

## Acoustic Enclosure Systems for Air Conditioning and Refrigeration Plant

### **environlite** 1.2.25AC SPLIT

Versatile yet cost effective noise control solutions for small and medium sized Split Air Conditioning and Heat Pump systems that have horizontal air flow characteristics.

This attractive range of units combines superior noise reduction characteristics and application versatility with a user friendly design for ease of assembly.



#### An introduction:

environ**lite** is not only physically compact and discrete; its flexibility allows for a wide range of AC applications and is particularly suited to 'difficult to access' locations. Available as a new build or retro-fit solution, environ**lite** is supplied to the user palletised as a simple on-site self build kit.

All Environ products are a proven solution for the elimination of noise where commercial establishments coexist with domestic neighbours and environ**lite** is especially suited to the ever growing domestic AC market.

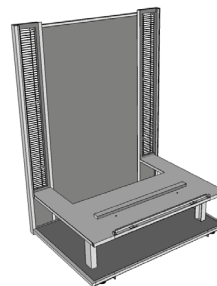
By design, environ**lite** applies its patented noise control features to best advantage, ensuring maximum acoustic performance.

With advanced noise control technology underpinned by quality engineering and manufacturing standards, environ**lite** solutions help alleviate local authority approval issues, whilst eliminating the air conditioning noise problem for the user.

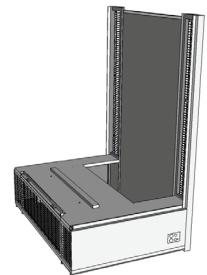
With almost infinite plant application compatibility and deriving its name from its design, environ**lite** is matched to provide unparalleled acoustic performance to light commercial and domestic AC applications. The range is available in a variety of sizes, allowing it to be tailored to meet specific applications for new build or retro-fit noise abatement.

The integrated airways are sized to suit the requirements of the enclosed plant and full service and maintenance access is provided by the provision of removable and hinged access panels.

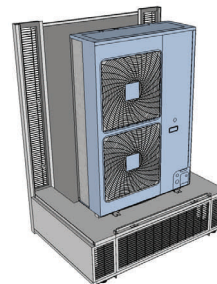
environ**lite** is secure and gives greater flexibility regarding the positioning of plant and machinery, especially where space is at a premium. Being 'Visually Quiet', no moving parts are visible - so the enclosed plant remains out of sight and out of mind.....



