



Skyflow SSMF

Installation and Maintenance Instructions

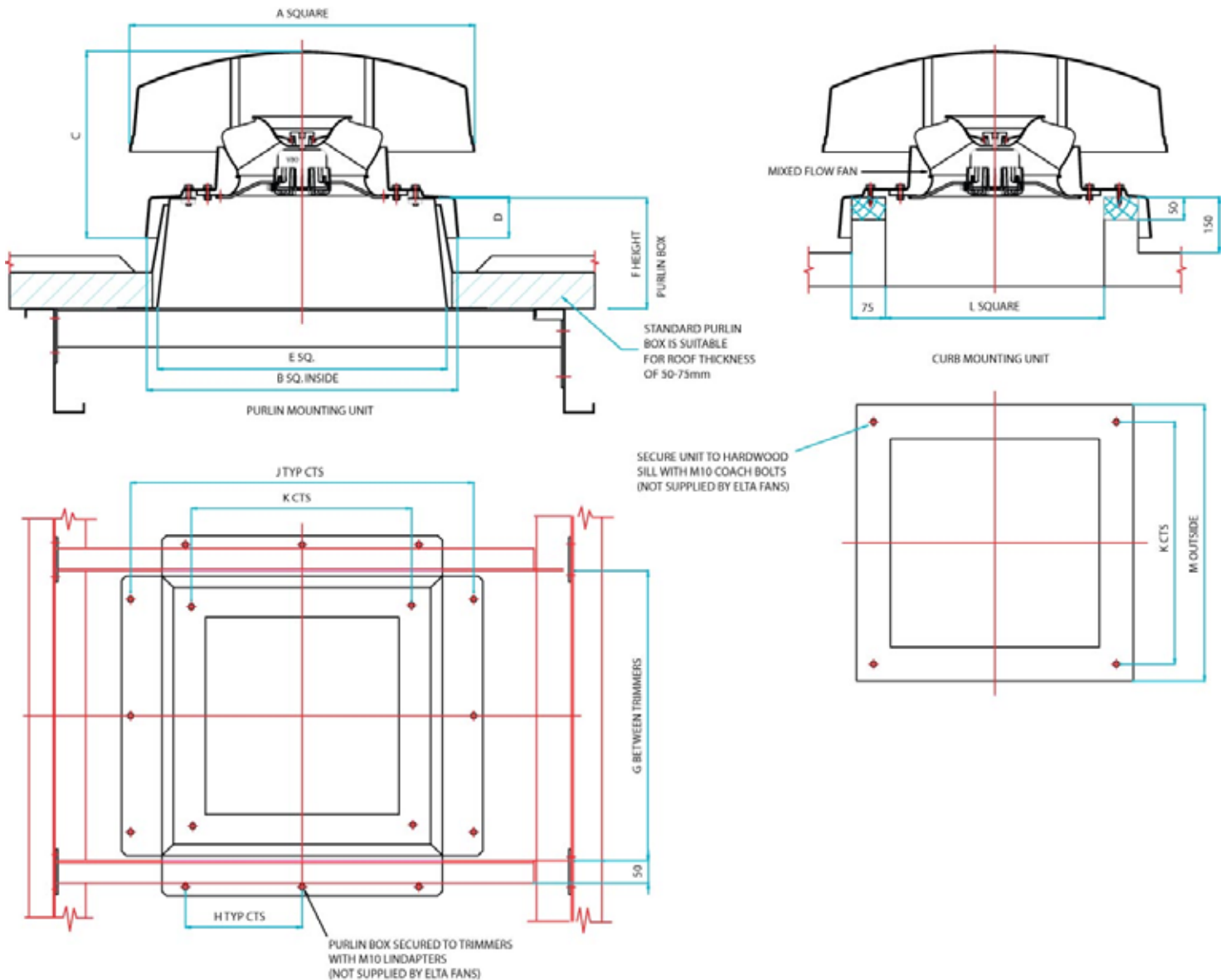
THESE INSTRUCTIONS MUST BE READ FULLY BEFORE COMMENCING INSTALLATION

Code	Supply	FL Amps	Output kW	r/min
SSMF315/6-5-2	230V/1Ph/50Hz	1.05	0.12	935
SSMF315/4-5-2	230V/1Ph/50Hz	1.80	0.25	1395
SSMF350/6-5-2	230V/1Ph/50Hz	1.05	0.12	885
SSMF350/4-4-2	230V/1Ph/50Hz	1.80	0.25	1300
SSMF400/6-5-2	230V/1Ph/50Hz	1.05	0.12	820
SSMF400/4-5-2	230V/1Ph/50Hz	3.60	0.55	1330
SSMF450/6-5-2	230V/1Ph/50Hz	6.00	0.55	935
SSMF450/4-4-2	230V/1Ph/50Hz	4.90	0.75	1290
SSMF500/6-5-2	230V/1Ph/50Hz	6.00	0.55	890
SSMF560/6-3-2	230V/1Ph/50Hz	6.00	0.55	875

Code	Supply	FL Amps	Output kW	r/min
SSMF315/6-5-3	400V/3Ph/50Hz	0.68	0.18	955
SSMF315/4-5-3	400V/3Ph/50Hz	1.40	0.37	1415
SSMF350/6-5-3	400V/3Ph/50Hz	0.68	0.18	920
SSMF350/4-5-3	400V/3Ph/50Hz	1.40	0.37	1330
SSMF400/6-5-3	400V/3Ph/50Hz	0.68	0.18	855
SSMF400/4-5-3	400V/3Ph/50Hz	2.00	0.75	1460
SSMF450/6-5-3	400V/3Ph/50Hz	0.94	0.25	910
SSMF450/4-4-3	400V/3Ph/50Hz	2.00	0.75	1380
SSMF500/6-5-3	400V/3Ph/50Hz	2.00	0.55	920
SSMF500/4-4-3	400V/3Ph/50Hz	4.30	1.5	1390
SSMF560/6-3-3	400V/3Ph/50Hz	2.00	0.55	910
SSMF560/4-2-3	400V/3Ph/50Hz	4.30	1.5	1390
SSMF560/4-4-3	400V/3Ph/50Hz	6.78	3.0	1435
SSMF630/6-3-3	400V/3Ph/50Hz	5.36	2.2	965

Code	A	B	C	D	E	F	G	H	J	K	L	M	Wght kg
SSMF31	710	684	325	85	610	240	636	250	750	500	460	610	20
SSMF35	800	784	445	90	730	250	756	300	870	600	550	700	25
SSMF40	800	784	445	90	730	250	756	300	870	600	550	700	27

SSMF45	960	934	510	100	860	250	886	350	1000	745	700	850	40
