



SATYENDRA NATH BOSE NATIONAL CENTRE FOR BASIC SCIENCES
[Funded by the Department of Science & Technology, Government of India]
BLOCK JD, SECTOR III, SALT LAKE, KOLKATA- 700 098
PHONE: +91-(0) 33-2335 5706-08, 2335 3057/61, 2335 0312/1313
FAX: +91-(0) 33-2335 3477/1364
EMAIL: santosh@bose.res.in

Ref:SNB/ENQ/RM)/Online UPS/14-15/ 888 (WP)

29.09.2014.

Sealed quotation 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.

Sl. No.	PARTICULARS	Qty.
01.	20KVA / 16KW Online UPS with Double Conversion Technology based with Digital Signal Processor (DSP). See reverse for detailed Technical Specification.	01 no.
<p>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.</p> <p>Technical bid should contain complete technical information literature/working manual of the quoted item & authorization certificate of the manufacturer. Price Bid – In case of imported item CIF Kolkata airport price should be mentioned and for the indigenous item FOR basis up to S.N. Bose Centre, Kolkata may be quoted.</p>		

Note:-

- 1) The quoted price should be inclusive of delivery and installation charges.
- 2) Validity of quotation should not be less than 90 days from the date of opening.
- 3) Payment is subject to after delivery and satisfactory installation only.
- 4) Delivery period should be mentioned in the quotation.
- 5) Our ref. no. should be mentioned on top of the Quotation envelope.
- 6) Authorization certificate should be enclosed with the quotation.
- 7) Minimum one year warranty is to be provided for the above item.
- 8) The above information should reach this office by **20th October, 2014.**

Thanking you,
Yours faithfully,

S. K. Singh
AR(Purchase)

Technical specification for 20 kVA 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 or better.

IGBT based rectifier and inverter.

160 event logging in LCD Display

Phase Neutral 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 the 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:

20 KVA / 16 KW

Configuration:

20 KVA ON LINE UPS Systems with battery bank for 60 mints back up

Input:

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

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
Crest Factor	3:1
Inverter Overload	110% for 60 mins, 125% for 10 min, 150% for 1 min
Galvanic Isolation	Built in Isolation transformer at output to be provided. External Isolation is not acceptable.

Battery:

Type	Sealed Maintenance Free, Valve Regulated Lead Acid
Rated Voltage	312V DC
Number of Battery cells	26 blocks of 12V each
Standard Back Up time	60 minutes at full load
VAH Required	31200 VAH or better
Transfer Time	Zero

Protections desired:

Surge protective device will have to be provided at the Input of the UPS systems. Device should be UL certified, 50KA, 3 phase.

Transient Voltage Surge should be suppressed within > 0.5 nano seconds with RFI/EMI attenuation 40dB.

Environmental and others:

Audible Noise	< 55dB
Operating temp	0- 45 degree C
Display	LCD , 160 event logging
Relative Humidity	95% RH

Credentials:

Manufacturer Should be ISO 9001:2008 certified.

Manufacturer Should be ISO 14001.

Test Certificate of NABL accredited Laboratory for the particular make and model of UPS system must be enclosed with the Bid.

The UPS & TVSS must be of the same make.