

**VAIJAPUR BRANCH, SBI**

**VRF TYPE AIR-CONDITIONING SYSTEM INCLUDING ALL REQUIRED ANCILLARY WORK :-**

| <b>S.No</b> | <b>Description</b> | <b>Unit</b> | <b>Quantity</b> | <b>Unit Rate</b> |
|-------------|--------------------|-------------|-----------------|------------------|
|-------------|--------------------|-------------|-----------------|------------------|

**PART A) ANNEXURE – I : HIGH SIDE : EQUIPMENTS:**

**Preambles**

- 1 All Items shall be quoted in the given format.
- 2 Client reserves the right to take any item as client supplied
- 3 Client reserves the right to add or delete any item from the tender during or after the finalization of the tender.
- 4 Boq items shall be read with the technical specifications
- 5 In case of discrepancy in Boq and technical specifications the stringent shall be followed.
- 6 Control cable from outdoor unit to indoor unit (condenser to evaporator) with necessary insulating tape etc.
- 7 It is advice to visit the site before quoting the boq
- 8 MS Powder coated bracket with fasteners to be fixed on walls / slab with all necessary fixing accessories **ALONG WITH ANIT VIBRATION CUSHOR FOOT MOUNTING ONLY.**
- 9 The Items in the Boq may or may not be operated as per site conditions.
- 10 Any deviation with respect to boq shall be informed and mentioned while quoting TENDER.
- 11 Insulation shall be done properly with vapour barrier and to provide mechanical protection against abrasion.
- 12 Indoor unit shall be considered with required structural support to hang in ceiling or floor / loft with anchor fasteners, rubber gaskets, nuts, bolts, inlet outlet connections
- 13 Treated fresh air unit shall be considered with MERV 13 pre filter
- 14 Copper piping shall be considered with T and Y joints with insulation.
- 15 All AHUs except VRF ductable unit shall be DX type unless otherwise mentioned.
- 16 Any item missed in the tender for competing the installation, testing, commissioning of the complete HVAC system all also to be included.

1 **CARRIER / BLUE STAR / HITACHI / TOSHIBA / MITSUBUSHI / DAIKIN -VRF UNITS : FULLY INVERTER ONLY :-**

Supply Installation, commissioning & testing of VRF Multi- split systems as specified and complete with the following and suitable for cooling

**DX VRF OUTDOOR UNITS :**

a) Outdoor units complete with DC Twin rotary compressors / FULLY DIGITAL BASED SCROLL COMPRESSOR with atleast 2 x 100% inverter compressors cooling only etc as specified latest technology fully inverter based compressor. Each Outdoor Unit will require minimum 2 Nos. Fully Inverter Compressor Only.

b) Environmental friendly refrigerant. (HFC) : R410 REFRIGERANT GREEN GAS

c) The required distribution board with required isolators to supply power two both ODU in a MS fabricated & Powder Coated Enclosure of IP 65 Protection with weatherproof canopy.

d) with Required cowl piece on fan discharge.

1.1 VRF Modular Type Outdoor unit 36 HP Top discharge : Space Saver Compact Model ONLY. Sets 1

**2 VRF INDOOR UNITS : Indoor units of types mentioned below complete with Panel - Grill, cordless remote controller, mounting arrangements, drain pump etc.**

2.1 FOUR WAY COMPACT CASSETTE AC's VRF Indoor Units :

|   |                                      |     |   |
|---|--------------------------------------|-----|---|
| a | 3.0 TR Capacity Four Way Cassette AC | Nos | 6 |
| b | 2.0 TR Capacity Four Way Cassette AC | Nos | 5 |
| c | 1.5 TR Capacity Four Way Cassette AC | Nos | 6 |

**TOTAL BASIC COST**

**PART B) ANNEXURE – II : LOW SIDE ANCILLARY INSTALLATION WORK :**

**Schedule of Ancillary Works & Price : FOR INSTALLATION & ITS ANCILLARY WORK :**

| S.No | Description | Unit | Quantity | Unit Rate<br>Rs. |
|------|-------------|------|----------|------------------|
|------|-------------|------|----------|------------------|

**APPROX. INSTALLATION BREAK UP**

|     |   |     |     |  |
|-----|---|-----|-----|--|
| 1   | Hard Copper Piping with 19mm thick nitrile rubber "O" Class insulation and necessary supports : minimum 18 G Hard COPPER PIPES Make Of Copper Pipes : Mandev / Rajco / Max Flow / Totaline Only & With "O" Class 19 mm thick Insulation make "Superlon / Armaflex" : Piping material shall Confirm to ASTM B280 Standards : For VRF System as per following dimension : |     |     |  |
| 1.1 | 6.4 to 31.05 mm   | RMT | 180 |  |
| 2   | Control Cabling between Indoor & Outdoor Units (3 CORE X 1.5 SQMM SHEILDDED CABLE ) CABLE MAKE "POLYCAB / FINOLEX." - Laid in Conduits Pipe Only.   | RMT | 160 |  |
| 3   | Hard UPVC Drain piping with 6 mm Rubber Nitrile Class "O" Insulation Make "Plasto/ Supreme" 32 mm dia.  | RMT | 140 |  |
| 4   | Supply & Laying of 300 mm Width GI Tray fabricated with 16 G Thick perforated sheet for laying of copper piping / electrical cabling / drain piping etc.  | RMT | 30  |  |

5 MS stand for Outdoor Units WITH PROVISION OF ANTI VIBRATION CUSHOR FOOT MOUNTING FOR MACHINE & Hanging Stand For Indoor Units with required MS frame arrangements only : MS "C" Channel Structure Type as per site requirement only - Fabricated with MS "C" Channel only & fabricated hanging stand for Indoor Units, DX Units for mounting of independent Outdoor units as require. Nos 2

6 Standard Installation / Pressure Testing / Vaccumissing / Commissioning

Leak Testing of Outdoor Machines for inverter Compressors complete with provisioning of anti-vibration isolators pads for complete machine etc.

6.1 36 HP OUTDOOR UNITS. Sets. 1

7 Installation, Testing & Commissioning Of Cassette AC's Type VRF Indoor Units :

7.1 FOUR WAY COMPACT CASSETTE AC's VRF Indoor Units :

a 4.0/3.0 TR Capacity Four Way Cassette AC Nos 6  
b 1.0/2.0 TR Capacity Four Way Cassette AC Nos 11

8 Supply & Fixing Of Refrigerant Joints as per company STD. material for VRF units only. Nos 16

9 Lifting Shifting of Indoor & Outdoor Units On Terrace Level. LOT 1

10 Providing Comprehensive annual maintenance for Airconditioning units which includes servicing and repairing of all the Airconditioning units by predefined frequency. The AMC Period will start after completion of 1 year warranty period.

|              |    |    |
|--------------|----|----|
| For 1st Year | HP | 36 |
| For 2nd Year | HP | 36 |
| For 3rd Year | HP | 36 |
| For 4th Year | HP | 36 |
| For 5th Year | HP | 36 |

**TOTAL BASIC INSTALLATION COST**

**TOTAL PROJECT VALUE (EXCLUDING GST) SUPPLY + INSTALLATION (A+B)**