

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS, TO BE CHECKED DURING ACCEPTANCE TESTS.
LIST OF STANDARD DRAWINGS
FOR EPC CONTRACTS ONLY

145 KV INDUCTIVE VOLTAGE TRANSFORMER		VTR RATIO = $\frac{132kV}{\sqrt{3}} / \frac{110V}{\sqrt{3}}$				
SR.NO.	TITLE	DRAWING NO.	REV.	RECORD		
				APPLICATION	RETURN	CC
			KIND	DATE	DATE	CC
01	GENERAL ARRANGEMENT DRAWING	145IVT HC I WDG GA	R0	AA	15.09.2021	
02	SECTIONAL VIEW	145IVT HC I WDG SV	R0	AA	15.09.2021	
03	RATING & SCHEMATIC DIAGRAM	145IVT HC I WDG RS	R0	AA	15.09.2021	
04	SECONDARY BOX ASSEMBLY	145IVT HC I WDG SB	R0	AA	15.09.2021	

1) Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators in the substation during foundation works to ensure safe live to ground clearances 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 contractors shall be instructed to supply the same in line with CT/PT/CVT/Isolators requirement and compatibility.

AA : Application for Approval
 RA : Reapplication for Approval
 FD : Final Drawing
 RD : Reference Drawing
 AP : Approved
 AC : Approved with Corrections
 RC : Return for Corrections
 CC : Customer Comments

Drawing approval subject to valid vendor registration

Chief Engineer
Power Systems, Planning & Design
APTransco

PACKING DIMENSIONS : L-920 x W-680 x H-2725 mm.
 NET WEIGHT : 400 Kg. (Approx.)
 GROSS WEIGHT : 600 Kg. (Approx.)

SURFACE FINISH.....
 FINISH : MS COMPONENT- HOT DIP GALVANISED.

Customer : APTRANSCO
 Customer Order Ref. :
 QUANTITY :

