



SECTION A - A  
 \* THE HATCHED AREA REPRESENT THE BOTTOM OF THE TRANSFORMER. THIS AREA IS NOT CONTACT WITH FOUNDATION OR PAD

GUIDE	QTY.	ITEM	DESCRIPTION	CAT./MOD.
5.1	1	1a	L.V. WINDING TEMPERATURE INDICATOR (49T-1)	MESSKO, MT-ST160WRM/4C/AM
5.1	1	1b	LIQUID TEMPERATURE INDICATOR (28Q-1)	MESSKO, MT-ST160RM/2C/AM
5.4	1	2a	L.V. THERMO-WELL FOR WINDING TEMPERATURE INDICATOR	
5.6	1	2d	THERMO-WELL FOR LIQUID TEMPERATURE INDICATOR	
5.4	1	3	PRESSURE RELIEF DEVICE WITH SEMAPHORE (63PR-1...3)	QUALITROL, LPR000-00008306
5.6	1	5	RAPID PRESSURE RELAY (OIL) (63RP-1)	QUALITROL, 900-014-05
5.6	1	11	RAPID PRESSURE RELAY VALVE (2.00 ø) BALL-TYPE	
5.15	1	14	H.V. BUSHING CONNECTOR	BURNDY, FD70D20W 3750 AMP
5.15	1	14a	NEUTRAL BUSHING HO CONNECTOR	BURNDY, FD68D12W 2250 AMP
3.2	1	15	H.V. BUSHING	ABB, 138W2530XD
3.2	1	16	L.V. BUSHING	ABB, 025V0750VW
3.2	1	19	NEUTRAL BUSHING HO	PCORE, B89523-70
4.1	1	26	H.V. SURGE-ARRESTER SUPPORT	
4.1	1	26a	GROUND PAD	
4.1	1	40	CORE GROUND BUSHING TERMINAL BOX (MAIN UNIT)	
4.1	1	43	FRAME GROUND BUSHING BOX	
4.1	1	46	NAMEPLATE	
5.3	1	47	CONTROL CABINET	
5.3	1	50	DE-ENERGIZED TAP-CHANGER	ABB, DTWC 2 DECKS
5.3	1	50a	DE-ENERGIZED TAP-CHANGER	ABB, DTWC 2 DECKS
5.3	1	50b	CAUTION NAMEPLATE	
5.3	1	51	REINFORCED BASE WELDED TO TANK	
5.3	1	53	TRANSFORMER ANCHOR PADS	
5.3	1	55	TANK BRACES	
5.3	1	55a	COVER BRACES	
5.3	1	56	JACKING PADS AND PULLING EYES	
5.3	1	57	MAIN COVER	
5.3	1	58	INSPECTION MANHOLE (COVER)	
5.3	1	65	CT TERMINAL BOX	
5.3	1	66	LIFTING EYE COVER ONLY	
5.3	1	67	LIFTING HOOK FOR LIFTING COMPLETE UNIT	
5.3	1	68	SHIPPING LUGS FOR SECURING THE UNIT LONGITUDINALLY (SHORT LUGS)	
5.3	1	68a	SHIPPING LUGS FOR SECURING THE UNIT LONGITUDINALLY (LONG LUGS)	
5.14	1	69	REMOVABLE LADDER WITH BARRIER	
5.14	1	72c	TOP FILTER PRESS VALVE (2.00 ø) GLOBE-TYPE	
5.14	1	73	MAIN TANK DRAIN VALVE (2.00 ø) GLOBE-TYPE WITH SAMPLING DEVICE (0.38 ø) AND PLUG	
5.14	1	74	IMPACT RECORDER FOR SHIPPING	
1.3	1	75	COOLING RADIATORS	
1.3	1	75b	RADIATOR VENT AND DRAIN PLUG (1.00 ø)	
1.1	1	75c	RADIATOR VALVE FLAPPER-TYPE (5.00 ø)	
1.1	1	75d	COOLING FAN	KRENZ, F26DA9712
1.4	1	75e	TOP/BOTTOM RADIATOR SUPPORTS	
1.2	1	76	RADIATOR BRACE	
2.3	1	76	CONSERVATOR TANK WITH INTERNAL BLADDER	
2.1	1	76a	CONSERVATOR TANK SUPPORT	
2.2	1	76b	CONSERVATOR MAGNETIC LIQUID LEVEL GAUGE (71Q-1)	ORTO, 0166-1R/7 Ø1400
2.2	1	76c	HANDHOLE TO INSTALL BLADDER	
5.8	1	76d	SILICA-GEL BREATHER WITH PIPE	PROLEC, RM77
5.8	1	76e	CONSERVATOR MANHOLE	
5.8	1	76f	SILICA-GEL SHUT OFF VALVE (1.00 ø) GLOBE-TYPE	
5.8	1	76g	CONSERVATOR PRESSURE EQUALIZATION VALVE (1.00 ø) GLOBE-TYPE	
5.8	1	76h	CONSERVATOR FILL VALVE (2.00 ø) GLOBE-TYPE	
5.8	1	76i	CONSERVATOR DRAIN VALVE (1.00 ø) GLOBE-TYPE	
2.2	1	76k	CONSERVATOR TANK TO MAIN TANK VALVE (3.00 ø) BALL-TYPE	
2.4	1	76l	GAS SAMPLING DEVICE	
2.4	1	76m	PROTECTIVE RELAY BUCHHOLZ (63BH-1)	EMB, 53-28-44-0311
2.4	1	76n	EXPANSION JOINT FOR BUCHHOLZ PIPING	
2.4	1	76o	CONSERVATOR VENT VALVE (1.00 ø) GLOBE-TYPE	
2.4	1	82a	L.V. ISO-PHASE BUS FLANGE	

