

AIR HANDLING UNIT SCHEDULE

SCHEDULE REF	SCH	0405972	Y40	AHU	YALE/1		
PROJECT	Spire Yale Hospital					No. 0405972	
SYSTEM	Minor Ops and Ancillary Areas AHU					UNIT REF	AHU/ YALE/1
CONSTRUCTION	PURPOSE/DECK APPLICATION (NON-RESIDENTIAL/HEALTHCARE) MARINISED BASE FRAME HEIGHT BASE FRAME FINISH PANEL THICKNESS PANEL MATERIAL WEATHERPROOF CONSTRUCTION EXTERNAL FINISH				External Plant Zone Healthcare General No 300 mm 35 Micron paint on galvanised steel 50 mm DOUBLE SKINNED Galvanized steel Yes Unpainted galvanized or stainless steel		
MAXIMUM DIMENSIONS	LENGTH WIDTH HEIGHT				3050 mm 1060 mm 2860 mm		
ACCESSORIES	INSPECTION PORTS TO FAN BULKHEAD LIGHTS TO FILTER/ FAN MOUNTING POINTS FOR CONTROLS/ INSTRUMENTS CLEAN FILTERS AT COMPLETION PROVIDE SPARE SET OF FILTERS AT COMPLETION PRESSURE GAUGE ON EACH FILTER STAGE CARTRIDGE TYPE HTG/ COOLING COILS ON RAILS MELINEX LINING TO ACOUSTIC SPLITTERS DAMPER ACTUATORS				Yes Yes Yes Yes Yes Yes Yes Yes BY AHU MANUFACTURER / CONTROLS SPECIALIST		
LEAK TEST	AHU LEAK TEST REQUIRED				Yes		
SUPPLY DUTY	SUPPLY SYSTEM DESIGN AIR FLOW RATE SUPPLY AIR FLOW RATE CAPABILITY MARGIN SUPPLY AHU COMPONENT SELECTION AIR FLOW RATE				0.800 m³/s including ductwork leakage 10 % 0.880 m³/s		
EXTRACT DUTY	EXTRACT SYSTEM DESIGN AIR FLOW RATE EXTRACT AIR FLOW RATE CAPABILITY MARGIN EXTRACT AHU COMPONENT SELECTION AIR FLOW RATE				0.800 m³/s including ductwork leakage 10 % 0.880 m³/s		
SPECIFIC FAN POWER	MAXIMUM SYSTEM SFP AT SELECTION DUTY				2.00 W/l/s		
PERFORMANCE	LEAKAGE CLASS OF CASING CASING STRENGTH FILTER BYPASS LEAKAGE CASING THERMAL TRANSMITTANCE CASING THERMAL BRIDGING FACTOR DEFAULT AIR QUALITY LEAKAGE CLASS OF SHUT-OFF DAMPERS				Refer to specification section Y40 Refer to specification section Y40 Refer to specification section Y40 Refer to specification section Y40 Refer to specification section Y40 Refer to specification section Y40 Refer to specification section Y40		
SUPPLY AIRSTREAM							
COMPONENTS GENERALLY IN DIRECTION OF AIRFLOW - REFER TO SCHEMATIC FOR REQUIRED AHU COMPONENT ORDER							
INLET DAMPER	TYPE				Automatic		
FROST COIL	AIR DENSITY ON-COIL AIR TEMPERATURE ON-COIL AIR TEMPERATURE OFF-COIL HEATING DUTY				1.200 kg/m³ -10.0 °C 2.0 °C 12.93 kW		
ACCESS	LENGTH				To meet HTM compliance		
PREFILTER	FILTER GROUP AND CLASS MAXIMUM INITIAL PRESSURE DROP MAXIMUM FINAL PRESSURE DROP FILTER TYPE MEDIA TYPE MINIMUM FILTER LENGTH/DEPTH FILTER FRAME MATERIAL MINIMUM ENERGY RATING				ISO Coarse M5 Pa Manufacturer to Confirm Pa Manufacturer to Confirm Panel To meet HTM compliance To meet HTM mm To meet HTM compliance To meet HTM compliance		
ACCESS	LENGTH				To meet HTM compliance		
HEATING COIL (RUN AROUND COIL)	RECEIVING AIR DENSITY ON RECEIVING AIR TEMPERATURE ON RECEIVING AIR TEMPERATURE OFF HEATING/ HEAT-RECOVERY DUTY (+kW/-kW) HEAT RECOVERY EFFICIENCY (BALANCED AIRFLOWS)				1.200 kg/m³ 2.0 °C 17.3 °C 14.80 kW % For ErP compliance		
ACCESS	LENGTH				mm		
DX COIL 2No. EXTERNAL CONDENSERS	AIR DENSITY ON-COIL AIR TEMPERATURE ON-COIL (db) AIR TEMPERATURE ON-COIL (wb)				1.200 kg/m³ 31.6 °C 25.2 °C		

