ABFS03

Basic model **Single-axis robots**
Low-profile type

Ordering method

Model	Lead	Shape	Motor specification	Stroke	Note 1 Cable length	Cable entry location	Robot positioner	Driver: Power capacity	I/O	Battery Note 2
ABFS03	8: 8mm 4: 4mm 2: 2mm	S: Straight R: Right attachment L: Left attachment	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/ With no brake BKL: Battery-less absolute/ With brake	50 to 300 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

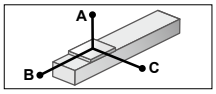
Note 1. The robot cable is flexible and resists bending.
Note 2. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

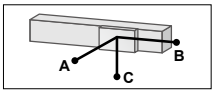
Specifications

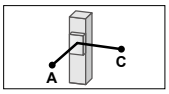
AC servo motor output		50 W		
Repeatability Note 1		±0.005 mm		
Deceleration mechanism		Rolled ball screw ϕ6 (C7 class)		
Stroke		50 mm to 300 mm (50 mm pitch)		
Maximum speed Note 2		480 mm/sec	240 mm/sec	100 mm/sec
Ball screw lead		8 mm	4 mm	2 mm
Maximum payload	**Horizontal**	10 kg	10 kg	13 kg
	Vertical	2 kg	4 kg	5 kg
Rated Thrust		88 N	143 N	352 N
Dinamic loading moment (MY,MP,MR)		8.1 / 8.1 / 9.3		
Maximum dimensions of cross section of main unit		W 42.2 mm × H 30 mm		
Overall length	**Straight**	ST + 220.5 mm		
	Bending	ST + 143 mm		
Degree of Cleanliness Note 3		Equivalent to ISO Class 4 (ISO 14644-1)		
Intake air Note 4		50 Nℓ/ min~		
Position detector		Absolute encoder Battery-less absolute encoder		
Resolution		23 bits		
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (no condensation)		

Note 1. Positioning repeatability in one direction. ±0.01 for the Bending configuration.
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
Note 3. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
Note 4. The required suction amount will vary according to the operating conditions and operating environment.

Allowable overhang Note







ABFS03-8

Horizontal installation (Unit: mm)

	A	B	C
4kg	785	113	116
7kg	492	60	61
10kg	360	38	39

Wall installation (Unit: mm)

	A	B	C
4kg	116	113	785
7kg	61	60	492
10kg	39	38	360

Vertical installation (Unit: mm)

	A	C
1kg	493	493
2kg	248	248

ABFS03-4

Horizontal installation (Unit: mm)

	A	B	C
4kg	1877	128	141
7kg	1202	68	75
10kg	912	44	49

Wall installation (Unit: mm)

	A	B	C
4kg	141	128	1877
7kg	75	68	1202
10kg	49	44	912

Vertical installation (Unit: mm)

	A	C
2kg	279	279
4kg	140	140

ABFS03-2

Horizontal installation (Unit: mm)

	A	B	C
5kg	4769	126	142
9kg	3117	65	73
13kg	2415	41	46

Wall installation (Unit: mm)

	A	B	C
5kg	142	126	4769
9kg	73	65	3117
13kg	46	41	2415

Vertical installation (Unit: mm)

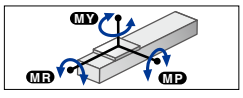
	A	C
3kg	230	230
5kg	138	138

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
Note. Service life is calculated for 300 mm stroke models.

Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

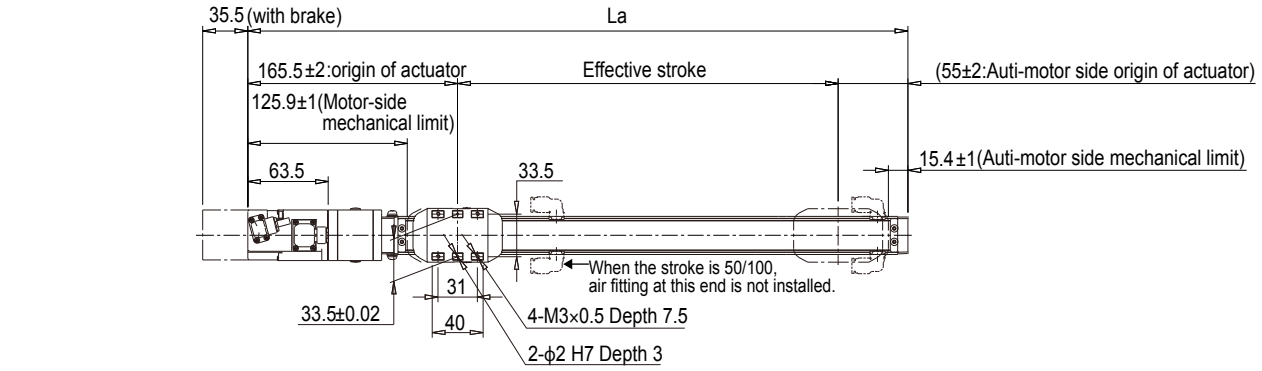
Static loading moment

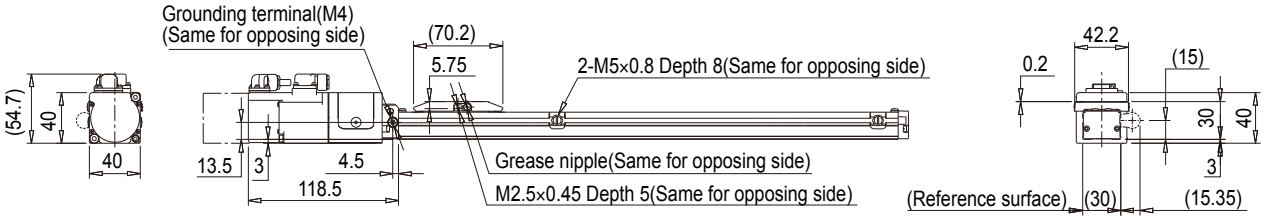


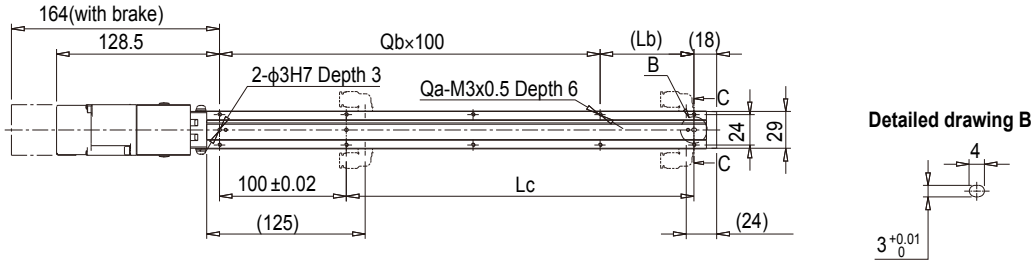
(Unit: N·m)

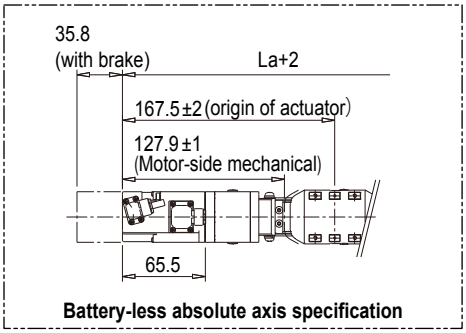
MY	MP	MR
13	13	15

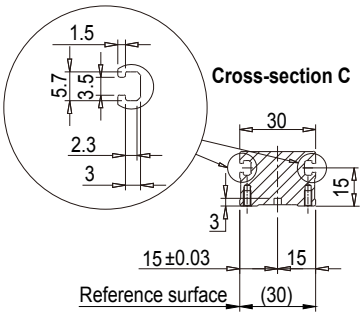
ABFS03 Straight type (S)











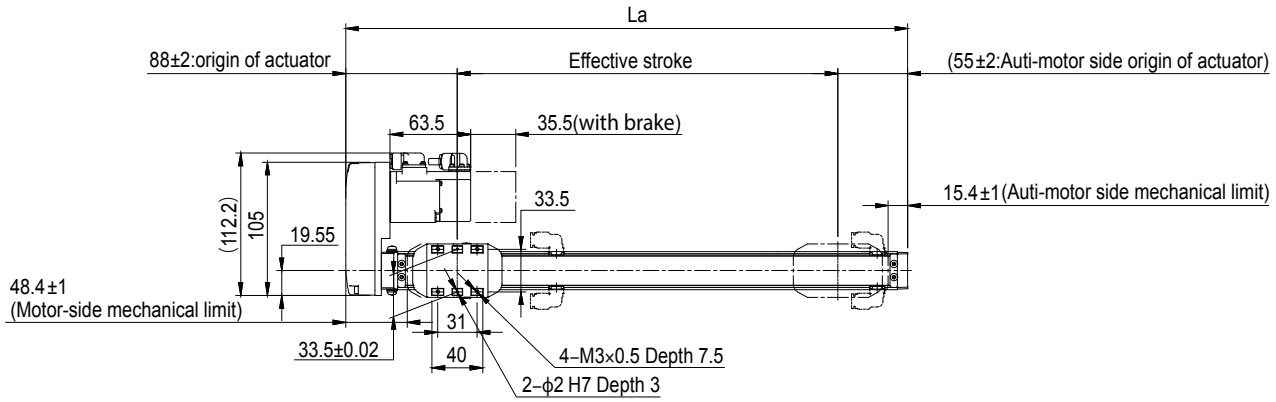
Note 1.Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. In the installation tap hole, the length under head <<thickness of stand +6mm or less>> is recommended for the hex socket head bolts <M3×0.5> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300
La		270.5	320.5	370.5	420.5	470.5	520.5
Lb		24	74	24	74	24	74
Lc		24	74	124	174	224	274
Qa		6	6	8	8	10	10
Qb		1	1	2	2	3	3
Weight (kg) Note 1		0.69	0.75	0.82	0.88	0.95	1.01
Maximum speed (mm/sec)	Lead 8	480					
	Speed setting	-					
	Lead 4	240					
	Speed setting	-					
	Lead 2	100					
	Speed setting	-					

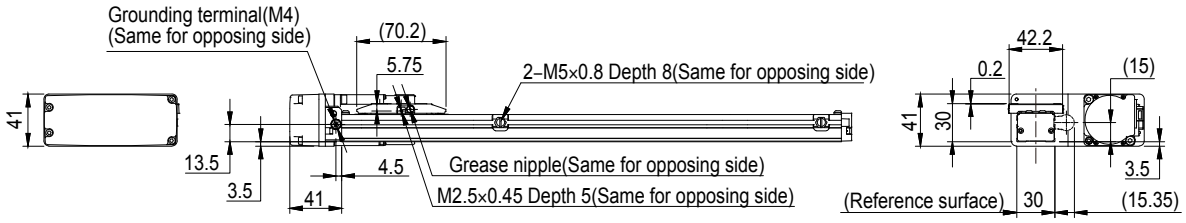
Controller EP-01 ▶ 582

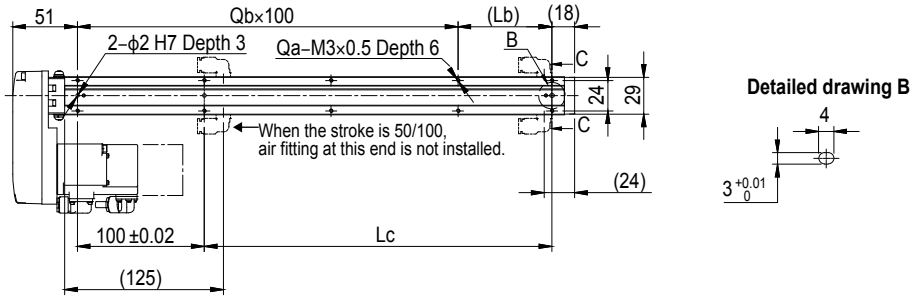
ABFS03

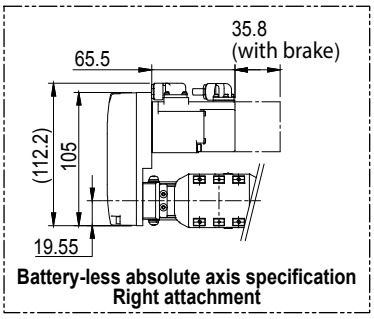
ABFS03 Bending type (R/L)



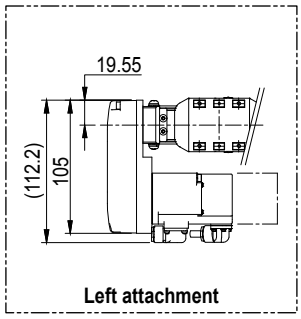
Right attachment



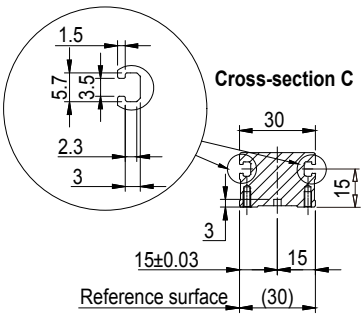




Battery-less absolute axis specification
Right attachment



Left attachment



Note 1.Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. In the installation tap hole, the length under head <<thickness of stand +6mm or less>> is recommended for the hex socket head bolts <M3×0.5> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300
La		193	243	293	343	393	443
Lb		24	74	24	74	24	74
Lc		24	74	124	174	224	274
Qa		6	6	8	8	10	10
Qb		1	1	2	2	3	3
Weight (kg) Note 1		0.91	0.96	1.01	1.06	1.11	1.16
Maximum speed (mm/sec)	Lead 8	480					
	Speed setting	-					
	Lead 4	240					
	Speed setting	-					
	Lead 2	100					
	Speed setting	-					

ABFS04

Basic model | Single-axis robots | Low-profile type

Ordering method

Model	Lead	Shape	Motor specification	Stroke	Cable length [Note 1]	Cable entry location	Robot positioner	Driver: Power capacity	I/O	Battery [Note 2]
ABFS04	12: 12mm 6: 6mm 2: 2mm	S: Straight R: Right attachment L: Left attachment	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/ With no brake BKL: Battery-less absolute/ With brake	50 to 500 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

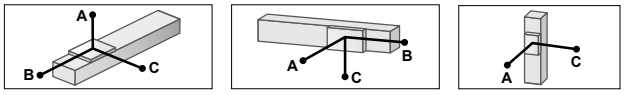
Note 1. The robot cable is flexible and resists bending.
Note 2. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Specifications

AC servo motor output		50 W		
Repeatability [Note 1]		±0.005 mm		
Deceleration mechanism		Rolled ball screw ϕ 10 (C7 class)		
Stroke		50 mm to 500 mm (50 mm pitch)		
Maximum speed [Note 2]		720 mm/sec	360 mm/sec	120 mm/sec
Ball screw lead		12 mm	6 mm	2 mm
Maximum payload	Horizontal	12 kg	20 kg	25 kg
	Vertical	3 kg	5 kg	8 kg
Rated Thrust		71 N	141 N	424 N
Dinamic loading moment (MY,MP,MR)		17.2 / 17.2 / 23.3		
Maximum dimensions of cross section of main unit		W 49.7 mm × H 40 mm		
Overall length	Straight	ST + 284 mm		
	Bending	ST + 204 mm		
Degree of Cleanliness [Note 3]		Equivalent to ISO Class 4 (ISO 14644-1)		
Intake air [Note 4]		80 Nℓ/ min~		
Position detector		Absolute encoder Battery-less absolute encoder		
Resolution		23 bits		
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (no condensation)		

Note 1. Positioning repeatability in one direction. ±0.01 for the Bending configuration.
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed.
Note 3. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
Note 4. The required suction amount will vary according to the operating conditions and operating environment.

