# Air Vent Technology Ltd,



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# **EM/EC ROOFTOP FANS**

Installation, Operation & Maintenance Manual

# <u>Introduction</u>

Designed for external applications, the EM/EC range encompasses 7 models of direct driven centrifugal fan units with airflow duties up to  $3.5 \text{m}^3/\text{s}$ 

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

Motors are pre-wired to an external terminal box trickle - boost speed controller & isolator.

# **General Construction**

Casework is manufactured from 0.9mm to 1.6mm thick powder coated (BS10A05 as standard other colours on request) sheet steel with an 'O' class foam / barrier mat sandwich insulation to provide acoustic insulation.

Access is via a removable top cover.

Discharge via bird-mesh protected cowl.

Rear entry as standard - bottom entry on request.

### **Inspection Upon Receipt Of Goods**

Immediately upon receipt of any goods, a careful inspection should be undertaken to ensure neither damage has occurred nor parts missing. Particular attention should be paid to the fan impeller & casework.

In the event of such damage or loss having occurred, inform AVT (01264 356 415) <u>WITHIN 3</u> <u>WORKING DAYS</u> of the delivery date, giving the serial number which can be found on the nameplate. After this period we will be unable to entertain any claim for loss or damage.

### Handling

Units must be handled with care to avoid damage, particularly units being craned into position attention must be paid to the overhanging cowl & plastic finish A spreader bar should be employed so as to prevent damage to the top of the unit.

#### <u>Installation</u>

When installing our equipment, the following must be observed.

<u>Safety:</u> 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.

<u>Ambient Temperatures:</u> 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.

<u>Mounting / Positioning:</u> These units must be mounted in the horizontal plane mounted on a completely flat base.

EM/EC units have integral mounting feet.

<u>Duct Connections:</u> Adjoining ductwork should always be independently supported to avoid undue stress on the unit casing. Impellers are statically and dynamically balanced, antivibration mounts and fast clamps are available to suit.

<u>Access:</u> All units are designed with easily removable components for maintenance purposes. Sufficient room should be allowed to allow components to be withdrawn.

#### **Electrical Wiring**

Electrical supply must be fully isolated before attempting to affect 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.

The electrical supply must be as stated on the nameplate.

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

## Maintenance

<u>6 Monthly:</u> The fan impeller should be carefully cleaned with a brush. This will prevent the impeller from becoming unduly dirty and become unbalanced.

<u>12 Monthly:</u> The security and integrity of all fastenings should be checked, particularly the motor mounting frame.

	Motor Power	Phase	FLC	
EM150EC	52W	1Ф	0.40A	
EM200EC	70W	1Ф	0.55A	
EM250EC	170W	1Ф	1.40A	
EM310EC	510W	1Ф	3.10A	
EM350EC	450W	1Ф	2.90A	
EM450EC	1.0kW	3Ф	1.60A	
EM560EC	3.1kW	3Ф	4.90A	

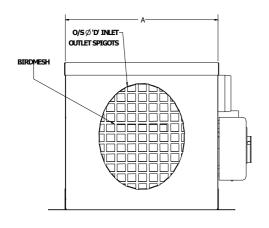


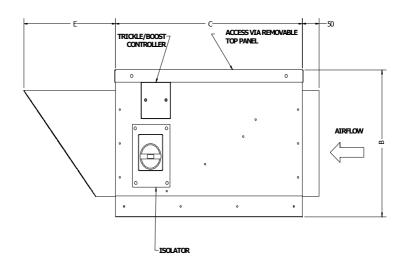


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DETAILS									
MODEL	Α	В	С	D	Е	WEIGHT	TRICKLE	ISOLATOR	
							BOOST		
EM150EC	250	250	300	150	185	10 kg	YES	YES	
EM200EC	350	250	400	200	220	15 kg	YES	YES	
EM250EC	450	350	550	250	270	27 kg	YES	YES	
EMB15EC	550	400	600	310	315	33 kg	YES	YES	
EMB50EC	650	550	650	350	345	47 kg	YES	YES	
EM450EC	<i>7</i> 50	650	975	450	430	80 kg	YES	YES	
EM560EC	900	800	1100	560	525	118 kg	YES	YES	

