

SHREENATH ENTERPRISES  
CPRI

## TEST REPORT



## Central Power Research Institute

(A Govt. of India Society)

P.B.No. 8066, Sadashivanagar Post Office,  
Sir C.V. Raman Road,  
Bengaluru - 560 080 (INDIA)

CENTRAL POWER RESEARCH INSTITUTE  
(Member of STL)



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TEST REPORT

Test Report Number : CPRI BLR SCLMISC25T0184 Date: 20 February 2025

Name and Address of the Customer : M/s. Shreenath Enterprises,  
247, Harnkul, Gangakhed,  
Parbhani - 431 514, Maharashtra, India.

Name and Address of the Manufacturer : M/s. Shreenath Enterprises,  
247, Harnkul, Gangakhed,  
Parbhani - 431 514, Maharashtra, India.

Particulars of sample tested : 76 mm dia. (OD) 3000 mm long Copper Coated  
MS Earthing Electrode

Type : Strip in pipe, backfill compound

Description of the sample : Refer Sheet 2 of 6

Serial Number : --

Number of samples tested : One

Date (s) of Test (s) : 07 February 2025

CPRI sample code no(s) : SCLMISC25S0147

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 : 25 kA rms for 1.0 s & 50 kA peak & Refer Sheet 3 of 6

Deviations if any : --

Name of the witnessing persons : Mr. Subrat Kumar Mandal

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) : None

Number of Sheet(s) : Six

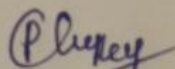
Number of Oscillogram(s) : One

Number of Graph(s) : Nil

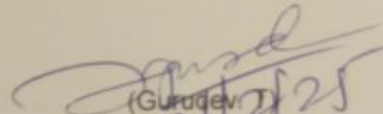
Number of Photo(s) : Two

Number of Test Circuit Diagram(s) : One

Number of Drawing(s) : One

  
(P. Chandrasekhar Reddy)  
Test Engineer



  
(Gurudev T.)  
Head of Division  
Reviewed and Authorized by

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(Member of STL)



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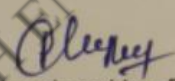
TEST REPORT

Test Report Number: CPRIBLRSCLMISC25T0184

Date: 20 February 2025

DESCRIPTION OF SAMPLE TESTED  
(As assigned by the manufacturer)

Test sample : Copper Coated MS Earthing Electrode  
Type : Strip in Pipe, Backfill Compound  
Serial Number : ---  
Size & length of Earthing Electrode : 76 mm dia. (OD) & 3000 mm long  
Short-time current withstand current & peak withstand current : 25 kA rms for 10 s & 50 kA peak

  
(P. Chandrasekhar Reddy)  
Test Engineer

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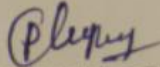
TEST REPORT

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Date: 20 February 2025

SUMMARY OF TEST CONDUCTED

- 1 Tests conducted : Short-time withstand current and peak withstand current
- 2 Rating for which tested : 25 kA rms for 1.0 s & 50 kA peak
- 3 Schedule of tests : Refer Sheet 5 of 6
- 4 Oscillogram Numbers : CPRIBLRSCLMISC25T0184S002
- 5 Photograph Numbers : CPRIBLRSCLMISC25T0184P01 & CPRIBLRSCLMISC25T0184P02
- 6 Test Circuit Diagram Numbers : CRTL/SO/STC-01A
- 7 Drawing Numbers : Refer Sheet 4 of 6
- 8 Customer's Instruction/  
Criteria for evaluation : There shall be no visible damage to Earthing electrode & copper coating shall be intact.

  
(P. Chandrasekhar Reddy)  
Test Engineer

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TEST REPORT

Test Report Number: CPRIBLRSCLMISC25T0184

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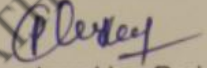
LIST OF DRAWINGS

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	SH281984001	---	---

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.

