



Electric Actuator Motorless General Catalog
Catalog No. CB-055A

Servo motor compatible electric actuator Motorless specification
Slider type (ball screw drive)

ETS-FP1 Series

● Applicable motor capacity: 100W/200W/400W/750W servo motor

Sales of ETS-05 to ETS-12 will be terminated.



Specifications

Item			ETS-05-E/R/D/L				ETS-06-E/R/D/L			
Applicable motor capacity			100 W servo motor							
Drive method			Ball screw ø12							
Ball screw accuracy grade			C7							
Stroke length *1			50 to 800							
Screw lead			2	5	10	2	5	10		
Max.workload	Horizontal	kg	10	10	5	30	30	15		
	Vertical	kg	7	3	1.5	15	10	5		
Max. speed			100	250	500	100	250	500		
Rated thrust *2			N	854	341	170	854	341	170	
Repeatability			mm	±0.01						
Lost motion			mm	0.1 or less						
Dynamic allowable load			N	551			1209			
Static allowable moment			N·m	MP:20 MY:16 MR:19			MP:80 MY:70 MR:75			
Dynamic allowable moment			N·m	MP:2.8 MY:2.8 MR:6.8			MP:8.9 MY:8.9 MR:24.8			
Item			ETS-10-E/B/R/D/L				ETS-12-E/B/R/D/L			
Applicable motor capacity			100 W/200W servo motor							
Drive method			Ball screw ø16							
Ball screw accuracy grade			C7							
Stroke length *1			50 to 1050							
Screw lead			5	10	16	20	5	10	16	20
Max.workload	Horizontal	kg	50	30	22	18	50	30	22	18
	Vertical	kg	12	8	5	3	12	8	5	3
Max. speed			250	500	800	1000	250	500	800	1000
Rated thrust	100 W		341	170	106	85	341	170	106	85
	*2 N 200 W		683	341	213	174	683	341	213	174
Repeatability			mm	±0.01						
Lost motion			mm	0.1 or less						
Dynamic allowable load			N	2651			1660			
Static allowable moment			N·m	MP:110 MY:110 MR:120			MP:150 MY:150 MR:130			
Dynamic allowable moment			N·m	MP:24.1 MY:24.1 MR:24.8			MP:42.3 MY:42.3 MR:53.1			
Item			ETS-13-E/B/R/D/L				ETS-14-E/B/R/D/L			
Applicable motor capacity			200 W/400W servo motor							
Drive method			Ball screw ø16							
Ball screw accuracy grade			C7							
Stroke length *1			50 to 1050							
Screw lead			5	10	16	20	5	10	16	20
Max.workload	Horizontal	200 W	70	47	30	24	95	75	44	35
		400 W	70	47	30	24	110	88	48	40
	Vertical	200 W	17	12	6	4	27	18	7	6
		400 W	17	12	6	4	33	22	10	8
Max. speed			250	500	800	1000	250	500	800	1000
Rated thrust	200 W		683	341	213	174	683	341	213	174
	*2 N 400 W		1388	694	433	347	1388	694	433	347
Repeatability			mm	±0.01						
Lost motion			mm	0.1 or less						
Dynamic allowable load			N	4822			6567			
Static allowable moment			N·m	MP:175 MY:174 MR:153			MP:552.0 MY:551.0 MR:485.0			
Dynamic allowable moment			N·m	MP:45.1 MY:45.1 MR:191.7			MP:262.7 MY:262.7 MR:261.0			
Item			ETS-17-E/B/R/D/L				ETS-22-E/B/R/D/L			
Applicable motor capacity			400 W/750W servo motor				750 W servo motor			
Drive method			Ball screw ø20				Ball screw ø25		ø20	
Ball screw accuracy grade			C7							
Stroke length *1			50 to 1250				50 to 1500			
Screw lead			5	10	20	40	5	10	25	40
Max.workload	Horizontal	400 W	120	110	75	35	-	-	-	-
		750 W	120	120	83	50	150	150	120	60
	Vertical	400 W	40	30	14	7	-	-	-	-
		750 W	50	40	25	10	55	45	20	10
Max. speed			250	500	1000	2000	250	500	1250	2000
Rated thrust	400 W		1388	694	347	174	-	-	-	-
	*2 N 750 W		2100	1050	525	260	2100	1050	420	260
Repeatability			mm	±0.01						
Lost motion			mm	0.1 or less						
Dynamic allowable load			N	10102			14174			
Static allowable moment			N·m	MP:1034.0 MY:1032.0 MR:908.0			MP:2052.0 MY:2052.0 MR:1810.0			
Dynamic allowable moment			N·m	MP:424.3 MY:424.3 MR:520.3			MP:1098.5 MY:1098.5 MR:999.3			

