



AIRBLOC

ACR RECESSED
AIR CURTAINS
ELECTRIC HEATED
Standard Capacity

Installation and
operating manual

Index

- 1 Technical specification & safety details
- 2 Air curtain installation details
- 3 Element replacement
- 4 Rotor and motor replacement removal
- 5 General user instructions
- 6 Fault finding
- 7 Spare parts



1. Technical specification & safety details

General

All installations must be in accordance with the regulations in force in the country of use.

These instructions must be given to the user on completion of installation.

Installers and service engineers must be able to demonstrate competence and be suitably qualified in accordance with the regulations in force in the country of use.

To ensure continued and safe operation it is recommended that the appliance is serviced annually.

The manufacturer, offers a maintenance service. Details available on request.

The air curtain inlet/outlet grille and case air inlet slots must not be obstructed during use.

Fixing details

Airbloc units should be installed horizontally directly over the door opening. It is recommended that the air curtain is installed on the inside of the building, within the open room space against a wall or ceiling. Care must be taken to allow complete free air movement into the inlet grilles of the unit to ensure correct working operation of the air curtain. The discharge opening should be as close to the top of the door as possible and to cover the entire door width.

Electrical

The appliance must be earthed.

It is recommended that the electrical supply to the air curtain is via an appropriate switched isolator in accordance with the regulations in force in the country of use and must be via a fused double pole isolator having a contact separation of >3mm in all poles.

Electrical Supply either 415V 3 phase or 230V 50Hz (see table).

Time switches and thermostats can be installed at the discretion and responsibility of the installer.

Clearance distances

It is recommended that a minimum clearance of 100mm is allowed around the case sizes detailed below. The clearance allows for cable entry and prevents combustible surfaces overheating. The minimum mounting height (floor to grille) is 1.8m.

For cut out details see table below.

Model	ACR100SE06	ACR100SE09	ACR150SE12	ACR200SE18
Weight	28kg	28kg	34kg	49kg
Case size	395 x 200 x 1180mm	395 x 200 x 1180mm	395 x 200 x 1480mm	395 x 200 x 1980mm
Element rating	6kW	9kW	12kW	18kW
Supply	230V 50Hz	415V 3 phase	415V 3 phase	415V 3 phase
Motor rating	240V 50Hz 0.4A	240V 50Hz 0.4A	240V 50Hz 0.4A	240V 50Hz 1.3A
Cut out size	405 x 1190	405 x 1190	405 x 1490	405 x 1990
Flange width	25mm	25mm	25mm	25mm

Note Dimension 200 refers to the height from the ceiling face to the outside of the case.

Health and Safety

Sole liability rests with the installer to ensure that all site safety procedures are adhered to during installation.

Sole liability rests with the installer to ensure that protective safety wear such as hand, eye, ear and head protection is used during installation of the product.

