



Installation Manual

3P583694-1E EM18A020C


3P583694-1E

Model : DGE601A53 <1>

Contents



Installation Manual 1	3P583694-1E
Safety Precautions	1
1 Before Installation	4
1.1 Checking that all accessories are included	4
1.2 Understanding external dimensions	4
1.3 Understanding terminals and switches	5
1.4 Determining installation place	6
Installation Manual 2	3P583694-2E
2 Adding a DGE601A53	9
3 Electrical Wiring	12
3.1 Connecting DIII-NET-compatible air conditioners	12
3.2 Connecting an emergency stop input device or electric energy meters	14
4 Setting addresses for each air conditioner	16
5 Quick Operation Guide	16
5.1 Restarting the unit	16

Safety Precautions


Also see the installation manual provided with the equipment that you connect.

Please read these “SAFETY PRECAUTIONS” carefully before installing the unit, and be sure to install the unit correctly.


- The installation manual and the “SAFETY PRECAUTIONS” contain important information regarding safety. Be sure to observe all precautions.

 WARNING	Failure to follow these instructions properly may result in personal injury or loss of life.
 CAUTION	Failure to observe these instructions properly may result in property damage or personal injury, which may be serious depending on the circumstances.

- After completing the installation, conduct a trial run to check for faults, and explain to the customer how to operate the unit and take care of it with the aid of the operation manual. Ask the customer to store the installation manual along with the operation manual for future reference.

 **CAUTION**

- **Be very careful when transporting the unit.**
- **Safely dispose of the packing materials.**
Tear apart and throw away plastic packaging bags so that children will not play with them. If children play with a plastic bag which was not torn apart, they face the risk of suffocation.
- **This unit is a class B product.**
- **In a domestic environment, this product may cause radio interference.**
In such cases, the user may be required to take adequate measures.
- **Disposal requirements: the dismantling of the unit and of other parts must be done in accordance with relevant local and national legislation.**
- **Do not operate with wet hands.**
An electric shock and malfunction may be caused.
- **Do not wash the unit with water.**
An electric shock or fire may be caused.
- **Install the unit, its power cord, and its wiring at least 1 m away from televisions or radios.**
This is to prevent picture interference and noise. (Depending on the incoming signal strength, a distance of 1 m may not be sufficient to eliminate noise.)
- **Do not install the unit in the following places.**
 - 1. In places with a high concentration of mineral oil spray or vapour (e.g. a kitchen).**
Plastic parts will deteriorate, parts may fall off and water leakage could result.
 - 2. Near machinery emitting electromagnetic radiation.**
Electromagnetic radiation may disturb the operation of the control system and result in a malfunction of the unit.
 - 3. In places where flammable gas may leak, where there is carbon fibre or ignitable dust suspensions in the air, or where volatile flammables such as paint thinner or gasoline are handled.**
Operating the unit in such places may result in fire.
 - 4. In places with high temperatures or where the unit is exposed to direct flames.**
Abnormal heat build-up or firing may be caused.
 - 5. In moist areas or places that are exposed to water.**
Water entering the unit may cause electric shock and malfunction.

 **WARNING**

- **Ask your dealer or other qualified personnel to take installation work.**
Do not attempt to install the unit yourself. Improper installation may result in an electric shock or fire.
- **Do not relocate or reinstall the unit yourself.**
Improper installation work may result in an electric shock or fire. Ask your local dealer to carry out the relocation and reinstallation of the unit.
- **Install the unit in accordance with the instructions in this installation manual.**
Improper installation may result in an electric shock or fire.
- **Be sure to use only the specified accessories and parts for the installation work.**
Failure to use the specified parts may result in the DGE601A53 falling, an electric shock, or fire.
- **Install the unit on a foundation strong enough to withstand the weight of the unit.**
A foundation of insufficient strength may result in the equipment falling and causing injury.
- **Always perform the installation work with the power supply shut off.**
Touching energised electric parts causes an electric shock.
- **Do not disassemble, modify or repair the unit.**
An electric shock or fire may be caused.
- **Make sure that all wiring is secured, that the specified wires are used, and that there is no strain on the terminal connections or wires.**
Improper connection or securing of wires may result in abnormal heat build-up or fire.
- **The choice of materials and installations must comply with the applicable national and international standards.**
- **Carry out the installation work taking earthquakes into account.**
Failure to do so during installation work may result in the unit falling and causing accidents.
- **Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local laws and regulations and this installation manual.**
An insufficient power supply capacity or improper electrical construction may lead to an electric shock or fire.
- **When wiring the power supply position the wires so that the electric parts box lid can be securely fastened.**
Improper positioning of the electric parts box lid may result in an abnormal heat build-up, an electric shock, or fire.
- **This unit is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.**
- **Children should be supervised to ensure that they do not play with the unit.**
This equipment is not suitable for use in locations where children are likely to be present.

