टेलीफोन: : 22072512
Telephone

ईमेल: hpl1@cpri.in

यक्तिगत रूप से/पंजीकृत डाक से/ तिव्र डाक द्वारापावती पत्र
In person / By Regd. Post / By Courier/By speed post with Ack. Due

केन्द्रीय विद्युत अनुसंधान संस्थान , बेंगलूर - 560 080
CENTRAL POWER RESEARCH INSTITUTE, BENGALURU-560 080
उच्च शक्ति प्रयोगशाला/HIGH POWER LABORATORY

सं/No.HPL/J/1/2022

Date: 29.06.2022

रवुम्हाम द्धहु /To
M/s. Lecon Energetics Pvt. Ltd.,
484, B&C, 14th Cross Road, near BMTD Depot,
Peenya Industrial Area, Phase IV, Bengaluru - 560058

Kindly Attention: **Mr. M A Kulkarni**

वषय/ **Sub :- परीक्षण दस्तावेज / Test Document(s) Report No. CPRIBLRHPL22T0062**

महोदय/ Dear Sir ,
हमारी प्रयोगशाला में .. . . को आपके . . . .
. . . . पर संचालित परीक्षण के सबंध में निम्नांकित दस्तावेज संलग्न हैं।
Please find enclosed Test Report with the details Mentioned below.

TEST REPORT NO & DATE	SAMPLE DETAILS	TEST CONDUCTED	DATE OF TEST	FINAL (No)	ADDITIONAL COPY (No)
CPRIBLRHPL 22T0062 Dt.29.06.2022	12kV, 1250A, VCB Panel	Short time withstand and peak withstand current tests	11 April 2022	one	Nil

दस्तावेजों की पावती भेजें ।
Please acknowledge receipt of the document(s).

P.S :Customer to remove the tested sample within 30 days from the date of completion of testing, failing which the sample will be disposed off by CPRI as per its policy.

Yours faithfully

29/6/22

Joint Director/Additional Director

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number	: **CPRIBLRHPL22T0062**	**Date: 29 June 2022**
Name and Address of the Customer	: M/s. Lecon Energetics Pvt. Ltd., 484, B&C, 14th Cross Road, near BMTC Depot, Peenya Industrial Area Phase IV, Bengaluru, 560058.	
Name and Address of the Manufacturer	: M/s. Lecon Energetics Pvt. Ltd., 484, B&C, 14th Cross Road, near BMTC Depot, Peenya Industrial Area Phase IV, Bengaluru, 560058.	
Particulars of sample tested	: 12kV, 1250A, VCB Panel	
Type	: Indoor	
Description of test sample	: Refer sheet 2 of 6	
Serial Number	: EW 528/1/2021-2022	
Number of samples tested	: One	
Date(s) of Test(s)	: 11 April 2022	
CPRI Sample code Number(s).	: HPL22S0077	
Particulars of tests conducted	: Short time withstand and peak withstand current tests	
Test in accordance with Standard/Specification	: As per Clause 7.6 of IEC 62271-200:2021	
Sampling Plan	: Nil	
Customer's Requirement	: Nil	
Deviations if any	: Nil	
Name of the witnessing persons Customers representative	: Mr. M. A. Kulkarni Mr. Y. Phaneendra Kumar	
Other than customer's representatives	: None	
Test subcontracted with 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)	: Two
Number of Test Circuit Diagram(s)	: Two
Number of Drawing(s)	: Four

M Rajkumar

(Rajkumar M)
Test Engineer

29/6/2022

(S. Sudhakara Reddy)
Head of Division
Reviewed and Authorized by

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number: CPRIBLRHPL22T0062 **Date: 29 June 2022**

DESCRIPTION OF SAMPLE TESTED
(As assigned by the manufacturer)

Sample	:	12kV, 1250A, VCB Panel
Type	:	Indoor
Serial number	:	EW 528/1/2021-2022
Designation	:	VCB Panel
Number of phase	:	Three phase
Class	:	Indoor
Rated voltage	:	12 kV
Rated normal current	:	1250 A
Rated insulation level	:	28 kV RMS / 75 kV peak
Frequency	:	50 Hz
Rated short time withstand current and duration of main circuit	:	40 kA RMS for 3.0 seconds
Rated Peak withstand current of main circuit	:	100 kA peak
Rated short time withstand current and duration of earth circuit	:	20 kA RMS for 1.0 second
Rated Peak withstand current of earth circuit	:	50 kA peak

M Rajkumar

(Rajkumar M)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number: CPRIBLRHPL22T0062 **Date: 29 June 2022**

SUMMARY OF TESTS CONDUCTED

1. Tests conducted : Short time withstand and peak withstand current tests
2. Rating for which tested : 40 kA RMS for 3.0 seconds for main circuit
   20 kA RMS for 1.0 second for earth circuit

3. Schedule of tests

Tests Conducted	Clause Numbers	Sheet
Short time withstand and peak withstand current tests	Clause 7.6 of IEC 62271-200:2021	5 of 6
Dielectric tests	Clause 7.2.12 of IEC 62271 -1:2017	5 of 6
Measurement of the resistance of circuits	Clause 7.4.4 of IEC 62271 -1:2017	5 of 6

