

■ Ordering Information

Product name	Specifications				Current consumption (A)		Model	Standards
	I/O capacity/Mountable Units (Expansion Racks)	Program capacity	Data memory capacity	LD instruction execution speed	5 V	24 V		
CJ1-H-R CPU Units	2,560 points/40 Units max. (3 Expansion Racks max.)	250K steps	448K words DM: 32K words EM: 32K words x 13 banks	0.016 μs	0.99 (See note.)	—	CJ1H-CPU67H-R ^{<i>NEW</i>}	UC1, CE, N, L
		120K steps	256K words DM: 32K words EM: 32K words x 7 banks		0.99 (See note.)	—	CJ1H-CPU66H-R ^{<i>NEW</i>}	
		60K steps	128K words DM: 32K words EM: 32K words x 3 banks		0.99 (See note.)	—	CJ1H-CPU65H-R ^{<i>NEW</i>}	
		30K steps	64K words DM: 32K words EM: 32K words x 1 bank		0.99 (See note.)	—	CJ1H-CPU64H-R ^{<i>NEW</i>}	

Note: Current consumptions include current for a Programming Console. Add 0.15 A per Adapter when using NT-AL001 RS-232C/RS-232A Adapters. Add 0.04 A per Converter when using CJ1W-CIF11 RS-422A Converters.

● **International Standards:**

- The standards indicated in the "Standards" column are those current for UL, CSA, cULus, cUL, NK, and Lloyd standards and EC Directives as of the end of March 2007. The standards are abbreviated as follows: U: UL; U1: UL (Class I Division 2 Product for Hazardous Locations), C: CSA, UC: cULus, UC1: cULus (Class I Division 2 Product for Hazardous Locations), CU: cUL, N: NK, L: Lloyd, CE: EC Directives.

Warranty and Limitations of Liability

WARRANTY

OMRON's exclusive warranty is that the products are free from defects in materials and workmanship for a period of one year (or other period if specified) from date of sale by OMRON.

OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, REGARDING NON-INFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR PARTICULAR PURPOSES OF THE PRODUCTS. ANY BUYER OR USER ACKNOWLEDGES THAT THE BUYER OR USER ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE. OMRON DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED.

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In no event shall the responsibility of OMRON for any act exceed the individual price of the product on which liability is asserted.

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This catalog mainly provides information that is necessary for selecting suitable models, and does not contain precautions for correct use. Always read the precautions and other required information provided in product operation manuals before using the product.

- The application examples provided in this catalog are for reference only. Check functions and safety of the equipment before use.
- Never use the products for any application requiring special safety requirements, such as nuclear energy control systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, or other application involving serious risk to life or property, without ensuring that the system as a whole has been designed to address the risks, and that the OMRON products are properly rated and installed for the intended use within the overall equipment or system.

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Note: Do not use this document to operate the Unit.

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Note: Specifications subject to change without notice.

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New!

