



No.C/AG-5/87/RO/SL/GB/2016/Vol- I

Dated, the 24 Mar 2017

RE E-TENDER NOTICE

**SUPPLY AND INSTALLATION & IMPLEMENTATION OF UPS (Modular Type) AT NEW RO BUILDING,
GB BLOCK SALT LAKE.**

The Regional Director, ESIC Kolkata invites sealed tenders from eligible Agencies for **Supply and installation & implementation of UPS (Modular Type) at New RO Building, GB Block, Salt Lake, Kolkata, West Bengal.** The Regional Director reserves the right to reject any or all the tenders without assigning any reason. The bidder has to submit a declaration under his signature and seal stating to complete the work as per tender condition and specification within the prescribed time limit.

Sl. No	Nature of Work	Earnest Money to be deposited	Work Completion Time
1	Supply and installation & implementation of UPS at New RO Building, GB Block, Salt Lake, Sec. III, Kolkata, West Bengal.	@2% (Two percent) of the total value of the bid.	60 days

1. Tenderers are requested that, before quoting their rates or sending tender, the tender form may please be read out thoroughly (line by line), otherwise purchaser will not be held responsible for any error/oversight.
2. The form is a standard Form of Tender. Certain clause / clauses may not be applicable in some cases. So, Tenderers are requested to ignore such clause / clauses, which are not applicable in the instant case.
3. Tender documents is also available for viewing on the 'tenders' link of the website Employees' State Insurance Corporation i.e. www.esic.nic.in, <https://esictenders.eproc.in> & www.esicwestbengal.org.in
4. **The interested tenderers should upload duly filled up either one or more tender/tenders as they prefer form and their bids along with scanned copies of all the relevant certificates, documents, etc. in support of their technical & price bids - all duly signed - on the <https://esictenders.eproc.in> latest by 28.04.17 upto 13:00 Hours. Bidders have to deposit the Earnest Money Deposit (EMD) of @2% of the Quoted Bid in the form of Demand Draft drawn in favour of "ESI CORPORATION A/C No. 1" payable at Kolkata.**
5. RD, ESIC, 5/1 Grant Lane Kolkata-12 does not pledge himself to accept the lowest or any tender and reserve to himself the right of accepting the whole or any part of the tender or portion of the quantity offered any you shall supply the same / execute the work at the rate quoted by you. You are at liberty to tender for the whole or any part.
6. Acceptance by the purchaser shall be communicated in due course. You are requested that the instructions contained in the said communication should be acted upon immediately /as asked for.

Period during which E-Tenders may be submitted	07.04.2017 to 28.04.2017 (01:00PM)
Last Date & Time of submission of E-Tender	28.04.2017 at 01.00 PM
Date & Time of Opening of E-Tender	28.04.2017 at 03.00 PM

Regional Director
E.S.I Corporation

Payment Related Instructions for Bidders

All bidders/contractors are required to procure Class-IIIB Digital Signature Certificate (DSC) with Both DSC Components i.e. Signing & Encryption to participate in the E- Tenders.

Bidder should get Registered at <https://esictenders.eproc.in>.

Bidder needs to submit Bid Processing Fee charges of Rs. 2495/- (non-refundable) in the form of Demand Draft from any scheduled bank, in favour of M/s. C1 India Pvt. Ltd. payable at New Delhi for participating in the Tender.

Along with the Demand Draft, Bidder needs to send a covering Letter mentioning about the Payment Details, Company Name, Address, Payment towards ESIC Bid Processing Fees (Mention the Tender ID and Tender Title).

The payment should reach at the below mentioned address, one day before the due date and time of Bid Submission:

Kind Attn: Mr. Mohit Chauhan
C1 India Pvt. Ltd.
301, Gulf Petro Chem Building, 1st Floor,
Udyog Vihar, Phase – 2,
Gurgaon, Haryana – 122015

Note: Payment will be Approved only after physical receipt of Demand Draft.

1. The bid can be uploaded **upto 1:00 PM on dated 28.04.2017** and any bid upload after the prescribed time shall not be considered irrespective of rates. The bid will be opened on the same dated i.e. **on 28.04.2017 at 3.00 PM.**

The Bidder should carefully read, understand and seek clarifications if any before uploading the bid. No claim whatsoever will be entertained for any alleged ignorance thereof.

