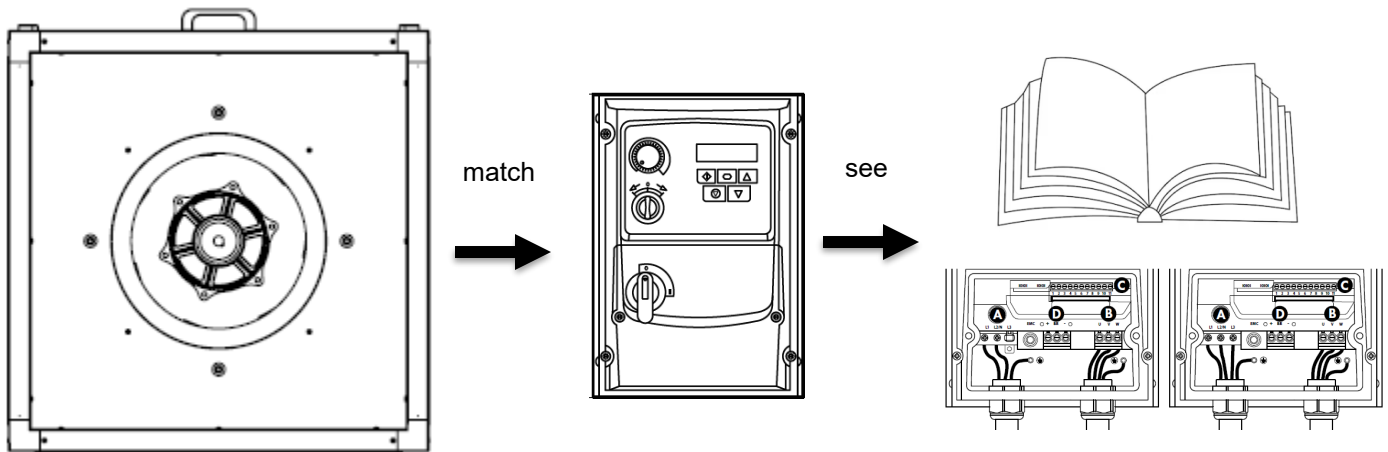


QUICK START MANUAL

VDI EC unit

Operating document to be accompanied by the use and maintenance manual and the inverter manual



VDI EC unit

Matching Inverter (Matching Label)

Inverter manual and wiring diagram

READ BEFORE INSTALLING

Electrical connections must only be made by qualified personnel.

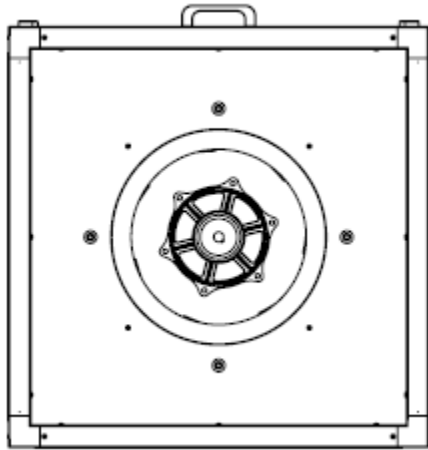
SCOPE OF THIS DOCUMENT

This draft is a technical manual with a quick visual sequence for qualified installers. It does not replace the complete manual, the EC declaration, the wiring diagram of the inverter or the regulatory checks of the final system.

Fast sequence in 8 steps

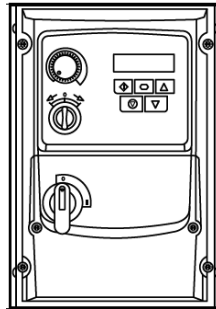
| Step | Action | OK |
|------|---|-----|
| 1 | Check the contents, the plates and the integrity of the packaging | [] |
| 2 | Fix the box without deforming the structure | [] |
| 3 | Connect the air channels at the points provided | [] |
| 4 | Install the vertical inverter with ventilation space | [] |
| 5 | Connect the ground breaker, the power supply and the motor according to the inverter diagram. | [] |
| 6 | First start-up: check the rotation of the rotor | [] |
| 7 | Measure current and check for noise and vibrations | [] |
| 8 | Fill in the final checklist and deliver the documentation | [] |

