Kawasaki Robot
F60 Controller

1) Industry's Most Compact, Lightweight Design

Component integration and size and weight reductions, as well as component layout optimization, have resulted in an approximate 77% reduction in size and 72% reduction in weight for a much more compact overall design. This enables installation in 19-inch racks, stacked installation and other such arrangements, greatly reducing the space required for controller installation. Furthermore, the low 8.3 kg weight makes it easier for a single employee to carry the unit around. (The above figures are comparisons between the new F60 and the previous E7X series of controllers.)

2) Energy Savings

Regenerative energy produced via robot operations is reused to cut down on energy loss, and redesign of components and control reduce electricity consumption by the control circuit. These improvements and others result in a total energy reduction of approx. 10%[1] and contribute toward greater overall energy savings and lower CO_2 emissions.

[1] : in our standard motion pattern using the RS010N robot

3) Universal Support

Formerly, there were different controller specifications to support the respective standards of Japan/Asia, Europe, and the U.S. Now, functional safety technology has been employed to adopt a common safety circuit. The new controllers have common global specifications that support the standards of every country.
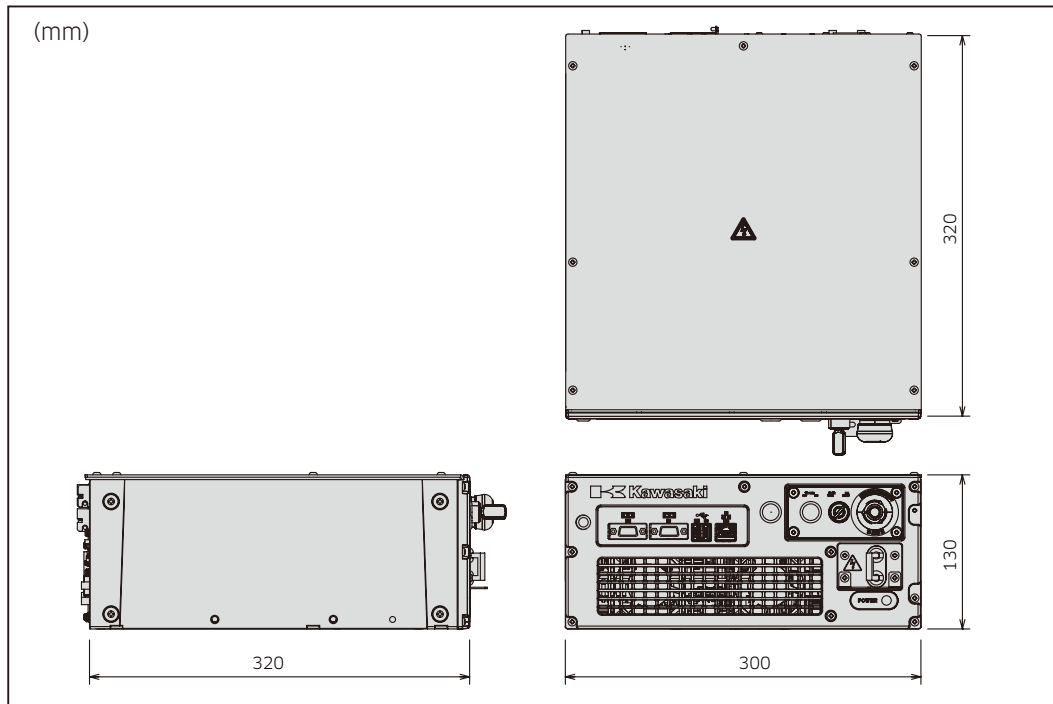
4) Excellent Extensibility

• The optional Bluetooth interface enables connection using tablets without the need for additional settings/customization
• Possible to connect to a maximum of four 32-channel I/O units for remote I/O
• Possible to include external motor control amplifiers for up to two axes and Cubic-S safety monitoring function[2] inside the compact cabinet

[2] : The cabinet will be partially expanded for Cubic-S.

Dimensions

(mm)

320

130

320

300

Specifications

		F60	Option
Dimensions (mm)		W300 x D320 x H130	
Structure		Open structure with direct cooling system	
Number of controlled axes		6	8
Type of driving		Full digital servo system	
Types of motion control	Manual mode	Joint, Base, Tool	Fixed tool point
	Teach mode	–	joint, linear and circular interpolated motions
Teaching method		point to point teaching or language based programming	
Memory capacity (MB)		16	
I/O signals	External signal	E- stop, Hold etc.	
	Input	16	Addition: 64 (max 80) Including remote I/O: 128 (max. 144)
	Output	16	Addition: 64 (max 80) Including remote I/O: 128 (max. 144)
Operation panel		Teach/Repeat switch, E-stop switch	
Cable length (m)	Robot-controller	Harness between robot & controller 5	10, 15
	Teach pendant	Teach pendant cable 5	10, 15
Mass (kg)		8.3 *	
Power requirements		AC200-230V ±10%, 50/60Hz, 1Ø	
		Class D earth connection (Earth connection dedicated to robots)	
Environmental conditions	Ambient temperature (°C)	0 – 45	
	Relative humidity (%)	35 – 85 (no condensation)	
Teach pendant		TFT Color LCD with touch panel, emergency stop switch, teach lock switch and enable switch	
Color		Munsell 5Y8.5/1 equivalent	
External interface		USB 2.0 x3 ports, RS-232C x2 ports, Ethernet (1000BASE-T/100BASE-TX/10BASE-T) x2 ports	

∗ : Without option
• Please contact Kawasaki about the robot arm types that match the F60 controller and options.

∗ Specifications may change without notice.