

Description : HVCP EX 55kW  
Part no. : 2183635  
Drawing no. : 2183822

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**Standards/Directives:**

EN60 204-1

EN61000-6-4

The control panel is suitable to be connected to  
TN-S, TN-C, TN-C-S grid**Electrical specifications:**Motor size: 30kW-220/230/240V 50/60Hz  
30-45kW-380/400/440/460V 50/60HzSupply Voltage: 3x(220/230/240)VAC PE 50/60Hz  
3x(380/400/440/460)VAC PE 50/60Hz

Short Circuit Current Ratings: 30kA

Frequency: 50/60 Hz

Type: Y/D

H x W x D(mm): 800 x 800 x 300

Control Voltage: 24V AC/ DC

Transformer: 340VA/160VA

Supply To External Equipment: 24V AC 2A, 24V DC 2A

Max installation ambient temperature  
40 °C / 104 °F**Mechanical specifications:**

Degree of protection: IP65

Weight: 63Kg

Recyclable Materials: 100%

Labels, markings and other possible accessories according to product BOM

**Responsible and Warranty:**Any kind of responsibility and warranty disappears if changes are made by others  
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**Wire specification:****Power cables:**

Insulation Material: PVC or PEX,EPR equivalent

Temperature: 70°C

Approvals: CE

**Signal cables:**

Material and type: PVC or PEX,EPR equivalent

Temperature: 70°C

Approvals: CE

**Cables colour and conductor sectional area:**

Protective conductor: Yellow/Green Variable

Power circuits: Black Variable

External control voltage: Orange 0,5mm<sup>2</sup>24VAC Phase: Red 1,5mm<sup>2</sup>0VAC Neutral: Red 1,5mm<sup>2</sup>24VDC Phase (+): Dark blue 0,5mm<sup>2</sup>0VDC Neutral (-): Dark blue 0,5mm<sup>2</sup>Analog signal: Purple 0,5mm<sup>2</sup>

Undefined Signal: --

Labels, markings and other possible accessories according to product BOM

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**Wire specification:**

**Colour code:**

BK:	Black
BN:	Brown
BU:	Blue
GN:	Green
GY:	Grey
RD:	Red
WH:	White
PK:	Pink
PU:	Purple

**Cables number grouping**

Power Cables	W0 ----->W49
Shielded Power Cables	W50---->W99
Input Signal Cables 0-48V	W101--> W199
Output Signal Cables 0-48V	W200--> W399
Shielded Signal Cables	W500--> W599
Multi I/O Cable	W110

Labels, markings and other possible accessories according to product BOM

**Installation of external accessories:**

Dimension and types shown are only recommendations. it is the responsibility of the electrician to ensure that local and/or national regulations are met.

**Note:**

Do not use aluminium cable connect to main switch or contactors. Including motor cables.

**Note:**

There are limitations of software that determine which ones possible components that can be connected to inputs and outputs. This means that some cabinets do not have all the I/O functionality shown in the electrical diagram.

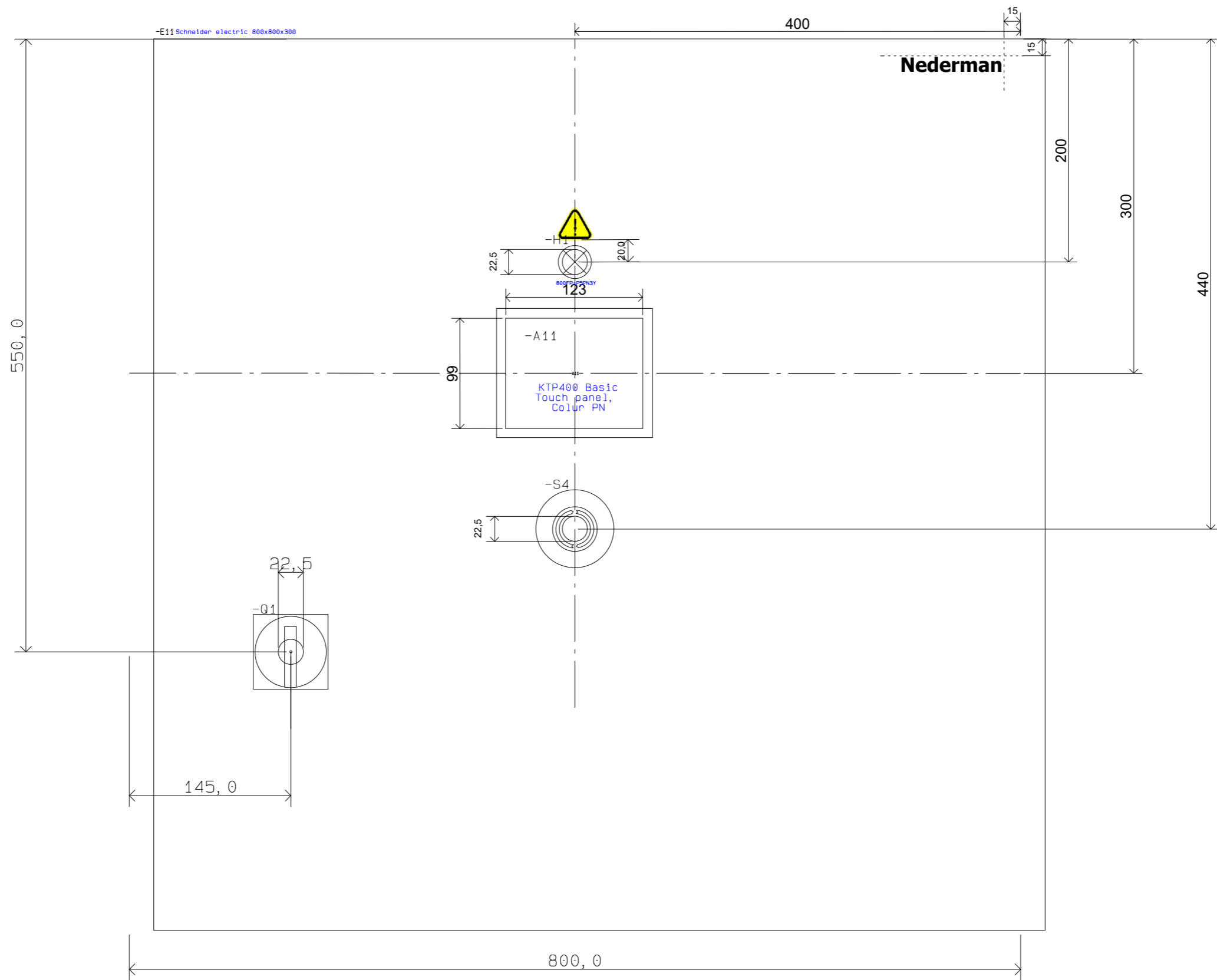
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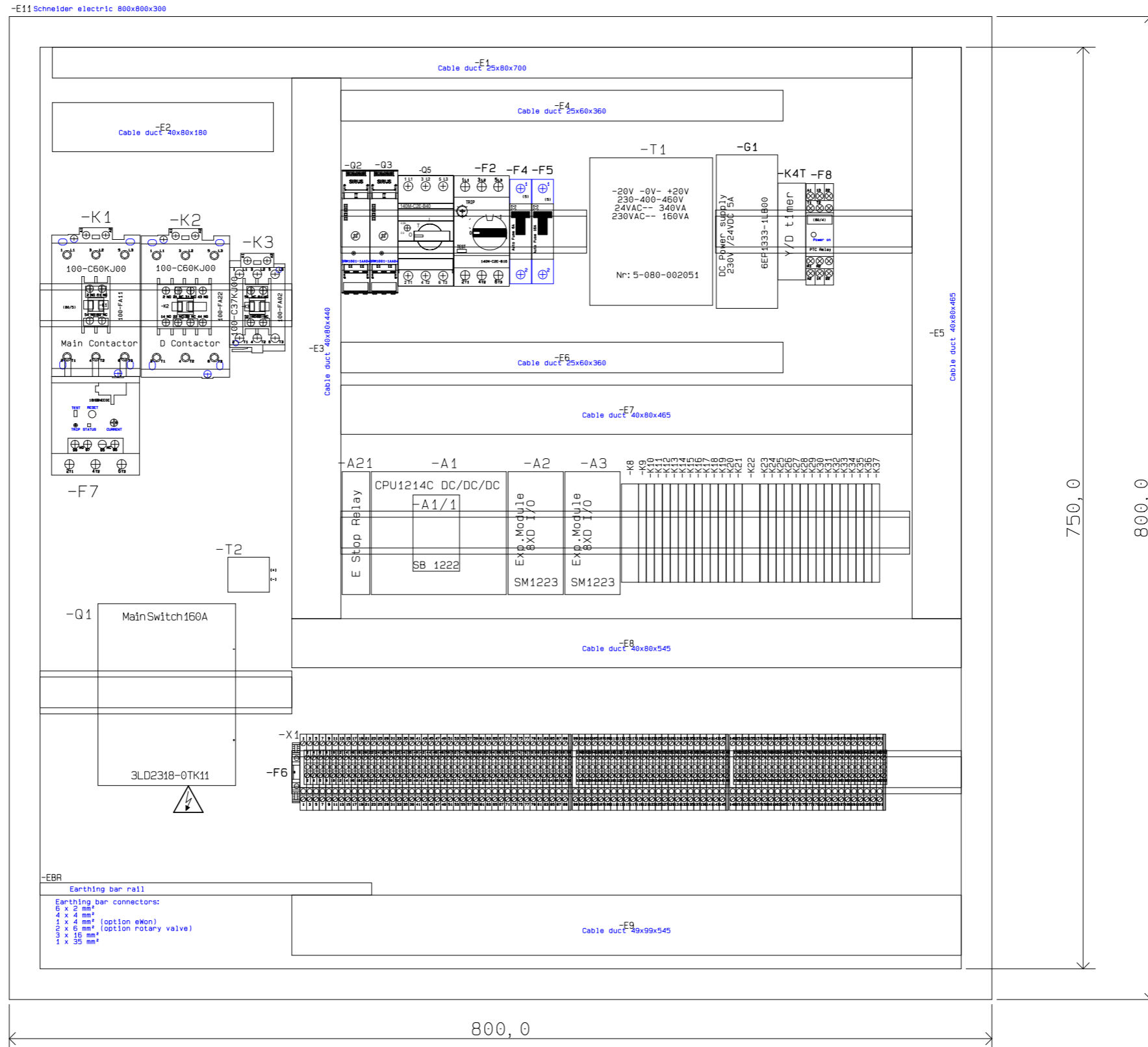
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FRONT  
PANEL LAYOUT

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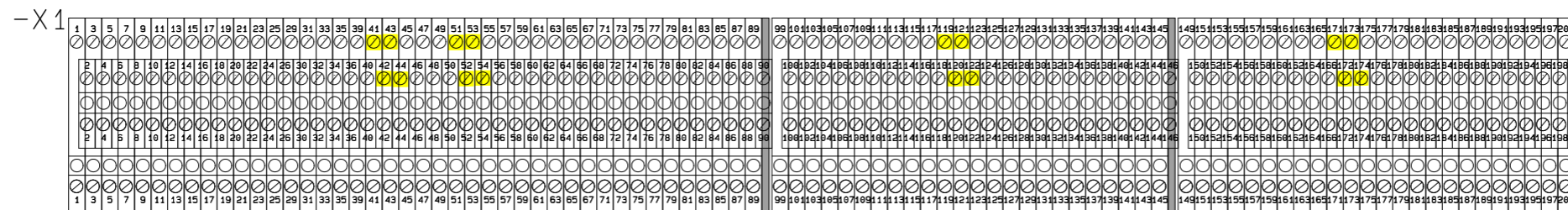
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PANEL LAYOUT

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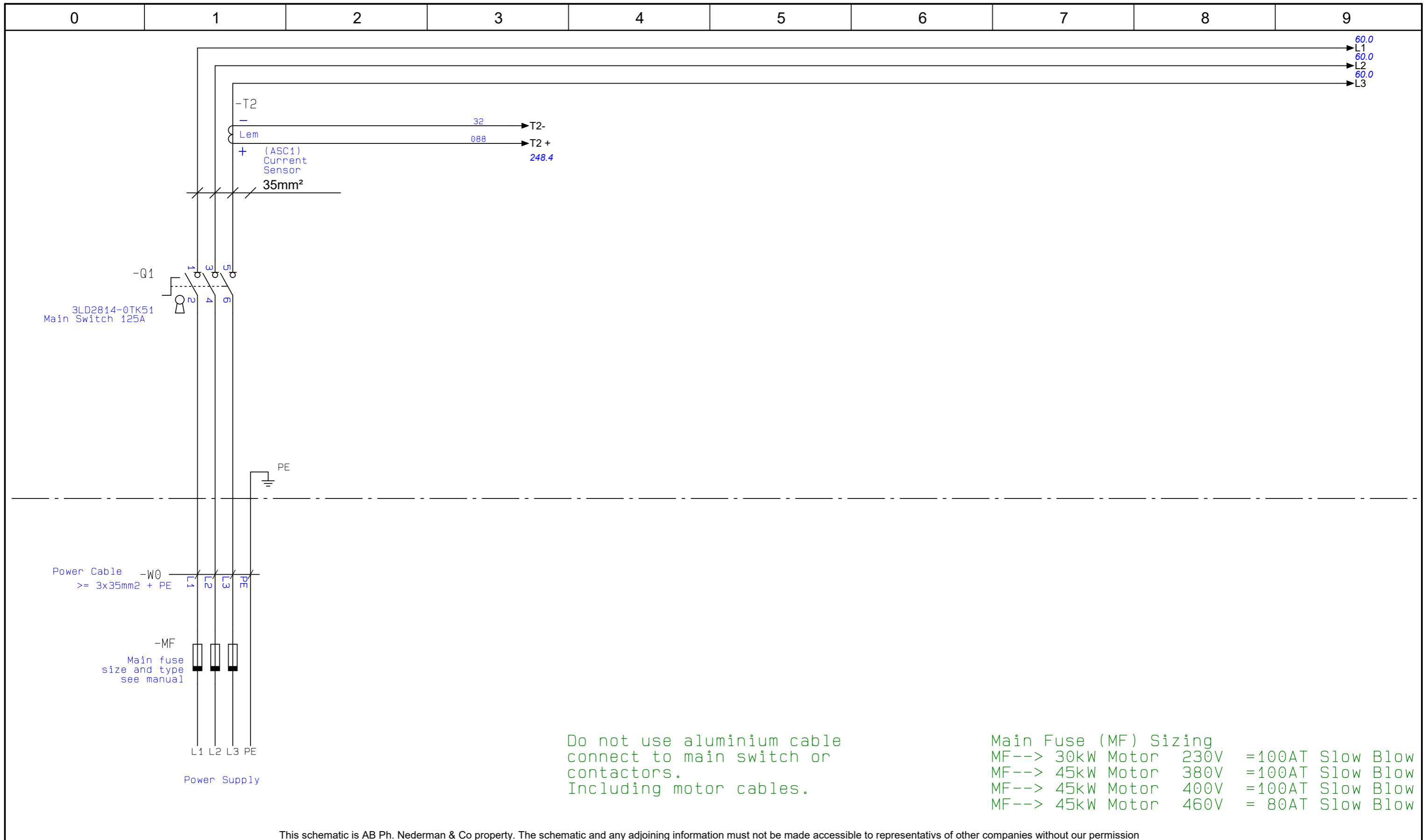
Terminals equipped with diode between levels marked with yellow marker.  
Anode on upper level, cathode on lower level.

Terminals with diode:

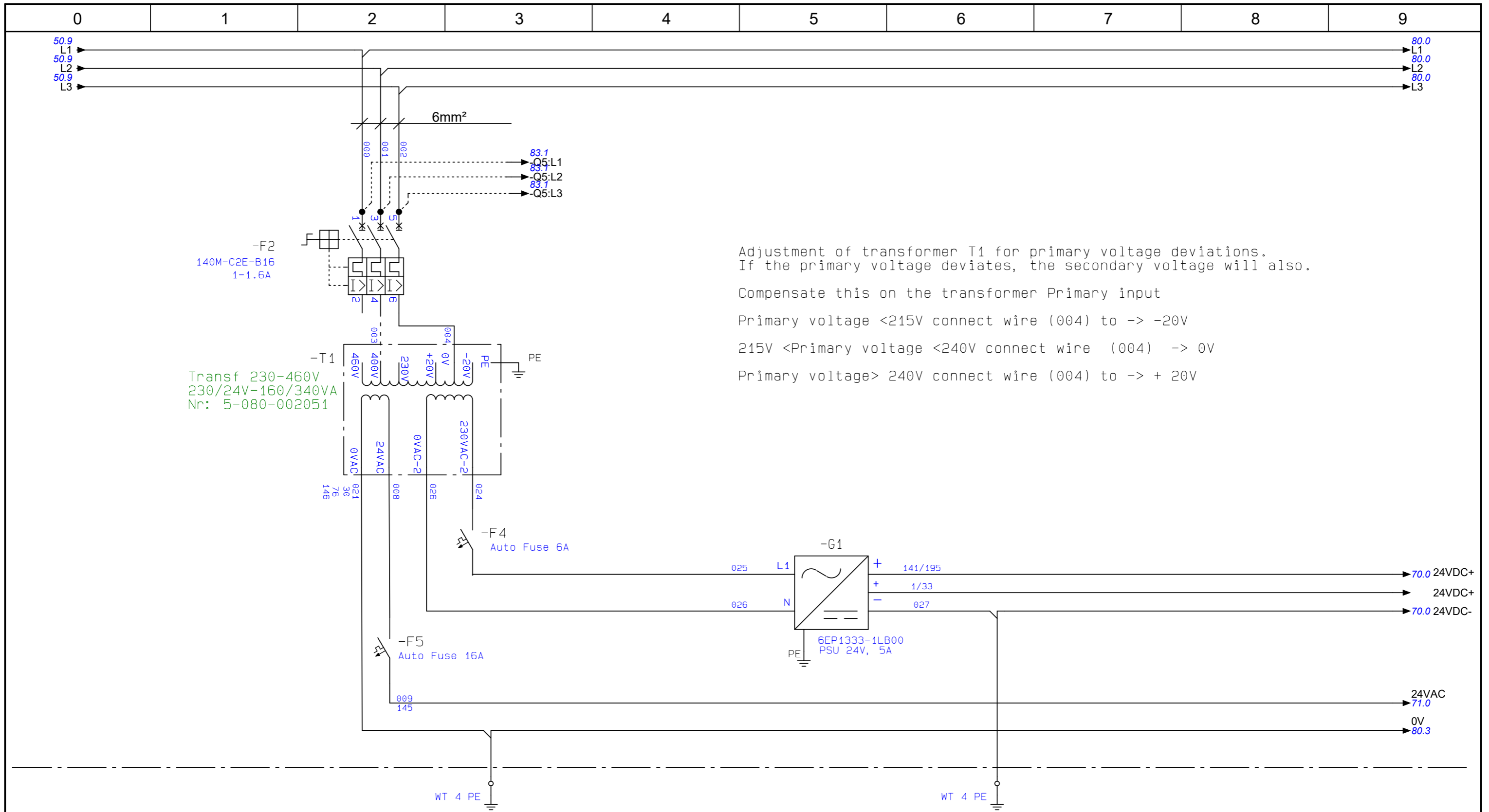
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Adjustment of transformer T1 for primary voltage deviations.  
 If the primary voltage deviates, the secondary voltage will also.

Compensate this on the transformer Primary input

Primary voltage <215V connect wire (004) to -> -20V  
 215V <Primary voltage <240V connect wire (004) -> 0V  
 Primary voltage > 240V connect wire (004) to -> + 20V

Transf 230-460V  
 230/24V-160/340VA  
 Nr: 5-080-002051

-F2  
 140M-C2E-B16  
 1-1.6A

-F4  
 Auto Fuse 6A

-F5  
 Auto Fuse 16A

-G1  
 6EP1333-1LB00  
 PSU 24V, 5A

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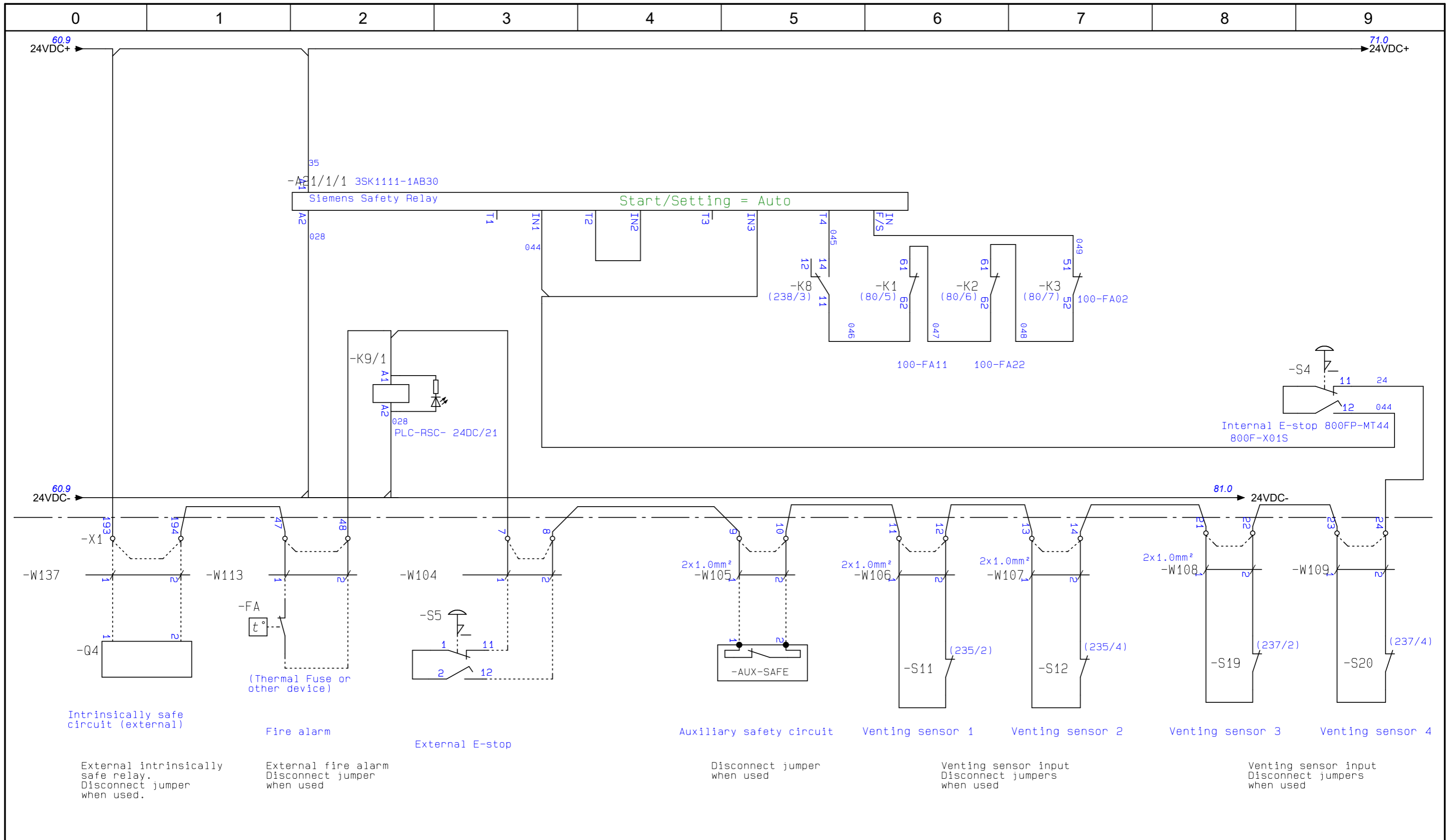
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CONTROL VOLTAGE

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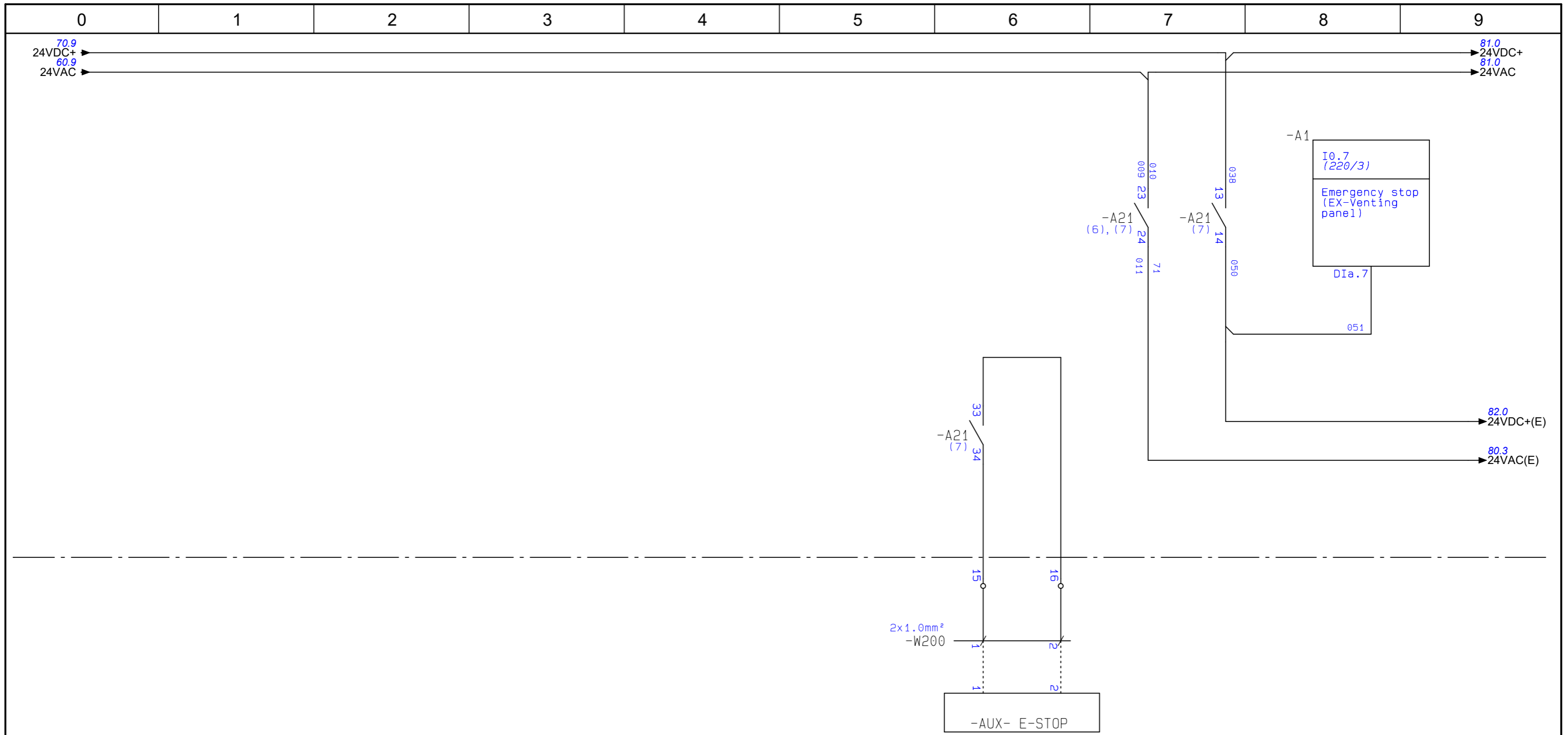
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**EMERGENCY STOP  
CIRCUIT**

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E-Stop signal to external control panel

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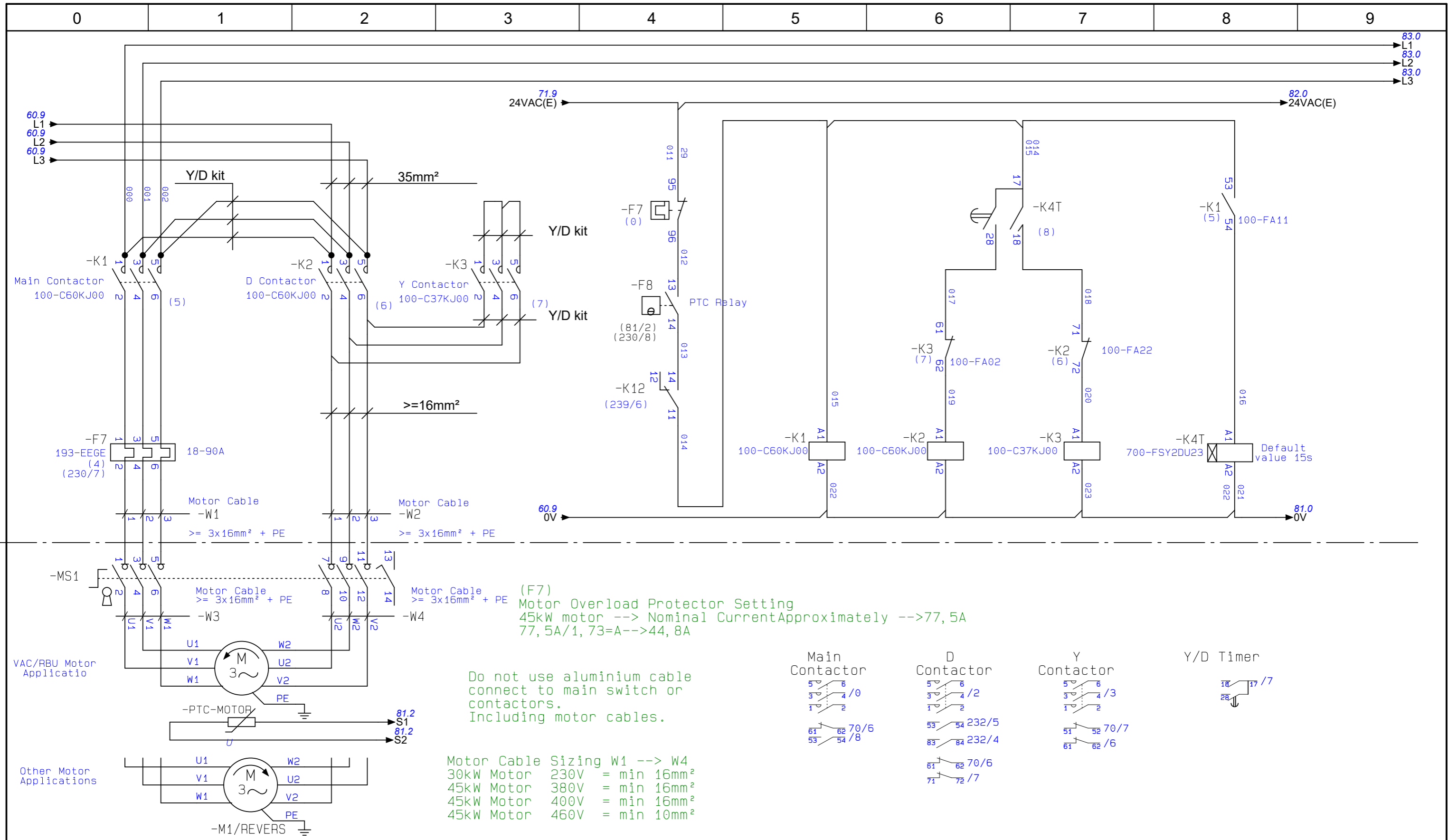
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EMERGENCY STOP  
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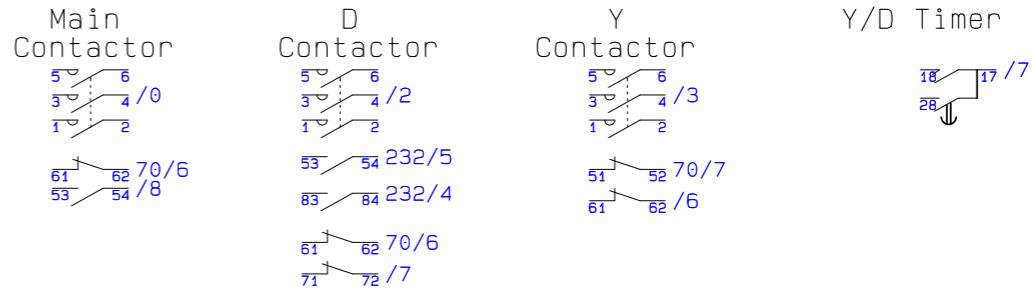
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Motor Overload Protector Setting  
 45kW motor --> Nominal Current Approximately --> 77,5A  
 77, 5A/1, 73=A-->44, 8A

Do not use aluminium cable  
 connect to main switch or  
 contactors.  
 Including motor cables.

