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.
EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33
Fax : +91 (0265) 2638382
E-mail : erda@erda.org
Web : http://www.erda.org
Certificate No. : TC-5389

TEST REPORT

ULR-TC538919000020300F **Sheet :** 1 of 5

NAME AND ADDRESS OF CUSTOMER RAJASTHAN POWERGEN TRANSFORMER PVT. LTD. KHASRA NO.911-914,KAROLA-BHINMAL ROAD,KAROLA,SANCHORE, RAJASTHAN – 343041.	**REPORT NO.:** RP-1920-012032 **DATE** : 26/06/2019
	CUSTOMER REF. NO. / **DATE** LETTER / 08.06.2019
	DATE OF SAMPLE RECEIPT / **DATE OF TESTING** 04.06.2019 / 11.06.2019
SAMPLE DESCRIPTION **DISTRIBUTION TRANSFORMER (NON SEALED TYPE)** Manufactured by : RAJASTHAN POWERGEN TRANSFORMER PVT LTD. Rating : 10 kVA Volts : 11000/433 V (at no-load) Current : 0.525/13.33 Amps Phases : 3/3 Vector group : Dyn11 Further details as per sheet no. 2.	**SAMPLE IDENTIFICATION** ERDA sample code number : ERDA-00319068 Manufacturer serial no.: RPTPL-001 Year of manufacture : 2019 Enclosed drawing numbers : 1) RPTPL-10KVA-RP-01/02-2019 01 OF 02 2) RPTPL-10KVA-RP-02/02-2019 02 OF 02 3) RPTPL-GA-10KVA-02-2019
TEST DETAILS As per sheet 3 of 5.	**TEST SPECIFICATION** As per sheet 3 of 5.
TEST RESULTS : As per sheets from 4 of 5.	
ENCLOSURE: Photographs of test sample - As per sheet 5 of 5.	
REMARKS : 1) The transformer **conforms** to the guaranteed requirement as per above mentioned test specification for above mentioned test no. 1.	
PREPARED BY / **CHECKED BY** / **APPROVED BY (Kapil J Sharma)**	

Note : 1. This report relates only to the particular sample received for testing in good condition at E.R.D.A.,Makarpura.
2. This report cannot be reproduced in part under any circumstances.
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TC 2808305

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REPORT NO.: RP-1920-012032 **Sheet :** 2 of 5
DATE : 26/06/2019

TECHNICAL SPECIFICATIONS OF TEST OBJECT ASSIGNED BY CUSTOMER

1.	Name of Manufacturer	RAJASTHAN POWERGEN TRANSFORMER PVT. LTD.
2.	Sr.No.	RPTPL-001
3.	kVA rating	10
4.	Rated Voltage H.V.(Volts)	11000
5.	Rated Voltage L.V.(Volts)	433
6.	Rated Current H.V.(Amp.)	0.525
7.	Rated Current L.V.(Amp.)	13.33
8.	Number of phases	3
9.	Vector Group	Dyn 11
10.	Winding Material	Aluminium
11.	Type of Cooling	ONAN
12.	Frequency (Hz)	50
13.	Guaranteed Percentage impedance %	4.50
14.	Total losses at 50 % load (Watts)	84
15.	Total losses at 100 % load (Watts)	240
16.	Guaranteed temperature rise of oil/Winding	35/40°C
17.	Year of Manufacture	2019
18.	Standard no.	IS 1180 (PART-1) 2014 with amendment no. 1, 2 & 3. customer's requirement

PREPARED BY **CHECKED BY**

TC 28008304

High Voltage Products Division Vadodara

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REPORT NO.: RP-1920-012032 **Sheet :** 3 OF 5
DATE : 26/06/2019

Sr. No.	TEST DETAILS	TEST SPECIFICATION
1.	Temperature-rise test	As per customer's requirement, testing procedure followed as per cl.no.21.3.b of IS 1180(Part 1):2014

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TC 2808303

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REPORT NO.: RP-1920-012032 **Sheet :** 4 OF 5
DATE : 26/06/2019

