

AREVA Sachsenwerk GmbH      Geschäftsbereich Energieverteilung      Fachbereich Mittelspannungsschaltanlagen      Königsbrücker Strasse 124      01099 Dresden      Tel.: 03511820-3394      Fax: 03511820-2602

US STEEL KOSICE/SLOVAKIA  
50.3023.01  
SUBSTATION T80

MEASUREMENT  
CIRCUIT DIAGRAM

A = L07

/ A01

D009781.02. 607-3.AHA

50.3023.01.A3.741.228  
COVER SHEET  
PANEL  
07

DATE :	06.06.2005
prep. :	ADAM
Check:	GROHMANN
Norm :	

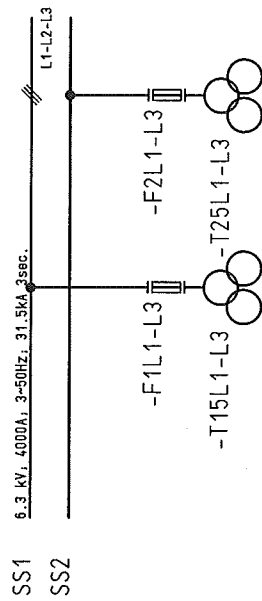
22.12.2006 HJ0115MD  
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A01  
ADAM

03 AS BUILT      05.12.2005      AD  
02 Fact.-Rev.      09.11.2005      AD  
01 Approval      20.09.2005      AD  
Nr. Alteration      Date      Name

INSTRU. AND CONTROL					
FUNCTION	LOCAL	LOCAL CONTROL	REMOTE CONTROL	REMARKS	
CONTROL					
STATUS SIGNAL					
MEASUREMENT	U (L1-L2, L2-L3, L1-L3)				
PROTECTION					
METERING					

[illegible]

TECHNICAL TRANSFORMER DATA					
DESIGN	MANUFACT	TYPE	RATIO	WDE	REMARKS
-T15L1 -T15L2 -T15L3	AEG AEG AEG	EYED EYED EYED	$\frac{6.3}{\sqrt{3}} / \frac{0.1}{\sqrt{3}} / \frac{0.1}{3} \text{ kV}$	W1: CL 0.2 30VA W2: 3P 100VA	
-F1L1 -F1L2 -F1L3	AEG AEG AEG	2A 2A 2A			HY FUSE
-T25L1 -T25L2 -T25L3	AEG AEG AEG	EYED EYED EYED	$\frac{6.3}{\sqrt{3}} / \frac{0.1}{\sqrt{3}} / \frac{0.1}{3} \text{ kV}$	W1: CL 0.2 30VA W2: 3P 100VA	
-F2L1 -F2L2 -F2L3	AEG AEG AEG	2A 2A 2A			HY FUSE



1	2	3	4	5	6	7	8
CLIENT DOCUMENT NUMBER	RELEASE BY DOCUMENT NUMBER	VERSION STATUS	DOCUMENT IDENTIFICATION SORT MATCHING	ITEM NO.	SHEET	DESIGN	
50.3023.01.A3.741	D009781.02.607-3.AHA	01 02 03	A =L07	A01	1	COVER SHEET	07
50.3023.01.A3.741 .228	D009781.02.607-3.AHA	01 02 03	A =L07	A02	2	CIRCUIT DIAGRAM	07
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50.3023.01.A3.741 .228	D009781.02.607-3.AHA	01 02 03	A =L07	B02	4	Inhaltsverzeichnis	07
50.3023.01.A3.741 .228	D009781.02.607-3.AHA	01 02 03	S =L07	D01	5	CIRCUIT DIAGRAM	AG-DISTRIBUTION
50.3023.01.A3.741 .228	D009781.02.607-3.AHA	01 02 03	S =L07	B01	6	CIRCUIT DIAGRAM	DC DISTR.
50.3023.01.A3.741 .228	D009781.02.607-3.AHA	01 02 03	S =L07	B02	7	CIRCUIT DIAGRAM	RING CIRCUIT
50.3023.01.A3.741 .228	D009781.02.607-3.AHA	01 02 03	S =L07	N01	8	CIRCUIT DIAGRAM	ARC DETECTOR
50.3023.01.A3.741 .228	D009781.02.607-3.AHA	01 02 03	S =L07	N02	9	CIRCUIT DIAGRAM	ARC DETECTOR
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22.12.2006

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02	Fact.-Rev.	09.11.2005 AD	Drawn	ADAM	50.3023.01
01	Approval	20.09.2005 AD	Checked	GROHMANN	SUBSTATION T80
NO.	Alteration	Date	Name	Std.	Orig. Iss. for

150.3023.01.A3.741.228		A =L07	8
Typ: 04	MEASUREMENT	D009781.02.607-3.AHA	8
Sheet 3		55Sh	



Inhaltsverzeichnis

PANEL

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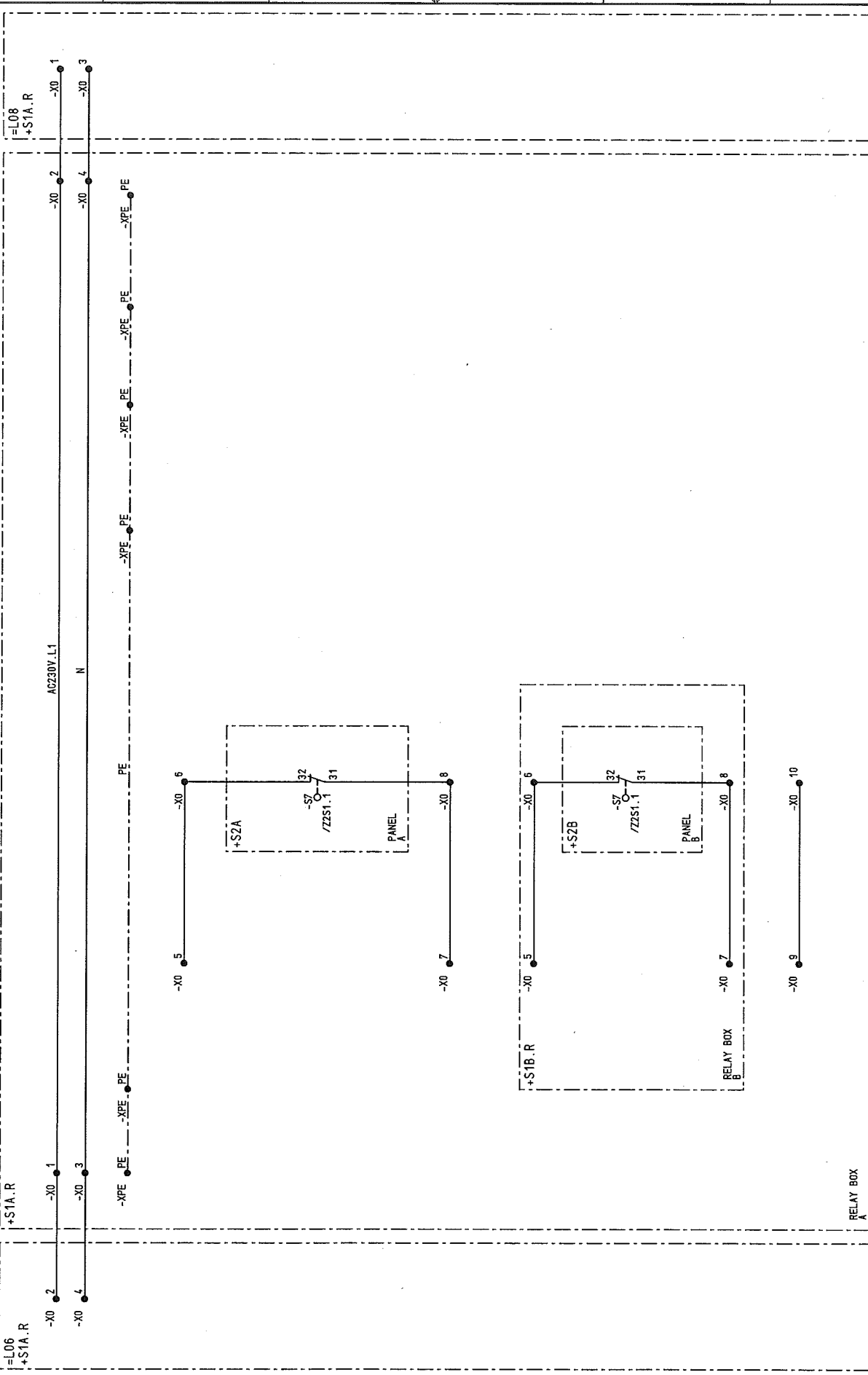
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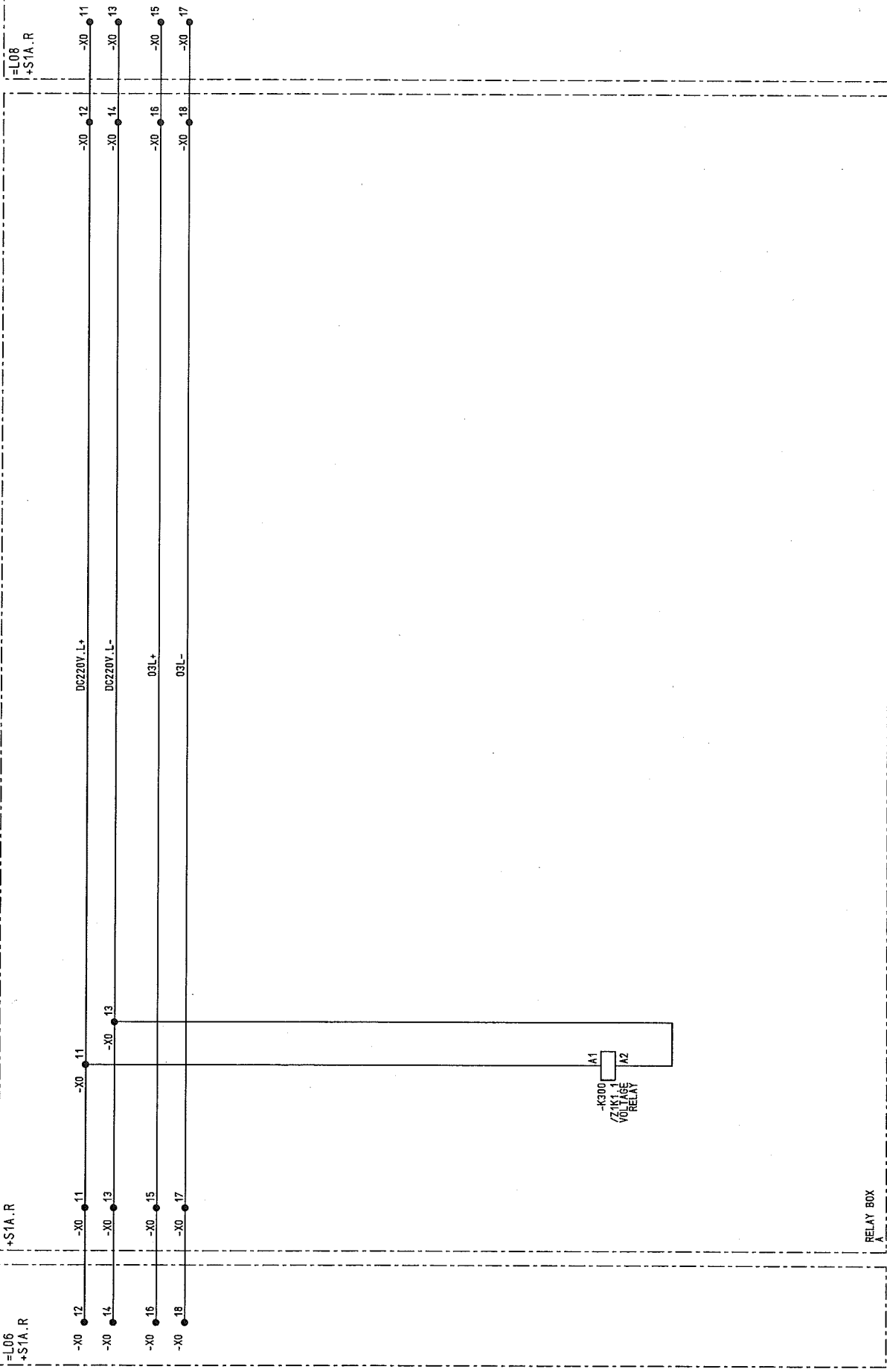
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D0978102 Copyright as per DIN 34 to be observed!