SSMF50	960	934	510	100	860	250	886	350	1000	745	700	850	42
SSMF56	1230	1054	590	105	1000	250	1026	435	1140	870	830	980	82
SSMF63	1230	1054	590	105	1000	250	1026	435	1140	870	830	980	90



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 $+70^{\circ}\text{C}$ fixed speed, -20°C up to $+50^{\circ}\text{C}$ when used with a speed controller and up to 95% relative humidity. 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.

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 on flat or inclined roofs with a maximum pitch angle of 35° .
- 2.4 **Assembly:** SSMF fans are supplied with the fan/motor fully assembled to the base/cowl.

DO NOT OVERTIGHTEN THE BOLTS AS THIS MAY DAMAGE THE BASE.

- 2.5 **Backdraught shutters:** Backdraught shutters for SSMF fans are supplied as an assembled unit and are fitted prior to roof unit installation. The shutter assembly top flange locates onto the curb or purlin box top face.
- 2.6 Having fitted the shutter tray, it is necessary to make the connections to the motor terminal box before fitting the roof unit to the curb or purlin box. Feed the supply cable through the grommet hole in the bottom flange of the shutter tray and make the connections to the terminal box which is attached to the motor plate.
- 2.7 **Curb mounting:** Position the assembled roof unit onto the curb and secure to the timber sill with M10 coach bolts (not supplied by Elta Fans), ensuring that fibre washers are positioned under each bolt head. It is advisable to drill pilot holes prior to fitting the bolts to prevent splitting the timber curb.