Helpdesk Number

HELPDESK NUMBERS ARE OPEN BETWEEN 09:30 HRS to 18:00 HRS IST MONDAY TO FRIDAY (Exclusions: HOLIDAYS) Please email your issues at esichelpdesk@c1india.com . before you call helpdesk. This will help us serving you better.		
Name	E-mail	Phone Number
1. Mr. Elavarasan Raghunathan	Elavarasan.raghunathan@c1india.com	+91-022-66865600/10/11 +91-8655995550
2. Ms. Ujwala Shimpi	ujwala.shimpi@c1india.com	+91-022-66865600/10/11
3. Mr. Ashish Kumar	Ashish.kumar@c1india.com	+91-0124-4302035/ +91-9971556555
4. Mr. Vijay Kalra	vijay.kalra@c1india.com	+91-0124-4302034/ +91-9711770455
5. Mr. Saurav Gautam	saurav.gautam@c1india.com	+91-124-4302037/ +91-9911874555
6. Mr. Partha Ghosh	partha.ghosh@c1india.com	+91-8811093299
7. Mr. Mohit Chauhan (Payment related queries only)	mohit.chauhan@c1india.com	+91-124-4302033

General instructions for submitting tender for Supply and installation & implementation of UPS (Modular Type) at New RO Building, GB Block, Salt Lake, Kolkata, West Bengal

Tenders complete in all respect, and quoted rates must be submitted online on or before **28.04.17 up to 01.00 PM**. The tenders will be opened on the same day at **03.00 pm** in the presence of tenderers or their authorized representatives who may wish to be present on that day. In case tender opening day is declared as holiday, tenders shall be received and opened on next working day as per the above mentioned schedule. The site of **Supply and installation & implementation of UPS (Modular Type) at New RO Building, GB Block, Salt Lake, Kolkata, West Bengal**. and allied works can be inspected and understood in consultation with our Engineers/ IT Manager or Regional Director authorities on any working day during office hours (09.45 am- 06.15 pm) by the contractor/agency if desired. Tenders received after the due date and time will not be accepted under any circumstances. The Regional Director reserves the right to accept or reject any or all the tenders with out assigning any reason(s) thereof.

The tenders should be submitted online on <https://esictenders.eproc.in> within time

The tenderers must submit a 'Demand Draft' from any nationalized banks as earnest money drawn in the favour of ESIC A/c No.1 payable at Kolkata for an amount equal to 2% (Two Percent) of the Total quoted value of the tender. The EMD deposited with earlier if any will not be adjusted against this tender. *Tender without EMD or less than 2% of the quoted value of work will not be accepted in any case.* EMD shall be posted or delivered by hand at the O/o The Regional Director, Construction Cell, 5/1, Grant Lane, Kolkata – 700012 in a sealed envelope superscribed as **“Supply and installation & implementation of UPS (Modular Type) at New RO Building, GB Block, Salt Lake, Kolkata, West Bengal.”** *Within the date and time of Opening of the E-Tender.*

Tenderer must provide the Tel & Fax No. if any with the tender. The tenderer is required to submit an undertaking as per the Proforma enclosed on Annexure V. The tender must include all the documents as mentioned in the checklist attached as Annexure-VII.

Tenderer must enclose Photocopies of Valid Trade License, VAT / Excise Registration Certificate & PAN Card. Tenderers must also enclose documents showing:

- a. Experienced in completion of similar works (Copy of satisfactory completion certificate compliance with value of work order to be enclosed) for minimum 03 (three) work orders as detailed below.
- b. Manufacturer authorization should be provided along with technical bid.
- c. Copies of latest ESIC/EPF challan deposits. (if applicable to the Agency).
- d. One similar work of value not less than 80% if the value of work to be executed (per annum) or two similar work of value not less than 50% of the value of work to be executed (per annum) for each job in last three years.

The rates quoted in ambiguous terms such as “Freight on actual basis “ or “Taxes as applicable etc” or “packing forwarding etc”/ “Govt. taxes as applicable” etc will make their bid liable to rejection.

The rates/ amount should be quoted in I.N.R. The price should be all inclusive price offered for each item including cost of the equipment, freight, insurance packing forwarding etc. and including charges for installation and commission with all the men and material required for the same.

