

Features:

- Electric and LPHW versions.
- Compact and Versatile
- Suitable for mounting up to 3.0m high from finished floor level.
- Recessed or surface mounted.
- Energy saving controls option available.
- Available in electric and water versions.



Mirage over door heater

Application

The Diffusion Mirage over door heater is an ideal choice for banks, building societies, supermarkets, large retail outlets, and hospitals. 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 Mirage recessed over door heater has been designed, with its compact shape, to harmoniously integrate into the aesthetics of modern entrances. The unit is available in lengths of 1.0m, 1.2m, 1.5m, 1.8m and 2.0m, in either LPHW or electric versions. The Mirage 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.

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 (optional)

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 unit shall be fitted with a high output permanent split phase capacitor, continuously rated and complete with a built in thermal overload protection, complying with BS 2048 1961 part 1 and BS 5000. The fans 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). For ease of maintenance, the fan and motor sub-assembly shall be fitted with a quick release hinged mechanism, allowing easy removal.

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 & Inlet Grille

The grille shall be a vision proof (40°) linear type manufactured from extruded aluminium and shall be finished in RAL 9010 20% gloss as standard. The grille houses both the inlet and discharge air for the unit and is retained by quick release captive screws. The grille also provides easy access to the internal components of the unit for maintenance purposes.

Filter (LPHW version only)

The filter shall be constructed from a fine mesh, housed within a lightweight frame, which can be easily removed for cleaning and maintenance.

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, other finishes are available as options. The unit can be used in ambient mode, by using the fans only setting. All the switches for the above functions are fitted to a purpose-designed remote control plate, suitable for fitting onto a standard two gang, recessed or surface mount, electrical back box.

Standard LPHW version: Supplied with a remote control plate housing 4 speeds/off, finished in satin chrome as standard, other finishes are available as options. All the switches for the above functions are fitted to a purpose designed remote control plate, suitable for fitting onto a standard two gang, recessed or surface mount, electrical back box.

As an optional extra our energy saving control system offers state of the art design and with the use of PID control and air off sensing technology, the heat output can be infinitely varied automatically by either increasing or reducing the average electrical power to the heating elements on the electric version or increasing or reducing the water flow rate via a 3-port valve on

water version to maintain the preset air off temperature, whilst maintaining constant air velocity. The standard package is equipped with an off coil temperature sensor offering manual summer/winter settings for all year round control. Should closer control be required, adding the optional return air and outside air temperature sensors provides all year round fully automatic control, without the need for manual summer/winter switching. PIR sensors can be added to give automatic on/off control of the unit. The controller also offers fan run on facility, BMS input control and fault indication, time clock input, fan only operation and input for occupancy sensor/door switch control, and a LCD remote control plate housing 4 speeds & off, finished in brushed stainless steel.

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.

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).

Energy saving control packages (refer to controls section for details).

PIR Sensor to give automatic on/off control of the unit (Energy saving controls only).

Return air sensor: Mounted integral to the unit (Energy saving controls only).

Outside temperature sensor: Sensor to detect outside conditions (Energy saving controls only).

Mirage over door heater - Performance Details

Electric version

MODEL	SPEED	DUTY	AIR VOLUME	AIR ON	AIR OFF	ELECTRICAL SUPPLY	STARTING CURRENT	FULL LOAD CURRENT	UNIT WEIGHT	GUIDE NR	GUIDE dBA
1000E	HIGH	3/6 kW	340l/s	20 °C	34 °C	230-1-50	30.0A	27.0A	41 kg	NR56	59dBA
3/6 kW	LOW	3/6 kW	240l/s	20 °C	40 °C	230-1-50				NR47	50dBA

MODEL	SPEED	DUTY	AIR VOLUME	AIR ON	AIR OFF	ELECTRICAL SUPPLY	STARTING CURRENT	FULL LOAD CURRENT	UNIT WEIGHT	GUIDE NR	GUIDE dBA
1000E	HIGH	6/9 kW	350l/s	20 °C	41 °C	415-3-50	16.5A	13.5A	42 kg	NR57	60dBA
6/9 kW	LOW	6/9 kW	270l/s	20 °C	47 °C	415-3-50				NR50	53dBA

MODEL	SPEED	DUTY	AIR VOLUME	AIR ON	AIR OFF	ELECTRICAL SUPPLY	STARTING CURRENT	FULL LOAD CURRENT	UNIT WEIGHT	GUIDE NR	GUIDE dBA
1200E	HIGH	6/9 kW	450l/s	20 °C	36 °C	415-3-50	18.5A	14.0A	59 kg	NR55	58dBA
6/9 kW	LOW	6/9 kW	390l/s	20 °C	39 °C	415-3-50				NR52	55dBA

