

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 the Ministry of Power, Govt. of India)

एस टी एल के सदस्य

Member of STL

स्विचगियर परीक्षण तथा विकास केन्द्र

SWITCHGEAR TESTING & DEVELOPMENT STATION

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CPRI

TEST REPORT

Test Report Number

S2150691

Date :

**Name & address
of the Customer**

M/s Sia Sales Corporation
4/A Neev Bunglow, Matingav Soc,
Nr. Rambati Hindi School
Ahmedabad-380007

14 SEP 2015

**Name & address of
the Manufacturer**

M/s Sia Sales Corporation
Shiam-2 Estate, GO No.B-106,
Nr. Sangam park society
Sarkhej, TA. Ahmedabad-380052

**Particulars of sample tested
Condition of sample on Receipt**

415V, 4000A, LT Panel
New

Type
Designation
Serial number
Number of samples tested
Date(s) of Test(s)
CPRI sample code no.

PCC/MCC
Nil
Nil
One
22nd July 2015
STDSST215S0711

**Particulars of tests conducted
Test in accordance with
Sampling plan
Customer's requirement
Deviations if any**

Verification of the short circuit withstand strength
As per clause 8.2.3 of IS: 8623 (Part -1)-1993
Not applicable
Nil
Nil

Name of the Witnessing persons

Customer's representative
Other than Customer's representatives
Test subcontracted with
address of the laboratory

Shri Rakesh Kushwah
Nil
None

Documents constituting this report (in words)

Number of sheets
Number of oscillograms
Number of graphs
Number of photos
Number of Test circuit diagrams
Number of drawings

Five
Two
Nil
One
Two
Two


(HIMANGSHU ROY)
TEST ENGINEER




(ANUPAM AWASTHI)
JOINT DIRECTOR

**CENTRAL POWER RESEARCH INSTITUTE
(MEMBER OF STL)**



TEST REPORT

Test Report Number S2150691

Date : 14 SEP 2015

Summary of test

Test conducted	Verification of the short circuit withstand strength
Rating for which tested	65 kArms for 1.0 second with initial peak of 143 kA
Documents constituting this report	
Oscillogram number	S2150691. S02, S04
Photograph numbers	P-1
Test circuit diagram number	OLTS/TCD-STC-01 & OLTS/TCD-STC-02
Drawing number	SSC/CPRI/STC/01Rev.01 & SSC/CPRI/STC/02 Rev.01


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TEST REPORT

Test Report Number S2150691

Date :

14 SEP 2015

Ratings assigned by manufacturer

Test sample	LT Panel
Type	PCC/MCC
Designation	Nil
Serial number	Nil
Rated operational voltage	415 V
Rated current	4000 A
Rated insulation voltage	660 V
Rated frequency	50 Hz
Number of phases	Three phase + Neutral
Rated short-time current	65 kArms for 1.0 second with initial peak of 143 kA

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CPRI

TEST REPORT

Test Report Number S2150691

Date : 14 SEP 2015

Verification of the short circuit withstand strength (cl. 8.2.3)

Test conditions:

Condition of the sample : New
No. of phases : Three & Neutral
Source frequency : 50Hz.
Transformer neutral & short circuit point : See test circuit diagram no. OLTS/TCD-STC-01 for three phase test and OLTS/TCD-STC-02 for single phase test
Safety parameter : The sample was insulated from earth and connected to neutral of the supply via a fuse of 0.1 mm diameter copper wire 50 mm long in series with a resistor limiting the fault current to 100A

Test results:

Oscillogram Number	Peak kA	RMS in kA			Duration (seconds)	Equivalent current in kArms for 1 second
		Ir	Iy	Ib		
Three phase STC test on main circuit busbar of HBB+VBB (Peak in R-phase)						
Test circuit diagram: OLTS/TCD-STC-01						
S2150691.S02	149.28	65.31	65.76	65.73	1.0	65.76
Single phase STC test on neutral & nearest phase of main circuit busbar of HBB+VBB						
Test circuit diagram: OLTS/TCD-STC-02						
S2150691.S04	82.81	39.21			1.0	39.21

Observations:

During test : No abnormality.
After test : No abnormality. Fine wire fuse Intact. All busbars & supports found intact.
Remarks : After short circuit test the sample withstood HV test at 2.5 kVrms for one minute as per standard.

