



COMPACT SCP

Installation & Maintenance

Installation Instructions

1.0 General

- 1.1 It is important these Installation and Maintenance Instructions are fully adhered to.
- 1.2 Full details of the unit supplied are shown on the product nameplate. If in doubt about any detail contact Elta Fans Ltd or its agents for clarification.
- 1.3 All electrical installation must be carried out by suitably qualified and competent personnel in accordance with all current statutory requirements.
- 1.4 These instructions cover only the Elta Fans Ltd product and do not include the supply or installation of any safety equipment that may be required e.g. adequate guarding or protection from rotating parts and proper electrical isolation.
- 1.5 Any declarations made by Elta Fans Ltd about product installation and safety, are dependant on the fan equipment being used within installations which themselves meet the requirements of the relevant Standards and Directives of your region.
- 1.6 The fan is designed for use in an ambient temperature of -20°C up to a maximum of +70°C, speed controlled operating temperatures of -20°C and +50°C and up to 95% relative humidity. EC fans are designed for ambient temperatures up to +60°C. The fan is not suitable for corrosive or explosive atmospheres.
- 1.7 The installer should provide easy access to the fan to facilitate future maintenance.
- 1.8 The installer should ensure the fan is adequately supported.
- 1.9 This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the product by a person responsible for their safety. Children should be supervised to ensure that they do not play with the product.
- 1.10 At end-of-life, the unit must be disposed of in an environmentally friendly manner by suitably qualified and competent personnel in accordance with the requirements of applicable Standards and Directives.

2.0 Installation

WARNING – The fan must be isolated from the power supply during installation and maintenance. The fan must be earthed in accordance with the local regulations.

- 2.1 Upon receipt, the fan equipment should be visually inspected to check for any damage. Ensure that the impeller is free to rotate.
- 2.2 If there are any queries concerning the fan equipment, Elta Fans Ltd should be contacted prior to the installation.
- 2.3 The fan must be securely mounted in the desired position to suit the application. The fan can be mounted at any angle.
- 2.4 Check the details on the motor rating plate to ensure that the correct power supply (voltage, frequency and phase) is available. An incorrect power supply will lead to permanent damage to the fan motor.
- 2.5 Refer to the appropriate wiring diagram. Ensure that all earth connections are made.
- 2.6 Means for electrical disconnection must be incorporated in the wiring installation in accordance with the relevant wiring and electrical regulations.
- 2.7 Precaution must be taken to locate the exhaust discharge terminal so as to avoid the backflow of gases into the room from the open flue of gas or other fuel burning appliances.

3.0 Start Up

- 3.1 Before power is supplied to the unit, check that the wiring is correct as per the fan connection diagram.
- 3.2 At initial start-up, check that impeller rotation and airflow direction is correct.
- 3.3 Check that the motor amperage drawn does not exceed the nameplate rating.
EC fans only:
- 3.4 Minimum interval between consecutive starts: 5 minutes.
- 3.5 Maximum 1 connection from power supply cycle per 5 minutes.

4.0 Fan Maintenance

- 4.1 Inspection of the fan at least once every 12 months is recommended to ensure that the motor, fan blades, and supporting guards, are clean. Any build up of dust and deposits on the blades or guards should be removed using a non-abrasive cleaner.
- 4.2 All fastenings should be checked for tightness. In addition, all rotating items should be checked.
- 4.3 Bearings are of the 'sealed for life' type and will not need a detailed inspection.

WARNING – This fan is fitted with an auto-reset thermal contact which switches the fan off in the event of a fault condition. Once the motor cools down the fan may start unexpectedly. Only a suitably qualified and competent person may carry out maintenance after the electrical supply has been isolated.

