



ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION
(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)
ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.
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E-mail : erda@erda.org
Web : http://www.erda.org



TEST REPORT

SHEET 01 OF 04

NAME & ADDRESS OF CUSTOMER: M/s. Rajasthan Powergen Transformer Pvt. Ltd. Karola- Bhinmal Road, Karola, Sanchore, Rajasthan - 343041, (India)	REPORT NO: RP-1718-050491 DATE: 11/01/2018 CUSTOMER REF. NO. & DATE: NP/ERDA/TT/41/2017-18, dt. 29/11/2017	
SAMPLE DESCRIPTION: Distribution Transformer [1 No.] 100 KVA, 11/0.433 kV, Energy Efficiency Level-3 Sr. No.: RPTPL/100KVA/2017-18/001	DATE OF SAMPLE RECEIPT	DATE OF TESTING
	30/11/2017	22/12/2017
TEST DETAIL: Determination of Sound levels [A-Weighted Sound Power Level Measurement]	SAMPLE IDENTIFICATION: Sr. No.: RPTPL/100KVA/2017-18/001 Drawing Nos.: 1] RPTPL/100KVA/003 2] RPTPL/100KVA/002 ERDA Sample Code No.: ERDA-00229058	
	TEST SPECIFICATION: For Test Procedure: 1] IS 1180 (Part 1): 2014 with 2 amendments 2] IS 2026 (Part 10): 2009 For Test Requirement: As per customer's requirement	
ENCLOSURE: Drawings of sample, Drawing No.: 1] RPTPL/100KVA/003; 2] RPTPL/100KVA/002		
REMARKS: 1] Guaranteed value of sound pressure level is considered as 51 dB(A) as mentioned in customer's letter. 2] Transformer conforms to the requirement of guaranteed value of Sound pressure level. 3] Photographs of test sample & name plate have been attached. [Refer SHEET 04 OF 04]		
 PREPARED BY	 CHECKED BY	 APPROVED BY (S.S. Godkhindi)

Note:

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TC 2406663



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TEST REPORT NO: RP-1718-050491

DATE: 11/01/2018

SHEET 02 OF 04

Particulars of Tests & Cl. No.:

Determinations of sound levels [A- Weighted Sound Power Level Measurement]

[Cl. No. 21.4.a of IS 1180 (Part 1): 2014 with 2 amendments & Cl. No. 13 of IS 2026 (Part 10): 2009]

Condition of transformer	Transformer was energized at no load condition & excited at the rated voltage of sinusoidal waveform & rated frequency.		
Details of equipment used:	Name: Sound level meter	Make: Lutron	
	Meter Type: Type 1	Serial No.: I.62852	
	Calibration Report No. & Date: NCQC-M/141117/01, Dt. 27/11/2017		

TEST RESULTS:

A-Weighted sound pressure levels of the background noise

Sr. No.	Measurement Locations (Refer Sketch Below)	At the start of test dB(A)	At the end of test dB(A)
1	A	45.1	45.9
2	B	45.4	46.1
3	C	45.2	45.5
4	D	45.5	45.8
5	E	45.6	45.2
6	F	45.8	45.6
7	G	45.7	45.1
8	H	45.3	45.4
9	I	45.9	45.5
10	J	45.3	45.3
Arithmetic Average $\bar{L}_{bgA}$		45.5	45.6

A-Weighted sound pressure levels at energized condition L_{pAi}

Sr. No.	Measurement Locations (Refer Sketch Below) dB(A)	L_{pAi} dB(A)
1	A	48.6
2	B	48.7
3	C	48.4
4	D	48.6
5	E	48.3
6	F	48.9
7	G	48.8
8	H	48.5
9	I	48.6
10	J	48.2
Arithmetic Average $\bar{L}_{pA0}$		48.6

PREPARED BY

CHECKED BY



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TEST REPORT NO: RP-1718-050491

DATE: 11/01/2018

SHEET 03 OF 04

TEST PARAMETERS:

Measurement distance : 1 m,

Microphone Spacing: 1 m

Measurement made: Half of the height of the transformer tank

Method followed: Sound pressure measurement as per Cl. No. 11, 11.3 & Table 2 of IS 2026 (Part 10): 2009.

