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Certificate No. : TC-5389

TEST REPORT

TC5389190000022631F **SHEET NO. :** 1 OF 15

NAME & ADDRESS OF CUSTOMER **M/s. Rajasthan Powergen Transformer Pvt. Ltd.** Khasra No. 911-914 Karola - Bhinmal Road, Karola, Sanchore, Rajasthan-343041	**TEST REPORT NO. :** RP-1920-015140 **DATE :** 20/07/2019 **CUSTOMER REF. NO. :** NIL **DATED :** 17/07/2019 **DATE OF SAMPLE RECEIPT** 12/07/2019 **DATE OF TESTING** 20/07/2019

SAMPLE DESCRIPTION
DISTRIBUTION TRANSFORMER
NON-SEALED TYPE

ENERGY EFFICIENCY LEVEL : 2		
RATING	:	100 kVA
RATED VOLTS	:	11000/433 V
RATED CURRENT	:	5.25/133.34 A
NO. OF PHASE	:	03
TYPE OF COOLING	:	ONAN
FREQUENCY	:	50 Hz
% IMPEDANCE	:	4.5%
VECTOR GROUP	:	Dyn 11
B.I.L. : H. V.	:	28 kVrms / 95 kVp
L.V.	:	3 kVrms /----

SAMPLE IDENTIFICATION

SR. NO. : RPTPL/01

YEAR OF MFG. : 2019

MFG. BY : M/s. Rajasthan Powergen Transformer Pvt. Ltd.

ERDA SAMPLE CODE No.: ERDA-00324651

TEST DETAIL :
Lightning Impulse Test with Chopped on the Tail on all the three phases of HV Terminals at 95 kVp.

ENCLOSURE :
DRG. NO.: 1) NP/100/07
2) RPTL-OGA-07

TEST SPECIFICATION :
As per IS:1180 (Part-I)-2014,Cl.No. 21.3.a Amendment No.1 & 2 & 3 and Test voltage was specified by the customer.
(Test Procedure was followed as per IS : 2026-(Part-III)-2009,Cl. No. 14)

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TEST WITNESSED BY : Mr. Irfan Khatri - M/s. Rajasthan Powergen Transformer Pvt. Ltd.

REMARKS : From the observation of enclosed oscillographic records, it is concluded that the transformer **conforms** to the requirements of the above mentioned standard with respect to the test carried out.

PREPARED BY	**CHECKED BY**	**A. S. Khopkar** **APPROVED BY**

Note : 1. This report relates only to the particular sample received in good condition for testing at ERDA Vadodara.
2. This report cannot be reproduced in part under any circumstances.
3. Publication of this report requires prior permission in writing from Director, ERDA.
4. Only the tests asked for by the customer have been carried out.
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DATE : 20/07/2019

Waveform	Comment	Ut / kVp	T1 / µs	T2 / µs	Tc / µs
		1U PHASE			
1	LI RW	-52.840	1.347	55.705	
2	100% LI FW	-94.133	1.367	55.766	
3	LI CRW	-57.177	1.347		3.276
4	110% LI CFW	-105.659	1.342		2.459
5	110% LI CFW	-104.179	1.339		2.415
6	100% LI FW	-93.069	1.364	55.651	
7	100% LI FW	-95.497	1.354	55.757	
		1V PHASE			
8	LI RW	-55.397	1.346	55.594	
9	100% LI FW	-94.314	1.351	55.797	
10	LI CRW	-56.549	1.332		2.841
11	110% LI CFW	-106.196	1.342		2.759
12	110% LI CFW	-105.491	1.326		2.319
13	100% LI FW	-93.432	1.352	55.749	
14	100% LI FW	-93.390	1.346	55.763	
		1W PHASE			
15	LI RW	-56.608	1.354	55.680	
16	100% LI FW	-94.052	1.364	55.859	
17	LI CRW	-56.055	1.349		4.995
18	110% LI CFW	-103.983	1.337		2.885
19	110% LI CFW	-104.713	1.342		2.822
20	100% LI FW	-94.772	1.359	55.790	
21	100% LI FW	-93.513	1.361	55.802	

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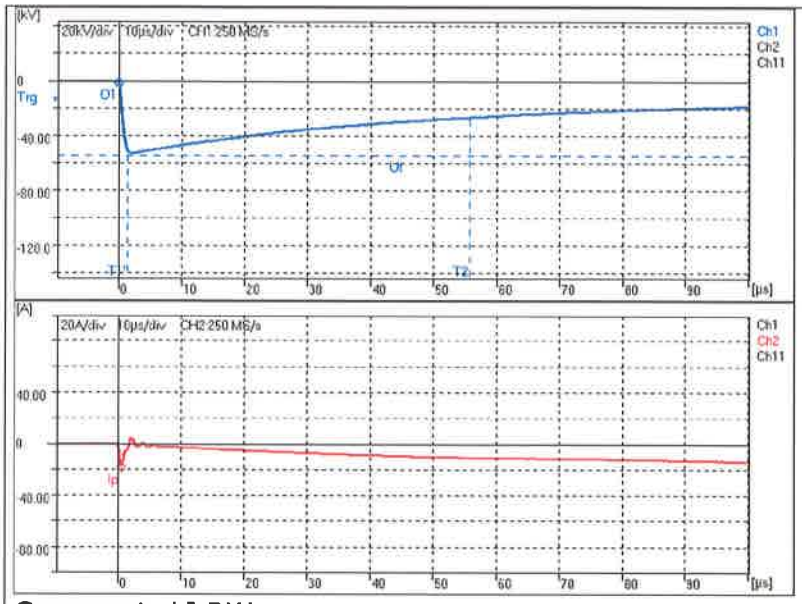
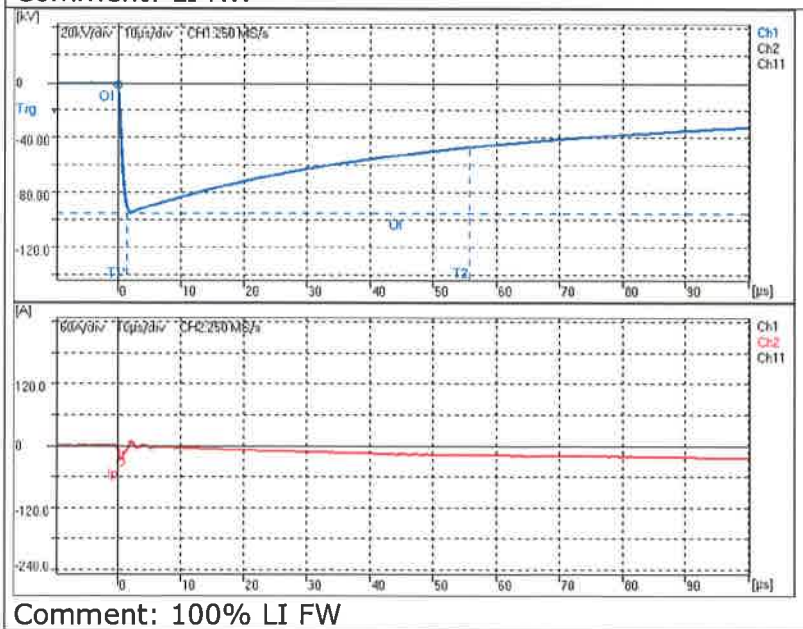
TEST REPORT NO. : RP-1920-015140 **SHEET NO.:** 3 of 15
DATE : 20/07/2019