**Regional Director
E.S.I Corporation**

Terms and Conditions Governing Contract

The **Regional Director, ESIC, Kolkata** does not pledge himself to accept the lowest or any tender and reserves to himself the right of accepting the whole or any part of the tender or portion of the quantity offered and accordingly supply / execution of work would be completed at the rate quoted.

Security deposit/Performance Guarantee: - As soon as LOI/Supply/Work Order is issued to the successful contractor, the contractor will submit a performance guarantee equivalent to 10% of the total contract amount within 7 days, which will be valid up to 60 days beyond the date of completion of all contractual obligations including defect liability period. Defect- liability period will be one year from the date of installation/completion of work.

Agreement:- The successful bidder has to sign an agreement with the E.S.I.C in stamp paper of appropriate value. The details of agreement can be seen and understood from the Construction Cell, R.O. Kolkata during office hours. Tender condition will be a part of agreement.

The manpower deployed shall always remain the employees of the contractor and it shall be the responsibility of the contractor to comply with the minimum wages act and other statutory liabilities. Materials used for the work has to be shown and got approved from **Engineer/IT Manager** prior to use. The contractor shall be responsible for ensuring compliance with the relevant labour laws and all other applicable laws that may be in force from time to time during the entire period of contract.

The contractor shall not sublet transfer or assign the contract to any part thereof without the written permission of the Regional Director. In the event of the contractor contravening this condition, The Regional Director may be entitled to place the contract elsewhere on the contractor's account at his risk and the contractor shall be liable for any loss or damage, which the RD, ESIC Kolkata may sustain in consequence or arising out of such replacing of the contract.

Assistance to contractor: The contractor shall not be entitled to assistance either, in the procurement of raw materials required for the fulfillment of the contract or in the securing of transport facilities.

Payment:- 100% Payment will be made for the work on satisfactory completion, inspection and measurement by E.S.I.C Engineer. Bills will be paid through NEFT/RTGS on satisfactory performance of the contract (else the amount will be confiscated). S.T/VAT/ Labour welfare charges and other government taxes as applicable will be deducted from the bill of the agency. Normally, payment is made within six weeks after satisfactory inspection, installation and performance of the item / equipment / instrument subject to submission of appropriate and correct invoice, Challans and other documents as deemed fit.

Penalty for delay in completion of work: - If there is delay in completing the work, contractor shall be liable to pay liquidated damages in the form of deduction of 1.25% of total cost of work/supply for every week of delay or part thereof subject to maximum of 5% of total cost of work. If the work is not completed within the approved extended time given by competent authority, security deposit if liable to be forfeited and tender may be canceled. Part work done by the agency, if any, will not be measured and paid for. There will not be any leniency regarding timely completion of work.

Arbitration: - In case of any dispute, the difference arising out of the agreement, the same shall be referred to the sole arbitration of the Chief Engineer, ESIC and his decision shall be binding on both the parties.

OTHER TERMS AND CONDITIONS OF CONTRACT

1. OEM authorization letter for this particular tender if any Business partner of OEM quoting.
2. OEM must have ISO 9001:2008 certificate
3. OEM must have ISO 14001:2004 certificate
4. The OEM must have executed 2 Projects of similar nature in the last two years.
5. The OEM is required to provide the full details of service address in India.
6. Electrical wiring and necessary fitting to be provided for the connection of UPS to Battery.
7. Site visit necessary before quoting.
8. Successful bidder should submit all the testing certificates for UPSs and Batteries as mentioned in the tender documents from any Central Govt. recognized Laboratories. (ESIC will not provide any extra cost for mentioned job)

9. The tenderer should be the OEM or authorized Sales & Service Business Partner. In case the tenderer is Sales & Service Business Partner he should duly authorized to participate in this Tender.
10. The Technical Specification along with Credentials & Eligibility should be certified and verified as per annexure in the tender by the OEM in case of Authorized Sales & Service provider participating in the tender.
11. The rates quoted should be inclusive of Freight / packing / forwarding and other incidental charges.
12. ESIC, Regional Office, Kolkata shall be under no obligation to accept the lowest quotation.
13. It will be binding on the part of the successful bidder to supply and install the goods at the quoted rates failing which the name of the firm will be removed from the suppliers list and no further inquiries would be sent. Other relevant terms and conditions of this tender would also be made applicable automatically
14. Bidder should have local presence at West Bengal with registered office in any town / city in West Bengal. Availability of a responsible Technical person on call on all working days of ESIC, Kolkata between 09.00 Hours to 18:00 Hours, so that the onsite Service Support under 12 Months warranty obligations as per requirement of ESIC, Kolkata may be addressed.
15. The detailed specifications of the goods are as per **ANNEXURE - III** attached. The Rate Sheet is placed at **ANNEXURE-IV**. No quotation will be accepted by fax, e-mail, telex, or any other such means.
16. **Right to accept/ reject:** The Regional Director, ESIC Kolkata reserves the right to reject all or any tender without assigning any reason thereof.
17. Agency shall visit site before participation in tender and contact the Engineer concern for any clarification if required.

