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Circuit diagram

Customer :
 Plant designation : PA-CONTROL 4 8A Var. F
 Project number : 1033744

Type : Variant F
 Manufacturing date : 2002
 Incoming supply : 230V/50Hz/16A
 Feeding : 3x1,5mm²
 Fuse protection : 16A
 Control voltage : 24V

Created on : 16.12.02 Highest Page No. : 30
 Project leader : A.Pfeiffer
 Last changed : 29.06.05
 Editor : VOL

Editor		Date		Title page	Customer	Drawing-no. IEF	Page no.
Designer:	VOL	16.12.02				1033744	1
Modification:	VOL	29.06.05			Final customer	Drawing-no. customer	Pages
Print:		11.01.07					30
System:	Place:			PA-CONTROL 4 8A Var. F			

Modification information

WUPB002D 24.02.1994

No.	Date	Editor	Modifications	Short name	Page

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Modification information
 PA-CONTROL 4 8A Var. F

Customer	Drawing-no. IEF	Page no.
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Directory

WUPJ0010 24.02.1994

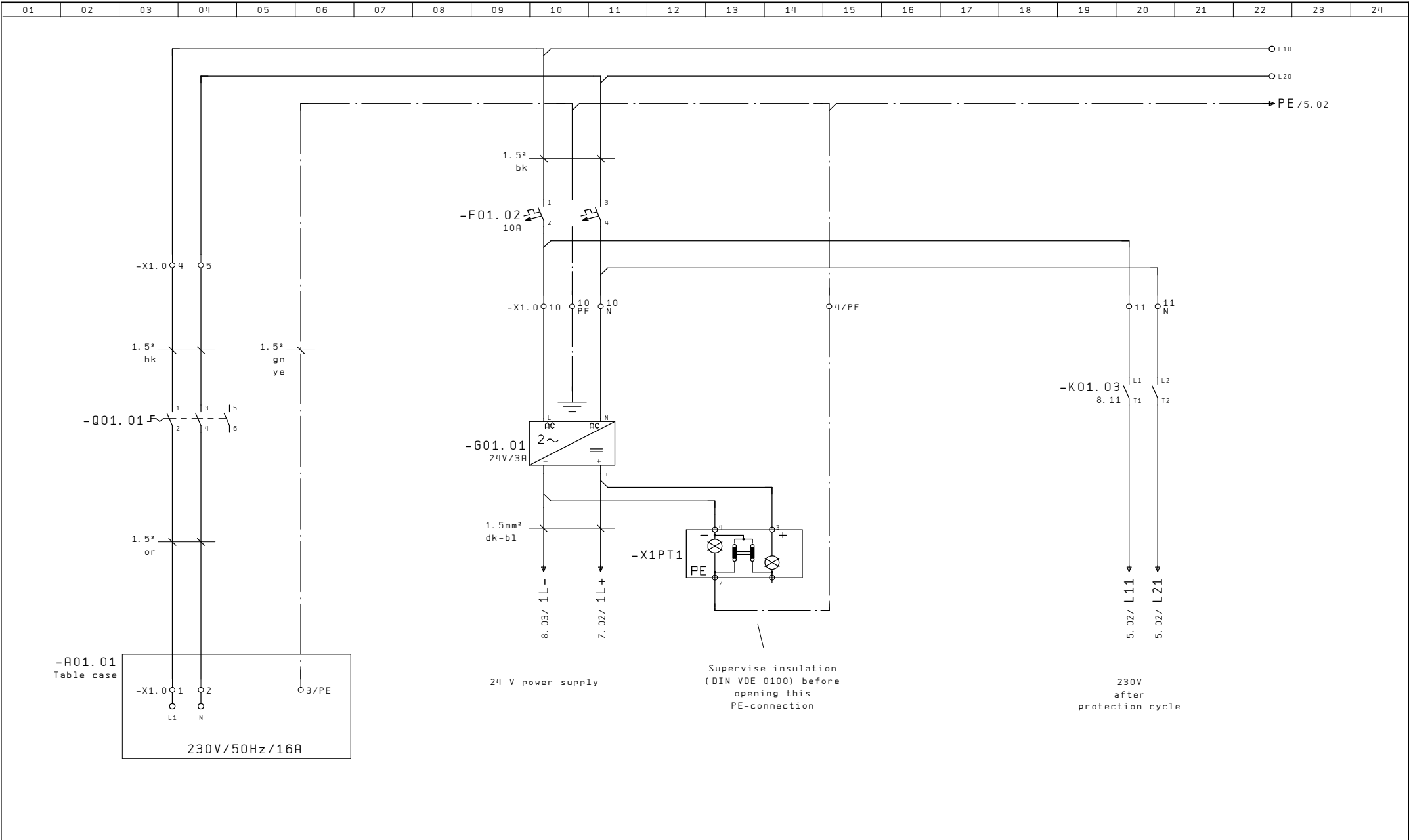
Page	Page description	Additional page field	Date	Editor
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2	Modification information		29.06.2005	VOL
3	Contents		29.06.2005	VOL
4	Main connection - 24V Power supply		29.06.2005	VOL
5	Power supply connection LV-unit 1		29.06.2005	VOL
6	Power supply connection LV-unit 2		29.06.2005	VOL
7	Emergency stop + doors		29.06.2005	VOL
8	Protection circle		29.06.2005	VOL
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13	PAC Inputs I1-I8		29.06.2005	VOL
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16	PAC Outputs O9-O16		29.06.2005	VOL
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18	PA-CONTROL limit switch axes 5-8 PLS7		29.06.2005	VOL
19	PLS7 pulse transmitter card axes 1-4		29.06.2005	VOL
20	PLS7 pulse transmitter card axes 5-8		29.06.2005	VOL
21	Power card 1 A1-axis 2 phase stepper motor		29.06.2005	VOL
22	Power card 2 A2-axis 2 phase stepper motor		29.06.2005	VOL
23	Power card 3 A3-axis 2 phase stepper motor		29.06.2005	VOL
24	Power card 4 A4-axis 2 phase stepper motor		29.06.2005	VOL
25	Power card 1 A1-axis 5-phase stepper motor		29.06.2005	VOL
26	Power card 2 A2-axis 5-phase stepper motor		29.06.2005	VOL
27	Power card 3 A3-axis 5-phase stepper motor		29.06.2005	VOL
28	Power card 4 A4-axis 5-phase stepper motor		29.06.2005	VOL
29	Assembly mounting plate		29.06.2005	VOL
30	Assembly control panel		29.06.2005	VOL

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PA-CONTROL 4 8A Var. F

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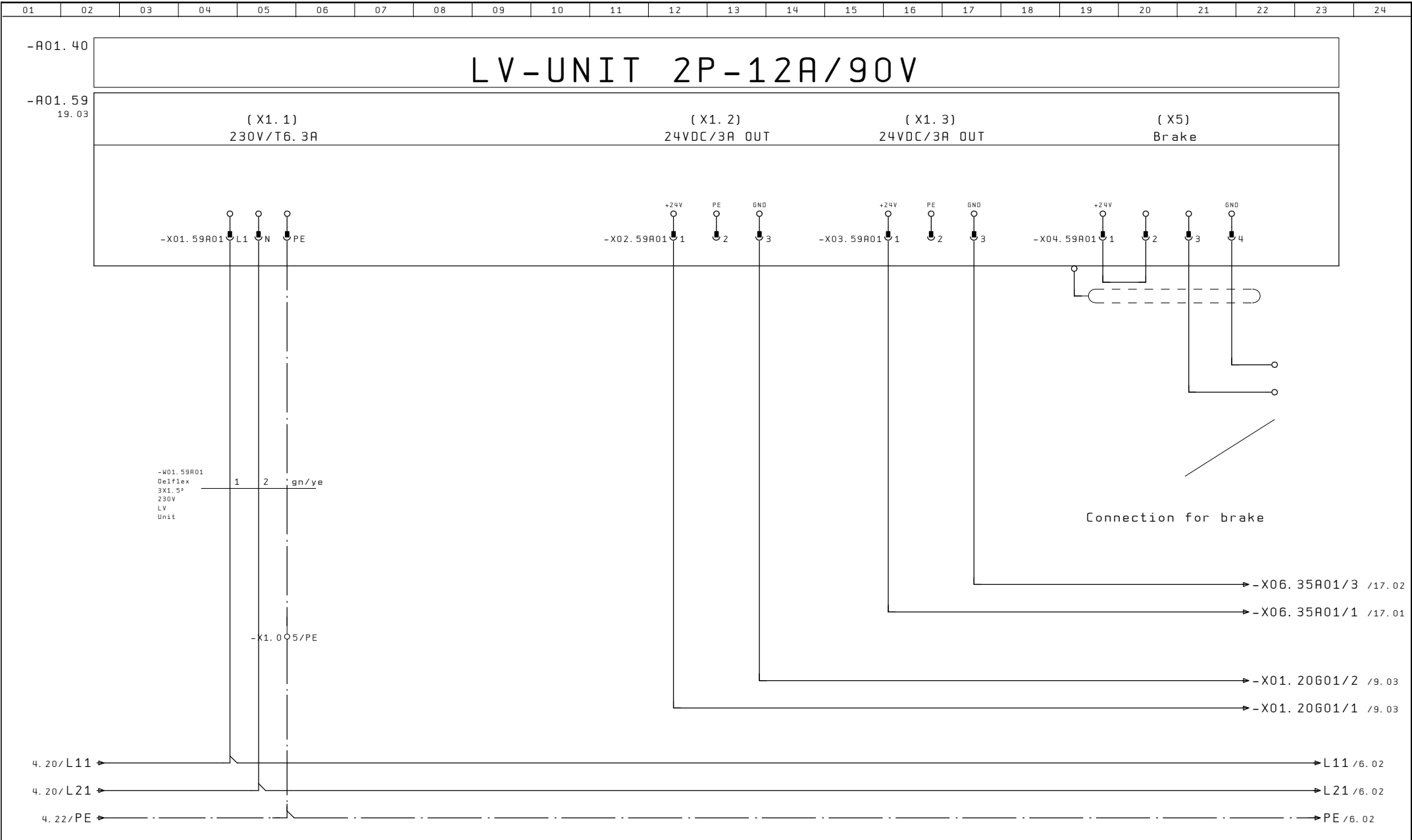
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Main connection - 24V Power supply