Comment: LI RW

Fig.: 1
U_p = -52.84 kV
T_1 = 1.35 µs
T_2 = 55.71 µs
T_c = µs



Comment: 100% LI FW

Fig.: 2
U_p = -94.13 kV
T_1 = 1.37 µs
T_2 = 55.77 µs
T_c = µs

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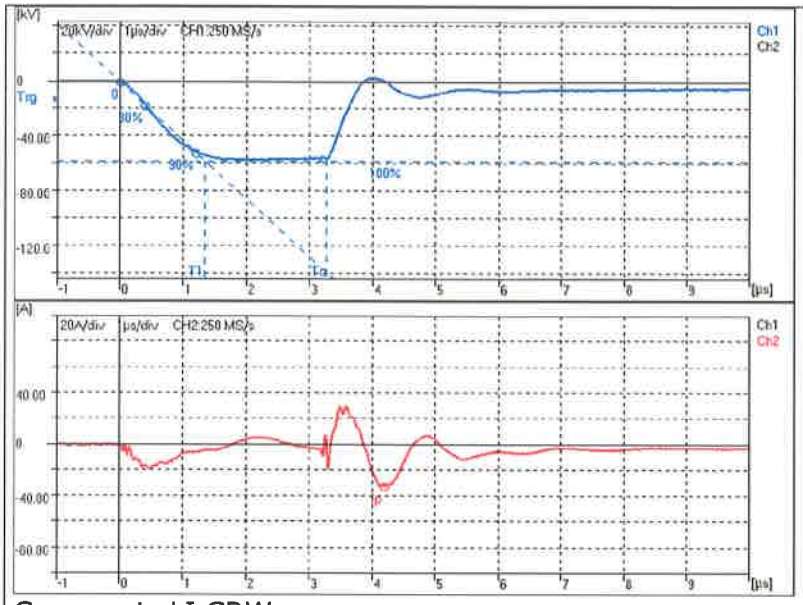
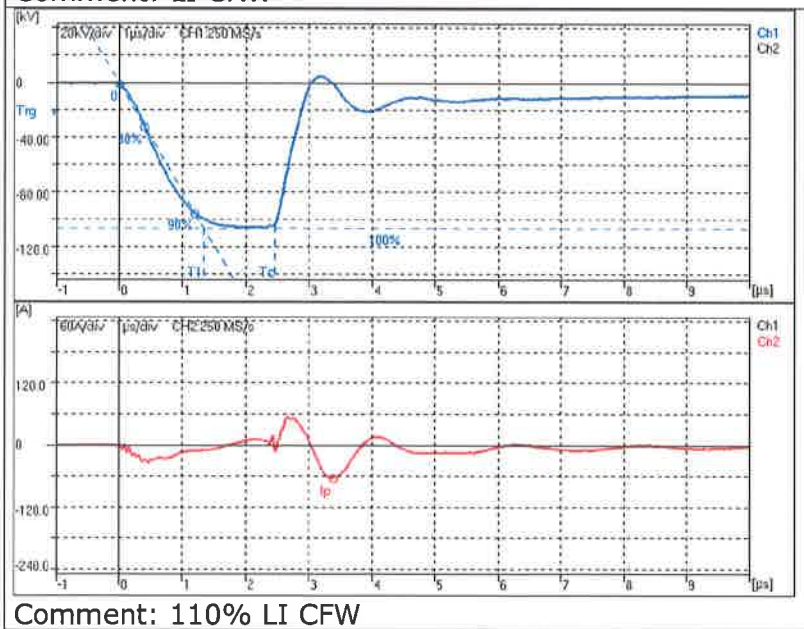
DATE : 20/07/2019



Comment: LI CRW

Fig.: 3
U_p = -57.18 kV
T_1 = 1.35 µs
T_2 = µs
T_c = 3.28 µs



Comment: 110% LI CFW

Fig.: 4
U_p = -105.66 kV
T_1 = 1.34 µs
T_2 = µs
T_c = 2.46 µs

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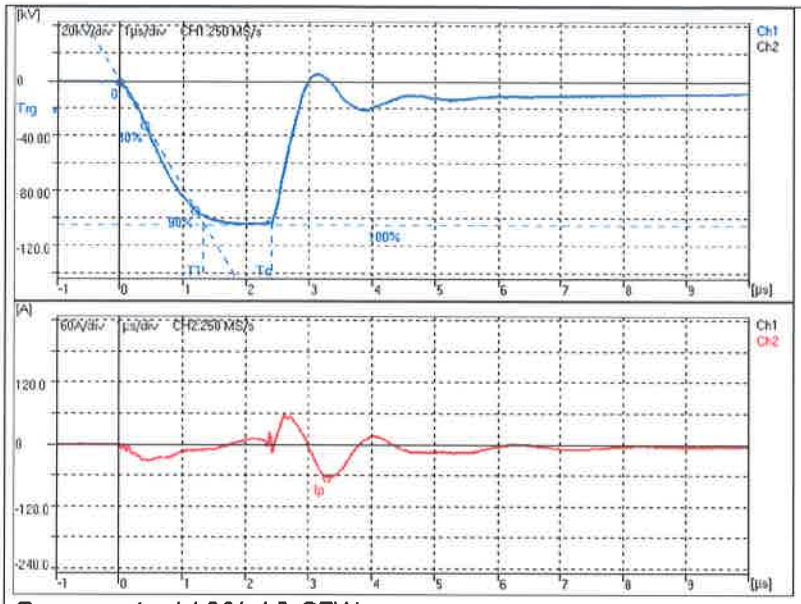
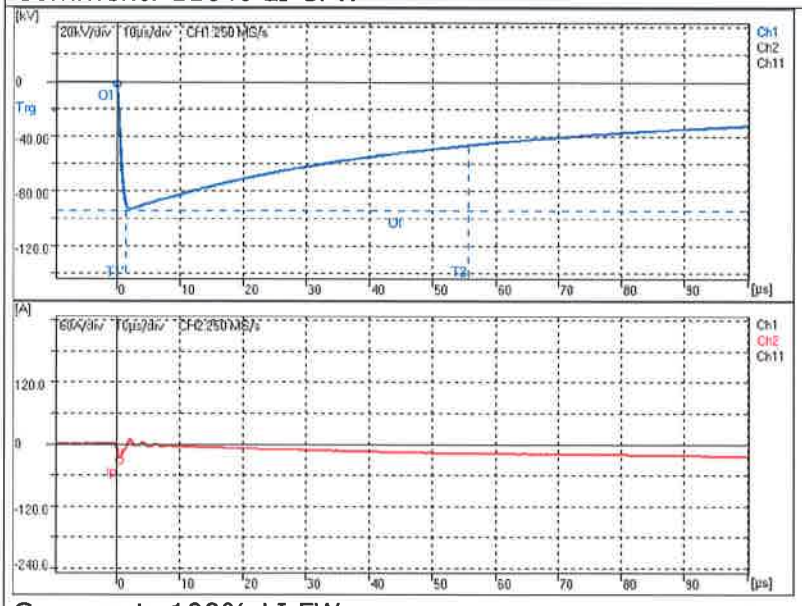


