

LBFS03

Basic model Motor-less Single Axis Actuator

Low-profile type

Ordering method

LBFS03

Model	Lead	Shape	Motor specification	Stroke
	8: 8 mm 4: 4 mm 2: 2 mm	S: Straight R: Right attachment L: Left attachment	Y: Y specification (see below)	50 to 300 (50 mm pitch)

[Caution]

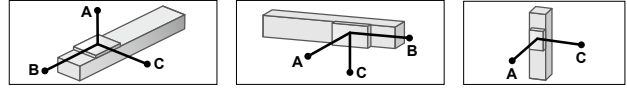
This system is provided as mechanical actuator unit and not including any adapters or electric components. Motor, driver and other components required for installation are the user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration or resonance from actuator will affect service life of actuator. The product performance may not be satisfied depending on the compatible motor. For special parts for motor installation, install and adjust on your side.

Specifications

Applicable motor	30 W		
Repeatability ^{Note 1}	±0.005 mm		
Deceleration mechanism	Rolled ball screw φ 6 (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 ^{Note 3}	Horizontal	10 kg	13 kg
	Vertical	2 kg	5 kg
Rated Thrust ^{Note 3}	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 + 148 mm	
	Bending	ST + 133 mm	
Degree of Cleanliness ^{Note 4}	Equivalent to ISO Class 4 (ISO 14644-1)		
Intake air ^{Note 5}	50 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.
 Note 3. The rated thrust and maximum transferable weight are values assuming the attached motor outputs the rated torque.
 Note 4. 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 5. The required suction amount will vary according to the operating conditions and operating environment.

Allowable overhang ^{Note}



LBFS03-8

Horizontal installation (Unit: mm)	Wall installation (Unit: mm)			Vertical installation (Unit: mm)						
	A	B	C	A	B	C				
4kg	785	113	116	4kg	116	113	785	1kg	493	493
7kg	492	60	61	7kg	61	60	492	2kg	248	248
10kg	360	38	39	10kg	39	38	360			

LBFS03-4

Horizontal installation (Unit: mm)	Wall installation (Unit: mm)			Vertical installation (Unit: mm)						
	A	B	C	A	B	C				
4kg	1877	128	141	4kg	141	128	1877	2kg	279	279
7kg	1202	68	75	7kg	75	68	1202	4kg	140	140
10kg	912	44	49	10kg	49	44	912			

LBFS03-2

Horizontal installation (Unit: mm)	Wall installation (Unit: mm)			Vertical installation (Unit: mm)						
	A	B	C	A	B	C				
5kg	4769	126	142	5kg	142	126	4769	3kg	230	230
9kg	3117	65	73	9kg	73	65	3117	5kg	138	138
13kg	2415	41	46	13kg	46	41	2415			

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.

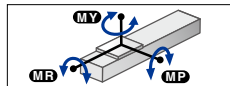
Note. Service life is calculated for 300 mm stroke models.

Applicable motor

Applicable servo motor

Specification	Flange size	<input type="checkbox"/> 25
	Wattage	30 W
Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp. Mitsubishi Electric Corp.	SGMMV-A3A HG-AK0336

