



केन्द्रीय विद्युत अनुसंधान संस्थान

(भारत सरकार, विद्युत मंत्रालय)

क्षेत्रीय परीक्षण प्रयोगशाला

3 ए, इंस्टीटयुशनल एरिया, सैक्टर- 62, नोएडा- 201 309, गौतम बुद्ध नगर, उत्तर प्रदेश, भारत

CENTRAL POWER RESEARCH INSTITUTE

(Govt. of India, Ministry of Power)

REGIONAL TESTING LABORATORY

3 A, Institutional Area, Sector - 62, Noida - 201 309, Gautam Buddha Nagar, Uttar Pradesh, India

वेबसाइट website : www.cpri.res.in

संदर्भ क्रमांक : सीपीआरआई/आरटीएल/एचवी/2026-27/2352
सेवा में/To,

दिनांक (Date) : 03 AUG 2026

मेसर्स. टेलीपावर इंजीनियर्स

पहला, एफ44, 156ए, लेनिन सरानी, वेलिंगटन,

कोलकाता, बेस्ट बंगाल-700 013.

Contact No. 9831274287

M/s. Telepower Engineers

1st, F44, 156A, Lenin Sarani, Waylington,
Kolkata, West Bengal-700 013.

विषय (Sub): परीक्षण प्रमाणपत्र (Test Report): CPRINOAHVMISC26T0456

Dt.: 24.07.2026

महोदय / Dear sir,

हमारी प्रयोगशाला में आपके सैंपल पर दिनांक 13.07.2026 से 20.07.2026 तक संचालित परीक्षण के संबंध में विषयानुसार दस्तावेज संलग्न है।

Please find attached the subjected documents in respect of the test(s) conducted on your sample from 13.07.2026 to 20.07.2026 at our laboratory.

रिपोर्ट में यदि असंगतियां हो तो इस रिपोर्ट के जारी होने की तारीख से 45 दिन के अंदर लिखित रूप में हमारे ध्यान में लाई जाय ताकि आवश्यक संसोधन किया जा सके और इसके लिए रिपोर्ट की सभी मूल प्रतियां लौटाई जाय। कृपया नोट करें कि इस तारीख के बाद प्राप्त अनुरोधों पर कोई कार्यवाही नहीं की जायेगी।

Any discrepancies in the test report must be brought to our notice in writing within 45 days of the date of issue of this test report for effecting necessary corrections for which all the original copies of the test report must be returned.

Please note that request received beyond this date will not be entertained.

दस्तावेजों की प्राप्ति की पावती भेजे।

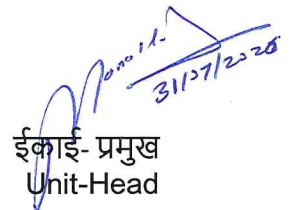
Please acknowledge receipt of the documents.

सधन्यवाद, Thanking you,

संलग्न : उपरोक्त

Encl : As above

भवदीय (Yours sincerely)


31/07/2026
ईकाई- प्रमुख
Unit-Head

CPRI

TEST REPORT



CENTRAL POWER RESEARCH INSTITUTE

(A Govt. of India Society)

Regional Testing Laboratory

3A, Institutional Area, Sector - 62

Noida - 201 309

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT



CPRI

Test Report Number : CPRINOAHVMISC26T0456 **Date:** 24 July 2026

Name and Address of the Customer : M/s. Telepower Engineers
1st, F44, 156A, Lenin Sarani, Waylington,
Kolkata, West Bengal-700 013.

Name and Address of the Manufacturer : M/s. Telepower Engineers
1st, F44, 156A, Lenin Sarani, Waylington,
Kolkata, West Bengal-700 013.

