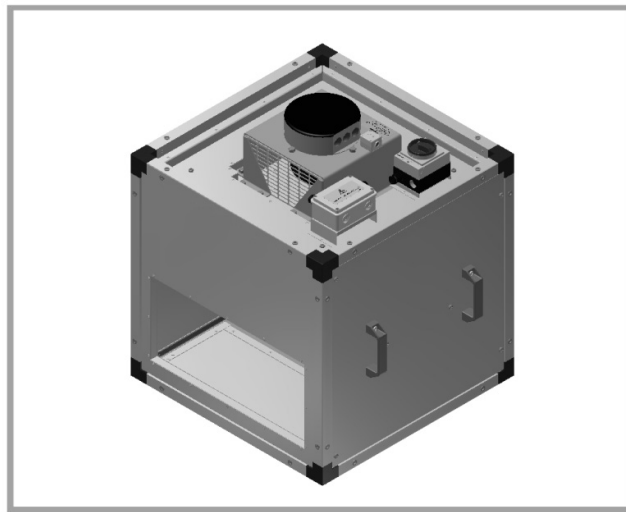


# EKF

## EC kitchen extract fan range

### Installation and Wiring Instructions



#### Stock Ref. N°

EKF355E1  
EKF400E1  
EKF450E1  
EKF450E3  
EKF500E3  
EKF560E3

**Vent-Axia®**

UK  
CA CE

PLEASE READ INSTRUCTIONS IN CONJUNCTION WITH THE ILLUSTRATIONS.  
PLEASE SAVE THESE INSTRUCTIONS

**Vent-Axia.**



**Installation and Wiring Instructions for the  
EKF EC kitchen extract fan range.**

**IMPORTANT: READ THESE INSTRUCTIONS BEFORE COMMENCING THE  
INSTALLATION**

DO NOT install this product in areas where the following may be present or occur:

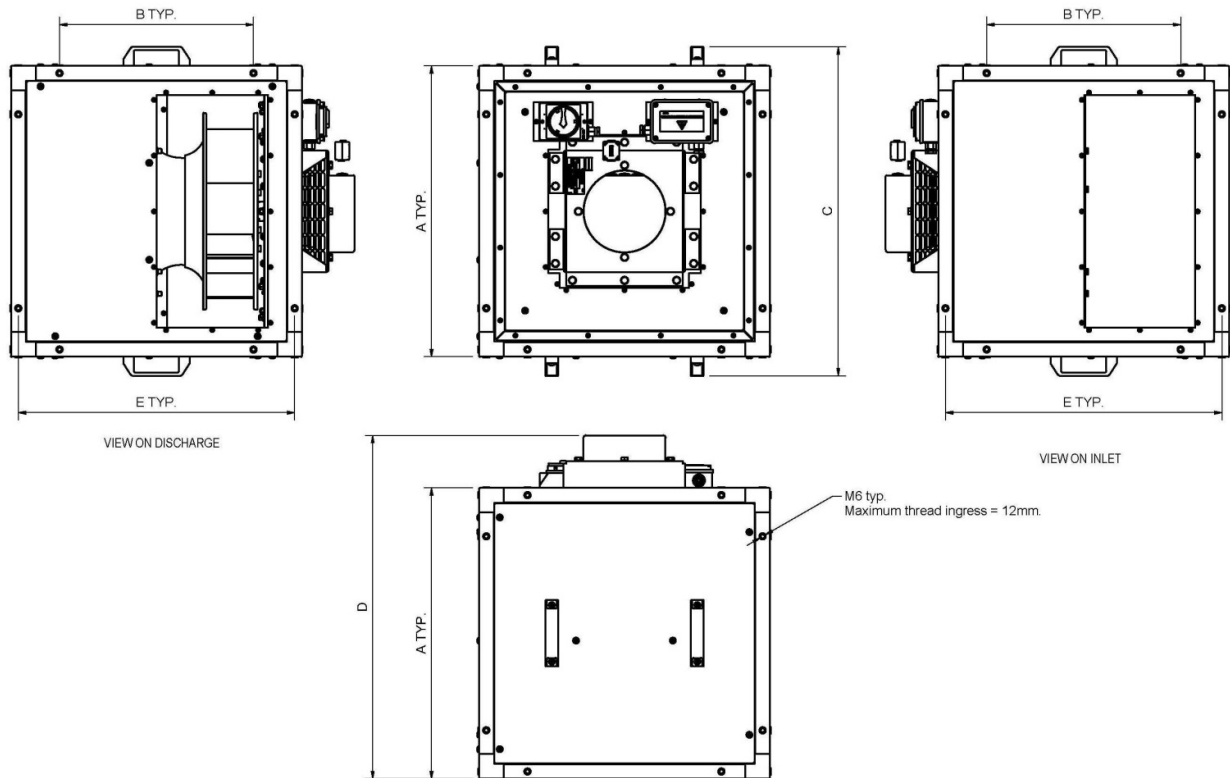
- Corrosive or flammable gases, liquids or vapours.
- Possible obstructions which would hinder the access or removal of the Fan.
- Sudden ductwork bends close to the Fan.

