

Description : HVCP Std 37kW Insight
Part no. : 2183633/2183629
Drawing no. : 2183628

AB Ph. Nederman & Co
Sydhamnsgatan 2 SE-25228 Helsingborg , Sweden
Tel: +46 42 20 89 87 Fax: +46 42 20 89 58

Last page no. :1022
Number of pages : 59

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Revision	1	Product	HVCP Std 37kW Insight			FRONTPAGE	Drawing no.	Page no.
Status	Available			2183628			1	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					Next page

Page no.	Title	Last edit date
1	FRONTPAGE	2019-11-29
2	INDEX	2019-11-29
5	REVISION OVERVIEW	2019-08-22
6	PANEL SPECIFICATION	2019-11-29
7	WIRE SPECIFICATION ELECTRICAL INSTALLATION	2019-11-18
8	WIRE SPECIFICATION ELECTRICAL INSTALLATION	2018-01-04
9	FRONT PANEL LAYOUT	2019-11-29
10	PANEL LAYOUT	2019-11-29
11	TERMINAL ROW	2019-11-29
50	POWER SUPPLY	2019-11-18
60	CONTROL VOLTAGE	2019-11-29
70	EMERGENCY STOP CIRCUIT	2019-11-29
71	EMERGENCY STOP CIRCUIT	2019-11-29
80	MOTOR Y-D START	2019-11-29
82	POWER SUPPLY 24VAC/24VDC	2019-11-29
200	PLC POWER SUPPLY	2019-11-29
210	HMI PANEL	2019-11-29
220	PLC DI/DO REFERENCE	2019-08-29
221	PLC AI REFERENCE	2019-08-22
222	PLC DI/DO SB1222 OPTIONAL	2019-08-07
230	PLC INPUT TERMINALS	2019-11-18
231	PLC INPUT TERMINALS	2019-09-24
232	PLC INPUT TERMINALS	2019-11-29
233	PLC INPUT TERMINALS	2019-11-29
238	PLC OUTPUT TERMINALS	2019-11-29
239	PLC OUTPUT TERMINALS	2019-11-19
240	PLC OUTPUT TERMINALS	2019-11-29
241	SB1222 OUTPUT	2019-11-29
248	PLC 0-10V DC ANALOGUE INPUT	2019-11-29

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Revision	1	Product	HVCP Std 37kW Insight			INDEX	Drawing no.	Page no.
Status	Available	Date of created	2019/08/20	2183628			2	
Date of approval	-	Author	FRALE					
Approval by	-	1	previous page	Next page			3	

Page no.	Title	Last edit date
249	Spare Terminal	2019-11-29
500	STARTER EXTERNAL CONNECTIONS	2019-11-29
501	STARTER EXTERNAL CONNECTIONS	2019-11-29
502	STARTER EXTERNAL CONNECTIONS	2019-11-28
503	STARTER EXTERNAL CONNECTIONS	2019-11-29
504	OPTIONAL CONNECTIONS MASTER-SLAVE	2018-01-04
505	OPTIONAL CONNECTIONS MASTER-SLAVE	2018-01-04
508	VAC ASC CONNECTIONS and OPTIONAL BLI	2019-11-29
509	RBU CONNECTIONS and OPTIONAL BLI	2019-06-05
510	SENSORS VIA AUXILIARY CONNECTION BOX	2019-11-19
	Lists	
1001	COMPONENT LIST	2019-11-29
1002	COMPONENT LIST	2019-11-29
1003	COMPONENT LIST	2019-11-29
1004	COMPONENT LIST	2019-11-29
1005	COMPONENT LIST	2019-11-29
1006	COMPONENT LIST	2019-11-29
1007	COMPONENT LIST	2019-11-29
1008	COMPONENT LIST	2019-11-29
1011	PLC LIST	2019-09-24
1014	CABEL OVERVIEW	2019-11-29
1017	TERMINAL LIST	2019-11-29

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Revision	1	Product	HVCP Std 37kW Insight			INDEX	Drawing no.	Page no.
Status	Available	Date of created	2019/08/20	2183628			3	
Date of approval	-	Author	FRALE					
Approval by	-			Next page			5	
2	previous page							

No.	Date	Revised by	Revised information	Page

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Revision	1	Product	HVCP Std 37kW Insight	
Status	Available	Date of created	2019/08/20	
Date of approval	-	Author	FRALE	
Approval by	-	3 previous page		



REVISION OVERVIEW

Drawingl no.
2183628

Page no.
5

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 50/60Hz

Supply 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: 54Kg

Recyclable Materials: 100%

Labels, markings and other possible accessories according to product BOM

Responsible and Warranty:

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Revision	1	Product	HVCP Std 37kW Insight			PANEL SPECIFICATION	Drawing no.	2183628	Page no.	6
Status	Available	Date of created	2019/08/20				Next page		7	
Date of approval	-	Author	FRALE							
Approval by	-									
5	previous page									

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 0,5mm²24VAC Phase: Red 1,5mm²0VAC Neutral: Red 1,5mm²24VDC Phase (+): Dark blue 0,5mm²0VDC Neutral (-): Dark blue 0,5mm²Analog signal: Purple 0,5mm²

Undefined Signal: --

Labels, markings and other possible accessories according to product BOM

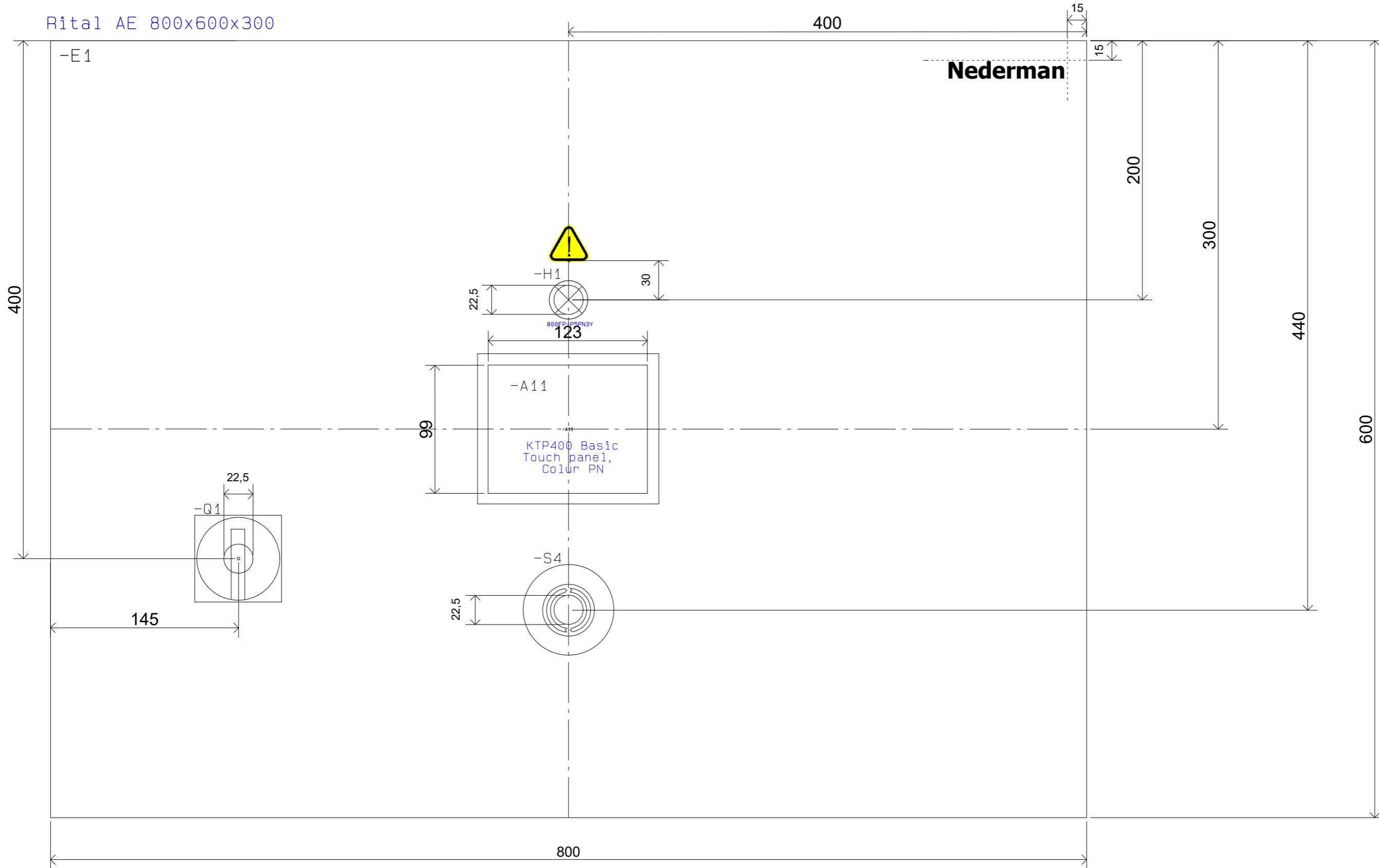
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Revision	1	Product	HVCP Std 37kW Insight			WIRE SPECIFICATION ELECTRICAL INSTALLATION	Drawing no.	2183628	Page no.
Status	Available	Date of created	2019/08/20	7					
Date of approval	-	Author	FRALE						
Approval by	-	6	previous page	Next page			8		

Rital AE 800x600x300



Components or parts with the text "Marked:" must be marked with specified text. Label, decal or marker cards or equivalent.

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Revision	1	Product	HVCP Std 37kW Insight	
Status	Available			
Date of approval	-	Date of created	2019/08/20	
Approval by	-	Author	FRALE	
8	previous page			

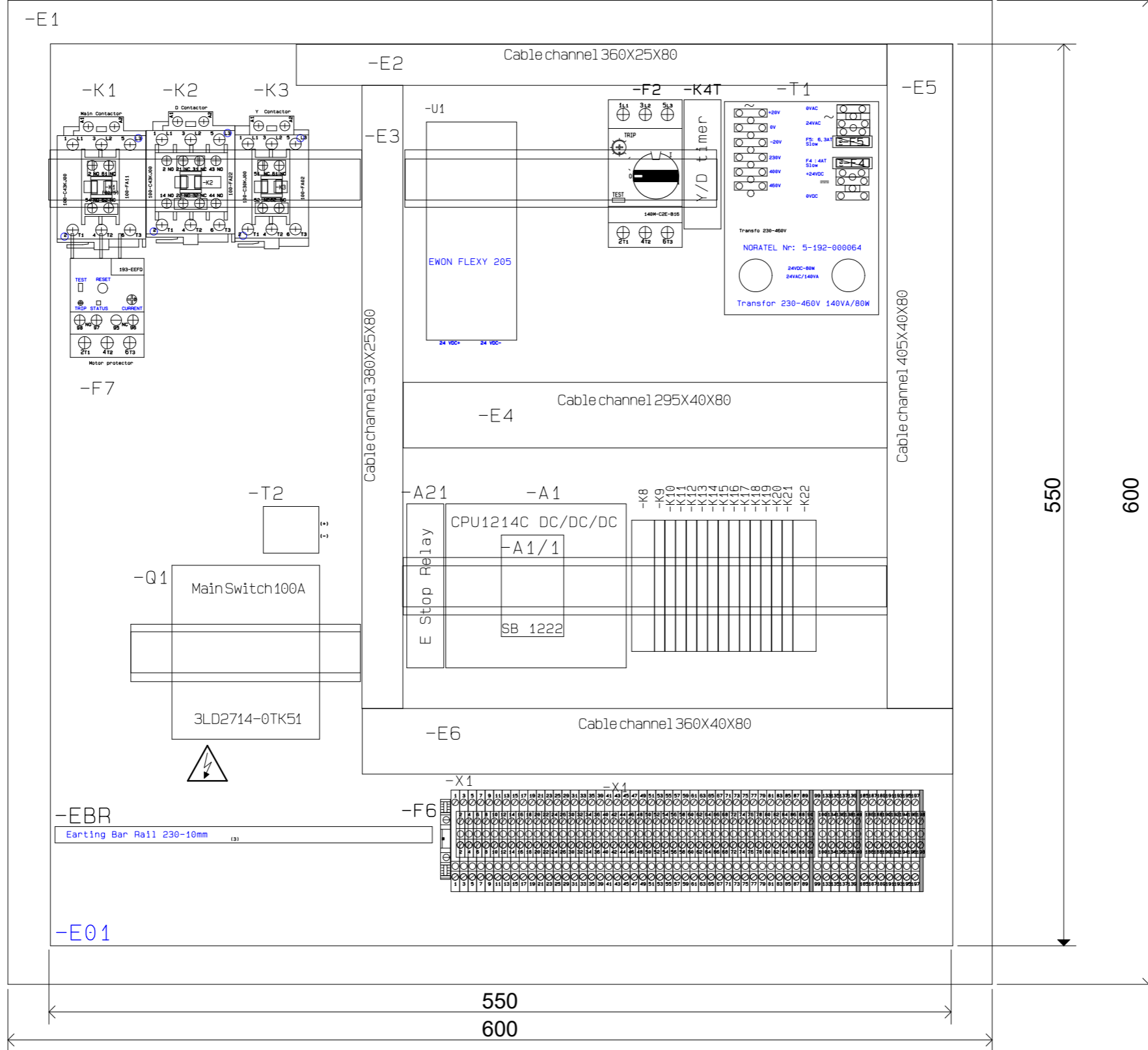
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FRONT
PANEL LAYOUT

Drawing no.
2183628

Page no.
9
Next page 10

Rital AE 600x600x250



Note: U1 is an optional component. If not fitted, terminations for unused connections fitted instead.

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Revision	1	Product	HVCP Std 37kW Insight
Status	Available	Date of created	2019/08/20
Date of approval	-	Author	FRALE
Approval by	-		
9	previous page		

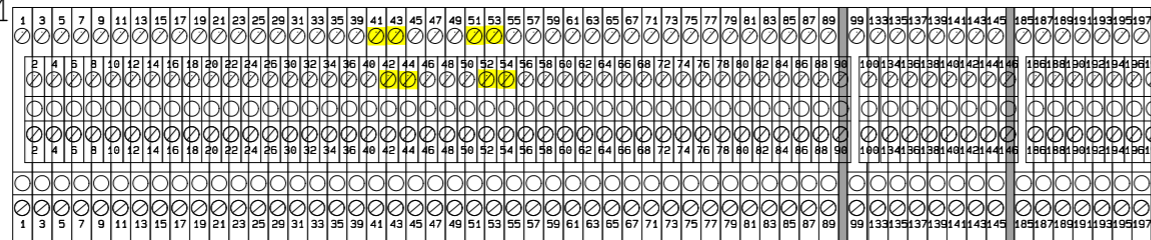
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PANEL LAYOUT

Drawing no.
2183628

Page no.
10
Next page 11

-X 1

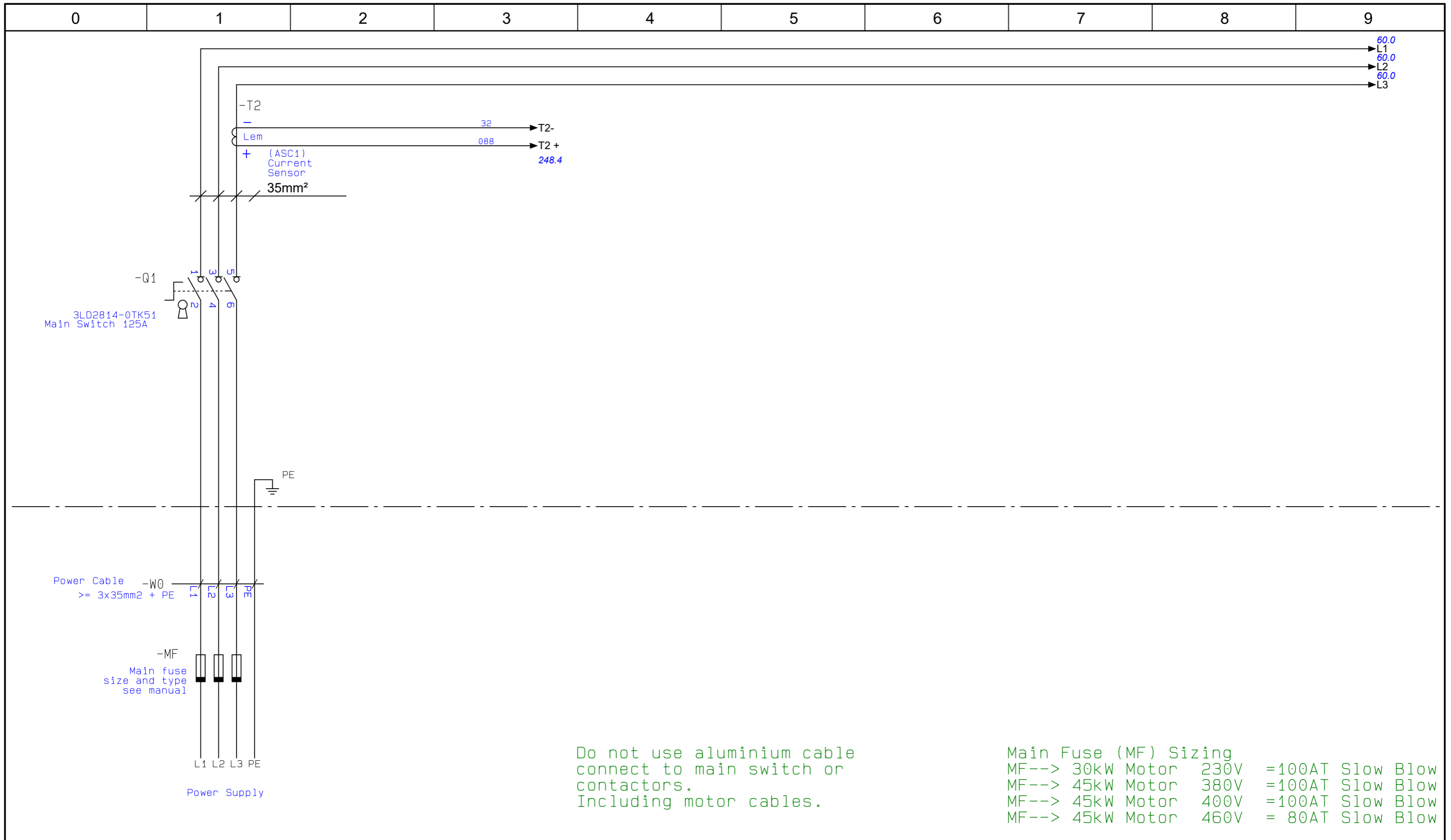


Terminals equipped with diode between levels marked with yellow marker.
Anode on upper level, cathode on lower level.