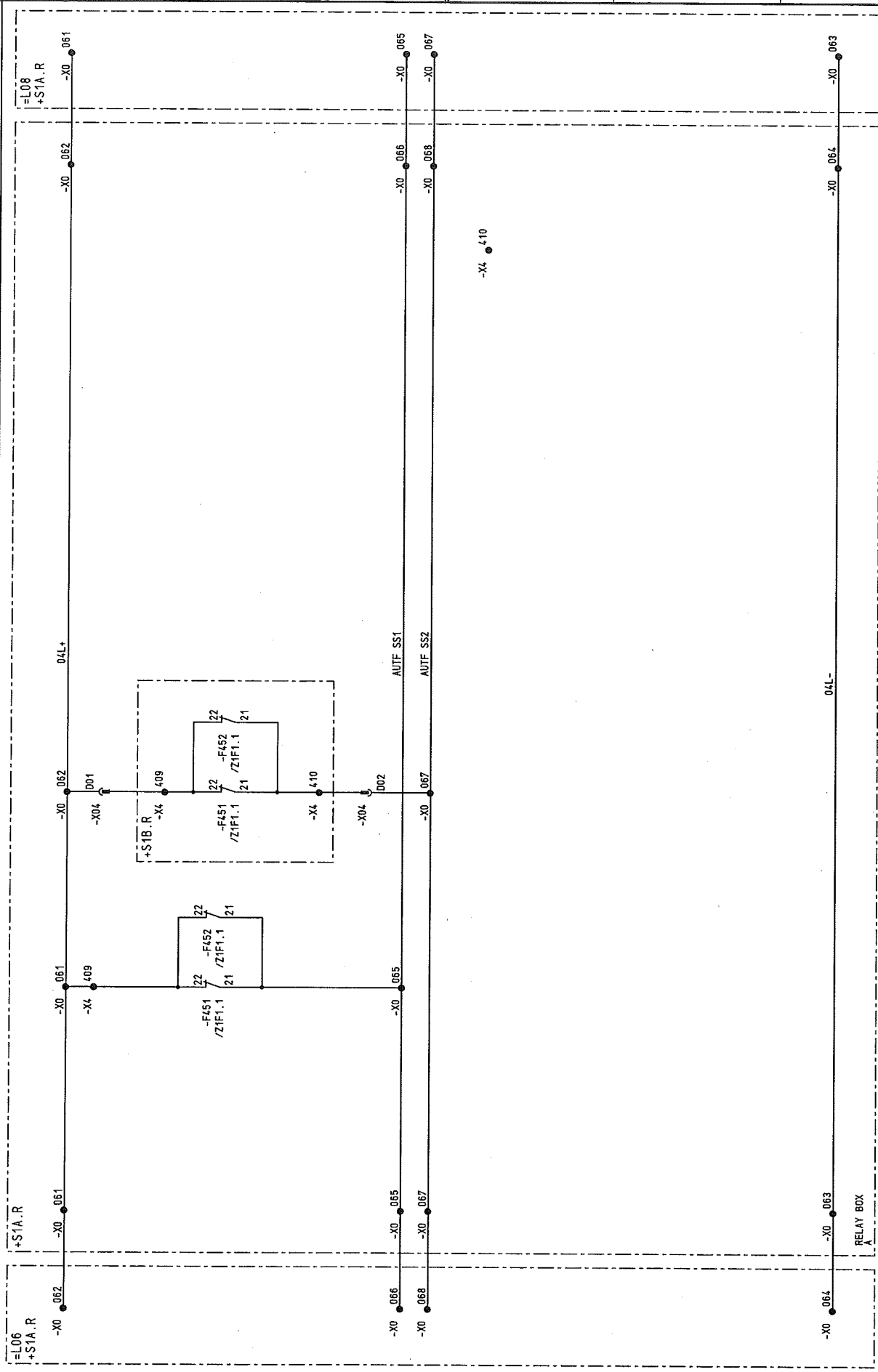
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22.12.2006		US STEEL KOSTICE/SLOVAKIA		CIRCUIT DIAGRAM		50.3023.01.A3.741.228		S=L07		/ 602	
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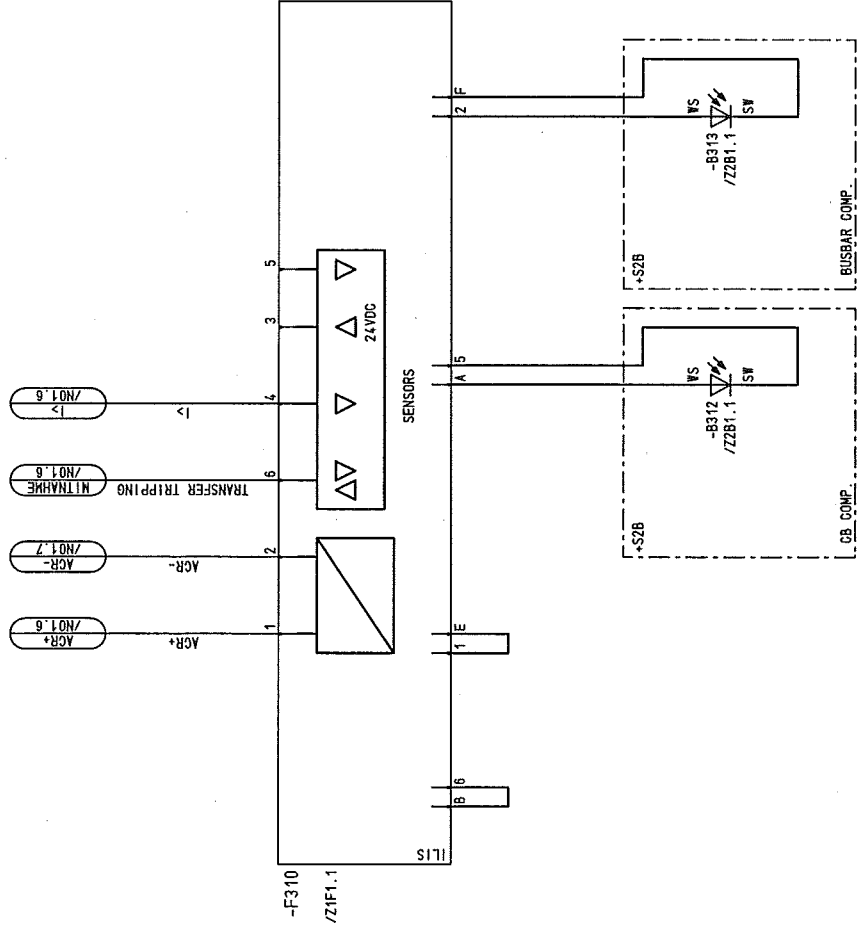
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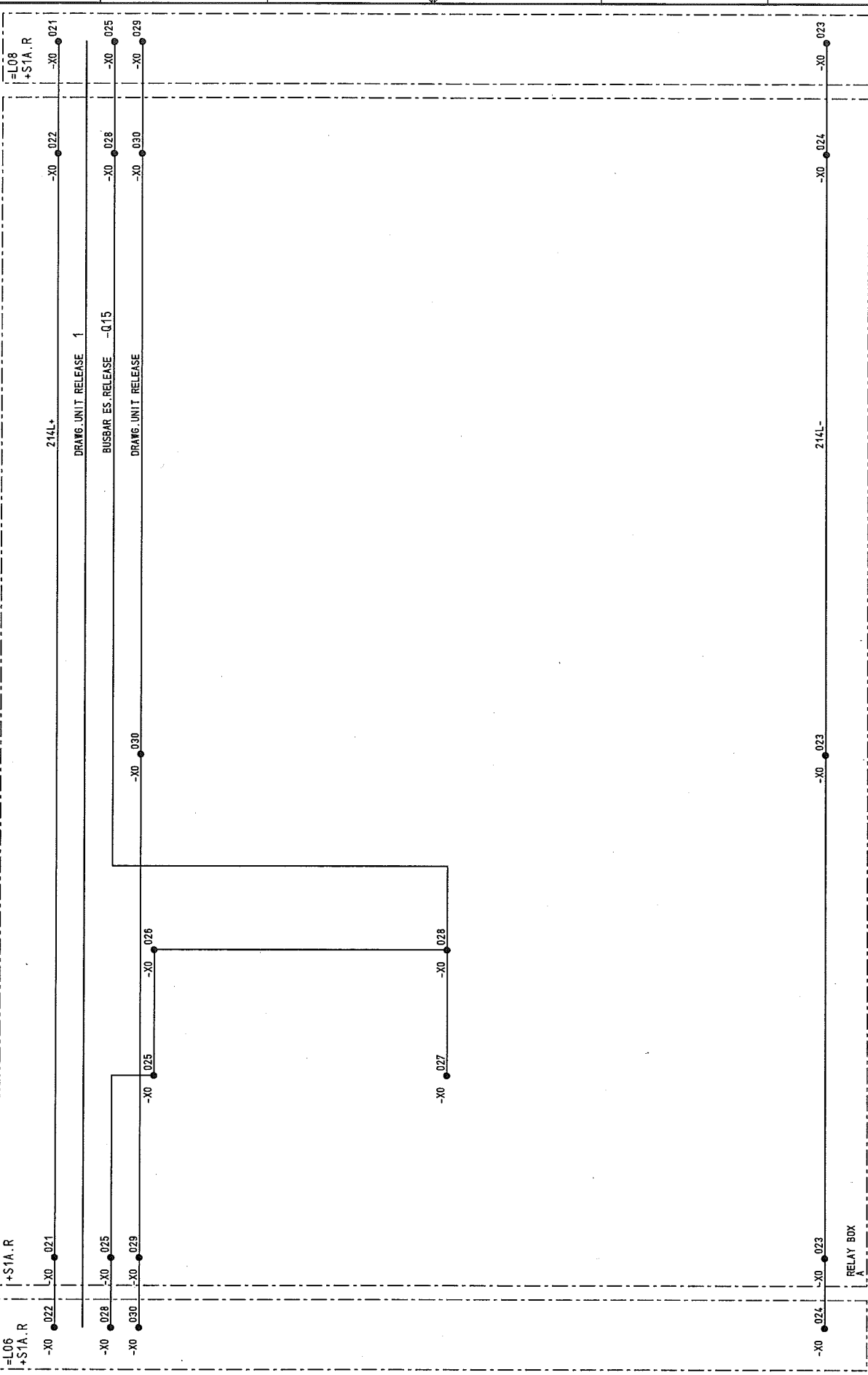
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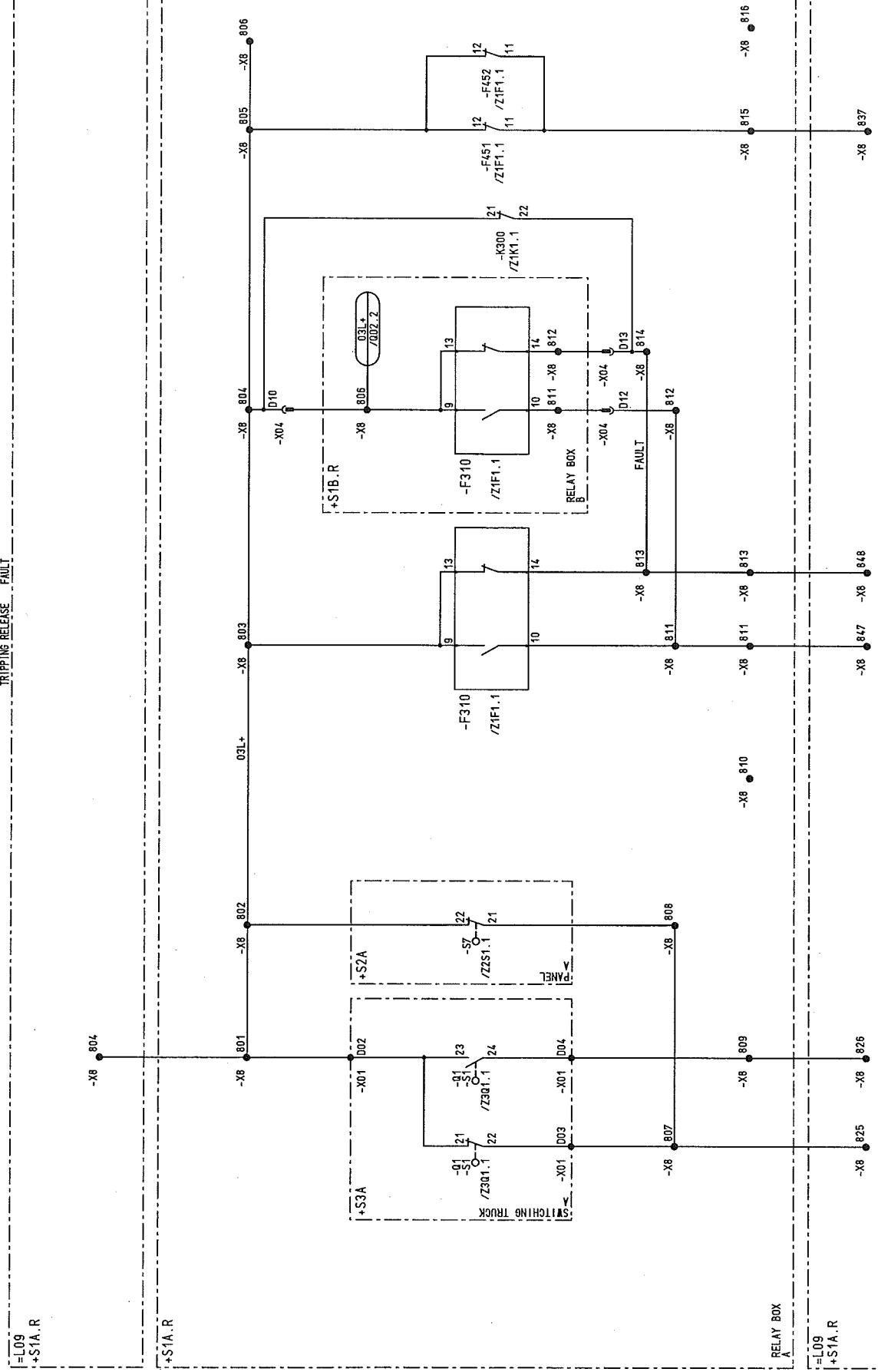
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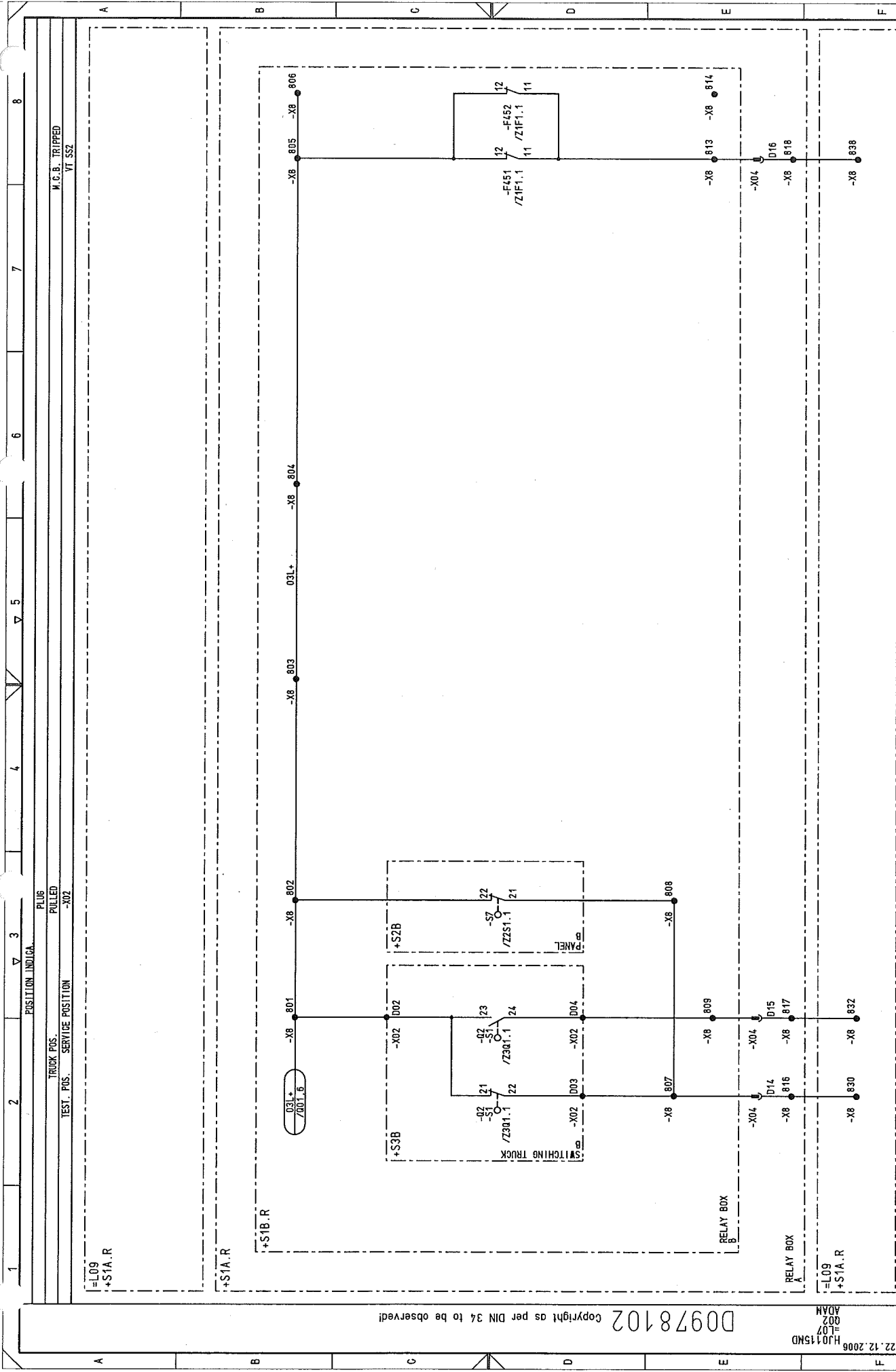
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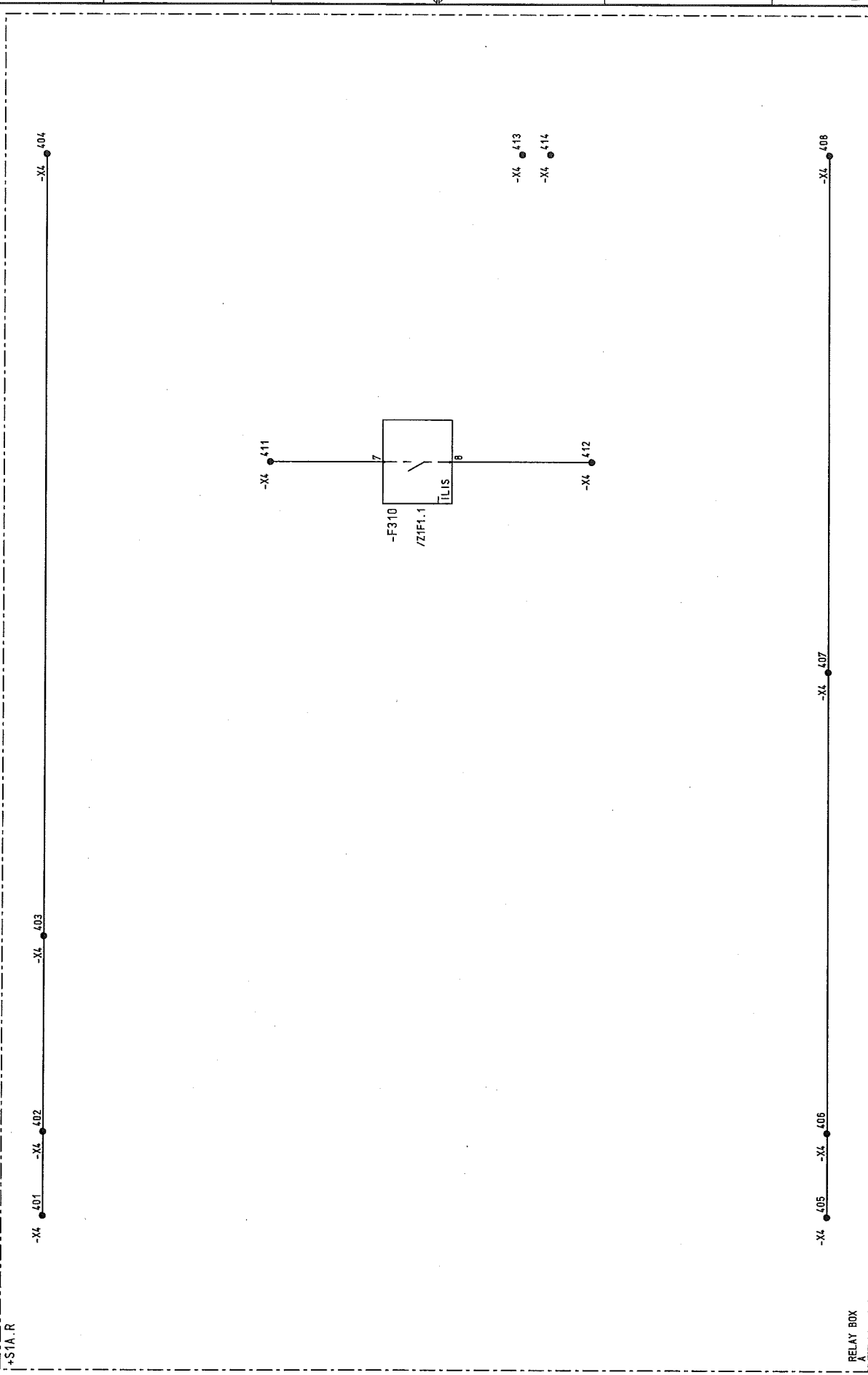
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D0978102 Copyright as per DIN 34 to be observed!