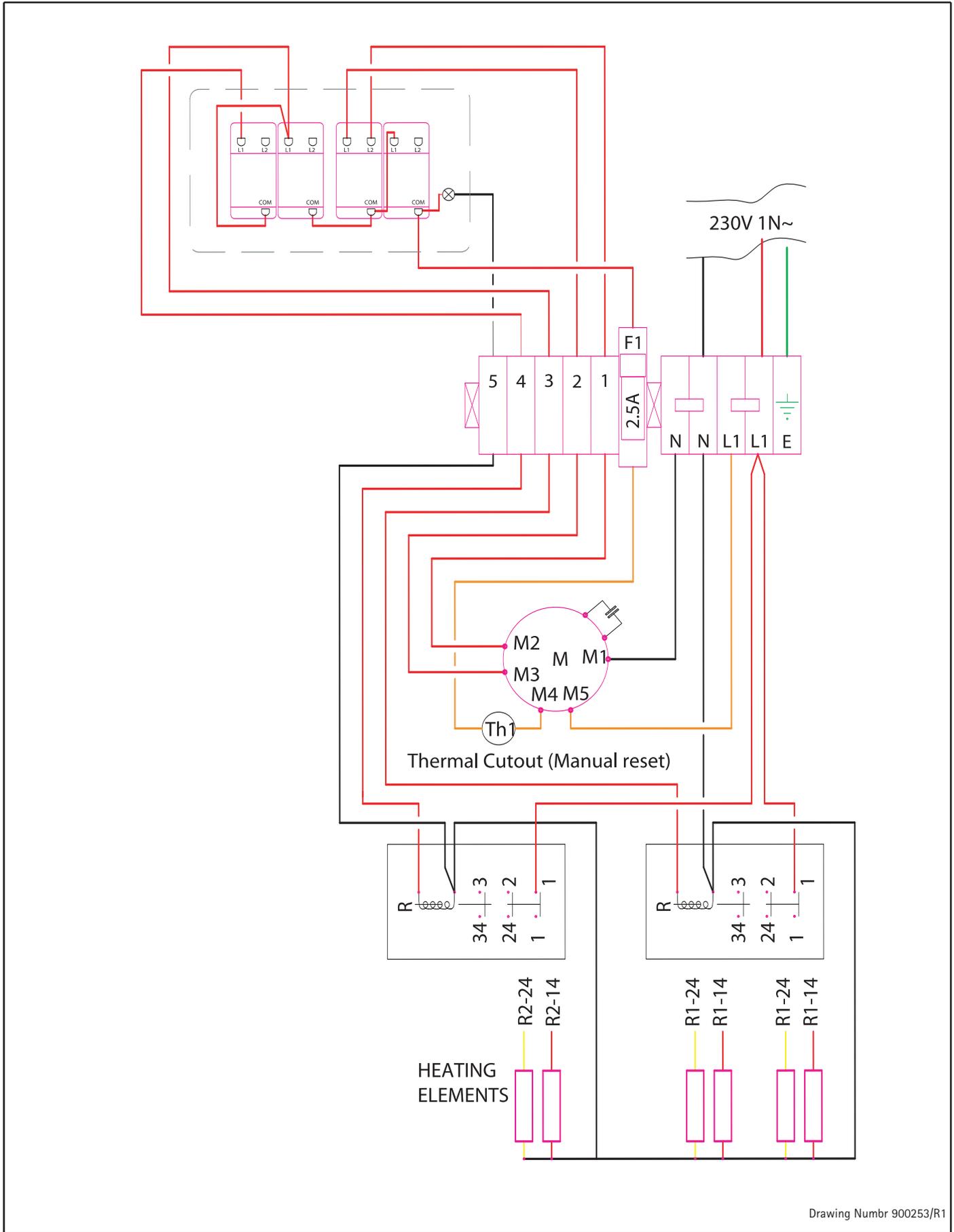
Do not rest anything especially ladders against the product.

Standards

Units conform to european electrical standard BS EN 60335-2-30:1997 and to the following european CE directives:

