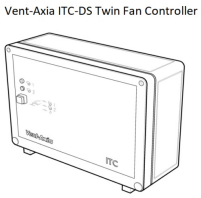
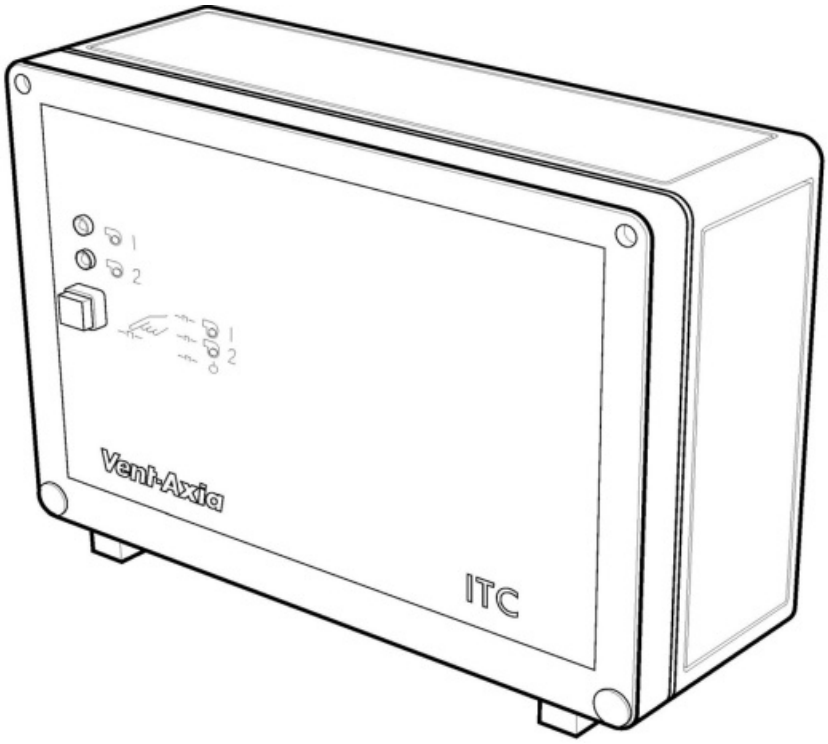


Vent-Axia ITC-DS Twin Fan Controller User Manual

Contents

Vent-Axia ITC-DS Twin Fan Controller



Specifications:

- Model: ITC-DS
- Maximum Load: 220-240V 50Hz ~9A and 380-415V 50Hz 3 ~9A

Product Information

The Vent-Axia Twin Fan Controller range includes the ITC-DS model, which is a twin fan controller with 12/24 hr duty sharing. It can control both single and three-phase fans if thermal overloads are fitted to the motors. The controller features fan failure indication to Building Management System (BMS) via voltage-free contacts, connection to external sensors with voltage-free contacts, and the ability to speed control a fan using only one speed controller.

The RVC module is used for remote visual control of the fans, allowing status indication and fan operation selection remotely up to 100m away. Connections to the ITC-DS are made through an Extra Low Voltage data link.

Mounting Instructions:

1. Install the controller in a ventilated area. ITC-DS can be fitted locally to the fans to reduce wiring cost and is rated to IP44. Use RVC for remote status indication.
2. If mounted on metal or conductive surface, ensure it is earthed.
3. Securely mount the controller using appropriate fasteners, routing cables through ‘knock-out’ holes in the casing.

Operating Status:

The ITC-DS has 2 LED indicators to show which fan is operating and a pushbutton to select fan 1, fan 2, or standby mode. Relay contacts are used for BMS indications to show system conditions.

Fuses:

The electronic circuit is protected by a 1A time-lag (type T) fuse, and the 24AC output is protected by a 500mA time-lag (type T) fuse.

Supply Connections:

Outlet Connections:

RVC Connections, Sensor Connections, and BMS Connections:

Disposal:

This product should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority for recycling advice.

Guarantee:

Vent-Axia guarantees its products for two years from date of purchase against faulty material or workmanship. For guarantee claims, return the product to your original supplier or nearest Vent-Axia Centre.