**SAFETY AND GUIDANCE NOTES**

1. THESE UNITS MUST BE SITED AND CONNECTED IN ACCORDANCE WITH CURRENT I.E.E REGULATIONS, BS7671 (UK), OR THE APPROPRIATE STANDARDS IN YOUR COUNTRY.
2. INSTALLATION SHOULD BE BY A QUALIFIED ELECTRICIAN AND INSTALLER.
3. ALL REGULATIONS AND REQUIREMENTS MUST BE STRICTLY FOLLOWED TO PREVENT HAZARDS TO LIFE AND PROPERTY, BOTH DURING AND AFTER INSTALLATION, AND DURING ANY SUBSEQUENT SERVICING AND MAINTENANCE.
4. THESE UNITS MUST BE EARTHED.
5. SITE THE UNIT AWAY FROM DIRECT SOURCES OF HEAT. AMBIENT TEMPERATURE RANGE IS -20°C TO 40°C OUTSIDE OF FAN AND DUCTWORK (MAX. 120°C IN-DUCT).
6. WHEN INSTALLING UNIT, TAKE CARE NOT TO DAMAGE ELECTRICAL OR OTHER HIDDEN UTILITIES.
7. CHECK THE DETAILS ON THE RATING LABEL FOR CORRECT VOLTAGE AND ELECTRICAL RATING.
8. THE INSTALLER IS RESPONSIBLE FOR THE INSTALLATION AND ELECTRICAL CONNECTION OF THE KITCHEN EXTRACT SYSTEM ON SITE. IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT THE EQUIPMENT IS SAFELY AND SECURELY INSTALLED AND LEFT ONLY WHEN MECHANICALLY AND ELECTRICALLY SAFE.
9. DUE TO THE WEIGHT OF THE UNITS, IT IS RECOMMENDED THAT MULTIPLE PERSONS ARE INVOLVED IN THE INSTALLATION. AT ALL TIMES, INSTALLATION PRACTICES MUST COMPLY WITH RELEVANT HEALTH AND SAFETY LEGISLATION.
10. EKF EC KITCHEN FAN UNITS ARE DESIGNED AND SPECIFIED FOR USE WITH VENT-AXIA CONTROLS, DAMPERS, GRILLES AND ACCESSORIES.
11. THIS APPLIANCE IS NOT INTENDED FOR USE BY YOUNG CHILDREN OR INFIRM PERSONS WITHOUT SUPERVISION.
12. YOUNG CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.
13. PRECAUTIONS MUST BE TAKEN TO AVOID THE BACKFLOW OF GASES INTO THE ROOM, FROM THE OPEN FLUE OF GAS OR OTHER FUEL BURNING APPLIANCES.

## **Product description**

The EKF EC kitchen extract fan is suitable for continuous running at 120°C in-duct air temperature. It can be mounted indoors or outdoors and controlled using the 0-10V potentiometer included.



Dimensions					
Part Ref.	A	B	C	D	E
EKF355E1	600	400	684	708	570
EKF400E1	700	500	784	826	670
EKF450E1	700	500	784	826	670
EKF450E3	700	500	784	826	670
EKF500E3	850	650	929	1017	820
EKF560E3	850	650	929	1017	820

## **Installation**

The EKF EC kitchen extract fan is designed as a kitchen extract fan to be positioned between lengths of ducting.

