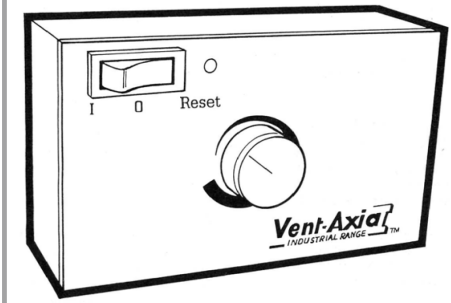
Single Phase Electronic Speed Controllers

Installation and Wiring Instructions



Stock Ref. N°

10303103A
3A SPEED
CONTROLLER
ELECTRONIC 1PH

10303106A
6A SPEED
CONTROLLER
ELECTRONIC 1PH

Rating: 220-240V ~ 50Hz
10303103A running current: 3A starting current: 6A
10303106A running current: 6A starting current: 12A

Vent-Axia®

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

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IMPORTANT
PLEASE READ ALL INSTRUCTIONS CAREFULLY **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.E. wiring regulations (BS7671), or the appropriate standard in your country. The equipment should be provided with a local double pole isolator switch having a contact separation of at least 3mm. we recommend that wiring to the equipment to 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 temperature may exceed 30℃. Operation up to 40℃ is permissible if the controller is de-rated according to the ambient temperature (see 'Temperature Effect' below).
6. When the fan motor thermal protector terminals (TK or TP) are brought out externally, they MUST be connected to the relevant speed controller terminals.

MOUNTING

1. Install the controller in a ventilated area. Suitable for surface mounting **ONLY** – do not recess mount.
2. If the controller is mounted on metal or other conductive surface; that surface MUST be earthed.
3. Remove the lid and keep it in a safe place. Route the supply and outlet cables through 'knock-out' holes in the base. Securely mount the base to the surface using appropriate fasteners.

GENERAL WIRING

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

When the fan motor thermal protector terminals (TK and TP) are brought out externally, they MUST be connected to the relevant speed controller terminals.

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, gaskets, etc., are securely located.

NOTES ON RUNNING

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.
6. The controller is in the off position.

Switch on mains supply and controller on. The neon indicator will glow continuously. Turn the control to maximum and then to minimum to ensure the fan/motor operates accordingly.

Please note the control has a HARD START facility which applies the maximum voltage to the motor during the first few seconds at start up.

In the event of a fault condition; ie, the motor thermal protector has operated, the neon indicator will flash continuously.

When the fault has been cleared, press the 3-position switch to 'RESET' and then to the ON (I) position. The motor will restart and the neon will glow continuously.

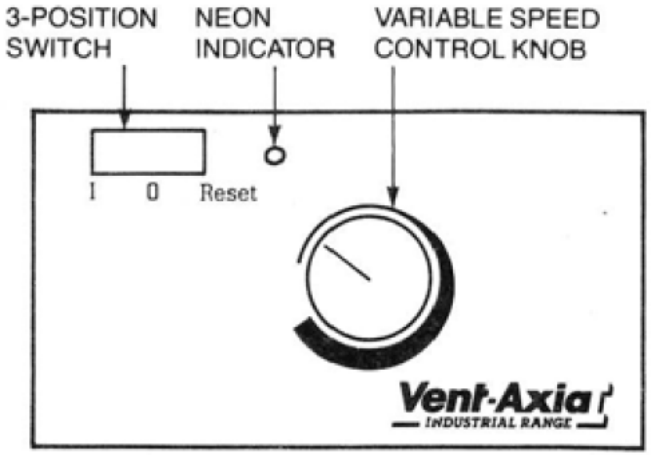
MINIMUM SPEED

The controller has been preset to our recommended value and normally would not require any adjustments.

WARNING – ISOLATE THE MAINS SUPPLY BEFORE CARRYING OUT THE FOLLOWING.

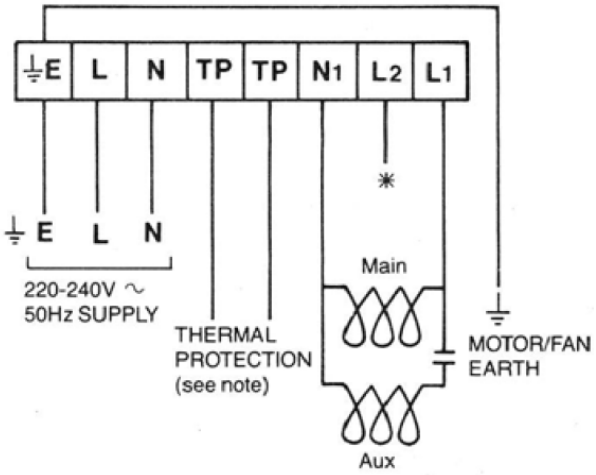
If adjustment is needed, detach the lid from the base to gain access to the potentiometer. Select a new minimum speed by adjusting the position of the potentiometer. Replace the lid and check that the controller operates satisfactorily.

Ensure the fan/motor is NOT stationary at the minimum setting, otherwise the motor will be damaged.



WIRING DIAGRAMS

The general wiring diagram using 2 wire control is given below:-



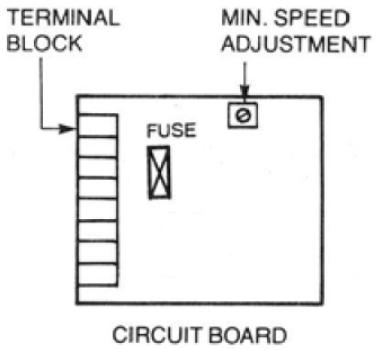
TEMPERATURE EFFECT

If the controller is operating in an ambient temperature of greater than 30 ℃, the rating of the triac is adversely affected. To compensate for this, the current ratings of the controller must be de-rated by 2% for every 1 ℃ above 30 ℃ (up to 40 ℃).

E.G. the 10303103A should be derated to 2.7A running current and 5.4A starting current at 35 ℃.

MANUAL RESET

When a fault occurs or when the mains supply is interrupted, it is necessary to manually reset the controller via the 3-way switch before the controller will operate normally.



Notes:-

- If the fan motor has no external thermal protector terminals (i.e. they are internally connected), a link must be connected across the TP terminals on the speed controller.
- * L2 is used ONLY when a 3 wire control configuration is used.
- A 3 wire control configuration could be used with appropriate motors to obtain a better control characteristic. The motor winding is wired into L1, L2 and N1 terminals of the controller as illustrated below.
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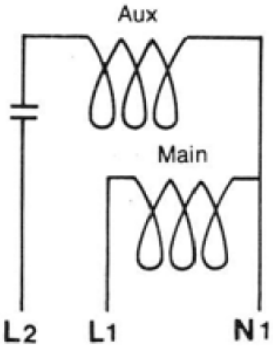
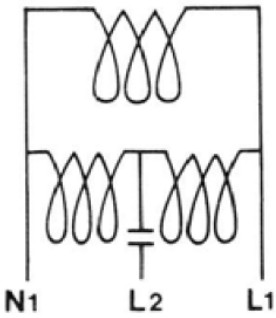


Standard 3 Wire Motor



Steinmetze Motor Winding

Disposal

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

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.

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 one year 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

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SALES ENQUIRIES: Tel: 0844 8560591 Fax: 01293 534898
TECHNICAL SUPPORT: Tel: 0344 8560595 Fax: 01293 532814

For details of the warranty and returns procedure please refer to www.vent-axia.com or write to Vent-Axia Ltd, Fleming Way, Crawley, RH10 9YX

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