

LGFS17

Advanced model

Motor-less Single Axis Actuator

Long-stroke type

Ordering method

LGFS17

Model	Lead	Motor specification	OP1	Stroke
	40: 40 mm 20: 20 mm 10: 10 mm 5: 5 mm	Y: Y specification (see below) P: P specification (see below) T: T specification (see below) K: K specification (see below)	No entry: Standard M: Centralized Lubrication	100 to 1250 (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.

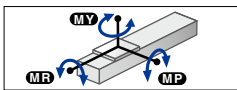
LGFS17 (400W)

Specifications

Applicable motor	400 W			
Repeatability ^{Note 1}	±0.01 mm			
Deceleration mechanism	Rolled ball screw φ20 (C7 class)			
Stroke	100 mm to 1250 mm (50 mm pitch)			
Maximum speed ^{Note 2}	2400 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	40 mm	20 mm	10 mm	5 mm
Maximum payload ^{Note 3}	Horizontal	40 kg	90 kg	140 kg
	Vertical	6 kg	12 kg	35 kg
Rated Thrust ^{Note 3}	169 N	339 N	678 N	1356 N
Maximum dimensions of cross section of main unit	W 168 mm × H 100 mm			
Overall length Straight	ST + 456 mm			
Degree of Cleanliness ^{Note 4}	Equivalent to ISO Class 3 (ISO 14644-1)			
Intake air ^{Note 5}	115 Nℓ/min			
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (no condensation)			

- Note 1. Positioning repeatability in one direction.
 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 700 mm, the ball screw may resonate. (Critical speed) At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 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 800 mm/sec or less.
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.

Static loading moment



	MY	MP	MR
(Unit: N·m)	1062	1063	934

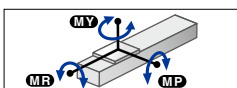
LGFS17 (750W)

Specifications

Applicable motor	750 W			
Repeatability ^{Note 1}	±0.01 mm			
Deceleration mechanism	Rolled ball screw φ20 (C7 class)			
Stroke	100 mm to 1250 mm (50 mm pitch)			
Maximum speed ^{Note 2}	2400 mm/sec	1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead	40 mm	20 mm	10 mm	5 mm
Maximum payload ^{Note 3}	Horizontal	80 kg	150 kg	200 kg
	Vertical	12 kg	35 kg	70 kg
Rated Thrust ^{Note 3}	320 N	640 N	1280 N	2560 N
Maximum dimensions of cross section of main unit	W 168 mm × H 100 mm			
Overall length Straight	ST + 459.5 mm			
Degree of Cleanliness ^{Note 4}	Equivalent to ISO Class 3 (ISO 14644-1)			
Intake air ^{Note 5}	115 Nℓ/min			
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (no condensation)			

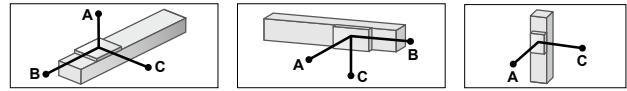
- Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 700 mm, the ball screw may resonate. (Critical speed) At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.
 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 800 mm/sec or less.
 Note 5. The required suction amount will vary according to the operating conditions and operating environment.

Static loading moment



	MY	MP	MR
(Unit: N·m)	1062	1063	934

Allowable overhang ^{Note}



LGFS17-40(400W)

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)	
	A	B	C	A	B	C	A	C
10kg	4066	2660	2134	2165	2610	4005	2kg	9892
20kg	2619	1335	1199	1214	1284	2540	4kg	5527
40kg	2079	732	752	756	682	1965	6kg	4137

LGFS17-20(400W)

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)	
	A	B	C	A	B	C	A	C
30kg	3378	1182	1321	1316	1131	3293	4kg	8034
50kg	2245	691	786	768	640	2142	8kg	4058
90kg	1444	364	423	392	313	1304	12kg	2730

LGFS17-10(400W)

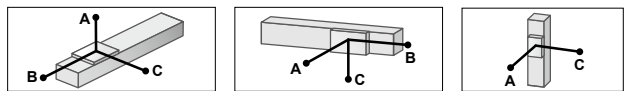
	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)	
	A	B	C	A	B	C	A	C
50kg	5754	966	1299	1258	916	5628	15kg	3255
100kg	3119	461	621	568	410	2967	25kg	1942
140kg	2347	316	427	370	266	2171	35kg	1379

LGFS17-5(400W)

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)	
	No settings			No settings			A	C
							10kg	5349
							30kg	1755
							50kg	1037

- 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 600 mm stroke models.
 Note. When using it suspended from the ceiling, the overhang will be the same as when used horizontally.

Allowable overhang ^{Note}



LGFS17-40(750W)

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)	
	A	B	C	A	B	C	A	C
20kg	1851	1307	1006	1000	1256	1793	4kg	4200
50kg	1404	555	548	537	505	1302	8kg	2186
80kg	1371	375	413	392	324	1224	12kg	1523

LGFS17-20(750W)

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)	
	A	B	C	A	B	C	A	C
50kg	2449	691	796	782	640	2331	15kg	2256
100kg	1708	325	388	359	275	1499	25kg	1470
150kg	1733	226	286	241	176	1430	35kg	1131

LGFS17-10(750W)

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)	
	A	B	C	A	B	C	A	C
100kg	3786	966	1263	1213	916	3718	30kg	1579
150kg	2054	461	607	551	410	1972	50kg	937
200kg	1548	316	419	360	266	1452	70kg	661

LGFS17-5(750W)

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)	
	No settings			No settings			A	C
							40kg	1750
							70kg	1033
							100kg	726

- 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 600 mm stroke models.
 Note. When using it suspended from the ceiling, the overhang will be the same as when used horizontally.



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

■ Applicable motor

● Applicable servo motor

Motor specification	Flange size	Wattage	Manufacturer	Model
Y	□ 60	400W	Tamagawa Seiki	TSM4254N □ □ 00E200
			Yaskawa Electric Corp.	SGM7J-04
				SGMXJ-04
			Keyence Corp.	SV- □ 040
				SV2- □ 040
				SV3- □ 040
			Mitsubishi Electric Corp.	HG-KR43
HK-KT43				
HK-MT43				
500W	Fanuc Corp.	βiS1/6000-B		
P	□ 60	400W	Omron Electronics	R88M-K40030
				R88M-1M40030
			Panasonic Corp.	MSMF042
				MHMF042
				MHMG042
T	□ 80	750W	Tamagawa Seiki	TSM4354N □ □ 00E200
			Yaskawa Electric Corp.	SGM7J-08
				SGMXJ-08
			Keyence Corp.	SV □ 075 ^{Note1}
				SV2 □ 075
				SV3 □ 075
			Mitsubishi Electric Corp.	HG-KR73 ^{Note1}
				HK-KT7M3 ^{Note1}
				HK-MT7M3 ^{Note1}
			K	□ 80
R88M-1M75030				
Panasonic Corp.	MSMF082			
	MHMF082			
	MHMG082			

Note 1. A special shim plate is required when combining with the bending unit.

Part number of shim plate
KEX-M2295-00

Note 2. The bending unit can only be installed on the T specification.

Part number of bending unit
KEX-M221M-01 ^{Note 2}

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

