


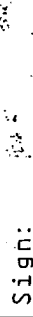
Eclipse Combustion bv

Zuolleweg 5
Postbus 37
2800 RA Gouda
Tel.: 0182-556222

CLIENT : TEKOMA BV
PROJECT Nr : CRYONORM PROJ. Nr-040241
DRAWING Nr : 605356
END USER : AIR LIQUIDE AGS PROJECT

K70101.007191

Burner :
Type :
Job Location :
Project Manager :
Remarks : CONTROL PANEL 605356.002

	Date: 16. DEC. 2004
	Sign: 
AS BUILT WIE AUSGEFÜHRT COMME CONSTRUIT	

Created at : 20. Aug. 2004
Last Rev : 16. Dec. 2004 by : MAS

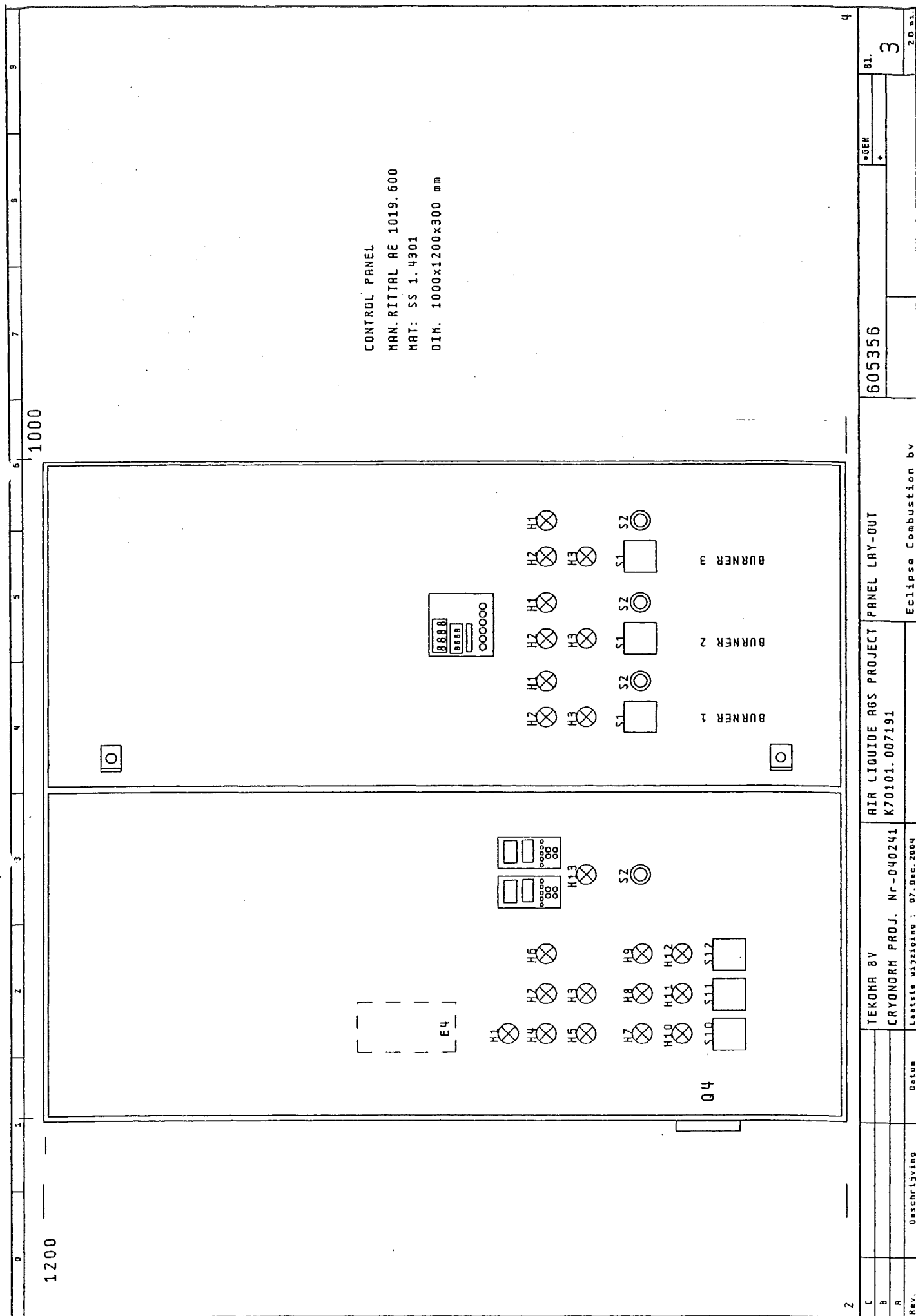
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Total nr of sheets : 38

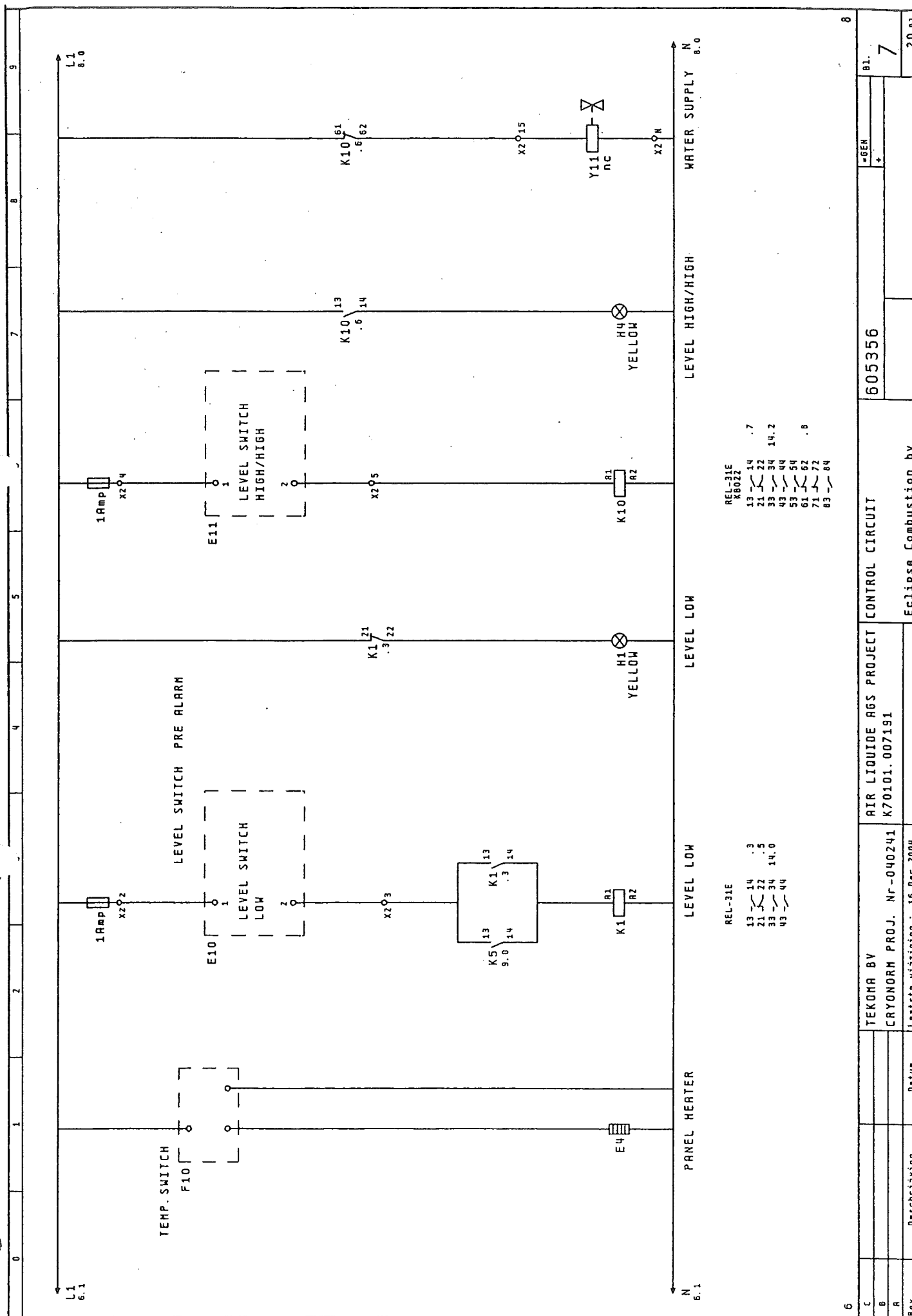
ELECTRICAL DIAGRAM FOR NATURAL GAS FIRED VAPORISER

C	TEKOMA BV	AIR LIQUIDE AGS PROJECT	COVER SHEET	605356	BL.	1
B	CRYONORM PROJ. Nr-040241	K70101.007191				
A						
Rev.	Omschrijving	Datum	Laatste wijziging : 16. Dec. 2004			20 bl.