Terminals with diode:
41-42
43-44
51-52
53-54

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Revision	1	Product	HVCP Std 37kW Insight			TERMINAL ROW	Drawing no. 2183628	Page no. 11
Status	Available	Date of created	2019/08/20					
Date of approval	-	Approval by	-					
Approval by	-	Author	FRALE					
10	previous page							Next page 50



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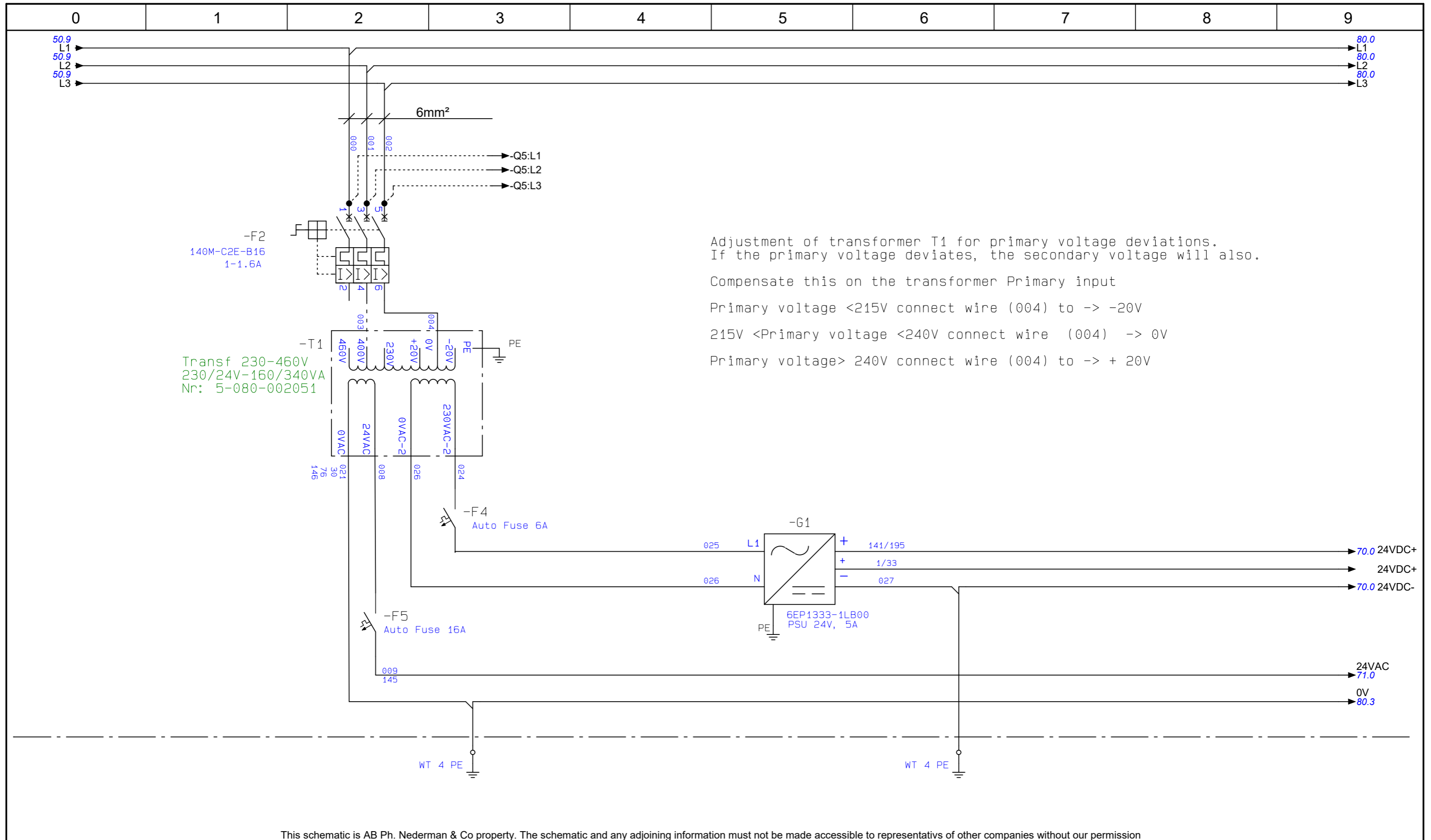
Revision	1	Product	Product
Status	Available	HVCP Std 37kW Insight	
Date of approval	-	Date of created	2019/08/20
Approval by	-	Author	FRALE
11	previous page		

Nederman

POWER SUPPLY

Drawing no.
2183628

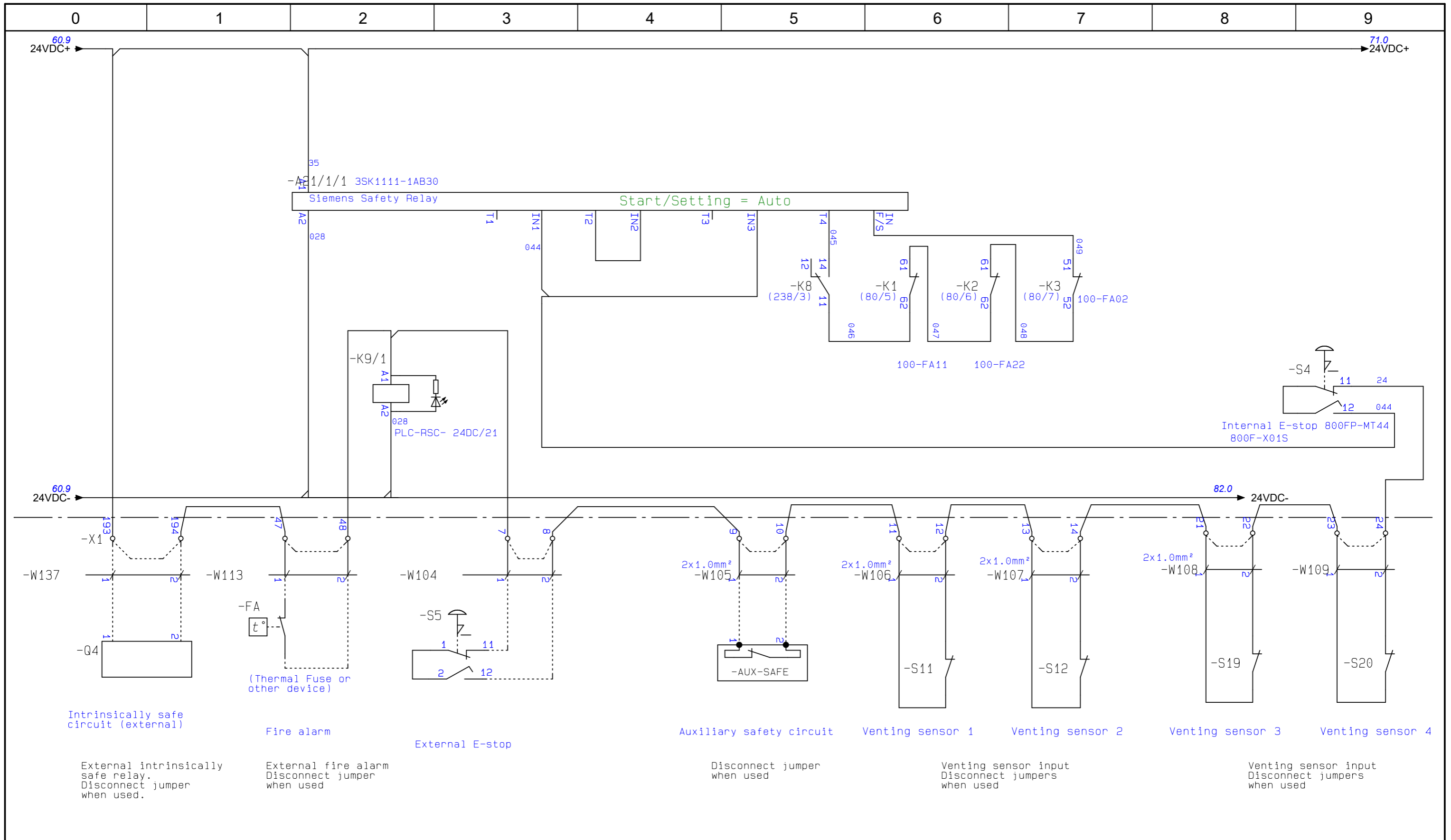
Page no.
50
Next page 60



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



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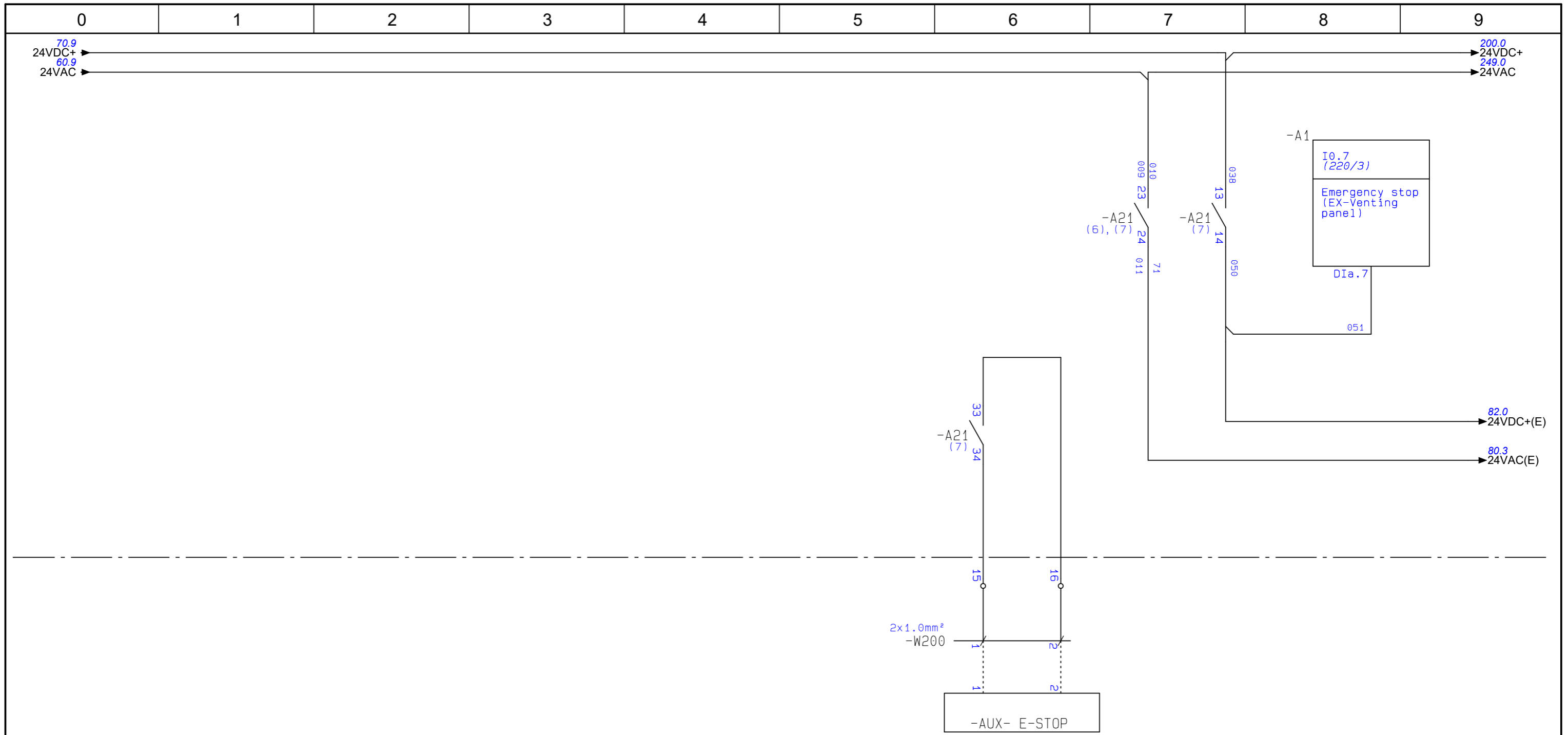
Revision	1	Product	HVCP Std 37kW Insight
Status	Available		
Date of approval	-	Date of created	2019/08/20
Approval by	-	Author	FRALE
60	previous page		



**EMERGENCY STOP
CIRCUIT**

Drawing no.
2183628

Page no.
70
Next page 71



E-Stop signal to external control panel

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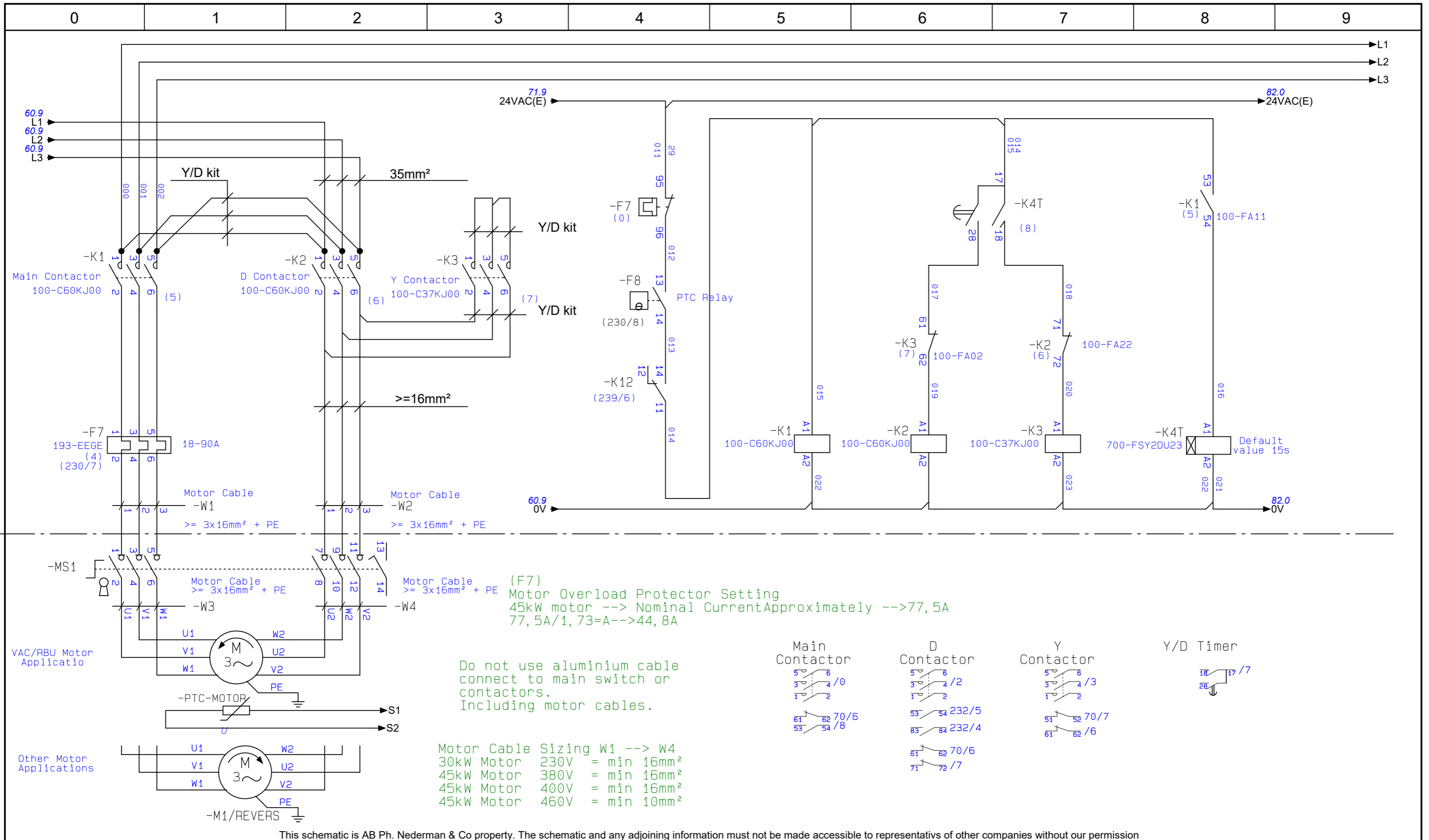
Revision	1	Product	HVCP Std 37kW Insight
Status	Available	Date of created	2019/08/20
Date of approval	-	Author	FRALE
Approval by	-		
70	previous page		



EMERGENCY STOP
CIRCUIT

Drawing no.
2183628

Page no.
71
Next page 80



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Revision	1	Product	HVCP Std 37kW Insight	
Status	Available			
Date of approval	-			
Approval by	-	Date of created	2019/08/20	
71	previous page	Author	FRALE	

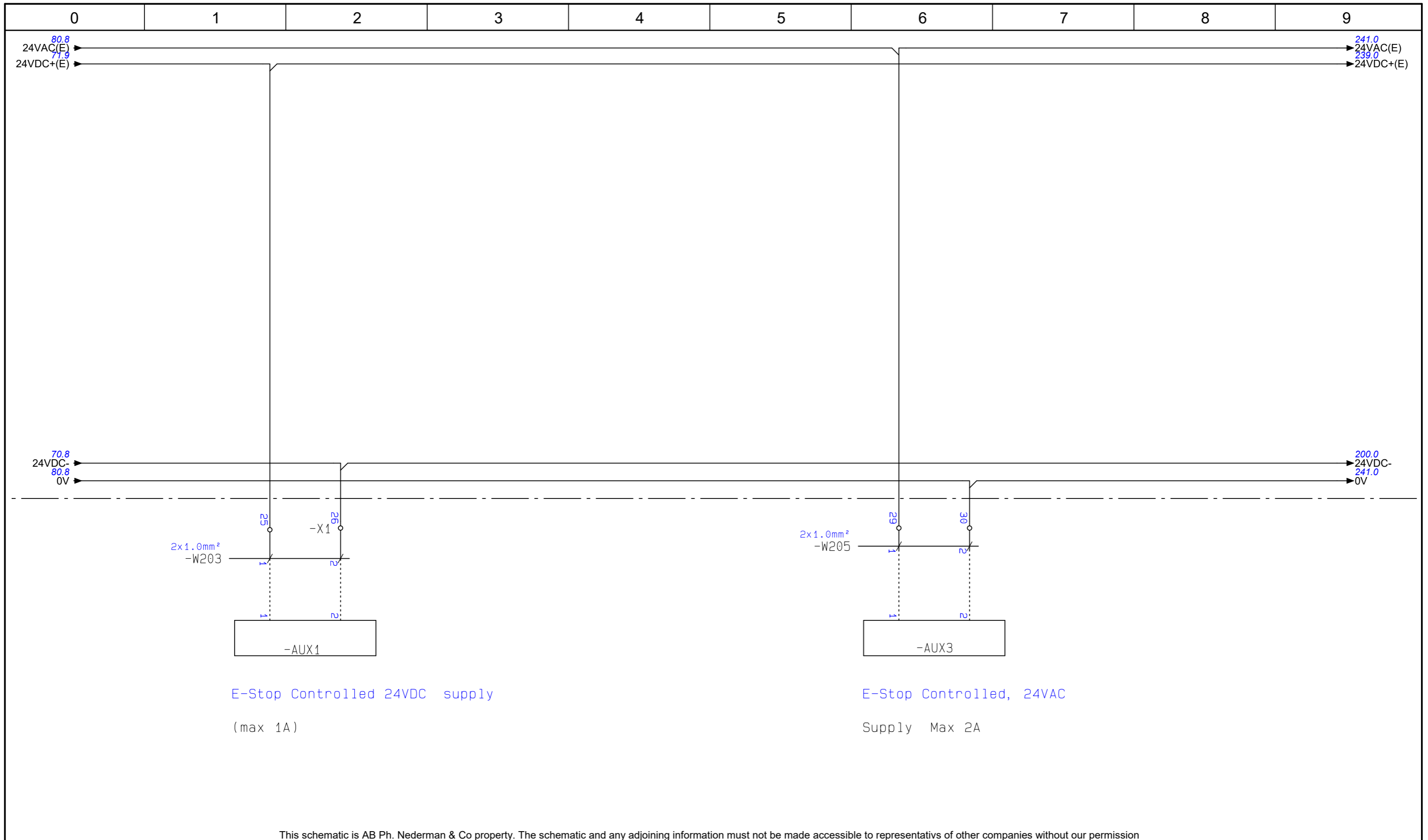
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MOTOR Y-D START

Drawing no.
2183628

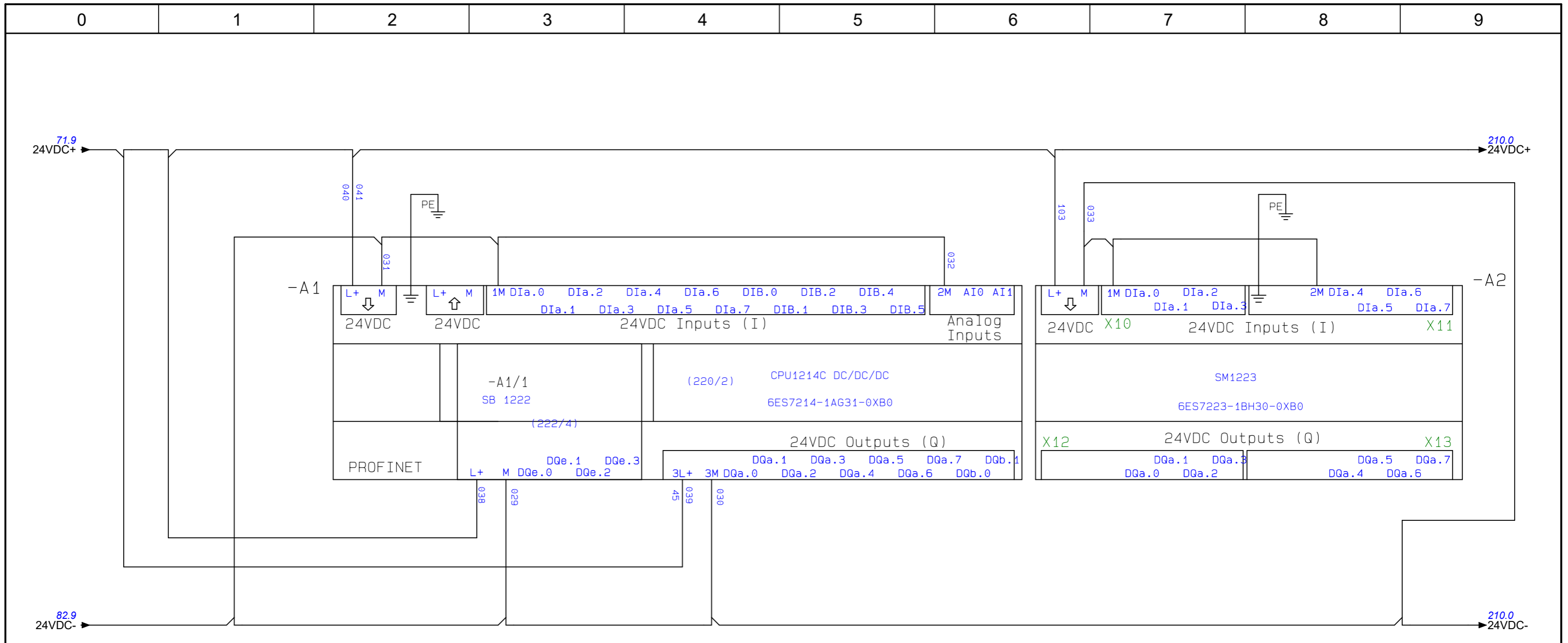
Page no.
80

Next page 82



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Revision	1	Product	HVCP Std 37kW Insight			POWER SUPPLY 24VAC/24VDC	Drawing no.	Page no.
Status	Available	Date of created	2019/08/20	2183628			82	
Date of approval	-	Author	FRALE					
Approval by	-	80	previous page	Next page			200	