4. Oscillogram Numbers : CPRIBLRHPL22T0062S003, S006
5. Graph Numbers : Nil
6. Photograph Numbers : CPRIBLRHPL22T0062P01, P02
7. Test Circuit Diagram Numbers. : CPRIBLRHPL22T0062TCD01, TCD02
8. Drawing Numbers : Refer sheet 4 of 6

MRajkumar

(Rajkumar M)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number: CPRIBLRHPL22T0062 **Date: 29 June 2022**

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	EW528/1/01	1 OF 3	0
2	EW528/1/02	2 OF 3	0
3	EW528/1/03	3 OF 3	0
4	1VYN304001-BT	2 OF 2	A

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.

MRajkumar

(Rajkumar M)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number: CPRIBLRHPL22T0062 **Date: 29 June 2022**

TEST RESULTS

Test conditions

Source : Short-circuit generator and High current transformer
Number of phases : Three (Test on main circuit), Two (Test on single phase earth circuit)
Frequency : 50 Hz
Test samples
Condition before test : New
Mounting arrangement : Refer Photograph No. CPRIBLRHPL22T0062P01
Test details
Test circuit drawing number : CPRIBLRHPL22T0062TCD01 (Test on main circuit)
: CPRIBLRHPL22T0062TCD02 (Test on single phase earth circuit)
Short-circuit point : Grounded

a) Test on main circuit:

Oscillogram Number	Peak Current (kA)	RMS Current (kA)				Duration (seconds)
		I_1	I_2	I_3	I_{avg}	
CPRIBLRHPL22T0062S003	100.2	44.0	42.8	41.6	42.8*	3.050
[*Equivalent to 43.1 kA RMS for 3.0 seconds]						

b) Test on single phase earth circuit:

Oscillogram Number	Peak Current (kA)	RMS Current (kA)	Duration (seconds)
CPRIBLRHPL22T0062S006	53.9	22.1*	0.826
[* Equivalent to 20.1 kA RMS for 1.0 second]			

c) Dielectric Tests:

Condition of sample	Observation	
	Applied Voltage across the interrupters with breaker opened.	Applied Voltage between live parts and ground with breaker closed.
After test	28.0 kV RMS Withstood for 1.0 minute	28.0 kV RMS Withstood for 1.0 minute

d) Measurement of the resistance of main circuit:

Condition of sample	Ambient temperature in °C	Contact resistance in μΩ		
		Pole-1	Pole-2	Pole-3
Before test	36	77.2	78.0	79.1
After test	28	70.1	70.1	70.4

Observations during test : No abnormalities.
Observations After test : 1) Circuit Breaker operable on its first attempt.
2) No visible external damage.

Conclusion: The sample tested complies with the requirements of clause 7.6 of IEC 62271-200:2021 for the test(s) conducted.

M Rajkumar

(Rajkumar M)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number: CPRIBLRHPL22T0062 **Date: 29 June 2022**

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.

f) NABL has Accredited this laboratory as per ISO/IEC 17025: 2017, vide certificate no.TC-5452 for the tests carried out.