Sr. No.	Particulars of test and Cl. No.	Requirement as per specification	Obtained value	Remarks
1.	**Temperature-rise test :** (As per customer's requirement, testing procedure followed as per cl.no.21.3.b of IS 1180(Part 1) : 2014) Before starting test, the dimensions of tank was measured & recorded. Size of tank : L-695 mm, W-270 mm, H1-575 mm, H2-585 mm Losses fed for temperature-rise test were 240 Watts. Specified losses were fed to the transformer (i.e. Supply was connected to HV winding and LV winding kept short-circuited) till steady state temperature-rise was attained. Top oil temperature was recorded hourly. After steady state condition, the losses were brought down in reference to the rated current one hour prior to shut down. At the shutdown, the hot windings resistance were measured and temperature-rise calculated. A) Top oil temperature-Rise : B) Winding Temperature Rise (Resistance method) 1) HV Winding : 2) LV Winding : C) Ambient temperature at shutdown : D) Time of Shutdown (Hrs) :	 Max. 35°C Max. 40°C Max. 40°C	 11.8°C 17.3°C 17.4°C 36.4°C 21:00	**Conforms**

PREPARED BY **CHECKED BY**

TC 28008302

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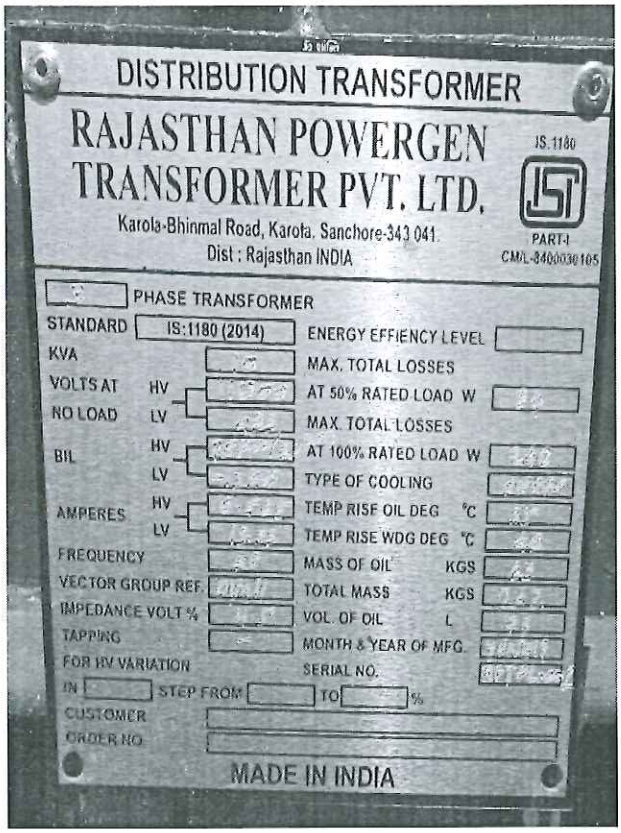
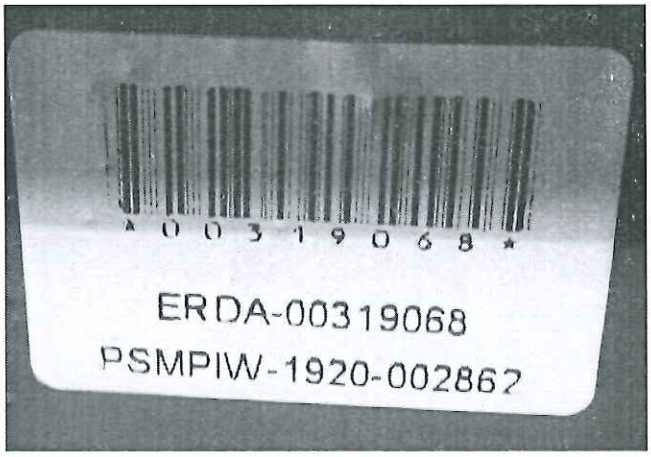
Certificate No. : TC-5389

