

Motor-less Single Axis Actuator Advanced model Long-Stroke type LGFS

Supports up to 200 kg. Patented “optimal supports” Enables Heavy-Duty Transport.

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[Feature](#) [Specification](#) [Catalog](#)

Specification

Model		LGFS14				Model		LGFS17			
Motor Output AC (W)		200W				Motor Output AC (W)		400W			
Repeatability(mm) ^{*1}		±0.01				Repeatability(mm) ^{*1}		±0.01			
Deceleration mechanism		Rolled ball screw Φ15 (C7 class)				Deceleration mechanism		Rolled ball screw Φ20 (C7 class)			
Stroke (mm)		100 to 1050 (50 mm pitch)				Stroke (mm)		150 to 1250 (50 mm pitch)			
Maximum Speed (mm/sec) (equivalent) ^{*2}		1800	1200	600	300	Maximum Speed (mm/sec) (equivalent) ^{*2}		2400	1200	600	300
Ball Screw Lead (mm)		30	20	10	5	Ball Screw Lead (mm)		40	20	10	5
Maximum Payload (kg) ^{*3}	Horizontal	30	45	90	120	Maximum Payload (kg) ^{*3}	Horizontal	40	90	140	-
	Vertical	3	6	15	25		Vertical	6	12	25	50

Model	LGFS14				Model	LGFS17					
Rated Thrust (N) (equivalent) *3	113	170	341	683	Rated Thrust (N) (equivalent) *3	225	339	678	1356		
Maximum dimensions of cross-section of main unit (mm)	W140mm x H83mm				Maximum dimensions of cross-section of main unit (mm)	W168mm x H100mm					
Overall length (mm) Straight	ST+394.5mm				Overall length (mm) Straight	ST+456mm					
Degree of Cleanliness *4	Equivalent to ISO Class 3 (ISO 14644-1)				Degree of Cleanliness *4	Equivalent to ISO Class 3 (ISO 14644-1)					
Intake Air (Nℓ/min) *5	90-100				Intake Air (Nℓ/min) *5	115					
Using ambient temperature and humidity *6	0 - 40 °C, 35 - 80% RH (no condensation)				Using ambient temperature and humidity *6	0 - 40 °C, 35 - 80% RH (no condensation)					
Motor Output AC (W)	400W				Motor Output AC (W)	750W					
Ball Screw Lead (mm)	30	20	10	5	Ball Screw Lead (mm)	40	20	10	5		
Maximum Payload (kg) *3	Horizontal	50	70	110	140	Maximum Payload (kg) *3	Horizontal	80	150	200	-
	Vertical	10	15	30	45		Vertical	12	35	70	100
定格推力 (N) (相当)	225	339	678	1360	定格推力 (N) (相当)	320	640	1280	2560		
Model	LGFS14L				Model	LGFS17L					
Motor Output AC (W)	200W				Motor Output AC (W)	400W					
Repeatability(mm) *1	±0.01				Repeatability(mm) *1	±0.01					
Deceleration mechanism	Rolled ball screw Φ15 (C7 class)				Deceleration mechanism	Rolled ball screw Φ20 (C7 class)					

Model		LGFS14L				Model		LGFS17L			
Stroke (mm)		750 to 2000 (50 mm pitch)				Stroke (mm)		850 to 3000 (50 mm pitch)			
Maximum Speed (mm/sec) (equivalent) *2		1800	1200	600	300	Maximum Speed (mm/sec) (equivalent)		2400	1200	600	300
Ball Screw Lead (mm)		30	20	10	5	Ball Screw Lead (mm)		40	20	10	5
Maximum Payload (kg) *3	Horizontal	30	45	90	120	Maximum Payload (kg) *3	Horizontal	40	90	140	-
	Vertical	3	6	15	25		Vertical	6	12	25	50
Rated Thrust (N) (equivalent) *3		113	170	341	683	Rated Thrust (N) (equivalent) *3		225	339	678	1356
Maximum dimensions of cross-section of main unit (mm)		W140mm x H91.5mm				Maximum dimensions of cross-section of main unit (mm)		W168mm x H105.5mm			
Overall length (mm) Straight		ST+462.5mm				Overall length (mm) Straight		ST+570mm			
Degree of Cleanliness *4		Equivalent to ISO Class 3 (ISO 14644-1)				Degree of Cleanliness *4		Equivalent to ISO Class 3 (ISO 14644-1)			
Intake Air (Nℓ/min) *5		90-100				Intake Air (Nℓ/min) *5		115			
Using ambient temperature and humidity *6		0 - 40 °C, 35 - 80% RH (no condensation)				Using ambient temperature and humidity *6		0 - 40 °C, 35 - 80% RH (no condensation)			
Motor Output AC (W)		400W				Motor Output AC (W)		750W			
Ball Screw Lead (mm)		30	20	10	5	Ball Screw Lead (mm)		40	20	10	5
Maximum Payload (kg) *3	Horizontal	50	70	110	140	Maximum Payload (kg) *3	Horizontal	80	150	200	-
	Vertical	10	15	30	45		Vertical	12	35	70	100

Model	LGFS14L				Model	LGFS17L			
Rated Thrust (N) (equivalent) ^{*3}	225	339	678	1360	Rated Thrust (N) (equivalent) ^{*3}	320	640	1280	2560

*1: Repeatability for Single-direction Positioning

*2: Maximum speed may not be reached when the movement distance is short or under some operating conditions.

When the effective stroke exceeds 700 mm, ball-screw resonance (critical speed) may occur depending on the operating range. In such cases, adjust the speed downward using the maximum speed values shown in the table as a guideline.

*3: Rated thrust and maximum payload values assume the mounted motor outputs its rated torque.

*4: When using the unit in a clean environment, install the intake-air fitting.

Cleanliness class applies when operated at speeds of 800 mm/s or below.

*5: Required intake-airflow varies depending on usage conditions and environment.