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TO MATCH DX COIL REQUIREMENTS	AIR TEMPERATURE OFF-COIL (db) AIR TEMPERATURE OFF-COIL (wb) COOLING DUTY ELIMINATOR SPACE - ELIMINATORS FITTED REFRIGERANT EVAPORATING TEMPERATURE AIR TEMPERATURE ON-COIL AIR TEMPERATURE OFF-COIL HEATING DUTY REFRIGERANT TYPE REFRIGERANT EVAPORATING TEMPERATURE CAPACITY CONTROL					13.0 °C 12.9 °C 39.02 kW No 6.00 °C 17.3 °C 24.0 °C 6.68 kW 35.00 °C Variable Manufacturer to Confirm Manufacturer to Confirm Manufacturer to Confirm		
ACCESS	LENGTH					To meet HTM compliance		
FAN	SYSTEM DESIGN / FAN OPERATING AIR FLOW RATE EXTERNAL SYSTEM DESIGN RESISTANCE FAN AIR FLOW RATE CAPABILITY MARGIN FAN CAPABILITY AIR FLOW RATE EXTERNAL RESISTANCE CAPABILITY MARGIN EXTERNAL RESISTANCE CAPABILITY DUTY (filters dirty) AHU INTERNAL CAPABILITY RESISTANCE - MAXIMUM (filters clean) FAN CAPABILITY PRESSURE FAN PRESSURE AT SYSTEM DESIGN / OPERATING FLOW MINIMUM FAN EFFICIENCY AT OPERATING DUTY MAXIMUM FAN SPEED AT CAPABILITY DUTY FAN TYPE NUMBER OF FANS					0.800 m³/s 300 Pa 10 % 0.880 m³/s 21 % 363 Pa Pa Pa Pa 75.0 % 2900 rpm Plug 1 3 phase 400 V 50 Hz Yes NA No. 2340 rpm % kW kW IE3 % kW Duty motor only Yes		
MOTOR/ ELECTRICAL	POWER SUPPLY MOTOR TO BE INVERTER DRIVEN? IF "no" TO ABOVE - NUMBER OF SPEEDS? MAXIMUM MOTOR SPEED AT CAPABILITY DUTY MINIMUM DRIVE EFFICIENCY AT CAPABILITY DUTY MOTOR OUTPUT POWER AT CAPABILITY DUTY MOTOR SIZE (Standard motor output power selection) MOTOR EFFICIENCY RATING MINIMUM MOTOR EFFICIENCY AT OPERATING DUTY MAXIMUM MOTOR INPUT POWER AT OPERATING DUTY DUTY/ STANDBY MOTORS MOTOR(S) IN AIRSTREAM					(Only applicable to belt drive) Manufacturer to confirm Manufacturer to confirm Manufacturer to confirm Manufacturer to confirm		
FAN ACOUSTICS	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
MAX SWL								
INLET ATT. INS. LOSS								
OUTLET ATT. INS. LOSS								
CASING BREAKOUT								
OUTLET DAMPER	TYPE					Automatic		
EXTRACT AIRSTREAM								
COMPONENTS GENERALLY IN DIRECTION OF AIRFLOW - REFER TO SCHEMATIC FOR REQUIRED AHU COMPONENT ORDER								
INLET DAMPER	TYPE					Automatic		
FILTER	FILTER GROUP AND CLASS MAXIMUM INITIAL PRESSURE DROP MAXIMUM FINAL PRESSURE DROP FILTER TYPE MEDIA TYPE MINIMUM FILTER LENGTH/DEPTH FILTER FRAME MATERIAL MINIMUM ENERGY RATING					ISO Coarse M5 Pa Pa Panel To meet HTM compliance To meet HTM mm To meet HTM compliance To meet HTM compliance		
ACCESS	LENGTH					To meet HTM compliance		
RUN-AROUND COIL	DONOR AIR DENSITY ON DONOR AIR TEMPERATURE ON (db) DONOR AIR TEMPERATURE ON (wb) DONOR AIR TEMPERATURE OF (db) DONOR AIR TEMPERATURE OF (wb) HEATING/ HEAT-RECOVERY DUTY (+kW/-kW)					1.200 kg/m³ 24.0 °C 17.1 11.7 °C 11.3 °C 14.80 kW		

