

Name of work : SITC Of VRF System in PICU Ward and NICU Ward in 200 Bed Building at G.G.Hospital Building at Jamnagar, Dist: Jamnagar.							
SCHEDULE - B							

ITEM NO		Qty.	Description	Unit	Estimated Rates		AMOUNT
					In Figure Rs. Ps.	In Words	
1		3	4	5	6	7	8
1		20.00	Supply, installation, testing and commissioning of following minimum capacity 4-way/2 way/radial flow as per approval VRV Cassette Type Indoor ceiling mounted unit equipped with synthetic washable media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX Copper coil, electronic expansion valve, outer cabinet, drain pump, grill, necessary supports, vibration isolation, cord less remote control etc., suitable for operation on single phase 230 V \pm 10%, 50Hz AC supply, max noise level 60dB @ 400 cfm per TR(minimum) complete, as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature fresh air provision compatible for Remote Operation System (E) 2 TR	Ea	31910.95	Rupees Thirty One Thousand Nine Hundred Ten and Paisa Ninety Five Only	638219.00
2		56.00	Supply Installation, Testing & Commissioning of modular type Variable Refrigerant Volume air cooled Outdoor units suitable for cooling and heating, having all hermetically sealed inverter type Scroll Compressor(s), microprocessor based Controller, top discharge type condensing unit(s), with R410 A Refrigerant (Or Eco Friendly Green Gas if any), vibration isolators, with suitable foundation, MS Stand for Unit with necessary paint etc. complete as required. The unit shall deliver the rated capacity at AHRI Conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V +/- 10%, 3 Phase, 50Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5. (Design should be got approval before execution from engineer in charge)	Per Hp	23278.48	Rupees Twenty Three Thousand Two Hundred Seventy Eight and Paisa Fourty Eight Only	1303594.88

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					In Figure Rs. Ps.	In Words	
1		3	4	5	6	7	8
3		35.00	Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-0 tubular insulation/with Class-0 closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc with necessary refrigerant joint as required : (A) 6.4 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Mtr	324.21	Rupees Three Hundred Twenty Four and Paisa Twenty One Only	11347.35
4		35.00	(C.) 12.7 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Mtr	614.08	Rupees Six Hundred Fourteen and Paisa Eight Only	21492.80
5		55.00	(D) 15.86 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Mtr	796.89	Rupees Seven Hundred Ninety Six and Paisa Eighty Nine Only	43828.95
6		55.00	(E) 19 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Mtr	940.31	Rupees Nine Hundred Forty and Paisa Thirty One Only	51717.05
7		20.00	(F) 22.2 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Mtr	1155.44	Rupees One Thousand One Hundred Fifty Five and Paisa Forty Four Only	23108.80
8		32.00	(H) 28.58 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	Mtr	1444.30	Rupees One Thousand Four Hundred Forty Four and Paisa Thirty Only	46217.60
9		300.00	Supply installation testing commissioning Shielded Shielded Control Cables for VRV System with necessary ISI mark Medium class rigid PVC pipes with necessary accessories with termination in machine and control equipments.(A) 2C X 1.5 Sq mm Shielded Armoured	Mtr	143.42	Rupees One Hundred Forty Three and Paisa Forty Two Only	43026.00
10		50.00	Rigid UPVC drain pipe of 10 Kg/cm2. rating with 9 mm thick.nitrile rubber insulation. (C.) 32mm dia.	Mtr	105.04	Rupees One Hundred Five and Paisa Four Only	5252.00
11		200.00	(D) 25 mm dia.	Mtr	105.04	Rupees One Hundred Five and Paisa Four Only	21008.00
12		70.00	Supplying colourless non inflammable refrigerant Gas R-410	Kg.	925.16	Rupees Nine Hundred Twenty Five and Paisa Sixteen Only	64761.20

