TE···B

TE•••B

Ball screw

Linear

IKO
C-Lube
Maintenance-free

Motor bracket

Slide table

Ball screw

Sensor mounting groove

Bed

Linear Way

End bracket

Major product specifications

Driving method	Precision ball screw
Linear motion rolling guide	Linear Way（ball type）
Built-in lubrication part	Lubrication part "C-Lube" is built-in
Material of table and bed	High-strength aluminum alloy
Sensor	Select by identification number

Accuracy

unit: mm

Positioning repeatability	±0.002～0.020
Positioning accuracy	0.035～0.065
Lost motion	–
Parallelism in table motion A	–
Parallelism in table motion B	0.008～0.016
Attitude accuracy	–
Straightness	–
Backlash	0.005

Points

● Light weight, low profile and high-precision positioning table

1
Light weight, low profile and compact positioning table using high-strength aluminum alloy for its main components with a slide table assembled inside a U-shaped bed.
The mass of the entire table is reduced to about 40% of TU series. Low cross sectional height (26mm for TE50B, 33mm for TE60B, and 46mm for TE86B). Moreover, the structure of various sensors directly installable on sensor mounting groove of the bed contributes to the miniaturization.

## ● Table specification is selectable according to your use

2
There are two types in the shape of slide table: standard and with flange. The number of slide tables, motor folding back specification, ball screw lead, with or without a dust protection cover, installation of various sensors can be selected, you can select an optimal product for the specifications of your machine and device.

● Excellent cost performance

3
The excellent cost performance is realized by reducing the number of parts, and optimizing the part shapes.

Comparison with Precision Positioning Table TU

● Sectional height

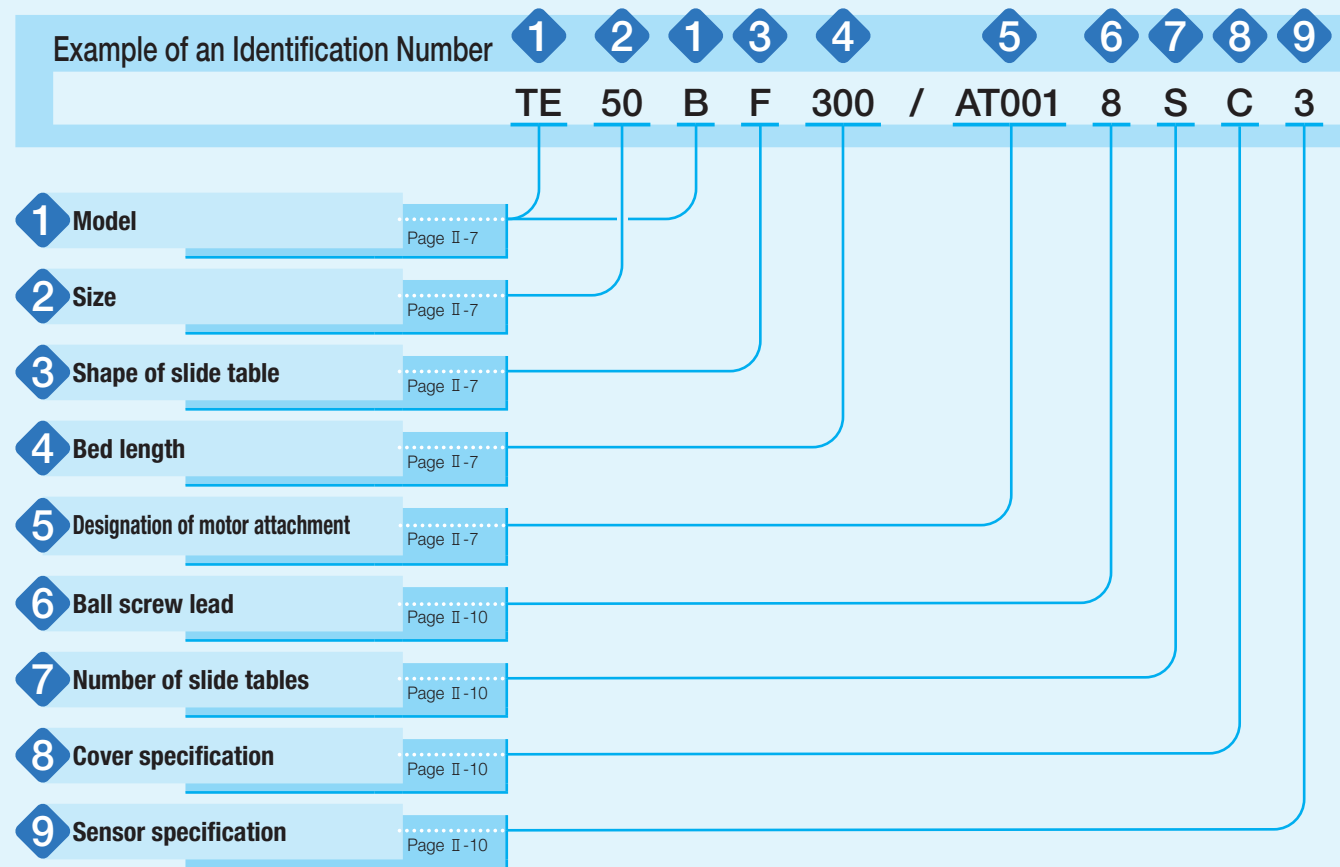| TE50B	TU50	TE60B	TU60	TE86B	TU86
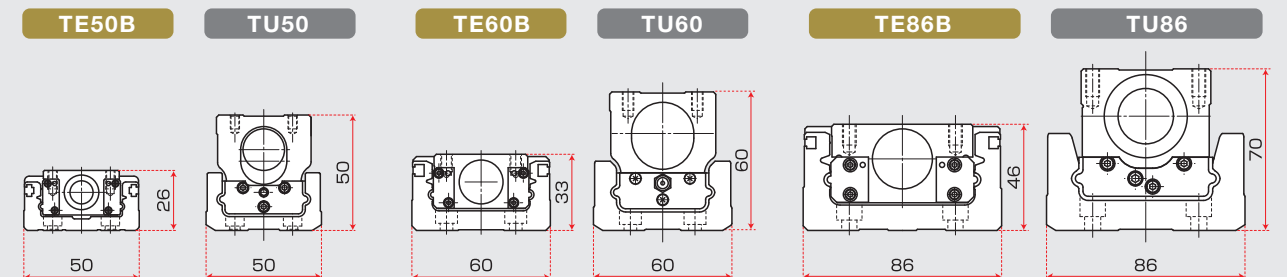
● Mass

Model and size	Stroke length（mm）	Overall length（mm）	Mass（kg）	Mass / 100mm（kg）
TE50B	60	218	0.52	0.24
TU50	60	226	1.8	0.80
TE60B	100	269	1.0	0.37
TU60	100	298	3.3	1.11
TE86B	300	523	3.7	0.71
TU86	250	498	10.9	2.19

Variation

Shape		Model	Bed width（mm）		
			50	60	86
Standard		TE…BS	☆	☆	☆
With flange		TE…BF	☆	☆	☆

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

TE•••B

Identification Number

Example of an Identification Number

① ② ① ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

| TE | 50 | B | F | 300 | / | AT001 | 8 | S | C | 3 |

① Model — Page Ⅱ-7

② Size — Page Ⅱ-7

③ Shape of slide table — Page Ⅱ-7

④ Bed length — Page Ⅱ-7

⑤ Designation of motor attachment — Page Ⅱ-7

⑥ Ball screw lead — Page Ⅱ-10

⑦ Number of slide tables — Page Ⅱ-10

⑧ Cover specification — Page Ⅱ-10

⑨ Sensor specification — Page Ⅱ-10

Identification Number and Specification

① Model

TE···B: Precision Positioning Table TE

② Size

Size indicates bed width.
Select a size from the list of Table 1.

③ Shape of slide table

S: Standard table
F: Flange type standard table

④ Bed length

Select a bed length from the list of Table 1.

Table 1 Sizes and bed lengths
unit: mm

Model and size	Bed width	Bed length
TE50B	50	150; 200, 250, 300, 400, 500
TE60B	60	150, 200, 300, 400, 500, 600, 700
TE86B	86	340; 440, 540, 640, 740, 840, 940

Remark: For stroke length, please see the dimension tables shown in pages of Ⅱ-19 or later.

⑤ Designation of motor attachment

AT000　　　　 : Motor inline specification　　　Without motor attachment
AT001 to AT011 : Motor inline specification　　　With motor attachment
AR000　　　　 : Motor folding back specification　Without motor attachment
AR001 to AR008 : Motor folding back specification　With motor attachment
To specify the motor attachment, select it from the list of Table 2.1 and Table 2.2.

· Please specify motor folding back specification and motor attachment applicable to motor for use.
· If motor inline specification with motor attachment is specified, the main body is shipped with a coupling indicated in the Table 3 mounted. However, the final position adjustment should be made by customer since it is only temporarily fixed. For a product without motor attachment (AT000), no coupling is attached.
· If motor folding back specification with motor attachment is specified, "housing applicable to the specified motor, pulley (on motor side and ball screw side), cover, motor bracket, belt and bolts necessary for assembly" are supplied. Motor mounting bolts should be prepared by customer.

Identification Number and Specification

Table 2.1 Application of motor attachment (motor inline specification)

Type	Manufacturer	Series	Model	Rated output W	Flange size mm	TE50B	TE60B	TE86B
AC servo motor	YASKAWA ELECTRIC CORPORATION	Σ-7	SGM7J-A5A	50	□40	AT001	AT002	—
			SGM7A-A5A	50		AT001	AT002	—
			SGM7J-01A	100		—	AT002	—
			SGM7A-01A	100		—	AT002	—
			SGM7J-02A	200	□60	—	—	AT003
			SGM7A-02A	200		—	—	AT003
	Mitsubishi Electric Corporation	J4/J5	HG-MR053	50	□40	AT001	AT002	—
			HG-KR053/HK-KT053W	50		AT001	AT002	—
			HG-MR13	100		—	AT002	—
			HG-KR13/HK-KT13W	100		—	AT002	—
			HG-MR23	200	□60	—	—	AT003
			HG-KR23/HK-KT23W	200		—	—	AT003
	Panasonic Corporation	MINAS A6	MSMF5A	50	□38	AT004	AT005	—
			MSMF01	100		—	AT005	—
			MSMF02	200	□60	—	—	AT006
	Hitachi Industrial Equipment Systems Co., Ltd	AD	ADMA-R5L	50	□40	AT001	AT002	—
			ADMA-01L	100		—	AT002	—
			ADMA-02L	200	□60	—	—	AT003
Stepper motor	ORIENTAL MOTOR Co., Ltd.	α step	ARM46		□42	AT007	—	—
			ARM66		□60	—	—	AT008
			ARM69		□60	—	—	AT008
		CRK	CRK54		□42	AT009	—	—
			CRK56 [1]		□60	—	AT010	AT011

Note [1] Applicable to the outer diameter φ8 of motor output shaft.
Remark: For detailed motor specifications, please see respective motor manufacturer's catalog.

Table 2.2 Application of NEMA motor attachment (motor inline specification)

Type	Manufacturer	Series	Model	Rated output W	Flange size inch	TE50B	TE60B	TE86B
AC servo motor	Allen-Bradley	TLY(metric)	TLY-A110(AA type)	41	□40	AT001	AT002	—
			TLY-A120(AA type)	86	□40	AT001	AT002	—
			TLY-A130(AA type)	140	□40	AT001	AT002	—
			TLY-A220(AA type)	350	□60	—	—	AT003 [3]
			TLY-A230(AA type)	440	□60	—	—	AT003 [3]
		TLY(NEMA)	TLY-A120(AN type)	86	□42	TAE9043-ATE137 [1]	—	—
			TLY-A130(AN type)	140	□42	TAE9043-ATE137 [1]	—	—
			TLY-A220(AN type)	350	□56.4	—	—	TAE9017-ATE135 [1]
			TLY-A230(AN type)	440	□56.4	—	—	TAE9017-ATE135 [1]
			TLY-A2530(AN type)	690	□86	—	—	TAE9056-ATE134 [1]
			TLY-A2540(AN type)	860	□86	—	—	TAE9056-ATE134 [1]
Servo or Stepper		NEMA17C				TAE9043-ATE110 [1][2]	—	—
		NEMA23D				TAE9017-ATE096 [1]	TAE9017-ATE096 [1][2]	—
							TAE9017-ATE097 [1][2]	—
		NEMA34D				—	—	TAE9056-ATE095 [1][2]

Note [1] The TAE part numbers are the part number of motor attachment component sold separately. In the TE part number, please choose motor attachment code AT000. No Coupling is included. It is required to consider customer's operation patterns for these motor attachment.
[2] Please confirm the length and the diameter of the motor shaft etc., and check the usability of the motor attachment with your motor beforehand.
[3] It is required to change the delivered coupling to XGS-30C-8×12 which is for the 12mm motor shaft by customer.
Remark: For detailed motor specifications, please see respective motor manufacturer's catalog.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

Identification Number and Specification

Table 2.3 Application of motor attachment (motor folding back specification)

Motor to be used				Flange size mm	Motor attachment		
Type	Manufacturer	Series	Model	Rated output W	TE50B	TE60B	TE86B
AC servo motor	YASKAWA ELECTRIC CORPORATION	Σ-7	SGM7J-A5A	50	AR001	AR002	−
			SGM7A-A5A		AR001	AR002	−
			SGM7J-01A	100	−	AR002	−
			SGM7A-01A		−	AR002	−
			SGM7J-02A	200	−	−	AR003
			SGM7A-02A		−	−	AR003
	Mitsubishi Electric Corporation	J4/J5	HG-MR053	50	AR001	AR002	−
			HG-KR053/HK-KT053W		AR001	AR002	−
			HG-MR13	100	−	AR002	−
			HG-KR13/HK-KT13W		−	AR002	−
			HG-MR23	200	−	−	AR003
			HG-KR23/HK-KT23W		−	−	AR003
	Panasonic Corporation	MINAS A6	MSMF5A	50	AR004	AR005	−
			MSMF01	100	−	AR005	−
			MSMF02	200	−	−	AR006
	Hitachi Industrial Equipment Systems Co., Ltd	AD	ADMA-R5L	50	AR001	AR002	−
			ADMA-01L	100	−	AR002	−
			ADMA-02L	200	−	−	AR003
Stepper motor	ORIENTAL MOTOR Co., Ltd.	α step	ARM46		AR007	−	−
		CRK	CRK54		AR008	−	−

(Flange size: □40 for the first six AC servo rows split — SGM7J-A5A/SGM7A-A5A/SGM7J-01A/SGM7A-01A: □40; SGM7J-02A/SGM7A-02A: □60; HG-MR053/HG-KR053 etc: □40; HG-MR13/HG-KR13: □40; HG-MR23/HG-KR23: □60; MSMF5A/MSMF01: □38; MSMF02: □60; ADMA-R5L/ADMA-01L: □40; ADMA-02L: □60; ARM46: □42; CRK54: □42)

Remark: For detailed motor specifications, please see respective motor manufacturer's catalog.

