



# 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)

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Member of STL

स्विचगियर परीक्षण तथा विकास केन्द्र  
SWITCHGEAR TESTING & DEVELOPMENT STATION

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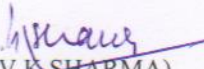
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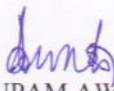
**CPRI**

**TEST REPORT**

<b>Test Report Number</b>	S2120312	<b>Date :</b>
<b>Name &amp; address of the Customer</b>	M/s Technocrats 91 Industrial Area Extension Rau, Indore M.P.	11 MAY 2012
<b>Name &amp; address of the Manufacturer</b>	M/s Technocrats 91 Industrial Area Extension Rau Indore M.P.	
<b>Particulars of sample tested</b>	LT Panel	
<b>Condition of sample on Receipt</b>	New	
<b>Type</b>	PCC/MCC	
<b>Designation</b>	Technocrats	
<b>Serial number</b>	Nil	
<b>Number of samples tested</b>	One	
<b>Date(s) of Test(s)</b>	11 <sup>th</sup> April 2012	
<b>CPRI sample code no.</b>	STDSST212S0437	
<b>Particulars of tests conducted</b>	Verification of the short circuit withstand strength	
<b>Test in accordance with Standard/specification</b>	As per clause 8.2.3 of IS: 8623 (Part I)-1993	
<b>Sampling plan</b>	Not applicable	
<b>Customer's requirement</b>	Nil	
<b>Deviations if any</b>	Nil	
<b>Name of the Witnessing persons</b>		
<b>Customer's representative</b>	Shri Avinash Singh	
<b>Other than Customer's representatives</b>	Nil	
<b>Test subcontracted with address of the laboratory</b>	None	
<b>Documents constituting this report (in words)</b>		
<b>Number of sheets</b>	Five	
<b>Number of oscillograms</b>	Two	
<b>Number of graphs</b>	Nil	
<b>Number of photos</b>	One	
<b>Number of Test circuit diagrams</b>	Two	
<b>Number of drawings</b>	Two	

  
(V.K. SHARMA)  
TEST ENGINEER



  
(ANUPAM AWASTHI)  
JOINT DIRECTOR

**CENTRAL POWER RESEARCH INSTITUTE  
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**CPRI**

**TEST REPORT**

Test Report Number S2120312

Date :

17.1 MAY 2012

**Summary of test**

Test conducted Verification of the short circuit withstand strength

Rating for which tested 65Arms for 1.0 second with initial peak of 143kA

**Documents constituting this report**

Oscillogram number S2120312. S02, S04

Photograph numbers P-1

Test circuit diagram number OLTS/TCD-STC-01 & OLTS/TCD-STC-02

Drawing number TECHNOCRATS/STC/01  
TECHNOCRATS/STC/02

  
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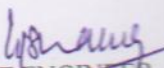
**TEST REPORT**

Test Report Number S2120312

Date : 11 1 MAY 2012

**Ratings assigned by manufacturer**

Test sample	LT Panel
Type	PCC/MCC
Designation	TECHNOCRATS
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 143kA.

  
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**TEST REPORT**

Test Report Number S2120312

Date: 11 MAY 2012

**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 0.1mm diameter copper wire 50mm long in series with a resistor limiting the fault current to 100A

**Test results:**

Oscillogram Number	Peak kA	RMS in kA			Duration (second)	Equivalent current in kArms for 1 second
		Ir	Iy	Ib		
Three phase STC test on main busbars of HBB+VBB.(Peak in R - phase).						
Test circuit diagram: OLTS/TCD-STC-01						
S2120312.S02	148.0	66.28	66.1	65.95	1.0	66.28
Single phase STC test on neutral & nearest phase of main busbars of HBB+VBB.						
Test circuit diagram: OLTS/TCD-STC-02						
S2120312.S04	85.0	39.6			1.0	39.6

**Observations**

- During test : No abnormality.
- After test : No abnormality. Fine wire fuse intact. All busbars and supports 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.

