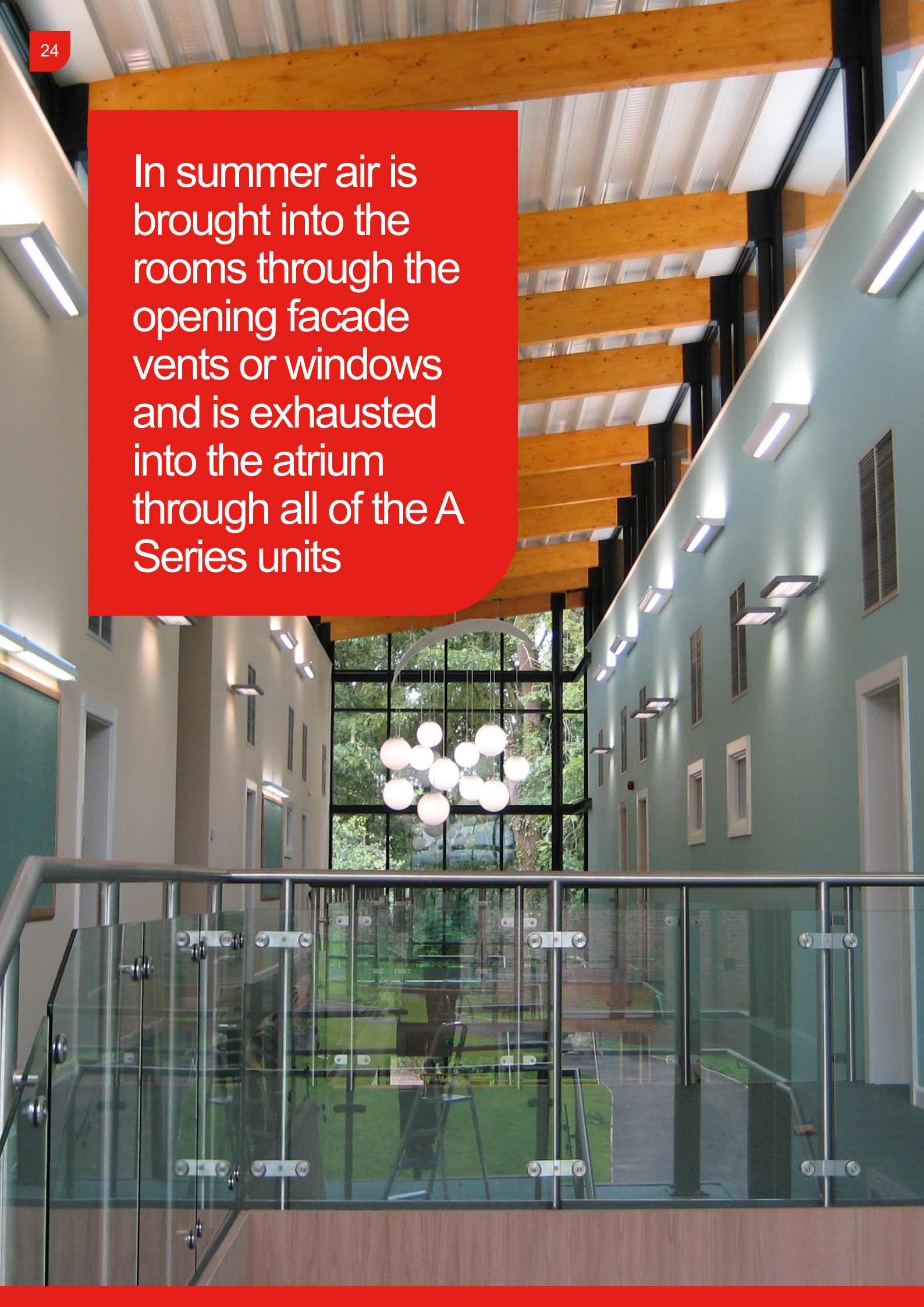


In summer air is brought into the rooms through the opening facade vents or windows and is exhausted into the atrium through all of the A Series units