MODEL	SPEED	DUTY	AIR VOLUME	AIR ON	AIR OFF	ELECTRICAL SUPPLY	STARTING CURRENT	FULL LOAD CURRENT	UNIT WEIGHT	GUIDE NR	GUIDE dBA
1500E	HIGH	8/12 kW	500l/s	20 °C	40 °C	415-3-50	25.0A	19.0A	64 kg	NR56	60dBA
8/12 kW	LOW	8/12 kW	430l/s	20 °C	43 °C	415-3-50				NR53	57dBA

MODEL	SPEED	DUTY	AIR VOLUME	AIR ON	AIR OFF	ELECTRICAL SUPPLY	STARTING CURRENT	FULL LOAD CURRENT	UNIT WEIGHT	GUIDE NR	GUIDE dBA
1800E	HIGH	6/12 kW	600l/s	20 °C	36 °C	415-3-50	25.0A	19.0A	73 kg	NR56	59dBA
6/12 kW	LOW	6/12 kW	450l/s	20 °C	42 °C	415-3-50				NR50	53dBA

MODEL	SPEED	DUTY	AIR VOLUME	AIR ON	AIR OFF	ELECTRICAL SUPPLY	STARTING CURRENT	FULL LOAD CURRENT	UNIT WEIGHT	GUIDE NR	GUIDE dBA
1800E	HIGH	12/18 kW	670l/s	20 °C	42 °C	415-3-50	32.5A	27.0A	74 kg	NR56	59dBA
12/18 kW	LOW	12/18 kW	530l/s	20 °C	48 °C	415-3-50				NR50	53dBA

MODEL	SPEED	DUTY	AIR VOLUME	AIR ON	AIR OFF	ELECTRICAL SUPPLY	STARTING CURRENT	FULL LOAD CURRENT	UNIT WEIGHT	GUIDE NR	GUIDE dBA
2000E	HIGH	12/18 kW	730l/s	20 °C	40 °C	415-3-50	34.0A	28.0A	76 kg	NR59	62dBA
12/18 kW	LOW	12/18 kW	540l/s	20 °C	47 °C	415-3-50				NR52	55dBA

NOTES Guide NR values given are based on 1 off unit mounted 3.0m 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.



Standard electric remote control plate.
 Dimensions 146mm x 86mm.



Standard LPHW remote control plate.
 Dimensions 146mm x 86mm.

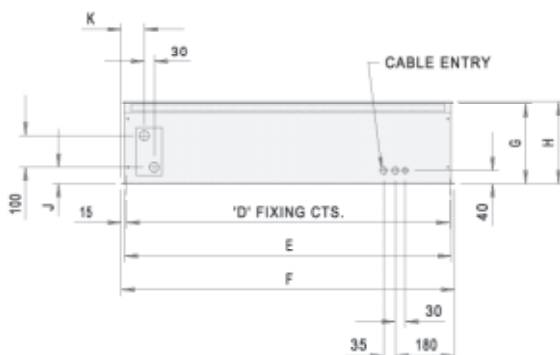
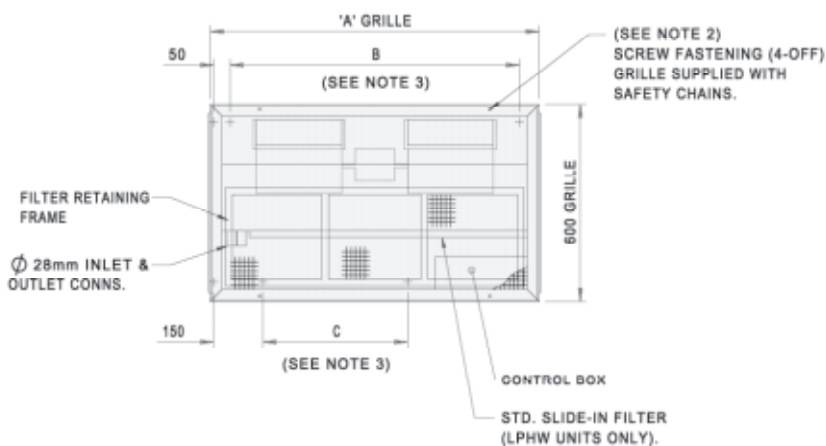
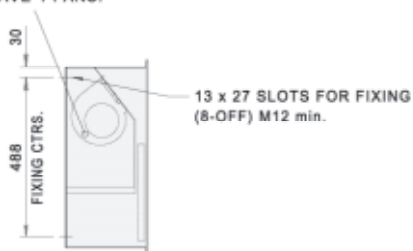
Mirage over door heater - Performance Details

