



National Center for Biological Sciences  
Tata Institute of Fundamental Research

GKVK, Bellary Road, Bangalore 560 065. India

Tel. No : 080 2366, 6346

Email: nalinir@ncbs.res.in, www.ncbs.res.in

Ref:NCB/CA20-53/201081

December 23, 2020

ENQUIRY

To

=> By Speed Post/Courier

Dear Sirs

Please let us have your Quotation for the following:

S.No.	Item Description	Qty	UOM
1	Supply, Testing and Commission of 6000VA/5400W On-line double conversion UPS with Inbuilt battery as per the Specification attached.	1.00	NO

**1. The quotation shall be submitted in a sealed envelope duly superscribed with the enquiry number, and the due date for ..... Ref No: 201081. The bids should be addressed and to be mailed/couriered (sent by post/courier) to 'THE HEAD-PURCHASE'.**

The bids are liable to be rejected if the sealed envelope is not addressed to "THE HEAD-PURCHASE" with Tender Ref No. and Item Description and due date. The bids delivered in person shall be dropped in Purchase Section. If the bids are sent through courier or mail, it should reach by submission date and time and NCBS will not be responsible for the delay.

**2. DUE DATE FOR SUBMISSION OF QUOTATION AGAINST THIS ENQUIRY IS 06/01/2021 BY 5.30PM.**

3. QUOTATIONS RECEIVED AFTER THE DUE DATE SHALL BE REJECTED.

4. The validity of your quotation should be for 60 days from the due date.

5. All duties, taxes, surcharge and cess as currently applicable must be stated in your quotation, separately. Otherwise your quote is liable to be rejected.

6. Your quotation should indicate delivery period & warranty period.

7. Delivery to be made to our stores. Please indicate charges, if any extra. Transit Insurance should be done upto NCBS Stores.

8. If you are unable to supply the quality, specifications or brand as mentioned in our enquiry, please state so and then offer alternative to quality/specifications.

9. Payment: within one month after delivery & acceptance/satisfactory installation.

10. Please ensure that the enquiry number and the due date is superscribed on the envelope failing which your quotation is liable to be rejected.

11. Since we are a public funded research institution, we are exempted from paying Customs duty (Except ad valorem duty of 5% + 2% Cess and 1% Cus Sec & High Edu. CESS vide Notification No. 51/96 with latest amendments) and excise duty vide Notification No. 10/97 CENTRAL EXCISE dated 01-03-1997 for all scientific equipments, technical instruments, equipments (including computers), their accessories, spares, consumables and software. Hence, please offer your prices

**12. If the item is covered under DGS&D rate contract, please quote the rate as per the DGS&D rate contract with xerox copy of the DGS&D order.**

13. Any dispute or differences that may arise between the parties shall be referred to the sole arbitration of the Centre Director or his nominees. The decision of the arbitrator shall be final and binding on the parties. The venue for arbitration shall be Bangalore. The provisions of the Arbitration and Conciliation Act, 1996 as amended from time to time shall apply. The courts in Bangalore shall have exclusive jurisdiction to deal with any or all disputes between the parties.


14. TIFR is a public funded research institute and is entitled to concessional rate of GST @ 5% for certain items supplied for reresearch purpose vide notification no. 47/2017 and 45/2017 dated 14th Nov, 2017. The offer should be submitted after fully considering the above notification.

15. Liquidity Damages: If the equipment/ items as per specifications in our P.O. is not supplied (shipped) within the specified delivery schedule, then liquidated damages (not in terms of penalty) will be imposed automatically and shall be deducted from the bill at the rate of 0.5% per week subject to a maximum of 10% of the order value.

16. Income Tax at the applicable rates as per the Indian Income Tax Act 1961 will be deducted at source for the services availed / ordered. In case of service provider, the rate of tax deduction shall be at 2% as per Section 194C, and in case of fee for professional / technical services under section 194J, the tax reduction shall be at the rate of 10%. In case service provider does not provide PAN number, the deduction shall be at 20% under section 206 AA.

-Tax Deduction Certificates will be provided on request for non PAN holders & Foreign Vendors and PAN holders could avail them through NSDL site dealing with 26AS.

