

CPRI

CENTRAL POWER RESEARCH INSTITUTE
BANGALORE



TEST REPORT

TEST REPORT



Central Power Research Institute

(A Govt. of India Society)

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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	SC15357B	Dated: 3 rd 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)	26 th June, 2015	
CPRI sample code no(s).	SC15S0725	
Particulars of tests conducted	Short-time withstand current	
Test in accordance with	Customer's instruction	
Standard / specification	Not applicable	
Sampling plan	10 kA rms for 1.0 s & 25 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 of the laboratory	None	
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	17.2 mm dia & 2000 mm
Copper coating thickness	250 microns
Rated short-time withstand current	10 kA rms for 1.0 s & 25 kA peak

Documents attached to this report

Oscillogram number(s)	SC15357B.S01
Photograph number(s)	SC15357B.PB1 & SC15357B.PA1
Test circuit diagram number(s)	CRTL/SC/STC-01A
Drawing number (s)	EE/02


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
Short-circuit point

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

TEST RESULTS

Oscillogram Number	Current (kA)		Duration (s)	Ambient Temperature (°C)	Observation
	Peak	Rms			
SC15357B.S01	26.30	11.49	1.09	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



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

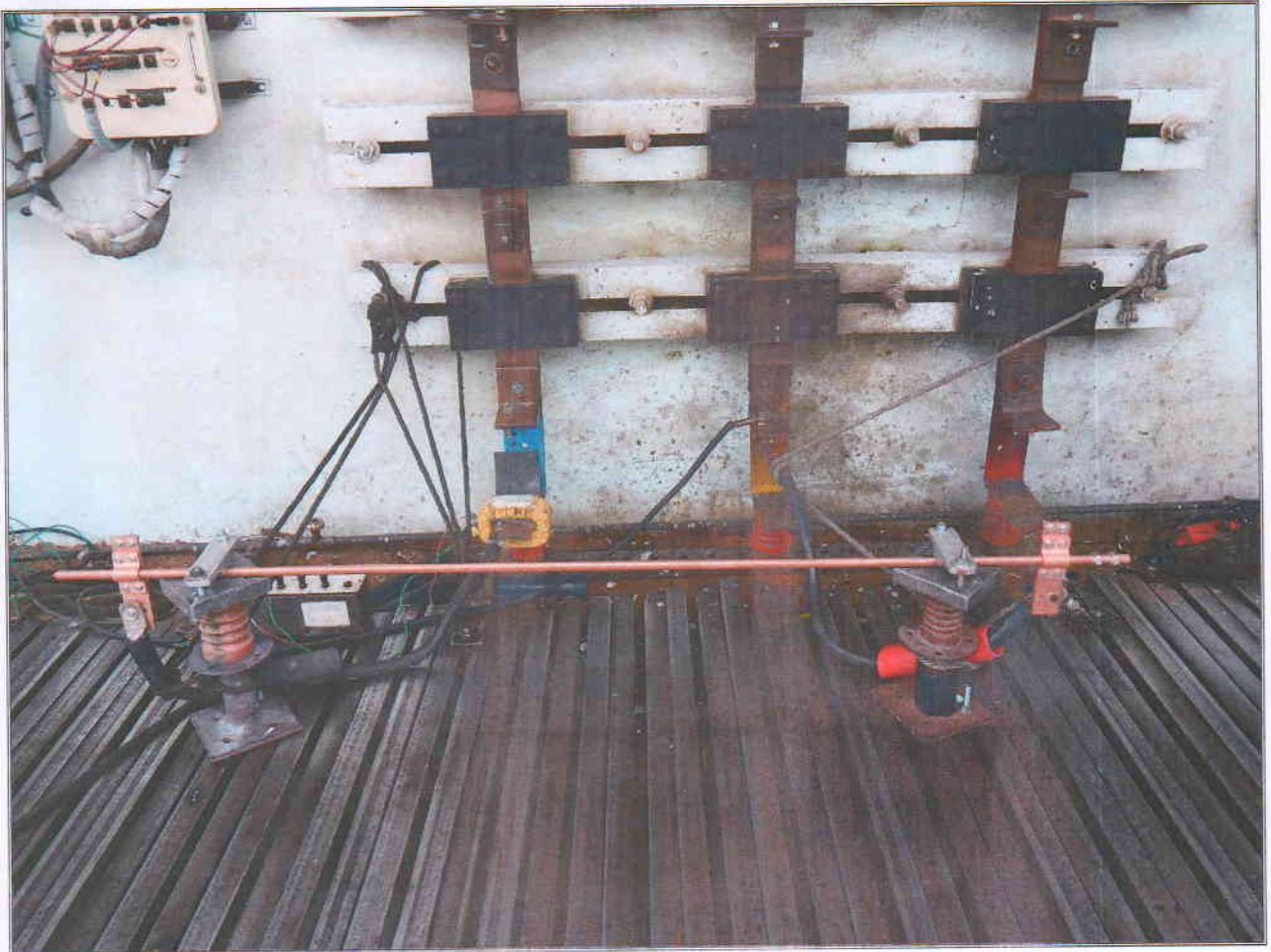
Shree
TEST ENGINEER

SC15357B.S01 Dt: 6/26/2015

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Mounting arrangement (Before test)

SC15357B.PB1


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Condition of the sample (After test)

