



त्रिभुवन विश्वविद्यालय

शिक्षण अस्पताल



तार-टुथमेड
महाराजगञ्ज
काठमाडौं, नेपाल ।

पत्र संख्या :-

संख्या ३१०११

सुचना

यस त्रि.वि.शिक्षण अस्पतालको सूरेश वाग्ले भवनमा रहेको ICU C शाखाको लागी तपसीलमा उल्लेखित उपकरण आवश्यक भएको हूनाले उक्त उपकरण आपुर्ती सहित सहित फिटिङ कार्य गर्न आ.व. २०८२/०८३ को लागि अस्पतालमा सूचीकृत वा अन्य व्यक्ति, फर्म तथा सप्लायर्सहरूले फर्म दर्ता, VAT दर्ता, आ.व.०८१०८२ को कर चुक्ता गरेको प्रमाणपत्रको प्रतिलिपि र Valid Authorized Letter (Manufacturer or Authorized distributor) सहित अस्पतालको Website र सुचना पाटीमा यो सुचना प्रकाशित भएको मितिले ७ (सात) दिन भित्र यसै सुचना साथ संलग्न प्राविधिक विवरण र BOQ मा मूल्य भरी (प्रत्येक पानामा हस्ताक्षर गरी र छाप लगाई) सिलवर्न्डी कोटेशन सामान्य प्रशासन शाखा 'ख' मा पेश गर्नु हुन सम्भव्यित सबैको लागि जानकारी गराइन्छ ।

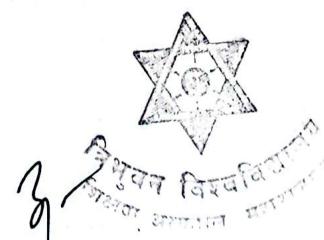
सरस्वती गुरुङ

प्रमुख

सामान्य प्रशासन शाखा ख

On- Line 3 Phase UPS System – 1 Set

SN	Technical specification	Specify either Fully Comply(FC) or not Comply(NC)
*	The bidder should supply, install, test, and commission the provided machine, including all related civil, electrical, and plumbing work.	
1	20 KVA Online 3 phase UPS	
*	Model No:	
*	Manufacturer's Name:	
*	Made in:	
*	Country of Origin:	
1.1	Supply, installation, testing, and commissioning of Online Industrial UPS, specially designed for critical and industrial loads, ensuring uninterrupted and high-quality power supply for sensitive equipment	
1.2	Electrical Rating Rated Capacity: 20 kVA DC Bus Voltage: 240 V DC Phase: Three Phase Input / Three Phase Output	
1.3	Input Characteristics Input Voltage: 380 V AC \pm 25%, 3-Phase Input Frequency: 50 Hz \pm 10% Input Power Factor: \geq 0.9 at full load Rectifier: IGBT-based charger rectifier	
1.4	Output Characteristics Output Voltage: 400 V AC \pm 1% (adjustable), 3-Phase Output Frequency: 50 Hz \pm 0.1% Output Power Factor: 0.9 (lagging) to unity Efficiency: \geq 96%	
1.5	Power Quality THD: < 3% (linear load) < 5% (non-linear load) Output Waveform: Pure Sine Wave	



1.6	Galvanic Isolation Transformer shall be provided at input and output Overload Capacity: 110% for 10 minutes 150% for 30 seconds	
1.7	Battery & Charging Charging Current: 10 A Battery Bank: External, as per system design	
1.8	Bypass & Monitoring Bypass Facility: Automatic and Manual Maintenance Bypass Display: LED indicators with LCD display Communication: RS-232 standard SNMP optional	
1.9	Noise Level Acoustic Noise: < 48 dB at 1 meter	
1.10	The UPS shall comply with the following: ISO 9001:2015 ISO 14001:2015 CE Certification RoHS Compliance	
1.11	Manufacturer's original catalogue/brochure and warranty document shall be submitted for technical compliance.	
2	12V 42AH VRLA Maintenance-Free Battery	
*	Model No:	
*	Manufacturer's Name:	
*	Made in:	
*	Country of Origin:	
2.1	Supply, installation, testing, and commissioning of VRLA batteries suitable for critical applications to ensure uninterrupted, reliable, and high-quality power supply for sensitive equipment.	
2.2	Battery Type VRLA / SMF (Valve Regulated Lead Acid), Maintenance-Free AGM Technology Suitable for supplied Online UPS and critical power backup	
2.3	Electrical Characteristics Nominal Voltage: 12 V DC Rated Capacity: 42 Ah (C20 @ 27 °C) Application Backup: Suitable for UPS battery bank (runtime as per design)	
2.4	Performance Design Life: Long-life standby battery Self-Discharge: Low self-discharge, suitable for float operation Operating Temperature: -20 °C to +60 °C	