Motor Cable Sizing W1 --> W4  
 30kW Motor 230V = min 16mm²  
 45kW Motor 380V = min 16mm²  
 45kW Motor 400V = min 16mm²  
 45kW Motor 460V = min 10mm²



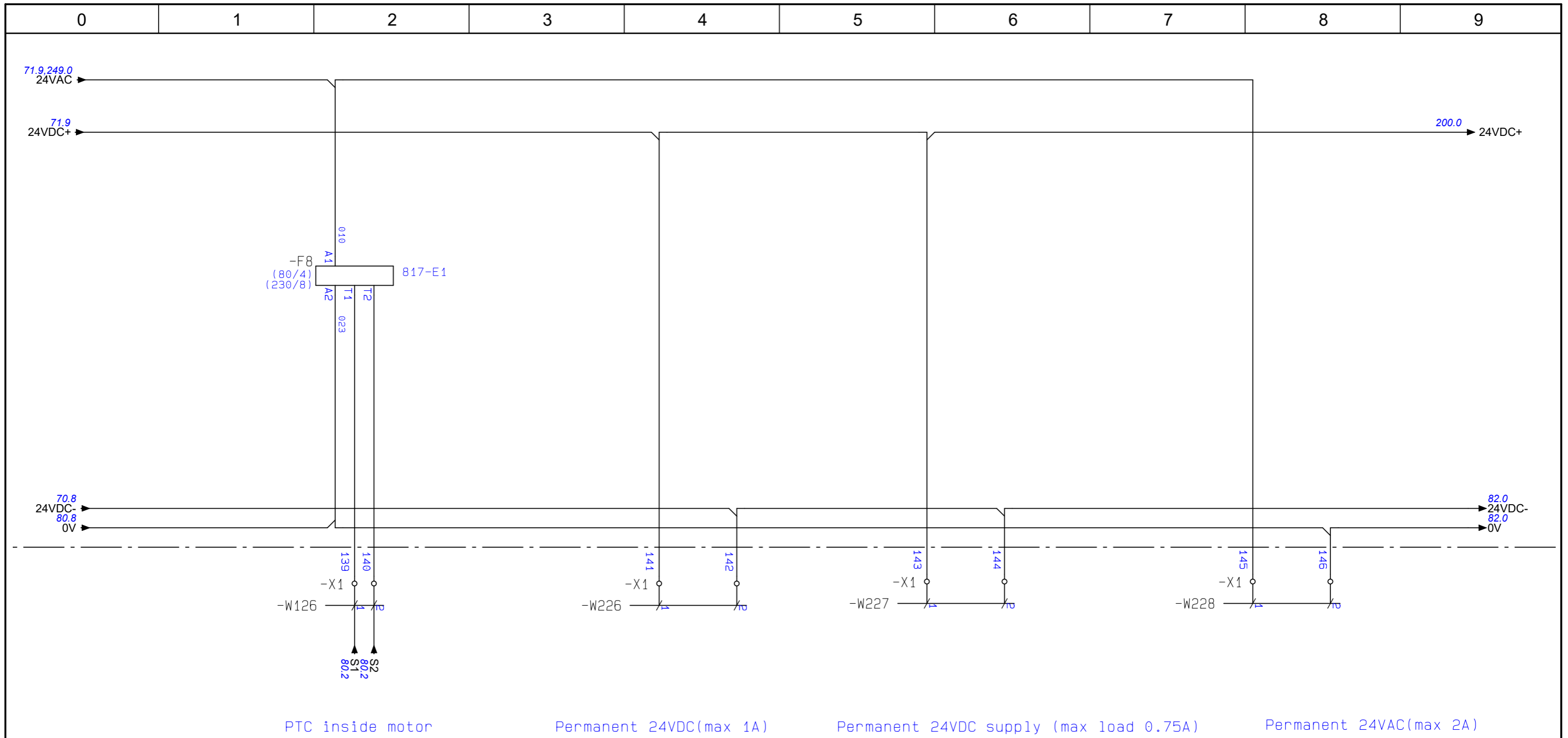
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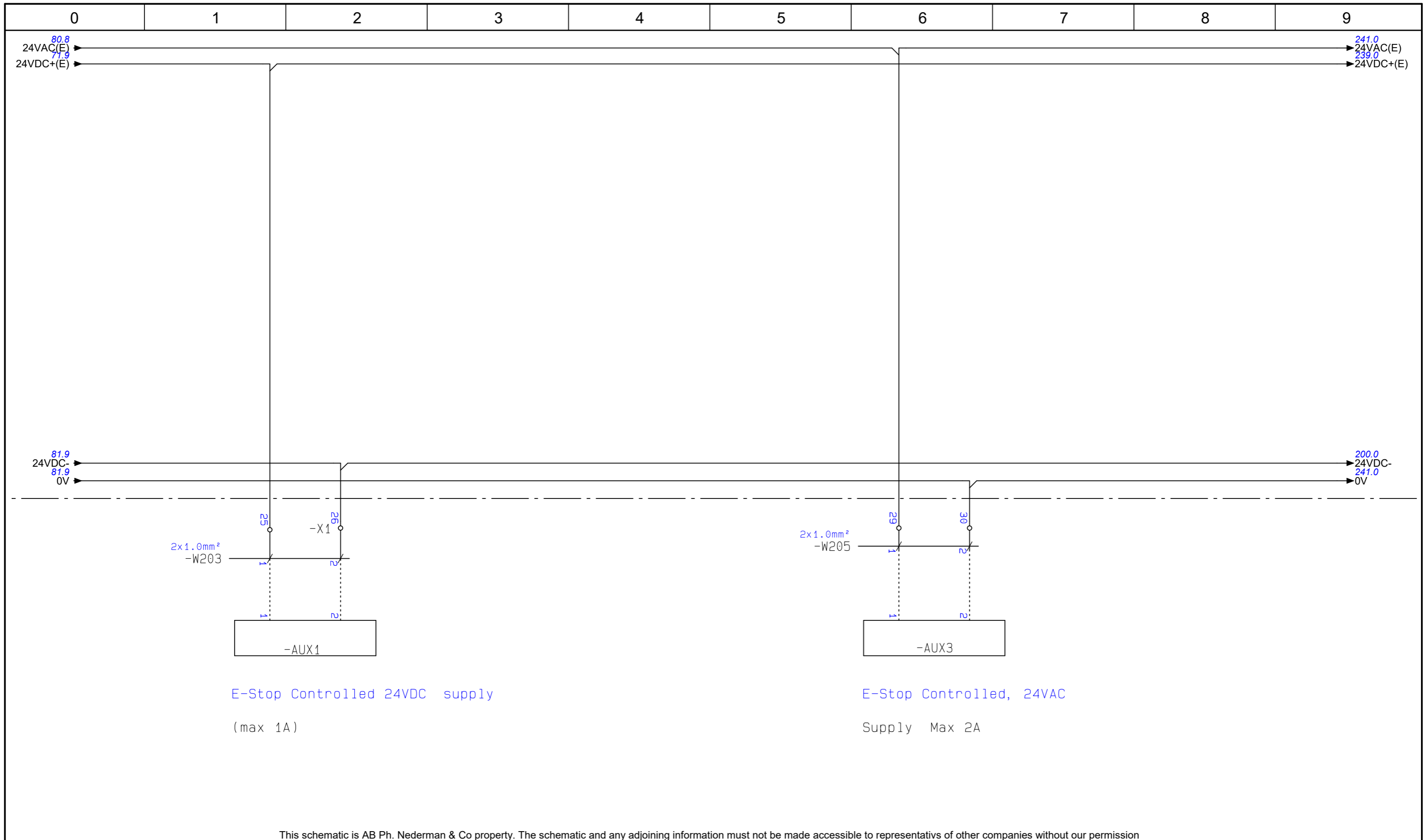
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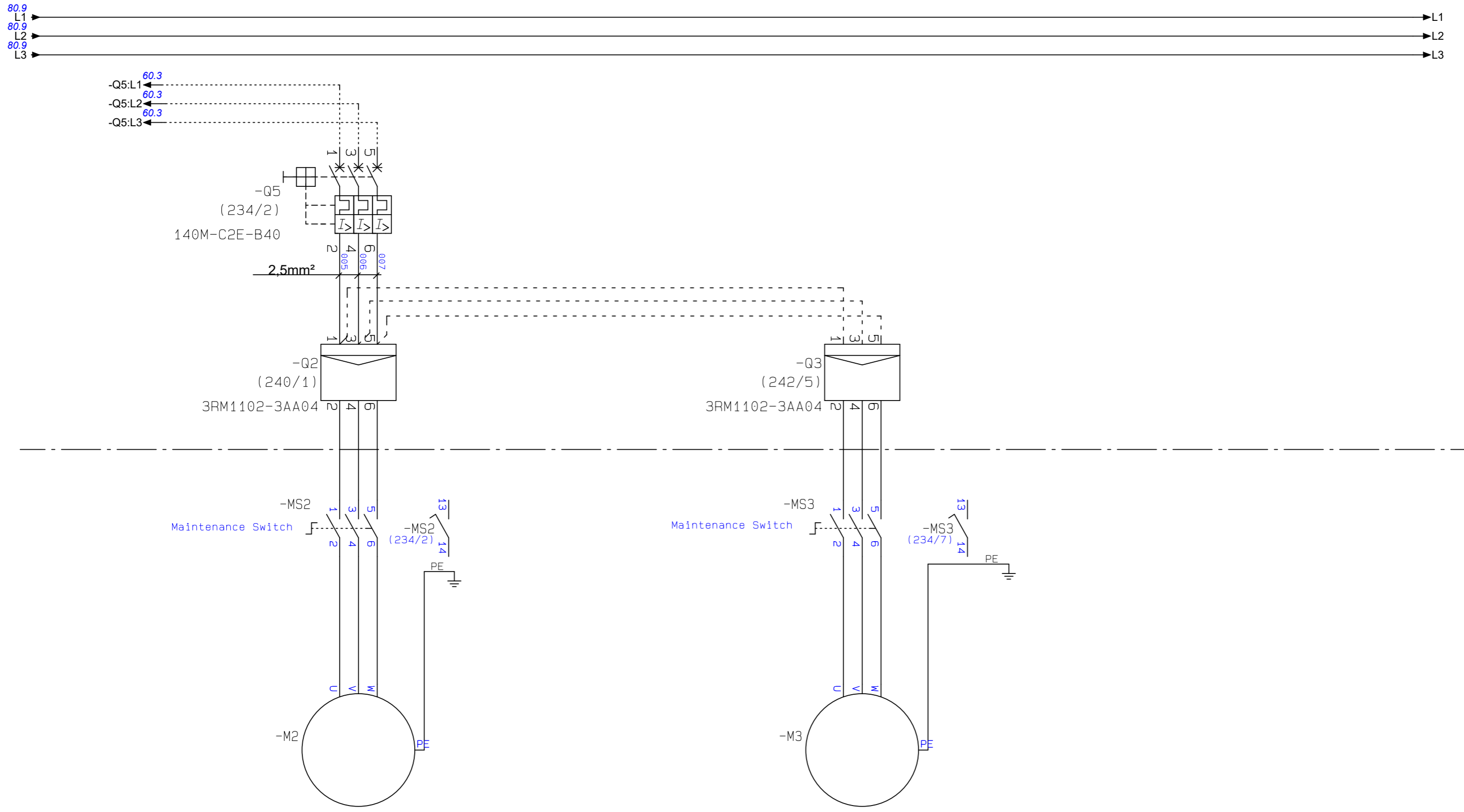
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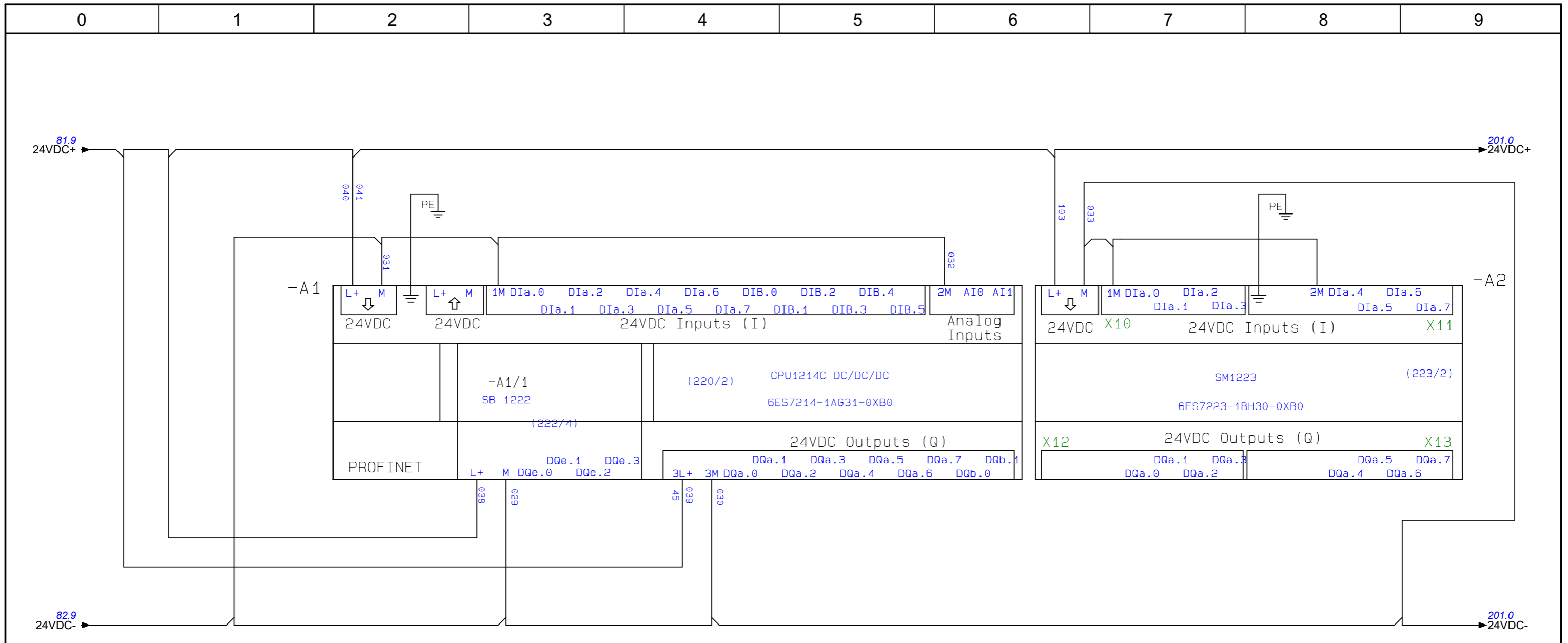
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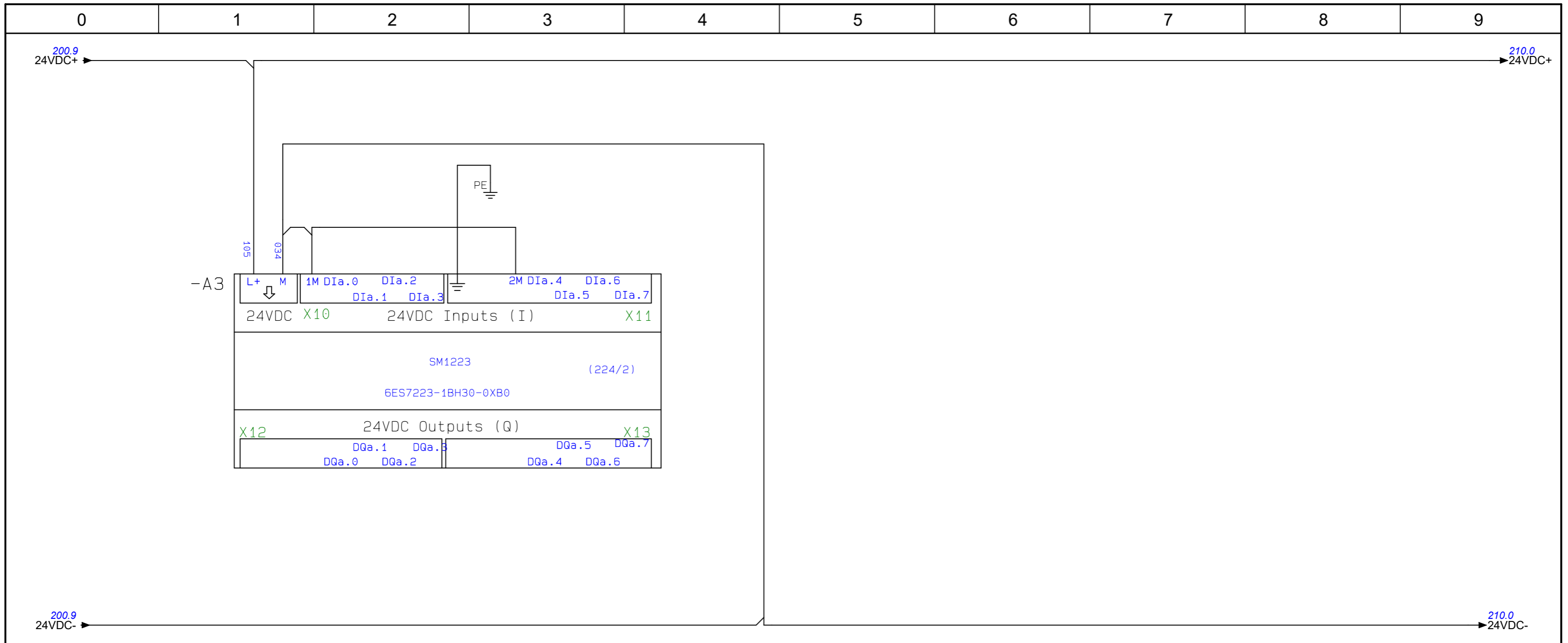
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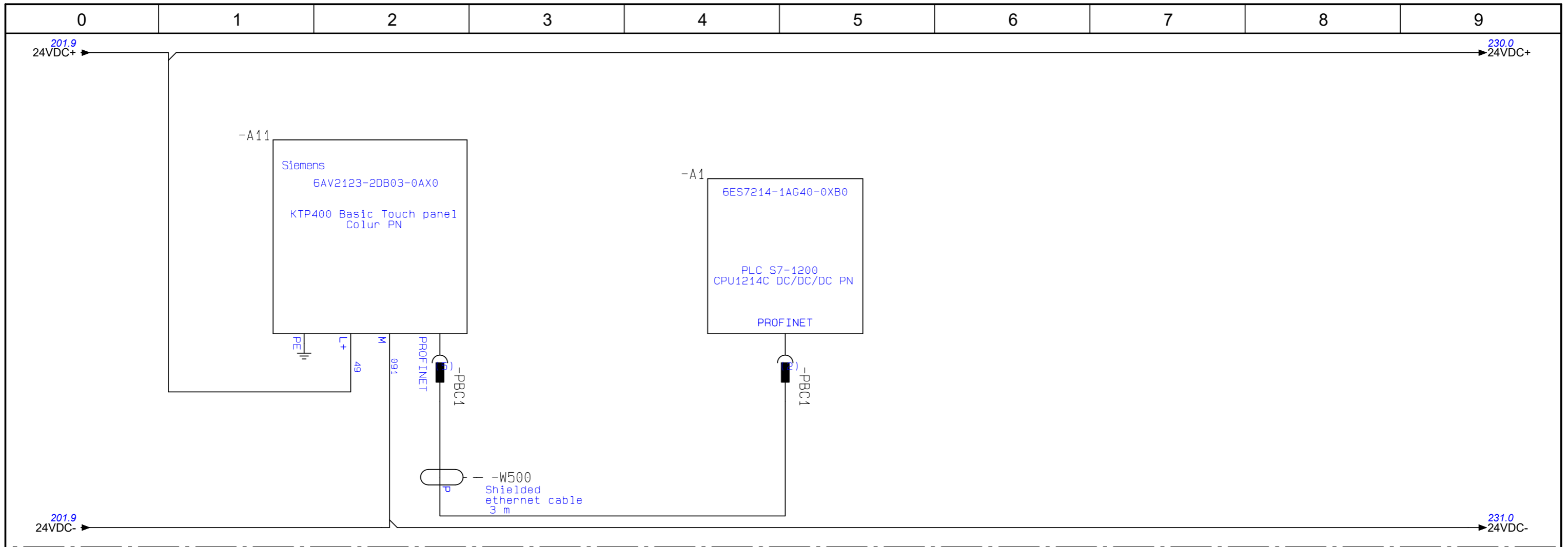
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CPU1214C DC/DC/DC		(200/4), (7)
I0.0 (230/2)	Pilot Signal (PS)	DIa.0
I0.1 (230/5)	Compressed air switch (CAS)	DIa.1
I0.2 (230/7)	Thermal switches (TS)	DIa.2
I0.3 (230/8)	Motor protector +(PTC (EX))	DIa.3
I0.4 (231/1)	Level indicator on dust bin (BLI)	DIa.4
I0.5	Main filter DPS Configurable (DFC-08M alarm (when no replica))	DIB.5
I0.6 (231/9)	Remote St.By/Off/OTTr	DIa.6
I0.7 (71/8)	Emergency stop (EX-Venting panel)	DIa.7
I1.0 (232/2)	Maintenance switch	DIB.0
I1.1 (232/6)	Closing function in D-mode	DIB.1
I1.2 (232/8)	Level Indicator (LI) (Emptying on demand) Configurable	DIB.2
I1.3 (233/0)	Control filter DPS 1 Configurable	DIB.3
I1.4 (233/6)	Manual emptying TVFD/AEB (NS)	DIB.4
I1.5 (233/8)	Fire Alarm	DIB.5
6ES7214-1AG40-0XB0		

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CPU1214C DC/DC/DC		(2), (221/3)
Q0.0 (238/3)	NoAlarm (Reset Safety circ.)	DQa.0
Q0.1 (238/5)	Alarm message lamp lamp in front panel	DQa.1
Q0.2 (238/8)	Warning DPS BLI and LI (relay is energized at warnig active)	DQa.2
Q0.3 (239/2)	Filter Cleaning Valve V1 dust collector Configurable FlexF 13/18 v1 (replica)	DQa.3
Q0.4 (239/4)	Filter Cleaning Valve V2 dust collector Configurable FlexF 13/18 v1 (replica)	DQa.4
Q0.5 (239/6)	Run(Start motor)	DQa.5
Q0.6 (239/8)	Solenoid V10 in vacuum unit ( Start up valve / Idling (RBU) )	DQa.6
Q0.7 (240/3)	Upper solenoid V11 TVFD 1 Configurable	DQa.7
Q1.0 (240/5)	Lower solenoid V12 TVFD 1 Emptying AEB; Configurable	DQb.0
Q1.1 (240/8)	On/standby lamp (external)	DQb.1
6ES7214-1AG40-0XB0		

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CPU1214C DC/DC/DC		(220/7), (248/3)
AI0 (248/3)	(ASC) Current Sensor	AI0
AI1 (248/6)	Vacuum Sensor input dP FlexFilter 13/18	AI1
6ES7214-1A631-0XB0		

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SB 1222	(200/3)
4.00 (241/2)	Config output K19 ASC move/Flush 1 DQe.0
4.01 (241/4)	Config output K20 ASC open/Flush 2 DQe.1
4.02 (241/6)	LCC start DQe.2
4.03 (241/9)	MUX AI0 Current AI1 Pressure DQe.3
6ES7222-1BD30-0XB0	

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SM1223		(200/8), (7)
I8.0 (234/1)	TVFD1 limit switch upper closed	DIa.0
I8.1 (234/3)	TVFD1 limit switch lower closed	DIa.1
I8.2 (234/5)	TVFD 2 Limit Switch Upper closed	DIa.2
I8.3 (234/8)	EX Locked Isolation valve 1	DIa.3
I8.4 (235/1)	Venting panel sensor 1	DIa.4
I8.5 (235/3)	Venting panel sensor2	DIa.5
I8.6 (235/5)	CF-DPS2( Control Filter DP switch 2)	DIa.6
I8.7 (235/7)	TVFD2 Limit Switch Lower closed	DIa.7
6ES7223-1BH30-0XB0		

-A2

SM 1223		(2)
Q8.0 (242/2)	EX panel tripped	DQa.0
Q8.1 (242/6)	TVFD 2 upper valve Clean 7	DQa.1
Q8.2 (242/8)	TVFD 2 Lower valve Clean 8	DQa.2
Q8.3 (243/2)	N-S Button lamp	DQa.3
Q8.4 (243/5)	Flush valve1	DQa.4
Q8.5 (243/8)	Flush valve2	DQa.5
Q8.6 (244/2)	Flush valve3	DQa.6
Q8.7 (244/5)	Flush valve4	DQa.7
6ES7223-1BH30-0XB0		

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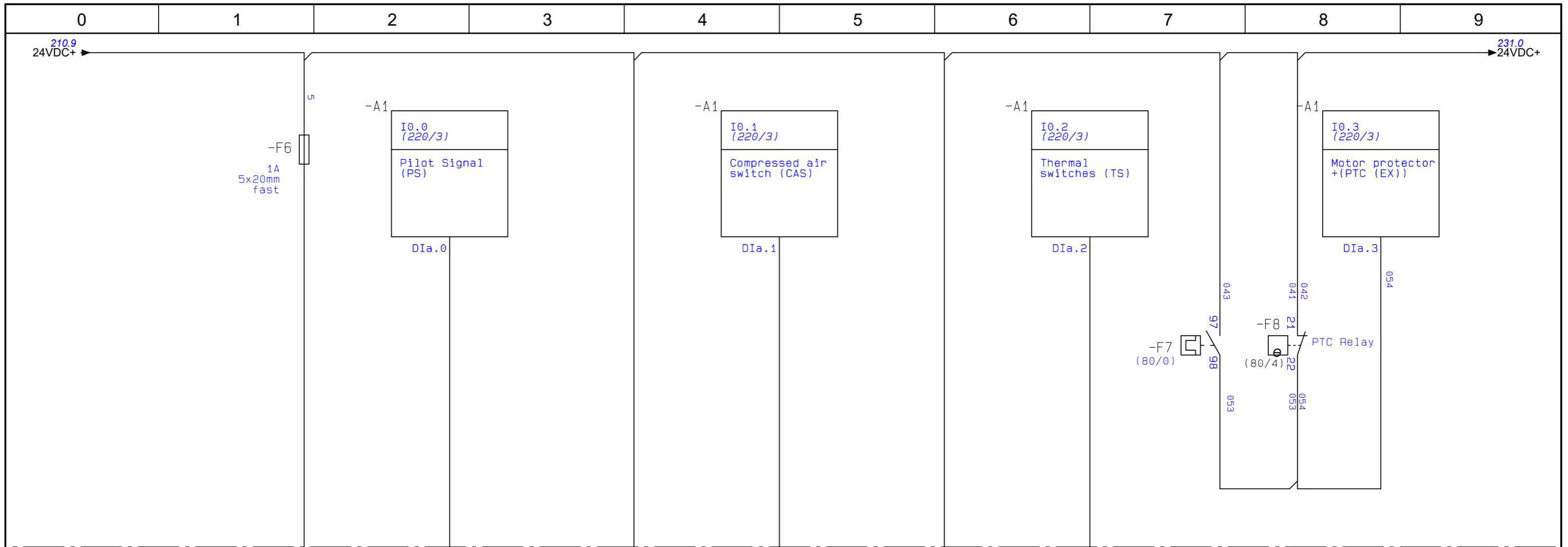
-A3

SM1223		(201/3), (7)
I12.0 (236/1)	TVFD 3 limit switch upper closed	DIa.0
I12.1 (236/3)	TVFD 3 limit switch lower closed	DIa.1
I12.2 (236/5)	TVFD 4 Limit Switch Upper closed	DIa.2
I12.3 (236/7)	TVFD 4 limit switch lower closed	DIa.3
I12.4 (237/1)	Venting panel sensor3	DIa.4
I12.5 (237/3)	Venting panel sensor4	DIa.5
I12.6	CF-DPS3( Control Filter DP switch 3) (237/5)	DIa.6
I12.7 (237/7)	CF-DPS4( Control Filter DP switch 4)	DIa.7
6ES7223-1BH30-0XB0		

