

CPRI

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
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TEST REPORT

Test Report Number	SC171474	Dated: 17 th August, 2017
Name & Address of the Customer	M/s. Infinite Electro Tech Pvt. Ltd., # 29, Dhankodi Raja Street, Ekkattuthangal, Chennai – 600 097, Tamil Nadu, India.	
Name & Address of the Manufacturer	M/s. Infinite Electro Tech Pvt. Ltd., # 29, Dhankodi Raja Street, Ekkattuthangal, Chennai – 600 097, Tamil Nadu, India.	
Particulars of sample tested	Copper Bonded MS Earth Rod	
Condition of the sample on Receipt	New	
Type	---	
Description of test sample	30 mm dia & 3000 mm Long Copper Bonded MS Earth Rod	
Serial Number(s)	---	
Number of samples tested	One	
Date (s) of test (s)	10 th August, 2017	
CPRI sample code no(s).	SC17S0598	
Particulars of tests conducted	Short-time withstand current and peak withstand current	
Test in accordance with	Customer's instruction	
Standard / specification	Not applicable	
Sampling plan	33 kA rms for 1.0 s & 83 kA peak	
Customer's requirement	---	
Deviations if any	---	
Name of the witnessing persons		
Customer's representative	Mr. Anirudha Basu, GM	
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	
 (Sakthivel.P) Test Engineer		 (Swaraj Kumar Das) Joint Director

Sheet 1 of 4

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Report Number: SC171474

Dated: 17th August, 2017

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

Test sample	Copper Bonded MS Earth Rod
Type	---
Designation	---
Serial Number	---
Size & Length of Earth electrode	30 mm dia & 3000 mm Long Copper Bonded MS Earth Rod
Short-time withstand current and peak withstand current	33 kA rms for 1.0 s & 83 kA peak

Documents attached to this report

Oscillogram number(s)	SC171474.S01
Photograph number(s)	SC171474.PB1 & SC171474.PA1
Test circuit diagram number(s)	CRTL/SC/STC-01A
Drawing number (s)	CP30004


Test Engineer

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Report Number: SC171474

Dated: 17th August, 2017

Schedule of test

SHORT-TIME WITHSTAND CURRENT AND PEAK WITHSTAND CURRENT

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
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

TEST RESULTS

Oscillogram Number	Current (kA)		Duration (s)	Observation
	peak	rms		
SC171474.S01	84.42	31.69*	1.14	During test: No Abnormality After test: No visible damage to earth rod.

*Equivalent to 33.83 kA rms for 1.0 s

Physical Inspection: No visible damage.


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.

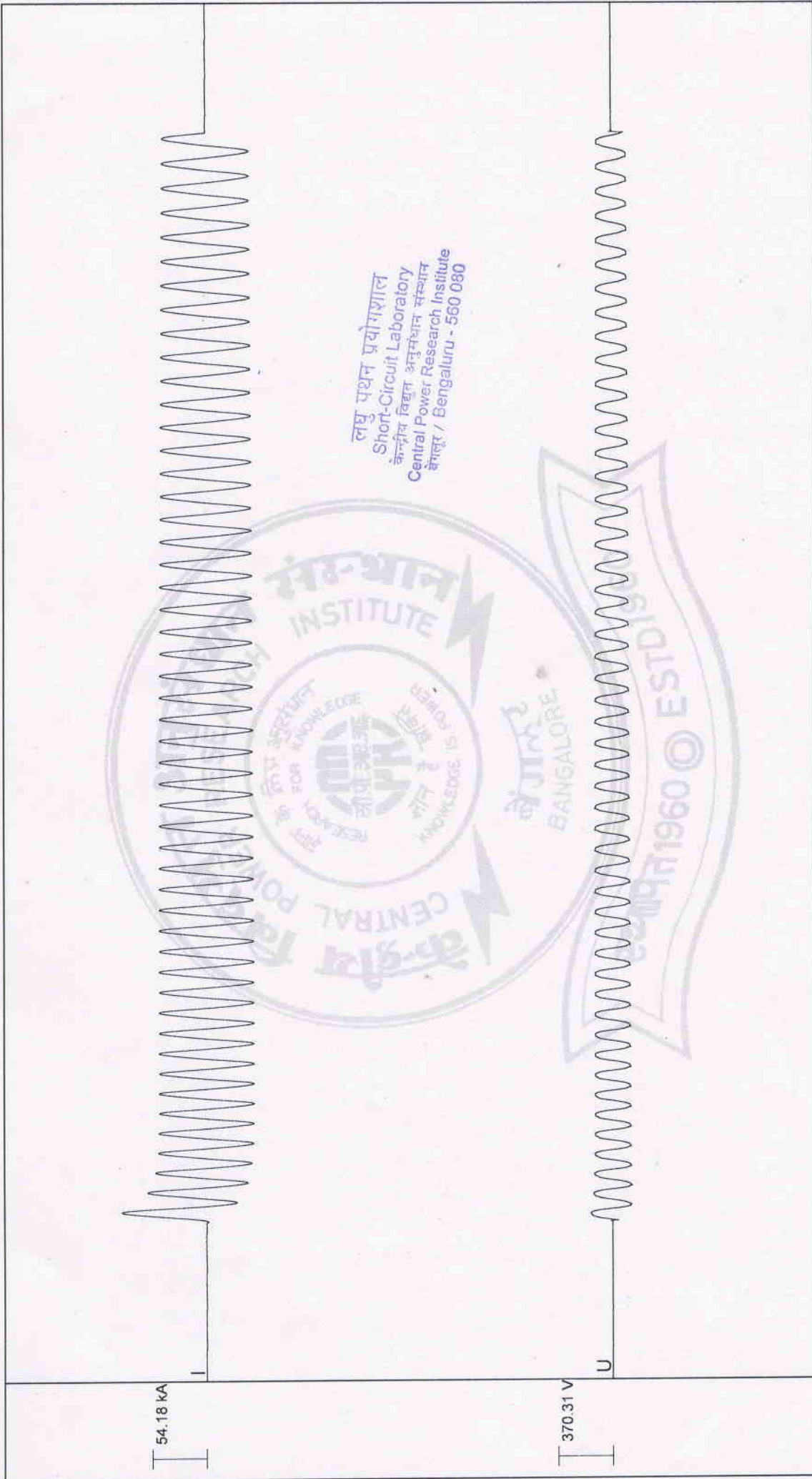
Sealed Certificate:

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
 बंगलूरु / Bengaluru - 560 080

[Signature]
 TEST ENGINEER

170.10 milli seconds

SC171474.S01 Dt: 8/10/2017

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Mounting arrangement (Before test)

SC171474.PB1


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Condition of the sample (After test)

SC171474.PA1

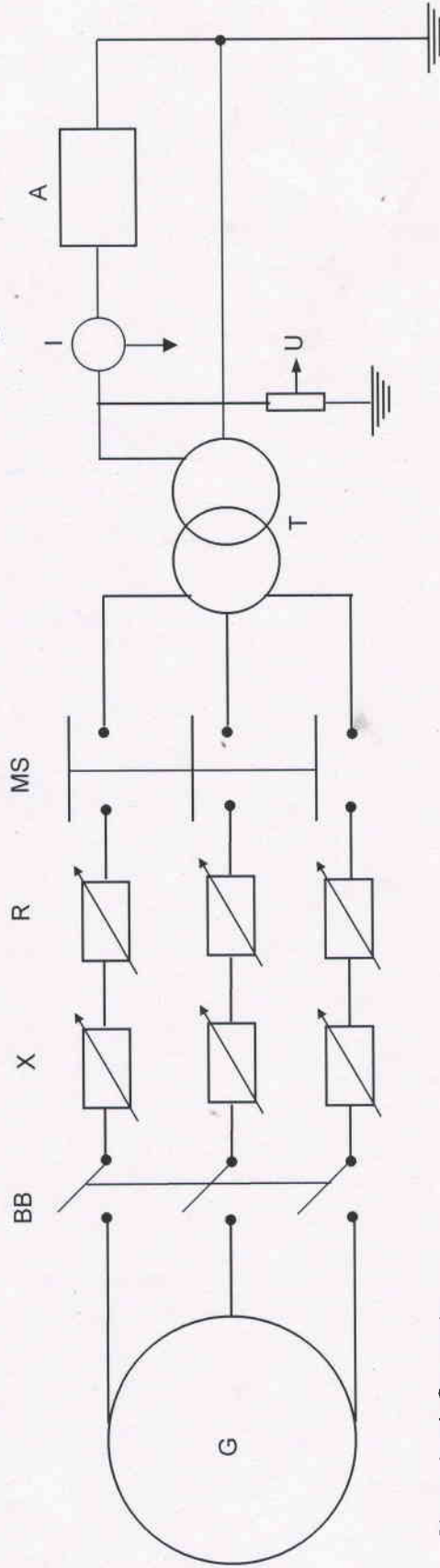

Test Engineer



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Schematic of main & measurement circuits - Single phase test

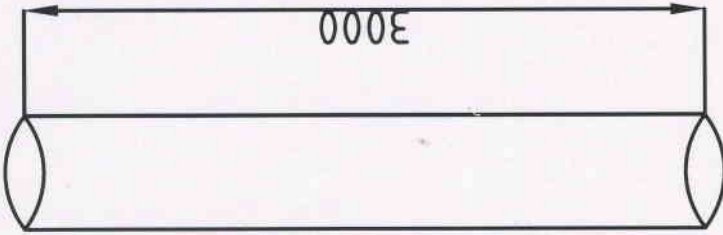
Circuit Number: CRTL/SC/STC-01A



- 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

Debabrata
Test Engineer

Ø30



के.वि.अ.सं. द्वारा इस रेखाचित्र का सत्यापन जहाँ तकली भी संभव हो सके विषय सर्व तर्क ही सीमित है।
THE VERIFICATION OF THIS DRAWING BY CPRI IS LIMITED TO DIMENSIONAL CHECKS ONLY WHEREVER POSSIBLE

रिपोर्ट क्रमांक.....
से संबंधित दस्तावेज
Document Pertaining to
Report No. CS:314:74.....

Shaktank
परीक्षण अभियन्ता / Test Engineer
ल. प. प्रयोगशाला / S. C. LAB
सी. पी. अर. आई. / CPRI
बंगलूरु / Bengaluru

NOTE :

ALL DIMENSIONS IN MM
GENERAL TOLERANCES +/-5%
COPPER COATING THICKNESS 250 MICRONS

TITLE:	Ø30 COPPER BONDED MS EARTH ROD		
	M/s INFINITE ELECTRO TECH PVT LTD #29,DHANKODI RAJA STREET,EKKATTUTHANGAL CHENNAI-600097		
DATE	SCALE	DRAWING NO	
20-07-2017	NTS	CP30004	