*[Signature]*  
TEST ENGINEER

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**TEST REPORT**

Test Report Number S2120312

Date :

11 MAY 2012

**Note**

- 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 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:

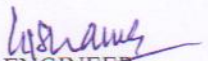
Test Report:

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

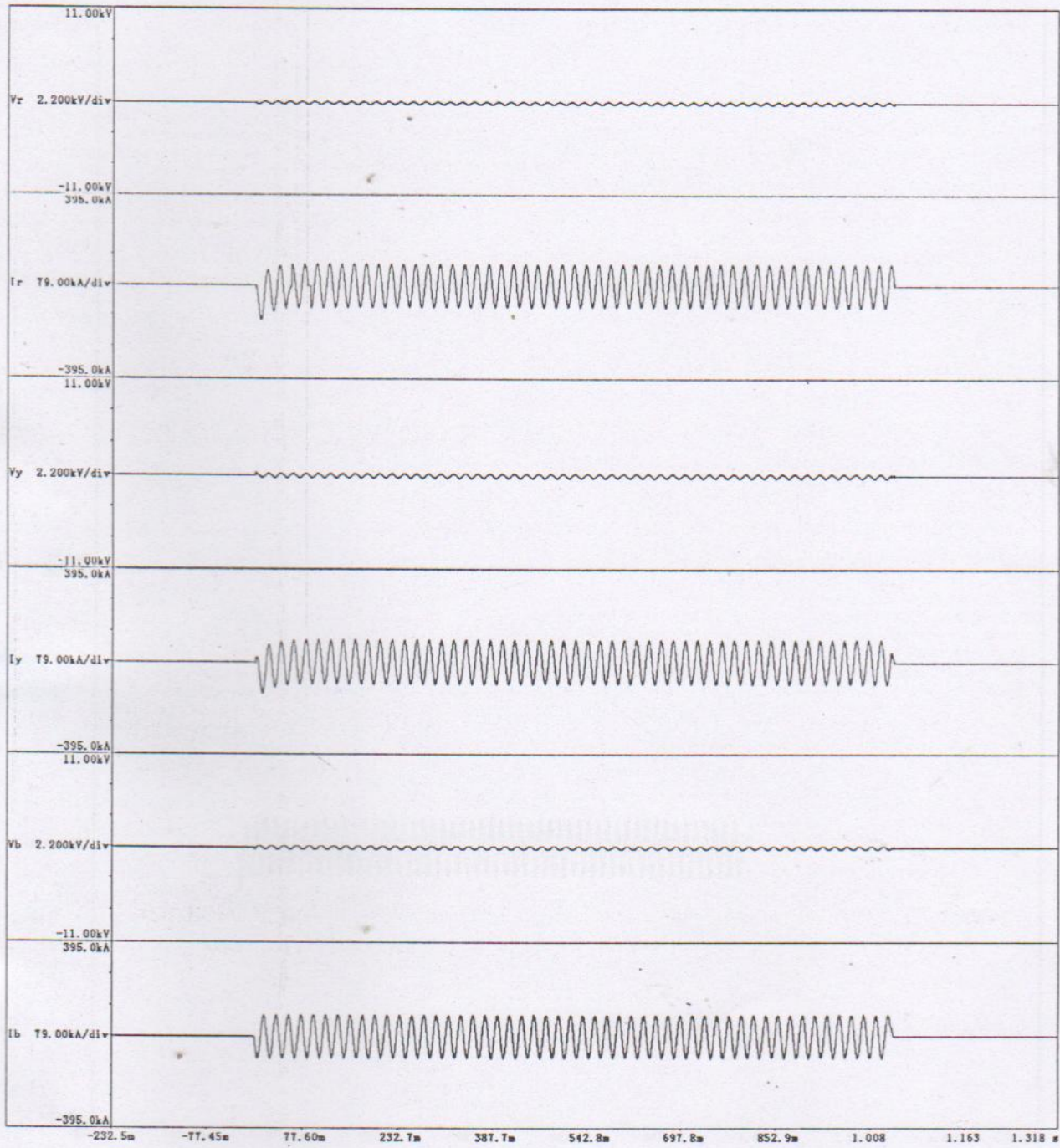
Type test Certificate:

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

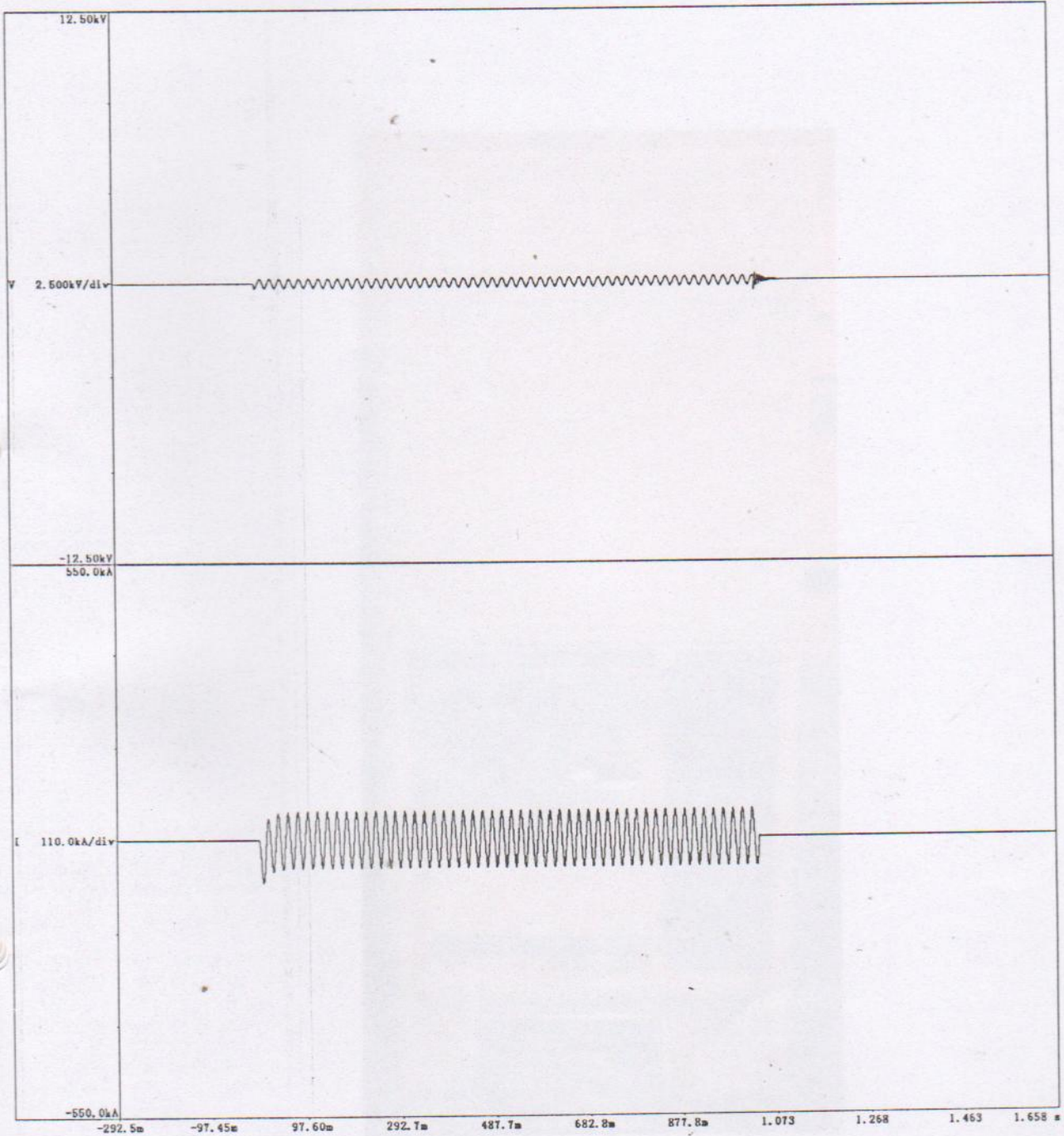
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S2120312.S02

*[Signature]*  
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 Central Power Research Institute  
 स्विचगियर परीक्षण तथा विकास केन्द्र  
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S2120312.S04