Comment: 110% LI CFW

Fig.: 5
U_p = -104.18 kV
T_1 = 1.34 µs
T_2 = µs
T_c = 2.42 µs



Comment: 100% LI FW

Fig.: 6
U_p = -93.07 kV
T_1 = 1.36 µs
T_2 = 55.65 µs
T_c = µs

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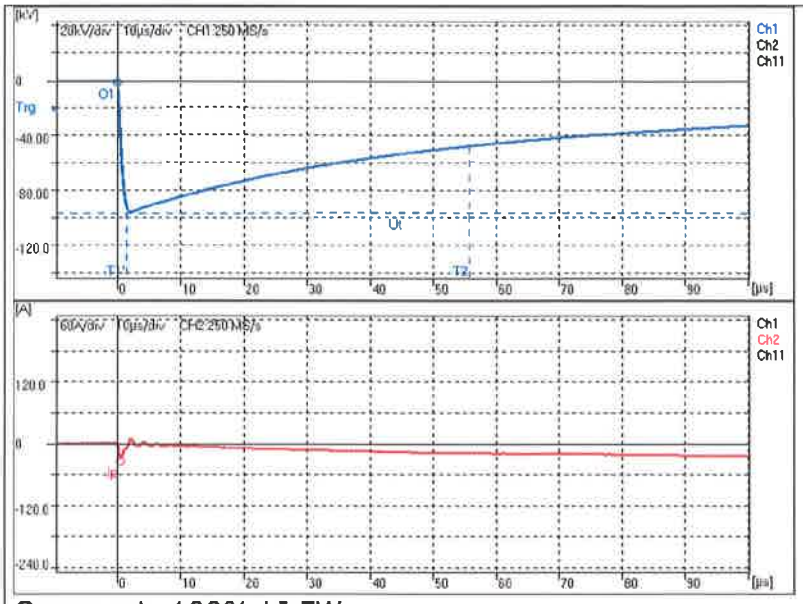
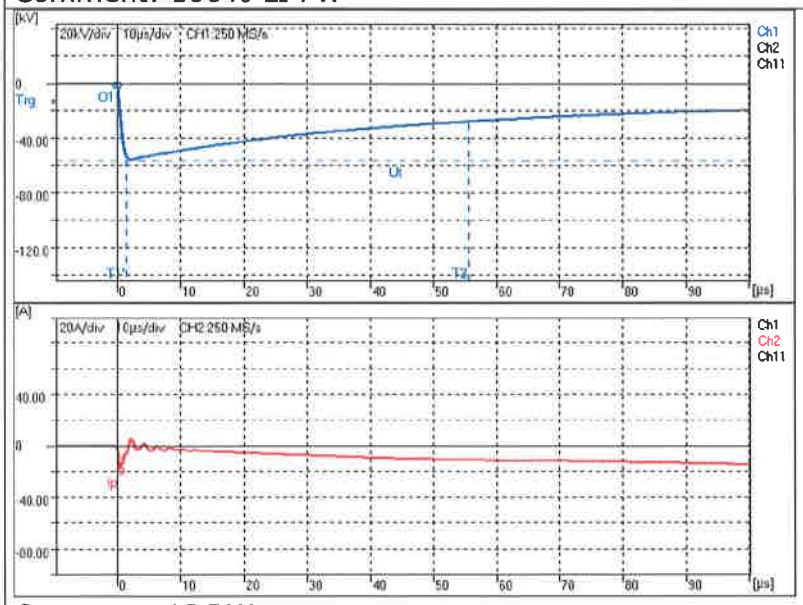


