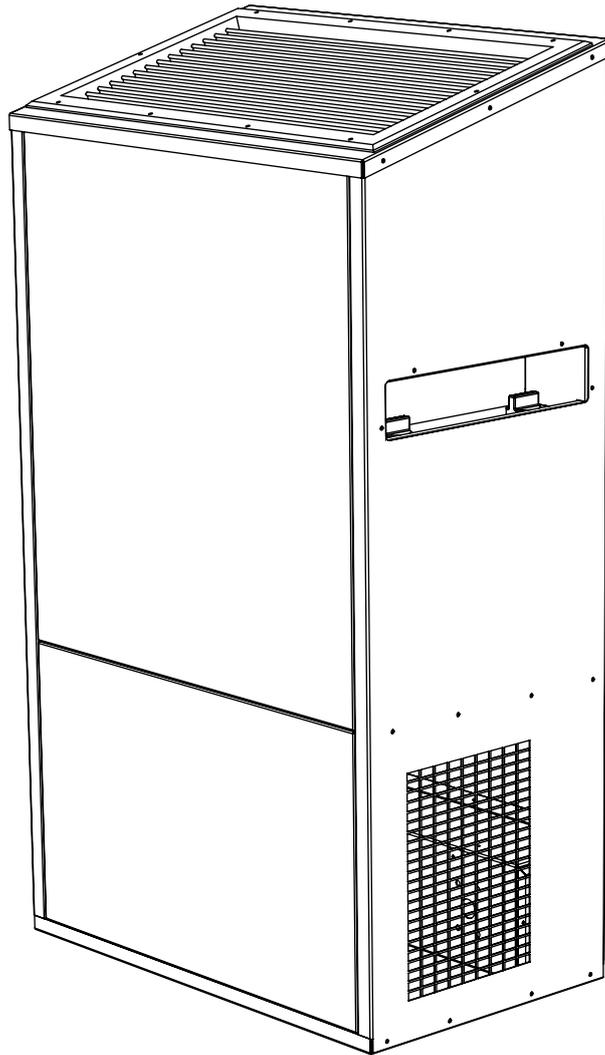


# MH32



**MH32-23  
3 PHASE 400V ELECTRIC HEATER**

**PRODUCT MANUAL**

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# 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.**
- **Allow the unit to cool by running fan only for a minimum of 5 minutes before switching off.**
- **This is a class 1 product and requires an Earth connection.**
- **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.**
- **The machine is not phase rotationally sensitive.**
- **This is a stationary appliance and is not to be moved when connected to the power supply.**

<b>TECHNICAL SPECIFICATIONS.</b>	
Heating capacity.	15 kw
Power supply.	400v. 3P+N+E. 32A. 50Hz.
Maximum running current @ 400v.	21.7A
Airflow.	1292 M3h
Weight.	40.6 kg
Noise level at 1m.	70.1 dB(A)
IP Rating.	IP2X
Maximum operating temperature.	40 °C +/- 3°C
Power settings.	4. Fan only, 5kW, 10kW, 15kW.

### Standards applied:

**BE EN 12100. 2010.**  
**BS EN 60335-1. 2012.**  
**BS EN 60335-2. 2009.**  
**BS EN 61000.**

<b>MACHINE AND INSTRUCTION ICONS</b>	
	<b>Important information</b>
	<b>Warning. In order to avoid overheating, do not cover the heater.</b>
	<b>Safety limit thermostat reset.</b>
	<b>Fan only.</b>
	<b>5kW. Heat setting 1.</b>
	<b>10kW. Heat setting 2.</b>
	<b>15kW. Heat setting 3.</b>
	<b>Thermostat.</b>

## Description:

The MH32-23 is a 15kw 3 phase industrial electric fan heater.

The machine is classified as a stationary appliance and should not be moved whilst connected to the power supply.

