YK-X
Series

Product Lineup

YK-TW	Omni directional model
YK-XG/YK-X	Completely beltless model Note
YK-XR	Low cost high performance model
YK-XGS	Wall mount/inverse model
YK-XGP	Dust-proof & drip-proof model

Note. Except for YK1200X

SCARA ROBOTS

Arm length of 120 mm to 1200 mm, full-selection of lineup is top in the world. Completely beltless structure pursues the features of SCARA robots to their utmost limits.

NEW Low cost high performance model
YK400XR

History of 30 years

The first YAMAHA robots were SCARA robots. Since the first SCARA robot called "CAME" was produced in 1979, some 30 years of SCARA robot innovations have continually appeared. These SCARA robots have undergone countless modifications in an ever changing marketplace and amassed a hefty record of successful products making them an essential part of the YAMAHA robot lineup.

1979
<YK7000>

Comprehensive line of YAMAHA SCARA robots

Orbit type P.338

■ Arm length 500 mm
■ Maximum payload 4 kg

YK500TW

Extra small type P.342

■ Arm length 120 mm to 220 mm
■ Maximum payload 1 kg

YK120XG/YK150XG/YK180XG

YK180X/YK220X

Small type P.347

■ Arm length 250 mm to 400 mm
■ Maximum payload 5 kg

Low cost high performance model
YK400XR

NEW

YK400XR

YK250XG/YK350XG/YK400XG

Medium type P.354

■ Arm length 500 mm to 600 mm
■ Maximum payload 5 kg to 20 kg

YK500XGL

YK500XG

YK600XGL

YK600XG/XGH

Large type P.361

■ Arm length 700 mm to 1200 mm
■ Maximum payload 20 kg to 50 kg

YK700XG

YK800XG

YK900XG

YK1000XG

YK1200X

Wall mount/inverse model P.367

YK300XGS to YK1000XGS

Wall mount type

Inverse type

■ Wall mount type
Type where the robot body is installed in the wall.

■ Inverse type
Type where the wall-mount type is installed upside down.

Dust-proof & drip-proof model P.377

YK250XGP/YK350XGP/YK400XGP
YK500XGLP/YK600XGLP

YK500XGP to YK1000XGP

Plays active part in the working environment with a large amount of water or dust (protection class equivalent to IP65).

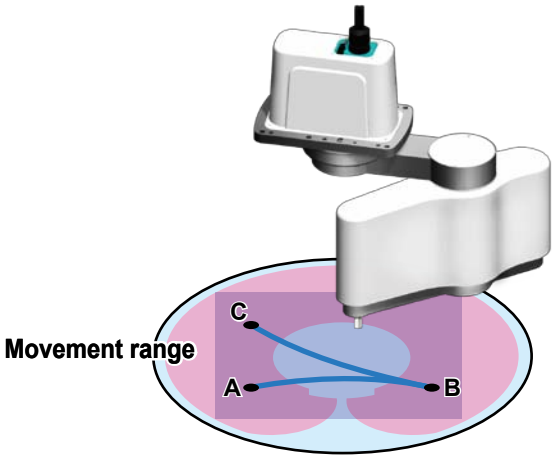
● Please consult YAMAHA for anti-droplet protection for fluids other than water.

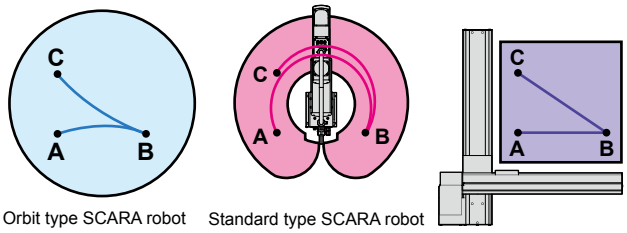
YK-TW Orbit type

YK-TW POINT 1

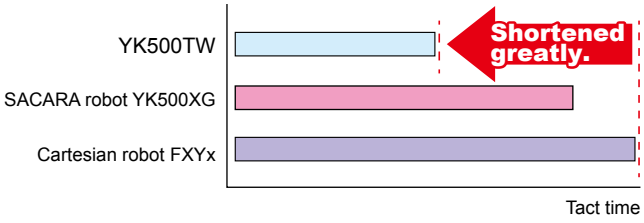
Accessible to 360 °-whole area under equipment

360 °-whole area under the equipment is covered by the hanging installation and wide arm turning angle. The plane working envelope is improved approx. 120 % when compared to YAMAHA's conventional model with an arm length of 500 mm. There is no dead space at the center of the working envelope. This ensures an operation range of ϕ 1,000 mm x 130 mm. As the working envelope is cylindrical, the pallet or conveyor installation direction is not restricted and the flexibility of the system design is improved.





Comparison of robot tact times



YK-TW POINT 2

Low overall height makes the equipment compact.

The overall height is as low as 392 mm. This can lower the center of gravity of the overall equipment. Therefore, the equipment can be downsized without needing any rigid frame. As the production equipment is made compact, this shortens a period of time necessary for the workpiece transfer.

YK-TW POINT 3

Tact is shortened by high-speed movement.

Use of a horizontal articulated structure, in which the Y-axis (2nd arm) can pass under the X-axis (1st arm) makes it possible to move between the points through the optimum route at a high speed. This greatly contributes to shortening of the tact time in the light load transfer process, such as electrical or food industry.

Standard cycle time is 0.29 sec.

When performing a reciprocation operation with a load of 1 kg, a horizontal movement of 300 mm, and a vertical movement of 25 mm, the standard cycle time is shortened about 36 % when compared to YAMAHA's conventional model.

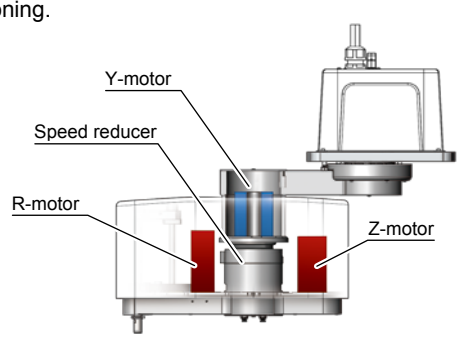
YK-TW POINT 4

High speed and highly accurate positioning by high mechanical rigidity

Repeated positioning accuracy +/- 0.015 mm

High accuracy and high load transferable by parallel link robot

The internal structure of the robot was reviewed strictly to optimize the weight balance. Additionally, a motor tuned optimally for the lightweight and highly rigid arm was incorporated to achieve the high speed and highly accurate positioning.



Hollow structure is used.

Y-motor and speed reducer have a hollow structure, the harnesses can be stored inside the arm.

360 ° Rotation

Heavy components are arranged at the center.

R-motor and Z-motor are arranged on the left and right, respectively to optimize the weight balance.

Inertia is reduced to make the high-speed operation possible

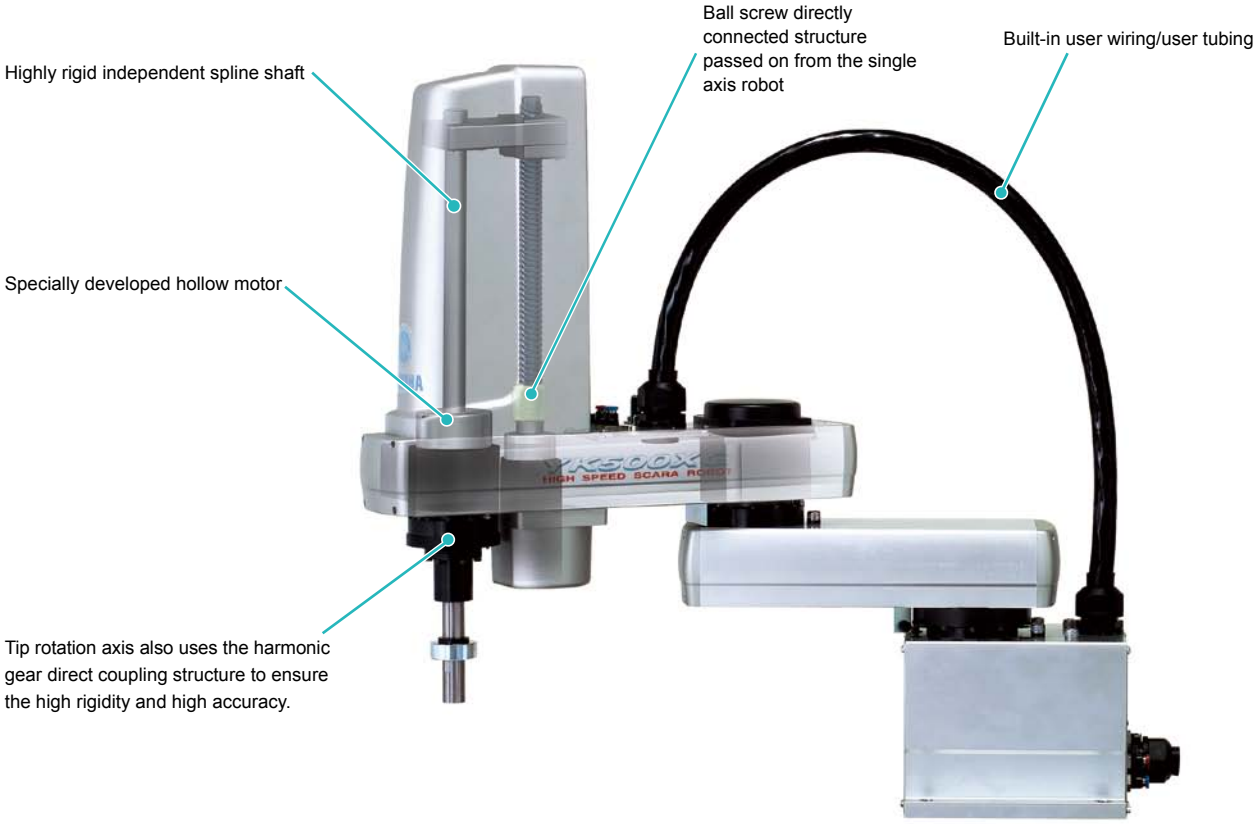
YK-TW POINT 5

Resolver is used for position detector.

Resolver is a magnetic position detector. The resolver features a simple structure without using electronic components and optical elements, and less potential failure factors when compared to general optical encoders. The resolver has high environment resistance and low failure ratio, and is used in a wide variety of fields aiming at reliability such as automobile or aircraft industry.

Integral structure designed for optimal operation

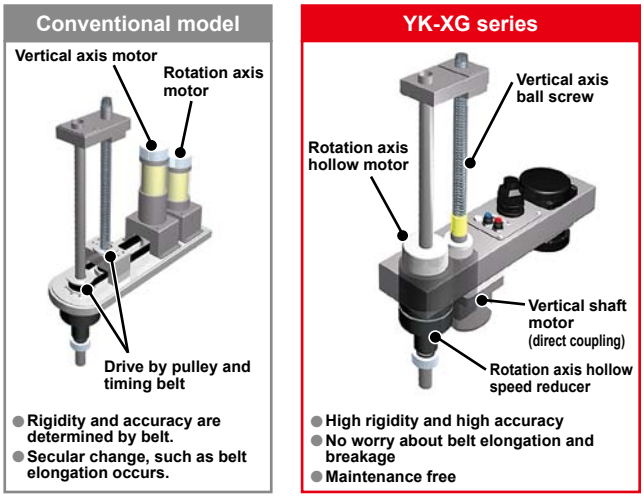
Note. The following shows an example of YK500XG.



YK-XG POINT 1

Completely beltless structure

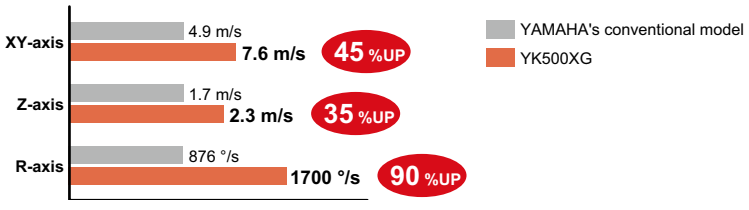
A completely beltless structure was achieved using a ZR-axis direct coupling structure. This completely beltless structure greatly reduces waste motion. This structure also maintains high accuracy for an extended period of time. Additionally, this structure ensures maintenance-free operation for an extended period of time without worrying about belt breakage, elongation, or secular deterioration (except for Orbit type and large type).



YK-XG POINT 2

High speed

The standard cycle time is fast. Additionally, YAMAHA also places special emphasis on the tact time in the practical working area. The speed reduction ratio or maximum motor RPM was reviewed to greatly improve the maximum speed. This contributes to improvement of the tact time.



YK-XG POINT 3

Resolver is used for position detector.

As the resolver uses a simple and rigid structure without using electronic components and optical elements, it features high environment resistance and low failure ratio. Detection problems due to electronic component breakdown, dew condensation on or oil sticking to the disk that may occur in optical encoders do not occur in the resolver due to its structure. Additionally, as the absolute specifications and incremental specifications use the same mechanical specifications and common controller, the specifications can be changed only by setting parameters. Furthermore, even when the absolute battery is consumed completely, the robot can still operate as the incremental specifications. So, even if a trouble occurs, the line stop is not needed to ensure the safe production line. The backup circuit has been completely renovated and now has a backup period of one year in the non-energizing state.

Note. The resolver has a simple structure without using electronic components. So, the resolver is highly resistant to low and high temperatures, impacts, electrical noise, dust particles, and oil, etc., and is used in automobiles, trains, and aircrafts that particularly require the reliability.

Optical encoder

- Optical type
- Electronic components are required and structure is complicated.
- Electronic component malfunction, or dew condensation on or oily content sticking to disk may occur easily.

Detection failure

Resolver

- Magnetic type
- Simple structure only with iron core and winding has less potential failure factors.
- Immune to shock and electric noise.

High reliability

YK-XG POINT 4

Excellent maintenance ability

The covers of YAMAHA SCARA robot YK-XG series can be removed forward or upward. The cover is separated from the cable, so the maintenance work is easy. Additionally, the grease replacement of the harmonic gear needs many steps to disassemble the gear and may cause positional deviation. However, since the harmonic gear of the YAMAHA SCARA robot uses long-life grease, the grease replacement is not needed.

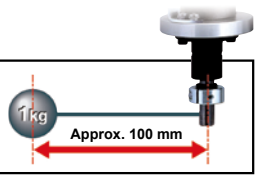
YK-XG POINT 5

Surprising R-axis tolerable moment of inertia

The SCARA robot performance cannot be expressed only by the standard cycle time. In actual operating environments, there are various workpieces, such as heavy workpiece or workpiece with large offset. At this time, since the robot with low R-axis tolerable moment of inertia needs to decrease the speed during operation, the cycle time decreases greatly. All YAMAHA SCARA robot YK-XG types have the tip rotation axis directly coupled to the speed reducer. Since the R-axis tolerable moment of inertia is very high when compared to a general structure in which the moment of inertia is transmitted by a belt after decelerating, the robot can operate at a high speed even with workpieces that have been offset.

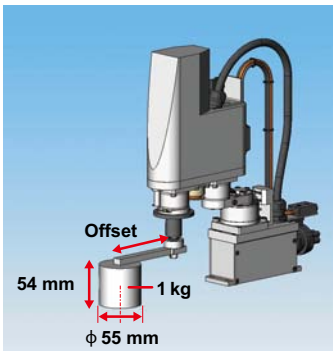
YK120XG
(R-axis tolerable moment of inertia: 0.1 kgfcm^2)

When the tip load weight is 1 kg,
it is possible to operate at **approx. 100 mm** offset.



R-axis tolerable moment of inertia: Comparison between YK120XG and other company's model

When the offset from the R-axis to the center of gravity of the load is large, the inertia becomes large and the acceleration during operation is restricted. The R-axis tolerable moment of inertia of YAMAHA XG series is exceedingly large when compared to other company's SCARA robots in the similar class, so it can operate at a high speed even in the offset state.



When the load weight is 1 kg (refer to the right in the figure,)

Offset (mm)	Inertia (kgfcms^2)	Operation	
		YK120XG	Company A
0	0.0039	○	○
45	0.025	○	×
97	0.1	○	×

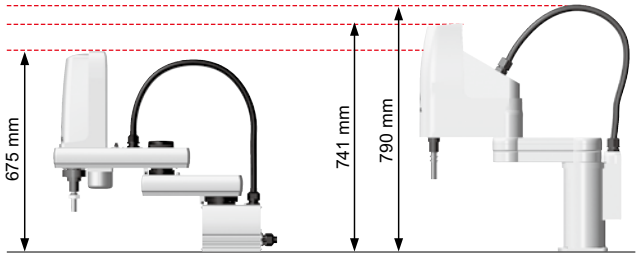
○: Operable ×: Out of catalog value tolerance range

◆ R-axis tolerable moment of inertia: YK120XG..... 0.1 kgfcms^2
Company A..... 0.0039 kgfcms^2

YK-XG POINT 6

Compact

As the cable layout is changed, the cable height becomes lower than the main body cover. Additionally, use of extruded material base and motor with low overall height achieves the lowest overall height in the same class.



YK500XG YAMAHA's conventional model

YK-XG POINT 7

Hollow shaft and tool flange options are selectable.

Hollow shaft that allows easy wiring to the tip tool and tool flange for tool mounting are provided as options.

Hollow shaft option convenient for routing of air tubes and harness wires

Note. YK250XG to YK400XG
YK500XGL/YK600XGL

Tool flange option for easy mounting of a tool to the tip

Note. YK250XG to YK1000XG

YK-XG POINT 8

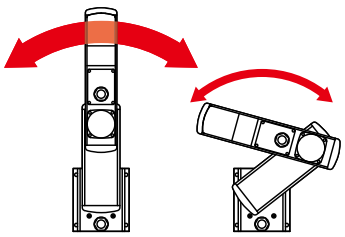
Zone control (= Optimal acceleration/deceleration automatic setting) function

In the SCARA robot, the load applied to the motor and speed reducer in the arm folded state greatly differs from that in the arm extended state. YAMAHA SCARA robot automatically selects optimal acceleration and deceleration from the arm postures at operation start and operation end. Therefore, the robot does not exceed the tolerance value of the motor peak torque or speed reducer allowable peak torque only by entering the initial payload. So, full power can be extracted from the motor whenever needed and high acceleration/deceleration are maintained.

For X-axis of YK500XG

The torque in the arm folded state is 5 or more times different from that in the arm extended state.

This may greatly affect the service life, vibration during operation, and controllability.

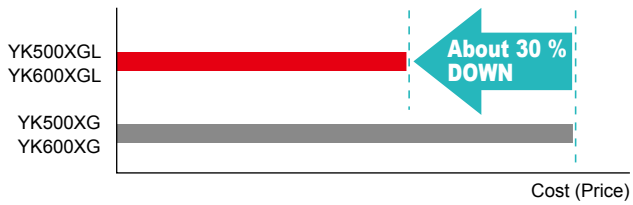


If the motor torque exceeds the peak value
→ **This may adversely affect the controllability and mechanical vibration, etc.**
If the torque exceeds the tolerable peak torque value of the speed reducer
→ **This may cause early breakage or shorten the service life extremely.**

YK-XG POINT 9

Low price models with the arm length 500 mm/600 mm specifications are also added to the product lineup.

The customers require to use SCARA robots at a more affordable price. Models YK500XGL/YK600XGL were developed to meet these customer's requests. About 30 %-cost reduction was achieved when compared to the conventional models YK500XG/600XG.



NEW

YK-XR Low cost high performance model YK400XR

YK-XR POINT 1

Shortest cycle time in this class

A standard cycle time of 0.45 sec. is achieved by drawing out the robot performance to its maximum level.

YK-XR POINT 2

Superior cost performance

Most economical price in YAMAHA's similar robot class without sacrificing its existing features.

YK-XR POINT 3

With versatile and high performance controller RCX340.

Combination of YK400XR robot and new RCX340 controller enable operation up to 16 axes with simple easy networking.

YK-XGS Wall mount/inverse model

Hanging type is renewed. Completely beltless structure and high rigidity

As the conventional hanging type is changed to the wall mount type, the flexibility of the system design is improved. The production equipment can be downsized. Additionally, as an inverse type that allows upward operation is also added to the product lineup, the flexibility of the working direction is widened. Furthermore, use of a completely beltless structure achieves a maximum payload of 20 kg and a R-axis tolerable moment of inertia of 1 kgm^2 Note that are the top in the class. A large hand can also be installed. So, this robot is suitable for heavy load work.

Note. YK700XGS to YK1000XGS

Inverse type

YK-XGP Dust-proof & drip-proof model

Up/down bellows structure improves the dust-proof and drip-proof performance.

The dust-proof and drip-proof type that can be operated even in a work environment where water or particle dust scatters was renewed to a completely beltless structure. The belt does not deteriorate and poor environment resistance is improved. Additionally, an up/down bellows structure is used to improve the dust-proof and drip-proof performance.

Note. YK250XGP to YK600XGLP

Protection class equivalent to IP65 (IEC60529)

Seals are added to the joints to maintain the dust-proof and drip-proof performance without air purging. The robot conforms to the protection class equivalent to IP65 (IEC60529).

IP 6 5

Class of protection against invasion of water: 5
Water injected from any direction does not affect adversely.
The standard pressure of the injected water is 30 KPa (30 KN/m^2, 0.3 kgf/cm).
The injection speed is 12.5 liters/min. and the injection time is 3 min.
Note. The water injected under conditions exceeding those shown above may enter the unit.

Class of protection against solid objects: 6
No invasion of particle dust.

Dust-proof and drip-proof connector for user wiring is provided as standard.

YK250XGP to 600XGLP (arm part)

YK250XGP to 600XGLP (base part)

Model/Type		Model	Arm length (mm)	Maximum payload (kg)	Standard cycle time (sec.)	Page
Omni directional model		NEW YK350TW	400	5.0	0.32 (RCX340) / 0.38 (RCX240)	P.338
		YK500TW	500	5.0 (RCX340) / 4.0 (RCX240) Note 3	0.29	P.340
Completely beltless model	Micro-mini type (Tiny)	YK120XG	120	1.0	0.33	P.342
		YK150XG	150			P.343
		YK180XG	180			P.344
		YK180X	180		0.39	P.345
		YK220X	220		0.42	P.346
	Small type	YK250XG	250	5.0 (4.0) Note 2	0.49	P.347
		YK350XG	350			P.349
		NEW YK400XG	400			P.351
Low cost high performance model		YK400XR	400	3.0 (2.0) Note 2	0.45	P.353
Completely beltless model	Medium type	YK500XGL	500	5.0 (4.0) Note 2	0.59	P.354
		YK500XG	500	10.0	0.45	P.356
		YK600XGL	600	5.0 (4.0) Note 2	0.63	P.357
		YK600XG	600	10.0	0.46	P.359
		YK600XGH	600	20.0	0.47	P.360
	Large type	NEW YK700XGL	800	10.0	0.50	P.361
		YK700XG	700	20.0	0.42	P.362
		YK800XG	800		0.48	P.363
		YK900XG	900		0.49	P.364
		YK1000XG	1000			P.365
–		YK1200X	1200	50.0	0.91	P.366
Wall mount/inverse model		YK300XGS Note 1	300	5.0 (4.0) Note 2	0.49	P.367
		YK400XGS Note 1	400			P.369
		YK500XGS	500	10.0	0.45	P.371
		YK600XGS	600		0.46	P372
		YK700XGS	700	20.0	0.42	P.373
		YK800XGS	800		0.48	P.374
		YK900XGS	900		0.49	P.375
		YK1000XGS	1000		0.6	P.376
Dust-proof & drip-proof model		YK250XGP	250	5.0	0.49	P.377
		YK350XGP	350			P.379
		YK400XGP	400			P.381
		YK500XGLP	500	4.0	0.74	P.383
		YK500XGP	500	8.0	0.55	P.385
		YK600XGLP	600	4.0	0.74	P.386
		YK600XGP	600	8.0	0.56	P.388
		YK600XGHP	600	18.0	0.57	P.389
		YK700XGP	700		0.52	P.390
		YK800XGP	800		0.58	P.391
		YK900XGP	900		0.59	P.392
		YK1000XGP	1000			P.393

Note 1. The YK300XGS and YK400XGS are custom-order products. For details about the delivery time, please contact YAMAHA.
Note 2. For the option specifications (tool flange mount type and user wiring/tubing through spline type), the maximum payload becomes the value in ( ).
Note 3. For the option specifications (tool flange mount type), the maximum payload becomes 4 kg (RCX340) or 3 kg (RCX240).

SCARA ROBOTS

YK-X SERIES

CONTENTS

Main functions ▶ P.34

YK-X SPECIFICATION SHEET

Type		Model	Arm length (mm) and XY axis resultant maximum speed (m/s)															Standard cycle time (sec) Note 1	Maximum payload (kg)	R-axis tolerable moment of inertia (kgm²)	Completely beltless structure Note 2	R-axis harmonic drive Note 3	Detailed info page
			120	150	180	220	250	300	350	400	500	600	700	800	900	1000	1200						
Orbit type		YK350TW	5.6															0.32 (RCX340) 0.38 (RCX240)	5	0.005 (Rated) 0.05 (Maximum)			P.338
Orbit type		YK500TW	6.8															0.29	5	0.005 (Rated) 0.05 (Maximum)			P.340
Standard	Tiny type	YK120XG	3.3															0.33	1	0.01	●	●	P.342
Standard	Tiny type	YK150XG	3.4															0.33	1	0.01	●	●	P.343
Standard	Tiny type	YK180XG	3.3															0.33	1	0.01	●	●	P.344
Standard	Tiny type	YK180X	3.3															0.39	1	0.01	●	●	P.345
Standard	Tiny type	YK220X	3.4															0.42	1	0.01	●	●	P.346
Standard	Small type	YK250XG	4.5															0.49	5	0.05	●	●	P.347
Standard	Small type	YK350XG	5.6															0.49	5	0.05	●	●	P.349
Standard	Small type	YK400XG	6.1															0.49	5	0.05	●	●	P.351
Standard	Small type	YK400XR	6															0.45	3	0.05			P.353
Standard	Medium type	YK500XGL	5.1															0.59	5	0.05	●	●	P.354
Standard	Medium type	YK500XG	7.6															0.45	10	0.30	●	●	P.356
Standard	Medium type	YK600XGL	4.9															0.63	5	0.05	●	●	P.357
Standard	Medium type	YK600XG	8.4															0.46	10	0.30	●	●	P.359
Standard	Medium type	YK600XGH	7.7															0.47	20	1.0	●	●	P.360
Standard	Large type	YK700XGL	9.2															0.50	10	0.30	●	●	P.361
Standard	Large type	YK700XG	8.4															0.42	20	1.0	●	●	P.362
Standard	Large type	YK800XG	9.2															0.48	20	1.0	●	●	P.363
Standard	Large type	YK900XG	9.9															0.49	20	1.0	●	●	P.364
Standard	Large type	YK1000XG	10.6															0.49	20	1.0	●	●	P.365
Standard	Large type	YK1200X	7.4															0.91	50	2.45		●	P.366
Wall-mount / inverse type		YK300XGS	4.4															0.49	5	0.05	●	●	P.367
Wall-mount / inverse type		YK400XGS	6.1															0.49	5	0.05	●	●	P.369
Wall-mount / inverse type		YK500XGS	7.6															0.45	10	0.3	●	●	P.371
Wall-mount / inverse type		YK600XGS	8.4															0.46	10	0.3	●	●	P.372
Wall-mount / inverse type		YK700XGS	8.4															0.42	20	1.0	●	●	P.373
Wall-mount / inverse type		YK800XGS	9.2															0.48	20	1.0	●	●	P.374
Wall-mount / inverse type		YK900XGS	9.9															0.49	20	1.0	●	●	P.375
Wall-mount / inverse type		YK1000XGS	10.6															0.49	20	1.0	●	●	P.376
Dust-proof & drip-proof type		YK250XGP	4.5															0.57	4	0.05	●	●	P.377
Dust-proof & drip-proof type		YK350XGP	5.6															0.57	4	0.05	●	●	P.379
Dust-proof & drip-proof type		YK400XGP	6.1															0.57	4	0.05	●	●	P.381
Dust-proof & drip-proof type		YK500XGLP	5.1															0.74	4	0.05	●	●	P.383
Dust-proof & drip-proof type		YK500XGP	7.6															0.55	8	0.3	●	●	P.385
Dust-proof & drip-proof type		YK600XGLP	4.9															0.74	4	0.05	●	●	P.386
Dust-proof & drip-proof type		YK600XGP	8.4															0.56	8	0.3	●	●	P.388
Dust-proof & drip-proof type		YK600XGHP	7.7															0.57	18	1.0	●	●	P.389
Dust-proof & drip-proof type		YK700XGP	8.4															0.52	18	1.0	●	●	P.390
Dust-proof & drip-proof type		YK800XGP	9.2															0.58	18	1.0	●	●	P.391
Dust-proof & drip-proof type		YK900XGP	9.9															0.59	18	1.0	●	●	P.392
Dust-proof & drip-proof type		YK1000XGP	10.6															0.59	18	1.0	●	●	P.393

Note 1. The standard cycle time is measured under the following conditions.
• During back and forth movement 25mm vertically and 100mm horizontally (TINY)
• During back and forth movement 25mm vertically and 300mm horizontally (small type / medium type / large type)
Note 2. Maintains high accuracy over long periods because the beltless structure drastically cuts down on wasted motion.
Operation is also nearly maintenance-free for long periods with no worries about belt breakage, stretching or deterioration over time.
Note 3. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.

Robot ordering method description

In the order format for the YAMAHA SCARA robots YK-X series, the notation (letters/numbers) for the mechanical section is shown linked to the controller section notation.

[Example]

● **Mechanical ▶ YK250XG**
- Z-axis stroke ▷ 150mm
- Tool flange ▷ With tool flange
- Hollow shaft ▷ With hollow shaft
- Cable length ▷ 3.5m

● **Controller ▶ RCX240S**

● **Ordering method**

YK250XG-150-F-S-3L-RCX240S

Mechanical section | Controller section

To find detailed controller information see the controller page. **RCX240** ▶ P.495, **RCX340** ▶ P.508

① Model	②Z-axis stroke	③ Tool flange	④ Hollow shaft	⑤ Cable	⑥Controller
YK***	50 50mm 100 100mm 150 150mm 200 200mm 300 300mm 400 400mm	No entry None F With tool flange	No entry None S With hollow shaft	2L 2m 3L 3.5m 5L 5m 10L 10m	RCX240 RCX240S RCX340

Note 1. Available only for the master.

Robot ordering method terminology

① Model	Enter the robot unit model.
② Z-axis stroke	Select the Z axis stroke. The stroke varies with the model you select so see that model's page to confirm the specifications.
③ Tool flange	Tool flange option for easy mounting of a tool to the tip. **No entry**: None **F**: With tool flange
④ Hollow shaft	Hollow shaft option for easy routing of air tubes and harness wires. **No entry**: None **S**: With hollow shaft
⑤ Cable	Select the length of the robot cable connecting the robot and controller. **2L**: 2m (Note 1) **3L**: 3.5m **5L**: 5m **10L**: 10m Note 1. Only selectable for YK120XG, YK150XG, YK180XG.
⑥ Controller	Select either the RCX240 (RCX240S) or RCX340.

YK350TW

Orbit type

Arm length 350mm **Maximum payload 5kg**

Ordering method

YK350TW - 130 | **RCX340-4**

Model	Z axis stroke	Tool flange	Hollow shaft	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK350TW	130: 130mm	No entry: None F: With tool flange	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240 | **R3** | **BB**

Controller	CE Marking	Regeneratizve unit	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240		R3					BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		175 mm	175 mm	130 mm	-
	Rotation angle		+/-225 °	+/-225 °	-	+/-720 °
AC servo motor output			750 W	400 W	200 W	105 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Belt speed reduction
	Transmission method	Motor to speed reducer	Timing belt	Direct-coupled	Timing belt	Timing belt
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.01 °
Maximum speed			5.6 m/sec		1.5 m/sec	3000 °/sec
Maximum payload Note 2			5 kg			
Standard cycle time: with 1kg payload Note 3			0.32 sec (RCX340) / 0.38 sec (RCX240)			
R-axis tolerable moment of inertia Note 4	Rated		0.005 kgm²			
	Maximum		0.05 kgm²			
User wiring			0.15 sq × 8 wires			
User tubing (Outer diameter)			φ 6 × 2			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			26 kg			

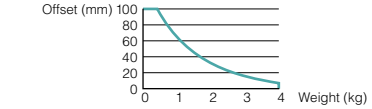
Note 1. This is the value at a constant ambient temperature.
Note 2. Tool flange specifications (option) are 4 kg.
Note 3. When moving a 1 kg load back and forth 300mm horizontally and 25mm vertically (rough positioning arch motion).
Note 4. Limits must be placed on parameters such as acceleration according to the moment of inertia being used.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

R-axis moment of inertia (load inertia)

Recommended positional relationship between the load weight and the offset amount from the center of the R-axis (center of gravity position)

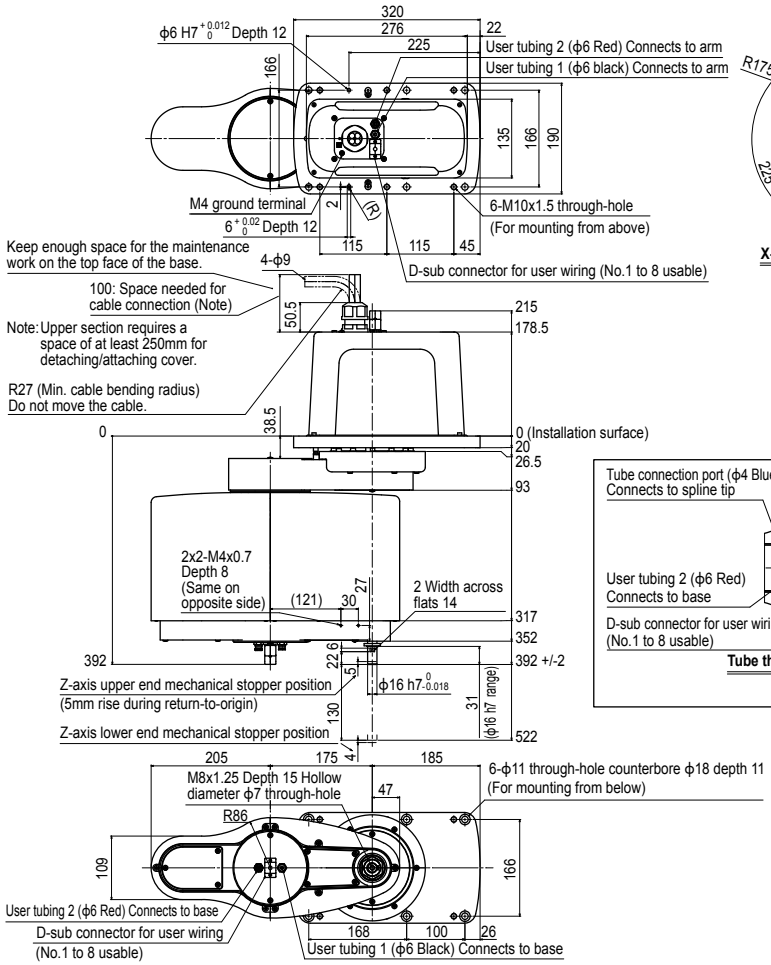


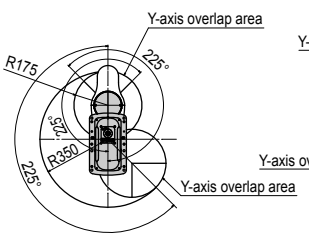
Note. When the payload exceeds 4kg, it is predicted that the R-axis moment of inertia may exceed the rated value. So, make proper parameter setting.