Conclusion : The test results indicate that the sample tested complies with the requirement of cl. 8.2.3 of the standard.

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TEST REPORT

Test Report Number S2150691

Date :

Note

14 SEP 2015

- a) The test results relate only to the item(s) tested.
- b) Publication or reproduction of this test report/ certificate in any form other than by complete set of the whole report and in the language written, is not permitted without the written consent of CPRI.
- c) Any correction/erasure invalidates this test report/certificate.
- d) NABL has Accredited this laboratory as per ISO 17025-2005 standard, vide certificate No.T-0011 for the tests carried out..
- e) The verification of the sample drawings by CPRI is limited to dimensional checks only wherever possible.
- f) Any anomaly/discrepancy in the test report/Certificate should be brought to the notice of CPRI within 45 days from the date of issue.
- g) CPRI issues two kinds of documents:

Test Report:

The test report will contain the record of the values of test parameters as obtained during testing, the physical condition of the apparatus during testing, the physical condition of the apparatus during/after the test(s), copy(ies) of Oscillogram(s), record of supplementary test(s) if any conducted but no certification on the performance of the apparatus tested

Type test Certificate:

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

- h) All Documents constituting this test report/certificate are stitched together with a continuous silk thread/ribbon, the two ends of which have been brought over the front sheet of this test report/certificate and sealed with a CPRI logo printed paper sticker/embossed.

TEST ENGINEER

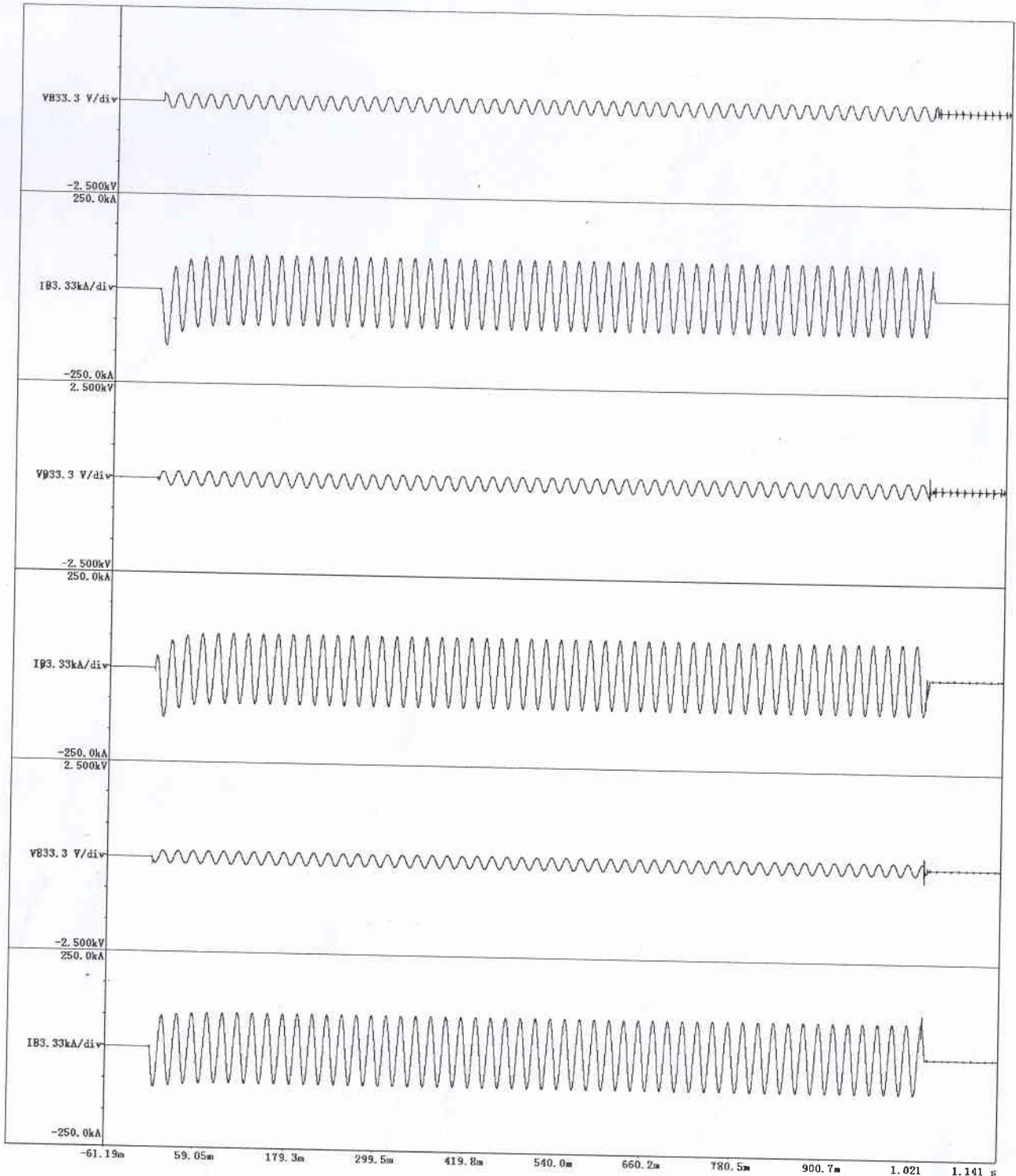
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Engineering Officer