Table 3 Coupling models (motor inline specification)

Motor attachment	Coupling models	Manufacturer	Coupling inertia J_c $\times 10^{-5}$kg·m²
AT001	XGS-19C- 5× 8	Nabeya Bi-tech Kaisha	0.062
AT002	XGS-19C- 5× 8	Nabeya Bi-tech Kaisha	0.062
AT003	XGS-30C- 8×14	Nabeya Bi-tech Kaisha	0.55
AT004	XGS-19C- 5× 8	Nabeya Bi-tech Kaisha	0.062
AT005	XGS-19C- 5× 8	Nabeya Bi-tech Kaisha	0.062
AT006	XGS-30C- 8×11	Nabeya Bi-tech Kaisha	0.55
AT007	XGS-19C- 5× 6	Nabeya Bi-tech Kaisha	0.062
AT008	XGS-30C- 8×10	Nabeya Bi-tech Kaisha	0.55
AT009	XGS-19C- 5× 5	Nabeya Bi-tech Kaisha	0.062
AT010	XGS-19C- 5× 8	Nabeya Bi-tech Kaisha	0.062
AT011	XGS-30C- 8× 8	Nabeya Bi-tech Kaisha	0.55
TAE9043-ATE137	XGS-19C- 5× 6.35	Nabeya Bi-tech Kaisha	0.062
TAE9017-ATE135	XGS-30C- 8×12.7	Nabeya Bi-tech Kaisha	0.55
TAE9056-ATE134	XGS-34C- 8×15.875	Nabeya Bi-tech Kaisha	1.0

Remark: For detailed coupling specification, please see the manufacturer's catalog.

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6 Ball screw lead

Select from among ball screw leads applicable to the sizes and bed lengths shown in the table below.

Model and size	Bed length mm	Ball screw lead mm				
		4	5	8	10	20
TE50B	300 or less	○	−	○	−	−
	400 or more	−	−	○	−	−
TE60B	600 or less	−	○	−	○	−
	700	−	−	−	−	○
TE86B	All	−	−	−	○	○

7 Number of slide table

S: One unit
C: Two units

8 Cover specification

0: Without cover
C: With bridge cover (applied to TE···BF)

9 Specification of sensor

0: Without sensor
2: Two units of sensor mounted (limit)
3: Three units of sensor mounted (limit, pre-origin)
4: Four units of sensor mounted (limit, pre-origin, origin)
5: Two sensors attached (limit)
6: Three sensors attached (limit, pre-origin)
7: Four sensors attached (limit, pre-origin and origin sensors)

If sensor mounting (symbol 2, 3, or 4) is specified, the sensor is mounted into the mounting groove on the side of bed, and two detecting plates are attached onto the slide table.
If sensor attachment (symbol 5, 6, or 7) is specified, specified number of sensors are attached including mounting screws for sensors, nuts, two detecting plates, and mounting screws for the detecting plates.

Specifications

Table 4 Accuracy

unit: mm

Model and size	Bed length	Positioning repeatability	Positioning accuracy (1)	Parallelism in table motion B	Backlash (1)
TE50B	150	±0.002 (±0.020)	0.035	0.008	0.005
	200				
	250		0.040		
	300				
	400		0.045	0.010	
	500			0.012	
TE60B	150	±0.002 (±0.020)	0.035	0.008	0.005
	200				
	300		0.040		
	400		0.045		
	500			0.010	
	600		0.050		
	700		0.060	0.012	
TE86B	340	±0.002 (±0.020)	0.040	0.008	0.005
	440		0.045	0.010	
	540		0.050		
	640			0.012	
	740		0.055		
	840		0.065	0.014	
	940			0.016	

Note (1) This does not apply to table of motor folding back specification.
Remark: The values in ( ) are reference values provided that the timing belt tension is properly adjusted in motor folding back specification table.

Table 5 Maximum carrying mass

Model and size	Ball screw lead mm	Carrying mass position mm Height H	Maximum carrying mass kg							
			Horizontal direction				Vertical direction			
		Length L	0	100	200	300	0	100	200	300
TE50B	4	0	12	12	7	5	11	7	3.8	2.6
		100	12	12	7	4.9	6	4.4	2.9	2.1
		200	12	11	6	4.7	3.6	2.8	2.3	1.8
		300	12	10	6	4.6	2.5	2.1	1.8	1.6
	8	0	12	10	5	3.9	7	5	2.9	2.0
		100	12	8	5	3.6	5	3.4	2.3	1.7
		200	12	7	4.6	3.3	2.8	2.2	1.8	1.4
		300	11	6	4.1	3.1	1.9	1.6	1.4	1.2
TE60B	5	0	17	17	11	8	13	10	5	3.8
		100	17	17	11	7	9	6	4.4	3.2
		200	17	16	10	7	5	4.2	3.5	2.8
		300	17	14	9	7	3.7	3.1	2.7	2.4
	10	0	17	15	8	5	8	8	4.3	3.0
		100	17	11	7	5	7	5	3.4	2.5
		200	17	9	6	4.8	4.1	3.3	2.7	2.1
		300	13	8	5	4.4	2.8	2.4	2.1	1.8
	20	0	17	9	5	3.8	7	5	3.2	2.2
		100	13	6	4.3	3.2	5	3.7	2.5	1.8
		200	7	4.9	3.5	2.7	3.0	2.4	1.9	1.5
		300	5	3.9	3.0	2.4	2.1	1.7	1.5	1.3
TE86B	10	0	36	36	25	18	18	18	13	9
		100	36	35	22	16	18	15	10	7
		200	36	29	20	15	12	10	8	6
		300	36	24	17	13	9	7	6	5
	20	0	29	28	16	11	10	10	10	6
		100	29	19	13	10	10	10	7	5
		200	23	15	11	8	9	7	6	5
		300	17	12	9	7	6	5	4.8	4.3

Remarks 1. The value is for one flange type standard table.
2. The maximum carrying mass is adjusted by the mass when the rating life of the linear motion rolling guide, ball screws, or bearings is 18,000 hours during continuous operation at a number of revolutions of the motor of 3000min⁻¹ and an acceleration/deceleration time of 0.2s. The mass calculated is based upon the basic static load rating of the linear motion rolling guide.

Table 6 Maximum load mass

Model and size	Ball screw lead mm	Maximum load mass kg	
		Horizontal direction	Vertical direction
TE50B	4	105	26
	8	55	13
TE60B	5	172	44
	10	90	22
	20	46	11
TE86B	10	175	45
	20	91	23

Remarks 1. The maximum load mass shows the mass that ensures acceleration/deceleration of 0.3G.
2. The values shown in this table were calculated with the motor with the highest rated torque installed, selected from the AC servomotor models listed in Table 2.1.

Carrying mass position (horizontal direction)   Carrying mass position (vertical direction)
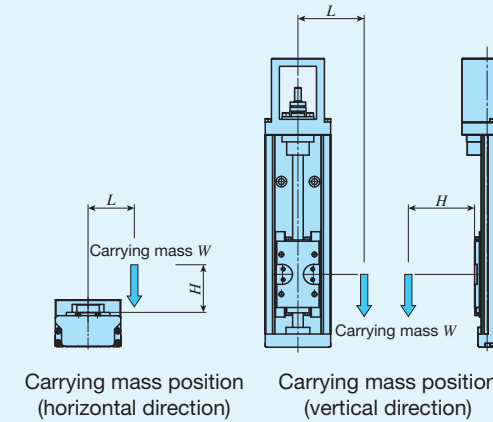
Table 7 Allowable moment

Model and size	Allowable moment (1) N・m		
	T_0	T_X	T_Y
TE50B	9.8 (19.6)	9.8 (48.4)	9.8 (48.4)
TE60B	16.7 (33.4)	16.7 (88.1)	16.7 (88.1)
TE86B	49.0 (98.0)	49.0 (247.0)	49.0 (247.0)

Note (1) The value in ( ) represents two slide tables in close contact.
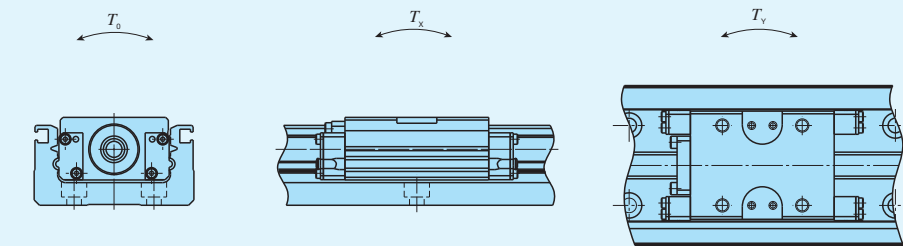
■ Allowable moment

Allowable moment refers to the maximum static moment that can be used without affecting functions or performance. Therefore, do not exceed the allowable moment value during operation.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

Table 8 Load rating of linear motion rolling guide

Model and size	Basic dynamic load rating C N	Basic static load rating C_0 N	Static moment rating [1] N·m		
			T_0	T_X	T_Y
TE50B	8 490	12 500	211 (422)	99.5 (508)	99.5 (508)
TE60B	12 400	17 100	354 (708)	151 (795)	151 (795)
TE86B	26 800	35 900	1 110 (2 220)	472 (2 400)	472 (2 400)

Note [1] In directions indicated in the above figures, the value in ( ) is for two slide tables in close contact.

Table 9 Maximum speed

Motor type	Model and size	Bed length mm	Maximum speed mm/s				
			Lead 4mm	Lead 5mm	Lead 8mm	Lead 10mm	Lead 20mm
AC servomotor	TE50B	300 or less	400	−	800	−	−
		400	−	−	800	−	−
		500	−	−	620	−	−
	TE60B	500 or less	−	500	−	1 000	−
		600	−	350	−	710	−
		700	−	−	−	−	960
	TE86B	540 or less	−	−	−	930	1 860
		640	−	−	−	830	1 630
		740	−	−	−	590	1 170
		840	−	−	−	440	880
		940	−	−	−	340	690
Stepper motor	TE50B	300 or less	120	−	240	−	−
		400	−	−	240	−	−
		500	−	−	240	−	−
	TE60B	600 or less	−	150	−	300	−
		700	−	−	−	−	600
	TE86B	940 or less	−	−	−	300	600

Remark: To measure the practical maximum speed, it is required to consider operation patterns based on the motor to be used and load conditions.

Table 10.1 Specifications of ball screw 1

Model and size	Lead mm	Shaft dia. mm	Basic dynamic load rating C N	Basic static load rating C_0 N
TE50B	4	8	2 290	3 575
	8		1 450	2 155
TE60B	5	10	2 730	4 410
	10		1 720	2 745
	20		1 636	2 790
TE86B	10	12	3 820	6 480
	20		2 300	3 920

Table 10.2 Specifications of ball screw 2

unit: mm

Model and size	Bed length	Shaft dia.	Overall length
TE50B	150	8	192.5
	200		242.5
	250		292.5
	300		342.5
	400		442.5
	500		542.5
TE60B	150	10	194
	200		244
	300		344
	400		444
	500		544
	600		644
	700		744
TE86B	340	12	395
	440		495
	540		595
	640		695
	740		795
	840		895
	940		995

Table 11 Moment of inertia of sectional area of bed

Model and size	Moment of inertia of sectional area mm^4		Center of gravity e mm
	I_X	I_Y	
TE50B	1.3×10^4	1.2×10^5	6.4
TE60B	4.7×10^4	3.2×10^5	8.8
TE86B	2.0×10^5	1.3×10^6	13.0

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

TE…B

Table 12 Table inertia and starting torque

Model and size	Bed length mm	Table inertia J_T [2] ×10⁻⁵kg·m²										Starting torque T_s [1] N·m
		Standard table					Flange type standard table					
		Lead					Lead					
		4mm	5mm	8mm	10mm	20mm	4mm	5mm	8mm	10mm	20mm	
TE50B	150	0.057	—	0.071	—	—	0.060	—	0.084	—	—	0.03
	200	0.069	—	0.083	—	—	0.072	—	0.096	—	—	
	250	0.085	—	0.099	—	—	0.088	—	0.112	—	—	
	300	0.097	—	0.111	—	—	0.100	—	0.124	—	—	
	400	—	—	0.139	—	—	—	—	0.152	—	—	
	500	—	—	0.167	—	—	—	—	0.180	—	—	
TE60B	150	—	0.13	—	0.17	—	—	0.14	—	0.20	—	0.03
	200	—	0.19	—	0.23	—	—	0.20	—	0.26	—	
	300	—	0.26	—	0.30	—	—	0.27	—	0.33	—	
	400	—	0.33	—	0.36	—	—	0.34	—	0.40	—	
	500	—	0.40	—	0.44	—	—	0.41	—	0.47	—	
	600	—	0.47	—	0.51	—	—	0.48	—	0.54	—	
	700	—	—	—	—	0.76	—	—	—	—	0.88	
TE86B	340	—	—	—	0.73	1.19	—	—	—	0.81	1.50	0.05
	440	—	—	—	0.88	1.35	—	—	—	0.95	1.64	
	540	—	—	—	1.03	1.50	—	—	—	1.11	1.80	
	640	—	—	—	1.18	1.64	—	—	—	1.25	1.95	
	740	—	—	—	1.33	1.79	—	—	—	1.41	2.10	
	840	—	—	—	1.48	1.94	—	—	—	1.56	2.25	
	940	—	—	—	1.63	2.10	—	—	—	1.71	2.40	

Notes [1] When two units of slide table are used, it is about 1.5 times as long as that of one unit, and when table of motor folding back specification is used, it is about twice.
[2] For motor folding back specification, please add the following value to the value in the table.
TE50B: 0.17×10⁻⁵kg·m², TE60B: 0.39×10⁻⁵kg·m², TE86B: 0.86×10⁻⁵kg·m²

Mounting

For the processing accuracy of the Precision Positioning Table mounting surface and the tightening torque of the fixing screws, see page Ⅲ-30.