Particulars of sample tested : 415 V, 4000 A, 3 Phase, LT Panel

Type : Main Distribution Panel

Description of test sample : Refer Sheet 2 of 6

Serial Number : TE/TEST/702

Number of samples tested : One

Date of receipt of sample : 10 July 2026

Date(s) of Test(s) : 13 July 2026 to 20 July 2026

CPRI Sample code Number(s) : NOAHV26S0403

Particulars of tests conducted : Refer sheet 3 of 6

Test in accordance with Standard/Specification : As per customer requirements

Sampling Plan : Nil

Customer's Requirement : 1. Maximum temperature rise on busbar & busbar joints shall be $\leq 70K$
2. Temperature rise test and clearance & creepage distances tests to be conducted following the general procedure of IS/IEC 61439-1: 2020 & IS/IEC 61439-2: 2020

Deviations if any : Nil

Name of the witnessing persons : Nil

Customers representative : Mr. Tarun Kumar Bhattacharjee

Other than customer's representatives : Nil

Name and Address of External Service Provider (if applicable) : Nil

Documents constituting this report (in words)

Number of Sheets : Six

Number of Oscillogram(s) : Nil

Number of Graph(s) : Nil

Number of Photograph(s) : Two

Number of Test Circuit Diagram(s) : Nil

Number of Drawing(s) : Four


(Satish Kumar)
Test Engineer




(L.N. GIRI)
Engineering Officer Gr. 4
Reviewed and Authorized by

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT



Test Report Number: CPRINOAHVMISC26T0456

Date: 24 July 2026

DESCRIPTION OF SAMPLE TESTED

(As assigned by the manufacturer)

Sample	: LT Panel
Rated voltage (Volts)	: 415
Rated current (Amps)	: 4000
Frequency (Hz)	: 50
Insulation level	: 690 V
No. of Phase	: 3 PH+N
Rated Short Time Current	: 70 kA _{rms} for one second with initial peak of 154 kA _{peak}
Pollution Degree	: 3
Material Group	: IIIa


(Satish Kumar)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT



Test Report Number: CPRINOAHVMISC26T0456

Date: 24 July 2026

SUMMARY OF TESTS CONDUCTED

1. Tests conducted : 1. Temperature Rise
2. Clearances & Creepage Distances
2. Rating for which tested : 1. 4000 Amps, 50Hz
2. As per customer requirement
3. Schedule of tests

Tests Conducted	Clause Numbers	Sheet
Temperature rise	As per customer requirement	4 & 5 of 6
Clearances & Creepage distances	As per customer requirement	5 of 6

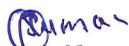
4. Oscillogram Numbers : Nil
5. Graph Numbers : Nil
6. Photograph Numbers : CPRINOAHVMISC26T0456P01 & MISC26T0456P02
7. Test Circuit Diagram Numbers : Nil
8. Drawing Numbers : As given below

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	TE/TEST/702	1 of 4	0
2	TE/TEST/702	2 of 4	0
3	TE/TEST/702	3 of 4	0
4	TE/TEST/702	4 of 4	0

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


(Satish Kumar)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT



Test Report Number: CPRINOAHVMISC26T0456

Date: 24 July 2026

TEST RESULTS

1). Test conducted: Temperature rise

Date of test : 13.07.2026 to 20.07.2026
Starting time (hrs.) : 09:00
Shut down time (hrs.) : 14:00
Test current (A) : 4000
Size of the conductor used for temporary connection : Aluminium busbar size 150 x 10 sqmm x 4 nos./phase
Frequency (Hz) : 50
Phase : 3 PH+N
Avg. ambient temperature at shut down : 37.6 °C

Arrangement of thermocouple locations: As per drawing no.: TE/TEST/702, Sheet no.: 3 of 4, Rev. no.: 0

Thermocouples		Maximum Temperature (°C)	Temperature Rise (K)
Locations	Numbers		
Incoming Terminal – R1	T01	67.7	30.1
Incoming Terminal – Y1	T02	68.9	31.3
Incoming Terminal – B1	T03	76.6	39.0
Incoming Terminal – R2	T04	79.3	41.7
Incoming Terminal – Y2	T05	71.8	34.2
Incoming Terminal – B2	T06	65.7	28.1
VBB Middle – R1	T07	62.1	24.5
VBB Middle – Y1	T08	65.6	28.0
VBB Middle – B1	T09	73.5	35.9
VBB Middle – R2	T10	77.4	39.8
VBB Middle – Y2	T11	70.2	32.6
VBB Middle – B2	T12	62.5	24.9
VBB + HBB Joint – R1	T13	60.8	23.2
VBB + HBB Joint – Y1	T14	66.6	29.0
VBB + HBB Joint – B1	T15	75.5	37.9
VBB + HBB Joint – R2	T16	75.5	37.9
VBB + HBB Joint – Y2	T17	72.2	34.6
VBB + HBB Joint – B2	T18	64.4	26.8
HBB Joint – R1	T19	61.7	24.1
HBB Joint – Y1	T20	67.9	30.3
HBB Joint – B1	T21	76.4	38.8
HBB Joint – R2	T22	77.5	39.9
HBB Joint – Y2	T23	64.7	27.1
HBB Joint – B2	T24	71.5	33.9

