

CPRI

CENTRAL POWER RESEARCH INSTITUTE
MUMBAI



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 SC15357A **Dated:** 3rd July, 2015

Name & Address of the Customer M/s. Excel Earthings,
VII/729(A), Mannuthy P.O.,
Thrissur Dist., Kerala – 680651.

Name & Address of the Manufacturer M/s. Excel Earthings,
4/81E, SIDCO Industrial Park, Pazhayannur,
Thrissur Dist., Kerala – 680587.

Particulars of sample tested Copper Coated Earthing Rod
Condition of the sample on Receipt New

Type ---
Designation ---
Serial Number(s) ---
Number of samples tested One
Date (s) of test (s) 26th June, 2015
CPRI sample code no(s). SC15S0724

Particulars of tests conducted Short-time withstand current
Test in accordance with Customer's instruction
Standard / specification Not applicable
Sampling plan 6 kA rms for 1.0 s & 15 kA peak
Customer's requirement ---
Deviations if any ---

Name of the witnessing persons

Customer's representative Mr. C. P. Auguin, Managing Director
Other than customer's representative None

Test subcontracted with address None
of the laboratory

Documents constituting this report (In words)

Number of sheets Four
Number of oscillograms One
Number of graphs Nil
Number of photos Two
Number of test circuit diagrams One
Number of drawings One


(H.S. Lokeshappa)
Test Engineer




(Swaraj Kumar Das)
Joint Director

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Description of sample tested (ratings as assigned by the manufacturer)

Test sample	Copper Coated Earthing Rod
Type	---
Designation	---
Serial Number	---
Size & Length of Earthing Rod	14.2 mm dia & 2000 mm
Copper coating thickness	250 microns
Rated short-time withstand current	6 kA rms for 1.0 s & 15 kA peak

Documents attached to this report

Oscillogram number(s)	SC15357A.S01
Photograph number(s)	SC15357A.PB1 & SC15357A.PA1
Test circuit diagram number(s)	CRTL/SC/STC-01
Drawing number (s)	EE/01


Test Engineer

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Schedule of test

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 & new condition; one end of the earthing rod connected to source

Mounting

Horizontal, isolated from ground

Test details

Test circuit drawing number
Short-circuit applied

CRTL/SC/STC-01

On the other end of the earthing rod connected through CT

Short-circuit point

Grounded

TEST RESULTS

Oscillogram Number	Current (kA)		Duration (s)	Ambient Temperature (°C)	Observation
	Peak	Rms			
SC15357A.S01	15.46	7.09	1.07	27.5	During test: No abnormality

Physical Inspection: No visible damage, copper cladding Intact.


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 / Certificate and in the language written is not permitted without the written consent of CPRI.
- c) Any Corrections / erasure invalidate the test Report/Certificate.
- d) Any anomaly / discrepancy in the test report / Certificate should be brought to notice of CPRI within 45 days from the date of issue.

Additional Information:

This is not a certificate of rating. A certificate of rating is not issued as only limited tests as requested by the customer were carried out.

CPRI issues following types of reports/certificates:

Test Report:

The test report contains the record of the values of test parameters as obtained during testing, the physical condition of the sample during / after the test(s) and copy of oscillogram(s). Test report is issued when partial tests are performed as against the complete test requirement for proving specific ratings.