Motor Folding Back Specification

Motor folding back specification is available for Precision Positioning Table TE, space can be saved by folding back the motor and reducing the overall length of the table. For dimensions of motor folding back specification, please refer to respective dimension table.

For motor folding back specification, assembly should be made by customer since "housing applicable to the specified motor, pulley (on motor side and ball screw side), cover, motor bracket, belt and bolts necessary for assembly" are supplied. However, motor mounting bolts should be prepared by customer. The motor attachment can be attached in 4 directions as indicated in the following figure.

There is difference in dimension between where the motor attachment or the motor is lower than the bottom of the bed depending on the motor folding back direction. Do the design ensuring that the peripheral components do not interfere and that enough allowance is provided according to the approximate values in the dimension table shown in Page Ⅱ-25 to Ⅱ-30.

Motor folding back upward

Motor folding back to left

Motor folding back downward

Motor folding back to right
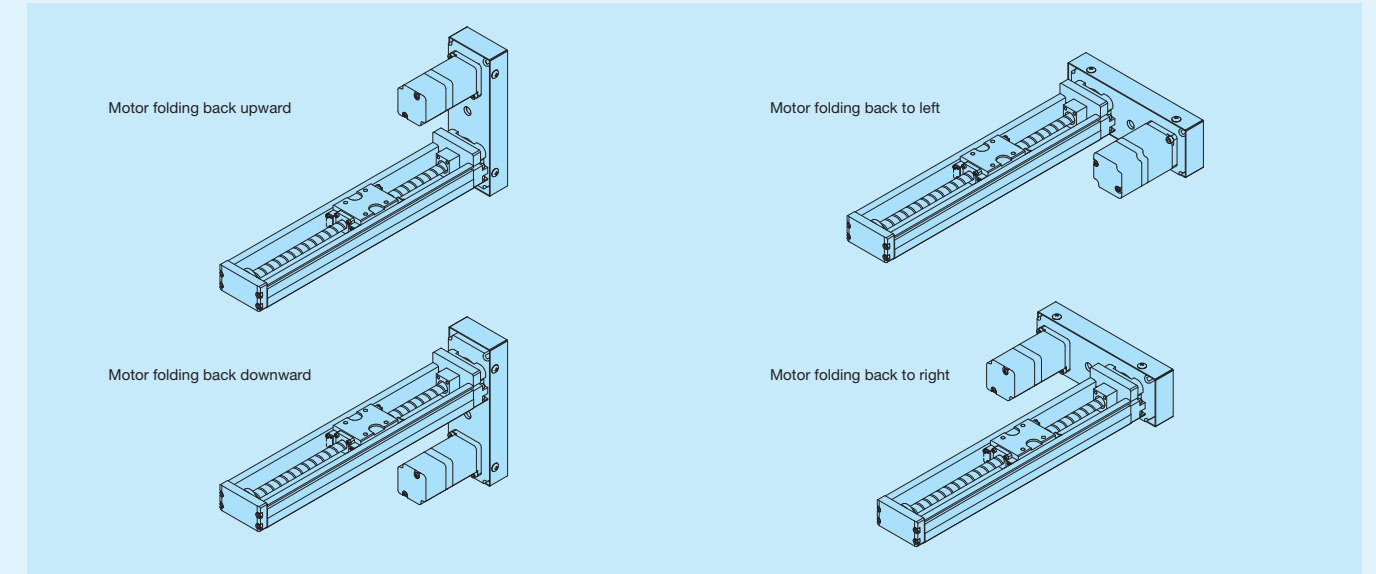
Two Slide Table Specification

Two slide table specification is available for Precision Positioning Table TE. Ball screw nuts are mounted on slide table at the motor side, and it can be driven by the motor (driving table). Ball screw nuts are not mounted on slide table at the opposite motor side, and it is free condition (driven table).

It is possible to make the structure resistant to moment load by using two slide tables in combination (Table 7). When combining slide tables, allow more clearance than "Minimum center distance between two slide tables in close contact" described in the dimension table shown in pages Ⅱ-19 to Ⅱ-30. (Enlarging the span will shorten the stroke.)
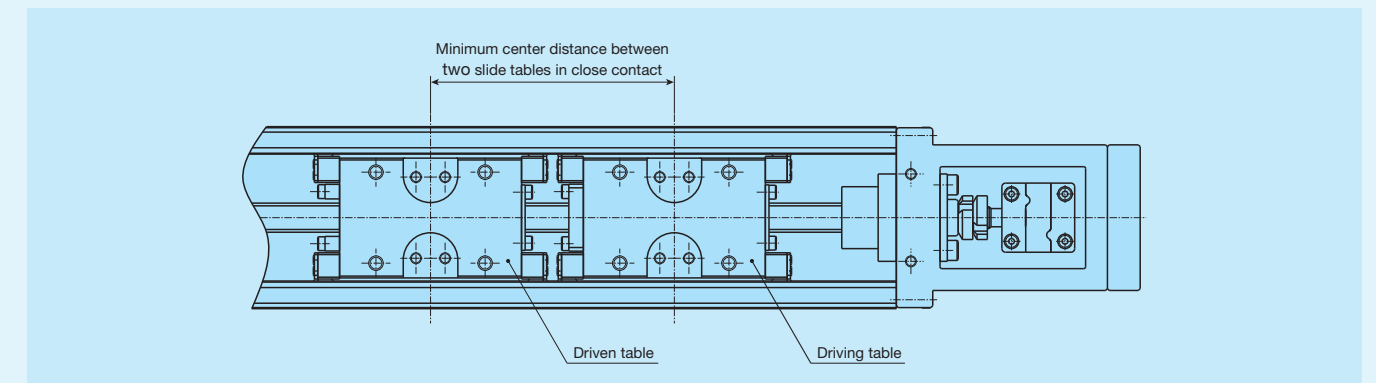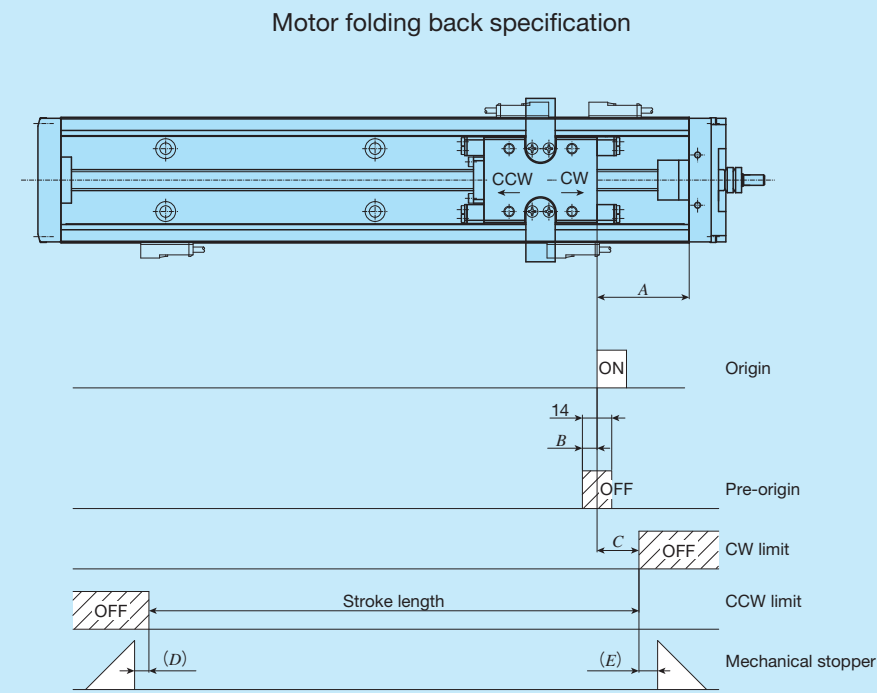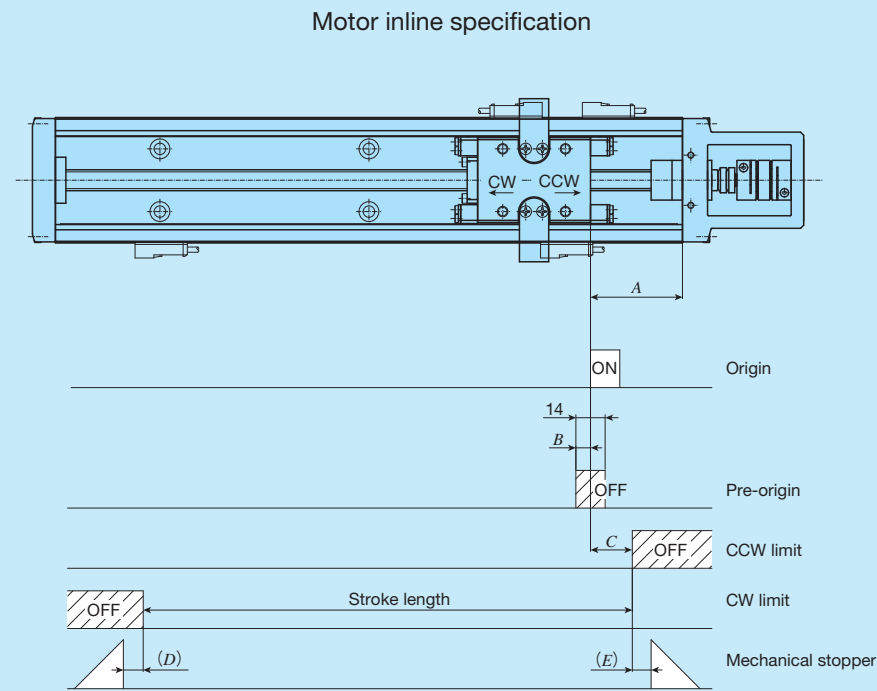
Minimum center distance between two slide tables in close contact

Driven table

Driving table

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

Sensor Specification

Table 13 Sensor timing chart

Motor inline specification

Motor folding back specification

unit: mm

Model and size	Ball screw lead	A	B	C	D(¹)	E
TE50B	4	33	2	10	6 (9)	5
	8		6			
TE60B	5	44	3	20	9.5(8.5)	9
	10		7			
	20		12			
TE86B	10	50	7	20	11 (11)	10
	20		12			

Note (¹) The value in ( ) represents dimensions for two slide tables.
Remarks 1. Mounting a sensor is specified using the corresponding identification number.
    2. For the specifications of respective sensors, please see the section of sensor specification in General Explanation.
    3. For the motor folding back specification, CW and CCW will invert.

Dimensions of Motor Attachment

■ Motor inline specification

Remark: Motor attachment for NEMA, please see the pages Ⅲ-32 or later.

