

TRANSFORMER DATA SHEET

DATE : 12/19/2014
 CUSTOMER : HVES
 CIRCUIT/LOCATION : HVES 94
 MANUFACTURER : GE Prolec
 TRANSFORMER TYPE : Pad Mount CLASS : ONAN
 S/N : M10L12841

THREE PHASE SINGLE PHASE : 60 HERTZ

VOLTAGE RATING: 13200-480Y/277

LV WINDING: ALUMINUM

KVA RATING: 2000 Continuous, Self Cooled
 Continuous, Forced Air

HV WINDING: ALUMINUM

LV: 65°C rise, BIL: 30kV

HV: 65°C rise, BIL: 95kV

NAMEPLATE DATA

Core & Coils	5529
Case & Fittings	3206
Oil in Gallons	436
Weight in Pounds	12005

Fluid Type : Mineral Oil

Impedance volts : 5.42 % at rated volts at : 2000 KVA

MEGGER TEST RESULTS

TRANSFORMER TEST DATA

1 Minute

POLARIZATION INDEX

CAPACITANCE

High-> Ground	100k	M-Ohms, @	5	kV DC	2.5	0.02	micro-farad
Low -> Ground	100k	M-Ohms, @	1	kV DC	2.1	0.02	micro-farad
High-> Low	100k	M-Ohms, @	1	kV DC	1.9	0.02	micro-farad

TRANSFORMER TTR TESTS

TAP (V)	CALC. TTR	PHASE 1	PHASE 2	PHASE 3
13860	50.000	49.980	49.979	49.977
13530	48.800	48.775	48.780	48.779
13200	47.600	47.578	47.580	47.575
12870	46.400	46.380	46.385	46.377
12540	45.200	45.175	45.183	45.179

COMMENTS

Original Tag 11374, New Tag 11505

GE PROLEC GE PROLEC Commercial Transformers
Certified Transformer Test Report

Order : RDT334
 Position Num: 30430559
 Purchaser: HIGH VOLTAGE ELECTRIC IN
 3 Phases, 60 Hz Coolant: OIL
 Winding High Voltage
 2000 KVA BIL: 95 KV
 13200 Volts Connection: Delta

Product Number: M10L12841
 RDT334-01-001
 Purchaser Order: 102510MM-1
 Phase Polarity: SUBTRACTIVE
 Winding Low Voltage
 2000 KVA BIL: 30 KV
 480 Volts Connection: Wye
 Nominal Pos: 3

TAPS: 1 13860 2 13530 3 13200 4 12870 5 12540

Losses; Impedance and Regulation corrected to 85 °C and are based on wattmeter measurements unless otherwise stated.
 The resistance for 3 phase transformers is the sum of 3 phases in series divided by 2

Serial:	Test Date	Resistance (ohms, 24°C)		%Exc Amps	2000 kVA 13200 to 480		% Imp	% R	% X	X / R
		H.V.	L.V.		No load Loss	Load Loss				
M10L12841	12/23/10	0.3492	0.000554	0.217	2457.70 W 20°C	11673.41 W 85°C	5.42	0.58	5.39	9.24
				* Average :	0.217	2457.70 W	11673.41 W	5.422		
* For main coolant				* Guarantees Max:	-----	-----	-----	5.320 - 6.180		

Serial:	Regulation (P.F)				
	100%	90%	85%	80%	75%
M10L12841	0.7280	2.9776	3.4241	3.7769	4.0675

Temperature rise calculated from basic design data which has been verified by test results of similar transformers

Insulation Test

Applied Potential Test :				Induced Potential Test :			
Winding:	Rated Volts	Test volts Applied	Duration of test	Two times: 960 volts at 240 Hz for 7200 cycles			
H.V.	13200	34 KV	60 Secs.	Routine Impulse Test: 1.2 x 50 µs waves			
H.V.	480	10 KV	60 Secs.	HV Reduced full-wave 47.5 kV HV Full wave 95 kV			
				LV Reduced full-wave 15 kV LV Full wave 30 kV			

