

HIGH COURT OF CHHATTISGARH, BILASPUR

Tender Notice

No. 9595-A /CPC/2019

Bilaspur, dated 06 /09/2019

Sealed estimates/quotations are invited from the intending firms having valid GST and PAN Numbers for purchasing of following work:-

Sl. No.	Name of the Articles	Quantity
1.	40 KVA online three phase input and three phase output UPS, having backup of 60 minutes, including batteries and Good Quality Racks for batteries.	01

Terms and Conditions:-

- a) The firms will submit its written undertaking for providing onside comprehensive maintenance of the UPS, during the warranty period of three years.
- b) The Firm will submit EMD charge of Rs. 50,000/- at the time of submission of quotations, same will be returned to the firm as per the Chhattisgarh Store Purchase Rules 2002.
- c) The firm should be established Office/Service Center/Field Engineer at Bilaspur/Raipur of the Chhattisgarh State (Kindly attached the details with quotations like address, Name of the Offices/Proprietor with e-mail ID and Mobile Numbers). OEM shall have ISO9001,ISO 14001 & OHSAS 18001 certification to its indian operators.
- d) The Firm shall submit the rates of only Professional/Commercial use Product UPS, which are available with the bidders and on being demand firm will complete the work within a month. UPS shall have CE & RoHS certification.
- e) The successful bidders will submit Bank performance Guarantee of 10% amount of Purchase Order with the bill invoice which will be valid for three years and Six Months. This BG will be invoked in case of non compliance of maintenance schedule during warranty period. and if firm will fail to maintenance of UPS during warranty period then High Court is free to get UPS maintained from the out sider using this BG.

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- f) The successful bidders will inspect its UPS in quarterly basis, without any charges/free of cost.
- g) Unit Price of article should be including packing, forwarding, freight, insurance, installation, configuration, commissioning, warranty, comprehensive maintenance for three years or any other charges, in following format:-

➤ **Details of Price of UPS:-**

Sl. No.	Name of the article	Unit Price of Item (In Rs.)	GST (In Rs.)	Total Unit price of item inclusive GST +all (In Rs.)	Required Quantity of articles	Total (In Rs.)
(A)	(B)	(C)	(D)	(E=C+D)	F	(G=ExF)
1.	40 KVA online three phase input and three phase output UPS, having backup of 60 minutes, including batteries and Good Quality Racks for batteries.				01	

Note:- Before submission of Bids interested bidders may visit site i.e. building of High Court Computer Cell, High Court of Chhattisgarh, Bilaspur (C.G.) for examine the site in which UPS will be installed.

Technical Specification of UPS

As per the attached Annex.-"A"

Estimate/Quotations must be submitted to the Registrar General, High Court of Chhattisgarh, Bilaspur either personally or through authorized agents or by Post on or before 04:30 PM of -03/10/2019, which will be opened on next working day i.e. on .04/10/2019,, after 12:00 AM. Estimates/quotations received through e-mail or after the specified date will not be taken into consideration and the Registrar General of this High Court reserve every right to rejecting any estimates/quotations without assigning any reason thereof.


3.9.2019

Neelam Chand Sankhla
Registrar General

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Technical Specifications for 40 kVA UPS System	
Sr. No.	Specifications
1	Capacity (in kVA / kW)
2	Technology and Capability
3	Model Name & Number
3.1	Make / Model Number
4	Input
4.1	Input facility - Phases / Wires
4.2	Input Voltage Range
4.3	Nominal Input Frequency
4.4	Input Frequency Range
4.5	Input Power Factor
4.6	Current Harmonic Distortion (THD)
4.7	Generator Compatibility
4.8	Input Protection (Thru In-built 1P MCB)
5	Output
5.1	Nominal Output voltage
5.2	Output Voltage Regulation
5.3	Nominal Output Frequency
5.4	Output Frequency Regulation

Technical Specifications for 40 kVA UPS System

Requirement

40 kVA/ kW 3-Phase Input / 3-Phase Output

- a) True **Online** configuration with **double conversion** UPS
- b) **DSP** based technology with reduction in electronic components.
- c) Fully rated power (**kVA=KW**) for maximum power availability.
- d) Possibility of enhancing UPS capacity / redundancy by operating UPS in **N+X Parallel Redundant Configuration (PRS)**.
- e) Capability of **Independent or Common** battery bank operation of the UPS when operated in PRS.
- f) UPS should be designed at **Rated PF of 1 i.e. kVA = kW** UPS rating.
- g) Dual Input design.
- h) UPS should have IGBT topology for both PFC (power factor correction) and inverter.
- i) Should have **Dual Aux power** design.