TC-5452

(Rajkumar M)
Test Engineer

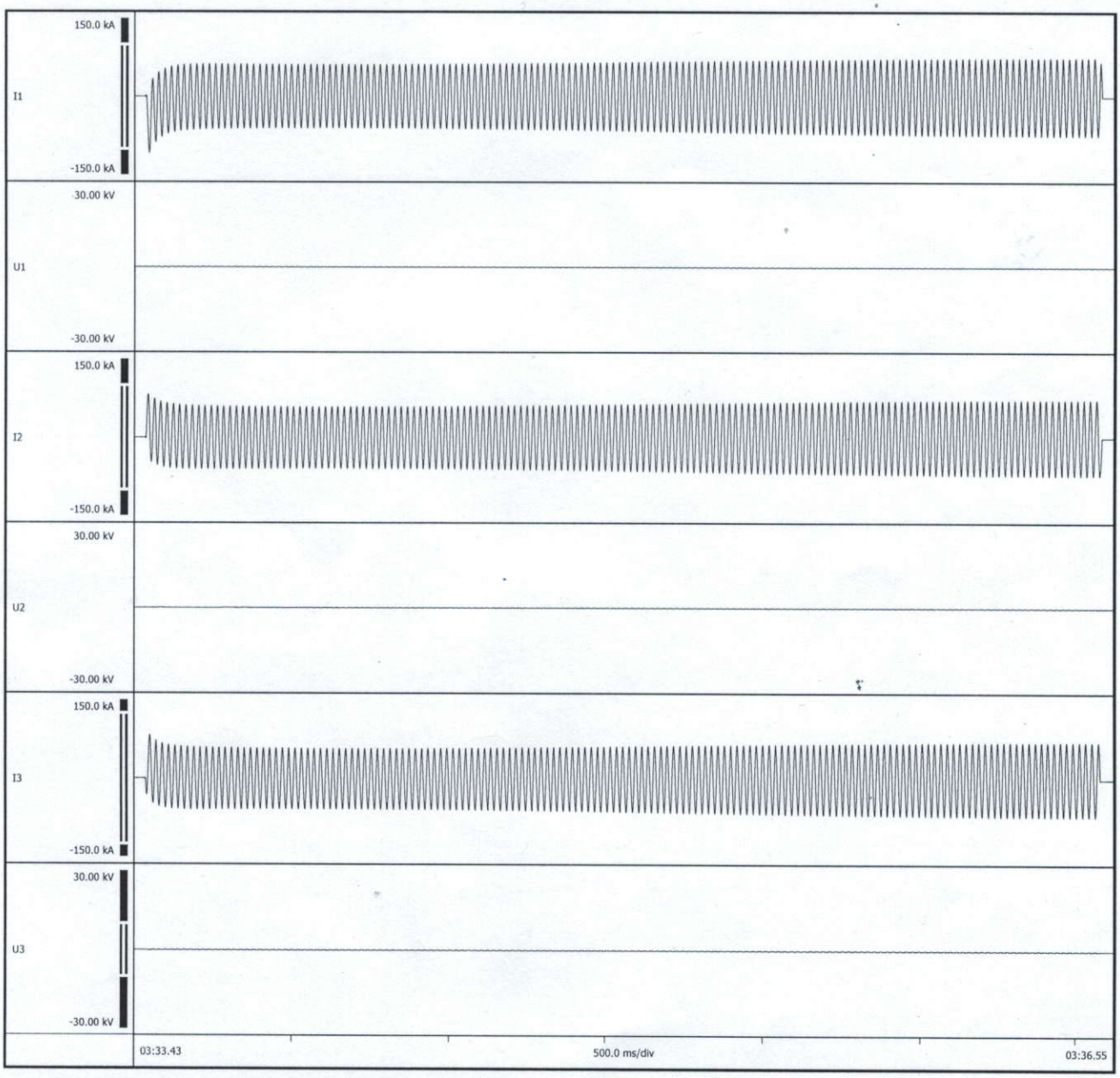
----------End of Test Report----------

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT

Test Report Number : CPRIBLRHPL22T0062 **Date : 29 June 2022**

TEST RESULTS



Oscillogram Number : CPRIBLRHPL22T0062S003

MRajkumar

(Rajkumar M)
Test Engineer

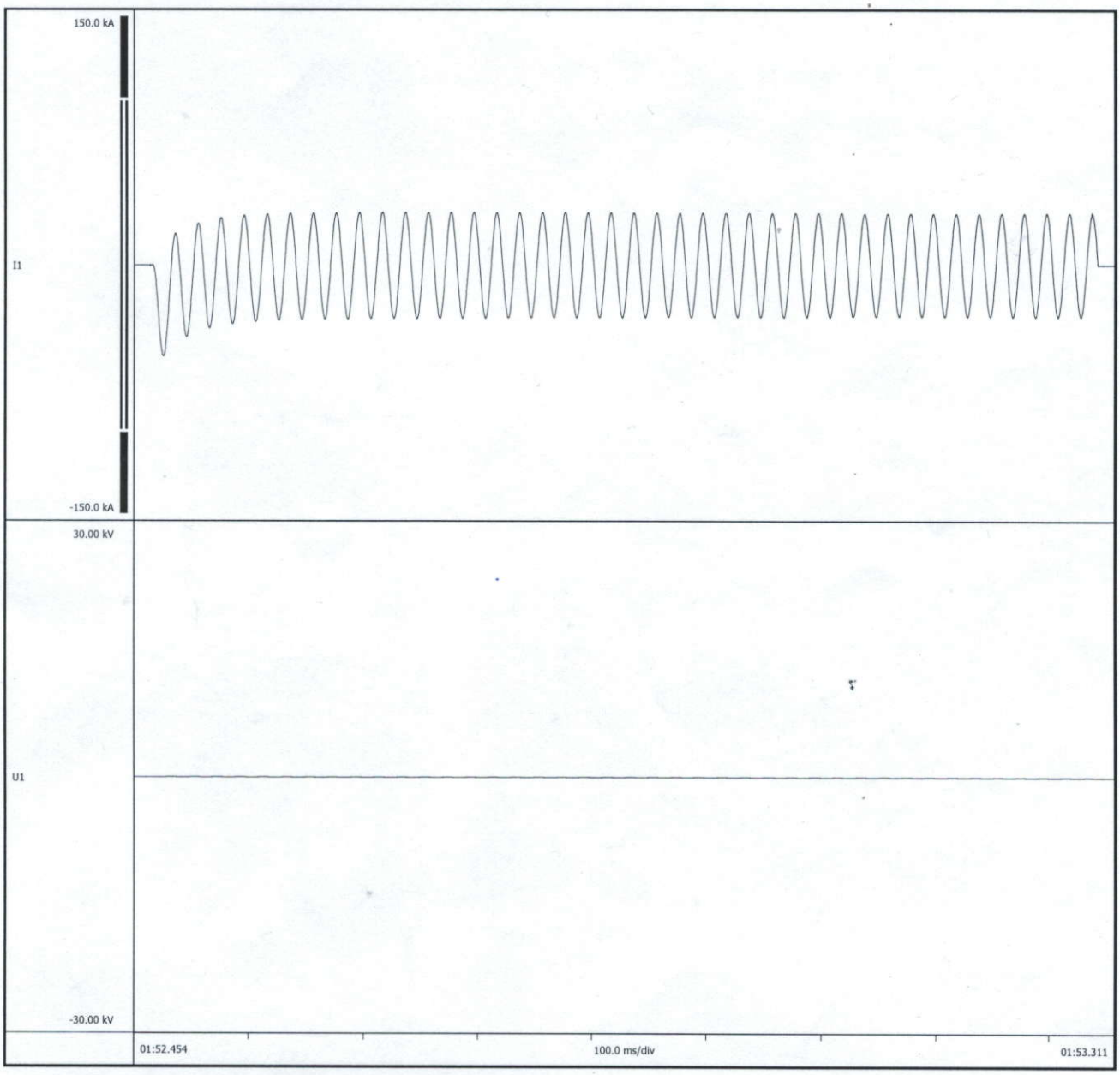
CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT

CPRI

Test Report Number : CPRIBLRHPL22T0062 **Date : 29 June 2022**

TEST RESULTS



Oscillogram Number : CPRIBLRHPL22T0062S006

M Rajkumar

(Rajkumar M)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number: CPRIBLRHPL22T0062 **Date: 29 June 2022**

Photograph Number: CPRIBLRHPL22T0062P01

Mounting arrangement before test

M Rajkumar

(Rajkumar M)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT

Test Report Number: CPRIBLRHPL22T0062 **Date: 29 June 2022**

Photograph Number: CPRIBLRHPL22T0062P02

Condition of sample after test

M Rajkumar

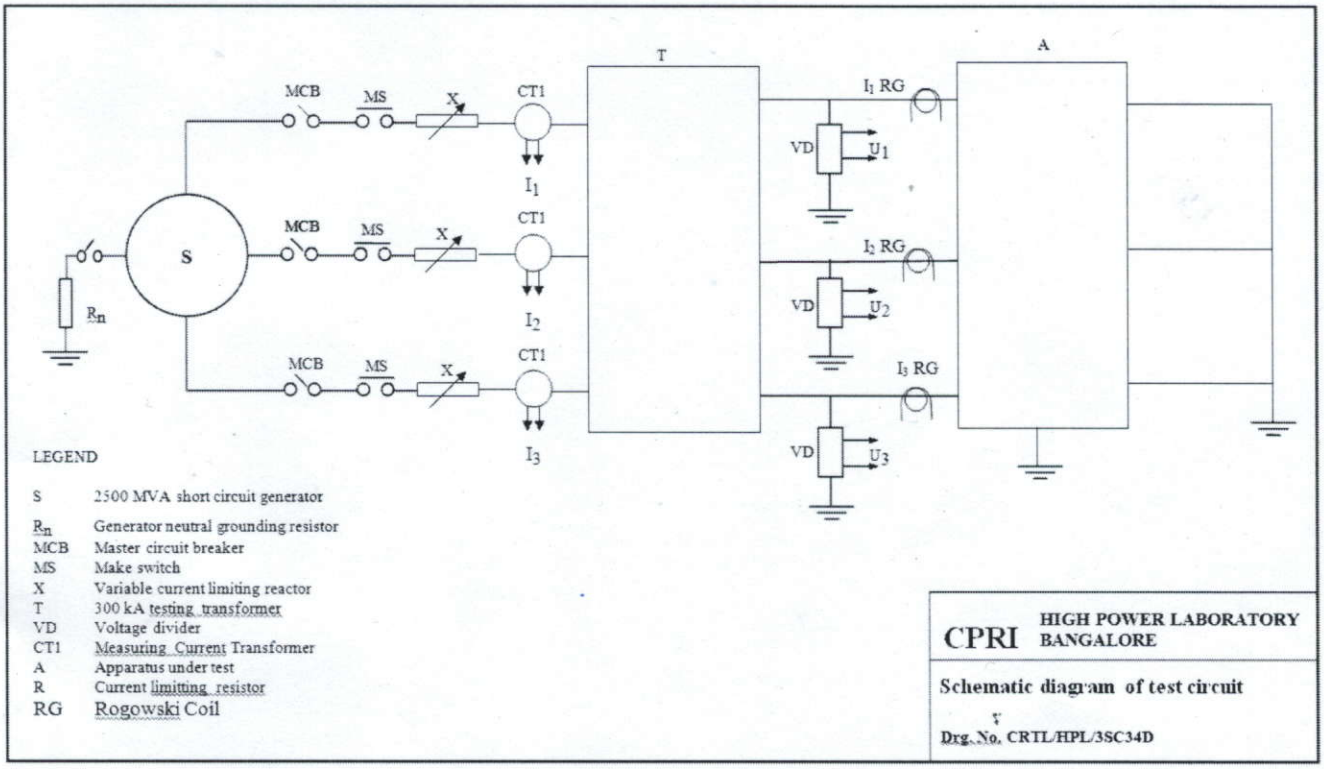
(Rajkumar M)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number: CPRIBLRHPL22T0062 **Date: 29 June 2022**