Serial: M10L12841	Ratio Test Results					Load (Watts)	%Z	H.V. (ohm)
	TAP	Phase A	Phase B	Phase C	Calculated			
No. 1	13860	49.976	49.982	49.974	50.000	11673.4140 W	5.42	0.349
No. 2	13530	48.776	48.782	48.774	48.800			
No. 3	13200	47.576	47.582	47.572	47.600			
No. 4	12870	46.378	46.382	46.375	46.400			
No. 5	12540	45.172	45.182	45.176	45.200			

Serial:	Insulation Power Factor: % corrected to 20 °C			Winding Capacitance (Picofarads)		
	CH	CL	CHL	CH	CL	CHL
M10L12841	0.284	0.284	0.330	1646	7801	12910

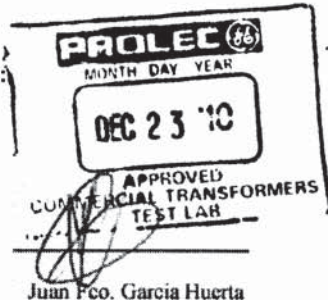
Efficiency:	125%	100%	75%	50%	25%	(% of Full Load)
M10L12841	99.18	99.30	99.40	99.47	99.37	

Liquid testing
 Serial: M10L12841 Power Factor: 0.041 Dielectric: 47.00 Kv
 This unit above contained less than 1 ppm PCB at the time of manufacture.

Pressure Test Results:
 Serial: M10L12841 PSI: 7 Duration: 4 Hrs
 Forma: 10.9-C

Here by verify this is a true report based on factory tests made in accordance with the latest ANSI C57 test code and that each transformer withstood the insulation test

Date: 12/23/2010

Approved: 
PROLEC
 MONTH DAY YEAR
DEC 23 '10
 APPROVED
 COMMERCIAL TRANSFORMERS
 TEST LAB
 Juan Pco. Garcia Huerta

PROLEC



3 PHASE PADMOUNTED TRANSFORMER CLASS ONAN

65°C RISE 60 HERTZ MFG DATE SER

KVA 2000

IMPEDANCE @ 85°C
RATED VOLTS %

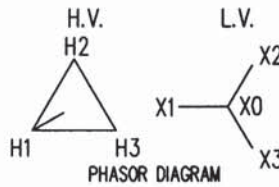
HV 13200

ORDER NUM RDT334

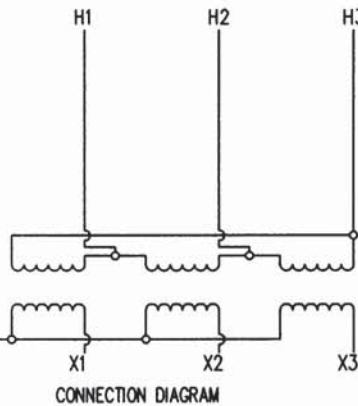
LV 480Y/277

BIL HV 95 BIL LV 30 MAT HV Al MAT LV Al

GALLONS OF OIL TYPE I	436	
MASS	kg	pounds
CORE & COIL UNTANKING (HEAVIEST PIECE)	2509	5529
TANK	1455	3206
LIQUID OIL TYPE I	1484	3270
TOTAL WT	5448	12005