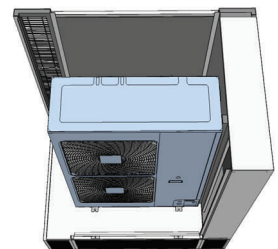
STEPS 1-4 - Structure



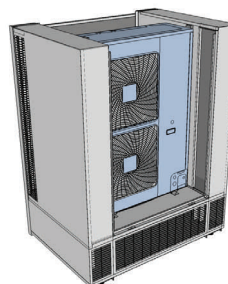
STEPS 5-6 - Air In Grilles



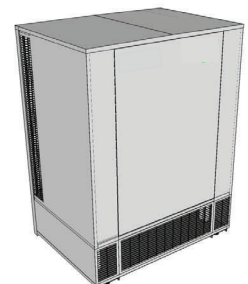
STEP 7 - Locate AC unit



STEP 8 - Fit RH Airway



STEP 9 - Fit LH Airway

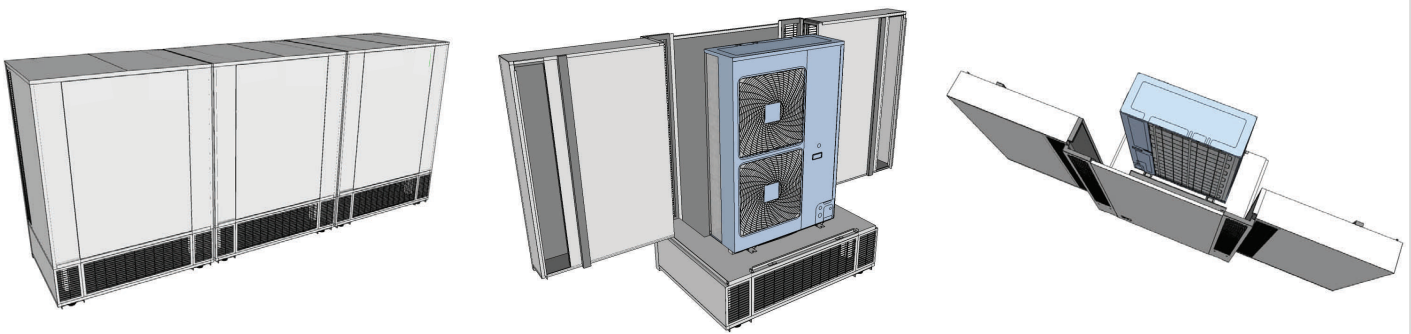


STEPS 11-12 - Complete Assembly

## **environ**lite 1.2.25AC SPLIT

### Product features at a glance:

- Superior sound engineering characteristics with certified Transmission Loss performance
- Satisfies the most stringent local authority noise requirements as part of the planning or noise enforcement process
- Effective noise control solution for Air Conditioning plant with horizontal air flow requirements
- Optimised airways and grilles maximise airflow efficiencies
- Full enclosure design protects plant from the elements, virtually eliminates the effect of solar gain on the operating plant and reduces the need for condenser coil cleaning
- Ultra small footprint, quality build, strong and durable design
- A visually quiet, 'good neighbour' with a choice of external finishes to allow plant to blend into the surroundings



### User Benefits:

- Effectively eliminates plant noise on New Build a Retro-fit projects
- Local authority endorsed 'Best Practical Means' solution for large Air Conditioning and Heat Pump units
- No noise nuisance enhances neighbour relations
- Secure, robust and vandal proof—no additional security required
- Reduces installation time and cost compared to other acoustic solutions

### Installer Benefits:

- Supplied as a 'Flat Pack' accessory for on-site assembly
- Quick and Easy to assemble - No specialised tools necessary
- Modular sub-assemblies for ease of installation
- Floor or Wall Mount
- Integrated Services and Electrical access points.
- Commissioning, Service and Maintenance access through lockable access panels
- Noise attenuation under installation contractor control

*The Environ Integra, Modula and Lite acoustic designs are protected under patent*

DISTRIBUTED BY:

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## environ**lite** Technical Information (May 2006)

DYNAMIC ACOUSTIC TECHNOLOGY

### Noise Measurement Information:

Test: Environ Lite Acoustic Enclosure—1470mm W x 1045mm D x 1755mm H

### Test Standard:

ISO 717/1 Acoustics - Rating of Sound Insulation in Buildings and of Building Elements - Part 1: Airborne Sound Insulation

### Sound Level Measuring Equipment:

CEL 593 C1R Precision Sound Analyser - Type 1  
CEL 284/2 Acoustic Calibrator Type 1  
JBL Loudspeaker driven by CEL White Noise Source

### Transmission Loss Data:

Transmission Loss—Environ Lite							
Octave Frequency in Hertz (dB ref $2 \times 10^{-5}$ Pascal's)							
63	125	250	500	1K	2K	4K	8K
12	13	20	29	36	37	39	39
Summary							
Transmission Loss Equates to an Overall Reduction of 25 dB(A)							

### Support Information:

Monitoring was carried out using the BS3740 technique, insofar as measurements were taken in each quadrant and the results averaged. Internal Test Room: 6m W x 12m L x 4m H. Background noise in the semi-reverberant test room was such as not to interfere with the practical measurements

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## environmodula 1.2.25AC Technical Information (May 2006)

DYNAMIC ACOUSTIC TECHNOLOGY

### Noise Measurement Information:

Test: Environ Modula Acoustic Enclosure—1470mm W x 1045mm D x 1755mm H

### Test Standard:

ISO 717/1 Acoustics - Rating of Sound Insulation in Buildings and of Building Elements - Part 1: Airborne Sound Insulation

### Sound Level Measuring Equipment:

CEL 593 C1R Precision Sound Analyser - Type 1  
CEL 284/2 Acoustic Calibrator Type 1  
JBL Loudspeaker driven by CEL White Noise Source

### Transmission Loss Data:

Transmission Loss—Environ Modula 1.2.25AC							
Octave Frequency in Hertz (dB ref $2 \times 10^{-5}$ Pascal's)							
63	125	250	500	1K	2K	4K	8K
12	13	20	29	36	37	39	39
Summary							
Transmission Loss Equates to an Overall Reduction of 25 dB(A)							

### Support Information:

Monitoring was carried out using the BS3740 technique, insofar as measurements were taken in each quadrant and the results averaged. Internal Test Room: 6m W x 12m L x 4m H. Background noise in the semi-reverberant test room was such as not to interfere with the practical measurements

