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Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+ +			
File: ANWAA1583						INDEX	DRIVE STATION	LV-CONTROL	Drawn by Sst Sheet : 1		
									Dr.ch.by Fhs Cont.sheet: 2		

A LOCATION:

A1 ... DRIVE STATION
 A2 ... RETURN STATION
 A3 ... MIDDLE STATION
 A10... BOTTOM STATION

01 ... CONTROL PANEL
 02 ...
 03 ... STATION
 04 ... REMOTE CONTROL
 05 ... BRAKE HYDRAULICS
 06 ... LIFT LINE / TOWERS
 07 ... LIGHTNING PROTECTION BOX
 08 ... OIL COOLER
 09 ... AUXILIARY DRIVE (ADDITIONAL HYDR.)
 010... HYDR. TENSIONING
 011... PARKING
 012... OPENING-CLOSING MECHANISM
 013... EMERGENCY DRIVE
 014...
 015... SCR UNIT
 016... POWER SUPPLY UNIT SCR-DRIVE
 017...
 018... LOADING CARPET
 019...
 020... LOADING GATE
 021... TERMINAL BOX LOADING GATE
 022... HYDRAULIC AGGREGATE LOADING GATE
 023... LOADING GATE
 024...
 025... BATTERY PANEL
 026... LOW VOLTAGE DISTRIBUTION
 027...
 028...
 029...
 030... LOUDSPEAKER EQUIPMENT
 031... TERMINAL BOX TB1
 0131.. TERMINALBOX TB11
 032... TERMINAL BOX TB2
 0132.. TERMINALBOX TB12
 033... TERMINAL BOX TB3
 034... TERMINAL BOX TB4
 0134.. TERMINAL BOX "TB 14"
 035... TERMINAL BOX TB5
 0135.. TERMINAL BOX "TB 15"
 036... TERMINAL BOX TB6
 037... TERMINAL BOX TB7
 038... TERMINAL BOX TB8
 039... TERMINAL BOX TB9
 040...
 041... R.M.C. 1
 042... R.M.C. 2
 043... R.M.C. 3
 044... R.M.C. 4 (INCOMING)
 045... R.M.C. 5 (OUTGOING)
 046...
 047...
 048...
 049...
 050...
 051... TELEPHONE CONNECTOR MACHINE ROOM
 052... TELEPHONE CONNECTOR THYRISTOR ROOM
 080... TERMINAL BOX TB80 STATION PARKING DECELERATOR
 081... TERMINAL BOX TB81 STATION PARKING ACCELERATOR
 0100.. TERMINAL BOX TENSIONING AGGREGATE
 0101.. HYDR. TENSIONING UNIT
 0102.. TERMINAL BOX LOAD CELL
 0103.. LOAD CELL

TERMINAL STRIP:

X1 ... POWER SUPPLY 24V/DC
 X2 ... THREE-PHASE MOTORS
 X3 ... LIGHTING
 X4 ... POWER SUPPLY (AC)
 X5 ... CONNECTIONS THYRISTOR PANEL
 X6 ... LIMIT SWITCHES
 X7 ... BRAKE HYDRAULICS
 X8 ... REMOTE CONTROLS
 X9 ... HYDR. TENSIONING - TERMINAL BOX TENSIONING AGGREGATE
 X10... LOUDSPEAKER EQUIPMENT
 X11...
 X12...
 X13...
 X14...
 X15...
 X16... LIFT LINE (TOWERS)
 X17... LIFT LINE (SIGNALS)
 X18... ON LINE TELEPHONE
 X19... CONNECTIONS TO AUX. DRIVE
 X20...
 X21... LIMIT SWITCHES FOR ANTI COLLISION SYSTEM
 X22... PROXIMITY SWITCHES (FILTER TERMINALS)
 X23... CONNECTIONS TO PARKING CONTROLS
 X24...
 X25... MEASURING CABLES
 X26... MEASURING CABLES
 X27... CONNECTION TO LOADING CARPET
 X28...
 X29...
 X41... PRINT MAIN CONTROLS
 X60... MAGNETIC CLUTCH / SPINDLE MOTOR
 X80... Stationsgaragierung
 X82... PROXIMITY SWITCHES (FILTER TERMINALS) STATION PARKING

A

B

C

D

E

F

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	= =A1+01
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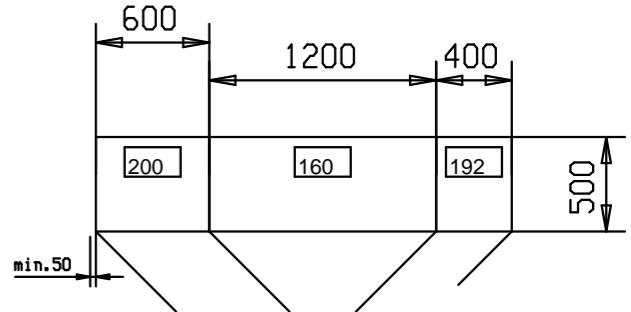
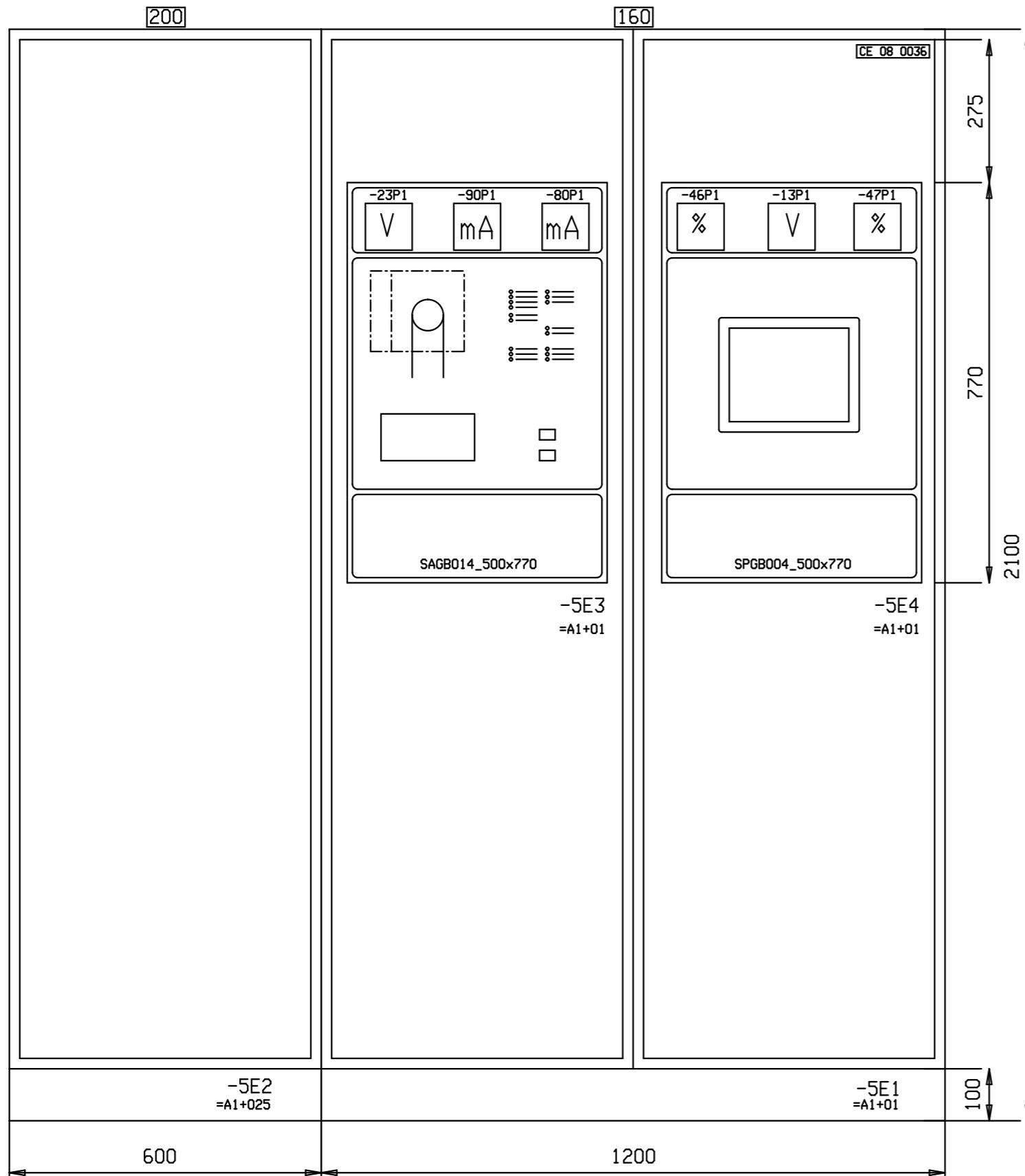


INFORMATION

DRIVE STATION

LV-CONTROL

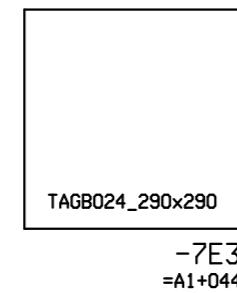
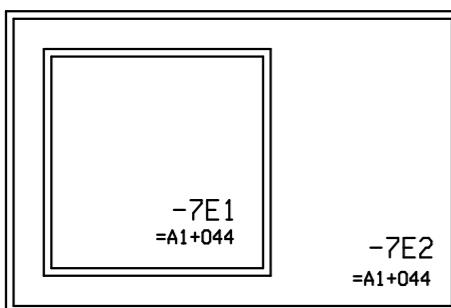
Dr.ch.by	Fhs	Cont.sheet:	5
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CONTROL ROOM (AST / TOP):
 200 ... BATTERY PANEL
 160 ... MAIN CONTROLS DRIVE STATION
 192 ... CONTROLS EMERGENCY DRIVE

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Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	5

A



R.M.C. 4
INCOMING
=A1+044

OPTIONAL
OPERATION
TYRE CONVEYOR
=A1+046

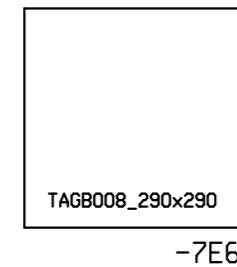
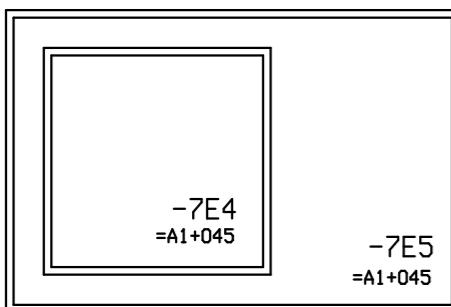


-7E25
=A1+0112



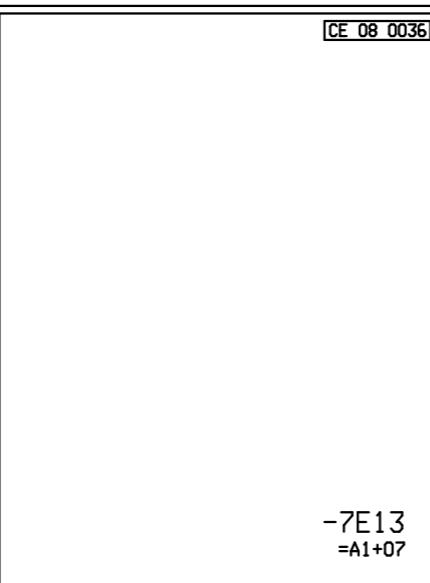
TERMINAL BOX
HYDRAULICS TYRE CONVEYOR
=A1+0112

B



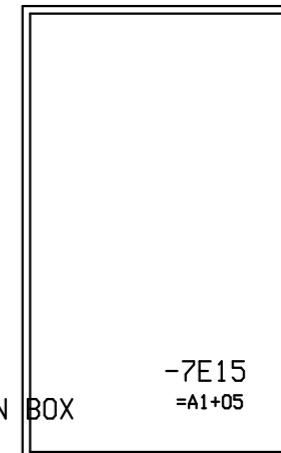
R.M.C. 5
OUTGOING
=A1+045

-7E6
=A1+045



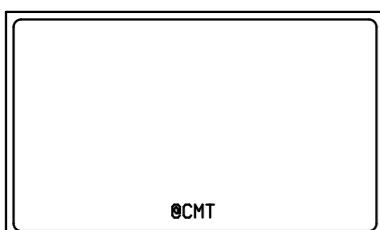
-7E13
=A1+07

LIGHTNING PROTECTION
BOX
=A1+07



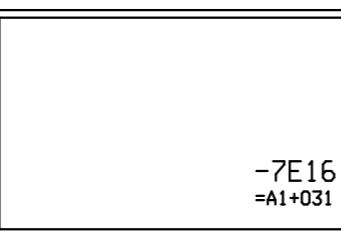
TERMINAL BOX
BRAKE HYDRAULICS
=A1+05

C

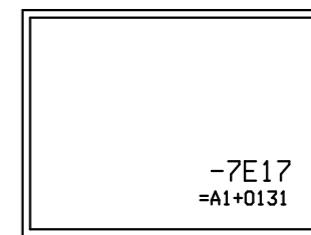


OPTIONAL
DESKTOP CONTROL PANEL
=A1+050

-7E7
=A1+050

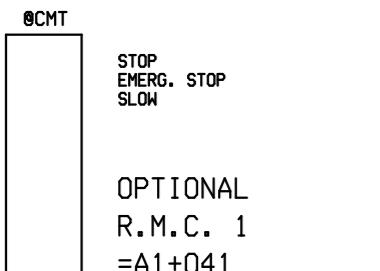


TERMINAL BOX TB1
=A1+031



TERMINALBOX TB11
=A1+0131

D



OPTIONAL
R.M.C. 1
=A1+041

-7E8
=A1+041

OPTIONAL
R.M.C. 2
=A1+042

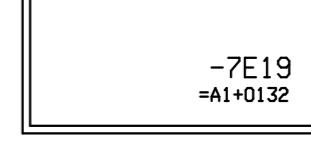
-7E9
=A1+042

OPTIONAL
R.M.C. 3
=A1+043

-7E10
=A1+043

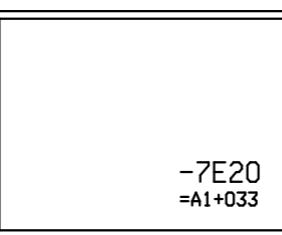


TERMINAL BOX TB2
=A1+032

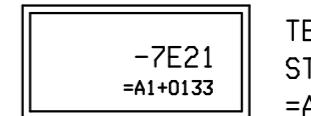


TERMINALBOX TB12
=A1+0132

E

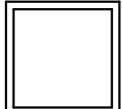


TERMINAL BOX TB3
MACHINE ROOM
=A1+033



TERMINAL BOX 13
STATION
=A1+0133

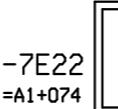
TELEPHONE
SCR UNIT
=A1+051



TELEPHONE
MACHINE ROOM
=A1+052



OPTIONAL
TERMINAL BOX 1
PLATFORM FEED RAIL
=A1+074



OPTIONAL
TERMINAL BOX 2
PLATFORM FEED RAIL
=A1+075

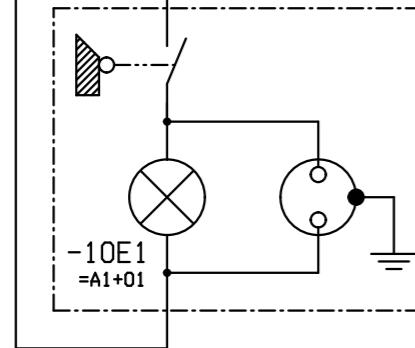


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Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+ +
File:	ANWAA1583					Drive Station	LV-CONTROL	Sheet : 7 Cont.sheet: 10

A

CONTROL BOX LIGHT

-10F1
=A1+01
(6A)1
250 51
1,5mm² Cu52
1,5mm² Cu-X3
14 15 PEPOWER SUPPLY
231V 50Hz
WITH FUSES 10A
FROM BATTERY PANEL

50-69

DRIVE STATION UNMANNED
LIGHTING ON
LINE PROJECTORDRIVE STATION UNMANNED
LIGHTING ON
LINE ILLUMINATIONDRIVE STATION UNMANNED
LIGHTING ON
LOADING / UNLOADING AREA

RESERVE

-23K2
/23.81
2

60

61

-X3
11
12-X3
11
12

28

29

PE

-23K2
/23.85
6

68

69

28

29

PE

-23K2
/23.83
4

66

67

-X3
26
27

230V AC

PE

-10S1
=A1+0101
13
14
21
22
21
22

0..1	
V	0..1
13	X
14	X
21	X
22	X

BATTERY PANEL
=A1+025MAIN BUILDING LOW VOLTAGE DISTRIBUTION
CUSTOMERRevision: 2.0
Date: 09.02.09
File: ANWAA15838-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAMInnova Patent GmbH
A-6960 WOLFURT / AUSTRIA

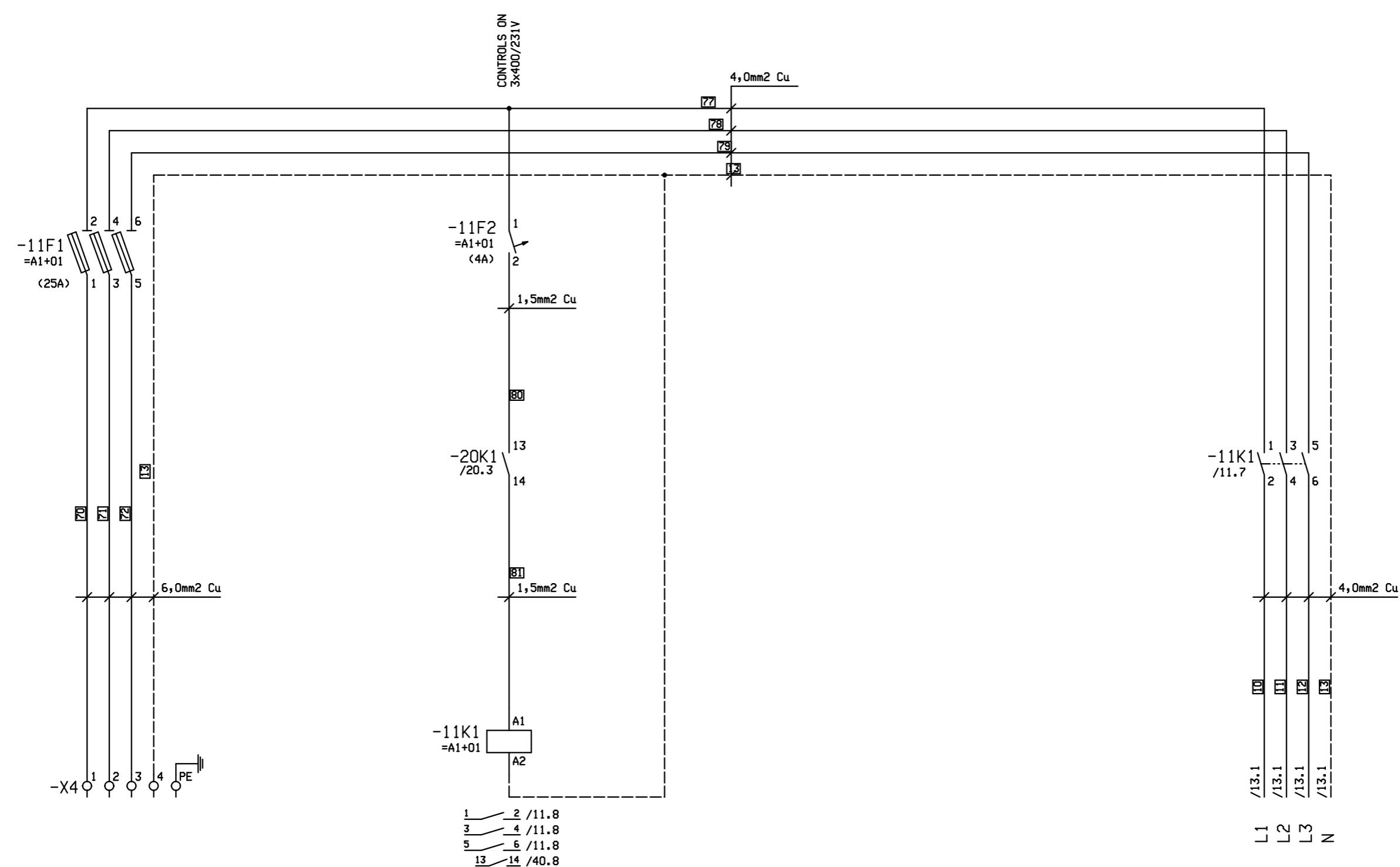
CONTROL BOX LIGHT

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	= =A1+01
Date	09.02.09	+ +
Drawn by	Sst	Sheet : 10
Dr.ch.bv	Fhs	Cont.sheet: 11