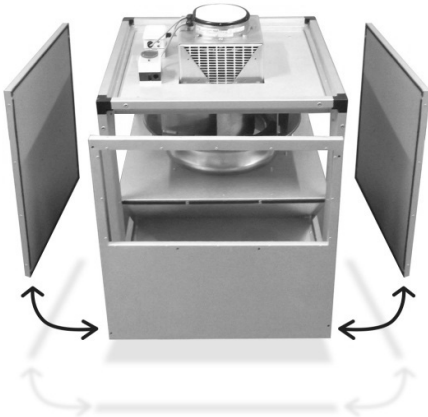
Short duct runs terminating close to the fan (i.e. within 1.5m) must incorporate suitable guards unless the fan is mounted higher than 2.1m above the floor.

Position the fan at the highest point on the system with both ducting runs sloping downwards from this point.

In circumstances where an excessive amount of moisture is present in the air then a condensation trap should be installed.

When siting the appliance, ensure that there is sufficient space to allow access for any servicing and maintenance.

The EKF EC kitchen extract fan is supplied with 3 x optional discharge positions. Before installation, consideration needs to be given to which discharge outlet is required. The discharge panel and 2 x access panels are interchangeable to suit the installation.



It is recommended that duct connections to the unit are made via flexible connectors, (see accessories list).

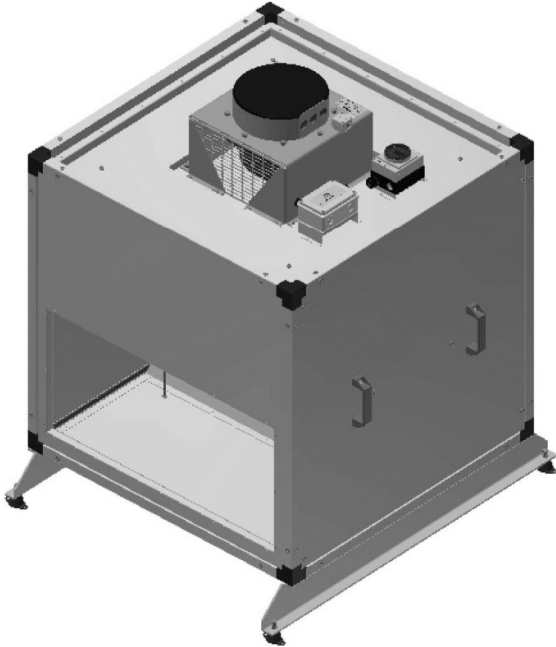
**Mounting the unit**

If mounting the unit outdoors:

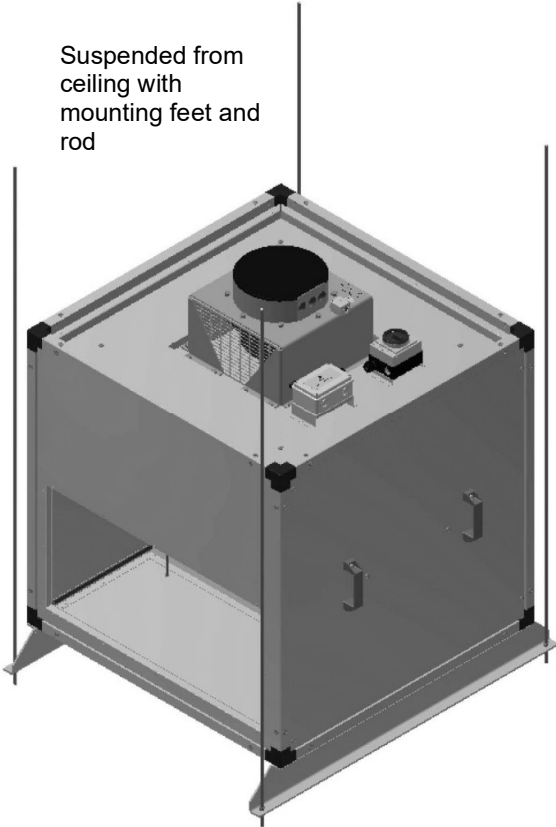
- the unit **MUST** be installed with a weather roof fitted (see accessories list);
- it is suggested that the unit is mounted at least 150mm off the floor surface.