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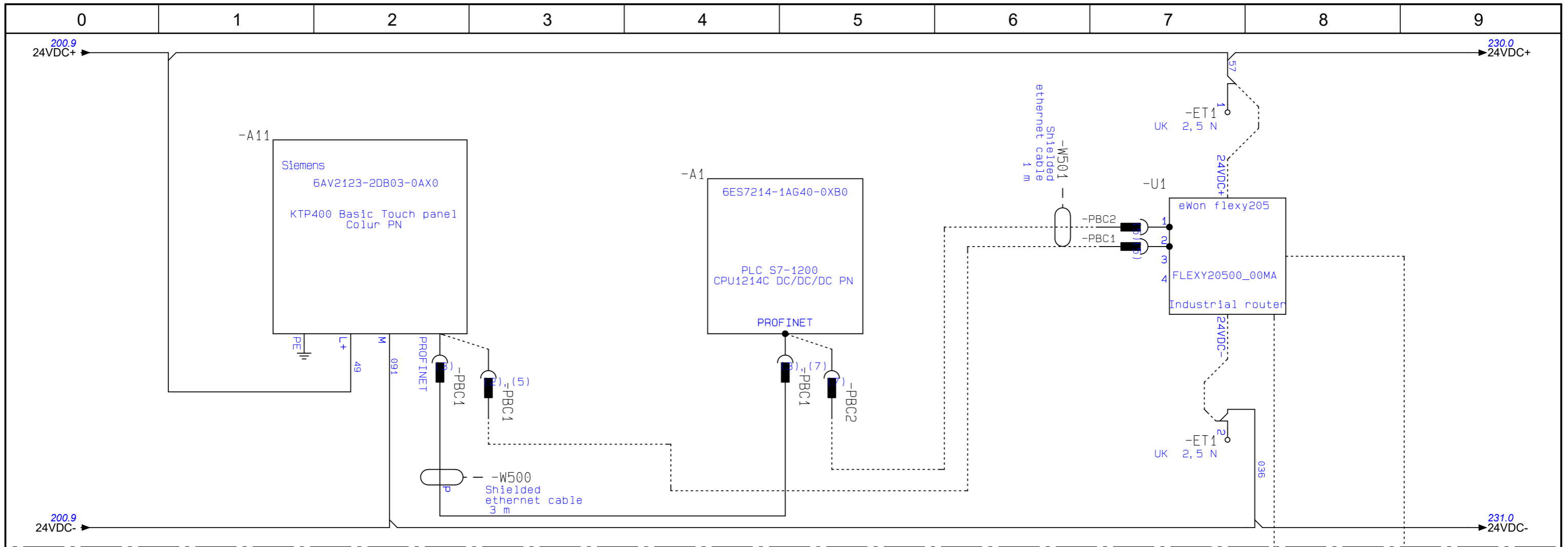
Revision	1	Product	HVCP Std 37kW Insight
Status	Available	Date of created	2019/08/20
Date of approval	-	Author	FRALE
Approval by	-		
82	previous page		



PLC
POWER SUPPLY

Drawing no.
2183628

Page no.
200
Next page 210



When U1 not installed:
PBC1 between A1 and A11 (3 m)

When U1 installed:
PBC1 between A11 and U1 (3 m)
PBC2 between A1 and U1 (1 m)

P1
4G antenna

Note: When installing router,
disconnect wires from terminals
ET1 and ET2 and connect to router.
Remove ET1 and ET2. Antenna mounted externally

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Revision	1	Product	HVCP Std 37kW Insight	
Status	Available			
Date of approval	-			
Approval by	-	Date of created	2019/08/20	
200	previous page	Author	FRALE	

Nederman

HMI PANEL

Drawing no.
2183628

Page no.
210
Next page 220

-A1

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-OBM 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		

-A1

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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-A1

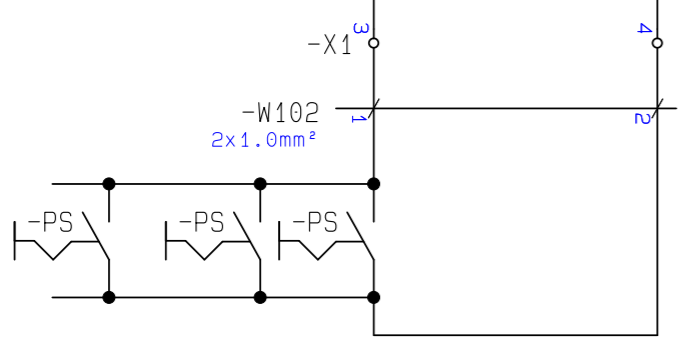
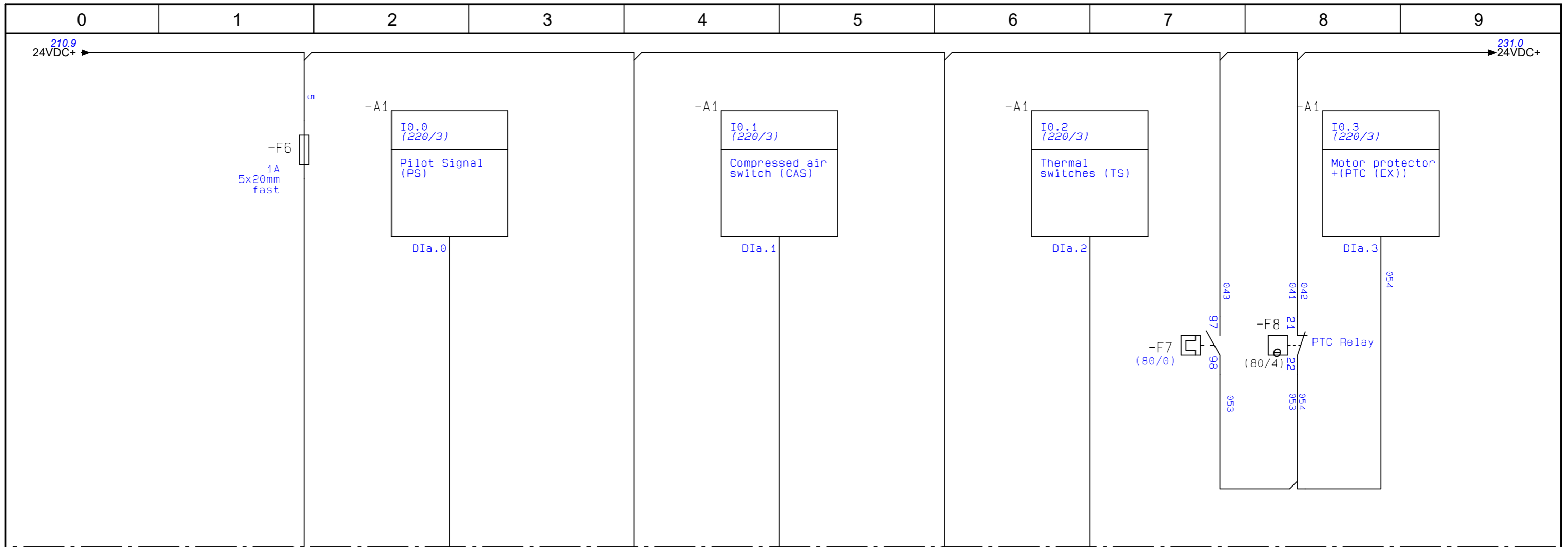
CPU1214C DC/DC/DC		(220/7), (248/3)
AI0 (248/3)	(ASC) Current Sensor	AI0
AI1 (248/6)	Vacuum Sensor input dP FlexFilter 13/18	AI1
6ES7214-1A631-0XB0		

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-A1/1

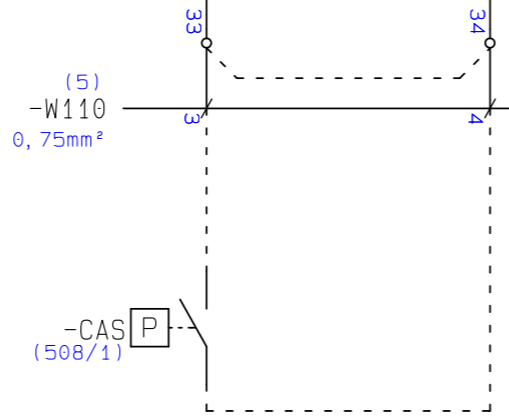
SB 1222	(200/3)
4.00 (241/2)	Config output K19 ASC move/Flush 1 DQe.0
4.01 (241/4)	Config output K20 ASC open/Flush 2 DQe.1
4.02 (241/6)	LCC start DQe.2
4.03 (241/9)	MUX AI0 Current AI1 Pressure DQe.3
6ES7222-1BD30-0XB0	

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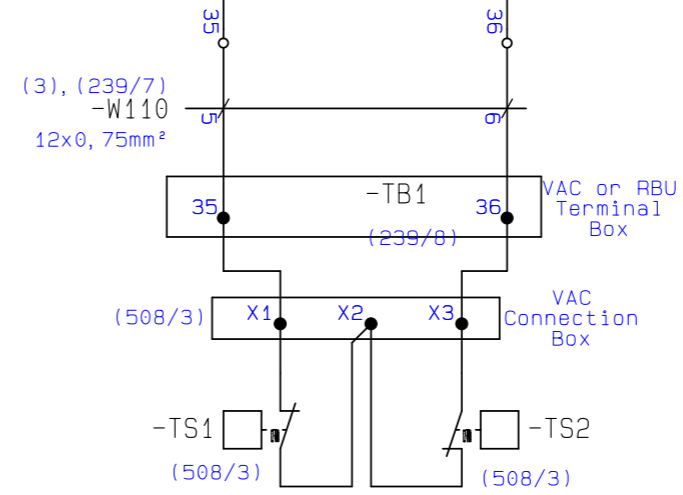
Pilot Signal

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

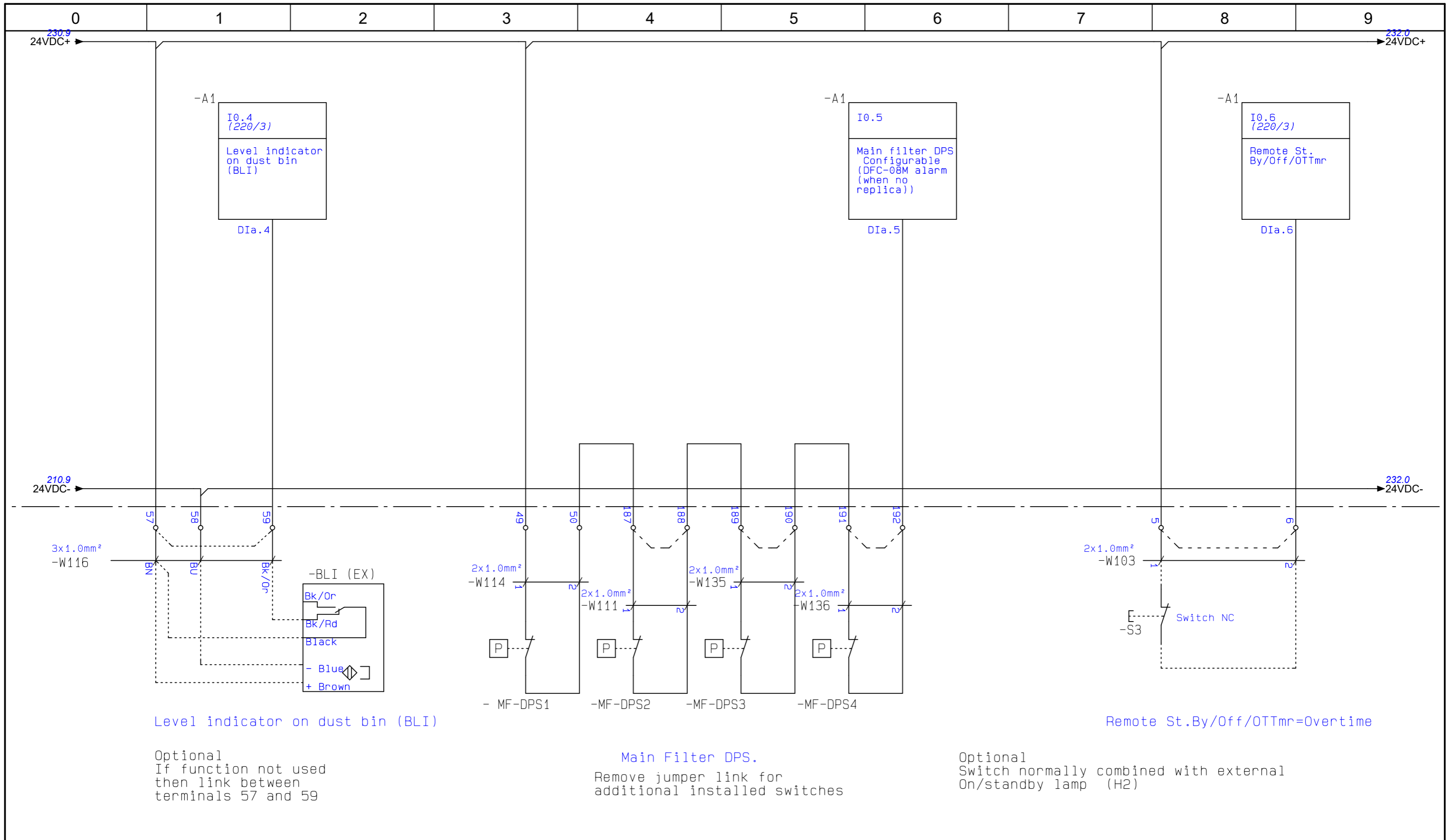
Thermal Switch on VAC Bearing = Resettable
 Thermal Fuse =Max 140C on RBU:pump outlet Not Resettable

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Revision	1	Product	HVCP Std 37kW Insight
Status	Available	Date of created	2019/08/20
Date of approval	-	Author	FRALE
Approval by	-		
222	previous page		



PLC INPUT TERMINALS	Drawing no. 2183628	Page no. 230
		Next page 231



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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Revision	1	Product	HVCP Std 37kW Insight	
Status	Available			
Date of approval	-			
Approval by	-	Date of created	2019/08/20	
230	previous page	Author	FRALE	

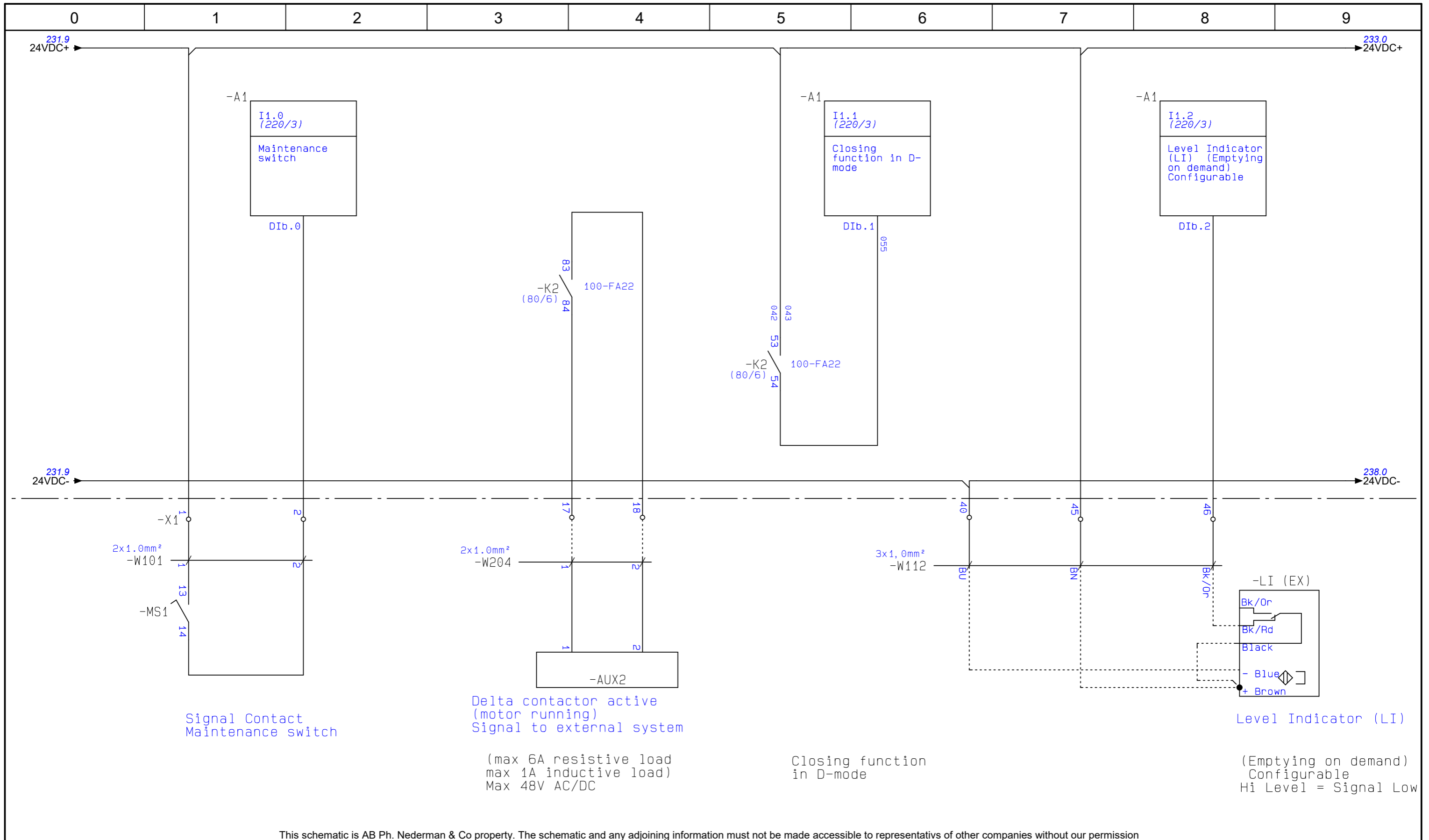


PLC INPUT
TERMINALS

Drawing no.
2183628

Page no.
231

Next page 232



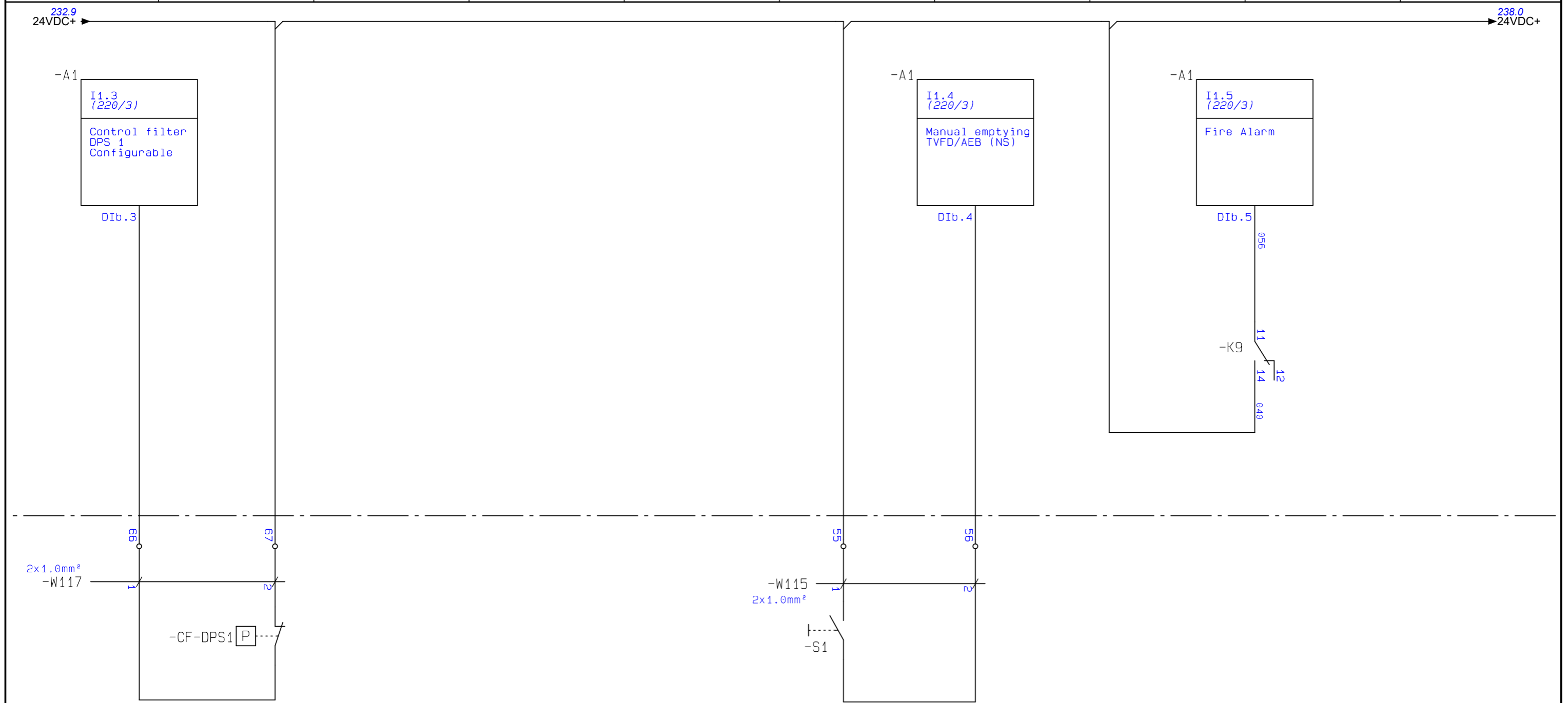
Revision	1	Product	HVCP Std 37kW Insight	
Status	Available	Date of created	2019/08/20	
Date of approval	-	Author	FRALE	
Approval by	-			
231	previous page			



