

MANUFACTURER'S ADDRESS		MANUFACTURING QUALITY PLAN						PROJECT NAME						
		ITEM : POTENTIAL TRANSFORMER VOLTAGE CLASS - UPTO 230 kV										QP NO :	REV.NO. :	DATE :
SL. NO.	COMPONENTS & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK			REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	INSPECTION AGENCY			REMARKS
					M	C	N				M	C	N	
1	2	3	4	5	6			7	8	9	10			11
1.0	Bought out items													
1.1	Insulation Paper	1 Visual	Major	Visual	100%	1 sample	1 sample	Free From Damage	Free From Damage	In-House TC	P	V	V	
		2 Dimension Thickness	DO	Measure	1 sample/ lot	-	-	As per Mfg. Std / IS : 9335 PART-3	As per Mfg. Std / IS : 9335 PART-3	STC	V	-	-	Sub Supplier Test Certificate
		3 Grammage	DO	DO	DO	-	-	DO	DO	DO	V	-	-	(STC) shall be provided
		4 Tensile Strength	DO	Test	DO	-	-	DO	DO	DO	V	-	-	during final inspection at our works
		5 Elongation at Break	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
		6 Conductivity of aq. Extract	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
		7 Ph of aq. Extract	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
		8 Ash Content	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
		9 Moisture Content	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
1.2	Supper Enamelled Copper wiro	1 Dimension	Major	Measure	1 sample/ lot	-	-	IS 13730	IS 13730	STC	P	-	-	
		2 Elongation	DO	Test	DO	1 sample	1 sample	DO	DO	DO	V	V	V	
		3 Springness	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
		4 Flexibility & adherenco	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
		5 Resistance to abrasion	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
		6 Resistance Measurement	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
		7 Heat Shock Test	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
		8 Cut Through Test	DO	Test	1 sample	-	-	IS 13730	IS 13730	STC	V	-	-	
		9 Breakdown Voltage	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
1.3	Porcolain Insulator	1 Visual Examination	Major	Visual	100%	1 sample	1 sample	Free From Damage	Free From Damage	STC	P	V	V	
		2 Dimension	DO	Measure	1 sample/ lot	-	-	As per Drg. / Mfg Std. IS 5621	As per Drg. / Mfg Std. IS 5621	DO	V	-	-	
		3 Electrical Routine Test	DO	Test	DO	-	-	IS 5621	IS 5621	DO	V	-	-	
		4 Porosity Test	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
		5 Temperature Cycle Test	DO	DO	DO	-	-	DO	DO	DO	V	-	-	
1.4	Tank & Tank Cover	1 Visual	Major	Visual	100%	-	-	Free from Damage	Free from Damage	In-House TC	P	-	-	
		2 Dimension	DO	Measure	1 sample/ lot	-	-	As per Drawing	As per Drawing	DO	P	-	-	
		3 Leakage Test	DO	Test	100%	-	-	Leakage Check at 30 P.S.I	No Leakage at 30 P.S.I	STC	V	-	-	
MANUFACTUER SEAL			LEGEND :- * M :MANUFACTURER / SUB- SUPPLIER, C : CONTRACTOR, N : CUSTOMER , " P " PERFORM " W " WITNESS AND " V " VERIFICATION , "P.C.C" PROCESS CONTROL CARD , " STC " SUB SUPPLIER TEST CERTIFICATE "P.O." PURCHASE ORDER											
SIGNATURE									REVIEWED BY	APPROVED BY	APPROVAL SEAL			

