



Nan	ne of Work: AIR CONDITIONING WORKS OF 2ND FLOOR V2 BUILDING 580030			98/4, AIRPO	RT ROAD, HUBBALLI-
	BILL OF QUANTITIES FOR AIRCONDIT				
5/N	Description EQUIPMENT'S MAKE: BLUE STAR, DAIKIN, MITUBUSHI, VOLTAS,	UNIT	QTY	RATE	AMOUNT
	equivalent				
	OUTDOOR UNITS				94
	Supply, Installation, testing and commissioning of VRF/VRV				
	Inverter driven scroll type Airconditioning system with wide				
	range of indoor and outdoor units, with longer actual and total				
	piping length and with high external static pressure. The system				
	consists of multiple indoor units ranging from high wall, fan coil,				
	ducted type, etc connected to a single or multiple modular type				
	outdoor units with individual controllers to each indoor unit,				
	refrigerant piping, control cabling. The specifications and details				
	are as below:				
	Supply, Installation, testing & commissioning of VRF/VRV Outdoor				
	Unit comprising of Top discharge Single/ Multiple Compressor				
	with inverter, High efficiency heat transfer Cooling Coil suitable				
	for Environment friendly R410a refrigerant, Air cooled propeller				
	type condenser fan with DC motor drive, interconnecting piping,				
	suction line insulation etc., Micro-processor control panel suitable				
	for automatic operation, Air-conditioning system with energy				
	efficient Fully Inverter Scroll Compressors capable of delivering 100% capacity at 50 Deg ambient and capable of operating				
	between 320V-460V, with high performance oil accumulators, self				
	diagnostics, Quiet Mode operation, Eco Mode operation, Auto				
	addressing indoor units, Automatic Dust clean, Automatic				
	refrigerant recovery, Four way from top to bottom exchanger area				
	out door unit & indoor units. incorporating all safety functions as	1			
	per equipment specifications. The specified capacities shall be	1			
	actual cooling capacities at 36C DBT and 25.6C WBT ambient				
	conditions and 23C / 60% RH Room Conditions. And along with all				
	necessary accessories, base frame for mounting etc. to be				
	considered.				
	28 HP HOT AND COLD SYSTEM	No's	4		
	INDOOR UNITS	1103	<u> </u>		
	Supply, installation, testing and commissioning of Round Air Flow				
	type Casette indoor unit designed with fan, low noise, electronic				
	expansion valve, compact cooling coil, in built Drain pump with				
	sound absorbing insulation material, washable filter and thermal				
	protector fan motor with corded remote controller and remote				
	controller shall house a thermostat sensor for better room				
	temperature control, should be sleek & self diagnostic type				
	.Switches should be made of rubber and the casing should be oil				
	resistant for durability of the unit.Motor shall be suitable for				
	220/415 volts, 50 Hz, 1/3 Ph AC supply.				
	HI wall type		<u> </u>		
1	Hi wall - 0.6 TR	No's	1		
)	Hi wall - 1.0 TR	No's	12		
	Hi wall - 1.5 TR	No's	3		
ł	Hi wall - 2.0 TR	No's	1		



