

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)



TEST REPORT

Test Report Number : CPRIBLRSCLMISC19T0141 Date: 04 September 2024

Name & Address of the Customer : M/s. Doksham Power Solutions  
H51A, Road No 2- D, Bindayka Ind. Area,  
Bindayka, Jaipur- 302041, India.

Name & Address of the Manufacturer : M/s. Doksham Power Solutions  
H51A, Road No 2- D, Bindayka Ind. Area,  
Bindayka, Jaipur- 302041, India.

Particulars of sample tested : GI Earth Electrode  
Condition of the sample on Receipt : Good

Type : --  
Description of test sample : 58mm OD / 50mm ID, 3000 mm long  
GI Earth Electrode

Serial Number(s) : ---  
Number of samples tested : One  
Date (s) of test (s) : 21 August 2024  
CPRI sample code no(s). : SCLMISC19S0155

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 : Not applicable  
Customer's requirement : 25 kA rms for 1.0 s & 63 kA peak  
Deviations if any : ---

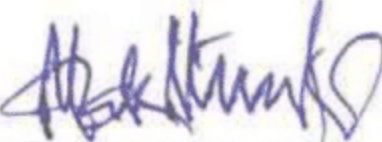
Name of the witnessing persons

Customer's representative : Mr. Amit  
Other than customer's representative : 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 photograph(s) : Two  
Number of test circuit diagram(s) : One  
Number of drawings(s) : One

  
(Sakthivel. P)  
Test Engineer



  
(Swaraj Kumar Das)  
Head of Division  
Approved by

CENTRAL POWER RESEARCH INSTITUTE  
(Member of STL)



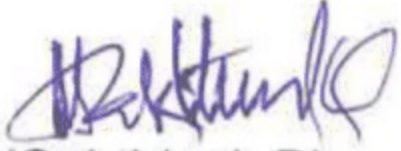
TEST REPORT

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Date: 04 September 2024

DESCRIPTION OF SAMPLE TESTED  
(As assigned by the manufacturer)

Test sample : GI Earth Electrode  
Type : ---  
Size & length of earth electrode : 58mm OD / 50mm ID & 3000 mm long  
Short-time withstand current and peak withstand current : 25 kA rms for 1.0 s & 63 kA peak

  
(Sakthivel. P)  
Test Engineer

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SUMMARY OF TESTS CONDUCTED

1. Test conducted : Short-time withstand current and peak withstand current
2. Rating for which tested : 25 kA rms for 1.0 s & 63 kA peak
3. Schedule of test results

Test conducted	Clause Nos.	Reference
Short-time withstand current and peak withstand current	Customer's instruction	Sheet 5 of 6

4. Oscillogram Number(s) : SC190191.S01
5. Photograph Number(s) : CPRIBLRSCLMISC19T0191P01 & CPRIBLRSCLMISC19T0191P02
6. Test Circuit Diagram Number(s) : CRTL/SC/STC-01A
7. Drawing Number(s) : Refer Sheet 4 of 6

  
(Sakthivel. P)  
Test Engineer

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Test Report Number: CPRI BLR SCLMISC19T0141

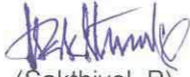
Date: 04 September 2024

LIST OF DRAWINGS

Sample Drawing Numbers

Sl. No.	Drawing Number	Sheet No.	Rev. No.
1	DPS/0581/08/20198	1 OF 1	0

The manufacturer has guaranteed that the sample submitted for the test has been manufactured in accordance with the above drawing. It is verified that this drawing adequately represents the sample tested. The verification of the sample drawing by CPRI is limited to dimensional checks only wherever possible.