PLC INPUT
TERMINALS

Drawing no.
2183628

Page no.
232
Next page 233



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

Manual emptying TVFD/AEB (NS)

Fire Alarm

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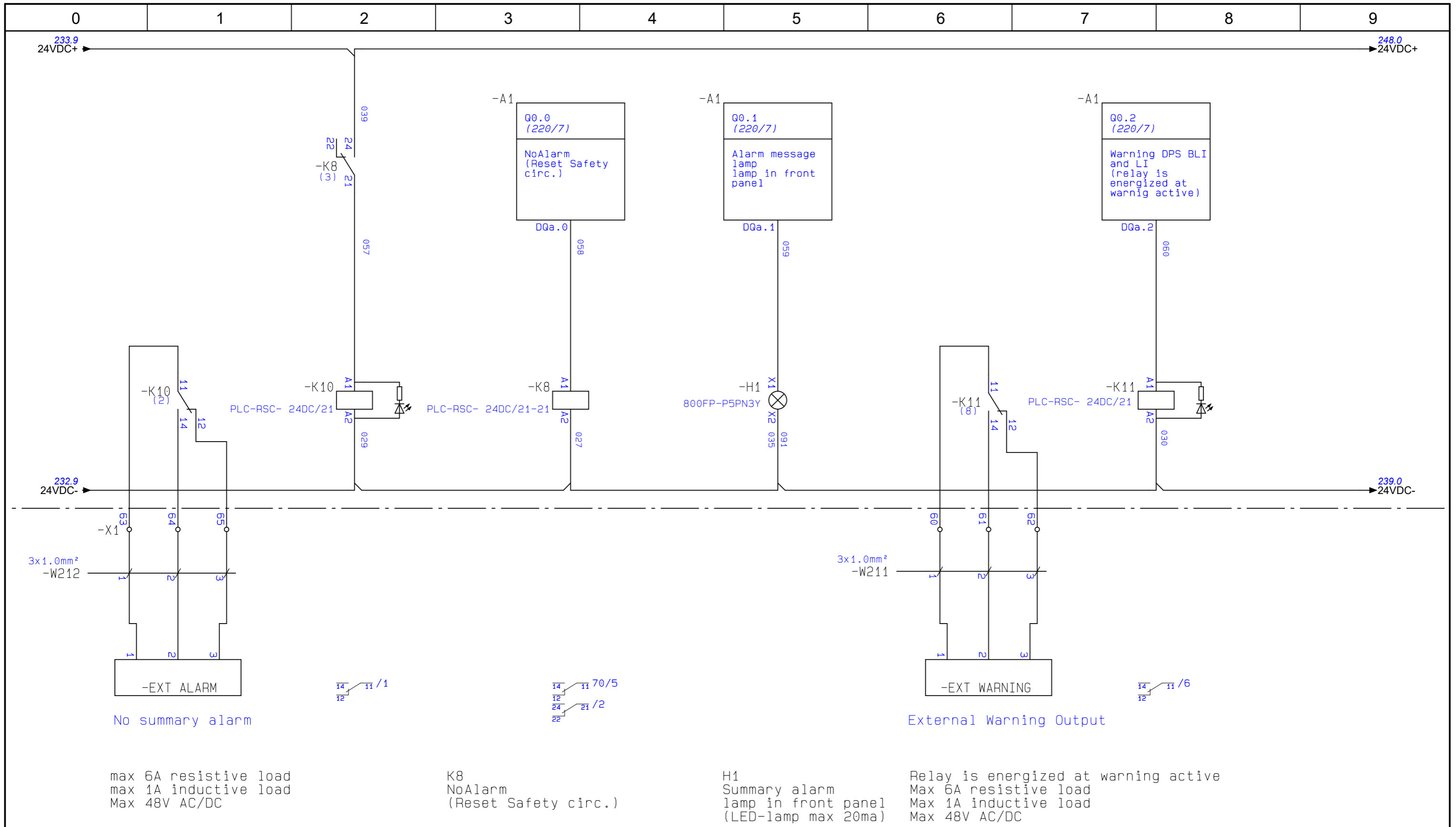
Revision	1	Product	HVCP Std 37kW Insight
Status	Available	Date of created	2019/08/20
Date of approval	-	Author	FRALE
Approval by	-		
232	previous page		



PLC INPUT
TERMINALS

Drawing no.
2183628

Page no.
233
Next page 238



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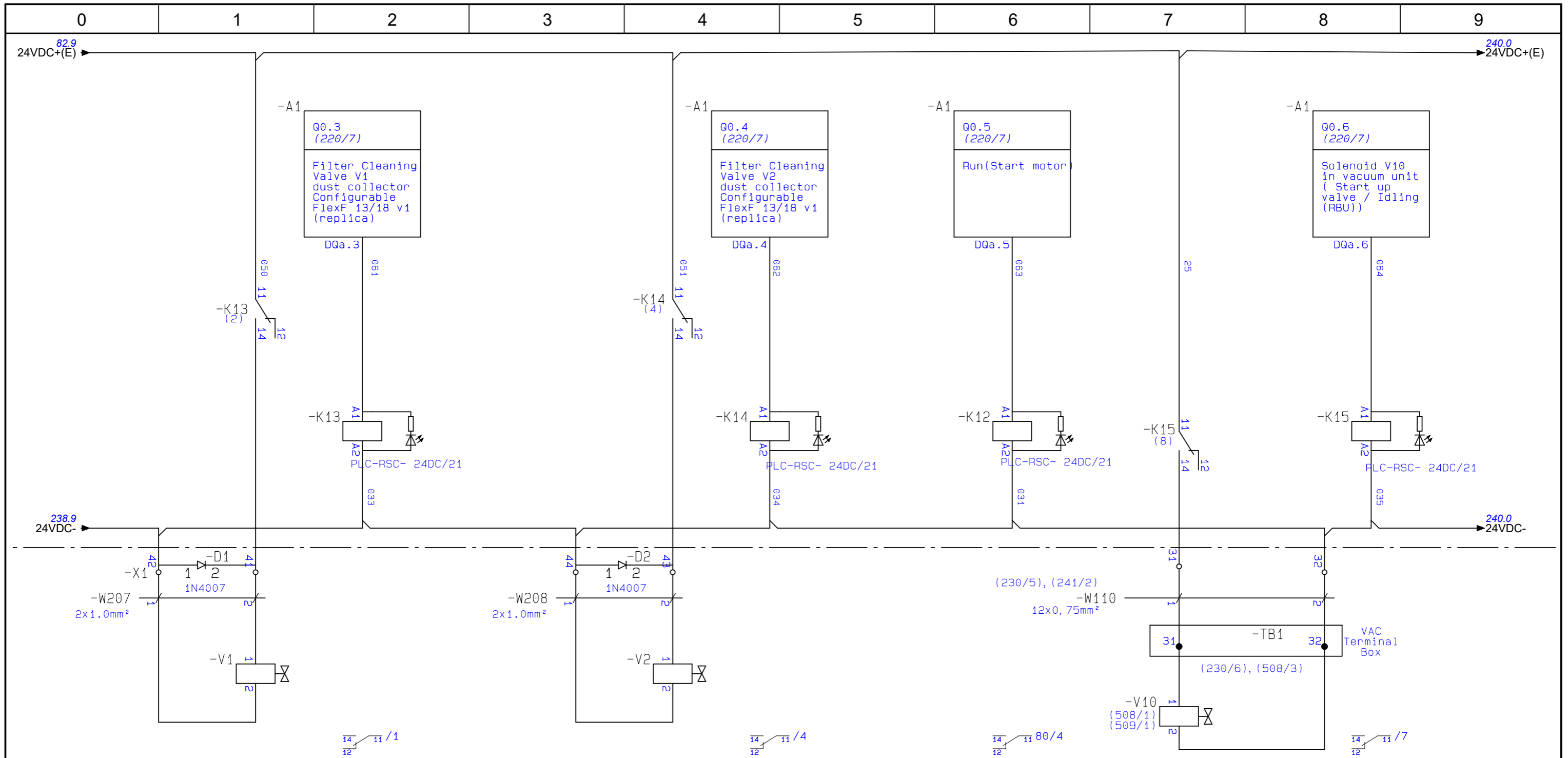
Revision	1	Product	HVCP Std 37kW Insight
Status	Available		
Date of approval	-	Date of created	2019/08/20
Approval by	-	Author	FRALE
233	previous page		



PLC OUTPUT
TERMINALS

Drawing no.
2183628

Page no.
238
Next page 239



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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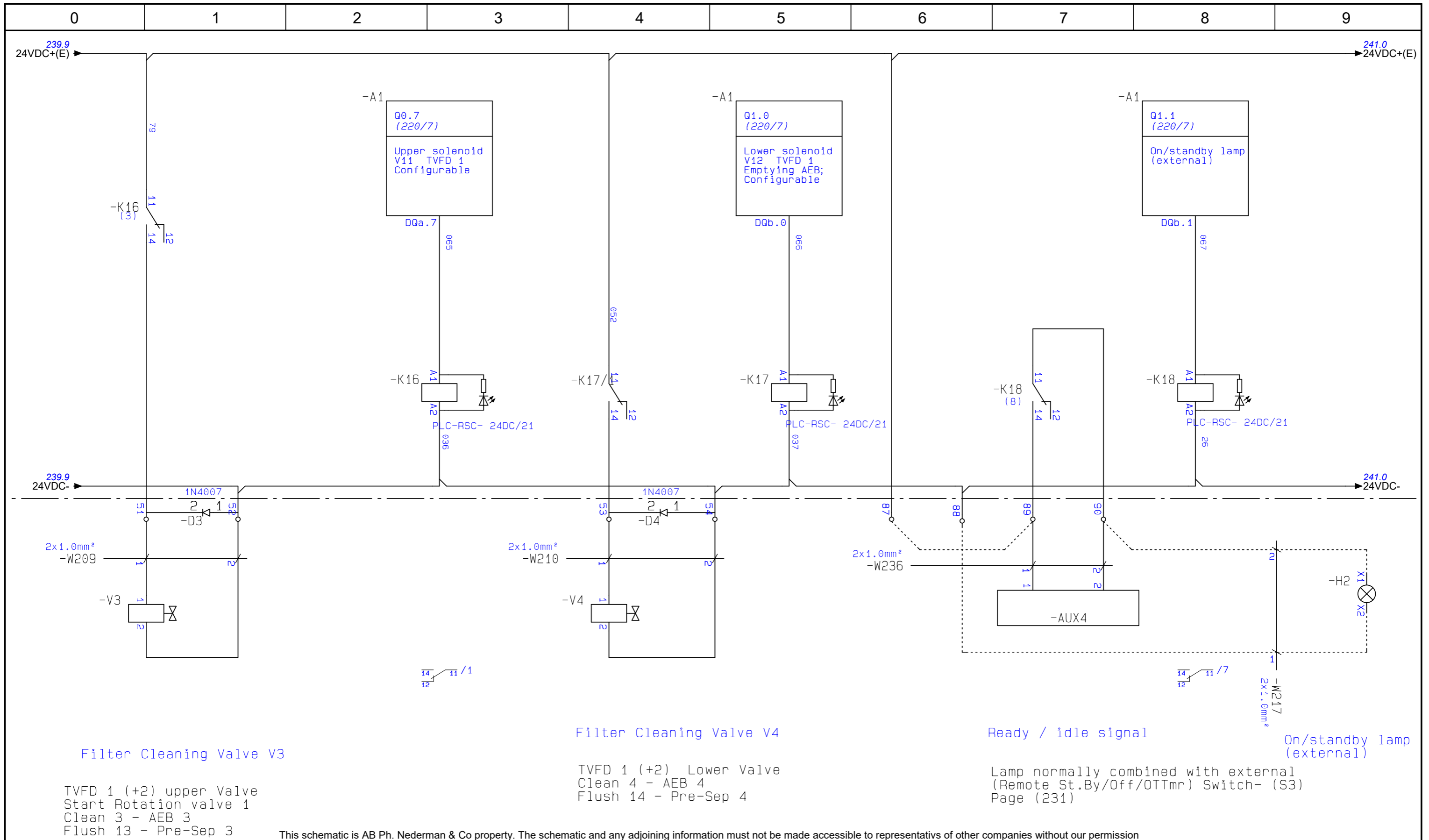
Revision	1	Product	Product
Status	Available	Product	Product
Date of approval	-	Product	Product
Approval by	-	Date of created	2019/08/20
238	previous page	Author	FRALE



PLC OUTPUT
 TERMINALS

Drawing no.
 2183628

Page no.
 239
 Next page 240



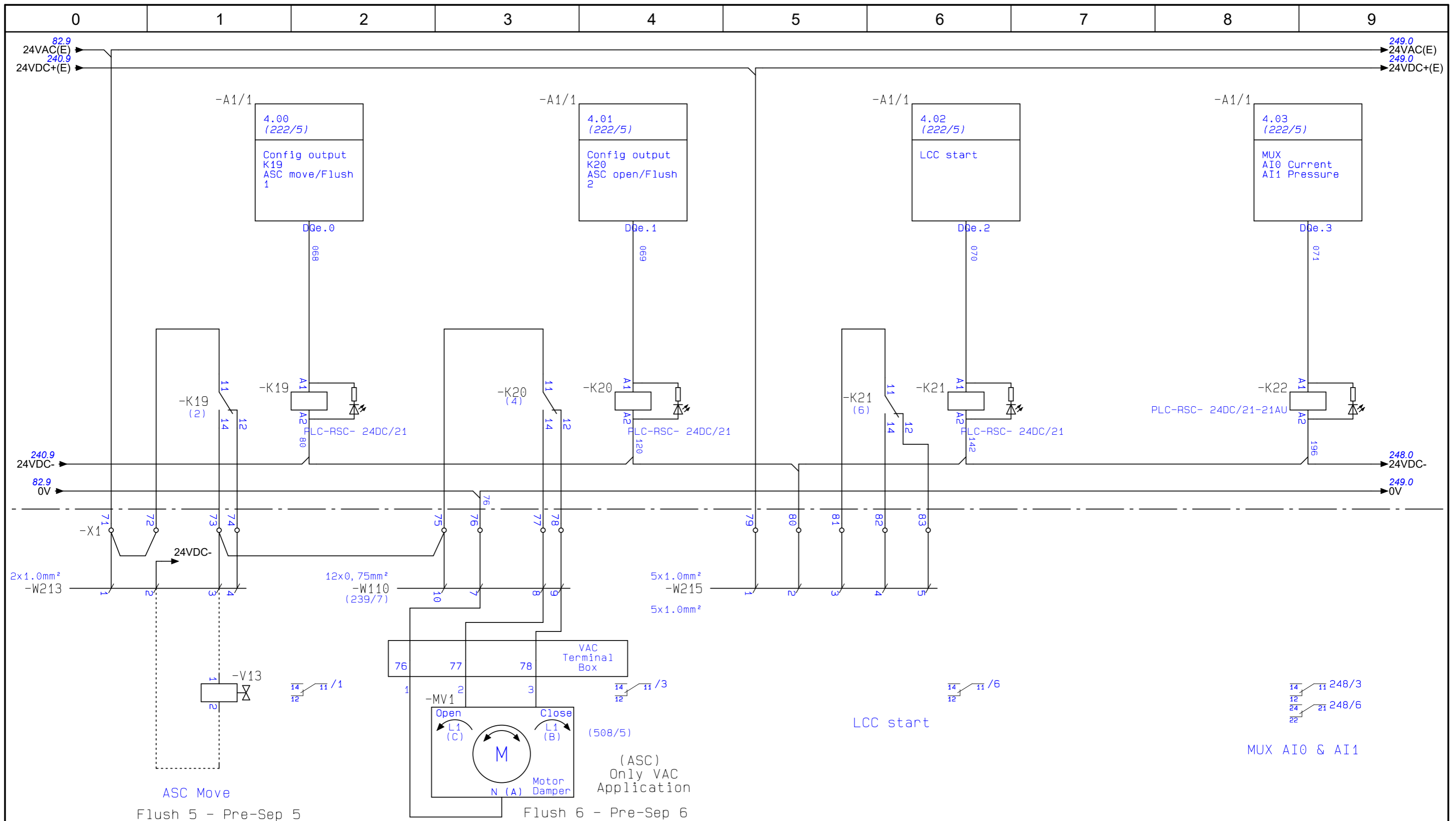
Revision	1	Product	Product
Status	Available	Product	HVCP Std 37kW Insight
Date of approval	-	Date of created	2019/08/20
Approval by	-	Author	FRALE
239	previous page		



PLC OUTPUT
TERMINALS

Drawing no.
2183628

Page no.
240
Next page 241



This schematic is AB Ph. Nederman & Co property. The schematic and any adjoining information must not be made accessible to representatives of other companies without our permission

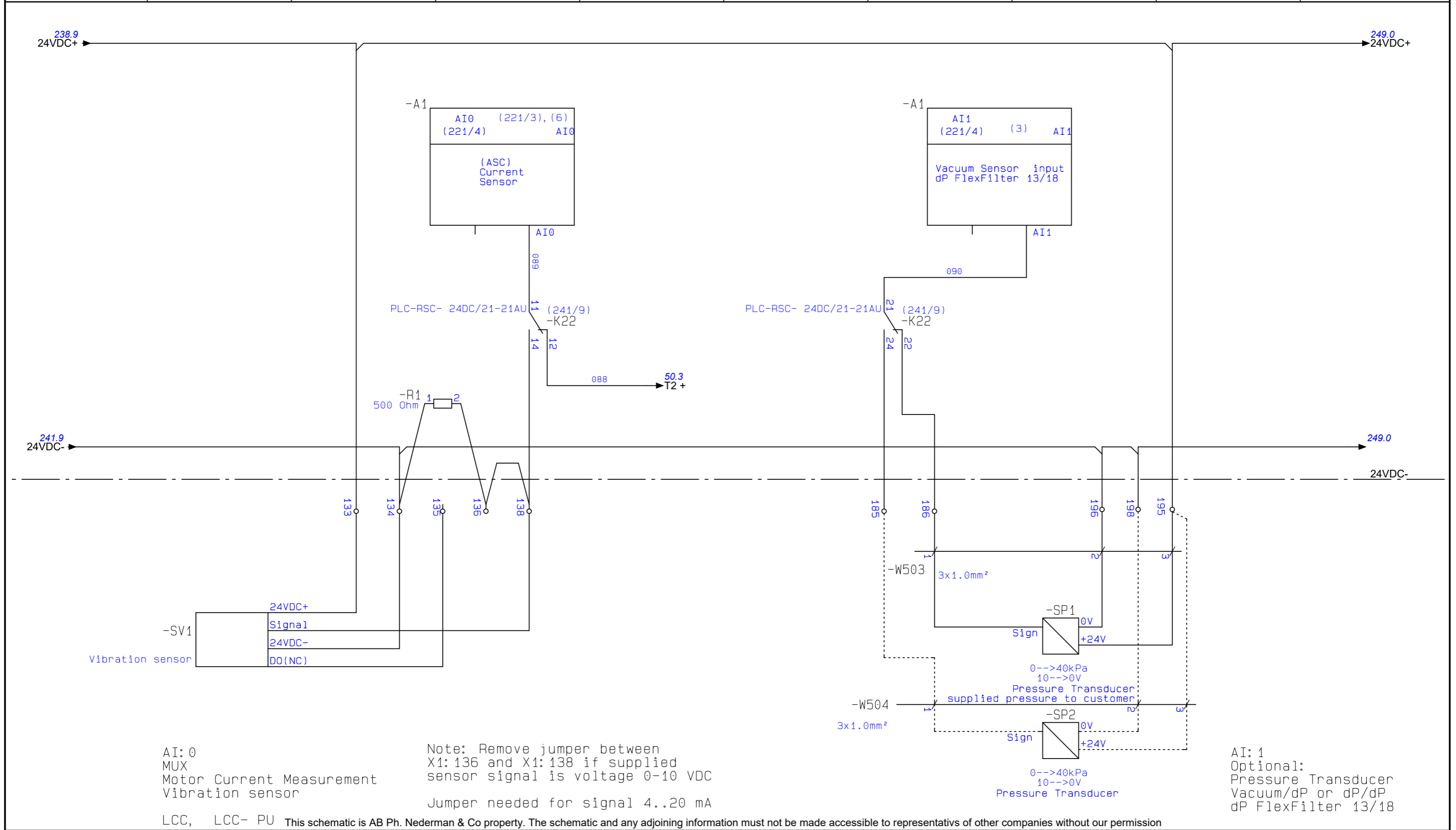
Revision	1	Product	Product
Status	Available	HVCP Std 37kW Insight	
Date of approval	-	Date of created	2019/08/20
Approval by	-	Author	FRALE
240	previous page		



