

Thin and lightweight actuators

Reduces light reflection during image inspection



Contributes to downsizing and lightening of your equipment

Features

● Thin/space saving

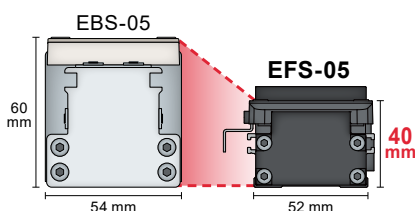
Height direction
Max.
**33%
Down!**

● Lightweight

Weight
Approx.
**30%
Down!**

● Long stroke

Stroke
Max.
**1250 mm
Compatible**

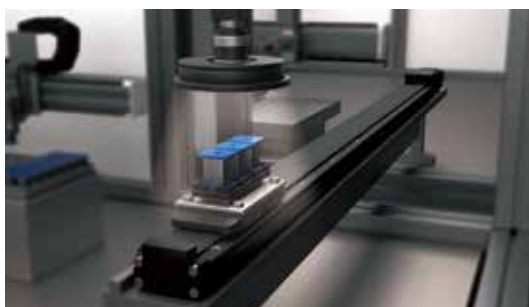


Model No.	Weight	Model No.	Weight
EBS-05	3.1 kg	EFS-05	2.2 kg

*Conditions of EBS-05, EFS-05 (ball screw drive), stroke 500 mm

Model No.	Max. stroke	Model No.	Max. stroke
EBS-05	800 mm	EFS-05	1000 mm
EBS-08	1100 mm	EFS-08	1250 mm