Allowable overhang [Note]



ABFS04-12

Horizontal installation (Unit: mm)

	A	B	C
4kg	896	228	259
8kg	596	107	125
12kg	465	67	78

Wall installation (Unit: mm)

	A	B	C
4kg	256	228	864
8kg	130	107	691
12kg	84	67	619

Vertical installation (Unit: mm)

	A	C
1kg	913	913
3kg	316	316

ABFS04-6

Horizontal installation (Unit: mm)

	A	B	C
5kg	1867	209	272
10kg	1181	98	127
20kg	748	42	55

Wall installation (Unit: mm)

	A	B	C
5kg	272	209	1867
10kg	127	98	1181
20kg	55	42	748

Vertical installation (Unit: mm)

	A	C
3kg	369	369
5kg	222	222

ABFS04-2

Horizontal installation (Unit: mm)

	A	B	C
10kg	4004	128	172
18kg	2635	65	87
25kg	2088	43	58

Wall installation (Unit: mm)

	A	B	C
10kg	172	128	4004
18kg	87	65	2635
25kg	58	43	2088

Vertical installation (Unit: mm)

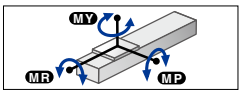
	A	C
4kg	354	354
8kg	177	177

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
Note. Service life is calculated for 500 mm stroke models.

Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

Static loading moment



(Unit: N·m)

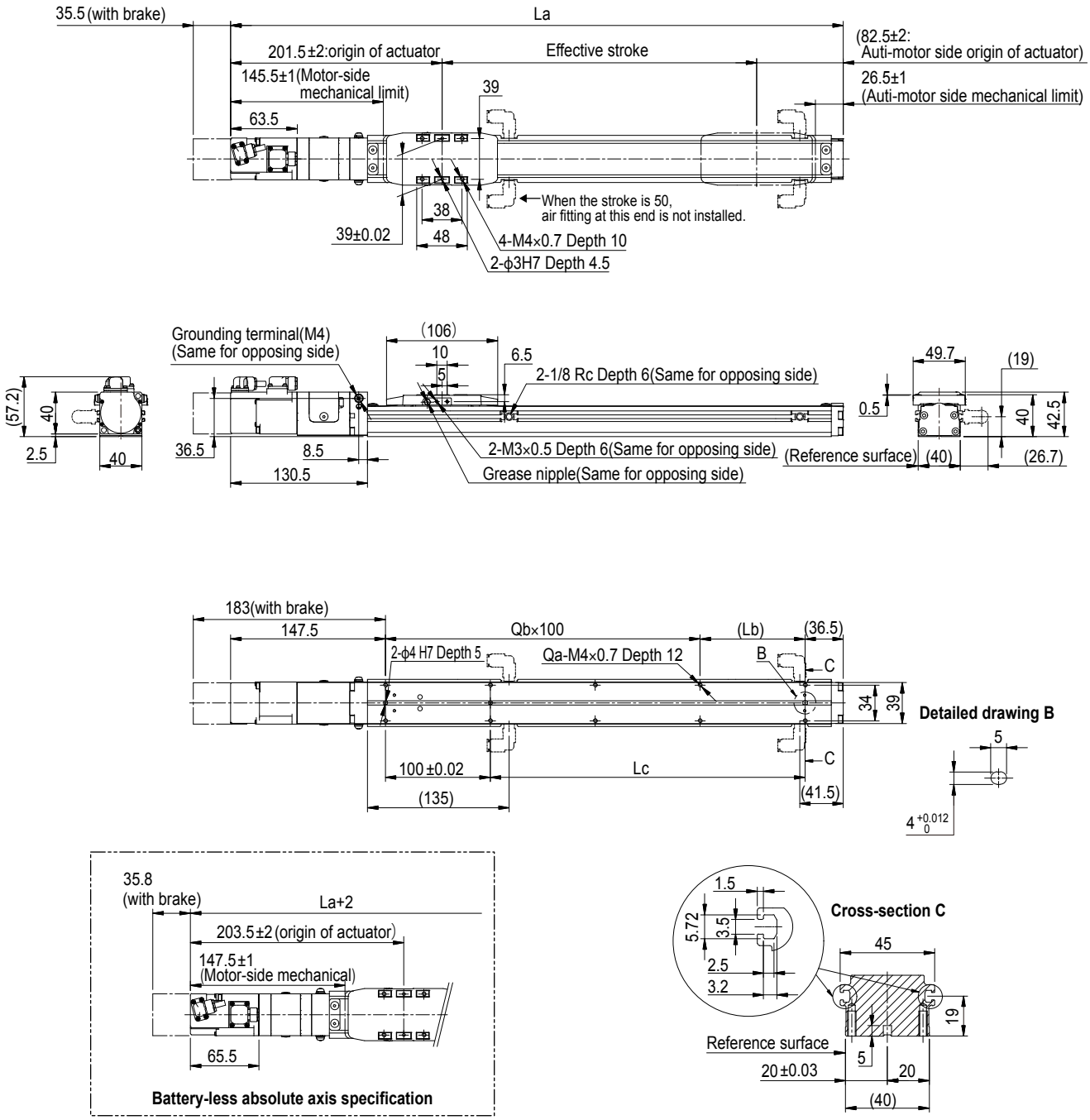
MY	MP	MR
47	47	64

YAMAHA ▶ The cycle time simulation and service life calculation can be performed easily from our member site.

Controller EP-01 ▶ 582

ABFS04

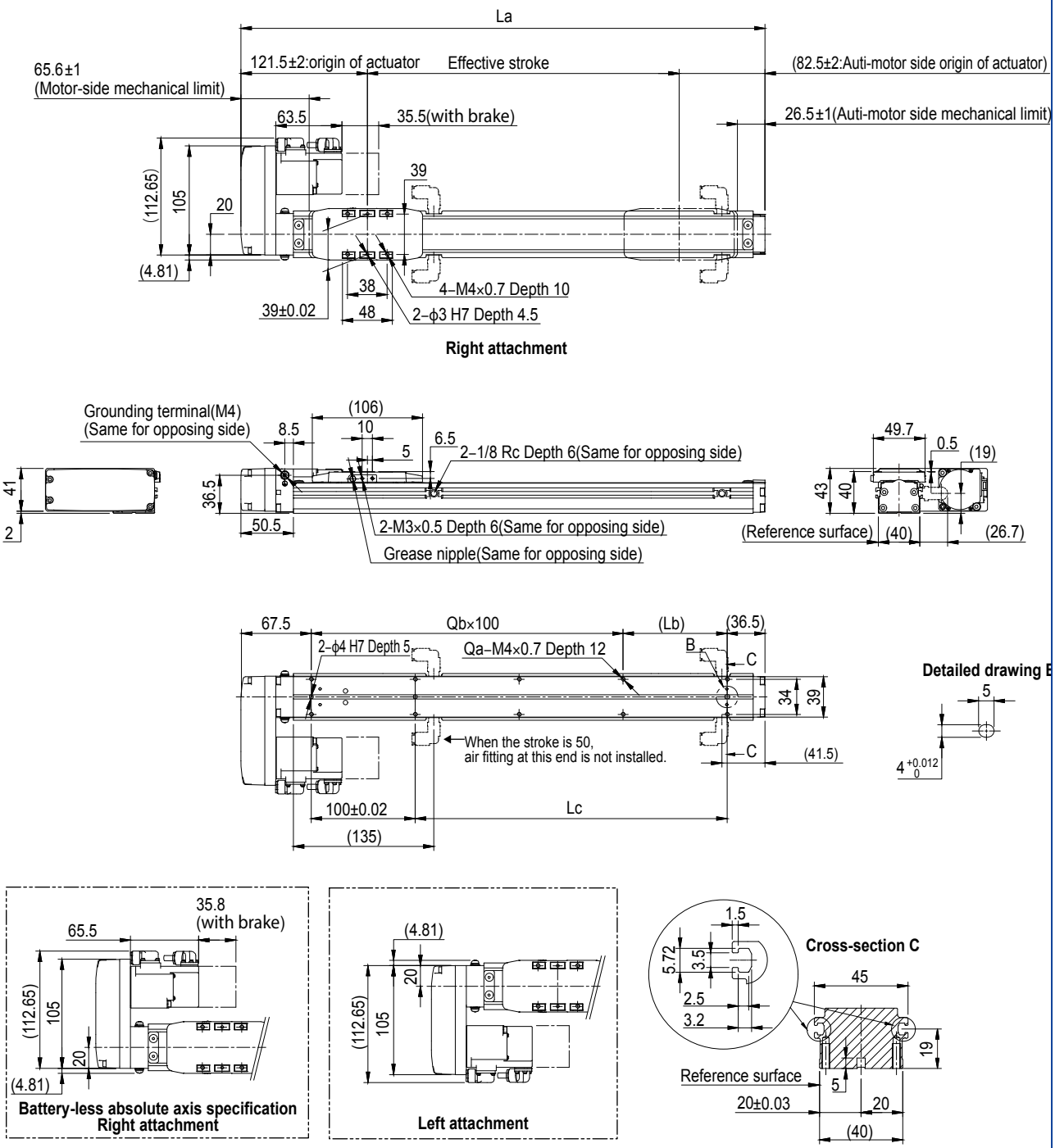
ABFS04 Straight type (S)



Note 1.Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. In the installation tap hole, the length under head <<thickness of stand +12mm or less>> is recommended for the hex socket head bolts <M4×0.7> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500
La		334	384	434	484	534	584	634	684	734	784
Lb		50	100	50	100	50	100	50	100	50	100
Lc		50	100	150	200	250	300	350	400	450	500
Qa		6	6	8	8	10	10	12	12	14	14
Qb		1	1	2	2	3	3	4	4	5	5
Weight (kg) Note 1		1.29	1.4	1.52	1.64	1.76	1.89	1.99	2.11	2.23	2.35
Maximum speed (mm/sec)	Lead 12	720									
	Speed setting	-									
	Lead 6	360									
	Speed setting	-									
	Lead 2	120									
	Speed setting	-									

ABFS04 Bending type (R/L)



Note 1.Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. In the installation tap hole, the length under head <<thickness of stand +12mm or less>> is recommended for the hex socket head bolts <M4×0.7> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500
La		254	304	354	404	454	504	554	604	654	704
Lb		50	100	50	100	50	100	50	100	50	100
Lc		50	100	150	200	250	300	350	400	450	500
Qa		6	6	8	8	10	10	12	12	14	14
Qb		1	1	2	2	3	3	4	4	5	5
Weight (kg) Note 1		1.42	1.53	1.64	1.75	1.86	1.97	2.08	2.19	2.3	2.42
Maximum speed (mm/sec)	Lead 12	720									
	Speed setting	-									
	Lead 6	360									
	Speed setting	-									
	Lead 2	120									
	Speed setting	-									

ABFS05

Basic model **Single-axis robots**

Low-profile type

Ordering method

Model	Lead	Shape	Motor specification	Stroke	Cable length Note 1	Cable entry location	Robot positioner	Driver: Power capacity	I/O	Battery Note 2
ABFS05	20: 20mm 12: 12mm 6: 6mm 2: 2mm	S: Straight R: Right attachment L: Left attachment	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/ With no brake BKL: Battery-less absolute/ With brake	50 to 800 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

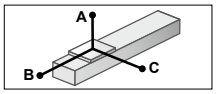
Note 1. The robot cable is flexible and resists bending.
Note 2. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

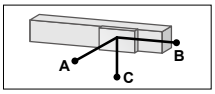
Specifications

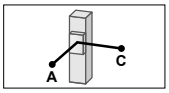
AC servo motor output		100 W			
Repeatability Note 1		±0.005 mm			
Deceleration mechanism		Rolled ball screw ϕ 10 (C7 class)			
Stroke		50 mm to 800 mm (50 mm pitch)			
Maximum speed Note 2		1200 mm/sec	800 mm/sec	400 mm/sec	120 mm/sec
Ball screw lead		20 mm	12 mm	6 mm	2 mm
Maximum payload	Horizontal	10 kg	22 kg	25 kg	30 kg
	Vertical	3 kg	4 kg	6 kg	10 kg
Rated Thrust		85 N	142 N	285 N	854 N
Dinamic loading moment (MY,MP,MR)		24.6 / 24.6 / 39.4			
Maximum dimensions of cross section of main unit		W 58 mm × H 40 mm			
Overall length	Straight	ST + 288.5 mm			
	Bending	ST + 195 mm			
Degree of Cleanliness Note 3		Equivalent to ISO Class 4 (ISO 14644-1)			
Intake air Note 4		80 Nℓ/ min~			
Position detector		Absolute encoder Battery-less absolute encoder			
Resolution		23 bits			
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (no condensation)			

Note 1. Positioning repeatability in one direction. ±0.01 for the Bending configuration.
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds (A) mm, the ball screw may resonate. (Critical speed) (A):700 mm for lead 20; 600 mm for lead 2, 6, and 12.
Note 3. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
Note 4.The required suction amount will vary according to the operating conditions and operating environment.

Allowable overhang Note







ABFS05-20

Horizontal installation (Unit: mm)

	A	B	C
3kg	637	348	330
6kg	330	165	161
10kg	234	92	95

Wall installation (Unit: mm)

	A	B	C
3kg	330	348	637
6kg	161	165	330
10kg	95	92	234

Vertical installation (Unit: mm)

	A	C
1kg	941	941
3kg	327	327

ABFS05-12

Horizontal installation (Unit: mm)

	A	B	C
8kg	511	151	186
15kg	353	73	93
22kg	268	44	57

Wall installation (Unit: mm)

	A	B	C
8kg	186	151	511
15kg	93	73	353
22kg	57	44	268

Vertical installation (Unit: mm)

	A	C
2kg	640	640
4kg	322	322

ABFS05-6

Horizontal installation (Unit: mm)

	A	B	C
10kg	1178	140	208
15kg	830	88	130
25kg	566	46	68

Wall installation (Unit: mm)

	A	B	C
10kg	208	140	1178
15kg	130	88	830
25kg	68	46	566

Vertical installation (Unit: mm)

	A	C
3kg	520	520
6kg	260	260

ABFS05-2

Horizontal installation (Unit: mm)

	A	B	C
10kg	9257	186	293
20kg	6043	84	133
30kg	4746	50	79

Wall installation (Unit: mm)

	A	B	C
10kg	293	186	9257
20kg	133	84	6043
30kg	79	50	4746

Vertical installation (Unit: mm)

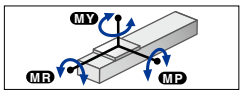
	A	C
5kg	406	406
10kg	203	203

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
Note. Service life is calculated for 500 mm stroke models.

Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

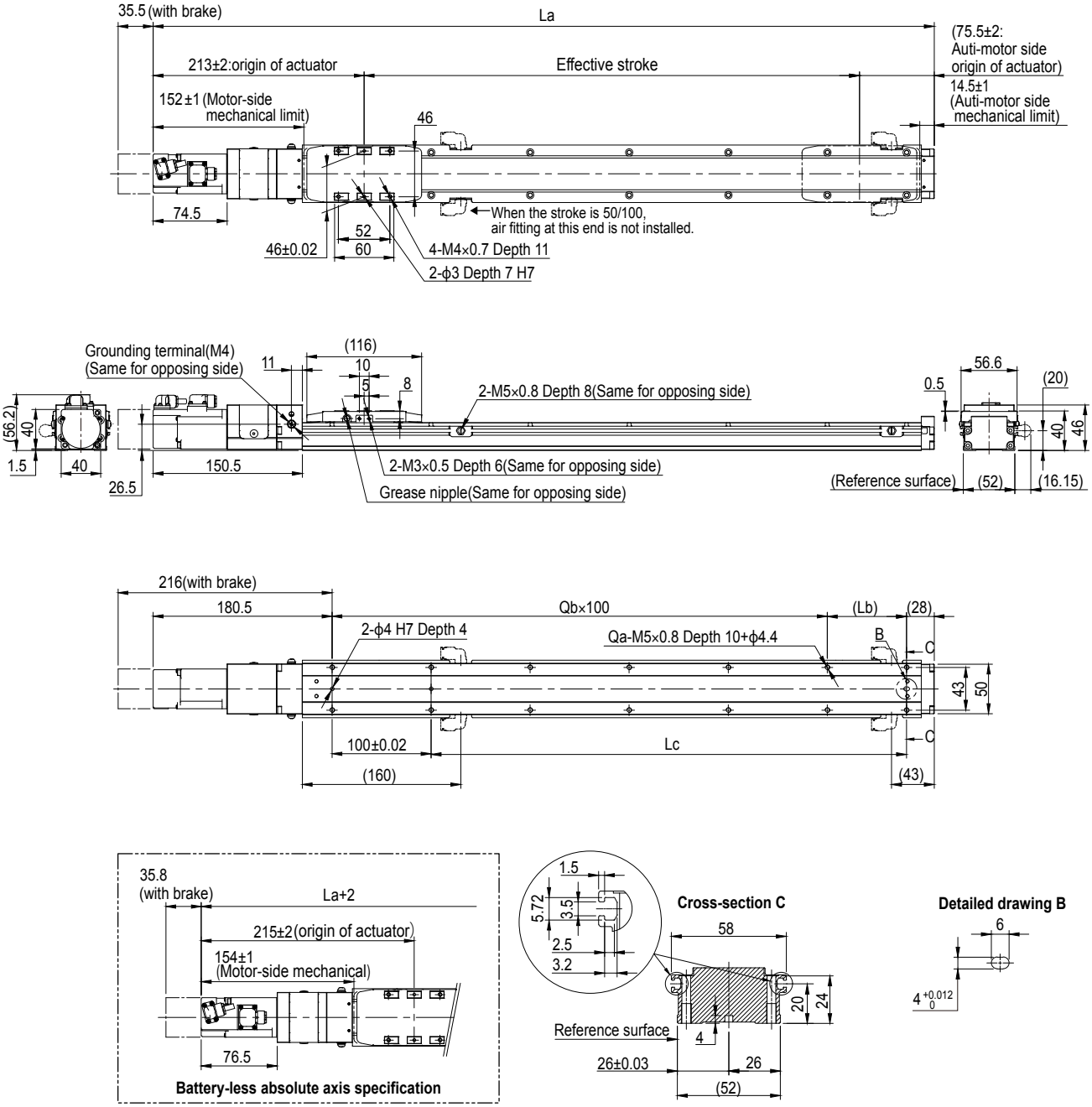
Static loading moment



(Unit: N·m)

MY	MP	MR
73	73	115

ABFS05 Straight type (S)

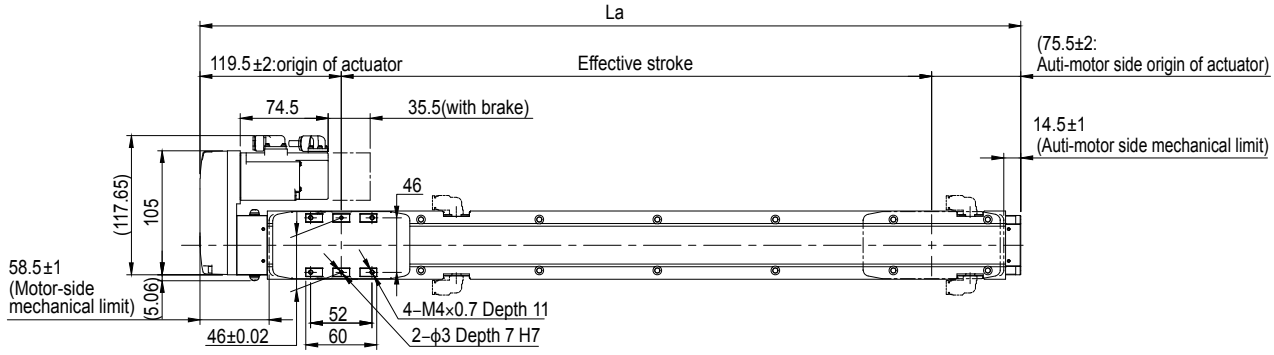


Note 1.Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<35mm or more >> is recommended for the hex socket head bolts <M4×0.7>. In the installation tap hole, the length under head <<thickness of stand +10mm or less>> is recommended for the hex socket head bolts <M5×0.8> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

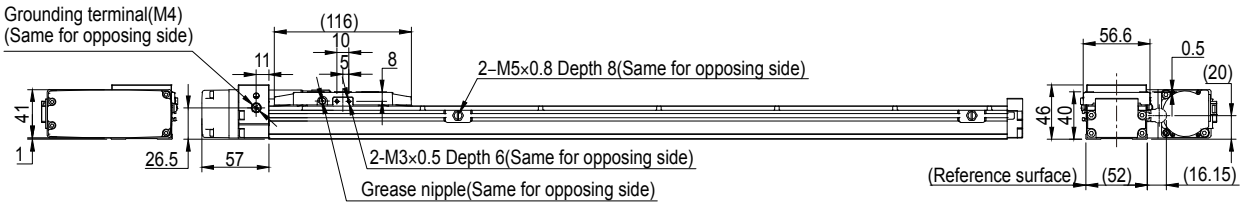
Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La		338.5	388.5	438.5	488.5	538.5	588.5	638.5	688.5	738.5	788.5	838.5	888.5	938.5	988.5	1038.5	1088.5
Lb		30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80
Lc		30	80	130	180	230	280	330	380	430	480	530	580	630	680	730	780
Qa		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
Qb		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
Weight (kg) Note 1		1.33	1.57	1.82	2.06	2.30	2.55	2.79	3.03	3.28	3.52	3.76	4.00	4.25	4.49	4.73	4.98
Maximum speed (mm/sec)	Lead 20	1200													780	720	600
	Speed setting	-													65%	60%	50%
	Lead 12	800											680	560	480	400	360
	Speed setting	-											85%	70%	60%	50%	45%
	Lead 6	400											340	280	240	200	180
	Speed setting	-											85%	70%	60%	50%	45%
	Lead 2	120											102	90	78	66	60
	Speed setting	-											85%	75%	65%	55%	50%

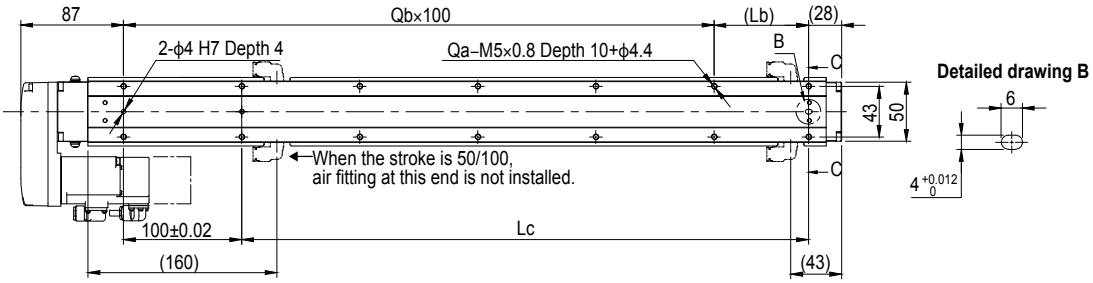
Controller EP-01 ▶ 582

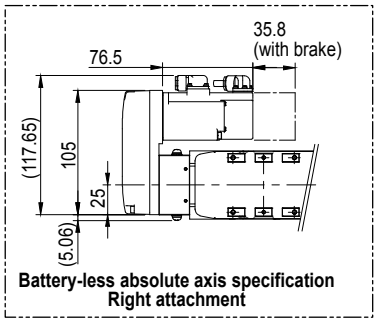
ABFS05 Bending type (R/L)



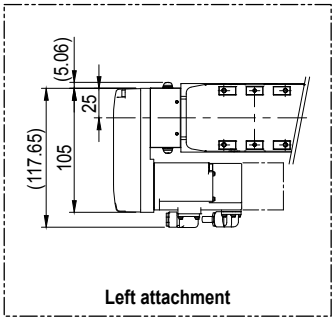
Right attachment



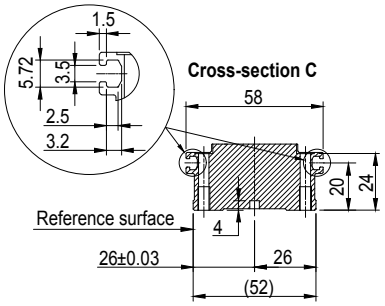




Battery-less absolute axis specification
Right attachment



Left attachment



Note 1.Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<35mm or more >> is recommended for the hex socket head bolts <M4×0.7>. In the installation tap hole, the length under head <<thickness of stand +10mm or less>> is recommended for the hex socket head bolts <M5×0.8> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La		245	295	345	395	445	495	545	595	645	695	745	795	845	895	945	995
Lb		30	80	30	80	30	80	30	80	30	80	30	80	30	80	30	80
Lc		30	80	130	180	230	280	330	380	430	480	530	580	630	680	730	780
Qa		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
Qb		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
Weight (kg) Note 1		1.24	1.41	1.57	1.74	1.91	2.08	2.24	2.41	2.58	2.75	2.91	3.08	3.25	3.42	3.58	3.75
Maximum speed (mm/sec)	Lead 20	1200													780	720	600
	Speed setting	-													65%	60%	50%
	Lead 12	800											680	560	480	400	360
	Speed setting	-											85%	70%	60%	50%	45%
	Lead 6	400											340	280	240	200	180
	Speed setting	-											85%	70%	60%	50%	45%
	Lead 2	120											102	90	78	66	60
	Speed setting	-											85%	75%	65%	55%	50%

ABFS06

Basic model | Single-axis robots | Low-profile type

Ordering method

EP-01

本体	Lead	Shape	Motor specification	Stroke	Cable length Note 1	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit Note 2	I/O	Battery Note 3
ABFS06	20: 20 mm 12: 12 mm 6: 6 mm	S: Straight R: Right attachment L: Left attachment	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/ With no brake BKL: Battery-less absolute/ With brake	50 to 800 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

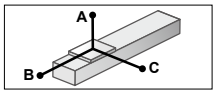
Note 1. The robot cable is flexible and resists bending.
Note 2. When the actuator is used vertically, ①lead 12 is selected, and the stroke is 250 mm or more ②lead 6 is selected, and the stroke is 200mm or more, the regenerative unit is needed. When the actuator is used horizontally, lead 20 is selected, and the stroke is 550 to 650 mm, the regenerative unit is needed.
Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

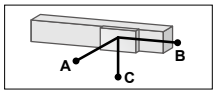
Specifications

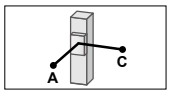
AC servo motor output		100 W		
Repeatability Note 1		±0.005 mm		
Deceleration mechanism		Rolled ball screw ϕ 10 (C7 class)		
Stroke		50 mm to 800 mm (50 mm pitch)		
Maximum speed Note 2		1333 mm/sec	800 mm/sec	400 mm/sec
Ball screw lead		20 mm	12 mm	6 mm
Maximum payload	Horizontal	18 kg	30 kg	45 kg
	Vertical	6 kg	9 kg	12 kg
Rated Thrust		85 N	142 N	285 N
Dinamic loading moment (MY,MP,MR)		40.6 / 40.6 / 60.2		
Maximum dimensions of cross section of main unit		W 65 mm × H 44 mm		
Overall length	Straight	ST + 315 mm		
	Bending	ST + 224 mm		
Degree of Cleanliness Note 3		Equivalent to ISO Class 4 (ISO 14644-1)		
Intake air Note 4		80 Nℓ/ min~		
Position detector		Absolute encoder Battery-less absolute encoder		
Resolution		23 bits		
Using ambient temperature and humidity		0 to 40 ℃, 35 to 80 %RH (no condensation)		

Note 1. Positioning repeatability in one direction. ±0.01 for the Bending configuration.
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds (A) mm, the ball screw may resonate. (Critical speed) (A):550 mm for lead 20; 650 mm for lead 6, and 12.
Note 3. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
Note 4.The required suction amount will vary according to the operating conditions and operating environment.

Allowable overhang Note







ABFS06-20

Horizontal installation (Unit: mm)

	A	B	C
6kg	471	255	226
12kg	299	117	112
18kg	267	79	81

Wall installation (Unit: mm)

	A	B	C
6kg	226	255	471
12kg	112	117	299
18kg	81	79	267

Vertical installation (Unit: mm)

	A	C
3kg	477	477
6kg	255	255

ABFS06-12

Horizontal installation (Unit: mm)

	A	B	C
10kg	1055	201	245
20kg	618	90	111
30kg	457	54	68

Wall installation (Unit: mm)

	A	B	C
10kg	245	201	1055
20kg	111	90	618
30kg	68	54	457

Vertical installation (Unit: mm)

	A	C
5kg	429	429
9kg	218	218

ABFS06-6

Horizontal installation (Unit: mm)

	A	B	C
15kg	1830	152	213
30kg	1016	65	92
45kg	691	37	52

Wall installation (Unit: mm)

	A	B	C
15kg	213	152	1830
30kg	92	65	1016
45kg	52	37	691

Vertical installation (Unit: mm)

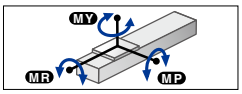
	A	C
6kg	429	429
12kg	215	215

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
Note. Service life is calculated for 500 mm stroke models.

Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

Static loading moment



(Unit: N·m)

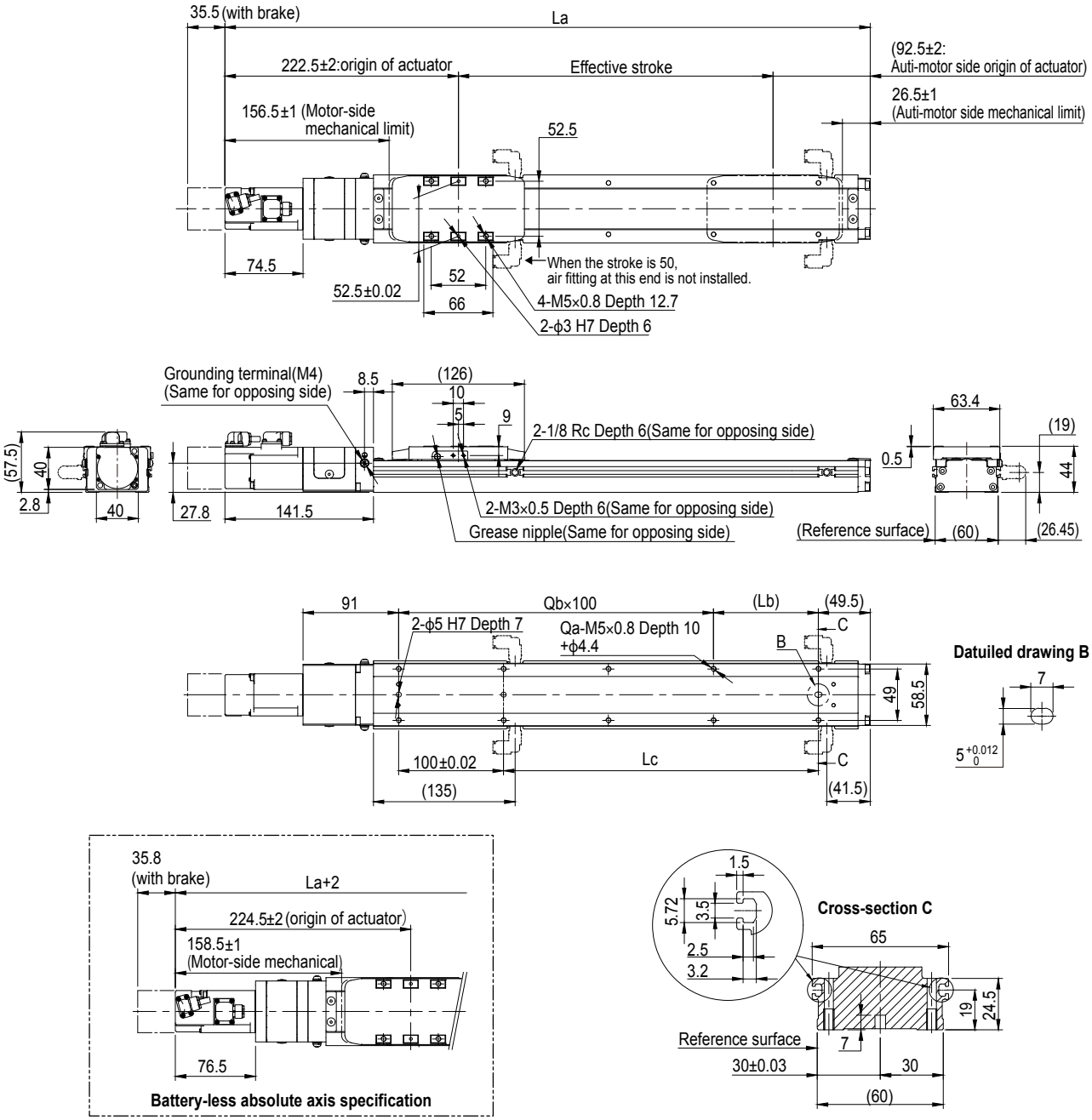
MY	MP	MR
99	99	176

▶ The cycle time simulation and service life calculation can be performed easily from our member site.