IF IN DOUBT ASK

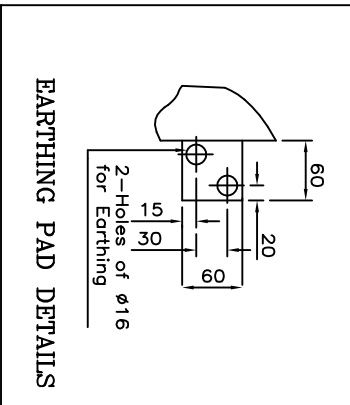
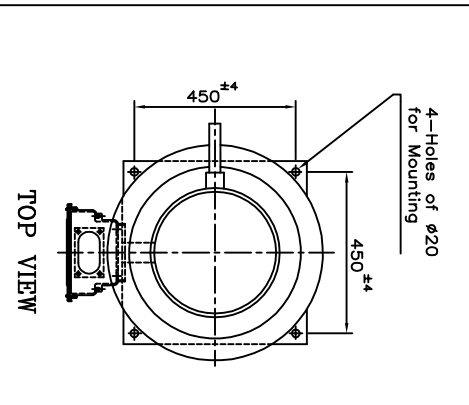
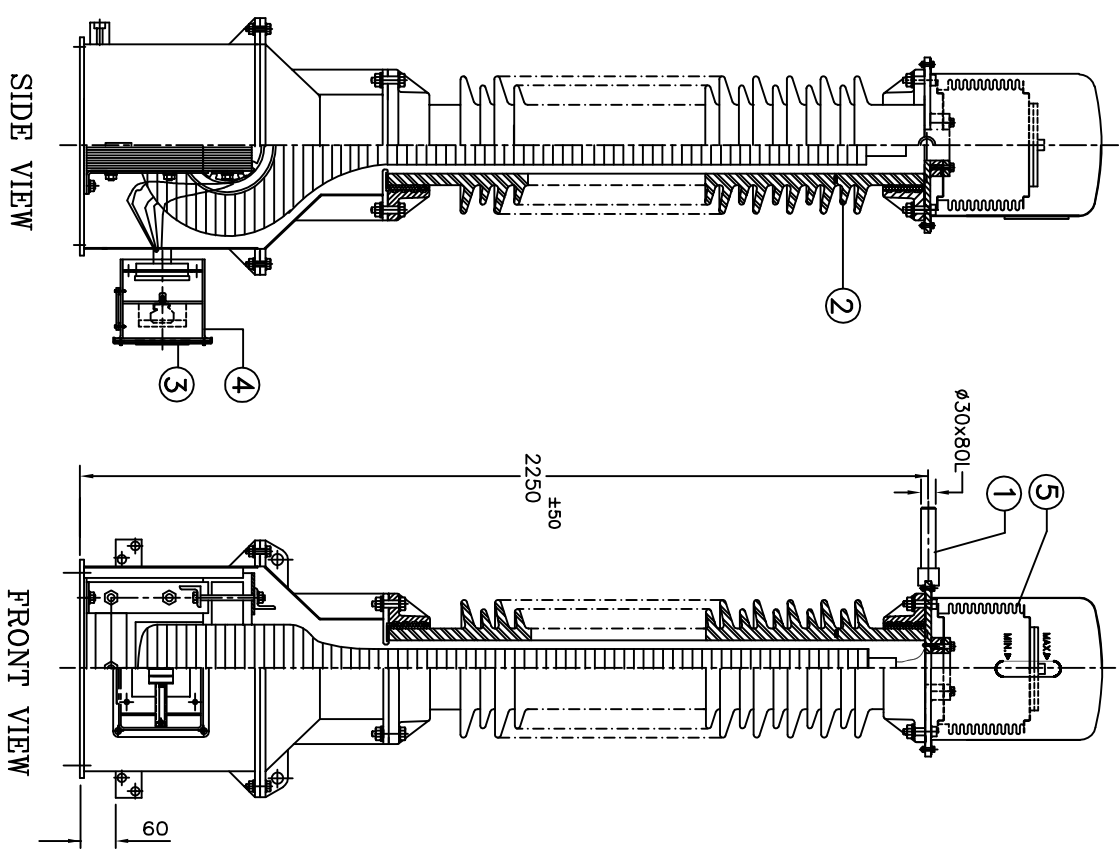
NO	REVISION	SIGN	DATE	NO	REVISION	SIGN	DATE	SCALE	N.T.S.	DATE	ALL DIMENSIONS ARE IN mm
R6				R4							
R5				R3							
				R2							
				R1							

LIST OF DRAWINGS
 145 KV INDUCTIVE VOLTAGE TRANSFORMER
 TYPE-VTR01:145/650/50



CG Power and Industrial Solutions Limited, Auroangabad
 DRG-NO--145IVT HC I WDG LD/RO

IF IN DOUBT ASK



NO.	QTY.	DESCRIPTION	MATERIAL
1	1	PRIMARY TERMINAL (ø30x80L) Min.	COPPER
2	1	PORCELAIN INSULATOR (BROWN COLOUR)	PORCELAIN
3	1	RATING & SCHEMATIC DIAGRAM	145VT HC I WDG RS
4	1	SECONDARY TERMINAL BOX	145VT HC I WDG SB
5	1	BELLOWS	STAINLESS STEEL

NOTE : PLEASE REFER INSTRUCTION MANUAL FOR HANDLING & TRANSPORTATION OF VT.

