CLASSAIRE AIR HANDLING UNITS

THE IDEAL SOLUTION FOR SCHOOL CLASSROOM VENTILATION AND HEATING WHILST MINIMISING ENERGY USE.

BENEFITS

QUIETEST SOLUTION
High performance unit with very low noise levels provide one of the quietest systems for classroom applications.

GUARANTEED LOW COST VENTILATION & HEATING
Fresh air is supplied into the room when damper is open an LPHW coil heats existing air within the room and re-circulates it.

LOW PROFILE
Classaire is installed horizontally in ceiling voids and is ideal for applications where space is of a premium. Full width access panel provides easy access to G3 filters (contact Nuaire for other grade filters).

PEACE OF MIND
Classaire is designed to meet therequirements of both BB101 & 93 and ensures that CO_2 levels & energy usage is kept to a minimum.

ENERGY EFFICIENT
Latest EC motor technology provides high performance with lower power consumption than other units.

FLEXIBLE CONTROLS
Classaire has a simple built in control signal, but can also be fully integrated into a specific BMS system.

MATCHING ANCILLARIES
Grilles, louvres and attenuation solutions are available from Nuaire.

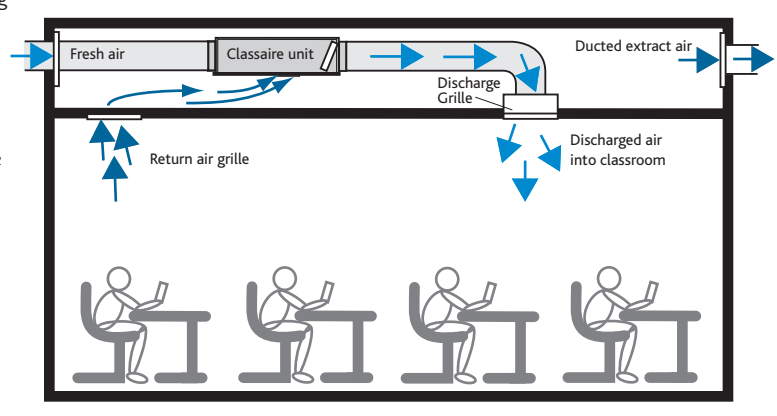
WARRANTY
Models have a 2 year warranty.

FEATURES INCLUDE:

The Classaire ventilation unit is mounted within a ceiling void above a classroom. Fresh air is ducted from outside directly to the unit and into the classroom. A heating coil is provided to raise the incoming air temperature to the required room temperature.

In order to reduce energy consumption and assist in pre-heating the room a damper arrangement is provided in the base of the unit that will re-circulate tempered air from the classroom into the system.

When the classroom is occupied and when dictated by the CO_2 sensors the dampers revert to full fresh air mode.
This operation can also be programmed to 'top up' the heat in the classroom during periods when it is unoccupied and can be used intermittently during periods of occupation but should be overridden by the CO_2 sensor to ensure that fresh air requirements are maintained.
The operation of the unit shall generally be in accordance with BB93 and BB101.



PERFORMANCE - CLASSAIRE

SUMMARY OF SOUND POWER LEVELS

Air Volume Flowrate @ 20 Pa (l/s)		Sound power levels 63	125	250	Freq/Hz 500	1K	2K	4K	8K	Free field dBA@3m
Inlet, outlet and casing radiated										
	150	43	45	50	51	47	41	33	27	34
	200	44	48	52	54	50	45	37	29	37
	246	46	50	56	56	52	47	41	35	39
	300	48	52	56	58	55	50	44	37	42
Inlet	150	43	44	45	47	39	34	31	34	29
	200	43	46	47	49	42	38	33	34	31
	246	45	48	50	52	44	41	36	34	34
	300	46	50	50	54	47	43	39	34	36
Outlet	150	43	45	48	47	45	40	32	34	31
	200	45	47	50	50	48	44	36	34	34
	246	46	49	54	52	51	46	39	34	37
	300	48	51	53	54	53	49	43	36	40

TYPICAL DUTY POINTS

Supply Voltage (V)	Supply Current (A)	Power Consumed (Watts)	Fan air Flowrate (l/s)	Static Press (Pa)	SFP (Watts/l/s)
230	0.21	24.7	150	20	0.16
230	0.30	40.8	200	20	0.20
230	0.37	50.7	246	20	0.21
230	0.48	66.8	300	20	0.22

