

BY HAND/BY POST

केन्द्रीय विद्युत अनुसंधान संस्थान
CENTRAL POWER RESEARCH INSTITUTE
स्वचागियर परीक्षण तथा विकास केन्द्र गोविन्दपुरा, भोपाल - 462023

SWITCHGEAR TESTING & DEVELOPMENT STATION GOVINDPURA BHOPAL- 462023

तार	: स्वचापरीक्षण
Gram	: Poweresearch
फैक्स (Fax)	: 91755 2587774
टेलिफोन (Telephone)	: 0755-2586343

संदर्भ क्रमांक (Ref. No): 11(2)/2023/STDS/Stn.2/ 589
सेवा में / To,

दिनांक (Date): 07 December 2023

एवरराइज इंजीनियरिंग
7/19-बी, कीरानाथम पोस्ट। किरणथम,
कोयंबटूर, तमில்நாடு, 641035

Everrise Engineering
7/19-B, Keeranatham Post. Keeranatham,
Coimbatore, Tamil Nadu, 641035

विषय (Sub.):- परीक्षण दस्तावेज (Test document)

Final Report

महोदय / Dear Sir,
हमारी प्रयोग घाला मे..... LT Panel
पर / के बीच आपके 31.08.2023 पर संचालित परीक्षण के संबंध में निम्नलिखित दस्तावेज संलग्न हैं।

Please find enclosed the following documents in respect of the test (s) conducted
on (equipment) on/ from (dates) at our laboratory.
1:- टेस्ट रिपोर्ट नम्बर, Test report number **CPRIBPLSTNBMISC23T0349**

रिपोर्ट में असंगतियाँ यदि हो तो इस रिपोर्ट के जारी होने की तारिख से 45 दिन के अंदर लिखित रूप में हमारे ध्यान में लायी जावे ताकि आवश्यक संपोषण किया जा सके और इसके लिये रिपोर्ट की सभी मूल प्रतियाँ लौटाई जावें। कृपया नोट करें कि इस तारीख के बाद प्राप्त अनुरोधों पर कोई कारवाई नहीं की जाएगी।

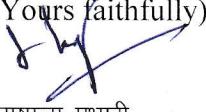
Any discrepancies in the report must be brought to our notice in writing within 45 days of the date of issue of this report for effecting necessary corrections for which all the original copies of the reports must be returned.
Please note that request received beyond this date will not be entertained.

दस्तावेजों की प्राप्ति की पावती भेजें।

Please acknowledge receipt of the documents.

सध्यवाद Thanking you,

भवदीय (Yours faithfully)


प्रयोगघाला प्रभारी

LABORATORY INCHARGE

संलग्न	: उपरोक्त
Encl.	: as above

सी पी आर आई
भारत
CPRI
INDIA

परीक्षण रिपोर्ट
TEST REPORT





परीक्षण रिपोर्ट TEST REPORT

केन्द्रीय विद्युत अनुसंधान संस्थान

(विद्युत मंत्रालय, भारत सरकार के अधीन एक स्वायत्त सोसायटी)

CENTRAL POWER RESEARCH INSTITUTE

(An Autonomous Society under Ministry of Power, Govt. of India)

एस टी एल के सदस्य

Member of STL

रियरगिंगर परीक्षण तथा विकास केन्द्र

SWITCHGEAR TESTING & DEVELOPMENT STATION

गोविन्दपुरा, भोपाल - 462023

GOVINDPURA BHOPAL - 462023

दूरभाष/Telephone +91 (0) 755 - 2586682 फैक्स/Fax +91 (0) 755-2587774

CENTRAL POWER RESEARCH INSTITUTE



CPRI

Test Report Number : CPRIBPLSTNBMISC23T0349 Date: 06 December 2023

Name and Address of the Customer	: Everrise Engineering 7/19-B, Keeranatham Post. Keeranatham, Coimbatore, Tamil Nadu, 641035
Name and Address of the Manufacturer	: Everrise Engineering 7/19-B, Keeranatham Post. Keeranatham, Coimbatore, Tamil Nadu, 641035
Particulars of Sample Tested	: 415V, 6300A L.T. Panel (Non Extendable)
Condition of sample(s) on receipt	: New
Type	: Power Cum Motor Control Centre
Description of test sample	: Refer sheet 2 of 6
Serial Number	: ERE/70
Number of Samples Tested	: One
Date(s) of Test(s)	: 31 August 2023
CPRI Sample code Number(s)	: STNBMISC23S1606
Particulars of test(s) conducted	: Verification of the short circuit withstand strength test.
Test(s) in accordance with Standard/Specification	: As per customer's requirement and procedure generally followed as per Cl.10.11.5.3.3 & 10.11.5.3.5 of IS/IEC:61439-1, 2011 & IS/IEC:61439-2, 2011
Sampling Plan	: Nil
Customer's Requirement	: SCWS test to be conducted on busbar only.
Deviations, if any	: SCWS test was conducted on busbar only.
Name of the witnessing persons	
Customer's representative	: Mr. Prashant
Other than Customer's representatives	: Nil
Test subcontracted with and address of the laboratory	: Nil
Documents constituting this report (in words)	
Number of Sheets	: Six
Number of Oscillogram(s)	: Two
Number of Graph(s)	: Nil
Number of Photograph(s)	: One
Number of Test Circuit Diagram(s)	: Two
Number of Drawing(s)	: Four

(Prabakaran T)
Test Engineer



(Himangshu Roy)
Head of Division
Reviewed and Authorized by

CENTRAL POWER RESEARCH INSTITUTE



TEST REPORT

Test Report Number : CPRIBPLSTNBMISC23T0349 Date: 06 December 2023

CPRI

DESCRIPTION OF SAMPLE TESTED

(As assigned by the manufacturer)

Test Sample : 415V, 6300A L.T. Panel (Non Extendable)

Type : Power Cum Motor Control Centre

Designation : Main Distribution Panel

Serial number : ERE/70

Voltages

Rated Voltage (U_n) in V : 415

Rated Insulation Voltage (U_i) in V : 660

Rated impulse withstand voltage (U_{imp}) in kV : NA

Currents

Rated Current (I_{nA}) in A : 6300

Rated current of a main outgoing circuit (I_{nc}) in A : NA

Rated conditional short-circuit current (I_{cc}) in kA : NA

Rated short-time withstand current (I_{cw}) in kA : 70 kArms for 1.0 Second with initial peak of 154 kApk