FAQ

Q: Can the ITC-DS control both single and three-phase fans?

A: Yes, the ITC-DS can control both types of fans if thermal overloads are fitted to the motors.

Q: How far can the RVC module be placed from the ITC-DS?

A: The RVC module can be placed up to 100m away from the ITC-DS for remote visual control.

Model:- ITC-DS
Maximum load: 220-240V 50Hz ~ 9A and 380-415V 50Hz 3 ~ 9A

IMPORTANT – READ THESE INSTRUCTIONS FULLY BEFORE COMMENCING INSTALLATION.

1. Ensure that the mains supply voltage, frequency, number of phases and power rating comply with the details on the rating label. Check that the controller can cope with the load (including starting current).
2. All wiring must be in accordance with current I.E.T. wiring regulations (BS7671), or the appropriate standards in your country. The equipment should be provided with a local all pole isolator switch having a contact separation of at least 3mm. We recommend that wiring to the equipment be made in conduit for added protection.
3. This equipment must be earthed.
4. Ensure safety regulations and practices are adhered to when installing and using this equipment.
5. The controller must not be used where it is liable to be subjected to water spray from hoses, etc., or where the ambient air temperatures may exceed 40°C.
6. When the fan motor thermal protector terminals (TK or TP) are brought out externally, they MUST be connected to the relevant controller terminals.

FOREWORD

The Vent-Axia Twin Fan Controller range comprise of the following modules;

1. ITC-DS – Twin fan controller with 12/24 hr duty sharing.
2. RVC – Remote visual controller

ITC-DS controller has the following features:-

- a. Control both single and three phase fans if thermal overloads are fitted to the motors.
- b. Fan failure indication to Building Management System (BMS) via voltage-free contacts.
- c. Connection to external sensors (sensors must have voltage-free contacts).
- d. Fan can be speed controlled using only one speed controller.

The RVC module is used to indicate the status and to select the operation of the fans remotely (up to 1OOm away). Connections to the ITC-DS are Extra Low Voltage data link.

MOUNTING

1. Install the controller in a ventilated area. ITC-DS can be fitted locally to the fans to reduced wiring cost and are rated to IP44. In this setup, RVC should be used to indicate the status of the system at a remote location.
2. If the controller is mounted on metal or another conductive surface, that surface MUST be earthed.
3. Open the lid to gain access to the fixing holes. Securely mount the controller to the surface using appropriate fasteners. Route the supply and outlet cables through ‘knock-out’ holes in the casing.

OPERATING STATUS

The ITC-DS has 2 LED’s to indicate which fan is operating and a pushbutton to select either fan 1, fan 2 or standby mode.
The relay contacts for BMS indications are used to indicate the following conditions:

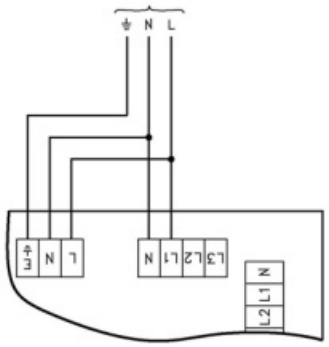
- Contacts #1
  - Closed
  - Opened
  - Closed
  - Opened
- Contacts #2
  - Closed
  - Closed
  - Opened
  - Opened
- System Condition
  - System OK
  - Fan 1 Failed
  - Fan 2 Failed
  - Both fans failed or power failure

FUSES

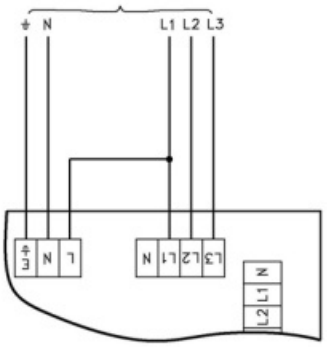
The electronic circuit is protected by a 20mm long 1A time-lag (type T) fuse. The 24AC output is protected by a 20mm long 500mA time-lag (type T) fuse.

