

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

Customer Name	M/s. Transmission Corporation of Andhra Pradesh Limited.	Drawing No.	APT/033OC/02A
Project Name	-	Model. No.	033OC06GLB
PO# & Date	-	Rev.	0
Item Desc.	33kV Oil Immersed Live Tank Current Transformer (2000-1200-800/1-1-1-1A)		

S.NO	PARTICULARS	UNITS	DESCRIPTION			
1	Manufacturer's name and country of origin		M/s. Straton Electricals Pvt Ltd, Sy No. 42/A1/1, Alinagar, Gaddapotharam (GP), Jinnaram(M), Sangareddy (Dist.), Hyderabad 502319, Telangana, India			
2	Type		Single Phase, Oil immersed, Live 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 & 2)			
8	No. of secondary cores		Four			
9	Rated Primary Current	A	2000-1200-800			
10	Secondary Winding details		<b>Core I Protection</b>	<b>Core II (Diff. Prot.)</b>	<b>Core III (Metering)</b>	<b>Core IV (Metering)</b>
11	Rated Secondary Current	A	1	1	1	1
12	Accuracy Class		5P	PX	0.2S	0.2S
13	Rated Secondary Burden	VA	15	-	10	5
14	ISF/ALF		APTRANSCO/VS/Vijayawada.		<5 @all ratios	<5 @all ratios
15	Knee-point Voltage (Vk)	V	-	40I(Rct+10)	-	-
16	Excitation Current (mA)@ Vk @2000A tap @1200A tap @800A tap	mA	-	<30mA <40 mA <50 mA	-	-
17	Secondary Winding Resistance (Rct) @2000A tap @1200A tap @800A tap	$\Omega$	-	14.75 7.95 4.85	-	-
18	Short time thermal current and its duration (STC)	kA/t(s)	25	t(s)	1	
19	Rated dynamic current	kAp	2.5*STC			
20	Method of ratio change and secondary connection details & connection diagram		Secondary tapping			
21	Primary terminal material and details	mm	50mm dia. Electrolytic Copper nickel plated Bar Primary			
22	Secondary terminal material and details		M6 stud type terminal blocks			
23	Current density	Sq.mm	1.22			
24	One minute power frequency withstand voltage test on primary winding	kVrms	70			
25	Lightning impulse withstand voltage	kVp	170			
26	One minute power frequency withstand voltage test on secondary winding	kVrms	3			
27	Measurement of Partial Discharge @ $1.2 \cdot U_m / \sqrt{3}$	pC	< 5			
28	Measurement of Partial Discharge @ $U_m$	pC	< 10			
29	i) Rated continuous thermal current ii) Temperature rise over ambient	$^{\circ}\text{C}$	1.2 times continuous <55 $^{\circ}\text{C}$ as per IS 16227:2016			
30	Type & make of porcelain housing		Cemented Flange & CJI / Ravi Kiran / Modern / Any std. make			
31	Material of tank		SS			

Drawing approval subject to valid vendor registration

8454172/2024/EEMRT-ENE51

**STRATON**<sup>®</sup>**GUARANTEED TECHNICAL PARTICULARS OF OIL IMMERSSED CURRENT TRANSFORMER (25mm/kV)**

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Item Desc.	33kV Oil Immersed Live Tank Current Transformer (2000-1200-800/1-1-1-1A)		

32	Tank coating		Paint Shade 631 as per IS 5
33	Gauge of the tank and material		- Min 5 mm for top cover and bottom with MS - Min 3.15mm for remaining tank with SS - Min 3.15mm for base with MS
34	Hardware exposed to atmosphere		Hot dip galvanized / Alu. Zinc
35	Total creepage distance	mm	900 min
36	Live part to ground clearance	mm	400 (min)
37	Weight of oil	Ltr.	30 (Approx)
38	Total weight of equipment	kg	140 (Approx)
39	Whether CT is hermitically sealed?		Yes
40	Whether all O-rings are fixed in properly machined grooves?		Yes
41	O-rings & gaskets' material		Nitrile Butyl Rubber
42	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
43	Oil Filling Arrangement		Oil filling valve on top of the tank & drain valve at the bottom
44	Mounting details		400mm X 400mm (between Hole centers)
45	Overall Dimensions		As per GA drawing

