

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



TEST REPORT

CPRI

Test Report Number : CPRI BLRSCLMISC24T1096 **Date:** 19 August 2024

Name and Address of the Customer : M/s. Techno Power,
Plot No. 163A1/A3, 2nd Phase, G.I.D.C,
Vapi, Dist. Valsad – 396 195 Gujrat, India.

Name and Address of the Manufacturer : M/s. Techno Power,
Plot No. 163A1/A3, 2nd Phase, G.I.D.C,
Vapi, Dist. Valsad – 396 195 Gujrat, India.

Particulars of sample tested : 17.2 mm dia 3m long Copper Bonded MS Earth Rod

Type : ---

Description of the sample : 17.2 mm dia 3m long Copper Bonded MS Earth Rod

Serial Number : ---

Number of samples tested : One

Date (s) of Test (s) : 08 August 2024

CPRI sample code no(s) : SCLMISC24S1088

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 : 15kA rms for 1.0 s & 30kA peak

Deviations if any : ---

Name of the witnessing persons :

Customer's representatives :

Other than customer's representatives : None

Test subcontracted with :

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




(B. R. Vasudevamurthy)
Joint Director
Reviewed and Authorized by

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



TEST REPORT

Test Report Number: CPRI BLR SCL MISC 24 T 1096

Date: 19 August 2024

DESCRIPTION OF SAMPLE TESTED
(As assigned by the manufacturer)

Test sample : Copper Bonded MS Earth Rod
Designation : TPB 17
Size & length of earth electrode : 17.2mm dia & 3m long
Short-time current withstand current & peak withstand current : 15kA rms for 1.0 s & 30kA peak


(Sakthivel. P)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



TEST REPORT

CPRI

Test Report Number: CPRI BLRSCLMISC24T1096

Date: 19 August 2024

SUMMARY OF TEST CONDUCTED

- | | | |
|---|------------------------------|---|
| 1 | Tests conducted | : Short-time withstand current and peak withstand current |
| 2 | Rating for which tested | : 15kA rms for 1.0 s & 30kA peak |
| 3 | Schedule of tests | : Refer Sheet 5 of 6 |
| 4 | Oscillogram Numbers | : CPRI BLRSCLMISC24T1096S002 |
| 5 | Photograph Numbers | : CPRI BLRSCLMISC24T1096P01 &
CPRI BLRSCLMISC24T1096P02 |
| 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 & there shall be no visible
damage to the earth rod |


(Sakthivel. P)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



TEST REPORT

Test Report Number: CPRI BLR SCL MISC 24 T 1096

Date: 19 August 2024

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	01	---	---

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)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



TEST REPORT

Test Report Number: CPRIBLRSCLMISC24T1096

Date: 19 August 2024

TEST RESULTS

SHORT-TIME WITHSTAND CURRENT AND PEAK WITHSTAND CURRENT TESTS
(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; thickness of copper bonding not checked.
One end of the earth rod connected to source
Horizontal, isolated from ground

Mounting

Test details

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

CRTL/SC/STC-01A
On the other end of the earth rod
Grounded

Ambient Temperature: 27°C

Oscillogram Number	Current (kA)		Duration (s)	Observation
	Peak	Rms		
CPRIBLRSCLMISC 24T1096S002	32.11	15.11	1.09	During test: No abnormality

Physical Inspection: No visible damage to earth rod and copper bonding found intact

