



**PRICE BID**

**Annexure-III**

**BOQ FOR AIR CONDITIONING WORK AT PROPOSED VIRTUAL RELATIONSHIP MODULE ,PATNA (BISCOUMAN BHAWAN)**

SR.NO	Description of work	Unit	Qty.	Unit Rate Excluding GST	Amount (Rs) Excluding GST
<b>(A ) HIGH SIDE WORK</b>					
1	Supply of VRF/VRV Variable Refrigerant Flow Outdoor units comprising of Energy efficient Inverter Scroll compressors (100% inverter compressors), Heat Pump Type (Cooling+Heating) suitable for Eco Friendly R-410 refrigerant, Variable Speed Condenser fan motor, Air Cooled Condenser, etc. of the following capacities each				
	<b>OUTDOOR VRF UNIT. Make Voltas/Daikin/Carrier/LG/Bluestar/Mitsubishi/Hitachi</b>				
a)	<b>Capacity - 34 HP</b>	NOS	2		
2	Supply of VRF - Medium Static Indoor Units comprising of multi row deep DX evaporator coil, electronic expansion device, DIDW Centrifugal blower, , etc. of the following capacities.Wired or Wireless Remote for Ductable indoor unit.(included).Receiver kit for ductable units.(included)				
(i)	<b>COMPACT FOUR WAY CASSETTE (INDOOR UNIT VRF)</b>				
a)	Capacity- 1.6 TR	NOS	2		
(ii)	<b>NEW STANDARD FOUR WAY CASSETTE (INDOOR UNIT VRF)</b>				
a)	Capacity- 2.03 TR	NOS	2		
b)	Capacity- 2.29TR	NOS	2		
c)	Capacity- 2.58 TR	NOS	1		
c)	Capacity- 4.0 TR	NOS	8		
c)	Capacity- 4.5 TR	NOS	2		
3	<b>WALL MOUNTED UNIT (INDOOR UNIT VRF)</b>				
a)	<b>Capacity- 1.03TR</b>	Nos	4		
b)	<b>Capacity- 1.29TR</b>	Nos	2		
5	Refnut joints "Y" Type (in pair) for Indoor units	NOS	22		
a)	<b>Total amount for High Side Work (A)</b>				
<b>(B ) LOW SIDE WORKS</b>					
1	Installation, testing & commissioning of VRF/VRV outdoor units comprising of unloading from vehicle, positioning at respective location on errace variable scroll compressor unit by using R 410A Refigerant.unit shall be provided with microprocessor based panel sequential starting of condensing units coils expansion vavles etc commissioning as per OEM Standard of the following Capacities each:				
	<b>OUTDOOR CARRIER VRF UNIT</b>				
a)	<b>Capacity - 34 HP</b>	NOS	2		
2	<b>COMPACT FOUR WAY CASSETTE (INDOOR UNIT VRF)</b>				
a)	Capacity- 1.6 TR	NOS	2		
3	<b>NEW STANDARD FOUR WAY CASSETTE (INDOOR UNIT VRF)</b>				
a)	Capacity- 2.03 TR	NOS	2		
b)	Capacity- 2.29TR	NOS	2		
c)	Capacity- 2.58 TR	NOS	1		
c)	Capacity- 4.0 TR	NOS	8		
c)	Capacity- 4.5 TR	NOS	2		
4	<b>WALL MOUNTED UNIT (INDOOR UNIT VRF)</b>				
a)	<b>Capacity- 1.03TR</b>	Nos	4		
b)	<b>Capacity- 1.29TR</b>	Nos	2		
3	Installation, testing & commissioning of Y- Joints (Refnuts in Pair) duly insulated - Indoor & Outdoor units	NOS	22		
	<b>MAKE: RAJCO/MANDEV</b>				

<b>4</b>	Supply, installation, testing and commissioning of High Pressure Interconnecting refrigerant pipe work for VRF System with (19mm / 13mm thick) closed cell elastomeric nitrile rubber tubular insulation between indoor & outdoor units as per specifications, all piping inside the room shall be properly supported on GI Hangers and PVC sleeves shall be provided wherever pipe is crossing the wall. Food Grade Nitrogen is to be used while making brazing joints. Brazing Rods shall be HARRIS (Imported) Make to be used.				
<b>(a)</b>	34.9 mm OD      19 mm thick insulation	RM	47		
<b>(b)</b>	28.6 mm OD      19 mm thick insulation	RM	8		
<b>(c)</b>	22.2 mm OD      19 mm thick insulation	RM	47		
<b>(d)</b>	19.1 mm OD      19 mm thick insulation	RM	8		
<b>(e)</b>	15.9 mm OD      13 mm thick insulation	RM	110		
<b>(f)</b>	12.7 mm OD      13 mm thick insulation	RM	80		
<b>(g)</b>	9.5 mm OD      13 mm thick insulation	RM	110		
<b>(h)</b>	6.4 mm OD      13 mm thick insulation	RM	80		
<b>5</b>	Supply, installation, testing, termination and commissioning of control cum transimission wiring 3 core x 1.0 sqm between indoor unit and out door unit in PVC Conduits.	RMT	550		
<b>6</b>	Suppy & Testing of N2 Pressure Gas Charge with proper flushing & leak test of all referigrant copper pipe including joints O2 Cylinder etc	Nos	4		
<b>7</b>	Refrigerant Gas Charging (R 410 A) as per liquid line length in line with Standard	KG	36		
<b>MAKE :PRINCE/HANUMAN</b>					
<b>8</b>	Supply, Installation, testing and commissioning of Hard CPVC Drain Pipe (Chlorinated polyvinyl chloride), Suitable for 10 Kg/cm2 water pressure including fittings such as elbow, socket, reducer, etc.insulated with 9 mm thick tubular nitrile insulation.				
<b>a)</b>	25 mm dia	RMT	460		
<b>Total amount for Low Side Work (B)</b>					<b>Rs.</b>
<b>GRAND TOTAL A+B AMOUNT=</b>			<b>GRAND TOTAL (A+B) VRF</b>		
<b>GST will be extra as applicable</b>					
<b>Notes</b>					
<b>1</b>	Transportation charge upto site is inclusive.				
<b>2</b>	Warranty: 12 month from the date of installation or 15 months from the Date of supply whichever is earlier.				