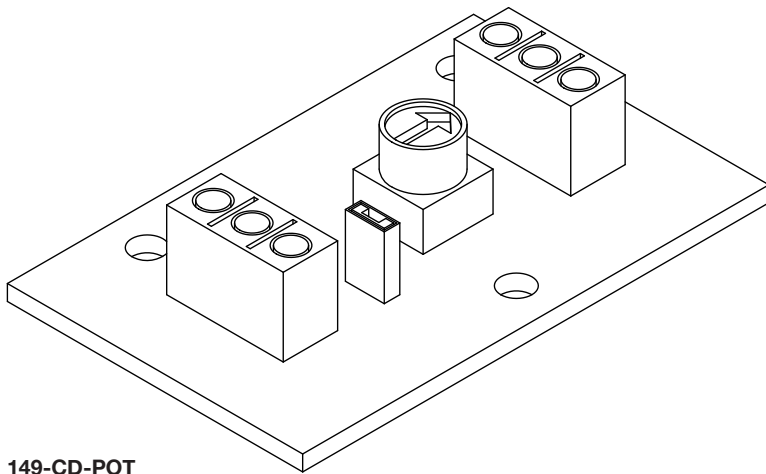
5.0 Guarantee

Elta Fans Ltd will, free of charge, within a period of 1 year from the date of dispatch from their works, repair or at its option replace any goods which are proved to have defects as a result of defective materials or workmanship. The goods MUST be returned to Elta Fans Ltd carriage paid for examination.

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Installation Instructions



149-CD-POT

Level / Speed	OHMS (Ω)
10	10 (Ω)
9	9 (Ω)
8	8 (Ω)
7	7 (Ω)
6	6 (Ω)
5	5 (Ω)
4	4 (Ω)
3	3 (Ω)
2	1.5 (Ω)
1	500 (Ω)
0	1 (Ω)

Please note: This is an estimated adjustment guide

149-CD-POT

The 149-CD-POT is a commissioning device designed to be used with our EC range of fans.

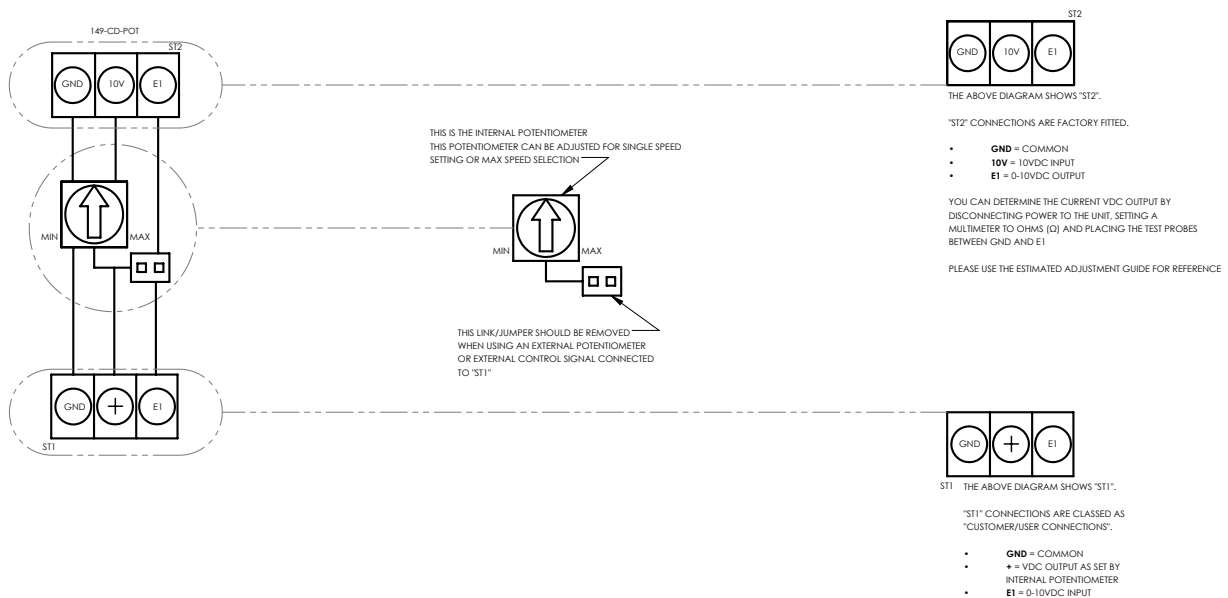
The device will allow the for the installer to set the maximum operating speed of the fan that it is connected to.

The installer or commissioning engineer can adjust the fan speed using the potentiometer built onto the 149-CD-POT board.

