

RULES FOR THE CORRECT INSTALLATION OF BARS UNIV. – SERIES TG FANS

In order to guarantee the correct and reliable operation of the transformer ventilation system, follow the instructions supplied in this document about the installation.

REQUIREMENTS

ATTENTION:

Read the manual carefully before starting to use the product. Keep the instructions for future reference.

Do not touch/move bar or fans while they are in operation: **RISK INJURY**.
The product must be installed in a location with limited access to qualified technician.
Any work on the appliance must be left to a qualified repair technician.

Do not touch the motor or power cables: contact with a voltage of 230/120 Vac can be fatal.
To reduce the risk of electric shock, do not disassemble or modify in any way the fan motor. Before connecting the device to make sure that all connections have been made correctly.
Always disconnect the fan from power supply before performing any type of maintenance.

Never touch the fan motor, burns danger: **RISK INJURY**.

Failure to follow these instructions can cause damage, fire or electric shock, with possible serious injury!

POWER SUPPLY

Before using it make sure that the power supply wires are not damaged, kinked or crushed. Do not tamper with the power supply wires. Never disconnect the power supply by pulling the cable, avoid touching the pins. Do not perform connection/disconnection operations with wet hands. Do not use objects as levers to disconnect the power supply of the system. Disconnect the power immediately if it is evident that the system gives off a burning smell or smoke: please contact technical support Tecsystem.

LIQUIDS

Do not expose the product to dripping or splashing liquids. Do not allocate in places where humidity is over 90% (non-condensing) and never touch with wet hands.

CLEANING

Before cleaning the fan always disconnect the power supply. To avoid malfunctions, cleaning the fan only using compressed air to remove dust and dirt. Do not use oils or fats of any kind.

OBJECTS

Never push objects through the air inlet or outlet. If this happens, disconnect the fan and call a technician.

RESTRICTED USE A COMPETENT PERSON

The product is a sophisticated electromechanical system, absolutely not suitable for use by untrained personnel. All work must be performed by a qualified technician.

ACCESSORIES

Do not use accessories or replacement parts that are not original, it could cause damage to the fan and put at risk the safety of the user. In case of failure, contact technical support.

LOCATION

Install the fan indoor protected from splashing water and sunlight. Do not place near heat sources exceed the parameters specified in this manual. Place the fan in a horizontal and stable surface. The product must be installed in a location with limited access to qualified technician.

REPAIR

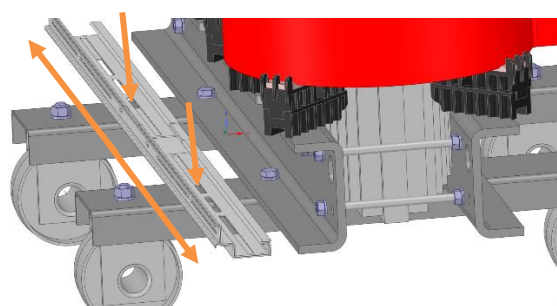
Do not repair or adjust the fan. If any fault occurs always contact a qualified technician. Opening the fan tampering involves the automatic invalidation of the warranty.

PRODUCTION

The date and the batch production of the product are shown on the label attached on the fan. Removing the label implies the automatic invalidation of the warranty.

BAR UNIV. ASSEMBLY ON THE TRANSFORMER

Place the closed bars on the sides of the transformer (BAR1-BAR2). Arrange the bar on the transformer carriage and center the positioning of the bar using the central column of the transformer as a reference. Figure 1.



Remove the bar locking screws and unhook the cables (bar initial position 1200) and if necessary slide the side profiles up to the desired dimension 1800-3600. The M4 locking screws are used to fix the bar to the desired length 1200-1800-3600 and must be inserted in the appropriate 4mm diameter holes. **ATTENTION: always maintain the safety distance from the windings, indicated by the transformer manufacturer**

Figure 1

Fix the bar on the transformer carriage using the special fixing slots, suggested M8 bolts plus washer. NOTE: insert the bolts locking both profiles, central and lateral, on the transformer carriage.

Conveniently position the wiring for the fans, M1-M2-M3. Reposition the excess wiring in the appropriate housing by stopping the cables again. Connect the power cable to each installed fan, figure 2.

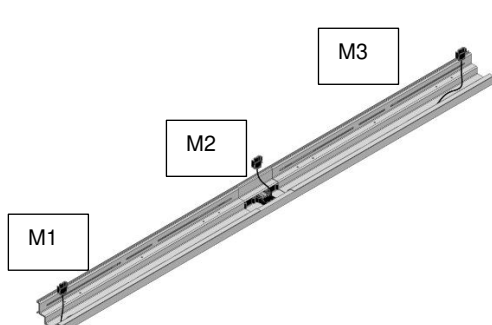


Figure 2

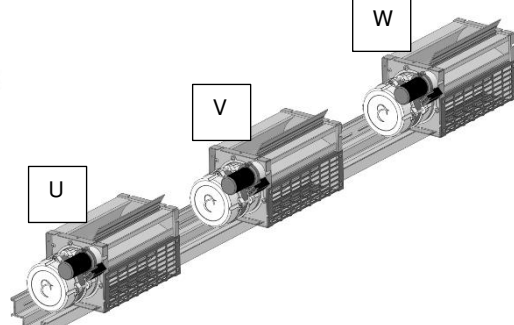


Figure 3

Place the fans on the bar, center each individual fan with the reference column U-V-W, figure 3.

ATTENTION: Mount the fan trying not to obstruct the air inlet / outlet. Any total or partial occlusion of the air vents can cause malfunctions. When handling the fans, avoid deforming the impeller fins. Never modify the positioning of the motor.

FAN ASSEMBLY

Use the special slots on both profiles and the self-drilling screws, supplied, to lock the fans in the desired position. Use the fan flappers to correctly direct the air inside the transformer columns. Figure 4 and Figure 5

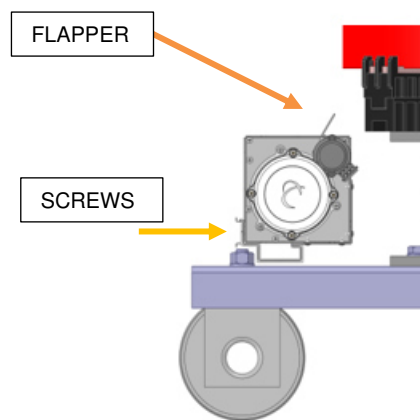


Figure 4

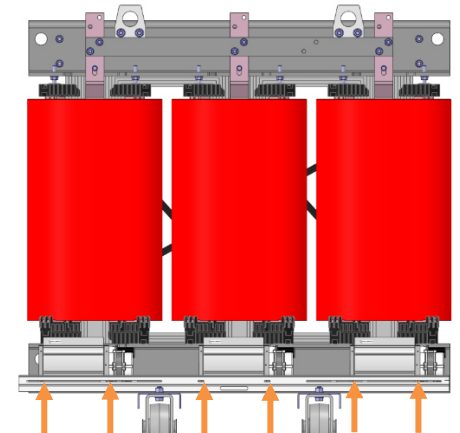


Figure 5

BAR WIRING

The bar has a recessed plug connector for powering the fans: M1-M2-M3. By using the socket connector + case it will be possible to perform the electrical connection of the fans, following the socket connector assembly procedure.

ASSEMBLY OF THE UNIV. BAR SOCKET CONNECTOR

Strip the outer sheath of the multipolar cable (L-EARTH-N) to a length of 55mm. Strip the three conductors for 9mm. Keep the earth conductor with an increased length of 8mm



Figure 6

Using a 2.5mm slotted screwdriver, press the internal spring of the connector, figure 6. Insert the stripped conductor MAX 4mm, preferably with a dedicated ferrule, inside the reference terminal with the respective L-EARTH-N marking, figure 7. Put on the protective case supplied and tighten the locking screw, figure 8.

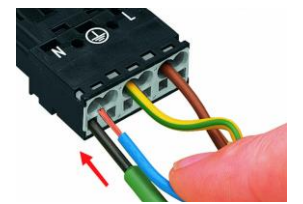


Figure 7



Figure 8

Terminate the connection by inserting the socket connector, wired, inside the wired plug connector arranged on the bar, figure 9. Use the push lever to connect and disconnect the power supply of the fans. Make the connection indicated on both bars.

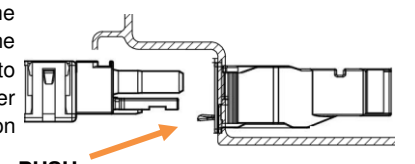


Figure 9



Before connecting the power supply to the fan always check the parameters of voltage and frequency indicated on the label of the fans.

SCHEDULED MAINTENANCE AND NOTES ON THE INSTALLATION OF THE VENTILATION SYSTEM.

- In order to protect the fan efficiency, the following instructions must be taken into account:
- Clean the fans periodically (every 6 months), using only compressed air (do not use lubricants or greases of any kind).
- Make sure the air inlet/outlet are not blocked; any total or partial occlusions of the air openings can cause malfunctions.
- If the fans remain idle for a prolonged period of time, enable the HFN function of the Tecsystem control unit, setting a working fan cycle every 12 hours. Prolonged inactivity might be the cause of fan faults.
- We recommend the VRT series control units for fan monitoring. The diagnostics offered by the VRT will allow you to avoid unwanted downtime, helping you to plan your maintenance.
- For fans with diameter 80, we recommend the capacitor is replaced every 10,000 hours.
- Check the condition of the wiring and the correct positioning/fixing of the fans periodically (every 12 months).
- While installing, always use the holes on the back of the fan to fix it to the relative bar; do not modify the fan fixing holes.
- While handling or maintaining the fans, avoid deforming the impeller blades.
- Do not modify the position of the motor for any reason.
- The fan operating position must comply with the safety distance stated in the manual of the transformer.
- The fan must be placed on a flat surface; check its position with a spirit level.
- Always comply with the conditions of use stated in the manual.
- The maximum vibration level allowed is 60Hz.
- Always check that the fan supply matches the manufacturer's label.
- The maximum harmonic content accepted according to the EN 61000-3-2 standard is: 5% 3rd, 6% 5th, 5% 7th, 1.5% 9th, 3.5% 11th, 3% 13th, 0.3% 15th, 2% 17th.
- If the fans are connected to the Tecsystem VRT control units, remember that an anomaly in the VRT operation might be due to the fan malfunctioning. Do not reprogram the control unit without previously checking the fans and carrying out their maintenance (cleaning with compressed air).

TO DOWNLOAD THE COMPLETE INSTRUCTION MANUAL USE* THE QR CODE ON THE PRODUCT OR CONNECT TO THE TECSYSTEM WEBSITE (www.tecsystem.it)



**INSTRUCTION
MANUAL**

TECHNICAL INFORMATION:

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*download the QR CODE READER application to your smartphone / tablet and you will be ready to read all QR codes