



1600kV Ultra High Voltage Research Centre CG Power and Industrial Solutions Limited

(Formerly Crompton Greaves Limited)
A-3 MIDC, Ambad, Nashik 422 010, Maharashtra, India



Certificate No.: TC-5392

Document No.: UHVRC/TR/CT/01

Test Report

Report No. : UHVRC/TR/CT/2018-19/001

ULR No. : ULR - TC539218000000021F

Product : 145 kV Live Tank Current Transformer

Product Sr.No. : - 181162

UHVRC Identification No. : UHVRC/18-19/TT/001

Customer Details: : TATA POWER COMPANY LIMITED, JAMSHEDPUR

End Customer: : TATA POWER COMPANY LIMITED, JOJOBERA POWER PLANT, JAMSHEDPUR

Condition of Sample on Receipt: New & in good condition;

Date of Product Receipt: 07/10/2018

Note: 1) The test results pertain only to the item tested as mentioned above.

2) This test report shall not be reproduced except in full, without written consent of the laboratory.

A) Details of Test Object:

Type	CGC- CI 145	Rated/Highest System Voltage	145 KV
Rated Current	1000 Amp	Extended Current Rating @ 150%	1500 Amp
S.T.C.Rating	40 KA / 3SEC.	Dynamic Current Rating	100 kAp
Rated Frequency	50 HZ.	LOA No.	TPCL /LOI/15-4888 (15.06.2018)
Inspection No.	-		
Project Name	TATA POWER COMPANY LIMITED, JOJOBERA POWER PLANT, JAMSHEDPUR		

Core Nos.	1	2	3	4	5
Ratio	1000-500/1	1000-500/1	1000-500/1	1000-500/1	2000-1000-500/1
Ratio changeover By			Secondary		
VA	-	30	30	30	-
Class	PS	5P	0.2S	0.2S	PS
ISF	-	20	<=5	<=5	-
KPV in Volts (min.)	1000-500 V	-	-	-	2000-1000-500
Iexe at V _k /2 in mA (max.)	15 - 30	-	-	-	15-30-60
Rct @ 75 in ohms (max.)	5 - 2.5 Ω	-	-	-	10 - 5 - 2.5 Ω

B) Test Requirement:

- Lightning Impulse Voltage Withstand test

C) Ref Standard: IEC 61869 - 1 (2012) & IEC 61869 - 2; Clause No. 7.2.3

D) Test Conditions:

Ambient temperature: 20

Relative Humidity: 68

Prepared By:

Vinit Kumar Singh,
Quality Manager,
1600 kV UHVRC

Authorized By:

Shailesh R Joshi,
Senior Manager - Testing,
1600 kV UHVRC

Date: 09/10/2018



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Registered Office:

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AVANTHA
GROUP COMPANY



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E) Test Procedure

The Current Transformer was subjected to lightning impulse voltage withstand test. The test was carried out in dry condition.

Impulse voltage source was connected to primary terminals P1 & P2. Base, Secondary box, Secondary winding terminals & Cx terminal were connected to earth. The test voltage was applied between the primary terminal & earth.

The test was carried out with fifteen consecutive impulses of each positive & negative polarity.

F) Test Observations:

Polarity	Lightning Impulse	No. of Impulses applied	Test Voltage kV (Peak)	Reference Oscillogram Nos.	Results
Positive	Reduced Full Wave	1	520	--	Withstood
	Full Wave	15	650	Appendix A	Withstood
Negative	Reduced Full Wave	1	520	--	Withstood
	Full Wave	15	650	Appendix A	Withstood

G) Results:

Current Transformer has passed Impulse Voltage Withstand Test on Primary Terminals.

H) Summary and Conclusion:

The Current Transformer has passed Impulse Voltage Withstand Test as per IEC 61869-1 (2007) & IEC 61869-2 (2012).