This potentiometer can either be used for single speed adjustment or to set a maximum speed for the fan to operate at when an external control source is used.

If external speed control is required, the jumper connection next to the potentiometer on the board would need to be removed, the installer can then connect to ST1 (using the diagram provided).

When an external speed control is fitted, the maximum speed setting available to the external control is limited by the potentiometer setting of the commissioning device.



All wiring and control equipment must comply to the latest IEE regulations, in particular part 552-01-02/03.

149-CD-POT Issue A: 10.07.2018

Check the individual product accessories table for fan controller compatibility.

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Wiring Diagrams

Please use the table(s) below to match up the product code and the wiring diagram number.

Single Phase 220V to 240V / 50Hz

Page No.	Product Code	Wiring Diagram No.
6	SCP250/4-1AC	152-500
6	SCP315/4-1AC	152-500
6	SCP350/4-1AC	152-500
6	SCP500/4-1AC	152-500
6	SCP560/4-1AC	152-500
6	SCP630/4-1AC	152-500

Three Phase 380V - 415V / 50Hz

Page No.	Product Code	Wiring Diagram No.
7	SCP250/4-3AC	152-611
7	SCP315/4-3AC	152-611
7	SCP350/4-3AC	152-611
7	SCP400/4-3AC	152-611
7	SCP450/4-3AC	152-611
7	SCP450/4B-3AC	152-611
7	SCP500/4-3AC	152-611
8	SCP500/6-3AC	152-608
7	SCP560/4-3AC	152-611
8	SCP560/6-3AC	152-608
7	SCP630/4-3AC	152-611
8	SCP630/6-3AC	152-608
9	SCP710/4/6-3AC	152-614
9	SCP710/6/8-3AC	152-614
9	SCP800/6/8-3AC	152-614

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Wiring Diagrams

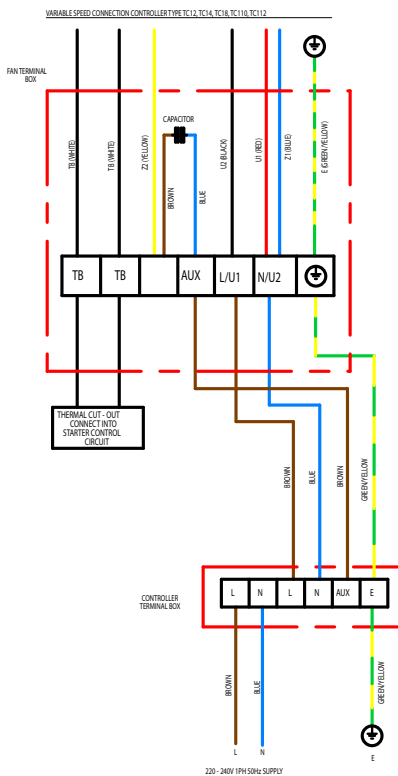
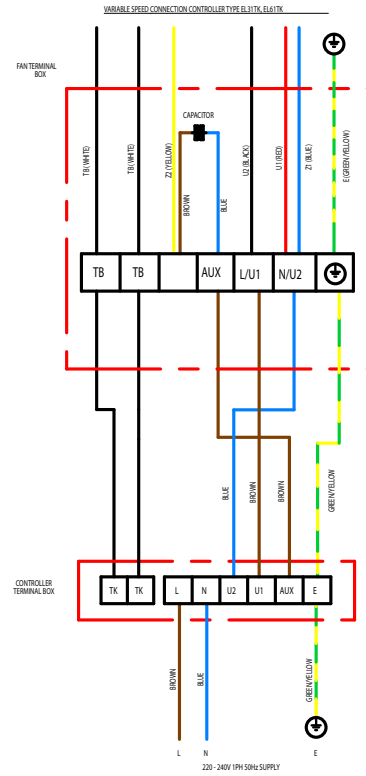
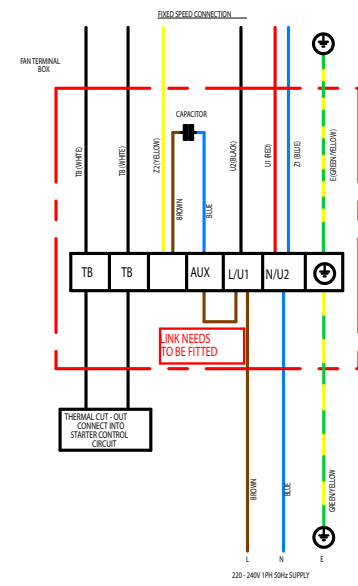
Please use the table(s) below to match up the product code and the wiring diagram number.

