

**STATE BANK OF INDIA -RACC, JALNA**

**AIR CONDITIONING WORKS**

**BILL OF QUANTITIES**

**MAKE:Hitachi/Carrier/Daikin/ Toshiba/Bluestar /Mitshubishi Make ( No Hitachi Logicool Series ,  
NoCarrier Midea Series)**

PART A					
SR.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1	Supply of <b>2 TR INVERTER CASSETTE AC (1 phase) units</b> comprising of indoor unit, outdoor unit, first fill of refrigerant gas, thermostatic control, safety cut outs, cord less remote for unit operation, isolating valves, thermostatic control, safety cutouts, (condensor mounting stand excluded) and vibration isolation pads.The unit should have following specification. i)Condensing unit should be equiped with copper tubing /Anodised with 5 yrs gurantee ii) Compressor Type- Hermetic Rotary DC invertor iv)Refrigerant - R290 or R410A or ECHO FRIENDLY GREEN GAS	6	Nos.		
2	Supplyof following rated <b>High wall mountedSplit air conditioning units with BEE rated 5 star inverter technology</b> with full function wireless remote and auto restart feature, with indoor/outdoor unit, Copper condenser coils and first fill of refrigerant gas, thermostatic control, safety cut outs, cordless remote for unit operation, isolating valves, (condensor mounting stand excluded) and vibration isolation pads . i)5 STAR RATING ii)Condensing unit should be equiped with copper tubing iii) Compressor Type- Hermetic Rotary DC invertor iv)Refrigerant - R290 or R410Aor ECHO FRIENDLY GREEN GAS				
a	1.0 TR HIGH WALL 5 STAR RATING	1	Nos.		
b	1.5 TR HIGH WALL 5 STAR RATING	3	Nos.		
3	<b>TIMER</b>				

	Providing & fixing timer switch for switching power alternatively between two ACs, Timer will be Analogue dial type adjustable TIMER switch which is adjustable over 24 hrs with 4-6-8 hours intervals & is to have 1 NO+1NC (20A) contact. Timer will have its own backup battery & will be enclosed in 16 gauge MS box with acrylic lid together with suitable connector block. (ABB/ MDS / L&T)	0	no.		
4	Supply of following rated, wall mounted hi lo cut off stabiliser with TDR, voltage range 140-280V, complete in all respects. <b>Stabilizer: Servel/ V Gaurd/ Marc/Sen &amp; Pandit/ Stambh/ Inmag/Microtek</b> Input Voltage range: 160V-280V and Output : 230 V.				
i	3.0 KVA	1	Nos.		
ii	4.0 KVA	3	Nos.		
iii	5.0 KVA	6	Nos.		
<b>TOTAL PART A</b>					
<b>PART B-LOW SIDE WORKS (INSTALLATION OF HVAC SYSTEM)</b>					
1	<b>Installation &amp; commissioning of AC units</b>				
	i) 2 TR casset type unit	6	nos.		
	ii) 1.5TR Hi wall high wall mounted unit	3	no.		
	ii) 1.0TR Hi wall high wall mounted unit	1	nos.		
2	<b>Installation &amp; commissioning of Stabiliser units</b>	6	nos		
3	Fixing Stabilisers stand for 9 nos AC as mentioned above either step wise or seprate	1	Job		
4	Installation of 24 hrs user selectable timer with all accessories and wiring	0	no.		
5	<b>ELECTRICAL CABLING</b>				

	Providing and laying power & control cabling required from indoor unit to outdoor unit. (Power supply will be made available near the outdoor unit only) . makes : Polycab,Finolex, Flameguard,Polyplast				
	i). Power & control cabling for 2TR (1 Phase)	<b>98</b>	<b>mtrs</b>		
	i). Power & control cabling for 1/1.5 TR High Wall AC	<b>15</b>	<b>mtrs</b>		
<b>6</b>	<b>Copper Refrigerant Piping</b>				
	Supply & installation fo additional hilton insulated hard/soft copper refrigerant piping complete with fittings, elbows, bends, supporting arrangement on walls, cable trays. (separate for each unit) Hot side + cold side piping will be measured as one length existing copper, drain piping and cabling shall be used int he new system.				
	i) 2 TR casset type unit	<b>98</b>	<b>mtrs</b>		
	ii)1/1.5 TR Hi wall high wall mounted unit	<b>15</b>	<b>mtrs</b>		
<b>7</b>	<b>Drain water piping</b>				
	Drain water piping work out of PVC/HDPE hard pipes covered with hitlon insulations, compelte with fittings, bends, elbows, tees flanges, tappings, wall sleeves, hangers, supports, anchors				
	i) 25 mm/32mm. Dia 2 mm thick	<b>80</b>	<b>mtrs</b>		
<b>8</b>	<b>Frame work</b>				
	Supply, fabrication & installatioonf MS base frame for outdoor units complete with epoxy painting, vibrantion isolating pads, supports, hangers, railing, branckets etc. suitable for the above AC units. Note : Apply 2 coats of epoxy primer & 2 coats of anticorrosive paint.				
	i) 2 TR casset type unit	<b>6</b>	<b>nos.</b>		
	ii)1 /1.5TR Hi wall high wall mounted unit	<b>3</b>	<b>nos.</b>		

	<p><b>Note : The rates quoted above shall include the cost of indoor units, mounting brackets, first charge of gas. Materials like fittings, clamps, supports, U trap in drain piping with necessary slope etc., minor civil work like opening in the walls for piping and cables and finishing the same. pipes &amp; cables between through wall shall be taken through sleeves and plugged to avoid leakages, condenser mounting with all accessories vibration mounting pads etc., piping and cabling connections at indoor.</b></p> <p><b>Note-In case of High wall split type AC (1/1.5 TR) unit, the 5.0 RMT of Electrical cabling ,Copper Refrigerant Piping and Drain water piping shall not be considered in the measurement.</b></p>				
8	.Removing, Servicing, re-installation and Commissioning of existing split AC units of 1TR/1.5 TR/ 2TR from the existing branch premises to new premises including gas charging if required . Rates are inclusive of New Copper pipe,Drainage Pipe &cables pipe dismantled from branch.	0	nos.		
	<b>TOTAL OF PART B</b>				
	<b>PART C-COMPREHENSIVE ANNUAL MAINTANANCE CONTRACT above mentioned units of ACs and stabliser AFTER COMPREHENSIVE PRODUCT WARRANTY OF ONE YEAR</b>				
	FIRST YEAR	11.5	TR		
	SECOND YEAR	11.5	TR		
	THIRD YEAR	11.5	TR		
	FOURTH YEAR	11.5	TR		
	FIFTH YEAR	11.5	TR		
	<b>TOTAL OF PART C</b>				
A	<b>PART 'A' TOTAL</b>				

B	PART 'B' TOTAL				
C	PART 'C' TOTAL				
D	<b>NET TOTAL A+B+C</b>				
E	<b>Total Project Cost " D "</b>				
	<b>Note:- GST will be paid additionally as applicable on work contract</b>				

**NOTE:**

**MAKE:Hitachi/Carrier/Daikin/ Toshiba/Bluestar /Mitshubishi Make ( No Hitachi Logicool Series , No Carrier Midea Series)**

**CONTRACTOR'S SIGNATURE & SEAL**