Rated frequency (f_n) in hz : 50

Degree of protection : Nil

Material group : Nil

Form of separation : Nil

Number of Phases : Three Phase + Neutral

Extendable : No

NA : Not Applicable


(Prabakaran T)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT



Test Report Number : CPRIBPLSTNBMISC23T0349 Date: 06 December 2023

CPRI

SUMMARY OF TESTS CONDUCTED

1. Tests conducted : Verification of short circuit withstand strength
2. Rating for which tested : 70 kAmps for 1.0 Second with initial peak of 154 kApk
3. Schedule of tests

Test conducted	Clause Numbers	Sheet
Verification of short circuit withstand strength test (Incoming circuit and main busbars & Neutral conductor)	As per customer's requirement	5 of 6

4. Oscillogram Numbers : CPRIBPLSTNBMISC23T0349S002
CPRIBPLSTNBMISC23T0349S004
5. Graph Numbers : Nil
6. Photograph Numbers : CPRIBPLSTNBMISC23T0349P01
7. Test Circuit Diagram Numbers : OLTS/TCD-STC-01
OLTS/TCD-STC-02
8. Drawing Numbers : Refer sheet 4 of 6

(Prabakaran T)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT

Test Report Number : CPRIBPLSTNBMISC23T0349 Date: 06 December 2023



CPRI

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 drawings

Sl. No.	Drawing Number	Sheet Number	Revision Number
1.	ERE/TEST/70	01 of 04	00
2.	ERE/TEST/70	02 of 04	00
3.	ERE/TEST/70	03 of 04	00
4.	ERE/TEST/70	04 of 04	00

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

(Prabakaran T)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT

Test Report Number : CPRIBPLSTNBMISC23T0349 Date: 06 December 2023



CPRI

VERIFICATION OF THE SHORT CIRCUIT WITHSTAND STRENGTH

Test conducted	: Verification of the short circuit withstand strength
Test Source	: Station Transformers
Number of phases	: Three & Neutral
Frequency	: 50 Hz
Condition Test Sample before test	: New
Test connections	: Connected to source
Safety parameter	: Test sample was insulated from earth and connected to the neutral of the supply via a fusible element consisting of a copper wire 0.8 mm in diameter and at least 50 mm long for detection of fault.
Transformer neutral & short circuit point	: Refer Test Circuit Diagram No. OLTS/TCD-STC-01 for three phase test and OLTS/TCD-STC-02 for single phase test.

Test results:

Oscillogram Number	Peak kA _p k	RMS in kA			Duration (second)	Equivalent current in kArms for said duration
		I _r	I _y	I _b		
CPRIBPLSTNBMISC23T0349S002	158.2 (R-phase)	71.4	71.8	70.2	1.0	71.8
(Three phase Short circuit withstand strength test conducted on busbars consisting of HBB+VBB+HBB)						
CPRIBPLSTNBMISC23T0349S004	90.1		43.7		1.0	43.7
(Single phase short circuit withstand strength test conducted on neutral & nearest phase of busbars consisting of HBB+VBB+HBB)						

Observations

During test : No abnormality observed.
After test : No abnormality observed in visual inspection. Fine wire fuse was found intact. All busbars & supports were found intact.

Remarks : After test, the sample withstood HV test at 1.0kVrms for five second.

Conclusion : The sample tested complies with the requirement of the customer for the test conducted.

(Prabakaran T)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT

Test Report Number : CPRIBPLSTNBMISC23T0349 Date: 06 December 2023



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NOTE

- a) The Test results relate only to the sample(s) tested.
- b) Publication or reproduction of this Test Report /Test Certificate in any form other than by complete set of the whole Test Report /Test Certificate and in the language written is not permitted without the written consent of CPRI.
- c) Any Corrections/erasure invalidates the Test Report/Test Certificate
- d) Any anomaly/discrepancy in the Test Report / Test Certificate should be brought to the notice of CPRI within 45 days from the date of issue.
- e) All documents constituting the Test Report/Test Certificate are stitched together with a continuous silk thread/silk ribbon, the two ends of which have been brought over the front sheet of the Test Report/Test Certificate and sealed with a CPRI logo printer paper sticker/embossed

