

[illegible]

**TRP**Redefining
Construction

Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
	The Vendor should consider the deration on ODU selection as per Bahadurgarh Ambient conditions												
a	VRV/VRF ZONE : 30 HP ODU	NOS.	4.00			2.00							
b	VRV/VRF ZONE : 32 HP ODU	NOS.		2.00	4.00								
c	VRV/VRF ZONE : 34 HP ODU	NOS.		2.00									
d	VRV/VRF ZONE : 40 HP ODU	NOS.				2.00							
2	INDOOR UNITS												
	Supply, installation, testing and commissioning of following Wall Mounted /Cassette type units with panel and inbuilt drain pump/slim Ceiling Mounted duct type/Ceiling Mounted Built in type/Ceiling Mounted Ductable type units VRF/VRV Air Conditioners with cordless/corded remote controller.Fully Factory assembled,wired and tested Indoor Units as per specifications ans as required to make the system complete. Aluminum fins within the IDU (evaporator unit) shall be oxycoat (Epoxy coating followed by oxycoat (PU /Polysiloxine) coating												
2.1	Cassette Unit												
a.	300-320 CFM/0.80-08.2 TR (Compact Type)	NOS.						-	-	-	-	-	
b.	325-335 CFM/1.0-1.02 TR (Compact Type)	NOS.						-	-	-	-	-	
c.	400-450 CFM/1.55-1.6 TR (One Way Type)	NOS.	1.00					-	-	-	-	-	
d.	550-600 CFM/1.2-1.3 TR	NOS.						-	-	-	-	-	
e.	777-812 CFM/1.55-1.6 TR	NOS.	4.00					-	-	-	-	-	
f.	800-830 CFM/2.0-2.1 TR	NOS.	44.00	44.00	56.00	8.00		-	-	-	-	-	
g.	825-870 CFM/2.3-2.5 TR	NOS.		4.00		32.00		-	-	-	-	-	
h	1100-1185 CFM /3.0-3.2 TR	NOS.		4.00				-	-	-	-	-	
i	1200-1254 CFM/4.0-4.55 TR	NOS.		2.00				-	-	-	-	-	
2.2	Wall Mounted												
a.	600 CFM/2.0 TR	NOS.						-	-	-	-	-	
b.	600 CFM/2.0 TR	NOS.						-	-	-	-	-	
c.	350 CFM/1.0 TR	NOS.						-	-	-	-	-	
2.3	Ceiling Mounted Ductable Unit												
a	2000-2047 CFM/5.5-5.75 TR	NOS.						-	-	-	-	-	
b	1400-1600 CFM/4.5-4.55 TR	NOS.	2.00					-	-	-	-	-	
c	1250-1350 CFM/4.0-4.1 TR	NOS.						-	-	-	-	-	

[illegible]

**TRP**Redefining
Construction

Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
a	1200 CFM, 8.5 TR, 8- Row Deep DX cooling coil (Single/Multiple Coils), 35 mm Static Pressure, with Pre filter , thermal break profile and with three phase motor suitable for VFD drive. (For TFA)	No.						-	-	-	-	-	
b	1500 CFM, 10.0 TR, 8- Row Deep DX cooling coil (Single/Multiple Coils), 35 mm Static Pressure, with Pre filter , thermal break profile and with three phase motor suitable for VFD drive. (For TFA)	No.						-	-	-	-	-	
c	2000 CFM, 11.5 TR, 8- Row Deep DX cooling coil (Single/Multiple Coils), 35 mm Static Pressure, with Pre filter , thermal break profile and with three phase motor suitable for VFD drive. (For TFA)	No.						-	-	-	-	-	
2.6	Indoor Air Quality - Central Air Cleaner (Optional)												
	SITC of central air cleaner a hybrid air purification system that improves the indoor air quality through reducing harmful pollutants like particulate matter (PMx), PM 2.5, allergens, pollen, smoke, bacteria, pathogens based on trap & kill technology, etc. It should be a monobloc structured unit specifically designed for integration in Return Air path, to centrally capture and kill germs. It should be equivalent to H-13 efficiency with low pressure drop of 0.20" wg @ 2.5 m/s. It should have x3 working principles and it should be powder coated steel casing and should be self contained. It should be a US patented technology. It should have UL certified IMS (Intelligent maintenance system) and should include an IAQ Monitor to measure 5 parameters. The minimum life of central air cleaner unit should be more than 07 years without any consumable parts. The units shall meet 2006/95/EC, 2013/35/EU, 2004/108/EC and 2014/30/EU directives for electrical and electromagnetic safety. There should be RoHS compliance for non-hazardous materials. The central air cleaner units must have a valid ANSI/ASHRAE 52.2 test report to verify filtration efficiency. The equipment provider should have a CIE certification through IAQA, USA. A detailed selection chart as per each application zone shall be submitted for approval along with technical submittal												Make #Honeywell Central air cleaner air purification system that improves the indoor air quality through reducing harmful pollutants like particulate matter (PMx), PM 2.5, allergens, pollen, smoke, bacteria, pathogens based on Electrostatic precipitation.
a	6500 to 7500 CFM (Floor Mounted AHU)	Nos.				2.00	2,40,000.00	-	-	-	4,80,000.00	4,80,000.00	8000 CFM
2.7	Air Quality Monitoring												
	SITC of Indoor Air Quality Monitor for each area covering 06 parameters (PM 2.5, CO2, TVOCs, RH, Temperature) providing information on real time basis with maximum of once an hour average data made available to building manager with the storage of information upto last 03 years of sensors operation. The sensors must be able to provide data inline with NAAQS, India standards with a further possibility of information display (Display Screen Optional). The system should be user friendly with a built in feature of user advisory services enabling them to take remediation actions as and when desired. The integrator should be engaged to send all the real time data through wifi enabled service in each rooms.	Nos.	1.00				40,000.00	40,000.00	-	-	-	40,000.00	Make #Honeywell Multi Sensor Standard config (T,Rh,PM2.5,TVOC,CO2 and AQI) Display Model - with Modbus RS485 output

