From: Hannah Finning <a href="mailto:rhannah.pmluft@swegon.co.uk">hannah Finning <a href="mailto:rhannah.pmluft@swegon.co.uk">hannah Finning <a href="mailto:rhannah.pmluft@swegon.co.uk">hannah.pmluft@swegon.co.uk</a>

Subject: The American Church in London Date: 26 January 2007 16:34:07 GMT

To: tparchitects@mac.com

Cc: 'Tony Greatorex' <Tony.Greatorex@whitbybird.com>

1 Attachment, 66.0 KB Save

Attention: Andy Summers

Our ref Hf761

Further to an email from Tony Greatorex 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)



Project		The American Church in London											
Atmosphere	pressure	1110 7 1111			0132	Pa							
	Air density								1.20	kg/m³			
	Sound power to duct, measured according to ISO 5136												
	ction for function sec												
Sound power	er break out, measi	ired according t	to IS	0 374	11								
Component	s are arranged acc	ording to air dire	ectio	n							_ := .		
EXTERNAL	AHU												
GOLD RX													
Unit size										4			
Supply air f	low								1.00	0	m³/s		
Total press	ure drop										200		
Outdo	or air duct										Pa		
	y air duct								25		Pa		
Extract air f									1.00	U	m³/s		
Total press									25	0	Do		
100000000000000000000000000000000000000	t air duct								25	U	Pa Pa		
	st air duct								-4.	0	°C		
	ecting outdoor air te		toral						2.1		kW/(m³/s		
Specific ele	ectric power of fans,	SFPV (Clean III	ters)						2.1		KVV/(III /S		
With comp	uter-based control s	vstem IQnomic											
	nels with 50 mm fire			1									
El. connect		3-phase,			00 V	-10/+	15%	50H	z, 10	Α			
El. connect	ion, CoolDX	3-pha	ase,	5-wire	ed, 40	00 V±	10%	, 50H	z, 25	Α			
					\$3								
		Supply a	ir										
Unit silend	er, TBDA-1-100-04	10-065									1000		
Total	pressure drop					200	177.0	224	200	21	Pa		
11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ency band		63	125	250	500	1k	2k	4k	8k	Hz		
Attenu	uation		4	6	12	16	14	13	10	9	dB		

Total pressure drop							1000	10		
Frequency band	63	125	250	500	1k	2k	4k	8k	Hz	
Attenuation	4	6	12	16	14	13	10	9	dB	
Cooling unit CoolDX, COOLDX-20										
Roof for outdoor weatherproofing	ng, CoolDX, T	BTA-	3-20-	04-3						
Version								3		
Filter										
Filter class F7										
2x(592x490x635-10)										
Recommended press. drop							9	8	Pa	
Initial pressure drop							5	2	Pa	
Final pressure drop							14	4	Pa	
Cooling coil										
Air side										
Pressure drop, dry							4	15	Pa	
Pressure drop, wet							5	51	Pa	
Air velocity							1	.9	m/s	
Required total coil effect							20.3	30	kW	