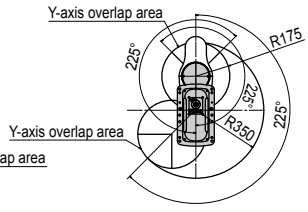
Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

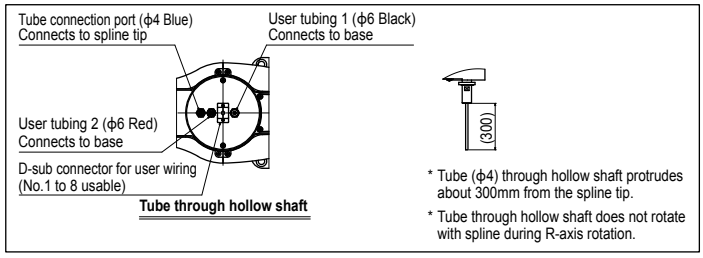
YK350TW



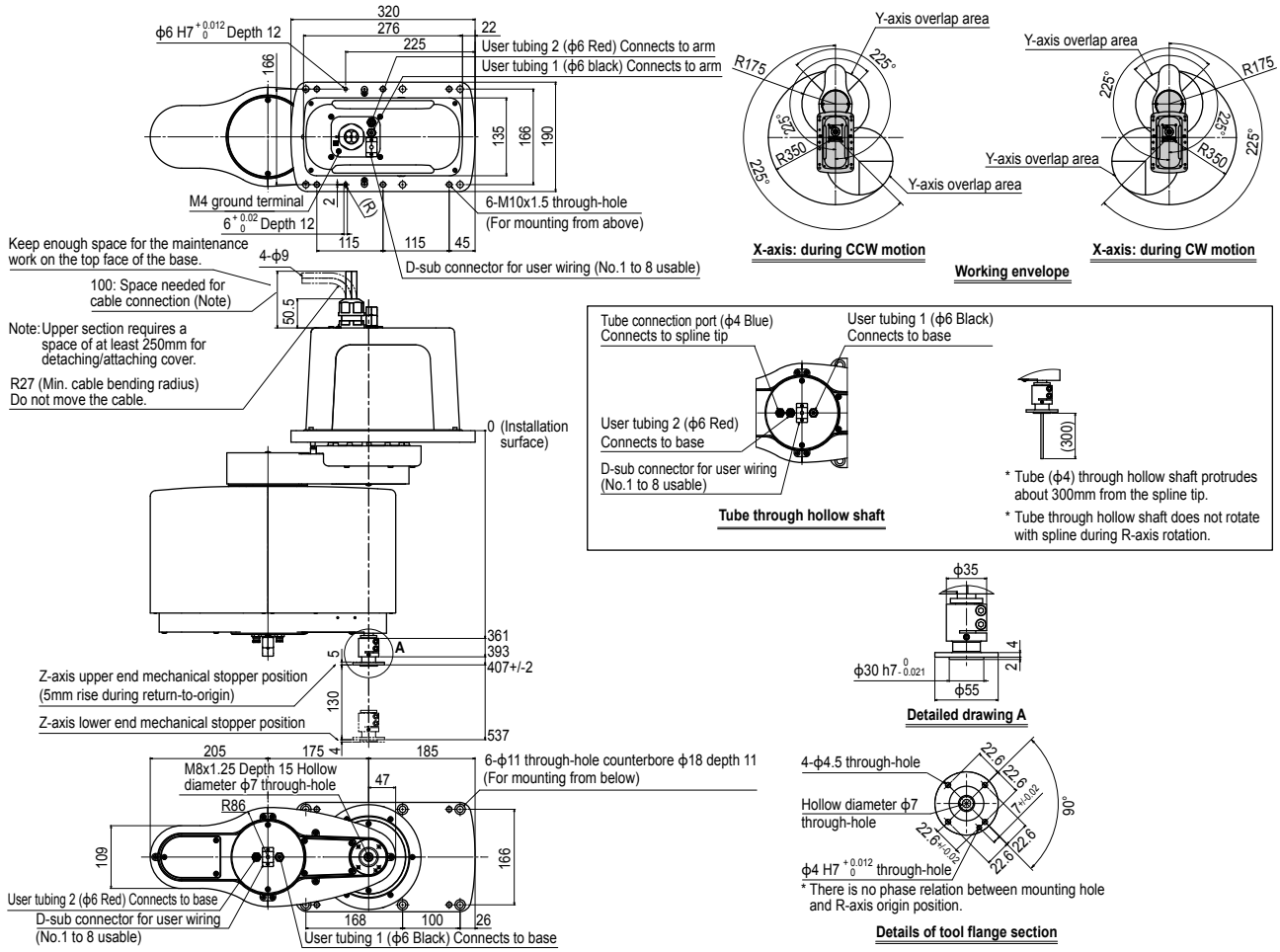




Working envelope



YK350TW Tool flange mount type



YK500TW

Orbit type

- Arm length 500mm
- Maximum payload 5kg

Ordering method

YK500TW - 130					RCX340-4							
Model	Z axis stroke	Tool flange	Hollow shaft	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
	130: 130mm	No entry: None F: With tool flange	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerativze unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		250 mm	250 mm	130 mm	-
	Rotation angle		+/-225 °	+/-225 °	-	+/-720 °
AC servo motor output			750 W	400 W	200 W	105 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Belt speed reduction
	Transmission method	Motor to speed reducer	Timing belt	Direct-coupled	Timing belt	Timing belt
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.015 mm		+/-0.01 mm	+/-0.01 °
Maximum speed			6.8 m/sec		1.5 m/sec	3000 °/sec
Maximum payload Note 2			5 kg (RCX340), 4 kg (RCX240)			
Standard cycle time: with 1kg payload Note 3			0.29 sec			
R-axis tolerable moment of inertia Note 4		Rated	0.005 kgm²			
		Maximum	0.05 kgm²			
User wiring			0.15 sq × 8 wires			
User tubing (Outer diameter)			ϕ 6 × 2			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			27 kg			

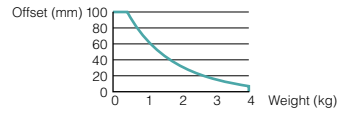
Note 1. This is the value at a constant ambient temperature.
Note 2. For the option specifications (tool flange mount type), the maximum payload becomes 4 kg (RCX340) or 3 kg (RCX240).
Note 3. When moving a 1 kg load back and forth 300 mm horizontally and 25 mm vertically (rough positioning arch motion).
Note 4. Limits must be placed on parameters such as acceleration according to the moment of inertia being used. See P.536.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

R-axis moment of inertia (load inertia)

Recommended positional relationship between the load weight and the offset amount from the center of the R-axis (center of gravity position)



Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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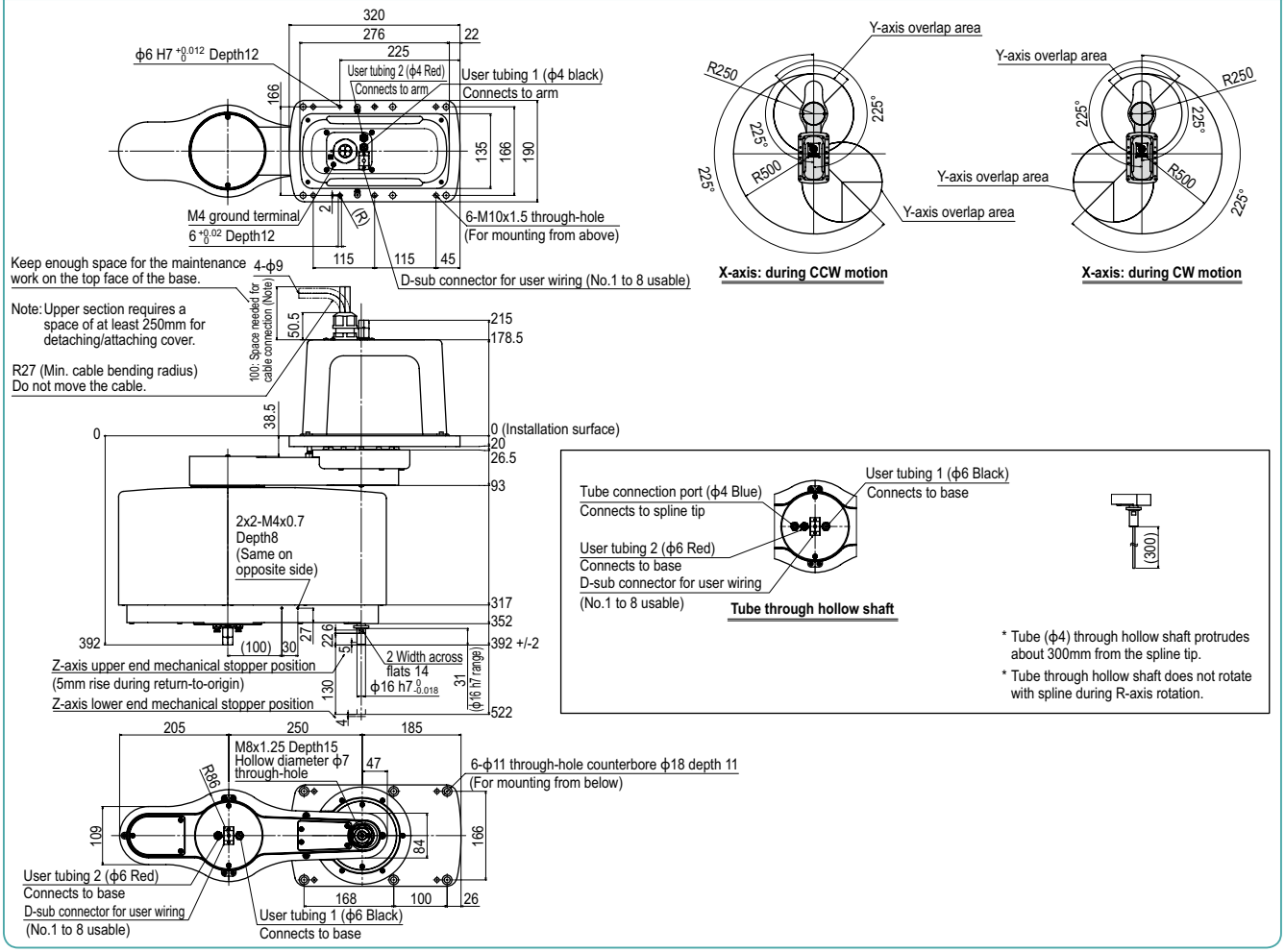
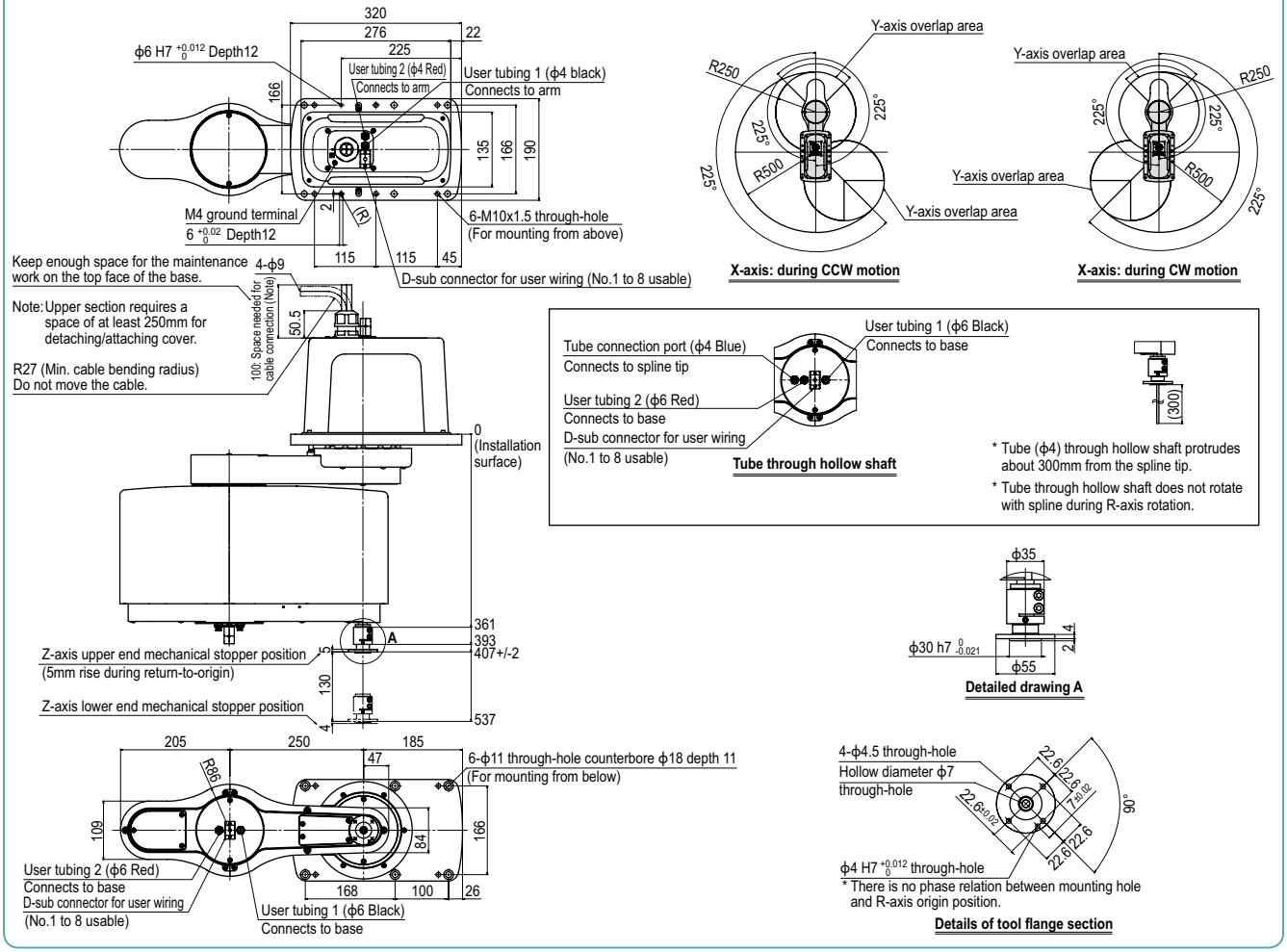
YK500TW



YK500TW Tool flange mount type



YK120XG

Standard type: Tiny type

- Arm length 120mm
- Maximum payload 1kg

Ordering method

YK120XG - 50 - [ ] - RCX340-4 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Model	Z axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK120XG	50: 50mm	2L: 2m 3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		45 mm	75 mm	50 mm	–
	Rotation angle		+/-125 °	+/-145 °	–	+/-360 °
AC servo motor output			30 W	30 W	30 W	30 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			3.3 m/sec		0.9 m/sec	1700 °/sec
Maximum payload			1.0 kg			
Standard cycle time: with 0.1kg payload Note 2			0.33 sec			
R-axis tolerable moment of inertia Note 3			0.01 kgm^2			
User wiring			0.1 sq × 8 wires			
User tubing (Outer diameter)			ϕ 4 × 2			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 2 m Option: 3.5 m, 5 m, 10 m			
Weight (Excluding robot cable) Note 4			3.9 kg			
Robot cable weight			0.9 kg (2 m) 1.5 kg (3.5 m) 2.1 kg (5 m) 4.2 kg (10 m)			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally.
Note 3. There are limits to acceleration coefficient settings. See P.536.
Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	300	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

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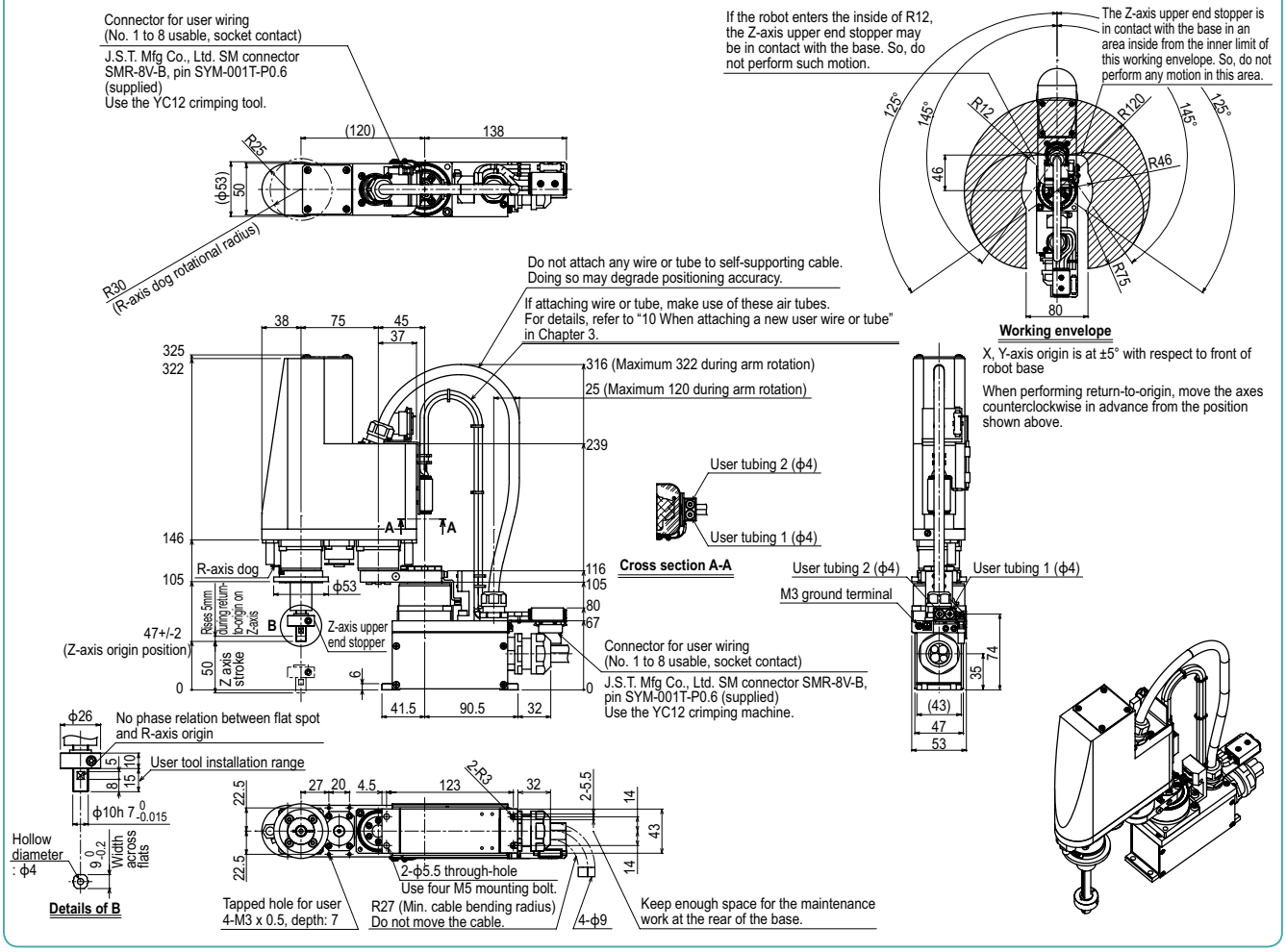
http://global.yamaha-motor.com/business/robot/

YK120XG



YK150XG

Standard type: Tiny type

- Arm length 150mm
- Maximum payload 1kg

Ordering method

YK150XG - 50 - [ ] - RCX340-4 - [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Model	Z axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK150XG	50: 50mm	2L: 2m 3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		75 mm	75 mm	50 mm	–
	Rotation angle		+/-125 °	+/-145 °	–	+/-360 °
AC servo motor output			30 W	30 W	30 W	30 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			3.4 m/sec		0.9 m/sec	1700 °/sec
Maximum payload			1.0 kg			
Standard cycle time: with 0.1kg payload Note 2			0.33 sec			
R-axis tolerable moment of inertia Note 3			0.01 kgm^2			
User wiring			0.1 sq × 8 wires			
User tubing (Outer diameter)			ϕ 4 × 2			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 2 m Option: 3.5 m, 5 m, 10 m			
Weight (Excluding robot cable) Note 4			4.0 kg			
Robot cable weight			0.9 kg (2 m) 1.5 kg (3.5 m) 2.1 kg (5 m) 4.2 kg (10 m)			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally.
Note 3. There are limits to acceleration coefficient settings. See P.536.
Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	300	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.

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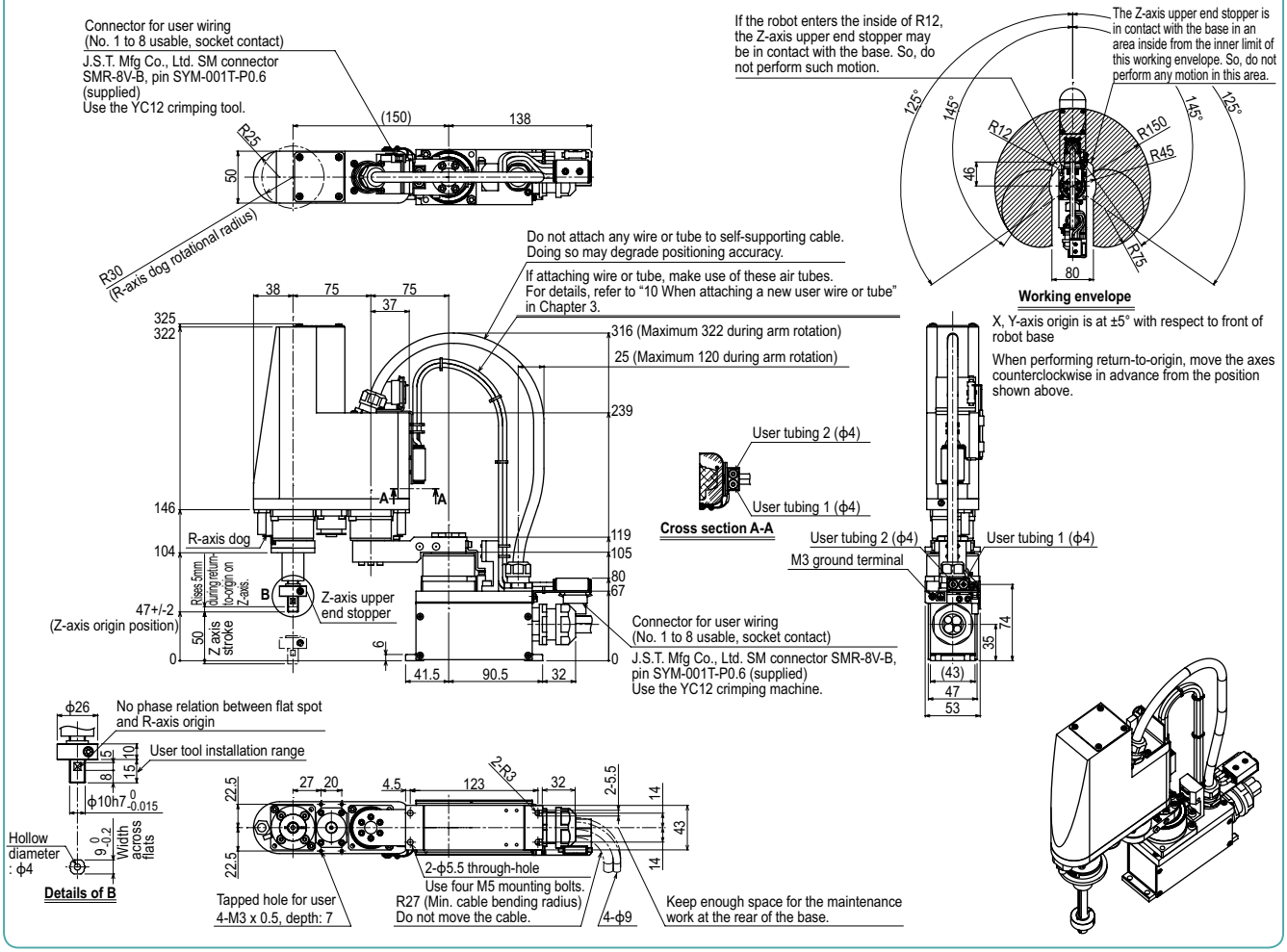
http://global.yamaha-motor.com/business/robot/

YK150XG

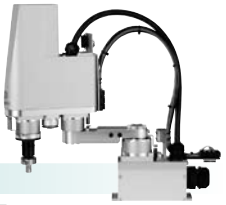


Controller RCX340 ▶ 508 RCX240S ▶ 495

YK180XG

Standard type: Tiny type

- Arm length 180mm
- Maximum payload 1kg



Ordering method

YK180XG - 50 - [ ] - RCX340-4 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Model	Z axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK180XG	50 : 50mm	2L: 2m 3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		105 mm	75 mm	50 mm	–
	Rotation angle		+/-125 °	+/-145 °	–	+/-360 °
AC servo motor output			30 W	30 W	30 W	30 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			3.3 m/sec		0.9 m/sec	1700 °/sec
Maximum payload			1.0 kg			
Standard cycle time: with 0.1kg payload Note 2			0.33 sec			
R-axis tolerable moment of inertia Note 3			0.01 kgm^2			
User wiring			0.1 sq × 8 wires			
User tubing (Outer diameter)			ϕ 4 × 2			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 2 m Option: 3.5 m, 5 m, 10 m			
Weight (Excluding robot cable) Note 4			4.1 kg			
Robot cable weight			0.9 kg (2 m) 1.5 kg (3.5 m) 2.1 kg (5 m) 4.2 kg (10 m)			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally.
Note 3. There are limits to acceleration coefficient settings. See P.536.
Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

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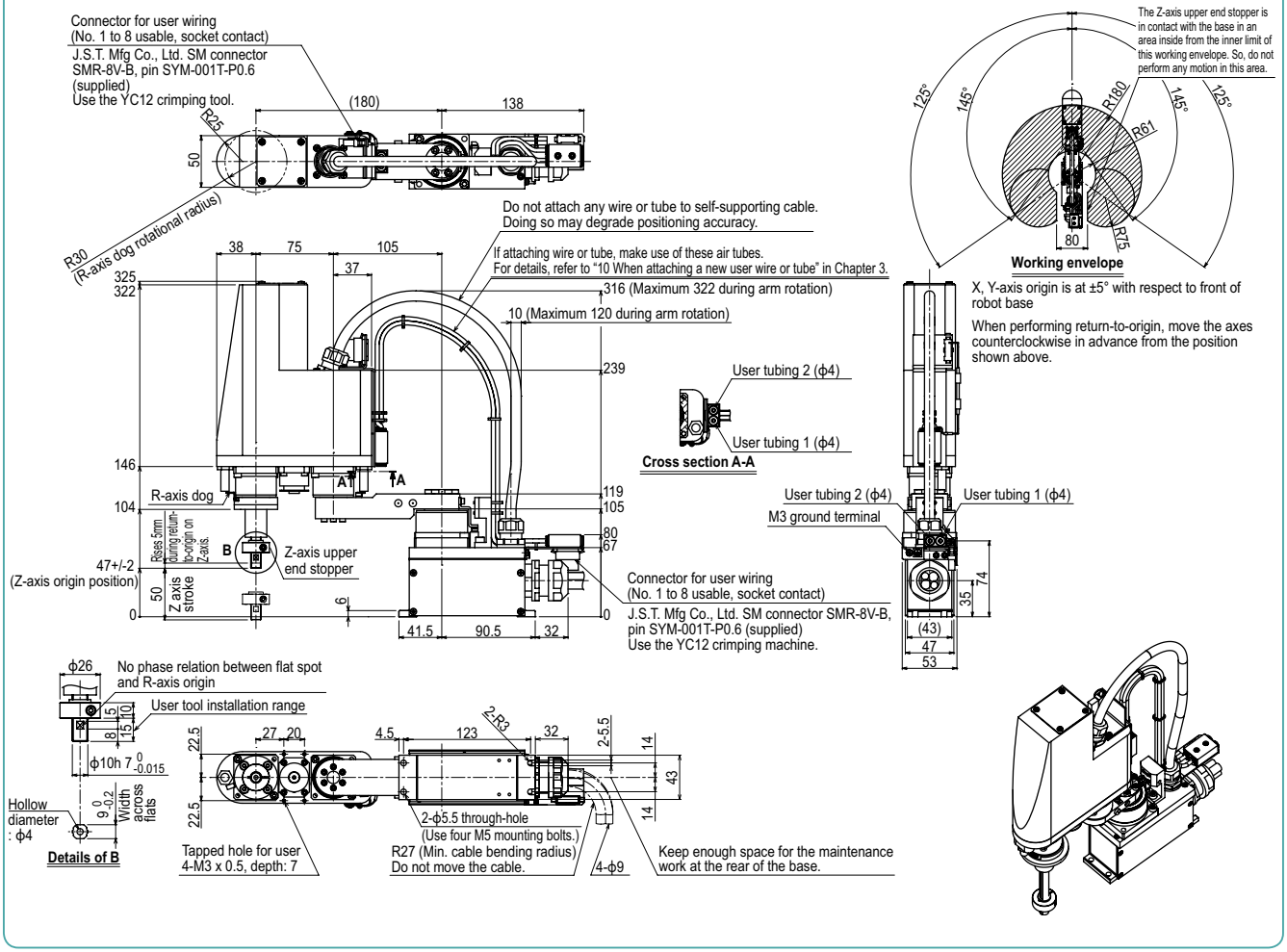
YK180XG



YK180X

Standard type: Tiny type

- Arm length 180mm
- Maximum payload 1kg

Ordering method

YK180X - 100 - [ ] - RCX340-4 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Model	Z axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK180X	100: 100mm	3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		71 mm	109 mm	100 mm	–
	Rotation angle		+/-120 °	+/-140 °	–	+/-360 °
AC servo motor output			50 W	30 W	30 W	30 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			3.3 m/sec		0.7 m/sec	1700 °/sec
Maximum payload			1.0 kg			
Standard cycle time: with 0.1kg payload Note 2			0.39 sec			
R-axis tolerable moment of inertia Note 3			0.01 kgm^2			
User wiring			0.1 sq × 6 wires			
User tubing (Outer diameter)			ϕ 3 × 2			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight (Excluding robot cable) Note 4			5.5 kg			
Robot cable weight			1.5 kg (3.5 m) 2.1 kg (5 m) 4.2 kg (10 m)			

Note 1. This is the value at a constant ambient temperature.
Note 2. When reciprocating 100mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.536.
Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

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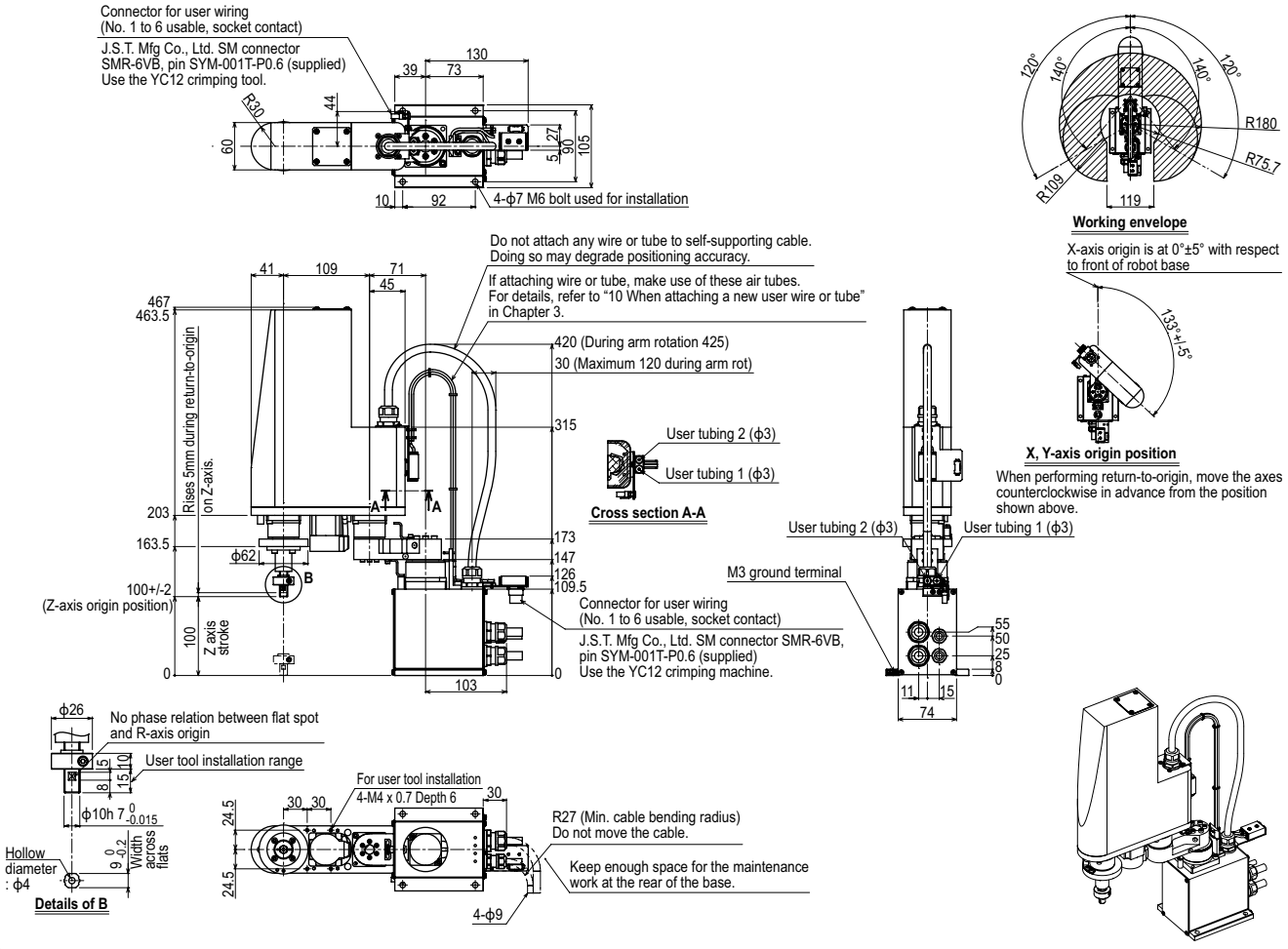
YK180X



YK220X

Standard type: Tiny type

- Arm length 220mm
- Maximum payload 1kg

Ordering method

YK220X - 100 - [ ] - RCX340-4 [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Model	Z axis stroke	Cable
YK220X	100: 100mm	3L: 3.5m 5L: 5m 10L: 10m

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		111 mm	109 mm	100 mm	–
	Rotation angle		+/-120 °	+/-140 °	–	+/-360 °
AC servo motor output			50 W	30 W	30 W	30 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			3.4 m/sec		0.7 m/sec	1700 °/sec
Maximum payload			1.0 kg			
Standard cycle time: with 0.1kg payload Note 2			0.42 sec			
R-axis tolerable moment of inertia Note 3			0.01 kgm^2			
User wiring			0.1 sq × 6 wires			
User tubing (Outer diameter)			ϕ 3 × 2			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight (Excluding robot cable) Note 4			5.5 kg			
Robot cable weight			1.5 kg (3.5 m) 2.1 kg (5 m) 4.2 kg (10 m)			

