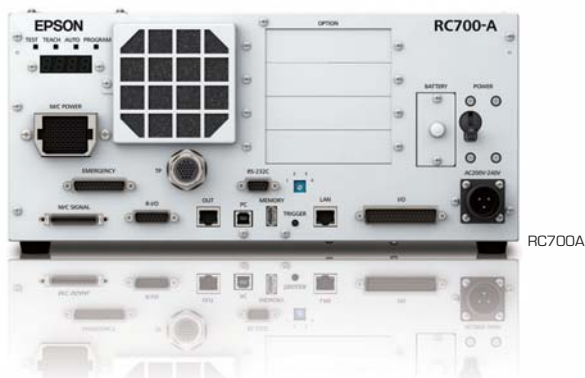Robot controllers
# RC700A/RC620+/RC90

RC700A

RC620+

RC700A

High Performance Workcell Controller

- Industry Leading Ease of Use (Epson RC+ 7.0)
- Windows Based Open Architecture Design
- Works with User Selected PC
- Fully Integrated Options Including: Vision Guidance, .Net Connectivity, EtherNet/IP, DeviceNet, Profibus, Expansion I/O, Conveyor Tracking, Force Sensing, and more
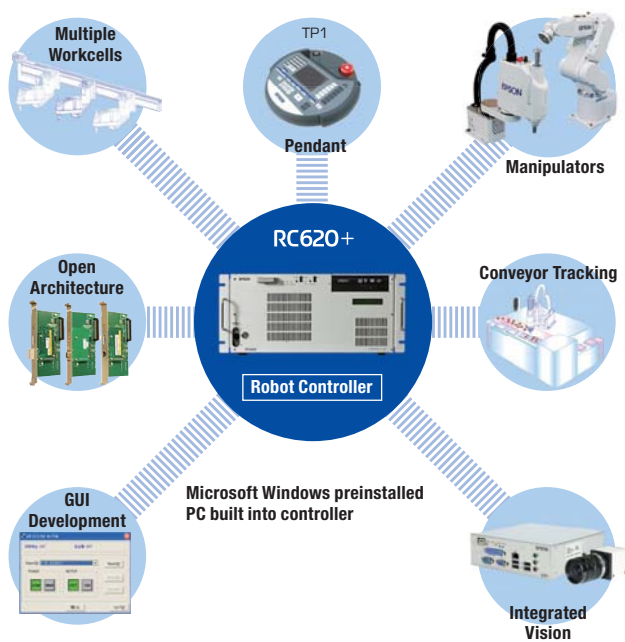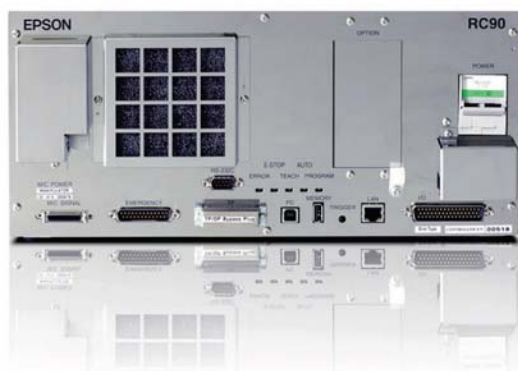
System Capabilities

RC620+

PC-Based Controller

- Industry Leading Ease of Use (Epson RC+ 6.0)
- PC-based Open Architecture Design
- Industry Leading Ease of Use with Epson RC+ Software Fully Integrated Options including: Vision Guidance, .Net Connectivity, EtherNet/IP, DeviceNet, Profibus,
- Expansion I/O, Conveyor Tracking, Force Sensing and more Works with RC+ 6.0
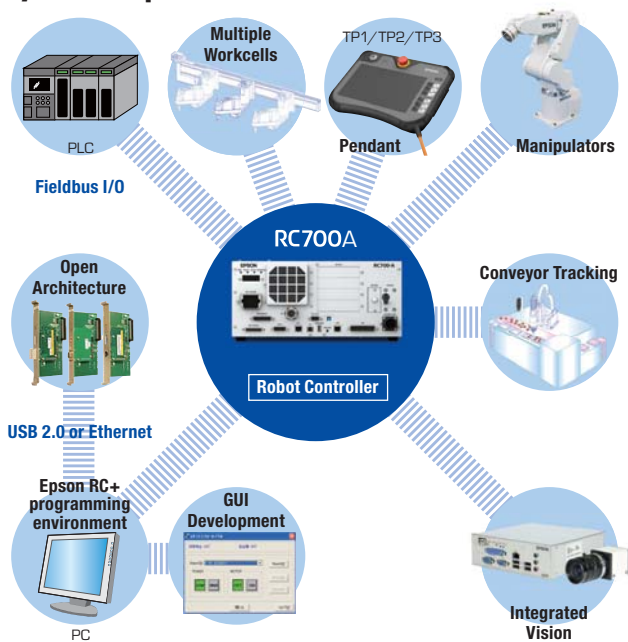
■ RC700A Software/Manipulator Support