Test Circuit Diagram Number: CPRIBLRHPL22T0062TCD01

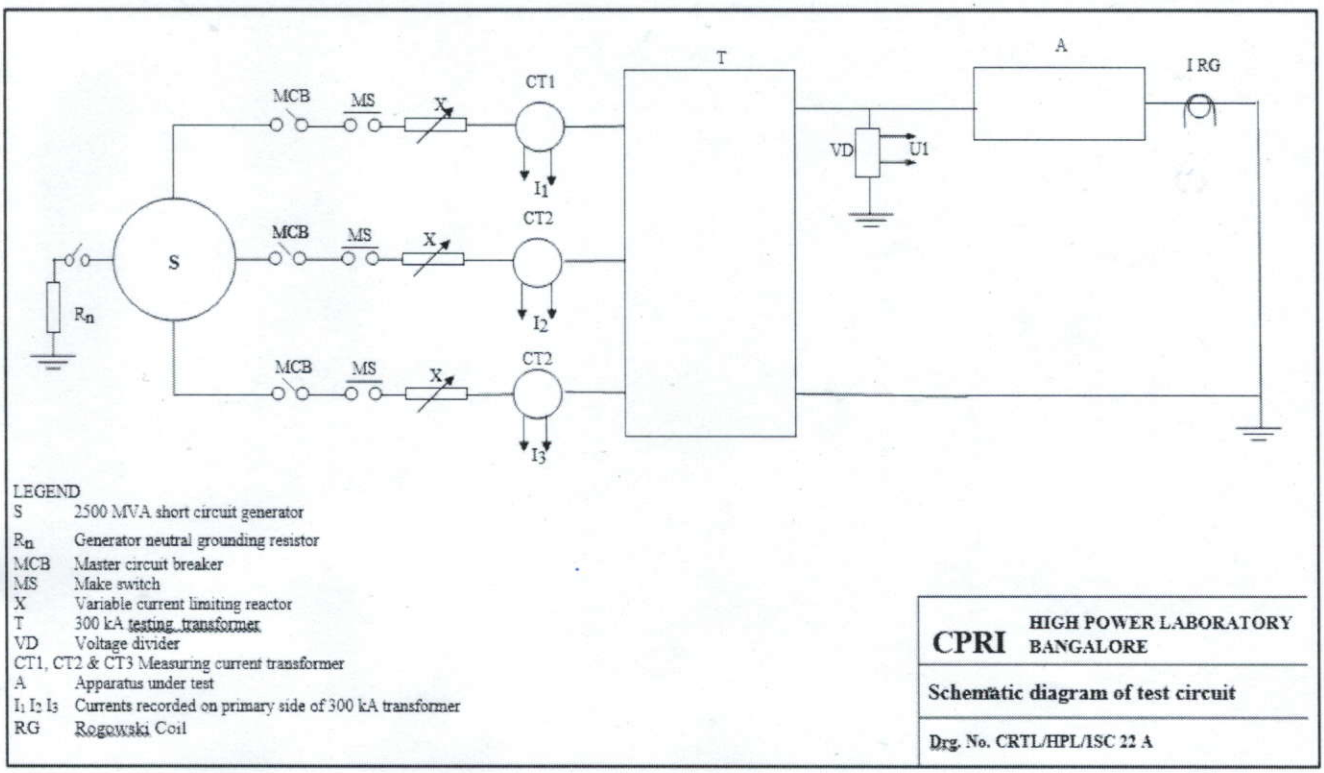
M Rajkumar

(Rajkumar M)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT

Test Report Number: CPRIBLRHPL22T0062 **Date: 29 June 2022**



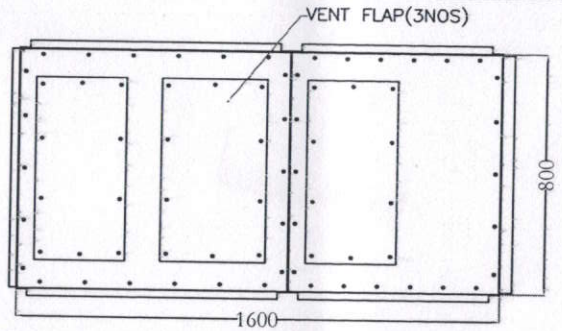
Test Circuit Diagram Number: CPRIBLRHPL22T0062TCD02