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Central Power Research Institute
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Switchgear Testing & Development Station
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Govindpura, BHOPAL - 462023

S2150691.S02

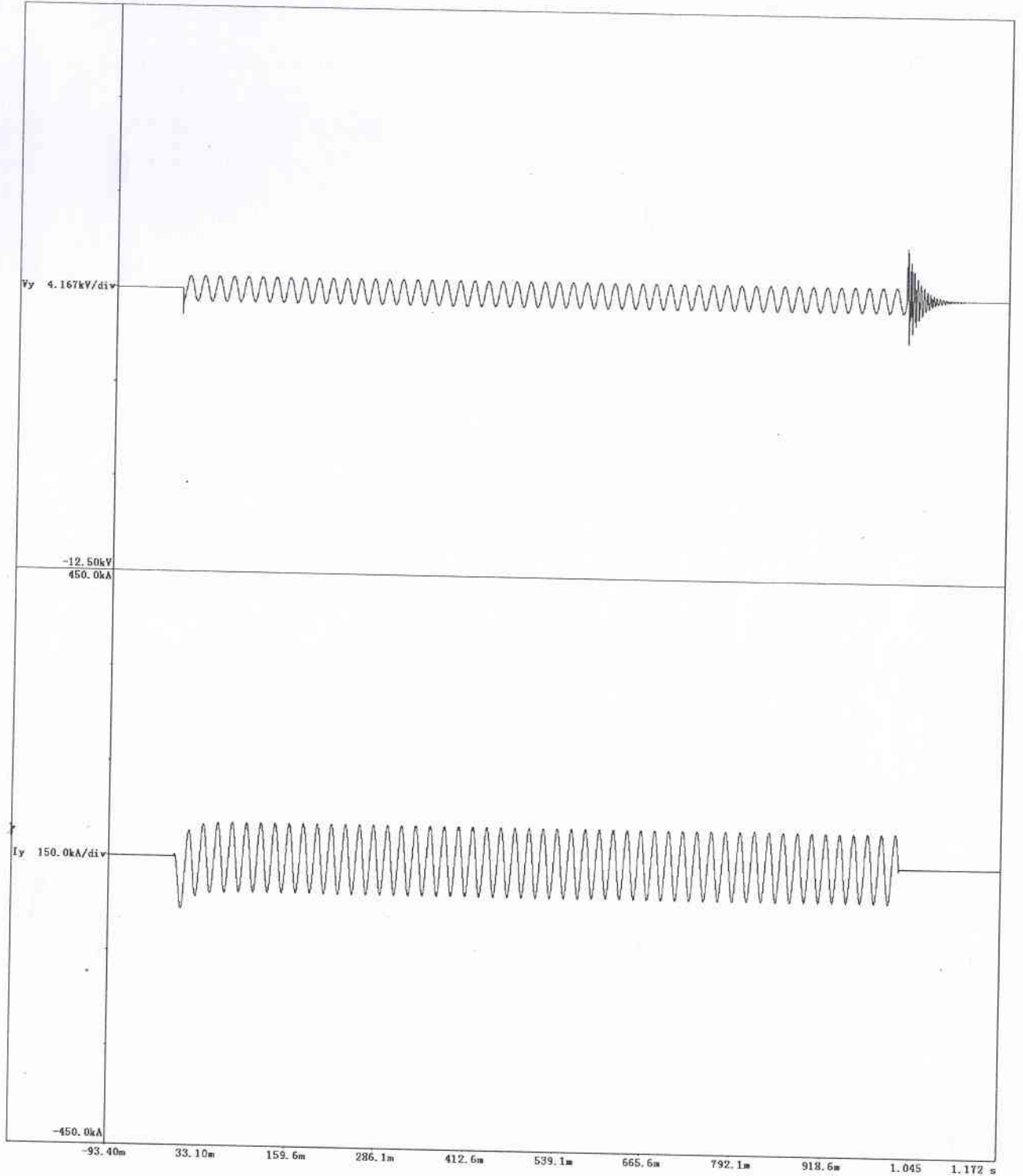
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S2150691.S04

