

CERTIFICATE OF ACCREDITATION

CHHATTISGARH STATE POWER DISTRIBUTION **COMPANY LIMITED, CENTRAL TESTING LABORATORY** DIVISION

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & **Calibration Laboratories''**

for its facilities at

BHILAI 220 KV SUB-STATION ROAD, BIJALI NAGAR, BHILAI-3, BHILAI, DURG, CHHATTISGARH, INDIA

in the field of

TESTING

Certificate Number: TC-8192

Issue Date: 04/06/2025 03/06/2029

Valid Until: This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL. (To see the scope of accreditation of thislaboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: CHHATTISGARH STATE POWER DISTRIBUTION COMPANY LIMITED

Signed for and on behalf of NABL



Anuja Anand Director

N. Venkateswaran **Chief Executive Officer**



SCOPE OF ACCREDITATION

Laboratory Name :CHHATTISGARH STATE POWER DISTRIBUTION COMPANY LIMITED,
CENTRAL TESTING LABORATORY DIVISION, BHILAI 220 KV SUB-STATION
ROAD, BIJALI NAGAR, BHILAI-3, BHILAI, DURG, CHHATTISGARH, INDIAAccreditation Standard
Certificate NumberISO/IEC 17025:2017TC-8192Page No1 of 5Validity04/06/2025 to 03/06/2029Last Amended on-

Component, parameter or **Test Method Specification** characteristic tested / against which tests are S.No **Discipline / Group** Materials or Products tested Specific Test Performed / performed and / or the Tests or type of tests techniques / equipment performed used Permanent Testing ELECTRICAL- ELECTRICAL AC Static Direct Connected Watt-Hour Smart meter (Class CL. No. 6.10.6 of IS 16444(Part INDICATING & AC high voltage test 1 RECORDING :1 & 2) 1) **INSTRUMENTS** ELECTRICAL- ELECTRICAL INDICATING & AC Static Direct Connected Watt-Hour Smart meter (Class CL. No. 6.10.6 of IS 16444(Part 2 Insulation Resistance Test RECORDING :1 & 2) 1) **INSTRUMENTS** ELECTRICAL- ELECTRICAL Limits of Error due to other INDICATING & AC Static Direct Connected Watt-Hour Smart meter (Class Influence Quantities (10% of CL. No. 6.12 of IS 16444(Part 1) RECORDING :1 & 2) 3rd harmonic in current circuit) **INSTRUMENTS** ELECTRICAL- ELECTRICAL Limits of Error due to other INDICATING & AC Static Direct Connected Watt-Hour Smart meter (Class Influence Quantities CL. No. 6.12 of IS 16444(Part 1) RECORDING :1 & 2) (Frequency Variation) **INSTRUMENTS** ELECTRICAL- ELECTRICAL Limits of Error due to other INDICATING & AC Static Direct Connected Watt-Hour Smart meter (Class CL. No. 6.12 of IS 16444(Part 1) Influence Quantities (Voltage RECORDING :1 & 2) Variation) **INSTRUMENTS** ELECTRICAL- ELECTRICAL Limits of Error due to variation **INDICATING &** AC Static Direct Connected Watt-Hour Smart meter (Class CL. No. 6.12 of IS 16444(Part 1) RECORDING :1 & 2) of current **INSTRUMENTS** ELECTRICAL- ELECTRICAL Test of Meter Constant / INDICATING & AC Static Direct Connected Watt-Hour Smart meter (Class CL. No. 6.12 of IS 16444(Part 1) RECORDING :1 & 2) Registration **INSTRUMENTS** ELECTRICAL- ELECTRICAL **INDICATING &** AC Static Direct Connected Watt-Hour Smart meter (Class Test of No Load Condition CL. No. 6.12 of IS 16444(Part 1) 8 RECORDING :1 & 2) **INSTRUMENTS** ELECTRICAL- ELECTRICAL **INDICATING &** AC Static Direct Connected Watt-Hour Smart meter (Class Test of Power Consumption CL. No. 6.10.1.2 of IS RECORDING 16444(Part - 1) :1 & 2) (Current Circuit) INSTRUMENTS ELECTRICAL- ELECTRICAL **INDICATING &** AC Static Direct Connected Watt-Hour Smart meter (Class 10 Test of Repeatability of Errors CL. No. 6.12 of IS 16444(Part 1) RECORDING :1 & 2) INSTRUMENTS ELECTRICAL- ELECTRICAL INDICATING & AC Static Direct Connected Watt-Hour Smart meter (Class 11 Test of Starting Condition CL. No. 6.12 of IS 16444(Part 1) RECORDING :1 & 2) **INSTRUMENTS**

This is annexure to 'Certificate of Accreditation' and does not require any signature.



SCOPE OF ACCREDITATION

Laboratory Name :

INDICATING &

INSTRUMENTS

INDICATING &

INSTRUMENTS

RECORDING

ELECTRICAL- ELECTRICAL

RECORDING

21

22

Accreditation Standard Certificate Number Validity CHHATTISGARH STATE POWER DISTRIBUTION COMPANY LIMITED, CENTRAL TESTING LABORATORY DIVISION, BHILAI 220 KV SUB-STATION ROAD, BIJALI NAGAR, BHILAI-3, BHILAI, DURG, CHHATTISGARH, INDIA ISO/IEC 17025:2017

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CL. No. 9.1.2 & 12.7.1 of IS