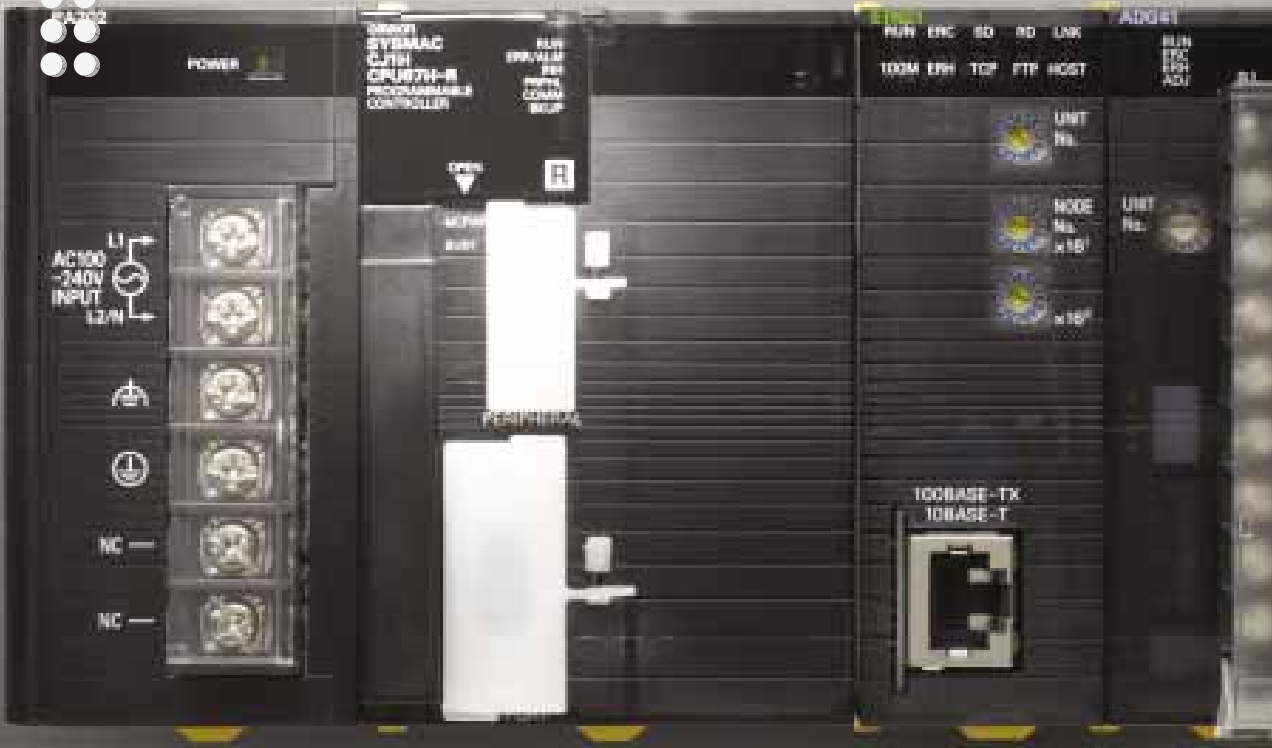
OMRON

Programmable Controllers

SYSMAC CJ I

CJ1H-CPU6□H-R High-speed CPU Units

New Flagship "R" CPU Units: Faster Than Ever



realizing

These Amazingly Fast Controllers Take High-speed Control into the Microsecond Realm

Nothing But Speed

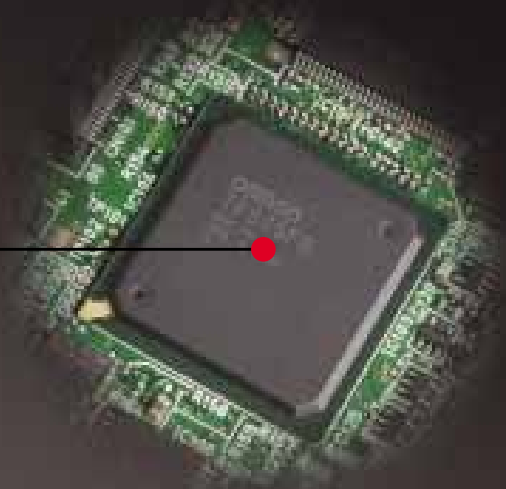
Greater speed has been achieved for essentially all processes that affect the cycle time of the CJ1-H-R. The result is a cycle time below 1 ms, representing the fastest class of controller in the industry.

Outstanding Control Performance

Scan time	870 μ s for 30K steps
PC MIX	17.7
Basic instructions	LD: 16 ns, OUT: 16 ns
Floating-point instructions	Addition/subtraction: 0.24 μ s, Multiplication: 0.24 μ s
Interrupt response	40 μ s

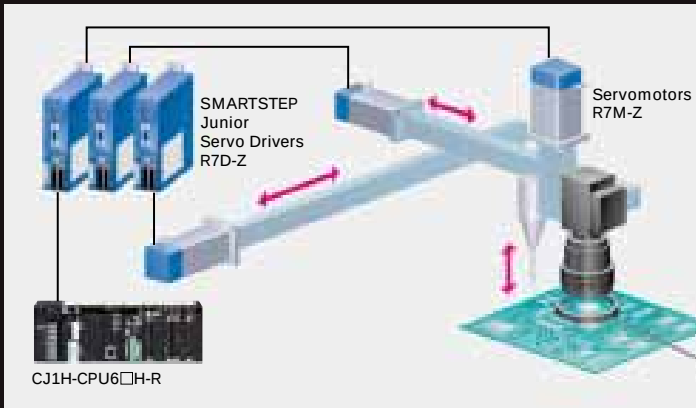
● Conditions 30K steps, 7:3 ratio between basic and special instructions, 128 inputs and 128 outputs

The "R" CPU Units achieve the levels of precision and speed required by today's machines with the highest control performance in the industry.



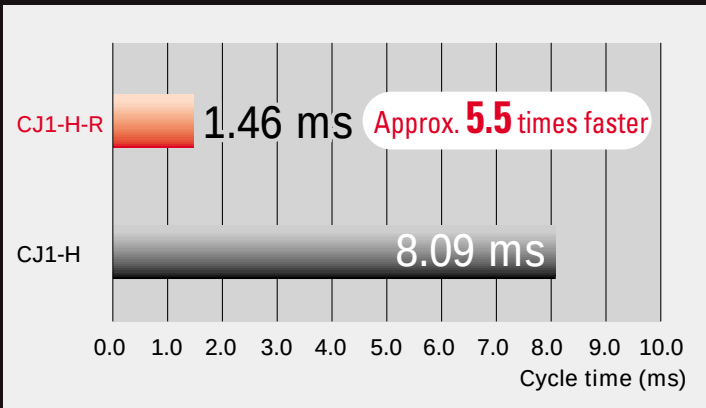
True Speed Evident in Actual Application

Example: Drilling PCBs with High-speed, High-precision Positioning



● Conditions 6:3:1 ratio of basic, special, and floating-point instructions, 30K steps with 128 inputs and 128 outputs, 2 Analog Input Units, and 2 Position Control Units (4 axes)

■ Cycle Time Comparison



Faster in Essentially Every Way

Fast! System Overhead	Overhead processing: 130 μ s Interrupt response: 40 μ s
Fast! Basic Instructions	LD execution: 16 ns OUT execution: 16 ns
Fast! Floating-point Calculations	SIN execution: 0.59 μ s Floating-point addition/subtraction: 0.24 μ s
Fast! I/O Refreshing	16-point Basic I/O Unit: 1.4 μ s 8-point Analog Input Unit: 50 μ s

