

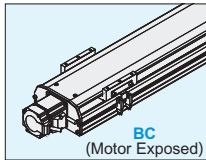
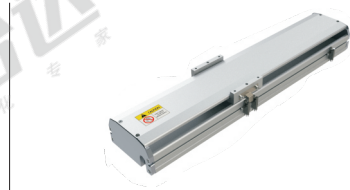
Single Axis Robots

YBSC13 Series

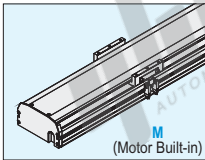
Ball Screw Drive, General Environment

Code	Base		Guide		Slider		Cover		Operating Ambient
	Material	Surface Treatment	Material	Surface Treatment	Material	Surface Treatment	Material	Surface Treatment	
YBSC13	Aluminum Alloy	Anodize	Iron	—	Aluminum Alloy	Anodize	Aluminum Alloy	Anodize	0~40°C 35~85%RH No Condensation

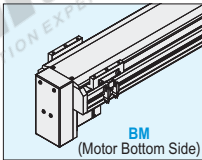
(1) This product does not include a motor, the motor must be purchased separately.



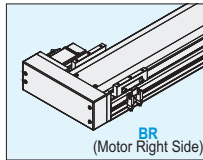
BC
(Motor Exposed)



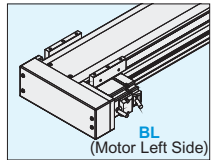
M
(Motor Built-in)



BM
(Motor Bottom Side)



BR
(Motor Right Side)

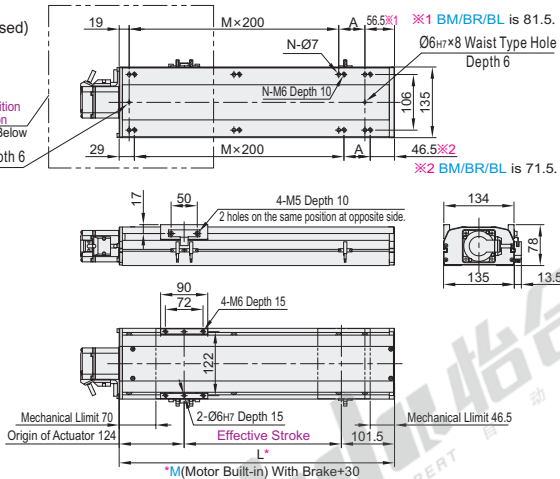


BL
(Motor Left Side)

Motor Position :
BC(Motor Exposed)

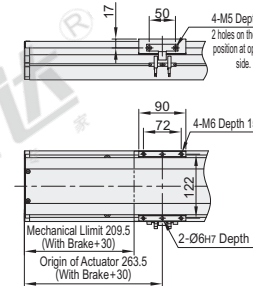
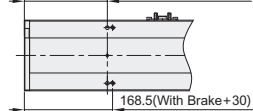
Motor Position
Selection
As Shown Below

Ø6H7 Depth 6



M (Motor Built-in)

158.5(With Brake+30)



The first perspective

(2) Motor Position Selection

BM (Motor Bottom Side)			BR (Motor Right Side)			BL (Motor Left Side)		

Part Number		Effective Stroke (50 mm Increment)	Motor Position Selection	Motor Brand	Motor Output	Brake	Home Sensor	Limit Sensor
Code	Ball Screw Lead							
YBSC13	5	100~1050 Non-standard stroke can be customized	M (Motor Built-in) BC (Motor Exposed) BM (Motor Bottom Side) BR (Motor Right Side) BL (Motor Left Side)	P (Panasonic) Y (Yaskawa) M (Mitsubishi) T (Delta) H (Inovance) L (Leadshine)	20 (200W Servo) 57 (57 Stepping) 57 Stepping Only applicable to Leadshine brand. If 57 series stepper motors are used, it is recommended to choose the model with the maximum static torque greater than 0.64 N.m.	N (Without Brake) B (With Brake)	In Side A (Motor Side) B (Opposite Motor Side) Out Side C (Motor Side) D (Opposite Motor Side) No Sensor E (No Sensor)	In Side 1 (1 Pc) 2 (2 Pcs) Out Side 3 (1 Pc) 4 (2 Pcs) No Sensor 5 (No Sensor)
	10							
	16							
	20							

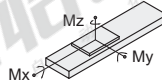
Specification

Recommended Motor Output		200W Servo			
Spec	Positioning Repeatability	±0.01			
	Ball Screw Lead	5	10	16	20
	Maximum Payload(kg)	Horizontal	70	47	30
		Vertical	17	12	6
	Rated Thrust (N)	680	340	212	170
Parts	Ball Screw Outer Diameter	16			
	Linear Guide Rail	15x12.5 Two Branch, Double Slide Blocks			
	Home Sensor	Out Side	EE-SX672(NPN)		
		In Side	EE-SX674(NPN)		

① Please contact us for OMRON Brand or PNP Sensor.

Allowable Moment Table

Mxd	153N.m
Myd	175N.m
Mzd	174N.m



The torque value in the table is dynamic allowable torque based on the running life of sliding table of 10000km.