-A3

SM 1223		(2)
Q12.0 (245/2)	TVFD 3 upper valve Flush 5 / FlexF18 v3 / Clean 5	DQa.0
Q12.1 (245/5)	TVFD 3 Lower valve Flush 6 / FlexF18 v4	DQa.1
Q12.2 (245/8)	TVFD 4 upper valve Lime inj. Open TAV50	DQa.2
Q12.3 (246/2)	TVFD 4 Lower valve Lime inj. Dosing	DQa.3
Q12.4 (246/5)	Upstream damper 2	DQa.4
Q12.5 (246/8)	Downstream damper 1 (OFF-line cleaning and Graceful degr.)	DQa.5
Q12.6 (247/2)	Downstream damper 2 (OFF-line cleaning and Graceful degr.)	DQa.6
Q12.7 (247/5)	Spare (Clean/flush/ presep.)	DQa.7
6ES7223-1BH30-0XB0		

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**Pilot Signal**

All connected in parallel  
 Maximum length Signal Cable  
 Unshielded =300m  
 Shielded =500m

**(CAS) Open = P<3Bar**

Compressed air switch (CAS)  
 Open = P<3Bar

**Motor overload relay**

Thermal Switch on VAC Bearing = Resettable  
 Thermal Fuse =Max 140C on RBU:pump outlet Not Resettable

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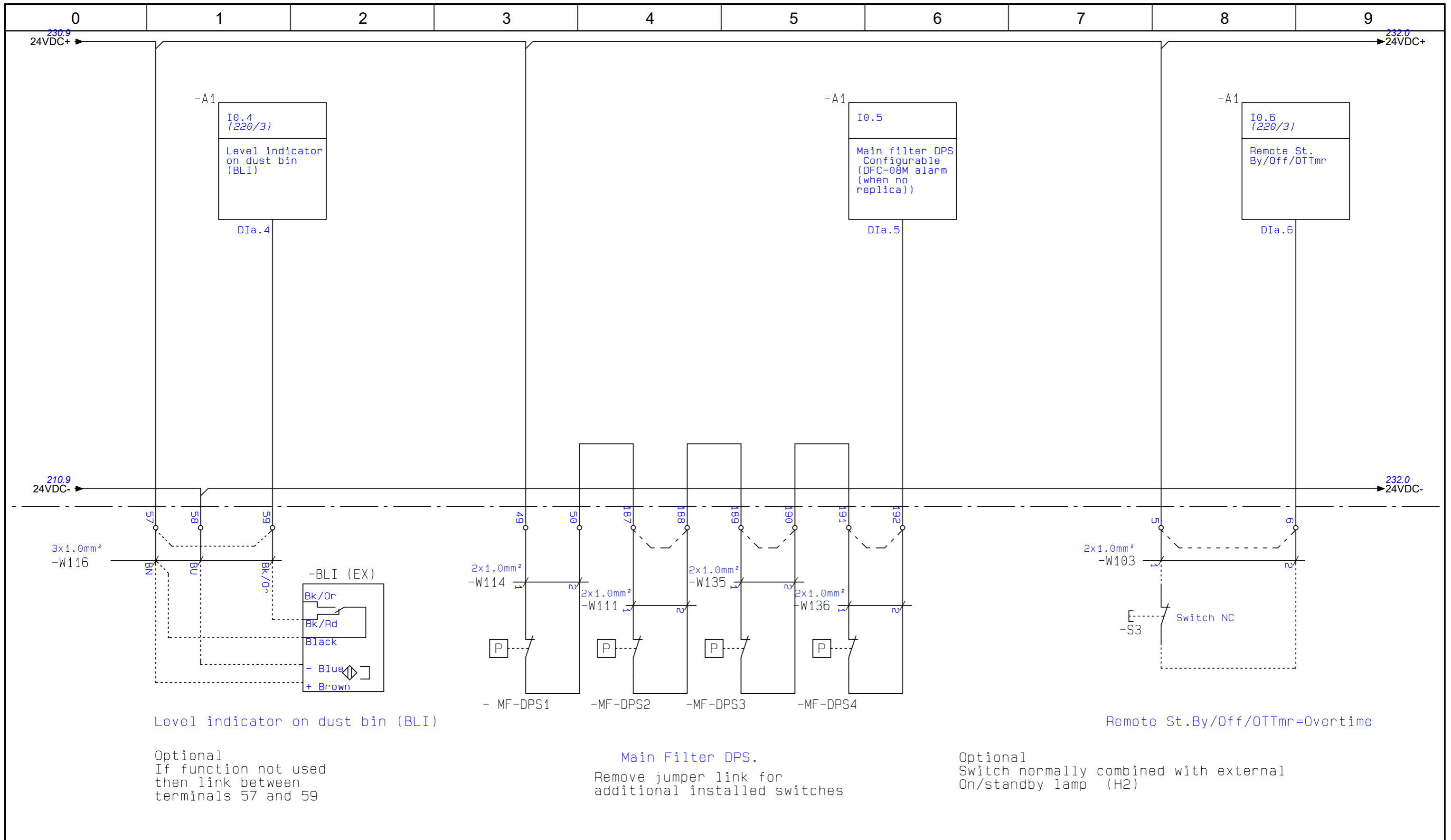
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**PLC INPUT  
 TERMINALS**

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Level indicator on dust bin (BLI)

Optional  
If function not used  
then link between  
terminals 57 and 59

Main Filter DPS.

Remove jumper link for  
additional installed switches

Remote St.By/Off/OTTmr=Overtime

Optional  
Switch normally combined with external  
On/standby lamp (H2)

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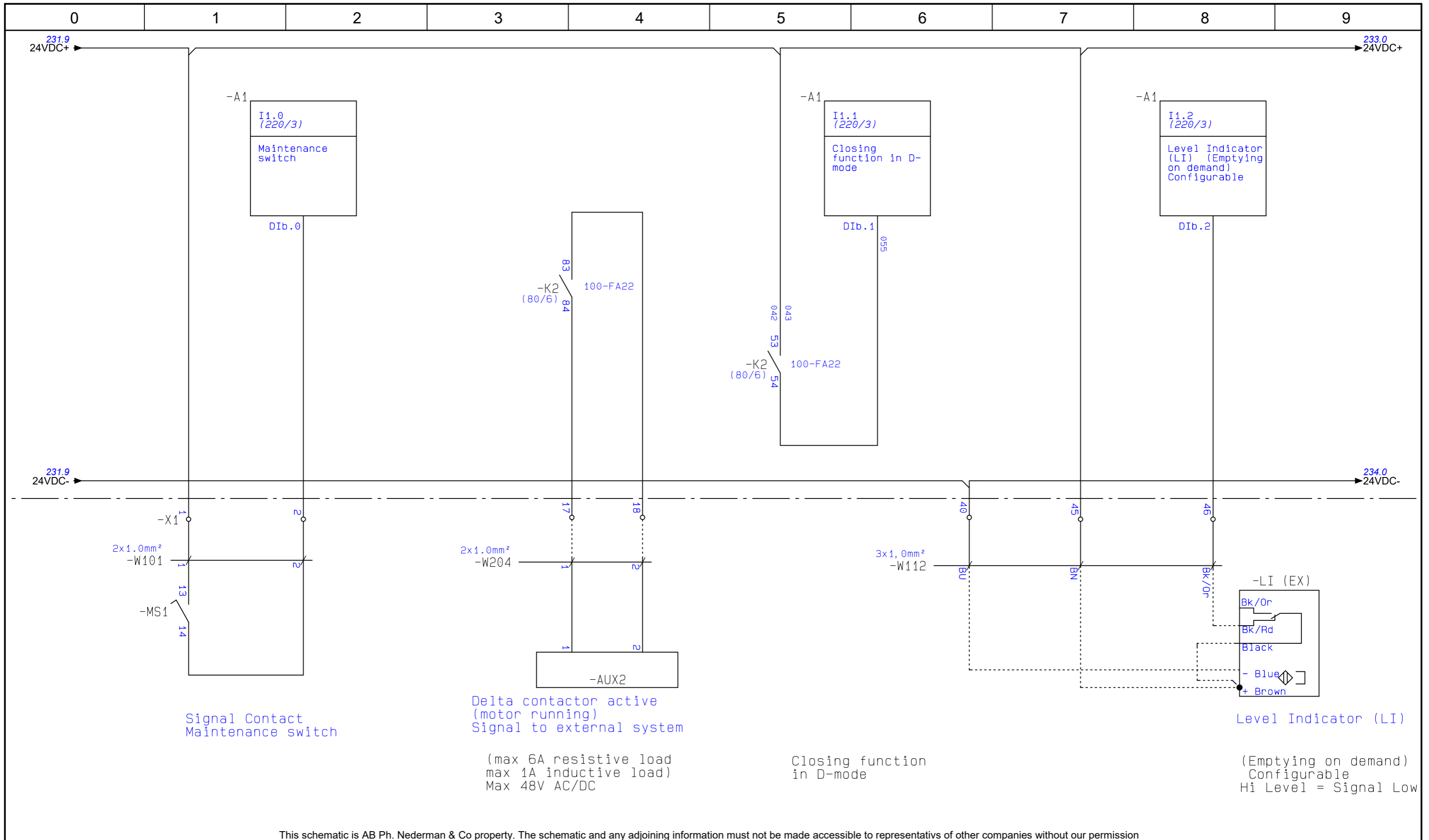


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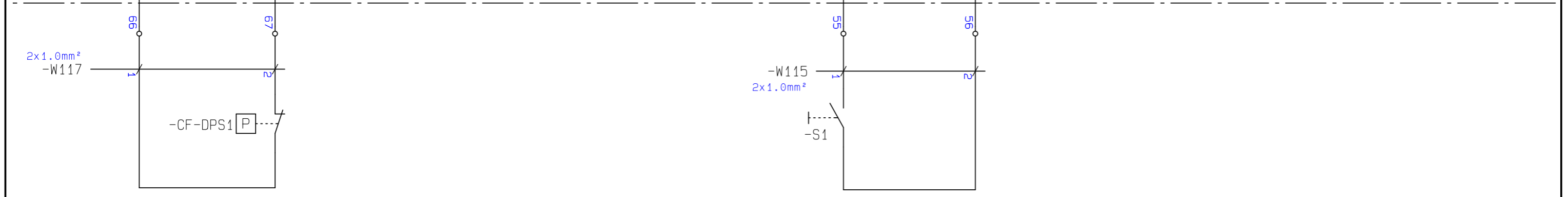
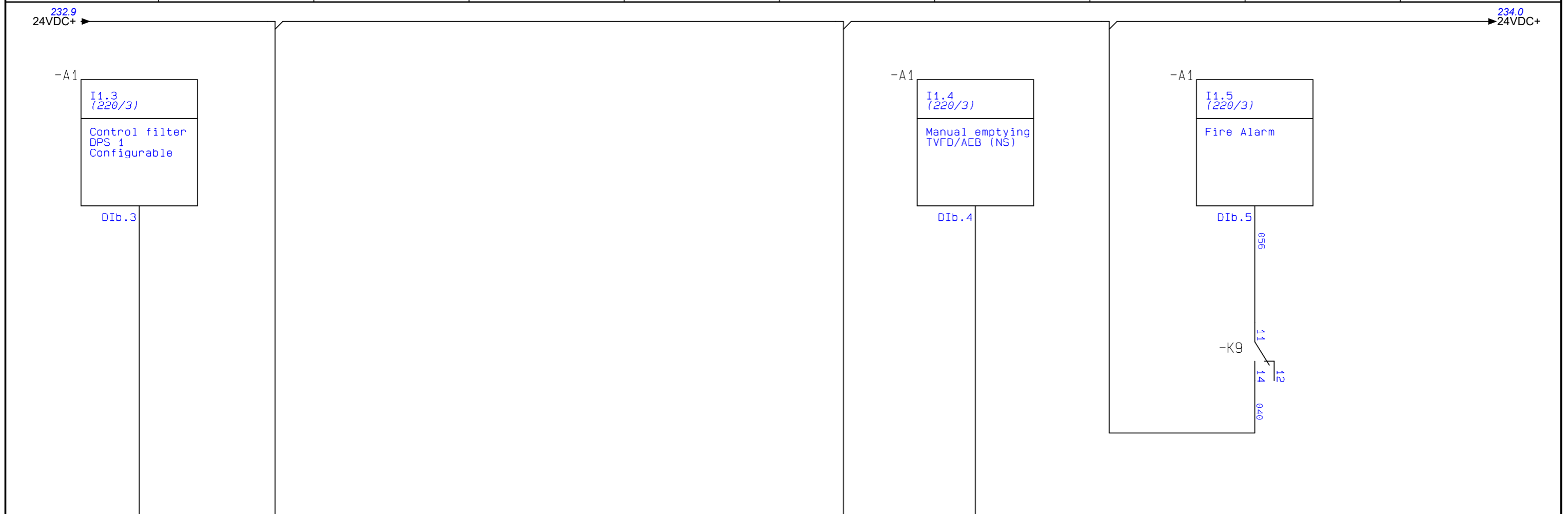
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Date of approval	-	Date of created	2019/08/20
Approval by	-	Author	FRALE
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**Nederman**

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Control filter DPS (1) - (1-2)

Manual emptying TVFD/AEB (NS)

Fire Alarm

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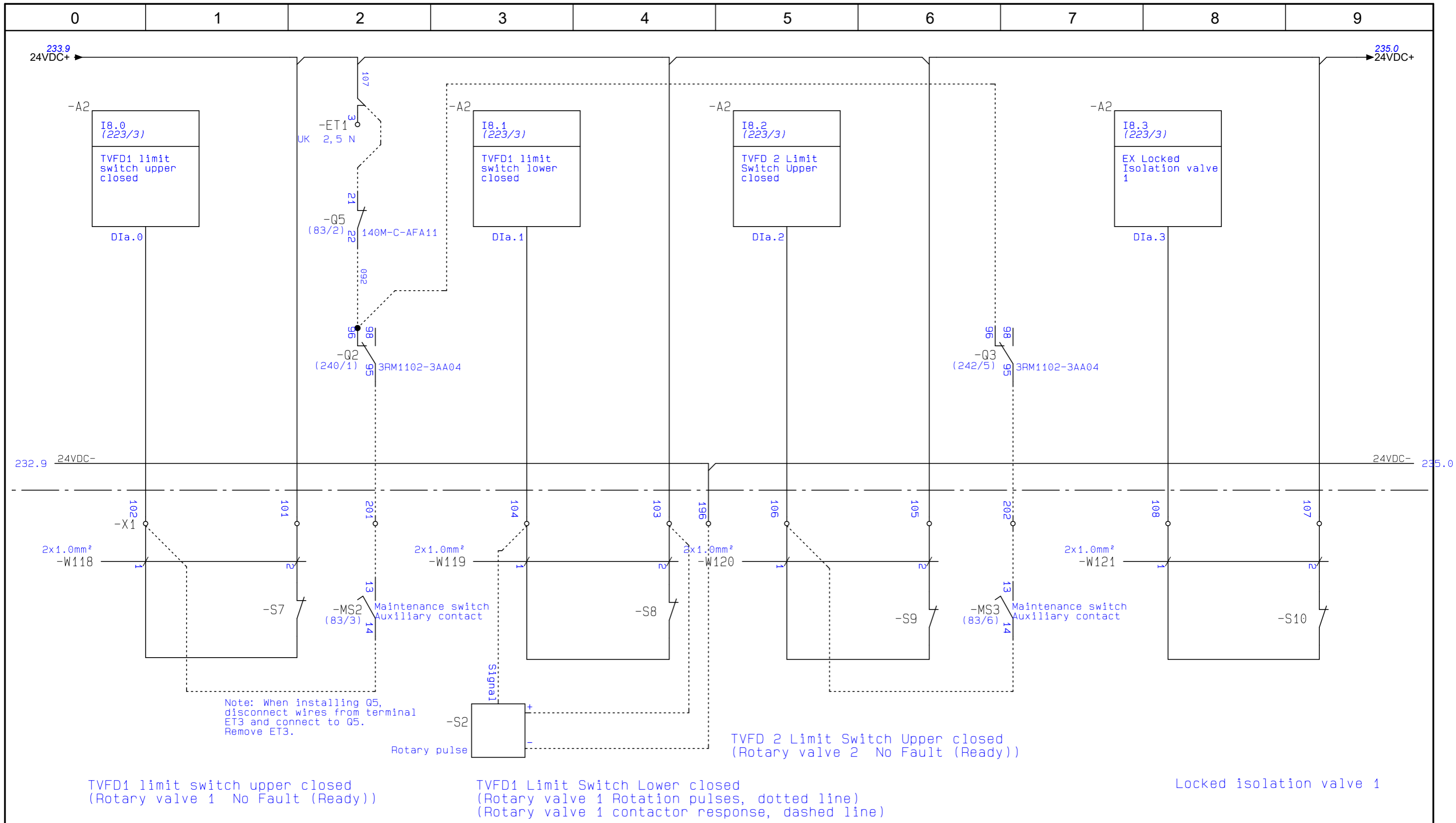
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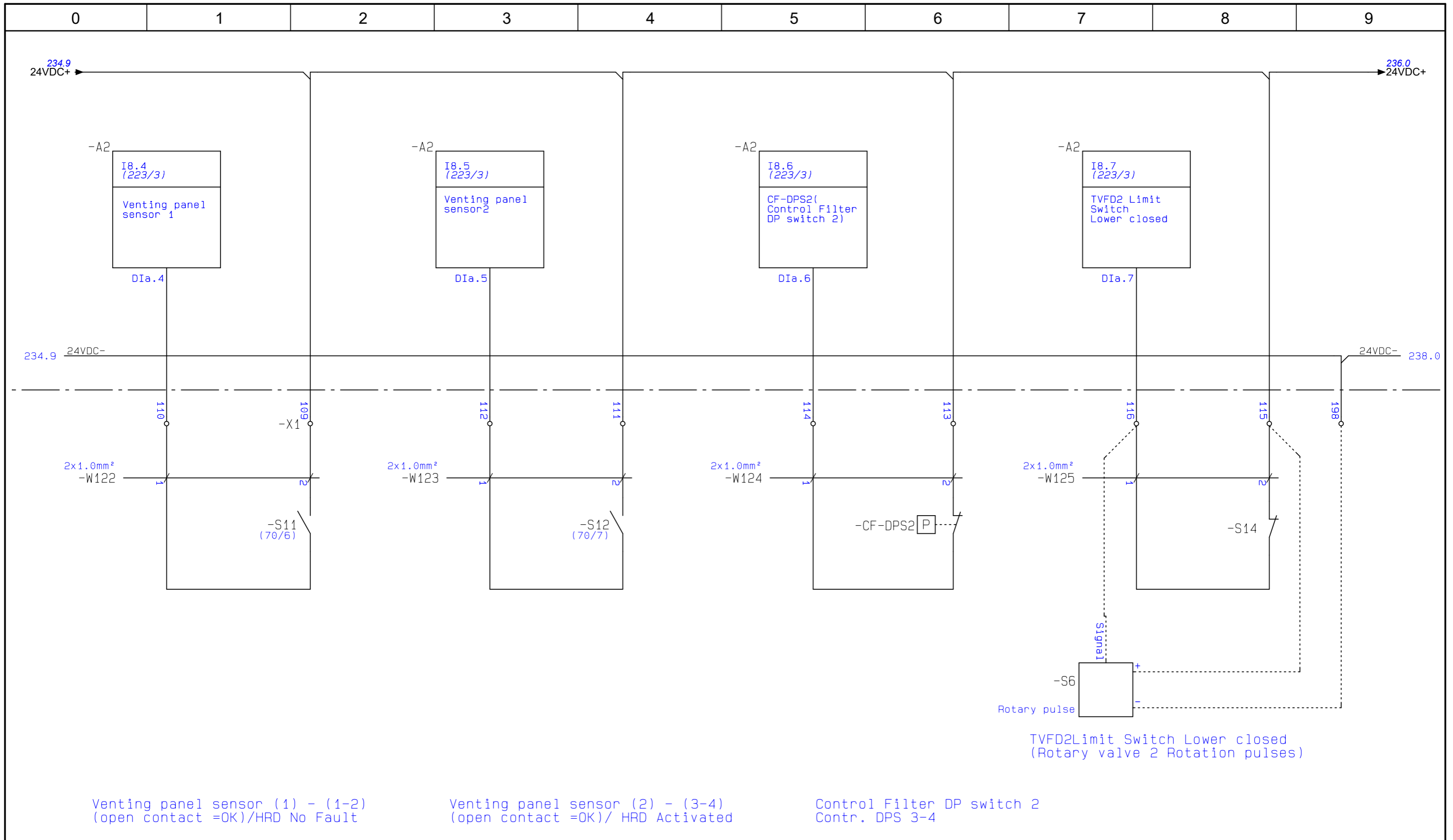


SM1223 (A2 )  
INPUT  
TERMINALS


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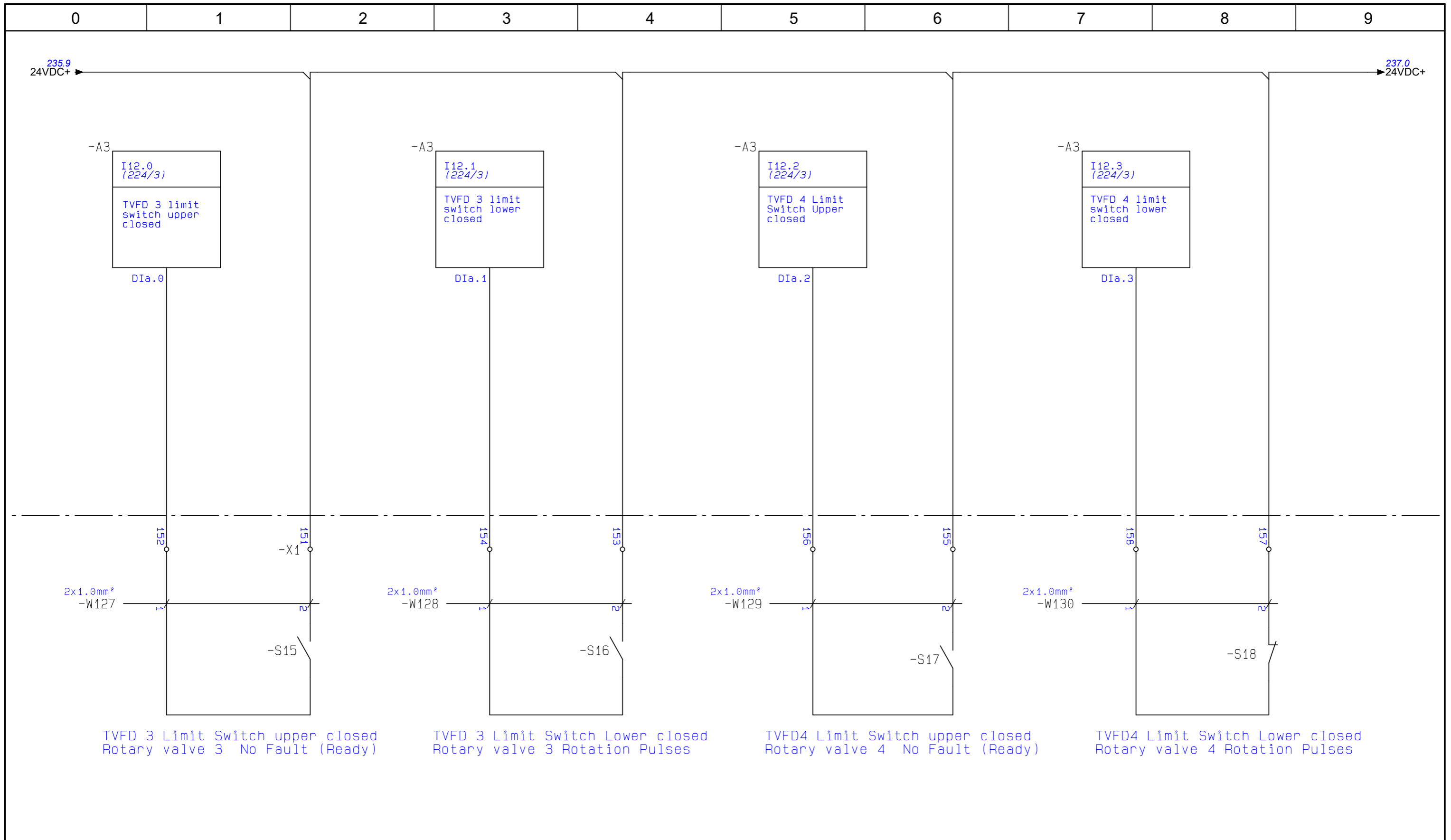
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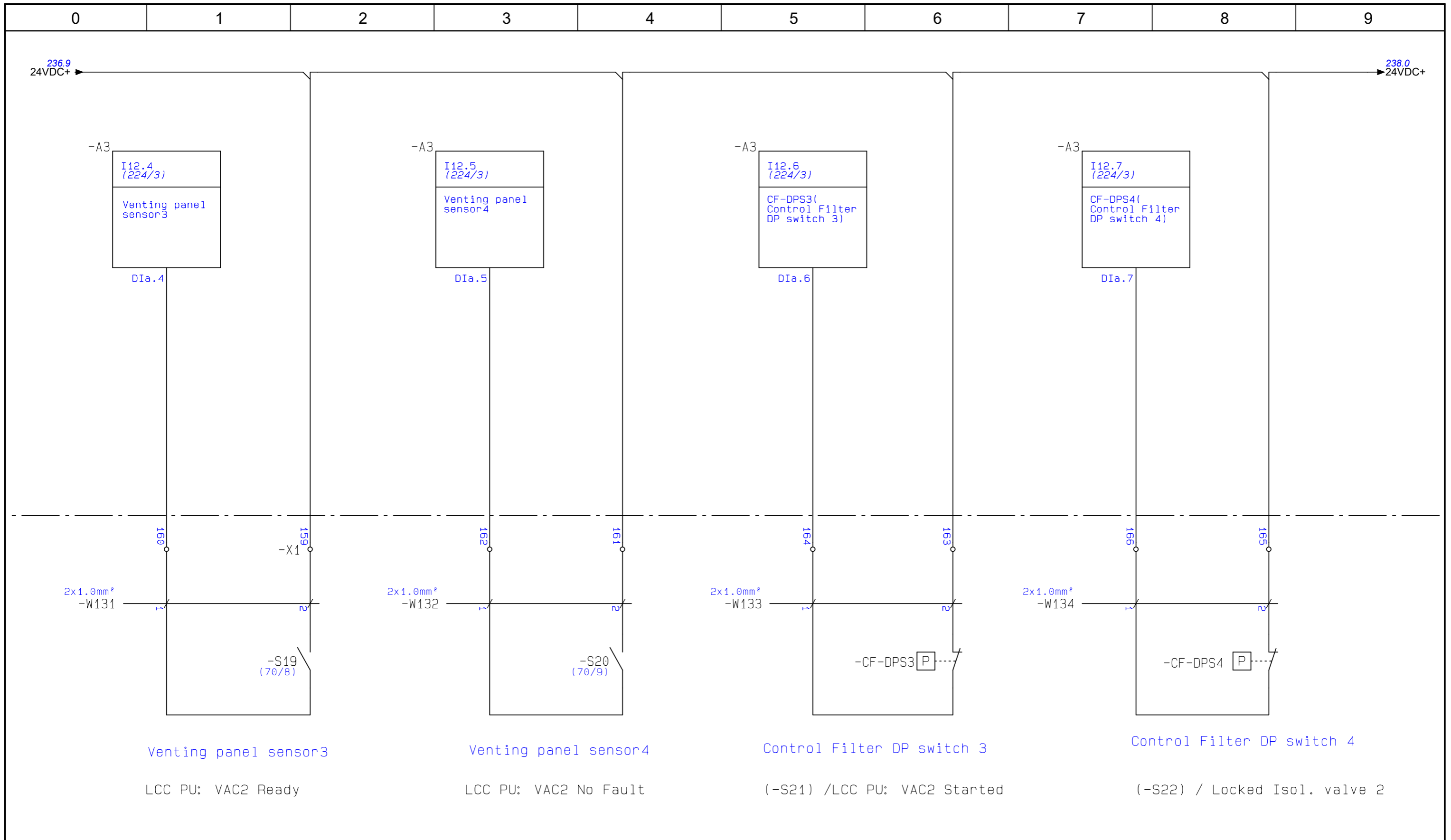
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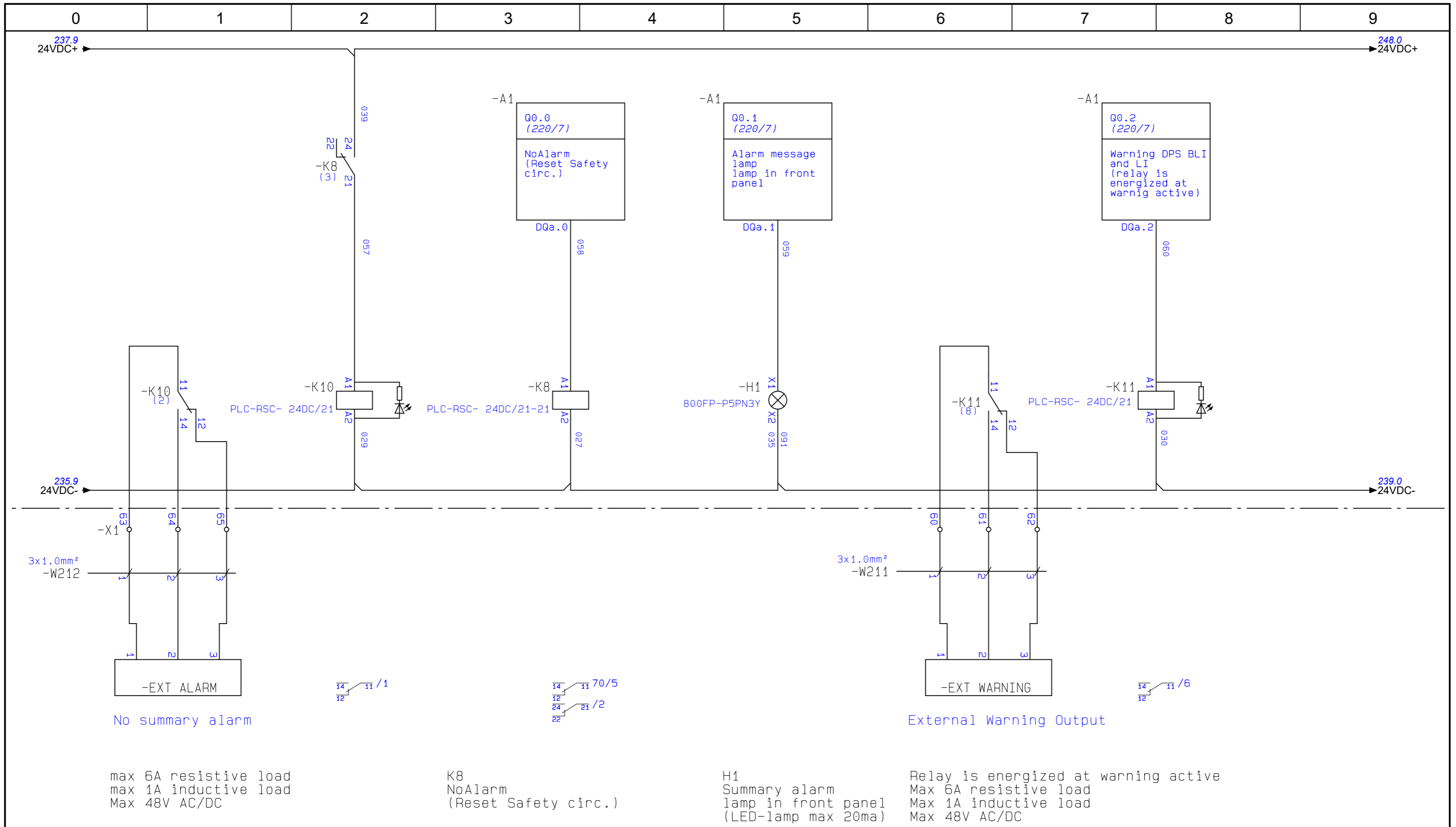
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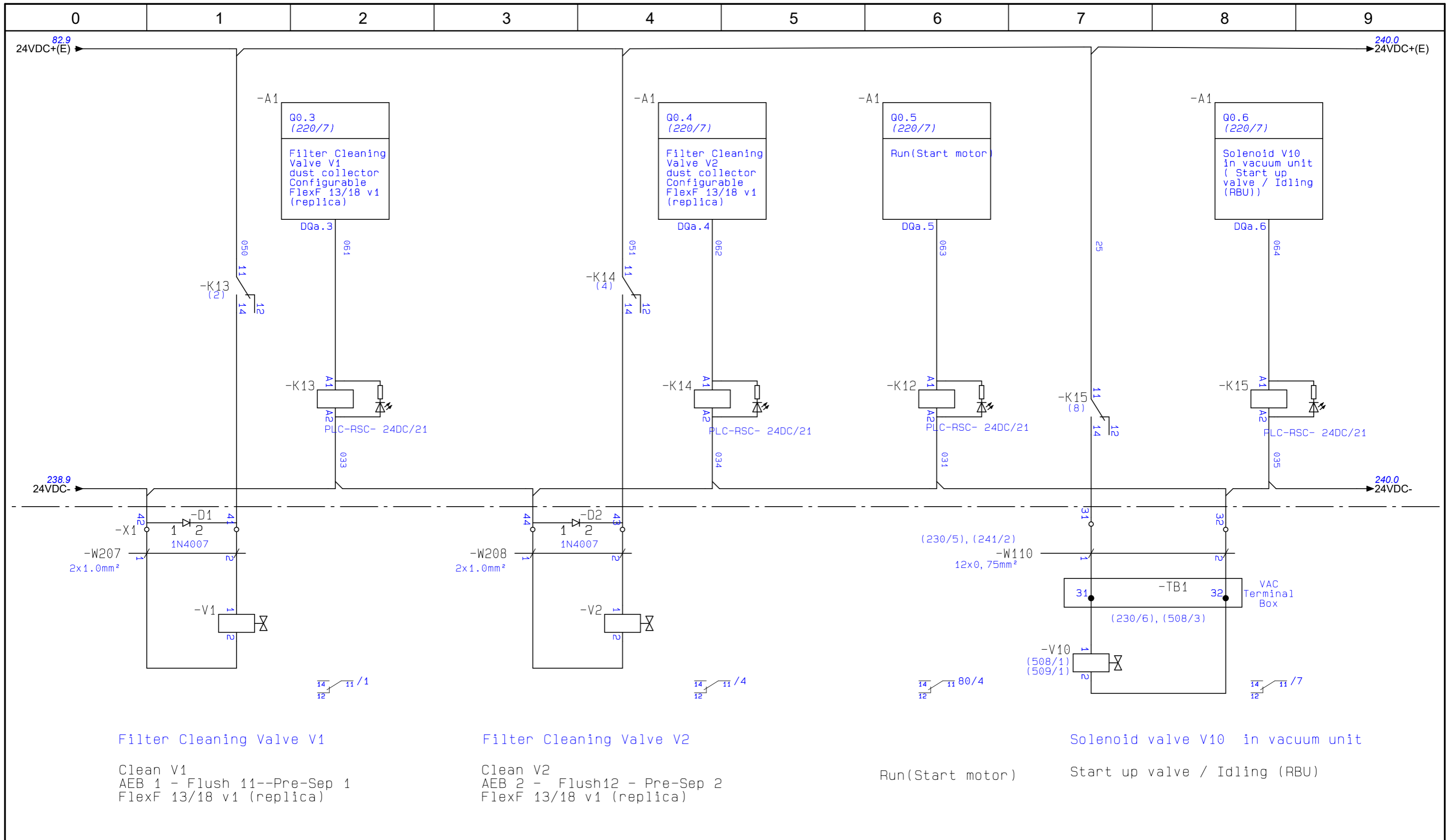
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Filter Cleaning Valve V1

