Energy Saving Data Collecting Server (*EcoWebServer III*)

Model

MES3-255C-EN

Instruction Manual - Hardware

■ Preface

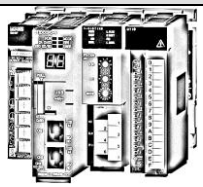
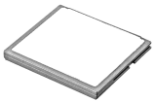
Thank you for purchasing Mitsubishi's Energy Saving Data Collecting Server (EcoWebServer III).
This instruction manual explains how to install and use the product. Please read it carefully, and use the product properly.
Make sure to read "1. Safety Precautions" on page 3 for proper use before installing the product.
Keep this instruction manual in an accessible place for future reference whenever needed.
Make sure it is delivered to the end user.

■ Package and instruction manual

To reduce environmental burden, we use:
- Cardboard for the package.
- Recycled paper for the instruction manual.

■ Packaged contents

Make sure all the following items are in the package.

Product name	Qty.
 Energy saving data collecting server (main unit)	1
 Compact Flash memory card (software)	1
 Setting software (CD-R) ・Instruction manual included	1
 Battery (built in the bottom of the main unit's server section)	1
 Board mounting screw (M4 × 12)	4
Instruction manual (* this document)	1

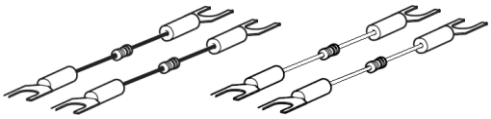
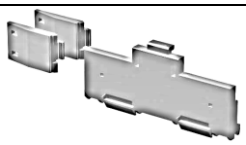
Product name	Qty.
 (Black: 110Ω1/2W) (White: 130Ω1/2W) CC-Link terminal resistor	Black × 2 White × 2
 DIN rail mounting adaptor	Small × 2 Large × 1
DIN rail mounting set	
 DIN rail mounting screw (M5 × 10)	2
 DIN rail mounting square washer	2
 DIN rail fixing metal bracket	2

Table of Contents

1. Safety Precautions

■ Precautions concerning the operating environment and usage conditions

Do not use the product in the places as follows. Failure to follow this instruction may cause malfunctions and reduced life of the product.

- Ambient temperature exceeds 0º to +55ºC. (Température ambiante excède 0º à +55ºC.)
- Daily average ambient temperature exceeds 35ºC. (Température ambiante quotidienne et moyenne excède 35ºC.)
- Relative humidity exceeds 5% to 95% or condensation is observed. (Humidité relative excède 5% à 95% ou condensation est observée.)
- Altitude exceeds 2000 m. (Altitude excède 2000 m.)
- Dust, corrosive gas, saline and oil smoke exist. (Poussière, gaz corrosif, salin et huile fumée existe.)
- Frequent vibration or impact exists. (Vibration fréquente ou impact existe.)
- Rainfall or water droplet hits the product. (Pluie ou gouttelette frappe le produit.)
- Exposed to direct sunlight. (Exposé à lumière du soleil directe.)
- Metal pieces or conductive materials blow. (Pièce métal ou matière conducteur souffle.)
- Under strong electromagnetic field or noise. (Sous champ électromagnétique fort ou bruit.)

■ Precautions concerning the installation

Please read this instruction manual before installation.

⚠ Caution

- The product shall be installed by a technician who has expertise in electric work such as safe installation and wiring.
- Always handle the end face of metal parts with care. The sharp part may cause injuries.
- During threading or wiring work, take precaution so that any metal chip or a part of wire cut does not enter the product.
- Make sure to use the connection diagram for correct wire connection. Incorrect wiring may cause the device malfunction, fire or electric shock.
- Never do hot-line jobs. Otherwise, it may lead to electric shock, fire or device problems.
- Use appropriate size of electric wires. If inappropriate size of electric wire is used, it may cause fire due to generated heat.
- Use an appropriate size of solderless terminal which fits the wire. If inappropriate solderless terminal is used, wire breakage or contact failure may occur, which may cause the device malfunction, failure, burnout, or fire.
- For UL/c-UL standard, please use the copper conductors wire which temperature rating is 60 ºC /75 ºC . (Pour UL/c-UL standard, utilisez le conduit en cuivre dont la température classée à 60 ºC /75 ºC.)

Part	Wire size	Appropriate solderless terminal
Power supply section terminal block	0.75 to 2.0 mm^2	RAV1.25-3.5 RAV2-3.5
CC-Link communication section terminal block	Version 1.10-compatible CC-Link dedicated cable	R1.25-3
Contact output section terminal block	0.3 to 0.75 mm^2	R1.25-3 (Solderless terminals with a crimp sleeve cannot be used.)

- Make sure all the fittings are securely tightened. Failure in tightening may cause the device malfunction, fire, or electric shock.
  (Assurez-vous que tout le serrage est fermement serré. Manque de serrage peut causer mauvais fonctionnement du dispositif, feu, ou commotion électrique.)
- Fixing fittings must be tightened to the specified torque. Excessive tightening may cause damage to terminals or screws.
  (Fixation du serrage doit être serrée à couple de serrage spécifié. Serrage excessif peut endommager du terminal ou vis.)
  Insufficient tightening may cause the device malfunction, fire, or electric shock.
  (Serrage insuffisant peut causer mauvais fonctionnement du dispositif, feu, ou commotion électrique.)

Part (Partie)		Tightening torque (Couple de serrage)
Terminal screw for power supply section terminal block (Borne de terminal pour terminal bloc dans la section d'alimentation électrique)	(M3.5 screw) (Vis M3.5)	0.8 to 1.0 N·m
Terminal screw for CC-Link communication section terminal block (Borne de terminal pour terminal bloc dans la section de CC-Link communication)	(M3 screw) (Vis M3)	0.42 to 0.58 N·m

Mounting screw for CC-Link communication section terminal block (Borne de montage pour terminal bloc dans la section de CC-Link communication)	(M3.5 screw) (Vis M3.5)	0.66 to 0.89 N·m
Terminal screw for contact output section terminal block (Borne de terminal pour terminal bloc dans la section de contact sortie)	(M3 screw) (Vis M3.5)	0.42 to 0.58 N·m
Mounting screw for contact output section terminal block (Borne de montage pour terminal bloc dans la section de contact sortie)	(M3.5 screw) (Vis M3.5)	0.66 to 0.89 N·m
Unit fixing screw (Vis pour fixation l'unité)	(M3 screw × 12) (Vis M3)	0.36 to 0.48 N·m

- Make sure that all the terminal covers are mounted. Failure to mount them may cause electric shock. (Assurez-vous que tout les couvercle sont attachés. Manque d'attachement peut causer mauvais fonctionnement du dispositif, feu, ou commotion électrique.)
- To prevent induction noise, keep control lines and communication cables as far away from power lines as possible.
  (We recommend that you keep a distance of 100 mm or longer between them.)
  Do not place them in a board containing high-voltage equipment.
  Mount surge absorbers on equipment that is likely to produce noise.
- Connect both ends of the shield line for CC-Link communication cable to the “SLD” terminal of the units.
  “SLD” and “FG” are connected together inside each unit.
  Make sure to insulate the shield line using vinyl tape or the like.
- For the actual usage, perform D-type grounding dedicated for the “FG” terminal.
- Perform insulation withstand voltage tests and insulation resistance tests without connecting the FG terminal to the external case (ground).

■ Precautions concerning the preparation before use

- Make sure that your installation site meets the requirements for the operation environment and usage conditions.
- Before use, perform the settings for the product. Wrong settings may cause the product to malfunction.
- Check the power ratings of the product.
- After installing the product and performing wiring work, peel off the dustproof seal.
  Failure to peel it off may cause the product to malfunction due to heat generation.
- The product has a built-in lithium battery. It is not connected to the product when shipped from the factory. Connect it before using the product. (Refer to “6. Battery Installation and Replacement” of this manual)

■ Precautions for use

- Use the product within the ratings specified in “9. Specifications” of this manual. If it is used outside the ratings, it may cause not only malfunction or failure but also fire or burnout.
- Settings including an IP address assignment are required to connect the product to the network (Ethernet). Before use, perform an IP address assignment and other necessary network settings using the supplied configuration software.(Refer to “IP Setting” of Setting manual)
- The product is configured as follows when shipped from the factory:

  IP address = 192.168.10.1, subnet mask = 255.255.255.0, gateway = nothing

  When you connect the product directly to a single PC, you do not have to change these settings.
- The product has a built-in clock. Before use, set the current date using the supplied configuration software.
- Before operating the product, check that active bare wire, etc does not exist around the product.
  If any bare wire is found, stop the operation immediately, and take appropriate action such as isolation protection.
- Please contact our sales staff when you consider applying the product to special purpose, including use in devices and systems for nuclear plant, aerospace engineering, medical care or automobile. (See the end of this document for details.)
- Current might exceeded the specified value when the power is cycled immediately after the power is breaking off (in 5 seconds). Please turn on the power more than 5 seconds after breaking off.

Caution	●Do not disassemble or modify the product. It may cause failure, electric shock or fire.

■ Precautions for maintenance and inspection

- Use a soft dry cloth to clean off dirt of the product surface.
- Do not let a chemical cloth remain on the surface for an extended period of time nor wipe the surface with thinner

or benzene.

- Check for the following items to use the product properly for a long time.
  Check for the items (1) to (3) once or twice every six months.
  Check for the item (4) once a year.
  (1) No damage on the product (2) No abnormality with LED indicators (3) No abnormal noise, smell or heat
  (4) No looseness with installation, wire connection to terminal blocks, and connector connection (Check these items under the electric outage condition.)

Caution	●Checking looseness with installation, wire connection to terminal blocks, and connector connection must be done under the electric outage condition.

■ Precautions for storage

- To store the product, turn off the power and remove wires, and put it in a plastic bag.
- To keep the power off for a long time, remove the battery connector.
  (The battery's accumulated backup time for electric blackout is 13,700 hours (1.57 years). Failure to use a battery over backup time may cause a data clear of the product.
- For long-time storage, avoid the following places. Failure to follow this instruction may cause failure and reduced life of the product.

● Ambient temperature exceeds -25ºC to +75ºC. ● Daily average ambient temperature exceeds 35ºC. ● Relative humidity exceeds 5% to 95% or condensation is observed. ● Dust, corrosive gas, saline and oil smoke exist.	● Frequent vibration or impact exists. ● Rainfall or water droplet hits the product. ● Exposed to direct sunlight. ● Metal pieces or conductive materials blow. ● Under strong electromagnetic field or noise.

■ Precautions for disposal

- The product shall be properly disposed of in compliance with the "Wastes Disposal and Public Cleansing Act".
- The product has a built-in lithium battery. The lithium battery shall be disposed of in compliance with your local regulations.
- In EU member states, there is a separate collection system for waste batteries. Dispose of batteries properly at the local community waste collection/recycling center.
  The symbol shown below is printed on the batteries and packaging of batteries and devices with built-in batteries used for Mitsubishi programmable controllers.

Note: This symbol is for EU member states only.
The symbol is specified in the new EU Battery Directive (2006/66/EC) Article 20 "Information for end-users" and Annex II.
The symbol indicates that batteries need to be disposed of separately from other wastes.

Caution	●There may be some electricity left in the lithium battery removed. Keep it away from other metal parts because its contact with the metal parts may cause heat, rupture, or fire.

■ Network building

- For installation and setting of web browsers and JavaVM (Java Virtual Machine) and inquiries about their technical issues, contact your network administrator or appropriate department.
- For installation and setting of servers such as SMTP (mail transfer) servers and FTP (file) servers and inquiries about their technical issues, contact your network administrator, appropriate department or the manufacturers for those servers.
- We don't offer technical support for the above.