SUPPLY CONNECTIONS

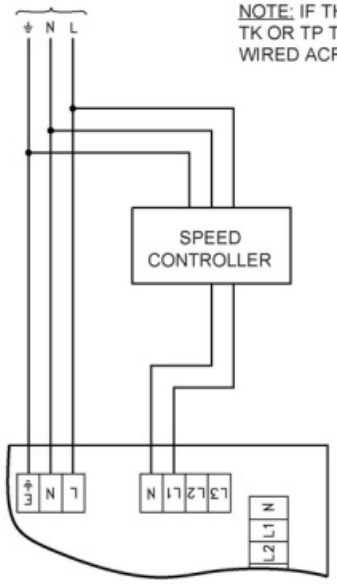
SINGLE PHASE FANS
TO 220-240V ~ 50Hz SUPPLY



3 PHASE FANS
TO 380-415V 3~ 50Hz SUPPLY

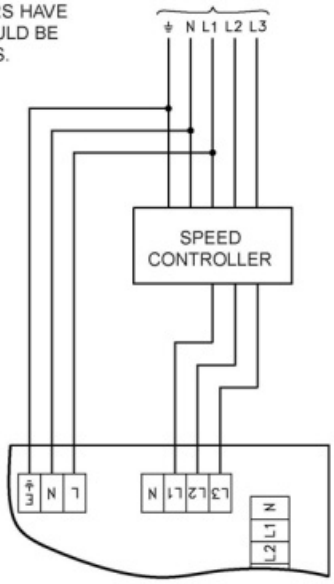


SINGLE PHASE FANS
WITH SPEED CONTROLLER
TO 220-240V ~ 50Hz SUPPLY

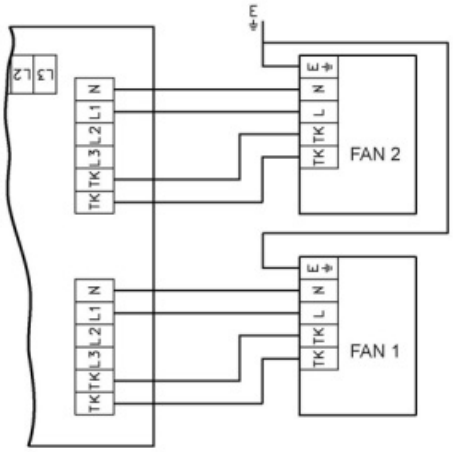


NOTE: IF THE SPEED CONTROLLERS HAVE TK OR TP TERMINALS, A LINK SHOULD BE WIRED ACROSS THESE TERMINALS.

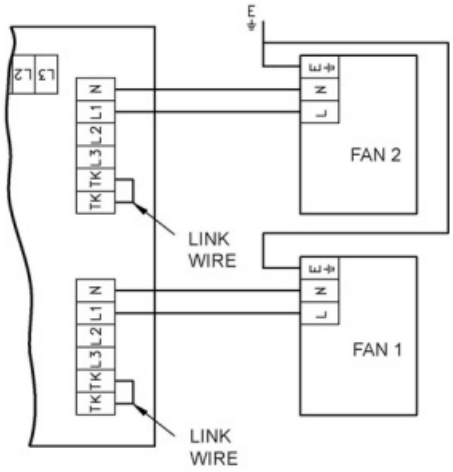
3 PHASE FANS
WITH SPEED CONTROLLER
TO 380-415V 3~ 50Hz SUPPLY



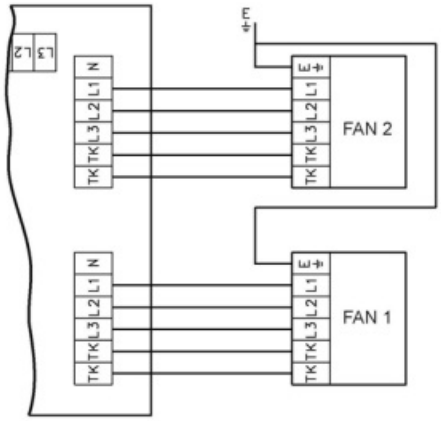
SINGLE PHASE FANS



SINGLE PHASE FANS
WITH INTERNALLY WIRED
THERMAL OVERLOAD PROTECTION.



