

VOLUME II

COMMERCIAL CUM TECHNICAL BID

FOR
SUPPLY, INSTALLATION, TESTING
AND COMMISSIONING OF UPS SYSTEM

FOR VARIOUS PREMISES OF
NATIONAL INSTITUTE OF SECURITIES MARKETS

AT
NISM BHAVAN, PLOT NO. 82,
SECTOR 17, VASHI, NAVI MUMBAI – 400 703.
&
NISM, 1ST FLOOR, 'C' WING, MITTAL COURT,
NARIMAN POINT, MUMBAI – 400 021

To be submitted in a separate sealed envelope marked as envelope III

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General instructions

1. Sealed items rate tenders are invited by National Institute of Securities Markets (NISM) for the captioned project in three bid system.
2. The tenderer shall quote his rates as per various terms and conditions and bill of quantities of the tender.
3. The work is to be completed in a period of 90 calendar days from date of issue of work order. Time is the essence of the contract and work shall be completed in all respects in contractual time period.
4. Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders, the form and nature of the site, the means of access to the site, and must obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A tenderer shall be deemed to have full knowledge of the site whether or not the site is inspected by the tenderer and no extra charges shall be entertained on account of any misunderstanding or otherwise about the facilities and / or conditions at site. Submission of a tender by a tenderer categorically implies that he has read various terms and conditions of the tender document and has made himself fully aware of the scope and specifications of the work to be done and local conditions and other factors having bearing on the execution of the work, and have complete clarity about all these aspects.
5. Tender document can be either collected from the office of The Vice President (Estates and Premises Management Department), NISM or downloaded from the website: www.nism.ac.in
6. Interest free Earnest Money Deposit (EMD) of Rs. 60,000/- (Rupees Sixty Thousand Only) in form of Demand Draft / Banker's cheque / Pay Order in favour of **National Institute of Securities Markets**, payable at **Mumbai**, must accompany the tender. Cheques for EMD will not be accepted. Tenders accompanying cheques will stand summarily rejected. EMD will not bear any interest. EMD's of unsuccessful tenderers will be refunded without any interest.
7. Tenders of the tenderer, who do not deposit the EMD in the above manner, shall stand rejected.
8. NISM is not bound to accept the lowest and / or any other tender and reserves the authority to reject any and / or all the tenders received, without assigning any reason. Any tender, in which any of the prescribed condition is not fulfilled

and / or any condition including that of conditional rebate is put forth by the tenderer, shall be summarily rejected.

9. The tenderer is required to quote for all the items mentioned in bill of quantities. In case the tenderer does not quote for any of the item/s, he will be required to execute such items at without any financial implication to the Employer to the extent of quantity/ies mentioned in bill of quantities. No payment for executing such items will be made by the Employer.
10. Rates quoted by the tenderer in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the tenderer shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the tenderer or it does not correspond with the rates written either in figures or in words then the rates quoted by the tenderer in words shall be taken as correct. Where the rates quoted by the tenderer in figures and in words tally but the amount is not worked out correctly, the rates quoted by the tenderer will be considered unless otherwise proved be taken as correct and not the amount.
11. The tender for the work shall remain open for acceptance for a period of 30 calendar days from the date of price bid / revised price bid. If any tenderer withdraws his tender before the same period and / or makes any modifications in the terms and conditions of the tender which are not acceptable to NISM, then NISM shall, without prejudice to any other right and / or remedy, be at liberty to forfeit the said EMD and realize the money.
12. All the rates mentioned in the tender should be inclusive of all materials including wastage, loading & unloading, freight, all types of local, state and central taxes including works contract tax, excise, octroi, VAT, levies and duties, service tax, royalties, erection, tools, tackles, plant and equipments, supervision, overheads and profits, statutory charges, costs for licenses and any other expenditure etc. and shall remain firm till completion of work. (NMMC Cess / LBT will be paid extra). Escalation in price(s) will not be payable for whatsoever reasons.

