

NOTE: 1. DRAWING APPROVAL SUBJECT TO VALID TYPE TEST

8454128/2024/EMRT-ENE51

REPORTS, TO BE CHECKED DURING ACCEPTANCE TESTS

STRATON[®]

2. FOR EPC CONTRACTS ONLY

GUARANTEED TECHNICAL PARTICULARS OF OIL IMMERSED VOLTAGE TRANSFORMER (25mm/kV)

Customer Name	M/s. Transmission Corporation of Andhra Pradesh Limited.	Drawing No	APT/033OV/02A
Project Name	-	Model. No.	033OV12LDG
PO # & Date	-	Rev.	0
Item Desc.	33kV Oil Immersed Dead Tank Voltage Transformer (0.2/10VA, 0.2/50VA)		

S.NO	PARTICULARS	UNITS	DESCRIPTION	
1	Manufacturer's name and country of manufacture		M/s. Straton Electricals Pvt Ltd, Sy No. 42/A1/1, Alinagar, Gaddapotaram (GP), Jinnaram(M), Sangareddy (Dist.), Hyderabad 502319, Telangana, India	
2	Type		Single Phase, Oil immersed, Dead tank	
3	Installation type		Outdoor / Pedestal Mounted	
4	Rated Voltage / Highest System Voltage	kV	33/36	
5	Insulation Class		A	
6	Rated frequency	Hz	50	
7	Conforming to Standard		IS 16227(Part 1 & 3) 2015	
8	No. of secondary windings		Two	
9	Rated System Voltage	V	33000	
10	Winding details		Wdg I	Wdg II
11	Rated Primary Voltage	V	33000/ $\sqrt{3}$	33000/ $\sqrt{3}$
12	Rated Secondary Voltage	V	110/ $\sqrt{3}$	110/ $\sqrt{3}$
13	Accuracy Class		0.2	0.2
14	Rated Secondary Burden	VA	10	50
15	Rated Voltage Factor		1.2 cont. & 1.5 for 30s	
16	Basic Insulation Level	kVp	36/70/170	
17	Primary terminal material and details	mm	Nickle Plated Copper stud of 30mm diameter 80mm length	
18	Secondary terminal material and details		M6 stud type terminal blocks	
19	One minute power frequency withstand voltage test on primary winding	kVrms	70	
20	Lightning impulse withstand voltage	kVp	170	
21	One minute power frequency withstand voltage test on secondary winding	kVrms	3	
22	Measurement of Partial Discharge @ $1.2 \cdot U_m / \sqrt{3}$	pC	< 5	
23	Measurement of Partial Discharge @ U_m	pC	< 10	
24	Type & make of porcelain housing		CJI / Ravi Kiran / Modern / Any std. make	
25	Material of tank		Mild steel	
26	Gauge of the MS tank with Paint shade 631 as per IS 5		- Min 5mm for top cover and bottom - Min 3.15mm for remaining tank & base	
27	Hardware exposed to air		Hot dip galvanized / Alu. Zinc	
28	Total creepage distance	mm	900	
29	Live part to ground clearance	mm	400(min)	
30	Temperature rise over ambient	°C	<50 as per IS 16227(Part 1 & 3)	
31	Oil Filling Arrangement		Oil filling valve on top of the tank & drain valve at the bottom	
32	Whether all O-rings are fixed in properly machined grooves?		Yes	
33	Sealing arrangement (Gasket with groove)		1. Insulator flange interfaces at top tank & base. 2. The secondary terminal interface of molded epoxy cast resin monoblock with O-ring. 3. Oil level indicator & primary stud interface with tank	
34	Type of Insulator Construction		Both Flanges cemented on the top & bottom of bushing.	
35	O-rings & gaskets' material		Nitrile Butyl Rubber	
36	Weight of Steel	Kgs	40 Approx.	
37	Weight of Copper	Kgs	6 Approx..	
38	Weight of oil	Ltr.	35 Approx.	
39	Total weight of equipment	Kgs	160 Approx.	

Drawing approval subject to valid vendor registration

GUARANTEED TECHNICAL PARTICULARS OF OIL IMMERSSED VOLTAGE TRANSFORMER (25mm/kV)

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Project Name	-	Model. No.	033OV12LDG
PO # & Date	-	Rev.	0
Item Desc.	33kV Oil Immersed Dead Tank Voltage Transformer (0.2/10VA, 0.2/50VA)		

40	Mounting details	mm	400mm x 400mm
41	Overall Dimensions		As per GA drawing

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1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the Substation during foundation works to ensure safe live to ground clearance as per IE rules.
2. Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings. The EPC contractor shall be instructed to supply the same in line with CT/PT/CVT/Isolator/IVT/LA/Breakers requirement and compatibility.

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**Chief Engineer/Projects
APTRANSCO/VS/Vijayawada.**

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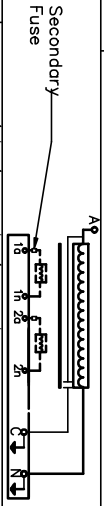
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STRATON®

INDUCTIVE VOLTAGE TRANSFORMER

MADE IN INDIA

TYPE DESIGNATION	33kV OUTDOOR OIL IMMERSSED VT	HIGHEST SYSTEM VOLTAGE (kV)	36	QTY. OF OIL (Lts)	35 (Approx).
REF. STANDARD	IS 16227 (PART 1&3).	RATED SYSTEM VOLTAGE (kV)	33	WEIGHT OF VT (Kg)	160 (Approx).
RATED FREQUENCY	50Hz	INSULATION LEVEL (kVrms/kVp)	70/170	TEMP. CAT.	-5/50°C
RATED VOLTAGE FACTOR	1.2 CONTINUOUS & 1.5 FOR 30 SEC.	INSULATION CLASS	A	MIN. CREEPAGE (mm)	900