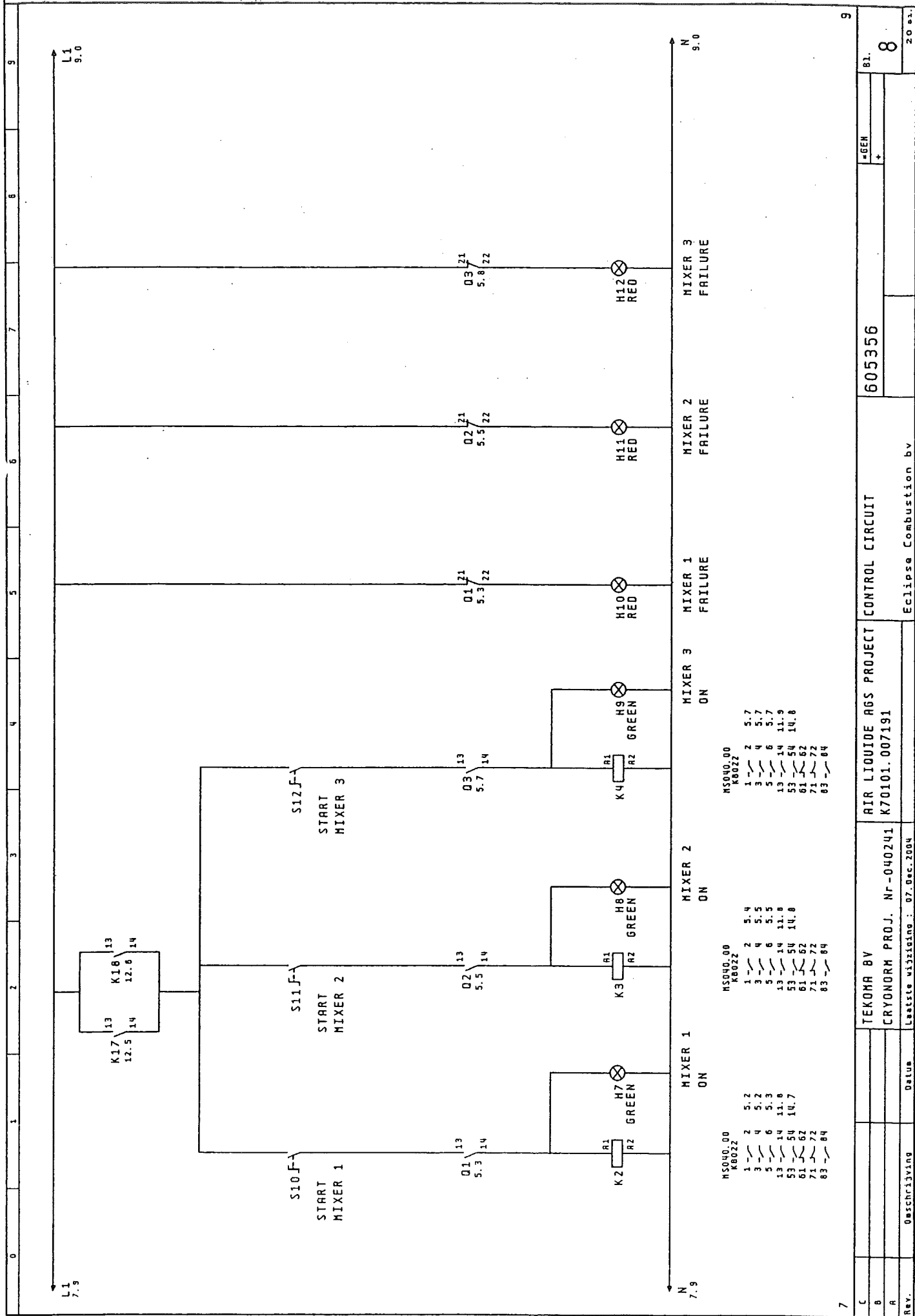
0	1	2	3	4	5	6	7	8	9
IDENTIFICATION OF CONDUCTORS ACC. EN 60 204-1									
POWER CIRCUITS AC AND DC		HOT N		BLACK LIGHT BLUE		X2=230V TERMINALS			
PROTECTIVE CONDUCTOR				GREEN/YELLOW		X3=ANALOG SIGNALS			
CONTROL CIRCUIT AC		N		RED LIGHT BLUE		X5=TERMINALS EXTERN SIGNALS			
CONTROL CIRCUIT DC				BLUE					
MEASURING CONDUCTORS				BROWN					
INTERLOCK CONTROL CIRCUITS(EXTERNAL POWER)				ORANGE					
USE FOR ANALOG CONTROL SIGNALS SHIELDED CABLE									
wartels aan onderzijde									
USED WIRE H05/7V-K NO WIRE Nr TEXT ON PLATES: ENGLISH									
3									

1	TEKOMA BV		AIR LIQUIDE AGS PROJECT	INFORMATION PAGE	605356	-GEN +	B1.	2	20 01.
C	CRYONORM PROJ. Nr-040241		K70101.007191	Eclipse Combustion bv					
B	Laatste wijziging : 07. Dec. 2004								
A									
Rev.	Omschrijving	Datum							

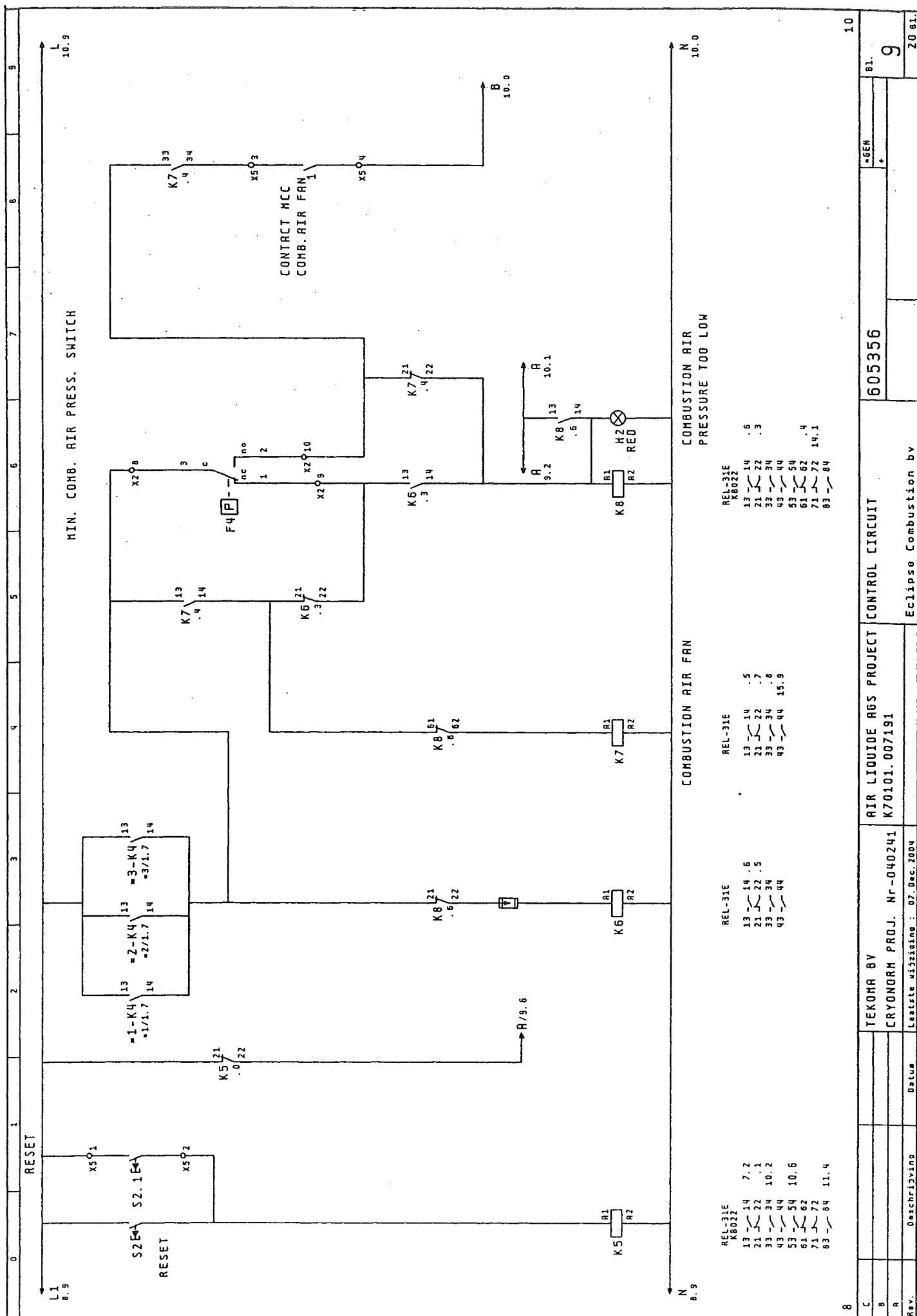




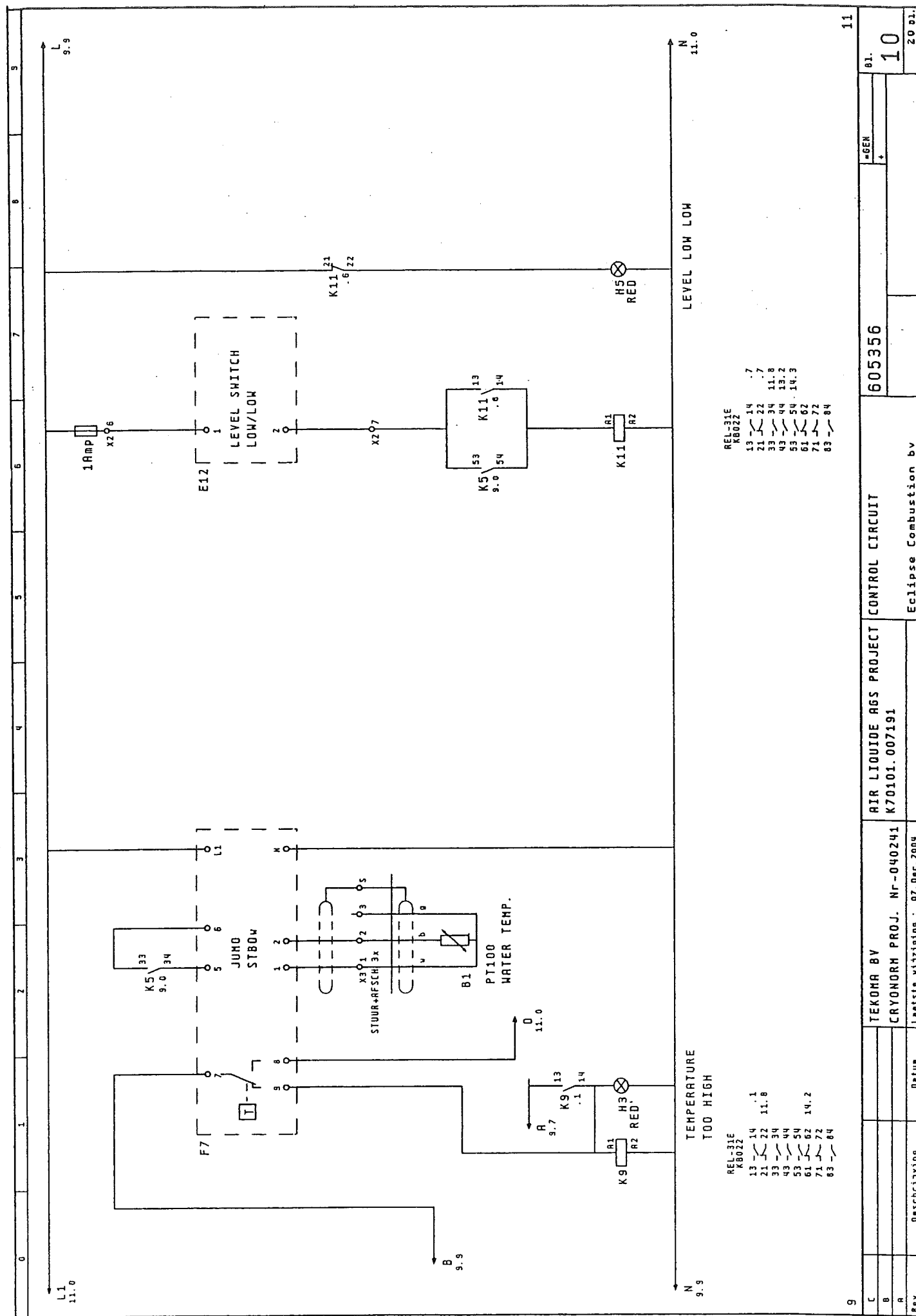
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C			TEKOMA BV	Nr-040241			+ GEN	
B								7
R								20 m
	Description	Date						
	Liquidation - 15 Dec 2000							
	Eclipse Combustion by							