Software		Epson RC+ 5.0	—
		Epson RC+ 6.0	—
		Epson RC+ 7.0	•
Manipulators	SCARA Robots	G Series	•
		LS Series	—
		RS Series	•
	6-Axis Robots	N2	•
		C8/C8L/C8XL	•
		C4/C4L	•
		C3	—
		S5/S5L	—

■ RC620+ Software/Manipulator Support

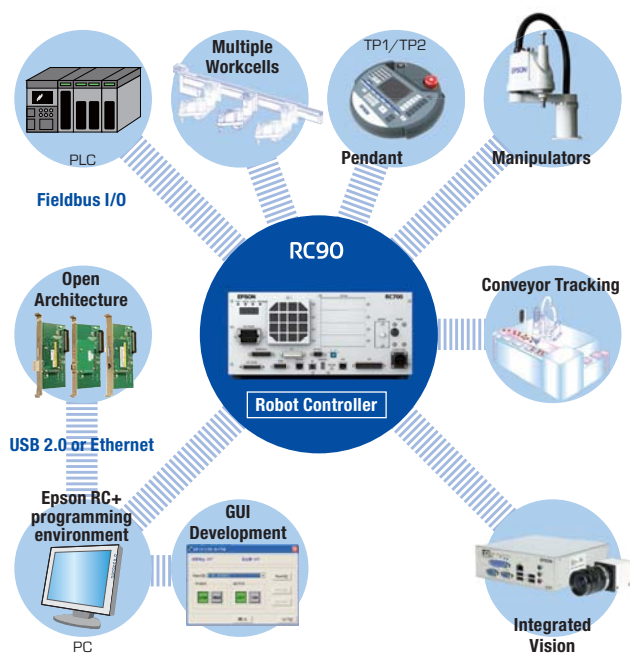| Software | | Epson RC+ 5.0 | — |
		Epson RC+ 6.0	•
		Epson RC+ 7.0	—
Manipulators	SCARA Robots	G Series	•
		LS Series	—
		RS Series	•
	6-Axis Robots	N2	—
		C8/C8L/C8XL	—
		C4/C4L	—
		C3	•
		S5	•

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RC90

RC90

Low-cost and High Performance Controller

- Industry Leading Ease of Use (Epson RC+ 7.0)
- Easy Setup Via USB
- Use as Stand Alone, PLC Slave or with PC
- Wide Variety of Integrated Options
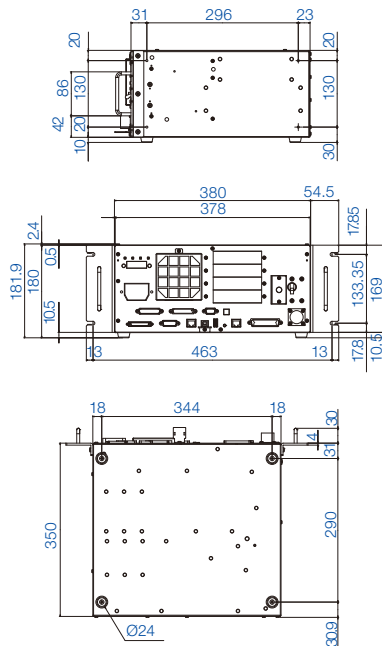- Works with RC+ 5.0 or RC+ 7.0

PLC

Fieldbus I/O

Multiple Workcells

TP1/TP2

Pendant

Manipulators

Open Architecture

RC90

Robot Controller

Conveyor Tracking

USB 2.0 or Ethernet

Epson RC+ programming environment

GUI Development

PC

Integrated Vision

■RC90 Software/Manipulator Support

Software		Epson RC+ 5.0	•
		Epson RC+ 6.0	—
		Epson RC+ 7.0	•
Manipulators	SCARA Robots	G Series	—
		LS Series	•
		RS Series	—
	6-Axis Robots	N2	—
		C8/C8L/C8XL	—
		C4/C4L	—
		C3	—
		S5	—