If suspending the unit, it is recommended that the unit is supported underneath. The M6 nutserts that are fitted to the framework can be used to fix supports. Take care not to obstruct the access panel. Vent-Axia supplies a mounting feet kit, (see accessories list).

Floor mounted on mounting feet and anti-vibration mounts



Suspended from ceiling with mounting feet and rod



Connection of flexible connectors, transformation pieces, mounting feet, weather roof and discharge cowl should be made using the 8 x M6 fixing points located on each side of the unit. Maximum thread length into these fixing points is 12mm. Fixings are included with Vent-Axia supplied accessories.

**Wiring**



**WARNING: THE FAN AND ANCILLARY CONTROL EQUIPMENT MUST BE ISOLATED FROM THE POWER SUPPLY DURING THE INSTALLATION / OR MAINTENANCE.**

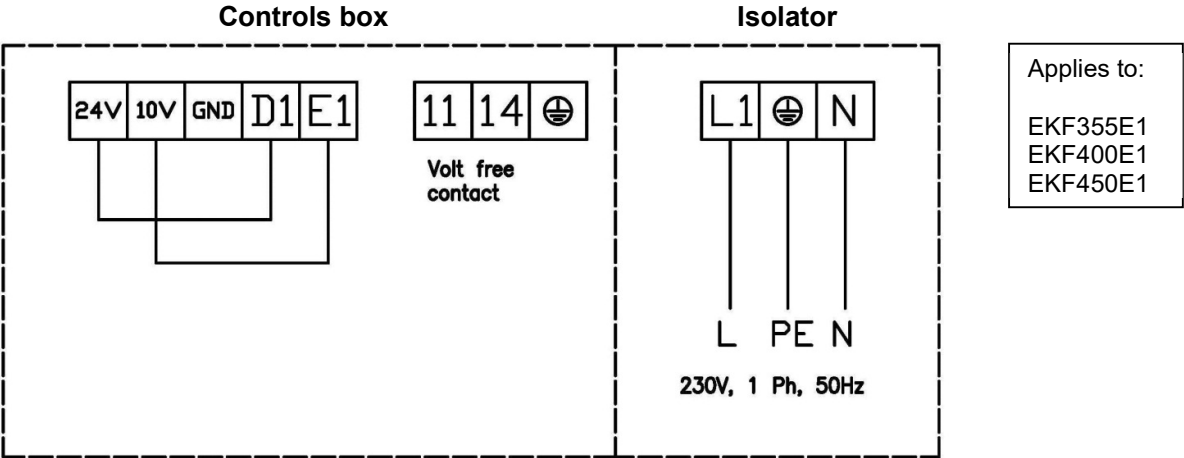
**EKF FANS ARE CLASS 1 AND MUST BE EARTHED.**

1. Remove isolator cover & terminal box cover and put to one side.
2. Select and follow the wiring diagrams.
3. Check all connections have been made correctly and ensure all terminal connections and cable clamps/glands are securely fastened.
4. The cable entry must be made using the knockouts provided.
5. Replace isolator cover & terminal box cover.
6. Ensure the impeller rotates and is free from obstructions