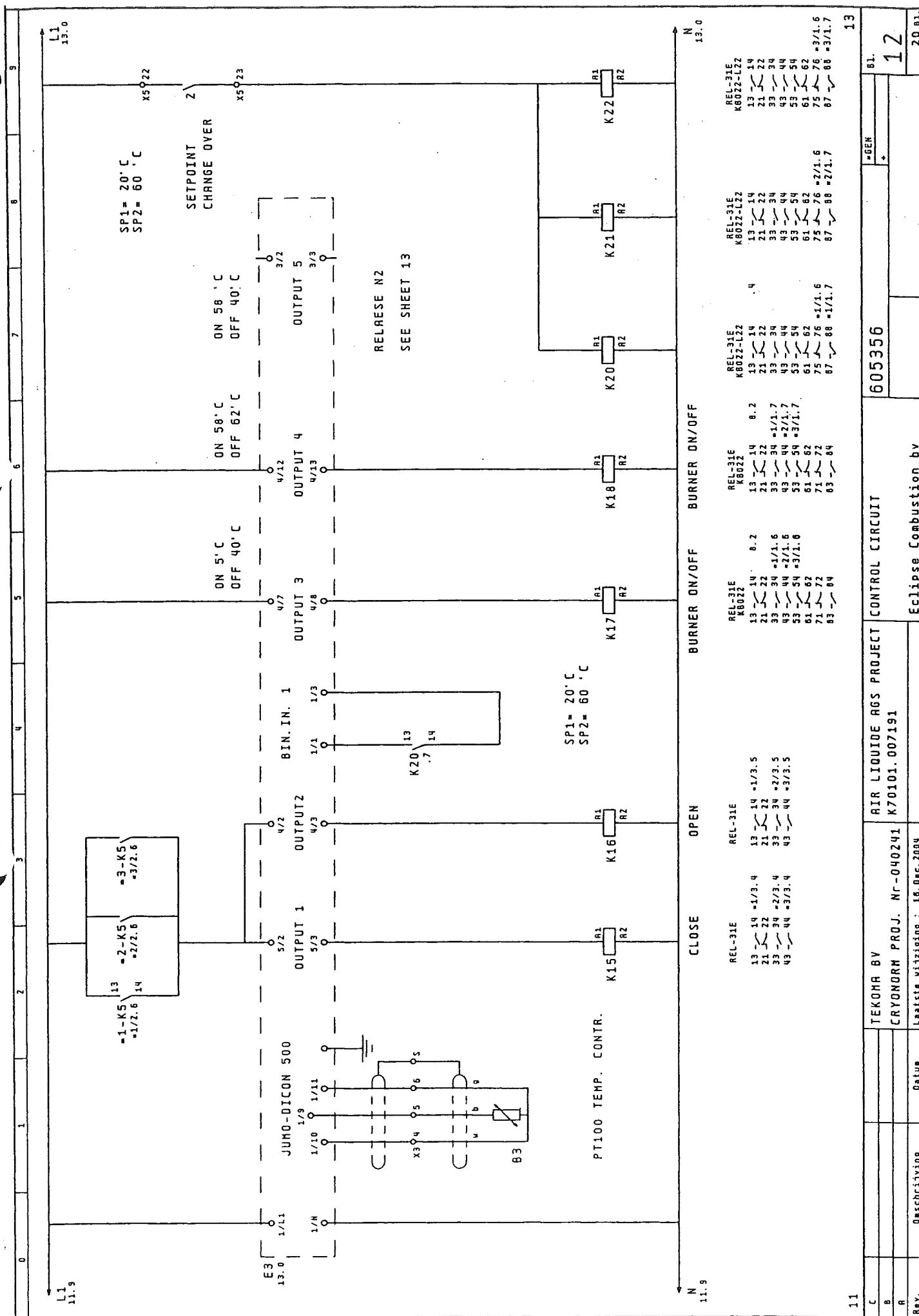
7	TEKOMA BV		AIR LIQUIDE AGS PROJECT		CONTROL CIRCUIT		605356		81.		8		20	
C														
B														
A														
Rev.	Omschrijving		Datum		Laatste wijziging: 07. Dec. 2004		CRYONORM PROJ. Nr-040241		Eclipse Combustion bv		+ GEN		20	

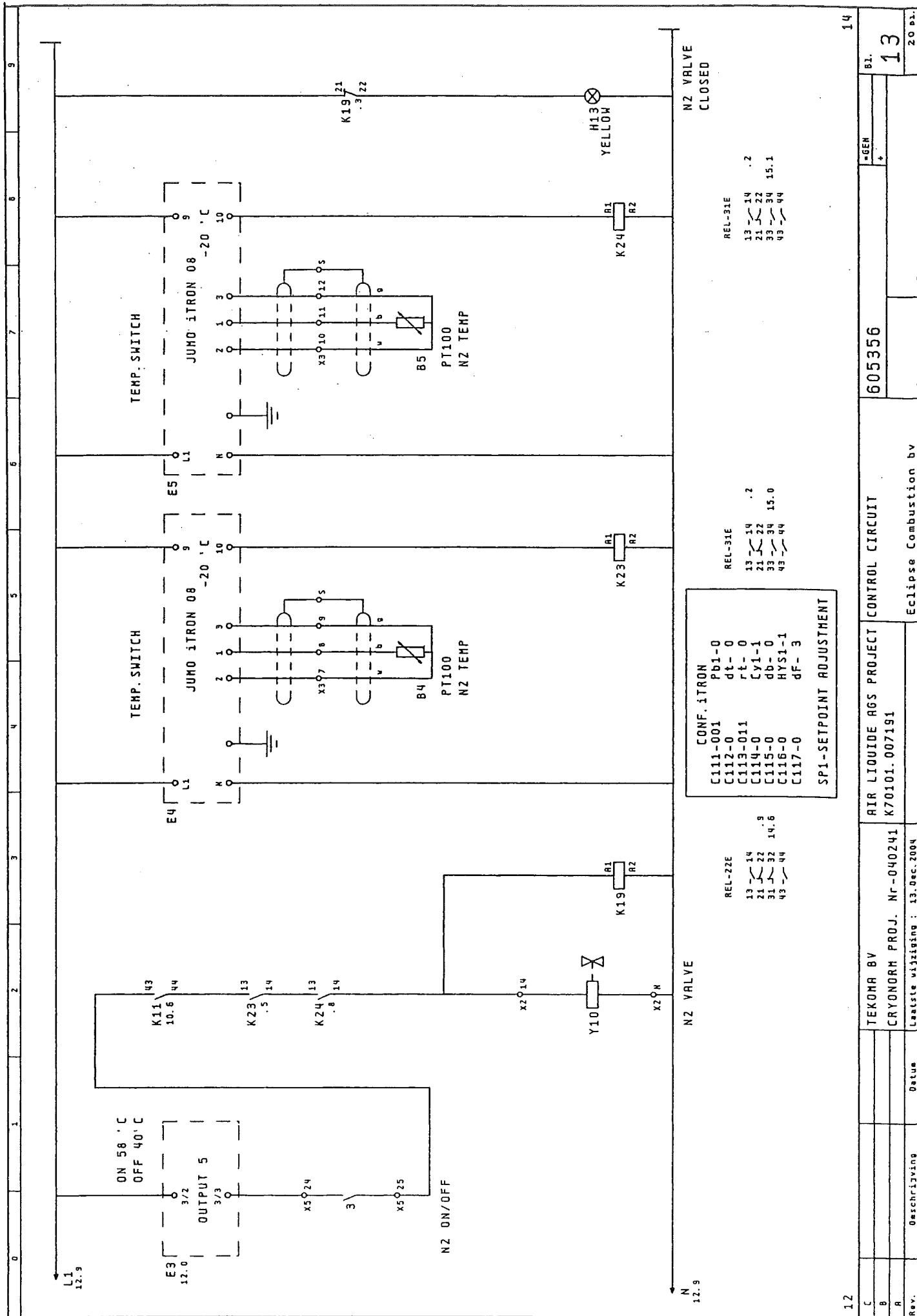


C		TEKORA BV	AIR LIQUIDE AGS PROJECT	605356	81.
B					
A		CRYONORM PROJ. Nr-040241			
Rev.	Omschrijving	Datum			
		Laatste wijziging : 07. Dec. 2004			9
			Eclipse Combustion bv		2001.