**TRP**Redefining
Construction

Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
2.8	Air Purifier (Bio-Polar based) (Optional)												
	Supply, Installation, Testing and commissioning of comprehensive Air Purification system in the specified areas where AHU/ Cassette /Hi-wall / Ductable units etc are installed , so as to improve Indoor air quality by using Needlepoint Bi-polar Ionization technology, which produces a natural Bio Climate rich in positive and negative ions. The Needle Point Bipolar Ionizers should not have any consumables and should have a life of 10 years. System should be fitted with Fine Filter Media with very less static drop acceptable upto 5 mmwg of Initial pressure drop wherever requires. Along with indoor Air quality monitor to measure Air quality parameters including PM2.5, TVOC, CO2, Humidity and Temperature. This monitor should be a 3 tier architecture including sensor Hardware, secure cloud infrastructure, monitoring apps including dashboard, android/IOS apps, where ever requires Project design should meet standard ASHRAE 62.1 IAQ Procedure for energy saving. System should kill microorganism and pathogens, remove Odour, VOC and reduce dust particle /particulate matter / PM2.5 /PM 10. The product should be UL / Intertek listed. Product should have minimal or negligible pressure drop & low power consumptions. Product should have UL 867 and UL 2998 certification (for zero ozone emission). The Product shall have been Tested on COVID-19 Surrogate for its efficacy. The System should be capable of providing periodic Preventive maintenance for automated after sales support service in form of notification/alerts and user interaction through dashboard application												<p>Make #Honeywell</p> <p>Needle point Type Bi-polar Ionization technology, which produces a natural Bio Climate rich in positive and negative ions.</p> <p>System should kill microorganism and pathogens, remove Odour, VOC and reduce dust particle /particulate matter / PM2.5 /PM 10.</p>
a	6500 CFM, 36 Watt	Nos.				1.00	65,000.00	-	-	-	65,000.00	65,000.00	6500 CFM, 36 Watt
b	7500 CFM, 48 Watt	Nos.				1.00	75,000.00	-	-	-	75,000.00	75,000.00	7500 CFM, 48 Watt
c	300 to 1250 CFM, For IDU Cassette Mount	Nos.	49.00	54.00	56.00	40.00	10,000.00	4,90,000.00	5,40,000.00	5,60,000.00	4,00,000.00	19,90,000.00	300 to 1250 CFM, For IDU Cassette Mount
d	300 to 1650 CFM, For IDU Duct Mount	Nos.	2.00				13,000.00	26,000.00	-	-	-	26,000.00	300 to 1650 CFM, For IDU Duct Mount
3.0	Air-Cooled Split Hi-Wall Units												
	Providing and fixing of Air Cooled Split airconditioners each comprising an outdoor unit consisting of hermetic scroll/reciprocating/Rotary compressor, air cooled condensing unit, Condenser fan etc. with outer casing and indoor fan coil unit(s) consisting of centrifugal fans, fan motor, DX cooling coil, outer casing, filter, control and power panel with corded/cordless remote control, etc. , full charge of refrigerant gas and oil, M.S. base frame, supports etc. complete as per specifications and drawings. The cost shall also include angle iron stands for outdoor units.												
a	2.0 TR 5-star rating Hi-Wall Indoor unit with respective outdoor units & with Stabilizers as per specifications & Drawing for Server Room(Suitable with R-410a)	Nos.	RO										
4.0	Copper piping/Control Wiring/ Power Cable for Air-Cooled Split Hi-Wall Units												
a	Supply, installation, testing & commissioning of refrigerant copper pipes between indoor to outdoor unit(with insulation). , cut to required length and installed with all joints , including the necessary fittings of hard copper pipe.	Rmt.						-	-	-	-	-	

**TRP**Redefining
Construction

Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
b	Supply, Installation, Testing and Commissioning of Control cum Transmission wiring in suitable conduits between indoor & outdoor units including supply of screened wires, supports, installation, saddles, ties, tags, ferrules, lugs, nuts/bolts/hardware etc. complete in all respects as per specifications and any other item required to make the system complete.	Rmt.						-	-	-	-	-	
c	SITC of Power Cabling / Wiring of Condensing Units of Split Air-conditioners- from Isolators to Condensing Units, including supply of all materials complete in all respects as per specifications and any other item required to make the system complete. (Note: 2 mtr. For Each Unit)	Rmt.						-	-	-	-	-	
5.0	REMOTE CONTROLLERS												
a	Supply, installation, tesing and commissioning of Imported Remote controllers (Corded) for operation of ductable indoor units/AHU.	NOS.	2.00			2.00		-	-	-	-	-	
b	Supply, installation, tesing and commissioning of Imported Remote controllers (Cordless) for operation of Hiwall/Cassette/ Ceiling Concealed indoor units.	NOS.	4.00	4.00	4.00	2.00		-	-	-	-	-	
6	Accessories												
a	SITC of Expansion and control Kit Required for the above AHU to make the system complete	Nos				2.00		-	-	-	-	-	
7	TOUCH SCREEN CONTROLLER FOR INDOOR UNITS CONTROLLER - VRF/VRV												
	Supply, installation, testing and commissioning of LED Display Type Centralized Controller (Which can control 225 nos. indoor units in terms of ON/Off Status, temp. Status, Fan Speed, ODU On/Off Status etc.) with all accessories and controls.	Lot	1.00					-	-	-	-	-	
8.0	REFNUTS / T/Y-JOINTS												
	Supply, installation, tesing and commissioning of Imported fittings Y-joints insulated, distributor and headers for all Indoor units at both the ends floors layout as per layout drawings.	NOS.	47.00	50.00	52.00	38.00		-	-	-	-	-	
9.0	REFRIGERANT PIPING												
	Supply, installation, testing and commissioning of Interconnecting refrigerant pipe work with (13/ 19mm thick) cross linked closed cell Oxide Acetate Foam tubular insulation between each set of indoor & outdoor units as per specifications, all piping inside the room shall be properly supported with hangers and □ All interconnecting Copper piping, joints, U bends with oxycoat dual barrier coating shall run in cable tray. (Note: Ref. Piping Length may be review as per site routing)						905.00						Make #Rajco
a	06.35 mm with 13 mm thick cross linked closed cell Oxide Acetate Foam insulation	RMT.	40.00				113.13	4,525.00	-	-	-	4,525.00	6.35mm x 0.8mm Soft Copper pipe
b	09.52 mm with 13 mm thick cross linked closed cell Oxide Acetate Foam insulation	RMT.	330.00	360.00	360.00	250.00	177.38	58,535.40	63,856.80	63,856.80	44,345.00	2,30,594.00	9.53mm x 0.8mm Soft Copper pipe
c	12.70 mm with 13 mm thick cross linked closed cell Oxide Acetate Foam insulation	RMT.	90.00	80.00	60.00	30.00	242.54	21,828.60	19,403.20	14,552.40	7,276.20	63,060.40	12.7mm x 0.8mm Soft Copper pipe
d	15.88 mm with 13 mm thick cross linked closed cell Oxide Acetate Foam insulation	RMT.	330.00	380.00	380.00	260.00	374.67	1,23,641.10	1,42,374.60	1,42,374.60	97,414.20	5,05,804.50	15.88mm x 0.99mm Soft Copper pipe
e	19.05 mm with 13 mm thick cross linked closed cell Oxide Acetate Foam insulation	RMT.	180.00	120.00	110.00	80.00	458.84	82,590.30	55,060.20	50,471.85	36,706.80	2,24,829.15	19.05mm x 0.99mm Soft Copper pipe
f	22.22 mm with 19 mm thick cross linked closed cell Oxide Acetate Foam insulation	RMT.	60.00	60.00	60.00	50.00	436.21	26,172.60	26,172.60	26,172.60	21,810.50	1,00,328.30	22.22mm x 0.8mm Hrad Copper pipe
g	28.58 mm with 19 mm thick cross linked closed cell Oxide Acetate Foam insulation	RMT.	60.00	60.00	60.00	50.00	695.04	41,702.40	41,702.40	41,702.40	34,752.00	1,59,859.20	28.58mm x 0.99mm Hard Copper pipe



Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
h	31.8 mm with 19 mm thick cross linked closed cell Oxide Acetate Foam insulation	RMT.	50.00	20.00	20.00	10.00	857.94	42,897.00	17,158.80	17,158.80	8,579.40	85,794.00	31.75mm x 1.10mm Hard Copper pipe
i	34.92 mm with 19 mm thick cross linked closed cell Oxide Acetate Foam insulation	RMT.	80.00	20.00	20.00	10.00	1,038.04	83,042.80	20,760.70	20,760.70	10,380.35	1,34,944.55	34.93mm x 1.21mm Hard Copper pipe
j	38.0 mm with 19 mm thick cross linked closed cell Oxide Acetate Foam insulation	RMT.		20.00	20.00	10.00	1,235.33	-	24,706.50	24,706.50	12,353.25	61,766.25	38.1mm x 1.32mm Hard Copper pipe
k	41.30 mm with 19 mm thick cross linked closed cell Oxide Acetate Foam insulation	RMT.		70.00	60.00	50.00	1,449.81	-	1,01,486.70	86,988.60	72,490.50	2,60,965.80	41.28mm x 1.43mm Hard Copper pipe
10.0	TRANSMISSION & CONTROL WIRING												
10.1	Providing & fixing control cum transmission wiring in medium duty PVC Conduit between indoor and outdoor units.												Make #Havells
a	2C x 1.5 Sqmm Cu Cable or 3C x 1.5 Sqmm Cu Cable as per VRV/VRF manufacturer OEM	RMT.	900.00	850.00	800.00	560.00	51.00	45,900.00	43,350.00	40,800.00	28,560.00	1,58,610.00	2 C x 1.5 Sqmm Copper Unarmoured Control cable, solid copper conductor as per IS 7098 (Part 1) 1988 Exclusion - conduit, supports, installation, saddles, ties, tags, ferrules, lugs, nuts/bolts/hardware etc
10.2	Supplying and installing following size of perforated G.I. cable trays, including accessories like Cross member, Reducer, bends, tee bends same as the size of cable tray for aesthetic look wherever cable tray if hang in open area/ terrace etc. complete as required.												Make #Profab
a	Perforated GI Tray with hangers & supports for copper piping (450 mm wide)	RMT.	50.00	40.00	30.00	20.00	1,140.00	57,000.00	45,600.00	34,200.00	22,800.00	1,59,600.00	450 x 50 x 2.00 mm Hot Dipped Galvanized (Avg. 65 microns) Perforated Cable Tray with necessary Coupler & Hardware
b	Perforated GI Tray with hangers & supports for copper piping (250 mm wide)	RMT.	20.00	20.00	20.00	20.00	835.00	16,700.00	16,700.00	16,700.00	16,700.00	66,800.00	250 x 50 x 2.00 mm Hot Dipped Galvanized (Avg. 65 microns) Perforated Cable Tray with necessary Coupler & Hardware
c	Perforated GI Tray with hangers & supports for copper piping (100 mm wide)	RMT.						-	-	-	-	-	
11.0	DRAIN PIPING												
	Providing & fixing rigid PVC piping complete with fittings, supports as per specifications and pre insulated with 6mm thick closed cell elastomeric nitrile rubber tubular insulation.												Make #Polypack uPVC Pipe Class 5, PN10 as per IS 4985:2000
a	25 mm dia	RMT.	260.00	280.00	290.00	230.00	30.00	7,800.00	8,400.00	8,700.00	6,900.00	31,800.00	25 mm dia
b	32 mm dia	RMT.	60.00	60.00	60.00	50.00	50.00	3,000.00	3,000.00	3,000.00	2,500.00	11,500.00	32 mm dia
c	40 mm dia	RMT.	60.00	60.00	60.00	40.00	77.00	4,620.00	4,620.00	4,620.00	3,080.00	16,940.00	40 mm dia
d	50 mm dia	RMT.	60.00	60.00	60.00	40.00	117.00	7,020.00	7,020.00	7,020.00	4,680.00	25,740.00	50 mm dia
e	65 mm dia	RMT.	20.00	20.00	20.00	10.00	184.00	3,680.00	3,680.00	3,680.00	1,840.00	12,880.00	63 mm dia
12.0	CANVASS CONNECTION												
a	Supply and Installation of Fire Resistant Fabric Flexible Connection to be installed between all the Fans,AHU/Indoor Units, AHU and the ducting to provide flexibility of movement in case of a seismic event and to prevent transmission of vibration from the unit to the duct. The fabric should be fire resistant, fiberglass weave with silicone rubber coating with Galvanized metal strip as per specifications. Flexible duct connector fabric shall be air tight, waterproof, virtually chemically inert and shall not emit toxic fumes when exposed to open flame.. The flexible canvas connectorshall be tested and certified in accordance with BS 476 Part 7 Class 1 and NFPA 701 from NABL accredited laboratory.	Rmt	6.00			10.00	230.00	1,380.00	-	-	2,300.00	3,680.00	Make #Sphere Silicon Coated 200 mm x 30 Meter x 0.4 mm, (-)70 TO (+)270 0 C
TOTAL OF PART A (VRF/VRV SYSTEM)								11,88,035.20	11,85,052.50	11,67,465.25	21,87,628.20	57,28,181.15	

