

## OFFICE OF THE SUPPLY CHAIN MANAGEMENT

### 1.1 DESCRIPTION OF SERVICE: SUPPLY AND DELIVERY OF UNINTERUPTED POWER SUPPLY (UPS)

**BACKGROUND:** High Performance Liquid Chromatography (HPLC) instruments, as well as the PC used to operate the HPLC must have uninterrupted power supply to ensure sample analyses. Without uninterrupted power supply, sample data is lost, the instrument must be restarted, and analyses must be repeated. Thus, to complete HPLC analyses of >1000 samples successfully, protection and backup during the switch between ESKOM and backup supply is vital.

#### PURPOSE

To enable complete analyses of samples during load shedding and for dirty, noisy and unreliable mains supply.

#### SCOPE OF WORK

- 1) Supply and install portable UPS instrument for use with an HPLC
- 2) Supply and install portable UPS instrument for use with a PCs

SPECIFICATION	Comply with specification. Please indicate (Yes or No)		
	Yes	No	If no, indicate deviation
<b><u>Item 1:UPS for HPLC (online double conversion double isolation) similar to UPS technologies model M3H</u></b>			
Capacity: Must be 3KVA			
Power: Must be at least 2700W Indicate power)			
Input phase: Single phase and ground			
Input voltage range: 230V +-20%			
Input frequency: 40-70 Hz			
Output voltage range: 230 VAC +-1%			
Output frequency: battery mode: 50/60 +-0.1Hz			
Output waveform: Pure sine wave to ensure that the signals match up in frequency			
Ability to withstand overload under ambient conditions <35°C: Shut down or transfer to bypass if utility is normal. Indicate shut down times for following overload scenarios: a) 105-110%; b) 110-130% and c) >130%			
Transfer time between AC and battery mode: 0 ms			
Transfer time between AC and bypass mode: 4ms or faster (indicate transfer time)			
Efficiency in line mode (% of power used to run the equipment instead of the UPS – more is better): 90% or better			

Efficiency in battery mode (% of power used to run the equipment instead of the UPS – more is better): 85% or better			
Battery type: 12V sealed lead-acid or similar (specify type)			
Battery DC Voltage: 96 VDC			
Battery configuration: single battery			
Battery charge current: max 12A			
Battery recharge time: 4 hours or less to recover to 90% capacity			
Display: Liquid Crystal Display or any other display (indicate type of display)			
Design type: Must be online			
Output form conversion: Must be double			
Output form isolation: Must be double			
Backup time: At least 15 minutes (indicate backup time)			
Enable backup increase with additional batteries (indicate potential to increase backup capacity)			
Built-in charger units to enable effective charging of batteries: Energy loss during charging must not exceed 15% (indicate energy loss).			
Communication type for data communication: RS232 or USB with cable (indicate communication type).			
Communication cards (Optional): Simple Network management Protocol (SNMP) Card and / or relay card for remote monitoring of UPS (indicate communication card types)			
Automatic shutdown software: Must have automatic shutdown software			
Automatically enabled to switch to backup: Must have ability to switch to backup after instrument is working from Main supply again			
Weight: Any, <u>weight must be indicated</u>			
Dimensions: Any, <u>dimensions must be indicated</u>			
Electrical specifications: Must be suitable for South African electricity supply. <u>Indicate electrical specifications</u>			
<b><u>Item 2:UPS for PC (line interactive) similar to RCT model RC-3000 VAS</u></b>			
Capacity: Must be 3 Kva (indicate KVA)			
Power: at least 1800 W (indicate power)			
Input phase: Single phase and ground			
Input voltage range: 81-145 VAC / 162-290 VAC			
Input frequency: 50/60 Hz			
Output voltage range: 110/120 VAC or 220/230/240 VAC			
Output frequency: battery mode: 50/60 +-1Hz			
Output waveform: Simulated sinewave			
Provide protection against overload, discharge and overcharge (indicate which protection is provided)			