AIR HANDLING UNIT SCHEDULE

SCHEDULE REF	SCH	0405972	Y40	AHU	YALE/1				
PROJECT	Spire Yale Hospital					No. 0405972			
SYSTEM	Minor Ops and Ancillary Areas AHU					UNIT REF	AHU/ YALE/1		
PLATE HEAT EXCHANGER	SEE RECEIVING AIR - FOR DETAILS								
ACCESS	LENGTH		To meet HTM compliance						
FAN	SYSTEM DESIGN / FAN OPERATING AIR FLOW RATE EXTERNAL SYSTEM DESIGN RESISTANCE FAN AIR FLOW RATE CAPABILITY MARGIN FAN CAPABILITY AIR FLOW RATE EXTERNAL RESISTANCE CAPABILITY MARGIN EXTERNAL RESISTANCE CAPABILITY DUTY (filters dirty) AHU INTERNAL CAPABILITY RESISTANCE - MAXIMUM FAN CAPABILITY PRESSURE (filters clean) FAN PRESSURE AT SYSTEM DESIGN / OPERATING FLOW MINIMUM FAN EFFICIENCY AT OPERATING DUTY MAXIMUM FAN SPEED AT CAPABILITY DUTY FAN TYPE NUMBER OF FANS		0.800 m³/s 300 Pa 10 % 0.880 m³/s 21 % 363 Pa Pa Pa 75.0 % 2900 rpm Plug 1					Manufacturer to confirm Manufacturer to confirm Manufacturer to confirm	
MOTOR/ ELECTRICAL	POWER SUPPLY MOTOR TO BE INVERTER DRIVEN? IF "no" TO ABOVE - NUMBER OF SPEEDS? MAXIMUM MOTOR SPEED AT CAPABILITY DUTY MINIMUM DRIVE EFFICIENCY AT CAPABILITY DUTY MOTOR OUTPUT POWER AT CAPABILITY DUTY MOTOR SIZE (Standard motor output power selection) MOTOR EFFICIENCY RATING MINIMUM MOTOR EFFICIENCY AT OPERATING DUTY MAXIMUM MOTOR INPUT POWER AT OPERATING DUTY DUTY/ STANDBY MOTORS MOTOR(S) IN AIRSTREAM		3 phase 400 V 50 Hz Yes NA No. 1736 rpm NA % kW kW IE3 % kW Duty motor only Yes					(Only applicable to belt drive) Manufacturer to confirm Manufacturer to confirm Manufacturer to confirm Manufacturer to confirm	
FAN ACOUSTICS	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	
MAX SWL									
INLET ATT. INS. LOSS									
OUTLET ATT. INS. LOSS									
CASING BREAKOUT									
OUTLET DAMPER	TYPE		Automatic						
NOTES									
1. AHU AND ALL ITS COMPONENTS TO COMPLY WITH SPECIFICATION SECTION Y40 2. WIRING TO COMPLY WITH BS 7671 3. SELECTION SYSTEM PRESSURE DROP TO BE CALCULATED BY INSTALLER ACCORDING TO ACTUAL LAYOUT & COMPONENTS USED PRIOR TO FAN ORDER. (VALUE GIVEN FOR TENDER PURPOSES ONLY) 4. THE FAN SOUND POWER LEVEL STATED ABOVE HAS BEEN USED IN CALCULATING THE ATTENUATOR INSERTION LOSSES. THE INSTALLER SHALL RECALCULATE THE ATTENUATOR INSERTION LOSSES IF THEY SELECT A FAN OF DIFFERENT SWL 5. IF INSERTION LOSSES ARE NOT GIVEN ABOVE, SEE ATTENUATOR SCHEDULE FOR DETAILS OF DUCT MOUNTED UNITS 6. ACOUSTIC DETAILS QUOTED AT "CAPABILITY" DUTY 7. DESIGN SELECTION IS BASED UPON - Air Handlers (ALTERNATIVES MUST BE EQUAL & ACCEPTED)									
INSTALLER TO CHECK SELECTION DUTIES STATED TO ENSURE THEY ARE STILL VALID FOR THE ACTUAL INSTALLED COMPONENTS & LAYOUT									
ISSUE/REVISION	P01								
DATE	10/06/2022								
PREPARED BY	IH								
REVIEWED BY	DRA								
AUTHORISED BY	IH								

PROJECT DETAILS			
Project No	Revision	Date	Customer
15305	0	29 Apr 2022	Hoare Lea
Unit No	Project Reference	AHU Reference	Quantity
5	Spire Healthcare Chesney Court, Yale	AHU 01 - Option 03	1
Supply Air Flow	Supply ESP	Extract Air Flow	Extract ESP
.8 m³/s	300 Pa	.8 m³/s	300 Pa

SPECIFIC FAN POWER				
AHU SFP kW/(m³/s)	Supply Absorbed (kW)	Extract Absorbed (kW)	Overall (kW)	Filter Condition
1.66	.75	.58	1.33	Clean

