

F17L

Standard Intermediate stroke

Robot ordering method

F17L - 50 - BK - 2050 - 3L - SR1-X - 20 - E^{Note 1} - R^{Note 2} - N - B^{Note 1}

Model	Lead designation	Brake	Stroke	Cable length	Applicable controller	Driver	Usable for CE	Regenerative unit	Inputs/Outputs selection	Battery
		No entry : No brakes BK : Brakes provided	1100 to 2050 (50mm pitch)	3L : 3.5m (Standard) 5L : 5m 10L : 10m	SR1-X RDX (see page 52)	-05 : 100W or less -10 : 200W -20 : 400 to 600W	No entry : Standard E : CE specification	No entry : Standard R : RG1	N : NPN P : PNP CC : CC-Link DN : DeviceNet PB : Profibus YC : YC-Link Note 3	No entry : None (Incremental specification) B : Battery (Absolute Specification)

Note 1 : It will be a customer's choice.
 Note 2 : Optional regenerative unit is required for YAMAHA-designated models and when operating a load with a large inertia.
 Note 3 : Available only for the slave.

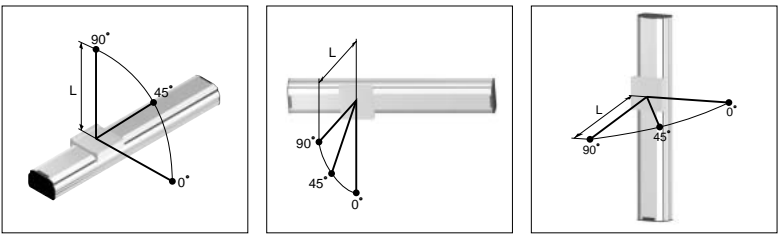
Basic specifications

AC servo motor output(W)	600	
Repeatability(mm) ^{Note 1}	+/-0.02	
Deceleration mechanism	Ball screw(Class C10)	
Ball screw lead(mm)	50	
Maximum speed(mm/sec) ^{Note 2}	2200	
Maximum payload(kg)	Horizontal	50
	Vertical	10
Rated thrust(N)	130	
Stroke(mm)	1100 to 2050(50 pitch)	
Cable length(m)	3.5(Standard), 5, 10	
Controller	Horizontal	SR1-X-20-R
	Vertical	SR1-X-20-R
Robot driver	Horizontal	RDX-20-RBR1
	Vertical	-

Stroke(mm)	Maximum speed(mm/sec)	Speed setting
1250	1900	86%
1450	1500	68%
1650	1200	54%
1850	900	40%
2050	800	36%