Controller EP-01 ▶ 582

ABFS06

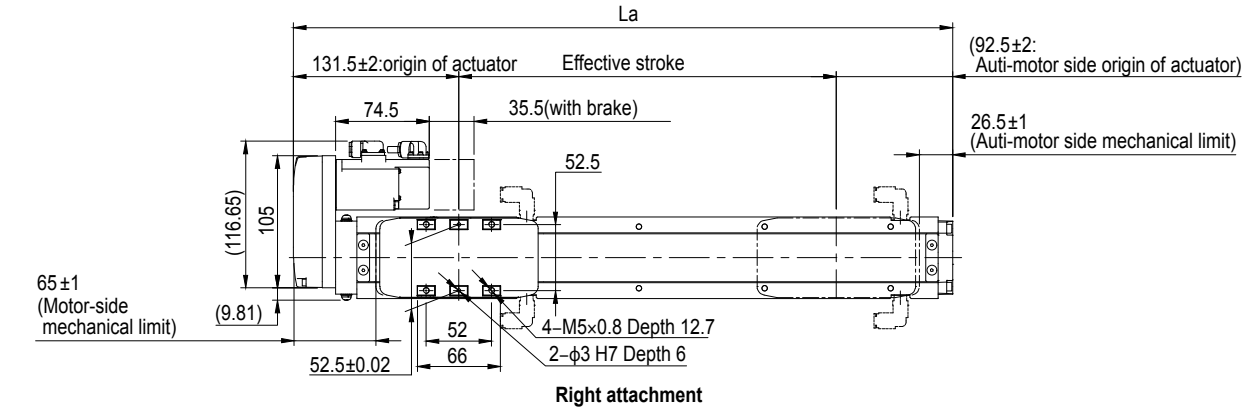
ABFS06 Straight type (S)



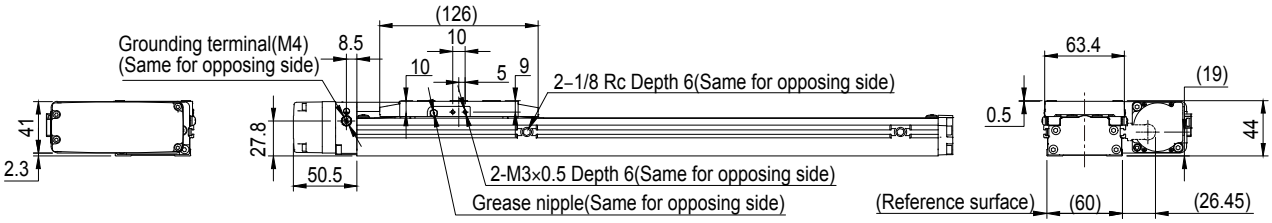
Note 1.Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<35mm or more >> is recommended for the hex socket head bolts <M4×0.7>. In the installation tap hole, the length under head <<thickness of stand +10mm or less>> is recommended for the hex socket head bolts <M5×0.8> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

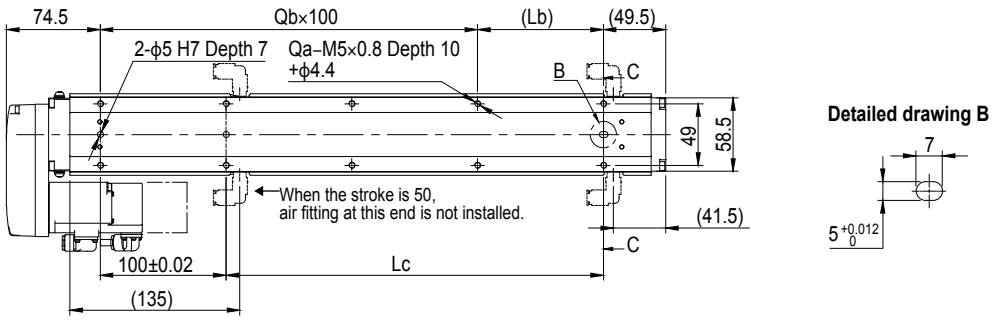
Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La		365	415	465	515	565	615	665	715	765	815	865	915	965	1015	1065	1115
Lb		50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
Lc		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Qa		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
Qb		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
Weight (kg) Note 1		1.91	2.07	2.22	2.38	2.54	2.69	2.85	3.0	3.16	3.32	3.47	3.63	3.78	3.94	4.1	4.26
Maximum speed (mm/sec)	Lead 20	1333												933	733	667	533
	Speed setting	-												70%	55%	50%	40%
	Lead 12	800										680	560	480	400	360	320
	Speed setting	-										85%	70%	60%	50%	45%	40%
	Lead 6	400										340	280	240	200	180	160
	Speed setting	-										85%	70%	60%	50%	45%	40%

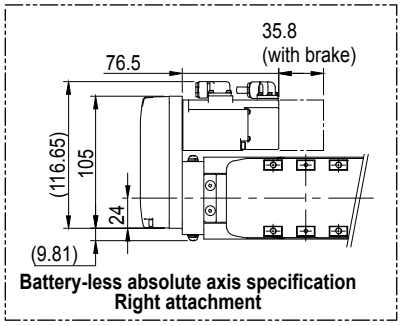
ABFS06 Bending type (R/L)



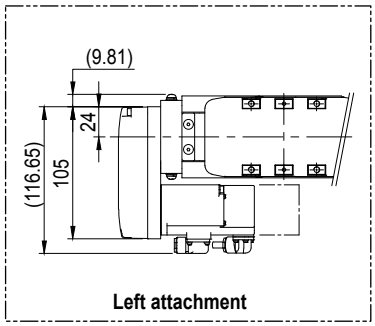
Right attachment



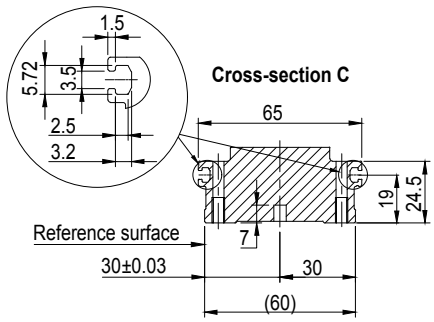




Battery-less absolute axis specification Right attachment



Left attachment



Note 1.Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<35mm or more >> is recommended for the hex socket head bolts <M4×0.7>. In the installation tap hole, the length under head <<thickness of stand +10mm or less>> is recommended for the hex socket head bolts <M5×0.8> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La		274	324	374	424	474	524	574	624	674	724	774	824	874	924	974	1024
Lb		50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
Lc		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Qa		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
Qb		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
Weight (kg) Note 1		2.2	2.34	2.48	2.62	2.76	2.90	3.04	3.18	3.32	3.46	3.60	3.74	3.88	4.02	4.16	4.30
Maximum speed (mm/sec)	Lead 20	1333												933	733	667	533
	Speed setting	-												70%	55%	50%	40%
	Lead 12	800										680	560	480	400	360	320
	Speed setting	-										85%	70%	60%	50%	45%	40%
	Lead 6	400										340	280	240	200	180	160
	Speed setting	-										85%	70%	60%	50%	45%	40%

Controller EP-01 ▶ 582

ABFS07

Basic model **Single-axis robots**

Low-profile type

Ordering method

本体	Lead	Shape	Motor specification	Stroke	Cable length Note 1	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit Note 2	I/O	Battery Note 3
ABFS07	20: 20 mm 10: 10 mm 5: 5 mm	S: Straight R: Right attachment L: Left attachment	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/ With no brake BKL: Battery-less absolute/ With brake	50 to 1050 (50mm pitch)	R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200W or less	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

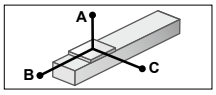
Note 1. The robot cable is flexible and resists bending.
Note 2.Note 2. When the actuator is used vertically, ①lead 20 is selected, and the stroke is 600 mm or more ②lead 10 is selected, and the stroke is 300mm or more ③lead 5 is selected, and the stroke is 250mm or more, the regenerative unit is needed.
Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

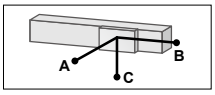
Specifications

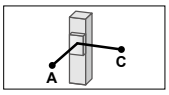
AC servo motor output		100 W		
Repeatability Note 1		±0.005 mm		
Deceleration mechanism		Rolled ball screw ϕ 12 (C7 class)		
Stroke		50 mm to 1050 mm (50 mm pitch)		
Maximum speed Note 2		1333 mm/sec	666 mm/sec	333 mm/sec
Ball screw lead		20 mm	10 mm	5 mm
Maximum payload	**Horizontal**	25 kg	45 kg	85 kg
	Vertical	4 kg	10 kg	16 kg
Rated Thrust		84 N	169 N	339 N
Dinamic loading moment (MY,MP,MR)		50.4 / 50.4 / 79.4		
Maximum dimensions of cross section of main unit		W 75 mm × H 48 mm		
Overall length	**Straight**	ST + 315.5 mm		
	Bending	ST + 224 mm		
Degree of Cleanliness Note 3		Equivalent to ISO Class 4 (ISO 14644-1)		
Intake air Note 4		80 Nℓ/ min~		
Position detector		Absolute encoder Battery-less absolute encoder		
Resolution		23 bits		
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (no condensation)		

Note 1. Positioning repeatability in one direction. ±0.01 for the Bending configuration.
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 550 mm, the ball screw may resonate. (Critical speed)
Note 3. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
Note 4.The required suction amount will vary according to the operating conditions and operating environment.

Allowable overhang Note







ABFS07-20

Horizontal installation (Unit: mm)

	A	B	C
10kg	1330	239	290
18kg	955	129	166
25kg	800	89	118

Wall installation (Unit: mm)

	A	B	C
10kg	290	239	1330
18kg	166	129	955
25kg	118	89	800

Vertical installation (Unit: mm)

	A	C
2kg	1275	1275
4kg	653	653

ABFS07-10

Horizontal installation (Unit: mm)

	A	B	C
15kg	1199	169	228
30kg	561	73	98
45kg	339	41	55

Wall installation (Unit: mm)

	A	B	C
15kg	228	169	1199
30kg	98	73	561
45kg	55	41	339

Vertical installation (Unit: mm)

	A	C
5kg	571	571
10kg	287	287

ABFS07-5

Horizontal installation (Unit: mm)

	A	B	C
30kg	1187	86	129
60kg	565	31	47
85kg	344	15	23

Wall installation (Unit: mm)

	A	B	C
30kg	129	86	1187
60kg	47	31	565
85kg	35	23	485

Vertical installation (Unit: mm)

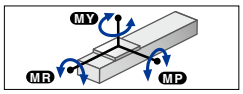
	A	C
8kg	412	412
16kg	206	206

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
Note. Service life is calculated for 500 mm stroke models.

Controller

Controller	Operation method
EP-01	I/O point trace/Remote command

Static loading moment

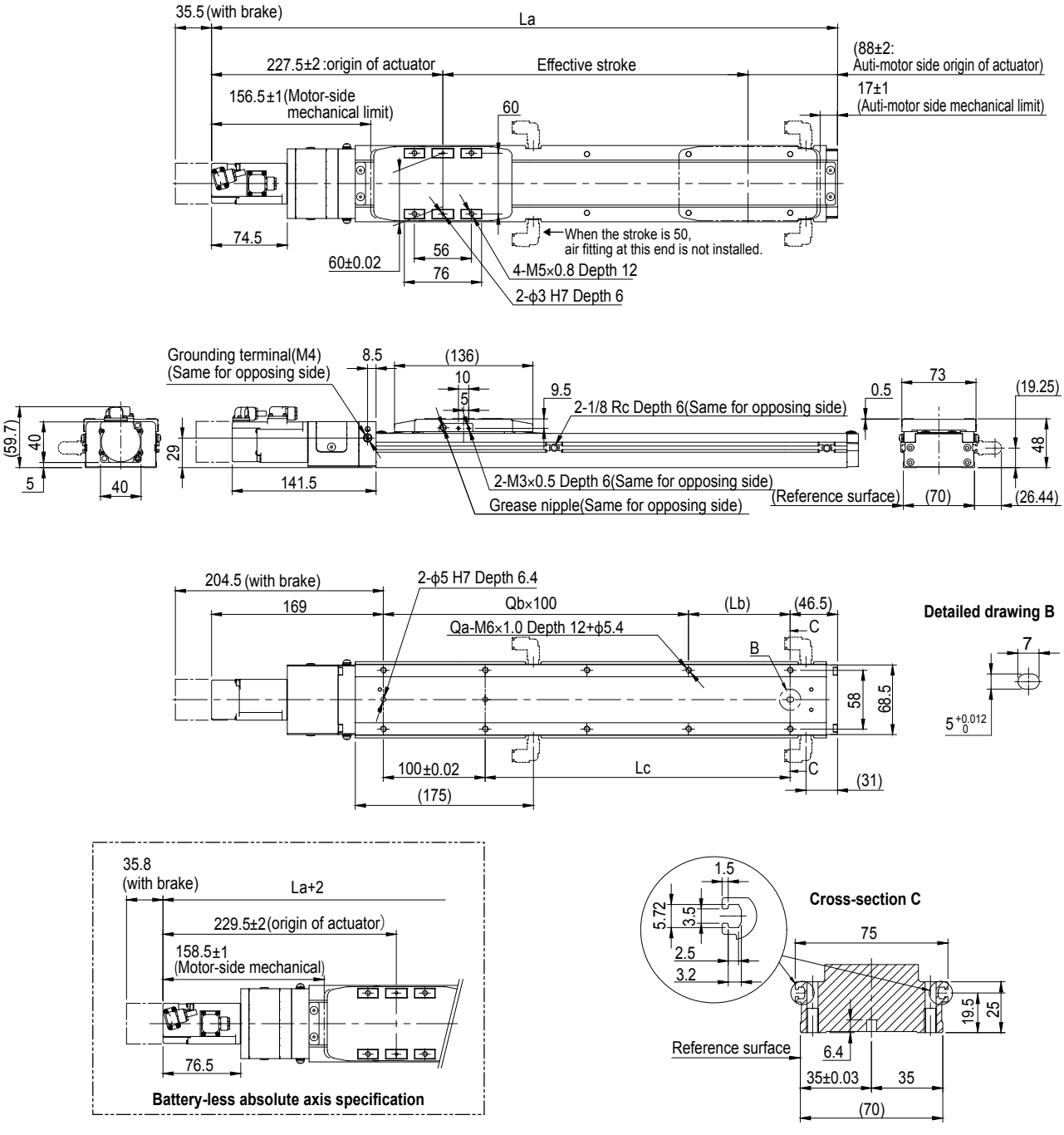


(Unit: N·m)

MY	MP	MR
130	130	278

▶ **The cycle time simulation and service life calculation can be performed easily from our member site.**