UNIT CONSTRUCTION		
Unit location	Roof Type	Panel External Sheet
External	50mm Slopping Roof (<1700mm)	0.7mm Plastisol Goosewing Grey
Frame Material	Frame Profile	Panel Thickness/Insulation
Aluminium	60mm thermal break profile	FG50
Base Construction	Base Height	Panel Internal Steel
200 Galv 2.5 gauge	200 mm	0.7mm White Coated Steel
Access Side	Unit Model	Leakage Class
Right	AH 975-6050TB-FG-WP	L2
Flow Arrangement	Unit Arrangement	
Opposite	Double deck	

AHU OVERALL UNIT DIMENSIONS AND WEIGHT - Unit supplied in one section unless otherwise agreed			
Length	Width	Height	Weight (Per Unit)
SEE SKETCH	SEE SKETCH	SEE SKETCH	SEE SKETCH

SECTION DIMENSIONS AND WEIGHT - Unit supplied in one section unless otherwise agreed				
Section	Length	Width	* Height	Weight
A	3050 mm	1060 mm	870 mm	427 kg
B	3050 mm	1060 mm	870 mm	566 kg
C	3050 mm	1060 mm	870 mm	454 kg

* The above section heights do not include possible inclusions for base frames and roofs (if fitted)

* This unit includes a 200 mm base and a 50 mm roof

SECTION A - INLET SECTION						
Component	Air Flow	Mounting	Type	Orientation	Control	Fitted Extra
Damper	.8 m³/s	Internal	Low Leakage	Opposed	Motorisation by Others	None

SECTION A - PLENUM			
Dimension	550 mm	Type	Plenum Section

ACCESSORIES

PortHole - 200mm diameter double glazed view port

Bulkhead light fitted but NOT wired - Wiring by others.

Access Porthole Fitted

Hinged Access Door

SECTION A - ELECTRIC HEATER							
Duty	Air Flow	Air On	Air Off	Voltage	No. Of Stages	Control	Material
12.00 kW	.8 m³/s	-10.00 °C	2.00 °C	400	1	Single-Stage	Painted Steel

SECTION A - PANEL FILTER					
Type	Grade	Length	Withdrawal Method	Selected Condition	Spare
Panel Filter	M5 Ccell Panel / ISO ePM10 >= 50%	50 mm	Front	Mean	1 Set

ACCESSORIES

Minihelic Gauge Factory Fitted

PortHole - 200mm diameter double glazed view port

Bulkhead light fitted but NOT wired - Wiring by others.

Access Porthole Fitted

Hinged Access Door

SECTION A - HEATING COIL (RUN AROUND COIL)

Duty	Air Flow	Air On	Air Off	Water Flow	Water In/Out	Inlet/Outlet Connec
14.8 kW	.8 m³/s	2.00 °C	17.3 °C	.26 l/s	20.9 / 6.60 °C	1x 3/4" / 1x 3/4"
Fluid PD	Fin Material	Fin Spacing	Tube Material	Frame Material	Face Velocity	Connection Type
37 kPa	Copper	2.31mm (11/inch)	Copper	Galvanised	1.71 m/s	Screwed BSP
Internal Volume						
24.6 l						

SECTION A - PLENUM

Dimension	730 mm	Type	Plenum Section
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ACCESSORIES

PortHole - 200mm diameter double glazed view port

Bulkhead light fitted but NOT wired - Wiring by others.

Access Porthole Fitted

Hinged Access Door

SECTION B - PLENUM

Dimension	550 mm	Type	Plenum Section
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ACCESSORIES

PortHole - 200mm diameter double glazed view port

Bulkhead light fitted but NOT wired - Wiring by others.

Access Porthole Fitted

Hinged Access Door

SECTION B - SUPPLY PLENUM FAN

Fan Type	Wheel Type		Drive Type		PFP A3-0315 1.5kW 400V-3F M6F8 Ref. density $\rho_{ref} = 1.2 \text{ kg/m}^3$ Installation = A Thick red lines=limitation of the recommended area			
Plenum	Backward Curve		Direct Drive					
Model	Impeller Diam.		Abs Power per fan					
PFP A3-0315 1.5kW 400V-3F M6F8	315 mm		0.81 kW					
Quantity	Duty % Per Fan		Poles					
1	Single Fan							
Air Flow Volume	Outlet Velocity		Motor Speed					
.8 m³/s	7.1 m/s		2340 rpm					
Ext Static Pressure	Fan Speed		Power per motor					
300.00 Pa	2340 rpm		1.50 kW					
Unit Static Pressure	Static Efficiency		FLC per motor					
275.00 Pa	57.00 %		2.40 A					
Fan Static Pressure	VSD		Volts/Ph/Hz					
575 Pa	0 - 10v		380/3/50					
IE Classification	Operating Frequency							
WithFan	50.00 Hz							
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz
Inlet (1)	67	69	77	73	70	68	64	58
Outlet (2)	69	70	78	75	77	76	73	66

(1) SWL INSIDE The Inlet Duct (dB)

(2) SWL INSIDE The Outlet Duct (dB)

ACCESSORIES

Nominal voltage: 400V +/-10%

Single Commando socket - pre-wired to fan motor.