A



POWER SUPPLY
3x400/231V 50Hz
FROM SCR UNIT
WITH FUSES 3x35A

70-89

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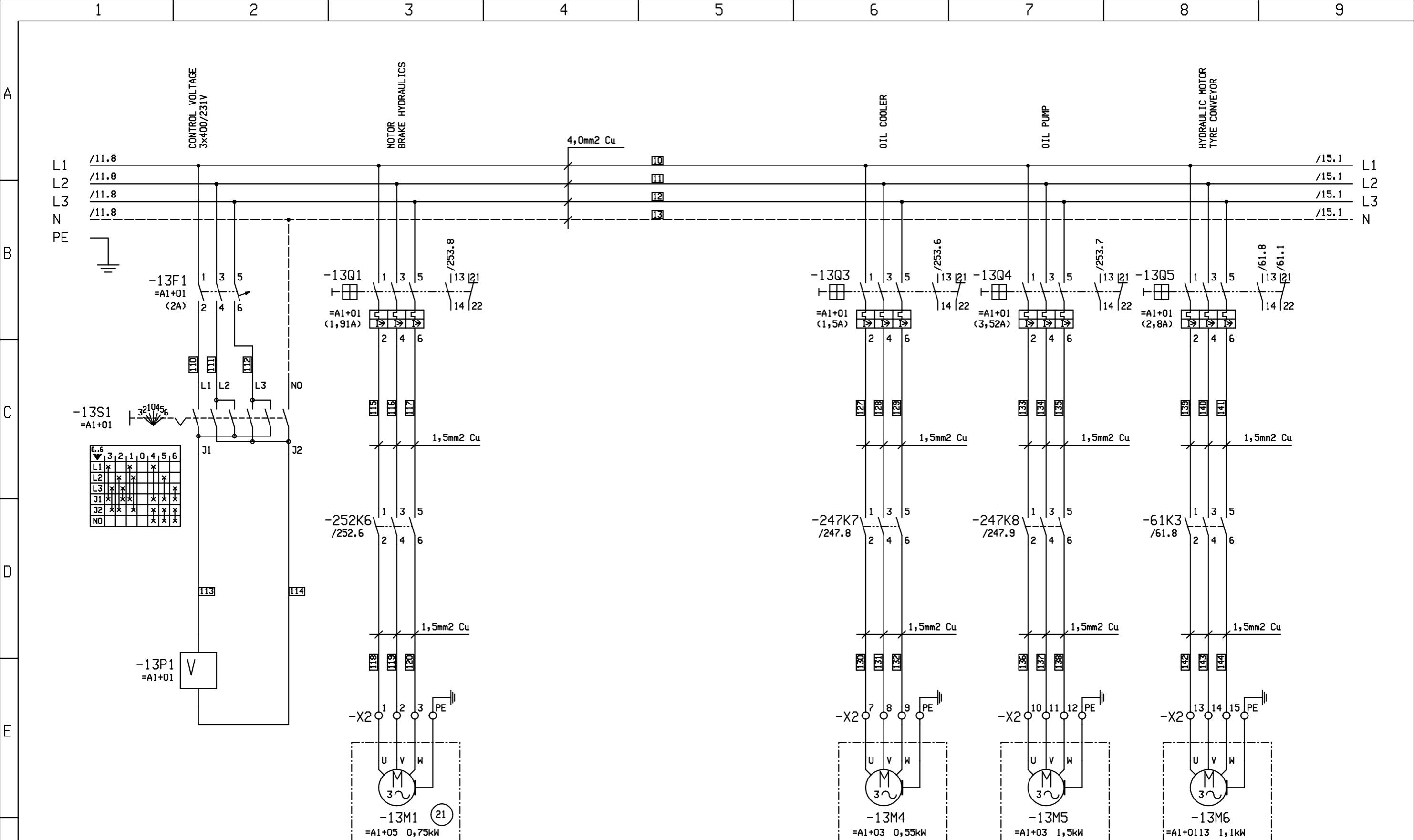
Doppelmayr

POWER SUPPLY 3X400/230V

DRIVE STATION

LV-CONTROL

Drawn by	Sst	Sheet :	11
Dr.ch.by	Fhs	Cont.sheet:	13



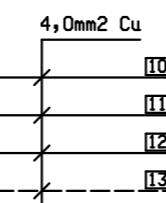
110-149

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Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+ =A1+01
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A

L1 /13.9
L2 /13.9
L3 /13.9
N /13.9

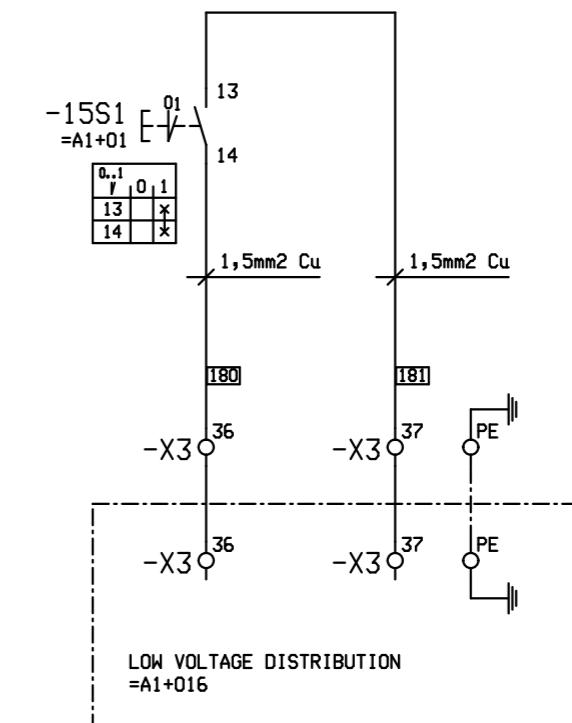
PE

LOAD-BREAK SWITCH
REMOTE RELEASE

OPXR
OPXR
OPXR
OPXR

B



C

D

E

N /13.9

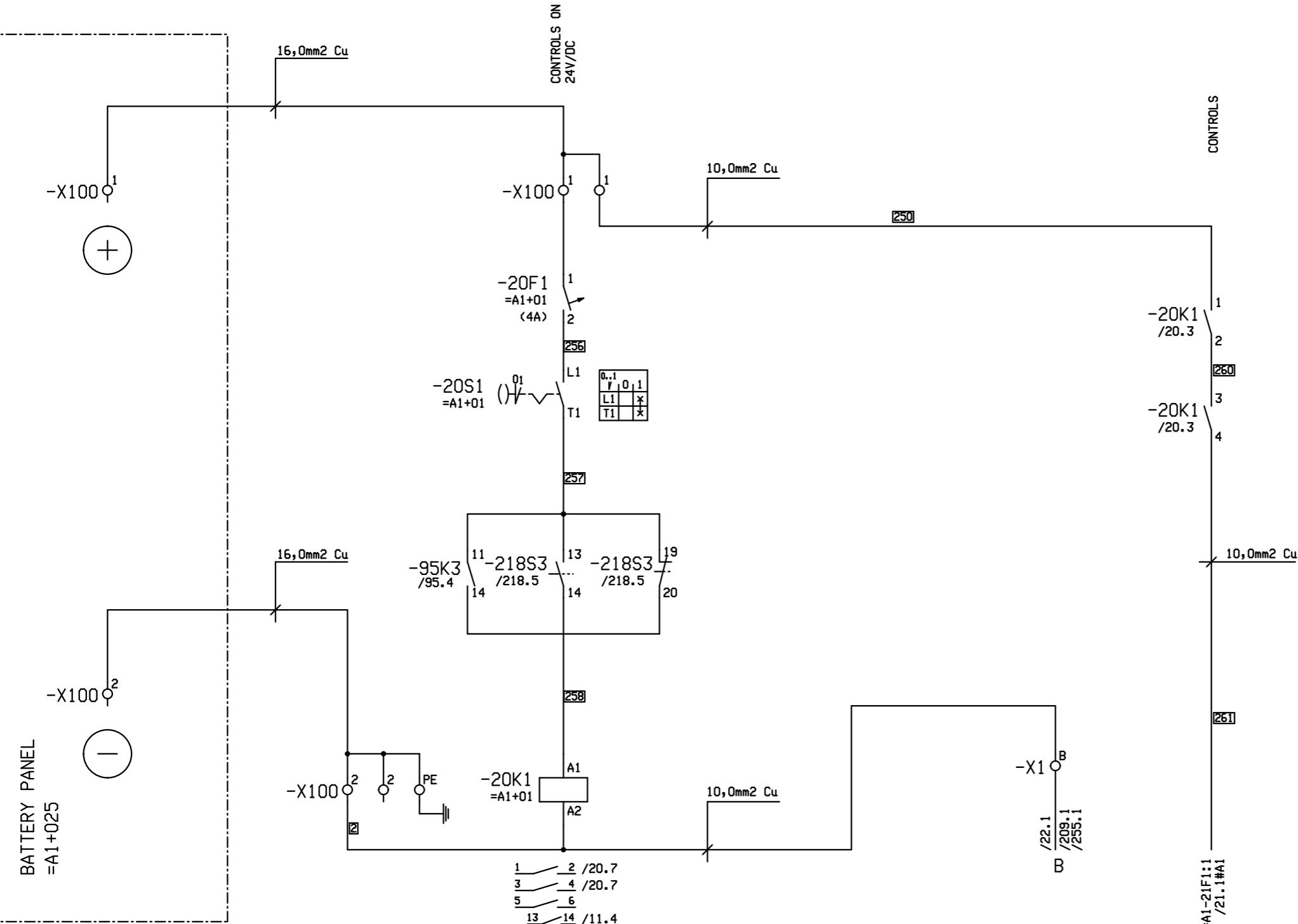
13

OPXR

170-189

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr <small>Innova Patent GmbH A-6960 WOLFURT / AUSTRIA</small>	SUPPLY VOLTAGE	Rev.ind.	2.0	=	=A1+01
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File:	ANWAA1583					LV-CONTROL	Drawn by	Sst	Sheet :	15

Dr.ch.by Fhs Cont.sheet: 20



Every wire with # is wiring for
ground and short circuit safety.

250-269

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Date	09.02.09	Dr.ch.by	Fhs				Date	09.02.09	+	=A1+01
File:	ANWAA1583					DRIVE STATION	LV-CONTROL	Drawn by	Sst	Sheet : 20

A

CONTROLS

CONTROLS
ON LINECONTROLS
SPS FSCONTROLS
SPS STSUPPLY VOLTAGE
SPS FSSUPPLY VOLTAGE
ST RACK 1SUPPLY VOLTAGE
BRAKE HYDRAULICSSUPPLY VOLTAGE
MAGNETIC CLUTCH
START POSITIONSUPPLY VOLTAGE
MAGNETIC CLUTCH
STOW 1SUPPLY VOLTAGE
MAGNETIC CLUTCH
STOW 2SUPPLY VOLTAGE
SPINDLE MOTOR
PARK RAILSUPPLY VOLTAGE
SPINDLE MOTOR
FEED RAIL

B

=A1-20K1:4
/20.7#A1-21F1
=A1+01
(6A)-21F2
=A1+01
(6A)-21F3
=A1+01
(6A)-21F4
=A1+01
(6A)-21F5
=A1+01
(6A)-21F6
=A1+01
(6A)-21F8
=A1+01
(10A)-21F9
=A1+01
(10A)-21F10
=A1+01
(10A)-21F11
=A1+01
(10A)-21F12
=A1+01
(10A)-22F1:1
/22.1-X1 O^A-X1 O^{A1}-X1 O^{A3}-X1 O^{A4}-X1 O^{A5}-X1 O^D-X1 O^D-X1 O^D-X1 O^D-X1 O^D-X1 O^D

/23.1

/93.1

/50.1

/70.1

/24V
/200.3#A1/24V
/201.3#A1

/24.1

/24.3

/239.2

/239.2

/239.2

A

A1

A3

A4

/65.1

/300.2

/300.2

/300.2

/300.7

270-289

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Date	09.02.09	Dr.ch.by	Fhs

File: ANWAA1583

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAMInnova Patent GmbH
A-6960 WOLFURT / AUSTRIA

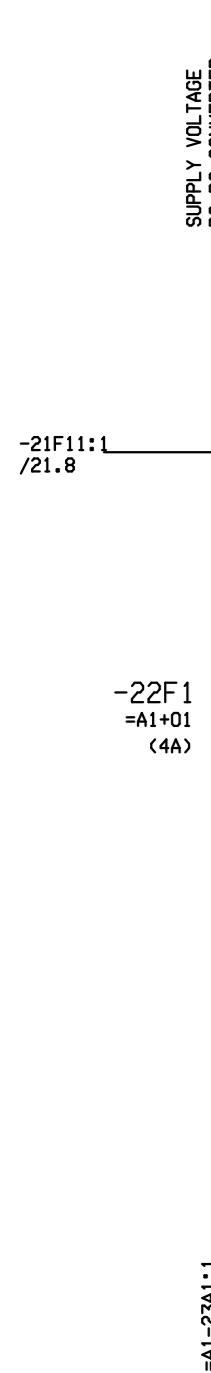
CIRCUIT BREAKERS

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	= =A1+01
Date	09.02.09	+ =A1+01
Drawn by	Sst	Sheet : 21
Dr.ch.by	Fhs	Cont.sheet: 22

A



B

-21F11:1 /21.8

261

10,0mm² Cu

C

-22F1
=A1+01
(4A)

/24.3

1 23 11
2 24 12

-22F7
=A1+01
(4A)

/24.3

1 23 11
2 24 12

D

=A1-23A1:1
/23.4#A1

290

-X5:4
/40.2

296

E

B /20.6

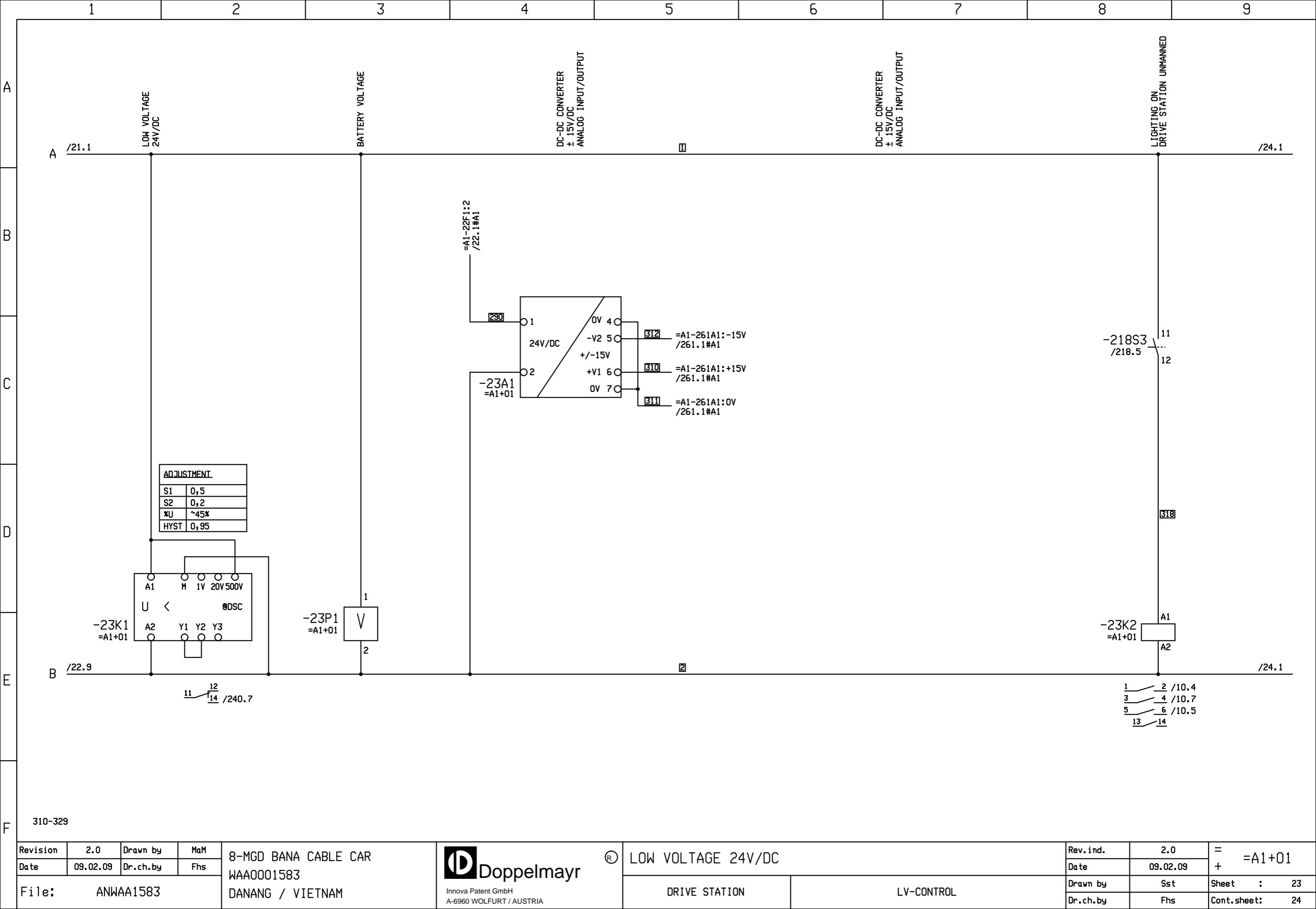
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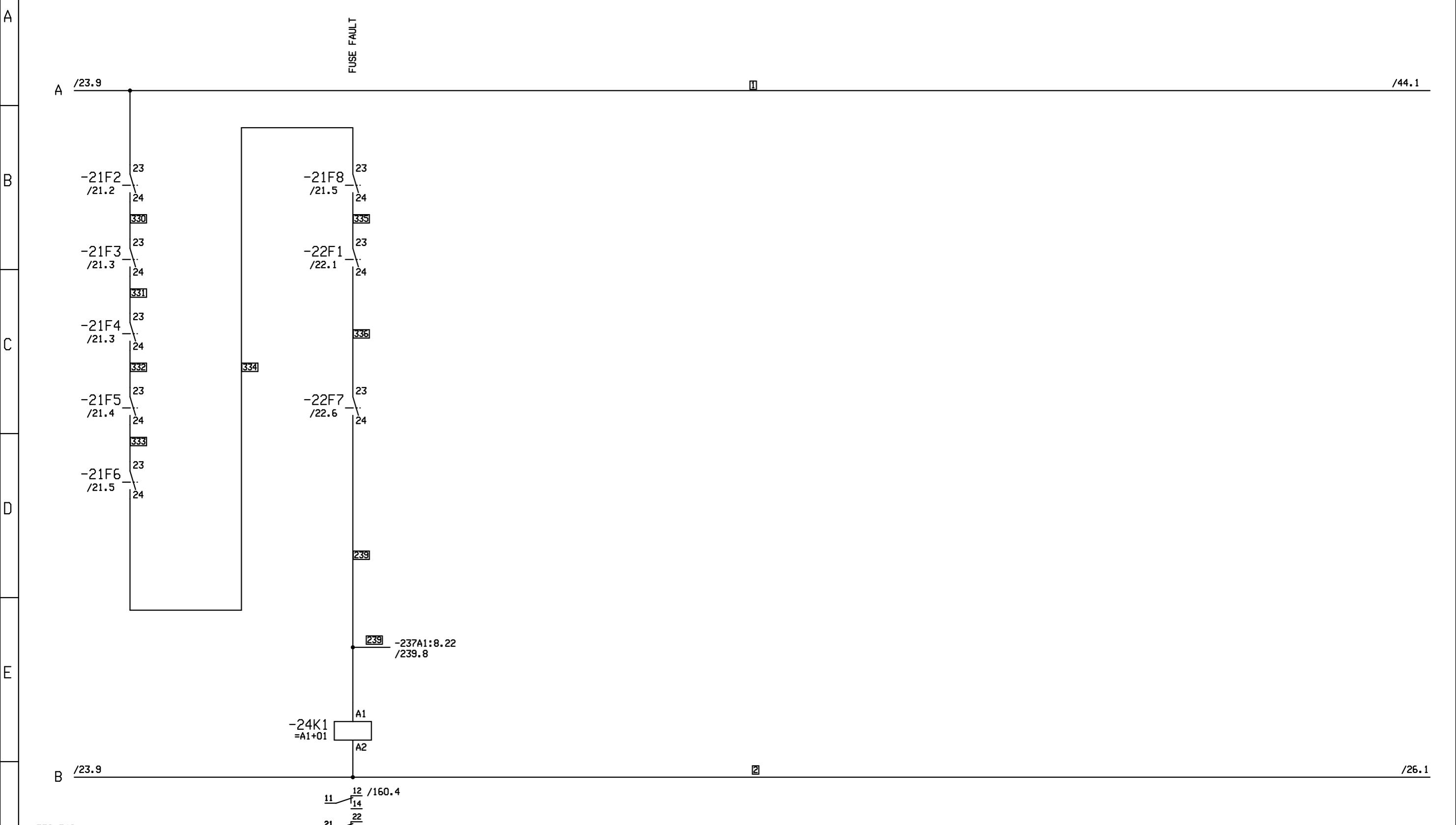
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290-309

