

GUARANTEED TECHNICAL PARTICULARS OF OIL IMMERSED VOLTAGE TRANSFORMER (31mm/kV)

Customer Name	M/s. Transmission Corporation of Andhra Pradesh Limited.	Drawing No	APT/033OV/01B
Project Name	-	Model. No.	033OV12LDG
PO # & Date	-	Rev.	0
Item Desc.	33kV Oil Immersed Dead Tank Voltage Transformer (0.2/10VA)		

S.N O	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, Telangan, 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		One
9	Rated System Voltage	V	33000
10	Winding details		Wdg I
11	Rated Primary Voltage	V	33000/ $\sqrt{3}$
12	Rated Secondary Voltage	V	110/ $\sqrt{3}$
13	Accuracy Class		0.2
14	Rated Secondary Burden	VA	10
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 block
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	1116
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	55 Approx
37	Weight of Copper	Kgs	3.5 Approx
38	Weight of oil	Ltr.	35 Approx
39	Total weight of equipment	Kgs	150 (Approx)

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PO # & Date	-	Rev.	0
Item Desc.	33kV Oil Immersed Dead Tank Voltage Transformer (0.2/10VA)		

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

**NOTE: 1. DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS, TO BE CHECKED DURING ACCEPTANCE TESTS
2. FOR EPC CONTRACTS ONLY**

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.

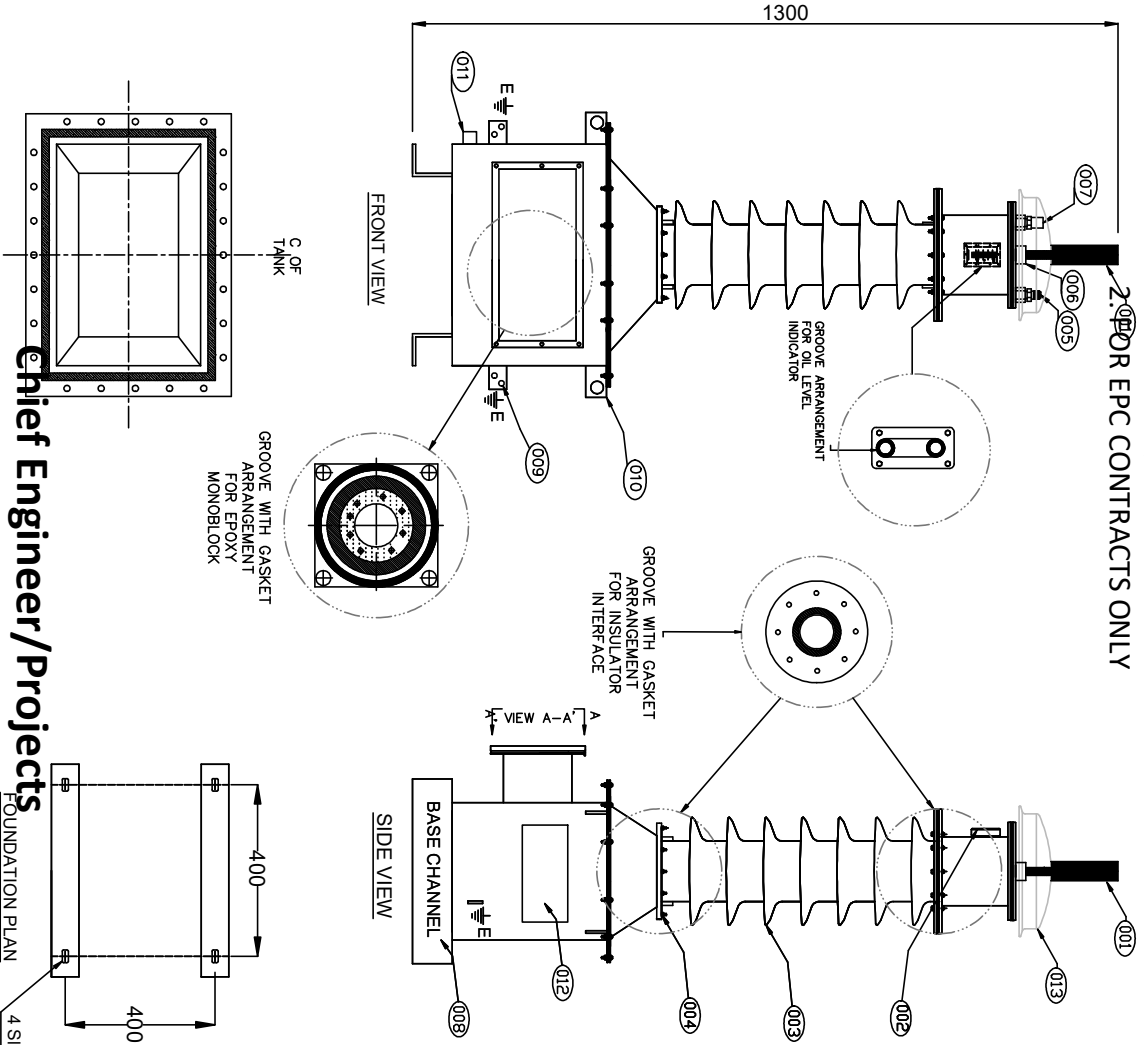
Drawing approval subject to valid vendor registration

