

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)



CPRI

TEST REPORT

Test Report Number : CPRI BLR SCLMISC20T0149 **Date:** 24 August 2020

Name and Address of the Customer :

Name and Address of the Manufacturer : M/s. Amiable Impex,
495, Unit No. 3, Rohitvas, Motopondha,
Tal. Kaparada, District Valsad,
Vapi – 396 191, Gujarat, India.

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

Type : ---

Description of test sample : Refer Sheet 2 of 6

Serial Number : ---

Number of samples tested : One

Date(s) of Test (s) : 19 August 2020

CPRI Sample code Number(s) : SCLMISC20S0243

Particulars of tests conducted : Short-time withstand current test

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

Sampling plan : Not applicable

Customer's requirement : 15 kA rms for 1.0 s & 30 kA peak

Deviations if any : ---

Name of the witnessing persons

Customer's representative : Mr. Srinivas. K

Other than customer's representative : None

Test subcontracted with address of the laboratory : None

Documents constituting this report (in words)

Number of Sheets : Six

Number of Oscillogram(s) : One

Number of Graph(s) : Nil

Number of Photograph(s) : Two

Number of Test Circuit Diagram(s) : One

Number of Drawing(s) : One


(G. Venkatramanaiah)
Test Engineer




(Vasudevamurthy B R)
Joint Director
Approved by

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(Member of STL)



TEST REPORT

Test Report Number: CPRI BLRSCLMISC20T0149

Date: 24 August 2020

DESCRIPTION OF SAMPLE TESTED
(As assigned by the manufacturer)

Test sample : Copper Bonded Steel Earth Rod
Serial number : ---
Model : E501439 AI CCGR 430 10FT
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 & 30 kA peak


(G. Venkatramanaiah)
Test Engineer

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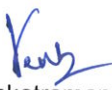
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SUMMARY OF TESTS CONDUCTED

- | | |
|----------------------------------|---|
| 1. Tests conducted | : Short-time withstand current test |
| 2. Rating for which tested | : 15 kA rms for 1.0 s & 30 kA peak |
| 3. Schedule of tests | : Refer Sheet 5 of 6 |
| 4. Oscillogram Numbers | : CPRI BLR SCLMISC20T0149S002 |
| 5. Photograph Numbers | : CPRI BLR SCLMISC20T0149P01 & CPRI BLR SCLMISC20T0149P02 |
| 6. Test Circuit Diagram Numbers. | : CRTL/SC/STC-01A |
| 7. Drawing Numbers | : Refer Sheet 4 of 6 |
| 8. Criteria for evaluation | : No visible damage to Earth rod.
Copper bonding to be intact. |


(G. Venkatramanaiah)
Test Engineer

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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		---	00

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


(G. Venkatramanaiah)
Test Engineer

SHORT CIRCUIT LABORATORY

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Sheet 4 of 6

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TEST REPORT

Test Report Number: CPRI BLR SCLMISC20T0149

Date: 24 August 2020

TEST RESULTS

SHORT-TIME WITHSTAND CURRENT TEST

TEST CONDITIONS

Source

Number of phases
Frequency

Short-circuit generator

Single
50 Hz

Test sample

Condition of the sample

In clean & good condition; one end of the Earth rod 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 Earth rod
Grounded

Oscillogram Number	Current (kA)		Duration (s)	Observation
	peak	rms		
CPRI BLR SCLMISC 20T0149S002	30.21	15.47	1.07	During test: No Abnormality After test: No visible damage to Earth rod.

Physical Inspection: No visible damage to Earth rod, copper bonding intact.

Conclusion: The sample tested complies with the Customer's requirement for the test conducted.