[Signature]
(Prabakaran T)
Test Engineer

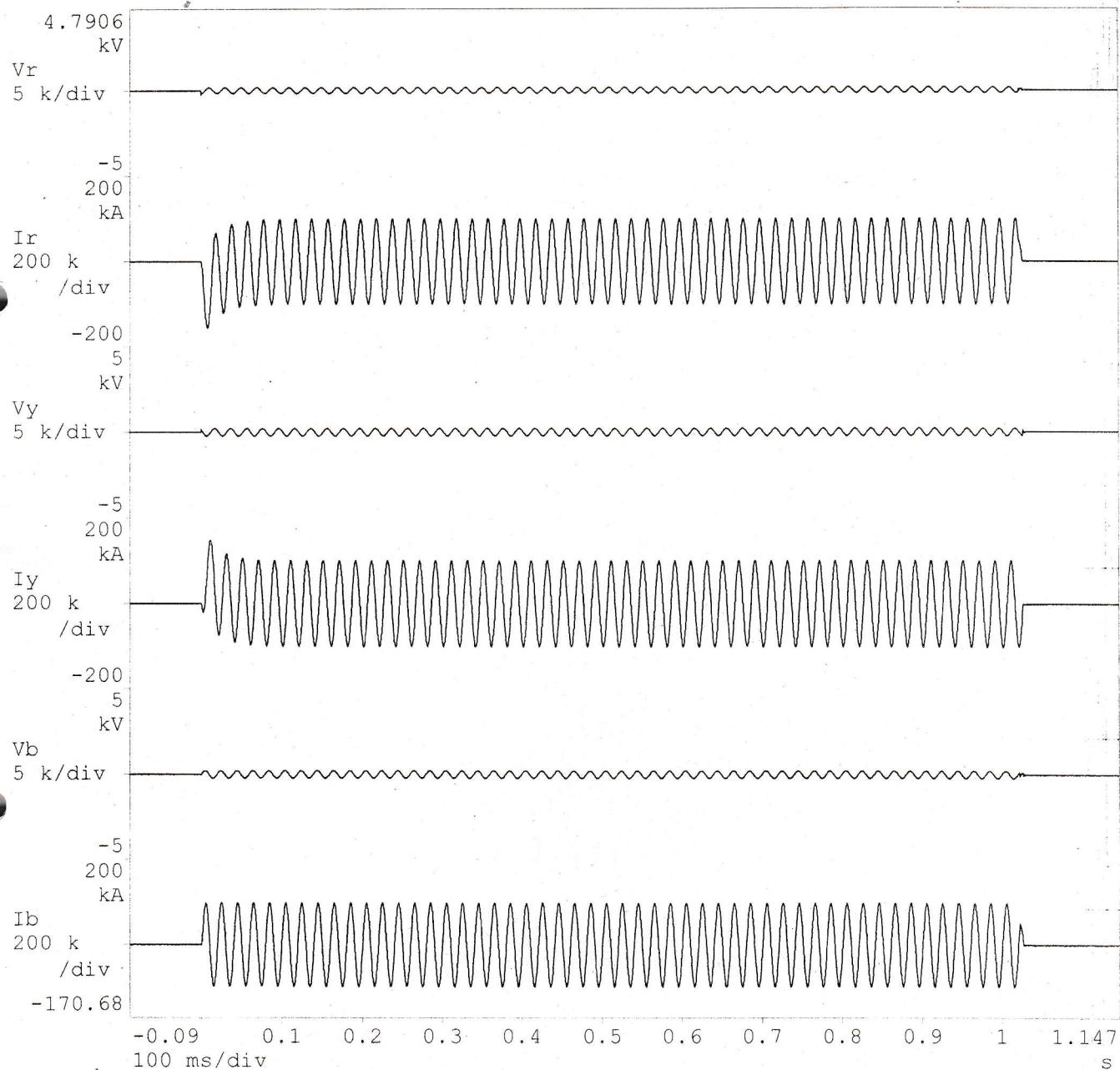
-----End of Test Report-----

Central Power Research Institute
(Member of STL)



Test Report Number : CPRIBPLSTNBMISC23T0349

TEST RESULTS



Oscillogram Number : CPRIBPLSTNBMISC23T0349S002

Test Engineer

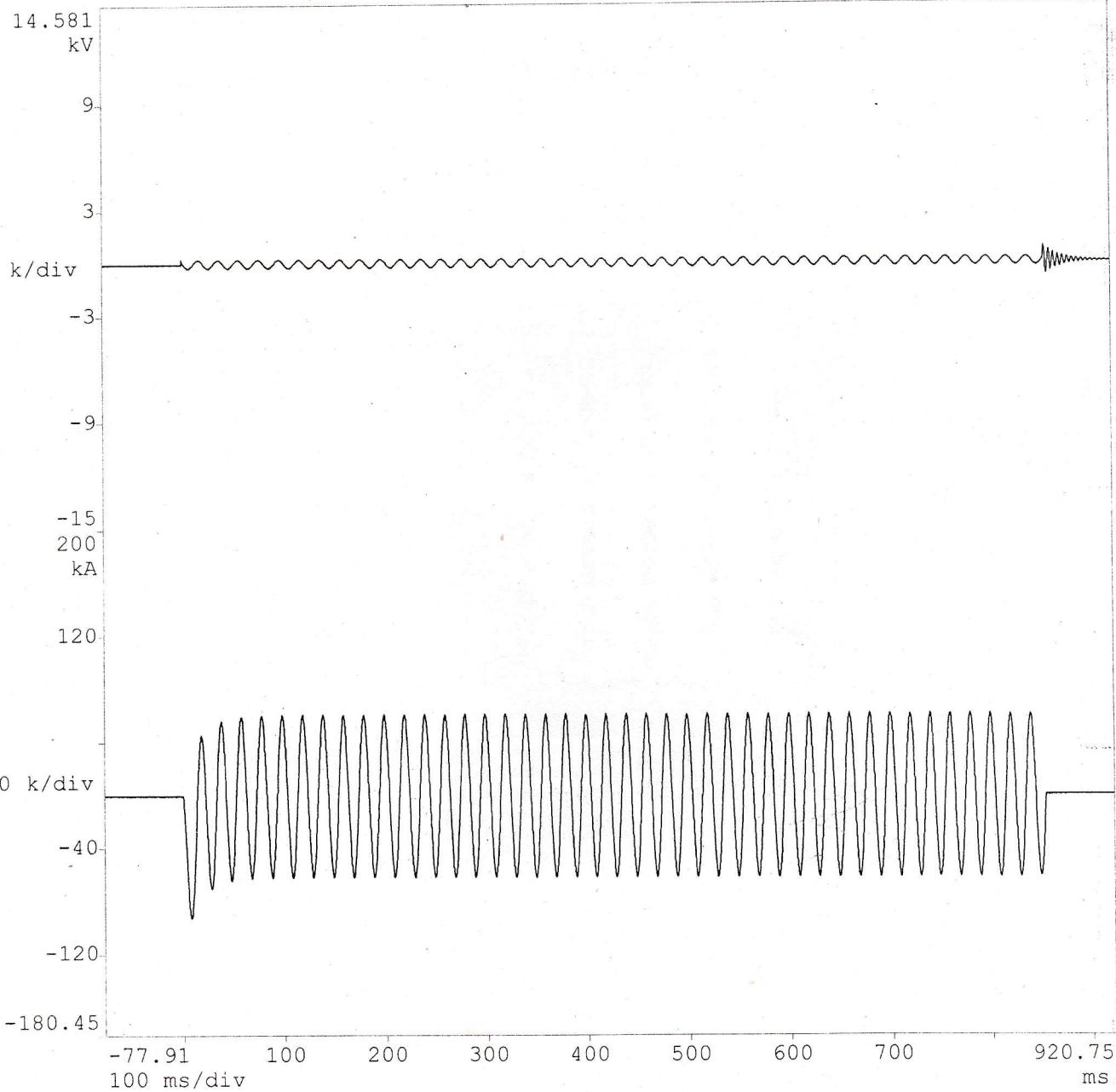
SWITCHGEAR TESTING & DEVELOPMENT STATION
GOVINDPURA, BHOPAL-462023, INDIA.
Phone: +91(0) 755 2586682 Fax: + 91(0) 755 2587774

Central Power Research Institute
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Test Report Number : CPRIBPLSTNBMISC23T0349

TEST RESULTS



Oscillogram Number : CPRIBPLSTNBMISC23T0349S004

Test Engineer

SWITCHGEAR TESTING & DEVELOPMENT STATION
GOVINDPURA, BHOPAL-462023, INDIA
Phone: +91(0) 755 2586682 Fax: + 91(0) 755 2587774