3 PHASE FANS



NOTE: 3 PHASE FANS MUST HAVE EXTERNALLY CONNECTED THERMAL OVERLOAD PROTECTION.

NOTE: INSTALLER MUST PROVIDE ADEQUATE EARTH BONDING TO THE FANS

GENERAL WIRING

WARNING

- ISOLATE MAINS SUPPLY BEFORE MAKING CONNECTIONS
- THIS EQUIPMENT MUST BE EARTHED

1. All electrical connections should be made by a properly qualified electrician.
2. Wire the supply and outlet cables as shown in the wiring diagrams.
3. After making wiring connections, replace the lid onto the base and ensure the cable glands; gasket; etc. are securely located.

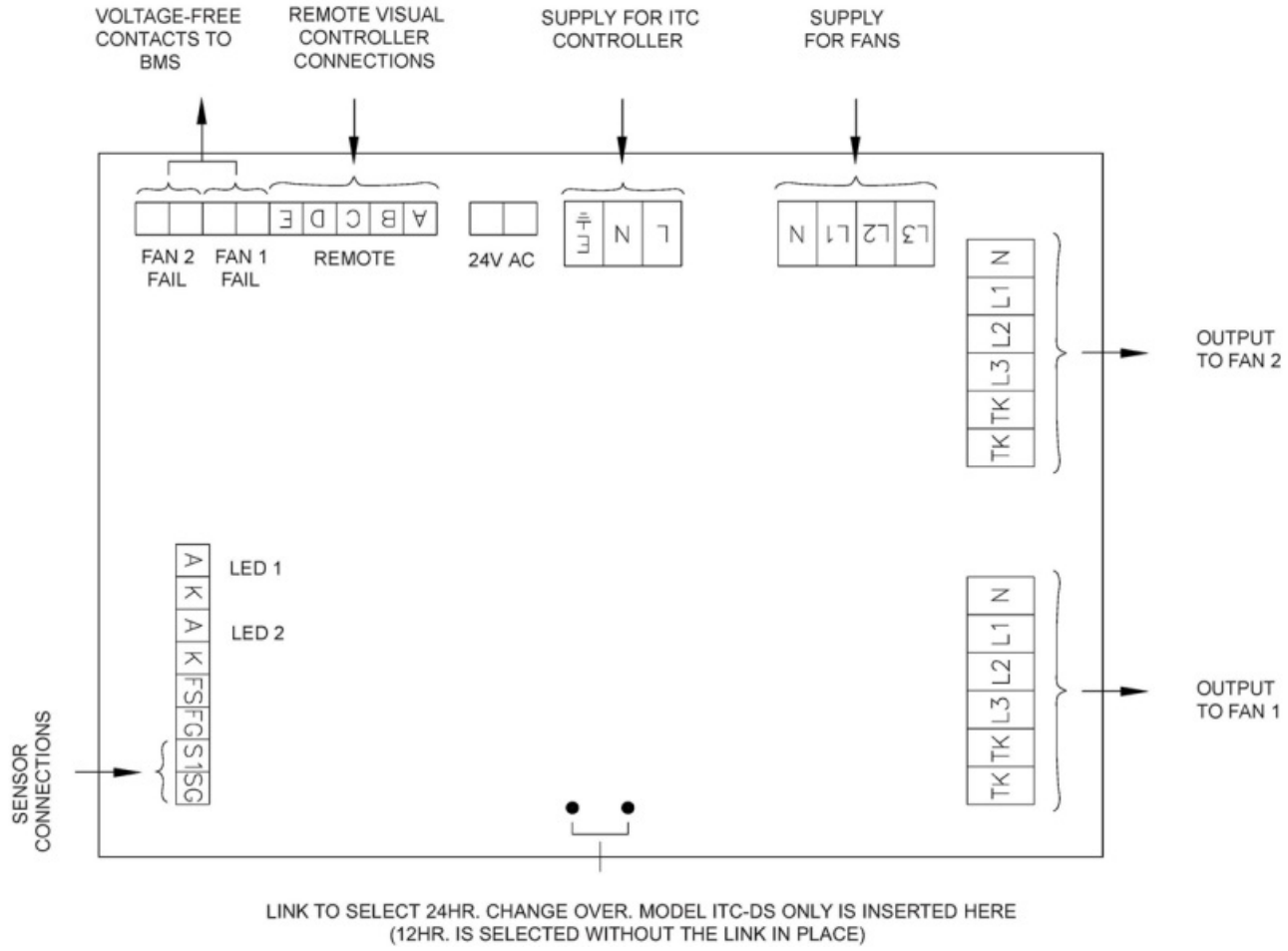
NOTES ON RUNNING