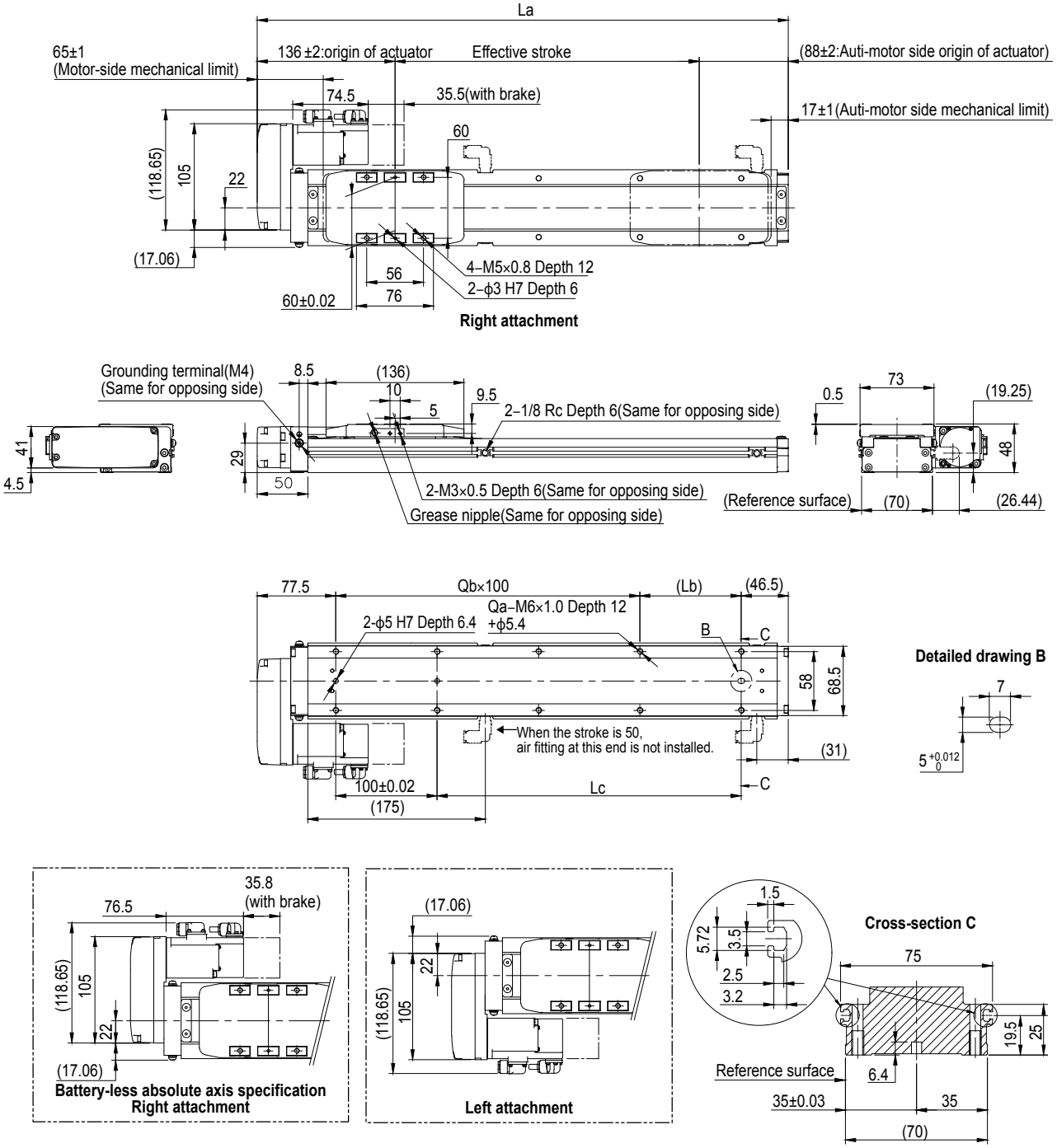
ABFS07 Straight type (S)



Note 1.Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<35mm or more >> is recommended for the hex socket head bolts <M5×0.8>. In the installation tap hole, the length under head <<thickness of stand +12mm or less>> is recommended for the hex socket head bolts <M6×1.0> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
La		365.5	415.5	465.5	515.5	565.5	615.5	665.5	715.5	765.5	815.5	865.5	915.5	965.5	1015.5	1065.5	1115.5	1165.5	1215.5	1265.5	1315.5	1365.5
Lb		50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
Lc		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
Qa		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26
Qb		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11
Weight (kg) Note 1		2.56	2.74	2.92	3.10	3.28	3.46	3.64	3.82	4.00	4.18	4.36	4.54	4.72	4.90	5.08	5.26	5.44	5.62	5.80	5.98	6.16
Maximum speed (mm/sec)	Lead 20	1333										1262	1064	932	800	664	600	532	466	400	400	332
	Speed setting	-										95%	80%	70%	60%	50%	45%	40%	35%	30%	30%	25%
	Lead 10	666										632	532	466	400	332	300	266	232	200	200	166
	Speed setting	-										95%	80%	70%	60%	50%	45%	40%	35%	30%	30%	25%
	Lead 5	333										316	266	233	200	166	150	133	116	100	100	83
	Speed setting	-										95%	80%	70%	60%	50%	45%	40%	35%	30%	30%	25%

ABFS07 Bending type (R/L)



Note 1.Weight without brake. The weight with the brake is 0.2 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<35mm or more >> is recommended for the hex socket head bolts <M5×0.8>. In the installation tap hole, the length under head <<thickness of stand +12mm or less>> is recommended for the hex socket head bolts <M6×1.0> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
La		274	324	374	424	474	524	574	624	674	724	774	824	874	924	974	1024	1074	1124	1174	1224	1274
Lb		50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
Lc		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
Qa		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26
Qb		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11
Weight (kg) Note 1		2.33	2.52	2.71	2.90	3.09	3.28	3.47	3.66	3.85	4.04	4.23	4.42	4.61	4.80	4.99	5.18	5.37	5.56	5.75	5.94	6.13
Maximum speed (mm/sec)	Lead 20	1333										1262	1064	932	800	664	600	532	466	400	400	332
	Speed setting	-										95%	80%	70%	60%	50%	45%	40%	35%	30%	30%	25%
	Lead 10	666										632	532	466	400	332	300	266	232	200	200	166
	Speed setting	-										95%	80%	70%	60%	50%	45%	40%	35%	30%	30%	25%
	Lead 5	333										316	266	233	200	166	150	133	116	100	100	83
	Speed setting	-										95%	80%	70%	60%	50%	45%	40%	35%	30%	30%	25%

Controller EP-01 ▶ 582

ABFS08/ABFS08H

Basic model **Single-axis robots** **Low-profile type**

Ordering method

本体	Lead	Shape	Motor specification	Stroke	Cable length Note 1	Cable entry location	EP-01 Robot positioner	Driver: Power capacity	Regenerative unit Note 2	I/O	Battery Note 3
ABFS08	24: 24 mm	S: Straight	S: Standard/With no brake	50 to 1250 (50mm pitch)	R3: 3 m	R: From rear of motor	EP-01	A10: 200W or less	No entry: None	EP: EtherNet/IP™	B: With battery
ABFS08H	12: 12 mm	R: Right attachment	BK: Standard/With brake		R5: 5 m	F: From front of motor		A30: 400W/750W	R: With EP-RU	PT: PROFINET	N: None
	6: 6 mm	L: Left attachment	BL: Battery-less absolute/ With no brake		R10: 10 m					ES: EtherCAT	
			BKL: Battery-less absolute/ With brake							NS: NPN	
										CC: CC-Link	

Note 1. The robot cable is flexible and resists bending.
Note 2. [For ABFS08]
When the actuator is used vertically, ①lead 24 is selected, and the stroke is 350 mm or more ②lead 12 is selected, and the stroke is 150mm or more ③lead 6 is selected, and the stroke is 150mm or more, the regenerative unit is needed.
When the actuator is used horizontally, ①lead 24 is selected, and the stroke is 300 to 850 mm, ②lead 12 is selected, and the stroke is 450 to 600 mm ,the regenerative unit is needed.
[For ABFS08H]
When the actuator is used vertically, ①lead 24 is selected, and the stroke is 150 mm or more ②lead 12 is selected, and the stroke is 150mm or more ③lead 6 is selected, and the stroke is 200mm or more, the regenerative unit is needed.
When the actuator is used horizontally, ①lead 24 is selected, and the stroke is 400 to 650 mm, ②lead 12 is selected, and the stroke is 400 mm or more ③lead 6 is selected, and the stroke is 200mm or more ,the regenerative unit is needed.
Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

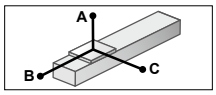
ABFS08 (200W)

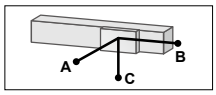
Specifications

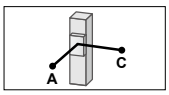
AC servo motor output		200 W		
Repeatability Note 1		±0.005 mm		
Deceleration mechanism		Rolled ball screw ϕ 14 (C7 class)		
Stroke		50 mm to 1250 mm (50 mm pitch)		
Maximum speed Note 2		1440 mm/sec	720 mm/sec	360 mm/sec
Ball screw lead		24 mm	12 mm	6 mm
Maximum payload	Horizontal	40 kg	80 kg	100 kg
	Vertical	8 kg	18 kg	30 kg
Rated Thrust		142 N	284 N	569 N
Dinamic loading moment (MY,MP,MR)		99.4 / 99.4 / 158.3		
Maximum dimensions of cross section of main unit		W 83 mm × H 56 mm		
Overall length	Straight	ST + 362.5 mm		
	Bending	ST + 268.5 mm		
Degree of cleanliness Note 3		Equivalent to ISO Class 4 (ISO 14644-1)		
Intake air Note 4		130 Nℓ/min~		
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (no condensation)		

Note 1. Positioning repeatability in one direction. ±0.01 for the Bending configuration.
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 650 mm, the ball screw may resonate. (Critical speed)
Note 3. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
Note 4. The required suction amount will vary according to the operating conditions and operating environment.

Allowable overhang Note







ABFS08-24

Horizontal installation (Unit: mm)

	A	B	C
15kg	505	228	213
25kg	557	154	169
40kg	1089	113	154

Wall installation (Unit: mm)

	A	B	C
15kg	213	228	505
25kg	169	154	557
45kg	154	113	1089

Vertical installation (Unit: mm)

	A	C
4kg	810	810
8kg	461	461

ABFS08-12

Horizontal installation (Unit: mm)

	A	B	C
30kg	739	160	208
50kg	531	85	113
80kg	339	43	58

Wall installation (Unit: mm)

	A	B	C
30kg	208	160	739
50kg	113	85	531
80kg	58	43	339

Vertical installation (Unit: mm)

	A	C
10kg	543	543
18kg	304	304

ABFS08-6

Horizontal installation (Unit: mm)

	A	B	C
30kg	2623	188	284
60kg	1436	81	122
100kg	936	38	57

Wall installation (Unit: mm)

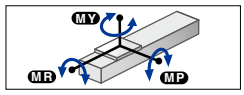
	A	B	C
30kg	284	188	2623
60kg	122	81	1436
100kg	57	38	936

Vertical installation (Unit: mm)

	A	C
15kg	428	428
30kg	214	214

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
Note. Service life is calculated for 500 mm stroke models.

Static loading moment



(Unit: N·m)

MY	MP	MR
249	249	393

Controller

Controller	Operation method
EP-01	I/O point trace/ Remote command

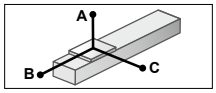
ABFS08H (400W)

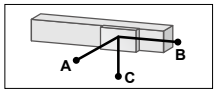
Specifications

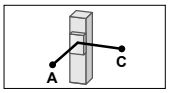
AC servo motor output		400 W		
Repeatability Note 1		±0.005 mm		
Deceleration mechanism		Rolled ball screw ϕ 14 (C7 class)		
Stroke		50 mm to 1250 mm (50 mm pitch)		
Maximum speed Note 2		1440 mm/sec	720 mm/sec	360 mm/sec
Ball screw lead		24 mm	12 mm	6 mm
Maximum payload	Horizontal	50 kg	95 kg	115 kg
	Vertical	15 kg	28 kg	37 kg
Rated Thrust		289 N	578 N	1156 N
Dinamic loading moment (MY,MP,MR)		99.4 / 99.4 / 158.3		
Maximum dimensions of cross section of main unit		W 83 mm × H 56 mm		
Overall length	Straight	ST + 378.5 mm		
	Bending	ST + 268.5 mm		
Degree of cleanliness Note 3		Equivalent to ISO Class 4 (ISO 14644-1)		
Intake air Note 4		130 Nℓ/min~		
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (no condensation)		

Note 1. Positioning repeatability in one direction. ±0.01 for the Bending configuration.
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 650 mm, the ball screw may resonate. (Critical speed)
Note 3. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
Note 4. The required suction amount will vary according to the operating conditions and operating environment.

Allowable overhang Note







ABFS08H-24

Horizontal installation (Unit: mm)

	A	B	C
15kg	407	228	201
30kg	422	121	132
50kg	961	87	121

Wall installation (Unit: mm)

	A	B	C
15kg	201	228	407
30kg	128	131	336
50kg	121	87	961

Vertical installation (Unit: mm)

	A	C
8kg	400	400
15kg	240	240

ABFS08H-12

Horizontal installation (Unit: mm)

	A	B	C
30kg	616	160	205
60kg	386	66	88
95kg	245	32	43

Wall installation (Unit: mm)

	A	B	C
30kg	205	160	616
60kg	88	66	386
95kg	43	32	245

Vertical installation (Unit: mm)

	A	C
14kg	386	386
28kg	195	195

ABFS08H-6

Horizontal installation (Unit: mm)

	A	B	C
40kg	1538	134	202
80kg	988	54	81
115kg	702	29	44

Wall installation (Unit: mm)

	A	B	C
40kg	202	134	1538
80kg	81	54	988
115kg	44	29	702

Vertical installation (Unit: mm)

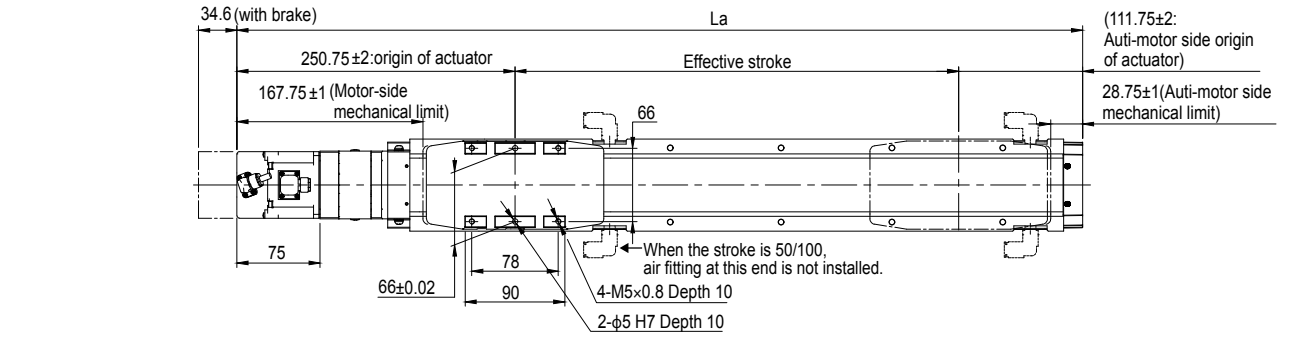
	A	C
18kg	356	356
37kg	174	174

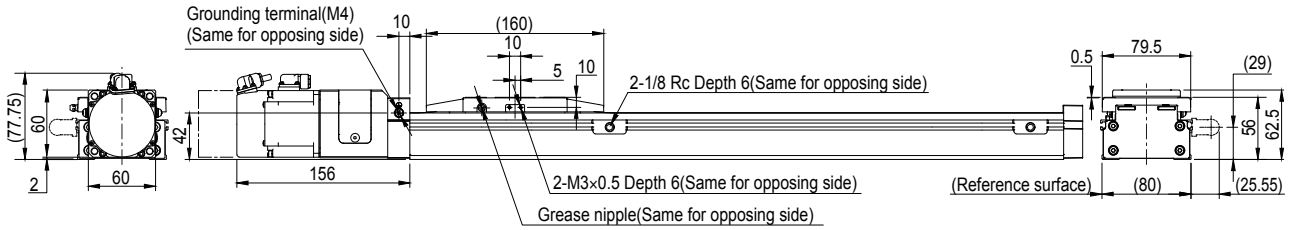
Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
Note. Service life is calculated for 500 mm stroke models.