Single Phase 220V - 277V / 50Hz or 60Hz

Page No.	Product Code	Wiring Diagram No.
10	SCP250-1EC	152-711
10	SCP315-1EC	152-711
10	SCP350-1EC	152-711
10	SCP400-1EC	152-711
10	SCP450-1EC	152-711
10	SCP500-1EC	152-711
10	SCP560-1EC	152-711
10	SCP630-1EC	152-711
10	SCP710-1EC	152-711

152-500

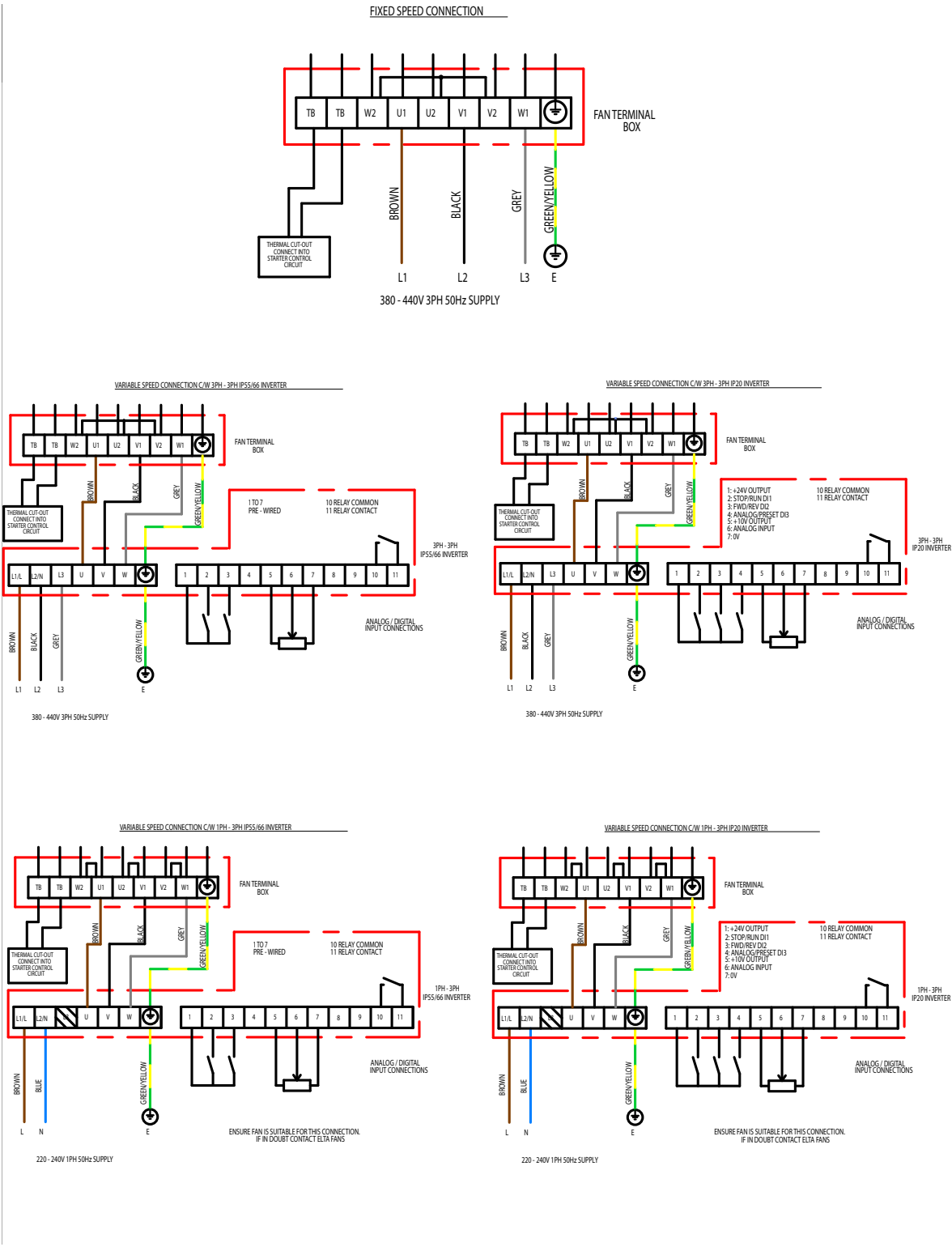
Wiring Diagrams



All wiring and control equipment must comply to the latest IEE regulations, in particular part 552-01-02/03.
 MK-152-500 Issue E: 02.03.2015
 Check the individual product accessories table for fan controller compatibility.

