

CPRI

TEST REPORT



Central Power Research Institute

(A Govt. of India Society)

P.B.No. 8066, Sadashivanagar Post Office,
Sir C.V. Raman Road,
Bangalore - 560 080 (INDIA)



CPRI

**HIGH VOLTAGE DIVISION
CENTRAL POWER RESEARCH INSTITUTE**

P.B. NO. 8066, SADHASHIVNAGAR SUB P.O.
Prof. SIR. C.V. RAMAN ROAD, BANGALORE - 560 080, INDIA.
Phone : +91 (0)80-23601917 Fax : +91 (0)80-23601917

MEMBER STL



**NABL Accredited
Laboratory**
Certificate No. T-0010

TEST REPORT

Sheet 1 of 3

Test Report Number : No.43/1/2009-HV/6793/KEPL **Dated:** 20-07-2009.

Name & Address of the customer : M/s. Krishnaa Energy Private Limited,
DP 69, SIDCO Industrial Estate,
Thirumudivakkam, Chennai -600 044
Ref. KE/003/00 **Dated :** 03-07-2009

Name & Address of the Manufacturer : M/s. Krishnaa Energy Private Limited,
DP 69, SIDCO Industrial Estate,
Thirumudivakkam, Chennai -600 044

Particulars of Sample tested.
Condition of sample on Receipt. : New.
Type : Indoor
Designation : 11kV, 1250A, 3 phase VCB Panel with Drawout type VCB and earthed metallic shutter.

Serial Number. : Nil.
Number of samples tested : One.
Date(s) of Test(s) : 03-07-2009.
CPRI Sample Code Number. : SC09S1231

Particulars of tests conducted : 1. Lightning Impulse Voltage Withstand Test.
Test in accordance with standard/ Specification. : IEC 62271-200/2003
Sampling plan : Nil.
Customer's requirement : Test voltage across open contacts to be higher than between phases and earth.
Deviations if any : Nil.

Name of the witnessing persons
Customer's representatives : Mr. P. Ramachandran, Manager, R & D.
Other than customer's representatives : Nil
Tests subcontracted with : Nil
Address of the laboratory. : Nil

Documents constituting this report (in words)
Number of Sheets : Three.
Number of oscillogram/s : Forty Four.
Number of graphs : Nil.
Number of photo/s : Nil.
Number of Test Circuit Diagrams : Nil.
Number of Drawings : Two (Drawing No: 1) KE.0802150-00 Sheet 1 of 2 &
2) KE.0802150-00 Sheet 2 of 2)

(K.R. DASHARATHI)
Test Engineer

(P.V.VASUDEVAN NAMBU DIRI)
Additional Director

AUTHORISED SIGNATORIES



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Sheet 2 of 3

Test Report No.: No.43/1/2009-HV/6793/KEPL

Dated: 20-07-2009.

Test Arrangement for Lightning Impulse Voltage Withstand Test:-

Table with 4 columns: Test arrangement, VCB Position, H.V. Connected to, Earth Connected to. Rows 1-11 detailing test configurations.

For Test Arrangements 4, 5, 6, 7, 8 & 9 Frame is Isolated.

1. Lightning Impulse Voltage Withstand Test :-

Table with 7 columns: Test Arrangement, Test Voltage kV(Peak) Positive, Test Voltage kV(Peak) Negative, Oscillogram No. Positive 1st Shot, Oscillogram No. Positive 15th Shot, Oscillogram No. Negative 1st Shot, Oscillogram No. Negative 15th Shot. Rows 1-11.

The VCB Panel has withstood the above mentioned Lightning Impulse voltage applications.

These voltages are applied under ambient conditions which are given below

* These voltages are the final values after applying corrections for the ambient conditions which are given below:

Table with 3 columns: Temperature in Degree Celsius (Dry Bulb, Wet Bulb), Atmospheric Pressure in mm of Hg. Row 1: #, *, 26, 22, 682.

(K.R DASHARATHI)
Test Engineer



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Sheet 3 of 3

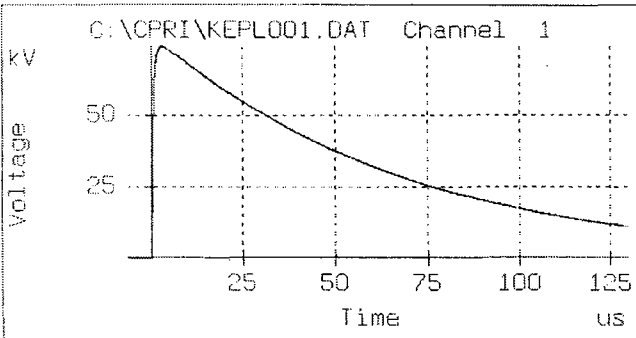
Test Report No.43/1/2009-HV/6793/KEPL

Dated: 20-07-2009

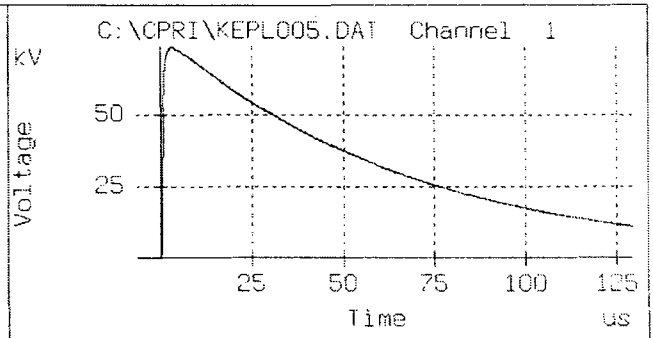
NOTE:

- a) The test results relate only to the items tested
- b) Publication or reproduction of this report 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 Corrections/erasures invalidate this test report/certificate.
- d) Any anomaly/discrepancy in this test report/certificate should be brought to our notice within 45 days from the date of issue
- e) The Verification of the Samples drawings by CPRI is limited to dimensional checks only wherever possible