■ QR code

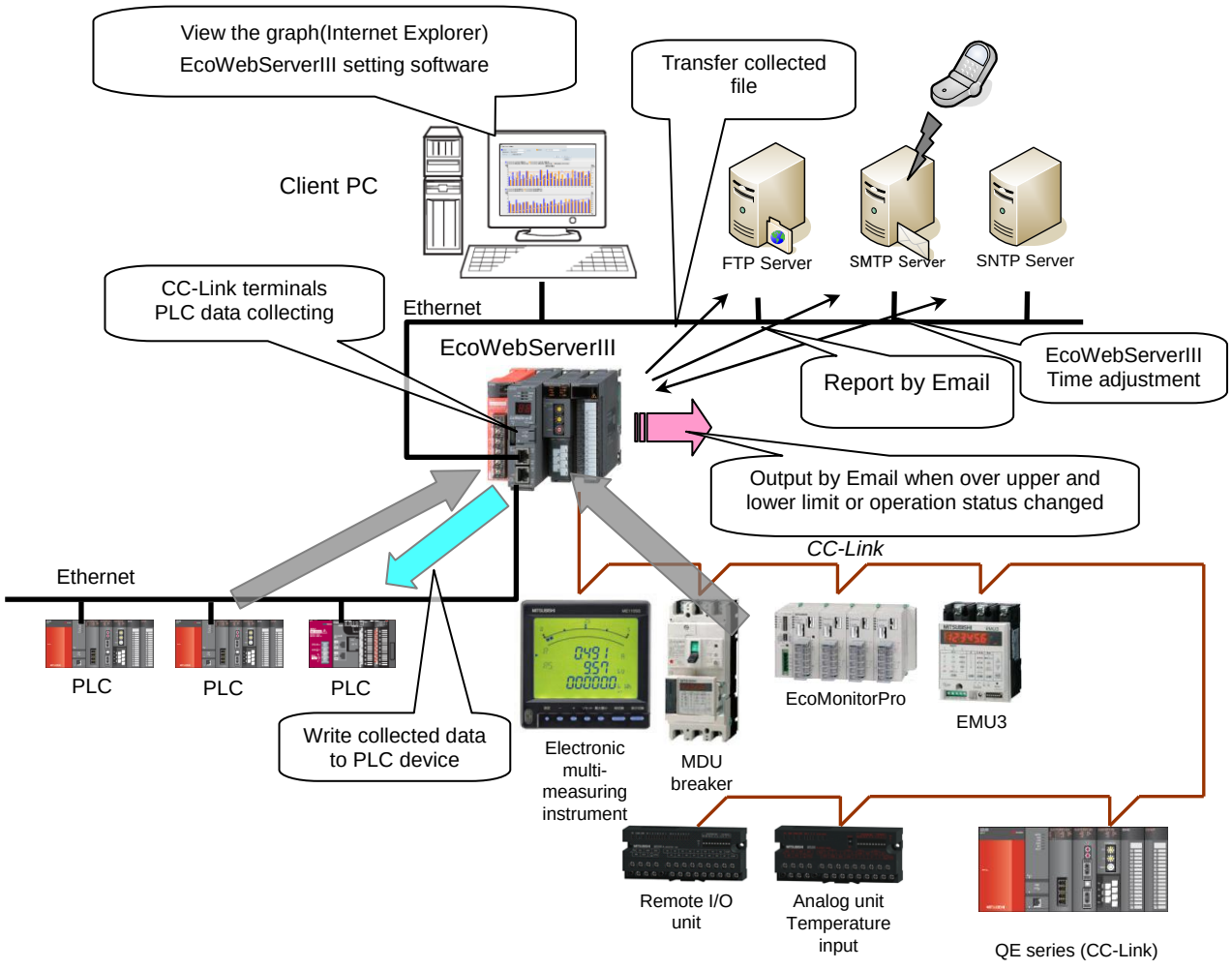
- QR code is for production management. Please do not use.

2. Main Features

■ The product has an HTTP server function that can send data over the Internet/Intranet via Ethernet that is collected from measuring instruments using CC-Link communication. The transmitted information can be viewed in a graph or list format on PCs connected to the Intranet.

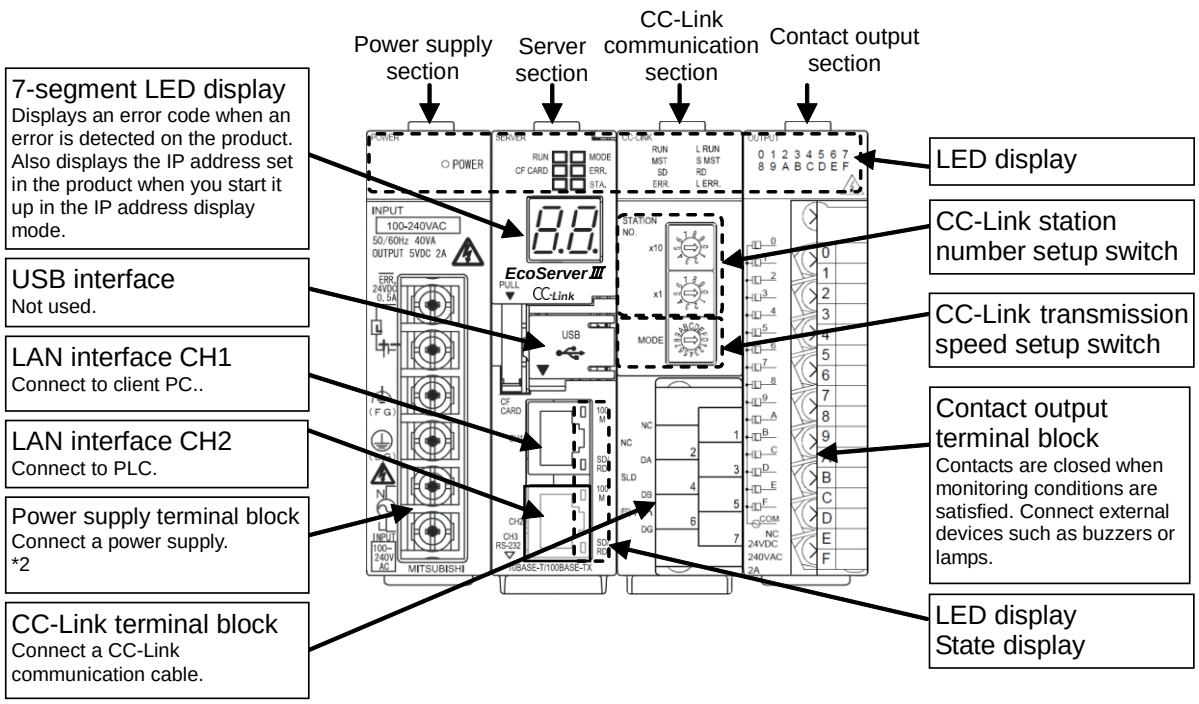
■ All the software programs necessary to view collected data are built in the product. You do not have to install additional software on your PC to view the data.

■ Also installing a mail server (SMTP server) or file transfer server (FTP server) allows you to send email notifications when an upper/lower limit alarm operates and to save measurement data in a CSV format by automatic transfer.

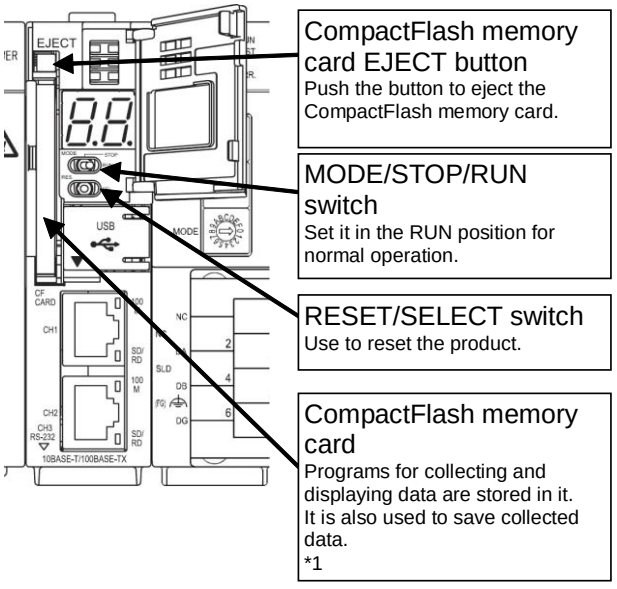


3. Name and Function of Each Part

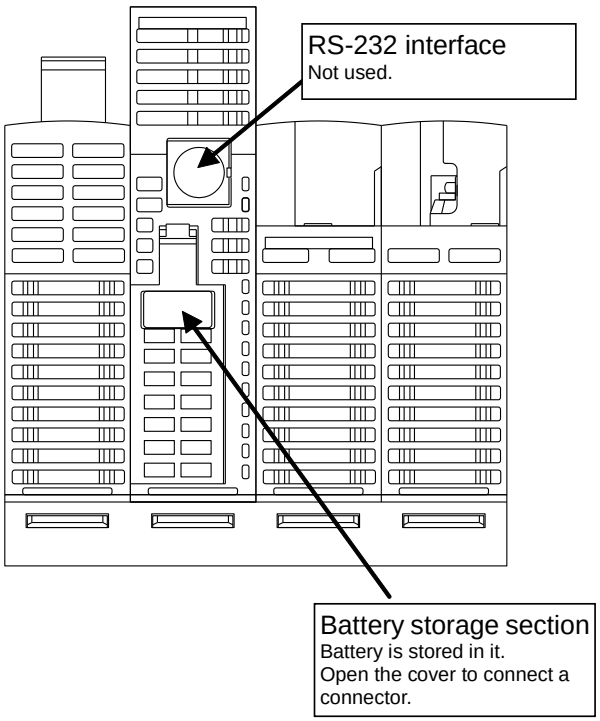
Front



Front (Server section with the cover opened)



Bottom



*1 The CompactFlash memory card should be in the product all the time.
Removing it while the product is operating or it is been accessed may cause the product to malfunction.
Before removing it from the memory card slot, make sure to hold the RESET/SELECT switch to the “SEL.” position and to turn the power off after the “CF CARD” LED goes out.

*2 Connect a power supply of 100-240 V AC (+10%, -15%) 50-60 Hz.
Do not connect any power supply other than the above, otherwise it may cause malfunction.

◆ **LED display**

Part	Display name	Status	Operation
Power supply section	POWER	Power supply display	Lights green: Power is on.
Server section	RUN	Operation display	Lights green: MODE/STOP/RUN switch is set to RUN position (in normal operation). Off: MODE/STOP/RUN switch is set to STOP position (in the IP address display mode).
	CF CARD	Memory card status	Lights green: Memory card is accessible. Blinks green: Memory card is being removed. (RESET/SELECT switch is held to SELECT position.) Off: Memory card is ready to be removed.
	MODE	Operation mode	Lights green: During standard operation Lights orange: During startup in hardware self-diagnostic mode
	ERR.	Error display	Lights red: At the time of occurrence of a battery error Blinks red: During initial startup after purchase During an electric outage due to battery exhaustion
	STA.	Operation status	Blinks green: During startup after the power is turned on Lights green: Startup is completed.
	100M	LAN communication	Lights green: Connected at 100Mbps Off: Connected at 10Mbps
	SD/RD		Lights green: Connected to LAN Off: Not connected to LAN Blinks: LAN communication in progress.
CC-Link communication section	RUN	Operation status of CC-Link communication	Lights green: CC-Link communication section is normally running. Off: CC-Link communication section is under abnormal conditions.
	MST	CC-Link master	Lights green: During normal operation (This LED lights green all the time because the product stays in CC-Link master mode during operation.)
	SD	CC-Link communication status	Blinks green: Transmitting through CC-Link communication
	RD		Blinks green: Receiving through CC-Link communication
	L RUN	CC-Link link status	Blinks green: Linking through CC-Link communication Off: No link through CC-Link communication
	S MST	CC-Link standby master	Off: During normal operation (This light is off all the time because the product stays in CC-Link master mode during operation.)
	L ERR.	Error status of CC-Link communication	Blinks red at regular intervals: The switch on the CC-Link communication section is operated with power on. Blinks red at irregular intervals: Termination resistance is not installed. (The unit or CC-Link dedicated cable is being influenced by noise.) Lights red: The settings don't correspond to the connected equipment.
Contact output section	0 to 9, A to F	Contact output status	Off: Contact output is open. Lights red: Contact output is closed.

◆ **LNA interface CH1, CH2 (100BASE-TX/10BASE-T)**

Item	Specifications
Communication specifications	Ethernet (10BASE-T/100BASE-TX)
Communication speed	10 Mbps, 100 Mbps
Communication media	UTP (Unshielded twisted pair cable)
Max. segment length	100 m (to hub)

◆ **MODE/STOP/RUN switch**

Item	Specifications
STOP	Turning the product on or resetting it with the switch in the "STOP" position displays the IP address currently specified for the product. (See "7.2 Checking IP address".)
RUN	Usually use the product with the switch in the "RUN" position.

◆ **RESET/SELECT switch**

Item	Specifications
RES.	Use to reset the product. After you set the switch to the “RES.” position, hear it click, and see all the LEDs except “POWER” on the power supply section go off, return the switch to the central position.
SEL.	Holding the switch to the “SEL.” position during operation stops the reading/writing of the CompactFlash. Make sure to perform this procedure before turning the product off or resetting it.

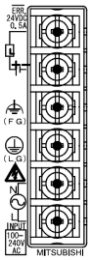
Caution	Before turning the product off or resetting it, make sure to hold the RESET/SELECT switch to the “SEL.” position and to see the “CF CARD” LED turn off. If you turn the product off or reset it without performing this procedure, you may lose the data saved in the CompactFlash memory card.

◆ **CompactFlash memory card slot (server section)**

●Insert the dedicated CompactFlash memory card included in the package when the power is off.
Always operate the product with the CompactFlash memory card in the slot. If the CompactFlash memory card is not in the slot, the product will not operate.

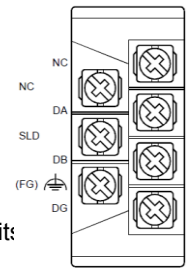
◆ **Terminal block (power supply section)**

Terminal symbol	Function
ERR	Not used
FG	Frame ground
LG	Power filtering ground
L	Power supply 100 to 240 V AC
N	



◆ **Terminal block (CC-Link communication section)**

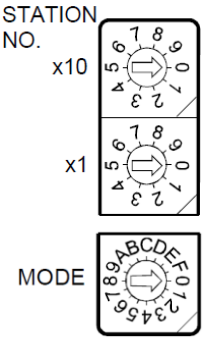
Terminal symbol	Function
DA	CC-Link communication line A
DB	CC-Link communication line B
DG	CC-Link communication line ground
SLD	CC-Link communication line shield
NC	Not used



Both ends of the shield line for CC-Link dedicated cable should be connected to “SLD” of the units
Perform D-type (Type 3) grounding work dedicated for the “FG” terminal of each unit.
“SLD” and “FG” are connected together inside each unit.