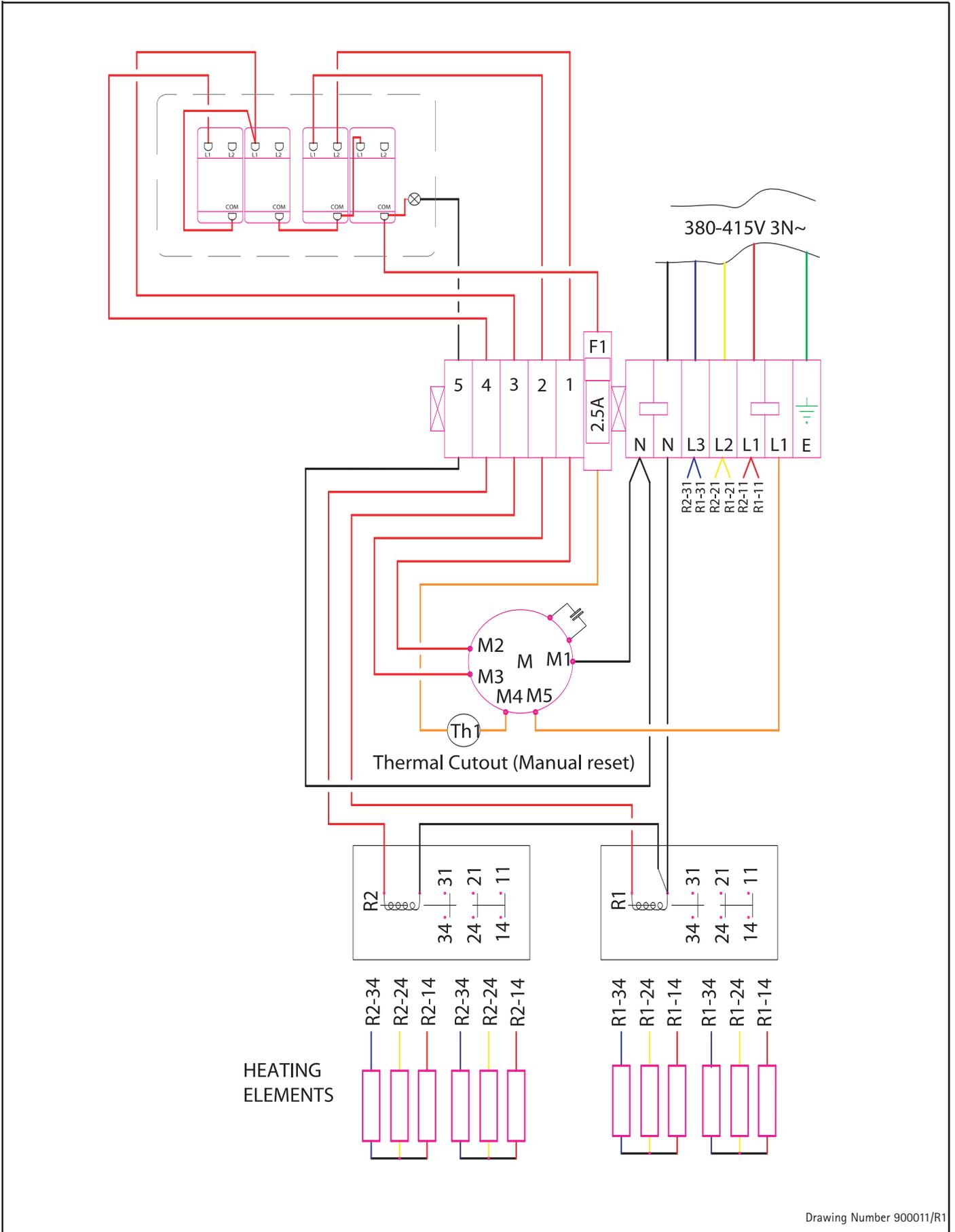
73/23/EEC low voltage; 89/336/EEC and 98/68/EEC electromagnetic compatability.