TAP CHANGER		
TAP POS	VOLTAGE	65°C AMPS
1/A	13860	83.3
2/B	13530	85.3
3/C	13200	87.5
4/D	12870	89.7
5/E	12540	92.1

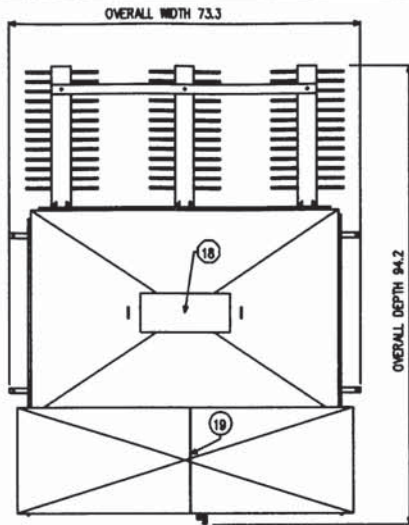


DOE 10 CFR PART 431 10/12/07 COMPLIANT
 MAXIMUM OPERATING PRESSURES OF LIQUID PRESERVATION SYSTEM: 48kPa (7 lb/in²) POSITIVE AND 34 kPa (5 lb/in²) NEGATIVE
 TANK DESIGNED FOR 48kPa (7 lb/in²) VACUUM FILLING
 LIQUID LEVEL BELOW TOP SURFACE OF THE HIGHEST POINT OF THE HIGHEST HANDHOLE FLANGE AT 25°C IS 132 mm (5.2 in)
 LIQUID LEVEL CHANGES 8 mm (0.3 in) PER 10°C CHANGE IN LIQUID TEMPERATURE
 PERCENT IMPEDANCE STATED ABOVE AT RATED VOLTS AT 2000 KVA
 CAUTION BEFORE OPERATING READ INSTRUCTION GE-75025M

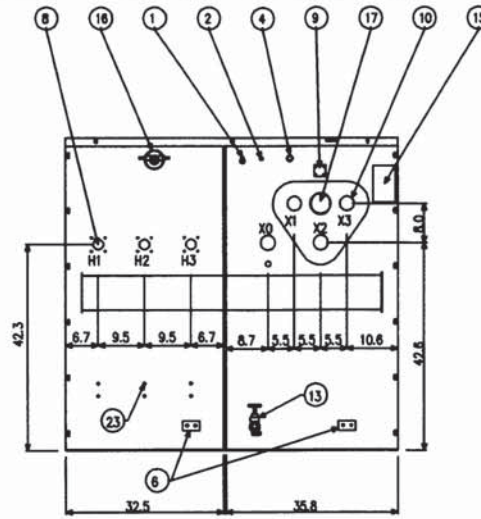
CONTAINS NO DETECTABLE LEVEL OF PCB (LESS THAN 1 PPM) AT THE TIME OF MANUFACTURE
 MADE IN MEXICO PROLEC GE INTERNACIONAL S. DE R.L. DE C.V. www.prolecge.com

IMPEDANCE MEETS ANSI STANDARDS
 WITH TOLERANCE OF +/-7.5%
 ACTUAL TESTED IMPEDANCE WILL BE
 STAMPED ON NAME PLATE

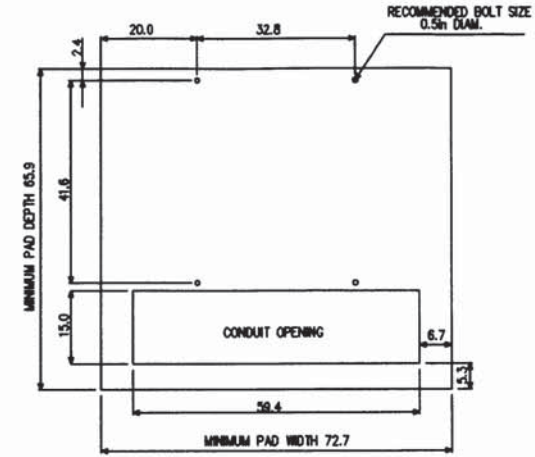
REV.	Draftman : AUDI	Customer/Project Name : HIGH VOLTAGE ELECTRIC	Cat. Number :
	Review: JVD	Title : NAMEPLATE	
	App: JVD	Description : 2000 KVA, 3 PHASE, 60 HERTZ, 13200-480Y/277 VOLT 65 °C DELTA - WYE COOLING ONAN	
	Sheet 1 of 1		
Rev. 0			DRAWING NUMBER: RDT334COA