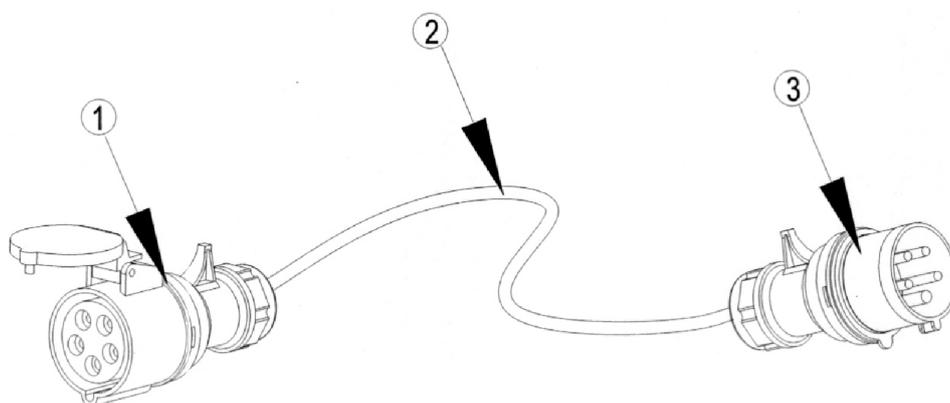
The appliance is connected to a 400v 32Amp 3P+N+E 50Hz power supply and comes fitted with the appropriate 5 pin appliance inlet. This appliance requires an Earth connection.

The machine requires a separate power lead to connect to the power supply.

The machine is not phase rotationally sensitive !

The MH32 is fitted with a high quality axial fan and an onboard thermostat as standard.

## Power lead specification:



1: Trailing socket. 400v. 32A 5 pin. BS EN 60309.

2: Cable. 4mm CSA. H07RN-F (Recommended).

3: Plug. 400v. 32A. 5 Pin. BS EN 60309.

On cables longer than 2m always check the voltage drop and increase the cable size where appropriate.



## **Setup and operation:**

### **To start:**

- **Please note ! the control panel is on the side of the appliance.**
- **Site the appliance on a firm level surface.**
- **Connect the machine to the appropriate power supply.**
- **Switch the power rotary switch to the desired power level. Fan only, I- 5kW, II- 10kW, III- 15kW. (See P3).**
- **Turn the thermostat knob fully clockwise.**
- **When the desired room temperature has been achieved turn the thermostat knob anti-clockwise until there is an audible click. The heating will now cycle on and off to maintain this temperature.**

