

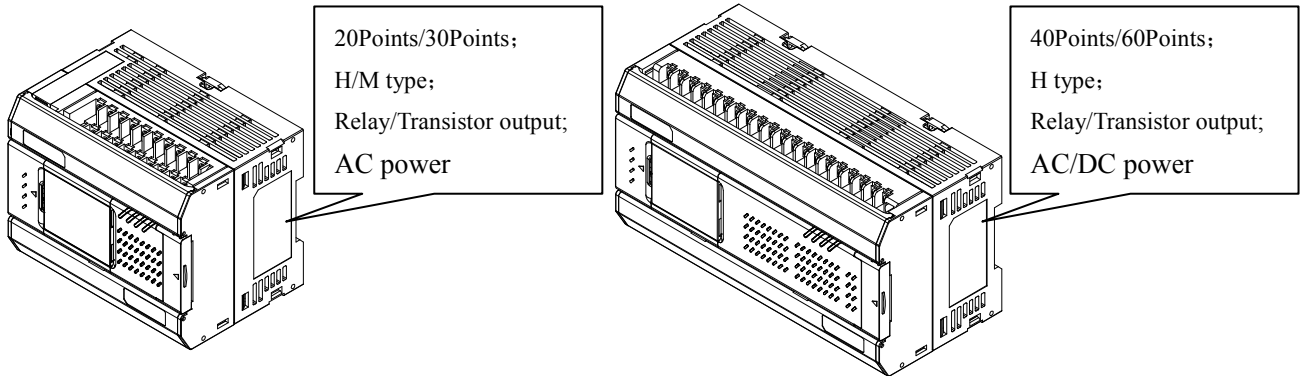
# Operating Instructions

4KA72X112W21

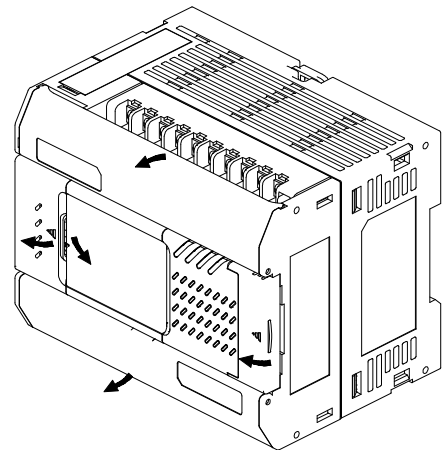
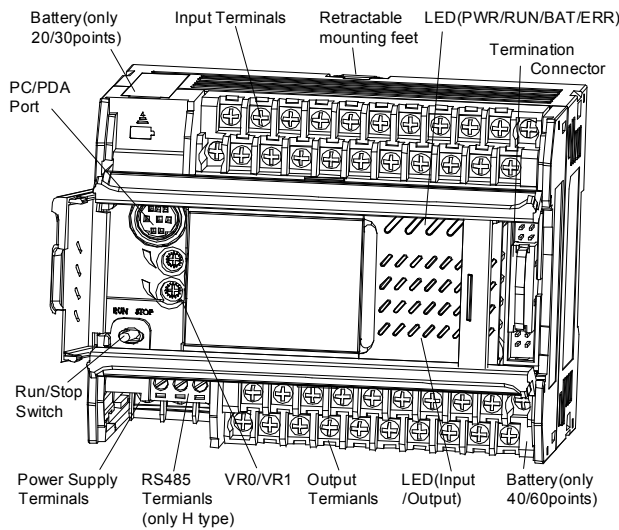
Ver.03 2009.07

This sheet provides brief operating instructions of the PLC Main type module. For details, Please refer to the User's Operation Manual.

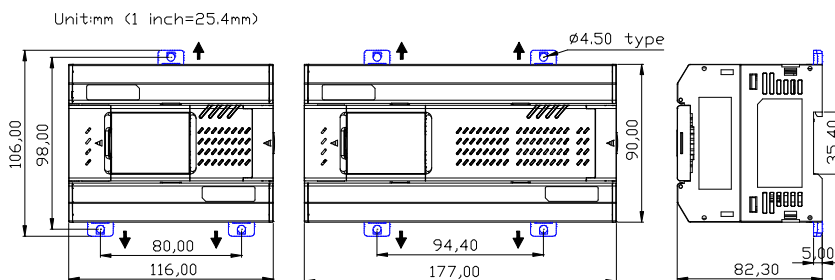
## ● Main type products:



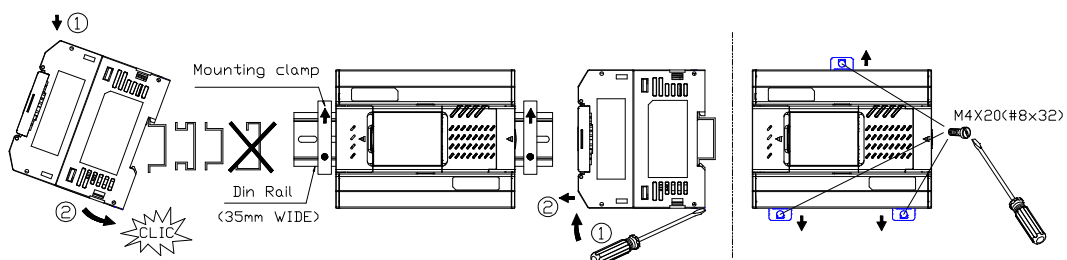
## ● Name & Function:

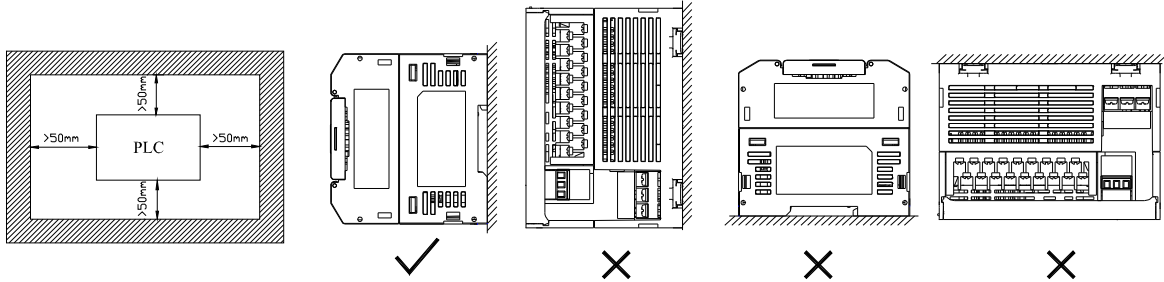


## ● Dimensions:



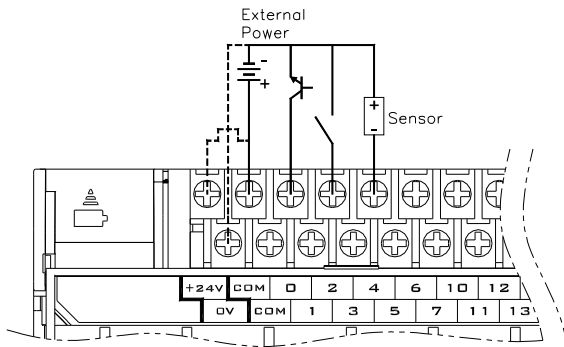
## ● Mounting:



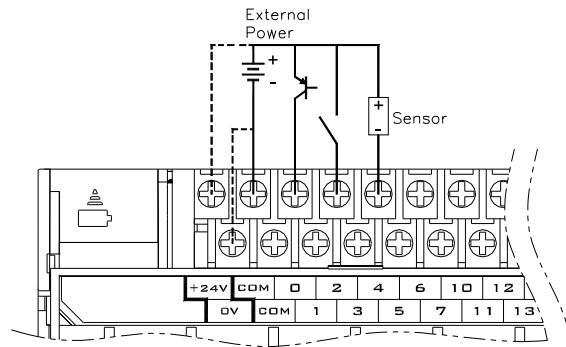


● **Wiring:**

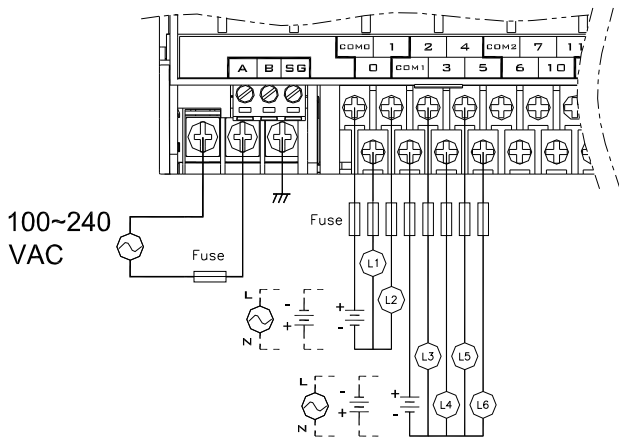
DC Sink Input:



