake*2

N	None
B	Yes

❽Encoder

A	Battery-less Absolute Encoder (for ECR)
B	Battery-less Absolute Encoder (for ECMG/ECG)
C	Incremental Encoder (for ECMG/ECG)

❾Relay Cable*4

N00	None
S01	Fixed cable 1 m
S03	Fixed cable 3 m
S05	Fixed cable 5 m
S10	Fixed cable 10 m
R01	Flexible cable 1 m
R03	Flexible cable 3 m
R05	Flexible cable 3 m
R10	Flexible cable 10 m

*1 Select the controller from P. 529.
*2 When "D" is selected for the motor mounting direction, the stroke can be selected from "0250 (250 mm)" to "0400 (400 mm)".
*3 Select "Yes" for vertical use.
*4 For the external dimension drawing of the relay cable, refer to P. 607 for ECR and 576 for ECMG/ECG.

EAR-Subject Item (product incorporating EAR99)

Specifications

Connected Controller		ECMG				ECG				ECR			
Motor		□42 Stepping Motor											
Encoder Type		Battery-less Absolute Encoder/Incremental Encoder								Battery-less Absolute Encoder			
Drive Method		Ball screw ø12											
Stroke mm		50 to 400											
Screw lead mm		2	5	10	20	2	5	10	20	2	5	10	20
Max. Payload kg *1*2	Horizontal	80.0	60.0	38.3	11.7	80.0	60.0	41.7	11.7	80.0 (80.0)	60.0 (60.0)	36.6 (36.6)	18.3 (18.3)
	Vertical	23.3	14.2	6.7	1.7	23.3	14.0	6.7	1.7	24.0 (24.0)	15.0 (16.6)	6.6 (8.3)	4.1 (4.1)
Operating Speed Range *1*3 mm/s		2 to 130	6 to 375	12 to 650	25 to 1000	2 to 90	6 to 250	12 to 400	25 to 600	2 to 80 (120)	6 to 250 (330)	12 to 400 (500)	25 to 700 (800)
Max. Acceleration/ Deceleration G *1	Horizontal	0.5	1.0			0.5	0.7			0.5 (0.5)	0.7 (1.0)		
	Vertical	0.5				0.3				0.3 (0.5)			
Max. Pushing Force N		550	220	110	55	550	220	110	55	397	193	94	33
Pushing Operation Speed Range mm/s		5 to 20				5 to 20				5 to 20		5 to 30	
Repeatability mm		±0.01											
Lost Motion mm		0.1 or less											
Motor Power Supply Voltage		24 VDC ±10%								24 VDC ±10% or 48 VDC ±10%			
Brake	Type, Power Supply Voltage	Non-excitation operating type, 24 VDC ±10%											
	Power Consumption W	6.1								7			
	Holding Force N	420	168	84	42	420	168	84	42	471	188	94	47
Insulation Resistance		10 MΩ, 500 VDC											
Dielectric Strength		500 VAC for 1 minute											
Operating Ambient Temperature, Humidity		10°C to 40°C (no freezing) 35 to 80% RH (no condensation)								0 to 40°C (no freezing) 35 to 80% RH (no condensation)			
Storage Ambient Temperature, Humidity		-10°C to 50°C (no freezing) 35 to 80% RH (no condensation)											
Atmosphere		No corrosive gas, explosive gas, or dust											
Protection Structure		IP40											

*1 Values in ( ) are for 48 VDC.
*2 Payload varies depending on acceleration/deceleration and speed. For details, please refer to the next P. (ECMG, ECG) or P. 202 (ECR).
*3 Maximum speed may decrease depending on conditions.

Stroke and Max. Speed

[EBR-05G (Connected Controller: ECMG)]

(mm/s)

Screw lead (mm)	Power supply voltage	Stroke (mm)				
		50 to 200	250	300	350	400
2	24 VDC	130		85		
5	24 VDC	375	330	210		
10	24 VDC	650		420		
20	24 VDC	1,000	800			

[EBR-05G (Connected Controller: ECG)]

(mm/s)

Screw lead (mm)	Power supply voltage	Stroke (mm)			
		50 to 250	300	350	400
2	24 VDC	90	85		
5	24 VDC	250	210		
10	24 VDC	400			
20	24 VDC	600			

* For EBR-05M (connected controller ECR), please refer to P. 209.

Speed and Payload

[EBR-05G (Connected Controller: ECMG)]

[Horizontal Installation]

■ EBR-05GR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20	0.5 Screw Lead (mm) 2	5	10	20	1.0 Screw Lead (mm) 5	10	20
2	80.0				80.0						
6	80.0	60.0			80.0	60.0					
12	80.0	60.0	38.3		80.0	60.0	15.0				
25	80.0	60.0	38.3	11.7	80.0	60.0	15.0	7.5			
50	80.0	60.0	38.3	11.7	80.0	60.0	15.0	7.5			
100	80.0	60.0	38.3	11.7	80.0	43.3	15.0	7.5			
130	80.0	60.0	31.7	11.7	80.0	26.7	11.7	6.7			
150		60.0	31.7	11.7		26.7	11.7	6.7			
200		51.7	31.7	11.7		18.3	11.7	6.7			
250		38.3	31.7	11.7		15.0	11.7	6.7			
300		32.5	31.7	11.7		14.6	11.7	6.7			
350		23.8	21.7	11.7		9.2	11.7	6.7			
375		15.8	21.7	11.7		5.0	11.7	6.7			
400			21.7	11.7			11.7	6.7			
500			14.2	11.7			10.0	6.7			
600			5.8	11.7			2.5	6.7			
650			0.4	6.7				3.3			
700				6.7				3.3			
800				6.7				3.3			
1,000				1.7				0.8			

[Vertical Installation]

■ EBR-05GR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20	0.5 Screw Lead (mm) 2	5	10	20
2	23.3				23.3			
6	23.3	14.2			23.3	14.2		
12	23.3	14.2	6.7		23.3	14.2	6.7	
20	23.3	14.2	6.7		23.3	14.2	6.7	
25	23.3	14.2	6.7	1.7	23.3	14.2	6.7	1.7
80	23.3	14.2	6.7	1.7	23.3	14.2	6.7	1.7
100	17.9	14.2	6.7	1.7	16.7	14.2	6.7	1.7
110	10.0	12.1	6.7	1.7	10.0	12.1	6.7	1.7
130	2.1	12.1	6.7	1.7	2.1	12.1	6.7	1.7
150		12.1	6.7	1.7		12.1	6.7	1.7
200		7.9	6.7	1.7		7.9	6.7	1.7
250		7.1	6.7	1.7		7.1	6.7	1.7
300		5.0	6.7	1.7		5.0	6.7	1.7
350		1.7	4.2	1.7		1.7	3.8	1.7
375		0.4	4.2	1.7		0.4	3.8	1.7
400			4.2	1.7			3.8	1.7
500			2.1	1.7			1.7	1.7
600			0.4	1.7				1.7
700				0.4				
800				0.4				

[EBR-05G (Connected Controller: ECG)]

[Horizontal Installation]

■ EBR-05GR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20	0.5 Screw Lead (mm) 2	5	10	20	0.7 Screw Lead (mm) 5	10	20
2	80.0				80.0						
6	80.0	60.0			80.0	60.0					
12	80.0	60.0	38.3		80.0	60.0	20.0				
25	80.0	60.0	38.3	11.7	80.0	60.0	20.0	5.8			
50	80.0	60.0	38.3	8.3	80.0	60.0	20.0	5.8			
90	80.0	60.0	38.3	8.3	80.0	43.3	20.0	5.8			
100		60.0	38.3	8.3		43.3	20.0	5.8			
150		43.3	30.0	7.5		26.7	14.2	5.8			
200		35.0	30.0	7.5		18.3	14.2	5.8			
250		10.0	12.5	7.5		7.5	6.7	5.8			
300			12.5	7.5			6.7	5.8			
350			2.5	6.7			0.8	3.3			
400			2.5	6.7				3.3			
500				6.7				3.3			
600				3.3				1.7			

[Vertical Installation]

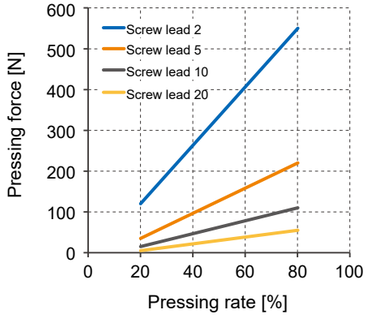
■ EBR-05GR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20
2	23.3			
6	23.3	14.0		
12	23.3	14.0	6.7	
20	23.3	14.0	6.7	
25	23.3	14.0	6.7	1.7
40	23.3	14.0	6.7	1.7
50	16.7	14.0	6.7	1.7
60	16.7	10.0	6.7	1.7
70	11.7	10.0	6.7	1.7
90	3.3	10.0	6.7	1.7
100		10.0	6.7	1.7
150		5.8	5.0	1.7
200		2.5	5.0	1.7
250			0.4	1.7
300				1.7
400				1.3

* This is for an acceleration/deceleration of 0.3 G.
* For ECR, please refer to P. 202.

Pushing Force

[EBR-05G (Connected Controller ECMG/ECG)]

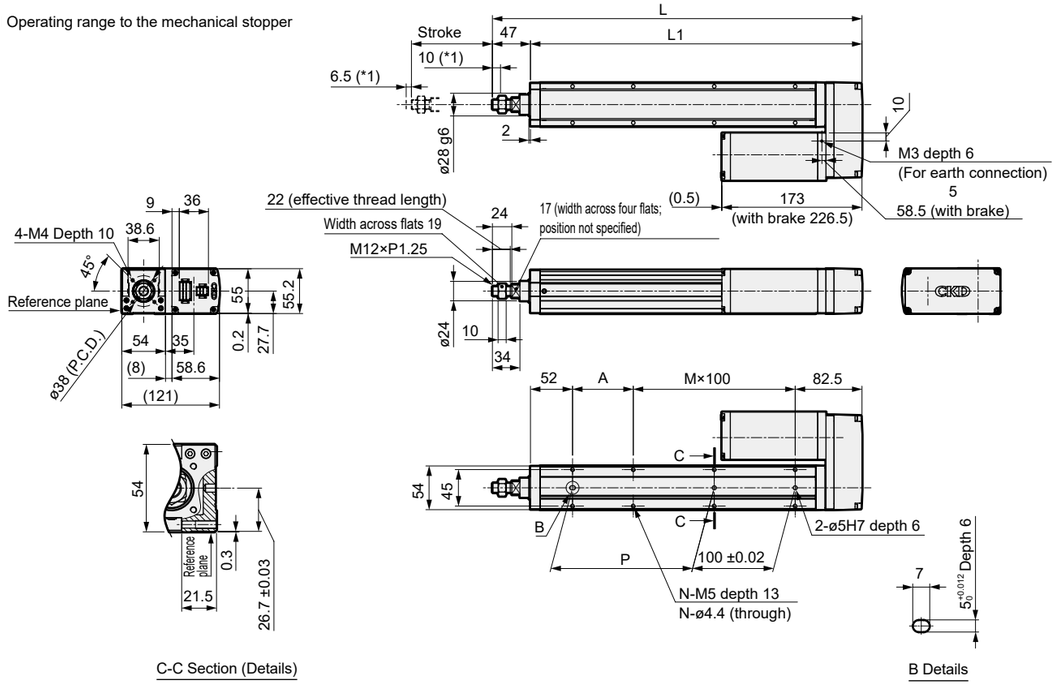


* The pushing force above is a reference value. It may vary depending on conditions such as pushing speed.
* For ECR, please refer to P. 209.