Comment: 100% LI FW

Fig.: 7
U_p = -95.50 kV
T_1 = 1.35 µs
T_2 = 55.76 µs
T_c = µs



Comment: LI RW

Fig.: 8
U_p = -55.40 kV
T_1 = 1.35 µs
T_2 = 55.59 µs
T_c = µs

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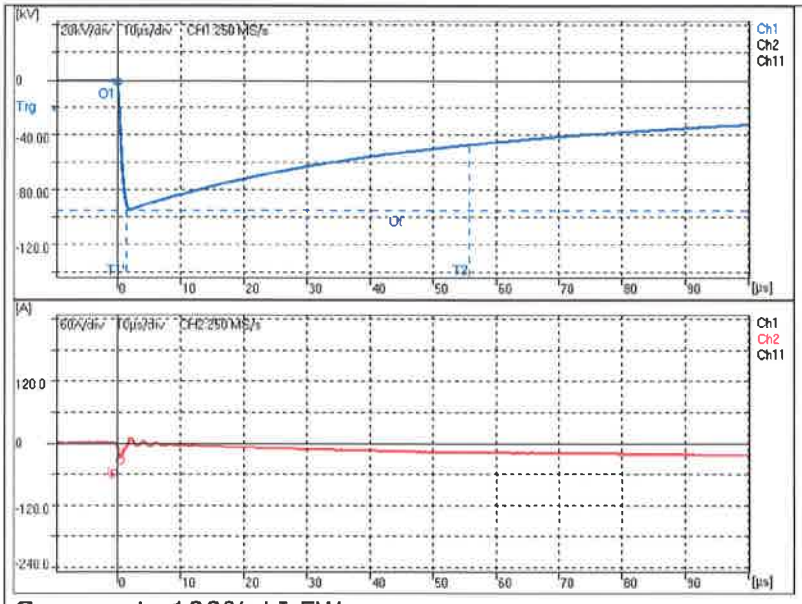
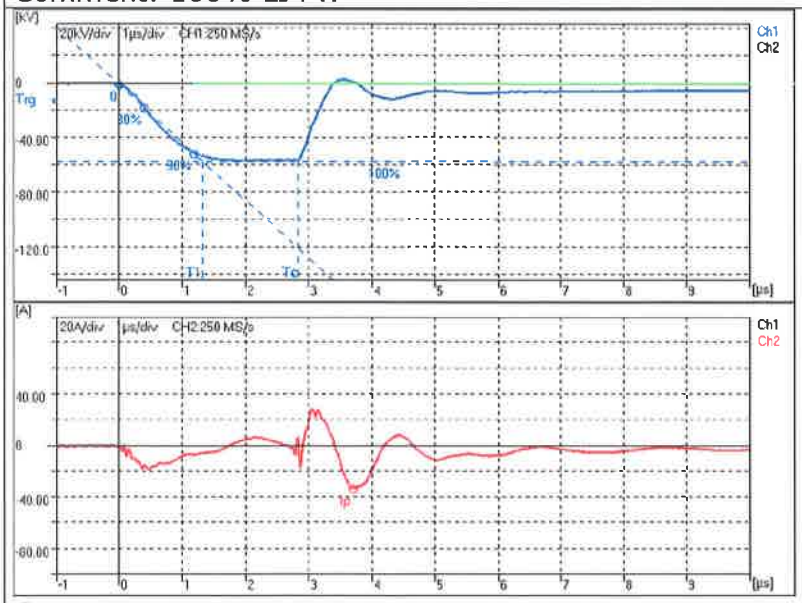


Comment: 100% LI FW

Fig.: 9
U_p = -94.31 kV
T_1 = 1.35 µs
T_2 = 55.80 µs
T_c = µs



Comment: LI CRW

Fig.: 10
U_p = -56.55 kV
T_1 = 1.33 µs
T_2 = µs
T_c = 2.84 µs

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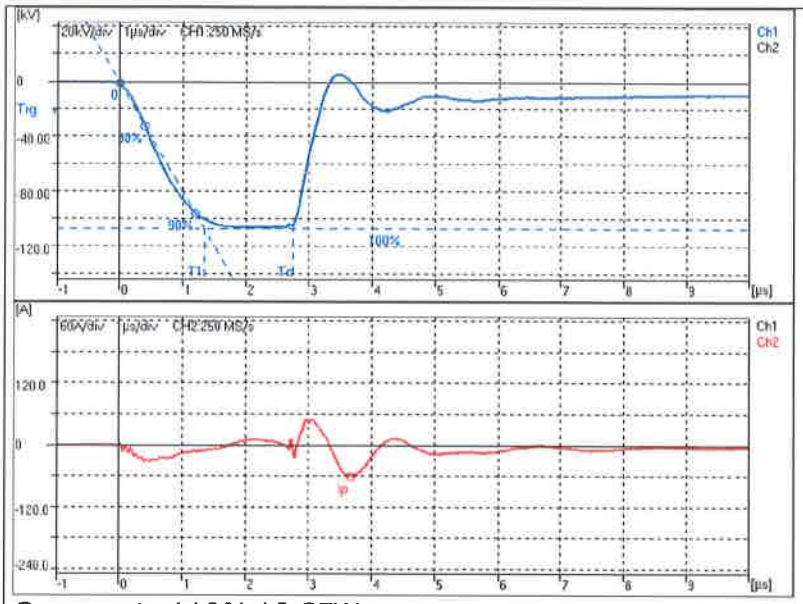
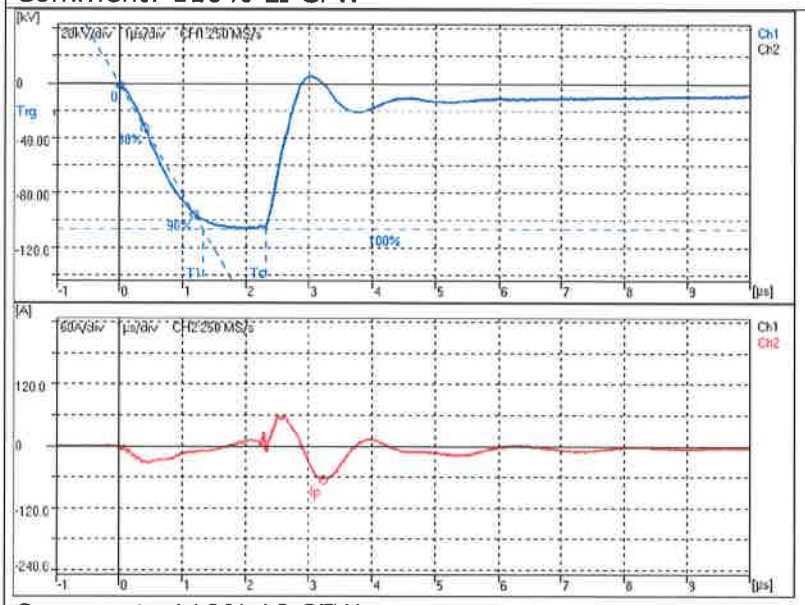


