

RAJARAJESHWARI BRANCH BRANCH - HVAC Estimate							
SI.No	Description	Unit	Qty	Rate		Amount	
				Supply	Installation	Supply	Installation
1.0	VRF SUPPLY & INSTALLATION - OUTDOOR UNIT						
	Supply, installation, testing and commissioning of VRF Outdoor units consists of 100% based scroll / rotary compressor and 100% Inverter ODU with fully variable speed compressor with copper condensor only. DC fan motor with aero-spiral fan blade, e-pass heat exchanger, safety valves, solenoid valves, receiver, Sub Cool system, check valve, electronic expansion valve, high pressure switch, low pressure sensor, pressure regulating valve refrigerant filter, stop valve, accumulator and outdoor branch kits. Rate inclusive of R410A refrigerant for entire circuits & oil per charging, vibration isolators, supports and necessary accessories etc..						
1.1	56.0 kW Colling capacity ( 20.0 HP )	Nos	1			-	-
1.2	Lifting Shifting of ODU's at desired place with Cranes, placing at MS Frames	Nos	1			-	-
1.3	Temporary Scaffolding charges at out side for Copper pipings and associated works till Piping Testing works etc are over avg - 30 days	Lot	1			-	-
2.0	Supply and Installation of MS Frame for VRF outdoor units and civil works for foundation / pedestal works, etc at Terrace	Nos	1			-	-
3.0	Supply, installation, testing and commissioning of 4-way VCC-Variable Compact Cassette units upto 1.0 Tr onwards. The sizes of cassette units would be approx 208x570x570 or 258x840x840 and the units should be complete with inbuilt drain pump, controls, microprocessor control panel, wiring, Electronic Expansion Controller etc. The unit shall be charged with R410 A refrigerant. The noise level shall not be more than 55dB(A) at normal operation measured horizontally 1m away and 1.5m above ground. The capacities of each machine and quantities are as indicated below.					-	-
3.1	2.3 kW Cooling capacity ( 0.6 TR ) / 325 CFM, (ALL VLC)	Nos	2			-	-
3.2	3.2 kW Cooling capacity ( 0.8 TR ) / 325 CFM, (ALL VLC)	Nos	1			-	-
3.3	3.9 kW Cooling capacity ( 1.0 TR ) / 325 CFM, (ALL VLC)	Nos				-	-
3.4	4.5 kW Cooling capacity ( 1.27 TR ) / 565 CFM, (ALL VLC)	Nos	2			-	-
3.5	5.8 kW Cooling capacity ( 1.5 TR ) / 385 CFM, (ONLY VCC)	Nos				-	-
3.6	7.7 kW Cooling capacity ( 2.0 TR ) / 590 CFM, (ONLY VLC)	Nos	4			-	-
3.7	10.8 kW Cooling capacity (2.8 TR ) / 636 CFM, (ONLY VLC)	Nos	1			-	-
3.8	12.4 kW Cooling capacity ( 3.18 TR ) / 1024CFM,(ONLY VLC)	Nos				-	-
3.9	15.0 kW Cooling capacity ( 3.9 TR ) / 1059 CFM, (ONLY VLC)	Nos				-	-
4.0	Supply & installtion of hand held Coldless Remote controllers	Nos	10			-	-
5.0	Supply, Installation, testing & commissioning of Refnet Joints, T joints of Suitable Size for the above system.					-	-
5.1	Y Joints / Refnet Joints	Nos	9			-	-
6.0	Nitrogen Pressure testing & Additional gas charging for the entire length of copper tube - Refrigerant R410A / Environmental friendly refrigerant					-	-
6.2	56.3 kW Colling capacity ( 20.0 HP )	Nos	1			-	-
7.0	Supply, installation, testing and commissioning of the refrigerant copper piping with 13mm/19mm nitrile rubber insulation with UV white tape in sleeve form. The Ref. Piping shall be pressure tested at 1.5 times the working pressure. The Piping shall be properly supported with bracket and supporting rods etc..					-	-
	41.3 mm O.D.(13mm thick insulation)	Rmt	0			-	-
7.1	34.9 mm O.D.(13mm thick insulation)	Rmt	0			-	-
7.2	28.6 mm O.D.(13mm thick insulation)	Rmt	35			-	-
7.3	22.2 mm O.D.(13mm thick insulation)	Rmt	8			-	-
7.4	19.1 mm O.D.(13mm thick insulation)	Rmt	8			-	-
7.5	15.9 mm O.D.(10mm thick insulation)	Rmt	50			-	-
7.6	12.7 mm O.D.(10mm thick insulation)	Rmt	40			-	-
7.7	9.5 mm O.D.(8mm thick insulation)	Rmt	40			-	-
7.8	6.4 mm O.D.(8mm thick insulation)	Rmt	22			-	-

8.0	Supply and Installation of CPVC pipe of with 6mm thick nitrile rubber insulation and necessary supports and fixing accessories etc.					-	-
8.1	25mm NB	Rmt	30			-	-
8.2	32mm NB	Rmt	40			-	-
9.0	Control Wiring:					-	-
	Control cabling from indoor to outdoor unit for all the units with the necessary fittings. The cabling shall be FRLS weather proof type as most of the cabling will have open exposure to atmosphere. The cabling shall be bundled properly and shall be neatly aligned with the Refrigerant piping. The cabling shall be well supported at specific intervals and & similar to refrigerant piping.					-	-
9.1	2 C x 1.0 sqmm cable	Rmt	140			-	-
9.2	3 C x 1.5 sqmm cable	Rmt	10			-	-
11.0	Supplying, installing, testing and commissioning of INLINE TYPE FAN (For Fresh Air) with three speed regulator for supply / exhaust. All the supply fan to be provided with prefilter. The casing shall be single skin of following capacity, all the outdoor unit to be provided with canopy.					-	-
11.1	400 CFM with 20mm static pressure	Nos	1			-	-
12.0	Supplying, installing, testing and commissioning of PVC (For Fresh Air)					-	-
12.1	40mm dia	Rmt	40			-	-
12.2	80mm dia	Rmt	12			-	-
12.3	100mm dia	Rmt	12			2,400	-
12.4	150mm dia	Rmt	8			2,000	-
14.0	Core cutting through concrete, slab, beams, lintels, brick or block masonry.					-	-
14.1	Upto 50mm dia	Nos	0			-	-
14.2	Upto 50-100mm dia	Nos	1			-	-
14.3	Upto 100-150mm dia	Nos	1			-	-
						4,400	-
	Total						4,400
	GST AS APPLICABLE SHALL BE EXTRA						4,400