Figure 1 Wiring Diagram ACR100SE6



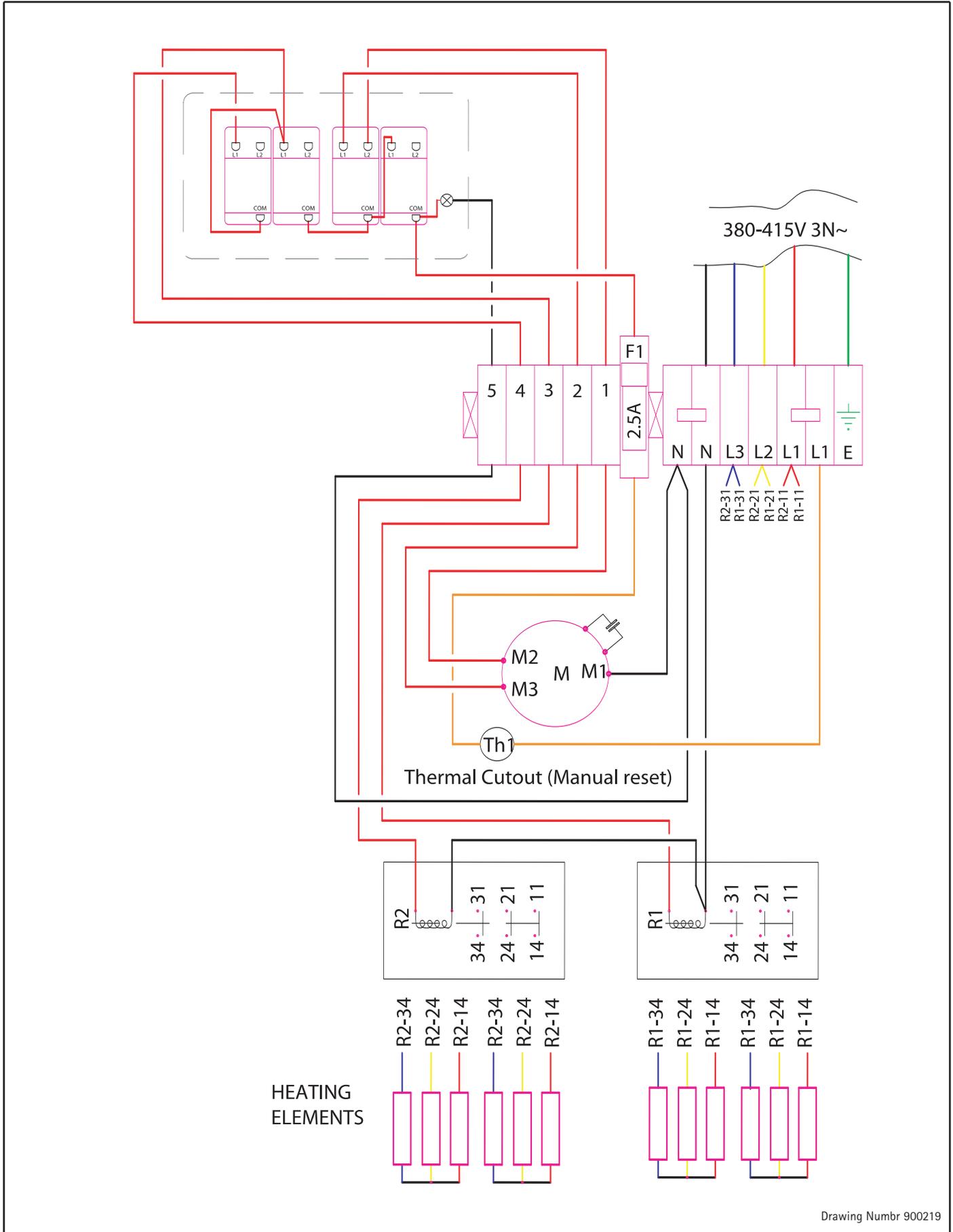
Drawing Numbr 900253/R1

Figure 2 Wiring Diagram ACR100SE9 & ACR150SE12



Drawing Number 900011/R1

Figure 2 Wiring Diagram ACR200SE18



Drawing Numbr 900219

2 Air Curtain installation details

It is the sole responsibility of the installer to ensure that the points of attachment to the building are sound. Consultation with the consultant/architect or owner of the building is recommended to ensure that a sound, mechanically stable installation is achieved.

All attachments must be capable of supporting the weight of the product detailed in Section 1.

Step 1



Before fitting or wiring the air curtain, ensure casing faces as above and see general installation guidance notes.

Step 2



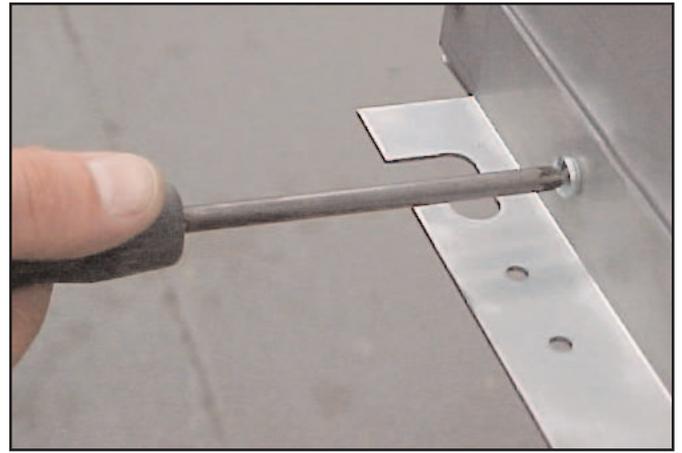
To remove grille from the casing, gently remove the grommets from the inner grille frame.