External Dimension Drawing Motor Right Side Return Mount

● EBR-05□R

*1 Operating range to the mechanical stopper

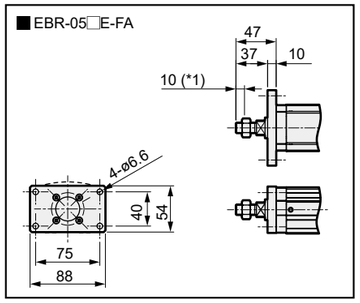


C-C Section (Details)

B Details

Stroke Code		0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)		50	100	150	200	250	300	350	400
L		306.5	356.5	406.5	456.5	506.5	556.5	606.5	656.5
L1		259.5	309.5	359.5	409.5	459.5	509.5	559.5	609.5
A		25	75	25	75	25	75	25	75
M		1	1	2	2	3	3	4	4
N		6	6	8	8	10	10	12	12
P		25	75	125	175	225	275	325	375
Weight (kg)	Without Brake	2.4	2.5	2.6	2.8	3.1	3.2	3.2	3.5
	With Brake	3.5	3.6	3.7	3.9	4.2	4.3	4.3	4.6

■ EBR-05□E-FA

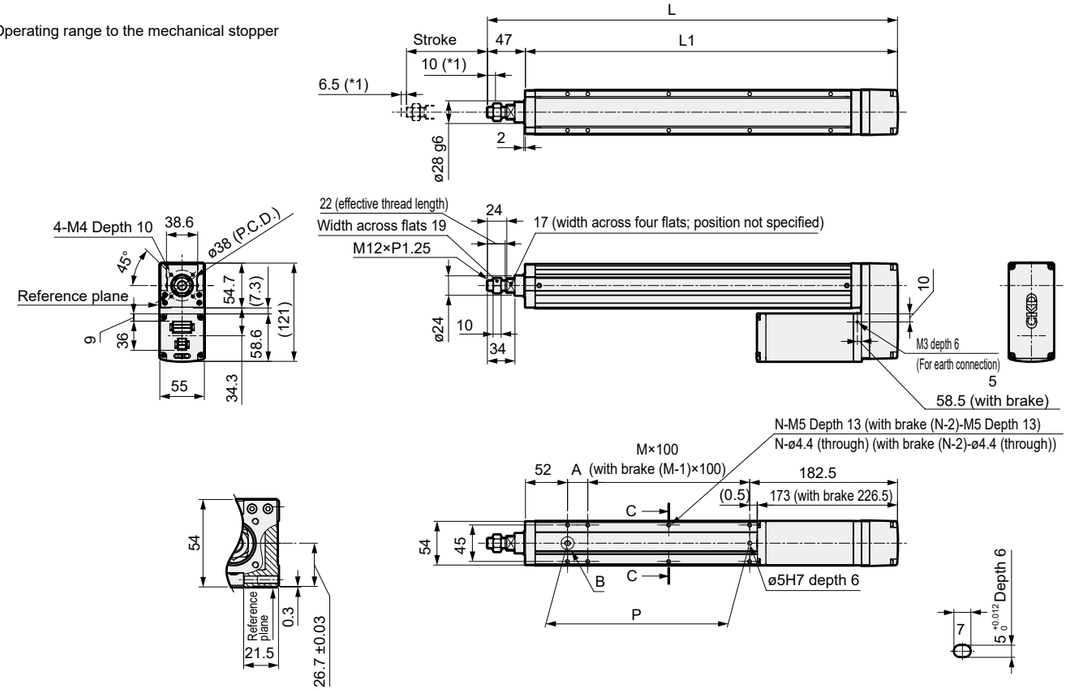


*1 Operating range to the mechanical stopper

External Dimension Drawing Motor Bottom Side Return Mount

● EBR-05□D

*1 Operating range to the mechanical stopper



C-C Section (Details)

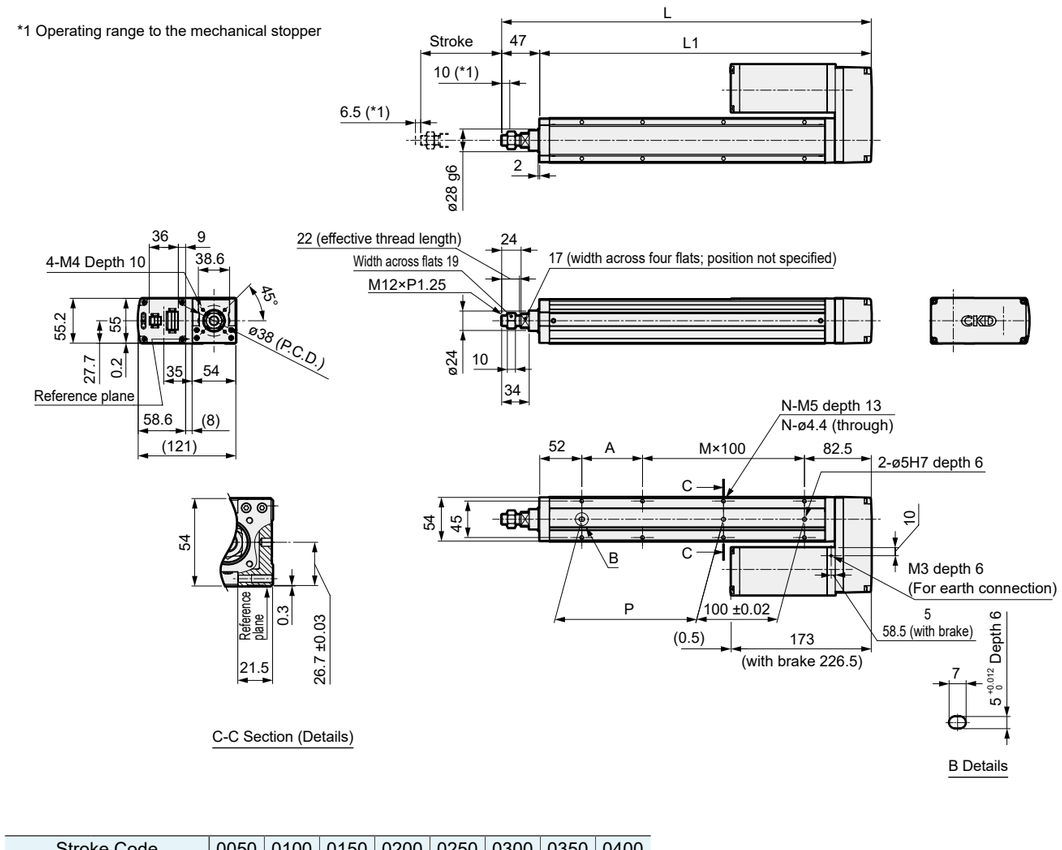
B Details

Stroke Code		0250	0300	0350	0400
Stroke (mm)		250	300	350	400
L		506.5	556.5	606.5	656.5
L1		459.5	509.5	559.5	609.5
A		25	75	25	75
M		2	2	3	3
N		8	8	10	10
P		225	275	325	375
Weight (kg)	Without Brake	3.1	3.2	3.2	3.5
	With Brake	4.2	4.3	4.3	4.6

External Dimension Drawing Motor Left Side Return Mount

● EBR-05□L

*1 Operating range to the mechanical stopper



Stroke Code		0050	0100	0150	0200	0250	0300	0350	0400
Stroke (mm)		50	100	150	200	250	300	350	400
L		306.5	356.5	406.5	456.5	506.5	556.5	606.5	656.5
L1		259.5	309.5	359.5	409.5	459.5	509.5	559.5	609.5
A		25	75	25	75	25	75	25	75
M		1	1	2	2	3	3	4	4
N		6	6	8	8	10	10	12	12
P		25	75	125	175	225	275	325	375
Weight (kg)	Without Brake	2.4	2.5	2.6	2.8	3.1	3.2	3.2	3.5
	With Brake	3.5	3.6	3.7	3.9	4.2	4.3	4.3	4.6

MEMO

Electric Actuator Guided Rod Type

EBR-08□E

Inline Motor Mount Type

□56 Stepping Motor

For compatible detailed model numbers, please see our website.

Model No. Notation Method

EBR - 08 M E - 0 - 05 0300 N A N - C S03

❶

08	Body width 82 mm

❷Connected Controller *1

G	ECMG/ECG
M	ECR

❸Motor Mounting Direction

E	Inline Mount

❹Mounting Type

00	Basic type
FA	Rod Side Flange Type

❺Screw Lead

05	5 mm
10	10 mm
20	20 mm

❻Stroke

0050 to 0700	50 mm (every 50 mm) 700 mm

❼Brake *2

N	None
B	Yes

❽Encoder

A	Battery-less Absolute Encoder (for ECR)
B	Battery-less Absolute Encoder (for ECMG/ECG)
C	Incremental Encoder (for ECMG/ECG)

❾Relay Cable *3

N00	None
S01	Fixed cable 1 m
S03	Fixed cable 3 m
S05	Fixed cable 5 m
S10	Fixed cable 10 m
R01	Flexible cable 1 m
R03	Flexible cable 3 m
R05	Flexible cable 3 m
R10	Flexible cable 10 m

*1 Select the controller from P. 529.
*2 Select "Yes" for vertical use.
*3 For the external dimension drawing of the relay cable, refer to P. 607 for ECR and 576 for ECMG/ECG.

EAR-Subject Item (product incorporating EAR99)

Specifications

Connected Controller		ECMG			ECG			ECR	
Motor		□56 Stepping Motor							
Encoder Type		Battery-less Absolute Encoder/Incremental Encoder						Battery-less Absolute Encoder	
Drive Method		Ball screw ø16							
Stroke mm		50 to 700							
Screw lead mm		5	10	20	5	10	20	5	10	20
Max. Payload kg *1*2	Horizontal	80.0	70.0	35.0	80.0	70.0	35.0	80.0 (80.0)	70.0 (70.0)	23.3 (35.0)
	Vertical	55.0	23.3	10.0	55.0	23.3	10.0	35.0 (38.3)	15.0 (18.3)	10.0 (11.6)
Operating Speed Range *1*3 mm/s		6 to 250	12 to 470	25 to 750	6 to 125	12 to 300	25 to 500	6 to 150 (225)	12 to 300 (450)	25 to 500 (900)
Max. Acceleration/ Deceleration G *1	Horizontal	1.0			0.7			0.7 (1.0)		
	Vertical	0.5			0.3			0.3 (0.5)		
Max. Pushing Force N		965	482	241	965	482	241	1050	468	213
Pushing Operation Speed Range mm/s		5 to 20			5 to 20			5 to 30		
Repeatability mm		±0.01							
Lost Motion mm		0.1 or less							
Motor Power Supply Voltage		24 VDC ±10%						24 VDC ±10% or 48 VDC ±10%	
Brake	Type, Power Supply Voltage	Non-excitation operating type, 24 VDC ±10%							
	Power Consumption W	7.2						8	
	Holding Force N	768	384	192	768	384	192	754	377	188
Insulation Resistance		10 MΩ, 500 VDC							
Dielectric Strength		500 VAC for 1 minute							
Operating Ambient Temperature, Humidity		10°C to 40°C (no freezing) 35 to 80% RH (no condensation)						0 to 40°C (no freezing) 35 to 80% RH (no condensation)	
Storage Ambient Temperature, Humidity		-10°C to 50°C (no freezing) 35 to 80% RH (no condensation)							
Atmosphere		No corrosive gas, explosive gas, or dust							
Protection Structure		IP40							

*1 Values in ( ) are for 48 VDC.
*2 Payload varies depending on acceleration/deceleration and speed. For details, please refer to the next P. (ECMG, ECG) or P. 202 (ECR).
*3 Maximum speed may decrease depending on conditions.

Stroke and Max. Speed

[EBR-08G (Connected Controller: ECMG)]

(mm/s)

Screw lead (mm)	Power supply voltage	Stroke (mm)			
		50 to 200	250	300	350 to 700
5	24 VDC	250	230		200
10	24 VDC	470	450		400
20	24 VDC	750	600		

* For EBR-08M (connected controller ECR), please refer to P. 209.

[EBR-08G (Connected Controller: ECG)]

(mm/s)

Screw lead (mm)	Power supply voltage	Stroke (mm)
		50 to 700
5	24 VDC	125
10	24 VDC	300
20	24 VDC	500

Speed and Payload

[EBR-08G (Connected Controller: ECMG)]

[Horizontal Installation]

■ EBR-08GE (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	1.0 5	10	20
6	80.0			80.0		
12	80.0	70.0		80.0	55.0	
25	80.0	70.0	35.0	80.0	55.0	34.2
100	80.0	70.0	35.0	80.0	55.0	34.2
150	80.0	70.0	35.0	31.7	39.2	34.2
200	38.3	70.0	35.0	14.6	39.2	26.7
250	38.3	55.0	35.0		23.8	26.7
300		55.0	35.0		23.8	26.7
400		25.8	27.1		15.0	16.7
450		3.3	27.1		3.3	16.7
470		1.7	9.6		1.3	6.3
600			9.6			6.3
700			2.9			1.3
750			0.8			

[Vertical Installation]

■ EBR-08GE (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	0.5 5	10	20
6	55.0			55.0		
12	55.0	23.3		55.0	23.3	
25	55.0	23.3	10.0	55.0	23.3	10.0
50	47.5	23.3	10.0	46.7	23.3	10.0
100	30.8	21.3	10.0	30.0	21.3	10.0
150	17.9	13.3	9.2	17.1	13.3	9.2
200	5.8	13.3	9.2	5.8	13.3	9.2
250	0.4	7.5	5.0		6.7	4.2
300		7.5	5.0		6.7	4.2
350		4.2	5.0		2.9	4.2
400		2.1	5.0		1.3	4.2
500			2.5			2.5
600			0.8			

[EBR-08G (Connected Controller: ECG)]

[Horizontal Installation]

■ EBR-08GE (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	0.7 5	10	20
6	80.0			80.0		
12	80.0	70.0		80.0	70.0	
25	80.0	70.0	35.0	80.0	70.0	26.7
50	80.0	70.0	35.0	80.0	70.0	26.7
75	80.0	51.7	35.0	80.0	35.0	26.7
100	80.0	51.7	35.0	51.7	35.0	26.7
125	51.7	51.7	35.0	43.3	26.7	18.3
150		51.7	35.0		26.7	18.3
200		35.0	20.0		26.7	18.3
250		26.7	20.0		3.3	10.0
300		3.3	20.0			10.0
400			10.0			1.7
500			1.7			

[Vertical Installation]

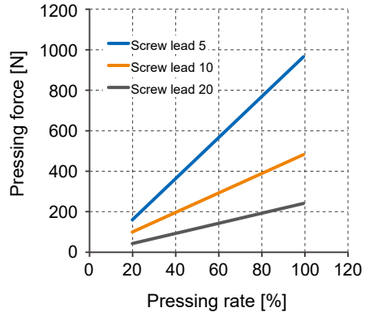
■ EBR-08GE (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20
6	55.0		
12	55.0	23.3	
25	55.0	23.3	10.0
50	35.0	23.3	10.0
75	21.7	8.3	10.0
100	3.3	8.3	10.0
125	3.3	1.7	6.7
150		1.7	6.7
200		1.3	6.7
250		1.3	1.7
300			1.7

* This is for an acceleration/deceleration of 0.3 G. *For ECR, please refer to P. 202.

