



# National Accreditation Board for Testing and Calibration Laboratories

## SCOPE OF ACCREDITATION

<b>Laboratory Name :</b>	CENTRAL POWER RESEARCH INSTITUTE (C P R I), PROF. SIR C. V. RAMAN ROAD, SADASHIVANAGAR POST OFFICE, BENGALURU, KARNATAKA, INDIA		
<b>Accreditation Standard</b>	ISO/IEC 17025:2017		
<b>Certificate Number</b>	CC-2249	<b>Page No</b>	1 of 5
<b>Validity</b>	10/06/2022 to 09/06/2024	<b>Last Amended on</b>	10/01/2023

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)	AC Reactive Energy at 50 Hz (Single Phase/ Three Phase) 63.5 V to 240 V, 10 mA to 120 A , SinPhi: 0.25 lag/ lead to 1	Using Three Phase Comparator by Direct/ Comparison method	0.159 VARh to 86.4 kVARh	0.05 % to 0.013 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Energy at 50 Hz (Single Phase/ Three Phase) Cos Phi=0.25lag/lead to 1, 63.5 V to 240 V, 10 mA to 120 A	Using Three Phase Comparator by Direct/Comparison method	0.159 Wh to 86.4 kWh	0.05 % to 0.013 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power at 50 Hz (Single Phase/ Three Phase) Cos Phi=0.25lag/lead to 1, 63.5 V to 240 V, 10 mA to 120 A	Using Three Phase Comparator by Direct/Comparison method	0.159 W to 86.4 kW	0.05 % to 0.013 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current at 50 Hz (Single Phase/ Three Phase)	Three Phase Comparator by Direct/Comparison method	10 mA to 120 A	0.016 % to 0.012 %



# National Accreditation Board for Testing and Calibration Laboratories

## SCOPE OF ACCREDITATION

<b>Laboratory Name :</b>	CENTRAL POWER RESEARCH INSTITUTE (C P R I), PROF. SIR C. V. RAMAN ROAD, SADASHIVANAGAR POST OFFICE, BENGALURU, KARNATAKA, INDIA		
<b>Accreditation Standard</b>	ISO/IEC 17025:2017		
<b>Certificate Number</b>	CC-2249	<b>Page No</b>	2 of 5
<b>Validity</b>	10/06/2022 to 09/06/2024	<b>Last Amended on</b>	10/01/2023

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)(±)
5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Power at 50 Hz (Single Phase/ Three Phase) 63.5 V to 240 V, 10 mA to 120 A, Sin Phi: 0.25 lag/lead to 1	Using Three Phase Comparator by Direct/Comparison method	0.159 VAR to 86.4 kVAR	0.05 % to 0.013 %
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (Single Phase/Three Phase) @50 Hz	Three Phase Comparator by Direct/Comparison method	30 V to 480 V	0.016 % to 0.011 %
7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Harmonics in Voltage and Current circuits (10% to 40%)	Using Three Phase Comparator by Direct/Comparison method	2nd to 21st (63.5 V to 240 V)	0.3% to 0.3%
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Power Factor (Single Phase/Three Phase) @50 Hz	Using Three Phase Comparator by Direct/ Comparison method	Cos/SinPhi: 0.25lag/lead to 1	0.0005 PF to 0.00014 PF
9	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Three Phase Comparator by Direct/Comparison method	45 Hz to 65 Hz	0.016 % to 0.014 %



# National Accreditation Board for Testing and Calibration Laboratories

## SCOPE OF ACCREDITATION

<b>Laboratory Name :</b>	CENTRAL POWER RESEARCH INSTITUTE (C P R I), PROF. SIR C. V. RAMAN ROAD, SADASHIVANAGAR POST OFFICE, BENGALURU, KARNATAKA, INDIA		
<b>Accreditation Standard</b>	ISO/IEC 17025:2017		
<b>Certificate Number</b>	CC-2249	<b>Page No</b>	3 of 5
<b>Validity</b>	10/06/2022 to 09/06/2024	<b>Last Amended on</b>	10/01/2023

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 at 50 Hz (Single Phase/ Three Phase)	Using Three Phase Portable Test System by Direct /Comparison Method	10 mA to 120 A	0.026 % to 0.014 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Energy at 50 Hz (Single Phase/ Three Phase) Sin Phi: 0.25 lag/lead to 1, 63.5 V to 240 V, 10 mA to 120 A	Using Three Phase Portable Test System by Direct/Comparison method:	0.159 VARh to 86.4 kVARh	0.05 % to 0.031 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Energy at 50 Hz (Single Phase/ Three Phase) Cos Phi: 0.25 lag/lead to 1, 63.5 V to 240V, 10 mA to 120 A	Using Three Phase Portable Test System by Direct/ Comparison method	0.159 Wh to 86.4 kWh	0.05 % to 0.031 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power at 50 Hz (Single Phase/ Three Phase) Cos Phi=0.25 lag/lead to 1, 63.5 V to 240 V, 10 mA to 120 A	Using Three Phase portable test system by Direct/Comparison method	0.159 W to 86.4 kW	0.05 % to 0.031 %



# National Accreditation Board for Testing and Calibration Laboratories

## SCOPE OF ACCREDITATION

<b>Laboratory Name :</b>	CENTRAL POWER RESEARCH INSTITUTE (C P R I), PROF. SIR C. V. RAMAN ROAD, SADASHIVANAGAR POST OFFICE, BENGALURU, KARNATAKA, INDIA		
<b>Accreditation Standard</b>	ISO/IEC 17025:2017		
<b>Certificate Number</b>	CC-2249	<b>Page No</b>	4 of 5
<b>Validity</b>	10/06/2022 to 09/06/2024	<b>Last Amended on</b>	10/01/2023

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)(±)
5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Reactive Power at 50 Hz (Single Phase/ Three Phase) 63.5 V to 240 V, 10 mA to 120 A, Sin Phi: 0.25 lag/lead to 1	Using Three Phase Portable test system by Direct/Comparison method	0.159 VAR to 86.4 kVAR	0.05 % to 0.031 %
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage at 50 Hz (Single Phase/ Three Phase)	Using Three Phase Portable Test System by Direct/Comparison method	30 V to 480 V	0.024 % to 0.015 %
7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Harmonics in Voltage and Current Circuit (10% to 40%)	Using Three Phase Portable Test System by Direct/Comparison method	2nd to 21st (63.5 V to 240 V)	0.3%
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Power Factor (Single Phase/Three Phase) @50 Hz	Using Three Phase Portable Test System by Direct/Comparison method:	Cos/SinPhi: 0.25lag/lead to 1	0.0022 PF to 0.00014 PF
9	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Three Phase Portable Test System, Direct/Comparison method:	45 Hz to 65 Hz	0.03 % to 0.022 %



# National Accreditation Board for Testing and Calibration Laboratories

## SCOPE OF ACCREDITATION

**Laboratory Name :**

CENTRAL POWER RESEARCH INSTITUTE (C P R I), PROF. SIR C. V. RAMAN ROAD,  
SADASHIVANAGAR POST OFFICE, BENGALURU, KARNATAKA, INDIA

**Accreditation Standard**

ISO/IEC 17025:2017

**Certificate Number**

CC-2249

**Page No**

5 of 5

**Validity**

10/06/2022 to 09/06/2024

**Last Amended on**

10/01/2023

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