ITC-DS operates by detecting the current flowing to the fan. If it is necessary to switch the fan on and off for any reason, e.g. fan off at night, this switching operation must be done via the ITC-DS controller by making or breaking the contacts connected across S1 – SG. Other wise a fan failure will be registered.

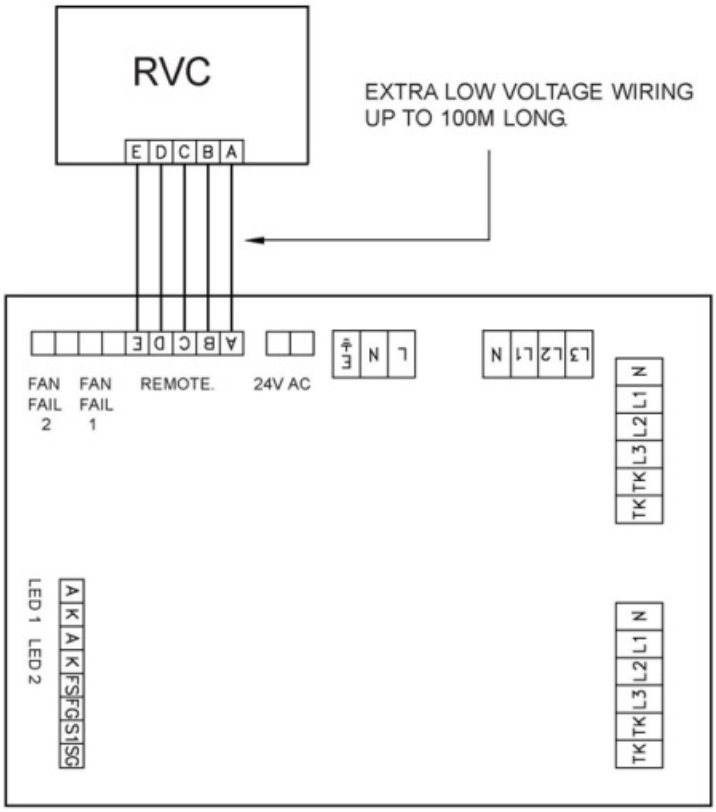
Before switching on CHECK:

1. All mountings are secure.
2. Circuit protection devices are fitted.
3. Earth connections have been made and are secure.
4. The fan is installed properly and the impeller is free to rotate.
5. All relevant guards are fitted.