Pushing Force

[EBR-08G (Connected Controller: ECMG/ECG)]



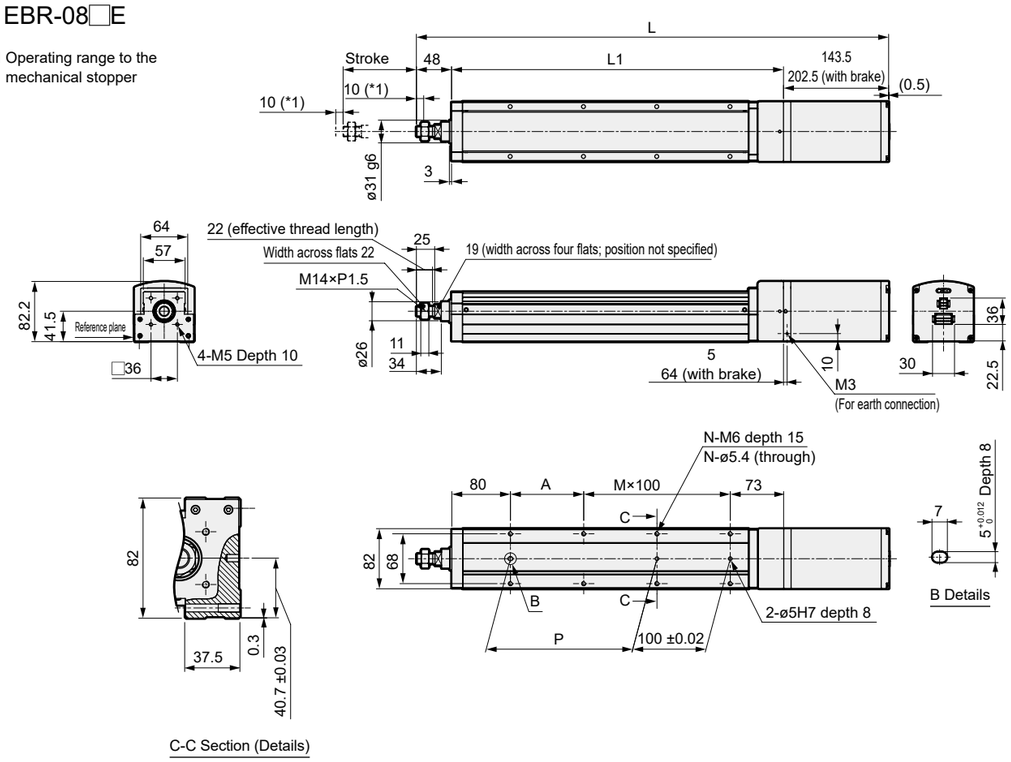
* The pushing force above is a reference value. It may vary depending on conditions such as pushing speed.
* For ECR, please refer to P. 209.

EBR-08□E

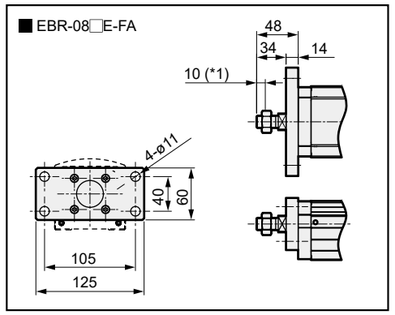
External Dimension Drawing

● EBR-08□E

*1 Operating range to the mechanical stopper



C-C Section (Details)



*1 Operating range to the mechanical stopper

Stroke Code		0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700
Stroke (mm)		50	100	150	200	250	300	350	400	450	500	550	600	650	700
L	Without Brake	494.5	544.5	594.5	644.5	694.5	744.5	794.5	844.5	894.5	944.5	994.5	1044.5	1094.5	1144.5
	With Brake	553.5	603.5	653.5	703.5	753.5	803.5	853.5	903.5	953.5	1003.5	1053.5	1103.5	1153.5	1203.5
L1		303	353	403	453	503	553	603	653	703	753	803	853	903	953
A		50	100	50	100	50	100	50	100	50	100	50	100	50	100
M		1	1	2	2	3	3	4	4	5	5	6	6	7	7
N		6	6	8	8	10	10	12	12	14	14	16	16	18	18
P		50	100	150	200	250	300	350	400	450	500	550	600	650	700
Weight (kg)	Without Brake	6.2	6.6	7.0	7.3	7.7	8.1	8.5	8.8	9.2	9.6	9.9	10.3	10.7	11.0
	With Brake	7.5	7.9	8.3	8.6	9.0	9.4	9.8	10.1	10.5	10.9	11.2	11.6	12.0	12.3

MEMO

Electric Actuator Guided Rod Type

EBR-08□□

Reverse Parallel Motor Mount Type

□56 Stepping Motor

For compatible detailed model numbers, please see our website.

Model No. Notation Method

EBR - 08 M R - 0 - 05 0300 N A N - C S03

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

❶Body Size

08	Body width 82 mm

❷Connected Controller *1

G	ECMG/ECG
M	ECR

❸Motor Mounting Direction *2

R	Right Side Return Mount
D	Bottom Side Return Mount
L	Left-Side Reverse Parallel Mount

❹Mounting Type

00	Basic type
FA	Rod Side Flange Type

❺Screw Lead

05	5 mm
10	10 mm
20	20 mm

❻Stroke*2

0050 to 0700	50 mm (every 50 mm) 700 mm

❼Brake*2

N	None
B	Yes

❽Encoder

A	Battery-less Absolute Encoder (for ECR)
B	Battery-less Absolute Encoder (for ECMG/ECG)
C	Incremental Encoder (for ECMG/ECG)

❾Relay Cable*4

N00	None
S01	Fixed cable 1 m
S03	Fixed cable 3 m
S05	Fixed cable 5 m
S10	Fixed cable 10 m
R01	Flexible cable 1 m
R03	Flexible cable 3 m
R05	Flexible cable 3 m
R10	Flexible cable 10 m

*1 Select the controller from P. 529.
*2 When "D" is selected for the motor mounting direction, the stroke can be selected from "0250 (250 mm)" to "0700 (700 mm)".
*3 Select "Yes" for vertical use.
*4 For the external dimension drawing of the relay cable, refer to P. 607 for ECR and 576 for ECMG/ECG.

EAR-Subject Item (product incorporating EAR99)

Specifications

Connected Controller		ECMG			ECG			ECR		
Motor		□56 Stepping Motor								
Encoder Type		Battery-less Absolute Encoder/Incremental Encoder						Battery-less Absolute Encoder		
Drive Method		Ball screw ø16								
Stroke mm		50 to 700								
Screw lead mm		5	10	20	5	10	20	5	10	20
Max. Payload kg *1*2	Horizontal	80.0	70.0	35.0	80.0	70.0	35.0	80.0 (80.0)	70.0 (70.0)	23.3 (35.0)
	Vertical	55.0	20.0	9.2	55.0	20.0	8.3	35.0 (38.3)	15.0 (18.3)	8.3 (8.3)
Operating Speed Range *1*3 mm/s		6 to 230	12 to 450	25 to 700	6 to 125	12 to 250	25 to 400	6 to 100 (225)	12 to 300 (450)	25 to 500 (700)
Max. Acceleration/ Deceleration G *1	Horizontal	1.0			0.7			0.7 (1.0)		
	Vertical	0.5			0.3			0.3 (0.5)		
Max. Pushing Force N		965	482	241	965	482	241	1050	468	213
Pushing Operation Speed Range mm/s		5 to 20			5 to 20			5 to 30		
Repeatability mm		±0.01								
Lost Motion mm		0.1 or less								
Motor Power Supply Voltage		24 VDC ±10%						24 VDC ±10% or 48 VDC ±10%		
Brake	Type, Power Supply Voltage	Non-excitation operating type, 24 VDC ±10%								
	Power Consumption W	7.2						8		
	Holding Force N	768	384	192	768	384	192	754	377	188
Insulation Resistance		10 MΩ, 500 VDC								
Dielectric Strength		500 VAC for 1 minute								
Operating Ambient Temperature, Humidity		10°C to 40°C (no freezing) 35 to 80% RH (no condensation)						0 to 40°C (no freezing) 35 to 80% RH (no condensation)		
Storage Ambient Temperature, Humidity		-10°C to 50°C (no freezing) 35 to 80% RH (no condensation)								
Atmosphere		No corrosive gas, explosive gas, or dust								
Protection Structure		IP40								

*1 Values in ( ) are for 48 VDC.
*2 Payload varies depending on acceleration/deceleration and speed. For details, please refer to the next P. (ECMG, ECG) or P. 202 (ECR).
*3 Maximum speed may decrease depending on conditions.

Stroke and Max. Speed

[EBR-08G (Connected Controller: ECMG)]

(mm/s)

Screw lead (mm)	Power supply voltage	Stroke (mm)			
		50 to 200	250	300	350 to 700
5	24 VDC	230			200
10	24 VDC	450			400
20	24 VDC	700		600	

* For EBR-08M (connected controller ECR), please refer to P. 209.

[EBR-08G (Connected Controller: ECG)]

(mm/s)

Screw lead (mm)	Power supply voltage	Stroke (mm)
		50 to 700
5	24 VDC	125
10	24 VDC	250
20	24 VDC	400

Speed and Payload

[EBR-08G (Connected Controller: ECMG)]

[Horizontal Installation]

■ EBR-08GR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	1.0 5	10	20
6	80.0			80.0		
12	80.0	70.0		80.0	55.0	
25	80.0	70.0	35.0	80.0	55.0	25.8
50	80.0	70.0	35.0	80.0	55.0	25.8
100	80.0	70.0	35.0	16.7	55.0	25.8
150	80.0	69.6	35.0	16.7	39.2	25.8
180	38.3	69.6	35.0	5.0	39.2	20.8
200	38.3	69.6	35.0		39.2	20.8
230	6.7	43.8	35.0		23.8	20.8
300		43.8	35.0		23.8	20.8
400		23.8	20.0		15.0	11.7
450		3.3	20.0		3.3	11.7
600			5.0			5.0
700			0.4			

[Vertical Installation]

■ EBR-08GR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	0.5 5	10	20
6	55.0			55.0		
12	55.0	20.0		55.0	20.0	
25	55.0	20.0	9.2	55.0	20.0	9.2
50	41.3	20.0	9.2	40.8	20.0	9.2
100	24.2	20.0	9.2	24.2	20.0	9.2
150	7.1	9.6	9.2	7.1	9.2	9.2
200	2.9	9.6	9.2		9.2	9.2
300		4.2	4.6		4.2	4.2
350		1.7	4.6		0.4	4.2
400			4.6			4.2
500			2.1			0.8
600			0.4			

[EBR-08G (Connected Controller: ECG)]

[Horizontal Installation]

■ EBR-08GR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	0.7 5	10	20
6	80.0			80.0		
12	80.0	70.0		80.0	70.0	
25	80.0	70.0	35.0	80.0	70.0	21.7
50	80.0	70.0	35.0	80.0	70.0	21.7
75	80.0	51.7	35.0	80.0	35.0	21.7
100	51.7	51.7	35.0	43.3	35.0	21.7
125	51.7	51.7	33.3	43.3	26.7	18.3
150		51.7	33.3		26.7	18.3
200		31.7	33.3		18.3	18.3
250		13.3	16.7		3.3	9.2
300			16.7			9.2
400			9.2			1.7

[Vertical Installation]

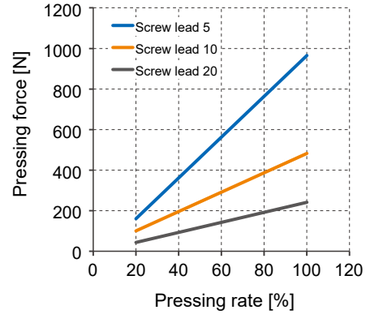
■ EBR-08GR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20
6	55.0		
12	55.0	20.0	
25	55.0	20.0	8.3
50	35.0	20.0	8.3
75	21.7	8.3	8.3
100	3.3	8.3	8.3
125	3.3	1.7	6.7
150		1.7	6.7
200		1.3	6.7
225		0.8	1.7
300			1.7

* This is for an acceleration/deceleration of 0.3 G. *For ECR, please refer to P. 202.

