

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
DEPARTMENT OF COMPUTER SCIENCE & ENGG

To

IITK/CSE-42/LAB-6/INF-4
Oct 07, 2013

Sub. Purchase of 80/60 KVA three Phase UPS

We are interested in purchase of 80/60 KVA three phase UPS (Qty 03), for our department as per the under given specifications. You are advice to submit your lowest quotation for the same, to the undersigned. The envelope must be inscribed with "**Quotations for 80/60 KVA UPS.**"

Specifications for 80/60 KVA UPS (Qty03)	
Capacity (kVA/KW)	80KVA (1) / 60KVA(2) Two Units of 60 KVA and one unit of 80KVA (3-phase 4-wire input and output) each to operate in standalone mode. (True online double conversion, preferably with DSP based PWM Technology) (PI, Quote both for 30 minutes and 60 minutes backup)
Rectifier Section	IGBT based PWM rectifier with protection for input low/high, DC bus High, DC over-current and over temperature. Please include a circuit diagram of the rectifier section
Inverter Section	IGBT based PWM Inverter with protection for output low/high, overload, short-circuit and over temperature.
Nominal input voltage	380/400V/415V selectable
Input voltage range	+10%/-15% of selected nominal voltage
Input frequency range	45 Hz -55 Hz for 50Hz selection
Input power factor	0.99 for 25% to 100% load
Input current distortion	<3% on full load
Nominal output voltage	380/400/415V selectable
Output Voltage regulation (static)	+/- 1% for balanced load, +/- 2% for unbalanced load
Output Voltage regulation (dynamic) 100% step load	+/- 5% in 10 ms
Output frequency	50Hz +/-0.01%
Crest factor	3:1
Output voltage THD at linear load	<2%
Output voltage THD at non-linear load	<5%
Overload capability on inverter	125 % for 10 minutes, 150% for 1 minute
Overall efficiency @50% load in double-conversion mode inclusive of isolation	93% or better
Audible Noise	<60 dBA at 1 m
Intelligent Eco Mode	Yes (Standalone UPS)



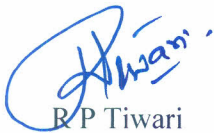
Battery Specs	<p>Each UPS module should be provided with its own battery bank. Each Battery bank should provide a requisite backup time of 30/60 minutes (Pl, Quote both for 30 minutes and 60 minutes backup), at full load capacity for each UPS module separately (in KW, not KVA)</p> <p><u>Make : Panasonic/Exide/Quanta/ Global Yuasa</u></p> <p>12 V Lead Acid SMF Type with 10 years self (design) life. <u>Batteries with larger AH shall be preferred.</u></p> <p>Please provide numbers and AH capacity of batteries proposed and gives the calculation details to arrive at this number. Pre-dispatch inspection for backup time for a single unit has to be made.</p>
Emergency Trip	Provision to be made for an emergency trip button such that in case of emergency pushing this button will trip the input, battery and output breakers immediately
Output Neutral	Output Neutral should be free from input neutral disturbances. The Output neutral to UPS ground potential difference should be less than 3V under all circumstances.
Galvanic Isolation	<p>The individual UPS units should have built-in isolation transformer at the output.</p> <p>In case built-in isolation transformer is not there then an external isolation transformer should be provided for each UPS in suitable enclosure (preferably single enclosure). The cost of such additional items should be indicated separately.</p>
Communication	<p>SNMP based monitoring to be made available. Suitable software to be provided for monitoring various UPS parameters from a PC.</p> <p>Vendor will supply SNMP adapter that converts the UPS protocol to the internet protocol (TCP/IP) so that all the operating parameters are available on the network.</p>
Back-feed Protection in Static Bypass	Built in
Zero impact on Source (soft Start)	There should be a time delay when ups transfer to DG or mains from battery mode.
Please specify	<p>The PWM scheme used in the inverter section (e.g. SPWM, SVM etc)</p> <p>The potential difference between output neutral and UPS ground.</p> <p>Make and rating of IGBTs used in inverter and rectifier sections</p>
Make	NUMERIC_MGE_EMERSON_GE_MITSUBISI_E ATON_APLAB_APC_TATA_Libert

Important Note (Mandatory):

- **You must quote for Buy back of “60 KVA UPS, Make: MGE Galaxy (Qty 01), with 12V, 42AH (Make: Panasonic(38) & Quanta(100)) Total batteries (Qty 138) . The UPS is ON and is in working conditioning but out of warranty.**
- Please specify your local service provider address and contact info, with out which, your quotation may not be considered.
- Also, please note that all cabling from battery banks to UPS is in vendor’s scope.
- Please include a layout diagram (to the scale) for positioning the UPS, battery banks and any other accessories indicating reserved space for electrical panels.
- Send technical and financial bids in separate sealed envelopes with each envelope clearly marked as “technical” or “financial”.
- On-site comprehensive warranty (24x7) for 3 years on UPS and 2 years on Battery from date of installation, with Preventive Maintenance in every three months and response time 3 Hrs, after endorsement of complaint.
- Also, please quote On-site comprehensive AMC (24x7) value for next five years after expiry of warranty period (excluding battery), with Preventive Maintenance in every three months and response time 3 Hrs, after endorsement of complaint. The AMC value shall be paid yearly, after getting satisfactory services.
- Send full technical details of the product(s) including specifications.

Note:

1. All sealed quotation must reach the undersigned by Oct 14, 2013, on or before 1500 Hrs.
1. Quotation must be valid at least for 60 days. (90 days, if, prices are quoted in foreign currency)
3. Delivery period should not be more than 6 weeks.
4. IITK is exempted from excise/custom duty.
5. **Payments terms: 90% on installation and 10% satisfactory report**
6. All prices are to be FOR IIT Kanpur.



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