Accreditation No: LAB 094

Awarded to

Transformer Testing Laboratory (QA Lab)
Transfopower Industries (Pvt.) Ltd.
2 – KM Katar Band Road off Multan Road Thokar Niaz Beg
Lahore, Pakistan

The scope of accreditation is in accordance with the standard specifications outlined in the following page(s) of this document. The accredited scope shall be visible and legible in areas such as customer service, sample-receiving section etc and shall not mislead its users.

The accreditation was first time granted on **16-09-2015** by Pakistan National Accreditation Council.

The laboratory complies with the requirements of **ISO/IEC 17025:2017.**

The accreditation requires regular surveillance, and is valid until **20-05-2024**

The decision of accreditation made by Pakistan National Accreditation Council implies that the organization has been found to fulfill the requirements for accreditation within the scope.

The organization however, itself is responsible for the results of performed measurements/tests.

PAKISTAN NATIONAL ACCREDITATION COUNCIL

20-08-2021
Date

Sd.
Director General

Testing Laboratory.

Accreditation Scope of **Transformer Testing Laboratory (QA Lab)**

Transfopower Industries (Pvt.) Ltd. Lahore, Pakistan

Permanent laboratory premises X

Materials / Products Tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/ Internal method reference
DISTRIBUTION & POWER TRANSFORMERS **(10 kVA to 10 MVA)**	Electrical	• Measurement of Winding Resistance	• **IEC 60076 – 1** (Clause 11.2)
	Electrical	• Measurement of Voltage Ratio (Turn Ratio Test)	• **IEC 60076 – 1** (Clause 11.3)
	Electrical	• Measurement of Short Circuit Impedance & Load Losses (Copper Losses)	• **IEC 60076 – 1** (Clause 11.4)
	Electrical	• Measurement of No – Load Losses & Current (Iron Losses)	• **IEC 60076 – 1** (Clause 11.5)
	Electrical	• Applied Voltage Test (High Voltage Test)	• **IEC 60076 – 3** (Clause 10)
	Electrical	• Induce Voltage Withstand Test	• **IEC 60076 – 3** (Clause 11.2)
	Electrical	• Check of Phase Displacement (Vector Group)	• **IEC 60076 – 1** (Clause 11.3)
	Electrical	• Check of Core & Frame Insulation (Megger Test)	• **IEC 60076 – 1** (Clause 11.12)
	Electrical	• Bird Protection Test (Insulation of Top Plate)	• **DDS 84:2020** (Clause 18.2 vi)
	Mechanical	• Tightness Test (Pressure Test)	• **IEC 60076 – 1** (Clause 11.8)
	Electrical	• Temperature Rise Test	• **IEC 60076 – 2** (Clause 7.3 – 7.11)
	Electrical	• Lightening Impulse Test (Full Wave & Chopped Wave)	• **IEC 60076 – 3** (Clause 13.2) • **IEC 60076 – 4** (Clause 7.4)

TRANSFORMER OIL **(Mineral Oil)**	Electrical	• Check of Breakdown Voltage (Dielectric Test)	• **IEC 60296** (Clause 6.4) • **IEC 60156**
	Physical	• Check of Pour Point	• **IEC 60296** (Clause 6.2) **ISO 3016**
	Physical	• Measurement of Density (Specific Gravity)	• **IEC 60296** (Clause 6.16) **ISO 3675**
	Physical	• Measurement of Viscosity (at 40 C^o and -20 C^o)	• **IEC 60296** (Clause 6.1) **ISO 3104**

20-08-2021
Date

Sd.
Director