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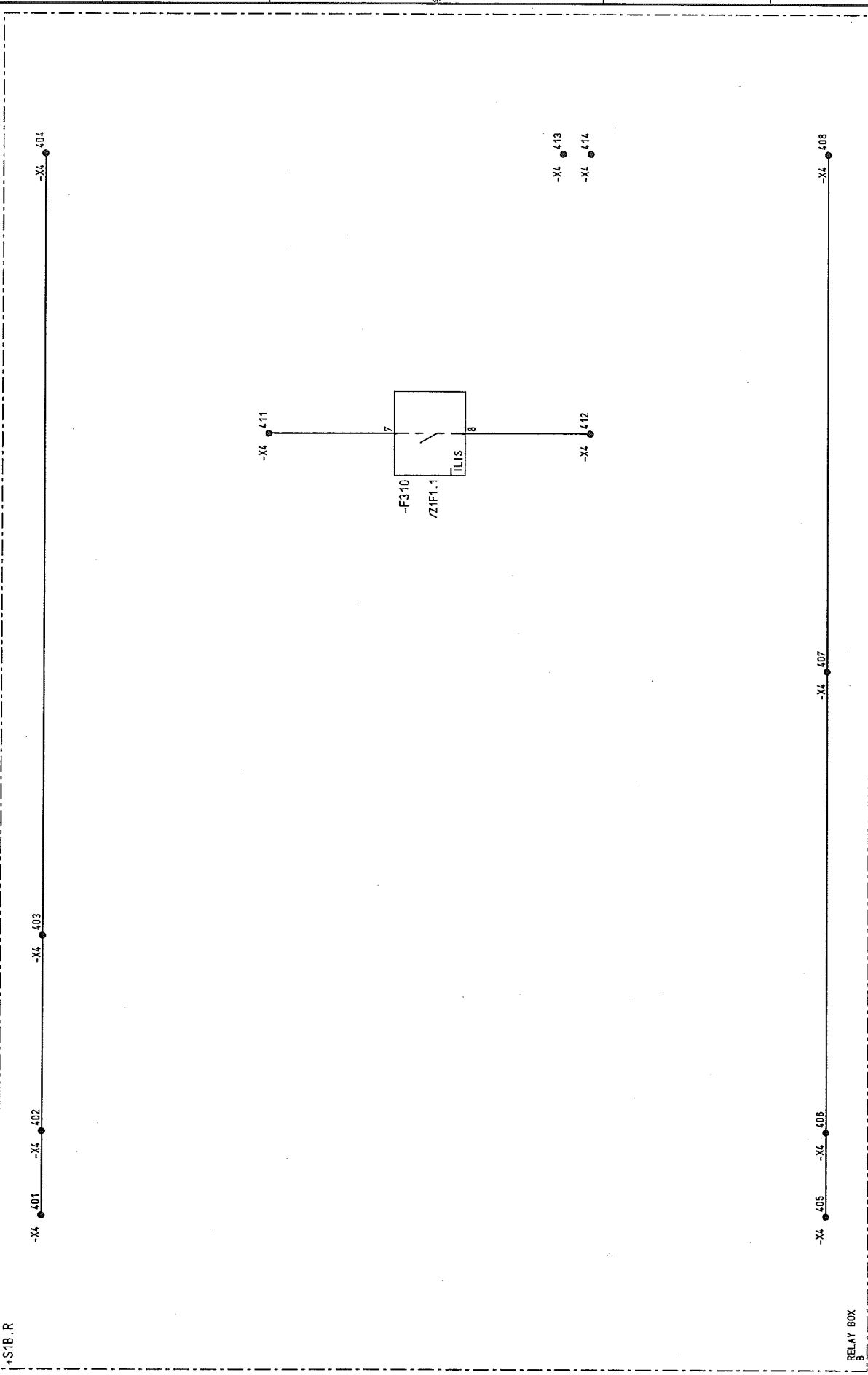
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01	Approval	20.09.2005 AD	Check	GROHMANN	SUBSTATION T80				
NO.	Alteration	Date	Name	Std.	Iss. for	Orig.	MEASUREMENT	D009781.02.607-3.AHA	Sheet 14 / 55th