APPENDIX TO CONDITIONS OF CONTRACT

1.	Name of Work	: Supply, installation, testing and commissioning of UPS System at various premises of NISM.
2.	Location of the site	: NISM Bhavan, Plot No. 82, Sector 17, Vashi, Navi Mumbai – 400 703 & NISM 1 st floor, 'C' wing, Mittal court, Nariman Point, Mumbai – 400 021.
3.	Earnest Money Deposit	: Rs.60,000/- (Rupees Sixty Thousand Only) by Bank Draft/Pay Order/Banker's Cheque.
4.	'NISM / Employer / Institute'	: National Institute of Securities Markets (NISM) having its office at NISM Bhavan, Plot No. 82, Sector 17, Vashi, Navi Mumbai 400 703 and includes its representatives, successors and assigns.
5.	Validity of tender	: 30(Thirty) calendar days from the due date of opening of price bid / revised price bid.
6.	Price escalation	: No upward revision of rates will be accepted after opening of the price bid / revised price bid on account of any reasons whatsoever. The rates at which the work order is finally placed on the successful tenderer shall be valid till the completion of the work. No escalation or increase in the rates on account of any reasons whatsoever shall be paid to the contractor during execution of work till completion.
7.	Completion period	: 90 calendar days from the date of issue of work order.
9.	Liquidated Damages	: 1% of the actual value of the total work done per week of delay, subject to a maximum of 5% of the actual value of the total work done.
10.	Defect liability period	: 12 months from the date of virtual completion of the work as certified by the Employer.
11.	Period of attending defects during defect liability period	: The engineer / technician shall visit NISM premises to attend the complaint within 4 hours

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	from the intimation given vide email/writing. However, the defect will be rectified within 2 (two) calendar days from date of intimation in writing / email. If the contractor fails to attend the work within 2 calendar days, the Employer may get the same executed directly through some other agency at the risk and cost of the contractor. The actual amount incurred by the Employer will be recovered from the Security Deposit, available with the Employer. The decision of Employer, in this regard, will be final and binding.
12. Period for making payment	: Within 10 working days after receipt of contractor's bill subject to the bill is found to be in order by the Employer with no discrepancies.
13. Security Deposit	: As per clause no. 3 of conditions of contract.
14. Advances	: No advances shall be paid.

We agree to the terms incorporated above.

Date :

**Signature of tenderer
(Seal)**

CONDITIONS OF CONTRACT

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Clause No.	Description
1.	Work Order
2.	Discrepancies and Adjustment of Errors
3.	Security Deposit
	a) Earnest Money Deposit (EMD)
	b) Performance Guarantee
4.	Liquidated Damages
5.	Secured Advance
6.	Mobilization Advance
7.	Escalation
8.	Contractor to supply materials, appliances, employees etc.
9.	Work to be executed in accordance with specifications, orders etc.
10.	Protection of works and property
11.	Payment
12.	Extension of time
13.	Virtual Completion Certificate (VCC)
14.	Contractor liable for damages, defects during defects liability period

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Clause No.	Description
15.	Power
16.	Patent, Royalty, Trade Mark etc.
17.	Excise Duty, Taxes, Levies etc.
18.	Rates applicable for and upto to all heights
19.	Defect liability period and refund of security deposit
20.	Declaration

1. Work Order

Within the validity period of the tender, the Employer shall issue a work order to the Contractor for taking up the work.

2. Discrepancies and Adjustment of Errors

Should there be any difference or discrepancy between the description of items as given in the bill of quantities, technical specifications, conditions of contract etc., the following order of preference shall be observed:

- a) Description of items as given in bill of quantities.
- b) Technical specifications
- c) Conditions of contract
- d) I.S. Codes.
- e) Decision of Employer, if above precedence is unable to resolve the discrepancy.

3. Security Deposit

a) Earnest Money Deposit (EMD)

The tenderer shall furnish requisite EMD in the form of Demand Draft / Banker's cheque / Pay Order drawn in favour of National Institute of Securities Markets. No tender shall be considered unless the EMD is so deposited in the required form along with the tender. No interest shall be paid on EMD. The EMD (without interest) of the unsuccessful tenderer shall be refunded soon after the decision to award the work is taken. The EMD shall stand absolutely forfeited, if the tenderer revokes his tender during the period he is required to keep his tender open for acceptance by the Employer.

b) Performance Guarantee

Within 10 days of award of the work, the tenderer shall submit performance guarantee for an amount equivalent to 5% of the contract amount failing which EMD submitted by him is liable to be forfeited. The tenderer shall submit performance guarantee in the form of Demand Draft / Banker's cheque / Pay Order in favour of **National Institute of Securities Markets**, payable at **Mumbai**. Alternatively, tenderer can also submit performance guarantee in form of Bank Guarantee which will be valid till 12 months after the scheduled completion period plus 30 days towards grace period.

