National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRICAL TEST LAB, CG POWER AND INDUSTRIAL SOLUTIONS, D2 MIDC, WALUJ, AURANGABAD, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

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Validity 20/10/2021 to 19/10/2023 **Last Amended on** 07/06/2023

S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
Permanent Facility				
1	ELECTRICAL- INDUCTORS & TRANSFORMERS	145kV Inductive Voltage Transformer	Measurement of capacitance and dielectric dissipation factor	IEC-61869-1 (2007) & IEC 61869 -3 (2011), IS 16227-1 & IS 16227 -3, Clause : 7.4.3
2	ELECTRICAL- INDUCTORS & TRANSFORMERS	145kV Inductive Voltage Transformer	Measurement of capacitance and dielectric dissipation factor	IEC-61869-1 (2007) & IEC 61869 -3 (2011), IS 16227-1 & IS 16227 -3, Clause : 7.4.3
3	ELECTRICAL- INDUCTORS & TRANSFORMERS	145kV Inductive Voltage Transformer	Partial discharge measurement	IEC-61869-1 (2007) & IEC 61869 -3 (2011), IS 16227-1 & IS 16227 -3, Clause 7.3.2
4	ELECTRICAL- INDUCTORS & TRANSFORMERS	145kV Inductive Voltage Transformer	Power-frequency voltage withstand tests on primary terminals	IEC61869-1(2007) IEC61869-3(2011) IS 16227-3 (Clause : 7.3.1.303)
5	ELECTRICAL- INDUCTORS & TRANSFORMERS	170kV Current Transformer	Measurement of capacitance and dielectric dissipation factor	IEC-61869-1 (2007) & IEC 61869 -2 (2011), IS 16227-1 & IS 16227 -2, Clause : 7.4.3
6	ELECTRICAL- INDUCTORS & TRANSFORMERS	170kV Current Transformer	Power-frequency voltage withstand tests between sections	IEC-61869-1 (2007) & IEC 61869 -2 (2011), IS 16227-1 & IS 16227 -2, Clause 7.3.3
7	ELECTRICAL- INDUCTORS & TRANSFORMERS	170kV Current transformers	Partial discharge measurement	IEC-61869-1 (2007) & IEC 61869 -2 (2011), IS 16227-1 & IS 16227 -2, Clause 7.3.2
8	ELECTRICAL- INDUCTORS & TRANSFORMERS	170kVCurrent transformers	Measurement of capacitance and dielectric dissipation factor	IEC-61869-1 (2007) & IEC 61869 -2 (2011), IS 16227-1 & IS 16227 -2, Clause : 7.4.3
9	ELECTRICAL- INDUCTORS & TRANSFORMERS	170kVCurrent transformers	Power-frequency voltage withstand tests on primary terminals	IEC-61869-1 (2007) & IEC 61869 -2 (2011), IS 16227-1 & IS 16227 -2, Clause 7.3.1
10	ELECTRICAL- TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Current transformers” kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Test for accuracy	IEC 61869-2 (Clause : 7.3.5)
11	ELECTRICAL- TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Current transformers” kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Test for accuracy	IEC 61869-2 (Clause : 7.3.5)

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12	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Verification of Terminal Marking	IEC 61869-2 (Clause : 7.3.6)
13	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Composite Error Test	IS 16227-2 (Clause : 7.2.6.203)
14	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Composite Error Test	IS 16227-2 (Clause : 7.2.6.203)
15	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Determination of secondary winding resistance	IS 16227-2 (Clause : 7.3.201)
16	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Determination of the instrument security factor (FS) of measuring current transformers	IS 16227-2 (Clause : 7.5.2)
17	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Determination of the instrument security factor (FS) of measuring current transformers	IS 16227-2 (Clause : 7.5.2)
18	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Inter-turn over voltage test	IS 16227-2 (Clause : 7.3.204)
19	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Inter-turn over voltage test	IS 16227-2 (Clause : 7.3.204)
20	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Power Frequency Voltage withstand test on secondary terminals	IS 16227-2 (Clause : 7.3.4)

