

# DIRECTIONS FOR USE

## SUPERDUCT FANS

### Description

- The fan is used for transportation of air according to class B (ELSÄK-FS 1994:7, 830.1), meaning not intended for fire-dangerous substances, explosives, grinding dust, soot, etc.
- The fan is equipped with an asynchronous external rotor induction motor with maintenance-free sealed ball-bearings.
- To achieve maximum life length for installations in damp or cold environments, the fan should be operating continuously.
- The fan can be installed outside or in damp environments. Make sure that the fan-house is equipped with drainage.
- All fans are as standard, single phase 230V, 50 Hz or 3-phase 230V/400V, 50 Hz.
- The fan can be installed vertically or horizontally.

### Installation

- The fan must be installed according to the air direction label at the fan.
- The fan must be connected to duct or equipped with a safety grill.
- The fan should be installed in a safe way not to cause vibrations or risking the fan to fall of.
- The fan should be installed in a way that makes service and maintenance easy.
- To regulate the speed a transformer, a speed controller or a frequency converter can be connected.
- A wiring diagram is applied on the inside of the junction box.
- An external motor protection must be installed on products without connected thermo-protector, see wiring diagram.
- Electrical installations must be made by an authorised electrician.

### Operation

Before starting, make sure that:

- the fan is installed and electrically connected in the correct way to ground and if possible equipped with a motor-protection;
- the current does not exceed more than +5 % of what is stated on the label;
- no foreign objects are placed in the fan and no noise appears when starting the fan;
- the rotation direction at 3-phase motors are according to the label.

### How to handle

- The fan must be transported in its packing until installation. This prevents transport damages, scratches and the fan from getting dirty.

### Maintenance

- Before service, maintenance or repair begins, the fan must be tension free and the impeller must have stopped.
- Consider the weight of the fan when removing larger fans to avoid jamming and contusions.
- The fan must be cleaned when needed, at least once per year to maintain the capacity and to avoid unbalance which may cause unnecessary damages on the bearings.
- The fan bearings are maintenance-free.
- When cleaning the fan, high-pressure cleaning or strong dissolvents must not be used. Cleaning should be done without dislodging or damaging the impeller.
- Make sure that there is no noise from the fan.

### Fault detection

1. Make sure that there is tension to the fan.
2. Cut the tension and verify that the impeller is not blocked.
3. Check the thermo-contact/motor protector. If it is disconnected the cause of overheating must be taken care of, not to be repeated. To restore the manual thermo-protector the tension will be cut for a couple of minutes. Larger motors than 1,6A may have manual resetting on the motor. If it has automatic thermo-protector the resetting will be done automatically when the motor is cold.
4. Make sure that the capacitor is connected, (single phase only) according to the wiring diagram.
5. If the fan still does not work, the first thing to do is to change the capacitor.
6. If nothing of this works, contact your fan supplier.
7. If the fan is returned to the supplier, it must be cleaned, the motor cable undamaged and a detailed nonconformity report enclosed.