# A Series

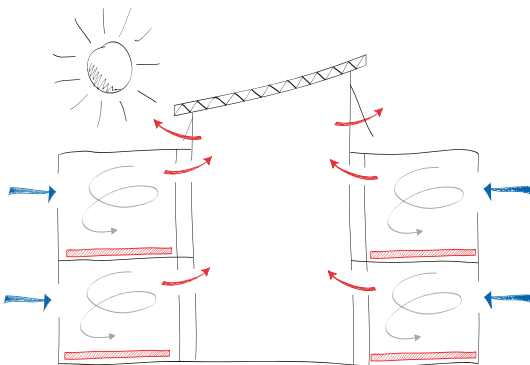
The A Series is designed for a standard school room or office where a corridor or atrium is used and which provides access to the exterior at high level. It is particularly helpful in multi-storey buildings where it is not feasible to create dedicated shafts through upper level rooms to provide air pathways to lower floors from the roof

## Air Flow Strategies

### Summer Mode

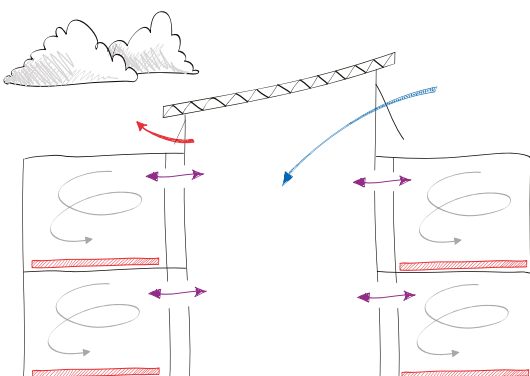
When it is warm outside the system operates in upflow displacement mode, using the stack effect to achieve high air flow rates and keep the room at a pleasant temperature.

Fan boost and night cooling modes offer greater thermal comfort in exceptional summer conditions.



### Winter Mode

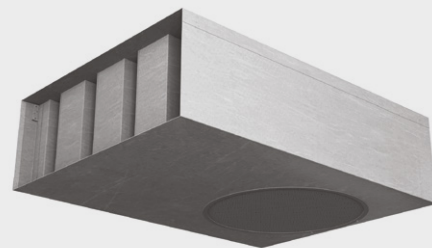
When the outside temperature becomes too low to bring directly onto the occupants the A Series units operate in exchange mode. The building ventilates naturally by exchanging air naturally between the atrium and exterior. The occupied rooms exchange flow using low energy fans within the A Series units, preventing the need for wasteful preheating of fresh air.



## Product Information

### Features

- Low energy mixing fans to mitigate against cold draughts in winter
- Summer exhaust boost mode
- Acoustic attenuator to provide acoustic separation of atrium and occupied rooms
- Night cooling
- Internal temperature sensor with integrated CO<sub>2</sub> sensor
- External temperature sensor
- Networked, integral controllers report to central Atlas Control panel to respond to local conditions
- Traffic light indicator panel for window opening
- Ready fitted mounting brackets
- Key switch for automatic operation; long term off; test