Note 1. This is the value at a constant ambient temperature.
Note 2. When reciprocating 100mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.536.
Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

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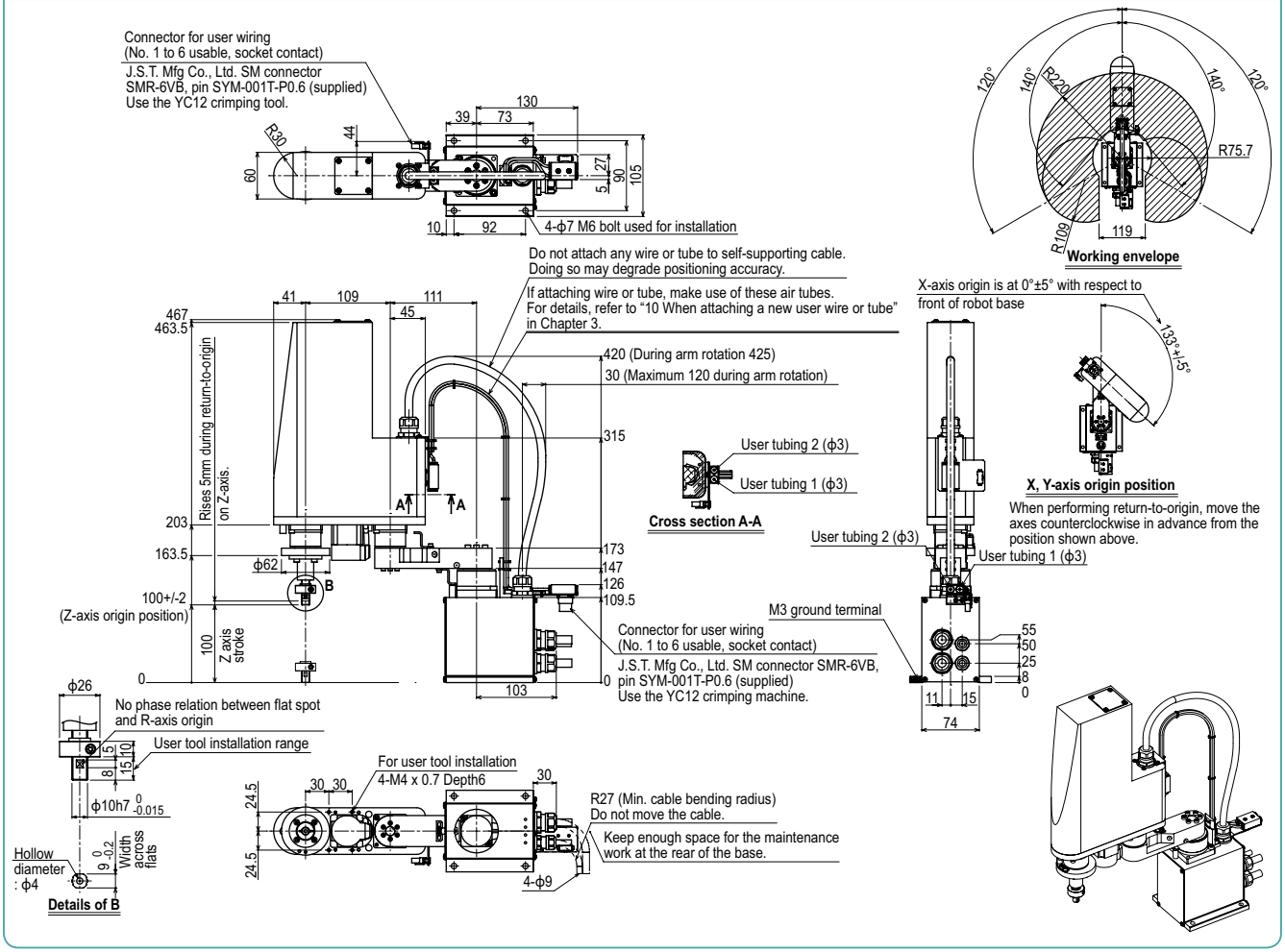
YK220X



YK250XG

Standard type: Small type

- Arm length 250mm
- Maximum payload 5kg

Ordering method

YK250XG - 150 - [ ] - [ ] - [ ]

Model	Z axis stroke	Tool flange	Hollow shaft	Cable
YK250XG	150: 150mm	No entry: None F: With tool flange	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m

RCX340-4 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		100 mm	150 mm	150 mm	-
	Rotation angle		+/-140 °	+/-144 °	-	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			4.5 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			5 kg (Standard specification), 4 kg (Option specifications Note 4)			
Standard cycle time: with 2kg payload Note 2			0.49 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm^2 (0.5 kgfcms^2)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			18.5 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.537.
Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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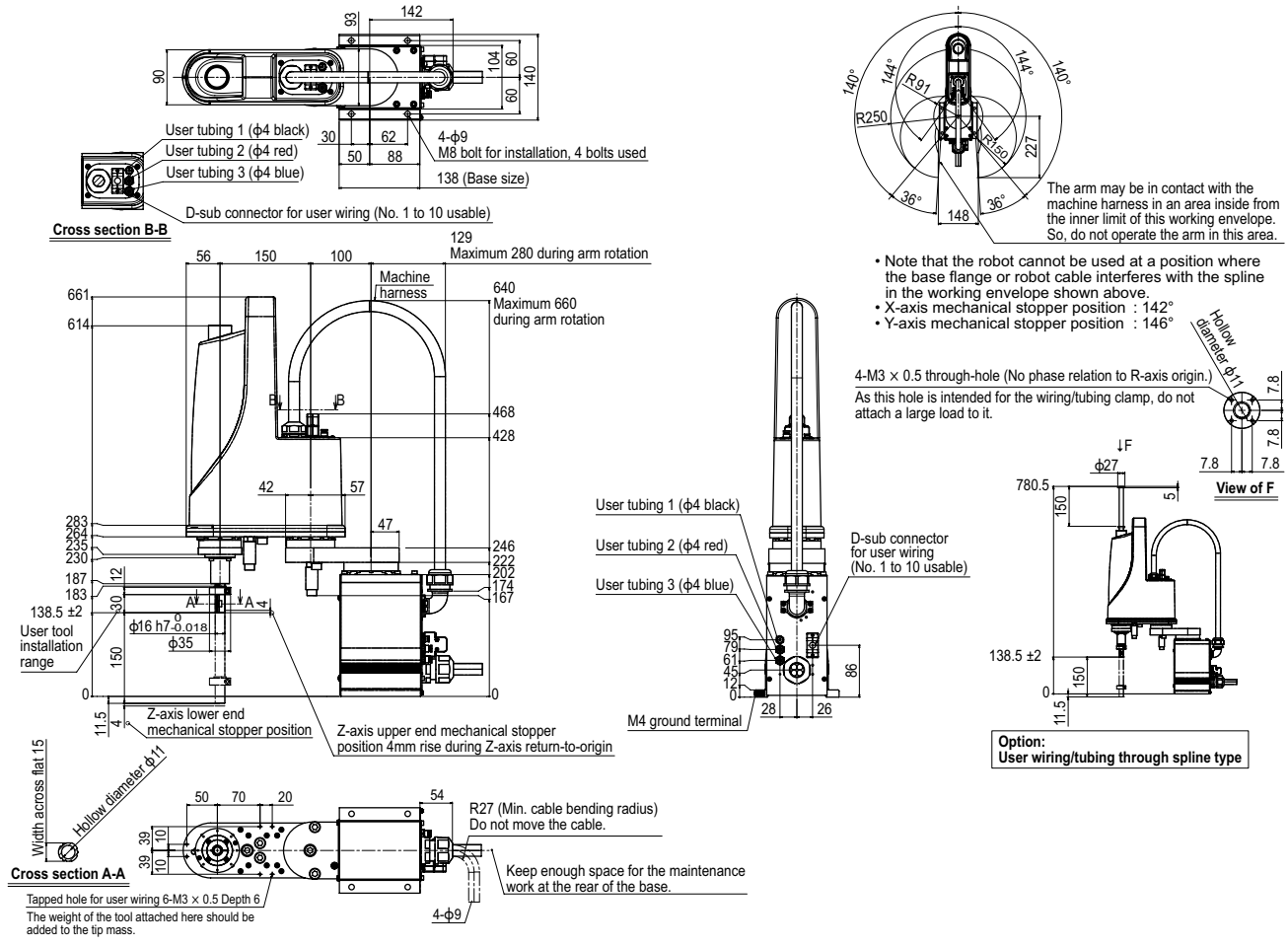
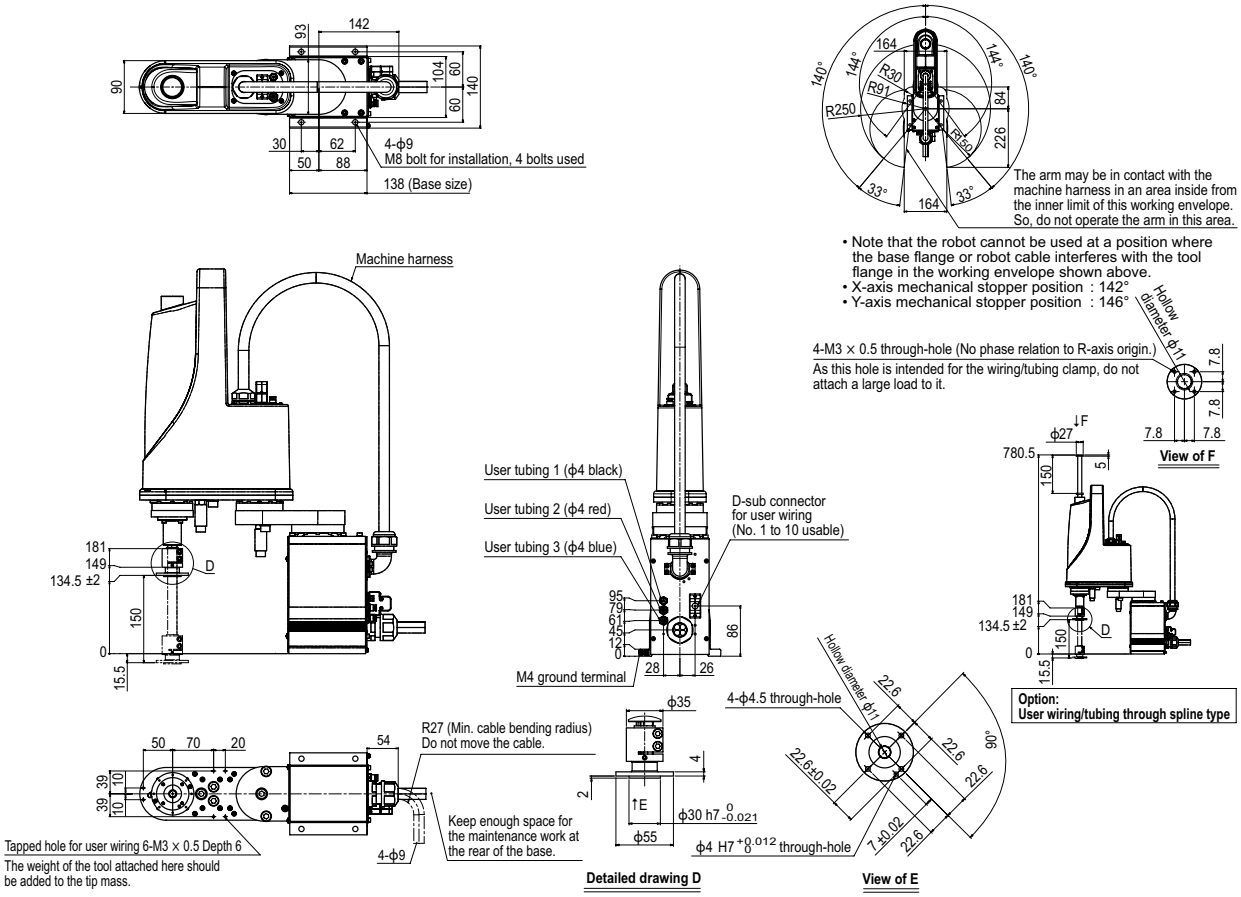
YK250XG



Controller RCX340 ▶ 508 RCX240S ▶ 495

YK250XG Tool flange mount type



Controller RCX340 ▶ 508 RCX240S ▶ 495

YK350XG

Standard type: Small type

- Arm length 350mm
- Maximum payload 5kg

Ordering method

YK350XG - 150 - [ ] - [ ] - [ ]

Model	Z axis stroke	Tool flange	Hollow shaft	Cable
YK350XG	150: 150mm	No entry: None F: With tool flange	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m

RCX340-4 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		200 mm	150 mm	150 mm	-
	Rotation angle		+/-140 °	+/-144 °	-	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			5.6 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			5 kg (Standard specification), 4 kg (Option specifications Note 4)			
Standard cycle time: with 2kg payload Note 2			0.49 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm^2 (0.5 kgfcms^2)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			19 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.537.
Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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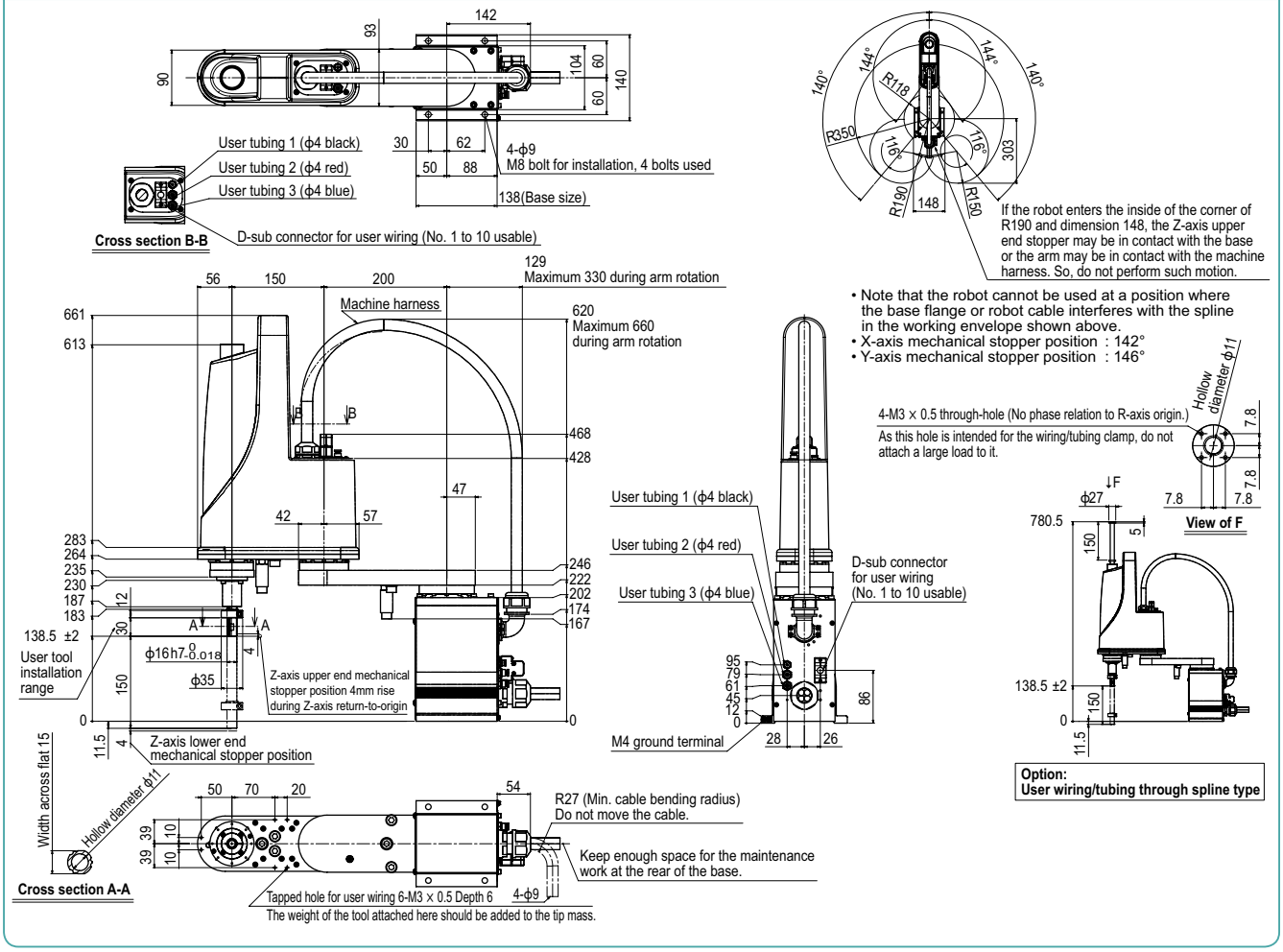
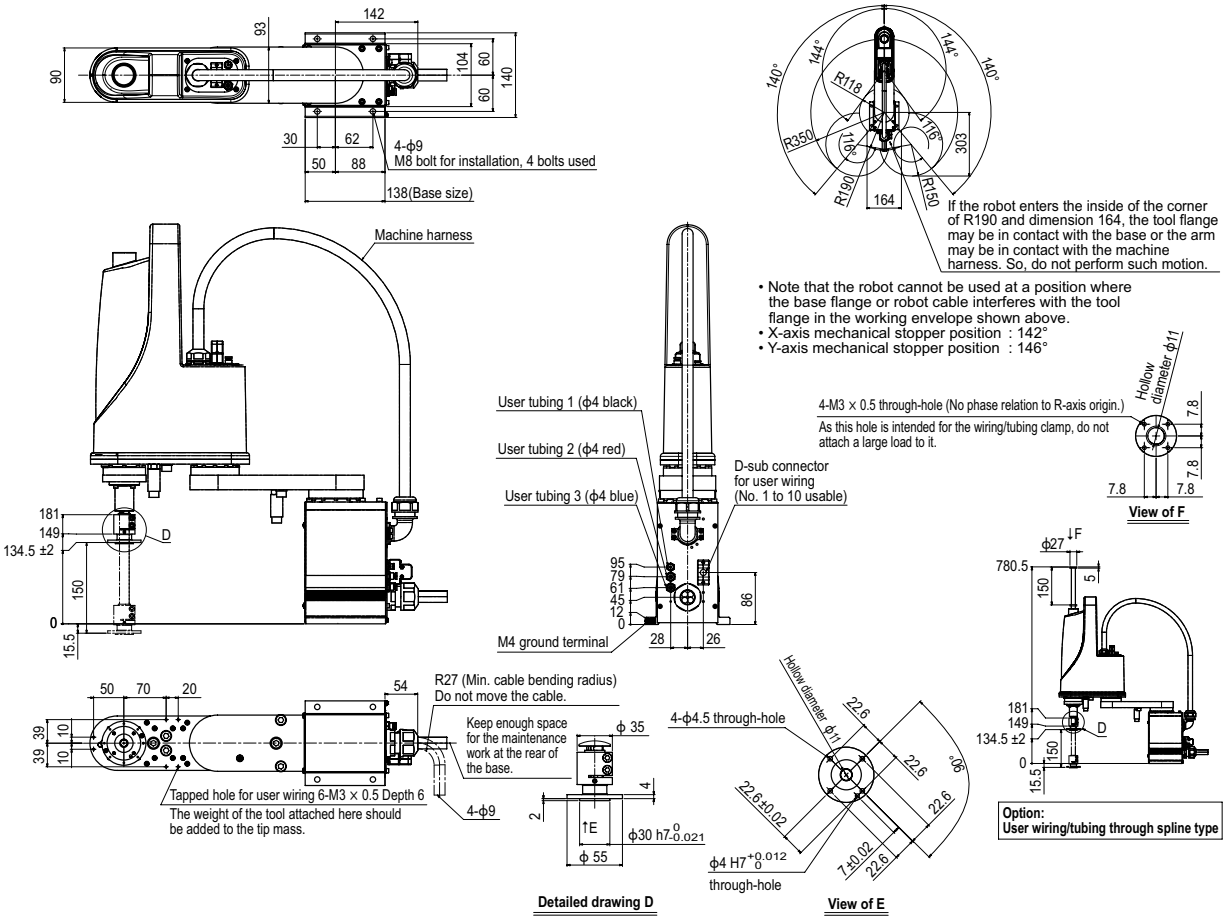
YK350XG



YK350XG Tool flange mount type



YK400XG

Standard type: Small type

- Arm length 400mm
- Maximum payload 5kg

Ordering method

YK400XG - 150 - [ ] - [ ] - [ ]

Model	Z axis stroke	Tool flange	Hollow shaft	Cable
YK400XG	150: 150mm	No entry: None F: With tool flange	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m

RCX340-4 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		250 mm	150 mm	150 mm	-
	Rotation angle		+/-140 °	+/-144 °	-	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			6.1 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			5 kg (Standard specification), 4 kg (Option specifications Note 4)			
Standard cycle time: with 2kg payload Note 2			0.49 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm^2 (0.5 kgfcms^2)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			19.5 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.538.
Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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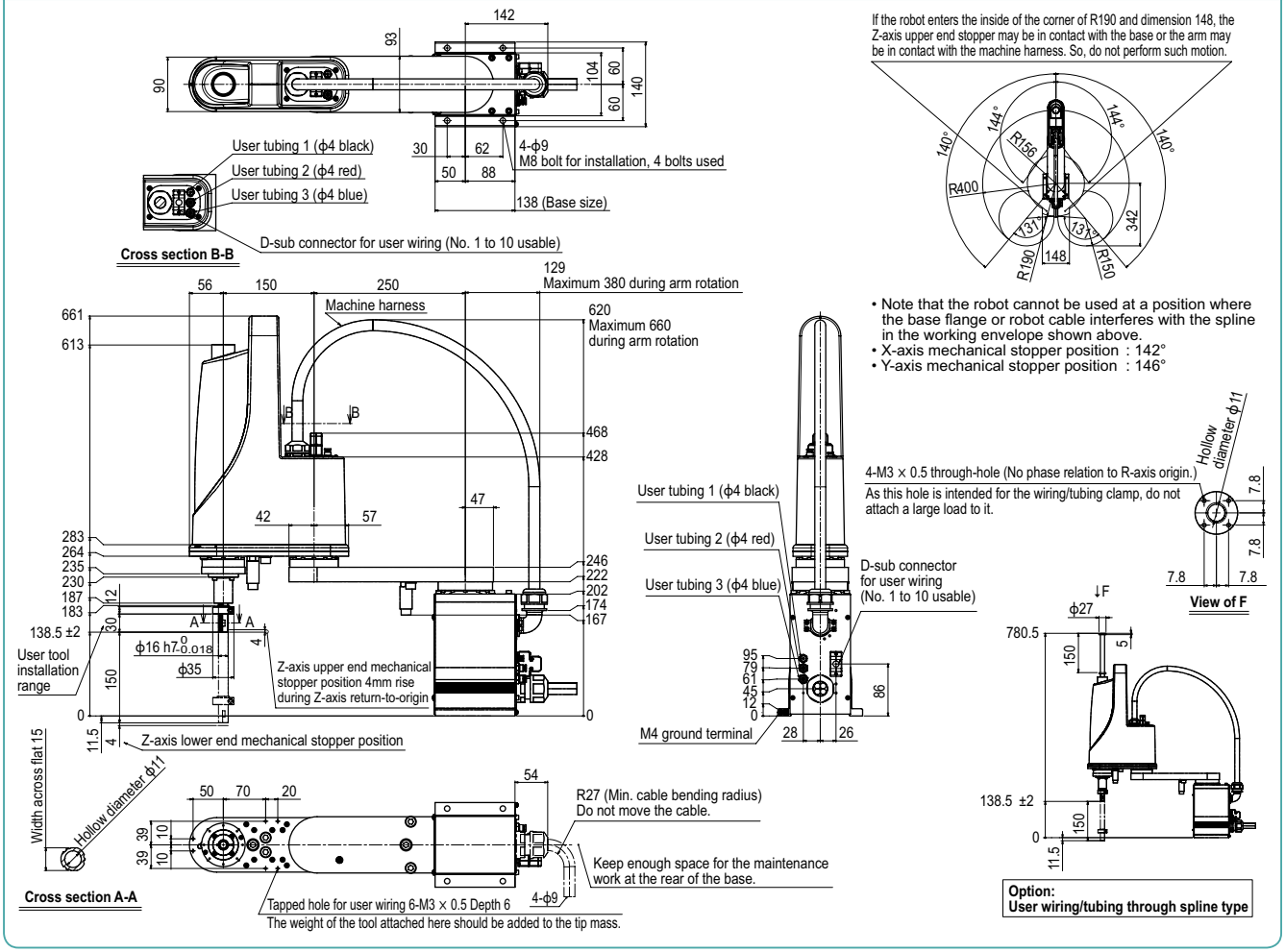
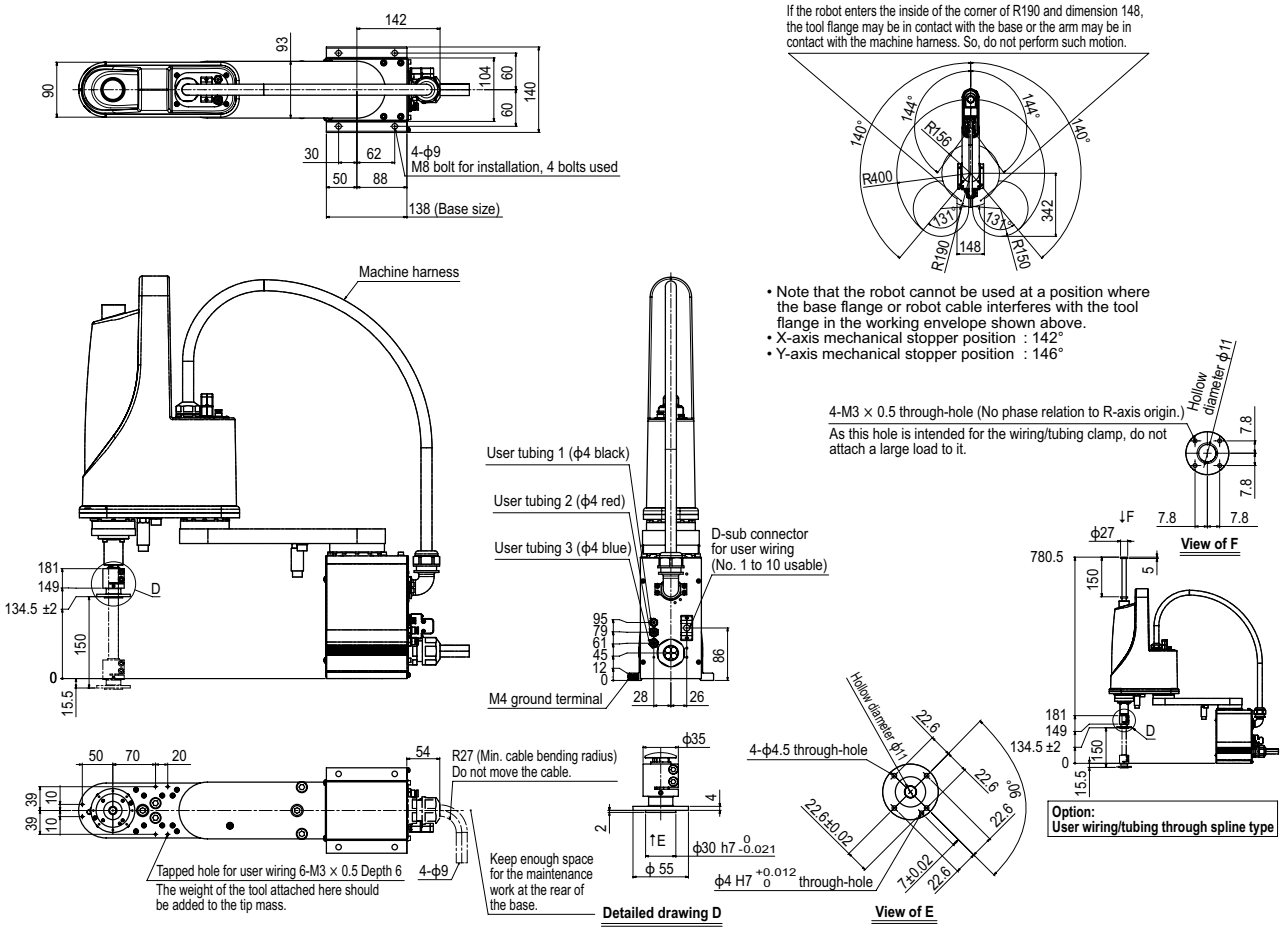
YK400XG



APPLICATION
LCM100 Linear conveyor modules
TRANSERVO Compact single-axis robots
FLIP-X Single-axis robots
PHASER Linear motor single-axis robots
XY-X Cartesian robots
YK-X SCARA robots
YP-X Pick & place robots
CLEAN
CONTROLLER
INFORMATION
Orbit / Tiny type
Small type
Large type
Wall-mount / inverse type
Dust-proof & drip-proof type

YK400XG

YK400XG Tool flange mount type



YK400XR

Standard type: Small type

LOW COST HIGH PERFORMANCE MODEL

Arm length 400mm　Maximum payload 3kg

Ordering method

YK400XR	-		-	150	-		-		-	RCX340-4	-								
Model		Return-to-origin method		Z axis stroke		Hollow shaft		Cable		Controller / Number of controllable axes		Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
		S: Sensor T: Stroke end				No entry: None S: With hollow shaft		3L: 3.5m 5L: 5m 10L: 10m										4: 4 pcs. 3: 3 pcs. 2: 2 pcs. 1: 1 pc. 0: 0 pc.

Specify various controller setting items. RCX340 ▶ P.508

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		225 mm	175 mm	150 mm	-
	Rotation angle		+/-132 °	+/-150 °	-	+/-360 °
AC servo motor output			200 W	100 W	100 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Belt speed reduction
	Transmission method	Motor to speed reducer	Direct-coupled		Timing belt	
		Speed reducer to output	Direct-coupled			Timing belt
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.01 °
Maximum speed			6 m/sec		1.1 m/sec	2600 °/sec
Maximum payload			3 kg (Standard specification), 2 kg (Option specifications Note 4)			
Standard cycle time: with 2kg payload Note 2			0.45 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm^2 (0.5 kgfcms^2)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			17 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions and performing the coarse positioning arch operation.
Note 3. It is necessary to input the moment of inertia in the actual operating environment.
Note 4. Maximum payload of option specifications (with user wiring/tubing through spline type) is 2kg.