Regional Director
E.S.I Corporation

SCOPE OF WORK

For Supply, Installation & Implementation of UPS

The scope of works include the Supply, Installation, Testing and Commissioning of UPS (Uninterrupted power supply) for providing efficient backup power access to ESIC Regional Office and ESI State Directorate Office, Kolkata but not limited to the following tentative works: -

1. Installation of UPS, batteries on rack with connections to input & output DB.
2. Documentation with its Layout Plan (on Paper and CD).
3. All the operating/ setup operational manuals, stationeries and similar accessories made available by Equipment vendor would be handed over by the Agency/ Contractor / Firm to ESIC, Regional Office, Kolkata after Successful installation, testing and commissioning work is over.
4. Labeling of Cables, I/O's, Switches for new connections for clear marking/ understanding.
5. Repair/ Refurnishing work owing to damage caused due to cabling or any other work related to this Job/ Project. There should not be any hanging or uncovered wire.
6. Equipment furnished shall be complete in every respect with all mountings, fittings, fixtures and standard accessories normally provided with such equipment's and / or needed for erection, completion and safe operation of the equipment's as required by applicable codes though they may not have been specifically detailed in the tender document, unless included in the list of exclusions.
7. The Bidder shall be responsible for providing all materials, equipment's, and services, specified or otherwise, which are required to fulfill the intent of ensuring operability, maintainability, and reliability of the complete equipment covered under this specification within his quoted price. This work shall be in compliance with all applicable standards, statutory regulations and safety requirements in force of the date of award of this contract.
8. The bidder shall also be responsible for deputing qualified personnel for installation, testing, commissioning and other services under his scope of work as per this specification. All required tools and tackles for completing the scope of work as per the specification is also the responsibility of the bidder.
9. The installation of equipment shall be accepted only after installation tests are satisfactorily over.
10. The UPS proposed by the bidders must be capable to support power backup to IT devices (PCs' with LCD monitors, VoIP phones, Network Switches, Routers etc.) in the building.
11. The scope covers design / development of a suitable architecture / layout of the proposed UPS system, preparation of bill of materials, pre-dispatch inspection / testing, packing and forwarding, transportation, insurance and carrying out further activities at sites viz. unloading, storage, testing and commissioning including successful completion of acceptance tests and any other services required.

12. ESIC, Regional Office, Kolkata reserves the right for quantity variation due to increase / decrease in requirements. The bidder shall also provide all required equipment which may not be specifically stated herein but are required to meet the intent of ensuring completeness, maintainability and reliability of the total system covered under this specification, including integration and interoperability with the existing Electrical system (if any), on occurrence of such necessary requirement, the written immediate intimation along with brief technical justification shall be given by the Bidder to the ESIC, RO, Kolkata and after obtaining necessary approval on writing. If the extra work shall be carried out without obtaining approvals from ESIC, Kolkata shall not be liable to pay any extra cost to the bidder.

13. Scope of Work shall also include:-

- a. Powering on equipment after ensuring correctness of terminations, interfaces, power supply and making the system ready for testing and commissioning.
- b. The supply of input cable from input DB to UPS and from UPS to output DB for length not more than 4 meters for both input and output is in the scope of supplier.
- c. MS Rack with preferably 4 tier with weight bearing capacity of not less than 240 kg is in the scope of supplier.
- d. All the battery link cable and UPS to battery final cable should be Nyvin.
- e. All testing tools and instruments shall be brought by the bidder and taken back after the testing.
- f. Site acceptance tests to establish satisfactory performance of the equipment's as per specs.
- g. Assistance for familiarization and operation of the installed system after acceptance of system.
- h. Comprehensive onsite warranty for all Installation and Hardware delivered for minimum 24 months from the date of technical certification of work completion. Warranty for Battery is not less than 24 months from the date of installation.

