

NAHARLAGUN BAZAR BRANCH (ALTERNATE PREMISES)
BOQ FOR VRF/VRV AIR CONDITIONING INSTALLATION WORK

SI No.	Description	Qty	Unit	Rate	Amount
	PART - A (SUPPLY PART)				
1	Variable Refrigerant Volume / Flow System (VRF/VRV)				
	Supply of modular type Variable Refrigerant Flow/Variable Refrigerant Volume air cooled Outdoor Units suitable for cooling, having all hermetically sealed OEM manufactured inverter type Scroll/Twin Rotary Compressor(s), microprocessor-based controller, Top discharge type condensing units with R410 A refrigerant, vibration isolators with suitable foundation etc. complete as required. The Compressor and VRF System should be of same make. The unit shall deliver the rated capacity at AHRI conditions and work even at 50 Deg C ambient temperature without tripping. The unit shall be suitable to work on 400 V+/-10% 3 phase, 50 Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5.(The system should have features of "uninterrupted communication when main power supply of any indoor unit cut-off")				
	Outdoor Unit				
a.	28 HP	1	No		
b.	12 HP	1	Nos		
2	Indoor Units				
2.1	Ductable Units: Supply of ductable type unit of following Capacities. The unit is having inbuilt drain pump.				
a.	Capacity 8.0 TR	3	Nos		
2.2	Cassette Units: Supply of ceiling mounted cassette type unit/ Hi-Wall of nominal capacity suitable for heating and cooling mode on R 410A refrigerant with electronic expansion valve, multi speed motor, insulated drain pump & pan, cordless remote with decorative panel of suitable size complete as per specifications etc. as required.				
b.	Capacity 1.5 TR	1	Nos.		
b.	Capacity 2.0 TR	1	Nos.		
c.	Capacity 3.0 TR	1	Nos.		
d.	Capacity 4.0 TR	1	Nos.		
3	Supply of Refnet Joints (Y-Branch)	5	Nos.		
4	Supply installation and commissioning of centralise remote controller having touch scren based user freindly controller systems can be controlled , parameters for individual indoor units can be set,remote sheilding of machines can be performed,parameters like on/off status ,mode of peration temp setting can be viewed and set.	1	Nos.		
	Sub Total Part A				
	PART - B (INSTALLATION PART)				
5	VRF/VRV System				

Sl No.	Description	Qty	Unit	Rate	Amount
	Installation, testing and commissioning (Including Lifting at roop level) of variable refrigerant volume type airconditioning system complete with indoor and out door units with individual controller and with refrigerant piping, control cabling, MS channel for mounting of outdoor units with rubber pads as required including pressure testing & flushing of pipeline system with nitrogen, etc. as per as per detail given in specifications and having following items:				
	Outdoor Unit				
a.	28 HP	1	No		
b.	16 HP	1	Nos		
6	Installation, testing and commissioning of Ductable type unit of following Capacities.				
a.	Capacity 8.0 TR	3	Nos		
6	Installation, testing and commissioning of Cassette type units of following Capacities.				
a.	Capacity 1.5/ 2.0 /3.0/4.0 TR	4	No.		
7	Installation, Testing & Commissioning of Refnet Joints (Y-Branch)	5	Nos.		
8	Refrigerant Pipe				
	Supply, installation, testing & commissioning of interconnecting refrigerant copper pipe (Hard/ Soft) work with 19mm/ 13mm thick closed cell tubular nitril rubber insulation between each set of indoor & outdoor unit for suction and liquid line as per specifications, all piping inside the room shall be properly supported on with MS/GI Studs/ Clamps/ Hanger as per specification and drawings.				
a.	Suction Line with 19 mm thick nitril insulation	120	Rm		
b.	Discharge Line with 13 mm thick nitril insulation	120	Rm		
9	Drain Piping				
	Supply & installation of CPVC piping complete with fittings, supports and duly insulated with 9 mm thick closed cell nitril rubber insulation.				
a.	25 mm dia	120	Rm		
b.	32 mm dia	65	Rm		
10	Control & Transmission Wiring				
	Providing & fixing control cum transmission wiring of 2 core X 1.5 sqmm shielded copper cable in suitable conduits between indoor and out door unit and between corded remote and indoor unit.				
a.	2 core X 1.5 sqmm shielded	280	Rm		
11	Duct work				
a.	Supply & fabrication of 24G (Tata) GI sheet rectangular duct complete with MS angle support as required etc complete as per IS 655.	140	Sqm		
12	Supply and fixing of thermal insulation with 13mm thick nitril insulation	140	Sqm		
13	Supply and fixing of duct acoustic insulation with 25 mm thick glass-wool with AL perforated sheet for duct plenum.	60	Sqm		
14	Supply and fixing of canvass connection in the Ductable IDU and duct	3	Nos		
15	Supply and fixing of Aluminium Grill/Diffuser for supply air and return air duct				
a.	With damper (600x600 mm)	4	Sqm		
b.	Without damper	7	Sqm		

SI No.	Description	Qty	Unit	Rate	Amount
16	Refrigerant Gas				
	Supply of R-410A Refrigerant Gas	40	KG		
17	Lifting and shifting of indoor/outdoor units including making of holes on walls wherever required, GI C-channel for resting of ODUS and nitrogen flusing, leak testing of copper pipe system etc. as required to complete the commissioning of the system.	1	Lot		
	Sub Total Part B				
	TOTAL (Part A + Part B)				

GST on work contract will be extra as applicable.