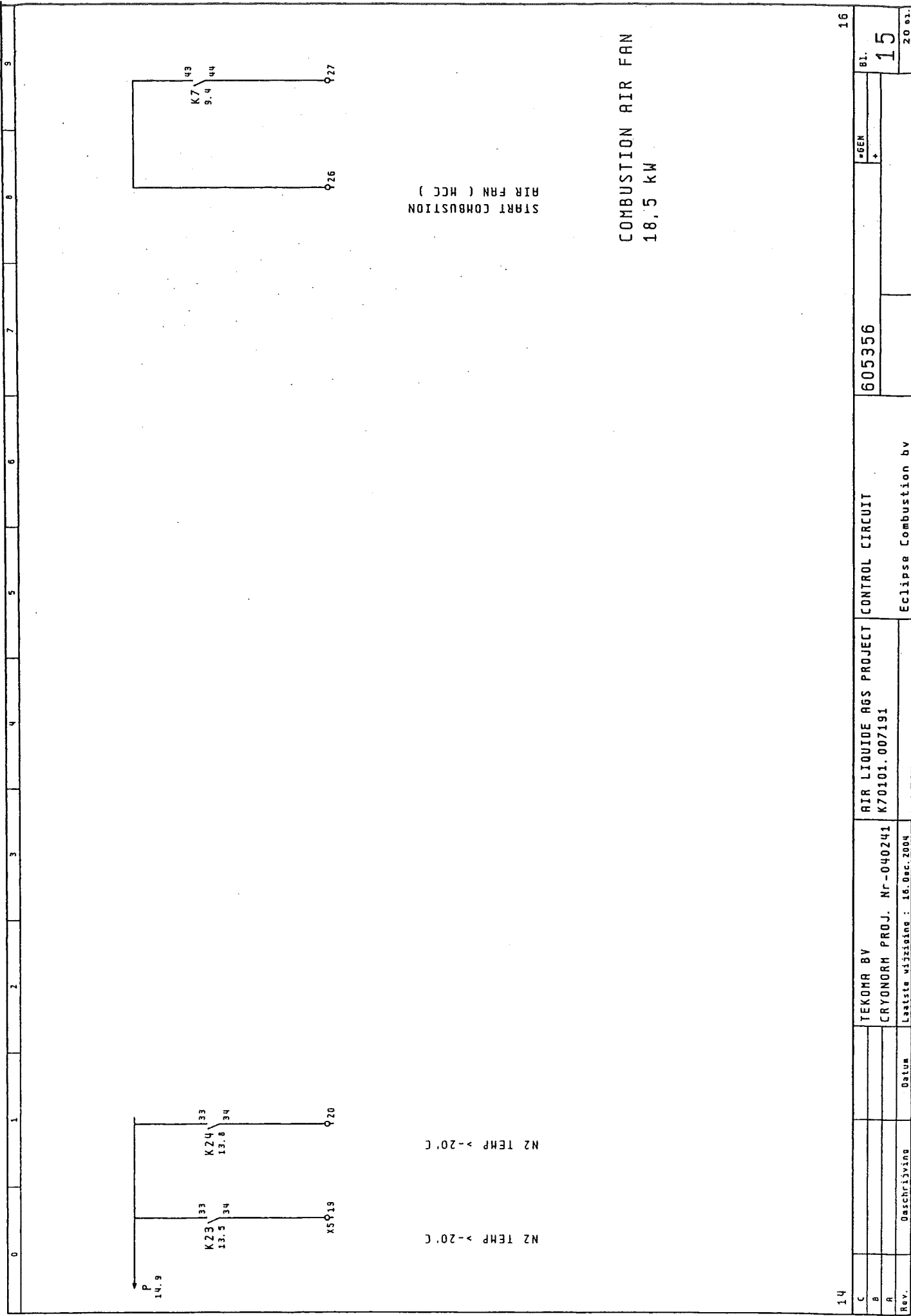


9		11	
C	TEKOMA BV	AIR LIQUIDE AGS PROJECT	CONTROL CIRCUIT
B	CRYONORM PROJ. Nr-040241	K70101. 007191	605356
A			
Rev.	Omschrijving	Datum	Leetste wijziging : 07. Dec. 2004
			Eclipse Combustion bv
			GEN
			10
			20 bl.





12	14
C	13
B	20
A	21
Rev.	20
Omschrijving	605356
Datum	13
TEKOMA BV	605356
CRYONORM PROJ. Nr-040241	605356
Laatste wijziging: 13 Dec 2004	605356
CONTROL CIRCUIT	605356
AIR LIQUIDE AGS PROJECT	605356
K70101.007191	605356
Eclipse Combustion bv	605356



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Rev.	81.	20 ei.
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Q993	Q994	Q995
Q996	Q997	Q998
Q999	Q1000	Q1001

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=GEN-Q4									
	/5.0	/5.0	/5.1	/5.1					
Con.									
Nr	L1	L2	L3	PE					
	1	2	3	PE					

1	2	3	PE
L1	L2	L3	PE

9

SUPPLY 3~400V 50C/5 KVA

" " "

0	1	2	3	4	5	6	7	8	9
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=GEN-X1									
Con.									
Nr									
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1	2	3	PE	1	2	3	PE	97	98
1	2	3	PE	1	2	3	PE	99	100

-M1

-M2

-M3

MIXING MOTOR 1

" " " " " " " " " " " "

MIXING MOTOR 2

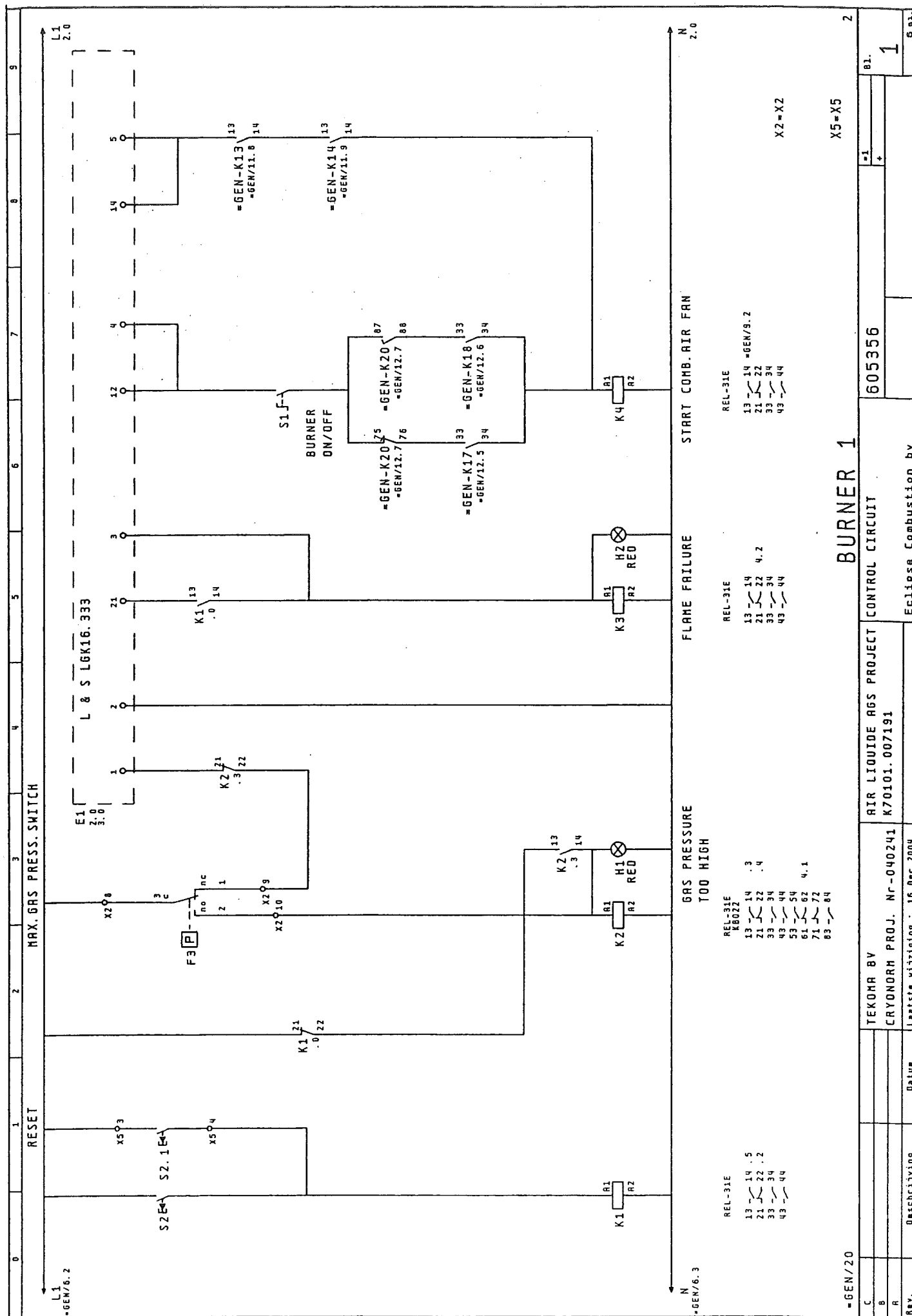
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MIXING MOTOR 3