M Rajkumar

(Rajkumar M)
Test Engineer

IF IN DOUBT, ASK

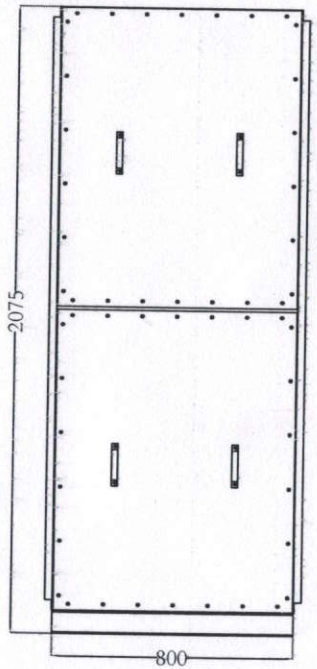
Note:All Dimensions are in mm
& Tolerance :±5mm



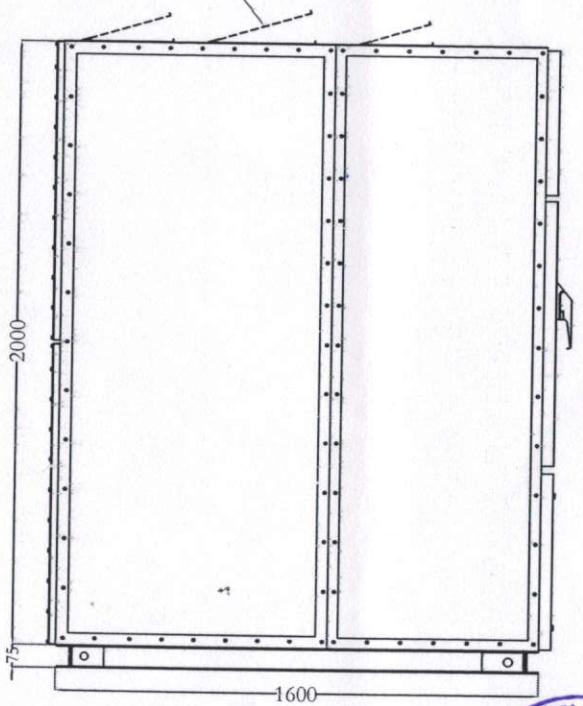
TOP VIEW

रिपोर्ट क्रमांक.....
से संबंधित दस्तावेज
Document Pertaining to
Report No. CPRIBLRHPL22T0062

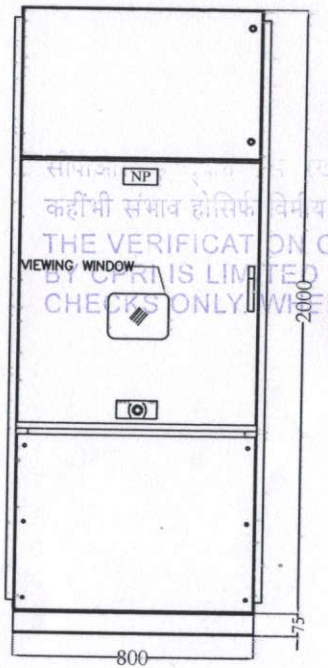
परीक्षण अभियन्ता / Test Engineer
उच्च शक्ति प्रयोगशाला / H.P. LAB
सी. पी. आर. आई. / CPRI
बेंगलुरु / Bengaluru



REAR VIEW



SIDE VIEW



FRONT VIEW

सीमाओं तक ही इस प्रमाणपत्र का सत्यापन जहाँ
कहींभी संभव होसिर्फ विभाग जांच तक ही सीमित है।
THE VERIFICATION OF THIS DRAWING
BY CPRI IS LIMITED TO DIMENSIONAL
CHECKS ONLY WHEREVER POSSIBLE

LECON ENERGETICS PVT. LTD. BENGALURU 560 058

TITLE. GENERAL ARRANGEMENT FOR 12KV,1250 AMPS,40KA FOR 3SEC VCB PANEL	W.O.NO: EW528/1/2022	DRN	Phaneendra
		DGN	Phaneendra
DATE: 10.03.2022	MODEL NO: VCB PANEL 12KV–40KA3–1250A	CHD	Phaneendra
	DRG.NO: EW528/1/01	APP	M.A.Kulkarni

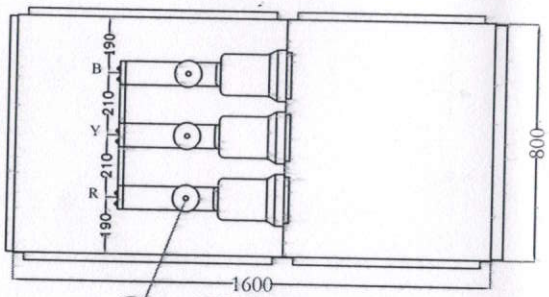
LECON ENERGETICS
No.484 B&C, IV Phase, Opp. BMTC Depot No.9
Peenya Industrial Area, Bangalore – 560058, Karnataka,
E'MAIL ID sales@leconsystem.com,lecongm@gmail.com
PH.NO.9449041220. WEB SITE:www.leconenergetics.com