Step 3

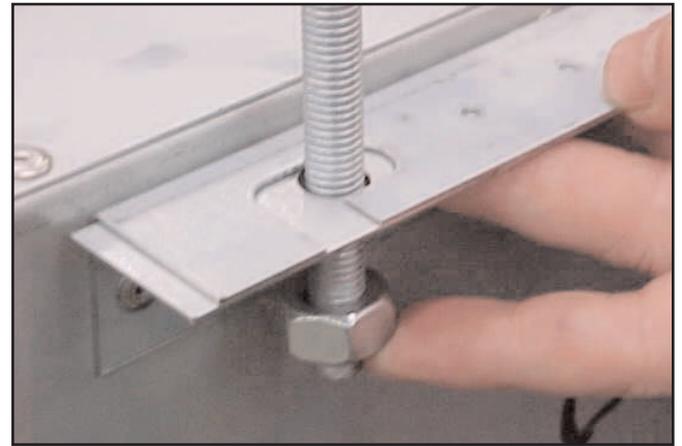


Using a pozidrive screwdriver remove the M5 screws through the access hole. To facilitate re-fitting of the grille the screws are circa 50mm long, hence multiple turns of the screwdriver will be required. The grille assembly can now be removed from the case to allow fitting of the product in the ceiling recess.

Step 4

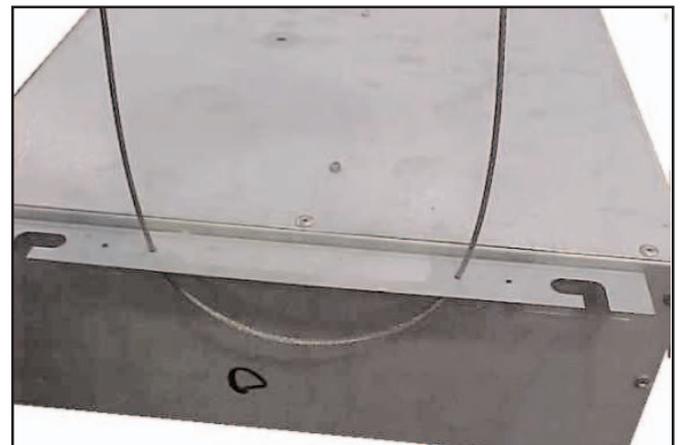


To assist fitting of the product into the recess the mounting plates maybe temporarily removed.



Either drop rods or catenary wire (available from manufacturer) can be used to fasten the air curtain to the ceiling support structure.

Note When using drop rods the casing mounting brackets are slotted and the mounting plates provided must be used on assembly.

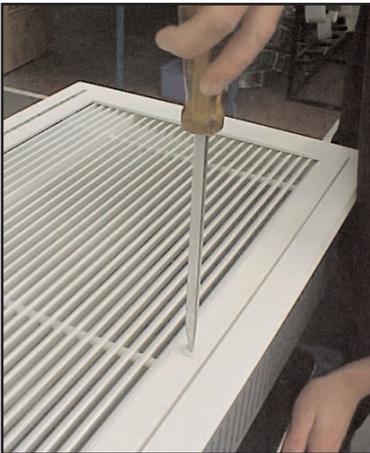


Step 5



After fitting the product in the ceiling recess and adjusting the height to ensure that the grille sits flush to the ceiling (when re-fitted) take the grille assembly and refit using the two screws removed during Step 2. Snap the grommets removed in Step 1 back in place to cover the access holes.

Step 6



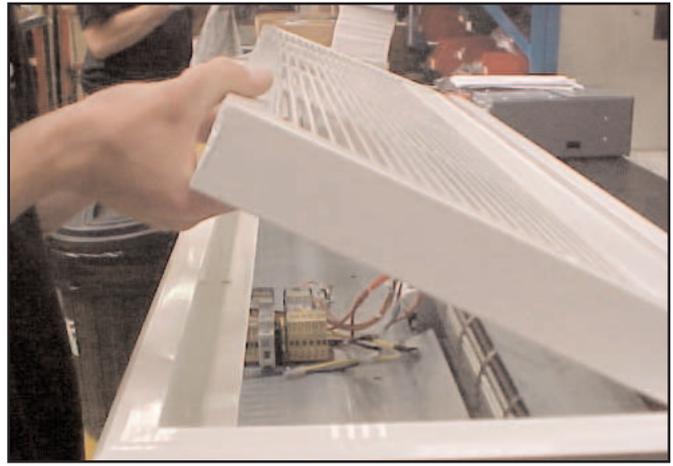
Access to the inside of the air curtain grille can be made by removing the screws as indicated below.

