

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



TEST REPORT

Test Report Number : CPRI BLR SCLMISC23T0890 **Date:** 10 July 2023

Name and Address of the Customer : M/s. Lath Industries,
Plot Nos. J-34+J-74,
Additional MIDC, Murbad, Thane - 421 401,
Maharashtra, India.

Name and Address of the Manufacturer : M/s. Lath Industries,
Plot Nos. J-34+J-74,
Additional MIDC, Murbad, Thane - 421 401,
Maharashtra, India.

Particulars of sample tested : 17.2 mm dia 3050 mm long Copper Bonded Earth Electrode

Type : ---

Description of the sample : Refer Sheet 2 of 6

Serial Number : ---

Number of samples tested : One

Date (s) of Test (s) : 22 June 2023

CPRI sample code no(s) : SCLMISC23S0913

Particulars of tests conducted : Short-time withstand current and peak withstand current

Test in accordance with Standard / specification : Customer's instruction

Sampling plan : Not applicable

Customer's requirement : 15 kA rms for 1.0 s & 37.5 kA peak

Deviations if any : ---

Name of the witnessing persons : Mr. Chethan Lath, Proprietor

Customer's representatives : None

Other than customer's representatives : None

Test subcontracted with : None

Address of the laboratory : None

Documents constituting this report (in words)

Number of Sheet(s) : Six


Number of Oscillograms(s) : One

Number of Graph(s) : Nil

Number of Photo(s) : Two

Number of Test Circuit Diagram(s) : One

Number of Drawing(s) : One


(Sakthivel. P)
Test Engineer




(Swaraj Kumar Das)
Head of Division
Reviewed and Authorized by

CENTRAL POWER RESEARCH INSTITUTE
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Date: 10 July 2023

DESCRIPTION OF SAMPLE TESTED
(As assigned by the manufacturer)

Test sample : Copper Bonded Earth Electrode
Designation : LE/CBR/17.2/3
Copper coating thickness : 250 microns (not verified by CPRI)
Size & length of Earth Electrode : 17.2 mm dia & 3050 mm long
Short-time withstand current and peak withstand current : 15 kA rms for 1.0 s & 37.5 kA peak


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SUMMARY OF TEST CONDUCTED

- | | | | |
|---|------------------------------|---|---|
| 1 | Tests conducted | : | Short-time withstand current and peak withstand current |
| 2 | Rating for which tested | : | 15 kA rms for 1.0 s & 37.5 kA peak |
| 3 | Schedule of tests | : | Refer Sheet 5 of 6 |
| 4 | Oscillogram Numbers | : | CPRI BLSCLMISC23T0890S002 |
| 5 | Photograph Numbers | : | CPRI BLSCLMISC23T0890P01 &
CPRI BLSCLMISC23T0890P02 |
| 6 | Test Circuit Diagram Numbers | : | CRTL/SC/STC-01A |
| 7 | Drawing Numbers | : | Refer Sheet 4 of 6 |
| 8 | Criteria for evaluation | : | There shall be no visible damage to earth electrode, copper bonding shall be intact |


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LIST OF DRAWINGS

Drawing Numbers

The manufacturer has guaranteed that the sample submitted for the test(s) has been manufactured in accordance with the following drawing.

Sl. No.	Drawing Number	Sheet Number	Revision Number
1	DRG/LATH/CBR/17.2/3	---	0

It is verified that this drawing adequately represent the sample tested. Verification of this drawing by CPRI is limited to dimensional check only wherever possible.


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TEST RESULTS

SHORT-TIME WITHSTAND CURRENT AND PEAK WITHSTAND CURRENT TESTS
(as per customer's instruction)

TEST CONDITIONS

Source Short-circuit generator
Number of phases Single
Frequency 50 Hz

Test sample
Condition of the sample Good; welded terminal of the earth electrode connected to source
Mounting Horizontal, isolated from ground


Test details
Test circuit drawing number CRTL/SC/STC-01A
Short-circuit applied On the other end of the earth electrode
Short-circuit point Grounded

Ambient Temperature: 27°C

Oscillogram Number	Current (kA)		Duration (s)	Observation
	Peak	Rms		
CPRI BLR SCL MISC 23 T 0890 S 002	38.12	15.92	1.05	During test: No abnormality

Physical Inspection: No visible damage to earth electrode & copper bonding intact.