(G. Venkatramanaiah)
Test Engineer

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TEST REPORT

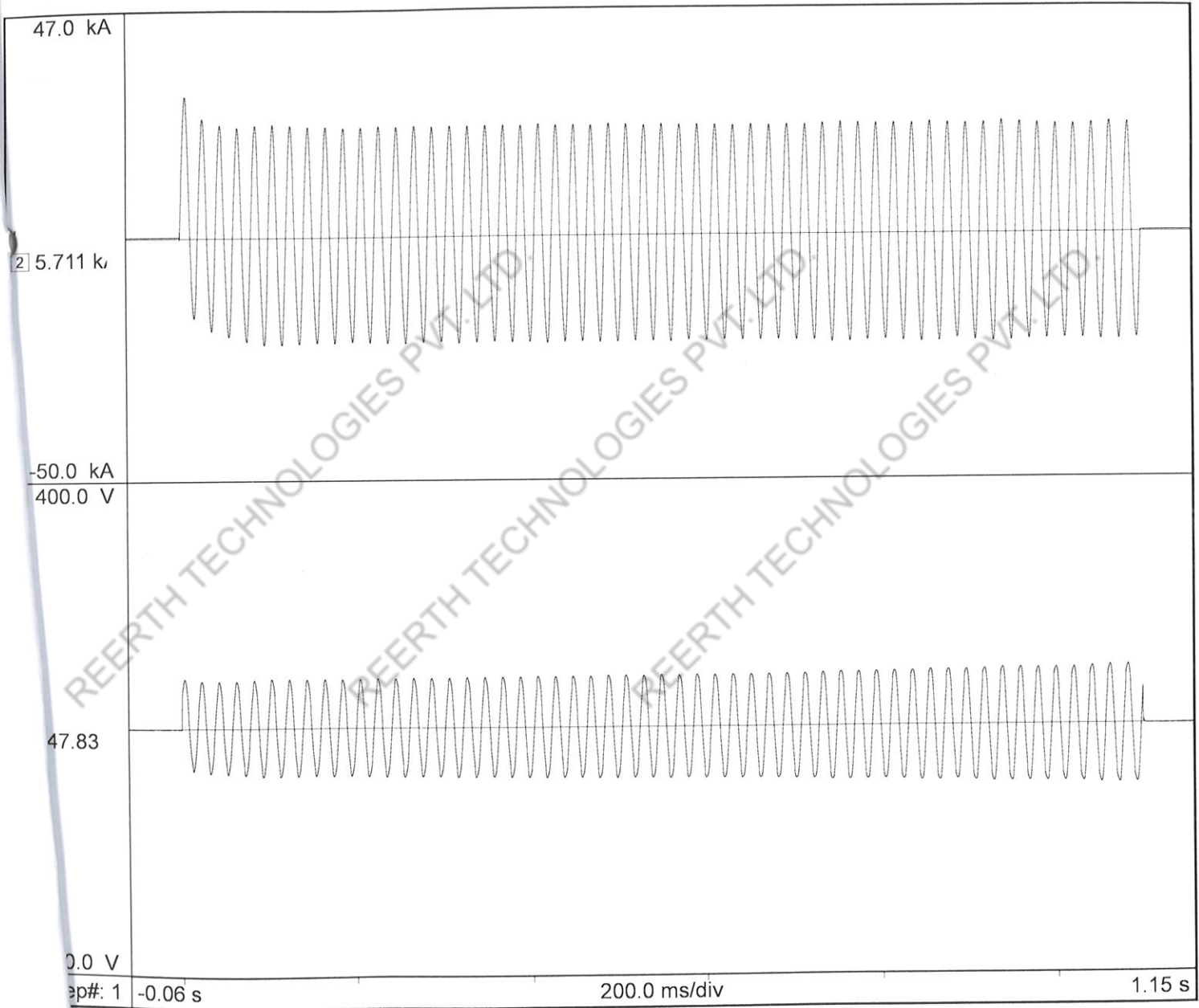
Test Report Number: CPRI BLR SCL MISC 20T0149

Date: 24 August 2020

NOTE

- a) The Test results relate only to the sample(s) tested.
- b) Publication or reproduction of this Test 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.
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- e) All documents constituting 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 sealed with a CPRI logo printed paper sticker


(G. Venkatramanaiah)
Test Engineer



Ken
(G. Venkatramanaiah)
Test Engineer

19-08-2020

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Mounting arrangement (Before test)

CPRI BLR SCL MISC20T0149P01


(G. Venkatramanaiah)
Test Engineer

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Condition of the sample (After test)
CPRI BLR SCL MISC20T0149P02