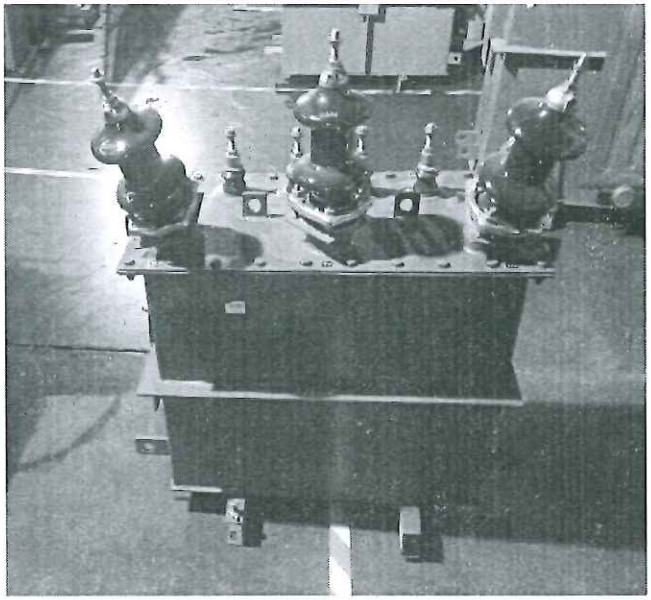
ULR-TC538919000020300F

REPORT NO.: RP-1920-012032 **Sheet :** 5 OF 5
DATE : 26/06/2019

PHOTOGRAPHS OF TEST SAMPLE







PREPARED BY **CHECKED BY**

TC 2808301

Test Report No. RP-1420-012032
Date : 26/2/2014
Product : 10 KVA
Verified by :
Verification of this drawing by E A is limited to relevant dimensional c cks only.
Verified dimensions are marke with '*'

DISTRIBUTION TRANSFORMER

RAJASTHAN POWERGEN TRANSFORMER PVT. LTD.

KAROLA–BHINMAL–ROD KAROLA SANCHORE–343041
RAJASTHAN.(INDIA)