  
(Sakthivel. P)  
Test Engineer

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TEST RESULTS


SHORT-TIME WITHSTAND CURRENT AND PEAK WITHSTAND CURRENT TESTS

TEST CONDITIONS

<u>Source</u>	Short-circuit generator
Number of phases	Single
Frequency	50 Hz
<u>Test sample</u>	
Condition of the sample	In clean & good condition; one end of the earth electrode connected to source
Mounting	Horizontal, isolated from ground
<u>Test details</u>	
Test circuit drawing number	CRTL/SC/STC-01A
Short-circuit applied	On the other end of the earth electrode
Short-circuit point	Grounded

Oscillogram Number	Current (kA)		Duration (s)	Observation
	peak	rms		
SC190191.S01	66.34	25.37	1.08	<b>During test:</b> No Abnormality <b>After test:</b> No visible damage to earth electrode.

Physical Inspection: No visible damage

  
(Sakthivel. P)  
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 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.
- f) The verification of the sample drawing by CPRI is limited to dimensional checks only wherever possible.
- 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

26.75 kA



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

185.15 V



170.10 milli seconds

*J. D. Kulkarni*  
TEST ENGINEER

SC190191.S01

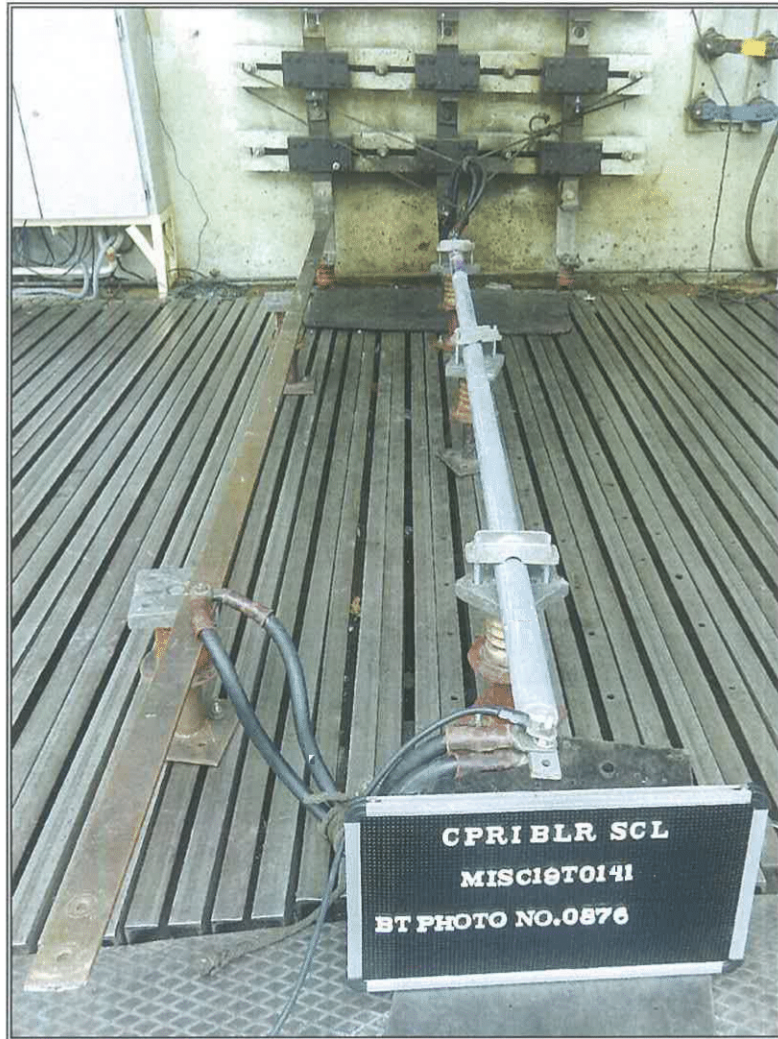
Di: 21-08-2024

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Mounting arrangement (Before test)

CPRIBLRSCLMISC19T0141P01

  
(Sakthivel. P)  
Test Engineer

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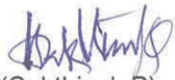


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Condition of the sample (After test)