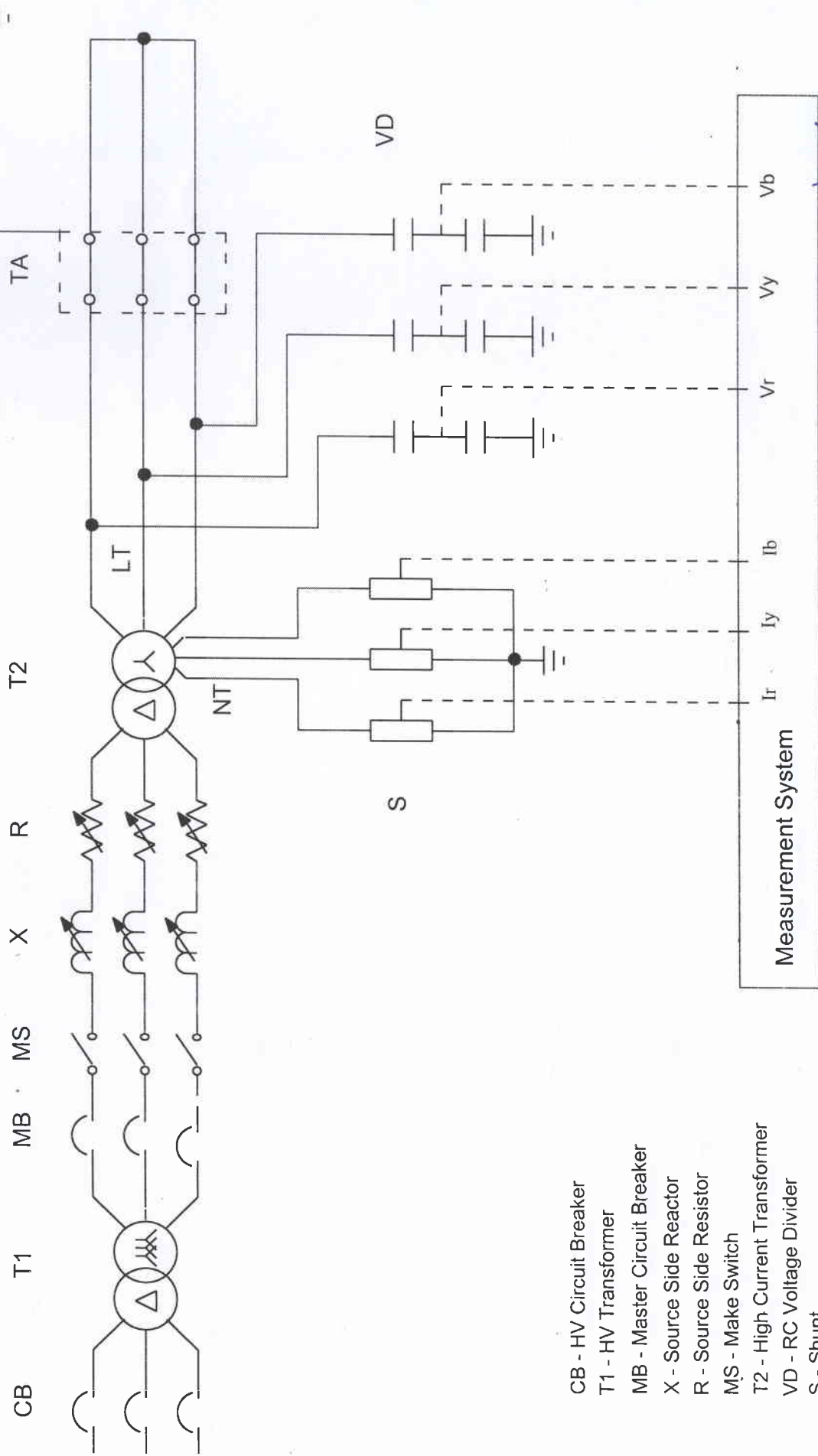
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TEST ENGINEER

