

BILL FOR VRV AIR CONDITIONING WORKS AT STATE BANK OF INDIA, REGIONAL BUSINESS OFFICE-IV, AT JALANDHAR., (PB.)					
<b>PART A : Supply of Multi V-5 VRF Airconditioning system (equipments)</b>					
S.No.	Item	Qty.	Unit	Rate	Amount
A	<b>Variable Refrigerant Volume System</b>				
	Supplying, installation, testing and commissioning of Air Cooled VRV/VRF units with scroll Compressor capable of modulating capacity i.e. it should be able to vary speed of the compressor as per the varying load conditions and works on R410A with heating & cooling both. The outdoor unit shall be a factory assembled unit housed in a sturdy weather proof casing constructed from rust-proofed mild steel panels coated with powder coated finish. The outdoor unit shall have scroll compressors and be able to operate even in case of breakdown of one of compressor. Each unit shall be equipped, with an oil separator to ensure stable operation with long refrigerant piping etc. Condensor Shall have with Hydrophlic Coating and Corrosion Resistance Coating.				
	<b>Outdoor Unit</b>				
	Supplying Gas charged outdoor units equipped with highly efficient scroll compressors, with all Inverter Scroll type compressor(s), special acryl pre-coated heat exchanger, low noise condenser fan, auto check function for connection error etc, centralized controller for individual control complete as per OEM specifications of Following Capacity. <b>(Chinese Manufacturing MAChinery is not Acceptable)</b>				
	Out Door Unit - 52 HP Top Discharge (20 HP + 16 HP + 16 HP)	1	Nos.		
	ODU Connecting KIT	1	Nos.		
B	<b>Supply of Indoor Units:</b>				
	1 Way Cassette Type Unit - 1.02 TR	5	Nos.		
	1 Way Cassette Type Unit - 1.60 TR	2	Nos.		
	4 Way Cassette Type Unit - 2.50 TR	14	Nos.		
C	Supplying of Imported fittings (Ref Net) Y-joints etc as per specifications as required complete in all respects.	20	Nos.		
D	Supplying of Cordles Remote with IR Reciver reqd. to operate the indoor Hi-wall & Cassette units as per specification mentioned in the bidding document and as per standard guidelines etc. as required.	21	Nos.		
<b>Total PART A</b>					
<b>PART B : Supply, Installation, Testing and Comissioning of Centralised Air-conditioning system as per specifications and drawings</b>					
1	Installation , testing and commissioning of Air-cooled type airconditioning VRV outdoor condensing units with MS Stand ,Gas Charging,Vaccumisation and Pressure testing.				
	Out Door Unit - 52 HP Top Discharge (20 HP + 16 HP + 16 HP)	1	LS		
2A	Installation , testing and commissioning of indoor units as per BOQ				
	1 Way Cassette Type Unit - 1.02/1.60 TR	7	Nos		
	4 Way Cassette Type Unit - 2.50 TR	14	Nos		
3	Supplying, installation, testing and commissioning of following sizes of refrigerant copper piping work with 19/13mm thick closed cell elastomeric nitrile rubber tubular insulation between each set of indoor and outdoor units as per specifications duly painted with protective ultra violet paint complete as required. All piping works inside the class room shall be duly supported with MS hangers and clamps.				
	41.3mm outer dia (insulation 19mm)	10	Mtrs.		
	34.6mm outer dia (insulation 19mm)	5	Mtrs.		
	28.6mm outer dia (insulation 19mm)	5	Mtrs.		

	22.2mm outer dia (insulation 19mm)	10	Mtrs.		
	19.1mm outer dia (insulation 19mm)	15	Mtrs.		
	15.9mm outer dia (insulation 13mm)	70	Mtrs.		
	12.7mm outer dia (insulation 13mm)	35	Mtrs.		
	9.5mm outer dia (insulation 13mm)	70	Mtrs.		
	6.4mm outer dia (insulation 13mm)	30	Mtrs.		
4	Supply and installation of GI tray of following sizes including horizontal and vertical bends, cross member with suitable hangers and supports complete as required.				
	150mm (wide) x 50mm(depth) x 1.6mm (thick)	20	Mtrs.		
5	Supplying, installation, testing and commissioning of following sizes of rigid PVC piping complete with elbow T-joint, socket duly supported as per specifications and insulated with 6mm thick closed cell nitrile rubber insulation.				
	25 mm	100	Mtrs.		
	32 mm	40	Mtrs.		
6	Supply, Installation, Testing and Commissioning of control cum transmission wiring of 2 core1.25 sq mm copper wire in suitable PVC conduits between indoor & outdoor units to central remote controllers & for connections between indoor unit to outdoor unit	300	Mtrs		
7	SITC of MS Stand for VRF Outdoor Units	3	Nos.		
8	SITC of Additional Gas Charging R410A	1	Lot		
Total PART B					
PART C : Credit of Old Ductable Ac Units					
	CREDIT OF OLD DUCTABLE AC UNITS				
1	Dismantling and Lifting of OLD Ductable AC units including indoor and outdoor GI Ducting, Cutting of MS Pipe, and dismantling from existing system.	1	Lot		
	8.5 Ton	2	No's		
	11.0 Ton	2	No's		
Total PART C					
	Total (B-C)				
	TOTAL PART A + PART (B-C)				

SIGNATURE OF CONTRACTOR