TE50B

AT000 (without attachment)
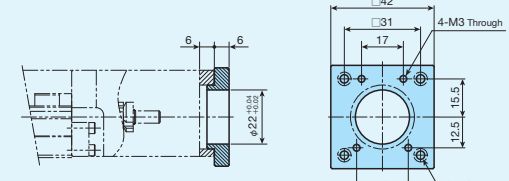
TAE9043-ATE110
TAE9043-ATE109
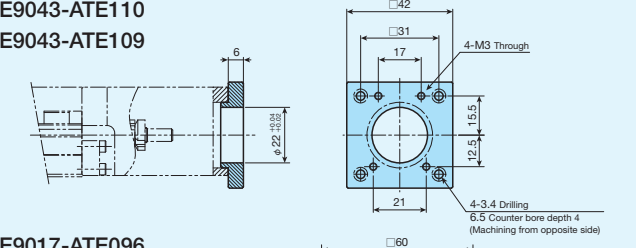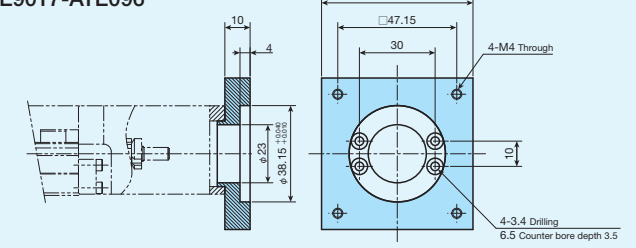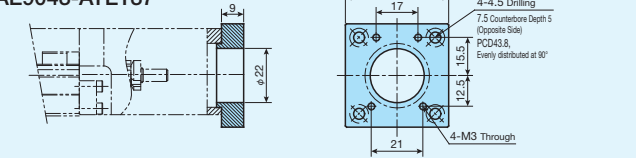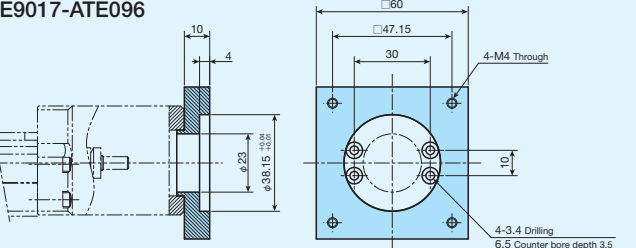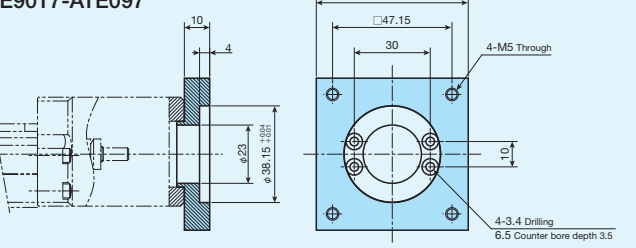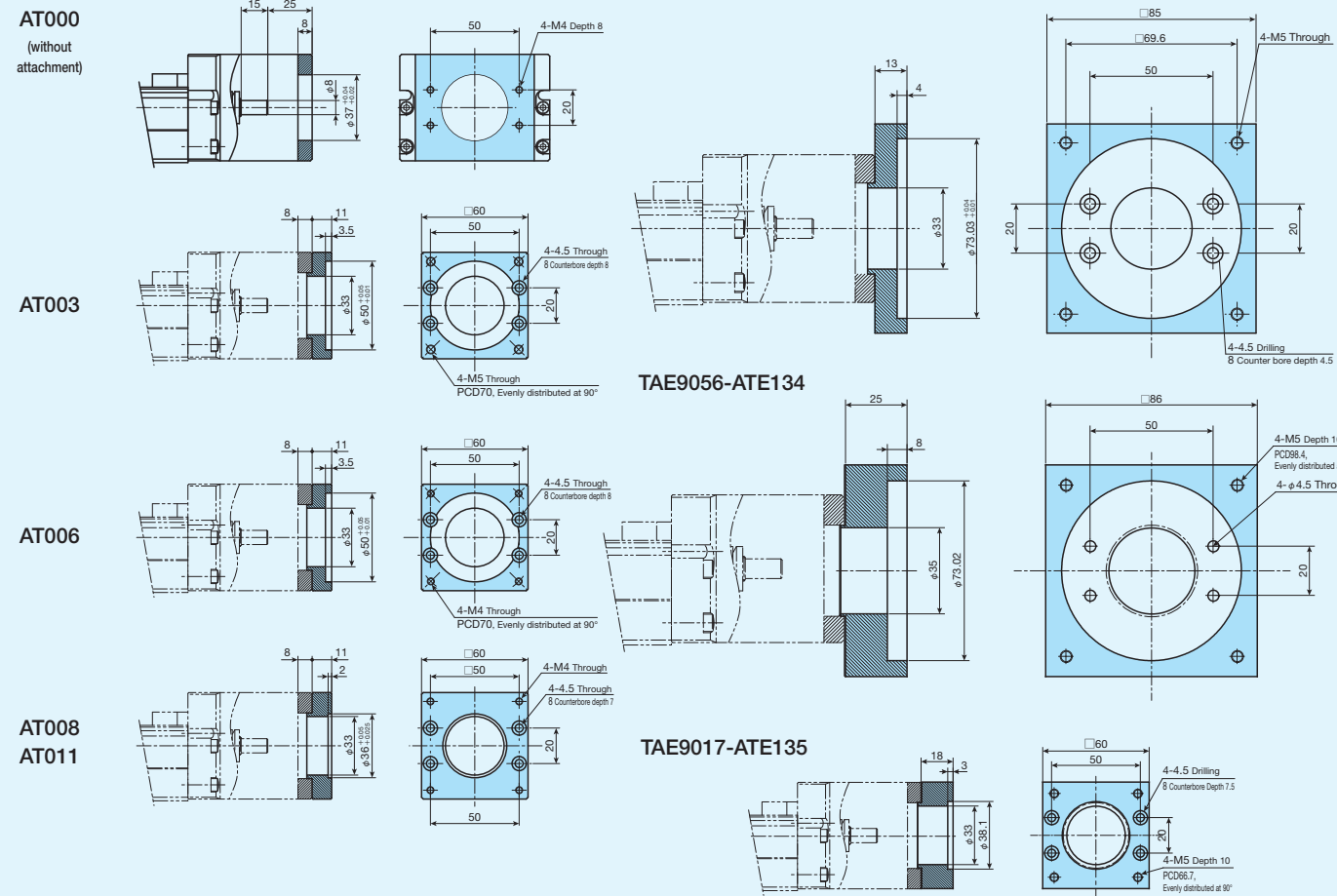
AT001

TAE9017-ATE096

AT004

TAE9043-ATE137

AT007
AT009

TE60B

AT000 (without attachment)

TAE9017-ATE096

AT002

TAE9017-ATE097

AT005

AT010

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

TE···B

TE86B

AT000 (without attachment)

AT003

AT006

AT008 AT011

TAE9056-ATE095

TAE9056-ATE134

TAE9017-ATE135

■ Motor folding back specification

TE50B

AR000 (without attachment)

AR001

AR004

AR007

AR008

TE60B

AR000 (without attachment)

AR002

AR005

TE86B

AR000 (without attachment)

AR003

AR006

TE···B

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch
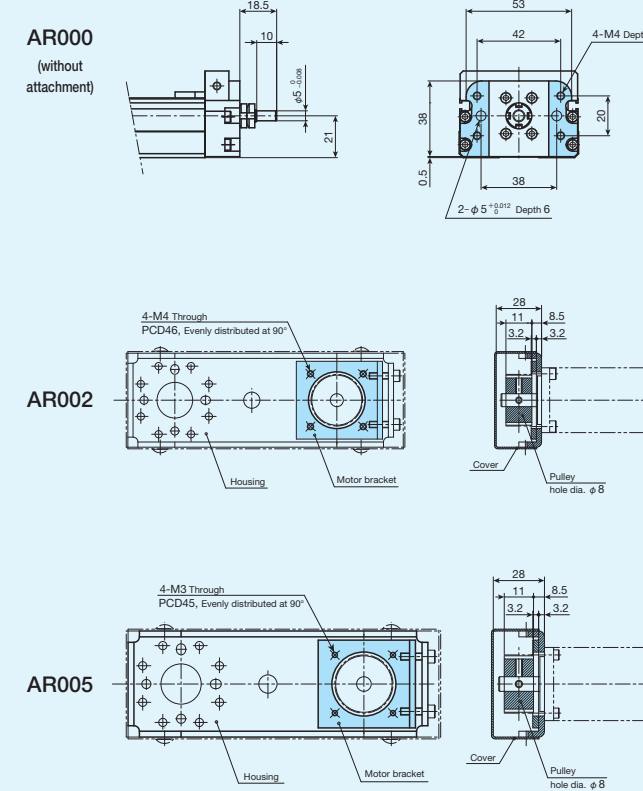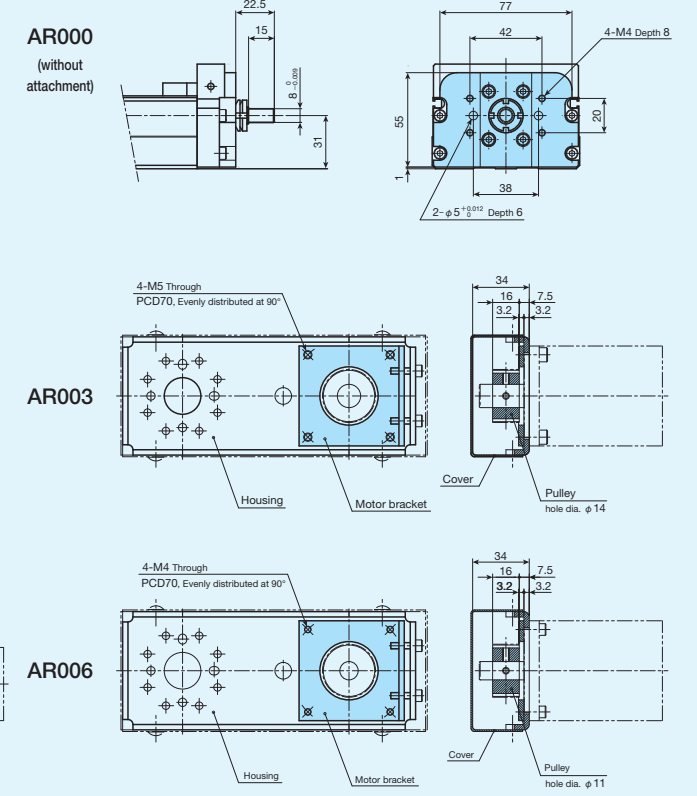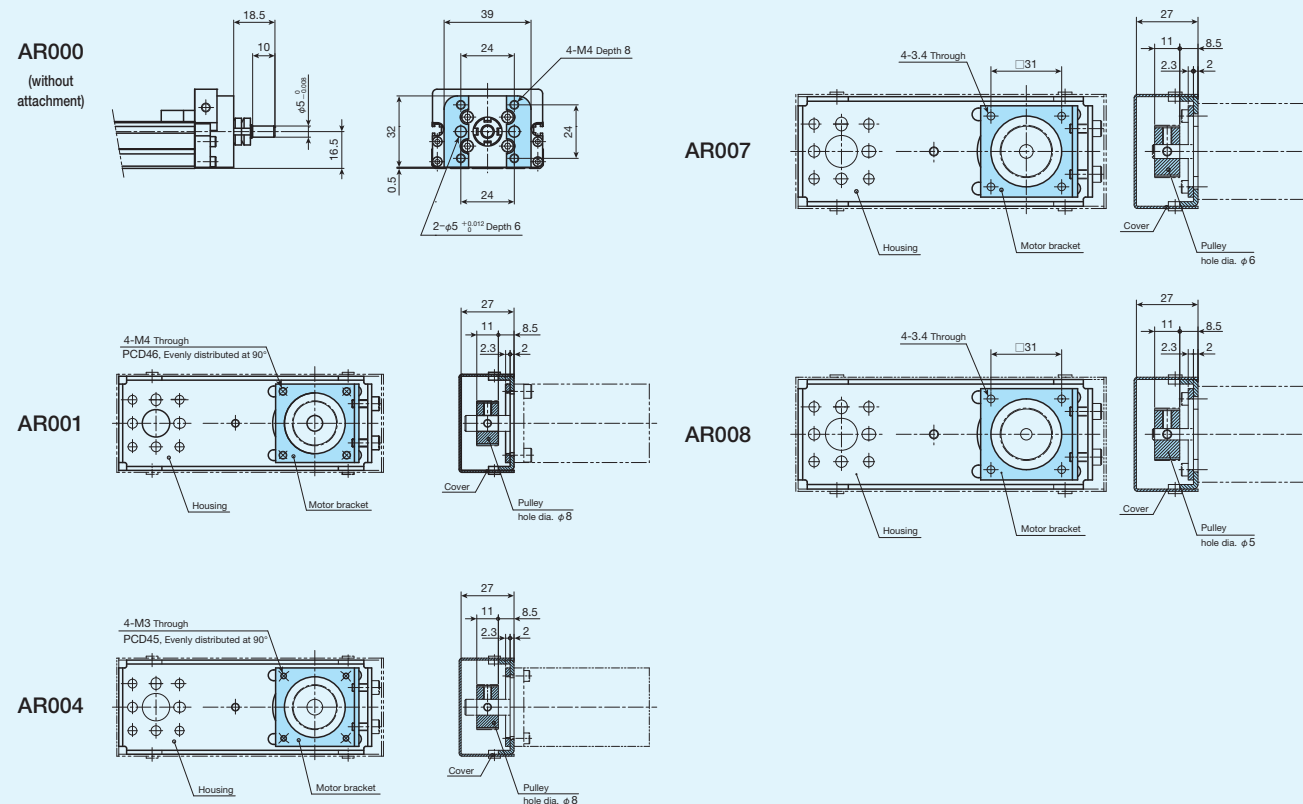
TE50BS (Motor inline specification)