680	0
SWE	con
AND 44 M AND	AND AND AND AND AND

	ENERGIZING INDOOR CLIMATE  Max. available cooling po	wer									21.7	0	kW
	Supply air side, summer Air temperature Relative humidity								In 30.0 45.0		Ot 17. 87.	0	°C %
	Extract air side, summer Air temperature Relative humidity Amount of drained water								In 25.9 47.4		Ot 49. 13. 0.	4 2	°C % I/min
	Sound data GOLD Cool Frequency band Sound power level	DX			63 94	125 60	250 69	500 56	1k 67	2k 55	4k 46	8k 44	Hz dB
1	Air handling system GOLD, Roof for outdoor weather	GOL proof	<b>D-14</b> - fing, 1	<b>C-1-</b> BTA	1 <b>-1-1</b> -3-20	-01-0							
1	Rotary heat exchanger Rotary heat exchanger ty Standard aluminium	/pe R	ECO	nomi	3								
	Speed controlled Total pressure drop, supply air Total pressure drop, extract air Extra pressure drop in extract air side (damper)												Pa Pa
	to ensure the right flow d Purging flow including lea	irection akage	on e		ump	-					0.08		Pa m³/s %
	Supply air side, winter Air temperature Effect								In -4.0	)	17. 25.	2	°C kW
	Extract air side, winter Air temperature								In 22.0	0	0.		°C
1	Fan section  Fan type GOLD Wing  Direct driven with high et  Standard connection, int Rubber vibration isolator	ernal		otors	in cla	ass ef	f1 an	d free	quen	су со	onvert	ers	
	Supply air flow Total pressure drop, duc Total pressure rise	t			• • 5522	20.40		ın filter			1.00 250.	.0 80	m³/s Pa Pa
	Electric power to motor (Clean filter: 1.02 kW) 1.										188 1.1 3.0	0	r/m kW kW
	Frequency band Hz To supply air duct To outdoor air duct To surrounding To surrounding incl. exh. air	63 76 69 69 73	125 65 61 57 61	250 57 44 46 50	500 64 47 59 63	1k 63 32 44 48	2k 61 33 41 45	4k 66 29 42 46	8k 59 37 37 41	dB dB dB	7 4 5	M 70 19 57	dB(A) dB(A) dB(A) dB(A)
1	Unit silencer, TBDA-1-100-0 Total pressure drop Frequency band Attenuation	40-06	65		63 4	125 6	250 12	500 16	1k 14	2k 13	4k 10	21 8k 9	Pa Hz dB



## Extract air

1	Unit silencer, TBDA-1-100-040-065  Total pressure drop  Frequency band					62	105	250	500	1k	O.L	2 4k	Pa Hz	
	Attenuation					63	125 6	12	500 16	14	2k 13	10	8k 9	dB
	(Air handling system G	OLD	)											
1	Filter													
	Filter class F7	Ç.												
	2x(592x592x635-10	0.00										0	5	Pa
		Recommended press. drop											5	Pa
	Initial pressure drop Final pressure drop					63						13		Pa
1	Rotary heat exchanger Accessories and tec		al dat	a. se	e sup	olv a	ir							
	, 10000001100 0110 101		ar acr		200 m	F-3	ATA							
1	Fan section													
	Fan type GOLD Wir													
	Direct driven with hi	igh e	fficier	icy m	otors	in cla	ass e	ff1 an	d fre	quen	cy co	nvert	ers	
	Standard connection													
	Rubber vibration isc	olator	S									4.00		27
	Extract air flow	11.70. <b>1</b> 00.00										1.00		m³/s
	Total pressure drop	, duo	ı					(OI-	erra .		D-1	250.		Pa
	Total pressure rise			200			2040		an filter		200 5000	58 197		Pa r/m
	Speed	otor	(MIN	300		Max	2040		n filter an filter		200	1.2		kW
	Electric power to me Power consumption							Cies	iii iiilei	. 1.14	+ KVV)	3.0		kW
	Sound power level											0.0		
	Frequency band	Hz	63	125	250	500	1k	2k	4k	8k		A	III	
	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		0	dB(A)
	To surrounding		70	58	47	60	45	42	43	38	dB	5	8	dB(A)
.5)	(Cooling unit CoolDX)													
1	Condenser coil													
16	Accessories and other technical data, see supply air													
	Pressure drop	tiloi	100/11/	ioui u		,000	-PP.)	4411				7	8	Pa
	Air velocity												.9	m/s
1	Unit silencer, TBDA-1-1	100-0	40-06	65								20.00	2400	Market 1
	Total pressure drop					000000	\$230	2005 12301	W.Zazas	400	224.57		21	Pa
	Frequency band					63	125	101.0		1k	2k	4k	8k	Hz
	Attenuation					4	6	12	16	14	. 13	10	9	dB



Project: Unit:

The American Church in London **EXTERNAL AHU** 

Access side

Size:

Total weight:

Max:

Width, nominal:

Connection size: Outdoor air

Supply air Extract air Exhaust air 14

1133 kg 1295 mm

1295 mm

Width

Height

1000 1000

400 400

1000 1000 400 400