1 Before Installation

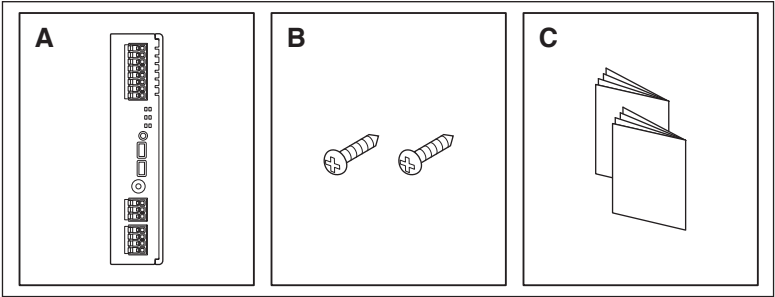
Before you start installing, make the following preparatory checks.

- Check that the DGE601A53 comes with all accessories.
- Understand the locations of connection terminals and switches on the DGE601A53.
- Check that an appropriate space for installing the DGE601A53 is available.

1.1 Checking that all accessories are included

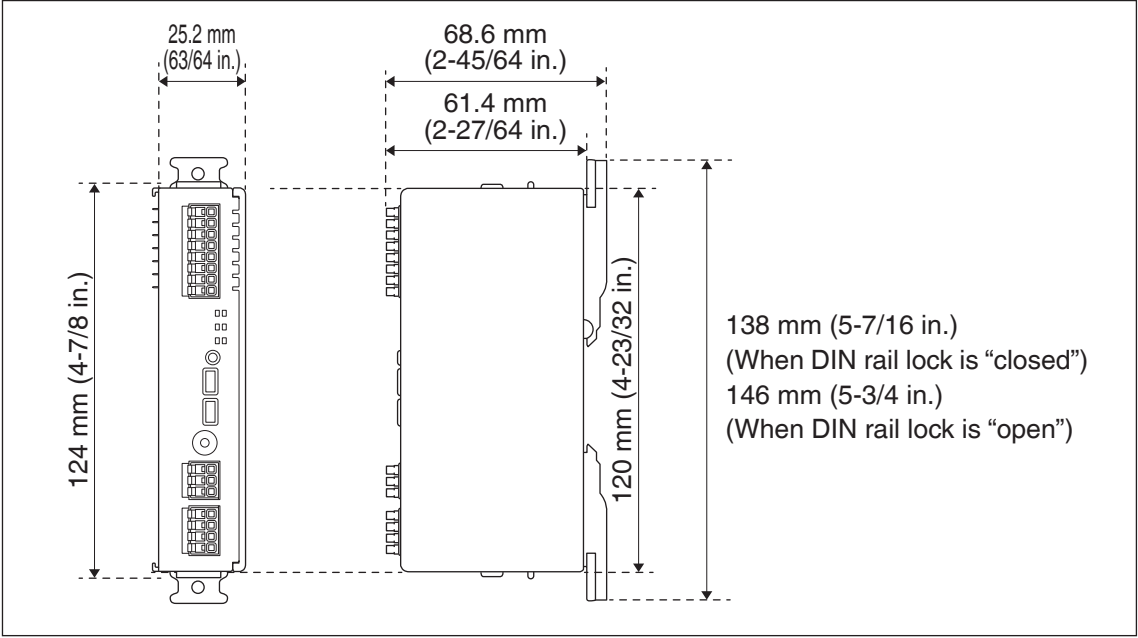
Based on the following accessory list, check that all accessories are included. If there is any missing or defective part, contact the DAIKIN dealer where you purchased the product.