The sum of Earnest Money Deposit and Performance Guarantee constitute the security deposit. Security deposit equivalent to EMD will be released after one month of the date of virtual completion of work as certified by the Employer. Security deposit equivalent to Performance Guarantee will be released after expiry of the defects liability period of 12 months as specified in the contract after taking into account of the expenditure incurred by NISM to get the defects repaired, if any, intimated to the contractor during defects liability period of 12 months.

4. Liquidated Damages

Time is the essence of the contract. If the contractor fails to complete the work on or before the contractual date of completion, he shall, without prejudice to any other right or remedy available under the law to the Employer on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated under '*Appendix To Conditions Of Contract*'.

The amount of compensation may be adjusted or set off against any sum payable to the Contractor under this contract with the Employer.

5. Secured Advance

No secured advance will be paid for any of the materials brought to site for carrying out the works under this contract.

6. Mobilization Advance

No mobilization advance will be paid for this contract.

7. Escalation

No escalation and payment due to increase in prices / wages will be made to the contractor. The rates quoted by the contractor shall remain firm throughout till completion of the work and nothing extra beyond unit rates shall be paid on account of any reason whatsoever.

8. Contractor to supply materials, appliances, employees etc.

The contractor shall, at his own expense, provide all materials, appliances, tools, plants and employees required for proper execution of the work and no material required for carrying out the work shall be supplied by the Employer.

9. Work to be executed in accordance with specifications, orders etc.

The contractor shall take prior approval before supplying UPS machines and batteries. As soon as work order is issued to the contractor, he will submit brochures / technical data sheet for the UPS machines and batteries which he proposes to supply. The UPS machines and batteries being offered by the contractor should match the technical specifications mentioned in the tender documents. Only after written approval, the contractor shall supply UPS machines and batteries.

The contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications.

10. Protection of works and property

The contractor shall protect Employer's properties from injury or loss arising in connection with contract. He shall make good any such damage, injury, loss resulting due to his fault or negligence except due to causes beyond his control.

The contractor shall take all precautions for safety and protection of his employees on the works and shall comply with all applicable provisions of Govt and local bodies safety laws and building codes to prevent accidents, or injuries to persons or property in or adjacent to his place of work.

11. Payment

90% of the payment shall be released against the delivery of the UPS machines and batteries at site and balance 10% on installation. For other items, upon completion of the work. Statutory deductions / recoveries, as applicable, shall be made at the time of payment.

12. Extension of time

In case, the work is not completed within stipulated period of time, the contractor shall apply for extension of time before the expiry of the scheduled

time and while applying for extension of time, he shall furnish detailed reasons and his justification, if any, for the delays.

13. Virtual Completion Certificate (VCC)

On successful completion of entire works covered by the contract to the full satisfaction of the Employer, the contractor shall ensure that the following works are also completed to the satisfaction of the Employer.

- a) Clear the site of all wiring, surplus materials, equipment and machinery.
- b) All defects/imperfections have been attended and rectified as pointed out by the Employer to the full satisfaction of Employer.

Upon the satisfactory fulfillment by the contractor as stated above, the Employer shall issue a virtual completion certificate.

This issuance of a VCC shall be without prejudice to the Employer's rights and contractor's liabilities under the contract including the contractor's liability for defects liability period nor shall the issuance of VCC in respect of the works or work at any site be construed as a waiver of any right or claim of the Employer against the contractor in respect of works or work at the site and in respect of which the VCC has been issued.

14. Contractor liable for damages, defects during defects liability period

If the contractor or his employees shall damage, break, deface, injure or destroy any part contiguous to the working premises, or if any damage shall happen to the UPS during installation, from any cause or if any defect, faults appear in UPS system within 12 months from the date of virtual completion as aforesaid arising out of defect or improper materials or workmanship, the contractor shall, upon receipt of a notice in writing from the Employer, make the same good at his own expense or in default, the Employer cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit.