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

(Sakthivel. P)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



TEST REPORT

Test Report Number: CPRIBLRSCLMISC24T1096

Date: 19 August 2024

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 -----

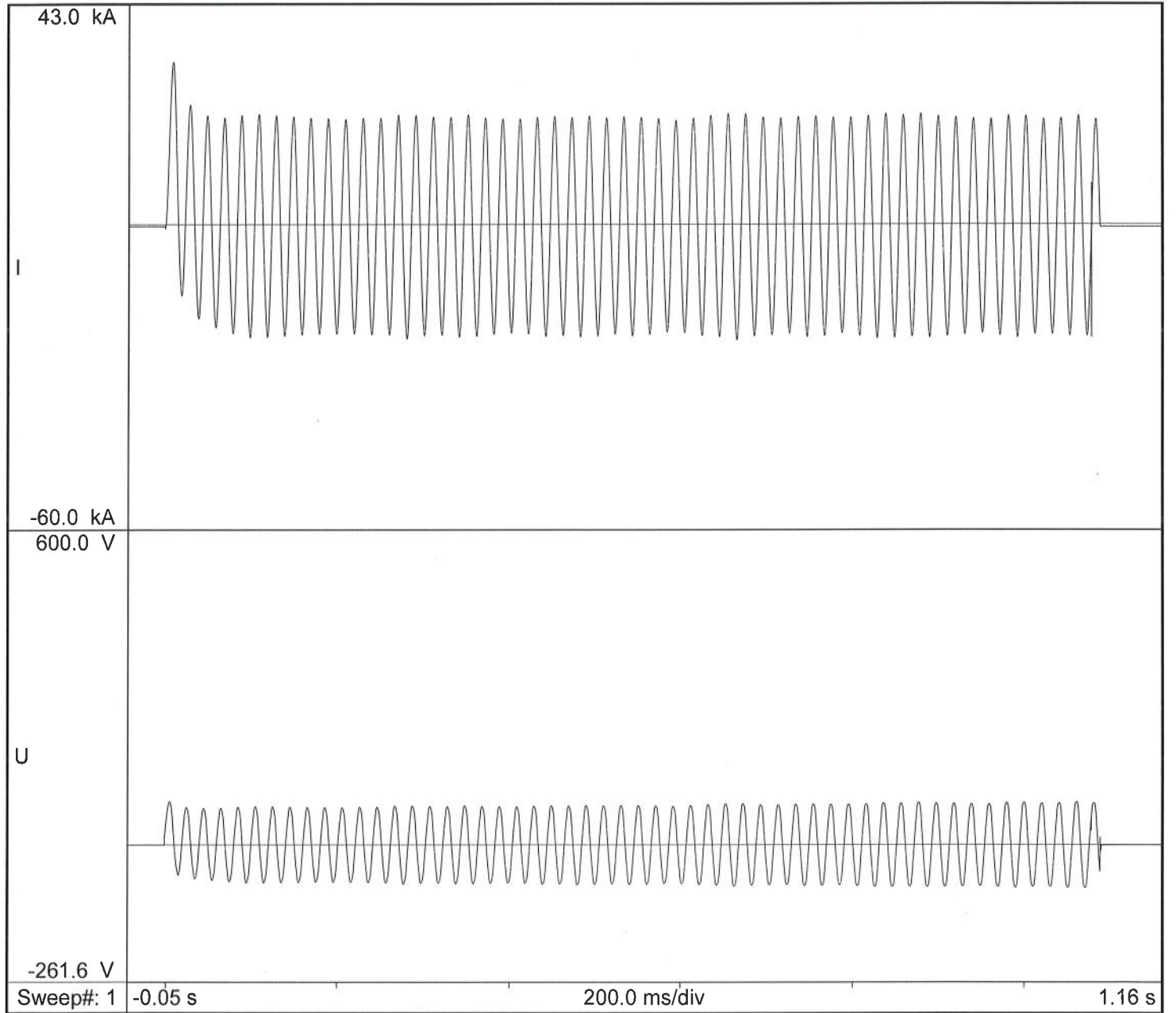
CPRIBLRSCLMISC24T1096S003



CPRI

CPRIBLRSCLMISC24T1096

Date: 20 August 2024




(Sakthivel. P)
Test Engineer

08-08-2024

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



CPRI

TEST REPORT

Test Report Number: CPRI BLR SCL MISC24T1096 Date: 20 August 2024



Mounting arrangement (Before test)

CPRI BLR SCL MISC24T1096P01


(Sakthivel. P)
Test Engineer

SHORT CIRCUIT LABORATORY
P.B.NO.8066, SADASHIVANAGAR POST OFFICE
SIR C.V.RAMAN ROAD, BENGALURU - 560 080 (INDIA)
Phone: +91 (0) 80 - 22072353

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



TEST REPORT

Test Report Number: CPRIBLRSCLMISC24T1096

Date: 20 August 2024



Condition of the sample (After test)

CPRIBLRSCLMISC24T1096P02


(Sakthivel. P)
Test Engineer

SHORT CIRCUIT LABORATORY
P.B.NO.8066, SADASHIVANAGAR POST OFFICE
SIR C.V.RAMAN ROAD, BENGALURU - 560 080 (INDIA)
Phone: +91 (0) 80 - 22072353



