

## ACM

ACM900SA , ACM1200SA, ACM1500SA, ACM900SE6, ACM1200SE7, ACM1500SE9

# INSTALLATION AND OPERATING MANUAL



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### WARNINGS

1: This appliance must only be installed by a competent person in accordance with the requirements of the Codes of Practice or the rules in force.

2: All external wiring MUST comply with the current IEE wiring regulations.

3: This appliance must be earthed.

# 1. General Information.

## Introduction

This instruction manual describes the ACM SA/ SE range of electrically heated and ambient air curtains. Heated models available are 900mm in length rated at 6.0kW, 1200mm rated at 7.0kW and 1500mm rated at 9.0kW. Ambient models available are 900mm, 1200mm and 1500mm in length. They are designed for mounting above doorways and similar entrances, and may be used as space heaters.



All models are supplied with an infrared remote control unit to operate the fan on/off and/or heat settings. For further details please refer to section 6, 'user instructions', in this manual.

## General

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

These instructions must be handed to the user on completion of the 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 are available on request.

## Electrical

This unit is suitable for connection to 230/240v (SA models) 380/415v (SE models) 50Hz AC supplies.

The unit is supplied with a flying lead ready to connect to a suitably rated mains supply.

The ACM900SE6 has a full heating load of 6.0kW.

The ACM1200SE7 has a full heating load of 7.0kW.

The ACM1500SE9 has a full heating load of 9.0kW.

**WARNING:**  
FOR SAFETY REASONS THIS APPLIANCE  
MUST BE EARTHED.

The unit must be wired in accordance with I.E.E regulations for the Electrical Equipment of Buildings and the installer should ensure that a suitable isolating switch is connected in the mains supply to the heater.

## Health and Safety

Sole liability rests with the installer to ensure that all site safety procedures are adhered to during installation, and that personal protective equipment is used during installation of the product.

Do not rest anything, especially ladders, against the product.

## Standards

Units conform to the following European CE directives: EN 60335-2-30:2003, EN 60335-2-80:2003, EN 50366:2003, EN 60335-1:2002 + A11:2004, +A1:2004.



**WARNING:**

THIS HEATER SHOULD NOT BE  
INSTALLED WHERE THERE IS A  
CORROSIVE ATMOSPHERE.