Length of prescribed contour: 12.3 m

Transformer Tank Height: 0.835 m

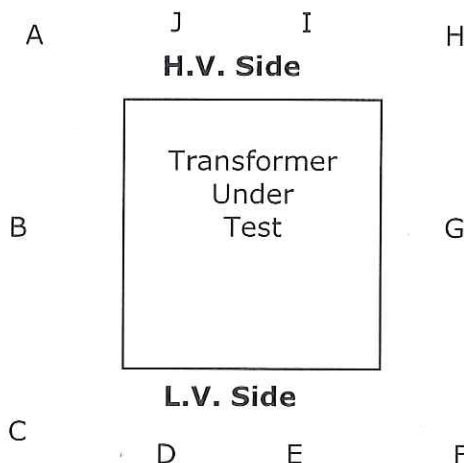
Person present during sound level measurement: 3

A-Weighted sound pressure level ($\overline{L_{pA0}}$):	48.6 dB(A)
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Corrected average A-weighted sound pressure level ($\overline{L_{pA}}$):	42.2 dB(A)
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Calculated A- weighted sound power level (L_{WA}):	53.3 dB(A)
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REMARKS: A-Weighted sound pressure level ($\overline{L_{pA0}}$) found within guaranteed value given by customer.



Sketch showing the locations of sound measurement

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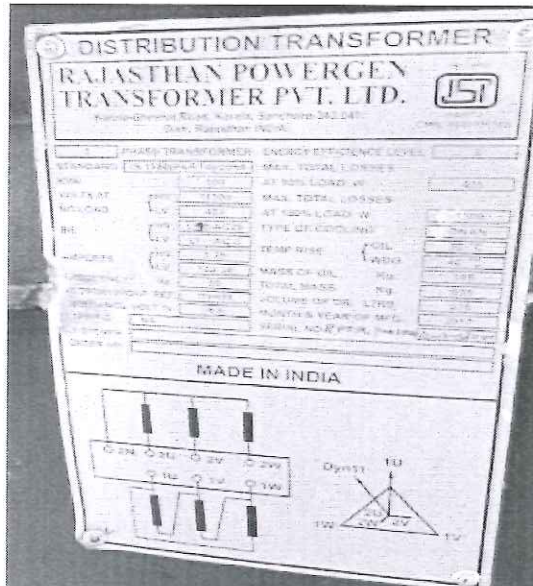
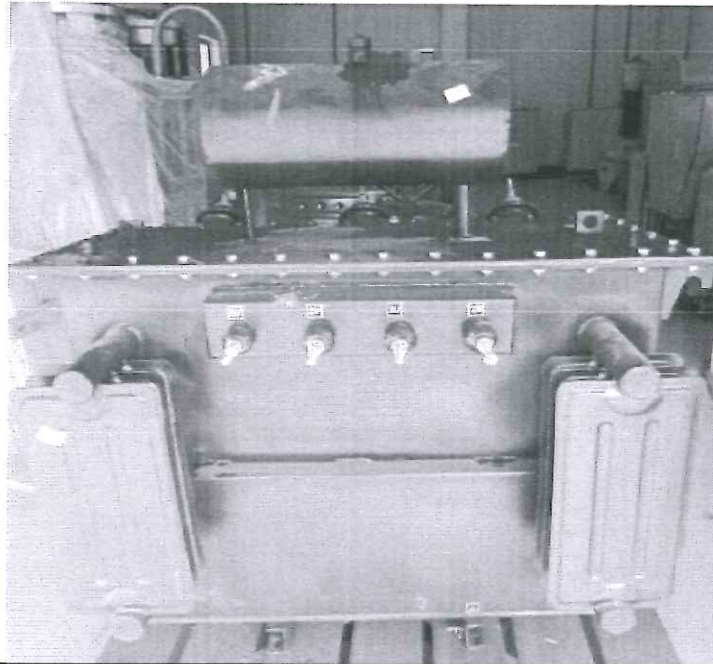