SB1222 OUTPUT

Drawing no.
2183628

Page no.
241
Next page 248



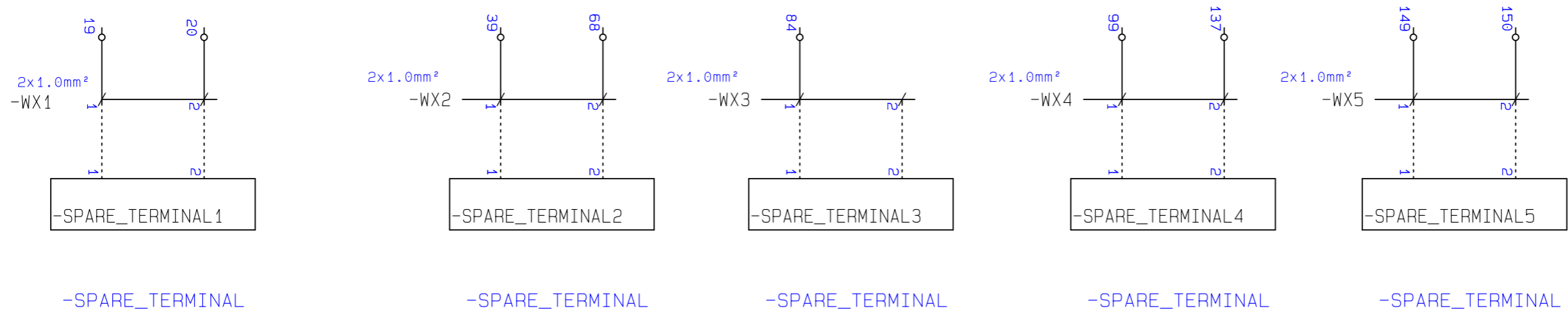
Revision	1	Product	HVCP Std 37kW Insight
Status	Available	Date of created	2019/08/20
Date of approval	-	Author	FRALE
Approval by	-		
241	previous page		



**PLC 0-10V DC
ANALOGUE
INPUT**

Drawing no.
2183628

Page no.
248
Next page 249



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Revision	1	Product	HVCP Std 37kW Insight	
Status	Available	Date of created	2019/08/20	
Date of approval	-	Author	FRALE	
Approval by	-			
248	previous page			

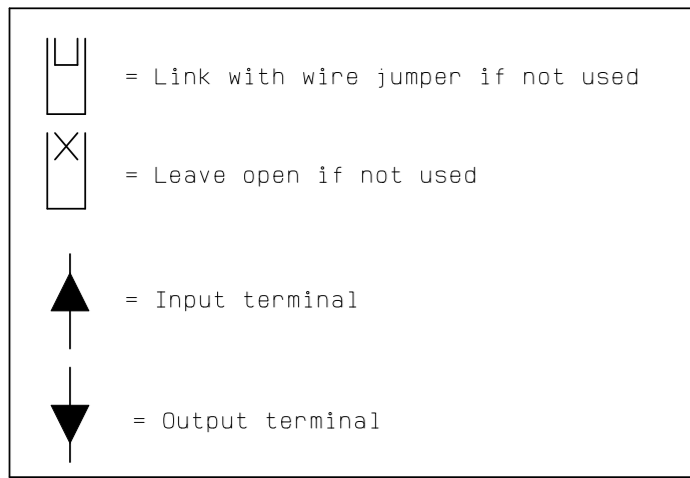
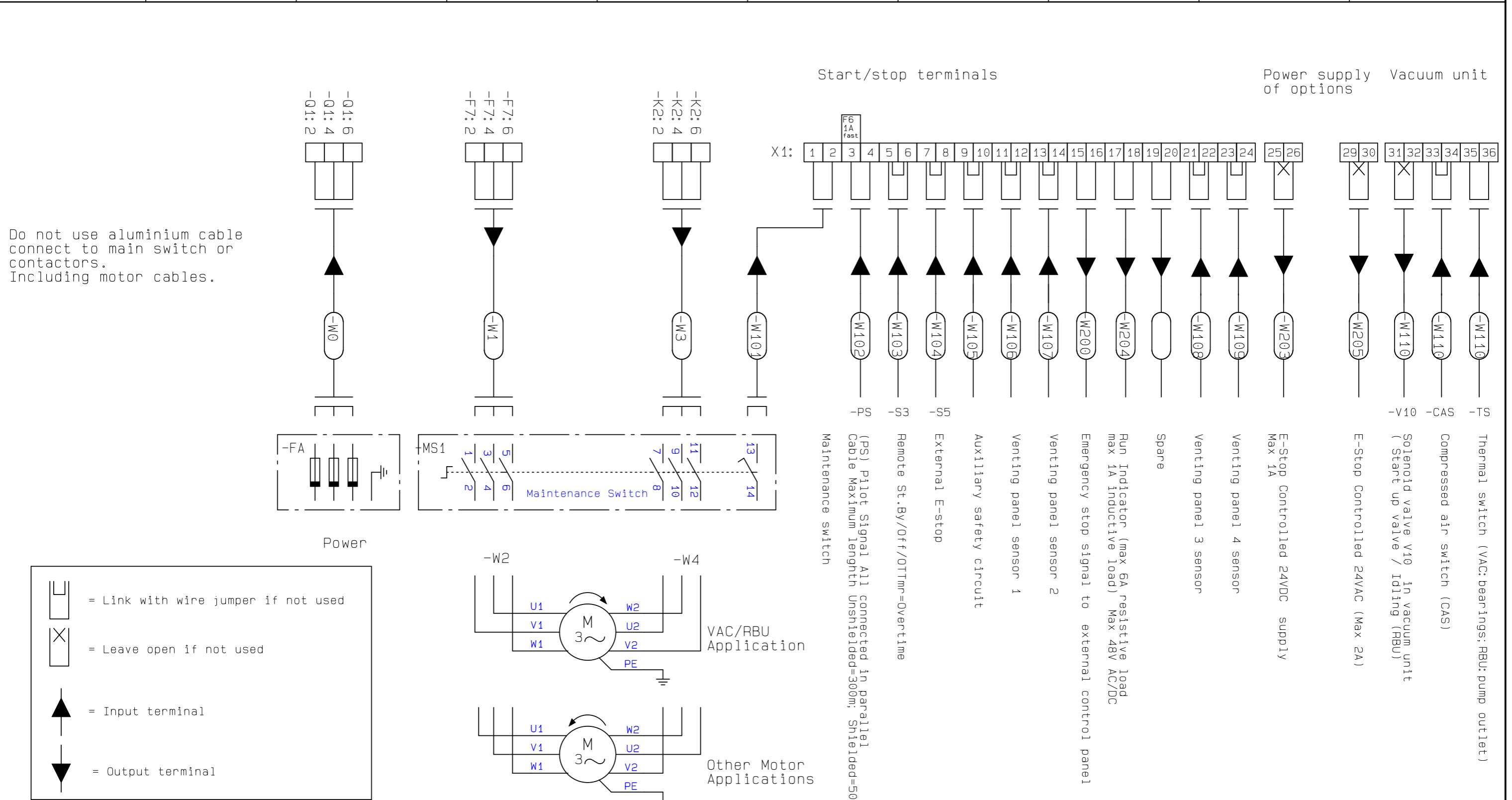


Spare Terminal

Drawing no.
2183628

Page no.
249
Next page 500

0	1	2	3	4	5	6	7	8	9
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Note1:
For terminals: use minimum 1.5mm² if cable is up to 10m long, and use minimum 2.5mm² 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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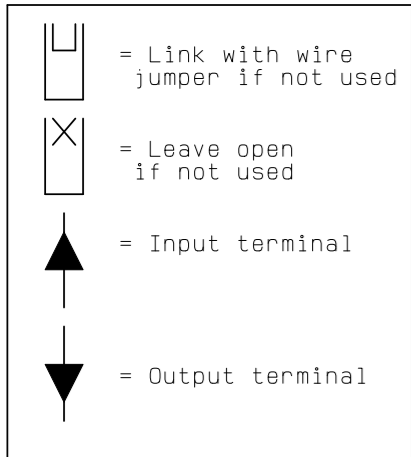
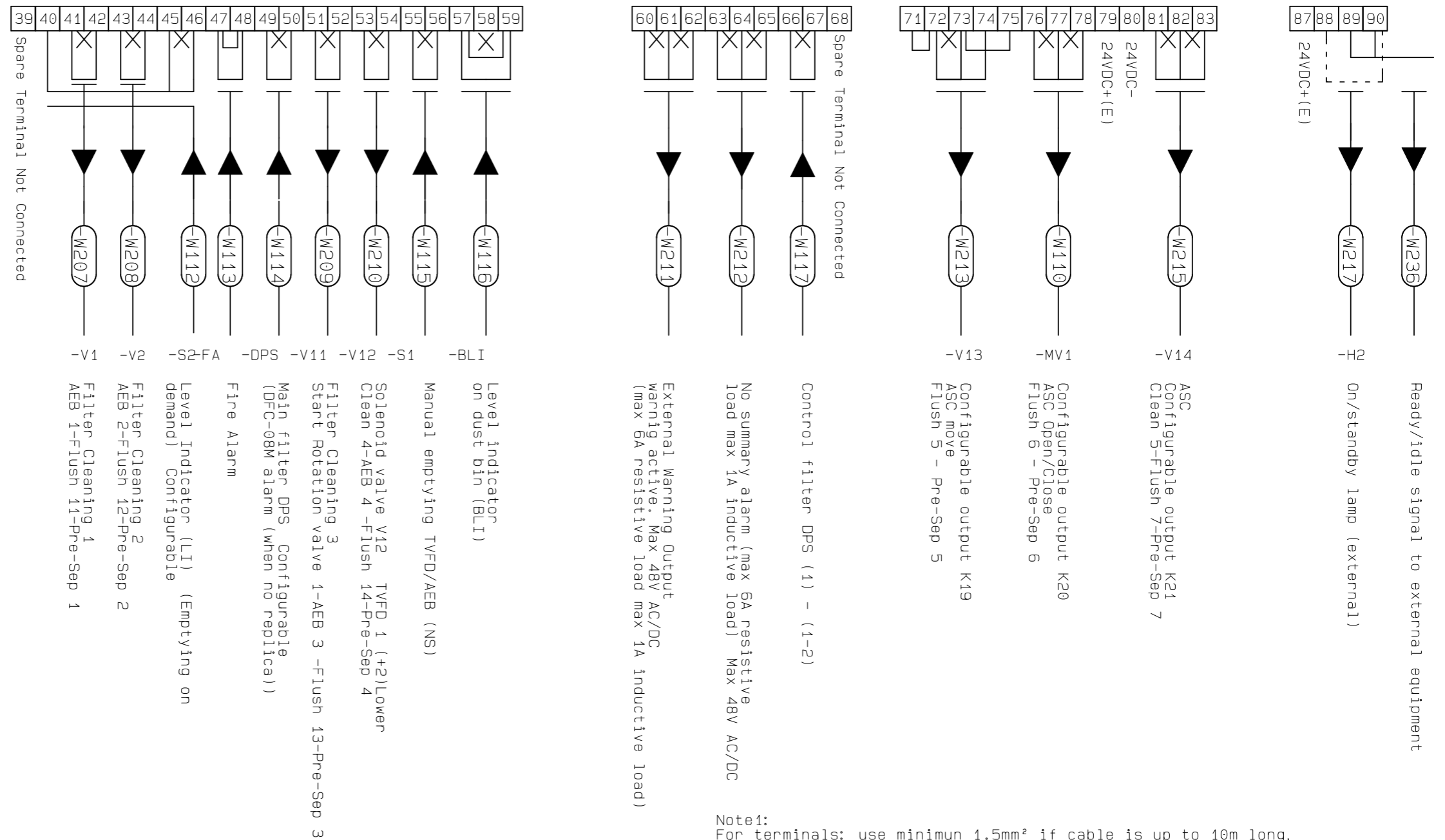
Revision	1	Product	HVCP Std 37kW Insight
Status	Available	Date of created	2019/08/20
Date of approval	-	Author	FRALE
Approval by	-		
249	previous page		



**STARTER
EXTERNAL
CONNECTIONS**

Drawing no.
2183628

Page no.
500
Next page 501



Note1: For terminals: use minimum 1.5mm² if cable is up to 10m long, and use minimum 2.5mm² 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

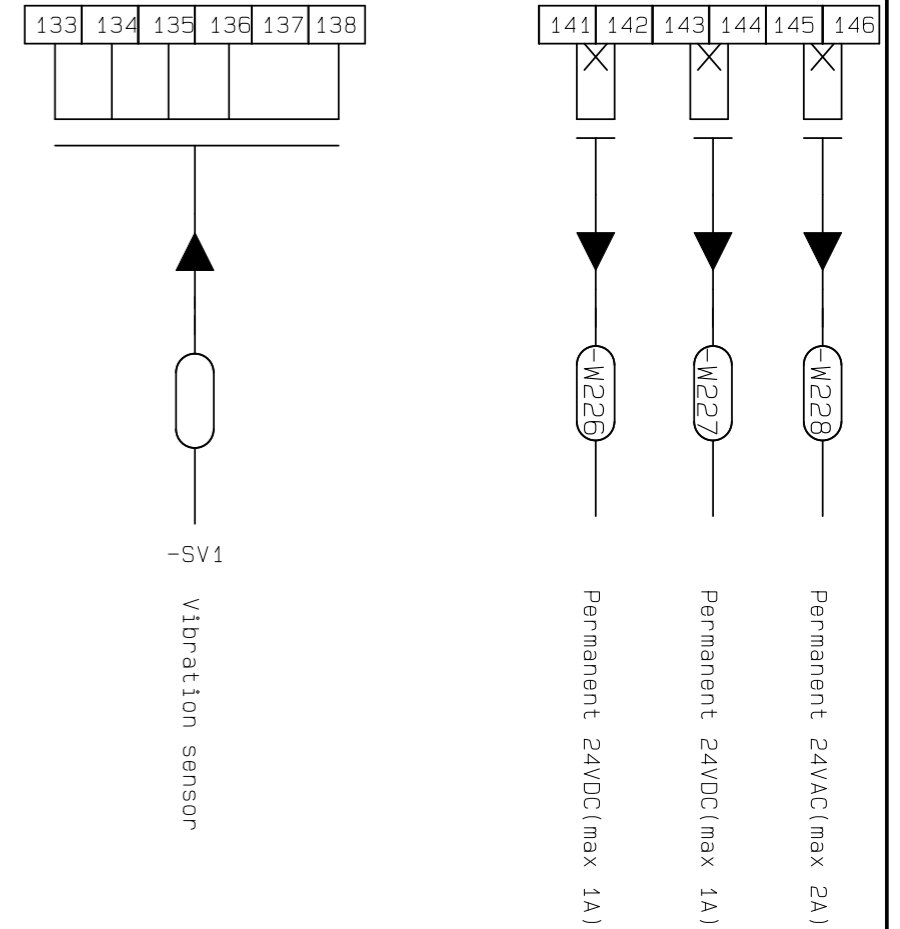
Note2: Never link terminals 35-36 if vacuum unit is fitted with a thermal fuse/switch, guarantee is void if overheat protection is set out of function.

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

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99	101
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Spare Terminal Not Connected



Note1:
For terminals: use minimum 1.5mm² if cable is up to 10m long, and use minimum 2.5mm² 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.

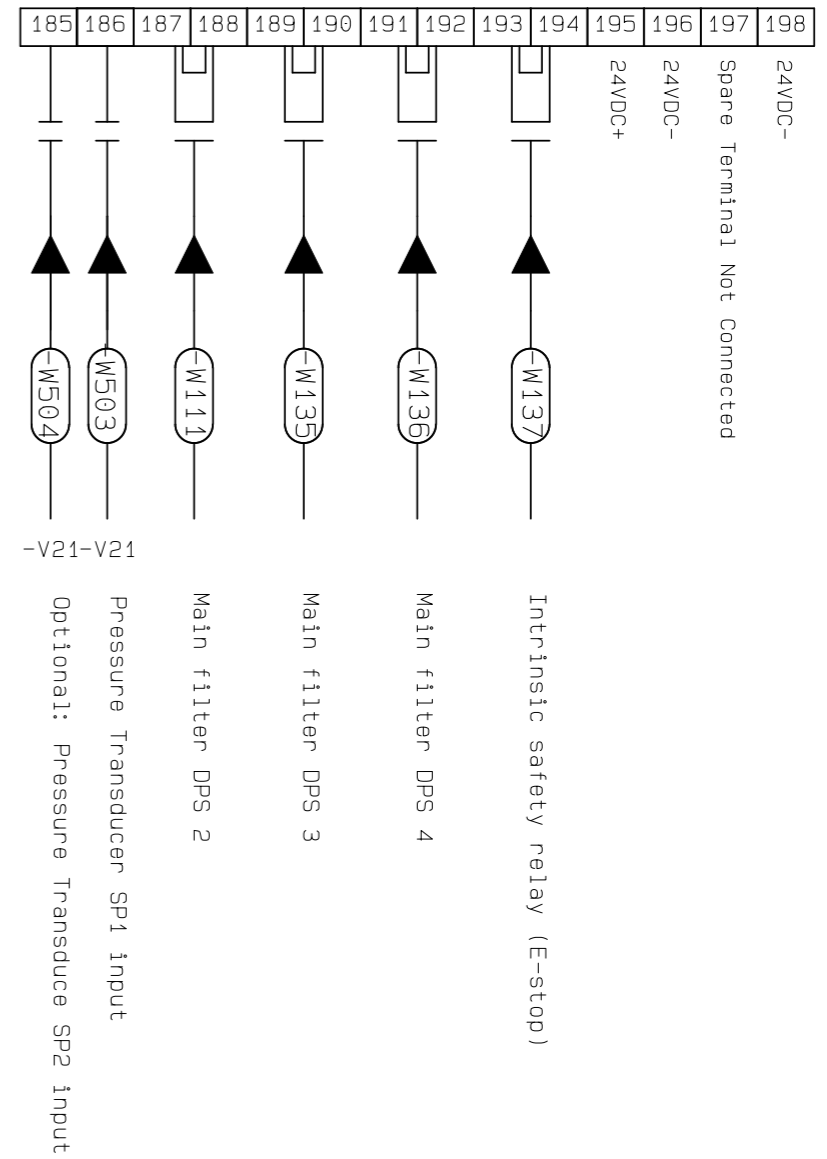
Note3:
Check tightening of all power cable connections inside enclosure before putting into service.