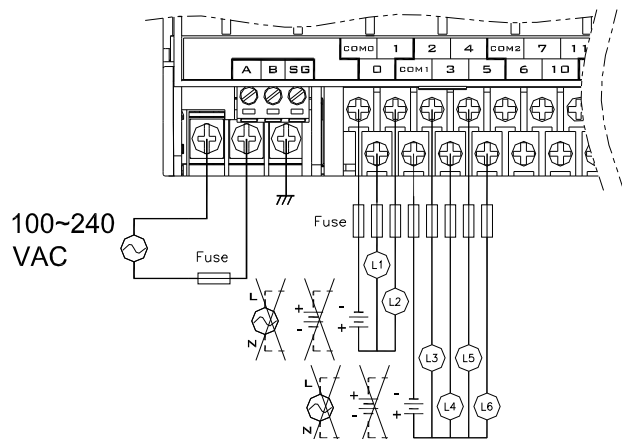
DC Source Input:



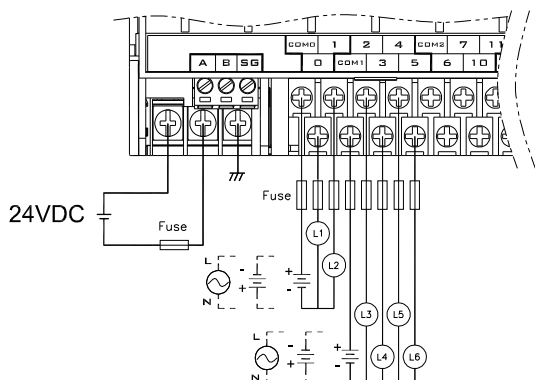
AC Power & Relay Output:



AC Power & Transistor Output:

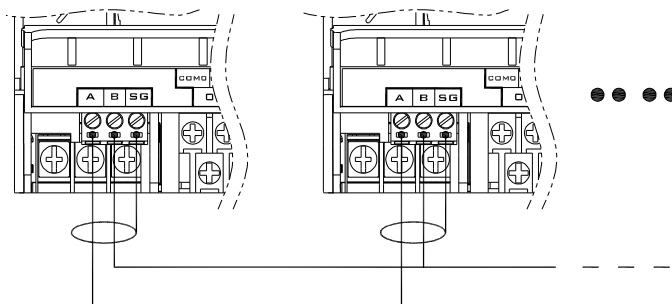


DC Power & Relay Output:

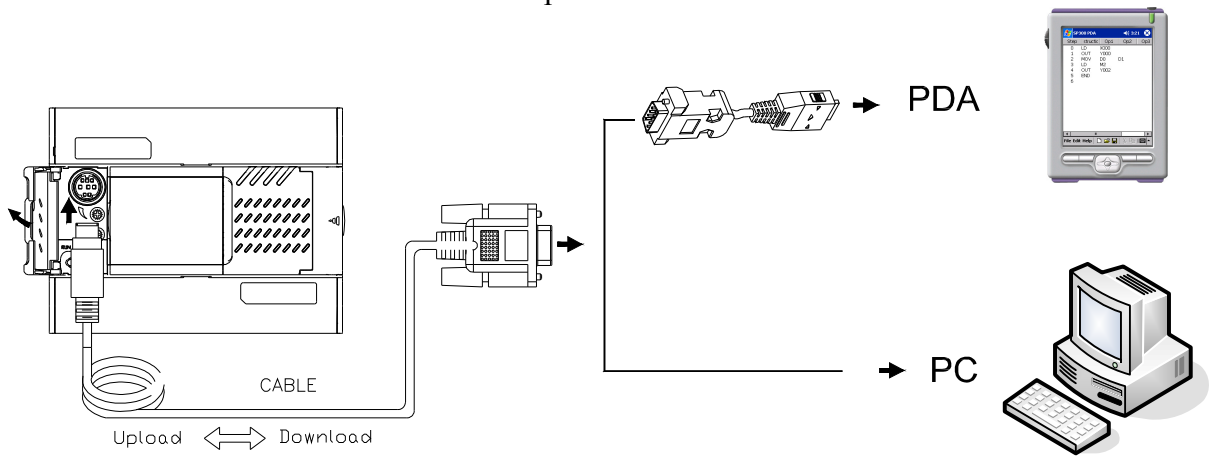


RS485:

