

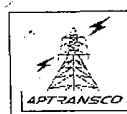


GUARANTEED TECHNICAL PARTICULARS FOR VOLTAGE TRANSFORMERS		
245kV VTs of Ratio : 220kV/v3 / 110V/v3 - 110V, 110V/v3 - Rev: 01		
S.No.	DESCRIPTION	REQUIRED
1	Type	Out Door, Single Phase, Oil Cooled & Hermetically sealed
2	Manufacturer's Type Designation	M245
3	Mounting of Tank	Pole / Structure Mounting
4	Conforming to Standard	IS:3156
5	System rated Voltage / Highest Voltage(kV)	220 / 245
6	Rated Primary Voltage (kV)	220kV / v3
7	Secondary Winding Details	
	a) No. of Secondary Windings	Winding-I Winding-II
	b) Rated Secondary Voltage (v)	110/ v3 110,110/v3
	c) Rated Burden	150 50
	d) Class of Accuracy	0.2 3P
8	Temperature rise at 1.1 times rated voltage with rated burden	Within limits as per IS-3156
9	Rated voltage Factor and Time	1.2 Continuous & 1.5 for 30 sec
10	Temperature rise for item-10 above(deg C)	Within limits as per IS-3156
11	Impulse withstand voltage(kV peak)	1050
12	One minute power frequency withstand test voltage on primary (kV rms)	460
13	One minute power frequency withstand test voltage on secondary (kV rms)	3
14	Porcelain bushings	MODERN / IEC / CJI / WSI / ADITYA BIRLA / RAVIKIRAN
15	Total Creepage distance of the bushing	* Min 6125mm / 7595 mm (For Severe Polluted) 
16	Protected Creepage distance of the bushing	
17	Quantity of insulating oil	320 Lts ±15% (approx.)
18	Weight of Oil	290 kg ±15% (approx.)
19	Total Weight including oil	1100kg ±15% (approx)
20	Mounting Details	Refer Enclosed GA Drawing No : 
21	Live parts to ground clearance	3-356-00-105/ R02
22	Whether VT is sealed construction with Nitrogen at top	Yes
23	Overall Dimensions in mm	
	Height	4450±150
	Length	800±100
	Breadth	800±100
24	Grade of Oil	EHV Grade
25	Voltage transformer shall carry 25% above the rated burden continuously without injury in respect of VTs	As per IS 3156
26	The type tests should have been conducted not earlier than 5 years in the standard third party laboratory. The manufacturer shall produce the type test reports at the time of acceptance test	Complied
27	Quality of material and applicable standard-BIS. The manufacturer shall produce the valid BIS certification at the time of acceptance.	Will furnish type test reports as per relevant IS / IEC standards
28	The Provision for measurement of Capacitance and dielectric dissipation factor (Tan) shall be provided.. The procedure of measuring capacitance and Tan shall be as per IEC 60044 & IEC 61869	Provided

* Exact Creepage Distance will be provided as per customer requirement mentioned in the relevant Technical specification.

Rev - 01 : Changes have been made according to Customer comments & changes are marked thus . 

Approved
25/10/13
Approved No. 204-23



Standardised Guaranteed Technical Particulars for
220kV/245kV Potential Transformer
STD/GTP-DWG/Approval No 204-23 / Revision Mo. 0
Prepared & Approved during November - 2013