Comment: 110% LI CFW

Fig.: 11
U_p = -106.20 kV
T_1 = 1.34 µs
T_2 = µs
T_c = 2.76 µs



Comment: 110% LI CFW

Fig.: 12
U_p = -105.49 kV
T_1 = 1.33 µs
T_2 = µs
T_c = 2.32 µs

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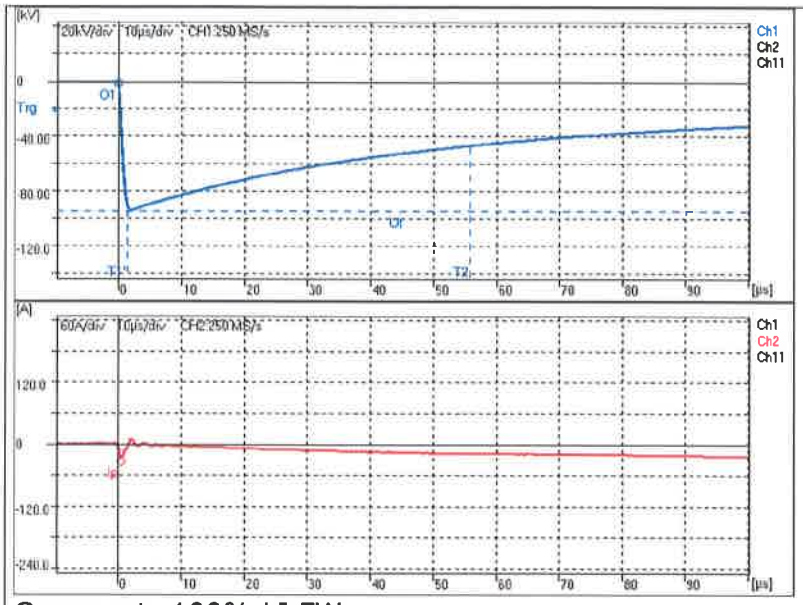
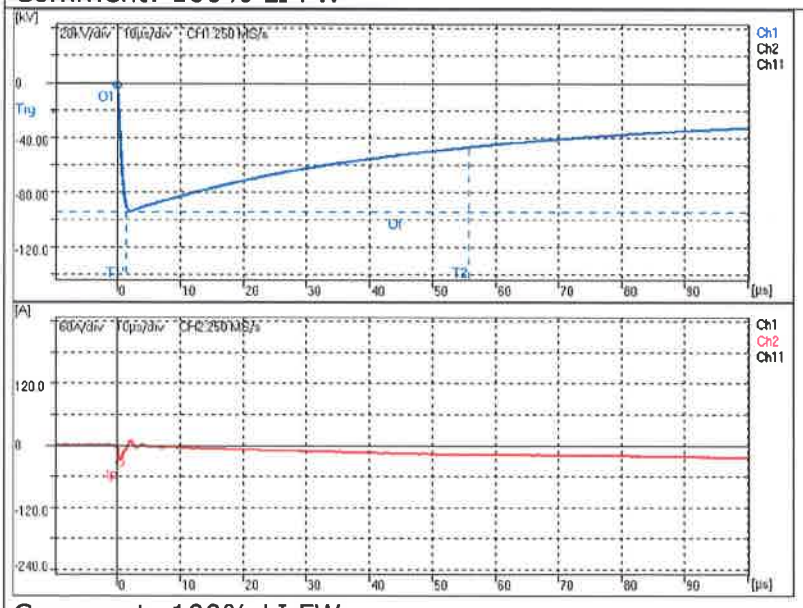


Comment: 100% LI FW

Fig.: 13
U_p = -93.43 kV
T_1 = 1.35 µs
T_2 = 55.75 µs
T_c = µs



Comment: 100% LI FW

Fig.: 14
U_p = -93.39 kV
T_1 = 1.35 µs
T_2 = 55.76 µs
T_c = µs

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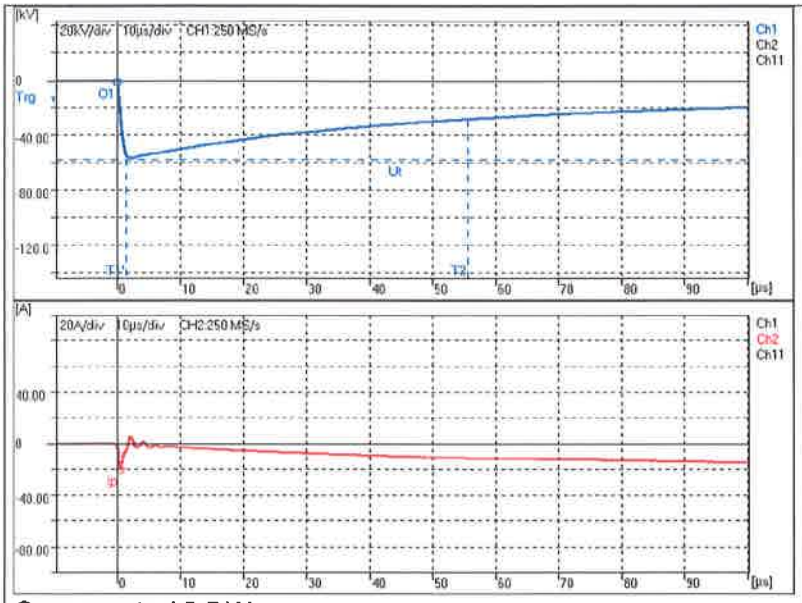
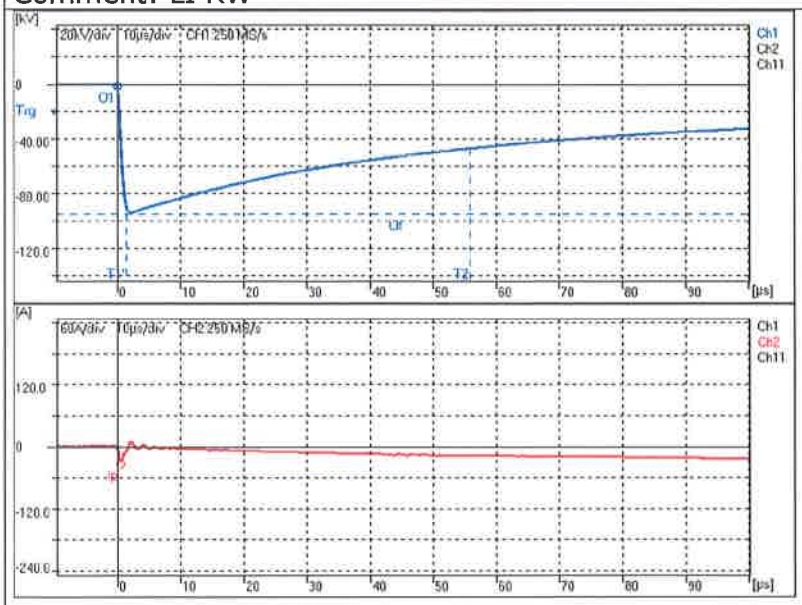