152-611

Wiring Diagrams



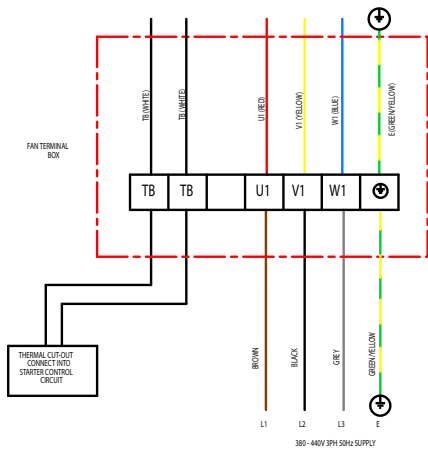
All wiring and control equipment must comply to the latest IEE regulations, in particular part 552-01-02/03.
 MK-152-611 Issue C: 21.05.2015
 Check the individual product accessories table for fan controller compatibility.

152-608

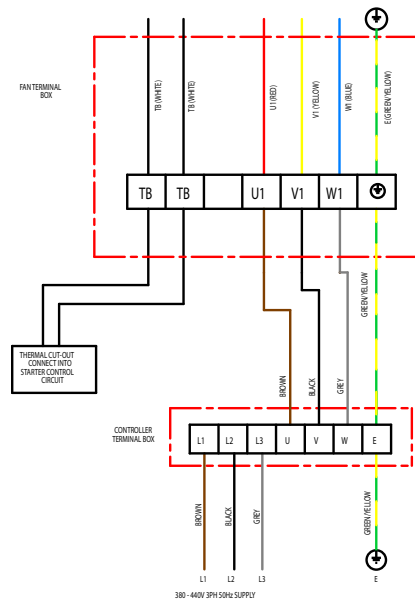
Wiring Diagrams



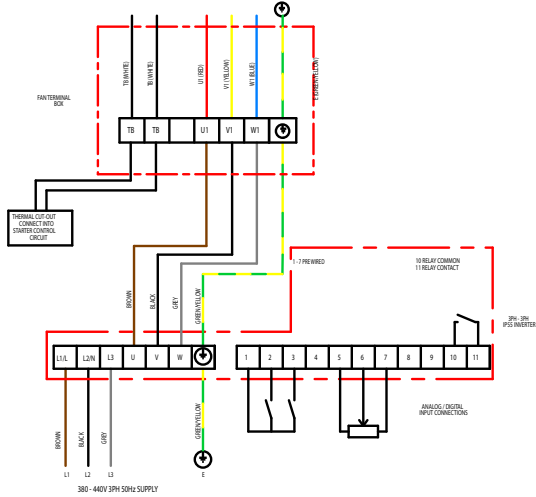
FIXED SPEED CONNECTION



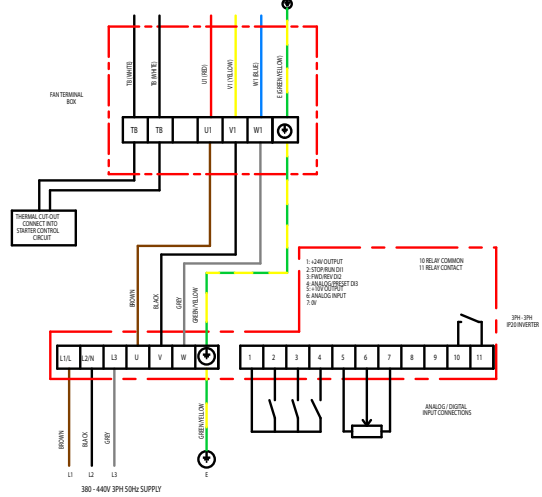
VARIABLE SPEED CONNECTION CONTROLLER TYPE TC-31, TC-32, TC-310