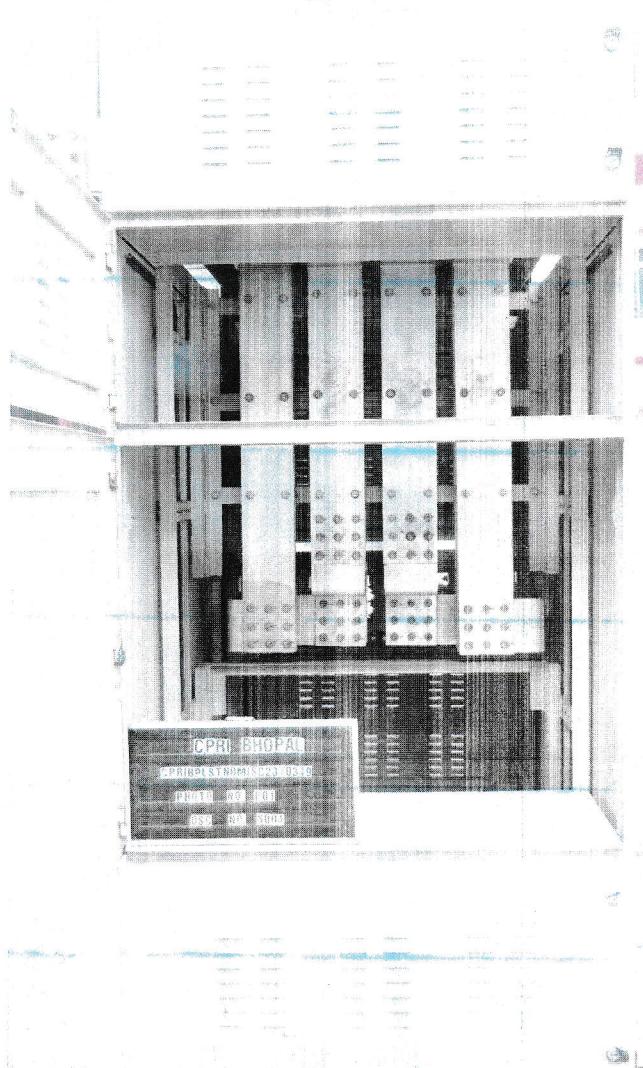
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TEST REPORT

Test Report Number : CPRIBPLSTNBMISC23T0349

TEST RESULTS

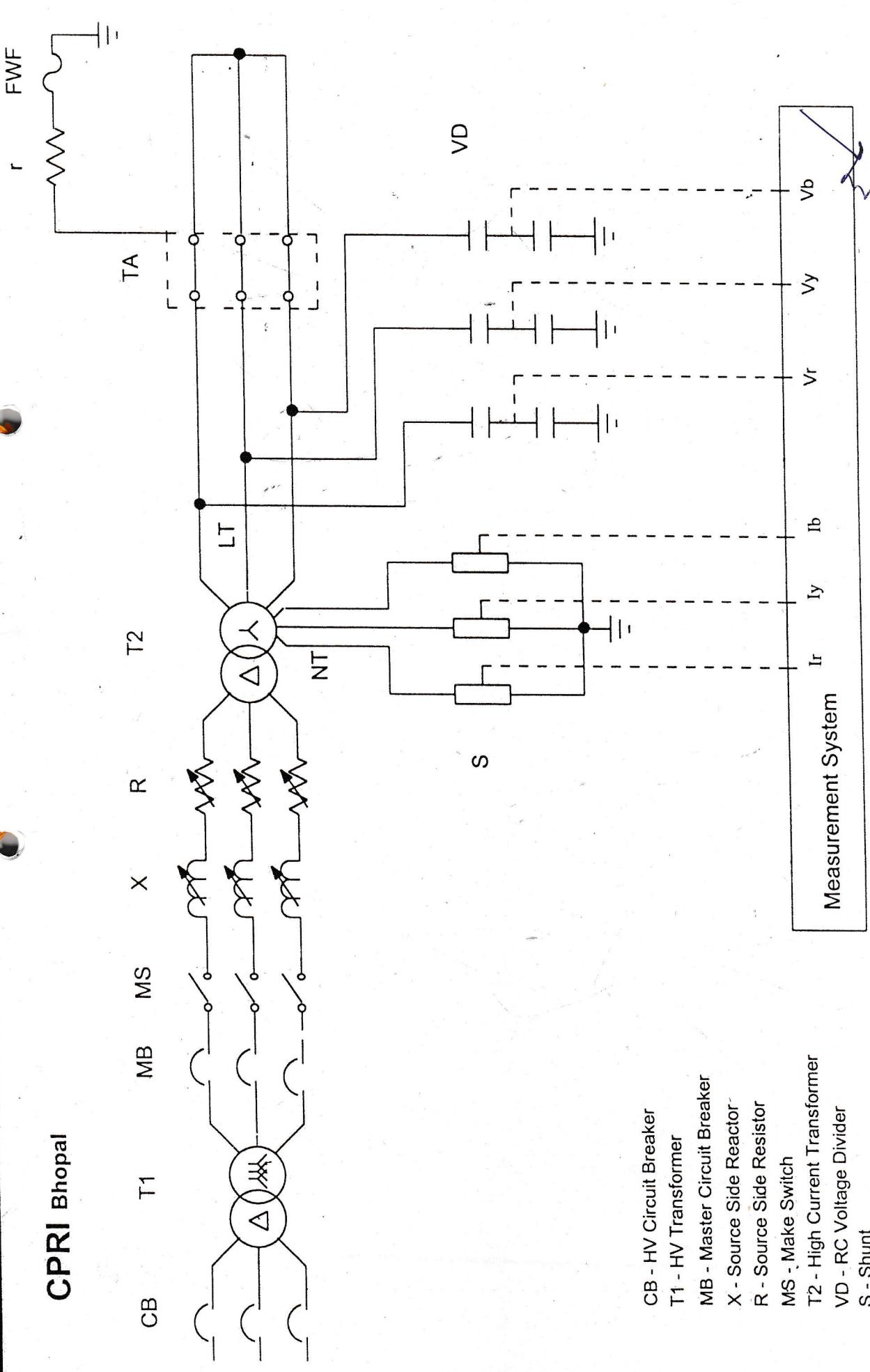


Photograph Number : CPRIBPLSTNBMISC23T0349P01

[Handwritten signature]