Clean V1  
 AEB 1 - Flush 11--Pre-Sep 1  
 FlexF 13/18 v1 (replica)

Filter Cleaning Valve V2

Clean V2  
 AEB 2 - Flush12 - Pre-Sep 2  
 FlexF 13/18 v1 (replica)

Run(Start motor)

Solenoid valve V10 in vacuum unit

Start up valve / Idling (RBU)

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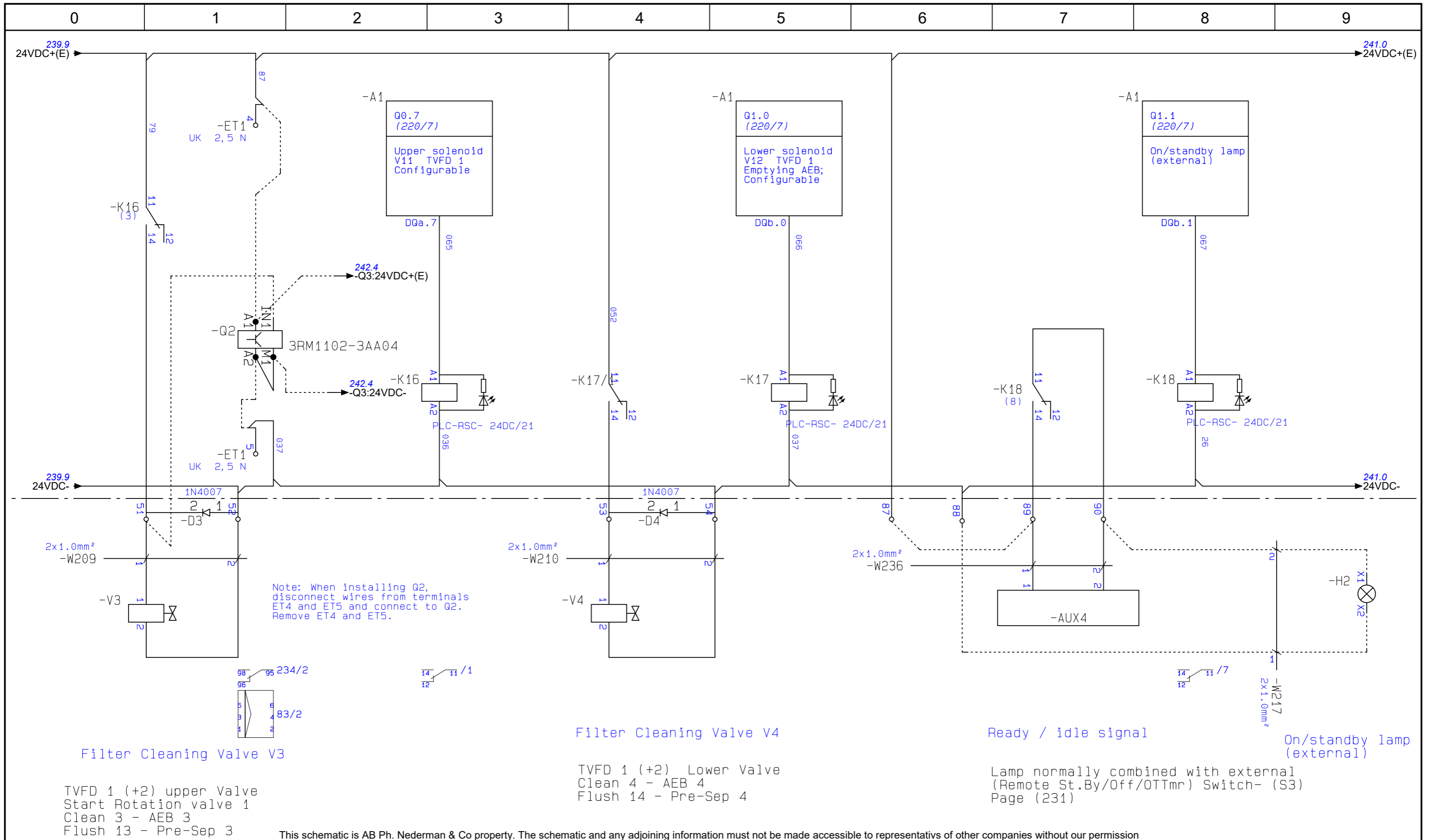
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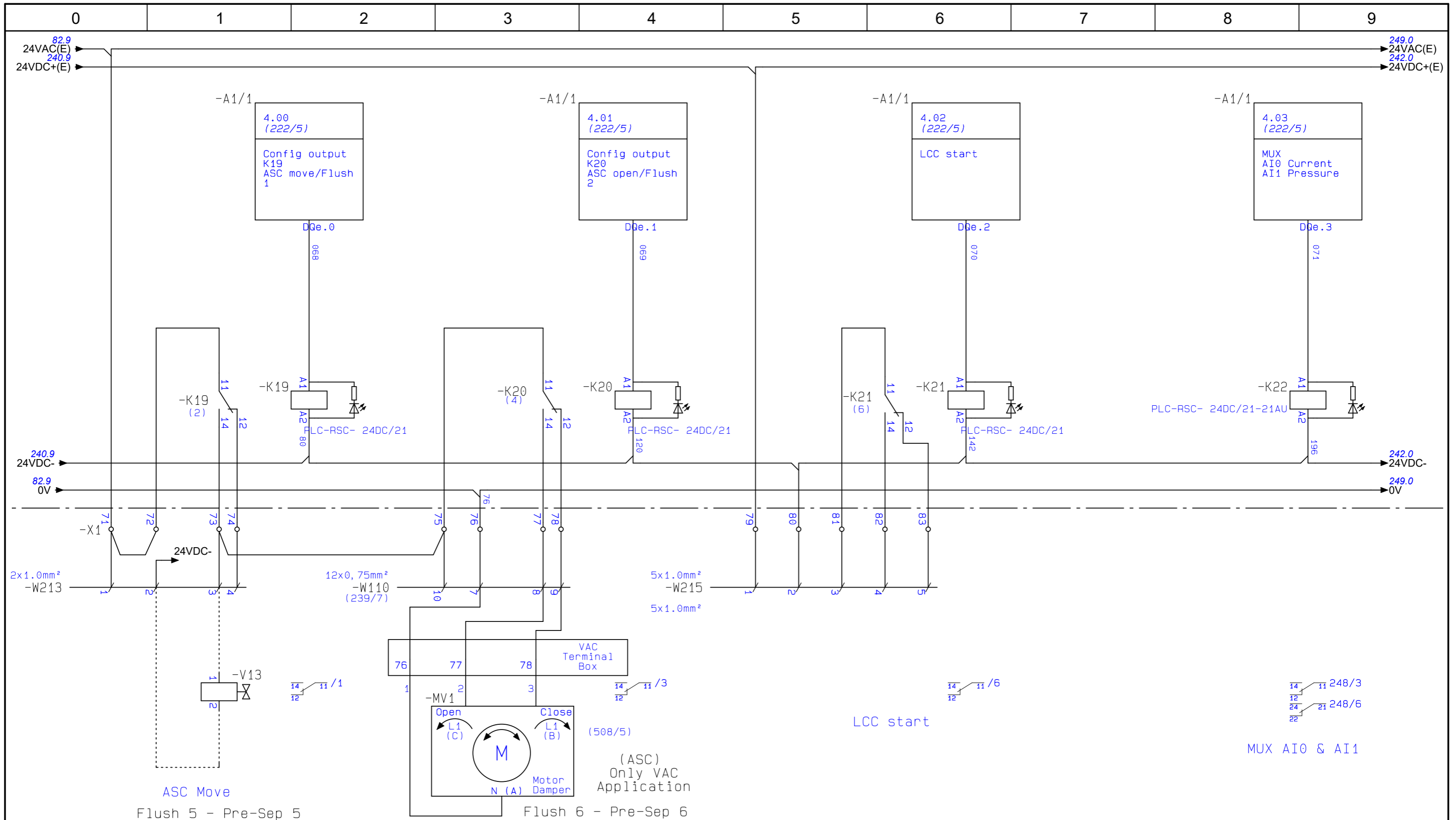
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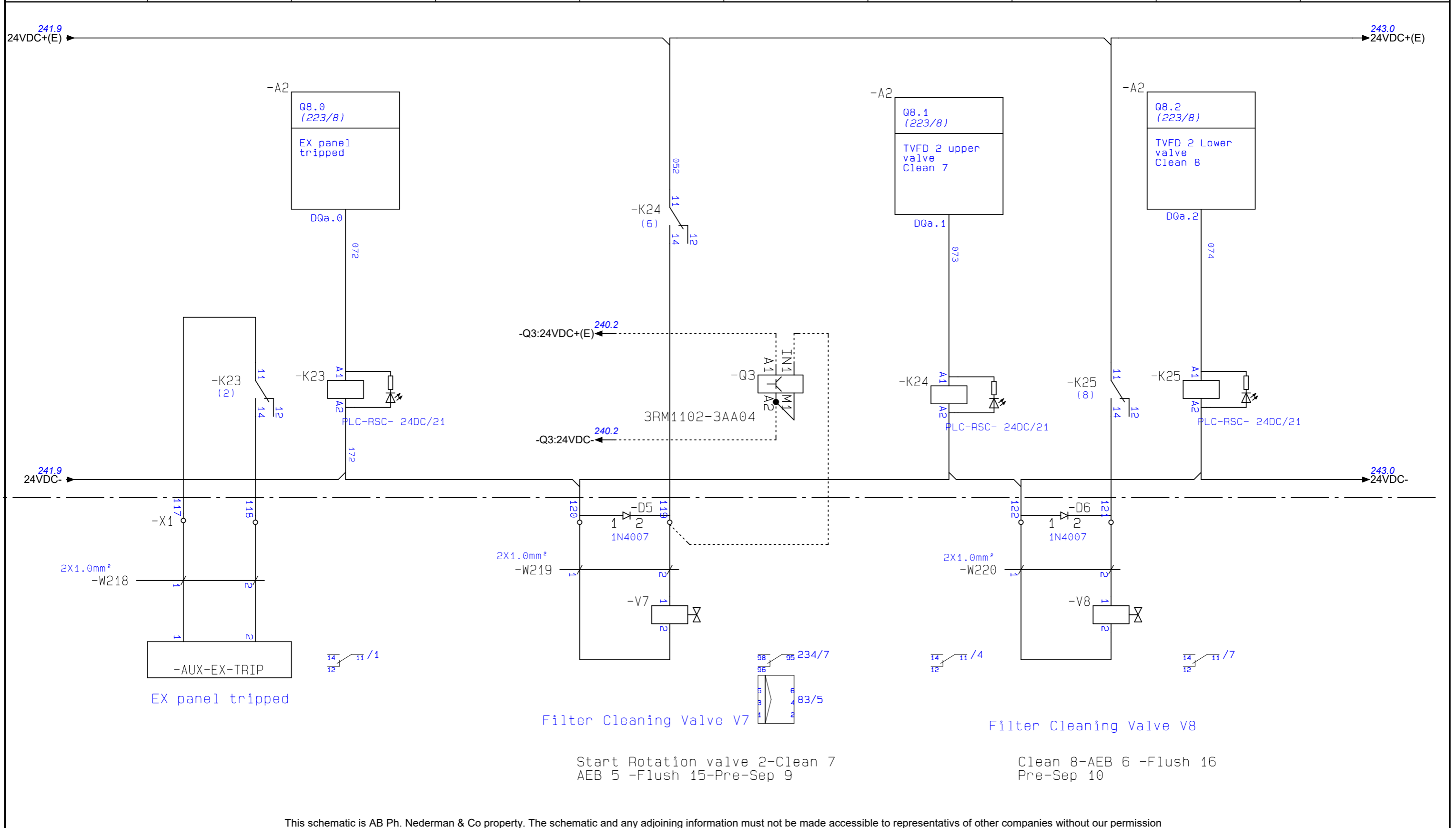
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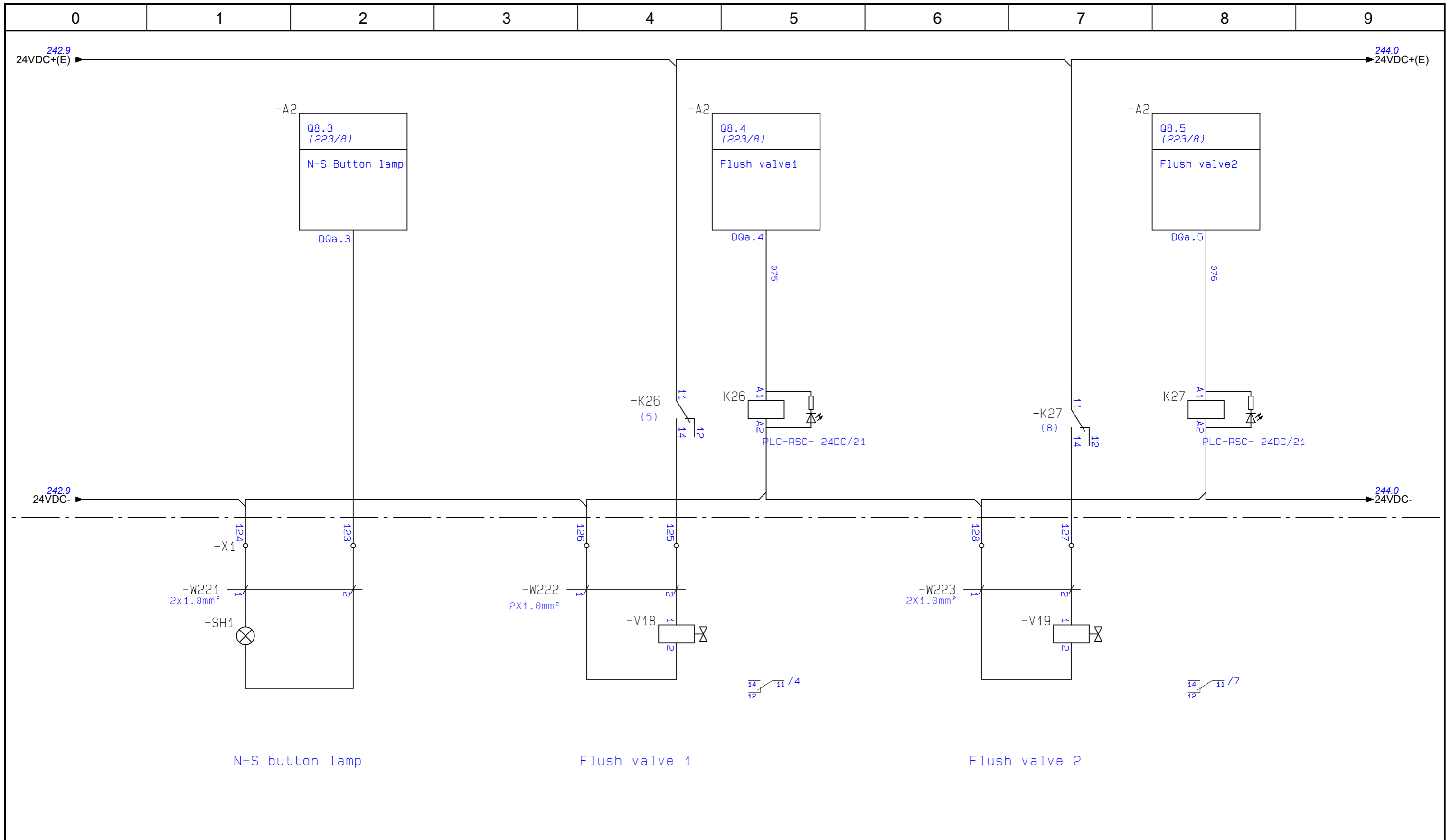



SM1223 (A2)  
OUTPUT  
TERMINALS

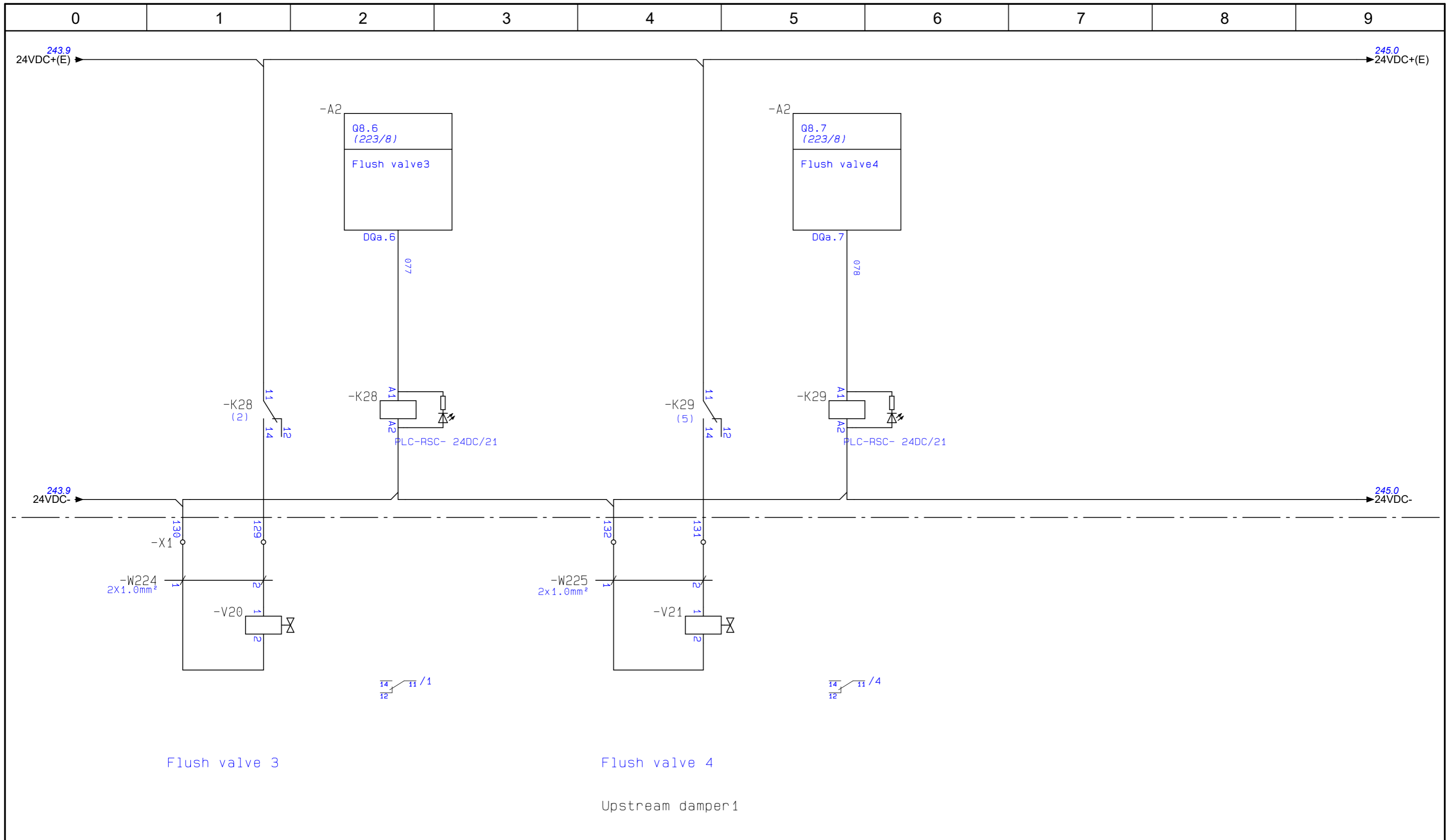
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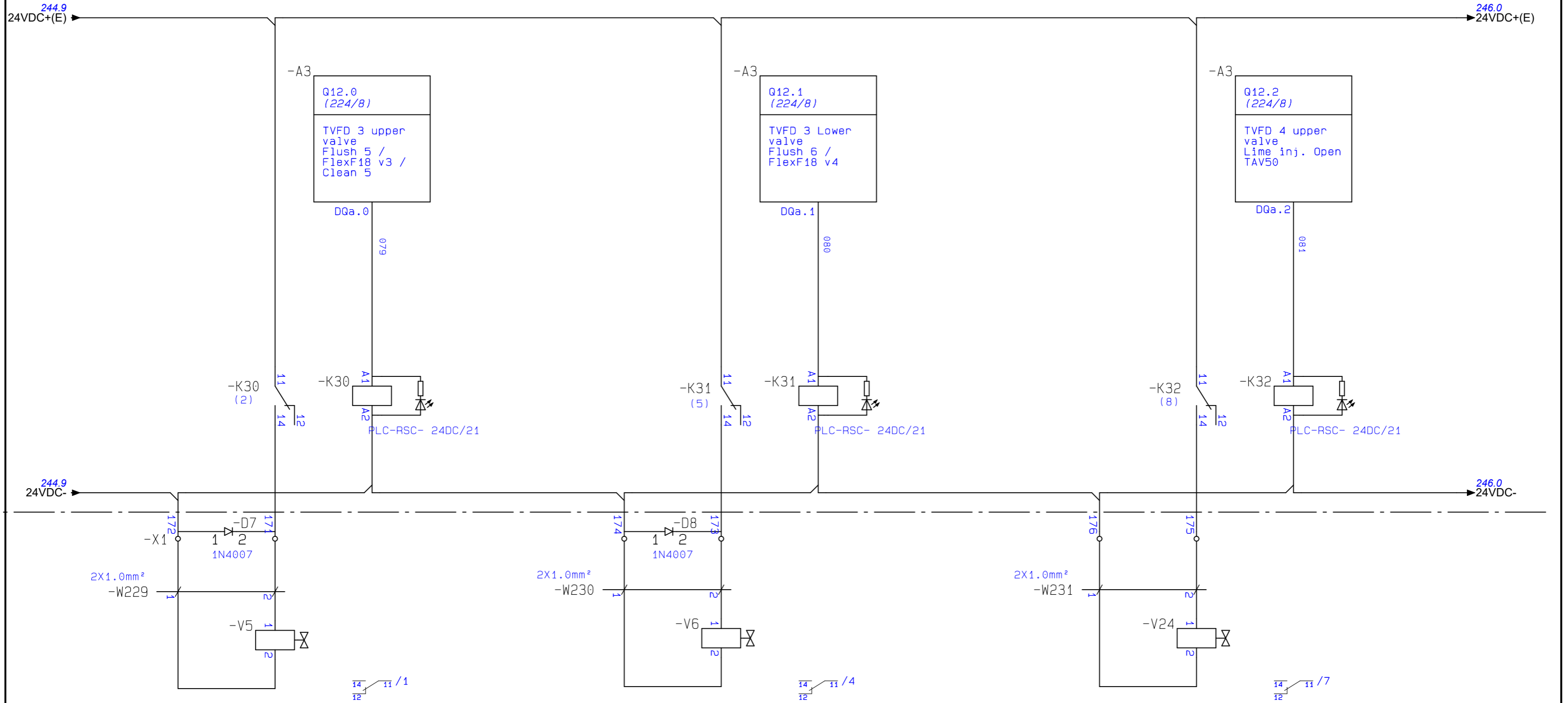
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SM1223 (A2 )  
OUTPUT  
TERMINALS

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Filter Cleaning Valve V5

Start Rotation valve 3-Clean 5  
AEB 7 -Pre-Sep 11 (FlexF18 v3)

TVFD 2 Upper Valve

Filter Cleaning Valve V6

Clean 6-AEB 8 -Pre-Sep 12  
(FlexF18 v4)

TVFD 4 Upper Valve

Start Rotation valve 4-Flush 9  
(Lime)