PortHole - 200mm diameter double glazed view port

Bulkhead light fitted but NOT wired - Wiring by others.

Door guard will be provided.

EC fan no Inverter required, control via 0-10v signal.

Access Porthole Fitted

Hinged Access Door

SECTION B - DX COIL						
Duty	Air Flow	Air On db/wb	Air Off db/wb	No. Stages	Refrig. Type	Evap.Temp
39.02 kW	.8 m³/s	31.60/25.21 °C	13.0/12.9 °C	2	R410a	6.0 °C
Internal Vol	Refrig. PD	Fin Spacing	Fin Material	Tube Material	Frame Material	Coil Type
9.90 l/s	36	2.31mm (11/inch)	Copper/PreTinned	Copper	Stainless Steel 304	1 Reverse Cycle
Eliminator	Liquid Con.Size	Suction Con. Size	Face Velocity	Internal Volume		
not needed - Not Incl.	2 x 1/2"	2 x 1,5/8"	1.94 m/s	9.90 l		
ACCESSORIES						
HTM Standard - Eliminators NOT applicable or required as coil velocity is <2.0m/s.						
HEATING Air On:17.3°C Air Off:24.0°C Duty:6.68kW Cond.Temp.:35.0°C						
1:20 Sloping Removable St/St Draintray.						
Stainless Steel Lining.						
Drain Pan						
Material		SS 304L		Drain Tray Type		With Coil Removable Slope
Coil Panel						

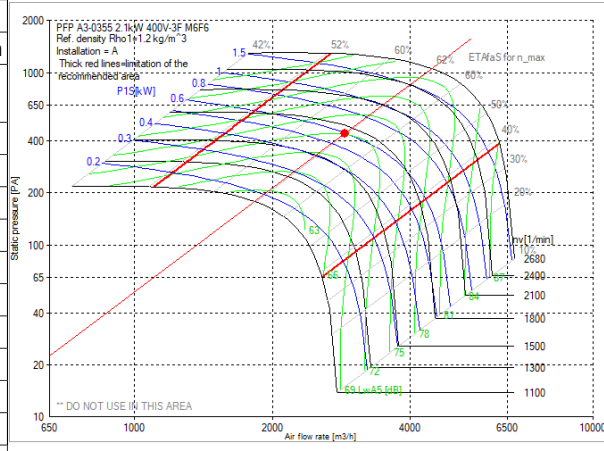
SECTION B - BAG FILTER					
Type	Grade	Length	Withdrawal Method	Selected Condition	Spare
Bag Filter	F7 / ISO ePM1 >= 50%	380 mm	Front	Mean	1 Set
ACCESSORIES					
PortHole - 200mm diameter double glazed view port					
Minihelic Gauge Factory Fitted					
Bulkhead light fitted but NOT wired - Wiring by others.					
Access Porthole Fitted					
Hinged Access Door					

SECTION B - OUTLET SECTION						
Component	Air Flow	Mounting	Type	Orientation	Control	Fitted Extra
Damper	.8 m³/s	Internal	Low Leakage	Opposed	Motorisation by Others	None
ACCESSORIES						
PortHole - 200mm diameter double glazed view port						
Bulkhead light fitted but NOT wired - Wiring by others.						
Access Porthole Fitted						
Hinged Access Door						

SECTION C - INLET SECTION						
Component	Air Flow	Mounting	Type	Orientation	Control	Fitted Extra
Damper	.8 m³/s	Internal	Low Leakage	Opposed	Motorisation by Others	None

SECTION C - PANEL FILTER					
Type	Grade	Length	Withdrawal Method	Selected Condition	Spare
Panel Filter	M5 Ccell Panel / ISO ePM10 >= 50%	50 mm	Front	Mean	1 Set
ACCESSORIES					
Minihelic Gauge Factory Fitted					
PortHole - 200mm diameter double glazed view port					
Bulkhead light fitted but NOT wired - Wiring by others.					
Access Porthole Fitted					
Hinged Access Door					

