

C20

Standard

Robot ordering method

C20 - 20 - BK - 1250 - 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
	20 : 20mm 10 : 10mm	No entry : No brakes BK : Brakes provided	250 to 1250 (100mm 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.

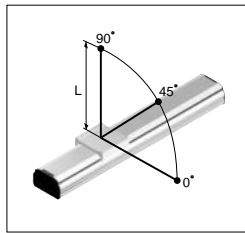
Basic specifications

AC servo motor output(W)	600	
Repeatability(mm) ^{Note 1}	+/-0.01	
Deceleration mechanism	Ball screw(Class C7)	
Ball screw lead(mm)	20	10
Maximum speed(mm/sec) ^{Note 2}	1000	500
Maximum payload(kg)	Horizontal	120
	Vertical	25
Rated thrust(N)	Horizontal	468
	Vertical	936
Stroke(mm)	250 to 1250(100 pitch)	
Cable length(m)	3.5(Standard), 5, 10	
Controller	Horizontal	SR1-X-20
	Vertical	SR1-X-20-R
Robot driver	Horizontal	RDX-20-RBR1
	Vertical	RDX-20-RBR2
Degree of cleanliness	CLASS 10 ^{Note 3}	
Intake air(l/min)	30 to 90 ^{Note 4}	

Note 1 : Repeatability for single oscillation.
Note 2 : When the stroke exceeds 950mm, 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 : Per 1cf (0.1µm base), when the suction blower is used.
Note 4 : The necessary intake amount varies depending on the use conditions and environment.

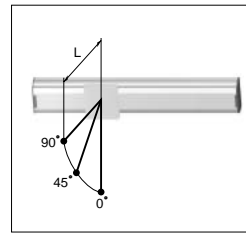
Stroke (mm)	Maximum speed (mm/sec)		Speed setting
	Lead 20	Lead 10	
950	800	400	80%
1050	700	350	70%
1150	600	300	60%
1250	500	250	50%

Tolerable overhang amount



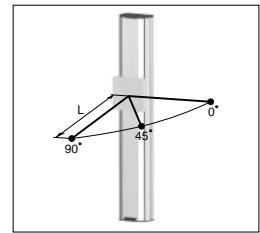
During horizontal use (Unit : mm)

Lead 20	0 ° 45 ° 90 °		
	50kg	877	1085
	80kg	566	721
120kg	407	544	1869



During wall installation use (Unit : mm)

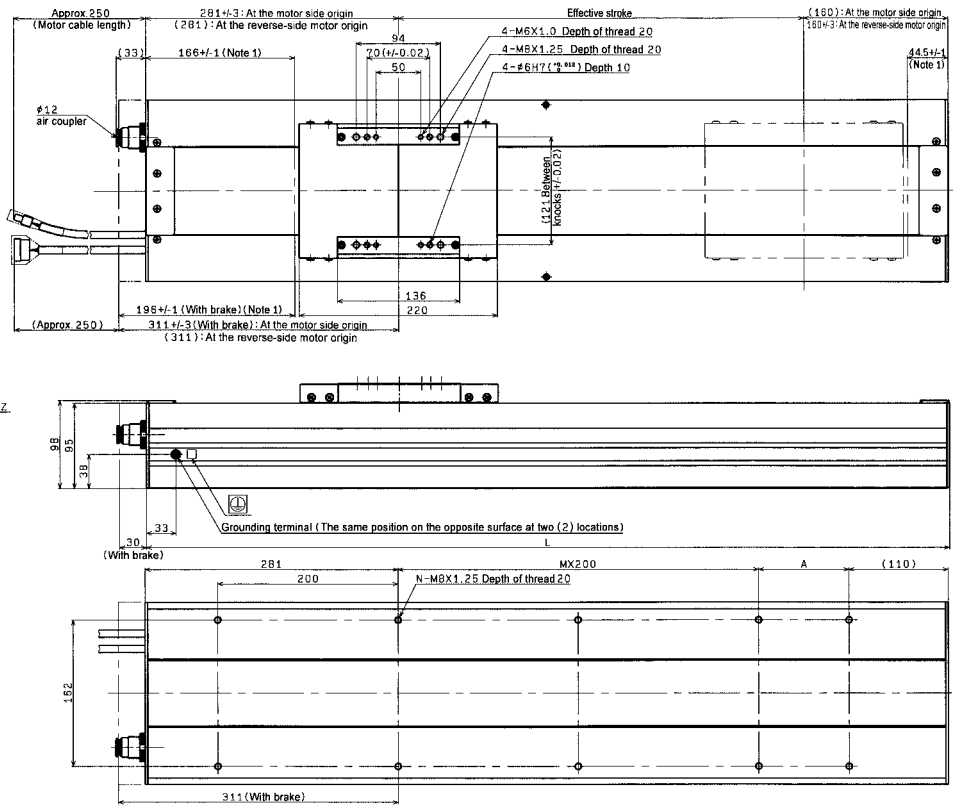
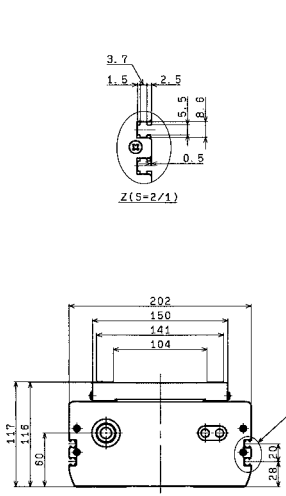
Lead 20	0 ° 45 ° 90 °		
	50kg	1403	658
	80kg	1056	425
120kg	1049	311	259



During vertical use (Unit : mm)

Lead 20	0 ° 45 ° 90 °		
	15kg	1331	941
	20kg	993	702
25kg	816	577	816
Lead 10	20kg	2043	1444
	30kg	1352	956
	45kg	887	627

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



Effective stroke	250	350	450	550	650	750	850	950	1050	1150	1250
L	691	791	891	991	1091	1191	1291	1391	1491	1591	1691
A	100	200	100	200	100	200	100	200	100	200	100
M	1	1	2	2	3	3	4	4	5	5	6
N	8	8	10	10	12	12	14	14	16	16	18
Weight(kg)(Note 4)	26.0	28.0	30.0	32.0	34.0	36.0	38.0	40.0	42.0	44.0	46.0

Note 1 : Length from both ends to mechanical stopper position.
Note 2 : For basic functions, please refer to the brochure or contact YAMAHA Motor Co., Ltd.
Note 3 : The minimum bend radius of the motor cable is R50.
Note 4 : This is the weight of the model without a brake. The weight of the model equipped with a brake is 2.0kg heavier than this value.