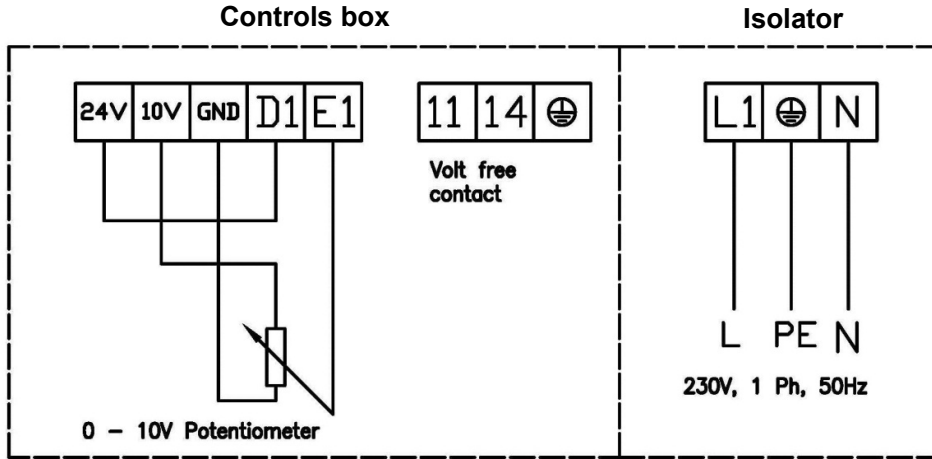
**Notes**

1. 24V – D1 should always be connected when unit is in operation.
  - a. An on/off switch can be fitted between 24V – D1.
  - b. **NOTE:** breaking 24V – D1 does not isolate the motor supply!
2. Terminals 11 – 14 provide a volt-free contact which can be used to indicate operation.
  - a. In operation, the contact is closed.
  - b. In fault/no power condition, the contact is open.
  - c. Max. 250V ac, 2A.
3. Speed control can be provided via a 0-10V input to E1.
  - a. **NOTE:** this product has an EC motor with built-in speed control fitted and is not suitable to be speed controlled via variation of the supply voltage or frequency!
  - b. Minimum recommended control voltage to start the fan is 2V.

**Full speed 230V, 1Ph, 50Hz**

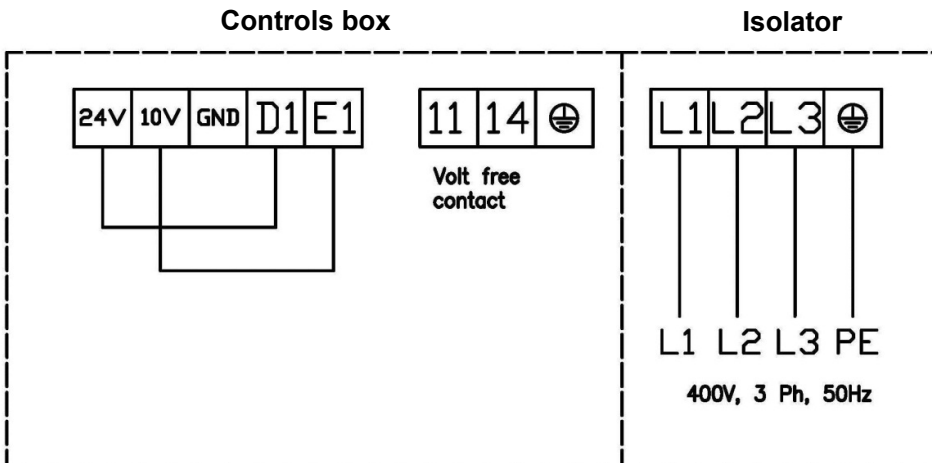


**Variable speed 230V, 1Ph, 50Hz**



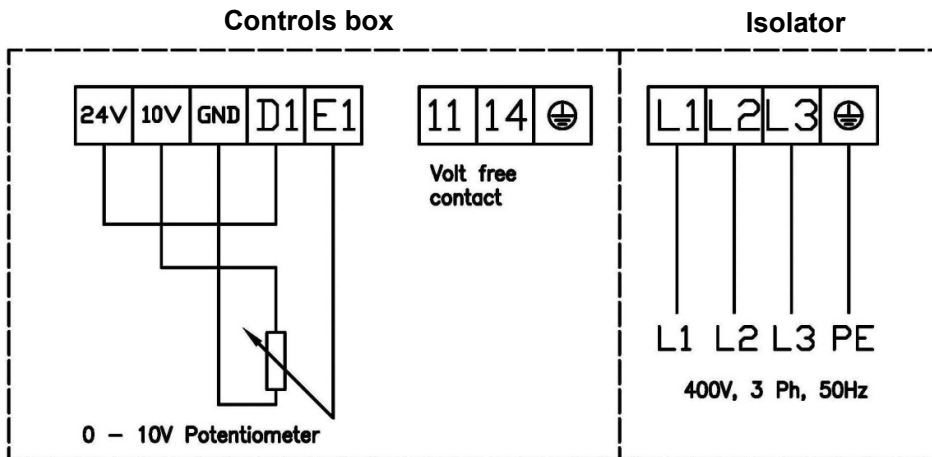
Applies to:  
EKF355E1  
EKF400E1  
EKF450E1