SECTION C - EXTRACT PLENUM FAN

Fan Type	Wheel Type		Drive Type							
Plenum	Backward Curve		Direct Drive							
Model	Impeller Diam.		Abs Power per fan							
PFP A3-0355 2.1kW 400V-3F M6F6	355 mm		0.60 kW							
Quantity	Duty % Per Fan		Poles							
1	Single Fan									
Air Flow Volume	Outlet Velocity		Motor Speed							
.8 m³/s	5.7 m/s		1736 rpm							
Ext Static Pressure	Fan Speed		Power per motor							
300.00 Pa	1736 rpm		2.20 kW							
Unit Static Pressure	Static Efficiency		FLC per motor							
144.00 Pa	59.00 %		3.30 A							
Fan Static Pressure	VSD		Volts/Ph/Hz							
444 Pa	0 - 10v		380/3/50							
IE Classification	Operating Frequency									
WithFan	50.00 Hz									
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz		
Inlet (1)	68	68	75	70	65	62	59	52		
Outlet (2)	67	66	74	72	73	70	65	58		
(1) SWL INSIDE The Inlet Duct (dB)					(2) SWL INSIDE The Outlet Duct (dB)					

ACCESSORIES

Nominal voltage: 400V +/-10%
 Single Commando socket - pre-wired to fan motor.
 PortHole - 200mm diameter double glazed view port
 Bulkhead light fitted but NOT wired - Wiring by others.
 Door guard will be provided.
 EC fan no Inverter required, control via 0-10v signal.
 Access Porthole Fitted
Hinged Access Door

SECTION C - COOLING COIL

Duty	Air Flow	Air On db/wb	Air Off db/wb	Water In	Water Out	Water Flow
14.8 kW	.8 m³/s	24.00/17.10 °C	11.7/11.3 °C	6.60 °C	20.9 °C	.26 l/s
Fluid PD	Glycol Type	Glycol %	Fin Material	Fin Spacing	Tube Material	Frame Material
37 kPa	Ethylene glycol	20	Copper/PreTinned	2.31mm (11/inch)	Copper	Stainless Steel 304
Coil Type	Eliminator	Face Velocity	Inlet Connection	Outlet Connection	Connection Type	Internal Volume
Cooling	not needed - Not Incl.	1.94 m/s	1x 3/4"	1x 3/4"	Screwed BSP	24.60 l

ACCESSORIES

HTM Standard - Eliminators NOT applicable or required as coil velocity is <2.0m/s.
 1:20 Sloping Removable St/St Draintray.
 Stainless Steel Lining.

Drain Pan

Material	SS 304L	Drain Tray Type	With Coil Removable Slope
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Coil Panel

SECTION C - OUTLET SECTION

Component	Air Flow	Mounting	Type	Orientation	Control	Fitted Extra
Damper	.8 m³/s	Internal	Low Leakage	Opposed	Motorisation by Others	None

ACCESSORIES

PortHole - 200mm diameter double glazed view port
 Bulkhead light fitted but NOT wired - Wiring by others.
 Access Porthole Fitted
Hinged Access Door

AHU ACOUSTIC DATA SUPPLY SECTIONS									
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	Overall dB(A)
SWL @ AHU Inlet (dB)	64	66	71	66	63	60	54	44	69
SWL @ AHU Outlet (dB)	63	63	68	65	70	62	60	50	72
Case Radiated SPL @ 1m (dB)	46	45	37	32	33	37	31	19	41