SIGNATURE OF TENDERER WITH SEAL

	BILL OF QUANTITIES FOR AIRCONDITIONING WORKS						
S/N	Description	UNIT	QTY	RATE	AMOUN'		
	Cassette type						
e	Round way Air Flow cassette - 3TR	No's	19				
f	Round way Air Flow cassette - 4TR	No's	7				
3	Centralized Remote coontroller for VRF/VRV						
	Supply and installation Testing and commisioning ofCentralized	Nos	1				
а	Remote controller for the centralised system	NOS	1				
4	REFRIGERANT PIPING						
	Supply and installation of Heavy Gauge Refrigerant Copper piping ,insulated with Nitrile Rubber Tubular insulation copper pipes should be eddy current tested with Fittings and GI Pipe Supports in cable trays.						
a	6.4mm nominal OD with 13mm thick insulation	Rmt	70				
b	9.5mm nominal OD with 13mm thick insulation	Rmt	160				
с	12.7mm nominal OD with 13mm thick insulation	Rmt	90				
d	15.9mm nominal OD with 13mm thick insulation	Rmt	185				
е	19.1mm nominal OD with 13mm thick insulation	Rmt	95				
g	28.2mm nominal OD with 13mm thick insulation	Rmt	61		-		
ו	31.8mm nominal OD with 13mm thick insulation	Rmt	40				
	38.1mm nominal OD with 13mm thick insulation	Rmt	42				
	41.3mm nominal OD with 13mm thick insulation	Rmt	42				
5	Refnet joints to connect copper piping of the indoor unit onto the main circuit line.	Nos	40				
ò	Supply, laying, testing & commissioning of condensate water piping complete with all floor, wall and ceiling supports, fittings, U traps/seal to the nearest Drain point.						
a	25 mm dia	Rmt	110				
)	32 mm dia	Rmt	120				
с	50mm dia	Rmt	50				
d	Gather pipe	Nos	2				
7	VRF TREATED FRESH AIR (TFA) UNIT						
	Supply, installation, testing and commissioning of VRF Treated fresh Air (TFA) Unit with low noise, multi speed fan, multi row DX cooling coil, insulated extended drain pan Filter, power wiring including cable run in 1" dia PVC conduit, control wiring between indoor to out door unit, thermostat, electronic expansion valves, fittings, supporting arrangement, units shall be suitable for Single phase power supply, etc.,						
a	6.8 TR VRF TFA Unit	Nos	2				
D	Supply and Installation, Testing, commissioning of Remote control Corded less Remote control	Nos	58				
8	Supply and Installation, Testing, commissioning of REFNET Joints	Nos	62				
d	DUCTING WORK						
e	Charges towards supply and fixing of factory fabricated Rectangular 24G TDF flange GI duct with necessary support and fittings For TFA Unit	Sq.mt	150				
	Charges towards supply and fixing of factory fabricated Round 24G TDF flange GI duct with necessary support and fittings For TFA Unit	Sq.mt	65				
CTR. S	Charges towards supply and fixing of nitrile rubber insulation Class 1 9mm thickness for GI duct	Sq.mt	215				
ESTATE N FFICE					SIGNATU		

केनग के

BILL OF QUANTITIES FOR AIRCONDITIONING WORKS							
S/N	Description	UNIT	QTY	RATE	AMOUNT		
h	Charges towards supply and fixing of factory fabricated Powder Coated Fresh air grill with collar damper	Sq.mt	1.5				
i	Charges towards Supply and Fixing of 18G GI Factory fabricated volume control damper with necessary supports and fittings	Sq.mt	1.5				
j	Supply, installation, testing and commissioning of Fresh air louver for TFA Unit comprising of powder coated extruded Aluminium louvers with bird screen as required.	Nos	2				
k	Supply and Installation of 300 CFM Exhaust Fan with 20 mm Static With necessary fittings and supports, The unit is suitable for single Phase power Supply	Nos	2				
ι	Supply and Installation of 300 mm dia Propeller Fan with 20 mm Static With necessary fittings and supports, The unit is suitable for single Phase power Supply	Nos	2				
8	Supply, Installation, Testing & Commissioning of control cum transmission wiring between ODU & IDU of copper 3C X 1.5sqmm armour cable Shielded with pvc flexible conduits.	Rmt	610				
9	Supply, Installation, Testing & Commissioning of Power cable between the power socket and indoor unit ,Copper Flexible cable 4C x 2.5 sqmm.	Rmt.	30				
10	Supply, installation & Laying of G.I. Cable Tray of following width						
a	150 mm wide	Rmt	300				
b	250 mm wide	Rmt	300				
с	Core Cutting	nos	50				
d	Drain Pipe chiseling	Rmt	150				
11	Lifting, shifting , loading, unloading of AC Units.	job	1				
	Total						



SIGNATURE OF TENDERER WITH SEAL