◆ **CC-Link station number setup switch (CC-Link communication section)**

●Set (Hold) the switch to 0.



(Note) It is set to 0 when shipped from the factory. Do not change the setting.
If it is set to any position other than 0, CC-Link communication cannot be conducted.

◆ **CC-Link communication speed setup switch (CC-Link communication section)**

Setting	Communication speed
0	156 kbps
1	625 kbps
2	2.5 Mbps
3	5 Mbps
4	10 Mbps
5 to 9, A to F	Prohibited

(Note 1) Set to the same communication speed all the CC-Link terminals connected to the product. If they operate at different communication speeds, communication cannot be conducted.
(Note 2) The switch is set to 0 (communication speed = 156 kbps) when shipped from the factory.

◆ **Terminal block (contact output section)**

Terminal symbol	Function
0 to 9, A to F	Contact relay output 0 to 9, A to F (100 to 240 V AC or 24 V DC)
COM	Contact relay output common (common for output 0 to 9, A to F)
NC	Not used

4. Procedures for Installation and Setting

■ Installation

The following explains the operations from package opening to installation.

(1) Open the package.
(2) Check the packaged contents.
(See “Packaged contents” on page 1 of this instruction manual.)
(3) Insert the supplied CompactFlash memory card into the memory card slot.
(4) Connect the battery mounting connector.
(See “6.1 Installing battery” of this instruction manual.)
(5) Check that the CC-Link station number setup switch is set to “0”.
(See “CC-Link station number setup switch” in “3. Name and Function of Each Part” of this instruction manual.)
(6) Set a communication speed using the CC-Link communication speed setup switch.
(See “CC-Link communication speed setup switch” in “3. Name and Function of Each Part” of this instruction manual.)
(7) Install this product.
(See “5. Main Unit Installation” of this instruction manual.)
(8) Conduct wiring.
(See “9. Connection Diagram” of this instruction manual.)
(9) Check wiring conducted in step (8).

This completes the installation procedure.

Caution	●Read “Precautions concerning the installation” carefully to perform the operation safely. ●If the product gives off abnormal noise, smell, smoke or heat, turn the power off immediately.

■ Setting

The following explains the preparation for operating the product after it is installed.

(1) Use the supplied CD to install the setting software on your PC.
(2) Use the configuration software to set an IP address for the product.
(See “7. IP Address Setting” of this instruction manual.)
* When you use the factory default setting (192.168.10.1 for IP address), you do not have to perform this step.
(3) Use the configuration software to set a date and clock for the product.
(See Instruction Manual– Configuration.)
(4) Configure client computers to your network environment.
For details on settings, contact your network administrator.
For details on setting procedures, see the instruction manual of your computer or contact its manufacturer.
(5) Configure the web browsers in the client computers.
(See Instruction Manual– Operation.)
(6) Set necessary information such as connected devices and measuring points.
(See Instruction Manual– Configuration.)
(7) Check the product operation.
(See Instruction Manual– Operation.)

Caution	●Wrong network settings may cause other devices on the network to malfunction. ●The factory settings for this product are as follows: 192.168.10.1 for the IP address, 255.255.255.0 for the subnet mask, and no gateway setting. When you connect the product directly to a single PC, you do not have to change these settings.

5. Main Unit Installation(Installation de l'unité principale)

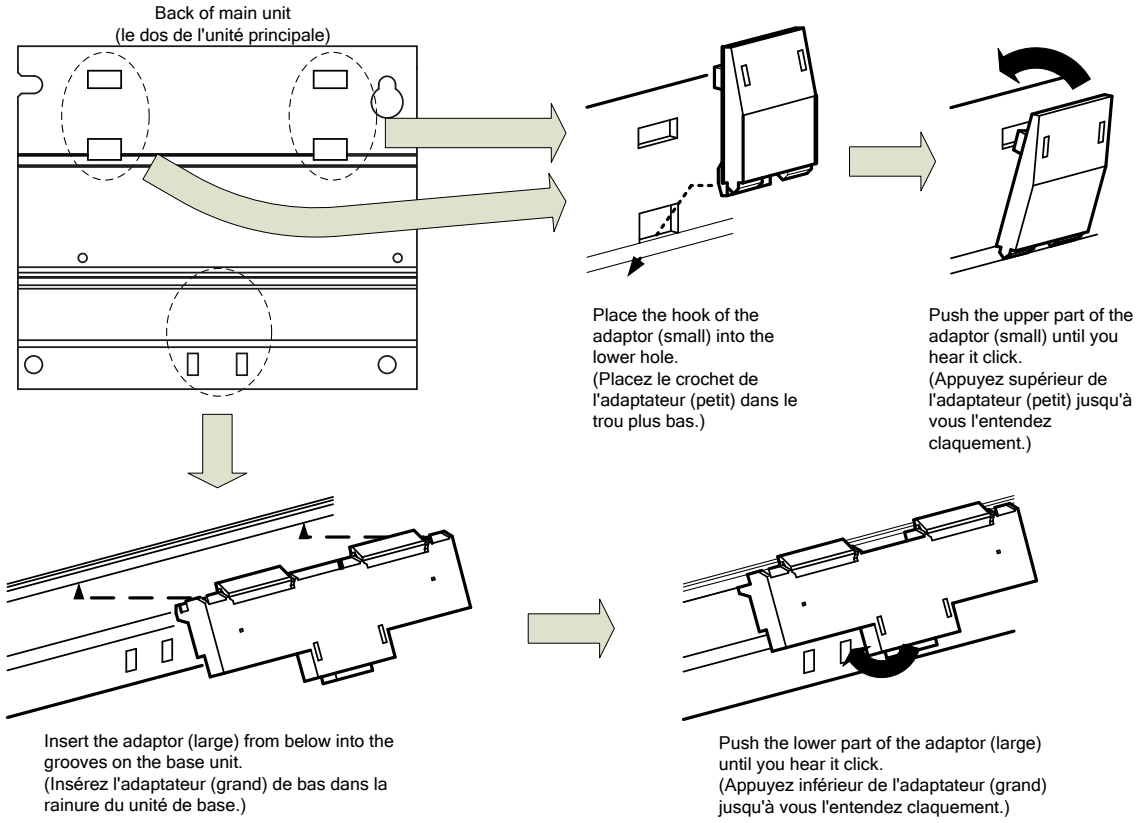
This product can be installed in two ways, installation on an IEC rail (35 mm wide) and direct installation on a board.
(Le produit peut être installé au deux moyens, installation sur un IEC rail (35 mm de large) et installation directe sur une planche.)

5.1 Installation on IEC rail (35 mm wide)(Installation sur un IEC rail (35 mm de large))

5.1.1 Mounting IEC rail mounting adaptor

(Montage d'adaptateur pour monter sur IEC rail)

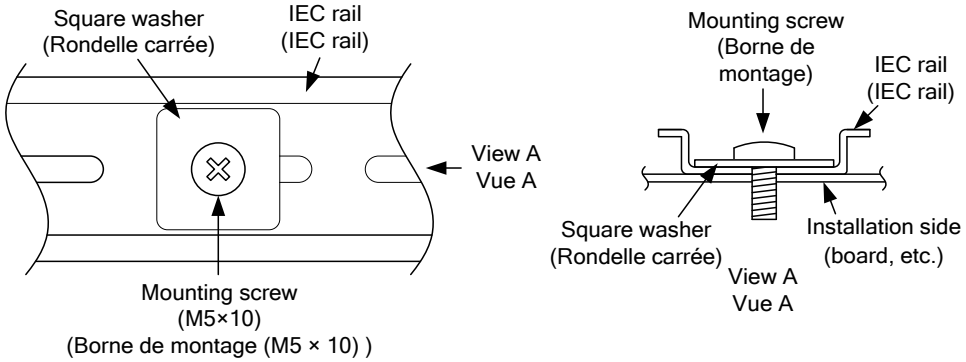
Mount the supplied IEC rail mounting adaptors (small × 2 and large × 1) on the back of the main unit.
(Montez adaptateurs pour monter sur IEC rail (petits × 2 et grand × 1) sur le dos de l'unité principale.)



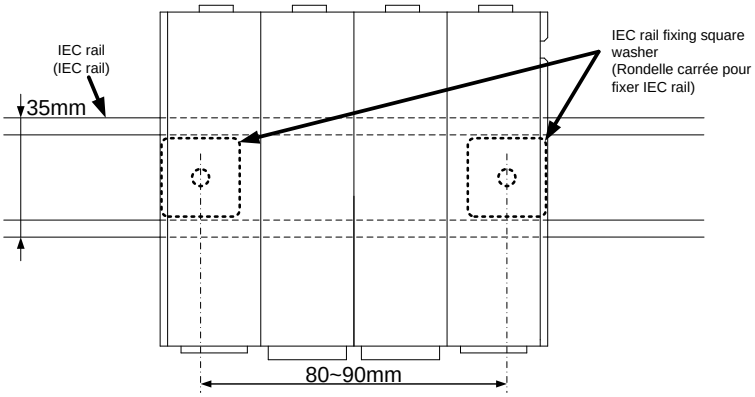
5.1.2 Mounting IEC rail fixing square washer

(Montage de rondelle carrée pour fixer IEC rail)

Use square washers and mounting screws (M5 × 10) to fix the IEC rail to the position where the main unit will be installed.
(Utilisez rondelles carrés et bornes de montage (M5 × 10) pour fixer l'IEC rail dans la position où l'unité principale sera installée.)

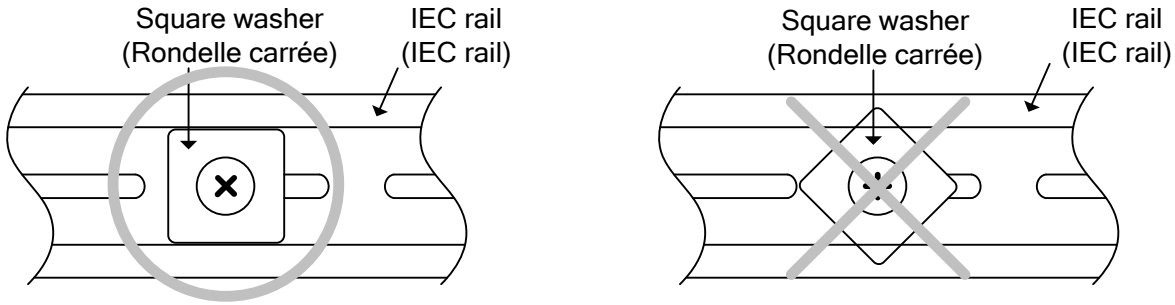


Keep 80 to 90 mm between the square washers.
(Maintenez de 80 à 90 mm entre des rondelle carrées.)



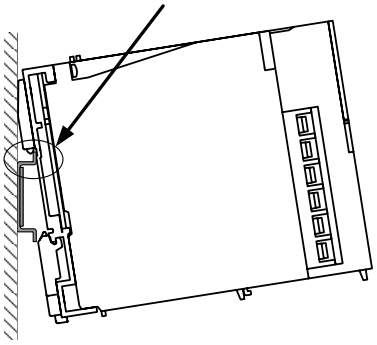
Point

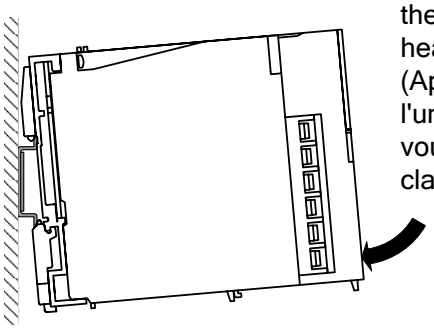
Make sure to place the square washers parallel to the IEC rail.
(Assurez-vous à placer des rondelle carrées en parallèle de l'IEC rail.)



5.1.3 Installing main unit on IEC rail(Installation de l'unité principale sur IEC rail)

Hook the adaptor into the IEC rail.
(Accrochez l'adaptateur à l'IEC rail.)



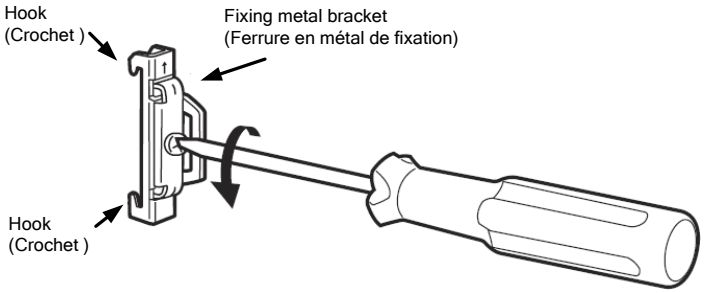


Push the lower part of the main unit until you hear it click.
(Appuyez inférieur de l'unité principale jusqu'à vous l'entendez claquement)

5.1.4 Fixing main unit(Fixation de l'unité principale)

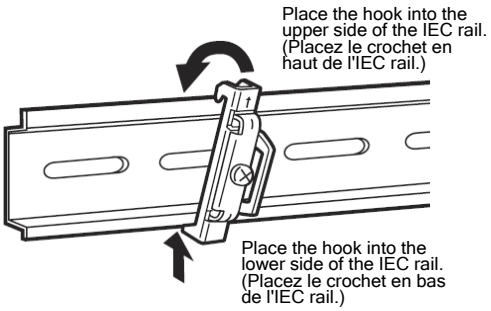
To prevent vibration when you transport the product installed on a board, make sure to fix the product using IEC rail fixing metal brackets.