CPRI BLR SCL MISC19T0191 P02

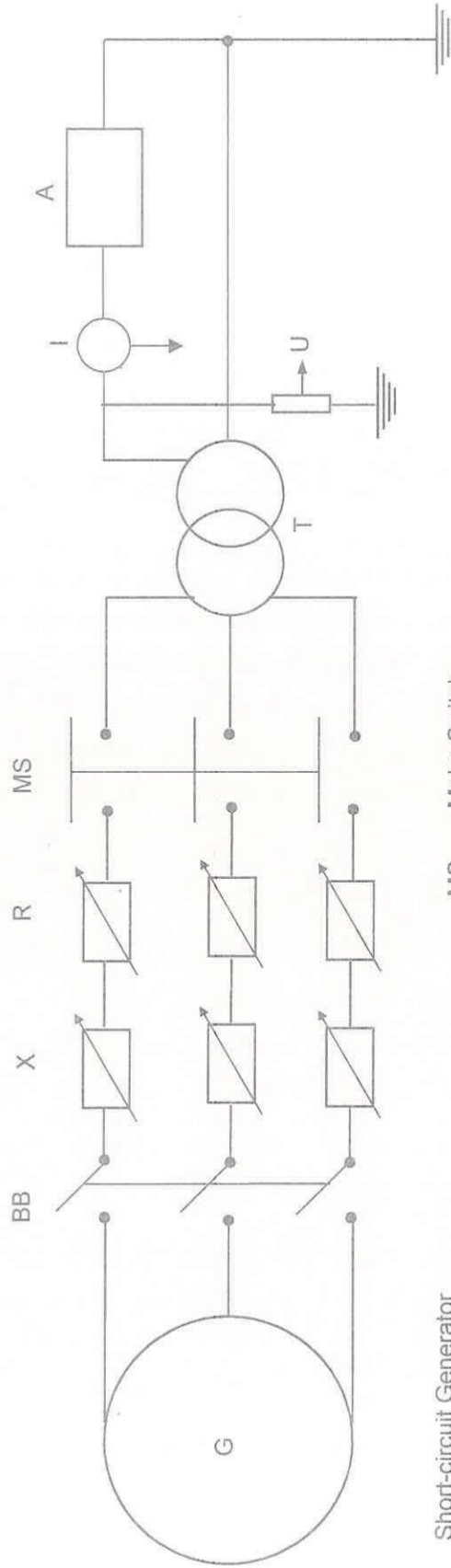
  
(Sakthivel. P)  
Test Engineer



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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