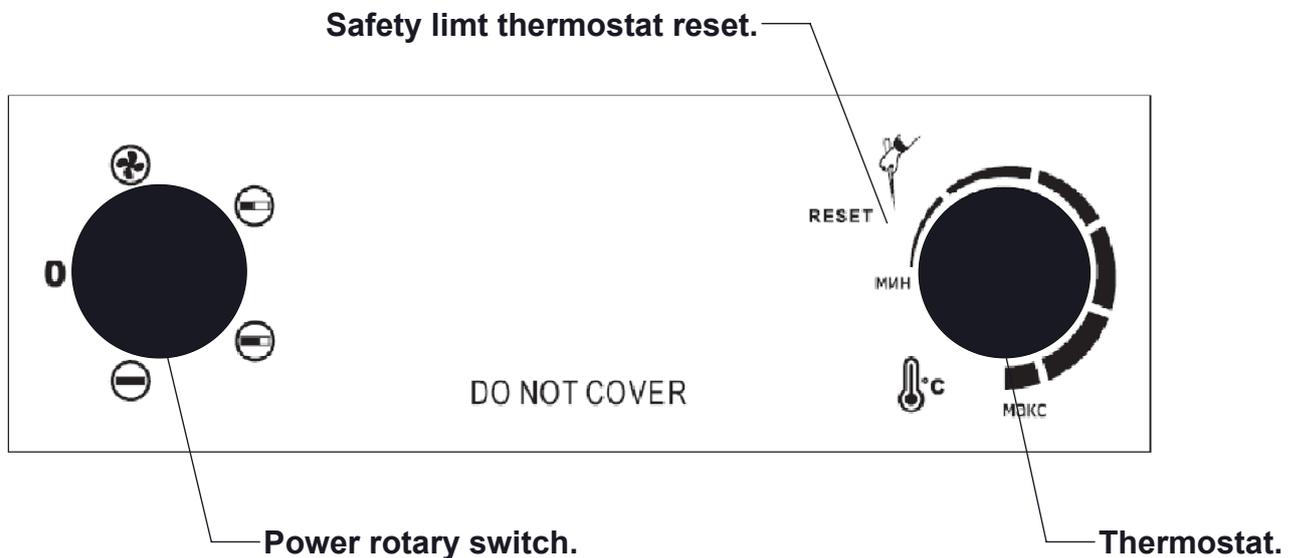
### **To stop:**

- **Switch the power rotary switch to Fan only and allow the fan 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 power rotary switch to 0 when the heat has dissipated.**
- **If the heat has not fully dissipated the fan may 'run on' automatically.**
- **If the heater is not in regular daily use disconnect from the power supply.**

## Protective /safety devices:

- This appliance is fitted with a safety limit thermostat. This is a fail-safe device. Should the maximum design operating temperature be exceeded it will shut down the heater. This device requires a manual reset and should only operate in the event of a fault. Any activation of this safety device should be investigated by a competent engineer.
- The machine is fitted with an automatic fan run-on thermostat. If the machine is shut down without running on fan only for 5 minutes to cool down, this device will activate and allow the fan to keep running. This should not be used to routinely shut down the machine.