CPRI Bhopal

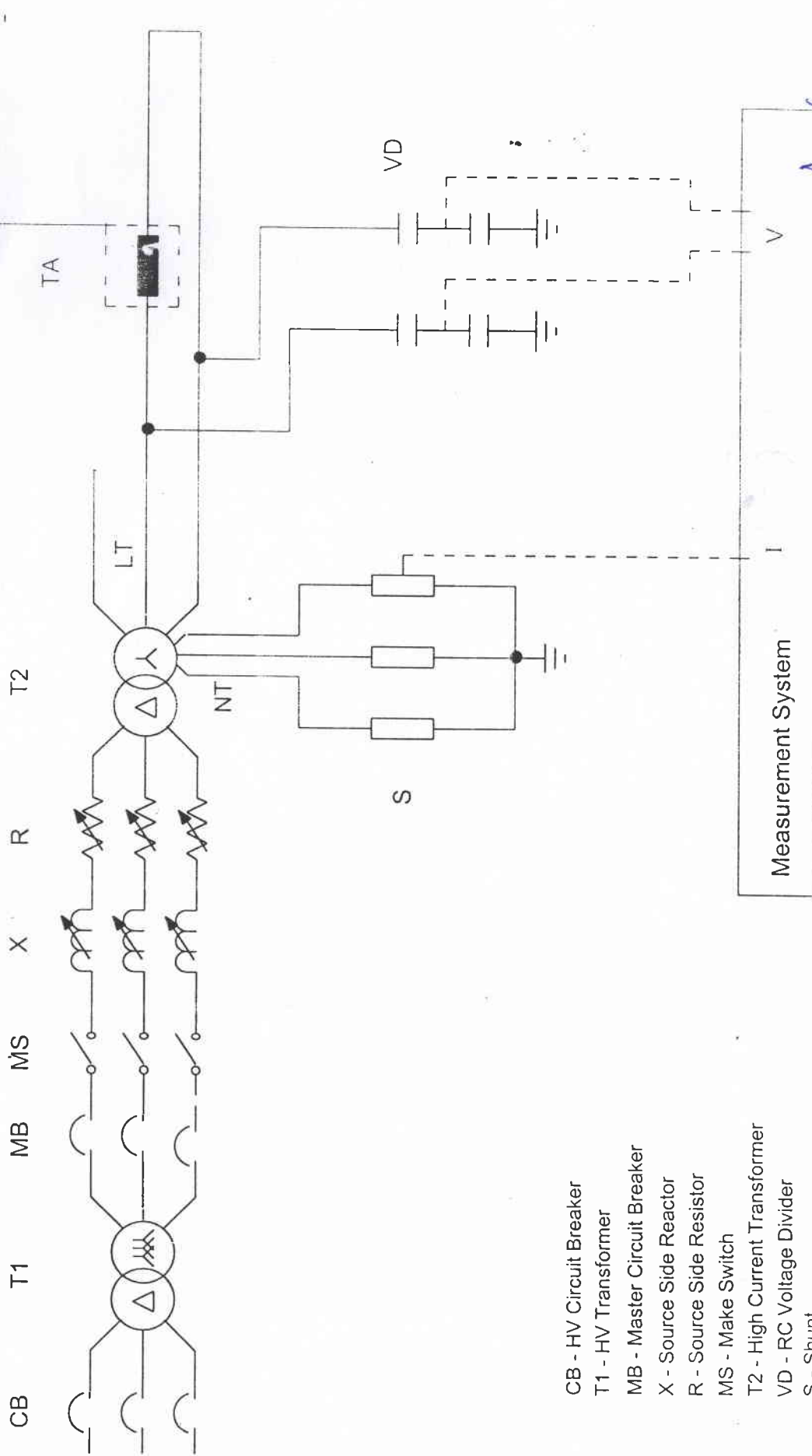


- CB - HV Circuit Breaker
- T1 - HV Transformer
- MB - Master Circuit Breaker
- X - Source Side Reactor
- R - Source Side Resistor
- MS - Make Switch
- T2 - High Current Transformer
- VD - RC Voltage Divider
- S - Shunt
- TA - Test Apparatus
- r - Current Limiting Resistor
- FWF - Fine Wire Fuse
- LT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

