

MATERIALS

Supply,Installation,Testing and Commissioning of Wall mounted Split type air conditioners for the Placement Room,Engineering College , University of Kerala, Kariavattom campus.			
Sl. No	Item Description	Qty	Unit
1	Supply, installation, testing and commissioning of 2-Ton, 5-star rated, inverter type, wall mounting, high energy efficient, split air conditioner unit (IDU), fitted with hermetically sealed rotary compressor (ODU) suitable for eco-friendly and energy efficient refrigerant R-32A conforming to IS: 1391 Part-2 1992 (with latest amendments except power consumption norms) suitable for operation on 230 V, 50 Hz AC supply and capable of performing functions such as cooling, dehumidifying, air circulating, filtering etc and having features of long distance piping flexibility, wide angle air flow, IDU noise level < 43 dB (A) and ODU noise level < 56 dB (A) as required. The condensing and evaporating coils should be made of soft drawn bright annealed copper tubes of suitable sizes (100% copper) and a standard length of upto 3 metres should be supplied with the AC unit and the copper pipes should be properly insulated with 10 mm thick closed cell Class '0' elastomeric nitrile rubberised foam sleeve insulation. A standard length of upto 3 metres of suitable size ISI marked round flexible copper control cable for electrically connecting IDU and ODU of AC unit should be supplied with the AC unit along with microprocessor based wireless remote controller with required number of suitable batteries as required. Total 4 numbers of comprehensive free services should be provided for the AC unit (IDU & ODU) for the first one year, applicable from the date of commissioning. One year replacement warranty should be provided for the entire AC unit.If there is any manufacturing defect persists (IDU & ODU) ,along with one year exclusive warranty for the PCB and nine years exclusive warranty for the compressor. Make- Panasonic, Voltas(SAC 185VJZJ), Carrier, Mitsubishi, Blue Star(IC518DATU/YATU) or Daikin(FTKM50).		
a	2-Ton, inverter type, split air conditioner unit. (5-star rated)	1	nos
2	Supply and providing extra length of suitable size ISI marked flexible copper control cable for the electrically connecting IDU and ODU of AC unit and also extra length of soft drawn bright annealed copper refrigerant pipes of suitable sizes for extending the refrigerant piping between ODU and IDU of AC unit including properly insulating the pipes with 10 mm thick closed cell Class O elastomeric nitrile rubberised foam sleeve insulation, brazing, leak testing etc as required.	4	mtrs
3	Supply and fixing good quality powder coated MS frames (wall mounting brackets) using required numbers of suitable size anchor bolts for mounting the out door unit of AC in position as required.	1	sets
4	Supply, installation, testing and commissioning of wall mounting type 5 KVA voltage stabilizer with input voltage range of 170 V - 270 V having features of high power efficiency, intelligent time delay system, Low & High voltage cut-off protection, built-in thermal overload protection, LED indications etc suitable for single phase 2-Ton air conditioner unit. Warranty- Five years. (Make: V-Gaurd, Crompton or Microtek)	1	nos

5	Supply and drawing the following sizes of multi-core PVC insulated and PVC sheathed 650/1100 V grade copper conductor round flexible cables conforming to IS: 694 Part-1 1960 in the existing surface / recess conduit as required including giving necessary connections of the following sizes. (Make: RR Kabel, Polycab, Finolex or Havells)		
a	3 core 4.00 sq. mm	3	mtrs
6	Supply and fixing 25A 3 pin plug top with indicator (RoHS compliant) in the existing front plates and giving necessary connections as required. (Make: Legrand-Myrius, ABB-Classic plus, MK-Blenz or Siemens-Wega)	1	nos

Supply,Installation,Testing and Commissioning of Wall mounted Split type air conditioners for the Principal Office,Engineering College , University of Kerala, Kariavattom campus.			
Sl. No	Item Description	Qty	Unit
1	Supply, installation, testing and commissioning of 2-Ton, 5-star rated, inverter type, wall mounting, high energy efficient, split air conditioner unit (IDU), fitted with hermetically sealed rotary compressor (ODU) suitable for eco-friendly and energy efficient refrigerant R-32A conforming to IS: 1391 Part-2 1992 (with latest amendments except power consumption norms) suitable for operation on 230 V, 50 Hz AC supply and capable of performing functions such as cooling, dehumidifying, air circulating, filtering etc and having features of long distance piping flexibility, wide angle air flow, IDU noise level < 43 dB (A) and ODU noise level < 56 dB (A) as required. The condensing and evaporating coils should be made of soft drawn bright annealed copper tubes of suitable sizes (100% copper) and a standard length of upto 3 metres should be supplied with the AC unit and the copper pipes should be properly insulated with 10 mm thick closed cell Class '0' elastomeric nitrile rubberised foam sleeve insulation. A standard length of upto 3 metres of suitable size ISI marked round flexible copper control cable for electrically connecting IDU and ODU of AC unit should be supplied with the AC unit along with microprocessor based wireless remote controller with required number of suitable batteries as required. Total 4 numbers of comprehensive free services should be provided for the AC unit (IDU & ODU) for the first one year, applicable from the date of commissioning. One year replacement warranty should be provided for the entire AC unit,If there is any manufacturing defect persists (IDU & ODU) ,along with one year exclusive warranty for the PCB and nine years exclusive warranty for the compressor. Make- Panasonic, Voltas(SAC 185VJZJ), Carrier, Mitsubishi, Blue Star(IC518DATU/YATU) or Daikin(FTKM50).		
a	2-Ton, inverter type, split air conditioner unit. (5-star rated)	1	nos