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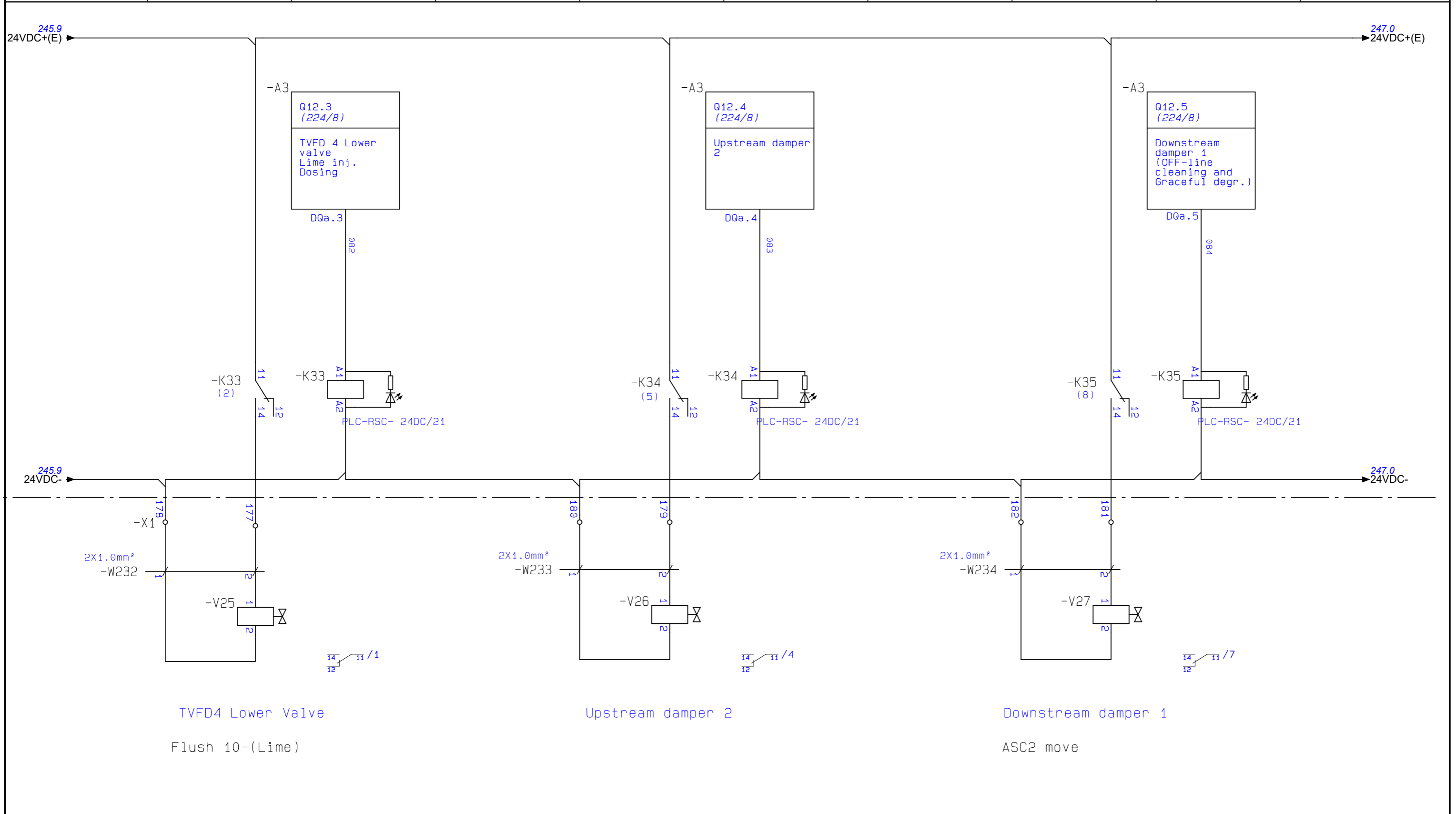
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SM1223 (A3)  
OUTPUT  
TERMINALS

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TVFD4 Lower Valve  
Flush 10-(Lime)

Upstream damper 2

Downstream damper 1  
ASC2 move

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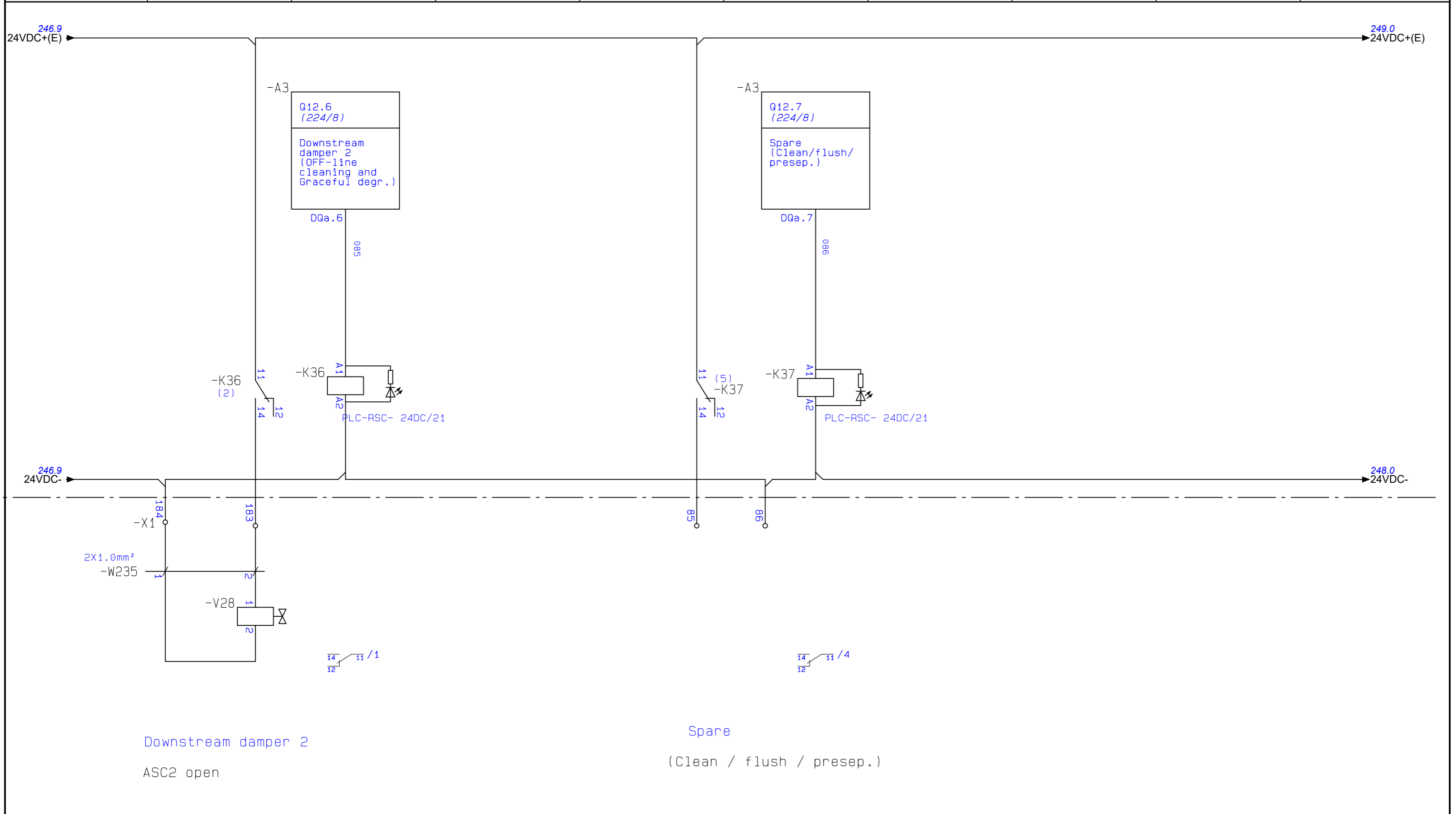
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OUTPUT  
TERMINALS

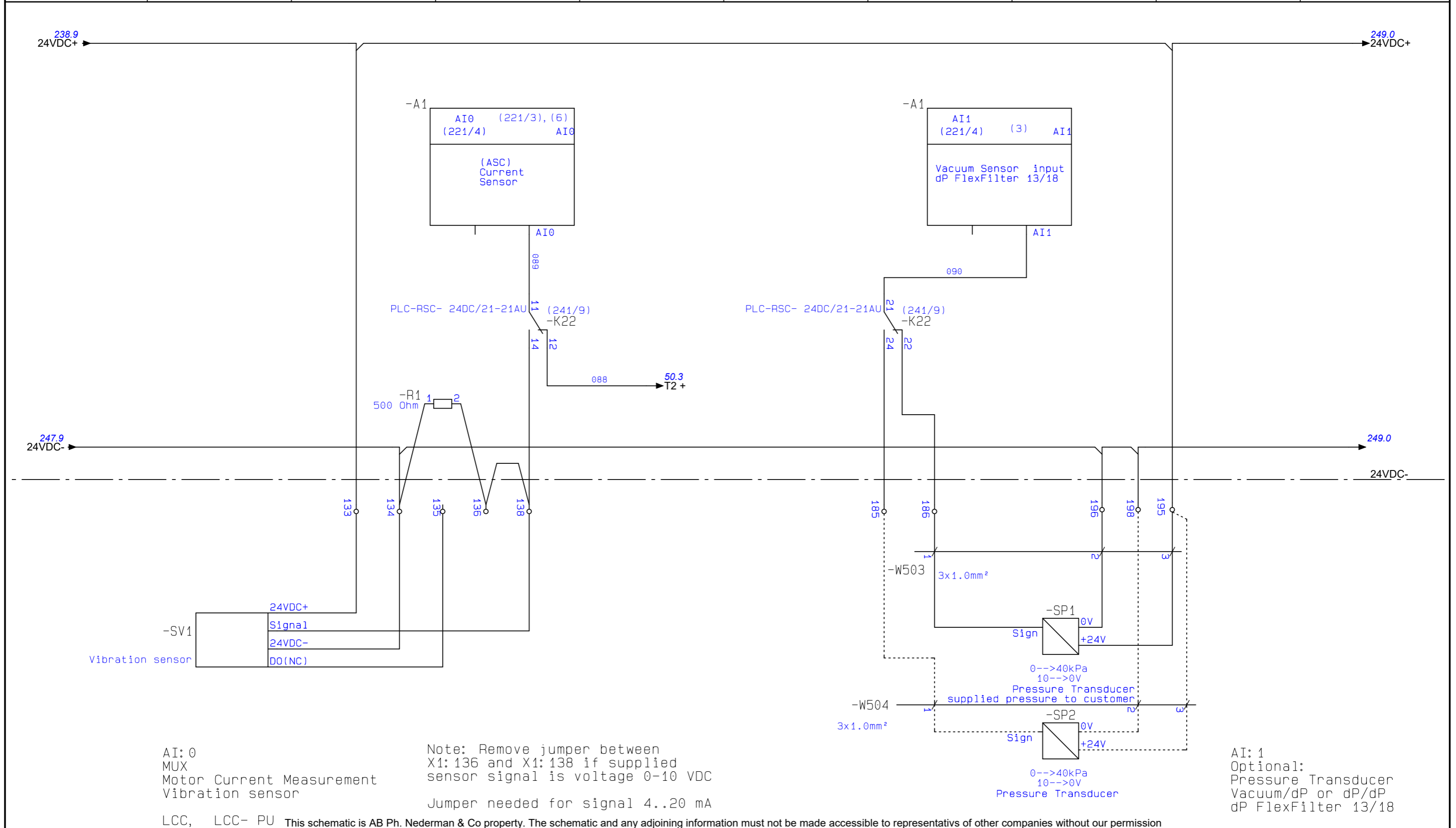
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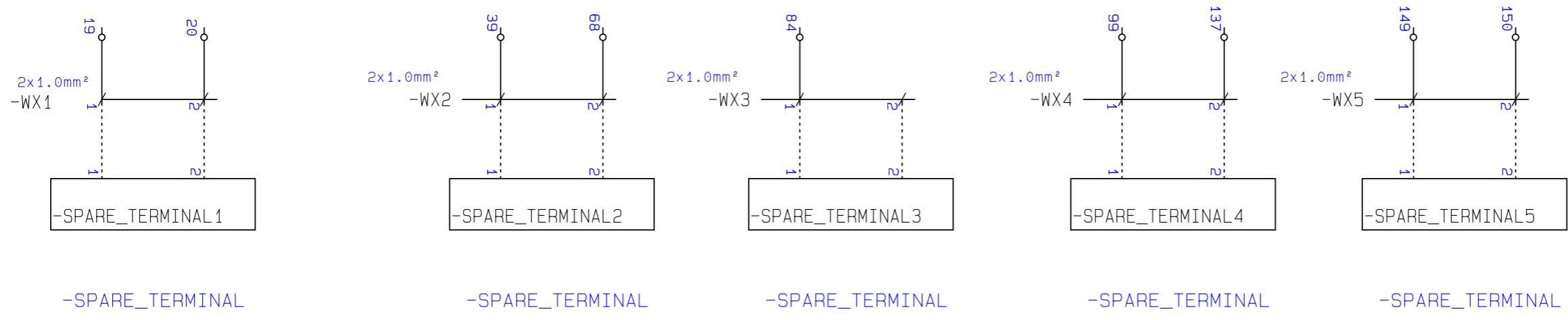
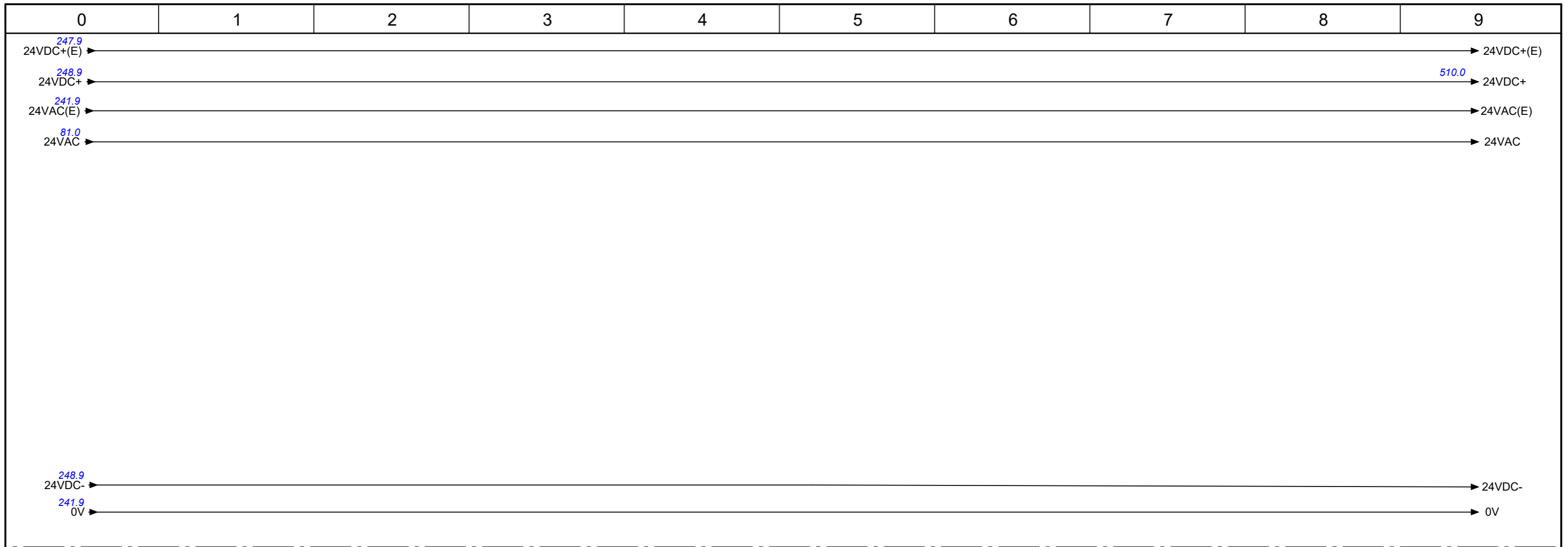
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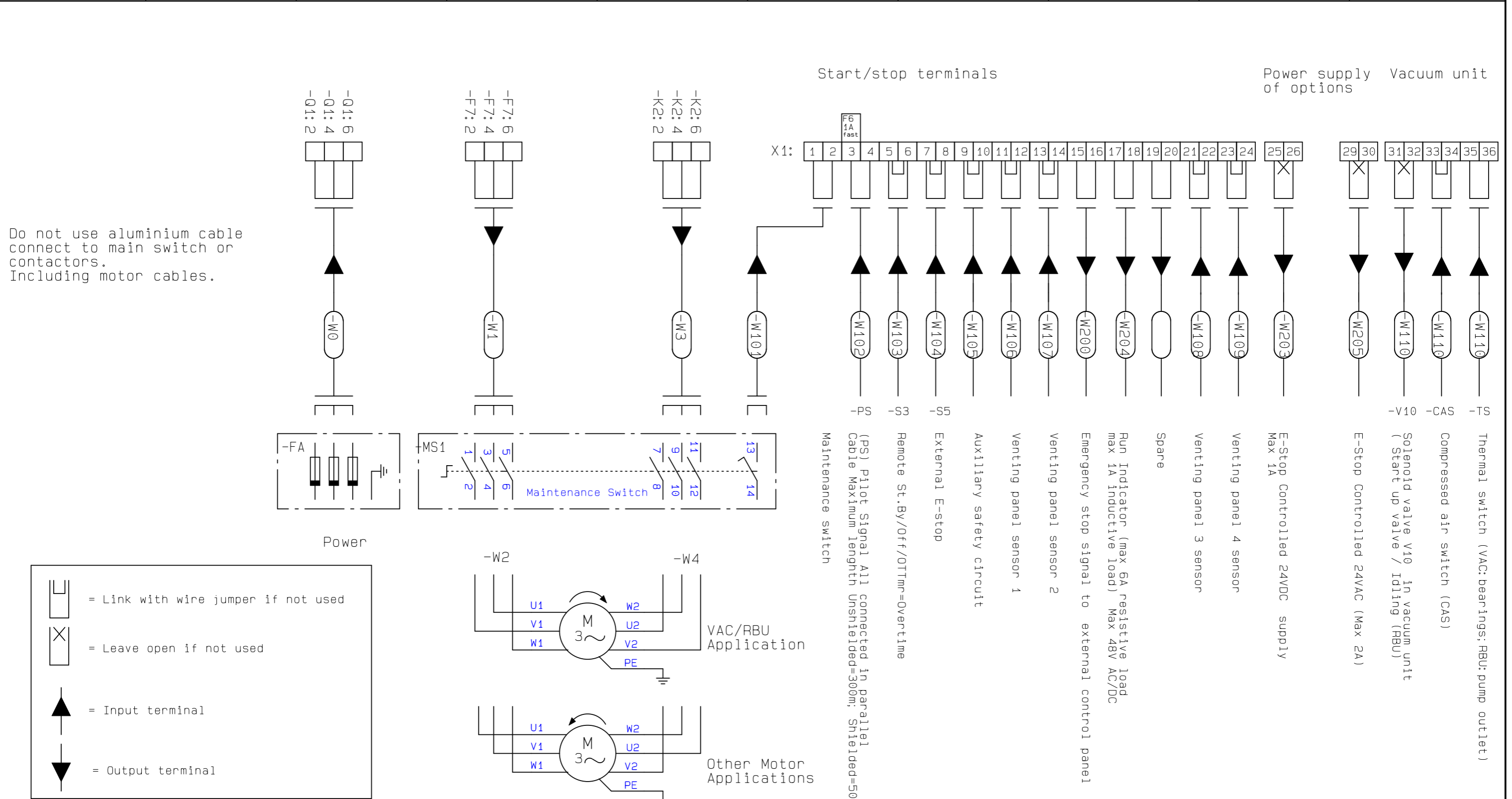


EX Spare Terminal

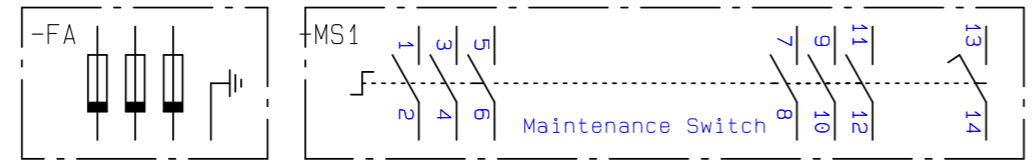
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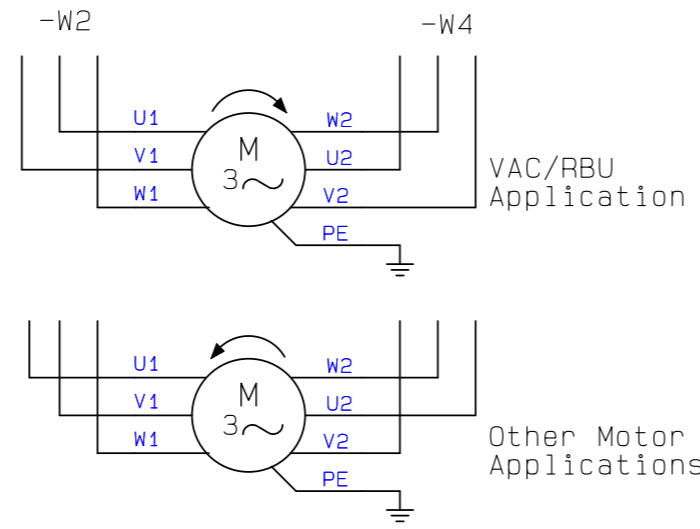


Do not use aluminium cable connect to main switch or contactors. Including motor cables.



**Power**

- = Link with wire jumper if not used
- = Leave open if not used
- = Input terminal
- = Output terminal



(PS) Pilot Signal All connected in parallel  
Cable Maximum length Unshielded=300m; Shielded=500m  
Maintenance switch

Remote St.By/Off/OTIm=Overtime

External E-stop

Auxiliary safety circuit

Venting panel sensor 1

Venting panel sensor 2

Emergency stop signal to external control panel

Spare

Run Indicator (max 6A resistive load max 1A inductive load) Max 48V AC/DC

Venting panel 3 sensor

Venting panel 4 sensor

E-Stop Controlled 24VDC supply Max 1A

E-Stop Controlled 24VAC (Max 2A)

Solenoid valve V10 in vacuum unit (Start up valve / Idling (RBU))

Compressed air switch (CAS)

Thermal switch (VAC: bearings; RBU: pump outlet)

**Note1:**  
For terminals: use minimum 1.5mm<sup>2</sup> if cable is up to 10m long, and use minimum 2.5mm<sup>2</sup> if cable is up to 20m long, large area if cable is longer. small area in a 24V system can cause a poor short-cut protection

**Note2:**  
Check tightening of all power cable connections inside enclosure before putting into service.

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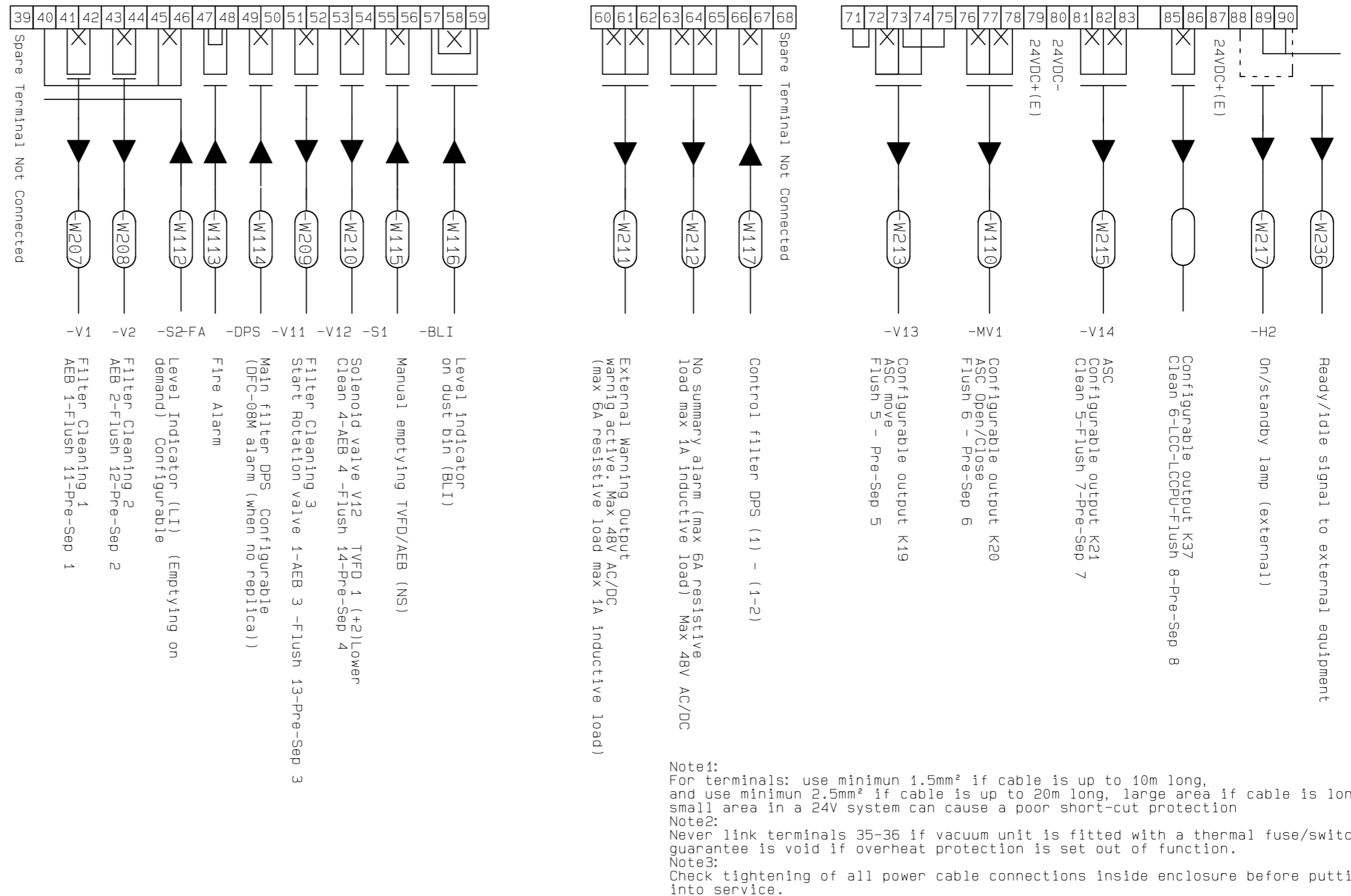


**STARTER  
EXTERNAL  
CONNECTIONS**

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**2183822**

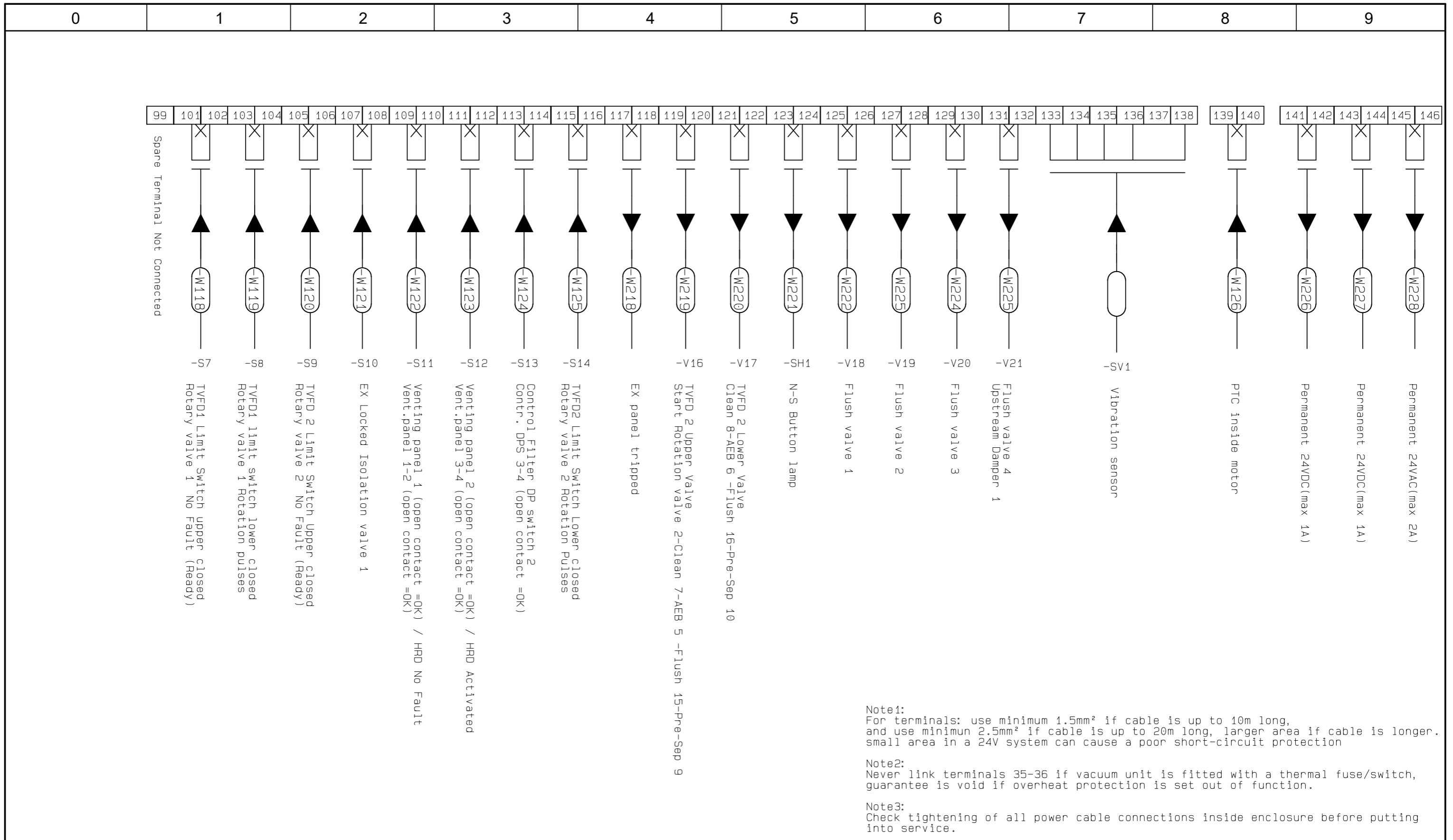
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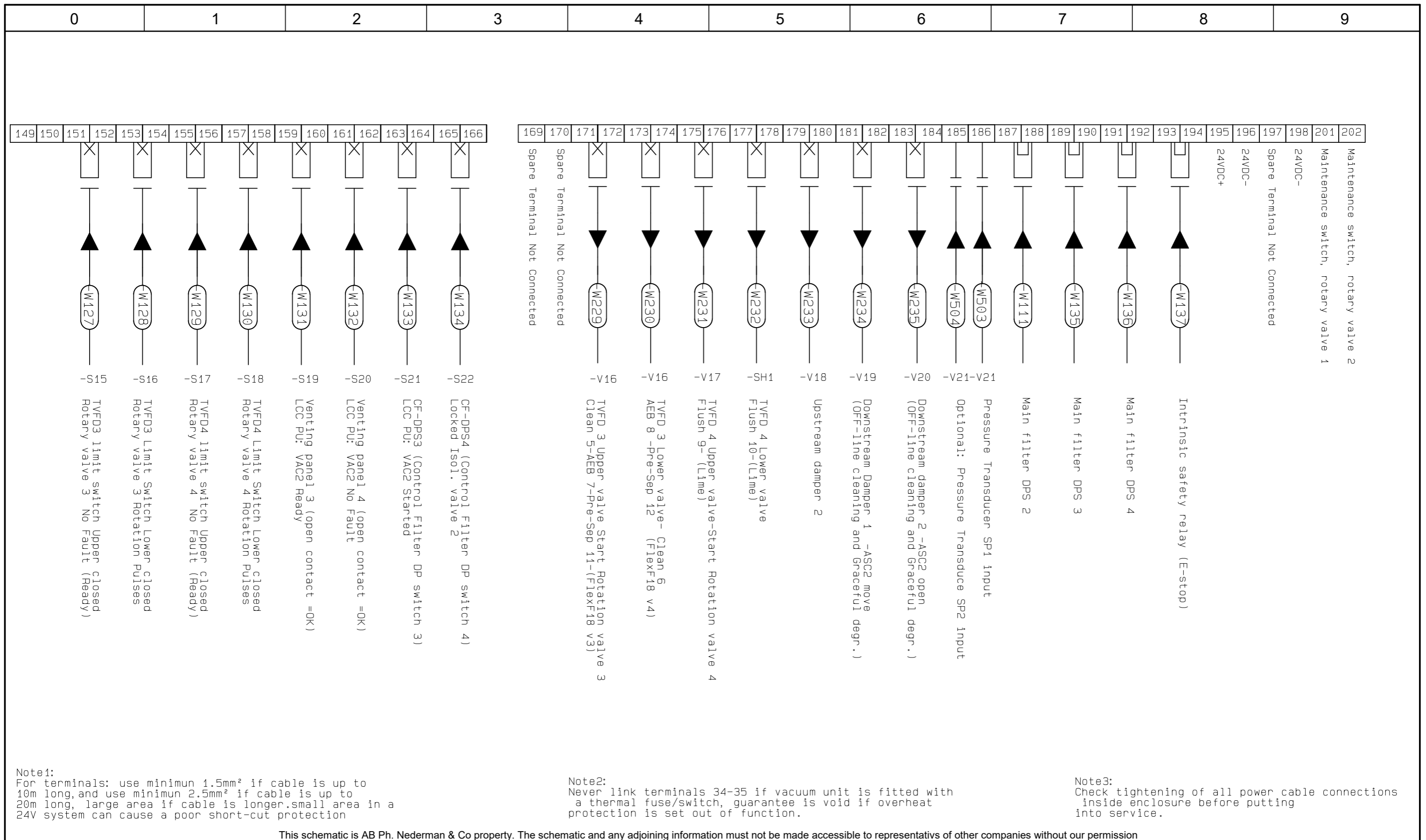
Note1:  
For terminals: use minimum 1.5mm<sup>2</sup> if cable is up to 10m long, and use minimum 2.5mm<sup>2</sup> if cable is up to 20m long, larger area if cable is longer. Small area in a 24V system can cause a poor short-circuit protection

Note2:  
Never link terminals 35-36 if vacuum unit is fitted with a thermal fuse/switch, guarantee is void if overheat protection is set out of function.

