

AGFS17L/AGFS17LH

Advanced model

Single-axis robots

Long-stroke type

Ordering method

Model	Lead	Shape	Motor specification	OP1	Stroke	Cable length	Cable entry location	Robot positioner	Driver Power capacity	Regenerative unit	I/O	Battery
AGFS17L	40: 40mm 20: 20mm	S: Straight R: Right attachment (Only 750W)	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKL: Battery-less absolute/With brake	No entry: Standard M: Centerized lubrication	850 to 3000 (50mm pitch)	R3: 3m R5: 5m R10: 10m	R: From rear of motor F: From front of motor	EP-01	A30: 400W/750W	No entry: None R: With EP-RU C: With RU-1	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None
AGFS17LH	10: 10mm 5: 5mm (Only with brakes)	L: Left attachment (Only 750W)										

Note 1. The robot cable is flexible and resists bending.
 Note 2. [For AGFS17L]
 When the actuator is used vertically, lead 40 or 10 is selected, all strokes need the regenerative unit.
 When the actuator is used horizontally, lead 40 or 20 is selected, all strokes need the regenerative unit. (In this case, please choose the regenerative device 'RU1'. ①lead 40 is selected, and the stroke is 1400mm or more ②lead 20 is selected, and the stroke is 2300 to 2600mm)
 [For AGFS17LH]
 When the actuator is used vertically, all lead and all strokes need the regenerative unit. (In this case, please choose the regenerative device 'RU1'. ①lead 20 is selected, all stroke ②lead 10 is selected, all stroke)
 When the actuator is used horizontally, lead 40 or 20 is selected, all strokes need the regenerative unit. (In this case, please choose the regenerative device 'RU1'. ①lead 40 is selected, and the stroke is 1050mm or more ②lead 20 is selected, all stroke)
 Note 3. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.
 Note 4. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

AGFS17L(400W)

Specifications

AC servo motor output	400 W			
Repeatability ^{Note 1}	±0.01 mm			
Deceleration mechanism	Rolled ball screw φ 20 (C7 class)			
Stroke	850 to 3000 (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	Horizontal 40 kg	90 kg	140 kg	-
	Vertical 6 kg	12 kg	35 kg	50 kg
Rated Thrust	169 N	339 N	678 N	1356 N
Maximum dimensions of cross section of main unit	W 168 mm × H 105.5 mm			
Overall length	Straight	ST + 661 mm		
	Bending	-		
Degree of cleanliness ^{Note 3}	Equivalent to ISO Class 3 (ISO 14644-1)			
Intake air ^{Note 4}	115 Nl/min			
Position detector	Absolute Encoder Batteryless Absolute Encoder			
Resolution	23 bits			
Using ambient ^{Note 5} 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 2000 mm, the ball screw may resonate. (Critical speed) At this time, make the adjustment to decrease the speed.
 Note 3. 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 4. The required suction amount will vary according to the operating conditions and operating environment.
 Note 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.

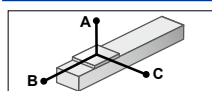
AGFS17LH (750W)

Specifications

AC servo motor output	750 W			
Repeatability ^{Note 1}	±0.01 mm			
Deceleration mechanism	Rolled ball screw φ 20 (C7 class)			
Stroke	850 to 3000 (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	Horizontal 80 kg	150 kg	200 kg	-
	Vertical 12 kg	35 kg	70 kg	100 kg
Rated Thrust	320 N	640 N	1280 N	2560 N
Maximum dimensions of cross section of main unit	W 168 mm × H 105.5 mm			
Overall length	Straight	ST + 675.8 mm		
	Bending	ST + 625.5 mm		
Degree of cleanliness ^{Note 3}	Equivalent to ISO Class 3 (ISO 14644-1)			
Intake air ^{Note 4}	115 Nl/min			
Position detector	Absolute Encoder Batteryless Absolute Encoder			
Resolution	24 bits			
Using ambient ^{Note 5} temperature and humidity	0 to 40 °C, 35 to 80 %RH (no condensation)			

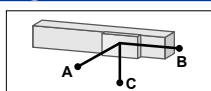
Note 1. Positioning repeatability in one direction.
 Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 2000 mm, the ball screw may resonate. (Critical speed) At this time, make the adjustment to decrease the speed.
 Note 3. 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 4. The required suction amount will vary according to the operating conditions and operating environment.
 Note 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.