Cont. Next


(Satish Kumar)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT



Test Report Number: CPRINOAHVMIISC26T0456

Date: 24 July 2026

TEST RESULTS

Outgoing Terminal – R1	T25	58.2	20.6
Outgoing Terminal – Y1	T26	61.2	23.6
Outgoing Terminal – B1	T27	66.3	28.7
Outgoing Terminal – R2	T28	68.3	30.7
Outgoing Terminal – Y2	T29	65.8	28.2
Outgoing Terminal – B2	T30	61.7	24.1
Enclosure Top	T31	46.8	9.2
Enclosure Side	T32	41.7	4.1

Observation: The maximum temperature rise obtained was within the limits as per the requirements of the customer. After temperature rise test, sample subjected to the HV test to check the effect of temperature rise on adjacent parts of sample. The sample withstood 1.89 kV_{rms} for 1 min.

2). Test conducted: Clearances & Creepage Distances

Clearance & Creepage Distances were measured as per standard and the value found for clearance was 32 mm and for creepage distance was 35 mm which are within the limits as specified in standard for pollution degree-3 and material group-IIIa.

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


(Satish Kumar)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT

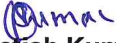


Test Report Number: CPRINOAHVMISC26T0456

Date: 24 July 2026

NOTE

- a) Test results relate only to the sample(s) tested.
- b) Publication or reproduction of this Test Report in any form other than by complete set of the whole Test Report and in the language written is not permitted without the written consent of CPRI.
- c) Any Corrections/erasure invalidates the Test Report.
- 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) The laboratory is responsible for all the information provided in the report, except for the information provided by the customer. Data provided by a customer is clearly identified.


(Satish Kumar)
Test Engineer

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

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT



CPRI

Test Report Number: CPRINOAHVMIISC26T0456

Date: 24 July 2026



Photograph Number: CPRINOAHVMIISC26T0456P01 (After Test)


(Satish Kumar)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT



CPRI

Test Report Number: CPRINOAHVMISC26T0456

Date: 24 July 2026



Photograph Number: CPRINOAHVMISC26T0456P02 (After Test)

(Satish Kumar)
Test Engineer

11 12 13 14 15 16 17 18

150

TELEPOWER ENGINEERS

KOLKATA, WEST BENGAL-700013

EQUIPMENT : LT PANEL
SR.NO. : TE/TEST/702
RATED VOLTAGE : 415V
RATED CURRENT : 4000A
RATED FREQUENCY : 50HZ

NAME PLATE This drawing pertains to CPRI

सीपीआरआई द्वारा इस चित्र का सत्यापन
जहाँ भी संभव हो, यह केवल आयामी
जाँच तक ही सीमित है।
VERIFICATION OF THIS DRAWING
BY CPRI IS LIMITED TO
DIMENSIONAL CHECK ONLY, WHEREVER POSSIBLE

यह चित्र सीपीआरआई से संबंधित है।

परीक्षण रिपोर्ट सं./Test Report No. CPRI/NOA-HYMNISE 2870456

TEST ENGINEER

RTL, CPRI, NOIDA

GENERAL TOLERANCE $\pm 2\%$

TELEPOWER ENGINEERS

1st, F44, 156A LENIN SARANI, WAYLINGTON,
KOLKATA, WEST BENGAL-700013

SR. NO.

TE/TEST/702

DRAWING NO.

TE/TEST/702

REV.

SHEET

0 1 OF 4

ALL DIMENSION ARE IN mm.

