

Percy

Air Handling Unit Testing Log Sheet

AHU Designation:		ON THE PLANTROOM UNIT NO 2 FROM WEST		
Drawing Reference:		AHU GR -01		
Area Served:		CALL CENTRE WEST RUN		
Design Data:				
Air-flow	(m³/s)	4.000		
Heating Capacity	(kW)	37.500		
Cooling Capacity	(kW)	80.300		
Motor Size	(kW)	4,45 * 2		
Waterflow	(l/s)	3.070		
Actual AHU Data:				
Make		SYSTEMAIR		
Model		SYS-AH-V-7		
Serial No.		SE 210101-M-4M-C		
Motor Size	(kW)	4,45 * 2		
Motor Rated FLA	(A)	6,8 * 2		
Motor Speed	RPM	2480		
Motor Efficiency	η	69.30%		
Motor Power Factor	N	73		
Temperatures and water:				
Water Entering Temperature	°C	6		
Water Leaving Temperature	°C	9.7		
Water Entering Coil Pressure	kPa	240		
Water Leaving Coil Pressure	kPa	200		
Water Flow	(l/s)	3		
		Cooling / Heating		
Ambient	°C	20		
On Coil Temperature	°C	20 / 22		
Off Coil Temperature	°C	10 / 32		
AHU Testing Data:				
Method of Measurement		ANEMOMETER		
Position of Measurement		ON THE RETURN AIR FITERS		
Measuring Area Dimensions	(W, H, ø)	1.200	1.500	
Measuring Area	(m²)	1.8		
Average Velocity	(m/s)	2.24		
Calculated Air-flow	(m³/s)	4.032		
Fan percentage	(%)	55% @ static pressure set point of 90 pa		
		Phase 1	Phase 2	Phase 3
Line Voltage	(V)	232	233	232
Line Amperage total	(A)	72.6	72.9	70.8
Fan 1 Amperage	(A)	5.7	5.8	5.8
Fan 2 Amperage	(A)	6.1	6.1	6.1
Overload Settings	(A)	Fan 1 : 6,5 amps	Fan 2 : 6,5 amps	
Heater Amps	Step 1	15.7	15.7	15.1
Heater Amps	Step 2	15.7	15.7	15.7
Heater Amps	Step 3	26	26.5	26
Heater safety 1 working	OH stat	YES		
Heater safety 2 working	Pressure switch	YES		
Calculated heating capacity	(kW)	39.9851		

Notes:

Project: FNB FERNDALE
 Project No.:
 Date: 22/05/2021
 Technician: Percy
 Fan Drawing Number: AHU GR-01 ,supply air readings

Testing & Commissioning:
Air Balancing:

Area served	Grille/ diffuser/ disk valve Number	Design l/s	Balance to Calculated total airflow l/s	Actual l/s	Deviation %	Air velocity@1,8m in m/s	Remarks
CALL CENTRE WEST RUN	DIFFUSER 1	563	565	574	11	0.16	
FIRST FLOOR WEST	DIFFUSER 2	563	565	576	13	0.18	
FIRST FLOOR WEST	DIFFUSER 3	563	565	568	5	0.2	
FIRST FLOOR WEST	DIFFUSER 4	563	565	572	9	0.16	
FIRST FLOOR WEST	DIFFUSER 5	563	565	571	8	0.18	
FIRST FLOOR WEST	DIFFUSER 6	563	565	563	0	0.22	
FIRST FLOOR WEST	DIFFUSER 7	563	565	559	-4	0.17	
TOTAL AIRFLOW FOR AHU IS : 3983 l/s							
					3983		