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Revision	1	Product	HVCP Std 37kW Insight		<h1 style="color:blue; margin:0;">Nederman</h1>	STARTER EXTERNAL CONNECTIONS	Drawing no.	Page no.
Status	Available			502				
Date of approval	-	Date of created	2019/08/20	2183628				
Approval by	-	Author	FRALE	Next page			503	
501	previous page							

0	1	2	3	4	5	6	7	8	9
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149 150 151



Note1:
For terminals: use minimum 1.5mm² if cable is up to 10m long, and use minimum 2.5mm² 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:
Never link terminals 34-35 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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Revision	1	Product	HVCP Std 37kW Insight	
Status	Available	Date of created	2019/08/20	
Date of approval	-	Author	FRALE	
Approval by	-			
502	previous page			

Nederman

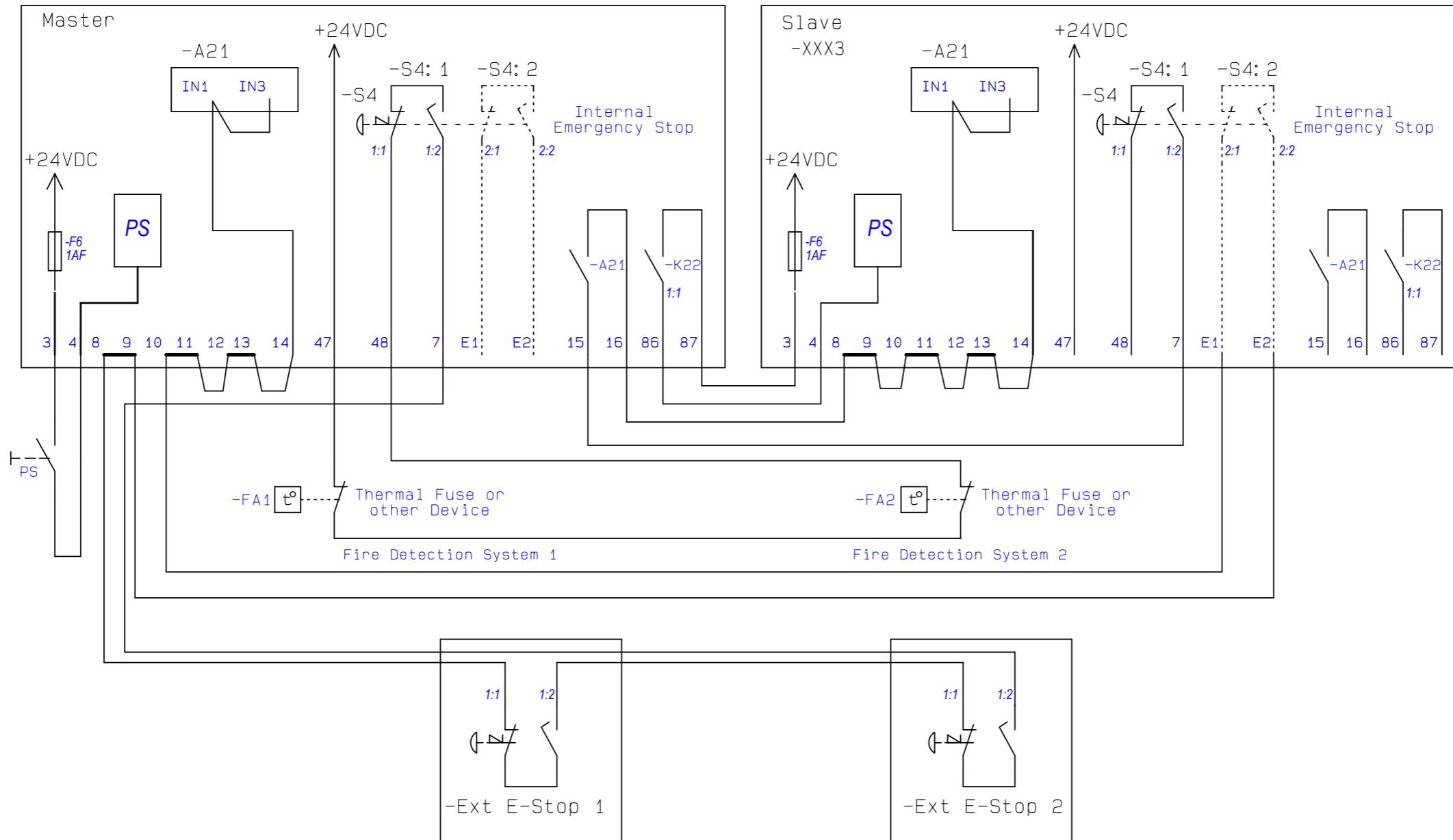
**STARTER
EXTERNAL
CONNECTIONS**

Drawing no.
2183628

Page no.
503

Next page 504

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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Revision	1	Product	HVCP Std 37kW Insight	
Status	Available			
Date of approval	-			
Approval by	-	Date of created	2019/08/20	
503	previous page	Author	FRALE	

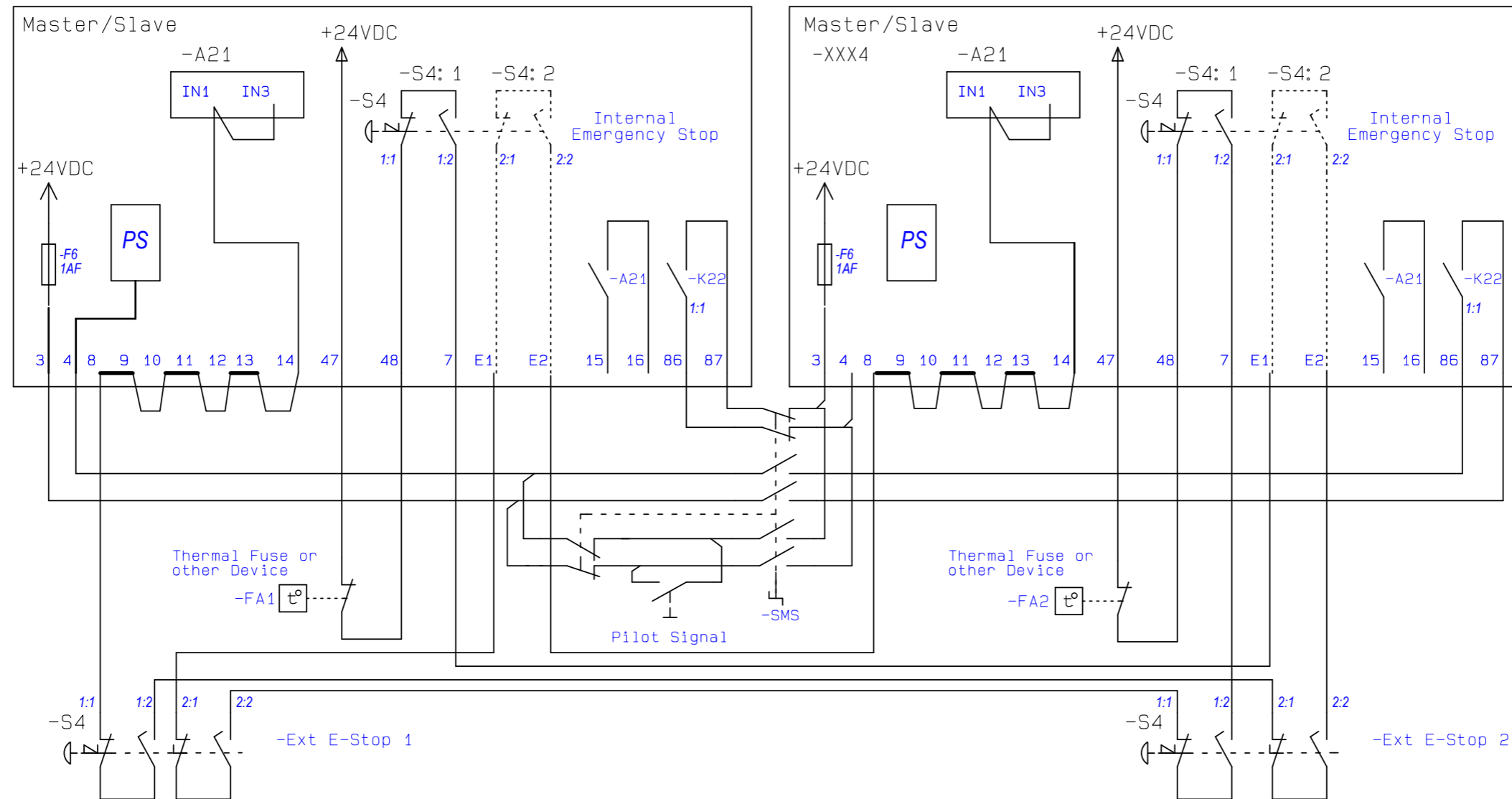


OPTIONAL
 CONNECTIONS
 MASTER-SLAVE

Drawing no.
2183628

Page no.
504
 Next page 505

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 avvabile as a Nederman part

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Revision	1	Product	HVCP Std 37kW Insight	
Status	Available	Date of created	2019/08/20	
Date of approval	-	Author	FRALE	
Approval by	-			
504	previous page			



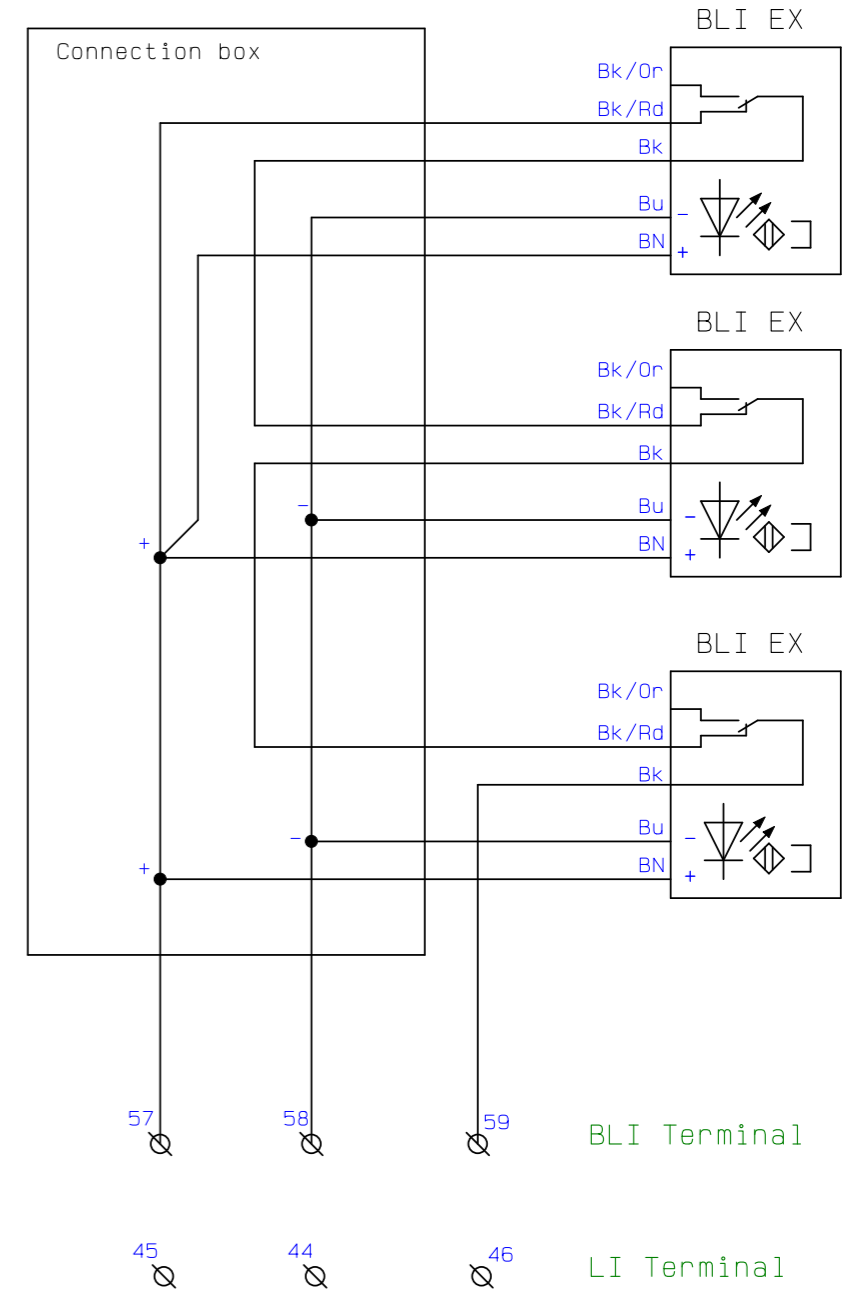
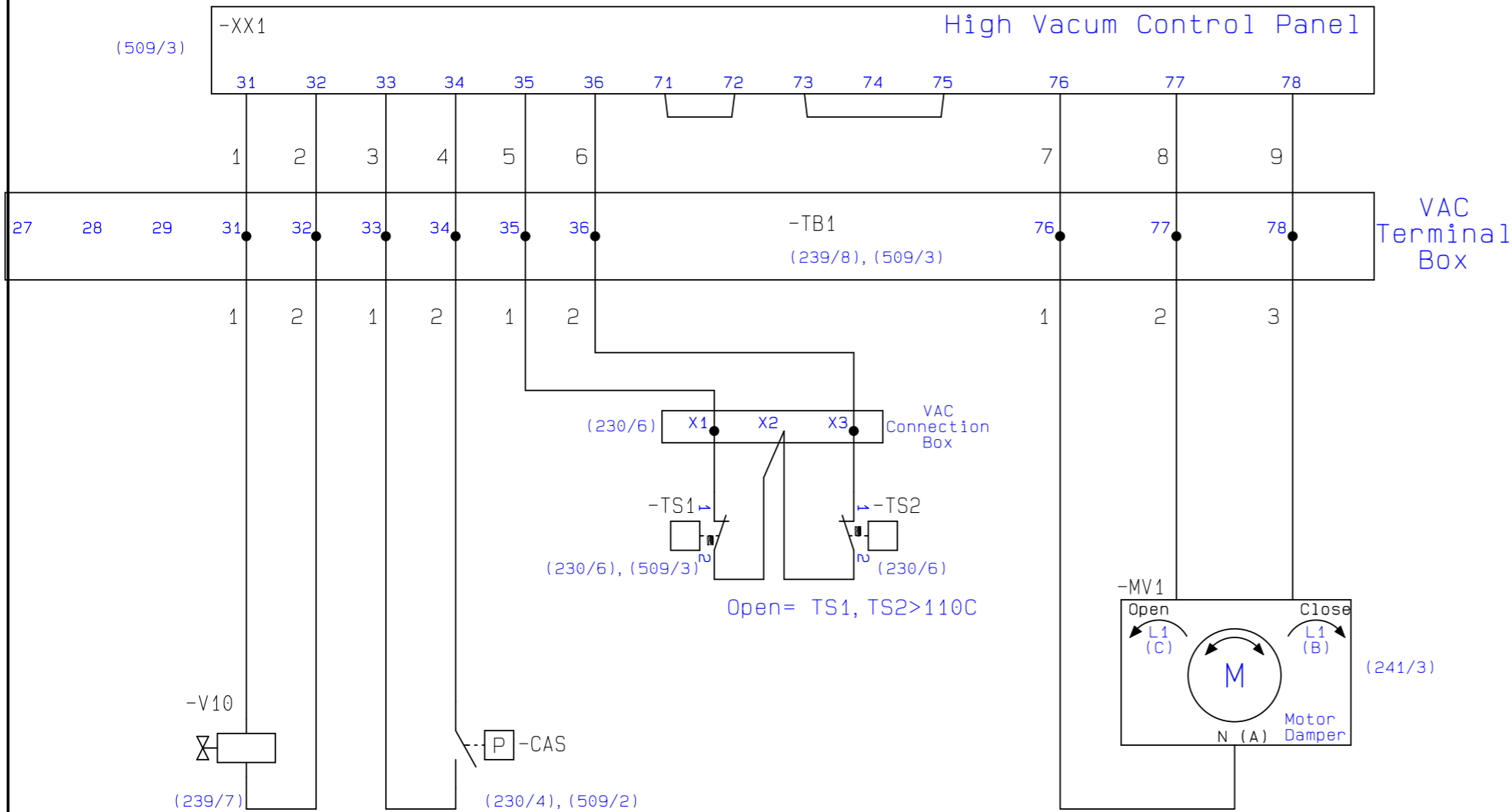
OPTIONAL
CONNECTIONS
MASTER-SLAVE

Drawing no.
2183628

Page no.
505
Next page 508

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 (CAS) Open = P < 3Bar Thermal Supervision VAC- Fan Shaft Bearings (ASC) Only VAC Application

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Revision	1	Product	HVCP Std 37kW Insight
Status	Available		
Date of approval	-		
Approval by	-	Date of created	2019/08/20
505	previous page	Author	FRALE



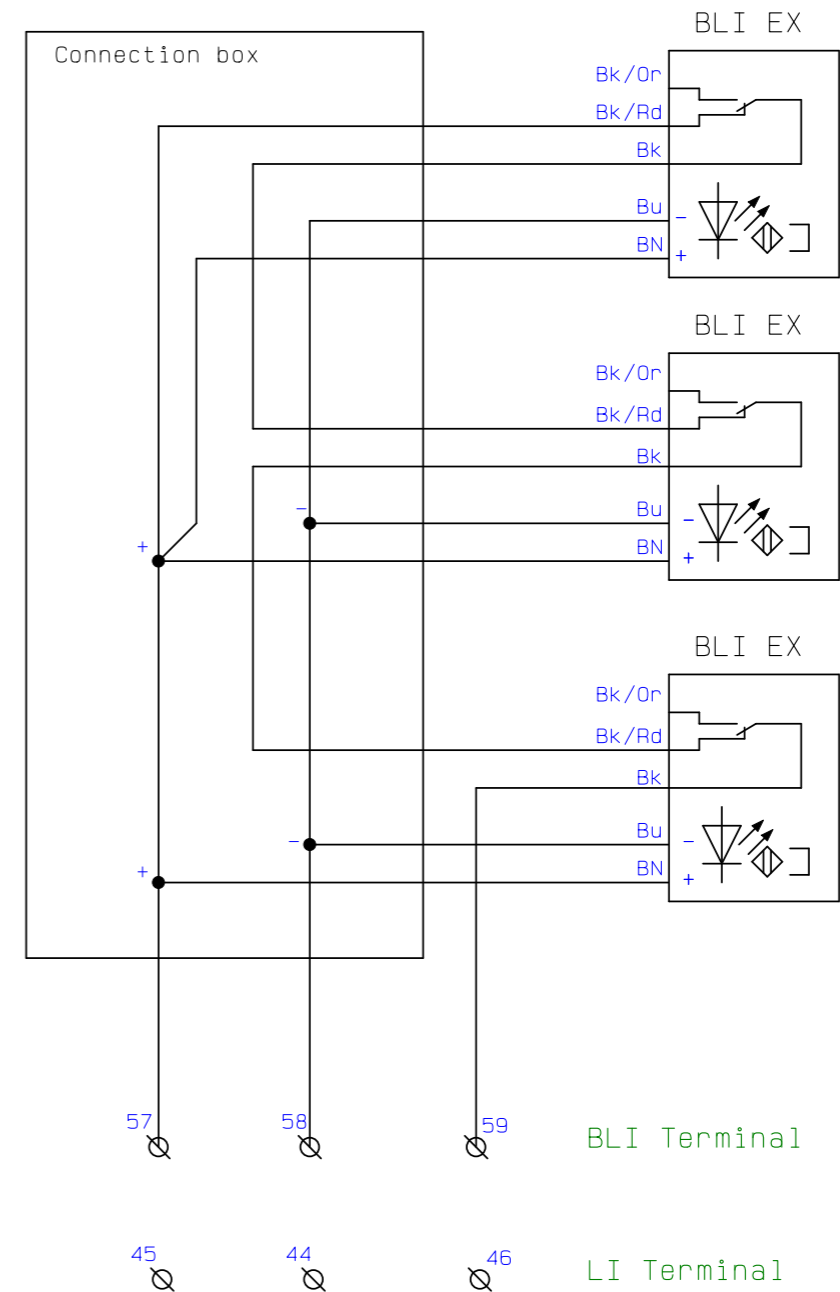
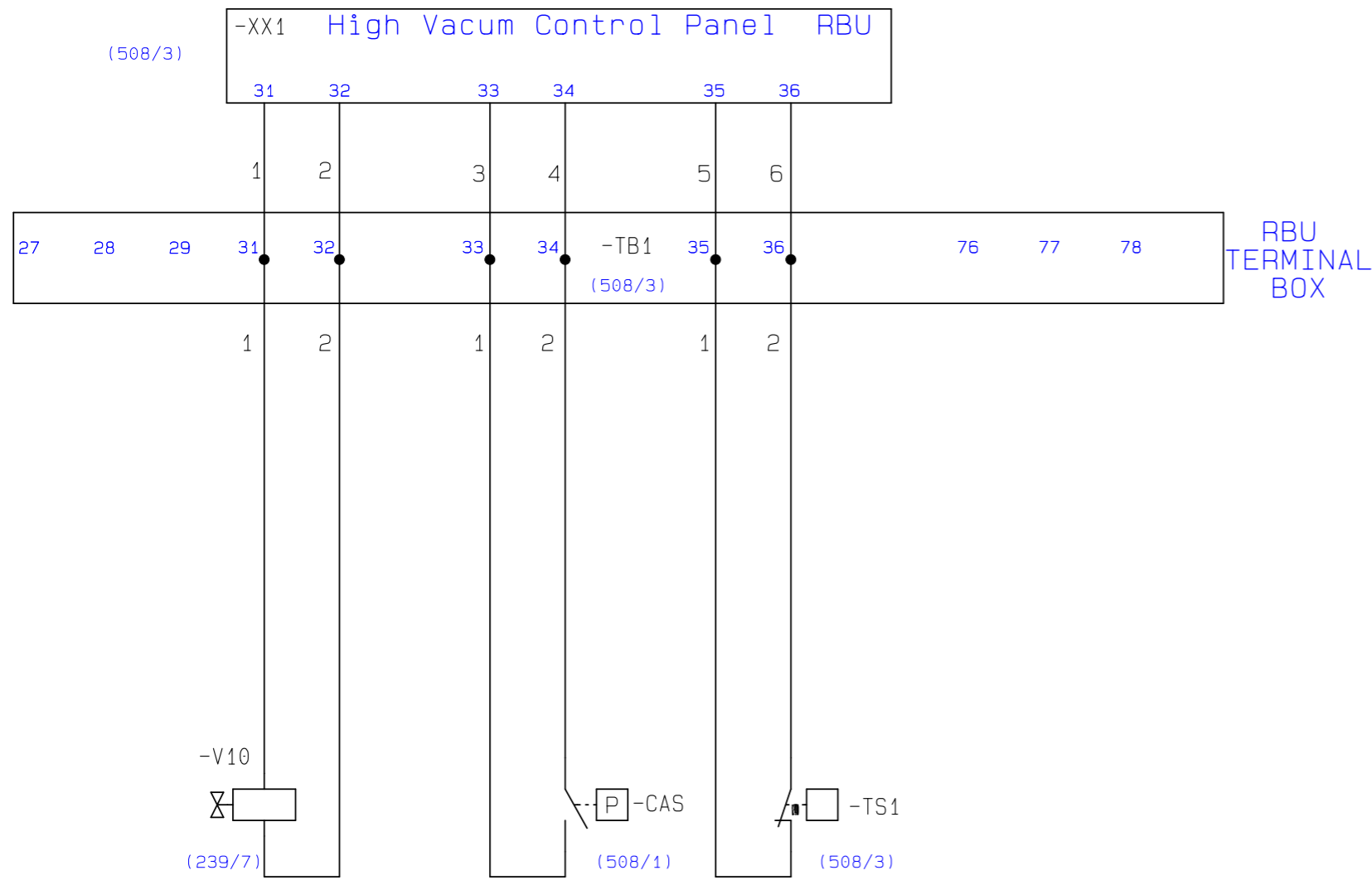
VAC ASC CONNECTIONS and OPTIONAL BLI