APPROVED FOR TURNKEY PROJECTS

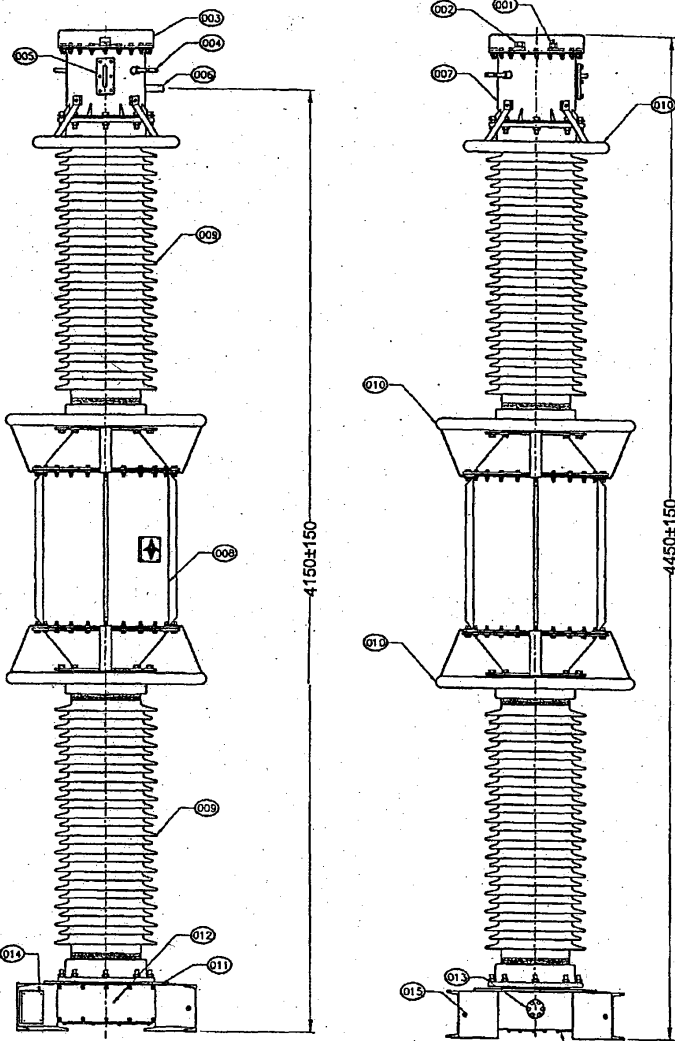
CHIEF ENGINEER / CONSTRUCTION
APTRANSCO / VIDYUTH SOUCHARIYD



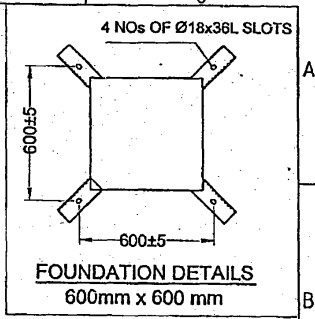
ALL DIMENSIONS ARE IN mm & WEIGHTS ARE IN kg UNLESS OTHERWISE SPECIFIED.

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CARE:



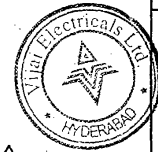
Ratio: $\frac{220kV}{\sqrt{3}} / \frac{110V}{\sqrt{3}} - 110V, \frac{110V}{\sqrt{3}}$



FRONT VIEW

SIDE VIEW

NOTE:-
 1. All metal parts exposed to atmosphere are Zinc Rich Epoxy Painted.
 2. Min. Creepage Distance : 6125mm / 7595mm (For Severe Polluted)



APPROVED FOR TURNKEY PROJECTS

CHIEF ENGINEER / CONSTRUCTION
 A TRANSDO/VIDYUTH SODHARY

DISTRIBUTION OF PRINTS			DISTRIBUTION OF PRINTS		
REV	DATE	ALTERED:	REV	DATE	ALTERED:
02	25.10.13	CHECKED: [Signature]	11	02.07.13	CHECKED: SD
		CHANGE HAS BEEN MADE ACCORD TO CUSTOMER COMMENTS			FIRST ISSUE
		CHANGE IS MARKED THIS			

VAR. NO.	FINISH	ITEM No.	DESCRIPTION	DRAWING No.	V.VAR. ITEM No.	MATERIAL CODE	WEIGHT/KG	QTY.
01	-	016	CABLE GLAND PLATE	-	-	MS	-	-
02	-	015	EARTHING BOLT	-	-	MS HDG	-	-
01	-	014	RATING PLATE	-	-	AL ANODISED	-	-
01	-	013	OIL DRAIN PLUG	-	-	MS	-	-
01	-	012	TERMINAL BOX	-	-	MS	-	-
01	-	011	BOTTOM TANK	-	-	MS	-	-
03	-	010	CORONA RINGS	-	-	ALUMINIUM	-	-
02	-	009	INSULATOR	-	-	PORCELAIN	-	-
01	-	008	MIDDLE TANK	-	-	MS	-	-
01	-	007	TOP TANK	-	-	MS	-	-
01	-	006	PRIMARY TERMINAL (Ø30x80L)	-	-	ALUMINIUM	-	-
01	-	005	OIL LEVEL GAUGE	-	-	PRISMATIC	-	-
02	-	004	SLING GUIDE	-	-	MS	-	-
01	-	003	RAIN SHIELD	-	-	ALUMINIUM	-	-
01	-	002	NITROGEN FILLING VALVE	-	-	BRASS	-	-
01	-	001	PRESSURE RELEASE DEVICE	-	-	BRASS	-	-

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: TRANSMISSION CORPORATION OF ANDHRA PRADESH

Standardised Drawing for 220kV/245kV Potential Transformer General Arrangement Drawing. (2017 revision No. 0)

STD/GTP-DWG/Approval No. 2017/ Revision Mo. 0

Prepared & Approved during November - 2013

G.A DRAWING OF 245 KV VT

DRAWING No. 3-356-00-105

SHEET No. 01 No. OF SHEETS. 02

* Exact Creepage Distance will be provided as per customer requirement mentioned in the relevant Technical specification

Approved No. 2017-24 sheet 1

ALL DIMENSIONS ARE IN mm & WEIGHTS ARE IN kg UNLESS OTHERWISE SPECIFIED.

