

Technical Specifications for cassette type air conditioners

I) Scope:

- 1) Supply, installation as per scope given below, testing and commissioning of 2TRcassette type air conditioners including remote, mounting brackets for outdoor and indoor units as given below.
- 2) Supplier shall bring all tools and tackles required for installation, testing & commissioning of air conditioner units.
- 3) Down rods with all accessories like washer, bolts etc. for mounting indoor unit of cassette type air conditioners shall be supplied and installed by the bidder and the cost of the same shall be included in the quoted price.
- 4) Hangers required for routing the drain pipe from indoor unit to outdoor unit shall be supplied by the bidder and the cost of the same shall be included in the quoted price.
- 5) Hangers required for routing the Copper tube, cable from indoor unit to outdoor unit shall be supplied by the bidder and the cost of the same shall be included in the quoted price.
- 6) All drilling works required for successful installation of air conditioner units shall be done by the supplier.
- 7) Installation site distance between Indoor Unit and Outdoor Unit of cassette type air conditioners is around 8 meters, therefore additional five meters of copper tubes, insulation tube, water drain pipe, copper cable of suitable size, thickness same as OEM and other accessories shall be supplied accordingly and the cost of these shall be included in quoted price.
- 8) Mounting brackets required for installing outdoor unit and indoor unit shall be supplied by the supplier and the cost of these shall be included in quoted price.
- 9) Gas charging if required shall be done by the supplier at the site at free of cost for successful commissioning.
- 10) Installation of the air conditioners shall be carried out using proper tools and procedures as per manufacturer guide lines.
- 11) O&M manual shall be supplied for each set of air conditioner.

II) Specifications of Cassette type air conditioner:

Technical Description	Requirement
Cooling Capacity	2 TR
Power Supply	230V AC, 50HZ, 1-phase
Type	Cassette
BEE Star rating (2018)	3 (three)
Fixed/Variable speed	Variable speed
Mounting	Indoor unit –ceiling mounting Outdoor unit – wall mounting
Remote handset	Digital display with night glow
Compressor	Rotary
Refrigerant	R-410a

Material of condenser coil	copper
Material of evaporator	copper
Dimensions	<u>Height of the body shall be less than 300 mm.</u>
Features:	
<ul style="list-style-type: none"> • 4-way air flow • Auto restart • Dust filter • Swing mode • Fan mode • Timer • Air swing • Anticorrosive coating on condenser coil, hydrophilic coating on evaporator coil. 	

III) PRE-QUALIFICATION CRITERIA FOR BIDDER:

- a. Bidder should be Air conditioner manufacturer or their authorized dealer. In case of authorized dealer, they should submit the latest authorization certificate from the respective manufacturer.
- b. The bidder shall send technical catalogue of the air conditioners which they are offering along with offer. Technical catalogue shall contain all technical details, model no., dimensions, weight and GA drawing.

IV) Installation of air conditioners:

1. Out of two air conditioners, one air conditioner is to be installed in between false ceiling and cable rack. Gap between false ceiling and cable rack is around 320 mm.
2. Existing false ceiling is to be removed as per the requirement for installing indoor unit, copper tube, cables between indoor and outdoor units.
3. Removed false ceiling is to be fixed back to close the openings after installing air conditioner unit.
4. Supplier shall carry out modifications required in false ceiling for installing air conditioner unit and it shall be fixed back as it is existing.
5. Indoor unit of cassette type air conditioners is to be mounted on mild steel channel provided above false ceiling. Making holes on steel channel as per the requirement for mounting indoor unit shall be done by the supplier.
6. All connections from indoor unit to outdoor unit like copper tube, copper cable connections etc. shall be done by the bidder.
7. Bidder shall engage trained manpower for installing air conditioner unit and also to remove, re-fix the false ceiling.
8. Bidder shall take proper care while removing and fixing back false ceiling. If any damage is observed during installation, same is to be rectified/replaced upto the satisfaction of Engineer-In-charge civil.
9. All tools required for removal, re-fixing of false ceiling, installing air conditioner unit shall be brought by the bidder.

V) Testing to be done after Installation at HWPT:

- 1) Compressor current and cooling temperature shall be tested

- 2) Air conditioners will be switched ON and cooling effect will be checked
- 3) Air conditioners will be switched ON/OFF 10 times in one hour following recommended procedures.
- 4) Water drain shall be checked by flowing water.
- 5) Remote operation checking.

VI) Acceptance:

Acceptance shall be based on the testing, performance and satisfactory working of Air conditioners.

VII) Guarantee:

Material supplied shall be guaranteed against any manufacturing defect or trouble free performance for a period of 12 Months for complete unit and 5 Years on Compressor from the date of commissioning. During this guarantee period of one year servicing shall be carried out at free of cost as per manufacturer standard.

VIII) Delivery:

The Air conditioners shall to be delivered to:
 Assistant Stores Officer,
 Heavy Water Plant,
 Muthiahpuram,
 Dist: Tuticorin,
 Tamilnadu-628007.

- IX)** Supplier is responsible for any transit damages and same shall be rectified/replaced at free of cost.

X) Bidder shall furnish the following details along with their offer:

Make of air conditioner	
Model Name	
Capacity in Tons	
Star rating	
Material for condenser coil	
Material for cooling coil	
Compressor details: a) Type b) Make c) Warranty on compressor	
Refrigerant	
Comprehensive warranty	