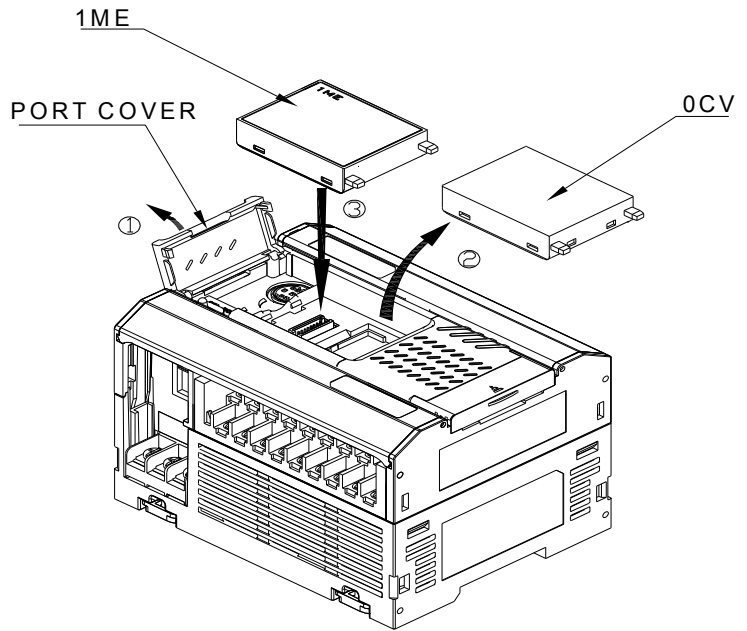
(Only H type are available.)



Communicate with Cable (Download & Upload) :



Communicate with Memory Pack:



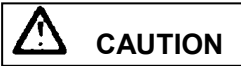
**Safety Precautions**

PLC is the control center for the operation of machine. For your safety, please beware of the symbol notifying “WARNING” and “CAUTION”. These are safety precautions to remind you when you’re performing transportation, installation, operation, examination of the PLC. Please perform these operations in accordance with these precautions for your own safety reason. Make sure that the operating conditions are as described in the user’s operation manual.





**WARNING**

Operate mistakenly may cause personnel injury or death.



**CAUTION**

Operate mistakenly may cause personnel injury or damage to mechanical system.

Also please operate in accordance to instruction under “ INHIBIT ” and “ MUST DO ”.

**(1) Precaution in installation**



**CAUTION**

- Do not install the device in environment disqualified according to instructions in manual or product catalog. High temperature, humidity, dusty, corrosive gas, vibration, shock may result in dangerous conditions like electrical shock and fire alarm.
- Please install the PLC in accordance to the instructions and precautions described in user’s operation manual

to ensure appropriate installation and eliminate the possibility failing, malfunction and miss-function of PLC.

- Please keep the PLC module from dropping wire or conductive metal to avoid the possibility of resulting fire alarm, malfunction or miss-function.
- The PLC is designed for installation in equipment. Do not install outside equipment.
- The environment for using the PLC is “Pollution degree 2.”

### (2) Precautions in wiring



- Please wiring the system in accordance to electricity regulation and install type grounding accordingly.



- Please wiring the system in accordance to the power ratings. Wiring without appropriate power rating may cause fire alarm.
- The wiring operation must be performed by qualified electrical engineer. The wiring operation must be carried out in accordance to electricity regulations.
- Any error in wiring may cause fire alarm, system malfunction, and electrical shock to personnel.
- Use wires of a proper size to meet voltage and current requirements. Tighten terminal screws to a proper tightening torque of 4~8kgf-cm.
- If relays or transistors in the PLC output modules should fail, outputs may remain on or off. For output signals which may cause heavy accidents, provide a monitor circuit outside of the PLC.
- Use the sensor power supply only for supplying power to sensors connected to the PLC.

### (3) Precautions in operation



- Do not touch any connection terminal when power is on to avoid electric shock.
- Please install safety system protective circuit including emergency stop circuit and external lockup circuit to prevent mechanical damage when PLC malfunction.
- This equipment is suitable for use in Class I, Division 2, Groups A,B,C,D or non-hazardous locations only.



- Please initiate and stop PLC operation after reconfirming safety precautions. Mistaken operation may cause mechanical damage.
- Please beware of the sequence for power on. Mistaken operation may cause mechanical damage or other accident.

### (4) Maintenance and examination



- Disassembly or modification of internal circuit in module is forbidden. Improper usage may cause conditions like fire alarm, system malfunction and erroneous operation.



- Shut down power source before installing and dismantling module. Installing or dismantling module while power is ON may cause electric shock to personnel or system malfunction of PLC.