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	= A1+01			
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+				
File:	ANWAA1583					DRIVE STATION	LV-CONTROL			Drawn by	Sst	Sheet : 22
										Dr.ch.by	Fhs	Cont.sheet: 23





Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	=A1+01
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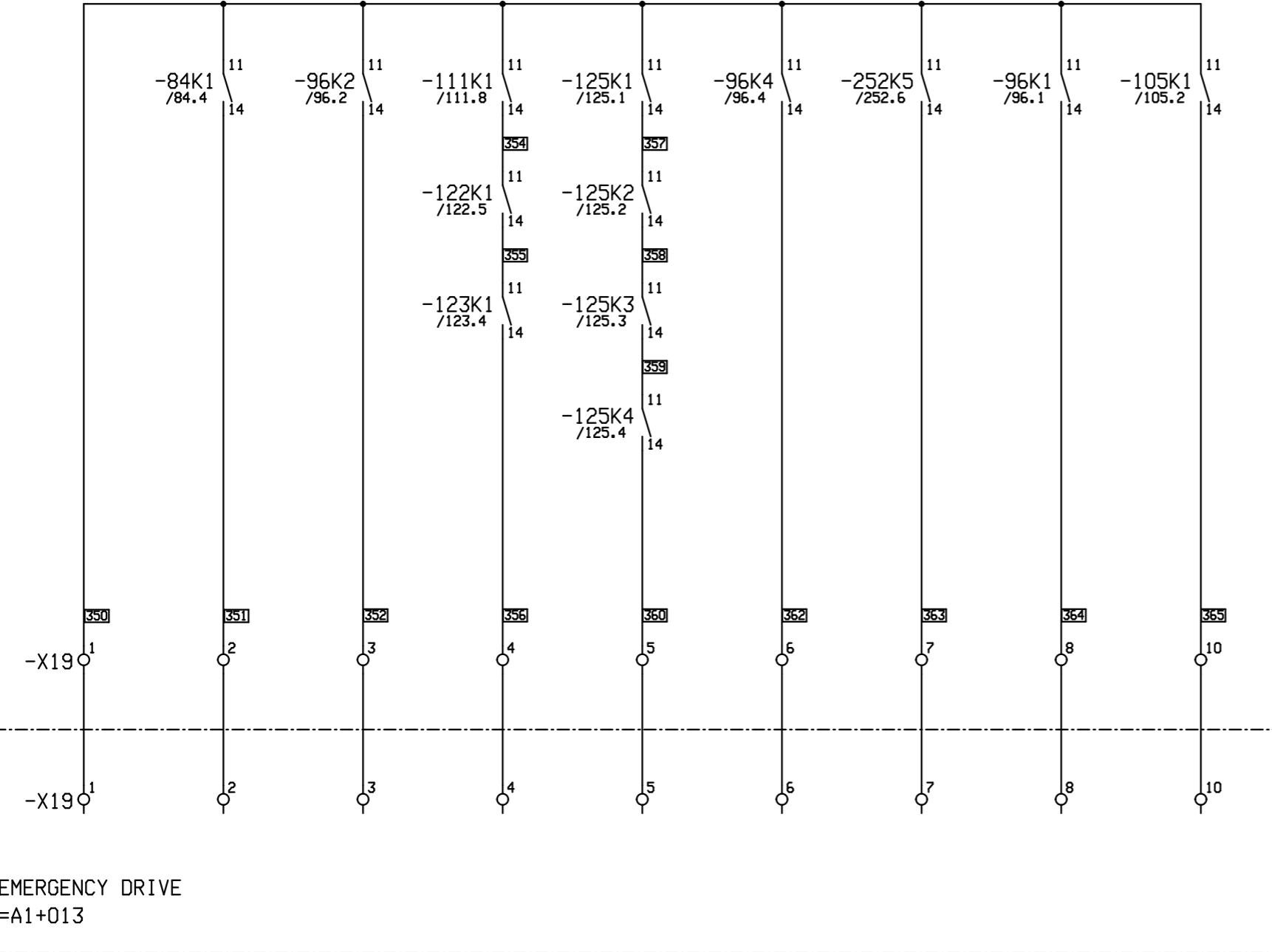
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STOP EB BUTTONS
EMERG. STOP
MAINTENANCE
RETURN STATIONSTOP EB BUTTONS
EMERG. STOP
MAINTENANCE
LOCK OUT
DRIVE STATIONGRIP NOT CLOSED
GEOMETRICAL GRIP GAUGE
DRIVE STATIONGRIP NOT CLOSED
GEOMETRICAL GRIP GAUGE
RETURN STATION

OVERSPEED

VARIATION
TENSION FORCE

TELEPHONE CALL



350-369

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr <small>Innova Patent GmbH A-6960 WOLFURT / AUSTRIA</small>	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
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CONNECTIONS TO AUX. DRIVE

DRIVE STATION

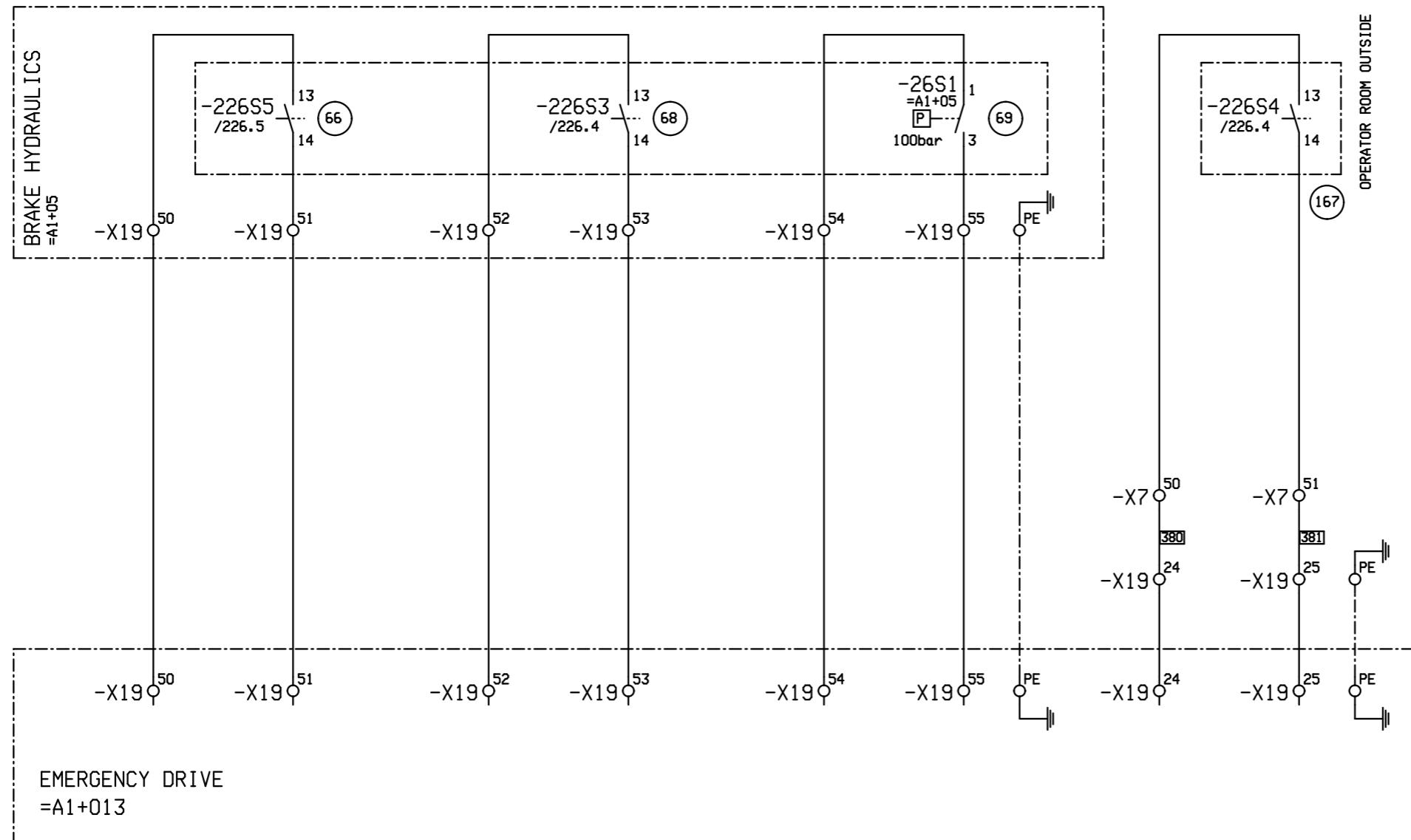
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Rev.ind.	2.0	=	=A1+01
Date	09.02.09	+	
Dr.ch.by	Fhs	Cont.sheet:	26

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EMERGENCY BRAKE
MECH. BLOCKEDEMERGENCY BRAKE
MANUAL DISENGAGING

BOOST PRESSURE

EMERGENCY BRAKE
MANUAL DISENGAGING

B /24.9

2

/27.1

380-389

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	= =A1+01
Date	09.02.09	Dr.ch.bv	Fhs			Date	09.02.09	+ +
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CONNECTIONS TO AUX. DRIVE

DRIVE STATION

LV-CONTROL

Rev.ind.

2.0

+

+

Fhs

Drawn by

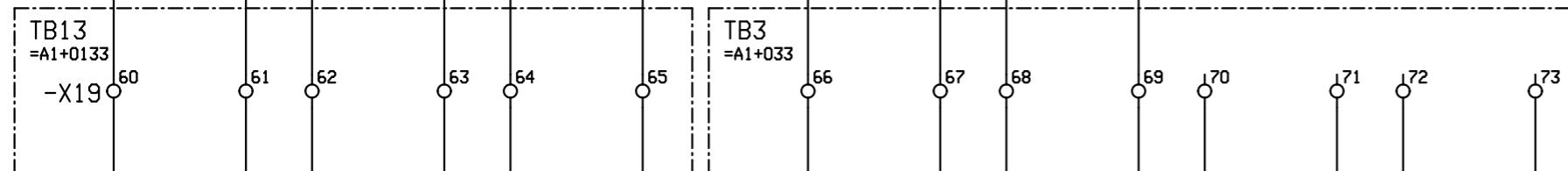
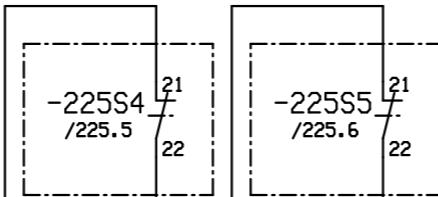
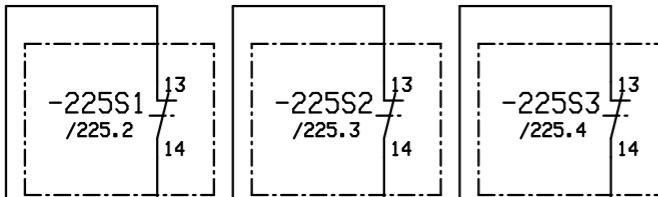
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Sheet : 26

Cont.sheet: 27

Fhs

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OPEN/CLOSEDEMERGENCY BRAKE 2
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OPEN/CLOSEDSERVICE BRAKE 1
OPEN/CLOSEDSERVICE BRAKE 2
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EMERGENCY DRIVE
=A1+013

B /26.8



/28.1

390-399

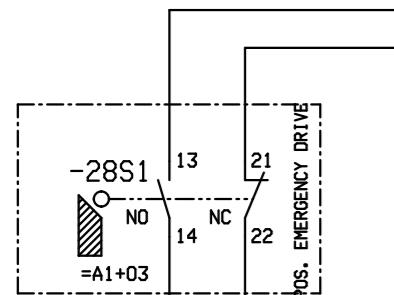
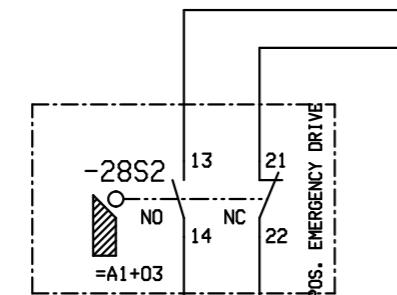
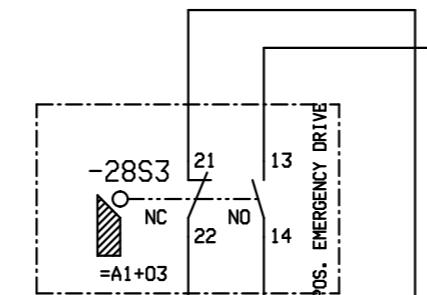
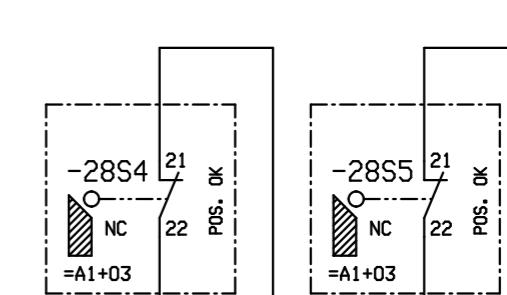
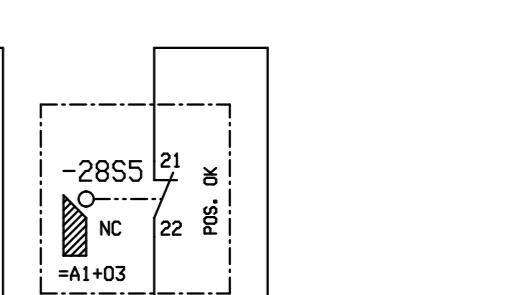
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						Dr.ch.by	Fhs	Cont.sheet:	28

CONNECTIONS TO AUX. DRIVE

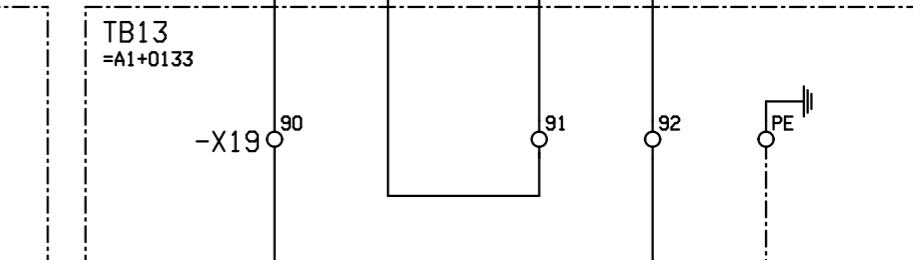
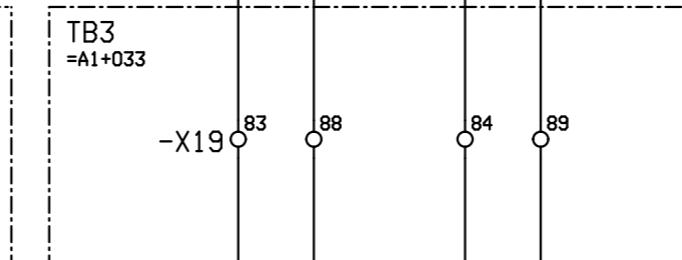
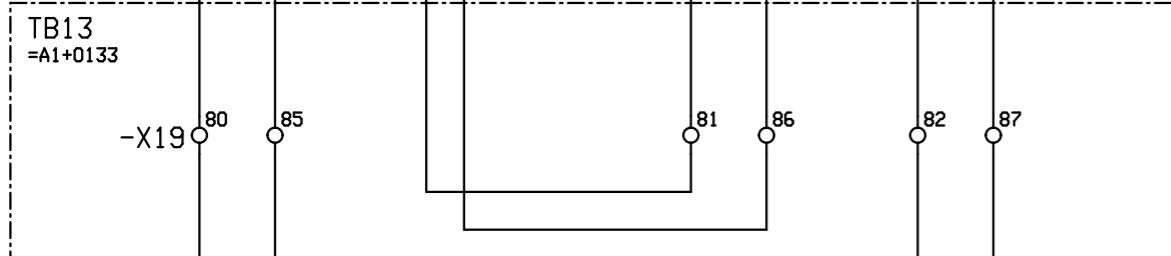
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LV-CONTROL