(1) Loosen the screw on the top of the fixing metal bracket.
(Desserrez le vis au sommet de ferrure en métal de fixation.)



(2) Place the lower hook of the fixing metal bracket into the lower side of the IEC rail.
(Placez le crochet inférieur de ferrure en métal de fixation en bas de l'IEC rail.)

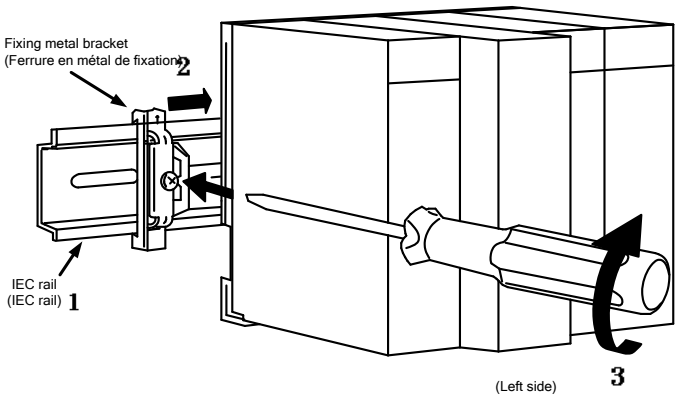
(3) Place the upper hook of the fixing metal bracket into the upper side of the IEC rail.
(Placez le crochet supérieur de ferrure en métal de fixation en supérieur de l'IEC rail.)



(4) Slide the fixing metal bracket to come into intimate contact with the main unit, and tighten the screw on the top with a screwdriver.
(Tightening torque: 1.00 to 1.35 N·m)
(Glissez la ferrure en métal de fixation pour toucher étroitement à l'unité principale, et serrez le vis supérieur avec un tournevis.
(Couple de serrage: 1.00 à 1.35 N•m))

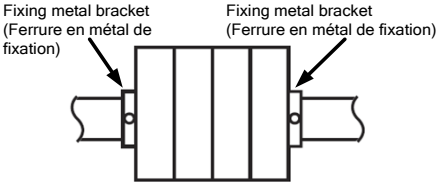
Follow (1) to (3) (1) Fix the DIN rail (2) Move the fixing metal bracket to the main body (3)Loosen the fixing metal bracket

Suivez de (1) à (3) (1) Fixer le DIN rail (2) Mettre la ferrure en métal de fixation à l'unité principale (3)Desserre la ferrure en métal de fixation



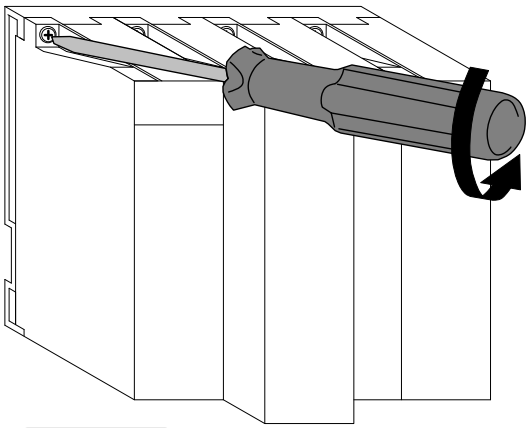
(5) Check that the right and left fixing metal brackets are secured to the IEC rail.
(Vérifiez que la ferrures en métal de fixation en droite et gauche sont fermement attachées à l'IEC rail.)

(6) Check that the right and left fixing metal brackets are secured to the IEC rail.
(Vérifiez que la ferrures en métal de fixation en droite et gauche sont fermement attachées à l'IEC rail.)

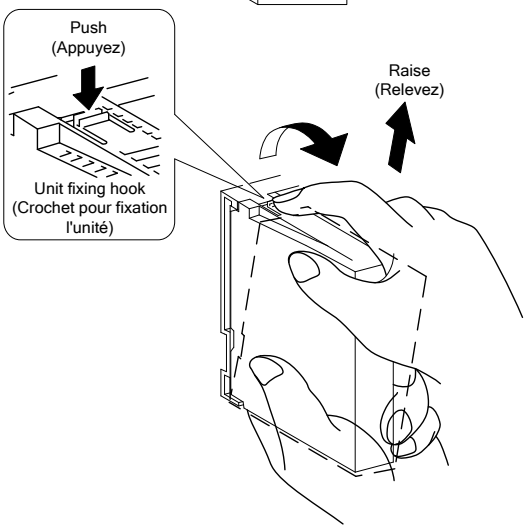


5.2 Direct installation on board(Installation directe une planche)

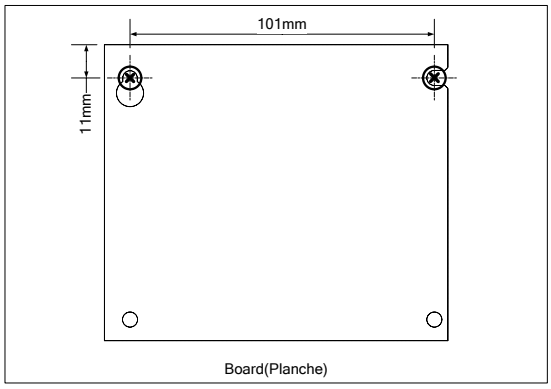
(1) Undo the fixing screws on the top of the unit for the power supply section and the unit for the contact output section.
(Déboutonnez les vis pour fixation l'unité qui sont supérieurs de l'unité pour la section d'alimentation électrique et de l'unité pour la section de contact sortie.)



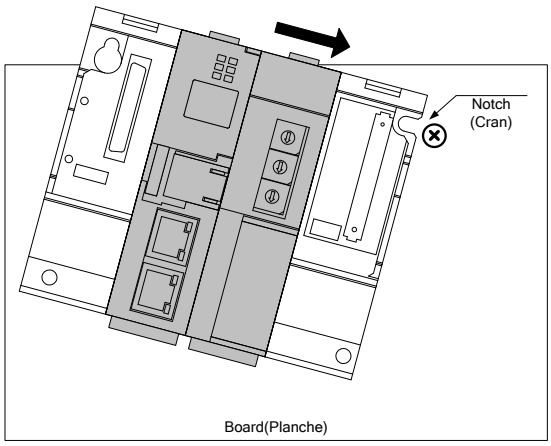
(2) Remove the unit for the power supply section and the unit for the contact output section.
(Retirez l'unité pour la section d'alimentation électrique et de l'unité pour la section de contact.)



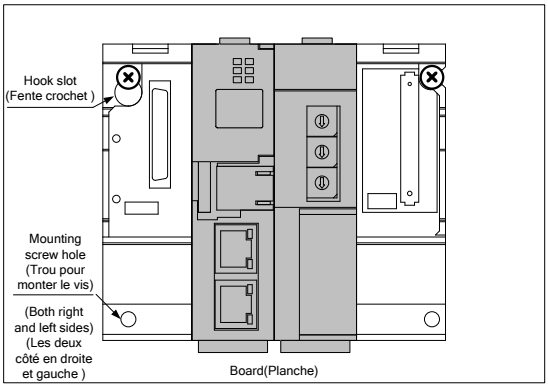
(3) Mount two board mounting screws (M4 × 12) on the board to fix the upper side of this product.
(Montez deux bornes de montage (M4 × 12) sur la planche pour fixer le côté supérieur du produit.)



(4) Hook the notch in the right side of this product on the right screw.
(Crochez le cran du côté droite du produit sur le vis droite.)

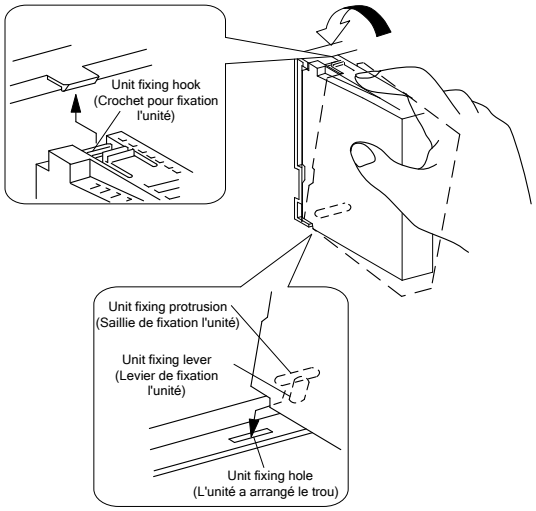


(5) Hook the hook slot in the left side of this product on the left screw.
(Crochez le cran du côté gauche du produit sur le vis gauche.)

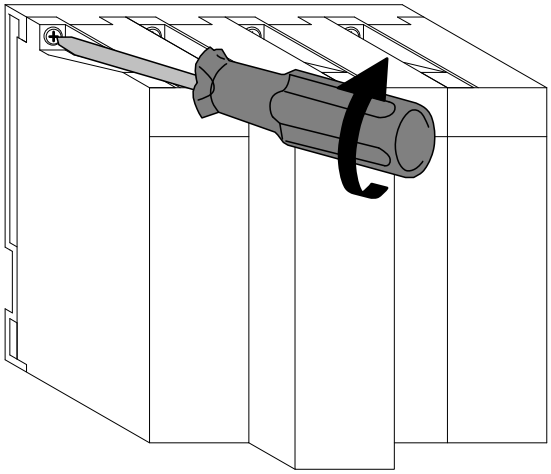


(6) Place mounting screws into the right and left screw holes in the lower side of this product, and tighten all the mounting screws.
(Placez deux bornes de montage dans les trous de vis (en droite et gauche) en bas du produit et serrer toue les bornes de montage.)

(7) Mount the unit for the power supply section and the unit for the contact output section.
(Montez l'unité pour la section d'alimentation électrique et l'unité pour la section de contact de sortie.)



(8) Tighten the unit fixing screws on the top of the unit for the power supply section and the unit for the contact output section. (Tightening torque: 0.36 to 0.48 N·m)
(Serrez les vis pour fixation l'unité au sommet de l'unité pour la section d'alimentation électrique et de l'unité pour la section de contact de sortie. (Couple de serrage: 0.36 à 0.48 N•m))



6. Battery Installation and Replacement

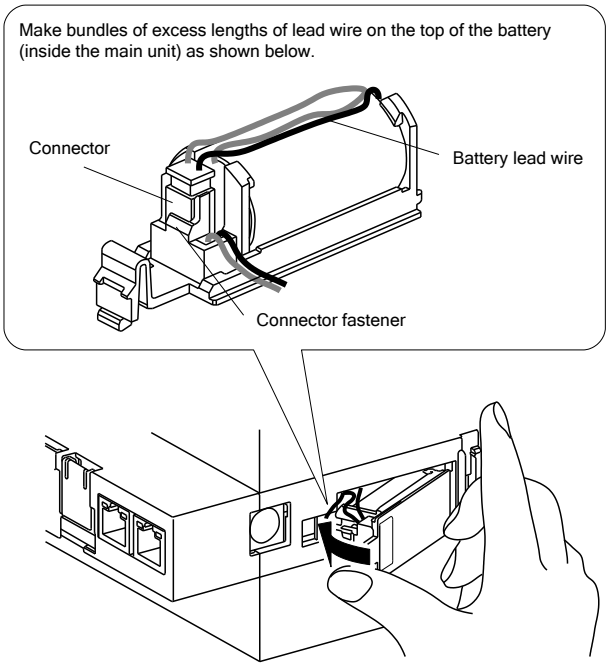
6.1 Installing battery

This product is shipped with the battery connector removed. Before use, make sure to connect the battery connector.

(1) Open the battery cover on the bottom of the product.

(2) Check that battery is properly installed.

(3) Insert the connector on the battery into the case side connector pin in the right direction.



6.2 Replacing battery

When the battery reaches its end of life, the “ERR.” LED on the server section lights red. Replace the battery with a new one. (See “12. Options” on page 25.)

(1) Open the front cover on the server section, and hold the RESET/SELECT switch to the SEL position.

(2) When the “CF CARD” LED goes out, turn this product off.