Conclusion: The sample tested complies with the requirement of customer for the test conducted.


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NOTE

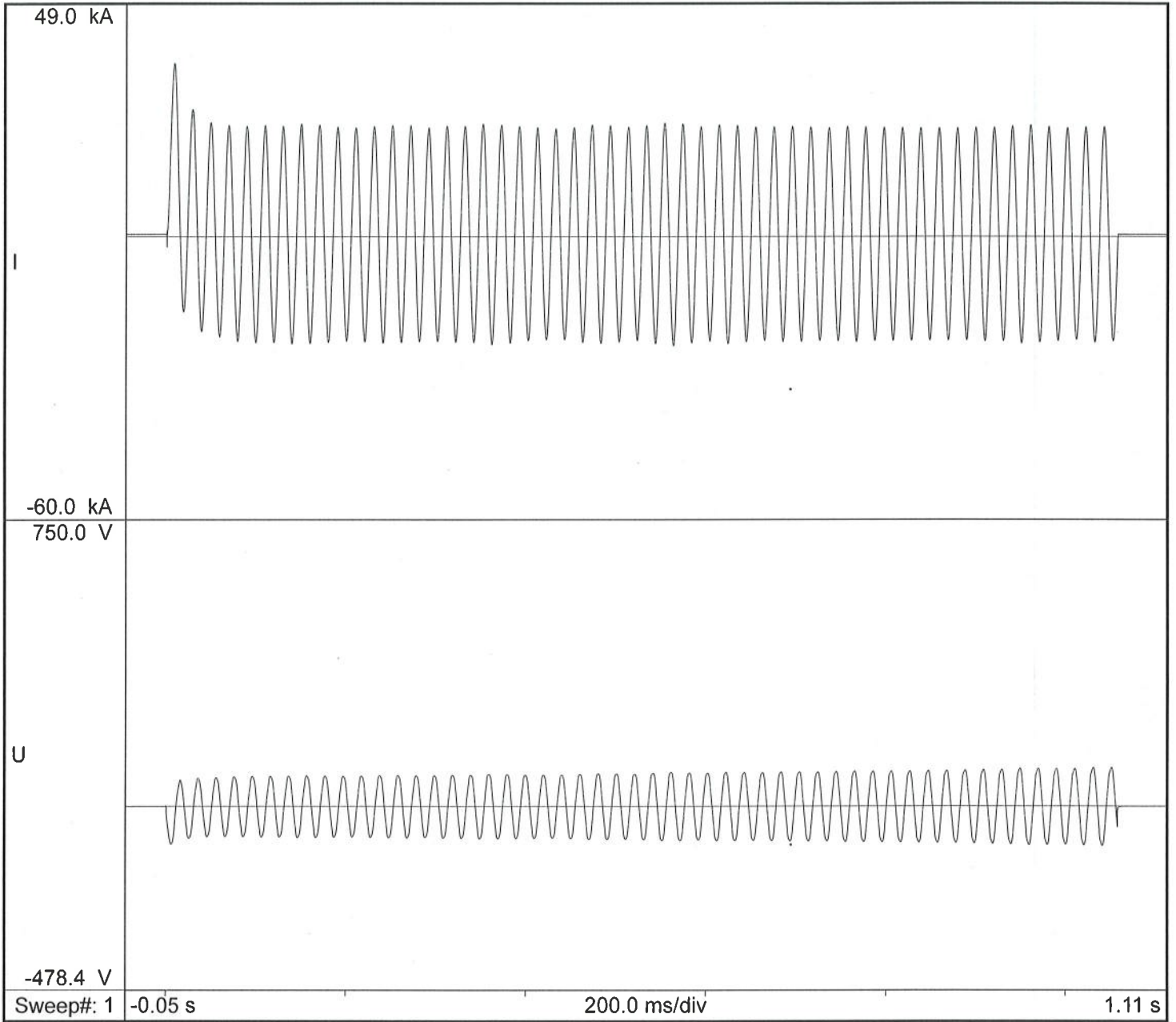
- a) The Test results relate only to the item(s) tested.
- b) Publication or reproduction of this report in any form other than by complete set of the whole test report and in the language written is not permitted without the written consent of CPRI.
- c) Any Corrections / erasure invalidate the test report.
- d) Any anomaly / discrepancy in the test report should be brought to notice of CPRI within 45 days from the date of issue.
- e) All the documents consisting the test report are stitched together with a continuous silk thread, the two ends of which have been brought over the front sheet of the test report and seal with a CPRI logo printed paper sticker.