*[Signature]*  
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Central Power Research Institute  
स्विचगियर परीक्षण तथा विकास केन्द्र  
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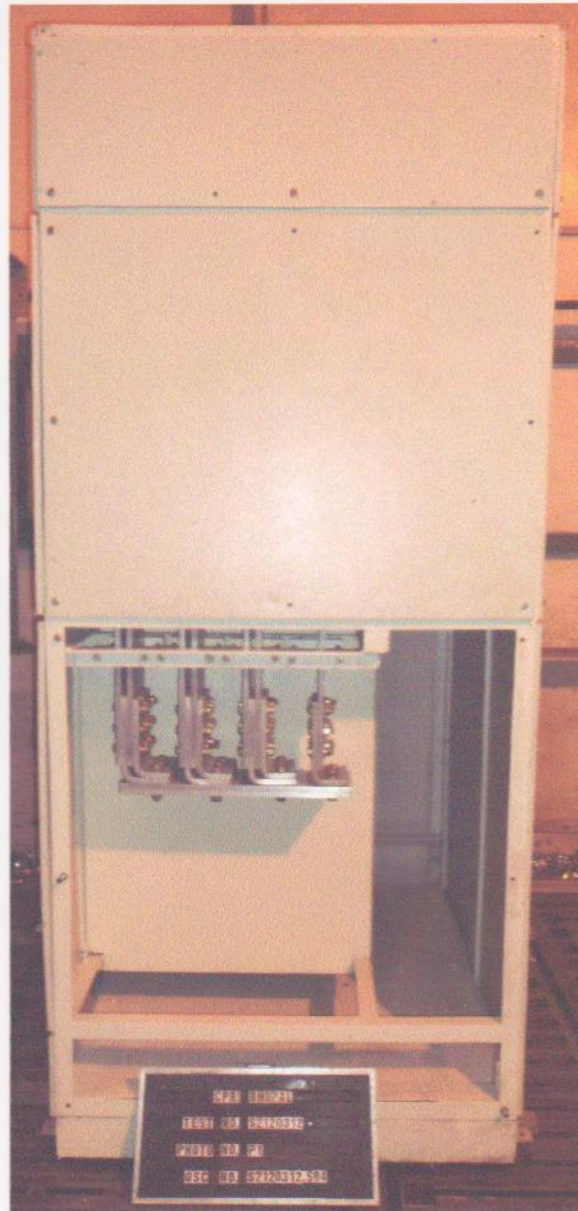
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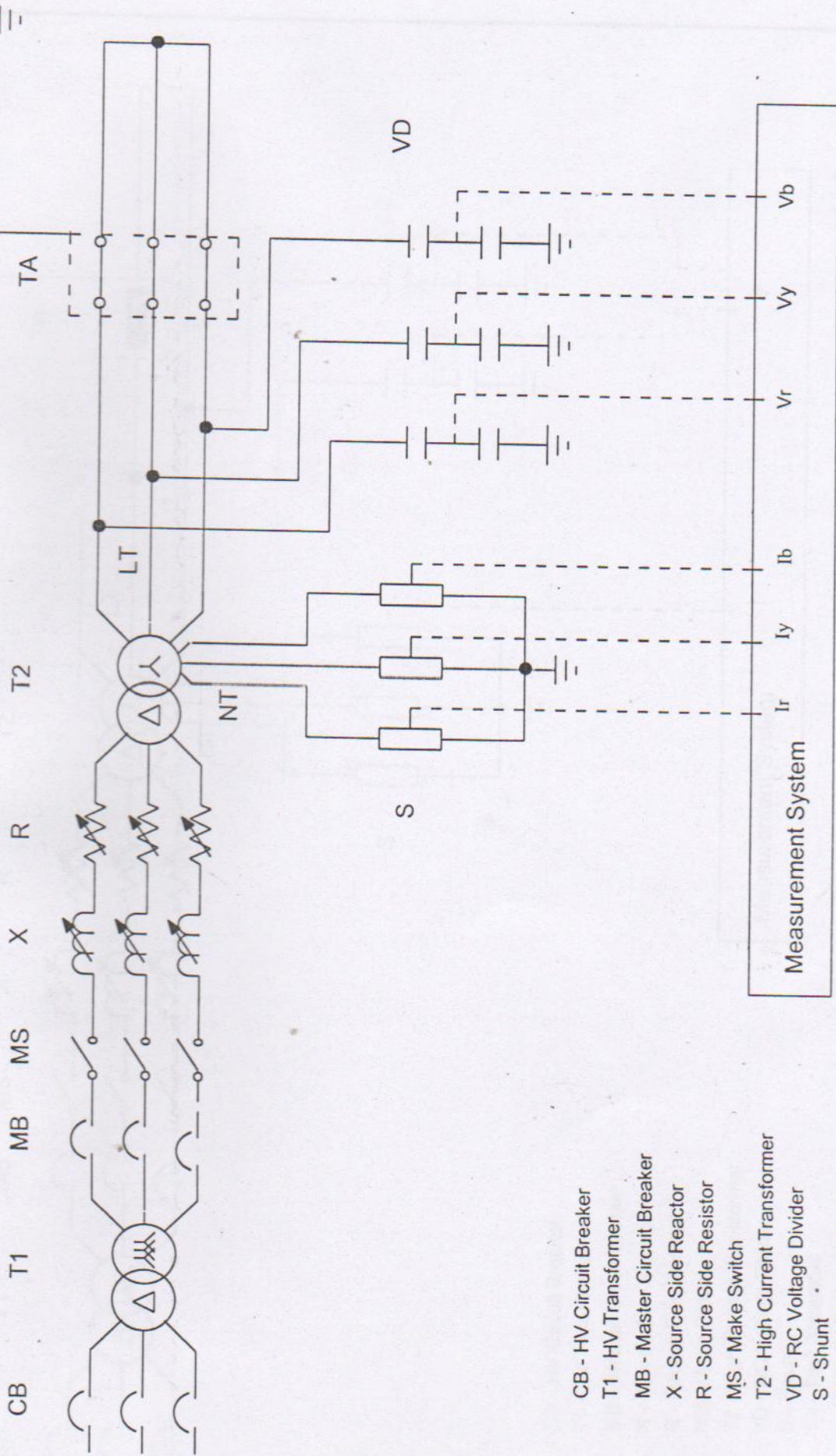
GOVINDPURA , BHOPAL-462023, INDIA