Application Example



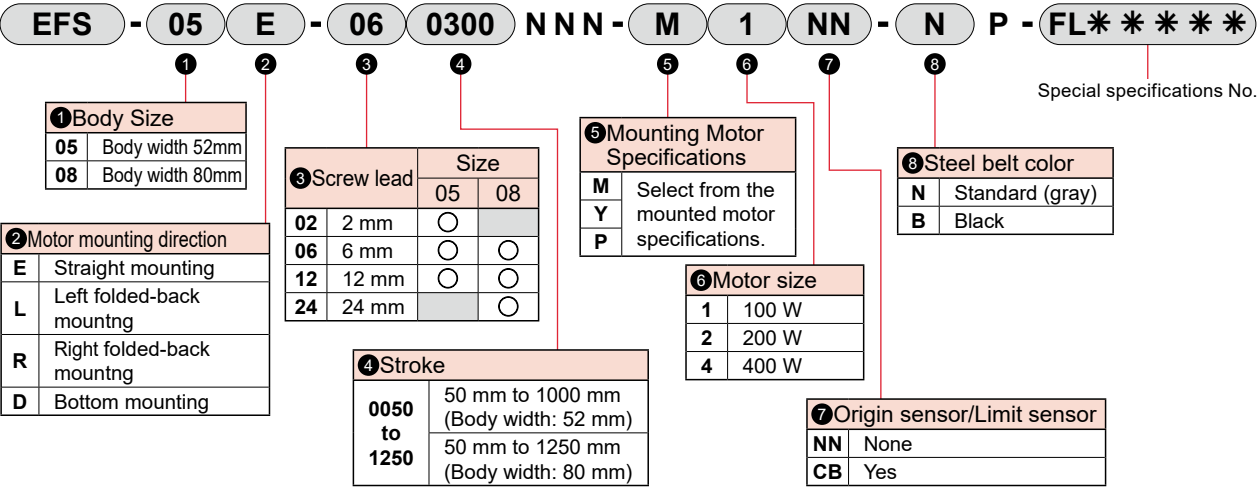
For image inspection



in the Z axis of an orthogonal axis

Electric actuator Motorless specifications EFS Series

Model No. Notation Method



List of servo motors recommended for mounting

EFS-05			
Symbol	Manufacturer	Series	100 W
M	Mitsubishi Electric	MELSERVO J4/MELSERVO J5	HG-KR13/HK-KT13W
	Delta Electronics (Japan), Inc.	ECMA-C	ECMA-C10401
	OMRON	G5/1S	R88M-K10030/R88M-1M10030
	Fuji Electric	ALPHA7 GYS	GYS101D7-□B2□
	Rockwell Automation, Inc.	TLP	TLP-A046-010-DKA□2
Y	SIEMENS AG	1FK2	1FK2102-1AG0
	YASKAWA Electric Corporation	Σ-V/Σ-7	SGMJV-01/SGM7J-01
P	Keyence Corporation	SV/SV2	SV-□□10/SV2-□□10
	Panasonic Co., Ltd.	MINAS A5/MINAS A6	MSMD01/MSMF01
	Bosch Rexroth AG	MSM	MSM019B

EFS-08				
Symbol	Manufacturer	Series	200 W	400 W
M	Mitsubishi Electric	MELSERVO J4/MELSERVO J5	HG-KR23/HK-KT23W	HG-KR43/HK-KT43W
	Delta Electronics (Japan), Inc.	ECMA-C	ECMA-C10602	ECMA-C10604
	Fuji Electric	ALPHA7 GYS/ALPHA7 GYB	GYS201D7-□B2□/GYB201D7-□B2□	GYS401D7-□B2□/GYB401D7-□B2□
	Rockwell Automation, Inc.	TLP	TLP-A070-020-DKA□2	TLP-A070-040-DKA□2
	SIEMENS AG	1FK2	1FK2203-2AG0	1FK2203-4AG0
Y	YASKAWA Electric Corporation	Σ-V/Σ-7	SGMJV-02/SGM7J-02	SGMJV-04/SGM7J-04
	Keyence Corporation	SV/SV2	SV-□□20/SV2-□□20	SV-□□40/SV2-□□40
P	Panasonic Co., Ltd.	MINAS A5/MINAS A6	MSMD02/MSMF02	MSMD04/MSMF04
	OMRON	G5/1S	R88M-K20030/R88M-1M20030	R88M-K40030/R88M-1M40030
	Bosch Rexroth AG	MSM	MSM031B	MSM031C

Specifications

Item		EFS-05			EFS-08						
Body width ×height		mm			52 × 40			80 × 56			
Applicable motor sizes		100 W AC servo motor			200 W AC servo motor			400 W AC servo motor			
Drive method		Ball screw ø10			Ball screw ø14						
Stroke		mm			50 to 1000						
Screw lead		mm			50 to 1250						
		2	6	12	6	12	24	6	12	24	
Max. payload	kg	Horizontal	30	25	12	80	30	6	80	45	12
		Vertical	10	6	3	10	5	3	16	12	6
Max. speed		mm/s	100	300	600	300	600	1,200	300	600	1,200
Rated thrust		N	854	285	142	569	284	142	1156	578	289
Repeatability		mm	±0.01								
Lost motion		mm	0.1 or less								
Static allowable moment		N·m	MP:73 MY:73 MR:43			MP:137 MY:137 MR:127					
Operating ambient temperature, humidity		0 to 40°C (no freezing) 35 to 80%RH (no condensation)									
Storage Ambient Temperature, Humidity		-10 to 50°C (no freezing) 35 to 80%RH (no condensation)									
Atmosphere		No corrosive gas, explosive gas, or dust									

*Rated thrust and maximum load capacity are guideline values, assuming that the motor mounted will output the rated torque.