Controller

Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be restricted by adding the X- and Y-axis mechanical stoppers. (The maximum movement range was set at shipment.)
See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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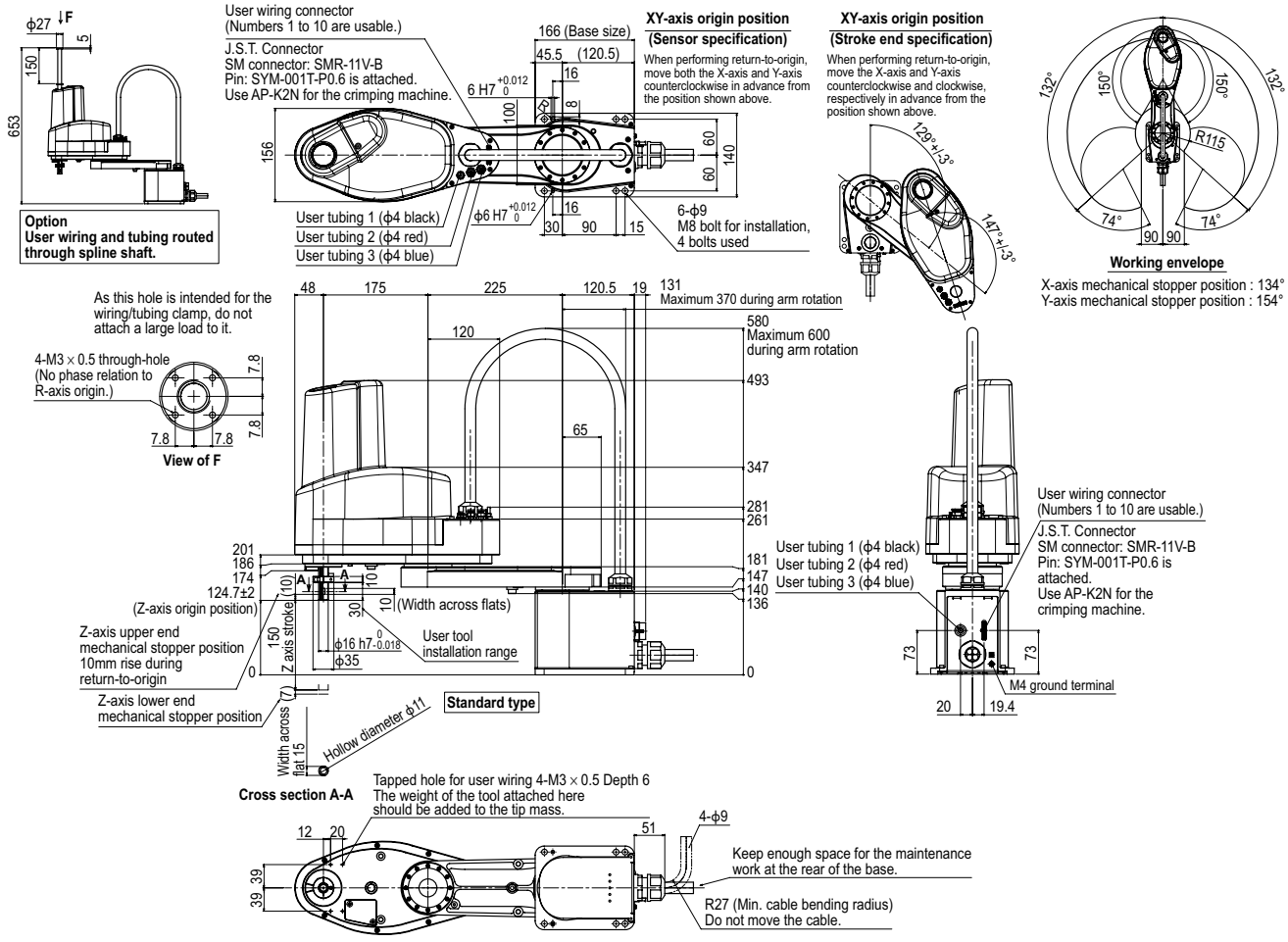
YK400XR



Controller RCX340 ▶ 508

YK500XGL

Standard type: Medium type

Arm length 500mm　Maximum payload 5kg

Ordering method

YK500XGL - 150					RCX340-4							
Model	Z axis stroke 150: 150mm	Tool flange No entry: None F: With tool flange	Hollow shaft No entry: None S: With hollow shaft	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240S						BB
Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		250 mm	250 mm	150 mm	-
	Rotation angle		+/-140 °	+/-144 °	-	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			5.1 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			5 kg (Standard specification), 4 kg (Option specifications Note 4)			
Standard cycle time: with 2kg payload Note 2			0.59 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm² (0.5 kgfcms²)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			21 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.538.
Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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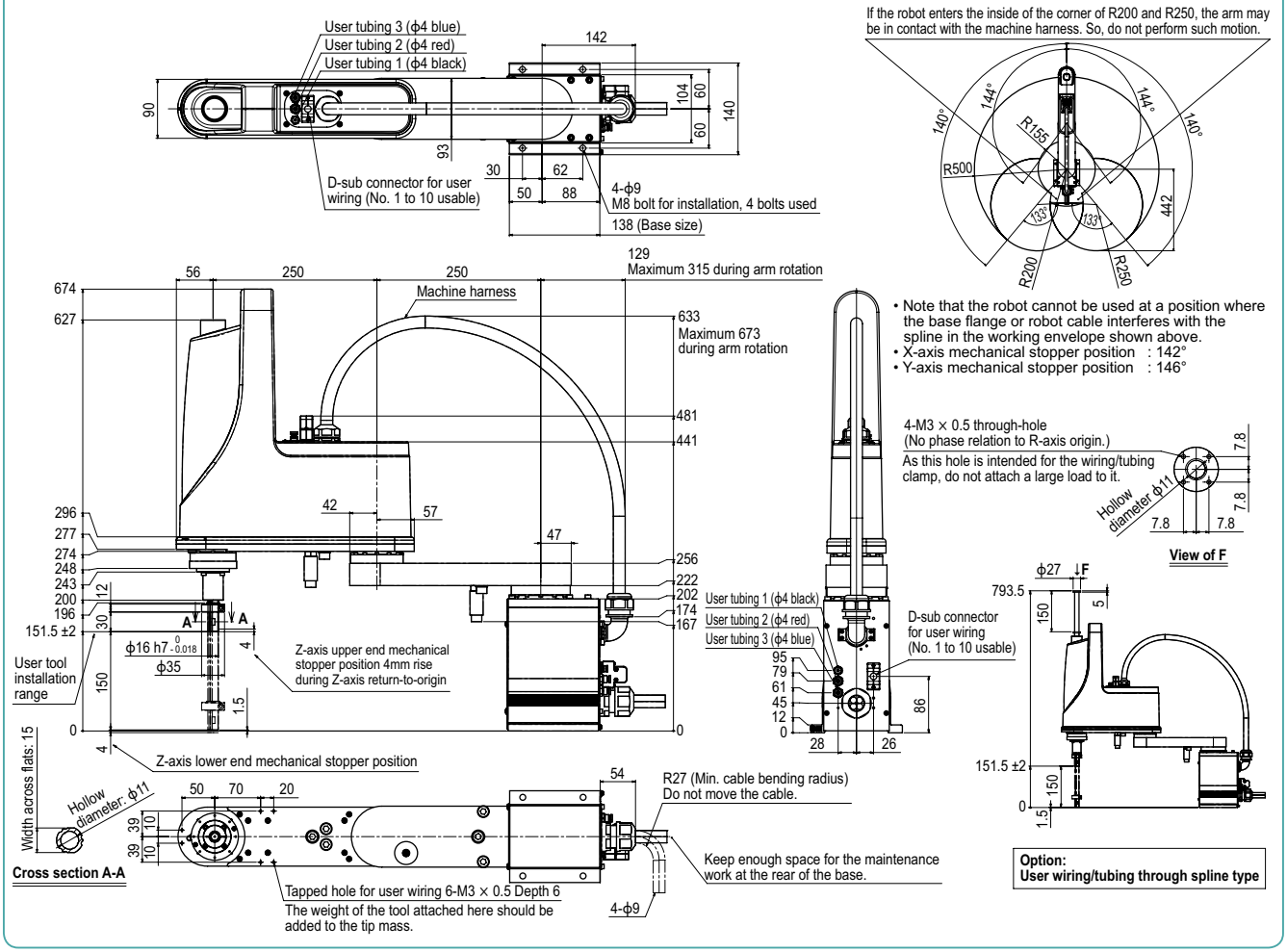
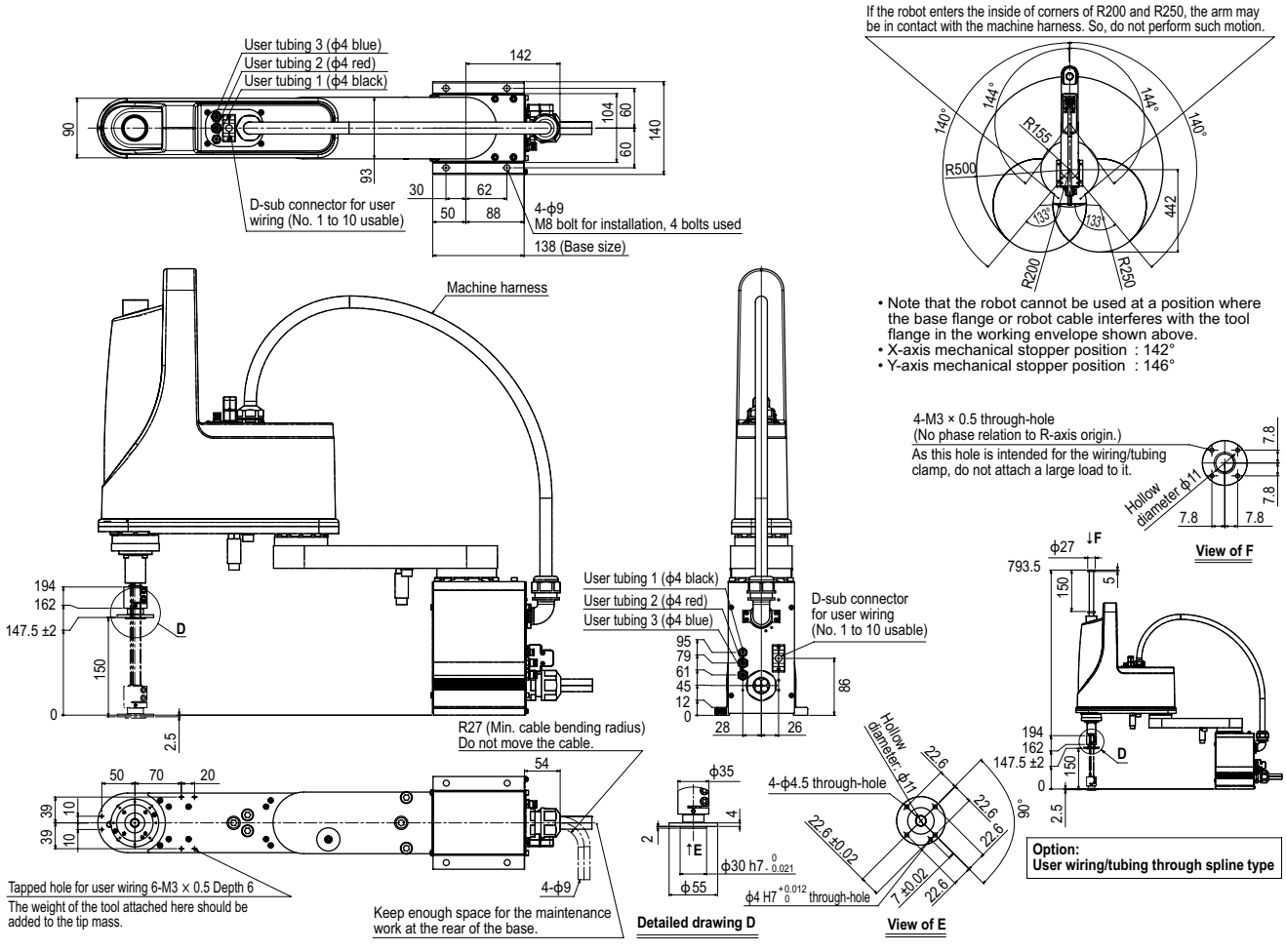
YK500XGL



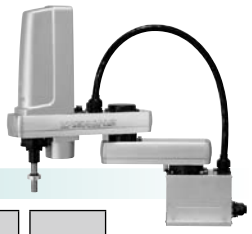
YK500XGL Tool flange mount type



YK500XG

Standard type: Medium type

● Arm length 500mm ● Maximum payload 10kg



Ordering method

YK500XG – [ ] – [ ] – [ ] – **RCX340-4** – [ ] – [ ] – [ ] – [ ] – [ ] – [ ] – [ ] – [ ]

Model	Z axis stroke	Tool flange	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK500XG	200: 200mm 300: 300mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240 – [ ] – **R3** – [ ] – [ ] – [ ] – [ ] – **BB**

Controller	CE Marking	Regeneratizve unit	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240		R3					BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		200 mm	300 mm	200 mm | 300 mm	–
	Rotation angle		+/-130 °	+/-145 °	–	+/-360 °
AC servo motor output			400 W	200 W	200 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			7.6 m/sec		2.3 m/sec | 1.7 m/sec	1700 °/sec
Maximum payload			10 kg			
Standard cycle time: with 2kg payload Note 2			0.45 sec			
R-axis tolerable moment of inertia Note 3			0.30 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			30 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
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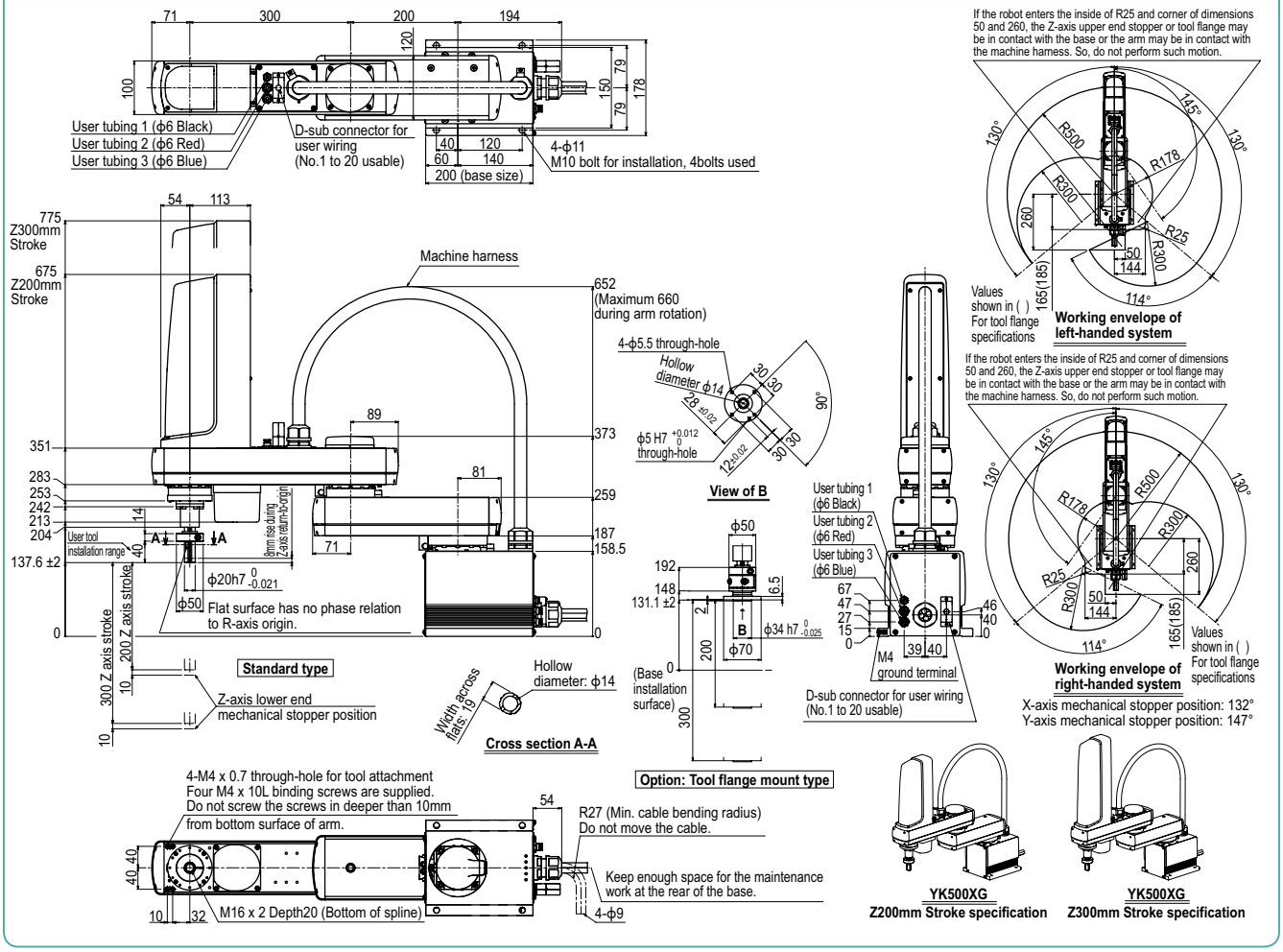
http://global.yamaha-motor.com/business/robot/

YK500XG



YK600XGL

Standard type: Medium type

- Arm length 600mm
- Maximum payload 5kg

Ordering method

YK600XGL - 150 - [ ] - [ ] - [ ]

Model	Z axis stroke	Tool flange	Hollow shaft	Cable
YK600XGL	150: 150mm	No entry: None F: With tool flange	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m

RCX340-4 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		350 mm	250 mm	150 mm	-
	Rotation angle		+/-140 °	+/-144 °	-	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			4.9 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			5 kg (Standard specification), 4 kg (Option specifications Note 4)			
Standard cycle time: with 2kg payload Note 2			0.63 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm^2 (0.5 kgfcms^2)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			22 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.538.
Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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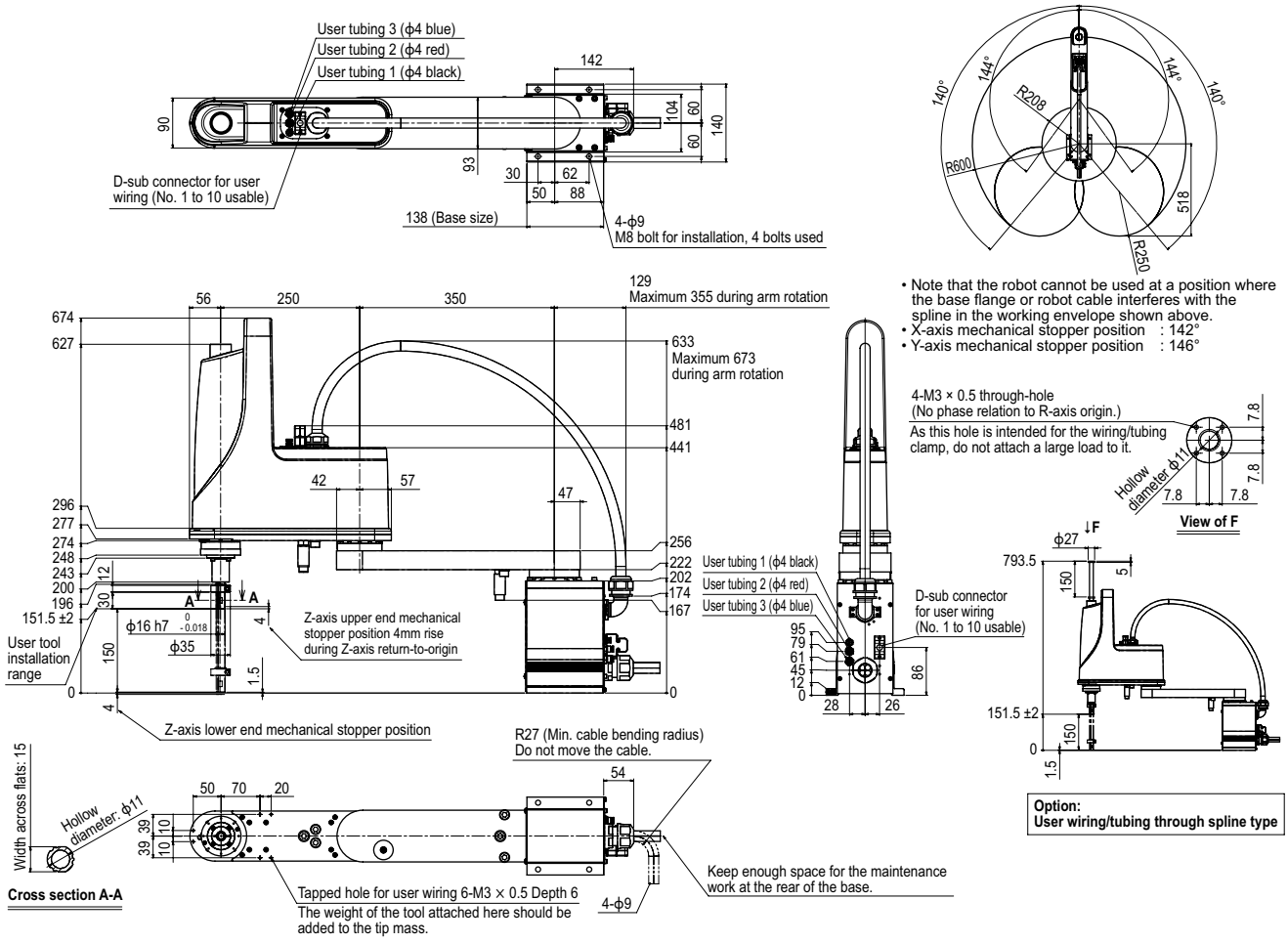
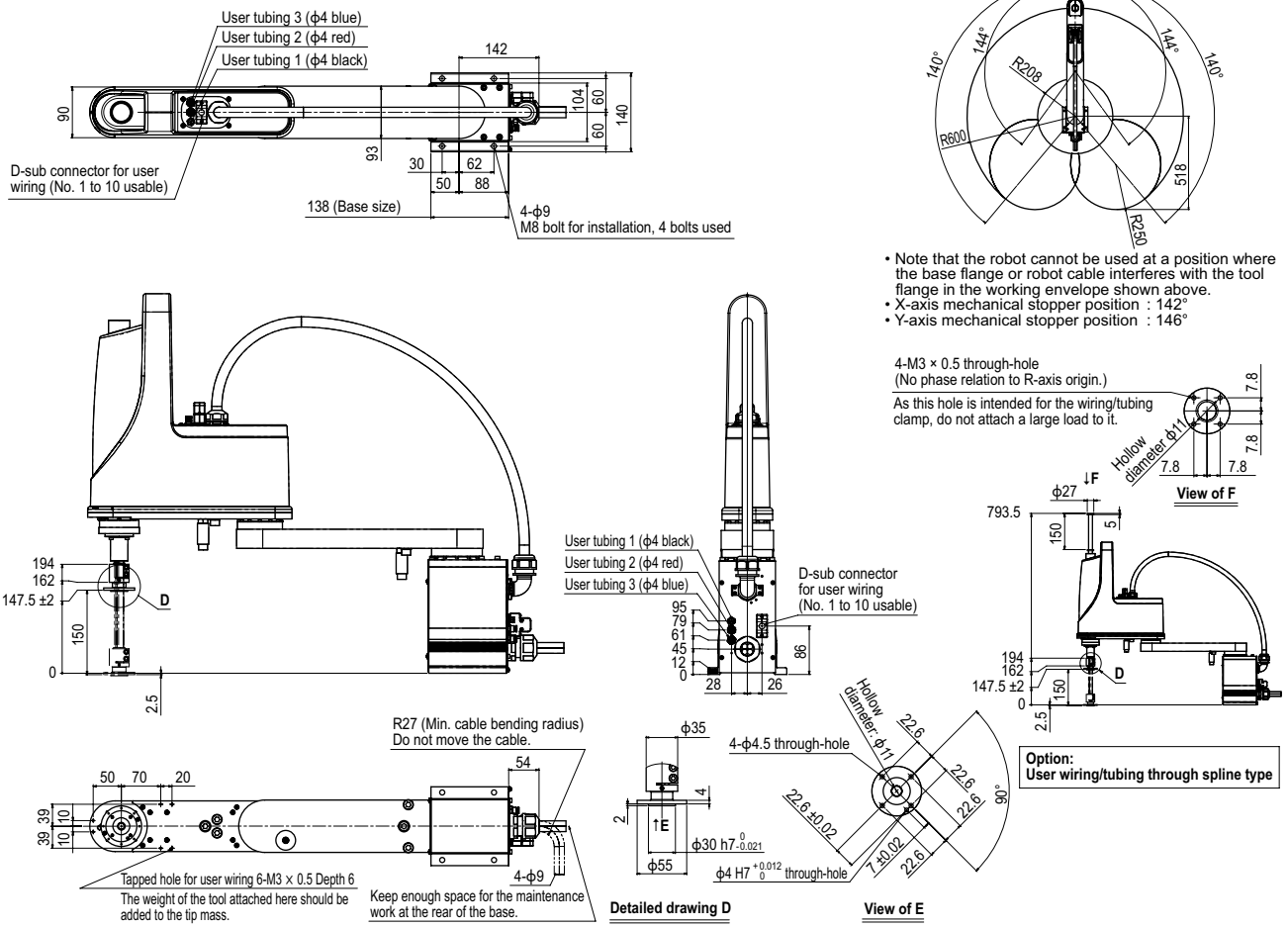
YK600XGL



YK600XGL

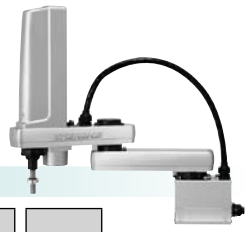
YK600XGL Tool flange mount type



YK600XG

Standard type: Medium type

- Arm length 600mm
- Maximum payload 10kg



Ordering method

YK600XG				RCX340-4							
Model	Z axis stroke 200: 200mm 300: 300mm	Tool flange No entry: None F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		300 mm	300 mm	200 mm / 300 mm	–
	Rotation angle		+/-130 °	+/-145 °	–	+/-360 °
AC servo motor output			400 W	200 W	200 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			8.4 m/sec		2.3 m/sec / 1.7 m/sec	1700 °/sec
Maximum payload			10 kg			
Standard cycle time: with 2kg payload Note 2			0.46 sec			
R-axis tolerable moment of inertia Note 3			0.30 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			31 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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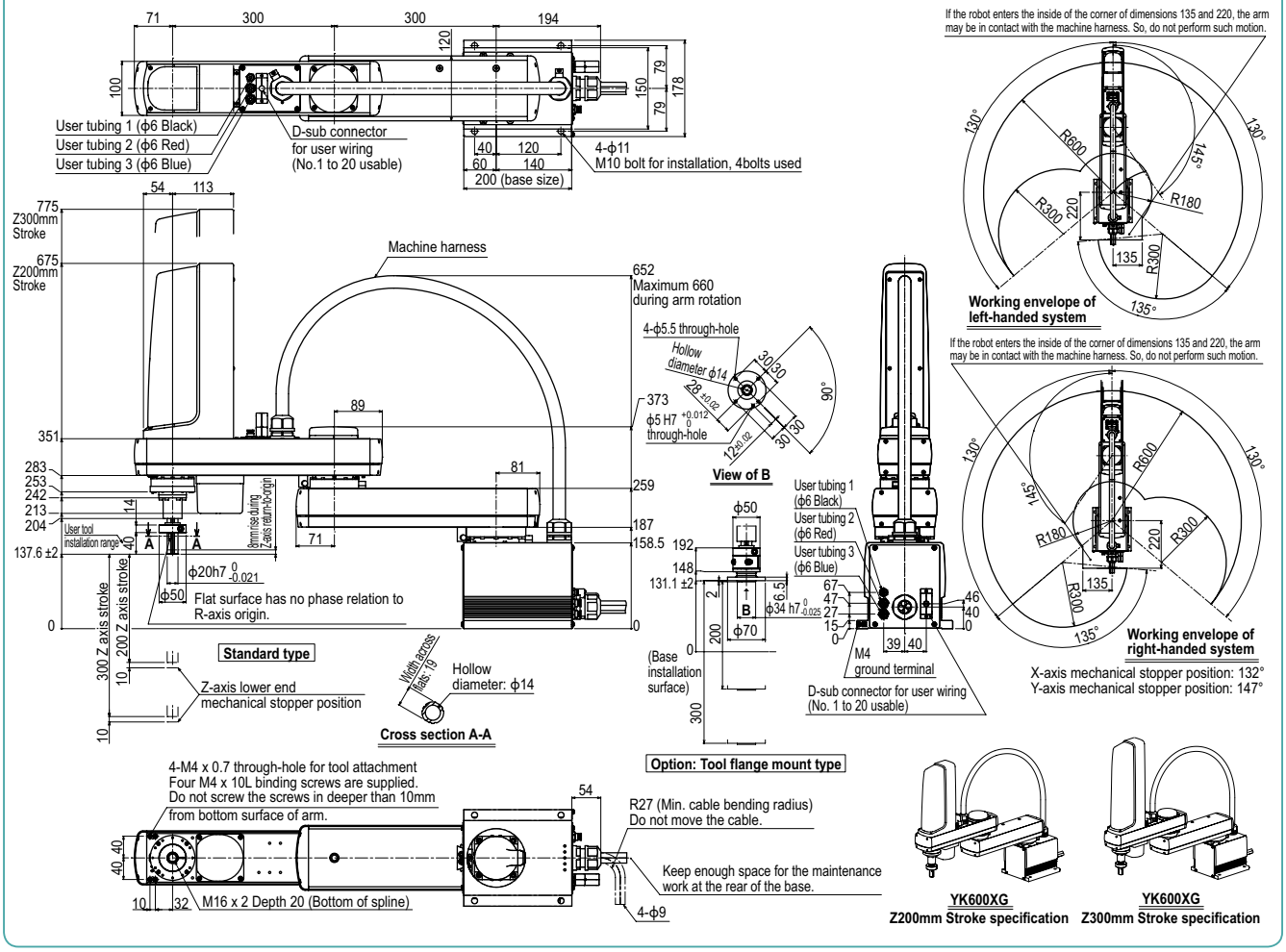
YK600XG



YK600XGH

Standard type: Medium type

- Arm length 600mm
- Maximum payload 20kg

Ordering method

YK600XGH	-		-		-	RCX340-4								
Model		Z axis stroke 200: 200mm 400: 400mm		Tool flange No entry: None F: With tool flange		Cable 3L: 3.5m 5L: 5m 10L: 10m		Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240	-		-	R3	-		-		-		-		-	BB
Controller		CE Marking		Regeneratizve unit		Expansion I/O		Network option		iVY System		Gripper		Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		200 mm	400 mm	200 mm | 400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			7.7 m/sec		2.3 m/sec | 1.7 m/sec	920 °/sec
Maximum payload			20 kg			
Standard cycle time: with 2kg payload Note 2			0.47 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 48 kg Z axis 400 mm: 50 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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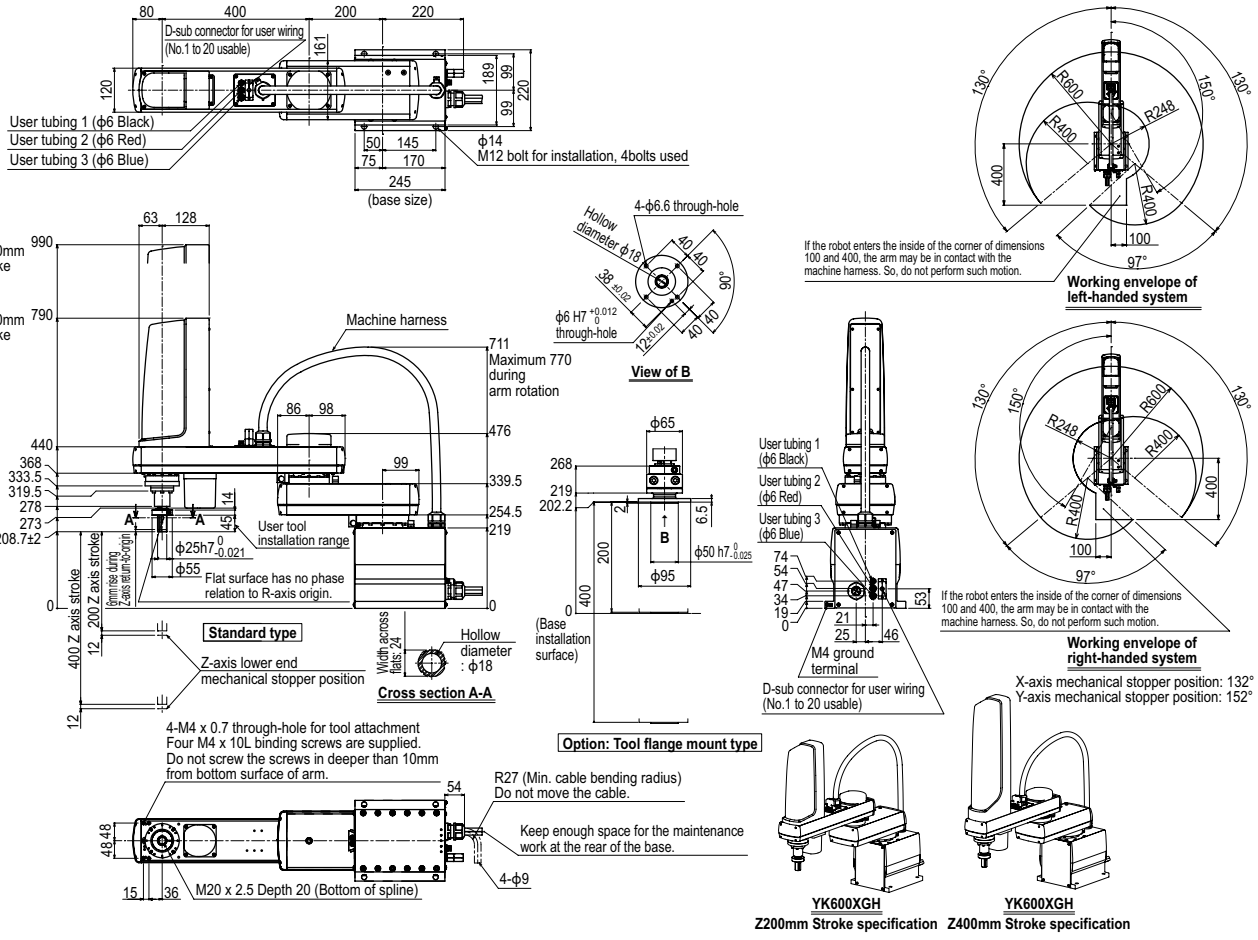
YK600XGH



Controller RCX340 ▶ 508 RCX240 ▶ 495

YK700XGL

Standard type: Large type

Arm length 700mm **Maximum payload 10kg**

Note. This model is a special order product. Please consult us for delivery time.

Ordering method

YK700XGL				RCX340-4							
Model	Z axis stroke	Tool flange	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
	200: 200mm 300: 300mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ P.508

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		400 mm	300 mm	200 mm 300 mm	-
	Rotation angle		+/-130 °	+/-145 °	-	+/-360 °
AC servo motor output			400 W	200 W	200 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.005 °
Maximum speed			9.2 m/sec		2.3 m/sec 1.7 m/sec	1700 °/sec
Maximum payload			10 kg (Standard type), 9 kg (Option: Tool flange mount type)			
Standard cycle time: with 2kg payload Note 2			0.50 sec			
R-axis tolerable moment of inertia Note 3			0.30 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			φ6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5, 10 m			
Weight			32 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings.

