

**CENTRAL POWER RESEARCH INSTITUTE**  
(Member of STL)



**TEST REPORT**

**Test Report Number** : CPRI BLR SCLMISC22T0799 Date: 8 August 2022

**Name and Address of the Customer** : M/s. Multipower Earthing Solutions Pvt. Ltd.,  
Shed No-1, Sr No-35/1, Opp. Jijai Hotel,  
Khedekar Industrial Estate, Narhe, Pune-411041,  
Maharashtra, India.

**Name and Address of the Manufacturer** : M/s. Multipower Earthing Solutions Pvt. Ltd.,  
Shed No-1, Sr No-35/1, Opp. Jijai Hotel,  
Khedekar Industrial Estate, Narhe, Pune-411041,  
Maharashtra, India.

**Particulars of sample tested** : 17.2 mm dia 3000 mm long Copper Bonded  
MS Earthing Electrode

**Type** : ---

**Description of the sample** : Refer Sheet 2 of 6

**Serial Number** : ---

**Number of samples tested** : One

**Date (s) of Test (s)** : 28 July 2022

**CPRI sample code no(s)** : SCLMISC22S0753

**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. Nitesh Kumar Tiwari

**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**  
(Member of STL)



**TEST REPORT**

**Test Report Number: CPRIBLRSCLMISC22T0799**

**Date: 8 August 2022**

**DESCRIPTION OF SAMPLE TESTED**  
(As assigned by the manufacturer)

Test sample : Copper Bonded MS Earthing Electrode  
Type : ---  
Size & length of earthing electrode : 17.2 mm dia 3000 mm long  
Short-time withstand current & peak withstand current : 15 kA rms for 1.0 s & 37.5 kA peak

(Sakthivel. P)  
**Test Engineer**

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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          | : | CPRIBLRSCLMISC22T0799S002  |
| 5 | Photograph Numbers           | : | CPRIBLRSCLMISC22T0799P01 &<br>CPRIBLRSCLMISC22T0799P02                       |
| 6 | Test Circuit Diagram Numbers | : | CRTL/SC/STC-01A  |
| 7 | Drawing Numbers              | : | Refer Sheet 4 of 6   |
| 8 | Criteria for evaluation      | : | Copper bonding shall be intact & no visible damage to the earthing electrode |

  
(Sakthivel. P)  
**Test Engineer**

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**TEST REPORT**

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**Date: 8 August 2022**

**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	MP-02	--	--

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.

  
(Sakthivel. P)  
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**TEST REPORT**

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**Date: 8 August 2022**

**TEST RESULTS**

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

**TEST CONDITIONS**

Source

Number of phases  
Frequency

Short-circuit generator  
Single  
50 Hz

Test sample

Condition of the sample

Good; termination plate of the earthing electrode  
connected to source

Mounting

Horizontal, isolated from ground

Test details

Test circuit drawing number  
Short-circuit applied  
Short-circuit point

CRTL/SC/STC-01A  
On the other end of the earthing electrode  
Grounded

Ambient Temperature: 28°C

Oscillogram Number	Current (kA)		Duration (s)	Observation
	Peak	Rms		
CPRIBLRSCLMISC 22T0799S002	40.31	15.81	1.07	<b>During test: No abnormality</b>

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

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

(Sakthivel. P)

