

TECHNICAL SPECIFICATIONS

FOR COOLING/HEATING/VENTILATION/FILTRATION SYSTEMS

Technical Specifications for Cooling/Heating/Ventilation/Filtration Systems (AC Units)

UNHCR in Lebanon is requiring the supply, delivery, installation, testing, and commissioning of cooling/heating/ventilation/filtration systems (AC units).

General Requirements:

- **Type of System:** Comprehensive HVAC (Heating, Ventilation, Air Conditioning) units capable of cooling, heating, ventilation, and air filtration.
- **Power Requirements:** 380V 50Hz three-phase power.
- **Installation Area:** Adaptable to various sizes; specific area requirements will be detailed in each Service Order.

Required Systems and Specifications:

No. 1: Cooling/Heating Units

Characteristic:

Product Description

- General Design Requirements: The units should provide both cooling and heating functionalities, suitable for different types of buildings and room sizes. They must include temperature control options, energy efficiency features, and user-friendly interfaces.
- Cooling Capacity: Varies per unit type; bidders should specify the range.
- **Heating Capacity:** Varies per unit type; bidders should specify the range.
- **Air Filtration:** Equipped with advanced filtration systems to improve indoor air quality by removing dust, allergens, and other contaminants.
- Warranty: Minimum 12 months.

No. 2: Ventilation Systems

Characteristic:

Product Description

- **General Design Requirements:** Systems should ensure proper ventilation, removing stale air and introducing fresh air into the buildings. Must include energy recovery features to optimize efficiency.
- Capacity: Capable of servicing large areas; specific requirements will be provided.
- **Filtration System:** High-efficiency filters to remove particulates and contaminants.
- Warranty: Minimum 12 months.

No. 3: Installation, Testing, and Commissioning

Characteristic:

Description



- **General Design Requirements:** All units must be installed and tested to ensure proper operation. Commissioning includes initial setup, calibration, and functional testing of all components.
- **Installation:** Professional installation by certified technicians.
- **Testing:** Comprehensive testing to verify all functionalities, including temperature control, airflow, and filtration efficiency.
- **Commissioning:** Formal commissioning process, ensuring systems are fully operational and meet performance standards.
- Warranty: Minimum 12 months for installation and commissioning services.

No. 4: General Requirements

Services
Description
Bidder Confirmation (Yes/No)

- Installation, Maintenance, and Warranty Requirements:
 - o On-site installation and commissioning.
- Availability of Maintenance and Repair Services:
 - o Must be available for the duration of the Frame Agreement.
- List of Sources for Purchasing Spare Parts:
 - Detailed list to be provided.
- Documentation:
 - All documentation, including catalogues, instructions, and operating manuals, must be included.
- List of Required Spare Parts:
 - o For a duration of 12 months with their prices.
- Delivery and Payment Terms:
 - Delivered At Place (DAP) per request to UNHCR Offices in Lebanon (Beirut and field offices in Mount Lebanon, Qobayat, Tripoli, Sur (Tyre) and Zahle)100% payment will be by bank transfer to the Supplier's account after delivery, installation, commissioning, and acceptance of goods by UNHCR.

No. 5: General Related Services

Characteristic:

Description

• **Installation, Commissioning, and Training:** For each offered product, installation, commissioning, and training are required for smooth operation. Kindly describe your approach and project plan for the offered products.

End of Requirements