

Technical Specification for Replacing Old 3X Rooftop units, Install and commissioning of new 3X Rooftop Package Air Conditioners Unit: ARC-VIMP

Compulsory requirement.

**CIDB - Mechanical Engineering works (ME) minimum level one (1) or higher**

**a) SCOPE OF WORK**

- Remove all 3 old cooling/heating systems at B3:2, B3:3, B3.5 compartment
- Install 3 Rooftop Package Air Conditioners Unit at B3:2, B3:3, B3.5 compartment
- Supply and install of PLC temperature controller similar or equivalent to Carel (which will enable the user to set the night and day temperature)
- Each unit must have its separate controller on the own Db board
- Install 3 temperature sensors on the compartment.
- Manufacture and install purpose made galvanized ducting internally insulated.
- Install two washable filter sets per unit in return ducting.
- Supply and install two indoor deflection air grill per unit.
- The air conditioners control unit will be housed in a steel metal electrical enclosure (IP65) with all the relevant isolator to control the AC units, one metal electrical enclosure per compartment.
- Supply and install new electrical cables from the distribution board, including new Isolator and new circuit breakers as per manufacturer specification.
- Install a three phase electrical meter to measure electrical consumption per glass house.
- Install alarming system that will send a warning if temperatures are out of range.

**b) DUCT CONSTRUCTION**

- The unit are equipped with supply and return air openings. Duct connection to the unit should be made with duct flanges and secured directly to the air openings with flexible duct connectors to avoid normal noise transmission.
- To prevent air leakage, all duct seams should be sealed.
- Ducts in the spaces that not air-conditioned must be insulated.
- Ducts exposed to the outside must be weather proofed.
- Ducts that enter the structure through the roof, the entering should be sealed with weather stripping to prevent rain, sand, dust etc., from entering the building.
- Correct size of filter must be installed at the return air duct.

**NB.**

ARC- VIMP will supply the Rooftop A/C units

- If the glass is broken during unit's installation, supplier will be liable for replacing it.
- Temperature should be set according to the client needs
- Provide Certificate of Compliance after Commissioning.
- Remove all rubble from the site