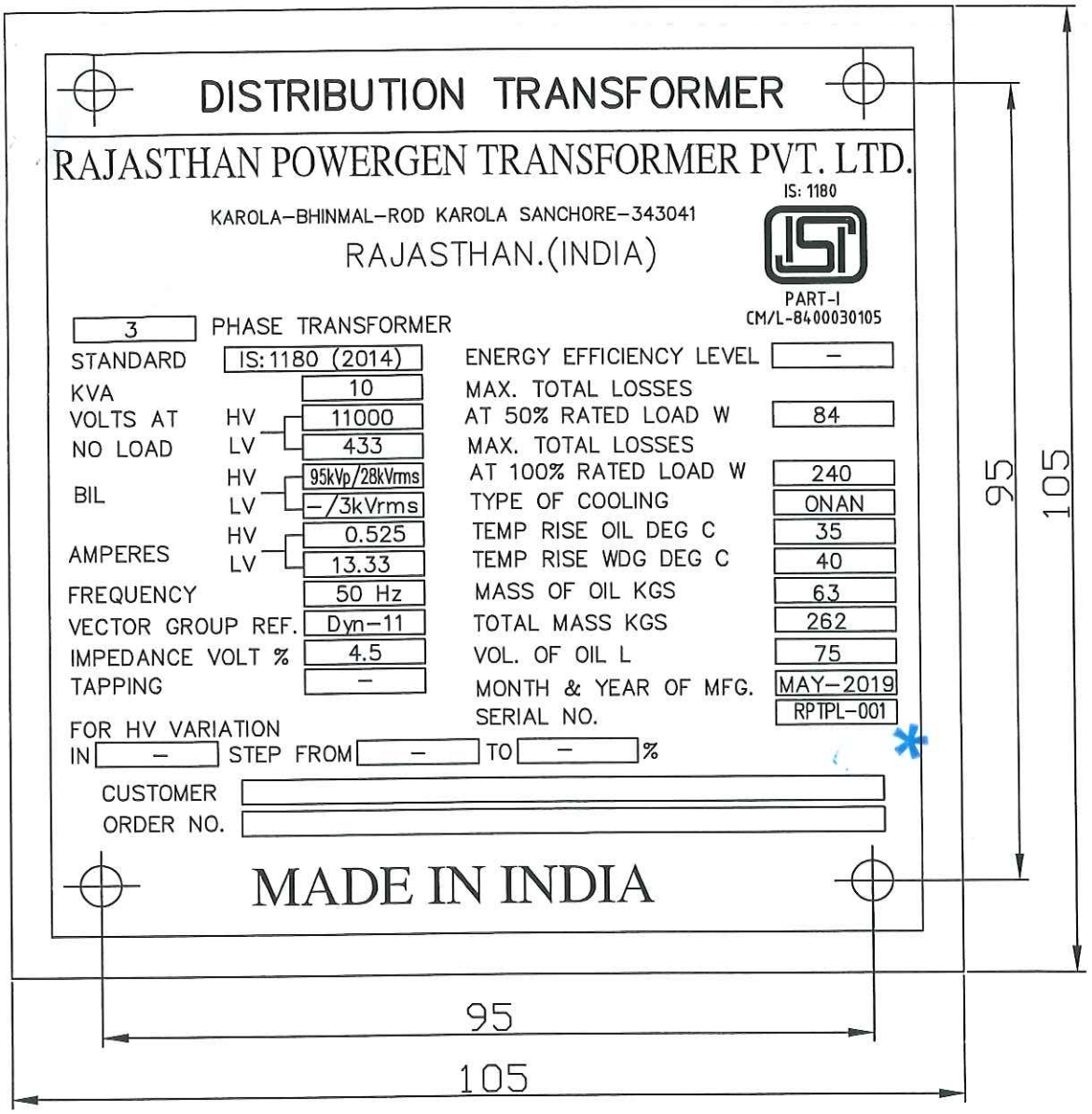
IS: 1180
PART-I
CM/L-8400030105

3	PHASE TRANSFORMER				
STANDARD		IS: 1180 (2014)	ENERGY EFFICIENCY LEVEL		–
KVA		10	MAX. TOTAL LOSSES		
VOLTS AT	HV	11000	AT 50% RATED LOAD W		84
NO LOAD	LV	433	MAX. TOTAL LOSSES		
BIL	HV	95kVp/28kVrms	AT 100% RATED LOAD W		240
	LV	–/3kVrms	TYPE OF COOLING		ONAN
AMPERES	HV	0.525	TEMP RISE OIL DEG C		35
	LV	13.33	TEMP RISE WDG DEG C		40
FREQUENCY		50 Hz	MASS OF OIL KGS		63
VECTOR GROUP REF.		Dyn–11	TOTAL MASS KGS		262
IMPEDANCE VOLT %		4.5	VOL. OF OIL L		75
TAPPING		–	MONTH & YEAR OF MFG.		MAY–2019
			SERIAL NO.		RPTPL–001

FOR HV VARIATION
IN – STEP FROM – TO – %

CUSTOMER
ORDER NO.

