



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 1 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
Permanent Facility					
1	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	1 Phase 2 Wire AC Active Energy @ 45 Hz to 55 Hz 63.5 V to 240 V, 5 A to 10 A, 0.5 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	158.75 Wh to 2.4 kWh	0.041 % to 0.015 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	1 Phase 2 Wire AC Active Energy @ 50 Hz 240 V, 10 mA to 100 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	600 mWh to 24 kWh	0.041 % to 0.015 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	1 Phase 2 Wire AC Active Energy @ 50 Hz, 110 V, 10 mA to 10 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	275 mWh to 1.1 kWh	0.041 % to 0.015 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	1 Phase 2 Wire AC Active Energy @ 50 Hz, 320 V to 480 V, 1 mA to 120 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	80 mWh to 57.6 kWh	0.17 % to 0.015 %
5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	1 Phase 2 Wire AC Active Energy @ 50 Hz, 63.5 V, 10 mA to 10 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	158.75 mWh to 635 Wh	0.17 % to 0.015 %
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	1 Phase 2 Wire AC Active Power @ 50 Hz, 50 V to 480 V, 10 mA to 20 A, 0.01 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	5 mW to 9.6 kW	0.61 % to 0.05 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 2 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	1 Phase 2 Wire AC Reactive Energy @ 45 Hz to 55 Hz, 63.5 V to 240 V, 5 A to 10 A, 0.5 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	158.75 mVARh to 2.4 kVARh	0.041 % to 0.015 %
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	1 Phase 2 Wire AC Reactive Energy @ 50 Hz, 110 V, 10 mA to 10 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	275 mVARh to 1.1 kVARh	0.041 % to 0.015 %
9	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	1 Phase 2 Wire AC Reactive Energy @ 50 Hz, 240 V to 320 V, 10 mA to 120 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	600 mVARh to 38.4 kVARh	0.041 % to 0.015 %
10	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	1 Phase 2 Wire AC Reactive Energy @ 50 Hz, 240 V, 10 mA to 100 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	600 mVARh to 24 kVARh	0.041 % to 0.015 %
11	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	1 Phase 2 Wire AC Reactive Energy @ 50 Hz, 63.5 V, 10 mA to 10 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	158.75 mVARh to 0.635 kVARh	0.041 % to 0.015 %
12	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	3 Phase 4 Wire AC Active Energy @ 45 Hz to 55 Hz, 63.5 V to 240 V, 5 A to 10 A, 0.5 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	476.25 Wh to 7.2 kWh	0.041 % to 0.015 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 3 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
13	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	3 Phase 4 Wire AC Active Energy @ 50 Hz, 110 V, 10 mA to 10 A, 0.25 PF (Lag / Lead) to UPF	Using Three phase reference standard by Direct Method	825 mWh to 3.3 kWh	0.041 % to 0.015 %
14	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	3 Phase 4 Wire AC Active Energy @ 50 Hz, 320 V to 480 V, 1 mA to 120 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	240 mWh to 172.8 kWh	0.17 % to 0.015 %
15	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	3 Phase 4 Wire AC Active Energy @ 50 Hz, 63.5 V, 10 mA to 10 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	476.25 mWh to 1.905 kWh	0.17 % to 0.015 %
16	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	3 Phase 4 Wire AC Active Power @ 50 Hz, 50 V to 480 V, 10 mA to 20 A, 0.01 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	15 mW to 28.8 kW	0.61 % to 0.05 %
17	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	3 Phase 4 Wire AC Reactive Energy @ 50 Hz, 240 V to 320 V, 10 mA to 120 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	1.8 VARh to 115.2 kVARh	0.041 % to 0.015 %
18	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	3 Phase 4 Wire AC Reactive Energy @ 45 Hz to 55 Hz, 63.5 V to 240 V, 5 A to 10 A, 0.5 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	476.25 mVARh to 7.2 kVARh	0.041 % to 0.015 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 4 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
19	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	3 Phase 4 Wire AC Reactive Energy @ 50 Hz, 110 V, 10 mA to 10 A, 0.25 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	825 mVArh to 3.3 kVArh	0.041 % to 0.015 %
20	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	3 Phase 4 Wire AC Reactive Energy @ 50 Hz, 63.5 V, 10 mA to 10 A, 0.25 PF (Lag/Lead) to UPF	Using Three Phase Reference Standard by Direct Method	476.25 mVArh to 1.905 kVArh	0.041 % to 0.015 %
21	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	3 Phase 4 Wire AC Reactive Power @ 50 Hz, 50 V to 480 V, 10 mA to 20 A, 0.01 PF (Lag / Lead) to UPF	Using Three Phase Reference Standard by Direct Method	5 mVar to 28.8 mVar	0.16 % to 0.05 %
22	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz	Using Three Phase Reference Standard by Direct Method	10 mA to 120 A	0.04 % to 0.02 %
23	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz to 1 kHz	Using 8½ DMM by Direct Method	100 µA to 100 mA	0.098 % to 0.06 %
24	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz to 1 kHz	Using 8½ DMM by Direct Method	100 mA to 1 A	0.06 % to 0.12 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2647

