



ISO 9001 CERTIFIED

Form 3.2.1-D Rev. 0

**TECHNICAL PROPOSAL INFORMATION**

Customer: G2277

Date:

Proposal No: --- Spec No: Item No:

RATING							
Type	Transformer	Class	H Winding		X Winding		Y Winding
Phase	3		380 Wye	kV	13.8 Delta	kV	13.8 Delta kV
Hertz	60	ONAN	132,000	KVA	66,000	KVA	66,000 KVA
Temp Rise	50 °C Ambient, 48°C Hot Spot	ONAF	176,000	KVA	88,000	KVA	88,000 KVA
Insul Liquid	NON PCB OIL TYPE IEC	ONAF	220,000	KVA	110,000	KVA	110,000 KVA
	-	-	-	KVA	-	KVA	- KVA

ADDITIONAL TAP VOLTAGES		
H Winding (Kv)	± 10 of 1.25 %	On Load Tap Changer, Full Power Tapping
X Winding (Kv)	-	
Y 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			ITEMS	
H Winding	X Winding	Y Winding		Applied Voltage (To other winding and ground)	H Line/Neutral		Winding	Bushing
380.0 kV	13.8 kV	13.8 kV	220.0 MVA		630/275 kV	H Line	1425fw/1050s	1425
					X Winding 95 kV	H neutral	650	650
					Y Winding 95 kV	X line	250	250
				Induced Voltage	One Hour Enhancement	436 kV	-	-
						485 kV	-	-
INSULATION LEVELS								
Basic Lightning Impulse (kV)								

PERFORMANCE DATA, Based on <b>75</b> °C Reference Temperature, <b>220</b> MVA Altitude: <b>1000</b> Mts.					
Losses and Exciting Current				Regulation (Approximate)	
Excitation	% Ex	No Load Kw (20°C)	Total Loss Kw	Power Factor	% Regulation
100%	0.312	140	571	0.80	8.964
110%	0.466	185 *	616 *	1.0	1.134
-	-	* Not Guaranteed		-	-

AUXILIARY (COOLING) LOSSES			
Transformer KVA	Class	KWatts Loss	
132,000	ONAN	0	
176,000	ONAF	10	
220,000	ONAF	20	
-	-	-	
-	-	-	
Average Sound Level		80	dB ONAF

PERCENT IMPEDANCE VOLTS					
% IZ	Between Windings	At kVA	% IZ Zero	Between Windings	At kVA
13	H-X	110,000	13*	H-X	110,000
13	H-Y	110,000	13*	H-Y	110,000
25*	X-Y	110,000	-	-	-

\* APPROXIMATE ONLY, NOT GUARANTEED

EFFICIENCIES (p.f = 1) AT 220 MVA				
Load	Full Load	3/4 Load	1/2 Load	1/4 Load
%	99.741	99.769	99.775	99.697

<b>MECHANICAL DATA</b>	
<b>Not for Construction Purposes</b>	
Outline Dwg No:	<u>216272C1</u>
Operation dimensions are Including external radiator bank	
<b>Dimensions</b> (Approximate)	Mts.
Height	(A) <u>10.72</u>
Width	(B) <u>15.14</u>
Depth	(C) <u>16.29</u>
Height over Cover	(D) <u>4.73</u>
Untanking (Plus slings)	(E) <u>9.46</u>
<b>Shipping Dimensions:</b>	WxDxH <u>12.1 x 5.12 x 4.73</u>
<b>Masses</b> (Approximate)	Kg
Core and Coils	<u>190,133</u>
Tank and Fittings	<u>152,768</u>
Liquid <u>183,130</u> Liters	<u>164,817</u>
<b>Total Mass</b>	<u>507,738</u>
<b>Shipping without OIL</b>	<u>237,881</u>

Shipping with OIL H= \_\_\_\_\_ -