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HJ0115MD  
R02  
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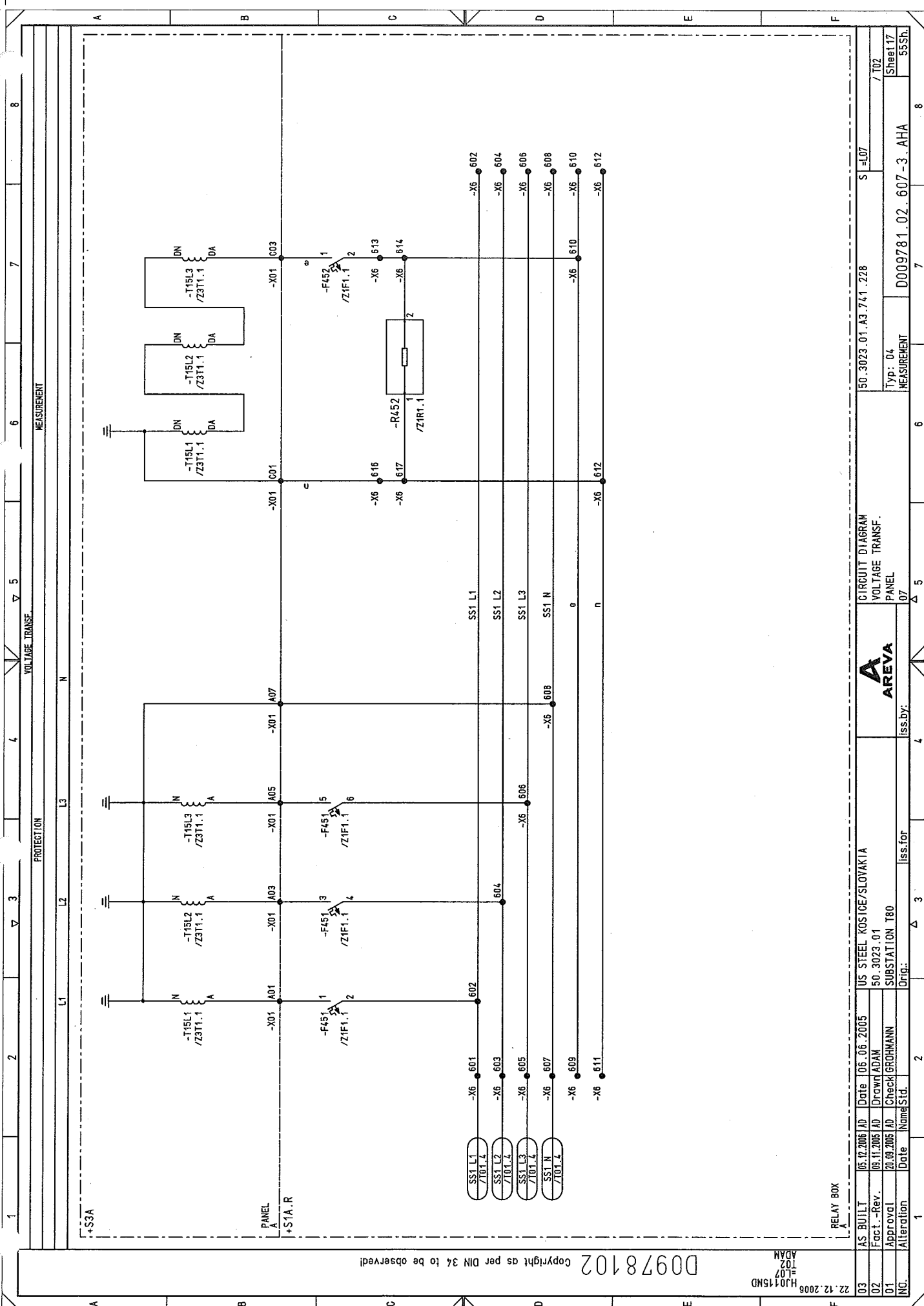


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01		Approval		20.09.2005	AD	Check	GROHMANN	SUBSTATION T80		PANEL		Typ: 04		Sheet 15	
NO.		Alteration		Date	Name	Std.		Orig.:	iss.for	iss.by:	07	MEASUREMENT		55Sh.	
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	/ T01	Sheet 16	55Sh.
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22.12.2008  
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ADAM

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01	Approval	20.09.2005 AD	Check	GROHMANN	SUBSTATION T80			6
NO.	Alteration	Date	Named	Std.	Orig.	Iss. for	Iss. by:	5
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CIRCUIT DIAGRAM  
VOLTAGE TRANSF.  
PANEL



Typ: 04  
MEASUREMENT  
D009781.02.607-3.AHA  
55Sh.

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Iss. by:

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Orig.