Drawing no.
2183628

Page no.
508
Next page 509

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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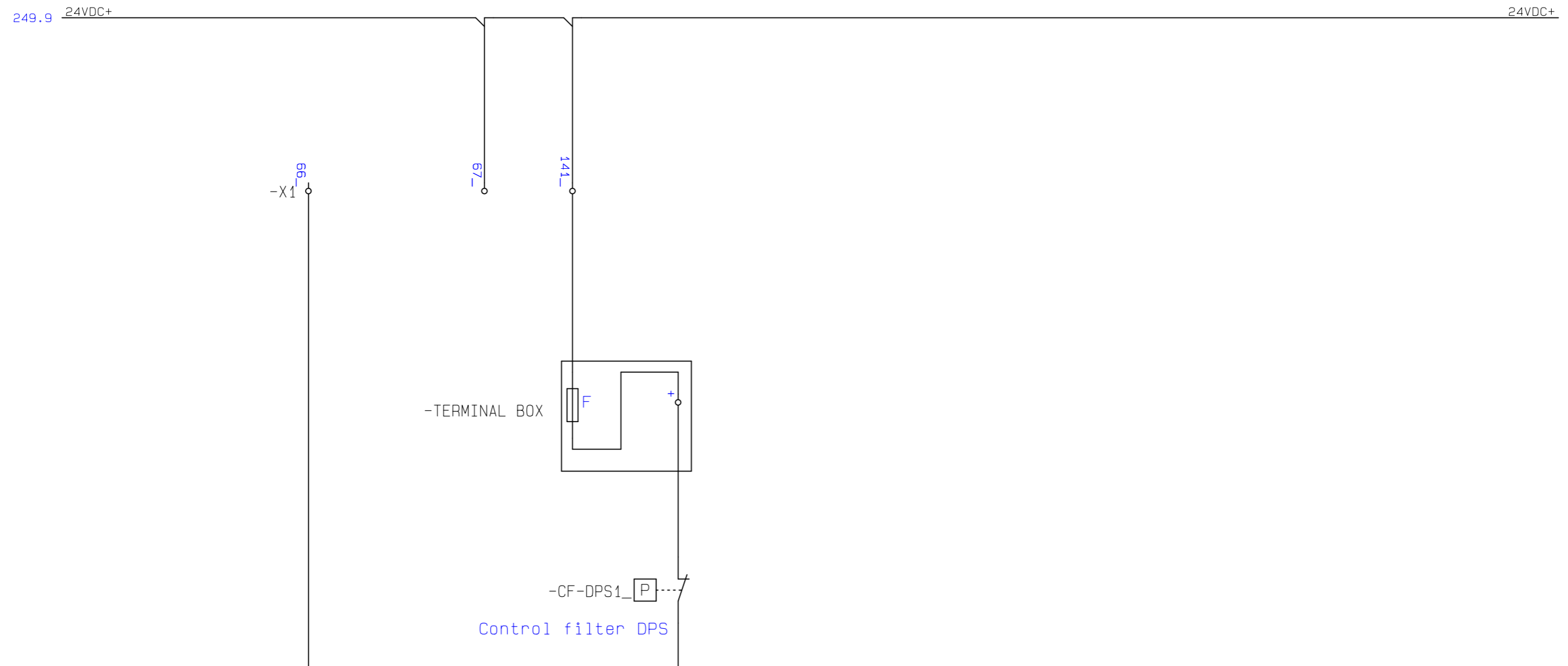
Revision	1	Product	Product
Status	Available	HVCP Std 37kW Insight	
Date of approval	-	Date of created	2019/08/20
Approval by	-	Author	FRALE
508	previous page		



RBU
CONNECTIONS
and OPTIONAL BLI

Drawing no.
2183628

Page no.
509



Principal schematic, connection of sensors using auxilliary 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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Revision	1	Product	HVCP Std 37kW Insight
Status	Available	Date of created	2019/08/20
Date of approval	-	Author	FRALE
Approval by	-		
509	previous page		



**SENSORS VIA
AUXILIARY
CONNECTION BOX**

Drawing no.
2183628

Page no.
510
Next page 1000

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			10/4	
4	-A2		6ES7223-1BH30-0XB0			200/8	*
5	-A11		6AV6647-0AA11-3AX0			9/3	*
6	-A21		3SK1111-1AB30			10/4	*
7	-A21/1/1		3SK1111-1AB30			70/2	*
8	-AUX1					82/2	*
9	-AUX2					232/4	*
10	-AUX3					82/6	*
11	-AUX4					240/7	*
12	-AUX- E-STOP					71/6	*
13	-AUX-SAFE					70/5	*
14	-BLI (EX)					231/2	*
15	-D1		1N4007			239/1	*
16	-D2		1N4007			239/3	*
17	-D3		1N4007			240/1	*
18	-D4		1N4007			240/4	*
19	-E1		Rital AE 800x600x300			9/3	*
20	-E1		Rital AE 600x600x250			10/4	*
21	-E2		Cable channel 360X25X80			10/5	*
22	-E3		Cable channel 380X25X80			10/4	*
23	-E4		Cable channel 295X40X80			10/5	*
24	-E5		Cable channel 405X40X80			10/6	*
25	-E6		Cable channel 360X40X80			10/5	*
26	-E01		550x550mm			10/4	*
27	-EBR					10/3	*
28	-ET1		UK 2,5 N			210/7	*

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

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Revision	1	Product	HVCP Std 37kW Insight			COMPONENT LIST	Drawing no.	Page no.
Status	Available			2183628			1001	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					
1000	Previous page					Next page	1002	

No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
29	-EXT ALARM					238/1	*
30	-EXT WARNING					238/6	*
31	-F2		140M-C2E-B16			10/5	*
32	-F4		Fuse 5X20m 4A Slow			10/6	*
33	-F4		Auto Fuse 6A			60/3	*
34	-F5		3.5AT 5x20mm			10/6	*
35	-F5		Auto Fuse 16A			60/2	*
36	-F6		1A 5x20mm fast			230/1	*
37	-F6		WK 4 TKG/U/V0			10/4	*
38	-F7		193-EEFD			10/2	*
39	-F7		193-EEGE			80/0	*
40	-F8		817-E1			80/4	*
41	-FA		(Thermal Fuse or other device)			70/1	*
42	-G1		6EP1333-1LB00			60/5	*
43	-H1		800FP-P5PN3Y			238/5	*
44	-H2					240/9	*
45	-K1		100-FA11			70/6	*
46	-K1		100-C43KJ00			10/2	*
47	-K1		100-C60KJ00			80/5	*
48	-K1		100-FA11			10/2	*
49	-K1		100-FA11			80/8	*
50	-K2		100-C43KJ00			10/3	*
51	-K2		100-C60KJ00			80/6	*
52	-K2		100-FA22			10/3	*
53	-K3		100-C30KJ00			10/3	*
54	-K3		100-C37KJ00			80/7	*
55	-K3		100-FA02			10/3	*
56	-K4T		700-FSY2DU23			80/8	*

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Revision	1	Product	HVCP Std 37kW Insight			COMPONENT LIST	Drawing no.	Page no.
Status	Available	Date of created	2019/08/20	2183628			1002	
Date of approval	-	Author	FRALE					
Approval by	-	1001	Previous page					Next page

No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
57	-K8		PLC-RSC- 24DC/21-21			238/3	*
58	-K8		PLC-RSC- 24DC/21-21			10/5	*
59	-K9		PLC-RSC- 24DC/21			233/8	*
60	-K9		PLC-RSC- 24DC/21			10/5	*
61	-K9/1		PLC-RSC- 24DC/21			70/2	*
62	-K10		PLC-RSC- 24DC/21			238/2	*
63	-K10		PLC-RSC- 24DC/21			10/5	*
64	-K11		PLC-RSC- 24DC/21			238/8	*
65	-K11		PLC-RSC- 24DC/21			10/5	*
66	-K12		PLC-RSC- 24DC/21			239/6	*
67	-K12		PLC-RSC- 24DC/21			10/5	*
68	-K13		PLC-RSC- 24DC/21			239/2	*
69	-K13		PLC-RSC- 24DC/21			10/5	*
70	-K14		PLC-RSC- 24DC/21			239/4	*
71	-K14		PLC-RSC- 24DC/21			10/5	*
72	-K15		PLC-RSC- 24DC/21			239/8	*
73	-K15		PLC-RSC- 24DC/21			10/5	*
74	-K16		PLC-RSC- 24DC/21			240/3	*
75	-K16		PLC-RSC- 24DC/21			10/5	*
76	-K17		PLC-RSC- 24DC/21			240/5	*
77	-K17		PLC-RSC- 24DC/21			10/5	*
78	-K17/1		PLC-RSC- 24DC/21			240/4	*
79	-K18		PLC-RSC- 24DC/21			240/8	*
80	-K18		PLC-RSC- 24DC/21			10/5	*
81	-K19		PLC-RSC- 24DC/21			241/2	*
82	-K19		PLC-RSC- 24DC/21			10/5	*
83	-K20		PLC-RSC- 24DC/21			241/4	*
84	-K20		PLC-RSC- 24DC/21			10/6	*

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Revision	1	Product	HVCP Std 37kW Insight			COMPONENT LIST	Drawing no.	Page no.
Status	Available			2183628			1003	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					
1002	Previous page					Next page	1004	

No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
85	-K21		PLC-RSC- 24DC/21			241/6	*
86	-K21		PLC-RSC- 24DC/21			10/6	*
87	-K22		PLC-RSC- 24DC/21-21AU			10/6	*
88	-LI (EX)					232/9	*
89	-MV1					241/3	*
90	-P1					210/9	*
91	-PE		WT 4 PE			60/6	*
92	-PTC-MOTOR		PTC Built in Monitoring overheat			80/1	*
93	-Q1		3LD2814-0TK51			50/1	*
94	-Q1		3LD2714-0TK51			10/3	*
95	-Q4					70/1	*
96	-R1		500 Ohm			248/3	*
97	-S3		Switch NC			231/8	*
98	-S4		800FP-MT44			9/3	*
99	-S5		External E-stop 800FP-MT44			70/3	*
100	-S19		Venting panel sensor 3 Flexfilter	EX		70/8	*
101	-S20		Venting panel sensor 4 Flexfilter	EX		70/9	*
102	-SP1		0-->40kPa 10-->0V			248/7	*
103	-SP2		0-->40kPa 10-->0V			248/7	*
104	-SPARE_TERMINAL1					249/1	*
105	-SPARE_TERMINAL2					249/3	*
106	-SPARE_TERMINAL3					249/4	*
107	-SPARE_TERMINAL4					249/6	*
108	-SPARE_TERMINAL5					249/7	*
109	-SV1					248/1	*
110	-T1		Transfo 230-460V 24V/230V			60/2	*
111	-T1		Transfo 230-460V			10/6	*
112	-T2					10/3	*

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Revision	1	Product	HVCP Std 37kW Insight			COMPONENT LIST	Drawing no.	Page no.
Status	Available			2183628			1004	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					Next page
1003	Previous page							

No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
113	-T2			Current Sensor LEM AT 100 B10		50/1	*
114	-TB1					230/6	*
115	-TERMINAL BOX					510/3	*
116	-U1			EWON FLEXY 205		10/4	*
117	-U1			eWon flexy205		210/7	*
118	-V1					239/1	*
119	-V2					239/4	*
120	-V3					240/1	*
121	-V4					240/4	*
122	-V10			START UPP VALVE		508/1	*
123	-W0			Power Cable		50/1	*
124	-W1			Motor Cable >= 3x10mm ² + PE		80/1	*
125	-W2			Motor Cable >= 3x10mm ² + PE		80/2	*
126	-W3			Motor Cable >= 3x10mm ² + PE		80/1	*
127	-W4			Motor Cable >= 3x10mm ² + PE		80/2	*
128	-W101			2x1.0mm ²		232/1	*
129	-W102			2x1.0mm ²		230/1	*
130	-W103			2x1.0mm ²		231/7	*
131	-W104			2x1.0mm ²		70/3	*
132	-W105			2x1.0mm ²		70/5	*
133	-W106			2x1.0mm ²		70/6	*
134	-W107			2x1.0mm ²		70/7	*
135	-W108			2x1.0mm ²		70/8	*
136	-W109			2x1.0mm ²		70/9	*
137	-W110			0,75mm ²		230/3	*
138	-W111			2x1.0mm ²		231/4	*
139	-W112			3x1,0mm ²		232/6	*
140	-W113			2x1.0mm ²		70/1	*

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Revision	1	Product	HVCP Std 37kW Insight			COMPONENT LIST	Drawing no.	Page no.
Status	Available			2183628			1005	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					Next page
1004	Previous page							

No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
141	-W114		2x1.0mm ²			231/3	*
142	-W115		2x1.0mm ²			233/5	*
143	-W116		3x1.0mm ²			231/0	*
144	-W117		2x1.0mm ²			233/0	*
145	-W118						*
146	-W119						*
147	-W120						*
148	-W121						*
149	-W122						*
150	-W123						*
151	-W124						*
152	-W125						*
153	-W126						*
154	-W127						*
155	-W128						*
156	-W129						*
157	-W130						*
158	-W131						*
159	-W132						*
160	-W133						*
161	-W134						*
162	-W135		2x1.0mm ²			231/5	*
163	-W136		2x1.0mm ²			231/5	*
164	-W137		2x1.0mm ²			70/0	*
165	-W200		2x1.0mm ²			71/6	*
166	-W203		2x1.0mm ²			82/1	*
167	-W204		2x1.0mm ²			232/3	*
168	-W205		2x1.0mm ²			82/6	*

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Revision	1	Product	HVCP Std 37kW Insight			COMPONENT LIST	Drawing no.	Page no.
Status	Available			2183628			1006	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					Next page
1005	Previous page							

No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
169	-W207		2x1.0mm ²			239/0	*
170	-W208		2x1.0mm ²			239/3	*
171	-W209		2x1.0mm ²			240/0	*
172	-W210		2x1.0mm ²			240/3	*
173	-W211		3x1.0mm ²			238/6	*
174	-W212		3x1.0mm ²			238/0	*
175	-W213		2x1.0mm ²			241/0	*
176	-W215		5x1.0mm ²			241/4	*
177	-W217		2x1.0mm ²			240/9	*
178	-W218						*
179	-W219						*
180	-W220						*
181	-W221						*
182	-W222						*
183	-W224						*
184	-W225						*
185	-W226						*
186	-W227						*
187	-W228						*
188	-W229						*
189	-W230						*
190	-W231						*
191	-W232						*
192	-W233						*
193	-W234						*
194	-W235						*
195	-W236		2x1.0mm ²			240/6	*
196	-W500		Shielded ethernet cable			210/3	*

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

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Revision	1	Product	HVCP Std 37kW Insight			COMPONENT LIST	Drawing no.	Page no.
Status	Available			2183628			1007	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					
1006	Previous page					Next page	1008	

No.	Name	EAN-no.	Type	Description	Manufacture	Ref. position	Remarks
197	-W501		Shielded ethernet cable			210/6	*
198	-W503		3x1.0mm ²			248/6	*
199	-W504		3x1.0mm ²			248/6	*
200	-WX1		2x1.0mm ²			249/1	*
201	-WX2		2x1.0mm ²			249/2	*
202	-WX3		2x1.0mm ²			249/4	*
203	-WX4		2x1.0mm ²			249/6	*
204	-WX5		2x1.0mm ²			249/7	*
205	-X1					510/2	*
206	-X1		UTT 2,5			231/6	*
207	-X1		UTT 2,5-DIO/O-U			240/1	*
208	-X1		UTT 2,5 - 3044636			248/3	*
209	-XX1					508/3	*
210	-XX2					230/6	*
211	-XXX3					504/5	*
212	-XXX4					505/5	*
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* Use of components with equivalent electric, mechanical and approval specifications is acceptable

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Revision	1	Product	HVCP Std 37kW Insight			COMPONENT LIST	Drawing no.	Page no.
Status	Available	Date of created	2019/08/20	2183628			1008	
Date of approval	-	Author	FRALE					
Approval by	-			Next page			1011	
1007	Previous page							

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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Revision		Product		PLC LIST	Drawing no. 2183628	Page no. 1011
Status	Available	Product				
Date of approval	-	Product				
Approval by	-	Date of created				
1008	previous page	Author	FRALE			Next page 1012

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
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Revision	Available	Product		PLC LIST	Drawing no. 2183628	Page no. 1012
Status	-	HVCP Std 37kW Insight				
Date of approval	-	Date of created 2019/08/20				
Approval by	-	Author FRALE				
1011	previous page					Next page 1014