Phone: +91(0)755 2586682 Fax: + 91(0)755 2587774



*Signature*  
TEST ENGINEER

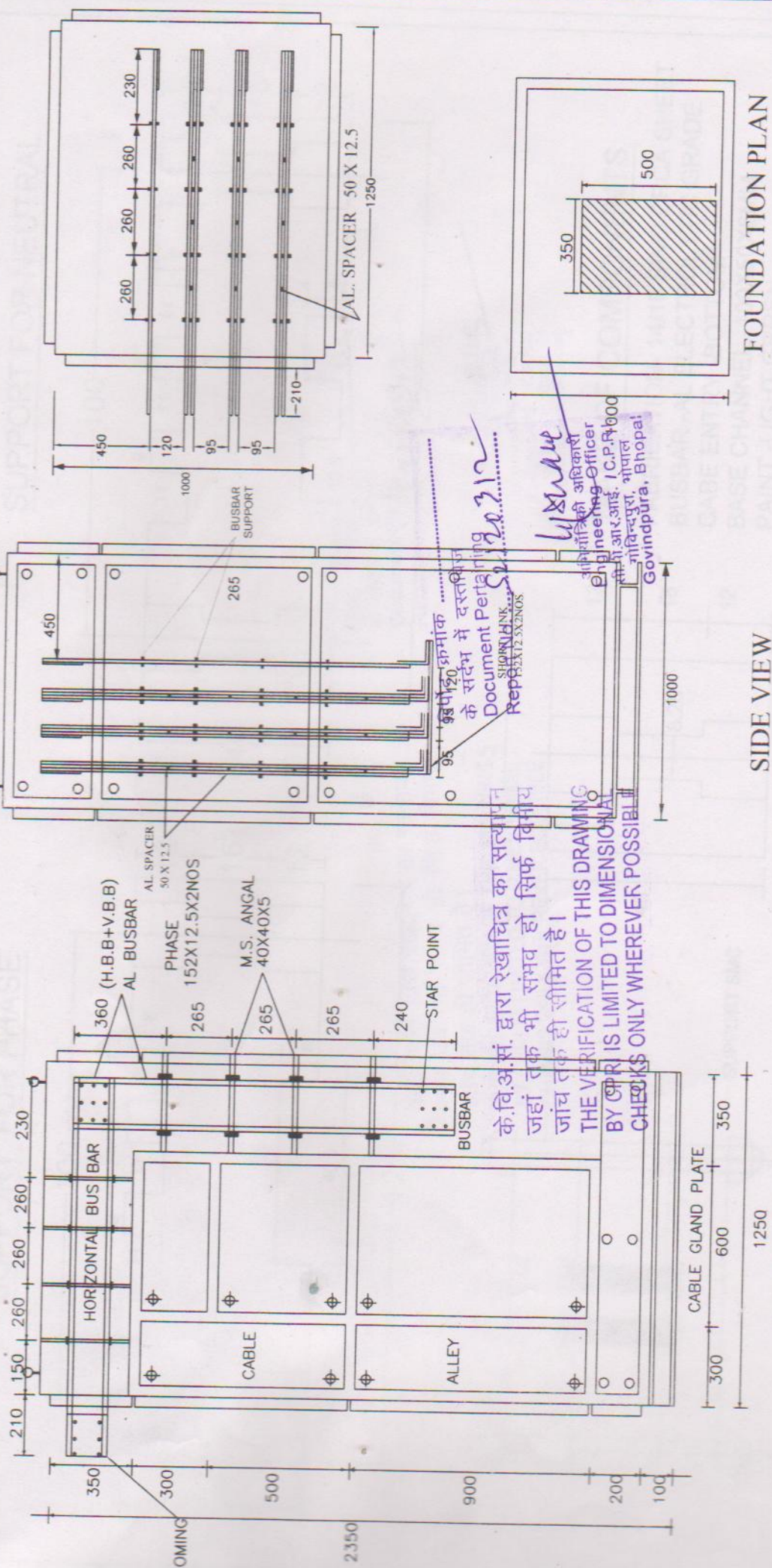
**CPRI Bhopal**



- 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

*lybhaug*  
TEST ENGINEER

**OLTS/TCD-STC-01**



FOUNDATION PLAN

SIDE VIEW

FRONT VIEW

H.B.B+V.B.B  
AL. BUSBAR PHASE 152X12.5X2NOS  
AL. BUSBAR NEUTRAL 152X12.5X1NOS

H.B.B+V.B.B  
AL. BUSBAR PHASE 152X12.5X2NOS  
AL. BUSBAR NEUTRAL 152X12.5X1NOS

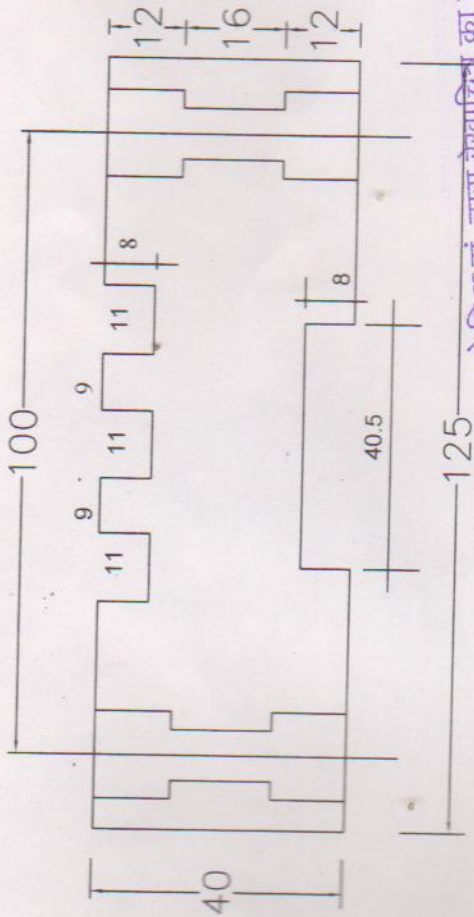
ALL DIMENSIONS ARE IN MM AND APPROXIMATE  
GENERAL TOLERANCE  $\pm 5\%$

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जहाँ तक भी संभव हो सिर्फ विधीय  
जांच तक ही सीमित है।  