Acoustic Notes and Qualifications

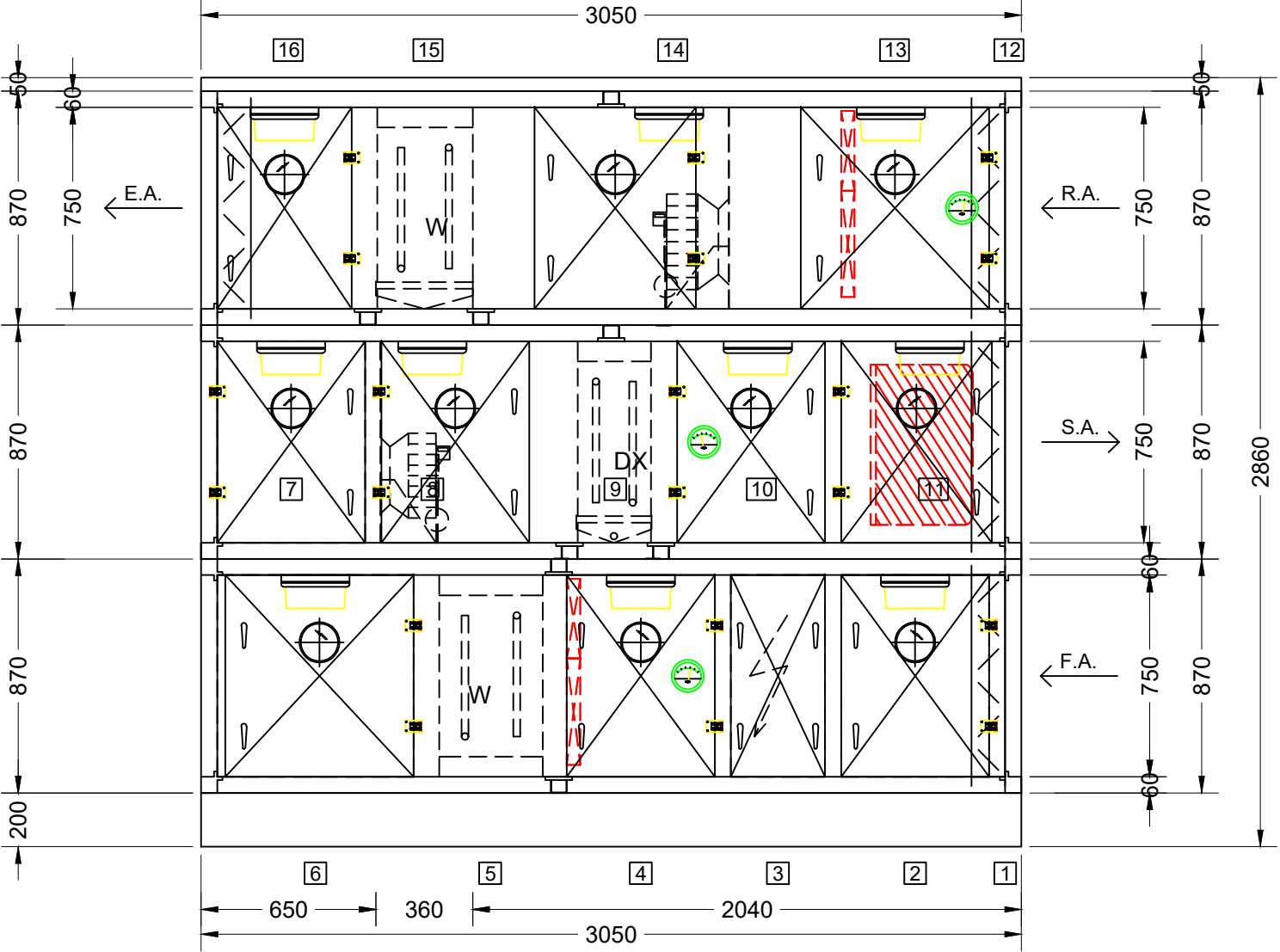
1. The SPL's stated within the above table are for externally mounted units under atmospheric conditions and include atmospheric decay. An acoustic specialist should be employed to make comparisons for the room conditions if units are internally sited.
2. The Sound Data within this table is stipulated at the design air volume. Variations to the unit performance will have an impact on this sound data.
3. Sound reduction index data relating to the AHU casework is certified by Salford University Acoustics UKAS certified Test Laboratory to BS EN ISO 10140-2 (2010).
4. If Twin fans are fitted within the AHU's, then an additional 3db should be added to all 3rd band octaves.
5. Our Sound Data is based upon the noise emissions of one plant operating. The influence of additional plant and noise sources emitting within the space being occupied by our plant will need to be assessed by an acoustic specialist.
6. Where the AHU is sited within the occupied area, the room acoustic performance will need to be assessed.
If a ceiling is employed within the room beneath the AHU, then its transmission/absorption properties must be given for noise reduction calculations. The ceiling must have no penetrations and be fully sealed; and must not be used as a return air plenum.

AHU ACOUSTIC DATA EXHAUST SECTIONS									
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	Overall dB(A)
SWL @ AHU Inlet (dB)	66	66	71	66	61	59	55	48	68
SWL @ AHU Outlet (dB)	63	61	66	65	68	63	58	48	71
Case Radiated SPL @ 1m (dB)	44	41	33	29	29	31	23	11	35

Acoustic Notes and Qualifications

1. The SPL's stated within the above table are for externally mounted units under atmospheric conditions and include atmospheric decay. An acoustic specialist should be employed to make comparisons for the room conditions if units are internally sited.
2. The Sound Data within this table is stipulated at the design air volume. Variations to the unit performance will have an impact on this sound data.
3. Sound reduction index data relating to the AHU casework is certified by Salford University Acoustics UKAS certified Test Laboratory to BS EN ISO 10140-2 (2010).
4. If Twin fans are fitted within the AHU's, then an additional 3db should be added to all 3rd band octaves.
5. Our Sound Data is based upon the noise emissions of one plant operating. The influence of additional plant and noise sources emitting within the space being occupied by our plant will need to be assessed by an acoustic specialist.
6. Where the AHU is sited within the occupied area, the room acoustic performance will need to be assessed.
If a ceiling is employed within the room beneath the AHU, then its transmission/absorption properties must be given for noise reduction calculations. The ceiling must have no penetrations and be fully sealed; and must not be used as a return air plenum.