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2.8 Purlin mounting:

- Purlin trimmers: - should be bolted to the vertical flange of the purlin member taking care to align with the roof opening.
- Purlin box: - position onto trimmers and fit M10 type 'A' short tail lindaptors (not supplied by Elta Fans) into holes in the bottom flanges. Do not tighten nuts at this stage.
- Soaker sheets: - slip the soaker sheet over the purlin box and fix and seal to the roof sheeting. Align the purlin box with the soaker sheet and tighten the lindaptor nuts.
- Position the roof unit into the purlin box and insert M10 bolts into the four corner holes and into the purlin box captive fixings ensuring that fibre washers are positioned under the bolt heads.

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- 2.9 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.
- 2.10 Refer to the appropriate wiring diagram. Ensure that all earth connections are made.
- 2.11 Means for electrical disconnection must be incorporated in the wiring installation in accordance with the relevant wiring and electrical regulations.
- 2.12 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 draw does not exceed the nameplate rating.

4.0 FAN MAINTENANCE

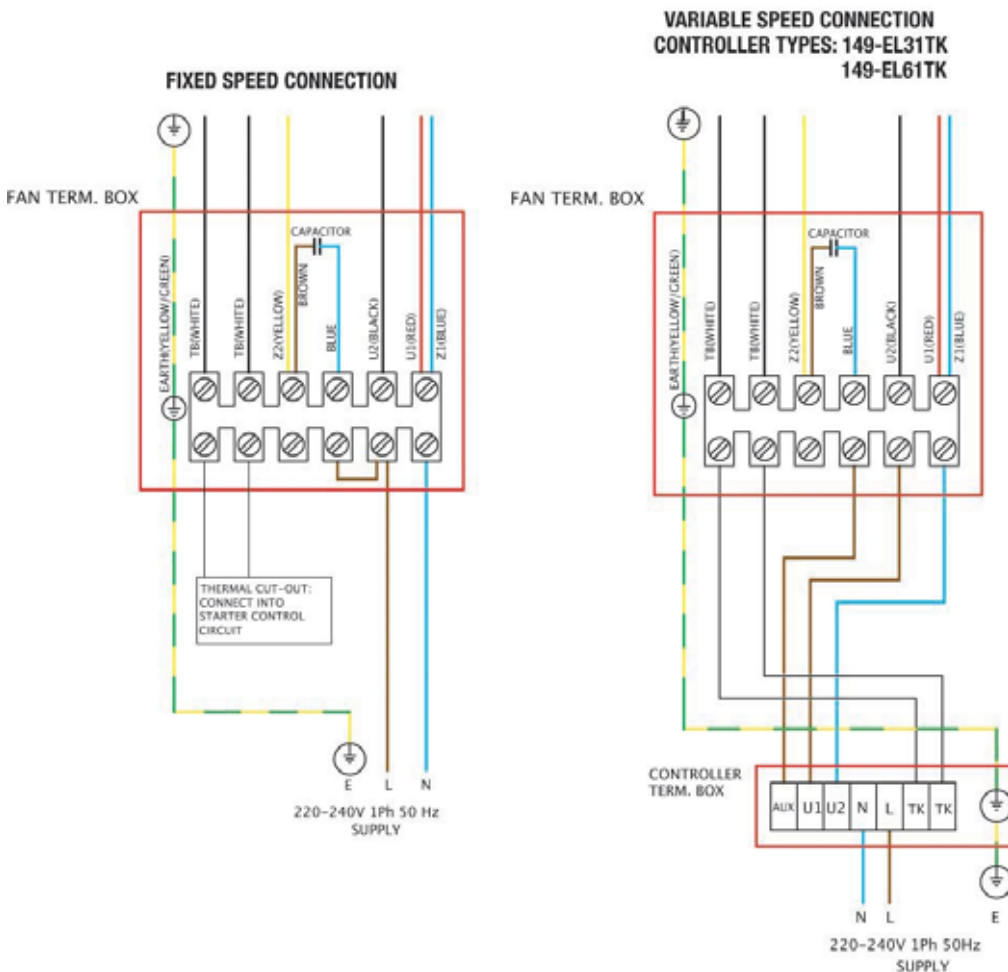
- 4.1 Inspection of the fan at least once every 12 months is recommended to ensure that the motor, fan blades, and supporting guards, are clean. Any build up of dust and deposits on the blades or guards should be removed using a non-abrasive cleaner.
- 4.2 All fastenings should be checked for tightness. 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.