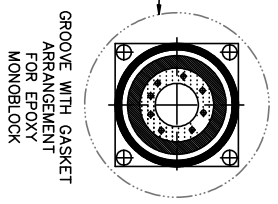
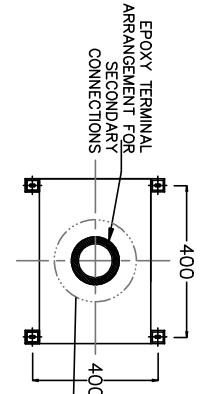
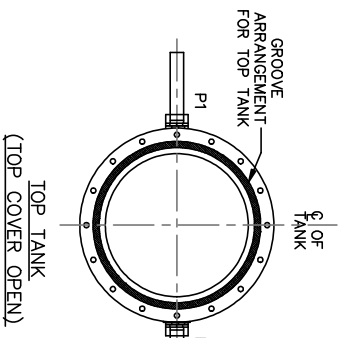
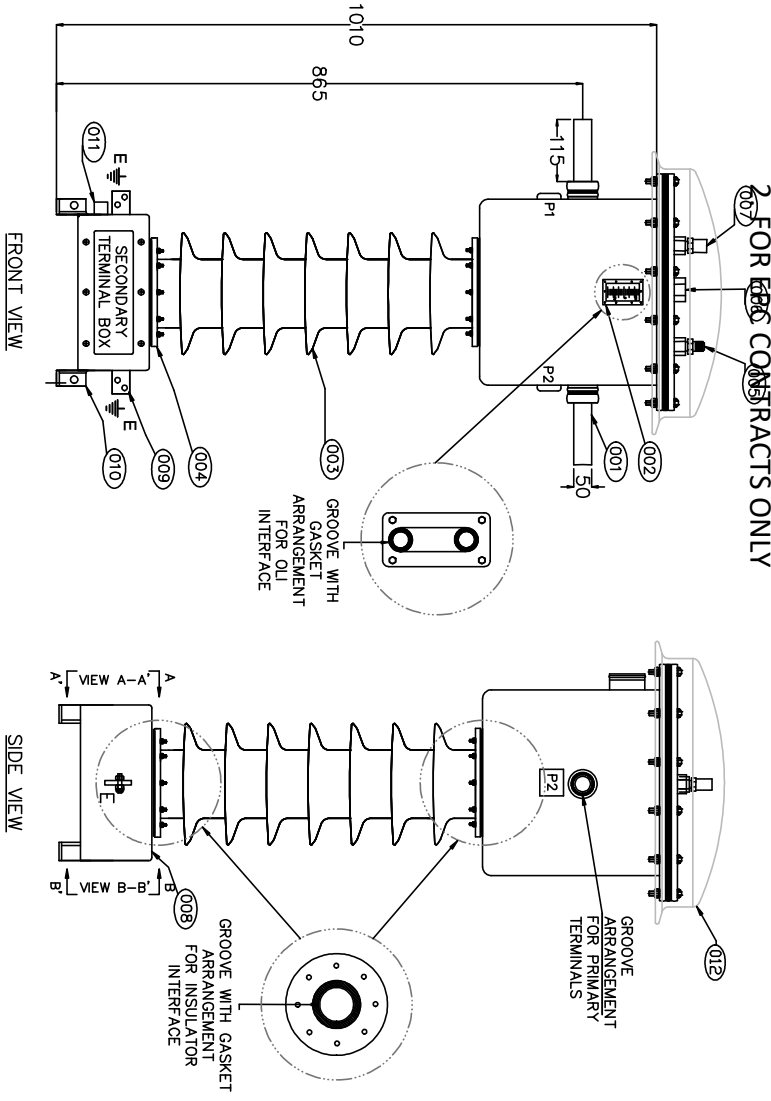
**NOTE: 1. DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS, TO BE CHECKED DURING ACCEPTANCE TESTS**  
**2. FOR EPC CONTRACTS ONLY**

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.

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

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S.NO	ITEM DESCRIPTION	MATERIAL	QTY
001	HT TERMINALS	50mm DIA NICKEL PLATED COPPER BAR	01
002	OIL LEVEL INDICATOR (OLI)	A.L. DIE CASTED (PRISMATIC)	01
003	INSULATOR	PORCELAIN	01
004	BUSHING ENDS	CEMENTED FLANGE	02
005	N2 FILLING VALVE	BRASS	01
006	OIL FILLING PLUG	MILD STEEL	01
007	PRESSURE RELIEF VALVE (1/4")	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	DOME COVER	MILD STEEL	01

- NOTE:-
- CONFORMING TO IS :- 16227 (PART 1 & 2)
  - INSULATING OIL CONFORMING TO IS: 335
  - CT 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 : 900mm
  - TOTAL OIL QUANTITY : 30 Liters (Approx).
  - TOTAL ESTIMATED WEIGHT: 140 Kgs (Approx).
  - SIZE OF SECONDARY TERMINALS : M6 STUD TYPE TERMINALS BLOCKS.