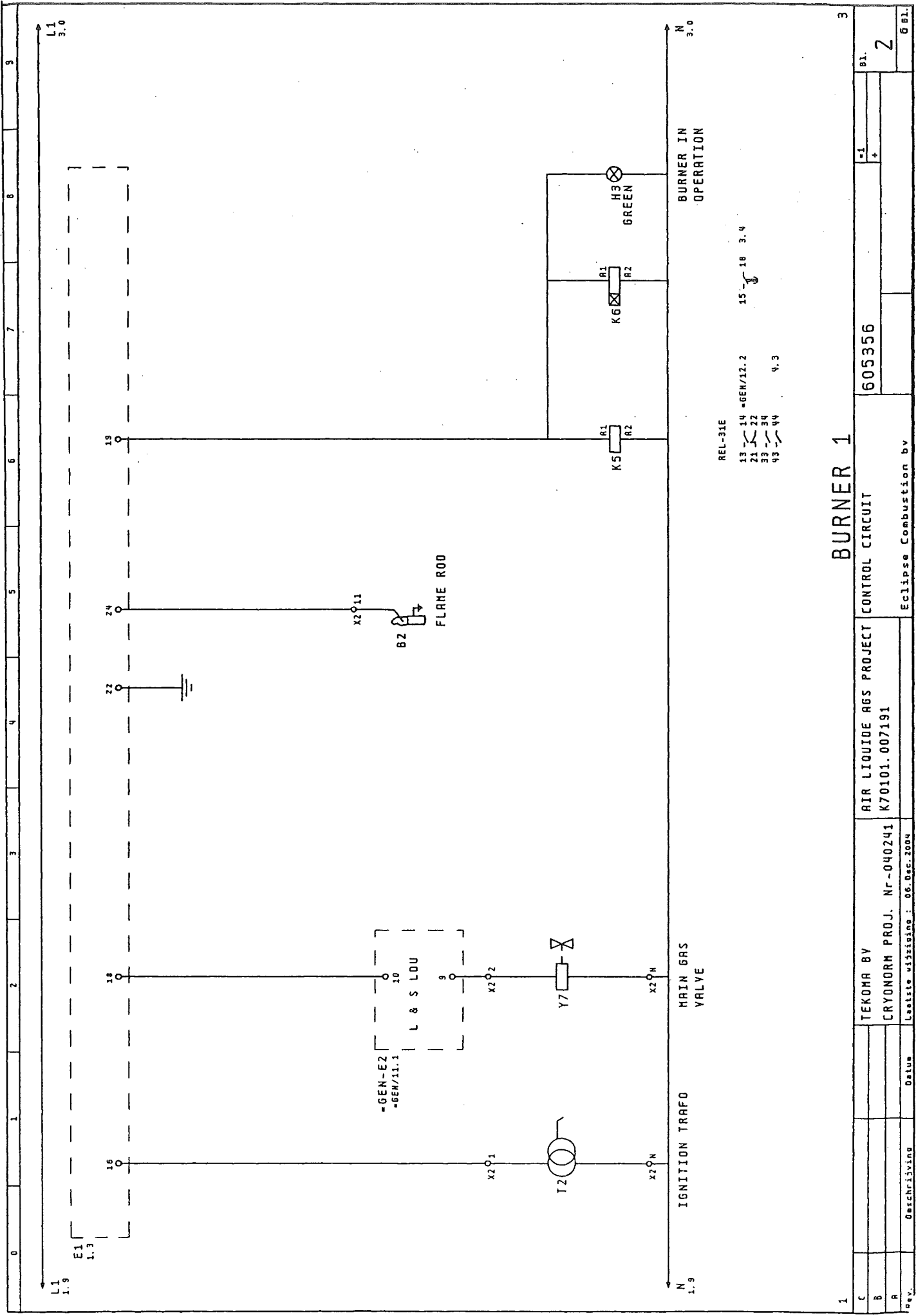
" " " " " " " " " " " "

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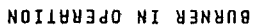
= GEN - X5																			



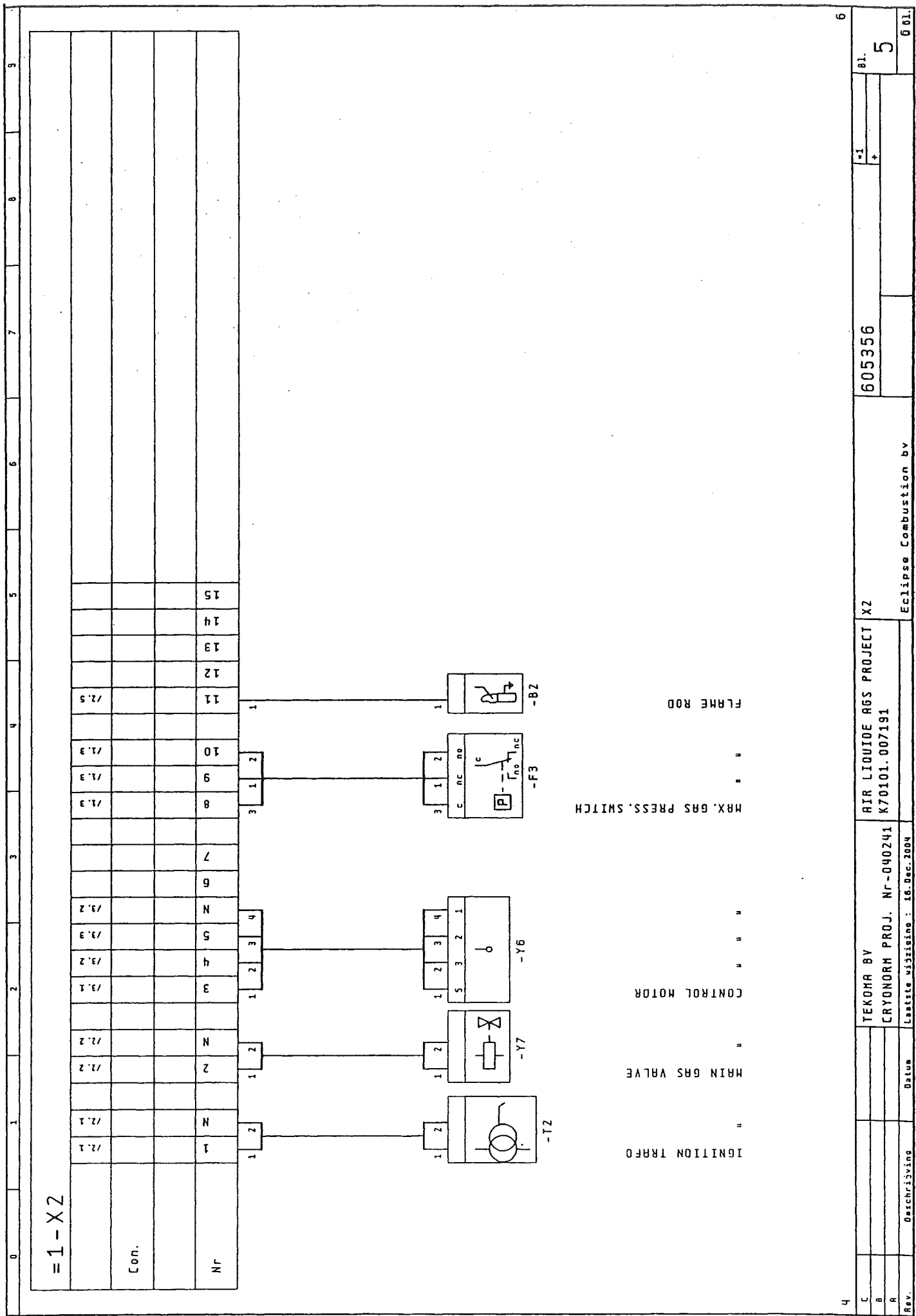
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B					
R	CRYONORM PROJ. Nr-040241	K70101.007191			1
REV.	Description	Date	Eclipse Combustion by		
			81.		



1	BURNER 1		605356	2	601
C	TEKOMA BV		AIR LIQUIDE AGS PROJECT	Eclipse Combustion bv	
B	CRYONORM PROJ. Nr-040241		K70101.007191		
A	Laatste wijziging : 06.05c.2004				
Rev.	Beschrijving	Datum			



