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SCHEIB ELEKTROTECHNIK GmbH
DÜSSELDORF

DECKBLATT

COVER SHEET

AUFTRAGS - NR. : 09/7927/05 - 31
ORDER NO.

STEUERUNGSTYP : Substation electrical room
TYPE OF CONTROL

KUNDE : Air Liquide AGS
CUSTOMER
ASU Kosice

Betriebsspannung : 230V AC
operating voltage

Steuerspannung : 24V DC
control voltage

Signalspannung : 24V DC
signal voltage

Ventilspannung : 24V DC
valve voltage

Insgesamt 178 Blätter
total sheets

ELCAD (R)		date		15.11.2005		ASU Kosice		Cover sheet	
b		made		Damm-Kauven				K.70101	
a		date		24.11.06		replaced:		F9792705-01	
revision		name		stand.		replaced:		178 sh.	

page 0

[illegible]

Terminal block ...X...

End plate		X															
orange	a	b	c	d	e	f	g	h	1	2	3	4	5	6	7	8	9
grey	a	b	c	d	e	f	g	h	1	2	3	4	5	6	7	8	9
white	a	b	c	d	e	f	g	h	1	2	3	4	5	6	7	8	9
grey	a	b	c	d	e	f	g	h	1	2	3	4	5	6	7	8	9
etc.	a	b	c	d	e	f	g	h	1	2	3	4	5	6	7	8	9

End plate		X0															
orange	a	b	c	d	e	f	g	h	1	2	3	4	5	6	7	8	9
grey	a	b	c	d	e	f	g	h	1	2	3	4	5	6	7	8	9
grey	a	b	c	d	e	f	g	h	16	17	18	19	20	21	22	23	24
orange	a	b	c	d	e	f	g	h	16	17	18	19	20	21	22	23	24
grey	a	b	c	d	e	f	g	h	16	17	18	19	20	21	22	23	24
orange	a	b	c	d	e	f	g	h	16	17	18	19	20	21	22	23	24
grey	a	b	c	d	e	f	g	h	16	17	18	19	20	21	22	23	24

etc.

internal wiring

internal wiring

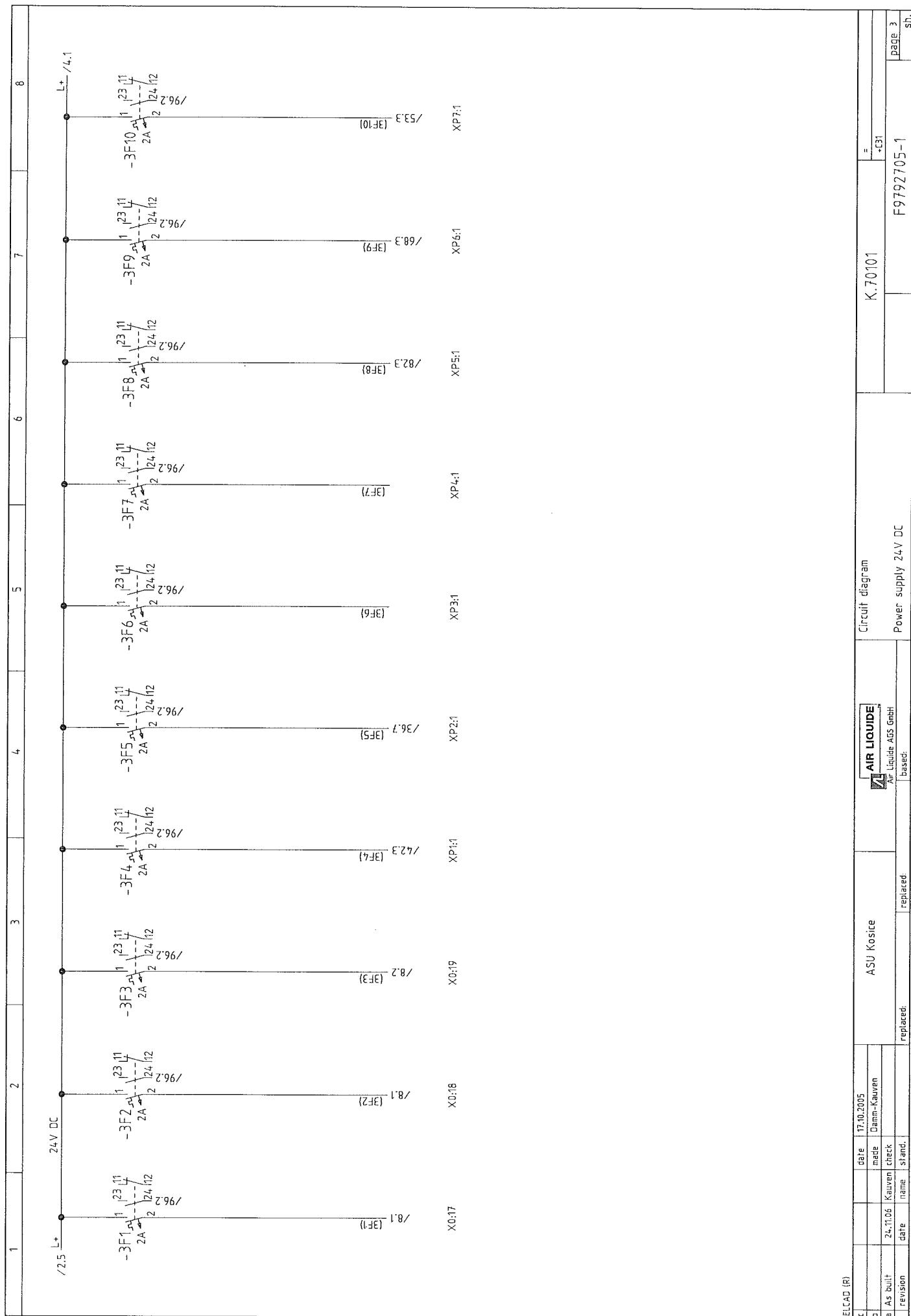
Lead 24V DC

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1		2		3		4		5		6		7		8	
Nr.	Stck.	Benennung				Hersteller	Kennzeichnung				Type	Bemerkung			
No.	Qty.	Description				Manufacturer	Mark				Type	Notes			
1	1	Control cabinet HxBxD: 2200x1000x800mm				Rittal					TS 8012.009 special	RAL 7035			
		Schaltschrank HxBxT: 2200x1000x800													
2	1 Pair	Sidewall				Rittal					TS 8128.235 special	RAL 7035			
		Seitenteile													
3	1	Socket element front+backside 200mm				Rittal					TS 8602.000				
		Socket-Elemente vorn+hinten 200mm													
4	1	Socket side-panel 200mm				Rittal					TS 8602.080				
		Socket-Blenden seitlich 200mm													
5	1	Circuit diagram pocket				Rittal					PS 4115.000				
		Schaltplanfalte													
6	4	distance device 50mm				Rittal					SZ/DK 7967.000				
		Distanzstücke 50mm													
7	2 VP	180° hinges, RAL 7035				Rittal					TS 8800.190				
		180°-Scharniere, RAL 7035													
8	2	Cabinet lighting 14W, with Limit sw., 230V AC				EVG	1H1, 1S1, 1H2, 1S2				80.14.SK				
		Schrankleuchte 14W mit Türendsch., 230V													
9	2	Lamp cover				EVG					80.AB.14				
		Leuchtenabdeckung													
10	2	Cable box				EVG					165463				
		Kabeldose													
11	1	Control cabinet socket				AVT	1X0				ST11				
		Schranksteckdose													
12	1	Automatic fuse 1pol., 20A				Siemens	2F1				5SX2120-7				
		Si-Automaten 1pol., 20A													
13	1	Automatic fuse 1pol., 10A				Siemens	1F1				5SX2110-7				
		Si-Automaten 1pol., 10A													
14	51	Automatic fuse 1pol., 2A				Siemens	3F1-3F10, 4F1-4F6, 5F1-5F6, 10F1-10F3, 12F1-12F6, 14F1-14F6, 15F1-15F4, 16F1-16F6, 17F1-17F2				5SX2102-7				
		Si-Automaten 1pol., 2A													
15	52	Auxiliary contact for automatic fuse				Siemens					5SX9200				
		Hilfskontakte für Si-Automaten (FS)													
16	3	Profibus Repeater				Hirschmann	10A1, 10A2, 10A3				OZD Profi 12M G11	Accessory equipment Air Liquide			
												Beistellg. Fa. Air Liquide			
17	1	Splicebox				Quante	XS1				VKA2-12F	Feed adjustment Fa. Air Liquide			
		Splicebox										Beistellg. Fa. Air Liquide			
c		date		15.11.2005		ASU Kostice		AIR LIQUIDE		Parts list		K.70101		=	
b		made		Damm-Kauven				Air Liquide AGS GmbH						+C31	
a		check				replaced:		based:						page 1	
revision		date		name		replaced:								F9792705-001	
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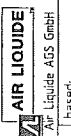
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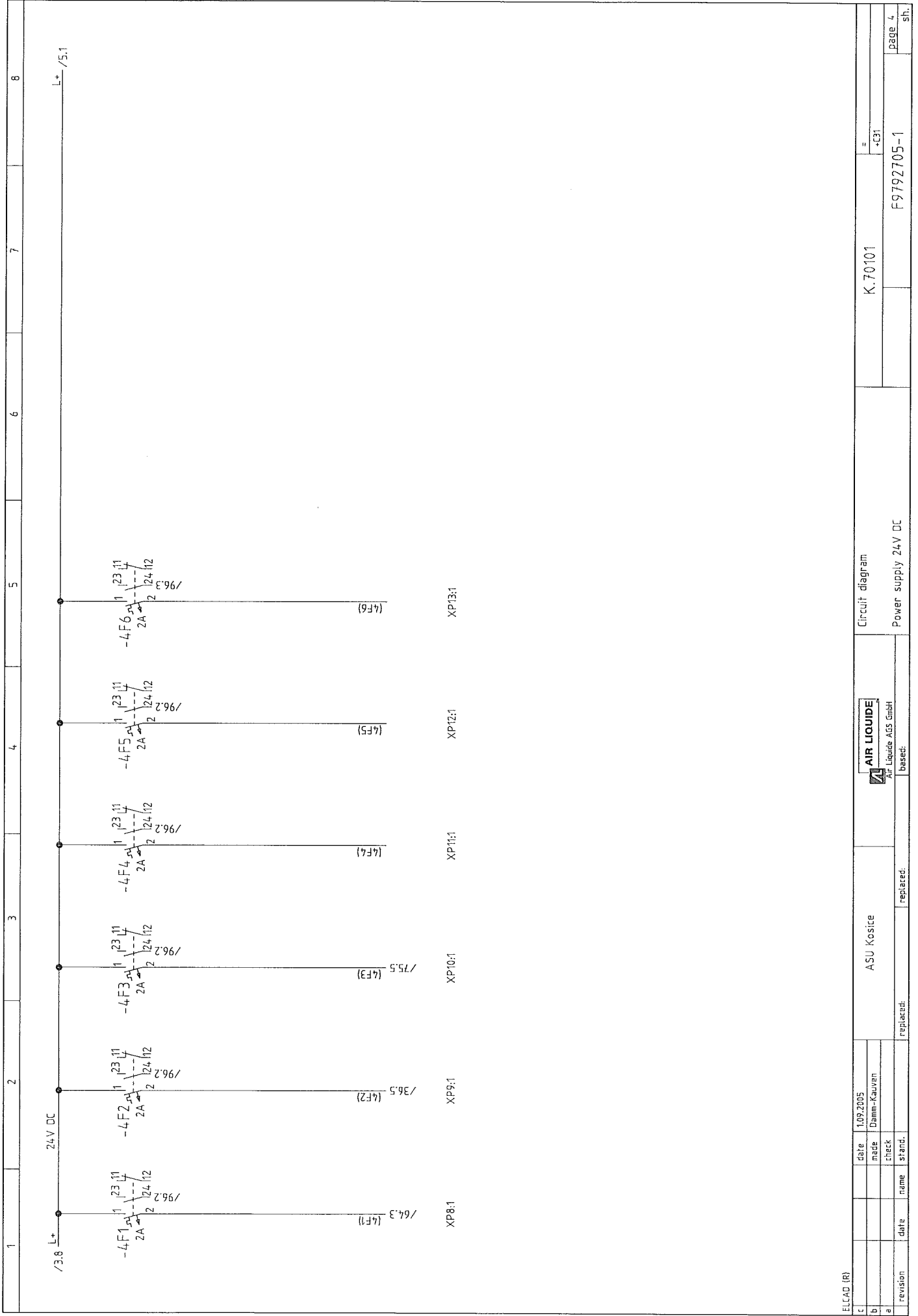
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b	made	Damm-Kauven		Power supply 24V DC			+C31		
a	As built	24.11.06	Kauven	replaced:			F9792705-1		page 3
revision	date		name	replaced:			sh.		



Air Liquide AS5 GmbH

based:



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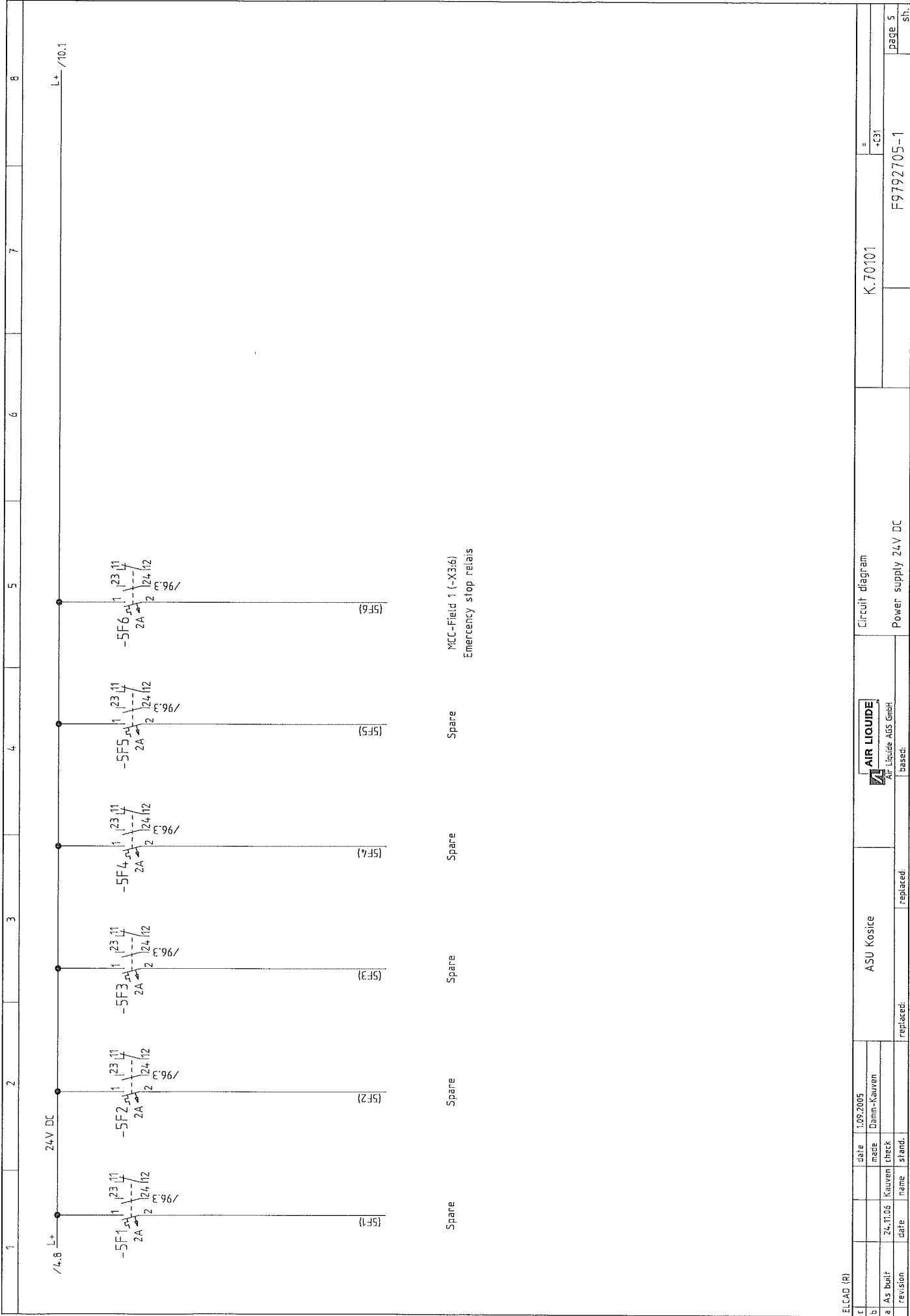
ASU Kosice	

AIR LIQUIDE	
Air Liquide AGS GmbH	
based:	

Circuit diagram	
Power supply 24V DC	

K.70101	

page 4	
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ELCAD (R)

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ASU Kosice

ASU Kosice

ASU Kosice

ASU Kosice

AIR LIQUIDE

Air Liquide AGS GmbH

Air Liquide AGS GmbH

Air Liquide AGS GmbH

Circuit diagram

Power supply 24V DC

Power supply 24V DC

Power supply 24V DC

K.70101

K.70101

K.70101

K.70101

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+C31

+C31

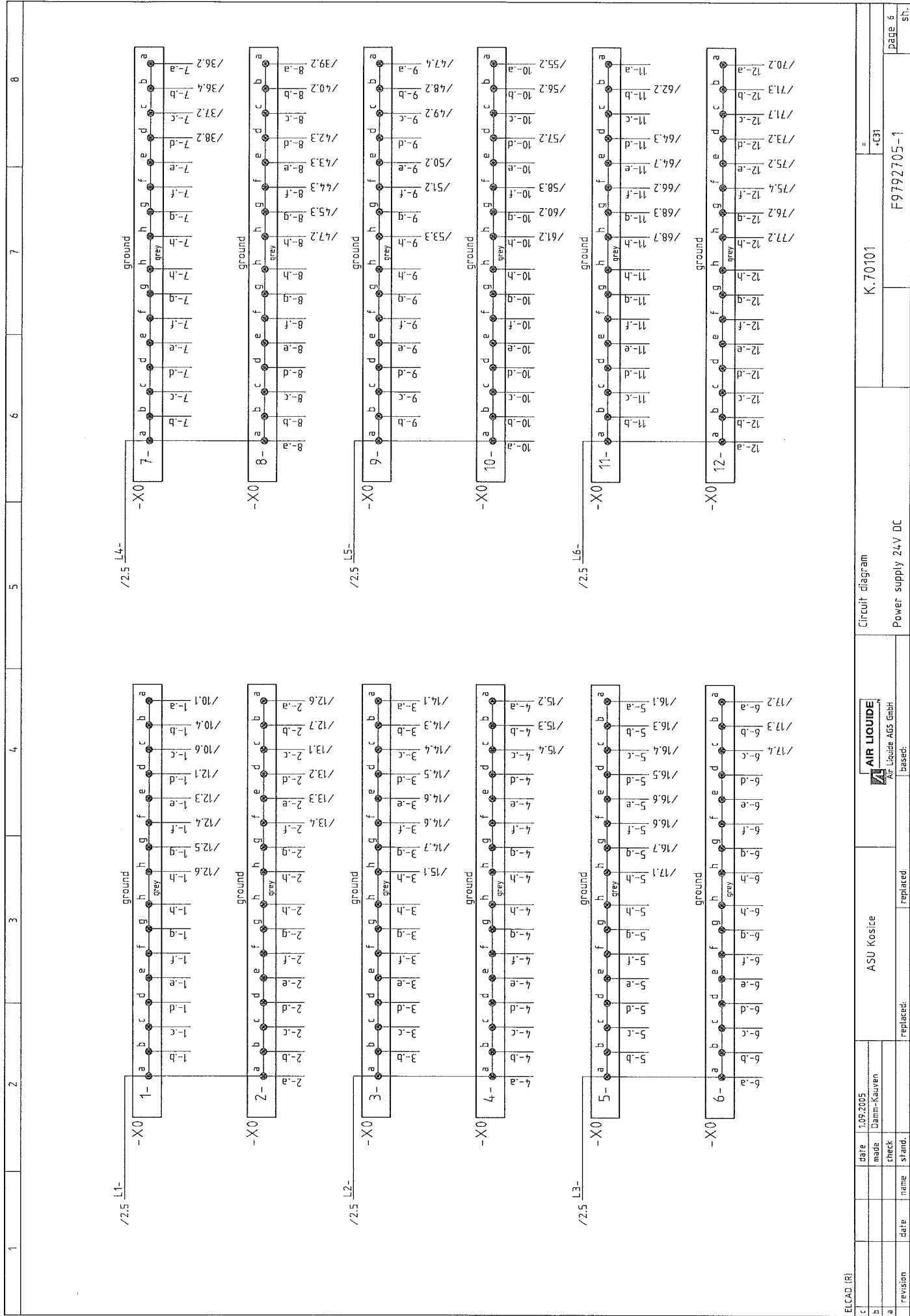
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page 5

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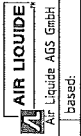
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ASU Kosice



Circuit diagram

Power supply 24V DC

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+C31

F9792705-1

page 6


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 **AIR LIQUIDE**
Air Liquide AGS GmbH
based:

Circuit diagram	Power supply 24V DC
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		F9792705-1

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(3F2) / 3.2							
L10- / 2.5							
(3F3) / 3.3							