MADE IN INDIA



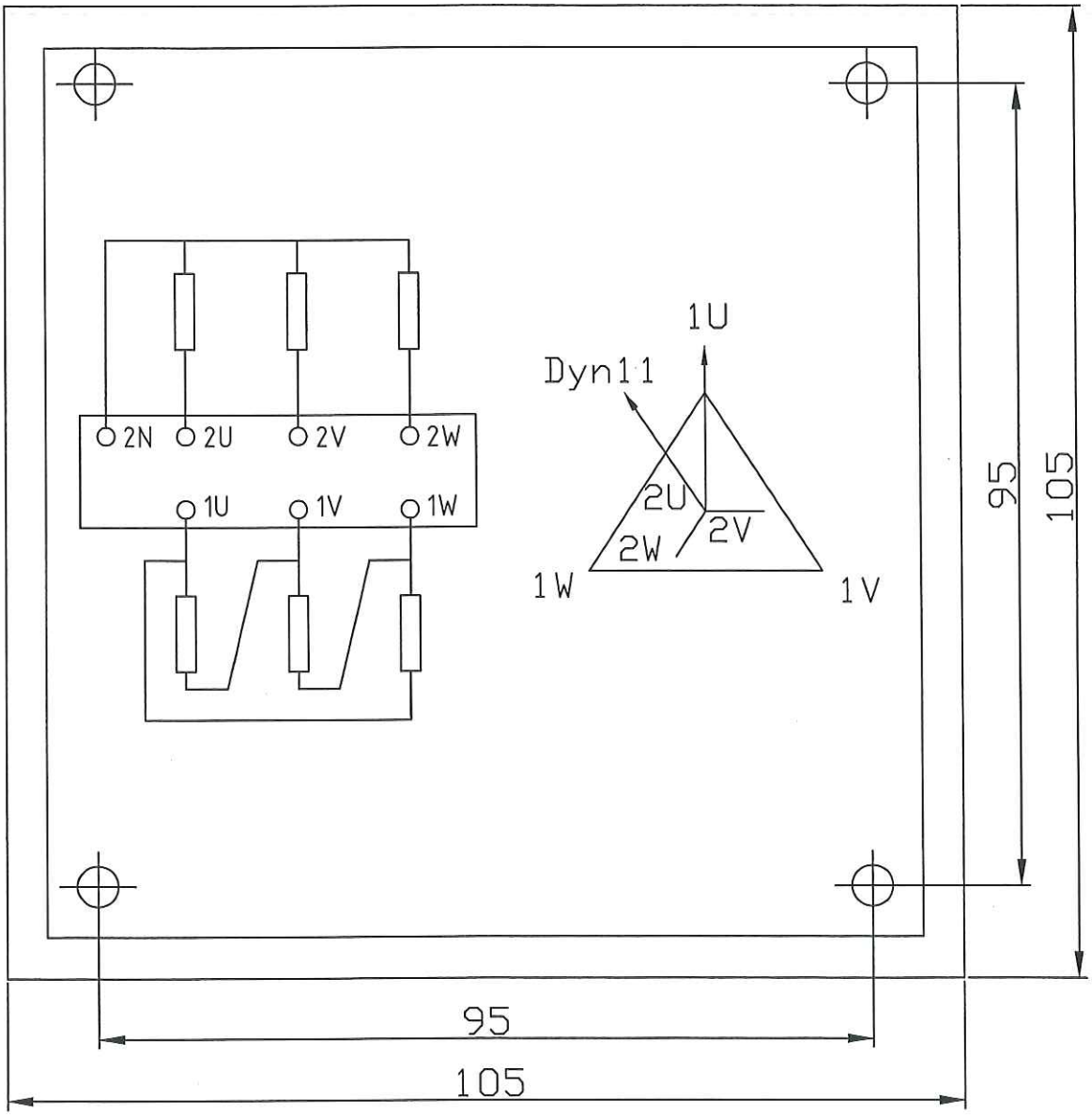
SIZE: 105x105 mm HOLE CENTER: 95x95 mm

NOTE:
* SERIAL NO,
YEAR OF MANUFACTURE &
MONTH OF MANUFACTURE
WILL BE PUNCHED AT THE TIME OF DISPATCH
MATERIAL : Anodized Aluminum
THICKNESS : 1.5mm

RAJASTHAN POWERGEN TRANSFORMER PVT. LTD.
KAROLA–BHINMAL ROAD KAROLA SANCHORE–343041
RAJASTHAN

			DRN BY	RATING & TERMINAL MARKING PLATE FOR
			CHD BY	10 KVA, 11/0.433 KV DISTRIBUTION TRANSFORMER
	30.05.2019	01 of 02	APPD BY	
REV. NO.	DATE SIGN	BRIEF DESCRIPTION		DRG. NO. RPTPL–10KVA–RP–01/02–2019

Test Report No. RP-1420-01/2032
Date : 26/6/2019
Product : 10 KVA
Verified by :
Verification of this drawing by ERDA is limited to relevant dimensional checks only.
Verified dimensions are marked with "*"