<Accessories included with DGE601A53>



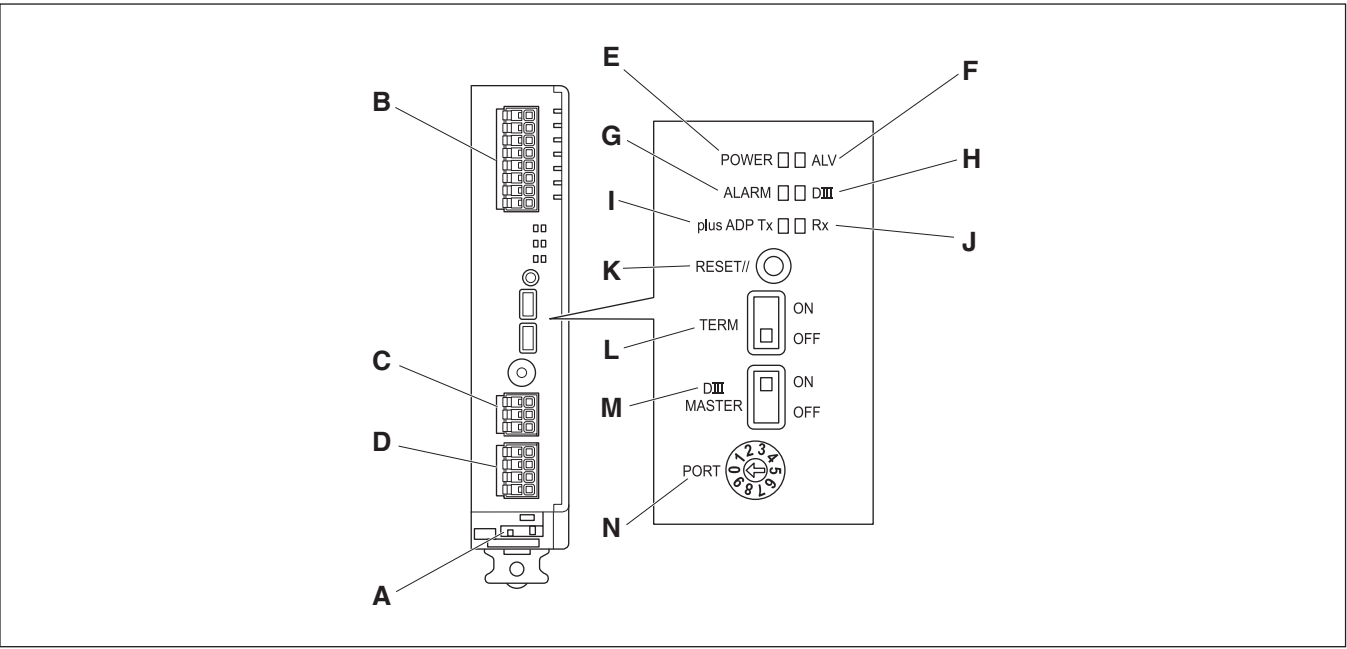
- A** DGE601A53, 1 pc.
- B** Wood screw (3 mm (1/8 in.) diameter x 15 mm (19/32 in.) length) for securing the body, 2 pos.
- C** Installation manual (This manual), 1 set

1.2 Understanding external dimensions



1.3 Understanding terminals and switches

<Front face of DGE601A53>



Symbol	Name	Explanation
A	[Inter-unit lock]	Knob for locking the DGE601A52/DGE601A72 and the DGE601A53.
B	[Di]	Terminals for stopping air conditioner operation by an external signal in case of an emergency, or for connecting electric energy meters.
C	[plus ADP IF]	Terminals for connecting DGE601A52/DGE601A72, or iTM plus adaptor if necessary.
D	[DIII]	Terminals for connecting the “DIII-NET” communication line, for communication with the DAIKIN air conditioners.
E	[POWER] LED	LED (Green) When the power is turned on, this LED is always lit.
F	[ALV] LED	LED (Green) When the CPU is operating normally, this LED blinks.
G	[ALARM] LED	LED (Red) When the body is operating normally, this LED is unlit.
H	[DIII] LED	LED (Orange) When communication with DIII-NET is being carried out, this LED blinks.
I	[plus ADP Tx] LED	LED (Green) When DIII plus ADP data is being sent, this LED is lit.
J	[Rx] LED	LED (Orange) When DIII plus ADP data is being received, this LED is lit.
K	[RESET/] switch	Switch for restarting the DGE601A53.
L	[TERM] switch	Switch for activating the termination resistor, in case you want to connect the DGE601A52/DGE601A72 with another DGE601A52/DGE601A72, DGE601A51/DGE601A71, intelligent Touch Manager (referred to as iTM below), and/or iTM plus adaptor (using the plus ADP IF terminal). (Factory default: OFF)
M	[DIII MASTER] switch	Switch for changeover of DIII-NET MAIN/SUB. (Factory default: ON) ON: MAIN OFF: SUB
N	[PORT] dial switch	Dial switch for setting the port number of the DGE601A53. Possible settings are from 3 to 8 if connecting to the DGE601A51/DGE601A71, and from 2 to 8 when connecting to iTM.

