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Subject: **The American Church in London**
Date: 26 January 2007 16:34:07 GMT
To: tparchitects@mac.com
Cc: 'Tony Greateorex' <Tony.Greateorex@whitbybird.com>
 1 Attachment, 66.0 KB 

Attention: Andy Summers

Our ref Hf761

Further to an email from Tony Greateorex at Whitby Bird I am pleased to send details for the proposed AHU including the sound data for the proposed cooler and how the data is measured.

If you have any queries or require anything further, please do not hesitate to contact me.

Best regards

Hannah Finning
UK Sales Manager

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ahu details a...oc (66.0 KB)

Max. available cooling power

21.70 kW

Supply air side, summer

Air temperature

Relative humidity

In	Out	
30.0	17.0	°C
45.0	87.2	%

Extract air side, summer

Air temperature

Relative humidity

Amount of drained water

In	Out	
25.9	49.4	°C
47.4	13.2	%
	0.1	l/min

Sound data GOLD CoolDX

Frequency band

Sound power level

63	125	250	500	1k	2k	4k	8k	Hz
94	60	69	56	67	55	46	44	dB

Air handling system GOLD, GOLD-14-C-1-1-1-1

Roof for outdoor weatherproofing, TBTA-3-20-01-0

Rotary heat exchanger

Rotary heat exchanger type RECONomic

Standard aluminium

Speed controlled

Total pressure drop, supply air

Total pressure drop, extract air

Extra pressure drop in extract air side (damper)

to ensure the right flow direction

Purging flow including leakage

Temperature efficiency of supply air

125	Pa
125	Pa
0	Pa
0.084	m³/s
81.5	%

Supply air side, winter

Air temperature

Effect

In	Out	
-4.0	17.2	°C
	25.6	kW

Extract air side, winter

Air temperature

In	Out	
22.0	0.8	°C

Fan section

Fan type GOLD Wing

Direct driven with high efficiency motors in class eff1 and frequency converters

Standard connection, internal

Rubber vibration isolators

Supply air flow

Total pressure drop, duct

Total pressure rise

Speed

Electric power to motor

Power consumption

Sound power level

1.000	m³/s
250.0	Pa
(Clean filter: 514 Pa)	560
(Clean filter: 1842 r/m)	1889
(Clean filter: 1.02 kW)	1.10
	3.00
	kW

Frequency band	Hz	63	125	250	500	1k	2k	4k	8k	All	
To supply air duct		76	65	57	64	63	61	66	59	70	dB(A)
To outdoor air duct		69	61	44	47	32	33	29	37	49	dB(A)
To surrounding		69	57	46	59	44	41	42	37	57	dB(A)
To surrounding incl. exh. air		73	61	50	63	48	45	46	41	61	dB(A)

Unit silencer, TBDA-1-100-040-065

Total pressure drop

Frequency band

Attenuation

21	Pa							
63	125	250	500	1k	2k	4k	8k	Hz
4	6	12	16	14	13	10	9	dB

Extract air

1 Unit silencer, TBDA-1-100-040-065

Total pressure drop	21								Pa
Frequency band	63	125	250	500	1k	2k	4k	8k	Hz
Attenuation	4	6	12	16	14	13	10	9	dB

(Air handling system GOLD)

1 Filter

Filter class F7									
2x(592x592x635-10)									
Recommended press. drop	85								Pa
Initial pressure drop	35								Pa
Final pressure drop	135								Pa

1 Rotary heat exchanger

Accessories and technical data, see supply air

1 Fan section

Fan type GOLD Wing					
Direct driven with high efficiency motors in class eff1 and frequency converters					
Standard connection, internal					
Rubber vibration isolators					
Extract air flow					1.000
Total pressure drop, duct					250.0
Total pressure rise	(Clean filter: 530 Pa)				580
Speed	(Min 300	Max 2040	Clean filter 1923 r/m)		1971
Electric power to motor	(Clean filter: 1.14 kW)				1.23
Power consumption					3.00
Sound power level					

Frequency band	Hz	63	125	250	500	1k	2k	4k	8k		All	
To extract air duct		72	64	49	54	39	40	36	44	dB	54	dB(A)
To exhaust air duct		85	64	66	60	66	61	62	57	dB	70	dB(A)
To surrounding		70	58	47	60	45	42	43	38	dB	58	dB(A)

(Cooling unit CoolDX)

1 Condenser coil

Accessories and other technical data, see supply air

Pressure drop	78								Pa
Air velocity	1.9								m/s

1 Unit silencer, TBDA-1-100-040-065

Total pressure drop	21								Pa
Frequency band	63	125	250	500	1k	2k	4k	8k	Hz
Attenuation	4	6	12	16	14	13	10	9	dB

Project:

The American Church in London

Access side

Unit:

EXTERNAL AHU

Size:

14

Total weight:

1133 kg

Width, nominal:

1295 mm

Max:

1295 mm

Connection size:

Width

*

Height

Outdoor air

1000

400

Supply air

1000

400

Extract air

1000

400

Exhaust air

1000

400