Pushing Force

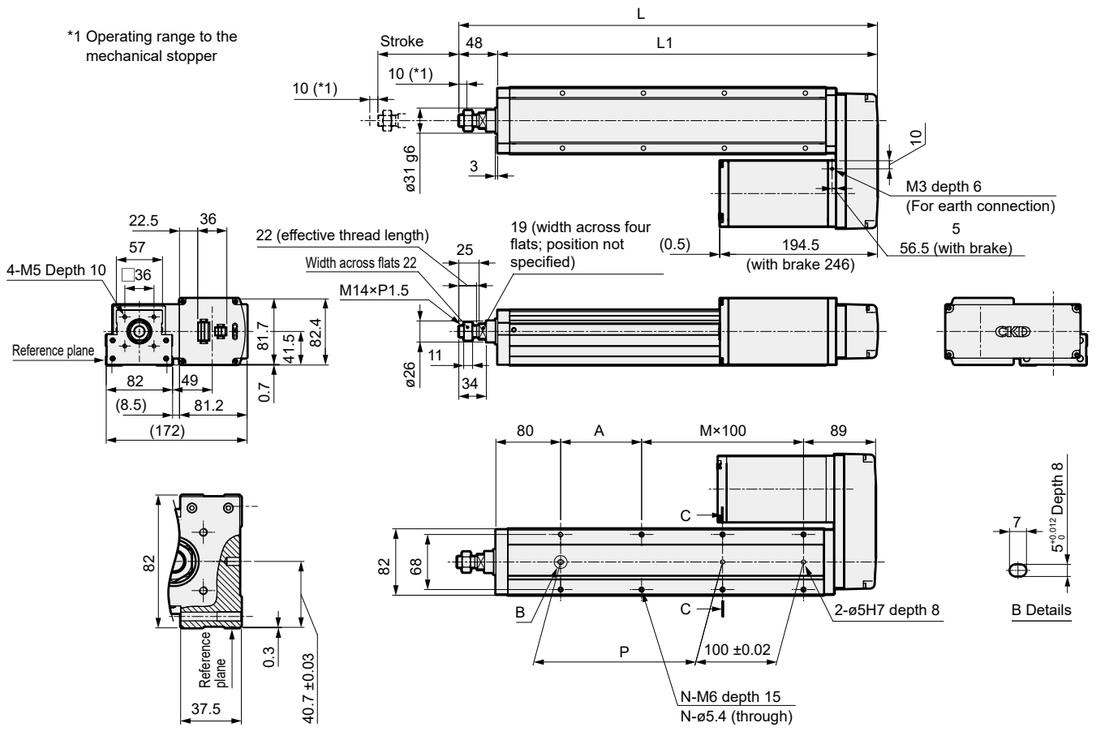
[EBR-08G (Connected Controller ECMG/ECG)]



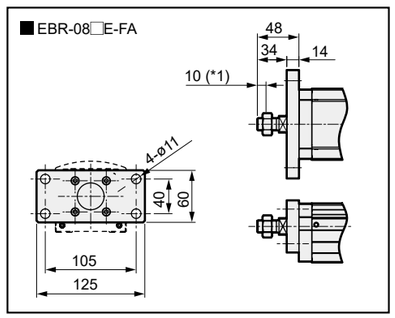
* The pushing force above is a reference value.
It may vary depending on conditions such as pushing speed.
* For ECR, please refer to P. 209.

External Dimension Drawing Motor Right Side Return Mount

● EBR-08□R



C-C Section (Details)

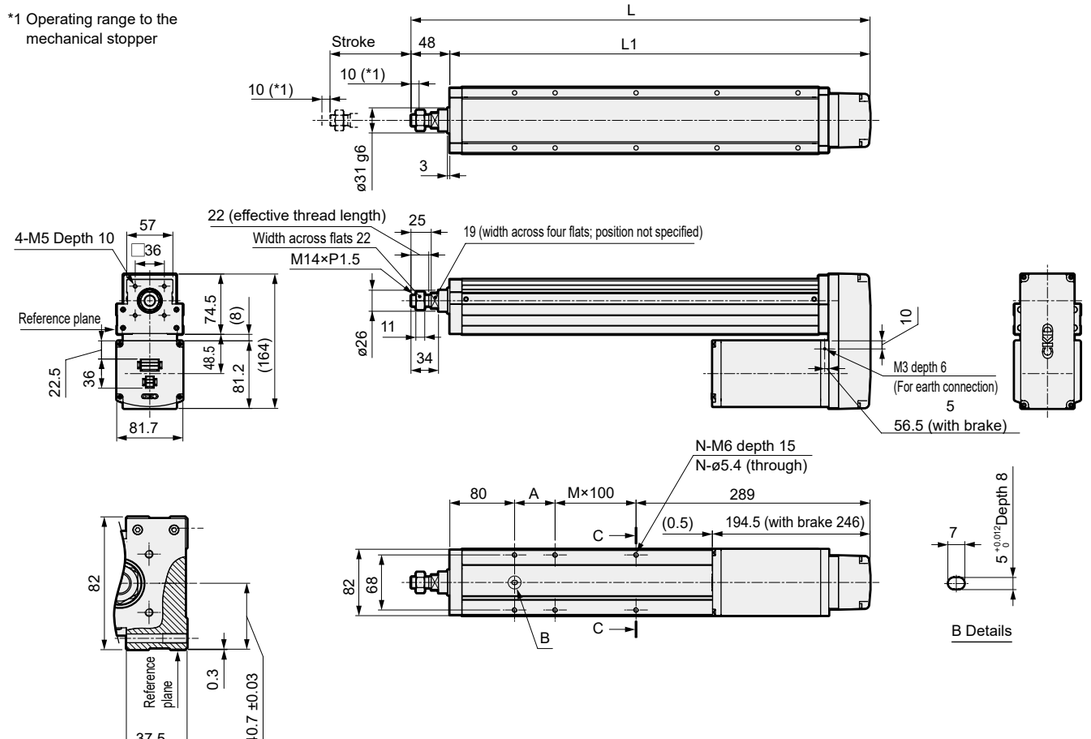


*1 Operating range to the mechanical stopper

Stroke Code		0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700
Stroke (mm)		50	100	150	200	250	300	350	400	450	500	550	600	650	700
L		367	417	467	517	567	617	667	717	767	817	867	917	967	1017
L1		319	369	419	469	519	569	619	669	719	769	819	869	919	969
A		50	100	50	100	50	100	50	100	50	100	50	100	50	100
M		1	1	2	2	3	3	4	4	5	5	6	6	7	7
N		6	6	8	8	10	10	12	12	14	14	16	16	18	18
P		50	100	150	200	250	300	350	400	450	500	550	600	650	700
Weight (kg)	Without Brake	5.9	6.3	6.7	7.0	7.3	7.7	8.0	8.3	8.6	8.9	9.4	9.7	10.1	10.4
	With Brake	7.2	7.6	8.0	8.3	8.6	9.0	9.3	9.6	9.9	10.2	10.7	11.0	11.4	11.7

External Dimension Drawing Motor Bottom Side Return Mount

● EBR-08□D

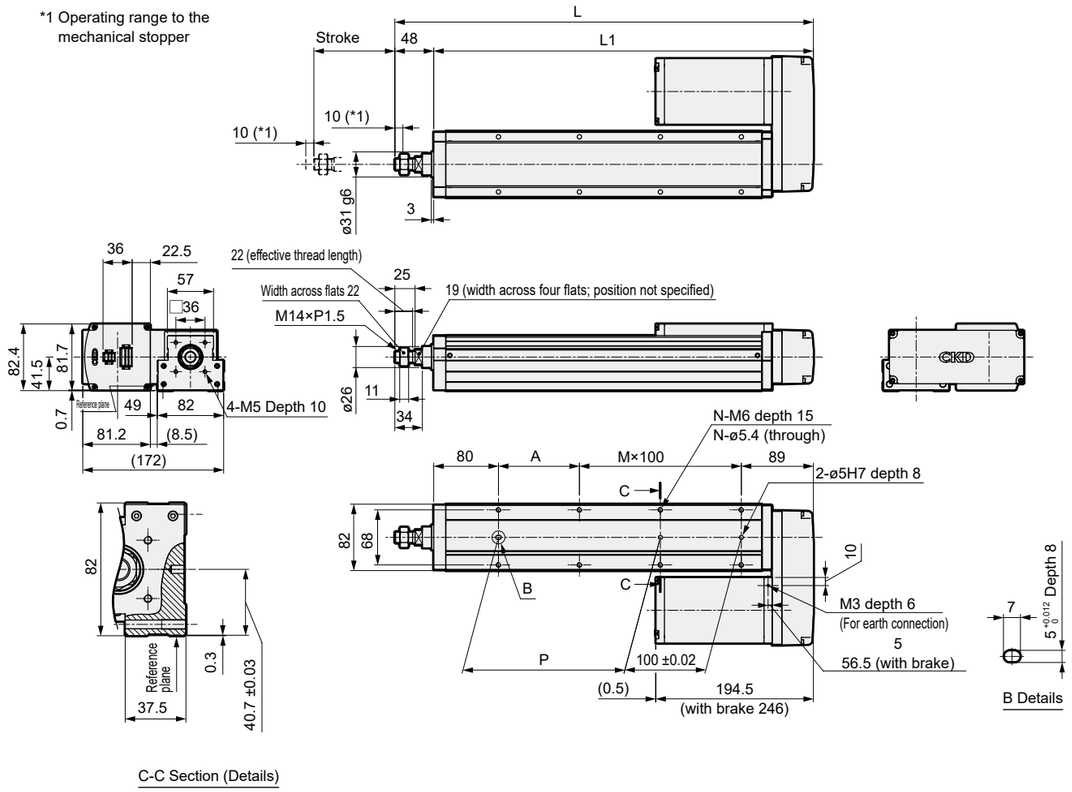


C-C Section (Details)

Stroke Code		0250	0300	0350	0400	0450	0500	0550	0600	0650	0700
Stroke (mm)		250	300	350	400	450	500	550	600	650	700
L		567	617	667	717	767	817	867	917	967	1017
L1		519	569	619	669	719	769	819	869	919	969
A		50	100	50	100	50	100	50	100	50	100
M		1	1	2	2	3	3	4	4	5	5
N		6	6	8	8	10	10	12	12	14	14
Weight (kg)	Without Brake	7.3	7.7	8.0	8.3	8.6	8.9	9.4	9.7	10.1	10.4
	With Brake	8.6	9.0	9.3	9.6	9.9	10.2	10.7	11.0	11.4	11.7

External Dimension Drawing Motor Left Side Return Mount

● EBR-08□L



Stroke Code		0050	0100	0150	0200	0250	0300	0350	0400	0450	0500	0550	0600	0650	0700
Stroke (mm)		50	100	150	200	250	300	350	400	450	500	550	600	650	700
L		367	417	467	517	567	617	667	717	767	817	867	917	967	1017
L1		319	369	419	469	519	569	619	669	719	769	819	869	919	969
A		50	100	50	100	50	100	50	100	50	100	50	100	50	100
M		1	1	2	2	3	3	4	4	5	5	6	6	7	7
N		6	6	8	8	10	10	12	12	14	14	16	16	18	18
P		50	100	150	200	250	300	350	400	450	500	550	600	650	700
Weight (kg)	Without Brake	5.9	6.3	6.7	7.0	7.3	7.7	8.0	8.3	8.6	8.9	9.4	9.7	10.1	10.4
	With Brake	7.2	7.6	8.0	8.3	8.6	9.0	9.3	9.6	9.9	10.2	10.7	11.0	11.4	11.7

MEMO

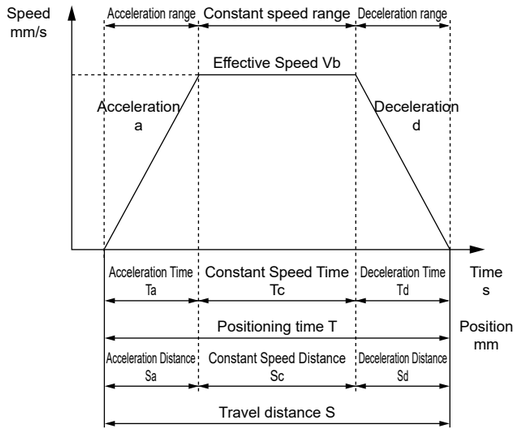
STEP1 Confirmation of Payload

The payload changes depending on the mounting orientation, screw lead, transport speed, acceleration/deceleration, and power supply voltage. Refer to System Table (pages 162 to 165), the specification table for each model and the Table of Load Capacity by Speed and Acceleration/Deceleration to select the size and screw lead.

STEP2 Confirmation of Positioning Time

Calculate the positioning time for the selected product according to the example below and check if it meets the required tact time.