14. Any other work required for making the network functional up to the satisfaction of ESIC, Regional Office Kolkata.

Technical Specifications

1. SYSTEM DESCRIPTION for 100 KVA UPS FOR STATE BUILDING

1.1 Design Requirements

- A. For redundant operation the UPS System shall be sized to minimum 100 kW. Total Output of 100KW, the UPS system shall be sized with minimum 4 Modules.
 - B. Load voltage and bypass line voltage will be 380/400/415 VAC, three phase and neutral. Input voltage range will be 305-477 VAC, three phase.
 - C. The battery system shall have a capacity of 100 kW for at least 10 minutes at 25°C, minimum VAH should be 55200.
 - D. Battery Type: Sealed Maintenance free lead acid battery.
 - E. The battery will be installed on MS Racks.
 - F. Battery make should be EXIDE / AMARA RAJA

1.2 Dimension of UPS and Battery Room

- A. The total space for UPS installation will be 9 feet X 6 feet X 7.5 feet.
- B. The total space for Battery installation will be 9 feet X 6 feet X 7.5feet.

1.3 STANDARDS

The UPS and all associated equipment and components shall be manufactured in accordance with the following applicable standards:

- A. Safety Requirements: IEC 62040-1-1, EN 50091-1-1
- B. EMC: IEC 62040-2 (Class A), EN 50091-2 (Class A)
- C. Performance: IEC 62040-3 (VFI SS 111), EN50091-3

The above mentioned product standards incorporate relevant compliance clauses with generic IEC and EN standards for safety (60950), electromagnetic emission and immunity (61000 series) and construction (60146 series and 60529).

For more details, see below:

- IEC 61000-3-4
- IEC 61000-4-2, 4, 5, 6, 8, 11
- EN60950
- EN60529
- IEC 60146-1-1

The UPS is CE marked in accordance with EEC directives 73/23 “low voltage” and 89/336 “electromagnetic compatibility”.

The Quality System for the engineering and manufacturing facility certificated to conform to Quality System Standard ISO 9001 for the design and manufacture of power protection systems for computers and other sensitive electronics.

Each UPS module should have its own independent Logic control, control panel, rectifier, inverter, battery charger, display and static bypass. Common components are not acceptable.

1.4 UPS Module AC Input

- A. **Voltage Range:** 305 to 477V
- B. **Frequency Range:** 40~70Hz
- C. **Power Walk-In:** maximum 30 seconds to full rated input current. Field selectable from 5 to 30 seconds adjustable with 5-second increments.
- D. **Power Factor:** Shall be unity or 1 without any option at full rated UPS output load.
- E. **Generator Adaptability:**

UPS input current limit can be adjusted to suit the generator power rating. Wide input frequency range is permissible.

- F. **Current Distortion:** Less than 3% at full rated UPS output load and 100% balanced non-linear load (with input voltage THD \leq 1%).

1.5 UPS Module AC Output

- A. Three-phase, 4-wire plus ground.
- B. **Load Rating:** UPS shall be able to support utility power factor load rating at the specified operating temperature range for any combination of linear and non-linear loads.
- C. **Voltage Stability:** 1% steady state for balanced loads, 2% for 100% unbalanced loads.
- D. **Bypass Line Sync Range:** Field selectable \square 0.5 to 3.0 Hz at 1.0 Hz increments. Default shall be \square \square 2.0 Hz
- E. **Frequency Stability:** Frequency regulation, whilst free-running on battery, shall be \pm 0.05 Hz. If the bypass is available and within limits, even if the UPS is on battery operation, in this case, the output will sync to the bypass. Nominal frequency shall be \pm 0.05% in single module mode, and 0.25% in parallel mode.
- F. **Frequency Slew Rate:** The slew rate shall be 0.6Hz/s.
- G. **Efficiency:** It is defined as output kW / input kW:
 - Up to 96% at full rated load, nominal input, no battery. Greater than 95% for loads over 30%.
 - Not less than 98% at full rated load when supplying the load through the static bypass.
- H. **Phase Unbalance:** $120^\circ \pm 1^\circ$ el. for 100% balanced or unbalanced loads.
- I. **Voltage Transients:** \pm 5% for 100% output load step up or step down.
- J. **Transient Recovery Time:** Return to within 5% of steady state output voltage within half a cycle.