**TRP**Redefining
Construction

Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
PART - B	VENTILATION EQUIPMENTS												
1	PROPELLER FAN :												
	Supply, installation, testing and commissioning of Propeller fan of the following capacity of approved make and specification. Fan shall be supplied with aluminum gravity louver & bird screen and with three speed control.												Make #Crompton With Metal bird screen
a	200 mm dia propeller fan, with single phase motor	NOS.	1.00				1,880.00	1,880.00	-	-	-	1,880.00	225mm dia propeller fan, 38W power, 1370 RPM speed, 800 CMM Air delivery.
b	300 mm dia propeller fan, with single phase motor	NOS.	14.00	10.00	8.00	8.00	2,150.00	30,100.00	21,500.00	17,200.00	17,200.00	86,000.00	300mm dia propeller fan, 50W power, 1350 RPM speed, 1160 CMM Air delivery.
c	450 mm dia propeller fan, with single phase motor	NOS.						-	-	-	-	-	
2.0	INLINE FAN :												
	Supply, installation, testing and commissioning of circular type Inline fan of the following capacity of approved make and specification. (Cost to be inclusive of Speed Regulator and 1/2 hr. fire rating canvas connection)												
a	200 to 300 CFM, 5-7 mm SP WG with Single phase motor	NOS.						-	-	-	-	-	
b	500 to 600 CFM, 7-10 mm SP WG with Single phase motor	NOS.						-	-	-	-	-	
c	900 to 1000 CFM, 10-15 mm SP WG with Single phase motor	NOS.						-	-	-	-	-	
3.0	TUBE AXIAL FAN :												
	SITC of Long case Tube axial flow fans, as per specifications and approved makes suitable for three phase operation at 1450 RPM respectively Smoke case.												
3.1	Long case tube axial flow fans complete with all accessories, suitable for wall mounted /Floor Mounted/ ceiling suspended installation. The fan shall be supplied with suitable 3PH/4P motor at 1450 RPM , and shall be selected for 40 mm static pressure (WG), (F Class motor insulation) All fan with fire retardant Canvas connection, bird screen and Gravity dampers (For Smoke make up air & Liftwell Pressurization fan) Fans capacity as per below mentioned as:(As per Vent. Fan Schedule)												Make #Greenheck Axial flow fan M.S.construction, Blades shall be made up of high pressure die cast aluminium, Shaft shall be made up of carbon steel and synthetic enamelled panited/hot dip galvanized with minimum 220 GSM Zinc Coating and complete The electric motor coupler shall be squirrel cage induction motor (IE-2 type) with class `H` insulation and suitable for 415 V, 3Ø, 50 Hz.. Motor shall be of high temperature resistance "Class H Smoke Spill" 250° C for 2 hrs.Fan. Fan efficiency should not be less than 70 %, noise level should not be more than 69 db @ 3 m distance and outlet velocity should not exceed 11.503m/s.
a	6000 CFM Liftwell Pressurization	NOS.	2.00				73,264.00	1,46,528.00	-	-	-	1,46,528.00	6000 CFM / S.P 25 mm
3.2	Long case tube axial flow fans complete with all accessories, suitable for wall mounted /Floor Mounted/ ceiling suspended installation. The fan shall be supplied with suitable 3PH/4P/2P motor , and shall be selected for 35 mm static pressure (WG), for a smoke spill duty @ 250°C air handling temperature for 2 hours (H Class motor insulation) . All fan with fire retardant Canvas connection, bird screen and Gravity dampers (For Smoke Extraction) Fans capacity as per below mentioned as:(As per Vent. Fan Schedule)												Make #Greenheck Axial flow fan M.S.construction, Blades shall be made up of high pressure die cast aluminium, Shaft shall be made up of carbon steel and synthetic enamelled panited/hot dip galvanized with minimum 220 GSM Zinc Coating and complete The electric motor coupler shall be squirrel cage induction motor (IE-2 type) with class `H` insulation and suitable for 415 V, 3Ø, 50 Hz.. Motor shall be of high temperature resistance "Class H Smoke Spill" 250° C for 2 hrs.Fan. Fan efficiency should not be less than 70 %, noise



Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
a	6500 CFM for Library & Hall Smoke Extraction	NOS.				2.00	73,264.00	-	-	-	1,46,528.00	1,46,528.00	level should not be more than 69 db @ 3 m distance and outlet velocity should not exceed 11.503m/s. 6000 CFM / S.P 25 mm
4	AIR CURTAIN												
	Supply,installation testing and commissioning of AIR CURTAIN of following size as per approved make With Speed regulator and Door limit switch/sensor .(At entrance)												Make #Mitzvah
a	900 mm long (High flow type)	NOS.	RO										
b	1200 mm long (High flow type)	NOS.	2.00				28,000.00	56,000.00	-	-	-	56,000.00	Air Curtain/ASP 3150 AP - 3Y/Air Curtain L~1490 mm; H~235 mm; W~208 mm; Max. Velocity ~ 23 / 18 m/s; Dual Speed; Al Chassis with CRC Plates Accessories/LS MAG Double Flap/Limit Switch Limit Switch; Magnetic Type; for a Double Flap Push Pull Door
	TOTAL OF PART B (VENTILATION EQUIPMENTS)							2,34,508.00	21,500.00	17,200.00	1,63,728.00	4,36,936.00	
PART - C	AIR DISTRIBUTION SYSTEM												
1.0	AIR DISTRIBUTION												
1.1	Supplying, fabricating, installing and testing of sheet metal ducts of following thicknesses including necessary supports, flexible hangers with isolators, flexible connections, nut bolts, fastner,gasket, splitter dampers and vanes, volume control dampers												
	Spcl. Note: All Duct Supprots incl. Supply, Fabrication, installation and testing of Steel Wire Ropes and Hangers, Supports and Modular system – Wire rope Supports (double channel wedge lock, unlocking device should not be integral part of grip for added safety) complete with end fixing. Wire Hangers shall be independently tested by reputed third party testing organization to sustain safe working load for 120min at elevated temperature of 175 deg. C or above. System shall be in accordance with the approved shop drawings and as required by the specifications												Ducting Make #Ductofab Sheet Make #Jindal/Tata Factory fabricated GSS ducting with 120 gm/sq.mtr. zinc coating as per SMACNA/ IS:655 Standards, TDF type Exclusion: supports, flexible hangers with isolators, flexible connections, nut bolts, fastner,gasket, splitter dampers and vanes, volume control dampers
a	24 gauge galvanized sheet steel (0.63mm)	Sqm	35.00			250.00	620.00	21,700.00	-	-	1,55,000.00	1,76,700.00	24 gauge galvanized sheet steel (0.63mm)
b	22 gauge galvanized sheet steel (0.80mm)	Sqm	15.00			110.00	770.00	11,550.00	-	-	84,700.00	96,250.00	22 gauge galvanized sheet steel (0.80mm)
c	20 gauge galvanized sheet steel (1.00mm)	Sqm				10.00	935.00	-	-	-	9,350.00	9,350.00	20 gauge galvanized sheet steel (1.00mm)
d	18 gauge galvanized sheet steel (1.25mm)	Sqm						-	-	-	-	-	



Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
1.2	Factory Fabricated Duct - GI duct												
	Supply,Installation,balancing and commissioning of factory fabricated GSS sheet metal ducts (rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter,vanes, hangers, supportsetc.) in accordance with the approved shop drawings and specifications , and shall also confirm to the BIS specifications.The duct shall be fabricated at site for to suit pieces.												
	Spcl. Note: All Duct Supprots incl. Supply, Fabrication, installation and testing shall be adequately secured and supported in an approved manner, with Threaded Rod & RapidStrut Slotted channel formed of Pre-galvanized steel support method under ducts at no greater than 2 meter span. All vertical duct work shall be supported by suitable RapidStrut Slotted Channel along with BIS 2x1 hole 90deg connector & BIS wall plate and anchor fastener at structural members on each floor slab. For Non Fire Rated Duct support shall be through anchor fastener driven into the concrete slab by electrically operated gun. Rigid support must be used in conjunction with Threaded Rod & RapidStrut Slotted channel supports with duct work at each change of direction or connection. All Support System shall be in accordance with the approved shop drawings and as required by the specifications												
a	0.63mm (24 gauge) GSS	Sqm						-	-	-	-	-	
b	0.8 mm (22 gauge) GSS	Sqm						-	-	-	-	-	
c	1.0mm (20 gauge) GSS	Sqm						-	-	-	-	-	
d	1.25mm (18 gauge) GSS	Sqm						-	-	-	-	-	
1.3	Supply, Fabrication, Installation and testing of Al. Flexible ducts in accordance with the approved shop floor drawings and specifications and shall also confirm to the BIS specifications.												Make #Sphere
a	100 mm Dia.	Rmt	300.00	325.00	340.00	240.00	150.00	45,000.00	48,750.00	51,000.00	36,000.00	1,80,750.00	Al. flexible duct
b	150 mm Dia.	Rmt						-	-	-	-	-	
1.4	SA/RA GRILLS :												
	Supplying, installing, testing and balancing of aluminium supply/return air grills of various sizes. Each grill shall be with fixed horizontal front bar at Zero/15 Deg deflection through the collar and register.												Make #SwirlAir
a	Aluminium supply air grilles with damper.	Sqm.				3.00	6,100.00	-	-	-	18,300.00	18,300.00	Al. Single Fixed bar Grille with M.S.damper.
b	Aluminium return air grilles without damper.	Sqm.				3.00	3,600.00	-	-	-	10,800.00	10,800.00	Al. Single Fixed bar Grille without damper.
c	Aluminium supply air square diffuser with damper	Sqm.						-	-	-	-	-	
d	Aluminium return/exhaust air square diffuser without damper.	Sqm.						-	-	-	-	-	
e	Aluminium return/exhaust air Valve circular/squirell diffuser without damper.	Sqm.						-	-	-	-	-	
f	Linear air grilles (150 MM wide)	RM	16.00				540.00	8,640.00	-	-	-	8,640.00	Al. Single Fixed bar Grille without damper.
g	Aluminium supply air collar damper /Butterfly Damper	Sqm.	4.50	5.50	5.50	4.50	3,500.00	15,750.00	19,250.00	19,250.00	15,750.00	70,000.00	Al. Collar Damper
h	Jet Diffusers (315mm Dia.)	Nos.						-	-	-	-	-	
i	AI Volume control dampers for ducts	Sqm.						-	-	-	-	-	

