



**INDIAN INSTITUTE OF TECHNOLOGY, MADRAS**  
**ENGINEERING UNIT**

CHENNAI – 600 036

Price Bid (Volume 2)

**T. No 35/2012-13/Eldb**

**Name of the work : Provision of ductable split AC to PC lab at HSB 256 for department of Mathematics in IIT Madras**

**Date of Submission of Technical & Price bid : 03.00 pm on 04/02/2013**

**Date of opening of Technical bid : 03.10 pm on 04/02/2013**

**Date of opening of Price bid : Will be intimated later**

**Bid Submitted to : The Executive Engineer (E),  
Engineering Unit,  
Administrative Block III Floor,  
IITM, Chennai-36**

-sd-  
**Consultant (Elec)**

-sd-  
**Executive Engineer (Elec)**

**INDIAN INSTITUTE OF TECHNOLOGY MADRAS**  
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|---|
| <p style="text-align: center;"><b>TENDER DOCUMENT</b></p> <p style="text-align: center;"><b>FOR</b></p> <p style="text-align: center;"><b>Provision of ductable split AC to PC lab at HSB 256 for<br/>department of Mathematics in IIT Madras</b></p> |
| <p style="text-align: center;"><b>VOLUME-2 (PRICE BID)</b></p>  |
| <p style="text-align: center;"><b>BILL OF QUANTITIES</b></p>  |
| <p><b>Other volume:</b></p>   |
| <p><b>Vol-1:</b> Notice inviting tenders, Conditions of Contract, Additional specifications,<br/>General Conditions of Contract , list of approved makes etc.,</p>  |

| <b>INDIAN INSTITUTE OF TECHNOLOGY MADRAS, CHENNAI 36</b>  |   |            |             |             |               |
|---|---|------------|-------------|-------------|---------------|
| <b>Name of work: Provision of ductable split AC to PC lab at HSB 256 for department of Mathematics in IIT Madras.</b> |   |            |             |             |               |
| <b>Tender No. 35/2012-13/Eldb</b>   |   |            |             |             |               |
| <b>Bill of Quantities</b>   |   |            |             |             |               |
| <b>Sl.No</b>  | <b>Description</b>  | <b>Qty</b> | <b>Unit</b> | <b>Rate</b> | <b>Amount</b> |
| <b>1.0</b>  | <b>AIR CONDITIONERS</b>   |            |             |             |               |
| 1   | Supply, installation testing and commissioning of air Cooled Ductable Split Unit of specified capacities. The indoor units shall be ceiling suspended type. The indoor unit shall comprise of Fan, Cooling Coil, Filter and Expansion device. The Outdoor unit shall comprise of Hermetic scroll compressors. Air cooled condenser & Condenser fan. If multiple compressor are offered, they shall have independent refrigerant circuits. Also, Compressors shall be cut-off automatically under part load conditions. The units shall have microprocessor controls. Scope shall include all supports for the indoor and outdoor units and connect the indoor door with the existing ducts and minor modification of ducts if any required for installation. The units shall be selected for Madras Ambient Conditions as specified. The units shall be factory assembled and only the refrigerant piping carried out at site. The approved make will be BLUESTAR/VOLTAS/CARRIER/HITACHI) |            |             |             |               |
| 1a  | 5.5 TR Ceiling suspended  | 1          | Each        |             |               |
| (Rate in words Rupees.....)   |   |            |             |             |               |
| 2   | Refrigerant piping(Suction & discharge) drawn from hard copper tube of suitable sizes, with copper elbows, tees, necessary hard ware for installation etc. with thermal insulation covering etc as required for above ceiling suspended units   | 20         | Metre       |             |               |
| (Rate in words Rupees.....)   |   |            |             |             |               |
| 3   | First charge of refrigerant & oil for the above units   | 1          | Each        |             |               |
| (Rate in words Rupees.....)   |   |            |             |             |               |

|                             |   |      |      |  |  |
|-----------------------------|---|------|------|--|--|
| 4                           | Supply, fabrication, installation of Galvanized steel sheet ducting complete with sheet metal / angle iron /as required, GI fasteners, bolts, nuts and washers guide vanes as required, supports shall be threaded rod and galvanized supports etc. |      |      |  |  |
| 4a                          | 22 SWG  | 15   | sqm  |  |  |
| (Rate in words Rupees.....) |   |      |      |  |  |
| 5                           | Supply & fixing of 25 mm thick rock wool stuck to the inside surface of ducts with synthetic adhesive as inside lining of ducts as acoustic insulation.   | 5    | sqm  |  |  |
| (Rate in words Rupees.....) |   |      |      |  |  |
| 6                           | Supply and fixing of aluminium powder coated supply air diffuser with VCD.  | 1.00 | sqm  |  |  |
| (Rate in words Rupees.....) |   |      |      |  |  |
| 7                           | Supply and fixing of aluminium powder coated return air diffuser.   | 1.50 | sqm  |  |  |
| (Rate in words Rupees.....) |   |      |      |  |  |
| 8                           | Supply and fixing of fire dampers of the fusible link operated type, made out of 18 G GI frame and 22 G GI blades at the supply, return and Fresh air paths.  | 0.2  | sqm  |  |  |
| (Rate in words Rupees.....) |   |      |      |  |  |
| 9                           | Supply & fixing of fresh air dampers with 20 micron filters, Cowl as rain water protection & bird mesh.   | 0.1  | sqm  |  |  |
| (Rate in words Rupees.....) |   |      |      |  |  |
| 10                          | Supply & fixing of Fire retardant synthetic canvass connection with a provision to measure the canvass temperature at the mouth of 5.5/8.3 TR Ductable unit.  | 1    | Each |  |  |
| (Rate in words Rupees.....) |   |      |      |  |  |

|                             |  |    |       |     |     |
|-----------------------------|--|----|-------|-----|-----|
| 11                          | Supply and laying of 40 mm dia PVC drain piping of 4 kg /cm <sup>2</sup> rating complete with Insulation(Nitrile Rubber), supports, fittings like elbow, tee joints, screws, clamps etc.   | 12 | Metre |     |     |
| (Rate in words Rupees.....) |  |    |       |     |     |
| 12                          | Supply, laying, terminating, testing and commissioning of PVC insulated, PVC sheathed steel armoured copper 1100V grade power\control cable as required with terminations.   |    |       |     |     |
| 12a                         | 4C X 6 sq.mm   | 20 | Metre |     |     |
| (Rate in words Rupees.....) |  |    |       |     |     |
| 12b                         | 6C X 1.5 Sq.mm Copper cable for control  | 20 | Metre |     |     |
| (Rate in words Rupees.....) |  |    |       |     |     |
| 12c                         | End Terminations using Copper Lugs   | 1  | 1 L.S |     |     |
| (Rate in words Rupees.....) |  |    |       |     |     |
| 13                          | Less buy back cost existing 2 x 3.0 TR multi split (2 indoor+4 outdoor) air conditioners of carrier make as is where is condition. The contractor shall quote the rate to purchase the AC as scrap items and quote the rate accordingly. | 1  | lot   | (-) | (-) |
| (Rate in words Rupees.....) |  |    |       |     |     |
|                             | <b>Total</b>   |    |       |     |     |

**Total Amount in words Rupees .....**

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**Signature of the Contractor**

**-sd-  
Consultant (Elect)**

**-sd-  
Executive Engineer (E)**