

Airboss Over Door Heater



Features:

- ▶ Aesthetically pleasing shape and form.
- ▶ Compact and Versatile.
- ▶ Energy saving controls option available.
- ▶ Suitable for mounting up to 2.5m high from finished floor level.
- ▶ Fully cased.
- ▶ Purpose designed mounting bracket system.
- ▶ Available in electric and water versions.

Airboss

Over Door Heater

Application

The Diffusion Airboss over door heater is an ideal choice for reception areas, banks, building societies, supermarkets, large retail outlets, hotels and hospitals. With its stylish appearance and wide range of casing colours, it will meet most aesthetic considerations. With its compact dimensions, the unit can be mounted into areas with limited door to ceiling height. The energy saving controls option allows its use where energy/running costs are a critical consideration.

Description

The Diffusion Airboss over door heater has been designed, through the use of shape and form, to fit into any architectural considerations. Its stylish appearance and choice of casing colours mean it can harmoniously integrate into the aesthetics of modern reception areas and entrances. The Airboss over door heater is supplied with remote controls mounted onto a purpose designed switch plate, which is suitable for fitting to a standard two gang, recessed or surface mounted, electrical back box. The versatility of the unit allows it be mounted to either a wall, ceiling or supporting structure by utilisation of the purpose designed mounting bracket system.

Chassis

The chassis shall be manufactured from a minimum of 1.2mm thick galvanised mild steel. All galvanised mild steel items shall be self finished. The chassis shall be suitably stiffened to prevent flexing and distortion.

Casing

The casing shall be manufactured from a minimum of 1.2mm thick Zintec. The casing shall be suitably stiffened to prevent flexing and distortion. The unit shall have a suitable, full length, removable access panel for maintenance purposes. The casing shall be powder coated white RAL 9010 as standard, other colours can be provided on request.

Fan assembly

The motor shall be of the high output permanent split phase capacitor type, continuously rated and complete with built in thermal overload protection, complying with BS 2048 1961 part 1 and BS 5000. The bearings shall be of the maintenance free, sealed for life ball type, having a minimum life cycle of L10 (40000 Hrs). The fan impellers shall be of the double inlet, double width centrifugal type dynamically balanced in two planes according to DIN standards ISO 1940. The motors shall be insulated to BS 2757 (class B). The fan scrolls shall be painted black as standard.

Electric Elements

Each element shall be manufactured from 8mm fully sheathed stainless steel rods, with 4mm pitched spiral fins. A manual re-set high temperature cut-out shall be fitted in accordance with standard safety requirements. The elements comply with BS7351 – 1990.

Heat Exchanger (LPHW Version)

The coil shall be manufactured from solid drawn copper tubes, mechanically expanded into accurately pre-formed collars in rippled plate type aluminium fins. Each coil shall be arranged for multi-circuit operation complete with headers and suitable for a LPHW 2 pipe system. Each coil assembly shall be fitted with an air vents and drain connections. The coil shall be pressure tested to 40 bar and be suitable for operation with a static head of up to 30 metres. Coil tails are 28mm plain copper.

Discharge Grille

The discharge grille shall be a linear type manufactured from extruded aluminium and shall be finished to match casing. Inlet air will be via pre-punched holes within the unit casing.

Function Tests

- Each unit shall be function tested at our factory to ensure correct operation. All electrical components shall be tested to ensure each unit and its associated wiring complies with the 16th edition of IEE. The unit shall be manufactured in accordance with BS EN ISO 9001:2000 quality standards.

Standard Controls

- Electric version: Supplied with a remote control plate housing on/off, speed high/low, heat off, low and high, finished in satin chrome as standard, suitable for fitting onto a standard two gang, recessed or surface mount, electrical back box. The unit can be used in ambient mode, by using the fans only setting.

- LPHW version: Supplied with a remote control plate housing 4 speeds/off, finished in satin chrome as standard, suitable for fitting onto a standard two gang, recessed or surface mount, electrical back box.

Energy Controls (optional)

- Our award winning MODBUS compatible energy saving controls system offers state of the art technology that allows the end user closer control of the equipment. The controls function by using an off coil sensor which will restrict the leaving air temperature (solid state relays on electric & 2 or 3 port valves on LPHW) to a set value (40°C as standard but this is adjustable). Return and outside temperature sensors can be added into the system making it fully automatic, thus not needing manual changeover of summer/winter operation.

- The controller also offers as standard inputs for remote BMS monitoring, common fault signal, BMS on/off, BMS summer/winter, BMS speed control, occupancy sensor/door switch and high heat temperature trip. The LCD remote control plate houses speeds, on/off control, plus fault indications.