A—A Sectional dimension
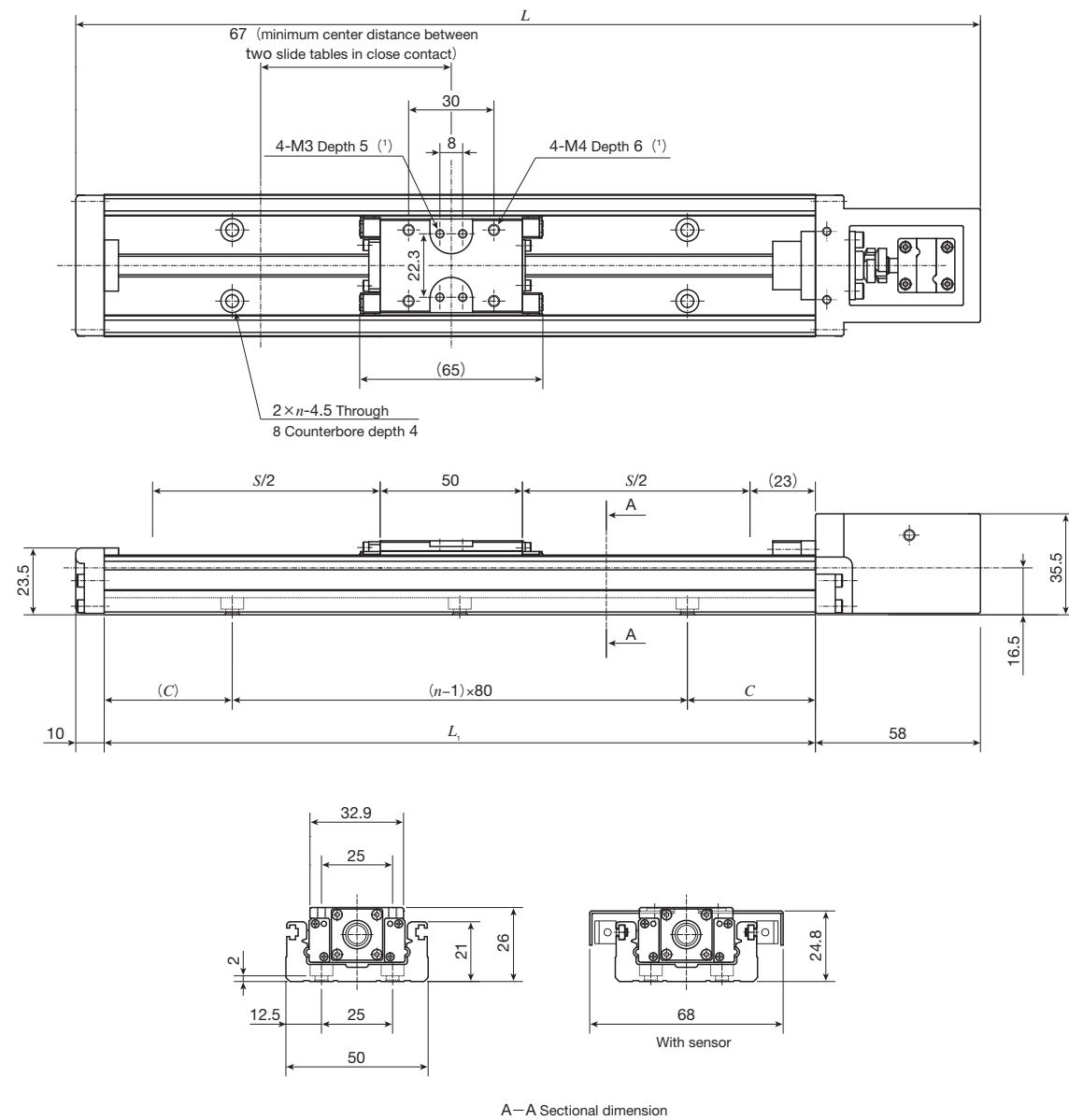
unit: mm

Bed length	Overall length	Stroke length	Mounting holes of bed		Mass（Ref.）
L_1	L	$S^{(2)}$	C	n	$kg^{(3)}$
150	218	60（ － ）	35	2	0.52
200	268	110（ 40）	20	3	0.62
250	318	160（ 90）	45	3	0.72
300	368	210（140）	30	4	0.82
400	468	310（240）	40	5	1.02
500	568	410（340）	10	7	1.22

Notes （1）Too deep insertion depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the through hole.
（2）The value indicates the allowable stroke when limit sensors are mounted. The value in （ ） represents dimension for two slide tables in close contact.
（3）The value shows the mass of the entire table with one slide table, and it is 0.07kg heavier with two slide tables.
Remarks 1. Motor attachment for AC servomotor is 3.5mm lower than the bottom of the bed.
　　　　2. Motor attachment for stepper motor is 4.5mm lower than the bottom of the bed.

TE50BF (Motor inline specification)
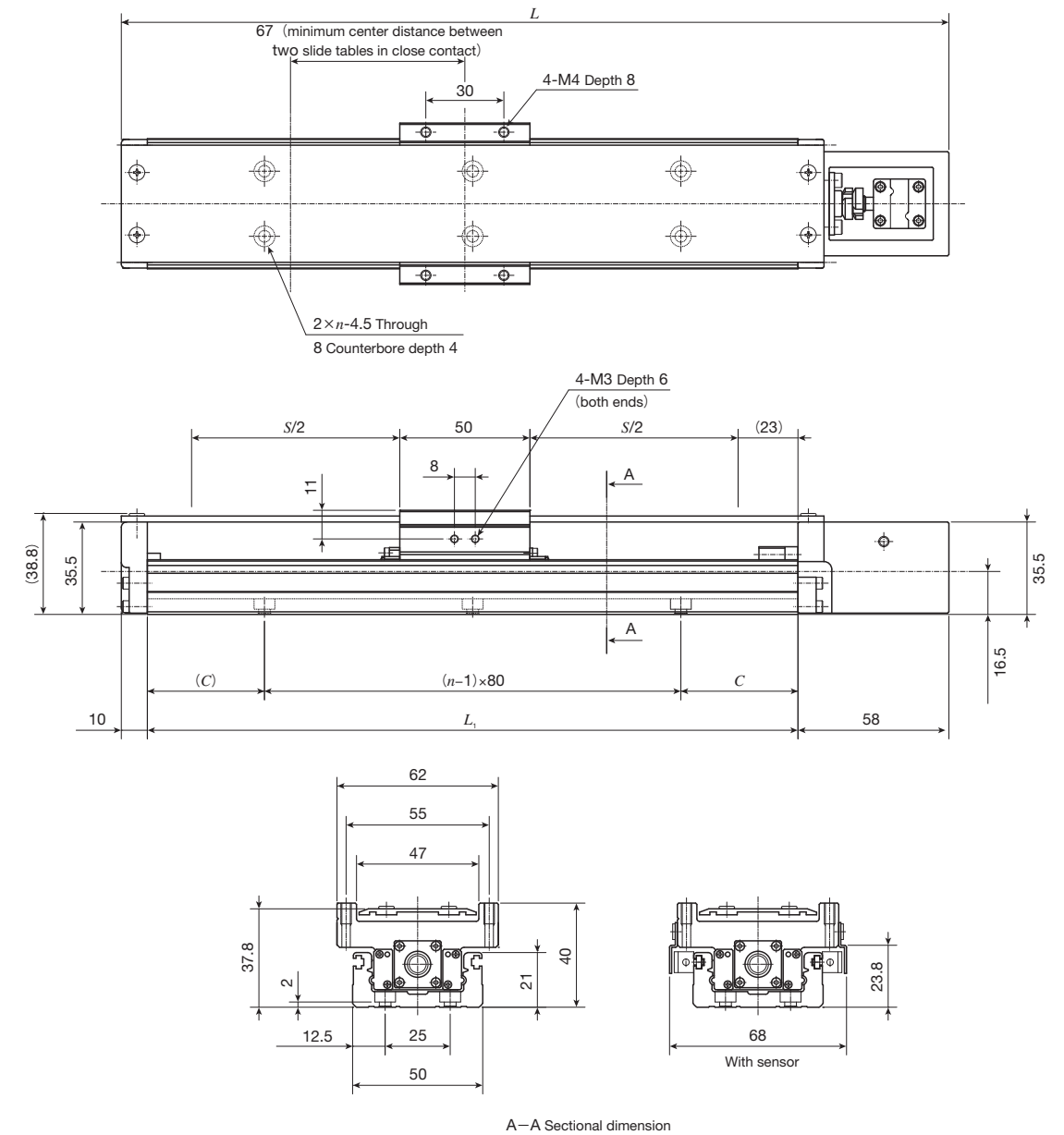
A—A Sectional dimension

unit: mm

Bed length	Overall length	Stroke length	Mounting holes of bed		Mass（Ref.）
L_1	L	$S^{(1)}$	C	n	$kg^{(2)}$
150	218	60（ － ）	35	2	0.65
200	268	110（ 40）	20	3	0.75
250	318	160（ 90）	45	3	0.85
300	368	210（140）	30	4	0.94
400	468	310（240）	40	5	1.14
500	568	410（340）	10	7	1.33

Notes （1）The value indicates the allowable stroke when limit sensors are mounted. The value in （ ） represents dimension for two slide tables in close contact.
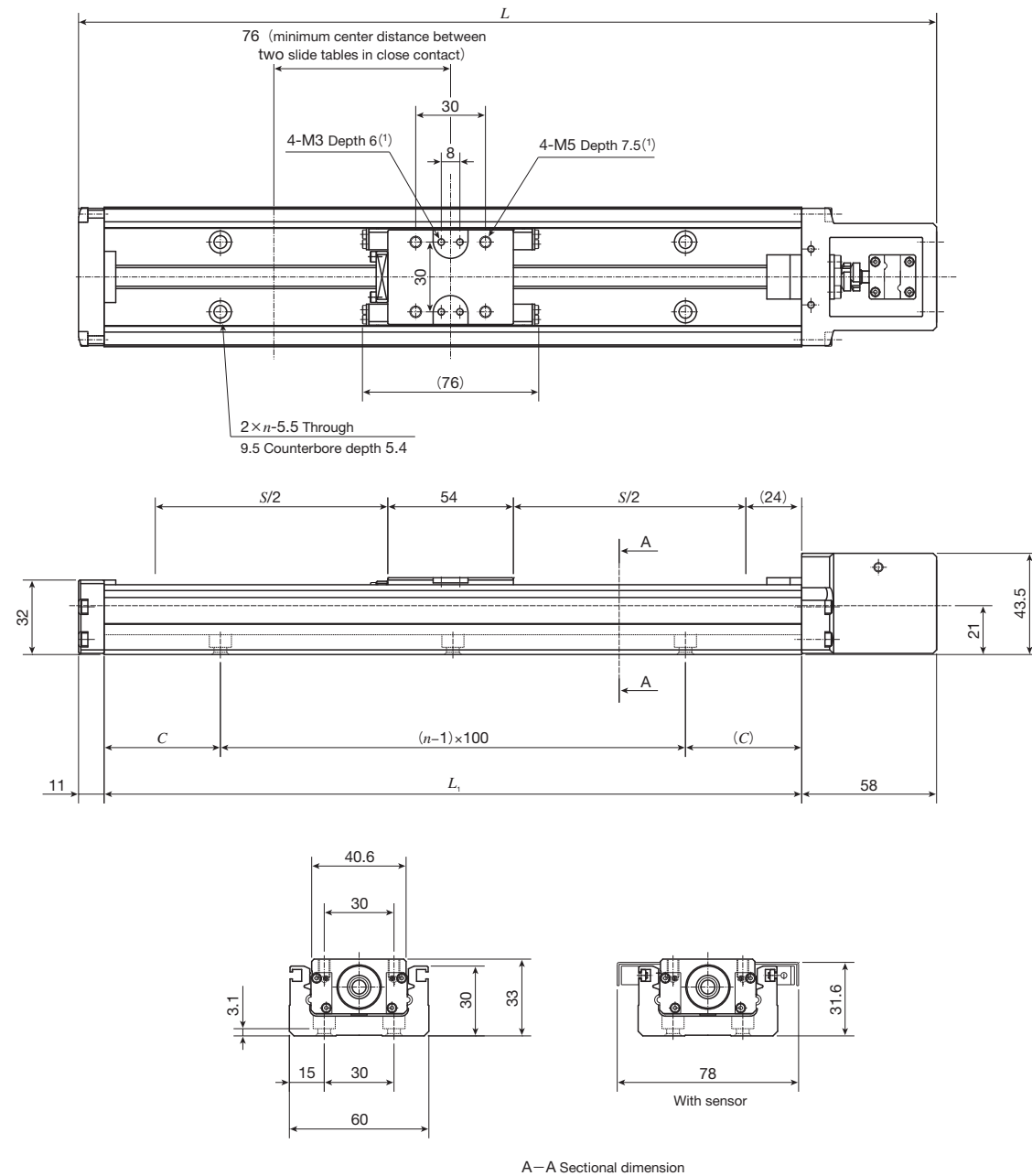（2）The value shows the mass of the entire table with one slide table, and it is 0.16kg heavier with two slide tables.
Remarks 1. Motor attachment for AC servomotor is 3.5mm lower than the bottom of the bed.
　　　　2. Motor attachment for stepper motor is 4.5mm lower than the bottom of the bed.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

TE60BS (Motor inline specification)

4-M3 Depth 6(1)

4-M5 Depth 7.5(1)

76 (minimum center distance between two slide tables in close contact)

30

2×n-5.5 Through
9.5 Counterbore depth 5.4

(76)

S/2　54　S/2　(24)

C　(n−1)×100　(C)

