

CJ2M-CPU3□/-CPU1□/-MD21□

CSM_CJ2M-CPU3_ -CPU1_ -MD21_DS_E_2_1

Since 2001, CJ1M-series PLCs are in control of a wide variety of applications worldwide.

The accumulated experience and advancements in technology now result in CJ2M; fully compatible, yet fully new.



CJ2M-MD21□



CJ2M-CPU3□



CJ2M-CPU1□

- Increased performance, and increased memory capacity
- Up to 40 I/O unit on any CPU
- Pulse I/O Modules add position control functions to any CPU
- USB for plug-and-play access to the PLC
- All models available with or without Ethernet port
- Choice of serial port plug-in modules

Features


- Five variations in program capacity from 5K steps to 60K steps; scale the CPU to your application needs.
- Faster processors; LD instruction execution time is reduced to 40 ns, floating point trigonometrics in less than 1 μs.
- Optional Pulse I/O Modules can be mounted to enable positioning functions for up to four axes. The module provides high-speed counters, interrupt inputs and pulse train/PWM outputs. (CJ2M CPU Units with Unit Version 2.0 or Later)
- Faster Function Block calls and execution, faster interrupt handling, less overhead time.
- Added execution memory for Function Blocks allows structured, object-oriented programming even in entry-level CPUs.
- General-purpose Ethernet port supports EtherNet/IP tag-based data links, connection to Support Software, communications between PLCs, FTP data transfers, and more (CJ2M-CPU3□).
- Standard USB port on all models allows Support Software to connect directly through standard USB cable.
- A Serial Option Module can be mounted to add RS-232C or RS-422A/485 communications ports (CJ2M-CPU3□).
- Compatible with all existing CJ1 power supply-, I/O-, control- and communication units.

Ordering Information

International Standards

- The standards are abbreviated as follows: U: UL, U1: UL (Class I Division 2 Products for Hazardous Locations), C: CSA, UC: cULus, UC1: cULus (Class I Division 2 Products for Hazardous Locations), CU: cUL, N: NK, L: Lloyd, and CE: EC Directives.
- Contact your OMRON representative for further details and applicable conditions for these standards.

CJ2M CPU Units (Built-in EtherNet/IP)

Product name	Specifications						Current consumption (A)		Model	Standards
	I/O capacity/ Mountable Units (Expansion Racks)	Program capacity	Data memory capacity	LD instruction execution time	EtherNet/IP function	Option board slot	5 V	24 V		
CJ2M (Built-in EtherNet/IP) CPU Units 	2,560 points/ 40 Units (3 Expansion Racks max.)	60K steps	160K words (DM: 32K words, EM: 32K words × 4 banks)	0.04 μs	YES	YES	0.7 (See note.)	–	CJ2M-CPU35	UC1, N, L, CE
		30K steps							CJ2M-CPU34	
		20K steps	64K words (DM: 32K words, EM: 32K words × 1 bank)						CJ2M-CPU33	
		10K steps							CJ2M-CPU32	
		5K steps							CJ2M-CPU31	

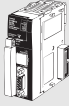
Note: Add 0.005A, 0.030A and 0.075A when using Serial Communications Option Boards (CP1W-CIF01/11/12), respectively.

Add 0.15A/Unit when using NT-AL001 RS-232C/RS-422A Adapters.

Add 0.04A/Unit when using CJ1W-CIF11 RS-422A Adapters.

Add 0.20A/Unit when using NV3W-M□20L Programmable Terminals.

CJ2M CPU Units

Product name	Specifications						Current consumption (A)		Model	Standards
	I/O capacity/ Mountable Units (Expansion Racks)	Program capacity	Data memory capacity	LD instruction execution time	EtherNet/IP function	Option board slot	5 V	24 V		
CJ2M CPU Units 	2,560 points/ 40 Units (3 Expansion Racks max.)	60K steps	160K words (DM: 32K words, EM: 32K words × 4 banks)	0.04 μs	–	–	0.5 (See note.)	–	CJ2M-CPU15	UC1, N, L, CE
		30K steps							CJ2M-CPU14	
		20K steps	64K words (DM: 32K words, EM: 32K words × 1 bank)						CJ2M-CPU13	
		10K steps							CJ2M-CPU12	
		5K steps							CJ2M-CPU11	




Note: Add 0.15A/Unit when using NT-AL001 RS-232C/RS-422A Adapters.

Add 0.04A/Unit when using CJ1W-CIF11 RS-422A Adapters.

Add 0.20A/Unit when using NV3W-M□20L Programmable Terminals.

Serial Communications Option Boards (Only CJ2M-CPU3□)

The serial communications port can be equipped by installing the serial communications option board to the option board slot in front of CPU unit.

Product name	Specifications	Serial communications mode	Current consumption (A)		Model	Standards
			5 V	24 V		
RS-232C Option Board 	One RS-232C port Connector: D-Sub, 9 pin, female Maximum transmission distance: 15m One RS-232C connector (D-Sub, 9 pin, male) is included. (Plug: XM2A-0901, Hood: XM2S-0911-E)	Host Link, 1:N NT Link, No- protocol, Serial PLC Link Slave, Serial PLC Link Master, Serial Gateway converted to CompoWay/F, and Tool Bus *	0.005	–	CP1W-CIF01	UC1, N, L, CE
RS-422A/485 Option Board 	One RS-422A/485 port Terminal block: using ferrules Maximum transmission distance: 50m		0.030	–	CP1W-CIF11	
RS-422A/485 Isolated-type Option Board 	One RS-422A/485 port (Isolated) Terminal block: using ferrules Maximum transmission distance: 500m		0.075	–	CP1W-CIF12	

Note: It is not possible to use a CP-series Ethernet Option Board (CP1W-CIF41), LCD Option Board (CP1W-DAM01) with a CJ2M CPU Unit.

* The following modes cannot be used: 1:1 NT Link, Serial Gateway converted to Host Link FINS, 1:1 Link Master, and 1:1 Link Slave.