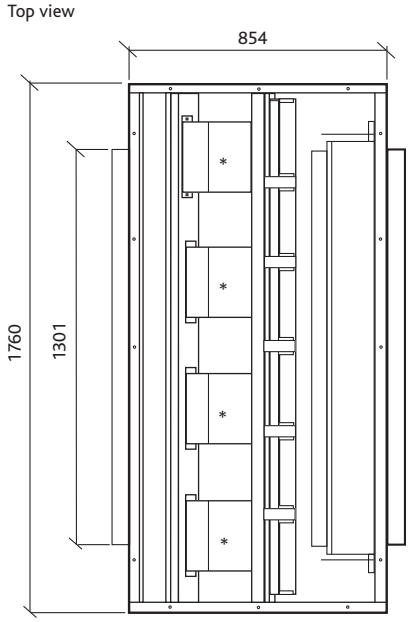
Casing

Code

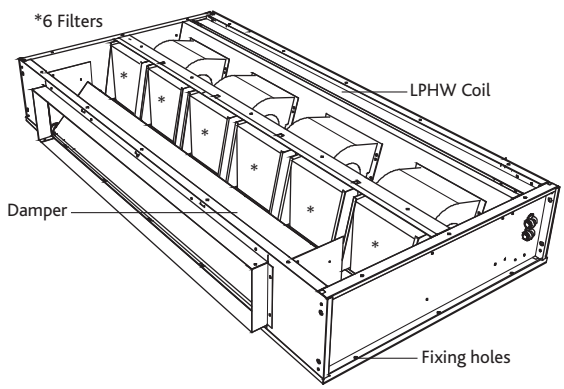
CLASSAIRE

DIMENSIONS (mm)

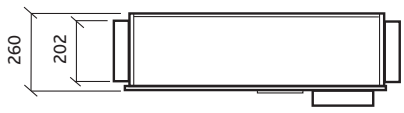
Top view



Top view

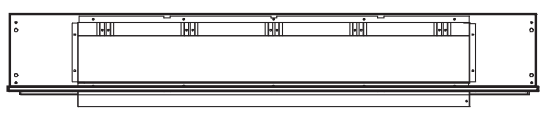


End view



Inlet at back or bottom

Side view



Unit weight 90 Kg

CONSULTANTS SPECIFICATION

CLASSAIRE

OPERATION

The Classaire ventilation unit is mounted within a ceiling void above a classroom. Fresh air is ducted from outside directly to the unit and into the classroom. A heating coil is provided to raise the incoming air temperature to the required room temperature.

In order to reduce energy consumption and assist in pre-heating the room a damper arrangement is provided in the base of the unit that will re-circulate tempered air from the classroom into the system.

When the classroom is occupied and when dictated by the CO_2 sensors the dampers revert to full fresh air mode.

This operation can also be programmed to 'top up' the heat in the classroom during periods when it is unoccupied and can be used intermittently during periods of occupation but should be overridden by the CO_2 sensor to ensure that fresh air requirements are maintained.

The operation of the unit shall generally be in accordance with BB93 and BB101.

The unit shall be Classaire as manufactured by Nuaire.

CLASSAIRE - UNIT SPECIFICATION

The unit is rectangular in section and have rectangular, flanged connections at the inlet and outlet ends and at the lower face for a recirculation connection.

The unit shall be manufactured from self finish galvanised steel.

The units shall not have a depth greater than 260mm.

The ventilation unit, shall all be manufactured utilising the latest specialist acoustic treatment to ensure that the noise impact on the classroom occupants is minimal and shall be in accordance with the specification and government guidelines. The entire assembly shall be mounted in accordance with the manufacturers installation & maintenance recommendation.

The unit shall have low energy, high efficiency EC fan/motor assemblies with sealed for life bearings with an anticipated working life of 70,000hours (L10).

The Classaire unit shall comprise the following:-
A two position damper, a set of panel filters, 4 fan modules (operating simultaneously) and a LPHW coil.

Access to the unit is achieved via full size panels at the lower face of the unit to the filter section, which allows for regular maintenance.

The removable panels shall provide access to the following:-

- EC fan module.
- Filters.
- LPHW coil.
- Damper actuator.

The unit shall be the Classaire as manufactured by Nuaire.

CONTROL

Unit control is by others, unless otherwise specified by Nuaire.