PA-CONTROL 4 8A Var. F

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Final customer	Drawing-no. customer	Pages
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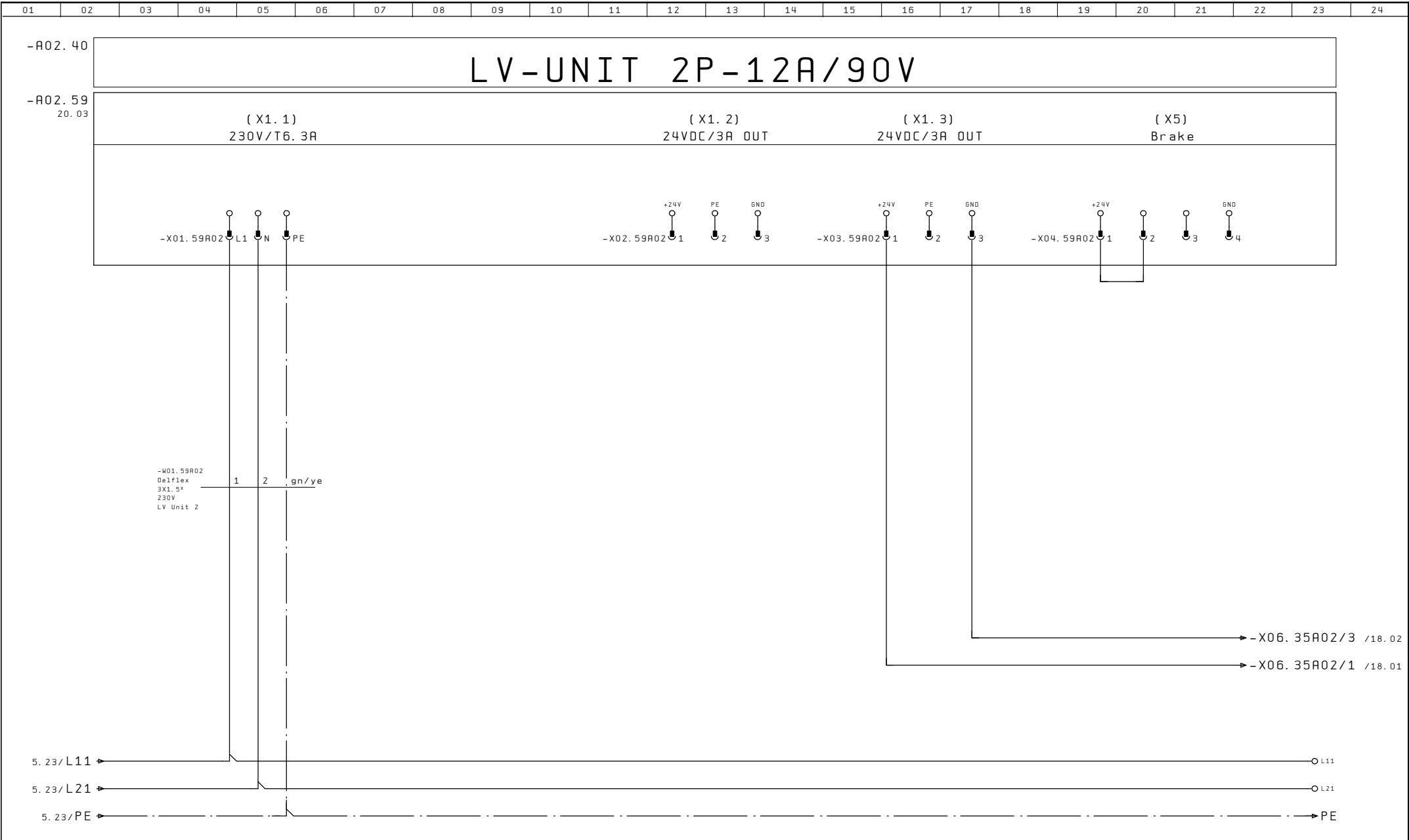


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Power supply connection LV-unit 1
PA-CONTROL 4 8A Var. F

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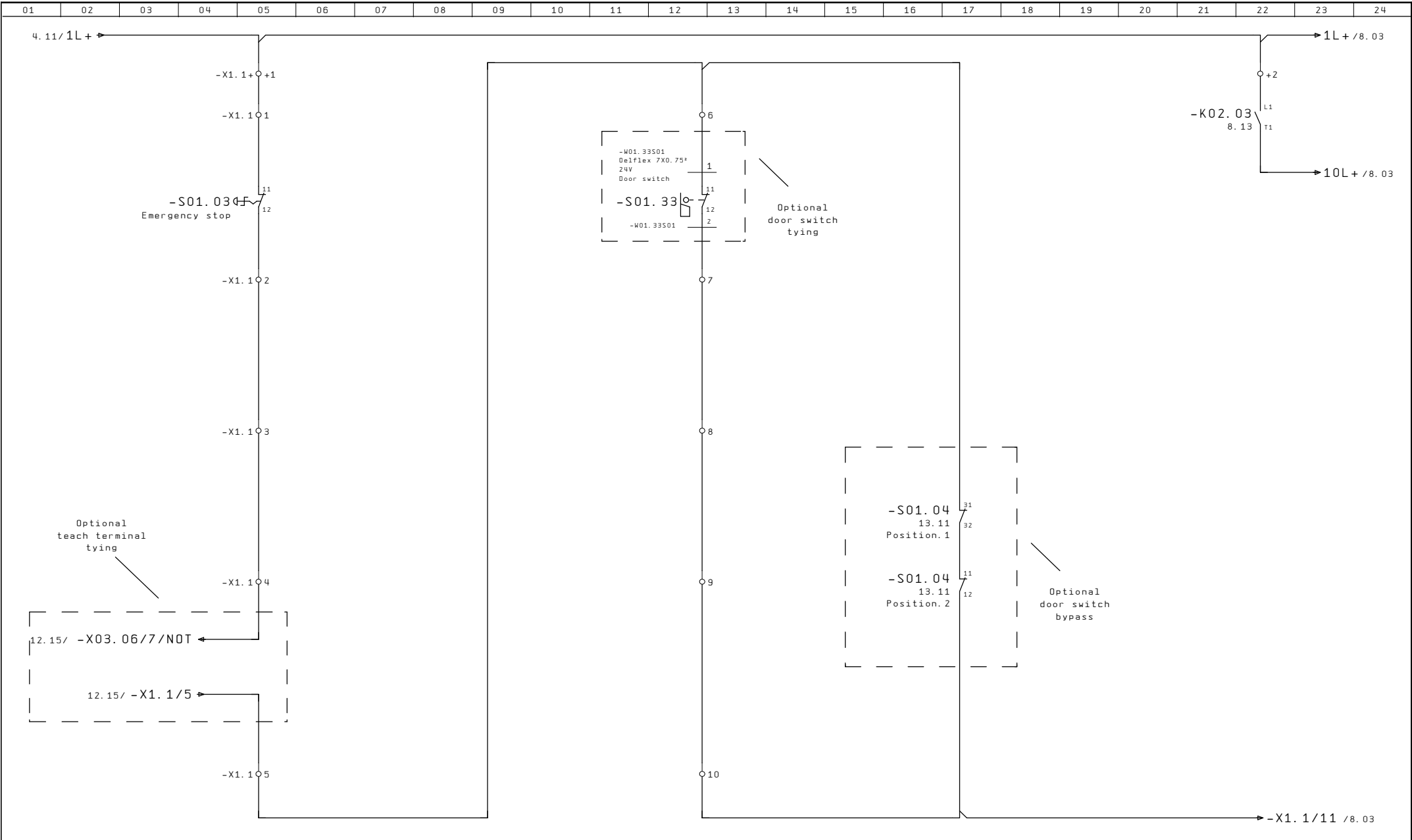
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Power supply connection LV-unit 2

PA-CONTROL 4 8A Var. F

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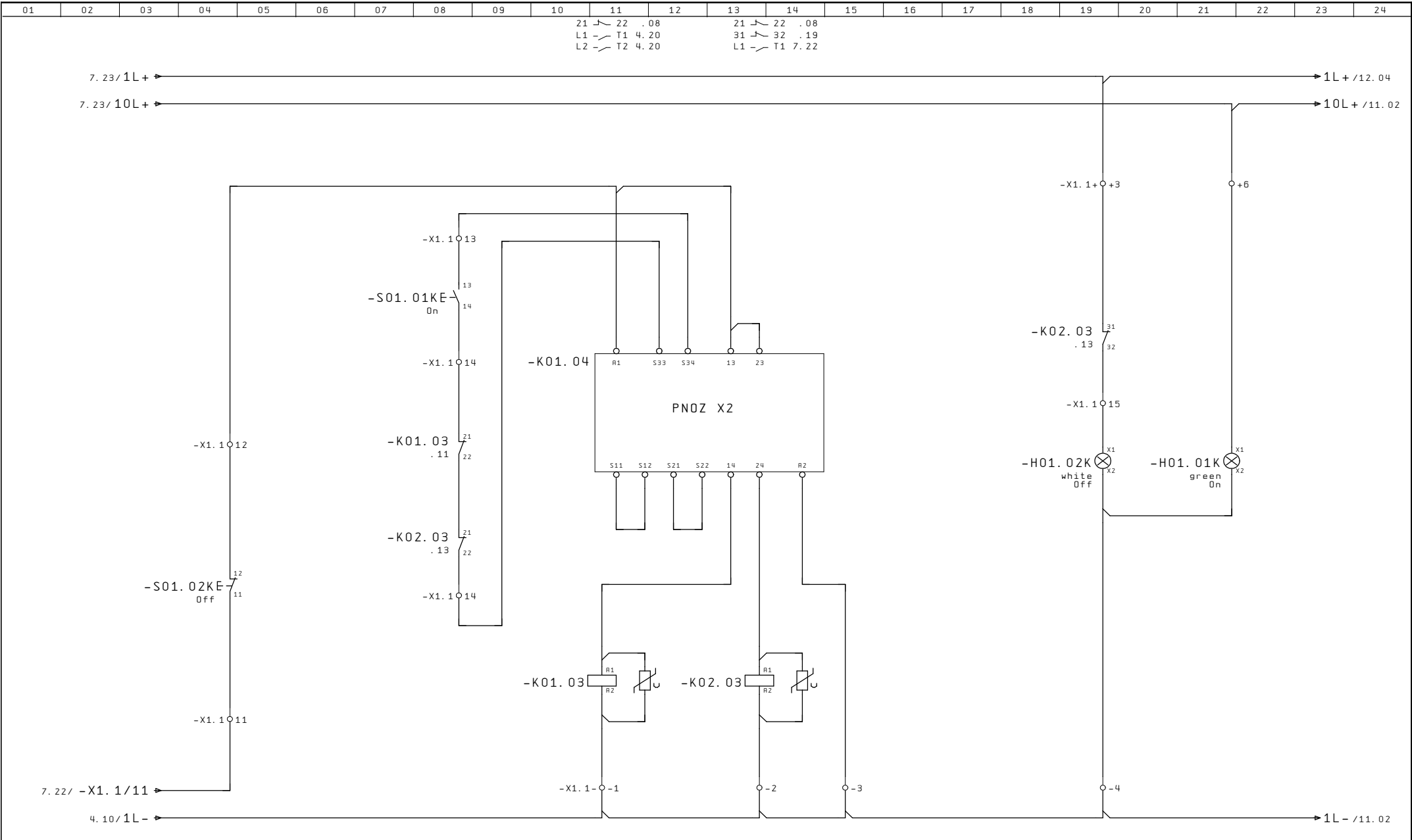
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Emergency stop + doors

PA-CONTROL 4 8A Var. F

Customer	Drawing-no. IEF	Page no.
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Protection circle

PA-CONTROL 4 8A Var. F

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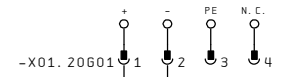
-R01.20
10.02

PA-CONTROL Compact

-G01.20

NT8

(X1.3)
24V IN




-W01.20G01
Unitronic-FD CY
3X0.5²
24V
PA-CONTROL

bn bu

5.22/ -X01.20G01/1 ▶

5.22/ -X01.20G01/2 ▶

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PA-CONTROL CPU-Power supply

Customer

Drawing-no. IEF

Page no.