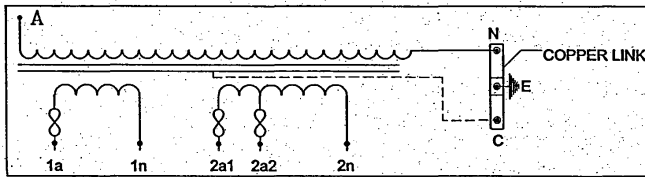
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CRF:

4 Nos OF Ø2 HOLES

VOLTAGE TRANSFORMER

STANDARD	IS:3156:1992	RATIO	$\frac{220kV}{\sqrt{3}} / \frac{110V}{\sqrt{3}} - 110V, 110V / \sqrt{3}}$
TYPE	M245	BURDEN	150 / 50-VA
N.S.V	220 KV	CLASS	0.2 / 3P
H.S.V	245 KV	INSULATION LEVEL	460kV rms/1050 kVP
No. OF PHASES	SINGLE	FREQUENCY	50Hz
VOLTAGE FACTOR	1.2 Continuous & 1.5 for 30 Sec.		
WEIGHT OF EQUIPMENT	1100 KG±15% (APPROX.)	QUANTITY OF OIL	320 LTS±15% (APPROX.)



VOLTAGE RATIO	PRIMARY CONNECTION	SECONDARY CONNECTIONS	
		WINDING-I	WINDING-II
$\frac{220kV}{\sqrt{3}} / \frac{110V}{\sqrt{3}}$	A - N	1a-1n	2a2-2n
$\frac{220kV}{\sqrt{3}} / 110V$	A - N	-	2a1-2n



Vijai Electricals Ltd., Hyderabad, INDIA.

YEAR OF MANUFACTURING SL. No.

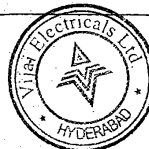
CUSTOMER: Transmission Corporation of Andhra Pradesh Limited (APTRANSCO)

P.O No & Date:

CAUTION: 1. TAN DELTA TERMINAL "C" MUST BE GROUNDED WHILE VT IS IN OPERATION
2. ENSURE SECONDARY (LV) TERMINALS ARE NOT SHORTED IN OPERATION.

119
129

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APPROVED FOR TURKEY PROJECTS

CHIEF ENGINEER / CONSTRUCTION -1
APTRANSCO/VIDYUTH SOUDHA/HYD

NOTE :-

1. MATERIAL: ALUMINIUM ANODISED.
2. DETAILS: BY ETCHING PROCESS, WHITE LETTERS - BLACK BACKGROUND.
3. THICKNESS 0.5mm (MIN.)
4. WHITE BACKGROUND SHALL BE PROVIDED FOR YEAR OF MANUFACTURING & Sl. No, BLANK SPACES.

*Approved No. 204-24
Sheet-1*

DISTRIBUTION OF PRINTS		
PPC	QA	
REV	DATE	ALTERED-CHECKED

VAR. 00	FINISH	ITEM No.	DESCRIPTION	DRAWING No.	V.VAR ITEM No.	MATERIAL CODE	WEIGHT/AMT. QTY.											
TYPE OF PRODUCT OR Transmission Corporation of Andhra Pradesh Limited (APTRANSCO)																		
NAME OF CUSTOMER/PROJECT																		
<table border="1"> <tr> <td rowspan="2"> </td> <td>Standardised Drawing for 220kV/245kV Potential Transformer Rating & Connection Diagram</td> <td>SIGNATURE</td> <td>DATE</td> </tr> <tr> <td>STD/GTP-DWG/Approval No. 204/27 Revision Mo. 0</td> <td><i>[Signature]</i></td> <td>08-10-13</td> </tr> <tr> <td colspan="2">Prepared & Approved during November - 2013</td> <td>09-17-13</td> <td>08-10-13</td> </tr> </table>									Standardised Drawing for 220kV/245kV Potential Transformer Rating & Connection Diagram	SIGNATURE	DATE	STD/GTP-DWG/Approval No. 204/27 Revision Mo. 0	<i>[Signature]</i>	08-10-13	Prepared & Approved during November - 2013		09-17-13	08-10-13
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	STD/GTP-DWG/Approval No. 204/27 Revision Mo. 0	<i>[Signature]</i>	08-10-13															
Prepared & Approved during November - 2013		09-17-13	08-10-13															
TITLE: RATING & CONNECTION DIAGRAM FOR 245KV VT				DRAWING No. 3-356-02-037		REV 01												
SHEET No. 01						No. OF SHEETS. 01												