## Side view. Control panel:

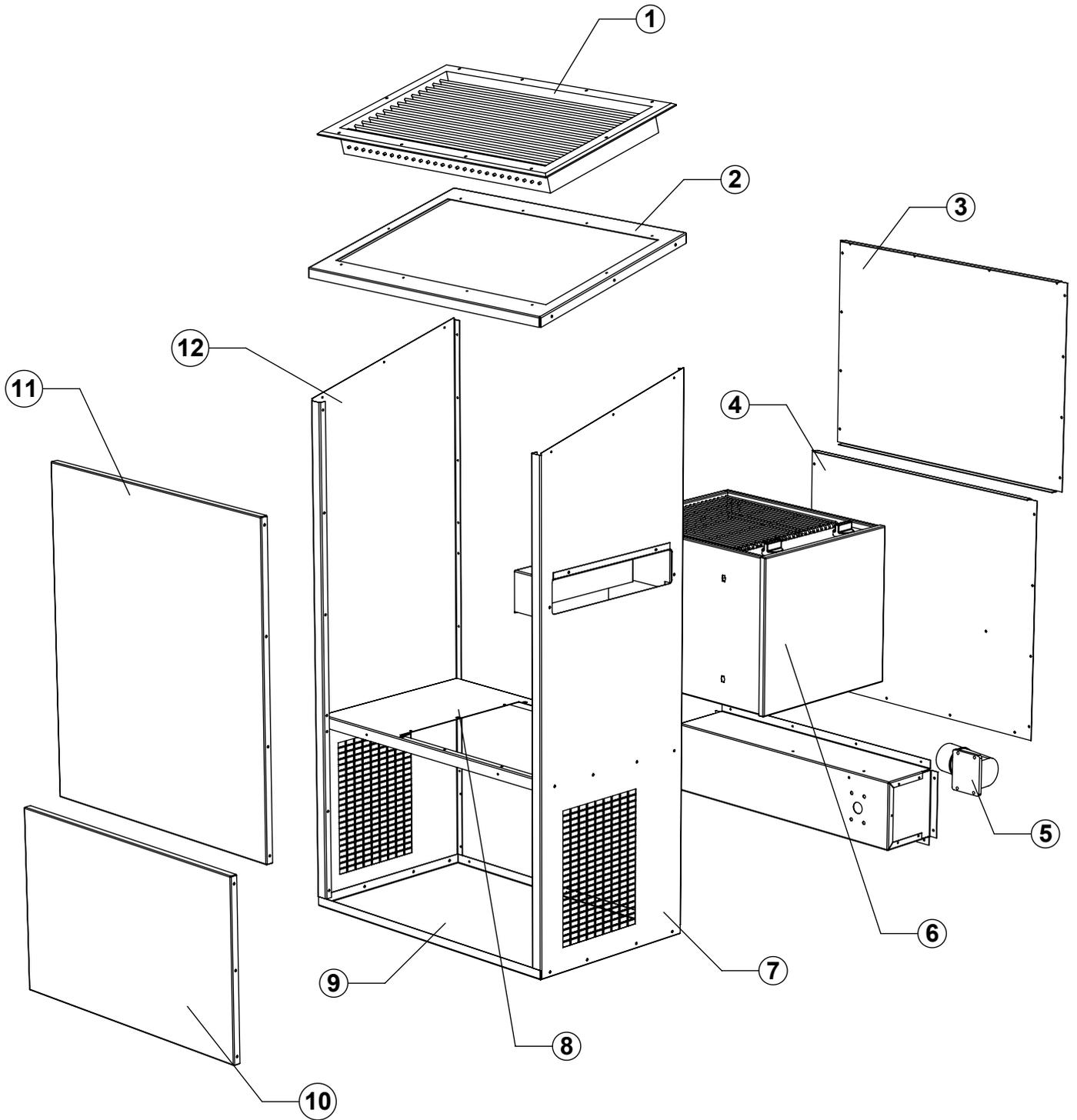


## Checking and resetting the safety limit thermostat:

Should the safety limit thermostat activate the causes should be investigated.

Should the safety limit thermostat activate the fan and heating elements will not function. To reset the safety limit thermostat insert a small terminal screwdriver into the hole labelled 'Reset' and press the reset button within.

**Exploded view. Heater casing:**



## Spare parts:

<b>Drawing No</b>	<b>Description</b>	<b>Part No</b>
1	Louvre. <i>Outer casing.</i>	BW010922
2	Top panel. <i>Outer casing.</i>	BW010220
3	Top rear panel. <i>Outer casing.</i>	BW010715
4	Bottom rear panel. <i>Outer casing.</i>	BW010716
5	Appliance inlet. 32A. <i>Outer casing.</i>	EL020531
6	15kW internal heater.	IFH15MH
7	Right side panel. <i>Outer casing.</i>	BW010319
8	Centre support. <i>Outer casing.</i>	BW0202135
9	Base panel. <i>Outer casing.</i>	BW011010
10	Front bottom panel. <i>Outer casing.</i>	BW010629
11	Front top panel. <i>Outer casing.</i>	BW010628
12	Left side panel. <i>Outer casing.</i>	BW010414

**Maintenance:**

**Always isolate the machine from the power supply before carrying out any 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.

Maintenance carried out by a competent person:

- 1: Internal cables should be inspected for signs of heat damage and replaced when necessary.
- 2: All cable connections should be regularly checked and tightened. Particular attention should be paid to the connections at the contactors.
- 3: Regularly check the contactors for signs of heat. Replace if necessary.

**Fault finding:**

<b>FAULT</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
<b>NO HEAT OUTPUT.</b>	<b>FANS AND/OR HEATING NOT SWITCHED ON</b>	<b>CHECK ALL SWITCHES ARE ON</b>
	<b>THERMOSTAT INCORRECTLY SET.</b>	<b>TURN THERMOSTAT KNOB FULLY CLOCKWISE</b>
	<b>SAFETY LIMIT THERMOSTAT ACTIVATED.</b>	<b>RESET. INVESTIGATE CAUSE SEE P8.</b>
	<b>POWER SUPPLY INTERRUPTED.</b>	<b>CHECK POWER SUPPLY.</b>
<b>FAN MOTOR NOT RUNNING</b>	<b>POWER SUPPLY INTERRUPTED.</b>	<b>CHECK POWER SUPPLY.</b>
	<b>FAULTY SWITCH</b>	<b>CHECK SWITCHES AND REPLACE IF NECESSARY.</b>
<b>SAFETY LIMIT THERMOSTAT HAS ACTIVATED.</b>	<b>OVERHEATING DUE TO MACHINE INCORRECTLY SHUTDOWN</b>	<b>ALLOW THE MACHINE TO COOL AND RESET THE THERMOSTAT. (SEE P8)</b>
	<b>FAN MOTOR FAILURE</b>	<b>REPLACE FAN MOTOR. RESET THERMOSTAT.</b>

**Wiring diagram:**