K. Module Overload Capability at Rated Output Voltage:

150% of UPS rated output with a resistive load for one minute.

125% of UPS rated output with a resistive load for ten minutes. The UPS will achieve the overload mentioned at the specified operating temperature, nominal input voltage and when the battery is in a full charged condition.

110% of UPS rated output with a resistive load for one hour. The UPS will achieve the overload mentioned above with 380/400/415V nominal input and output voltage and when the battery is fully charged.

1.6 Bypass Static Switch

A. Voltage Range:

Upper limit: +10%, +15% or +20%, default shall be +15%
Lower limit: -10%, -20%, -30% or -40%, default shall be -20%

B. Frequency Range: ±2.5%, ±5%, ±10%, ±20% Field Selectable

C. Overload Capability: (specified without fuses)

For 135% rated output current, long-term operation (no time limitation).

For 170% rated output current, 10 minutes.

For 1000% of full UPS rated output current, 100 milliseconds.

1.7 ENVIRONMENTAL CONDITIONS

A. Operating Ambient Temperature UPS: 0°C to 40°C

Battery: 25°C ± 5°C for optimum battery performance.

B. Storage/Transport Ambient Temperature

UPS: -20°C to 70°C.

Battery: -20°C to 30°C, 20°C for optimum battery storage.

C. Relative Humidity

0 to 95%, non-condensing.

D. Altitude

Operating: Up to 1000 m (above sea level) without de-rating.

1.8 Immunity

A. Conduction

IEC 62040-2, class A

B. Radiation

IEC 62040-2, class A

C. Harmonic

IEC 61000-3-4

D. Immunity

EN 61000-4-2.3.4.6.8.9.11 Level III EN 61000-

4-5 Level IV

1.9 WARRANTY

A. UPS Warranty

The UPS manufacturer shall warrant the unit against defects in workmanship and materials for 24 months for UPS.

B. Battery Warranty

The battery manufacturer's standard warranty minimum 24 months shall be passed through to the end user.

2. QUALITY ASSURANCE

2.1 Factory Testing

Before shipment, the system shall be fully and completely tested to ensure compliance with the specification.

2.2 Battery details

- A. Back up should be 10 Mins at 100KVA / 100 KW full load.
- B. Minimum VAH of the battery should be 55200.
- C. The UPS DC bus voltage shall be variable whereby the number of battery can be adjusted between 30 to 40 or 40 to 50 or 50 to 60 (12VDC blocks) depending the power range and to enable the battery system to be optimized for size and cost . Single battery bank should be designed for 10 minutes back up calculated for 0.9 Power Factor.

1. SYSTEM DESCRIPTION for 120 KVA UPS FOR CENTRAL BUILDING

2. Design Requirements

- B. For redundant operation the UPS System shall be sized to minimum 120 kW. Total Output of 120KW, the UPS system shall be sized with minimum 5 Modules.
 - B. Load voltage and bypass line voltage will be 380/400/415 VAC, three phase and neutral. Input voltage range will be 305-477 VAC, three phase.
 - C. The battery system shall have a capacity of 120 kW for at least 10 minutes at 25°C, minimum VAH should be 60000.
 - D. Battery Type : Sealed Maintenance free lead acid battery.
 - E. The battery will be installed on MS Racks.
 - F. Battery make should be EXIDE / AMARA RAJA

3. Dimension of UPS and Battery Room

- C. The total space for UPS installation will be 9 feet X 6 feet X 7.5 feet.
- D. The total space for Battery installation will be 9 feet X 6 feet X 7.5feet.

4. STANDARDS

The UPS and all associated equipment and components shall be manufactured in accordance with the following applicable standards:

- D. Safety Requirements: IEC 62040-1-1, EN 50091-1-1
- E. EMC: IEC 62040-2 (Class A), EN 50091-2 (Class A)
- F. Performance: IEC 62040-3 (VFI SS 111), EN50091-3

The above mentioned product standards incorporate relevant compliance clauses with generic IEC and EN standards for safety (60950), electromagnetic emission and immunity (61000 series) and construction (60146 series and 60529).

For more details, see below:

IEC 61000-3-4

IEC 61000-4-2, 4, 5, 6, 8, 11

EN60950

EN60529

IEC 60146-1-1

The UPS is CE marked in accordance with EEC directives 73/23 “low voltage” and 89/336 “electromagnetic compatibility”.