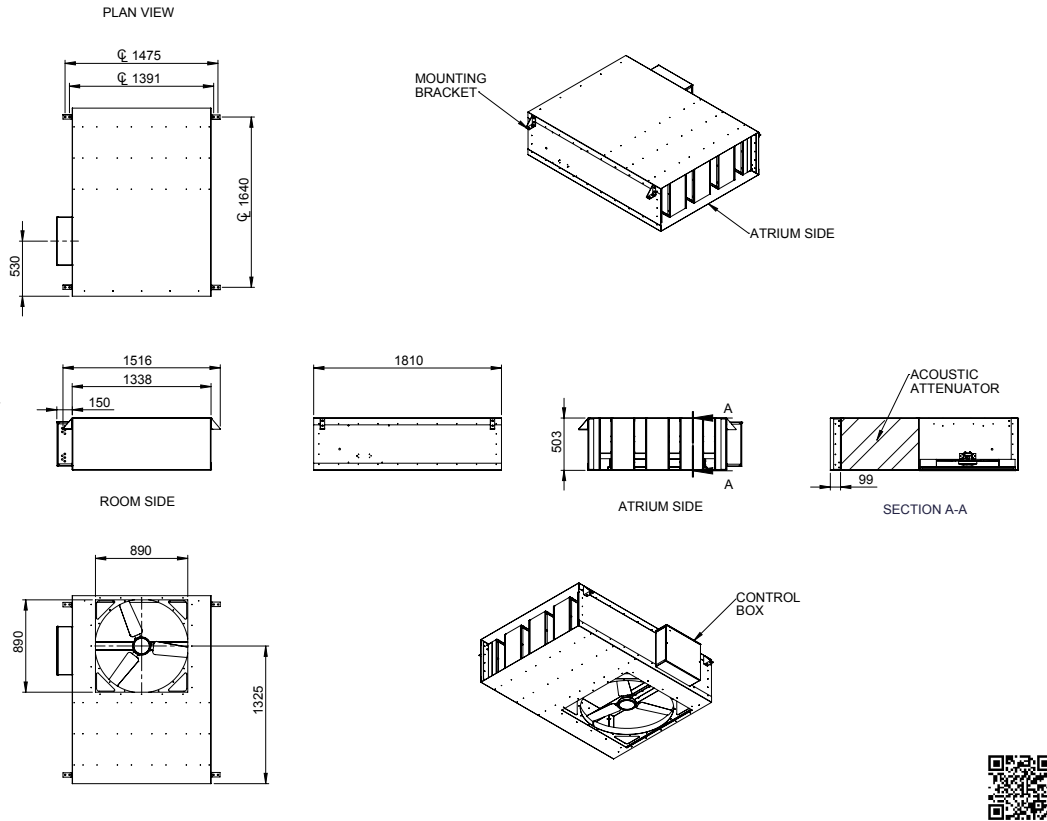


### Options

- A500 to fit ceiling void
- Penthouse louvre or mushroom terminal in atrium
- Actuated windows or dampers in atrium
- Noise attenuation for noisy sites
- Patented heating control strategy ensures minimum energy use
- Control signal for automated actuation of low level windows or dampers
- Modbus link for integration into wider Building Management Systems (BMS)
- Eggcrate grilles
- Different attenuation levels to suit project requirements

## A Series continued

## A500 Dimensioned Drawing

**Dimensions**

H	503 mm
D	1,338 mm
W	1,810 mm
Weight	174 kg
Physical area	0.22 m <sup>2</sup>
Effective Area (A*)	0.15 m <sup>2</sup>

**Electrical**

Power Rating	0.1 kW
Voltage	230V AC (+/- 10%)
Full load current	0.5A
Short Circuit Rating	N/A - Control only
Earth Leakage	<3.5 mA

[www.breathingbuildings.com/downloads](http://www.breathingbuildings.com/downloads)

**Acoustic Performance**

Frequency Band (Hz)	Sound Power (dB)								Overall dB (A)	Ambient dB (A) <sup>#</sup>
	63	125	250	500	1k	2k	4k	8k		
Winter Slow	45	43	38	34	31	21	18*	24*	36.2	32.5
Winter Fast	46	45	39	36	34	24	18*	24*	38.3	33.4
Summer Boost	46	45	39	36	34	24	18*	24*	38.3	33.4

\* denotes results at background

# Ambient sound pressure in typical classroom for BB93

**Crosstalk Attenuation**

Frequency Band (Hz)	250	500	1k	2k	4k	8k	Rating D <sub>n,e,w</sub> (C;Ctr)
							dB (A)
Winter Slow	38	36	43	49	43	38	45 (-3;-8) dB

# Installation

The A Series comes with fixing brackets.

The E-Stack unit can be hung from 4 no. pieces of M10 (drop-rods).



Example installation prior to construction of bulkhead

# System Schematic and Wiring