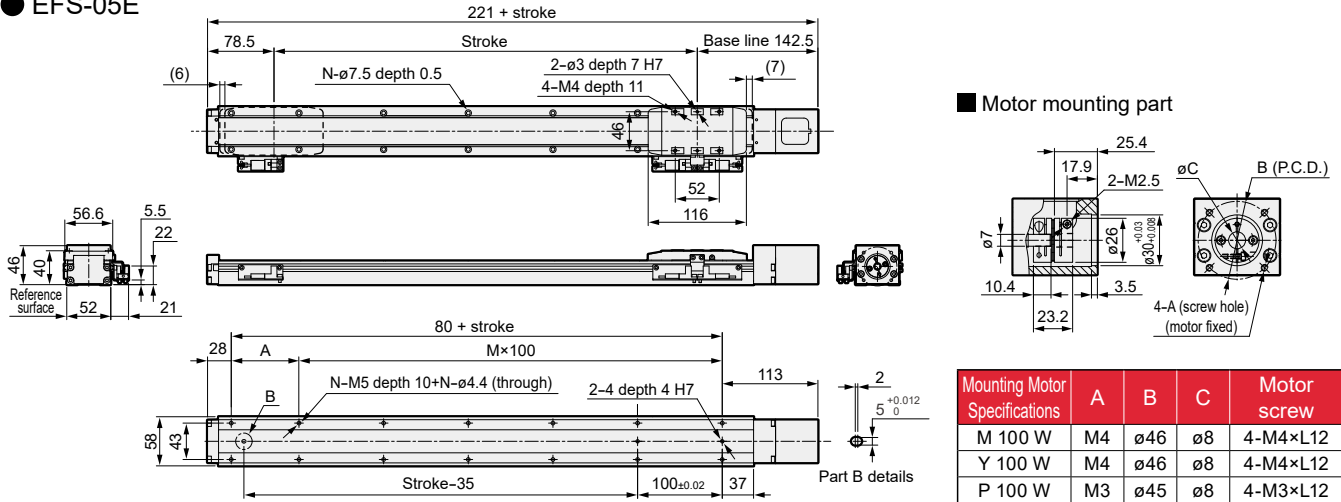
Stroke and max. speed (mm/s)

Model No.	Stroke	50 to 550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1,200	1250
	Screw lead															
EFS-05	2	100	90	80	70	63	53	50	43	40	36	-	-	-	-	-
	6	300	270	240	210	190	160	150	130	120	110	-	-	-	-	-
	12	600	540	480	420	380	320	300	260	240	220	-	-	-	-	-
EFS-08	6	300			270	240	210	190	170	160	140	130	120	110	100	90
	12	600			540	480	420	380	340	320	280	260	240	220	200	180
	24	1,200			1080	960	840	760	680	640	560	520	480	440	400	360

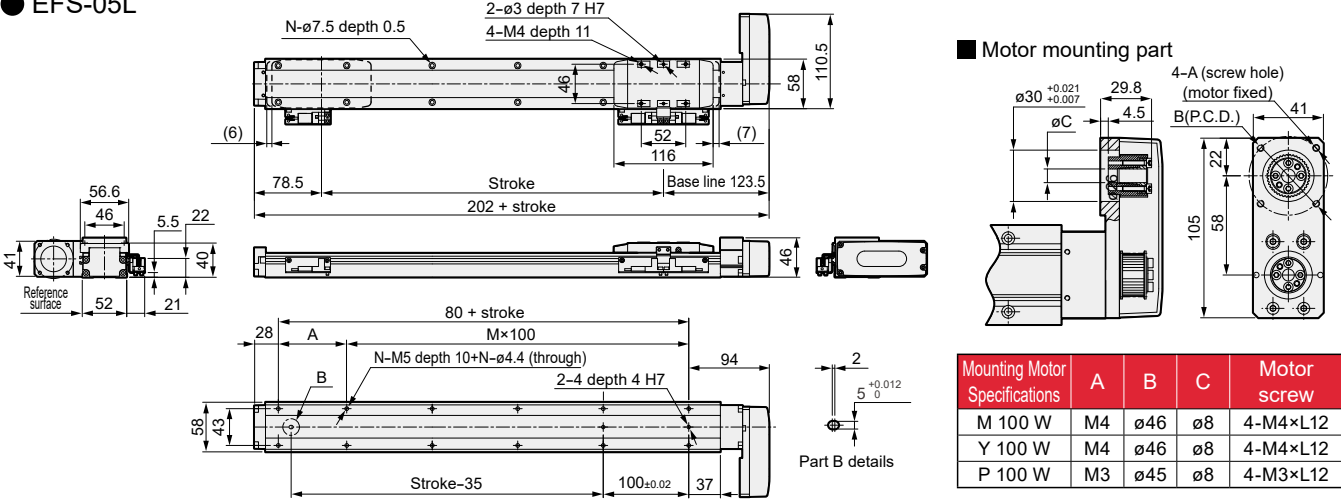
*The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000rpm. The max. speed is restricted by the stroke. Do not move at speeds beyond the limit.

