



ABB POWER T&D COMPANY INC.

THREE PHASE
60 HERTZ

GSU
TRANSFORMER
CLASS 0A/FA/FA

WINDING
230000 GRD.Y/ 132791 VOLTS
13200 VOLTS

L-SPEC LNM5931-08
WIRING DIAGRAM LNM5931-04

65° C. AVG. RISE
111000/148000/185000 KVA
111000/148000/185000 KVA

SERIAL

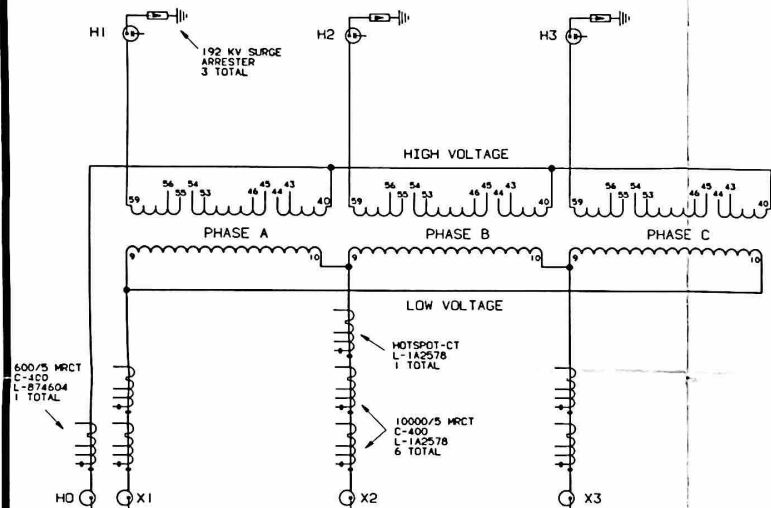
BALLBOB OIL, TRANS. TANK

IMPEDANCE % AT 111000 KVA, 230000 TO 13200 VOLTS

FULL WAVE IMPULSE TEST LEVEL: H-WDG 750 KV, X-WDG 110 KV, H-WDG NEUTRAL AND BUSHING 150 KV, H-WDG BUSHING 900 KV, X-WDG BUSHING 150 KV.

APPROX. WEIGHT IN LBS. CORE AND COILS CASE OIL TOTAL

CAUTION: DO NOT ATTEMPT TO HANDLE, INSTALL, USE OR SERVICE THIS TRANSFORMER BEFORE READING INSTRUCTION BOOK LNM5931-12. TO DO SO MAY LEAD TO BODILY INJURY OR PROPERTY DAMAGE OR BOTH.



CONNECTIONS						
WINDING	VOLTAGE	185000 KVA AMPERES	DE-ENERGIZED TAP CHANGER			
			OPER POSITION	TAP CHANGER "A" CONNECTS IN EACH PHASE	TAP CHANGER "B" CONNECTS IN EACH PHASE	
H.V. WYE	241500	442.3	1	44 - 45	1	54 - 55
	235750	453.1	2	43 - 45	2	54 - 55
	230000	464.4	3	43 - 45	3	54 - 56
	224250	476.3	4	43 - 45	4	53 - 56
	218500	488.8	5	43 - 46	5	53 - 56
X.V. DELTA	13200	8092				

THE 25°C LIQUID LEVEL IS 14.5 INCHES BELOW TOP OF HIGHEST MANHOLE FLANGE. LIQUID LEVEL CHANGES 1.160 INCHES FOR EACH 10°C CHANGE IN AVERAGE LIQUID TEMPERATURE.

THE TRANSFORMER IS DESIGNED FOR OPERATION BETWEEN PRESSURE LIMITS OF 6.5 POUNDS PER SQUARE INCH POSITIVE AND 0.5 POUNDS PER SQUARE INCH POSITIVE.

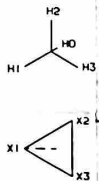
THE HIGH VOLTAGE WINDING NEUTRAL MUST BE PERMANENTLY GROUNDED EITHER DIRECTLY OR THROUGH A LOW IMPEDANCE. IF AN IMPEDANCE IS PLACED IN THE GROUND CIRCUIT, THE VOLTAGE FROM NEUTRAL TO GROUND DURING A FAULT MUST NOT EXCEED 25000 VOLTS.

THE TRANSFORMER TANK IS DESIGNED TO WITHSTAND COMPLETE VACUUM AND AN INTERNAL PRESSURE OF 10 POUNDS PER SQUARE INCH.

UNTANKING WEIGHT (HEAVIEST PIECE) 174205 POUNDS.

CONDUCTOR MATERIALS - H.V. CU, L.V. CU.

PHASOR DIAGRAM:



MADE IN U.S.A. MFG. DATE (SHIPMENT) NP# LNM5931-10 SUB C

.032 STAINLESS STEEL #6240-SATIN FINISH-ETCHED-FILLED WITH BLACK ENAMEL.
REDUCE TO 7-1/2 IN. X 15 IN. 1/4 IN. HOLE (4 TOTAL)
PROPORTION 2:1 14-7/16 IN. BETWEEN CENTERS OF HOLES ON LONG EDGE OF PLATE.
ASSEMB. SEC. MUNCIE. 6-15/16 IN. BETWEEN CENTERS OF HOLES ON SHORT EDGE OF PLATE.

SUB	B	REMOVED DES. C FROM 185000 KVA IN CONNECTIONS ALSO ADDED AN ARROW TO THE 53 MIDDLE CT.	C	ADDED X.V. DELTA INFORMATION TO CONNECTIONS CHART.						
	DATE	10-30-92	DATE	12/16/92	DATE		DATE		DATE	
	N.P. DRAFT. A. FRANKLIN	N.P. DRAFT. K. REED	N.P. DRAFT. CHD.	N.P. DRAFT. CHD.	N.P. DRAFT. CHD.	N.P. DRAFT. CHD.	N.P. DRAFT. CHD.	N.P. DRAFT. CHD.	N.P. DRAFT. CHD.	
	ENGINEER	ENGINEER	ENGINEER	ENGINEER	ENGINEER	ENGINEER	ENGINEER	ENGINEER	ENGINEER	
LNM5931-10	A	ABB POWER T&D COMPANY INC. TRANSFORMER INSTRUCTION NAMEPLATE								ABB
	APPARATUS TRANSFORMER INSTRUCTION NAMEPLATE								LNM5931-10	
DIMENSIONS IN INCHES-SCALE NTS. 1/4" = 1"										
POWER TRANSFORMER DIVISION										