National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : HI-TECH METER TESTING LABORATORY, NAKA MADAR, AVVNL, AJMER, RAJASTHAN, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-8408 **Page No** 1 of 4

Validity 28/01/2023 to 27/01/2025 **Last Amended on** 20/02/2023

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- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct connected Watt-hour Smart Meter (Class 1 and 2)	AC high Voltage Test (4kV)	Cl. 6.10.6 of IS 16444
2	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct connected Watt-hour Smart Meter (Class 1 and 2)	Insulation Resistance Test	Cl. 6.10.6 of IS 16444
3	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct connected Watt-hour Smart Meter (Class 1 and 2)	Test of No-Load condition	Cl. 6.12 of IS 16444
4	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct connected Watt-hour Smart Meter (Class 1 and 2)	Test of Starting Condition	Cl. 6.12 of IS 16444
5	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct connected Watt-hour Smart Meters (Class 1 and 2)	Limit of Errors due to other influence quantities (i) Voltage Variation (ii) Frequency Variation (iii) Wave form: 10% of 3rd Harmonics in Current (iv) Reversed Phase Sequence (v) Voltage unbalance	Cl. 6.12 of IS 16444
6	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct connected Watt-hour Smart Meters (Class 1 and 2)	Limits of Errors due to variation of Current	Cl. 6.12 of IS 16444
7	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct connected Watt-hour Smart Meters (Class 1 and 2)	Test of Meter Constant	Cl. 6.12 of IS 16444
8	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct connected Watt-hour Smart Meters (Class 1 and 2)	Test of Power Consumption	Cl. 6.10.1 of IS 16444
9	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct connected Watt-hour Smart Meters (Class 1 and 2)	Test of Repeatability of Error	Cl. 6.12 of IS 16444
10	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	AC High Voltage (2 kV)	Cl. 12.7.6.3 of IS 14697

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11	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	Insulation Resistance Test	Cl. 12.7.6.4 of IS 14697
12	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	Limit of Errors due to other influence quantities (i) Voltage Variation (ii) Frequency Variation (iii) Wave form: 10% of 3rd Harmonics in Current (iv) Reversed Phase Sequence (v) Voltage unbalance	Cl. 12. 10 of IS 14697
13	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	Limits of Error due to Variation of Current	Cl. 11.1 of IS 14697
14	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	Tamper and Fraud Monitoring (i) Missing Potential (ii) CT Polarity Reversal (iii) Current Unbalance (iv) Presence of Abnormal Magnetic Field	Annexure G (G-10) of IS 14697
15	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	Tamper and Fraud Monitoring (i) Phase Sequence Reversal (Only Polyphase) (ii) Load Interchange (Reverse Direction) (iii) Missing Potential (iv) Current circuit reversal, short/open circuit and presence of abnormal magnetic field	Cl. 6.7.1 (c),(e),(h),(i) of CBIP-325
16	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	Test of Meter Constant	Cl. 12.14 of IS 14697
17	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	Test of No-Load Condition	Cl. 12.12. of IS 14697
18	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	Test of No-load Condition	Cl. 7.6 of IEC 62053-22
19	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	Test of Power Consumption	Cl. 12.7.1 of IS 14697

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20	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	Test of Repeatability of Error	Cl. 12.16 of IS 14697
21	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watt-hour and VAR-hour Meters (Class 0.2s and 0.5s)	Test of Starting Condition	Cl. 12.13 of IS 14697
22	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Single phase & three phase AC static watt hour energy meter (Class 1 and 2)	AC High Voltage (4 kV)	Cl. 12.7.6.3 of IS 13779
23	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Single phase & three phase AC static watt hour energy meter (Class 1 and 2)	Tamper and Fraud Monitoring (i) Phase and Neutral Interchange (ii)Earth in place of neutral (iii) Phase Sequence Reversal (Only Polyphase) (iv) Load Interchange (Reverse Direction)	Cl. 6.7.1 (a),(b),(c),(e) of CBIP-325
24	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Single phase & Three Phase AC static Watt-hour meter (Class 1 and 2)	Limit of Errors due to other influence quantities (i)Voltage Variation (ii)Frequency Variation (iii)Wave form: 10% of 3rd Harmonics in Current (iv)Reversed Phase Sequence (v)Voltage unbalance	Cl. 12.11 of IS 13779
25	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Single phase & Three Phase AC static Watt-hour meter (Class 1 and 2)	Insulation Resistance Test	Cl. 12.7.6.4 of IS 13779
26	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Single phase & Three Phase AC static Watt-hour meter (Class 1 and 2)	Limits of Error due to Variation of Current	Cl. 11.1 of IS 13779
27	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Single phase & Three Phase AC static Watt-hour meter (Class 1 and 2)	Test of Meter Constant	Cl. 12.15 of IS 13779
28	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Single phase & Three Phase AC static Watt-hour meter (Class 1 and 2)	Test of No-Load Condition	Cl. 12.13 of IS 13779

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29	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Single phase & Three Phase AC static Watt-hour meter (Class 1 and 2)	Test of No-Load Condition	Cl. 7.6 of IEC 62053-21
30	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Single phase & Three Phase AC static Watt-hour meter (Class 1 and 2)	Test of Power Consumption	Cl. 12.7.1 of IS 13779
31	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Single phase & Three Phase AC static Watt-hour meter (Class 1 and 2)	Test of Repeatability of Error	Cl. 12.17 of IS 13779
32	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Single phase & Three Phase AC static Watt-hour meter (Class 1 and 2)	Test of Starting Condition	Cl. 12.14 of IS 13779