The table below shows the status of the ALV/ALARM LEDs during normal operation and in case of failure.

NOTE

LED status and operation		
Operating condition	ALV	ALARM
Normal	Blinking	Unlit
Hardware failure	Unlit	Lit
Address failure	Lit	Lit
DGE601A51/DGE601A71, iTM and DGE601A52/DGE601A72 communication failure	Lit	Blinking

1.4 Determining installation place

Be sure to install in a place that meets the conditions described in 1.4.1 to 1.4.4.

1.4.1 Installation place and mounting direction

- Below are the description of the installation place and mounting direction. Be sure to confirm the requirements.
- Installation place: Indoor and inside a control enclosure (lockable, or unable to be opened without special tools) (For details, refer to “CAUTION” in “Safety Precautions”).
 - Mounting direction: Vertical only

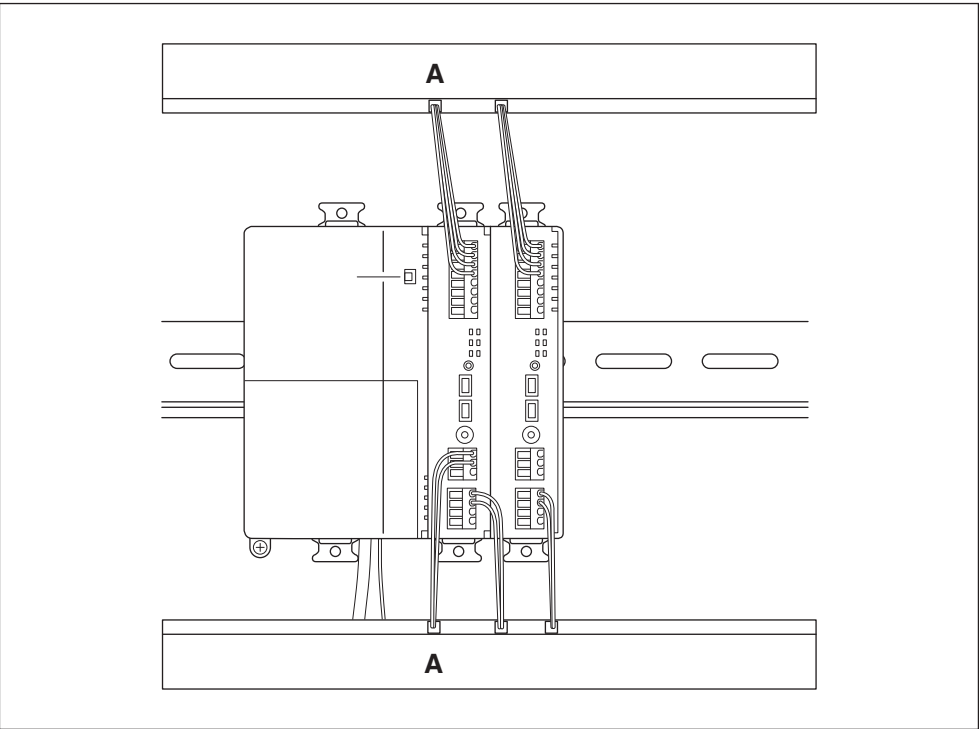
1.4.2 Environmental conditions

- Check that the installation environment meets the following conditions.
- Ambient temperature: -10 to 50°C (14 to 122°F)
 - Ambient humidity: 85% RH or less (without condensation)
 - DGE601A53 operation is not affected by electromagnetic waves.

