



**INDIAN INSTITUTE OF SCIENCE EDUCATION AND  
RESEARCH THIRUVANANTHAPURAM (IISERTVM)  
(Govt. of India, Ministry of H.R.D)**

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CET CAMPUS, KULATHUR, ENGINEERING COLLEGE.P.O  
THIRUVANANTHAPURAM 695016,  
KERALA, INDIA.

Date: 21<sup>st</sup> July 2016

**INVITATION TO TENDER**

**No: IISER/PUR/7702/SS/PROJ/16**

**Due Date: 03<sup>rd</sup> August 2016 [4PM]**

**Date of Opening: 04<sup>th</sup> August 2016 [3PM]**

Dear Sirs,

**SUB: Split AC.**

We invite Sealed Tenders for the following items:

Sl #:	Item/ Description	Qty
1.	Supply, Installation, Testing and Commissioning of 2.0TR Capacity wall mounted Split AC unit as per Annexure I	17 Nos

Please quote your lowest rate and shortest delivery period as per the following terms. Your offer in sealed cover **SUPERSCRIBING TENDER NUMBER AND DUE DATE** shall reach us on or before the due date and time. Please follow "Instruction to Tenderers" attached.

- EMD** : **Rs. 15,000/-in the form of DD or B.G. to be submitted along with the quote. Quote received without EMD will be summarily rejected.**
- Payment** : Within 30 days after supply and installation/Net 30 days /LC. **No advance payment will be made by IISERTVM.**
- Delivery** : To be delivered at our Vithura Campus (Free delivery). If import, mention Ex-works/FCA/CIP terms with clear breakup charges.
- Taxes & Duties** : Indicate taxes and duties. We are exempted for customs duty under 51/96 notification and Excise duty under 10/97 notifications.
- Discount** : Indicate, if any.
- Delivery Schedule** : Required Immediately. Indicate your schedule
- Validity of quote** : 60 days

Thanking You,

Yours Faithfully

Deputy Registrar  
(In Charge)  
(Purchase & Stores)

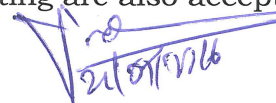
**P.S. CATALOGUE/LEAFLET FEATURING ALL TECHNICAL SPECS/INFORMATION OF THE PRODUCT QUOTED SHALL ACCOMPANY THE OFFER.**

**SPLIT UNIT SPECIFICATION:**

- Inverter Type Split Air Conditioner with voltage stabilizer
- Nominal Capacity: 2.0 ton
- Cooling capacity: 7.0 kW ± 2%,6000Kcal/hr
- Electricity in put: 230V/50Hz/Single Phase
- Coefficient of performance: 3.5(Minimum)
- Max. Ambient temperature: 48 DegC ± 5%
- Moisture removal rate: 2 ± 10% litre/ hour
- Air flow rate: 5.6 cmm (Minimum)
- Noise level Indoor unit: Less than 45 db
- Outdoor unit: Less than 55 db
- Function modes: Auto/Cool /Fan/Dry –shall have sleep and power saving modes
- Other features: Automated vertical swing for horizontal louvers, Antifreeze thermostat
- Compressor: Inverter type
- Body surface finish: powder coated/high quality paint finish
- Air filtering unit: Dust proof and anti-bacteria filter
- Length of tubing's: As per the manufacturer installation requirement
- Remote handset: LCD display with night glow
- Voltage Stabilizer: Stabilizer having ISI quality certification and power rating that matches with the power rating of the A/C unit

**Additional Requirements:**

1. Air conditioners shall be suitable for 230V ,50 Hz single phase AC supply, capable of performing the functions as Cooling, Dehumidifying, Air circulating and Filtering.
2. The air conditioners shall be inverter type compressor(as applicable), compressor unit operating on Refrigerant R-410A.It shall be equipped with overload protection. These shall be mounted on resilient mountings for quiet operation.
3. SERVICING; Free servicing shall be provided for 15 months from the date of despatch or 12 months from the date of installation of air conditioner which ever is earlier.Firm is also required to send service engineer at least 3 times during the warranty period.
4. Tenderers to give complete technical data of the unit.
5. The air conditioners shall be complete with automatic temperature control and cut - in and cut-out etc. for temperature range 16 degrees to 30 deg. C. The differential of the thermostat for cut-in and cut-out.The Air conditioners may be provided with electronic thermostat as per IS:11338:1985.
6. The filter pads provided shall be washable.
7. The cabinet of the evaporator unit and condensing unit shall be made from galvanised steel sheet of 1.0mm thick with galvanised coating thickness of 120 gm / sq. mtr and shall be provided with stiffness for robust construction and shall have rounded corners, steel parts/front panel etc. shall have stove-enamelled finish preceded by undercoat of anti-corrosive primer paint phosphating and through cleaning of the surface. Alternate methods of corrosion protection like plastic powder coating, electrostatic painting are also acceptable in lieu of stove enamelled finish.