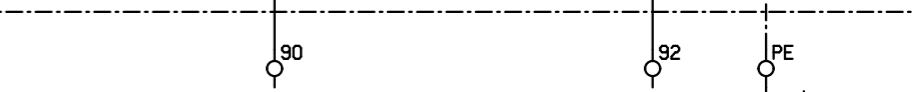
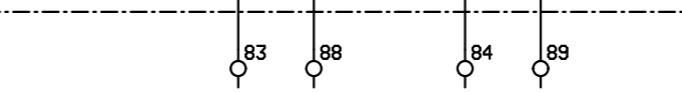
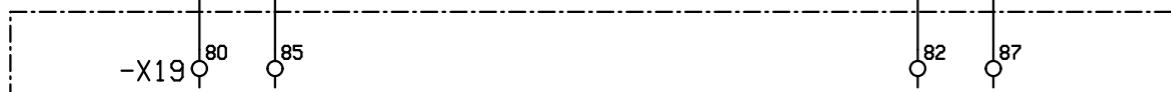
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OIL MOTOR 1
GEARING MONITORINGOIL MOTOR 2
GEARING MONITORINGGEARBOX
GEARING MONITORING
EMERGENCY DRIVEOIL MOTOR 1
BYPASSOIL MOTOR 2
BYPASS

B



C



D

EMERGENCY DRIVE
=A1+013

E

400-409

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs

File: ANWAA1583

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAMInnova Patent GmbH
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CONNECTIONS TO AUX. DRIVE

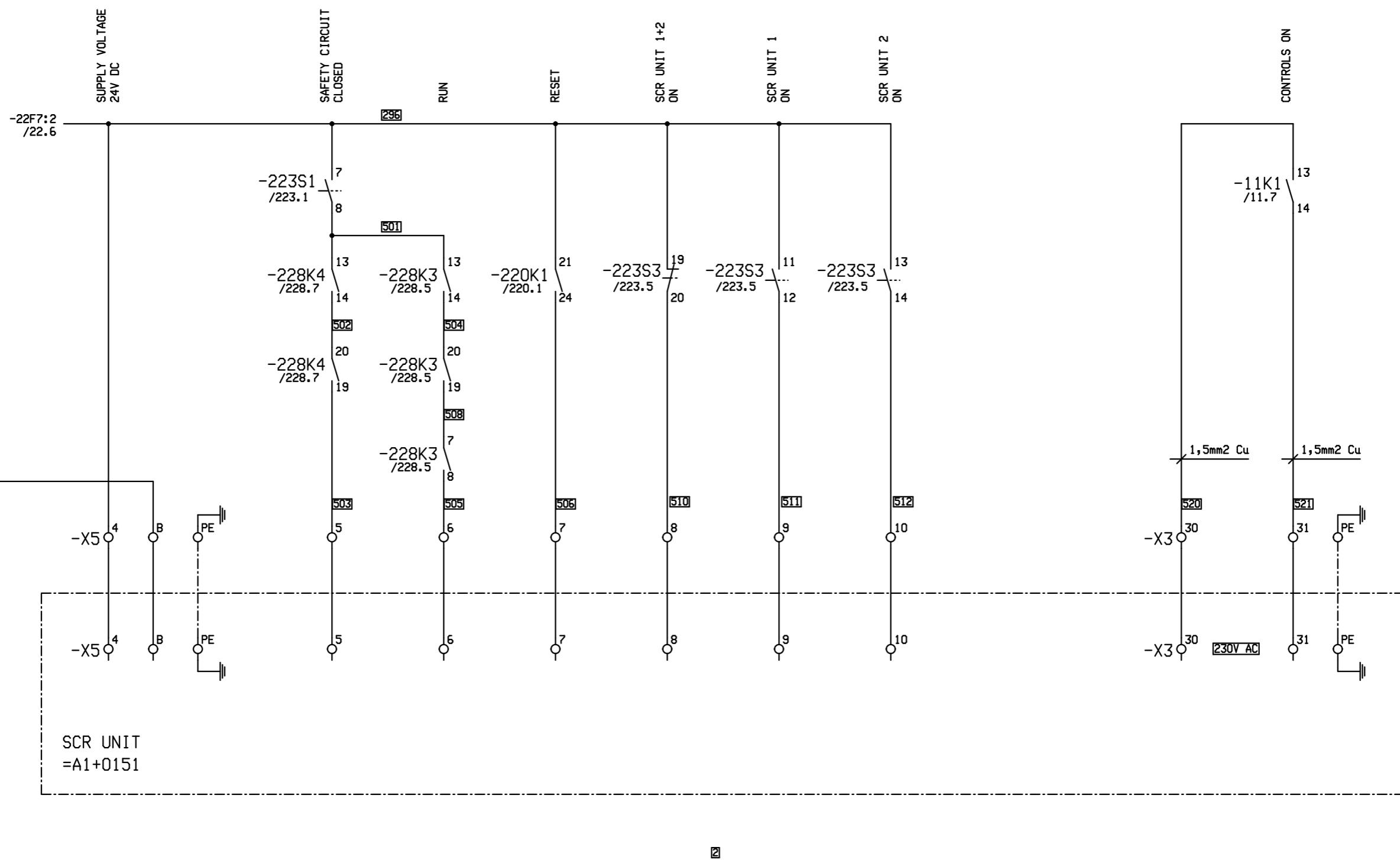
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LV-CONTROL

Rev.ind.	2.0	= =A1+01
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Dr.ch.by	Fhs	Cont.sheet: 40

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500-529

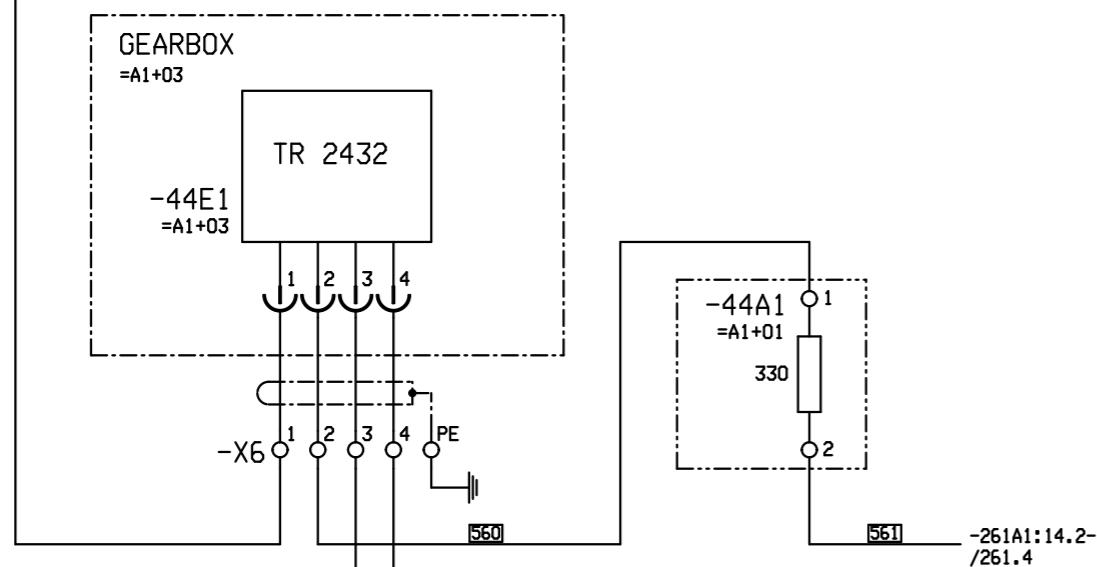
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						Dr.ch.by	Fhs	Cont.sheet:	44
CONNECTIONS SCR UNIT				DRIVE STATION			LV-CONTROL		

A

A /24.9

/46.1

GEAR BOX TEMP.



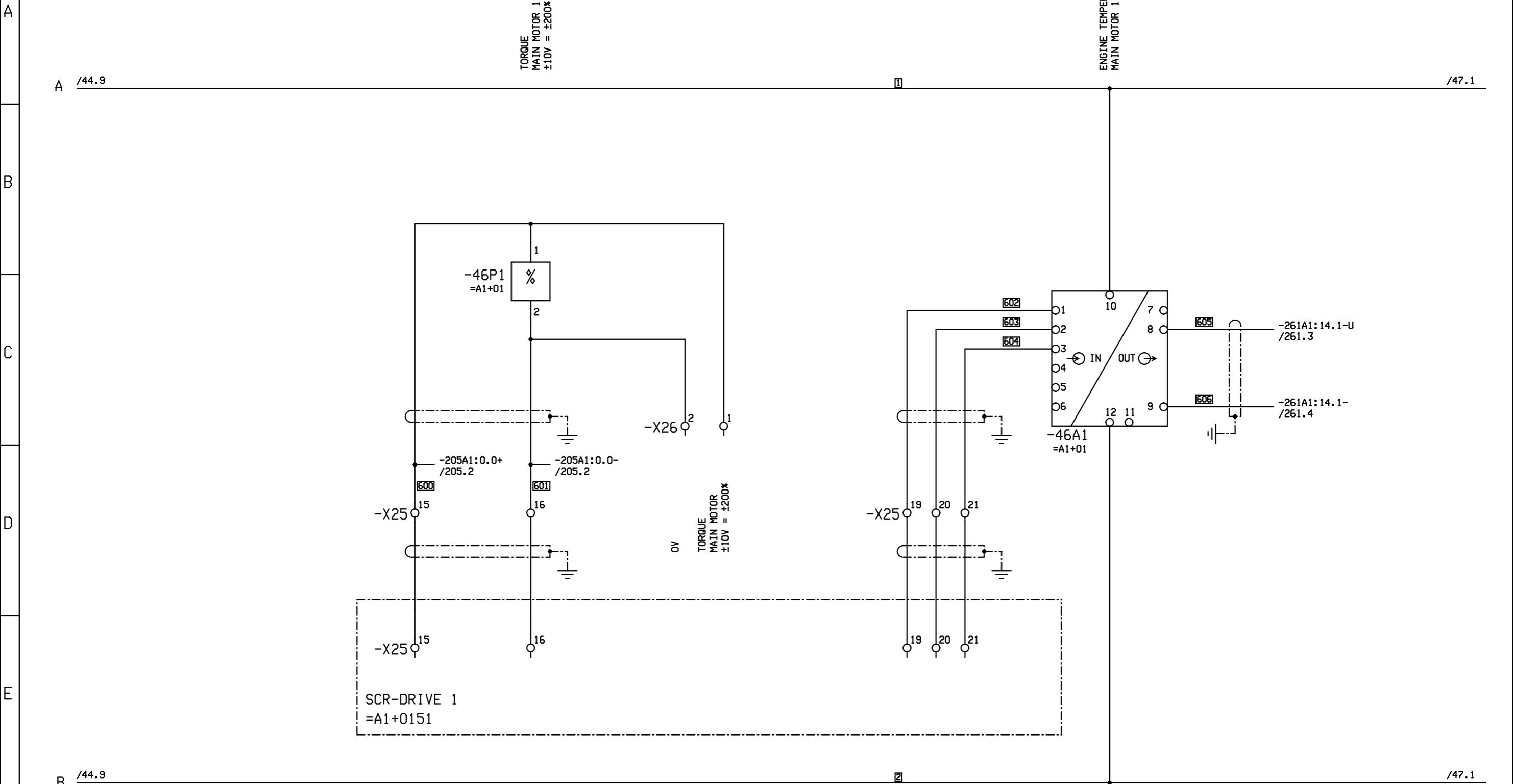
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/46.1

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560-579

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GEAR BOX TEMP.			DRIVE STATION			LV-CONTROL			



600-609

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.bv	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
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CONNECTIONS THYRISTOR PANEL 1

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	= =A1+01
Date	09.02.09	

Drawn by	Sst	Sheet : 46
Dr.ch.bv	Fhs	Cont.sheet: 47

A

A /46.9

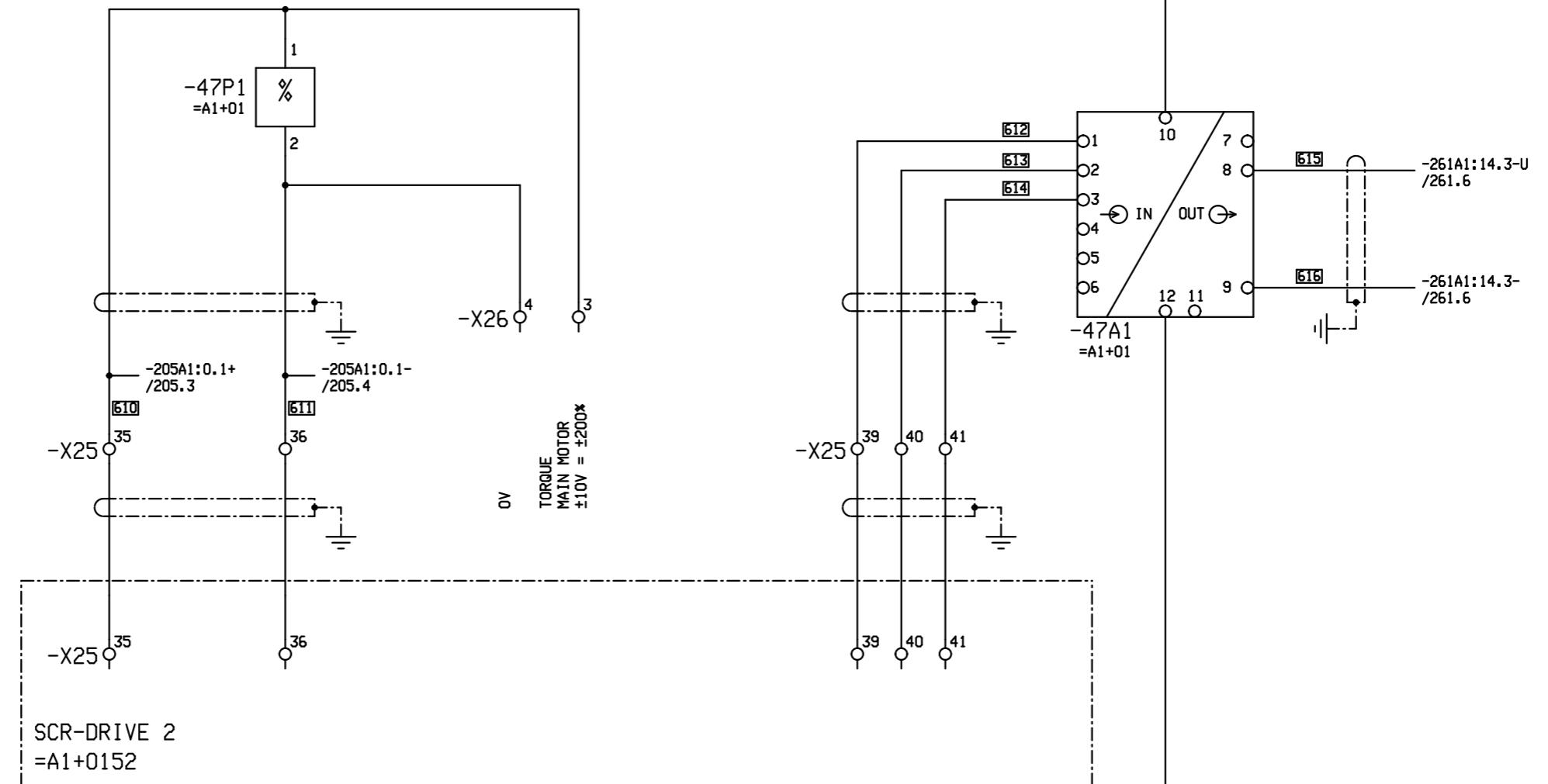
TORQUE
MAIN MOTOR 2
±10V = ±200x

1

ENGINE TEMPERATURE
MAIN MOTOR 2

/60.1

B



B /46.9

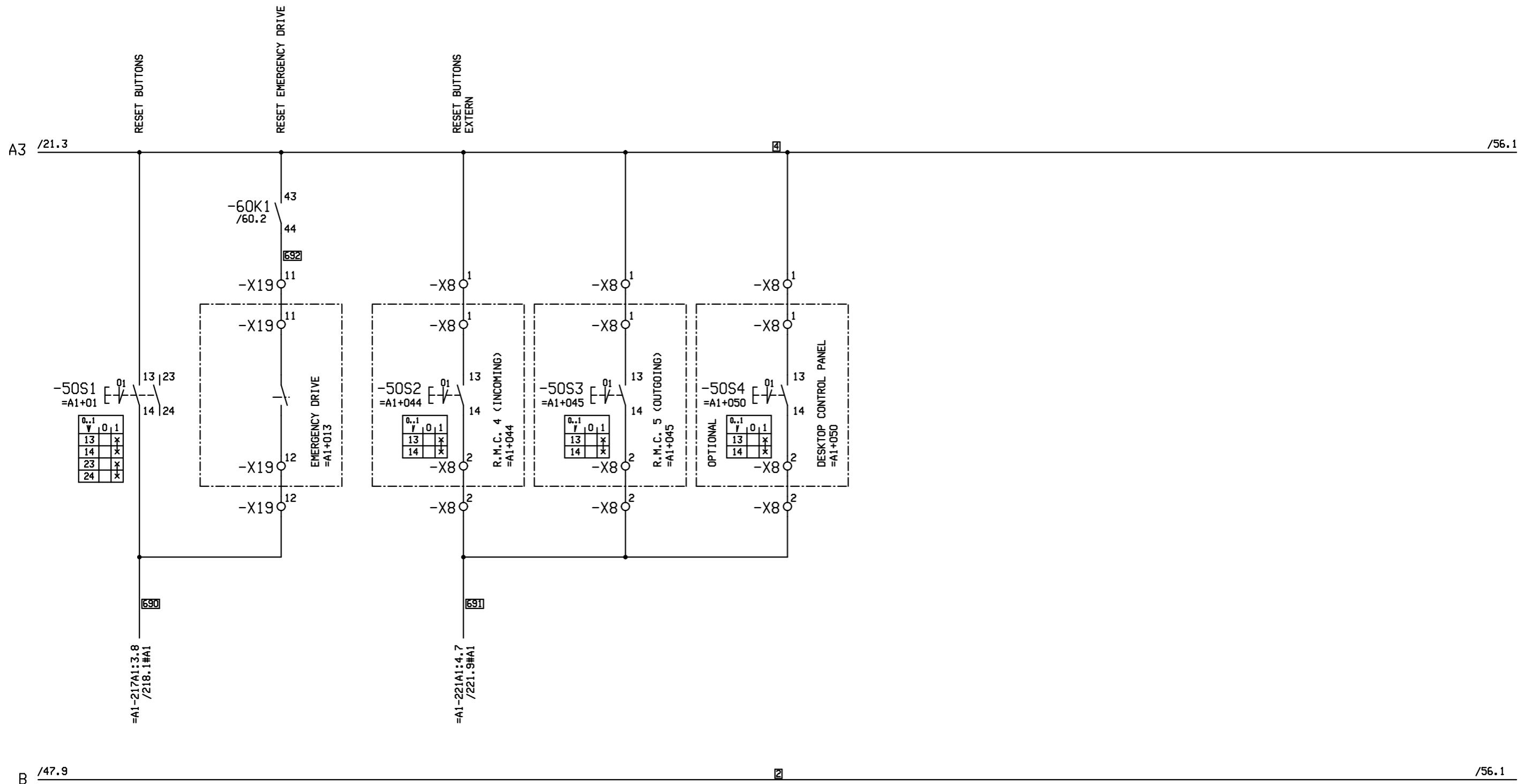
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/50.1

610-619

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Dr.ch.by						Cont.sheet:	Fhs		50		

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Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

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RESET BUTTONS

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	=	A1+01
Date	09.02.09	+	
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Dr.ch/by	Fhs	Cont.sheet:	56