1. Content and initial checks



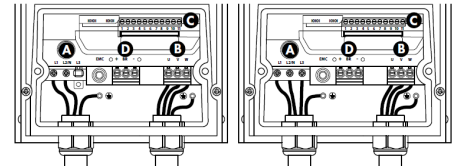
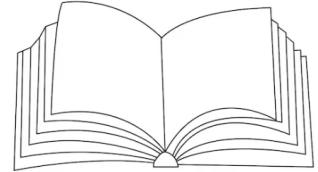
VDI EC unit

match



Matched inverter (matching label)

see

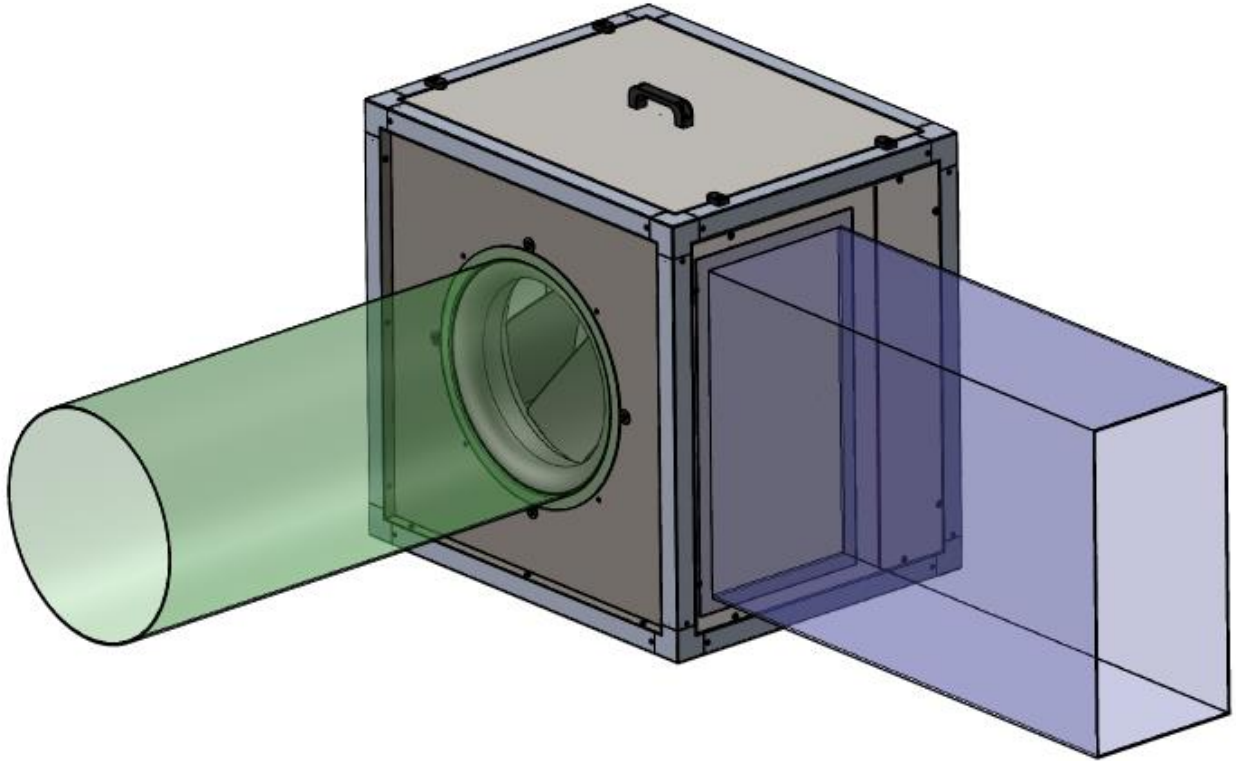


Inverter manual and wiring diagram

Verify the model of the fan and inverter are matched correctly via the matching labels. Check that there is no transport damage. Have the inverter manual and the specific wiring diagram within reach.

