

03.SCOPE OF SUUPLY AND TECHNICAL SPECIFICATIONS

3.1 SCOPE OF SUPPLY

3.1.1 The successful Bidder should supply the air conditioning units to Oil Installation of Ceylon Petroleum Storage Terminals Ltd., Muthurajawela Terminal, before expiring of one (01) month from the date of award of the Tender. Installation will be done at below locations and the installation shall be completed within one (01) month from the date of delivery.

Description	Quantity (Nos.)	Installation Location
24,000 BTU Split Inverter A/C's	4	TFCR, OPS Room, Sub Station and Administration Office
18,000 BTU Split Inverter A/C's	5	Conference Room, Library ,03F Gate, Exit Gate, Distribution Office
12,000 BTU Split Inverter A/C's	1	Invoice Office
Nos. 9000 BTU Standard Split A/C' s	10	Office rooms

3.1.2 Tubes and other installation materials.

3.1.3 Technical literature catalogues and complete set of installation and service manuals should be submitted with each air conditioning unit.

3.1.4 Warrantee certificates should be submitted with the air conditioning unit.

3.1.5 Contact telephone number for reporting breakdowns and services.

3.2 TECHNICAL SPECIFICATIONS

3.2.1 Capacity and Power supply should be as follows,

Description	Power supply
24000 BTU Split Inverter A/C	230 V, 50 Hz single phase
18000 BTU Split Inverter A/C	230 V, 50 Hz single phase

12000 BTU Split Inverter A/C	230 V, 50 Hz single phase
9000 BTU Standard Split A/C	230 V, 50 Hz single phase

The supplier should clearly mention each models power supply point (whether indoor or outdoor)

3.2.2 Refrigerant should be R410A.

3.2.3 Respective EER should motioned in the technical literature catalog.

3.2.4 The air-conditioning unit should be air cool and free-blower type.

3.2.5 The air-conditioning unit should be supplied with following protection devices.

- i. Internal Thermostat
- ii. Over Current Relay

3.2.6 Fan motors should be sealed ball bearing type for dust free operation.

3.2.7 Outdoor Unit

3.2.7.1 Out Door Unit should be consisting suction valve and discharge valve for the convenience of repairs.

3.2.7.2 Outdoor Unit Housing of the outdoor unit should be corrosion resistance and shall be able to bear salty and hot weather conditions.

3.2.8 Indoor Unit

3.2.8.1 Housing of the indoor unit should be plastic or non-corrosive material.

3.2.8.2 Manual on/off switch should be available.

3.2.8.3 Blower should be direct driven

3.2.8.4 Noise level of the Indoor Unit should be less than 40 dB.

3.2.7.4 The following indicators should be available.

- i. Power supply
- ii. Compressor Operation
- iii. Air Swing

3.2.9 Remote Control

3.2.9.1 Remote Control should indicate Room Temperature, Strength of the Batteries, Operational errors of the unit etc.,

3.2.9.2 Facilities should be available for Temperature setting 16 to 32 C, Fan speed setting – Low/Medium/High, Air Swing on/off.

3.2.10 Spare Parts

3.2.10.1 The supplier should submit list of spare parts with the prices for five years of operation including followings.

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|-----------------------------|---|--------|
| 1. High Side Condenser | - | 01 No. |
| 2. Fan Motor (Outdoor Unit) | - | 01 No. |
| 3. Fan Motor (Indoor Unit) | - | 01 No. |
| 4. Control Module(Indoor) | - | 01 Set |
| 5. Control Module(Outdoor) | - | 01 Set |
| 6. Remote control | - | 01 No. |

3.2.10.2 The supplier should give an assurance in writing to supply spare parts including following for a period of 8 years.

1. Out Door Unit – Fan Blade
2. Fan Motors
3. High Side Condenser
4. Control Module
5. Magnetic Relay
6. Capillary System
7. Remote Control

3.2.11 Warranty

3.2.11.1 Warrantee period for the air-conditioning unit should be minimum one year from the date of installation

3.2.11.2 Warrantee period for the compressor and condenser should be and minimum five years from the date of installation.

3.2.11.3 If the compressor or any other parts have to be replaced due to a defect identified during the guarantee period, the supplier should not introduce any replacement cost that will be incurred to CPSTL.

3.2.12 Installation and Maintenance

3.2.12.1 Mounting/ Fitting indoor & outdoor units at the respective locations as per standard practice including Leak testing and additional refrigerant charge if required.

- 3.2.12.2 During the installation supplier may need to remove the existing units, Outdoor and Indoor brackets and piping.
- 3.2.12.3 Supply, installation, testing and commissioning of suitable size (minimum gauge 0.61mm) copper refrigerant lines (suction and return) including insulation of minimum 13 mm thickness nitrile rubber with aluminum foil covering along with required electrical and control cabling as per standard practice.
- 3.2.12.4 Supply and laying of PVC drain piping as per standard practice.
- 3.2.12.5 Supply and Installation of suitable size PVC trunking, covering refrigerant lines, drain pipes and cables.
- 3.2.12.6 In case of emergency breakdown, supplier should attend the repair and maintenance works within 24 hours
- 3.2.12.7 Bidder should forward contact telephone number for reporting breakdowns.

3.2.13 Annual Service Maintenance Contract

Supplier should enter to an Annual Service Maintenance Contract with the CPSTL to provide 02 No. High Pressure Service and 02 Nos. Normal Services per Annum.

Signature of the Bidder: Date:..... **(Common Company Seal)**