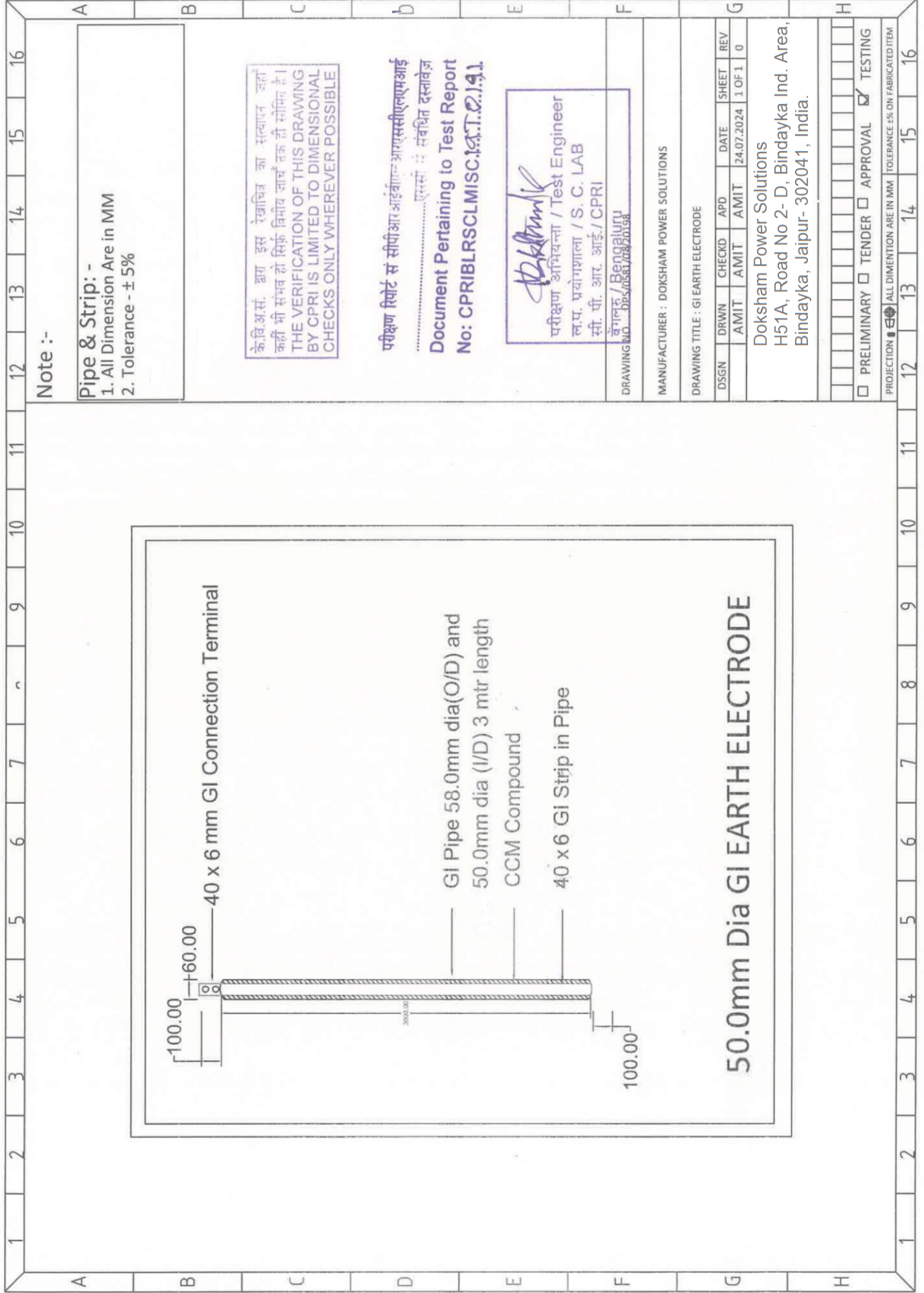
T Step-down transformer

A Sample under test

i Current Sensor

U Voltage divider

*[Signature]*  
Test Engineer



Note :-

Pipe & Strip: -

1. All Dimension Are in MM
2. Tolerance -  $\pm$  5%

केवि.अ.सं. द्वारा इस रेखाचित्र का संत्याग जहाँ कहीं भी संभव हो सिके विधीय जाचें तक ही सीमित है।  
 THE VERIFICATION OF THIS DRAWING BY CPRI IS LIMITED TO DIMENSIONAL CHECKS ONLY WHEREVER POSSIBLE

परीक्षण रिपोर्ट सं सीपीआर आईबीएन आरएससीएलएमआई  
 .....एससी सं संबंधित दस्तावेज  
**Document Pertaining to Test Report**  
**No: CPRI/BLR/CLMISC./A.T.O./4.1**

*(Signature)*  
 परीक्षण अभियन्ता / Test Engineer  
 ल.प. प्रयोगशाला / S. C. LAB  
 सी. पी. आर. आई. / CPRI  
 बंगलुरु / Bengaluru  
 ड्राइंग नं. / Drawing No. DE/5851/08/2019

MANUFACTURER : DOKSHAM POWER SOLUTIONS

DRAWING TITLE : GI EARTH ELECTRODE

DSGN	DRWN	CHECKD	APD	DATE	SHEET	REV
AMIT	AMIT	AMIT	AMIT	24.07.2024	1 OF 1	0

Doksham Power Solutions  
 H51A, Road No 2-D, Bindaika Ind. Area,  
 Bindaika, Jaipur- 302041, India.

PRELIMINARY 
  TENDER 
  APPROVAL 
  TESTING

PROJECTION ALL DIMENTION ARE IN MM TOLERANCE  $\pm$  5% ON FABRICATED ITEM