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Circuit diagram

Power supply 24V DC

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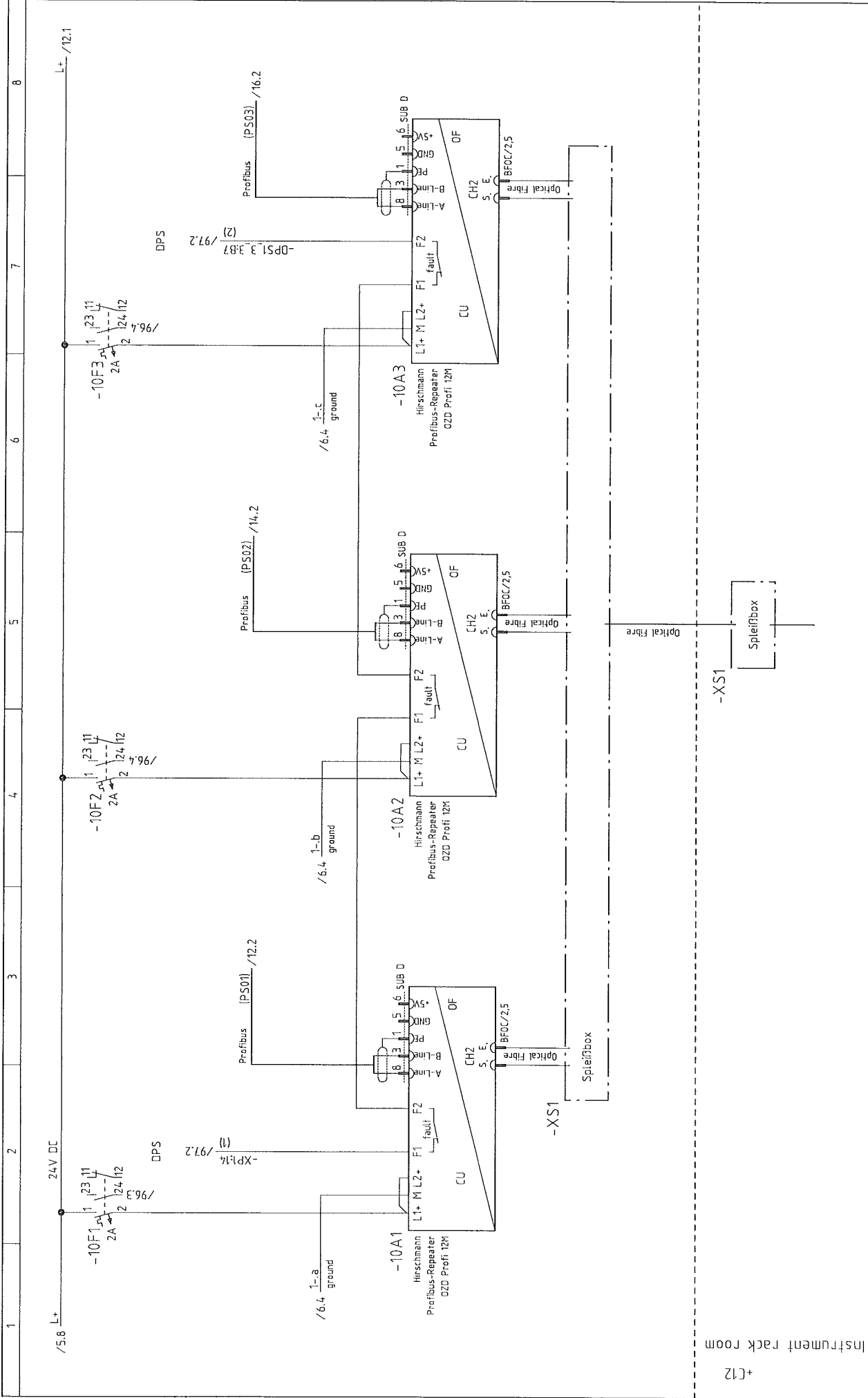
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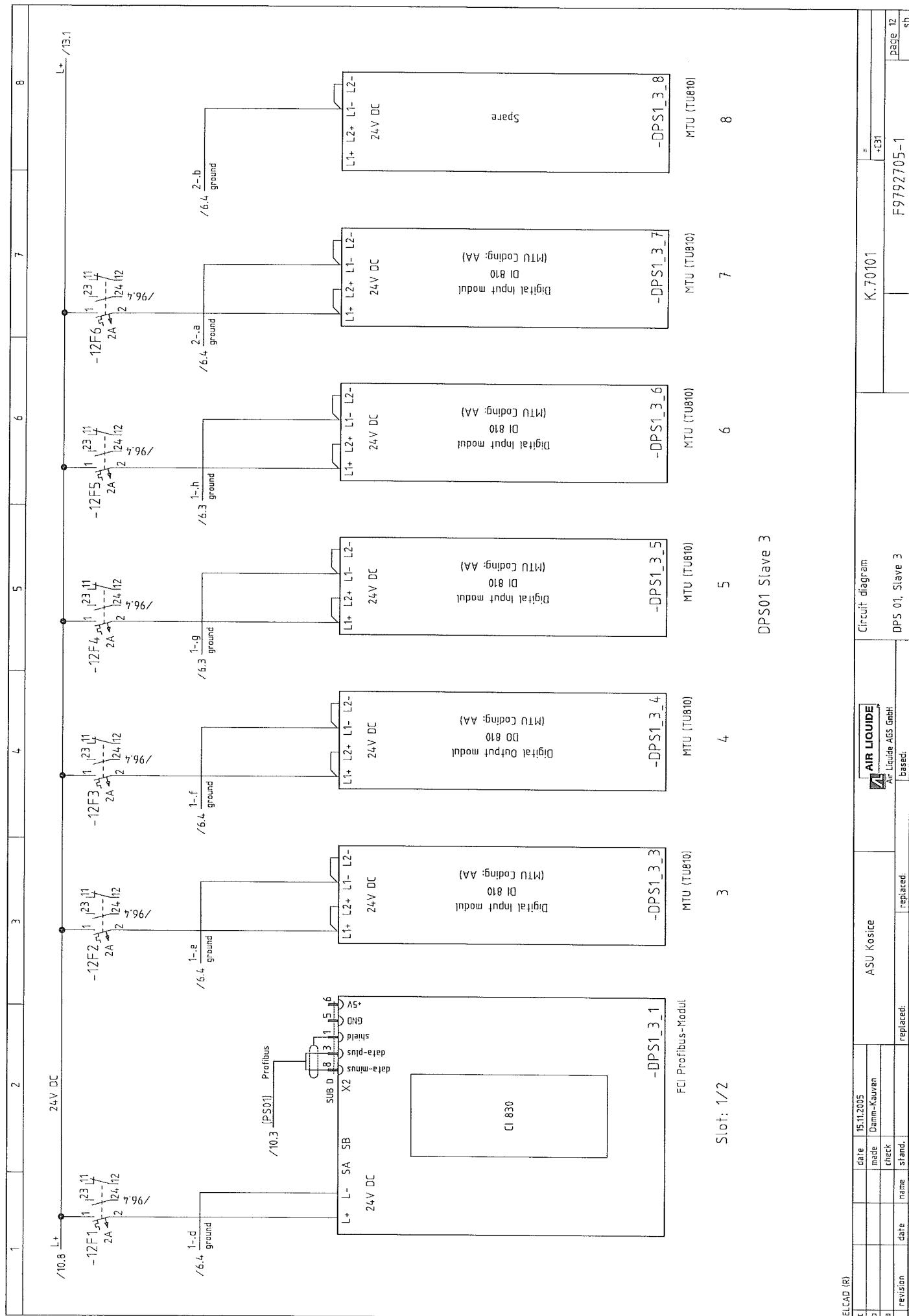
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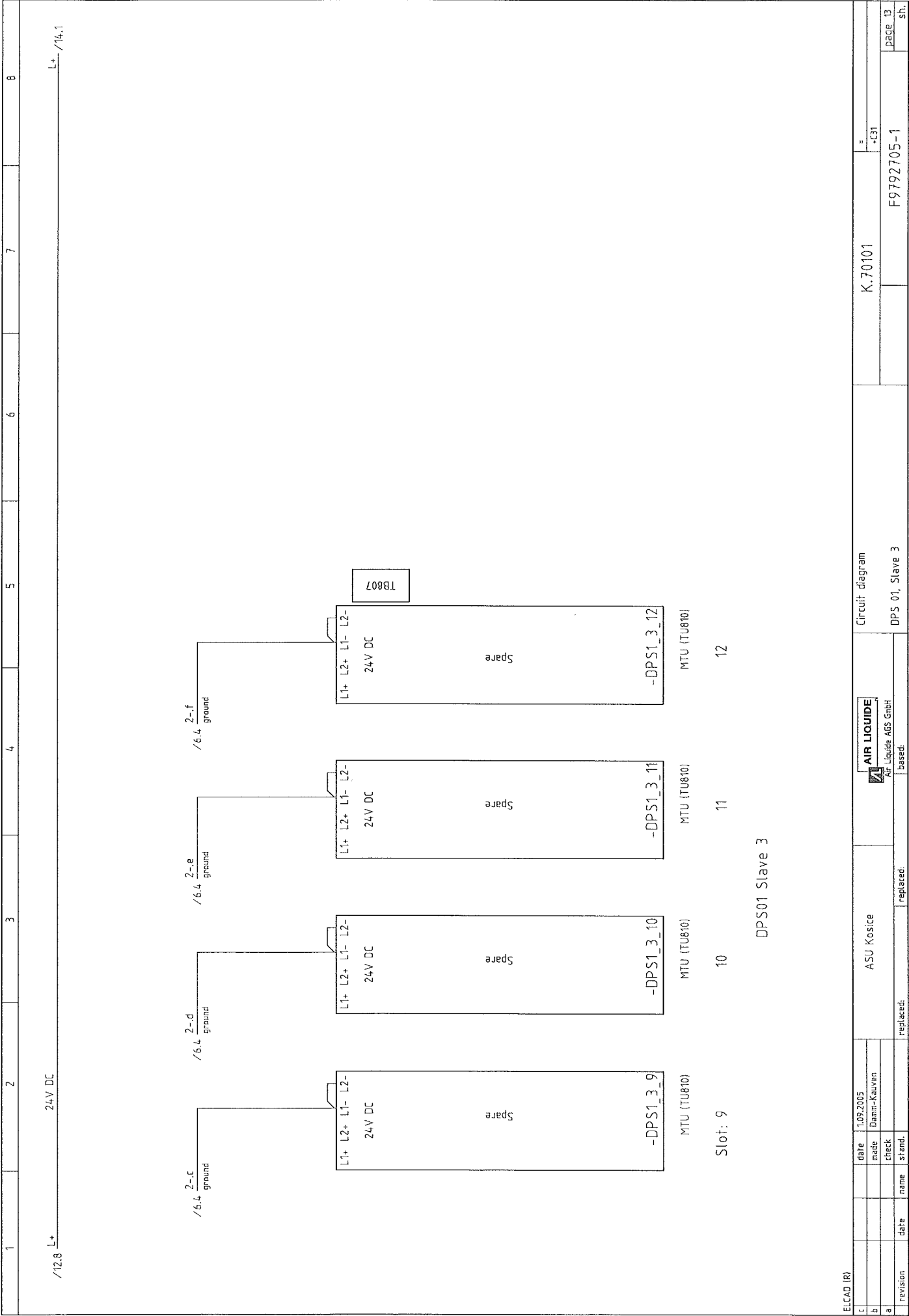
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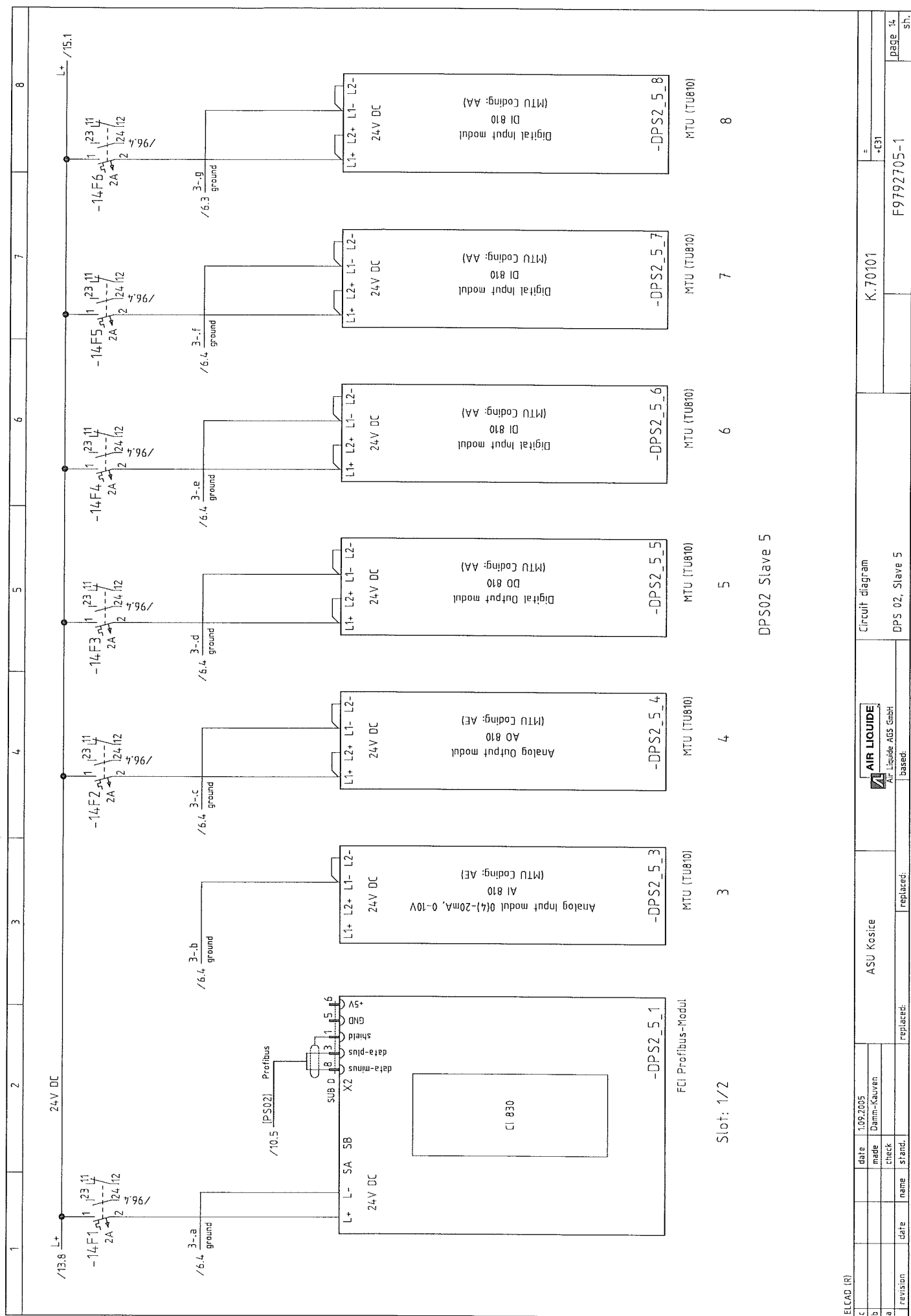
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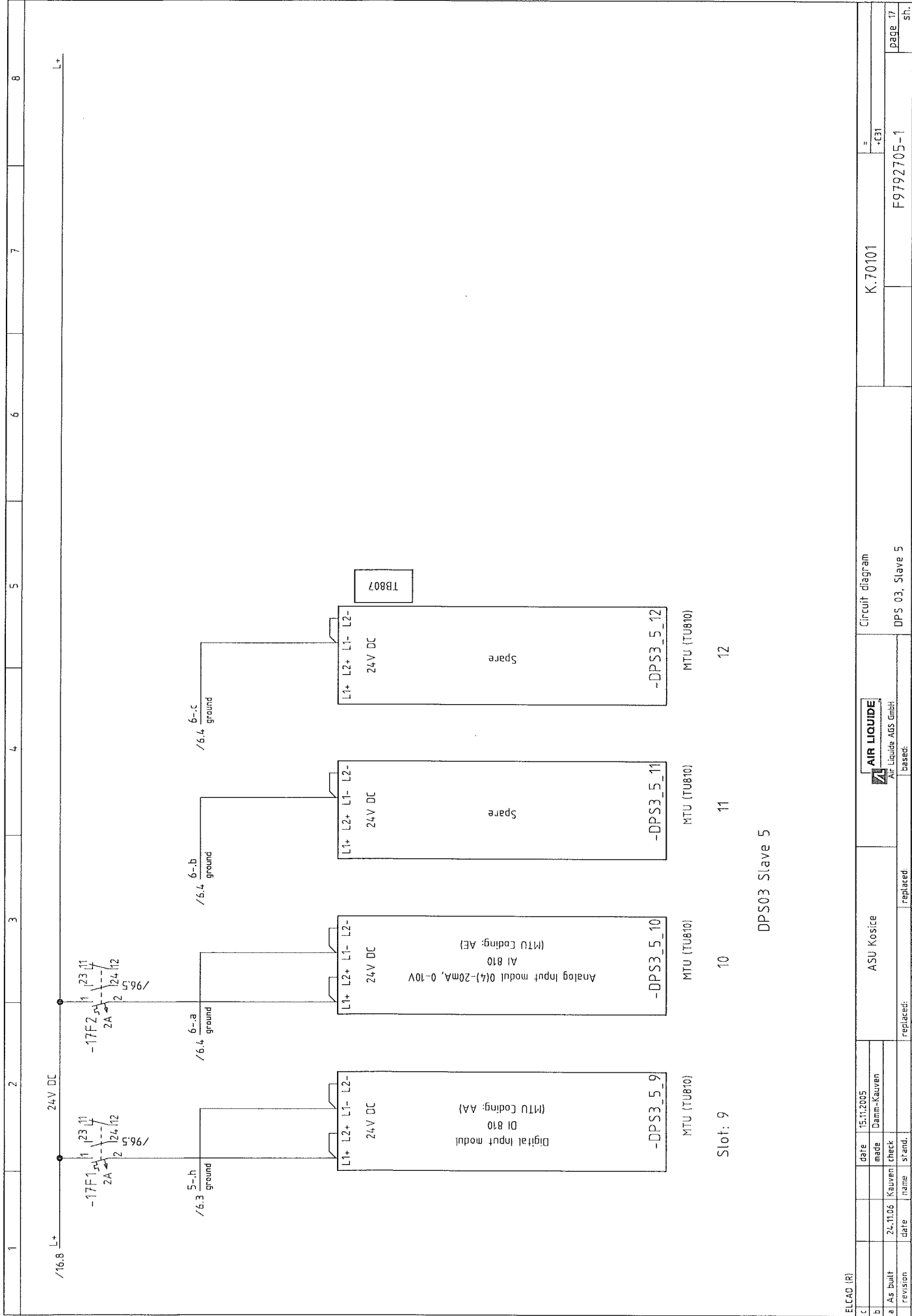
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Air Liquide AGS GmbH			Air Liquide AGS GmbH			Air Liquide AGS GmbH		
based:			based:			based:		
Circuit diagram			Circuit diagram			Circuit diagram		
DPS 01, Slave 3			DPS 01, Slave 3			DPS 01, Slave 3		
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F9792705-1			F9792705-1			F9792705-1		
page 13			page 13			page 13		
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Slot: 1/2

DPS02 Slave 5

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				AIR LIQUIDE		AIR LIQUIDE ABS GmbH		+C31		page 14	
				based:						sh.	



ELCAD (R)

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Damm-Kauven

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24.11.06

Kauven

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AIR LIQUIDE

Air Liquide AGS GmbH

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Circuit diagram

DPS 03, Slave 5

K.70101

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page 17

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-DPS1_3_3		-DPS1_3_4					
PCS 1		PCS 1					
Slave 3		Slave 3					
Slot 4		Slot 5					
Digital Input		Digital Output					
Input Ch1		Input Ch1		Output Ch1		HS 13100_0	
Input Ch2		Input Ch2		Output Ch2		HS 13200_0	
Input Ch3		Input Ch3		Output Ch3		HS 14100_0	
Input Ch4		Input Ch4		Output Ch4		HS 14200_0	
+24V		+24V		+24V			
0V (A1-A4)		0V (A1-A4)		0V (A1-A4)			
Input Ch5		Input Ch5		Output Ch5			
Input Ch6		Input Ch6		Output Ch6			
Input Ch7		Input Ch7		Output Ch7			
Input Ch8		Input Ch8		Output Ch8			
Input Ch9		Input Ch9		Output Ch9			
Input Ch10		Input Ch10		Output Ch10			
Input Ch11		Input Ch11		Output Ch11			
Input Ch12		Input Ch12		Output Ch12			
Input Ch13		Input Ch13		Output Ch13			
Input Ch14		Input Ch14		Output Ch14			
Input Ch15		Input Ch15		Output Ch15			
Input Ch16		Input Ch16		Output Ch16			
+24V		+24V		+24V			
0V (A5-A8)		0V (A5-A8)		0V (A5-A8)			
ABB DI 810		ABB DI 810		ABB DO 810			

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<div>-DPS1_3_7</div> <div>PCS 1</div> <div>Slave 3</div> <div>Slot 8</div> <div>Digital Input</div> <table><tr><td>Input Ch1</td><td>C1</td><td>⊗</td></tr><tr><td>Input Ch2</td><td>B1</td><td>⊗</td></tr><tr><td>Input Ch3</td><td>C2</td><td>⊗</td></tr><tr><td>Input Ch4</td><td>B2</td><td>⊗</td></tr><tr><td>+24V</td><td>L1+</td><td></td></tr><tr><td>0V (A1-A4)</td><td>L1-</td><td></td></tr><tr><td>Input Ch5</td><td>C3</td><td>⊗</td></tr><tr><td>Input Ch6</td><td>B3</td><td>⊗</td></tr><tr><td>Input Ch7</td><td>C4</td><td>⊗</td></tr><tr><td>Input Ch8</td><td>B4</td><td>⊗</td></tr><tr><td>Input Ch9</td><td>C5</td><td>⊗</td></tr><tr><td>Input Ch10</td><td>B5</td><td>⊗</td></tr><tr><td>Input Ch11</td><td>C6</td><td>⊗</td></tr><tr><td>Input Ch12</td><td>B6</td><td>⊗</td></tr><tr><td>Input Ch13</td><td>C7</td><td>⊗</td></tr><tr><td>Input Ch14</td><td>B7</td><td>⊗</td></tr><tr><td>Input Ch15</td><td>C8</td><td>⊗</td></tr><tr><td>Input Ch16</td><td>B8</td><td>⊗</td></tr><tr><td>+24V</td><td>L2+</td><td></td></tr><tr><td>0V (A5-A8)</td><td>L2-</td><td></td></tr><tr><td>ABB</td><td>DI 8'10</td><td></td></tr></table>								Input Ch1	C1	⊗	Input Ch2	B1	⊗	Input Ch3	C2	⊗	Input Ch4	B2	⊗	+24V	L1+		0V (A1-A4)	L1-		Input Ch5	C3	⊗	Input Ch6	B3	⊗	Input Ch7	C4	⊗	Input Ch8	B4	⊗	Input Ch9	C5	⊗	Input Ch10	B5	⊗	Input Ch11	C6	⊗	Input Ch12	B6	⊗	Input Ch13	C7	⊗	Input Ch14	B7	⊗	Input Ch15	C8	⊗	Input Ch16	B8	⊗	+24V	L2+		0V (A5-A8)	L2-		ABB	DI 8'10	
Input Ch1	C1	⊗																																																																				
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<div> <div>date</div> <div>1.09.2005</div> </div>		<div> <div>ASU Kostice</div> </div>		<div> <div>Circuit diagram</div> </div>		<div> <div>K.70101</div> </div>	
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1	2	3	4	5	6	7	8
-DPS2_5_3		-DPS2_5_4					
PCS 2 Slave 5 Slot 3 Analog Input 0(4)-20mA, 0-10V		PCS 2 Slave 5 Slot 4 Analog Output 0-20mA					
Input Ch1	C1 B1 A1	/54.2	E 24111_I	Output Ch1	C1 A1	/65.4	H 40100_0
Input Ch2	C2 B2 A2	/59.2	E 24211_I	Output Ch2	C2 A2	/69.5	H 61100_0
L1+ L1-	+24V 0V			L1+ L1-	+24V 0V		
Input Ch3	C3 B3 A3	/65.3	S 40100_I	Output Ch3	C3 A3	/72.5	H 61200_0
Input Ch4	C4 B4 A4	100Ω		Output Ch4	C4 A4	/83.5	H 71100_0
Input Ch5	C5 B5 A5	/69.2	S 61100_I	Output Ch5	C5 A5	/86.5	H 71200_0
Input Ch6	C6 B6 A6	/72.2	S 61200_I	Output Ch6	C6 A6	100Ω	
Input Ch7	C7 B7 A7	/83.2	S 71100_I	Output Ch7	C7 A7	100Ω	
Input Ch8	C8 B8 A8	/86.2	S 71200_I	Output Ch8	C8 A8	100Ω	
L2+ L2-	+24V 0V			L2+ L2-	+24V 0V		
ABB	AI 810			ABB	AO 810		
				Circuit diagram			
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-DPS2_5_5															
PCS 2															
Slave 5															
Slot 5															
Digital Output															
-DPS2_5_6															
PCS 2															
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Digital Input															
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-DPS2_5_7															
PCS 2															
Slave 5															
Slot 7															
Digital Input															
Input Ch1		C1		⊗		/68.3		EH 61100_I		Input Ch1		C1		⊗	
Input Ch2		B1		⊗		/68.6		EA 61100_I		Input Ch2		B1		⊗	
Input Ch3		C2		⊗		/70.3		EH 61100_I		Input Ch3		C2		⊗	
Input Ch4		B2		⊗		/75f.2		EH 98101_I		Input Ch4		B2		⊗	
+24V		L1+								+24V		L1+			
0V (A1-A4)		L1-								0V (A1-A4)		L1-			
Input Ch5		C3		⊗		/68.5		EL 61100_I		Input Ch5		C3		⊗	
Input Ch6		B3		⊗		/75f.3		EL 98101_I		Input Ch6		B3		⊗	
Input Ch7		C4		⊗		/75f.4		EA 98101_I		Input Ch7		C4		⊗	
Input Ch8		B4		⊗		/75f.5		EA 98103_I		Input Ch8		B4		⊗	
Input Ch9		C5		⊗		/71.3		EH 61200_I		Input Ch9		C5		⊗	
Input Ch10		B5		⊗		/71.6		EA 61200_I		Input Ch10		B5		⊗	
Input Ch11		C6		⊗		/73.3		EH 61210_I		Input Ch11		C6		⊗	
Input Ch12		B6		⊗		/71.5		EL 61200_I		Input Ch12		B6		⊗	
Input Ch13		C7		⊗		/75f.5		UA 98103_I		Input Ch13		C7		⊗	
Input Ch14		B7		⊗		/75g.2		EH 98102_I		Input Ch14		B7		⊗	
Input Ch15		C8		⊗		/75g.3		EL 98102_I		Input Ch15		C8		⊗	
Input Ch16		B8		⊗		/75g.4		EA 98102_I		Input Ch16		B8		⊗	
+24V		L2+								+24V		L2+			
0V (A5-A8)		L2-								0V (A5-A8)		L2-			
ABB		DI 810								ABB		DI 810			
-DPS2_5_8															
PCS 2															
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-DPS2_5_9				-DPS2_5_10																			
PCS 2 Slave 5 Slot 9 Digital Input				PCS 2 Slave 5 Slot 10 Digital Output																			
<div>Input Ch1C1⊗</div>				<div>Input Ch2B1⊗</div>				<div>Input Ch3C2⊗</div>				<div>Input Ch4B2⊗</div>				<div>Output Ch1C1⊗</div>				<div>Output Ch2B1⊗</div>			
<div>+24V0V (A1-A4)L1+L1-</div>				<div>+24V0V (A1-A4)L1+L1-</div>				<div>Output Ch5C3⊗</div>				<div>Output Ch6B3⊗</div>											
<div>Input Ch5C3⊗</div>				<div>Input Ch6B3⊗</div>				<div>Output Ch9C5⊗</div>				<div>Output Ch10B5⊗</div>											
<div>Input Ch7C4⊗</div>				<div>Input Ch8B4⊗</div>				<div>Output Ch11C6⊗</div>				<div>Output Ch12B6⊗</div>											
<div>Input Ch9C5⊗</div>				<div>Input Ch10B5⊗</div>				<div>Output Ch13C7⊗</div>				<div>Output Ch14B7⊗</div>											
<div>Input Ch11C6⊗</div>				<div>Input Ch12B6⊗</div>				<div>Output Ch15C8⊗</div>				<div>Output Ch16B8⊗</div>											
<div>+24V0V (A5-A8)L2+L2-</div>				<div>+24V0V (A5-A8)L2+L2-</div>				<div>ABB DI 810</div>				<div>ABB DO 810</div>											
<div>ABB DI 810</div>				<div>EL 40100_I</div>				<div>EA 40100_I</div>				<div>HS 24160_0</div>											
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-DPS3_5_3		-DPS3_5_4					
PCS 3 Slave 5 Slot 3 Analog Input 0(4)-20mA, 0-10V		PCS 3 Slave 5 Slot 4 Digital Input					
<div> <div>Input Ch1</div> <div>C1</div> <div>B1</div> <div>A1</div> </div> <div> <div>Input Ch2</div> <div>C2</div> <div>B2</div> <div>A2</div> </div> <div> <div>L1+</div> <div>L1-</div> <div>0V</div> </div> <div> <div>Input Ch3</div> <div>C3</div> <div>B3</div> <div>A3</div> </div> <div> <div>Input Ch4</div> <div>C4</div> <div>B4</div> <div>A4</div> </div> <div> <div>Input Ch5</div> <div>C5</div> <div>B5</div> <div>A5</div> </div> <div> <div>Input Ch6</div> <div>C6</div> <div>B6</div> <div>A6</div> </div> <div> <div>Input Ch7</div> <div>C7</div> <div>B7</div> <div>A7</div> </div> <div> <div>Input Ch8</div> <div>C8</div> <div>B8</div> <div>A8</div> </div> <div> <div>L2+</div> <div>L2-</div> <div>0V</div> </div> <div> <div>ABB</div> <div>AI 810</div> </div>		<div> <div>Input Ch1</div> <div>C1</div> <div>B1</div> <div>C2</div> <div>B2</div> <div>L1+</div> <div>L1-</div> <div>0V (A1-A4)</div> <div>Input Ch5</div> <div>C3</div> <div>B3</div> <div>C4</div> <div>B4</div> <div>Input Ch8</div> <div>B4</div> </div> <div> <div>Input Ch9</div> <div>C5</div> <div>Input Ch10</div> <div>B5</div> <div>Input Ch11</div> <div>C6</div> <div>Input Ch12</div> <div>B6</div> </div> <div> <div>Input Ch13</div> <div>C7</div> <div>Input Ch14</div> <div>B7</div> <div>Input Ch15</div> <div>C8</div> <div>Input Ch16</div> <div>B8</div> </div> <div> <div>+24V</div> <div>0V (A5-A8)</div> <div>ABB</div> <div>DI 810</div> </div>		<div> <div>/75b.3</div> <div>E 98012_I</div> <div>/75b.4</div> <div>E 98022_I</div> <div>/75c.1</div> <div>E 94603_I</div> <div>/75c.2</div> <div>E 94613_I</div> <div>/75c.3</div> <div>E 94623_I</div> <div>/75d.1</div> <div>E 70001_I</div> <div>/75d.2</div> <div>E 70011_I</div> <div>/75d.3</div> <div>E 70021_I</div> </div> <div> <div>/36.5</div> <div>EH 11001_I</div> <div>/38.3</div> <div>EH 11803_I</div> <div>/39.4</div> <div>EH 11810_I</div> <div>/40.3</div> <div>EH 11820_I</div> <div>/75a.5</div> <div>EH 98001_I</div> <div>/37.4</div> <div>EH 11706_I</div> <div>/75a.6</div> <div>EL 98001_I</div> <div>/75a.7</div> <div>EA 98001_I</div> <div>/47.5</div> <div>EH 16001_I</div> <div>/49.3</div> <div>EH 16803_I</div> <div>/50.4</div> <div>EH 16810_I</div> <div>/51.3</div> <div>EH 16820_I</div> <div>/75b.5</div> <div>EH 98002_I</div> <div>/48.4</div> <div>EH 16706_I</div> <div>/75b.6</div> <div>EL 98002_I</div> <div>/75b.7</div> <div>EA 98002_I</div> </div>			
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-DPS3_5_5		-DPS3_5_6					
PCS 3		PCS 3					
Slave 5		Slave 5					
Slot 5		Slot 6					
Digital Output		Digital Input					
Output Ch1	C1	⊗	HH 11001_0	/36.2	Input Ch1	C1	⊗
Output Ch2	B1	⊗	HL 11001_0	/36.3	Input Ch2	B1	⊗
Output Ch3	C2	⊗	HS 11803_0	/38.2	Input Ch3	C2	⊗
Output Ch4	B2	⊗	HS 11810_0	/39.2	Input Ch4	B2	⊗
+24V	L1+				+24V	L1+	
0V (A1-A4)	L1-				0V (A1-A4)	L1-	
Output Ch5	C3	⊗	HS 11820_0	/40.2	Input Ch5	C3	⊗
Output Ch6	B3	⊗	US 11706_0	/37.2	Input Ch6	B3	⊗
Output Ch7	C4	⊗			Input Ch7	C4	⊗
Output Ch8	B4	⊗			Input Ch8	B4	⊗
Output Ch9	C5	⊗	HH 16001_0	/47.2	Input Ch9	C5	⊗
Output Ch10	B5	⊗	HL 16001_0	/47.3	Input Ch10	B5	⊗
Output Ch11	C6	⊗	HS 16803_0	/49.2	Input Ch11	C6	⊗
Output Ch12	B6	⊗	HS 16810_0	/50.2	Input Ch12	B6	⊗
Output Ch13	C7	⊗	HS 16820_0	/51.2	Input Ch13	C7	⊗
Output Ch14	B7	⊗	US 16706_0	/48.2	Input Ch14	B7	⊗
Output Ch15	C8	⊗			Input Ch15	C8	⊗
Output Ch16	B8	⊗			Input Ch16	B8	⊗
+24V	L2+				+24V	L2+	
0V (A5-A8)	L2-				0V (A5-A8)	L2-	
ABB DO 810					ABB DI 810		
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-DPS3_5_7															
PCS 3															
Slave 5															
Slot 7															
Digital Output															
Output Ch1		C1	⊗	/75.2	HH 70001_0	Input Ch1		C1	⊗	/94a.2	UH 93081_1_I				
Output Ch2		B1	⊗	/75.3	HL 70001_0	Input Ch2		B1	⊗	/94a.3	UH 93081_2_I				
Output Ch3		C2	⊗	/77.2	HS 70803_0	Input Ch3		C2	⊗	/94a.4	UH 93081_3_I				
Output Ch4		B2	⊗	/78.2	HS 70810_0	Input Ch4		B2	⊗	/94a.5	UH 93081_4_I				
+24V		L1+				+24V		L1+							
0V (A1-A4)		L1-				0V (A1-A4)		L1-							
Output Ch5		C3	⊗	/79.2	HS 70815_0	Input Ch5		C3	⊗	/94a.6	UH 93081_5_I				
Output Ch6		B3	⊗	/80.2	HS 70820_0	Input Ch6		B3	⊗	/94a.7	UH 93081_6_I				
Output Ch7		C4	⊗	/76.2	US 70706_0	Input Ch7		C4	⊗	/95.2	UH 93001_I				
Output Ch8		B4	⊗			Input Ch8		B4	⊗	/95.3	EH 93001_I				
Output Ch9		C5	⊗	/89.2	HH 77001_0	Input Ch9		C5	⊗	/95.4	UH 93011_I				
Output Ch10		B5	⊗	/89.3	HL 77001_0	Input Ch10		B5	⊗	/75d.5	EL 70011_I				
Output Ch11		C6	⊗	/91.2	HS 77803_0	Input Ch11		C6	⊗	/75d.6	UA 70001_I				
Output Ch12		B6	⊗	/92.2	HS 77810_0	Input Ch12		B6	⊗	/75e.5	EL 77011_I				
Output Ch13		C7	⊗	/93.2	HS 77815_0	Input Ch13		C7	⊗	/75e.6	UA 77001_I				
Output Ch14		B7	⊗	/94.2	HS 77820_0	Input Ch14		B7	⊗	/36.8	EH 11001_1_I				
Output Ch15		C8	⊗	/90.2	US 77706_0	Input Ch15		C8	⊗	/95.5	EL 93001_I				
Output Ch16		B8	⊗			Input Ch16		B8	⊗	/94a.8	UH 93081_7_I				
+24V		L2+				+24V		L2+							
0V (A5-A8)		L2-				0V (A5-A8)		L2-							
ABB DO 810						ABB DI 810									
-DPS3_5_8															
PCS 3															
Slave 5															
Slot 8															
Digital Input															
Circuit diagram															
I/O allocation DPS 03, Slave 5															
K.70101															
F9792705-1															
= +C31															
page 32															
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ELCAD (R)