ATTENTION: Do not put into service damaged products or with incorrectly matched inverters.

2. Duct/channel connections

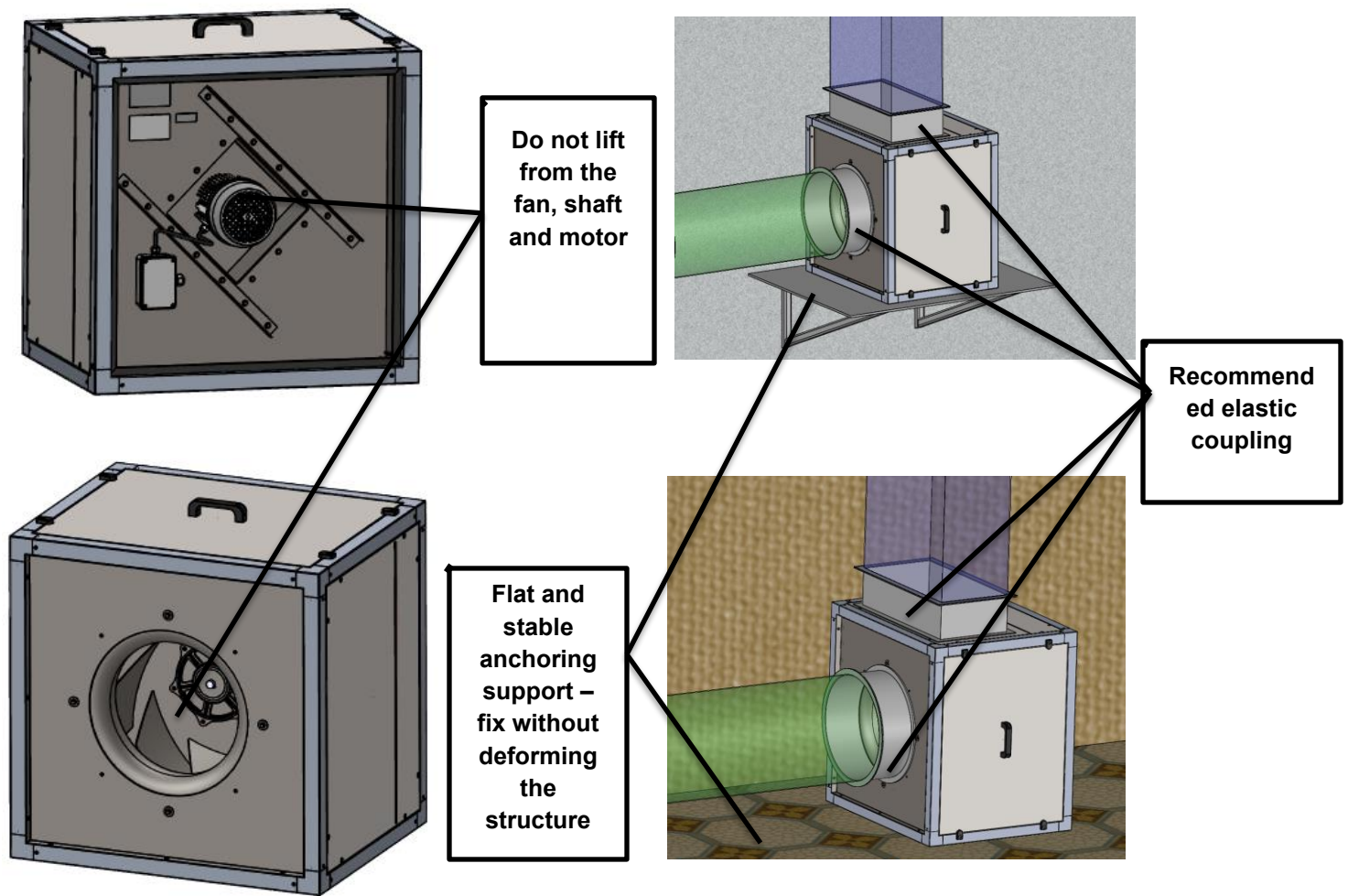


| | | |
|---|--------|---|
| Extraction channel connected to the front opening | VDI EC | Extraction channel on the side panel in the delimited area. (do not drill outside the indicated area) |
|---|--------|---|

Connect the extraction channel to the front opening. Connect the extraction channel to the side panel, only in the area indicated/delimited on the product.

ATTENTION: Do not drill or connect channels outside the designated areas.

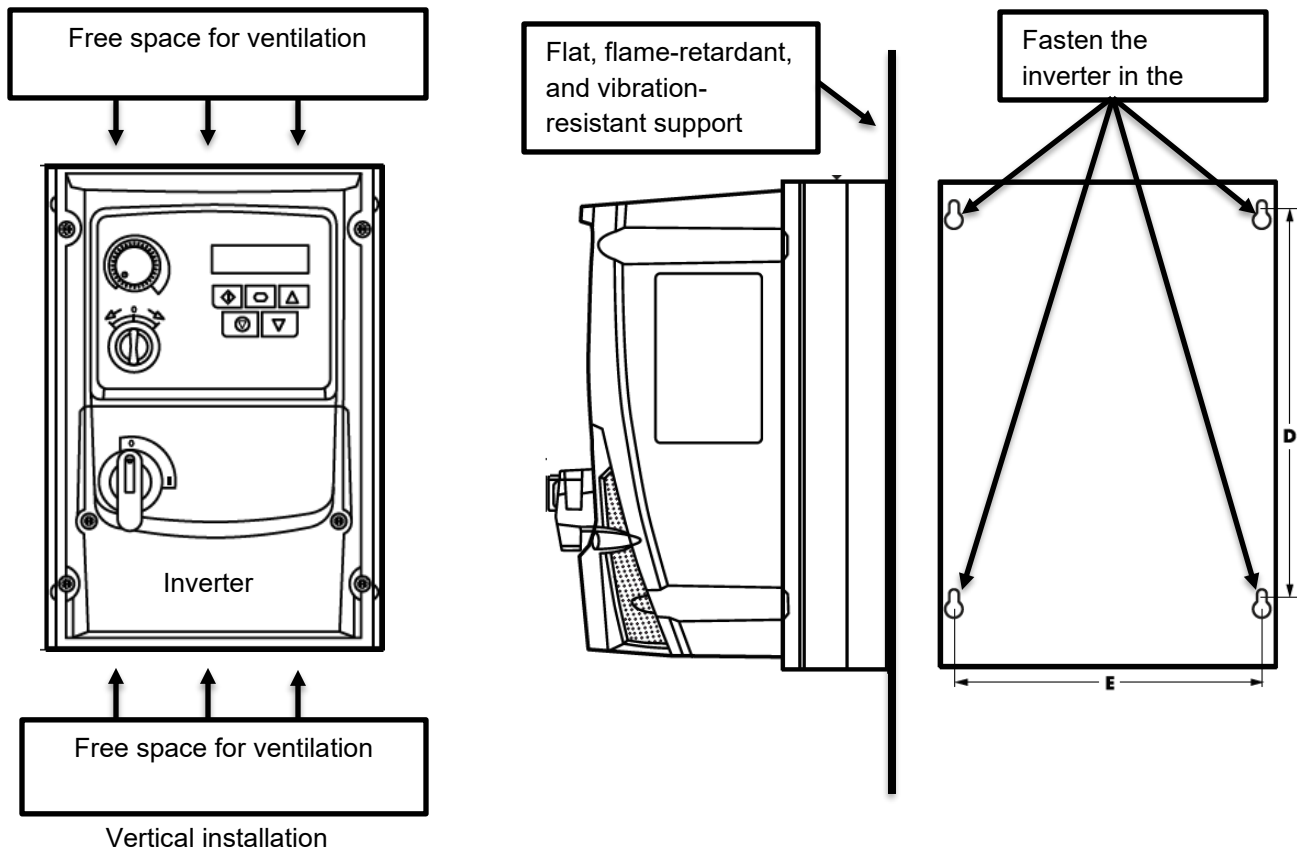
3. Mechanical fastening



Fix the unit to the support without creating tension or deformation. Use equipment suitable for the weight. Where possible, use elastic joints to reduce vibration transmission.

ATTENTION: Do not lift by gripping the fan, shaft and motor.

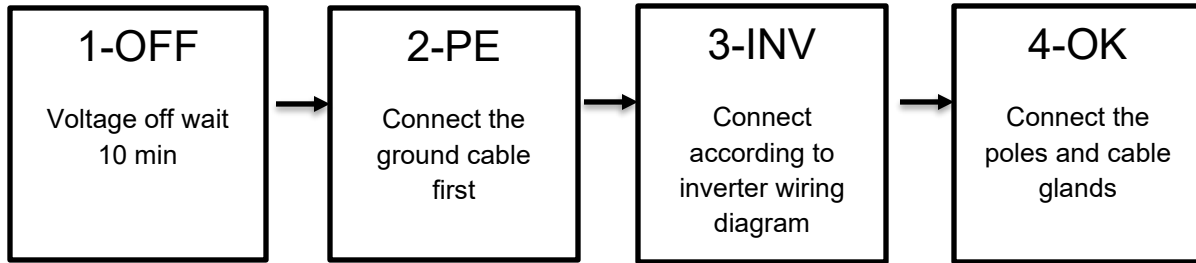
4. Mounting the inverter



Install the inverter in a vertical position, on flat, flame-retardant, and vibration-resistant surface. Leave the ventilation space free. Do not place flammable materials near the inverter.

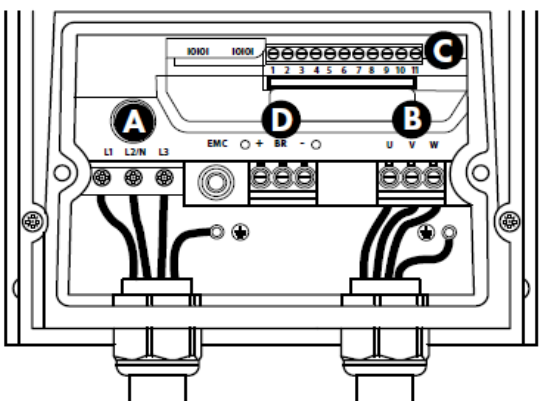
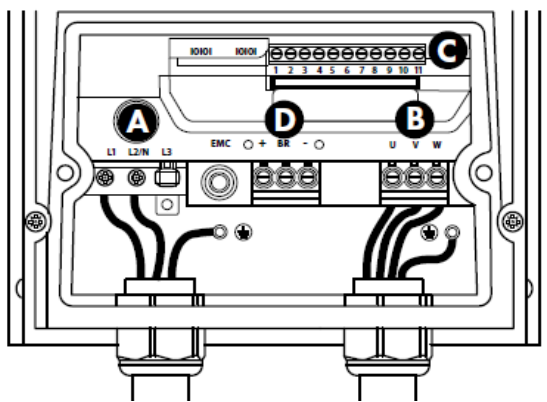
ATTENTION: The inverter must remain matched to the intended unit. It must not be interchanged with other units or other inverters, since each combination has been tested, configured and subjected to the tuning procedure.

5. Electrical connections



Single-phase power supply

Three-phase power supply



Inverter power supply

Unit power supply

Inverter power supply

Unit power supply



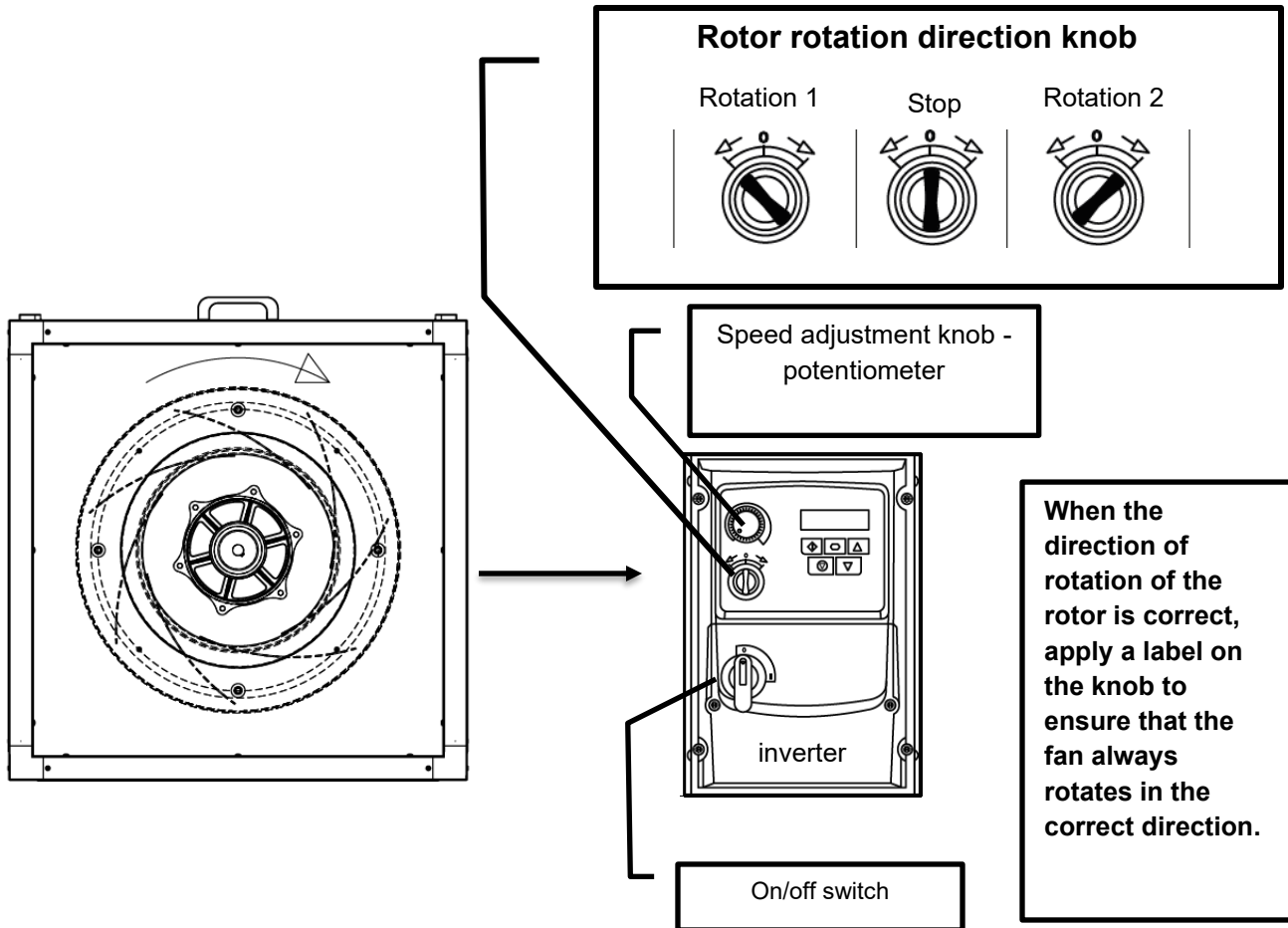
For example: Single-phase power

For example: Three-phase power

Minimum sequence: 1) disconnect power; 2) wait at least 10 minutes; 3) connect PE/earth first; 4) connect motor and power supply following the inverter diagram; 5) verify cable glands, polarity, protections and dry environment.

ATTENTION: Electrical connections made only by qualified staff. Use cable sections and guards appropriate to the model and the system.

6. First start-up and rotation



Keypad – Function and control of the keys

Drive is configured and controlled via keypad and display.

| | | |
|--|-------|---|
| | START | In keypad mode, it is used to start a stopped drive or to invert the rotation direction, if the bidirectional keypad mode is enabled. |
| | UP | It is used to increase the speed in real time mode or to increase the parameter values in edit mode. |

| | | |
|--|--------------|--|
| | DOWN | It is used to reduce the speed in real time mode or to reduce the parameter values in edit mode. |
| | NAVIGATE | It displays information in real time, allows you to enter and exit the parameter modification mode and stores the changes in the parameters. |
| | RESET / STOP | It allows you to restart a blocked drive. In keypad mode it is used to stop a drive in operation. |

| | | | | | |
|---|--|---|---|---|---|
| | | | | | |
| <p>Press and hold Navigate for more than 2 seconds.</p> | <p>Select the desired parameter with the Up and Down keys.</p> | <p>Press Navigate for less than 1 second.</p> | <p>Edit the value using the Up and Down keys.</p> | <p>Press Navigate for less than 1 second to return to the parameters menu</p> | <p>Press Navigate for more than 2 seconds to return to the normal operating mode.</p> |

Before starting, check that there are no objects inside the unit or the duct. Power the inverter by turning the disconnecter knob. Next, move the rotor steering knob from the **STOP** position to the position corresponding to the correct direction of rotation. Also check that the speed adjustment potentiometer is not set at zero. After a short start-up, check that the rotation direction of the rotor corresponds to the arrow indicated on the rotor. If necessary, invert the rotation direction using the inverter direction knob. Then apply a label to clearly indicate the correct position of the knob. If, at the end of this procedure, the rotor does not start, double-check the operations performed and check the electrical connections. If no faults are detected, perform the auto-tuning procedure following the instructions in the inverter manual, using the **P-52 = 1** command. The keys to be used are shown in the previous table. Turn the direction knob to the **stop** position. Press the **Navigate** key, select the **P-52** parameter, access the parameter by pressing **Navigate** again and set the value **1**. Then press the **Navigate** key for approximately 2 seconds to start autotuning and return to the normal operating mode. At the end of the auto-tuning, repeat the ignition procedure. After each restart of the inverter, return the rotation knob to the **stop** position. Once tensioned, turn the knob again in the correct direction previously identified.

ATTENTION: Do not proceed if the direction of rotation is incorrect, if abnormal noises appear or if the current exceeds the rated value.

7. Final control

Final checklist

- Channels fixed and without deformation
- Vertical inverter and combined with fan
- Ground spreader connected and wiring checked
- No objects inside the bin or duct
- Correct and current rotation under the plate values
- No abnormal noise or vibration.

At steady state, measure the electric current and compare it with the maximum value on the label. Check vibrations, noises, mechanical fixings and closing of panels.

ATTENTION: In case of overcurrent, turn off immediately and check wiring, piping and working conditions.

Recommendations for the installer: Common mistakes to avoid

| Error | Correction |
|---|---|
| Inverter exchanged between two units | Always check inverter/unit matching labels. |
| Air connection on the wrong side | Extraction on the front opening; extraction on the side panel in the delimited area. |
| Inverter mounted horizontally or without air | Mount vertically and leave the ventilation spaces free. |
| Rotation not verified | Always check the arrow on the rotor during the test. |
| Maintenance without standby after shut-down | Disconnect the power supply and wait at least 10 minutes before working on the electrical contacts. |

Note:

Keep the complete manual as the main reference document for information related to safety, intended use, maintenance, troubleshooting, spare parts and EC declaration.



GGM Gastro International GmbH
Weinerpark 16
D-48607 Ochtrup

www.ggmgastro.com info@ggmgastro.com
+49 2553 7220 0