



Nike Store - Manchester

70097489

Stage 4

RS

01/03/2023

T02

NRM-WSP-XX-XX-SH-M-500103

AHU

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CONTENTS OF SPREADSHEET

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Type and method of check

Signatures & dates:

By

Checked

Signed

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R. STEVENS

D.BOTTRILL

Current Revision

T02

Rev.	Date	By	Checked	Signed	Description
T01	16/12/22	R.STEVENS	D.BOTTRILL		Stage 3
T02	01/03/23	R.STEVENS	D.BOTTRILL		Stage 4

Mechanical Schedules

Schedule title	AHU Schedule			Issue	Stage 4
Schedule ref	NRM-WSP-XX-XX-SH-M-500103			Revision	T02
Project title	Nike Store - Manchester			Date	01/03/2023
Project no	70097489			Sheet	2 of 2
Specification references				Checked	RS

Air handling reference		AHU-00-01			
Location		Rooftop - Plant area			
Area served		Nike Store all areas			
Maximum dimensions and weight					
Length	mm	3782			
Width	mm	1982			
Height	mm	2220			
Dry weight	kg	1879			
Double stacked		yes			
Duty		Supply Flowrate		Extract Flowrate	
Design air flow rate	m³/s	1.70		1.70	
Construction					
Frame		Coated with Aluzinc AZ125			
Panel construction		Z275 galvanised & pre painted			
Casing finish		Aluzinc			
AHU support/base		218mm, galvanised steel			

Refer to drawings for configuration and direction of airflow

Inlet damper					
Yes/No		Yes			
Actuator		Yes			
Pre-filter					
Filter type		Bag Filter	Bag Filter		
Filter grade		F7 - ePM1 60%	F9 - ePM1 60%		
Main filter					
Filter type (Supply/Extract)		M6 - ePM2.5 50%			
Filter grade (Supply/Extract)		M6			
Heating coil (Electric)					
Heating capacity	kW	NA			
Air on temp (db.)	°C	NA			
Air off temp (db.)	°C	NA			
Supply	Voltage	volts	NA		
	Phase	ph.	NA		
	Hz	Hz	NA		
Coil air resistance	Pa	NA			
DX Coil					
Capacity	kW	25			
Air on temp (db./wb)	°C	23.7			
Air off temp (db./wb)	°C	17.5			
Eliminators		yes			
Eliminator material		Plastic			
Refrigerant type		R410A			
Heat Exchanger					
TYPE		Rotary			
		Summer	Winter		
Outside air on (DB)	°C	30	-5		
Return air on (DB)	°C	23.7	15.5		
Supply air off(DB)	°C	30	-5		
Extract air off(DB)	°C	23.7	15.5		
Design air flow rate	m³/s	2	2		
Heat recovery Efficiency	%	79	79		
Fan					
Fan reference		Supply Fan (Duty / Standby)	Extract Fan (Duty / Standby)		
Air flow rate	m³/s	1.70	1.70		
External resistance	Pa	300	300		
Fan type		Twin Fan Plug	Twin Fan Plug		
Supply	Voltage	volts	400		
	Phase	ph.	3		
	Hz	Hz	50		
Full load current	amps	3.40 kW; 3x400 V; 5.40 A	3.40 kW; 3x400 V; 5.40 A		
Starting current	amps	TBC	TBC		
Motor rating	kW	3.40 kW; 3x400 V; 5.40 A	3.40 kW; 3x400 V; 5.40 A		
Method of start		soft start	soft start		
Duty/standby motors		Duty	Duty		
Max motor speed	rpm	1872	1921		
Motor(s) in air stream		Yes	Yes		

Mechanical Schedules

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Project title	Nike Store - Manchester	Date	01/03/2023
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Specification references		Checked	RS

Air handling reference		AHU-00-01								
Fan speed	rpm	1872		1921						
Variable speed drive		Yes		Yes						
General unit data										
Reference				AHU-00-01						
Location				Rooftop - Plant area						
Noise level		db. A		*						
Supply	Voltage	volts		400						
	Phase	ph.		3						
	Hz	Hz		50						
Total running current		amps		TBC						
Maximum electrical power		kW		6.8						
Specific Fan power		W/l/s		1.7						
Acoustics										
Fan ref	Supply & Extract Fans	Hz	125	250	500	1k	2k	4k	8k	
Supply air			86	76	74	72	67	60	55	
Exhaust air			82	67	64	55	49	39	29	
Extract air			87	78	76	76	71	68	58	
Exhaust air connection SWL			83	69	71	69	67	67	55	

- Notes
- 1 This schedule shall be read in-conjunction with the specification and drawings
 - 2 Where the final layout, based on the installation drawings, and equipment selections associated with the system varies from the tender documents the installer shall responsible for calculating the final fan resistances.
 - 3 The installer shall ensure the attenuator insertion losses are suitable for the final fan selection
 - 4 Ensure adequate space for safe maintenance
 - 5 Wiring shall comply with BS 7671
 - 6 The fan and motor shall be capable of providing a 10% flow increase and a 20% pressure increase over the selected duty
 - 7 It is the subcontractor's responsibility to ensure that the performance and physical dimensions of all equipment can be accommodated prior to order.
 - 8 Fans shall be inverter controlled and supplied by the manufacturer.
 - 9 Contractor to install AHU condensate traps . The depth of the trap shall be at least twice the static pressure head generated
 - 10 All units, components and systems shall comply with the requirements of the Building Regulations and guides
 - 11 Refer to acoustic schedule for attenuators
 - 12 Controls provided, installed and wired by the contractor/BMS control specialist
 - 13 Inverter speed controls to be installed.
 - 14 DX coils, heat pumps are to be integral to the AHU.
 - 15 AHU fan shall be selected to provide 100% redundancy (Duel fans). Fan operation shall alternate to ease wear on a single fan.