Test Engineer

CPRI Bhopal

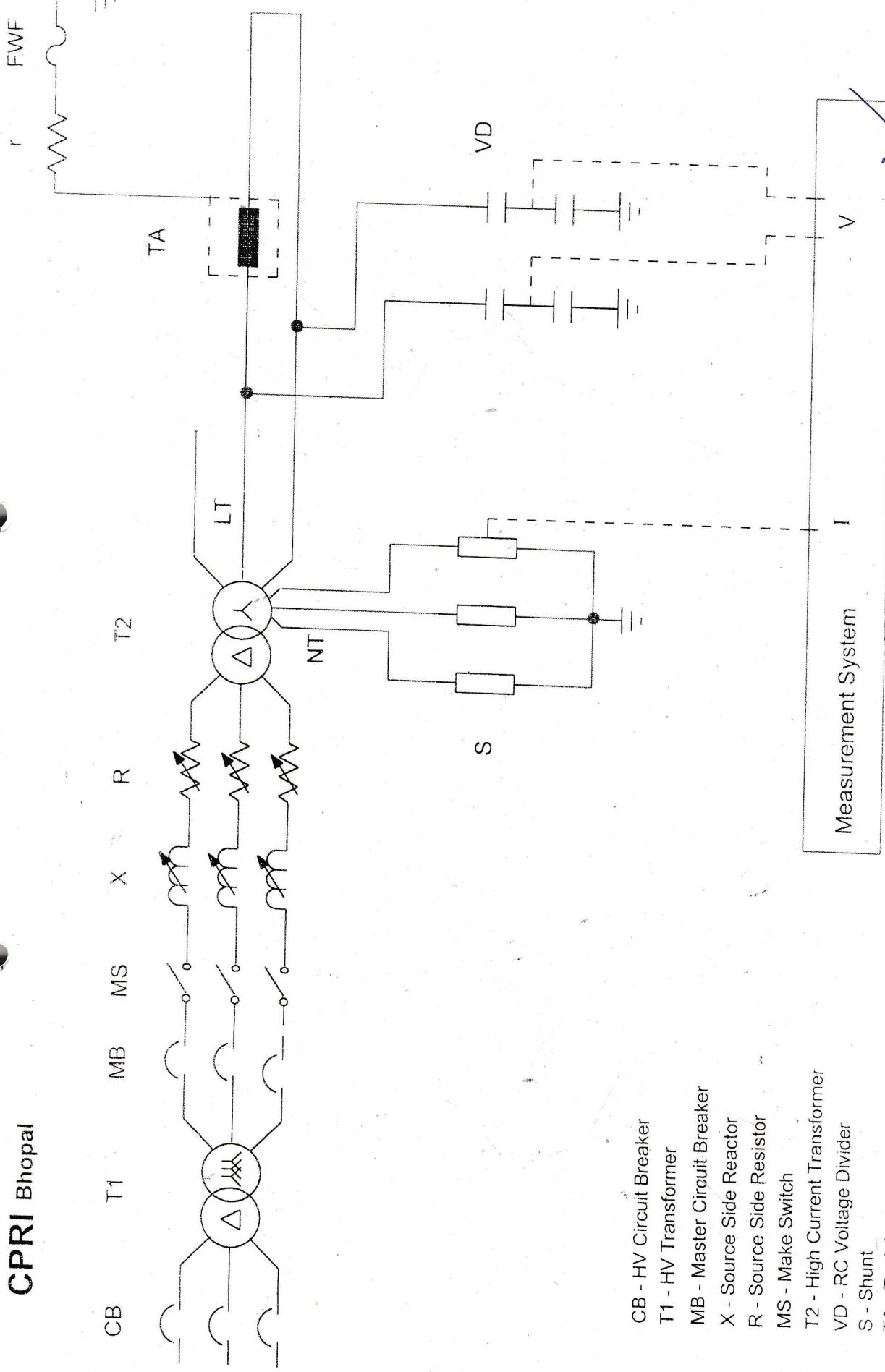


CB - HV Circuit Breaker
 T1 - HV Transformer
 MB - Master Circuit Breaker
 X - Source Side Reactor
 R - Source Side Resistor
 MS - Make Switch
 T2 - High Current Transformer
 VD - RC Voltage Divider
 S - Shunt
 TA - Test Apparatus
 r - Current Limiting Resistor
 FWF - Fine Wire Fuse
 LT - Line terminals of the secondary windings of T2
 NT - Neutral terminals of the secondary windings of T2

TEST ENGINEER

OLTS/TCD-STC-01

CPRI Bhopal



TEST ENGINEER
 OLTS/TCD-STC-02

EVERRISE ENGINEERING

**7/19-B, KEERANATHAM, SARAVANAMPATTI POST,
COIMBATORE, TAMIL NADU-641035**

EQUIPMENT	: LT PANEL
SR.NO.	: ERE/70
RATED VOLTAGE	: 415V
RATED CURRENT	: 6300A
RATED FREQUENCY	: 50HZ
SHORT TIME WITHSTAND CURRENT:	70KA for 1s

NAME PLATE

के.वि.आ.सं. द्वारा रेखाचित्र का सत्यायत
जाह्नूल तरफ भी संभग हो रिफ्लिं विमीय
जाह्नूल तरफ भी संभग हो रिफ्लिं विमीय

