

# This directions for use contains following products: Rectangular Duct Fans SRF, SRF EC, LRF, LRF EC, IRF, MFF

# DESCRIPTION

- The fan is used for transportation of "clean" air, 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.
- The capacitor has finite lifetime and should be exchanged after 45.000 operation hours (about 5 years of operation) to secure maximum function. Defective capacitor can cause damage.
- To achieve maximum life time 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.
- The fan is intended to be used with the voltage and frequency that's stated on the label on the fan.
- The fan can be installed in any position.

# INSTALLATION

- The fan must be installed according to the air direction label on the fan.
- The fan must be connected to duct or equipped with a safety grille.
- The fan should be installed in a safe way and make sure that no foreign objects are left behind.
- The fan should be installed in a way that makes service and maintenance easy. N.B.! Consider the weight and size of the fan.
- The fan should be installed in a way that vibrations not can be transfused to duct or building. To provide this, use for example a flange.
- To regulate the speed a transformer or a speed controller can be connected.

- A wiring diagram is applied on the inside of the junction box or separately enclosed.
- The fan is installed and connected electrically in the right way grounded and with motor protection.
- The motor protection must always be used, see wiring diagram.
- Electrical installations must be made by an authorized electrician.
- Electrical installations must be connected to a locally situated tension free switcher or by a lockable head switcher.

# OPERATION

Before starting, make sure that:

- the current does not exceed more than +5% of what is stated on the label.
- the connecting voltage is in between +6% to 10% of the rated voltage.

#### • 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 in stallation. This prevents transport damages, scratches and the fan from getting dirty.
- Attention, look out for sharp edges and corners.





# 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 or opening 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 and should be renewed only when necessary.
- When cleaning the fan, high-pressure cleaning or strong dissolvent must <u>not</u> 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 <u>manual</u> thermo-protector the tension will be cut for a couple of minutes. Larger motors than 1,6 A may have manual resetting on the motor. If it has <u>automatic</u> 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.