Step 7



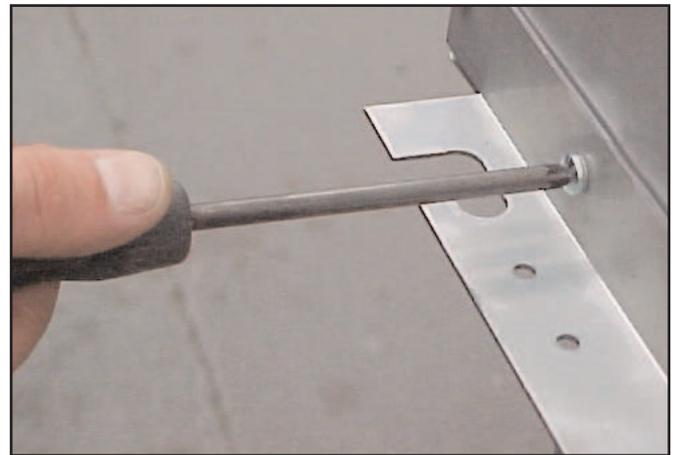
Using the screws provided fit the outer frame to the top of the product case at each corner.

Step 8



Open the grille. The grille is hinged to prevent the inner frame from dropping.

Step 9



Attachment of the air curtain to the ceiling structure is by means of the two brackets attached to the side of the air curtain. The brackets may be removed to assist in passing the air curtain through the recess then reattached when in-situ.

The height between the ceiling face and the face of the air curtain case needs to be adjusted to circa 40mm to enable the grille assembly to fit flush with the ceiling. Adjust accordingly.

After suspending the air curtain proceed to wire the product in accordance with the wiring diagram See Fig. 1 or 2.

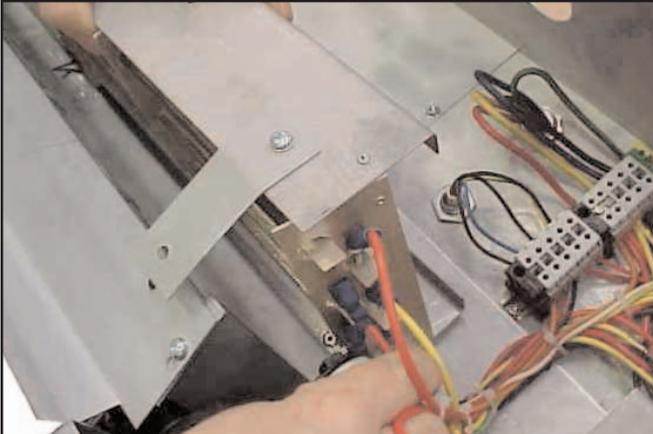
On completion of wiring, fix the grille assembly to the air curtain case ensuring that a flush fit to the ceiling is achieved. See previous Section 1.

3 Element replacement

Key component replacements

Note Always ensure that electrical supply is isolated prior to access inside the grille or when replacing components. For details of access via hinged grille refer to Section 2.

Step 1



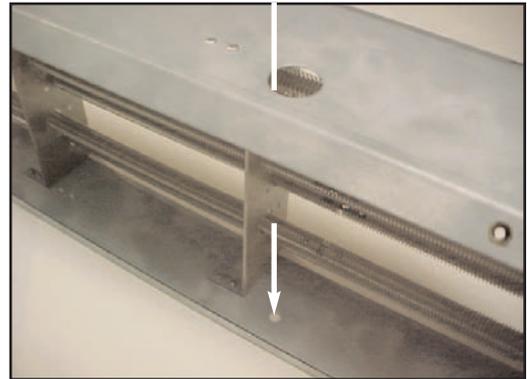
Disconnect element wires and if necessary remove cut-off plate fixing screws.

Step 3



Remove element.

Step 2



Locate element fixing screws by inserting a screwdriver through the hole indicated above.