Page No

5 of 20

Validity

17/12/2024 to 16/12/2028

Last Amended on

10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
25	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Resistance @ 50 Hz	Using 8½ Digital Multimeter, 6½ Digital Multimeter, AC Source by V/I Method	50 mohm to 13 kohm	1 %
26	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz to 10 kHz	Using 8½ DMM by Direct Method	1 mV to 100 mV	0.056 % to 0.026 %
27	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz to 10 kHz	Using 8½ DMM by Direct Method	100 mV to 1000 V	0.026 % to 0.018 %
28	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	High Voltage @ 50 Hz	Using Standard Voltage Transformer, 6½ Digital Multimeter by Direct Method	1 kV to 40 kV	2 %
29	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Voltage and Current Harmonics @ 50 Hz, 240 V, 5 A	Using Three Phase Reference Standard by Comparison Method	2nd Order to 21st Order	0.64 %
30	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz	Using Multi Product Calibrator with Current Coil by Direct Method	20 A to 1000 A	0.43 % to 1.1 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 6 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
31	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	3 A to 20 A	0.15 % to 0.43 %
32	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	30 µA to 300 mA	0.57 % to 0.07 %
33	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	300 mA to 3 A	0.07 % to 0.15 %
34	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @ 1 kHz to 10 kHz	Using Multi Product Calibrator by Direct Method	30 mV to 200 V	0.048 % to 0.2 %
35	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	1 mV to 30 mV	1.66 % to 0.08 %
36	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	3 V to 1000 V	0.025 % to 0.036 %
37	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	30 mV to 3 V	0.08 % to 0.025 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 7 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
38	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance @ 1 kHz	Using Multi Product Calibrator by Direct Method	1 nF to 10 nF	1.7 % to 0.46 %
39	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance @ 1 kHz	Using Multi Product Calibrator by Direct Method	10 nF to 100 µF	0.46 % to 0.64 %
40	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Power Factor @ 50 Hz, 50 V to 480 V, 10 mA to 120 A	Using Three Phase Reference Standard by Direct Method	0.25 PF (Lag / Lead) to UPF	0.0015 PF
41	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	Capacitance	Using 8½ DMM by Direct Method	1 nF to 100 mF	2 % to 1 %
42	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct Method	1 A to 20 A	0.026 % to 0.18 %
43	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct Method	10 µA to 100 mA	0.23 % to 0.013 %
44	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct Method	100 mA to 1 A	0.013 % to 0.026 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 8 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
45	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct Method	1 mV to 10 V	0.27 % to 0.0011 %
46	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct Method	10 V to 1000 V	0.0011 % to 0.0014 %
47	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Low Resistance (2 Wire)	Using Multi Product Calibrator, 8½ Digital Multimeter by V/I Method	100 µohm to 10 ohm	0.18 %
48	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2 Wire)	Using 8½ DMM by Direct Method	1 Mohm to 100 Mohm	0.003 % to 0.005 %
49	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2 Wire)	Using 8½ DMM by Direct Method	10 ohm to 100 kohm	0.004 % to 0.002 %
50	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2 Wire)	Using 8½ DMM by Direct Method	100 kohm to 1 Mohm	0.002 % to 0.003 %
51	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2 Wire)	Using 8½ DMM by Direct Method	100 Mohm to 10 Gohm	0.05 % to 2 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 9 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
52	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multiproduct Calibrator and Current Coil by Direct Method	20 A to 1000 A	0.5 % to 0.95 %
53	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	3 A to 20 A	0.08 % to 0.5 %
54	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	30 µA to 300 mA	0.95 % to 0.04 %