*1 Stroke length is 50 pitch.

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

*3 The same load capacity as when installed horizontally when wall-mounted.

Discontinued some variations

Sales of ETS-05 to ETS-12 will be terminated.

ETS-FP1 Series

How to order

How to order

ETS-06-05040-EM1NCBDP-M-FP1

Model No.

A Body size

B Screw lead

C Stroke

D Motor mounting direction

E Mounted motor specification

F Motor capacity

G Brake

H Origin sensor

I Limit sensor

J Grease nipple

K Positioning pin hole

L Magnet
Slider method

[Example of model No.]

ETS-06-05040-EM1NCBDP-M-FP1

A Body size: body width 65mm

B Screw lead: 5 mm

C Stroke length: 400 mm

D Motor mounting method: straight installation

E Mounted motor specification: Mitsubishi Electric Corporation

F Motor capacity: 100 W

G Brake: None

H Origin sensor: Outside motor side

I Limit sensor: Outside

J grease nipK: None (Body mounting direction: Bottom side)

K Positioning pin hole: Yes

L Magnet slider method: Yes

*1 Select "Yes" only when the motor mounting direction is "built-in mounting".

For other mounting directions, select "None".

*2 Origin sensor and limit sensor are a set.

As it is both-or-nothing, select "None" for both.

The sensor dog is assembled at shipment regardless of the presence of the sensor.

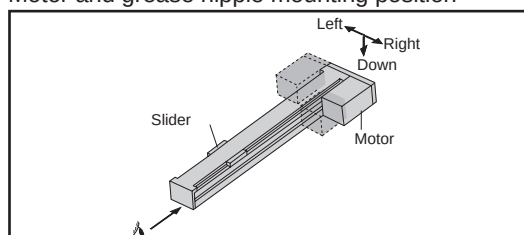
*3 ETS-05/06 uses a magnet slider method.

Other sizes use the standard.

E Mounted motor specification

Manufacturer	100 W	200 W	400 W	750 W
Mitsubishi Electric Corporation	M	M	M	M
Delta Electronics Co., Ltd.	M	M	M	M
Sanyo Denki Co., Ltd.	M	M	M	-
YASKAWA Electric Corporation	Y	Y	Y	Y
Keyence Corporation	Y	Y	Y	Y
Panasonic Corporation	P	P	P	P
OMRON Corporation	M	P	P	P
Fuji Electric Co., Ltd.	M	M	M	M
FANUC CORPORATION	F	F	F	F
Bosch Rexroth Corporation	P	P	P	P
Rockwell Automation, Inc.	M	M	M	M
SIEMENS AG	M	M	M	M

Motor and grease nipple mounting position



For the motor list, dimensions and model selection recommended for mounting, refer to ETS Series servo motor compatibility in "Electric Actuator Motorless (CB-055A)".

