

# Acoustic Cabinet Fans Single - AC Motor (EM) Installation, Operation and Maintenance Manual

## Introduction

Designed for external applications, the EM range encompasses 6 models of direct driven centrifugal single fans with airflow duties from 392 to 3,974 m<sup>3</sup>/hr (0.109 to 1.10 m<sup>3</sup>/s).

Motor windings are fitted with an auto-reset thermal cut-out.

Motors are pre-wired to an external terminal box.

## General Construction

Casework is manufactured from 0.9mm thick galvanised sheet steel with an 'O' class foam insulation to provide acoustic insulation. Barrier mat/foam sandwich lining is available as an option for enhanced acoustic applications.

Access is via removable top cover, with fan mounted on a slide out plate.

## Inspection Upon Receipt Of Goods

Immediately upon receipt of any goods, a careful inspection should be undertaken to ensure neither damage nor missing parts. Particular attention should be paid to the fan impeller, motor shaft, anti-vibration mounts, flexible connection and casework.

In the event of such damage or loss having occurred, inform **AVT (01264 356415) WITHIN 3 WORKING DAYS** of the delivery date, giving the serial number which can be found on the name-plate. After this period we will be unable to entertain any claim for loss or damage.

## Handling

Units being craned into position must be handled with care to avoid damage. This particularly applies to weatherproof units, with overhanging lids and cowls, and also painted units.

## Installation

When installing our equipment, the following must be observed:

**Safety:** It is the responsibility of the installer to ensure that the installation complies with the legal regulations and the current **HEALTH AND SAFETY AT WORK ACT**.

**Ambient Temperatures:** The range of units covered by this manual are designed for use in an environment where the ambient air temperature is unlikely to exceed 40°C.

**Mounting / Positioning:** These units must be mounted so that the fan shaft is horizontal. Not doing this will result in fan failure. All units should be mounted on a completely flat base.

**Duct Connections:** Adjoining ductwork should always be independently supported to avoid undue stress on the unit casing. Impellers are statically and dynamically balanced, and anti-vibration mounts and fast clamps are available to suit.

**Access:** All units are designed with easily removable components for maintenance purposes. Sufficient room should be allowed adjacent to the unit to allow components to be withdrawn.

## Electrical Wiring

Electrical supply must be fully isolated before attempting any work on the unit.

All wiring should be carried out by a competent electrician and should comply fully with the current I.E.E. Wiring Regulations. Wiring diagrams are provided within the motor terminal box.

The electrical supply must be as stated on the nameplate.

When the wiring is complete, check for free and correct rotation of the fan impeller

## Maintenance

**6 Monthly:** The fan impeller should be carefully cleaned with a brush. This will prevent it becoming unduly dirty and unbalanced.

**12 Monthly:** The security and integrity of all fastenings should be checked. Particular attention should be paid to the impeller fixing onto the fan shaft.

SPARES			
Model	Fan Assembly	AV's Set	Fast Clamp
EM125	FQS1001	AVM1	KLB125
EM150	FQS1001	AVM1	KLB150
EM200	FQS1002	AVM1	KLB200
EM315	DFC1001	AVM2	KLB315
EM400	DFC1002	AVM2	KLB400
EM500	DFC1003	AVM2	KLB500

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