Comment: LI RW

Fig.: 15
U_p = -56.61 kV
T_1 = 1.35 µs
T_2 = 55.68 µs
T_c = µs



Comment: 100% LI FW

Fig.: 16
U_p = -94.05 kV
T_1 = 1.36 µs
T_2 = 55.86 µs
T_c = µs

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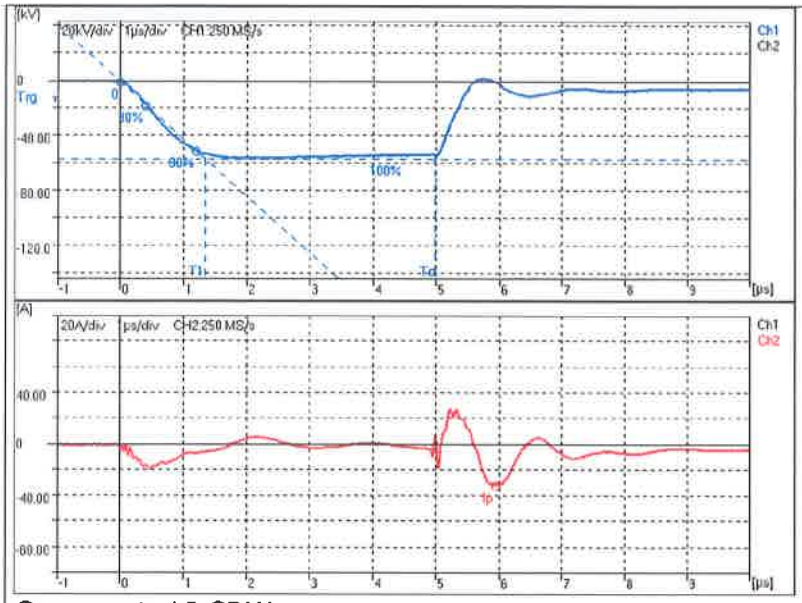
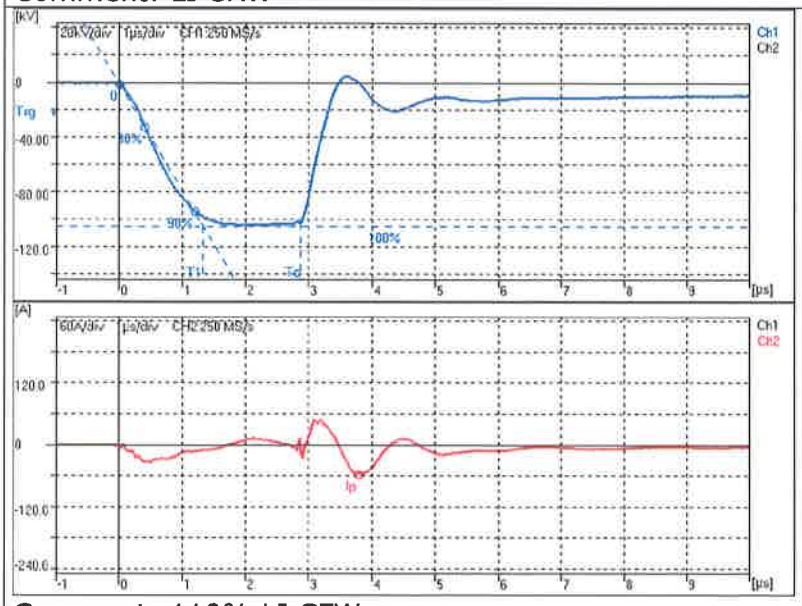


Comment: LI CRW

Fig.: 17
U_p = -56.05 kV
T_1 = 1.35 µs
T_2 = µs
T_c = 5.00 µs



Comment: 110% LI CFW

Fig.: 18
U_p = -103.98 kV
T_1 = 1.34 µs
T_2 = µs
T_c = 2.89 µs

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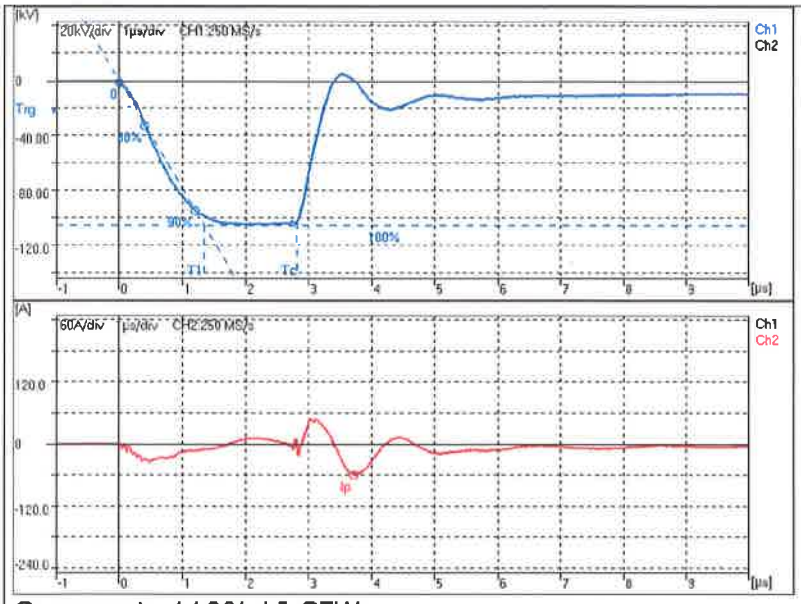
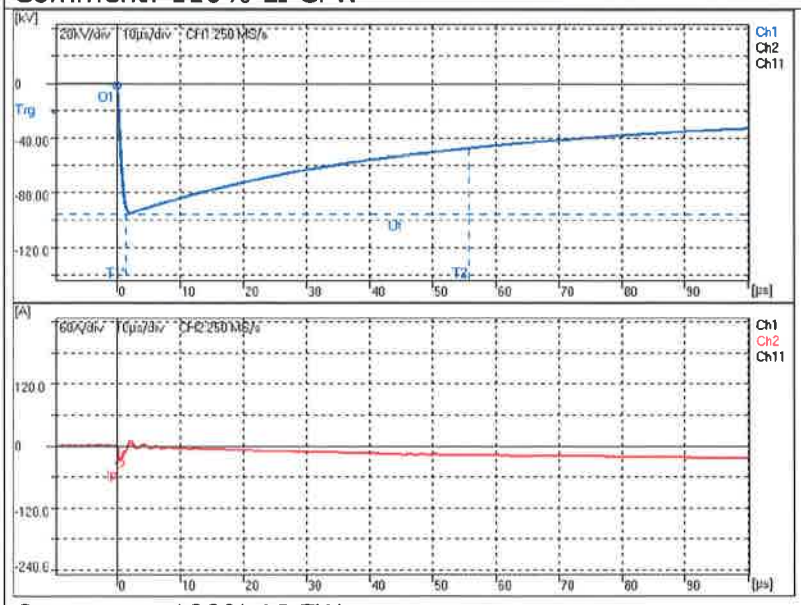