The Quality System for the engineering and manufacturing facility certificated to conform to Quality System Standard ISO 9001 for the design and manufacture of power protection systems for computers and other sensitive electronics.

Each UPS module should has its own independent Logic control, control panel, rectifier, inverter, battery charger, display and static bypass. Common components are not acceptable.

5. UPS Module AC Input

G. Voltage Range: 305 to 477V

H. Frequency Range: 40~70Hz

I. Power Walk-In: maximum 30 seconds to full rated input current. Field selectable from 5 to 30 seconds adjustable with 5-second increments.

J. Power Factor: Shall be unity or 1 without any option at full rated UPS output load.

K. Generator Adaptability:

UPS input current limit can be adjusted to suit the generator power rating. Wide input frequency range is permissible.

L. Current Distortion: Less than 3% at full rated UPS output load and 100% balanced non-linear load (with input voltage THD \leq 1%).

6. UPS Module AC Output

L. Three-phase, 4-wire plus ground.

M. Load Rating: UPS shall be able to support utility power factor load rating at the specified operating temperature range for any combination of linear and non-linear loads.

N. Voltage Stability: 1% steady state for balanced loads, 2% for 100% unbalanced loads.

O. Bypass Line Sync Range: Field selectable 0.5 to 3.0 Hz at 1.0 Hz increments. Default shall be 2.0 Hz

P. Frequency Stability: Frequency regulation, whilst free-running on battery, shall be \pm 0.05 Hz. If the bypass is available and within limits, even if the UPS is on battery operation, in this case, the output will sync to the bypass. Nominal frequency shall be \pm 0.05% in single module mode, and 0.25% in parallel mode.

Q. Frequency Slew Rate: The slew rate shall be 0.6Hz/s.

R. Efficiency: It is defined as output kW / input kW:

- Up to 96% at full rated load, nominal input, no battery. Greater than 95% for loads over 30%.
- Not less than 98% at full rated load when supplying the load through the static bypass.

S. Phase Unbalance: $120^\circ \pm 1^\circ$ el. for 100% balanced or unbalanced loads.

T. Voltage Transients: $\pm 5\%$ for 100% output load step up or step down.

U. Transient Recovery Time: Return to within 5% of steady state output voltage within half a cycle.

V. Module Overload Capability at Rated Output Voltage:

150% of UPS rated output with a resistive load for one minute.

125% of UPS rated output with a resistive load for ten minutes. The UPS will achieve the overload mentioned at the specified operating temperature, nominal input voltage and when the battery is in a full charged condition.

110% of UPS rated output with a resistive load for one hour. The UPS will achieve the overload mentioned above with 380/400/415V nominal input and output voltage and when the battery is fully charged.

7. Bypass Static Switch

D. Voltage Range:

Upper limit: +10%, +15% or +20%, default shall be +15%

Lower limit: -10%, -20%, -30% or -40%, default shall be -20%

E. Frequency Range: $\pm 2.5\%$, $\pm 5\%$, $\pm 10\%$, $\pm 20\%$ Field Selectable

F. Overload Capability: (specified without fuses)

For 135% rated output current, long-term operation (no time limitation).

For 170% rated output current, 10 minutes.

For 1000% of full UPS rated output current, 100 milliseconds.

8. ENVIRONMENTAL CONDITIONS

E. Operating Ambient Temperature UPS: 0°C to 40°C

Battery: $25^\circ\text{C} \pm 5^\circ\text{C}$ for optimum battery performance.

F. Storage/Transport Ambient Temperature

UPS: -20°C to 70°C .

Battery: -20°C to 30°C , 20°C for optimum battery storage.

G. Relative Humidity

1 to 95%, non-condensing.

H. Altitude

Operating: Up to 1000 m (above sea level) without de-rating.

9. Immunity

E. Conduction

IEC 62040-2, class A

F. Radiation

IEC 62040-2, class A

G. Harmonic

IEC 61000-3-4

H. Immunity

EN 61000-4-2.3.4.6.8.9.11 Level III EN 61000-

4-5 Level IV

10. WARRANTY

C. UPS Warranty

The UPS manufacturer shall warrant the unit against defects in workmanship and materials for 24 months for UPS.

