



# **AIRBLOC**

ACR RECESSED  
AIR CURTAINS  
AMBIENT & LPHW  
STANDARD AND HIGH CAPACITY

Installation and  
operating manual

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# 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.

Supply 230V 50Hz.

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.

## 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

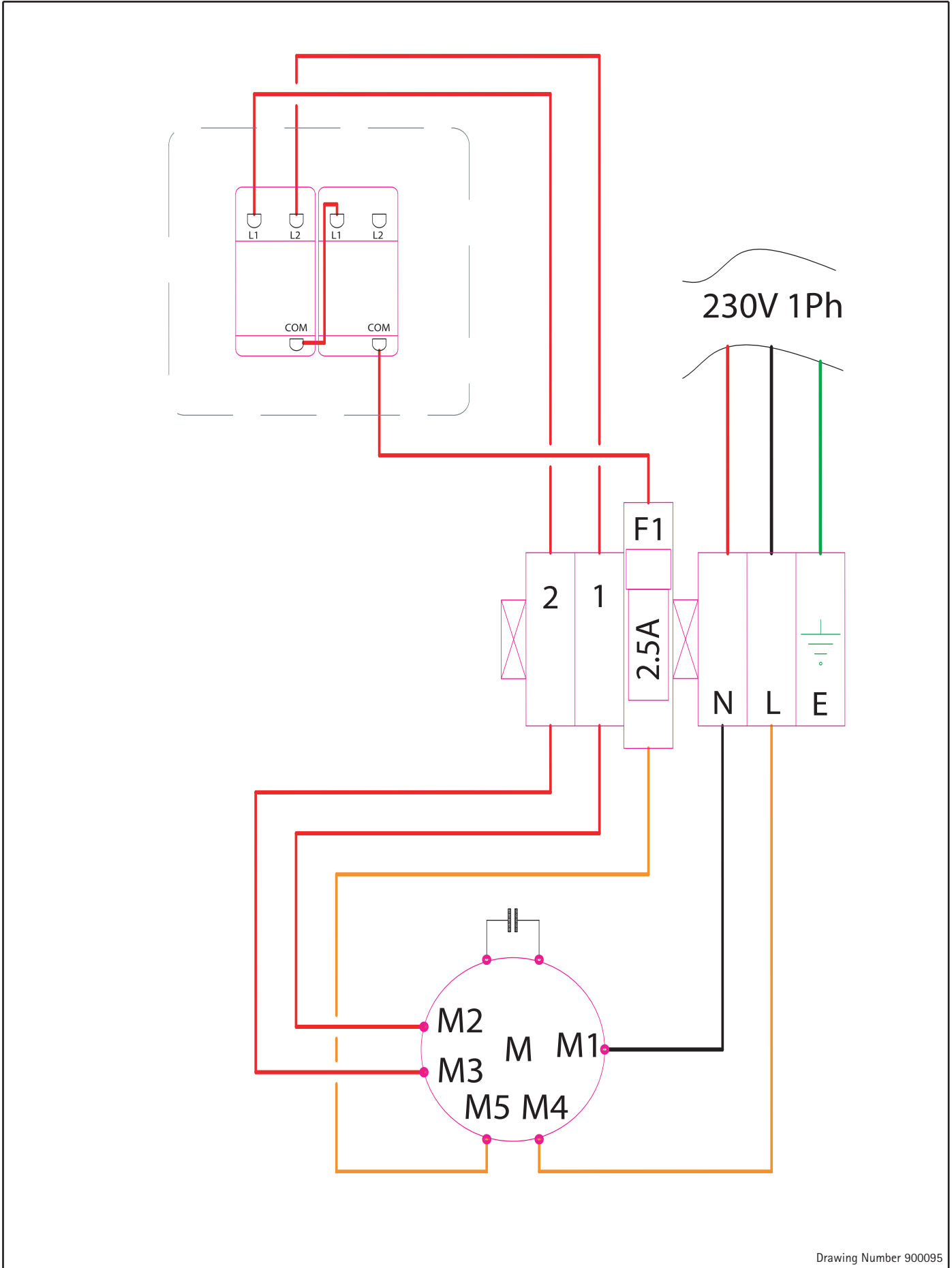
Units conform to european electrical standard BS EN 60335-2-30:1997 and to the following european CE directives:

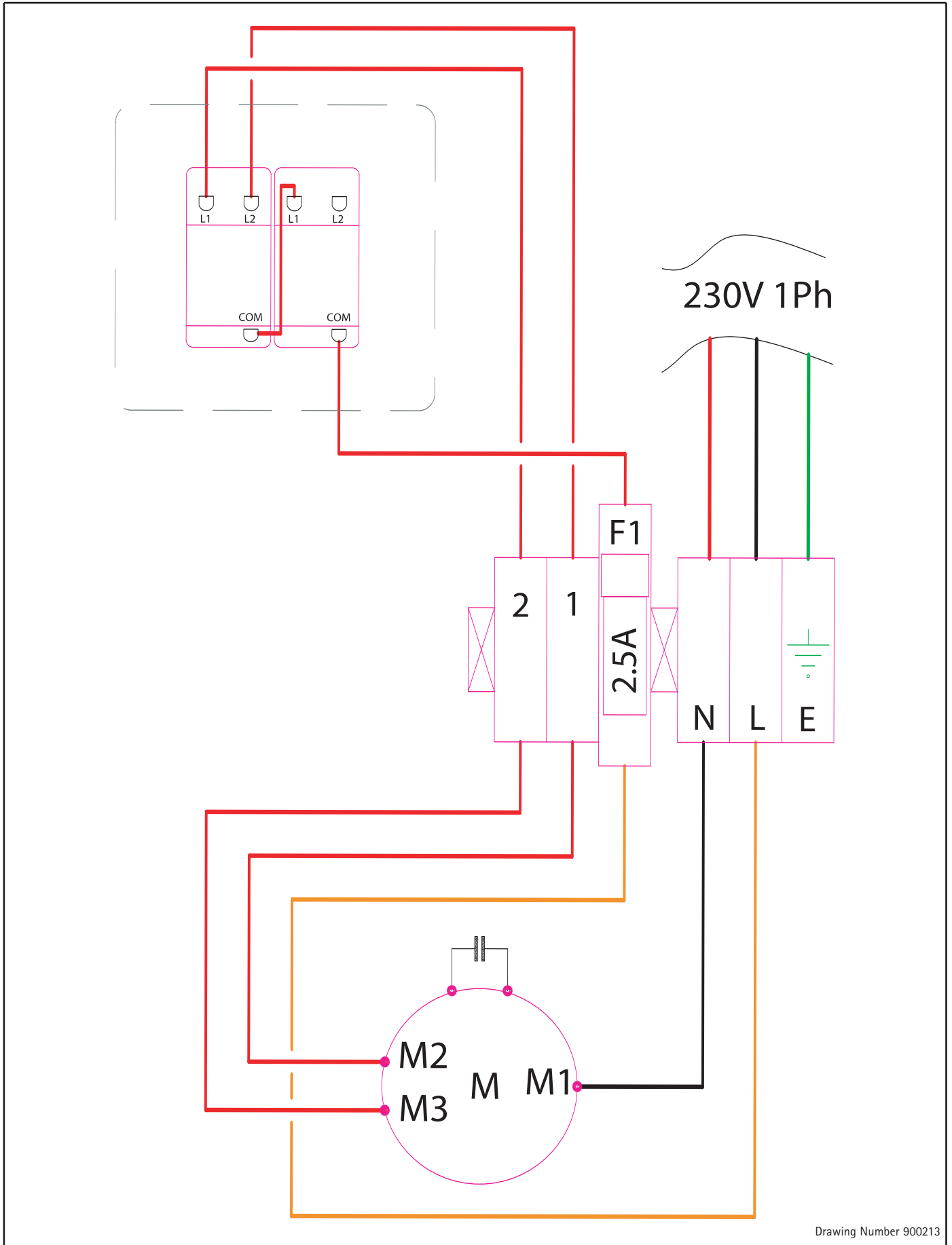
73/23/EEC low voltage; 89/336/EEC and 98/68/EEC electromagnetic compatability.