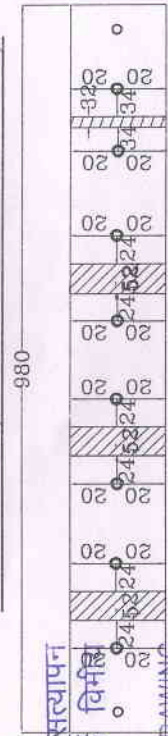


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- MS - Make Switch
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- VD - RC Voltage Divider
- S - Shunt
- TA - Test Apparatus
- r - Current Limiting Resistor
- FWF - Fine Wire Fuse (Wherever Applicable)
- LT - Line terminals of the secondary windings of T2
- NT - Neutral terminals of the secondary windings of T2

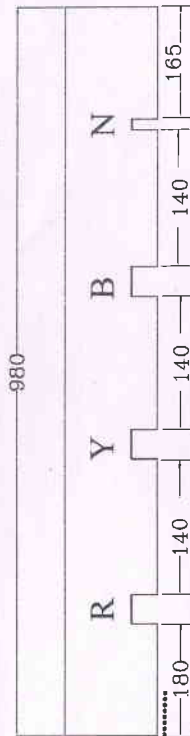
TEST ENGINEER

OLTS/TCD-STC-02

TOP VIEW (FRP BUSBAR SUPPORT)



SIDE VIEW (FOR H.B.B.)



SIDE VIEW (FOR V.B.B.)



DETAILS OF FABRICATION

FABRICATION- 14/16 SWG CRCA SHEET
BUSBAR -AL ELECTROLYTIC GRADE
CABLE ENTRY -BOTTOM
BASE CHANNEL -100X50X6MM
PAINT -LIGHT GRN

SIDE VIEW

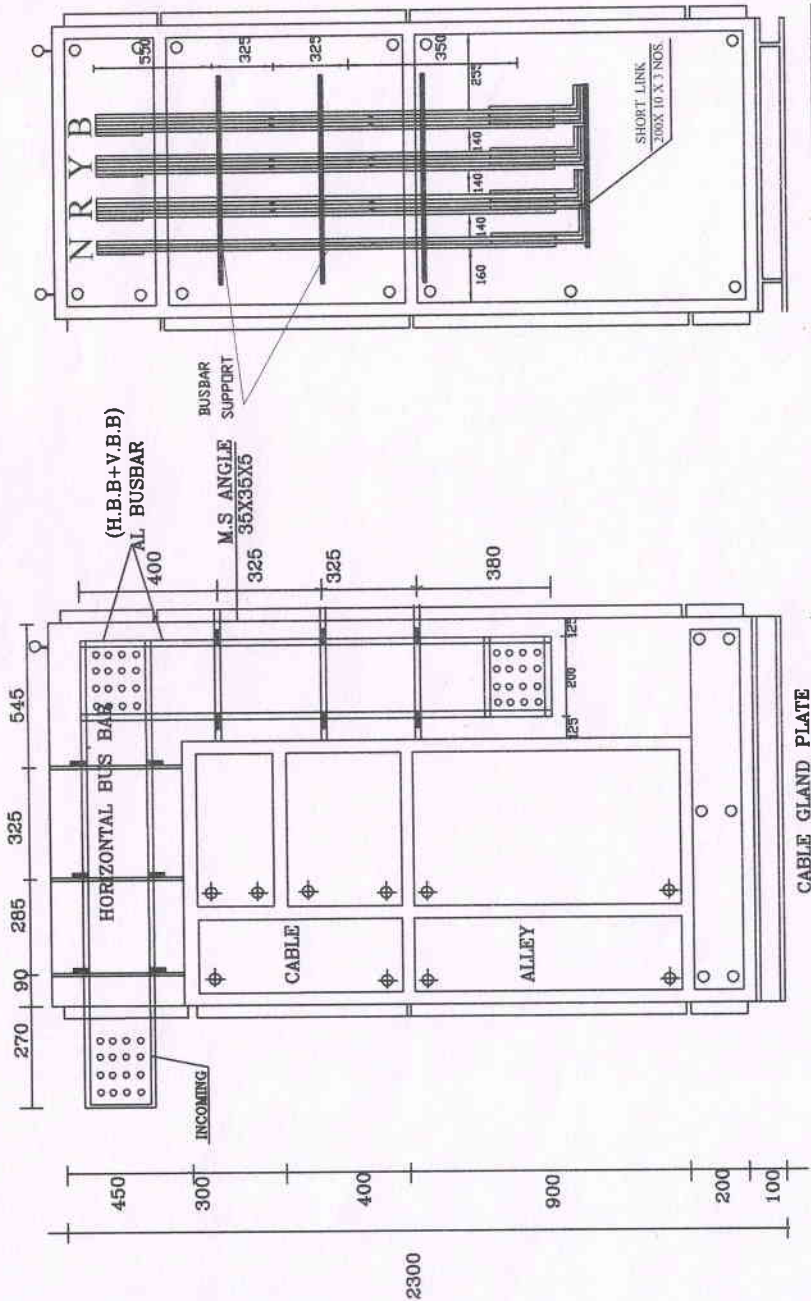
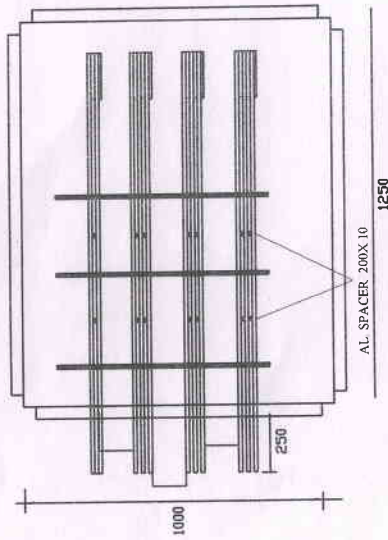
ALL DIMENSIONS ARE IN MM
GENERAL TOLERANCE $\pm 5\%$
Rated Current : 4000 Amp.
Rated Voltage : 415 VAC
Rated Frequency : 50 Hz
Insulation Voltage : 660V