I) Test Witnessed By:

- Mr. Srinivas Reddy, TATA Power Mumbai
- Mr. Shrikant Manore, CGPISL Aurangabad

Prepared By:

Vinit Kumar Singh,
Quality Manager,
1600 kV UHVRC

Authorized By:

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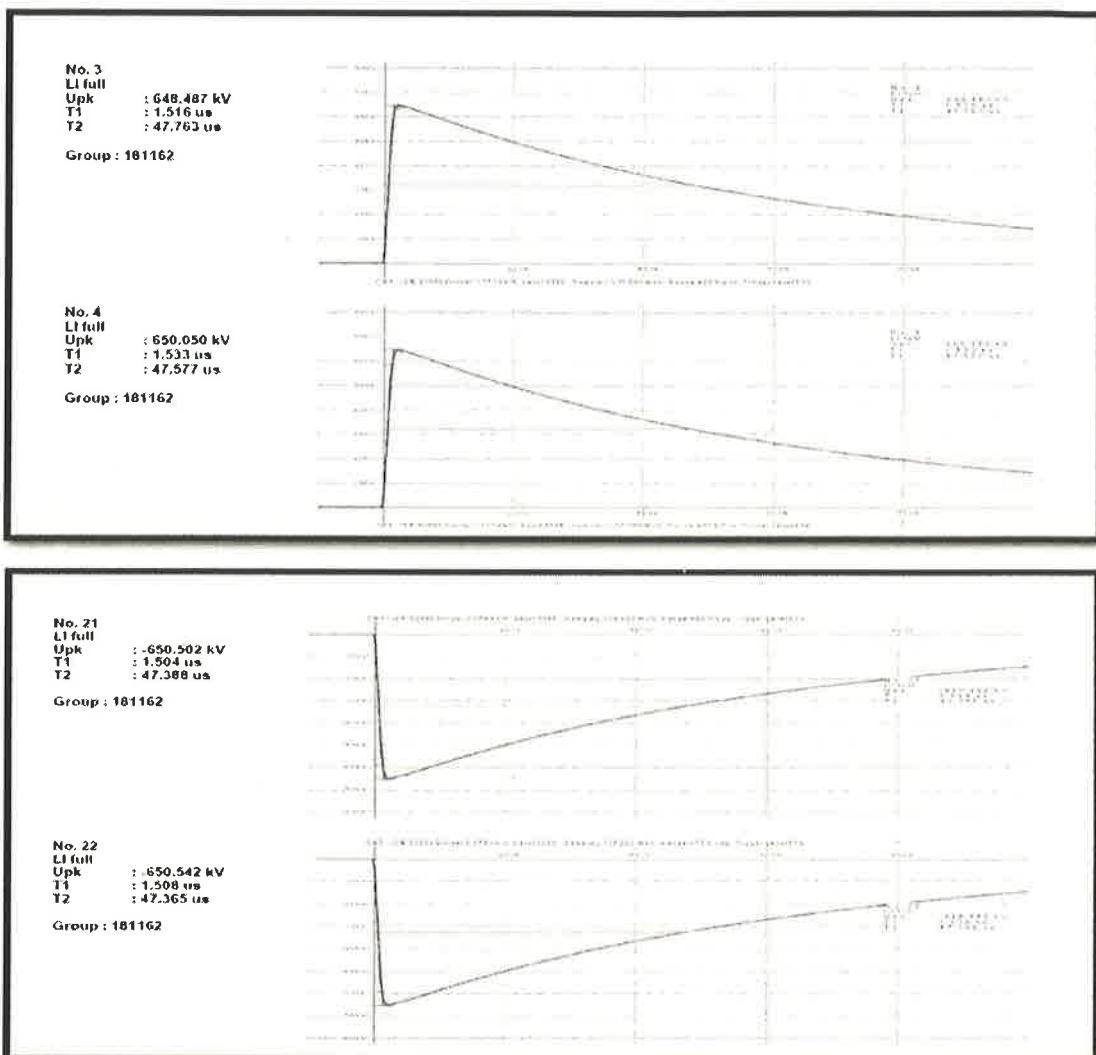
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Appendix A

Oscillogram:



Prepared By:

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Quality Manager,
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Authorized By:

Shantesh R Joshi,
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