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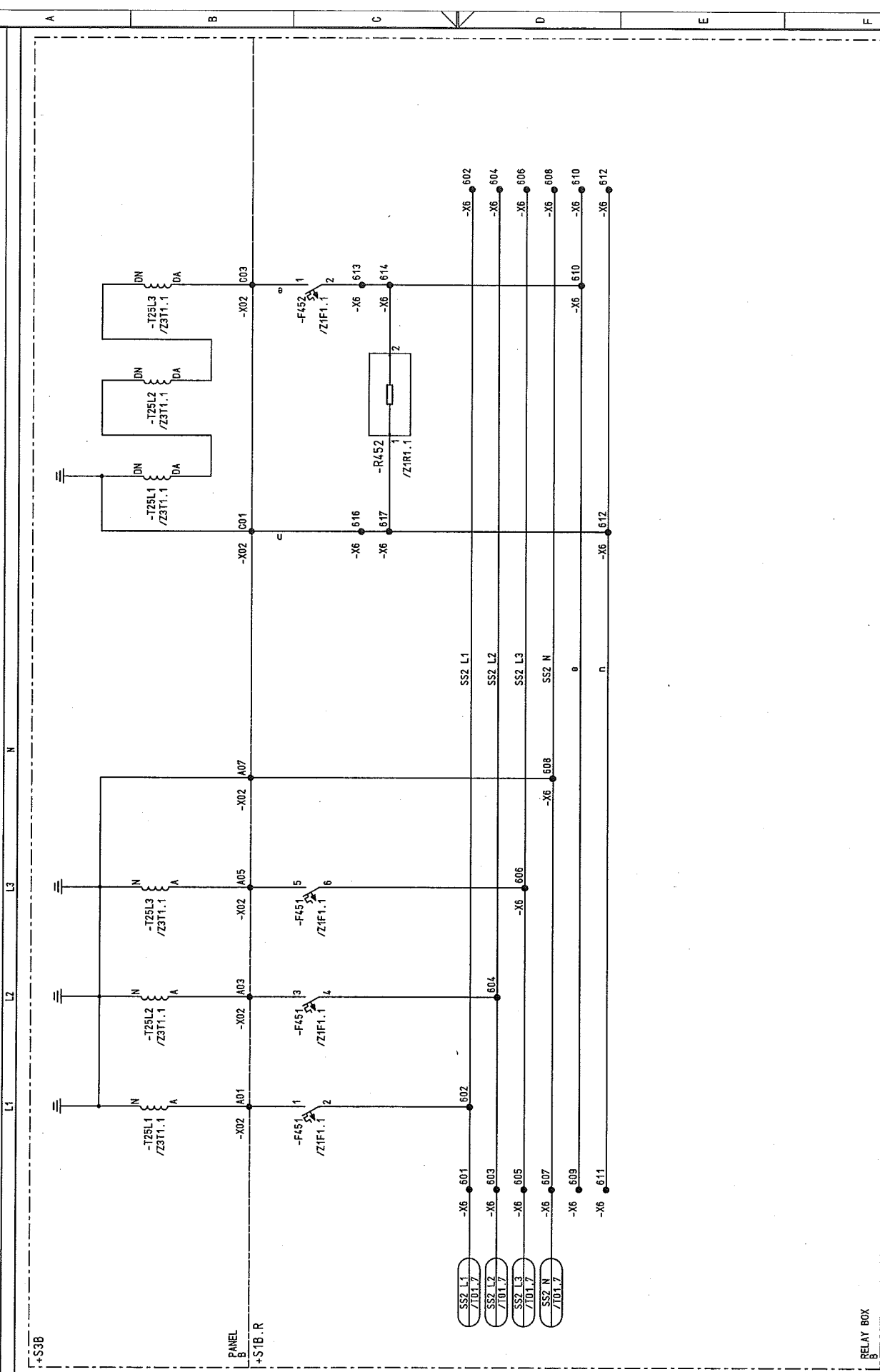
Drawn

Date

AS BUILT

03

PROTECTION MEASUREMENT



03	AS BUILT	05.12.2005	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	50.3023.01	50.3023.01.A3.741.228	S=L07	Sheet 18 / 103
02	Fact.-Rev.	09.11.2005	AD	Drawn	ADAM					
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80				
NO.	Alteration	Date	Name	Std.	Iss. by:	Iss. for	Orig.	D009781.02.607-3.AHA	MEASUREMENT	55Sh

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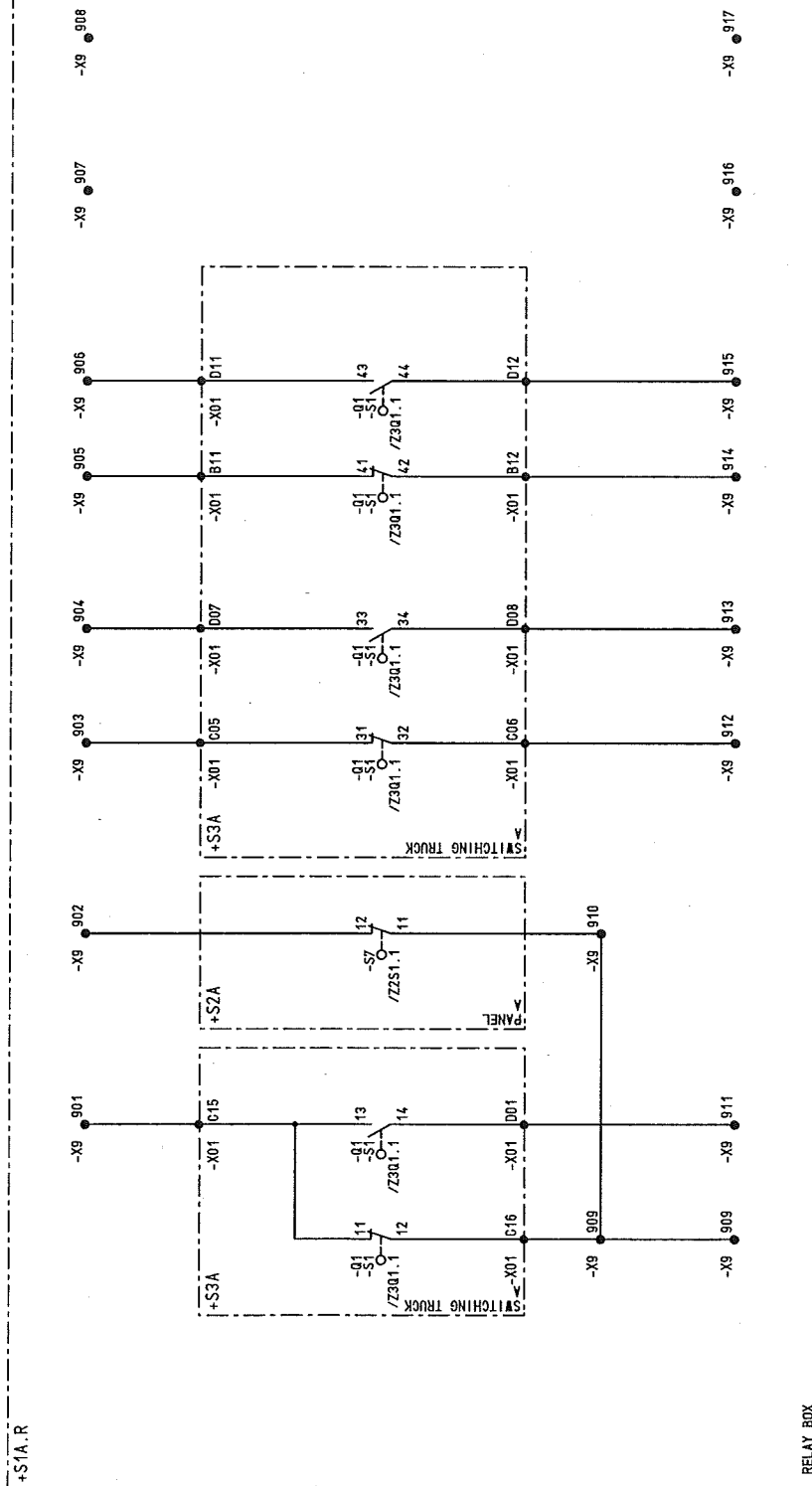
22.12.2006  
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D00978102 Copyright as per DIN 34 to be observed!

22.12.2006  
HJ0115MD  
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03	AS BUILT	05.12.2005 AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	50.3023.01	50.3023.01.A3.741.228	S=L07	/V01
02	Fact.-Rev.	09.11.2005 AD	Date	Drawn	ADAM				
01	Approval	20.09.2005 AD	Date	Check	GROHMANN				
NO.	Alteration		Date	Name	Std.	Iss. for	Iss. by:	MEASUREMENT	55Sh
								D009781.02.607-3.AHA	

TRUCK POS. SERVICE POSITION OR NOT IN SERVICE TEST. POS. SERVICE POSITION TRUCK POS. SERVICE POSITION



CIRCUIT DIAGRAM  
SPARE CONTACTS  
PANEL

AREVA

US STEEL KOSICE/SLOVAKIA  
50.3023.01  
SUBSTATION T80

05.12.2005 AD  
09.11.2005 AD  
20.09.2005 AD

AS BUILT  
Fact.-Rev.  
Approval  
Alteration

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03	AS BUILT	05.12.2005	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	50.3023.01	50.3023.01.A3.741.228	S=L07	8
02	Fact.-Rev.	09.11.2005	AD	Drawn	ADAM					
01	Approval	20.09.2005	AD	Check	GROHMANN					
NO.	Alteration	Date	Name	Std.	Orig.	Iss. for	Iss. by:	MEASUREMENT	D009781.02.607-3.AHA	55Sh.
1										

CIRCUIT DIAGRAM  
SPARE CONTACTS  
PANEL 07

**AREVA**

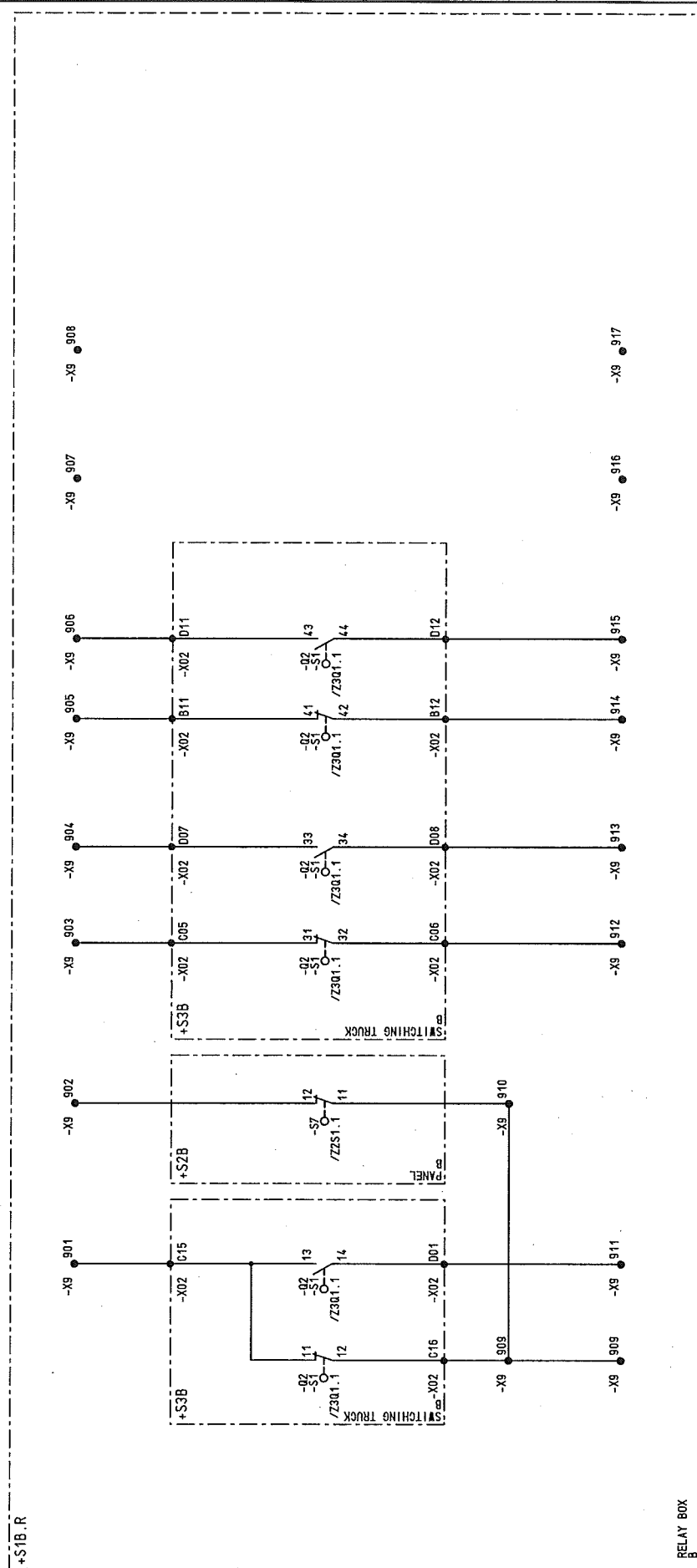
US STEEL KOSICE/SLOVAKIA  
50.3023.01  
SUBSTATION T80

