POWER TRANSFORMERS
Transmission & Distribution

TRANSFORMER SERIAL No		ODAF RATING (MVA)	HV	110	CORE & WINDING MASS (kg)	
ESKOM ASSET No.			MV1	55	UNTANKING MASS (kg)	
ESKOM ORDER No.			MV2	55	OIL MASS (kg)	
		OIL TEMPERATURE RISE (K)		48	TOTAL MASS (kg)	
		WINDING TEMPERATURE RISE (K)		58	TRANSPORT MASS (kg)	
					CONSERVATOR MASS WITH OIL (kg)	

3 PHASE 50 HERTZ	SPECIFICATION: GGSS1074 & P33A	
SYSTEM FAULT LEVELS (kA PER PHASE) EXCLUDING SYSTEM IMPEDANCE	HV	24
	MV1/MV2	17/17
DESPATCHED MONTH/YEAR		/
MAXIMUM ALTITUDE (m)		1800
TRANSFORMER MUST BE OIL FILLED UNDER FULL VACUUM		
SUITABLE FOR FULL VACUUM AT SEA LEVEL		
CONSERVATOR FITTED WITH PRESERVATION BAG		YES
TRANSFORMER NOISE LEVEL IEC 60076-10 db		
THIS TRANSFORMER IS SUITABLE FOR OVERLOADS IN ACCORDANCE WITH IEC 60354		

PERCENT IMPEDANCE VALUES AT 75 °C

	HV/MV1	HV/MV2
NORMAL POSITION TAP 3	%	%
MAXIMUM VOLTAGE TAP 1	%	%
MINIMUM VOLTAGE TAP 5	%	%

LOSS VALUES AT 75 °C AND NORMAL TAP

NO LOAD LOSS (W)	
LOAD LOSS (W)	

INSULATION LEVELS (IMPULSE / SEPARATE SOURCE / INDUCED)

HV LINE (kV)	150/50/44
HV NEUTRAL (kV)	150/50/0
MV1/MV2 LINE (kV)	95/38/32
MV1/MV2 NEUTRAL (kV)	95/38/0

DETAILS OF HV CURRENT TRANSFORMERS TO SABS IEC 60044-1

APPLICATION	DIFF	DIFF	DIFF	METERING	METERING	METERING	OC	OC	OC	DIFF	DIFF	DIFF	WTI	WTI
NUMBER	1A1	1B1	1C1	1A2	1B2	1C2	1A3	1B3	1C3	1A4	1B4	1C4	1W1	1W2
SERIAL No.														
RATIO OR IP	3000	3000	3000							27000	27000	27000		
TURNS RATIO	3000/1	3000/1	3000/1	3000/1	3000/1	3000/1	3000/1	3000/1	3000/1	27000/10	27000/10	27000/10	1800/2	1800/2
ACROSS	S1 - S2	S1 - S2	S1 - S2	S1 - S2	S1 - S2	S1 - S2	S1 - S2	S1 - S2	S1 - S2	S1 - S2	S1 - S2	S1 - S2	S1 - S2	S1 - S2
VA OR Vk(V)/Im(mA)	900/35	900/35	900/35	15	15	15	15	15	15	1060/35	1060/35	1060/35	10	10
CLASS & ALF.	PX	PX	PX	0,2	0,2	0,2	10P15	10P15	10P15	PX	PX	PX	1	1
kA / sec.														
AT / MINUTES														
Rs AT 75°C (Ω)	15	15	15				12,3	12,3	12,3	3,5	3,5	3,5		