## 2. Dimensions.

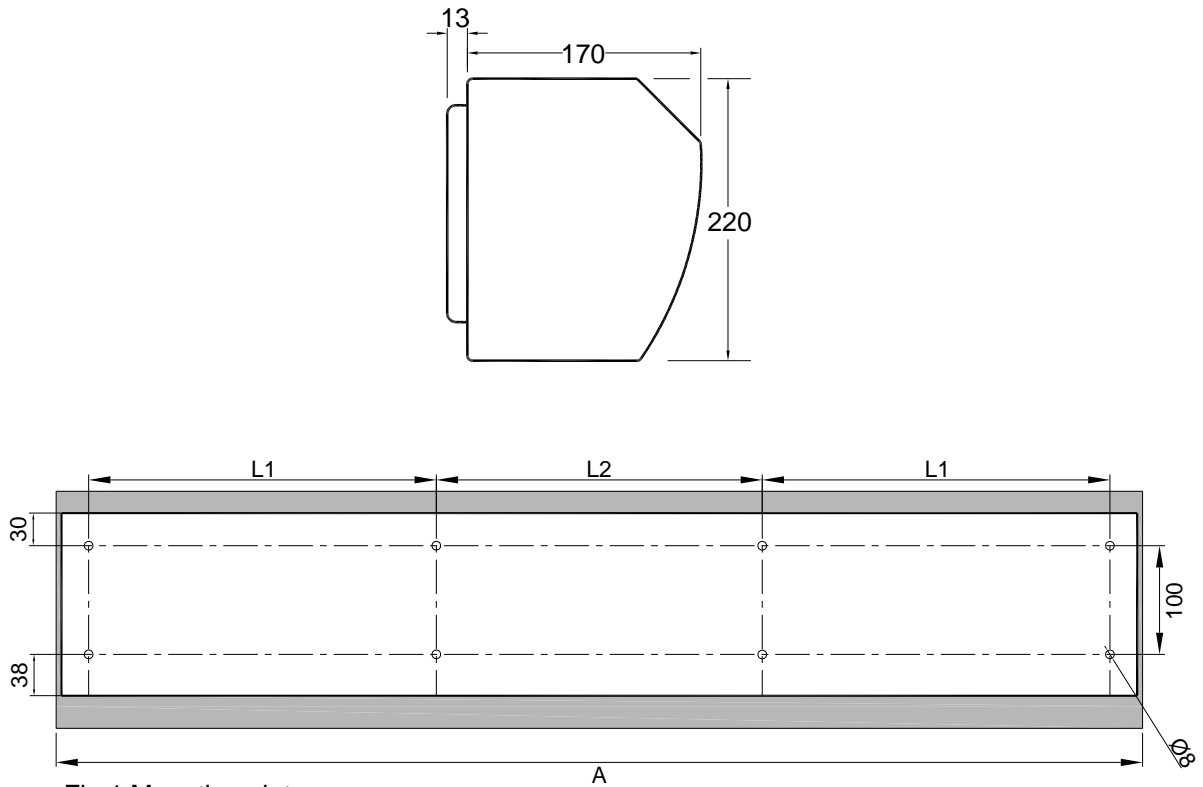


Fig.1 Mounting plate  
(rear view)

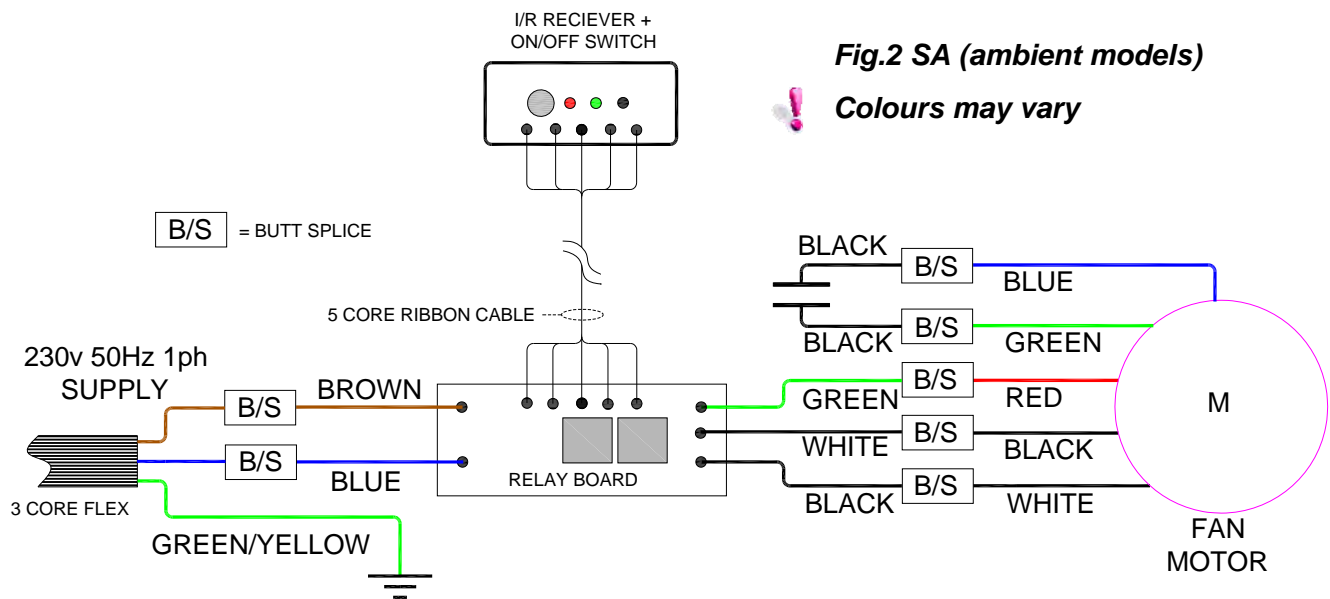
Dimensions in mm

Model	A	L1	L2
ACM900SA	900	270	300
ACM900SE6	900	270	300
ACM1200SA	1200	420	300
ACM1200SE7	1200	420	300
ACM1500SA	1500	570	300
ACM1500SE9	1500	570	300