VARIABLE SPEED CONNECTION CONTROLLER TYPE 3PH - 3PH IP55 INVERTER



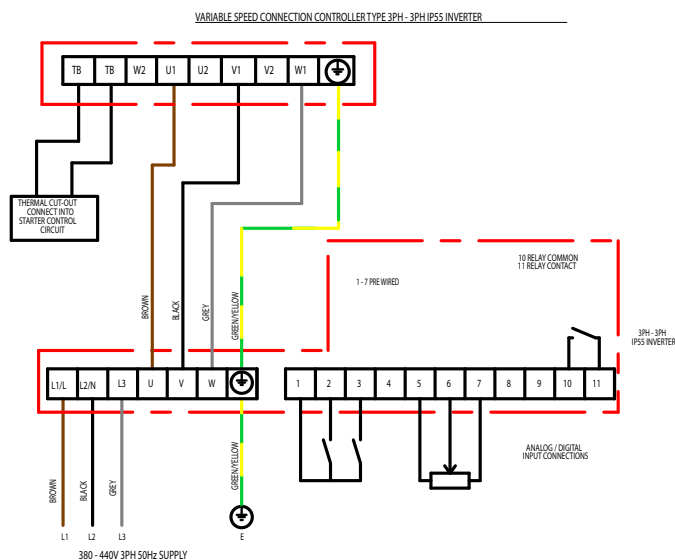
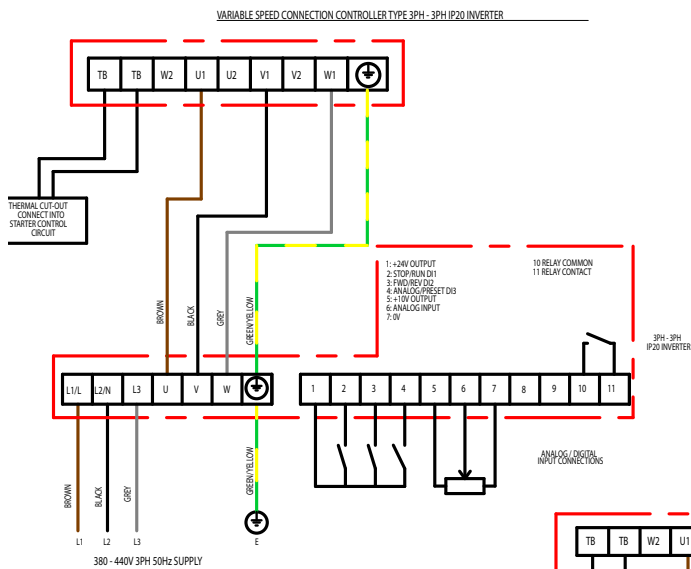
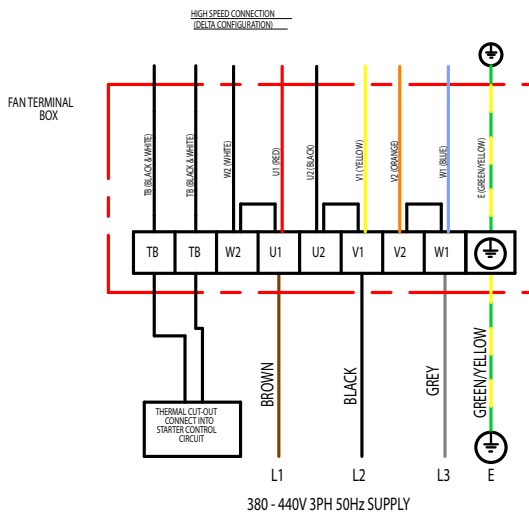
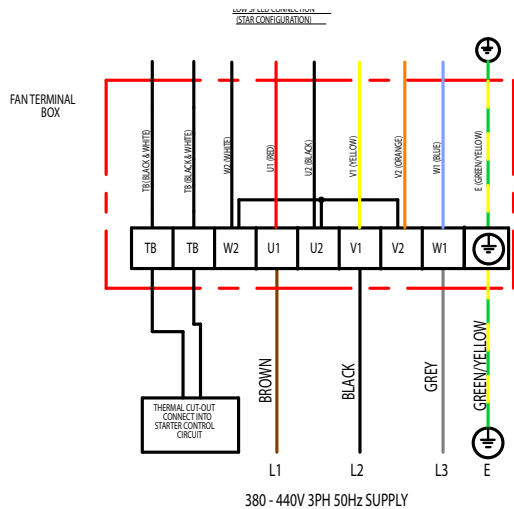
VARIABLE SPEED CONNECTION CONTROLLER TYPE 3PH - 3PH IP20 INVERTER



