

FACTORY AUTOMATION

E800 NEWS

Utilizing Ethernet

Vol. 01

Toward smart factory



Open network and functional safety functions in a compact size

Easy introduction of IoT with **FR-E800-E** and **FR-E800-SCE**

Supporting setup

Scan the QR code on the product to directly access the setup information.

Helpful setup menu and videos

Setup menu

Instructions

Videos

Examples

Ready for reference

FR-E800 Inverter Safety Guideline

FR-E800 Instruction Manual (Connection)

etc.

★ Four useful features for IoT applications **FR-E800-E** **FR-E800-SCE**

01 Increased network flexibility with multi-protocol support

Multi-protocols

Multi-protocol support enables switching between various types of communication networks. Protocols of global industrial Ethernet networks are supported by the inverter alone. The inverter supports versatile applications and facilitates maintenance and technical support.

Selectable protocols differ depending on the group.

Protocol group A	CC-Link IE TSN, CC-Link IE Field Network Basic, MODBUS/TCP, EtherNet/IP, BACnet/IP
Protocol group B	CC-Link IE TSN, CC-Link IE Field Network Basic, MODBUS/TCP, PROFINET
Protocol group C	EtherCAT

02 Flexible connection with two standard Ethernet ports

Ethernet
2 ports provided

Two Ethernet ports are provided as standard. Devices can be wired in a suitable topology for the specifications and scale of the system.

Line topology : Up to dozen or so

- ◆ General-purpose switching hubs are not required.
- ◆ The enclosure can be downsized.
- ◆ Cost can be reduced.

- ◆ A fault in one device affects communication with other devices.

Star topology : Several to dozens units

- ◆ A fault in one device does not affect communication with other devices.
- ◆ Downtime can be reduced.
- ◆ Devices can be wired flexibly.
- ◆ Installation space for general-purpose switching hubs are required.
- ◆ Total cable length is longer.

03 Easy settings with the engineering software

Settings for the programmable controller and inverters can be configured using the engineering software.

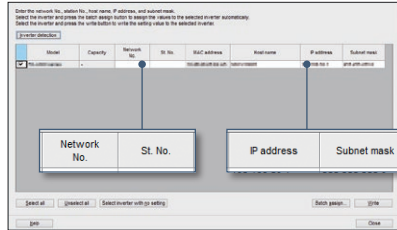


FR Configurator2

GX Works3

Settings for inverters

- 1 Set inverter parameters (such as IP addresses).
Setting on the inverter's operation panel is also available.



Settings for the programmable controller

- 2 Register the profile (CSP+ file) of the FR-E800 in GX Work3.
Download the profile
- 3 Configure settings such as the IP address of the master.
- 4 Detect the connected devices and configure settings in the network configuration settings of the master.
- 5 Set the communication cycle and communication speed of the master.
- 6 Write the settings to the programmable controller.

Related inverter parameters*

	CC-Link IE TSN	CC-Link IE Field Network Basic	EtherNet/IP	PROFINET
Pr.1429 Ethernet function selection 3	45238 (initial value)	61450	44818	34962
Pr.1434 to Pr.1437 IP address 1 to 4 (Ethernet)	192.168.50.1 (initial value)	192.168.50.1 (initial value)	192.168.50.1 (initial value)	Assigned by the master or specified by the parameter settings
Pr.1449 to Pr.1452 Ethernet command source selection IP address 1 to 4	Setting not required	Set the IP address of the master.	Set the IP address of the master.	Setting not required

*: For the parameter details, refer to the FR-E800 Instruction Manual (Communication).

04 Checking inverter operation with the app

FR Configurator Mobile

Download the app

An operator in a remote office can access inverters using the mobile app installed in a mobile device. Setting or changing of parameters, starting and stopping, and monitoring on the screen of mobile devices are available.



Caution

To maintain the security of the inverter and the system against computer viruses and other cyberattacks, take appropriate measures such as firewalls, virtual private networks (VPNs), and antivirus solutions.

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