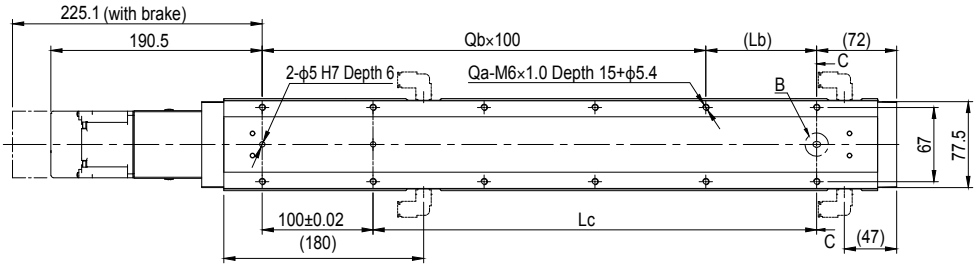
▶ **The cycle time simulation and service life calculation can be performed easily from our member site.**

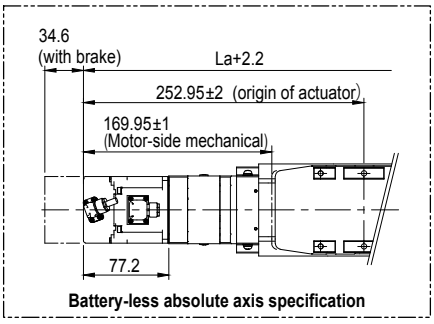
Controller EP-01 ▶ 582

ABFS08 Straight type (S)

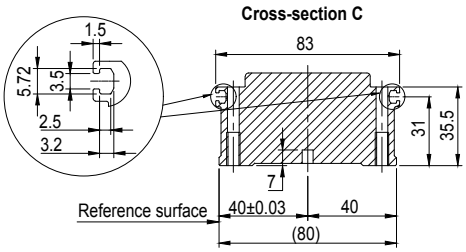


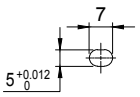






Battery-less absolute axis specification

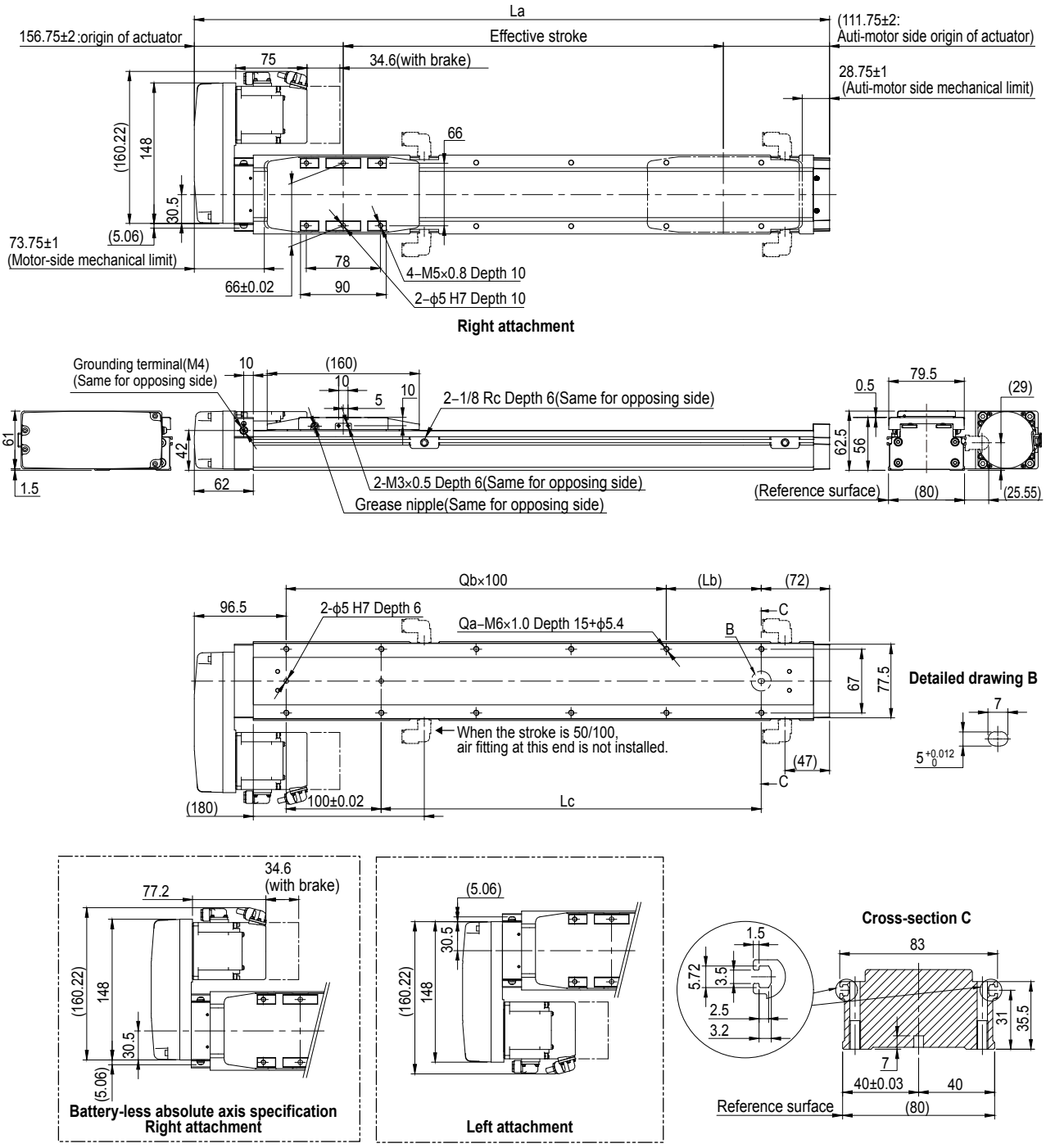




Note 1.Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<45mm or more >> is recommended for the hex socket head bolts <M5×0.8>. In the installation tap hole, the length under head <<thickness of stand +15mm or less>> is recommended for the hex socket head bolts <M6×1.0> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
La		412.5	462.5	512.5	562.5	612.5	662.5	712.5	762.5	812.5	862.5	912.5	962.5	1012.5	1062.5	1112.5	1162.5	1212.5	1262.5	1312.5	1362.5	1412.5	1462.5	1512.5	1562.5	1612.5
Lb		50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
Lc		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
Qa		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30
Qb		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13
Weight (kg) Note 1		4.05	4.32	4.59	4.86	5.13	5.40	5.67	5.94	6.21	6.48	6.75	7.02	7.29	7.56	7.82	8.09	8.36	8.63	8.90	9.17	9.44	9.71	9.98	10.25	10.52
Maximum speed (mm/sec)	Lead 24	1440												1224	1080	936	864	792	720	648	576	512	432	432	360	360
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 12	720												612	540	468	432	396	360	324	288	256	216	216	180	180
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 6	360												306	270	234	216	198	180	162	144	126	108	108	90	90
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	35%	30%	30%	25%	25%

ABFS08 Bending type (R/L)

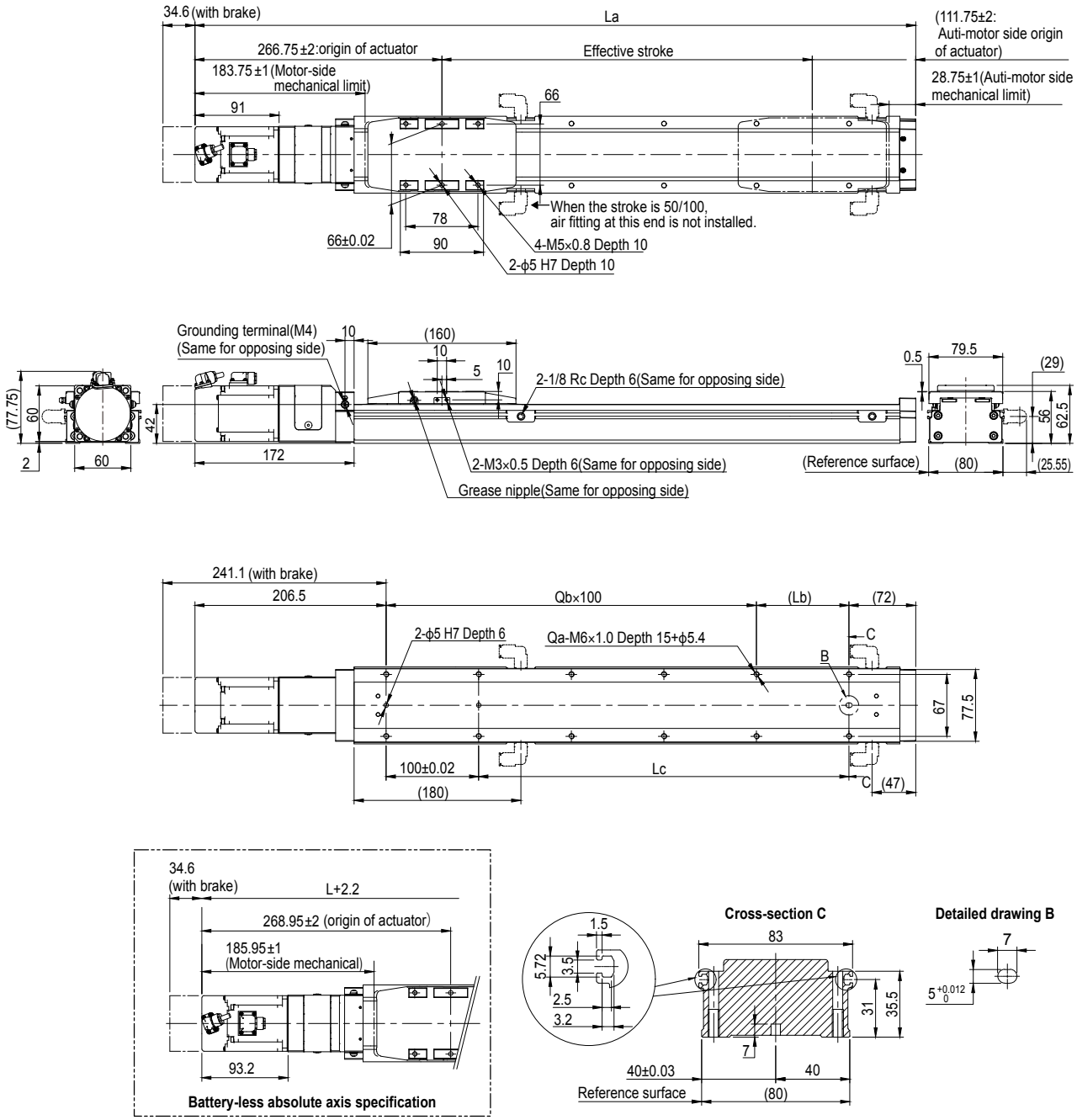


Note 1.Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<45mm or more >> is recommended for the hex socket head bolts <M5×0.8>. In the installation tap hole, the length under head <<thickness of stand +15mm or less>> is recommended for the hex socket head bolts <M6×1.0> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
La		318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5	1318.5	1368.5	1418.5	1468.5	1518.5
Lb		50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
Lc		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
Qa		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30
Qb		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13
Weight (kg) Note 1		3.86	4.15	4.43	4.72	5.01	5.30	5.58	5.87	6.16	6.45	6.73	7.02	7.31	7.60	7.88	8.17	8.46	8.75	9.03	9.32	9.61	9.90	10.18	10.47	10.76
Maximum speed (mm/sec)	Lead 24	1440												1224	1080	936	864	792	720	648	576	512	432	432	360	360
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 12	720												612	540	468	432	396	360	324	288	256	216	216	180	180
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 6	360												306	270	234	216	198	180	162	144	126	108	108	90	90
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	35%	30%	30%	25%	25%

ABFS08H

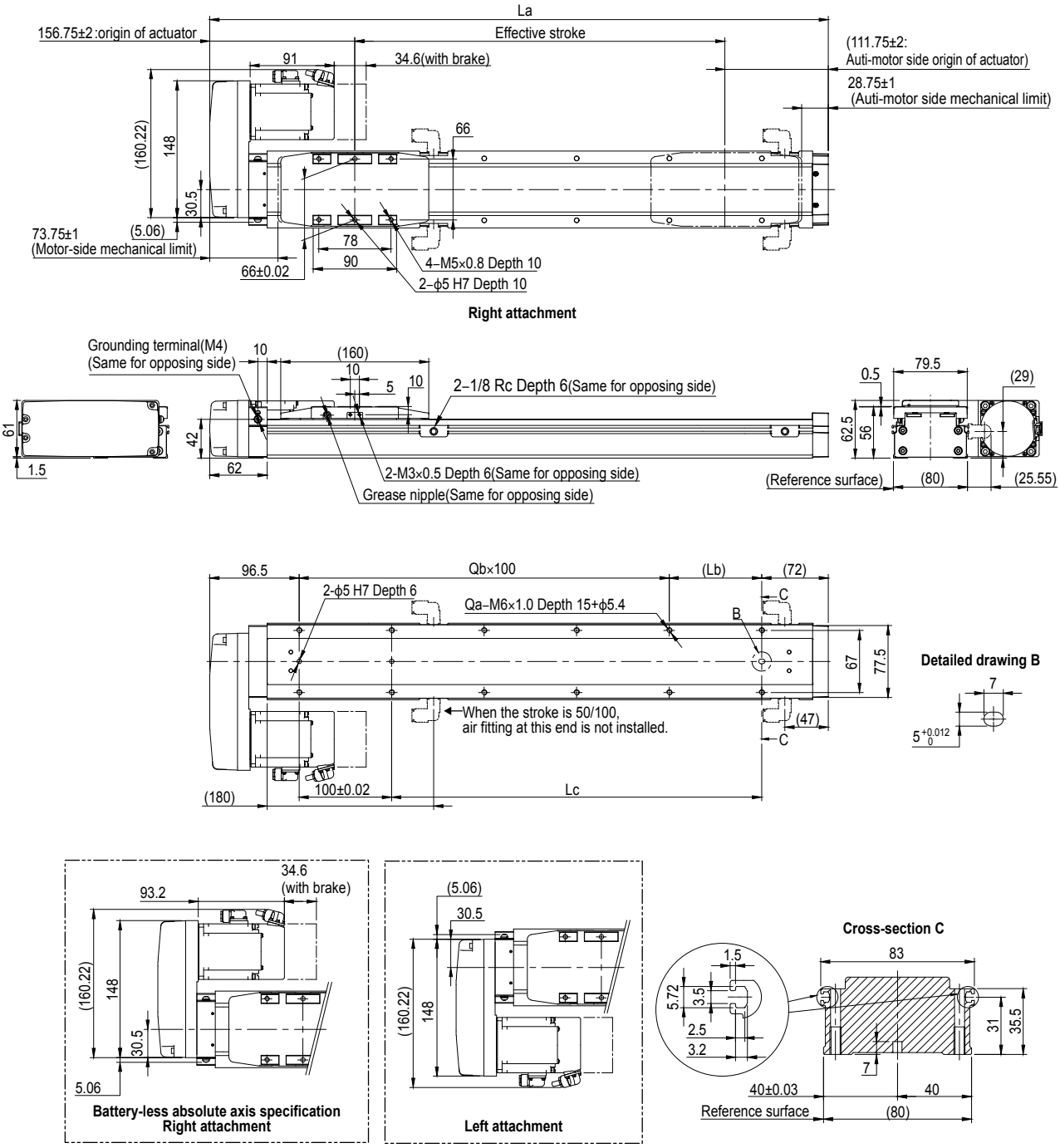
ABFS08H Straight type (S)



