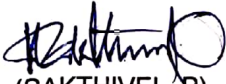




CENTRAL POWER RESEARCH INSTITUTE
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TEST REPORT

Test Report Number	CPRIBLRSC19T0125	Dated: 25 th February, 2019
Name & Address of the Customer	M/s. Uni -Tech Automation Pvt. Ltd., S. No. 79/2, Plot No. 7, Shivane, Pune – 411 023, Maharashtra, India.	
Name & Address of the Manufacturer	M/s. Uni – Tech Automation Pvt. Ltd., Gat No. 837, 838, 833, Palshi Road, Off Pune-Bangalore Highway, Shirwal, Taluka: Khandala, Dist: Satara - 412 801, Maharashtra, India.	
Particulars of sample tested	Low-voltage switchgear and controlgear assembly – LT Panel	
Condition of the sample on Receipt	New	
Type	Indoor/Outdoor, cubicle	
Description of test sample	2500A, 415V, LT Panel	
Serial Number (s)	UAPL/1901551/27005/9398	
Number of samples tested	One	
Date (s) of test (s)	8 th February, 2019	
CPRI sample code no(s).	SCL19S0195	
Particulars of tests conducted	Verification of the short-circuit withstand strength	
Test in accordance with Standard / specification	Sub-clause 8.2.3.2.3 b) & d) of IS 8623 (Part 1):1993 / IEC Pub 439-1 (1985) (Reaffirmed 2018)	
Sampling plan	Not applicable	
Customer's requirement	50 kA rms for 1.0 s & 105 kA peak on phase bus-bars	
Deviations if any	Nil	
Name of the witnessing persons		
Customer's representative	Mr. Akash Ramdas Dhumal, Jr. Engineer – Design & Development	
Other than customer's representatives	None	
Test subcontracted with		
Address of the laboratory	None	
Documents constituting this report (In words)		
Number of sheets	Five	
Number of oscillograms	Two	
Number of graphs	Nil	
Number of photos	Two	
Number of test circuit diagrams	Two	
Number of drawings	Three	
 (SAKTHIVEL. P) TEST ENGINEER		 (SWARAJ KUMAR DAS) HEAD OF DIVISION Approved by

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TEST REPORT

Test Report Number: CPRI BLSCL19T0125

Dated: 25th February, 2019

Description of sample tested (ratings as assigned by the manufacturer)

Test sample	Low-voltage switchgear and controlgear assembly – LT Panel
Type	Indoor/Outdoor, cubicle
Serial number	UAPL/1901551/27005/9398
Rated voltage	415V
Rated insulation voltage	660V
Rated current	2500A
Rated frequency	50 Hz
Number of phases	Three & neutral
Rated short-time withstand current & peak withstand current	50 kA rms for 1.0 s & 105 kA peak on phase bus-bars & 30 kA rms for 1.0 s & 63 kA peak on neutral bus-bar

Documents attached to this report

Oscillogram number(s)	SC190125.S01 & SC190125.S02
Photo number(s)	CPRI BLSCL19T0125.PB1 & CPRI BLSCL19T0125.PA1
Test circuit diagram number(s)	CRTL/SC/STC-04A & CRTL/SC/STC-02A
Drawing number(s)	18CP-UAPL-001 Sheet No. 1OF3 Rev. 00, 18CP-UAPL-001 Sheet No. 2OF3 Rev. 00 & 18CP-UAPL-001 Sheet No. 3OF3 Rev. 00


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TEST REPORT

Test Report Number: CPRIBLRSC19T0125

Dated: 25th February, 2019

TEST RESULTS

VERIFICATION OF THE SHORT-CIRCUIT WITHSTAND STRENGTH [Sub-clause 8.2.3.2.3 b) & d)]

TEST CONDITIONS

Source Short-circuit generator

Phase

Test on phase bus-bars Three
Test on neutral bus-bar Single
Frequency 50 Hz

Test sample

Condition before test In clean & new condition; incoming main bus-bars (copper) connected to source.

Body/Enclosure

2.0 mm thick CRCA MS Sheet; isolated from earth and Connected to the source neutral through a fine-wire fuse (FWF) of diameter 0.1mm and length of 50 mm in series with a 2.0 ohms resistor

Test details

Test circuit drawing number
Test on phase bus-bars CRTL/SC/STC-04A
Test on neutral bus-bar CRTL/SC/STC-02A
Short-circuit applied On the end of the vertical main (aluminium) bus-bars
Short-circuit point Grounded

Test on: Horizontal and vertical phase bus-bars of LT Panel

Oscillogram Number	Current (kA)		Duration (s)	Observations
	Peak	RMS		
SC190125.S01	108.23 (R-phase)	R – 51.61 Y – 50.71 B – 49.85 Average: 50.72	1.09	During test: No abnormality After test: Fine-wire fuse intact

Test on: Neutral bus-bar of LT Panel with nearest phase bus-bar as return conductor

Oscillogram Number	Current (kA)		Duration (s)	Observations
	Peak	RMS		
SC190125.S02	66.87	31.01	1.09	During test: No abnormality After test: Fine wire fuse intact

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TEST REPORT

Test Report Number: CPRIBLRSC19T0125

Dated: 25th February, 2019.

TEST RESULTS

VERIFICATION OF THE DIELECTRIC PROPERTIES

Condition of the sample: As after the verification of the short-circuit withstand strength test

Test procedure	Observations
A power frequency voltage of 2.5 kV rms for 60 s was applied between	
1. All live parts connected together and enclosure	Withstood ; No disruptive discharge noticed
2. Each pole and all the other poles connected to enclosure	

Physical Inspection

Bus-bars : No visible external damage or deformation
Supports : Intact

Remarks: The sample tested complies with the sub-clause(s) of the standard referred to.


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TEST REPORT

Test Report Number: CPRI BLSCL19T0125

Dated: 25th February, 2019

NOTE

- a) The Test results relate only to the item(s) tested.
- b) Publication or reproduction of this report in any form other than by complete set of the whole test report / Certificate and in the language written is not permitted without the written consent of CPRI.
- c) Any Corrections / erasure invalidate the test Report/Certificate.
- d) NABL has Accredited this laboratory as per ISO/IEC 17025-2005 standard, vide certificate no. TC-5452 for the tests carried out.
- e) Any anomaly / discrepancy in the test report / Certificate should be brought to notice of CPRI within 45 days from the date of issue.


(SAKTHIVEL. P)
TEST ENGINEER