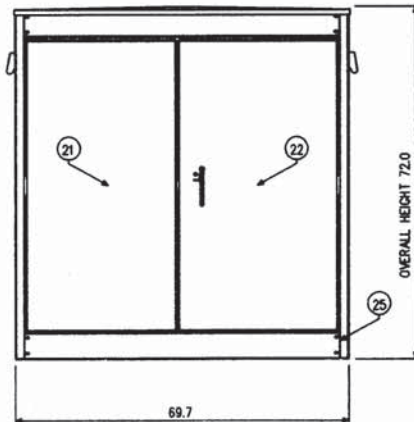
TOP VIEW



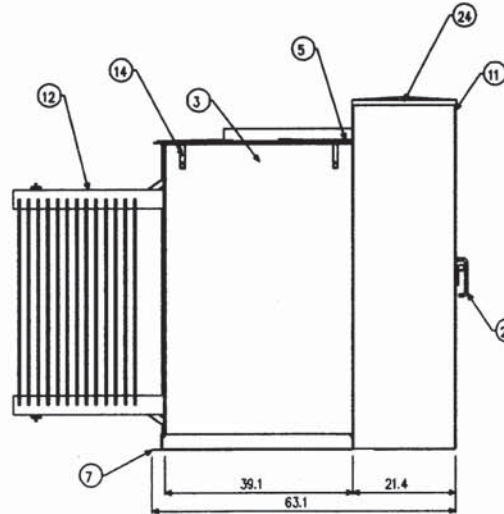
HV & LV DETAIL



MOUNTING PAD-SUGGESTED MINIMUM SIZE

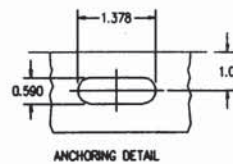


FRONT VIEW



SIDE VIEW

1	PRESSURE RELIEF VALVE, QUALITROL 202-032-01 50 SCFM
2	PROVISION FOR PRESSURE VACUUM GAUGE
3	TANK (MILD STEEL)
4	1 INCH FILL PROVISION
5	TANK COVER
6	GROUND PADS
7	BASE (MILD STEEL)
8	LIVE FRONT PORCELAIN BUSHING WITH 3 HOLE BLADE 95KVBIL 200A
9	LIQUID LEVEL GAUGE
10	LV BUSHING 10 HOLE BLADE SUPPORTED 30KVBIL 3300A
11	CABINET (MILD STEEL)
12	RADIATORS (MILD STEEL)
13	1" DRAIN VALVE WITH 3/8" SAMPLER IN LV.
14	LIFTING LUGS
15	ANODIZED ALUMINUM NAMEPLATE
16	TAP CHANGER HANDLE
17	THERMOMETER
18	HAND HOLE 8"X19"
19	REMOVABLE PARTITION
20	DOOR HANDLE WITH PROVISION FOR PADLOCK
21	HV DOOR W/PENTA HEAD BOLT
22	LV DOOR W/PENTA HEAD BOLT
23	ARRESTORS PROVISIONS
24	CABINET REMOVABLE HOOD
25	REMOVABLE SILL (MILD STEEL)



ANCHORING DETAIL

TRANSFORMER WEIGHTS

CORE & COIL	5 529 LBS
TANK AND FITTINGS	3 208 LBS
436 GALLONS OF OIL	3 270 LBS
TOTAL WEIGHT	12 005 LBS

Note: Overall Dimensions are nominal with tolerance of +/- 0.5 all other dimensions have a tolerance of +/- 0.1

<http://www.prolecga.com>

DESIGNED TO OPERATE BELOW 3300.0 FEET ABOVE SEA LEVEL

Draftman: ALDI	Customer:	REQ. NO.:
REV: JVD	HIGH VOLTAGE ELECTRIC	
App: JVD	Title:	
Scale: 1:31	OUTLINE DRAWING	
Dimensions in: inch	2000 KVA, 3 PHASE, 60 HERTZ, 13200-480Y/277 VOLT	
Date: 11/9/2010	65 oC, DELTA - WYE COOLING ONAN	
Rev: 0		Drawing No. RDT33401B801



UNIT 94

WARNING
High Voltage
Electrical
Shock Hazard
Do Not Open
Without
Proper
Training
and
Authorization

UNIT 94