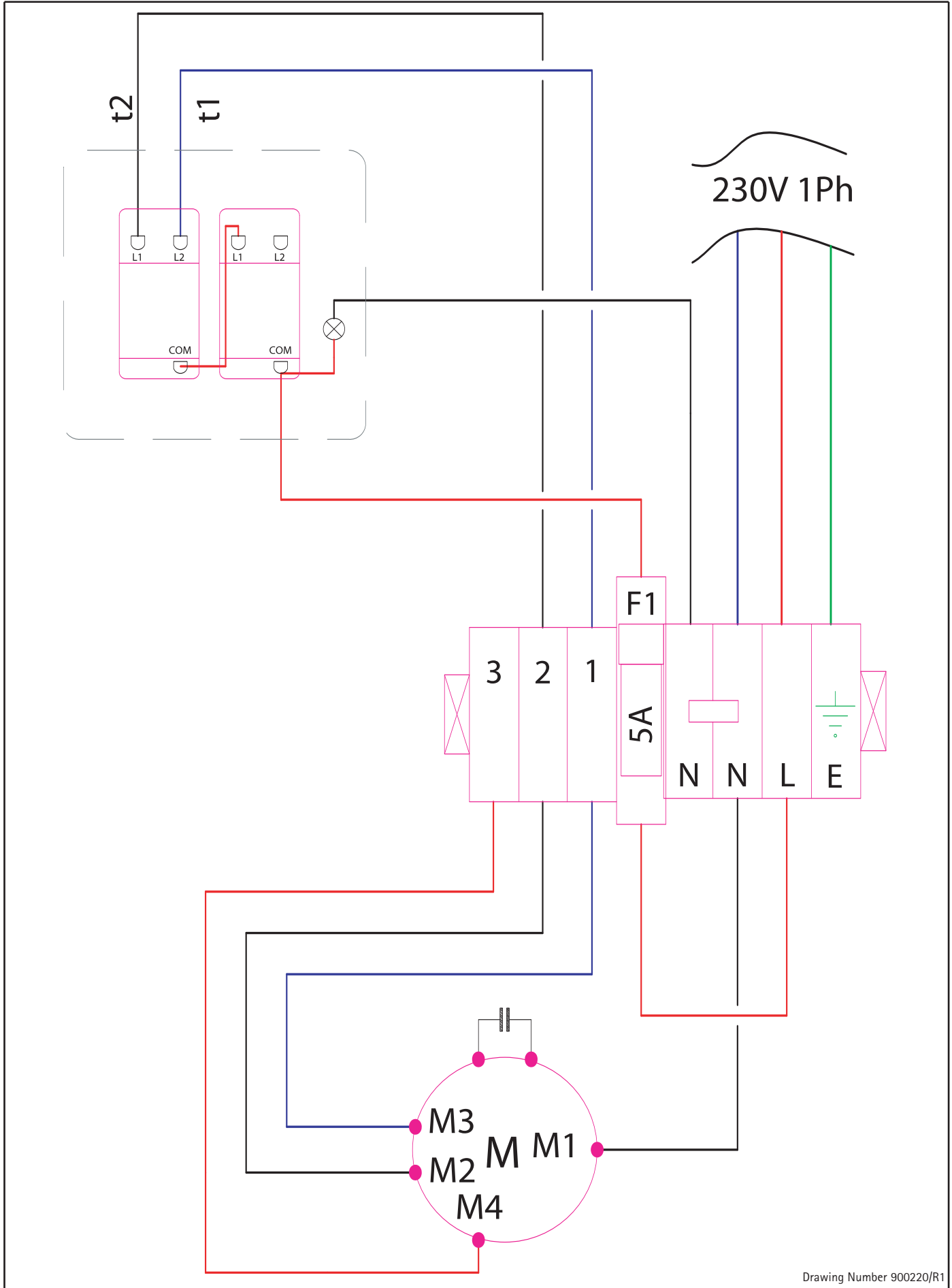
Model	ACR100SW09	ACR150SW12	ACR200SW18	ACR120HW12	ACR180HW18
Weight	28kg	34kg	49kg	40kg	58kg
Case size	395 x 200 x 1180mm	395 x 200 x 1480mm	395 x 200 x 1980mm	550 x 221 x 1150mm	550 x 221 x 1750mm
Element rating	9kW	12kW	18kW	12kW	18kW
Motor rating	240V 50Hz 0.4A	240V 50Hz 0.4A	240V 50Hz 1.3A	240V 50Hz 2.1A	240V 50Hz 2.1A
Cut out size	405 x 1190	405 x 1490	405 x 1990	560 x 1160	560 x 1760
Flange width	25mm	25mm	25mm	25mm	25mm