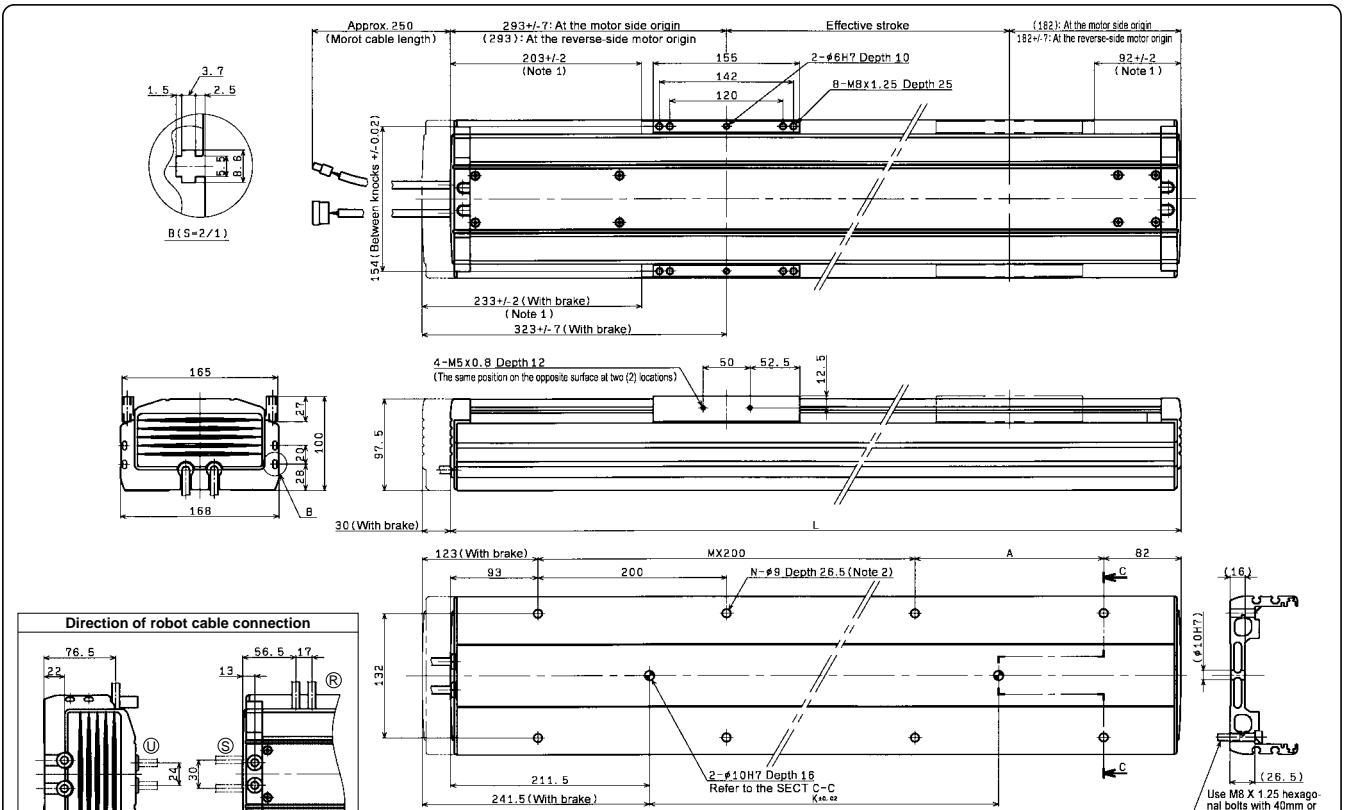
Note 1 : Repeatability for single oscillation.
 Note 2 : When the stroke exceeds 1250mm, although depending on the moving range, the ball screw may resonate (dangerous speed). If such resonance occurs, make an adjustment on the program to reduce the speed, using the maximum speed in the table on the right as a guide.
 Note 3 : Please consult YAMAHA when using the specification with the origin positioned on the other side of the motor.

Tolerable overhang amount^{Note}



During horizontal use (Unit : mm)		During wall installation use (Unit : mm)		During vertical use (Unit : mm)					
	0°	45°	90°		0°	45°	90°		
Lead 50	10kg	760	865	1470	Lead 50	2kg	3050	2155	3050
	30kg	390	505	1370		5kg	1180	835	1180
	50kg	245	335	1345		10kg	740	525	740

Note : Distance from center of slider top to center of gravity of object being transported.



Direction of robot cable connection

SECT C-C

Note 1 : Length from both ends to mechanical stopper position.
 Note 2 : It is not allowed to use a counter bore washer, etc. when installing the main unit.
 Note 3 : This is the weight of the model without a brake. The weight of the model equipped with a brake is 1.2kg heavier than this value.
 Note 4 : As the carriage is made of extruded aluminum, its width dimension may slightly differ from the value above.

Effective stroke	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050
L	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	2175	2225	2275	2325	2375	2425	2475	2525
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	6	7	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11
N	16	18	18	18	18	20	20	20	20	22	22	22	22	24	24	24	24	26	26	26
K	1140	1140	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
Weight(kg)(Note 3)	34.9		36.7		38.4		40.2		42.0		43.8		45.6		47.3		49.1		50.9	