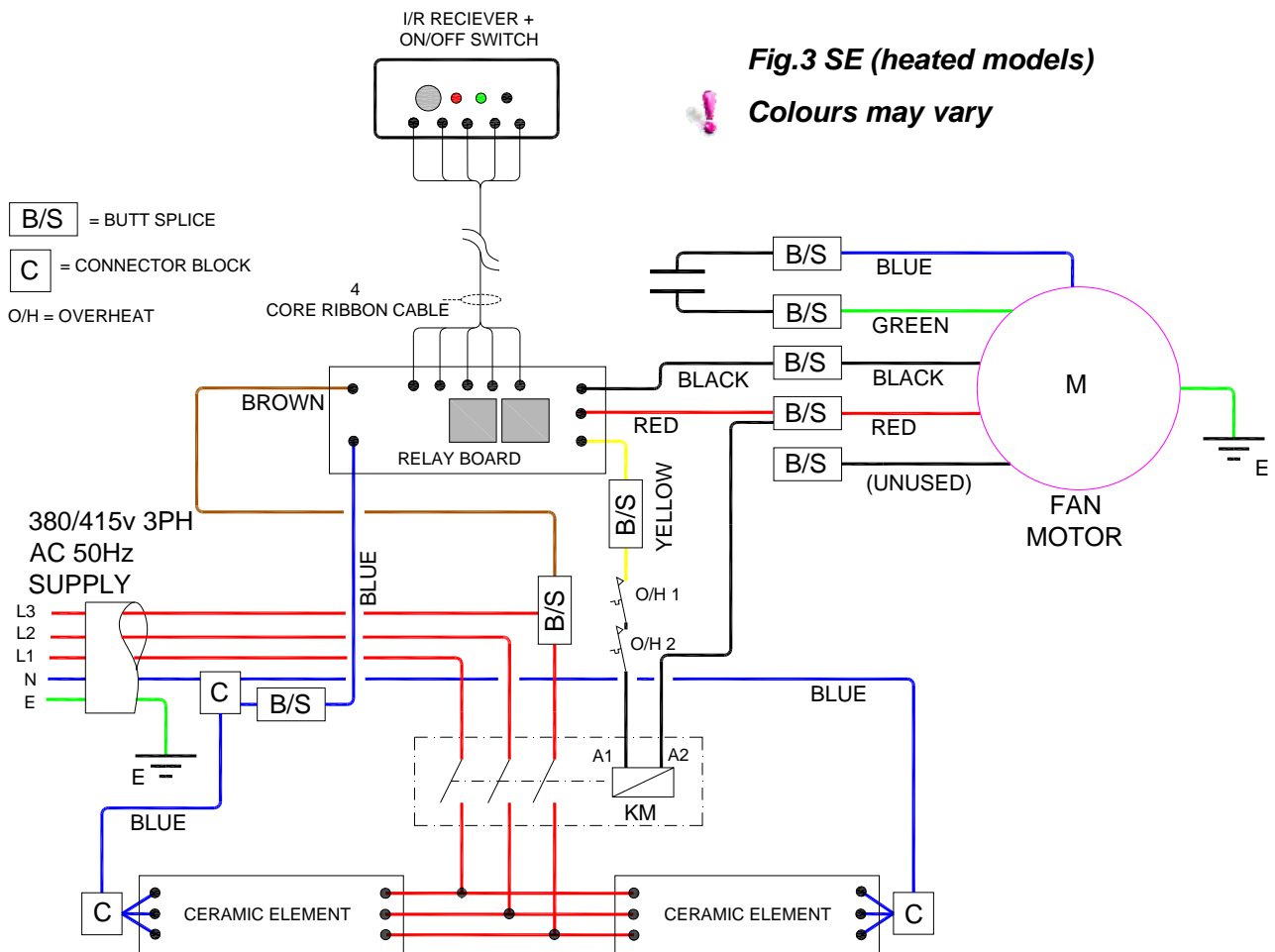
### 3. Technical Specification.

