



Industrial robots

Single axis robots Robonity Advanced model Long-Stroke type AGFS

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

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Feature **Specification** **Catalog**

Specification

Model	AGFS14L				AGFS14LH				
Motor Output AC (W)	200				400				
Repeatability (mm) ^{*1}	±0.01								
Deceleration mechanism	Rolled ball screw Φ15 (C7 class)								
Stroke (mm)	750 to 2000 (50 mm pitch)								
Maximum speed (equivalent) (mm/sec) ^{*2※2}	1800	1200	600	300	1800	1200	600	300	
Ball Screw Lead (mm)	30	20	10	5	30	20	10	5	
Maximum Payload (kg)	Horizontal	30	45	90	120	50	70	110	140

Model	AGFS14L				AGFS14LH				
	Vertical	3	6	15	25	10	15	30	45
Rated Thrust (N) ^{*3}	113	170	341	683	225	339	678	1360	
Maximum dimensions of cross-section of main unit (mm)	W140 x H91.5								
Overall length (mm) Straight	ST+537.5				ST+553.5				
Folding	ST+507.5								
Degree of Cleanliness ^{*3}	Equivalent to ISO Class 3 (ISO 14644-1)								
Intake Air (Nℓ/min) ^{*4}	90 -100								
Position Detection	Absolute Encoder								
	Batteryless Absolute Encoder								
Resolution	23 bits								
Using ambient temperature and humidity ^{*5}	0 - 40 °C, 35 - 80% RH (no condensation)								
Model	AGFS17				AGFS17H				
Motor Output AC (W)	400				750				
Repeatability (mm) ^{*1}	±0.01								
Deceleration mechanism	Rolled ball screw Φ20 (C7 class)								
Stroke (mm)	150 to 1250 (50 mm pitch)								

Model		AGFS17				AGFS17H			
Maximum speed (equivalent) (mm/sec) ^{*2※3}		2400	1200	600	300	2400	1200	600	300
Ball Screw Lead (mm)		40	20	10	5	40	20	10	5
Maximum Payload (kg)	Horizontal	40	90	140	-	80	150	200	-
	Vertical	6	12	25	50	12	35	70	100
Rated Thrust (N) ^{*3}		225	339	678	1356	320	640	1280	2560
Maximum dimensions of cross-section of main unit (mm)		W168 x H100							
Overall length (mm) Straight		ST+547				ST+561.8			
Folding		-				ST+511.5			
Degree of Cleanliness ^{*3}		Equivalent to ISO Class 3 (ISO 14644-1)							
Intake Air (Nℓ/min) ^{*4}		115Nℓ/min							
Position Detection		Absolute Encoder							
		Batteryless Absolute Encoder							
Resolution		23 bits							
Using ambient temperature and humidity ^{*5}		0 - 40 °C, 35 - 80% RH (no condensation)							

Model	AGFS17L				AGFS17LH				
Motor Output AC (W)	400				750				
Repeatability (mm) ^{*1}	±0.01								
Deceleration mechanism	Rolled ball screw Φ20 (C7 class)								
Stroke (mm)	850 to 3000 (50 mm pitch)								
Maximum speed (equivalent) (mm/sec) ^{*2※3}	2400	1200	600	300	2400	1200	600	300	
Ball Screw Lead (mm)	40	20	10	5	40	20	10	5	
Maximum Payload (kg)	Horizontal	40	90	140	-	80	150	200	-
	Vertical	6	12	25	50	12	35	70	100
Rated Thrust (N) ^{*3}	225	339	678	1356	320	640	1280	2560	
Maximum dimensions of cross-section of main unit (mm)	W168 x H105.5								
Overall length (mm) Straight	ST+661				ST+675.8				
Folding	-				ST+625.5				
Degree of Cleanliness ^{*3}	Equivalent to ISO Class 3 (ISO 14644-1)								
Intake Air (Nℓ/min) ^{*4}	115Nℓ/min								
Position Detection	Absolute Encoder								
	Batteryless Absolute Encoder								

Model	AGFS17L	AGFS17LH
Resolution	23 bits	
Using ambient temperature and humidity ^{*5}	0 - 40 °C, 35 - 80% RH (no condensation)	

*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 600mm, 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: When using the unit in a clean environment, install the intake-air fitting.

Cleanliness rating applies when operated at speeds of 1000 mm/s or below.

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

*5: When operating in low-temperature environments, a deviation error may occur when starting from a stopped state.

In such cases, reduce the speed to 50% or less and run the unit for at least one full cycle before setting it to the desired operating speed.