NO	REVISION	SIGN	DATE	NO	REVISION	SIGN	DATE	NO	REVISION	SIGN	DATE
R6				R4				R2			
R5				R3				R1			

NO	REVISION	SIGN	DATE	SCALE	N.T.S.	DATE	ALL DIMENSIONS ARE IN mm
						15.09.2021	

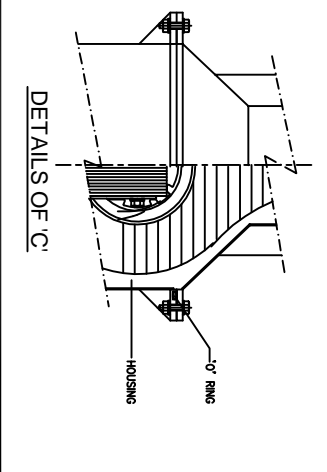
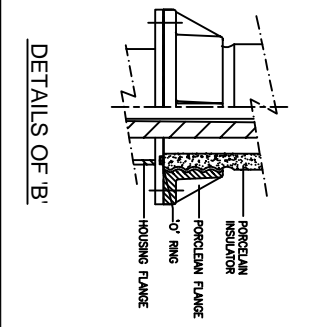
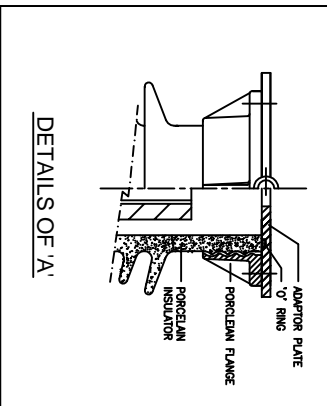
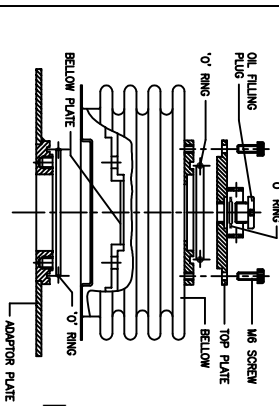
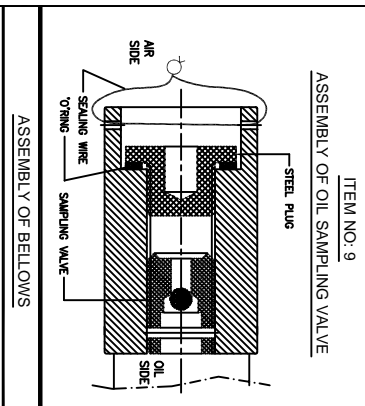
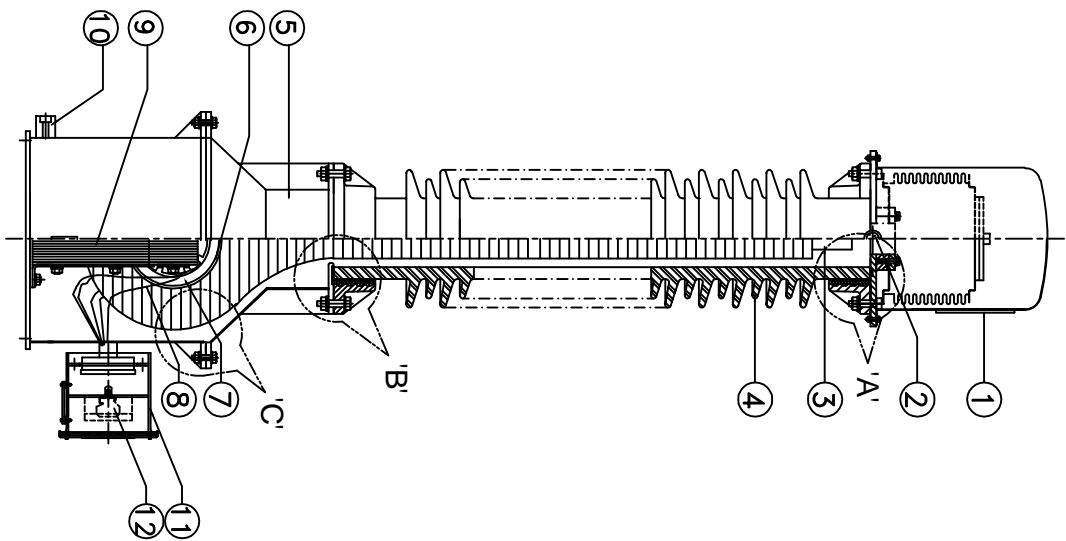
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CG Power and Industrial Solutions Limited, Aurangabad
DRG.NO.-145VT HC I WDG GA/RO