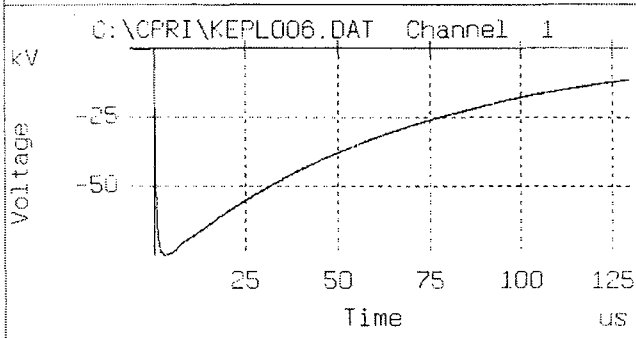

(K.R. DASHARATHI)
Test Engineer



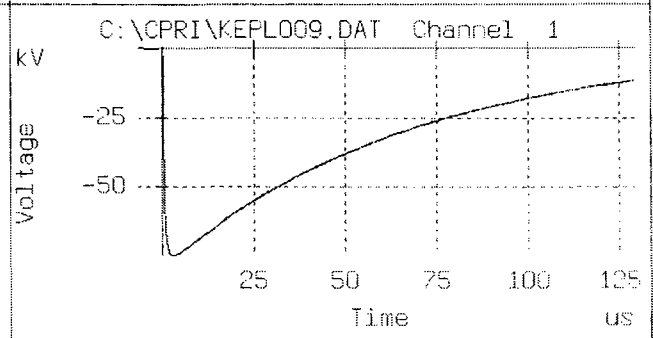
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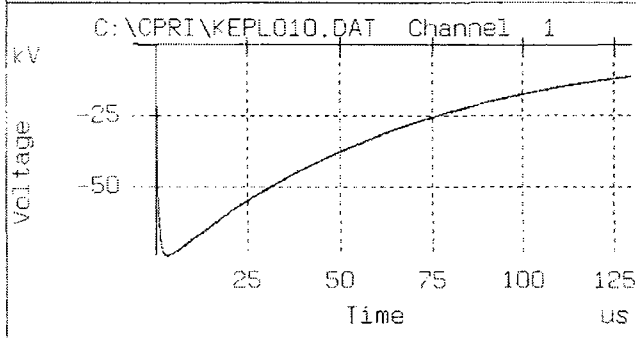
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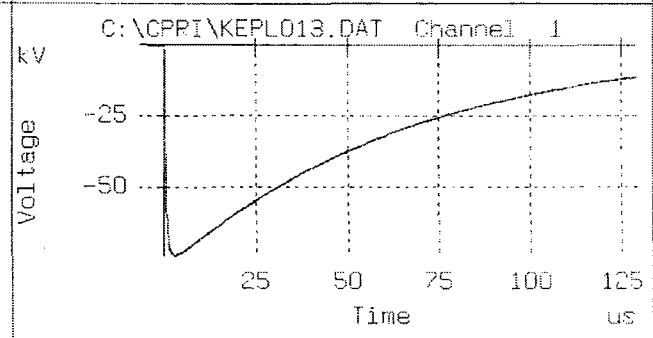
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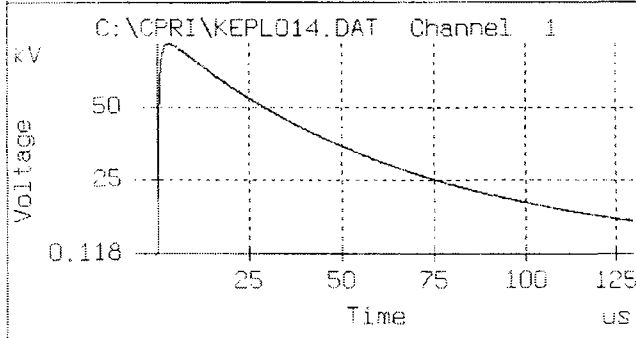
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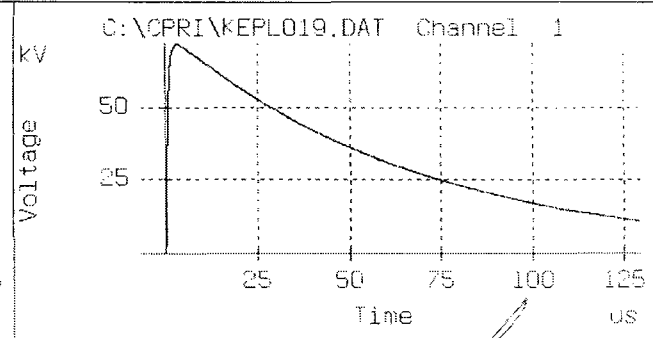
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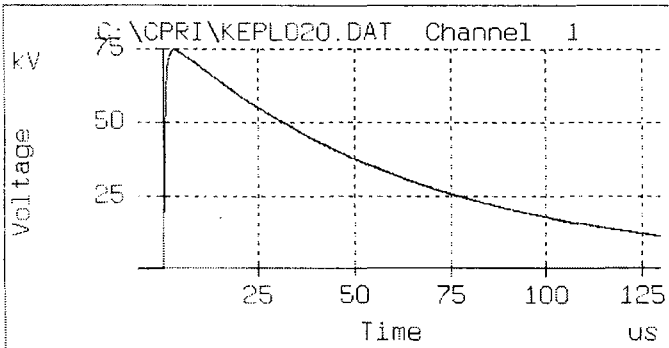


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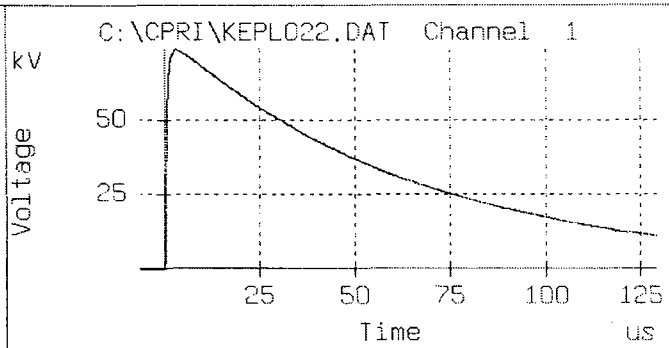


