



**SATYENDRA NATH BOSE NATIONAL CENTRE FOR BASIC SCIENCES**

[Funded by the Department of Science & Technology, Government of India]

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Ref No: SNB/ENQ/JC/10kva UPS/14-15/248/WP

Date:21-05-2014

Dear Sir

Sealed quotations are hereby invited for the following items in two parts (Technical and Commercial bids). One large envelope containing two smaller envelopes containing Part A: Technical Bid and Part B: Commercial Bid need to be submitted separately – Two smaller envelopes should be super-scribed "**Technical Bid**"/"**Commercial Bid**" as the case may be.

**This enquiry is an extension to our previous enquiry no.SNB/ENQ/JC/10kva UPS/14-15/133/WP dt:29/04/2014. Supplier quoting with Alternate voltage suppressor and battery for the UPS in addition to the specification will be considered. Suppliers who have already quoted need not quote once again.**

Sl.No	Item Name	Item Details	Qty.
1.	10 kVA True online UPS with 30 mins. battery backup	See attached sheet for detailed technical specification.	01 no.

**Technical bid** - should contain complete technical information/ literature of the quoted item, users list and authorization certificate of the manufacturer. Users list of the quoted item should contain the name of the users, address, ph. No(s) ., fax and email address.

**Price Bid** - FOR price up to S. N. Bose Centre should be quoted.

Note: Attached herewith "Annexure I" (as check list) to be duly filled in by the bidder and should be submitted with the Technical Bid only. Offer received without any of the relevant information / certificate / document asked as per "Annexure I" from sl. nos. 01 to 18 may not be considered. The Centre reserves the right to accept or reject offer of the tenderer. The Centre's decision shall be final and binding on the tenderer. Attached documents should be duly marked.

Note:-

- 1) The quoted price should be inclusive of VAT / Tax, delivery and installation charges.
- 2) Validity of quotation should be for 90 days from the date of submission.
- 3) Payment is subject to after delivery and satisfactory installation and load testing.
- 4) Free Installation & Load testing is to be conducted by the supplier at our site.
- 5) Delivery period should be mentioned in the quotation.
- 6) Our ref. no. should be mentioned on top of the quotation envelope.
- 7) Authorization certificate of the manufacturer should be enclosed with the quotation.
- 8) Standard warranty for 3 years on UPS & battery should be provided for the above item.
- 9) Quotation for the above item should reach this office by **27<sup>th</sup> May, 2014.**

Thanking you,  
Yours faithfully,

S. K. Singh  
AR (Purchase)

## **TECHNICAL SPECIFICATION OF 10 KVA ON LINE UPS SYSTEMS**

### **TECHNICAL SPECIFICATION FOR 10 KVA / 8 KW STAND ALONE ON LINE UPS**

#### **Technology**

- True On Line UPS with double conversion technology based with (DSP) Digital Signal Processor
- UPS should be with Intelligent Battery Management for longer battery life
- The UPS should be with input power factor 0.99
- IGBT based rectifier and inverter.
- 160 event logging in LCD Display
- Phase Reversal protection – In the event of reversal in phase sequence, the UPS should automatically adjust itself and should get synchronized with the input phase without need for long discharge of battery bank.
- UPS should have Cold Start facility.

#### **Efficiency**

- Overall Efficiency including Isolation Transformer should be minimum 84% for overall AC to AC, 95% for rectifier.

#### **Power Rating 10 KVA / 8 KW**

#### **Configuration 10 KVA ON LINE UPS Systems with battery bank for 30 minutes back up**

##### **Input**

- Voltage Range 415 VAC/3 phase +25%, -30%
- Frequency 50Hz  $\pm$  10%
- Power Factor 0.99

##### **Output**

- Voltage Range 220/230/240 VAC  $\pm$  1%
- Voltage Distortion < 2% (Linear Load) & < 3% (non Linear Load)
- Frequency  $\pm$  1%, synchronized with bypass, 50Hz  $\pm$  0.1% free run
- Power Factor 0.8
- Inverter Overload 110% for 60mins, 125% for 10 min, 150% for 1 min
- Galvanic Isolation Built in Isolation transformer at output to be provided. External Isolation will not be acceptable.

#### **Protections desired**

- Surge protective device will have to be provided at the Input of the UPS systems. Device should be UL certified, 25KA, 3phase.
- Transient Voltage Surge should be suppressed within > 0.5 nano seconds with RFI/EMI attenuation 40dB. The UPS and TVSS should be of the same make.