LPHW version

MODEL	SPEED	DUTY	AIR VOLUME	AIR ON	AIR OFF	WATER FLOW TEMP.	WATER PRES. DROP	WATER FLOW RATE	ELEC SUPPLY	STARTING CURRENT	FULL LOAD CURRENT	UNIT WEIGHT	GUIDE NR	GUIDE dBA	PIPE SIZE
1000W Standard Capacity	BOOST	10.80 kW	340/s	20 °C	46 °C	82 °C	5.2 kpa	0.240/s	230-1.50	3.00A	1.00A	38 kg	NR56	59dBA	28mm O.D.
	HIGH	9.40 kW	270/s	20 °C	48 °C	82 °C	5.2 kpa	0.240/s	230-1.50				NR50	53dBA	
	MED	8.00 kW	210/s	20 °C	51 °C	82 °C	5.2 kpa	0.240/s	230-1.50				NR44	47dBA	
	LOW	6.00 kW	130/s	20 °C	57 °C	82 °C	5.2 kpa	0.240/s	230-1.50				NR31	35dBA	
1000W High Capacity	BOOST	17.00 kW	330/s	20 °C	62 °C	82 °C	8.6 kpa	0.356/s	230-1.50	3.00A	1.00A	40 kg	NR59	62dBA	28mm O.D.
	HIGH	14.70 kW	270/s	20 °C	64 °C	82 °C	8.6 kpa	0.356/s	230-1.50				NR56	59dBA	
	MED	12.25 kW	210/s	20 °C	67 °C	82 °C	8.6 kpa	0.356/s	230-1.50				NR50	53dBA	
	LOW	8.50 kW	130/s	20 °C	73 °C	82 °C	8.6 kpa	0.356/s	230-1.50				NR40	43dBA	
1200W Super Capacity	BOOST	23.10 kW	470/s	20 °C	61 °C	82 °C	20.2 kpa	0.51/s	230-1.50	4.05A	1.20A	58 kg	NR57	60dBA	28mm O.D.
	HIGH	22.00 kW	440/s	20 °C	62 °C	82 °C	20.2 kpa	0.51/s	230-1.50				NR55	59dBA	
	MED	20.60 kW	400/s	20 °C	63 °C	82 °C	20.2 kpa	0.51/s	230-1.50				NR54	57dBA	
	LOW	18.70 kW	350/s	20 °C	64 °C	82 °C	20.2 kpa	0.51/s	230-1.50				NR50	53dBA	
1500W Standard Capacity	BOOST	17.30 kW	540/s	20 °C	47 °C	82 °C	11.5 kpa	0.39/s	230-1.50	4.05A	1.30A	59 kg	NR55	59dBA	28mm O.D.
	HIGH	15.40 kW	450/s	20 °C	48 °C	82 °C	11.5 kpa	0.39/s	230-1.50				NR53	57dBA	
	MED	13.00 kW	350/s	20 °C	51 °C	82 °C	11.5 kpa	0.39/s	230-1.50				NR49	53dBA	
	LOW	10.60 kW	260/s	20 °C	54 °C	82 °C	11.5 kpa	0.39/s	230-1.50				NR41	46dBA	
1500W High Capacity	BOOST	24.00 kW	500/s	20 °C	59 °C	82 °C	14.6 kpa	0.520/s	230-1.50	4.05A	1.35A	61 kg	NR56	60dBA	28mm O.D.
	HIGH	22.00 kW	440/s	20 °C	60 °C	82 °C	14.6 kpa	0.520/s	230-1.50				NR54	58dBA	
	MED	18.25 kW	340/s	20 °C	63 °C	82 °C	14.6 kpa	0.520/s	230-1.50				NR52	56dBA	
	LOW	15.00 kW	260/s	20 °C	67 °C	82 °C	14.6 kpa	0.520/s	230-1.50				NR46	50dBA	
1500W Super Capacity	BOOST	30.10 kW	650/s	20 °C	58 °C	82 °C	28.0 kpa	0.670/s	230-1.50	5.10A	1.70A	63 kg	NR57	60dBA	28mm O.D.
	HIGH	27.50 kW	570/s	20 °C	60 °C	82 °C	28.0 kpa	0.670/s	230-1.50				NR55	59dBA	
	MED	23.10 kW	450/s	20 °C	62 °C	82 °C	28.0 kpa	0.670/s	230-1.50				NR53	57dBA	
	LOW	18.20 kW	330/s	20 °C	66 °C	82 °C	28.0 kpa	0.670/s	230-1.50				NR49	53dBA	
1800W Standard Capacity	BOOST	21.00 kW	650/s	20 °C	47 °C	82 °C	11.8 kpa	0.470/s	230-1.50	5.40A	1.70A	72 kg	NR60	63dBA	28mm O.D.
	HIGH	19.20 kW	570/s	20 °C	48 °C	82 °C	11.8 kpa	0.470/s	230-1.50				NR56	59dBA	
	MED	16.40 kW	450/s	20 °C	50 °C	82 °C	11.8 kpa	0.470/s	230-1.50				NR50	53dBA	
	LOW	12.30 kW	300/s	20 °C	53 °C	82 °C	11.8 kpa	0.470/s	230-1.50				NR37	41dBA	
1800W High Capacity	BOOST	30.70 kW	650/s	20 °C	58 °C	82 °C	13.5 kpa	0.682/s	230-1.50	5.40A	1.80A	74 kg	NR60	63dBA	28mm O.D.
	HIGH	28.00 kW	570/s	20 °C	60 °C	82 °C	13.5 kpa	0.682/s	230-1.50				NR56	59dBA	
	MED	23.70 kW	450/s	20 °C	63 °C	82 °C	13.5 kpa	0.682/s	230-1.50				NR50	53dBA	
	LOW	16.40 kW	270/s	20 °C	69 °C	82 °C	13.5 kpa	0.682/s	230-1.50				NR37	41dBA	
2000W Standard Capacity	BOOST	21.70 kW	750/s	20 °C	44 °C	82 °C	11.3 kpa	0.483/s	230-1.50	6.00A	2.00A	72 kg	NR59	62dBA	28mm O.D.
	HIGH	19.60 kW	635/s	20 °C	45 °C	82 °C	11.3 kpa	0.483/s	230-1.50				NR55	58dBA	
	MED	16.90 kW	500/s	20 °C	47 °C	82 °C	11.3 kpa	0.483/s	230-1.50				NR49	52dBA	
	LOW	11.60 kW	270/s	20 °C	55 °C	82 °C	11.3 kpa	0.483/s	230-1.50				NR33	37dBA	
2000W High Capacity	BOOST	34.00 kW	720/s	20 °C	58 °C	82 °C	15.3 kpa	0.700/s	230-1.50	6.00A	2.00A	74 kg	NR59	62dBA	28mm O.D.
	HIGH	30.25 kW	610/s	20 °C	60 °C	82 °C	15.3 kpa	0.700/s	230-1.50				NR55	58dBA	
	MED	25.15 kW	470/s	20 °C	63 °C	82 °C	15.3 kpa	0.700/s	230-1.50				NR49	52dBA	
	LOW	15.45 kW	240/s	20 °C	72 °C	82 °C	15.3 kpa	0.700/s	230-1.50				NR33	37dBA	