Controller

Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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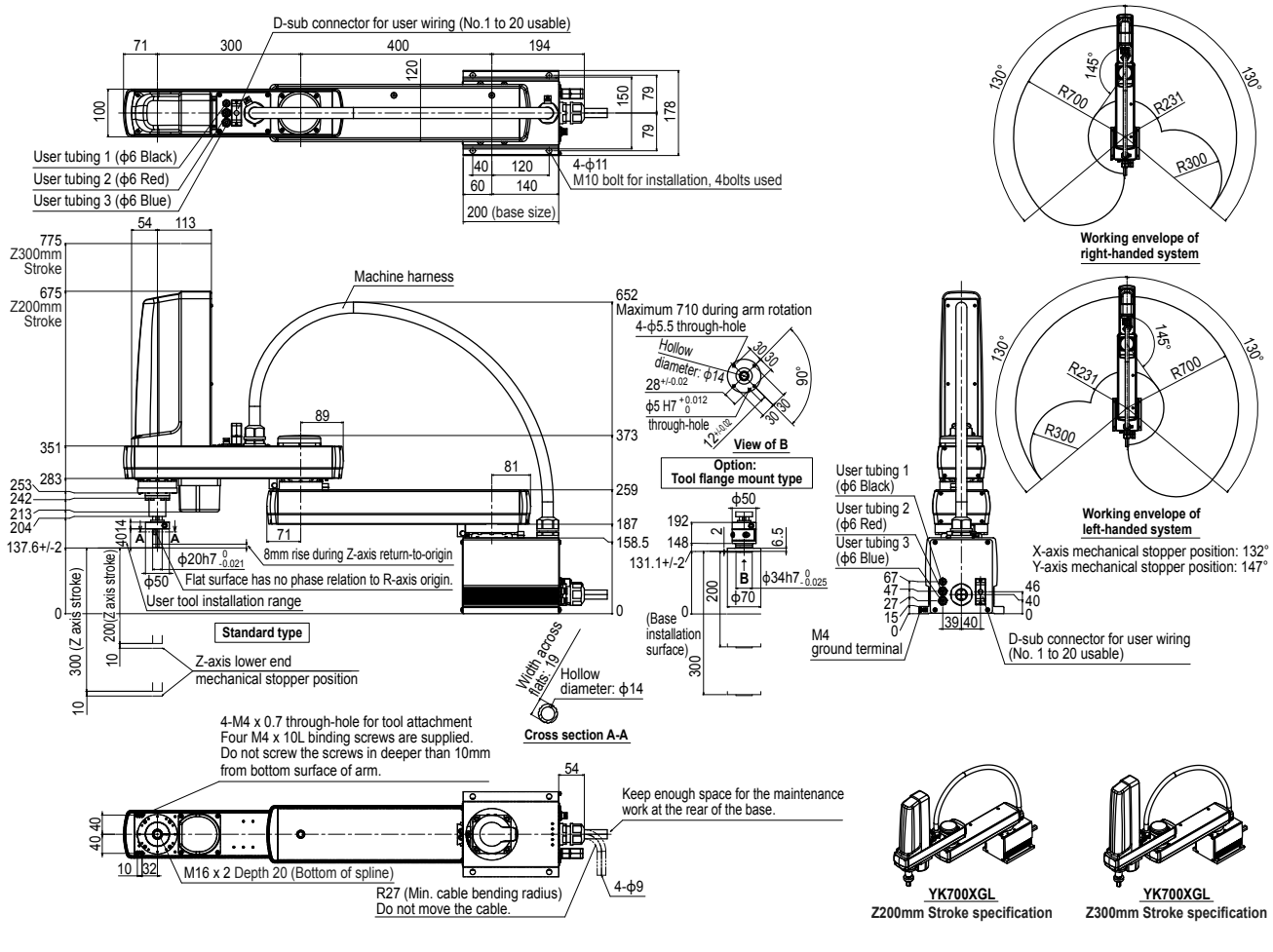
YK700XGL

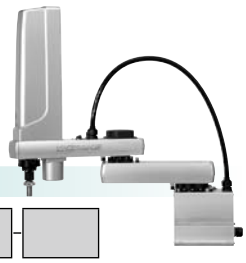


Controller RCX340 ▶ 508

YK700XG

Standard type: Large type

- Arm length 700mm
- Maximum payload 20kg



Ordering method

YK700XG – [ ] – [ ] – [ ] – **RCX340-4** – [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Model	Z axis stroke	Tool flange	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
	200: 200mm 400: 400mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ P.508

RCX240 – [ ] – **R3** – [ ] – [ ] – [ ] – [ ] – **BB**

Controller	CE Marking	Regenerativze unit	Expansion I/O	Network option	iVY System	Gripper	Battery
		R3					BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		300 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			8.4 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec
Maximum payload			20 kg			
Standard cycle time: with 2kg payload Note 2			0.42 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 50 kg Z axis 400 mm: 52 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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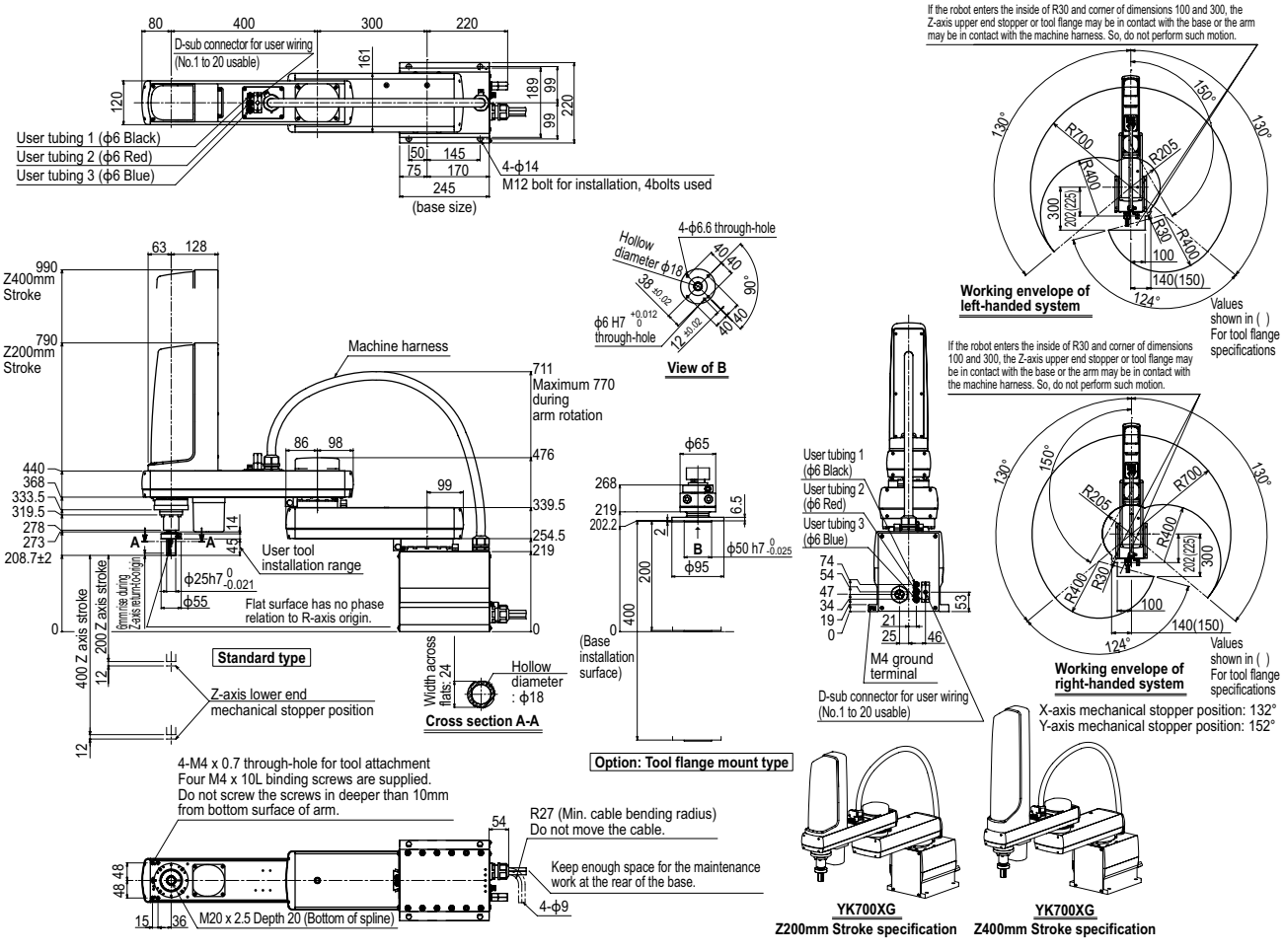
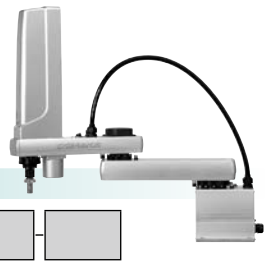
YK700XG



YK800XG

Standard type: Large type

- Arm length 800mm
- Maximum payload 20kg



Ordering method

YK800XG				RCX340-4								
Model	Z axis stroke 200: 200mm 400: 400mm	Tool flange No entry: None F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		400 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			9.2 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec
Maximum payload			20 kg			
Standard cycle time: with 2kg payload Note 2			0.48 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 52 kg Z axis 400 mm: 54 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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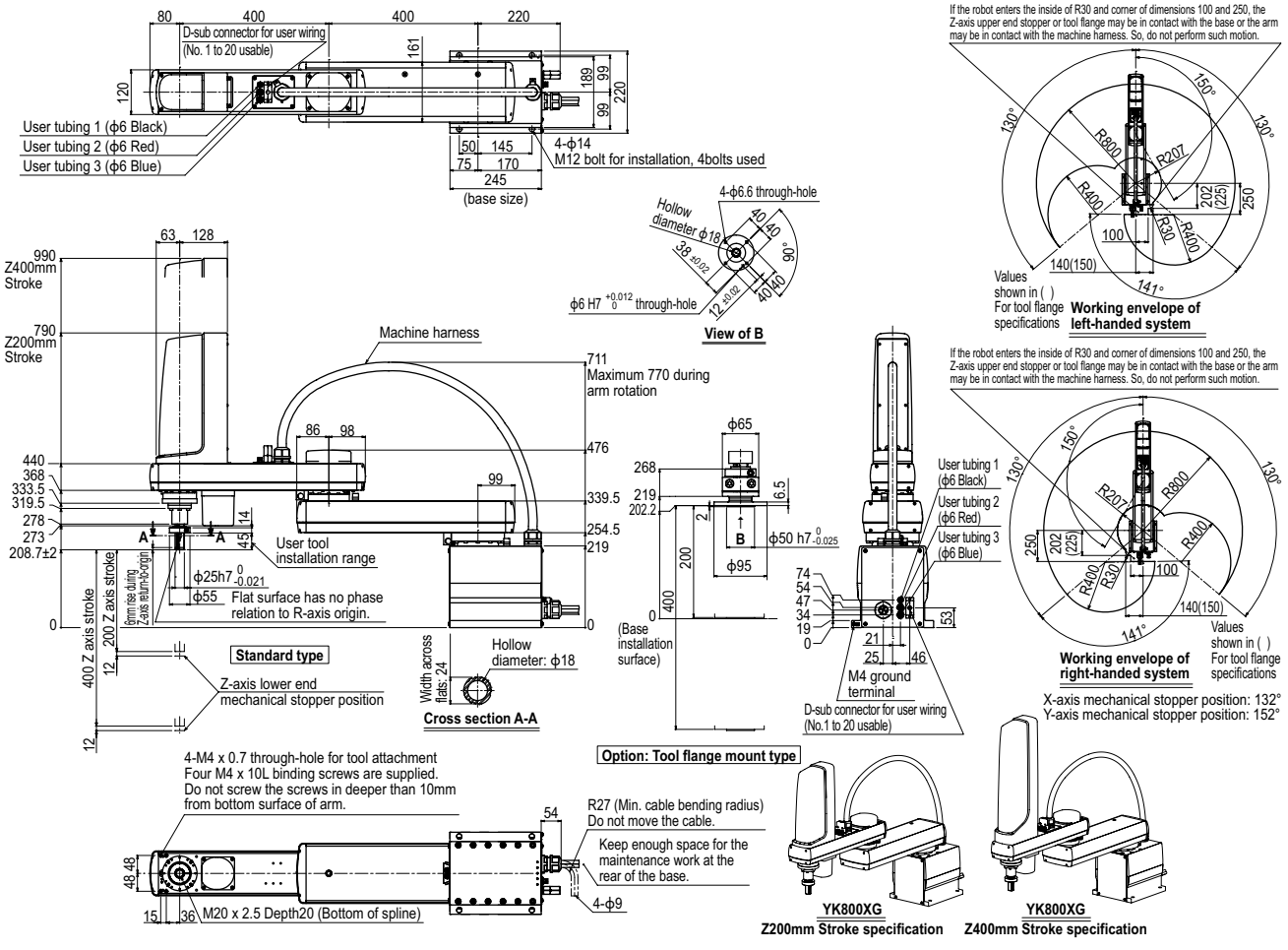
YK800XG

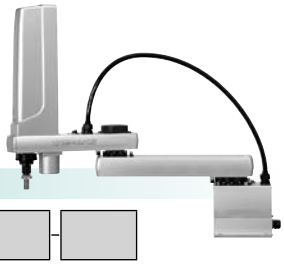


Controller RCX340 ▶ 508 RCX240 ▶ 495

YK900XG

Standard type: Large type

- Arm length 900mm
- Maximum payload 20kg



Ordering method

YK900XG				RCX340-4							
Model	Z axis stroke 200: 200mm 400: 400mm	Tool flange No entry: None F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	500 mm	400 mm	200 mm / 400 mm	–
	Rotation angle	+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output		750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer	Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method: Motor to speed reducer	Direct-coupled			
	Transmission method: Speed reducer to output	Direct-coupled			
Repeatability Note 1		+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed		9.9 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec
Maximum payload		20 kg			
Standard cycle time: with 2kg payload Note 2		0.49 sec			
R-axis tolerable moment of inertia Note 3		1.0 kgm²			
User wiring		0.2 sq × 20 wires			
User tubing (Outer diameter)		ϕ 6 × 3			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight		Z axis 200 mm: 54 kg Z axis 400 mm: 56 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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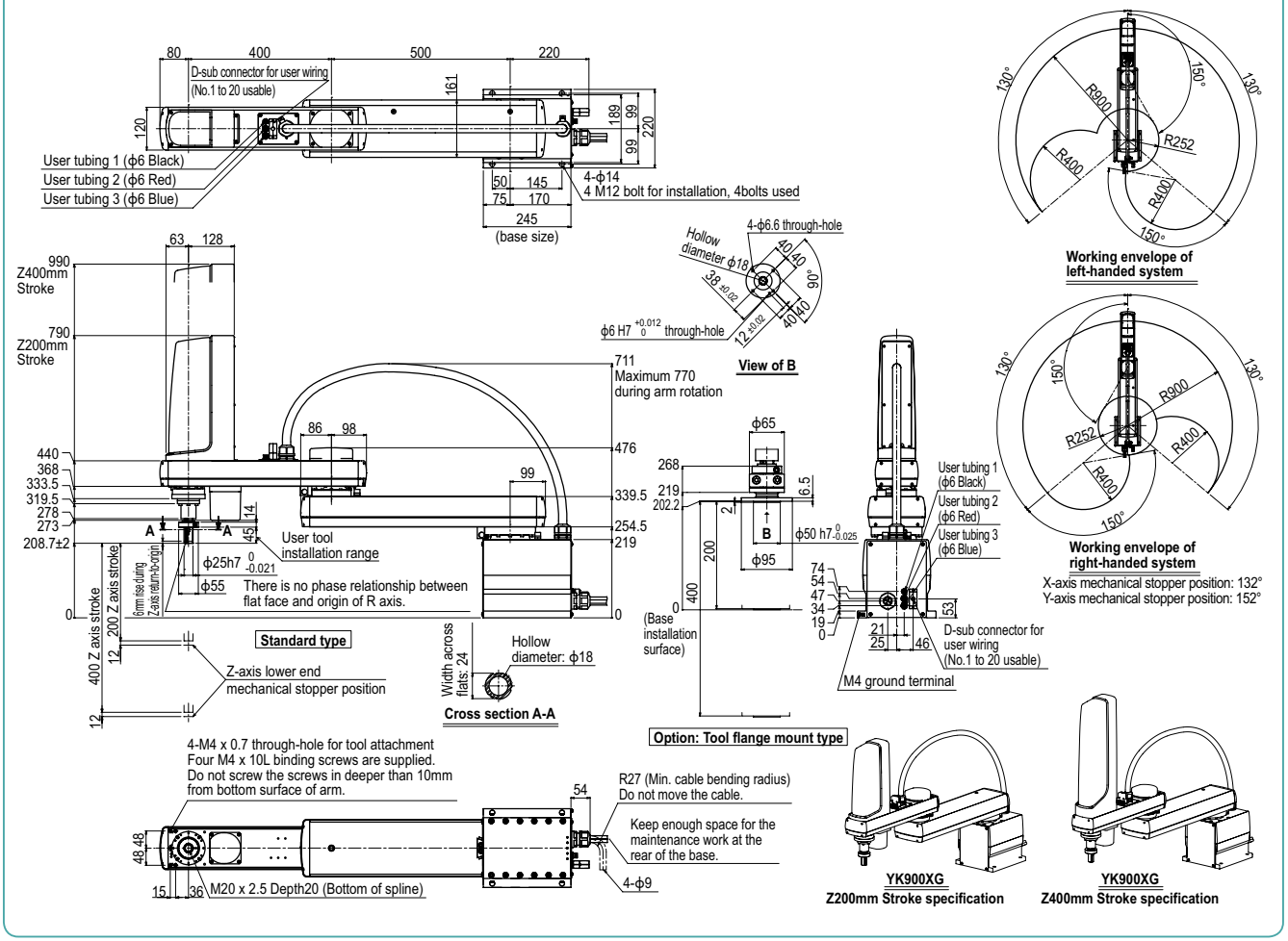
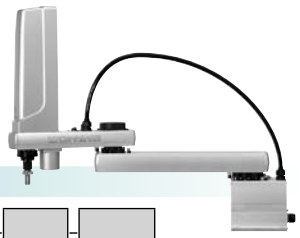
YK900XG



YK1000XG

Standard type: Large type

- Arm length 1000mm
- Maximum payload 20kg



Ordering method

YK1000XG				RCX340-4							
Model	Z axis stroke 200: 200mm 400: 400mm	Tool flange No entry: None F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		600 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			10.6 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec
Maximum payload			20 kg			
Standard cycle time: with 2kg payload Note 2			0.49 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 56 kg Z axis 400 mm: 58 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

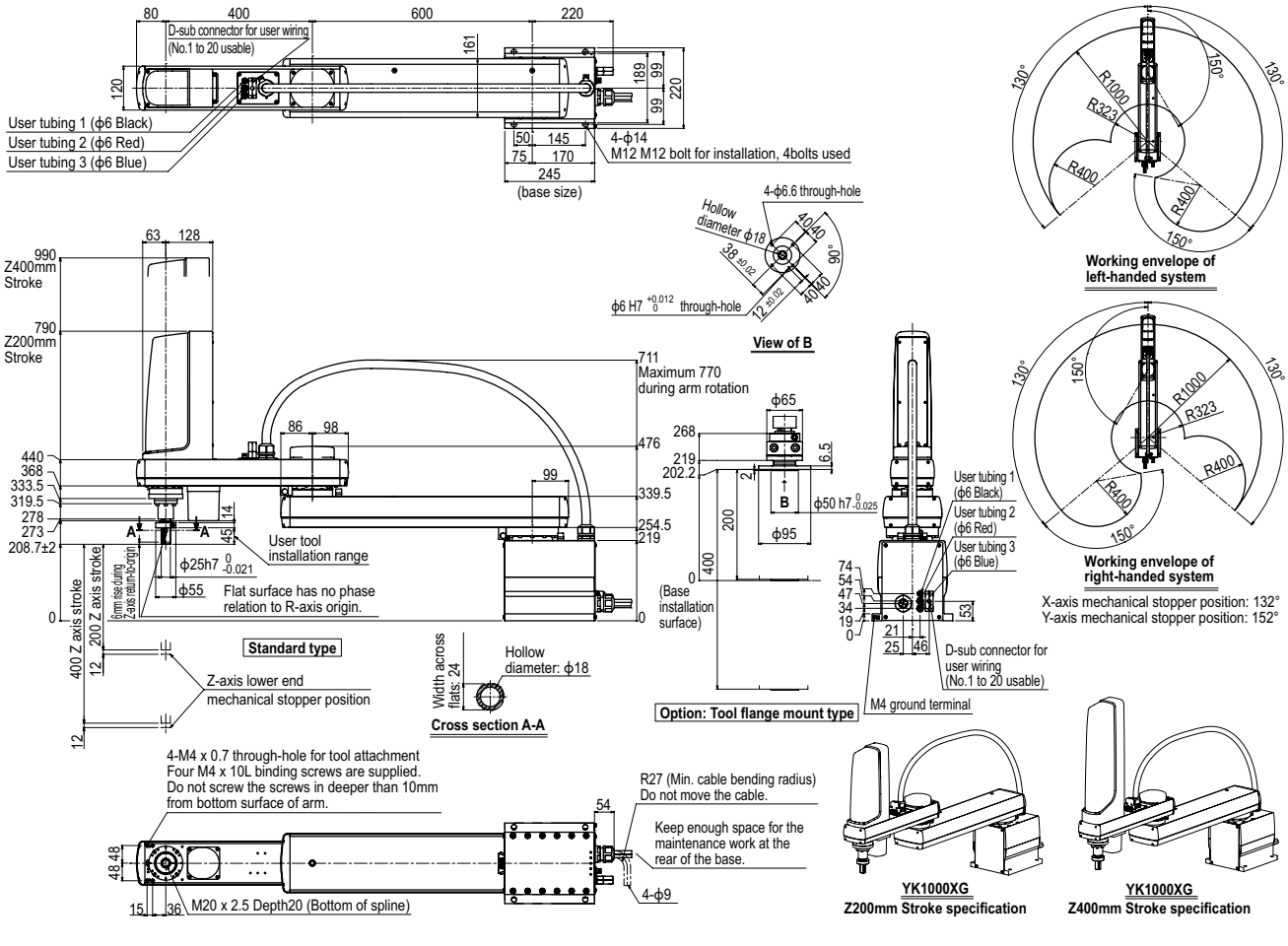
Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

YK1000XG

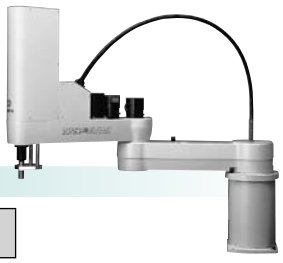


Controller RCX340 ▶ 508 RCX240 ▶ 495

YK1200X

Standard type: Large type

- Arm length 1200mm
- Maximum payload 50kg



Ordering method

YK1200X - 400 - [ ] - RCX340-4 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Model	Z axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK1200X	400	3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240 - [ ] - R - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Regeneratizve unit	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240		R					BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		600 mm	600 mm	400 mm	–
	Rotation angle		+/-125 °	+/-150 °	–	+/-360 °
AC servo motor output			900 W	800 W	600 W	400 W
Deceleration mechanism	Speed reducer		Planetary gear	Planetary gear	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled		Timing belt transmission	Timing belt transmission
		Speed reducer to output	Direct-coupled		Direct-coupled	Direct-coupled
Repeatability Note 1			+/-0.05 mm		+/-0.02 mm	+/-0.005 °
Maximum speed			7.4 m/sec		0.75 m/sec	600 °/sec
Maximum payload			50 kg			
Standard cycle time: with 2kg payload Note 2			0.91 sec			
R-axis tolerable moment of inertia Note 3			2.45 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			124 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.540.

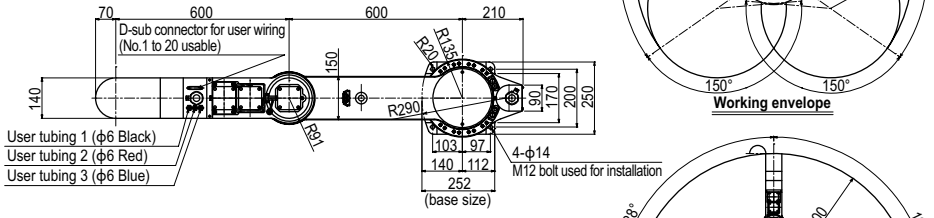
Controller

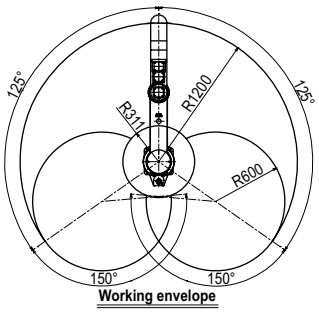
Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

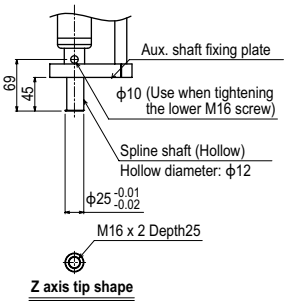
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

YK1200X

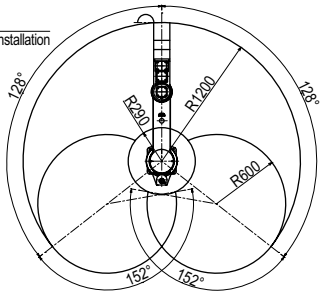




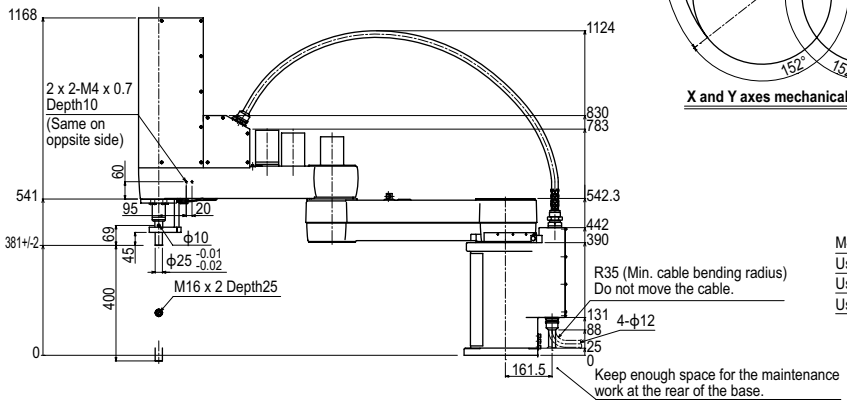
Working envelope

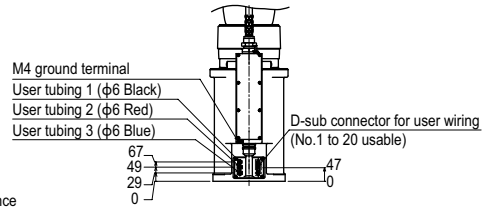


Z axis tip shape



X and Y axes mechanical stopper positions





YK300XGS

Wall-mount / inverse type

Arm length 300mm **Maximum payload 5kg**

Note. Built-to-order product.
Contact us for the delivery period.

Ordering method

YK300XGS - [ ] - **150** - [ ] - [ ] - [ ] - **RCX340-4** [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Model	Installation method Note1	Z axis stroke	Tool flange	Hollow shaft	Cable
YK300XGS	W: Wall-mount (same as per external view) U: Inverse wall-mount (upside down)	150: 150mm	No entry: None F: With tool flange	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - **BB**

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Note 1. When installing the robot, always follow the specifications.
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.
Incorrect installation can cause trouble or malfunction.

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		150 mm	150 mm	150 mm	–
	Rotation angle		+/-120 °	+/-130 °	–	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			4.4 m/sec		1.0 m/sec	1020 °/sec (wall-mount) 720 °/sec (inverse wall-mount)
Maximum payload			5 kg (Standard specification), 4 kg (Option specifications Note 4)			
Standard cycle time: with 2kg payload Note 2			0.49 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm²			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			19.5 kg			

Note 1. This is the value at a constant ambient temperature.
Note 2. When reciprocating 25mm horizontally and 300mm horizontally (with a 2kg payload in rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.537.
Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

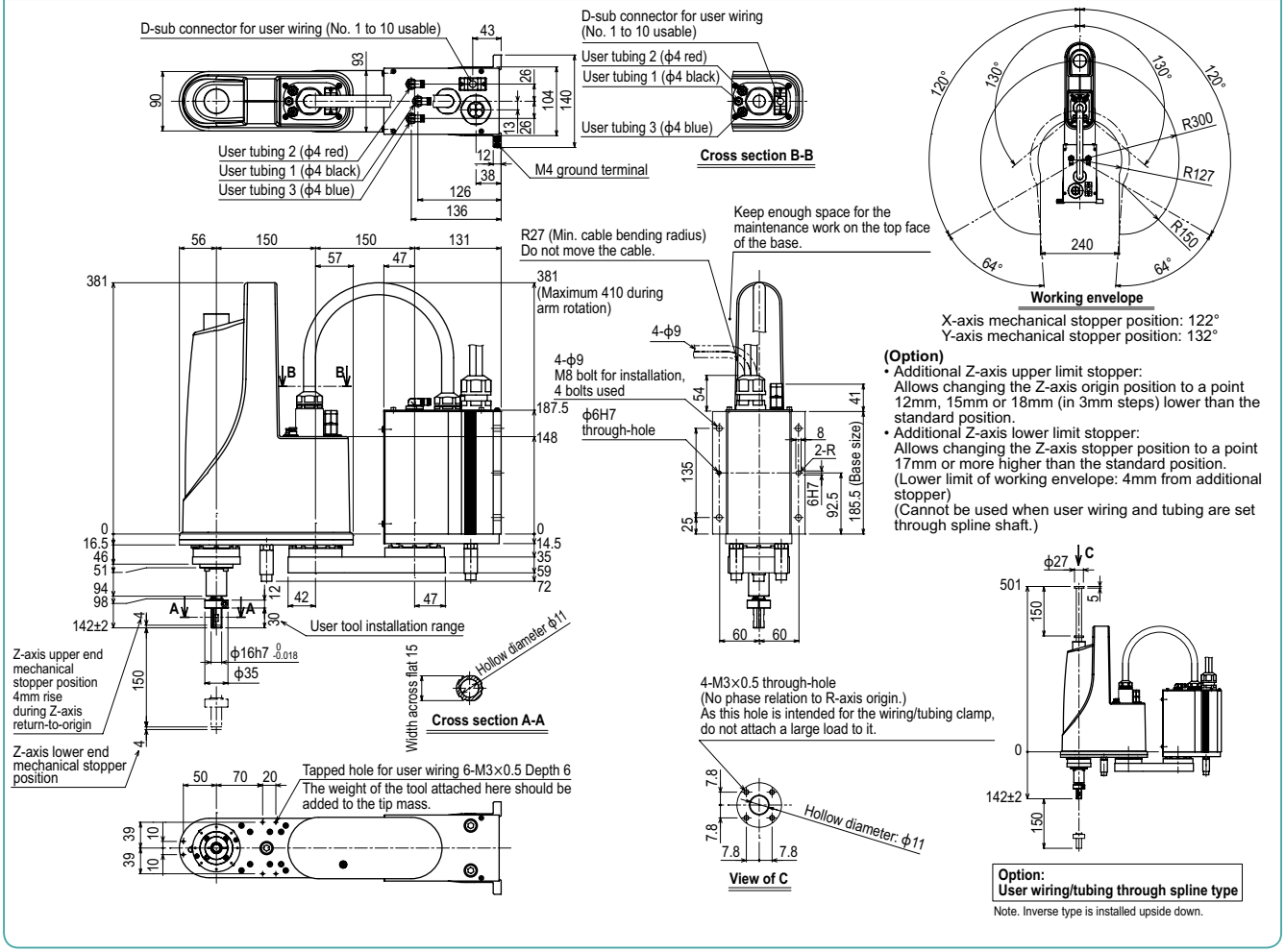
Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the position of Y axis mechanical stopper. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

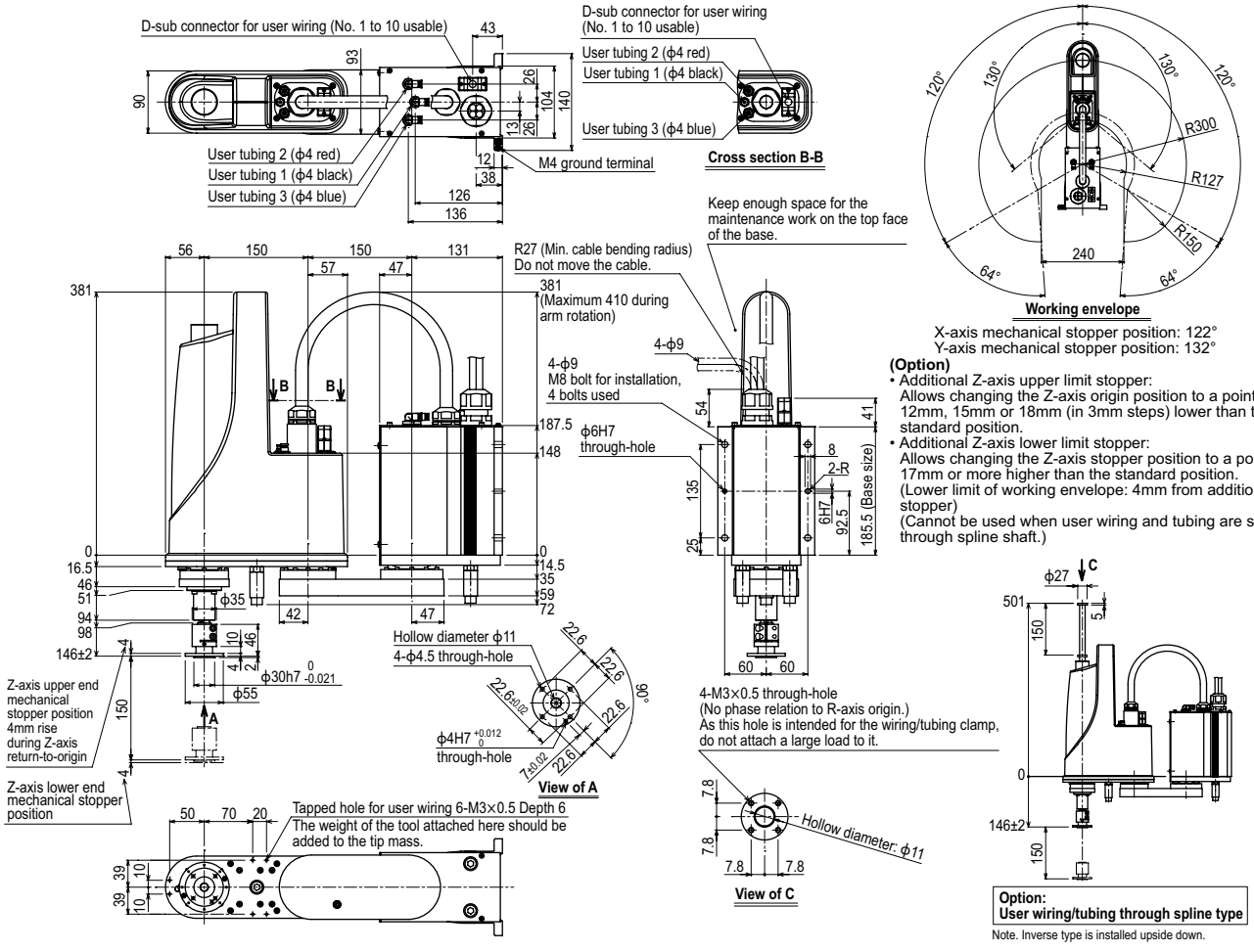
YK300XGS



Controller RCX340 ▶ 508 RCX240S ▶ 495

YK300XGS

YK300XGS Tool flange mount type



Note. Inverse type is installed upside down.

YK400XGS

Wall-mount / inverse type

Arm length 400mm **Maximum payload 5kg**

Note. Built-to-order product.
Contact us for the delivery period.

Ordering method

YK400XGS - [ ] - **150** - [ ] - [ ] - [ ] - **RCX340-4** [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Model	Installation method Note1	Z axis stroke	Tool flange	Hollow shaft	Cable
YK400XGS	W: Wall-mount (same as per external view) U: Inverse wall-mount (upside down)	150: 150mm	No entry: None F: With tool flange	No entry: None S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - **BB**

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Note 1. When installing the robot, always follow the specifications.
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.
Incorrect installation can cause trouble or malfunction.