Note3:  
Check tightening of all power cable connections inside enclosure before putting into service.

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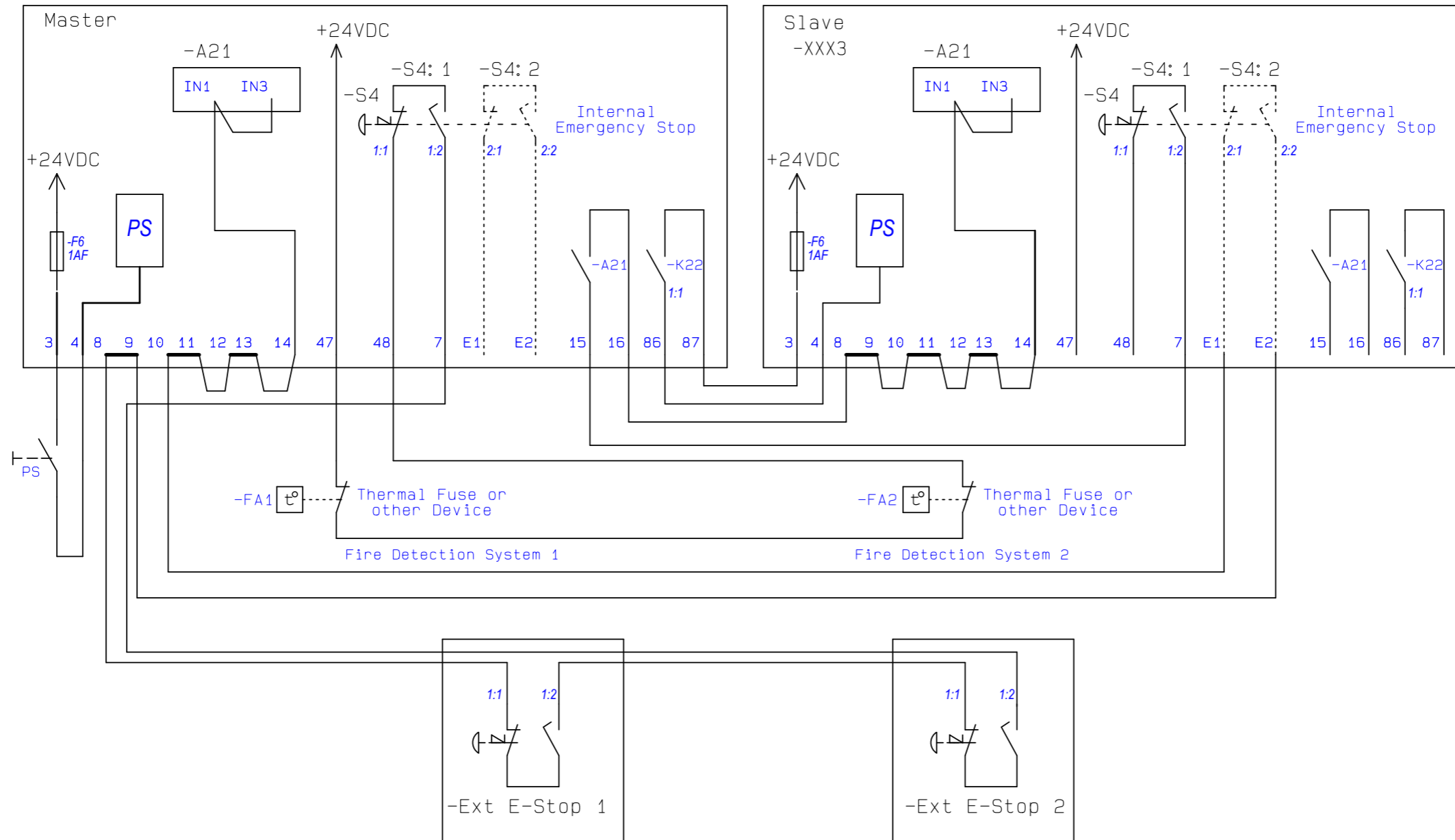
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Load Current Control (LCC) be cotrolled by PLC and E-stop interlock wiring



N.B  
 If masterunit is powered of or out of  
 comission the Slave will not start

Double E-Stop switch S4  
 Block S4:2 and The terminal E1 and E2  
 Are not included in the Cabinet

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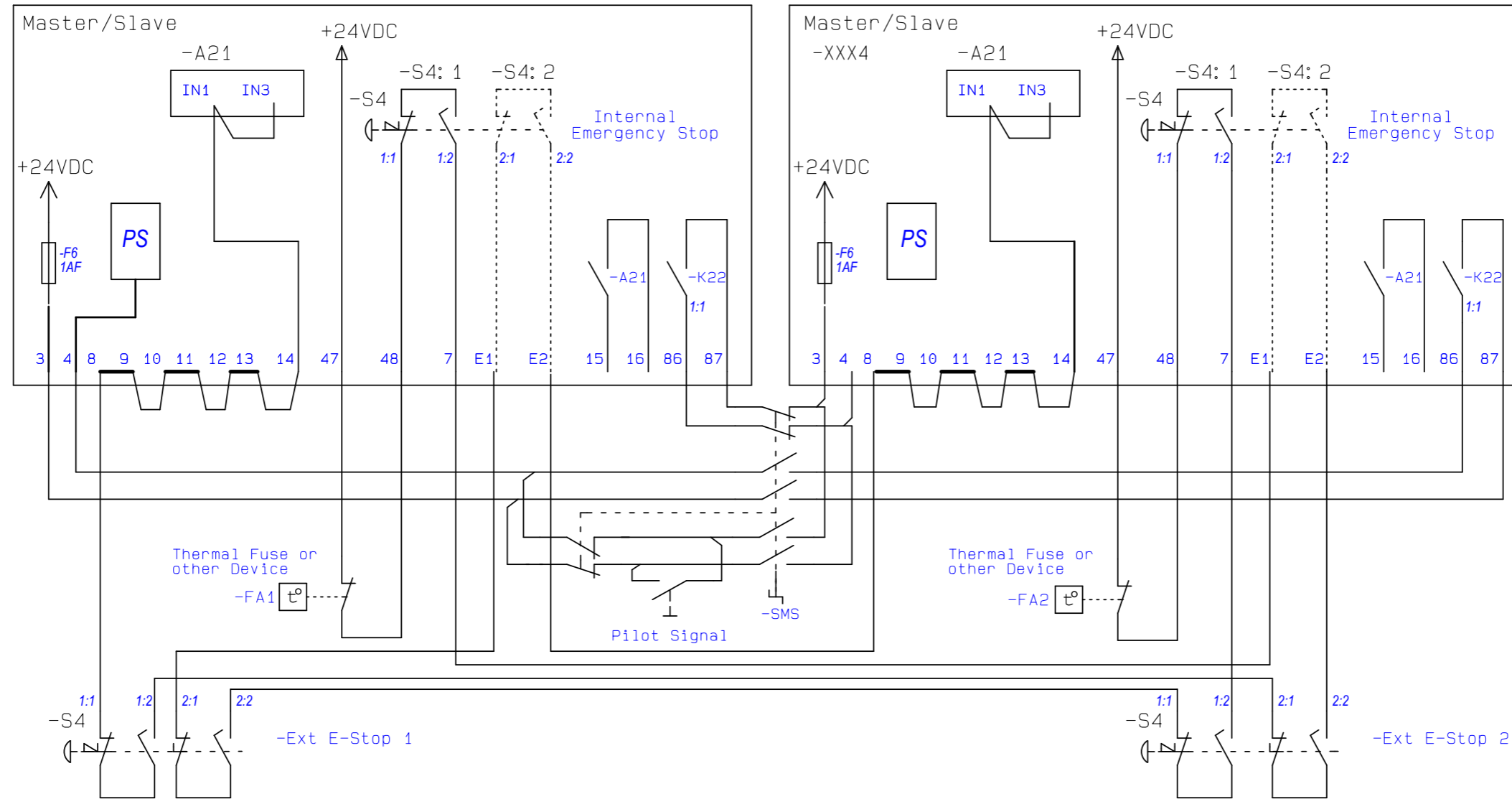


OPTIONAL  
 CONNECTIONS  
 MASTER-SLAVE

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Load Current Control (LCC) be cotrolled by PLC and E-stop interlock wiring



N.B  
SMS Switches to select wich unit is Master or Slave  
Both system can run individually even if the other is off or out of commissioning

N.B  
Double E-Stop switch S4  
Block S4:2 and The terminal E1 and E2  
Are not included in the Cabinet

N.B  
SMS Switch is not avavible as a Nederman part

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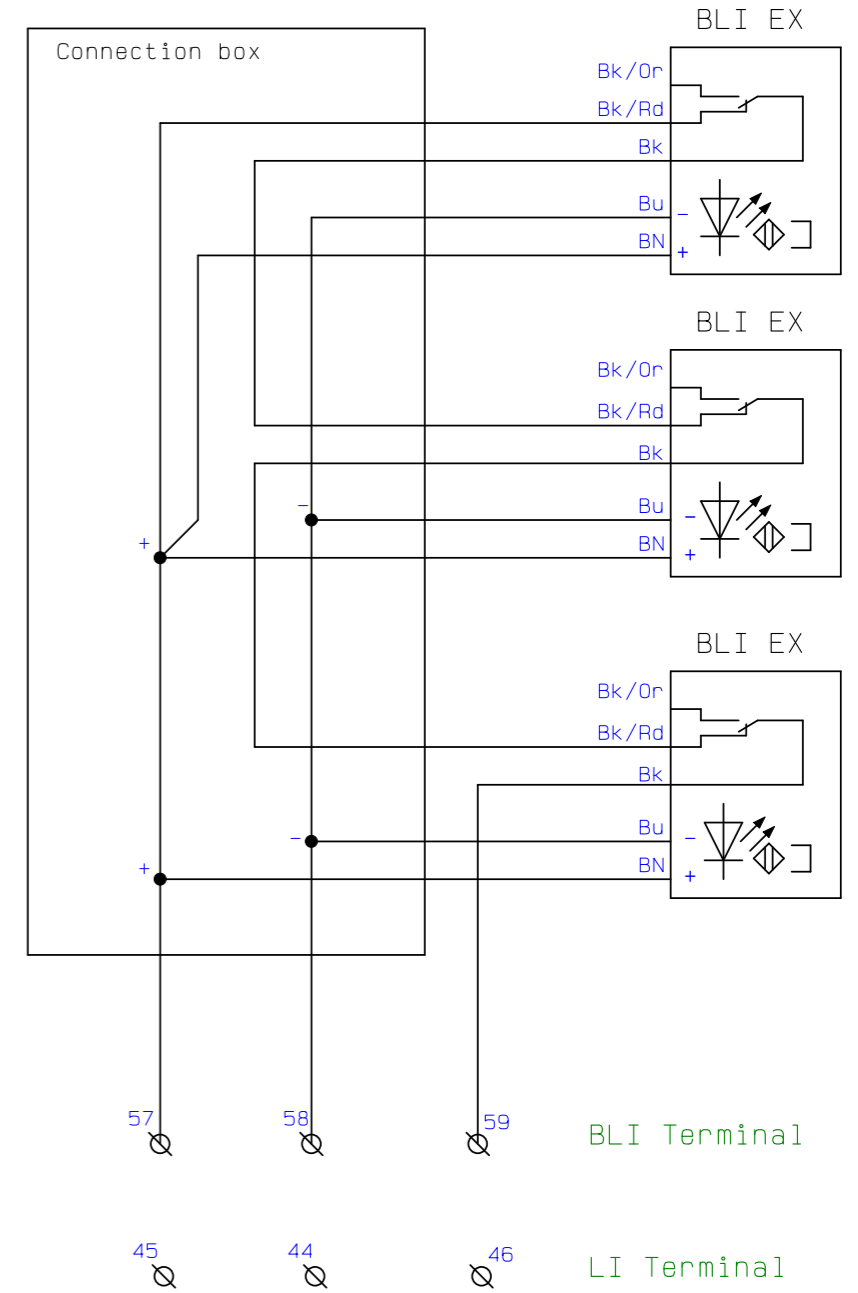
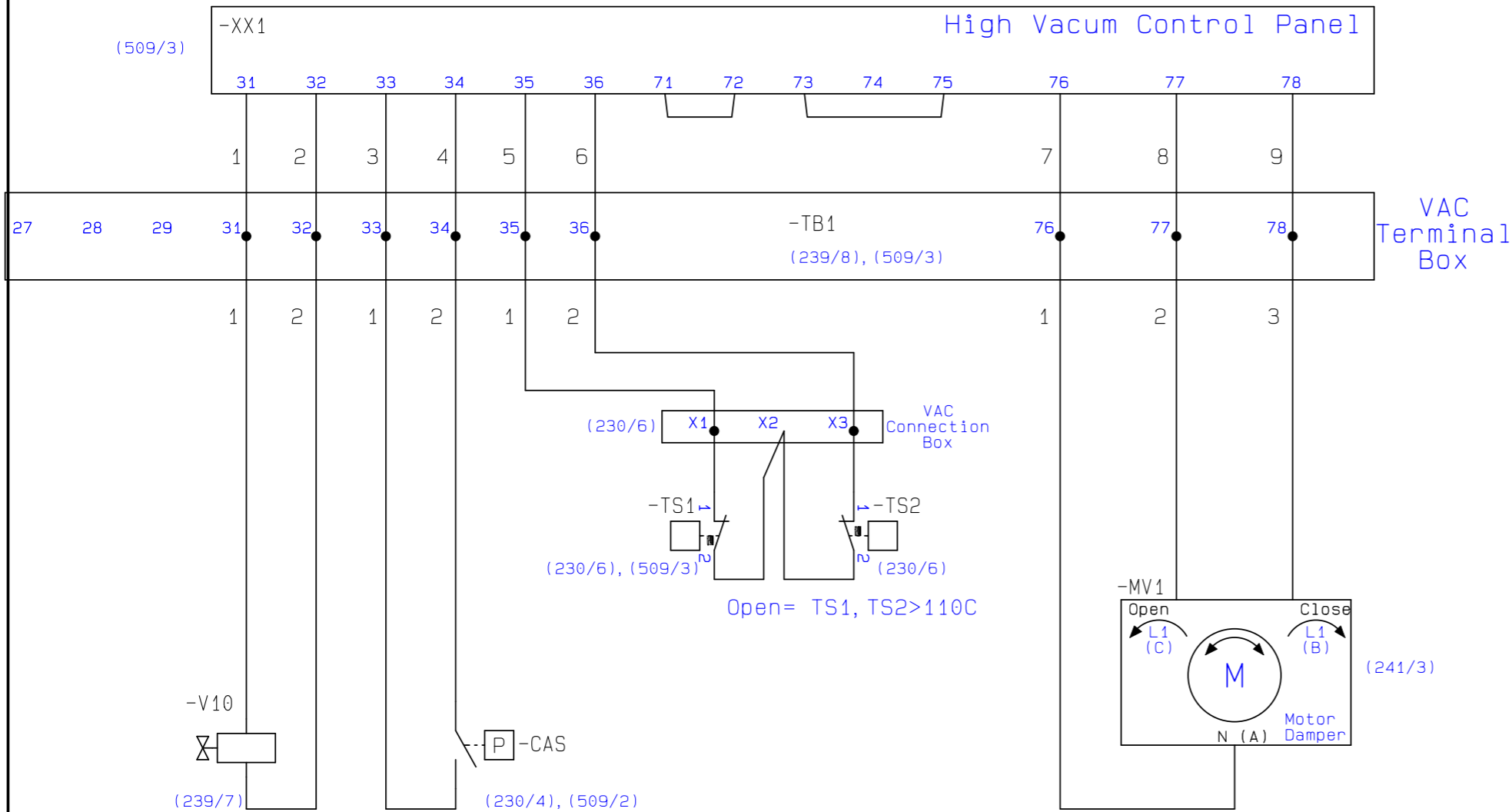
OPTIONAL  
CONNECTIONS  
MASTER-SLAVE

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Connection of anti surge control (ASC) to starter  
 ASC be controlled by PLC, Current sensor connect to PLC AI0

Principal schematic Multiple BLI or LI  
 Used sensor ( EX sensors with relay output )



START UPP VALVE (239/7)      (CAS) Open = P<3Bar (230/4), (509/2)      Thermal Supervision VAC- Fan Shaft Bearings (230/6), (509/3)      (ASC) Only VAC Application (241/3)

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VAC ASC  
 CONNECTIONS  
 and OPTIONAL BLI

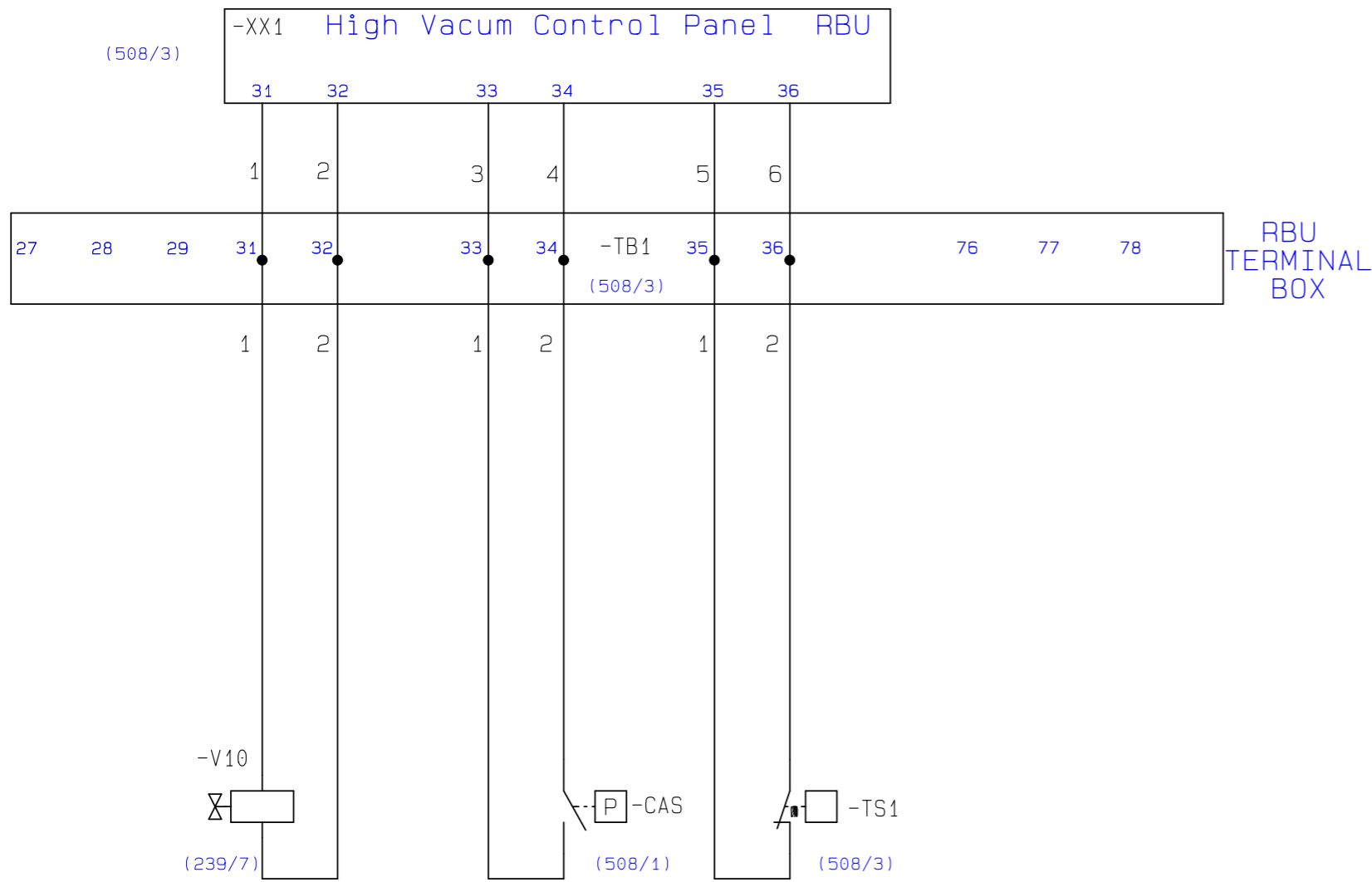
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Connection of HVAC to RBU Unit

Principal schematic Multiple BLI or LI  
Used sensor ( EX sensors with relay output)

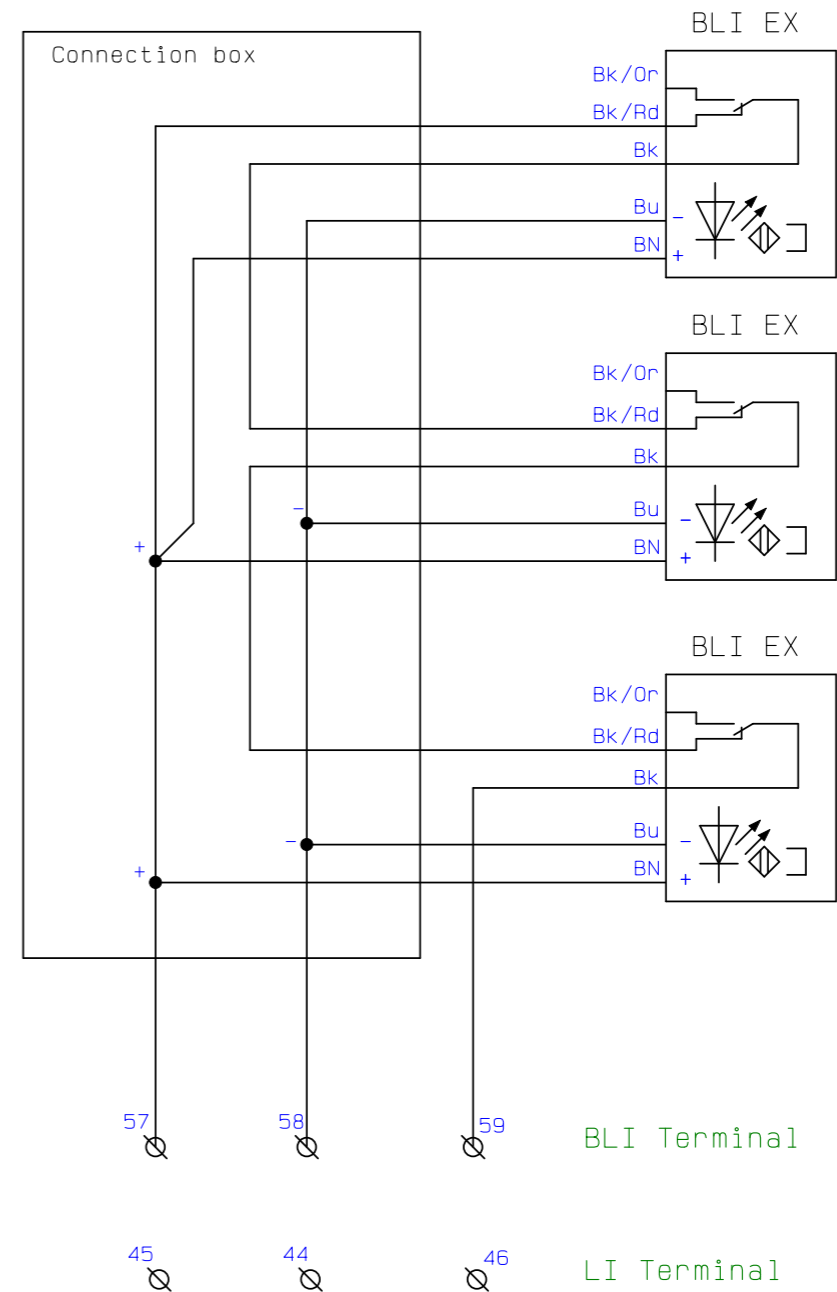


Open = TS1>140C  
Not Resettable

START  
UPP VALVE

(CAS)  
Open = P<3Bar

Thermal Supervision  
RBU- Air Outlet



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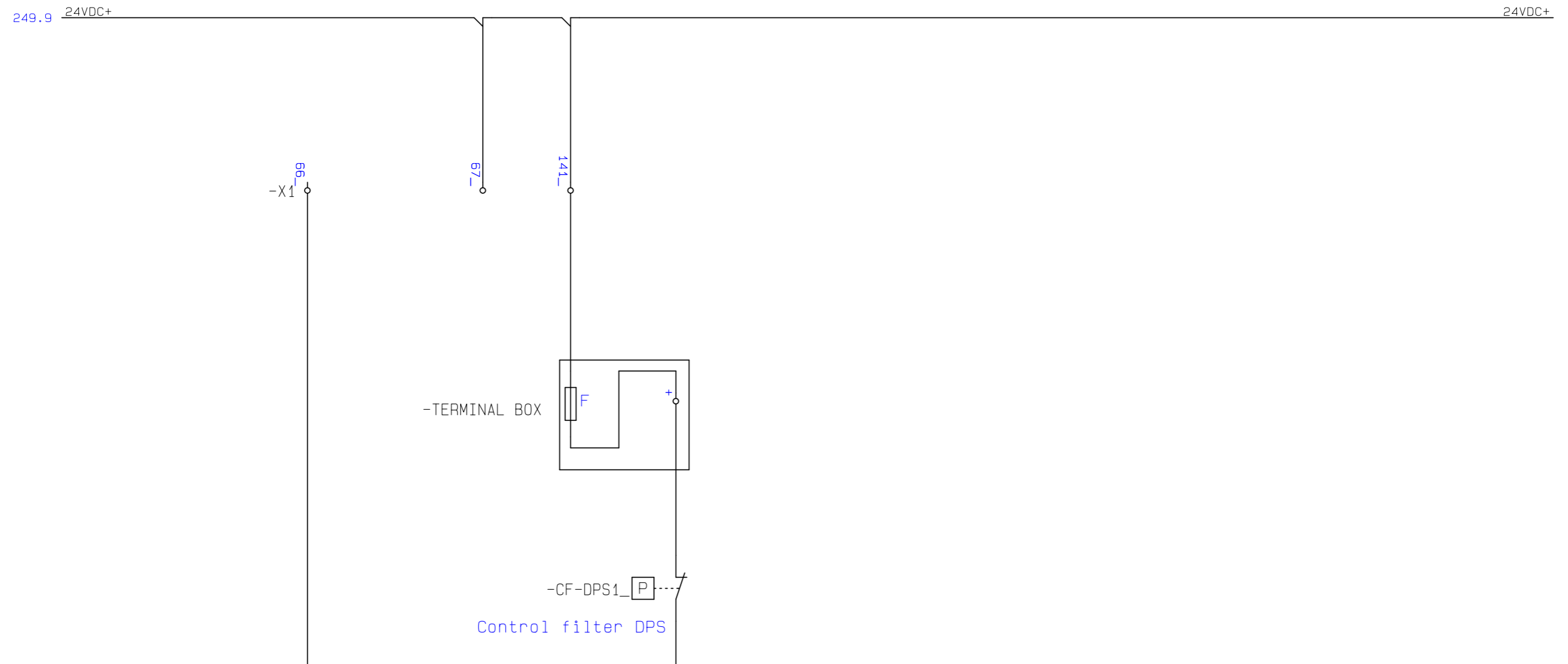
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RBU  
CONNECTIONS  
and OPTIONAL BLI

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Principal schematic, connection of sensors using auxiliary connection box.