D. Battery Warranty

The battery manufacturer's standard warranty minimum 24 months shall be passed through to the end user.

14. QUALITY ASSURANCE

1. Factory Testing

Before shipment, the system shall be fully and completely tested to ensure compliance with the specification.

2. Battery details

D. Back up should be 10 Mins at 120KVA / 120 KW full load.

E. Minimum VAH of the battery should be 60000.

F. The UPS DC bus voltage shall be variable whereby the number of battery can be adjusted between 30 to 40 or 40 to 50 or 50 to 60 (12VDC blocks) depending the power range and to enable the battery system to be optimized for size and cost . Single battery bank should be designed for 10 minutes back up calculated for 0.9 Power Factor.

RATE SHEET for 120 KVA / KW UPS

Sl.	Items	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	UPS (Modular Type) 120 KVA/KW along with Batteries and Installation, commissioning & all other necessary works (service part)	1	Nos.		
Total					

RATE SHEET for 100 KVA / KW UPS

Sl.	Items	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	UPS (Modular Type) 100 KVA/KW along with Batteries and Installation, commissioning & all other necessary works (service part)	1	Nos.		
Total					

Date:-**Place:-****Signature of Bidder
SEAL**

Format of undertaking to be submitted along with Tender

The following may be printed or handwritten on a stamp paper worth Rs. 10/- and submitted along with the tender, with out which the tender is liable to be rejected.

Undertaking:

1. I the undersigned hereby declare and affirm that I have gone through the terms and conditions mentioned in the tender document and under take to comply with all the terms and conditions.
2. That the rates quoted by me are valid and binding upon me for the entire period of contract.
3. That the earnest money of Rs deposited by me vide Demand Draft No. Dt. drawn on (Name of the Bank) is attached herewith.
4. That I/ We authorize **The Regional Director**, ESIC, Kolkata to forfeit the security deposit money submitted by me/us if any delay or failure to supply the article/completion of the work to the satisfaction of the hospital authority. Within the stipulated time of the items of desired quality.
5. That I will be in the position to provide contract as per the work explained to me to the satisfaction of the Hospital authority.
6. That there is no vigilance/CBI case or court case pending against me/ my firm debarring me/my firm to undertake contract work/ supply of items quoted.
7. That I hereby undertake to carry out the work as has been explained to me to the satisfaction of hospital authority with in stipulated period.
8. I have been informed that **The Regional Director**, ESIC, Kolkata has the right to accept or reject any or all the tenders without assigning any reason thereof.
9. I am ready to sign the agreement with the ESIC which was shown to me.

Signature & Address of the Tenderer
STAMP

TENDER APPLICATION FORM

Sl. No.	Items	Details of Bidding Agency
1	Name and full postal address of the Contractor/Agency	
2	PAN No.	
3	TIN No.	
4	ESI/EPF Reg.No. (If applicable)	
5	Telephone/Mobile No.	
6	Fax No.	
7	E-Mail Address (if any)	
8	Bank Name and Branch	
9	Bank Account No.	
10	Bank IFSC No.	
11	Are you in the list of approved contractors of any other organization / institution, if any give details (Append extra page if necessary)	
12	Give details of any Government contracts executed during the last twelve months (Append extra page if necessary):-	
13	Any other information which you consider necessary to furnish	

Date:
Place:

Signature of the tenderer:.....
Full Name:.....
Designation:.....

(Office seal of the tenderer)

COMPULSORY DOCUMENTS TO BE SUBMITTED ALONG WITH THE TENDER
(Checklist)

The following documents must be submitted along with the tender, without which the tender is liable to be rejected. The tenderer must make a tick against each of the following documents submitted.

(Please Tick the applicable boxes)

1. EMD worth Rs..... dated.....drawn from.....
2. Copy of documents showing prior experience.
3. Copy of PAN Card.
4. Copy of VAT/Excise/other Registration Certificates.
5. Copy of Latest Challan/Registration of ESIC/EPF (if applicable)
6. Copy of Trade License/Documents showing the validity of Trade -license
7. Copy of electrical License/ Document showing validity of Elec. License
8. Undertaking in as mentioned in Annexure-III.
9. Scanned copy of All pages of the tender documents with signature & stamp of party on each page.
10. List of works completed by the agency in the last 3 years and ongoing works.
11. (Any other Document/Information, if necessary).

Name:

Signature:

Stamp