

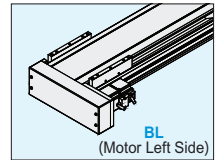
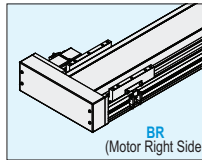
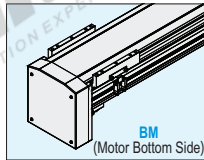
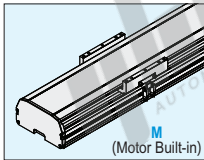
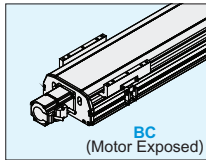
Single Axis Robots

YBSC17 Series

Ball Screw Drive, General Environment

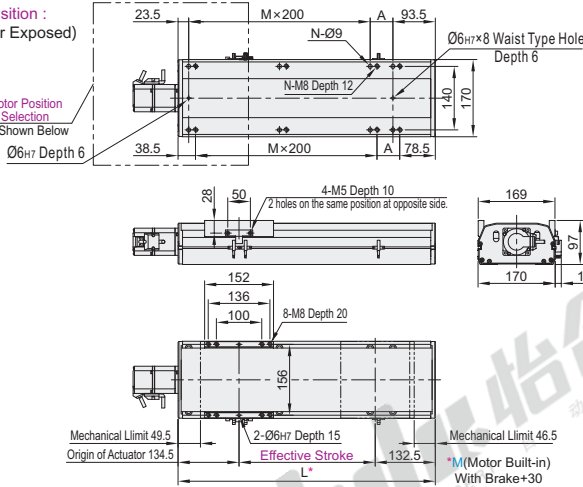
Code	Base		Guide		Slider		Cover		Operating Ambient
	Material	Surface Treatment	Material	Surface Treatment	Material	Surface Treatment	Material	Surface Treatment	
YBSC17	Aluminum Alloy	Anodize	Iron	—	Aluminum Alloy	Anodize	Aluminum Alloy	Anodize	0~40°C 35~85%RH No Condensation

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

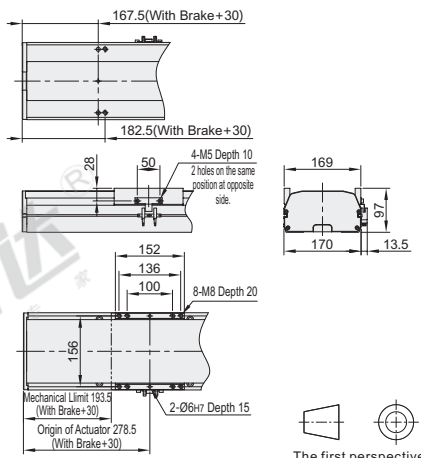


Motor Position :
BC(Motor Exposed)

Motor Position Selection
As Shown Below



M (Motor Built-in)



(I) Motor Position Selection

BM (Motor Bottom Side)		BR (Motor Right Side)		BL (Motor Left Side)	
Technical drawing of the BM (Motor Bottom Side) configuration. Dimensions include: 90, 150, 105, 150, 169, 170, 13.5, 97, 28, 50, 4-M5 Depth 10, 2 holes on the same position at opposite side, 152, 136, 100, 8-M8 Depth 20, 156, 2-Ø6H7 Depth 15, Mechanical Limit 66, Origin of Actuator 151.		Technical drawing of the BR (Motor Right Side) configuration. Dimensions include: 90, 150, 105, 150, 169, 170, 13.5, 97, 28, 50, 4-M5 Depth 10, 2 holes on the same position at opposite side, 152, 136, 100, 8-M8 Depth 20, 156, 2-Ø6H7 Depth 15, Mechanical Limit 66, Origin of Actuator 151.		Technical drawing of the BL (Motor Left Side) configuration. Dimensions include: 90, 150, 105, 150, 169, 170, 13.5, 97, 28, 50, 4-M5 Depth 10, 2 holes on the same position at opposite side, 152, 136, 100, 8-M8 Depth 20, 156, 2-Ø6H7 Depth 15, Mechanical Limit 66, Origin of Actuator 151.	