**Test Engineer**

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**NOTE**

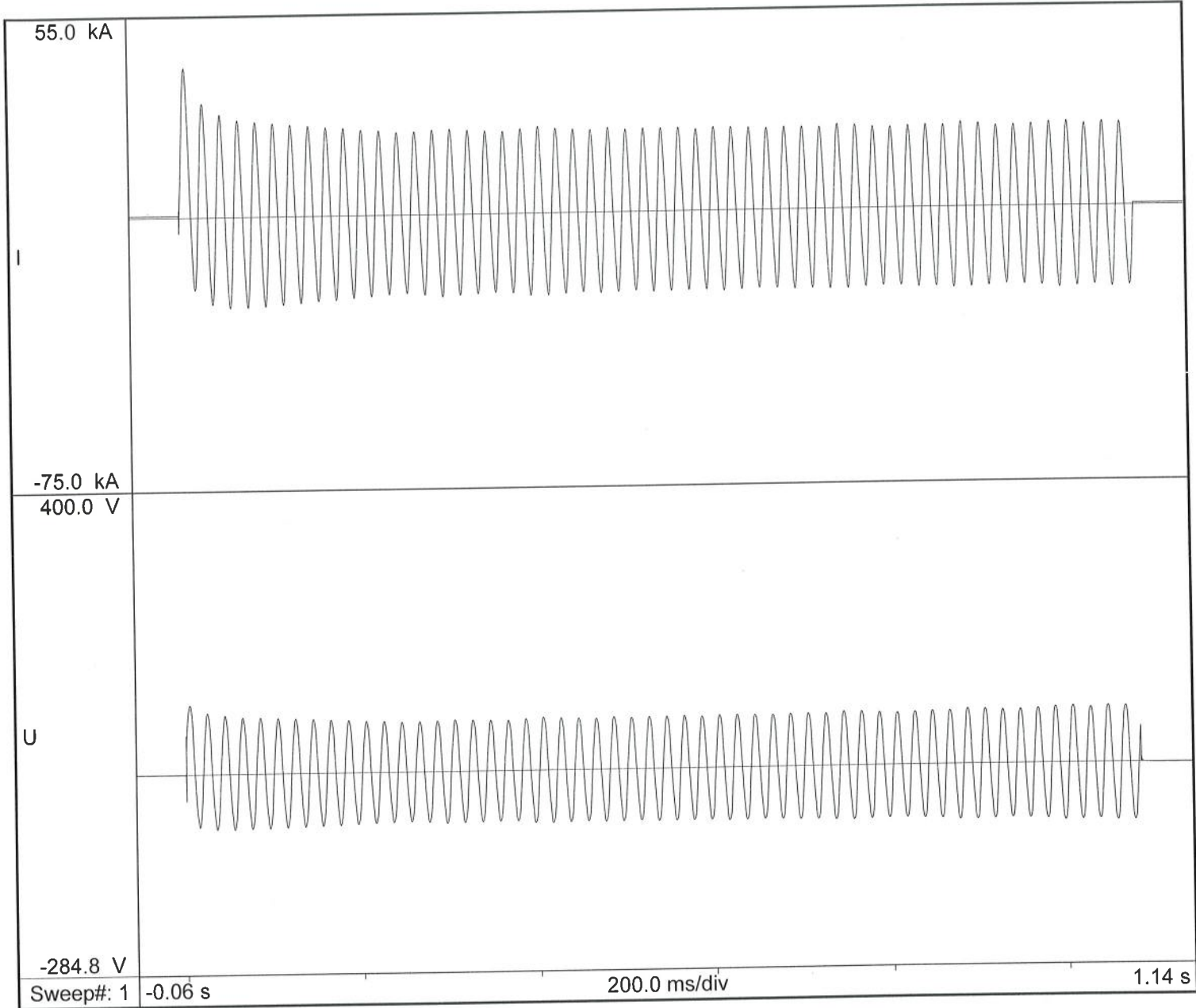
- a) The Test results relate only to the item(s) tested.
- b) Publication or reproduction of this report in any form other than by complete set of the whole test report and in the language written is not permitted without the written consent of CPRI.
- c) Any Corrections / erasure invalidate the test 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: CPRIBLRSCLMISC22T0799

Date: 8 August 2022



  
(Sakthivel. P)  
Test Engineer

28-07-2022

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**CPRI**

**TEST REPORT**

Test Report Number: CPRI BLSCLMISC22T0799

Date: 8 August 2022



Mounting arrangement (Before test)

CPRI BLSCLMISC22T0799P01

(Sakthivel. P)  
Test Engineer



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**TEST REPORT**

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**Date: 8 August 2022**



Condition of the sample (After test)