QMS/DES/FORM/06 SCALE: NTS

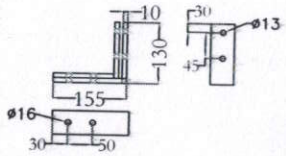
SHEET 1OF 3 REV 0

IF IN DOUBT, ASK

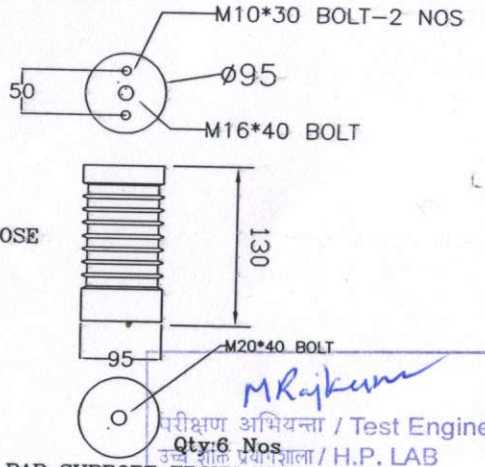
Note:All Dimensions are in mm
& Tolerance :±5mm



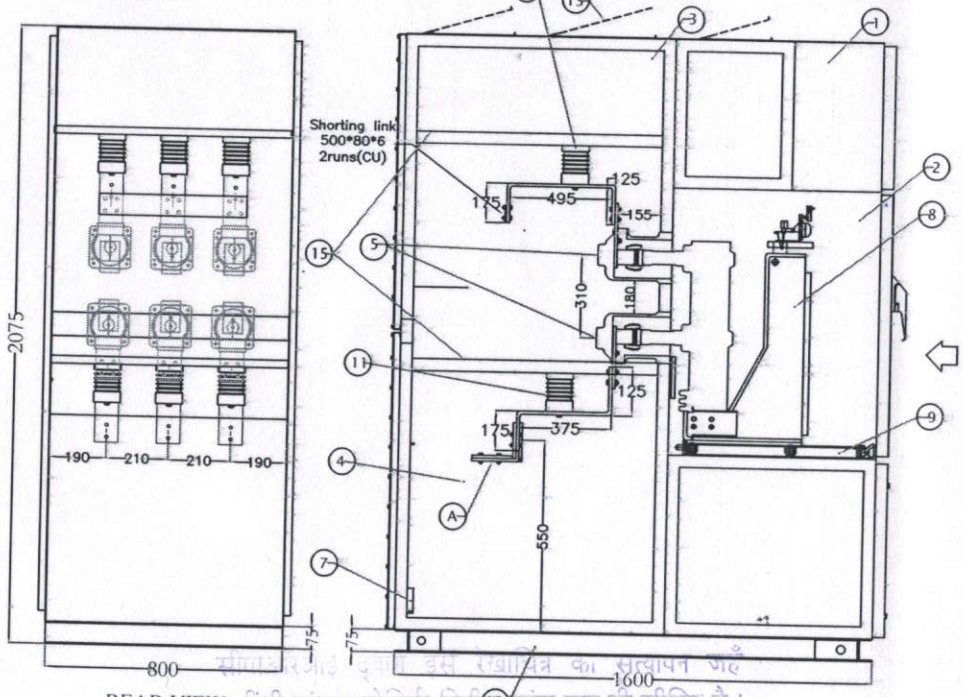
TOP VIEW



A:TEMERORARY LINKS FOR TESTING PURPOSE

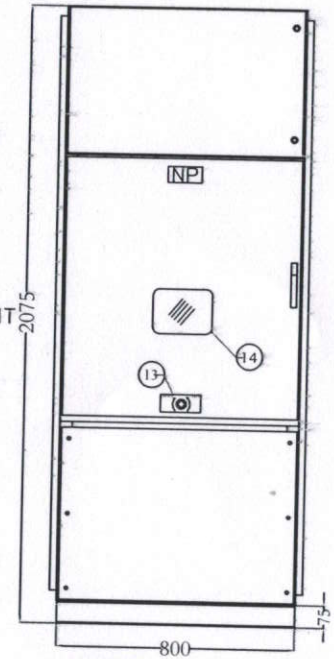


Qty:6 Nos
BUS BAR SUPPORT EPOXY INSULATOR



REAR VIEW

SIDE VIEW



FRONT VIEW

SL.NO	DESCRIPTION
01	METERING CHAMBER
02	BREAKER CHAMBER
03	BUSBAR CHAMBER
04	CABLE CHAMBER
05	EPOXY BUSHINGS (R,Y,B)
06	EPOXY INSULATORS ø95 X 130
07	MAIN EARTHING-1Rx40x05CU
08	VCB
09	RACKING MECHANISM
10	BASE FRAME
11	INCOMING BUSBAR SIZE-1Rx80x10CU (CURRENT INJECTING POINT)
12	VENT FLAPS (3NOS)
13	PROVISION FOR BREAKER RACK IN OUT
14	VIEWING WINDOW
15	TOP/BOTTOM INSULATOR SUPPORT -795*150*3MM-2 NOS