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SHEET 04 OF 04

PHOTOGRAPHS OF TEST SAMPLE & NAME PLATE



Amber

PREPARED BY

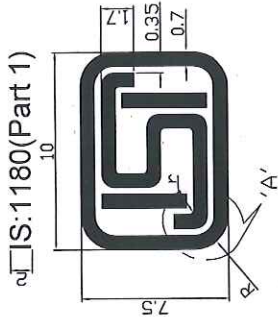
John James

CHECKED BY



TC 2406666

105		95	
DISTRIBUTION TRANSFORMER			
RAJASTHAN POWERGEN TRANSFORMER PVT. LTD KAROLA-BHINMAL ROAD, KAROLA, SANCHORE RAJASTHAN (INDIA)			
IS:1180(Part 1) CML-8400030105			
3 PHASE TRANSFORMER		ENERGY LEVEL 3	
STANDARD IS:1180(PART-1)/2014		AT 50% LOAD W 435	
KVA 100		MAX. TOTAL LOSS W 1500	
VOLTS AT HV 11000		TYPE OF COOLING ONAN	
NO LOAD LV 433		TEMP. RISE { OIL 35° C	
BIL HV 1195/AC28		WDG. 40° C	
LV 11-AC3		MASS OF OIL(KG) 195	
AMPERES HV 5.25		TOTAL MASS (KG) 835	
FREQUENCY HZ 50		VOLUME OF OIL LTRS 238	
VECTOR GROUP Dyn11		MONTH & YEAR OF MFG 2017	
IMPEDANCE VOLT % 4.5		S.N.O. RPTPL/100KVA/2017-18/001	
TAPPING NA		CUSTOMER	
ORDER NO.		MADE IN INDIA	
3.0		1U 2U 2V 2W 1V 1W 1U 1V 1W 1U 1V 1W	



DETAIL - 'A'

CML/L-8400030105

Test Report No.	RP-1718-050491
Date	11/01/18
Product	Transformer
Verified by	Anjan
The drawing has been used for reference only.	