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Air Liquide AIS GmbH

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Air Liquide AIS GmbH

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ELCAD (R)

c	date	made	check	name	date	revision
a						

ASU Kosice	Circuit diagram	K.70101	= +C31
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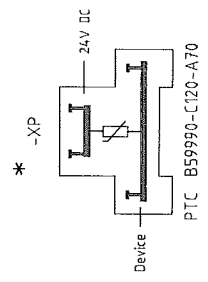
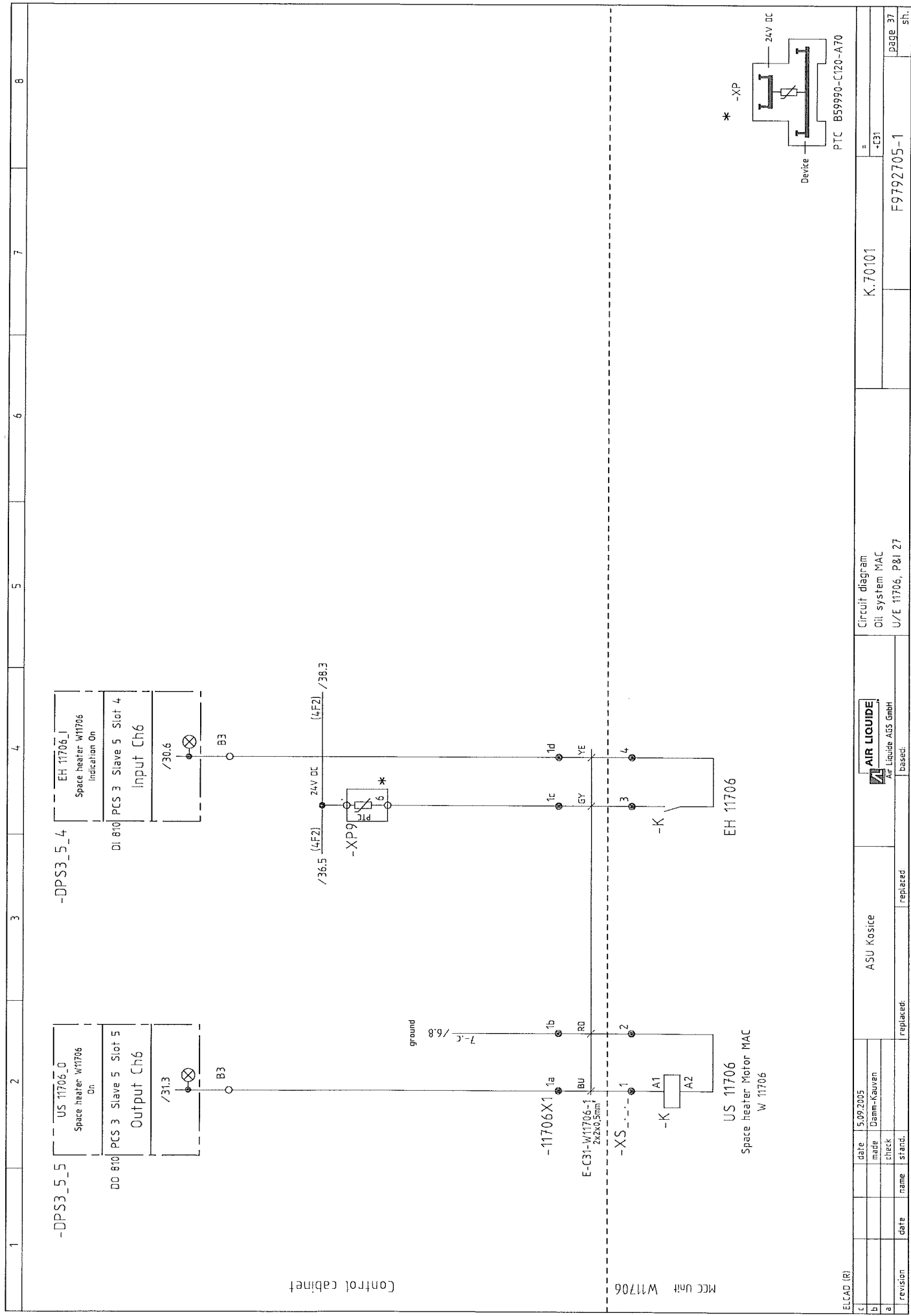
Air Liquide AGS GmbH based:

I/O allocation DPS 03, Slave 5 Spare

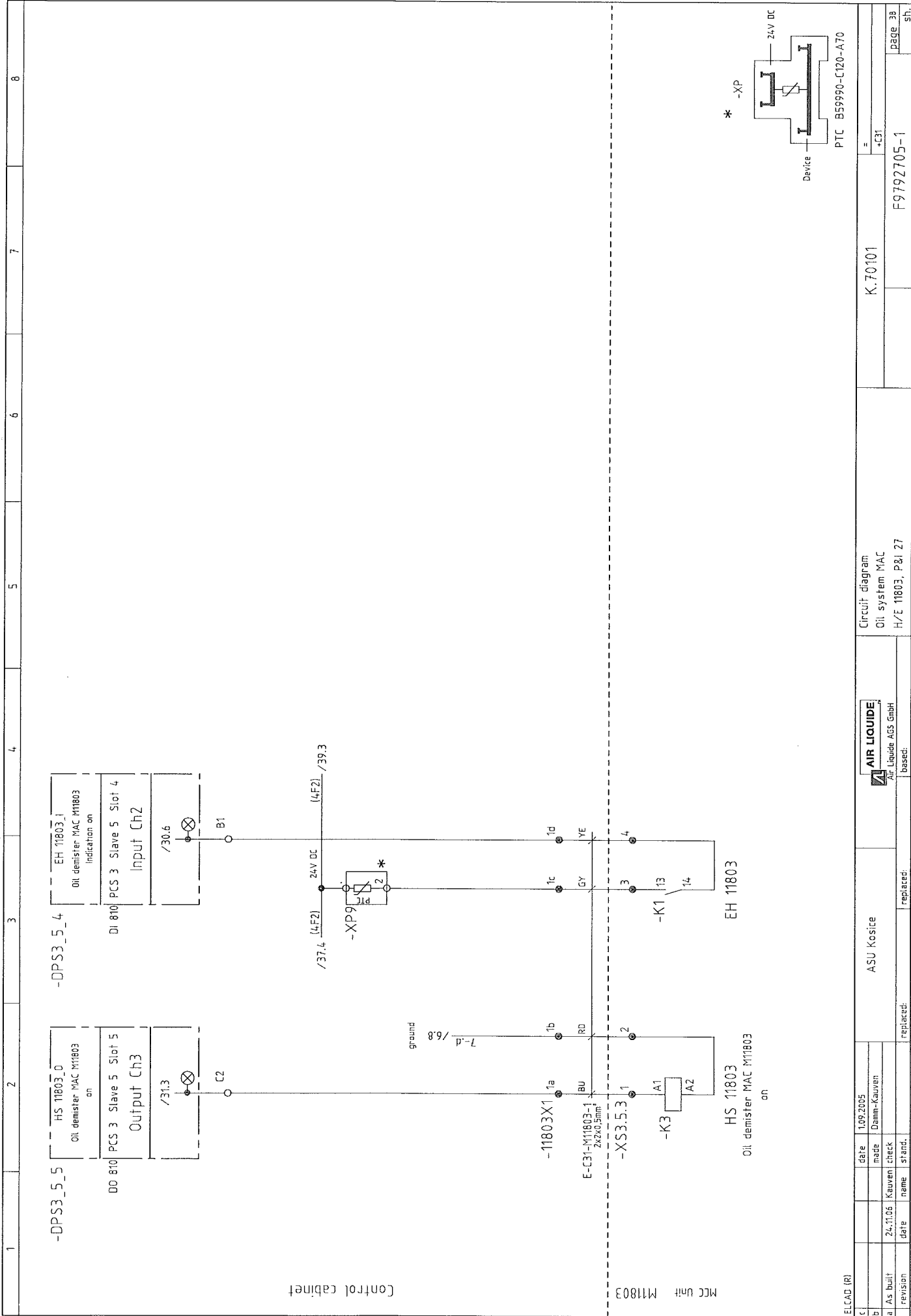
F9792705-1

page 34
sh.

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ELCAD (R)		ASU Kosice		Circuit diagram		K.70101		F9792705-1		page 37	
c	date	5.09.2005	made	Damm-Kauwen	Oil system MAC						sh.
b	check				U/E 11706, P&I 27						
a	revision	name	stand.	replaced:							



ELCAD (R)		ASU Kosice		Circuit diagram		K.70101	
c	date	1.09.2005		Oil system MAC			
b	made	Damm-Kauven		H/E 11803, P&I 27			
a	As built	24.11.06	Kauven	replaced:		F9792705-1	
revision	date	name	stand.	replaced:		page 38	
						sh.	

The diagram illustrates the electrical control system for the Oil heating MAC W11810. It is divided into two main functional areas: the HS 11810_0 (Heating Slave) and the EH 11810 (Heating Master).

HS 11810_0 Section:

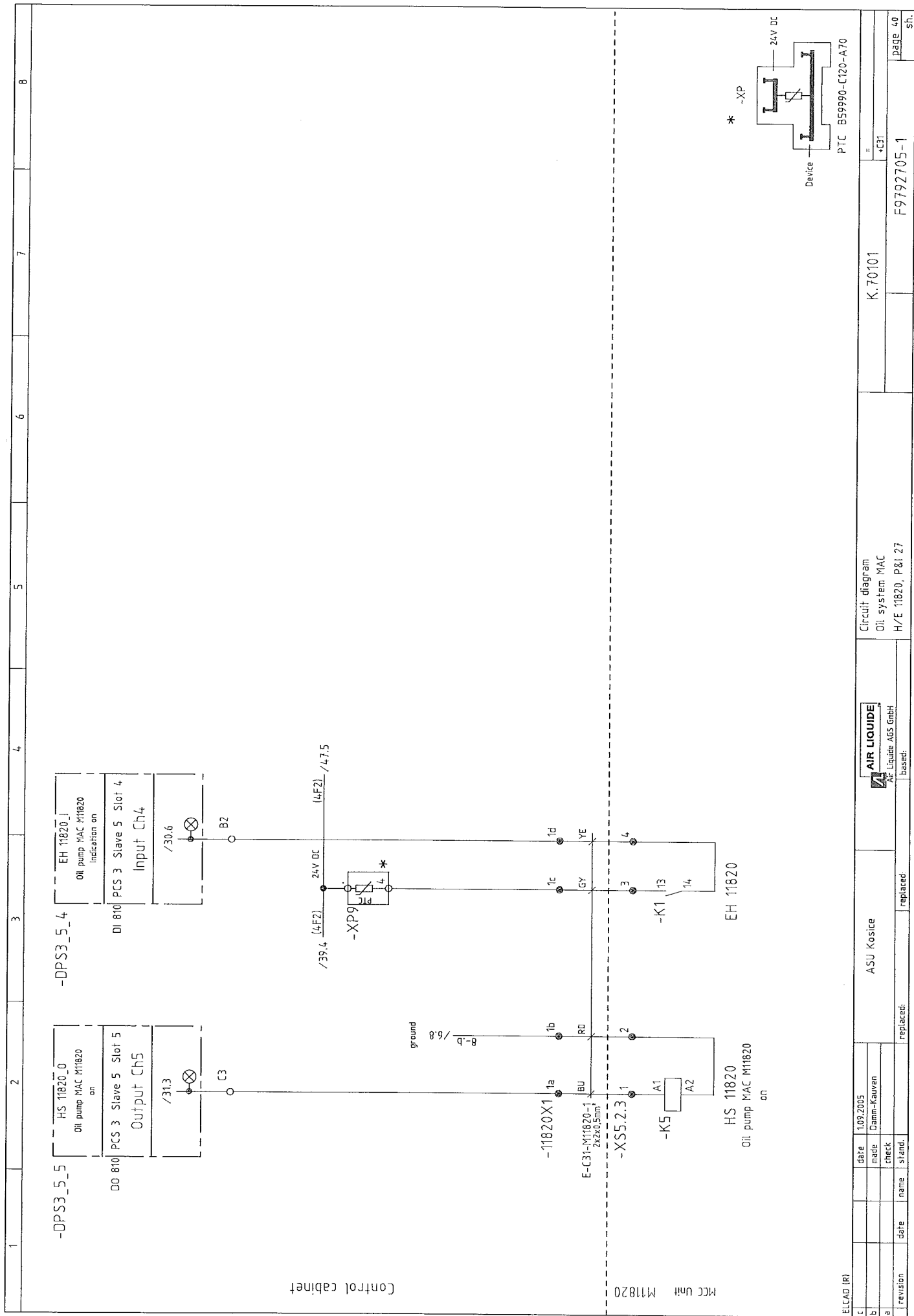
- Power Supply:** -DPS3_5_5 provides 24V DC to the system.
- Input:** DI 810 (Slave 5 Slot 5) receives signals from the PCS 3 Slave 5 Slot 5.
- Output:** PCS 3 Slave 5 Slot 5 provides signals to the Input Ch4.
- Relay:** -K3 (Slave 5 Slot 5) controls the output.
- Switch:** -X3 (Slave 5 Slot 5) is used for manual control.
- Heater:** PTC BS9990-C120-A70 is connected to the output of the relay.

EH 11810 Section:

- Power Supply:** -DPS3_5_4 provides 24V DC to the system.
- Input:** DI 810 (Slave 5 Slot 4) receives signals from the PCS 3 Slave 5 Slot 4.
- Output:** PCS 3 Slave 5 Slot 4 provides signals to the Input Ch3.
- Relay:** -K1 (Slave 5 Slot 4) controls the output.
- Switch:** -X1 (Slave 5 Slot 4) is used for manual control.
- Heater:** PTC BS9990-C120-A70 is connected to the output of the relay.

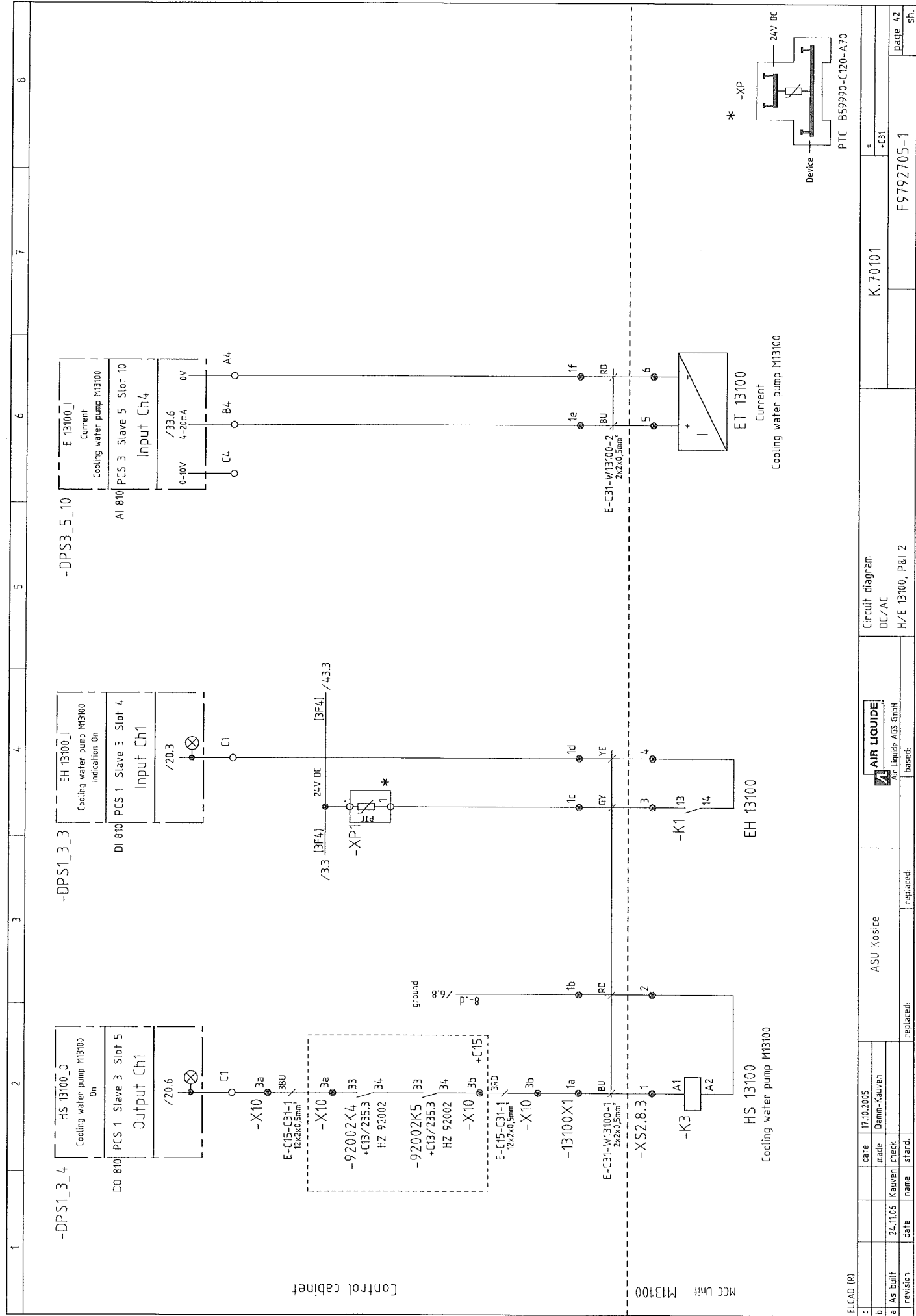
Common Components:

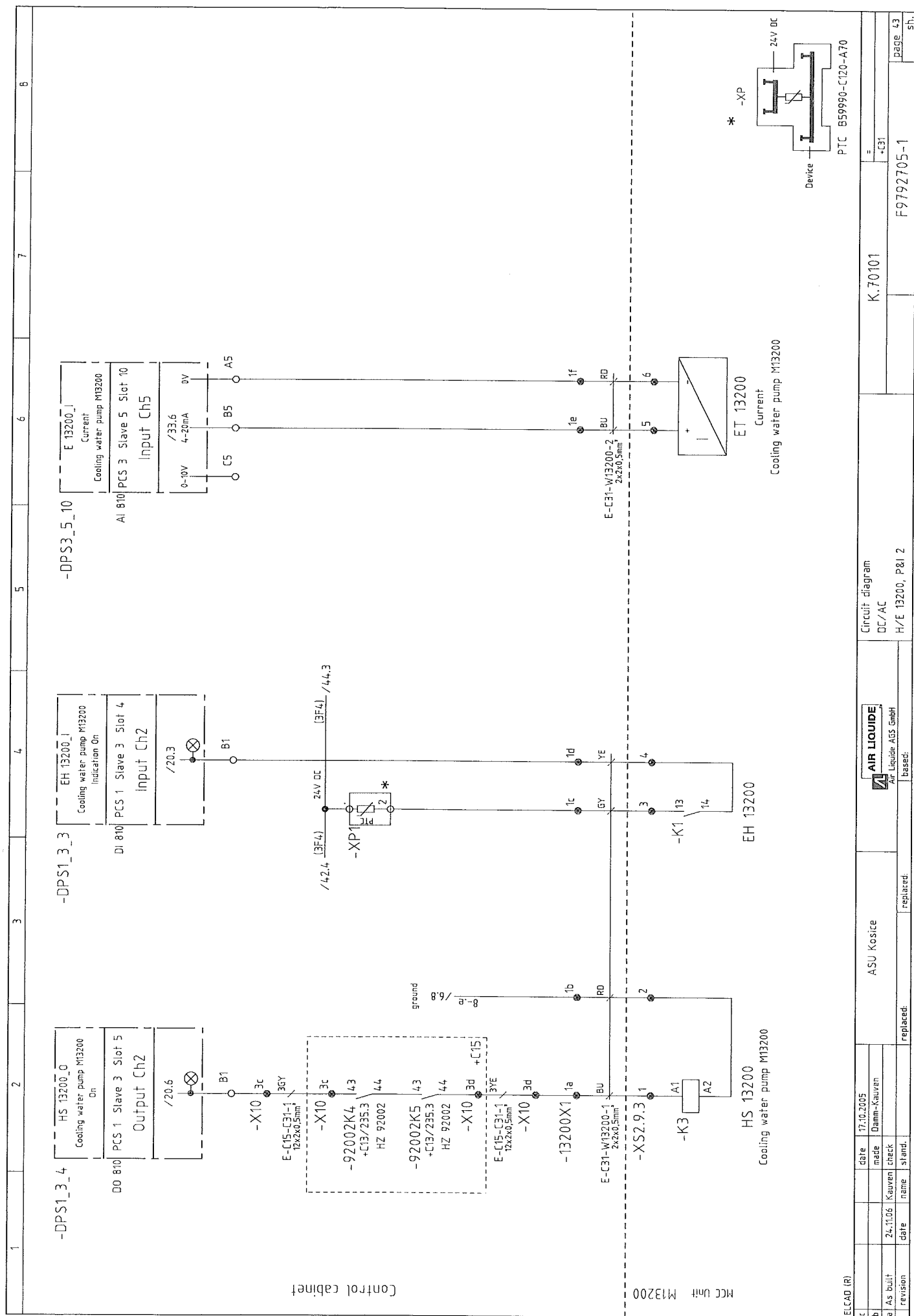
- Grounding:** The system is grounded at multiple points.
- Wiring:** The diagram shows the routing of wires between the two units and the common components.
- Labels:** Various labels (e.g., 1a, 1b, 1c, 1d, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100) are used to identify specific components and wiring points.



