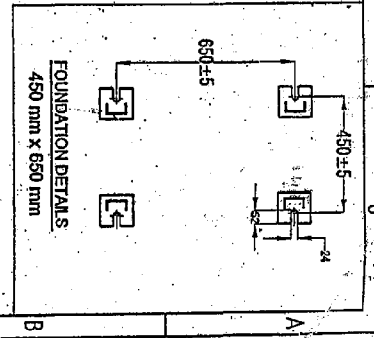


RATIOS : 1) 200/1A, 1C
2) 400/1A, 1C
3) 600/1A, 1C

Standardised Drawing for 220 KV Current Transformers
(M/s Vijai Electrical Limited)
STD/GTP-D/VG/Approval No. 2742-01 sheet Revision No.0
Prepared & Approved during December - 2013
Customer ref : APTRANSCO
Title: GA Drawing of 245 CT (ratio: 1) 200/1A, 1C, 2) 400/1A, 1C
3) 600/1A, 1C

APPROVED FOR TURNKEY PROJECTS
Chief Engineer/Construction
APTRANSCO, Vijay Soudha, Hyd.

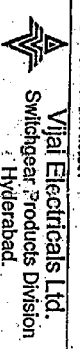


NOTE:-
* 01. MIN CREEPAGE DISTANCE : 6125mm (For heavily polluted) /
7595mm (For very heavily polluted).
02. ALL FERROUS PARTS EXPOSED TO ATMOSPHERE
ARE ZINC RICH EPOXY PAINTED.

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

DISTRIBUTION OF PRINTS	
REV	DATE
01	01/01/2013

TYPE OF PRODUCT	
OR	TRANSFORMER CORPORATION OF ANDHRA PRADESH
NAME OF CUSTOMER/PROJECT	
Vijai Electricals Ltd.	
Switchgear Products Division	
Hyderabad.	



GRADE OF TOOL/DWG	
C/R/F	1/100
SCALE	
NTS	
TITLE	
GA DRAWING OF 245KV CT.	
DRAWING No.	
3-316-00-386	
SHEET No.	
01	
DATE	
01/01/2013	
BY	
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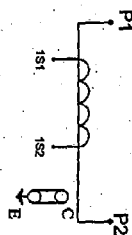
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100	100

C. REF :
ALL DIMENSIONS ARE IN mm & WEIGHTS ARE IN kg UNLESS OTHERWISE SPECIFIED, DIM: SWITCH GEAR UNIT.

CURRENT TRANSFORMER

STANDARD	IS:2705-1992.	HIGHEST SYSTEM VOLTAGE	245KV
FREQUENCY	50 Hz	RATED SYSTEM VOLTAGE	220KV
RATED S.T.C	40 KA ms / 1 Sec.	TYPE DESIGNATION	DT245
WT. OF CT	100 KAP	INSULATION LEVEL	460/1050 N/KAP
WT. OF CT	900 Kg(15% Appx)	RATED THERMAL CURRENT	720 A
CORE			
RATIO	PRIMARY (A)	SECONDARY (A)	600
RATED BURDEN (VA)	1	5	
ACCURACY CLASS	0.2S		
I.S.F / A.L.F	< 10 / -		
KNEE POINT VOLTAGE (V)	-		
RESISTANCE AT 75°C (Ohm)	-		
MAG. CURRENT at V _K (mA)	-		

RATIO	PRIMARY CONNECTION	SECONDARY CONNECTION
600 / 1	P1-P2	CORE - I 1S1-1S2



CAUTION
1. SECONDARY TERMINALS MUST BE SHORTED AND EARTHED WHEN NOT IN USE / BEFORE DISCONNECTING THE BURDEN
2. 1VW DELTA TERNAL "C" MUST BE GROUNDED WHILE CT IS IN OPERATION



Vijai Electricals Ltd., Hyderabad, INDIA.

YEAR OF MANUFACTURING	SL. No.
CUSTOMER	
P.O. No.	

APPROVED FOR TURNKEY PROJECTS

Chief Engineer/Construction
APTRANSCO, Vijay Soudha, Hyd.

NOTE :-

1. MATERIAL: ALUMINIUM ANODISED.
2. DETAILS: BY ETCHING PROCESS, WHITE LETTERS - BLACK BACKGROUND.
3. THICKNESS: 0.5 mm (MIN.)
4. WHITE BACKGROUND SHALL BE PROVIDED FOR YEAR OF MANUFACTURING & S/N BLANK SPACES.

RATIO : 600 / 1A, 1C

Standardised Drawing for 220 kV Current Transformers (M/s Vijai Electrical Limited) STD/GTP-DWG/Approval No. 276-2.01 sheet Revision No.0 Prepared & Approved during December - 2013
Customer ref : APTRANSCO Title: Rating & connecting Diagram for 245KV CT (ratio: 600/1A,1C)

VAR. NO.	FINISH	ITEM	DESCRIPTION	DRAWING No.	V.VAR MATERIAL CODE
QTY.	No.				QTY.

Vijai Electricals Ltd.
Switchgear Products Division
Hyderabad.

Transmission Corporation of Andhra Pradesh Ltd., Hyderabad.

GRADE OF TOLUOLM
CMVF 3500-00-000

SCALE: NTS

RATING & CONNECTING DIAGRAM FOR 245KV CT

DRW. NO.	NAME	DATE
CMVF 3500-00-000	MANAGER	10/10/2013
REF TO ASSY DRG.	REF TO ASSY DRG.	