1033744

9

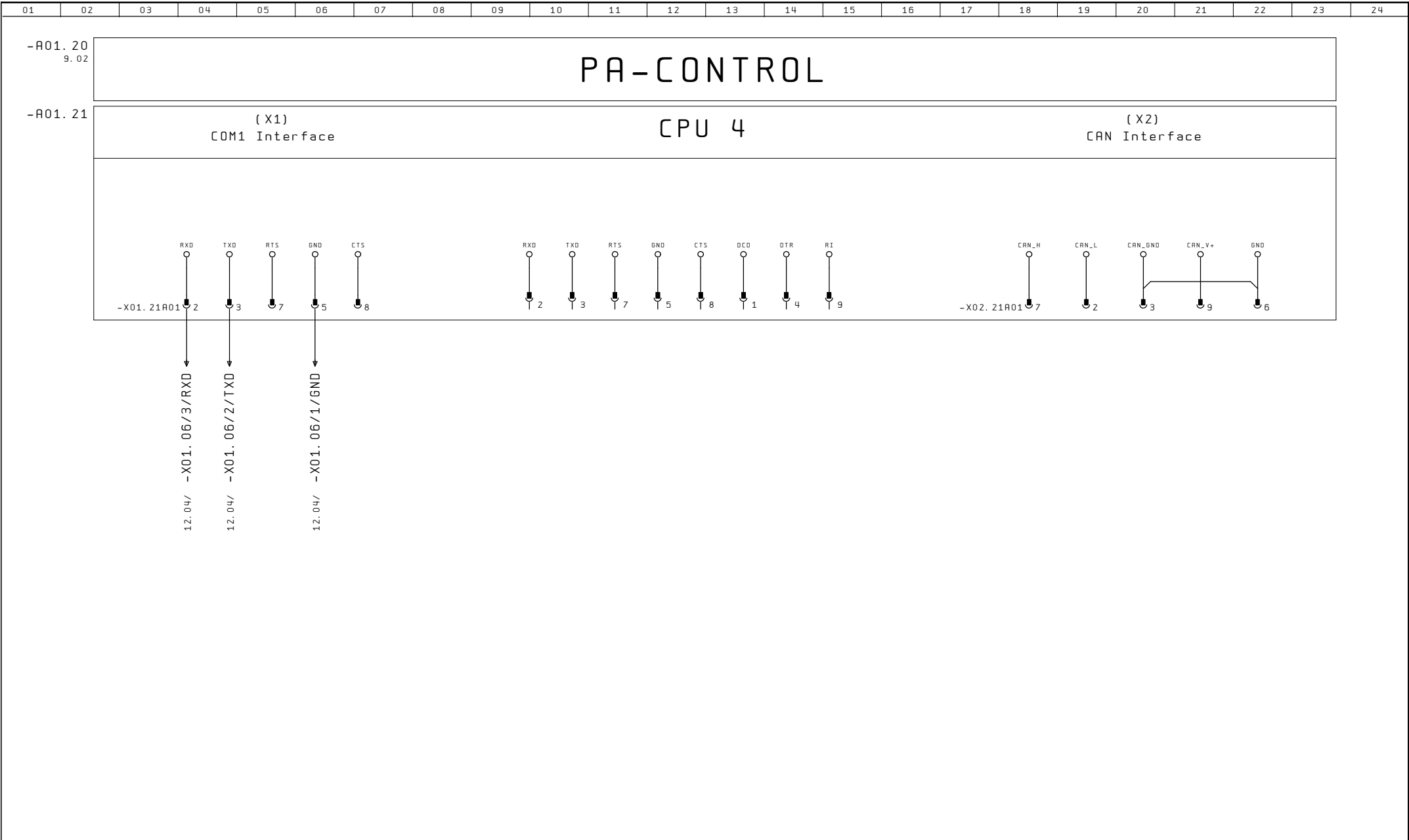
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Drawing-no. customer

Pages

PA-CONTROL 4 8A Var. F

30



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PA-CONTROL interface connection

PA-CONTROL 4 8A Var. F

Customer	
Final customer	

Drawing-no. IEF	Page no.
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Drawing-no. customer	Pages
	30

-A01. 20
10. 02

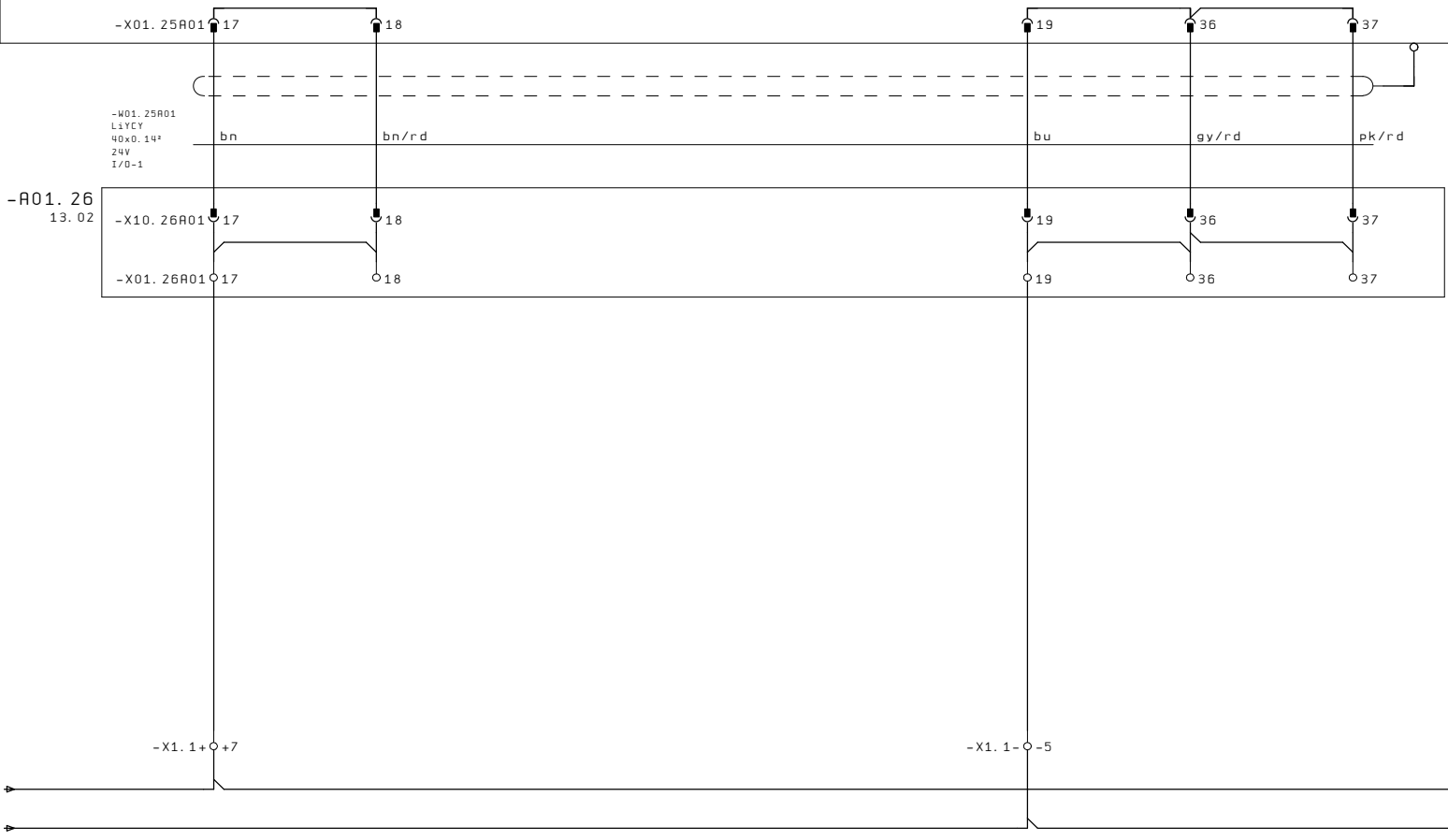
PA-CONTROL


-A01. 25
13. 02

PAC I/O-card 1

Pin 17: +24V for In-Outputs
Pin 18: +24V for In-Outputs

Pin 19: Mass 24V (GND)
Pin 36: Mass 24V (GND)
Pin 37: Mass 24V (GND)