Static loading moment

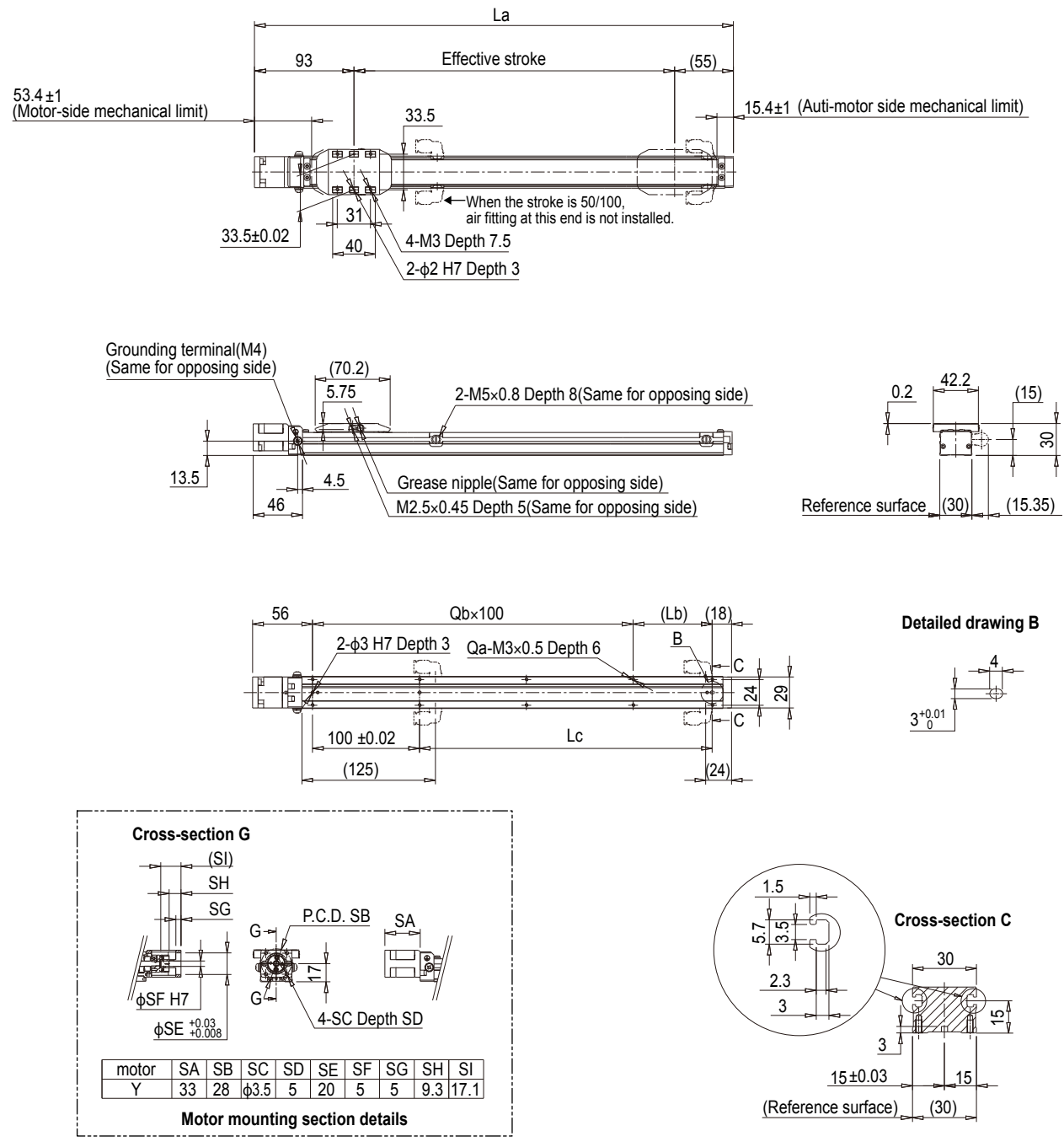


(Unit: N·m)		
MY	MP	MR
13	13	15



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

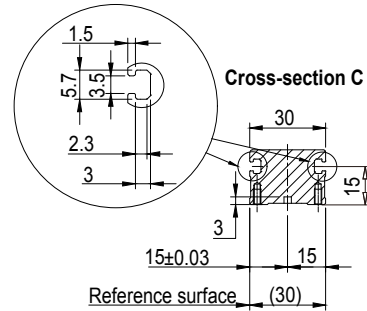
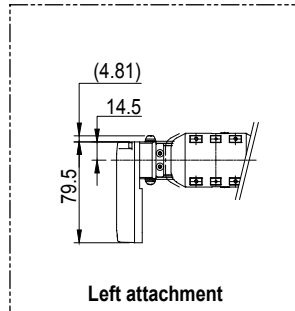
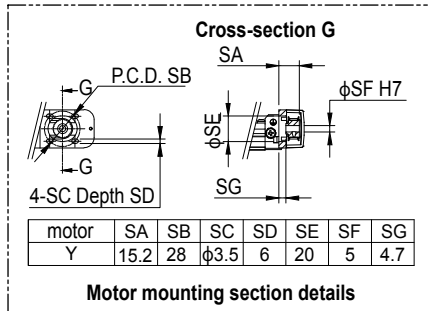
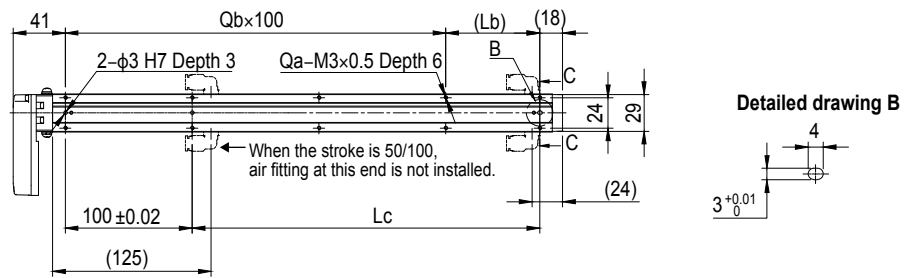
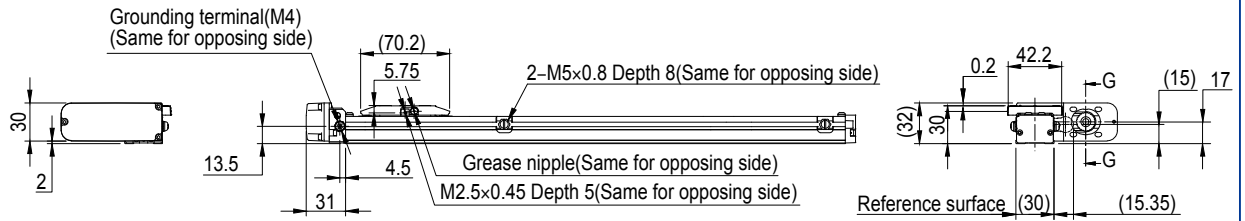
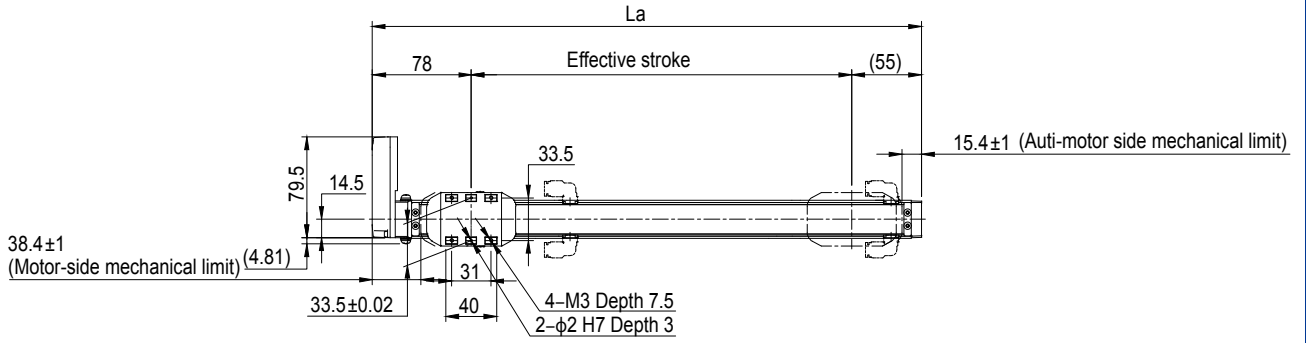
LBFS03 Straight type (S)



Note. In the installation tap hole, the length under head <<thickness of stand +6mm or less>> is recommended for the hex socket head bolts <M3x0.5> used to install the main unit.
 Note. Grease gun nozzle (recommended) Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300
La	198	248	298	348	398	448
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)	0.35	0.4	0.46	0.5	0.55	0.61
Maximum speed (mm/sec)	Lead 8	480				
	Speed setting	-				
	Lead 4	240				
	Speed setting	-				
	Lead 2	100				
	Speed setting	-				

LBFS03 Bending type (R/L)



Note. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
 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

Effective stroke	50	100	150	200	250	300
La	183	233	283	333	383	433
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)	0.44	0.54	0.63	0.72	0.82	0.91
Maximum speed (mm/sec)	Lead 8	480				
	Speed setting	-				
	Lead 4	240				
	Speed setting	-				
	Lead 2	100				
	Speed setting	-				