TITLE. GENERAL ARRANGEMENT FOR 12KV,1250 AMPS,40KA FOR 3SEC VCB PANEL		W.O.NO: EW528/1/2022	DRN	Phaneendra
			DGN	Phaneendra
DATE: 10.03.2022	MODEL NO: VCB PANEL 12KV-40KA3-1250A	DRG.NO: EW528/1/02	CHD	Phaneendra
			APP	M.A.Kulkarni

LECON ENERGETICS PVT. LTD. BENGALURU 560 058

LECON ENERGETICS
No.484 B&C, IV Phase, Opp. BMTC Depot No.9
Peenya Industrial Area, Bangalore - 560058, Karnataka,
E'MAIL ID sales@leconsystem.com,lecongm@gmail.com
PH.NO.9449041220. WEB SITE:www.leconenergetics.com

QMS/DES/FORM/06 SCALE: NTS

1	2	3	4	5	6	7	8	9	10

IF IN DOUBT, ASK

Note:All Dimensions are in mm
& Tolerance :±5mm

LECON ENERGETICS PVT LTD

MODEL NO: VCB PANEL-12KV-40KA3-1250A

PRODUCT DESCRIPTION : VCB PANEL

RATING : 12KV,1250 AMPS,40KA3,50Hz

WORKS NO : EW528/1/2022

Mfd by: LECON ENERGETICS PVT LTD

No.484B&C,IV Phase,Opp.BMTC Depot No.9,Peenya Industrial Area,Bangalore-560058,Karnataka

E'MAIL ID sales@leconsystem.com,lecongm@gmail.com,PH.NO.9449041220. WEB SITE:www.leconenergetics.com

Name Plate

SPECIFICATIONS:All Dimensions are in mm

1.Frame structure: 2 mm thickness

2.All Doors:2MM thk,Back and side doors are removable & base arrangement with ISMC75*40*5 Channel ,Handles are provided for back doors

3.Paint shade: #RAL 7032, as per IS 5.

4.Power cable entry from bottom through 3mmthickness Aluminum Gland plate

5.Protection:IP54

6.Clearance from the rare ends Required 1000mm

7. Bus bar termination - 80X6,2 runs CU.

8.Earthing Busbar - 40X6 CU .

9.Weight@ 700 kgs(approximately)

10.Overall dimensional Tolerance:±5mm

M Rajkumar
परीक्षण अभियन्ता / Test Engineer
उच्च शक्ति प्रयोगशाला / H.P. LAB
सी. पी. आर. आई. / CPRI
बेंगलुरु / Bengaluru

रिपोर्ट क्रमांक.....
से संबंधित दस्तावेज
Document Pertaining to
Report No. CPRIBLRHPL22T0062

LECON ENERGETICS PVT LTD BENGALURU 560 058

TITLE. GENERAL ARRANGEMENT FOR 12KV,1250 AMPS,40KA FOR 3SEC VCB PANEL		W.O.NO: EW528/1/2022	DRN	Phaneendra	
			DGN	Phaneendra	
DATE: 10.02.2022	MODEL NO: VCB PANEL 12KV-40KA3-1250A	DRG.NO: EW528/1/03	CHD	Phaneendra	
			APP	M.A.Kulkarni	

LECON ENERGETICS
No.484 B&C, IV Phase, Opp. BMTC Depot No.9
Peenya Industrial Area, Bangalore - 560058, Karnataka,
E'MAIL ID sales@leconsystem.com,lecongm@gmail.com
PH.NO.9449041220. WEB SITE:www.leconenergetics.com

QMS/DES/FORM/06 SCALE: NTS

SHEET 3 OF 3 | REV 0

Rev
A 10/18
SH.2
REVISED

Cu.link 80x10

DETAIL F
1 : 5

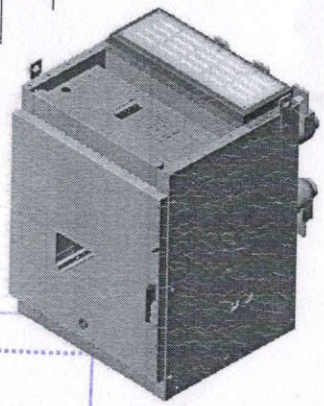
FRONT

LIFTING HOOK

Side coupling holes

SIDE VIEW

FRONT VIEW



Ø11-12 holes top/bottom coupling holes

C-C
1 : 10

Material				Weight - kg	Surface - mm²	Surface code	
Type			Derived from		Drawing status		
Revision A	EC No.		Responsible INABB	Title MOUNTING DIM.DETAIL 1250A		Scale 1:20	
	Location	Date	Name				
Drawn	INABB	2008/22	JMN	Subtitle FOR;Power Cube-Module-VD4 Bkr.		Language EN	
Checked	INABB	2008/22	PDD			Format A3	
Approved	INABB	2008/22	PDD				
ABB	ABB Technology Ltd.			Drawing No. 1VYN304001-BT		Sheet No. 2/2	

Standard tolerances for machining and forming:
Lengths and angle dimensions DIN ISO 2768 T.1
"fine" ☐ "medium" ☐ "coarse" ☐
Form and position: DIN ISO 2768 T.2