(Sakthivel. P)
Test Engineer

-----End of Test Report -----

Test Report Number: CPRIBLRSCLMISC23T0890

Date: 10 July 2023




(Sakthivel. P)
Test Engineer

22-06-2023

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TEST REPORT


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Date: 10 July 2023



Mounting arrangement (Before test)

CPRIBLRSCLMISC23T0890P01


(Sakthivel. P)
Test Engineer

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Condition of the sample (After test) .

CPRIBLRSCLMISC23T0890P02


(Sakthivel. P)
Test Engineer



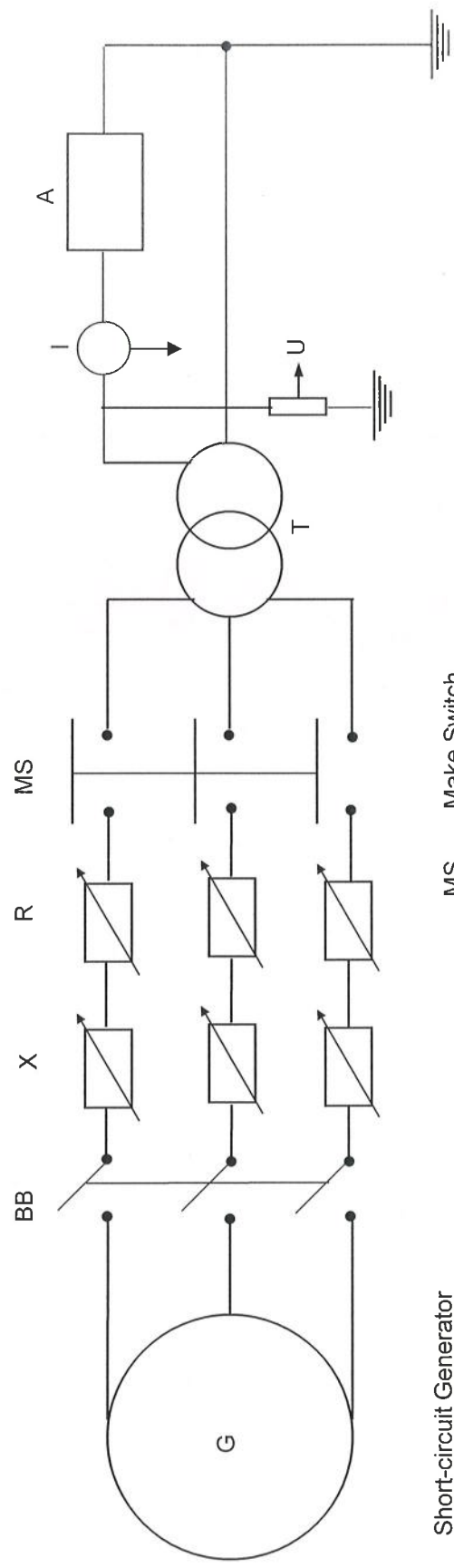
Test Report Number: CPRIBLRCLMISC23T0890