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 ² + PE	
-K2	80/2	D Contactor	-W2	80/2	-MS1	80/2	Maintenance Switch	Motor Cable >= 3x10mm ² + PE	
-MS1	80/0	Maintenance Switch	-W3	80/0	-M1	80/1	VAC/RBU Motor	Motor Cable >= 3x10mm ² + PE	
-MS1	80/2	Maintenance Switch	-W4	80/2	-M1	80/2	VAC/RBU Motor	Motor Cable >= 3x10mm ² + PE	
-X1	232/1		-W101	232/1	-MS1	232/1	Signal Contact Maintenance switch	2x1.0mm ²	
-X1	230/1		-W102	230/1	-PS	230/1	Pilot Signal	2x1.0mm ²	
-X1	231/8		-W103	231/8	-S3	231/8	Remote St.By/Off/OTTmr=Overtime	2x1.0mm ²	
-X1	70/3		-W104	70/3	-S5	70/3	External E-stop	2x1.0mm ²	
-X1	70/5		-W105	70/5	-AUX-SAFE	70/5	Auxiliary safety circuit	2x1.0mm ²	
-X1	70/6		-W106	70/6	-S11	70/6	Venting sensor 1	2x1.0mm ²	
-X1	70/7		-W107	70/7	-S12	70/7	Venting sensor 2	2x1.0mm ²	
-X1	70/8		-W108	70/8	-S19	70/8	Venting sensor 3	2x1.0mm ²	
-X1	70/9		-W109	70/9	-S20	70/9	Venting sensor 4	2x1.0mm ²	
-X1	239/7		-W110	239/7	-TB1	239/7		12x0,75mm ²	
-X1	231/4		-W111	231/4	-MF-DPS2	231/4	Main Filter DPS	2x1.0mm ²	
-X1	232/7		-W112	232/7	-LI (EX)	232/8	Level Indicator (LI)	3x1,0mm ²	
-X1	70/1		-W113	70/1	-FA	70/1	Fire alarm	2x1.0mm ²	
-X1	231/3		-W114	231/3	- MF-DPS1	231/3	Main Filter DPS.	2x1.0mm ²	
-X1	233/5		-W115	233/5	-S1	233/5	Manual emptying TVFD/AEB (NS)	2x1.0mm ²	
-X1	231/1		-W116	231/1	-BLI (EX)	231/2	Level indicator on dust bin (BLI)	3x1.0mm ²	
-X1	233/0		-W117	233/0	-CF-DPS1	233/1	Control filter DPS (1) - (1-2)	2x1.0mm ²	
-X1	231/5		-W135	231/5	-MF-DPS3	231/5	Main Filter DPS	2x1.0mm ²	
-X1	231/5		-W136	231/5	-MF-DPS4	231/5	Main Filter DPS	2x1.0mm ²	
-X1	70/0		-W137	70/0	-Q4	70/0	Intrinsically safe circuit (external)	2x1.0mm ²	
-X1	71/6		-W200	71/6	-AUX- E-STOP	71/6	E-Stop signal to external control panel	2x1.0mm ²	
-X1	82/1		-W203	82/1	-AUX1	82/1	E-Stop Controlled 24VDC supply	2x1.0mm ²	
-X1	232/4		-W204	232/4	-AUX2	232/4	Delta contactor active (motor running) Signal to external system	2x1.0mm ²	

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Revision	1	Product	HVCP Std 37kW Insight			CABEL OVERVIEW	Drawing no.	Page no.	
Status	Available						CABEL OVERVIEW	2183628	1014
Date of approval	-	Date of created	2019/08/20						
Approval by	-	Author	FRALE						
1012	previous page						Next page	1015	

From			Cable		To			Type	Length
Description	Ref. position	Function	Description	Page/lineway	Description	Ref. position	Function		
-X1	82/6		-W205	82/6	-AUX3	82/6	E-Stop Controlled, 24VAC	2x1.0mm ²	
-X1	239/1		-W207	239/1	-V1	239/1	Filter Cleaning Valve V1	2x1.0mm ²	
-X1	239/3		-W208	239/3	-V2	239/4	Filter Cleaning Valve V2	2x1.0mm ²	
-X1	240/1		-W209	240/1	-V3	240/1	Filter Cleaning Valve V3	2x1.0mm ²	
-X1	240/4		-W210	240/4	-V4	240/4	Filter Cleaning Valve V4	2x1.0mm ²	
-X1	238/6		-W211	238/6	-EXT WARNING	238/6	External Warning Output	3x1.0mm ²	
-X1	238/0		-W212	238/0	-EXT ALARM	238/0	No summary alarm	3x1.0mm ²	
-PE	60/6	PE	-W213	241/1	-V13	241/1	ASC Move	2x1.0mm ²	
-X1	241/5		-W215	241/5				5x1.0mm ²	
-X1	240/6		-W217	240/9	-H2	240/9	On/standby lamp (external)	2x1.0mm ²	
-X1	240/7		-W236	240/7	-AUX4	240/7	Ready / idle signal	2x1.0mm ²	
-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 ²	
-X1	248/6	Spare Terminal (20) Not Specified	-W504	248/6	-SP2	248/7	AI:1 Optional: Pressure Transducer	3x1.0mm ²	
-X1	249/1	Spare Term	-WX1	249/1	-SPARE_TERMINAL	249/1	-SPARE_TERMINAL	2x1.0mm ²	
-X1	249/3	Spare Term	-WX2	249/3	-SPARE_TERMINAL	249/3	-SPARE_TERMINAL	2x1.0mm ²	
-X1	249/4	Spare Term	-WX3	249/4	-SPARE_TERMINAL	249/4	-SPARE_TERMINAL	2x1.0mm ²	
-X1	249/6	Spare Term	-WX4	249/6	-SPARE_TERMINAL	249/6	-SPARE_TERMINAL	2x1.0mm ²	
-X1	249/7	Spare Term	-WX5	249/7	-SPARE_TERMINAL	249/7	-SPARE_TERMINAL	2x1.0mm ²	

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Revision	1	Product	Product
Status	Available	Product	HVCP Std 37kW Insight
Date of approval	-	Date of created	2019/08/20
Approval by	-	Author	FRALE
1014	previous page		



CABEL OVERVIEW

Drawing no.
2183628

Page no.
1015
Next page 1017

No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position Page / Lineway	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
1			-ET1	1		24VDC+		UK 2,5 N	210/7	
2			-ET1	2		24VDC-		UK 2,5 N	210/7	
3			-K22			-A1/1	DQe.3	PLC-RSC- 24DC/21-21AU	241/9	
4			-K22			24VDC-		PLC-RSC- 24DC/21-21AU	241/9	
5	-PE		-PE			0V		WT 4 PE	60/3	
6	-PE		-PE			24VDC-		WT 4 PE	60/6	
7	-CF-DPS1_		-X1	66_					510/2	
8			-X1	67_		24VDC+			510/3	
9	-TERMINAL BOX	1	-X1	141_		24VDC+			510/3	
10	-LI (EX)	- Blue	-X1	40		24VDC-		UTT 2,5 - 3044636	232/6	
11	-MS1	13	-X1	1		24VDC+		UTT 2,5 - 3044636	232/1	
12	-MS1	14	-X1	2		-A1	D1b.0	UTT 2,5 - 3044636	232/2	
13	-PS		-X1	3		-F6	2	UTT 2,5 - 3044636	230/1	
14	-PS		-X1	4		-A1	D1a.0	UTT 2,5 - 3044636	230/2	
15	-X1	6	-X1	5				UTT 2,5 - 3044636	231/8	
16	-S3	1	-X1	5		24VDC+		UTT 2,5 - 3044636	231/8	
17	-X1	5	-X1	6				UTT 2,5 - 3044636	231/9	
18	-S3	2	-X1	6		-A1	D1a.6	UTT 2,5 - 3044636	231/9	
19	-SPARE_TERMINAL4	2	-X1	137				UTT 2,5 - 3044636	249/6	
20	-SPARE_TERMINAL5	2	-X1	150				UTT 2,5 - 3044636	249/8	
21	-AUX- E-STOP	1	-X1	15		-A21	34	UTT 2,5 - 3044636	71/6	
22	-SPARE_TERMINAL1	1	-X1	19				UTT 2,5 - 3044636	249/1	
23	-SPARE_TERMINAL2	1	-X1	39				UTT 2,5 - 3044636	249/3	
24	-SPARE_TERMINAL3	1	-X1	84				UTT 2,5 - 3044636	249/4	
25	-SPARE_TERMINAL4	1	-X1	99				UTT 2,5 - 3044636	249/6	
26	-SPARE_TERMINAL5	1	-X1	149				UTT 2,5 - 3044636	249/7	
27	-AUX- E-STOP	2	-X1	16		-A21	33	UTT 2,5 - 3044636	71/6	
28	-SPARE_TERMINAL1	2	-X1	20				UTT 2,5 - 3044636	249/1	

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Revision	1	Product	HVCP Std 37kW Insight			TERMINAL LIST	Drawing no.	Page no.
Status	Available			2183628			1017	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					
1015	previous page			Next page 1018				

No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
29	-SPARE_TERMINAL2	2	-X1	68				UTTBT 2,5 - 3044636	249/3	
30			-X1	136		-R1	2	UTTBT 2,5 - 3044636	248/3	
31	-AUX1	2	-X1	26	a	24VDC-		UTTBT 2,5 - 3044636	82/2	
32	-AUX1	1	-X1	25		24VDC+(E)		UTTBT 2,5 - 3044636	82/1	
33	-AUX3	1	-X1	29		24VAC(E)		UTTBT 2,5 - 3044636	82/6	
34	-AUX3	2	-X1	30		0V		UTTBT 2,5 - 3044636	82/6	
35	-TB1	32	-X1	32		24VDC-		UTTBT 2,5 - 3044636	239/8	
36	-TB1	31	-X1	31		-K15	14	UTTBT 2,5 - 3044636	239/7	
37	-X1	34	-X1	33				UTTBT 2,5 - 3044636	230/4	
38	-CAS		-X1	33		24VDC+		UTTBT 2,5 - 3044636	230/4	
39	-X1	33	-X1	34				UTTBT 2,5 - 3044636	230/5	
40	-CAS		-X1	34		-A1	D1a.1	UTTBT 2,5 - 3044636	230/5	
41	-TB1	35	-X1	35		24VDC+		UTTBT 2,5 - 3044636	230/6	
42	-TB1	36	-X1	36		-A1	D1a.2	UTTBT 2,5 - 3044636	230/7	
43	-V1	2	-X1	42		24VDC-		UTTBT 2,5-DIO/O-U	239/1	
44			-X1	41		-K13	14	UTTBT 2,5-DIO/O-U	239/1	
45	-V1	1	-X1	41		-D1	2	UTTBT 2,5-DIO/O-U	239/1	
46	-V2	2	-X1	44		24VDC-		UTTBT 2,5-DIO/O-U	239/3	
47			-X1	43		-K14	14	UTTBT 2,5-DIO/O-U	239/4	
48	-V2	1	-X1	43		-D2	2	UTTBT 2,5-DIO/O-U	239/4	
49	-LI (EX)	+ Brown	-X1	45		24VDC+		UTTBT 2,5 - 3044636	232/7	
50	-LI (EX)	Bk/Rd	-X1	46		-A1	D1b.2	UTTBT 2,5 - 3044636	232/8	
51	- MF-DPS1		-X1	49		24VDC+		UTTBT 2,5 - 3044636	231/3	
52	- MF-DPS1		-X1	50		-X1	187	UTTBT 2,5 - 3044636	231/4	
53	-S1		-X1	55		24VDC+		UTTBT 2,5 - 3044636	233/5	
54	-S1		-X1	56		-A1	D1b.4	UTTBT 2,5 - 3044636	233/6	
55	-BLI (EX)	Black	-X1	57				UTTBT 2,5 - 3044636	231/1	
56	-BLI (EX)	+ Brown	-X1	57				UTTBT 2,5 - 3044636	231/1	

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Revision	1	Product	HVCP Std 37kW Insight			TERMINAL LIST	Drawing no.	Page no.
Status	Available			2183628			1018	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					Next page
1017	previous page							

No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
57	-X1	59	-X1	57		24VDC+		UTTBT 2,5 - 3044636	231/1	
58	-BLI (EX)	Bk/Rd	-X1	59				UTTBT 2,5 - 3044636	231/1	
59	-X1	57	-X1	59		-A1	Dla.4	UTTBT 2,5 - 3044636	231/1	
60	-BLI (EX)	- Blue	-X1	58		24VDC-		UTTBT 2,5 - 3044636	231/1	
61	-EXT WARNING	1	-X1	60		-K11	11	UTTBT 2,5 - 3044636	238/6	
62	-EXT WARNING	2	-X1	61		-K11	14	UTTBT 2,5 - 3044636	238/6	
63	-EXT WARNING	3	-X1	62		-K11	12	UTTBT 2,5 - 3044636	238/7	
64	-EXT ALARM	1	-X1	63		-K10	11	UTTBT 2,5 - 3044636	238/0	
65	-AUX2	1	-X1	17		-K2	84	UTTBT 2,5 - 3044636	232/4	
66	-AUX2	2	-X1	18		-K2	83	UTTBT 2,5 - 3044636	232/4	
67	-SV1	Signal	-X1	138	a ↓	-K22	14	UTTBT 2,5 - 3044636	248/3	
68	-X1	188	-X1	187				UTTBT 2,5	231/4	
69	-MF-DPS2		-X1	187		-X1	50	UTTBT 2,5	231/4	
70	-X1	187	-X1	188				UTTBT 2,5	231/4	
71	-MF-DPS2		-X1	188		-X1	189	UTTBT 2,5	231/4	
72	-X1	190	-X1	189				UTTBT 2,5	231/5	
73	-MF-DPS3		-X1	189		-X1	188	UTTBT 2,5	231/5	
74	-X1	189	-X1	190				UTTBT 2,5	231/5	
75	-MF-DPS3		-X1	190		-X1	191	UTTBT 2,5	231/5	
76	-X1	192	-X1	191				UTTBT 2,5	231/5	
77	-MF-DPS4		-X1	191		-X1	190	UTTBT 2,5	231/5	
78	-X1	191	-X1	192				UTTBT 2,5	231/6	
79	-MF-DPS4		-X1	192		-A1	Dla.5	UTTBT 2,5	231/6	
80	-EXT ALARM	2	-X1	64		-K10	14	UTTBT 2,5 - 3044636	238/1	
81	-EXT ALARM	3	-X1	65		-K10	12	UTTBT 2,5 - 3044636	238/1	
82	-CF-DPS1		-X1	67		24VDC+		UTTBT 2,5 - 3044636	233/1	
83	-CF-DPS1		-X1	66		-A1	Dlb.3	UTTBT 2,5 - 3044636	233/0	
84	-X1	72	-X1	71				UTTBT 2,5 - 3044636	241/0	

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Revision	1	Product	HVCP Std 37kW Insight			TERMINAL LIST	Drawing no.	Page no.
Status	Available			2183628			1019	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					Next page
1018	previous page							

No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
85	-W213	1	-X1	71		24VAC(E)		UTTBT 2,5 - 3044636	241/0	
86	-X1	71	-X1	72		-K19	11	UTTBT 2,5 - 3044636	241/1	
87	-X1	75	-X1	73				UTTBT 2,5 - 3044636	241/1	
88	-V13	1	-X1	73		-K19	14	UTTBT 2,5 - 3044636	241/1	
89	-W213	4	-X1	74		-K19	12	UTTBT 2,5 - 3044636	241/1	
90	-W110	10	-X1	75				UTTBT 2,5 - 3044636	241/3	
91	-X1	73	-X1	75		-K20	11	UTTBT 2,5 - 3044636	241/3	
92	-MV1	76	-X1	76		0V		UTTBT 2,5 - 3044636	241/3	
93	-MV1	77	-X1	77		-K20	14	UTTBT 2,5 - 3044636	241/3	
94	-MV1	78	-X1	78		-K20	12	UTTBT 2,5 - 3044636	241/3	
95	-W215	1	-X1	79		24VDC+(E)		UTTBT 2,5 - 3044636	241/5	
96	-W215	3	-X1	81		-K21	11	UTTBT 2,5 - 3044636	241/5	
97	-W215	4	-X1	82		-K21	14	UTTBT 2,5 - 3044636	241/6	
98	-W215	5	-X1	83		-K21	12	UTTBT 2,5 - 3044636	241/6	
99	-W215	2	-X1	80		24VDC-		UTTBT 2,5 - 3044636	241/5	
100			-X1	87	a	24VDC+(E)		UTTBT 2,5 - 3044636	240/6	
101	-H2	X2	-X1	88	b	24VDC-		UTTBT 2,5 - 3044636	240/6	
102	-SP1	0V	-X1	196		24VDC-		UTTBT 2,5 - 3044636	248/7	
103	-SP1	+24V	-X1	195				UTTBT 2,5 - 3044636	248/8	
104	-SP2	+24V	-X1	195		24VDC+		UTTBT 2,5 - 3044636	248/8	
105	-SV1	DO(NC)	-X1	135				UTTBT 2,5 - 3044636	248/3	
106	-SV1	24VDC-	-X1	134		24VDC-		UTTBT 2,5 - 3044636	248/2	
107	-SV1	24VDC+	-X1	133		24VDC+		UTTBT 2,5 - 3044636	248/2	
108	-SP2	Sign	-X1	185		-K22	24	UTTBT 2,5 - 3044636	248/6	
109	-SP1	Sign	-X1	186		-K22	22	UTTBT 2,5 - 3044636	248/6	
110	-SP2	0V	-X1	198		24VDC-		UTTBT 2,5 - 3044636	248/7	
111	-H2	X1	-X1	90				UTTBT 2,5 - 3044636	240/7	
112	-AUX4	2	-X1	90		-K18	11	UTTBT 2,5 - 3044636	240/7	

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Revision	1	Product	HVCP Std 37kW Insight			TERMINAL LIST	Drawing no.	Page no.
Status	Available			2183628			1020	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					Next page
1019	previous page							

No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
113	-AUX4	1	-X1	89	●	-K18	14	UTT B 2,5 - 3044636	240/7	
114	-V3	2	-X1	52		24VDC-		UTT B 2,5-DIO/O-U	240/1	
115			-X1	51		-D3	2	UTT B 2,5-DIO/O-U	240/1	
116	-V3	1	-X1	51		-K16	14	UTT B 2,5-DIO/O-U	240/1	
117	-V4	2	-X1	54		24VDC-		UTT B 2,5 - 3044636	240/5	
118			-X1	53		-D4	2	UTT B 2,5 - 3044636	240/4	
119	-V4	1	-X1	53		-K17/1	14	UTT B 2,5 - 3044636	240/4	
120	-X1	7	-X1	8				UTT B 2,5 - 3044636	70/3	
121		12	-X1	8		-X1	9	UTT B 2,5 - 3044636	70/3	
122	-X1	10	-X1	9				UTT B 2,5 - 3044636	70/5	
123	-AUX-SAFE	1	-X1	9		-X1	8	UTT B 2,5 - 3044636	70/5	
124	-AUX-SAFE	2	-X1	10	●			UTT B 2,5 - 3044636	70/5	
125	-X1	9	-X1	10	●			UTT B 2,5 - 3044636	70/5	
126	-X1	12	-X1	11	●			UTT B 2,5 - 3044636	70/6	
127	-S11	2	-X1	11	●			UTT B 2,5 - 3044636	70/6	
128	-X1	22	-X1	21	●			UTT B 2,5 - 3044636	70/8	
129	-S19	2	-X1	21	●			UTT B 2,5 - 3044636	70/8	
130	-S11	1	-X1	12	●			UTT B 2,5 - 3044636	70/6	
131	-X1	11	-X1	12	●			UTT B 2,5 - 3044636	70/6	
132	-S19	1	-X1	22	●			UTT B 2,5 - 3044636	70/8	
133	-X1	21	-X1	22	●			UTT B 2,5 - 3044636	70/8	
134	-X1	14	-X1	13	●			UTT B 2,5 - 3044636	70/7	
135	-S12	2	-X1	13	●			UTT B 2,5 - 3044636	70/7	
136	-X1	24	-X1	23	●			UTT B 2,5 - 3044636	70/9	
137	-S20	2	-X1	23	●			UTT B 2,5 - 3044636	70/9	
138	-S12	1	-X1	14	●			UTT B 2,5 - 3044636	70/7	
139	-X1	13	-X1	14	●			UTT B 2,5 - 3044636	70/7	
140	-S20	1	-X1	24				UTT B 2,5 - 3044636	70/9	

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Revision	1	Product	HVCP Std 37kW Insight			TERMINAL LIST	Drawing no.	Page no.
Status	Available			2183628			1021	
Date of approval	-	Date of created	2019/08/20					
Approval by	-	Author	FRALE					Next page
1020	previous page							

No.	Connected to (external)		Terminal			Connected to (internal)		Type	Ref. position Page / Lineway	Remarks
	Destination	Connection	Name	Number	Jumper	Destination	Connection			
141	-X1	23	-X1	24		-S4	11	UTTBT 2,5 - 3044636	70/9	
142	-X1	48	-X1	47	•			UTTBT 2,5 - 3044636	70/1	
143	-FA	1	-X1	47	•			UTTBT 2,5 - 3044636	70/1	
144	-X1	47	-X1	48				UTTBT 2,5 - 3044636	70/2	
145	-FA	2	-X1	48		-K9/1	A1	UTTBT 2,5 - 3044636	70/2	
146	-X1	8	-X1	7				UTTBT 2,5 - 3044636	70/3	
147	-S5	11	-X1	7		-K9/1	A1	UTTBT 2,5 - 3044636	70/3	
148	-X1	194	-X1	193				UTTBT 2,5	70/0	
149	-Q4	1	-X1	193		24VDC+		UTTBT 2,5	70/0	
150	-Q4	2	-X1	194	•			UTTBT 2,5	70/1	
151	-X1	193	-X1	194	•			UTTBT 2,5	70/1	

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