

Price Bid for "Design, Supply, Installation, Testing & Commissioning of 46 HP VRV/VRF Outdoor AC units with allied works" at 3rd Floor (Phase - 1) of Indian Bank, Head Office, Main Building, No: 66, Rajaji Salai, Chennai - 600 001.

" Design, Supply, Installation , Testing & Commissioning of 46 HP VRV/VRF Outdoor AC units with allied works" at 3rd floor (Phase 1) of Indian Bank, Head Office, Main Building, No: 66, Rajaji Salai, Chennai 600 001.

Sl No:	Description	Unit	Qty	Supply		Installation	
				Rate* (Rs.)	Total Amount* (Rs.)	Rate* (Rs.)	Total Amount* (Rs.)
A							
	Supply, Installation, testing and commissioning of Outdoor units consists of 100% inverter scroll compressor / Twin Rotary compressors, DC fan motor with aero-spiral fan blade, e-pass heat exchanger, safety valves, solenoid valves, receiver, capillary tube, check valve, electronic expansion valve, high pressure switch, low pressure sensor, pressure regulating valve, refrigerant filter, stop valve, accumulator and refnet kits. Rate inclusive of R-410A refrigerant & oil pre charging, vibration isolators & supports, necessary foundation/pedestal works etc. The capacities are as mentioned below:-						
1	VRV OUTDOOR UNITS						
a	22 HP	Nos.	1.00				
b	24 HP	Nos.	1.00				

2	Design, Supply, Installation, testing and commissioning of Indoor air conditioning units with direct driven fan, high efficient filter, inbuilt microprocessor thermostat, electronic expansion valve, provision of fresh air duct connection, remote controller including cable, drain pump set (for cessette units and hi-static ductable units), necessary ceiling supports & vibration isolators , refrigrant charging , Refnet joints (Refrigerant Branch kit) for both liquid and gas line branch kits, oil charging, control wiring, and drain connection etc. The capacities are as mentioned below:-						
i	VRV INDOOR UNITS (CASSETTE)						
a	Cooling Capacity - 1 TR	Nos.	4.00				
b	Cooling Capacity - 1.3 TR	Nos.	1.00				
c	Cooling Capacity - 1.6 TR	Nos.	5.00				
d	Cooling Capacity - 2 TR	Nos.	4.00				
e	Cooling Capacity - 2.6 TR	Nos.	1.00				
f	Cooling Capacity - 4.0 TR	Nos.	4.00				
	SUB TOTAL						
	TOTAL (Supply + Installation) (A)						
B	LOW SIDE WORKS						

1	Supply, Installation, Testing & commissioning of Reffnet Joints	Nos.	18.00				
2	Pressure Testing & Pressure holding nitrogen for the entire AC system for the required number of times as per the site condition.	Lot	1.00				
3	Testing and commissioning of entire system VRV/VRF Units and other accessories.	HP	46.00	-----			
4	Supply, Installation, Testing & commissioning of hard/soft drawn refrigeration piping . The brazing to be carried out with bleeding of Nitrogen. The copper Pipes to be insulated with 19mm thick/13mm thick Nitrile rubber sleeves						
a	6.35mm dia	Rmt	35.00				
b	9.8mm dia	Rmt	100.00				
c	12.7mm dia	Rmt	40.00				
d	15.88mm dia	Rmt	120.00				
e	19.1mm dia	Rmt	25.00				
f	22.2mm dia	Rmt	50.00				
g	28.6mm dia	Rmt	30.00				
h	31.8mm dia	Rmt	10.00				
i	38.1mm dia	Rmt	20.00				
j	41.3mm dia	Rmt	30.00				

