

| BILL OF QUANTITIES FOR AIR CONDITIONING WORKS AT HOME LOAN CENTRE (HLC) - 3, GURUGRAM | | | | | |
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| S.No. | Description of Items (HVAC SYSTEM) | Unit | Qty | Rate | Price |
| 1 | Supply, installation, testing & commissioning of Aircooled Variable Refrigerant Flow modular type airconditioning system for R-410A refrigerent, suitable for 415 +/- 10 % volt, 50 Hz, 3 phase AC supply for outdoor units and 220 ± 10% volt, 50 Hz, 1 phase AC supply for indoor units with stepless modulation complete with indoor & outdoor units, 100% Inverter Scroll Compressors, compressor should be manufactured by OEM. Refrigerant Cooled Inverter PCB, COP should be not less than 3.0 at 100% Load condition & 4.4 at 50 % Load Condition, ODU Fines should be factory fitted anticorrosive coating. All individual indoor units shall have munticonnection communication kit, EEV kit & remote control (Wired/wireless) & compatible for centralised controller, interconnected refrigerant piping, full charge of refrigerant gas and oil in VRF outdoor unit (2 nos ODU). Anti - corrosion coating in entire system & details given in the specifications as listed below complete in all respects including foundation and anti vibration Pads for ODUs. | | | | |
| | Outdoor Unit | | | | |
| | a) VRF - 16.0 HP , inverter type scroll compressor (HOT AND COLD) | Each | 4 | | ₹ 0.0 |
| | b) VRF - 10.0 HP , inverter type scroll compressor (HOT AND COLD) | Each | 1 | | ₹ 0.0 |
| | Indoor Unit | | | | |
| | 4 Way Cassette type VRF indoor unit. | | | | |
| | a) 1.0 TR | Each | 2 | | ₹ 0.0 |
| | b) 1.5 TR | Each | 1 | | ₹ 0.0 |
| | c) 2.0 TR | Each | 3 | | ₹ 0.0 |
| | d) 3.0 TR | Each | 11 | | ₹ 0.0 |
| | e) 4.0 TR | Each | 6 | | ₹ 0.0 |
| | Make :- Daikin / Blue star / Mitsubishi/ HITACHI/ Voltas | | | | |
| 2 | Supplying installation of Y- Joints (Refnet). | | | | |
| | a) Refnet Model - 22T | Each | 2 | | ₹ 0.0 |
| | b) Refnet Model - 33T | Each | 10 | | ₹ 0.0 |
| | c) Refnet Model - 72T | Each | 2 | | ₹ 0.0 |
| | d) Refnet Model - 73T | Each | 6 | | ₹ 0.0 |
| | e) BHF Outdoor Unit Connection | Each | 2 | | ₹ 0.0 |
| 3 | Supplying installation testing and commissioning of Central Remote Controller (CRC) for outdoor / indoor units. | Each | 1 | | ₹ 0.0 |
| 4 | Supplying, Installation, Testing & commissioning of interconnecting copper refrigerant pipe work duly insulated with 19mm thick elastomeric insulated wire nitrile rubber type tubular insulation between indoor & outdoor units as per specifications including proper support with necessary hangers, clamps etc. All exposed pipe shall have UV coating on insulation & cost to be included in the piping. | | | | |
| | a) 1/4" OD (6.4mm) | Mtr | 10 | | ₹ 0.0 |
| | b) 3/8" OD (9.5mm) | Mtr | 150 | | ₹ 0.0 |
| | c) 1/2" OD (12.5mm) | Mtr | 40 | | ₹ 0.0 |
| | d) 5/8" OD (15.5mm) | Mtr | 130 | | ₹ 0.0 |
| | e) 3/4" OD (19.5mm) | Mtr | 85 | | ₹ 0.0 |
| | f) 7/8" OD (22.3mm) | Mtr | 25 | | ₹ 0.0 |
| | g) 1-1/8" OD (28.5mm) | Mtr | 50 | | ₹ 0.0 |
| | h) 1-3/8" OD (34.5mm) | Mtr | 60 | | ₹ 0.0 |
| 5 | Fabricating and providing the mounting arrangement for outdoor units , panel of required size made with 50mm x 50mm x 5mm thick MS angle Iron of suitable height including primer and painting with sinthetic enamel paint etc as required (Heavy duty). | Each | 5 | | ₹ 0.0 |
| 6 | Supply, installation, testing and commissioning of following sizes PVC condensate drain water piping of density 6 Kg/m³ complete with fittings like ebows, tees, reducers, bends, flanges, supports & duty insulated with 13mm thick nitrile rubber insulation etc. as required. | | | | |
| | a) 25 mm | Mtr | 120 | | ₹ 0.0 |
| | b) 32 mm | Mtr | 65 | | ₹ 0.0 |
| 7 | Supply & fixing of condensate (self primary & reciprocating type) drain pump of capacity 20 Ltr/hour. Low and High level cut off and over flow alarm. | Each | 1 | | ₹ 0.0 |
| 8 | Supplying and Drawing of following size flexible copper conductor PVC insulated, cross laid up over all aluminium mylar tap shielded along with ATC drain wire pvc outer shieth BMS cable/control cum trans-mission cable between indoor and outdoor units in existing Conduit/casing capping /loose for connection etc as required. | | | | |
| | a) 2 C X 1.5 Sq. mm | Mtr | 250 | | ₹ 0.0 |

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| 9 | Cutting of holes in brick wall (average thickness 850mm) through core cutting machine, average dia of hole - 200mm for making route for drain and refrigerent copper pipe, at selected locations as per requirement, and finishing the holes with plastic and POP all complete in all respect. | Each | 5 | | ₹ 0.0 |
| 10 | Air Purification Plasma ionization | | | | |
| | The Active Air Purification system should consist of Supply, Installation, Testing and commissioning of Bipolar Ionisation System. The Bipolar Ionisation System must be a combination of Tube Based Model and Needle Point Model (Needle Point should have Nitinol (nickel titanium) Needles) and Carbon Fibre Brush Model, System should produce positive and negative ions for creating a Bio Climate rich in ions and hence neutralising harmful pollutants including pathogens, Volatile Organic Compounds and Particulate Matter. | | | | |
| | 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. Supplier must have experience of more than 3 years of executing projects with the same technology products. and have done at least 3 multi-location projects (Private Or Government) Pan India and Minimum Value of each project must be at Least 50 Lac. | | | | |
| | Following Certifications are mandatory to produce The Carbon Brush and Self Cleaning nickel titanium based Needle Point Bipolar Ionizer must be UL 2043 and UL 1995 certified. The Carbon Brush and Self Cleaning nickel titanium based Needle Point Bipolar Ionizer must have UL-2998 Certification for Safety against Zero Ozone Emission as per recommendation by ASHRAE. The Carbon Brush and Self Cleaning nickel titanium based Needle Point Bipolar Ionizer and Tube Based Model Should be tested on UL or Intertek/ETL to prove conformance to UL 867 for electronic devices. Other Product Certifications required are ISO16000 , CSA C22.2# 187, and CARB. Manufacturers shall provide Test report from Internationally/Nationally recognized Lab for proven efficacy on below pathogens with minimum kill rates for the following pathogens given the allotted time and in a space condition: Make :- IntelliGreen/Eco-Green Engineers/Air Ultra | Each | 23 | | ₹ 0.0 |
| TOTAL FOR AIR CONDITIONING WORKS | | | | | - |
| Note:- The rates quoted includes all other taxes , duties , loading, unloading , transportation, other expenses etc to site. Only GST will be paid Extra | | | | | |