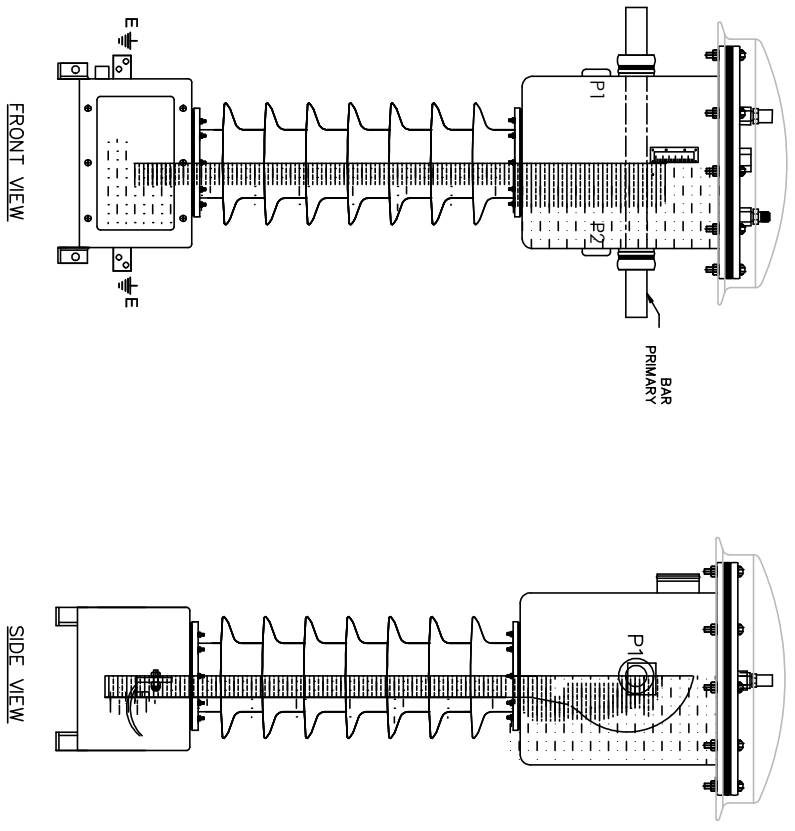
**Chief Engineer/Projects**  
**APTRANSCO/VS/Vijayawada.**

REV.#	REVISION NOTE	DATE	PROJECTION:	SCALE: NTS	DRAWN	NAME	SIGN	DATE

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TITLE: GA DRAWING OF 33KV OUTDOOR OIL COOLED LIVE TANK CURRENT TRANSFORMER 2000-1200-800/1-1-1-1A 033OC06G1B	DWG. NO.: AP/T/033OC/02A	REV.: 00
PROJECTION:	CHECK APPR. DS	NO OF SHEETS: 04
SCALE: NTS	SHEET NO.: 01	

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



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

DESIGN DATA:

PRIMARY WINDING:

- a. Area of Crosssection: 1962.5 Sq.mm
- b. No. of turns: Single (Bar Primary)
- c. Conductor material: Electrolytic Copper
- d. Weight of conductor: 15Kgs approx.

SECONDARY WINDING:

- a. Area of Crosssection:
  - Core-I: 20SWG (0.655Sq.mm)
  - Core-II: 21SWG (0.518Sq.mm)
  - Core-III: 20SWG (0.655Sq.mm)
  - Core-IV: 21SWG (0.518Sq.mm)
- b. No. of secondary turns:
  - Core-I: 2000 with taps at 1200 & 800 Turns
  - Core-II: 2000 with taps at 1200 & 800 Turns
  - Core-III: 2000 with taps at 1200 & 800 Turns
  - Core-IV: 2000 with taps at 1200 & 800 Turns
- c. Conductor material: Super enameled Copper wire

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PROJECTION:	TITLE: GROSS SECTION VIEW OF 33KV OUTDOOR OIL COOLED LINE TANK CURRENT TRANSFORMER 2000-1200-800/1-1-1-1A 0330C06GLB	DRAWN: NH CHECK: SS APPR.: DS	DWG. NO.: AP/T/0330C/02A SHEET NO.: 02	NO OF SHEETS: 04
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