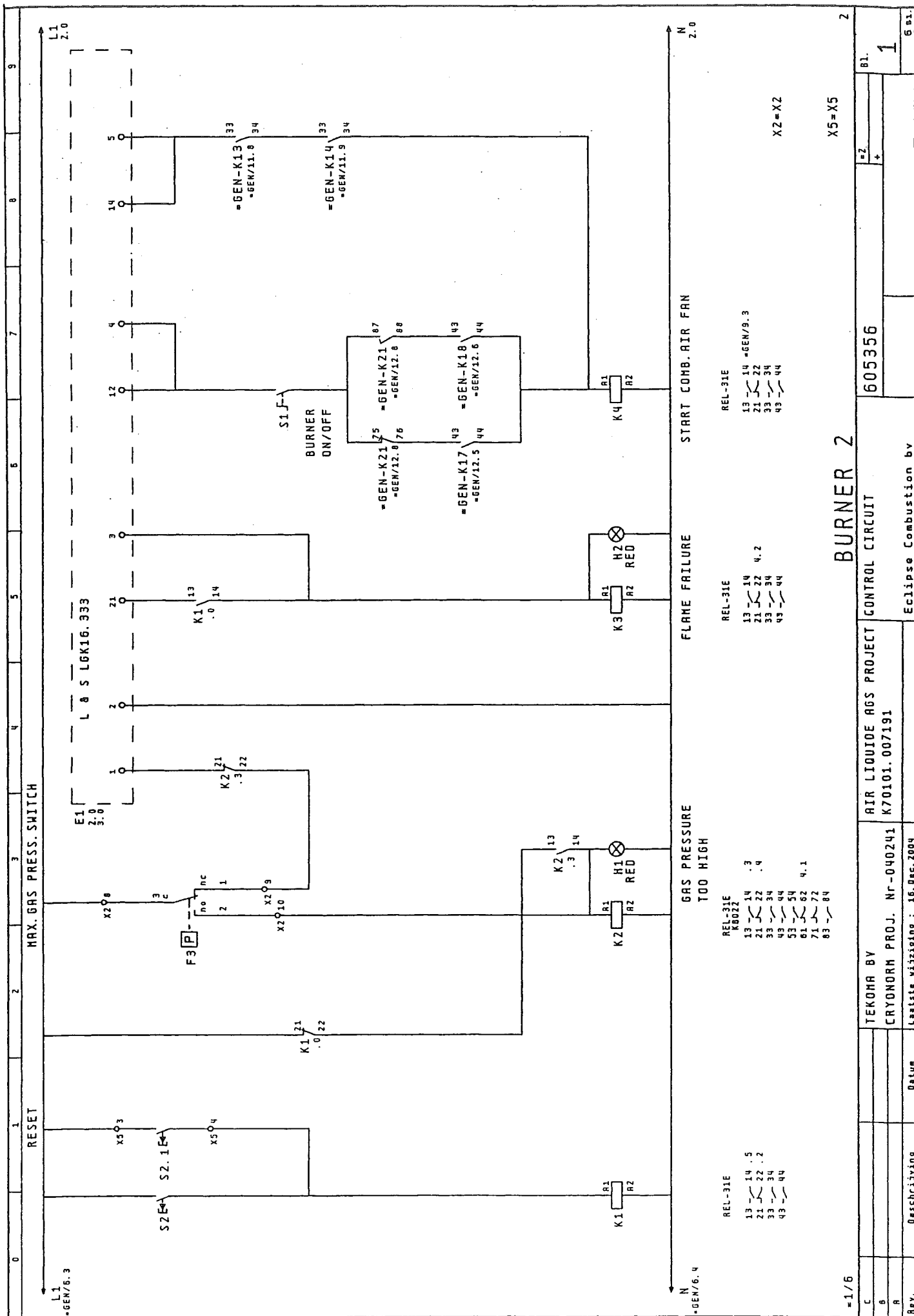
605356

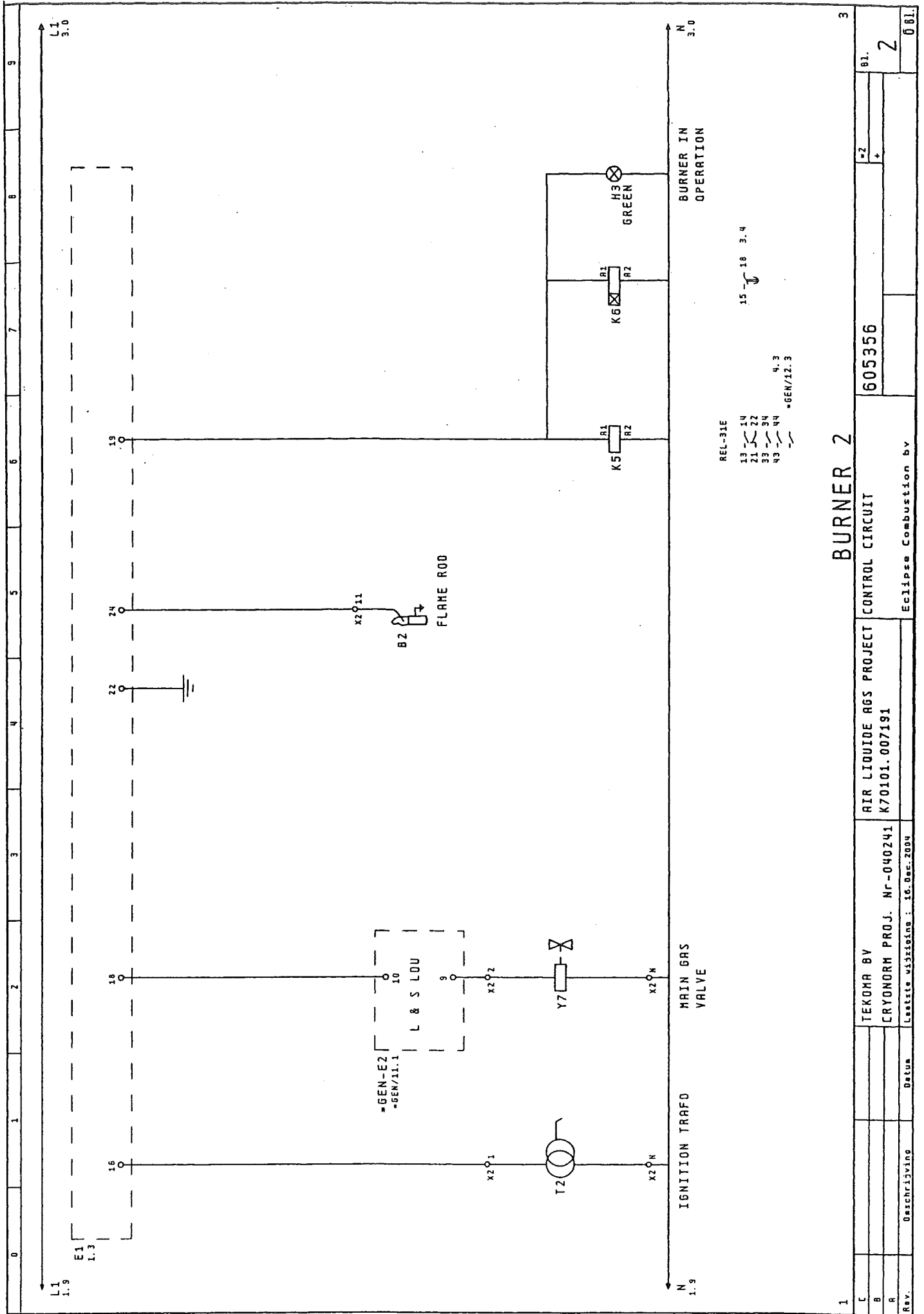


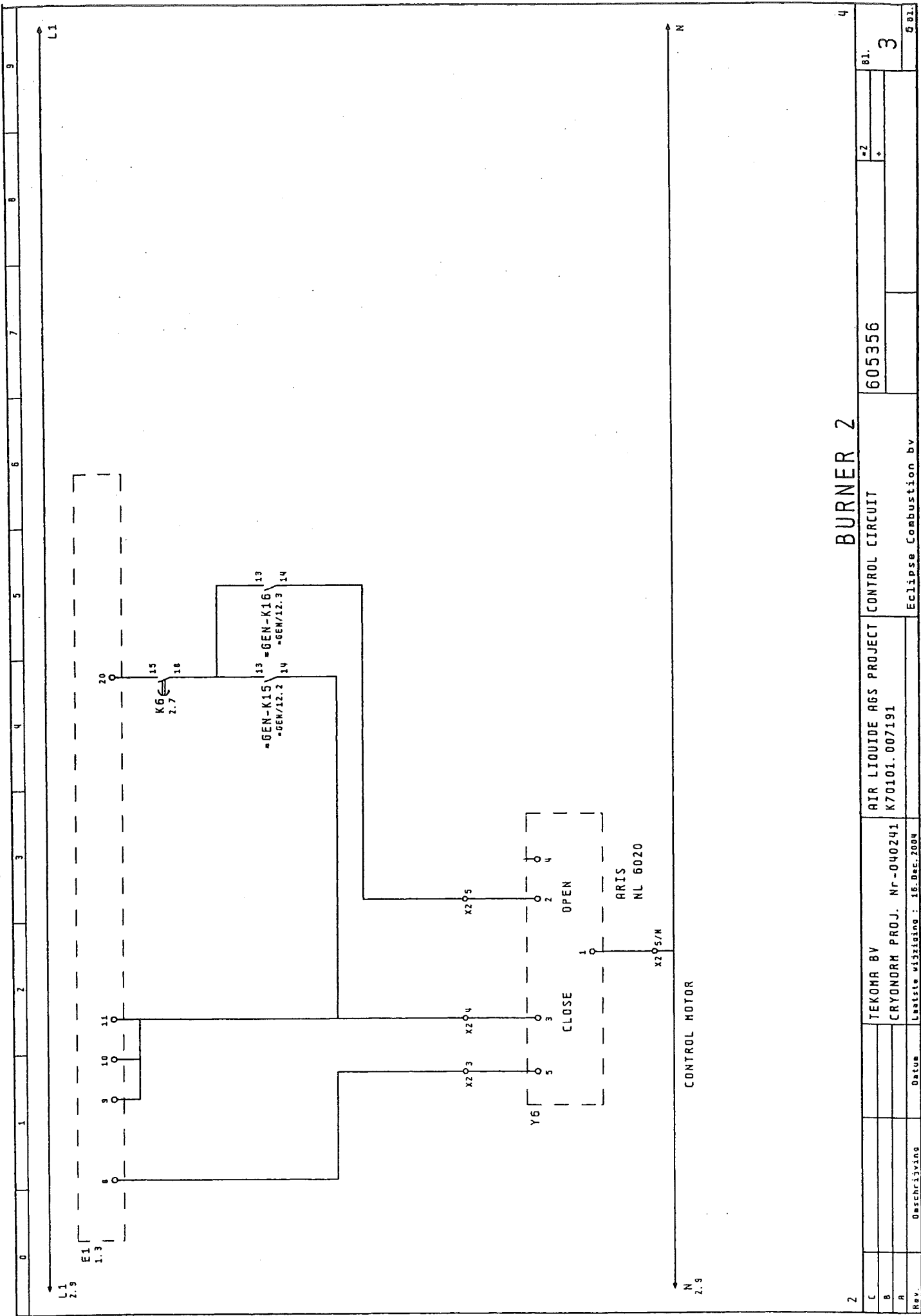
C			TEKOMA BV	AIR LIQUIDE AGS PROJECT X5	605356	.01	8L.
B				K70101.007191		+	
R					Eclipse Combustion bv		6
Rev.	Geschriftiging	Datum	Laatste wijziging : 16-Dec-2004				GBL.

$$= 1 - X_5$$
[illegible]

RESET
-
COMM
GAS PRESSURE TOO HIGH
FLAME FAILURE
BURNER IN OPERATION







BURNER 2

2	TEKOMA BV		AIR LIQUIDE AGS PROJECT		605356		81.	4
C			CRYONORM PROJ. Nr-040241				81.	3
B			K70101.007191				81.	3
A			Eclipse Combustion bv				81.	3
Rev.	Beschrijving		Datum		Laatste wijziging: 16. Dec. 2004			