(G. Venkatramanaiah)
Test Engineer

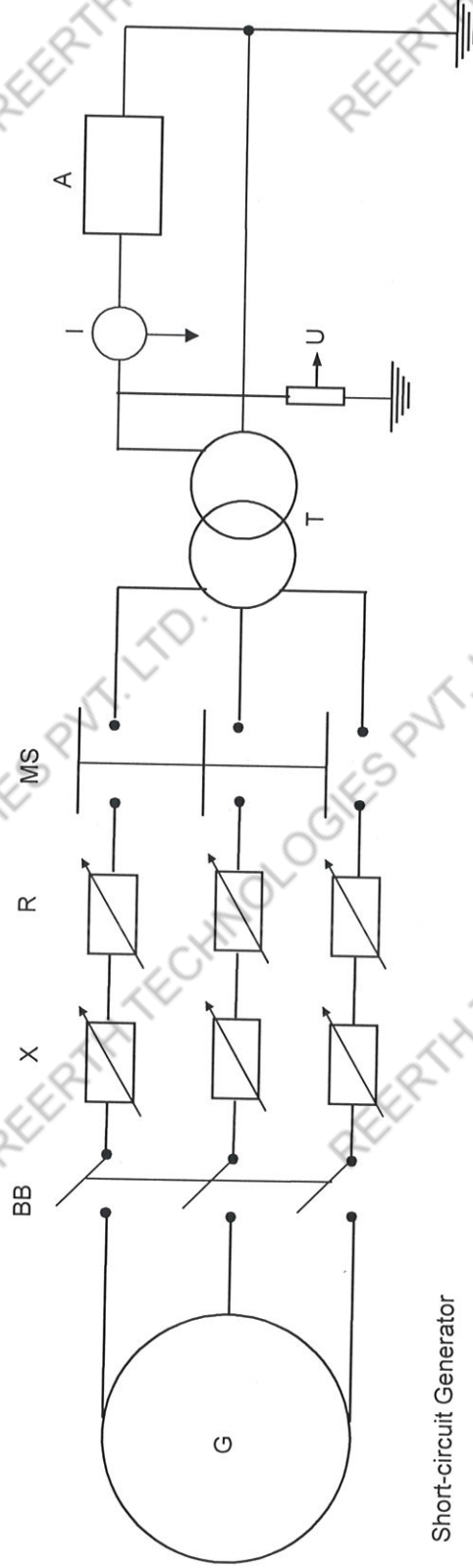
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Schematic of main & measurement circuits - Single phase test

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 |

Venk
(G. Venkatramanaiah)
Test Engineer

NOTE

1. All dimensions are in mm.
2. 3m long, 17.2mm Ø 250 micron copper bond steel rod.
3. Tolerance $\pm 3\%$.
4. Model: AI CULUS LISTED E501439 AI CCGR 430 10FT

LEGEND

NAME OF THE MANUFACTURER :
M/S AMIABLE IMPEX
495, unit no.3, rohitvas, motapondha,
tal.kaparada , dist. valsad, vapi - 396191,
gujarat

DESIGN NAME SIGN DATE TITLE
DESIGN MANI 14/08/20 COPPER BONDED STEEL
CHD. DIVYA 14/08/20 EARTH ROD
APPD. SHUNVAE 14/08/20

3000mm



17.2mm Ø
250 micron copper
bond steel earth rod

के.वि.अ.सं. द्वारा इस रेखाचित्र का सत्यापन जहाँ
कहीं भी संभव हो सिर्फ़ विमीय जाचें तक ही सीमित है।
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परीक्षण अभियन्ता / Test Engineer
ल.प. प्रयोगशाला / S. C. LAB
सी. पी. आर. आई. / CPRI
बैंगलूरु / Bengaluru

परीक्षण रिपोर्ट सं सीपीआरआईबीएलआरएससीएलएसआई
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Document Pertaining to Test Report
No: CPRI BLSCLMISC.2.9 To 14.9

DATE	TIME	DESCRIPTION	DESIGNED	APPROVED
14/08/20	00	INITIAL RELEASE	DIVYA SHUNVA	