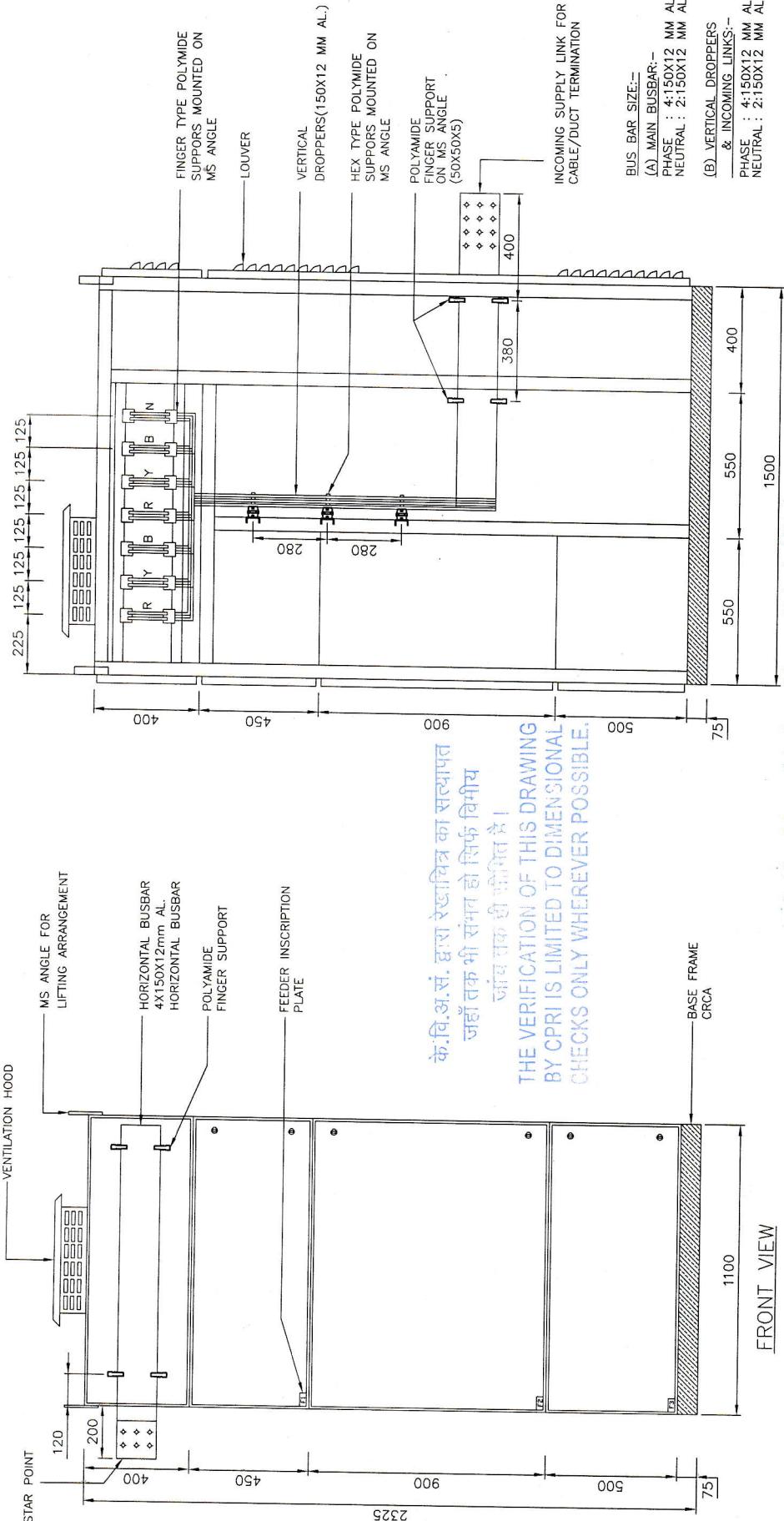
THE VERIFICATION OF THIS DRAWING
BY CPR IS LIMITED TO DIMENSIONAL
CHECKS ONLY WHEREVER POSSIBLE.

यह रेखा चित्र सीपीआरआई के परीक्षण प्रतिवेदन क्र. विनाक से संबंधित है।
THIS DRAWING PERTAINS TO CPR TEST REPORT
क्र. /No. CPRIBPLSTNB/15C23703479.....

दिनांक/Dated

परीक्षण इंजीनियर / Test Engineer

PROJECT : CPRI TESTING 6300A, 70KA				CONSULTANT:			
TITLE : GENERAL ARRANGEMENT DRAWING FOR 415V 6300A, LT PANEL				SCALE	SPR.NO.	DRAWING NO.	SHEET NO. REV
REV.	DATE	DESCRIPTION	BY	NTS	ERE/70	ERE/TEST/70	01 OF 04 00
0	23.08.23	ISSUED FOR TESTING	V.C V.C V.C				
REV.	DATE	DESCRIPTION	BY	CHKD, APPD			



यह रेला चित्र सौणालाई के परीक्षण प्रतिवेदन क्र. सिंगल टोनर है। SIDE VIEW
THIS DRAWING PERTAINS TO CPRI TEST BAR ARRANGEMENT