GENERAL ARRANGEMENT DRAWING
FOR 145 VT INDUCTION MACHINER
TYPE-VE01:45/650/50

IF IN DOUBT ASK



ITEM	QTY.	DESCRIPTION
1	1	OIL LEVEL INDICATOR
2	1	PRIMARY TERMINAL (ø30x80mm, Long Min)
3	1	COND. BUSHING
4	1	PORCELAIN INSULATOR
5	1	HOUSING
6	1	SHIELD
7	1	PRIMARY WINDING
8	1	SECONDARY WINDING
9	1	CRGO-CORE
10	1	OIL SAMPLING VALVE
11	1	SECONDARY TERMINAL BOX
12	4	SECONDARY TERMINALS

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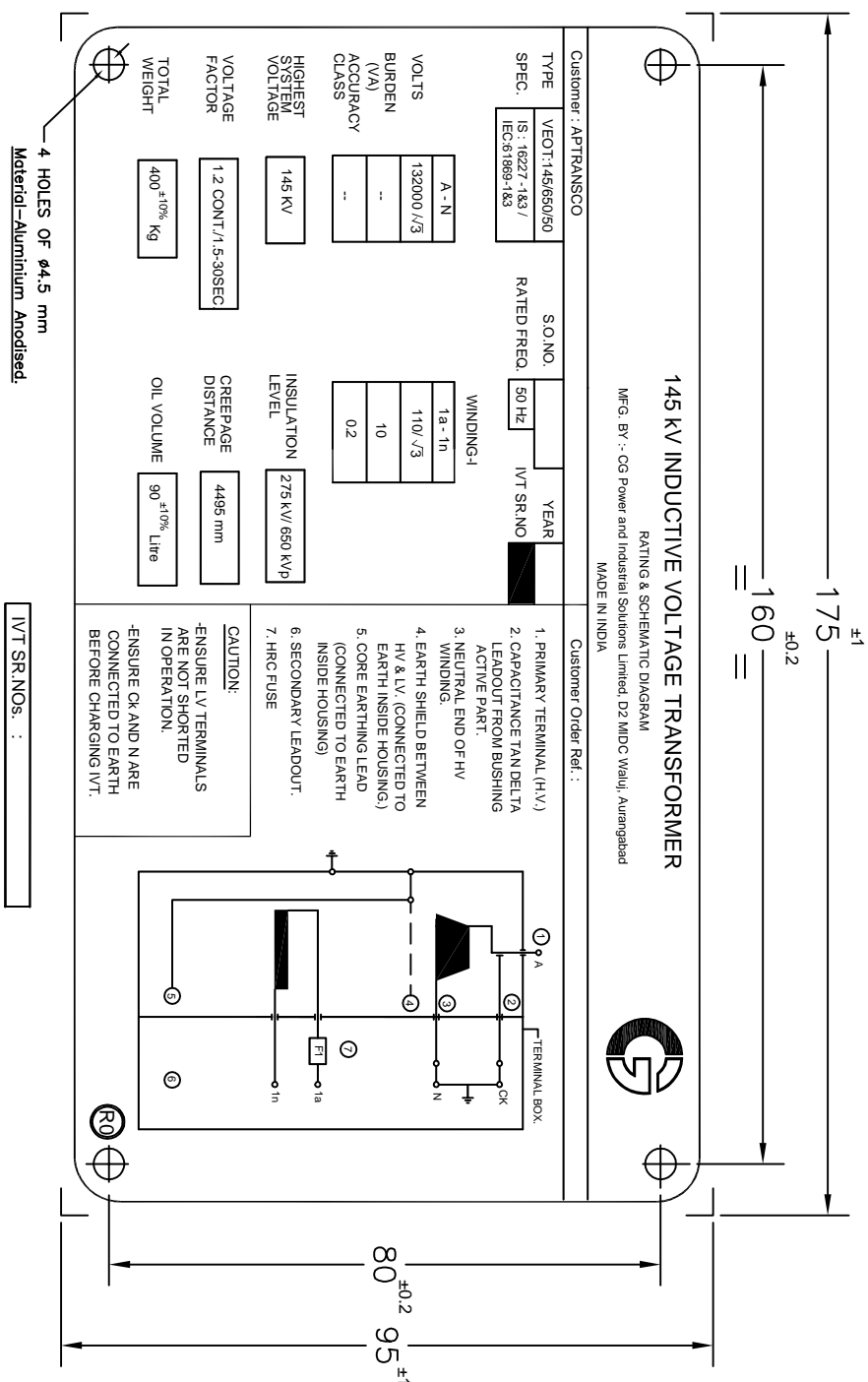
R6			R4		R2															
R5			R3		R1															
NO	REVISION	SIG	DATE	NO	REVISION	SIG	DATE	NO	REVISION	SIG	DATE	NO	REVISION	SIG	DATE	NO	REVISION	SIG	DATE	NO