Note 1.Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<45mm or more >> is recommended for the hex socket head bolts <M5×0.8>. In the installation tap hole, the length under head <<thickness of stand +15mm or less>> is recommended for the hex socket head bolts <M6×1.0> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
La		428.5	478.5	528.5	578.5	628.5	678.5	728.5	778.5	828.5	878.5	928.5	978.5	1028.5	1078.5	1128.5	1178.5	1228.5	1278.5	1328.5	1378.5	1428.5	1478.5	1528.5	1578.5	1628.5
Lb		50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
Lc		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
Qa		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30
Qb		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13
Weight (kg) Note 1		4.35	4.62	4.89	5.16	5.43	5.70	5.97	6.24	6.51	6.78	7.05	7.32	7.59	7.86	8.12	8.39	8.66	8.93	9.20	9.47	9.74	10.01	10.28	10.55	10.82
Maximum speed (mm/sec)	Lead 24	1440												1224	1080	936	864	792	720	648	576	512	432	432	360	360
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 12	720												612	540	468	432	396	360	324	288	256	216	216	180	180
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 6	360												306	270	234	216	198	180	162	144	126	108	108	90	90
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	35%	30%	30%	25%	25%

ABFS08H Bending type (R/L)



Note 1.Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<45mm or more >> is recommended for the hex socket head bolts <M5×0.8>. In the installation tap hole, the length under head <<thickness of stand +15mm or less>> is recommended for the hex socket head bolts <M6×1.0> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
La		318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5	1118.5	1168.5	1218.5	1268.5	1318.5	1368.5	1418.5	1468.5	1518.5
Lb		50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
Lc		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
Qa		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30
Qb		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13
Weight (kg) Note 1		4.16	4.45	4.73	5.02	5.31	5.60	5.88	6.17	6.46	6.75	7.03	7.32	7.61	7.90	8.18	8.47	8.76	9.05	9.33	9.62	9.91	10.20	10.48	10.77	11.06
Maximum speed (mm/sec)	Lead 24	1440												1224	1080	936	864	792	720	648	576	512	432	432	360	360
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 12	720												612	540	468	432	396	360	324	288	256	216	216	180	180
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 6	360												306	270	234	216	198	180	162	144	126	108	108	90	90
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	35%	30%	30%	25%	25%

ABFS10/ABFS10H

Basic model **Single-axis robots** **Low-profile type**

Ordering method

本体	Lead	Shape	Motor specification	Stroke	Cable length Note 1	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit Note 2	I/O	Battery Note 3
ABFS10	24: 24 mm	S: Straight	S: Standard/With no brake	50 to 1250 (50mm pitch)	R3: 3 m	R: From rear of motor	EP-01	A10: 200W or less	No entry: None	EP: EtherNet/IP™	B: With battery
ABFS10H	12: 12 mm	R: Right attachment	BK: Standard/With brake		R5: 5 m	F: From front of motor		A30: 400W/750W	R: With EP-RU	PT: PROFINET	N: None
	6: 6 mm	L: Left attachment	BL: Battery-less absolute/ With no brake		R10: 10 m					ES: EtherCAT	
			BKL: Battery-less absolute/ With brake							NS: NPN	
										CC: CC-Link	

Note 1. The robot cable is flexible and resists bending.
Note 2. [ForABFS10]
When the actuator is used vertically, ①lead 24 is selected, and the stroke is 350 mm or more ②lead 12 is selected, and the stroke is 200mm or more ③lead 6 is selected, and the stroke is 150mm or more, the regenerative unit is needed.
When the actuator is used horizontally, ①lead 24 is selected, and the stroke is 250 to 800 mm, ②lead 12 is selected, and the stroke is 450 to 700 mm ,the regenerative unit is needed.
[For ABFS10H]
When the actuator is used vertically, ①lead 24 is selected, and the stroke is 150 mm or more ②lead 12 is selected, and the stroke is 150mm or more ③lead 6 is selected, and the stroke is 250mm or more, the regenerative unit is needed.
When the actuator is used horizontally, ①lead 24 is selected, and the stroke is 450 to 600 mm, ②lead 12 is selected, and the stroke is 400 mm or more ③lead 6 is selected, and the stroke is 200mm or more ,the regenerative unit is needed.
Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

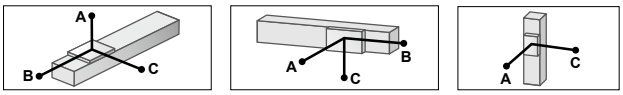
ABFS10 (200W)

Specifications

AC servo motor output		200 W		
Repeatability Note 1		±0.005 mm		
Deceleration mechanism		Rolled ball screw ϕ 14 (C7 class)		
Stroke		50 mm to 1250 mm (50 mm pitch)		
Maximum speed Note 2		1440 mm/sec	720 mm/sec	360 mm/sec
Ball screw lead		24 mm	12 mm	6 mm
Maximum payload	Horizontal	40 kg	80 kg	100 kg
	Vertical	8 kg	18 kg	30 kg
Rated Thrust		142 N	284 N	569 N
Dinamic loading moment (MY,MP,MR)		132.9 / 132.9 / 237.4		
Maximum dimensions of cross section of main unit		W 100.3 mm × H 60 mm		
Overall length	Straight	ST + 372.5 mm		
	Bending	ST + 278.5 mm		
Degree of cleanliness Note 3		Equivalent to ISO Class 4 (ISO 14644-1)		
Intake air Note 4		130 Nℓ/min~		
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (no condensation)		

Note 1. Positioning repeatability in one direction. ±0.01 for the Bending configuration.
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 650 mm, the ball screw may resonate. (Critical speed)
Note 3. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
Note 4. The required suction amount will vary according to the operating conditions and operating environment.

Allowable overhang Note



ABFS10-24

Horizontal installation (Unit: mm)

	A	B	C
15kg	684	308	309
25kg	759	210	251
40kg	1496	156	235

Wall installation (Unit: mm)

	A	B	C
15kg	309	308	684
25kg	251	210	759
40kg	235	156	1496

Vertical installation (Unit: mm)

	A	C
4kg	1083	1083
8kg	617	617

ABFS10-12

Horizontal installation (Unit: mm)

	A	B	C
30kg	1000	218	312
50kg	730	118	174
80kg	481	62	92

Wall installation (Unit: mm)

	A	B	C
30kg	312	218	1000
50kg	174	118	730
80kg	92	62	481

Vertical installation (Unit: mm)

	A	C
10kg	726	726
18kg	406	406

ABFS10-6

Horizontal installation (Unit: mm)

	A	B	C
30kg	3539	256	434
60kg	1965	112	190
100kg	1326	54	93

Wall installation (Unit: mm)

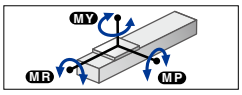
	A	B	C
30kg	434	256	3539
60kg	190	112	1965
100kg	93	54	1326

Vertical installation (Unit: mm)

	A	C
15kg	573	573
30kg	287	287

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
Note. Service life is calculated for 500 mm stroke models.

Static loading moment



(Unit: N·m)

MY	MP	MR
349	349	625

Controller

Controller	Operation method
EP-01	I/O point trace/ Remote command

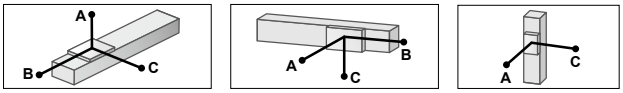
ABFS10H (400W)

Specifications

AC servo motor output		400 W		
Repeatability Note 1		±0.005 mm		
Deceleration mechanism		Rolled ball screw ϕ 14 (C7 class)		
Stroke		50 mm to 1250 mm (50 mm pitch)		
Maximum speed Note 2		1440 mm/sec	720 mm/sec	360 mm/sec
Ball screw lead		24 mm	12 mm	6 mm
Maximum payload	Horizontal	50 kg	95 kg	115 kg
	Vertical	15 kg	28 kg	37 kg
Rated Thrust		289 N	578 N	1156 N
Dinamic loading moment (MY,MP,MR)		132.9 / 132.9 / 237.4		
Maximum dimensions of cross section of main unit		W 100.3 mm × H 60 mm		
Overall length	Straight	ST + 388.5 mm		
	Bending	ST + 278.5 mm		
Degree of cleanliness Note 3		Equivalent to ISO Class 4 (ISO 14644-1)		
Intake air Note 4		130 Nℓ/min~		
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (no condensation)		

Note 1. Positioning repeatability in one direction. ±0.01 for the Bending configuration.
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 650 mm, the ball screw may resonate. (Critical speed)
Note 3. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.
Note 4. The required suction amount will vary according to the operating conditions and operating environment.

Allowable overhang Note



ABFS10H-24

Horizontal installation (Unit: mm)

	A	B	C
15kg	550	308	290
30kg	579	166	197
50kg	1330	121	186

Wall installation (Unit: mm)

	A	B	C
15kg	290	308	550
30kg	189	179	460
50kg	186	121	1330

Vertical installation (Unit: mm)

	A	C
8kg	713	713
15kg	321	321

ABFS10H-12

Horizontal installation (Unit: mm)

	A	B	C
30kg	833	218	305
60kg	533	93	136
95kg	354	47	70

Wall installation (Unit: mm)

	A	B	C
30kg	305	218	833
60kg	136	93	533
95kg	70	47	354

Vertical installation (Unit: mm)

	A	C
14kg	516	516
28kg	261	261

ABFS10H-6

Horizontal installation (Unit: mm)

	A	B	C
40kg	2079	184	311
80kg	1367	76	129
115kg	1009	43	74

Wall installation (Unit: mm)

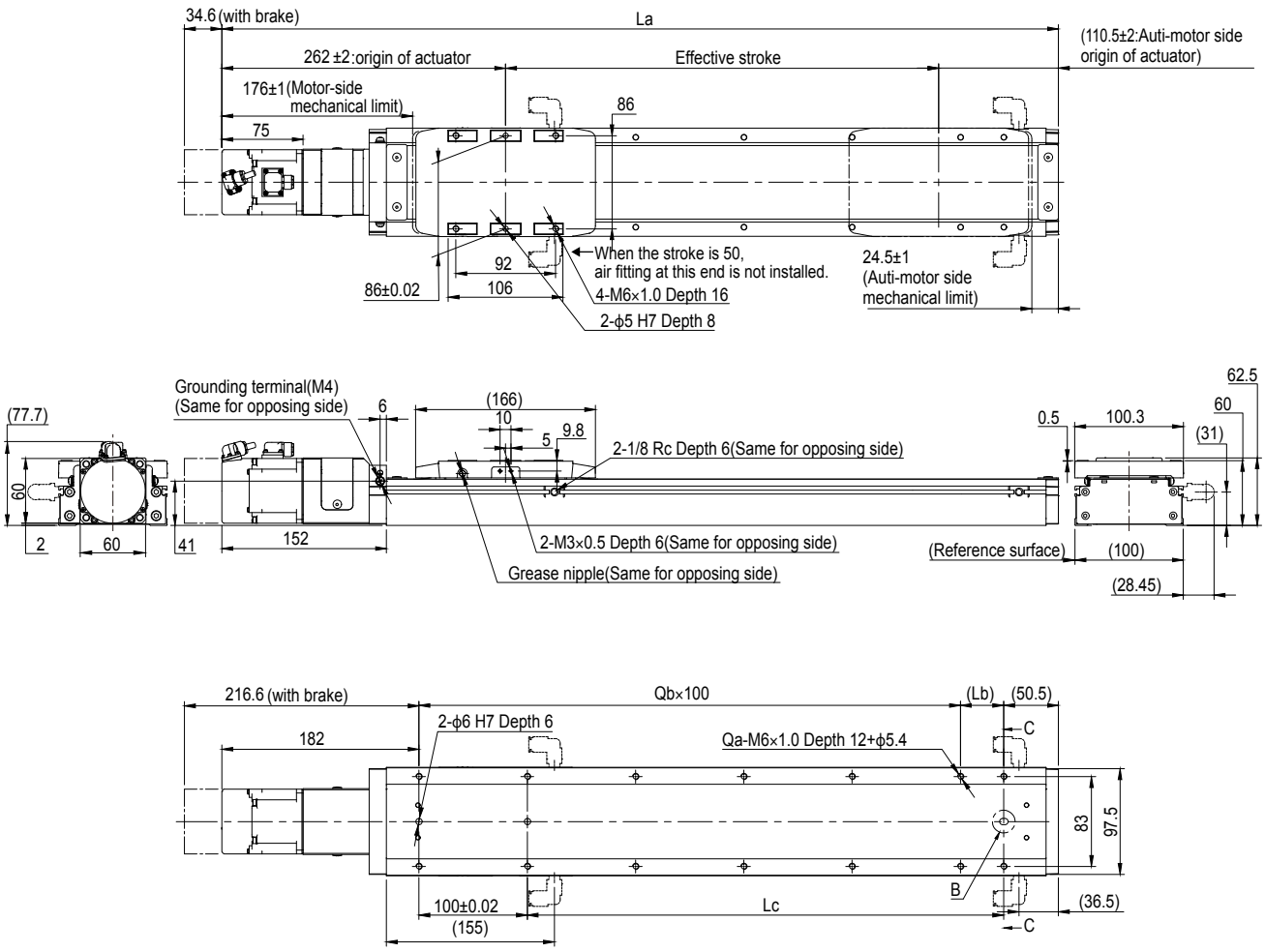
	A	B	C
40kg	311	184	2079
80kg	129	76	1367
115kg	74	43	1009

Vertical installation (Unit: mm)

	A	C
18kg	476	476
37kg	232	232

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
Note. Service life is calculated for 500 mm stroke models.

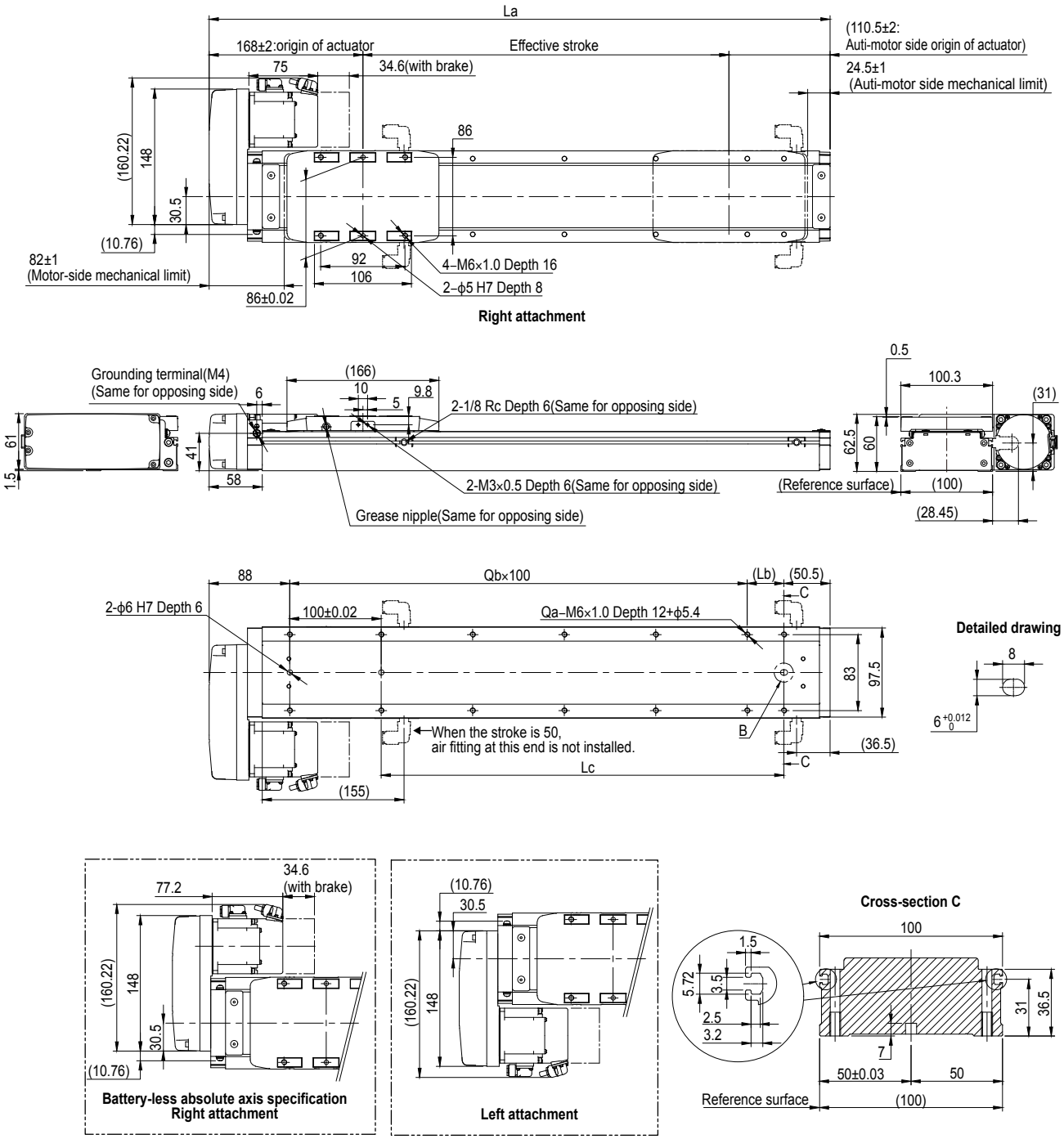
ABFS10 Straight type (S)



