

# SLIM QUBE SSQUHT

## 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 dependent on the fan equipment being used within installations which themselves meet the requirements of the relevant Standards and Directives of your region.
- 1.6 Electrical Installation shall comply with BS7671 and EN60079-0.
- 1.7 The fan must be protected to IP20 as described in EN60529 to protect against foreign particles.
- 1.8 The hazardous area in which the fan may be installed is defined by the ATEX code, which can be found on the fan label, drawing and Certificate of Conformity.
- 1.9 The fan is designed for use in an ambient temperature of -20°C up to +40°C.
- 1.10 Zone separation between the inside and outside of the fan can be no more than one zone (e.g. Zone 1 inside the fan, Zone 2 outside the fan).- Except when installed using a flexible duct connection where there is no Zone separation.  
Note:- NOT SUITABLE FOR 'Zone 0' USE!
- 1.11 The ignition minimizing properties of the fan and its accessories can only be retained if routine inspections, services and cleaning are carried out.
- 1.12 The installer should provide easy access to the fan to facilitate future maintenance.
- 1.13 The installer should ensure the fan is adequately supported.
- 1.14 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
- 1.15 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 and the panels adjusted to suit the desired position to suit the application.
- 2.4 Check the details on the motor/fan 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 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 Storage

- 3.1 The storage place must be vibration free, clean, dry and not subject to extreme temperature variations.
- 3.2 When storing for prolonged periods, whereby non rotation of motor occurs, we recommend electrical and bearing inspection, as they may have incurred damage or require possible re-lubrication.

**WARNING** – Elta Fans Ltd should be consulted in instances where speed controllers or inverter devices are to be used.

### 4.0 Start Up

- 4.1 Before power is supplied to the unit, check that the wiring is correct as per the fan connection diagram.
- 4.2 At initial start-up, check that impeller rotation and airflow direction is correct.
- 4.3 Check that the motor amperage draw does not exceed the nameplate rating.

### 5.0 Fan Maintenance

- 5.1 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.
- 5.2 All fastenings should be checked for tightness. In addition, all rotating items should be checked.
- 5.3 Bearings are of the 'sealed for life' type and will not need a detailed inspection.
- 5.4 The range has an easily removable motor/impeller assembly, and panel arrangement fixed to Multi- thread "U" nuts, ideal for frequent cleaning.

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## Installation Instructions

**Table 1: Operational Maintenance**

| Activity   | Frequency              |
|--|------------------------|
| Inspect AV mounts for Corrosion or “Sag”   | 6 months               |
| Check earth bonding  | 6 months               |
| Dampers check rubber stops and grease (lithium based) pivot points, by removing plastic caps                                       | Yearly                 |
| Check fixings tightness and conditions of brass track and rivets   | 26,000 hours / 3 years |
| Inspect and clean impeller   | 26,000 hours / 3 years |
| Remove dirt from motor cooling fins  | 26,000 hours / 3 years |
| Check operation of anti-condensation heaters   | 26,000 hours / 3 years |
| Check for even tip clearance between impeller and casing – For ATEX 10% of motor shaft diameter with 2mm minimum and 13mm maximum. | 26,000 hours / 3 years |
| Check motor Amps   | 26,000 hours / 3 years |
| Any corrosion - treat with suitable chemicals  | 26,000 hours / 3 years |
| Check casing seals   | 26,000 hours / 3 years |

**Table 2: Terminal Box Maintenance**

| Activity  | Frequency                                  |
|---|--|
| Check that lid seal is in place and not damaged                 | Each time the enclosure is opened          |
| Check that lid fixing screws are in place and secured           | Each time the enclosure is closed          |
| Check that the mounting bolts are tight and free from corrosion | Annually                                   |
| Check security of all cable glands                              | Annually                                   |
| Check that all screw clamps terminals are secure                | Annually and each time enclosure is opened |
| Check enclosure for damage                                      | Annually                                   |

### 6.0 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 provided to have defects as a result of defective materials or workmanship. The goods MUST be returned to Elta Fans Ltd carriage paid for examination.