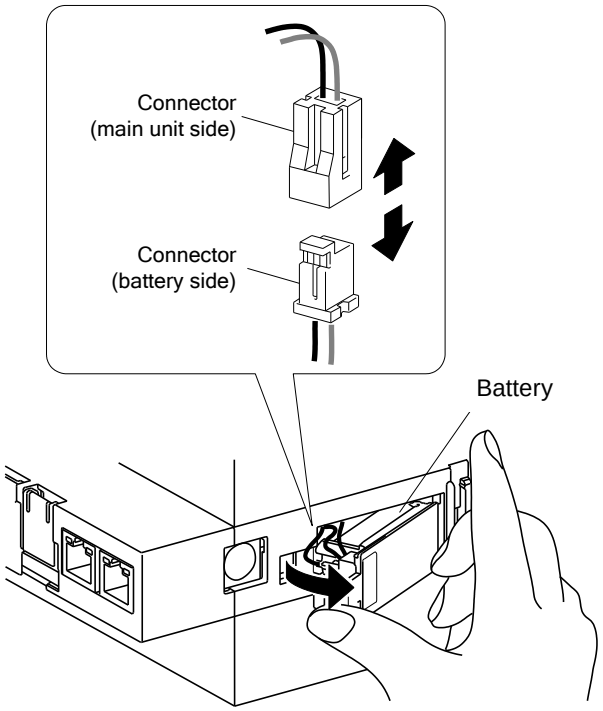
(3) Open the battery cover on the bottom of the server section.

(4) Remove the battery from the holder.

(5) Insert a new battery into the holder in the right direction and connect the lead connector to the connector.

(6) Close the battery cover.

(7) Turn this product on.



Caution	●Make sure to perform battery replacement with electricity off. ●Perform battery replacement within 3 minutes. If 3 minutes passes with the battery removed, the data for the last 1 hour and the clock setting may be initialized. (The data and setting values older than those for the last 1 hour are not initialized.) If the IP address and clock settings are initialized, reconfigure those settings after backing up the data.

7. IP Address Setting

7.1 Setting IP address

(1) Connect this product directly to a single PC that has the configuration software installed in it, using a LAN straight cable or crossover cable.

(2) Take a note of the IP address set in the PC.

IP Address:	. . . .
Subnet mask:	. . . .
Default gateway:	. . . .

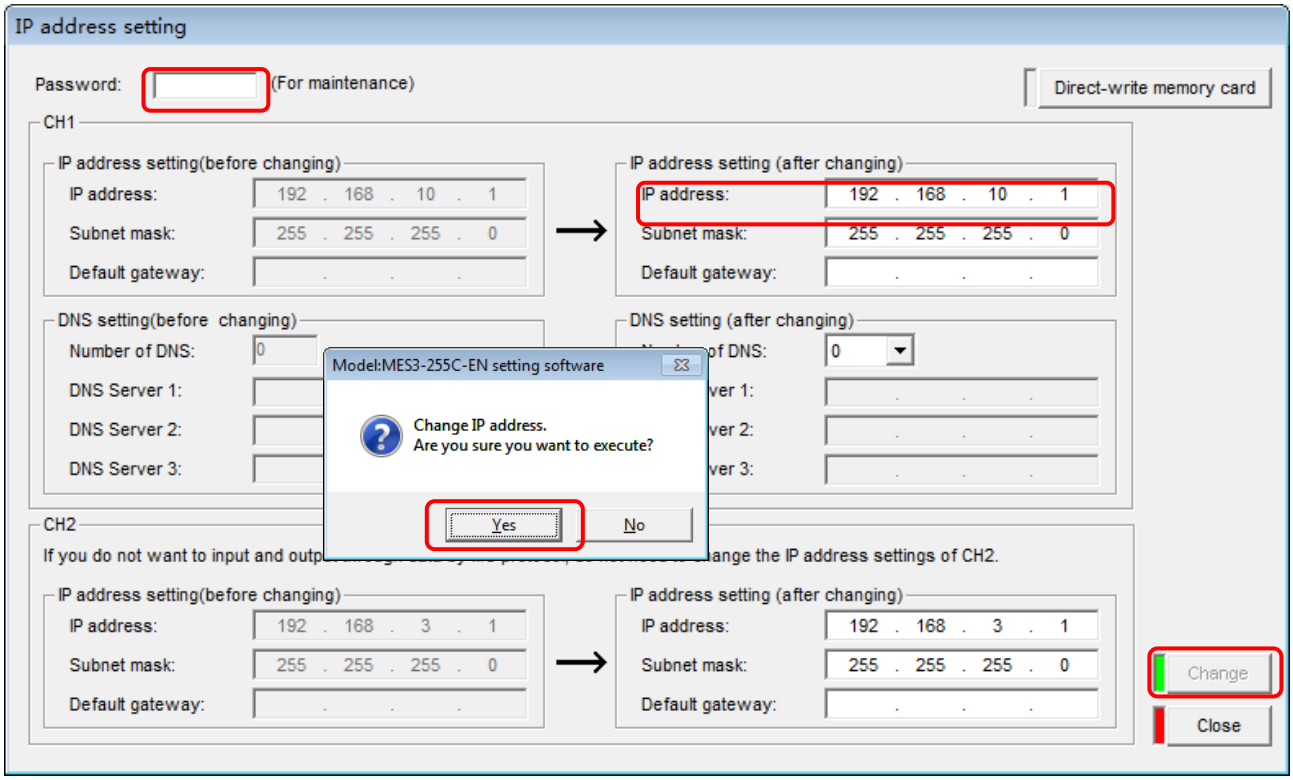
(3) Change IP address set in the PC according to the IP address (factory setting: 192.168.10.1) set in the product.

IP address for the product	IP address for the PC
192.168.10.1	192.168.10.xx xx is a value from 1 to 255. * The upper 3 digits should be consistent with those for the product.

(4) Launch the configuration software to set a new project.

(5) Open the [Configuring the IP address] screen to enter an IP address for this product.

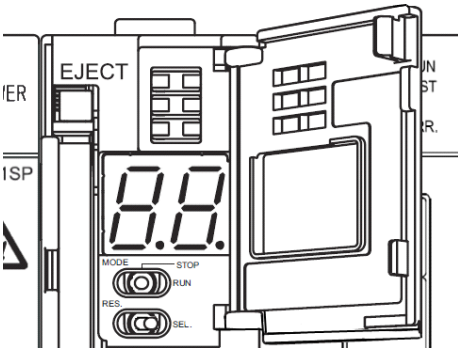
(6) Enter the maintenance password (factory setting: **ecopass**) in the Password field, and click the [Change] button.



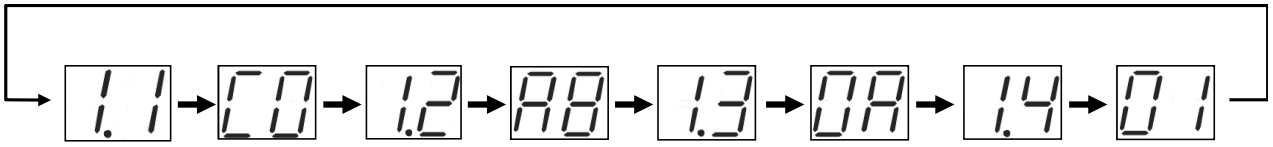
(7) After you change the IP address for the product, return the PC's IP address to its original address.

7.2 Checking IP address

(1) Open the front cover on the server section, and set the MODE/STOP/RUN switch to the “STOP” position.
(2) Hold the RESET/SELECT switch to the “SEL.” position.
(3) After the “CF CARD” LED turns off, turn the RESET/SELECT switch to the “RES.” position.
(4) After all the LEDs except the “POWER” LED on the power supply section turn off, return the RESET/SELECT switch to the central position.
(5) Wait until the product starts up and the IP address is displayed on the 7-segment LED at the front.



IP address display (Display example of 192.168.10.1 set in the product)



Hexadecimal: C0
Decimal: 192

Hexadecimal: A8
Decimal: 168

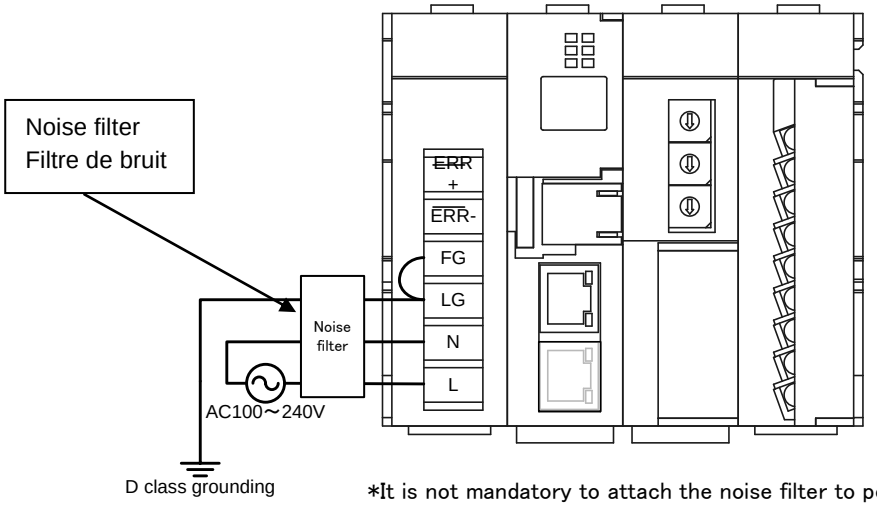
Hexadecimal: 0A
Decimal: 10

Hexadecimal: 01
Decimal: 1

(6) After you finish checking the IP address, turn the MODE/STOP/RUN switch to the “RUN” position.

8. Connection Diagram

8.1 Power supply section(Section de l'alimentation électrique)



Note
* See more notice in page 3.
* Live wire fortifications is NOT allowed.
* Wire size refers to page 3
* FG, LG is exclusive for D class grounding.
* Please connect L, N over a noise filter.

Note
* Voyez les remarques sur la page 3.
* Fil sous tension N'est PAS permis.
* Taille de câble, regardez la page 3.
* FG, LG est réservé s exclusive aux bases de classe D.

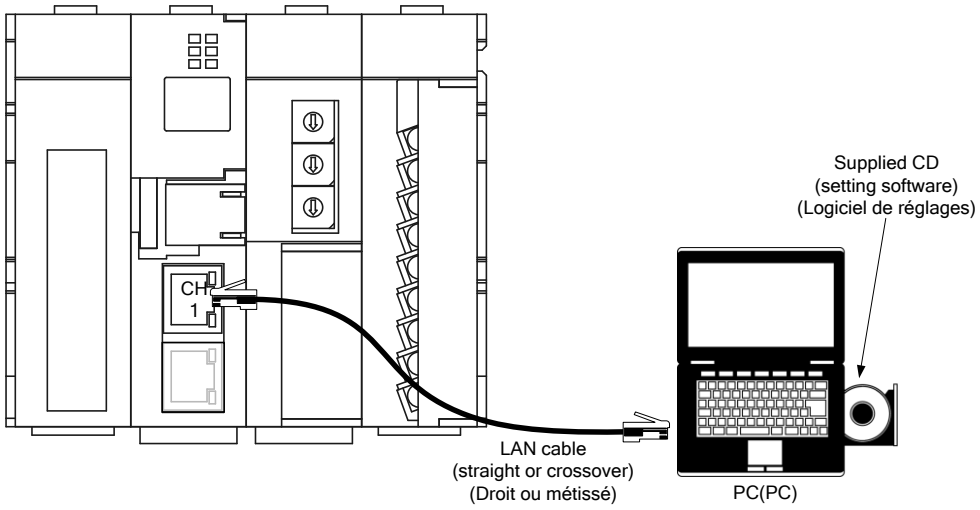
*It is not mandatory to attach the noise filter to power source lines, but the noise could be reduced if it is attached.