Model	ACR100SA	ACR150SA	ACR200SA	ACR120HA	ACR180HA
Weight	28kg	34kg	49kg	38kg	55kg
Case size	395 x 200 x 1180mm	395 x 200 x 1480mm	395 x 200 x 1980mm	550 x 221 x 1150mm	550 x 221 x 1750mm
Motor rating	240V 50Hz 0.4A	240V 50Hz 0.4A	240V 50Hz 1.3A	240V 50Hz 2.1A	240V 50Hz 2.1A
Cut out size	405 x 1190	405 x 1490	405 x 1990	560 x 1160	560 x 1760
Flange width	25mm	25mm	25mm	25mm	25mm

Note Dimension 200/221 refers to the height from the ceiling face to the outside of the case.







## 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.

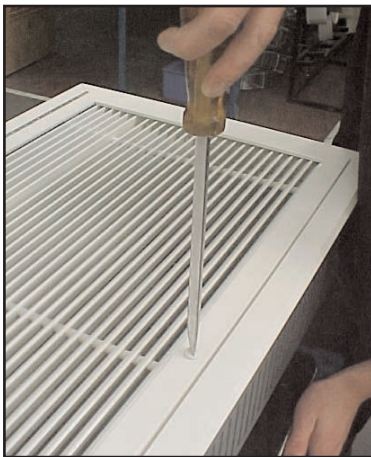
All attachments must be capable of supporting the weight of the product detailed in Section 1.

### Step 1



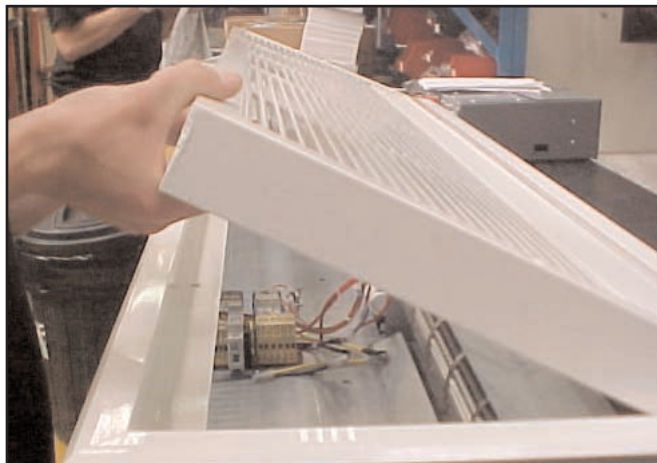
Before fitting or wiring the air curtain, ensure casing faces as above and see general installation guidance notes.

### Step 2



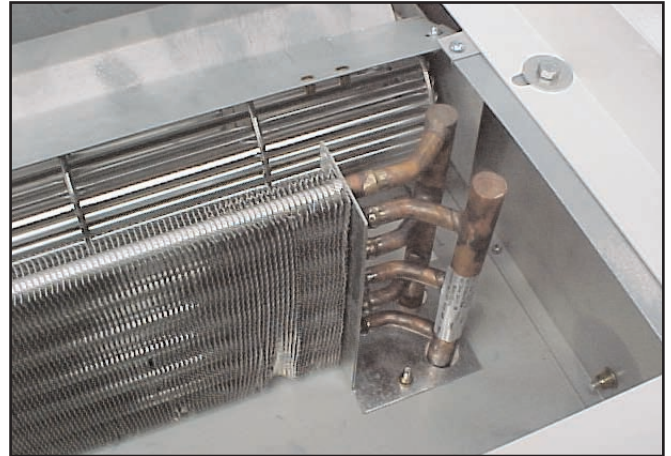
Access to the inside of the air curtain grille can be made by removing the screws as indicated below.