IF IN DOUBT ASK! NOT TO SCALE



Section A: Weight = 427Kgs

Components

- 1 Inlet Section
- 2 Plenum
- 3 Electric Heat Coil
- 4 Panel Filter
- 5 LPHW Heater
- 6 Plenum

Section B: Weight = 566Kgs

Components

- 7 Plenum
- 8 Plenum Fan
- 9 DX Cooling Coil
- 10 Bag Filter
- 11 Outlet Section

Section C: Weight = 454Kgs

Components

- 12 Inlet Section
- 13 Panel Filter
- 14 Plenum Fan
- 15 CW Coil
- 16 Outlet Section

ELEVATION

This sketch is not a fabrication drawing. Once a purchase order is acknowledged, the fabrication drawing of the unit will be sent for your approval. Production wont start without your approval. Overall sizes & weight may vary.

Unit supplied in one section unless otherwise stated. Please check that the path to position is suitable for the overall size of the unit. If required we can revise our selection and offer the unit built and delivered in sections or in a flat pack form to be erected in-situ, with additional cost for site work.

CLIENT:	Hoare Lea
Project:	Spire Healthcare Chesney Court, Yale
Quote No.:	

DRAWN	
CHECKED	
DATE	



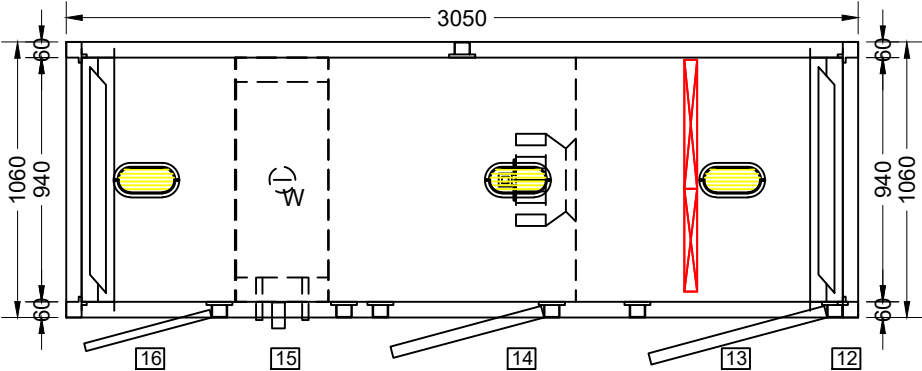
(NORTHERN) LIMITED
Tel: (0161) 745 8888 / Fax: (0161) 925 9900
Email: sales@airhandlers.net

TITLE:	AHU 01 - Option 03
REFERENCE:	AH 975-6050TB-FG-WP

DWG. No.	15305-5-0	
Air flow	.8/.8	m3/s
Quantity	1	Nos.

REV.	No.	Revision	Date

IF IN DOUBT ASK! NOT TO SCALE



Section A: Weight = 427Kgs

Components

- 1 Inlet Section
- 2 Plenum
- 3 Electric Heat Coil
- 4 Panel Filter
- 5 LPHW Heater
- 6 Plenum

Section B: Weight = 566Kgs

Components

- 7 Plenum
- 8 Plenum Fan
- 9 DX Cooling Coil
- 10 Bag Filter
- 11 Outlet Section

Section C: Weight = 454Kgs

Components

- 12 Inlet Section
- 13 Panel Filter
- 14 Plenum Fan
- 15 CW Coil
- 16 Outlet Section

PLAN UPPER DECK

This sketch is not a fabrication drawing. Once a purchase order is acknowledged, the fabrication drawing of the unit will be sent for your approval. Production wont start without your approval. Overall sizes & weight may vary.

Unit supplied in one section unless otherwise stated. Please check that the path to position is suitable for the overall size of the unit. If required we can revise our selection and offer the unit built and delivered in sections or in a flat pack form to be erected in-situ, with additional cost for site work.

CLIENT:	Hoare Lea	DRAWN	
Project:	Spire Healthcare Chesney Court, Yale	CHECKED	
Quote No.:		DATE	



(NORTHERN) LIMITED
Tel: (0161) 745 8888 / Fax: (0161) 925 9900
Email: sales@airhandlers.net

TITLE:	AHU 01 - Option 03
REFERENCE:	AH 975-6050TB-FG-WP

DWG. No.	15305-5-0	
Air flow	.8/.8	m3/s
Quantity	1	Nos.

REV.	No.	Revision	Date