BUROHAPPOLD ENGINEERING

BH-ZSG-SCH-M-0001

Section C & D - VRF IDU & ODU Schedule

Revision	Description	Issued by	Date	Checked by
00	Tender	TA	Oct-15	TA
01	Tender	TA	Nov-15	PG

BH-ZSG-SCH-M-0001
VRF - INDOOR UNITS

Sr. No.	EQUIP. TAG NO	LOCATION	SERVED AREA	UNIT TYPE	QTY (NOS)	REQUIRED CAPACITY (COOLING LOAD)		SELECTED UNIT CAPACITY		SUPPLY FAN				EMERGENCY POWER (YES/NO)	REMARK
						SENSIBLE LOAD	TOTAL LOAD	SENSIBLE CAPACITY	TOTAL CAPACITY	AIR FLOW RATE	ESP	MOTOR DATA			
						TR	TR	TR	TR	CFM	(IN WC)	V/Ø/Hz	WATTS		
1	SG-IDU-L0001	As in drawing	Overview deck	Ducted	1	4.0	4.7	6.31	8.0	**2210**	0.80	230 / 1 / 50	**760**	YES	
2	SG-IDU-L0002	As in drawing	Overview deck	Ducted	1	4.0	4.7	6.31	8.0	**2210**	0.80	230 / 1 / 50	**760**	YES	
3	SG-IDU-L0003	As in drawing	Overview deck	Ducted	1	4.0	4.7	6.31	8.0	**2210**	0.80	230 / 1 / 50	**760**	YES	
4	SG-IDU-L0004	As in drawing	Meeting room 1,4	Ducted	1	0.5	0.8	0.88	1.0	**290**	0.40	230 / 1 / 50	**100**	YES	
4	SG-IDU-L0005	As in drawing	Staff	Ducted	1	3.1	3.8	5.03	6.4	**1715**	0.80	230 / 1 / 50	**760**	YES	
5	SG-IDU-L0006	As in drawing	Model room	Ducted	1	3.3	4.3	5.03	6.4	**1695**	0.80	230 / 1 / 50	**760**	YES	
6	SG-IDU-L0007	As in drawing	Model room	Ducted	1	3.3	4.3	5.03	6.4	**1695**	0.80	230 / 1 / 50	**760**	YES	
7	SG-IDU-L0008	As in drawing	Model room	Ducted	1	3.3	4.3	5.03	6.4	**1695**	0.80	230 / 1 / 50	**760**	YES	
8	SG-IDU-L0009	As in drawing	Model room	Ducted	1	3.3	4.3	5.03	6.4	**1695**	0.40	230 / 1 / 50	**760**	YES	
9	SG-IDU-L0010	As in drawing	Server room	Ducted	1	1.1	1.1	1.22	1.6	**590**	0.40	230 / 1 / 50	**160**	YES	
10	SG-IDU-L0011	As in drawing	Meeting room-2, 3	Ducted	1	0.7	1.0	1.1	1.4	**405**	0.40	230 / 1 / 50	**100**	YES	
11	SG-IDU-L0012	As in drawing	Meeting room-7,8	Ducted	1	2.0	2.4	3.4	4.6	**1135**	0.40	230 / 1 / 50	**430**	YES	
12	SG-IDU-L0013	As in drawing	Meeting room-5,6	Ducted	1	2.2	2.6	4.0	5.1	**1210**	0.40	230 / 1 / 50	**430**	YES	
13	SG-IDU-L0014	As in drawing	Lobby/Reception	Ducted	1	3.0	4.1	5.03	6.4	**1450**	0.40	230 / 1 / 50	**760**	YES	
14	SF-IDU-L0001	As in drawing	L/D area showflat	Hi-wall	1	1.8	2.0	1.91	2.0	**495**	Free Flow	230 / 1 / 50	**50**	YES	
15	SF-IDU-L0002	As in drawing	L/D area showflat	Hi-wall	1	1.8	2.0	1.91	2.0	**495**	Free Flow	230 / 1 / 50	**50**	YES	
15	SF-IDU-L0003	As in drawing	Bed-1 Master showflat	Hi-wall	1	1.8	2.0	1.91	2.0	**495**	Free Flow	230 / 1 / 50	**50**	YES	
16	SF-IDU-L0004	As in drawing	Bed-2 area showflat	Hi-wall	1	1.8	2.0	1.91	2.0	**495**	Free Flow	230 / 1 / 50	**50**	YES	
17	SF-IDU-L0005	As in drawing	Children area showflat	Hi-wall	1	1.3	1.5	1.48	1.8	**425**	Free Flow	230 / 1 / 50	**50**	YES	
18	SF-IDU-L0006	As in drawing	Study area showflat	Hi-wall	1	1.3	1.5	1.48	1.8	**425**	Free Flow	230 / 1 / 50	**50**	YES	

