

8454147/2024/EEMRT-ENE51 REPORTS TO BE CHECKED DURING ACCEPTANCE TESTS

2. FOR EPC CONTRACTS ONLY

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

Customer Name	M/s. Transmission Corporation of Andhra Pradesh Limited.	Drawing No.	APT/033OC/01A
Project Name	-	Model. No.	033OC03GLB
PO# &Date	-	Rev.	0
Item Desc.	33kV Oil Immersed Live Tank Current Transformer (400/1-1A)		

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		Two	
9	Rated Primary Current	A	400	
10	Secondary Winding details		<b>Core I (Protection)</b>	<b>Core II (Metering)</b>
11	Rated Secondary Current	A	1	1
12	Accuracy Class		5P	0.2S
13	Rated Secondary Burden	VA	15	10
14	ISF/ALF		10	<5
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	30mm dia. Electrolytic Copper nickel plated Bar Primary	
22	Secondary terminal material and details		M6 stud type terminal block	
23	Current density	Sq.mm	0.68	
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	°C	1.2 times continuous <55°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		MS	
32	Tank coating		Paint Shade 631 as per IS 5	
33	Gauge of the tank and material		- Min 5 mm for top cover & bottom with MS - Min 3.15mm for remaining tank & base 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.	20 (Approx)	
38	Total weight of equipment	Kg	90 (Approx)	
39	Whether CT is hermitically sealed?		Yes	

Drawing approval subject to valid vendor registration

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

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Project Name	-	Model. No.	033OC03GLB
PO# &Date	-	Rev.	0
Item Desc.	33kV Oil Immersed Live Tank Current Transformer (400/1-1A)		

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

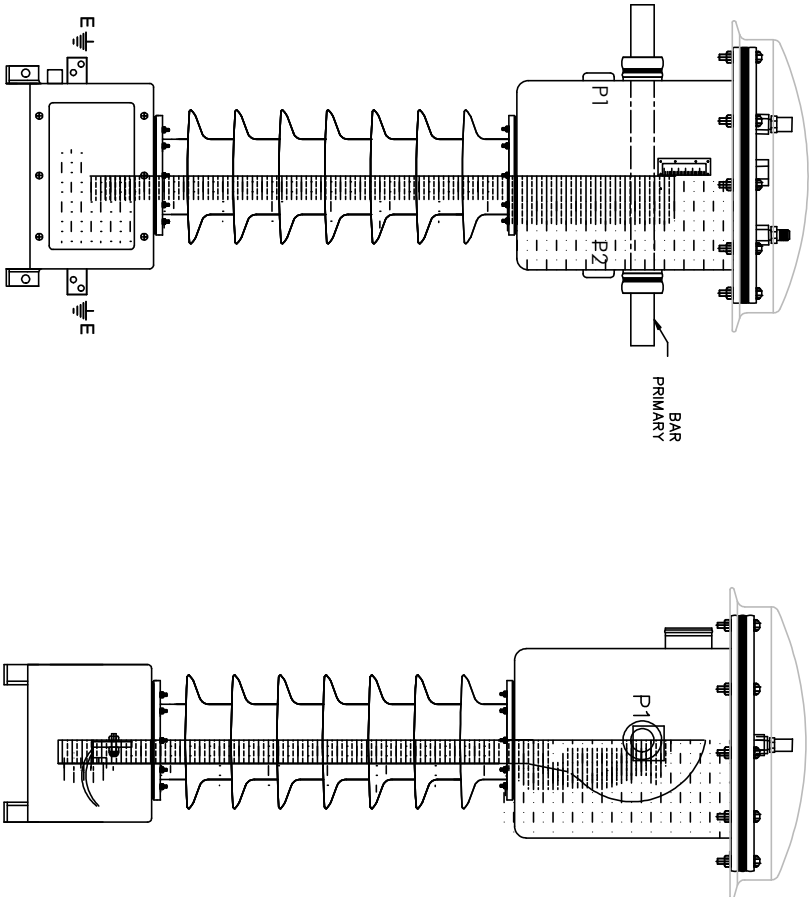
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1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the Substation during foundation works to ensure safe live to ground clearance as per IE rules.
2. Since the supply of terminal connectors is not in the scope of 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.

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



**NOTE: 1. DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS, TO BE CHECKED DURING ACCEPTANCE TESTS**  
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**Chief Engineer/Projects**  
**APTRANSCO/Vs/Vijaywada.**

DESIGN DATA:

PRIMARY WINDING:

- a. Area of Crosssection: 706.8 Sq.mm
- b. No. of turns: Single (Bar Primary)
- c. Conductor material: Electrolytic Copper
- d. Weight of conductor: 4.5Kgs approx.