All wiring and control equipment must comply to the latest IEE regulations, in particular part 552-01-02/03.
 MK-152-608 Issue E: 21.06.2018
 Check the individual product accessories table for fan controller compatibility.

152-614

Wiring Diagrams



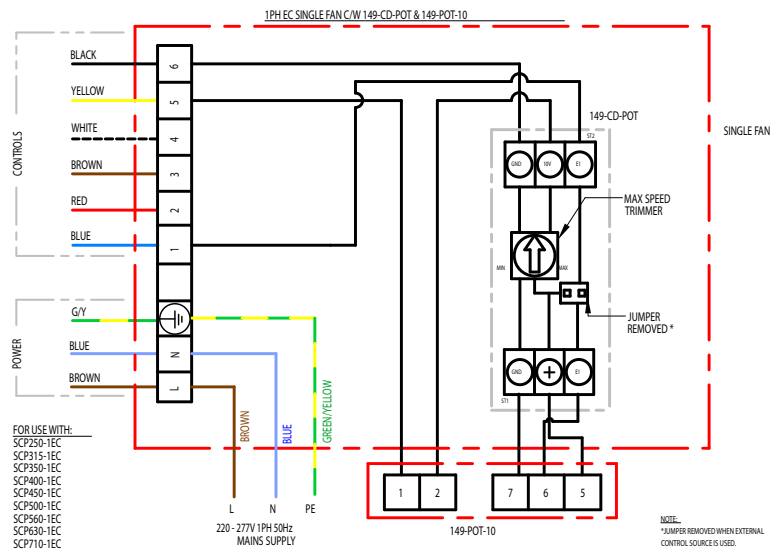
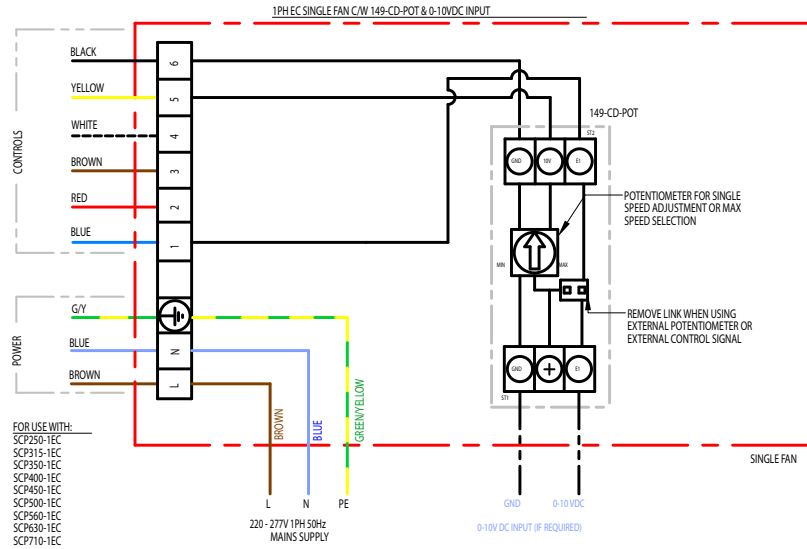
All wiring and control equipment must comply to the latest IEE regulations, in particular part 552-01-02/03.