### Step 3



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

### Step 4 Figure 1 - LPHW ONLY



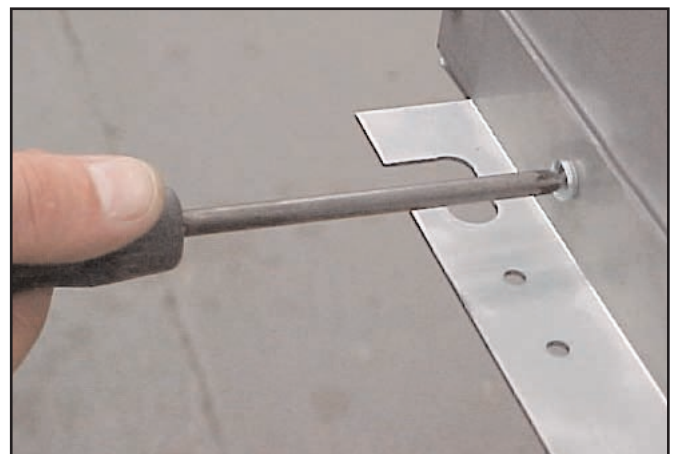
### Step 4 Figure 2 - LPHW ONLY



The heating coils are mounted as shown in Fig 1 above. The flow and return pipes are shown in Fig 2.

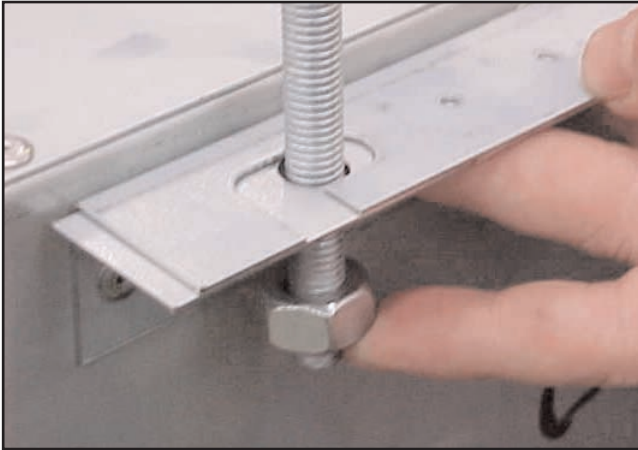
You can fit the coil for right or left hand exit by removal and refitting of the coil fixing screws by turning the coil through 180°.

### Step 5



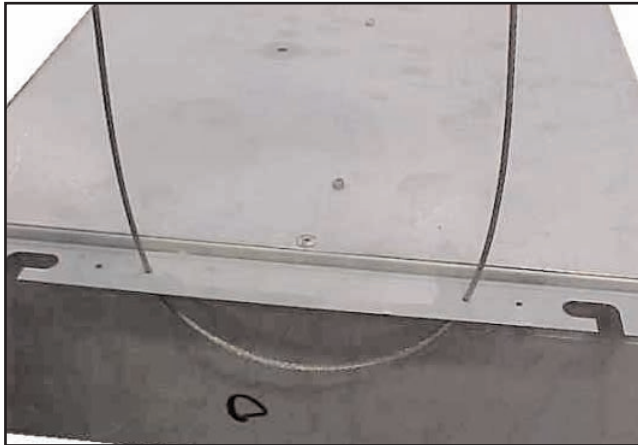
Attachment of the air curtain to the ceiling structure is by means of the two brackets attached to the side of the air curtain. The brackets may be removed to assist in passing the air curtain through the recess then re-attached when in-situ.

## Step 5



Either 10mm or 12mm 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 6

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 in Section 1 of these instructions.

Ensure that all fittings to the flow and return pipes are made effectively and are water tight.

On completion of the above ensure that the hinge grille is secured with the fixing screws provided.