### 7.0 Wiring

**WARNING** – Correct rotation must be ensured as Air flow direction will be correct even if the impeller is rotating in the wrong direction. Incorrect direction of rotation will result in lower air volumes, increased noise and higher electrical current, which will harm the motor.

# SLIM QUBE SSQUHT



## Wiring Diagrams

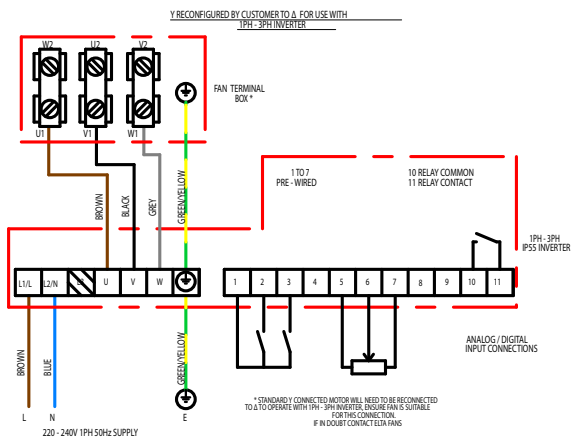
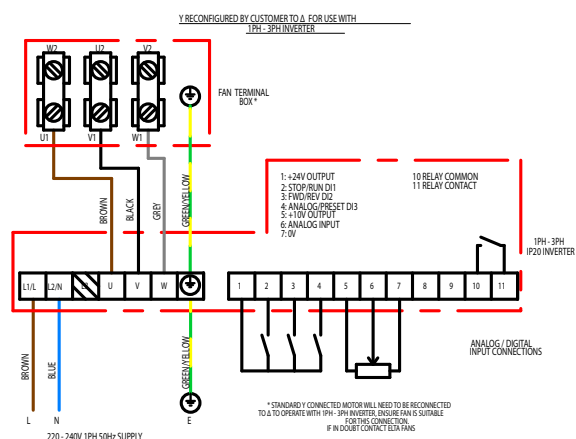
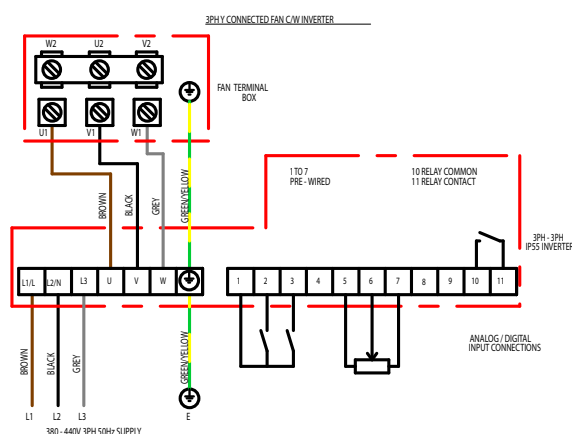
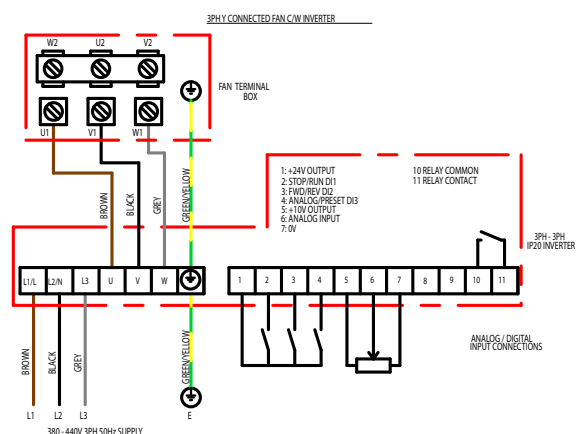
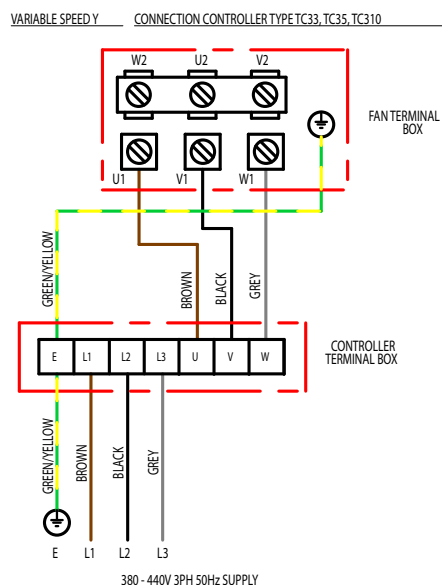
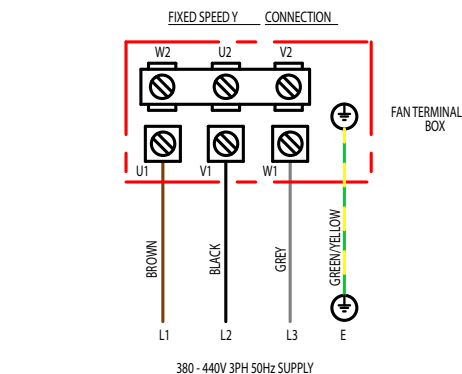
Please use the table(s) below to match up the product code and the wiring diagram number.