ELCAD (R)		date		109.2005		ASU Kosice		Circuit diagram		K.70101		+C31		F9792705-1		page 40	
c	date	made	check	stand.	replaced:	replaced:	replaced:	Oil system MAC	H/E 11820, P&I 27								
b	date	made	check	stand.	replaced:	replaced:	replaced:	Oil system MAC	H/E 11820, P&I 27								
a	date	made	check	stand.	replaced:	replaced:	replaced:	Oil system MAC	H/E 11820, P&I 27								

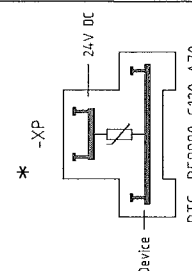
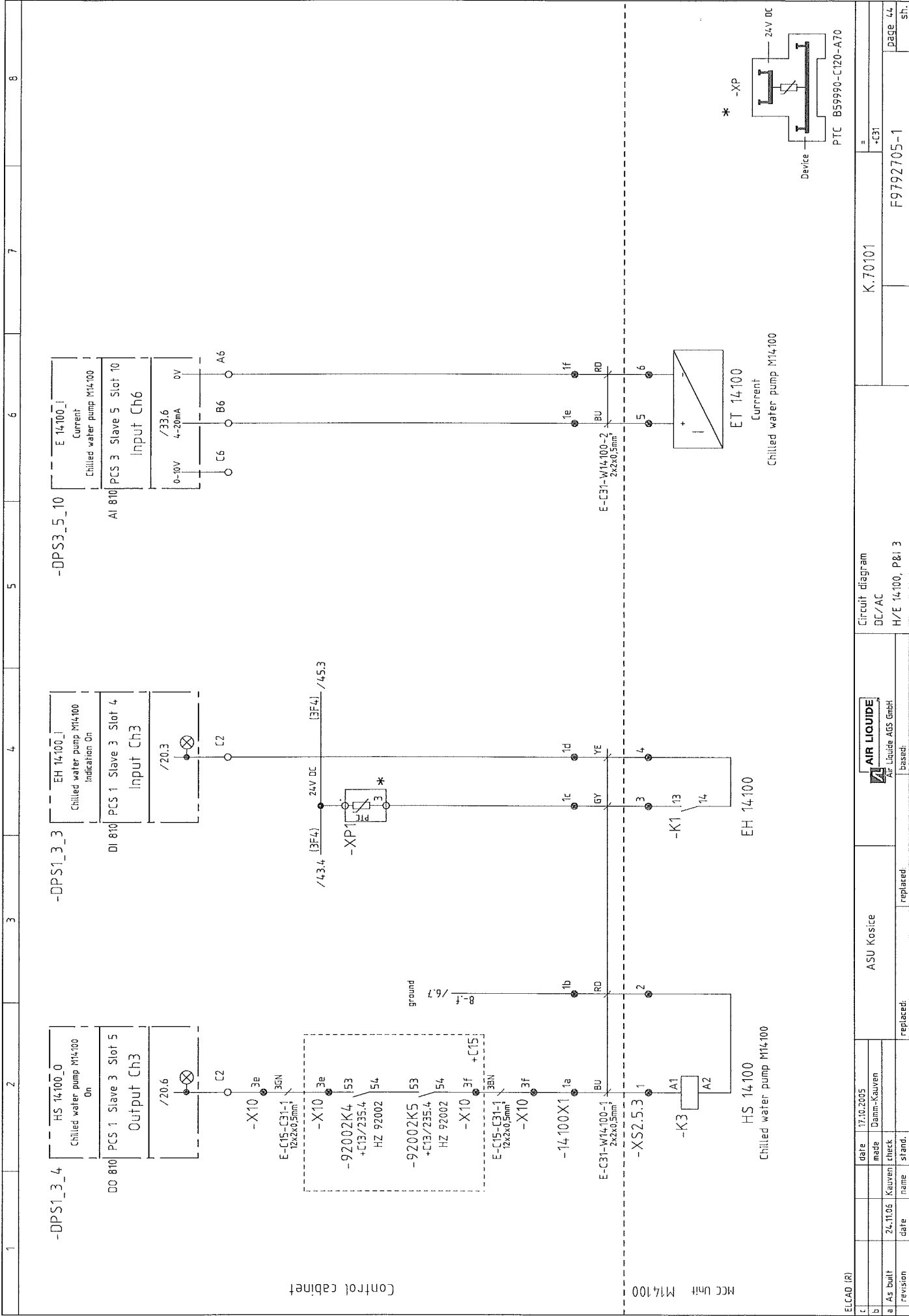
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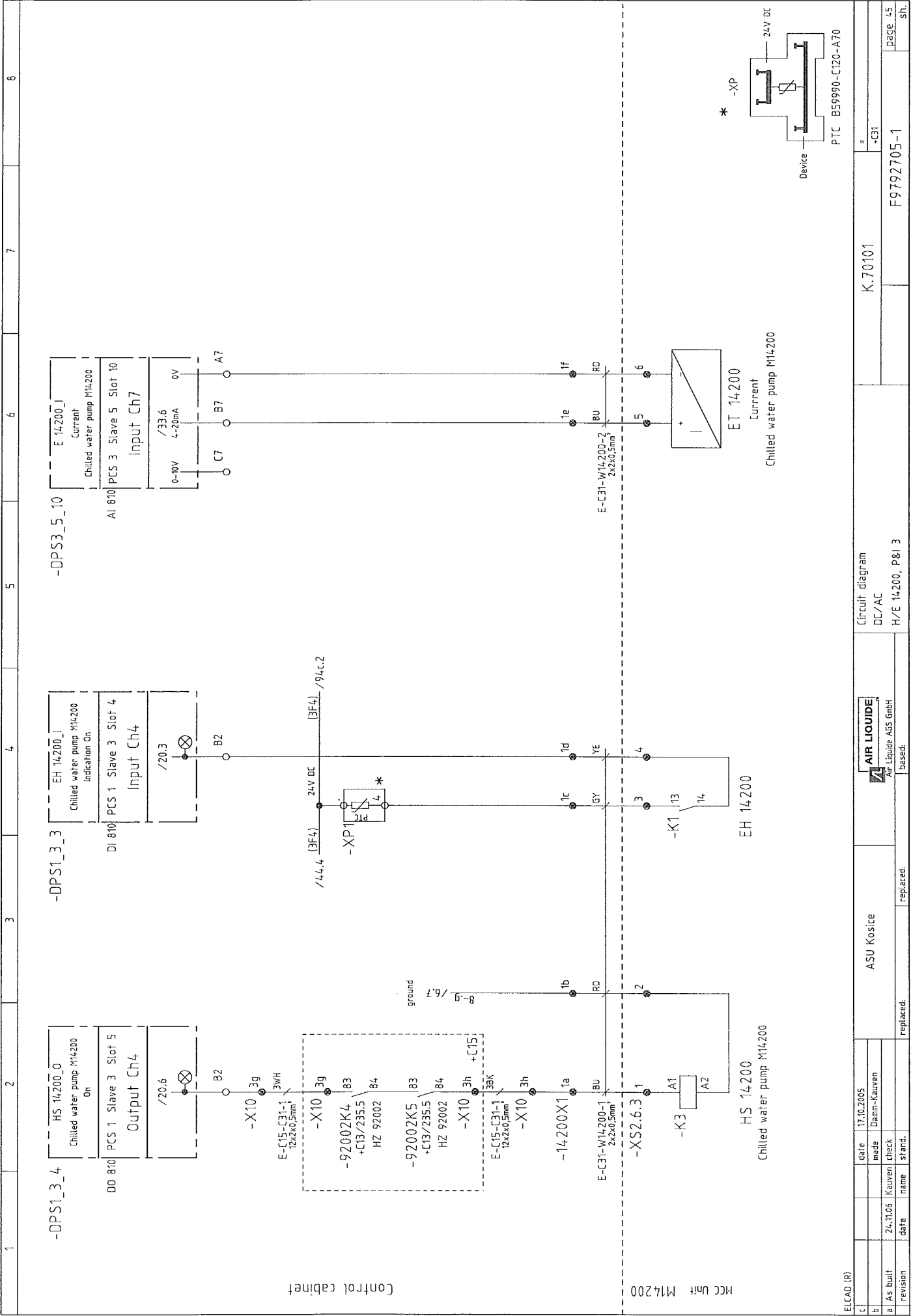


ELCAD (R)

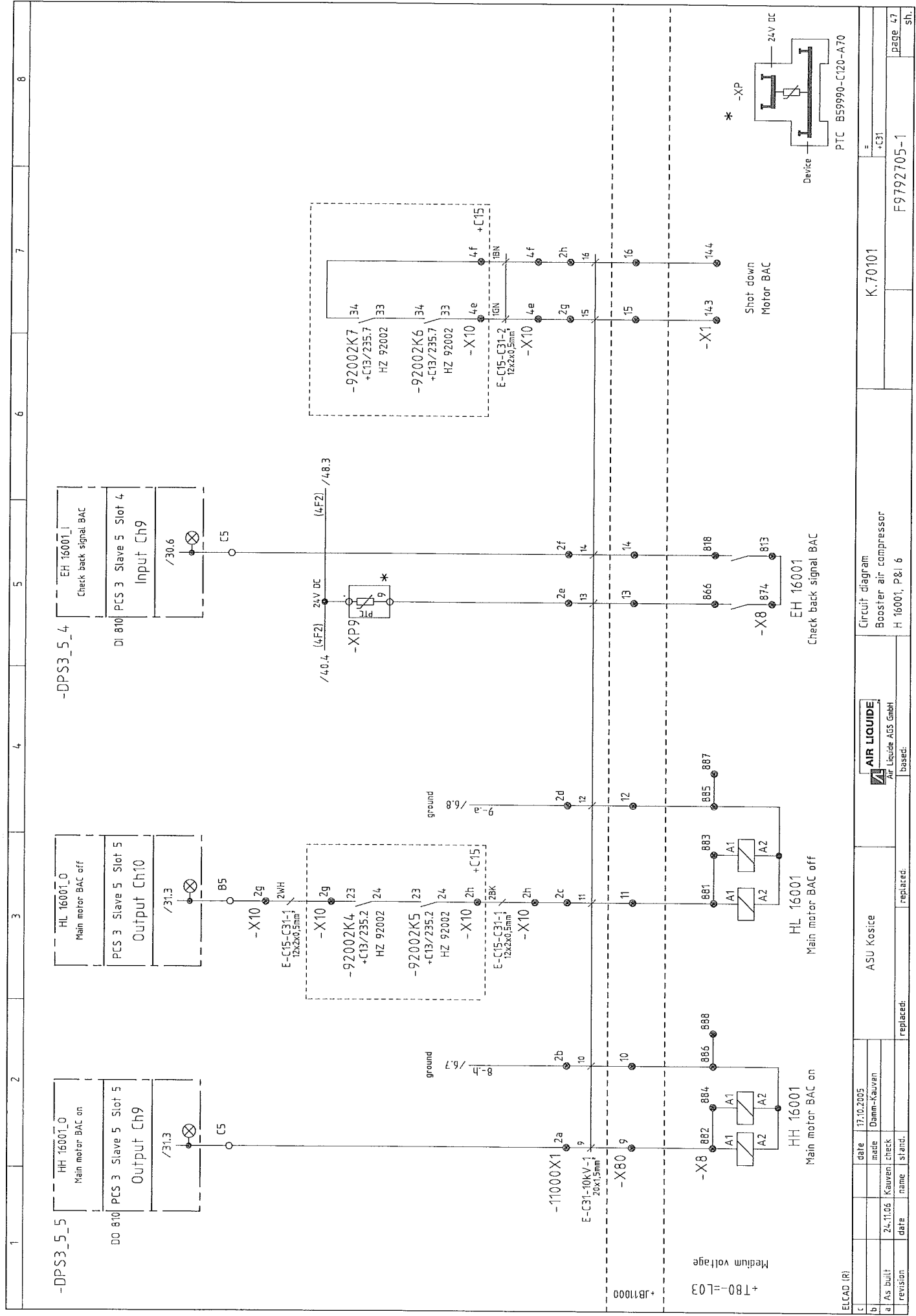
revision	date	name	stand.	replaced	ASU Kosice	Circuit diagram DC/AC	K.70101	page 43 sh.
a	24.11.06	Kauven	check			H/E 13200, P&I 2		
b	17.10.2005	Damm-Kauven	made					
c								



ELCAD (R)		ASU Kostice		Circuit diagram		K.70101	
1	date	17.10.2005	made	Damm-Kauven	DC/AC	H/E 14100, P8.1 3	page 44
2	revision	24.11.06	check	Kauven	based:	F9792705-1	sh.



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ELCAD (R)		ASU Kosice		AIR LIQUIDE		K.70101		F9792705-1		Page 47	
c	date	17.10.2005	made	Damm-Kauven	replaced:						sh.
b	name	Kauven	check		replaced:						
a	revision	24.11.06	name	stand.	replaced:						

The diagram illustrates the electrical control circuit for an oil pump BAC M16820. It is divided into two main sections: the HS 16820_0 unit (left) and the EH 16820 unit (right).

HS 16820_0 Unit (Left):

- DO 810 Output (Slot 5):** Connected to a lamp (31.3) and a relay (K5).
- HS 16820_0:** Oil pump BAC M16820 on.

EH 16820 Unit (Right):




- DI 810 Input (Slot 4):** Connected to a lamp (30.6) and a relay (K1).
- EH 16820:** Oil pump BAC M16820 on.

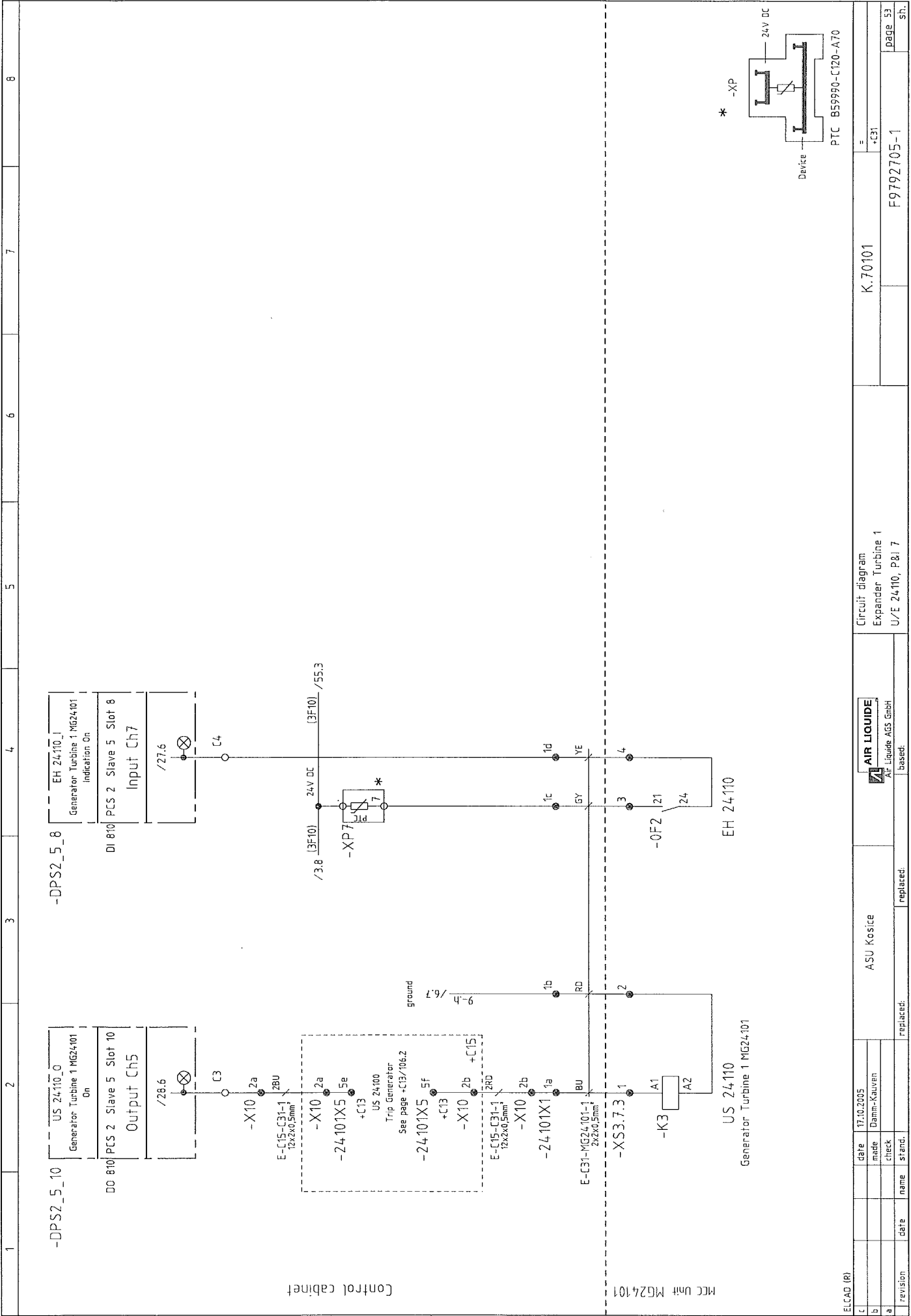
Power and Protection:

- 24V DC:** Power supply for the control circuit.
- Ground:** Connected to the common terminal of the relays.
- PTC (B59990-C120-A70):** Thermal protection device connected in series with the 24V DC supply.

Legend:

- * -XP:** Thermal protection device (PTC).
- Device:** PTC B59990-C120-A70.

1	2	3	4	5	6	7	8																																																
<div>ELCAD (R)</div> <table border="1"> <tr> <td>c</td><td></td><td></td><td></td><td>date</td><td>1.09.2005</td><td>ASU Kosice</td><td> AIR LIQUIDE</td><td>Circuit diagram</td><td>K.70101</td><td>=</td><td></td></tr> <tr> <td>b</td><td></td><td></td><td></td><td>made</td><td>Damm-Kauven</td><td></td><td></td><td></td><td></td><td>-C31</td><td></td></tr> <tr> <td>a</td><td>revision</td><td>date</td><td>name</td><td>check</td><td></td><td>replaced:</td><td>replaced:</td><td>Spare</td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td></td><td></td><td>stand.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>								c				date	1.09.2005	ASU Kosice	 AIR LIQUIDE	Circuit diagram	K.70101	=		b				made	Damm-Kauven					-C31		a	revision	date	name	check		replaced:	replaced:	Spare								stand.							
c				date	1.09.2005	ASU Kosice	 AIR LIQUIDE	Circuit diagram	K.70101	=																																													
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a	revision	date	name	check		replaced:	replaced:	Spare																																															
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											F9792705-1	page 52	sh.																																										



The diagram illustrates the electrical control system for a generator turbine. It is divided into two main sections: a power supply section and a control section, separated by a dashed line.

Power Supply Section (Left):

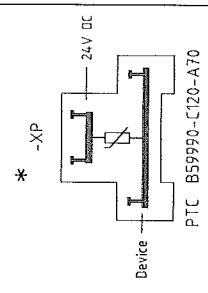
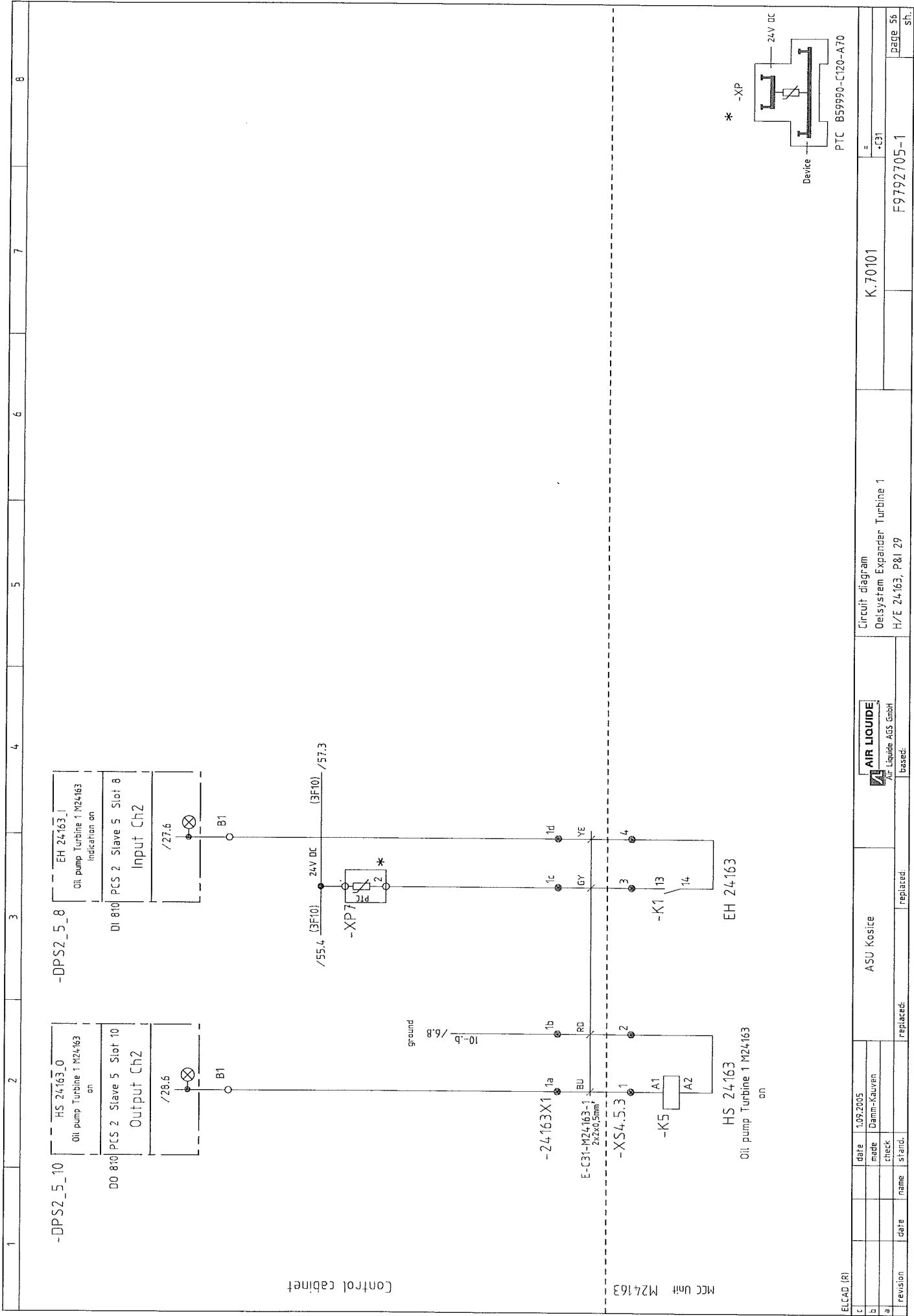
- Transformer:** Labeled **E 24111_I** (Generator turbine 1).
- Rectifier Bridge:** Labeled **ET 24111** (Generator turbine 1).
- Power Source:** **24V AC** (Generator turbine 1).
- Output:** **24V DC** (Generator turbine 1).

Control Section (Right):

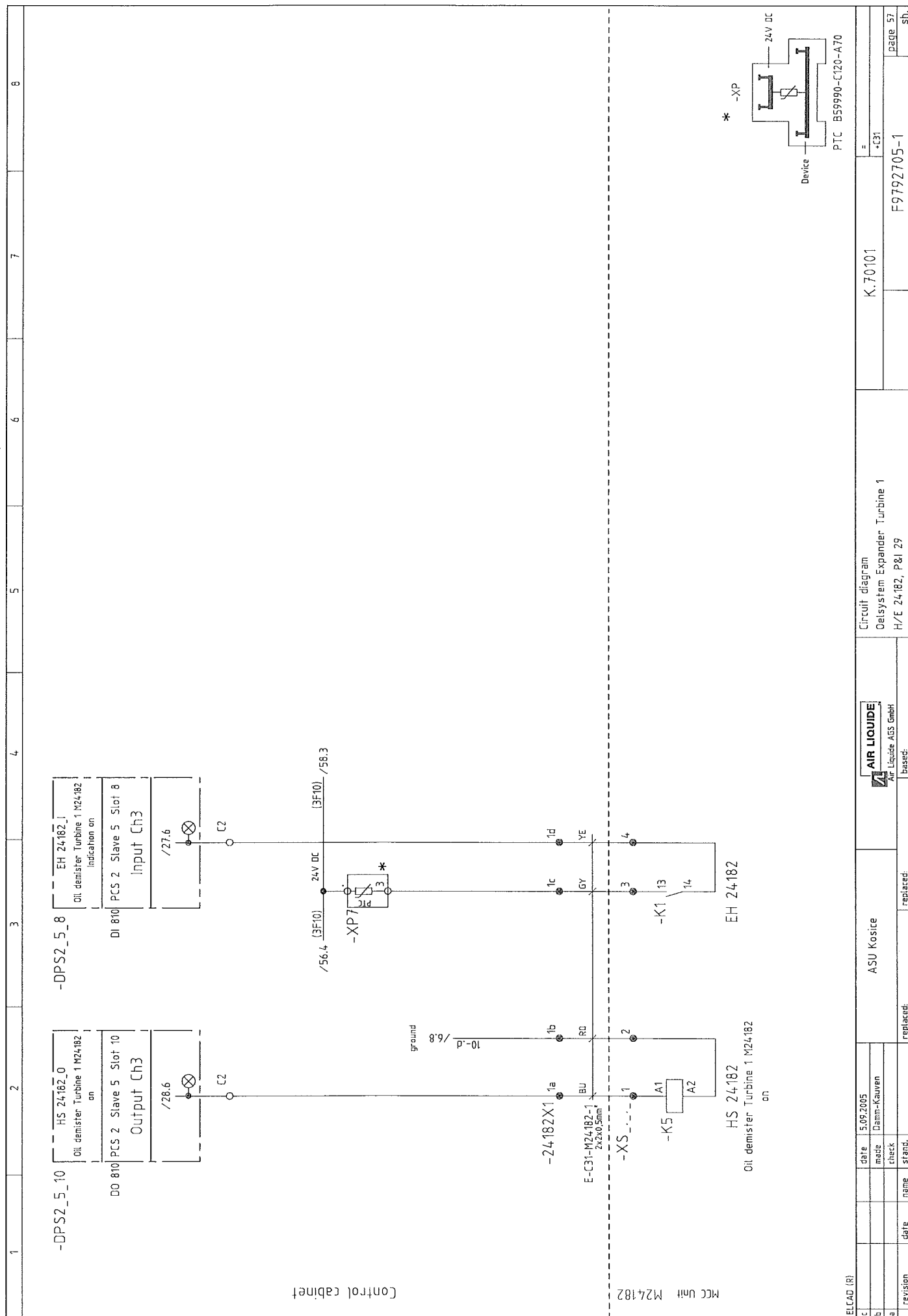
- Control Unit:** Labeled **MG24101** (Generator turbine 1).
- Control Signal:** **24V DC** (Generator turbine 1).
- Control Signal:** **24V AC** (Generator turbine 1).

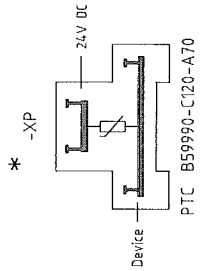
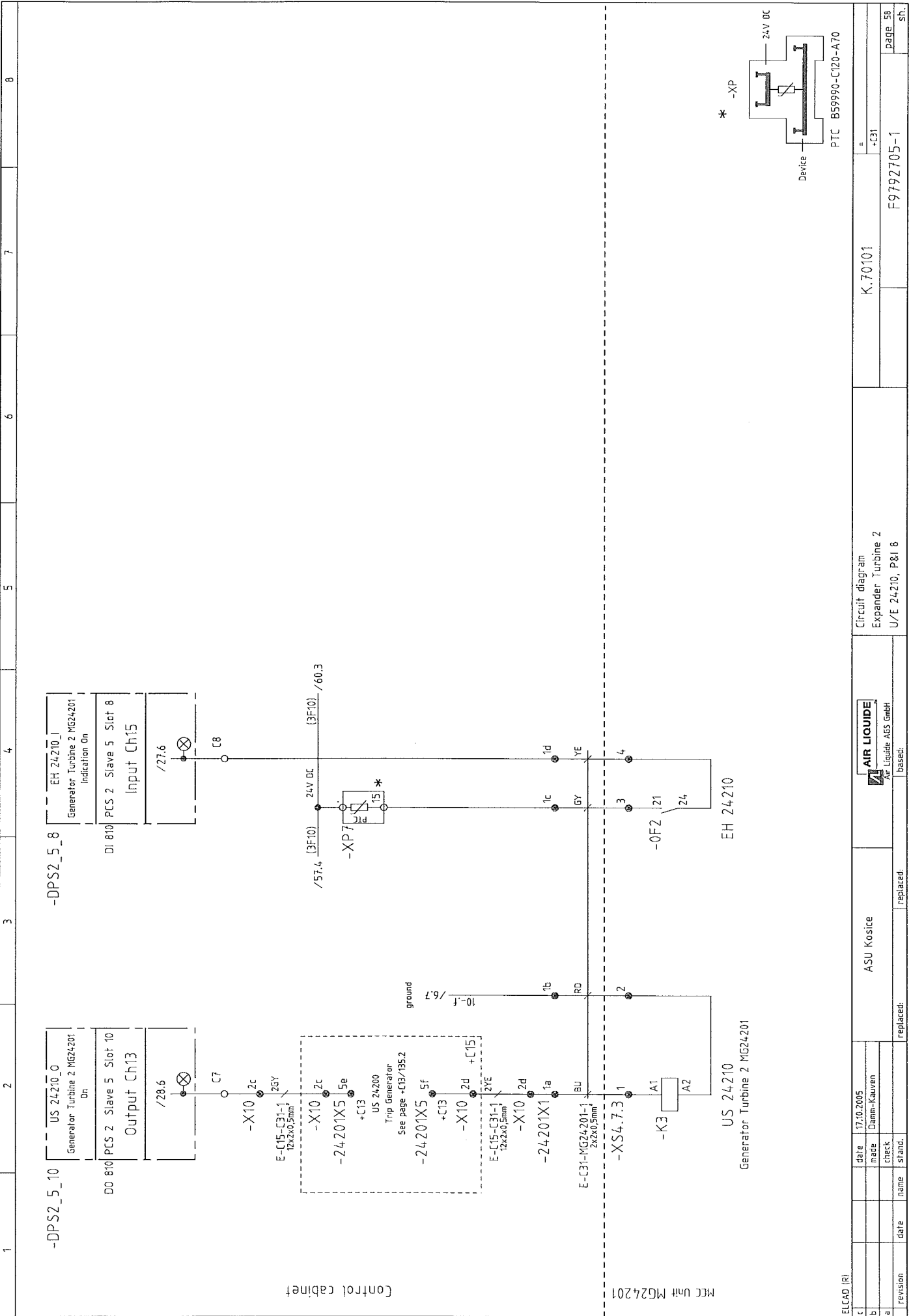
Legend:

- ET 24111**: Rectifier bridge.
- MG24101**: Generator turbine 1.