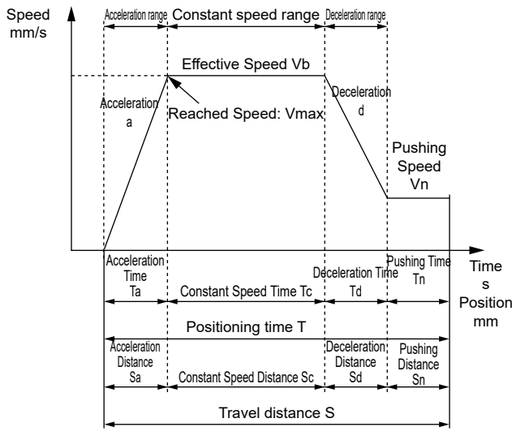
Positioning time for general transfer operations



	Content	Code	Unit	Remarks
Setting Value	Set Speed	V	mm/s	
	Set Acceleration	a	mm/s^2	
	Set Deceleration	d	mm/s^2	
	Travel Distance	S	mm	
Calculated Value	Reached Speed	Vmax	mm/s	$=[2\times a\times d\times S/(a+d)]^{1/2}$
	Effective Speed	Vb	mm/s	The smaller of V and Vmax
	Acceleration Time	Ta	s	= Vb / a
	Deceleration Time	Td	s	= Vb / d
	Constant Speed Time	Tc	s	= Sc / Vb
	Acceleration Distance	Sa	mm	$=(a\times Ta^2)/2$
	Deceleration Distance	Sd	mm	$=(d\times Td^2)/2$
	Constant Speed Distance	Sc	mm	= S - (Sa+Sd)
	Positioning Time	T	s	= Ta+Tc+Td

* Do not use at speeds exceeding the specifications.
* Depending on the acceleration/deceleration and stroke, a trapezoidal velocity waveform may not be formed (the set speed may not be reached). In that case, select the smaller of the set speed (V) and the reached speed (Vmax) as the effective speed (Vb).
* Acceleration and deceleration vary depending on the product and usage conditions. For details, please refer to the specifications P. for each model.
* Settling time varies depending on the usage conditions, but it may take about 0.2 s.
* 1G ≈ 9.8 m/s².

Positioning time for pushing operations



	Content	Code	Unit	Remarks
Setting Value	Set Speed	V	mm/s	
	Set Acceleration	a	mm/s^2	
	Set Deceleration	d	mm/s^2	
	Travel Distance	S	mm	
	Pushing Speed	Vn	mm/s	
	Pushing Distance	Sn	mm	
Calculated Value	Reached Speed	Vmax	mm/s	$=[2\times a\times d\times(S-Sn+Vn^2/2/d)/(a+d)]^{1/2}$
	Effective Speed	Vb	mm/s	The smaller of V and Vmax
	Acceleration Time	Ta	s	= Vb / a
	Deceleration Time	Td	s	= (Vb - Vn) / d
	Constant Speed Time	Tc	s	= Sc / Vb
	Pushing Time	Tn	s	= Sn / Vn
	Acceleration Distance	Sa	mm	$=(a\times Ta^2)/2$
	Deceleration Distance	Sd	mm	= ((Vb+Vn)×Td) / 2
	Constant Speed Distance	Sc	mm	= S - (Sa+Sd+Sn)
	Positioning Time	T	s	= Ta+Tc+Td+Tn

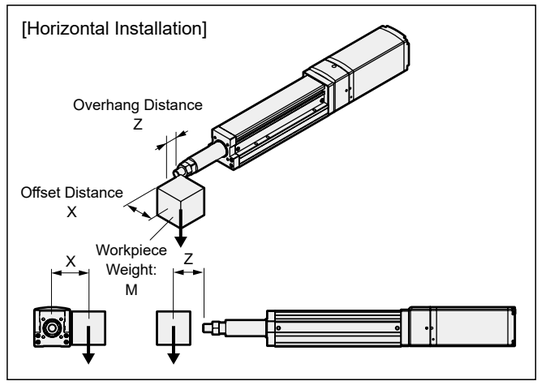
* Do not use at speeds exceeding the specifications.
* Pushing speed varies depending on the product.
* Depending on the acceleration/deceleration and stroke, a trapezoidal velocity waveform may not be formed (the set speed may not be reached). In that case, select the smaller of the set speed (V) and the reached speed (Vmax) as the effective speed (Vb).
* Acceleration and deceleration vary depending on the product and usage conditions. For details, please refer to the specifications P. for each model.
* Settling time varies depending on the usage conditions, but it may take about 0.2 s.
* 1G ≈ 9.8 m/s².

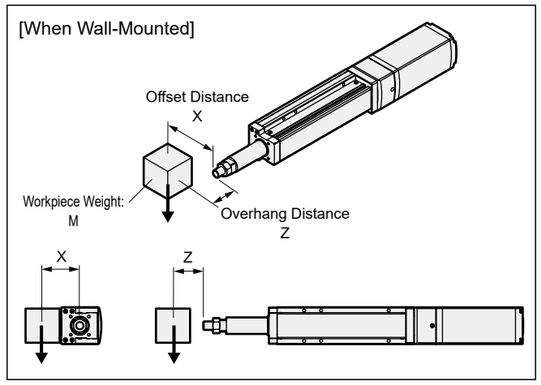
STEP3 Confirmation of Allowable Payload (Guided Rod Type EBR Series)

Confirm that the load weight during operation is within the range of the allowable load weight. If the allowable load weight is exceeded, please increase the size or use an external guide in combination.

Allowable Payload *Reference Value

[Horizontal/Wall-Mounted Installation]



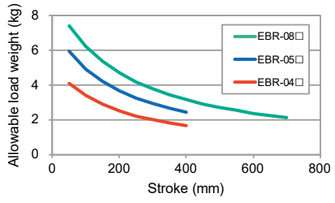


[Offset (X) 0 / Overhang distance (Z) 0 mm]

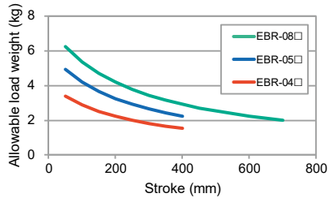
[Offset (X) 0 / Overhang distance (Z) 50 mm]

[Offset (X) 0 / Overhang distance (Z) 100 mm]

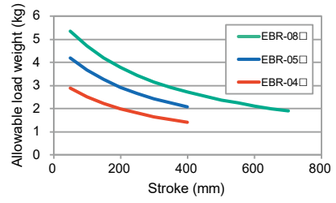
[Offset (X) 100 mm / Overhang distance (Z) 0 mm]



[Offset (X) 100 / Overhang distance (Z) 50 mm]



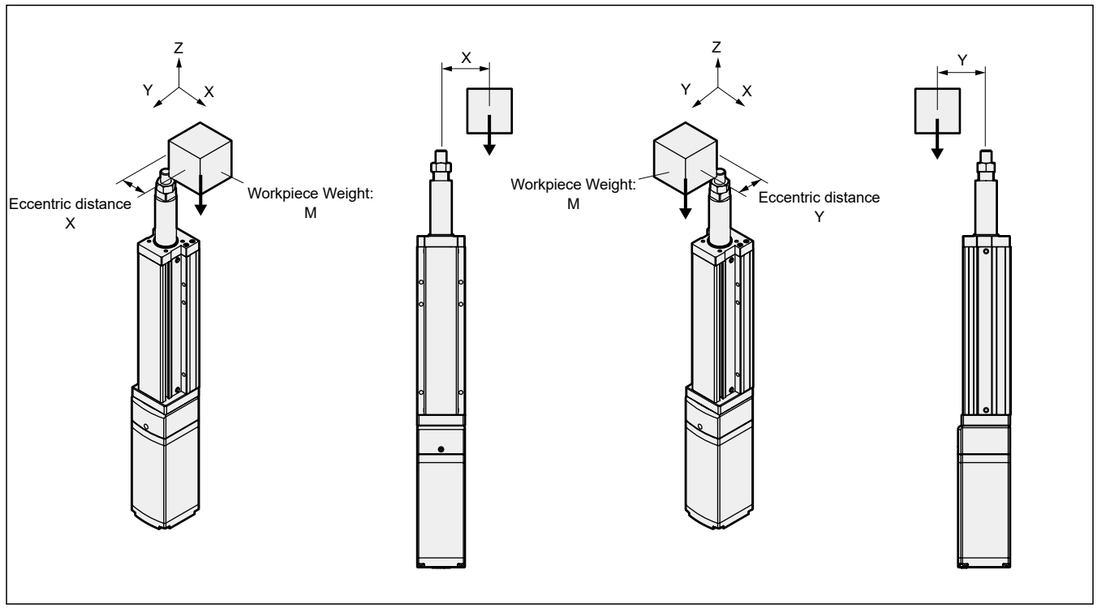
[Offset (X) 100 / Overhang distance (Z) 100 mm]



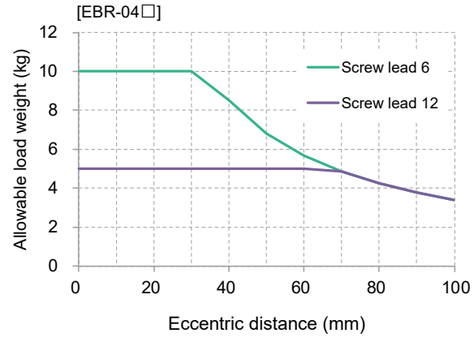
* Value when the actuator's running life is 5,000 km. (Acceleration/deceleration 0.5G, speed 300 mm/s)
Screw lead = 2 mm is the value when the travel life is 1,000 km.

Allowable Payload *Reference Value

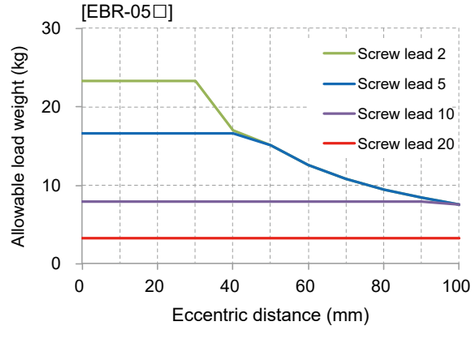
[Vertical Installation]



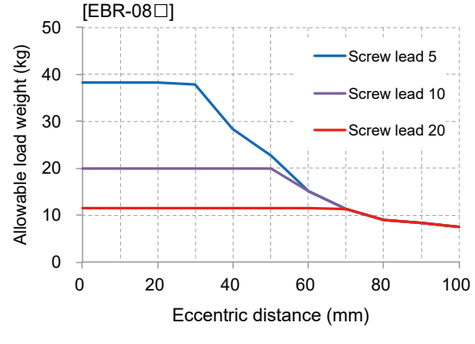
[EBR-04□]



[EBR-05□]

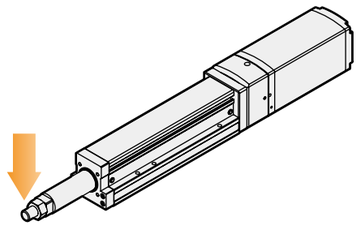


[EBR-08□]

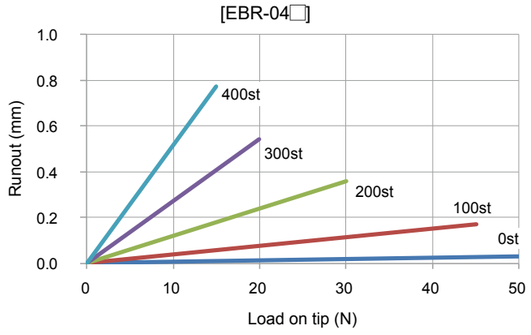


* Acceleration/deceleration 0.5G

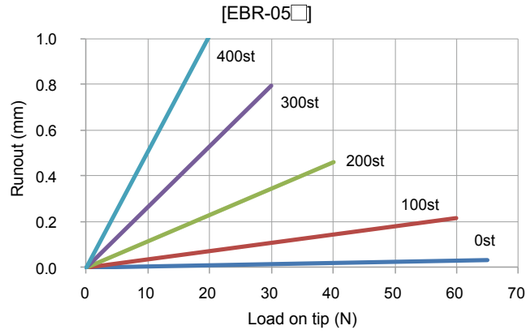
Rod Tip Runout *Reference Value



[EBR-04□]



[EBR-05□]



[EBR-08□]

MEMO

Payload table by speed and acceleration/deceleration

48 VDC

The table below lists the maximum payload by acceleration/deceleration and the maximum operable speed.
Please check the model that meets the operating conditions.