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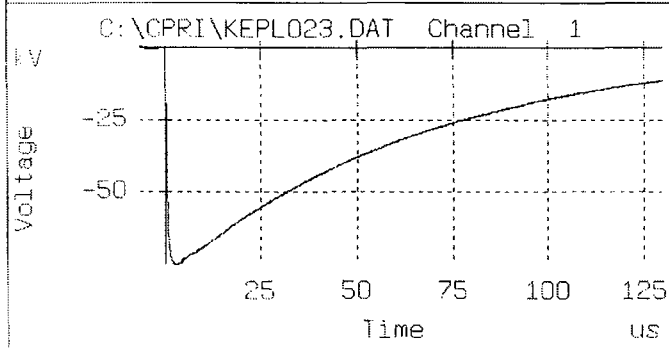
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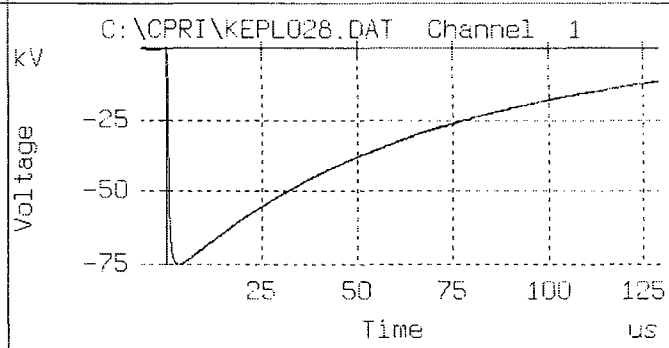
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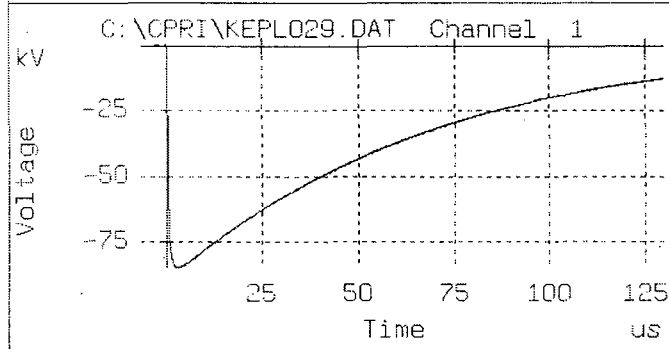
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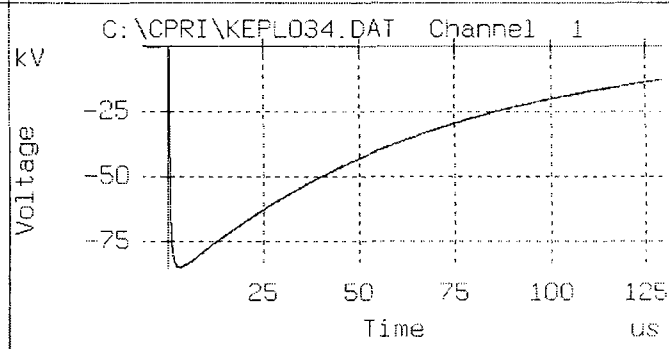
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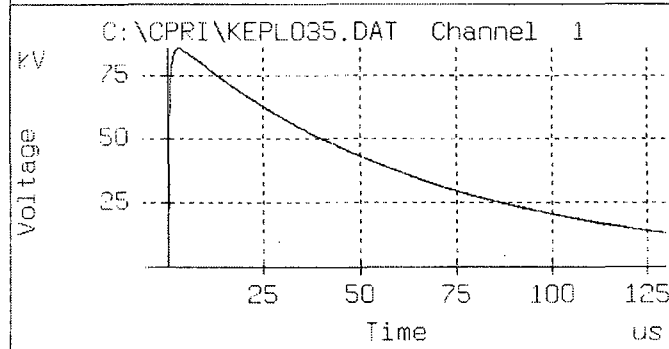
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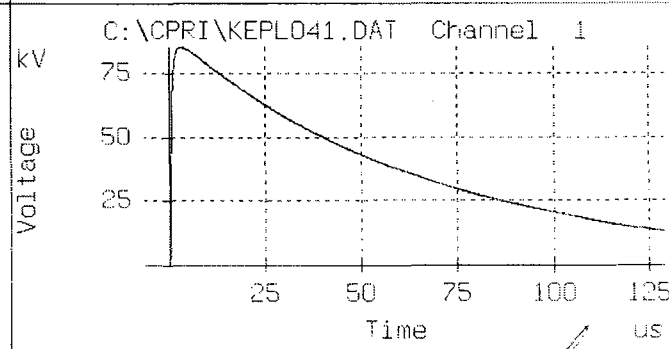
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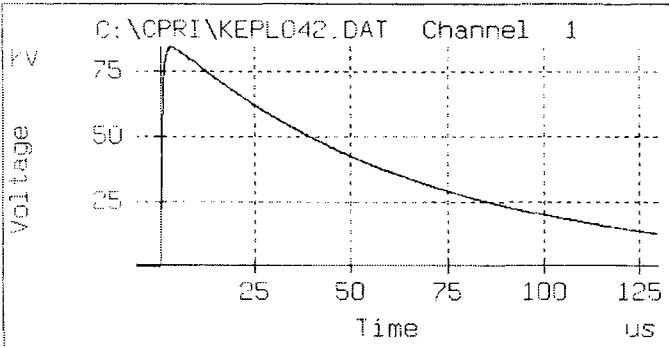
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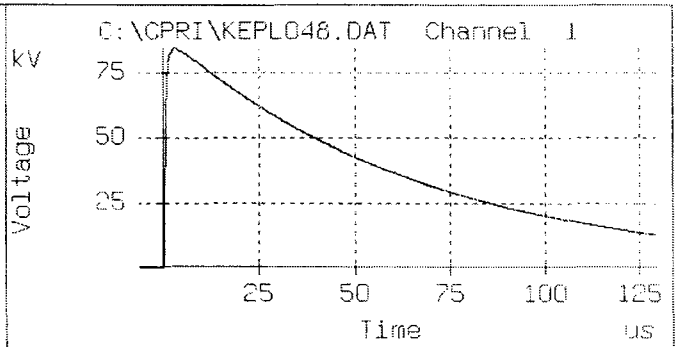
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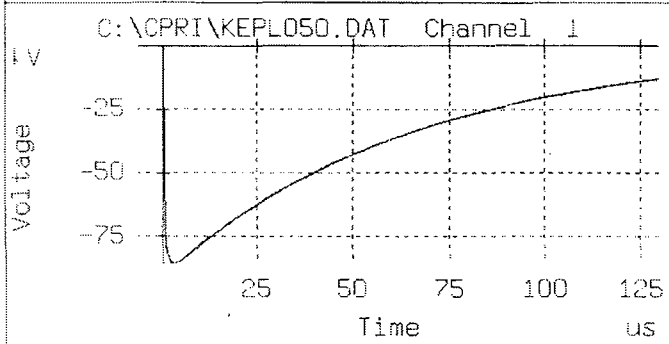
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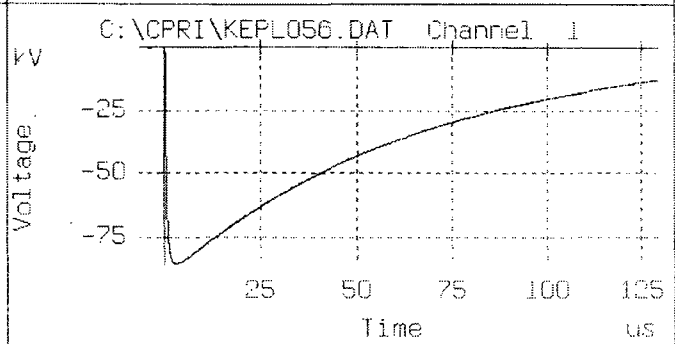
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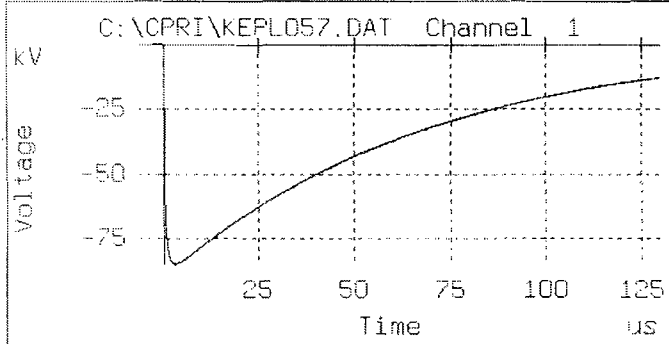
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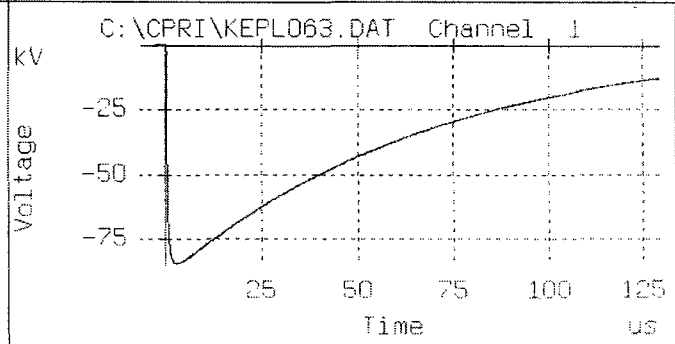
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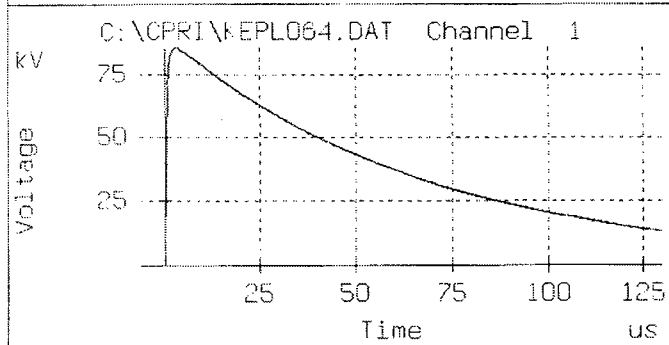
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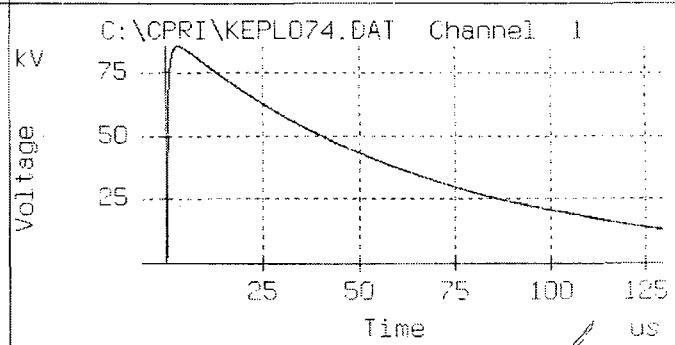
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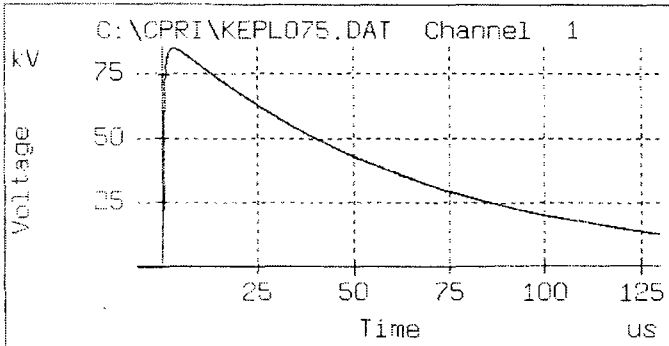
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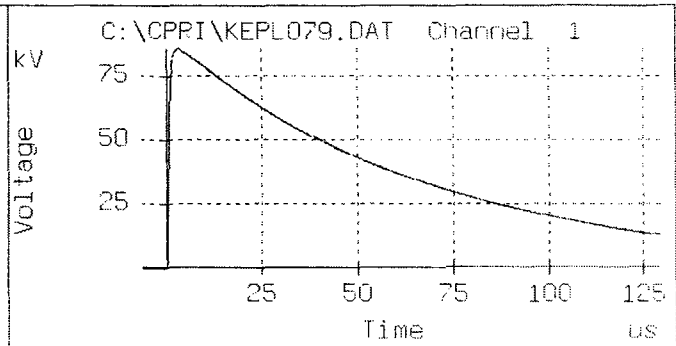
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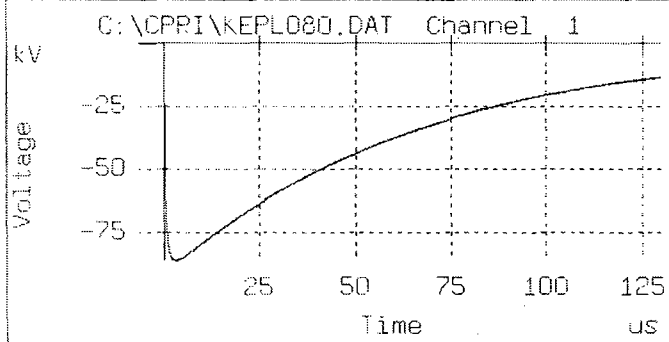
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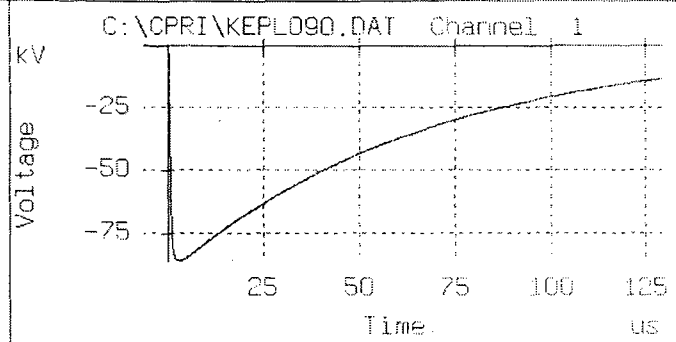
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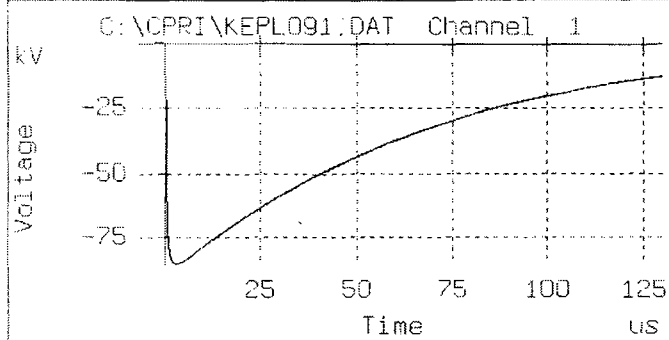
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86.21kV T1=1.31us T2=50.7us