＜Recommended Model＞
Model Name: FN343-3/01（Rated Current: 3A）
Supplier: SCHAFFNER

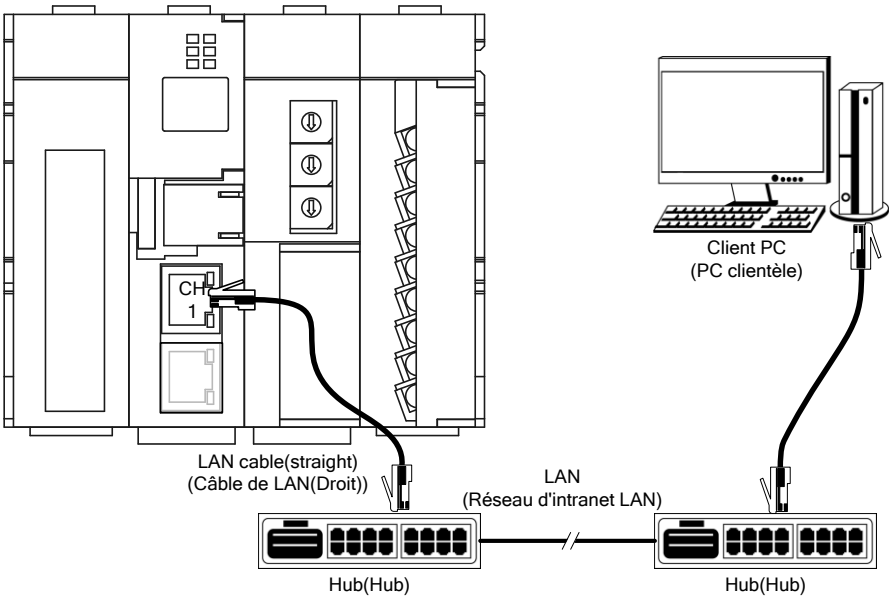
8.2 Ethernet communication section(Section de communication Ethernet)

8.2.1 For initial setting (IP address setting)

(Pour les réglages initiaux (adresse IP fixation))

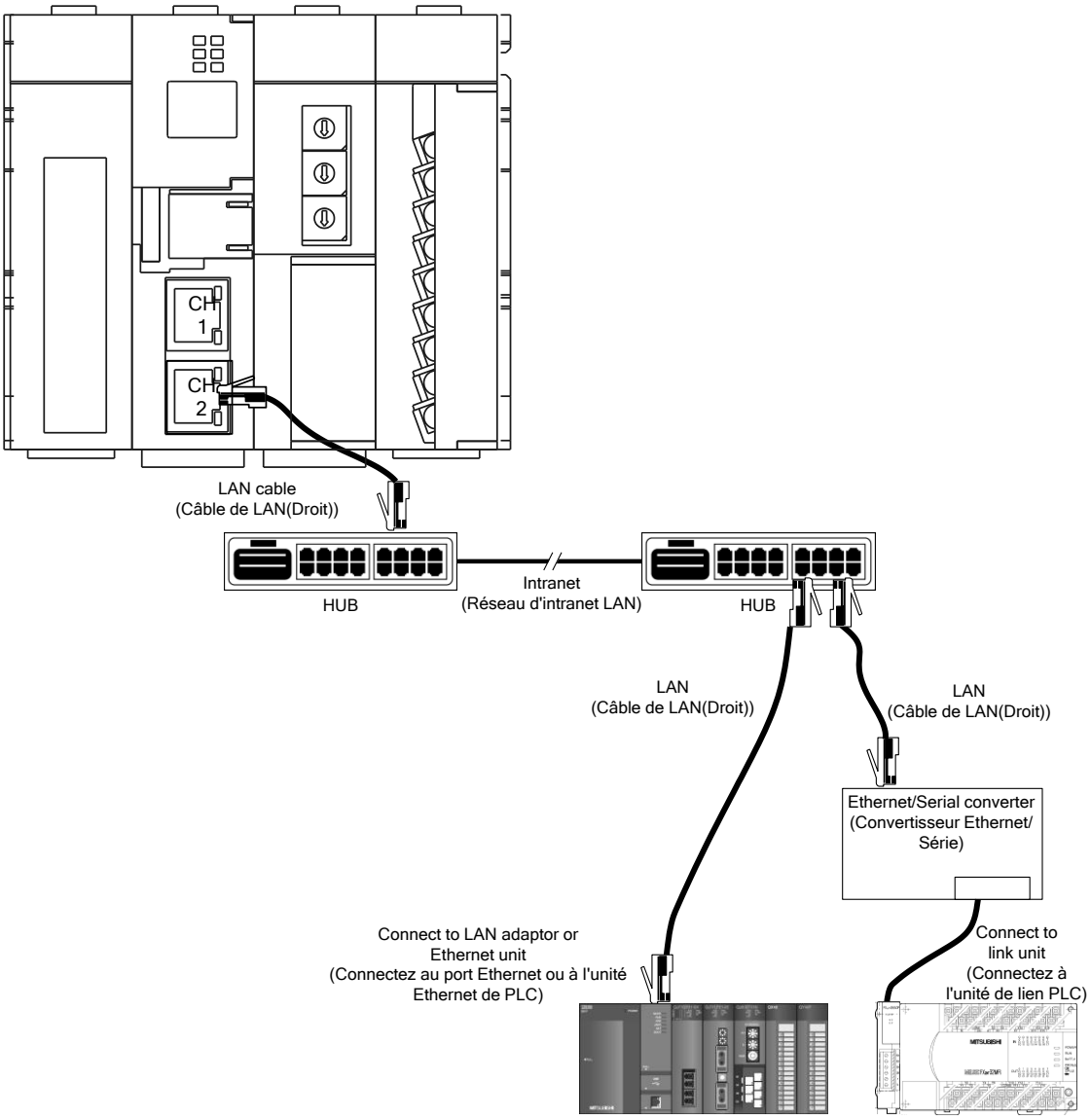


8.2.2 For operation(Pour opération)



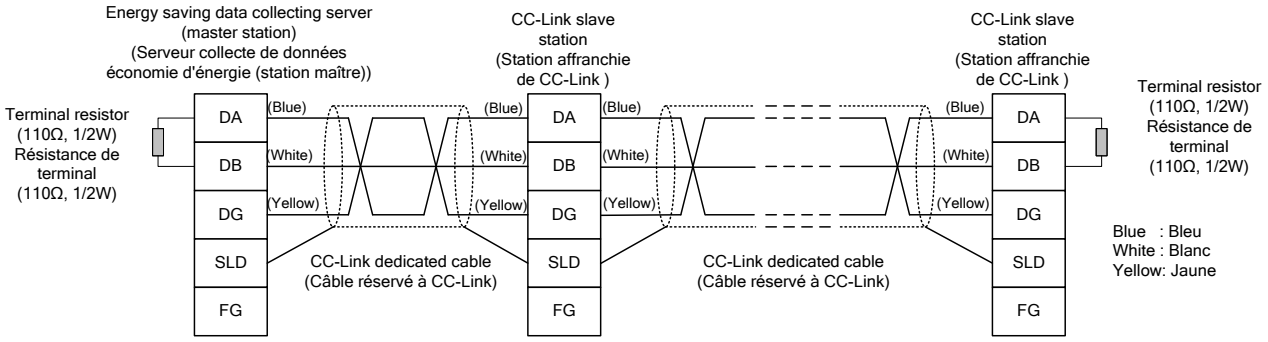
8.3 Ethernet communication section (CH2 to PLC) (Section de communication Ethernet (CH2))

8.3.1 For operation(Pour opération)



*Please see the details in PLC's instruction manual.
(*Voyez le mode d'emploi de PLC en détail.)
*FX series PLC is only supported for serial communication by using Ethernet/Serial converter.
(*Série FX est seulement soutenue pour la communication en série au moyen de convertisseur Ethernet/Série.)
*About the Ethernet/Serial Converter, we have check operation with "LINE EYE SI-65".

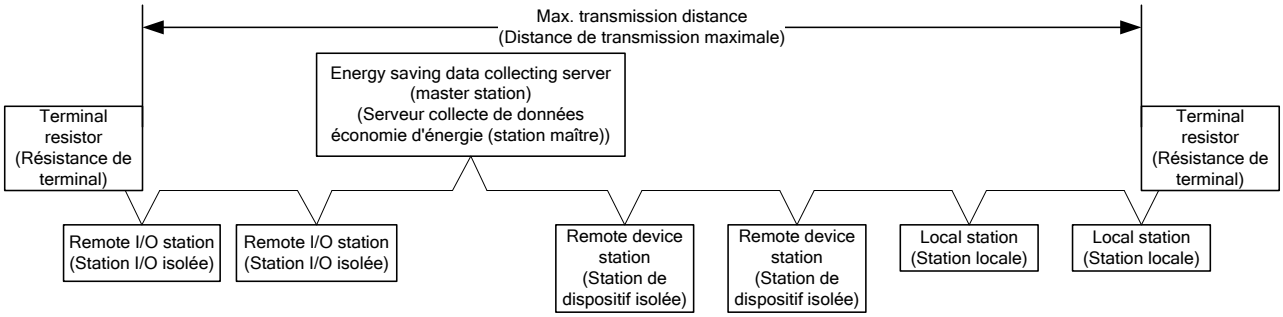
8.4 CC-Link communication section(Section de CC-Link communication)



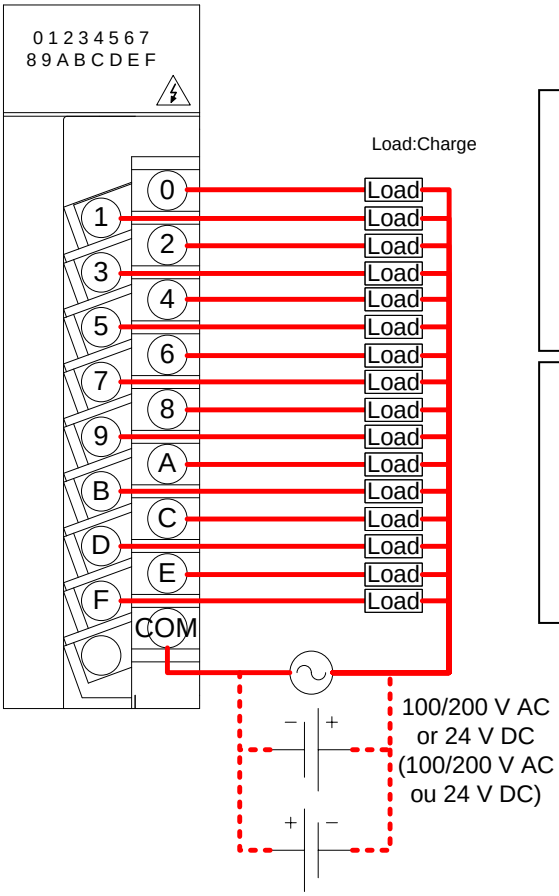
Point

The maximum transmission distance depends on the CC-Link communication speed setting.
(Distance de transmission maximale compte sur la fixation de la vitesse de communication.)
Perform wiring according to the following table so that it will not exceed the maximum transmission distance.
(Réalisez le câblage selon la table suivante afin qu'il n'excède pas la distance de transmission maximale.)

Communication speed (Vitesse de la communication)	156 kbps	625 bps	2.5 Mbps	5 Mbps	10 Mbps
Cable length between stations (Vitesse de la communication)	20 cm or longer (20 cm ou plus)	20 cm or longer (20 cm ou plus)	20 cm or longer (20 cm ou plus)	20 cm or longer (20 cm ou plus)	20 cm or longer (20 cm ou plus)
Max. transmission distance (Distance de transmission maximale)	1200 m	900 m	400 m	160 m	100 m



8.5 Contact output section(Section de sortie contact)

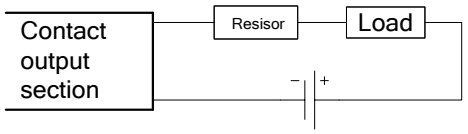


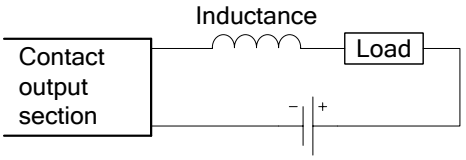
Note
* See more notice in page 3.
* To prevent induction noise, keep control lines and communication cables as far away from power lines as possible.
* Wire size refers to page 3.
* Terminals are arranged by the guests when COM is connected to several points.

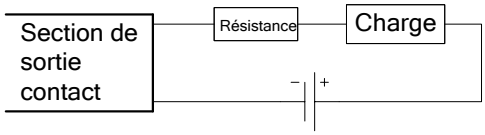
Note
* See more notice in page 3.
* Pour empêcher le bruit d'induction, écartez les lignes de contrôle des lignes électriques autant que possible.
* Taille de câble, regardez la page 3.
* Si COM sera connecté aux points plusieurs, terminaux doit être disposé par client.

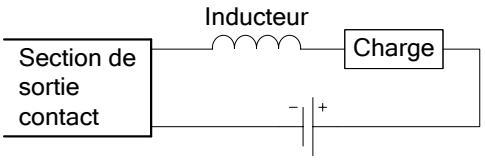
Point

When a counter or timer that uses a DC-DC converter is connected as a load, its inrush current should be below the maximum load current of the contact output section.
(Si l'un comptoir ou chronomètre ce qu'il utilise un DC-DC transformateur sera connecté comme une charge, le courant d'afflux doit être inférieur au courant de charge maximum de la section de contact de sortie.)
If the inrush current is large, perform any one of the following to reduce the impact of the inrush current.
(Si le courant d'afflux est grand, réalisez l'un des suivants pour diminuer l'impact du courant d'afflux.)