415V 4000A LT SWITCHBOARD

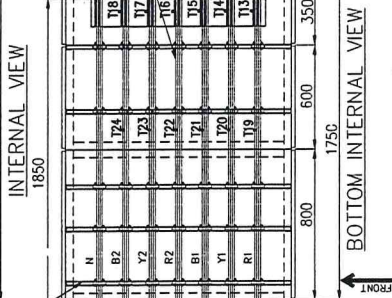
CLIENT

PROJECT

CONSUL-
TANT

VERIFICATION OF TEMPERATURE RISE

This Drawing & any information or descriptive matter set out hereon are the confidential property of
TELEPOWER ENGINEERS
& must not be disclosed, loaned, copied or used for manufacturing,
tendering or for any other purpose without their written permission.



GENERAL TOLERANCE+2%

[illegible]

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TITLE	415V 4000A LT SWITCHBOARD	SR.NO. TE/TEST/702
CLIENT	--	DRAWING NO. TE/TEST/702
PROJECT	VERIFICATION OF TEMPERATURE RISE	REV. 0 SHEET 3 OF 4
CONSULTANT	--	ALL DIMENSION ARE IN mm.

CRCA SHEET THICKNESS: 2MM, DOOR/PARTITION: 1.6MM

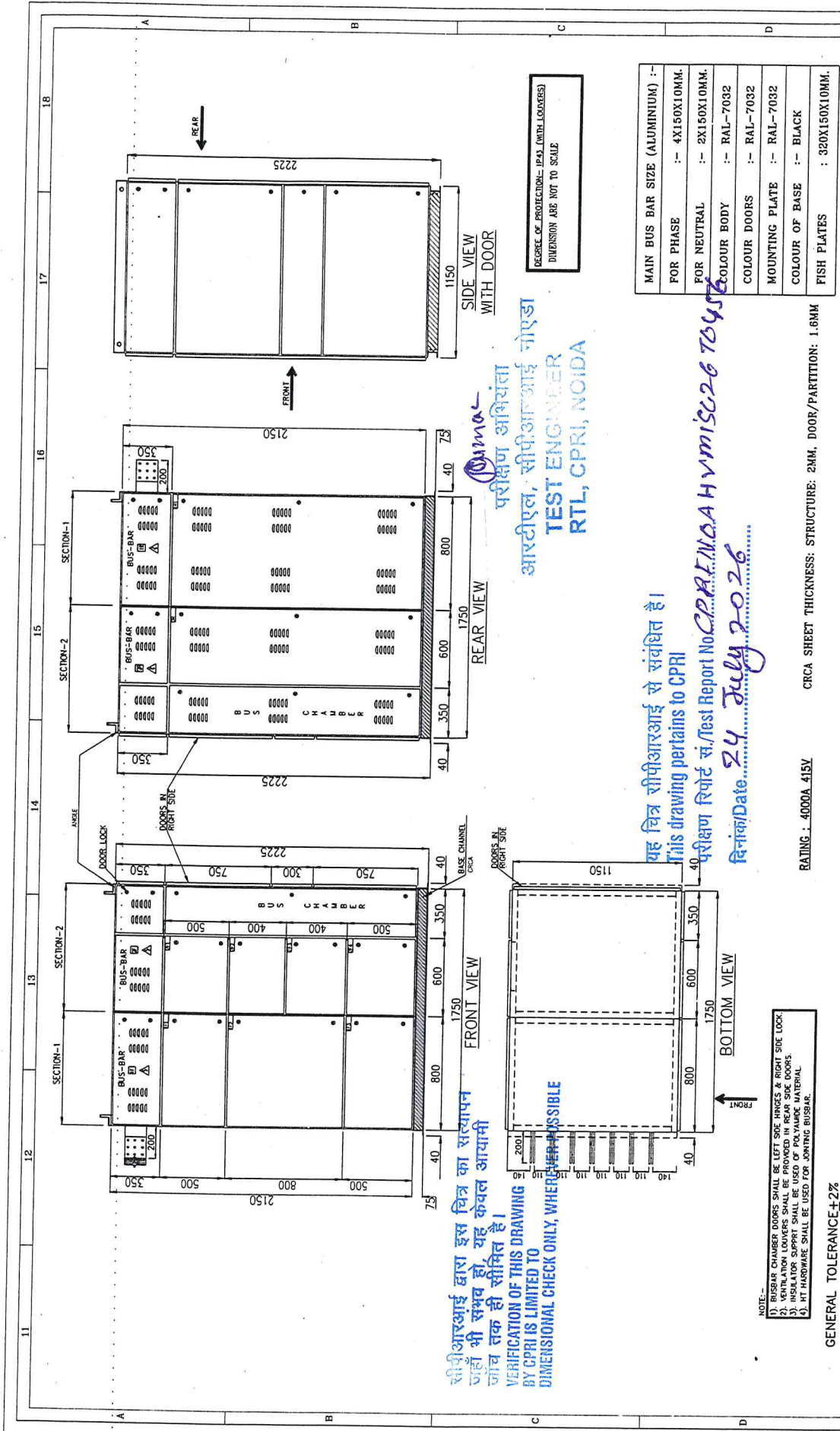
RATING : 4000A 415V

Bundel
परिक्षण अभियंता
आर्टीएल, सीपीआरआई नोएडा
TEST ENGINEER
RTL, CPRI, NOKIA

यह चित्र सीपीआरआई से संबंधित है।
This drawing pertains to CPRI
परीक्षण रिपोर्ट सं./Test Report No. CPRI/NOAHV/misc26 TO 456
दिनांक/Date. 24 July 2026

THERMOCOUPLES INCOMING : T1, T2, T3, T4, T5, T6 VBB MID : T7, T8, T9, T10, T11, T12 VBB+HBB JOINT : T13, T14, T15, T16, T17, T18 HBB JOINT : T19, T20, T21, T22, T23, T24 OUTGOING : T25, T26, T27, T28, T29, T30 ENCLOSURE (TOP /SIDE) : T31, T32

MAIN BUS BAR SIZE (ALUMINIUM) :-	