2.5	<p>Construction & Safety</p> <p>Sealed, spill-proof, maintenance-free design</p> <p>Pressure relief safety valves</p> <p>Corrosion-resistant container and plates</p>	
2.6	<p>Charging</p> <p>Compatible with IGBT-based UPS charger</p> <p>Float charging as per manufacturer recommendation</p>	
2.7	<p>Warranty Clause – VRLA Battery</p> <p>The 12 V, 42 Ah VRLA (SMF) battery shall be supplied with a minimum 24 (Twenty-Four) months manufacturer warranty from the date of supply/commissioning.</p> <p>The warranty shall cover manufacturing defects, performance failure, and premature capacity loss under normal UPS operating conditions. During the warranty period, defective batteries shall be repaired or replaced free of cost as per manufacturer's warranty policy.</p>	
2.8	Manufacturer's original catalogue/brochure and warranty document shall be submitted for technical compliance.	
3	Battery Rack	
3.1	MS battery rack for 20 Nos. VRLA batteries with anti-rust paint, as per site condition and hospital engineer approval.	
4	DC Cables	
4.1	Supply & installation of copper DC cables with lugs and insulation for UPS battery bank connection.	
5	4-core × 16 sq.mm copper flexible power cable	
5.1	<p>Supply, installation, testing, and commissioning of 4-core × 16 sq.mm copper flexible power cable suitable for 20 kVA Online UPS application.</p> <p>Cable shall be electrolytic grade multi-stranded copper conductor, flexible type.</p> <p>Insulation & Sheath: PVC / XLPE, heat-resistant and flame-retardant, suitable for indoor electrical installations.</p> <p>Cable shall be suitable for 3-phase + neutral power supply.</p> <p>Proper cable lugs, glands, ferrules, and insulation sleeves shall be provided at all terminations.</p> <p>Installation shall comply with UPS manufacturer recommendations and hospital electrical safety standards.</p>	
6	2C × 1.5 sq.mm copper control cable	
6.1	Supply, installation, testing, and commissioning of 2C × 1.5 sq.mm copper control cable for alarm and light systems. Cable routing and installation shall be neat, secure, and fully compliant with hospital electrical safety standards.”	
7	1-core × 6 sq.mm copper flexible earthing cable	

7.1	Supply, installation, testing, and commissioning of 1-core × 6 sq.mm copper flexible earthing cable for UPS system earthing. The cable shall be electrolytic grade multi-stranded copper conductor with PVC insulation, suitable for electrical earthing applications. Installation shall be neat, secure, and compliant with hospital electrical safety standards.	
8	Buzzer alarm system	
8.1	Supply, installation, testing, and commissioning of buzzer alarm system for UPS fault, battery low, and system alarm indication. The buzzer shall provide clear audible alarm during abnormal operating conditions. The system shall be wired through control cable and installed as per hospital electrical safety standards.	
9	Other necessary installation accessories	
9.1	Supply and installation of cable shoes (lugs), insulation tape, battery terminals, and all other necessary installation accessories required for proper termination and safe connection of UPS power, control, and battery cables.	
10	Servicing & Health Check of Existing 100 kVA Online UPS (ICU A)	
10.1	Servicing, testing, and health assessment of the existing 100 kVA online UPS system at the ICU-A, including inspection of all batteries, evaluation of battery health, and checking of the UPS DB panel and related electrical connections.	
11	ATS Control System DSE 4520 MKII controller	
11.1	Supply, installation, wiring modification, testing, and commissioning of existing UPS and generator Automatic Transfer Switch (ATS) panel control system incorporating Deep Sea Electronics DSE 4520 MKII controller, complete with 24 V DC relay card. The scope shall include necessary control wiring modifications, interfacing with UPS and generator systems, functional testing, and ensuring reliable automatic changeover operation. All works shall be carried out as per manufacturer guidelines and hospital electrical safety standards.	

Terms and Conditions

1	The supplier shall provide orientation and operational training to the end users after installation.	
2	The supplier shall complete the installation of the equipment strictly as per the instructions and guidance of the Hospital's technical personnel. Any additional materials, accessories, or consumables required to complete the installation shall be arranged and borne by the bidder at no extra cost.	
3	The bidder shall submit a valid authorization letter for the supplied UPS issued by the manufacturer or authorized distributor.	
4	The bidder shall provide a comprehensive 3 (three) years parts replacement warranty, along with uptime support service through a local qualified technician.	



5	All supplied items shall be brand new, unused, and of the latest manufacture, with the date of manufacture and country of origin clearly mentioned.	
6	Merely stating "Comply: Yes" in the technical specification form shall not be considered technically acceptable unless the same is supported by documentary evidence, such as manufacturer's brochure, catalogue, or an official letter.	
7	Demonstration of the quoted model shall be provided if requested by the Hospital's technical evaluation committee during the technical assessment stage.	
8	The bidder shall be fully responsible for the installation, testing, and commissioning of the supplied equipment to the satisfaction of the Hospital.	

In the capacity of Authorized Person:

Name:

Signature:

Stamp:



Bill of Quantities (BOQ)

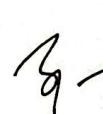
SN	Description	Unit	QTY	Rate	Total
1	20 KVA Online 3 phase UPS	Set	1		
2	12V 42AH VRLA Maintenance-Free Battery	PCS	20		
3	Battery Rack	Lot	1		
4	DC Cables	Lot	1		
5	4-core × 16 sq.mm copper flexible power cable	Meter	40		
6	2C × 1.5 sq.mm copper control cable	Meter	20		
7	1-core × 6 sq.mm copper flexible earthing cable	Meter	20		
8	Buzzer alarm system	Set	1		
9	Other necessary installation accessories	Lot	1		
10	Servicing & Health Check of Existing 100 kVA Online UPS (ICU A)	Lot	1		
11	ATS Control System DSE 4520 MKII controller	Set	1		
Sub Total					
VAT					
Grand Total					

In the capacity of Authorized Person:

Name:

Signature:

Sta




क्षेत्रवान विश्वविद्यालय
गोप्यगत असाम राज्य