SC15357B.PA1

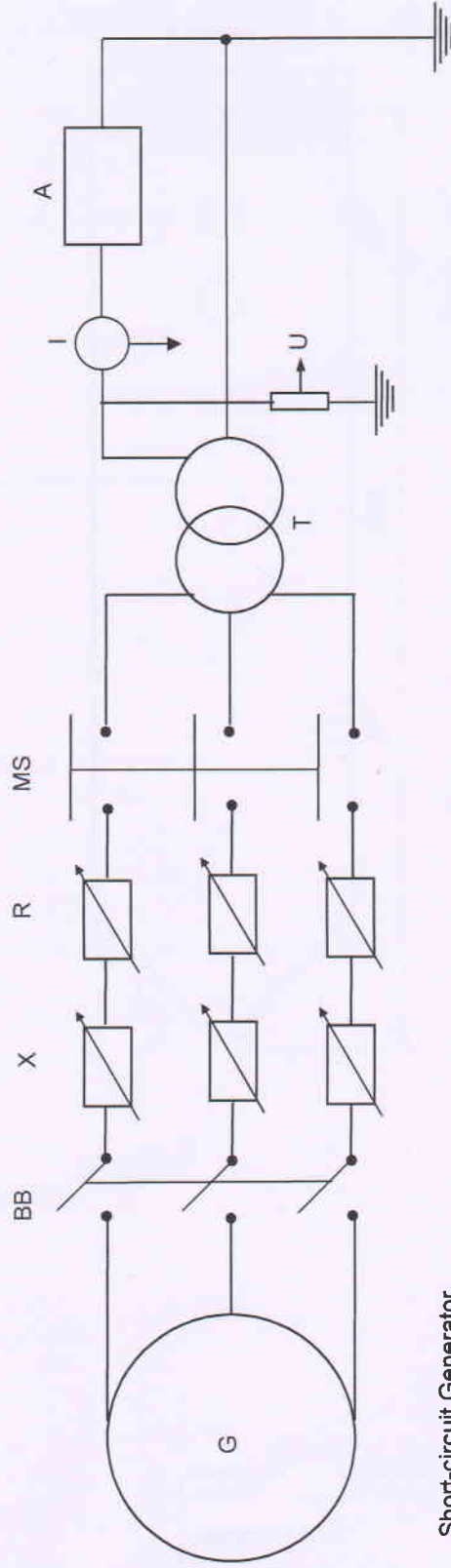
[Signature]
Test Engineer



CPRI

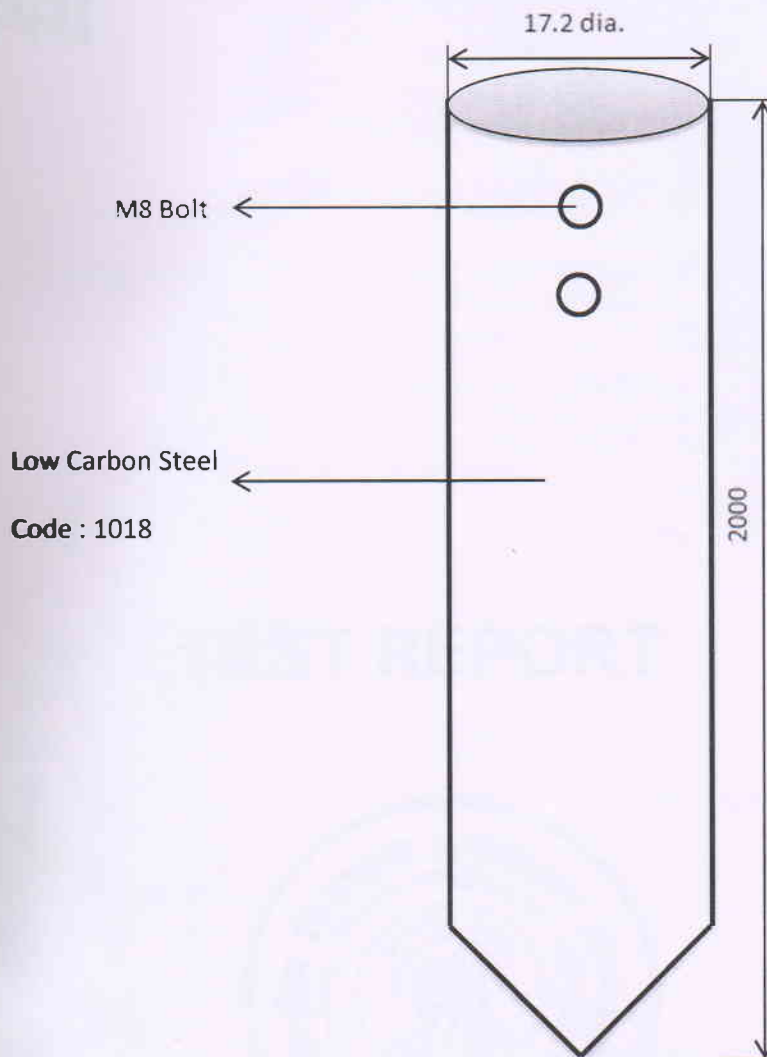
Schematic of main & measurement circuits - Single phase test

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 |

[Signature]
Test Engineer



रिपोर्ट क्रमांक.....
 से संबंधित दस्तावेज
 Document Pertaining to
 Report No..... **SC15357B**

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

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

Pazhayannur, Thrissur Dt.

DWG. No. :- EE/02

Kerala - 680587