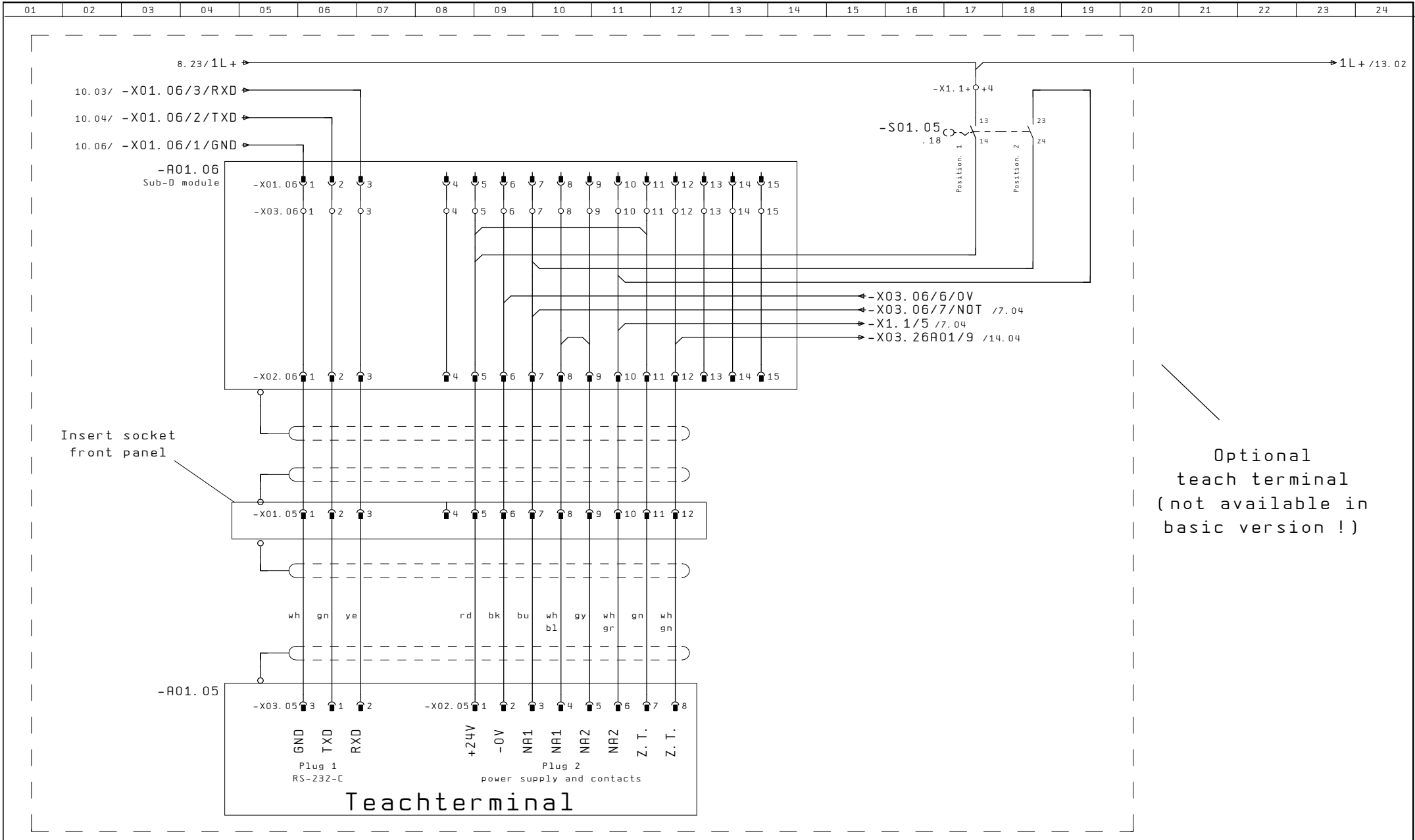


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Power supply PAC
I/O-card

PA-CONTROL 4 8A Var. F

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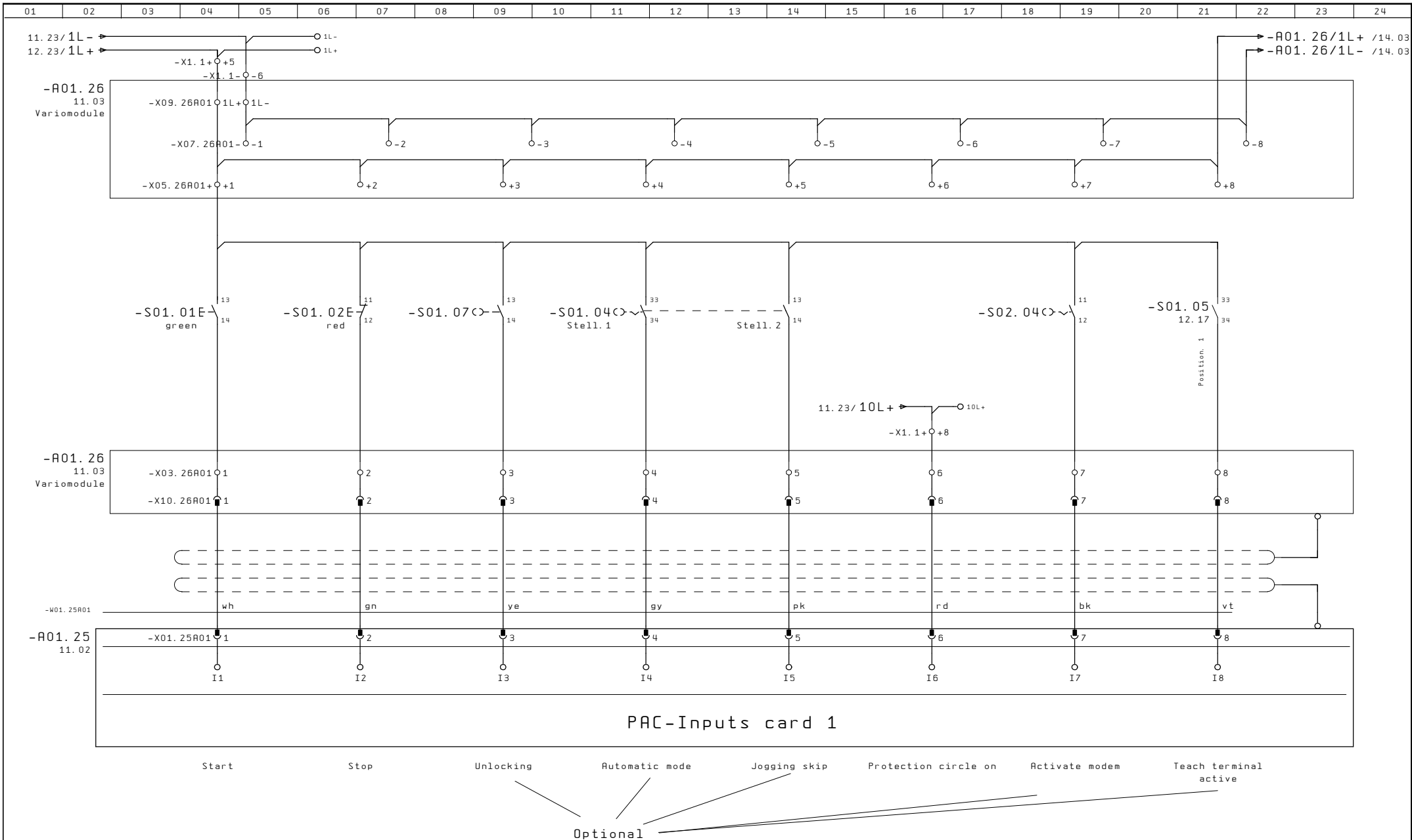
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Optional
teachterminal

PA-CONTROL 4 8A Var. F

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
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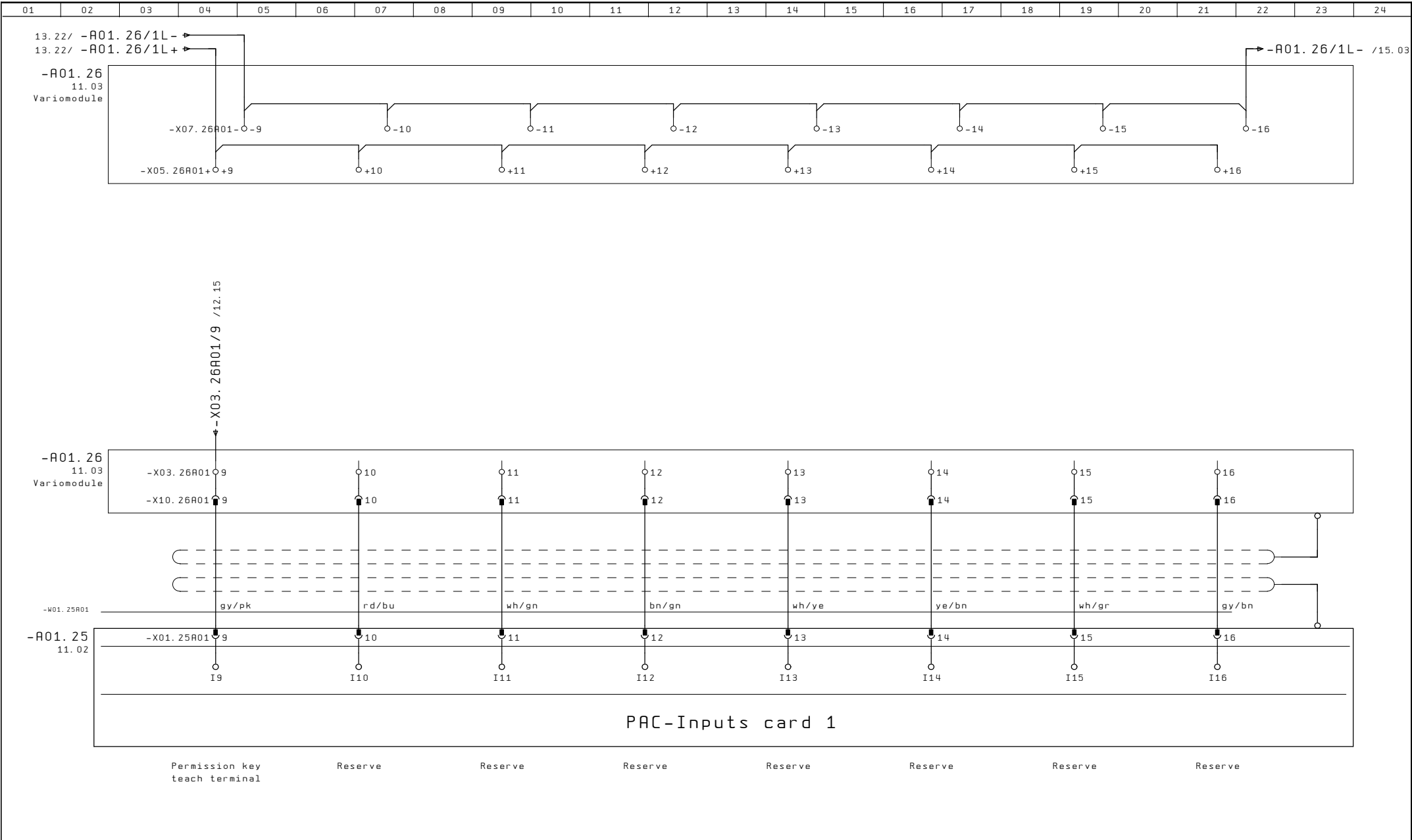


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PAC Inputs I1-I8
PA-CONTROL 4 8A Var. F

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Final customer	Drawing-no. customer	Pages
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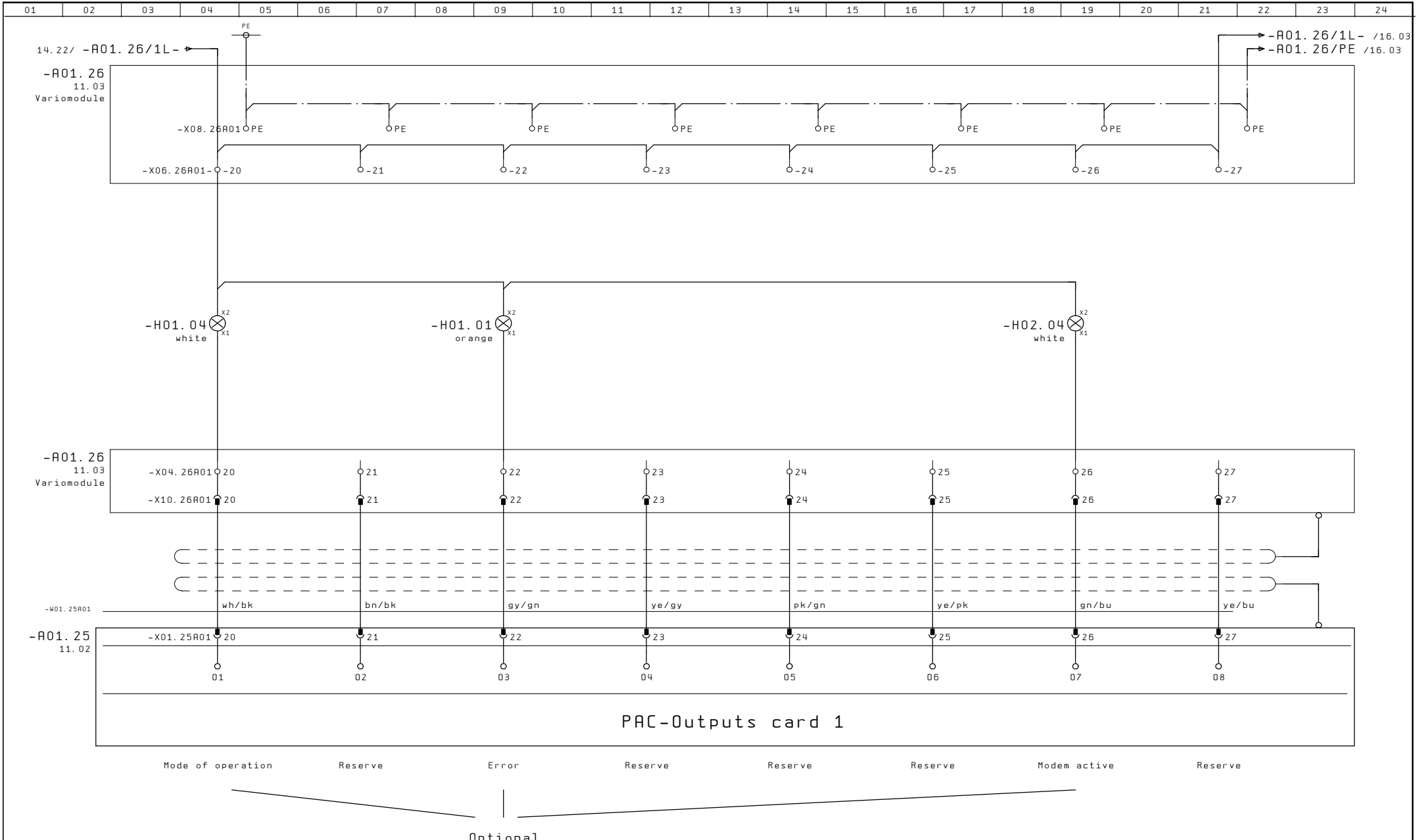



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PAC Inputs I9-I16
PA-CONTROL 4 8A Var. F

