CI/SfB 56.83 X

AMBIRAD

ENERGY EFFICIENT HEATING SYSTEMS

UPA

Power vented
unit heaters

An Ambi-Rad Group company

Qualified for Energy Technology List
www.eca.gov.uk

Introduction

The new range of UPA unit heaters is designed for enhanced energy efficiency and simple low cost installation. The units achieve thermal efficiencies of 92% and are listed on the Government's Energy Technology List, end users purchasing listed equipment are eligible to claim 100% Enhanced Capital Allowances within the 1st year. The combination of reduced energy consumption and reduced installation costs allow the extra cost of higher efficiency units to be recovered within 12 months.

UPA units are ideally suited for a wide range of commercial and industrial applications such as garages, warehouses, workshops and production facilities.

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UPA benefits

Benefits

- High efficiency: lower running costs.
- Power vented flue: higher seasonal efficiencies.

Energy saving

- High thermal efficiency results in lower running costs.
- Power vented flue eliminates unnecessary heat loss via the flue.

Simple installation

- Power vented rear flue outlet permits use of simple wall terminal removing the requirement for roof penetrations.

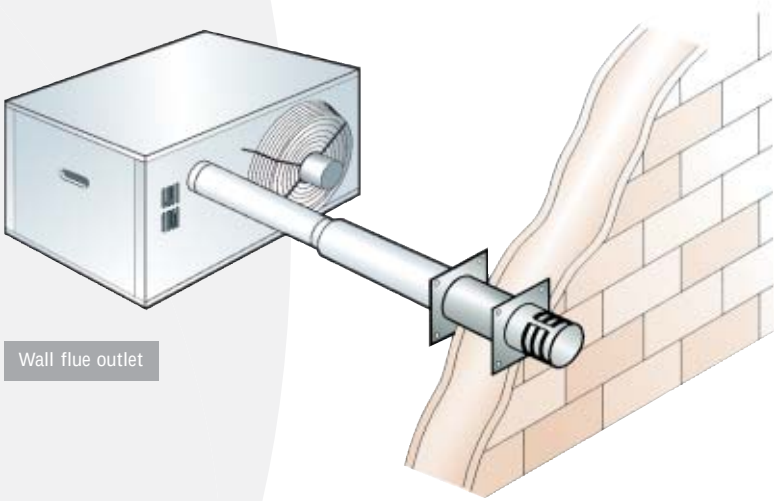
Features

- Power vented flue.
- Axial fan for free blowing applications.
- Aluminised steel heat exchanger.
- Suitable for natural gas (G20).
- Auto spark ignition system.
- High thermal efficiency 92% net CV.
- Horizontal louvres.

Options

- Vertical louvres.
- Downturn nozzles (30º and 60º).
- Suitable for propane gas.
- Air recirculation thermostat.
- Wall mounting brackets.

Roof flue outlet



Wall flue outlet

Specification

Heat exchanger

The heat exchanger provides optimum efficiency with low NOx and carbon emissions.

Heat exchanger elements are designed to provide a large surface area to maximise efficiency and eliminate localised hot spots. The elimination of welded joints considerably reduces thermal and mechanical stress enhancing heat exchanger life expectancy.

Air distribution

A direct drive axial flow fan is fitted to all units for air distribution. An optional 'economy thermostat' may be fitted to heaters installed at high level to recirculate warm air down to working level during periods when the burners are switched off.

Downturn nozzles are available to deflect the airflow and are recommended for units fitted at higher mounting heights.

Horizontal discharge louvres are fitted as standard. Additional vertical louvres may be fitted as an option.

The fan operation is controlled by an integral fan thermostat which delays fan start up until the heat exchanger has reached operating temperature and continues to run the fan after the burner has switched off until all the useful heat has been dissipated.

Safety

To ensure safe automatic operation, ignition is controlled and monitored from an electronic sequence controller and multi-functional gas safety valve. A differential pressure switch shuts off the burners if either the flue or combustion air supply are obstructed or the flue exhaust fan fails. A limit thermostat protects the unit from overheating and a second higher limit thermostat is fitted to provide dual safety control.

Controls

Remote control panels are available to simplify on site wiring and provide optimum fuel economy. The panels are complete with digital time control, day and night temperature settings, a remote lockout reset facility and a 'fan only' switch to provide summer air movement.

Installation

Heaters must be installed in accordance with BS 6230, paying particular attention to the requirements for combustion air.

Installation must be carried by a suitably qualified installer.

Units may be suspended or base mounted on a suitable non-combustible support. Four integral suspension points with M10 female threads are provided on each heater. Maximum flue length is 14 metres, (deduct 1.5m for each 90º bend).

Flue systems complete with integral sealing rings are available to match the heaters. These are available for either roof or wall outlet and are ordered separately from the heater.

Units must not be installed in areas classified as hazardous or where halogenated hydrocarbons or chlorinated vapours are present.

Electrical

A permanent single phase supply is required to each unit, to ensure correct fan operation this supply should not be switched off except for maintenance.

Units must be wired in accordance with the wiring diagrams provided and current electrical standards.