DRAWING No. 3-316-00-385
SHEET No. 04 No. OF SHEETS. 04

Customer : APTRANSCO, Hyderabad

**GUARANTEED TECHNICAL PARTICULARS FOR CURRENT TRANSFORMERS
(220kV CTs of ratio 600/1A, 1C) - USED FOR EXCLUSIVE METERING.**

1	Type of tank/Installation	Dead Tank / Out door
2	Type of mounting	Pole / Structure Mounting
3	Manufacturer's Name and address and Country of Manufacture	M/s Vijai Electricals Ltd., Rudraram, Patancheru, Medak Dt.
4	Conforming to standard	IS - 2705-1992.
5	a i) Primary and Secondary winding made out of (As per clause 4.12,4.13,4.14)	EC Grade Copper
	ii) Primary windings - Design density for short circuit current - Conductivity of metal used.	180 A/sq.mm - 97 %
	b i) Area of cross section of primary winding	240 sq.mm
	ii) Area of cross section of secondary winding	19 SWG (0.82 sq.mm)
	c Material used for providing secondary terminals	TIN PLATED BRASS
6	Rated primary voltage (kV rms)	220
7	Rated highest voltage (kV rms)	245
8	Rated frequency (Hz)	50
9	Rated primary current (A)	600
10	Rated secondary current (A)	1
11	Ratio taps (on secondary side only)	On Secondary Side
12	Type of insulation	Oil impregnated Paper
13	Seismic acceleration (g)	0.5
14	RIV at 1.1 x Rated voltage (uV)	< 500
15	Tank material and Tank coating (As per clause 3.1.3 & 3.1.4)	MS of min. 3mm thickness / Zinc rich epoxy Painted
16	Hardware exposed to atmosphere (As per clause 3.1.4)	Hot Dip Galvanized
17	Bolts, Nuts and Washers (As per clause 3.1.4)	Stainless Steel
18	Porcelain housing and it make (Single piece only as per clause 3.1.2)	MODERN / ABI / WSI / CJI / IEC
19	Sealing (Nitrogen gas cushion/Metal bellow as per clause 3.1.7)	Nitrogen Gas cushion
20	Instrument security factor (As per clause 4.10)	< 10
21	Whether test tap provided (As per clause 3.1.14A)	Yes
22	Acceptable limit of temperature	As per IS: 2705 / IEC:60044-1
23	Acceptable partial discharge level at 1.1 times the rated voltage	< 10 pC
24	Rated short time withstand current for 1 sec. duration (kA rms)	40
25	Rated dynamic withstand current (kAp)	100
26	Rated continuous thermal current (pu) where pu = rated current	1.2
27	Impulse withstand voltage (kVp)	1050
28	One minute power frequency withstand voltage (kV rms) of primary winding (Dry)	460

Signature
14/11/13

Page 01 of 02
10.05.13

Customer : APTRANSCO, Hyderabad			
GUARANTEED TECHNICAL PARTICULARS FOR CURRENT TRANSFORMERS (220kV CTs of ratio 600/1A, 1C) - USED FOR EXCLUSIVE METERING.			
29		One minute power frequency withstand voltage of secondary winding (kV rms)	3
30	a	Minimum total creepage distance of insulator bushing (mm)	* Min 6125mm (For Heavily Polluted) / 7595 mm (For Very Heavily Polluted).
	b	Protected creepage of distance of bushing (mm)	NA
31		Details of Cores Core No.	CORE - I
	31.1	Current Ratios A/A	600 / 1
	31.2	Output burden (VA)	5
	31.3	Class of accuracy	0.2S
	31.4	Accuracy limit factor	—
	31.5	Min. knee point voltage (kpv)	—
	31.6	Secondary resistance corrected to 75 deg.C	—
	31.7	Max. exciting current at	—
		20% of knee point voltage	—
		50% of knee point voltage	—
		100% of knee point voltage	—
	31.8	Application	Metering
32		Weight of oil (Kg.)	243 ±15% (Approx.)
33		Total Weight (Kg.)	900 ±15% (Approx.)
34		Mounting details	Refer Enclosed GA Drawing: 3-316-00-386 / R01
35		Overall dimensions	
36		Characteristics (whether graphs enclosed):	APPROVED FOR TURNKEY PROJECTS
	a	Ratio and phase angle curves	—
	b	Magnetisation curves	Chief Engineer/Construction-I
	c	Ratio correction factor curves	APTRANSCO, Vidyut Soudha, Hyd. NA
37		Core	
	a	Area of cross section	As per Design Requirements
	b	Flux density at rated primary current and rated burden.	< 1.2 Tesla
38		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
39		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
40		The provision for measurement of Capacitance & Dielectric Dissipation factor (Tan Delta) shall be provided. The procedure & measuring of Capacitance & Tan Delta shall be as per IEC: 60044 & IEC:61869	Provided

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

Signature
16/11/13

Page 02 of 02
20.11.13

Standardised Drawing for 220 kV Current Transformers (M/s Vijai Electrical Limited)
STD/GTP-DWG/Approval No. 276-1 02 sheets Revision No.0
Prepared & Approved during December - 2013
Customer ref : APTRANSCO
Title: GTP for CTs (220kV CTs of ratio 600/1A,1C) used for exclusive metering