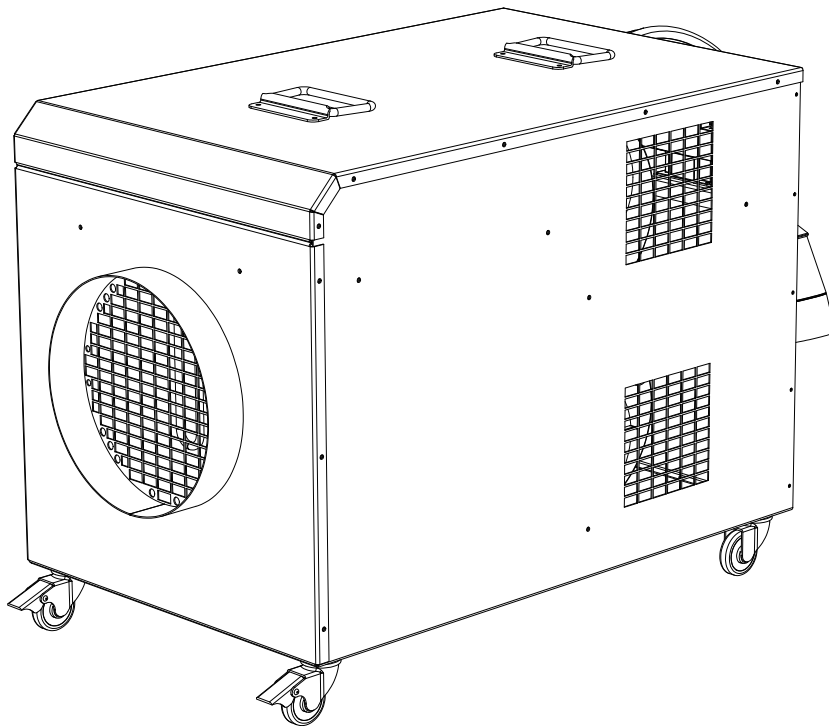


FHE29



FHE29 3 PHASE 400V ELECTRIC HEATER

PRODUCT MANUAL

**** Above picture shows the heater with optional outlet for a warm air hose. Unit comes as standard with flat front grill for non ducting applications**

WARNINGS

These instructions should be read by:

**The specifying engineer.
The installation engineer.
The user.
The service engineer.**



- **Failure to follow these instructions may result in risk of personal injury or damage to the equipment.**
- **Damage due to a failure to follow these instructions will invalidate the warranty.**
- **The appliance must be commissioned & serviced by qualified engineers in compliance with local regulations.**
- **The appliance must be switched off and disconnected from the power supply before any work is carried out.**
- **There are no user controls inside the appliance casing.**
- **Do not place anything on top of the appliance.**
- **Do not use in the vicinity of a pool, bath or shower.**
- **An air gap of at least 300mm should be allowed at the sides of the unit to ensure a clear airflow. Do not site the unit close to soft fabrics or combustible materials. Do not obstruct the outlet grill.**
- **Allow the unit to cool by running fan only for a minimum of 5 minutes before switching off.**
- **Do not disconnect the appliance from the supply under load.**
- **For internal use only. Do not use out of doors.**
- **Extension cables should be correctly rated for the load, fully unwound and never run through water or over sharp edges.**
- **Ensure that locking castors are engaged before running the unit.**
- **This unit can operate with a maximum of 10M of 250mm duct. Ducting should be kept as taut and straight as possible.**
- **The machine is not phase rotationally sensitive and does not require a neutral.**
- **This is a class 1 product and requires an Earth connection.**

Specifications:

The FHE29 is a large 3 phase industrial electric fan heater.

The appliance is connected to a 32Amp 3~ 50Hz power supply and comes fitted with the appropriate plug. A neutral is not required. A five pin plug can be fitted with no neutral connected. This appliance requires an Earth connection.

The machine is not phase rotationally sensitive !

The FHE29 is fitted with a pair of high quality forward curved motorised impellers which will allow it to operate with up to 10M of 250mm duct.

The FHE29 is fitted with an internal thermostat as standard.

The FHE29 is supplied with locking castors to the front of the machine.

Setup and operation:

To start:

- Please note ! the control panel is at the rear of the appliance.
- Site the appliance on a firm level surface.
- connect to a 32 Amp 400v power supply.
- Switch the fan rocker switch to I. (please note! the heater rocker switch will not operate the heating elements unless the fan switch is on).
- Switch the heater rocker switch to I.
- Set the thermostat to the desired temperature.