### Three Phase 380V - 415V / 50Hz

| Page No. | Product Code                  | Wiring Diagram No. |
|----------|-------------------------------|--------------------|
| 5        | <a href="#">SSQU1/4-3HT</a>   | 152-600            |
| 5        | <a href="#">SSQU2/4-3HT</a>   | 152-600            |
| 5        | <a href="#">SSQU22/4-3HT</a>  | 152-600            |
| 5        | <a href="#">SSQU3/4-3HT</a>   | 152-600            |
| 5        | <a href="#">SSQU23/4-3HT</a>  | 152-600            |
| 5        | <a href="#">SSQU4/4-3HT</a>   | 152-600            |
| 6        | <a href="#">SSQU24/4-3BHT</a> | 152-601            |
| 6        | <a href="#">SSQU4/4-3BHT</a>  | 152-601            |
| 5        | <a href="#">SSQU4/6-3HT</a>   | 152-600            |

# 152-600

## Wiring Diagrams



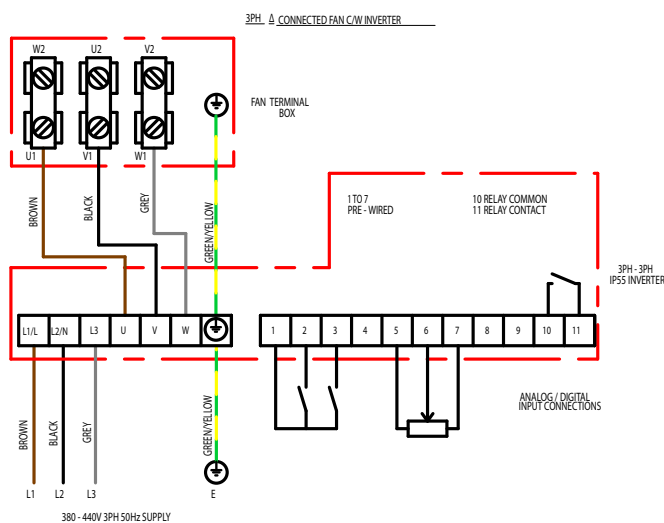
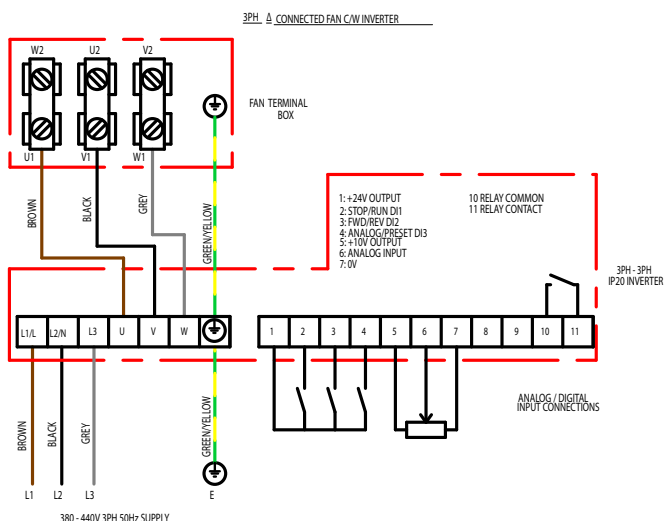
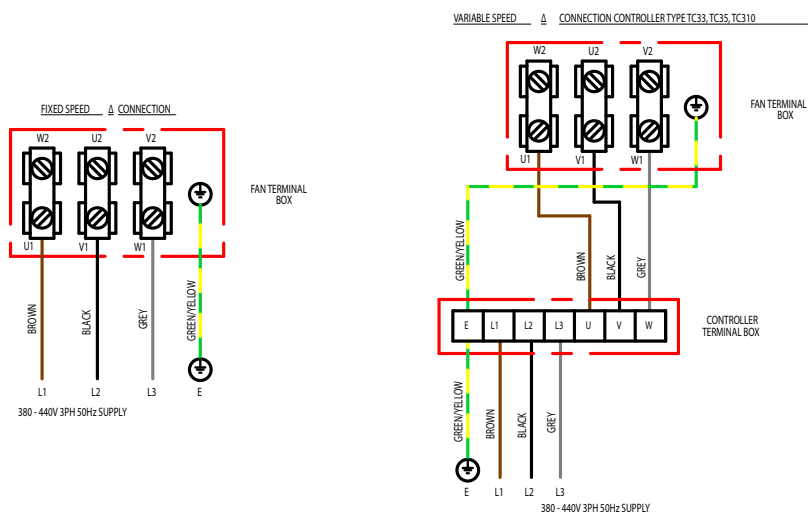
All wiring and control equipment must comply to the latest IEE regulations, in particular part 552-01-02/03.

MK-152-600 Issue B: 29.04.2015

Check the individual product accessories table for fan controller compatibility.

# 152-601

## Wiring Diagrams



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


MK-152-601 Issue B: 15.07.2013