Allowable overhang ^{Note}

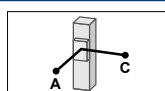


AGFS17L-40

Horizontal installation (Unit: mm)	A	B	C
10kg	4552	2660	2334
20kg	2637	1307	1198
40kg	1790	631	648



Wall installation (Unit: mm)	A	B	C
10kg	2364	2610	4491
20kg	1211	1257	2557
40kg	644	580	1676



Vertical installation (Unit: mm)	A	C
2kg	10270	10270
4kg	5285	5285
6kg	3719	3719

AGFS17L-20

Horizontal installation (Unit: mm)	A	B	C
30kg	4027	1182	1432
50kg	2687	691	849
90kg	1743	364	454

Wall installation (Unit: mm)	A	B	C
30kg	1412	1131	3942
50kg	817	641	2583
90kg	412	313	1600

Vertical installation (Unit: mm)	A	C
4kg	8417	8417
8kg	4231	4231
12kg	2834	2834

AGFS17L-10

Horizontal installation (Unit: mm)	A	B	C
50kg	6851	966	1332
100kg	3730	461	637
140kg	2817	316	438

Wall installation (Unit: mm)	A	B	C
50kg	1280	916	6725
100kg	576	410	3577
140kg	374	266	2638

Vertical installation (Unit: mm)	A	C
15kg	3284	3284
25kg	1957	1957
35kg	1388	1388

AGFS17L-5

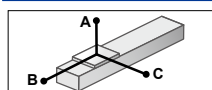
Horizontal installation (Unit: mm)	A	B	C
No settings	-	-	-

Wall installation (Unit: mm)	A	B	C
No settings	-	-	-

Vertical installation (Unit: mm)	A	C
10kg	5357	5357
30kg	1758	1758
50kg	1038	1038

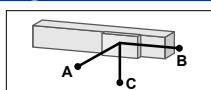
Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.
 Note. Service life is calculated for 1,000 mm stroke models.
 Note. When using it suspended from the ceiling, the overhang will be the same as when used horizontally.

Allowable overhang ^{Note}

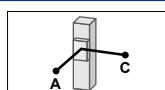


AGFS17LH-40

Horizontal installation (Unit: mm)	A	B	C
20kg	2128	1307	1125
50kg	1250	495	488
80kg	1142	312	344



Wall installation (Unit: mm)	A	B	C
20kg	1117	1257	2070
50kg	473	445	1148
80kg	317	262	995



Vertical installation (Unit: mm)	A	C
4kg	4739	4739
8kg	2414	2414
12kg	1633	1633

AGFS17LH-20

Horizontal installation (Unit: mm)	A	B	C
50kg	2930	691	856
100kg	2040	323	410
150kg	1619	200	257

Wall installation (Unit: mm)	A	B	C
50kg	828	641	2812
100kg	369	272	1826
150kg	207	150	1311

Vertical installation (Unit: mm)	A	C
15kg	2314	2314
25kg	1390	1390
35kg	987	987

AGFS17LH-10

Horizontal installation (Unit: mm)	A	B	C
100kg	2456	461	627
150kg	1756	292	399
200kg	1395	208	285

Wall installation (Unit: mm)	A	B	C
100kg	565	410	2373
150kg	335	242	1654
200kg	219	157	1270