CAUTION:
1. ENSURE LV TERMINALS ARE NOT SHORT CIRCUITED

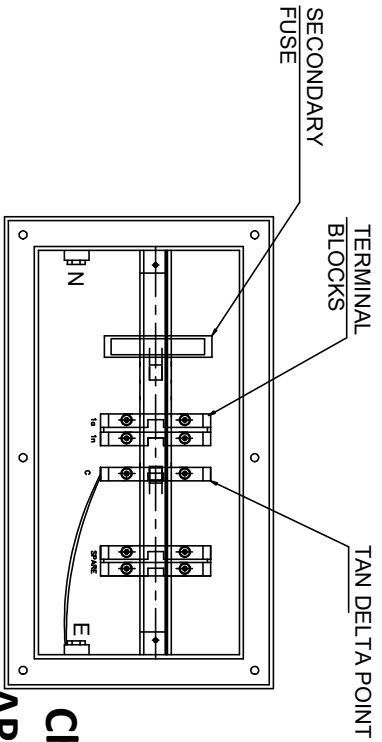
VT RATIO (V/V)	33000/√3/110/√3/110/√3	WINDING - 1	WINDING - 2
PURPOSE		METERING	METERING
RATED VOLTAGE	PRIMARY (V) 33000/√3 SECONDARY (V) 110/√3		
TERMINALS	PRIMARY A - N SECONDARY 1a - 1n		
RATED BURDEN (VA)			50
ACCURACY CLASS			0.2
YEAR OF MANUFACTURING			
VT SERIAL NUMBER			
CUSTOMER/CLIENT NAME	M/s. Transmission Corporation of Andhra Pradesh Limited.		
ORDER NO.:	STRATON ELECTRICALS PVT. LTD., HYDERABAD - 502 319.		

Chief Engineer/Projects
APTRANSCO/VS/Vijayawada.

NOTE:-	REV.#	REVISION NOTE	DATE	PROJECTION:	SCALE: NTS	DRAWN	NAME	SIGN	DATE
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MINOR MODIFICATIONS WITHOUT NOTICE

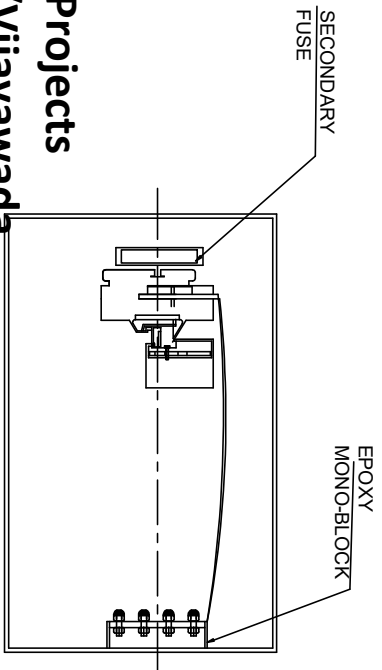
TITLE:	NAME PLATE DRAWING OF 33kV OUTDOOR OIL COOLED DEAD TANK VOLTAGE TRANSFORMER OF RATIO (0.2/10VA, 0.2/50VA) 0330V12LDSG	CHECK	SS	11-01-2024
STRATON®	ELECTRICALS PVT. LTD., HYDERABAD	APPR.	DS	11-01-2024
DWG. NO.:	APT0330V/02A	DWG. NO.:	APT0330V/02A	REV.: 00
SHEET NO.:	03	SHEET NO.:	03	NO OF SHEETS: 04



VIEW A-A

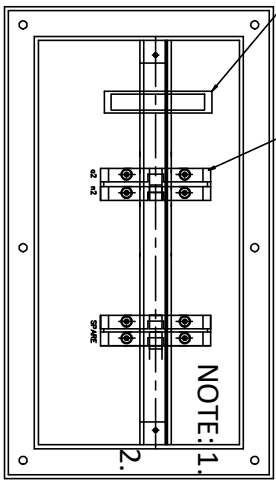
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SIDE VIEW

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VIEW B-B
 (FOR WINDING-I)

NOTE: 1. DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS, TO BE CHECKED DURING ACCEPTANCE TESTS
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1. SECONDARY TERMINAL BOX SHALL BE PROVIDE REMOVABLE GLAND PLATE WITHOUT HOLE.
2. SECONDARY TERMINAL BOX SHALL BE PROVIDED WITH COVER WITH EPDM GASKET.
3. DEGREE OF PROTECTION FOR SECONDARY TERMINAL SHALL BE IP55
4. 20% SPARE TERMINALS SHALL BE PROVIDED
5. FERRULES SHALL BE PROVIDED FOR WIRES IN SECONDARY TERMINAL BOX.

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REV.#	REVISION NOTE	DATE	PROJECTION:	SCALE: NTS	DRAWN	NAME	SIGN	DATE
						NH		11-01-2024
						SS		11-01-2024
						DS		11-01-2024
								REV.: 00

PROJECTION:		SCALE: NTS	
TITLE: SECONDARY TERMINAL BOX DRAWING OF 3KV OUTDOOR OIL COOLED DEAD TANK VOLTAGE TRANSFORMER OF RATIO 0.2/10VA. 0.2/50VA/1.0/330V/12LDG			
DWG. NO.:	AP/T0330V/02A	DWG. NO.:	AP/T0330V/02A
SHEET NO.:	04	SHEET NO.:	04

REV.#	REVISION NOTE	DATE	PROJECTION:	SCALE: NTS	DRAWN	NAME	SIGN	DATE
						NH		11-01-2024
						SS		11-01-2024
						DS		11-01-2024
								REV.: 00

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 ELECTRICALS PVT. LTD., HYDERABAD

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