55	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	300 mA to 3 A	0.04 % to 0.08 %
56	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Using Multi Product Calibrator by Direct Method	1 Mohm to 100 Mohm	0.006 % to 0.6 %
57	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Using Multi Product Calibrator by Direct Method	100 Mohm to 1 Gohm	0.6 % to 1.72 %
58	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Multi Product Calibrator by Direct Method	1 ohm to 1 Mohm	0.15 % to 0.006 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 10 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
59	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	1 mV to 300 mV	0.0085 % to 0.003 %
60	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	300 mV to 1000 V	0.003 % to 0.0025 %
61	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	High Resistance (2 Wire)	Using Discrete Resistors by Direct Method	10 Mohm, 100 Mohm, 1 Gohm	0.5 %
62	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	High Resistance (2 Wire, Upto 1 kV)	Using Discrete Resistors by Direct Method	10 Gohm	2 %
63	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Low Resistance (4 Wire)	Using Discrete Resistors by Direct Method	1 mohm, 10 mohm, 100 mohm	0.12 %
64	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Low Resistance (4 Wire)	Using Discrete Resistors by Direct Method	1 ohm, 10 ohm, 100 ohm	0.04 %
65	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	CT Burden Box @ 50 Hz (1 A & 5 A, 0.8 PF to UPF)	Using Three Phase Reference Standard by Direct Method	1 VA to 110 VA	0.1 % to 0.25 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 11 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
66	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Current Transformer @ 50 Hz - Phase Error	Using Current Comparator and Bridge by Comparison Method	1 % to 120 % (5 A / 1 A - 5 A to 5000 A / 1 A - 5 A)	1 minute
67	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Current Transformer @ 50 Hz - Ratio Error	Using Current Comparator and Bridge by Comparison Method	1 % to 120 % (5 A / 1 A - 5 A to 5000 A / 1 A - 5 A)	0.0125 %
68	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	DC High Voltage	Using Standard Resistors and 6½ Digital Multimeter by Comparison method	1 kV to 5 kV	0.5 % to 1 %
69	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer @ 50 Hz - Phase Error	Using Electronic Potential Divider & Bridge by Comparison Method	5 % to 120 % (11 kV/v3 kV / 63.5 V-110 V to 33 kV / 63.5 V - 110 V)	1 minute
70	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Potential Transformer @ 50 Hz - Ratio Error	Using Electronic Potential Divider with Bridge by Comparison Method	5 % to 120 % (11 kV / v3 kV / 63.5 V - 110 V to 33 kV / 63.5 V - 110 V)	0.02 %
71	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	PT Burden Box @ 50 Hz, 63.5 V & 110 V, 0.8 PF)	Using Three Phase Reference Standard by Direct Method	2.5 VA to 300 VA	0.2 % to 0.3 %
72	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Voltage Ratio	Using 8½ Digital Multimeter, 6½ Digital Multimeter by V/V Method	1 to 1000 (80 V - 230 V)	0.1 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 12 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
73	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	Voltage Ratio	Using Standard Voltage transformer, 6½ Digital Multimeter as Secondary Voltage Measurement by Direct Method	27.27 to 363.63 (3 kV - 40 kV / 110 V)	0.04 %
74	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope (Bandwidth)	Using Multi Product Calibrator by Direct Method	1.3 Vpp to 5 Vpp (50 kHz to 500 MHz)	6.53 %
75	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope (DC Voltage, AC Voltage up to 10 kHz)	Using Multi Product Calibrator by Direct Method	25 mV to 80 mV	0.35 %
76	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope (Time)	Using Multi Product Calibrator by Direct Method	1 ns to 50 ms	0.008 % to 0.036 %
77	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using 8½ DMM by Direct Method	50 Hz to 1 MHz	0.005 %
78	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time	Using Time Interval Meter by Direct Method	100 ms to 4 hr	1 ms to 5 s
79	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Using Multi Product Calibrator by Direct Method	50 Hz to 1 MHz	0.008 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2647

