

**SCHEDULES A AND B FOR PERMANENT ON-LINE
DRYING SYSTEM FOR USE ON POWER
TRANSFORMERS AND REACTORS**

Unique Identifier: n/a

Revision: n/a

Page: 1 of 3

THIS SCHEDULE FORMS PART OF SPECIFICATION 240-59083215 SPECIFICATION FOR PERMANENT ON-LINE OIL DRYING SYSTEM FOR USE ON POWER TRANSFORMERS AND REACTORS.

SCHEDULE A: PARTICULARS OF ESKOM'S REQUIREMENTS AND

SCHEDULE B: SUPPLIER'S GUARANTEES OF TECHNICAL PARTICULARS OF EQUIPMENT OFFERED.

THIS SCHEDULE SHALL BE USED IN CONJUNCTION WITH ESKOM 240-59083215 SPECIFICATION FOR PERMANENT ON-LINE DRYING SYSTEM FOR USE ON POWER TRANSFORMERS AND REACTORS. IN CASE OF CONFLICT, THE TENDERER SHALL REQUEST CLARITY IN A FORM OF AN EMAIL OR LETTER TO ESKOM AND SHALL COMPLY WITH THE LATEST REVISION OF ALL RELEVANT IEC STANDARDS.

WHERE XXXXX IS INDICATED, THE SUPPLIER MUST COMPLETE IN SCHEDULE B.

Technical specifications				
Item	Description	Units	Schedule A	Schedule B
1	Delivery and off-loading			
1.1	<i>Delivery to:</i>			
1.1.1	On-line drying system	Address		
1.1.2	Spares (optional units)	Address	N/A	
1.2	Delivery effected not before	Date	TBA	
1.3	Off-loaded from transport vehicle by supplier	Yes/No	Yes	
1.4	Transferred to intended operation position	Yes/No	Yes	
1.5	Installation	Indoor/ Outdoor	Outdoor	
2	Quantity			
2.1	On-line drying system			
2.2	Spares		N/A	
3	Erection			
3.1	Erected ready for service	Yes/No	Yes	
3.3	Erected for storage	Yes/No	No	
4	Environmental information			
4.1	Altitude above sea level	m	1800	
4.2	<i>Ambient temperature</i>			
4.2.1	• Maximum	° C	40	
4.2.2	• Minimum	° C	-10	
4.2.3	• Yearly average	° C	25	
4.3	Maximum relative humidity	%	90	
4.4	Solar radiation (maximum)	W/m ²	2.6 x 10 ³	
4.5	Wind loading	Pascals/ms ⁻¹	1200/40	
4.6	<i>Pollution</i>			
4.6.1	• Type		Industrial	
4.6.3	• Climatic conditions		Rain/dry/ hail/high UV radiation	

ESKOM COPYRIGHT PROTECTED

**SCHEDULES A AND B FOR PERMANENT ON-LINE
DRYING SYSTEM FOR USE ON POWER
TRANSFORMERS AND REACTORS**

Unique Identifier: n/a

Revision: n/a

Page: 2 of 3

4.7	Seismic level	g	0.3	
4.8	Corrosion protection (stainless steel box and stands)	Yes/No	Yes	
5	Functional Requirements			
5.1	<i>Does the filter and cartridge have the following conditions?</i>			
	• Hold at least 6 litres of dissolved water before saturation.	Yes/No	Yes	
	• Moisture does not return to oil when filter is saturated, i.e., <i>moisture out of the device is never greater than moisture into the device.</i>	Yes/No	Yes	
	• Has cartridge replacement alert	Yes/No	Yes	
	• Filter cartridge replacement and product possible with transformer in service?	Yes/No	Yes	
	• Bleeding after cartridge replacement possible with transformer in service?	Yes/No	Yes	
5.2	<i>Does the product have the following safety features?</i>			
	• Shutdown to prevent over dry	Yes/No	Yes	
	• Compartment to trap bubbles from entering the transformer	Yes/No	Yes	
	• Shut off valves on the inlet and outlet	Yes/No	Yes	
5.3	<i>Does the product have the following data registers available for interrogation via communication interface?</i>			
	• Cartridge saturation indication as percentage	Yes/No	Yes	
	• Moisture in paper as percentage by weight	Yes/No	Yes	
	• Device inlet moisture value as ppm	Yes/No	Yes	
	• Device outlet moisture value as ppm	Yes/No	Yes	
	• Error code for a particular fault (intention is an error code that would be provided to the supplier when reporting a fault)	Yes/No	Yes	
5.4	<i>The following communication interfaces and mediums should be available to communicate with the product:</i>			
	• IEC61850 Protocol	Yes/No	Yes	
	• TCP/IP using http	Yes/No	Yes	

**SCHEDULES A AND B FOR PERMANENT ON-LINE
DRYING SYSTEM FOR USE ON POWER
TRANSFORMERS AND REACTORS**

Unique Identifier: **n/a**

Revision: **n/a**

Page: **3 of 3**

	<ul style="list-style-type: none">Web interface not software and downloading files using FTP	Yes/No	Yes	
	<ul style="list-style-type: none">Multimode Fibre Ethernet port (100BaseFX) with Duplex LC connector and Copper Ethernet port (100BaseTX) with RJ45 Connector	Yes/No	Yes	
	<ul style="list-style-type: none">GPRS/GSM Modem and 5GHz Wireless (As optional extras)	Yes/No	Yes	
6	Deviations (Note: The intention is to procure an equipment that meets our requirements rather than what is on the shelf.)			
Clause	Description of deviation	Proposed alternative		Accept/Reject

ESKOM COPYRIGHT PROTECTED