Technical data

Model		UPA30	UPA40	UPA50	UPA60	UPA70	UPA90
Nominal heat output	kW	27	40	49	57	69	91
Airflow	m^3/h	2385	3885	4535	5540	6810	8825
Temperature rise	ºC	33	30	32	30	29	30
Throw[3]	m	20	25	28	30	33	36
Maximum flue length[1]	m	14	14	14	14	14	14
Gas consumption*							
Natural gas G20	m^3/h	3.12	4.60	5.69	6.50	7.83	10.48
Propane G31	kg/h	2.30	3.39	4.20	4.79	5.77	7.72
Gas connection[2]	Rc	1/2	3/4	3/4	3/4	3/4	3/4
Flue diameter	mm	100	100	100	130	130	130
Fan motor rating	kW	0.12	0.18	0.34	0.34	0.53	0.69
Total electrical rating	kW	0.273	0.333	0.490	0.490	0.677	0.848
Sound pressure level @ 5m							
Free field	dB(A)	43	45	49	52	49	53
Typical installation	dB(A)	50	52	56	59	56	60
Suggested mounting height[4]	m	3.5	3.5	3.5	3.5	4.0	4.0
Approximate weight	kg	56	93	104	114	123	163

[1] Deduct 1.5m for each 90º bend.

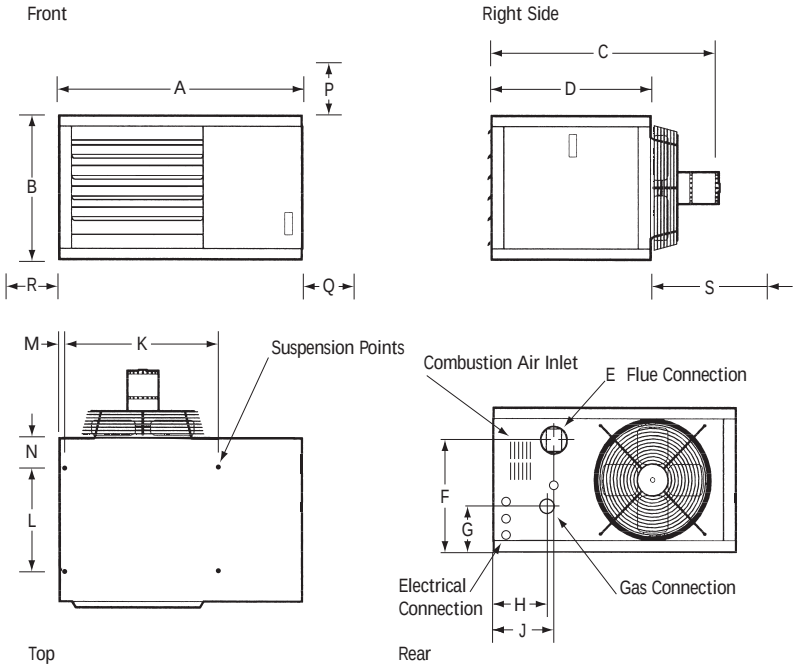
[2] Not supply line size.

[3] Throw depends on height of building, mounting height of heater, room temperature and louvre settings.

[4] To underside of heater.

* Natural gas G20 minimum inlet pressure 17.5 mbar, maximum inlet pressure 50 mbar. Propane G31 minimum inlet pressure 37 mbar, maximum inlet pressure 50 mbar.

Dimensions



Model	UPA30	UPA40	UPA50	UPA60	UPA70	UPA90
A Width	702	975	975	975	975	1045
B Height	588	512	512	665	665	868
C Overall length	774	1132	1152	1141	1141	1141
D Cabinet length	549	900	900	900	900	900
E Flue outlet diameter	100	100	100	130	130	130
F Base to flue outlet	368	372	372	355	355	564
G Base to gas inlet	222	126	126	145	145	300
H Side to gas inlet	124	166	166	166	166	187
J Side to flue outlet	193	195	195	207	207	213
K Suspension centres	413	622	622	622	622	672
L Suspension centres	350	600	600	600	600	600
M Side to suspension point	17	37	37	37	37	37
N Back to suspension point	98	150	150	150	150	150
P Top clearance	50	100	100	100	100	100
Q Access side clearance	850	850	850	850	850	850
R Side clearance	50	100	100	100	100	100
S Rear clearance	450	450	450	450	450	450

All dimensions are in millimetres.

The complete warm air range

- Tcore – third generation technically advanced room sealed unit heaters that deliver the highest levels of energy efficiency and performance.
- EnviroAir unit heaters – for applications that require a centrifugal fan for increased airflow duty. Units may be either room sealed complete with a fan assisted flue or conventionally flued. All room sealed unit heaters provide high seasonal efficiencies and reduced running costs compared to conventional open flued units.
- Oil fired unit heaters – for applications where a natural gas supply may not be present.
- Centurion freestanding gas and oil fired cabinet heaters.
- UCA – low cost conventionally flued heaters.

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Designed and produced by Dennis Fairey & Associates Limited www.dfadesign.com

Document reference number GB/WA/046/1103