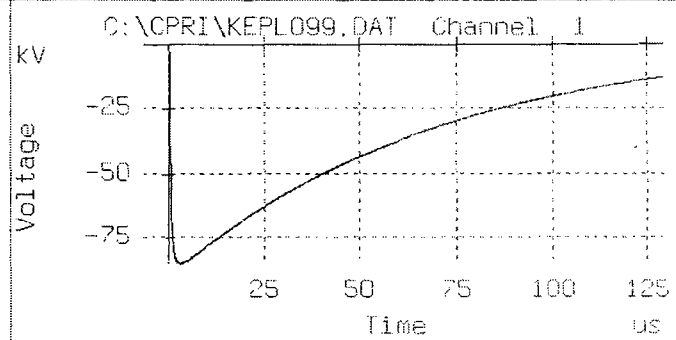
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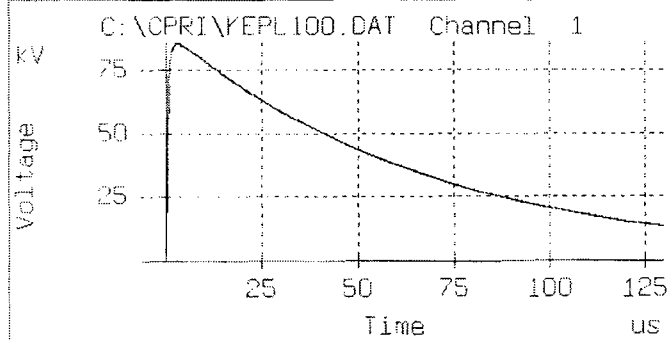
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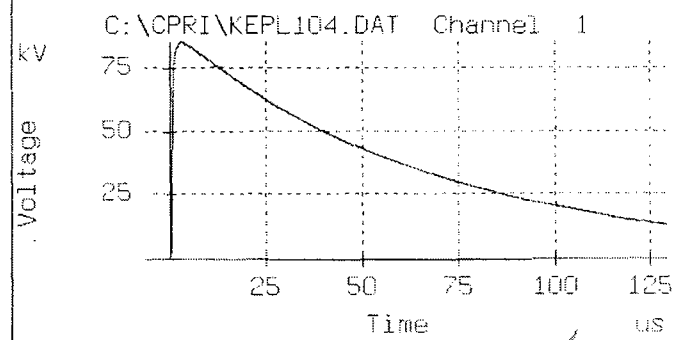
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-85.45kV T1=1.24us T2=50.9us