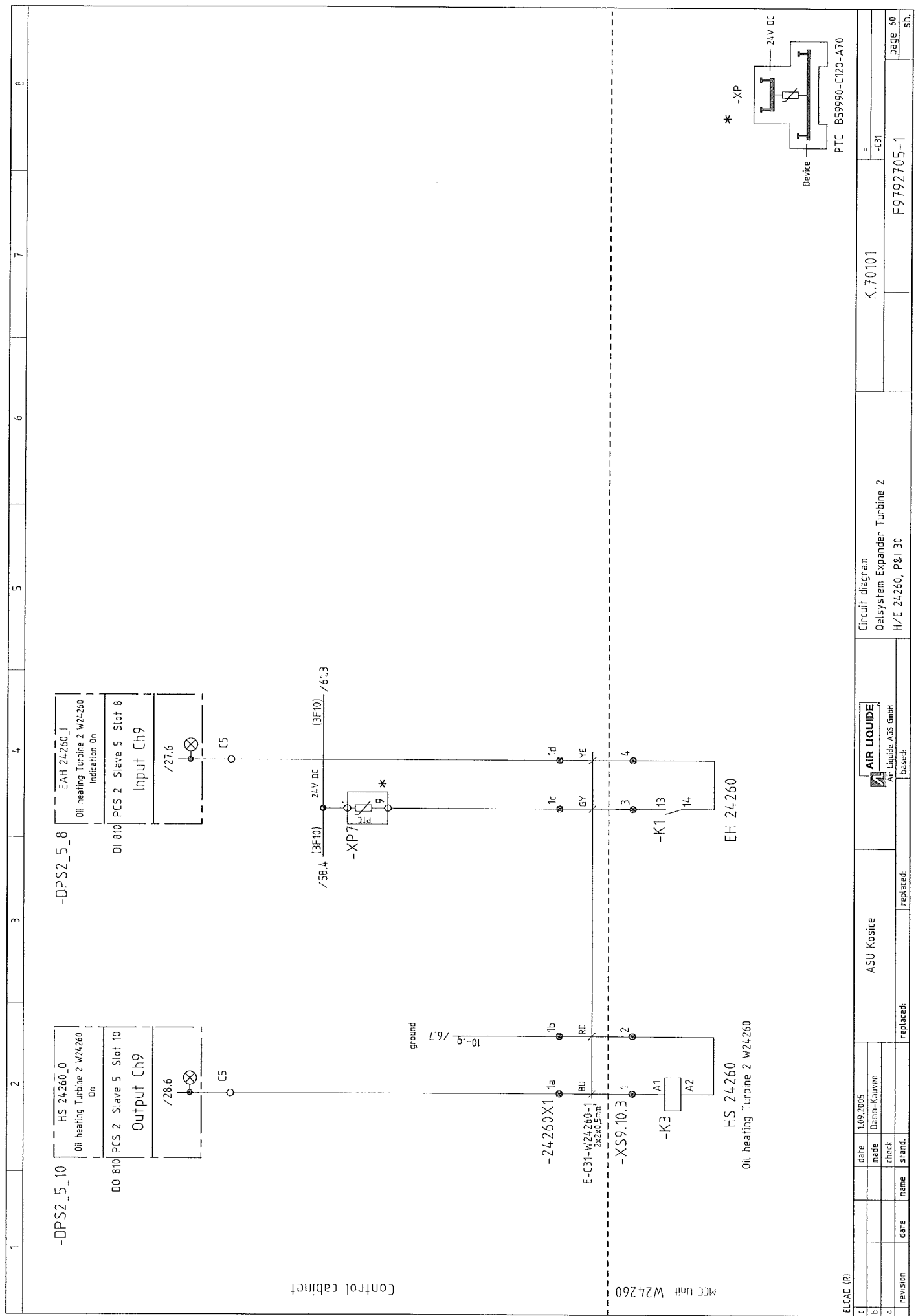
ELCAD (R)		date		1.09.2005		ASU Kosice		Circuit diagram		K.70101			
a	revision	date	name	check	made	check	replaced:	Oelsystem Expander Turbine 1		H/E 24163, P&I 29		F9792705-1	
b							replaced:	Oelsystem Expander Turbine 1		H/E 24163, P&I 29		page 56	
c							replaced:	Oelsystem Expander Turbine 1		H/E 24163, P&I 29		sh.	



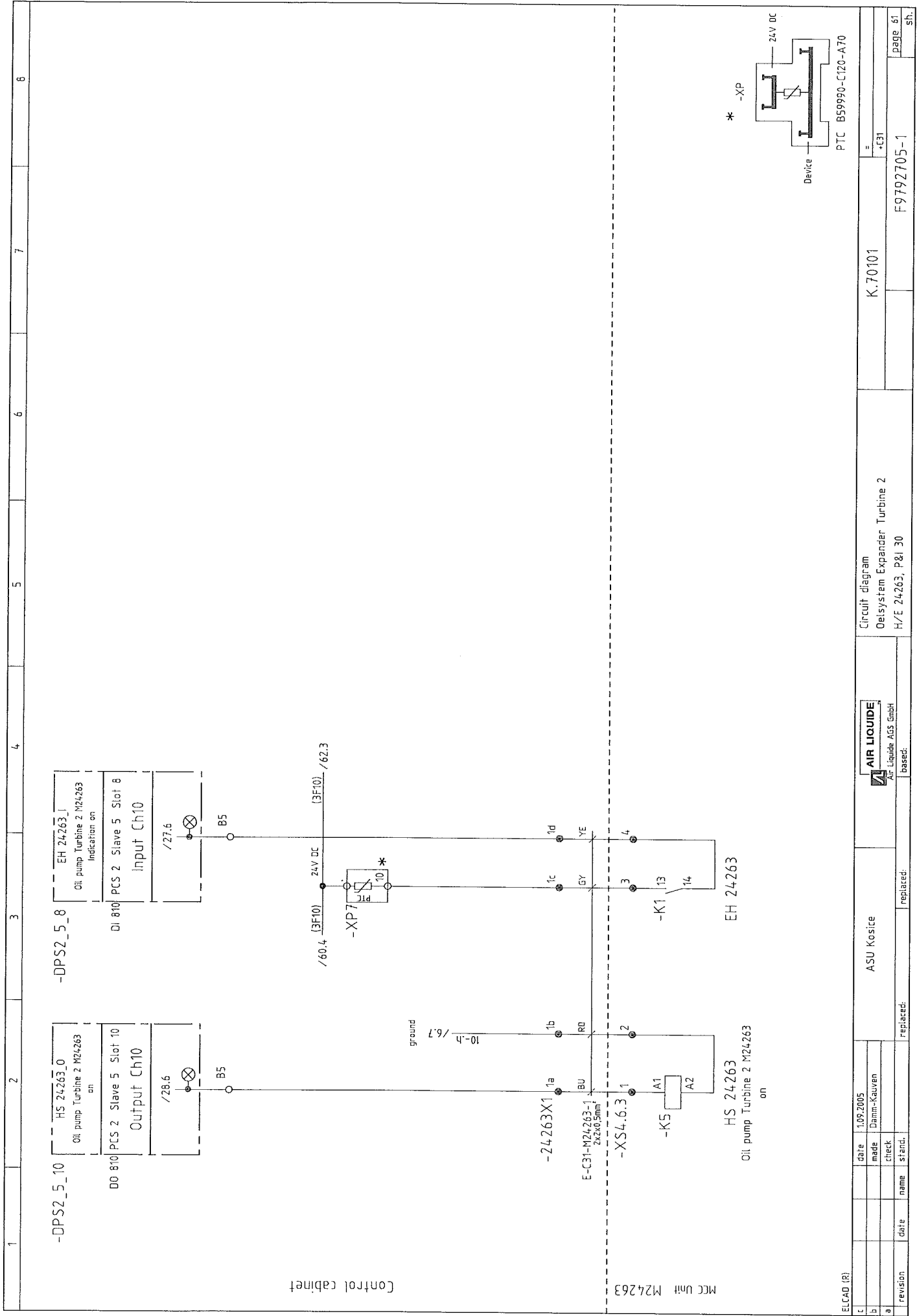



ELCAD (R)		ASU Kosice		AIR LIQUIDE		Circuit diagram		K.70101		=	
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b		made	Damm-Kauven				U/E 24210, P&I 8				
a		check									
revision	date	name	stand.	replaced:	replaced:	based:					
										F9792705-1	
										page 58	
										sh.	

The diagram illustrates the electrical connection for the ET 24211 Expander Turbine 2. It shows the power supply section (-DPS2_5_3) connected to the AI 810 PCS 2 Slave 5 Slot 3 Input Ch2. The turbine is connected to a 24V DC supply via a PTC BS9990-C120-A70. The diagram includes a detailed view of the turbine's internal components, including a PTC and a 24V DC supply.

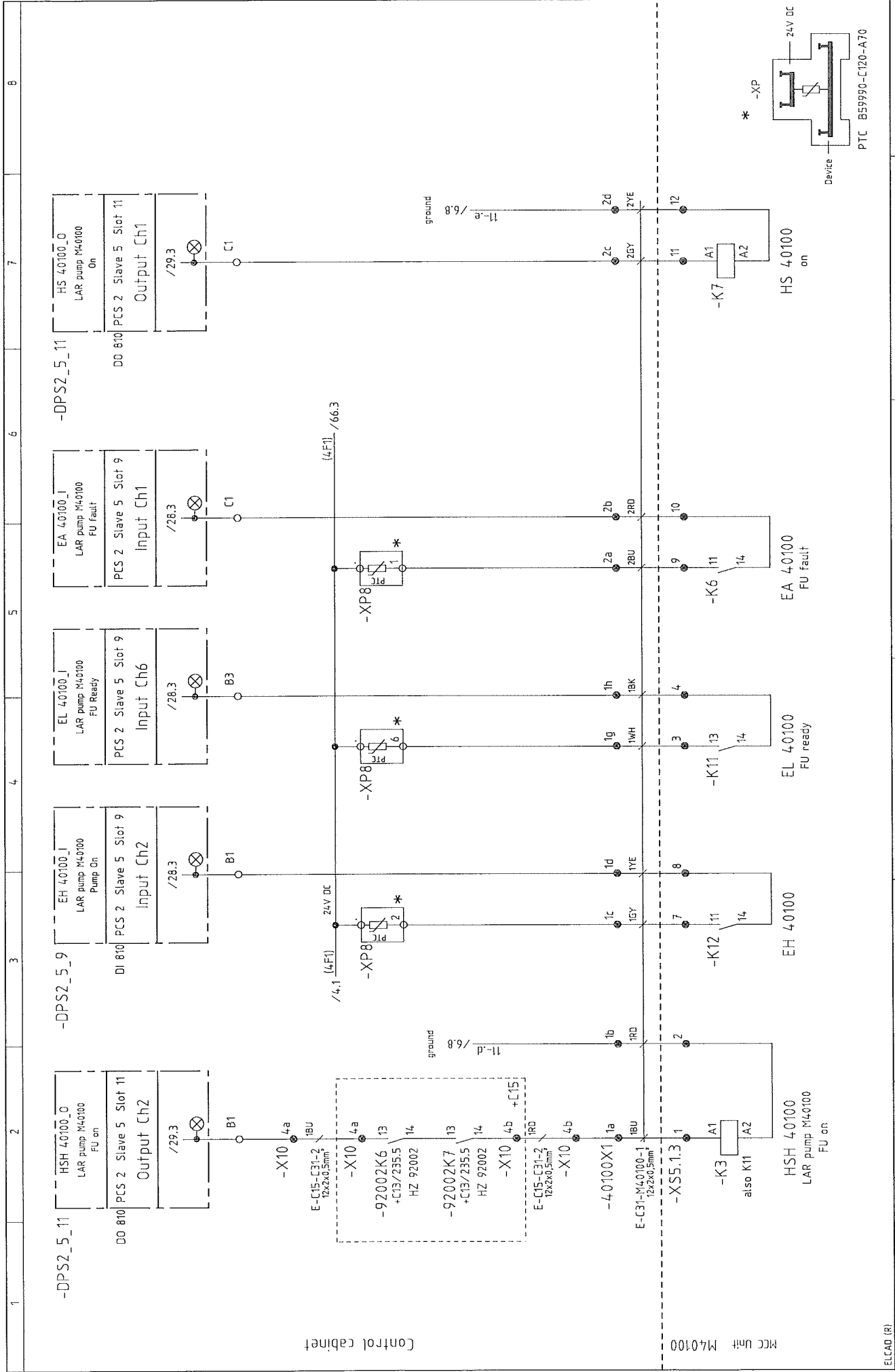


ELCAD (R)		ASU Kosice		AIR LIQUIDE		Circuit diagram		K.70101			
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a		check									
revision		date	name	stand.	replaced:	replaced:	H/E 24260, P&I 30		F9792705-1		page 60
							Oelsystem Expander Turbine 2				sh.
							= +C31				

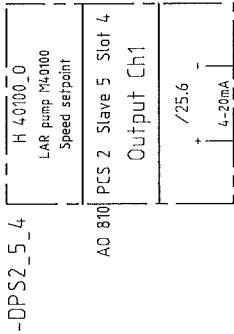
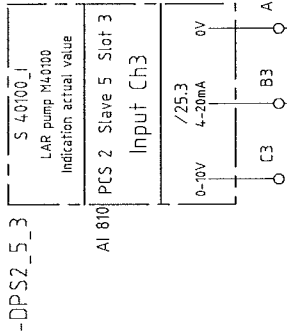


ELCAD (R)				ASU Kosice				<div><div>AIR LIQUIDE</div><div>Air Liquide AGS GmbH</div></div>				Circuit diagram				K.70101				=				+C31				PTC B59990-C120-A70																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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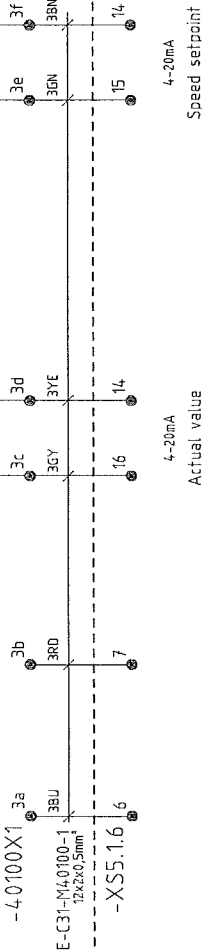
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ELCAD (R)		ASU Kosice		AIR LIQUIDE		Circuit diagram		K.70101		+C31	
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b	revision	24.11.06	Kaue	check	replaced:	replaced:		sh.			
a	As built	24.11.06	Kaue	check	replaced:	replaced:					



Control cabinet



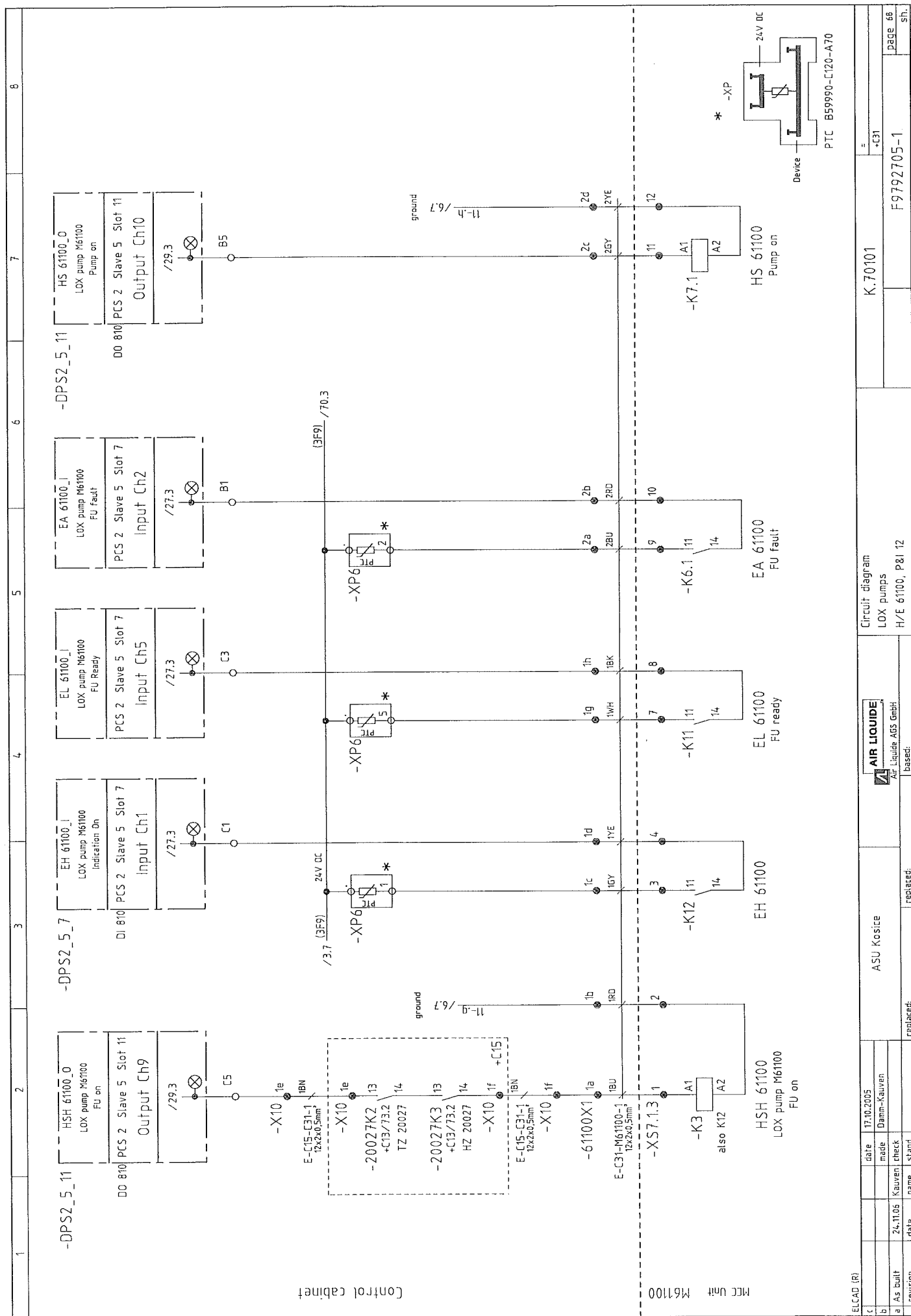
MCC Unit M40100

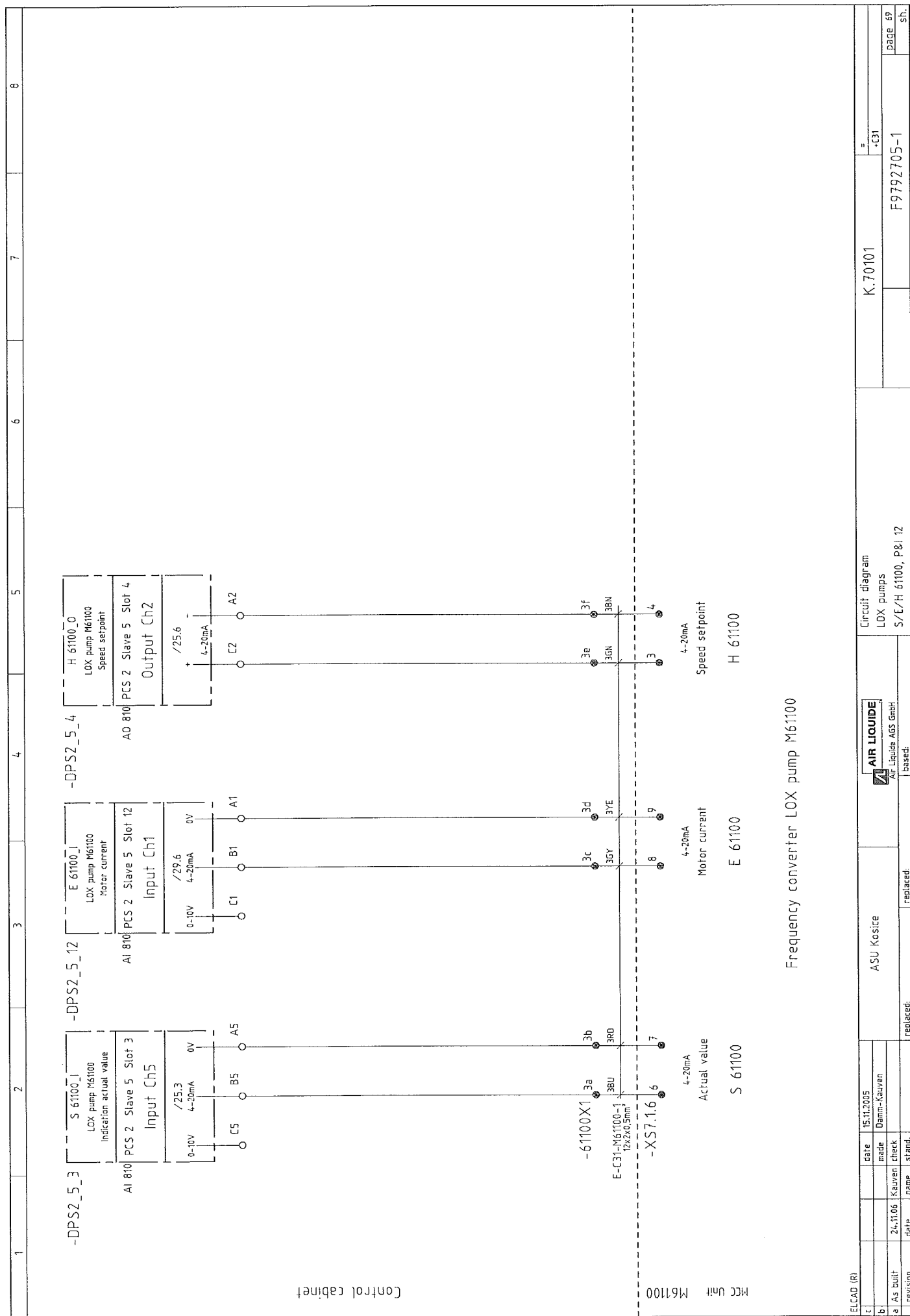
Frequency converter LAR pump M40100

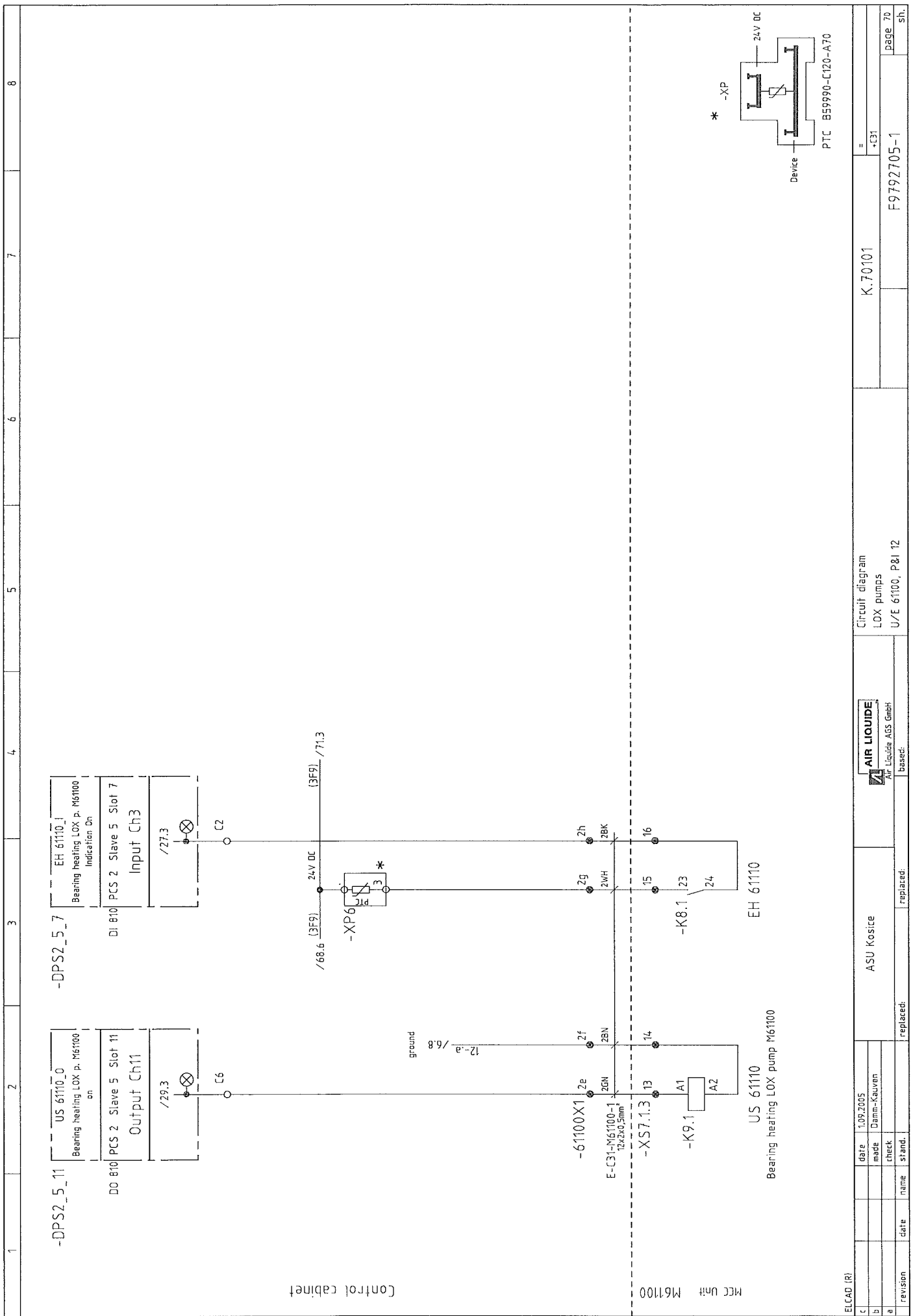
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b		date	check	24.11.06	Kauwen										
a	As built	revision	name	stand.	replaced:	replaced:	replaced:								
										Crude AR column 1		F9792705-1		page 65	
										S/H 40100, P&I 16				sh.	