SECTIONAL VIEW DRAWING
DR 16 AT INDICATE VALVE POSITION
TYPE - VERT: 145 / 650 / 50
DATE: 15.09.2021
ALL DIMENSIONS ARE IN mm
DCG Power and Industrial Solutions Limited, Aurangabad
DRG.NO.-145VT HC 1 WDG SV/RO



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IF IN DOUBT ASK

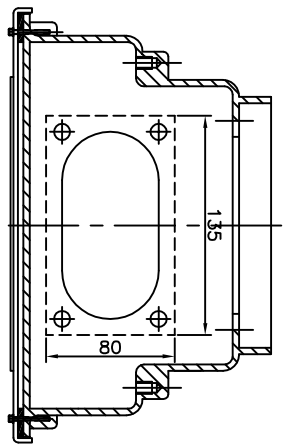


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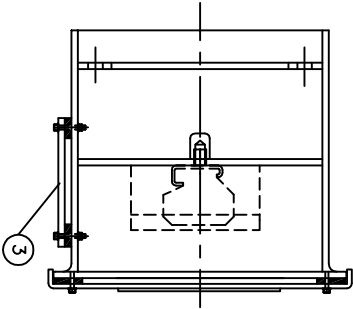
NO	REVISION	SIGN	DATE	SCALE	DATE	NAME	SIGN
R6		R4				SSM	
R5		R3				SSM	
		R1				SSM	

CG Power and Industrial Solutions Limited, Aurangabad
 DRG.NO--145IVT HC I WDG RS/R0

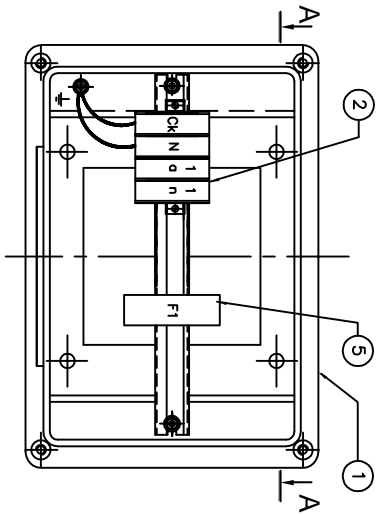
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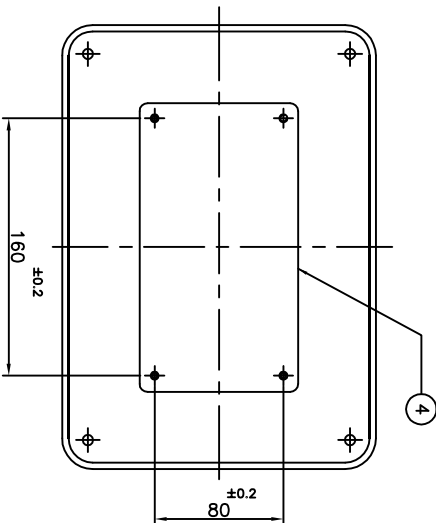
TOP VIEW (SECTION A-A)