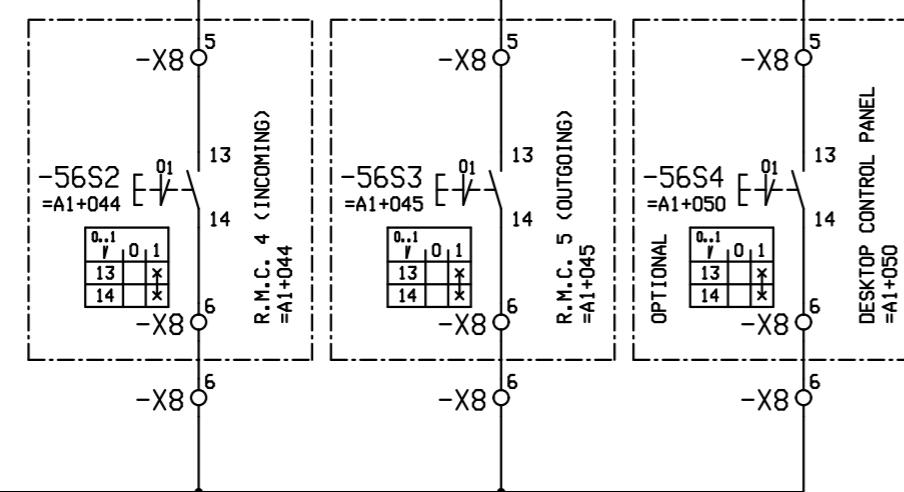
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/205.1

-56S1
=A1+01



DESKTOP CONTROL PANEL

B

-56S4
=A1+050

-217A1:3.0 /217.1

730

C

B /50.9

/60.1

F 730-749

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	= =A1+01
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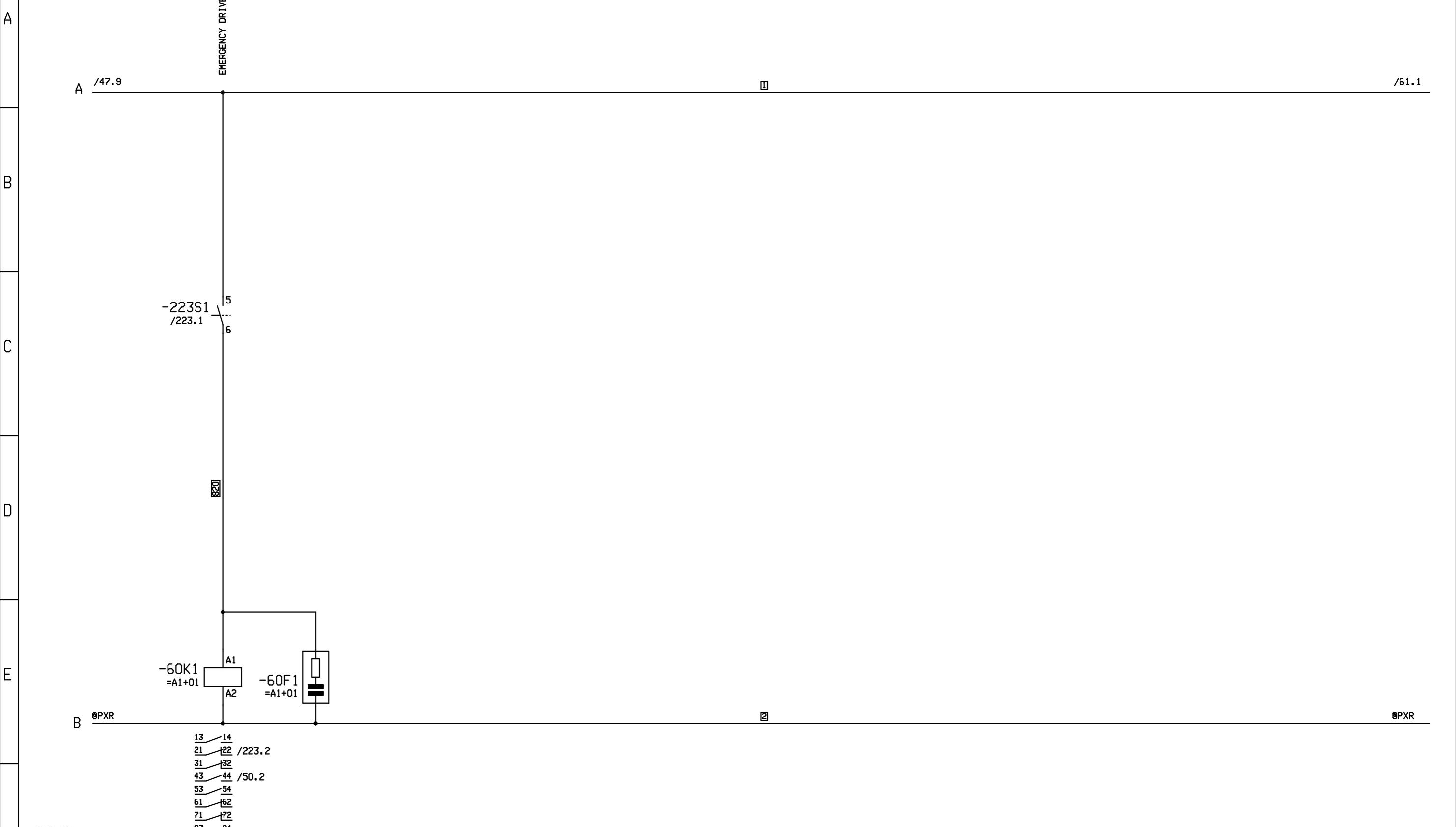
RUN BUTTONS

DRIVE STATION

LV-CONTROL

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Dr.ch.by	Fhs	Cont.sheet: 60



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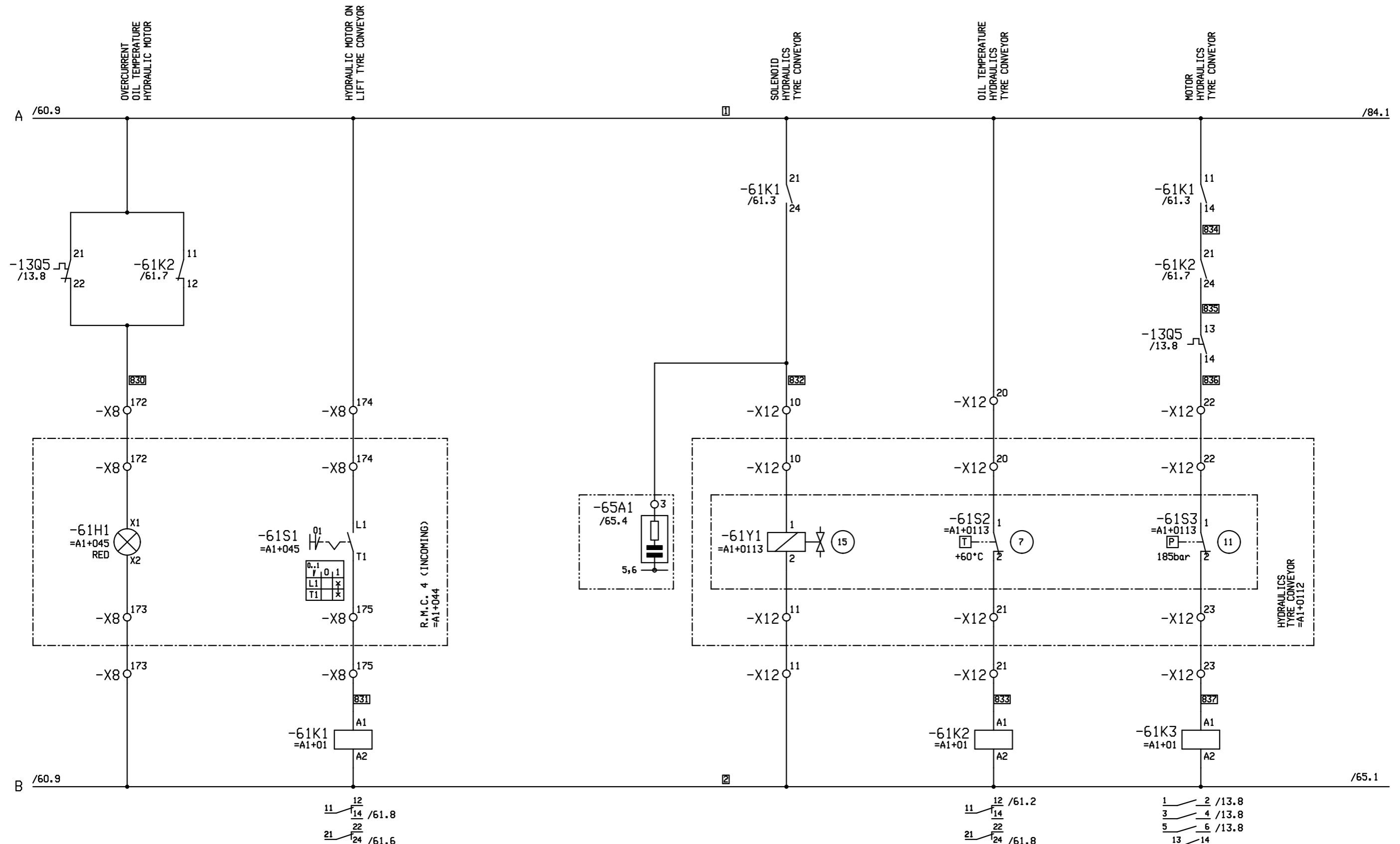


EMERGENCY DRIVE

DRIVE STATION

LV-CONTROL

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830-839

Revision	2.0	Drawn by	MaM
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File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
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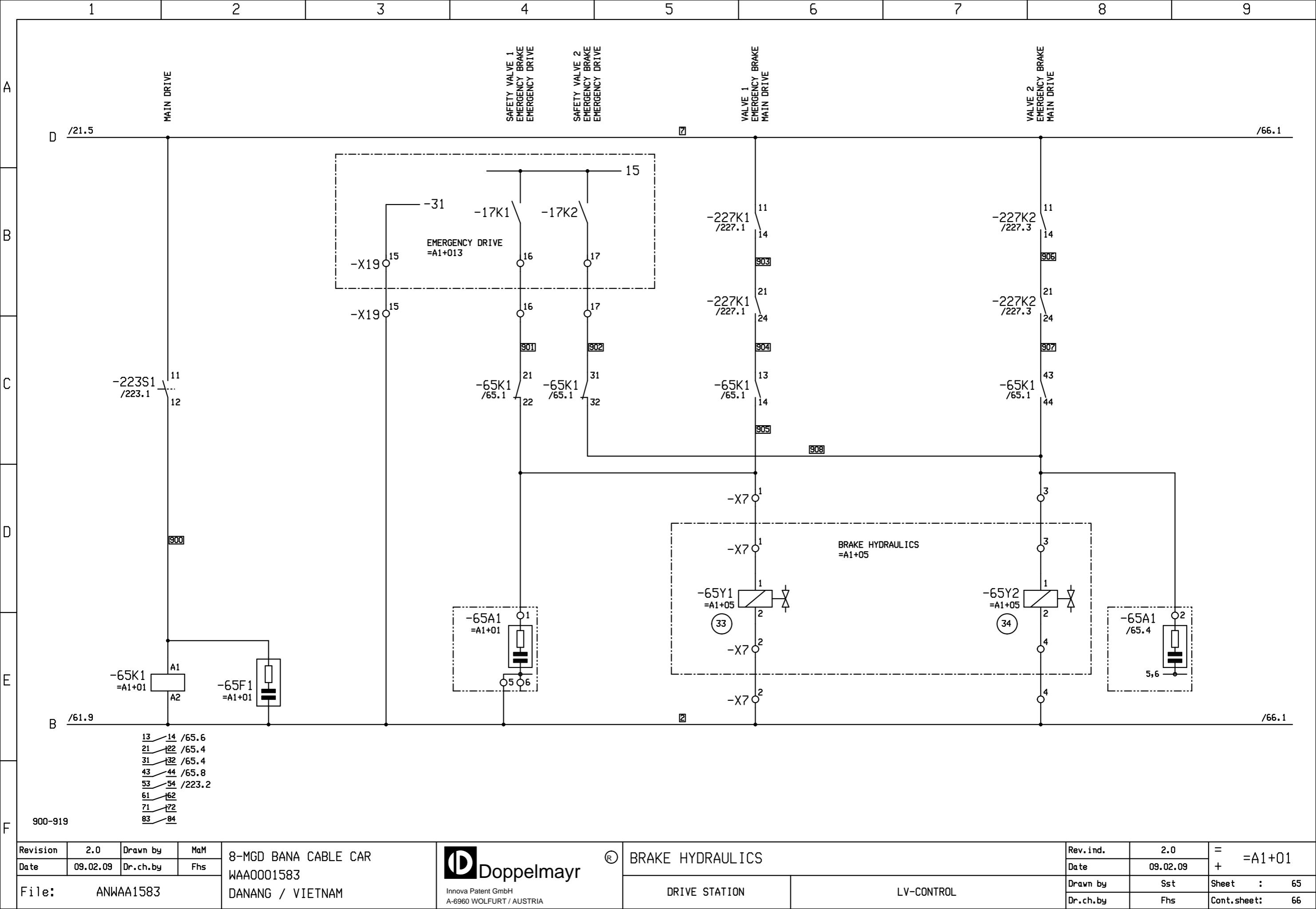
Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA

TERMINAL CONVEYOR

DRIVE STATION

LV-CONTROL

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Dr.ch/by	Fhs	Cont.sheet: 65



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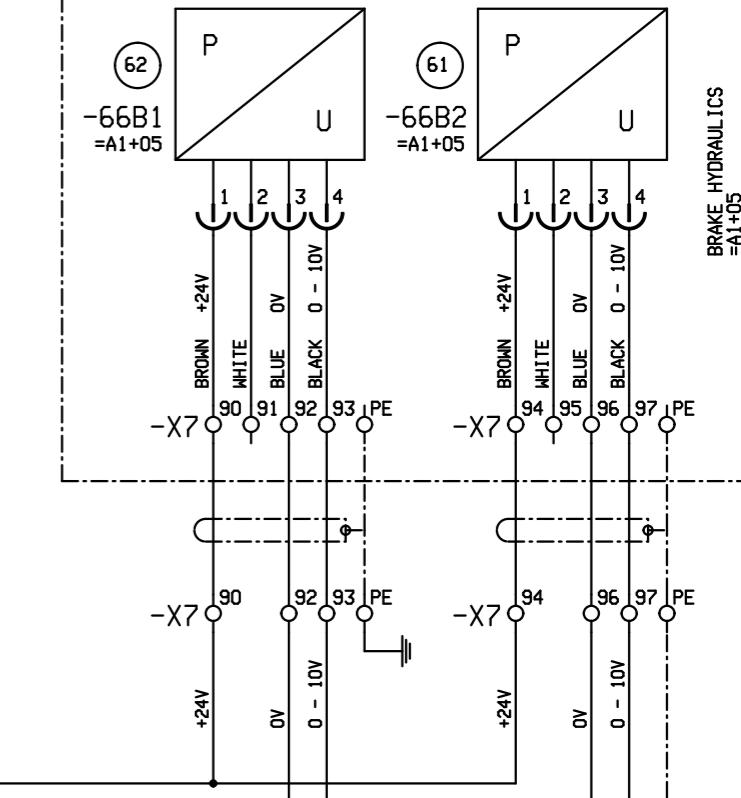
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□

PRESSURE TRANSDUCER
OPERATION PRESSURE
SERVICE BRAKEPRESSURE TRANSDUCER
OPERATION PRESSURE
EMERGENCY BRAKE

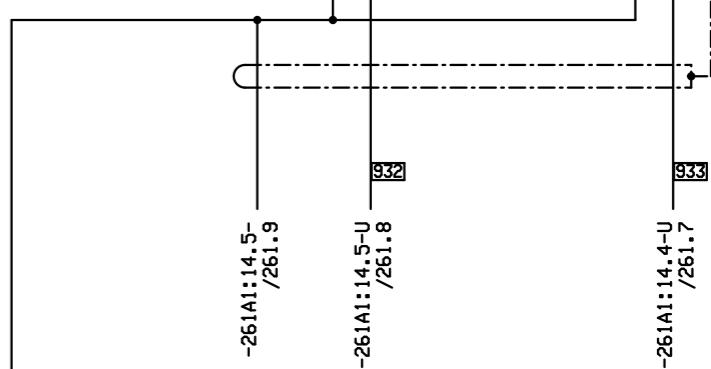
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BRAKE HYDRAULICS = A1+05

C



D

B /65.8

□

/67.1

F

930-949

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev. ind.	2.0	=	= A1+01
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File:	ANWAA1583					Drawn by	Sst	Sheet :	66
						Dr.ch.by	Fhs	Cont.sheet:	67

A

B

C

D

E

F

EMERGENCY BRAKE 1
OPEN/CLOSEDEMERGENCY BRAKE 2
OPEN/CLOSEDEMERGENCY BRAKE 3
OPEN/CLOSEDSERVICE BRAKE 1
OPEN/CLOSEDSERVICE BRAKE 2
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/66.8

/70.1

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM



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A-6960 WOLFURT / AUSTRIA



LIMIT SWITCH BRAKE

DRIVE STATION

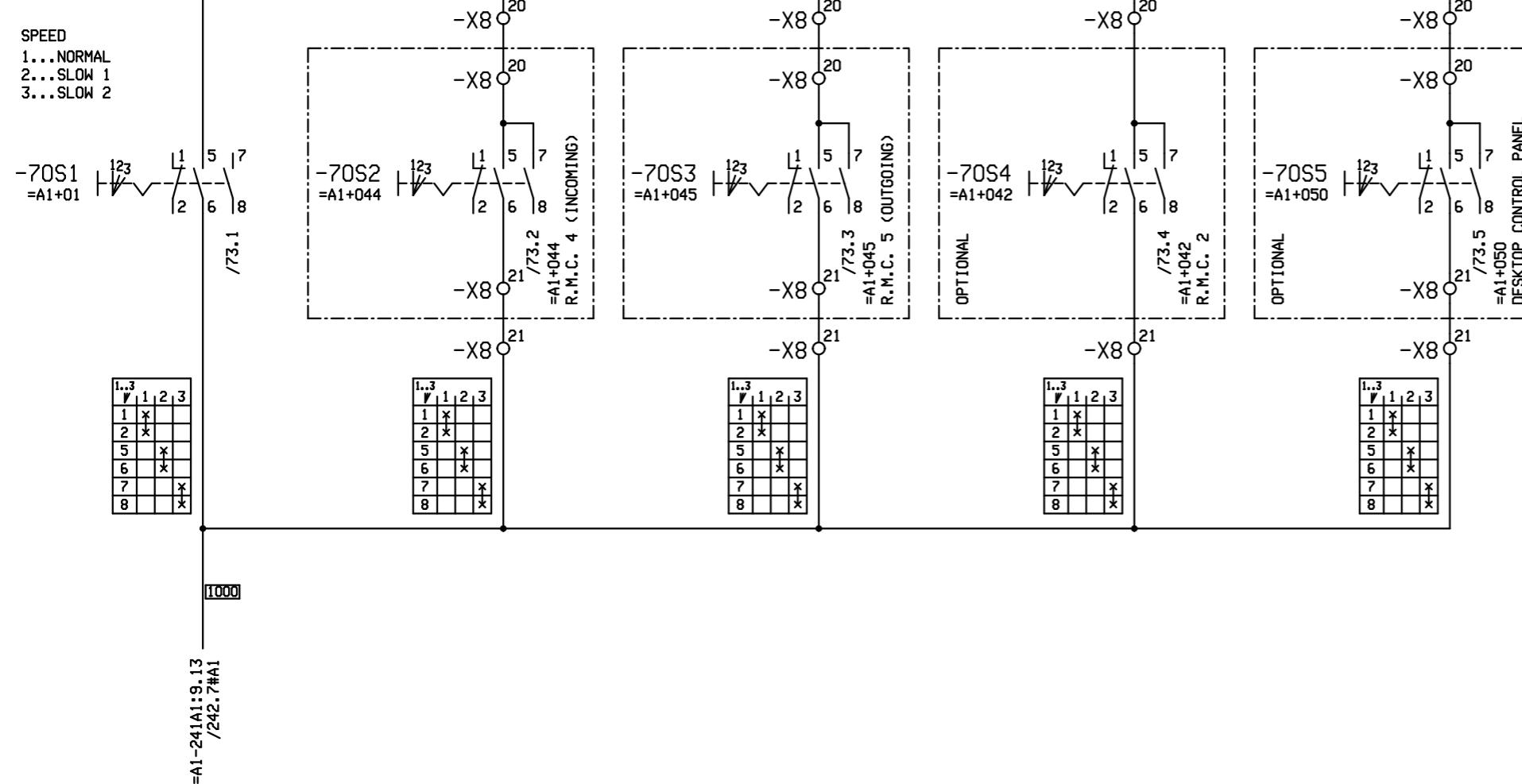
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Rev.ind.	2.0	= =A1+01
Date	09.02.09	+ +
Drawn by	Sst	Sheet : 67
Dr.ch.by	Fhs	Cont.sheet: 70