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21	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Test for accuracy	IS 16227-2 (Clause : 7.3.5)
22	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Test for accuracy	IS 16227-2 (Clause : 7.3.5)
23	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Verification of Terminal marking	IS 16227-2 (Clause : 7.3.6)
24	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PX Burden Range : 2.5VA to 200VA"	Test for rated knee point e.m.f and exciting current at rated knee e.m.f	IS 16227-2 (Clause : 7.3.203)
25	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.5s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PX Burden Range : 2.5VA to 200VA"	Test for rated knee point e.m.f and exciting current at rated knee e.m.f.	IS 16227-2 (Clause : 7.3.203)
26	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25 A to 3200 A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s,.2, 0.5,1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Power Frequency Voltage withstand test on secondary terminals	IEC 61869-2 (Clause : 7.3.4)
27	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Composite Error Test	IEC 61869-2 (Clause : 7.2.6.203)
28	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Composite Error Test	IEC 61869-2 (Clause : 7.2.6.203)
29	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	"Current transformers" kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Determination of secondary winding resistance	IEC 61869-2 (Clause : 7.3.201)

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31	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Current transformers” kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Determination of the instrument security factor (FS) of measuring current transformers	IEC 61869-2 (Clause : 7.5.2)
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33	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Current transformers” kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Inter-turn over voltage test	IEC 61869-2 (Clause : 7.3.204)
34	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Current transformers” kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Test for rated knee point e.m.f and exciting current at rated knee e.m.f.	IEC 61869-2 (Clause : 7.3.203)
35	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Current transformers” kV Class (HSV) : 36kV to 170kV Primary Current : 25A to 3200A Secondary Current : 1A,5A Accuracy Class (Metering) : 0.2s, 0.2, 0.5, 1.0 Accuracy Class (Protection) : 5P, 10P, PS, PX Burden Range : 2.5VA to 200VA	Test for rated knee point e.m.f and exciting current at rated knee e.m.f.	IEC 61869-2 (Clause : 7.3.203)
36	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Potential transformers” kV Class (HSV) : 36kV to 170kV Primary Voltage (P-P) : 36kV to 170kV Secondary Voltage: 110, 110/v3, 115, 115/v3, 100, 100/v3 Accuracy Class (Metering) : 0.2, 0.5, 1.0,3.0 Accuracy Class (Protection) : 3P, 6P	Power frequency voltage withstand test on secondary terminals	IEC 61869-3 (Clause : 7.3.4)
37	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Potential transformers” kV Class (HSV) : 36kV to 170kV Primary Voltage (P-P) : 36kV to 170kV Secondary Voltage: 110, 110/v3, 115, 115/v3, 100, 100/v3 Accuracy Class (Metering) : 0.2, 0.5, 1.0,3.0 Accuracy Class (Protection) : 3P, 6P	Power frequency voltage withstand test on secondary terminals	IS 16227-3 (Clause : 7.3.4)
38	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Potential transformers” kV Class (HSV) : 36kV to 170kV Primary Voltage (P-P) : 36kV to 170kV Secondary Voltage: 110, 110/v3, 115, 115/v3, 100, 100/v3 Accuracy Class (Metering) : 0.2, 0.5, 1.0,3.0 Accuracy Class (Protection) : 3P, 6P	Verification of markings	IEC 61869-3 (Clause : 6.13.301)

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40	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Potential transformers” kV Class (HSV) : 36kV to 170kV Primary Voltage (P-P) : 36kV to 170kV Secondary Voltage: 110, 110/v3, 115, 115/v3, 100, 100/v3 Accuracy Class (Metering) : 0.2, 0.5, 1.0,3.0 Accuracy Class (Protection) : 3P, 6P	Test for accuracy	IEC 61869-3 (Clause : 7.3.5)
41	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Potential transformers” kV Class (HSV) : 36kV to 170kV Primary Voltage (P-P) : 36kV to 170kV Secondary Voltage: 110, 110/v3, 115, 115/v3, 100, 100/v3 Accuracy Class (Metering) : 0.2, 0.5, 1.0,3.0 Accuracy Class (Protection) : 3P, 6P	Test for accuracy	IS 16227-3 (Clause : 7.3.5)
42	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Potential transformers” kV Class (HSV) : 36kV to 170kV Primary Voltage (P-P) : 36kV to 170kV Secondary Voltage: 110, 110/v3, 115, 115/v3, 100, 100/v3 Accuracy Class (Metering) : 0.2, 0.5, 1.0,3.0 Accuracy Class (Protection) : 3P, 6P	Test for accuracy	IS 16227-3 (Clause : 7.3.5)
43	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	“Potential transformers” kV Class (HSV) : 36kV to 170kV Primary Voltage (P-P) : 36kV to 170kV Secondary Voltage: 110, 110/v3, 115, 115/v3, 100, 100/v3 Accuracy Class (Metering) : 0.2, 0.5, 1.0,3.0 Accuracy Class (Protection) : 3P, 6P	Verification of Terminal Marking	IS 16227-3 (Clause : 6.13.301)