With sensors connected via auxiliary connection devices the schematic supplied with the auxiliary equipment is governing.

In the displayed example the DPS is connected via the terminal box instead of X1:67.

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# Lists

***Nederman***

No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
1			800F-X01S			70/3	
2	-A1		6ES7214-1AG31-0XB0			248/3	Optional
3	-A1/1		6ES7222-1BD30-0XB0			200/3	
4	-A2		6ES7223-1BH30-0XB0			200/8	*
5	-A3		6ES7223-1BH30-0XB0			201/3	*
6	-A11					9/5	*
7	-A11		6AV6647-0AA11-3AX0			9/5	*
8	-A21		3SK1111-1AB30			71/7	*
9	-A21/1/1		3SK1111-1AB30			70/2	*
10	-AUX1					82/2	*
11	-AUX2					232/4	*
12	-AUX3					82/6	*
13	-AUX4					240/7	*
14	-AUX- E-STOP					71/6	*
15	-AUX-EX-TRIP					242/1	*
16	-AUX-SAFE					70/5	*
17	-BLI (EX)					231/2	*
18	-D1		1N4007			239/1	*
19	-D2		1N4007			239/3	*
20	-D3		1N4007			240/1	*
21	-D4		1N4007			240/4	*
22	-D5		1N4007			242/4	*
23	-D6		1N4007			242/7	*
24	-D7		1N4007			245/1	*
25	-D8		1N4007			245/4	*
26	-E					10/3	*
27	-E1		Cable duct 25x80x700			10/4	*
28	-E2		Cable duct 40x80x180			10/3	*

\* Use of components with equivalent electric, mechanical and approval specifications is acceptable

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No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
29	-E3		Cable duct 40x80x440			10/3	*
30	-E4		Cable duct 25x60x360			10/5	*
31	-E5		Cable duct 40x80x465			10/7	*
32	-E6		Cable duct 25x60x360			10/5	*
33	-E7		Cable duct 40x80x465			10/5	*
34	-E8		Cable duct 40x80x545			10/5	*
35	-E9		Cable duct 49x99x545			10/5	*
36	-E10					10/4	*
37	-E11		Schneider electric 800x800x300			9/5	*
38	-EBR		Earthing bar rail			10/3	*
39	-ET1		UK 2,5 N			240/1	*
40	-EXT ALARM					238/1	*
41	-EXT WARNING					238/6	*
42	-F2		140M-C2E-B16			60/2	*
43	-F4		Auto Fuse 6A			60/3	*
44	-F5		Auto Fuse 16A			60/2	*
45	-F6		1A 5x20mm fast			230/1	*
46	-F7		193-EEGE			80/0	*
47	-F8		817-E1			81/2	*
48	-FA		(Thermal Fuse or other device)			70/1	*
49	-G1		6EP1333-1LB00			60/5	*
50	-H1		800FP-P5PN3Y			238/5	*
51	-H2					240/9	*
52	-K1		100-FA11			70/6	*
53	-K1		100-C60KJ00			80/5	*
54	-K1		100-FA11			10/2	*
55	-K1		100-FA11			80/8	*
56	-K2		100-C60KJ00			80/6	*

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No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
57	-K2		100-FA22			10/3	*
58	-K3		100-C37KJ00			80/7	*
59	-K3		100-FA02			10/3	*
60	-K4T		700-FSY2DU23			80/8	*
61	-K8		PLC-RSC- 24DC/21-21			238/3	*
62	-K8		PLC-RSC- 24DC/21-21			10/5	*
63	-K9		PLC-RSC- 24DC/21			233/8	*
64	-K9		PLC-RSC- 24DC/21			10/5	*
65	-K9/1		PLC-RSC- 24DC/21			70/2	*
66	-K10		PLC-RSC- 24DC/21			238/2	*
67	-K10		PLC-RSC- 24DC/21			10/5	*
68	-K11		PLC-RSC- 24DC/21			238/8	*
69	-K11		PLC-RSC- 24DC/21			10/5	*
70	-K12		PLC-RSC- 24DC/21			239/6	*
71	-K12		PLC-RSC- 24DC/21			10/5	*
72	-K13		PLC-RSC- 24DC/21			239/2	*
73	-K13		PLC-RSC- 24DC/21			10/5	*
74	-K14		PLC-RSC- 24DC/21			239/4	*
75	-K14		PLC-RSC- 24DC/21			10/5	*
76	-K15		PLC-RSC- 24DC/21			239/8	*
77	-K15		PLC-RSC- 24DC/21			10/5	*
78	-K16		PLC-RSC- 24DC/21			240/3	*
79	-K16		PLC-RSC- 24DC/21			10/5	*
80	-K17		PLC-RSC- 24DC/21			240/5	*
81	-K17		PLC-RSC- 24DC/21			10/5	*
82	-K17/1		PLC-RSC- 24DC/21			240/4	*
83	-K18		PLC-RSC- 24DC/21			240/8	*
84	-K18		PLC-RSC- 24DC/21			10/6	*

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No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
85	-K19		PLC-RSC- 24DC/21			241/2	*
86	-K19		PLC-RSC- 24DC/21			10/6	*
87	-K20		PLC-RSC- 24DC/21			241/4	*
88	-K20		PLC-RSC- 24DC/21			10/6	*
89	-K21		PLC-RSC- 24DC/21			241/6	*
90	-K21		PLC-RSC- 24DC/21			10/6	*
91	-K22		PLC-RSC- 24DC/21-21AU			10/6	*
92	-K23		PLC-RSC- 24DC/21			242/2	*
93	-K23		PLC-RSC- 24DC/21			10/6	*
94	-K24		PLC-RSC- 24DC/21			242/6	*
95	-K24		PLC-RSC- 24DC/21			10/6	*
96	-K25		PLC-RSC- 24DC/21			242/8	*
97	-K25		PLC-RSC- 24DC/21			10/6	*
98	-K26		PLC-RSC- 24DC/21			243/5	*
99	-K26		PLC-RSC- 24DC/21			10/6	*
100	-K27		PLC-RSC- 24DC/21			243/8	*
101	-K27		PLC-RSC- 24DC/21			10/6	*
102	-K28		PLC-RSC- 24DC/21			244/2	*
103	-K28		PLC-RSC- 24DC/21			10/6	*
104	-K29		PLC-RSC- 24DC/21			244/5	*
105	-K29		PLC-RSC- 24DC/21			10/6	*
106	-K30		PLC-RSC- 24DC/21			245/2	*
107	-K30		PLC-RSC- 24DC/21			10/6	*
108	-K31		PLC-RSC- 24DC/21			245/5	*
109	-K31		PLC-RSC- 24DC/21			10/6	*
110	-K32		PLC-RSC- 24DC/21			245/8	*
111	-K32		PLC-RSC- 24DC/21			10/6	*
112	-K33		PLC-RSC- 24DC/21			246/2	*

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No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
113	-K33		PLC-RSC- 24DC/21			10/6	*
114	-K34		PLC-RSC- 24DC/21			246/5	*
115	-K34		PLC-RSC- 24DC/21			10/6	*
116	-K35		PLC-RSC- 24DC/21			246/8	*
117	-K35		PLC-RSC- 24DC/21			10/6	*
118	-K36		PLC-RSC- 24DC/21			247/2	*
119	-K36		PLC-RSC- 24DC/21			10/6	*
120	-K37		PLC-RSC- 24DC/21			247/5	*
121	-K37		PLC-RSC- 24DC/21			247/5	*
122	-LI (EX)					232/9	*
123	-M2					83/2	*
124	-M3					83/5	*
125	-MV1					241/3	*
126	-PE		WT 4 PE			60/6	*
127	-PTC-MOTOR		PTC Built in Monitoring overheat			80/1	*
128	-Q1		Main Switch 160A			10/3	*
129	-Q1		3LD2814-0TK51			50/1	*
130	-Q2		3RM1001-1AA04			10/4	*
131	-Q2		3RM1102-3AA04			240/1	*
132	-Q3		3RM1001-1AA04			10/4	*
133	-Q3		3RM1102-3AA04			242/5	*
134	-Q4					70/1	*
135	-Q5		140M-C2E-B40			83/2	*
136	-Q5		140M-C-AFA11			234/2	*
137	-R1		500 Ohm			248/3	*
138	-S2					234/3	*
139	-S3		Switch NC			231/8	*
140	-S4		800FP-MT44			9/5	*

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No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
141	-S5		External E-stop 800FP-MT44			70/3	*
142	-S6					235/7	*
143	-S19		Venting panel sensor 3 Flexfilter	EX		70/8	*
144	-S20		Venting panel sensor 4 Flexfilter	EX		70/9	*
145	-SP1		0-->40kPa 10-->0V			248/7	*
146	-SP2		0-->40kPa 10-->0V			248/7	*
147	-SPARE_TERMINAL1					249/1	*
148	-SPARE_TERMINAL2					249/3	*
149	-SPARE_TERMINAL3					249/4	*
150	-SPARE_TERMINAL4					249/6	*
151	-SPARE_TERMINAL5					249/7	*
152	-SV1					248/1	*
153	-T1		Transfo 230-460V 24V/230V			60/2	*
154	-T1		-20V -0V- +20V 230-400-460V 24VAC-- 340VA 230VAC-- 160VA			10/5	*
155	-T2		Current Sensor LEM AT 100 B10			50/1	*
156	-TB1					230/6	*
157	-TERMINAL BOX					510/3	*
158	-V1					239/1	*
159	-V2					239/4	*
160	-V3					240/1	*
161	-V4					240/4	*
162	-V10		START UPP VALVE			508/1	*
163	-W0		Power Cable			50/1	*
164	-W1		Motor Cable >= 3x10mm <sup>2</sup> + PE			80/1	*
165	-W2		Motor Cable >= 3x10mm <sup>2</sup> + PE			80/2	*
166	-W3		Motor Cable >= 3x10mm <sup>2</sup> + PE			80/1	*
167	-W4		Motor Cable >= 3x10mm <sup>2</sup> + PE			80/2	*
168	-W101		2x1.0mm <sup>2</sup>			232/1	*

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No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
169	-W102		2x1.0mm <sup>2</sup>			230/1	*
170	-W103		2x1.0mm <sup>2</sup>			231/7	*
171	-W104		2x1.0mm <sup>2</sup>			70/3	*
172	-W105		2x1.0mm <sup>2</sup>			70/5	*
173	-W106		2x1.0mm <sup>2</sup>			70/6	*
174	-W107		2x1.0mm <sup>2</sup>			70/7	*
175	-W108		2x1.0mm <sup>2</sup>			70/8	*
176	-W109		2x1.0mm <sup>2</sup>			70/9	*
177	-W110		0,75mm <sup>2</sup>			230/3	*
178	-W111		2x1.0mm <sup>2</sup>			231/4	*
179	-W112		3x1,0mm <sup>2</sup>			232/6	*
180	-W113		2x1.0mm <sup>2</sup>			70/1	*
181	-W114		2x1.0mm <sup>2</sup>			231/3	*
182	-W115		2x1.0mm <sup>2</sup>			233/5	*
183	-W116		3x1.0mm <sup>2</sup>			231/0	*
184	-W117		2x1.0mm <sup>2</sup>			233/0	*
185	-W118		2x1.0mm <sup>2</sup>			234/0	*
186	-W119		2x1.0mm <sup>2</sup>			234/3	*
187	-W120		2x1.0mm <sup>2</sup>			234/5	*
188	-W121		2x1.0mm <sup>2</sup>			234/7	*
189	-W122		2x1.0mm <sup>2</sup>			235/0	*
190	-W123		2x1.0mm <sup>2</sup>			235/3	*
191	-W124		2x1.0mm <sup>2</sup>			235/5	*
192	-W125		2x1.0mm <sup>2</sup>			235/7	*
193	-W126		PTC inside motor 2x1.0mm <sup>2</sup>			81/2	*
194	-W127		2x1.0mm <sup>2</sup>			236/0	*
195	-W128		2x1.0mm <sup>2</sup>			236/3	*
196	-W129		2x1.0mm <sup>2</sup>			236/5	*

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No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
197	-W130		2x1.0mm <sup>2</sup>			236/7	*
198	-W131		2x1.0mm <sup>2</sup>			237/0	*
199	-W132		2x1.0mm <sup>2</sup>			237/3	*
200	-W133		2x1.0mm <sup>2</sup>			237/5	*
201	-W134		2x1.0mm <sup>2</sup>			237/7	*
202	-W135		2x1.0mm <sup>2</sup>			231/5	*
203	-W136		2x1.0mm <sup>2</sup>			231/5	*
204	-W137		2x1.0mm <sup>2</sup>			70/0	*
205	-W200		2x1.0mm <sup>2</sup>			71/6	*
206	-W203		2x1.0mm <sup>2</sup>			82/1	*
207	-W204		2x1.0mm <sup>2</sup>			232/3	*
208	-W205		2x1.0mm <sup>2</sup>			82/6	*
209	-W207		2x1.0mm <sup>2</sup>			239/0	*
210	-W208		2x1.0mm <sup>2</sup>			239/3	*
211	-W209		2x1.0mm <sup>2</sup>			240/0	*
212	-W210		2x1.0mm <sup>2</sup>			240/3	*
213	-W211		3x1.0mm <sup>2</sup>			238/6	*
214	-W212		3x1.0mm <sup>2</sup>			238/0	*
215	-W213		2x1.0mm <sup>2</sup>			241/0	*
216	-W215		5x1.0mm <sup>2</sup>			241/4	*
217	-W217		2x1.0mm <sup>2</sup>			240/9	*
218	-W218		2X1.0mm <sup>2</sup>			242/0	*
219	-W219		2X1.0mm <sup>2</sup>			242/3	*
220	-W220		2X1.0mm <sup>2</sup>			242/6	*
221	-W221		2x1.0mm <sup>2</sup>			243/1	*
222	-W222		2X1.0mm <sup>2</sup>			243/3	*
223	-W223		2X1.0mm <sup>2</sup>			243/6	*
224	-W224		2X1.0mm <sup>2</sup>			244/1	*

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No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
225	-W225		2x1.0mm <sup>2</sup>			244/4	*
226	-W226		Permanent 24VDC(max 1A)			81/4	*
227	-W227		PTC inside motor 2x1.0mm <sup>2</sup>			81/5	*
228	-W228		PTC inside motor 2x1.0mm <sup>2</sup>			81/7	*
229	-W229		2X1.0mm <sup>2</sup>			245/0	*
230	-W230		2X1.0mm <sup>2</sup>			245/3	*
231	-W231		2X1.0mm <sup>2</sup>			245/6	*
232	-W232		2X1.0mm <sup>2</sup>			246/0	*
233	-W233		2X1.0mm <sup>2</sup>			246/3	*
234	-W234		2X1.0mm <sup>2</sup>			246/6	*
235	-W235		2X1.0mm <sup>2</sup>			247/0	*
236	-W236		2x1.0mm <sup>2</sup>			240/6	*
237	-W500		Shielded ethernet cable			210/3	*
238	-W503		3x1.0mm <sup>2</sup>			248/6	*
239	-W504		3x1.0mm <sup>2</sup>			248/6	*
240	-WX1		2x1.0mm <sup>2</sup>			249/1	*
241	-WX2		2x1.0mm <sup>2</sup>			249/2	*
242	-WX3		2x1.0mm <sup>2</sup>			249/4	*
243	-WX4		2x1.0mm <sup>2</sup>			249/6	*
244	-WX5		2x1.0mm <sup>2</sup>			249/7	*
245	-X1					510/2	*
246	-X1		UTT B 2,5			247/4	*
247	-X1		UTT B 2,5-DIO/O-U			245/1	*
248	-X1		UTT B 2,5 - 3044636			248/3	*
249	-XX1					508/3	*
250	-XX2					230/6	*
251	-XXX3					504/5	*
252	-XXX4					505/5	*

\* Use of components with equivalent electric, mechanical and approval specifications is acceptable

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Revision	1	Product	HVCP EX 55kW			<b>COMPONENT LIST</b>	Drawing no.	Page no.
Status	Available			<b>2183822</b>			<b>1009</b>	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					
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Pos.	Name	I/O	Description	Signalway	Connected to	Card type
1	-A1:AI0	AI0	(ASC) Current Sensor			6ES7214-1AG31-0XB0
2	-A1:AI1	AI1	Vacuum Sensor input dP FlexFilter 13/18			6ES7214-1AG31-0XB0
3	-A1:DIB.5	I0.5	Main filter DPS Configurable (DFC-08M alarm (when no replica))			6ES7214-1AG40-0XB0
4	-A1:Dla.0	I0.0	Pilot Signal (PS)	-X1:4,-W102:2,-PS,-PS	-PS	6ES7214-1AG31-0XB0
5	-A1:Dla.1	I0.1	Compressed air switch (CAS)	-X1:34,-W110:3	-CAS	6ES7214-1AG31-0XB0
6	-A1:Dla.2	I0.2	Thermal switches (TS)	-X1:36,-W110:6,-TB1:36,-TB1:35-XX2		6ES7214-1AG31-0XB0
7	-A1:Dla.3	I0.3	Motor protector +(PTC (EX))		-F8	6ES7214-1AG31-0XB0
8	-A1:Dla.4	I0.4	Level indicator on dust bin (BLI)	-X1:59,-W116:BN	-BLI (EX)	6ES7214-1AG31-0XB0
9	-A1:Dla.5	I0.5	Main filter DPS Configurable (DFC-08M alarm (when no replica))	-X1:192,-W136:1	-MF-DPS4	6ES7214-1AG31-0XB0
10	-A1:Dla.6	I0.6	Remote St.By/Off/OTTmr	-X1:6,-W103:1	-S3	6ES7214-1AG31-0XB0
11	-A1:Dla.7	I0.7	Emergency stop (EX-Venting panel)		-A21	6ES7214-1AG31-0XB0
12	-A1:Dlb.0	I1.0	Maintenance switch	-X1:2,-W101:2	-MS1	6ES7214-1AG31-0XB0
13	-A1:Dlb.1	I1.1	Closing function in D-mode		-K2	6ES7214-1AG31-0XB0
14	-A1:Dlb.2	I1.2	Level Indicator (LI) (Emptying on demand) Configurable	-X1:46,-W112:Bk/Or	-LI (EX)	6ES7214-1AG31-0XB0
15	-A1:Dlb.3	I1.3	Control filter DPS 1 Configurable	-X1:66,-W117:1	-CF-DPS1	6ES7214-1AG31-0XB0
16	-A1:Dlb.4	I1.4	Manual emptying TVFD/AEB (NS)	-X1:56,-W115:2	-S1	6ES7214-1AG31-0XB0
17	-A1:Dlb.5	I1.5	Fire Alarm		-K9	6ES7214-1AG31-0XB0
18	-A1:DQa.0	Q0.0	NoAlarm (Reset Safety circ.)		-K8	6ES7214-1AG31-0XB0
19	-A1:DQa.1	Q0.1	Alarm message lamp lamp in front panel		-H1	6ES7214-1AG31-0XB0
20	-A1:DQa.2	Q0.2	Warning DPS BLI and LI (relay is energized at warnig active)		-K11	6ES7214-1AG31-0XB0
21	-A1:DQa.3	Q0.3	Filter Cleaning Valve V1 dust collector Configurable FlexF 13/18 v1 (replica)		-K13	6ES7214-1AG31-0XB0
22	-A1:DQa.4	Q0.4	Filter Cleaning Valve V2 dust collector Configurable FlexF 13/18 v1 (replica)		-K14	6ES7214-1AG31-0XB0
23	-A1:DQa.5	Q0.5	Run(Start motor)		-K12	6ES7214-1AG31-0XB0
24	-A1:DQa.6	Q0.6	Solenoid V10 in vacuum unit ( Start up valve / Idling (RBU))		-K15	6ES7214-1AG31-0XB0
25	-A1:DQa.7	Q0.7	Upper solenoid V11 TVFD 1 Configurable		-K16	6ES7214-1AG31-0XB0
26	-A1:DQb.0	Q1.0	Lower solenoid V12 TVFD 1 Emptying AEB; Configurable		-K17	6ES7214-1AG31-0XB0
27	-A1:DQb.1	Q1.1	On/standby lamp (external)		-K18	6ES7214-1AG31-0XB0
28	-A1/1:DQe.0	4.00	Config output K19 ASC move/Flush 1		-K19	6ES7222-1BD30-0XB0
29	-A1/1:DQe.1	4.01	Config output K20 ASC open/Flush 2		-K20	6ES7222-1BD30-0XB0

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Status	Available	Product				
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Approval by	-	Date of created				
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Pos.	Name	I/O	Description	Signalway	Connected to	Card type
30	-A1/1:DQe.2	4.02	LCC start		-K21	6ES7222-1BD30-0XB0
31	-A1/1:DQe.3	4.03	MUX AI0 Current AI1 Pressure	-K22:A1,-K21:A2,-K21:A1	-A1/1	6ES7222-1BD30-0XB0
32	-A2:Dla.0	I8.0	TVFD1 limit switch upper closed	-X1:102	-MS2	6ES7223-1BH30-0XB0
33	-A2:Dla.1	I8.1	TVFD1 limit switch lower closed	-X1:104	-S2	6ES7223-1BH30-0XB0
34	-A2:Dla.2	I8.2	TVFD 2 Limit Switch Upper closed	-X1:106	-MS3	6ES7223-1BH30-0XB0
35	-A2:Dla.3	I8.3	EX Locked Isolation valve 1	-X1:108,-W121:1	-S10	6ES7223-1BH30-0XB0
36	-A2:Dla.4	I8.4	Venting panel sensor 1	-X1:110,-W122:1	-S11	6ES7223-1BH30-0XB0
37	-A2:Dla.5	I8.5	Venting panel sensor2	-X1:112,-W123:1	-S12	6ES7223-1BH30-0XB0
38	-A2:Dla.6	I8.6	CF-DPS2( Control Filter DP switch 2)	-X1:114,-W124:1	-CF-DPS2	6ES7223-1BH30-0XB0
39	-A2:Dla.7	I8.7	TVFD2 Limit Switch Lower closed	-X1:116	-S6	6ES7223-1BH30-0XB0
40	-A2:DQa.0	Q8.0	EX panel tripped		-K23	6ES7223-1BH30-0XB0
41	-A2:DQa.1	Q8.1	TVFD 2 upper valve Clean 7		-K24	6ES7223-1BH30-0XB0
42	-A2:DQa.2	Q8.2	TVFD 2 Lower valve Clean 8		-K25	6ES7223-1BH30-0XB0
43	-A2:DQa.3	Q8.3	N-S Button lamp	-X1:123,-W221:2	-SH1	6ES7223-1BH30-0XB0
44	-A2:DQa.4	Q8.4	Flush valve1		-K26	6ES7223-1BH30-0XB0
45	-A2:DQa.5	Q8.5	Flush valve2		-K27	6ES7223-1BH30-0XB0
46	-A2:DQa.6	Q8.6	Flush valve3		-K28	6ES7223-1BH30-0XB0
47	-A2:DQa.7	Q8.7	Flush valve4		-K29	6ES7223-1BH30-0XB0
48	-A3:Dla.0	I12.0	TVFD 3 limit switch upper closed	-X1:152,-W127:1	-S15	6ES7223-1BH30-0XB0
49	-A3:Dla.1	I12.1	TVFD 3 limit switch lower closed	-X1:154,-W128:1	-S16	6ES7223-1BH30-0XB0
50	-A3:Dla.2	I12.2	TVFD 4 Limit Switch Upper closed	-X1:156,-W129:1	-S17	6ES7223-1BH30-0XB0
51	-A3:Dla.3	I12.3	TVFD 4 limit switch lower closed	-X1:158,-W130:1	-S18	6ES7223-1BH30-0XB0
52	-A3:Dla.4	I12.4	Venting panel sensor3	-X1:160,-W131:1	-S19	6ES7223-1BH30-0XB0
53	-A3:Dla.5	I12.5	Venting panel sensor4	-X1:162,-W132:1	-S20	6ES7223-1BH30-0XB0
54	-A3:Dla.6	I12.6	CF-DPS3( Control Filter DP switch 3)	-X1:164,-W133:1	-CF-DPS3	6ES7223-1BH30-0XB0
55	-A3:Dla.7	I12.7	CF-DPS4( Control Filter DP switch 4)	-X1:166,-W134:1	-CF-DPS4	6ES7223-1BH30-0XB0
56	-A3:DQa.0	Q12.0	TVFD 3 upper valve Flush 5 / FlexF18 v3 / Clean 5		-K30	6ES7223-1BH30-0XB0
57	-A3:DQa.1	Q12.1	TVFD 3 Lower valve Flush 6 / FlexF18 v4		-K31	6ES7223-1BH30-0XB0
58	-A3:DQa.2	Q12.2	TVFD 4 upper valve Lime inj. Open TAV50		-K32	6ES7223-1BH30-0XB0

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Status	Available	Product				
Date of approval	-	Product				
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Pos.	Name	I/O	Description	Signalway	Connected to	Card type
59	-A3:DQa.3	Q12.3	TVFD 4 Lower valve Lime inj. Dosing		-K33	6ES7223-1BH30-0XB0
60	-A3:DQa.4	Q12.4	Upstream damper 2		-K34	6ES7223-1BH30-0XB0
61	-A3:DQa.5	Q12.5	Downstream damper 1 (OFF-line cleaning and Graceful degr.)		-K35	6ES7223-1BH30-0XB0
62	-A3:DQa.6	Q12.6	Downstream damper 2 (OFF-line cleaning and Graceful degr.)		-K36	6ES7223-1BH30-0XB0
63	-A3:DQa.7	Q12.7	Spare (Clean/flush/ presep.)	-K37:A1,-K36:A2,-K36:A1	-A3	6ES7223-1BH30-0XB0
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Revision	Available	Product		PLC LIST	Drawing no. <b>2183822</b>	Page no. <b>1013</b>	
Status	-	HVCP EX 55kW					
Date of approval	-	Date of created					2019/08/20
Approval by	-	Author					FRALE
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From			Cable		To			Type	Length
Description	Ref. position	Function	Description	Page/lineway	Description	Ref. position	Function		
-Q1	50/1	Main Switch 125A	-W0	50/1	-MF	50/1	Main fuse	Power Cable	
-F7	80/0	18-90A	-W1	80/0	-MS1	80/0	Maintenance Switch	Motor Cable >= 3x10mm <sup>2</sup> + PE	
-K2	80/2	D Contactor	-W2	80/2	-MS1	80/2	Maintenance Switch	Motor Cable >= 3x10mm <sup>2</sup> + PE	
-MS1	80/0	Maintenance Switch	-W3	80/0	-M1	80/1	VAC/RBU Motor	Motor Cable >= 3x10mm <sup>2</sup> + PE	
-MS1	80/2	Maintenance Switch	-W4	80/2	-M1	80/2	VAC/RBU Motor	Motor Cable >= 3x10mm <sup>2</sup> + PE	
-X1	232/1		-W101	232/1	-MS1	232/1	Signal Contact Maintenance switch	2x1.0mm <sup>2</sup>	
-X1	230/1		-W102	230/1	-PS	230/1	Pilot Signal	2x1.0mm <sup>2</sup>	
-X1	231/8		-W103	231/8	-S3	231/8	Remote St.By/Off/OTTmr=Overtime	2x1.0mm <sup>2</sup>	
-X1	70/3		-W104	70/3	-S5	70/3	External E-stop	2x1.0mm <sup>2</sup>	
-X1	70/5		-W105	70/5	-AUX-SAFE	70/5	Auxiliary safety circuit	2x1.0mm <sup>2</sup>	
-X1	70/6		-W106	70/6	-S11	70/6	Venting sensor 1	2x1.0mm <sup>2</sup>	
-X1	70/7		-W107	70/7	-S12	70/7	Venting sensor 2	2x1.0mm <sup>2</sup>	
-X1	70/8		-W108	70/8	-S19	70/8	Venting sensor 3	2x1.0mm <sup>2</sup>	
-X1	70/9		-W109	70/9	-S20	70/9	Venting sensor 4	2x1.0mm <sup>2</sup>	
-X1	239/7		-W110	239/7	-TB1	239/7		12x0,75mm <sup>2</sup>	
-X1	231/4		-W111	231/4	-MF-DPS2	231/4	Main Filter DPS	2x1.0mm <sup>2</sup>	
-X1	232/7		-W112	232/7	-LI (EX)	232/8	Level Indicator (LI)	3x1,0mm <sup>2</sup>	
-X1	70/1		-W113	70/1	-FA	70/1	Fire alarm	2x1.0mm <sup>2</sup>	
-X1	231/3		-W114	231/3	- MF-DPS1	231/3	Main Filter DPS.	2x1.0mm <sup>2</sup>	
-X1	233/5		-W115	233/5	-S1	233/5	Manual emptying TVFD/AEB (NS)	2x1.0mm <sup>2</sup>	
-X1	231/1		-W116	231/1	-BLI (EX)	231/2	Level indicator on dust bin (BLI)	3x1.0mm <sup>2</sup>	
-X1	233/0		-W117	233/0	-CF-DPS1	233/1	Control filter DPS (1) - (1-2)	2x1.0mm <sup>2</sup>	
-X1	234/1		-W118	234/1	-S7	234/2	TVFD1 limit switch upper closed (Rotary valve 1 - No Fault (Ready))	2x1.0mm <sup>2</sup>	
-X1	234/3		-W119	234/3	-S8	234/4	TVFD1 Limit Switch Lower closed (Rotary valve 1 Rotation pulses, dotted line)	2x1.0mm <sup>2</sup>	
-X1	234/5		-W120	234/5	-S9	234/6	TVFD1 Valve 3 rotation pulses, dashed line (Rotary valve 2 - No Fault (Ready))	2x1.0mm <sup>2</sup>	
-X1	234/8		-W121	234/8	-S10	234/9	Locked isolation valve 1	2x1.0mm <sup>2</sup>	
-X1	235/1		-W122	235/1	-S11	235/2	Venting panel sensor (1) - (1-2) (open contact =OK)/HRD No Fault	2x1.0mm <sup>2</sup>	
-X1	235/3		-W123	235/3	-S12	235/4	Venting panel sensor (2) - (3-4) (open contact =OK)/ HRD Activated	2x1.0mm <sup>2</sup>	