SIZE: 105x105 mm HOLE CENTER: 95x95 mm

NOTE:
* SERIAL NO ,
YEAR OF MANUFACTURE &
MONTH OF MANUFACTURE
WILL BE PUNCHED AT THE TIME OF DISPATCH
MATERIAL : Anodized Aluminum
THICKNESS : 1.5 mm

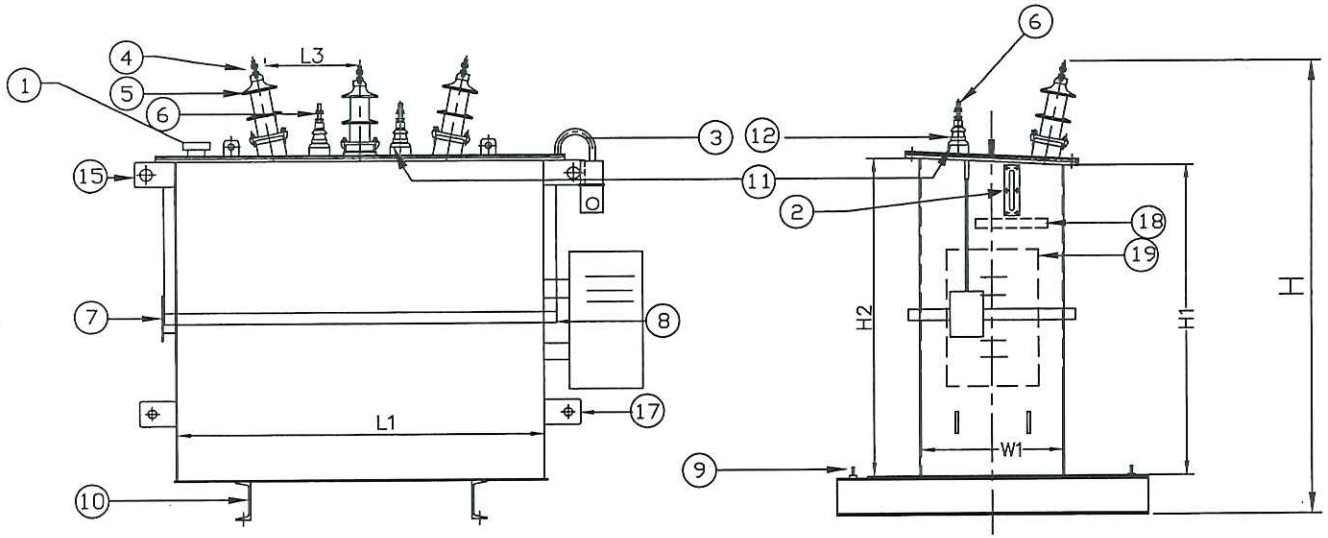
RAJASTHAN POWERGEN TRANSFORMER PVT. LTD.
KAROLA–BHINMAL ROAD KAROLA SANCHORE–343041
RAJASTHAN