06.06.2005  
09.11.2005  
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STÜCK- TITEL	DESCRIPTION, DESIGN, TECHNICAL DATA APPLICATION	MANUFACTURER, TYPE, ORDERING DATA SETTINGS MOUNTING APPA. DESIG.	APPARATUS SYMBOL DIAGRAM REFERENCE TO INDIVIDUAL TREATMENT (CIRCUIT DIAGRAM, SHEET NO., CIRCUIT NO.)				
2	M.C.B. AUXILIARY SWITCH HH	MANUF.: GE POWER CONTROLS PO NO.: 566516 TYPE EP61 C6					
1	RATED CURRENT AUXILIARY SWITCH	CHARACTERISTIC : C TYP CB SH/HH-R ORDER NO 672570					
	APPLICATION	SETTINGS					
	VOLT. TRANSF	e-n WINDING					
	VOLT. TRANSF	e-n WINDING					
2	M.C.B. AUXILIARY SWITCH HH	HERST.: GE POWER CONTROLS BEST.NR.: 566594 TYPE EP63 C3					
1	RATED CURRENT AUXILIARY SWITCH	CHARACTERISTIC : C TYP CB SH/HH-R BESTELLNUMMER 672570					
	APPLICATION	SETTINGS					
	VOLT. TRANSF	e-n WINDING					
	VOLT. TRANSF	e-n WINDING					
2	ARC DETECTOR DC 24V	MANUF.: AREVA PO NO.: C66622 TYPE ILIS					
1	TECHNICAL COMPONENTS	TYP					
	APPLICATION	SETTINGS					
	ARC DETECTOR	-F310					
	ARC DETECTOR	-F310					


NO.	Alteration	Date	Name/Sld.	2	3	4	5	6	7	8
03	AS BUILT	05.12.2006	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	LIST OF EQUIPMENT			
02	Fact.-Rev.	09.11.2005	AD	Drawn	ADAM	50.3023.01	50.3023.01.A3.741.228			
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80	PANEL			
							Typ: 04			
							MEASUREMENT			
							D009781.02.607-3.AHA			
							Sheet21			
							55Sh			

03	AS BUILT	05.12.2006	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA		LIST OF EQUIPMENT		50.3023.01.A3.741..228		S = L07	
02	Fact. - Rev.	09.11.2005	AD	Drawn	ADAM	50.3023.01		PANEL		TYP. 04		/ ZIK1	
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80		iss.by:		MEASURE/KENT		Sheet22	
NO.	Alteration	Date	Name	Std.	Date	Orig.	iss.for	07	D009781.02..607-3..AHA		55St.		

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D0978102 Copyright as per DIN 34 to be observed!

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1	2	3	4	5	6	7	8
STÜCK- TITEL	DESCRIPTION, DESIGN, TECHNICAL DATA APPLICATION	SETTINGS	MANUFACTURER, TYPE, ORDERING DATA MOUNTING	APPA. DESIG.	APPARATUS SYMBOL DIAGRAM REFERENCE TO INDIVIDUAL TREATMENT (CIRCUIT DIAGRAM, SHEET NO., CIRCUIT NO.)		
2	RESISTOR	MANUF.: Heine Resistors GmbH PO NO.: 742011720027	TYPE EFM 60x300				
	RESISTOR						
	RESISTANCE	: 22 Ohm +/- 10%	POWER TYP : 430W				
	TECHNICAL COMPONENTS		ORDER NO				
	APPLICATION	SETTINGS	MOUNTING	BTM IDENTIFIER			
	DAMPING RESISTANCE		+S1A.R	-R452	/T02.6	/T02.7	
	DAMPING RESISTANCE		+S1B.R	-R452	/T03.6	/T03.7	

03	AS BUILT	05.12.2005 AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	LIST OF EQUIPMENT		50.3023.01.A3.741.228	S	L07	/ ZIRI	
02	Fact.-Rev.	06.11.2005 AD	Drawn	ADAM	50.3023.01							
01	Approval	20.09.2005 AD	Checked	GROHMANN	SUBSTATION T80							
NO.	Alteration	Date	Name	Std.	Orig.	Iss. for	Iss. by:	D009781.02.607-3.AHA		MEASUREMENT	Typ: 04	
											Sheet 24	
											55Sh	





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1	2	3	4	5	6	7	8				
STÜCK- TITEL	DESCRIPTION, DESIGN, APPLICATION	TECHNICAL DATA SETTINGS	MANUFACTURER, TYPE, MOUNTING	ORDERING DATA APPA. DESIG.	APPARATUS SYMBOL, DIAGRAM REFERENCE TO INDIVIDUAL TREATMENT (CIRCUIT DIAGRAM, SHEET NO., CIRCUIT NO.)			REMARK			
4	DIODE SENSOR-DIODE FÜR ILLIS	MANUF.: PO NO.: ILLIS	TYPE								
TECHNICAL COMPONENTS		TYP	ORDER NO								
APPLICATION	SETTINGS	MOUNTING	BTM IDENTIFIER								
		+S2A	-B312								
		+S2A	-B313								
		+S2B	-B313								
		+S2B	-B312								
				/N01.4							
				/N01.5							
				/N02.5							
				/N02.4							



03	AS BUILT	05.12.2005	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	LIST OF EQUIPMENT		50.3023.01.A3.741.228	S	-L07		
02	Fact.-Rev.	09.11.2005	AD	Drawn	ADAM	50.3023.01							/ Z281
01	Approval	20.09.2005	AD	Checked	GROHMANN	SUBSTATION T80							Sheet 25
NO.	Alteration	Date	Name	Std.	2	Iss. for	Iss. by:		MEASUREMENT	D009781.02.607-3.AHA			55Sh.
						Orig.							



03	AS BUILT	05.12.2005	AD	Date	06.06.2005	AIR LIQUIDE	US STEEL KOSICE	LIST OF EQUIPMENT	50.3023.01.A3.741.228	S	407
02	Fact.-Rev.	09.11.2005	AD	Drawn	ADAM	6.3kV-MV SWITCHGEAR					
01	Approval	20.03.2005	AD	Check	GROHMANN	SUBSTATION T80					
NO.	Alteration	Date	Name	Std.	Iss.by	Orig.	Iss.for	iss.by	iss.for	iss.by	iss.for
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6											
7											
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HJ0115ND  
Z2S1  
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STÜCK- TITEL		DESCRIPTION, DESIGN, TECHNICAL DATA		MANUFACTURER, TYPE, ORDERING DATA		SETTINGS		MOUNTING		APPA. DESIG.		APPARATUS SYMBOL DIAGRAM REFERENCE TO INDIVIDUAL TREATMENT (CIRCUIT DIAGRAM, SHEET NO., CIRCUIT NO.)		REMARK	
6		VOLTAGE TRANSF. WITH DA/ON WINDING		MANUF.: SEE COVER SHEET PO NO.:		TYPE SEE COVER SHEET									
		TECHNICAL COMPONENTS		: IEC		TYP				: SINGLE PHASE ORDER NO					
		APPLICATION		SETTINGS		MOUNTING		SYM IDENTIFIER							
		VOLT. TRANSF. L1		+S3A		+S3A		-T15L1				/T02.2		/T02.6	
		VOLT. TRANSF. L2		+S3A		+S3A		-T15L2				/T02.3		/T02.6	
		VOLT. TRANSF. L3		+S3A		+S3A		-T15L3				/T02.4		/T02.7	
		VOLT. TRANSF. L1		+S3B		+S3B		-T25L1				/T03.2		/T03.6	
		VOLT. TRANSF. L2		+S3B		+S3B		-T25L2				/T03.3		/T03.6	
		VOLT. TRANSF. L3		+S3B		+S3B		-T25L3				/T03.4		/T03.7	

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NO.		Date		Name		Date		Name		Date		Name		Date	
03	AS BUILT	05.12.2005	AD	06.06.2005	US STEEL KOSICE/SLOVAKIA	50.3023.01	AD	06.06.2005	US STEEL KOSICE/SLOVAKIA	50.3023.01	AD	06.06.2005	US STEEL KOSICE/SLOVAKIA	50.3023.01	AD
02	Fact. - Rev.	09.11.2005	AD	09.11.2005	AD	09.11.2005	AD	09.11.2005	AD	09.11.2005	AD	09.11.2005	AD	09.11.2005	AD
01	Approval	20.09.2005	AD	20.09.2005	AD	20.09.2005	AD	20.09.2005	AD	20.09.2005	AD	20.09.2005	AD	20.09.2005	AD
Alteration		Date		Name		Date		Name		Date		Name		Date	

LIST OF EQUIPMENT		50.3023.01.A3.741.228		S ±L07	
PANEL		D009781.02.607-3.AHA		S ±L07	
Iss.by:		07		S ±L07	
Iss.for		MEASUREMENT		S ±L07	
Orig:		D009781.02.607-3.AHA		S ±L07	
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03	AS BUILT	05.12.2005	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	50.3023.01	50.3023.01.A3.741.228	V=L07	/K01
02	Fact.-Rev.	08.11.2005	AD	Drawn	ADAM	50.3023.01	50.3023.01	50.3023.01.A3.741.228	+SIA.R	/K01
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80	50.3023.01	50.3023.01.A3.741.228	+SIA.R	/K01
NO	Alteration	Date	Name	Std.	Iss.by:	Iss.for	Orig.	MEASUREMENT	MEASUREMENT	MEASUREMENT
								D009781.02.607-3.AHA	D009781.02.607-3.AHA	D009781.02.607-3.AHA
								55Sh	55Sh	55Sh

										TERMINAL DIAGRAM		50_3023_01_A3.74.1_228		V = L07			
																	
03	AS BUILT	05.12.2006	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA				PANEL		Type: 04		Sheet 30			
02	Fact. - Rev.	09.11.2005	AD	Drawn	ADAM	50_3023_01								55Sh.			
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80											
INC.	Alteration			Name/Std.		Orig.:				Iss.for		Iss.by:		D009781.02.607-3.AHA			

