

## FMD Modules to Control the Indoor Fan Speed

The FMD-0x modules are designed to control the speed of the DC motor of the indoor unit fan using the PWM (Pulse Width Modulation). The modules are built on a PCB (Printed Circuit Board) with dimensions of 78x43mm and with one hole of 4mm diameter for the fixing screw 3.5x16mm. Types of the FMD module differ by the PCB component mounting and mechanical design.

### FMD-01, FMD-01T module

The FMD-01 module provides a passage for the fan motor supply voltage of +300V and has a switching power supply of +15V to power the electronics of the outdoor unit. The module converts the input PWM signal to the fan DC control voltage  $+(2.1 \pm 0.2 \text{ to } 5.4 \pm 0.5)\text{V}$  and does not have a connected feedback between the fan and the control unit. Due to the size of the switching power supply, the FMD-01 board is not in the box; it has only the rubber feet and is attached by a 3.5x16mm screw to the support plate to which the terminal block and the control board of the indoor unit are attached. Insert the terminal with red and blue wires into the **DC-MOTOR 1** terminal of the control board and insert the fan motor terminal into the output terminal on the FMD-01 module. After powering the indoor unit, you must first open the louvres, which direct the air flow, into the required position using the remote control. After opening the louvres, it is suggested to disconnect the terminal on the control board in order to disable the remote control receiver module and thus prevent undesirable operation of the indoor unit.

There are two versions of the FMD-01 module:

In the version with trimmer resistor FMD-01T (trimmer potentiometer), it is necessary to set the required speed using the trimmer resistor after connecting the module to the indoor unit (according to the previous text). You should be careful when doing so. Use the appropriate fine screwdriver and avoid using force to prevent the damage of the mechanical stops on the limit positions of the trimmer.

In the second version (FMD-01), the indoor fan speed is set remotely using the PWM output of the SCMI-01.4 control unit. In this case, you must connect this unit with the FMD-01 module via wiring, which connects the corresponding VE+ and VE- terminals on the SCMI-01.4 (terminals 11 and 12) unit and FMD-01 module. After that, the indoor fan speed can be set by the SCMI-01.4 control unit as follows:

- |               |   |
|---------------|---|
| <b>Fixed</b>  | - Setting the constant speed and control mode of the indoor fan                     |
| <b>Auto 1</b> | - The fan speed is controlled according to the compressor speed in the 1:1 ratio    |
| <b>Auto 2</b> | - The fan speed is controlled according to the compressor speed in the preset ratio |
| <b>Off</b>    | - The output to control the indoor fan speed is not used                            |

A more detailed description of setting the indoor fan speed is described in the user's guide for the SCMI-01.4 unit, section 4.6.