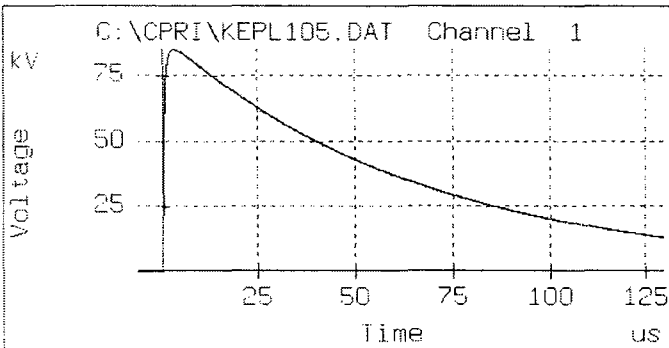


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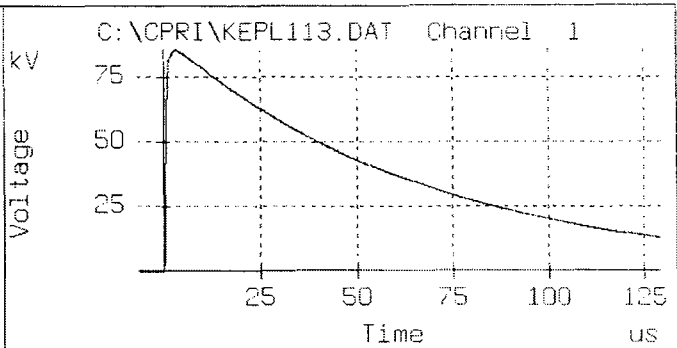