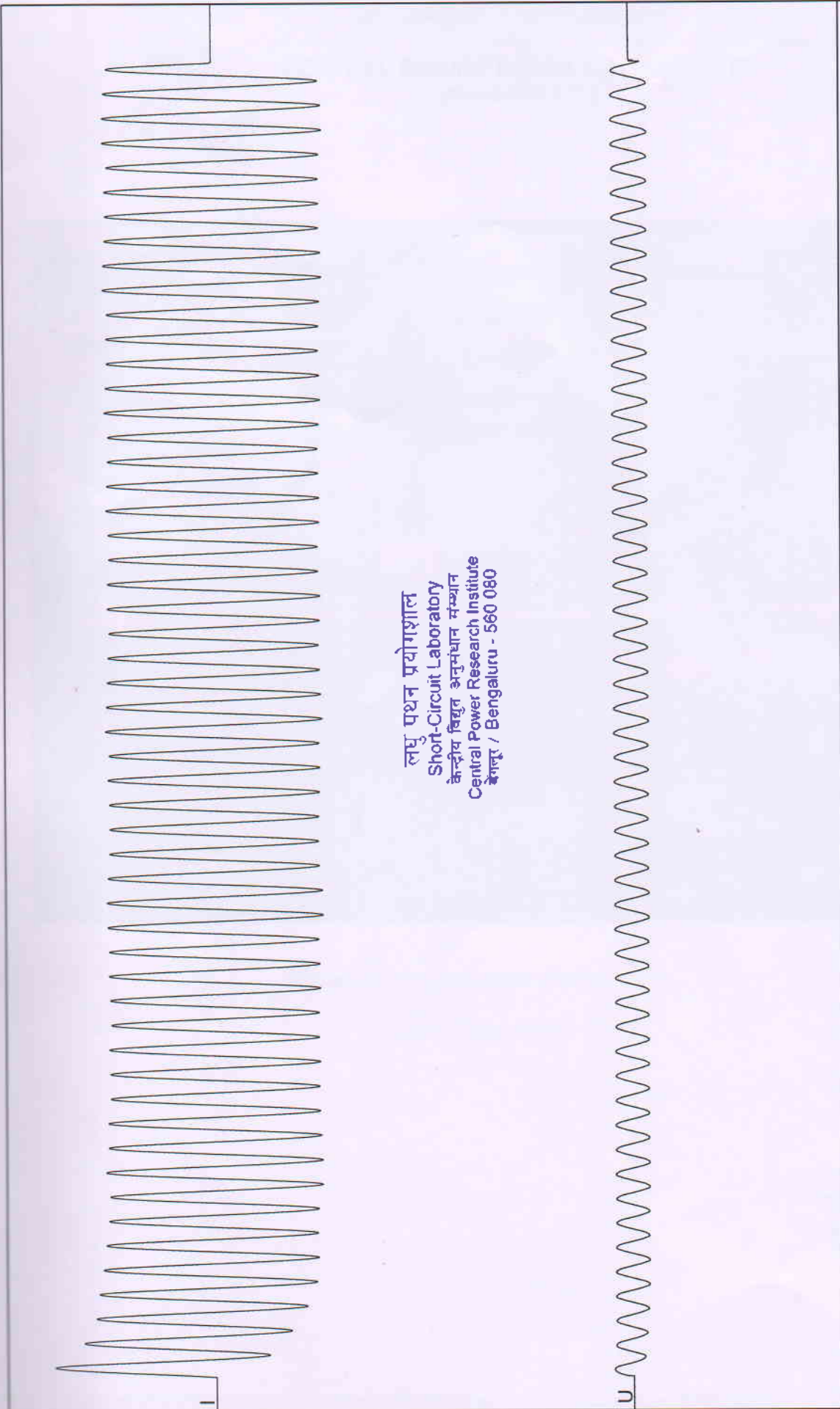
Sealed Certificate:

The sealed certificate is issued, on request and payment of the prescribed charges thereof only when the sample of particular type and rating has satisfactorily passed all the specified tests in compliance with the condition stipulated in a published National / International standard.

CPRI issues the following type test certificates based generally on STL Guidelines:

- I. Type test certificate of Short Circuit Performance.
- II. Type test certificate of Switching Performance.
- III. Type test certificate of Temperature Rise Performance.
- IV. Type test certificate of Dielectric Performance.
- V. Type test certificate of complete type test.


Test Engineer



34 kA

2.58 V

लघु पथन प्रयोगशाला
Short-Circuit Laboratory
केन्द्रीय विद्युत अनुसंधान संस्थान
Central Power Research Institute
बंगलूरु / Bengaluru - 560 080

Shobendra P.
TEST ENGINEER :-

136.08 milli seconds

SC15357A.S01 Dt: 6/26/2015

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Mounting arrangement (Before test)