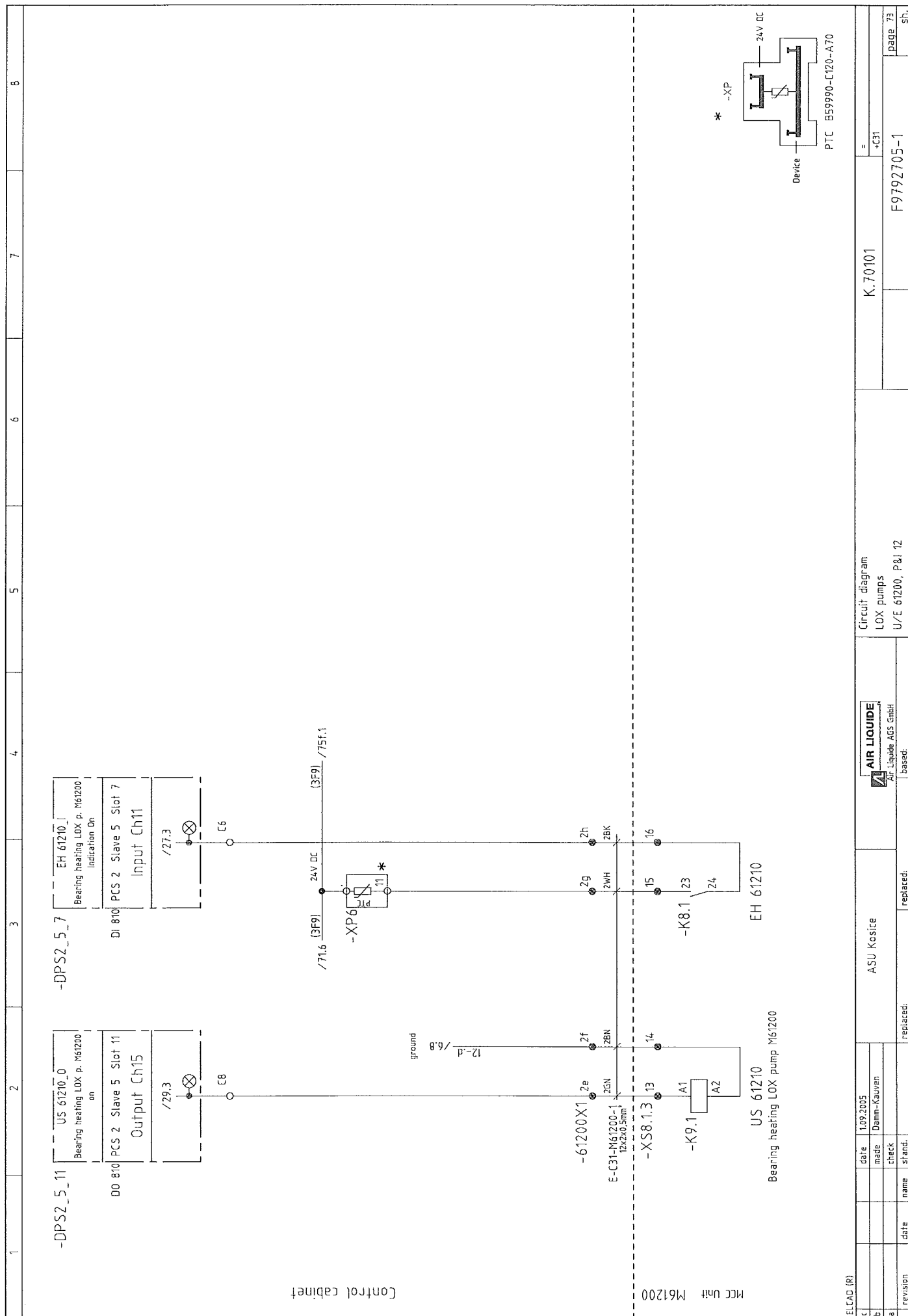
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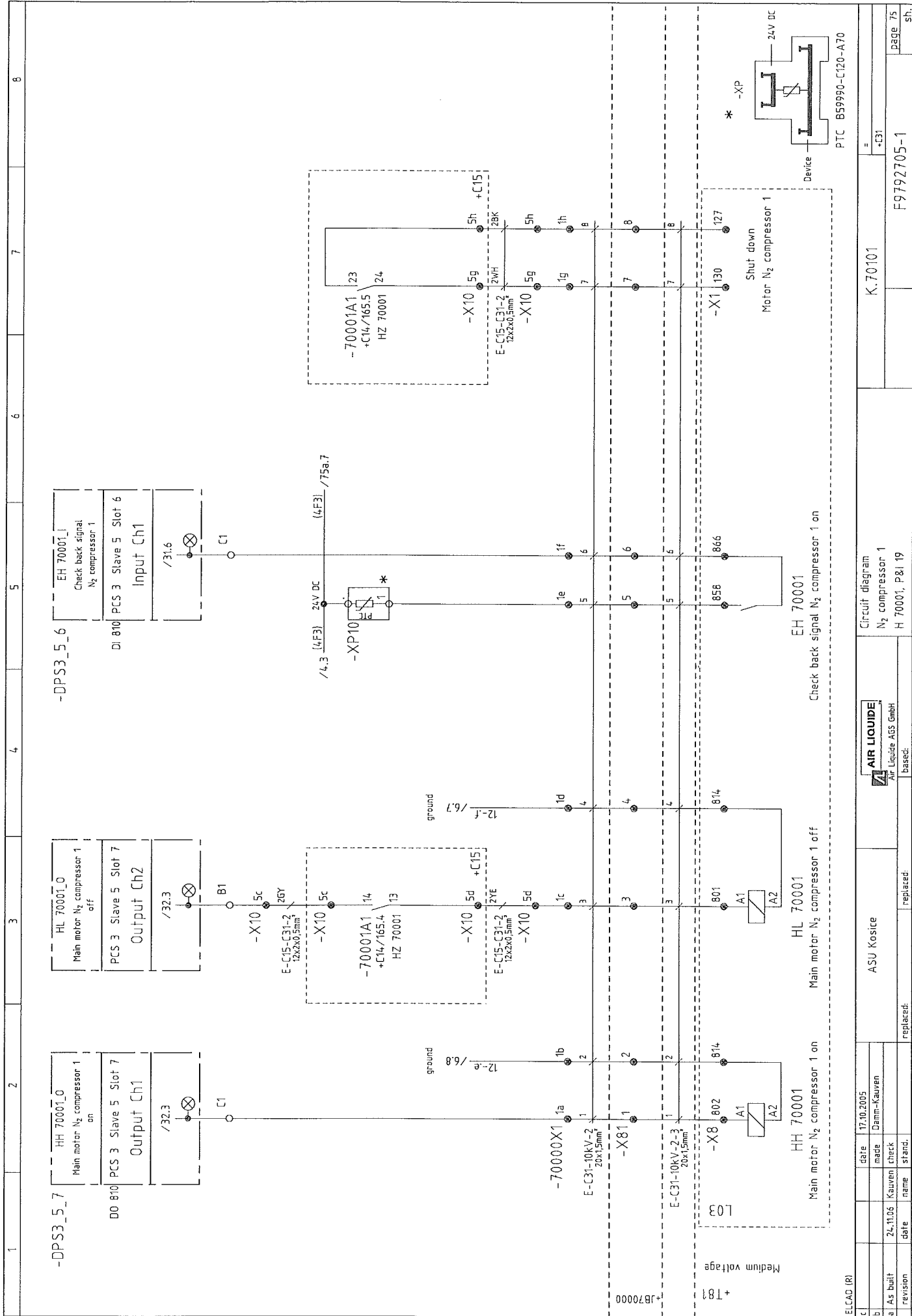
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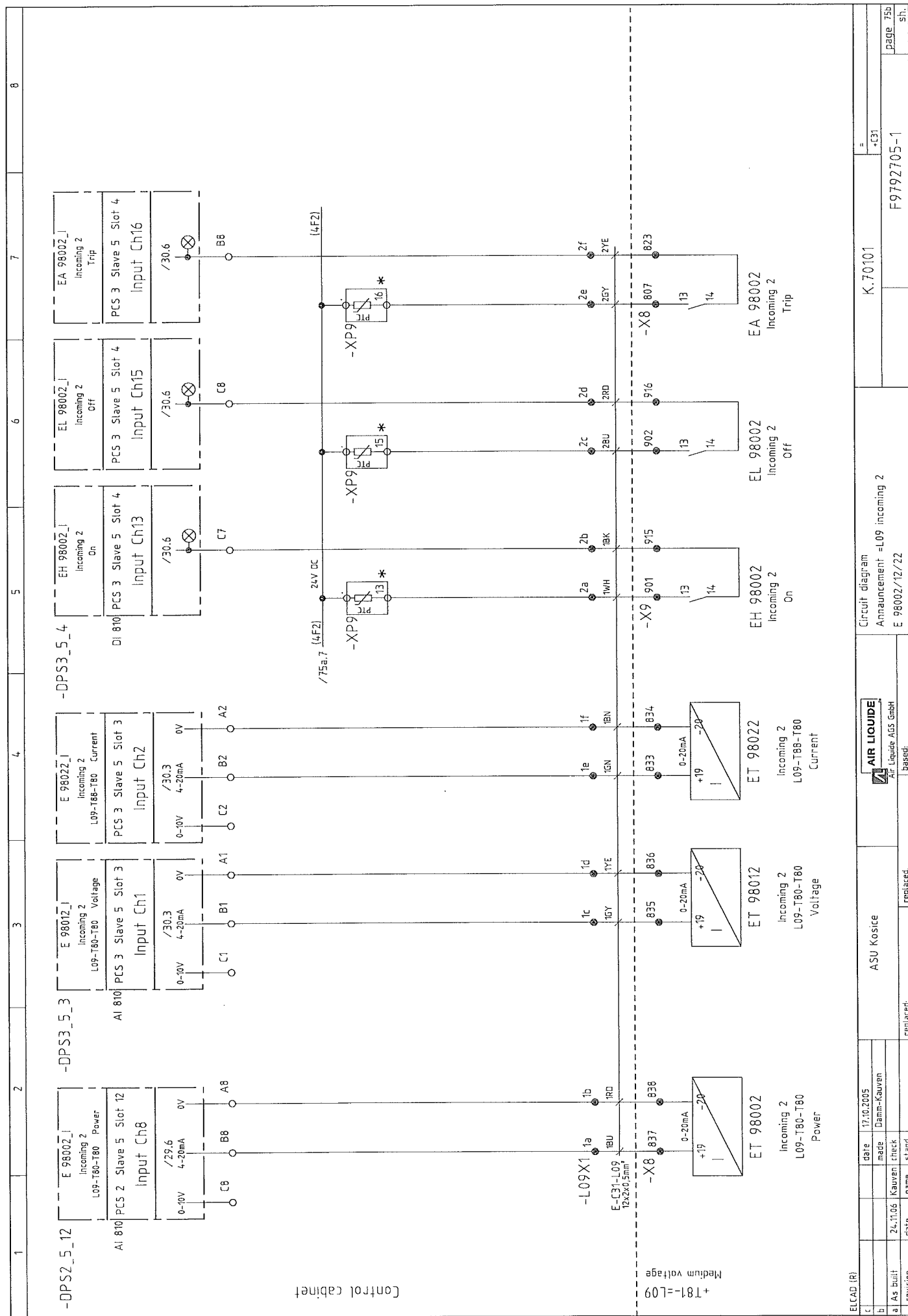
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b		check		check								page 74	
a		name		name								sh.	
revision		date		date								F9792705-1	
		replaced:		replaced:									

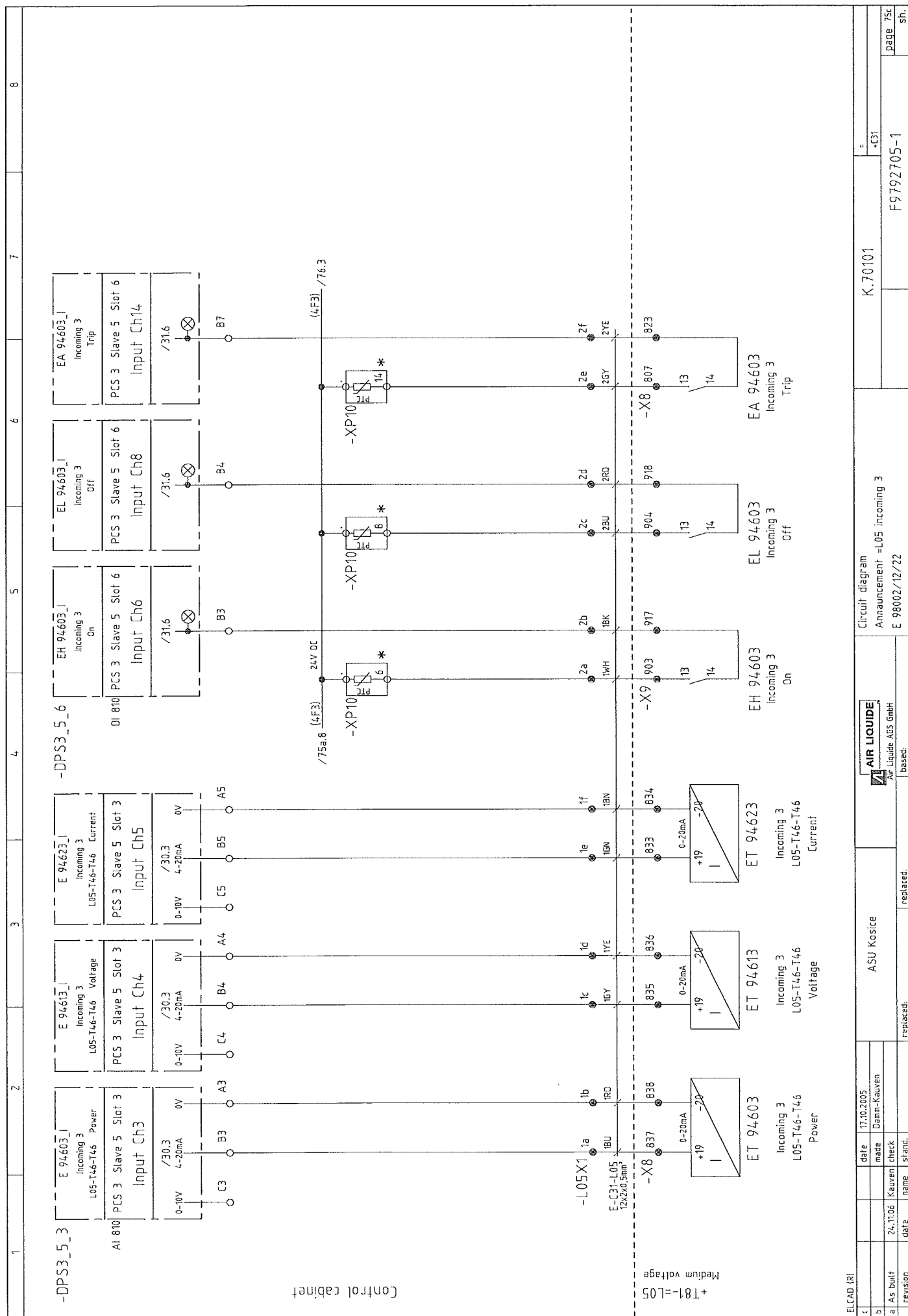
AIR LIQUIDE

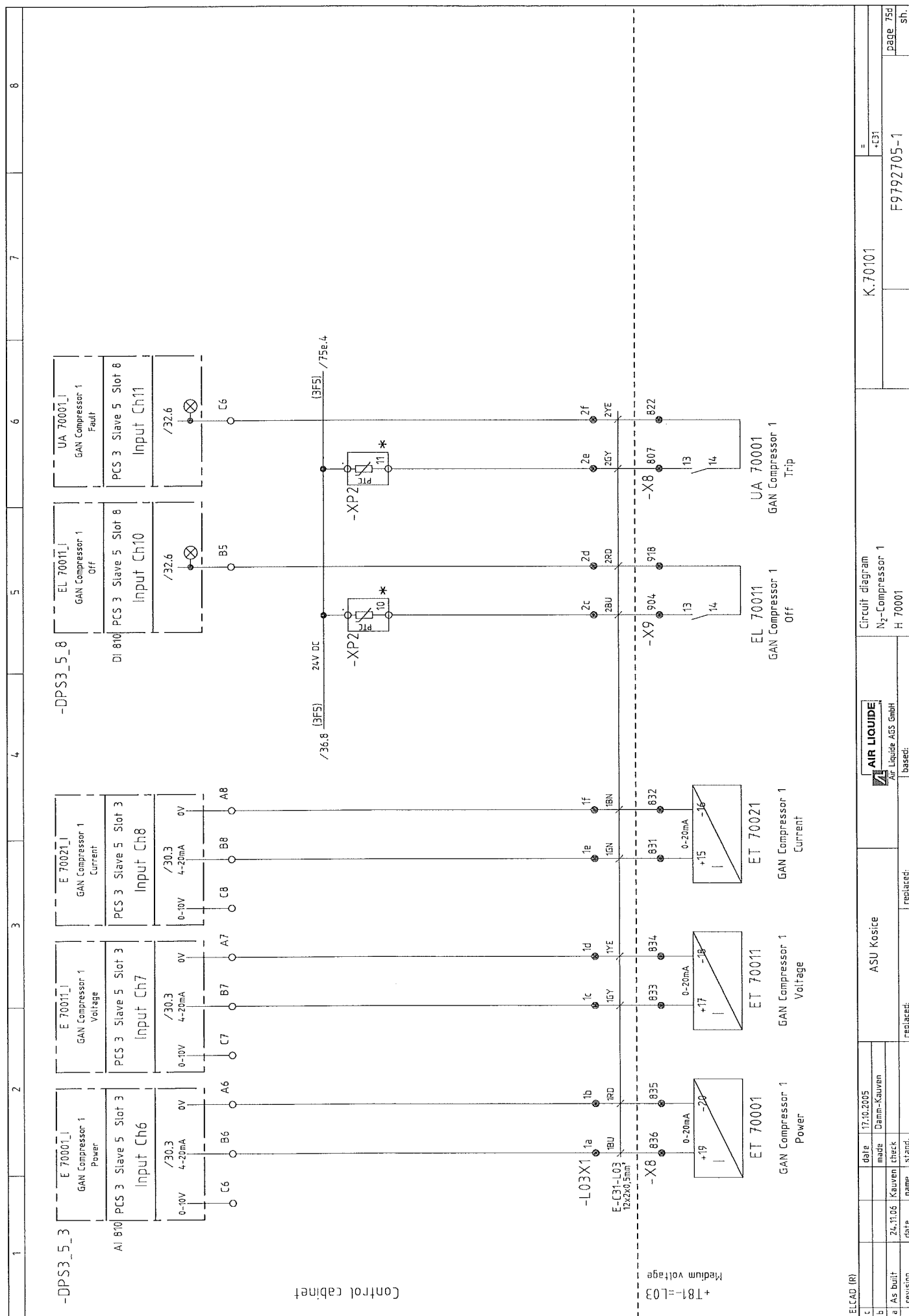
Air Liquide AGS GmbH

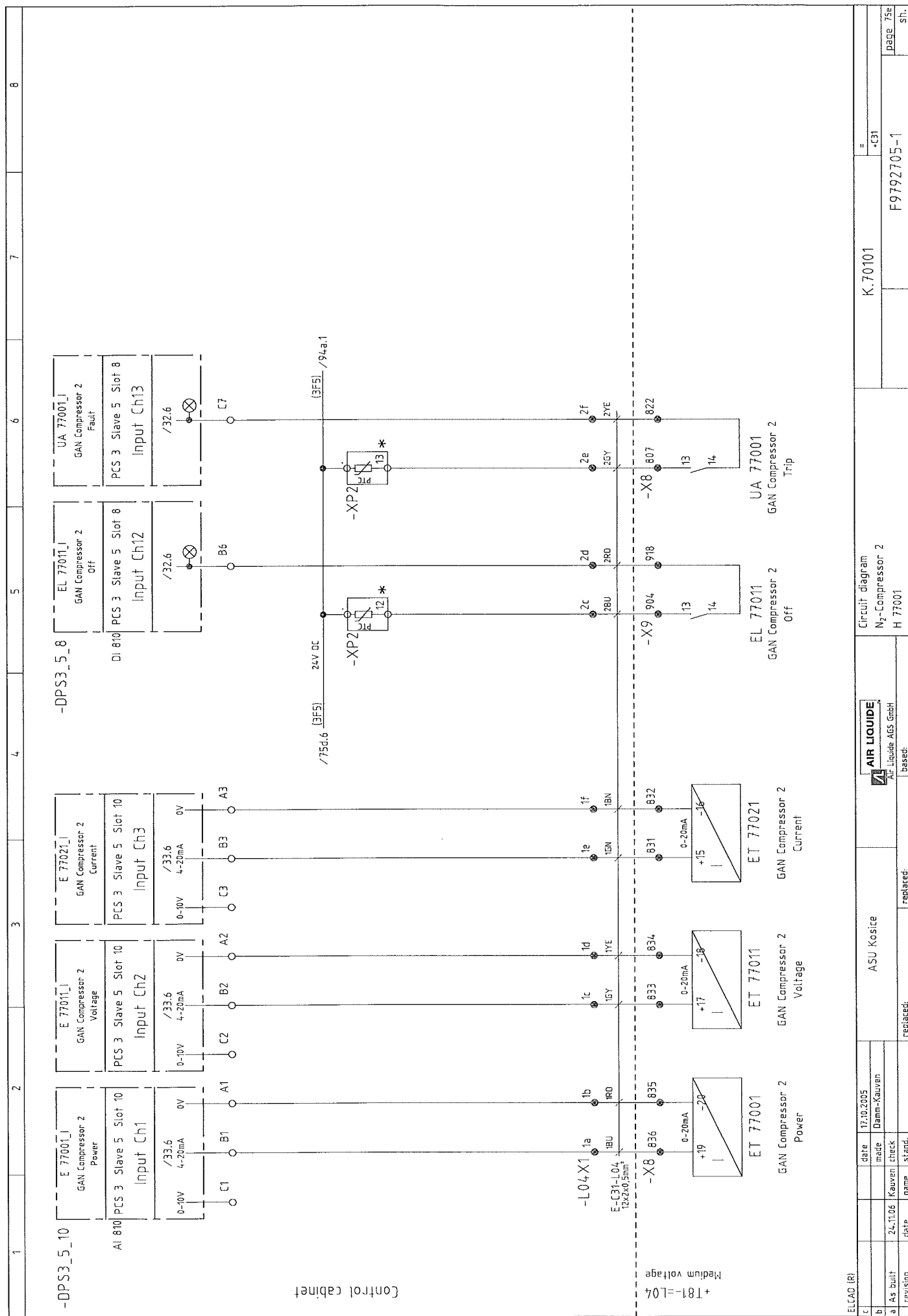
based:

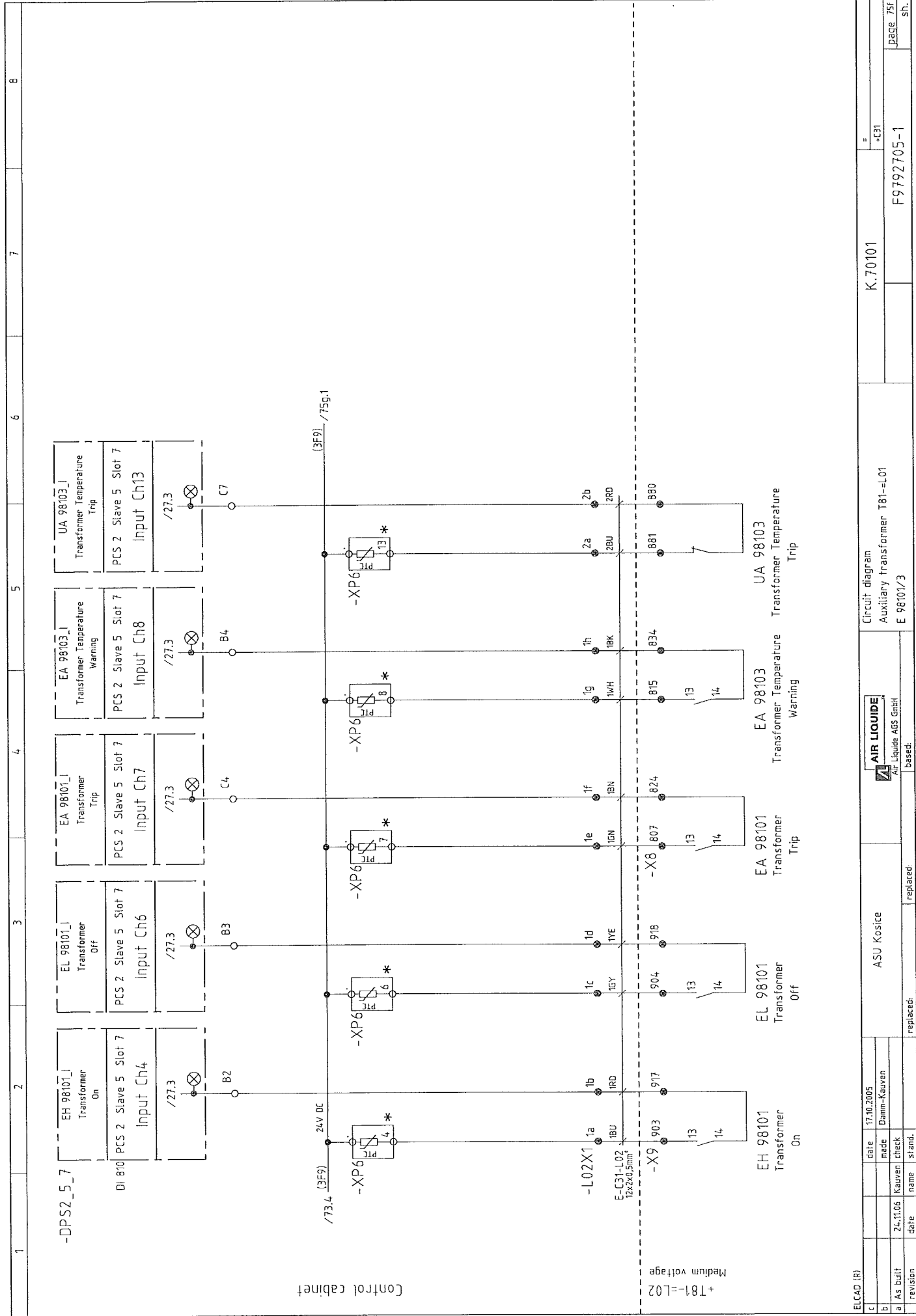






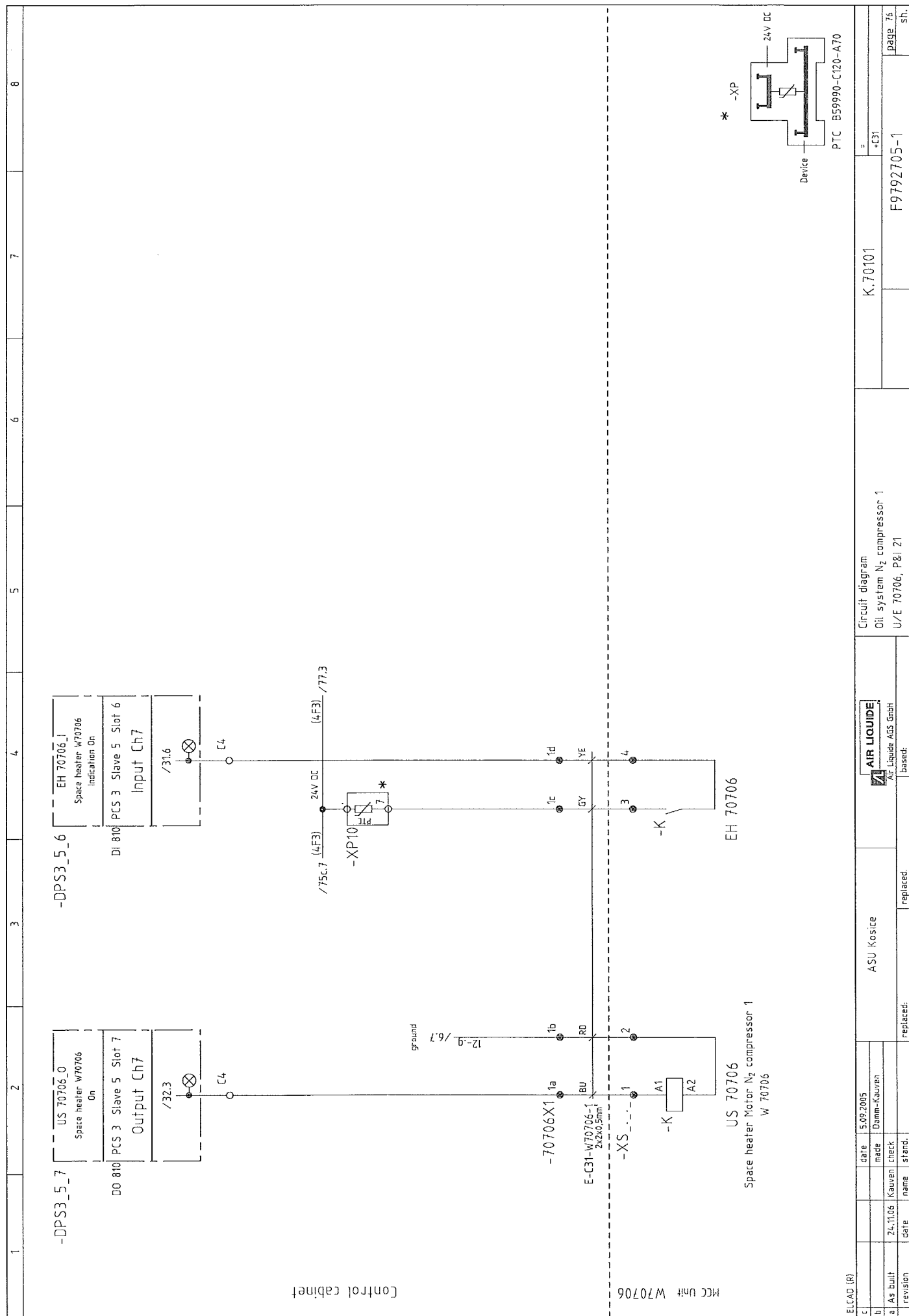






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c													+C31
b													
a	As built	24.11.06	Kauven	check									
revision	date	name	stand.	replaced:	replaced:								
Air LIQUIDE										Auxiliary transformer T81-L01		F9792705-1	
Air Liquide AGS GmbH										E 98101/3		page 75f	
based:												sh.	