		ACM900SE6	ACM1200SE7	ACM1500SE9	ACM900SA	ACM1200SA	ACM1500SA
<b>General Data</b>							
Minimum height	m	2.3					
Door width	mm	900	1200	1500	900	1200	1500
Heat medium		Electrically heated			Ambient		
Maximum heat capacity	kW	6.0	7.0	9.0	N/A		
Heat setting		1	1	1	N/A		
Fan type		Crossflow					
Fan settings		1	1	1	2		
Air outlet		Fixed vent					
Switching type		Fascia mounted/infrared remote control					
Weight	kg	21.4	23.2	25.5	15.6	19.5	25.3
<b>Electrical Data</b>							
Supply voltage		380-415v 3ph 50Hz			230v 1ph 50Hz		
Total load	watts	6160	7230	9300	160	230	300
External fuse/mcb size	amps	10	16	20	2	4	4
<b>Air Data</b>							
Air velocity	m/s	7			11(HI) 9(LO)		
Noise level	dB	55	56	57	HI 64 LO 62	HI 67 LO 64	HI 69 LO 66
Air volume	m <sup>3</sup> /h	1220	1710	2230	1220	1710	2230
<b>Dimensional data</b>							
Length	mm	900	1200	1500	900	1200	1500
Depth (including bracket)	mm	183					
Height	mm	220					

### 4. Internal Wiring Diagrams.



## 4. Internal Wiring Diagrams cont.



## 5. Installation Details.

### Mounting

ACM 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, against a wall or ceiling.

Care must be taken to allow complete free air movement into the inlet grille of the unit to ensure correct working operation of the air curtain.

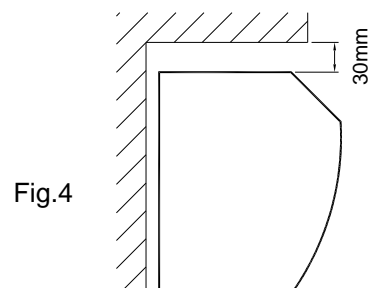
The discharge opening should be as close to the top of the door as possible and to cover the entire door width.

When mounted over a standard shop doorway the unit should be fitted as low as possible (but not less than 2.3 metres from ground level).

A single unit ACM900SE6/SA will provide reasonable coverage for an internal doorway, a single ACM1200SE7/SA unit will provide coverage for an invalid doorway width up to 1200mm, and an ACM1500SE9/SA unit is suitable for door widths up to 1.5m wide. Units can be interlinked

across wider entrances, provided that a gap of 20mm is maintained between units.

The unit shall be mounted so that the airflow is not obstructed by any part of the doorframe with a minimum clearance distance to ceiling of 30mm.(Fig.4)



These units are designed for surface mounting and should not be placed into a ceiling void, due to possible obstruction of airflow and difficulty in routine cleaning and maintenance.

## 5. Installation Details cont.

Carefully unpack the unit. Remove the three mounting bracket retaining screws (Fig.5) and unhook the bracket retaining tabs from the slots in the rear of the heater.

Mount the bracket direct to a suitable wall or bearer with appropriate fixings, (see Fig.1 in section two for mounting centres). Refit the heater to the bracket ensuring the tabs are located correctly. Refit the three retaining screws.

### Electrical connections

These heaters are suitable for connection to a 230/240v 50Hz 1ph AC supply (SA models) or a 380/415v 50Hz 3ph AC supply (SE models).

For connection to the mains supply the flying lead must be connected to a suitable fused 2 pole isolator (SA models), or 4 pole isolator (SE models), with a contact separation of at least 3mm.

For safety reasons, a sound earth connection must always be made to the unit before it is put to use. The unit should be wired in accordance with the current edition of the IEE Regulations.