1.4.3 Wiring of cables

For an example of DGE601A53 cable wiring, refer to the cable wiring diagram (example) shown below.

<Cable wiring diagram (example)>



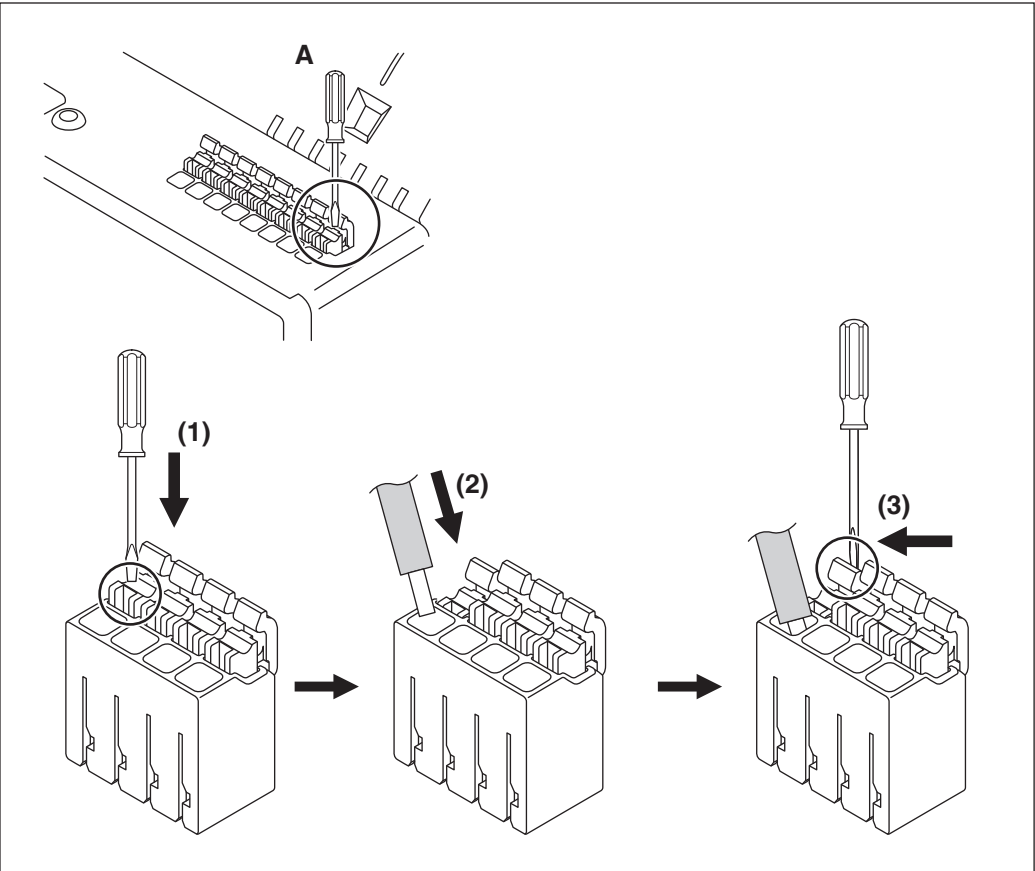
A Cable duct

Wiring to each terminal

- When wiring to [DIII] and [Di 1-4], perform operations on the terminal block and carry out the wiring as shown below.
- (1) Push in the opening knob with a precision flat-head screwdriver and open the insertion port.
 - (2) Insert the cable into the open insertion port.
 - (3) Move the opening knob forward and down and insert the cable.
 - (4) Make sure that the connected cable has not come out.

When using stranded cable, make sure that no strands are protruding.