CPRI BLR SCL MISC 22T0799P02

  
(Sakthivel. P)  
Test Engineer



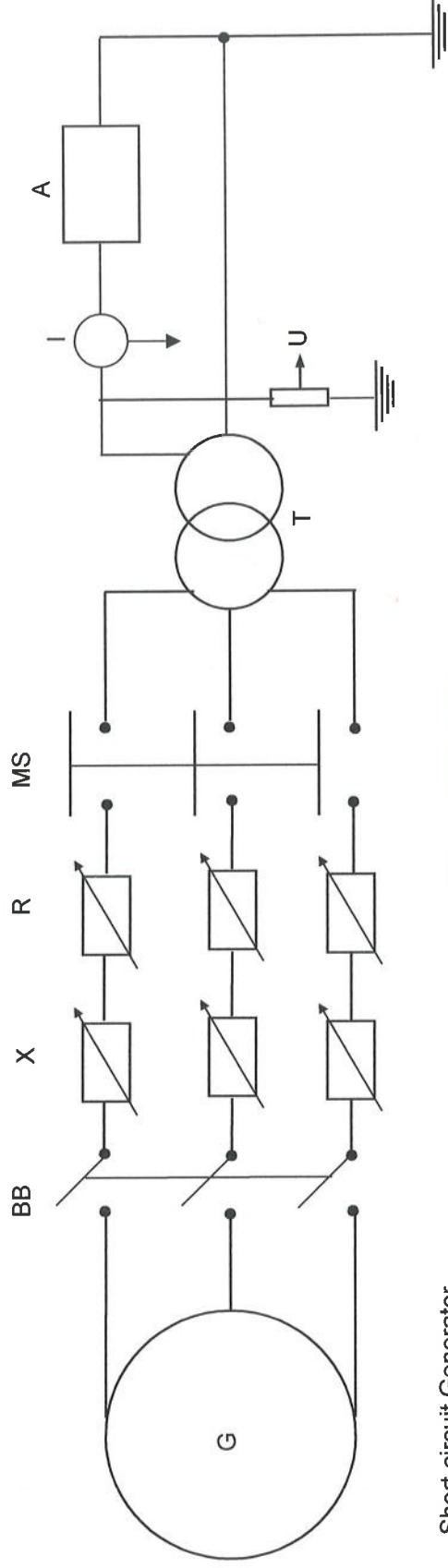
CPRI

Test Report Number: CPRI/BLR/SCL/MISC/22T0799

Date: 8 August 2022

### 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

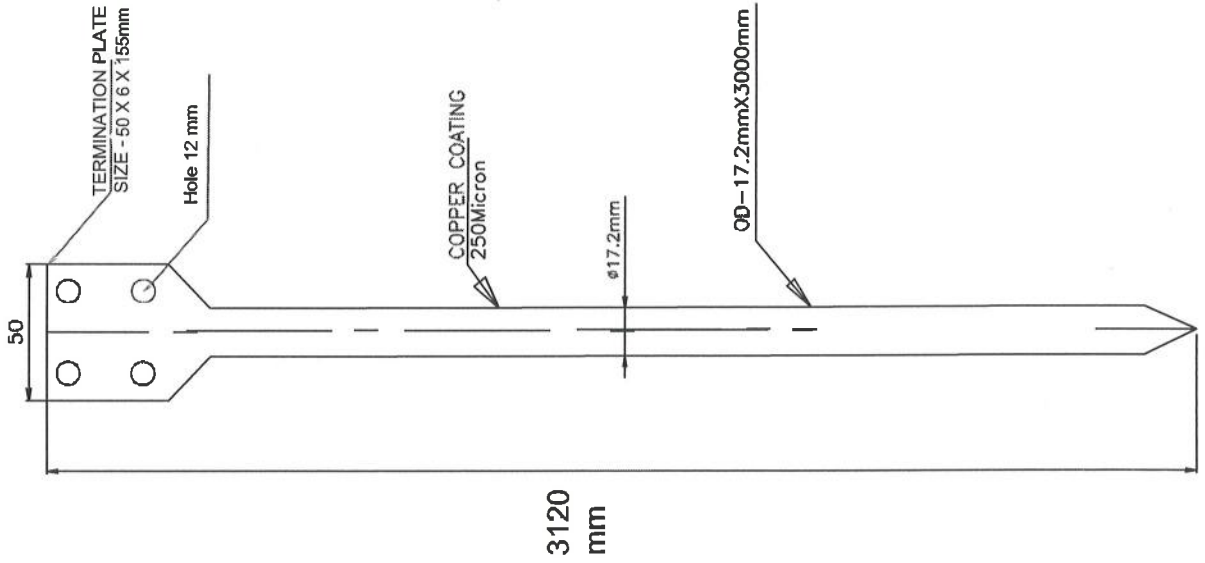
T Step-down transformer

A Sample under test

I Current Sensor

U Voltage divider

(Sakthivel. P)  
Test Engineer



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

परिक्षण रिपोर्ट सं. सीपीआरआई/मिस्सी/आरएससी/एलए/आई  
 ..... द्वारा की गई संवर्धित दस्तावेज़  
 Document Pertaining to Test Report  
 No: CPRI/BLR/SCL/MISC/22.10999

*(Signature)*  
 परीक्षण अभियन्ता / Test Engineer  
 ल.प. प्रयोगशाला / S. C. LAB  
 सी. पी. आर. आई. / CPRI  
 बेंगलूरु / Bengaluru

NOTE:- ALL DIMENSION ARE IN  
 MM TOLRENCE+-5%

Mfg Address	Multipower Earthing Solutions Pvt Ltd. Shed No -1, Sr No-35/1, Opp Jijai Hotel, Khedekar Industrial Estate, Narhe Pune Maharashtra 411041
Title	17.2 mm X 3Mtr Copper Bonded MS Earthing Electrode
Drawing No	MP - 02

SOLID COPPER BONDED EARTHING ROD