SELECTION MATRIX

## environlite ELV1.1.25ACLN SERIES 4

Acoustic enclosures for Small packaged units with Low to Medium Air Flow

(Use 'Tab' Key to Navigate)

24 November 2009

CUSTOMER:	SITE / LOCATION / REFERENCE
Blackstone Inc Ltd	Neal Street Project

### ORIGINAL EQUIPMENT MANUFACTURERS PUBLISHED DATA

MAKE, MODEL, DIMENSIONS, AIRFLOW ORIENTATION & SOUND PRESSURE LEVEL @1.0M FREE

MAKE:		MODEL:		AIR IN	AIR OUT	
Mitsubishi Electric		PUHZ-RP71VHA4		Rear & 1 Side	Front H	
WIDTH (MM)	DEPTH (MM)	HEIGHT (MM)		AIRFLOW (M³S⁻¹)	DISTANCE (M)	SPL dB(A)
930	380	948		0.92	1	48

INNER CUBE DIMENSIONS		
1050	425	1025
WIDTH (MM)	DEPTH (MM)	HEIGHT (MM)
0.92	1.0	48
AIRFLOW (M <sup>3</sup> S <sup>-1</sup> )	DISTANCE (M)	SPL dB(A)

INLET AIRWAYS		
250	1025	1
WIDTH (MM)	HEIGHT (MM)	NO.

OUTLET AIRWAYS		
1025	250	1
HEIGHT (MM)	WIDTH (MM)	NO.

ENCLOSURE DETAIL		
1650	1000	1075
WIDTH (MM)	DEPTH (MM)	HEIGHT (MM)
0.92	1.0	23
AIRFLOW (M <sup>3</sup> S <sup>-1</sup> )	DISTANCE (M)	SPL dB(A)

DESIGN CRITERIA		
OK	OK	OK
UNIT SIZE	OUTLET	INLET

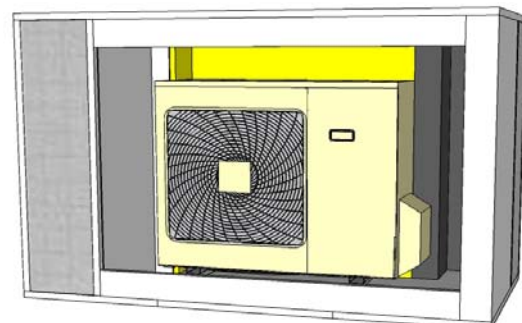
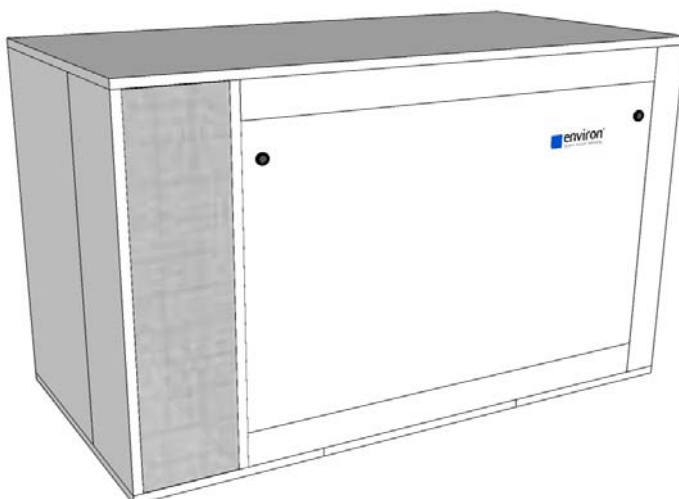
AIRFLOW INFORMATION		
15	3.6	3.6
PD (NM <sup>2</sup> )	OUTLET (MS <sup>-1</sup> )	INLET (MS <sup>-1</sup> )

Select Inlet & Outlet Duct Sizes to Ensure Linear Airflows are kept below 6.0m/s

QUOTE INFORMATION
INLET AIRWAY
OUTLET AIRWAY
EXTERNAL SIZE ( W, D, H )
NOISE LEVEL @ 1 M (SOUND PRESSURE)

WIDTH (MM)	DEPTH (MM)	HEIGHT (MM)
250		1025
250		1025
1650	1000	1100
23	SPL dB(A) Free Field	

#### ENCLOSURE DETAILS



**Front View**  
**Service Access**