ITEM NO		Qty.	Description	Unit	Estimated Rates		AMOUNT
					In Figure Rs. Ps.	In Words	
1		3	4	5	6	7	8
13		250.00	Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables (C) 4 core 35 Sq. mm	Mtr	307.04	Rupees Three Hundred Seven and Paisa Four Only	76760.00
14		30.00	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables (G) 3 1/2 core 150 Sq. mm (70 Sq. mm 1/2 core)	Mtr	876.68	Rupees Eight Hundred Seventy Six and Paisa Sixty Eight Only	26300.40
15		100.00	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables. (B) 2 core 6 Sq. mm	Mtr	112.11	Rupees One Hundred Twelve and Paisa Eleven Only	11211.00
16		4.00	Providing & erecting 415 V MCB three Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity (c)63 Amp.	Ea	787.80	Rupees Seven Hundred Eighty Seven and Paisa Eighty Only	3151.20
17		4.00	Plastic enclosure fitted with DIN rail suitable for incorporating Three /Four nos. MCB	Ea	108.07	Rupees One Hundred Eight and Paisa Seven Only	432.28
18		16.00	Solder less crimping type Aluminium lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner (D) 35/50 Sq.mm. .	Ea	20.20	Rupees Twenty and Paisa Twenty Only	323.20
19		8.00	(H) 150 Sq.mm.	Ea	61.61	Rupees Sixty One and Paisa Sixty One Only	492.88
20		200.00	Supplying & erecting XLPE(IS:7098)(I)-88 ISI unarmoured copper cable 1.1 KV grade to be erected as directed of following size. (J) 4 core 2.5 Sq. mm	Mtr	211.09	Rupees Two Hundred Eleven and Paisa Nine Only	42218.00

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1		3	4	5	6	7	8
21		300.00	Providing and fixing approved make Perforated C type cable tray. Made from sheet steel. The cable tray should be single or double bended as per required and as per IS 2062/1079 and shall be coated with hot dip galvanizing as per IS 2629/4759. with max 17.5% perforation with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erection with necessary support(included) as per Specification and as per instruction of engineer in charge.. (5) 300 X 50 X 2.0 mm Thick	Mtr	622.16	Rupees Six Hundred Twenty Two and Paisa Sixteen Only	186648.00
22		2.50	Providing & erecting weather proof, dust & vermin proof, floor mounted front operated indoor type cubical panel board necessary IP-42 and above protection as per approval from engineer incharge made from 14 SWG thick CRC M.S. sheet for outer body & doors, 16 SWG thick CRC M.S.sheet for internal partitions with necessary accessories , supporting angles/ flats channel including cutting, bending, drilling, welding, riveting with internal partitions & cable alley as per requirements & instruction of engineer-in-charge with erection of supplied switch gears, BUSBARS, suitable size of inter connecting PVC copper wire / copper-aluminium strips, rubber grommets, rib, bakelite control fuses/MCB for measuring instruments, earth bus & earth bolts, foundation flange - bolts-base Plates, sufficient nos. of hinged doors, handles with locking arrangement and rubber gasket,heavy duty end terminal connection,danger notice board,necessary ventilation,earthing strip complete. The Panel shall be painted with epoxy powder coating. (The rates excludes the cost of switchgears, bus bars, inter connecting mains & Copper Aluminium strips, meters, Fuses etc. The dimension shall be measured excluding base beams) The panel shall be supplied with following approved manufacturers with following size. (A) locally fabricated panel board (i) with 350 mm depth	Sq.Mtr	10468.65	Rupees Ten Thousand Four Hundred Sixty Eight and Paisa Sixty Five Only	26171.63
23		4.00	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 25 KA. at 415 V,having normal current rating up to 25 A to 100A. with Fixed thermal & magnetic release suitable to work on A.C. supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing. ICS=100% of ICU only Cat III	Ea	6790.23	Rupees Six Thousand Seven Hundred Ninety and Paisa Twenty Three Only	27160.92

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1		3	4	5	6	7	8
24		1.00	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 35 KA. at 415 V. having Normal current rating 200A.with variable Thermal & magnetic release suitable to work on A.C.supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S.housing ICS=100% of ICU only Cat III	Ea	17843.67	Rupees Seventeen Thousand Eight Hundred Fourty Three and Paise Sixty Seven Only	17843.67
25		1.00	Supplying and erecting triple pole & neutral 440V / 500V panel mounting Copper Busbars with four equal Nos. of electrolyte bus having current density not more than 1.6 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulating tape for phase sequence of following current carrying capacity, erected with necessary bus bar supports /insulators, main cable socket to each bar, erected in existing cubical panel with necessary connections. (B) Suitable for 200 Amp. capacity	Rn.Mtr	3202.71	Rupees Three Thousand Two Hundred Two and Paise Seventy One Only	3202.71
26		1.00	Supplying and erecting approved make panel mounting type Digital Voltmeter having 3 digits LED display, 0 to 750 AC Volts range erected on existing panel board with all connection, wiring etc .with manufacturers calibration certificate.	Ea	1275.63	Rupees One Thousand Two Hundred Seventy Five and Paise Sixty Three Only	1275.63
27		1.00	Supplying and erecting approved make panel mounting type Digital Ammeter having 3 digits LED display, external CT operated, calibrated for 0 to 1000 Amps suitable to operate on 500 Volt AC , erected on existing panel board with all connection, wiring etc .with manufacturers calibration certificate.	Ea	1558.43	Rupees One Thousand Five Hundred Fifty Eight and Paise Fourty Three Only	1558.43
28		3.00	Supplying and erecting approved make suitable panel indicator LED type lamp, lens cover, complete erected with necessary connections.	Ea	43.43	Rupees Fourty Three and Paise Fourty Three Only	130.29
29		15.00	providing and erecting Mains with ISI marked, 1.5KV grade electrolyte multi stranded, annealed copper conductor with heat resistant PVC insulated conforms to IS 694, IEC - 227 erected in existing pipe of following size (Specifically for control panel, relays, power switchgears, motor starters & control wiring) with required size of copper lugs, nuts and bolts if required.(g) One wire 16.00 sq. mm	Mtr	177.76	Rupees One Hundred Seventy Seven and Paise Seventy Six Only	2666.40
30		10.00	(h) One wire 25.00 sq. mm	Mtr	295.93	Rupees Two Hundred Ninety Five and Paise Ninety Three Only	2959.30