Part Number		Effective Stroke (50 mm Increment)	Motor Position Selection	Motor Brand	Motor Output	Brake	Home Sensor	Limit Sensor
Code	Ball Screw Lead							
YBSC17	5	100~1250 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) *M (Motor Built-in) Motor Output are not suitable for 750W Servo motors.	P (Panasonic) Y (Yaskawa) M (Mitsubishi) T (Delta) H (Inovance) L (Leadshine)	40 (400W Servo) 75 (750W Servo)	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							
	20							
	40							

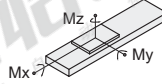
Specification

Recommended Motor Output		400W Servo				750W Servo			
Spec	Positioning Repeatability	±0.01				±0.01			
	Ball Screw Lead	5	10	20	40	5	10	20	40
	Maximum Payload(kg)	Horizontal	110	90	75	35	120	95	83
		Vertical	40	30	14	7	50	40	25
	Rated Thrust (N)	1360	680	340	170	2550	1275	637	318
Parts	Ball Screw Outer Diameter	20							
	Linear Guide Rail	20×15.5 Two Branch, Double Slide Blocks							
	Home Sensor	EE-SX672(NPN)							
		EE-SX674(NPN)							

① Please contact us for OMRON Brand or PNP Sensor.

Allowable Moment Table

Mxd	908 N.m
Myd	1034 N.m
Mzd	1032 N.m



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

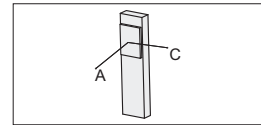
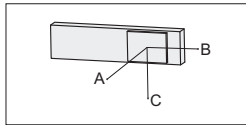
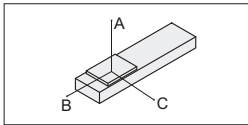
Torque conditions:

$Mx/Mxd + My/Myd + Mz/Mzd \leq 1$
(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
Lead 5	70kg	3235	349	408
	90kg	2482	263	306
	120kg	1861	187	218
Lead 10	65kg	1911	338	373
	85kg	1445	248	276
	120kg	1000	164	182
Lead 20	35kg	1666	547	538
	55kg	1030	331	328
	83kg	654	206	204
Lead 40	15kg	1126	740	577
	22kg	755	491	384
	43kg	366	231	183

Wall-mounted installation		A	B	C
Lead 5	75kg	377	322	2988
	95kg	288	246	2333
	120kg	218	187	1850
Lead 10	60kg	408	368	2092
	80kg	296	266	1554
	120kg	182	164	1002
Lead 20	30kg	633	644	1961
	50kg	365	369	1143
	83kg	204	206	656
Lead 40	12kg	729	936	1417
	22kg	384	491	755
	43kg	183	231	366

Vertical installation		A	C
Lead 5	20kg	1368	1368
	30kg	911	911
	50kg	546	546
Lead 10	15kg	1618	1618
	25kg	970	970
	40kg	607	607
Lead 20	10kg	1922	1922
	14kg	1377	1377
	25kg	769	769
Lead 40	7kg	1356	1356
	12kg	790	790

Maximum Speed

Screw Outer Diameter	Motor Output	Lead	Stroke																							
			100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
16	400W Servo	5								250									225	225	200	200	200	175	175	175
		10								500									450	450	400	400	400	350	350	350
	750W Servo	20								1000									900	900	800	800	800	700	700	700
		40								2000									1800	1800	1600	1600	1600	1400	1400	1400