**Note: Supplier quoting with Alternate voltage suppressor and battery for the UPS in addition to the specification will be considered. Suppliers who have already quoted in response to our previous enquiry no.SNB/ENQ/JC/10kva UPS/14-15/133/WP dt:29/04/2014 need not quote once again.**

### **Battery Type**

- Sealed Maintenance Free, Valve Regulated Lead Acid
- Rated Voltage 312V DC
- Number of Battery cells One set of 26 blocks of 12V each
- Backup Time 30 minutes on full load.
- VAH Required Not less than 8110 VAH for 30 minutes.
- Transfer Time Zero

### **Environmental requirement**

- Audible Noise < 55Db
- Operating temp 0- 45degree C
- Relative Humidity 95% RH

### **Terms & conditions**

- The input-output must be tested at the site of installation
- 3 years onsite comprehensive replacement warranty from the date of installation
- Bidder of UPS systems and the manufacturer will be responsible for any technical faults arising from the use of the UPS system /accessories for the entire warranty period duration.

### **Required Credentials**

- Manufacturer Should be ISO 9001:2008 certified
- Manufacturer Should be ISO 14001

### **Required Documents**

- The following documents have to be provided
  1. The Brochure of the UPS System offered
  2. The Brochure of the Batteries being offered
  3. The Brochure of the Transient Voltage Surge Suppressor being offered

The Tender will not be accepted if the above are not provided.

- Manufacturers Authorization has to be provided for
  1. The UPS System
  2. The Transient Voltage Surge Suppressor
  3. The Batteries
- Test Certificate of NABL accredited Laboratory for the particular make and mode of UPS system should be enclosed with the Technical Bid else the same will be rejected.

**Note: Supplier quoting with Alternate voltage suppressor and battery for the UPS in addition to the specification will be considered. Suppliers who have already quoted in response to our previous enquiry no. SNB/ENQ/JC/10kva UPS/14-15/133/WP dt:29/04/2014 need not quote once again.**

### Annexure I

- The following form should be submitted with the technical bid duly filled and signed.
- **Relevant documents must be enclosed with the technical bid as per Sl. no. 01 to 18.**

S/N	PARTICULARS	Yes/No	REMARKS
01	Technical bid & Price bid duly sealed & signed enclosed in separate envelopes as instructed.		
02	<u>Contents of Technical bid</u> (a) Technical details as per specification enclosed with technical bid ⇨ (b) Technical Compliance Statement to be prepared in a separate sheet (and any deviation should be mentioned specifically) ⇨ (c) Literature/Manual of the offered item ⇨ (d) Current Authorization Certificate from the Principal Manufacturer ⇨ (e) Name, address, email & ph. no. of users in India. (Preferably Research laboratories) ⇨ (f) Copy of P.O. and installation certificate with the same specification from at least one user ⇨		
03	Delivery charges on F.O.R basis up to S. N. Bose Centre, Kolkata for indigenous items with detailed break-up of cost		
04	All applicable tax (VAT/CST/Sales/Service tax) should be mentioned		
05	Whether the price quoted is without excise duty, as the centre is fully exempted from payment of excise duty		
06	Copy of Trade License, VAT, PAN, Service Tax Registration no. enclosed with the technical bid.		
07	Installation charges included (if any) to be mentioned		
08	03 years Standard warranty from the date of installation to be mentioned		
09	Payment after installation of material at site		
10	Payment mode should be mentioned		
11	Delivery/installation time from the date of PO to be mentioned		
12	Enquiry no. should be mentioned on top of all quotation envelopes		
13	Validity of Quotation should not be less than 90 days from the date of submission		
14	Maintenance procedure of the offered item to be mentioned		
15	Contact details of after sales service centres in Kolkata to be mentioned		
16	Bank details of the beneficiary to be mentioned		
17	In case of any defect found after receipt of material or in case of any deviation from the specifications or in case of any operational defect found during the warranty period, any part or the entire material is to be replaced by the supplier at no extra cost to the Centre.		
18	Whether your company has been blacklisted by any Central/State Govt. organization.		

**Note:** Offer received without any of the relevant information / certificate / document asked in the above sl. nos. 01 to 18 may not be considered. The Centre reserves the right to accept or reject offer of the tenderer. The Centre's decision shall be final and binding on the tenderer. Attached documents should be duly marked.

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Seal & Signature  
of the bidder with date