Outer Dimensions

RC700A

RC620+

Space for Cables

Model		RC700A		RC620+ (UL specification: RC620-UL)	
Robot manipulator control	Programming language and Robot control software	Epson RC+ 7.0 (a multi-tasking robot OS)		Epson RC+ 6.0 (a multi-tasking robot OS)	
	Joint Control	Up to six (6) joints Simultaneous control Software AC servo control		Up to eight (8) joints Simultaneous control Software AC servo control	
	Speed Control	PTP motion: Programmable in the range of 1 to 100% CP motion: Programmable (Actual value to be manually entered.)			
	Acceleration/ deceleration control	PTP motion: Programmable in the range of 1 to 100%; Automatic CP motion: Programmable (Actual value to be manually entered.)			
	Number of Manipulators	4 units		Max. 16 units (up to 20 axes)	
Positioning control		PTP (Point-To-Point) CP (Continuous Path)			
Memory capacity		Maximum Object Size: 8 MB Point data area: 1000 points (per file) Backup variable area: Max. 400 KB (Includes the memory area for the management table.) Approx. 4000 variables (Depends on the size of array variables.)		Maximum Object Size: 8 MB Point data area: 1000 points (per file) Backup variable area: Max. 400 KB (Includes the memory area for the management table.) Approx. 4000 variables (Depends on the size of array variables.)	
External input/output signals (standard)	Standard I/O	Input: 24 Output: 16	Including 8 inputs, 8 outputs with remote function assigned Assignment change allowed	Input: 24 Output: 16	Including 8 inputs, 8 outputs with remote function assigned Assignment change allowed
	Standard I/O Drive Unit	Input: 24 Output: 16	per Drive Unit	Input: 24 Output: 16	per Drive Unit
Communication interface (standard)	Ethernet	1 channel		2 channels	
	RS-232C	1 port		1 port	
Option Boards (Special slot)	I/O	Input: 24 per board Output: 16 per board	Maximum of 4 boards allowed	Input: 32 per board Output: 32 per board	Maximum of 4 boards allowed
	RS-232C	2 channels/board	Maximum of 2 boards allowed	4 channels/board	Maximum of 2 boards allowed
	Fieldbus I/O Slave	1 channel/board PROFINET PROFIBUS-DP DeviceNet CC-Link EtherNet/IP	Maximum of 1 board allowed	1 channel/board PROFINET PROFIBUS-DP DeviceNet CC-Link EtherNet/IP	Maximum of 1 board allowed
	Pulse Generator	4 Axes per Board	Maximum of 4 boards allowed	4 Axes per Board	Maximum of 4 boards allowed
Option Boards (PCI or PCIe slots)	Frame Grabber	—		Standard Frame Grabber Advanced Frame Grabber	Maximum of 2 boards allowed
	Fieldbus I/O master	1ch per board PROFIBUS-DP DeviceNet EtherNet/IP	Maximum of 1 board allowed	1ch per board PROFIBUS-DP DeviceNet EtherNet/IP	Maximum of 1 board allowed
Safety features		Emergency stop switch / Safety door input / Low power mode / Dynamic brake / Encoder cable disconnection error detection / Motor overload detection / Irregular motor torque (out-of-control Manipulator) detection / Motor speed error detection/ Positioning overflow - servo error - detection / Speed overflow - servo error - detection / CPU irregularity detection / Memory check-sum error detection / Overheat detection at the Motor Driver Module / Relay welding detection / Over-voltage detection / AC power supply voltage reduction detection / Temperature error detection / Fan error detection			
Power Source		AC 200 V to AC 240 V Single phase 50/60 Hz			
Weight[1]		11 kg		4 axes spec : 22.5 kg 6 axes spec : 24.5 kg 8 axes spec : 22.5 kg	

1 Weight is inscribed on controller. Exercise caution when lifting; check weight and get additional manpower if needed. Keep fingers and toes clear when moving or repositioning.