Vertical installation (Unit: mm)	A	C
30kg	1604	1604
50kg	949	949
70kg	668	668

AGFS17LH-5

Horizontal installation (Unit: mm)	A	B	C
No settings	-	-	-

Wall installation (Unit: mm)	A	B	C
No settings	-	-	-

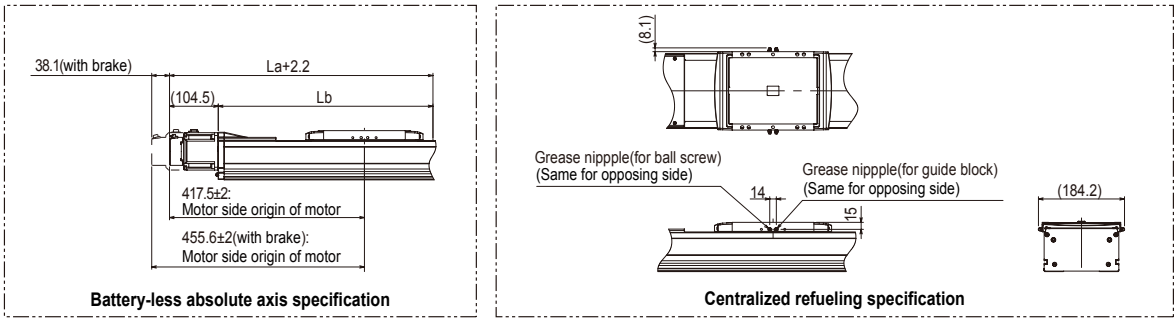
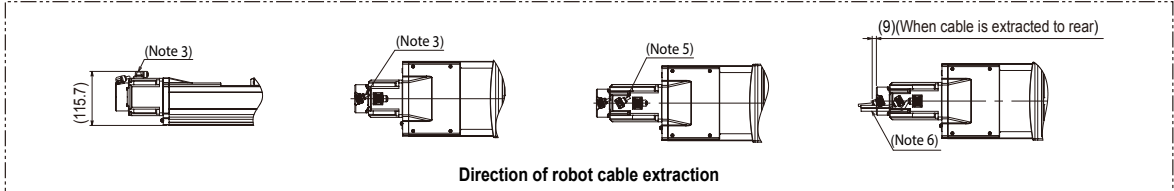
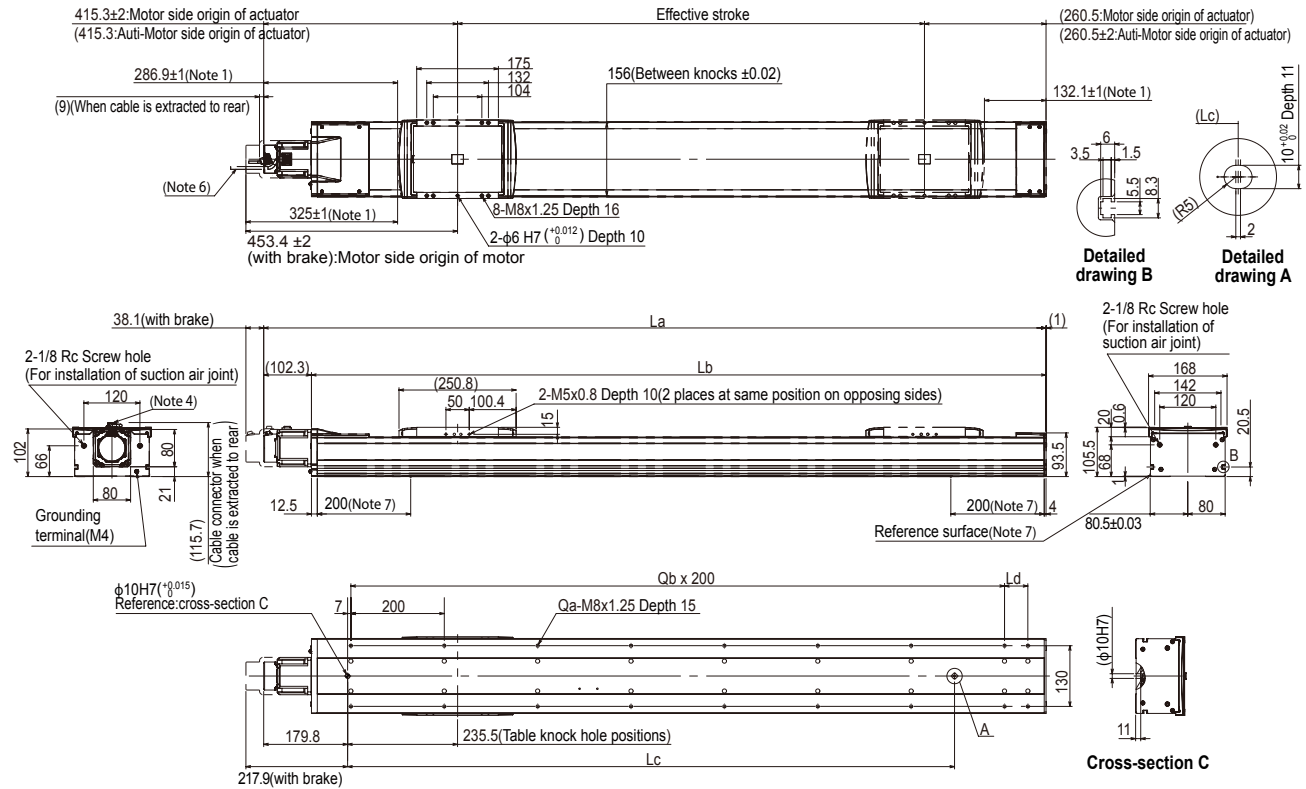
Vertical installation (Unit: mm)	A	C
40kg	1305	1305
70kg	728	728
100kg	497	497