Mounting bracket retaining screws (rear of unit)

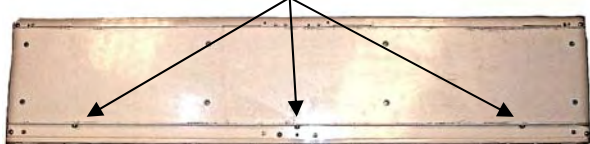


Fig.5

## 6. User Instructions.

### Caution

Do not install the unit under the following conditions:

- Do not operate at temperatures above 50° C or below -10° C.
- Do not install in a steamy atmosphere.
- Do not install in a smoky or gaseous atmosphere.
- Do not install in a corrosive atmosphere.
- Do not install where there are water sprays or drips.

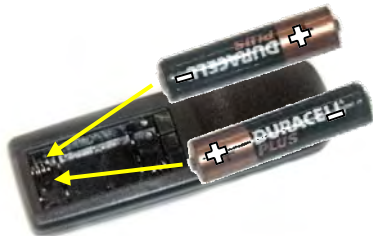


Fig.6

! Ensure remote control batteries are fitted the correct way round as shown in fig.6.

### Operation

The units can either be operated from the remote control unit, or from the front panel buttons as follows:

#### SA units (ambient)

- Remote control operation: (within 6M of unit) To turn the unit on, press the **ON/OFF** button once. This will start the fan in high speed. To change the fan to low speed, press the **SPEED** button once. To return to high speed press the

**SPEED** button once more. To turn the unit off press the **ON/OFF** button once more.

- Front panel operation:

To turn the unit on, press the **FRONT PANEL BUTTON** once. This will start the fan in high speed. To change the fan to low speed, press the **FRONT PANEL BUTTON** again. To turn the unit off press the **FRONT PANEL BUTTON** again.

#### SE units (electrically heated)

- Remote control operation: (within 6M of unit) To turn the unit on press the **ON/OFF** button once to blow ambient air. To blow warm air press the **WARM** button once. To turn the unit off press the **ON/OFF** button once more. If the unit is turned off whilst in 'warm' mode, the fan will run on for 3 minutes to allow the elements to cool. If the unit is turned off whilst in 'ambient' mode, the fan will stop immediately.

- Front panel operation: Press the **WARM/NORMAL/OFF** button to select the desired operation. If the unit is turned off whilst in 'warm' mode, the fan will run on for 3 minutes to allow the elements to cool.

### Protection

The SE units are protected in the event of fan failure, or an obstruction of the free air flow, by two thermal cut outs, one for each element unit. Having tripped the cut outs remain open, effectively switching off the heating elements, providing mains power is available.

## 6. User Instructions cont.

### To reset the cut out

The cut-out is reset by switching OFF mains power to the air curtain.

- a) Allow the air curtain to cool for 20 minutes.
- b) Restart, switch on the air curtain. If the cut-out trips again, a qualified electrician should be consulted.

## 7. Maintenance.

**! ALWAYS ENSURE ELECTRICAL POWER IS SWITCHED OFF BEFORE COMMENCING ANY MAINTENANCE ON THIS AIR CURTAIN.**

To obtain the best results from the air curtain, it is essential to avoid the accumulation of dust and dirt within the unit, on the air inlet and discharge grilles.

For this reason regular cleaning is necessary, paying particular attention to the removal of dirt build up on the rotor blades.

Cleaning of the fan is best carried out with a soft brush.

A single drop of light oil should be applied to the fan motor bearings from time to time.

## 8. Servicing.

The air curtain should be serviced annually. Airbloc offer a service facility, call +44 (0)1384 489700. Servicing should be undertaken by a competent person.

Any repair or alteration carried out to this product without the prior authority from AmbiRad will invalidate warranty.

**! ALWAYS ENSURE ELECTRICAL POWER IS SWITCHED OFF BEFORE COMMENCING ANY SERVICING WORK ON THIS AIR CURTAIN.**



**WARNING:**

THIS HEATER SHOULD NOT BE INSTALLED WHERE THERE IS A CORROSIVE ATMOSPHERE.



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