

# YK700XGP

Dust-proof & drip-proof type



- Arm length 700mm
- Maximum payload 18kg

## Ordering method

**YK700XGP** **F** **RCX340-4**

Model      Z axis stroke      Tool flange      Cable

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.494**

**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.481**

## 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	Direct-coupled			
	Motor to speed reducer Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>		+/-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 <sup>Note 2</sup>		0.52 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		1.0 kgm <sup>2</sup>			
Protection class <sup>Note 4</sup>		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			

## Controller

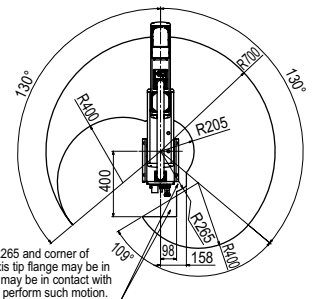
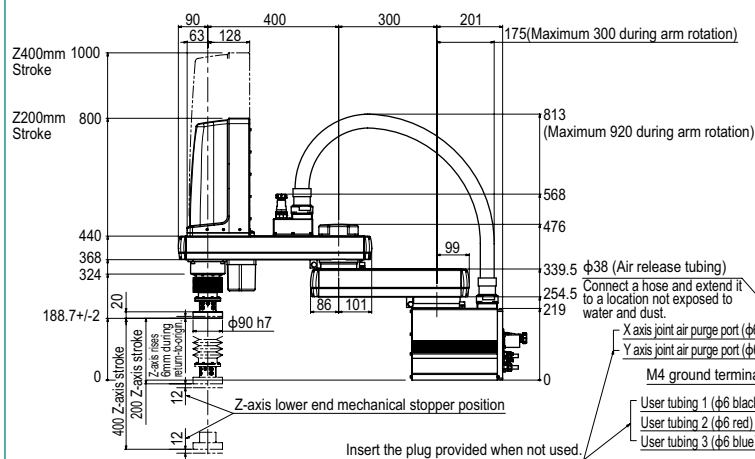
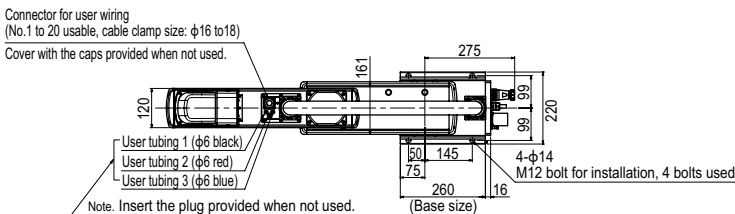
Controller	Power capacity (VA)	Operation method
RCX340 RCX240-R3	2500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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/>

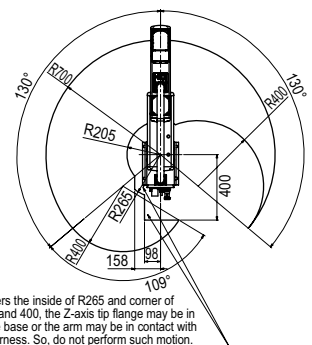
Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
 Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).  
 Note 3. There are limits to acceleration coefficient settings. See P.525.  
 Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

## YK700XGP



If the robot enters the inside of R265 and corner of dimensions 90 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.

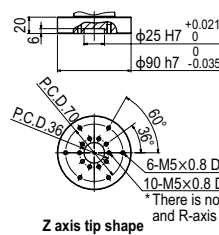
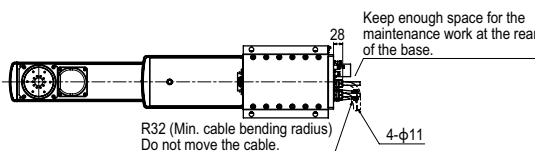
Working envelope of left-handed system



If the robot enters the inside of R265 and corner of dimensions 90 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°



Z axis tip shape