Comment: 110% LI CFW

Fig.: 19
U_p = -104.71 kV
T_1 = 1.34 µs
T_2 = µs
T_c = 2.82 µs



Comment: 100% LI FW

Fig.: 20
U_p = -94.77 kV
T_1 = 1.36 µs
T_2 = 55.79 µs
T_c = µs

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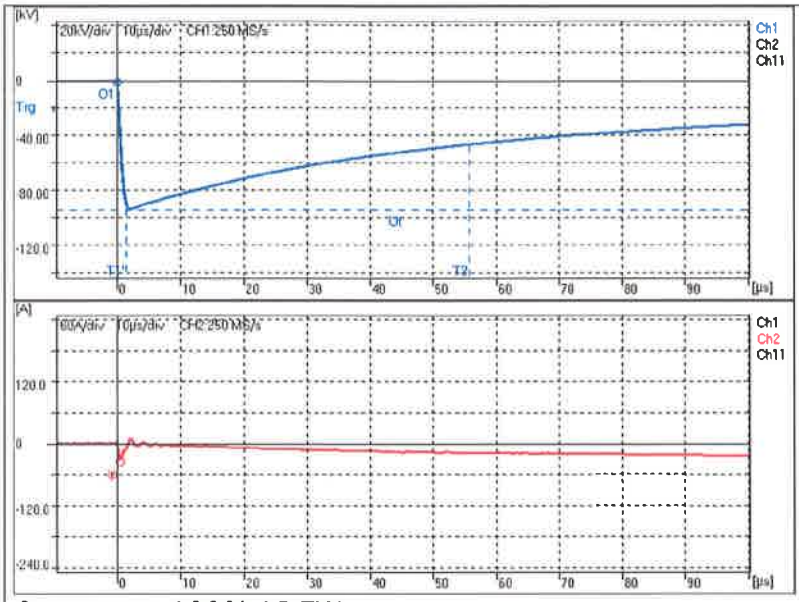

Comment: 100% LI FW

Fig.: 21
U_p = -93.51 kV
T_1 = 1.36 µs
T_2 = 55.80 µs
T_c = µs

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E-mail : erda@erda.org
Web : http://www.erda.org

TC5389190000022631F
TEST REPORT NO. : RP-1920-015140 **SHEET NO.:** 14 of 15
DATE : 20/07/2019

PHOTOGRAPH OF TEST SAMPLE

Nimisha

PREPARED BY

Impulse Laboratory • H.V. Division • Vadodara

CHECKED BY

TC 28111977

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION
(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)
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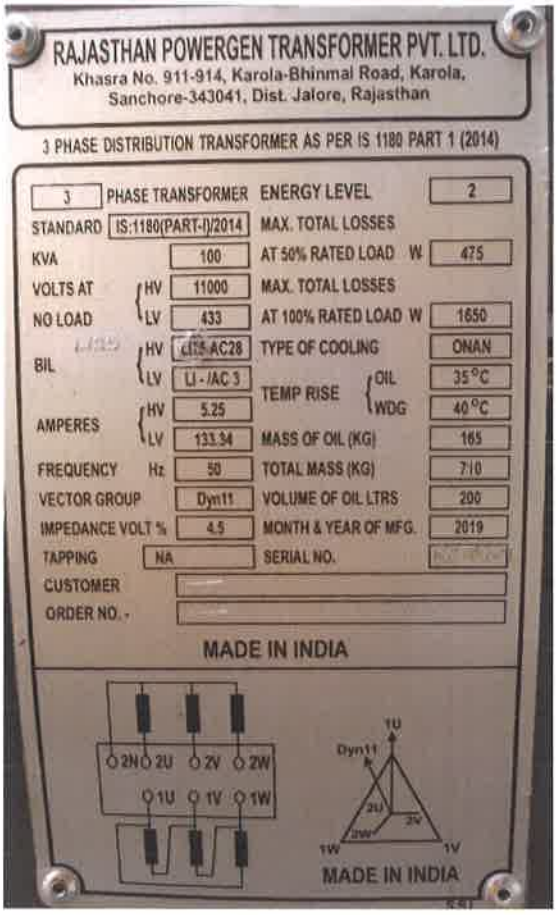
Certificate No. : TC-5389

TC538919000022631F
TEST REPORT NO. : RP-1920-015140 **SHEET NO.:** 15 of 15
DATE : 20/07/2019

PHOTOGRAPH OF RATING AND TERMINAL MARKING PLATE



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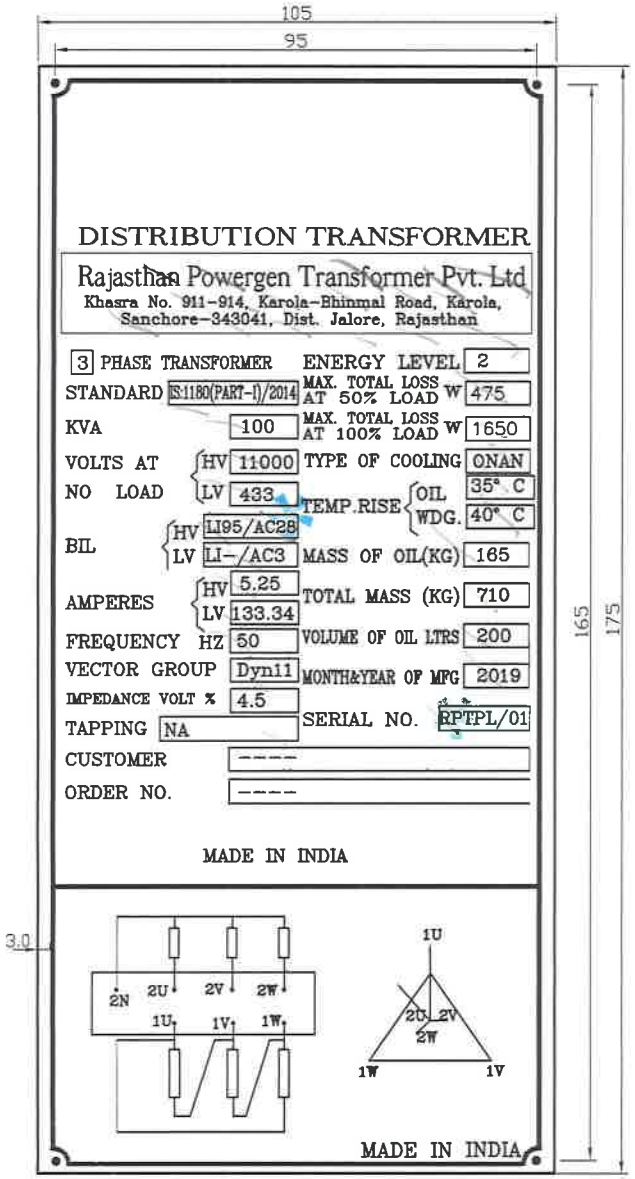
CHECKED BY