C 2370348

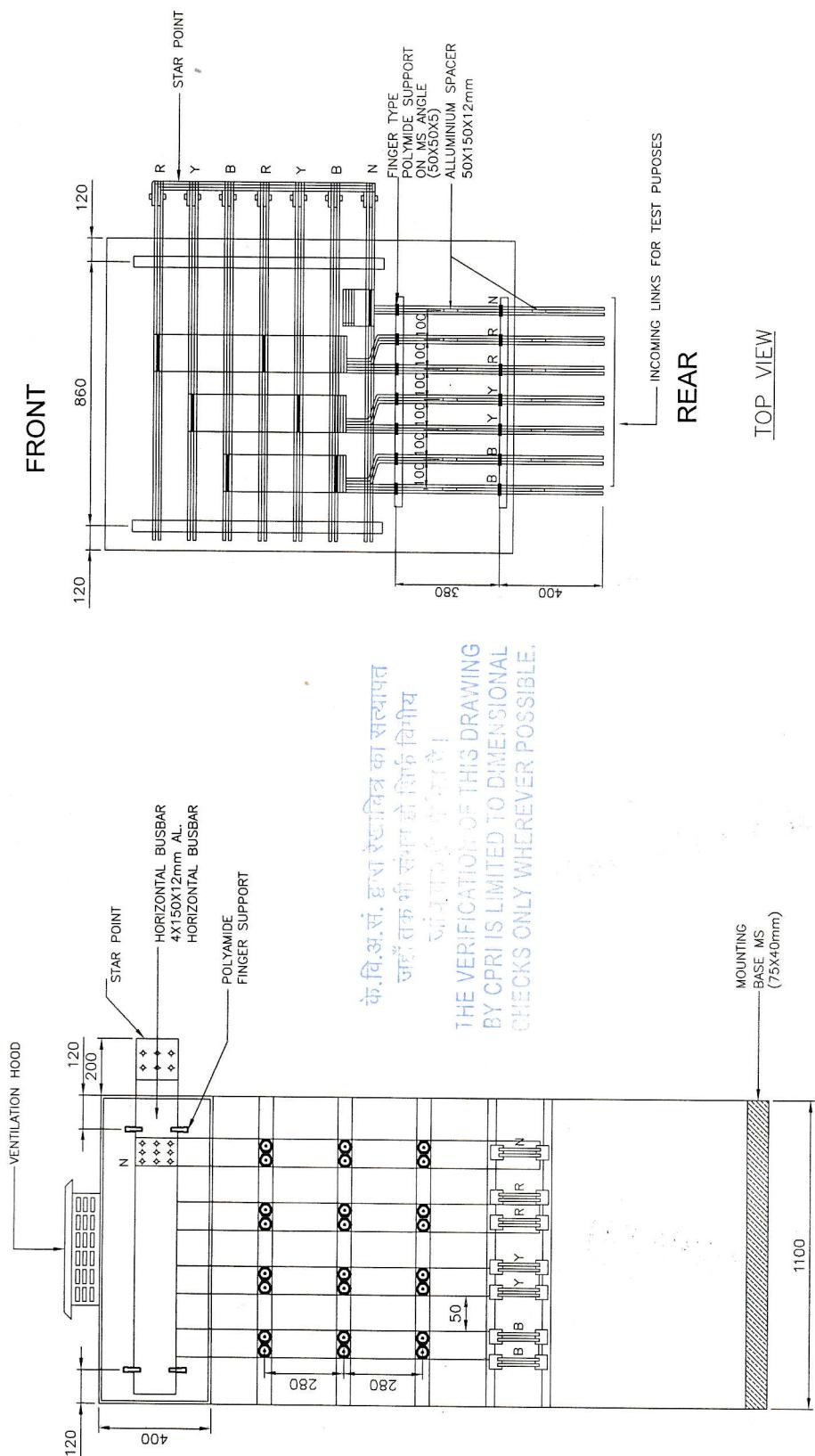
परीक्षण इंजीनियर / Test Engineer

MFD. BY: EVERRISE ENGINEERING
7/19-B, KEBARANATHAM,
SARAVANAMPATTI POST, COIMBATORE,
TAMIL NADU-641035

PROJECT :
CPRI TESTING 6300A, 70KA

CONSULTANT:
TITLE GENERAL ARRANGEMENT DRAWING FOR
415V 6300A, LT PANEL

ISSUED FOR TESTING	DATE	DESCRIPTION	BY	Y C	V C	Y C	CHKD APPD.	SCALES	SR NO.	DRAWING NO.	SHEET NO.	REV.	
REV. DATE	REVIS.	DESCRIPTION	BY	CHKD APPD.	415V 6300A, LT PANEL	ERE/TEST/00	ERE/TEST/00	NTS	ERE/TEST/00	ERE/TEST/00	02 OF 04	00	



कृ.पि.अ.सं. द्वारा रेखांकित का सत्यापत
जारी तरफ भी संभव हो गया है।
कृपया अधिक जानकारी के लिए आवश्यक है।

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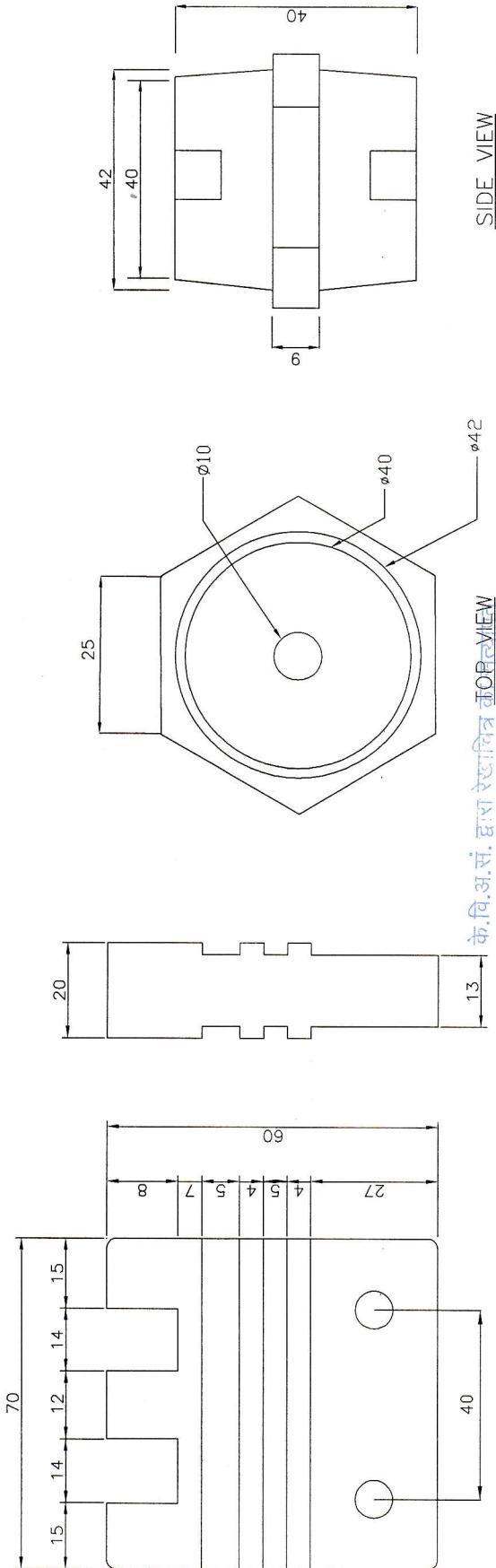
इह रेखा सिद्धि मारआई के पारम्परिक प्रतिवेदन क्र. दिनांक से संबंधित है।
THIS DRAWING PERTAINS TO CPRI TEST REPORT
क्र./No. CPRIBPLSTNB/115C 2370349

दिनांक/Dated

परीक्षण इंजीनियर / Test Engineer

MFD. BY: EVERRISE ENGINEERING
7/19-B, KERANATHAM,
SARAVANAMPATTI POST, COIMBATORE,
TAMIL NADU-641035

PROJECT : CPRI TESTING 6300A, 70KA		CONSULTANT:	
TITLE GENERAL ARRANGEMENT DRAWING FOR 415V,6300A, LT PANEL		SCALE	S.R.NO.
REV.	DATE	DESCRIPTION	DRAWING NO.
0	23.08.23	ISSUED FOR TESTING BY CHKD. APPD.	415V,6300A, LT PANEL E/RE/70
			SCALE NTS
			DRAWING NO. E/RE/70
			REV. SHEET NO. 03 OF 04



SIDE VIEW

TOP VIEW

FINGER TYPE SUPPORT

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CHECKS ONLY WHEREVER POSSIBLE.

