



The IT M@chine Controller

Sequence CPU Module

(with network functions)

F3SP66-4S / F3SP67-6S



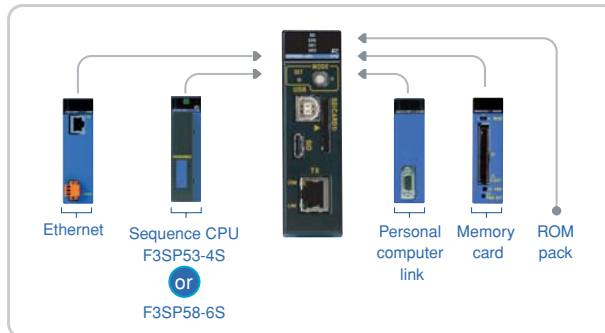
▶ Sequence CPU Module (with network functions)

F3SP66-4S / F3SP67-6S

Let's Network! Integrate Control & Communications! Add information control to high-speed, advanced devices.

The new FA-M3R sequence CPU module comes ready with built-in network functions. Known for leading-edge high-speed control, it now adds fast access and storage of large files. Built-in support of common network protocols addresses diverse network application needs and enables transfer of large files.

All-in-one CPU Module



- 100BASE-TX**
(built-in Ethernet)
- USB port**
(for connecting programming tools)
- Serial port**
(for connecting display or higher-level PC)
- SD card slot**
(for storing data, programs and log files)

▶ Handling of Large Data

▶ Built-in SD Memory Card Slot and RAM Disk

Recipe data and traceability data can be stored in the CPU for large scale operations.

SD Memory Card Slot

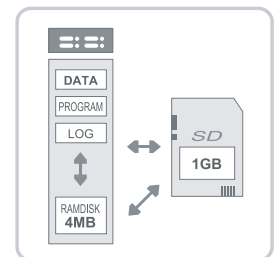
Large Up to 1 GB SD memory cards are supported for storing data, programs and log records as files.

Low cost Off-the-shelf SD memory cards can be used.

Reliable Redundancy of the file control area (FAT) reduces risk of file system damage due to power outage or card removal during writing.

RAM Disk

Fast 4 MB SD memory cards are supported for storing data, programs and log records as files. (volatile memory)



▶ FTP Client and Server Functions

Stored data can be transferred between CPU and host PCs or servers.

FTP Client Function

Autonomous Data is transferred from CPU to host PC or server autonomously with no need for programming on the host PC or server.

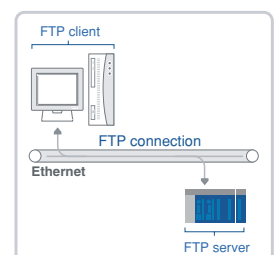
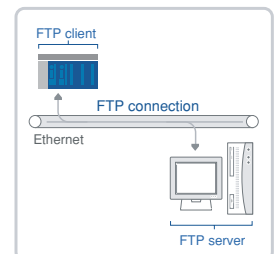
Batch Batch file transfer replaces segmented data transmission.

FTP Server Function

Simple Data can be transferred from CPU to higher-level PC by simply specifying parameters using the standard FTP command interface.

Batch Batch file transfer replaces segmented data transmission.

Log FTP server accesses and responses are logged for convenience of debugging and access management.



Easy Network and File Access

Network & File Processing Instructions

Handle large data easily by executing dedicated ladder instructions.

- Socket (TCP/IP, UDP/IP) communications instructions
- FTP client instructions
- File access instructions
- File operation instructions
- Disk operation instructions

Continuous-type Application Instructions

Time-consuming processing does not affect control processing.

- ▶▶▶ Instruction is executed when input condition is TRUE, but actual processing is done in background and thus does not affect control.



- ▶▶▶ When instruction execution is completed, the output turns ON. You can check the error code stored in device D1.

Virtual Directory Commands

Get data, programs and log data as files from a higher-level PC or server using FTP, without need for a ladder program.

Simply issue a command from a higher-level PC or server as shown below:

Example

get\virtual\cmd\d2fcsv_D0102_128_0_6_1_0_0_4 data012.csv.
(get 128 words of data starting from device D0102 as a data file in decimal representation and csv format)

Data Creation

Creation of transmission text, file data, etc. made easy.

Constant Definition File Function (header file)

- Constant names can be defined with assigned values separately from programs, and then coded in programs (like tag name definition).
- Strings, numerical values and contiguous binary data can be defined as constants.