A

SLOW 1
A4/21.3 /73.1

SPEED
1...NORMAL
2...SLOW 1
3...SLOW 2



1000-1004

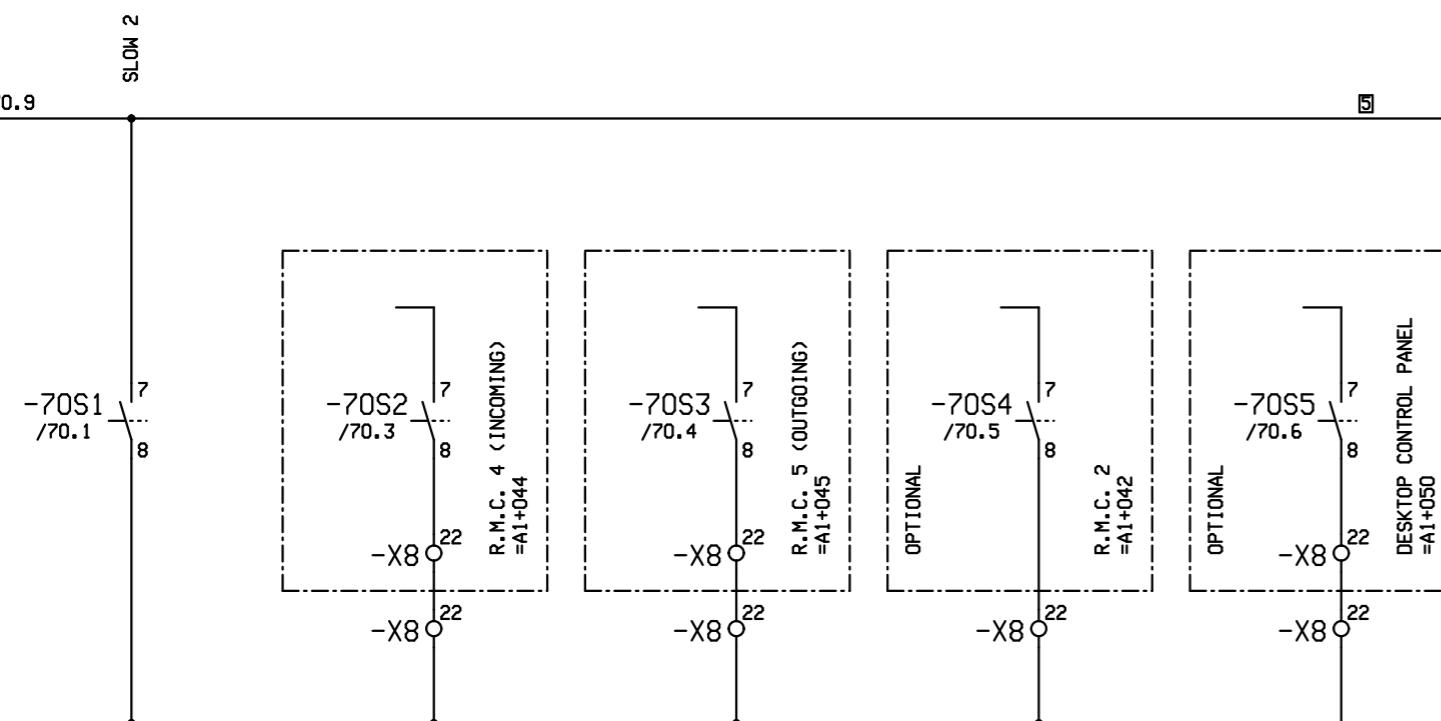
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SLOW 1

DRIVE STATION

LV-CONTROL

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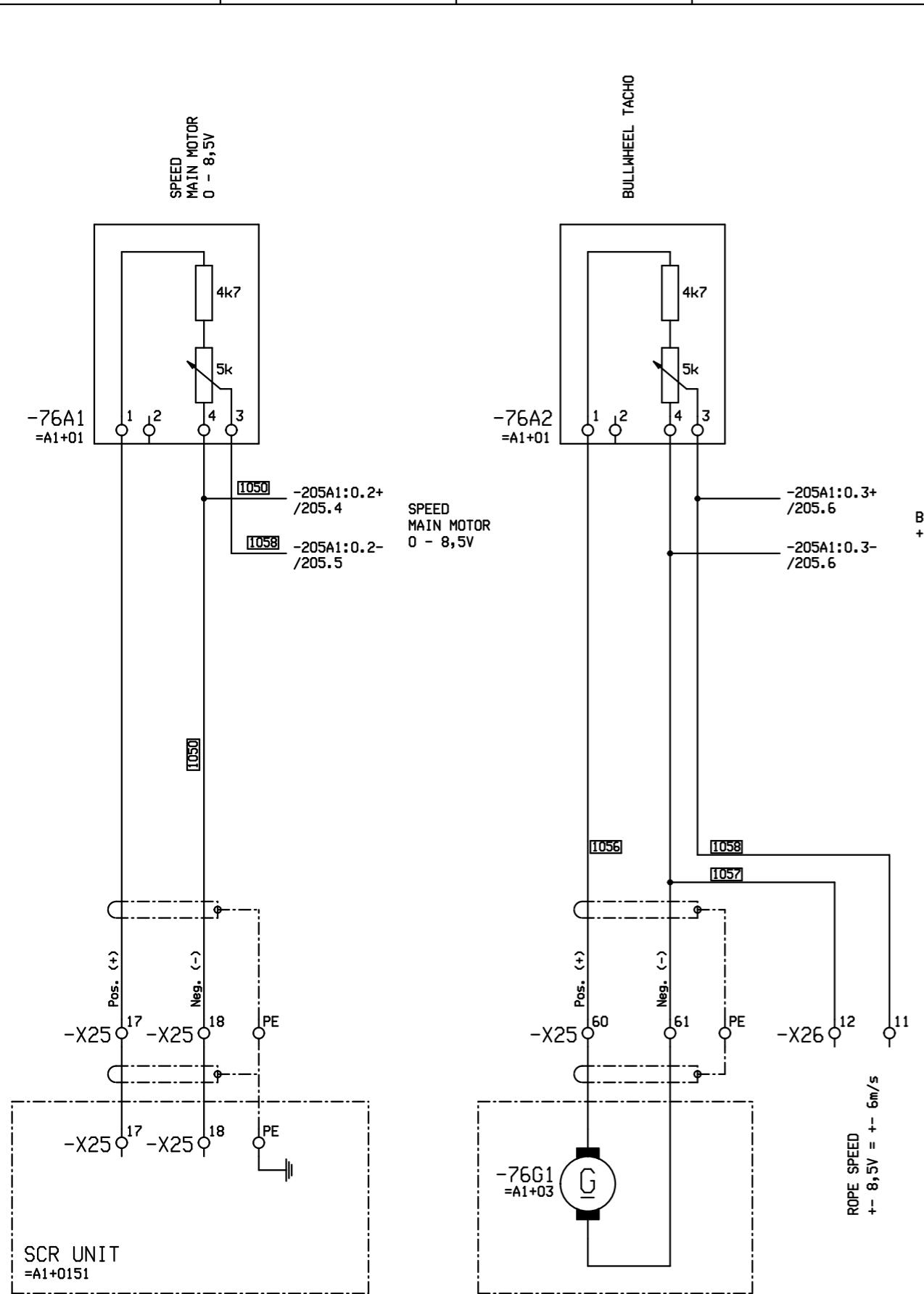
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1010-1014

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Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
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						Dr.ch.by	Fhs	Cont.sheet:	76
SLOW 2			LV-CONTROL			DRIVE STATION			



Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM

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A-6960 WOLFURT / AUSTRIA



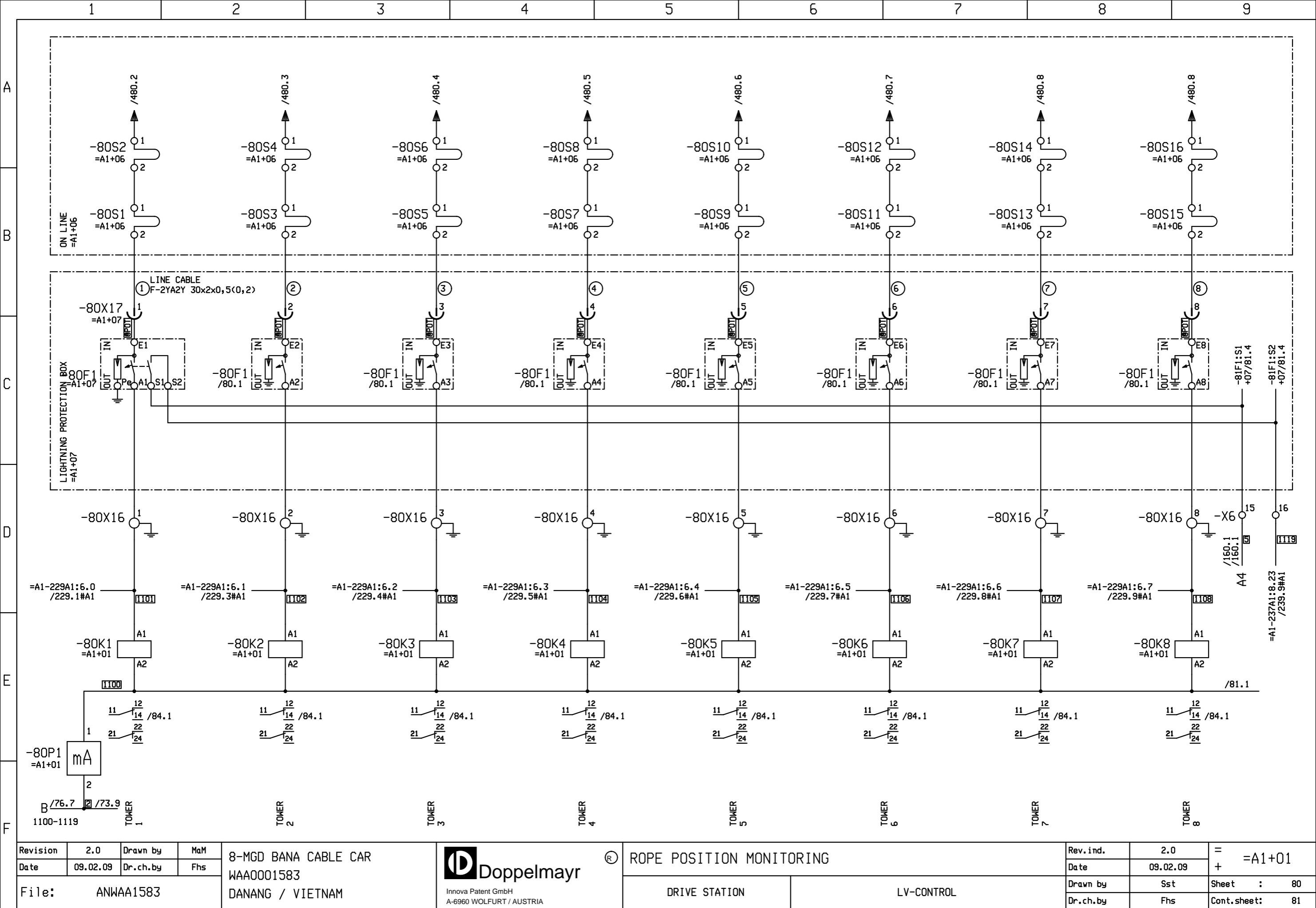
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DRIVE STATION

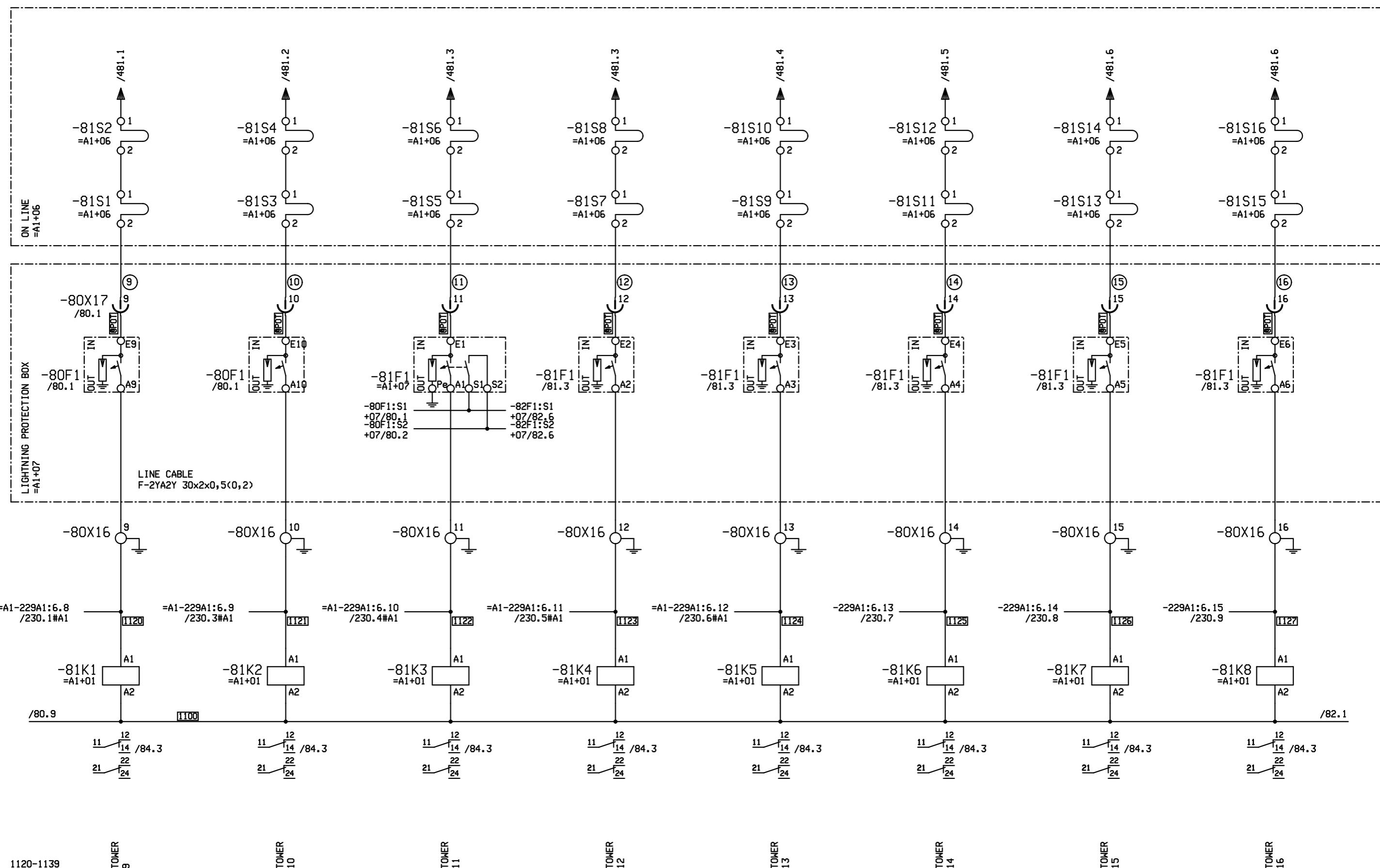
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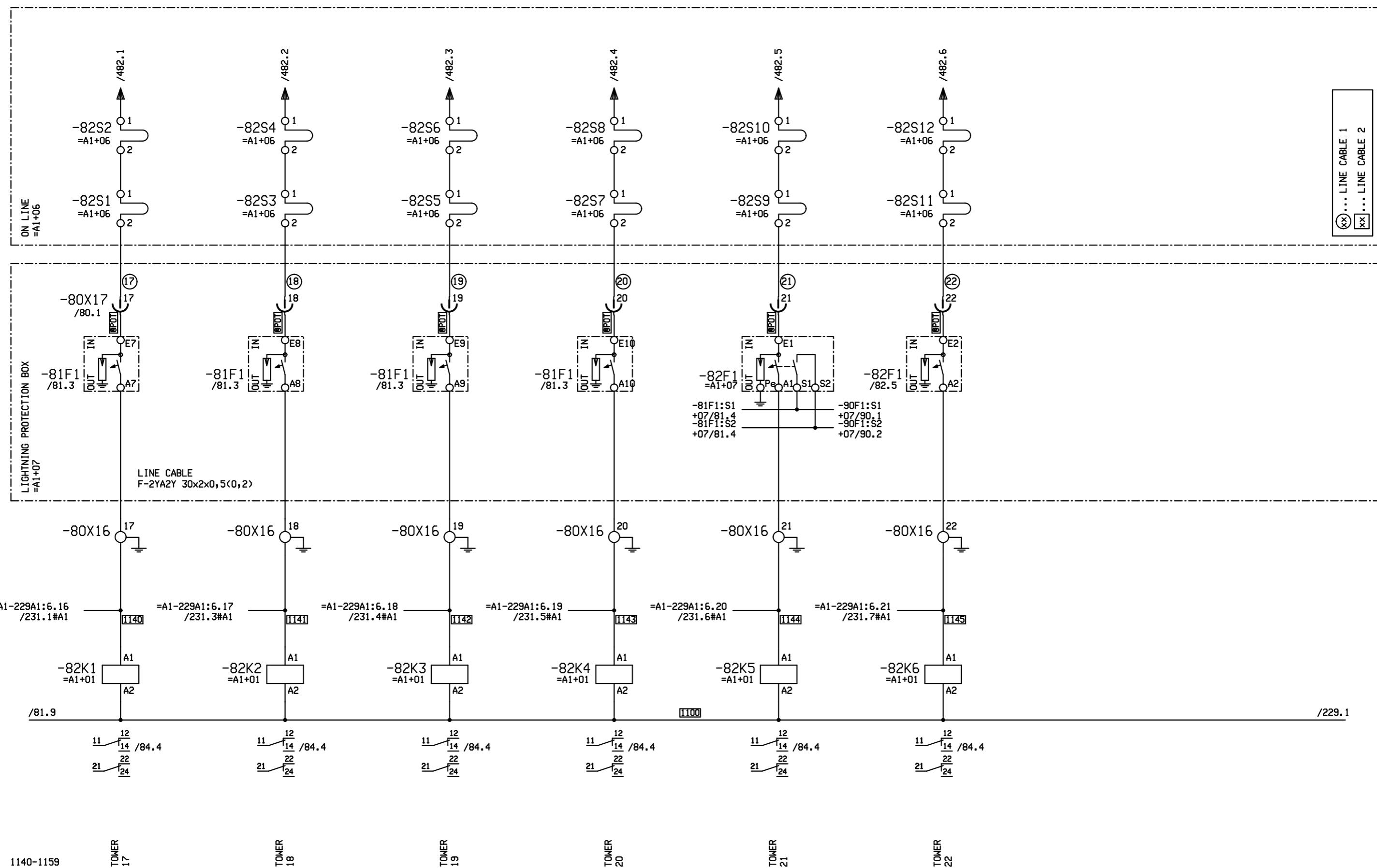
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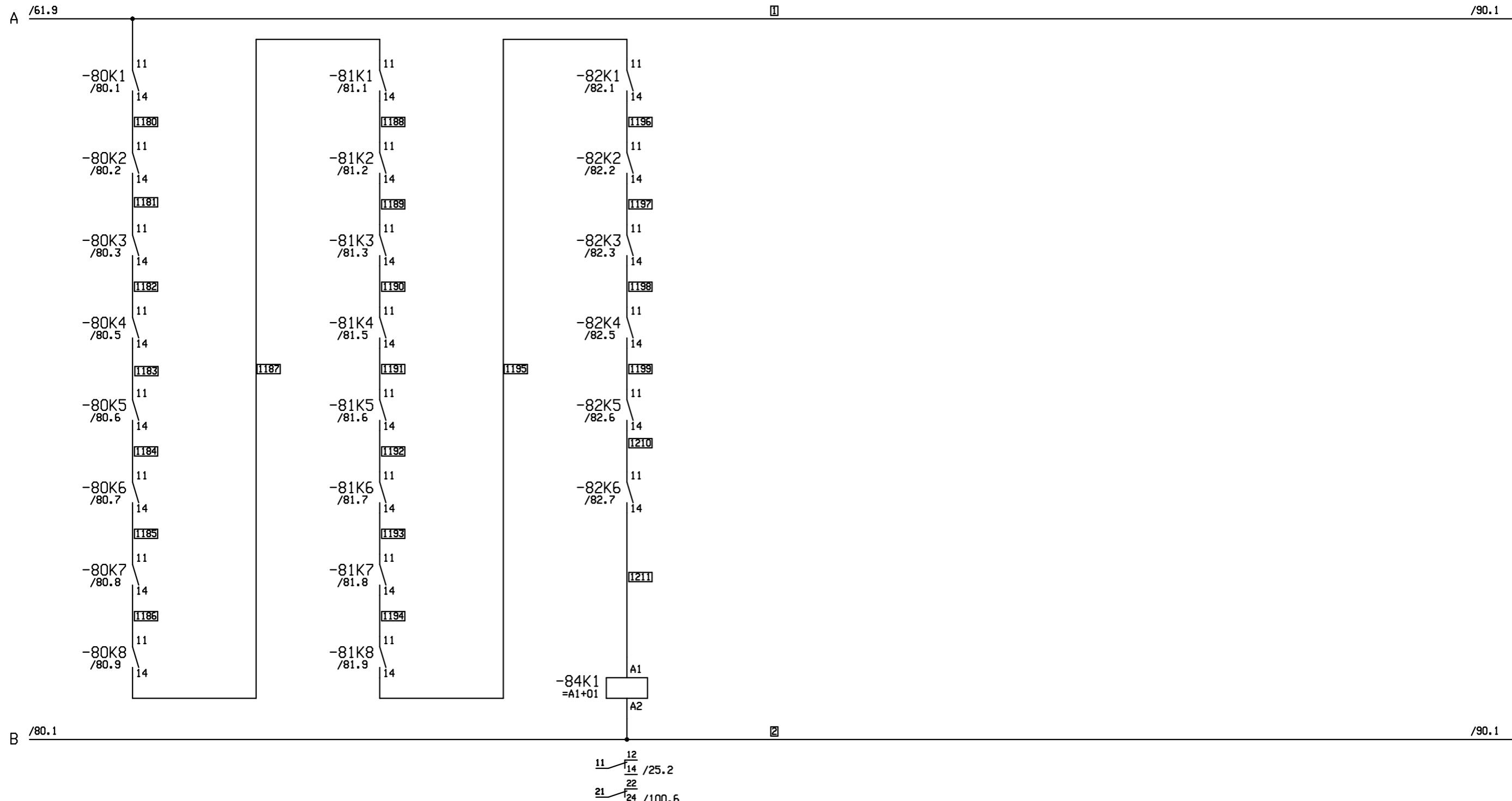