11　L₁　58

40.6
30
15　30
60

78
With sensor

A—A Sectional dimension

unit: mm

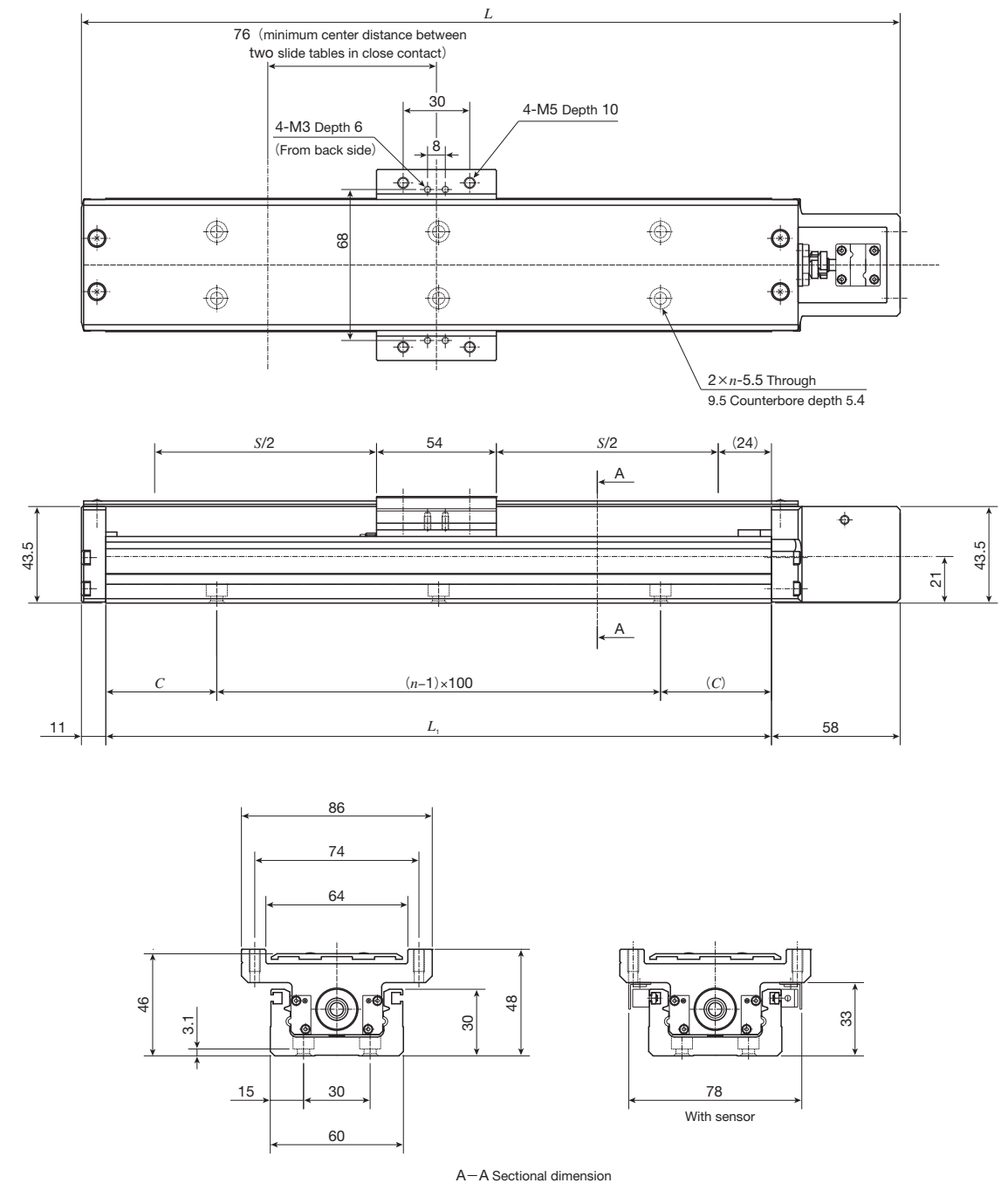| Bed length	Overall length	Stroke length	Mounting holes of bed		Mass（Ref.）
L₁	L	S(2)	C	n	kg(3)
150	219	50（ − ）	25	2	0.9
200	269	100（ − ）	50	2	1.0
300	369	200（125）	50	3	1.3
400	469	300（225）	50	4	1.6
500	569	400（325）	50	5	1.9
600	669	500（425）	50	6	2.2
700	769	600（525）	50	7	2.5

Notes （1）Too deep a fixing thread depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the tapped hole.
　　（2）The value indicates the allowable stroke when limit sensors are mounted. The value in （ ） represents dimension for two slide tables in close contact.
　　（3）The value shows the mass of the entire table with one slide table, and it is 0.1kg heavier with two slide tables.
Remark: Motor attachment for stepper motor is 9mm lower than the bottom of the bed.

TE60BF (Motor inline specification)

76 (minimum center distance between two slide tables in close contact)

30

4-M3 Depth 6
(From back side)

4-M5 Depth 10

68

2×n-5.5 Through
9.5 Counterbore depth 5.4

S/2　54　S/2　(24)

43.5

C　(n−1)×100　(C)

11　L₁　58

86
74
64
46
3.1
15　30
60

78
With sensor

A—A Sectional dimension

unit: mm

Bed length	Overall length	Stroke length	Mounting holes of bed		Mass（Ref.）
L₁	L	S(1)	C	n	kg(2)
150	219	50（ − ）	25	2	1.1
200	269	100（ − ）	50	2	1.2
300	369	200（125）	50	3	1.5
400	469	300（225）	50	4	1.9
500	569	400（325）	50	5	2.2
600	669	500（425）	50	6	2.5
700	769	600（525）	50	7	2.8

Notes （1）The value indicates the allowable stroke when limit sensors are mounted. The value in （ ） represents dimension for two slide tables in close contact.
　　（2）The value shows the mass of the entire table with one slide table, and it is 0.2kg heavier with two slide tables.
Remark: Motor attachment for stepper motor is 9mm lower than the bottom of the bed.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

TE86BS (Motor inline specification)
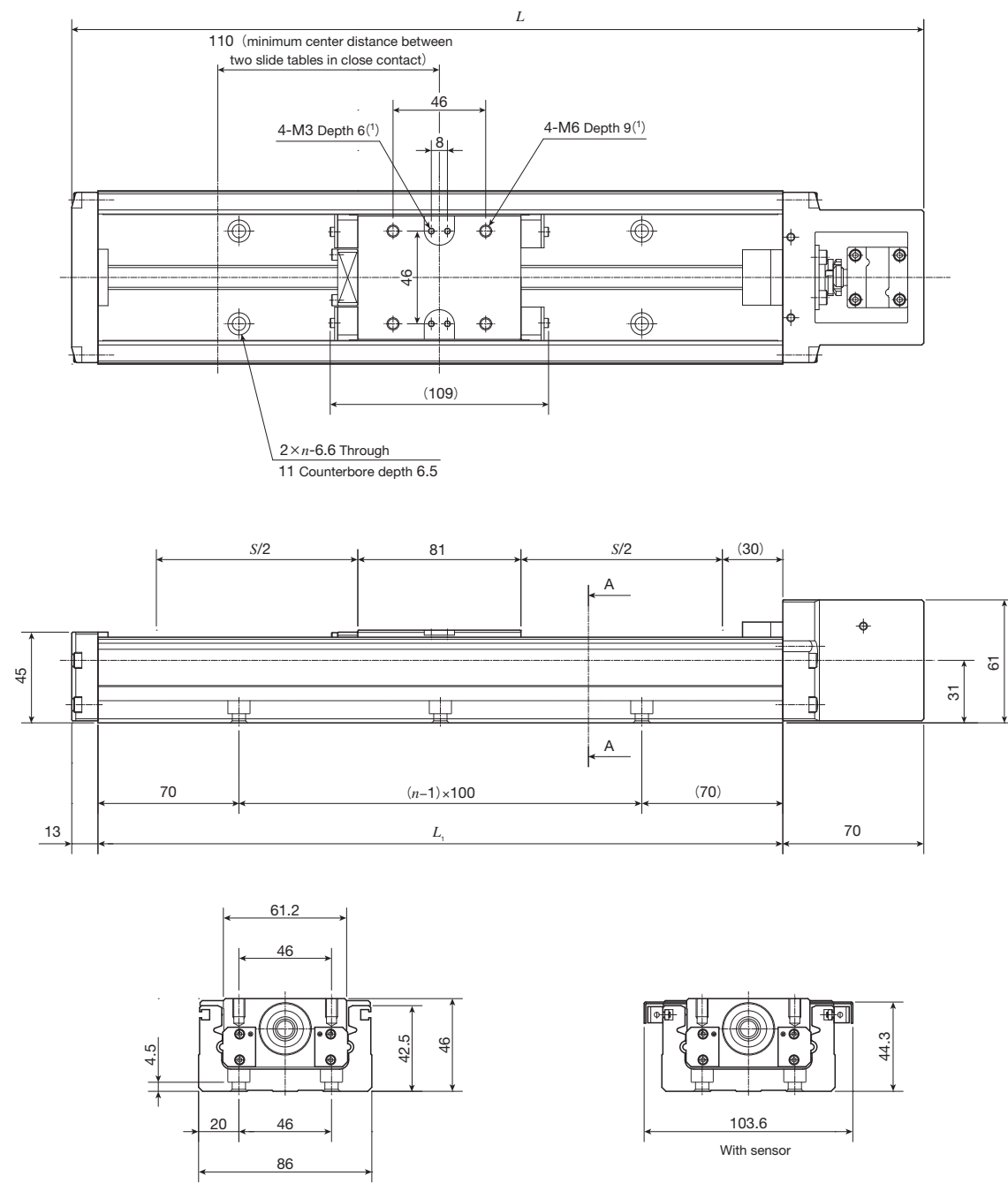
A—A Sectional dimension

With sensor

unit: mm

Bed length	Overall length	Stroke length	Mounting holes of bed	Mass (Ref.)
L_1	L	$S^{(2)}$	n	$kg^{(3)}$
340	423	200(90)	3	3.1
440	523	300(190)	4	3.7
540	623	400(290)	5	4.2
640	723	500(390)	6	4.7
740	823	600(490)	7	5.2
840	923	700(590)	8	5.7
940	1 023	800(690)	9	6.3

Notes (1) Too deep a fixing thread depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the tapped hole.
(2) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(3) The value shows the mass of the entire table with one slide table, and it is 0.3kg heavier with two slide tables.

## TE86BF (Motor inline specification)
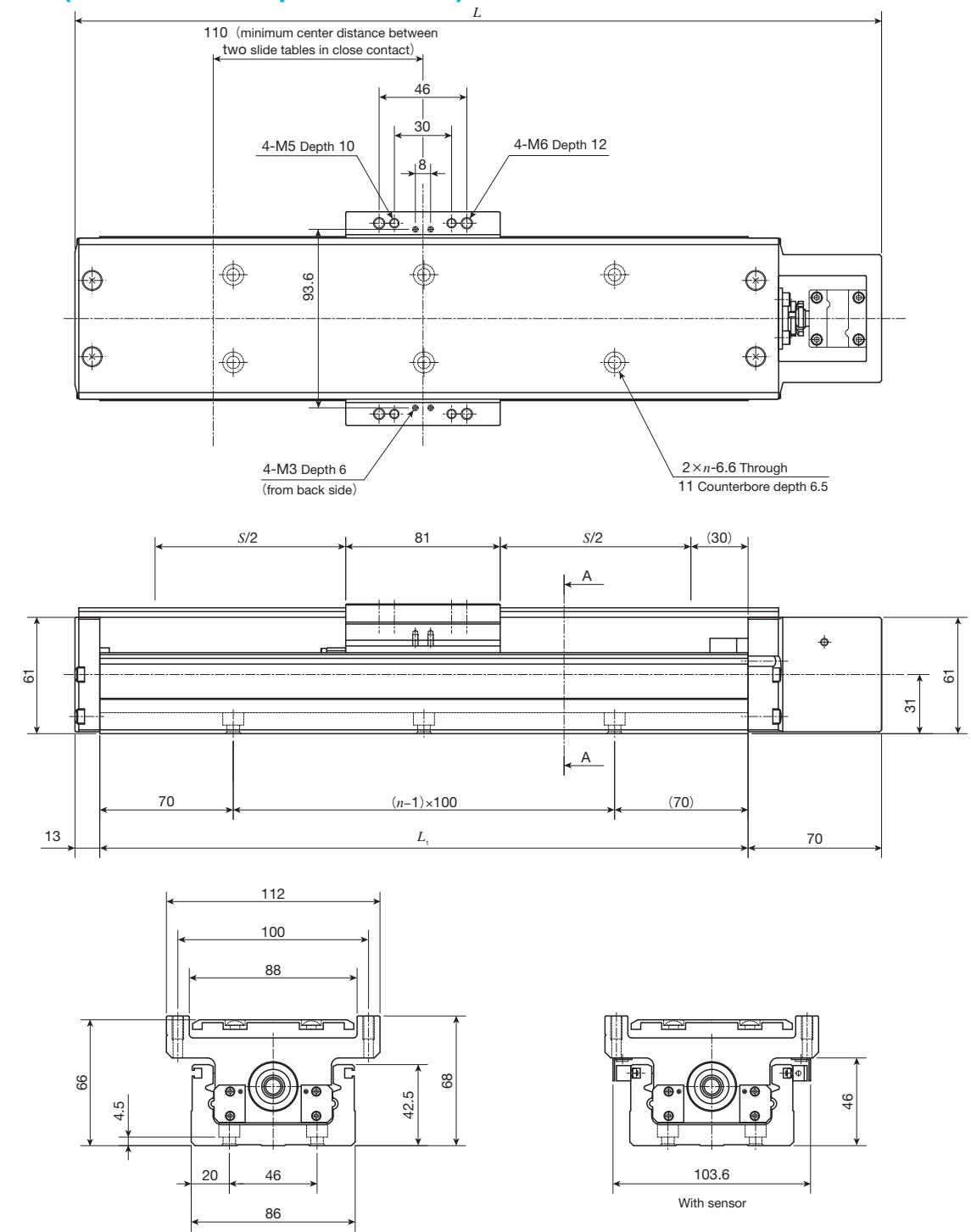
A—A Sectional dimension

With sensor

unit: mm

Bed length	Overall length	Stroke length	Mounting holes of bed	Mass (Ref.)
L_1	L	$S^{(1)}$	n	$kg^{(2)}$
340	423	200(90)	3	3.7
440	523	300(190)	4	4.3
540	623	400(290)	5	4.9
640	723	500(390)	6	5.5
740	823	600(490)	7	6.1
840	923	700(590)	8	6.7
940	1 023	800(690)	9	7.2

Notes (1) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(2) The value shows the mass of the entire table with one slide table, and it is 0.6kg heavier with two slide tables.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

