

Physics Department
Indian Institute of Technology Delhi

Notice for inviting quotations

Dt: 30-01-2012

Ref: PHYS/UFO/02

Sub: Purchase of UPS and TVSS switch

Please send your quotation for purchase of above said item(s) as per specifications given below. Your quotations should reach latest by **5 PM on 17-02-2012**. Quotations are solicited only for items manufactured by reputed company with proven past record of sales, supply and after-sale service.

1. 20 KVA (1 No.) and 5KVA (1No.) 1Ph-1Ph True On Line Double Conversion UPS System with Integral battery with the following specification

INPUT	VOLTAGE RANGE	228-478 V AC. 3 phase
	FREQUENCY	40-70Hz
	POWER FACTOR	0.99 (With p.f correction)
	CAPACITY	As specified above
OUTPUT	VOLTAGE RANGE	3 phase 380V AC ,Single phase 220V AC +/-1%
	HARMONIC DISTORTION	<2%(Linear Load);<5%(Non-Linear Load)
	FREQUENCY	+/-0.25% free run
	POWER FACTOR	0.9
	CREST FACTOR	3:1
EFFICIENCY	AC – AC	>93%
BATTERY	Sealed, lead acid, maintenance free (SMF) type	
	RATED VOLTAGE	360-432 V
	BACKUP TIME	30 min 21216 VAH ; 34262 vah 60 MIN
	AUDIBLE NOISE	<55dB
	DISPLAY	LED based technology
INTERFAVE SLOT	USB & Intelligent Slot (SNMP)	
PROTECTION GRADE	IP 20	
AUTO SHUTDOWN SOFTWARE	Ups should come with Auto shutdown and monitoring software	

Warranty : 1Yr or more on all parts

Other Essential requirements : Manufacturer Should be ISO 9001:2000 and ISO 14001certified; UPS should meet ROHS R5 standards (*All certificates should be enclosed*)

1. True On Line Rack Mountable DSP based UPS with double conversion technology.
2. UPS should be capable of paralleling upto 4 units.
3. UPS should have IGBT based rectifier and inverter
4. Temperature compensated battery charging feature should be built-in for prolonged battery life

2. Transient Voltage Surge Suppression (TVSS) switch

Surge Current Capacity	:	50kA
All Modes Protection	:	L-L, L-N, L-G, N-G (line-to-line, line-to-neutral, line-to-ground, and neutral-to-ground.)
Connection Type	:	Parallel
Protection Level	:	< 1 kV (suppressed voltage rating of 1000V peak)
MCOV	:	Min. 320 Volts
Response Time	:	< 0.5 nanoseconds
EMI/RFI Attenuation	:	40 dB or less
Status Indication	:	LED technology , Dry contacts
Monitoring	:	Monitoring of All Modes, including N-E
Fusing	:	Individual Fusing of MOV's including N-G
Certification	:	UL 1449-3
Enclosure	:	NEMA Tested
Mounting	:	Wall Mounting
Warranty	:	5years or more on ALL parts.

- **Standards (certificate required) :** IEEE Std C62.41-1991 and IEEE Std C62.45-1992 and IEEE standard 1100(1999).

TERMS & CONDITIONS COVERING SUBMISSION OF QUOTATIONS

1. Technical requirements

- 1) All items are to be in **metric scale** only.
- 2) The quotation must contain the following details, otherwise quotation cannot be considered.
 - a. The quote must contain all the items at least in **ONE** category.
 - b. The **technical** bid **must** contain all the required specifications, drawings, graphs of response, transmission/reflection/response spectra of components if any) etc.
 - c. Along with the technical bid, please enclose support documents related to previous sale of the above items(s) within India.
 - d. If the items are of proprietary nature, please provide proprietary certificate from the manufacturer.
 - e. All INDIAN agents must provide agent certificate, IEC and central sales tax certificate.

2. DELIVERY: The rates quoted must be for C.I.F. Delhi (Air Freight) (if required)

3. TERMS OF PAYMENT: **100% post-payment (wire transfer/LC) on delivery and satisfactory installation**

4. INSTITUTE'S RIGHTS : IIT Delhi reserves the rights of acceptance or rejection of any or all quotations.

5. VALIDITY OF QUOTATIONS: Quotations should be valid at least for a period of 3 months.

6. SUBMISSION OF QUOTATIONS: Both Technical and price bids are to be quoted separately in separate sealed covers. Both these bids should be sent in a sealed cover marked at the top SUBJECT AND DUE DATE

17-02-2012 by 5PM

Quotations should be sent, on or before due date to:

**Prof. Anurag Sharma, Professor
Department of Physics, IIT Delhi, Hauz Khas,
New Delhi 110 016, India.**

Prof. Anurag Sharma, Professor
Department of Physics, IIT Delhi.