FRONT VIEW

(H.B.B.+V.B.B.)
AL BUSBAR SIZE.
AL BUSBAR PHASE 200 X 10 X 3 NOS
NEUTRAL 200 X 10 X 2 NOS

REV.	PARTICULAR	DATE	CLIENT:-	MANUFACTURED BY:	TITLE: GENERAL NOTES EQUIPMENT NAME:-	DRG. NO.	SSC/CP/STC/01
			SIA SALES CORPORATION SHAM 2 ESTATE, GO NO B-106, NR-SANGAM PARK SOCIETY, SARKHEJ, TA.AHMEDABAD-380007	L.T.PANEL 4000A 415V AC	DRN. P.K.G.		
					SHEET 00		
					APD. P.K.G.		
					REV. 01		
					DATE		15/07/2015

TOP VIEW



SIDE VIEW

FRONT VIEW

(H.B.B.+V.B.B)
AL BUSBAR SIZE.
AL BUSBAR PHASE 200 X 10 X 3 NOS
NEUTRAL 200 X 10 X 2 NOS

ALL DIMENSIONS ARE IN MM AND APPROXIMATE
GENERAL TOLERANCE $\pm 5\%$
Insulation Voltage : 660V

के.वि.एल. द्वारा रेखाचित्र का सत्यापन
जहाँ च जाँच किया हो सिर्फ विमीय
जोड़ है।
THIS DRAWING
IS 100% DIMENSIONAL
BY CPRI. CHECKS ONLY WHENEVER POSSIBLE.

52450631

FOUNDATION PLAN
Document Pertaining
Report No.

अभिषेक कुमार
Engineering Officer
सी. पी. आर. आई. / सी. पी. आर. आई.
गोविन्दपुरा, भोपाल
Govindpura, Bhopal

REV	PARTICULAR	DATE	CLIENT	MANUFACTURED BY:	TITLE: GENERAL NOTES	DRG. NO.	SSC/CPRI/STC/02
				SIA SALES CORPORATION	EQUIPMENT NAME:-	DRN.	P.K.G.
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				SOCIETY, SARKHEI, TA, AHMEDABAD-380007		APD.	P.K.G.
						REV.	01
						DATE	15/07/2015

सी पी आर आई संगठन

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<http://www.cpri.in>

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