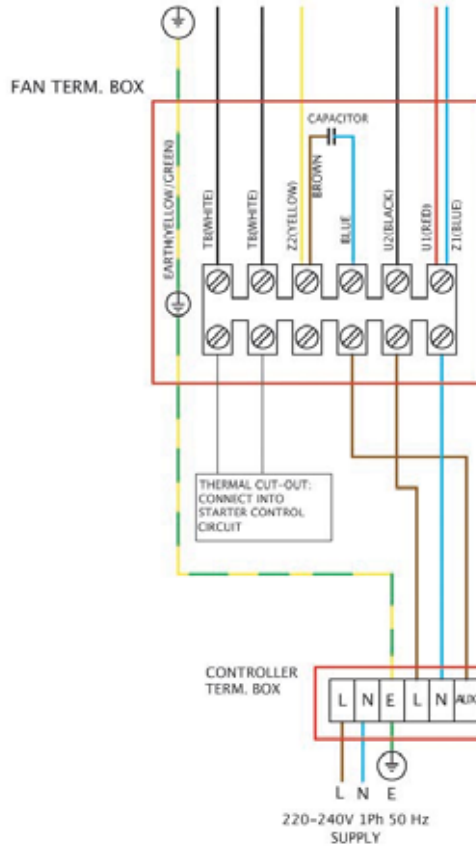
Once the motor cools down the fan may start unexpectedly.

Only a suitably qualified and competent person may carry out maintenance after the electrical supply has been isolated.

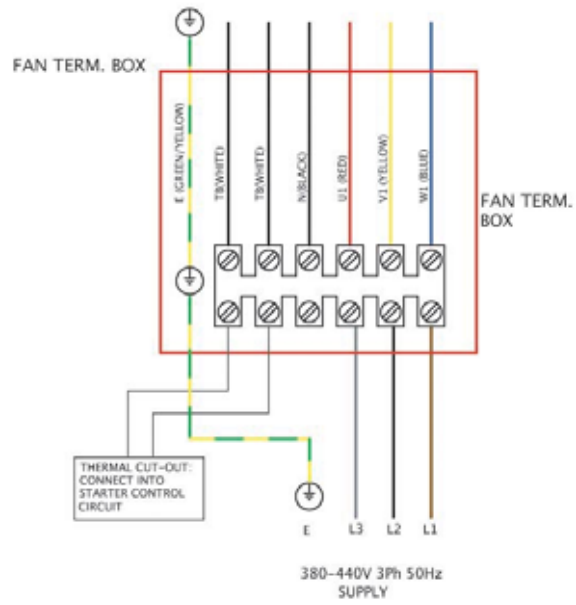
WIRING



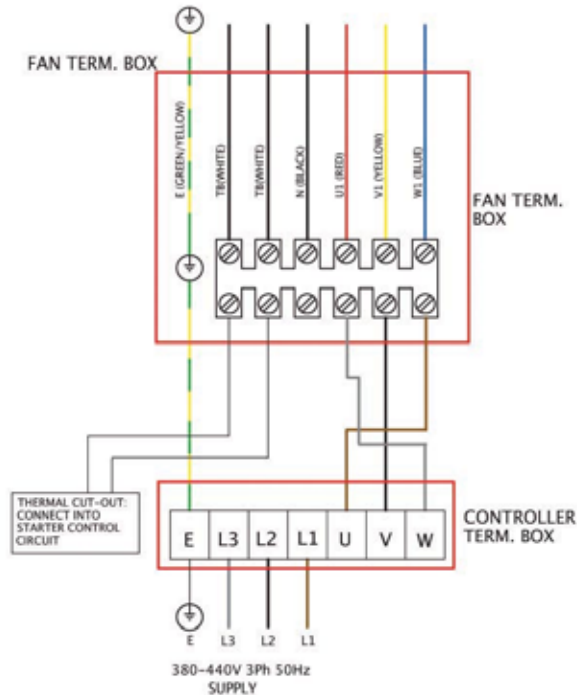
VARIABLE SPEED CONNECTION
CONTROLLER TYPES: 149-TC12
149-TC14
149-TC18
149-TC110



FIXED SPEED CONNECTION



VARIABLE SPEED CONNECTION
CONTROLLER TYPE: 149-TC3**



GUARANTEE

Elta Fans Ltd will, free of charge, within a period of 1 year from the date of despatch 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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