Torque conditions:

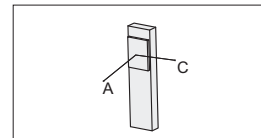
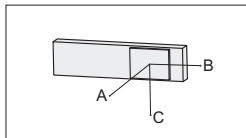
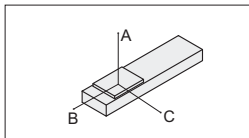
$$Mx/Mxd + My/Myd + Mz/Mzd \leq 1$$

(Mx, My, Mz are the actual moments in each direction)

Explanation :

- The actual load shall meet the following conditions:
 - Meet the maximum load condition in the "Specification" table.
 - Satisfy the torque condition in the "allowable Moment Table" if beyond the conditions of use will greatly reduce the life of the slide table.
- The data in the table is based on the rated life of 10000km.
- The repeated positioning accuracy in the table is a unidirectional value.
- The maximum speed of the lead screw drive slider is reached after a certain travel. Need to be reduced. In order to avoid the resonance of the sliding table, different travel corresponding please refer to the table below for the maximum speed.
- Rated acceleration of the slide table is 0.3G, and the short-stroke slide table may not work reach top speed.
- If the sliding table is used vertically, please choose the belt brake motor.

Load allowable moment table (unit: mm)



Horizontal installation		A	B	C
Lead5	40kg	795	63	255
	55kg	558	43	155
	70kg	422	32	115
Lead10	25kg	588	95	276
	35kg	410	65	190
	47kg	295	46	135
Lead16	10kg	1000	220	550
	20kg	500	110	275
	30kg	333	73	183
Lead20	6kg	1068	355	710
	15kg	416	136	275
	24kg	252	81	166

Wall-mounted installation		A	B	C
Lead5	30kg	310	88	1066
	50kg	172	49	620
	70kg	115	32	422
Lead10	20kg	351	122	743
	30kg	225	78	484
	47kg	135	46	294
Lead16	10kg	461	372	1410
	20kg	264	178	1027
	30kg	148	69	832
Lead20	5kg	852	428	1227
	12kg	345	173	522
	24kg	166	81	253

Vertical installation		A	C
Lead5	5kg	580	580
	11kg	264	264
	17kg	170	170
Lead10	4kg	644	644
	8kg	322	322
	12kg	215	215
Lead16	5kg	398	398
	10kg	199	199
Lead20	3kg	667	667
	6kg	335	335

Maximum Speed

Screw Outer Diameter	Motor Output	Lead	Stroke														
			100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
16	200W Servo	5	250														
		10	500														225
		16	800														450
		20	1000														720
																	900

Dimension Table

Motor Position	Dimension	Stroke															
		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
M (Motor Built-in)	L	465	515	565	615	665	715	765	815	865	915	965	1015	1065	1115	1165	1215
	A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
	M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	5
	N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	14
	Weight (kg)※	7.4	7.9	8.4	8.9	9.4	9.9	10.4	10.9	11.4	11.9	12.4	12.9	13.4	13.9	14.4	14.9
BC (Motor Exposed)	L	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5	975.5	1025.5	1075.5
	A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
	M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	5
	N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	14
	Weight (kg)※	6.4	6.9	7.4	7.9	8.4	8.9	9.4	9.9	10.4	10.9	11.4	11.9	12.4	12.9	13.4	13.9
BM (Motor Bottom Side)	L	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5
	A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
	M	0	0	1	1	1	1	2	2	2	3	3	3	3	4	4	5
	N	4	4	6	6	6	6	8	8	8	10	10	10	10	12	12	14
	Weight (kg)※	6.3	6.8	7.3	7.8	8.3	8.8	9.3	9.8	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.8
BR (Motor Right Side)	L	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5
	A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
	M	0	0	1	1	1	1	2	2	2	3	3	3	3	4	4	5
	N	4	4	6	6	6	6	8	8	8	10	10	10	10	12	12	14
	Weight (kg)※	6.3	6.8	7.3	7.8	8.3	8.8	9.3	9.8	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.8
BL (Motor Left Side)	L	318.5	368.5	418.5	468.5	518.5	568.5	618.5	668.5	718.5	768.5	818.5	868.5	918.5	968.5	1018.5	1068.5
	A	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
	M	0	0	1	1	1	1	2	2	2	3	3	3	3	4	4	5
	N	4	4	6	6	6	6	8	8	8	10	10	10	10	12	12	14
	Weight (kg)※	6.3	6.8	7.3	7.8	8.3	8.8	9.3	9.8	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.8

※ Not include motor weight.

Single Axis Robots

YBSC13 Series

Ball Screw Drive, General Environment

☐ List of servo motor which should be matched

Brand	Motor Mark	Brake	Watt	Servo Motor Part Number	Driver Part Number
Panasonic	P	Without Brake(Horizontal)	200W	MSMF022L1U2M	MADLN15SE
		With Brake(Vertical)		MSMF022L1V2M	
Mitsubishi	M	Without Brake(Horizontal)	200W	HG-KN23J-S100	MR-JE-20A
		With Brake(Vertical)		HG-KN23BJ-S100	
Delta(B2)	T	Without Brake(Horizontal)	200W	ECMA-C20602RS	ASD-B2-0221-B
		With Brake(Vertical)		ECMA-C20602SS	

☐ Please consult our staff for other types of motor .

☐ The part number listed in the table are motor and driver part number sold on our official website. only modular mechanical parts are provided for standard single axis robot models , without motors and drivers.



Please order as shown

Part Number		Effective Stroke	Motor Position	Motor	Motor	Brake	Home Sensor	Limit Sensor
Code	Ball Screw Lead	(50 mm Increment)	Selection	Brand	Output			
YBSC13	5	100~1050	M(Motor Built-in)	P(Panasonic)	20(200W Servo)	N(Without Brake)	Out Side	Out Side
	10		BC(Motor Exposed)	Y(Yaskawa)	57(57 Stepping)	B(With Brake)	C(Motor Side)	3(1 Pc)
			BL(Motor Bottom Side)	M(Mitsubishi)			D(OppoSite Motor Side)	4(2 Pcs)

YBSC13 — 10 — 550 — BM — M — 20 — N — C — 4



● Discount price

Per	1~4	5~
Price	100%	Additional quotation



Delivery

11

☐ Quantity (1~4 Pcs)