**TRP**Redefining
Construction

Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
1.5	MOTORIZED FIRE AND SMOKE DAMPERS												
	Supply, Installation, Testing and commissioning of motorized combination fire and smoke damper (spring return type) of approved make of atleast 120 minute fire rating and as per the specifications as detailed earlier in the relevant sections. The fire damper shall be complete with electronic temperature sensor and electrically operated actuator. The fire dampers shall be located in the supply/return air ducts/AHU outlets, at all fire rated crossovers (shafts/walls etc.) The control panel will be such located that the reset can be easily done. These combination smoke and fire dampers shall be interlocked with the building management system for fire detection / HVAC and shall trip/close in the event of fire / smoke in the respective zone.												
a	Bare Fire Dampers without sleeve for Pressurized supply outlet	Sqm.				2.00	6,000.00	-	-	-	12,000.00	12,000.00	16 Gauge GI Fire Damper without Sleeve 150mm deep
b	Control panel actuator, including Electrical, spring type actuator, remote indication of the fire damper position.	No				6.00	7,500.00	-	-	-	45,000.00	45,000.00	
c	Interconnecting wiring for the fire alarm system with the AHU and the smoke dampers.	Lot				1.00		-	-	-	-	-	
d	Sealing the openings around the sleeve of the fire dampers with approved fire sealant, as per the recommendations of the manufacturer and specifications.	Lot				1.00		-	-	-	-	-	
TOTAL OF PART C (AIR DISTRIBUTION SYSTEM)								1,02,640.00	68,000.00	70,250.00	3,86,900.00	6,27,790.00	
PART - D	INSULATION WORKS												
1	Acoustic Insulation												
	Supply and installation of cross linked open cell Foam/XLPE/Nitrile Rubber Acoustic insulation on ducts having density of 30 to 60 Kg/ M ³ , having K value 0.029 W/m ° K at 0°C Deg temp and temp range of -70°C to +100°C and fire rating Class O as per BS 476 Part 6 from CBRI, Roorkee and CFC/HCFC free as per US EPA 5021 A(2014). • Smoke & Toxicity index of material shall be passed as per IMO MSC 307 (88) 2010 Annex 1 Pt 2 and as per the approved specifications.												Make #K Flex
a	15mm thick XLPE/Nitrile Rubber Acoustic open cell insulation on one side for Duct acoustic insulation	SqM	6.00			15.00	852.00	5,112.00	-	-	12,780.00	17,892.00	Open Cell Nitrile Rubber Acoustic Insulation
2	External Thermal Insulation												
	Supply and installation of cross linked closed cell Foam/XLPE/Nitrile Rubber Thermal insulation on ducts having density of 30 ±3 Kg/ M ³ , having K value 0.029 W/m ° K at 0°C Deg temp and temp range of -70°C to +100°C and fire rating Class O as per BS 476 Part 6 from CBRI, Roorkee and CFC/HCFC free as per US EPA 5021 A(2014). • Smoke & Toxicity index of material shall be passed as per IMO MSC 307 (88) 2010 Annex 1 Pt 2 and as per the approved specifications.												
a	32 mm thick insulation oxide acetate foam/Nitrile Rubber with 2 layers coat 7 mil cloth insulation or starbond insulation (for exposed duct)	Sqm				100.00	950.00	-	-	-	95,000.00	95,000.00	32 mm thick Closed Cell Nitrile Rubber Insulation Class O with IC Cladding Glass Fabric Faced
b	13mm thick insulation XLPE /Nitrile Rubber	Sqm	25.00			260.00	261.00	6,525.00	-	-	67,860.00	74,385.00	13 mm thick Closed Cell Nitrile Rubber Insulation Class O
c	9mm thick insulation XLPE /Nitrile Rubber supply air duct where return thru ceiling						190.00	-	-	-	-	-	09 mm thick Closed Cell Nitrile Rubber Insulation Class O

[illegible]



Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
I	Providing cable clamps / supports within distribution boards cable alley.												
J	Current density of aluminium shall be 1sq mm for 1.0 Amps for rated current of bus bars.												
K	Model, current capacity location and frame size of switchgear shall be written inside of the panel doors with paint / permanent marker as approved shop drawings / site requirement.												
L	All meter shall be digital type and all starter shall be as per Type-2 Coordination chart												
M	Current Transformer shall be resin cast.												
N	All Panel Shall be BMS Compitable												
O	Spcl. Note: All Panels, Cable tray,Power Cable etc. Supprots incl. Supply, Fabrication, installation and testing of Steel Wire Ropes and Hangers, Supports and Modular system – Wire rope Supports (double channel wedge lock, unlocking device should not be integral part of grip for added safety) complete with end fixing. Wire Hangers shall be independently tested by reputed third party testing organization to sustain safe working load for 120min at elevated temperature of 175 deg. C or above. System shall be in accordance with the approved shop drawings and as required by the specifications												
1	AHU/Fan Panel												
	Design, fabrication, assembling, wiring, supply, installation, testing and commissioning of following LT panels fabricated out of 14 guage CRCA sheet steel in cubical formationwith reinforcement of suitable size angle iron and channel T iron flats. All steel material used in the construction of panels shall be powder coated. A solid busbar shall be provided at the bottom of the panel with two connecting eyes for termination. The boards shall be suitable for 415 volts, 50 Hz, 3 phase , 4 wire supply system. All the hardware used in the fabrication of the panel shall be galvanized with zinc passivation. The panel shall be compartmentalized to accommodate one feeder in each compartment. A vertical cable alley of suitable width shall be provided to serve on or two vertical feeder sections. Also the opening between the busbar chamber and the feeder section shall be shrouded with bakelite / hylam sheet with min.3 mm thickness.												
	The panel drawing shall be approved before taking up the fabrication and compitable BMS if in future required.												
	In All panel Each starter should have remote control and interlocking facilities including auto manual switch, NO/NC contacts for control and must have auto manual operation suitable to take signal from fire alarm panel for automatic operation of fan in case of fire. All smoke /vent. fan panel the starters shall have suitable facility to operate with fire sensing control modules.												
a	Fan Panel-HVAC-MCC-01 (2 Nos.)												
	Incoming/Outgoing												
	1 no. 6-10 A, TP MPCB (with DOL starter)												
	Phase indicating lights with control fuses.												
	Breaker ON/OFF/TRIP indicating lights.												
	The base frame shall be 75 mm x 5 mm. (Optional)												
	Panel as described above and in drawings.	No.				2.00		-	-	-	-	-	Rates Awaited

