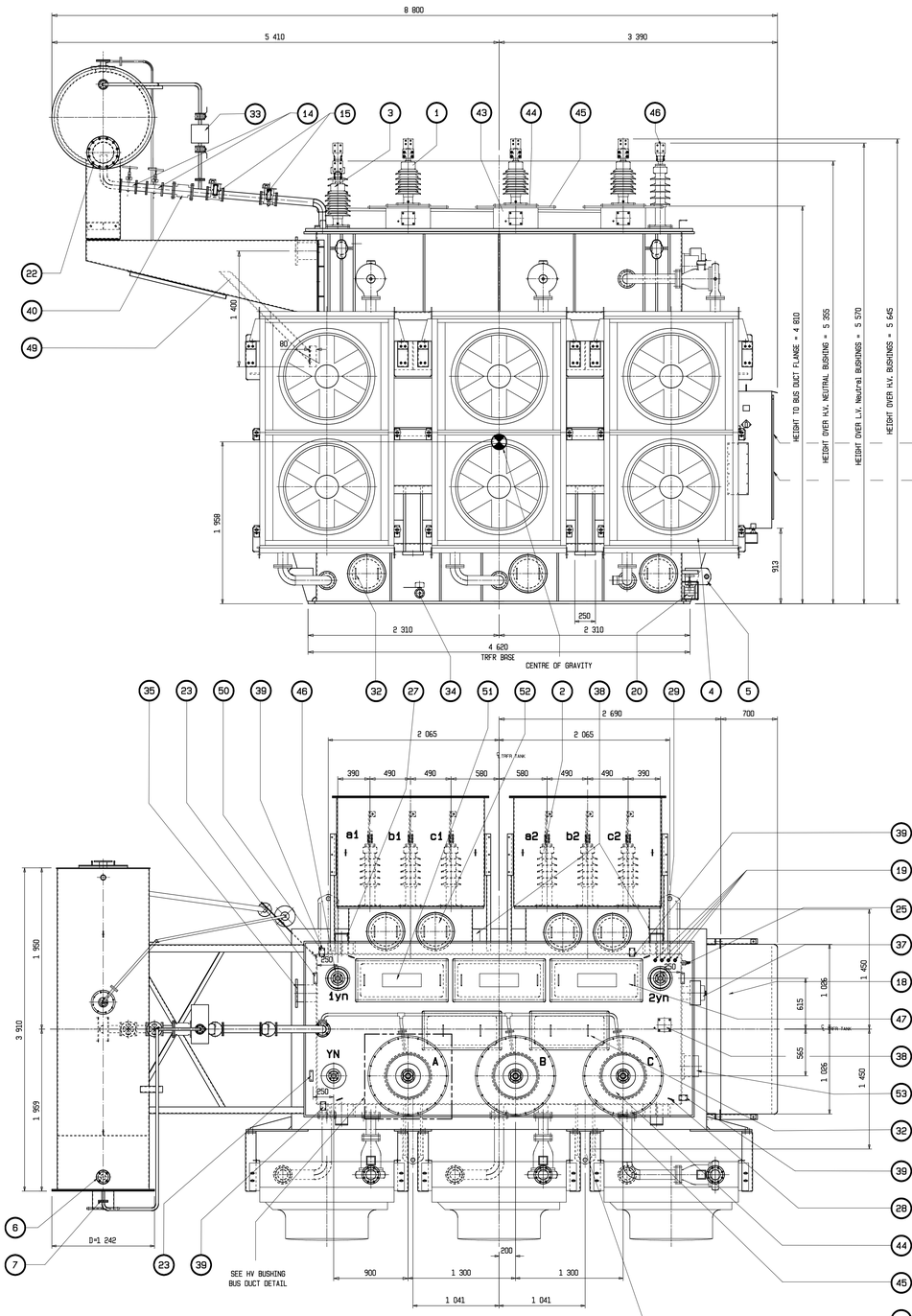

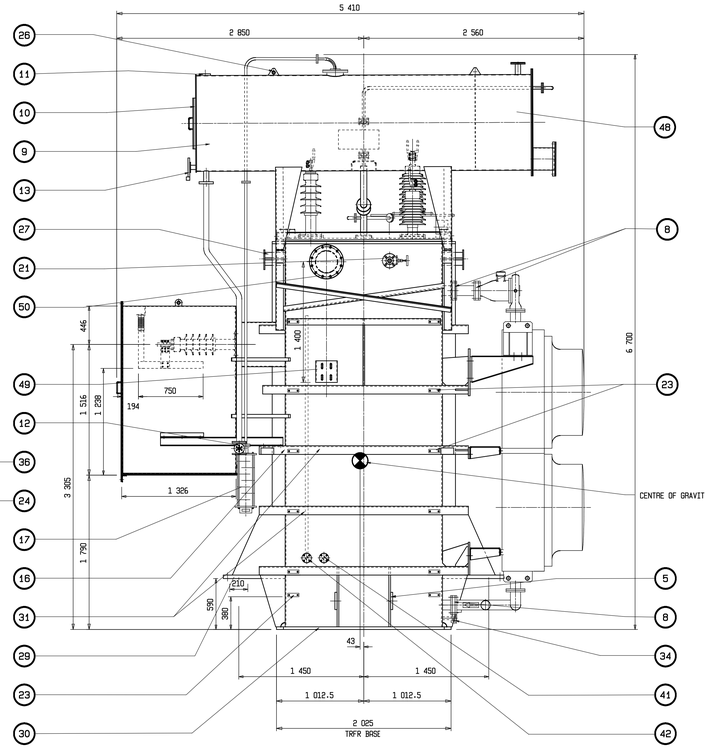

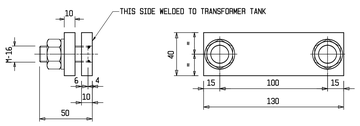

EARTHING TERMINAL DETAIL

ONE WELDED ON EACH CORNER OF TRANSFORMER TANK
TOTAL SUPPLIED = 4-OFF SEE ITEM 23 AND ESKOM SPECIFICATION 665 1074 SECTION 4.17.11

KKS DESIGNATION

11BBT01
12BBT01
21BBT01
22BBT01
31BBT01
32BBT01
41BBT01
42BBT01
51BBT01
52BBT01
61BBT01
62BBT01
00BBT01 (SPARE)

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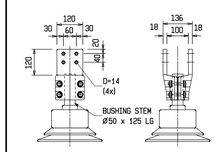
ITEM LIST	
ITEM No	DESCRIPTION
1	HV BUSHINGS MICAFIL RTKF 36-200/3150 KSI T
2	LV BUSHINGS MICAFIL RTKF 24-125/3150 KSI T NOK
3	HV NEUTRAL BUSHING MICAFIL RTKF 36-200/3150 KSI T
4	COOLERS; COILTECH TYPE: CETA 26
5	PULLING LUGS
6	DN 50 FLANGE FOR EXPLOSIVE GAS EVACUATION
7	DN 25 FLANGE FOR GAS EVACUATION
8	COOLER SHUT OFF VALVE
9	CONSERVATOR WITH AIR BAG AND INCLUDING OIL AND GAS SEPARATION TANK
10	CONSERVATOR HANDHOLE
11	CONSERVATOR FILLER
12	CONSERVATOR DRAIN VALVE; 50 BSP D/F
13	MAGNETIC OIL GAUGE; TYPE: CEDASPE 220EE
14	FEEDPIPE VALVE
15	BUCHHOLZ RELAY (MAIN); 80 BSP TYPE: CEDASPE EE3 WITH TWO TRIPS (2-OFF)
16	BUCHHOLZ RELAY GAS RELEASE COCK (TEST)
17	BREATHER (MAIN); GUARDIAN BREATHER TYPE: TX26
18	MARSHALLING BOX WITH UNDRILLED GLAND PLATES FOR EXTERNAL CABLE ENTRY