0	1	2	3	4	5	6	7	8	9
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COM

GAS PRESSURE
TOO HIGH

FLAME FAILURE

BURNER IN OPERATION

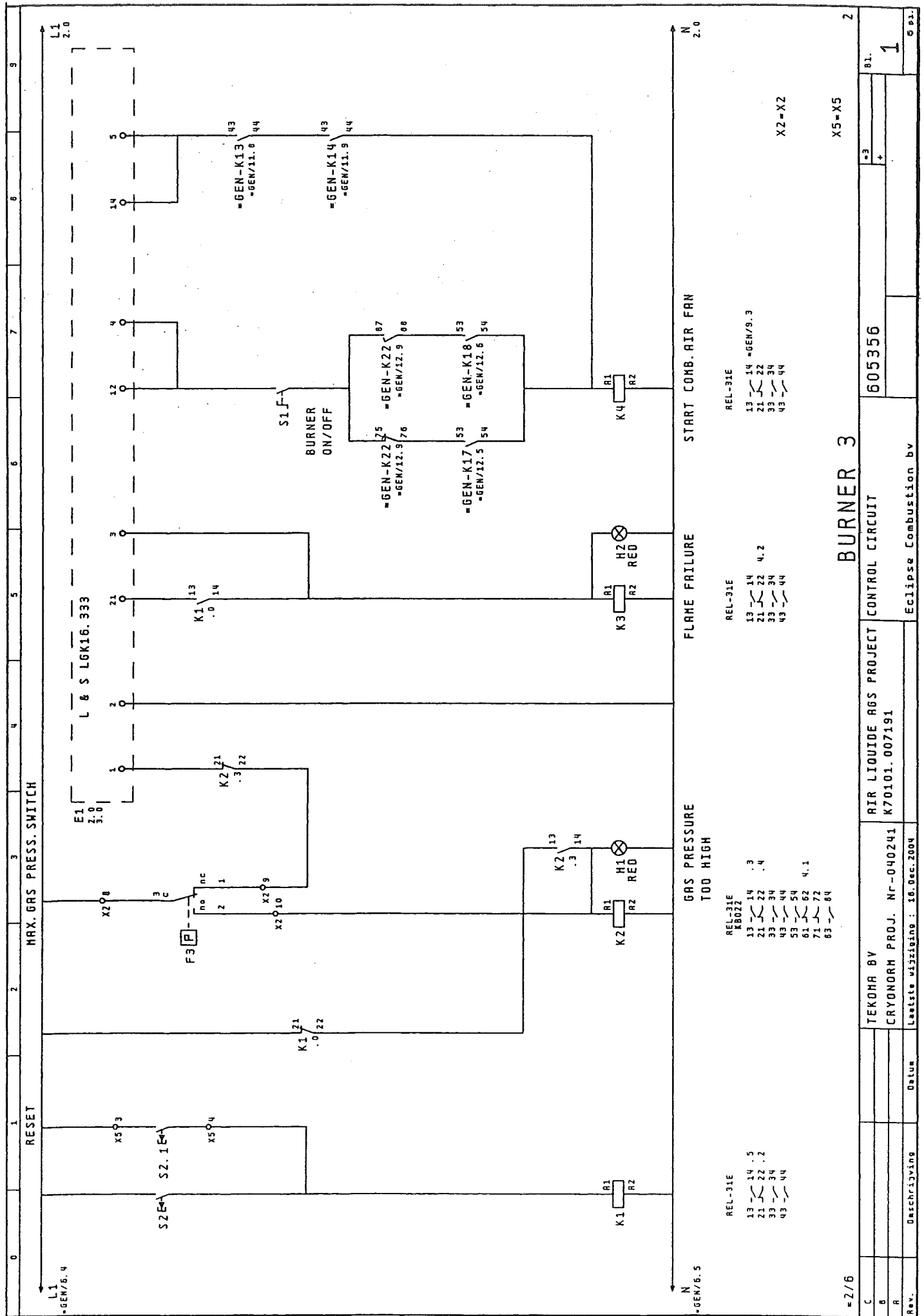
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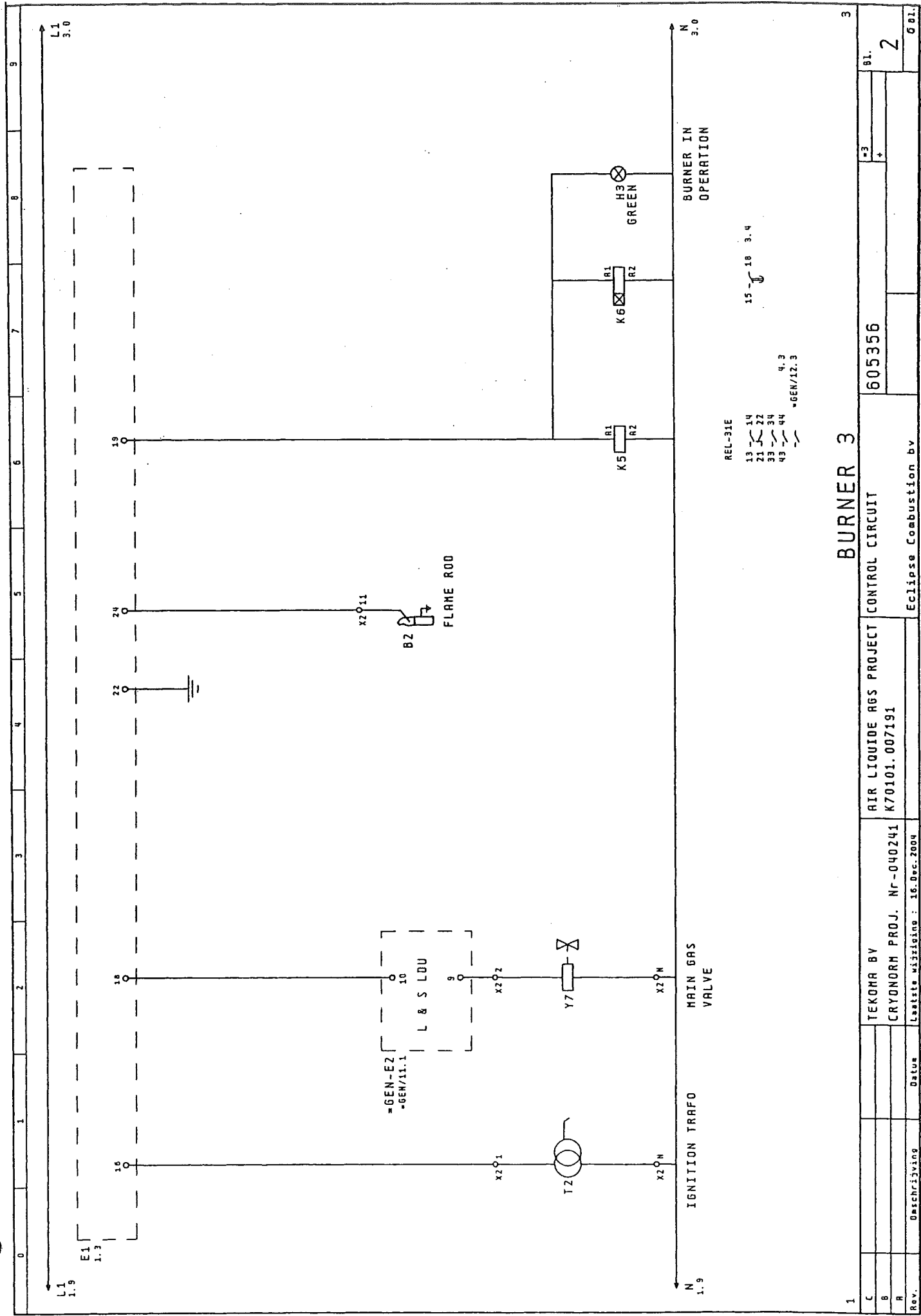
graph LR
    K2_15[K2 1.5] --- K3_21[K3 2.1]
    K3_21 --- K5_26[K5 2.6]
    K5_26 --- Q5((Q5))
    K2_15 --- 62[62]
    K3_21 --- 21[21]
    K5_26 --- 44[44]
  
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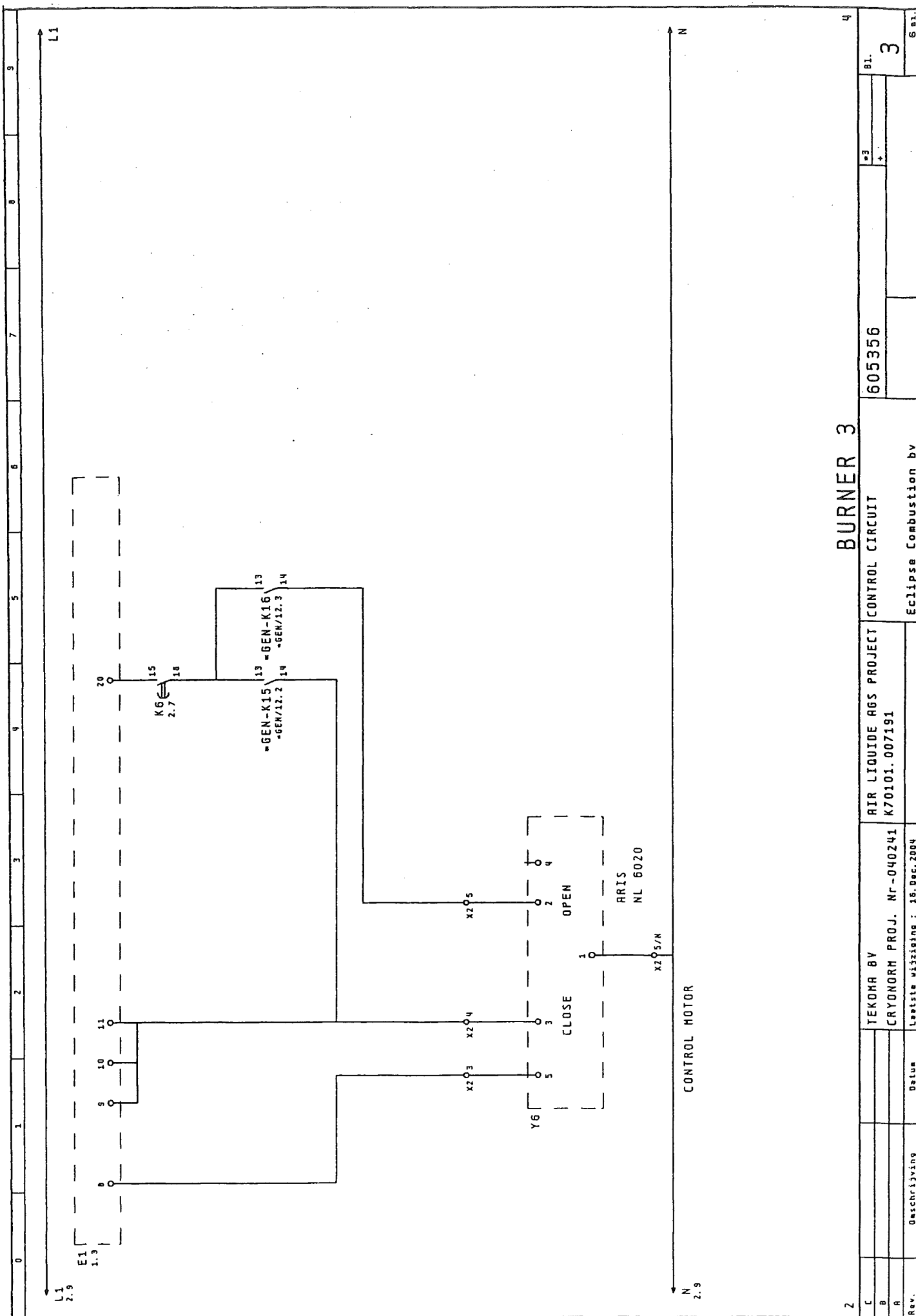
3	TEKOMA BV				AIR LIQUIDE AGS PROJECT		605356		5
C	CRYDNORM PROJ. NR-040241				K70101.007191		CONTROL CIRCUIT		4
B	Lastste wijziging : 07. Dec. 2004						Eclipse Combustion bv		4
A	Datum								6 al.
Rev.	Omschrijving								6 al.

