

**Centre for Applied Research in Electronics
Indian Institute of Technology Delhi**

28 May, 2012

The Centre for Applied Research in Electronics is planning to purchase a UPS System. Quotations for suitable systems matching the desired specifications and following IIT Delhi norms are hereby invited for the purchase.

Complete requirements of **UPS** are listed below:

SPECIFICATIONS:

Output Power Capacity	16 kW / 20 kVA
Max Configurable Power	16 kW / 20 kVA
Nominal Output Voltage	230V
Output Voltage Note	Configurable for 400 or 415V 3 Phase nominal output voltage
Efficiency at Full Load	94.0%
Output Voltage Distortion	Less than 3%
Output Frequency (sync to mains)	50/60 Hz +/- 3 Hz user adjustable +/- 0.1
Other Output Voltages	220,240,400,415
Crest Factor	3 : 1
Waveform Type	Sine wave
Output Connections	(1) Hard Wire 3-wire (H N + G) (1) Hard Wire 5-wire (3PH + N + G)
Efficiency at Half Load	94%
Bypass	External Static Bypass, Internal Bypass (Automatic and Manual), Optional External Bypass

Input

Nominal Input Voltage	230V
Input Frequency	50/60 Hz +/- 5 Hz (auto sensing)
Input Connections	Hard Wire 3 wire (1PH+N+G) Hard Wire 5-wire (3PH + N + G)
Input voltage range for main operations	160 - 280V
Other Input Voltages	220,240,400
Maximum Input Current	90A
Input Breaker Capacity	100.0 A
Input Total Harmonic Distortion	Less than 5% for full load
Interface Port(s)	DB-9 RS-232,RJ-45 10/100 Base-T,Smart-Slot
Pre-Installed SNMP Slots Cards	
Control panel	Multi-function LCD status and control console
Audible Alarm	Audible and visible alarms prioritized by severity
Emergency Power Off (EPO)	Yes

Surge Protection and Filtering

Filtering Full time multi-pole noise filtering : 0.3% IEEE surge let-through : zero clamping response time : meets UL 1449

Environmental

Operating Environment 0 - 40 °C

Operating Relative Humidity	0 - 95%
Operating Elevation	0-3000 meters
Storage Temperature	-15 - 45 °C
Storage Relative Humidity	0 - 95%
Audible noise at 1 meter from surface of unit	50.00 dBA
Online Thermal Dissipation	2216.00 BTU/hr
Regulatory Approvals	

Batteries: Sealed Maintenance Free (SMF) Batteries required for 30 mins. Back up ; total vah (voltage ampere hour) required 16128vah

Note:

- 1) UPS & Batteries should be of same OEM.
 - 2) **Warranty on UPS should be three years. Batteries should also carry the warranty of three years (after the completion of 2years whole set of batteries should be replaced).**
 - 3) Manufacturer's authorization is required along with the bid documents otherwise bid can be rejected.
- Prices should be quoted with all the accessories such as rack & links for batteries and any other cables etc. required for installation.

The suppliers/manufacturers are requested to submit/send technical and financial bids (*financial and technical bids in separate sealed covers and again sealed in one envelope*) for the above mentioned equipment by **5:00 PM, 13th June 2012.**

I. ALL BIDS MUST HAVE THE FOLLOWING INFORMATION.

1. *Supplier must mention the following details about the warranty:* Number of years, starting date (from the date of installation). Additional charges in case extended warranty is required. Also mention if different components have different periods of warranty.
2. Please indicate the warranty is at customer site or not.
3. Please indicate the critical spares and their expected life time.
4. Quote the prices of listed accessories separately.
5. Delivery period must be clearly mentioned.
6. Validity of the quotations should be at least for 90 days.
7. All quotations must be FCA.
8. Please provide user list of similar systems installed within India and abroad.
9. Specification compliance certificate
10. Bank details on which the letter of credit is to be issued
11. The letter of credit will be opened for 100% of the cost of the system. 90% of the amount will be released after the receipt of shipping documents. The balance 10% will be released within one month of successful demonstration at the site of installation.
12. Information for the wire transfer details should also be provided.
13. The information on utility facilities, foot print of the machine and the weight of the system must be provided in the technical bid.

II. PLEASE NOTE THE FOLLOWING POINTS

1. Mode of payment will be through letter of credit in case of imported items. Any advance payments shall be approved only as per IIT Delhi norms.
2. The Institute has the right to accept or reject any or all quotations without assigning any reasons.
3. The bidder must submit quotation for at least one full equipment excluding optional. Quotations for individual parts will be rejected.
4. Since, the equipment is meant for teaching purpose in a reputed educational institute in India, a special price discount may be offered.

The sealed quotations must be submitted to:

Prof. B.S. Panwar
Block III, Room 213
Centre for Applied Research in Electronics
Indian Institute of Technology Delhi
Hauz Khas, New Delhi – 110016 (India)

DEADLINE for submitting the quotations: **5:00 PM, 13th June 2012**

For any clarification please send E-mail to: bspanwar@care.iitd.ernet.in