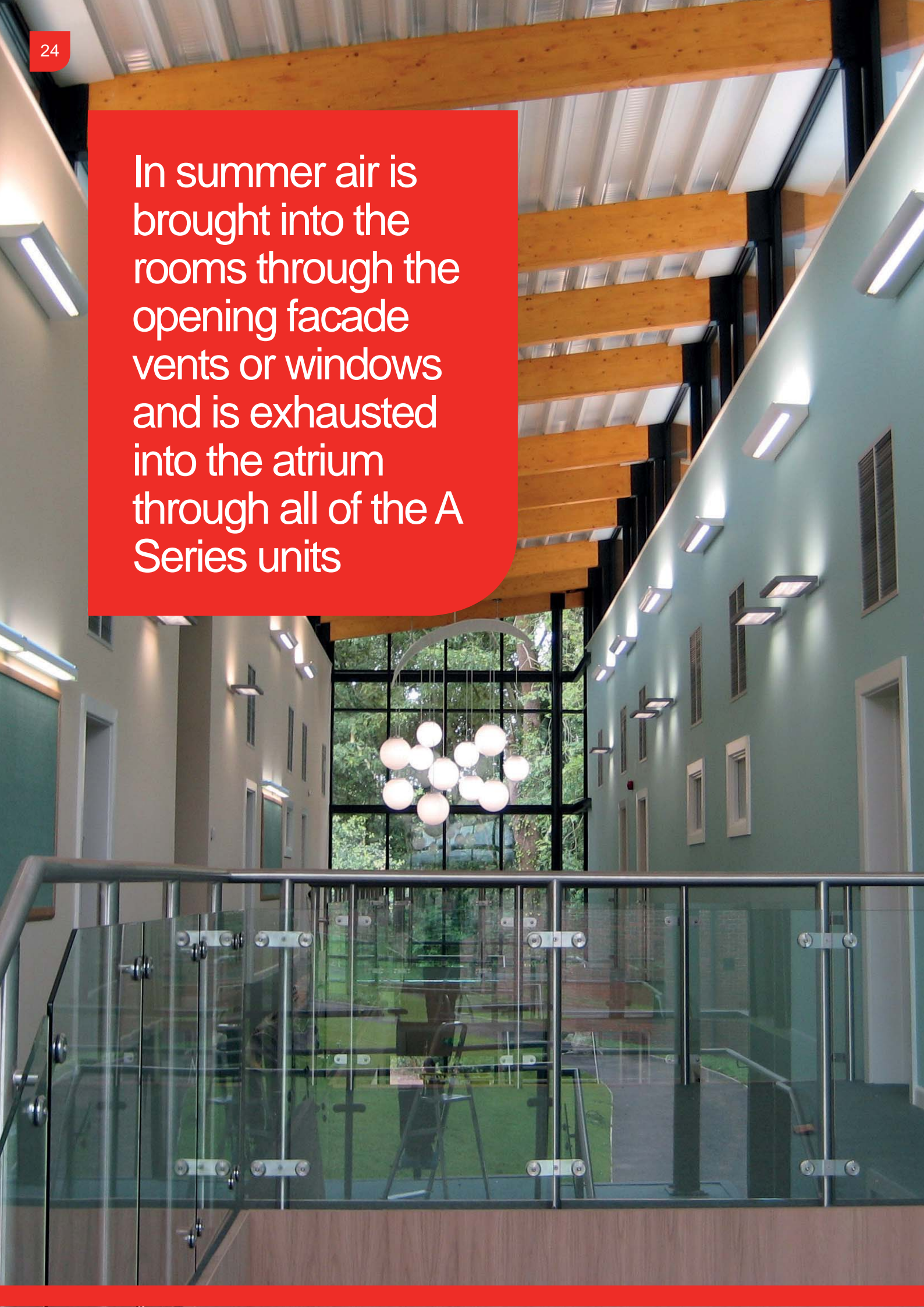


In summer air is brought into the rooms through the opening facade vents or windows and is exhausted into the atrium through all of the A Series units



A Series

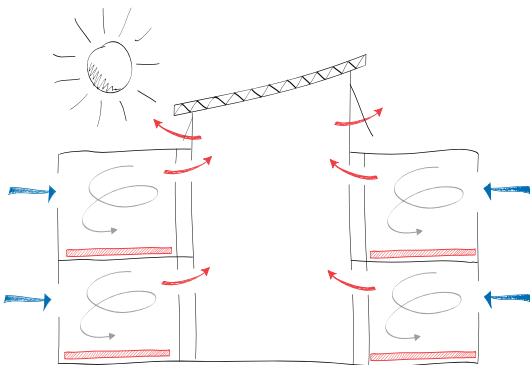
The A Series is designed for a standard school room or office where a corridor or atrium is used and which provides access to the exterior at high level. It is particularly helpful in multi-storey buildings where it is not feasible to create dedicated shafts through upper level rooms to provide air pathways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