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

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S/NO	ITEM DESCRIPTION	MATERIAL	QTY
001	HT TERMINAL	Ø30mm NICKEL PLATED COPPER	01
002	OIL LEVEL INDICATOR (OIL)	AL. DIE CASTED (PRISMATIC)	01
003	INSULATOR	PORCELAIN	01
004	BUSHING ENDS	CEMENTED FLANGE TYPE	02
005	N2 FILLING VALVE	BRASS	01
006	OIL FILLING PLUG	MILD STEEL	01
007	PRESSURE RELIEF VALVE (1/2")	BRASS (Operating Pres: 1 Kg/Cm2)	01
008	MOUNTING BASE	MILD STEEL	01
009	EARTH PADS	SS (50x8x70(L)mm)	02
010	LIFTING HOLES	MILD STEEL	04
011	DRAIN PLUG	MILD STEEL	01
012	NAME PLATE	ALUMINIUM	01
013	DOME COVER	MILD STEEL	01



- NOTE:-
- CONFORMING TO IS : 16227 (Part 1 & 3)
 - INSULATING OIL CONFORMING TO IS: 335
 - PT WILL BE HERMETICALLY SEALED.
 - DIMENSION TOLERANCES ±5%.
 - TANK FINISHING WILL BE PAINTED, WITH PAINT SHADE 631 AS PER IS 5
 - ALL HARDWARE EXPOSED TO ATMOSPHERE WILL BE HOT DIP GALVANIZED OR AL. Zn.
 - CREEPAGE DISTANCE : 1116mm min.
 - TOTAL OIL QUANTITY : 35 Kgs (Approx).
 - TOTAL ESTIMATED WEIGHT: 150 Kgs (Approx).
 - SECONDARY TERMINALS : M6 STUD TYPE TERMINAL BLOCKS.

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APTRANSCO/VS/Vijayawada.

BOTTOM TANK (WITH COVER OPEN)
 FOUNDATION PLAN

4 Slots of 16x30 Oblong Hole

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 MINOR MODIFICATIONS WITHOUT NOTICE

REV.# REVISION NOTE

DATE

PROJECTION:

SCALE: NTS

DRAWN

NAME

SIGN

DATE

TITLE:
 GA DRAWING OF 33KV
 OUTDOOR OIL COOLED DEAD TANK VOLTAGE
 TRANSFORMER OF RATIO (0.21/10VA) 0330V/12LDG

CHECK

SS

DS

11-01-2024

DWG. NO.:

APPT.