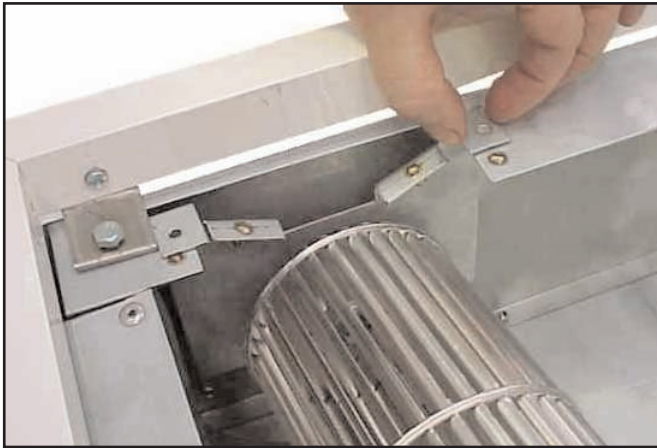
### 3 Rotor & motor replacement & removal

#### Step 1



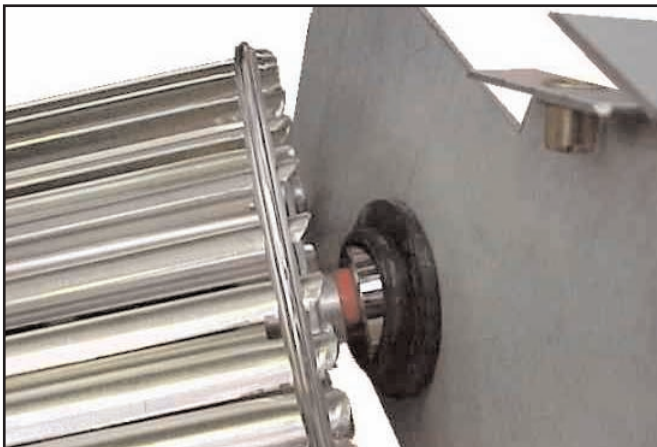
Remove fastening holding rotor support bracket

#### Step 2



Move rotor support bracket towards outside of case.

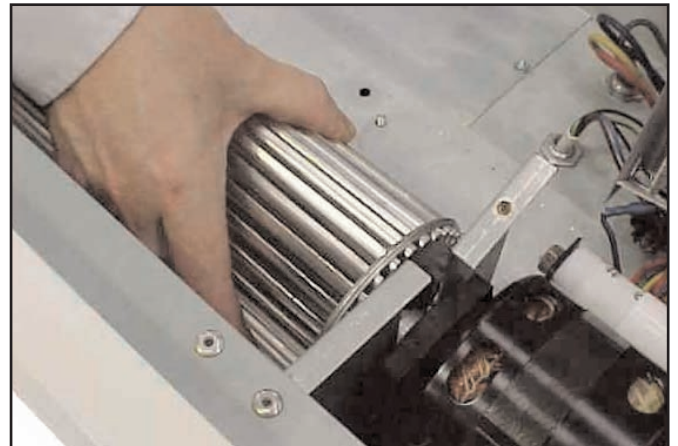
#### Step 3



Disengage rotor bearing.  
Disconnect the capacitor wires.

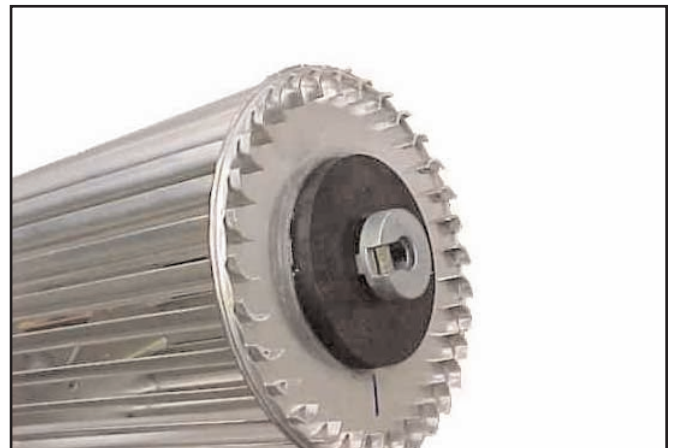
*Note Cover requires prising off capacitor.*