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			ITEM : POTENTIAL TRANSFORMER VOLTAGE CLASS - UPTO 230 KV			QP NO : REV.NO : DATE : PAGE : 2 OF 4								
SL. NO.	COMPONENTS & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK			REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS
					M	C	N				M	C	N	
1	2	3	4	5	6			7	8	9	10			11
1.5	Nitrile butyle Rubber O Ring	1 Visual	Major	Visual	100%	1 sample	1 sample	Free from Damage As Per Drg. / Mfg. Std. IS : 3400 DO DO DO	Free from Damage As Per Drg. / Mfg. Std. IS : 3400 DO DO DO	In-House TC STC DO DO DO DO	P	V	V	
		2 Dimension	DO	Measure	1 sample/ lot	-	-				V	-	-	
		3 Hardness	DO	Test	DO	-	-				V	-	-	
		4 Tensile Strength	DO	DO	DO	-	-				V	-	-	
		5 Elongation at Break %	DO	DO	DO	-	-				V	-	-	
		6 Compression Set at 70°C	DO	DO	DO	-	-				V	-	-	
1.6	Coro (CRGO)	1 Dimension	Major	Measure	1 sample/ lot	-	-	As per Dwg. / P.O. Free From Damage	As per Dwg. / P.O. Free From Damage	In-House TC DO	P	-	-	
		2 Surface defects	DO	Visual	100%	-	-				P	-	-	
1.7	S.R.B.C Gasket	1 Visual	Major	Visual	100%	1 sample	1 sample	Free from Damage As Per Drg./ Mfg. Std. IS : 4253 DO DO DO DO	Free from Damage As Per Drg./ Mfg. Std. IS : 4253 DO DO DO DO	In-House TC STC DO DO DO DO	P	V	V	
		2 Dimension	DO	Measure	1 sample/ lot	-	-				V	-	-	
		3 Hardness	DO	Test	DO	-	-				V	-	-	
		4 Tensile Strength	DO	DO	DO	-	-				V	-	-	
		5 Compressibility	DO	DO	DO	-	-				V	-	-	
		6 Compression Set at 110°C for 24 hours	DO	DO	DO	-	-				V	-	-	
1.8	Insulating Oil	1 Appearance	Major	Visual	100%	-	-	IS 335 : 1993	Oil shall be clear & Transparent IS 335 : 1993	STC DO	V	-	-	
		2 Density at 29.5 °C	DO	Test	1 Sample / Chamber	-	-	DO			DO	V	-	
		3 Kinematic viscosity	DO	DO	DO	-	-	DO	DO	V	-	-		
		4 Interfacial tension at 27 °C	DO	DO	DO	-	-	DO	DO	V	-	-		
		5 Flash Point	DO	DO	DO	-	-	DO	DO	V	-	-		
		6 Pour Point	DO	DO	DO	-	-	DO	DO	V	-	-		
		7 Neutralization Value	DO	DO	DO	-	-	DO	DO	V	-	-		
		8 Water Content ,ppm	DO	DO	DO	-	-	DO	DO	V	-	-		
		9 Corrosive Sulpher	DO	DO	DO	-	-	DO	DO	V	-	-		
		10 Electrical Strength (B.D.V.) K.V.(rms)	DO	DO	DO	1 Sample / Chamber	1 Sample	1 Sample	DO	DO	V	V	V	
		10 Dielectric dissipation factor (tan delta)	DO	DO	DO	DO	1 Sample	1 Sample	DO	DO	V	V	V	
11 Specific resistivity a) at 90 ° C b) at 27 ° C	DO	DO	DO	DO	1 sample	1 sample	DO	DO	V	V	V			
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MANUFACTURER'S ADDRESS	MANUFACTURING QUALITY PLAN ITEM : POTENTIAL TRANSFORMER VOLTAGE CLASS - UPTO 230 kV	QP NO : REV.NO. : DATE : PAGE : 3 OF 4	PROJECT NAME
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					M	C	N				M	C	N	
1	2	3	4	5	6			7	8	9	10			11
2.0	IN PROCESS CHECK													
2.1	Coil Testing	1 Power frequency withstand test on Primary Winding. 2 Power frequency withstand test on Secondary Winding. 3 Determination of errors according to the Requirements of appropriate accuracy class. 4 Verification of Terminal marking & Polarity test	Major DO DO DO	Test DO DO DO	100% DO DO DO	- - - -	- - - -	IS 3156 DO DO DO	IS 3156 DO DO DO	P.C.C. DO DO DO	P P P P	- - - -	- - - -	
2.2	Base & Tank Assembly	1 Pressure test on complete assembly at 10 p.s.i. for 8 hrs 2 Visual Inspection & Fitment of Secondary Terminals 3 Fitment of Primary Terminal 4 Fitment of Insulator	Major DO Major DO	Measure Visual Physical DO	100% DO 100% DO	- - - -	- - - -	Leakage check at 10 P.S.I As per App. Dwg. As per App. Dwg. DO	No Leakage As per App. Dwg. As per App. Dwg. DO	P.C.C. DO DO DO	P P P P	- - - -	- - - -	
2.3	Vacuum Drying & Oil Impregnation	1 Temperature of Oven 2 Vacuum Leakage 3 Measurement of Water in Vapor Condenser 4 Oil Test A) Tan Delta B) B.D.V C) PPM D) Specific Resistivity	Major DO DO DO	- Test DO Test	Hourly Reading 6 Hourly DO For every charge	- - - -	- - - -	W1 / VAC / 7.5.1/ 02 W1 / VAC / 7.5.1/ 02 W1 / VAC / 7.5.1/ 02 IS 335 : 1993	90 - 100 deg.C No Leakage No water for 6 hours in vapor IS 335 : 1993	LOG BOOK DO DO DO	P P P P P P P	- - - -	- - - -	

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					M	C	N				M	C	N	
1	2	3	4	5	6			7	8	9	10			11
3.0	Final Testing (ROUTINE & ACCEPTANCE TEST)													
		1 Visual & Dimension Check	Critical	Test	1 Sample / Lot	1 Sample / Lot	1 Sample / Lot	Approved Drawing	Approved Drawing	Test Report	P	W	W	
		2 Verification of Terminal marking Polarity	DO	Measure	100%	100%	100%	IS 3156	IS 3156	DO	P	W	W	
		3 Determination of errors according to the Requirements of appropriate accuracy class (100 % rated voltage)	DO	Test	DO	DO	DO	DO	DO	DO	P	W	W	
		4 Power frequency dry withstand test on Primary winding.	DO	DO	DO	DO	DO	DO	DO	DO	P	W	W	
		5 Power frequency dry withstand test on secondary Winding.	DO	DO	DO	DO	DO	DO	DO	DO	P	W	W	
		6 Induced Over Voltage Test	DO	DO	DO	DO	DO	DO	DO	DO	P	W	W	
		7 Measurement of Partial Discharge	DO	DO	DO	DO	DO	DO	DO	DO	P	W	W	If Applicable
4.0	Packing & Dispatch													
		1 Check for Proper Packing	Major	Physical	100%	-	-	As per Plant Std.	As per Plant Std.	-	P	-	-	
		2 Preparation of Invoice	DO	DO	DO	-	-	-	-	-	P	-	-	

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