9. Specifications

9.1 Hardware specifications

<table>
<tr><th colspan="3">Item</th><th colspan="6">Specifications</th></tr>
<tr><td rowspan="19">Common</td><td colspan="2">Input power supply
(Entrée d'alimentation électrique)</td><td colspan="6">100 to 240 V AC (+10%, -15%)</td></tr>
<tr><td colspan="2">Input frequency
(Fréquence d'entrée)</td><td colspan="6">50/60 Hz (±5%)</td></tr>
<tr><td colspan="2">Input voltage distortion
(Distorsion)</td><td colspan="6">Within 5%</td></tr>
<tr><td colspan="2">Consumption VA
(Consommation VA)</td><td colspan="6">19 VA (at 110 V AC), 25 VA (at 220 V AC)</td></tr>
<tr><td colspan="2">Inrush current
(Courant d'afflux)</td><td colspan="6">20 A, 8 ms or less(20 ms ou moins (100 V AC ou plus))</td></tr>
<tr><td colspan="2">Allowable momentary power interruption time</td><td colspan="6">20 ms or less (100 V AC or higher)</td></tr>
<tr><td colspan="2">Withstand voltage</td><td colspan="4">L,N terminals – extemal case
L,N terminals – output terminals
L,N terminals – CC-Link communication terminals</td><td>2,210V AC in 5 seconds</td></tr>
<tr><td colspan="2">Insulation resistance</td><td colspan="4">L,N terminals – extemal case
L,N terminals – output terminals
L,N terminals – CC-Link communication terminals</td><td>10 MΩ at 500 V DC</td></tr>
<tr><td colspan="2">Noise immunity</td><td colspan="6">・By noise simulator with a noise voltage of 1500 Vp-p, a noise width of 1 μs and a noise frequency of 25 to 60 Hz
・Noise voltage IEC61000-4-4, 2 kV</td></tr>
<tr><td colspan="2">Operating ambient temperature</td><td colspan="6">0 to 55ºC</td></tr>
<tr><td colspan="2">Storage ambient temperature</td><td colspan="6">-25 to +75ºC</td></tr>
<tr><td colspan="2">Operating ambient humidity</td><td colspan="6">5 to 95% RH</td></tr>
<tr><td colspan="2">Storage ambient humidity</td><td colspan="6">5 to 95% RH</td></tr>
<tr><td colspan="2">Vibration resistance</td><td colspan="6"><table>
<tr><td rowspan="5">Conforming to JIS B 3502, IEC 61131-2</td><td>-</td><td>Frequency</td><td>Constant acceleration</td><td>Half amplitude</td><td>Sweep count</td></tr>
<tr><td rowspan="2">Intermittent vibration</td><td>5 to 9 Hz</td><td>-</td><td>3.5 mm</td><td rowspan="2">10 times in each X, Y, Z direction</td></tr>
<tr><td>9 to 150 Hz</td><td>9.8 m/s2</td><td>-</td></tr>
<tr><td rowspan="2">Continuous vibration</td><td>5 to 9 Hz</td><td>-</td><td>1.75 mm</td><td rowspan="2">-</td></tr>
<tr><td>9 to 150 Hz</td><td>4.9 m/s2</td><td>-</td></tr>
</table></td></tr>
<tr><td colspan="2">Impact resistance</td><td colspan="6">Conforming to JIS B 3502, IEC 61131-2 (147 m/s2, 3 times in each XYZ direction)</td></tr>
<tr><td colspan="2">Operating environment</td><td colspan="6">No corrosive gas</td></tr>
<tr><td colspan="2">Operating altitude</td><td colspan="6">2000 m or below</td></tr>
<tr><td colspan="2">Installation area</td><td colspan="6">Inside a board</td></tr>
<tr><td colspan="2">Overvoltage category *1</td><td colspan="6">II or below</td></tr>
<tr><td colspan="2">Contamination level *2</td><td colspan="6">2 or below</td></tr>
<tr><td colspan="2">Mass</td><td colspan="6">0.9 kg</td></tr>
<tr><td rowspan="5">Power supply section</td><td colspan="2">Fuse</td><td colspan="6">Built-in (unchangeable by user)</td></tr>
<tr><td rowspan="4">ERR terminal</td><td>Application</td><td colspan="6">Off when no power is input, the product is reset, or fuse blows</td></tr>
<tr><td>Rated switching voltage/current</td><td colspan="6">24 V DC, 0.5 A</td></tr>
<tr><td>Min. switching load</td><td colspan="6">5 V DC, 1 mA</td></tr>
<tr><td>Life</td><td colspan="6">Mechanical: 20,000,000 times or more, electrical: 100,000 times or more (at rated switching voltage/current)</td></tr>
<tr><td rowspan="12">Server section</td><td rowspan="6">Ethernet</td><td>Interface</td><td colspan="6">10BASE-T/100BASE-TX</td></tr>
<tr><td>Transmission method</td><td colspan="6">Baseband</td></tr>
<tr><td>Cascade connection limit</td><td colspan="6">Max. 4 levels (10BASE-T), Max. 2 levels (100BASE-TX)</td></tr>
<tr><td>Max. segment length</td><td colspan="6">100 m</td></tr>
<tr><td>Compatible Connector</td><td colspan="6">RJ45</td></tr>
<tr><td>Functions supported</td><td colspan="6">Autonegotiation (10BASE-T/100BASE-TX automatically detected)
Auto MDIX function (straight/crossover cable automatically detected)</td></tr>
<tr><td rowspan="2">Clock accuracy</td><td>0 to 55ºC</td><td colspan="3">Per day: -10.89 to +8.64 sec</td><td colspan="2" rowspan="2">Additional difference of ±0.5 seconds can be produced during outages.</td></tr>
<tr><td>25ºC</td><td colspan="3">Per day: -4.32 to +5.25 sec</td></tr>
<tr><td>Backup for electric blackout *4</td><td>Backup data</td><td colspan="6">Backup is made using the battery.
・Clock
・Measurement data for the last 1 hour
Backup is made using nonvolatile memory (CompactFlash memory card).
・Setting values
・Measurement data except the one for the last 1 hour</td></tr>
<tr><td rowspan="4">Battery</td><td>Type</td><td colspan="6">Lithium manganese dioxide primary battery</td></tr>
<tr><td>Initial voltage</td><td colspan="6">3.0 V</td></tr>
<tr><td>Nominal current</td><td colspan="6">1800 mAh</td></tr>
<tr><td>Life when in storage</td><td colspan="6">5 years at room temperature (actual service value)</td></tr>
</table>

Item			Specifications		
		Life when in use	Energization time ratio	Guaranteed value	Guaranteed time after battery error occurs
			0%	13,700 hours, 1.57 years	600 hours, 25 days
			30%	19,100 hours, 2.18 years	
			50%	25,800 hours, 2.96 years	
			70%	40,000 hours, 4.57 years	
			100%	43,800 hours, 5 years	

*1 This indicates the assumed area of electric distribution to which the device is connected, the area ranging from public distribution to factory machinery. The measurement category II applies to the device power-supplied from fixed facility. The surge voltage of this product is 2500 V up to the rated voltage of 300 V. (IEC 60664-1)

*2 The index indicates the level of conductive substance at the device's operating environment. Contamination level 2 means only non-conductive substance. However, occasional condensation may lead to temporary conduction. (IEC 60664-1)

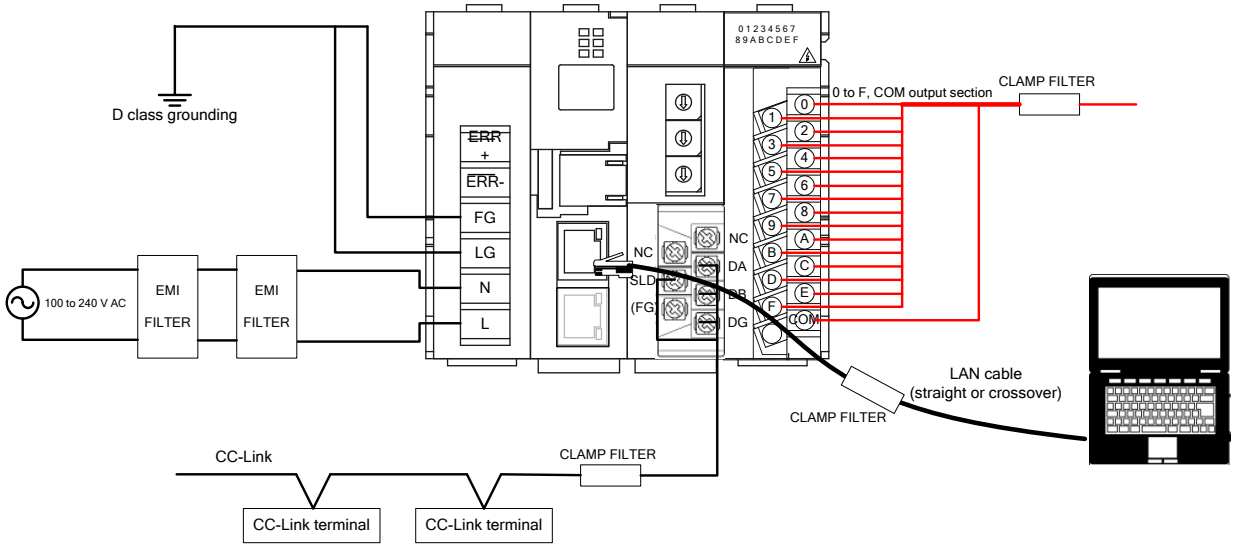
*3 For UL/c-UL standard, please use the copper conductors wire which temperature rating is 60 ºC /75 ºC.

*4 If the unit is reset when power failure compensation is not available by expiration of power failure compensation period, set time would be changed to the initial status (00:00 on 1st of January, 2002).
If the time is changed with this status, measured data may be disappeared.
Necessary data should be measured before changing the time setting.
About the data collecting method please refer to "Data Collecting" part in chapter 4.7.1 for maintenance of the user's manual (Settings).

Item		Specifications		
CC-Link communication section	Transmission speed	156 kbps/625 kbps/2.5 Mbps/5 Mbps/10 Mbps		
	Max. overall cable length (Max. transmission distance)	Communication speed	Cable length between stations	Max. overall cable length
		156 kbps	20 cm or longer	1200 m
		625 kbps		900 m
		2.5 Mbps		400 m
		5 Mbps		160 m
		10 Mbps		100 m
	Max. number of connected units	64 units under the following conditions. 1. Total number of stations a + b × 2 + c × 3 + d× 4 ≤ 64 a: number of units occupying 1 station, b: number of units occupying 2 stations, c: number of units occupying 3 stations, d: number of units occupying 4 stations 2. Number of connected units 16 × (A + D) + 54 × B + 88 × c ≤ 2304 A: Number of remote I/O station units --- Max. 64 units B: Number of remote device station units --- Max. 42 units C: Number of local station and intelligent device station units --- Max. 26 units D: Number of reserved station units* * Unregistered station numbers from the station number 1 to the last station number are counted as reserved station units.		
	Communication method	Broadcast polling method		
	Synchronization method	Frame synchronous method		
	Encoding method	NRZI method		
	Transmission path	Bus (RS-485)		
	Transmission format	HDLC compliant		
	Error control system	CRC (X16 + X12 + X5 + 1)		
	Connection cable	Version 1.10-compatible CC-Link dedicated cable		
Contact output section	Number of output points	16 points		
	Insulation method	Relay insulation		
	Rated switching voltage/current	24 V DC 2 A (resistance load) 240 V AC 2 A (COSφ=1) /1 point, 8 A/1 common (24 V DC 2 A (resistance load)) (240 V AC 2 A (COSφ=1)) (/1 point, 8 A/1 common)		
	Min. switching load	5 V DC, 1 mA		
	Max. switching load	264 V AC 2 A, 125 V DC 2 A		
	Life	Mechanical: 20,000,000 times or more, electrical: 100,000 times or more (at rated switching voltage/current)		

To make EcoWebServerIII EMC-compatible, the noise reduction parts must be installed in accordance with the following.
The noise reduction must be the parts of the table below or equivalent.

Parts name	Model name	Quantity	Manufacturer	Distance from the terminal
EMI FILTER	NF2060A-RQ	2	SOSHIN ELECTRIC CO.,LTD	100mm
CLAMP FILTER	ZCAT2235-1030A	3	TDK	100mm



9.2 Software specifications

Item				Specifications	
Support terminals	CC-Link terminals		No.	Up to 64	
			Terminal model	ME96NSR,ME110SSR-C,ME110NSR-C,,EMU2-RD3-C,EMU2-RD5-C,EMU2-RD7-C,EMU2-RD2-C-4W,EMU2-RD4-C-4W,EMU3-DP1-C,MDU(WS-V),MDU(WS),AE-SW(BIF-CC),AJ65BT-68TD,AJ65BT-64RD3,AJ65BT-64AD,AJ65SBTB1-8D,AJ65SBTB1-16D,AJ65SBTB1-32D,AJ65SBTB1-16DT,AJ65SBTB1-32DT,QJ61BT11N,LCPU/LJ61BT11	
	PLC		No.	Up to 32	
			Terminal model	MELSEC PLC Q series, L series, QnA series, A series, FX series	
Number of measuring points	Total number of measuring points			255 points (Up to 32 of 255 points are operation monitoring measuring points.)	
	Number of virtual measuring points			128 points	
	Number of specific consumption measuring point			64 points	
	Number of equipment measuring points			42 points	
Logging function	Zoom/Daily/Monthly/Yearly			Collects data at 1/5-minutes intervals/on the hour or on the half-hour/on the specified hour of the day/on the specified hour of the specified day of the month	
Computing function	Daily	Virtual measuring point		Four arithmetic operations with parentheses can be performed on up to 16 arithmetic elements.	Arithmetic operations are done based on data collected on the hour or on the half-hour.
		Specific consumption measuring point		Divides energy amount by production amount. A measuring point or virtual measuring point is specified for each amount.	
	Monthly	Virtual measuring point		Four arithmetic operations with parentheses can be performed on up to 16 arithmetic elements.	Arithmetic operations are done based on data collected on the specified hour of the day.
Saving function	Zoom/Daily/Monthly/Yearly			For 62 days(1-minute) or 14 days(5-minutes) /186 days/60 months/5 years	Saved in CompactFlash memory card
	Specific consumption measuring point			For 186 days (only on a daily basis)	
	Virtual measuring point			For 186 days (on a daily basis)/60 months (on a monthly basis)	
	Operation history			Records changes from ON to OFF in operation monitoring input for each operation monitoring point (64 KB × 4 × the number of operation monitoring points).	
Transfer function	Zoom/Daily/Monthly			Transfers data on the hour (data for 1 hour)/on the hour (data for the day)/on the specified hour of the day (data for the month).	Automatically transfers data to a specified FTP server
Display function	Zoom	Electric energy/Pulses		Bar graph: Usage amount for 1/5 minutes	Displays 1-hour data collected at 1-minute intervals. Displays 2 sets of data at a time, each for a separate measuring point or for a separate day.
		Analog value		Line graph: Measurement value	
		Analog value (Power factor)		Line graph: Measurement value	Displays 2 sets of 1-hour data collected at 1-minute intervals at a time, each for a separate day.
	Daily	Electric energy/Pulses Virtual measuring point		Bar graph: Usage amount on the hour or on the half-hour Line graph: Specific consumption and accumulated energy amount on the hour or on the half-hour	Displays 1 day of data collected on the hour or on the half-hour. Displays 2 sets of data at a time, each for a separate measuring point or for a separate day.
		Analog value		Line graph: Measurement value	
		Analog value (Power factor)		Line graph: Measurement value	Displays 2 days of data collected on the hour or on the half-hour at a time.
		Equipment		Bar graph: Usage amount on the hour or on the half-hour Line graph: Specific consumption and accumulated energy amount on the hour or on the half-hour	Displays data for the specified day collected on the hour or on the half-hour.
		Specific consumption		Bar graph: Production amount and energy amount on the hour or on the half-hour Line graph: Specific consumption and accumulated energy amount on the hour or on the half-hour	Displays 2 days of data collected on the hour or on the half-hour at a time.
	Weekly	Specific consumption			Displays 7 days of data collected on the hour or on the half-hour.
	Monthly	Electric energy/Pulses Virtual measuring point		Bar graph: Usage amount for 1 day Line graph: Accumulated usage amount and accumulated daily planned amount	Displays 2 sets of 1-month data collected at 1-day intervals, each for a separate month or for a separate measuring point.
	Yearly	Electric energy/Pulses		Bar graph: Usage amount and planned amount for 1 month Line graph: Accumulated usage amount and accumulated planned amount	Displays 1 year of data collected at 1-month intervals. Displays 5 sets of data at a time, each for a separate year or for a separate measuring point