NOTES Guide NR values given are based on 1 off unit mounted 3.0m 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.

1200 & 1500 UNITS HAVE 3 FANS.
2000 UNITS HAVE 4 FANS.



STANDARD AND HI-CAPACITY UNITS

SIZE	DIMENSION									
	A	B	C	D	E	F	G	H	J	K
1000	1000	880	440	980	990	1010	243	255	50	70
1500	1500	1380	840	1480	1490	1510	243	255	50	70
1800	1800	1680	1240	1780	1790	1810	243	255	50	70
2000	2000	1880	1440	1980	1990	2010	243	255	50	70

SUPER CAPACITY UNITS

SIZE	DIMENSION									
	A	B	C	D	E	F	G	H	J	K
1200	1200	1080	640	1180	1190	1210	298	310	100	170
1500	1500	1380	840	1480	1490	1510	298	310	100	170

NOTES

1. SIZE 2000 UNITS HAVE 6 GRILLE FIXINGS
2. DIM'N. B & C ARE ALTERNATIVE FIXING CTS.

Established in 1960,
Diffusion has over 40 years
experience in producing
environmental solutions
via the manufacture of heating,
air conditioning and
ventilating products.



Diffusion Environmental Systems

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Diffusion Environmental Systems have a policy of continuous development. We therefore reserve the right to alter information contained in this leaflet, without prior notice.