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 1,000 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.

AGFS17LH Straight type (S)

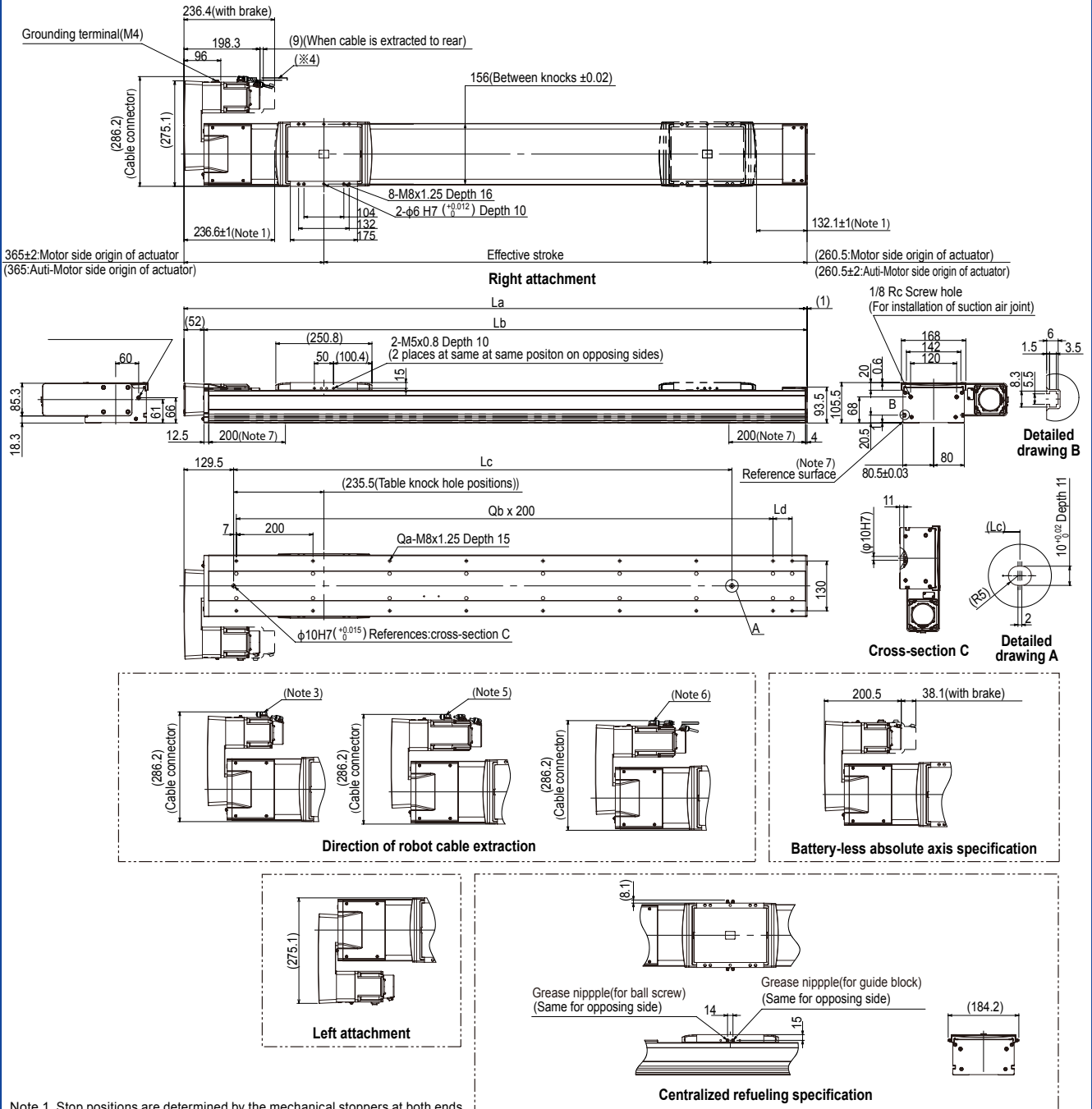


Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. Weight without brake. The weight with the brake is 0.9 kg heavier than the value in the weight column.
 Note 3. The robot cable is extracted from the front.
 Note 4. The robot cable is extracted from the rear.
 Note 5. The robot cable (with brake) is extracted from the front.
 Note 6. The robot cable (with brake) is extracted from the rear.
 Note 7. If the effective stroke is 2050mm or more, the reference surface will be within 200mm from both ends of the frame.
 Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)

Note. In the installation tap hole, the length under head <<thickness of stand +15mm or less>> is recommended for the hex socket head bolts <M8×1.25> used to install the main unit. Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables.

Effective stroke	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000																											
La	1325.8	1575.8	1625.8	1675.8	1725.8	1775.8	1825.8	1875.8	1925.8	1975.8	2025.8	2075.8	2125.8	2175.8	2225.8	2275.8	2325.8	2375.8	2425.8	2475.8	2525.8	2575.8	2625.8	2675.8	2725.8	2775.8	2825.8	2875.8	2925.8	2975.8	3025.8	3075.8	3125.8	3175.8	3225.8	3275.8	3325.8	3375.8	3425.8	3475.8	3525.8	3575.8	3625.8	3675.8																											
Lb	1423.5	1473.5	1523.5	1573.5	1623.5	1673.5	1723.5	1773.5	1823.5	1873.5	1923.5	1973.5	2023.5	2073.5	2123.5	2173.5	2223.5	2273.5	2323.5	2373.5	2423.5	2473.5	2523.5	2573.5	2623.5	2673.5	2723.5	2773.5	2823.5	2873.5	2923.5	2973.5	3023.5	3073.5	3123.5	3173.5	3223.5	3273.5	3323.5	3373.5	3423.5	3473.5	3523.5	3573.5																											
Lc	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050	3100	3150	3200	3250	3300																											
Ld	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50																											