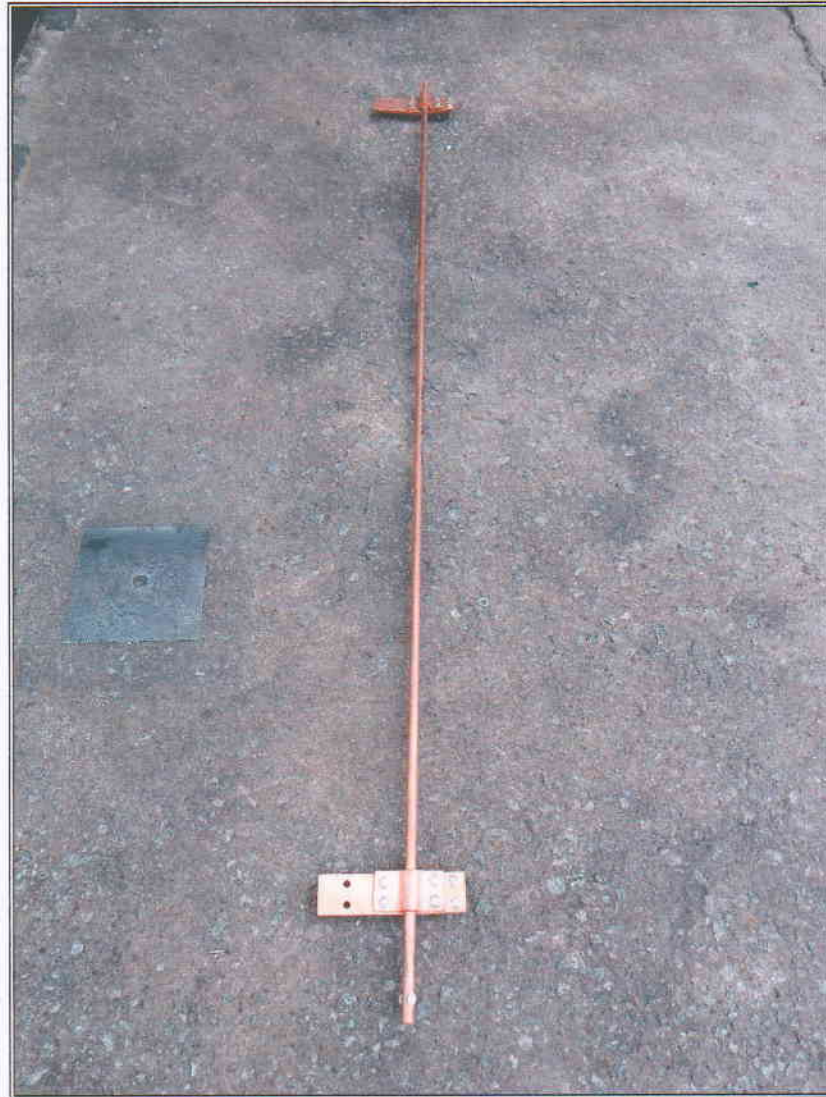
SC15857A.PB1

S. Srinivasan
Test Engineer

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Condition of the sample (After test)