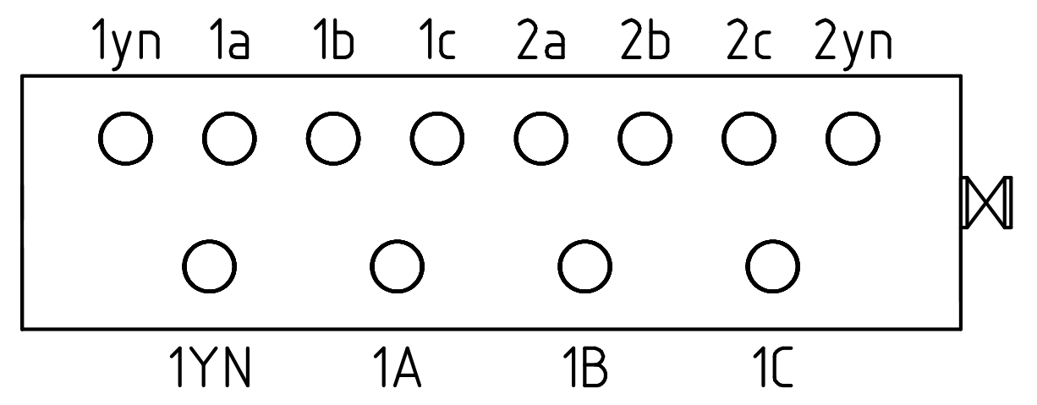
DETAILS OF MV CURRENT TRANSFORMERS TO SABS IEC 60044-1

APPLICATION	EF	REF	EF	REF										
NUMBER	1yn1	1yn2	2yn1	2yn2										
SERIAL No.														
RATIO OR IP		3000		3000										
TURNS RATIO	600/1	3000/1	600/1	3000/1										
ACROSS	S1 - S2	S1 - S2	S1 - S2	S1 - S2										
VA OR Vk(V)/Im(mA)	15	900/35	15	900/35										
CLASS & ALF.	5P20	PX	5P20	PX										
kA / sec.														
AT / MINUTES														
Rs AT 75°C (Ω)	3,8	15	3,8	15										

VOLTS	AMPS	ACROSS	VOLTS	AMPS	OCTS TAP CHANGER		ACROSS
					CONNECTS	POSITION	
22 000	2887	1A - 1B - 1C	16 538	1 920	N - 1	1	1a - 1b - 1c
			16 144	1 967	N - 2	2	
			15 750	2 016	N - 3	3	
			15 356	2 068	N - 4	4	
			14 963	2 122	N - 5	5	
			16 538	1 920	N - 1	1	2a - 2b - 2c
			16 144	1 967	N - 2	2	
			15 750	2 016	N - 3	3	
			15 356	2 068	N - 4	4	
			14 963	2 122	N - 5	5	