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><b>Description of Equipment:</b><br/>Building Services Ranges - Air movement fan</p> <p><b>Equipment model numbers for safe area fans:</b><br/>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, SSDR, SSDRDCV, STDR, STDRDCV, SB, SQU-HT, SSQU-HT, SDF, ZFHIC, SRC, CF, TF</p> <p><b>Relevant / applied directives:</b><br/>Machinery directive 2006/42/EC, Low voltage directive 2014/35/EU</p> <p><b>Relevant / applied directives where applicable:</b><br/>Energy related products directive 2009/125/EC (when used in Europe)<br/>Electromagnetic compatibility directive 2014/30/EU (where driven via Inverter)</p> <p><b>Relevant / applied directives where applicable:</b><br/>BS EN ISO 12100 : 2010<br/>BS EN 14694 : 2003 + A1 : 2011<br/>BS EN 308:1997<br/>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><b>Manufacturer:</b><br/>Elta Fans Limited<br/>46 Third Avenue<br/>Pensnett Trading Estate<br/>Kingswinford<br/>West Midlands<br/>DY6 7US<br/>United Kingdom</p>  |  |
| <p><b>Date / Signature of Manufacturer:</b></p>  <p>Name / Position of Signatory: Mr. Robert Rees Q.A.Manager Elta Fans Ltd<br/>This is an electronic document and is valid without a signature or date.</p>  | <p><b>Document last revised:</b> 28th March 2017</p>  <p><b>Issue Status B</b></p>  |

## Building Services

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535-IOM0034 Issue A



BS EN ISO 9001:2015 FM 556465



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