Qa	16	16	16	18	18	18	18	20	20	20	22	22	22	22	24	24	24	26	26	26	26	28	28	28	28	30	30	30	32	32	32	34	34	34	34	36	36	36	36	36	36	36	38																												
Qb	6	6	6	7	7	7	7	8	8	8	8	9	9	9	9	10	10	10	11	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17																											
Weight (kg) ^{Note 2}	34.0	34.9	35.7	36.6	37.4	38.3	39.1	40.0	40.8	41.7	42.5	43.4	44.2	45.1	45.9	46.8	47.6	48.5	49.3	50.2	51.0	51.9	52.7	53.5	54.4	55.2	56.1	56.9	57.8	58.6	59.5	60.3	61.2	62.0	62.9	63.7	64.6	65.4	66.3	67.1	68.0	68.8	69.7	70.5																											
Maximum speed (mm/sec)	Lead 40	2400																														2280										2280	2160	2160	2040	2040	1920	1920	1800	1800																					
	Speed setting	-																														95%										95%	95%	90%	90%	85%	85%	80%	80%	75%	75%	70%	70%	65%	65%	60%	60%	65%	65%	60%	60%	65%	65%	60%	60%						
	Lead 20	1200																														1140										1140	1080	1080	1020	1020	960	960	900	900	840	840	780	780	780	780															
	Speed setting	-																														95%										95%	95%	90%	90%	85%	85%	80%	80%	75%	75%	70%	70%	65%	65%	60%	60%	65%	65%	60%	60%	65%	65%	60%	60%						
	Lead 10	600																														540										540	510	510	480	480	480	450	450	420	420	390	390	390	360	360	360	360													
Speed setting	-																														90%										90%	85%	85%	80%	80%	80%	80%	75%	75%	75%	70%	70%	70%	65%	65%	65%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%					
Lead 5	300																														255										255	255	240	240	225	225	210	210	180	180	180	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165					
Speed setting	-																														85%										85%	85%	80%	80%	80%	75%	75%	75%	70%	70%	70%	60%	60%	60%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%
Stroke restriction	Horizontal/Vertical	No stroke restrictions																																																																					
	Wall hanging	To 1500st																																																																					
	Ceiling-mounted	To 1200st																																																																					