[Horizontal Installation]

■ EBR-04ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	0.5 6	12	0.7 6	12	1.0 6	12
7	33.3		33.3		33.3		33.3	
15	33.3	18.3	33.3	18.3	33.3	13.3	33.3	10.0
50	33.3	18.3	33.3	18.3	33.3	13.3	33.3	10.0
100	33.3	18.3	33.3	18.3	28.3	13.3	28.3	10.0
150	33.3	18.3	28.3	15.8	18.3	11.6	16.6	8.3
200	28.3	18.3	10.0	15.8	8.3	11.6	6.6	8.3
250	20.0	16.6	8.3	13.3	8.3	9.1	6.6	6.3
300	10.0	16.6	3.3	13.3		9.1		6.3
350	3.3	16.6		9.1		8.3		5.0
400		16.6		9.1		8.3		5.0
500		8.3		8.3		5.0		3.3
600		3.3		3.3		3.3		

■ EBR-05ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20	0.5 2	5	10	20	0.7 5	10	20	1.0 5	10	20
2	80.0				80.0									
6	80.0	60.0			80.0	60.0			60.0			60.0		
12	80.0	60.0	50.0		80.0	60.0	38.3		60.0	38.3		60.0	35.0	
25	80.0	60.0	50.0	20.0	80.0	60.0	38.3	18.3	60.0	38.3	18.3	60.0	35.0	15.0
30	80.0	60.0	50.0	20.0	80.0	60.0	38.3	18.3	60.0	38.3	18.3	60.0	35.0	15.0
50	68.3	60.0	50.0	20.0	68.3	60.0	38.3	18.3	60.0	38.3	18.3	60.0	35.0	15.0
70	68.3	60.0	50.0	20.0	60.0	55.0	38.3	18.3	55.0	31.6	18.3	55.0	23.3	15.0
75	48.3	60.0	50.0	20.0	23.3	55.0	38.3	18.3	55.0	31.6	18.3	55.0	23.3	15.0
90	48.3	60.0	50.0	20.0	23.3	55.0	35.0	18.3	55.0	28.3	18.3	55.0	21.6	15.0
100	48.3	60.0	50.0	20.0	13.3	55.0	35.0	18.3	55.0	28.3	18.3	55.0	21.6	15.0
110	36.6	60.0	50.0	20.0		40.0	33.3	18.3	38.3	23.3	13.3	38.3	20.0	13.3
120	31.6	60.0	50.0	20.0		40.0	33.3	18.3	38.3	23.3	13.3	38.3	20.0	13.3
130	28.3	60.0	50.0	20.0		40.0	33.3	18.3	38.3	23.3	13.3	38.3	20.0	13.3
150		60.0	50.0	20.0		40.0	33.3	18.3	38.3	23.3	13.3	38.3	20.0	13.3
200		60.0	50.0	20.0		38.3	33.3	18.3	35.0	23.3	13.3	21.6	20.0	13.3
225		60.0	35.0	20.0		35.0	23.3	18.3	18.3	21.6	11.6	10.0	18.3	11.6
250		55.0	35.0	20.0		33.3	23.3	18.3	18.3	21.6	11.6	10.0	18.3	11.6
275		50.0	35.0	20.0		21.6	23.3	18.3	11.6	21.6	11.6	1.6	18.3	11.6
300		36.6	35.0	20.0		18.3	23.3	18.3	8.3	21.6	11.6	1.6	18.3	11.6
330		16.6	20.0	20.0		6.6	18.3	18.3	1.6	12.5	10.0		11.6	10.0
400			20.0	20.0			18.3	18.3		12.5	10.0		11.6	10.0
500			10.0	20.0			10.0	16.6		10.0	10.0		5.0	8.3
600			1.6	19.1			1.6	13.3		1.6	10.0		1.6	5.8
650				15.0				10.0			6.6			3.3
800				11.6				6.6			1.6			1.6

■ EBR-08ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	0.5 5	10	20	0.7 5	10	20	1.0 5	10	20
6	80.0			80.0			80.0			80.0		
12	80.0	70.0		80.0	70.0		80.0	70.0		80.0	68.3	
25	80.0	70.0	35.0	80.0	70.0	35.0	80.0	70.0	28.3	80.0	68.3	26.6
50	80.0	70.0	35.0	80.0	70.0	35.0	80.0	70.0	28.3	80.0	68.3	26.6
75	80.0	70.0	35.0	80.0	70.0	35.0	80.0	70.0	28.3	51.6	68.3	26.6
100	80.0	70.0	35.0	80.0	70.0	35.0	80.0	70.0	28.3	20.0	68.3	26.6
125	50.0	70.0	35.0	31.6	70.0	35.0	23.3	70.0	26.6	20.0	50.0	26.6
150	20.0	70.0	35.0	20.0	70.0	35.0	8.3	70.0	26.6	3.3	50.0	26.6
175	18.3	70.0	35.0	8.3	43.3	35.0		31.6	26.6		23.3	26.6
200	18.3	70.0	35.0		43.3	35.0		31.6	26.6		23.3	26.6
225	18.3	68.3	35.0		31.6	35.0		21.6	23.3		10.0	16.6
250		68.3	35.0		31.6	35.0		21.6	23.3		10.0	16.6
300		50.0	35.0		28.3	35.0		18.3	23.3		10.0	16.6
350		35.0	35.0		25.0	26.6		15.0	20.0		1.6	11.6
400		35.0	35.0		21.6	26.6		11.6	20.0			11.6
450		25.0	16.6		18.3	16.6		6.6	13.3			5.0
500			16.6			16.6			13.3			5.0
600			16.6			16.6			10.0			3.3
700			16.6			13.3			8.3			1.6
800			16.6			10.0			8.3			
900			8.3			8.3			5.0			

Payload table by speed and acceleration/deceleration

48 VDC

The table below lists the maximum payload by acceleration/deceleration and the maximum operable speed.
Please check the model that meets the operating conditions.

[Horizontal Installation]

■ EBR-04MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	0.5 6	12	0.7 6	12	1.0 6	12
7	33.3		33.3		33.3		33.3	
15	33.3	18.3	33.3	11.6	33.3	11.6	33.3	10.0
50	33.3	18.3	33.3	11.6	33.3	11.6	33.3	10.0
100	33.3	18.3	33.3	11.6	28.3	11.6	28.3	10.0
150	33.3	18.3	28.3	11.6	18.3	11.6	15.0	8.3
200	28.3	18.3	10.0	11.6	8.3	11.6	6.6	8.3
250	20.0	16.6	8.3	11.6	8.3	9.1	6.6	6.6
300	10.0	16.6	3.3	11.6		9.1		6.6
350	3.3	16.6		11.6		8.3		5.0
400		16.6		11.6		8.3		5.0
500		8.3		6.6		3.3		3.3
600		3.3		1.6		1.6		

■ EBR-05MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20	0.5 2	5	10	20	0.7 5	10	20	1.0 5	10	20
2	80.0				80.0									
6	80.0	60.0			80.0	60.0			60.0			60.0		
12	80.0	60.0	36.6		80.0	60.0	36.6		60.0	33.3		60.0	26.6	
25	80.0	60.0	36.6	18.3	80.0	60.0	36.6	11.6	60.0	33.3	10.0	60.0	26.6	8.3
30	80.0	60.0	36.6	18.3	80.0	60.0	36.6	11.6	60.0	33.3	10.0	60.0	26.6	8.3
50	68.3	60.0	36.6	18.3	68.3	60.0	36.6	11.6	60.0	33.3	10.0	60.0	26.6	8.3
70	68.3	60.0	35.0	18.3	60.0	53.3	35.0	11.6	50.0	31.6	10.0	43.3	23.3	8.3
75	48.3	60.0	35.0	18.3	23.3	53.3	35.0	11.6	50.0	31.6	10.0	43.3	23.3	8.3
90	48.3	60.0	35.0	18.3	23.3	53.3	35.0	11.6	50.0	28.3	10.0	43.3	21.6	8.3
100	48.3	60.0	35.0	18.3	21.6	53.3	35.0	11.6	50.0	28.3	10.0	43.3	21.6	8.3
110	36.6	60.0	35.0	16.6		36.6	20.0	11.6	26.6	15.0	10.0	23.3	15.0	8.3
120	30.0	60.0	35.0	16.6		36.6	20.0	11.6	26.6	15.0	10.0	23.3	15.0	8.3
150		60.0	35.0	16.6		36.6	20.0	11.6	26.6	15.0	10.0	23.3	15.0	8.3
200		60.0	35.0	16.6		31.6	20.0	11.6	16.6	15.0	10.0	13.3	15.0	8.3
225		43.3	35.0	16.6		30.0	20.0	11.6	10.0	15.0	10.0	3.3	10.0	8.3
250		40.0	35.0	16.6		20.0	20.0	11.6	10.0	15.0	10.0	3.3	10.0	8.3
275		36.6	35.0	16.6		18.3	20.0	11.6	6.6	15.0	10.0		10.0	8.3
300		26.6	35.0	16.6		8.3	20.0	11.6	3.3	15.0	10.0		10.0	8.3
330		1.6	20.0	16.6		1.6	16.6	11.6		11.6	10.0		5.0	8.3
400			20.0	16.6			16.6	11.6		11.6	10.0		5.0	8.3
500			10.0	16.6			10.0	11.6		8.3	10.0			5.8
600				16.6				11.6			8.3			1.6
650				15.0				10.0			6.6			1.6
800				11.6				6.6			1.6			0.8

■ EBR-08MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	0.5 5	10	20	0.7 5	10	20	1.0 5	10	20
6	80.0			80.0			80.0			80.0		
12	80.0	70.0		80.0	70.0		80.0	70.0		80.0	60.0	
25	80.0	70.0	35.0	80.0	70.0	35.0	80.0	70.0	23.3	80.0	60.0	23.3
50	80.0	70.0	35.0	80.0	70.0	35.0	80.0	70.0	23.3	80.0	60.0	23.3
75	80.0	70.0	35.0	80.0	70.0	35.0	80.0	70.0	23.3	51.6	60.0	23.3
100	80.0	70.0	35.0	68.3	70.0	35.0	68.3	70.0	23.3	20.0	60.0	23.3
125	50.0	70.0	35.0	26.6	70.0	35.0	18.3	61.6	23.3	6.6	46.6	23.3
150	20.0	70.0	35.0	15.0	70.0	35.0		61.6	23.3		46.6	23.3
200	18.3	70.0	35.0		40.0	35.0		26.6	23.3		23.3	23.3
225	1.6	68.3	35.0		23.3	35.0		18.3	18.3		10.0	16.6
250		68.3	35.0		23.3	35.0		18.3	18.3		10.0	16.6
300		43.3	35.0		18.3	35.0		11.6	18.3			16.6
350		33.3	35.0		15.0	26.6		8.3	18.3			11.6
400		23.3	35.0		11.6	26.6		3.3	18.3			11.6
450		10.0	16.6			16.6			11.6			5.0
500			16.6			16.6			11.6			5.0
600			16.6			16.6			8.3			1.6
700			16.6			11.6			5.0			0.8

Payload table by speed and acceleration/deceleration

48 VDC

The table below lists the maximum payload by acceleration/deceleration and the maximum operable speed.
Please check the model that meets the operating conditions.

[Vertical Installation]

■ EBR-04ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	0.5 Screw Lead (mm) 6	12
7	10.0		8.3	
15	10.0	5.0	8.3	4.1
50	10.0	5.0	8.3	4.1
100	8.3	5.0	8.3	4.1
150	8.3	5.0	6.6	4.1
200	6.6	5.0	5.0	4.1
250	5.0	4.1	3.3	3.3
300	3.3	4.1	1.6	3.3
350	1.6	3.3		3.3
400		3.3		3.3
500		1.6		2.5
600		1.6		0.8

■ EBR-05ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20	0.5 Screw Lead (mm) 2	5	10	20
2	24.0				23.3			
6	24.0	16.6			23.3	16.6		
12	24.0	16.6	10.0		23.3	16.6	7.9	
25	24.0	16.6	10.0	4.1	23.3	16.6	7.9	4.1
50	23.3	16.6	10.0	4.1	23.3	16.6	7.9	4.1
60	18.3	15.0	10.0	4.1	18.3	13.3	7.9	4.1
70	15.0	15.0	10.0	4.1	15.0	13.3	7.9	4.1
80	13.3	15.0	10.0	4.1	8.3	13.3	7.9	4.1
90	13.3	15.0	10.0	4.1	0.8	13.3	7.9	4.1
100	13.3	15.0	10.0	4.1		13.3	7.9	4.1
110	13.3	11.6	10.0	4.1		11.6	7.5	4.1
120	13.3	11.6	10.0	4.1		11.6	7.5	4.1
150		11.6	10.0	4.1		11.6	7.5	4.1
200		11.6	10.0	4.1		8.3	7.5	4.1
250		10.0	7.5	4.1		6.6	5.4	4.1
275		8.3	7.5	4.1		3.3	5.4	4.1
300		5.0	7.5	4.1		3.3	5.4	4.1
350			5.8	3.7			3.7	3.7
400			5.0	3.7			3.7	3.7
500			4.1	3.3			2.5	3.3
600			0.8	2.5			0.4	2.5
700				2.0				2.0
800				1.6				

■ EBR-08ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	0.5 Screw Lead (mm) 5	10	20
6	38.3			38.3		
12	38.3	18.3		38.3	20.0	
25	38.3	18.3	11.6	38.3	20.0	11.6
50	38.3	18.3	11.6	38.3	20.0	11.6
75	35.0	18.3	11.6	35.0	20.0	11.6
100	26.6	18.3	11.6	26.6	20.0	11.6
125	23.3	15.0	11.6	26.6	15.0	10.0
150	18.3	15.0	11.6	21.6	15.0	10.0
200	15.0	11.6	11.6	16.6	11.6	10.0
225	15.0	11.6	10.0	11.6	11.6	8.3
250		11.6	10.0		11.6	8.3
300		11.6	10.0		11.6	8.3
350		10.0	3.3		10.0	2.5
400		5.0	3.3		5.0	2.5
450		3.3	1.6		3.3	1.6
500			1.6			1.6
600			1.6			1.6
700			1.6			1.6
800			1.6			1.6
900			0.8			0.8

Payload table by speed and acceleration/deceleration

48 VDC

The table below lists the maximum payload by acceleration/deceleration and the maximum operable speed.
Please check the model that meets the operating conditions.