  
(R. Chandrasekhar Reddy)  
Test Engineer

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TEST REPORT

Test Report Number: CPRIBLRSCLMISC25T0184

Date: 20 February 2025

TEST RESULTS

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

TEST CONDITIONS

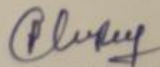
<u>Source</u>	Short-circuit generator
Number of phases	Single
Frequency	50 Hz
<u>Test sample</u>	
Condition of the sample	Good; Thickness of copper coating is not verified. Terminal of the Earthing electrode connected to source
Mounting	Horizontal, isolated from ground
<u>Test details</u>	
Test circuit drawing number	CRTL/SC/STC-01A
Short-circuit applied	On the other end of the Earthing electrode
Short-circuit point	Grounded

Ambient Temperature: 28°C

Oscillogram Number	Current (kA)		Duration (s)	Observation
	Peak	rms		
CPRIBLRSCLMISC25 T0184S002	53.90	25.30	1.07	During test: No abnormality

**Physical Inspection:** No visible damage to Earthing Electrode and copper coating intact

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

  
(P. Chandrasekhar Reddy)  
Test Engineer

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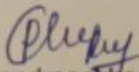
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NOTE

- The Test results relate only to the item(s) tested.
- 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.
- Any Corrections / erasure invalidate the test report.
- Any anomaly / discrepancy in the test report should be brought to notice of CPRI within 45 days from the date of issue.
- 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.

  
(P. Chandrasekhar Reddy)  
Test Engineer

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

SHREENATH ENTERPRISES

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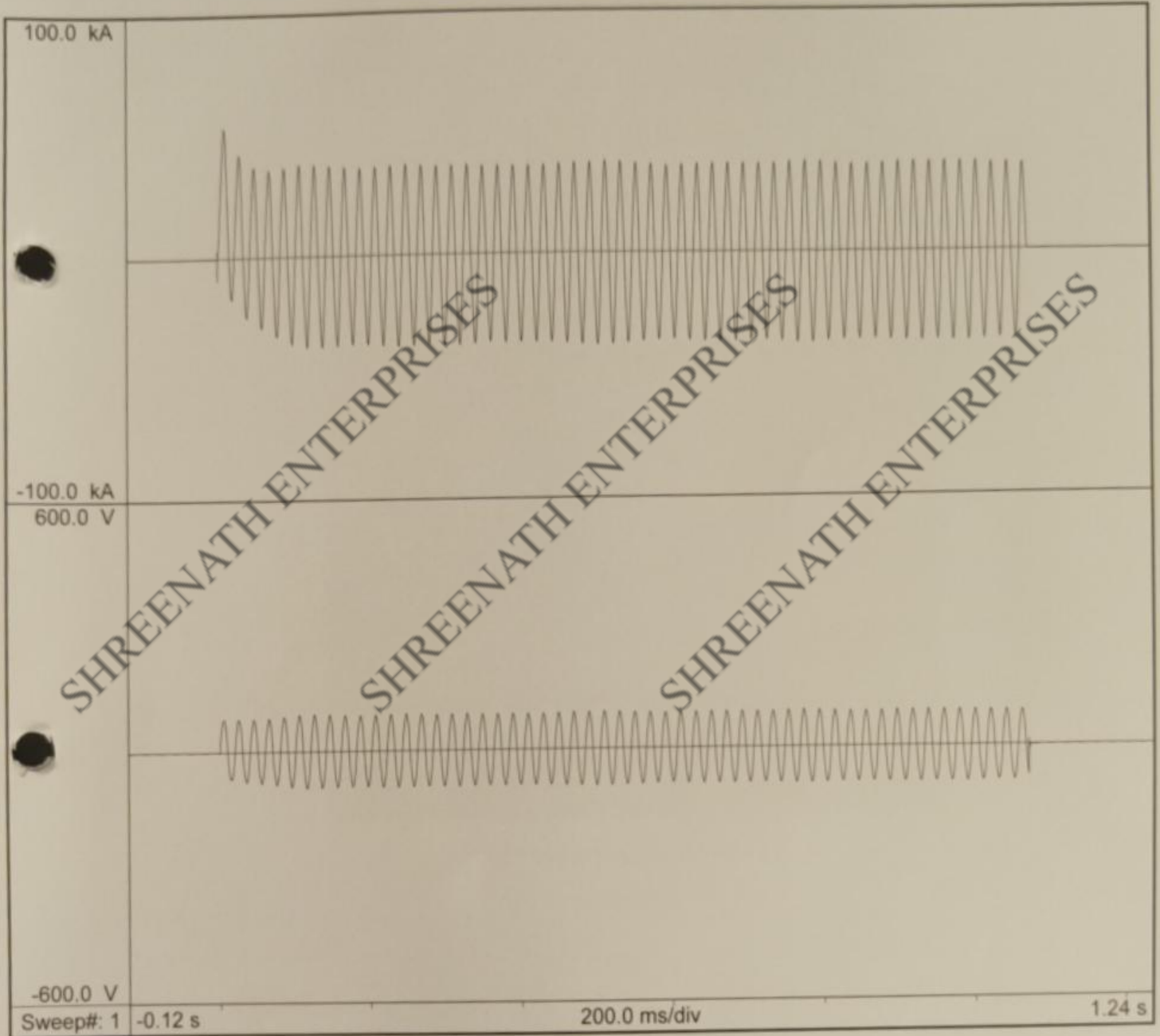