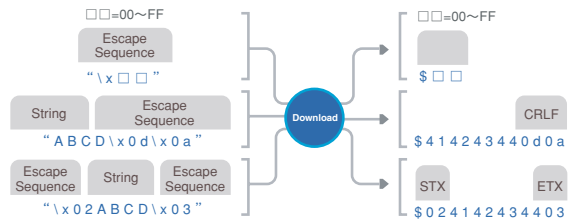
Example Constant definition



M3 Escape Sequence

Creation of strings containing binary representation code made easy.

- Text messages and control characters (STX, ETX, etc.) can be coded at the same time when creating telegram messages.
- Newline code (CRLF or LF) can be inserted easily into text when creating a text file.



"PC-less" Maintenance

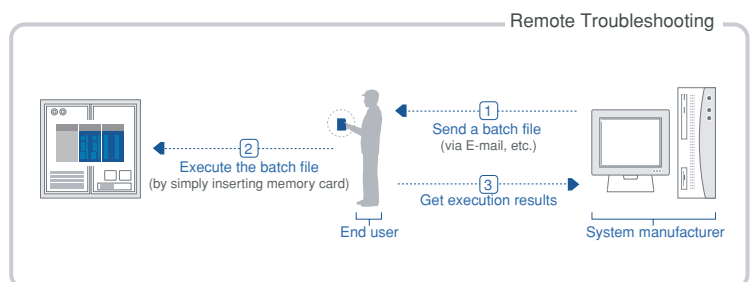
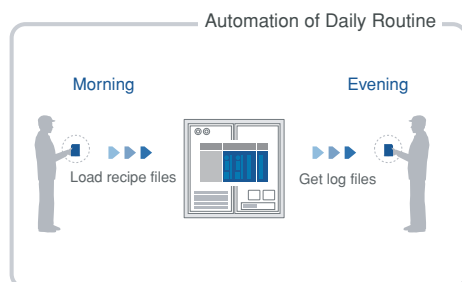
Smart Access Function

Card Batch File Function

Routine operations such as recipe loading or log acquisition for troubleshooting can be automatically executed simply by inserting an SD memory card.

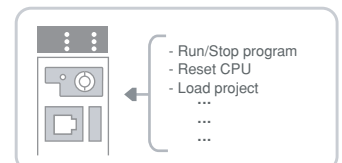
Batch commands coded in auto-execute files stored on a SD memory card can be automatically executed in response to various execution triggers (e.g. card insertion or error events, etc.)

Application Example



Rotary Switch Function

Maintenance can be performed using the rotary switch and an SD memory card with no need for a PC, by simply turning a rotary switch (MODE switch) and pressing a push button (SET switch) on the front panel of the module.



Product List

Name	Type Name	Specifications
Sequence CPU module	F3SP66-4S	Ladder 56K steps, basic instruction 0.0175 μ s or longer, with network functions
	F3SP67-6S	Ladder 120K steps, basic instruction 0.0175 μ s or longer, with network functions

Peripheral Devices

Specifications	Type Name	Specifications
SIO port adaptor cable*	KM10-0S	SIO port / D-sub 9-pin, female, 0.5 m long
Monitor cables*	KM21-2T	SIO port / D-sub 9-pin, male, 3 m long

* Connect these cables to the connector labeled "SIO" located on the front panel of F3SP66-4S/F3SP67-6S for use with higher-level link service (personal computer link function). Do not use these cables for connecting to FA-M3 Programming Tool WideField2.

Performance

Item	Specifications	
	F3SP66-4S	F3SP67-6S
Control Mode	Repetitive operation based on stored programs	
I/O Control Mode	Refreshing by direct I/O instruction	
Programming Language	Object ladder language	
Number of I/O Points	4096 max.	8192 max.
Program Size	56K steps	120K steps
Number of Instructions	37	
	389	
Processing speed	0.0175 to 0.07 μ s per instruction	
	0.07 μ s per instruction	
Device Size	16384	32768
	16384	32768
	32768	262144
Communication Ports	USB1.1 (for programming tool connection), SIO (for display, higher-level PC connection), Ethernet (for programming tool, higher-level PC, socket communications, FTP connection)	
Memory Card Slot	SD memory card	

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Caution

- For proper and safe use of this product, read the instruction manual thoroughly.
- If faults of this product are expected to result in accidents or losses, install additional external protection and/or safety circuits.
- If the product is to be used in applications which may directly affect or threaten human lives and safety, such as railway facilities, aviation and space navigation, medical equipment or transport equipment, please contact Yokogawa's sales office.

Represented by: