

INSTALLATION AND START-UP GUIDE



**DESIGNED FOR TOXIC AND
CORROSIVE ENVIRONMENTS!**

WARNING:

Please read this installation guide carefully before installing and starting up the fan!

www.seat-ventilation.com

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INTRODUCTION

Please do not install or operate this equipment before reading this manual.

The installer assumes full responsibility for ensuring that current installation regulations are fully met and that the fan is provided with adequate protection against harmful conditions (electrical, mechanical, thermal).

The fan must be regularly inspected and maintained by qualified personnel to prevent damage and accidents. Property damage and personal injury can result from poor maintenance.

The fan must not be installed near working areas. The fan must always be installed in a way that its rotating parts cannot be accessed.

Fans should be stored in a clean, dry place free from temperature fluctuations. If it is necessary to store the equipment outside, please protect it as much as possible. Please keep the equipment clean and dry.

Please follow these instructions carefully





1. INSTALLATION

WARNING! Before installation, check that there are no foreign bodies in the turbine or in the suction pipes.

CAUTION! Before installation, check that all fastening screws (including the motor screws) are tight.

DANGER! Check electrical connections and factory wiring (see page 4).

We recommend linking the extractor to external pipes at the inlet and outlet before connecting it.

The use of flexible sleeves is recommended to connect the fan to the power supply.

CAUTION! Avoid operating temperatures above 70°C continuously. In order to drain off rainwater in the fan casing, a drain can be installed at the lowest point of the casing.

The fan must be installed so that no flammable material is located within 3 meters or above it.

Check that the fan is properly attached to its mounting bracket. The fan must not vibrate during operation!

Use ATEX fans for applications in explosive or flammable atmospheres, **Zone II only**.

CAUTION:

For the SEAT 50 the turbine only rotates in the LG direction. In case of inversion of its housing, the fan will not provide the expected airflow performances.

ROTATION DIRECTION  **LG**



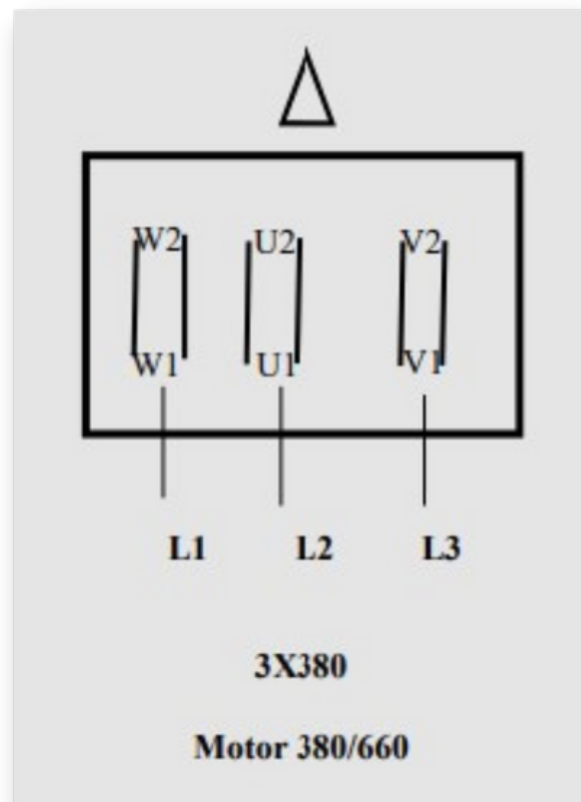


2. ELECTRICAL CONNECTION

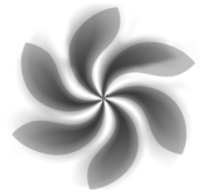
The safety instructions of the motor manufacturer must be strictly applied. The electric connection of the motor must be carried out in accordance with the coupling diagram on the motor plate.

Each motor must be protected by a separate circuit breaker corresponding to the power rating indicated on the plate.

PHASE MOTOR 380/660



The electrical connection may only be carried out by authorized personnel and only when the power supply is switched off!



3. START-UP

Before starting up, compare the power characteristics of the motor with the existing power supply voltage and frequency. The electric cable must be protected against damage and selected according to the power rating indicated on the motor plate.

The motor must be equipped with a lockable proximity switch installed on the device to be able to shut it down for maintenance or technical inspection operations in accordance with the EEC Machine Directive of 14 June 1989 (89/392EEC).

FREQUENCY REGULATOR

We recommend the use of a frequency regulator to obtain a soft start and avoid overcurrents.

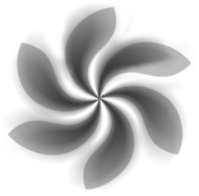
The frequency regulator should be set to avoid unnecessary loads on the fan due to high acceleration or deceleration.

In general, the start-up time of a turbine with a diameter of 800 mm should be at least 20 to 30 seconds.

To avoid multiple accelerations and decelerations, the speed control should be as slow as possible.

CAUTION :

After switching off the power to the regulator, at least 10 minutes must pass before making any changes to the electrical connections. Never touch the internal components of the regulator, as the discharge of the capacitors may cause serious accidents.



4. OPERATION

- The fan must be protected against sudden variations.
- Deposits on the turbine create an unbalance that can cause it to break; keep it clean.
- In dirty environments, the motor must be cleaned regularly.
- Even in the event of a power failure, the maximum operating temperature must not be exceeded at any time.
- Plastic fans are not suitable for transporting solid particles.
- Use the ATEX version for applications in explosive or flammable atmospheres, **Zone II only**.

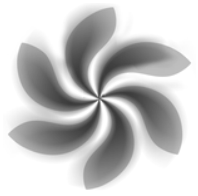
5. MAINTENANCE

After the first month of operation, the fan should be checked for the following:

- Check that the fan runs quietly without vibration.
- Check the motor's temperature.
- Remove dust deposits from the turbine and motor.

Work on running fans must be carried out by trained personnel only.

**FANS SHOULD BE CHECKED
ONCE A YEAR**



Our fans are also available in ATEX version, known outside Europe as explosion-proof, with zone 2, EEx-d, category 3G, explosion group IIC. Execution T4 according to the ATEX 94/9/CE directive and the EN1127-1, EN 13463-1 standards.

Because of these technical and legal requirements, it is necessary to take into consideration the following information when installing our ATEX fans:

Zone 2 classification with occasional presence of explosive atmosphere: an area in which explosive atmospheres resulting from a mixture of air and flammable gases, vapors or mists do not normally occur or occur only for a short period under normal operating conditions. Experts generally agree that the term "short duration" corresponds to a period of about 30 minutes per year.

Temperature class T4: corresponds to the temperature class of the casing with a maximum surface temperature of 135 °C of the motor, including an ambient temperature of 40 °C.

Category 3G: suitable for surface installations for the GAS category for a normal level of protection guaranteed by the equipment.

Explosion group IIC : combustible gases and vapors are divided into groups according to their explosive power.

All ATEX motors used with a regulator must be equipped with a PTC/PTO sensor to monitor their temperature.

Installation and repairs may only be carried out by authorized workshops.

**ATEX declaration of conformity available here:
www.seat-ventilation.com**





6. WARRANTY

SEAT VENTILATION warrants its fans, products and components against manufacturing defects when used in proper storage, connection and operating conditions, two years after shipment.

Damaged materials must be returned to our workshops with their invoice.

The material must be stored in a clean and weather protected area.

Electrical connections must be made by authorized personnel.

Comply with the fan operating conditions detailed in this manual.

Seat Ventilation declines all responsibility in case of non-compliance with the above-mentioned conditions.



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