RAJASTHAN POWERGEN TRANSFORMER PVT. LTD
KAROLA-BHINMAL ROAD, KAROLA, SANCHORE
RAJASTHAN - 343041

TITLE: NAME PLATE DRAWING OF 100KVA, 11/0.433KV
ALUMINIUM WOUND ENERGY EFFICIENCY LEVEL-3 TRANSFORMER

CUSTOMER	---
T.S.No.	RPTPL/17-18/100KVA/001
SCALE	N T S
DRG. No.	RPTPL/100KVA/003

Test Report No. RF-TR-050491

Date 11/01/18

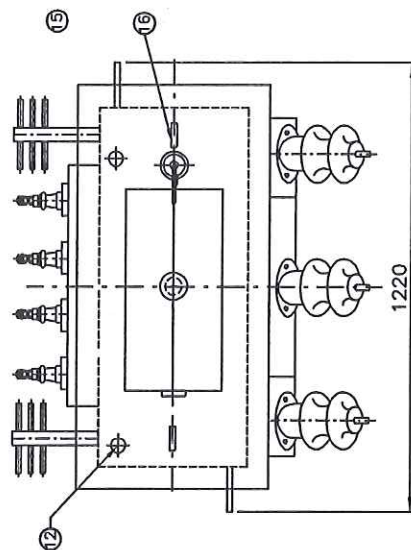
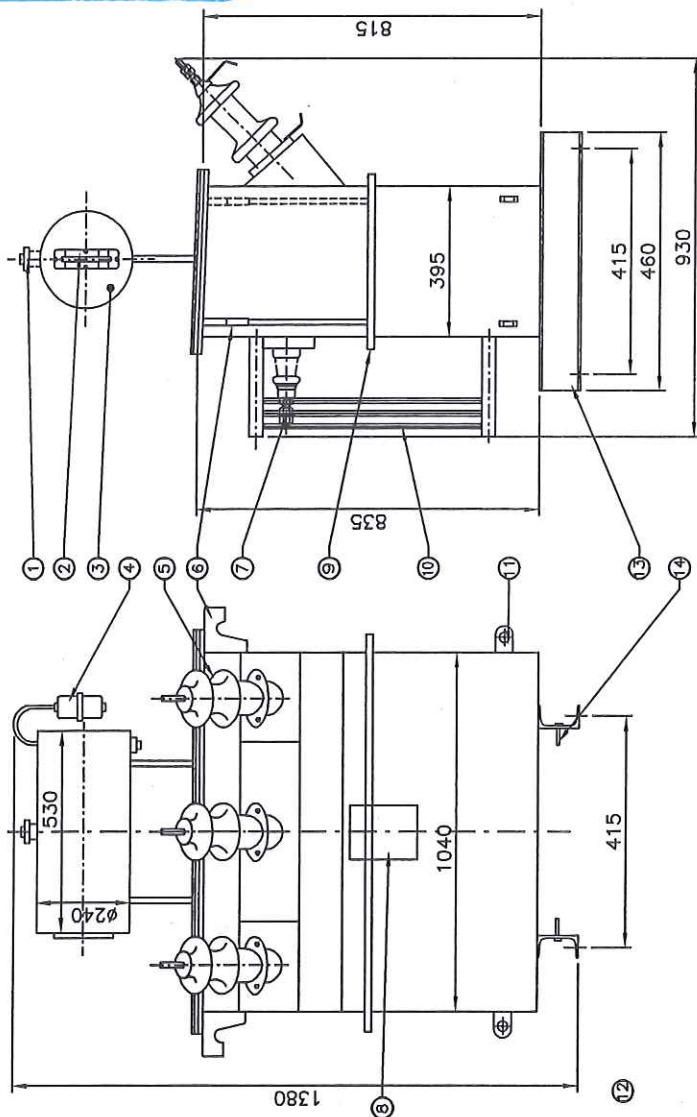
Product Transformer

Verified by Amber

The drawing has been used for reference only.

NOTES:-

1. ALL DIMENSIONS ARE IN mm.
2. TOLERANCES ON OVERALL DIMENSION & WEIGHT ARE $\pm 1.0\%$



WEIGHT CHART

1. CORE & WINDING	475 Kgs.
2. TANK & FITTING	165 Kgs.
3. WEIGHT OF OIL	195 Kgs.
4. TOTAL WEIGHT	835 Kgs.
5. VOLUME OF OIL	236 Ltrs.

MIN ELECTRICAL CLEARANCE IN AIR		SHEET THICKNESS	
PH. TO PH.	PH. TO EARTH	SIDE	
HV 255	HV 140	TOP	3.15mm
LV 75	LV 40	BOTTOM	5.0mm

S.No.	DESCRIPTIONS	QTY.
16.	TANK COVER LIFTING LUGS	2
15.	AIR RELEASE PLUG	1
14.	EARTHING TERMINALS	2
13.	UNDER BASE CHANNELS (75mm x 40 mm)	2
12.	THERMOMETER POCKET	1
11.	PULLING LUGS 8 mm THICK	4
10.	RADIATOR (500 C/C x 226) 3 FINS	2
9.	STIFFNER	1
8.	NAME RATING & DIAGRAM PLATE	1
7.	L.V. BUSHING	4
6.	TRANSFORMER LIFTING LUGS 8 mm THICK	2
5.	H.V. BUSHING	3
4.	SILICAGEL BREATHER 500 gm.	1
3.	OIL CONSERVATOR WITH DRAIN PLUG	1
2.	PLAIN OIL LEVEL INDICATORS PLAIN	1
1.	OIL FILLING HOLE WITH CAP	1

RAJASTHAN POWERGEN TRANSFORMER PVT. LTD
KAROLA BHINMAL ROAD, KAROLA, SANCHORE
RAJASTHAN - 343041

Title:- OUTLINE GENERAL ARRANGEMENT DRAWING OF 100KVA/11/0.433KV
ENERGY EFFICIENCY LEVEL-3 TRANSFORMER

CUSTOMER	----
T.S. No.	RPTPL/17-18/100KVA/001
SCALE	N T S
DWG. No.	RPTPL/100KVA/002