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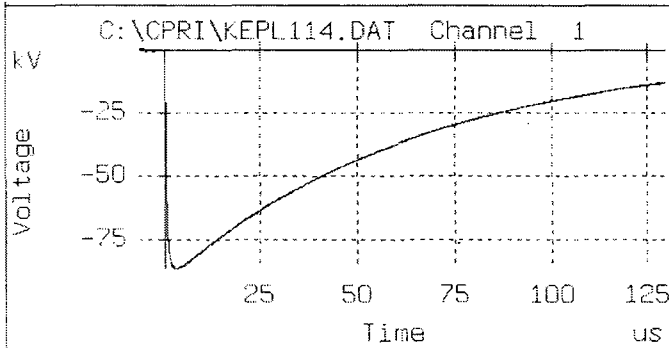
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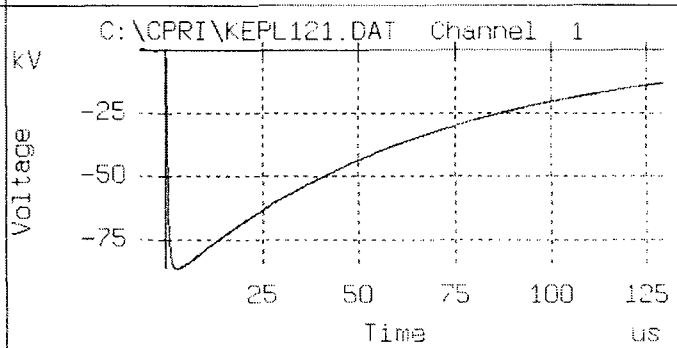
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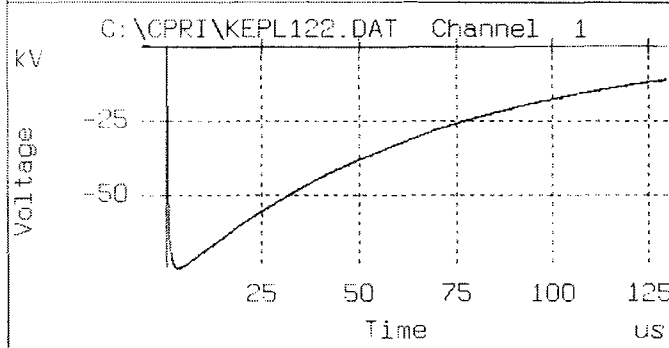
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86.09kV T1=1.27us T2=50.5us



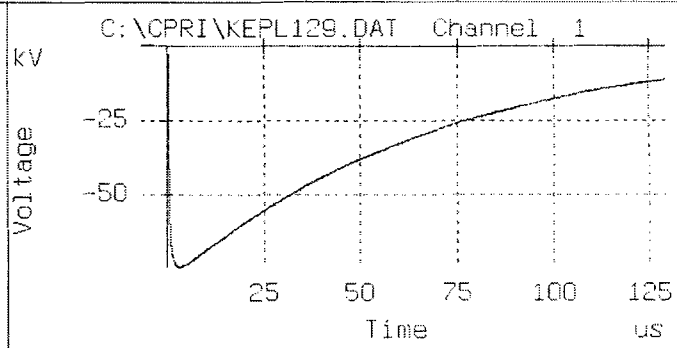
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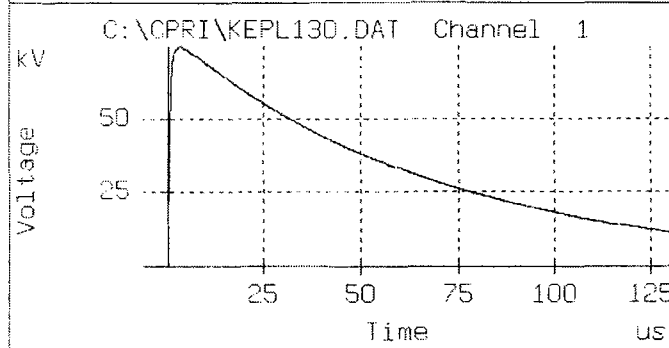
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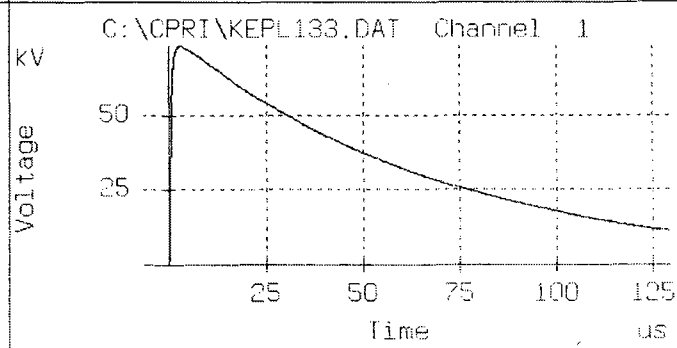
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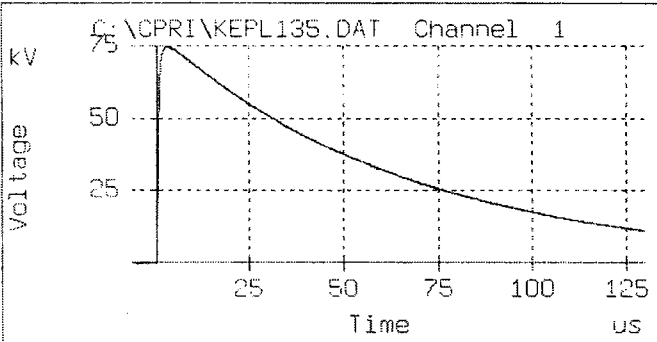


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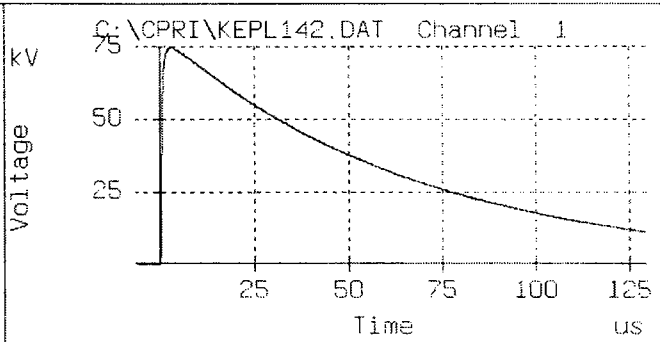