[Vertical Installation]

■ EBR-04MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	0.5 Screw Lead (mm) 6	12
7	9.1		8.3	
15	9.1	5.0	8.3	4.1
100	9.1	5.0	8.3	4.1
150	8.3	5.0	5.8	4.1
200	6.6	5.0	4.1	4.1
250	3.7	4.1	2.0	3.3
300	2.0	4.1	0.8	3.3
400		3.3		3.3
500		1.6		1.6
600		0.8		0.4

■ EBR-05MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20	0.5 Screw Lead (mm) 2	5	10	20
2	24.0				23.3			
6	24.0	16.6			23.3	16.6		
12	24.0	16.6	8.3		23.3	16.6	7.9	
25	24.0	16.6	8.3	4.1	23.3	16.6	7.9	3.3
50	23.3	16.6	8.3	4.1	23.3	16.6	7.9	3.3
60	18.3	13.3	8.3	4.1	18.3	13.3	7.9	3.3
70	15.0	13.3	8.3	4.1	15.0	13.3	7.9	3.3
75	13.3	13.3	8.3	4.1	8.3	13.3	7.9	3.3
80	11.6	13.3	8.3	4.1	8.3	13.3	7.9	3.3
90	11.6	13.3	8.3	4.1	0.8	13.3	7.9	3.3
100	11.6	13.3	8.3	4.1		13.3	7.9	3.3
110	11.6	11.6	6.6	4.1		11.6	7.5	3.3
120	5.0	11.6	6.6	4.1		11.6	7.5	3.3
150		11.6	6.6	4.1		11.6	7.5	3.3
200		11.6	6.6	4.1		8.3	7.5	3.3
250		10.0	5.8	4.1		5.0	5.4	2.5
275		6.6	5.8	4.1		0.8	5.4	2.5
300		0.8	5.8	4.1		0.8	5.4	2.5
350			5.0	3.7			3.7	2.5
400			5.0	3.7			3.7	2.5
500			4.1	3.3			2.5	1.6
600				2.5				1.6
700				2.0				1.6

■ EBR-08MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	0.5 Screw Lead (mm) 5	10	20
6	38.3			38.3		
12	38.3	18.3		38.3	18.3	
25	38.3	18.3	8.3	38.3	18.3	8.3
50	38.3	18.3	8.3	38.3	18.3	8.3
75	35.0	18.3	8.3	35.0	18.3	8.3
100	26.6	18.3	8.3	26.6	18.3	8.3
125	20.0	15.0	8.3	20.0	15.0	8.3
150	11.6	15.0	8.3	11.6	15.0	8.3
165	6.6	11.6	8.3	5.0	11.6	8.3
175	5.0	11.6	8.3	5.0	11.6	8.3
200	3.3	11.6	8.3	3.3	11.6	8.3
250		10.0	8.3		8.3	8.3
300		6.6	8.3		5.0	8.3
350		5.0	3.3		3.3	2.5
400		3.3	3.3		1.6	2.5
450		0.8	1.6		0.8	1.6
500			1.6			1.6
600			1.6			1.6
700			1.6			1.6

Payload table by speed and acceleration/deceleration

24 VDC

The table below lists the maximum payload by acceleration/deceleration and the maximum operable speed.
Please check the model that meets the operating conditions.

[Horizontal Installation]

■ EBR-04ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	0.7 Screw Lead (mm) 6	12
7	33.3		26.6	
15	33.3	18.3	26.6	6.6
50	33.3	18.3	26.6	6.6
100	33.3	18.3	15.8	6.6
150	14.1	15.4	1.6	6.6
200	1.6	15.4		6.6
250	1.6	4.5		1.6
300		4.5		1.6
400		4.5		0.8
500		1.6		

■ EBR-05ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20	0.5 Screw Lead (mm) 2	5	0.7 Screw Lead (mm) 10	20
2	80.0				80.0			
6	80.0	60.0			80.0	60.0		
12	80.0	60.0	50.0		80.0	60.0	26.6	
25	80.0	60.0	50.0	20.0	80.0	60.0	26.6	18.3
50	73.3	60.0	50.0	20.0	46.6	60.0	26.6	18.3
60	73.3	60.0	50.0	20.0	10.0	20.0	16.6	15.8
70	43.3	60.0	50.0	20.0		20.0	16.6	15.8
80	20.0	60.0	50.0	20.0		20.0	16.6	15.8
100		60.0	50.0	20.0		20.0	16.6	15.8
150		43.3	35.0	20.0		5.0	11.6	13.3
200		20.8	35.0	20.0			11.6	13.3
225		15.0	11.6	20.0			3.3	10.0
250		10.0	11.6	20.0			3.3	10.0
275		8.3	11.6	20.0			3.3	10.0
300			11.6	20.0			3.3	10.0
400			7.5	13.3			1.6	5.0
500			1.6	7.5				1.6
600				3.3				
700				0.4				

■ EBR-08ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	0.7 Screw Lead (mm) 5	10	20
6	80.0			80.0		
12	80.0	70.0		80.0	70.0	
25	80.0	70.0	23.3	80.0	70.0	23.3
50	80.0	70.0	23.3	80.0	70.0	23.3
75	66.6	70.0	23.3	66.6	33.3	23.3
100	36.6	70.0	23.3	3.3	33.3	23.3
150	3.3	35.0	18.3		5.0	16.6
200		25.0	18.3			16.6
250		10.8	18.3			10.0
300		1.6	18.3			10.0
400			10.0			5.0
500			1.6			1.6

Payload table by speed and acceleration/deceleration

24 VDC

The table below lists the maximum payload by acceleration/deceleration and the maximum operable speed.
Please check the model that meets the operating conditions.

[Horizontal Installation]

■ EBR-04MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12	0.7 Screw Lead (mm) 6	12
7	33.3		26.6	
15	33.3	18.3	26.6	6.6
50	33.3	18.3	26.6	6.6
100	33.3	18.3	15.8	6.6
150	13.3	15.8	1.6	6.6
200	1.6	15.8		6.6
250		5.0		1.6
300		5.0		1.6
350		0.8		
400		0.8		

■ EBR-05MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20	0.5 Screw Lead (mm) 2	5	0.7 Screw Lead (mm) 10	20
2	80.0				80.0			
6	80.0	60.0			80.0	60.0		
12	80.0	60.0	36.6		80.0	60.0	26.6	
25	80.0	60.0	36.6	18.3	80.0	60.0	26.6	10.0
50	41.6	60.0	36.6	18.3	41.6	60.0	26.6	10.0
60	20.0	53.3	36.6	18.3	10.0	20.0	8.3	10.0
80	20.0	53.3	36.6	18.3		20.0	8.3	10.0
100		53.3	36.6	18.3		20.0	8.3	10.0
150		41.6	35.0	18.3		5.0	5.0	10.0
200		15.0	35.0	18.3			5.0	10.0
225		8.3	11.6	18.3			3.3	10.0
250		1.6	11.6	18.3			3.3	10.0
300			11.6	18.3			3.3	10.0
400			7.5	13.3				5.0
500				6.6				1.6
600				3.3				
700				0.4				

■ EBR-08MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20	0.7 Screw Lead (mm) 5	10	20
6	80.0			80.0		
12	80.0	70.0		80.0	70.0	
25	80.0	70.0	23.3	80.0	70.0	18.3
50	80.0	70.0	23.3	80.0	70.0	18.3
75	66.6	58.3	23.3	21.6	33.3	18.3
100	36.6	58.3	23.3		33.3	18.3
150		33.3	16.6		5.0	8.3
200		11.6	16.6			8.3
300		1.6	10.0			5.0
400			5.0			1.6
500			1.6			

Payload table by speed and acceleration/deceleration

24 VDC

The table below lists the maximum payload by acceleration/deceleration and the maximum operable speed.
Please check the model that meets the operating conditions.

[Vertical Installation]

■ EBR-04ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12
7	9.1	
15	9.1	4.5
50	9.1	4.5
100	7.5	4.5
150	2.9	2.0
200	0.4	2.0
250		0.4
300		0.4

■ EBR-04MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 6	12
7	9.1	
15	9.1	4.5
50	9.1	4.5
100	7.5	4.5
150	2.9	2.0
200	0.4	2.0
250		0.8

■ EBR-05ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20
2	24.0			
6	24.0	15.0		
12	24.0	15.0	6.6	
25	24.0	15.0	6.6	4.1
50	15.0	15.0	6.6	4.1
60	3.3	11.0	6.6	4.1
100		11.0	6.6	4.1
150		8.3	5.8	2.5
200		3.3	5.8	2.5
250		1.6	2.5	2.5
300			2.5	2.5
400			0.8	1.6
500				0.8

■ EBR-05MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 2	5	10	20
2	24.0			
6	24.0	15.0		
12	24.0	15.0	6.6	
25	24.0	15.0	6.6	4.1
50	3.3	15.0	6.6	4.1
100		15.0	6.6	4.1
150		3.3	5.8	3.3
200		1.6	5.8	3.3
300			2.5	3.3
400			0.8	0.8
450				0.8

■ EBR-08ME (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20
6	35.0		
12	35.0	15.0	
25	35.0	15.0	10.0
50	35.0	15.0	10.0
75	20.0	15.0	10.0
100	8.3	15.0	10.0
125	0.8	6.6	6.6
150		6.6	6.6
200		4.1	6.6
250		1.6	3.3
300		0.8	1.6
350			0.8
400			0.4
450			0.4

■ EBR-08MR/D/L (kg)

Speed (mm/s)	Acceleration/Deceleration (G) 0.3 Screw Lead (mm) 5	10	20
6	35.0		
12	35.0	15.0	
25	35.0	15.0	8.3
50	35.0	15.0	8.3
75	10.0	15.0	8.3
100	0.8	15.0	8.3
150		5.0	6.6
200		1.6	6.6
250			3.3
300			1.6
400			0.8
450			0.8

Stroke and Max. Speed

■ 48 VDC (mm/s)

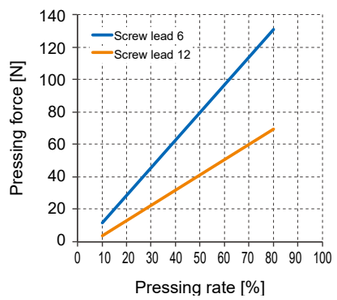
Model No.	Motor Mounting Direction	Screw Lead	Stroke 50 to 200	250	300	350	400	450	500	550	600	650	700
EBR-04ME	**Straight**	6	350	300	250								
		12	600		490								
EBR-04MR/D/L	**Reverse Parallel**	6	350	300	250								
		12	600		490								
EBR-05ME	**Straight**	2	130		85								
		5	330		210								
		10	600		420								
		20	800										
EBR-05MR/D/L	**Reverse Parallel**	2	120		85								
		5	330		210								
		10	500		420								
		20	700										
EBR-08ME	**Straight**	5	225			200							
		10	450			400							
		20	900	600									
EBR-08MR/D/L	**Reverse Parallel**	5	225			200							
		10	450			400							
		20	700	600									

■ 24 VDC (mm/s)

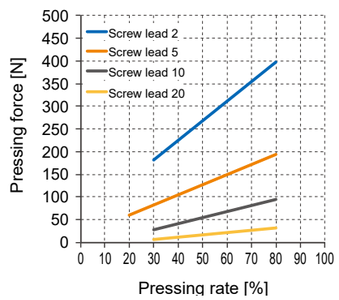
Model No.	Motor Mounting Direction	Screw Lead	Stroke 50 to 200	250	300	350	400	450	500	550	600	650	700
EBR-04ME	**Straight**	6	250										
		12	500		490								
EBR-04MR/D/L	**Reverse Parallel**	6	200										
		12	400										
EBR-05ME	**Straight**	2	80										
		5	275		210								
		10	500		420								
		20	700										
EBR-05MR/D/L	**Reverse Parallel**	2	80										
		5	250		210								
		10	400										
		20	700										
EBR-08ME	**Straight**	5	150										
		10	300										
		20	500										
EBR-08MR/D/L	**Reverse Parallel**	5	100										
		10	300										
		20	500										

Pushing Force

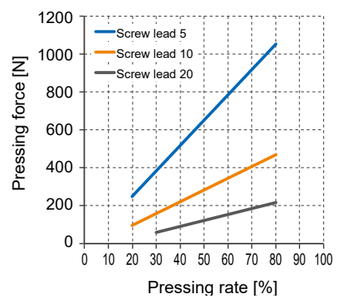
[EBR-04M (Connected Controller ECR)]



