

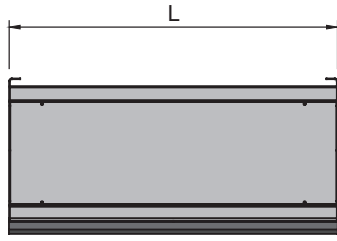
Industrial Air Curtain

IAB10A, IAB10E, IAB10W, IAB15A, IAB15E & IAB15W

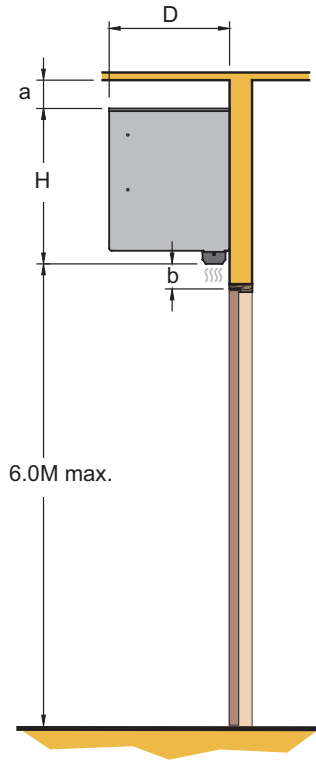


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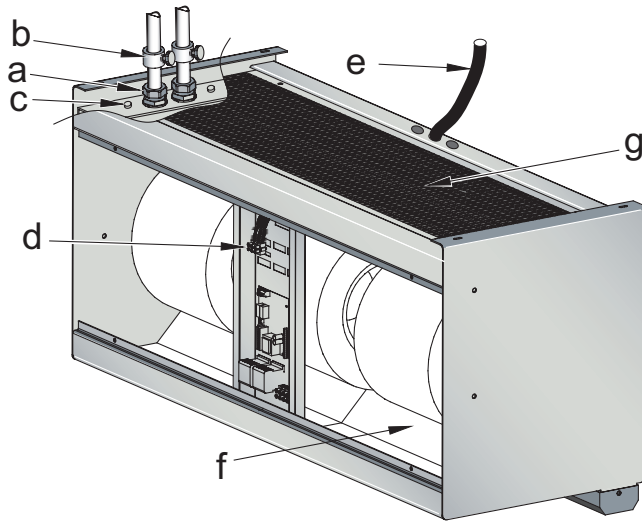
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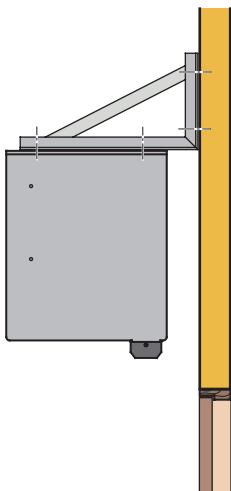
	L	D	H
IAB10	1080	550	725
IAB15	1508	550	725



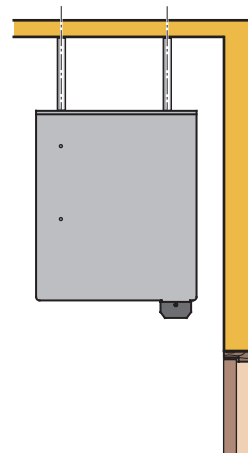
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3a