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1		3	4	5	6	7	8
31		120.00	Providing , erecting , fabricating the M.S. structure as per requirement on site incorporating proper size of M.S. angles,square,round, flats, bars, channels, sections complete with cutting, welding, grinding & finishing duly painted with one coat of red oxide with erection on site as per direction of engineer in charge with necessary grouting, cementing, plastering & finishing complete.	Kg.	77.77	Rupees Seventy Seven and Paisa Seventy Seven Only	9332.40
32		2.00	Supplying & erecting earth pit of minimum bore dia.150mm size approved make Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I.Pipes having Outer pipe dia of 50mm having 80-200 Micron galvanising, Inner pipe dia of 25 mm having 200-250 Micron galvanising, connection terminal dia of 12mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover. (A)(approved make OEM has to submit test certificate including value of earth resistance of installation duly stamped and signed by agency and officer Incharge has to ensure the value of earthing resistance mentioned in test Certificate) & having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 ohm / meter testing as per IEC 62561-2017, Voltage drop:- < 1 volt at no load & dry form, Sulphur content:- <2%(C) Back fill Compound :- Earthing compound should be capable to retain moisture for long time Necessary test report must be submitted by Agency. (a) For Electrical Installation up to 440V in normal soil Length of pipe - 1 Mtr	Ea	4591.46	Rupees Four Thousand Five Hundred Ninety One and Paisa Fourty Six Only	9182.92
33		20.00	Providing and erecting Annealed bare Copper wire 8 to 16 SWG.	Kg	794.87	Rupees Seven Hundred Ninety Four and Paisa Eighty Seven Only	15897.40

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1		3	4	5	6	7	8
34		20.00	providing and erecting Miniature circuit breaker single pole 6A to 25A suitable to operate on 240 V A.C. system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark Cat.III	Ea	112.11	Rupees One Hundred Twelve and Paisa Eleven Only	2242.20
35		2.00	Providing & erecting 240 V MCB double pole switch for lighting Load (B Curve) having 10 KA breaking capacity & confirms to IS : 8828 in existing box having following capacity (B) 40 Amp. Cat.III	Ea	325.22	Rupees Three Hundred Twenty Five and Paisa Twenty Two Only	650.44
36		2.00	Providing and erecting Sheet Steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used) suitable for (b) sheet steel double door (IP-43) (v) 16 way	Ea	1680.64	Rupees One Thousand Six Hundred Eighty and Paisa Sixty Four Only	3361.28
37		2.00	providing and erecting Approved make RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 10 KA and suitable for operation on single phase 240 V,50Hz. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component. for following Max. rating erected as directed (ii) 40Amps. DP Cat. III	Ea	2458.34	Rupees Two Thousand Four Hundred Fifty Eight and Paisa Thirty Four Only	4916.68
Total Amount in Rs.							2749662.89

I / We am /are willing to carryout the all or any items of this A.R.C.
at _____% below /above + / - _____% (should be
written in figure and words).

Note-1 All work shall be carried out as per specification attached and relevant I.S. standards or as directed.

Note-2 All the columns in schedule should be filled in by ball pan or ink and the total of the entries in the last column should be stated by the contractor under his signature.

Note-3 Rates quoted include clearance of site (Prior to commencement of work and at its closure) in all respects and held good for the work under all conditions, site, moisture, weather etc.

Note-4 To be continued on additional sheets, if found necessary.

Signature of Contractor with seal

Signature of the Contracting Authority with seal :

Asst. Engineer (Ele.)
P.I.U. Jamnagar

Dy. Executive Engineer (Ele.)
P.I.U. Jamnagar

Executive Engineer (Ele.)
P.I.U. Zone I Rajkot