DS

11-01-2024

REV.: 00

STRATON
 ELECTRICALS PVT. LTD., HYDERABAD

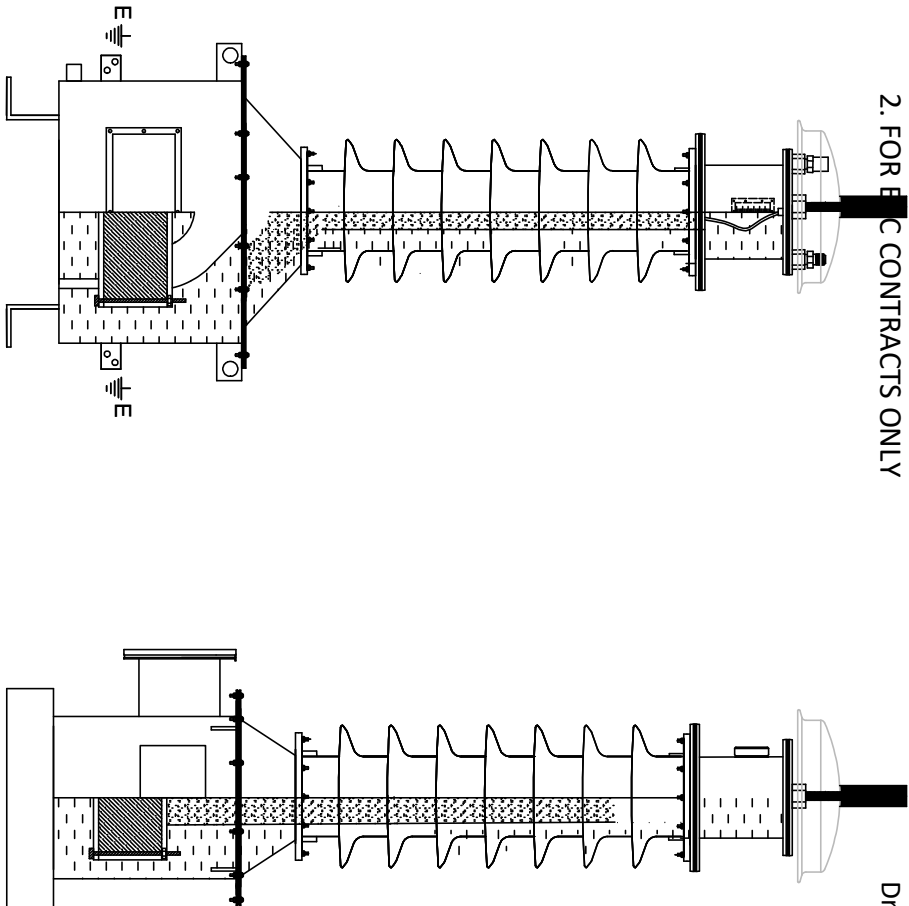
DWG. NO.:

APPT/0330V/01B

NO OF SHEETS: 04

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FRONT VIEW

SIDE VIEW

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- DESIGN DATA:
- PRIMARY WINDING:
- a. Area of Crosssection: 0.29Sq.mm
 - b. Conductor material: Electrolytic Copper
 - c. Weight of conductor: 4.5Kgs approx.
- SECONDARY WINDING:
- a. Area of Crosssection: Winding-I: 16SWG (2.078Sq.mm)
 - b. Conductor material: Super enameled Copper wire
 - c. Weight of conductor: 0.5Kgs approx.

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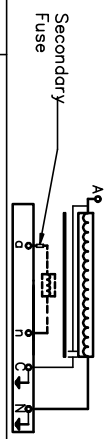
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					DWG. NO.:	DS		11-01-2024
					SHEET NO.:	APPT/0330V/01B		REV.: 00
						01		NO OF SHEETS: 04

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Chief Engineer/Projects
APTRANSCO/VS/Vijaywada.

STRATON®	INDUCTIVE VOLTAGE TRANSFORMER	MADE IN INDIA
TYPE DESIGNATION	33kV OUTDOOR OIL IMMERSSED VT	HIGHEST SYSTEM VOLTAGE (KV)
REF. STANDARD	IS 16227 (PART 1&3).	RATED SYSTEM VOLTAGE (KV)
RATED FREQUENCY	50Hz	INSULATION LEVEL (kVrms/kVp)
RATED VOLTAGE FACTOR	1.2 CONTINUOUS & 1.5 FOR 30 SEC.	INSULATION CLASS
CONNECTION DIAGRAM		QTY. OF OIL (Lts)
VT RATIO (V/V)	33000/√3//110/√3	WEIGHT OF VT (Kg)
WINDING	WINDING - 1	TEMP. CAT.
PURPOSE	METERING	MIN. CREEPAGE (mm)
RATED VOLTAGE	PRIMARY (V) SECONDARY (V)	
TERMINALS	PRIMARY SECONDARY	
RATED BURDEN (VA)	A - N a - n	
ACCURACY CLASS	10	
YEAR OF MANUFACTURING	0.2	
VT SERIAL NUMBER		
CUSTOMER/CLIENT NAME	M/s. Transmission Corporation of Andhra Pradesh Limited.	
ORDER NO.:	STRATON ELECTRICALS PVT. LTD., HYDERABAD - 502 319.	

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REV.#	REVISION NOTE	DATE	PROJECTION:	SCALE: NTS	DRAWN	NAME	SIGN	DATE
						NH		
			TITLE: NAME PLATE DRAWING OF 33KV OUTDOOR OIL COOLED DEAD TANK VOLTAGE TRANSFORMER OF RATIO (0.2/10VA) 0330V/2LDG		CHECK	SS		
					APPR.	DS		
					DWG. NO.:	APT/0330V/01B		REV.: 00
					SHEET NO.:	03		NO OF SHEETS: 04