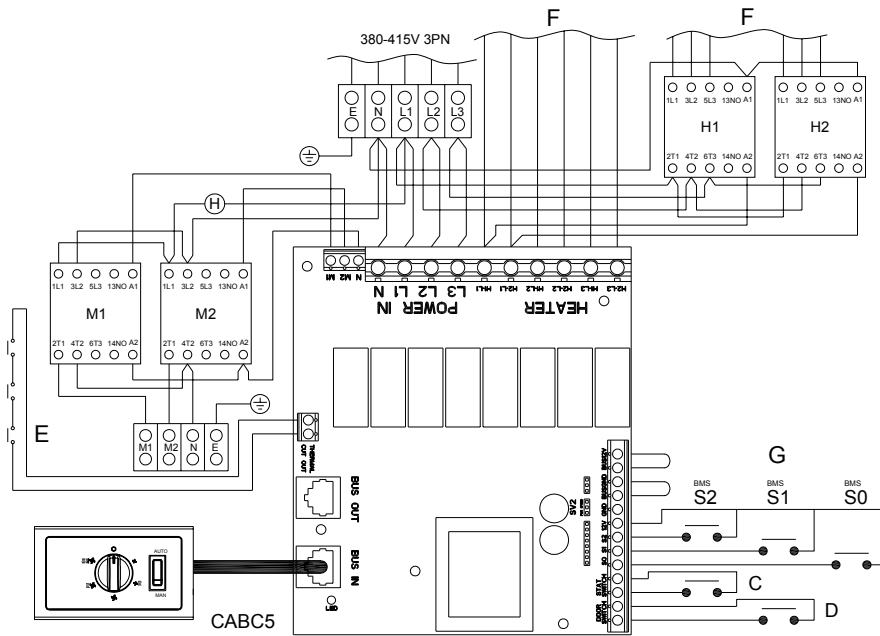


3b



4

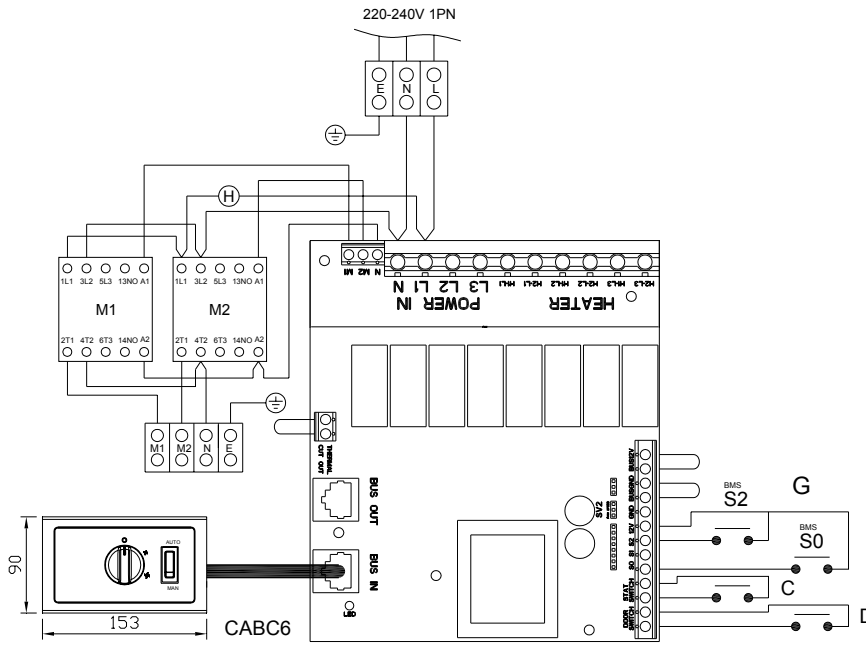
IAB "E"



BMS/BEMS				
	S2	S1	S0	Out
0	0	0	0	○
1	0	0	1	✦
2	0	1	0	✦
3	1	0	0	✦
4	1	0	1	✦
5	1	1	0	✦

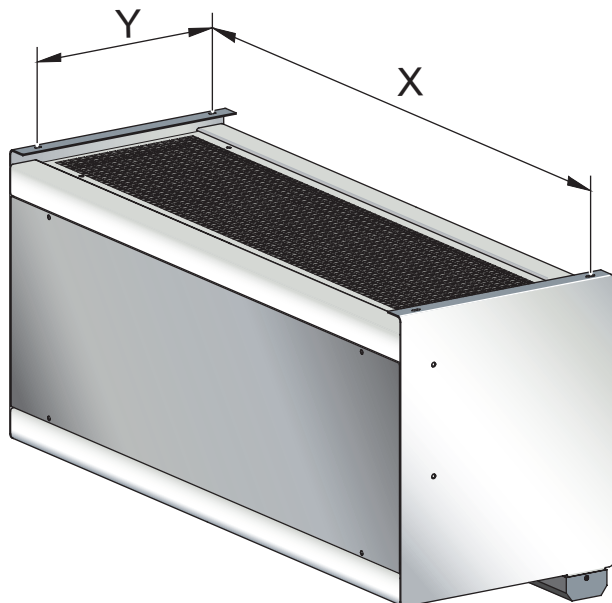
5

IAB "W" & "A"



BMS/BEMS			
	S2	S0	Out
0	0	0	○
1	0	1	✦
2	1	0	✦

6



	X	Y
IAB 10	1030	450
IAB 15	1450	450

Dimplex Industrial Air Curtains

Models : IAB10E, IAB15E, IAB10W, IAB15W, IAB10A, & IAB15A

IMPORTANT: THESE INSTRUCTIONS SHOULD BE READ CAREFULLY AND RETAINED FOR FUTURE REFERENCE

IMPORTANT SAFETY ADVICE

DO NOT COVER OR OBSTRUCT the air inlet or outlet grille.

ENSURE THE APPLIANCE IS EARTHED.

Regular maintenance to remove dust and particles ensures optimum performance. Please avoid excessively dusty environments where possible.

This heater must not be located immediately above or below a fixed socket outlet or connection box.