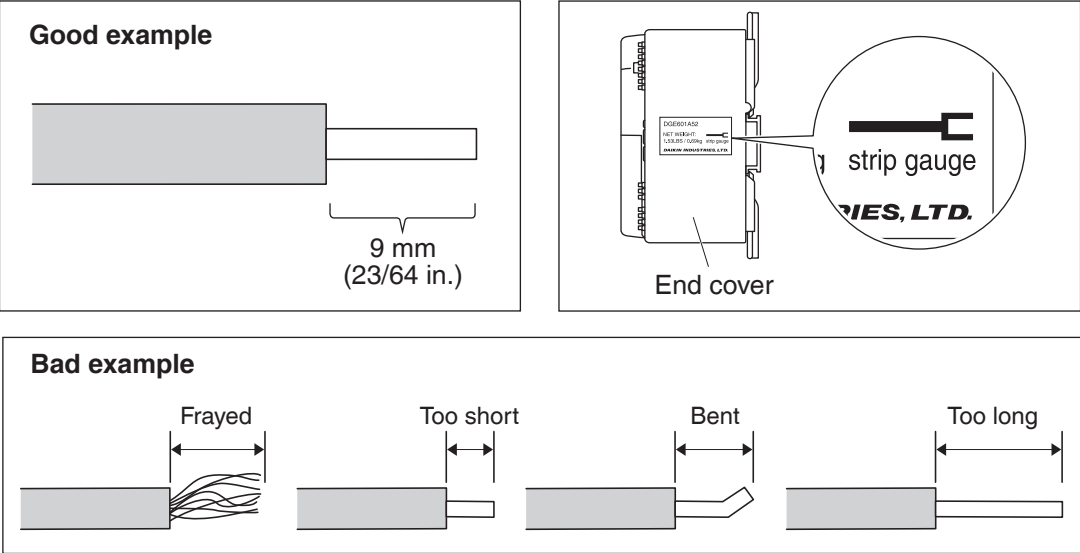
<How to wire to the terminal block>



A Precision flat-head screwdriver

- Make the length of the peeled portion of the cable 9 mm (23/64 in.). Refer to the [strip gauge] on the end cover.
- When peeling, be careful not to scratch the finish of the exposed part of the cable.

<Cable peeling allowance>

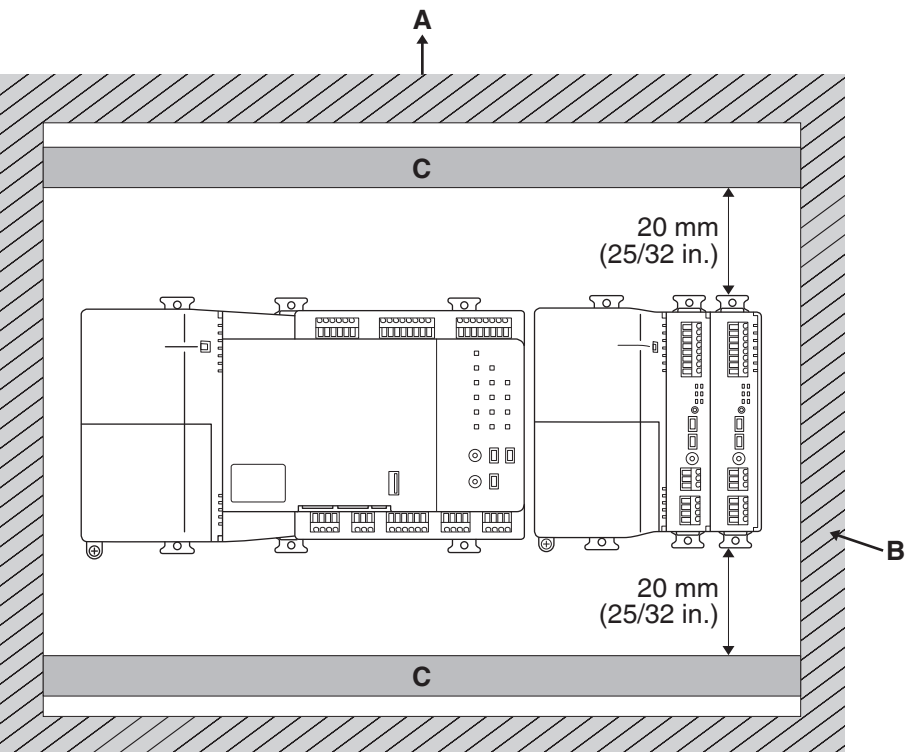


1.4.4 Required space

- The figure shown below indicates the space required for installation.
- There is a minimum clearance of 20 mm (25/32 in.) from the top edge and 20 mm (25/32 in.) from the bottom edge

Required installation space

<DGE601A53 installation space>



A Top
B Wall
C Cable duct