**TRP**Redefining
Construction

Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
b	Fan Panel-HVAC-MCC-02												
	Incoming												
	1 no. 32 amp MCB												
	Phase indicating lights with control fuses.												
	Breaker ON/OFF/TRIP indicating lights.												
	Bus Bars												
	50 amp TPN Aluminum Bus Bar with heat shrinkable insulation colored sleeves.												
	Outgoings												
	2 nos. 6-10 A,TP MPCB (with DOL starter)												
	The base frame shall be 75 mm x 5 mm. (Optional)												
	Panel as described above and in drawings.	No.	1.00					-	-	-	-	-	Rates Awaited
c	AHU Panel-HVAC-MCC-03 (2 Nos.)												
	Incoming/Outgoing												
	1 no. 6-10 A, TP MPCB (with VFD Provision/DOL starter)												
	Phase indicating lights with control fuses.												
	Breaker ON/OFF/TRIP indicating lights.												
	The base frame shall be 75 mm x 5 mm. (Optional)												
	Panel as described above and in drawings.	No.				2.00		-	-	-	-	-	Rates Awaited
2	METER BOARD / SUB PANEL'S												
	Supplying, Installation, Testing and Commissioning of dust, damp and vermin proof free floor standing / wall mounted factory built sheet steel enclosed modular construction extendable panel, suitable for operation on 415 + 10% volts, 50 Hz AC 3 phase 4 wire system fabricated out of suitable sized square tubular section and covered with 2.0mm thick CRCA sheet, hinged doors of 2mm thick CRCA sheet, duly painted complete with aluminium bus bars, interconnection with solid copper conductor wires / aluminium strips, neutral links, earth bus etc. necessary metering protections & indications and mounted with the following as per drawing and technical specifications attached etc. complete as required.												
a	ODU's Panel-HVAC-MCC-1 (Left)												
	Same as above item but outdoor Panel with following accessories.												
	INCOMING:												
	1 No. 630 amps, 415V TPN MCCB with overcurrent and short circuit releases, all indication, push button etc.												
	Coloured (Red, Yellow, Blue) phase indicating lamp - 1 set												
	(0 -630 A) CT operated Ammeter with selector switch & 3 nos. CTs ratio 630/5A , 15VA burden & accuracy class of 1.0 - 1 set												
	0-500 V Voltmeter with selector switch - 1 set												
	BUSBAR:												
	800 Amp. TPN, 35 kA Al. Bus Bar												
	OUTGOINGS:												
	40A, TPN ELCB with 100mA - 04 Nos. (Incl. 1No. Spare)												
	80A, TPN ELCB with 100mA - 14 Nos. (Incl. 1No. Spare)												
	ODU Panel Described as above/As per Manufacturer ODU Configuration.	Set	1.00					-	-	-	-	-	Rates Awaited

**TRP**Redefining
Construction

Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
b	ODU's Panel-1stFHVAC-MCC-2												
	Same as above item but outdoor Panel with following accessories.												
	INCOMING:												
	1 No. 630 amps, 415V TPN MCCB with overcurrent and short circuit releases, all indication, push button etc.												
	Coloured (Red, Yellow, Blue) phase indicating lamp - 1 set												
	(0 -630 A) CT operated Ammeter with selector switch & 3 nos. CTs ratio 630/5A , 15VA burden & accuracy class of 1.0 - 1 set												
	0-500 V Voltmeter with selector switch - 1 set												
	BUSBAR:												
	800 Amp. TPN, 35 kA Al. Bus Bar												
	OUTGOINGS:												
	40A, TPN ELCB with 100mA - 04 Nos. (Incl. 1No. Spare)												
	80A, TPN ELCB with 100mA - 14 Nos. (Incl. 1No. Spare)												
	ODU Panel Described as above/As per Manufacturer ODU Configuration.	Set	1.00					-	-	-	-	-	Rates Awaited
3	CABLING (POWER)												
	Power Cabling and Earthing:												
	Spcl. All Cables Should be fire survival Cables												Make #Havells
3.1	Supply, installation, testing & commisioning of LPCB approved mineral insulated copper conductor cables, construction as per BSEN 60702-1:2002 suitable for withstanding 950 deg under fire conditions as per BS 6387 CWZ and 850 deg under fire conditions on one single sample as per BSEN 50200. Cable should be manufactured with seamless copper tube and should be HFLS sheathed. (Tagging to be provided with aluminium strips on both the ends as approved). Required For 350 Deg. Fire rating only												Armoured Power Cables with High Conductivity Aluminium Conductor (Solid Conductor for Cables of size up to 10 Sqmm & Stranded Conductor for Cables of size 16 Sqmm & above), XLPE insulated, Cores Laid Up, PVC Inner Sheathed, Armouring (Galvanized Wires / Strips) & Extruded PVC (FRLS) Outer Sheathed, 650 / 1100 V Grade as per IS 7098 (Part 1) Armoured Power Cables with High Conductivity Annealed Plain Copper Conductor , Heat Barrier over the conductor (high temperature sustaining Glass Mica tape), Fire resistant XLPE insulation, Cores Laid Up, Extruded Zero Halogen & Low Smoke Compund Inner Sheathed, Armouring (Galvanized Wires / Strips) & Extruded Zero Halogen Low Smoke Compound Outer Sheathed, 650 / 1100 V Grade
a	3Cx06 Sqmm AL.	Rmt					104.00	-	-	-	-	-	3Cx06 Sqmm AL.
b	3Cx04 Sqmm Al.	Rmt	50.00			100.00	86.00	4,300.00	-	-	8,600.00	12,900.00	3Cx04 Sqmm Al.
c	4Cx04 Sqmm Cu	Rmt					225.00	-	-	-	-	-	4Cx04 Sqmm Cu
d	4Cx06 Sqmm Cu	Rmt	100.00			50.00	328.00	32,800.00	-	-	16,400.00	49,200.00	4Cx06 Sqmm Cu
e	4Cx10 Sqmm Cu	Rmt	100.00	200.00	200.00	150.00	494.00	49,400.00	98,800.00	98,800.00	74,100.00	3,21,100.00	4Cx10 Sqmm Cu
3.2	Control Cabling												
	Supply, installation, testing & commisioning of Copper conductor , PVC insulated, PVC sheathed armoured cable of 1.1 KV grade (Which is Interconnecting wiring for the fire alarm system with the AHU Panel and the smoke dampers).												Armoured Control cable, solid copper conductor as per IS 7098 (Part 1) 1988
a	8C x 1.5 Sqmm	RM	30.00			60.00	178.00	5,340.00	-	-	10,680.00	16,020.00	8C x 1.5 Sqmm

Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
4.3	Supply, installation, testing & commissioning of cable termination of above cables with copper lugs & flameproof brass compression glands on both the ends with inhibiting compound etc. complete as required.												Cable Glands #Comet Cable Lugs #Dowells
a	3Cx06 Sqmm AL.	Set					226.00	-	-	-	-	-	3Cx06 Sqmm AL. Double Compression type flameproof brass cable glands duly nickel plated (Armored) 1" thread Copper Tube Terminal Medium Duty Lugs
b	3Cx04 Sqmm AL.	Set	4.00				226.00	904.00	-	-	-	904.00	3Cx04 Sqmm AL. Double Compression type flameproof brass cable glands duly nickel plated (Armored) 1" thread Copper Tube Terminal Medium Duty Lugs
c	4Cx04 Sqmm Cu	Set					232.00	-	-	-	-	-	4Cx04 Sqmm Cu Double Compression type flameproof brass cable glands duly nickel plated (Armored) 1" thread Copper Tube Terminal Medium Duty Lugs
d	4Cx06 Sqmm Cu	Set	8.00			8.00	269.00	2,152.00	-	-	2,152.00	4,304.00	4Cx06 Sqmm Cu Double Compression type flameproof brass cable glands duly nickel plated (Armored) 1" thread
e	4Cx10 Sqmm Cu	Set	8.00	16.00	16.00	8.00	295.00	2,360.00	4,720.00	4,720.00	2,360.00	14,160.00	4Cx10 Sqmm Cu Double Compression type flameproof brass cable glands duly nickel plated (Armored) 1" thread Copper Tube Terminal Medium Duty Lugs
4.4	Supplying and installing following size of perforated G.I. cable trays, G.I. bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with suitable suspenders including G.I. bolts & nuts, painting of suspenders etc. complete as required.												Perforated Cable Trays (Hot Dip Galvanised)
a	100 mm. Width x 50mm. Depth x 1.6mm. Thickness.	Rmt	20.00			30.00	446.00	8,920.00	-	-	13,380.00	22,300.00	100 mm. Width x 50mm. Depth x 1.6mm. Thickness.
b	150 mm. Width x 50mm. Depth x 1.6mm. Thickness.	Rmt					560.00	-	-	-	-	-	150 mm. Width x 50mm. Depth x 1.6mm. Thickness.
c	250 mm. Width x 50mm. Depth x 1.6mm. Thickness.	Rmt	15.00	15.00	15.00	15.00	567.00	8,505.00	8,505.00	8,505.00	8,505.00	34,020.00	250 mm. Width x 50mm. Depth x 1.6mm. Thickness.
d	450 mm. Width x 50mm. Depth x 1.6mm. Thickness.	Rmt						-	-	-	-	-	
4.5	Providing and fixing following size of G.I. strip / G.I. wire on surface or in recess for loop earthing alongwith the existing surface/ recessed conduit/ submain wiring / on cable tray/ on surface including G.I. clamps etc. complete as required.												Make MEM
a	6 SWG G.I. wire	Rmt	20.00			40.00	24.00	480.00	-	-	960.00	1,440.00	6 SWG Wire
TOTAL OF PART E (ELECTRICAL WORKS)								1,15,161.00	1,12,025.00	1,12,025.00	1,37,137.00	4,76,348.00	
PART - F	AMC Works												
1	VRF/VRV System (Including all indoor units, Outdoor units,Vent. Fans, HVAC Panels or described items in above BOQ annual Compransive maintenance works after 1st year warranty.(2nd Year)	HP	120.00	132.00	128.00	140.00		-	-	-	-	-	
2	VRF/VRV System (Including all indoor units, Outdoor units,Vent. Fans, HVAC Panels or described items in above BOQ annual Compransive maintenance works after 1st year warranty.(3rd Year)	HP	120.00	132.00	128.00	140.00		-	-	-	-	-	



Sr. No.	Description of item	Unit	GF	1st	2nd	3rd	Supply Rate	GF	1st	2nd	3rd	Grand Total	
								Total	Total	Total	Total		
3	VRF/VRV System (Including all indoor units, Outdoor units,Vent. Fans, HVAC Panels or described items in above BOQ annual Compransive maintenance works after 1st year warranty.(4th Year)	HP	120.00	132.00	128.00	140.00		-	-	-	-	-	
4	VRF/VRV System (Including all indoor units, Outdoor units,Vent. Fans, HVAC Panels or described items in above BOQ annual Compransive maintenance works after 1st year warranty.(5th Year)	HP	120.00	132.00	128.00	140.00		-	-	-	-	-	
5	VRF/VRV System (Including all indoor units, Outdoor units,Vent. Fans, HVAC Panels or described items in above BOQ annual Compransive maintenance works after 1st year warranty.(6th Year)	HP	120.00	132.00	128.00	140.00		-	-	-	-	-	
6	VRF/VRV System (Including all indoor units, Outdoor units,Vent. Fans, HVAC Panels or described items in above BOQ annual Compransive maintenance works after 1st year warranty.(7th Year)	HP	120.00	132.00	128.00	140.00		-	-	-	-	-	
7	VRF/VRV System (Including all indoor units, Outdoor units,Vent. Fans, HVAC Panels or described items in above BOQ annual Compransive maintenance works after 1st year warranty.(8th Year)	HP	120.00	132.00	128.00	140.00		-	-	-	-	-	
8	VRF/VRV System (Including all indoor units, Outdoor units,Vent. Fans, HVAC Panels or described items in above BOQ annual Compransive maintenance works after 1st year warranty.(9th Year)	HP	120.00	132.00	128.00	140.00		-	-	-	-	-	
9	VRF/VRV System (Including all indoor units, Outdoor units,Vent. Fans, HVAC Panels or described items in above BOQ annual Compransive maintenance works after 1st year warranty.(10th Year)	HP	120.00	132.00	128.00	140.00		-	-	-	-	-	
10	VRF/VRV System (Including all indoor units, Outdoor units,Vent. Fans, HVAC Panels or described items in above BOQ annual Compransive maintenance works after 1st year warranty.(11th Year)	HP	120.00	132.00	128.00	140.00		-	-	-	-	-	
11	VRF/VRV System (Including all indoor units, Outdoor units,Vent. Fans, HVAC Panels or described items in above BOQ annual Compransive maintenance works after 1st year warranty.(12th Year)	HP	120.00	132.00	128.00	140.00		-	-	-	-	-	
12	Provide and stock at site PCB of Each Odu Models 2 Nos.	Lot											
	TOTAL OF PART - F (AMC Works)							-	-	-	-	-	