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		250 mm	150 mm	150 mm	–
	Rotation angle		+/-125 °	+/-144 °	–	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			6.1 m/sec		1.1 m/sec	1020 °/sec (wall-mount) 720 °/sec (inverse wall-mount)
Maximum payload			5 kg (Standard specification), 4 kg (Option specifications Note 4)			
Standard cycle time: with 2kg payload Note 2			0.49 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm^2			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			20 kg			

Note 1. This is the value at a constant ambient temperature.
Note 2. When reciprocating 25mm horizontally and 300mm horizontally (with a 2kg payload in rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.538.
Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

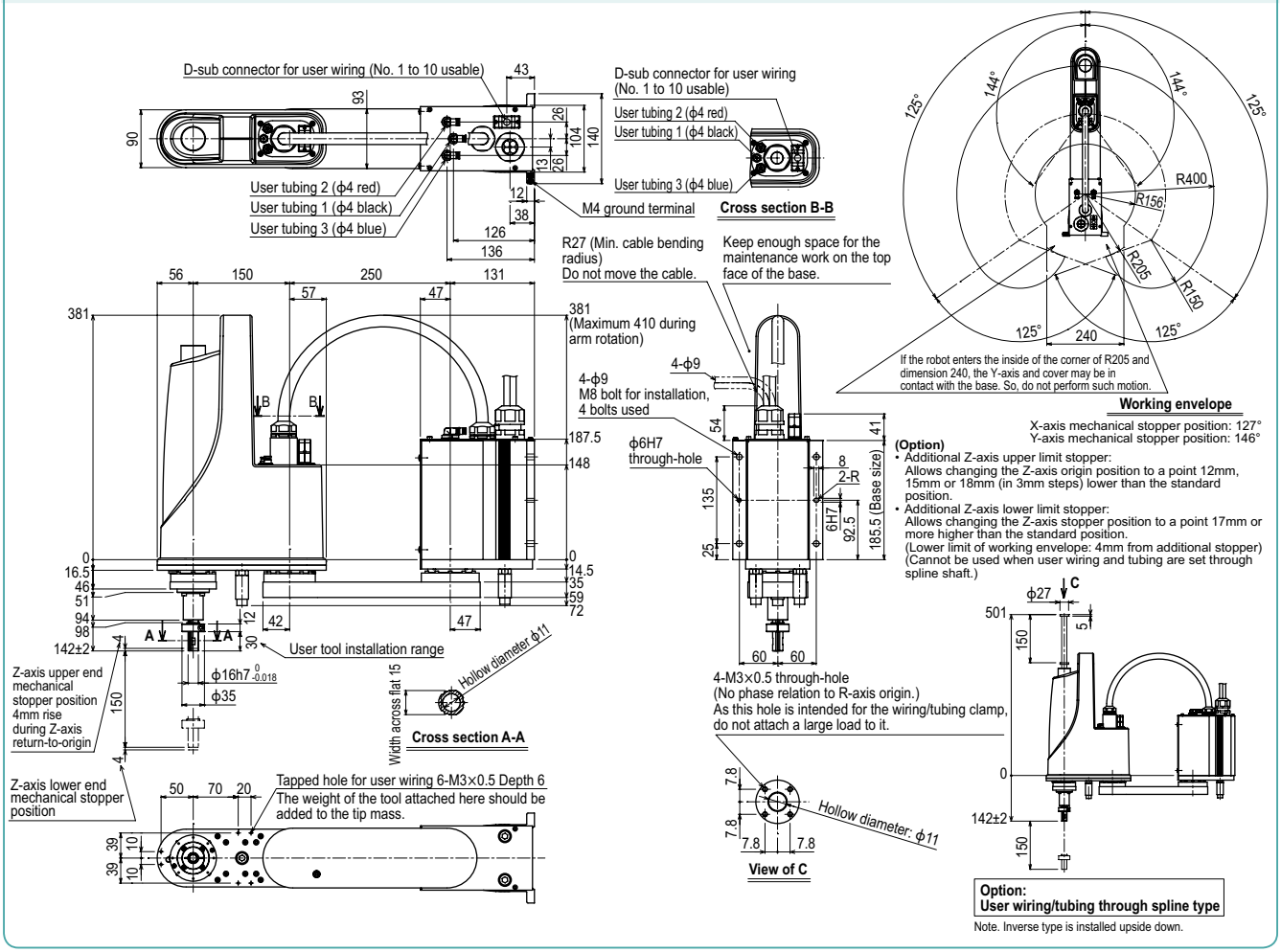
Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the position of Y axis mechanical stopper. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

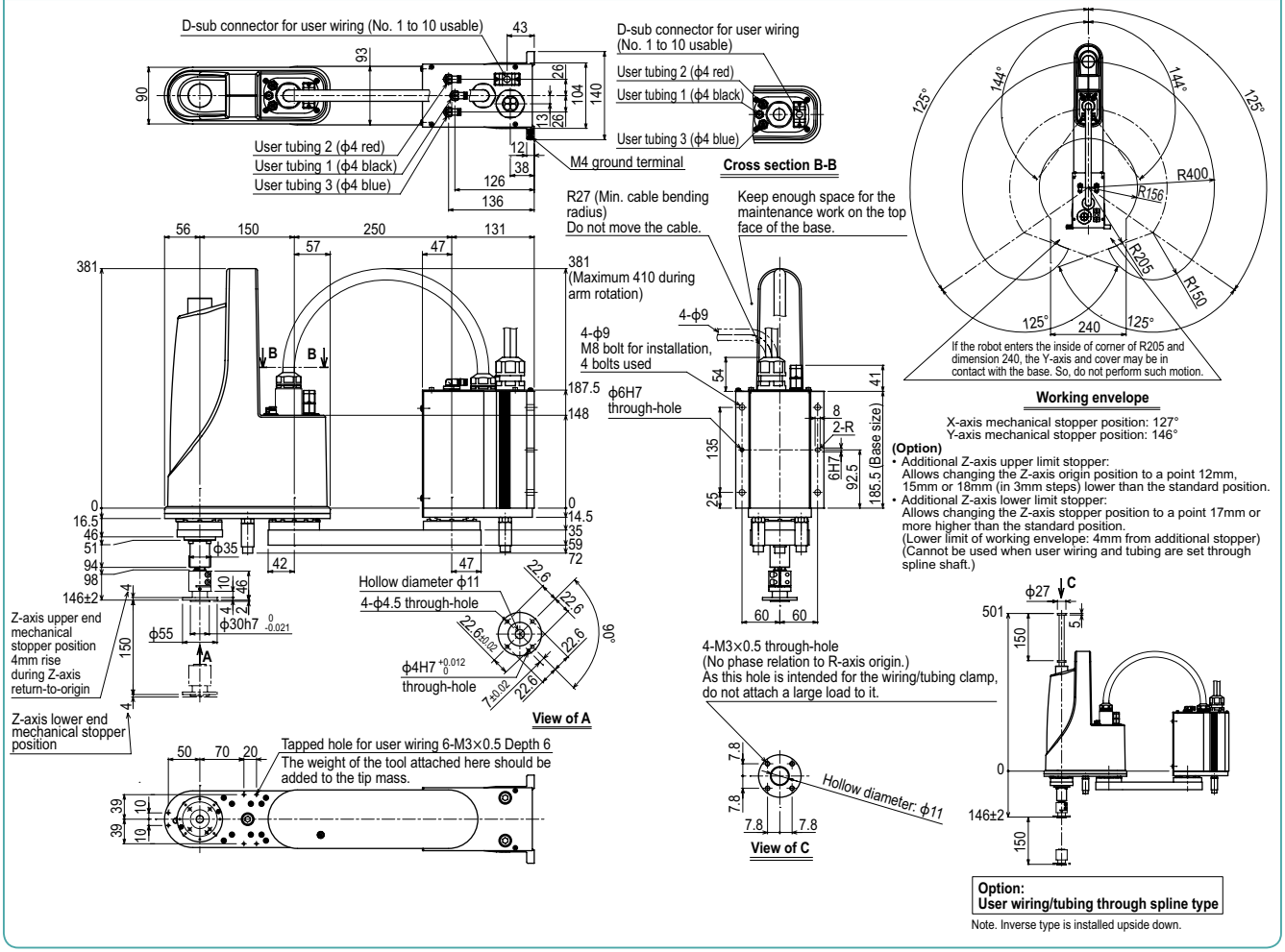
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

YK400XGS



Controller RCX340 ▶ 508 RCX240S ▶ 495

YK400XGS Tool flange mount type



YK500XGS

Wall-mount / inverse type

- Arm length 500mm
- Maximum payload 10kg

YK500XGS-W (Wall-mount)

YK500XGS-U (Inverse wall-mount)

Ordering method

YK500XGS

Model	Installation method Note 1	Z axis stroke	Tool flange	Cable
	W: Wall-mount (same as per external view) U: Inverse wall-mount (upside down)	200: 200mm 300: 300mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m

RCX340-4

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240 – R3 – BB

Controller	CE Marking	Regeneratizve unit	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240		R3					BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Note 1. When installing the robot, always follow the specifications.
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.
Incorrect installation can cause trouble or malfunction.

Specifications

			X-axis	Y-axis	Z-axis		R-axis
Axis specifications	Arm length		200 mm	300 mm	200 mm	300 mm	–
	Rotation angle		+/-105 °	+/-125 °	–		+/-360 °
AC servo motor output			400 W	200 W	200 W		200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw		Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled				
		Speed reducer to output	Direct-coupled				
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm		+/-0.004 °
Maximum speed			7.6 m/sec		2.3 m/sec	1.7 m/sec	1700 °/sec (wall-mount) 800 °/sec (inverse wall-mount)
Maximum payload			10 kg (Standard specification), 9 kg (Option specifications)				
Standard cycle time: with 2kg payload Note 2			0.45 sec				
R-axis tolerable moment of inertia Note 3			0.30 kgm^2				
User wiring			0.2 sq × 20 wires				
User tubing (Outer diameter)			ϕ 6 × 3				
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)				
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m				
Weight			30 kg				

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

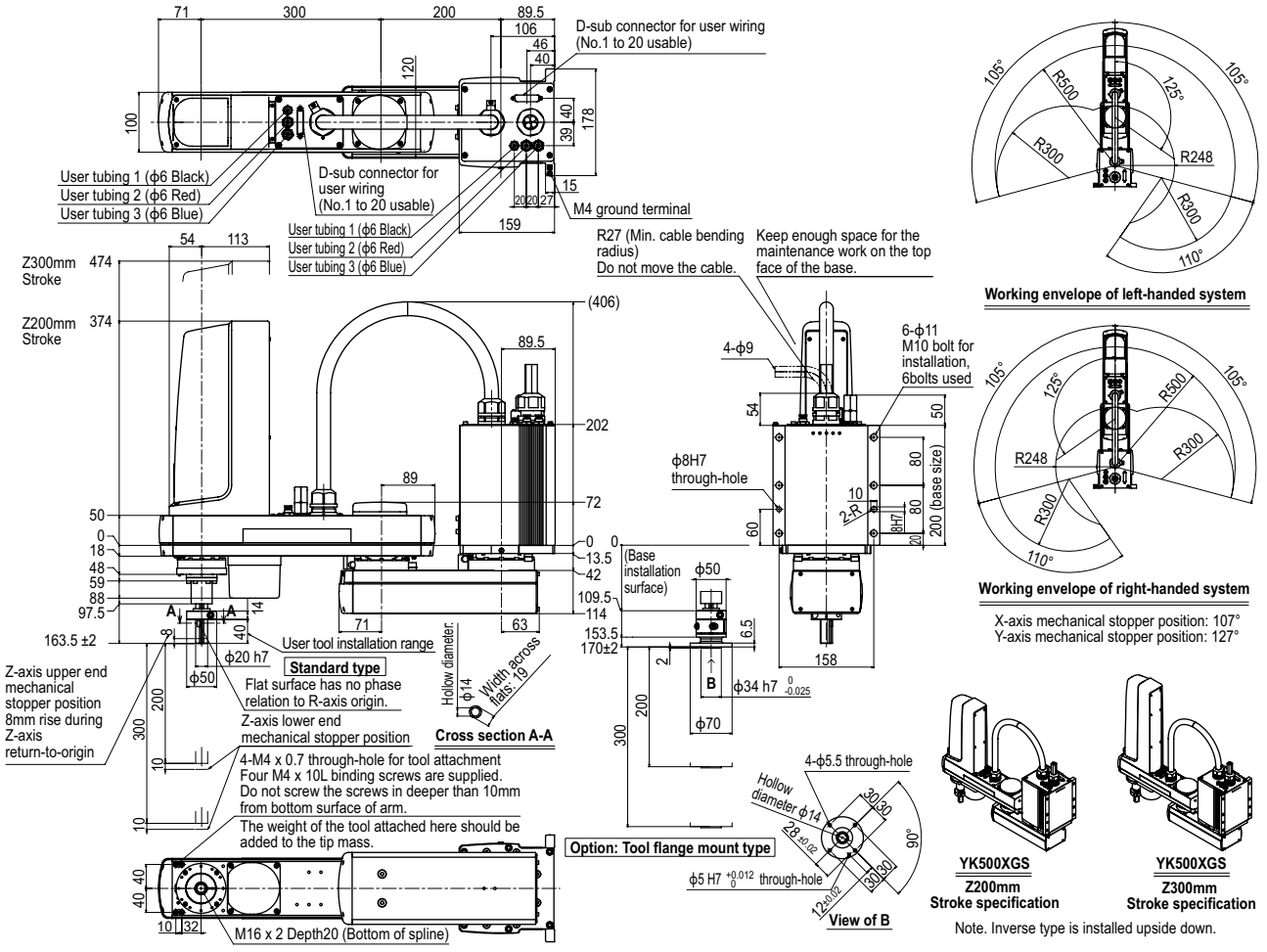
Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

YK500XGS



Working envelope of left-handed system

Working envelope of right-handed system

X-axis mechanical stopper position: 107°
Y-axis mechanical stopper position: 127°

YK500XGS
Z200mm Stroke specification

YK500XGS
Z300mm Stroke specification

Note. Inverse type is installed upside down.

YK600XGS

Wall-mount / inverse type

- Arm length 600mm
- Maximum payload 10kg

YK600XGS-W (Wall-mount) YK600XGS-U (Inverse wall-mount)

Ordering method

YK600XGS –

Model	Installation method Note 1	Z axis stroke	Tool flange	Cable
	W: Wall-mount (same as per external view) U: Inverse wall-mount (upside down)	200: 200mm 300: 300mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m

RCX340-4 –

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240 – **R3** –

Controller	CE Marking	Regeneratizve unit	Expansion I/O	Network option	iVY System	Gripper	Battery
		R3					BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Note 1. When installing the robot, always follow the specifications.
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.
Incorrect installation can cause trouble or malfunction.

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		300 mm	300 mm	200 mm 300 mm	–
	Rotation angle		+/-130 °	+/-145 °	–	+/-360 °
AC servo motor output			400 W	200 W	200 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			8.4 m/sec		2.3 m/sec 1.7 m/sec	1700 °/sec (wall-mount) 800 °/sec (inverse wall-mount)
Maximum payload			10 kg (Standard specification), 9 kg (Option specifications)			
Standard cycle time: with 2kg payload Note 2			0.46 sec			
R-axis tolerable moment of inertia Note 3			0.30 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			31 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

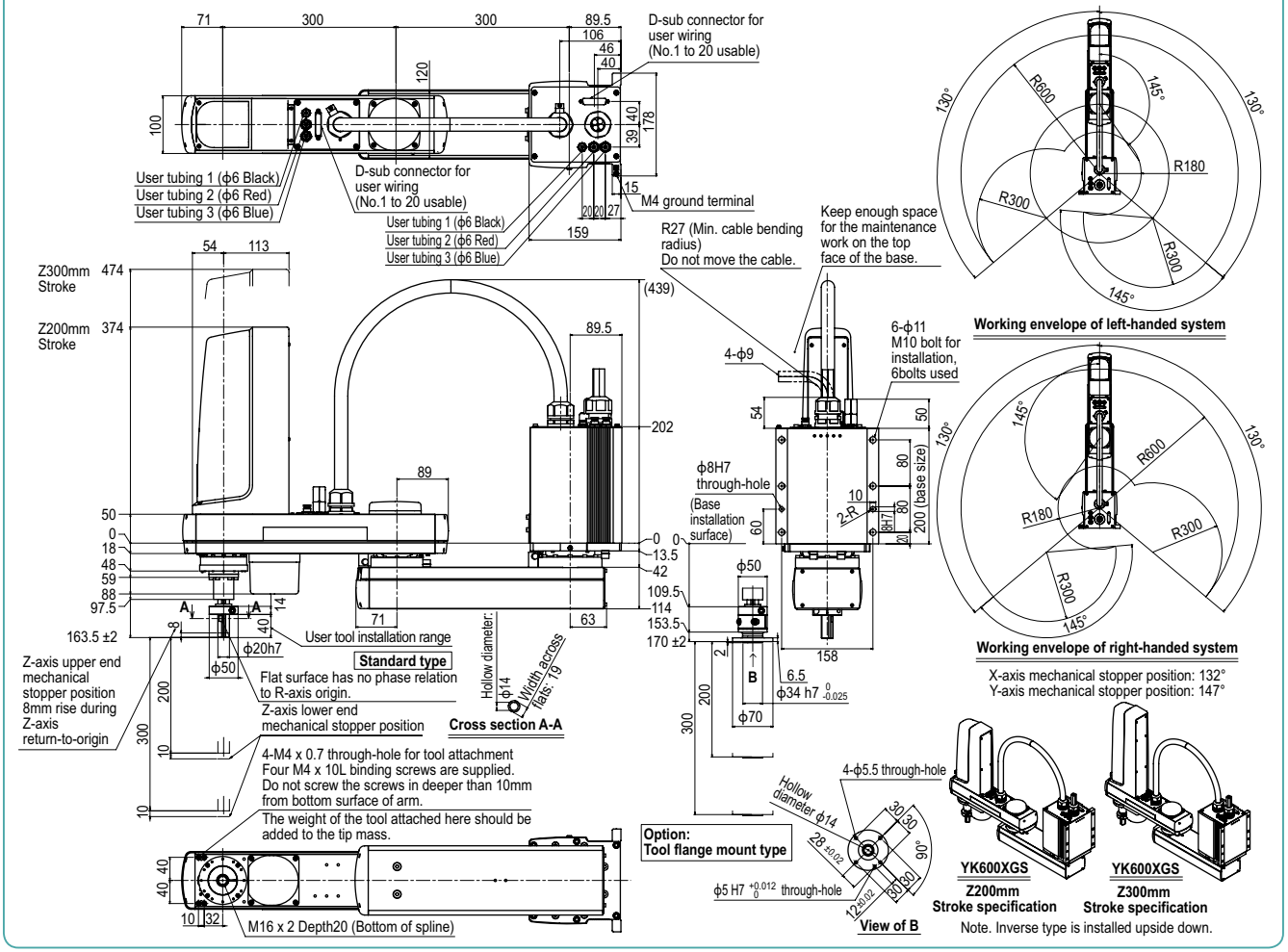
Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

YK600XGS



YK700XGS

Wall-mount / inverse type

- Arm length 700mm
- Maximum payload 20kg

Ordering method

YK700XGS					RCX340-4							
Model	Installation method Note 1	Z axis stroke	Tool flange	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
	W: Wall-mount (same as per external view) U: Inverse wall-mount (upside down)	200: 200mm 400: 400mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerativze unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Note 1. When installing the robot, always follow the specifications.
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.
Incorrect installation can cause trouble or malfunction.

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		300 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-130 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			8.4 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec (wall-mount) / 480 °/sec (inverse wall-mount)
Maximum payload			20 kg (Standard specification), 19 kg (Option specifications)			
Standard cycle time: with 2kg payload Note 2			0.42 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 50 kg Z axis 400 mm: 52 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

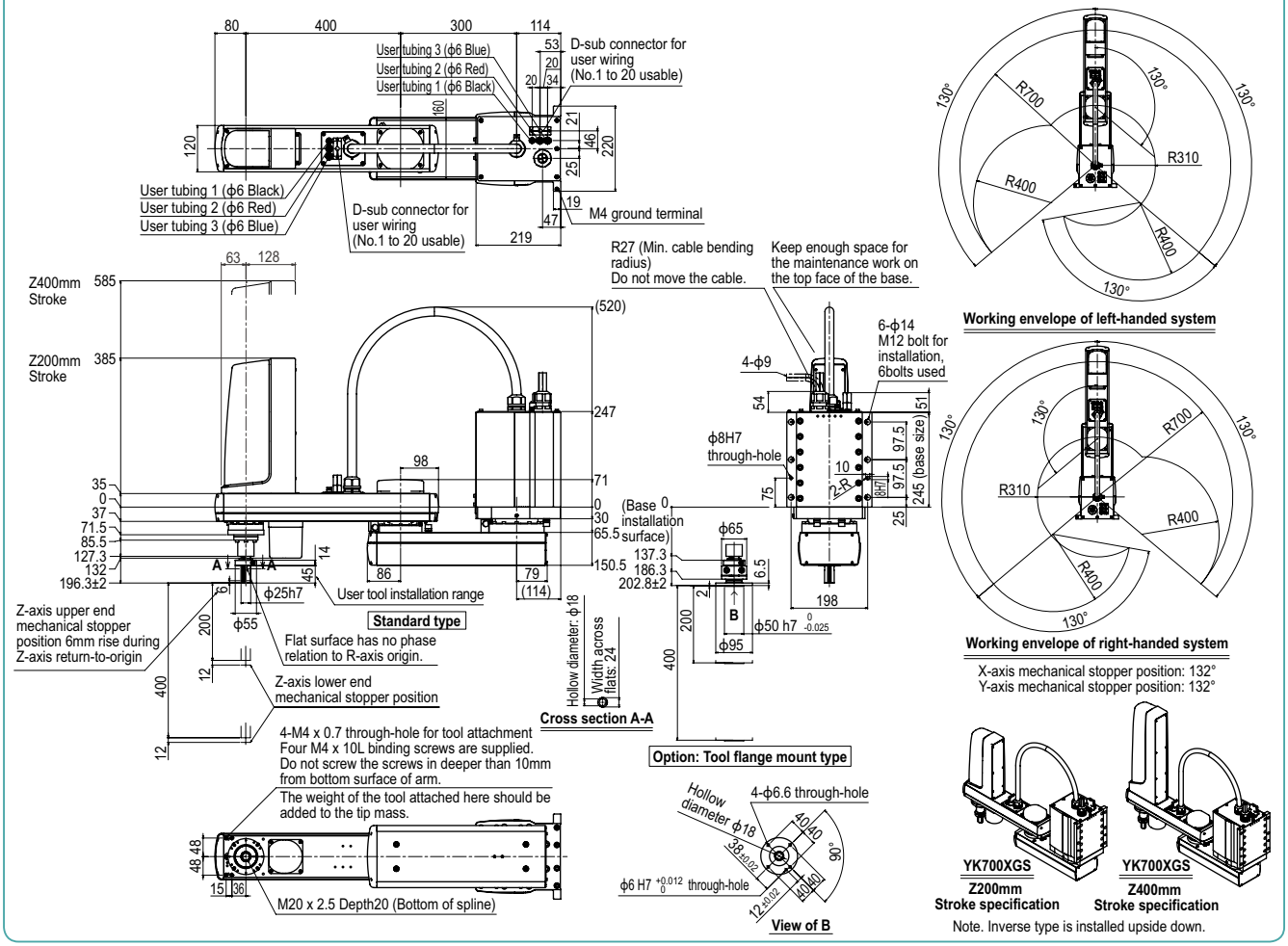
Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

YK700XGS



YK800XGS

Wall-mount / inverse type

- Arm length 800mm
- Maximum payload 20kg

Ordering method

YK800XGS – [ ] – [ ] – [ ] – [ ]

Model	Installation method Note 1	Z axis stroke	Tool flange	Cable
	W: Wall-mount (same as per external view) U: Inverse wall-mount (upside down)	200: 200mm 400: 400mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m

RCX340-4 – [ ] – [ ] – [ ] – [ ] – [ ] – [ ] – [ ] – [ ]

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240 – [ ] – **R3** – [ ] – [ ] – [ ] – [ ] – **BB**

Controller	CE Marking	Regeneratizve unit	Expansion I/O	Network option	iVY System	Gripper	Battery
		R3					BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Note 1. When installing the robot, always follow the specifications.
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.
Incorrect installation can cause trouble or malfunction.

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		400 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-145 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			9.2 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec (wall-mount) / 480 °/sec (inverse wall-mount)
Maximum payload			20 kg (Standard specification), 19 kg (Option specifications)			
Standard cycle time: with 2kg payload Note 2			0.48 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 52 kg Z axis 400 mm: 54 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

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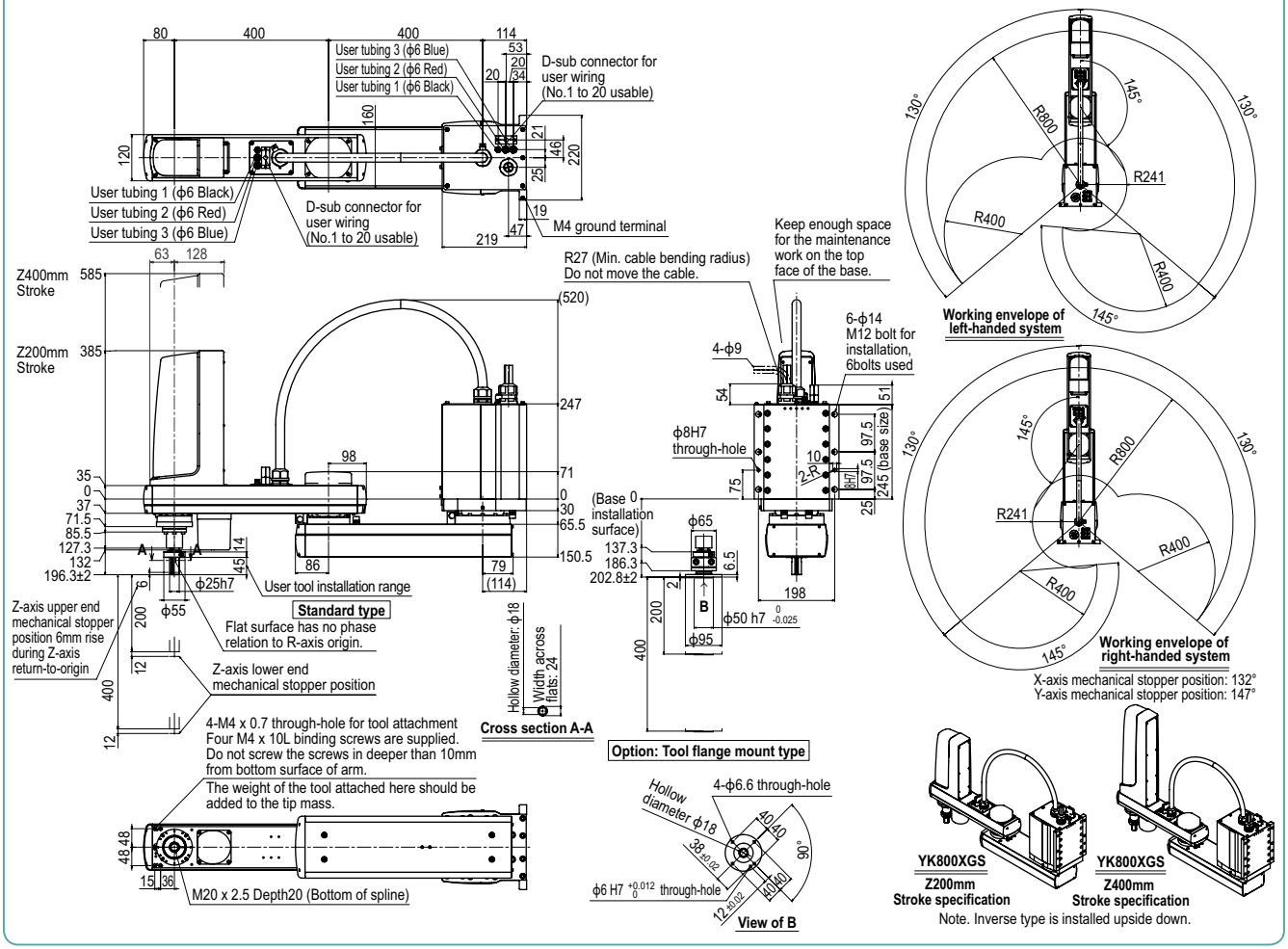
YK800XGS



YK900XGS

Wall-mount / inverse type

- Arm length 900mm
- Maximum payload 20kg

Ordering method

YK900XGS					RCX340-4							
Model	Installation method Note 1	Z axis stroke	Tool flange	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
	W: Wall-mount (same as per external view) U: Inverse wall-mount (upside down)	200: 200mm 400: 400mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerativze unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Note 1. When installing the robot, always follow the specifications.
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.
Incorrect installation can cause trouble or malfunction.

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		500 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			9.9 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec (wall-mount) / 480 °/sec (inverse wall-mount)
Maximum payload			20 kg (Standard specification), 19 kg (Option specifications)			
Standard cycle time: with 2kg payload Note 2			0.49 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm^2			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 54 kg Z axis 400 mm: 56 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

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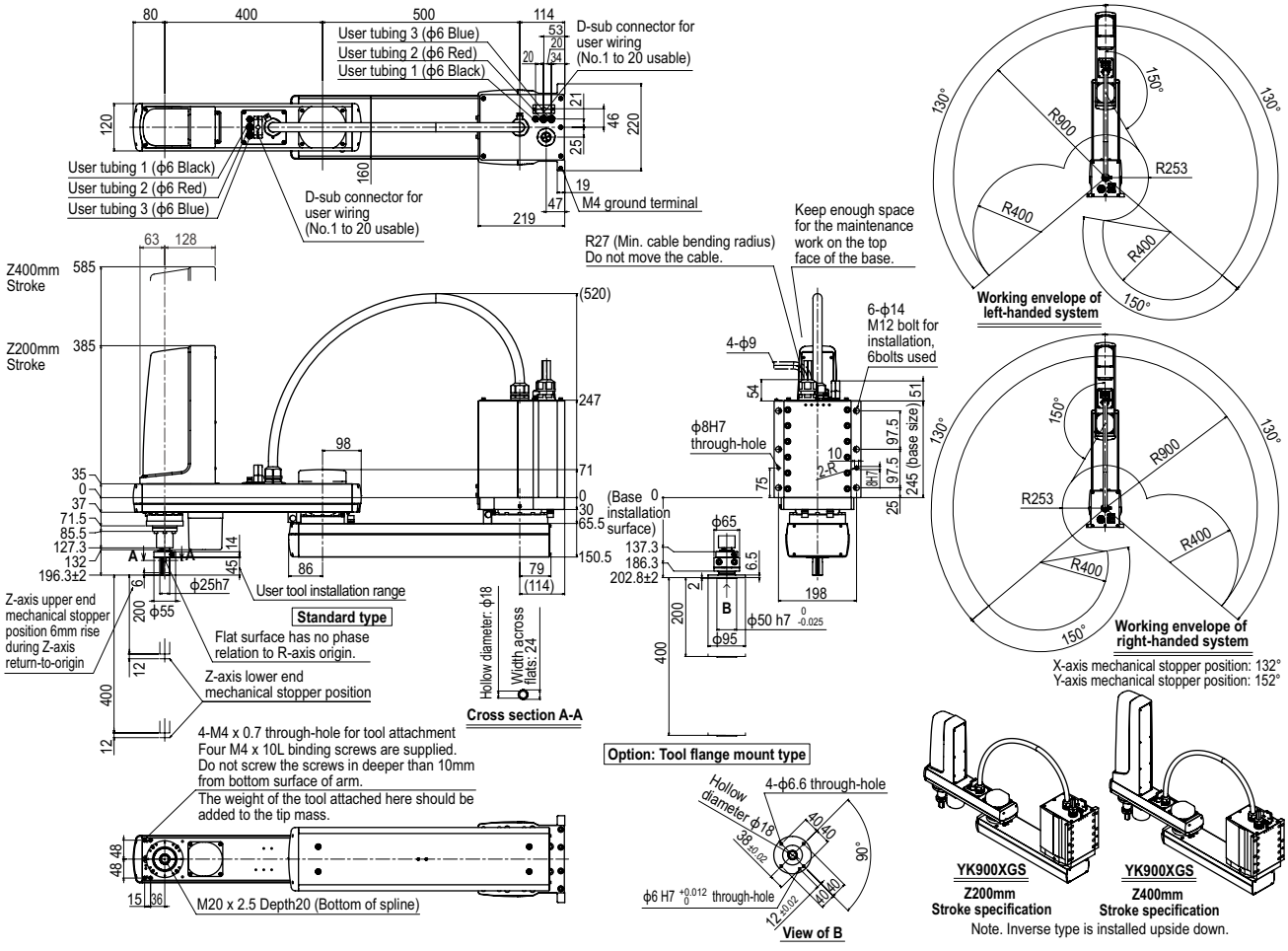
YK900XGS



YK1000XGS

Wall-mount / inverse type

- Arm length 1000mm
- Maximum payload 20kg

Ordering method

YK1000XGS

Model	Installation method Note 1	Z axis stroke	Tool flange	Cable
	W: Wall-mount (same as per external view) U: Inverse wall-mount (upside down)	200: 200mm 400: 400mm	No entry: None F: With tool flange	3L: 3.5m 5L: 5m 10L: 10m

RCX340-4

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240 – R3 – BB

Controller	CE Marking	Regeneratizve unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Note 1. When installing the robot, always follow the specifications.
Do not install the ceiling-mount robot upside down or do not install the inverse type robot to a ceiling.
Incorrect installation can cause trouble or malfunction.