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**TEST REPORT**

Test Report Number: CPRI BLSCLMISC25T0184  
CPRI BLSCLMISC25T0184S002

Date: 20 February 2025



*P. Chandrasekhar Reddy*  
(P. Chandrasekhar Reddy)  
Test Engineer

07-02-2025

SHREENATH ENTERPRISES

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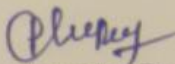
Test Report Number: CPRIBLRSCLMISC25T0184

Date: 20 February 2025



Mounting arrangement (Before test)

CPRIBLRSCLMISC25T0184P01

  
(P. Chandrasekhar Reddy)  
Test Engineer

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Dated: 20 February 2025



Condition of the sample (After test)

CPRI BLSCLMISC25T0184P02

A handwritten signature in blue ink, appearing to read 'P. Chandrasekhar Reddy'.

(P. Chandrasekhar Reddy)  
Test Engineer

SHORT CIRCUIT LABORATORY  
P.B.NO.8066, SADASHIVANAGAR POST OFFICE  
SIR C.V. RAMAN ROAD, BENGALURU - 560 080. (KARNATAKA)  
Phone: +91 (0) 80 - 22072355



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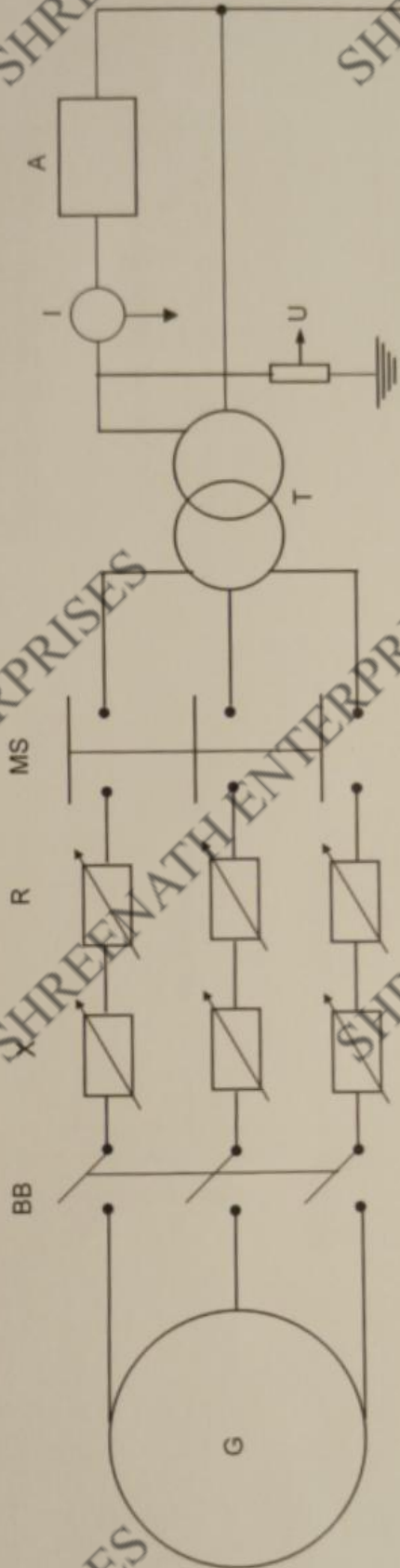
TEST REPORT