Page No

13 of 20

Validity

17/12/2024 to 16/12/2028

Last Amended on

10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
80	THERMAL-TEMPERATURE	Liquid in Glass Thermometer	Using PRT Sensor with Precision Temperature Scanner, Oil Bath by Comparison Method	0 °C to 150 °C	0.6 °C
81	THERMAL-TEMPERATURE	RTD / Thermocouple with Indicator	Using PRT with Precision Temperature Scanner, Oil Bath by Comparison Method	(-) 25 °C to 150 °C	0.18 °C
82	THERMAL-TEMPERATURE	RTD / Thermocouple with Indicator	Using PRT sensor with Precision Temperature Scanner, Field Metrology Well by Comparison Method	150 °C to 650 °C	2 °C
83	THERMAL-TEMPERATURE	Thermocouple with Indicator	Using S-type Thermocouples with Precision Temperature Scanner, Portable Furnace by Comparison Method	650 °C to 1000 °C	2.6 °C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2647

Page No

14 of 20

Validity

17/12/2024 to 16/12/2028

Last Amended on

10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
Site Facility					
1	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz to 1 kHz	Using 8½ DMM by Direct Method	100 µA to 100 mA	0.098 % to 0.06 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz to 1 kHz	Using 8½ DMM by Direct Method	100 mA to 1 A	0.06 % to 0.12 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Resistance @ 50 Hz	Using 8½ Digital Multimeter, 6½ Digital Multimeter, AC Source by V/I Method	50 mohm to 13 kohm	1 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz to 10 kHz	Using 8½ DMM by Direct Method	1 mV to 100 mV	0.056 % to 0.026 %
5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz to 10 kHz	Using 8½ DMM by Direct Method	100 mV to 1000 V	0.026 % to 0.018 %
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	High Voltage @ 50 Hz	Using Standard Voltage Transformer, 6½ Digital Multimeter by Direct Method	1 kV to 40 kV	2 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 15 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
7	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz	Using Multi Product Calibrator with Current Coil by Direct Method	20 A to 1000 A	0.43 % to 1.1 %
8	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	3 A to 20 A	0.15 % to 0.43 %
9	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	30 µA to 300 mA	0.57 % to 0.07 %
10	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	300 mA to 3 A	0.07 % to 0.15 %
11	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage @ 1 kHz to 10 kHz	Using Multi Product Calibrator by Direct Method	30 mV to 200 V	0.048 % to 0.2 %
12	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	1 mV to 30 mV	1.66 % to 0.08 %
13	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	3 V to 1000 V	0.025 % to 0.036 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2647