FOR PHASE	:- 4X150X10MM.
FOR NEUTRAL	:- 2X150X10MM.
COLOUR BODY	:- RAL-7032
COLOUR DOORS	:- RAL-7032
MOUNTING PLATE	:- RAL-7032
COLOUR OF BASE	:- BLACK



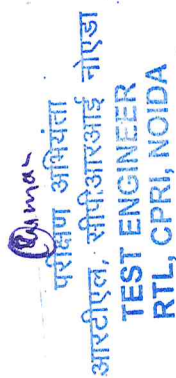
सीपीआरआई द्वारा इस चित्र का सत्यापन जाँच भी संभव हो, यह केवल आयामी जाँच तक ही सीमित है।
VERIFICATION OF THIS DRAWING BY CPRI IS LIMITED TO DIMENSIONAL CHECK ONLY, WHENEVER POSSIBLE

परीक्षण अभियंता
आरटीएल, सीपीआरआई नोएडा
TEST ENGINEER
RTL, CPRI, NOIDA

यह चित्र सीपीआरआई से संबंधित है।
This drawing pertains to CPRI
परीक्षण रिपोर्ट सं. Test Report No. CPRI/NOIDA/HVM/IS/2678458
दिनांक/Date 24 July 2026

GENERAL TOLERANCE ±2%

DRWN. TARUN		CHKD.		SR. NO.	
CHKD. TARUN		DRWN.		TE/TEST/702	
APPD. TARUN		DATE		DRAWING NO.	
DATE 03.07.26		REV.		TE/TEST/702	
		REV.		VERIFICATION OF TEMPERATURE RISE	
		REV.		SHEET	
		REV.		CONSUL-	
		REV.		TANT	
		REV.		ALL DIMENSION ARE IN mm.	
		REV.		2 OF 4	
		REV.		415V 4000A LT SWITCHBOARD	
		REV.		TITLE	
		REV.		TELEPOWER ENGINEERS	
		REV.		1st, F44, 156A LENIN SARANI, WAYLINGTON,	
		REV.		KOLKATA, WEST BENGAL-700013	
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		REV.		tendering or for any other purpose without their written permission	



MAKE : POWERMAT

दिनांक/Date... 24 July, 2026

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