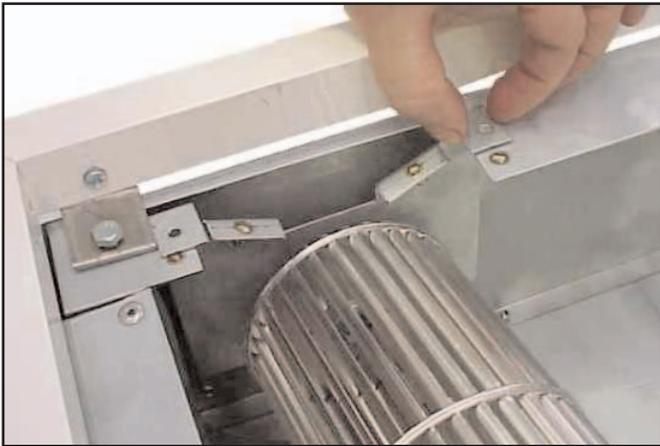
4 Rotor & motor replacement & removal

Step 1



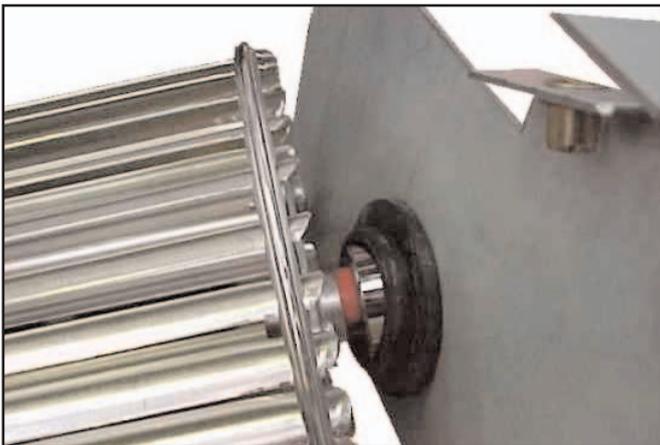
Remove fastening holding rotor support bracket

Step 2



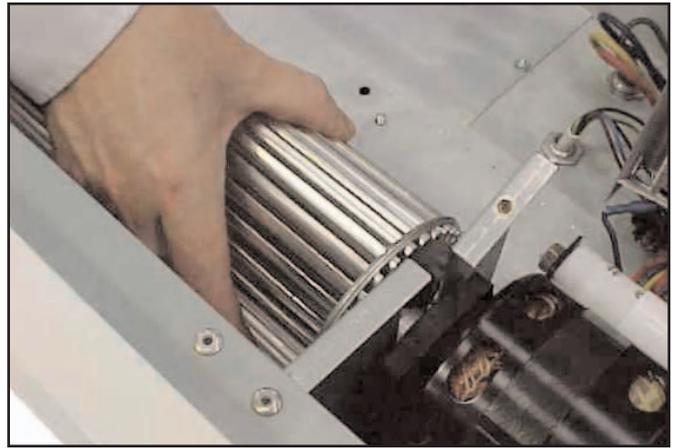
Move rotor support bracket towards outside of case.

Step 3



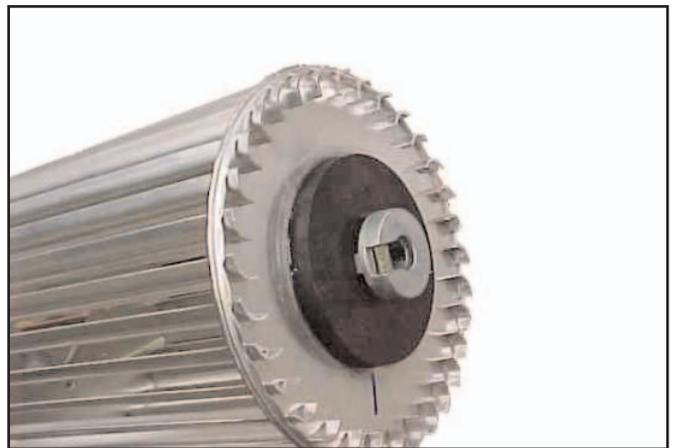
Disengage rotor bearing.

Step 4



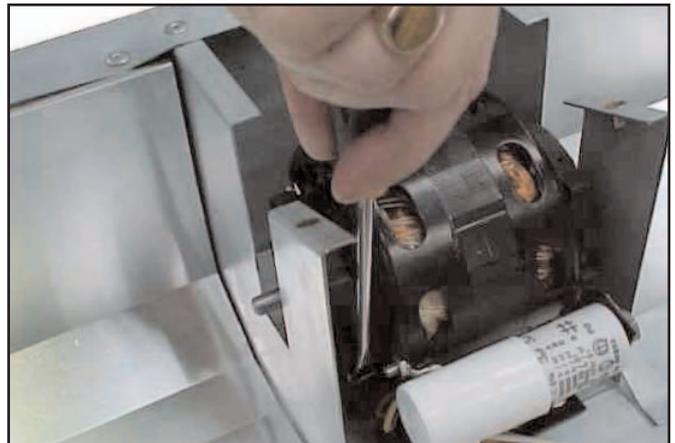
Disconnect rotor from motor shaft.