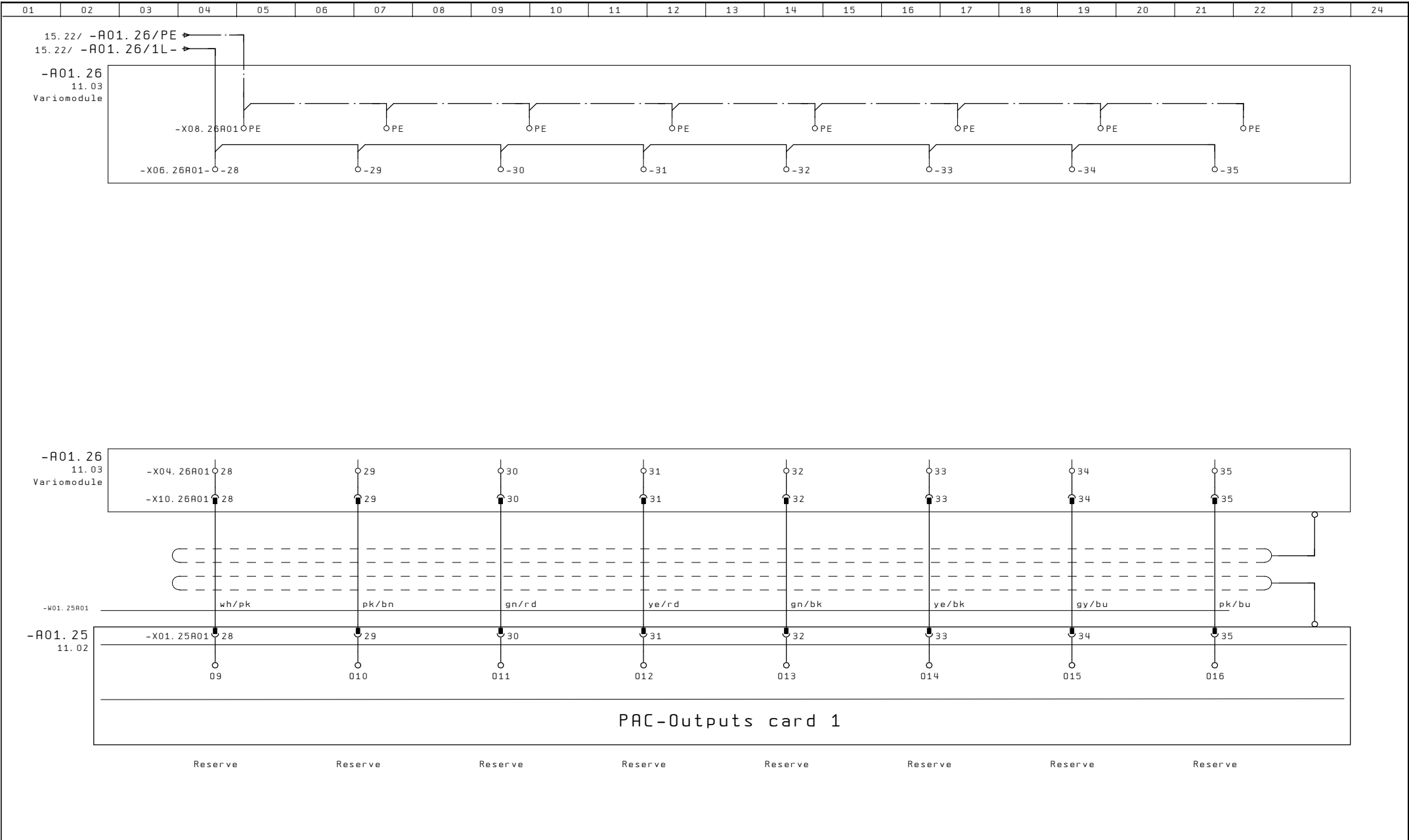
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Final customer	Drawing-no. customer	Pages
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Optional	
PAC Outputs	
01-08	
PA-CONTROL 4 8A Var. F	

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PAC Outputs 09-016	
PA-CONTROL 4 8A Var. F	

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-A01. 20
11.02

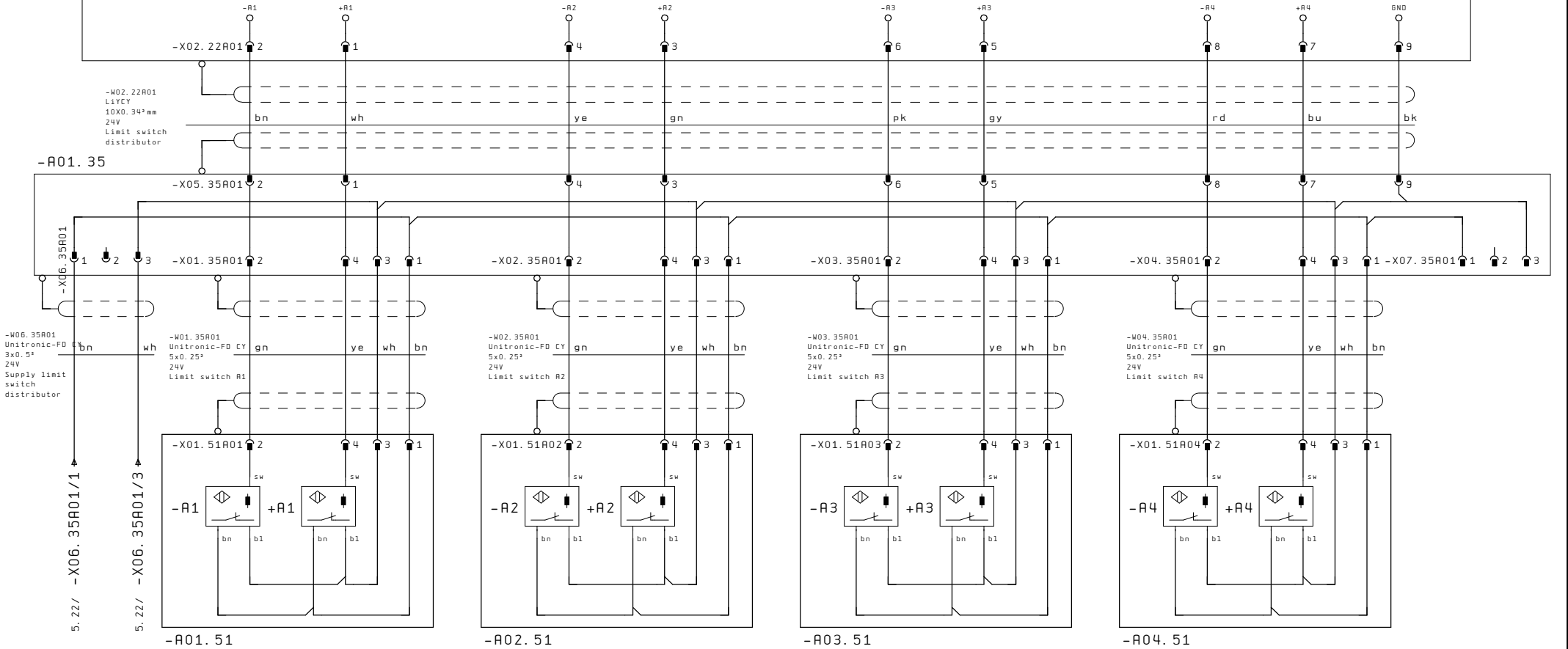
PA-CONTROL


-A01. 22
19.02

PA-CONTROL PLS7 board

-A1 : Limit switch axis 1-
+A1 : Limit switch axis 1+
-A2 : Limit switch axis 2-
+A2 : Limit switch axis 2+

-A3 : Limit switch axis 3-
+A3 : Limit switch axis 3+
-A4 : Limit switch axis 4-
+A4 : Limit switch axis 4+



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PA-CONTROL
limit switch axes
1-4 PLS7
PA-CONTROL 4 8A Var. F

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Final customer	Drawing-no. customer	Pages
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-A01. 20
17. 02

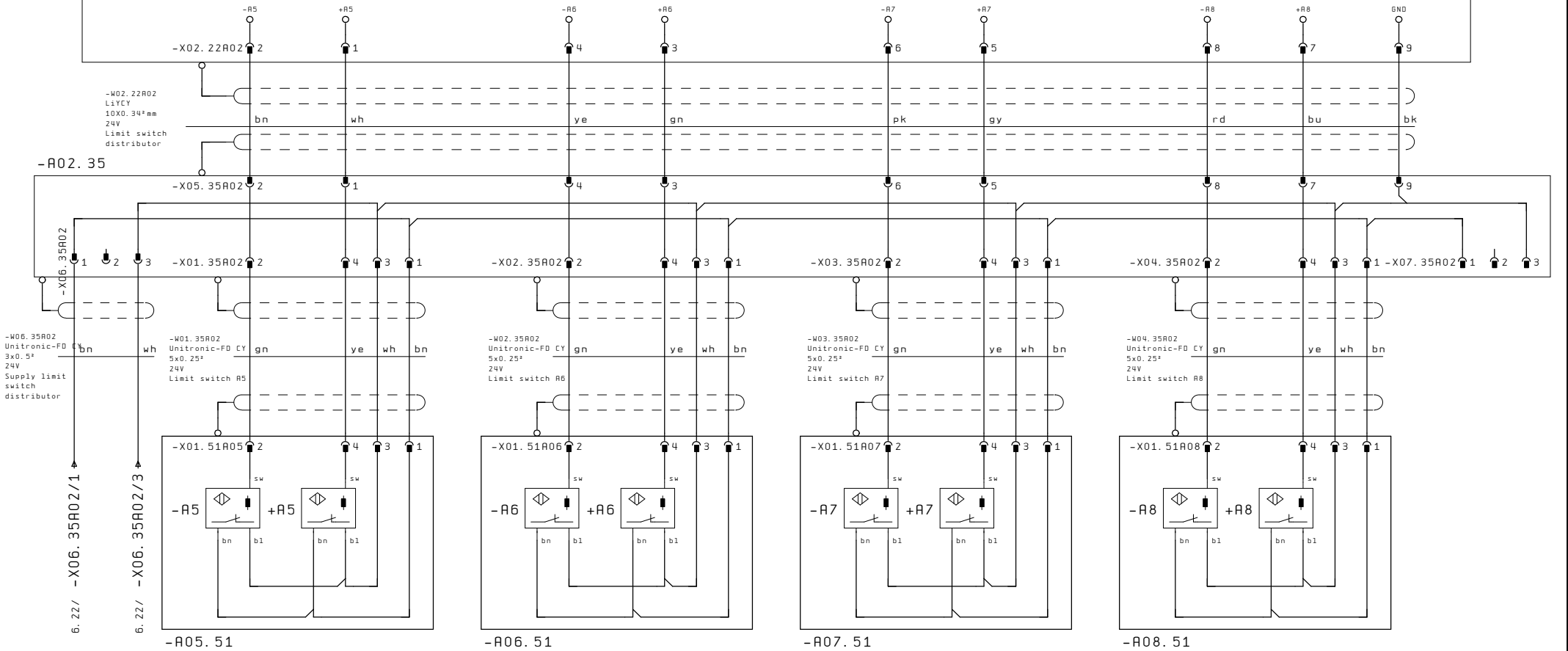
PA-CONTROL

-A02. 22
20. 02

PA-CONTROL PLS7 board

-A5 : Limit switch axis 5-
+A5 : Limit switch axis 5+
-A6 : Limit switch axis 6-
+A6 : Limit switch axis 6+

-A7 : Limit switch axis 7-
+A7 : Limit switch axis 7+
-A8 : Limit switch axis 8-
+A8 : Limit switch axis 8+



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PA-CONTROL
limit switch axes
5-8 PLS7
PA-CONTROL 4 8A Var. F