Optional Extras

- Low water temperature cut out: Provides automatic shutdown of the fan/motor when boilers have been switched off (standard controls only).
- Summer/Winter switch (manual): Used in conjunction with the room thermostat and/or low water temperature cut out, this will allow the fan only to run for air movement (standard controls only).
- Remote thermostat: Available in adjustable or tamperproof (standard & Energy saving controls).
- BMS interface relay: 24vac relay and base (standard controls only).
- Fault indication relay: current sensitive relay to indicate fault alarm from unit (standard controls only).
- 2 or 3 port valves (standard controls only).
- Return air sensor: Mounted integral to the unit (energy controls only).
- Outside temperature sensor: To detect outside conditions (energy controls only).
- PIR Sensor: To offer automatic on/off control of the unit (energy controls only).
- BMS Fault Signal Relay: 12VDC relay and base to indicate fault alarm from unit (energy controls only).

Performance Details

Electric version

MODEL	SPEED	DUTY	AIR VOL	AIR ON	AIR OFF	ELEC SUPPLY	S.C	F.L.C	WEIGHT	GUIDE NR	dBA
1000E	HIGH	3/6 kW	200 L/s	20 deg C	45 deg C	230-1-50	29.00A	27.00A	26 kg	NR52	54dBA
	LOW	3/6 kW	160 L/s	20 deg C	51 deg C	230-1-50				NR47	50dBA
1000E	HIGH	6/9 kW	230 L/s	20 deg C	52 deg C	415-3-50	15.00A	13.50A	28 kg	NR55	57dBA
	LOW	6/9 kW	210 L/s	20 deg C	55 deg C	415-3-50				NR53	55dBA
1500E	HIGH	8/12 kW	340 L/s	20 deg C	49 deg C	415-3-50	20.50A	18.50A	46 kg	NR55	57dBA
	LOW	8/12 kW	300 L/s	20 deg C	53 deg C	415-3-50				NR51	54dBA
2000E	HIGH	12/18kW	440 L/s	20 deg C	54 deg C	415-3-50	31.00A	27.00A	57 kg	NR57	60dBA
	LOW	12/18kW	400 L/s	20 deg C	57 deg C	415-3-50				NR52	55dBA

Please note that if our energy controller is utilized, the above noise levels can be significantly reduced, as the air volumes can be lowered.

LPHW version

MODEL	SPEED	DUTY	AIR VOL	AIR ON	AIR OFF	WATER FLOW	WATER PR	FLOW RATE	ELEC SUPPLY	S.C	F.L.C	WEIGHT	GUIDE NR	dBA	PIPE CONNS	WATER CONT. LITRES
1000W	BOOST	7.70 kW	235 L/s	20 deg C	47 deg C	82 deg C	4.30 kpa	0.172 L/s	230-1-50	2.60A	0.94A	28kg	NR55	57dBA	15mm O.D	0.42
	HIGH	7.20 kW	210 L/s	20 deg C	48 deg C	82 deg C	4.30 kpa	0.172 L/s					NR53	55dBA		
	MED	6.80 kW	190 L/s	20 deg C	49 deg C	82 deg C	4.30 kpa	0.172 L/s					NR51	53dBA		
	LOW	6.00 kW	160 L/s	20 deg C	51 deg C	82 deg C	4.30 kpa	0.172 L/s					NR47	50dBA		
1500W	BOOST	12.30 kW	360 L/s	20 deg C	47 deg C	82 deg C	5.20 kpa	0.275 L/s	230-1-50	3.73A	1.38A	46kg	NR57	59dBA	22MM O.D	0.68
	HIGH	11.90 kW	340 L/s	20 deg C	48 deg C	82 deg C	5.20 kpa	0.275 L/s					NR55	57dBA		
	MED	11.50 kW	320 L/s	20 deg C	49 deg C	82 deg C	5.20 kpa	0.275 L/s					NR53	56dBA		
	LOW	10.20 kW	270 L/s	20 deg C	51 deg C	82 deg C	5.20 kpa	0.275 L/s					NR49	52dBA		
2000W	BOOST	17.00 kW	480 L/s	20 deg C	49 deg C	82 deg C	11.70 kpa	0.379 L/s	230-1-50	5.00A	1.80A	57 kg	NR59	62dBA	22mm O.D	0.91
	HIGH	16.00 kW	440 L/s	20 deg C	50 deg C	82 deg C	11.70 kpa	0.379 L/s					NR57	60dBA		
	MED	15.00 kW	400 L/s	20 deg C	51 deg C	82 deg C	11.70 kpa	0.379 L/s					NR54	57dBA		
	LOW	13.70 kW	345 L/s	20 deg C	52 deg C	82 deg C	11.70 kpa	0.379 L/s					NR49	53dBA		

NOTES Guide NR values given are based on 1 off unit mounted 2.5m above a typical door within a typical space and measured at 3.0m horizontally from the unit discharge grille.

dBA figures given are calculated from the sound pressure levels measured at 3.0m horizontally from the unit discharge grille.

Unit Dimensions

Unit Length	Length including mounting brackets	Unit height	Height including ceiling mounting brackets	Unit depth	Depth including wall mounting brackets
1050mm	1140mm	334mm	347mm	203mm	246mm
1550mm	1640mm	334mm	347mm	203mm	246mm
2050mm	2140mm	334mm	347mm	203mm	246mm

Established in 1960,
Diffusion has over 50 years
experience in producing
environmental solutions
via the manufacture of heating,
air conditioning and
ventilating products.



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