**PROLEC**  
 APPROVAL DRAWING  
 08/13/10  
 OUR CUSTOMER IS  
 WE WANT YOU TO BE BETTER.  
 PLEASE REVIEW THIS DRAWING  
 AND SEND BACK WITH YOUR  
 COMMENTS TO PROLEC IN THE  
 TIMEFRAME OF 10 DAYS AFTER  
 THE DATE MARKED IN THIS STAMP.

EQUISALES ASSOCIATES, INC.  
 P.O. NO: P20101-065  
 GE REQ. NO: 420-JB009  
 GE PROLEC SERIAL NO: G2579-01  
 SUBSTATION-01 EQUISALES STOCK UNITS

GENERATOR STEP UP TRANSFORMER  
 ONAN/ONAF/ONAF, 138/184/230 MVA  
 60 HZ, THREE PHASE, 65°C, 3300 FASL  
 138/79.674 X 69/39.837 KV A - 18 KV Δ

APPROXIMATE WEIGHTS (POUNDS)	
CORE AND COILS	210475
TANK AND FITTINGS	89395
MAIN TANK LIQUID ( 16939 GALS )	127215
COOLING EQUIPMENT LIQUID ( 919 GALS )	6900
CONSERVATOR TANK LIQUID ( 715 GALS )	5375
TOTAL WEIGHT	439360
UNTANKING WEIGHT ( HEAVIEST PIECE )	210475
SHIPPING WEIGHT ( WITHOUT OIL )	261870

NOTES:  
 a) ITEMS REMOVED FOR SHIPMENT ARE MARKED WITH (\*).  
 b) NUMBERING IS ACCORDING WITH G.E. PROLEC STD. LIST.  
 c) THE NUMBER IN COLUMN "GUIDE" CORRESPONDS TO THE "IN-FIELD ASSEMBLY GUIDE"

● OPERATION CENTER OF GRAVITY  
 ● SHIPPING CENTER OF GRAVITY WITHOUT OIL

TOLERANCES	
Centerline distance of not inclined bushings	±.25
Centerline distance of inclined bushings	+1.00
	-.62
Bushings height (distance to floor)	±.50
Outlet of control cabinet distance	±.25
Hv & Lv bushings center line	±.25
Bushings & surge arrester center line	±.25
Surge arrester height (distance to floor)	±.50
Center tank distance to short side	±.50
Center tank distance to large side	±.50
Conservator height	±.50
Anchoring center line	±.12
Bracing base center line	±.12
Pattern distance	+0.6
	-18
Outline	0-118.00
Dimensions	118.00-197.00 ±1.50
	197.00 & Above ±2.00

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PROLEC GE ENGINEERING POWER DIVISION  
<http://www.prolecge.com>

TITLE: TRANSFORMER'S OUTLINE

DFTM: Montoya  
 08/10/10  
 CHKD: ROM

PROJECTION

SCALE: 1:40

DIMENSIONS: IN

REVISION: INDICATED

DRAWING NO.: G257901D801

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