  
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8. Overall power factor of the unit shall be atleast 0.85 at capacity rating test conditions.
9. Maximum power consumption of the split air conditioners shall be measured at capacity rating test conditions.
10. Galvanised sheet shall conform to IS:277/2003.
11. Standard evaluation of cooling capacity shall be done by connecting indoor and outdoor units with piping of 5 mtrs. length. Connecting copper tubing shall have dimensions suitable for the compressors offered with model.
12. Refrigerant used shall be R410A.
13. The indoor units made of ABS/HIPS shall be of flame retardant and impact resistant life. ABS/HIPS indoor unit cabinet shall pass inflammability test requirement for Grade V-O as per UL-94.
14. The tenderers shall also submit valid Test Certificates along with their supply.
15. Display shall be LED/LCD and provided on indoor unit or on Handset or on both. These displays shall be selectable.
16. Remote control (Cordless) with LCD Display shall be provided with one On/Off timer, selecting Fan speed (Three speeds) and setting up of temperature.
17. DETAILED SPECIFICATIONS for supply and Installation of pipes, insulation and cables beyond 6Mtrs, if required, on per mtr basis (SCHEDULE-2):-----
  - i) Suction line copper pipe of 0.70mm thickness.
  - ii) Liquid line copper pipe of 0.70mm thickness.
  - iii) Expanded polyethylene foam insulation tubing for copper pipe.
  - iv) Drain pipe (15mm dia flexible PVC pipe) with 5mm insulation.
  - v) Suitable capacity 2 core PVC insulated copper wire 2.5mm to electrically connect both the units with each other.
18. DETAILED SPECIFICATIONS for Installation Charges (SCHEDULE-3):---

The installation at consignee's site shall comprise the following work:

  - (i) Mounting/Fitting indoor & outdoor units at the respective locations.
  - (ii) Laying refrigerant piping of 5m length and connecting both the units after drilling hole/holes in the wall, if required. The thickness of the copper tubing shall not be less than 0.70mm.
  - (iii) Insulating the suction pipe with expanded polyethylene foam 5mm tubing.
  - (iv) Laying 15mm drain pipe to throw out the condensate water being formed in the indoor unit.
  - (v) Leak testing the entire system
  - (vi) Charging Refrigerant gas in the unit.
  - (vii) Suitable electric wiring between indoor and outdoor units upto 6 mtrs length upto switch within 3 Mtrs of location of indoor unit. Switch/Socket/Plug are not

*Handwritten signature/initials in blue ink.*



**IISERTVM**  
**INSTRUCTIONS TO TENDERERS [INDIGENOUS].**

1. Tenders should be sent in sealed envelopes superscribing the relevant tender no. and the due date of opening. Only one tender should be sent in each envelope.
2. Late tender and Delayed Tenders will not be considered under any circumstances.
3. Sales Tax and /or other duties/levies where legally levies and intended to be claimed should be distinctly shown separately in the tender.
4. (a).Your quotation should be valid for a minimum period of 60 days from the date of opening of the Tender. Quotation with firm prices will be preferred.  
(b). Prices are required to be quoted according to the units indicated in the Invitation to Tender. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
5. **(a) Preference will be given to those tenders offering supplies from ready stocks. The basis of delivery is at IISER site free of cost.**  
**(b) Our payment terms are within 30 days of receipt and acceptance of the item at our site.**
6. (a) All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.  
(b) Samples, if called for, should be submitted free of all charges by the tenderer and the IISER shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to take back the samples at his own expense.  
(c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.  
(d) **Specifications:** Stores offered should strictly conform to our specifications. Deviations, if any should be clearly indicated by the tenderer in their quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary along with the quotations. Test Certificates wherever necessary should be forwarded along with supplies. Whenever specifically mentioned by us the tenderer could suggest changes to specifications with appropriate reasons for the same.
7. IISER shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the tenderers shall supply the same at the rates quoted.
8. Corrections, if any, in the Quotation must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail. Quotation must have price for each line item and totaling of the price including taxes and duties should be clearly mentioned.
9. The tenderer should mention the name of his bankers, Sales Tax Registration, PAN number etc in the tender.
10. The authority of the person signing the tender, if called for, should be produced.
11. The purchaser reserve the right to accept or reject the lowest or any other offer in whole or in part without assigning any reason.
12. IISER being a Govt of India Educational and Research Institute, is exempted from payment of Excise Duty under Notification No. 10/97 and Customs Duty under Notification No. 51/96- Customs dated 23<sup>rd</sup> July 2009. Also, we can issue Form16 as per VAT Rules.
13. The stores supplied should be covered with minimum of 1 year warranty from the date of supply, installation and commissioning.
14. Earnest Money Deposit/ Bid Security should be submitted alongwith your quote as mentioned in Invitation for Tender. EMD should be in favour of Indian Institute of Science Education and Research Thiruvananthapuram valid for 90 days.
15. **Tender Opening:** All tenders will be opened at **Pratheeksha Building**. Authorized representatives [**with authorization letters**] of the bidders may attend the Tender Opening.

  
Deputy Registrar  
[Purchase & Stores]