#### Step 4



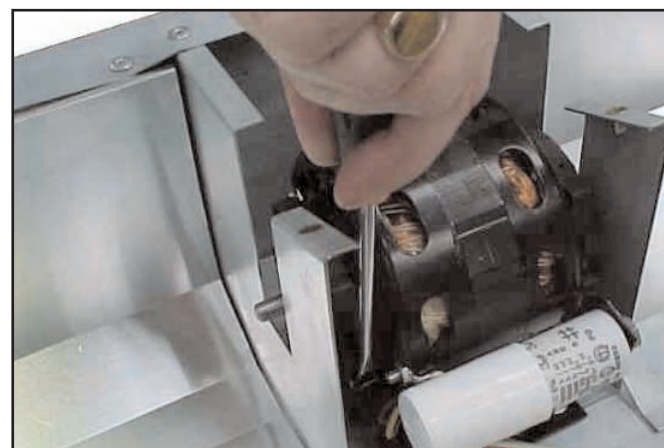
Disconnect rotor from motor shaft.

#### 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.

## 4 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 provides low air flow and high heat.
- ON 2 provides high air flow and low heat.
- ON 1 provides low ambient air flow with no heat from coil.
- On 2 provides high ambient air flow with no heat from coil.

### To switch off the air curtain

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

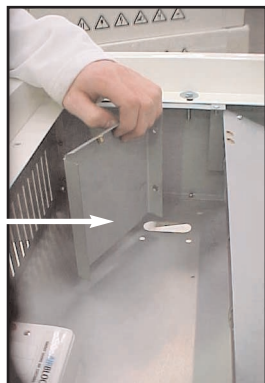
For longer periods turn off the mains supply isolator.

## 5 Fitting coils

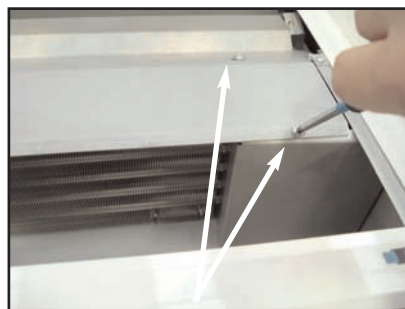
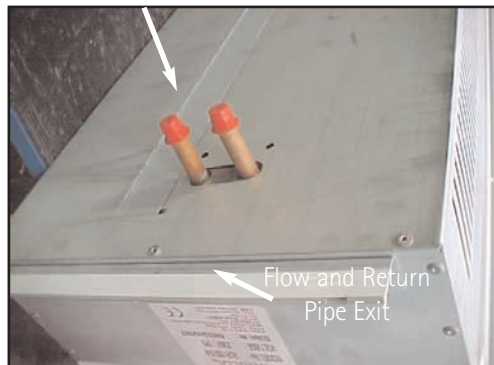
To avoid risk of transit damage to the flow and return connections the heating coil is provided loose inside the case together with the air deflector plate and side supports. Unpack the loose items and identify the two side supports as shown below and fit to the inner side of the case using the screws provided.

*Note The side supports are handed.*

Side support



Prior to installation decide if you require left hand or right hand exit of the flow and return pipes from the product and then fix the coil in position using the screws provided.



After fitting the coil and side supports fit the air deflector plate to the side supports and rotor cut-off plate using the screws provided.

## 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.*







There is a cut-out incorporated in the motor winding which will operate in the event of continued overheating.

Other faults in relation to the 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.

## 7 Spare parts

Photograph	Description	Part Numbers				
		ACR100SW09 & ACR100SA	ACR150SW12 & ACR150SA	ACR200SW18 & ACR200SA	ACR120HW12 & ACR120HA	ACR180HW18 & ACR180HA
	Motor	100003	100003	100012	100535	100535
	Relay	900000	900000	900000	N/A	N/A
	Contactor	N/A	N/A	N/A	900078	900078
	Rotor LH	100001	100006	100010	100539	100540
	Rotor RH	100002	100007	100011	100536	100537
	Switchbox	ASCP1-2	ASCP1-2	ASCP1-2	ASCP1-2	ASCP1-2



### Coil LPHW Only

Rating	9kW	12kW	18kW
HE Part No	-	103680	103607
Length	-	1.2m	1.8m
SE Part No	100197	100198	100199
Length	1m	1.5m	2m



Due to continuous product innovation,  
we reserve the right to change product  
specification without due notice.  
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For commercial/retail air curtain  
enquires please contact

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# AIRBLOC



The Ambi-Rad Group

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