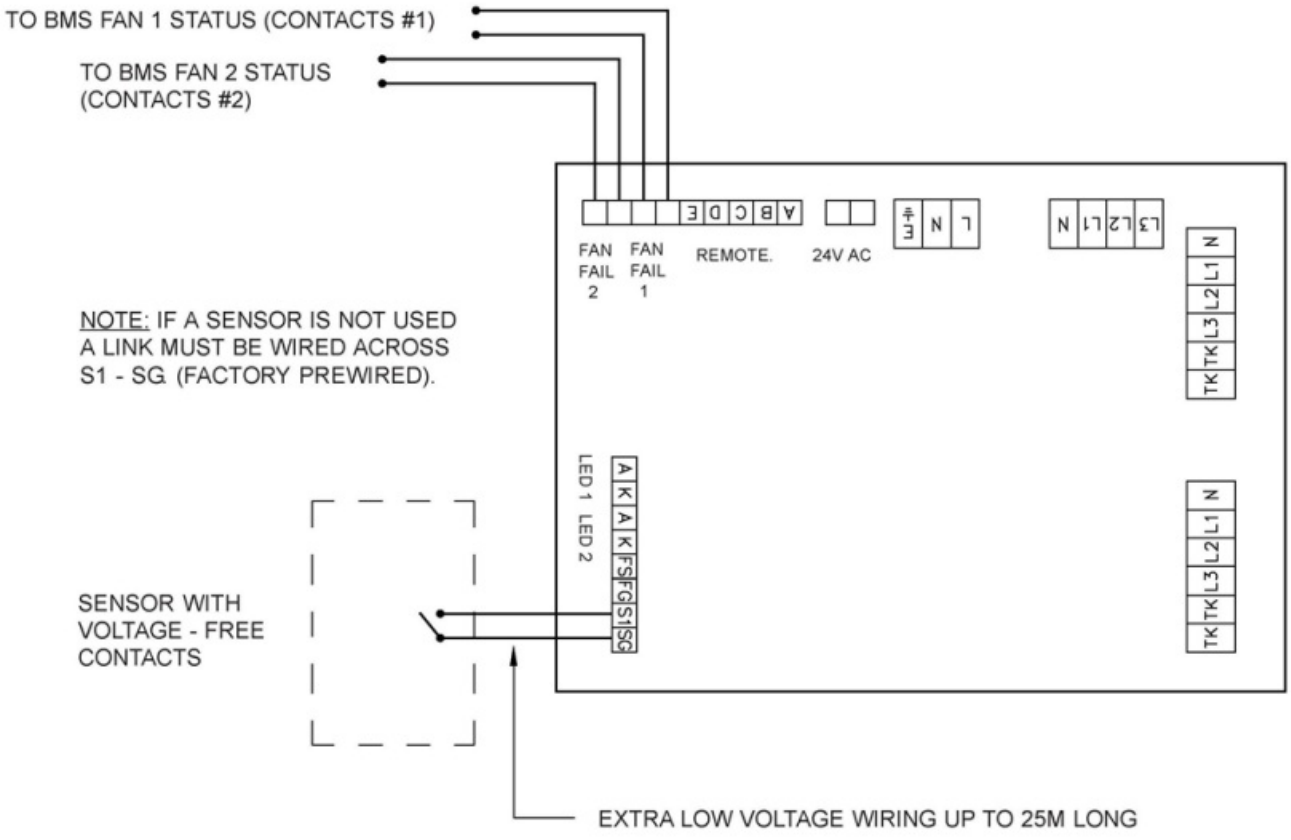
LAYOUT OF CONNECTIONS



RVC CONNECTIONS



SENSOR CONNECTIONS AND BMS CONNECTIONS



Disposal

This product should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority for recycling advice.

The Vent-Axia Guarantee

App licable 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 wor kmanship. 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.

Head Office: Fleming Way, Crawley, West Sussex, RH10 9YX
EU Authorised Representative: Vent-Axia Sigarenmaker 5 – 5521DJ Eersel Nederland **authorisedrep@vent-axia.nl**
UK NATIONAL CALL CENTRE: –

Sales Enquiries

Tel: 0344 8560590
Email: **sales@vent-axia.com**

Technical Support:

Tel: 0344 8560594
Email: **vatechsupport@vent-axia.com**

Documents / Resources

	Vent-Axia ITC-DS Twin Fan Controller [pdf] User Manual 10314200, 10314210, ITC-DS Twin Fan Controller, ITC-DS, Twin Fan Controller, Fan Controller, Controller

References

- Fibre Optic Internet | Internet Service Provider | Calgary & Rural Alberta | Axia
- The domain name axia.nl is available for rent
- User Manual

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