

**Laboratory** Genus Meter Testing Laboratory, SPL- 3, Sitapura Industrial Area,  
Tonk Road, Jaipur, Rajasthan

**Accreditation Standard** ISO/IEC 17025: 2005

**Discipline** Electrical Testing **Issue Date** 02.07.2015

**Certificate Number** T-1297 **Valid Until** 01.07.2017

**Last Amended on** 21.07.2015 **Page** 1 of 6

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
<b>I. MEASURING INSTRUMENTS - ELECTRICAL AND ELECTRONIC (STATIC) ENERGY METERS</b>				
1.	AC Static Watthour and Var-Hour meters	Insulation Test	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	0 to 500 Vdc 0 to 100 MΩ
		Test on Limits of Error	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1
		Test of Meter Constant	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1 Qualitative
		Test of Starting Current	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+)1

**Laboratory** Genus Meter Testing Laboratory, SPL- 3, Sitapura Industrial Area,  
Tonk Road, Jaipur, Rajasthan

**Accreditation Standard** ISO/IEC 17025: 2005

**Discipline** Electrical Testing **Issue Date** 02.07.2015

**Certificate Number** T-1297 **Valid Until** 01.07.2017

**Last Amended on** 21.07.2015 **Page** 2 of 6

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>AC Static Watthour and Var-Hour meters</b>	Test of No load Condition.	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1 Qualitative
		Test of Repeatability of Error.	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1
		Test of Power Consumption	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1
		Test of AC High Voltage	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	Upto 5 kV Qualitative

<b>Laboratory</b>	<b>Genus Meter Testing Laboratory, SPL- 3, Sitapura Industrial Area, Tonk Road, Jaipur, Rajasthan</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Electrical Testing</b>	<b>Issue Date</b>	<b>02.07.2015</b>
<b>Certificate Number</b>	<b>T-1297</b>	<b>Valid Until</b>	<b>01.07.2017</b>
<b>Last Amended on</b>	<b>21.07.2015</b>	<b>Page</b>	<b>3 of 6</b>

<b>S.No.</b>	<b>Product / Material of Test</b>	<b>Specific Test Performed</b>	<b>Test Method Specification against which tests are performed</b>	<b>Range of Testing / Limits of Detection</b>
	<b>AC Static Watthour and Var-Hour meters</b>	Test of Limits of Error due to other Influence Quantities as shown below: Voltage Variation	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1
		Frequency Variation	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1
		Waveform:10 % of 3 <sup>rd</sup> Harmonic in the Current	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004)	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1
		Reversed Phase Sequence	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1
		Voltage Unbalance	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1

**Laboratory** Genus Meter Testing Laboratory, SPL- 3, Sitapura Industrial Area,  
Tonk Road, Jaipur, Rajasthan

**Accreditation Standard** ISO/IEC 17025: 2005

**Discipline** Electrical Testing **Issue Date** 02.07.2015

**Certificate Number** T-1297 **Valid Until** 01.07.2017

**Last Amended on** 21.07.2015 **Page** 4 of 6

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>AC Static Wathour and Var-Hour meters</b>	DC and even Harmonics in AC Current Circuit	IS 13779: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1
		Harmonic Components in the Current and Voltage Circuits	IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1
		Test of Influence of Self-Heating	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1
		Test of Influence of Supply Voltage (Test of Effect of Voltage Dips and Short Interruptions)	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1
		Test of Immunity to Earth/Phase Fault	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	40 V to 320 V 3 mA to 120 A PF: (-) 1 to (+) 1

**Laboratory** Genus Meter Testing Laboratory, SPL- 3, Sitapura Industrial Area,  
Tonk Road, Jaipur, Rajasthan

**Accreditation Standard** ISO/IEC 17025: 2005

**Discipline** Electrical Testing **Issue Date** 02.07.2015

**Certificate Number** T-1297 **Valid Until** 01.07.2017

**Last Amended on** 21.07.2015 **Page** 5 of 6

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	<b>AC Static Watt-hour and Var-Hour meters</b>	Fast Transient Burst Test	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	Burst Amplitude: (±) 7 kV Burst Pulse 5/50 ns
		Test of immunity to Electrostatic Discharges	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	Contact Discharge: (±) 30 kV Air Discharge: (±) 30 kV
		Impulse Voltage Test	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	Upto 15 kV 1.2 μs 50 μs
		Surge Immunity Test	IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	Upto 15 kV 1.2 μs 50 μs 8 μs 20 μs
		Dry Heat Test	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	Upto 180 °C

**Laboratory** Genus Meter Testing Laboratory, SPL- 3, Sitapura Industrial Area,  
Tonk Road, Jaipur, Rajasthan

**Accreditation Standard** ISO/IEC 17025: 2005

**Discipline** Electrical Testing **Issue Date** 02.07.2015

**Certificate Number** T-1297 **Valid Until** 01.07.2017

**Last Amended on** 21.07.2015 **Page** 6 of 6

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 Wathour and Var-Hour meters	Cold test	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	Upto (-) 40 °C
		Damp Heat Cyclic Test	IS 13779: 1999 (RA 2004) IS 14697: 1999 (RA 2004) IEC 62052-11: 2003 IEC 62053-21: 2003 IEC 62053-22: 2003 IEC 62053-23: 2003	Temp. 15 °C to 85 °C RH: 10 % to 98 %
		Tamper and Fraud Monitoring	IS 14697: 1999 (RA 2004) CBIP-304 (2008) Central Electricity Authority :- Notification No:- 502/70/CEA/DP&D, Date: 17/03/2006	Qualitative

-X-X-X-X-X-X-X-X-X-X-X-X-

**Rajeshwar Kumar**  
Convenor

**N. Venkateswaran**  
Program Manager