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73.74kV T1=1.25us T2=50.9us

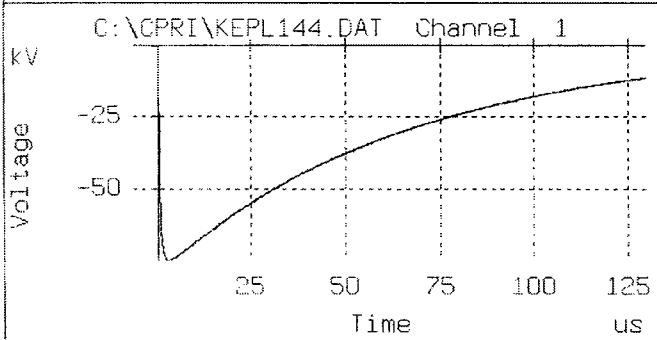
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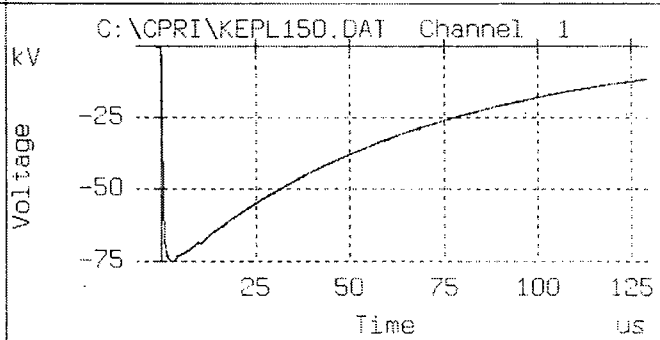
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75.03kV T1=1.26us T2=50.6us



100% LI full
75.15kV T1=1.26us T2=50.5us

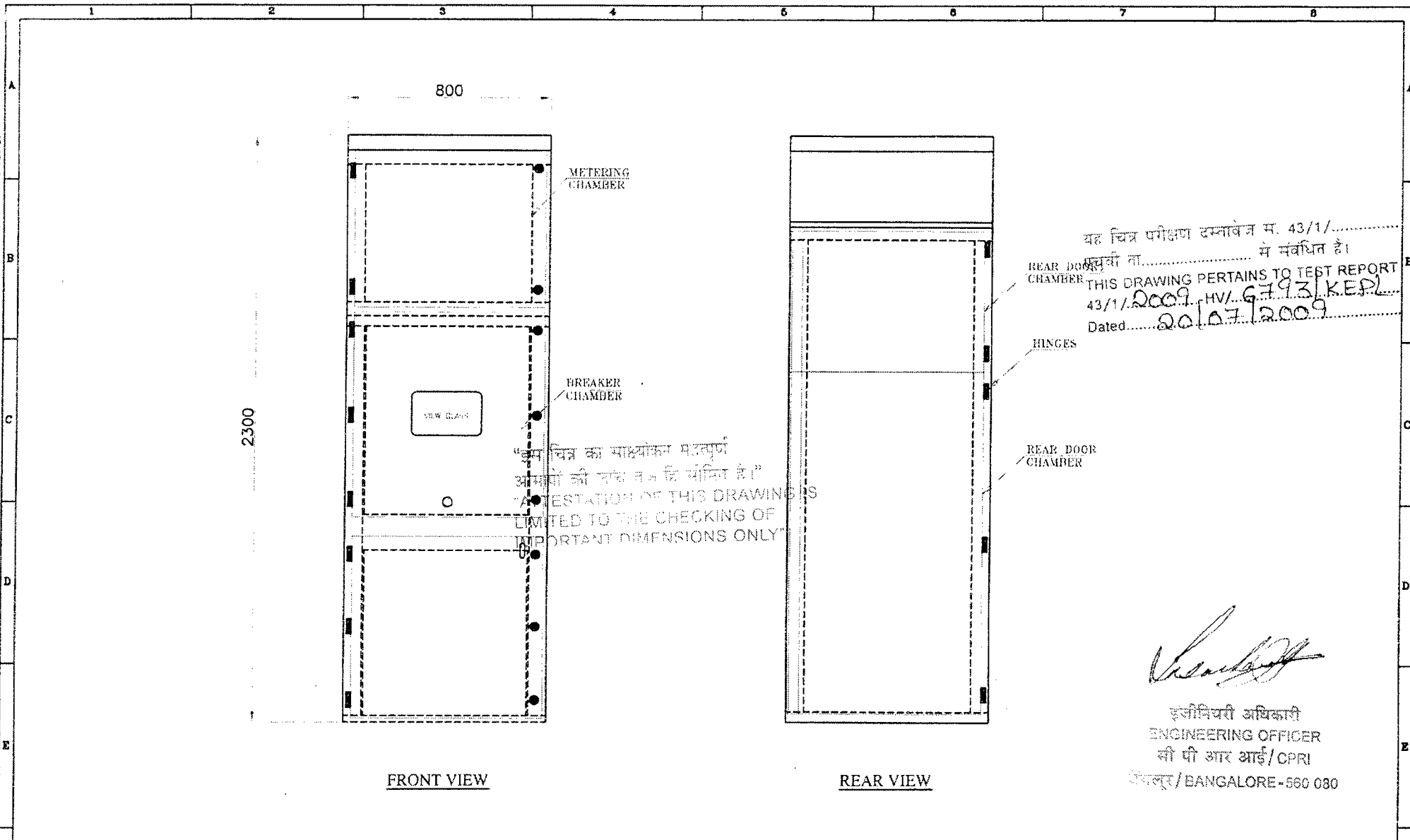


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-74.71kV T1=1.2us T2=50.7us



100% LI full
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यह चित्र परीक्षण दस्तावेज नं. 43/1/..... में संवर्धित है।
 THIS DRAWING PERTAINS TO TEST REPORT
 43/1/2009 HV/G-93/KEPL
 Dated: 20/07/2009

[Signature]

इंजीनियरी अधिकारी
 ENGINEERING OFFICER
 सी पी आर आई/CPRI
 बंगलूर / BANGALORE-560 080