External Dimension Drawings

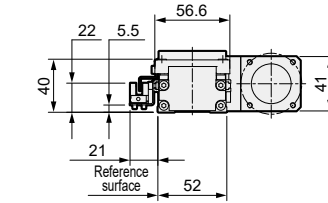
● EFS-05E



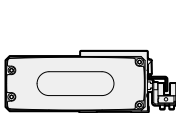
● EFS-05L



● EFS-05R

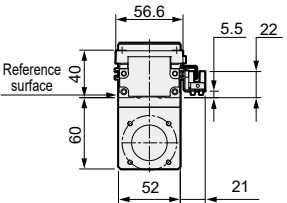


Opposite to motor side

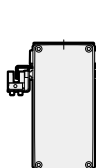


Motor side

● EFS-05D



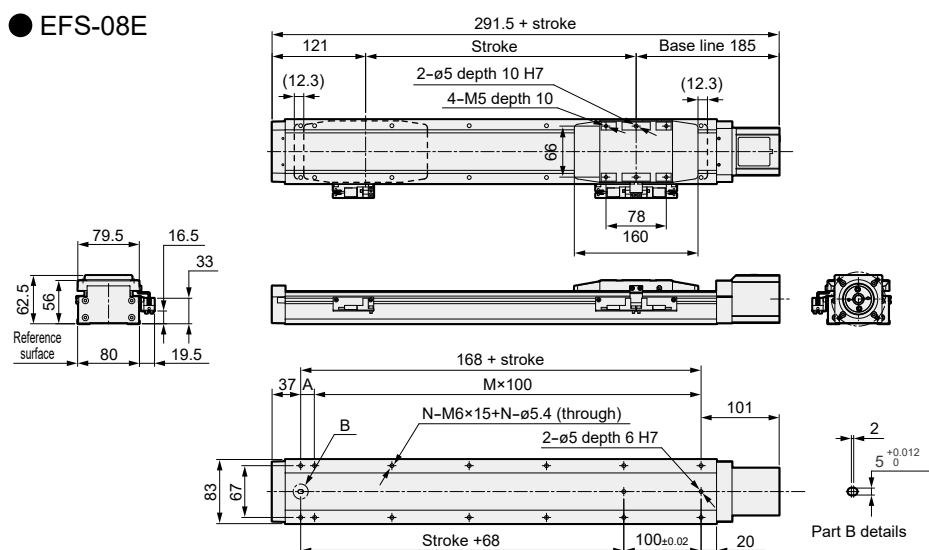
Opposite to motor side



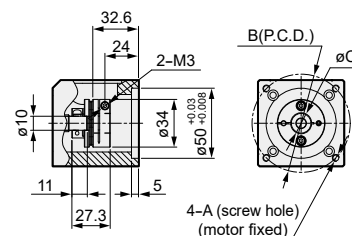
Motor side

External Dimension Drawings

● EFS-08E

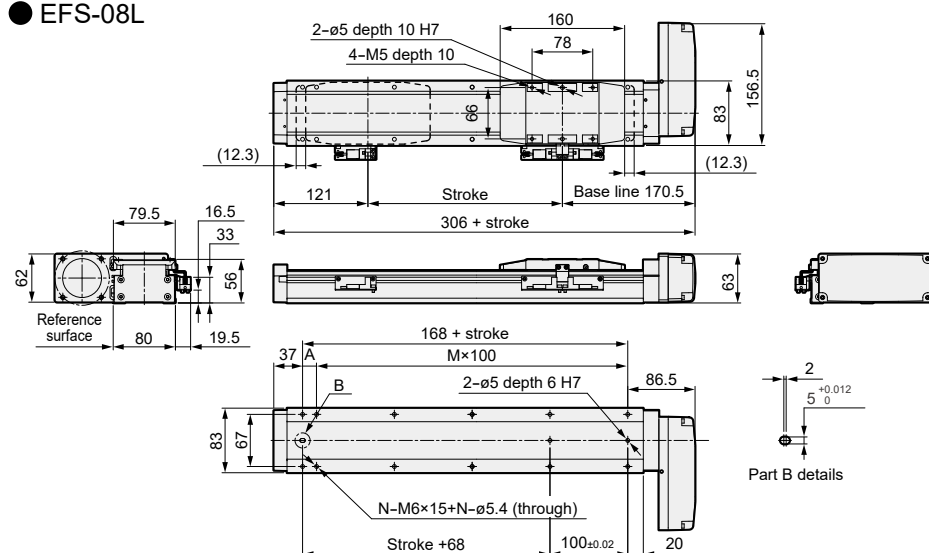


■ Motor mounting part

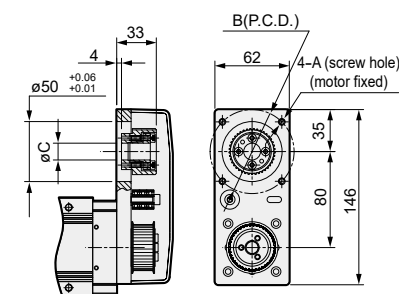


Mounting Motor Specifications	A	B	C	Motor screw
M 200W/400W	M5	ø70	ø14	4-M5×L16
Y 200W/400W	M5	ø70	ø14	4-M5×L16
P 200W/400W	M4	ø70	ø11	4-M4×L16

● EFS-08L



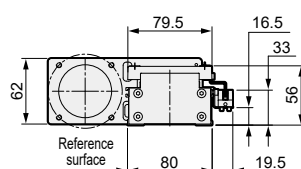
■ Motor mounting part



Mounting Motor Specifications	A	B	C	Motor screw
M 200W/400W	M5	ø70	ø14	4-M5×L16
Y 200W/400W	M5	ø70	ø14	4-M5×L16
P 200W/400W	M4	ø70	ø11	4-M4×L16

Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1,200	1250
A	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18	68	18
M	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14
N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32

● EFS-08R

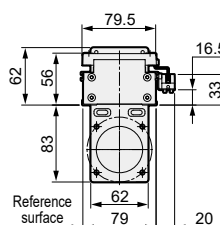


Opposite to motor side

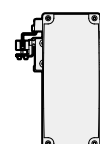


Motor side

● EFS-08D



Opposite to motor side



Motor side

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CKD Corporation

[Website]

<https://www.ckd.co.jp/en/>

Head Office • Plant
Tokyo Office

Osaka Office

Osaka Office

2-250, Oujji, Komaki, Aichi 485-8551
4F, Bunkahousou Media Plus, 1-31-1, Hamamatsu-cho,
Minato-ku, Tokyo 105-0013
6F, PMO EX Shin-Osaka, 4-2-10 Miyahara,
Yodogawa-ku, Osaka 532-0003

TEL(0568)77-1111 FAX(0568)77-1123
TEL(03)5402-3620 FAX(03)5402-0120

TEL(00)0000 0000 FAX(00)0000 0004

TEL(06)6396-9630 FAX(06)6396-9631

TEL(06)6396-9630 FAX(06)6396-9631