The diagram illustrates the electrical wiring for a control cabinet. It features three main power distribution units (EH 98102, EL 98102, EA 98102) connected to a 24V DC source. The EH unit is configured for 'Coupling On', EL for 'Coupling Off', and EA for 'Coupling Trip'. Each unit has a dedicated input (Ch14, Ch15, Ch16) and a corresponding output (B7, C8, B8). The wiring includes terminal blocks (1a-1f, 13, 14) and various components like relays (L08X1, L08X2, L08X3) and switches (XP6). A dashed line separates the control cabinet from the auxiliary transformer (T81=L08) which provides the 24V DC source.



[illegible]

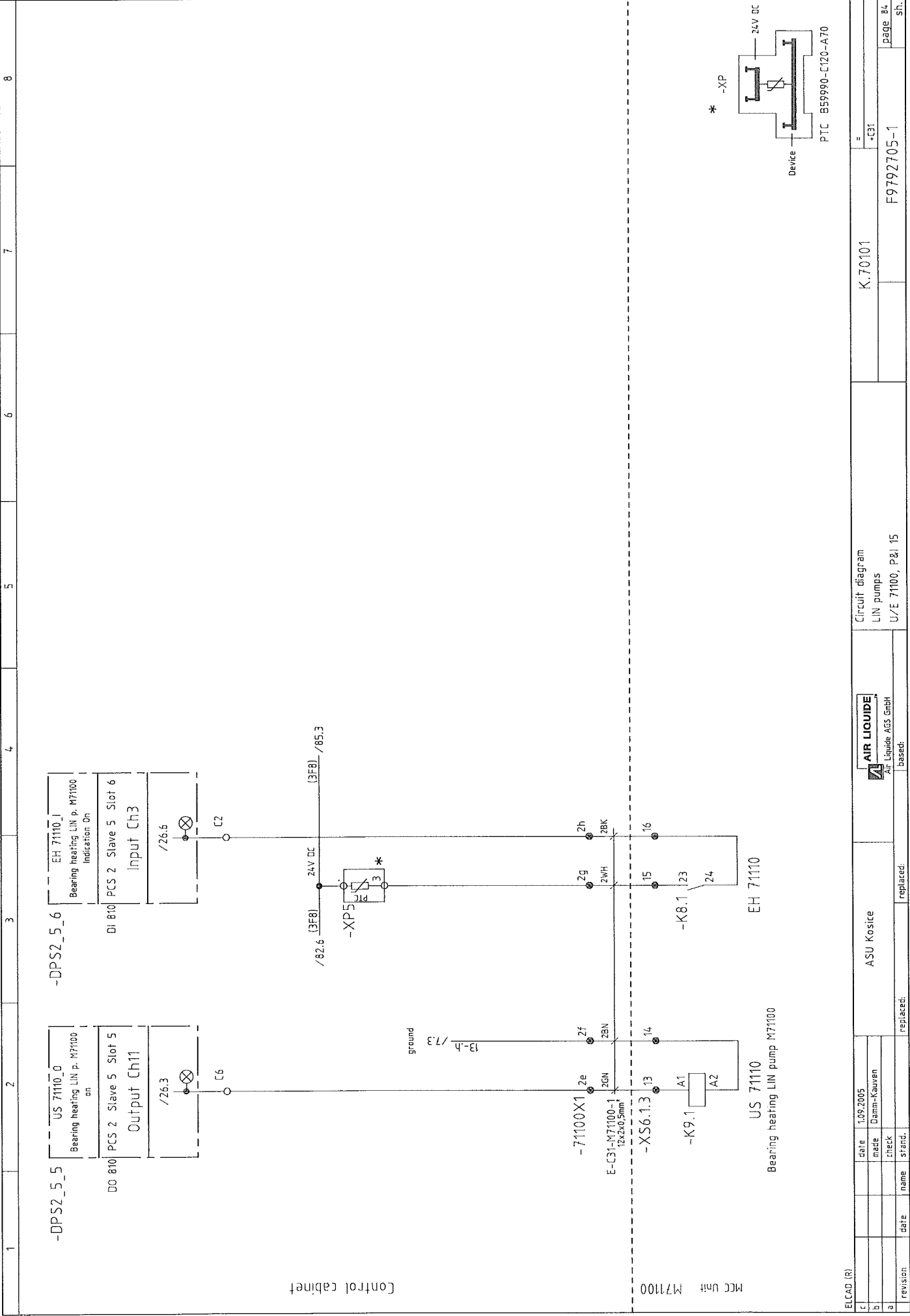
The diagram illustrates the electrical control system for an oil pump N₂ compressor. It is divided into three main sections: the Control cabinet, the MCC unit (M70820), and the EH 70820 unit.

- Control cabinet:** Contains a power supply unit (DPS3_5_7) and a control unit (DPS3_5_6). The power supply unit is connected to the MCC unit. The control unit is connected to the EH 70820 unit.
- MCC unit (M70820):** Contains a power supply unit (DPS3_5_6) and a control unit (DPS3_5_7). The power supply unit is connected to the EH 70820 unit. The control unit is connected to the EH 70820 unit.
- EH 70820:** Contains a power supply unit (DPS3_5_6) and a control unit (DPS3_5_7). The power supply unit is connected to the MCC unit. The control unit is connected to the EH 70820 unit.

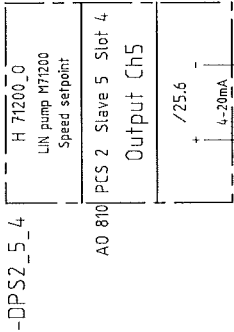
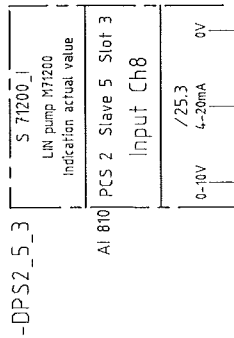
The diagram includes a legend for the symbols used, such as the power supply unit and the control unit.

[illegible]

[illegible]



ELCAD (R)		K.70101		Circuit diagram LIN pumps U/E 71100, P&I 15		F9792705-1		page 84
c	date	1.09.2005	ASU Kosice	AIR LIQUIDE	=			sh.
b	made	Damm-Kauven		Air Liquide AGS GmbH	+C31			
a	revision	name	replaced:	replaced:				



Control cabinet

-71200X1

E-C31-M71200-1

M71200 MLC Unit

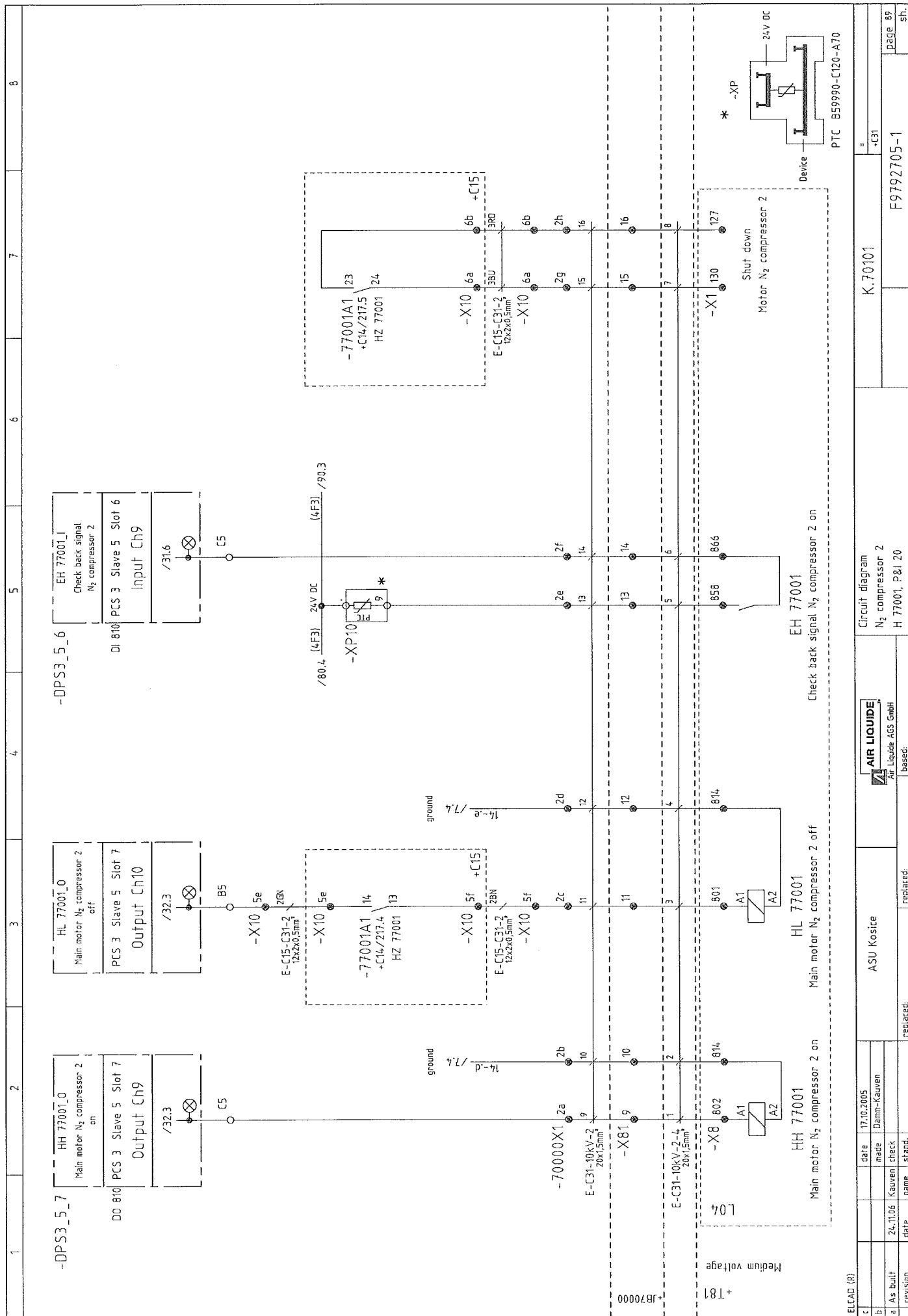
Actual value
S 71200

Speed setpoint
H 71200

Frequency converter LIN pump M71200

ELCAD (R)		ASU Kosice		Circuit diagram LIN pumps		K.70101		=	
c	date	15.11.2005							+C31
b	made	Damm-Kauven							
a	As built	24.11.06	Kauven	check					
revision	date		name	stand.	replaced:				
					replaced:				
					S/E/H 71200, P81 15	F9792705-1			
						page 86			
						sh.			

[illegible]



The diagram illustrates the electrical control circuit for a space heater (W77706) within a control cabinet. It features two main components: a Space heater W77706 (US 77706_0) and a Space heater W77706 (EH 77706). Both heaters are connected to a 24V DC power supply. The US 77706_0 is controlled by a DO 810 output from a PCS 3 Slave 5 Slot 7, while the EH 77706 is controlled by a DO 810 input from a PCS 3 Slave 5 Slot 6. The circuit includes a ground connection, a 24V DC supply, and a relay (K) with contacts 1a, 1b, 1c, 1d, 2, 3, 4. The diagram is labeled 'Control cabinet' and 'MCC unit W77706'.

Control cabinet

MCC Unit M77803

ELCAD (R)

revision	date	name	stand.	check	date	made	5.09.2005
a						Damm-Kauren	
b							
c							

ASU Kosice

AIR LIQUIDE
Air Liquide AGS GmbH
based:

Circuit diagram
Oil system N₂ compressor 2
H/E 77803, P&I 22

K.70101

PTC B59990-C120-A70

* -XP

Device

24V DC

EH 77803

Oil demister N₂ compressor 2 M77803 on

HS 77803

-K5

A1 A2

1 2

1a 1b

BU RD

-77803X1

14-9 / 7.3

ground

EH 77803

-K1

13 14

3 4

1c 1d

GY YE

-XP10

10 *

24V DC

/90.4 (4F3) /92.3 (4F3)

B5

/31.6

Input Ch10

DI 810 PCS 3 Slave 5 Slot 6

Oil demister N₂ comp. 2 M77803
on

EH 77803_1

-DPS3_5_6

Oil demister N₂ comp. 2 M77803
on

HS 77803_0

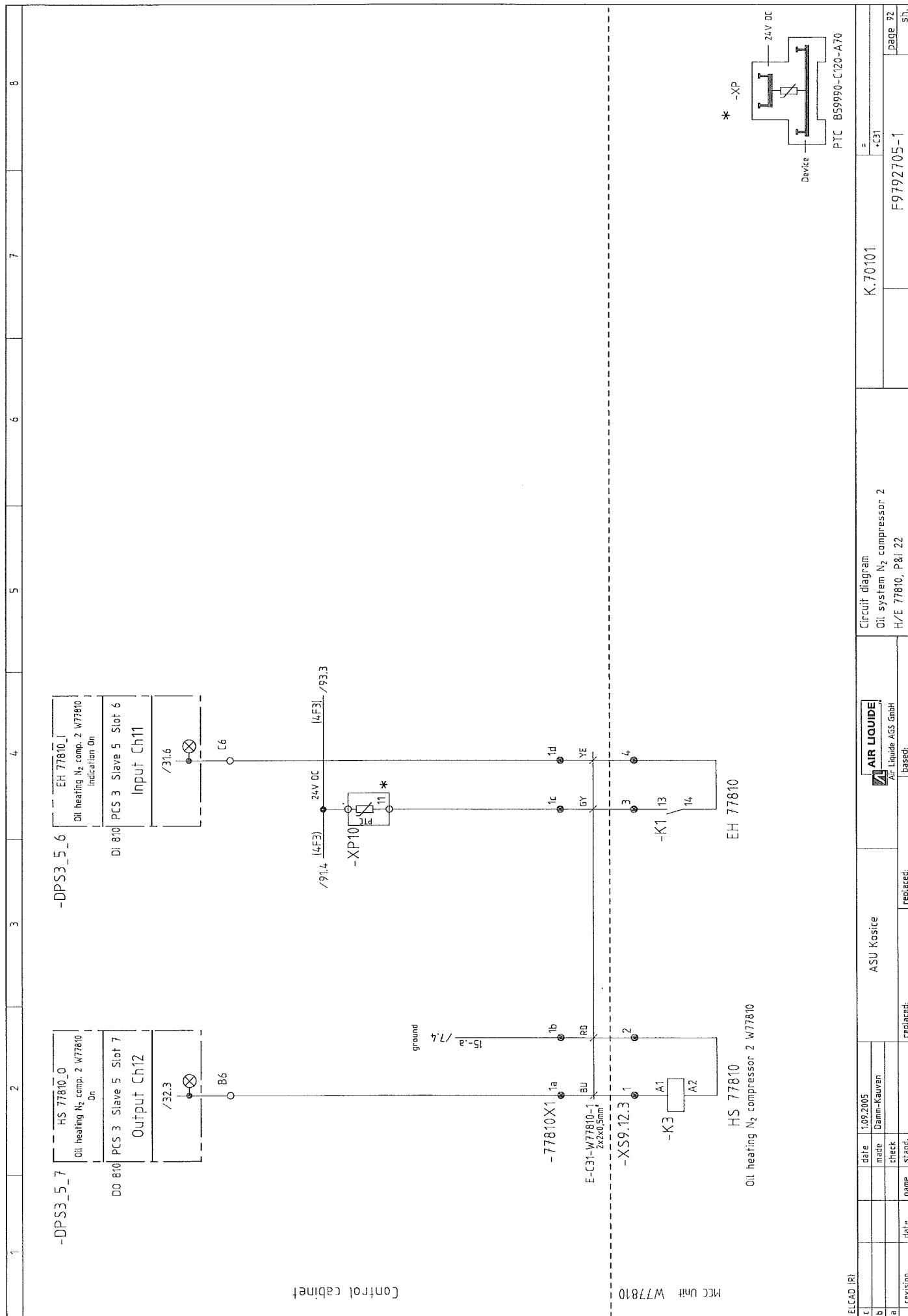
DO 810 PCS 3 Slave 5 Slot 7

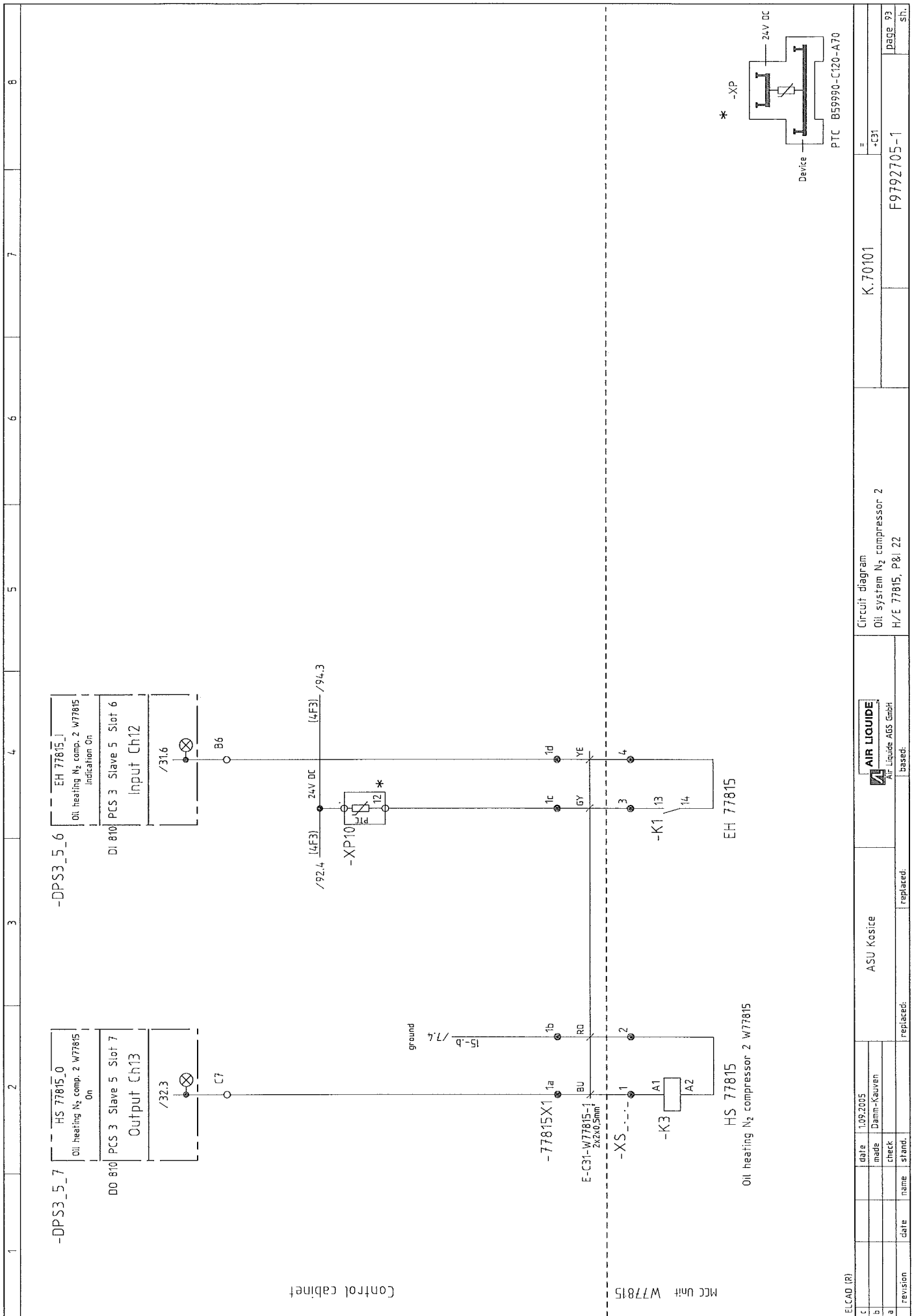
Output Ch11

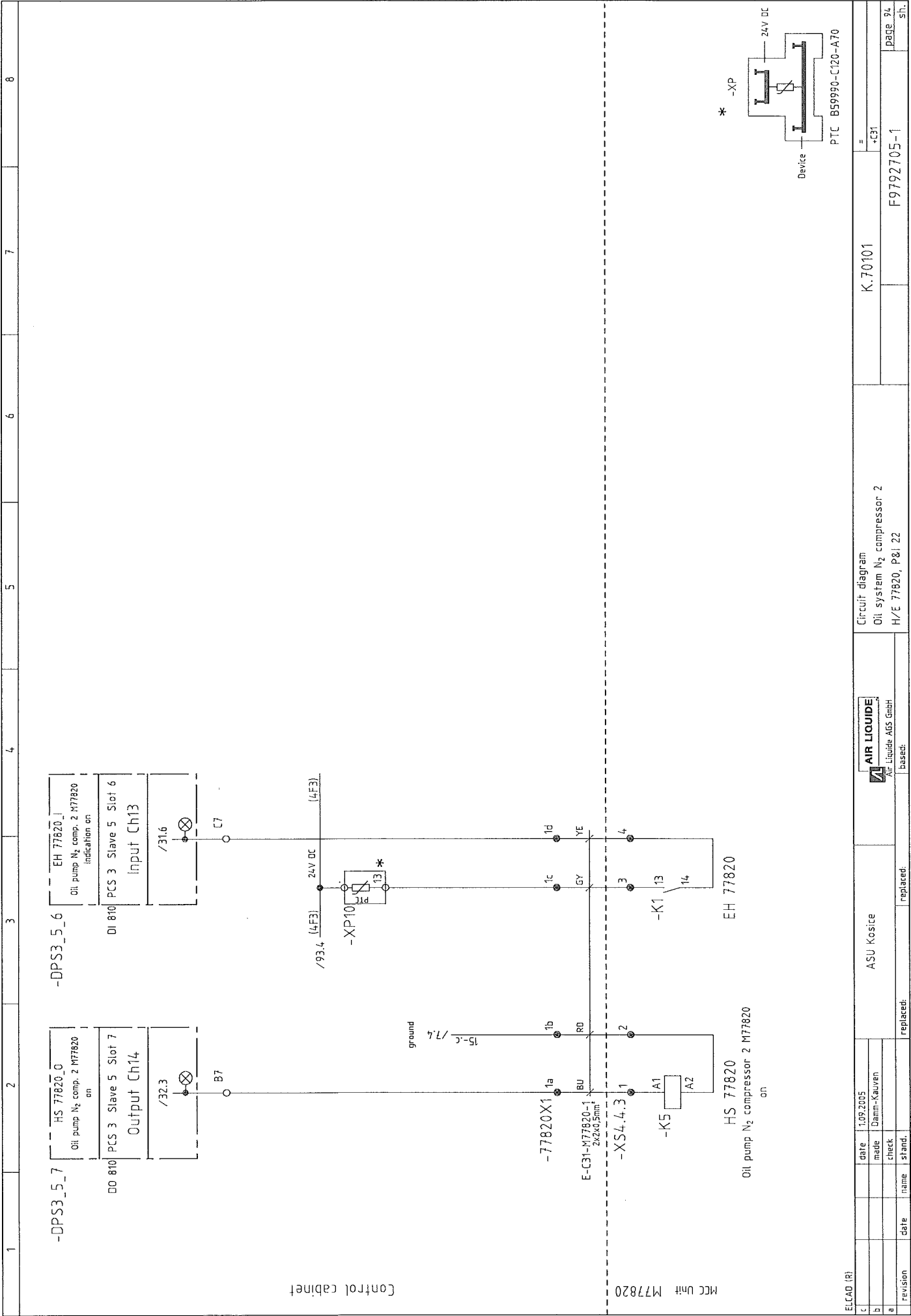
/32.3

C6

-DPS3_5_7







ELLAD (R)		ASU Kosice		Circuit diagram		K.70101	
c	date	1.09.2005		Oil system N ₂ compressor 2			
b	made	Damm-Kauven		H/E 77820, P81 22			
a	check						
revision	date	name	stand.	replaced:			
				replaced:			
				AIR LIQUIDE		F9792705-1	
				Air Liquide AGS GmbH		page 34	
				based:		sh.	

The diagram illustrates the electrical wiring for a control cabinet, specifically for Fault Ventilator Systems T81. It is divided into two main sections: a power supply section and a control section.