[illegible]

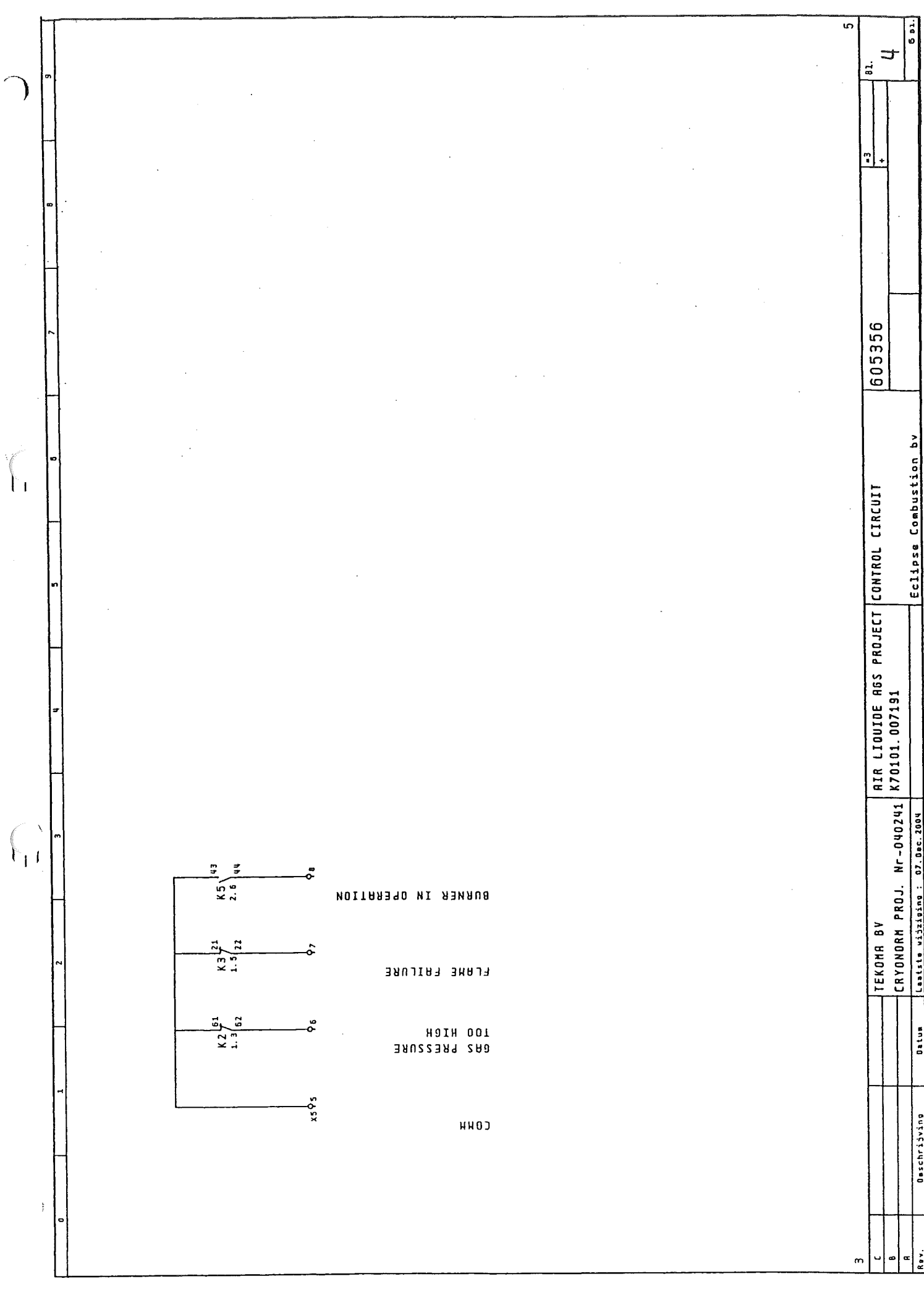
C		TEKONA BV	AIR LIQUIDE AGS PROJECT	X2	605356	8L
B		CRYONORM PROJ. Nr-040241	K70101.007191			
A						
Rev.	Deschrijving	Laatste wijziging : 16. Dec. 2004		Eclipse Combustion bv		8L







Z		BURNER 3		4	
C		TEKOMA BV	AIR LIQUIDE AGS PROJECT	CONTROL CIRCUIT	605356
B		CRYONORM PROJ. Nr-040241	K70101.007191		
R					
REV.		Omschrijving	Datum	Eclipse Combustion bv	
			Lastste wijziging : 18.Decr.2004		
					BL.
					3
					SAL.



3	5				
C		TEKORA BV	AIR LIQUIDE AGS PROJECT	605356	81.
B		CRYONORM PROJ. Nr-040241	K70101.007191		4
A					
Rev.	Beschrijving	Datum	Laatste wijziging : 07-Dec-2004	Eclipse Combustion bv	605356

MATERIAL SPECIFICATION

Project nr: 605356

Art. code : 605356.002

Control panel according to
electrical diagram 6.....

E-code	Quantity	Art. code	Description
	3 st	00.9123030.00	Burner control unit LGK 16.333 excl.Base 220/240V 50/60Cy Acc EN298 Make: Landis & Staefa
	3 st	00.9123028.02	Mounting bracket for LGK. Make: Landys & Staefa
F7	1 st	00.9103002.01	High limit temperature switch 701130/0253-001-02/205,245 analog, non-indicating, (STBOW 230V 48-63Hz, range 0-400 degr.C, input Pt100, acc. to DIN 3440 Jumo
E2	1 st	00.9123302.00	Leaktest contr. LDU11.523A27 220/240V 50/60Hz excl. mounting base Make: Landis & Staefa
E2	1 st	00.9123302.02	Mounting base AGM11 for LDU
E4/5	2 st	00.9104004.01	Max. temperature limit switch iTRON 08 Type 702042-88-888-000-23-061 Input : TC/PT100/mA/V/ reconf. Output : relais Make : Jumo
E3	1 st	605356.251	Temperature controller Dicon 500 703570-082-1100-11111-23-00 -00-061 Analog input 1+2 universal Output 1+2 control 3 pnt.step Output 3+4+5 relais Englisch doc. Supply 110/230v AC Jumo

MATERIAL SPECIFICATION

Project nr: 605356

Art. code : 605356.002

Control panel according to
electrical diagram 6.....

E-code	Quantity	Art. code	Description
	1 st	605356.250	Control panel AE 1019.600 Mat SS 1.4301 Dim.1000x1200x300mm Rittal
Q4	1 st	00.9127015.00	Main switch 4P 194L-E20-1764 Ith 25Amp 7,5kW AC23A Allen Bradley
F10	1 st	605356.252	Temperature switch SK3110.000 Rittal
E4	1 st	605356.253	Panel heater SK3107.000 110/240v 130 Watt Rittal
T1	1 st	00.9122007.08	Transformer TR195.49 1000VA Input 200/230/380/400/440/460 480/500 50/60Hz Output 115/230V
Q1/2/3	3 st	MB304.00	Motor protectionswitch PKZM0-4, 2,5-4A Klockner Moeller
Q1/2/3	3 st	605356.255	Auxiliary contact NHI12-PKZ0 1xno+2xnc Moeller
K2/3/4	3 st	MS040.00	Motorstarter 100-CO9KF10-230V50/60Hz 4,3 kW AC3 400v Allen Bradley
K..	33 st	HR031.00	Auxiliary relay 700-CF310KF-230V50/60Hz-31E Allen Bradley
K19	1 st	HR022.00	Auxiliary relay 700-CF220KF-230V50/60Hz-22E Allen Bradley

MATERIAL SPECIFICATION

Project nr: 605356

Art. code : 605356.002

Control panel according to
electrical diagram 6.....

E-code	Quantity	Art. code	Description
K..	13 st	KB022.00	Auxiliary contactblock 100-FA22 Allen Bradley
K..	4 st	KB022.10	Auxiliary contactblock 100-FAL22 Allen Bradley
K6	1 st	TB000.10	Timeblock on delay 196MT30S 4-30 sec Allen Bradley
	3 st	605356.254	Timer universal 700-FSM3UU23 1 sec..60 h Supply 24..240V Allen Bradley
S..	6 st	00.9127016.00	On/off switch 194L-E12-1751 Allen Bradley
S..	4 st	DK010.00	Pushbutton, assy, black, 1no Allen Bradley
H..	15 st	SA001.10	Signallamp, assy, red Allen Bradley
H..	6 st	SA001.20	Signallamp, assy, green Allen Bradley
H..	3 st	SA000.40	Lamplens, 800EP-P5, yellow Allen Bradley
X..	0 st	AK505.00	Terminal UK 5 N Phoenix