CL. No. 9.1.1 & 12.7.1 of IS

14697

14697

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
12	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	AC high voltage test	CL. No. 9.5 & 12.7.6.3 of IS 14697
13	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	External AC / DC magnetic Influence	CBIP Tech. Report - 325
14	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	Insulation Resistance Test	CL. No. 9.5 & 12.7.6.4 of IS 14697
15	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	Limits of Error due to Influence Quantity (Voltage Variation)	CL. No. 11.2 & 12.10 of IS 14697
16	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	Limits of Error due to other Influence Quantities(10% of 3rd harmonic in current circuit)	CL. No. 11.2 & 12.10 of IS 14697
17	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	Limits of Error due to other Influence Quantity(Frequency Variation)	CL. No. 11.2 & 12.10 of IS 14697
18	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	Limits of Error due to variation of current	CL. No. 11.1 & 12.9.1 of IS 14697
19	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	Test of Meter Constant / Registration	CL. No. 11.6 & 12.14 of IS 14697
20	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	Test of No Load Condition	CL. No. 11.4 & 12.12 of IS 14697:2021
	ELECTRICAL- ELECTRICAL		Task of Damag	

Test of Power

Test of Power

Consumption(Current Circuit)

Consumption(Voltage Circuit)

AC Static Transformer Operated Watt-Hour & Var-Hour

AC Static Transformer Operated Watt-Hour & Var-Hour

Meter :0.5s ,0.2s & 1s

Meter :0.5s ,0.2s & 1s



SCOPE OF ACCREDITATION

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Component, parameter or Test Method Specification

S.No	Discipline / Group	Materials or Products tested	characteristic tested / Specific Test Performed / Tests or type of tests performed	against which tests are performed and / or the techniques / equipment used
23	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	Test of Power Consumption(Voltage Circuit)	CL. No. 9.1.1 & 12.7.1 of IS 14697
24	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	Test of Repeatability of Errors	CL. No. 11.7 & 12.16 of IS 14697
25	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Meter :0.5s ,0.2s & 1s	Test of Starting Condition	CL. No. 11.5 & 12.13 of IS 14697
26	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Smart Meter :0.5s ,0.2s & 1s	AC high voltage test	CL. No. 6.10.6 of IS 16444(Part - 2)
27	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Smart Meter :0.5s ,0.2s & 1s	Insulation Resistance Test	CL. No. 6.10.6 of IS 16444(Part - 2)
28	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Smart Meter :0.5s ,0.2s & 1s	Limits of Error due to other Influence Quantities (Voltage Variation)	CL. No. 6.12 of IS 16444(Part - 2)
29	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Smart Meter :0.5s ,0.2s & 1s	Limits of Error due to other Influence Quantities (Frequency Variation)	CL. No. 6.12 of IS 16444(Part - 2)
30	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Smart Meter :0.5s ,0.2s & 1s	Limits of Error due to other Influence Quantities (10% of 3rd harmonic in current circuit)	CL. No. 6.12 of IS 16444(Part - 2)
31	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Smart Meter :0.5s ,0.2s & 1s	Limits of Error due to variation of current	CL. No. 6.12 of IS 16444(Part - 2)
32	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Smart Meter :0.5s ,0.2s & 1s	Test of Meter Constant / Registration	CL. No. 6.12 of IS 16444(Part - 2)
33	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Smart Meter :0.5s ,0.2s & 1s	Test of No Load Condition	CL. No. 6.12 of IS 16444(Part - 2)



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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
34	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Smart Meter :0.5s ,0.2s & 1s	Test of Power Consumption (Current Circuit)	CL. No. 6.10.1.2 of IS 16444(Part - 2)
35	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Smart Meter :0.5s ,0.2s & 1s	Test of Repeatability of Errors	CL. No. 6.12 of IS 16444(Part - 2)
36	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watt-Hour & Var-Hour Smart Meter :0.5s ,0.2s & 1s	Test of Starting Condition	CL. No. 6.12 of IS 16444(Part - 2)
37	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	AC high voltage test	CL No. 9.5 & 12.7.6.3 of IS 13779
38	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Dry Heat Test	As per SOP No. 6 of CSPDCL/CTLD/LAB/SOP/02 of CSPDCL Central Testing Laboratory Division , Bhilai-2022
39	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	External AC / DC magnetic Influence	CBIP Tech. Report - 325
40	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Insulation Resistance Test	CL No. 9.5 & 12.7.6.4 of IS 13779
41	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Limits of Error due to other Influence Quantities(10% of 3rd harmonic in current circuit)	CL No. 11.2 & 12.10.1 of IS 13779
42	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Limits of Error due to other Influence Quantities(Frequency Variation)	CL No. 11.2 & 12.10.1 of IS 13779
43	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Limits of Error due to other Influence Quantities(Voltage Variation)	CL No. 11.2 & 12.10.1 of IS 13779
44	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Limits of Error due to variation of current	CL No. 11.1 & 12.10.1 of IS 13779

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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
45	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Phase to Phase Voltage Test	As per SOP No. 3.9 Of CSPDCL Central Testing Laboratory Division , Bhilai-2019
46	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Test of Meter Constant / Registration	CL No. 11.6 & 12.15 of IS 13779
47	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Test of No Load Condition	CL No. 11.4 & 12.13 of IS 13779
48	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Test of Power Consumption(Current Circuit)	CL No. 9.1.2 & 12.7.1 of IS 13779
49	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Test of Power Consumption(Voltage Circuit)	CL No. 9.1.1 & 12.7.1 of IS 13779
50	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Test of Power Consumption(Voltage Circuit)	CL No. 9.1.1 & 12.7.1 of IS 13779
51	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Test of Repeatability of Errors	CL No. 11.7 & 12.17 of IS 13779
52	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watt - hour meter (Class :1 & 2)	Test of Starting Condition	CL No. 11.5 & 12.14 of IS 13779