19	THERMOMETER POCKET INCLUDING TEST
20	TRANSFORMER DRAIN VALVE; 50 BSP WITH MECHANICAL PROTECTION
21	TRANSFORMER FILTER VALVE; 50 BSP D/F
22	ISOLATION VALVE FLANGE DN 250
23	TRANSFORMER EARTHING TERMINALS
24	RATING AND DIAGRAM PLATE
25	CORE EARTH BUSHING AND LINK
26	CONSERVATOR LIFTING LUG
27	TRANSFORMER LIFTING BOLLARDS
28	COVER LIFTING LUG
29	JACKING PADS
30	FLAT UNDERBASE
31	TANK STIFFENERS
32	INSPECTION COVERS
33	GAS EVACUATION PIPE KIT
34	INERT GAS INJECTION PIPE WITH 25 DN VALVE
35	DEPRESSURIZATION SET FLANGE
36	VALVE LOCATION PLATE
37	PRESSURE RELIEF DEVICE; CEDASPE TYPE: VP150 NHP WITH TWO TRIPS
38	C.T. TERMINALS BOX
39	LINEAR HEAT DETECTOR MOUNTING BRACKET
40	CONSERVATOR SHUTTER SERGI TYPE TL 34
41	SERVERON GAS ANALYZER – DN 25 VALVE FOR BOTTOM GAS SAMPLE
42	SERVERON GAS ANALYZER – DN 25 VALVE FOR TOP GAS SAMPLE
43	HV LINE TURRET WITH INTERNAL CT'S INCLUDING A 27000/10 CLASS X CT
44	MOUNTING FLANGE FOR HV BUSHINGS & CT'S.
45	ISOLATED PHASE BUSDUCT MOUNTING FLANGE
46	LV Neutral BUSHING MICAFIL RTKF 24-125/3150 KSI T NOK
47	LINK BOARD COVERS
48	OIL – GAS SEPARATION TANK
49	DEPRESSURIZATION SET SUPPORT
50	FLANGE FOR FITTING HORIZONTAL DEPRESSURIZATION SET
51	LINK BOARD INFORMATION PLATE
52	LV BUSHING INSPECTION COVERS
53	FIBRE OPTIC PLATE COVER