As and when defect arises, the engineer / technician of the contractor shall visit NISM premises to attend the complaint within 4 hours from the intimation given vide email/writing. However, the defect will be rectified within 2 (two) calendar days from date of intimation in writing / email. If the contractor fails to attend the work within 2 calendar days, the Employer may get the same executed directly through some other agency at the risk and cost of the contractor. The actual amount incurred by the Employer will be recovered from the Security

Deposit, available with the Employer. The decision of Employer, in this regard, will be final and binding.

Further, during the defect liability period, the engineer / technician of the contractor shall visit once in every 3 months for routine checking and maintenance, to keeping UPS system in a healthy condition, even if no complaint is lodged by the Employer. In case, the contractor fails to do so, a recovery of Rs. 2,000/- in lieu of per visit shall be made from the Security Deposit or any other amount available with the Employer.

15. Power

Power will be provided at site of work free of cost.

16. Patent, Royalty, Trade Mark etc.

Royalty at the prevalent rates shall be paid by the Contractor. The Contractor shall assume all liability, financial or otherwise in connection with this contract and shall protect and indemnify the Employer from any and/or all damages and claims that may arise on any account. The Contractor shall indemnify the Employer against all claims in respect of patent rights, royalties, design, trademarks of name or other protected rights, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the Employer in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

17. Excise Duty, Taxes, Levies etc.

- i. Sales Tax or any other tax on materials in respect of this contract shall be payable by the contractor and the Employer shall not entertain any claim whatsoever in this respect.

The contractor shall pay and be responsible for payment of all taxes, duties, levies, royalties, fees, cess or charges in respect of the works including but not limited to sales tax, tax on works contract, excise duty, VAT and octroi etc. payable in respect of materials, equipment plant and other things required by the contractor. All of the aforesaid taxes, duties, levies, fees and charges shall be to the contractor's account and the Employer shall not be required to pay any additional or extra amount on this account. Variation of taxes, duties, fees, levies etc if any, till completion of work shall be deemed to be included in the quoted rates and no extra amount beyond quoted unit rates will be payable on this account. However, NMMC Cess/ LBT will be paid extra.

18. Rates applicable for and upto to all heights

Unless otherwise provided in the Bill of Quantities, the rates quoted by the Contractor shall be inclusive of carrying out the works at and / or upto all heights, lifts and leads. The contractor shall make all arrangements for the same.

19. Defect liability period and refund of security deposit

The defect liability period shall be 12 months from the date of virtual completion of work for this contract. The Security Deposit equivalent to EMD shall be released after one month of virtual completion of the work provided the performance is satisfactory and the Security Deposit equivalent to performance guarantee shall be released after completion of defect liability period of 12 months provided the performance is satisfactory but subject to other provisions specified elsewhere in the contract agreement.

20. Declaration

I/We have inspected the site of works and have made fully acquainted with the local conditions in and around the site of works. I/We hereby declare that I/We have gone through the conditions laid down in the tender documents and understood the same and on the basis of the same, I/We quote our rates in the bill of quantities attached with the tender documents.

Signature of Tenderer

Witness:

Address:

Date:

Technical Specifications

Technical specifications for UPS at 5th Floor, NISM Bhavan, Vashi, Navi Mumbai (1 x 30 KVA)		
System configuration	Capacity (N) online UPS	As offered Model No. ()
INPUT		
Nominal Voltage	415 V AC, (+/- 20%) Three phase & N	
Nominal Frequency	50 Hz (+/- 10%)	
Input power Factor	> 0.95(At full load & nominal input voltage)	
CHARGER		
Type	IGBT Based	
Nominal Voltage regulation	+/- 1%	
Ripple(Without battery)	Less than +/- 1 %	
Charging Method	Constant Voltage Constant Current	
BATTERY		
Back Up Time	UPS battery back up of 30 minutes at full load	
VAH Capacity	Battery sizing and Calculations	Calculations to be submitted by the tenderer alongwith Commercial cum Technical Bid
Type	Sealed Maintenance Free (SMF) 12 V, Make - Rocket/Exide/Quanta	
OUTPUT		
Power Capacity	30 KVA (More than or equal to 24 KW,0.8PF)	
Nominal Voltage	415V AC , three phase (Stepless Adjustable)	
Voltage Regulation	+/- 2%	
Frequency	Frequency 50 Hz (+/- 1%)	
Waveform	Pure Sine Wave	
Total Harmonic Distortion	< 5 % for 100% Linear Load	