Code	Description
A Body size	
05	Body width 51mm
06	Body width 65mm
10	Body width 102mm
12	Body width 102mm
13	Body width 135mm
14	Body width 135mm
17	Body width 170mm
22	Body width 220mm
B Screw lead	
02	2 mm
05	5 mm
10	10 mm
16	16 mm
20	20 mm
25	25 mm
40	40 mm
C Stroke	
005	50 mm
to	(In 50 mm increments)
150	1500 mm
D Motor mounting direction *1	
E	Straight mounting
B	Built-in mounting
R	Right mounting
D	Bottom mounting
L	Left mounting
E Mounted motor specification	
M	
Y	Select the mounted motor specification from the table below.
P	
F	
F Motor capacity	
1	100 W (body size: 05, 06, 10, 12)
2	200 W (body size: 10, 12, 13, 14)
4	400 W (body size: 13, 14, 17)
8	750 W (body size: 17, 22)
G Brake *1	
N	None
B	Yes
H Origin sensor (1 pc) *2	
N	None
A	Inside motor side
B	Inside opposite motor side
C	Outside motor side(Included at shipment)
D	Outside motor opposite side (Included at shipment)
I Limit sensor (2 pcs) *2	
N	None
A	Inside
B	Outside (Included at shipment)
J Grease nipple	
N	None (Body mounting direction: Standard)
D	None (Body mounting direction: Bottom side)
R	Right
L	Counterclockwise
K Positioning pin hole	
N	None
P	Yes
L Magnet slider method *3	
Blank	Standard
M	Adoption

Electric actuator	Pneumatic cylinders	Assistive device	Pneumatic valves	FR/L Auxiliary Components Electronic Component	Vacuum components	Main line components	Fluid control valves	Main line components	Anti-bacterial/bacteria-removing filter	Vacuum components	Fluid control valves



Electric Actuator Motorless General
Catalog No. CB-055A

Stepper motor, compatible electric actuator, Motorless specifications
Slider type (ball screw drive)

ETS-FP1 Series

● Applicable motor sizes: □42/□56 /□60 Stepper motor

Sales of ETS-05 to ETS-12 will be terminated.



Specifications

Item		ETS-05-E/R/D/L				ETS-06-E/R/D/L			
Applicable motor sizes		☐ 42 Stepper motor							
Drive method		Ball screw ø12							
Ball screw accuracy grade		C7							
Stroke length *1 mm		50 to 800							
Screw lead mm		2	5	10	2	5	10		
Max.workload *2	Horizontal kg	10	10	5	30	30	15		
	Vertical kg	7	3	1.5	15	10	5		
Max. speed *3 mm/s		100	250	500	100	250	500		
Rated thrust *2 N		854	341	170	427	171	85		
Repeatability mm		±0.01							
Lost motion mm		0.1 or less							
Dynamic allowable load N		551				1209			
Static allowable moment N·m		MP:20 MY:16 MR:19				MP:80 MY:70 MR:75			
Dynamic allowable moment N·m		MP:2.8 MY:2.8 MR:6.8				MP:8.9 MY:8.9 MR:24.8			
Item		ETS-10-E/R/D/L				ETS-12-E/R/D/L			
Applicable motor sizes		☐ 56, ☐ 60 Stepping motor							
Drive method		Ball screw ø16							
Ball screw accuracy grade		C7							
Stroke length *1 mm		50 to 1050							
Screw lead mm		5	10	16	20	5	10	16	20
Max.workload *2	Horizontal kg	50	30	22	18	50	30	22	18
	Vertical kg	12	8	5	3	12	8	5	3
Max. speed *3 mm/s		250	500	800	1000	250	500	800	1000
Rated thrust *2 N		683	341	213	174	683	341	213	174
Repeatability mm		±0.01							
Lost motion mm		0.1 or less							
Dynamic allowable load N		2651				1660			
Static allowable moment N·m		MP:110 MY:110 MR:120				MP:150 MY:150 MR:130			
Dynamic allowable moment N·m		MP:24.1 MY:24.1 MR:24.8				MP:42.3 MY:42.3 MR:53.1			
Item		ETS-13-E/R/D/L				ETS-14-E/R/D/L			
Applicable motor sizes		☐ 56, ☐ 60 Stepping motor							
Drive method		Ball screw ø16							
Ball screw accuracy grade		C7							
Stroke length *1 mm		50 to 1050							
Screw lead mm		5	10	16	20	5	10	16	20
Max.workload *2	Horizontal kg	70	47	30	24	110	88	48	40
	Vertical kg	17	12	6	4	33	22	10	8
Max. speed *3 mm/s		250	500	800	1000	250	500	800	1000
Rated thrust *2 N		1388	694	433	347	1388	694	433	347
Repeatability mm		±0.01							
Lost motion mm		0.1 or less							
Dynamic allowable load N		4822				6567			
Static allowable moment N·m		MP:175 MY:174 MR:153				MP:552.0 MY:551.0 MR:485.0			
Dynamic allowable moment N·m		MP:45.1 MY:45.1 MR:191.7				MP:262.7 MY:262.7 MR:261.0			

*1 Stroke length is 50 pitch.