2	Supply and providing extra length of suitable size ISI marked flexible copper control cable for the electrically connecting IDU and ODU of AC unit and also extra length of soft drawn bright annealed copper refrigerant pipes of suitable sizes for extending the refrigerant piping between ODU and IDU of AC unit including properly insulating the pipes with 10 mm thick closed cell Class O elastomeric nitrile rubberised foam sleeve insulation, brazing, leak testing etc as required.	4	mtrs
3	Supply and fixing good quality powder coated MS frames (wall mounting brackets) using required numbers of suitable size anchor bolts for mounting the out door unit of AC in position as required.	1	sets
4	Supply, installation, testing and commissioning of wall mounting type 5 KVA voltage stabilizer with input voltage range of 170 V - 270 V having features of high power efficiency, intelligent time delay system, Low & High voltage cut-off protection, built-in thermal overload protection, LED indications etc suitable for single phase 2-Ton air conditioner unit. Warranty- Five years. (Make: V-Gaurd, Crompton or Microtek)	1	nos
5	Supply and drawing the following sizes of multi-core PVC insulated and PVC sheathed 650/1100 V grade copper conductor round flexible cables conforming to IS: 694 Part-1 1960 in the existing surface / recess conduit as required including giving necessary connections of the following sizes. (Make: RR Kabel, Polycab, Finolex or Havells)		
a	3 core 4.00 sq. mm	3	mtrs
6	Supply and fixing 25A 3 pin plug top with indicator (RoHS compliant) in the existing front plates and giving necessary connections as required. (Make: Legrand-Myrius, ABB-Classic plus, MK-Blenz or Siemens-Wega)	1	nos

Scope of the Work

The present work is to provide networking and install an independent *Installation, Testing and commissioning of wall mounted split type AC for the placement room and Principals chamber in University College of Engineering, Kariavattom.*

The supplier has to be supply, install and commissioning the item and train the staff to operate and maintain it. The entire quote shall form an integrated system. The existing facility in the existing CCF building shall be utilized. If any additional components are

needed for the satisfactory completion of the work, the supplier shall add the item in the above list.

Terms and conditions

- This Bid is single **cover bid**, Both Technical Bid and Financial Bid shall be submitted in same covers.
- The bidder shall quote rate for each items in the BoQ. Incomplete BoQ is liable to be rejected.
- The Bidder shall quote price in clear terms and the specification of products. The rates quoted must be inclusive of all taxes, cost of supply at site, warranty and installation charges etc...
- The price should be quoted only in Indian rupees. The bid shall be typed and signed by the bidder.
- All the documents mentioned above shall be submitted without fail.
- The bidder shall visit the location before submitting the bid. Any claim after submitting the bid will not be allowed.
- **Validity:-** The Bid will be valid for 30 days from its date of opening. Further extension can be done by mutual consent.
- **Delivery :-** The item should be delivered at University College of Engineering, Kariavattom, University of Kerala, Kariavattom Campus.
- **Installation and Commissioning:-** The items shall be installed and commissioned at the University College of Engineering, Kariavattom, University of Kerala, Kariavattom Campus.

- **Period of Completion:-** The work shall be completed within a period 15 days from date receipt of the work order.
- **Payment:-** The payment will be released only after inspecting the equipment and satisfy that the supply is as per the requirements and on the basis of actual quantity executed. The payment will be made after successful completion of the supply with in the completion period and on producing invoice in duplicate.
- **Warranty/Guarantee:-** The supplier shall guarantee to repair/replace the items or its part -if found defective within the **warranty period of two years**. The entire expenditure for repair/ replace the item in this regard shall be borne by the supplier. Warranty shall be applicable for entire item.
- In case of dispute arises, the decision of University authority shall be final and binding on bidders.
- The undersigned reserves the right to reject or accept any or all the tenders received fully or partly without assigning any reason thereof.
- General rules relating to purchase of materials/equipments will also applicable to this tender.

The cover may be super scripted with *Installation, Testing and commissioning of wall mounted split type AC for the placement room and Principals chamber in University College of Engineering, Kariavattom.*

- . The bids shall be addressed to **the Principal, University College of Engineering, Kariavattom, University of Kerala, Kariavattom Campus, Trivandrum-695581** on the date mentioned above. If the above date of opening tender happens to be on a holiday or due to any other valid reason, the tender opening process will be done on the next working day or the day fixed by the undersigned.

**Principal
University College of
Engineering, Kariavatto
m University of Kerala**