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Total Harmonic Distortion	<5% for 60 % Non-linear Load, <7% for 100% Non-linear Load	
Overload Capacity	100% ~ 125% for 5 min, 125% ~ 150% for 1 min.	
Inverter	IGBT based.	
Dynamic Response	For 0 to 100% step load change the output shall remain within +/- 5% .	
Crest Factor	3 : 1	
Duty	Continuous	
FULLY RATED STATIC BYPASS SWITCH		
Frequency Sync. Band	+ / - 3 Hz	
Slew Rate	0.1 Hz/Sec	
Transfer (Inverter to Bypass)	No break in Sync. Mode	
Retransfer (Bypass to Inverter)	No break in Sync. Mode	
Manual bypass facility	Required	
Changeover from static bypass to manual bypass	Without break	
EFFICIENCY (At nominal input voltage)		
Overall efficiency	> 90 % for 50% to 100% load.	
ENVIRONMENTAL		
Acoustic Noise Level	< 70 dB at 1.5 meter	
Ambient Temperature	0 to 40 Deg. C	
Humidity	Upto 95% non-condensing	
PHYSICAL		
Enclosure Protection Grade	IP 20	
Cooling	Forced Air	
Cable Entry	Bottom/Rear Bottom	

TENDER FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF UPS
SYSTEM AT VARIOUS PREMISES OF NISM

Technical specifications for UPS at Ground Floor, NISM Bhavan, Vashi, Navi Mumbai (2 x 20 KVA)		
System configuration	Parallel redundant (N+N) online UPS	As offered Model No. ()
INPUT		
Nominal Voltage	415 V AC, (+/- 20%) Three phase & N	
Nominal Frequency	50 Hz (+/- 10%)	
Input power Factor	> 0.95(At full load & nominal input voltage)	
CHARGER		
Type	IGBT Based	
Nominal Voltage regulation	+/- 1%	
Ripple(Without battery)	Less than +/- 1 %	
Charging Method	Constant Voltage Constant Current	
BATTERY		
Back Up Time	For each UPS, battery back up of 60 minutes at full load	
VAH Capacity	Battery sizing and Calculations	Calculations to be submitted by the tenderer alongwith Commercial cum Technical Bid
Type	Sealed Maintenance Free (SMF) 12 V, Make - Rocket/Exide/Quanta	
OUTPUT		
Power Capacity	20 KVA (More than or equal to 16 KW, 0.8PF)	
Nominal Voltage	415V AC , Three phase (Stepless Adjustable)	
Voltage Regulation	+/- 2%	
Frequency	Frequency 50 Hz (+/- 1%)	
Waveform	Pure Sine Wave	
Total Harmonic Distortion	< 5 % for 100% Linear Load	
Total Harmonic Distortion	<5% for 60 % Non-linear Load, <7% for 100% Non-linear Load	
Overload Capacity	100% ~ 125% for 5 min, 125% ~ 150% for 1 min.	
Inverter	IGBT based.	

TENDER FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF UPS
SYSTEM AT VARIOURS PREMISES OF NISM

Dynamic Response	For 0 to 100% step load change the output shall remain within +\ - 5% .	
Crest Factor	3 : 1	
Duty	Continuous	
FULLY RATED STATIC BYPASS SWITCH		
Frequency Sync. Band	+ / - 3 Hz	
Slew Rate	0.1 Hz/Sec	
Transfer (Inverter to Bypass)	No break in Sync. Mode	
Retransfer (Bypass to Inverter)	No break in Sync. Mode	
Manual bypass facility	Required	
Changeover from static bypass to manual bypass	Without break	
EFFICIENCY (At nominal input voltage)		
Overall efficiency	> 90 % for 50% to 100% load.	
ENVIRONMENTAL		
Acoustic Noise Level	< 70 dB at 1.5 meter	
Ambient Temperature	0 to 40 Deg. C	
Humidity	Upto 95% non-condensing	
PHYSICAL		
Enclosure Protection Grade	IP 20	
Cooling	Forced Air	
Cable Entry	Bottom/Rear Bottom	