Air Flow Strategies

Summer Mode

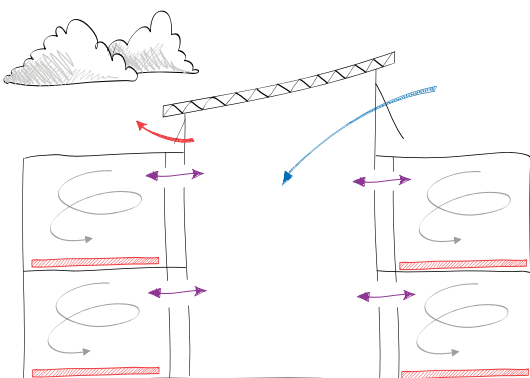
When it is warm outside the system operates in upflow displacement mode, using the stack effect to achieve high air flow rates and keep the room at a pleasant temperature.

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



Winter Mode

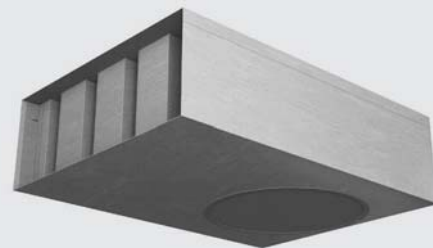
When the outside temperature becomes too low to bring directly onto the occupants the A Series units operate in exchange mode. The building ventilates naturally by exchanging air naturally between the atrium and exterior. The occupied rooms exchange flow using low energy fans within the A Series units, 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 CO₂ 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

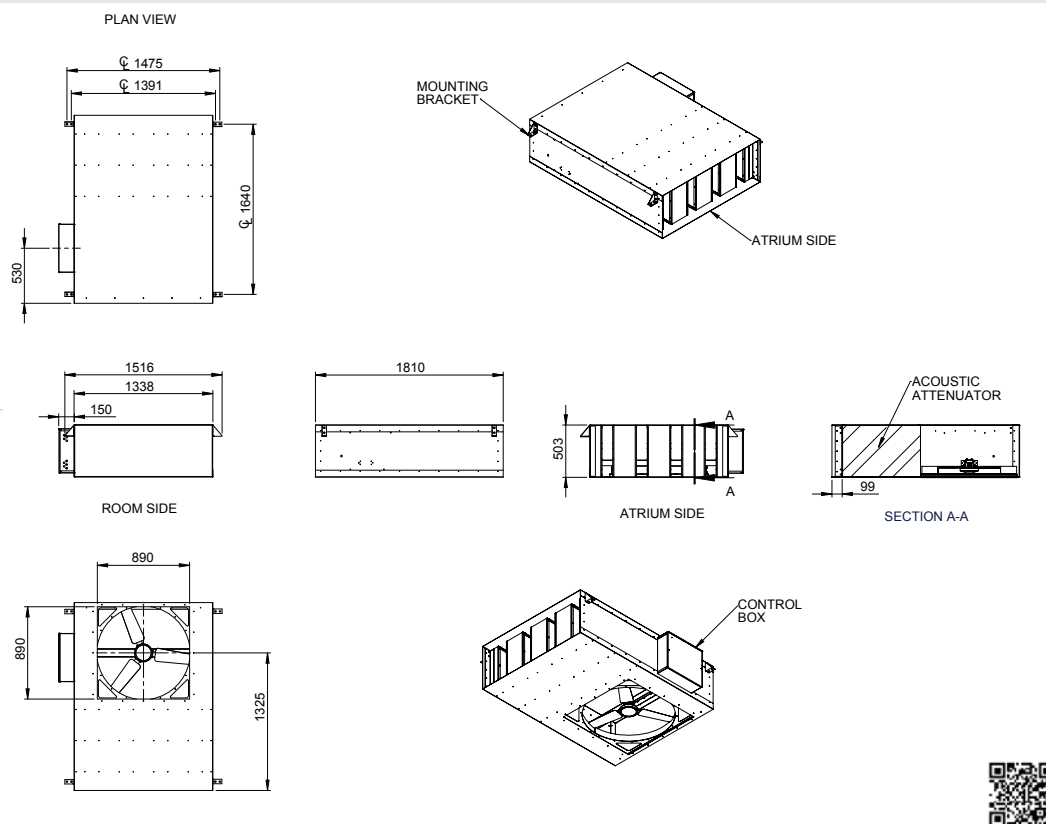


Options

- A400 or 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 ²
Effective Area (A*)	0.15 m ²

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	

Acoustic Performance

Frequency Band (Hz)	Sound Power (dB)								Overall dB (A)	Ambient dB (A) [#]
	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