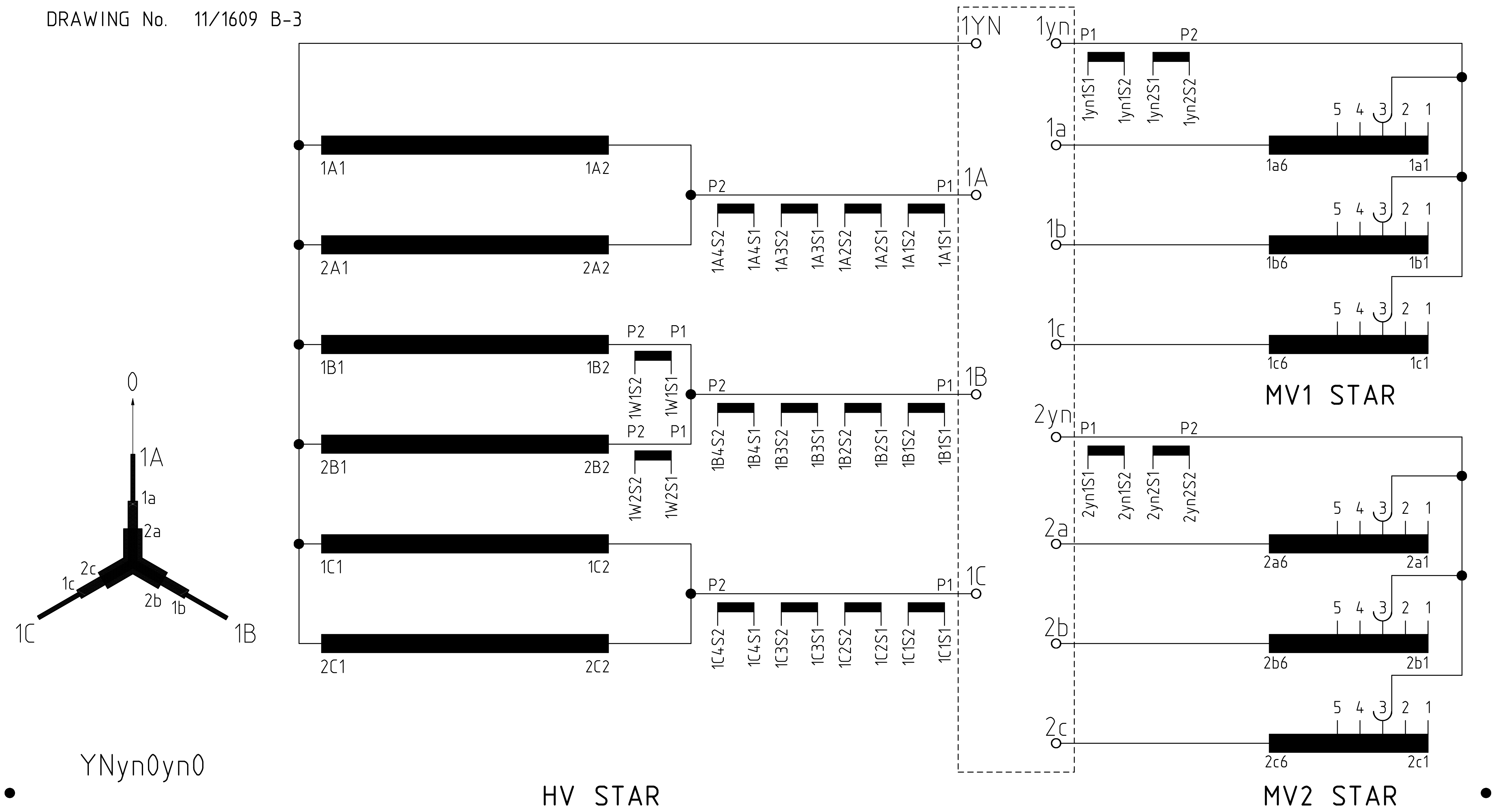
BUSHING DETAILS (TYPE AND RATING)

POSITION	MAKE AND TYPE	INS. LEVEL	AMPS
HV LINE	RTKF 36-200 / 3150 KSIT	170	3150
HV NEUTRAL	RTKF 36-200 / 3150 KSIT	170	3150
MV1/MV2 LINE	RTXF 24-125 / 3150 KSIT NOK	125	3150
MV1/MV2 NEUTRAL	RTXF 24-125 / 3150 KSIT NOK	125	3150



RELATIVE POSITION OF TERMINALS
AND MAIN DRAIN VALVE

DRAWING No. 11/1609 B-3



MATERIAL : 1,2 mm. THICK STAINLESS STEEL.

PLATE TO BE CUT SO THAT BLACKLINE BORDER
REMAINS ON FINISHED PLATE.

NOTE:

MAIN & SECONDARY HEADING ALL IN PRIMARY COLOUR
i.e PANTHONE 2728c(MYK: C=100; M=55; Y=0; K=0)
OR (RGB: R=0,G=108; B=183)

D.O. REV	DATE	** REVISION **	REV BY	CHKD BY	AUTH BY	KKS APP
3	01/09/11	DRAWING MODIFIED AS ESKOM REQUIREMENTS.	SDM	NLM	VT	
2	03/06/11	HV OC CT'S ADDED.	VN	NLM	VT	
1	29/03/11	DRAWING MODIFIED AS ESKOM REQUIREMENTS.	VN	NLM	AvR	

INDEX REFERENCE:

REFERENCE DRAWINGS

DRG REGISTR		
DESIGN APPROVED		
KKS PPD		
DO AUTH	20/01/11	AvR
CHKD BY	20/01/11	PC
DRAWN BY	20/01/11	SDM
SCALE		

AUTHORISED FOR ESKOM BY | DATE

Eskom Enterprises

RATING AND DIAGRAM PLATE

0.90/42105

SHEET 1 | REV 0

SIZE GROOTTE A0L