FRONT VIEW

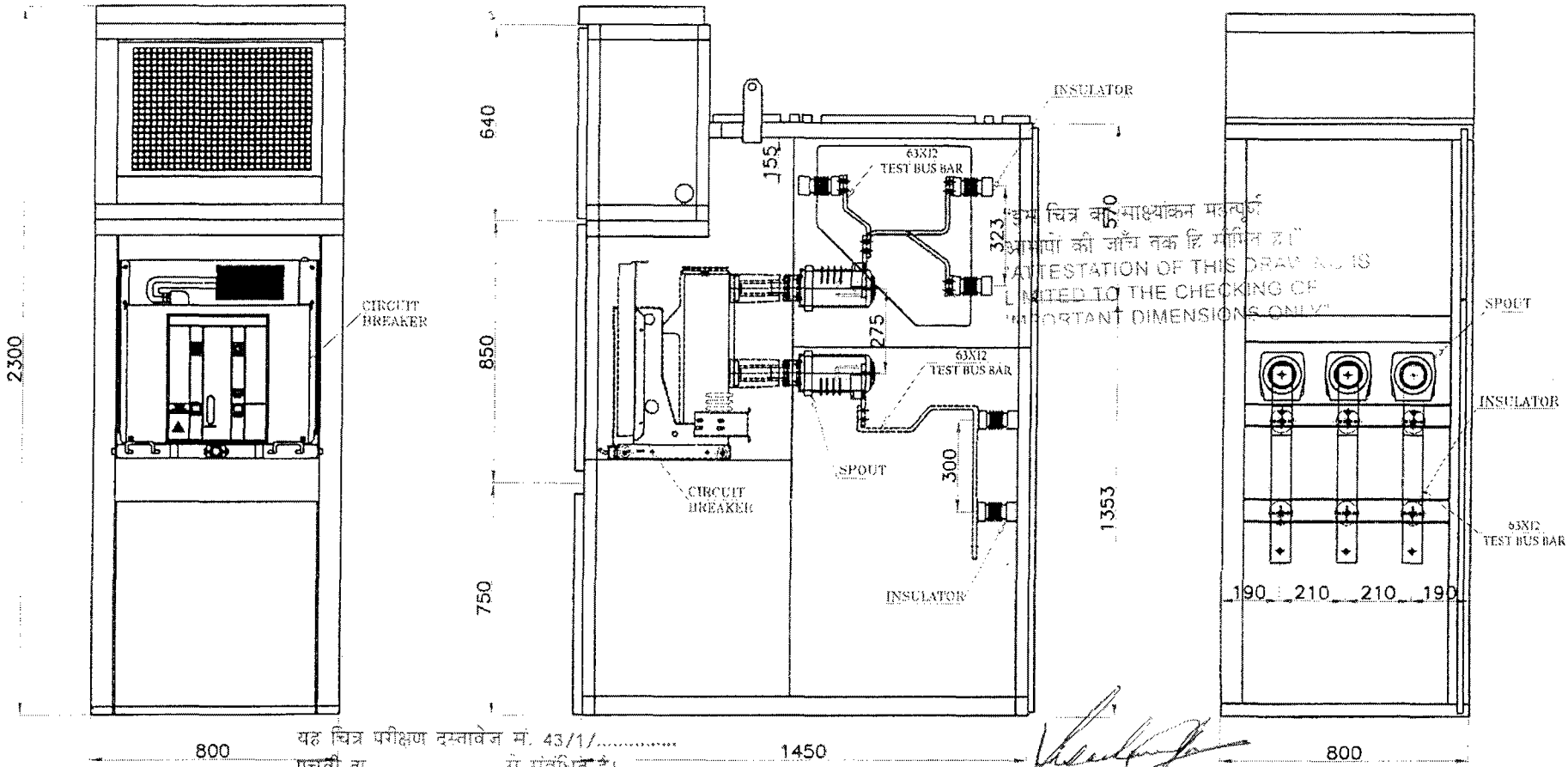
REAR VIEW

MATL:-		QTY: 1NO.		ALL DIMENSIONS ARE IN mm		DESCRIPTION: GA FOR 11KV,1250A,25KA/3sec INDOOR METAL ENCLOSED VCB PANEL		BRAND		DRAWING NO:	
FINISH:-						MFG BY:		KRISHNA		KE.0802150-00	
						KRISHNAA ENERGY PVT LTD.,		SCALE : N.T.S.		SHEET.No.	
						SURVEY.No:184/2, SIDCO INDUSTRIAL ESTATE THIRUMODIVAKKAM, CHENNAI - 44 www.maruthenergy.com		1 OF 2		REF.No-	
0		PSK	S.S	S.S	25/7	FILE NAME: D:\SIVA\ASSEMBLY\DEV					
REV.	DATE	REMARKS	DRAWN	CHD.	APPD.	SIGN	DATE				

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FRONT VIEW

SECTIONAL VIEW

REAR VIEW

यह चित्र परीक्षण दस्तावेज नं. 43/1/.....
 एचवी ता..... से संबंधित है।
 THIS DRAWING PERTAINS TO TEST REPORT
 43/1/.....-HV/6793/KEPL
 Dated..... 20.7.2009

[Signature]
 इंजीनियरी अधिकारी
 ENGINEERING OFFICER
 सी पी आर आर्डी / CPRI
 बंगलूर / BANGALORE - 560 080

MATL:-		QTY: 1NO.		ALL DIMENSIONS ARE IN mm				DESCRIPTION: GA FOR 11KV,1250A,25KA/3sec INDOOR METAL ENCLOSED VCB PANEL				BRAND: KRISHNA		DRAWING NO: KE.0802150-00		
FINISH:-								MFG BY: KRISHNAA ENERGY PVT LTD.,				SCALE: N.T.S.		SHEET.No.		
								SURVY.No:184/2, SIDCO INDUSTRIAL ESTATE, THIRUMUNIVAKKAM, CHENNAI - 44						2 OF 2		
								www.maruthienergy.com								
0				PSK	S.S	S.S			25/7	FILE NAME: D:\SIVA\ASSEMBLY\DEV				REF.No-		
REV.	DATE	REMARKS		DRAWN	CHD.	APPD.	SIGN	DATE								