Always disconnect supply before working on the product.

This appliance should only be connected to the fixed wiring of the premises by means of conduit.

This product should be mounted safely to solid wall or ceiling surfaces only.

This product must not be subjected to water spray or immersion.

Ensure the supply cables are of adequate current carrying capacity and are protected by a suitable fuse / circuit breaker.

Ensure proper manual handling procedures are observed at all times.

WARNING: Isolate electrical supply to ALL modular linked units when carrying out maintenance.

Models

Model	Heat Output kW	Electrical Supply	Electrical load (per phase) A	Weight kg	Max Installed height m
AMBIENT / COLD STORE					
IAB10A	n/a	220-240V ~1PN	8.5	80	6.0
IAB15A	n/a	220-240V ~1PN	12.6	120	6.0
ELECTRICALLY HEATED					
IAB10E	12 / 24 kW	380-415V ~3PN	42	80	6.0
IAB15E	18 / 36 kW	380-415V ~3PN	63	120	6.0
WATER HEATED (at 82/71 °C - LPHW)**					
IAB10W	27	220-240V ~1PN	8.5	80	6.0
IAB15W	41	220-240V ~1PN	12.6	120	6.0

Electrical

The installation of this appliance should be carried out by a competent electrician and be in accordance with the current IEE wiring regulations.

Installation

This appliance may be either wall-mounted or fixed to a ceiling - see Fig. 3a & 3b for fixing positions and 'Mounting' sections below for fixing details.

A minimum distance of 500mm is required from the top of the appliance to ceiling - see 'a' in Fig. 1.

The distance between the bottom of the appliance and the top of a door should be kept to a minimum - see 'b' in Fig. 1.

Wall Mounting

A suitable load bearing structure (bracket not supplied) is required to wall mount the appliance, see Fig. 3a. (see Fig. 6 for fixing dimensions).

Ceiling Mounting

Lift the appliance into position using suitable lifting equipment. (You may use the pallet supplied with the unit). Secure the appliance into position using M12 threaded bar and locknuts as shown in Fig. 3b (see Fig. 6 for fixing dimensions).

Electrical connection

All products are fitted with a microprocessor control. Electrical power and control connections are made as shown in Fig. 4 & 5. A suitable local isolating switch must be provided in the electrical supply circuit with at least 3mm clearance on each pole.

In order to access the electrical connections, remove the air supply grille ('g' in Fig. 2) and the front panel ('f' in Fig. 2 (shown removed)). Feed an appropriate supply cable (see 'e' in Fig. 2) through a suitable cable gland (not supplied) fitted in the top panel and attach to the Mains In Terminal Block (see 'd' in Fig. 2). A suitable CAT5 cable for the supplied switch panel can be similarly introduced and connected to the circuit board. If the unit is to be operated in conjunction with a door switch, a normally open switch should be wired as per Fig. 4 & 5 as appropriate.

Note: If using a door switch, an additional 2 core (low voltage) cable is required between the door switch and the air curtains. If the unit is to be connected to a Building Energy Management System, connections are made as per 'G' in Fig. 4 & 5 as appropriate.

Water connection

Models designed for use in conjunction with a low pressure hot water supply should be individually connected (in a parallel circuit) to the flow and return pipe-work. Connections (see 'a' in Fig. 2) are: 1" BSPT and isolation valves (see 'b' in Fig. 2) should be fitted as close to the air curtain connection points as possible. For commissioning, air bleed valves (see 'c' in Fig. 2) are fitted to the coil, which can be accessed from outside the unit.

Maximum water supply conditions are 110°C and 10 bar (1MPa).

Ensure that the air curtain is securely fastened in position and that the supply cables are firmly clamped before operating the appliance.

Operation using Switch Panel

Electrically heated variants

Operation using switch box - CABC5

Switch on electrical supply to the air curtain. Rotate the switch to the desired heat setting. Settings available are;

- OFF
- Low Fan
- Low Fan with Low Heat
- High Fan
- High Fan with Low Heat
- High Fan with Full Heat

The rocker (auto / manual) switch allows for manual over-ride of a door switch if fitted. The "Manual" position allows the appliance to run at the desired setting, while the "Auto" position provides an energy saving feature by shutting down the appliance while the door is closed.

The unit should always be switched OFF using the switch box control, and not by mains power supply interruption.

When the unit is switched off (via the switch box) the fan will run on for 1 minute without heat to discharge any residual energy from the heating elements. When first turned on the control will run through a system check. The selected settings will be reached and maintained after a 30 second period.

