

			PACKAGE	D AIRCONDITION	ONING UNIT					
REF.	DESCRIPTION.	TOTAL COOLING CAP. (kW)	SENSIBLE COOLING CAP. (kW)	SENSIBLE HEATING CAP. (kW)	REHEAT CAP. (kW)	HUMIDIFIER (kg/hr)	POWER SUPPLY		TOTAL SUPPLY AIR FLOW	MIN FRESH AIR SUPPLY
INCI							(kW)	(V/ph/Hz)	(l/s)	(I/s)
PU01	PACKAGED UNIT	9.4	9.4	1.9	9.7	2.9		380/3/50	902	110
PU02	PACKAGED UNIT	15.0	15.0	4.3	15.4	5.0		380/3/50	1428	190
PU03	PACKAGED UNIT	16.4	14.9	4.9	14.0	9.2		380/3/50	1294	280
PU04	PACKAGED UNIT	17.7	16.9	10.0	14.4	12.2		380/3/50	1335	415
DUINE	PACKAGED LINIT	85.0	_	97.0	_	_		380/3/50	4240	4240

FANS							
NUMBER	MAKE	MODEL	DESCRIPTION	SIZE	DUTY	CONTROLS	FIRE INTERLOCK
EF01			WALL MOUNTED EXTRACT FAN		100 l/s @ 50Pa	TIMER	YES
EF02			WALL MOUNTED EXTRACT FAN		140 l/s @ 50Pa	TIMER	YES
EF03			WALL MOUNTED EXTRACT FAN		140 l/s @ 50Pa	TIMER	YES
EF04			WALL MOUNTED EXTRACT FAN		350 l/s @ 50Pa	TIMER	YES
EF05			WALL MOUNTED EXTRACT FAN		350 l/s @ 50Pa	TIMER	YES

VRV HEAT RECOVERY UNIT									
	DESCRIPTION.	TOTAL SENSIBLE COOLING CAP. (kW)		SENSIBLE	POWER SUPPLY		DIMENSIONS		;
REF.			HEATING CAP. (kW)	NOMINAL (current input A)	(V/ph/Hz)	H(mm)	W(mm)	D (mm)	
VRF01	VRF OUTDOOR UNIT	195.2		78.0		380/3/50			

NOTES:

- TO BE READ IN CONJUNCTION WITH ARCHITECT'S ROOM DATA SHEETS, ISSUED TO BUILDER. IF THERE ARE ANY DISCREPANCIES, ARCHITECT'S ROOM DATA SHEETS SHOULD TAKE FIRST PRECEDENCE & SERVICES ENGINEER SHOULD BE INFORMED

 ALL FRESH & EXHAUST AIR QUANTITIES TO NBR
- REQUIREMENTS SANS 10400 O :2011
 3. DUCTING TO BE MANUFACTURED IN
 ACCORDANCE WITH SANS 1238 AND
 TO BE INSTALLED, TESTED AND
 COMMISSIONED IN ACCORDANCE
 WITH SANS 10173 AND CIBSE
- CODES.

 4. ALL DUCT FLANGES TO BE OF THE MEZZ-FLANGE TYPE, EXCEPT EXTRACT CANOPY DUCTING. EXTRACT CANOPY DUCTING SHALL
- EXTRACT CANOPY DUCTING SHALL
 BE WELDED BLACK STEEL DUCTING.

 5. ALL DUCT JOINTS TO BE SEALED
 WITH BANDAGE AND FOSTER 30/30.

 6. ALL EXPOSED DUCTING SHALL BE
- PAINTED TO A COLOUR AS
 SPECIFIED BY THE ARCHITECT.

 7. FLEXIBLE CONNECTIONS TO HAVE A
 FIRE RATING IN ACCORDANCE WITH
 SANS 0177 PART 3 CLASS. MAXIMUM
 FLEXIBLE DUCT LENGTH TO
 DIFFUSERS ETC. NOT TO EXCEED
 1000mm. AND TO BE FIXED TO
 ROUND DUCTS AND SPIGOTS WITH
 SWAGED ENDS BY MEANS OF
 JUBILEE CLAMPS.
- 8. DIFFUSERS, GRILLES AND LOUVRES
 TO BE EPOXY POWDER COATED TO
 A COLOUR AS SPECIFIED BY THE
 ARCHITECT/ENGINEER. ALL
 COLOURS TO BE CONFIRMED
 BEFORE ORDER.
- 9. ALL AIR FLOW BALANCING DEVICES
 TO BE POSITIVELY FIXED IN
 POSITION AND SEALED OR LOCKED
 10. ALL MEASUREMENTS TO BE
- VERIFIED ON SITE BEFORE
 MANUFACTURING COMMENCES.

 11. CONDENSERS TO BE INSTALLED ON
 100mm HIGH PLINTHS BY OTHERS.
 GALVANIZED UNI-STRUT BRACKETS
 TO BE MANUFACTURED FOR
- STACKING OF CONDENSERS.