[EBR-05M (Connected Controller ECR)]



[EBR-08M (Connected Controller ECR)]



Maintenance Parts

Maintenance Parts (ECMG/ECG Motor Unit)

		Model No.	Applicable Models
Without Brake	Absolute Encoder	EJSG-04E-MOTORUNIT-NB	EBR-04GE
		EJSG-04R-MOTORUNIT-NB	EBR-04GR/D/L
		EJSG-05E-MOTORUNIT-NB	EBR-05GE
		EJSG-05R-MOTORUNIT-NB	EBR-05GR/D/L
		EJSG-08E-MOTORUNIT-NB	EBR-08GE
		EJSG-08R-MOTORUNIT-NB	EBR-08GR/D/L
	Incremental Encoder	EJSG-04E-MOTORUNIT-NC	EBR-04GE
		EJSG-04R-MOTORUNIT-NC	EBR-04GR/D/L
		EJSG-05E-MOTORUNIT-NC	EBR-05GE
		EJSG-05R-MOTORUNIT-NC	EBR-05GR/D/L
		EJSG-08E-MOTORUNIT-NC	EBR-08GE
		EJSG-08R-MOTORUNIT-NC	EBR-08GR/D/L
With Brake	Absolute Encoder	EJSG-04E-MOTORUNIT-BB	EBR-04GE
		EJSG-04R-MOTORUNIT-BB	EBR-04GR/D/L
		EJSG-05E-MOTORUNIT-BB	EBR-05GE
		EJSG-05R-MOTORUNIT-BB	EBR-05GR/D/L
		EJSG-08E-MOTORUNIT-BB	EBR-08GE
		EJSG-08R-MOTORUNIT-BB	EBR-08GR/D/L
	Incremental Encoder	EJSG-04E-MOTORUNIT-BC	EBR-04GE
		EJSG-04R-MOTORUNIT-BC	EBR-04GR/D/L
		EJSG-05E-MOTORUNIT-BC	EBR-05GE
		EJSG-05R-MOTORUNIT-BC	EBR-05GR/D/L
		EJSG-08E-MOTORUNIT-BC	EBR-08GE
		EJSG-08R-MOTORUNIT-BC	EBR-08GR/D/L

Maintenance Parts (ECR Motor Unit)

	Model No.	Applicable Models	
Without Brake	EBS-04ME-MOTORUNIT-N	EBR-04ME	Without Brake
	EBS-04MR-MOTORUNIT-N	EBR-04MR/D/L	
	EBS-05ME-MOTORUNIT-N	EBR-05ME	
	EBS-05MR-MOTORUNIT-N	EBR-05MR/D/L	
	EBS-08ME-MOTORUNIT-N	EBR-08ME	
	EBS-08MR-MOTORUNIT-N	EBR-08MR/D/L	
With Brake	EBS-04ME-MOTORUNIT-B	EBR-04ME	With Brake
	EBS-04MR-MOTORUNIT-B	EBR-04MR/D/L	
	EBS-05ME-MOTORUNIT-B	EBR-05ME	
	EBS-05MR-MOTORUNIT-B	EBR-05MR/D/L	
	EBS-08ME-MOTORUNIT-B	EBR-08ME	
	EBS-08MR-MOTORUNIT-B	EBR-08MR/D/L	

Maintenance Parts

Maintenance Parts / Motor Mounting Direction: For right, bottom, and left folded-back type (Timing Belt)

Model No.	Applicable Models
EBS-04MR-BELT	EBR-04□R/D/L
EBS-05MR-BELT	EBR-05□R/D/L
EBS-08MR-BELT	EBR-08□R/D/L

Maintenance Parts (Grease Nozzle)

Model No.	Applicable Models
EBS-NOZZLE	All models

Maintenance Parts (Flange)

Model No.	Applicable Models
EBR-04-FA	EBR-04□
EBR-05-FA	EBR-05□
EBR-08-FA	EBR-08□

To Use This Product Safely

Be sure to read this before use.
For general information on electric actuators, please see Intro 17.

Individual Precautions: Electric Actuator EBR Series

During Design and Selection

⚠ Danger

■ Do not use in places where hazardous materials such as flammable, ignitable, or explosive substances are present.
There is a risk of ignition, fire, or explosion.

■ Do not allow water droplets, oil droplets, etc. to come into contact with the product.
This can cause fire or malfunction.

■ When installing the product, be sure to hold and fix it securely (including the workpiece).
There is a risk of injury due to the product tipping over, falling, malfunctioning, etc. As a general rule, please fix the product using all mounting holes.

⚠ Warning

■ Use the product within its specific specification range.

■ Install a safety fence to prevent entry into the movable range of the electric actuator. Also, in preparation for emergencies, install an emergency stop push button switch for the device in an easily accessible location. The emergency stop push button must have a structure and wiring that does not automatically reset and cannot be carelessly reset by a person.

■ When an emergency stop is performed, it may take several seconds to stop depending on the speed during movement and the mounted load.

■ In the event of a system abnormality such as an emergency stop or power failure, if the machine stops, design the safety circuit or device to prevent damage to the equipment, personal injury, etc.

■ Install in a dry indoor location.
In places where it is exposed to rainwater or in humid places (humidity of 80% or more, places with condensation), there is a risk of electric leakage or fire. Oil drops and oil mist are also strictly prohibited. Use in such environments can cause damage or malfunction.

■ The product must be subjected to Class D grounding work (grounding resistance of 100 Ω or less).
If an electric leakage occurs, there is a risk of electric shock or malfunction.

■ If using the actuator in an installation other than horizontal, select the one with a brake.
If it does not have a brake, when the servo is OFF (including emergency stop and alarm) or when the power is OFF, the movable part may fall, causing injury or damage to the workpiece.

■ The brake cannot completely hold the actuator in all cases. When performing maintenance on applications that move the slider with an unbalanced load, or when stopping the machine for a long time, if safety needs to be ensured, be sure to bring it to a balanced state or provide a mechanical locking mechanism.

■ When using the actuator in a horizontal/wall-mounted installation, position the motor as high as possible.
If the motor is on the lower side, there is no problem in normal operation, but if it is stopped for a long period of time, the grease may separate and flow into the motor, which may cause a malfunction in rare cases.

■ Observe the operating and storage temperatures, and use and store in a condensation-free state.
(Storage Temperature: -10°C to 50°C, Storage Humidity: 35% to 80%, Operating Temperature: 0°C to 40°C (10°C to 40°C for EBS-G and EBR-G), Operating Humidity: 35% to 80%) It may cause abnormal shutdown of the product or decrease its service life. Ventilate if heat builds up.

■ Do not use in places where condensation occurs due to sudden changes in ambient temperature.

■ Install in a location free from direct sunlight, dust, heat sources, corrosive gases, explosive gases, flammable gases, and combustible materials. In addition, this product has not been considered for chemical resistance.
This can cause malfunction, explosion, or fire.

■ Use and store in a location free from strong electromagnetic waves, ultraviolet rays, and radiation.
This can cause malfunction or failure.

■ Consider the possibility of power source failure.
Take measures to ensure that even if a failure occurs in the power source, it does not cause injury or damage to people or equipment.

■ Consider the operating state when restarting after an emergency stop or abnormal stop.
Design it so that restarting does not cause harm to people or equipment. Also, if it is necessary to reset the electric actuator to the starting position, design a safe control device. Consider the possibility of failure of the installed motor. Take measures to ensure that even if a failure occurs in the power source, it does not cause harm to people or equipment.

■ Do not use in places with impact or vibration.

■ Do not apply a load to the product that exceeds the allowable value in the selection data.

■ When fixing a workpiece to the rod tip, with the rod retracted to the stroke end, fix the square part of the rod with a wrench, etc., and tighten it so that the rod does not rotate. Do not apply impact to the rod when tightening.

⚠ Caution

■ Please use within a range where the moving table and rod do not collide at the stroke end.

■ Clearly state the maintenance conditions in the equipment's instruction manual.
Depending on the usage status, usage environment, and maintenance, the functions of this product may be significantly degraded, and safety may not be ensured. If maintenance is performed correctly, the product functions can be fully demonstrated.

■ The product is manufactured in accordance with various standards. Never disassemble or modify.

■ Please confirm the suitability of our products for the system, machine, and equipment you use at your own responsibility.

■ Use wiring that does not induce induction noise.
Avoid places where large currents or strong magnetic fields are generated. Do not use the same wiring (with multi-core cables) as the power lines for large motors other than this product. Do not use the same wiring as the inverter power supply and wiring part used for robots, etc., apply a frame ground to the power supply, and insert a filter in the output part.

■ Do not use in an environment where strong magnetic fields are generated.
This can cause malfunction.

■ Separate the power supply for the output part of this product from the power supply for inductive loads that generate surges, such as solenoid valves and relays.
If the power supply is shared, surge current will flow into the output part, causing damage. If a separate power supply cannot be used, connect a surge absorbing element directly in parallel to all inductive loads.

■ Select a power supply with sufficient capacity for the number of products installed. If there is not enough capacity, it may malfunction.
[In case of ECMG Series]
(□35...12.4 A/unit, □42...12.2 A/unit, □56...12.5 A/unit)
[In case of ECG Series]
(□35...2.4 A/unit, □42...2.7 A/unit, □56...4.0 A/unit)
[In case of ECR Series]
(□35...4.0 A/unit, □42...5.2 A/unit, □56...8.6 A/unit)

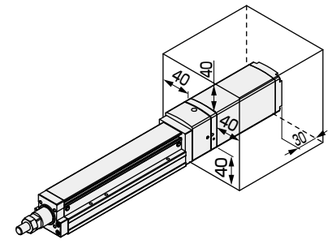
■ Fixed cables cannot be used for applications involving repeated bending, so please fix them so that they do not move easily. For use in locations involving repeated bending, please use a flexible cable.

■ Please use the fixed/flexible cable with a bending radius of 51 mm or more.
The bending radius cannot accommodate bending of the connector part, so it is recommended to fix it near the connector.

■ When the power is turned on, to recognize the home position, if there is an external stopper or holding mechanism (brake, etc.), there is a possibility that an unintended position will be recognized as the home position. After turning on the power, please pay attention to the placement of external stoppers, etc., so that the home position can be reliably detected.

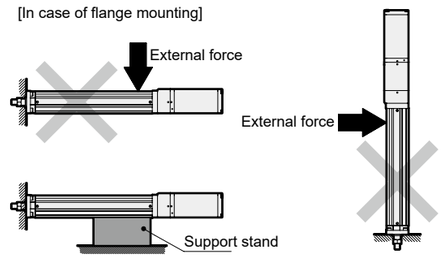
■ When using the EBR-G series, do not apply a magnetic field with a magnetic flux density of 0.7 mT or more to the product surface of the motor section.
This can cause damage to the product or malfunction.

■ When using multiple EBR-G series units, please install them with the motor parts separated by the distance shown in the figure below or more.
Installation at close intervals can cause malfunction.



■ In the case of flange (option) mounting, do not apply external force to the main body. External force may cause malfunction or component damage.
When mounting on the front in a horizontal installation, provide a support base. Depending on the operating conditions and the surrounding installation environment, vibrations may occur and cause damage to the actuator body. If external force is applied to the main body, use the mounting holes on the main body base to fix the main body. Avoid fixing only with the mounting holes on the flange part.

[In case of flange mounting]



■ When transporting or installing the actuator, hold the main body and avoid applying excessive force to the motor part.

For precautions regarding mounting, installation, adjustment, operation, and maintenance, please refer to the CKD Component Product Site (https: //www.ckd.co.jp/kiki/en/) → 'model No.' → Instruction Manual

EBR Model Selection Checklist -> **for CKD** (Contact)

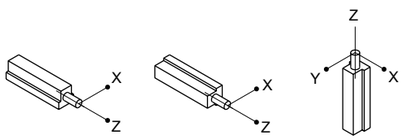
Please fill out the form and send it to your nearest sales office. We will reply with the model selection results.

MEMO

Customer:

Company		Department	
Name		E-mail	
TEL		FAX	

Selection Conditions:

Desired Model	(EBR)-
Basic Specifications	Max. Stroke: mm, Ball screw lead: mm
Operating Conditions	Moving stroke: mm, travel time: s
	Set Speed: mm/s
	Set acceleration/deceleration: mm/s^2 (set acceleration/deceleration time: s)
	Repeatability: ± mm
Load Conditions	Rod Type
	Payload: kg
	Mounting orientation: Horizontal / Wall-mounted / Vertical / Ceiling-mounted / Other 
	Distance from rod center to load's center of gravity
	Direction X: mm Direction Y: mm Direction Z: mm
	Pushing load: None / Yes (N) During operation / When stopped Direction of force applied to the slider center ( )
Operating Environment	Ambient Temperature: °C, Ambient Humidity: %
	Atmosphere:
Interface Specifications	Parallel I/O / IO-Link / CC-Link / EtherCAT / EtherNet/IP
Special Notes	