5	The copper Pipes to be insulated with 19mm thick/13mm thick Nitrile rubber sleeves of GC material/ Nylon tape with Polyshield paint for the exposed pipes	Rmt	60.00				
6	Supply and laying of 3C x 1.5 Sqmm Copper Cable (Flexible)-Communication and Control cabling between indoor and outdoor units. The rate shall be including suitable size PVC conduit with conduit accessories and necessary fixing arrangement. (The control Cable Technical Specification should match with the Manufacturers specification & as per their recommendations.)	Rmt	400.00				
7	Providing, fixing, testing and commissioning insulated PVC drain piping for indoor unit with 9 mm thick Nitrile Rubber insulation.						
a	32 mm	Rmt	120.00				
b	40 mm	Rmt	80.00				
8	Design, Supply, installation, testing and commissioning of Fresh air Fan Units. The unit shall be double skin 25±5mm thick panel with PUF insulation, belt driven centrifugal fan, High efficiency motor , spring vibration isolator for fan and motor, Fire retardant canvass connections, internal power and control wiring, GI base frame complete as per specifications as required. The cost shall inclusive of starter panel, required power cabling between the starter panel and fans, mounting arrangements, etc.						
a	Air Qty: 1200 CFM, ESP: 15mmWC, With MERV 8 filter	Nos.	2.00				

a	Supply of Factory Machine Fabricated GI Ducting and installation with the approved shop drawings complete with all accessories like flanges, suspension rods , anchor bolts, GI bolts & nuts & Gasket Sealant: - Rectangular duct					
b	24 Guage Thickness	Sq.m	140.00			
c	100mm Disc Valve	Nos	20.00			
9	Insulated Flexible Ducting					
10	The flexible duct shall me made of triple lamination of aluminium foil, polyester and metalised polyester film permanently bonded to a coated spring steel wire helix. The exterior shal be wrapped with 25mm thick 16 kg / cum fibreglass insulation. The outer insulation jacket / vapour barrier made of fibreglass reinforced metalised polyester film laminate.					
a	100 mm dia	Rmt	80.00			
11	Additional Gas charging -R 410 A (Bidders to calculate the quantity of gas required for the entire system).	Lot	1.00			
12	Lifting and shifting of VRV IDU's to the respective floors	Nos.	19.00	-----		
13	Lifting and shifting of VRV ODU's to the respective floors	Nos.	2.00	-----		
14	Transport charges	Lot	1.00	-----		
15	Anti Corrosive Paints for all the VRV IDU's	Nos.	19.00			

16	Anti Corrosive Paints for all the VRV ODU's	Nos.	2.00				
17	Civil works for Concrete Pedestal required for an length of 15 meter for placing the 2 Out door units & supports for ODU as recommended by the Manufacturer. (The rate includes dismantling the existing concrete foundation at the site). The new foundation /pedestral design shall be as per the direction of Architect/Bank.	Lot	1.00				
18	Required number of Core Cutting Charges required for the civil works as per the site condition.	Lot	1.00				
	Supply and laying of following sizes of 1.1KV grade XLPE insulated armoured FRLS grade cable with aluminium conductor multistrand cable with ISI markings of approved make and quality from Existing AHU room Panel to various switch boards / Distribution boards . The cable shall be laid in the cable trays, racks (excluding supply & erection of cable trays / racks) Wherever cable are required to be laid on wall, base bracket fitted onto wall / ceiling and necessary clamps/ harwares etc. all complete and the rate for such clamps, hardwares shall be included in the scope. Before laying the cable approval for the routing and the manner of laying shall be obtained from the Architect / Owner. For cable end termination , Supply and providing cable end termination for following sizes of 1100V grade XLPE insulated armoured FRLS grade aluminium conductor multi-strand cable with necessary gland sand jointing materials etc. all as per requirement.						

19	Supply & Laying of 3.5C x 35 Sqmm Al. Ar.Cable including end termination at both sides.	mts	200.00				
20	Supply & Installation of 4C x 16 Sqmm CU Ar.Cable (From Weather proof box to AC Outdoor unit) including termination at both sides.	mts	80.00				
21	Supply & Installation of 100/63 Amps /300 ma RCCB with Weather proof enclosure (IP 67) for AC Out door.	set	2.00				
	Supply and run of following sizes of copper from earth electrode to neutral terminals of transformer and other required locations as per statutory requirements and neatly clamped to wall cable tray with necessary hardwares, PVC FRLS conduits at places required as directed by Architects / Consultants.						
22	Supply & Laying of No. 8 SWG copper with all the accessories & connecting it to the main earth bridge in 3rd floor.	mtr	100.00				
	SUB TOTAL *						
	TOTAL (Supply + Installation) * (B)						
	GRANT TOTAL (A+B) *						

* - Exclusive of GST.