Transfer time between AC and battery mode: 10 ms or faster (indicate transfer times)			
Transfer time between AC and bypass mode: 10ms or faster (indicate transfer time)			
Battery type: Any (specify type)			
Battery configuration: Indicate if it is a single battery or more than one battery			
Battery DC Voltage 12V 9Ahx4 or similar for specific battery configuration			
Battery recharge time: 6hours or less to recover to 90% capacity			
Display: Liquid Crystal Display or any other display (indicate type of display)			
Design type: Must be line interactive			
Backup time: At least 10 minutes (indicate backup time)			
Communication type for data communication: RS232 or USB with cable (indicate communication type).			
Communication cards (Optional): Simple Network management Protocol (SNMP) Card and / or relay card for remote monitoring of UPS (indicate communication card types)			
Automatic shutdown software: Must have automatic shutdown software			
Automatically enabled to switch to backup: Must have ability to switch to backup after instrument is working from Main supply again			
Weight: Any, <u>weight must be indicated</u>			
Dimensions: Any, <u>dimensions must be indicated</u>			
Electrical specifications: Must be suitable for South African electricity supply. <u>Indicate electrical specifications</u>			
<b>GENERAL CONDITIONS FOR THE PURCHASE ORDER AGREEMENT</b>			
Quotes must be sent via email MatayiZ@arc.agric.za			
Closing Date 28/08/2023 at 11:00 am			

## 1.2 PRICING SCHEDULE SUPPLY AND DELIVERY OF UNINTERUPTE POWER SUPPLY (UPS)

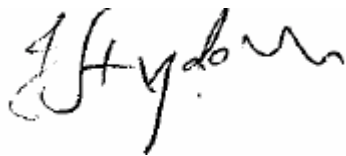
Item description	QTY	Unit price	Total Price
UPS for HPLC (online double conversion double isolation) similar to UPS technologies model M3H	1		
UPS for PC (line interactive) similar to RCT model RC-3000 VAS	1		
Other:			
SUBTOTAL			
VAT			
GRANDTOTAL			

### 1. The specification prepared by

Name: Janéne Strydom

Date: 10 August 2023

Signature:



### 1. The specification approved by commodity specialist

Name: C G Volschenk

Date: 11 August 2023

Signature:



**EVALUATION PROCESS & CRITERIA STAGE ONE FOR .....****ADMINISTRATIVE COMPLIANCE EVALUATION OF ALL PROPOSALS**

	Comply with specification. Please indicate (Yes or No)		
	Yes	No	If no, indicate deviation
<b>EVALUATION PROCESS: NB: It must be noted that ARC reserve the rights to request for clarification if all the below questions are not answered properly.</b>			
<b><u>STAGE ONE: ADMINISTRATION COMPLIANCE</u></b>			
<p>All suppliers are duly lodged will be examined to determine compliance with quoting requirements and conditions. Quotes with obvious deviations from the requirements/conditions, <b>will be eliminated or disqualified from further adjudication.</b></p> <p><b>(a) Mandatory</b></p> <p>Quotes will only be compliant if supplier has submitted the following documents:</p>			
<p><b><i>Administrative documents</i></b></p> <p>1. According to National Treasury SCM Instruction number 4 of 2016/2017, only suppliers who are registered on Central Supplier Database (CSD) may be appointed. Suppliers is therefore encourage to register their entities on CSD, <a href="http://www.csd.gov.za">www.csd.gov.za</a> and such information will be verified through Central Supply Database (CSD);</p>			
2. All SBD documents must be submitted and completed;			
3. The supplier must comply with all the specification			
4. Valid tax pin certificate			
<p><b>(b) Non-Mandatory</b></p> <ul style="list-style-type: none"> <li>Valid B-BBEE certificate or sworn affidavit certify by commissioner of oaths.</li> </ul>			

**SUPPLIER'S DETAILS**

Company Name: .....

Contact person: .....

Contact number &amp; Email : .....

Date &amp; Signature: .....