TE…B

TE50BS (Motor folding back specification)
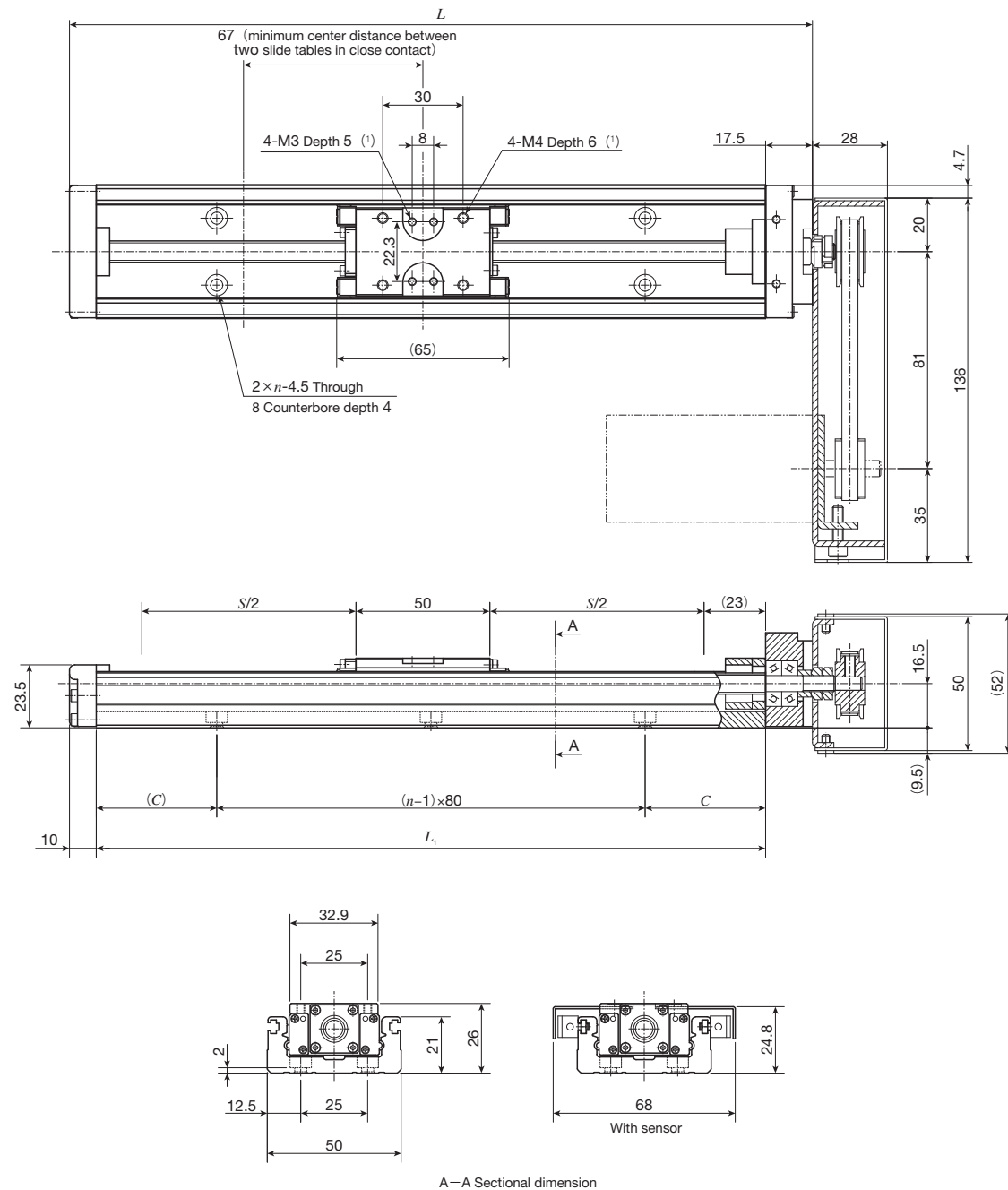
A—A Sectional dimension

unit: mm

Bed length	Overall length	Stroke length	Mounting holes of bed		Mass (Ref.)
L_1	L	S[2]	C	n	kg[3]
150	177.5	60(–)	35	2	0.72
200	227.5	110(40)	20	3	0.82
250	277.5	160(90)	45	3	0.92
300	327.5	210(140)	30	4	1.02
400	427.5	310(240)	40	5	1.22
500	527.5	410(340)	10	7	1.42

Notes [1] Too deep insertion depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the through hole.

[2] The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.

[3] The value shows the mass of the entire table with one slide table, and it is 0.07kg heavier with two slide tables.

Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.

2. If folded back to right and left, motor attachment is about 9.5mm lower than the bottom of the bed. In addition, it is about 2.5 to 3.5mm lower than the bottom of the bed if AC servomotor is mounted by customers, and about 4.5mm lower if stepper motor is mounted.

3. If folded back upward, motor attachment is about 3.5mm lower than the bottom of the bed.

TE50BF (Motor folding back specification)
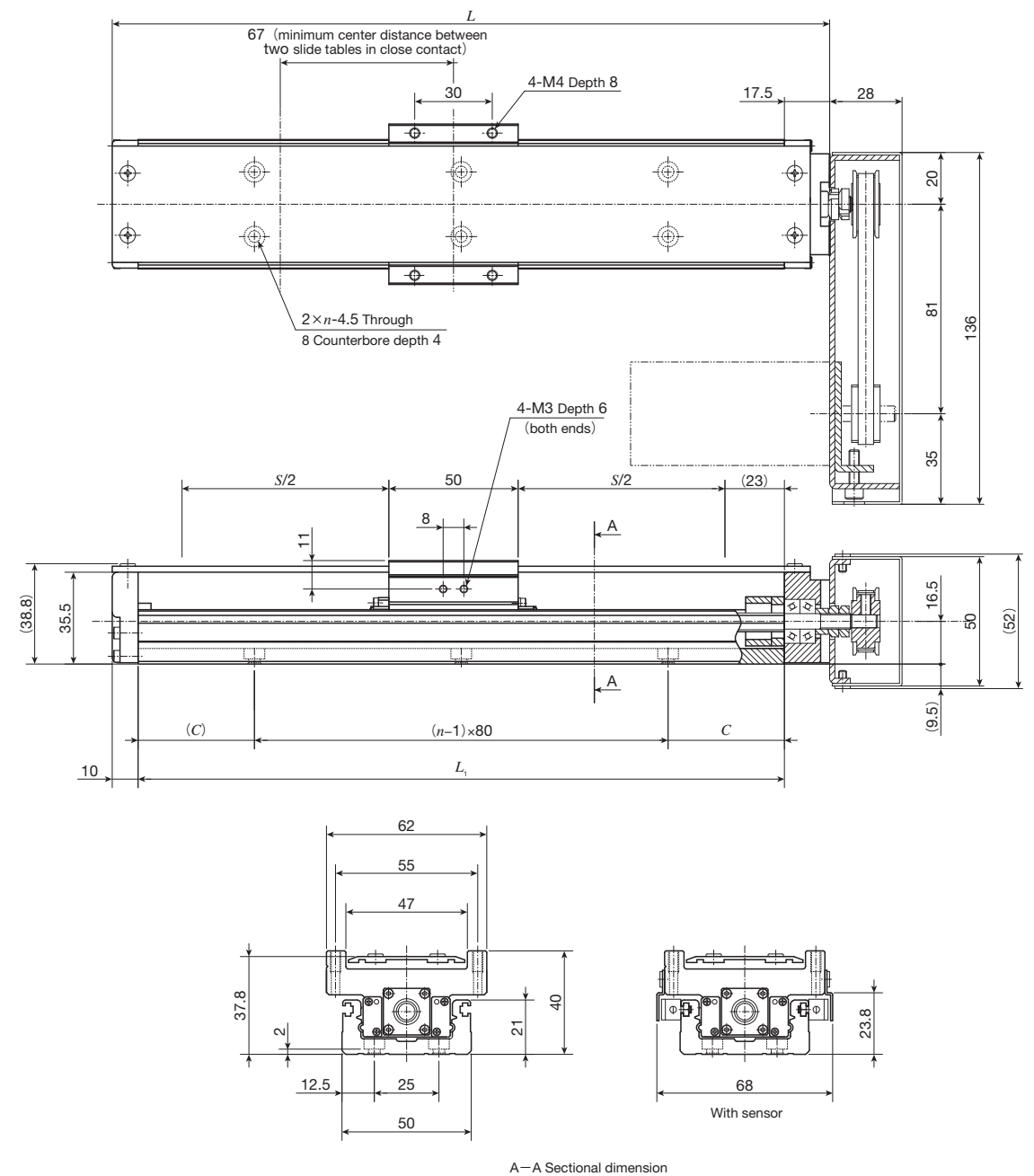
A—A Sectional dimension

unit: mm

Bed length	Overall length	Stroke length	Mounting holes of bed		Mass (Ref.)
L_1	L	S[1]	C	n	kg[2]
150	177.5	60(–)	35	2	0.85
200	227.5	110(40)	20	3	0.95
250	277.5	160(90)	45	3	1.05
300	327.5	210(140)	30	4	1.15
400	427.5	310(240)	40	5	1.35
500	527.5	410(340)	10	7	1.55

Notes [1] The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.

[2] The value shows the mass of the entire table with one slide table, and it is 0.16kg heavier with two slide tables.

Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.
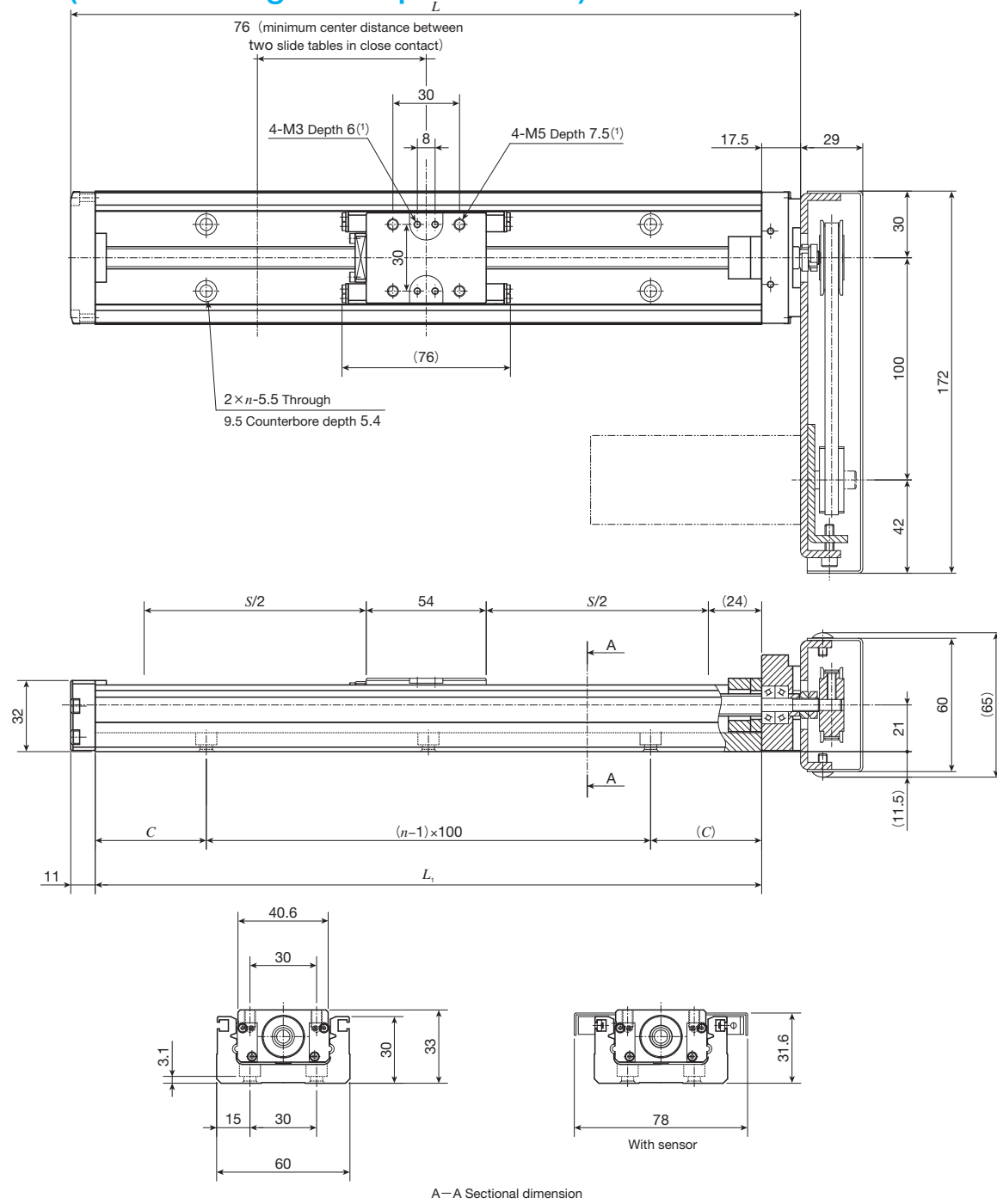
2. If folded back to right and left, motor attachment is about 9.5mm lower than the bottom of the bed. In addition, it is about 2.5 to 3.5mm lower than the bottom of the bed if AC servomotor is mounted by customers, and about 4.5mm lower if stepper motor is mounted.

3. If folded back upward, motor attachment is about 3.5mm lower than the bottom of the bed.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

TE60BS (Motor folding back specification)

A—A Sectional dimension

unit: mm

Bed length	Overall length	Stroke length	Mounting holes of bed		Mass (Ref.)
L_1	L	$S^{(2)}$	C	n	kg$^{(3)}$
150	178.5	50(−)	25	2	1.2
200	228.5	100(−)	50	2	1.3
300	328.5	200(125)	50	3	1.6
400	428.5	300(225)	50	4	1.9
500	528.5	400(325)	50	5	2.2
600	628.5	500(425)	50	6	2.5
700	728.5	600(525)	50	7	2.8

Notes (1) Too deep a fixing thread depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the tapped hole.
(2) The value indicates the allowable stroke when limit sensors are mounted. The value in (　) represents dimension for two slide tables in close contact.
(3) The value shows the mass of the entire table with one slide table, and it is 0.1kg heavier with two slide tables.
Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.
2. If folded back to right and left, motor attachment is about 11.5mm lower than the bottom of the bed.
3. If folded back upward, motor attachment is about 9mm lower than the bottom of the bed.