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		600 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			10.6 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec (wall-mount) / 480 °/sec (inverse wall-mount)
Maximum payload			20 kg (Standard specification), 19 kg (Option specifications)			
Standard cycle time: with 2kg payload Note 2			0.49 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm²			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			φ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 56 kg Z axis 400 mm: 58 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions.
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note. Please consult YAMAHA when connecting other tubes and cables to the self-supporting machine harness.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)
See our robot manuals (installation manuals) for detailed information.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
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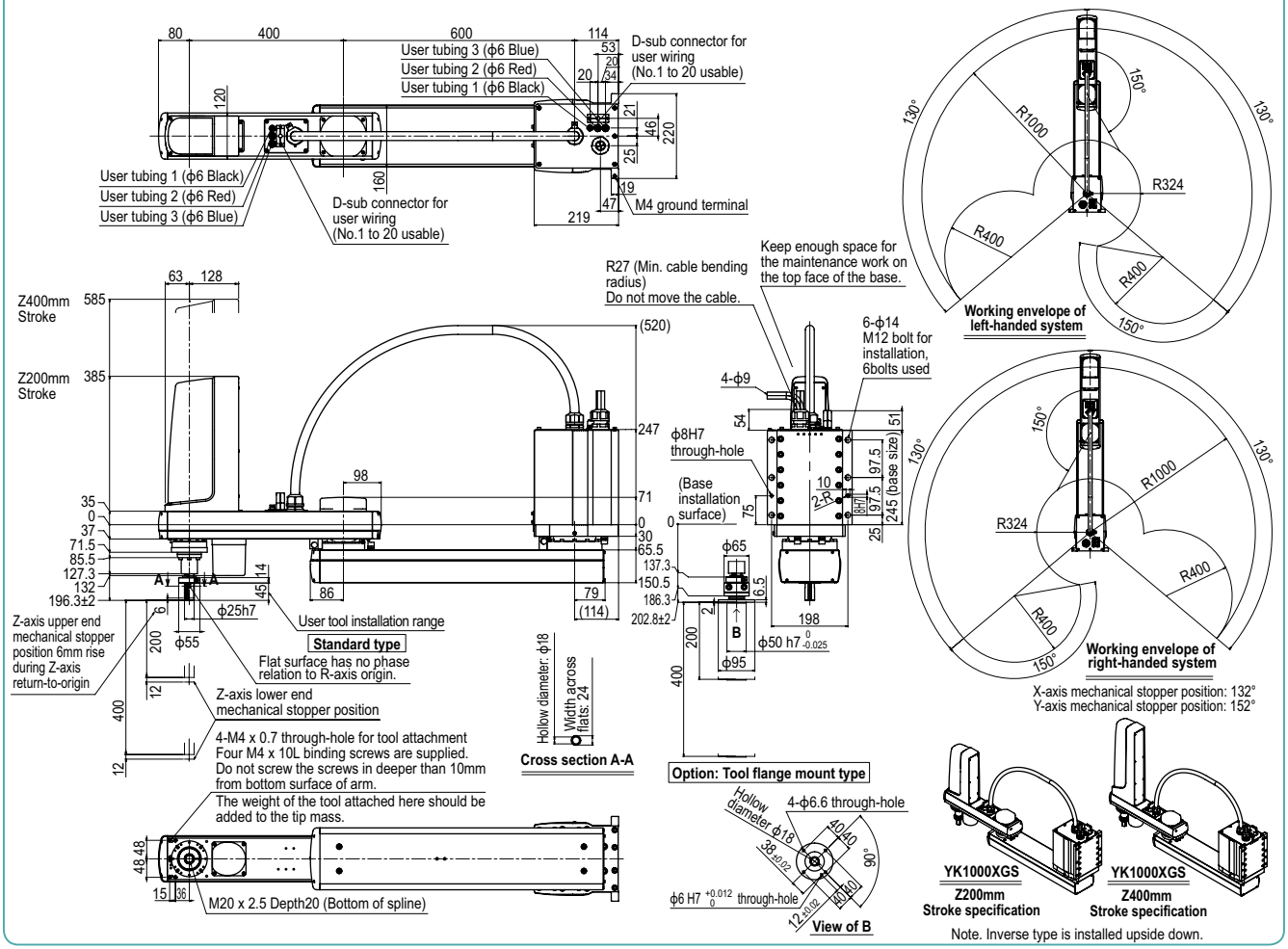
YK1000XGS



YK250XGP

Dust-proof & drip-proof type

Arm length 250mm　Maximum payload 4kg

Ordering method

YK250XGP - 150 - [ ] - S - [ ]

Model	Z axis stroke	Tool flange	Hollow shaft	Cable
	150: 150mm	No entry: None F: With tool flange	S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m

RCX340-4 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		100 mm	150 mm	150 mm	–
	Rotation angle		+/-129 °	+/-134 °	–	+/-360 °
AC servo motor output (W)			200	150	50	100
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			4.5 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			4 kg			
Standard cycle time: with 2kg payload Note 2			0.57 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm^2			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 4			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			21.5 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.537.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

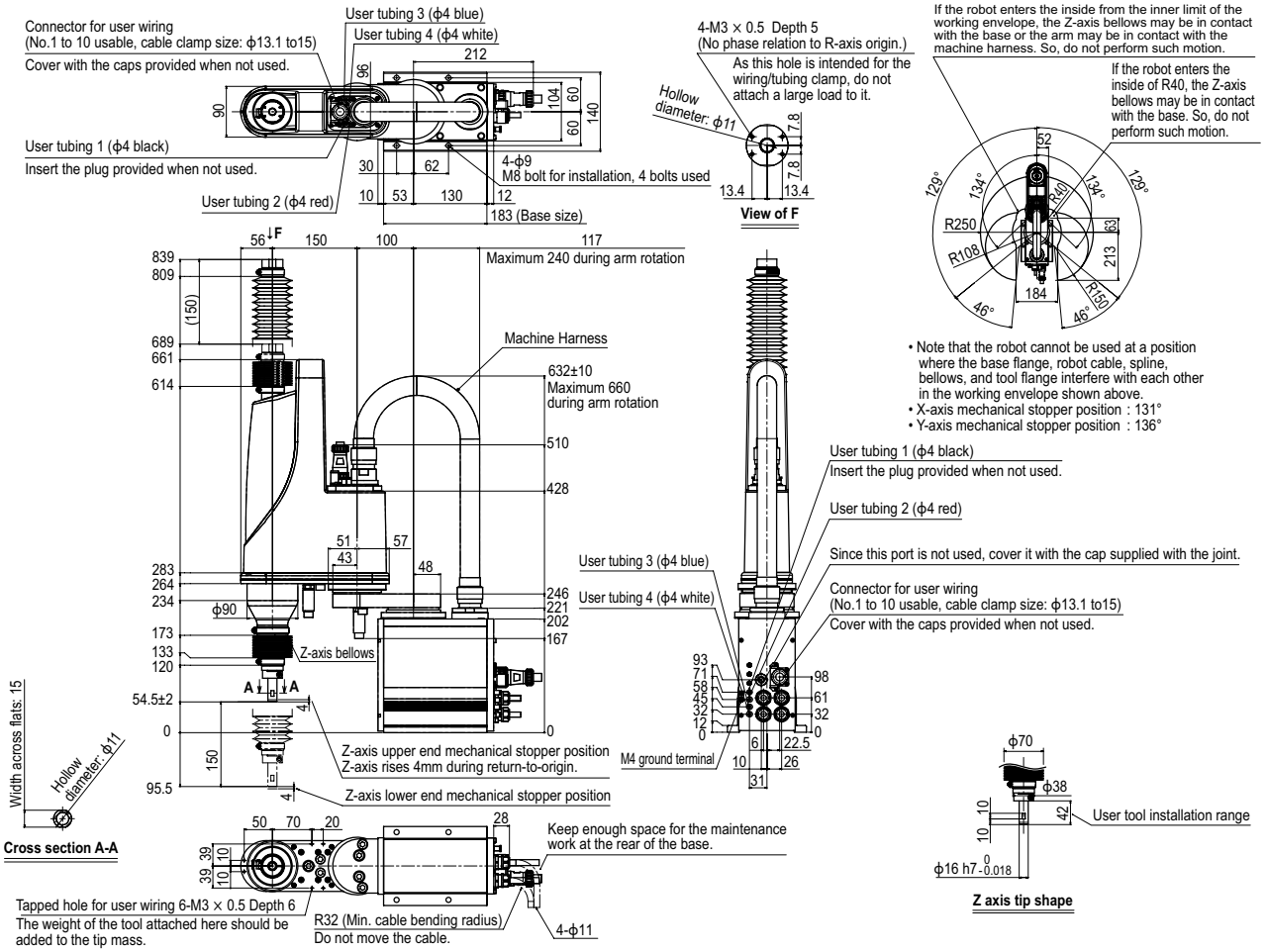
Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

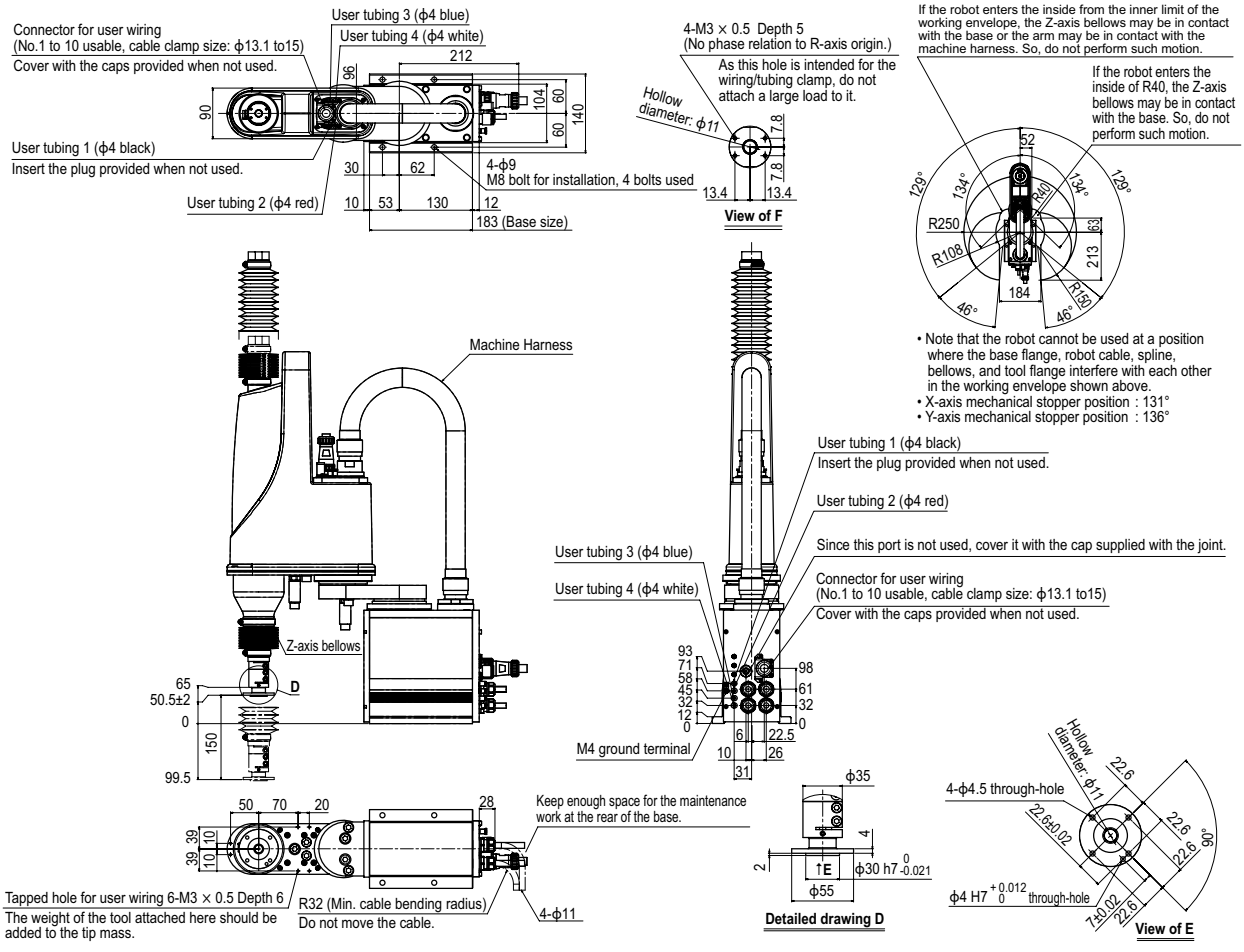
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

YK250XGP



YK250XGP

YK250XGP Tool flange mount type



YK350XGP

Dust-proof & drip-proof type

- Arm length 350mm
- Maximum payload 4kg

Ordering method

YK350XGP - 150 - [ ] - S - [ ] - RCX340-4 [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Model	Z axis stroke	Tool flange	Hollow shaft	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK350XGP	150: 150mm	No entry: None F: With tool flange	S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		200 mm	150 mm	150 mm	–
	Rotation angle		+/-129 °	+/-134 °	–	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			5.6 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			4 kg			
Standard cycle time: with 2kg payload Note 2			0.57 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm^2			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 4			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			22 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.537.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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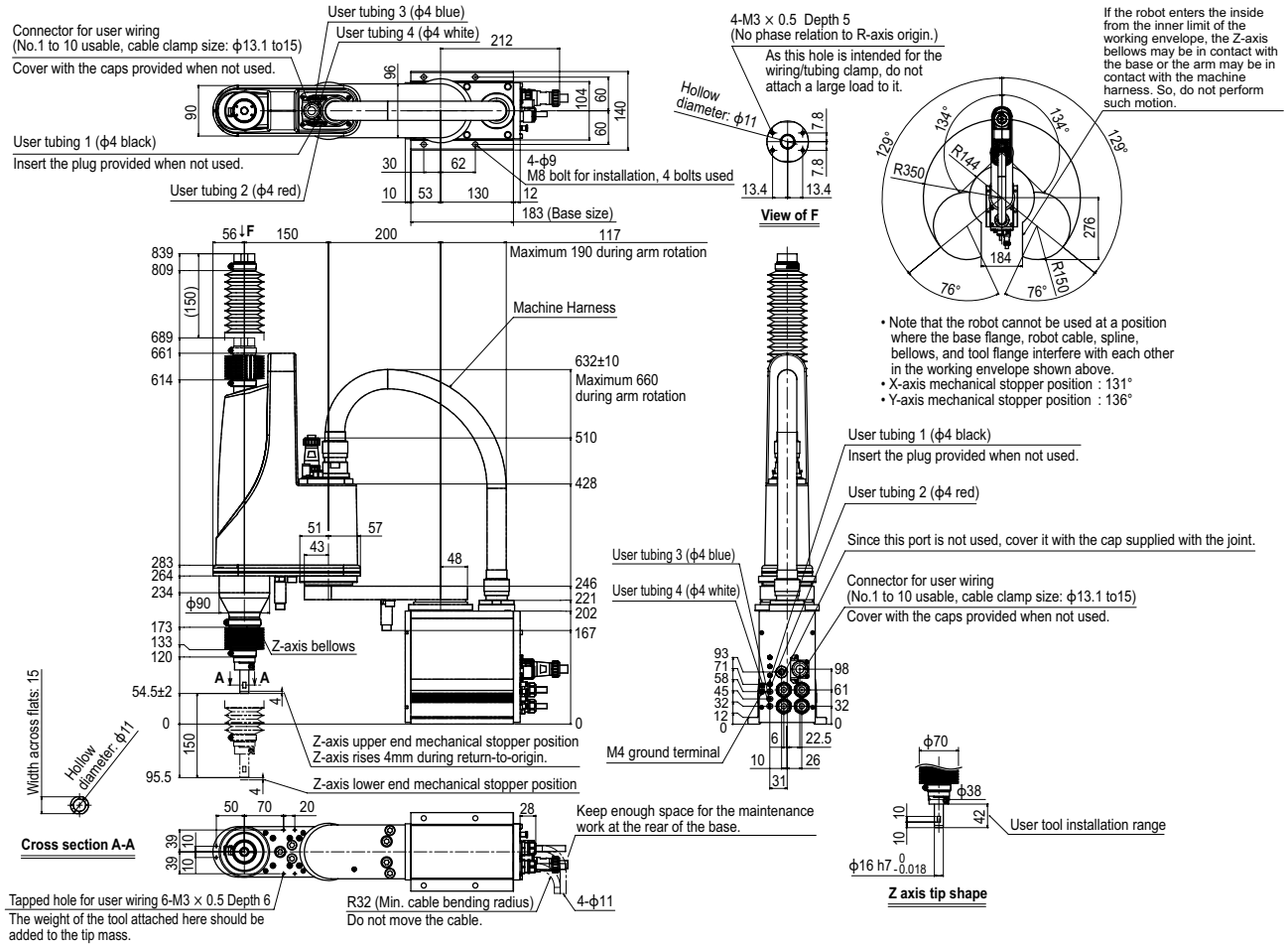
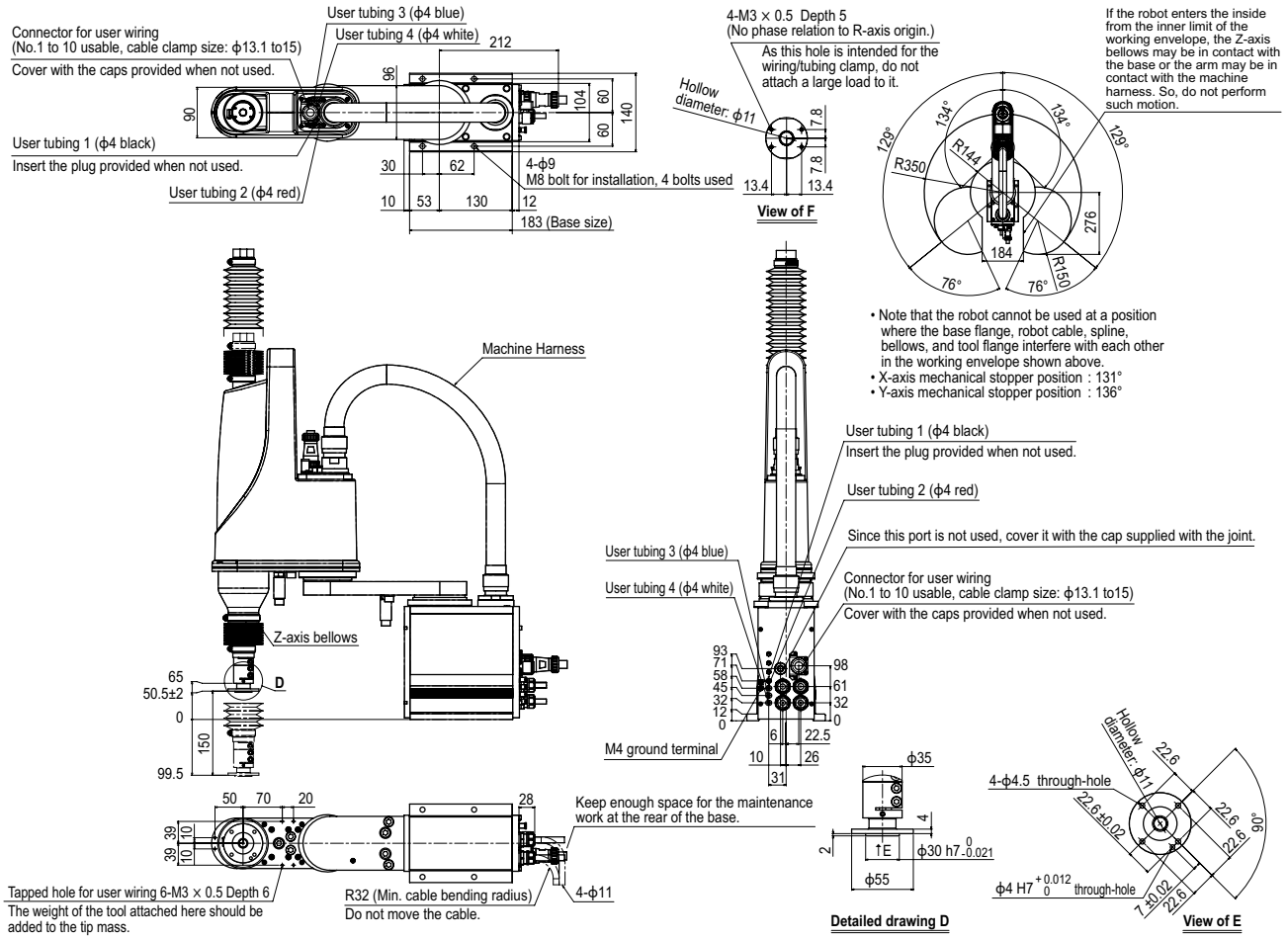
YK350XGP



YK350XGP

YK350XGP Tool flange mount type



YK400XGP

Dust-proof & drip-proof type

- Arm length 400mm
- Maximum payload 4kg

Ordering method

YK400XGP - 150 - [ ] - S - [ ] - RCX340-4 [ ][ ][ ][ ][ ][ ][ ]

Model	Z axis stroke	Tool flange	Hollow shaft	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK400XGP	150: 150mm	No entry: None F: With tool flange	S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		250 mm	150 mm	150 mm	–
	Rotation angle		+/-129 °	+/-144 °	–	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			6.1 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			4 kg			
Standard cycle time: with 2kg payload Note 2			0.57 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm^2			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 4			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			22.5 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.538.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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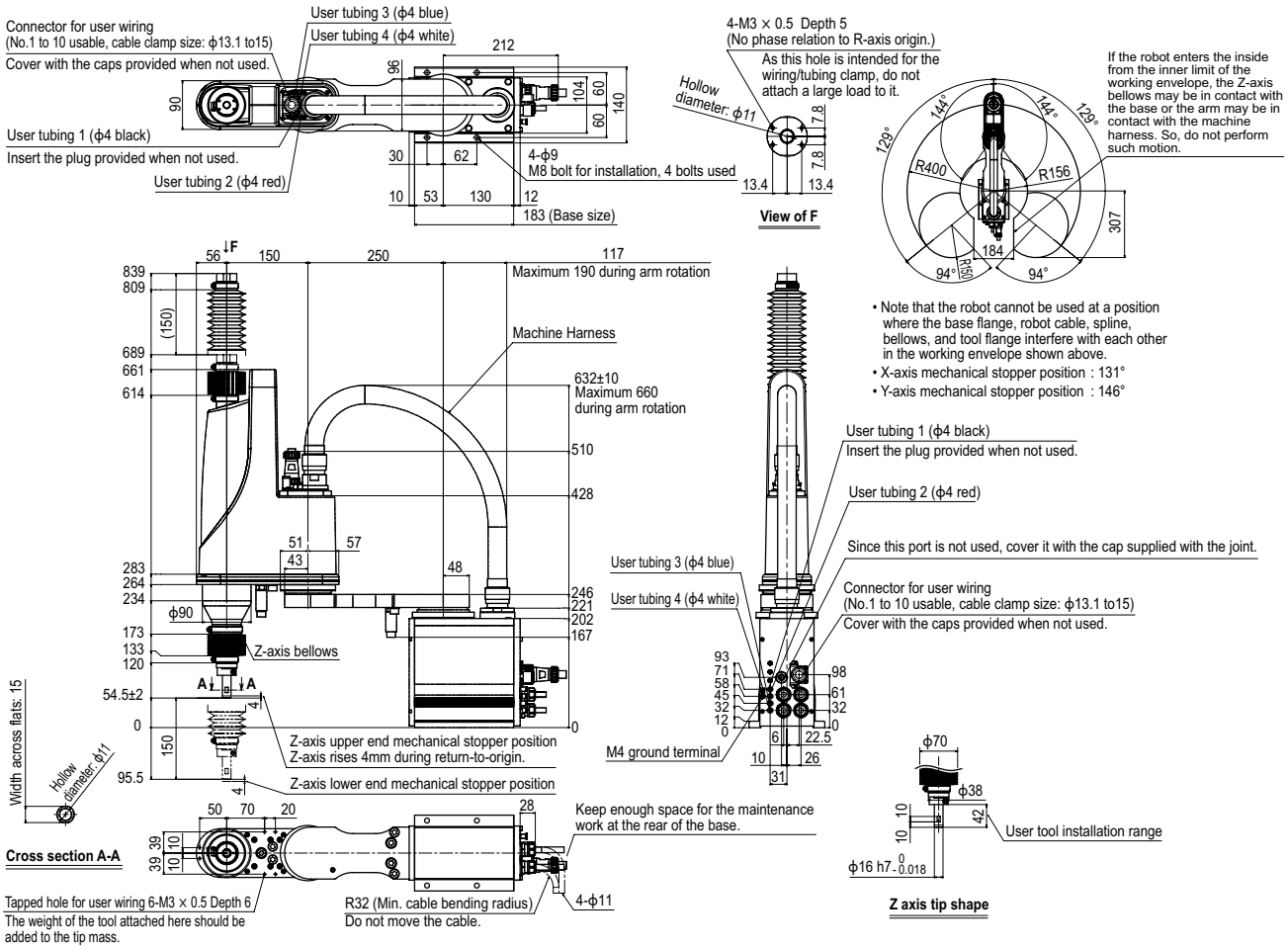
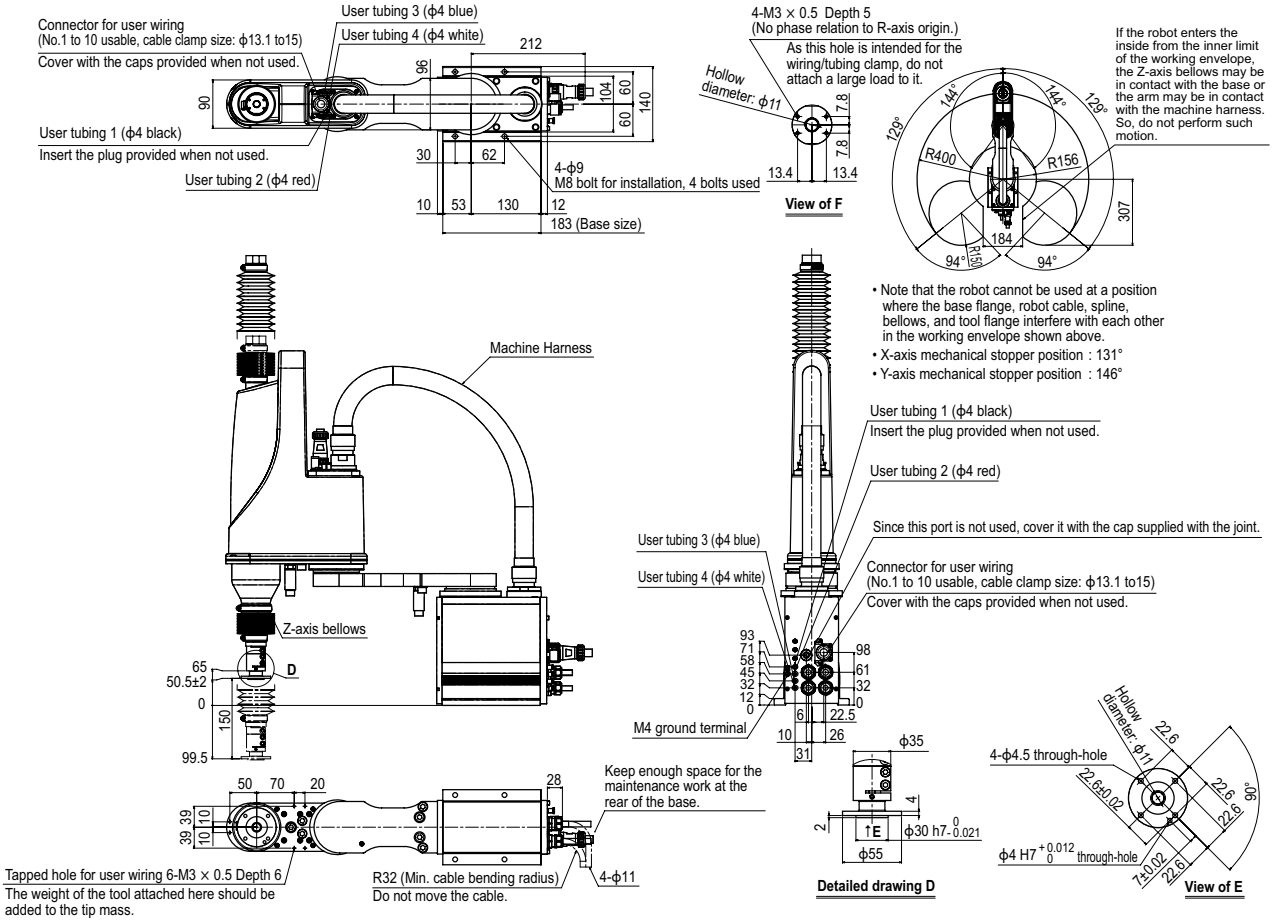
YK400XGP



YK400XGP Tool flange mount type



YK500XGLP

Dust-proof & drip-proof type

- Arm length 500mm
- Maximum payload 4kg

Ordering method

YK500XGLP - 150 - [ ] - S - [ ] - RCX340-4 - [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Model	Z axis stroke	Tool flange	Hollow shaft	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK500XGLP	150: 150mm	No entry: None F: With tool flange	S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		250 mm	250 mm	150 mm	–
	Rotation angle		+/-129 °	+/-144 °	–	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			5.1 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			4 kg			
Standard cycle time: with 2kg payload Note 2			0.74 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm^2			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring			0.2 sq × 10 wires			
User tubing (Outer diameter)			ϕ 4 × 4			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			25 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.538.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

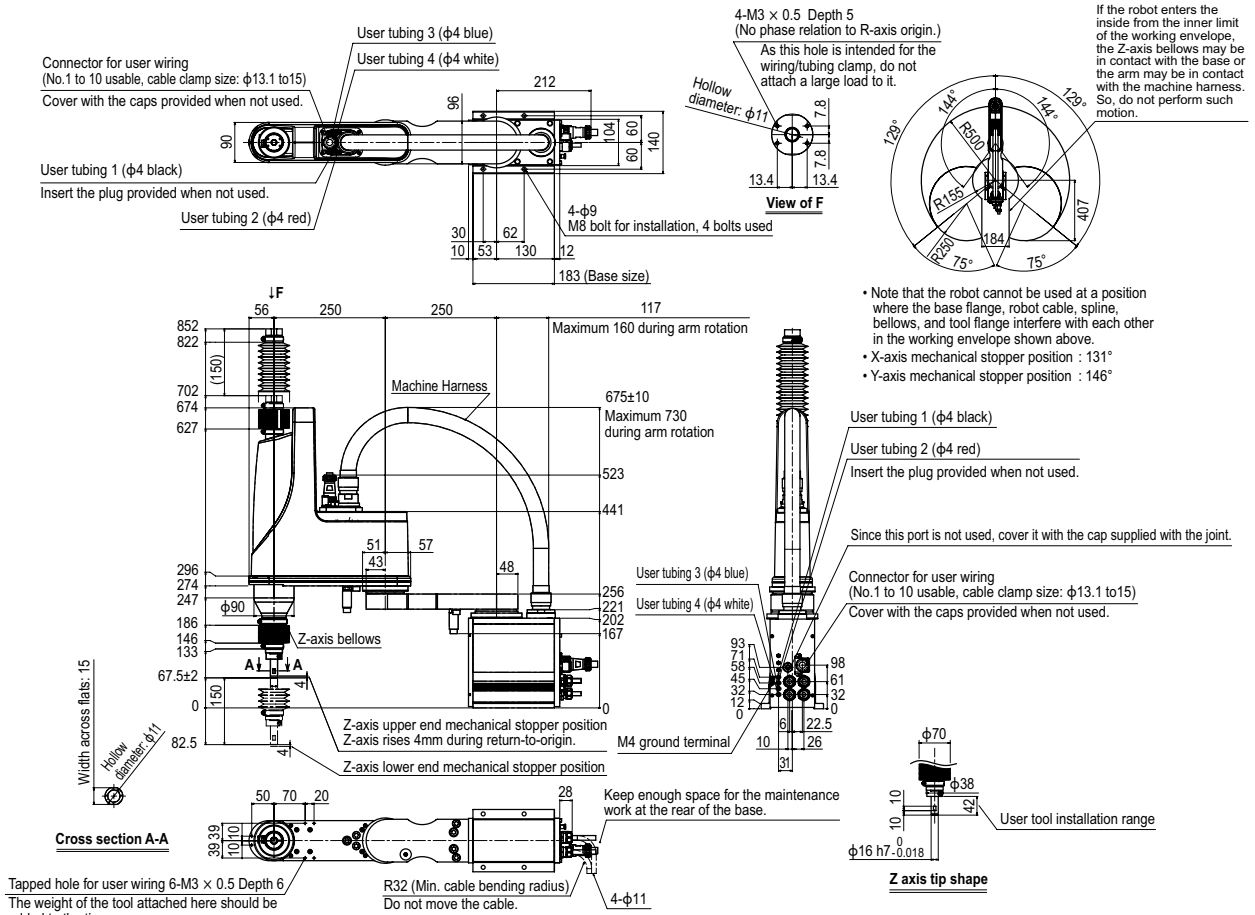
Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

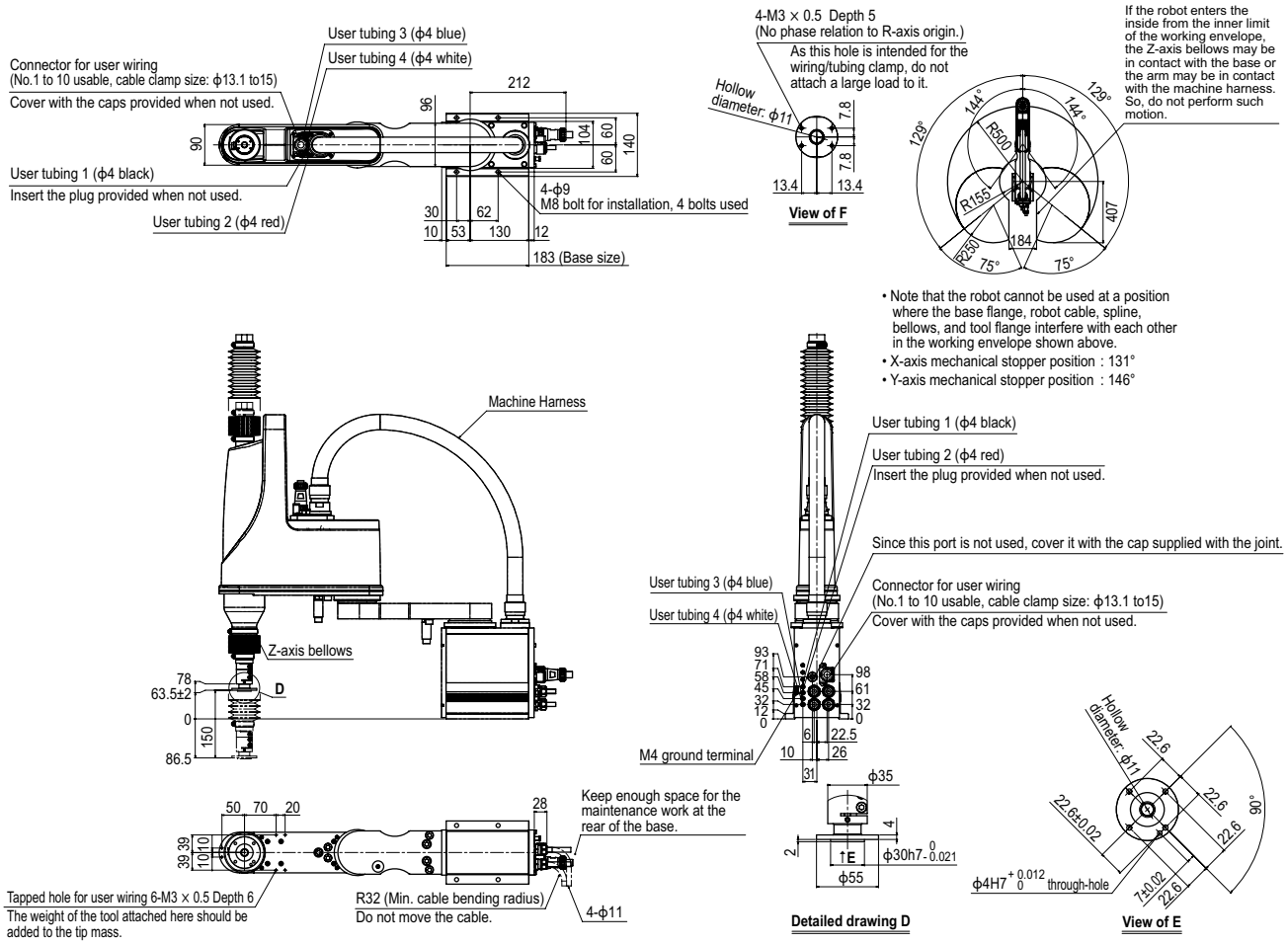
YK500XGLP



Controller RCX340 ▶ 508 RCX240S ▶ 495

YK500XGLP

YK500XGLP Tool flange mount type



YK500XGP

Dust-proof & drip-proof type

- Arm length 500mm
- Maximum payload 8kg

Ordering method

YK500XGP		F		RCX340-4							
Model	Z axis stroke 200: 200mm 300: 300mm	Tool flange F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		200 mm	300 mm	200 mm / 300 mm	–
	Rotation angle		+/-130 °	+/-145 °	–	+/-360 °
AC servo motor output			400 W	200 W	200 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			7.6 m/sec		2.3 m/sec / 1.7 m/sec	1700 °/sec
Maximum payload			8 kg			
Standard cycle time: with 2kg payload Note 2			0.55 sec			
R-axis tolerable moment of inertia Note 3			0.3 kgm^2			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 32 kg Z axis 300 mm: 33 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

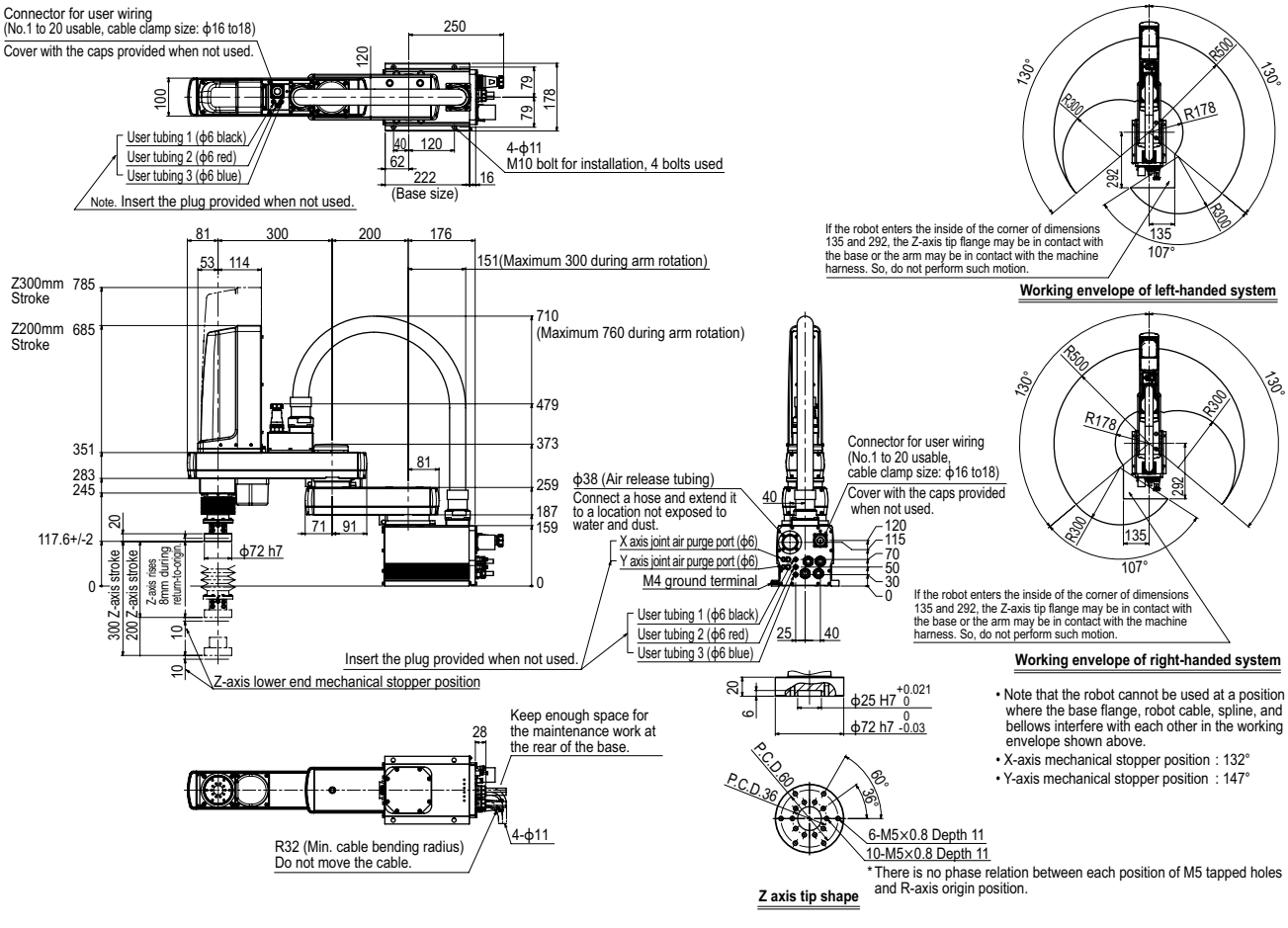
Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

YK500XGP



- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 147°

*There is no phase relation between each position of M5 tapped holes and R-axis origin position.