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■ Outer Dimensions

RC90
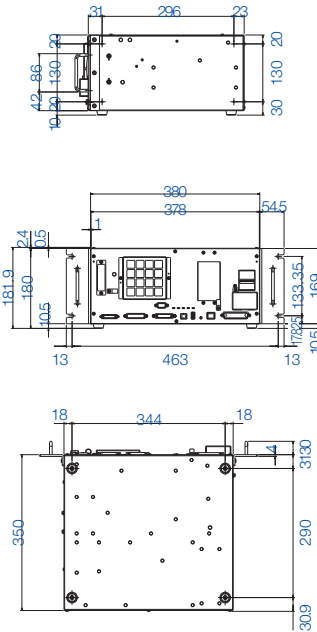
Model		RC180 (UL specification: RC180-UL)		RC90	
Robot manipulator control	Programming language and Robot control software	Epson RC+ 5.0 (a multi-tasking robot OS)		Epson RC+ 5.0 (a multi-tasking robot OS) Ver. 5.4.1 or later is recommended Epson RC+ 7.0 (a multi-tasking robot OS)	
	Joint Control	Up to six (6) joints simultaneous control Software AC servo control		Up to four (4) joints simultaneous control Software AC servo control	
	Speed Control	PTP motion: Programmable in the range of 1 to 100% CP motion: Programmable (Actual value to be manually entered.)			
	Acceleration/ deceleration control	PTP motion: Programmable in the range of 1 to 100%; Automatic CP motion: Programmable (Actual value to be manually entered.)			
	Number of Manipulators	1 unit (up to 6 axes)		1 unit (up to 4 axes)	
Positioning control		PTP (Point-To-Point) CP (Continuous Path)			
Memory capacity		Maximum Object Size: 4 MB Point data area: 1000 points (per file) Backup variable area: Max. 100 KB (Includes the memory area for the management table.) Approx. 1000 variables (Depends on the size of array variables.)		Maximum Object Size: 8 MB Point data area: 1000 points (per file) Backup variable area: Max. 400 KB (Includes the memory area for the management table.) Approx. 4000 variables (Depends on the size of array variables.)	
External input/output signals (standard)	Standard I/O	Input: 24 Output: 16	Including 8 inputs, 8 outputs with remote function assigned Assignment change allowed	Input: 24 Output: 16	Including 8 inputs, 8 outputs with remote function assigned Assignment change allowed
	Standard I/O Drive Unit	—			
Communication interface (standard)	Ethernet	1 channel		1 channel	
	RS-232C	—		1 port	
Option Boards (Special slot)	I/O	Input: 32 per board Output: 32 per board	Maximum of 4 boards allowed	Input: 24 per board Output: 16 per board	Maximum of 2 boards allowed
	RS-232C	4 channel/board	Maximum of 2 boards allowed	2 channel/board	Maximum of 2 boards allowed
	Fieldbus I/O Slave	1 channel/board PROFINET PROFIBUS-DP DeviceNet CC-Link EtherNet/IP	Maximum of 1 board allowed	1 channel/board PROFINET PROFIBUS-DP DeviceNet CC-Link EtherNet/IP	Maximum of 1 board allowed
	Pulse Generator	—		4 Axes per Board	Maximum of 2 boards allowed
Option Boards (PCI or PCIe slots)	Frame Grabber	—			
	Fieldbus I/O master	—		1ch per board PROFIBUS-DP DeviceNet EtherNet/IP	Maximum of 1 board allowed
Safety features		Emergency stop switch / Safety door input / Low power mode / Dynamic brake / Encoder cable disconnection error detection / Motor overload detection / Irregular motor torque (out-of-control Manipulator) detection / Motor speed error detection/ Positioning overflow - servo error - detection / Speed overflow - servo error - detection / CPU irregularity detection / Memory check-sum error detection / Overheat detection at the Motor Driver Module / Relay welding detection / Over-voltage detection / AC power supply voltage reduction detection / Temperature error detection / Fan error detection			
Power Source		AC 200 V to AC 240 V Single phase 50/60 Hz			
Weight[1]		For SCARA robot[2]: 9.0 kg (Base unit without option) For Six-axis robot: 10.5 kg (Base unit + ProSix Driver Unit) Option unit: 1.0 kg (Incase of installing 2 option boards)		7.5 kg	

1 Weight is inscribed on controller. Exercise caution when lifting; check weight and get additional manpower if needed. Keep fingers and toes clear when moving or repositioning.
2 Including RS series.