Laboratory MGVCL, Hi-Tech Laboratory, Vidyutnagar S/S Compound, Old Padra Road, Vadodara, Gujarat **Accreditation Standard** ISO/IEC 17025: 2005 **Discipline** Issue Date **Electrical Testing** 04.09.2015 **Certificate Number** T-1296 **Valid Until** 03.09.2017 Last Amended on 11.09.2015 **Page** 1 of 2 S.No. Product / **Specific Test Performed Test Method Specification** Range of Testing / **Limits of Detection Material of Test** against which tests are performed T. MEASURING INSTRUMENTS-ELECTRICAL AND ELECTRONIC (STATIC) ENERGY METERS **Insulation Test** IS 14697: 1999 Amd. 3 1. **AC Static Watt** $1 \text{ M}\Omega$ to $2000 \text{ M}\Omega$ Clause. 12.7.6.4 & Test Voltage: 500 V DC hour Meters, Class 1 & 2 Clause. 12.7.6.4.of **AC Static** IS 13779: 1999 Amd. 4 Transformer 45 V to 290 V **Operated** Test on Limits of Errors IS 14697: 1999 Clause 11.1 Watthour and Amd. 3 & 0.01 A to 120 A VAR-hour Meters, IS 13779: 1999 Amd. 4 47.5 Hz to 52.5 Hz **Class 0.2 S and 0.5** Clause 11.11 1 W to 34.8 kW 1 Wh to 34.8 kWh and above Test of Meter Constant IS 14697: 1999 Amd. 3 45 V to 290 V Clause 12.14 & 0.01 A to 120 A IS 13779: 1999 Amd. 4 47.5 Hz to 52.5 Hz Clause 12.15 Test of No Load Condition 45 V to 290 V IS 14697: 1999 Amd. 3 Clause 12.12 & IS 13779: 1999 Amd. 4 Clause 12.13 **Test of Starting Condition** IS 14697: 1999 Amd. 3 45 V to 290 V Clause 12.13 & 0.01 A to 120 A IS 13779: 1999 Amd. 4 47.5 Hz to 52.5 Hz Clause 12.14 Test of Repeatability of Error IS 14697: 1999 with Amd. 3 45 V to 290 V 0.01 A to 120 A Clause 12.16 & 47.5 Hz to 52.5 Hz IS 13779: 1999 with Amd. 4 Clause 12.17

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	AC Static Watt hour Meters, Class 1 & 2 AC Static Transformer Operated Watthour and VAR-hour Meters, Class 0.2 S and 0.5	Test of Influence Quantities: Voltage Variation (±)10 % Frequency Variation (±)5 % Reverse Phase Sequence Wave form: 10 % of 3 rd harmonic in the current Voltage Unbalance	IS 14697: 1999 Amd. 3 Clause 12.10 & IS 13779: 1999 Amd. 4 Clause 12.11	45 V to 290 V 0.01 A to 120 A 47.5 Hz to 52.5 Hz
	Class 0.2 5 and 0.5	Test of Power Consumption	IS 14697: 1999 with Amd. 3 Clause 12.7.1 & IS 13779: 1999 & with Amd. 4 Clause 12.7.1	0.1 VA to 10 VA Per Phase 1 W to 2 W Per Phase
		Influence of Self Heating	IS 14697: 1999 with Amd: 3 Clause 12.7.4 IS 13779: 1999 with Amd: 4 Clause 12.7.4	45 V to 290 V 0.01A to 120A 47.5Hz to 52.5 Hz
		Test of AC High Voltage	IS 14697: 1999 with Amd: 3 Clause 12.7.6.3 IS 13779: 1999 with Amd: 4 Clause 12.7.6.3	0.5 kV to 5 kV