TC 28111978



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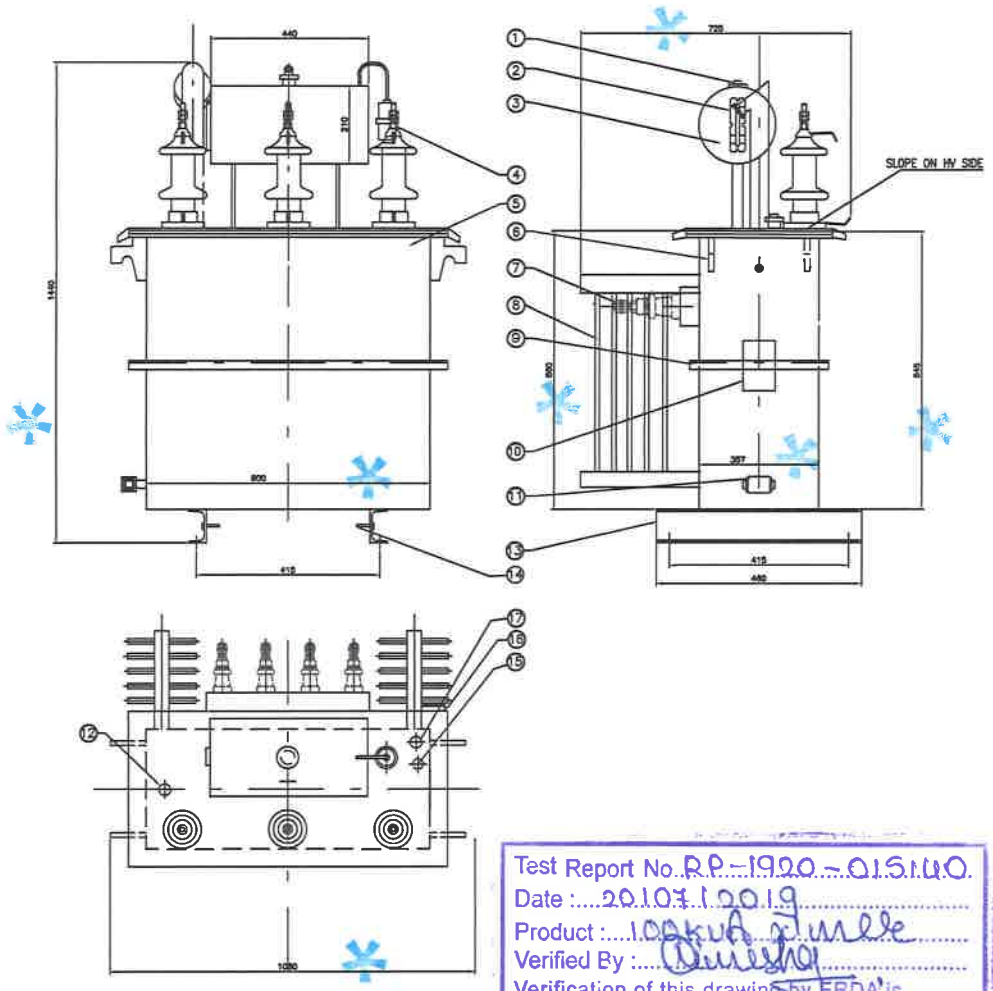
Test Report No. RP-1920-0.15100
Date : 20107120019
Product : 100KVA x'mer
Verified By : Dinesh
Verification of this drawing by ERDA is limited to relevent dimentional checks only.
Verified dimensions are marked with. *

RAJASTHAN POWERGEN TRANSFORMER PVT. LTD
KHASRA No. 911-914, KAROLA-BHINMAL ROAD, KAROLA,
SANCHORE-343041, DIST. JALORE, RAJASTHAN

TITLE:- NAME PLATE DRAWING OF 100KVA,11/0.433KV ALUMINIUM WOUND ENERGY EFFICIRNCY LEVEL-2 TRANSFORMER

CUSTOMER	---
T.S.No.	----
SCALE	N T S
DRG. No.	NP/100/07



WEIGHT CHART		
1.	CORE & WINDING	385 Kgs.
2.	TANK & FITTING	160 Kgs.
3.	WEIGHT OF OIL	165 Kgs.
4.	TOTAL WEIGHT	710 Kgs.
5.	VOLUME OF OIL	200 Ltrs.

MIN ELECTRICAL CLEARANCE IN AIR			
PH. TO PH.		PH. TO EARTH	
HV	255	HV	140
LV	45	LV	20

TANK THICKNESS	
SIDE WALL	3.15mm
TOP&BOTTOM	5.0mm

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	S.No.	DESCRIPTIONS	QTY.
	17.	THERMOMETER POCKET	1
*	16.	IDENTITY PLATE	1
	15.	AIR RELEASE PLUG	1
	14.	EARTHING TERMINALS	2
	13.	UNDER BASE CHANNELS (75mm x 40 mm)	2
	12.	EXPLOSION VENT	1
	11.	DRAIN VALVE 20 mm CUM SAMPLING VALVE	1
	10.	NAME RATING & DIAGRAM PLATE	1
	9.	STIFFNER (50 mm x 50 mm x 6 mm THICK)	1
	8.	PRESS STEEL RADIATOR (600C/CX226W)-5FINS	2
	7.	L.V. BUSHING	4
	6.	TRANSFORMER LIFTING LUGS 8 mm THICK	4
	5.	H.V. BUSHING WITH ARCKING HORN & BIMETTALIC CONNECTOR	3
*	4.	SILICAGEL BREATHER 500 Grm.	1
	3.	OIL CONSERVATOR WITH DRAIN PLUG	1
	2.	OIL LEVEL INDICATORS	1
	1.	OIL FILLING HOLE WITH CAP	1

Test Report No. RP-1920-01S1U0
Date : 20.07.2019
Product : 100kVA Simple
Verified By : Dinesh
Verification of this drawing by ERDA is limited to relevent dimentional checks only.
Verified dimensions are marked with. *

NOTES:-

1. ALL DIMENSIONS ARE IN mm.
2. TOLERANCES ON OVERALL DIMENSION, TANK & WEIGHT ARE ±10%
3. (*)FITTINGS NOT PROVIDED DURING TESTING

RAJASTHAN POWERGEN TRANSFORMER PVT LTD
KHASRA NO. 911-914, KAROLA-BHINMAL ROAD, KAROLA
SANCHORE, DIST. JALORE - 343041, RAJASTHAN

TITLE:- OUTLINE G.A. DRAWING OF 100KVA,11/0.433KV ALUMINIUM WOUND ENERGY EFFICIENCY LEVEL-2 TRANSFORMER

DRN.	[illegible]	CUSTOMER	---
		T.S.No.	---
		SCALE	N T S
DATE	10-07-2019	DRG. No.	RPTL-OGA-07