NOTES **THIS SCHEDULE SHALL BE READ IN CONJUNCTION WITH SPECIFICATION AND DRAWINGS.**

1. FCU SHALL BE CONTROLLED BY ROOM THERMOSTAT.
2. ALL COOLING LOADS TO BE BASED UPON MEDIUM SPEED SETTINGS.
3. ALL FCUS TO BE MOUNTED FROM AV MOUNTS/SPRING ISOLATORS (AS APPROPRIATE).
4. WHERE FCUS ARE MOUNTED IN PLASTER BOARD CEILINGS, ACCESS HATCHES TO BE PROVIDED.
5. FAN EFFICIENCY SHALL BE >=70%
6. ALL FCUS SHALL BE PROVIDED WITH INSULATED EXTERNAL DRAIN TRY EXTENDED TO ACCOMMODATE ENTIRE FCU IN/OUT VALVE ASSEMBLY INSIDE TRAY.
7. FCU SELECTION TO BE SUBMITTED FOR APPROVAL.
8. CONTRACTOR / SUPPLIER TO VERIFY THE EXTERNAL STATIC PRESSURE BASED ON APPROVED LAYOUTS BEFORE ORDERING THE EQUIPMENT AND ESP CALCULATION TO BE SUBMITTED FOR FOR ENGINEERS APPROVAL.
9. SINCE FCU ARE INSTALLED IN TO OCCUPIED AREAS,THE FCU FANS SHOULD BE SELECTED FOR THE LOWEST SOUND POWER LEVELS.THE SOUND POWER LEVEL SPECTRA FOR THE SAME TO BE SUBMITTED FOR APPROVAL. SOUND PRESSURE LEVEL SHALL FULFILL THE CRITERIAS OF NC LEVEL AS PER M/S CERAMI SPECIFICATION.
10. MOTOR MAKE SHALL BE GEC/BHARAT BIJLEE/ABB. MOTOR SHALL BE TEFC/ SQ. CAGE EFFICIENCY CLASS I.
11. THE CONTROLS SHALL BE COMPATIBLE WITH BMS SYSTEM.
12. MOTOR SHALL HAVE POWER FACTOR AT FULL LOAD RUNNING CONDITION THAT ARE EQUIVALENT OR BETTER THAT THE REQUIRED BY ELECTRTICITY SUPPLY AUTHORITY.
13. FILTERS SHALL COMPRISE OF ONE SECTION AND DESIGNED FOR SIDE/UNDERSIDE WITHDRAWL.
14. FOR FURTHER DETAILS REFER TO THE PROJECT SPECIFICATION

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BH-ZSG-SCH-M-0001
VRF-AIR COOLED OUTDOOR UNITS

SR. NO.	EQUIP. TAG NO.	LOCATION	SERVED AREA	UNIT TYPE	QTY	REFRIGERANT TYPE	COOLING CAPACITY (TR)	INPUT POWER (KW)	FAN DATA				EMERGENCY POWER (YES/NO)	MIN. COP AT AHRI CONDITIONS	REMARK
									AIRFLOW (CFM)	QTY.	V/Ø/Hz	INPUT POWER (kw)			
1	SG-ODU-L0001	AS SHOWN ON DRAWINGS		VRV INVERTER SCROLL / ROTARY	1	R-410A	44.3	**49.5**	TO BE AN INTEGRAL PART OF THE CONDENSING UNIT				YES	3.7	54 HP
2	SG-ODU-L0002			VRV INVERTER SCROLL / ROTARY	1	R-410A	14.8	**16.5**	TO BE AN INTEGRAL PART OF THE CONDENSING UNIT				YES	3.7	18 HP
3	SG-ODU-L0003			VRV INVERTER SCROLL / ROTARY	1	R-410A	9.8	**9**	TO BE AN INTEGRAL PART OF THE CONDENSING UNIT				YES	3.7	12 HP

EQUIPMENT SELECTED IS A SAMPLE THAT HAS BEEN MENTIONED FOR THE PURPOSE OF DRAWING PRODUCTION & ELCTRICAL POWER CONSUMPTION.

NOTES THIS SCHEDULE SHALL BE READ IN CONJUNCTION WITH SPECIFICATION AND DRAWINGS.

1 UNITS SHALL BE MOUNTED ON AV MOUNTS/ SPRING ISOLATORS.

2 UNIT SHALL HAVE LOW NOISE LEVELS OF 60dba at 1.5 M DISTANCE.

3 FOR FURTHER DETAILS REFER TO THE PROJECT SPECIFICATION.

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