Door switch control

By including a door switch in the circuit (as per 'D' in **Fig. 5**) the air curtain will respond to door openings as follows:

- (1) Door opening will energise the air curtain at the set conditions (switch panel settings).
- (2) On door closure, operation will continue at the set conditions for a further 1 minute.
- (3) Between 1 minute and 2 minutes from door closure: set back operation, ½ heat (if heat selected) and ½ fan will activate.
- (4) Between 2 minutes and 3 minutes, the fan only (½ speed) shut down cycle will be engaged.
- (5) After 3 minutes, the air curtain will return to a dormant state until the door is re-opened.
If the door re-opens during this 3 minute run on cycle, the process will restart at (1).

Thermal Safety cut outs

The power supply to the heating elements will be interrupted if one or a combination of the following abnormal events occur:

1. Air inlet or outlet grilles are obstructed.
2. Internal ventilation is impaired due to build up of dust and/or other foreign matter.
3. Blower unit failure.

To reset the thermal safety cut-outs positioned under the air inlet grille ('g' in **Fig. 2**), first turn off power to unit before pressing the red reset buttons. Also check the position of the 16A MCB.

Before re-setting the reason for activation must be determined and corrective action taken.

Low pressure hot water heated and Ambient (fan only) variants

Operation using switch box - CAB6

Switch on electrical supply to the air curtain. Rotate the switch to the desired heat setting. Settings available are;

OFF

Low Fan

High Fan

The rocker (auto / manual) switch allows for manual over-ride of a door switch if fitted. The "Manual" position allows the appliance to run at the desired setting, while the "Auto" position provides an energy saving feature by shutting down the appliance while the door is closed. The unit should always be switched OFF using the switch box control, and not by mains power supply interruption. When first turned on the control will run through a system check. The selected settings will be reached and maintained after a 30 second period.

Thermostatic control (optional)

- 1) A thermostatic regulation valve with a remote sensing bulb (not supplied) can be positioned in the supply water pipe-work to regulate the heat output.
- 2) An electrical 3-Port Solenoid Valve can also be connected into the system. Please contact your sales or service agent using the contact details provided.

Door switch control (Water heated & Ambient models)

By including a door switch in the circuit (as per 'D' in **Fig. 4**) the air curtain will respond to door openings as follows:

- (1) Door opening will energise the air curtain at the set conditions (switch panel settings).
- (2) On door closure operation will continue at the set conditions for a further 1 minute.
- (3) Between 1 minute and 2 minutes from door closure ½ fan set back operation will activate.
- (4) After 2 minutes, the air curtain will return to a dormant state until the door is re-opened. If the door re-opens during this 2 minute run on cycle, the process will re-start at (1).

Motor protection

The blower units are protected by a 16A MCB and by thermal safety devices.

If there is an electrical fault, the MCB will trip. Before resetting the reason for actuation must be determined and corrective action taken. If a thermal safety device operates, the appliance may cycle on and off. The appliance should be switched off and the reason for activation corrected.

Wiring Diagrams

IAB 'E' - Electric models - see Fig. 4

- C - Thermostat (Optional)
- D - Door Switch (Optional)
- E - Thermal Safety Cut-out Circuit
- F - Elements
- G - BMS Switches (Optional) (S0,S1,S2)
- H - 16 amp MCB

IAB 'W' / 'A' - Water heated / Ambient models - see Fig. 5

- D - Door Switch (Optional)
- G - BMS Switches (Optional)
- H - 16 amp MCB

Remote (BMS / BEMS) Operation

Connection to Building Energy Management Control Systems (BEMS) is possible so that remote control of the air curtain can be carried out in conjunction with other equipment. Please refer to the table in **Fig. 4 & 5** to make the appropriate connections to the PCB. Particular attention should be paid to the switching logic in **Fig. 4 & 5**.

Modular Connection

Refer to the instructions provided with the Modular Linking Kit (Ref: CABM1).

NOTE: Only the modular linking cable is required from this kit to link the Industrial units together.

Recycling



For electrical products sold within the European Community.

At the end of the electrical products useful life it should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice in your country.

Cleaning

WARNING: DISCONNECT SUPPLY before carrying out maintenance.

External appearance can be maintained by wiping occasionally with a damp cloth; for stain removal, a weak soap solution can be applied with a cloth and the surface wiped dry. Care must be taken to avoid any moisture ingress into the product.

After Sales Service

Your product is guaranteed for two years from the date of purchase. Within this period, we undertake to repair or exchange this product free of charge provided it has been installed and operated in accordance with these instructions.

Your rights under this guarantee are additional to your statutory rights, which in turn are not affected by this guarantee.

Should you require after sales information or assistance with this product please go to www.dimplex.co.uk where you will find our self help guide by clicking on "After Sales" or ring our help desk on 0845 600 5111.

Please retain your receipt as proof of purchase.

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