Controller RCX340 ▶ 508 RCX240 ▶ 495

YK600XGLP

Dust-proof & drip-proof type

- Arm length 600mm
- Maximum payload 4kg

Ordering method

YK600XGLP - 150 - [ ] - S - [ ] - RCX340-4 - [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Model	Z axis stroke	Tool flange	Hollow shaft	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
YK600XGLP	150: 150mm	No entry: None F: With tool flange	S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m	RCX340-4							

Specify various controller setting items. RCX340 ▶ P.508

RCX240S - [ ] - [ ] - [ ] - [ ] - [ ] - BB

Controller	CE Marking	Expansion I/O	Network option	iVY System	Gripper	Battery
RCX240S						BB

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		350 mm	250 mm	150 mm	–
	Rotation angle		+/-129 °	+/-144 °	–	+/-360 °
AC servo motor output			200 W	150 W	50 W	100 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			4.9 m/sec		1.1 m/sec	1020 °/sec
Maximum payload			4 kg			
Standard cycle time: with 2kg payload Note 2			0.74 sec			
R-axis tolerable moment of inertia Note 3			0.05 kgm^2			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring (sq × wires)			0.2 × 10			
User tubing (Outer diameter)			ϕ 4 × 4			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			26 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.538.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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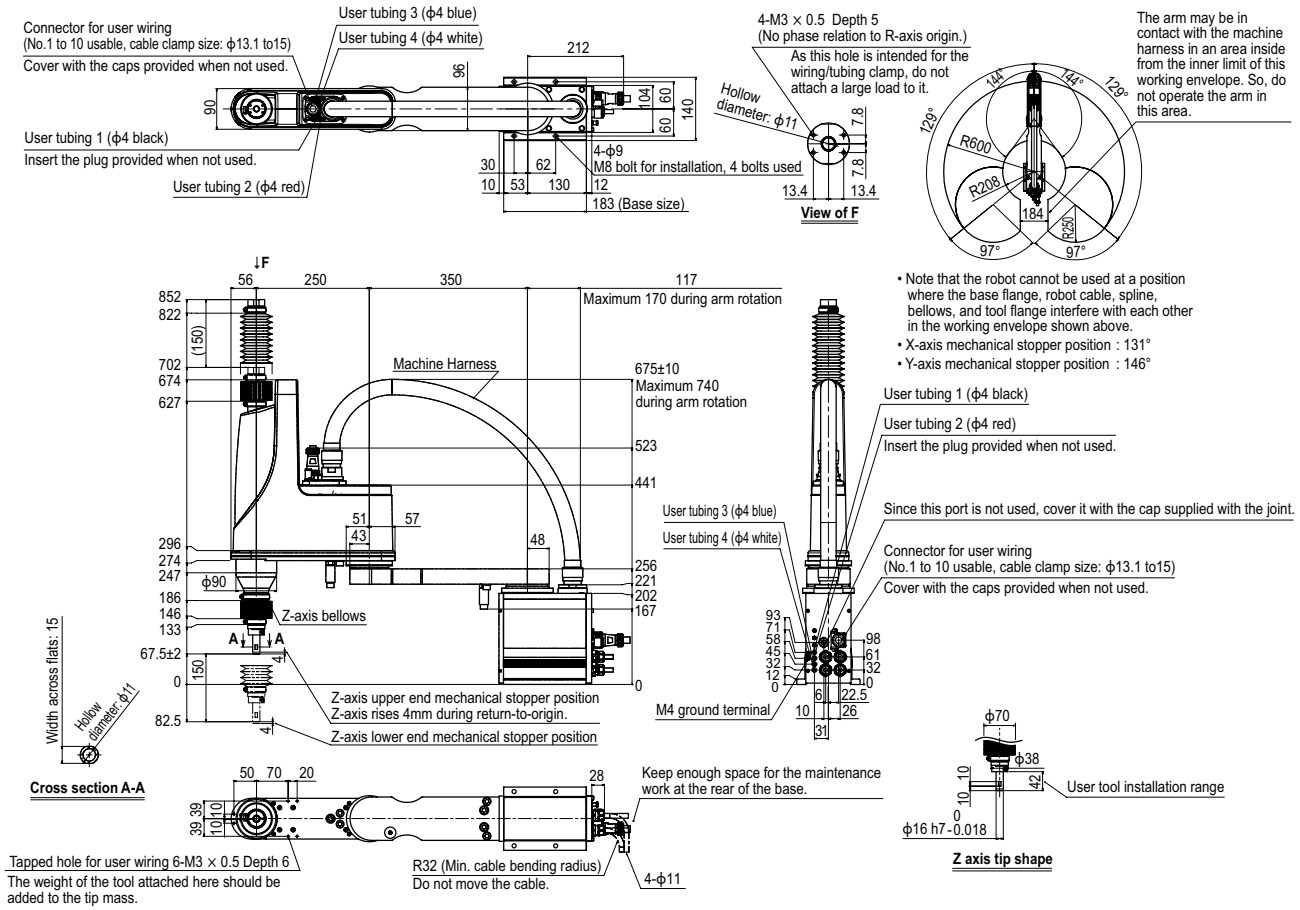
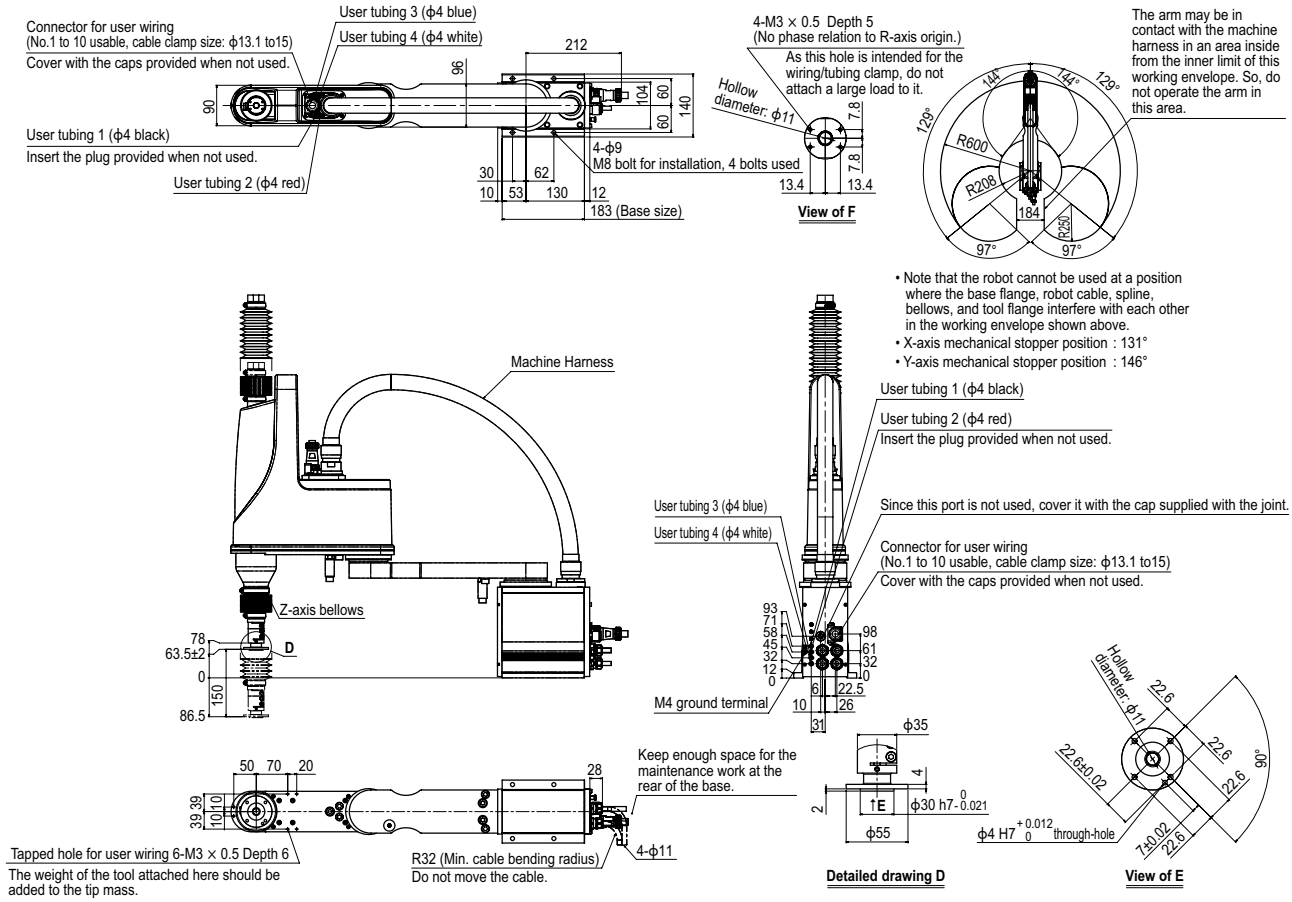
YK600XGLP



YK600XGLP Tool flange mount type



YK600XGP

Dust-proof & drip-proof type

Arm length 600mm **Maximum payload 8kg**

Ordering method

YK600XGP		F		RCX340-4							
Model	Z axis stroke 200: 200mm 300: 300mm	Tool flange F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerativze unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		300 mm	300 mm	200 mm / 300 mm	–
	Rotation angle		+/-130 °	+/-145 °	–	+/-360 °
AC servo motor output			400 W	200 W	200 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.01 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			8.4 m/sec		2.3 m/sec / 1.7 m/sec	1700 °/sec
Maximum payload			8 kg			
Standard cycle time: with 2kg payload Note 2			0.56 sec			
R-axis tolerable moment of inertia Note 3			0.3 kgm²			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring (sq × wires)			0.2 × 20			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 33 kg Z axis 300 mm: 34 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

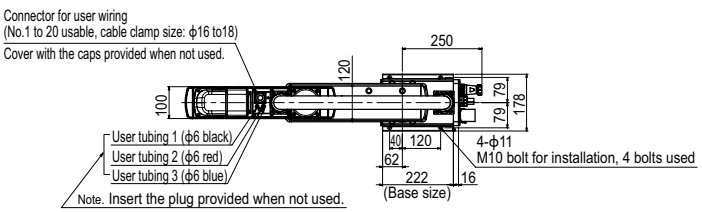
Controller

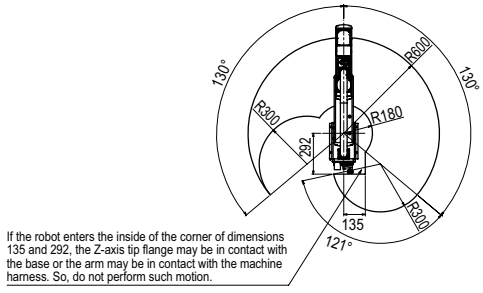
Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

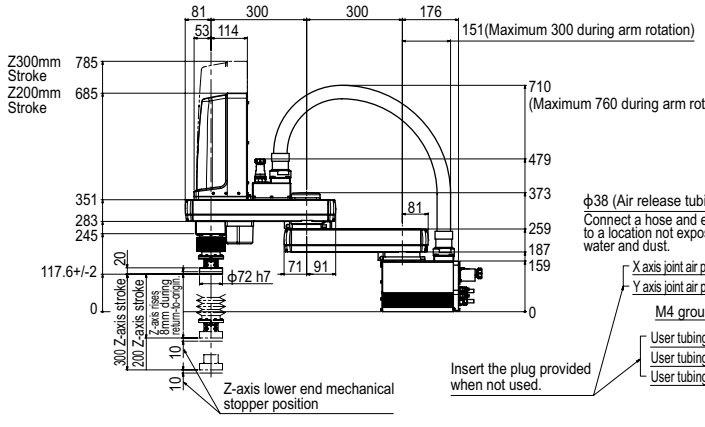
YK600XGP

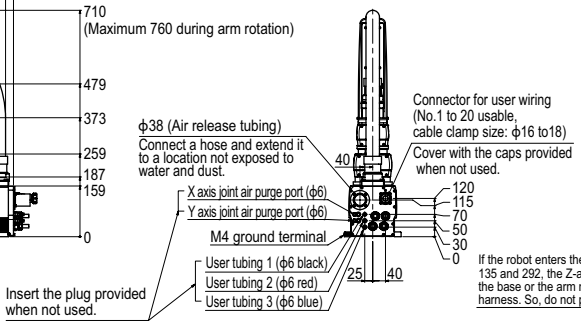


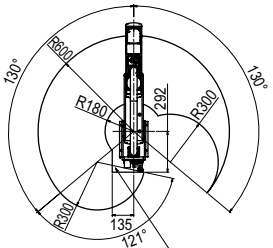


If the robot enters the inside of the corner of dimensions 135 and 292, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

Working envelope of left-handed system

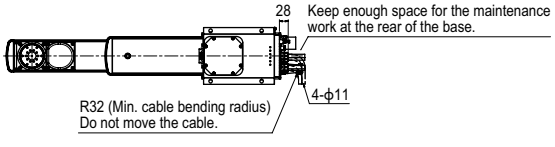


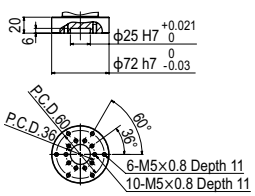




If the robot enters the inside of the corner of dimensions 135 and 292, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

Working envelope of right-handed system





* There is no phase relation between each position of M5 tapped holes and R-axis origin position.

Z axis tip shape

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 147°

YK600XGHP

Dust-proof & drip-proof type

- Arm length 600mm
- Maximum payload 18kg

Ordering method

YK600XGHP		F		RCX340-4							
Model	Z axis stroke 200: 200mm 400: 400mm	Tool flange F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regeneratizve unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		200 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			7.7 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec
Maximum payload			18 kg			
Standard cycle time: with 2kg payload Note 2			0.57 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm^2			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring (sq × wires)			0.2 × 20			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 52 kg Z axis 400 mm: 54 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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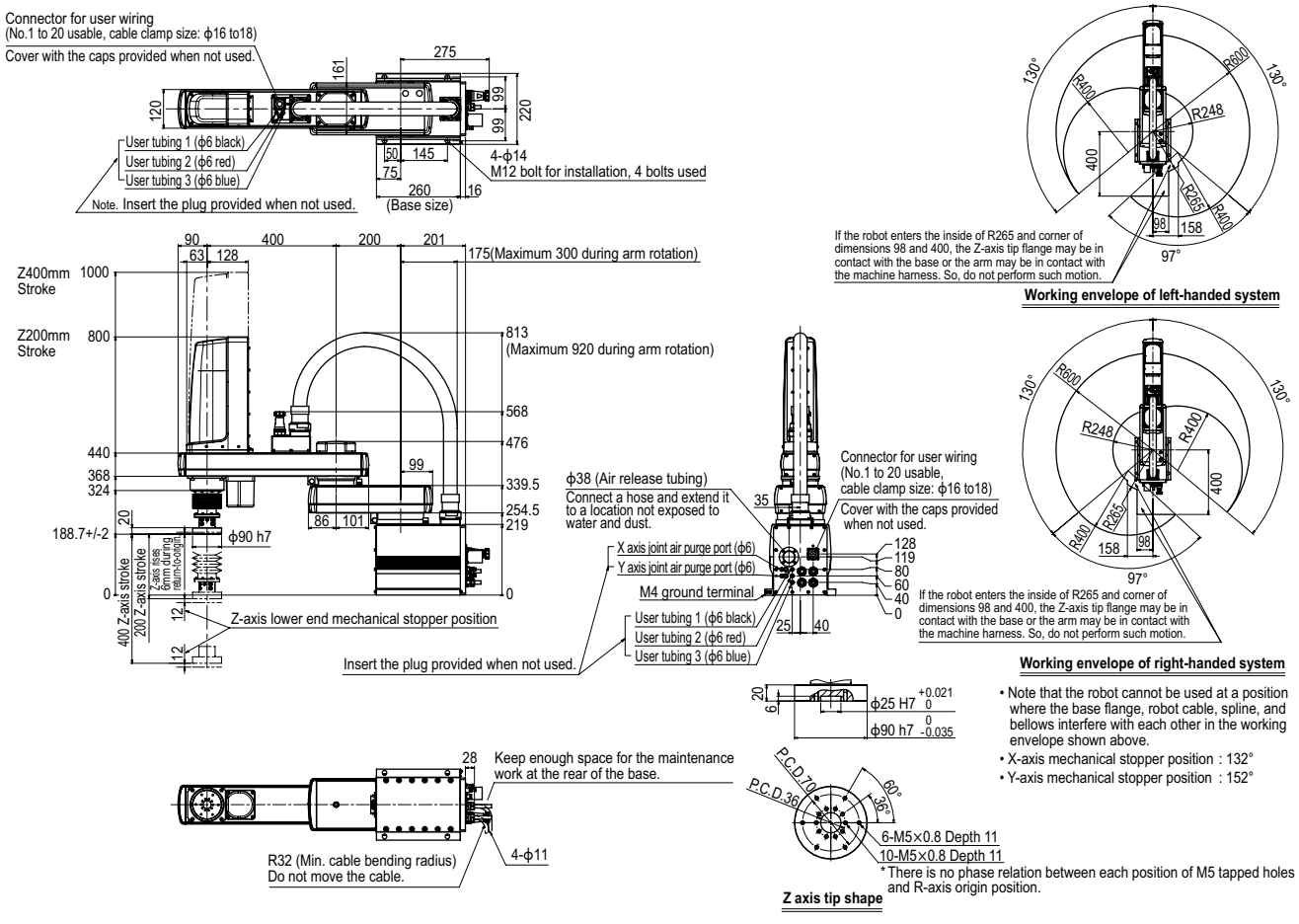
http://global.yamaha-motor.com/business/robot/

YK600XGHP



YK700XGP

Dust-proof & drip-proof type

- Arm length 700mm
- Maximum payload 18kg

Ordering method

YK700XGP		F		RCX340-4							
Model	Z axis stroke 200: 200mm 400: 400mm	Tool flange F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerativze unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		300 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			8.4 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec
Maximum payload			18 kg			
Standard cycle time: with 2kg payload Note 2			0.52 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm²			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			φ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 54 kg Z axis 400 mm: 56 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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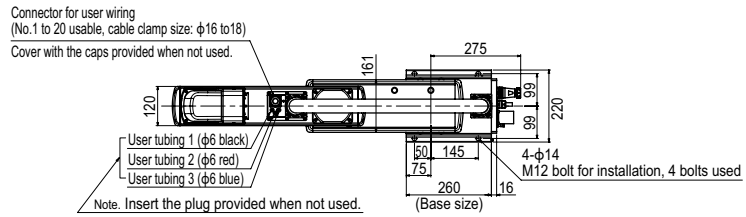
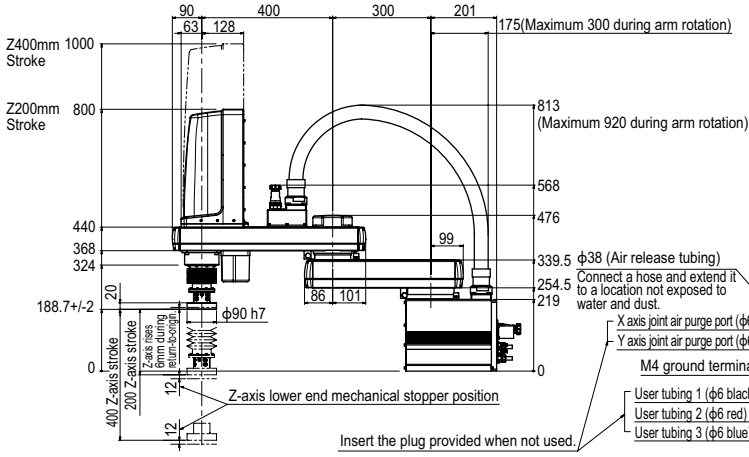
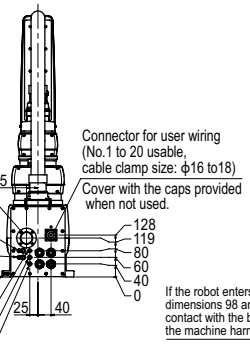
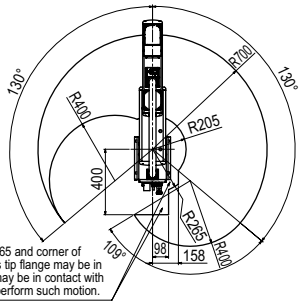
YK700XGP



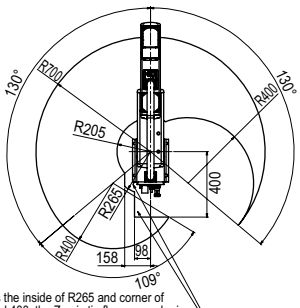






If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

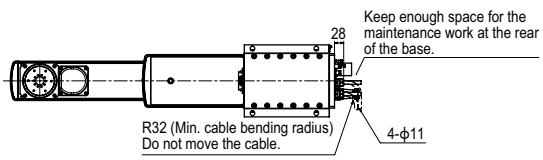
Working envelope of left-handed system

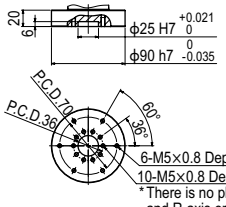


If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

Working envelope of right-handed system

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 152°





* There is no phase relation between each position of M5 tapped holes and R-axis origin position.

Z axis tip shape

YK800XGP

Dust-proof & drip-proof type

- Arm length 800mm
- Maximum payload 18kg

Ordering method

YK800XGP		F		RCX340-4							
Model	Z axis stroke 200: 200mm 400: 400mm	Tool flange F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		400 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			9.2 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec
Maximum payload			18 kg			
Standard cycle time: with 2kg payload Note 2			0.58 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm^2			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring			0.2 sq × 20 wires			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 56 kg Z axis 400 mm: 58 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

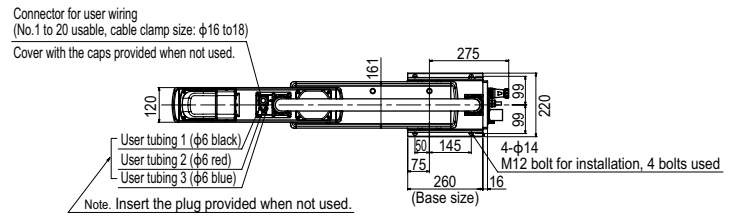
Controller

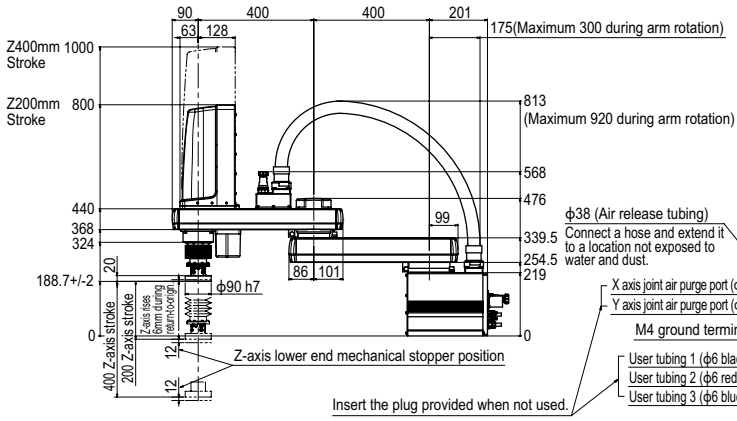
Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

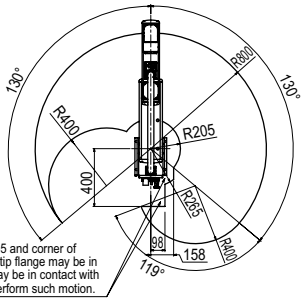
Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

YK800XGP

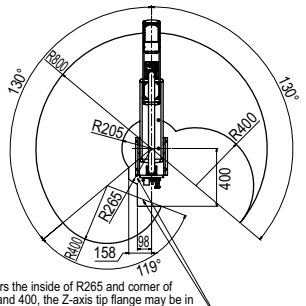




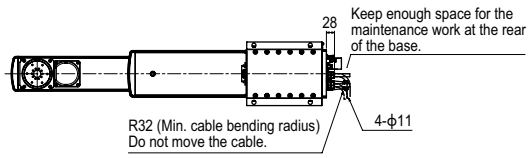


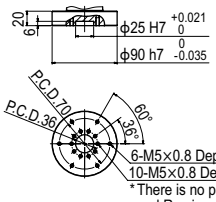
If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

Working envelope of left-handed system



If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.





* There is no phase relation between each position of M5 tapped holes and R-axis origin position.

Z axis tip shape

Working envelope of right-handed system

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 152°

Controller RCX340 ▶ 508 RCX240 ▶ 495

YK900XGP

Dust-proof & drip-proof type

Arm length 900mm **Maximum payload 18kg**

Ordering method

YK900XGP		F		RCX340-4							
Model	Z axis stroke 200: 200mm 400: 400mm	Tool flange F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regenerative unit	Expansion I/O	Network option	iVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		500 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			9.9 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec
Maximum payload			18 kg			
Standard cycle time: with 2kg payload Note 2			0.59 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm²			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring (sq × wires)			0.2 × 20			
User tubing (Outer diameter)			φ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 58 kg Z axis 400 mm: 60 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

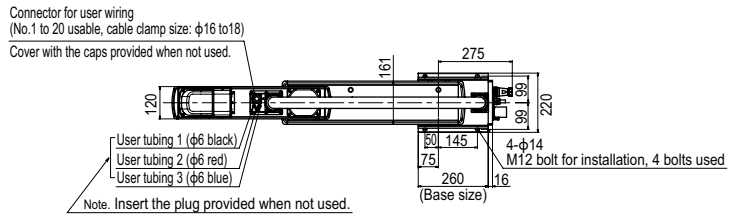
Controller

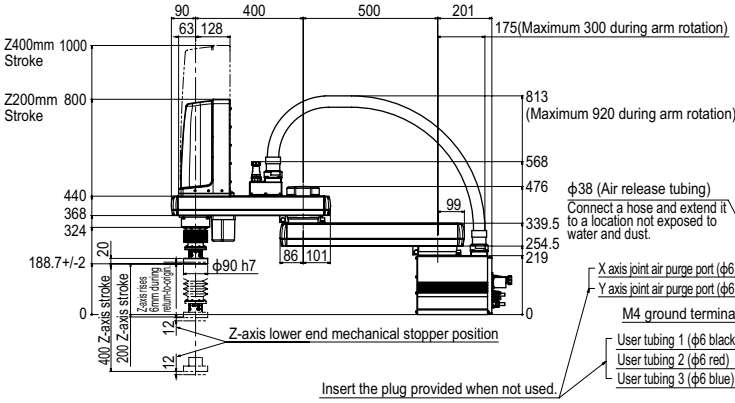
Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

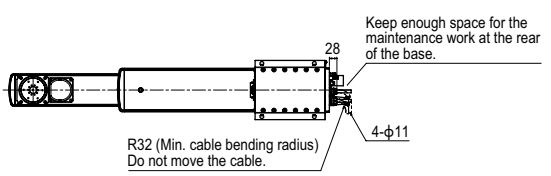
Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

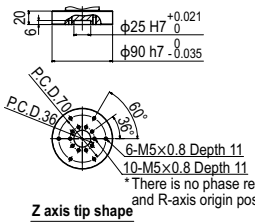
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
http://global.yamaha-motor.com/business/robot/

YK900XGP



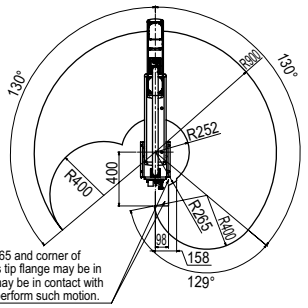






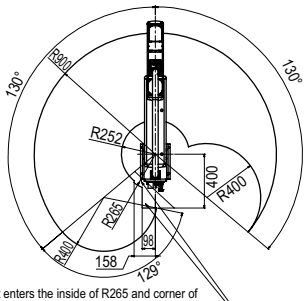
* There is no phase relation between each position of M5 tapped holes and R-axis origin position.

Z axis tip shape



If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

Working envelope of left-handed system



If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

Working envelope of right-handed system

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 152°

YK1000XGP

Dust-proof & drip-proof type

- Arm length 1000mm
- Maximum payload 18kg

Ordering method

YK1000XGP		F		RCX340-4							
Model	Z axis stroke 200: 200mm 400: 400mm	Tool flange F: With tool flange	Cable 3L: 3.5m 5L: 5m 10L: 10m	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery

Specify various controller setting items. RCX340 ▶ P.508

RCX240		R3					BB
Controller	CE Marking	Regeneratizve unit	Expansion I/O	Network option	IVY System	Gripper	Battery

Specify various controller setting items. RCX240/RCX240S ▶ P.495

Specifications

			X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length		600 mm	400 mm	200 mm / 400 mm	–
	Rotation angle		+/-130 °	+/-150 °	–	+/-360 °
AC servo motor output			750 W	400 W	400 W	200 W
Deceleration mechanism	Speed reducer		Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Motor to speed reducer	Direct-coupled			
		Speed reducer to output	Direct-coupled			
Repeatability Note 1			+/-0.02 mm		+/-0.01 mm	+/-0.004 °
Maximum speed			10.6 m/sec		2.3 m/sec / 1.7 m/sec	920 °/sec
Maximum payload			18 kg			
Standard cycle time: with 2kg payload Note 2			0.59 sec			
R-axis tolerable moment of inertia Note 3			1.0 kgm^2			
Protection class Note 4			Equivalent to IP65 (IEC 60529)			
User wiring (sq × wires)			0.2 × 20			
User tubing (Outer diameter)			ϕ 6 × 3			
Travel limit			1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length			Standard: 3.5 m Option: 5 m, 10 m			
Weight			Z axis 200 mm: 60 kg Z axis 400 mm: 62 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
Note 3. There are limits to acceleration coefficient settings. See P.539.
Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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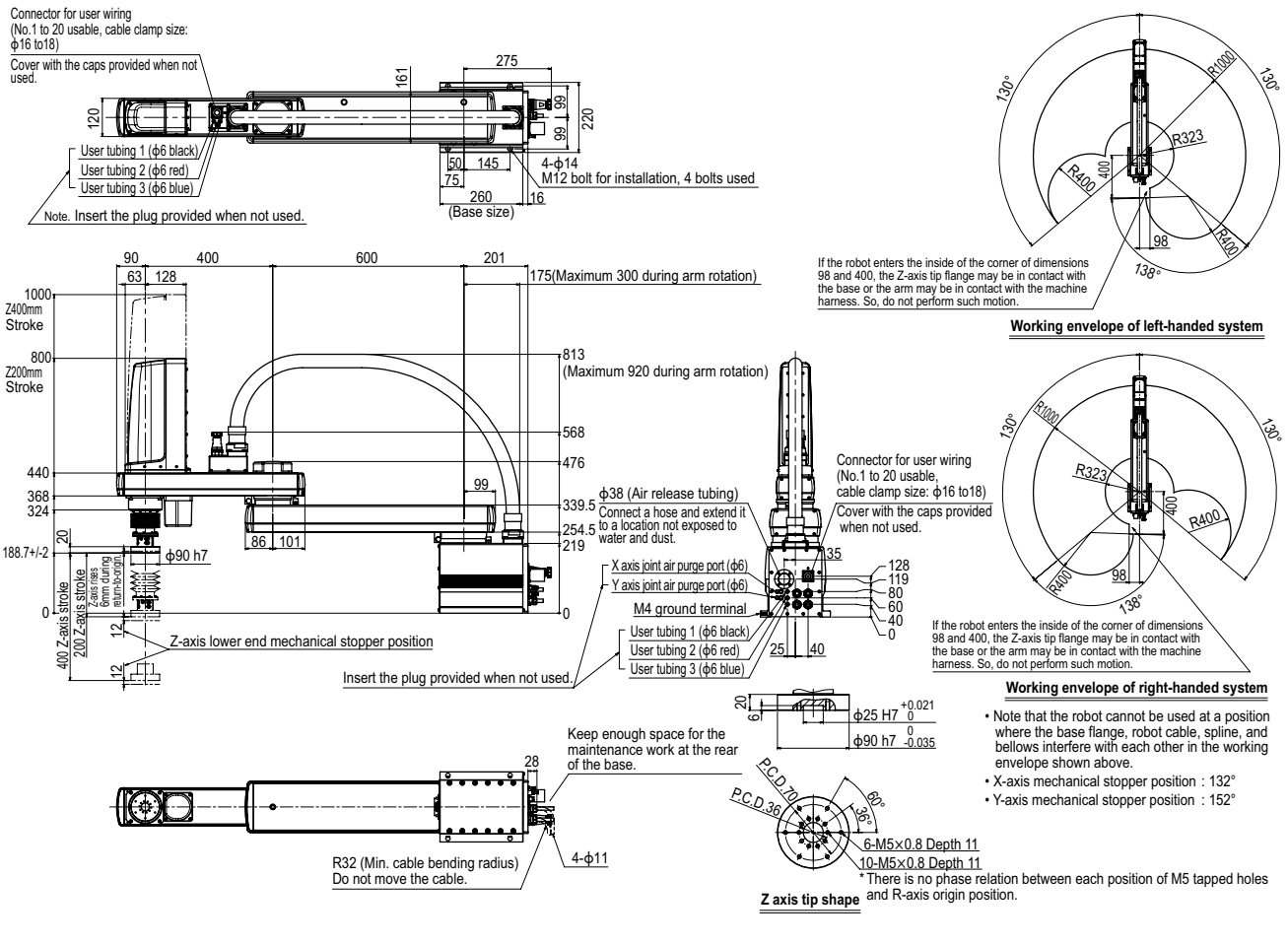
YK1000XGP



- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 152°

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