Date: 10 July 2023

CPRI

Schematic of main & measurement circuits - Single phase test

Circuit Number: CRTL/SC/STC-01A



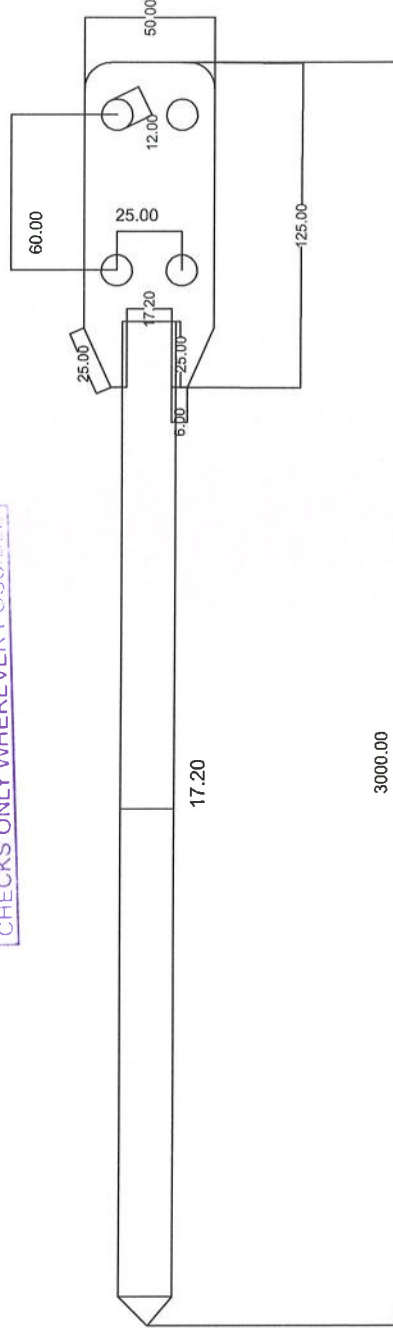
- | | | | |
|----|-------------------------|----|-----------------------|
| G | Short-circuit Generator | MS | Make Switch |
| BB | Back up Circuit Breaker | T | Step-down transformer |
| X | Reactance | A | Sample under test |
| R | Resistors | I | Current Sensor |
| | | U | Voltage divider |

(Signature)
 (Sakthivel. P)
 Test Engineer

COPPER BONDED SOLID EARTH ELECTRODE 17.20 MM X 3000 MM (WITH WELDED TERMINAL)

कै.वि.अ.सं. द्वारा इस रेखाचित्र का सत्यापन जहाँ कहीं भी संभव हो सिर्फ़ विभीय जाय तक ही सीमित है।
 THE VERIFICATION OF THIS DRAWING BY CPRI IS LIMITED TO DIMENSIONAL CHECKS ONLY WHEREVER POSSIBLE.

परीक्षण रिपोर्ट संख्या सीपीआरआईबीएलआरएससीएल
 एमआईएस्सी..... से संबंधित दस्तावेज़
 Document Pertaining to Test Report
 No: CPRIBLRSLMISC.2.3.1.2890



Copper Bonded Solid Earth Electrode with Welded Terminal
 Size : 17.20 mm (diameter) x 3000 mm (Length)
 Strip Size : 50 x 6 mm
 All dimensions are in Millimeters (mm)

Signature
 परीक्षण अभियन्ता / Test Engineer
 ल.प. प्रयोगशाला / S. C. LAB
 सी. पी. आर. आई. / CPRI
 बंगलूरु / Bengaluru

MODEL No. LE/CBR/17.2/3

COPPER BONDED SOLID ELECTRODE 17.2 MM X 3000 MM			
M.O.C.:MILD STEEL	TOLERANCE : +/-5%	COATING: COPPER	THICKNESS : 250 MICRONS
PARTICULARS	DATE	Manufactured by : LATH Industries, Plot Nos. J-34 + J-74,	
DRAWN BY	10.02.2023	Additional MDC, Murbad, Thane - 421401, Maharashtra, India.	
CHECKED BY	10.02.2023	Email ID : sales@lathearthing.com, lathearthing@gmail.com	
DRAWING NO.		Website : www.lathearthing.com	
NOT TO SCALE			
		SHEET SIZE : A4	