Step 5



Ensure on replacement of rotor that the flat on the rotor bearing aligns with the flat on the motor shaft.

Step 6



Disconnect motor facing clips (2) using a large screwdriver and exerting downward pressure. A sharp tap can help in releasing the clip.

5 General user instructions

Figure 3



To operate the air curtain

First ensure that the electrical supply to the air curtain heater is turned on. The panel live neon on the switch box should be illuminated.

Ensure that the settings of any time-switch or thermostats incorporated in the installation are in a mode to ensure that the air curtain can operate.

By switching each rocker switch to the down position the following combinations of control can be achieved:

- ON 1 & HEAT SET 1 provides low air flow and low heat.
- ON 1 & HEAT SET 2 provides low air flow and high heat.
- ON 2 & HEAT SET 1 provides high air flow and low heat.
- ON 2 & HEAT SET 2 provides high air flow and high heat.
- ON 1 provides low ambient air flow.
- On 2 provides high ambient air flow.

To switch off the air curtain

For short periods ensure that all the rocker switches are in the up position.

For longer periods turn off the mains supply isolator.

6 Fault finding

If the air curtain does not operate after running through the detail provided in Section 3, then a suitably competent service engineer should be called to identify the nature of the fault.

Note The manufacturer operates a service function from the address provided in these instructions.

For the service engineer, please note that there is a thermal cut-out incorporated in the air curtain which needs to be manually reset. Access is via the hinged grille with the cut-out located near to the mains terminal block. (See Fig. 4).

Re-setting the thermal cut-out may help to identify the nature of the fault however we do not recommend re-set without a thorough investigation into why the cut-out operated.

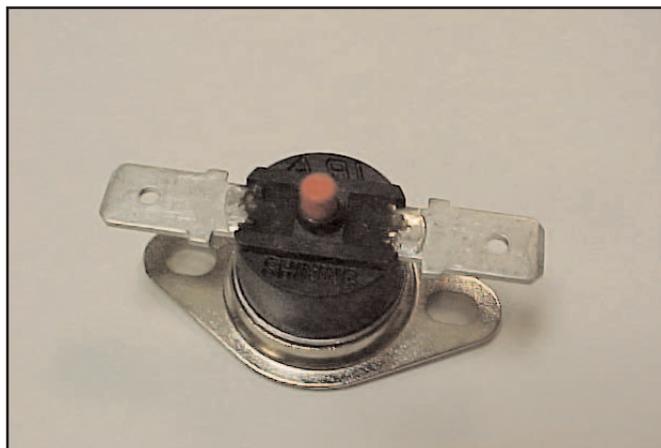
For secondary protection, in the unlikely event that the thermal cut-out fails to operate, there is an additional cut-out incorporated in the motor winding which will operate in the event of continued overheating.

Other faults in relation to the element, motor and wiring should be identified using conventional fault finding techniques.

In the event that electrical components are replaced, please ensure that electrical safety checks in accordance with the regulations in force in the country of use are undertaken.

Undertake installation electrical safety checks in accordance with the regulations in force in the country of use.

Figure 4



7 Spare parts

Photograph	Description	Part Numbers			
		ACR100SE06	ACR100SE09	ACR150SE12	ACR200SE18
	Motor	100003	100003	100003	100012
	Relay	900000	900000	900000	900000
	Rotor LH	100001	100001	100006	100010
	Rotor RH	100002	100002	100007	100011
	Thermal cut out	900001	900001	900001	900001
	Element	101565	100004	100008	100013
	Switchbox - Electrically Heated - Part No - ASCP1-4				



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For commercial/retail air curtain enquires please contact

Ambi-Rad Limited- Airbloc™
Fens Pool Avenue
Brierley Hill
West Midlands
DY5 1QA United Kingdom
Telephone 01384 489700
Facsimile 01384 489707
UK sales e-mail: sales@ambirad.co.uk
Website: www.ambirad.co.uk

AIRBLOC



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