SC15357A.PA1

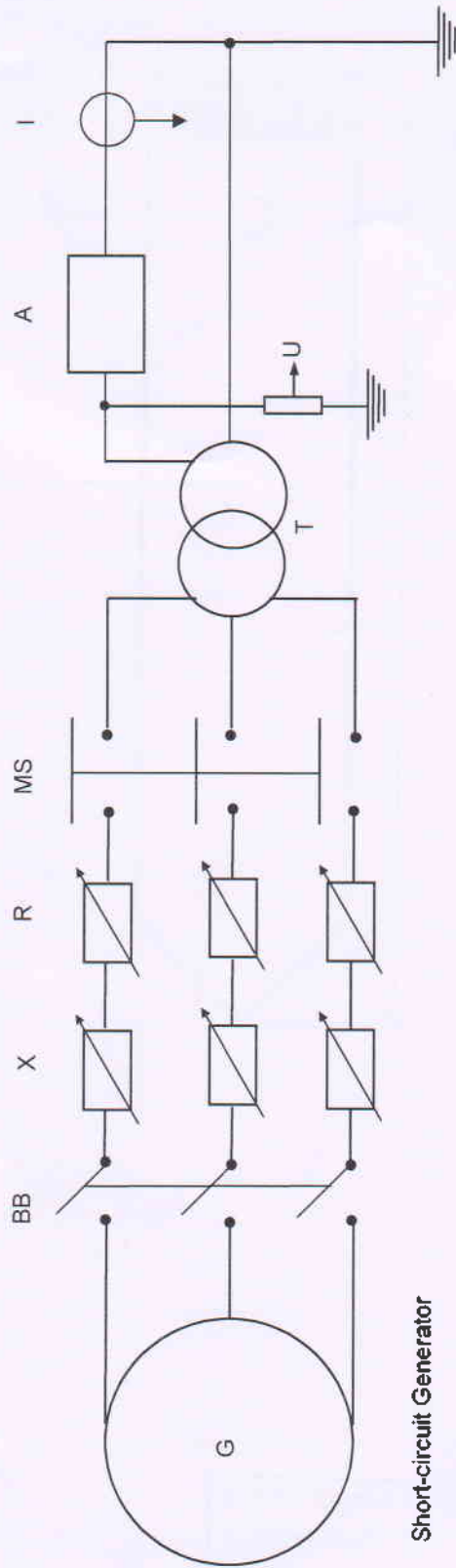
[Signature]
Test Engineer



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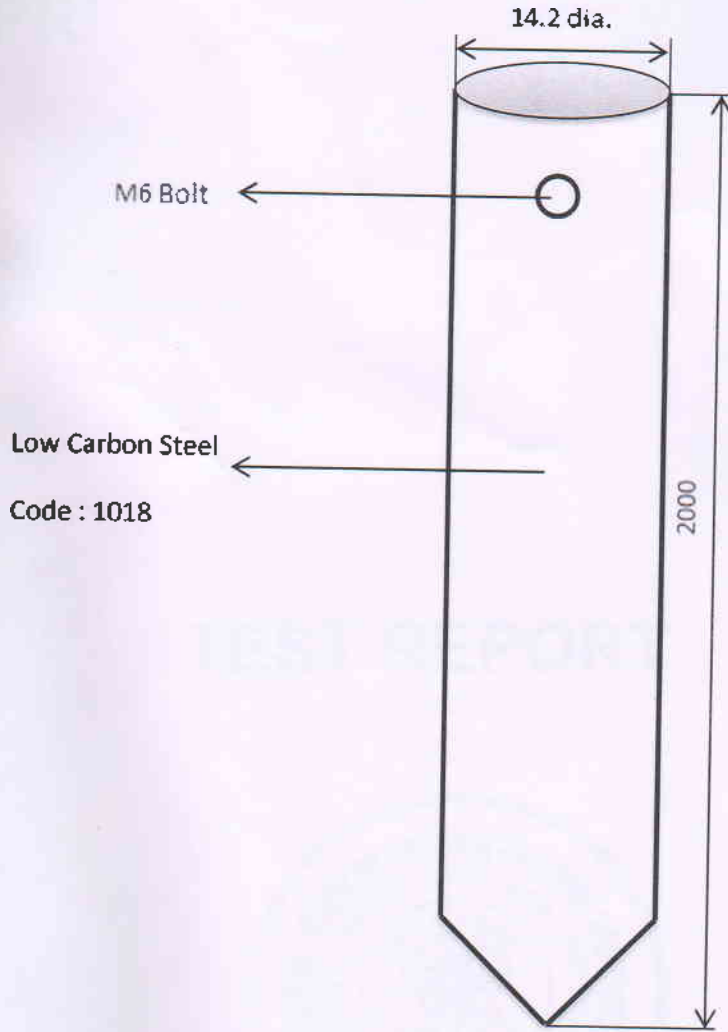
Schematic of main & measurement circuits - Single phase test

Circuit Number: CRTL/SC/STC-01



- G Short-circuit Generator
- BB Back-up Circuit-breaker
- X Reactance
- R Resistors
- MS Make Switch
- T Transformer
- A Sample under test
- I Current sensor
- U Voltage divider

Shanmugan
Test Engineer



रिपोर्ट क्रमांक.....
 से संबंधित दस्तावेज
 Document Pertaining to
 Report No..... **SC15357A**

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

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

Copper Coating Thickness :- 250 microns

Tolerance - $\pm 2\%$

ALL DIMENSIONS ARE IN mm

TITLE :- Copper Coated Earthing Rod	Mfg. Address :- Excel Earthings 4/81E, SIDCO Industrial Park
DWG. No. :- EE/01	Pazhayannur, Thrissur Dt. Kerala - 680587