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
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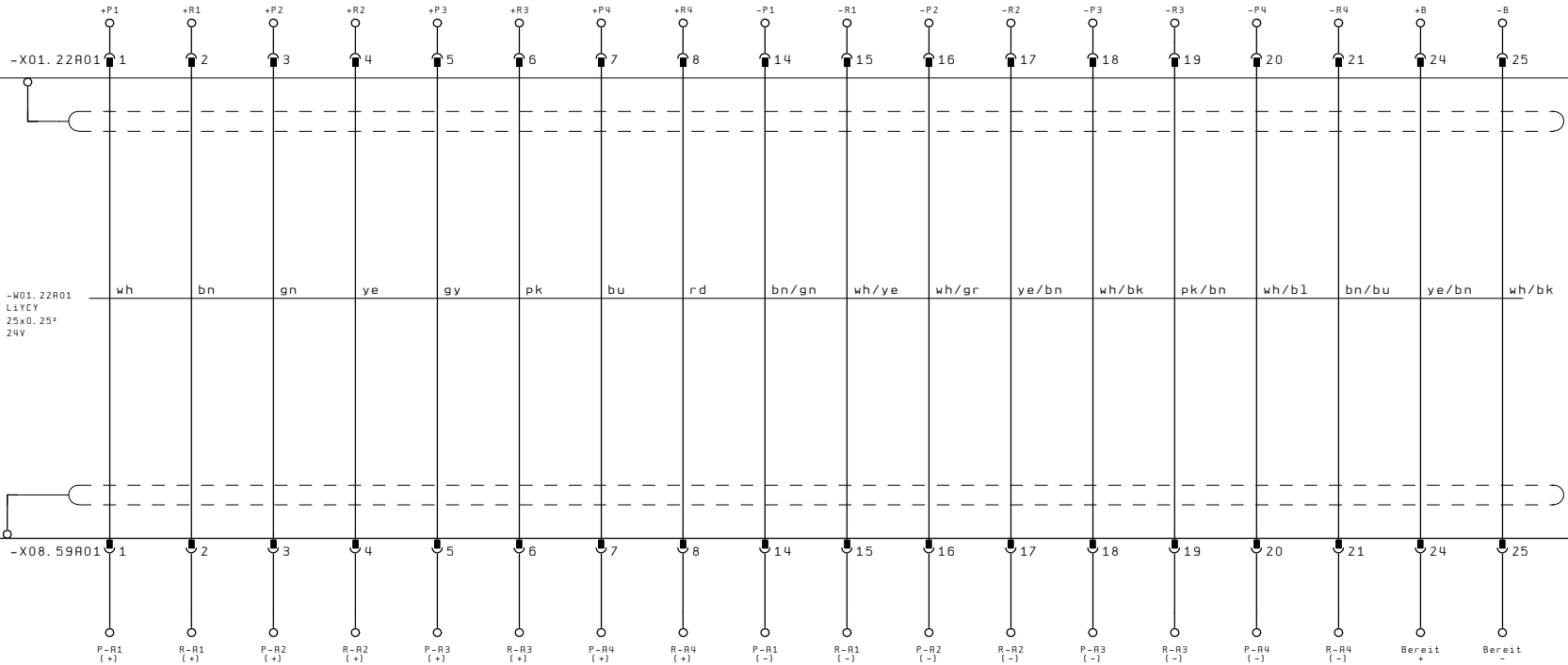
-A01. 20
18. 02

PA-CONTROL

-A01. 22
17. 02

PAC PLS7-card

P+A1: pulse	A1-axis	P+A3: pulse	A3-axis	P-A1: pulse	A1-axis	P-A3: pulse	A3-axis	+Stand-by
R+A1: direction	A1-axis	R+A3: direction	A3-axis	R-A1: direction	A1-axis	R-A3: direction	A3-axis	-Standby
P+A2: pulse	A2-axis	P+A4: pulse	A4-axis	P-A2: pulse	A2-axis	P-A4: pulse	A4-axis	
R+A2: direction	A2-axis	R+A4: direction	A4-axis	R-A2: direction	A2-axis	R-A4: direction	A4-axis	



-A01. 59
5. 02

LV-UNIT

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PLS7
pulse transmitter
card axes 1-4
PA-CONTROL 4 8A Var. F

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Final customer	Drawing-no. customer	Pages
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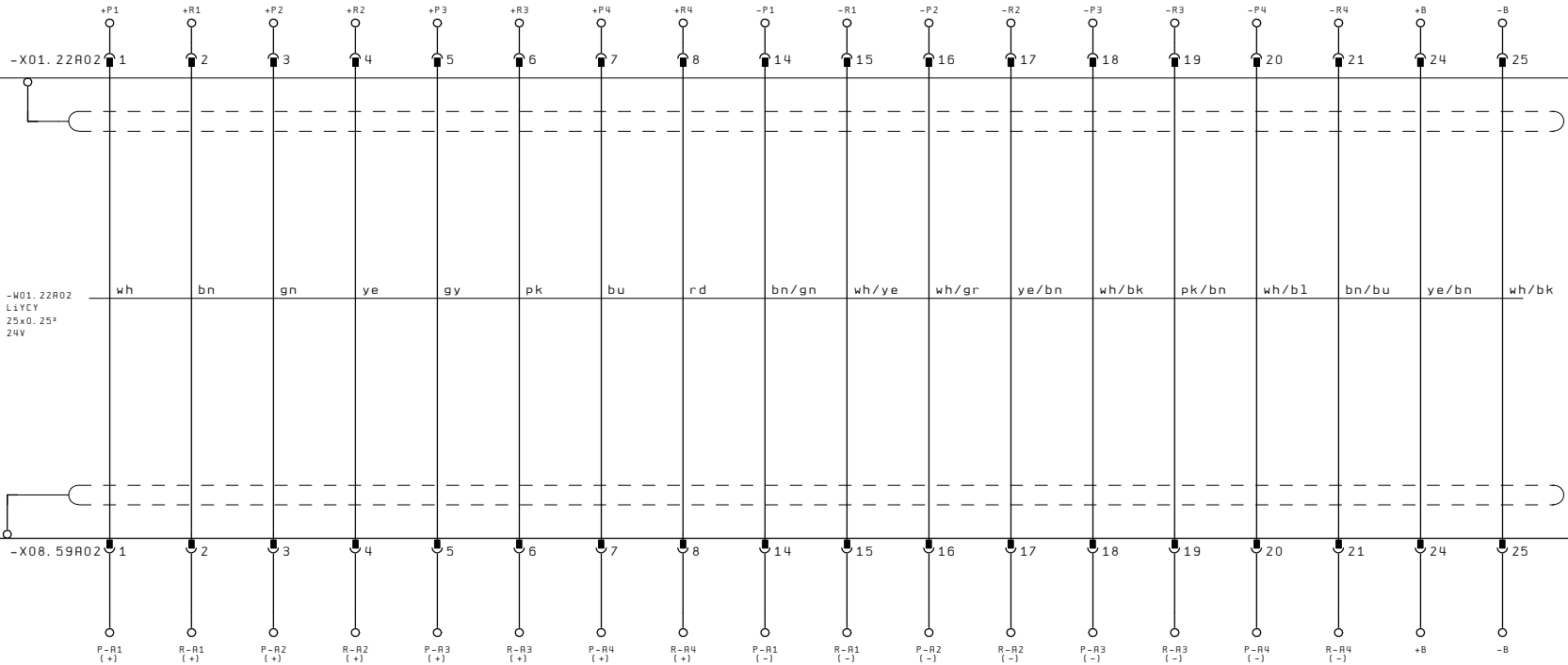
-A01. 20
19. 02

PA-CONTROL

-A02. 22
18. 02

PAC PLS7-card

P+A5: pulse	A5-axis	P+A7: pulse	A7-axis	P+A5: pulse	A5-axis	P+A7: pulse	A7-axis	+Stand-by
R+A5: direction	A5-axis	R+A7: direction	A7-axis	R-A5: direction	A5-axis	R-A7: direction	A7-axis	-Standby
P+A6: pulse	A6-axis	P+A8: pulse	A8-axis	P+A6: pulse	A6-axis	P+A8: pulse	A8-axis	
R+A6: direction	A6-axis	R+A8: direction	A8-axis	R-A6: direction	A6-axis	R-A8: direction	A8-axis	



-A02. 59
6. 02

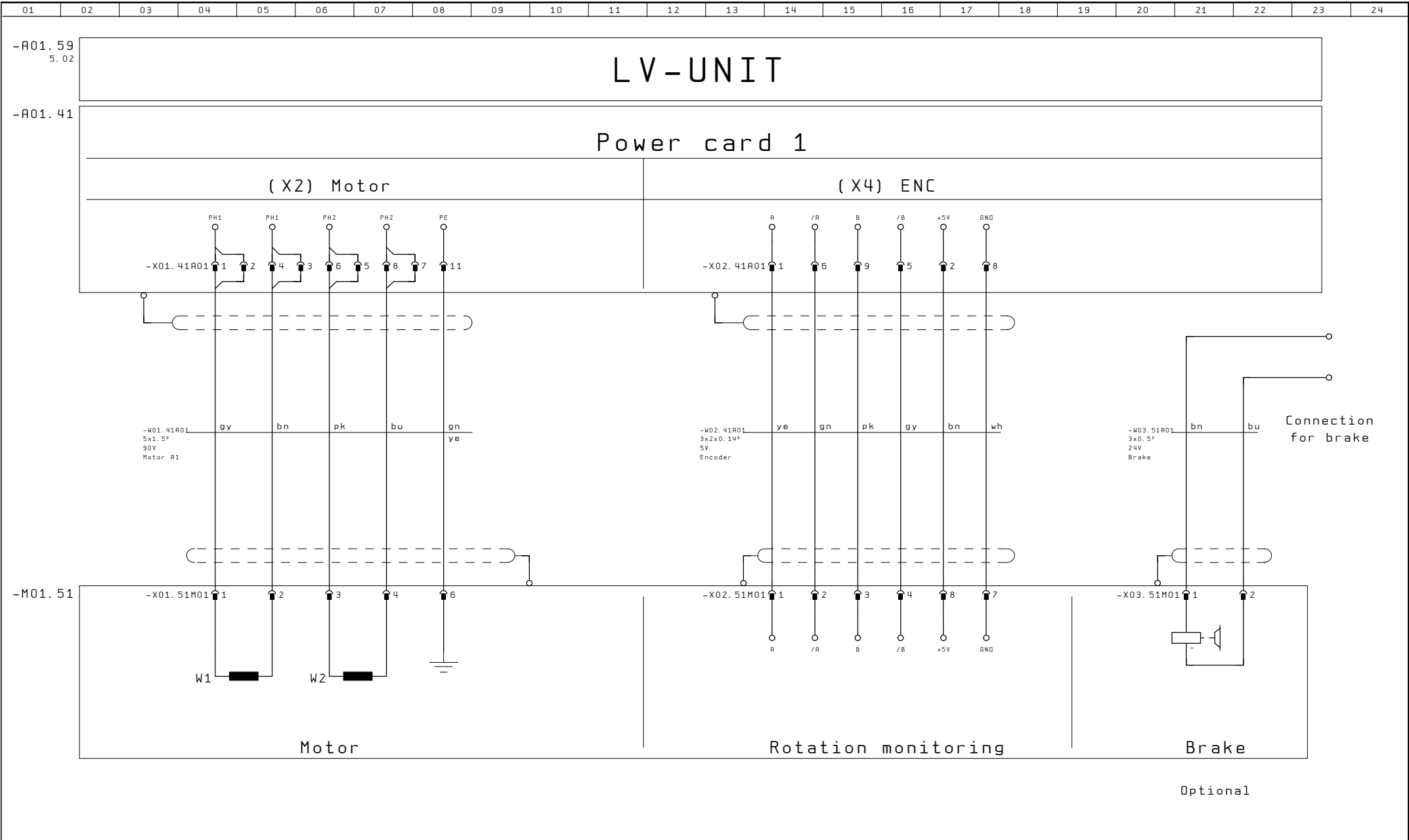
LV-UNIT

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PLS7
pulse transmitter
card axes 5-8
PA-CONTROL 4 8A Var. F

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Editor	Date	<p style="font-size: 14px; margin: 0;">Power card 1 A1-axis 2 phase stepper motor PA-CONTROL 4 8A Var. F</p>	Customer	Drawing-no. IEF	Page no.	
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-R01.59
5.02

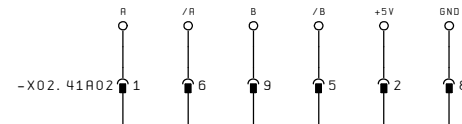
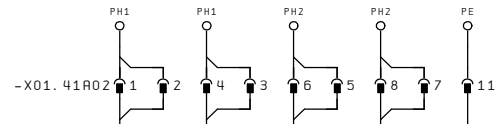
LV-UNIT