Note 1.Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<45mm or more >> is recommended for the hex socket head bolts <M5×0.8>. In the installation tap hole, the length under head <<thickness of stand +12mm or less>> is recommended for the hex socket head bolts <M6×1.0> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
La		422.5	472.5	522.5	572.5	622.5	672.5	722.5	772.5	822.5	872.5	922.5	972.5	1022.5	1072.5	1122.5	1172.5	1222.5	1272.5	1322.5	1372.5	1422.5	1472.5	1522.5	1572.5	1622.5
Lb		90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90
Lc		90	140	190	240	290	340	390	440	490	540	590	640	690	740	790	840	890	940	990	1040	1090	1140	1190	1240	1290
Qa		6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30
Qb		1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13
Weight (kg) Note 1		4.19	4.50	4.82	5.14	5.46	5.78	6.09	6.41	6.73	7.05	7.37	7.68	8.01	8.33	8.65	8.97	9.29	9.60	9.92	10.24	10.56	10.88	11.19	11.51	11.83
Maximum speed (mm/sec)	Lead 24	1440												1224	1080	936	864	792	720	648	576	512	432	432	360	360
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 12	720												612	540	468	432	396	360	324	288	256	216	216	180	180
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 6	360												306	270	234	216	198	180	162	144	126	108	108	90	90
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	35%	30%	30%	25%	25%

ABFS10 Bending type (R/L)

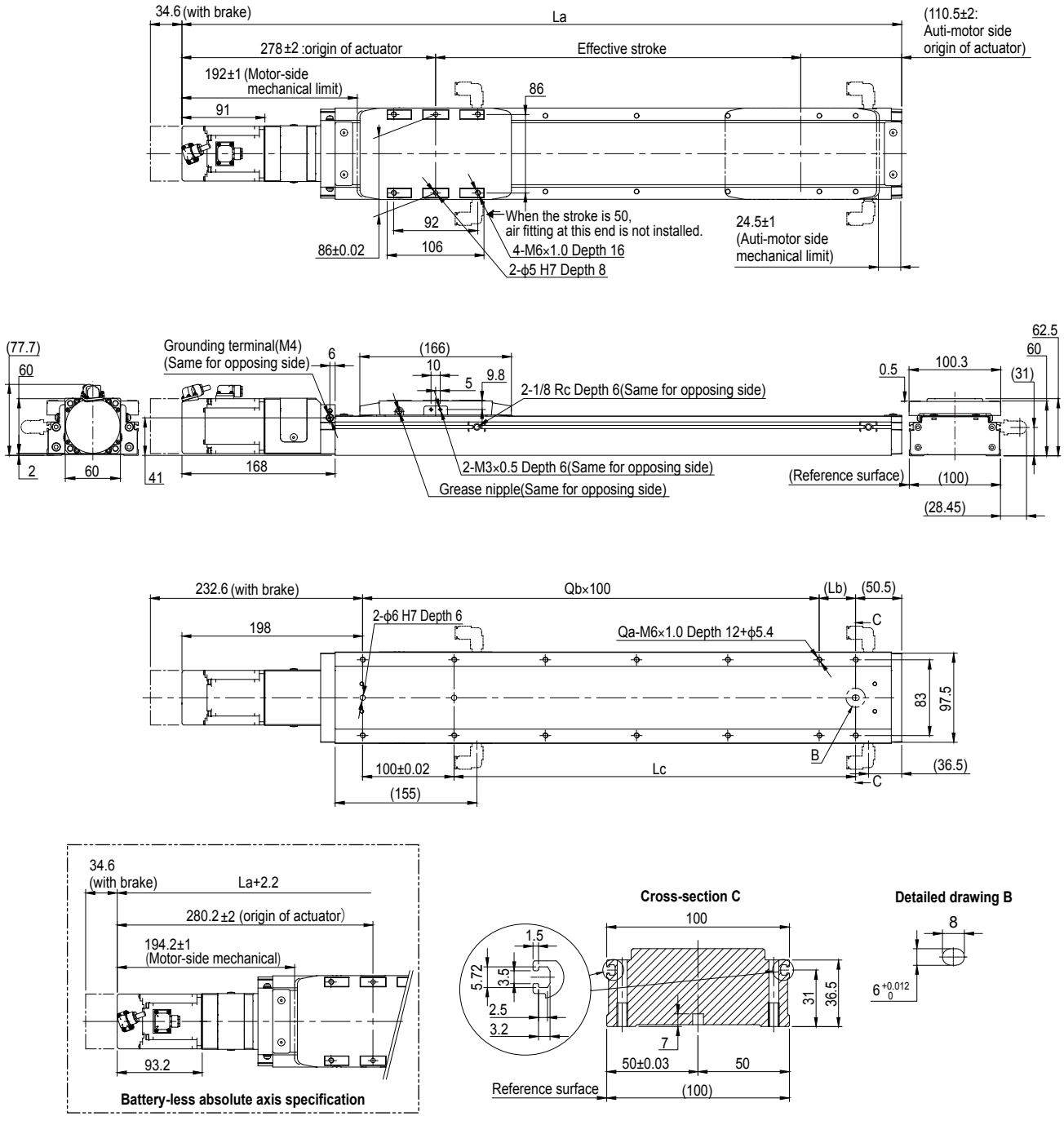


Note 1.Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<45mm or more >> is recommended for the hex socket head bolts <M5×0.8>. In the installation tap hole, the length under head <<thickness of stand +12mm or less>> is recommended for the hex socket head bolts <M6×1.0> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
La		328.5	378.5	428.5	478.5	528.5	578.5	628.5	678.5	728.5	778.5	828.5	878.5	928.5	978.5	1028.5	1078.5	1128.5	1178.5	1228.5	1278.5	1328.5	1378.5	1428.5	1478.5	1528.5
Lb		90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90
Lc		90	140	190	240	290	340	390	440	490	540	590	640	690	740	790	840	890	940	990	1040	1090	1140	1190	1240	1290
Qa		6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30
Qb		1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13
Weight (kg) Note 1		4.16	4.50	4.84	5.18	5.52	5.86	6.20	6.54	6.88	7.22	7.56	7.90	8.24	8.58	8.92	9.26	9.60	9.94	10.28	10.62	10.96	11.30	11.64	11.98	12.32
Maximum speed (mm/sec)	Lead 24	1440												1224	1080	936	864	792	720	648	576	512	432	432	360	360
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 12	720												612	540	468	432	396	360	324	288	256	216	216	180	180
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 6	360												306	270	234	216	198	180	162	144	126	108	108	90	90
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	35%	30%	30%	25%	25%

LCMR200 Linear conveyor modules
GX Single-axis robots
LCM100 Linear conveyor modules
YK-X SCARA robots
Robonity Single-axis robots
PHASER Linear motor single-axis robots
FLIP-X Single-axis robots
TRANSERVO Compact single-axis robots
XY-X Cartesian robots
YP-X Pick & place robots
CLEAN
CONTROLLER
INFORMATION
LBFS LBAS
LGXS LBAR
LGBS LGFS
ABFS ABAS
AGXS ABAR
AGBS AGFS
Option

ABFS10H Straight type (S)



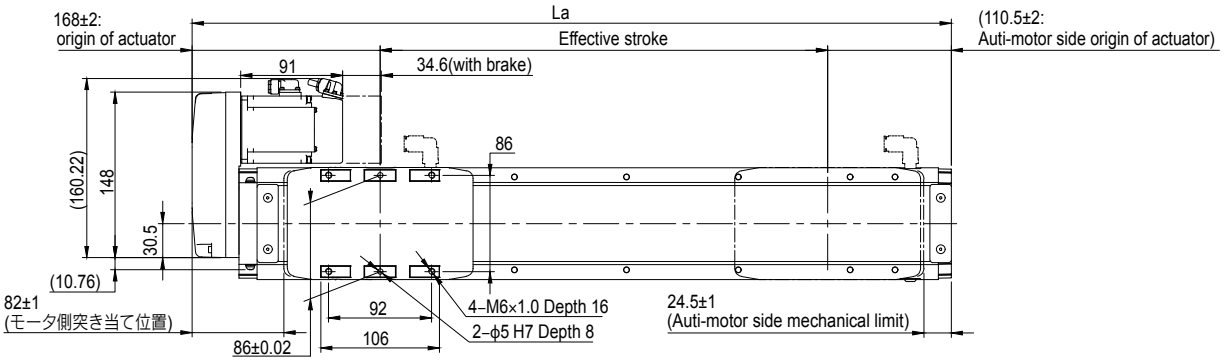
Note 1.Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<45mm or more >> is recommended for the hex socket head bolts <M5×0.8>. In the installation tap hole, the length under head <<thickness of stand +12mm or less>> is recommended for the hex socket head bolts <M6×1.0> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
La		438.5	488.5	538.5	588.5	638.5	688.5	738.5	788.5	838.5	888.5	938.5	988.5	1038.5	1088.5	1138.5	1188.5	1238.5	1288.5	1338.5	1388.5	1438.5	1488.5	1538.5	1588.5	1638.5
Lb		90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90
Lc		90	140	190	240	290	340	390	440	490	540	590	640	690	740	790	840	890	940	990	1040	1090	1140	1190	1240	1290
Qa		6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30
Qb		1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13
Weight (kg) Note 1		4.49	4.80	5.12	5.44	5.76	6.08	6.39	6.71	7.03	7.35	7.67	7.98	8.31	8.63	8.95	9.27	9.59	9.90	10.22	10.54	10.86	11.18	11.49	11.81	12.13
Maximum speed (mm/sec)	Lead 24	1440												1224	1080	936	864	792	720	648	576	512	432	432	360	360
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 12	720												612	540	468	432	396	360	324	288	256	216	216	180	180
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 6	360												306	270	234	216	198	180	162	144	126	108	108	90	90
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	35%	30%	30%	25%	25%

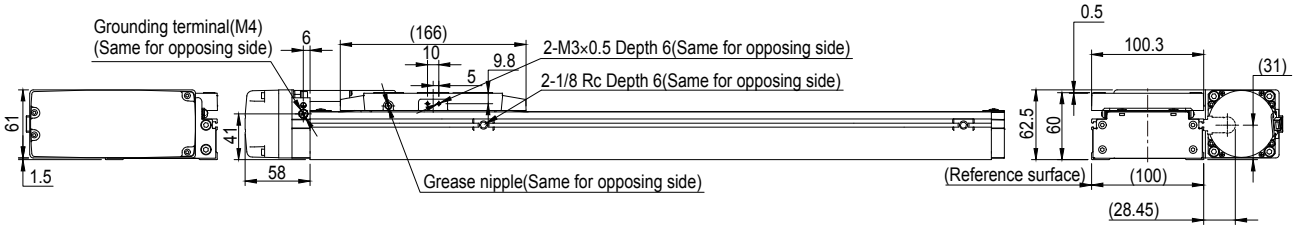
Controller EP-01 ▶ 582

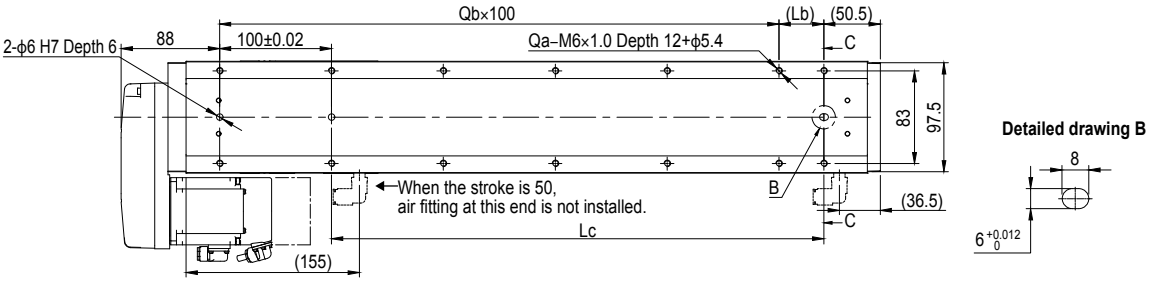
ABFS10H

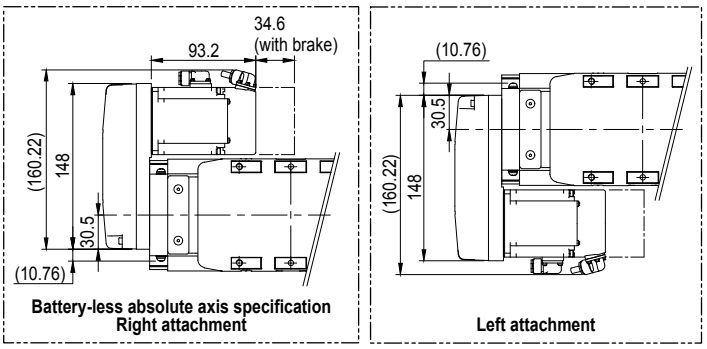
ABFS10H Bending type (R/L)



Right attachment

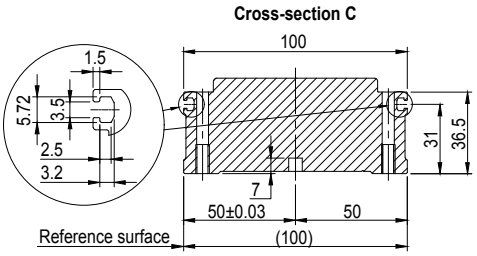






Battery-less absolute axis specification
Right attachment

Left attachment



Note 1.Weight without brake. The weight with the brake is 0.4 kg heavier than the value in the weight column.
Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
Note. For the installation through hole,the length under head <<45mm or more >> is recommended for the hex socket head bolts <M5×0.8>. In the installation tap hole, the length under head <<thickness of stand +12mm or less>> is recommended for the hex socket head bolts <M6×1.0> used to install the main unit.
Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00
Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables. The cable exit direction varies depending on the specifications.

Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
La		328.5	378.5	428.5	478.5	528.5	578.5	628.5	678.5	728.5	778.5	828.5	878.5	928.5	978.5	1028.5	1078.5	1128.5	1178.5	1228.5	1278.5	1328.5	1378.5	1428.5	1478.5	1528.5
Lb		90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90	40	90
Lc		90	140	190	240	290	340	390	440	490	540	590	640	690	740	790	840	890	940	990	1040	1090	1140	1190	1240	1290
Qa		6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30
Qb		1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13
Weight (kg)*1		4.46	4.80	5.14	5.48	5.82	6.16	6.50	6.84	7.18	7.52	7.86	8.20	8.54	8.88	9.22	9.56	9.90	10.24	10.58	10.92	11.26	11.60	11.94	12.28	12.62
Maximum speed (mm/sec)	Lead 24	1440												1224	1080	936	864	792	720	648	576	512	432	432	360	360
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 12	720												612	540	468	432	396	360	324	288	256	216	216	180	180
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	36%	30%	30%	25%	25%
	Lead 6	360												306	270	234	216	198	180	162	144	126	108	108	90	90
	Speed setting	-												85%	75%	65%	60%	55%	50%	45%	40%	35%	30%	30%	25%	25%

MEMO