 12. DRAIN PIPES TO BE ADEQUATELY SLOPED TO ENSURE POSITIVE DRAINAGE. ALL CONDENSATE PIPE CONNECTIONS TO WASTE WATER PIPES SHALL BE AIR TIGHT AND COMPLETELY SEALED. (NO PVC)

 13. ALL CONDENSATE DRAIN PIPES
- FITTED WITH U-TRAPS. NO TRAPS IN WALLS

 14. MIDWALL UNITS IN SERVER OR UPS ROOMS TO BE FITTED WITH A STAINLESS STEEL DRIP TRAY AND

AN INDEPENENT DRAIN

FROM AIR CONDITIONERS TO BE

- 15. REFRIGERANT PIPES IN CEILING VOIDS TO BE MOUNTED ON SUITABLE CABLE TRAYS.
 16. EXPOSED REFRIGERANT PIPES FROM A SINGLE UNIT TO BE MOUNTED IN P7100 GALVANIZED TRUNKING, EPOXY POWDER
- COATED TO A COLOUR AS
 SPECIFIED BY THE ARCHITECT.

 17. REFRIGERANT PIPING INSULATION
 EXPOSED AT FINAL CONNECTION TO
 CONDENSER TO BE PAINTED WITH
 UV RESISTENT PAINT

 18. ALL REFRIGERANT PIPES FROM
- 18. ALL REFRIGERANT PIPES FROM MIDWALL UNITS TO RISE TO CEILING VOID AFTER EXITING THE UNIT.
 19. EXPOSED REFRIGERANT PIPES OF MULTIPLE UNITS TO BE MOUNTED IN PERFORATED CABLE TRAY WITH LID, EPOXY POWDER COATED TO A COLOUR AS SPECIFIED BY THE
- ARCHITECT.

 20. WIRING OF AC UNITS REQUIRING HARD WIRED REMOTE
 CONTROLLERS TO BE INSTALLED IN 20mm PVC CONDUIT IN CEILING VOIDS. BOSAL CONDUITS TO BE USED WHERE CONDUITS ARE EXPOSED
- 21. ALL WALL MOUNTED WIRED REMOTE CONTROLLERS TO BE CHASED INTO WALL.
 22. POWER SUPPLY FOR INDOOR UNITS TO BE SUPPLIED FROM OUTDOOR
- UNITS UNLESS OTHERWISE
 INDICATED.
 23. ALL SUPPLY & RETURN AIR DUCTING
 TO BE THERMALLY INSULATED 25mm FRK INSULATION WITH
- REINFORCED / ALUMINIUM FOIL LAMINATE 24. ALL FLEX DUCTING TO BE OF
- ACOUSTIC TYPE

 25. ALL BENDS TO HAVE SPLITTER VANES.

 26. CONNECTION TO RETURN AIR GRILLS TO BE RESOLVED ON
- GRILLS TO BE RESOLVED ON
 WORKSHOP DRAWINGS
 27. FINAL COORDINATION WITH
 ELECTRICS & PLUMBING TO BE
- CARRIED OUT ON SITE

 28. FILTER BOXES WITHOUT ACCESS
 THROUGH LOUVRE TO HAVE HINGED
 ACCESS PANEL SECURED WITH
 QUICK RELEASE CLIP

 29. LOUVRE CLEAR OPENING 50mm
 WIDER/HIGHER THAN ACTUAL
- LOUVRE WITH A 20mm WOODEN SUBFRAME

 30. TOP OF DUCT INSTALLED 50mm UNDER SOFFIT UNLESS OFFSETS
- INDICATED.

 31. INTERNAL DUCT INSULATION
 SHALL NOT BE PERMITTED

 32. ALL DUCTWORK ON THE ROOF
 SHALL BE CLAD WITH GALVANISED

SHEET METAL CLADDING

LEGEND

AC MIDWALL UNIT

EXTRACT FAN

EXTRACT AIR

FRESH AIR

SUPPLY AIR

RETURN AIR

SMOKE EXTRACT

25mm CONDENSATE
DRAINAGE

DTG

400mmX400mm DOOR
TRANSEER CRILLE

С	16/10/2024	FOR INFORMATION
В	27/09/2024	FOR INFORMATION
Α	27/08/2024	FOR INFORMATION
REV No	DATE:	DESCRIPTION:
		REVISIONS
1		SIZE ON ORIGINAL DRAWING 100 mm
CLIENT		
OLILIN		

SABS GROENKLOOF NEW ELECTRONICS LABORATORY

SABS

South African Bureau of Standards

DRAWING TITLE

PROJECT

HVAC LAYOUT PLANTROOM

FILE No.				ITEM No.					
DESIGN	DESIGN T. MOYO		M.COLA	DRAWN					
SCALE 1:100			T.MOYO	CHECKED					
$\overline{}$		RESPONSIBL	E PROFESSIONAL	$\overline{}$					
DATE		NAME & SURNAME	SIGNATURE	PR. NUMBER					
27/08/2024	4 THABO MOYO			20120466					
CONSULTANT :									
CAD			-11						
CAD SYSTEM:		AUTOCAD 2015		FILE NAME					
SHEET SIZE DRAWING NUMBER REV									

SABS-NEL-M6-02