TE60BF (Motor folding back specification)
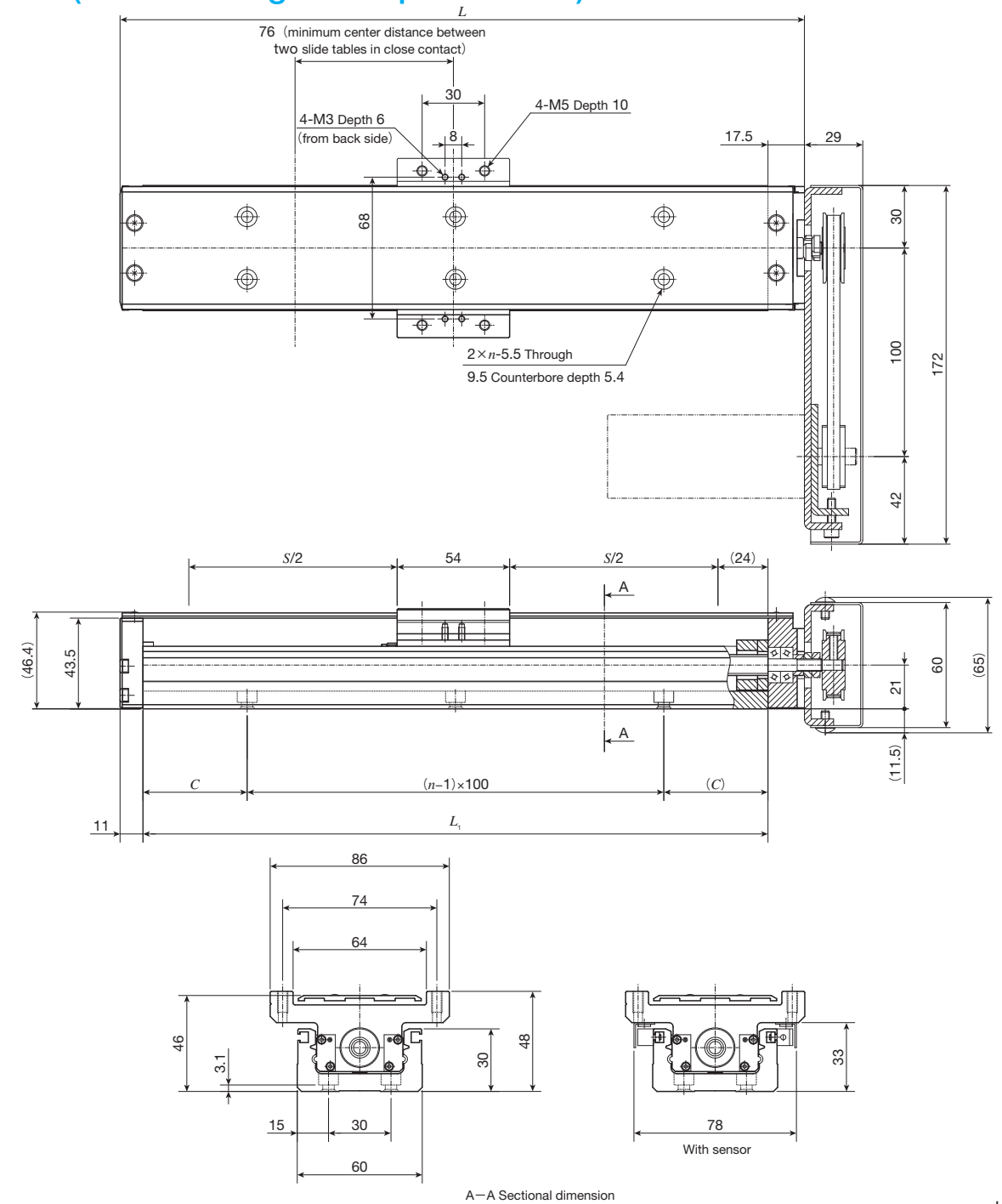
A—A Sectional dimension

unit: mm

Bed length	Overall length	Stroke length	Mounting holes of bed		Mass (Ref.)
L_1	L	$S^{(1)}$	C	n	kg$^{(2)}$
150	178.5	50(−)	25	2	1.4
200	228.5	100(−)	50	2	1.5
300	328.5	200(125)	50	3	1.8
400	428.5	300(225)	50	4	2.2
500	528.5	400(325)	50	5	2.5
600	628.5	500(425)	50	6	2.8
700	728.5	600(525)	50	7	3.1

Notes (1) The value indicates the allowable stroke when limit sensors are mounted. The value in (　) represents dimension for two slide tables in close contact.
(2) The value shows the mass of the entire table with one slide table, and it is 0.2kg heavier with two slide tables.
Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.
2. If folded back to right and left, motor attachment is about 11.5mm lower than the bottom of the bed.
3. If folded back upward, motor attachment is about 9mm lower than the bottom of the bed.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

IKO Precision Positioning Table TE

TE86BS (Motor folding back specification)
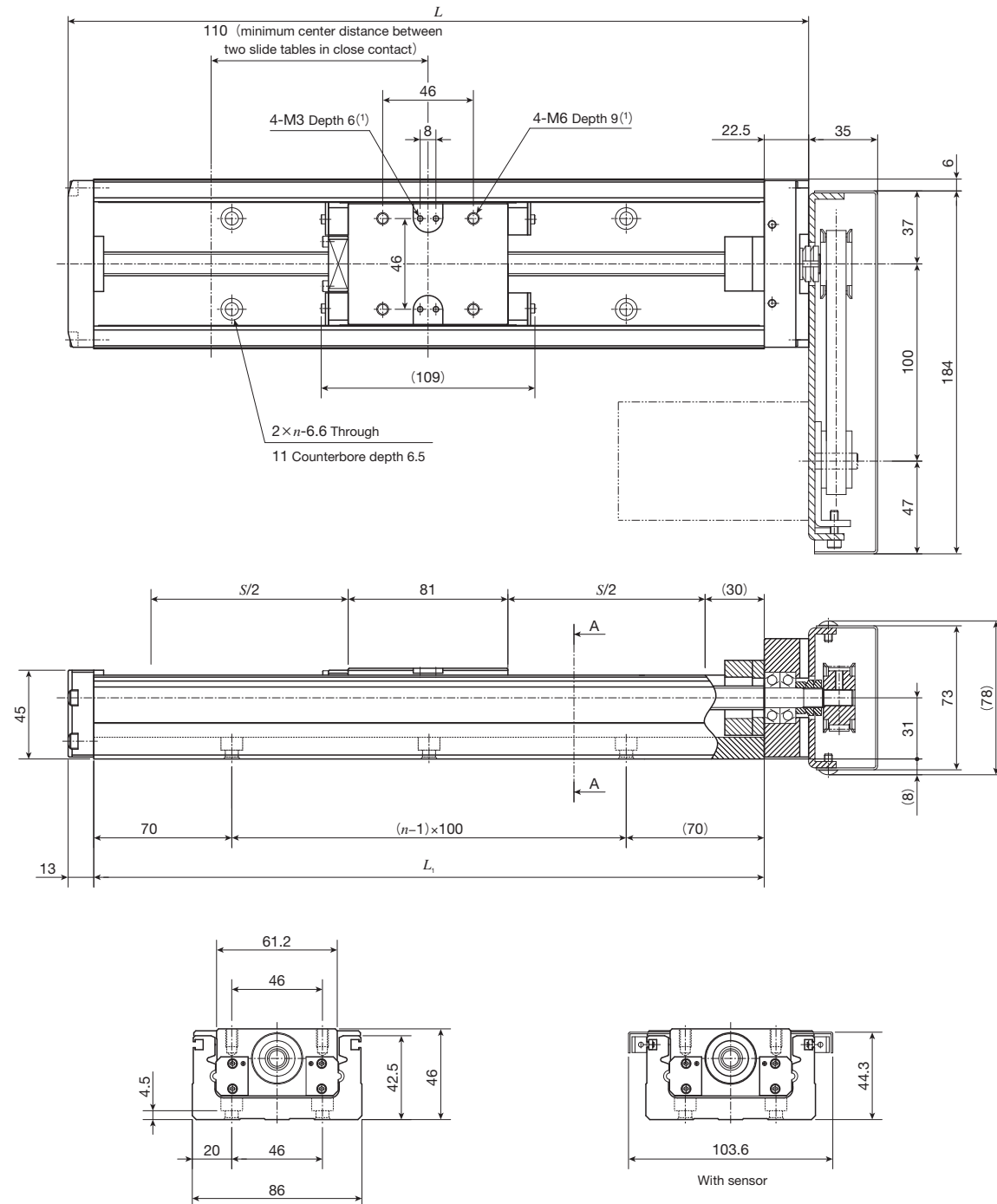
A—A Sectional dimension

With sensor

unit: mm

Bed length	Overall length	Stroke length	Mounting holes of bed	Mass (Ref.)
L_1	L	S[2]	n	kg[3]
340	375.5	200(90)	3	4.0
440	475.5	300(190)	4	4.6
540	575.5	400(290)	5	5.1
640	675.5	500(390)	6	5.6
740	775.5	600(490)	7	6.1
840	875.5	700(590)	8	6.6
940	975.5	800(690)	9	7.2

Notes (1) Too deep a fixing thread depth of the mounting bolt may affect the running performance of the slide table, so never insert a bolt longer than the depth of the tapped hole.
(2) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(3) The value shows the mass of the entire table with one slide table, and it is 0.3kg heavier with two slide tables.
Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.
2. If folded back to right and left, motor attachment is about 8mm lower than the bottom of the bed.
3. If folded back upward, motor attachment is about 6mm lower than the bottom of the bed.

TE86BF (Motor folding back specification)
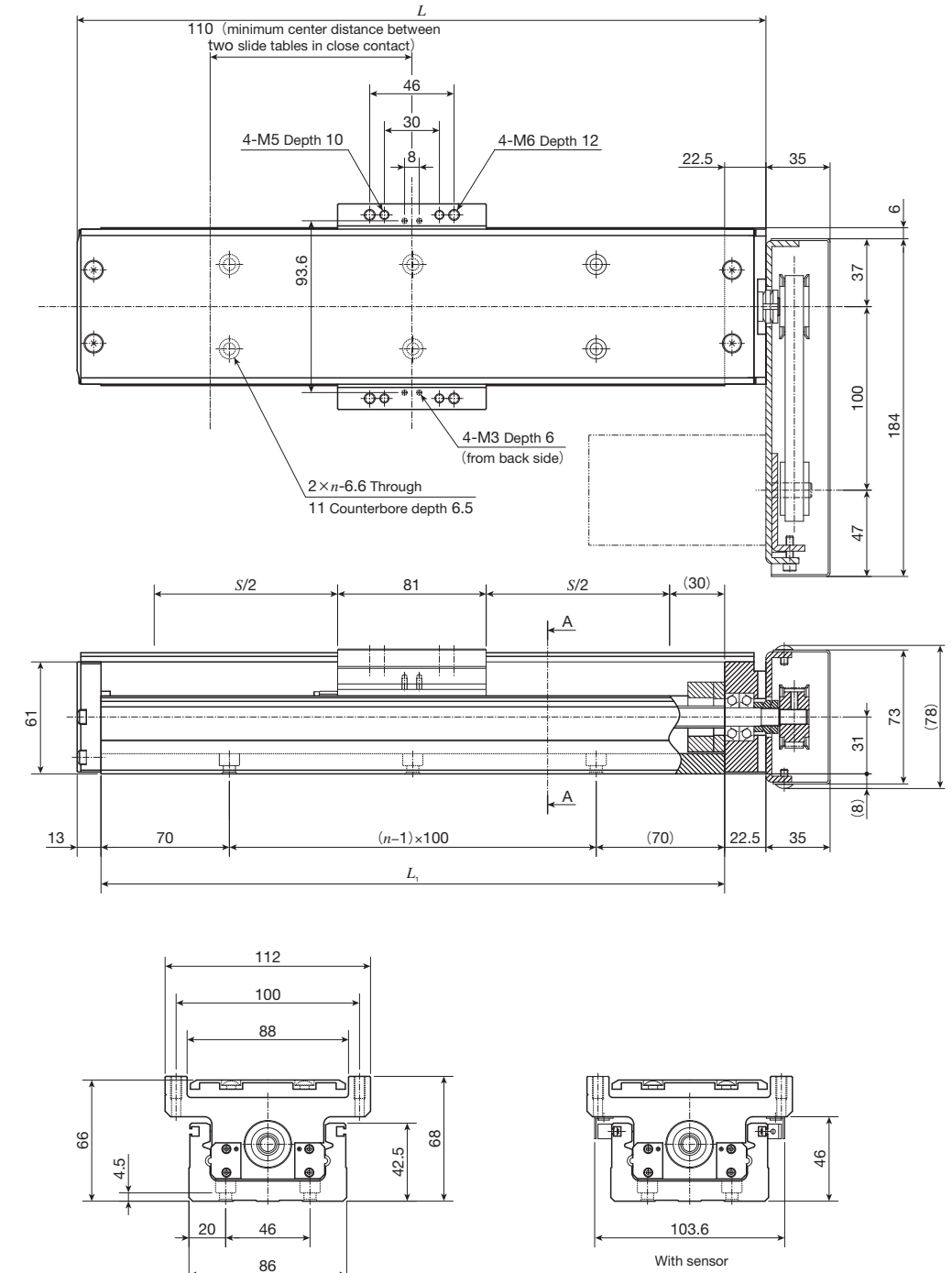
A—A Sectional dimension

With sensor

unit: mm

Bed length	Overall length	Stroke length	Mounting holes of bed	Mass (Ref.)
L_1	L	S[1]	n	kg[2]
340	375.5	200(90)	3	4.6
440	475.5	300(190)	4	5.2
540	575.5	400(290)	5	5.8
640	675.5	500(390)	6	6.4
740	775.5	600(490)	7	7.0
840	875.5	700(590)	8	7.6
940	975.5	800(690)	9	8.1

Notes (1) The value indicates the allowable stroke when limit sensors are mounted. The value in ( ) represents dimension for two slide tables in close contact.
(2) The value shows the mass of the entire table with one slide table, and it is 0.6kg heavier with two slide tables.
Remarks 1. Parts for motor attachment are appended, and this figure indicates a finished state after assembled by the customer.
2. If folded back to right and left, motor attachment is about 8mm lower than the bottom of the bed.
3. If folded back upward, motor attachment is about 6mm lower than the bottom of the bed.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

TE…B