Make / Model / Part No to be specified by the vendor

5.5	Output Frequency Slew Rate	< 1Hz/sec
5.6	Output Wave Form	Pure sine wave
5.7	Output Voltage Distortion (THDu)	< 1.5 % (linear load)
5.8	Crest Factor	3:1
5.9	Output Short circuit Protection	Electronic Protection
6 Transient Response / Recovery		
6.1	Transient Response: Dynamic Regulation for 10% to 90% step linear load	±7%
6.2	Transient Recovery to steady state condition after 10% to 90% step linear	< 1 cycle
7 Transfer Time		
7.1	Transfer Time (Mode of operation)	Zero ms from Mains mode to Battery Mode Zero ms from Battery Mode to Mains mode
7.2	Transfer Time (Inverter to Bypass /	< 1ms (Synchronized Mode)
7.3	Transfer Time (Bidirectional static by-pass (In-built))	Bypass To Inverter ±10 % (Rated Voltage) Inverter To Bypass ±7 % (Rated Voltage)
7.4	Maintenance Bypass	1. UPS should have option for manual maintenance bypass 2. Maintenance bypass cover removal sensing. 3. The maintenance bypass should provide for Hot-swap of the faulty UPS PWB for repairs / service.
8 Efficiency (At Nominal Voltage & Resistive Load up to kW rating of UPS)		
8.1	Overall Efficiency (AC to AC) - Online (Double Conversion)	Upto 96%
8.2	Overall Efficiency (AC to AC) - ECO Mode (Bypass feeding the load under normal	Upto 99%
9 (By-pass)		
9.1	Inverter Overload capacity	≤105 %: continuous, 106% ~ ≤125%: 10 minutes; 126% ~ ≤150%: 1 minute; >150%: 1 second
10 Display Panel (In-build LC Display & LED)		
10.1	Measurements (On LCD)	Input: Voltage / Frequency, Bypass: Voltage / Frequency, Output: Voltage / frequency, Battery: Remaining time / Battery Level Indicator, Load : Percentage / Load Level Indicator, Battery Voltage Capacity/Status/Test Result, System Date/Time Setting, Current Time, PFC Fuse Open, Battery Temperature Too High, Battery Over Charge, Battery Out of Date, INV Short Circuit, Output Breaker Off, kVA, kW, output current, Battery current.