Dimension Table

Motor Position	Dimension	Stroke																							
		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
M (Motor Built-in)	L	511	561	611	661	711	761	811	861	911	961	1011	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661
	A	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
	M	1	1	1	1	2	2	2	2	3	3	3	3	3	4	4	4	4	5	5	5	6	6	6	6
	N	6	6	6	6	8	8	8	8	10	10	10	10	10	12	12	12	12	14	14	14	16	16	16	16
	Weight (kg)※	11.8	12.6	13.4	14.2	15	15.8	16.6	17.4	18.2	19	19.8	20.6	21.4	22.2	23	23.8	24.6	25.4	26.2	27	27.8	28.6	29.4	30.2
BC (Motor Exposed)	L	367	417	467	517	567	617	667	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317	1367	1417	1467	1517
	A	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
	M	1	1	1	1	2	2	2	2	3	3	3	3	3	4	4	4	4	5	5	5	6	6	6	6
	N	6	6	6	6	8	8	8	8	10	10	10	10	10	12	12	12	12	14	14	14	16	16	16	16
	Weight (kg)※	10.5	11.3	12.1	12.9	13.7	14.5	15.3	16.1	16.9	17.7	18.5	19.3	20.1	20.9	21.7	22.5	23.3	24.1	24.9	25.7	26.5	27.3	28.1	28.9
BM (Motor Bottom Side)	L	383.5	433.5	483.5	533.5	583.5	633.5	683.5	733.5	783.5	833.5	883.5	933.5	983.5	1033.5	1083.5	1133.5	1183.5	1233.5	1283.5	1333.5	1383.5	1433.5	1483.5	1533.5
	A	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
	M	0	0	0	0	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	5	5	5	5
	N	6	6	6	6	8	8	8	8	10	10	10	10	10	12	12	12	12	14	14	14	16	16	16	16
	Weight (kg)※	10.7	11.5	12.3	13.1	13.9	14.7	15.5	16.3	17.1	17.9	18.7	19.5	20.3	21.1	21.9	22.7	23.5	24.3	25.1	25.9	26.7	27.5	28.3	29.1
BR (Motor Right Side)	L	383.5	433.5	483.5	533.5	583.5	633.5	683.5	733.5	783.5	833.5	883.5	933.5	983.5	1033.5	1083.5	1133.5	1183.5	1233.5	1283.5	1333.5	1383.5	1433.5	1483.5	1533.5
	A	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
	M	0	0	0	0	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	5	5	5	5
	N	6	6	6	6	8	8	8	8	10	10	10	10	10	12	12	12	12	14	14	14	16	16	16	16
	Weight (kg)※	10.7	11.5	12.3	13.1	13.9	14.7	15.5	16.3	17.1	17.9	18.7	19.5	20.3	21.1	21.9	22.7	23.5	24.3	25.1	25.9	26.7	27.5	28.3	29.1
BL (Motor Left Side)	L	383.5	433.5	483.5	533.5	583.5	633.5	683.5	733.5	783.5	833.5	883.5	933.5	983.5	1033.5	1083.5	1133.5	1183.5	1233.5	1283.5	1333.5	1383.5	1433.5	1483.5	1533.5
	A	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
	M	0	0	0	0	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	5	5	5	5
	N	6	6	6	6	8	8	8	8	10	10	10	10	10	12	12	12	12	14	14	14	16	16	16	16
	Weight (kg)※	10.7	11.5	12.3	13.1	13.9	14.7	15.5	16.3	17.1	17.9	18.7	19.5	20.3	21.1	21.9	22.7	23.5	24.3	25.1	25.9	26.7	27.5	28.3	29.1

※ Not include motor weight.

Single Axis Robots

YBSC17 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)	400W	MSMF042L1U2M	MBDLN25SE
		With Brake(Vertical)		MSMF042L1V2M	
		Without Brake(Horizontal)	750W	MSMF082L1U2M	MCDLN35SE
Mitsubishi	M	With Brake(Vertical)		MSMF082L1V2M	
		Without Brake(Horizontal)	400W	HG-KN43J-S100	MR-JE-40A
		With Brake(Vertical)		HG-KN43BJ-S100	
Delta(B2)	T	Without Brake(Horizontal)	750W	HG-KN73J-S100	MR-JE-70A
		With Brake(Vertical)		HG-KN73BJ-S100	
		Without Brake(Horizontal)	400W	ECMA-C20604RS	ASD-B2-0421-B
Delta(B2)	T	With Brake(Vertical)		ECMA-C20604SS	
		Without Brake(Horizontal)	750W	ECMA-C20807RS	ASD-B2-0721-B
		With Brake(Vertical)		ECMA-C20807SS	

☐ 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 Output	Brake	Home Sensor	Limit Sensor
Code	Ball Screw Lead	(50 mm Increment)	Selection	Brand				
YBSC17	5	100~1250	M(Motor Built-in)	P(Panasonic)	40(400W Servo)	N(Without Brake)	C(Out Side)	Out Side
	10		BC(Motor Exposed)	Y(Yaskawa)	75(750W Servo)	B(With Brake)	D(Motor Side)	3(1 Pc)
			BM(Motor Bottom Side)	M(Mitsubishi)			D (Opposite Motor Side)	4(2 Pcs)

YBSC17-10-550-BM-M-75-N-C-4



Discount price		
Per	1~4	5~
Price	100%	Additional quotation



Delivery	
	13

☐ Quantity (1~4 Pcs)