Page No

16 of 20

Validity

17/12/2024 to 16/12/2028

Last Amended on

10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
14	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage @ 50 Hz to 1 kHz	Using Multi Product Calibrator by Direct Method	30 mV to 3 V	0.08 % to 0.025 %
15	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance @ 1 kHz	Using Multi Product Calibrator by Direct Method	1 nF to 10 nF	1.7 % to 0.46 %
16	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance @ 1 kHz	Using Multi Product Calibrator by Direct Method	10 nF to 100 µF	0.46 % to 0.64 %
17	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct Method	1 A to 20 A	0.026 % to 0.18 %
18	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct Method	10 µA to 100 mA	0.23 % to 0.013 %
19	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct Method	100 mA to 1 A	0.013 % to 0.026 %
20	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct Method	1 mV to 10 V	0.27 % to 0.0011 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 17 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
21	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Low Resistance (2 Wire)	Using Multi Product Calibrator, 8½ Digital Multimeter by V/I Method	100 µohm to 10 ohm	0.18 %
22	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2 Wire)	Using 8½ DMM by Direct Method	1 Mohm to 100 Mohm	0.003 % to 0.005 %
23	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2 Wire)	Using 8½ DMM by Direct Method	10 ohm to 100 kohm	0.004 % to 0.002 %
24	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2 Wire)	Using 8½ DMM by Direct Method	100 kohm to 1 Mohm	0.002 % to 0.003 %
25	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2 Wire)	Using 8½ DMM by Direct Method	100 Mohm to 10 Gohm	0.05 % to 2 %
26	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multiproduct Calibrator and Current Coil by Direct Method	20 A to 1000 A	0.5 % to 0.95 %
27	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	3 A to 20 A	0.08 % to 0.5 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 18 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
28	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	30 μ A to 300 mA	0.95 % to 0.04 %
29	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	300 mA to 3 A	0.04 % to 0.08 %
30	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Using Multi Product Calibrator by Direct Method	1 Mohm to 100 Mohm	0.006 % to 0.6 %
31	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Using Multi Product Calibrator by Direct Method	100 Mohm to 1 Gohm	0.6 % to 1.72 %
32	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 Wire)	Using Multi Product Calibrator by Direct Method	1 ohm to 1 Mohm	0.15 % to 0.006 %
33	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	1 mV to 300 mV	0.0085 % to 0.003 %
34	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	300 mV to 1000 V	0.003 % to 0.0025 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647

Validity 17/12/2024 to 16/12/2028

Page No 19 of 20

Last Amended on 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
35	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	High Resistance (2 Wire)	Using Discrete Resistors by Direct Method	10 Mohm, 100 Mohm, 1 Gohm	0.5 %
36	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	High Resistance (2 Wire, Upto 1 kV)	Using Discrete Resistors by Direct Method	10 Gohm	2 %
37	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope (Bandwidth)	Using Multi Product Calibrator by Direct Method	1.3 Vpp to 5 Vpp (50 kHz to 500 MHz)	6.53 %
38	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope (DC Voltage, AC Voltage up to 10 kHz)	Using Multi Product Calibrator by Direct Method	25 mV to 80 mV	0.35 %
39	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope (Time)	Using Multi Product Calibrator by Direct Method	1 ns to 50 ms	0.008 % to 0.036 %
40	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using 8½ DMM by Direct Method	50 Hz to 1 MHz	0.005 %
41	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Using Multi Product Calibrator by Direct Method	50 Hz to 1 MHz	0.008 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, GOVINDPURA, BHOPAL,
MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2647 **Page No** 20 of 20

Validity 17/12/2024 to 16/12/2028 **Last Amended on** 10/01/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
42	THERMAL-SPECIFIC HEAT & HUMIDITY	Temperature Indicator with sensor of RH Chamber / Environmental Chamber (Single Position Calibration)	Using Digital Hygrometer by Comparison Method	40 %RH to 95 %RH @ 25 °C	1.5 %RH
43	THERMAL-TEMPERATURE	Freezer, Oven, Chamber (Multi Position Calibration)	Using RTD (Minimum 9 Sensor) with Precision Temperature Scanner by Comparison Method	(-) 25 °C to 150 °C	1.55 °C

* CMCs represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k = 2.