10.2	Fault Indication (On LCD)	Main Input Sequence Fault, Power Module General Fault, Battery Ground Fault, Bypass Static Switch Fault, Parallel Fault, System General Fault, Provide Bypass O/P Even If UPS Fault.
10.3	Indications (LED)	Normal-Green/Battery-Orange/Bypass-Green/Fault-Red
11 Alarms		
11.1	Audible Alarms	Battery Low beep / DC Fault beep/ UPS Overload beep/ o/p short ckt fault beep/ Shutdown beep
12 Battery Backup / Battery Bank & Charger		
12.1	Backup Required	60 mins
12.2	Battery Bank Voltage	408 V DC to 600 V DC
12.3	Battery Bank Vah	57600
12.4	Batteries Type	Sealed Maintenance Free (SMF) - 12V Cells
12.5	Battery Makes	Amara Raja / Exide / Luminous/Okaya/Sukam/Livguard
12.6	Number of Battery Banks	Maximum Two Banks in parallel
12.7	Minimum Charger Rating (Including internal / external)	The charger should be able to deliver charging current equivalent to 10% of Battery Ah rating offered. (In case of external chargers, suitable monitoring of the chargers should be provided in the UPS. Also all external chargers taking AC input must have PFC - Power factor correction)
12.8	Charger type / Charging Method & Charging Voltages	Constant Voltage Constant Current Solid state SMPS charger Float Charge 270V±(2V) Boost Charge 280V±(2%V)
12.9	Battery recharge time (After complete discharge) to 90% capacity	10-12 hours
12.10	Battery Housing (Vendor to provide the GA drawings of the offered Battery Rack)	Should be compact and space saving MS steel open racks complete with interconnectors
12.11	Battery End Cell Voltage	1.75 V/cell
13 Interfaces		
13.1	Serial Communication RS232 Port (Option of USB Port should be available)	RS232 Port should be provided as standard in the UPS. However there should be provision for USB port also in the UPS.
13.2	REPO(Remote Emergency Power OFF) / ROO(Remote ON - OFF) Port	Provide both onsite & remote EPO to shutdown UPS when emergency situation happens. REPO Port with a user-supplied switch
13.3	Interface to NMS (Network Management System) - To be quoted as option	SNMP (IPv6) Card for connecting the UPS to LAN thru Ethernet port & monitoring thru NMS should be available (The cost of SNMP Card / NMS software to be quoted separately)
13.4	Interface to BMS (Building Management System) - To be quoted as option	ModBus Card for connecting to UPS to BMS thru RS485 & monitoring thru BMS

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13.5	Interface to DCS (Distributed Control System) - To be quoted as option	Relay I/O Card or PFC (Potential free contacts) for connecting to UPS to DCS / PLC / SCADA system for communicating UPS operating status
13.6	UPS status information presented as 3 contact closures	UPS should have configurable input signal as shutdown UPS or battery test dry contact.
14 Restart / Testing Capability		
14.1	Cold Start	UPS should start up On AC Supply (Mains) without DC Supply (Batteries) On DC Supply (Batteries) without AC Supply (Mains)
14.2	Automatic Restart	UPS should start up automatically on mains resumption after battery low shutdown
14.3	Self Diagnosis	UPS should be capable to carry out self test of Rectifier / Charger / Battery & Inverter module during start-up
15 Physical		
15.1	Operating Temperature	0°C ~ 40°C
15.2	Storage Temperature	- 20°C ~ 40°C
15.3	Operating Humidity	< 95%
15.4	Operating Altitude	0 to 3000m(0 To 10000ft)
15.5	Type of Cooling	Forced Air
15.6	Noise Level	< 60dBA at 1 Meter
15.7	Air filters	UPS should have internal anticorrosion air filters for dust filtration (Optional)
15.8	Dimension (w x d x h) in mm	15/20/30/40 kVA = 380 x 800 x 800mm
15.9	Weight - in kg	15/20kVA = 66.5 kg and 30kVA = 86.2 kg and 40kVA = 86.5kg
15.10	Reliability	MTBF greater than 100000 hours
15.11	Packaging Material / Vibration Withstand & Drop Test	Recyclable (No CFC) & 1. Vibration testing as per ISTA -1G Non-operational with Packing
15.12	Standard Package of UPS to include the following minimum accessories	1.SMART Slot 2.MINI Slot 3.Parallel Port 4.RS232 Port 5.REPO Port 6.Charger Detection Port 7.Input Dry Contact 8.Output Dry Contact 9.USB Port
15.13	Parallel Configuration	UPS should have capability for parallel 4 units.
15.14	DC bus Capacitor	UPS DC bus capacitor have minimum life of 5 years@40 °ambient.
16 Certifications		

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16.1 Manufacturer	QMS: As per ISO 9001: 2008 EMS: As per ISO 14001: 2004 OSHAS: As per ISO 18001: 2007
16.2 Product Safety Certifications (Mandatory)	ESD: IEC61000-4-2: level4 RS : IEC61000-4-3: level3 EFT: IEC61000-4-4: level4 SURGE: IEC61000-4-5: level4 CS: IEC61000-4-6: level3 IEC 61000-2-2 EN 62040-2 EN 61000-3-2
16.3 ROHS compliance	UPS should be ROHS compliance