TENDER FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF UPS
SYSTEM AT VARIOUS PREMISES OF NISM

Technical specifications for UPS at Nariman Point, Mumbai (2 x 15 KVA)		
System configuration	Parallel redundant (N+N) online UPS	As offered Model No. ()
INPUT		
Nominal Voltage	415 V AC, (+/- 20%) Three phase & N	
Nominal Frequency	50 Hz (+/- 10%)	
Input power Factor	> 0.95 (At full load & nominal input voltage)	
CHARGER		
Type	IGBT based	
Nominal Voltage regulation	+/- 1%	
Ripple (Without battery)	Less than +/- 1 %	
Charging Method	Constant Voltage Constant Current	
BATTERY		
Back Up time	For each UPS battery back up of 60 minutes at full load	
VAH Capacity	Battery sizing and Calculations	Calculations to be submitted by the tenderer alongwith Commercial cum Technical Bid
Type	Sealed Maintenance Free (SMF) 12V, Make - Rocket/Exide/Quanta	
OUTPUT		
Power Capacity	15 KVA (Greater than or equal to 12 KW at 0.8PF)	
Nominal Voltage	415V AC , Three phase (Stepless Adjustable)	
Voltage Regulation	+/- 2%	
Frequency	Frequency 50 Hz (+/- 1%)	
Waveform	Pure Sine Wave	
Total Harmonic Distortion	< 5 % for 100% Linear Load	
Total Harmonic Distortion	<5 % for 60 % Non-linear Load, <7% for 100% Non-linear Load	
Overload Capacity	100% ~ 125% for 5 min, 125% ~ 150% for 1 min.	

TENDER FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF UPS
SYSTEM AT VARIOUS PREMISES OF NISM

Inverter	IGBT based.	
Dynamic Response	For 0 to 100% step load change the output shall remain within $\pm 5\%$.	
Crest Factor	3 : 1	
Duty	Continuous	
FULLY RATED STATIC BYPASS SWITCH		
Frequency Sync. Band	+ / - 3 Hz	
Slew Rate	0.1 Hz/Sec	
Transfer (Inverter to Bypass)	No break in Sync. Mode	
Retransfer (Bypass to Inverter)	No break in Sync. Mode	
Manual bypass facility	Required	
Changeover from static bypass to manual bypass	Without break	
EFFICIENCY (At nominal input voltage)		
Overall efficiency	> 90 % for 50% to 100% load.	
ENVIRONMENTAL		
Acoustic Noise Level	< 70 dB at 1.5 meter.	
Ambient Temperature	0 to 40 Deg. C	
Humidity	Upto 95% non-condensing	
PHYSICAL		
Enclosure Protection Grade	IP 20	
Cooling	Forced Air	
Cable Entry	Bottom/Rear Bottom	

Technical Specifications common for all UPS machines

METERING REQUIRED (LCD)	PROTECTIONS REQUIRED
Input Voltage	Input Single phasing
Input Current	Input Under/Over Voltage
Input Frequency	Rectifier over voltage
	Inverter/Rectifier over temperature
Battery Voltage	Output Under/Over Voltage
Battery Current	Output Over Load
Remaining battery backup time	Output Short Circuit
Output Voltage	Battery Over voltage
Output (In % & A)	Battery Charging current limit
Output Frequency	
Output Power Factor	ALARM REQUIRED
Output power	UPS Fail
	Battery Low
Bypass Voltage	Input Single phasing
Bypass Frequency	input Under/Over Voltage
Date & time	Output Over Load
	Output Short circuit
INDICATIONS REQUIRED	Battery Overcharging
	Inverter over temperature
Inverter on Battery	
Inverter ON	
Load on Static Bypass	
Battery Low	
Over Temperature	

**List of Enclosure to be submitted with
Commercial cum Technical Bid**

The tenderer shall enclose following details alongwith Commercial cum Technical Bid failing which his bid will not be considered for further evaluation:

- 1) Confirmation on various parameters as specified under technical specifications for different capacities of UPS system.
- 2) Calculations for battery sizing to arrive at VAH capacity for different capacities of UPS system.