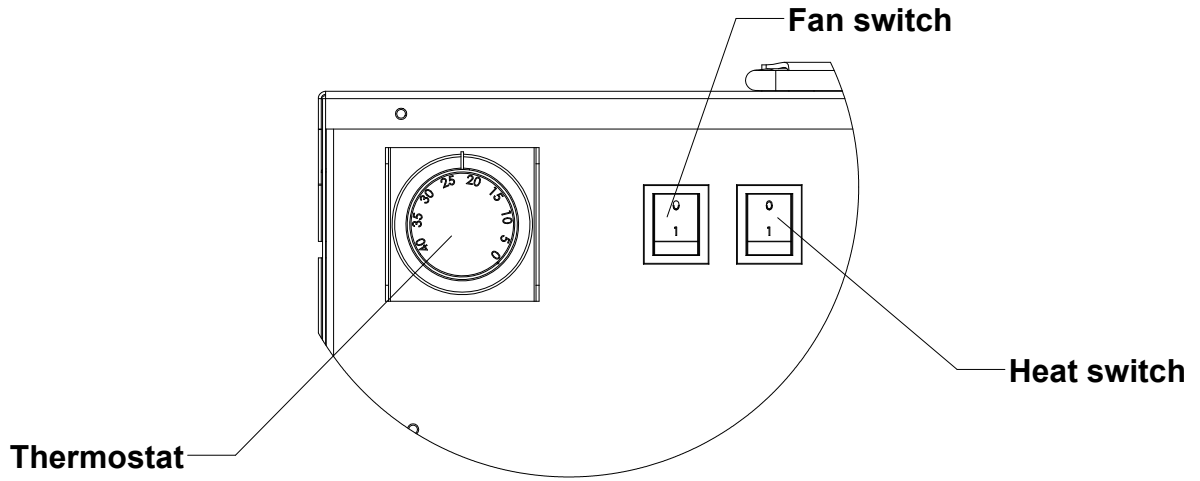
To stop:

- Switch the heater rocker switch to 0 and allow the fans to run for a minimum of five minutes to cool the machine. Failure to follow this procedure will damage sensitive components and invalidate the warranty.
- Switch the fan rocker switch to 0 when the heat has dissipated.
- If the heater is not in regular daily use disconnect from the power supply.

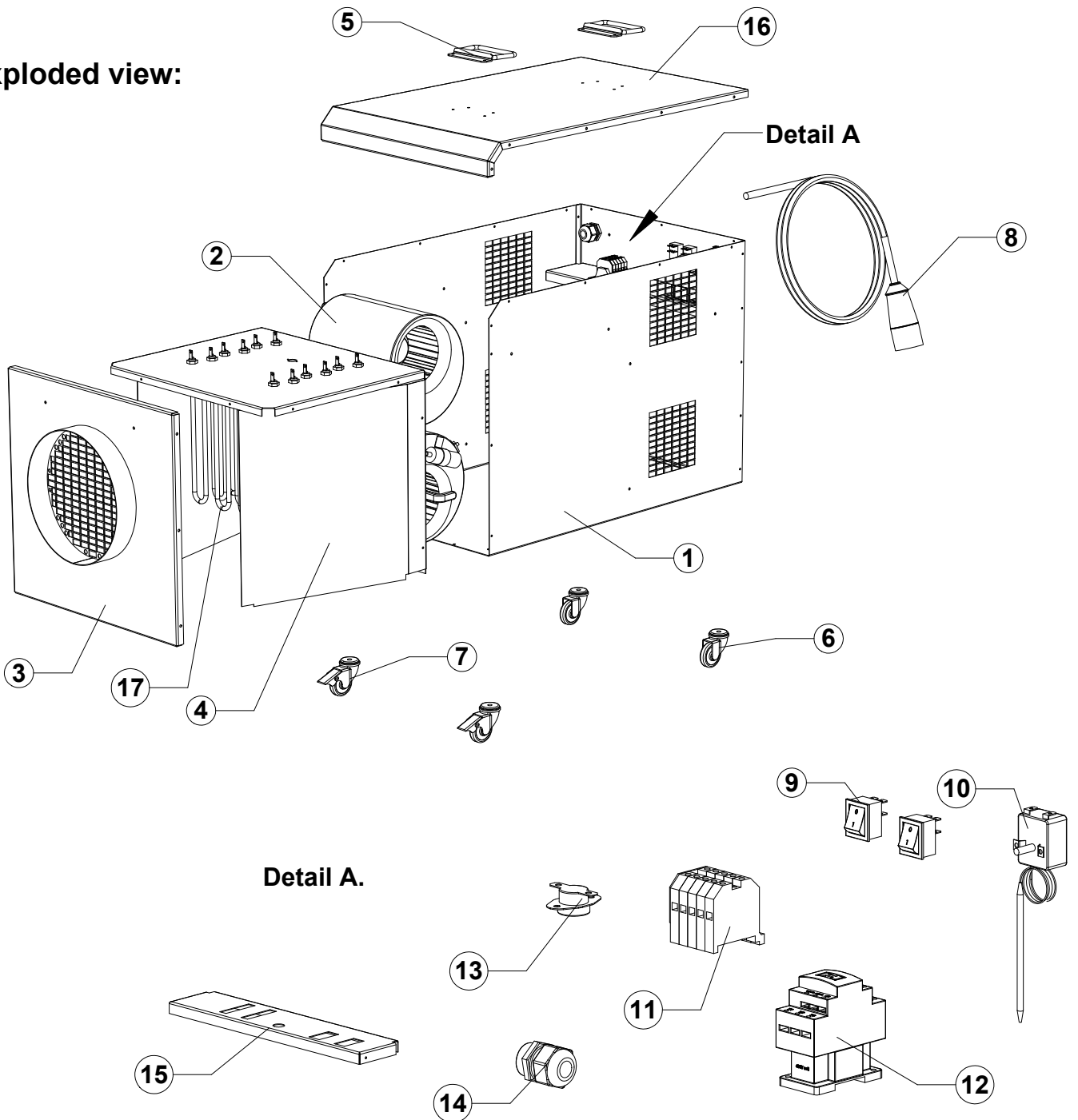
Protective /safety devices:

- The FHE29 is fitted with a safety limit thermostat. Should the maximum design operating temperature be exceeded it will shut down the heating elements and leave the fans running. This device will automatically reset as the temperature reduces.

Rear view. Control Panel



Exploded view:



Spare parts:

Drawing No	Description	Part No
1	CASE	BW0201147
2	133 FAN MOTOR	FA010303
3	FRONT PANEL	BW0201149
4	FAN PLENUM ASSEMBLY	BW0201148
5	TRUNK HANDLE	ME040316
6	50mm CASTOR	ME010210
7	50mm CASTOR C/W BRAKE	ME010209
8	4 CORE 4mmX1.5M CABLE C/W 32A 4 PIN PLUG	EL020121
9	1/0 ROCKER SWITCH	EL030235
10	THERMOSTAT C/W BEZEL & KNOB	EL030409
11	TERMINAL BLOCK ASSEMBLY	EL020426
12	32A 400v CONTACTOR	EL010220
13	80 DEGREE THERMAL CUT-OUT	EL010301
14	PG21 CABLE GLAND C/W LOCK NUT	ME040204
15	ELECTRICS PANEL	BW0201151
16	TOP PANEL	BW0201150
17	2665 230v ELEMENT	HE010106
18	250mm SPIGOT PANEL (OPTIONAL)	BW010910

Maintenance:

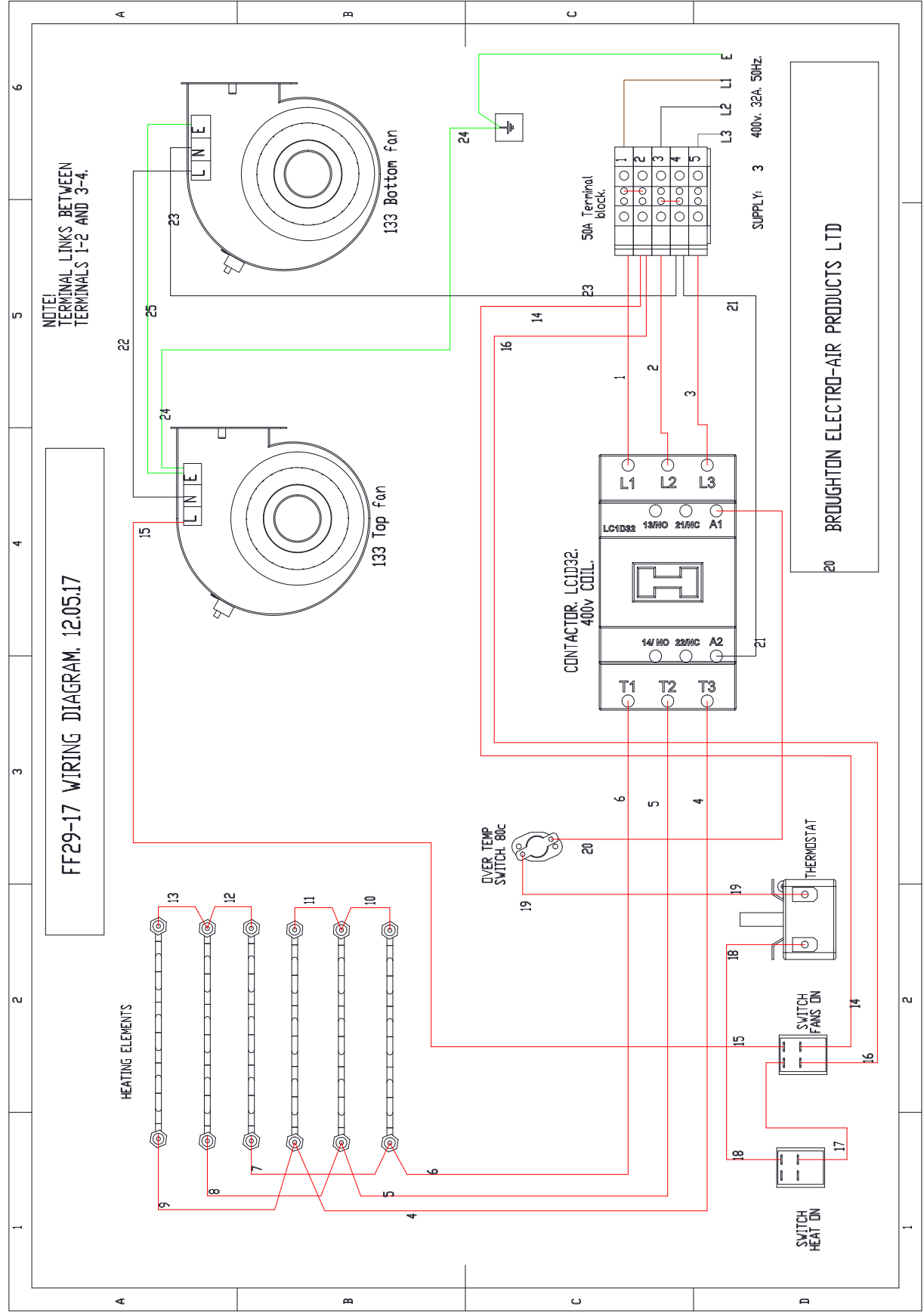
Fan motors, elements and switch gear are not customer serviceable components. General maintenance should include regular inspection of:

- 1: Mains cable. Check for signs of damage to the insulation. Replace if necessary.
- 2: Air intake & outlet grills: ensure grills are free from accumulated debris. blow out with compressed air if required.
- 3: Fixings: Check all fixings are present and secure.

FAULT	POSSIBLE CAUSE	SOLUTION
NO HEAT OUTPUT.	FANS AND OR HEATING NOT SWITCHED ON.	CHECK ALL SWITCHES ARE ON.
	THERMOSTAT INCORRECTLY SET.	TURN THERMOSTAT KNOB FULLY CLOCKWISE.
	POWER SUPPLY INTERRUPTED.	CHECK POWER SUPPLY.
	FAULTY ROCKER SWITCH.	CHECK SWITCHES AND REPLACE IF NECESSARY.
	FAULTY THERMOSTAT.	CHECK THERMOSTAT AND REPLACE IF NECESSARY.
	FAULTY CONTACTOR.	CHECK CONTACTOR AND REPLACE IF NECESSARY.
FAN MOTOR NOT RUNNING.	POWER SUPPLY INTERRUPTED.	CHECK POWER SUPPLY.
	FAULTY ROCKER SWITCH.	CHECK SWITCHES AND REPLACE IF NECESSARY.
TEMPERATURE RISE INSUFFICIENT.	THE MACHINE SHOULD DELIVER A TEMPERATURE RISE OF APPROXIMATELY 40°C ABOVE THE AMBIENT TEMPERATURE. SHOULD THE MACHINE FAIL TO DO THIS CHECK THE POWER SUPPLY AND THAT THE THERMOSTAT IS TURNED FULLY CLOCKWISE. IT SHOULD BE NOTED THAT THE MAXIMUM AMBIENT TEMPERATURE THE MACHINE WILL RUN AT IS 40°C +/- 3°C.	

FF29-17 WIRING DIAGRAM, 12.05.17

NOTE!
TERMINAL LINKS BETWEEN
TERMINALS 1-2 AND 3-4.



SUPPLY: 3 400v, 32A, 50Hz.

BROUGHTON ELECTRO-AIR PRODUCTS LTD