SIDE VIEW



ELEVATION



COVER

S.L.NO.	QTY	ITEM	MATERIAL	RM. SIZE/SPECIFICATION
1	1	SECONDARY BOX ASSEMBLY	ALUMINIUM	DRG.NO.-480684
2	4	SEC:TERMINAL BLOCK WITH MARKER	MELAMINE	MAKE: ELMEX KBT M5-15
3	1	GLAND PLATE	ALUMINIUM	135x80 mm.
4	1	RATING & SCHEMATIC DIAGRAM	ALUMINIUM ANOD.	--
5	1	HRC FUSE	RATING-6AMP., REPUTED MAKE	

- NOTES :
- 1) SECONDARY BOX ASSEMBLY TO CONFIRM IP55 AS PER IS:13947
 - 2) OK:TERMINAL FOR CAPACITANCE & TAN DELTA MEASUREMENT ONLY. SHOULD BE KEPT EARTHED WHEN NOT IN USE.

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NO	REVISION	SIGN	DATE	NO	REVISION	SIGN	DATE	NO	REVISION	SIGN	DATE	SCALE	N.T.S.	DATE:15.09.2021	ALL DIMENSIONS ARE IN mm
R6				R4				R2							
R5				R3				R1							
DRN				STJ				SSM							
CHD				SSM				SSM							
APPD				SJS				SJS							



CG Power and Industrial Solutions Limited, Aurangabad
DRG.NO: 14517 HC I VDS 3B/R0

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Vacuum Interrupters and Instrument Transformers Division: Power Systems
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**GUARANTEED TECHNICAL PARTICULARS FOR
 ELECTROMAGNETIC (INDUCTIVE) VOLTAGE TRANSFORMERS**

REF.	145 KV IVT	132000/√3 /110/√3 V , High Creepage.			Revision No.	R0
Sr#	Particulars	Unit	Values			
1	Type/ Installation					
2	Manufacturer's Name and Country of Manufacture		CG Power and Industrial Solutions Limited Aurangabad, India			
3	Manufacturers Type designation		VEOT:145/650/50			
4	Highest System Voltage (Ph. to ph.)	kV	145			
5	Type of insulation used		Class A (Oil Impregnated Paper)			
6	Rated Frequency	Hz	50			
7	Suitable for Altitude (Max)	Meters	1000			
8	Conforming to Standard		IS: 16227-1&3 / IEC: 61869-1&3			
9	Rated System Voltage	kV	132/√3			
10	No. of Secondary Windings		One			
11	Secondary Winding Details		I			
12	Rated Primary voltage	Volts	132000/√3			
13	Rated Secondary Voltage	Volts	110/√3			
14	Rated Secondary Burden	VA	10			
15	Accuracy Class		0.2			
16	Rated Voltage Factor		1.2 Continuous, 1.5 for 30 secs.			
17	Simultaneous Burden		NA			
18	One minute Power Frequency (Wet & Dry) withstand Voltage on Primary Winding	kV rms	275			
19	1.2/50 micro sec. Lightning Impulse withstand Voltage	kV peak	650			
20	One minute Power Frequency withstand Voltage on Secondary Winding	kV rms	3			
21	Total Creepage distance	mm (mm/kV)	4495 (31 mm/kV)			
22	Primary Terminal material & details		Copper, φ30 x 80 mm long			
23	Surface Finish of MS components exposed to atmosphere		Hot Dip Galvanized			
24	Secondary Terminal Box arrangement		Single Door Box.			
25	Volume of Oil	Litres	90 +/-10%			
26	Total weight of equipment	kg	400 +/-10%			
27	Mounting details	mm	4 holes of φ20 at 450 x 450 mm			
28	Dielectric Dissipation Factor (Tan-Delta)		< 0.005			
29	Measurement of Partial Discharge @ 1.2 UM/ √3	pC	< 5			
30	Measurement of Partial Discharge @ UM	pC	< 10			

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Registered Office:
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 Corporate Identity Number: L99999MH1937PLC002641

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