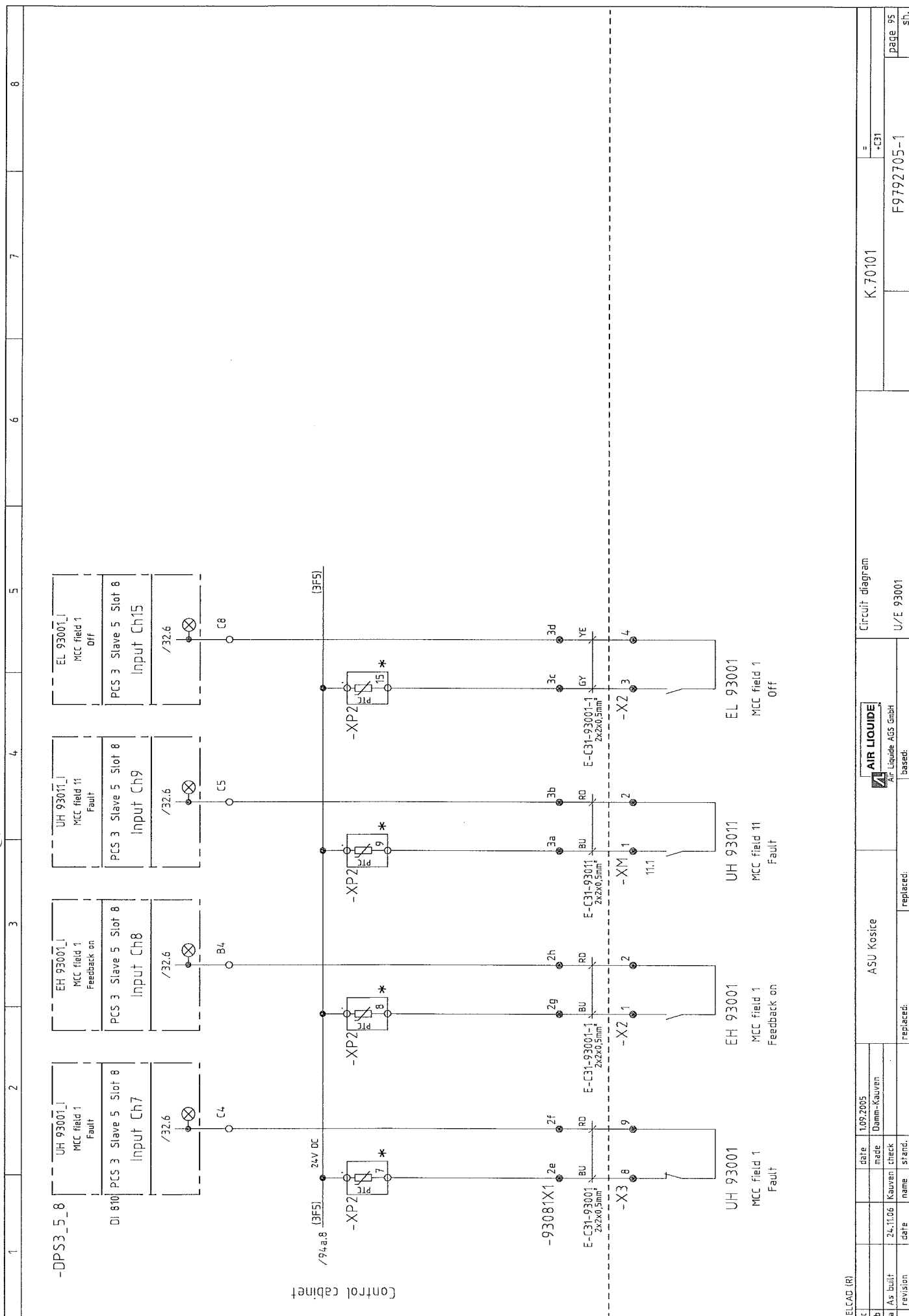
Power Supply Section:

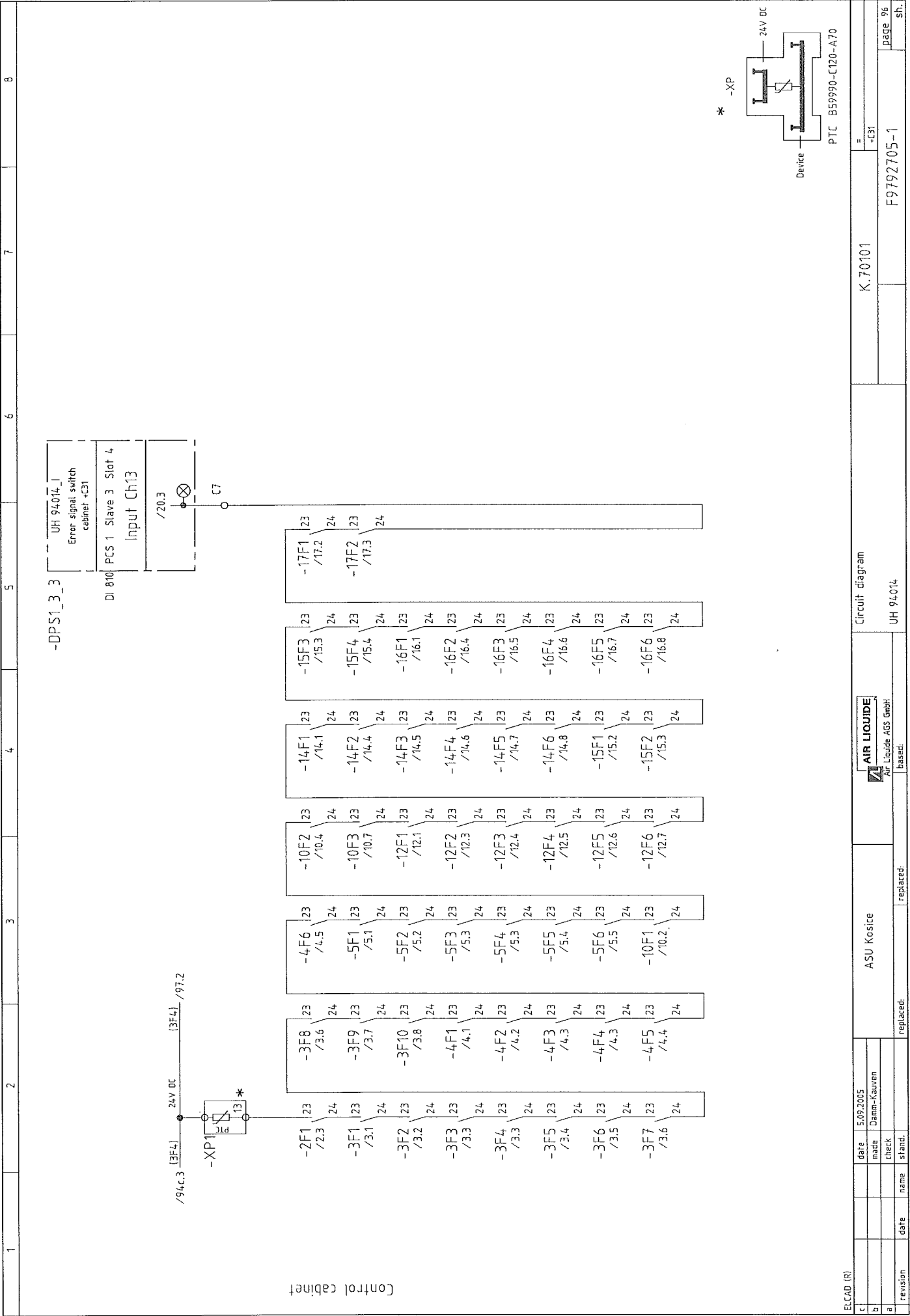
- A 24V DC power source is connected to a terminal block labeled XP1.
- The power line passes through a fuse (F4) and a terminal block (XP1).
- A PTC (B59990-C120-A70) is connected to the power line.
- A thermistor (T81) is connected to the power line.

Control Section:

- A relay (K.70101) is connected to the power line.
- The relay is controlled by a terminal block labeled XP1.
- The relay is connected to a terminal block labeled XP1.

The diagram is labeled "Fault Ventilator Systems T81" and "Control cabinet".





[illegible]

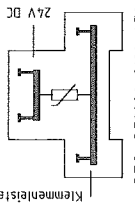
	1	2	3	4	5	6	7	8
c								
b								
a								

ELCAD (R)					Circuit diagram	K.70101 = +G31	F9792705-1	page 99 sh.
c			date	1.09.2005	ASU Koice	 <small>Air Liquide AGS GmbH based:</small>	Circuit diagram	F9792705-1
b			made	Damm-Kauwen				
a			check stand.					

[illegible]

[illegible]

[illegible]



Gerätekommentar

Zielzeichen addressing intern	Anschlußbezeichnung terminal marking	Gerätebezeichnung device marking
-------------------------------------	---	-------------------------------------

Reise	trip	Darstellungsort refer
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
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92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

Anschluss	wiring
Klemmenkommentar	terminal comment
Laschenverbindung	fistling

terminal number	Anschlußbezeichnung terminal marking
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	device marking

[illegible]

ԳԼՈՒԽ 1

Kabelbe				
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[illegible]

service comment

revision	date	name	Date
1			made
1			check
1			stand.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

ELCAD (R)		Date made		5.9.2005		ASU Kosice		AIR LIQUIDE Air Liquide AGS GmbH based:		Terminal connecting plan		= K.70101		= -C31		page 124	
a As built revision		24.11.06		Kauwen		replaced:		replaced:		-13200X1		F9792705-1		sh.			
b		Date		Date made		Date check		Date name		Date stand.							
c		Date		Date made		Date check		Date name		Date stand.							
d		Date		Date made		Date check		Date name		Date stand.							
e		Date		Date made		Date check		Date name		Date stand.							
f		Date		Date made		Date check		Date name		Date stand.							
g		Date		Date made		Date check		Date name		Date stand.							
h		Date		Date made		Date check		Date name		Date stand.							
i		Date		Date made		Date check		Date name		Date stand.							
j		Date		Date made		Date check		Date name		Date stand.							
k		Date		Date made		Date check		Date name		Date stand.							
l		Date		Date made		Date check		Date name		Date stand.							
m		Date		Date made		Date check		Date name		Date stand.							
n		Date		Date made		Date check		Date name		Date stand.							
o		Date		Date made		Date check		Date name		Date stand.							
p		Date		Date made		Date check		Date name		Date stand.							
q		Date		Date made		Date check		Date name		Date stand.							
r		Date		Date made		Date check		Date name		Date stand.							
s		Date		Date made		Date check		Date name		Date stand.							
t		Date		Date made		Date check		Date name		Date stand.							
u		Date		Date made		Date check		Date name		Date stand.							
v		Date		Date made		Date check		Date name		Date stand.							
w		Date		Date made		Date check		Date name		Date stand.							
x		Date		Date made		Date check		Date name		Date stand.							
y		Date		Date made		Date check		Date name		Date stand.							
z		Date		Date made		Date check		Date name		Date stand.							
aa		Date		Date made		Date check		Date name		Date stand.							
ab		Date		Date made		Date check		Date name		Date stand.							
ac		Date		Date made		Date check		Date name		Date stand.							
ad		Date		Date made		Date check		Date name		Date stand.							
ae		Date		Date made		Date check		Date name		Date stand.							
af		Date		Date made		Date check		Date name		Date stand.							
ag		Date		Date made		Date check		Date name		Date stand.							
ah		Date		Date made		Date check		Date name		Date stand.							
ai		Date		Date made		Date check		Date name		Date stand.							
aj		Date		Date made		Date check		Date name		Date stand.							
ak		Date		Date made		Date check		Date name		Date stand.							
al		Date		Date made		Date check		Date name		Date stand.							
am		Date		Date made		Date check		Date name		Date stand.							
an		Date		Date made		Date check		Date name		Date stand.							
ao		Date		Date made		Date check		Date name		Date stand.							
ap		Date		Date made		Date check		Date name		Date stand.							
aq		Date		Date made		Date check		Date name		Date stand.							
ar		Date		Date made		Date check		Date name		Date stand.							
as		Date		Date made		Date check		Date name		Date stand.							
at		Date		Date made		Date check		Date name		Date stand.							
au		Date		Date made		Date check		Date name		Date stand.							
av		Date		Date made													

[illegible]

[illegible]

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[illegible]

[illegible]

[illegible]

ELCAD (R)		Date		5.9.2005		ASU Kosice		AIR LIQUIDE		Terminal connecting plan		K.70101		=		-C31		F9792705-1		page 195	
a) As built		24.11.06		Kauven		replaced:		replaced:		replaced:		-24201X1								sh.	
b) revision		date		name		stand.		date		name		stand.									
c) drawing		date		made		check		date		name		stand.									
d) drawing		date		made		check		date		name		stand.									
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f) drawing		date		made		check		date		name		stand.									
g) drawing		date		made		check		date		name		stand.									
h) drawing		date		made		check		date		name		stand.									
i) drawing		date		made		check		date		name		stand.									
j) drawing		date		made		check		date		name		stand.									
k) drawing		date		made		check		date		name		stand.									
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p) drawing		date		made		check		date		name		stand.									
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s) drawing		date		made		check		date		name		stand.									
t) drawing		date		made		check		date		name		stand.									
u) drawing		date		made		check		date		name		stand.									
v) drawing		date		made		check		date		name		stand.									
w) drawing		date		made		check		date		name		stand.									
x) drawing		date		made		check		date		name		stand.									
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bj) drawing		date		made		check		date		name		stand.									
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bm) drawing		date		made		check		date		name		stand.									
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by) drawing		date		made		check		date		name		stand.									
bz) drawing		date		made		check		date		name		stand.									
ca) drawing		date		made		check		date		name		stand.									
cb) drawing		date		made		check		date		name		stand.									
cc) drawing		date		made		check		date		name		stand.									
cd) drawing		date		made		check		date		name		stand.									
ce) drawing		date		made		check		date		name		stand.									
cf) drawing		date		made		check		date		name		stand.									
cg) drawing		date		made		check		date		name		stand.									
ch) drawing		date		made		check		date		name		stand.									
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cm) drawing		date		made		check		date		name		stand.									
cn) drawing		date		made		check		date		name		stand.									
co) drawing		date		made		check		date		name		stand.									
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cs) drawing		date		made		check		date		name		stand.									
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cw) drawing		date		made		check		date		name		stand.									
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cb) drawing		date		made		check		date		name		stand.									
cc) drawing		date		made		check		date		name		stand.									
cd) drawing		date		made		check		date		name		stand.									
ce) drawing		date		made		check		date		name		stand.									
cf) drawing		date		made		check		date		name		stand.									
cg) drawing		date		made		check		date		name		stand.									
ch) drawing		date		made		check		date		name		stand.									
ci) drawing		date		made		check		date		name		stand.									
cj) drawing		date		made		check		date		name		stand.									
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cn) drawing		date		made		check		date		name		stand.									
co) drawing		date		made		check		date		name		stand.									
cp) drawing		date		made		check		date		name		stand.									
cq) drawing		date		made		check		date		name		stand.									
cr) drawing		date		made		check		date		name		stand.									
cs) drawing		date		made		check		date		name		stand.									
ct) drawing		date		made		check		date		name		stand.									
cu) drawing		date		made		check		date		name		stand.									
cv) drawing		date		made		check		date		name		stand.									

[illegible]

ELCAD (R)		Date: 5.9.2005		ASU Kosice		AIR LIQUIDE		Terminal connecting plan		K.70101		=		F9792705-1		page 137	
revision		check		replaced:		Air Liquide ASS GmbH		-24263X1				+C31		sh.			
a		made		replaced:		based:											
b		stand.															
c		date		name		date		name		date		name		date		name	
device comments		Gerätekommentar		+M24263		+M24263		+M24263									
Kabelbezeichnung / wiring marking		BU		RD		GY		YE		X							
addressing		extern		Zielzeichen		Gerätebezeichnung		device marking		E-C31-M24263-1							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
addressing		extern		Zielzeichen		Gerätebezeichnung		device marking		E-C31-M24263-1							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							
terminal strip		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		JE-LIVCY 2x2x0,5 mm²							

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ELCAD (R)		Date 15.11.2005		ASU Kosice		AIR LIQUIDE Air Liquide AGS GmbH based:		Terminal connecting plan		K.70101		= -C31		page 140	
a As built revision		24.11.06 Kauwen date		replaced:		replaced:		-61100X1		F9792705-1		sh.			
b		made		replaced:		replaced:									
c		Date		replaced:		replaced:									
d		15.11.2005		replaced:		replaced:									
e		15.11.2005		replaced:		replaced:									
f		15.11.2005		replaced:		replaced:									
g		15.11.2005		replaced:		replaced:									
h		15.11.2005		replaced:		replaced:									
i		15.11.2005		replaced:		replaced:									
j		15.11.2005		replaced:		replaced:									
k		15.11.2005		replaced:		replaced:									
l		15.11.2005		replaced:		replaced:									
m		15.11.2005		replaced:		replaced:									
n		15.11.2005		replaced:		replaced:									
o		15.11.2005		replaced:		replaced:									
p		15.11.2005		replaced:		replaced:									
q		15.11.2005		replaced:		replaced:									
r		15.11.2005		replaced:		replaced:									
s		15.11.2005		replaced:		replaced:									
t		15.11.2005		replaced:		replaced:									
u		15.11.2005		replaced:		replaced:									
v		15.11.2005		replaced:		replaced:									
w		15.11.2005		replaced:		replaced:									
x		15.11.2005		replaced:		replaced:									
y		15.11.2005		replaced:		replaced:									
z		15.11.2005		replaced:		replaced:									
aa		15.11.2005		replaced:		replaced:									
ab		15.11.2005		replaced:		replaced:									
ac		15.11.2005		replaced:		replaced:									
ad		15.11.2005		replaced:		replaced:									
ae		15.11.2005		replaced:		replaced:									
af		15.11.2005		replaced:		replaced:									
ag		15.11.2005		replaced:		replaced:									
ah		15.11.2005		replaced:		replaced:									
ai		15.11.2005		replaced:		replaced:									
aj		15.11.2005		replaced:		replaced:									
ak		15.11.2005		replaced:		replaced:									
al		15.11.2005		replaced:		replaced:									
am		15.11.2005		replaced:		replaced:									
an		15.11.2005		replaced:		replaced:									
ao		15.11.2005		replaced:		replaced:									
ap		15.11.2005		replaced:		replaced:									
aq		15.11.2005		replaced:		replaced:									
ar		15.11.2005		replaced:		replaced:									
as		15.11.2005		replaced:		replaced:									
at		15.11.2005		replaced:		replaced:									
au		15.11.2005		replaced:		replaced:									
av		15.11.2005		replaced:		replaced:									
aw		15.11.2005		replaced:		replaced:									
ax		15.11.2005		replaced:		replaced:									
ay															

ELCAD (R)		Date		15.11.2005		ASU Kostice		AIR LIQUIDE		Terminal connecting plan		K.70101		F9792705-1		page 141	
a) As built		24.11.06		Kauwen check		replaced:		replaced:		-61200X1						sh.	
revision		date		name		stand.		Air Liquide AGS GmbH									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date		name		stand.		replaced:									
b) As built		Date		made		Damn-Kauwen		Air Liquide AGS GmbH									
revision		date															

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c	d	e	f	g
ELCAD (R)		Date 5.9.2005	Date made Damm-Kauven	
		check name date	replaced:	
		revision	ASU Kosice	
		AIR LIQUIDE AGS GmbH based:		Terminal connecting plan K.70101 = -C31
				-70706X1 page 43 sh.
				F9792705-1

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ELCAD (R)		Date		5.9.2005		ASU Kosice		AIR LIQUIDE		Terminal connecting plan		K.70101		=		+C31		F9792705-1		page 147	
device comments		Date		made		replaced:		Air Liquide AGS GmbH		-70820X1								sh.			
device comments		date		name		replaced:		based													
device comments		date		name		replaced:		based													
device comments		date		name		replaced:		based													
device comments		date		name		replaced:		based													
device comments		date		name		replaced:		based													
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device comments		date		name		replaced:		based													
device comments		date		name																	

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ELCAD (R)										Date		5.9.2005		ASU Kosice		AIR LIQUIDE		Terminal connecting plan		K.70101		" -C31		" page 1st sh.	
a		revision		date		name		check stand.		made		Date		Damn-Kauven		Air Liquide AGS GmbH		-77803X1							
addressing		Zielzeichen		extern		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking					
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
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Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
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Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking		Darstellungsort		refer															
Anschlußbezeichnung		terminal marking		Gerätebezeichnung		device marking																			

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ELCAD (R)		Date		5.9.2005		ASU Kosice		AIR LIQUIDE Air Liquide AGS GmbH based:		Terminal connecting plan		K.70101		=		-C31		F9792705-1		page '58		sh.	
a) As built		24.11.06		Kauven		replaced:		replaced:		-L04X1													
b) revision		date		name		stand.		replaced:															
c)		Date		made		made		made															
d)		Date		made		made		made															
e)		Date		made		made		made															
f)		Date		made		made		made															
g)		Date		made		made		made															
h)		Date		made		made		made															
i)		Date		made		made		made															
j)		Date		made		made		made															
k)		Date		made		made		made															
l)		Date		made		made		made															
m)		Date		made		made		made															
n)		Date		made		made		made															
o)		Date		made		made		made															
p)		Date		made		made		made															
q)		Date		made		made		made															
r)		Date		made		made		made															
s)		Date		made		made		made															
t)		Date		made		made		made															
u)		Date		made		made		made															
v)		Date		made		made		made															
w)		Date		made		made		made															
x)		Date		made		made		made															
y)		Date		made		made		made															
z)		Date		made		made		made															
aa)		Date		made		made		made															
ab)		Date		made		made		made															
ac)		Date		made		made		made															
ad)		Date		made		made		made															
ae)		Date		made		made		made															
af)		Date		made		made		made															
ag)		Date		made		made		made															
ah)		Date		made		made		made															
ai)		Date		made		made																	

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ELCAD (R)		Date		5.9.2005		ASU Kosice		AIR LIQUIDE		Terminal connecting plan		K.70101		=		-C31		F9792705-1		page 162		sh.	
a As built		24.11.06		Kauven		check		replaced:		replaced:		-93081X1											
b Revision		date		name		stand.		based:		based:													
c		Date		made		Damn.-Kauven		Date		made		Damn.-Kauven											
device comments		Gerätekommentar		device comments		Gerätekommentar		device comments		Gerätekommentar		device comments		Gerätekommentar		device comments		Gerätekommentar		device comments		Gerätekommentar	
Zielzeichen		intern		Zielzeichen		extern		Zielzeichen		extern		Zielzeichen		extern		Zielzeichen		extern		Zielzeichen		extern	
Kabelbezeichnung / wiring marking		Kabelbezeichnung / wiring marking		Kabelbezeichnung / wiring marking		Kabelbezeichnung / wiring marking		Kabelbezeichnung / wiring marking		Kabelbezeichnung / wiring marking		Kabelbezeichnung / wiring marking		Kabelbezeichnung / wiring marking		Kabelbezeichnung / wiring marking		Kabelbezeichnung / wiring marking		Kabelbezeichnung / wiring marking		Kabelbezeichnung / wiring marking	
Anschlussbezeichnung		terminal marking		Anschlussbezeichnung		terminal marking		Anschlussbezeichnung		terminal marking		Anschlussbezeichnung		terminal marking		Anschlussbezeichnung		terminal marking		Anschlussbezeichnung		terminal marking	
Gerätebezeichnung		device marking		Gerätebezeichnung		device marking		Gerätebezeichnung		device marking		Gerätebezeichnung		device marking		Gerätebezeichnung		device marking		Gerätebezeichnung		device marking	
Darstellungsort		refer		Darstellungsort		refer		Darstellungsort		refer		Darstellungsort		refer		Darstellungsort		refer		Darstellungsort		refer	
Drahtverbindung		wiring		Drahtverbindung		wiring		Drahtverbindung		wiring		Drahtverbindung		wiring		Drahtverbindung		wiring		Drahtverbindung		wiring	
Klemmenkommentar		terminal comment		Klemmenkommentar		terminal comment		Klemmenkommentar		terminal comment		Klemmenkommentar		terminal comment		Klemmenkommentar		terminal comment		Klemmenkommentar		terminal comment	
Laschenverbindung		fishpig		Laschenverbindung		fishpig		Laschenverbindung		fishpig		Laschenverbindung		fishpig		Laschenverbindung		fishpig		Laschenverbindung		fishpig	
Kleminnennummer		terminal number		Kleminnennummer		terminal number		Kleminnennummer		terminal number		Kleminnennummer		terminal number		Kleminnennummer		terminal number		Kleminnennummer		terminal number	
Anschlussbezeichnung		terminal marking		Anschlussbezeichnung		terminal marking		Anschlussbezeichnung		terminal marking		Anschlussbezeichnung		terminal marking		Anschlussbezeichnung		terminal marking		Anschlussbezeichnung		terminal marking	
Gerätebezeichnung		device marking		Gerätebezeichnung		device marking		Gerätebezeichnung		device marking		Gerätebezeichnung		device marking		Gerätebezeichnung		device marking		Gerätebezeichnung		device marking	
E-C31-93081-1		JE-LIYCY 2x2x0,5 mm ²		E-C31-93081-2		JE-LIYCY 2x2x0,5 mm ²		E-C31-93081-3		JE-LIYCY 2x2x0,5 mm ²		E-C31-93081-4		JE-LIYCY 2x2x0,5 mm ²		E-C31-93081-5		JE-LIYCY 2x2x0,5 mm ²		E-C31-93081-6		JE-LIYCY 2x2x0,5 mm ²	
E-C31-93081-7		2x2x0,5 mm ²		E-C31-93081-8		2x2x0,5 mm ²		E-C31-93081-9		2x2x0,5 mm ²		E-C31-93081-10		2x2x0,5 mm ²		E-C31-93081-11		2x2x0,5 mm ²		E-C31-93081-12		2x2x0,5 mm ²	
E-C31-93081-13		2x2x0,5 mm ²		E-C31-93081-14		2x2x0,5 mm ²		E-C31-93081-15		2x2x0,5 mm ²		E-C31-93081-16		2x2x0,5 mm ²		E-C31-93081-17		2x2x0,5 mm ²		E-C31-93081-18		2x2x0,5 mm ²	
E-C31-93081-19		2x2x0,5 mm ²		E-C31-93081-20		2x2x0,5 mm ²		E-C31-93081-21		2x2x0,5 mm ²		E-C31-93081-22		2x2x0,5 mm ²		E-C31-93081-23		2x2x0,5 mm ²		E-C31-93081-24		2x2x0,5 mm ²	
E-C31-93081-25		2x2x0,5 mm ²		E-C31-93081-26		2x2x0,5 mm ²		E-C31-93081-27		2x2x0,5 mm ²		E-C31-93081-28		2x2x0,5 mm ²		E-C31-93081-29		2x2x0,5 mm ²		E-C31-93081-30		2x2x0,5 mm ²	
E-C31-93081-31		2x2x0,5 mm ²		E-C31-93081-32		2x2x0,5 mm ²		E-C31-93081-33		2x2x0,5 mm ²		E-C31-93081-34		2x2x0,5 mm ²		E-C31-93081-35		2x2x0,5 mm ²		E-C31-93081-36		2x2x0,5 mm ²	
E-C31-93081-37		2x2x0,5 mm ²		E-C31-93081-38		2x2x0,5 mm ²		E-C31-93081-39		2x2x0,5 mm ²		E-C31-93081-40		2x2x0,5 mm ²		E-C31-93081-41		2x2x0,5 mm ²		E-C31-93081-42		2x2x0,5 mm ²	
E-C31-93081-43		2x2x0,5 mm ²		E-C31-93081																			