

Department of Materials Science & Engineering  
Indian Institute of Technology Kanpur

Enquiry: MSE/VV/DMA/01 dated 07/01/2016

Closing Date: 18/01/2016 (up to 5 PM)

We are in process to procure a UPS (3 Phase input and 3 phase output) immediately. The details of the equipment such as specifications and accessories are as follows;

| <b>Minimum needs</b> |     |                                     |  |   |
|----------------------|-----|-------------------------------------|--|---|
| 1                    | 1.1 | <b>General</b>                      | <b>Apparent power</b>  | <b>10 KVA</b>   |
|                      | 1.2 |                                     | <b>Battery Backup</b>  | <b>30 minutes</b>   |
|                      | 1.3 |                                     | <b>Topology</b>  | <b>Double-conversion</b>  |
|                      | 1.4 |                                     | <b>Topology</b>  | <b>Transformer based UPS</b>  |
|                      | 1.5 |                                     | <b>Topology</b>  | <b>IGBT Rectifier and IGBT Inverter, Static switch on both Inverter and Bypass side with integrated Transformer based in standard UPS cabinet -</b> |
|                      | 1.6 |                                     | <b>System frequency</b>  | <b>standard value : 50 Hz<br/>Option 60 Hz</b>  |
| 2                    | 2.1 | <b>Input Characteristics</b>        | <b>Native rated input voltages (with no additional auto-transformer)</b> | <b>380/400V</b>   |
|                      | 2.2 |                                     | <b>Phase to phase input voltage range</b>                                | <b>320 to 470V</b>  |
|                      | 2.3 |                                     | <b>input power factor</b>  | <b>&gt; 0.95</b>  |
| 3                    | 3.1 | <b>Output Characteristics</b>       | <b>Rated output voltage</b>  | <b>Output voltage should be adjustable to 400V OR 415 V. We need L1, L2, L3, and N.PE. (5 Wire system)</b>  |
|                      | 3.2 |                                     | <b>Output power factor</b>   | <b>0.8</b>  |
|                      | 3.3 |                                     | <b>total harmonic distortionTHDi</b>                                     | <b>&lt;3%&lt;5%</b>   |
|                      | 3.4 |                                     | <b>linear loads/non linear loads</b>                                     | <b>150% &lt;1 min<br/>125% &lt;10 min<br/>100% continuous</b>   |
|                      | 3.5 |                                     | <b>Isolation Transformer</b>   | <b>Inbuilt in UPS at the Output</b>   |
| 4                    | 4.1 | <b>Battery &amp; Energy Storage</b> | <b>Back up time</b>  | <b>30MIN.</b>   |
|                      | 4.2 |                                     | <b>Battery Type , make &amp; VAH</b>                                     | <b>SMF(VRLA), Exide/Quanta/Rocket/Okaya, 10000VAH</b>   |
|                      | 4.3 |                                     | <b>Cold start</b>  | <b>Yes</b>  |
| 5                    | 5.1 | <b>Efficiency</b>                   | <b>Efficiency</b>  | <b>&gt;0.93%</b>  |
|                      | 5.2 |                                     | <b>ECO mode</b>  | <b>Yes</b>  |
| 6                    | 6.1 | <b>Bypass</b>                       | <b>Overload capability</b>   | <b>150% 1 min<br/>125% 10 min<br/>100% continuous</b>   |
|                      | 6.2 |                                     | <b>Short-circuit capability</b>  | <b>10 In / 20ms</b>   |
| 7                    | 7.1 | <b>Mechanics &amp; Design</b>       | <b>IP level</b>  | <b>IP20 as standard</b>   |

You are requested to send us a quotation for the above mentioned item giving all technical information about model and crucial specifications and also all necessary accessories required for the items being quoted. Please mention the details. Batteries and battery cabinet should be of standard company and should be mentioned with the quotation. Warranty clause should be also clearly mentioned.

Please send the technical and price bids in separate sealed envelopes.

The quotation in a sealed envelope, in all its completeness, should reach us by January 18, 2016 (BEFORE 5 PM) at following address:

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