



ISO 9001 CERTIFIED

Form 3.2.1-D Rev. 0

TECHNICAL PROPOSAL INFORMATION

Customer: G2092 Date: _____
 Proposal No: _____ Spec No: _____ Item No: _____

RATING							
Type	Transformer	Class	H Winding		X Winding		Y Winding
Phase	3		230 Wye	kV	18 Delta	kV	kV
Hertz	60	ONAN	150,000	KVA	150,000	KVA	KVA
Temp Rise	38 °C Average, 43°C Hot Spot	ONAF	210,000	KVA	210,000	KVA	KVA
Insul Liquid	NON PCB OIL TYPE IEC	Fut-ONAF	231,000	KVA	231,000	KVA	KVA
Top Oil Rise	40°C, Ambient 55°C			KVA		KVA	KVA

ADDITIONAL TAP VOLTAGES		
H Winding (Kv)	± 10 of 1.25 %	On Load, Full Power Tapping
X Winding (Kv)		

CONNECTIONS FOR OPERATION						
Transformers in Bank	To Transformer From	Phase	Connected	To Transformer To	Phase	Connected
-	-	-	-	-	-	-

PERFORMANCE BASED ON A LOADING OF				DIELECTRIC TESTS				INSULATION LEVELS			
								ITEMS	Basic Lightning Impulse (kV)		
								Winding	Bushing		
H Winding	230.0	kV	210.0	MVA	Applied Voltage (To other winding and ground)	H Winding	275	kV	H Line	1050fw/950ss	1050
X Winding	18.0	kV	210.0	MVA		X Winding	50	kV	H neutral	650	650
Y Winding		kV	-	MVA		Y Winding	-	kV	X line	150	150
-	-	-	-	-		Induced Voltage	One Hour Enhancement	255	kV	X neutral	-
-	-	-	-	-			283	kV	Y line	-	-

PERFORMANCE DATA, Based on 75 °C Reference Temperature, 210 MVA Altitude: 1000 Mts.					
Losses and Exciting Current				Regulation	
Excitation	% Ex	No Load Kw (20°C)	Total Loss Kw	Power Factor	% Regulation
100%	0.330	100	530	0.80	9.674
110%	0.650	135	565 *	0.85	7.458
-	-	* Not Guaranteed		1.00	1.263

AUXILIARY (COOLING) LOSSES			
Transformer KVA	Class	KWatts Loss	
150,000	-	ONAN	0
210,000	-	ONAF	30
231,000	-	Fut-ONAF	40 for 110 % future load
-	-	-	-
-	-	-	-
Average Sound Level 78/78/78 dB ONAN/ONAF/Fut-ONAF			

PERCENT IMPEDANCE VOLTS					
% IZ	Between Windings	At kVA	% IZ Zero	Between Windings	At kVA
14.75	H-X	210,000	13.75*	H-X	210,000
*		-	*		-
*		-	*		-

* APPROXIMATE ONLY, NOT GUARANTEED

EFFICIENCIES (p.f = 1) AT 210 MVA				
Load	Full Load	3/4 Load	1/2 Load	1/4 Load
%	99.774	99.801	99.812	99.755

MECHANICAL DATA		
Not for Construction Purposes		
Outline Dwg No:	215667A3	
Operation dimensions are Including external radiator bank Mts.		
Height	(A)	9.21
Width	(B)	24.00
Depth	(C)	8.85
Height over Cover	(D)	5.13
Untanking (Plus slings)	(E)	10.26
Shipping Dimensions:	WxDxH	10.15x4.62x5.13
Masses (Approximate)	Kg	
Core and Coils	146,220	
Tank and Fittings	150,335	
Liquid	144,031	Liters 129,630
Total Mass	426,185	
Shipping without OIL	190,595	
Shipping with OIL H=	-----	