THE VERIFICATION OF THIS DRAWING  
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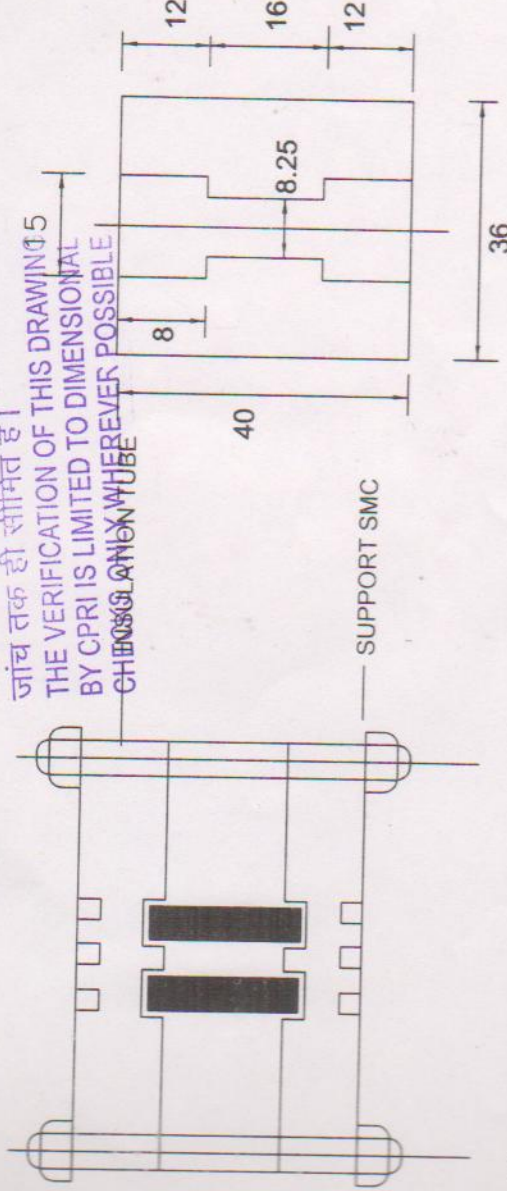
Document Preparation  
SHONKIN S. S. 20/12/12  
Engineering Officer  
Govindpura, Bhopal

TITLE-		L.T CONTROL PANEL 4000 AMPS 415 V		NAME SCALE- N.T.S		DATE		TECHNOCRATS/STC/01	
DRG BY-	KAPIL	CHD BY-	P.K.G	APP BY	N.J.N	REV-01		TECHNOCRATS	
								91 INDUSTRIAL AREA EXTENSION RAU INDORE (M.P.)	

### SUPPORT FOR PHASE

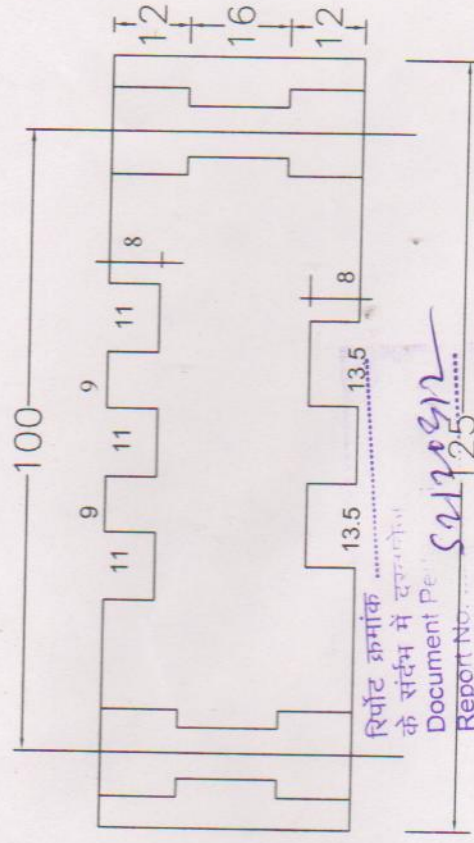


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ALL DIMENSIONS ARE IN MM AND APPROXIMATE

### SUPPORT FOR NEUTRAL



रिपोर्ट क्रमांक  
के संदर्भ में दस्तावेज  
Document No. SE/25/02  
Report No. 25/02

*hmanus*  
अधिकारी  
Engineering Officer  
क.वि.अ.सं., (C.P.R.I.)  
शिलापुरी, भोपाल  
Govindpura, Bhopal

### MAKE OF COMPONENTS

- FABRICATION- 14/16 SWG CRCA SHEET
- BUSBAR -AL ELECTROLYTIC GRADE
- CABE ENTRY -BOTTOM
- BASE CHANNEL -100X50X6MM
- PAINT -LIGHT GRREN
- BUSBAR SUPPORT-POWER MAT
- MATERIAL -S. M.C
- GENERAL TOLERANCE ± 2%

TITLE- L.T CONTROL PANEL 4000 AMPS 415 V	NAME	SCALE-	N.T.S	DATE	TECHNOCRATS/STC/02
	DRG BY- KAPIL			DRG NO	
	CHD BY- P.K.G				
	APP BY- N.J.N		REV- 01		
				TECHNOCRATS 91 INDUSTRIAL AREA EXTENSION RAU INDORE (M.P.)	





# परीक्षण रिपोर्ट TEST REPORT



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