SECONDARY WINDING:

- a. Area of Crosssection:  
Core-I: 20SWG (0.6555Sq.mm)  
Core-II: 21SWG (0.5185sq.mm)
- b. No. of secondary turns:  
Core-I: 400 Turns  
Core-II: 400 Turns
- c. Conductor material: Super enameled Copper wire

**FRONT VIEW**

**SIDE VIEW**

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 MINOR MODIFICATIONS WITHOUT NOTICE

**REV.# REVISION NOTE**

**DATE**

**TITLE:** CROSS SECTION VIEW OF 33KV OUTDOOR OIL COOLED LIVE TANK CURRENT TRANSFORMER OF RATIO 400/1-1A 033OC03G1B

DRAWN	NAME	SIGN	DATE
NH			11-01-2024
CHECK	SS		11-01-2024
APPR.	DS		11-01-2024

**STRATON**  
 ELECTRICALS PVT. LTD., HYDERABAD

DWG. NO.: AP7/033OC/01A  
 SHEET NO.: 02  
 NO OF SHEETS: 04

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# STRATON®

## CURRENT TRANSFORMER

MADE IN INDIA

TYPE DESIGNATION	33kV OUTDOOR OIL IMMERSSED CT	HIGHEST SYSTEM VOLTAGE (kV)	36	QTY. OF OIL (Lts)	20 (Approx.)
REF. STANDARD	IS 16227 (PART 1&2)	RATED SYSTEM VOLTAGE (kV)	33	WEIGHT OF CT (Kg)	90 (Approx.)
RATED FREQUENCY	50Hz	INSULATION LEVEL (kVrms/kVp)	70/170	TEMP. CAT.	-5/50°C
RATED S.T.C.	25KA/1SEC	INSULATION CLASS	A	MIN. CREEPAGE (mm)	900
CONNECTION DIAGRAM	<p>CAUTION: SECONDARY TERMINALS SHOULD BE SHORT CIRCUITED WHEN BURDEN IS NOT CONNECTED.</p>				

CT RATIO (A/A)	400/1-1A	CORE-1	CORE-2
CORE PURPOSE		PROTECTION	METERING
RATIO (A/A)	400/1		
TERMINAL CONNECTION	PRIMARY P1-P2 SECONDARY 1S1-1S2		
RATED BURDEN (VA)	15		
ACCURACY CLASS	5P		
ISF/ALF	10		
Vk (V)	-		
RESISTANCE @75°C (Ω)	-		
MAG. CURRENT (mA)	-		
CT SERIAL NUMBER			YEAR OF MANUFACTURING
CUSTOMER/CLIENT NAME	M/s. Transmission Corporation of Andhra Pradesh Limited.		
ORDER NO.	STRATON ELECTRICALS PVT. LTD., HYDERABAD - 502 319.		

- Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/V/LA/Breakers in the Substation during Foundation works to ensure safe live to ground clearance as per IE rules.
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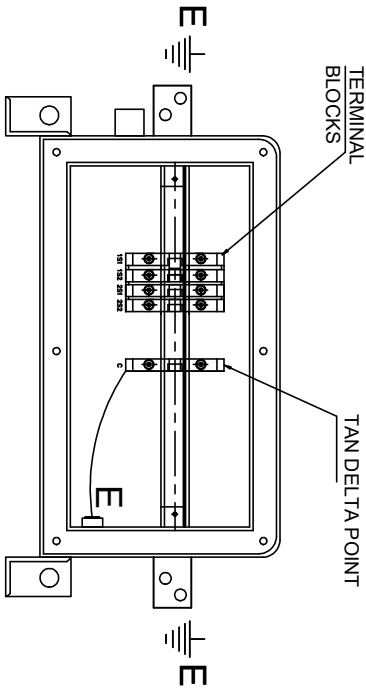
**Chief Engineer/Projects**  
**APTRANSCO/VS/Vijayawada.**

NOTE:-	REV.#	REVISION NOTE	DATE	PROJECTION:	SCALE: NTS	DRAWN	NAME	SIGN	DATE
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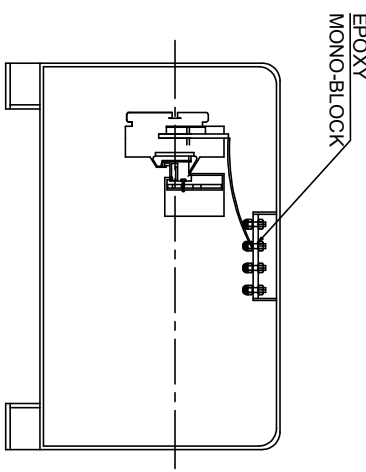
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1	2	3	4	5	6	7	8

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VIEW A-A'



SIDE VIEW

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

NOTES:

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 ALL WIRES IN SECONDARY TERMINAL BOX.

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					NH	SS	DS	AP7/0330C/01A	04			11-01-2024
					SS							11-01-2024
					DS							11-01-2024
												11-01-2024

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PROJECTION: SCALE: NTS

TITLE: SECONDARY TERMINAL BOX DRAWING  
OF 33KV OUTDOOR OIL COOLED LIVE TANK  
CURRENT TRANSFORMER OF RATIO 400/1-1A  
0330C02G1B

**STRATON**  
ELECTRICALS PVT. LTD., HYDERABAD

DWG. NO.: AP7/0330C/01A  
SHEET NO.: 04  
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