Yours faithfully  
For and on behalf of  
National Centre for Biological Sciences

Fol 

Head Purchase

## Supply, Testing and Commissioning of 6kva On-line double conversion UPS for Biological Laboratory

### 1. General Specification

Rating and Type	: 6000VA/5400watts & On-line UPS
Battery	: Internal battery SMF VRLA type
Technology	: IGBT based double conversion
Display	: LCD
Input	: 230Volts, single phase, 3wire
Input Voltage range	: 185V to 280V
Input Frequency range	: 45Hz to 55Hz
Input Power factor	: > 0.95
Output voltage	: 230 V, 1 phase, 3wire
Voltage Regulation	: $\leq$ 1%
Output Power factor	: 0.9 to unity
Output frequency	: 50Hz +/- 1%
Over load capacity	: 1minutes @125% load
Over all AC-AC Efficiency	: $\geq$ 94%
Output wave form	: Pure Sine-wave
Current harmonics (THDi)	: $\leq$ 4% at Input side
Voltage harmonics (THDv )	: $\leq$ 2% for linear load at output side
Noise with rated load at 1Mtr	: $\leq$ 60dB
Crest factor	: 3:1
Numbers & capacity of Batteries	: 12V/7AH SMF-VRLA batteries 20No's
Terminals	: Hard wire
Protection	: Input Over/Under Voltage, Over load, Short circuit, output over voltage, batteries Over/Under charging, Over temperature, etc...
Replacement Warranty	: <b>2years for both UPS and Batteries</b>

**Application** : The ups should be capable enough to supply power uninterrupted and quality power to the Biological laboratory and Medical equipments integrated with small motors compressor.

## 2. Operating Ambient Temperature:-

UPS Module : 0°C to +40°C  
Battery : 25°C ± 5°C.

## 3. Cooling

Forced air cooling by ups internal fan

## 4. Grounding

The AC output neutral shall be electrically isolated from the UPS chassis. The UPS chassis shall have an equipment ground terminal. Provisions for local bonding shall be provided.

## 5. Wiring

Installation and required accessories like lugs etc will be in the scope of supplier and Wiring practices, materials and coding shall be in accordance with the requirements of the National Electrical Code (NFPA 70). All bolted connections of bus bars, lugs, and cables shall be in accordance with requirements of the National Electrical Code and other applicable standards.

Conformity to standards

The system must conform to the following standards: Necessary certificate from IEC shall be submitted wherever required.

- Safety: EN62040-1.
- EMC emissions: EN62040-2.
- EMC immunity: EN62040-2 class C2 and C3.

## 6. Uninterrupted Transfer/Re-transfer

The transfer control logic shall automatically turn on the static transfer switch, transferring the critical AC load to the bypass source, after the transfer logic senses any of the following conditions:

- Inverter overload capacity exceeded
- Critical AC load over voltage or under voltage
- Battery protection period expired
- Out of tolerance inverter input DC voltage
- Over temperature
- Inverter fault

Re-transfer of the critical AC load from the bypass source to the inverter output shall be automatically initiated unless inhibited by manual control.

## 7. Maintenance bypass

The manual bypass switch will be provided internally and must ensure that equipment downstream of the UPS is supplied directly by the UPS upstream power source when rectifier, inverter and static switches are open. Switching to the manual bypass and back will be possible without load supply interruption (Make Before Break).

## 8. Replacement Parts Stocking

Parts shall be available through an extensive network to ensure around-the-clock parts availability throughout the country. Recommended spare parts shall be fully stocked by local field service personnel (in Bangalore office) with back-up available from national parts center and the manufacturing location. The national parts center Customer Support Parts Coordinators shall be on-call 24 hours/day, 7 days/week, and 365 days/year for immediate parts availability. Tenderers may also produce Bangalore service center address along with strength support in the form of escalation chart. The UPS systems are going to feed the power to very critical equipments, and it is the responsibility of local service team to attend any emergency situation immediately during warranty period as well as post warranty period. Hence, service center at Bangalore is very much essential.

## 9. Other Protections

- Battery protection period expired Input Over/ under voltage, Output over/ under voltage, Output short circuit, Inverter overload, Rectifier overload, Inverter Overvoltage/under voltage, over temp, surge protection.
- It must have Generator Compatibility.
- Must have complete protection for EMI / RF as per the IEC standard.
- Units have built in surge, spike and line noise protection.
- It should have Intelligent Battery Management system
- UPS should be compact and with small footprints.
- UPS sound level should be within the limit as per the standard.

## 10. Warranty/Guaranty:

The equipments (complete system including batteries) supplied shall be guaranteed against all types of defects for a period of Two years (2 **years**) from the date of handing over of the equipment to NCBS after successful completion of acceptance testing. Any defects in the system/sub-assemblies found within the guarantee period shall be rectified/replaced by the supplier **free of cost**. During this period, servicing at once in three months interval, as prescribed by the manufacturer and as mutually agreed to, shall be carried out free of cost. It also includes battery health checks of the all the battery banks. Supplier shall also indicate the service facility they can offer at the place of installation and the telephone number and address of their service center. During the warranty period, breakdown call response time should be within 4 hrs in all working hours and 24hrs during after office hours and weekends.

### **Note:-**

The Contractors shall submit all technical supporting document details/third party certificates of the system along with the tender and also should attach the **Battery backup calculations and battery discharge characteristics catalog along with the technical bid for evaluation purpose.**

The Tenderers shall give the names and full postal addresses of their clients (data center) from Bangalore to whom similar equipments have been supplied by them.