-R02.41

Power card 2

(X2) Motor

(X4) ENC



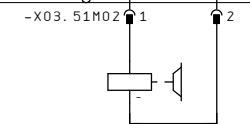
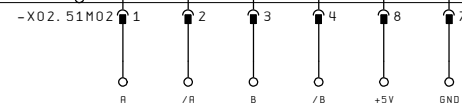
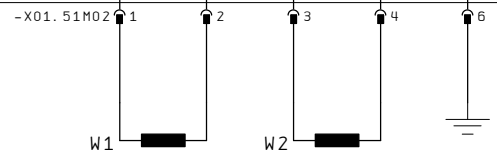
-W01.41R02
5x1.5²
90V
Motor R2

-W02.41R02
3x2x0.14²
5V
Encoder

-W03.51R02
3x0.5²
24V
Brake

Connection
for brake

-M02.51



Motor

Rotation monitoring

Brake

Optional

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Power card 2
R2-axis
2 phase stepper motor
PA-CONTROL 4 8A Var. F

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-R01.59
5.02

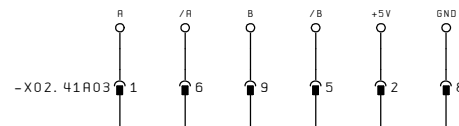
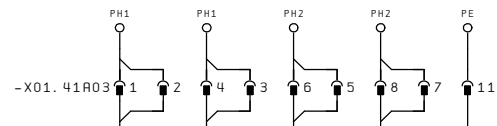
LV-UNIT

-R03.41

Power card 3

(X2) Motor

(X4) ENC



-W01.41A03
5x1.5²
90V
Motor A3

gy bn pk bu gn ye

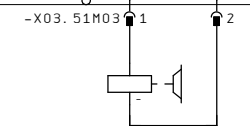
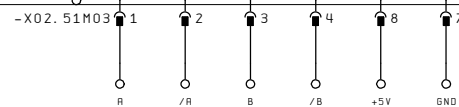
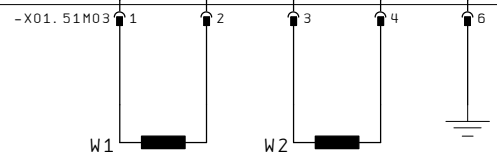
-W02.41A03
3x2x0.14²
5V
Encoder

ye gn pk gy bn wh

-W03.51A03
3x0.5²
24V
Brake

Connection for brake

-M03.51



Motor

Rotation monitoring

Brake

Optional

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Power card 3
A3-axis
2 phase stepper motor
PA-CONTROL 4 8A Var. F

Customer	
Final customer	

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Drawing-no. customer	

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Pages	30

-R01.59
5.02

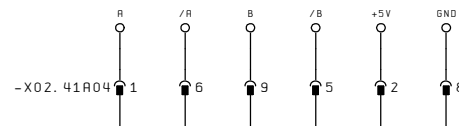
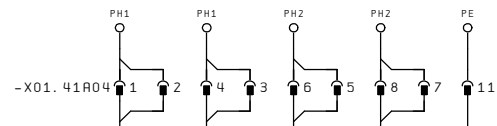
LV-UNIT

-R04.41

Power card 4

(X2) Motor

(X4) ENC



-W01.41R04
5x1.5²
90V
Motor R4

gy bn pk bu gn ye

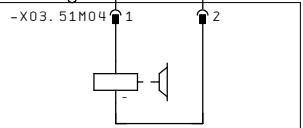
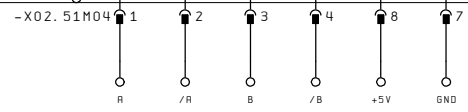
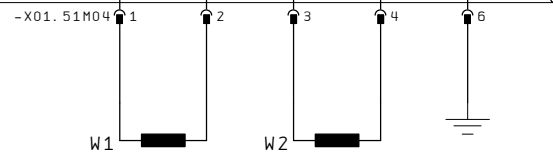
-W02.41R04
3x2x0.14²
5V
Encoder

ye gn pk gy bn wh

-W03.51R04
3x0.5²
24V
Brake

bn bu Connection for brake

-M04.51



Motor

Rotation monitoring

Brake

Optional

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Power card 4
R4-axis
2 phase stepper motor
PA-CONTROL 4 8A Var. F

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Final customer	Drawing-no. customer	Pages
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-R01.59
5.02

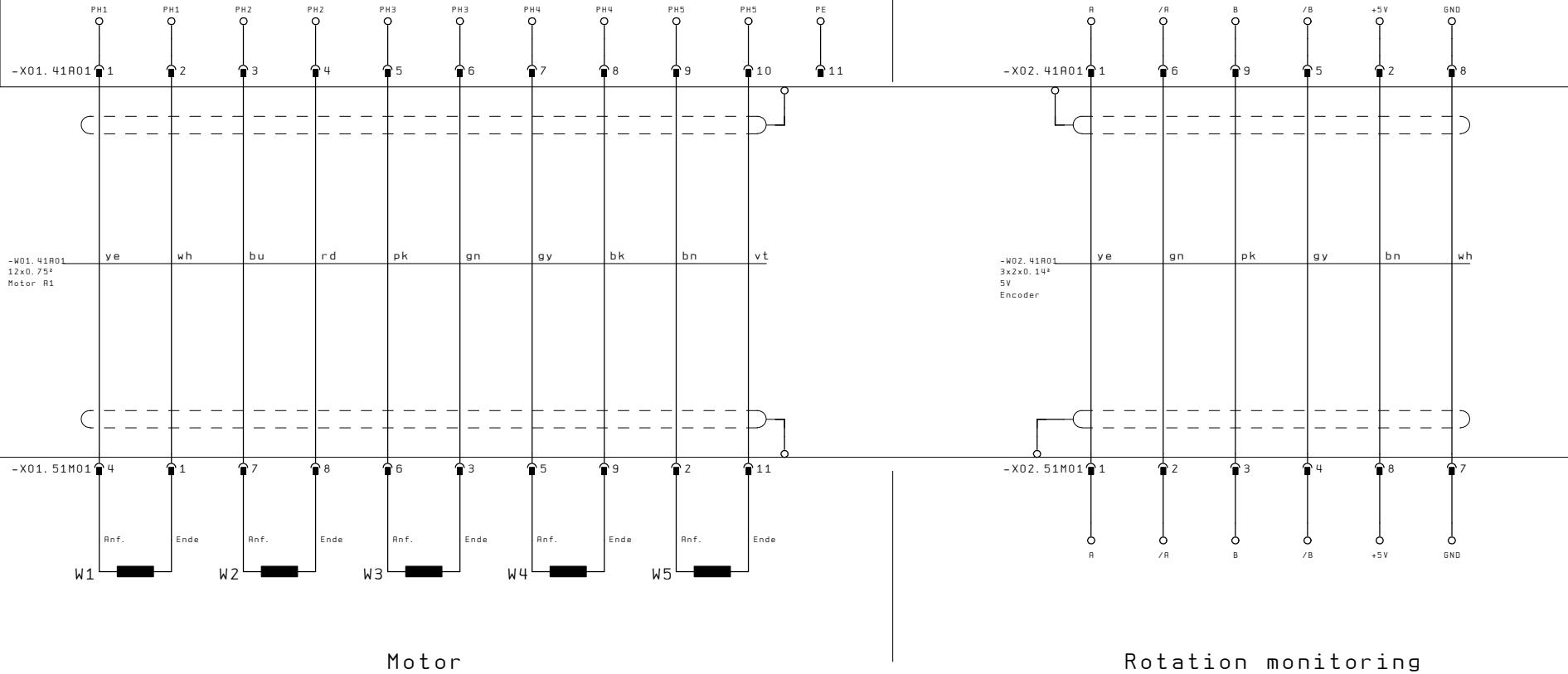
LV-UNIT

-R01.41

Power card 1

(X2) Motor

(X4) ENC



-M01.51

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Power card 1
R1-axis
5-phase stepper motor
PA-CONTROL 4 8A Var. F

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	1033744	25
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		30

-R01.59
5.02

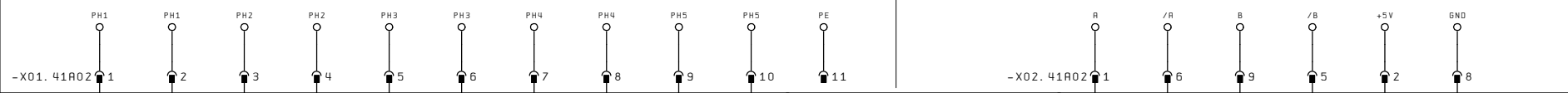
LV-UNIT

-R02.41

Power card 2

(X2) Motor

(X4) ENC

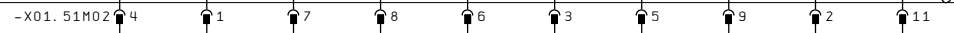


-W01.41R02
12x0.75²
Motor R2

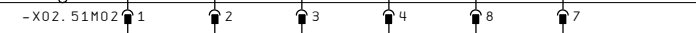
ye wh bu rd pk gn gy bk bn vt

-W02.41R02
3x2x0.14²
5V
Encoder

ye gn pk gy bn wh



Rnf. Ende Rnf. Ende Rnf. Ende Rnf. Ende Rnf. Ende
W1 W2 W3 W4 W5




R /R B /B +5V GND

Motor

Rotation monitoring

-M02.51

Editor		Date		
Designer:	VOL	16.12.02		
Modification:	VOL	29.06.05		
Print:		11.01.07		
System:	Place:			

Power card 2
R2-axis
5-phase stepper motor
PA-CONTROL 4 8A Var. F

Customer	Drawing-no. IEF	Page no.
	1033744	26
Final customer	Drawing-no. customer	Pages
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-R01.59
5.02