DRN BY	
CHD BY	
APPD BY	

RATING & TERMINAL MARKING PLATE FOR
10 KVA, 11/0.433 KV DISTRIBUTION TRANSFORMER

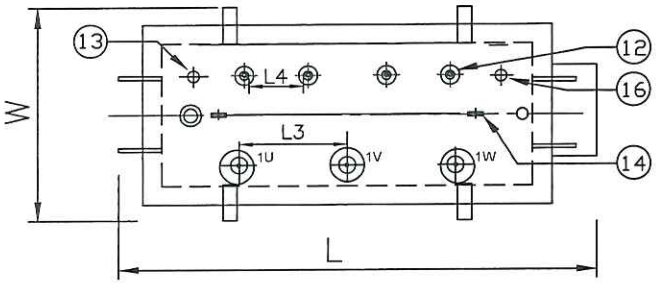
DRG. NO. RPTPL–10KVA–RP–02/02–2019

REV. NO.	DATE SIGN	BRIEF DESCRIPTION
	30.05.2019	02 of 02



ELEVATION

SIDE VIEW



PLAN

SR.NO.	ACCESSORIES	QTY.	TECHNICAL DETAILS AS PER SPEC.	AS PER OFFER
1	OIL FILLING CAP	1	M.S.	M.S.
2	OIL LEVEL GAUGE WITH 3 POSITION	1	---	---
* 3	SILICAGEL BREATHER (500 Grams.)	1	AL. DIE CAST	AL. DIE CAST
4	H.V. TERMINAL 12m.m. DIA.WITH NUT	3	BRASS	BRASS
5	H.V. BUSHING 12KV, 250A	3	PORCELAIN	PORCELAIN
6	L.V. TERMINAL 12 m.m. DIA. WITH NUT	4	BRASS	BEASS
7	RATING &TERMINAL MARKING PLATE	1	ANODIZED ALU	ANODIZED ALU
8	STIFFENER ANGLE SIZE (40x40x5 mm.)	4	M.S.	M.S.
9	EARTHING TERMINAL WITH LUGS SIZE(16 Amp.)	2	M.S.	M.S.
10	BASE CHANNELS 75x40x460mm. LONG.	2	M.S.	M.S.
11	L.V. BUSHING TURRET	4	TENDER DRG.	TENDER DRG.
12	L.V. BUSHING 1.1KV,250A	4	PORCELAIN	PORCELAIN
13	THERMOMETER POCKET	1	M.S.	M.S.
14	LIFTING LUGS FOR COVER	2	M.S.	M.S.
15	LIFTING LUGS FOR TANK REINFORCED WITH FLAT	2	M.S.	M.S.
16	AIR RELEASE PLUG	1	M.S.	M.S.
17	PULLING LUG	4	M.S.	M.S.
* 18	METALLIC TIN PLATE	1	S.S.	S.S.
* 19	MCCB BOX	1	-	-

	COOLING DETAILS	
1	TOTAL SURFACE AREA :-.	
2	NUMBER OF RADIATORS	N. A.
3	HEIGHT x WIDTH OF FINS	N. A.
1	TOTAL NUMBER OF COOLING FINS	N. A.

1	WEIGHTS IN KGS.		3	DIMENSIONS IN m.m.	
	CORE (+/- 5% TOL.)	54		TRANSFORMER OVERALL (+/- 10% TOL.)	
	WINDINGS (+/- 5% TOL.)	36		L =	935
	TANK & FITTINGS (+/- 5% TOL.)	109		W =	460
	OIL (+/- 5% TOL.)	63		H =	1120
	TOTAL WEIGHT (+/- 10% TOL.)	262		TRANSFORMER TANK	(+/- 5% TOL.)
2	THICKNESS IN m.m.			L1 =	695 *
	TANK SIDE PLATES (MIN.)	3. 15		W1 =	270 *
	TOP & BOTTOM PLATES (MIN.)	5		H1/H2 =	575/585
			4	BUSHING CLEARANCES WITH ANGLE	
				L3 (H.V.) 255	PHASE TO PHASE
				L4 (L.V.) 75	PHASE TO PHASE
				L5 (H.V.) 205	PHASE TO EARTH
				L6 (L.V.) 55	PHASE TO EARTH

Test Report No: RP-1920-012032
Date : 26.6.2014
Product : 10 KVA
Verified by :
Verification of this drawing by ERDA is limited to relevant dimensional checks only. Verified dimensions are marked with *

High Voltage Products Division * Vadodara

NOTE

1 SHAPE OF TANK: RECTANGULAR SHAPE
2 ALL DIMENSIONS ARE IM mm UNLESS OTHERWISE STATED.
3 METALLIC TIN PLATE: OPPOSITE SIDE OF COMBINED NAME PLATE
4 * NOT PROVIDED DURING TESTING

RAJASTHAN POWERGEN TRANSFORMER PVT. LTD.

KAROLA–BHINMAL ROAD KAROLA SANCHORE–343041

GENERAL ARRANGEMENT DRAWING
10 KVA 11/0.433 KV DIST. TRANSFORMER

DRG.NO.: RPTPL–GA–10KVA–02–2019

DATE: 30.05.2019