Indian Institute of Technology, Kanpur
Department of Physics

Enquiry no.: IITK/PHY/13
Enquiry date: 23.1.2013
Closing date: 5 p.m., 10th February, 2013

Sealed quotations are invited for a 20 kVA with the following specfications:

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.
200 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.
UPS should have Cold Start facility.

Power rating:
20 KVA / 16 KW

Configuration:
20 KVA Stand Alone UPS with Sealed Maintenance Free (SMF) battery bank.

Input:

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

Output:

Voltage Range	220/230/240 VAC ± 1%
Voltage Distortion	< 2% (Linear Load) < 3% (non Linear Load)
Frequency	± 1%, synchronized with bypass, 50Hz ± 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.

Battery:

Type	Sealed Maintenance Free, Valve Regulated Lead Acid / SMF Ni Cad
Number of Battery cells	26 blocks of 12V each
Standard Back Up time	60 minutes at full load
VAH Required	For 30 minutes back up - more than 12475VAH and

	For 60 minutes back up– more than 20275
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, 25KA, 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- 45degree C
Display	LCD , 200 event logging

Warranty:

2 years on site

Credentials:

Manufacturer Should be ISO 9001:2000 certified
Manufacturer Should be ISO 14001
Manufacturer should have manufacturing facility in India
Test reports from Govt. accredited labs on the same model quoted.

Terms and conditions:

- **Quote should be made in two parts: Technical bid and Financial bid separately in sealed envelopes.**
- Financial bids for the product whose technical bid is not acceptable will not be opened. Any quote with the financial bid included in the technical bid will be summarily rejected.
- The sealed envelopes with the quotes should be superscribed with the Inquiry number and wheter it is a technical or financial bid.
- The delivery period should be specifically stated.
- Quotes should be made options for the either of the following delivery modes

• For delivery to IIT Kanpur

- Maximum educational discounts should be applied – this equipment will be used in a laboratory that will support research as well as teach and train students.
- Quotes should have a minimum validity of 60 days

Address the quotations to:

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