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Revision	1	Product	HVCP EX 55kW			<b>CABEL OVERVIEW</b>	Drawing no.	Page no.
Status	Available			2183822			1014	
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From			Cable		To			Type	Length
Description	Ref. position	Function	Description	Page/lineway	Description	Ref. position	Function		
-X1	235/5		-W124	235/5	-CF-DPS2	235/6	Control Filter DP switch 2 <del>Contr. DPS 3-4</del>	2x1.0mm <sup>2</sup>	
-X1	235/7		-W125	235/7	-S14	235/8	TVFD2 Limit Switch Lower closed (Rotary valve 2 Rotation pulses)	2x1.0mm <sup>2</sup>	
-X1	81/2		-W126	81/2	-PTC-MOTOR	80/1	Built in sensor overheat Protection	PTC inside motor 2x1.0mm <sup>2</sup>	
-X1	236/1		-W127	236/1	-S15	236/2	TVFD 3 Limit Switch upper closed <del>Rotary valve 3 No Fault (Ready)</del>	2x1.0mm <sup>2</sup>	
-X1	236/3		-W128	236/3	-S16	236/4	TVFD 3 Limit Switch Lower closed <del>Rotary valve 3 Rotation Pulses</del>	2x1.0mm <sup>2</sup>	
-X1	236/5		-W129	236/5	-S17	236/6	TVFD4 Limit Switch upper closed <del>Rotary valve 4 No Fault (Ready)</del>	2x1.0mm <sup>2</sup>	
-X1	236/7		-W130	236/7	-S18	236/8	TVFD4 Limit Switch Lower closed <del>Rotary valve 4 Rotation Pulses</del>	2x1.0mm <sup>2</sup>	
-X1	237/1		-W131	237/1	-S19	237/2	Venting panel sensor3	2x1.0mm <sup>2</sup>	
-X1	237/3		-W132	237/3	-S20	237/4	Venting panel sensor4	2x1.0mm <sup>2</sup>	
-X1	237/5		-W133	237/5	-CF-DPS3	237/6	Control Filter DP switch 3	2x1.0mm <sup>2</sup>	
-X1	237/7		-W134	237/7	-CF-DPS4	237/8	Control Filter DP switch 4	2x1.0mm <sup>2</sup>	
-X1	231/5		-W135	231/5	-MF-DPS3	231/5	Main Filter DPS	2x1.0mm <sup>2</sup>	
-X1	231/5		-W136	231/5	-MF-DPS4	231/5	Main Filter DPS	2x1.0mm <sup>2</sup>	
-X1	70/0		-W137	70/0	-Q4	70/0	Intrinsically safe circuit (external)	2x1.0mm <sup>2</sup>	
-X1	71/6		-W200	71/6	-AUX- E-STOP	71/6	E-Stop signal to external control panel	2x1.0mm <sup>2</sup>	
-X1	82/1		-W203	82/1	-AUX1	82/1	E-Stop Controlled 24VDC supply	2x1.0mm <sup>2</sup>	
-X1	232/4		-W204	232/4	-AUX2	232/4	Delta contactor active (motor running)	2x1.0mm <sup>2</sup>	
-X1	82/6		-W205	82/6	-AUX3	82/6	Signal to external system <del>Signal to external system</del>	2x1.0mm <sup>2</sup>	
-X1	239/1		-W207	239/1	-V1	239/1	Filter Cleaning Valve V1	2x1.0mm <sup>2</sup>	
-X1	239/3		-W208	239/3	-V2	239/4	Filter Cleaning Valve V2	2x1.0mm <sup>2</sup>	
-X1	240/1		-W209	240/1	-V3	240/1	Filter Cleaning Valve V3	2x1.0mm <sup>2</sup>	
-X1	240/4		-W210	240/4	-V4	240/4	Filter Cleaning Valve V4	2x1.0mm <sup>2</sup>	
-X1	238/6		-W211	238/6	-EXT WARNING	238/6	External Warning Output	3x1.0mm <sup>2</sup>	
-X1	238/0		-W212	238/0	-EXT ALARM	238/0	No summary alarm	3x1.0mm <sup>2</sup>	
-PE	60/6	PE	-W213	241/1	-V13	241/1	ASC Move	2x1.0mm <sup>2</sup>	
-X1	241/5		-W215	241/5				5x1.0mm <sup>2</sup>	
-X1	240/6		-W217	240/9	-H2	240/9	On/standby lamp (external)	2x1.0mm <sup>2</sup>	
-X1	242/1		-W218	242/1	-AUX-EX-TRIP	242/1	EX panel tripped	2X1.0mm <sup>2</sup>	

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From			Cable		To			Type	Length
Description	Ref. position	Function	Description	Page/lineway	Description	Ref. position	Function		
-X1	242/4		-W219	242/4	-V7	242/4	Filter Cleaning Valve V7	2X1.0mm <sup>2</sup>	
-X1	242/7		-W220	242/7	-V8	242/7	Filter Cleaning Valve V8	2X1.0mm <sup>2</sup>	
-X1	243/1		-W221	243/1	-SH1	243/1	N-S button lamp	2x1.0mm <sup>2</sup>	
-X1	243/4		-W222	243/4	-V18	243/4	Flush valve 1	2X1.0mm <sup>2</sup>	
-X1	243/6		-W223	243/6	-V19	243/7	Flush valve 2	2X1.0mm <sup>2</sup>	
-X1	244/1		-W224	244/1	-V20	244/1	Flush valve 3	2X1.0mm <sup>2</sup>	
-X1	244/4		-W225	244/4	-V21	244/4	Flush valve 4	2x1.0mm <sup>2</sup>	
-X1	81/4		-W226	81/4				Permanent 24VDC(max 1A)	
-X1	81/5		-W227	81/5				PTC inside motor 2x1.0mm <sup>2</sup>	
-X1	81/8		-W228	81/8				PTC inside motor 2x1.0mm <sup>2</sup>	
-X1	245/1		-W229	245/1	-V5	245/1	Filter Cleaning Valve V5	2X1.0mm <sup>2</sup>	
-X1	245/4		-W230	245/4	-V6	245/4	TVFD 2 Upper Valve	2X1.0mm <sup>2</sup>	
-X1	245/7		-W231	245/7	-V24	245/7	TVFD 2 Lower Valve	2X1.0mm <sup>2</sup>	
-X1	246/1		-W232	246/1	-V25	246/1	TVFD4 Lower Valve	2X1.0mm <sup>2</sup>	
-X1	246/4		-W233	246/4	-V26	246/4	TVFD 2 Upper Valve	2X1.0mm <sup>2</sup>	
-X1	246/7		-W234	246/7	-V27	246/7	TVFD 2 Lower Valve	2X1.0mm <sup>2</sup>	
-X1	247/1		-W235	247/1	-V28	247/1	Downstream damper 2	2X1.0mm <sup>2</sup>	
-X1	240/7		-W236	240/7	-AUX4	240/7	Ready / idle signal	2x1.0mm <sup>2</sup>	
-PBC1	210/2	KTP401 Touch panel	-W500	210/2	-PBC1	210/5	PLC S7-1200 input	Shielded ethernet cable	
-X1	248/6	Spare Terminal (20) Not Specified	-W503	248/6	-SP1	248/7	AI:1 Optional: Pressure Transducer	3x1.0mm <sup>2</sup>	
-X1	248/6	Spare Terminal (20) Not Specified	-W504	248/6	-SP2	248/7	AI:1 Optional: Pressure Transducer	3x1.0mm <sup>2</sup>	
-X1	249/1	Spare Term	-WX1	249/1	-SPARE_TERMINAL	249/1	-SPARE_TERMINAL	2x1.0mm <sup>2</sup>	
-X1	249/3	Spare Term	-WX2	249/3	-SPARE_TERMINAL	249/3	-SPARE_TERMINAL	2x1.0mm <sup>2</sup>	
-X1	249/4	Spare Term	-WX3	249/4	-SPARE_TERMINAL	249/4	-SPARE_TERMINAL	2x1.0mm <sup>2</sup>	
-X1	249/6	Spare Term	-WX4	249/6	-SPARE_TERMINAL	249/6	-SPARE_TERMINAL	2x1.0mm <sup>2</sup>	
-X1	249/7	Spare Term	-WX5	249/7	-SPARE_TERMINAL	249/7	-SPARE_TERMINAL	2x1.0mm <sup>2</sup>	

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No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
1			-ET1	5		-Q2	A2	UK 2,5 N	240/1	
2			-ET1	4		-Q2	A1	UK 2,5 N	240/1	
3			-ET1	3		24VDC+		UK 2,5 N	234/2	
4			-K22			-A1/1	DQe.3	PLC-RSC- 24DC/21-21AU	241/9	
5			-K22			-K23	A2	PLC-RSC- 24DC/21-21AU	241/9	
6			-K22			-K21	A2	PLC-RSC- 24DC/21-21AU	241/9	
7			-K37			-A3	DQa.7	PLC-RSC- 24DC/21	247/5	
8			-K37			-X1	134	PLC-RSC- 24DC/21	247/5	
9			-K37			-X1	86	PLC-RSC- 24DC/21	247/5	
10	-PE		-PE			0V		WT 4 PE	60/3	
11			-PE			-K9/1	A2	WT 4 PE	60/6	
12	-PE		-PE			-G1	-	WT 4 PE	60/6	
13	-CF-DPS1_		-X1	66_					510/2	
14			-X1	67_		24VDC+			510/3	
15	-TERMINAL BOX	1	-X1	141_		24VDC+			510/3	
16			-X1	40		-X1	196	UTT 2,5 - 3044636	232/6	
17	-LI (EX)	- Blue	-X1	40		-X1	58	UTT 2,5 - 3044636	232/6	
18			-X1	85		-K37	14	UTT 2,5	247/4	
19	-PTC-MOTOR	2	-X1	139		-F8	T1	UTT 2,5 - 3044636	81/2	
20	-W226	1	-X1	141		24VDC+		UTT 2,5 - 3044636	81/4	
21	-W227	1	-X1	143		24VDC+		UTT 2,5 - 3044636	81/5	
22	-W228	1	-X1	145		24VAC		UTT 2,5 - 3044636	81/8	
23			-X1	86		-K37	A2	UTT 2,5	247/5	
24			-X1	86		-K36	A2	UTT 2,5	247/5	
25	-MS1	13	-X1	1		24VDC+		UTT 2,5 - 3044636	232/1	
26	-PTC-MOTOR	1	-X1	140		-F8	T2	UTT 2,5 - 3044636	81/2	
27			-X1	142		-X1	144	UTT 2,5 - 3044636	81/4	
28	-W226	2	-X1	142		-A21/1/1	A2	UTT 2,5 - 3044636	81/4	

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No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
29			-X1	144		-X1	26	UTT B 2,5 - 3044636	81/6	
30	-W227	2	-X1	144		-X1	142	UTT B 2,5 - 3044636	81/6	
31	-W228	2	-X1	146		0V		UTT B 2,5 - 3044636	81/8	
32	-MS1	14	-X1	2		-A1	D1b.0	UTT B 2,5 - 3044636	232/2	
33	-PS		-X1	3		-F6	2	UTT B 2,5 - 3044636	230/1	
34	-PS		-X1	4		-A1	D1a.0	UTT B 2,5 - 3044636	230/2	
35	-X1	6	-X1	5				UTT B 2,5 - 3044636	231/8	
36	-S3	1	-X1	5		24VDC+		UTT B 2,5 - 3044636	231/8	
37	-X1	5	-X1	6				UTT B 2,5 - 3044636	231/9	
38	-S3	2	-X1	6		-A1	D1a.6	UTT B 2,5 - 3044636	231/9	
39	-SPARE_TERMINAL4	2	-X1	137				UTT B 2,5 - 3044636	249/6	
40	-SPARE_TERMINAL5	2	-X1	150				UTT B 2,5 - 3044636	249/8	
41	-AUX- E-STOP	1	-X1	15		-A21	34	UTT B 2,5 - 3044636	71/6	
42	-SPARE_TERMINAL1	1	-X1	19				UTT B 2,5 - 3044636	249/1	
43	-SPARE_TERMINAL2	1	-X1	39				UTT B 2,5 - 3044636	249/3	
44	-SPARE_TERMINAL3	1	-X1	84				UTT B 2,5 - 3044636	249/4	
45	-SPARE_TERMINAL4	1	-X1	99				UTT B 2,5 - 3044636	249/6	
46	-SPARE_TERMINAL5	1	-X1	149				UTT B 2,5 - 3044636	249/7	
47	-AUX- E-STOP	2	-X1	16		-A21	33	UTT B 2,5 - 3044636	71/6	
48	-SPARE_TERMINAL1	2	-X1	20				UTT B 2,5 - 3044636	249/1	
49	-SPARE_TERMINAL2	2	-X1	68				UTT B 2,5 - 3044636	249/3	
50			-X1	136		-R1	2	UTT B 2,5 - 3044636	248/3	
51			-X1	26	a	-A1	M	UTT B 2,5 - 3044636	82/2	
52	-AUX1	2	-X1	26		-X1	144	UTT B 2,5 - 3044636	82/2	
53			-X1	25		-K13	11	UTT B 2,5 - 3044636	82/1	
54	-AUX1	1	-X1	25		-A21	14	UTT B 2,5 - 3044636	82/1	
55	-MS2	13	-X1	201		-Q2	95	UTT B 2,5	234/2	
56	-MS3	13	-X1	202		-Q3	95	UTT B 2,5	234/7	

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No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
57			-X1	196		-X1	198	UTT B 2,5	234/4	
58	-S2	-	-X1	196		-X1	40	UTT B 2,5	234/4	
59			-X1	198		-K10	A2	UTT B 2,5	235/9	
60	-S6	-	-X1	198		-X1	196	UTT B 2,5	235/9	
61	-AUX3	1	-X1	29		24VAC(E)		UTT B 2,5 - 3044636	82/6	
62	-AUX3	2	-X1	30		0V		UTT B 2,5 - 3044636	82/6	
63			-X1	32		-K15	A2	UTT B 2,5 - 3044636	239/8	
64	-TB1	32	-X1	32		-K12	A2	UTT B 2,5 - 3044636	239/8	
65	-TB1	31	-X1	31		-K15	14	UTT B 2,5 - 3044636	239/7	
66	-X1	34	-X1	33				UTT B 2,5 - 3044636	230/4	
67	-CAS		-X1	33		24VDC+		UTT B 2,5 - 3044636	230/4	
68	-X1	33	-X1	34				UTT B 2,5 - 3044636	230/5	
69	-CAS		-X1	34		-A1	D1a.1	UTT B 2,5 - 3044636	230/5	
70	-TB1	35	-X1	35		24VDC+		UTT B 2,5 - 3044636	230/6	
71	-TB1	36	-X1	36		-A1	D1a.2	UTT B 2,5 - 3044636	230/7	
72			-X1	42		-K13	A2	UTT B 2,5-DIO/O-U	239/1	
73			-X1	42		-D1	1	UTT B 2,5-DIO/O-U	239/1	
74	-V1	2	-X1	42		-K11	A2	UTT B 2,5-DIO/O-U	239/1	
75			-X1	41		-K13	14	UTT B 2,5-DIO/O-U	239/1	
76	-V1	1	-X1	41		-D1	2	UTT B 2,5-DIO/O-U	239/1	
77			-X1	44		-K14	A2	UTT B 2,5-DIO/O-U	239/3	
78			-X1	44		-D2	1	UTT B 2,5-DIO/O-U	239/3	
79	-V2	2	-X1	44		-K13	A2	UTT B 2,5-DIO/O-U	239/3	
80			-X1	43		-K14	14	UTT B 2,5-DIO/O-U	239/4	
81	-V2	1	-X1	43		-D2	2	UTT B 2,5-DIO/O-U	239/4	
82	-LI (EX)	+ Brown	-X1	45		24VDC+		UTT B 2,5 - 3044636	232/7	
83	-LI (EX)	Bk/Rd	-X1	46		-A1	D1b.2	UTT B 2,5 - 3044636	232/8	
84	- MF-DPS1		-X1	49		24VDC+		UTT B 2,5 - 3044636	231/3	

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No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
85	- MF-DPS1		-X1	50		-X1	187	UTT B 2,5 - 3044636	231/4	
86	-S1		-X1	55		24VDC+		UTT B 2,5 - 3044636	233/5	
87	-S1		-X1	56		-A1	Dlb.4	UTT B 2,5 - 3044636	233/6	
88	-BLI (EX)	Black	-X1	57				UTT B 2,5 - 3044636	231/1	
89	-BLI (EX)	+ Brown	-X1	57				UTT B 2,5 - 3044636	231/1	
90	-X1	59	-X1	57		24VDC+		UTT B 2,5 - 3044636	231/1	
91	-BLI (EX)	Bk/Rd	-X1	59				UTT B 2,5 - 3044636	231/1	
92	-X1	57	-X1	59		-A1	Dla.4	UTT B 2,5 - 3044636	231/1	
93			-X1	58		-X1	40	UTT B 2,5 - 3044636	231/1	
94	-BLI (EX)	- Blue	-X1	58		-A11	M	UTT B 2,5 - 3044636	231/1	
95	-EXT WARNING	1	-X1	60		-K11	11	UTT B 2,5 - 3044636	238/6	
96	-EXT WARNING	2	-X1	61		-K11	14	UTT B 2,5 - 3044636	238/6	
97	-EXT WARNING	3	-X1	62		-K11	12	UTT B 2,5 - 3044636	238/7	
98	-EXT ALARM	1	-X1	63		-K10	11	UTT B 2,5 - 3044636	238/0	
99	-AUX2	1	-X1	17		-K2	84	UTT B 2,5 - 3044636	232/4	
100	-AUX2	2	-X1	18		-K2	83	UTT B 2,5 - 3044636	232/4	
101	-SV1	Signal	-X1	138	a ↓	-K22	14	UTT B 2,5 - 3044636	248/3	
102	-X1	188	-X1	187				UTT B 2,5	231/4	
103	-MF-DPS2		-X1	187		-X1	50	UTT B 2,5	231/4	
104	-X1	187	-X1	188				UTT B 2,5	231/4	
105	-MF-DPS2		-X1	188		-X1	189	UTT B 2,5	231/4	
106	-X1	190	-X1	189				UTT B 2,5	231/5	
107	-MF-DPS3		-X1	189		-X1	188	UTT B 2,5	231/5	
108	-X1	189	-X1	190				UTT B 2,5	231/5	
109	-MF-DPS3		-X1	190		-X1	191	UTT B 2,5	231/5	
110	-X1	192	-X1	191				UTT B 2,5	231/5	
111	-MF-DPS4		-X1	191		-X1	190	UTT B 2,5	231/5	
112	-X1	191	-X1	192				UTT B 2,5	231/6	

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No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
113	-MF-DPS4		-X1	192		-A1	Dla.5	UTT B 2,5	231/6	
114	-EXT ALARM	2	-X1	64		-K10	14	UTT B 2,5 - 3044636	238/1	
115	-EXT ALARM	3	-X1	65		-K10	12	UTT B 2,5 - 3044636	238/1	
116	-CF-DPS1		-X1	67		24VDC+		UTT B 2,5 - 3044636	233/1	
117	-CF-DPS1		-X1	66		-A1	Dlb.3	UTT B 2,5 - 3044636	233/0	
118	-X1	72	-X1	71				UTT B 2,5 - 3044636	241/0	
119	-W213	1	-X1	71		24VAC(E)		UTT B 2,5 - 3044636	241/0	
120	-X1	71	-X1	72		-K19	11	UTT B 2,5 - 3044636	241/1	
121	-X1	75	-X1	73				UTT B 2,5 - 3044636	241/1	
122	-V13	1	-X1	73		-K19	14	UTT B 2,5 - 3044636	241/1	
123	-W213	4	-X1	74		-K19	12	UTT B 2,5 - 3044636	241/1	
124	-W110	10	-X1	75				UTT B 2,5 - 3044636	241/3	
125	-X1	73	-X1	75		-K20	11	UTT B 2,5 - 3044636	241/3	
126	-MV1	76	-X1	76		0V		UTT B 2,5 - 3044636	241/3	
127	-MV1	77	-X1	77		-K20	14	UTT B 2,5 - 3044636	241/3	
128	-MV1	78	-X1	78		-K20	12	UTT B 2,5 - 3044636	241/3	
129			-X1	79		-K24	11	UTT B 2,5 - 3044636	241/5	
130	-W215	1	-X1	79		-X1	87	UTT B 2,5 - 3044636	241/5	
131	-W215	3	-X1	81		-K21	11	UTT B 2,5 - 3044636	241/5	
132	-W215	4	-X1	82		-K21	14	UTT B 2,5 - 3044636	241/6	
133	-W215	5	-X1	83		-K21	12	UTT B 2,5 - 3044636	241/6	
134			-X1	80		-K21	A2	UTT B 2,5 - 3044636	241/5	
135	-W215	2	-X1	80		-K20	A2	UTT B 2,5 - 3044636	241/5	
136			-X1	87	●	-X1	79	UTT B 2,5 - 3044636	240/6	
137			-X1	87	●	-K17/1	11	UTT B 2,5 - 3044636	240/6	
138			-X1	88	b	-K18	A2	UTT B 2,5 - 3044636	240/6	
139	-H2	X2	-X1	88		-K17	A2	UTT B 2,5 - 3044636	240/6	
140	-S7	1	-X1	101		24VDC+		UTT B 2,5 - 3044636	234/2	

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No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position Page / Lineway	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
141	-MS2	14	-X1	102				UTT B 2,5 - 3044636	234/1	
142	-S7	2	-X1	102		-A2	Dla.0	UTT B 2,5 - 3044636	234/1	
143	-S8	1	-X1	103				UTT B 2,5 - 3044636	234/4	
144	-S2	+	-X1	103		24VDC+		UTT B 2,5 - 3044636	234/4	
145	-S8	2	-X1	104				UTT B 2,5 - 3044636	234/3	
146	-S2	Signal	-X1	104		-A2	Dla.1	UTT B 2,5 - 3044636	234/3	
147	-S9	1	-X1	105		24VDC+		UTT B 2,5 - 3044636	234/6	
148	-MS3	14	-X1	106				UTT B 2,5 - 3044636	234/5	
149	-S9	2	-X1	106		-A2	Dla.2	UTT B 2,5 - 3044636	234/5	
150	-S10	1	-X1	107		24VDC+		UTT B 2,5 - 3044636	234/9	
151	-S10	2	-X1	108		-A2	Dla.3	UTT B 2,5 - 3044636	234/8	
152	-S11	1	-X1	109		24VDC+		UTT B 2,5 - 3044636	235/2	
153	-S15	1	-X1	151		24VDC+		UTT B 2,5 - 3044636	236/2	
154	-S19	1	-X1	159		24VDC+		UTT B 2,5 - 3044636	237/2	
155	-S11	2	-X1	110		-A2	Dla.4	UTT B 2,5 - 3044636	235/1	
156	-S15	2	-X1	152		-A3	Dla.0	UTT B 2,5 - 3044636	236/1	
157	-S19	2	-X1	160		-A3	Dla.4	UTT B 2,5 - 3044636	237/1	
158	-S12	1	-X1	111		24VDC+		UTT B 2,5 - 3044636	235/4	
159	-S16	1	-X1	153		24VDC+		UTT B 2,5 - 3044636	236/4	
160	-S20	1	-X1	161		24VDC+		UTT B 2,5 - 3044636	237/4	
161	-S12	2	-X1	112		-A2	Dla.5	UTT B 2,5 - 3044636	235/3	
162	-S16	2	-X1	154		-A3	Dla.1	UTT B 2,5 - 3044636	236/3	
163	-S20	2	-X1	162		-A3	Dla.5	UTT B 2,5 - 3044636	237/3	
164	-CF-DPS2		-X1	113		24VDC+		UTT B 2,5 - 3044636	235/6	
165	-S17	1	-X1	155		24VDC+		UTT B 2,5 - 3044636	236/6	
166	-CF-DPS3		-X1	163		24VDC+		UTT B 2,5 - 3044636	237/6	
167	-CF-DPS2		-X1	114		-A2	Dla.6	UTT B 2,5 - 3044636	235/5	
168	-S17	2	-X1	156		-A3	Dla.2	UTT B 2,5 - 3044636	236/5	

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No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
169	-CF-DPS3		-X1	164		-A3	Dla.6	UTT B 2,5 - 3044636	237/5	
170	-S14	1	-X1	115				UTT B 2,5 - 3044636	235/8	
171	-S6	+	-X1	115		24VDC+		UTT B 2,5 - 3044636	235/8	
172	-S18	1	-X1	157		24VDC+		UTT B 2,5 - 3044636	236/8	
173	-CF-DPS4		-X1	165		24VDC+		UTT B 2,5 - 3044636	237/8	
174	-S14	2	-X1	116				UTT B 2,5 - 3044636	235/7	
175	-S6	Signal	-X1	116		-A2	Dla.7	UTT B 2,5 - 3044636	235/7	
176	-S18	2	-X1	158		-A3	Dla.3	UTT B 2,5 - 3044636	236/7	
177	-CF-DPS4		-X1	166		-A3	Dla.7	UTT B 2,5 - 3044636	237/7	
178	-AUX-EX-TRIP	1	-X1	117		-K23	11	UTT B 2,5 - 3044636	242/1	
179			-X1	172		-K30	A2	UTT B 2,5-DIO/O-U	245/1	
180			-X1	172		-D7	1	UTT B 2,5-DIO/O-U	245/1	
181	-V5	2	-X1	172		-K29	A2	UTT B 2,5-DIO/O-U	245/1	
182			-X1	178		-K33	A2	UTT B 2,5 - 3044636	246/1	
183	-V25	2	-X1	178		-K32	A2	UTT B 2,5 - 3044636	246/1	
184			-X1	184		-K36	A2	UTT B 2,5 - 3044636	247/1	
185	-V28	2	-X1	184		-K35	A2	UTT B 2,5 - 3044636	247/1	
186	-AUX-EX-TRIP	2	-X1	118		-K23	14	UTT B 2,5 - 3044636	242/1	
187			-X1	171		-K30	14	UTT B 2,5-DIO/O-U	245/1	
188	-V5	1	-X1	171		-D7	2	UTT B 2,5-DIO/O-U	245/1	
189	-V25	1	-X1	177		-K33	14	UTT B 2,5 - 3044636	246/1	
190	-V28	1	-X1	183		-K36	14	UTT B 2,5 - 3044636	247/1	
191			-X1	120		-K24	A2	UTT B 2,5-DIO/O-U	242/4	
192			-X1	120		-D5	1	UTT B 2,5-DIO/O-U	242/4	
193	-V7	2	-X1	120		-K23	A2	UTT B 2,5-DIO/O-U	242/4	
194			-X1	174		-K31	A2	UTT B 2,5-DIO/O-U	245/4	
195			-X1	174		-D8	1	UTT B 2,5-DIO/O-U	245/4	
196	-V6	2	-X1	174		-K30	A2	UTT B 2,5-DIO/O-U	245/4	

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No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position	Remarks	
	Destination	Connection	Name	Number	Jumper	Destination	Connection				Page / Lineway
253			-X1	53		-D4	2	UTT B 2,5 - 3044636	240/4		
254	-V4	1	-X1	53		-K17/1	14	UTT B 2,5 - 3044636	240/4		
255	-X1	7	-X1	8				UTT B 2,5 - 3044636	70/3		
256		12	-X1	8		-X1	9	UTT B 2,5 - 3044636	70/3		
257	-X1	10	-X1	9				UTT B 2,5 - 3044636	70/5		
258	-AUX-SAFE	1	-X1	9		-X1	8	UTT B 2,5 - 3044636	70/5		
259	-AUX-SAFE	2	-X1	10				UTT B 2,5 - 3044636	70/5		
260	-X1	9	-X1	10					UTT B 2,5 - 3044636	70/5	
261	-X1	12	-X1	11					UTT B 2,5 - 3044636	70/6	
262	-S11	2	-X1	11					UTT B 2,5 - 3044636	70/6	
263	-X1	22	-X1	21					UTT B 2,5 - 3044636	70/8	
264	-S19	2	-X1	21					UTT B 2,5 - 3044636	70/8	
265	-S11	1	-X1	12					UTT B 2,5 - 3044636	70/6	
266	-X1	11	-X1	12					UTT B 2,5 - 3044636	70/6	
267	-S19	1	-X1	22					UTT B 2,5 - 3044636	70/8	
268	-X1	21	-X1	22					UTT B 2,5 - 3044636	70/8	
269	-X1	14	-X1	13					UTT B 2,5 - 3044636	70/7	
270	-S12	2	-X1	13					UTT B 2,5 - 3044636	70/7	
271	-X1	24	-X1	23					UTT B 2,5 - 3044636	70/9	
272	-S20	2	-X1	23					UTT B 2,5 - 3044636	70/9	
273	-S12	1	-X1	14					UTT B 2,5 - 3044636	70/7	
274	-X1	13	-X1	14					UTT B 2,5 - 3044636	70/7	
275	-S20	1	-X1	24					UTT B 2,5 - 3044636	70/9	
276	-X1	23	-X1	24			-S4	11	UTT B 2,5 - 3044636	70/9	
277	-X1	48	-X1	47					UTT B 2,5 - 3044636	70/1	
278	-FA	1	-X1	47					UTT B 2,5 - 3044636	70/1	
279	-X1	47	-X1	48		c			UTT B 2,5 - 3044636	70/2	
280	-FA	2	-X1	48			-K9/1	A1	UTT B 2,5 - 3044636	70/2	

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	Destination	Connection	Name	Number	Jumper	Destination	Connection		Page / Lineway	
281	-X1	8	-X1	7				UTT8 2,5 - 3044636	70/3	
282	-S5	11	-X1	7		-K9/1	A1	UTT8 2,5 - 3044636	70/3	
283	-X1	194	-X1	193				UTT8 2,5	70/0	
284	-Q4	1	-X1	193		24VDC+		UTT8 2,5	70/0	
285	-Q4	2	-X1	194	⬇			UTT8 2,5	70/1	
286	-X1	193	-X1	194	⬆			UTT8 2,5	70/1	

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