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03	AS BUILT	05.12.2006	AD	Date	05.06.2005	US STEEL KOSICE/SLOVAKIA	 <b>AREVA</b>	TERMINAL DIAGRAM		50_3023_01_A3_747_228		V = L07		/ K60
02	Fact. - Rev.	09.11.2005	AD	Drawn	ADAM	50_3023_01		 <b>AREVA</b>	PANEL	Typ.: 04	MEASUREMENT	Sheet 33	55Sh.	
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80								
NO.	Alteration	Date	Name	Sid.	Orig.	Iss. for	Iss. by:	07	D009781.02_607_3_AHA					

NO		WIRES USED SHEET STATE												CABLE-TYPE SECTION		CORES		-ROUTE		CIRCUIT DIAGRAM		CABLE MATERIAL		Ø		COLOR		TERM. TYPE	
RÜCK-REF.		NO												CORES/ LINE		DESTINAT. DESIG.		EXTERNAL		POT		DESTINAT. DESIG.		INTERN		CORES/ LINE		REMARK	
1	2	3	4	5	6	7	8	9	10	11	12			=L09		+S1A.R -X8		804		03L+		-X01		D02		0			
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03 AS BUILT 05.12.2005 AD Date 06.06.2005 US STEEL KOSICE/SLOVAKIA

02 Fact.-Rev. 09.11.2005 AD Drawn ADAM 50.3023.01

01 Approval 20.09.2005 AD Check GROHMANN SUBSTATION T80

NO Alteration Date Name Std. Orig. Iss. for

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03	AS BUILT	05.12.2005	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	 <b>AREVA</b>	TERMINAL DIAGRAM	50.3023.01.A3.74.1.228	V =L07 +S1A.R	/ K90	Sheet 35 55Sh.
02	Fact. - Rev.	08.11.2005	AD	Drawn	ADAM	50.3023.01						
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80						
IND.	Alteration	Date	Name	Sid.	Orig.	Iss. for:						
								PANEL	Typ: 04			
								07	MEASUREMENT			
									D009781.02.607-3.AHA			


03	AS BUILT	05.12.2005	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA		TERMINAL DIAGRAM	50.3023.01.A3.741.228	V=L07	/KFE	Sheet 36 55Sh.
02	Fact.-Rev.	09.11.2005	AD	Draught	ADAM	50.3023.01						
01	Approval	20.09.2005	AD	Czech	GROHMANN	SUBSTATION 780						
NO.	Alteration	Date	Name	Std.	Iss.	for	Iss.	by:	07	Type: 04 MEASUREMENT		D009781.02.607-3.AHA

## CROSS CONNECTION

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Copyright as per DIN 34 to be observed!

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03	AS BUILT	05.12.2005	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA		CROSS CONNECT. LIST	50.3023.01.43.741.228	V = 07			
02	Fact. - Rev.	09.11.2005	AD	Drawn	ADAM	50.3023.01					RELAY BOX	+51A.R	/ 010
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80					PANEL	Typ: 04	Sheet 37
NO.	Alteration	Date	Name	Sid.		Orig:					iss. for	iss. by:	07

## CROSS CONNECTION

REFERENCE	POTENTIAL ITEM GR. SECTION	CABLE MATERIAL COLOR	OUTPUT TERMINAL	DESTINATION 1	DESTINATION 2	DESTINATION 3	DESTINATION 4	DESTINATION 5	DESTINATION 6
T01	SS1 L1 1.5MM2	H07V-K SW	-P451A	17 -P452A	17				A
T01	SS1 L2 1.5MM2	H07V-K SW	-P451A	18 -P453A	17				
T01	SS2 L1 1.5MM2	H07V-K SW	-P451B	17 -P452B	17				
T01	SS2 L2 1.5MM2	H07V-K SW	-P451B	18 -P453B	17				B
T01	SS1 L3 1.5MM2	H07V-K SW	-P452A	18 -P453A	18				
T01	SS2 L3 1.5MM2	H07V-K SW	-P452B	18 -P453B	18				
									D
									E
									F

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H0115ND  
Q15  
ADAM

22.12.2006

AS BUILT	05.12.2006 AD	Date	06.06.2005
Fact.-Rev.	09.11.2005 AD	Drawn	ADAM
Approval	20.09.2005 AD	Checked	GROHMANN
Alteration	Date	Name	Std.

US STEEL KOSICE/SLOVAKIA  
50.3023.01  
SUBSTATION T80  
Orig.: Iss. for: 2  
Iss. by: 4  
CROSS CONNECT. LIST  
RELAY BOX  
PANEL  
50.3023.01.A3.741.228  
VI=L07  
+S1A.T / 015  
D009781.02.607-3.AHA  
Sheet L41  
55Sh.

[illegible]

03	AS BUILT	05.12.2005	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA		<div></div> <b>AREVA</b>	PLUG DIAGRAM CIRCUIT-BREAKER PANEL	50_3023_01.A3.741_228		V=L07	
02	Fact. -Rev.	09.11.2005	AD	Drawn	ADAM	50_3023_01				+51A..R		/ S01	
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80				Type: 04		Sheet 38	
NO.	Alteration	Date	Name	Std.		Orig.:	iss.for			iss.by:	07	D009781.02.607-3.AHA	

**AREVA**



03	AS BUILT	05.12.2006	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	 <b>AREVA</b>	PLUG DIAGRAM NIEDERSP6 -SCHR.A- PANEL	50_3023.01.A3.74.1.228 NIEDERSP6 -SCHR.B	V = I07 -ASTM.A	55Sh.	
02	Fact. - Rev.	09.11.2005	AD	Drawn	ADAM	50_3023_01						
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80						
NO.	Alteration	Date	Name	Std.	Orig.	iss for						iss by:

03	AS BUILT	05.12.2005	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA		 <b>AREVA</b>	TERMINAL DIAGRAM		50_3023_01.A3.741.228		V=L07	
02	Fac1.-Rev.	09.11.2005	AD	Drawn	ADAM	50_3023_01			PANEL		Type: 04		Sheet 12	
01	Approval	20.09.2005	AD	Checked	GROHMANN	SUBSTATION T80			07		MEASUREMENT		555h.	
NO.	Alteration	Date	Name	Std.	Orig.	Iss for	Iss by:							

03	AS BUILT	06.12.2006	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	 <b>AREVA</b>	TERMINAL DIAGRAM		
02	Fact.-Rev.	09.11.2005	AD	Drawn	ADAM	50.3023.01		V=L07		
01	Approval	20.09.2005	AD	Checked	GROHMANN	SUBSTATION T80		+S1B.R		
NO.	Alteration	Date	Name	Std.	Orig.	Iss for		Iss by:		
								PANEL	07	Typ: 04 MEASUREMENT D009781.02.607-3.AHA 55Sh.

1		2		3		4		5		6		7		8	
CABLE		WIRES USED		SHEET STATE		CABLE-TYPE SECTION		CORES		-ROUTE		CIRCUIT DIAGRAM		CABLE MATERIAL	
NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
1		2		3		4		5		6		7		8	
1		2		3		4		5		6		7		8	
Rück-REF.		NO		DESTINAT. DESIG.		EXTERNAL		POT		NO		DESTINAT. DESIG.		INTERN	
/R02.2										401					
/R02.2										402					
/R02.3										403					
/R02.7										404					
/R02.2										405					
/R02.2										406					
/R02.5										407					
/R02.7										408					
/R02.4										409					
/R02.4										410					
/R02.6										411					
/R02.6										412					
/R02.7										413					
/R02.7										414					

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03	AS BUILT	06.12.2006	AD	Date	05.06.2005	US STEEL KOSICE/SLOVAKIA	<div> <b>AREVA</b></div>	TERMINAL DIAGRAM		50..3023..01..43..741..228		V=L07		
02	Fact.-Rev.	09.11.2005	AD	Drawn	ADAM	50..3023..01			PANEL		Type: 04		/ K60	
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80			iss.by:		MEASUREMENT		Sheet L5	
NO.	Alteration	Date		Named	Std.	Orig.			iss.for				D009781.02..607..3..AHA	
NO.	Alteration	Date										55Sh.		

003	AS BUILT	05.12.2006	AD	Date	05.06.2005	US STEEL KOSICE/SLOVAKIA	 <b>AREVA</b>	TERMINAL DIAGRAM	50_3023_01_A3_741_228	V = L07	+S1B.R	/ K80
002	Fact.-Rev.	09.11.2005	AD	Drawn	ADAM	50_3023_01						
001	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80						
NO.	Alteration	Date	Name	Sid.	Orig.	Iss for	Iss by:	PANEL	Type: 04	D009781.02_607-3_AHA	MEASUREMENT	Sheet L6 55Sh.

**AREVA**

# CROSS CONNECTION

REFERENCE	POTENTIAL ITEM GR. SECTION	CABLE MATERIAL COLOR	OUTPUT TERMINAL	DESTINATION 1	DESTINATION 2	DESTINATION 3	DESTINATION 4	DESTINATION 5	DESTINATION 6
602	04L+ 1 1.5MM2	H07V-K SW	-X4 409	22 -F451	22 -F452				
602	AUTF SS2 1 1.5MM2	H07V-K SW	-X4 410	21 -F451	21 -F452				
001	03L+ 1 1.5MM2	H07V-K SW	-X8 810	9 -F310	13				
002	03L+ 1 1.5MM2	H07V-K SW	-X8 805	12 -F451	12 -F452				
002	1 1.5MM2	H07V-K SW	-X8 813	11 -F451	11 -F452				
T03	L1 2 2.5MM2	H07V-K SW	-X02	A01 -F451	1				
T03	L2 2 2.5MM2	H07V-K SW	-X02	A03 -F451	3				
T03	L3 2 2.5MM2	H07V-K SW	-X02	A05 -F451	5				
T03	e 2 2.5MM2	H07V-K SW	-X02	003 -F452	1				

03	AS BUILT	05.12.2005	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	GROSS CONNECT. LIST	50.3023.01.A3.741.226	V =L07	7 B10
02	Fact.-Rev.	09.11.2005	AD	Drawn	ADAM	50.3023.01	RELAY BOX		+SIB.R	7 B10
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80	PANEL		Typ: 04	Sheet 48
NO.	Alteration	Date	Name	Std.	Iss.for	Iss.by:	07	MEASUREMENT	D009781.02.607-3.AHA	55Sh.