*2 The rated thrust and maximum load capacity are the allowable values of the actuator body. The actual thrust and load capacity may be limited by the motor used.

*3 The max. speed is the speed when the motor mounted by the customer can output a rotation speed of 3000rpm.

*4 The same load capacity as when mounted horizontally for wall mounting.

Discontinued some variations

Sales of ETS-05 to ETS-12 will be terminated.

ETS-FP1 Series

How to order

How to order

ETS-06-05-040-EAANCBDP-M-FP1

Model No.

A Body size

B Screw lead

C Stroke

D Motor mounting direction

E Mounted motor specification

F Motor size

G Brake

H Origin sensor

I Limit sensor

J Grease nipple

K Positioning pin hole

L Magnet slider method

[Example of model No.]

ETS-06-05040-EAANCBDP-M-FP1

- A Body size: body width 65mm
- B Screw lead: 5 mm
- C Stroke length: 400 mm
- D Motor mounting method: straight installation
- E Mounted motor specification: Oriental Motor Co., Ltd.
- F Motor size: □42
- G Brake: None
- H Origin sensor: Outside motor side
- I Limit sensor: Outside
- J grease nipK: None (Body mounting direction: Bottom side)
- K Positioning pin hole: Yes
- L Magnet slider method: Yes

*1 Origin sensor and limit sensor are a set.

As it is both-or-nothing, select "None" for both.

The sensor dog is assembled at shipment regardless of the presence of the sensor.

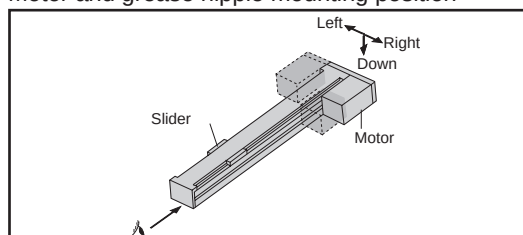
*2 ETS-05/06 uses a magnet slider method.

Other sizes use the standard.

E Mounted motor specification

Manufacturer	□42	□56	□60
Oriental Motor Co., Ltd.	A	-	A
MinebeaMitsumi Incorporated	B	B	-
Dyadic Systems Co.,Ltd.	B	C	-

Motor and grease nipple mounting position



Code	Description
A Body size	
05	Body width 51mm
06	Body width 65mm
10	Body width 102mm
12	Body width 102mm
13	Body width 135mm
14	Body width 135mm
B Screw lead	
02	2 mm
05	5 mm
10	10 mm
16	16 mm
20	20 mm
C Stroke	
005 to 105	50 mm (In 50 mm increments) 1050 mm
D Motor mounting direction	
E	Straight mounting
R	Right mounting
D	Bottom mounting
L	Left mounting
E Mounted motor specification	
A	Select the mounted motor
B	specification from the table below.
C	
F Motor size	
A	□42 (body size: 05, 06)
B	□56 (Body size: 10, 12, 13, 14)
C	□62 (Body size: 10, 12, 13, 14)
G Brake	
N	None
B	Yes
H Origin sensor (1 pc) *1	
N	None
A	Inside motor side
B	Inside opposite motor side
C	Outside motor side(Included at shipment)
D	Outside motor opposite side(Included at shipment)
I Limit sensor (2 pcs) *1	
N	None
A	Inside
B	Outside (Included at shipment)
J Grease nipple	
N	None (Body mounting direction: Standard)
D	None (Body mounting direction: Bottom side)
R	Right
L	Counterclockwise
K Positioning pin hole	
N	None
P	Yes
L Magnet slider method *2	
Blank	Standard
M	Adoption

For the motor list, dimensions and model selection recommended for mounting, refer to the ETS Series stepping motor compatibility in "Electric Actuator Motorless (CB-055A)".