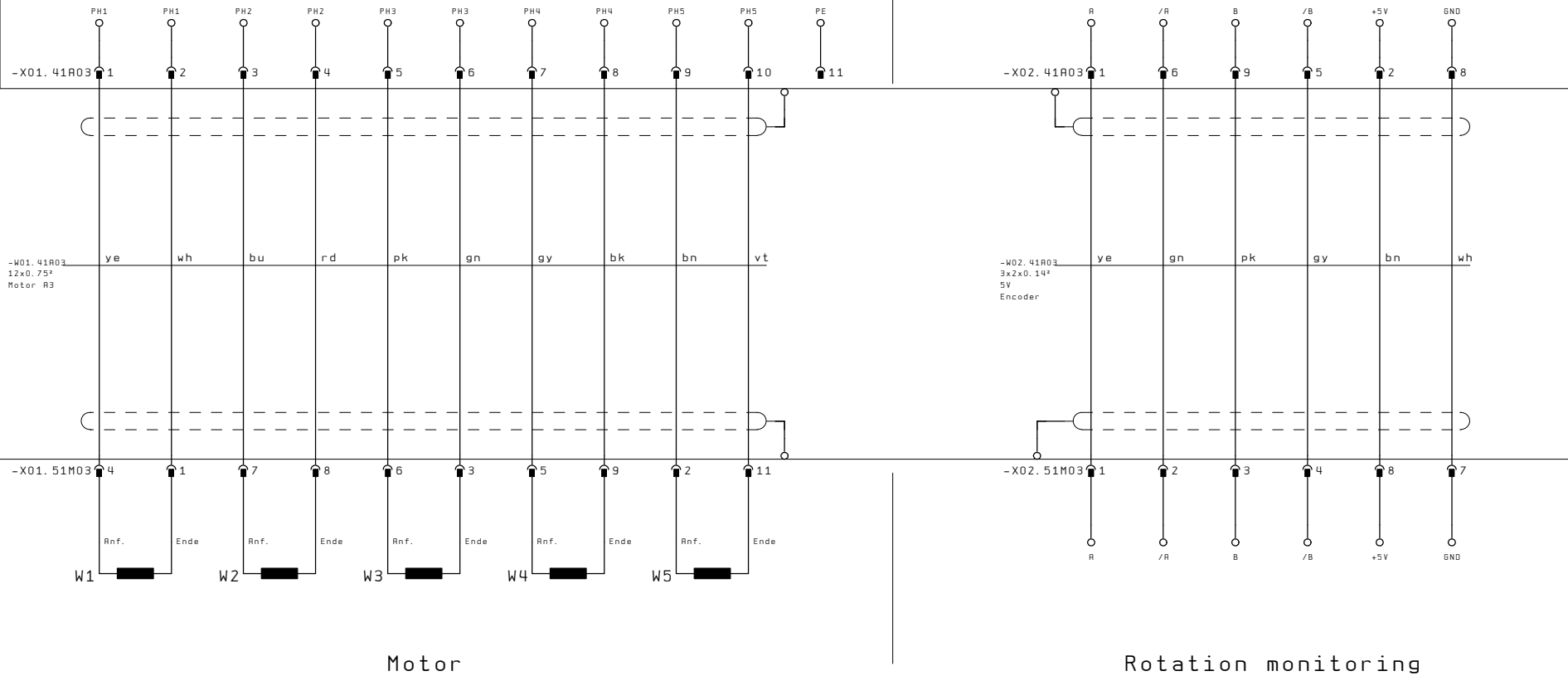
LV-UNIT

-R03.41

Power card 3

(X2) Motor


(X4) ENC



Motor

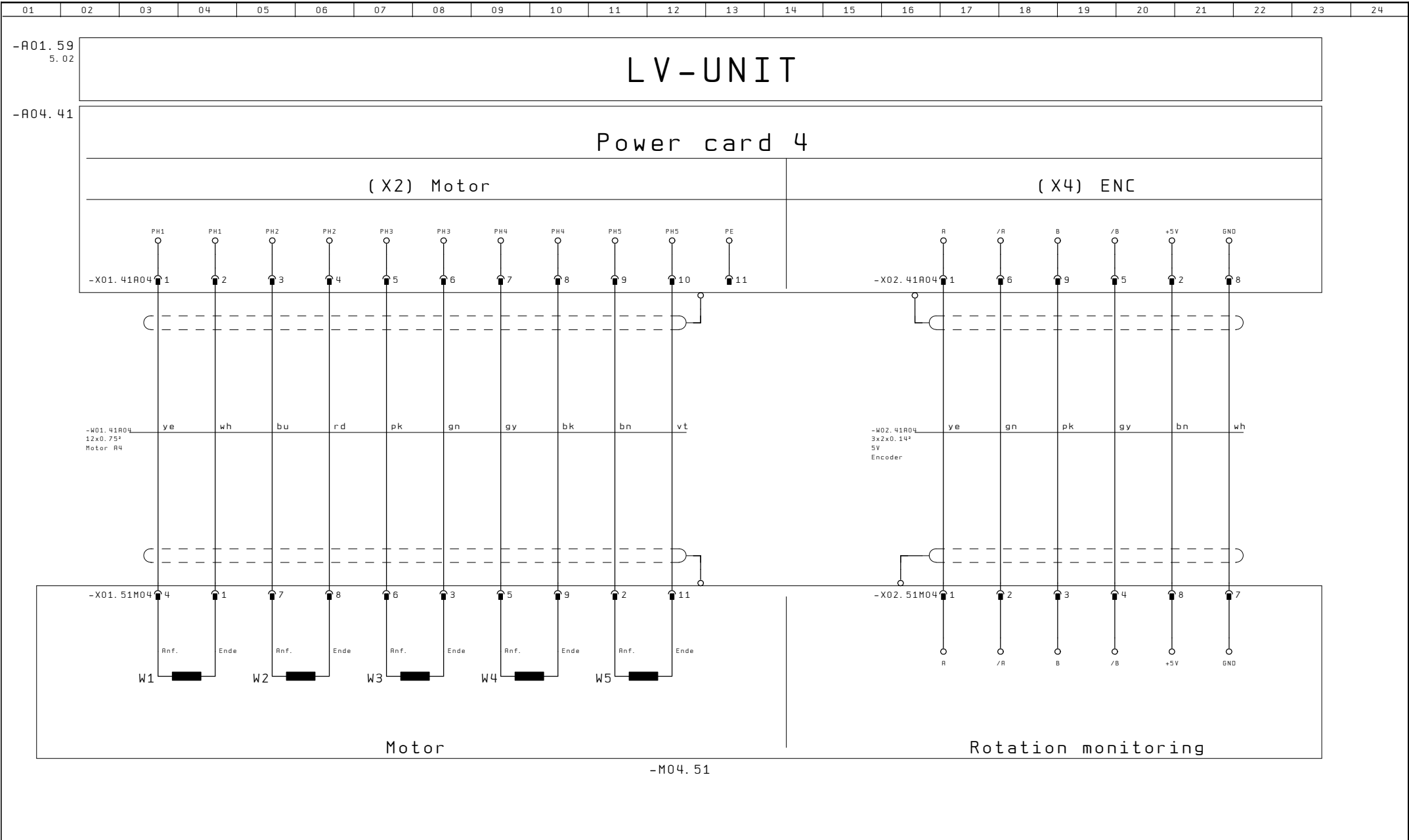
Rotation monitoring

-M03.51

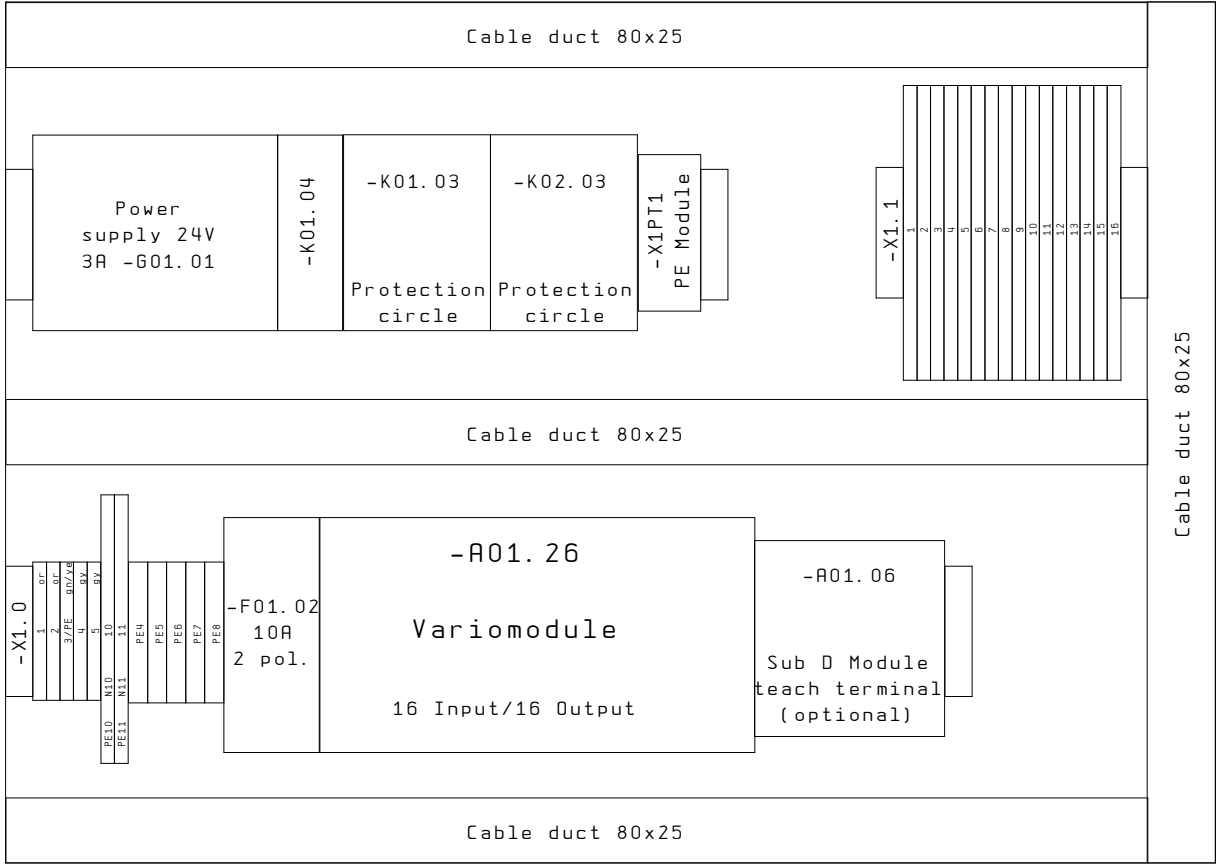
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Designer:	VOL	16.12.02	
Modification:	VOL	29.06.05	
Print:		11.01.07	
System:	Place:		

Power card 3
R3-axis
5-phase stepper motor
PA-CONTROL 4 8A Var. F

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
		30



Editor	Date	 Power card 4 R4-axis 5-phase stepper motor PA-CONTROL 4 8A Var. F	Customer	Drawing-no. IEF	Page no.
Designer: VOL	16.12.02			1033744	28
Modification: VOL	29.06.05				
Print:	11.01.07				
System:	Place:		Final customer	Drawing-no. customer	Pages
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Editor		Date	
Designer:	VOL	16.12.02	
Modification:	VOL	29.06.05	
Print:		11.01.07	
System:	Place:		



Assembly mounting plate

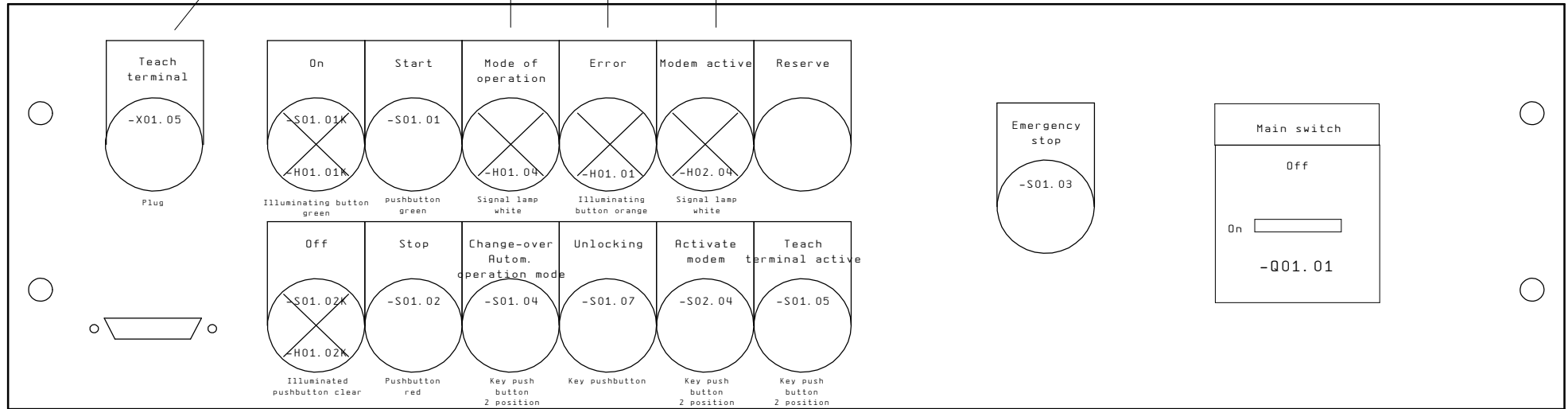
PA-CONTROL 4 8A Var. F

Customer	
Final customer	

Drawing-no. IEF	1033744
Drawing-no. customer	

Page no.	29
Pages	30

Optionally in
basic version with blind plug



Optionally in
basic version with blind plug

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Assembly control panel

PA-CONTROL 4 8A Var. F

Customer	Drawing-no. IEF	Page no.
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Final customer	Drawing-no. customer	Pages
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