AGFS17LH Bending type (R/L)



Note 1. Stop positions are determined by the mechanical stoppers at both ends.
 Note 2. Weight without brake. The weight with the brake is 0.9 kg heavier than the value in the weight column.
 Note 3. The robot cable is extracted from the front.
 Note 4. The robot cable is extracted from the rear.
 Note 5. The robot cable (with brake) is extracted from the front.
 Note 6. The robot cable (with brake) is extracted from the rear.
 Note 7. If the effective stroke is 2050mm or more, the reference surface will be within 200mm from both ends of the frame.
 Note. The return-to-origin direction can be changed by changing the parameter. (The standard is that the origin is located on the motor side. For details about how to change the return-to-origin direction, see the instruction manual for EP-01.)
 Note. In the installation tap hole, the length under head <<thickness of stand +15mm or less>> is recommended for the hex socket head bolts <M8x1.25> used to install the main unit.
 Note. The minimum bending radius for robot cables should be R30 or more for fixed cables / R50 or more for movable cables.

Effective stroke	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000																																		
La	1475.5	1525.5	1575.5	1625.5	1675.5	1725.5	1775.5	1825.5	1875.5	1925.5	1975.5	2025.5	2075.5	2125.5	2175.5	2225.5	2275.5	2325.5	2375.5	2425.5	2475.5	2525.5	2575.5	2625.5	2675.5	2725.5	2775.5	2825.5	2875.5	2925.5	2975.5	3025.5	3075.5	3125.5	3175.5	3225.5	3275.5	3325.5	3375.5	3425.5	3475.5	3525.5	3575.5	3625.5																																		
Lb	1423.5	1473.5	1523.5	1573.5	1623.5	1673.5	1723.5	1773.5	1823.5	1873.5	1923.5	1973.5	2023.5	2073.5	2123.5	2173.5	2223.5	2273.5	2323.5	2373.5	2423.5	2473.5	2523.5	2573.5	2623.5	2673.5	2723.5	2773.5	2823.5	2873.5	2923.5	2973.5	3023.5	3073.5	3123.5	3173.5	3223.5	3273.5	3323.5	3373.5	3423.5	3473.5	3523.5	3573.5	3623.5																																	
Lc	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050	3100	3150	3200	3250	3300																																		
Ld	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50																																		
Qa	16	16	16	18	18	18	18	20	20	20	20	22	22	22	22	24	24	24	26	26	26	26	28	28	28	30	30	30	30	32	32	32	32	32	32	34	34	34	34	36	36	36	36	38																																		
Qb	6	6	6	7	7	7	7	8	8	8	8	8	9	9	9	10	10	10	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17																																			
Weight (kg) ^{Note 2}	36.7	37.6	38.4	39.3	40.1	41.0	41.8	42.7	43.5	44.4	45.2	46.1	46.9	47.8	48.6	49.5	50.3	51.2	52.0	52.9	53.7	54.6	55.4	56.2	57.1	57.9	58.8	59.6	60.5	61.3	62.2	63.0	63.9	64.7	65.6	66.4	67.3	68.1	69.0	69.8	70.7	71.5	72.4	73.2																																		
Maximum speed (mm/sec)	Lead 40	2400																														2280																														2280	2280	2160	2160	2040	2040	1920	1920	1800	1800							
	Speed setting																															95%																														95%	95%	90%	90%	85%	85%	80%	80%	75%	75%							
	Lead 20	1200																														1140																														1140	1080	1080	1020	1020	960	960	900	900	840	840	780	780	720	720		
	Speed setting																															95%																														95%	90%	90%	85%	85%	80%	80%	75%	75%	70%	70%	65%	65%	60%	60%	55%	55%
	Lead 10	600																														540																														510	510	480	480	450	450	420	420	390	390	360	360	330	330	300	300	
Stroke restriction	Horizontal/Vertical	No stroke restrictions																																																																												
	Wall hanging	To 1500st																																																																												
	Ceiling-mounted	To 1200st																																																																												

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