

CENTRAL POWER RESEARCH INSTITUTE



CPRI

TEST REPORT

Test Report Number : CPRIBPLSTNC21T0342 **Date:** 07 March 2022

Name and Address of the Customer : M/s. Drive and Control System,
1324, Near Railway Fatak, Opp. Raj Kamal Petrol Pump,
Gondal Road, Rajkot, Gujarat-360 004

Name and Address of the Manufacturer : M/s. Drive and Control System,
1324, Near Railway Fatak, Opp. Raj Kamal Petrol Pump,
Gondal Road, Rajkot, Gujarat-360 004

Particulars of sample tested : 415 V, 630A, LT Panel

Type : Main LT Panel
Description of test sample : 415 V, 630A, LT Panel
Serial Number : Nil
Number of samples tested : One
Date(s) of Test(s) : 28 December 2021 & 29 December 2021
CPRI Sample code Number(s). : STNC21S0651
Particulars of tests conducted : Degree of Protection IP-65

Test in accordance with Standard/specification : IEC 60529:2013
Sampling Plan : Nil
Customer's Requirement : Nil
Deviations, if any : Nil

Name of the witnessing persons
Customer's representative : Mr. Shubham Sharma
Other than customer's representative : Nil
Test subcontracted with address of the laboratory : None

Documents constituting this report (in words)
Number of Sheets : Six
Number of Oscillogram(s) : Nil
Number of Graph(s) : Nil
Number of Photograph(s) : One
Number of Test Circuit Diagram(s) : Nil
Number of Drawing(s) : One

(K.V. Gangadhar Reddy)
Test Engineer



(Sarita Dongre)
Head of Division

Reviewed and Authorized By

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DESCRIPTION OF THE SAMPLE TESTED (As assigned by the manufacturer)

Sample	:	415 V, 630A, LT Panel
Designation	:	Main LT DB panel
Rated voltage (Volts)	:	415
Rated current (Amps)	:	630
Frequency (Hz)	:	50
Insulation level (Vrms/kVp)	:	660 / -
No. of phases	:	Three
No. of poles	:	Four (3P+N)
Dimensions of the sample (mm)	:	As per drawing

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SUMMARY OF TESTS CONDUCTED

1. Tests conducted : Degree of Protection IP-65
2. Rating for which tested : 1.1) Protection against access to hazardous parts IP-6X
1.2) Ingress protection against solid particles IP-6X
2) Ingress protection against liquid IP-X5

3. Schedule of tests

Tests Conducted	Clause Numbers	Sheet
Degree of Protection IP-65	Cl. 12.2, 12.3, 13.3, 13.4, 13.6, 14.2.5 and 14.3 of IEC 60529:2013	5 of 6

4. Oscillogram No(s) : Nil
5. Graph Numbers : Nil
6. Photograph Numbers : CPRIBPLSTNC21T0342P01
7. Test Circuit Diagram Numbers : Nil
8. Drawing Numbers : Refer sheet 4 of 6

K.V. Gangadhar Reddy

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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 drawing

Sl.No.	Drawing Number	Sheet Number	Revision Number
01	DCS/LT/IP/65	01 of 01	R1

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

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TEST RESULTS

1) Test conducted : Degree of Protection IP-6X
Date of test : 28 December 2021
Condition of sample before test : New
Test Details : As per Standard

- 1.1) The test wire of 1.0 mm diameter was applied on all possible openings with a force of 1N as per standard.
1.2) The test object was placed inside a closed chamber in which talcum powder (unscented) was maintained in suspension by air current as per standard as given below.

Differential Pressure maintained	Duration of the test
200mm of water column	8 hours

Observations : 1) The wire of specified diameter did not enter the sample
2) No traces of powder observed inside the sample after IP-6X test.

2) Test conducted : Degree of Protection IP -X5
Date of test : 29 December 2021
Condition of sample before test : As such after IP 6X test.
Test details : Sample was placed in normal position and test was conducted by spraying the enclosure from all practicable directions with a stream of water from a standard test nozzle as per standard.

Size of the nozzle used (mm)	Distance of the nozzle from the sample(mtr)	Water Delivery rate(litre/minute)	Duration of the test (minute)
6.3	3.0	12.5	3.0

Observations : No traces of water observed inside the sample after IP-X5 test.

CONCLUSION : The sample tested complies with the requirement of Cl. 12.2, 12.3, 13.3, 13.4, 13.6, 14.2.5 and 14.3 of IEC 60529:2013 for the test(s) conducted.

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Test Engineer

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NOTE

- a) The Test results relate only to the sample(s) tested.
- b) Publication or reproduction of the 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-5181 for the tests carried out.



TC-5181

K.V. Gangadhar Reddy
(K.V. Gangadhar Reddy)
Test Engineer

.....**End of Test Report**.....