MK-152-614 Issue B: 29.04.2015

Check the individual product accessories table for fan controller compatibility.

152-711

Wiring Diagrams



Tag	Purpose	Description
L	Live	Live power supply, 220-277V
N	Neutral	Neutral from power supply
⊕	Permanent Earth	Permanent earth from power supply
1	DC Voltage (2-10V)	DC control voltage input (2 to 10VDC input)
2	DC Current (4-20mA)	DC control current input (4 to 20mA input)
3	Frequency (10-95%)	Frequency duty-cycle (PWM) Voltage: 10 to 24Vpk Frequency: 80Hz (10 to 95% input)
4	Speed Reference	Tacho output
5	10VDC output	10VDC source output
6	GND / Common	DC Common

NOTE: TAG REFERENCES RELATE TO MOTOR CONTROL WIRES, AND NOT 149-POT-10

ALL WIRING AND CONTROLS EQUIPMENT MUST COMPLY TO THE LATEST IET REGULATIONS, IN PARTICULAR PART 552-01-02/03

All wiring and control equipment must comply to the latest IEE regulations, in particular part 552-01-02/03.
 MK-152-711 Issue C: 15.01.2019
 Check the individual product accessories table for fan controller compatibility.

EC Declaration of conformity/incorporation



Herewith we declare that the air movement equipment below, on the basis of its design and construction as partly completed machines brought onto the market complies with relevant health and safety requirements of the EC Directives stated below. In the event that alterations are made to the machinery without prior consent from Elta Fans Ltd, this declaration becomes invalid.

EC Declaration of Conformity	EC Declaration of Incorporation
<p>Description of Equipment: Building Services Ranges - Air movement fan</p> <p>Equipment model numbers for safe area fans: SCP, SPA, SAX, SCD, SDA, SCC, SLC, SCPP, SPP, SAMF, HIT, SEM, SEL, ISEO IMF, SH, SSD, SQS, SQSDCV, SQU, SMB, STD, SQT, SQT-DCV, SCH, SCHAT, SSTR, SSTRDCV, STDR, STDRDCV, SB, SQU-HT, SSQU-HT, SDF, ZFHIC, SRC, CF, TF</p> <p>Relevant / applied directives: Machinery directive 2006/42/EC, Low voltage directive 2014/35/EU</p> <p>Relevant / applied directives where applicable: Energy related products directive 2009/125/EC (when used in Europe) Electromagnetic compatibility directive 2014/30/EU (where driven via Inverter)</p> <p>Relevant / applied directives where applicable: BS EN ISO 12100 : 2010 BS EN 14694 : 2003 + A1 : 2011 BS EN 308:1997 BS EN ISO 5801:2008</p>	<p>In accordance with the Machinery Directive 2006/42/EC;</p> <p>The design of the partly completed machine, listed above, complies with the Essential Health and Safety Requirements (EHSRs) of ANNEX I, sections 1.1.2, 1.1.5, 1.4.1, 1.5.1 in EC Machinery Directive 2006/42/EC.</p> <p>Machinery is incomplete and must not be put into service until such time as the machinery which is partly complete, is to be incorporated, and has been assessed and Declared in Conformity with the provisions of any relevant parts of the Machinery Directive.</p> <p>We undertake to transmit, upon reasoned request by appropriate national authorities, relevant information relating to the partly completed machinery identified above.</p>
<p>Manufacturer: Elta Fans Limited 46 Third Avenue Pensnett Trading Estate Kingswinford West Midlands DY6 7US United Kingdom</p> <div style="text-align: right;">  </div>	
<p>Date / Signature of Manufacturer:</p> <div style="text-align: center;">  </div> <p>Name / Position of Signatory: Mr. Robert Rees Q.A.Manager Elta Fans Ltd This is an electronic document and is valid without a signature or date.</p>	<p>Document last revised: 28th March 2017</p> <p style="text-align: right;">Issue Status B</p>

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