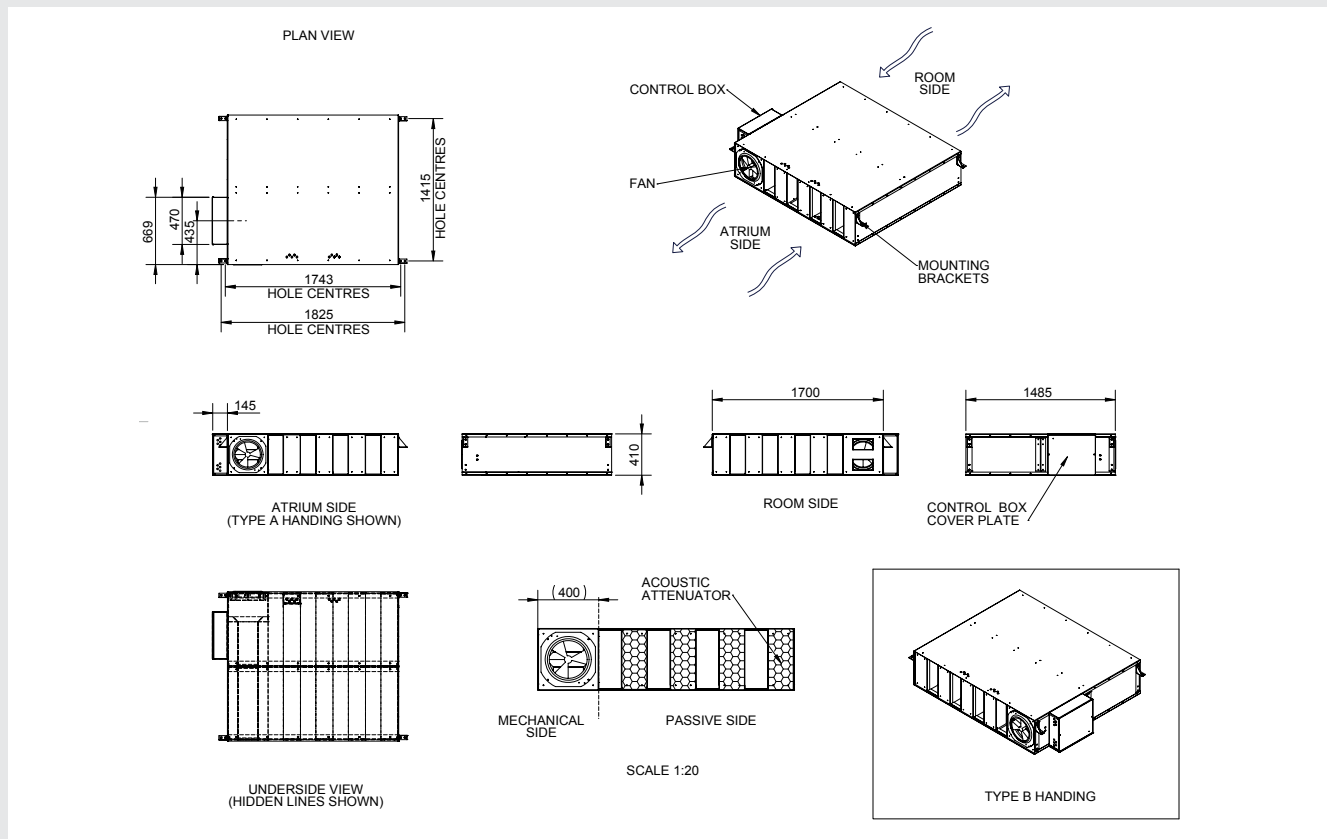
* denotes results at background

Ambient sound pressure in typical classroom for BB93

Crosstalk Attenuation

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

A400 Dimensioned Drawing



Dimensions

H	410 mm
D	1,500 mm
W	1,700 mm
Weight	180 Kg
Physical area	0.23 m ²
Effective Area (A*)	0.16 m ²

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	

Acoustic Performance

Frequency Band (Hz)	Sound Power (dB)								Overall dB (A)	Ambient dB (A) [#]
	63	125	250	500	1k	2k	4k	8k		
Winter Slow	49	43	27	19	15	14	18*	24*	30.0	30.9
Winter Fast	58	47	33	19	15	14	18*	24*	35.3	32.6
Summer Boost	58	47	33	19	15	14	18*	24*	35.3	32.6

* denotes results at background

Ambient sound pressure in typical classroom for BB93

Crosstalk Attenuation

Frequency Band (Hz)	Rating D _{n,e,w} (C;Ctr)							Rating D _{n,e,w} (C;Ctr) dB (A)
	250	250	500	1k	2k	4k	8k	
Winter Slow	24	32	49	61	51	40	35	44 (-2;-7) dB

A Series continued

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