Test Report Number: CPRIBLR6SCLMISC25T0184

Date: 20 February 2025

Schematic of main & measurement circuits - Single phase test

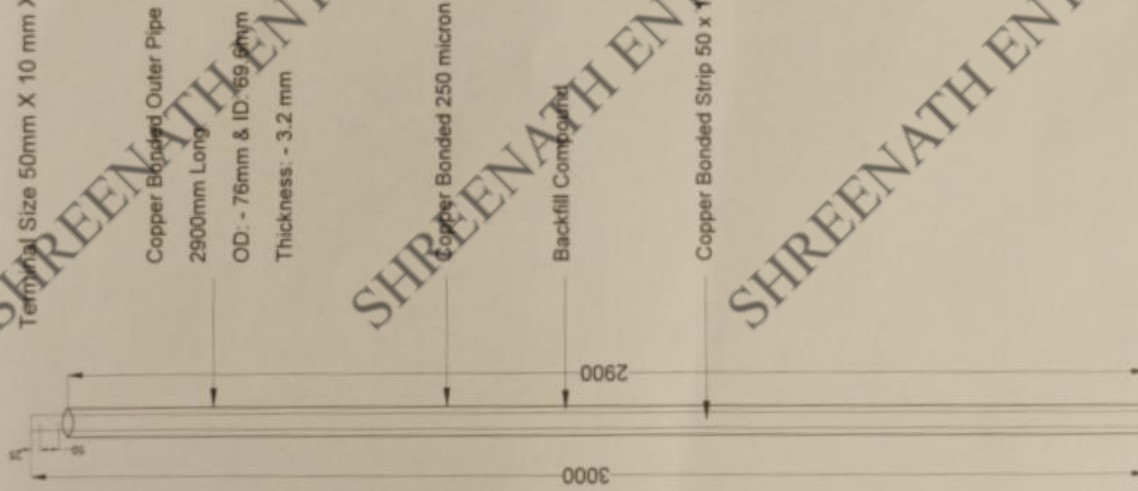
Circuit Number: CRTL/SC/STC-01A



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

*P. Chandrasekhar Reddy*  
 (P. Chandrasekhar Reddy)  
 Test Engineer

Terminal Size 50mm X 10 mm X 100mm & Hole 2xø12mm



Copper Bonded Outer Pipe  
2900mm Long

OD: - 76mm & ID: 69 mm  
Thickness: - 3.2 mm

Copper Bonded 250 micron

Backfill Compound


Copper Bonded Strip 50 x 10 mm

Copper Bonded Earthing electrode 76mm OD X 3mtr long -- strip in pipe

क.वि.अ.सं. द्वारा इस रेखाचित्र का सत्यापन नहीं  
कही भी संभव हो सिद्ध है तब तक ही सीमित है।  
THE VERIFICATION OF THIS DRAWING  
BY CPRI IS LIMITED TO DIMENSIONAL  
CHECKS ONLY WHEREVER POSSIBLE

परिक्षण रिपोर्ट संख्या सीपीआईबीएलआरएससीएल  
एमआईएसी... से संबंधित दस्तावेज़  
Document Pertaining to Test Report  
No: CPRI/RSCLMISC.25.T018.4...  
Date: 20 February 2025

*P. S. Sanyal*  
परिक्षण अभियन्ता / Test Engineer  
ए.ए. प्रयोगशाला / S. C. LAB  
सी. पी. आर. आई. / CPRI  
बैंगलूरु / Bengaluru

MFG. ADDRESS	SHREENATH ENTERPRISES 247, HARNIGUL, GANGAKHED, PARBHANI, MAHARASHTRA, 431514
TITLE	COPPER BONDED MS EARTHING ELECTRODE STRIP IN PIPE
DRAWING NO.	SH231984001
 SHREENATH ENTERPRISES ESTABLISHED IN 1984	
NOTES: - 1) ALL DIMENSION ARE IN MM. 2) TOLERANCE ± 5%	