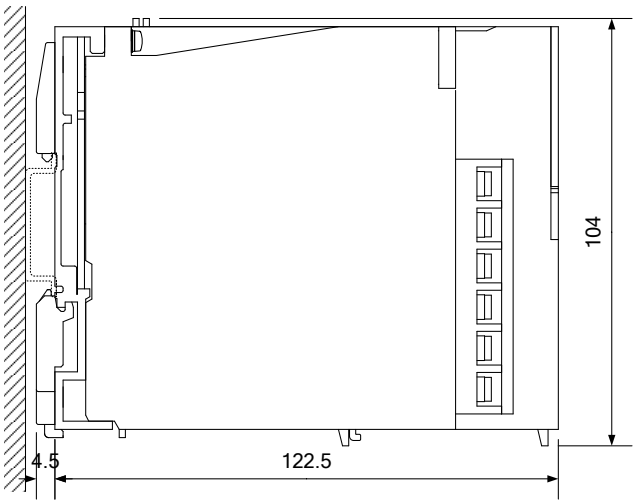
Item			Specifications
	Current value (group)		Displays accumulated current values, hourly differences, daily differences, or monthly differences of current values for measuring points registered as a group (up to 32 groups, up to 255 points per group). Measurement values for up to 10 points can be displayed in a screen.
	Current value (separately chosen)		Displays accumulated current values, hourly differences, daily differences, or monthly differences of current values for measuring points registered in a display list file (up to 10 files). Measurement values for up to 10 points can be displayed in a screen.
Monitoring function	Email notification	Error monitoring	Monitors server startup (reset), read/write errors on CompactFlash memory card, measuring errors, file transfer errors, automatic clock adjustment errors, battery errors
		Upper/Lower limit monitoring	Monitors up to 32 measuring points (analog value) for their upper/lower limit.
		Planned energy value monitoring	Performs a daily monitoring of up to 255 measuring points for the actual values against the planned monthly energy values.
		Target Specific consumption monitoring	Performs an hourly monitoring of up to 64 measuring points for the actual values against the target specific consumptions.
		Operation monitoring	Monitors up to 32 operation monitoring points for changes.
		Periodic notification	Sends up 8 messages to the specified destinations once a day, week, or month on the specified hour.
	Contact output	Error monitoring	Monitors server startup (reset), read/write errors on CompactFlash memory card, measuring errors, file transfer errors, automatic clock adjustment errors, battery errors.
		Upper/Lower limit monitoring	Monitors up to 32 measuring points (analog value) for their upper/lower limit.
		Planned energy value monitoring	Performs a daily monitoring of up to 255 measuring points for the actual values against the planned monthly energy values.
		Target specific consumption monitoring	Performs an hourly monitoring of up to 64 measuring points for the actual values against the target specific consumptions.
		Operation monitoring	Operates in combination with changes in the state of up to 32 operation monitoring points.
Maintenance function	Planned value/Target value setting		Sets planned monthly energy values and target specific consumptions on an annual basis.
	Clock setting		Reading and setting of the current date
	IP address setting		Sets an IP address, subnet mask, gateway address, and up to 3 DNS addresses

9.3 Operation environment

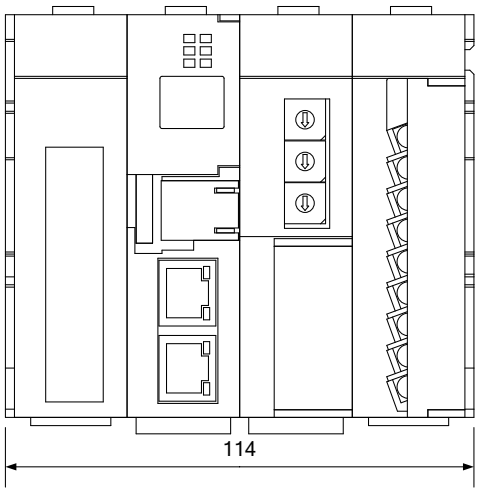
Item	Specifications
OS	Microsoft　Windows XP Professional(32bit) SP3 Microsoft　Windows Vista Business(32bit) SP2 Microsoft　Windows 7 Professional(32bit，64bit)SP1
Web browser	Internet Explorer 7 Internet Explorer 8(32bit) Internet Explorer 9(32bit)
JavaVM	Oracle JAVA™ 6 JRE 6(32bit) Oracle JAVA™ 7 JRE 7(32bit)

10. External Dimensions

10.1 External dimonsions



<Side>



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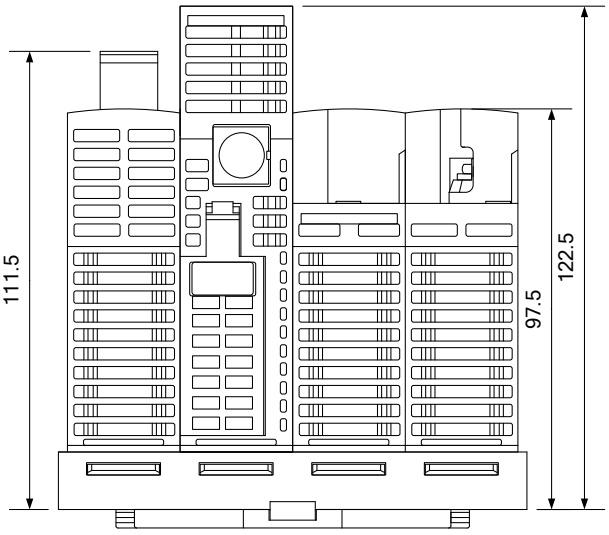
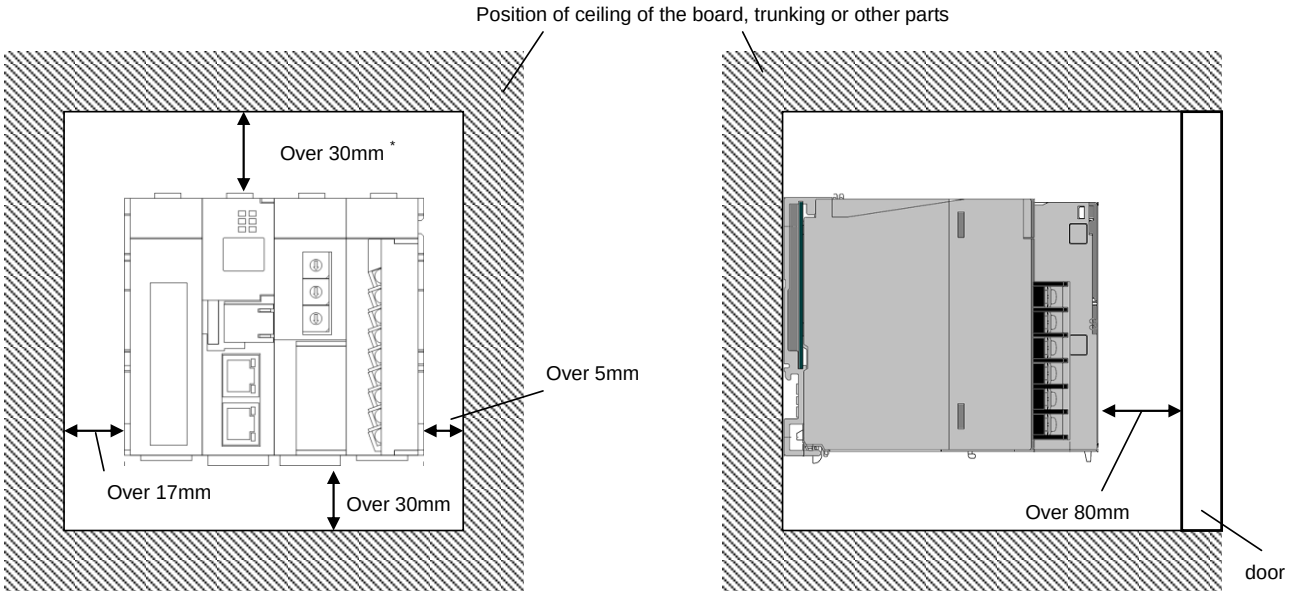


<Bottom>

(Unit: mm)

10.2 Setting conditions

The space conditions is necessary for heat dissipation and battery replace.



* When trunking is less than 50mm. In other cases is over

11. Options

Product name	Model name
 Replacement battery	Q6BAT

12. Troubleshooting

If the product gives off abnormal noise, smell, smoke or heat, turn the power off immediately.
Check the following items for troubleshooting.

Symptoms	Check items
Nothing is displayed.	●Is power supply (100 to 240 V AC, 50/60 Hz) properly connected between L and N on the terminal block of the power supply section? ●Is there any short-circuit or break in the power line?
Graphs cannot be displayed.	Is JavaVM (Java Virtual Machine) installed? You need to install JavaVM in client PCs to display graphs. Visit the following URL for installation. http://www.java.com/
The “ERR.” LED on the CC-Link communication section is lighting or blinking.	Is there any error in communication with CC-Link terminal devices? Check whether CC-Link terminal devices, CC-Link station numbers and CC-Link baud rate are properly set and communication cables and termination resistance are properly connected.
The “ERR.” LED on the server section is lighting.	●The battery is at the end of its life. Replace the battery. (See “6.2 Replacing battery”.) ●Please check if the battery is properly connected.
The “STA.” LED on the server section is blinking for a long time.	The data in the CompactFlash memory card is being restored during startup. The product starts up normally after a few minutes.
“E1” is displayed on the 7-segment LED on the server section.	Access to the internal memory has failed. Reset the product.
“E2” is displayed on the 7-segment LED on the server section.	Access to the CompactFlash memory card has failed. Reset the product.
“E3” is displayed on the 7-segment LED on the server section.	Automatic time synchronization with the SNTP server has failed. Check whether communication with the SNTP server is normally running or settings in the SNTP server are correct.
“E4” is displayed on the 7-segment LED on the server section.	File transfer to the FTP server has failed. Check whether communication with the FTP server is normally running or settings in the FTP server are correct.
“01” is blinking on the 7-segment LED on the server section.	The battery backup RAM is initialized when you use the product for the first time or when you keep the product nonenergized for more than 3 minutes with the battery exhausted or disconnected.

If you cannot solve your problem according to the check items above, contact your supplier or us.

13. Warranty

- This document and product have undergone strict quality control and inspection before delivery, but in the unlikely event that the document or product is defective in manufacture, our company shall provide replacement. Contact the distributor from which you purchased them. However, this warranty does not apply to the product or document that has been damaged by acts of God or misapplication.

- Our company shall not be liable for any damages arising out of your or third parties’ system troubles, legal problems, misapplication, failures during use, or any other defects.

- The product is warranted for a period of less than one (1) year from the date of your purchase or from the date of delivery to your specified location or within eighteen (18) months from the date of shipment from our factory (from the month and year of manufacture), whichever is less.

- The warranty period shall not be renewed after repair.

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(2) Mitsubishi Electric can terminate the license of use, if the user violates the Agreement.

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MEMO

Energy Saving Data Collecting Server

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