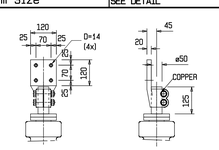
MASSES		
CORE AND WINDINGS		54 710 kg
TRANSFORMER OIL	30 760 l	27 070 kg
COOLER OIL	388 l	340 kg
CONSERVATOR OIL	895 l	788 kg
MAIN TANK AND FITTINGS		23 322 kg
COOLERS		2 280 kg
TOTAL MASS		108 510 kg

TRANSPORT DIMENSIONS	
LENGTH	6 260 mm
WIDTH	4 100 mm
HEIGHT	4 830 mm
MASS EXCLUDING OIL TO COVER CORE & WINDINGS	75 530 kg
MASS INCLUDING OIL TO COVER CORE & WINDINGS	96 830 kg

HV Bushing Flag Detail	
Bushing Type	ABB RTKF 36-200/3150 KSI T
Stem Size	SEE DETAIL

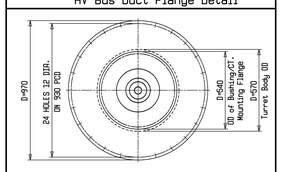


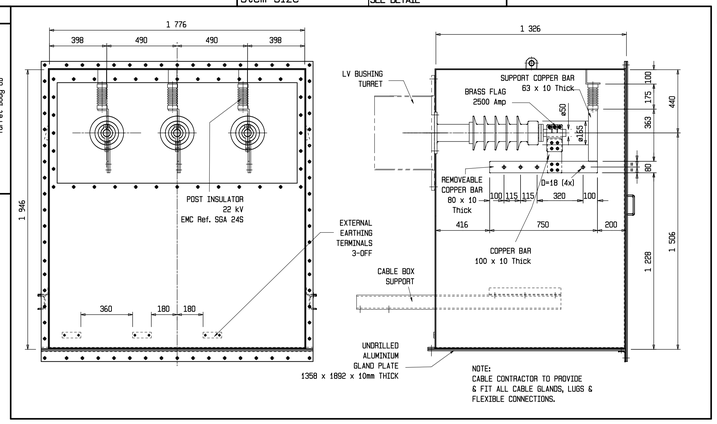
HV & LV Neutral Bushing Flag Detail	
Bushing Type HV YN	RTKF 36-200/3150 KSI T
Bushing Type LV yn	RTKF 24-125/3150 KSI T NOK
Stem Size	SEE DETAIL



LV Cable Box & Bushing Flag Detail	
Bushing Type	RTKF 24-125/3150 KSI T NOK
Stem Size	SEE DETAIL

HV Bus Duct Flange Detail





NOTE:
CABLE CONTRACTOR TO PROVIDE & FIT ALL CABLE GLANDS, LUGS & FLEXIBLE CONNECTIONS.

NOTE:

1) DENOTES CENTRE OF GRAVITY
2) DISCONNECT THE WTI CT'S UNDER THE "B" PHASE MANHOLE BEFORE REMOVING THE TANK COVER.

D.O.	REV	DATE	INDEX REFERENCE	REV BY	CHKD BY	AUTH BY	APP	REFERENCE DRAWINGS
	5	17/08/15	TRANSFORMER TOTAL LENGTH INCREASED BY 190mm. TOTAL LENGTH WAS 8610mm. MOVED PULLING LUGS TO A LOWER POSITION ADDED IT. NO. UPDATED WEIGHT & VOLUME UPDATED TO SUIT MARKED UP REV. 4	avR	SDM	VT		
	4	09/06/15	ADDED IT'S 51 & 52 JACKING PAD HEIGHT REDUCED BY 60mm CONNECTED WEIGHTS AND VOLUMES TO SUIT MARKED UP REV.3 & FINAL DESIGN ITEM 5 ADDED	avR	SDM	VT		
	3	03/05/15	REVISED DRAWING TO SUIT MARKED UP REV.2 BUSHING TERMINALS CHANGED TO 50 DIA. DUE TO BUSHING MANUFACTURERS RECOMMENDATION TOTAL HEIGHT INCREASED BY 280mm	avR	SDM	VT		
	2	24/03/15	DRAWING WAS A PRELIMINARY ISSUE	avR	SDM	VT		
			## REVISION ##	REV BY	CHKD BY	AUTH BY	AKS APP	

DRG REGISTR		AUTHORISED FOR ESKOM BY	DATE
DESIGN APPROVED			
AKS PPG			
DD AUTH	18/01/15	VT	
CHKD BY	18/01/15	SDM	
DRAWN BY	18/01/15	avR	
SCALE	NTS		

OUTLINE & GENERAL ARRANGEMENT FOR A 110/55+55 MVA 22 000 / 15 750-15 750 VOLTS YNyn0yn0 CONNECTED 50 Hz OFAF/ODAF COOLED TRANSFORMER FOR KUSILE POWER STATION

ACTOM

10/5868 B

0.90/42106

SHEET 1 REV 4

SIZE GROOTTE A0L