जहाँ तक भी संगत हो रिक्त विशेष

जांच करें जैसा कि निम्नलिखित है।

यह रेखा चित्र सीपीआरआई के परीक्षण प्रतिवेदन क्र. दिनांक से संबंधित है।
THIS DRAWING PERTAINS TO CPRI TEST REPORT
क्र./No. CPRIBPLSTNB/15C/23703479

दिनांक/Dated
[Signature]

परीक्षण इंजीनियर / Test Engineer

MFD. BY: EVERRISE ENGINEERING
PROJECT : CPRI TESTING 6300A, 70KA
7/19-B, KEEARANATHAM,
SARAVANAMPATTI POST, COIMBATORE,
TAMIL NADU-641035

GENERAL ARRANGEMENT DRAWING FOR				DRAWING NO.	SHEET NO.	REV.
REV.	DATE	DESCRIPTION	SR.NO.			
0	23.08.23	ISSUED FOR TESTING	V C	V C	415V 6300A LT PANEL	04 OF 04 00
		DESCRIPTION	BY	CHKD APPD.	ERE/TEST/0	

सी. पी. आर. आई. इकाइयाँ

केन्द्रीय विद्युत अनुसंधान संस्थान
प्रो. सर सी. वी. रमन रोड, पोस्ट बॉक्स सं. 8066,
सदाशिवनगर, बैंगलोर - 560 080, भारत
आईपीपीबीएक्स : +91 (0) 8277892280-95
फैक्स : +91 (0) 80-23601213
वेबसाइट : <https://www.cpri.in>

स्थिरगियर परीक्षण एवं विकास केन्द्र
गोविंदपुरा भोपाल - 462 023, मध्यप्रदेश
दूरभाष : +91 (0) 755-2586682, 2586343, 2602257
2586997, 2586944, 2586344
फैक्स : +91 (0) 755-2587774
ई-मेल : stds@cpri.in

अति उच्च वोल्टता अनुसंधान प्रयोगशाला
वारंगल राजमार्ग, मेदिपल्ली पो. ओ, उप्पल
हैदराबाद - 50 00 98
दूरभाष : +91 (0) 040-29803622
फैक्स : +91 (0) 040-27203378
ई-मेल : uhvrl@cpri.in

ताप अनुसंधान केन्द्र
सी पी आर आई कॉलोनी, विद्युत विहार
कोराडी -441 111 नागपुर (महाराष्ट्र)
दूरभाष : +91 (0) 07109-262251, 262252, 262255
फैक्स : +91 (0) 07109-262170
ई-मेल : trc@cpri.in

क्षेत्रीय परीक्षण प्रयोगशाला
नं. 3 ए, इंस्टीट्यूशनल एरिया
सैक्टर 62, नोएडा : 201309 (उत्तर प्रदेश)
दूरभाष : +91 (0) 0120-2402823, 2402058
फैक्स : +91 (0) 0120-2402824
ई-मेल : rtlnoida@cpri.in

क्षेत्रीय परीक्षण प्रयोगशाला
प्रथम तल, सी टी डी कार्यशाला
डब्ल्यू बी एस ई डी सी एल, अभीक्षण कैम्पस,
'बी एन' ब्लॉक, सेक्टर-5
साल्ट लेक सिटी, कोलकाता-700 091
फैक्स : +91 (0) 033-23671477
ई-मेल : maiti@cpri.in

क्षेत्रीय परीक्षण प्रयोगशाला
नं. 4. टाइप 111 (ओल्ड एटी)
ए.एस.ई.बी. कॉलोनी, फोरेस्ट गेट, नारंगी
गुवाहाटी - 781 026 (অসম)
टेली फैक्स : +91 (0) 0361-2650299
ई-मेल : rtlg@cpri.in

CPRI UNITS

CENTRAL POWER RESEARCH INSTITUTE
PROF. SIR C.V. RAMAN ROAD, P.B. NO. 8066,
SADASHIVANAGAR, BANGALORE - 560 080, INDIA
IPPBX : +91 (0) 8277892280-95
Fax : +91 (0) 80-23601213
Website : <https://www.cpri.in>

SWITCHGEAR TESTING & DEVELOPMENT STATION
GOVINDPURA, BHOPAL - 462 023, MADHYA PRADESH
TELEPHONE : +91 (0) 0755-2586682, 2586343, 2602257, 2586997,
2586944, 2586344
Fax : +91 (0) 0755-2587774
E-mail : stds@cpri.in

ULTRA HIGH VOLTAGE RESEARCH LABORATORY
WARANGAL HIGHWAY, Medipally P.O., UPPAL,
HYDERABAD - 50 0098
TELEPHONE : +91 (0) 040-29803622
Fax : +91 (0) 040-27203378
E-mail : uhvrl@cpri.in

THERMAL RESEARCH CENTRE
CPRI COLONY, Vidyut Vihar
KORADI-441 111, Nagpur (Maharashtra)
TELEPHONE : +91 (0) 07109 - 262255, 262251, 262252
Fax : +91 (0) 07109-262170
E-mail : trc@cpri.in

REGIONAL TESTING LABORATORY
No.3A, SECTOR-62, INSTITUTIONAL AREA
Noida -201309 (Uttar Pradesh)
TELEPHONE : +91 (0) 120-2402823, 2402058
Fax : +91 (0) 120-2402824
E-mail : rtlnoida@cpri.in

REGIONAL TESTING LABORATORY
1st Floor, CTD WORKSHOP
WBSEDCL, ABHIKSHAN CAMPUS,
'BN' BLOCK, SECTOR-V
SALT LAKE CITY, KOLKATA-700 091
Fax : +91 (0) 33-23671477
E-mail : maiti@cpri.in

REGIONAL TESTING LABORATORY
No. 4, Type III (OLD A.T.)
A.S.E.B. COLONY, FOREST GATE, NARANGI
GUWAHATI- +91 (0) 781 026 (Assam)
Tele/Fax : +91 (0) 361-2650299
E-mail : rtlg@cpri.in



केन्द्रीय विद्युत अनुसंधान संस्थान

(विद्युत मंत्रालय, भारत सरकार के अधीन एक स्वायत्त सोसायटी)

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SWITCHGEAR TESTING & DEVELOPMENT STATION

गोविन्दपुरा, भोपाल -462023

GOVINDPURA, BHOPAL-462023

दूरभाष/Telephone : 0755-2586682 (इकाई प्रमुख/Unit Head)

0755-2586997 (स्टेशन -1 / Station-I) 0755-2586343 (स्टेशन -2 / Station-II)

0755-2602257 (एनर्जी मीटर टेस्ट लैब/ EMTL) 0755-2586944 (सप्लीमेंट्री टेस्ट लैब / STL)

0755-2586344 (आयल टेस्ट लैब / OTL)

फैक्स/Fax : 0755-2587774 ई-मेल/E-mail : stds@cpri.in

वेबसाइट / Website : <https://www.cpri.in>