**Full speed 400V, 3Ph, 50Hz**



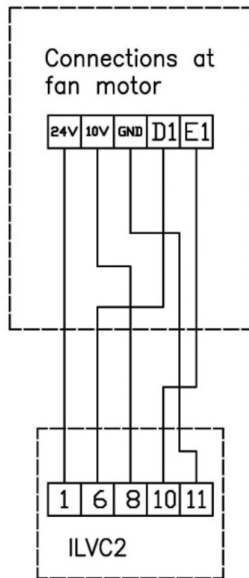
Applies to:  
EKF450E3  
EKF500E3  
EKF560E3

**Variable speed 400V, 3Ph, 50Hz**



Applies to:  
EKF450E3  
EKF500E3  
EKF560E3

## ILVC2 Variable Speed Controller



The EKF control connections include a 24V output & D1 input. The D1 input requires 24V for the fan motor to run. This is used to enable the ON/OFF switching through terminals 1 & 6 of the controller.

### Trouble-shooting

The motor has a status LED integrated into its cover. The LED will stay on constantly during normal operation and stay off when there is no power to the motor. In fault condition, the LED will flash in multiple sequences. Please refer to Vent-Axia Technical Support for more information should this occur.



### Servicing & Maintenance



**WARNING: THE FAN AND ANCILLARY CONTROL EQUIPMENT MUST BE ISOLATED FROM THE POWER SUPPLY DURING MAINTENANCE.**

1. At intervals appropriate to the installation, the fan should be inspected and cleaned to ensure there is no build-up of grease, dirt or other deposits.

## ACCESSORIES

Part No.	Description
EKFFC355	EKF355 FLEXIBLE CONNECTOR KIT
EKFFC400	EKF400 FLEXIBLE CONNECTOR KIT
EKFFC500	EKF500 FLEXIBLE CONNECTOR KIT
EKFTP35-35	EKF355 TRANSFORMATION PIECE TO 350 CIRCULAR DUCT
EKFTP40-40	EKF400/450 TRANSFORMATION PIECE TO 400 CIRCULAR DUCT
EKFTP40-45	EKF400/450 TRANSFORMATION PIECE TO 450 CIRCULAR DUCT
EKFTP50-50	EKF500/560 TRANSFORMATION PIECE TO 500 CIRCULAR DUCT
EKFTP50-56	EKF500/560 TRANSFORMATION PIECE TO 560 CIRCULAR DUCT
EKFMF355	EKF355 MOUNTING FEET KIT
EKFMF400	EKF400 MOUNTING FEET KIT
EKFMF500	EKF500 MOUNTING FEET KIT
EKFWR355	EKF355 WEATHER ROOF
EKFWR400	EKF400 WEATHER ROOF
EKFWR500	EKF500 WEATHER ROOF
EKFDC355	EKF355 DISCHARGE COWL
EKFDC400	EKF400 DISCHARGE COWL
EKFDC500	EKF500 DISCHARGE COWL

### The **Vent-Axia** Guarantee

• Applicable only to products installed and used in the United Kingdom. For details of guarantee outside the United Kingdom contact your local supplier.

• Vent-Axia guarantees its products for two years from date of purchase against faulty material or workmanship. In the event of any part being found to be defective, the product will be repaired, or at the Company's option replaced, without charge, provided that the product:-

- Has been installed and used in accordance with the instructions given with each unit.
- Has not been connected to an unsuitable electricity supply. (The correct electricity supply voltage is shown on the product rating label attached to the unit).
- Has not been subjected to misuse, neglect or damage.
- Has not been modified or repaired by any person not authorised by the company.

#### IF CLAIMING UNDER TERMS OF GUARANTEE

• Please return the complete product, carriage paid to your original supplier or nearest Vent-Axia Centre, by post or personal visit. Please ensure that it is adequately packed and accompanied by a letter clearly marked "Guarantee Claim" stating the nature of the fault and providing evidence of date and source of purchase.

• The guarantee is offered to you as an extra benefit, and does not affect your legal rights

# **Vent-Axia** #

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