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22.12.2006  
H10115ND  
L07+S1B  
ADAM

D00978102



+S1B.R -X02 CABLE MATERIAL H05V-K 1.0mm2 SW										+S1B.R -X02 CABLE MATERIAL H05V-K 1.0mm2 SW									
A					B					C					+				
1	A01	-FA51 /T03.2	H07V-K	2.5MM2 SW	1	B01	-X6 /T03.6	H07V-K	2.5MM2 SW	616	100	-X9 /V02.2	H05V-K	1.0MM2 SW	911	1			
2	A02					B02					200	-X8 /V02.2	H05V-K	1.0MM2 SW	801	2			
3	A03	-FA51 /T03.3	H07V-K	2.5MM2 SW	3	B03	-FA52 /T03.7	H07V-K	2.5MM2 SW	1	003	-X8 /V02.2	H05V-K	1.0MM2 SW	807	3			
4	A04					B04					004	-X8 /V02.2	H05V-K	1.0MM2 SW	809	4			
5	A05	-FA51 /T03.4	H07V-K	2.5MM2 SW	5	B05	-X9 /V02.4	H05V-K	1.0MM2 SW	903	005					5			
6	A06					B06	-X9 /V02.4	H05V-K	1.0MM2 SW	912	006					6			
7	A07	-X6 /T03.4	H07V-K	2.5MM2 SW	608	B07					007	-X9 /V02.4	H05V-K	1.0MM2 SW	904	7			
8	A08					B08					008	-X9 /V02.4	H05V-K	1.0MM2 SW	913	8			
9	A09					B09					009					9			
10	A10					B10					010					10			
11	A11					B11	-X9 /V02.5	H05V-K	1.0MM2 SW	905	011	-X9 /V02.5	H05V-K	1.0MM2 SW	906	11			
12	A12					B12	-X9 /V02.5	H05V-K	1.0MM2 SW	914	012	-X9 /V02.5	H05V-K	1.0MM2 SW	915	12			
13	A13					B13					013					13			
14	A14					B14					014					14			
15	A15					B15	-X9 /V02.2	H05V-K	1.0MM2 SW	901	015					15			
16	A16					B16	-X9 /V02.2	H05V-K	1.0MM2 SW	909	016	-X9 /V02.2	H05V-K	1.0MM2 SW		16			

22.12.2006 HJ0115MD =L07+S1B S01 ADAM

[illegible]

CROSS CONNECTION										7	8
REFERENCE	POTENTIAL ITEM CR. SECTION	CABLE MATERIAL COLOR	OUTPUT TERMINAL	DESTINATION 1	DESTINATION 2	DESTINATION 3	DESTINATION 4	DESTINATION 5	DESTINATION 6		
001	03L+ 0 1.0MM2	H05V-K SW		-X01	D02 -S1	-Q1 23					
001	0 1.0MM2	H05V-K SW		-X01	D03 -S1	-Q1 22					
001	0 1.0MM2	H05V-K SW		-X01	D04 -S1	-Q1 24					
T02	2 2.5MM2	H07V-K SW		-T15L2	DN -T15L1	DA					
T02	2 2.5MM2	H07V-K SW		-T15L3	DN -T15L2	DA					
T02	L1 2 2.5MM2	H07V-K SW		-X01	A01 -T15L1	A					
T02	L2 2 2.5MM2	H07V-K SW		-X01	A03 -T15L2	A					
T02	L3 2 2.5MM2	H07V-K SW		-X01	A05 -T15L3	A					
T02	SS1 N 2 2.5MM2	H07V-K SW		-X01	A07 -T15L1	N -T15L2	N PE	SCHRAUBE			
T02	n 2 2.5MM2	H07V-K SW		-X01	C01 -T15L1	DN PE					
T02	e 2 2.5MM2	H07V-K SW		-X01	C03 -T15L3	DA					
V01	0 1.0MM2	H05V-K SW		-X01	B11 -S1	-Q1 41					
V01	0 1.0MM2	H05V-K SW		-X01	B12 -S1	-Q1 42					
V01	0 1.0MM2	H05V-K SW		-X01	C05 -S1	-Q1 31					
V01	0 1.0MM2	H05V-K SW		-X01	C06 -S1	-Q1 32					
V01	0 1.0MM2	H05V-K SW		-X01	C15 -S1	-Q1 13					
V01	0 1.0MM2	H05V-K SW		-X01	C16 -S1	-Q1 12					
V01	0 1.0MM2	H05V-K SW		-X01	D01 -S1	-Q1 14					
V01	0 1.0MM2	H05V-K SW		-X01	D07 -S1	-Q1 33					
V01	0 1.0MM2	H05V-K SW		-X01	D08 -S1	-Q1 34					
GROSS CONNECT. LIST SWITCHING TRUCK PANEL 07										50.3023.01.A3.741.228	
AREVA										V -L07 +33A	
US STEEL KOSICE/SLOVAKIA										50.3023.01	
Date 06.06.2005										Drawn ADAM	
06.12.2006 AD										Check GROHMANN	
09.11.2005 AD										Approval	
20.09.2005 AD										Alteration	
Name Std.										Iss. for	
Iss. by:										D009781.02.607-3_AHA	
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D0978102

## CROSS CONNECTION

[illegible]

03	AS BUILT	05.12.2005 AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA	 <b>AREVA</b>	CROSS CONNECT. LIST SWITCHING TRUCK	50.3023.01.A3.741.228	V = 107 +53A	/ 031	Sheet 51 55Sh.
02	Fact. - Rev.	09.11.2005 AD	Drawn	ADAM	50.3023.01						
01	Approval	20.09.2005 AD	Check	GROHMANN	SUBSTATION T80						
NO.	Approval	Date	Name	Sid.	Orig.	Iss. for	Iss. by:	07	MEASUREMENT	04	0009781.02.607-3.AHA

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HJ0115ND  
=L07+S3A  
Q31  
ADAN

+S3A	-X01
CABLE MATERIAL	H05V-K 1.0mm2 SW

03	AS BUILT	05.12.2005	AD	Date	05.06.2005	US STEEL KOSICE/SLOVAKIA	 <b>AREVA</b>	PLUG DIAGRAM CIRCUIT-BREAKER PANEL	50.3023.01.A3.741.228 V =L07	/ S01
02	Fact.-Rev.	09.11.2005	AD	Drawn	ADAM	50.3023.01				
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80				
NO.	Alteration	Date	Name	Sid.	Iss. for	Iss. by:	07	MEASUREMENT	D009781.02.607-3.AHA	55Sh.

CROSS CONNECTION									
REFERENCE	POTENTIAL ITEM OR. SECTION	CABLE MATERIAL COLOR	OUTPUT TERMINAL	DESTINATION 1	DESTINATION 2	DESTINATION 3	DESTINATION 4	DESTINATION 5	DESTINATION 6
002	03L+ 0 1.0MM2	H05V-K SW	-X02	D02 -S1	-Q2 21 -S1	-Q2 23			
002	0 1.0MM2	H05V-K SW	-X02	D03 -S1	-Q2 22				
002	0 1.0MM2	H05V-K SW	-X02	D04 -S1	-Q2 24				
T03	2 2.5MM2	H07V-K SW	-T25L2	DN -T25L1	DA				
T03	2 2.5MM2	H07V-K SW	-T25L3	DN -T25L2	DA				
T03	L1 2 2.5MM2	H07V-K SW	-X02	A01 -T25L1	A				
T03	L2 2 2.5MM2	H07V-K SW	-X02	A03 -T25L2	A				
T03	L3 2 2.5MM2	H07V-K SW	-X02	A05 -T25L3	A				
T03	SS2 N 2 2.5MM2	H07V-K SW	-X02	A07 -T25L1	N -T25L2	N -T25L3	N PE	SCHRAUBE	
T03	n 2 2.5MM2	H07V-K SW	-X02	C01 -T25L1	DN PE	SCHRAUBE			
T03	e 2 2.5MM2	H07V-K SW	-X02	C03 -T25L3	DA				
V02	0 1.0MM2	H05V-K SW	-X02	B11 -S1	-Q2 41				
V02	0 1.0MM2	H05V-K SW	-X02	B12 -S1	-Q2 42				
V02	0 1.0MM2	H05V-K SW	-X02	C05 -S1	-Q2 31				
V02	0 1.0MM2	H05V-K SW	-X02	C06 -S1	-Q2 32				
V02	0 1.0MM2	H05V-K SW	-X02	C15 -S1	-Q2 11 -S1	-Q2 13			
V02	0 1.0MM2	H05V-K SW	-X02	C16 -S1	-Q2 12				
V02	0 1.0MM2	H05V-K SW	-X02	D01 -S1	-Q2 14				
V02	0 1.0MM2	H05V-K SW	-X02	D07 -S1	-Q2 33				
V02	0 1.0MM2	H05V-K SW	-X02	D08 -S1	-Q2 34				
				GROSS CONNECT. LIST SWITCHING TRUCK PANEL 07		150.3023.01.A3.741.228		V -L07 +S98 / 030	
				AREVA		Typ: 04		D009781.02.607-3.AHA	
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CROSS CONNECTION														
REFERENCE	POTENTIAL ITEM CR. SECTION	CABLE MATERIAL COLOR	OUTPUT TERMINAL	DESTINATION 1	DESTINATION 2	DESTINATION 3	DESTINATION 4	DESTINATION 5	DESTINATION 6					
— V02	0 1.0MM2	H05V-K SW	-X02	D11 -S1	-02 43									
— V02	0 1.0MM2	H05V-K SW	-X02	D12 -S1	-02 44									




## TERMINAL DIA., 64 POLIG, CIRCUIT-BREAKER

PIN

+S3B-X02

CABLE MATERIAL	H05V-K 1.0mm <sup>2</sup> SW	SW

	A	B	C	D	+
1	-T25L1 /T03.2 H07V-K 2.5MM2 SW	A1 B01	-T25L1 /T03.6 H07V-K 2.5MM2 SW	-Q2 -S1 /V02.2	1
2		B02		-Q2 -S1 /V02.2	2
3	T25L2 /T03.3 H07V-K 2.5MM2 SW	A B03	-T25L3 /T03.7 H07V-K 2.5MM2 SW	-Q2 -S1 /V02.2	3
4		B04		-Q2 -S1 /V02.2	4
5	-T25L3 /T03.4 H07V-K 2.5MM2 SW	A B05	-Q2 -S1 /V02.4		5
6		B06	-Q2 -S1 /V02.4		6
7	T25L1 /T03.4 H07V-K 2.5MM2 SW	N Q B07		-Q2 -S1 /V02.4	7
8		B08		-Q2 -S1 /V02.4	8
9		B09			9
10		B10			10
11	-Q2 -S1 /V02.5 H05V-K 1.0MM2 SW	B11		-Q2 -S1 /V02.5 H05V-K 1.0MM2 SW	11
12	-Q2 -S1 /V02.5 H05V-K 1.0MM2 SW	B12		-Q2 -S1 /V02.5 H05V-K 1.0MM2 SW	12
13		B13			13
14		B14			14
15		B15	-Q2 -S1 /V02.2		15
16		B16	-Q2 -S1 /V02.2		16

03	AS BUILT	05.12.2005	AD	Date	06.06.2005	US STEEL KOSICE/SLOVAKIA		PLUG DIAGRAM	50 .3023 .01 .A3 .741 .228		V	=L07
02	Fact.-Rev.	09.11.2005	AD	Drawn	ADAM	50 .3023 .01		CIRCUIT-BREAKER			+S3B	/ S01
01	Approval	20.09.2005	AD	Check	GROHMANN	SUBSTATION T80		PANEL	Typ: 04			
NO.	Alteration	Date	Named	Std.	Orig.	iss. for	iss. by:	07	MEASUREMENT	D009781.02.607-3.AHA		55Sh.
				1	2	3	4	5	6	7	8	