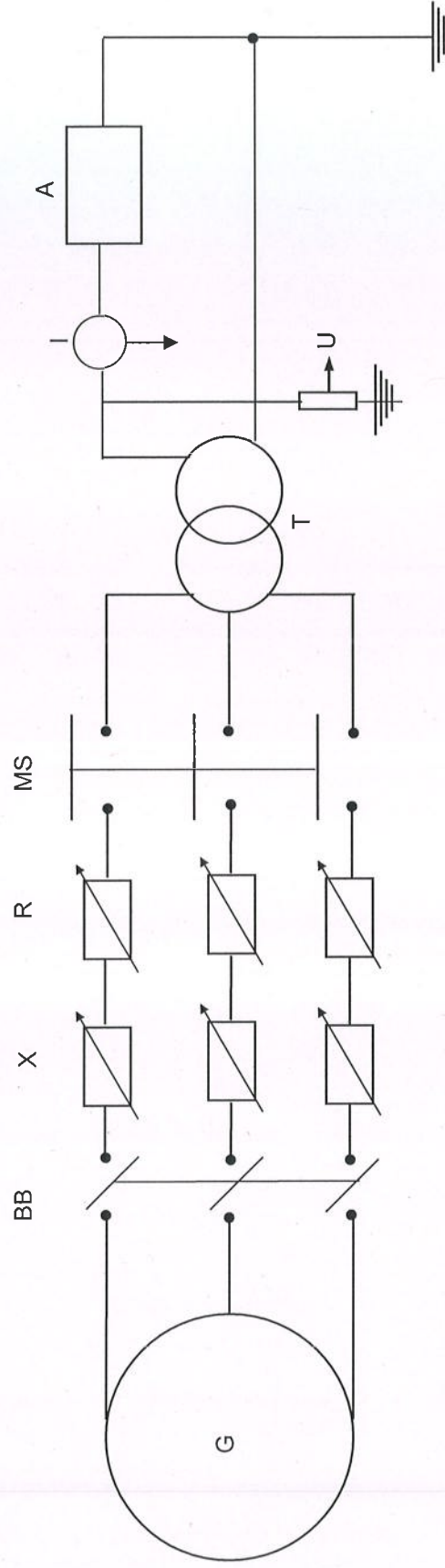
CPRI

Test Report Number: CPRI/RLRSLMISC24T1096

Date: 20 August 2024

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

Techno Power

(Your Safety Gear)

An Electrical & ENgineering.Co.

(Certified ISO 9001: 2015)

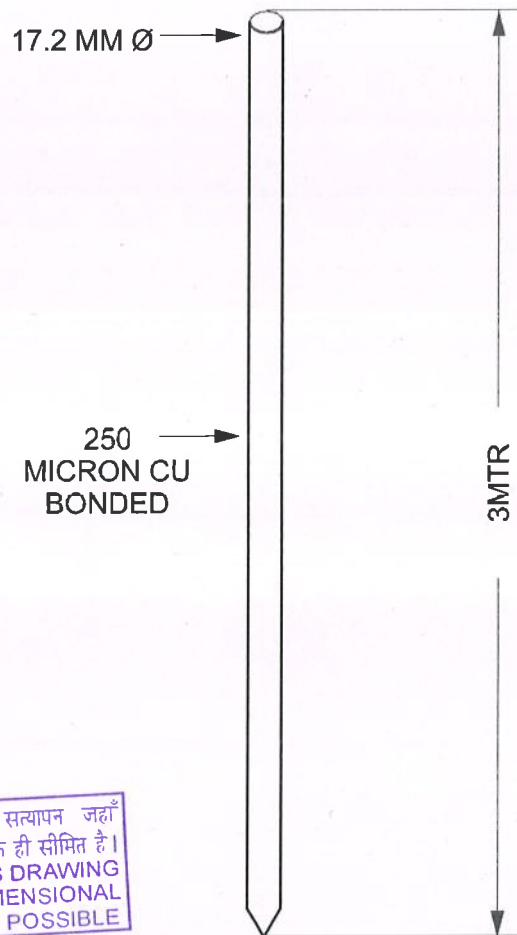
www.technopowerweb.com

Plot No 163A1/A3
2nd Phase G.I.D.C Vapi Dist
Valsad 396195

Mob. + 91 9033351167
Sandeep@technopowerweb.com

Date 19/8/2024

TITLE : COPPER BONDED MS EARTH ROD



के.वि.अ.सं. द्वारा इस रेखाचित्र का सत्यापन जहाँ
कहीं भी संभव हो सिर्फ विमीय जाच 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 दस्तावेज
Document Pertaining to Test Report
No: CPRI BLR SCL MISC. 24.T.T.096

Drawing No. : 01

Model : TPB 17


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