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Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
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ROPE POSITION MONITORING
EMERGENCY DRIVE
HYDRAULIC TENSIONING RETURN



A

B

C

D

E

F

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM



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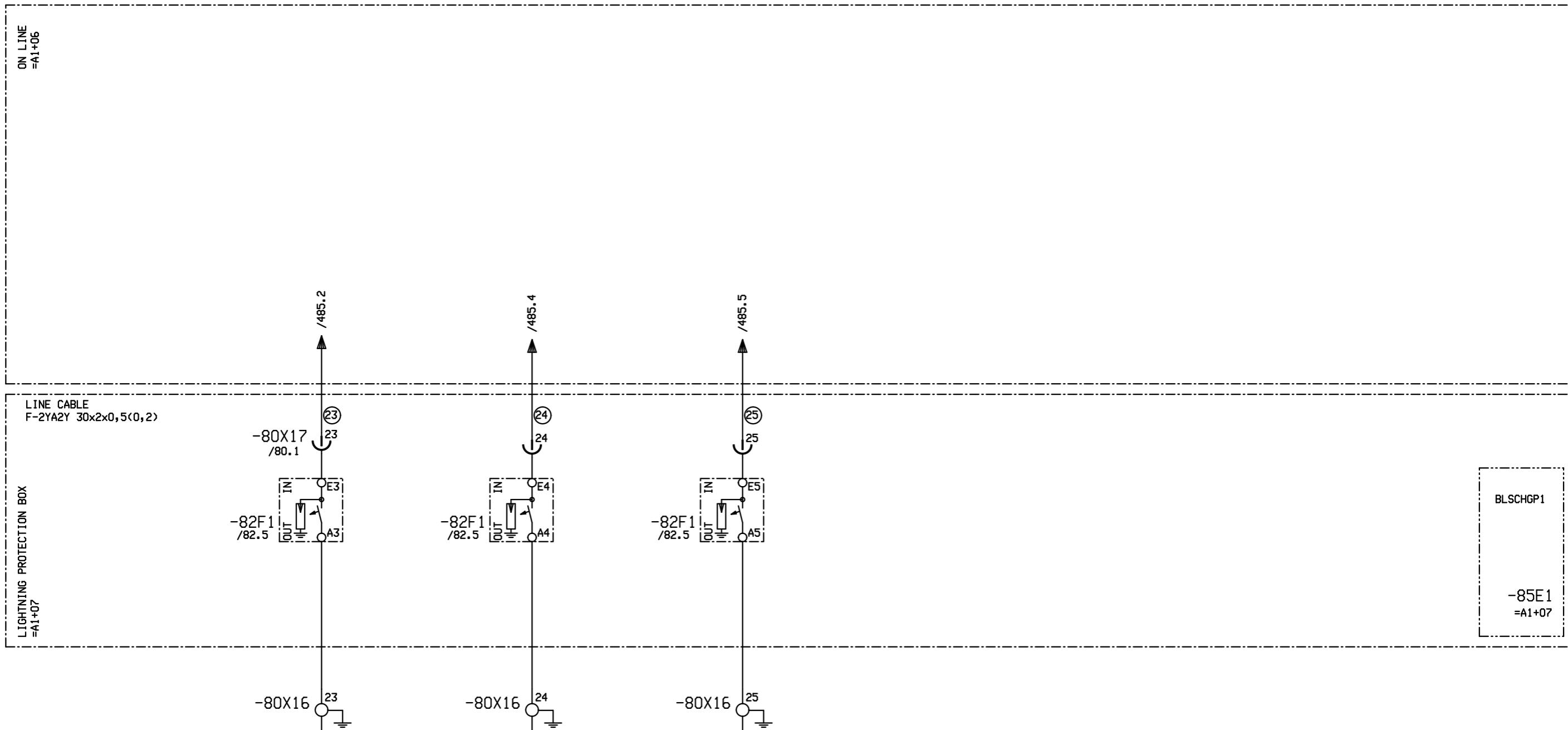


ROPE POSITION MONITORING

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	=	=A1+01
Date	09.02.09	+	
Drawn by	Sst	Sheet :	84
Dr.ch.by	Fhs	Cont.sheet:	85



1200-1219

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	85



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WIND WARNING

DRIVE STATION

LV-CONTROL

Rev.ind.

2.0

=

=A1+01

+

Date

09.02.09

+

Drawn by

Sst

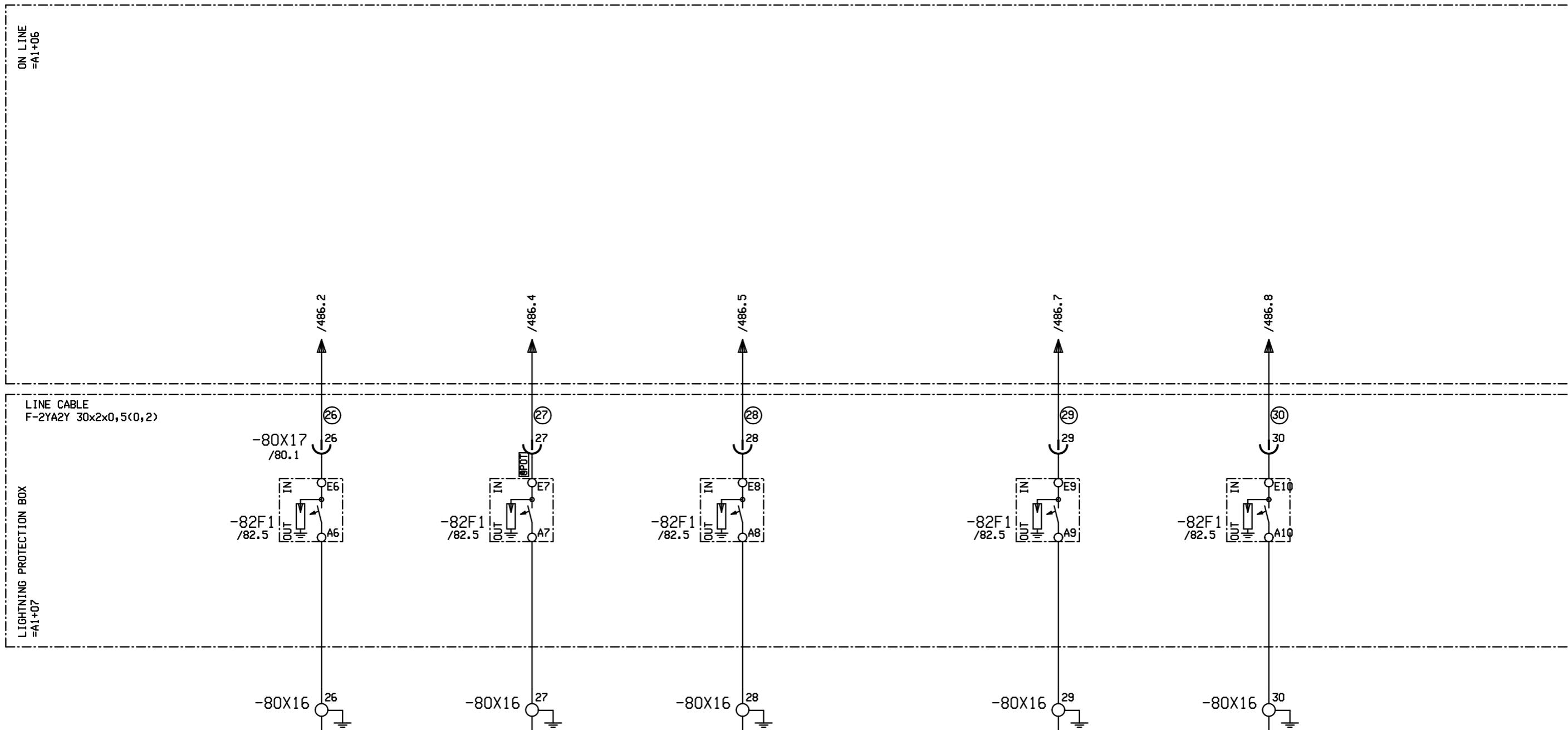
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Cont.sheet:

Fhs

86



1220-1239

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Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+ +
File:	ANWAA1583					Drawn by	Sst	Sheet : 86



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WIND WARNING

DRIVE STATION

LV-CONTROL

Rev.ind.

2.0

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Date

09.02.09

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Drawn by

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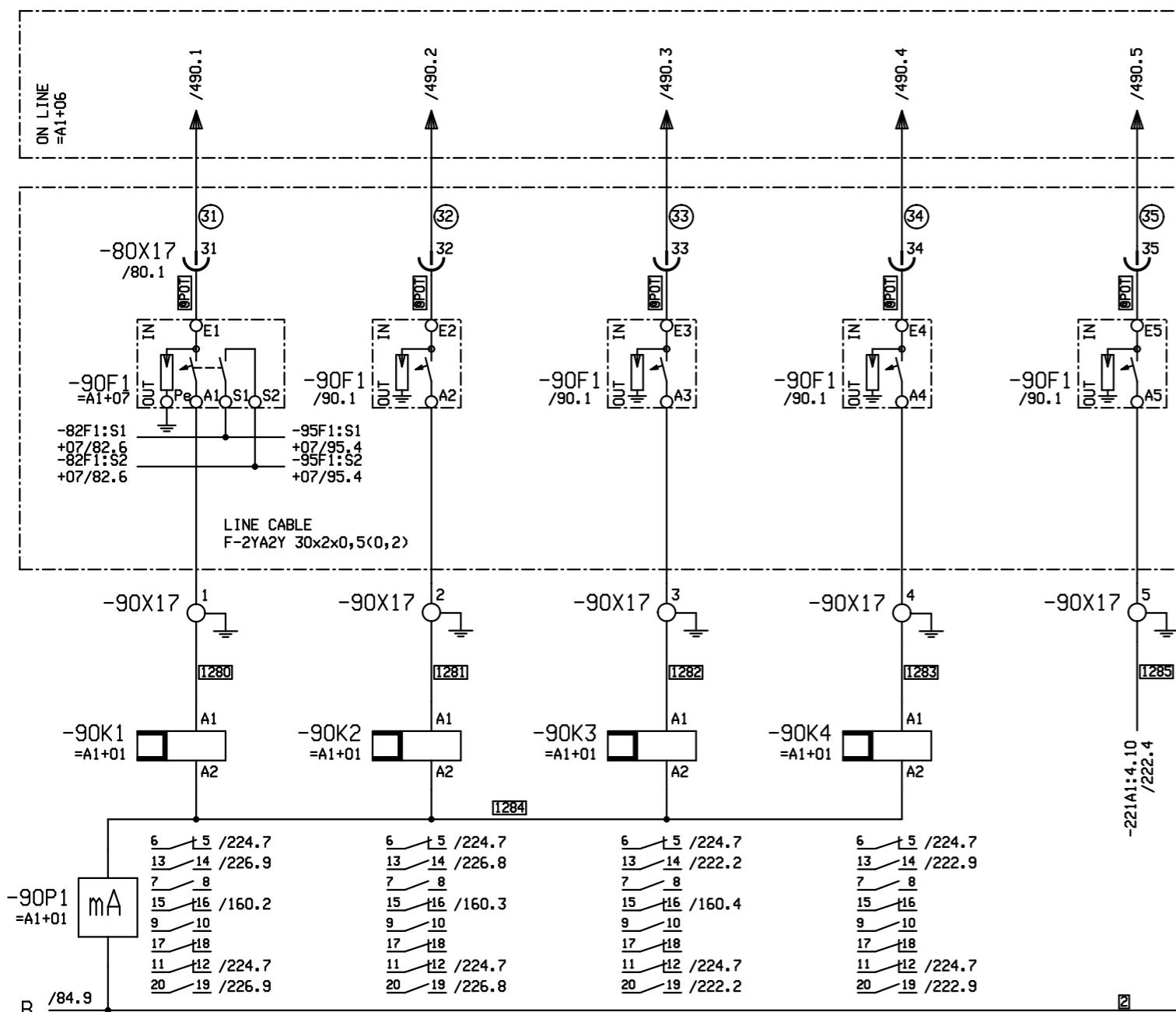
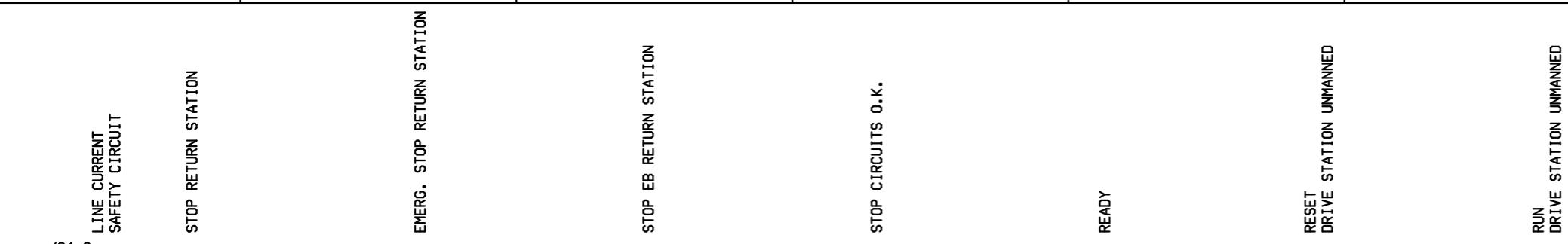
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Dr.ch.by

Fhs

Cont.sheet: 90

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1280-1299

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8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM



Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA

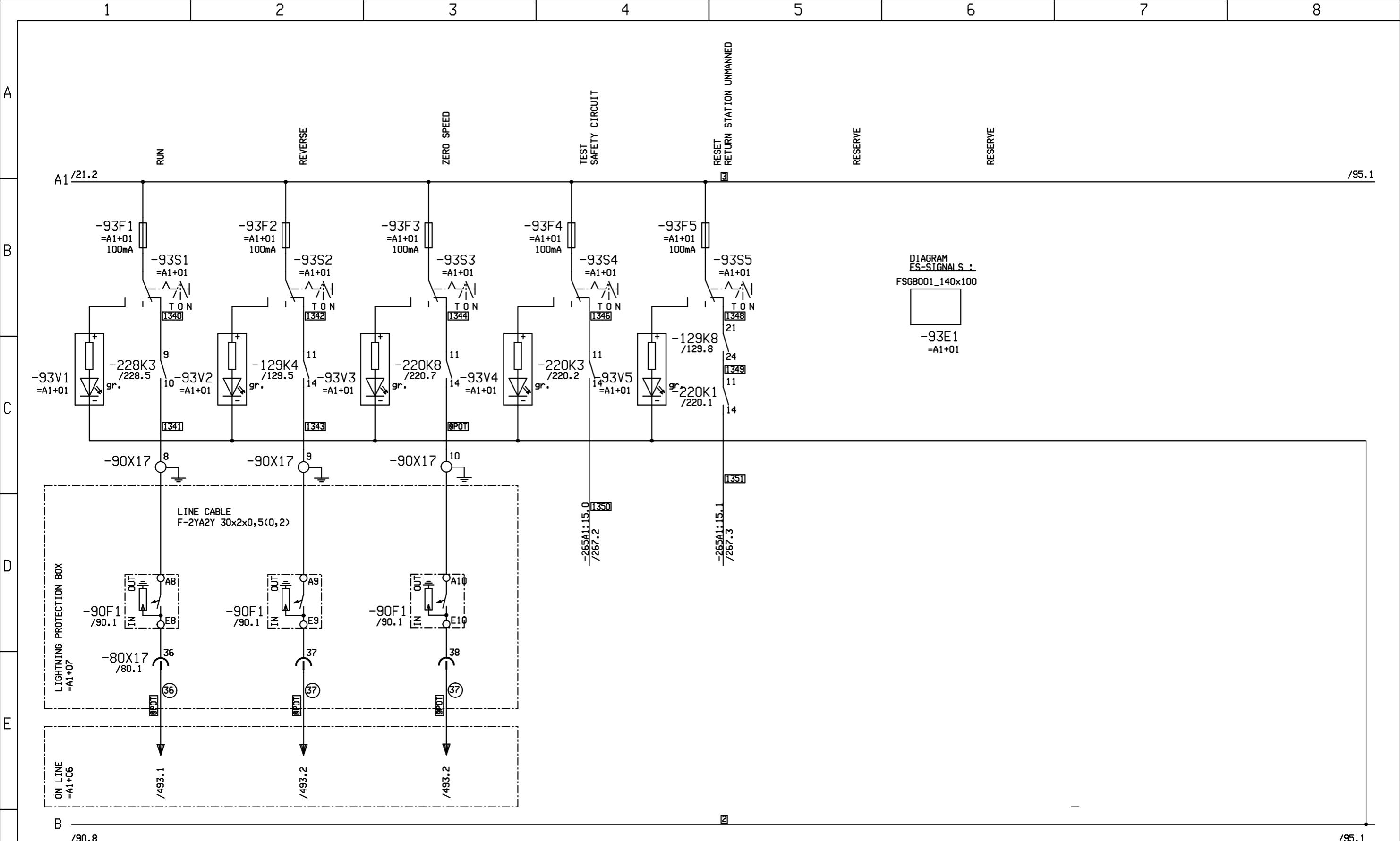


CONNECTIONS RETURN STATION

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	= =A1+01
Date	09.02.09	
Drawn by	Sst	Sheet : 90
Dr.ch/by	Fhs	Cont.sheet: 93



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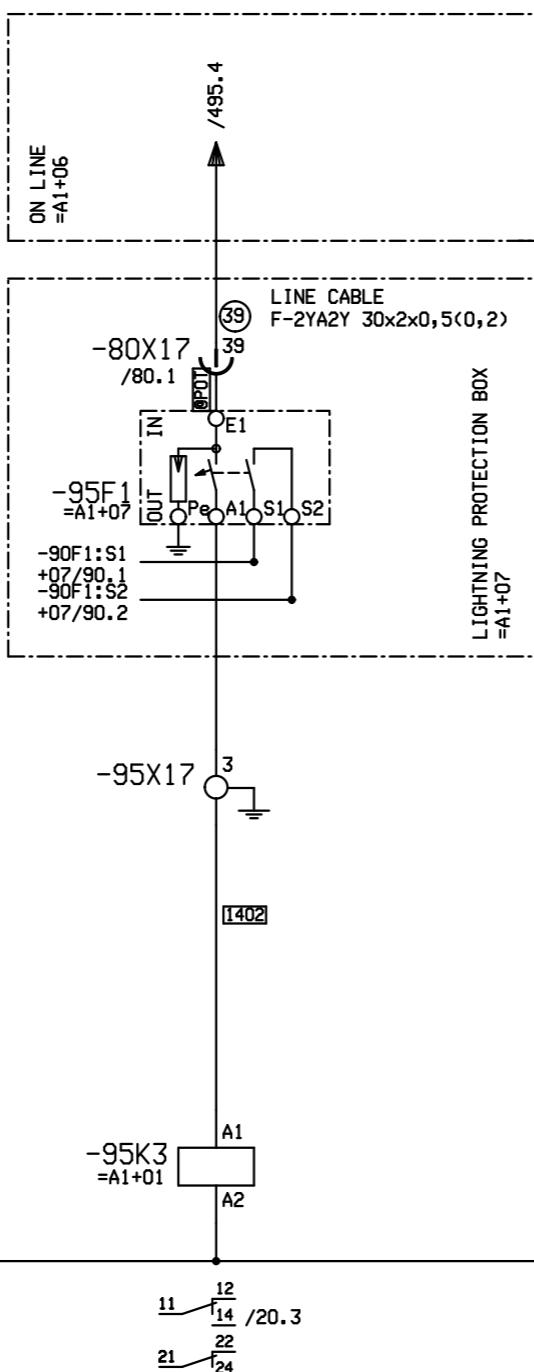
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A1 /93.8

STATIONS MANNED
RETURN STATIONDRIVE STATION UNMANNED
RETURN STATIONCONTROLS ON
DRIVE STATION UNMANNEDSLOW 1
RETURN STATIONSLOW 2
RETURN STATIONRAIL RETURN STATION
POS. INSLOW
ACTIVATION ANTI-COLLISION

/96.1

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1400-1459

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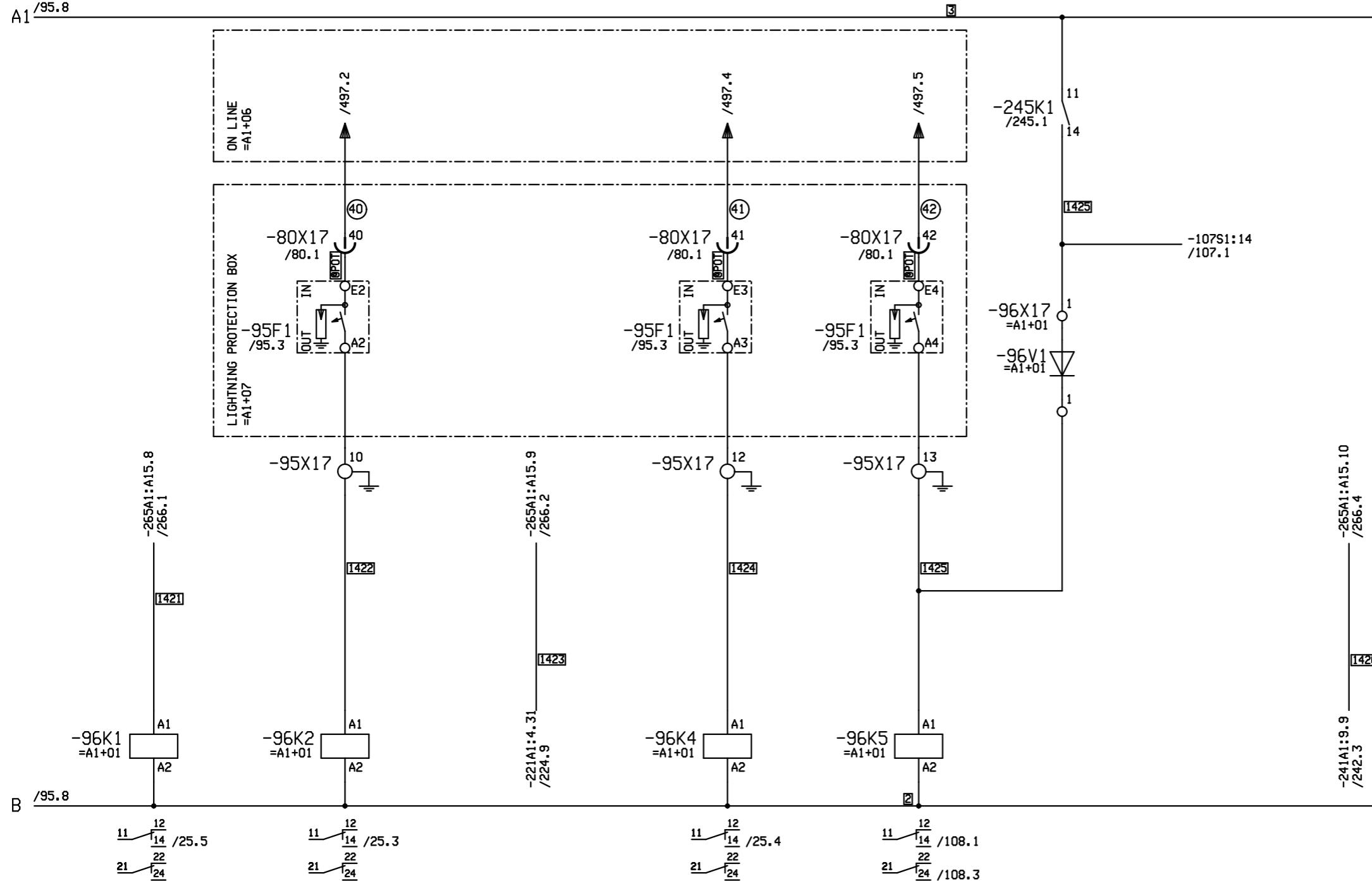
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FAULT TENSION PRESSURE
FOR EMERGENCY DRIVEMAINTENANCE LOCK OUT
EMERG. STOP BUTTONS
STOP EB BUTTONS
RETURN STATIONRETURN STATION UNMANNED
RETURN STATIONGRIP NOT CLOSED
GEOMETRICAL GRIP GAUGE
GRIP FORCE
RETURN STATION

SIGNAL

CIS-START
RETURN STATION

/97.1



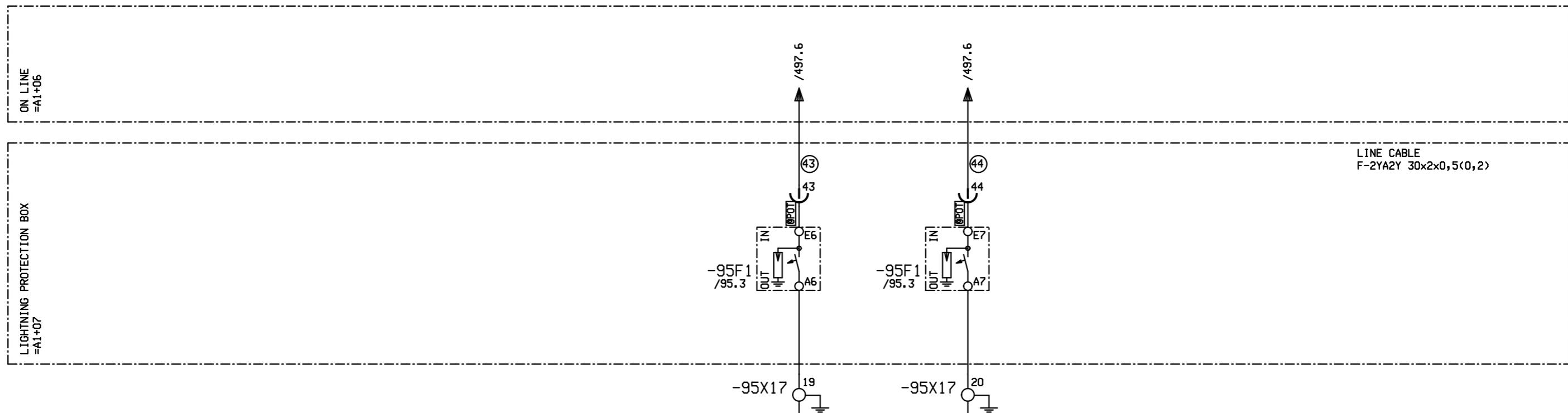
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A1 /96.8

/100.1



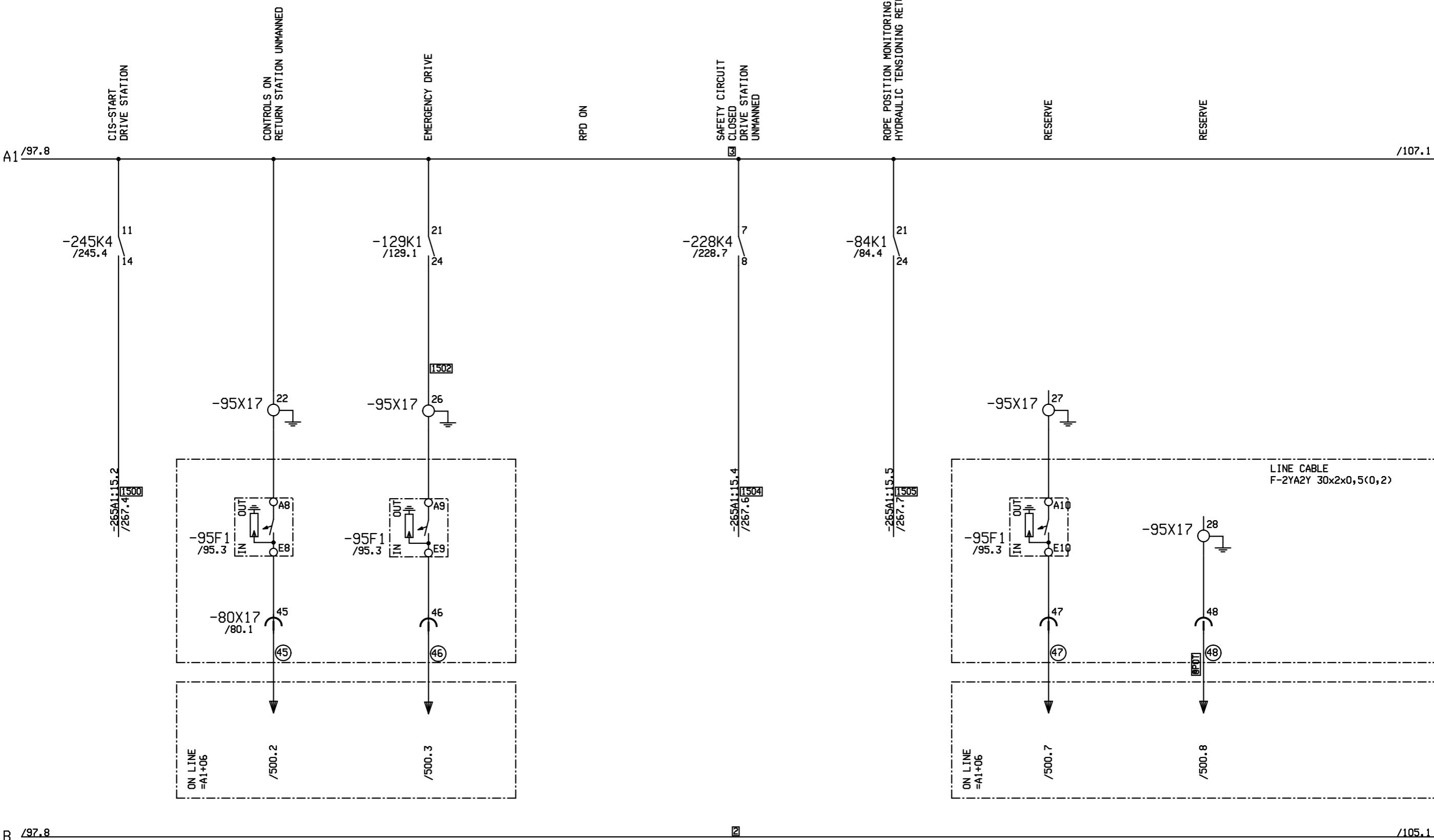
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1420-1439

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DRIVE STATION			LV-CONTROL							

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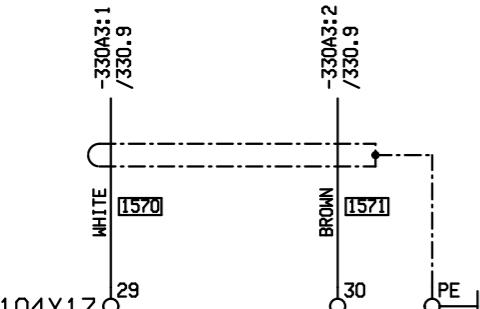


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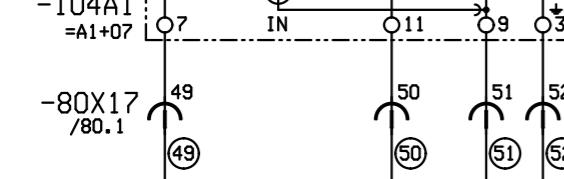
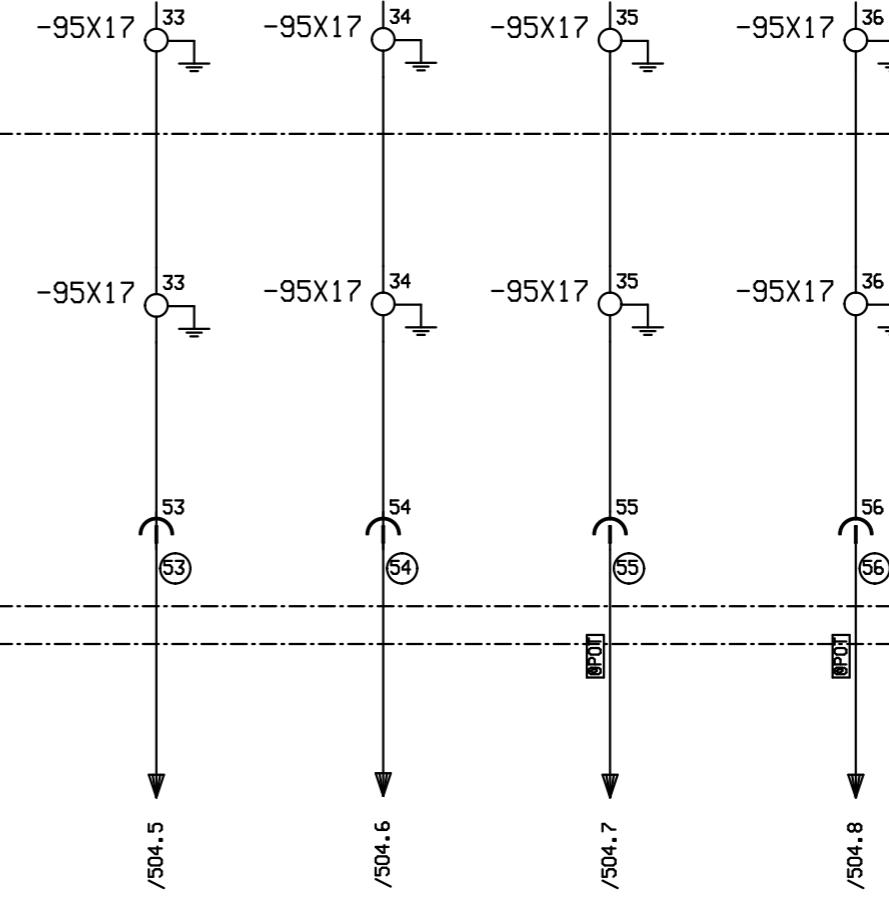
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INTERFACE
SCREENATTENTION
USE ONLY TWISTED PAIR CABLE!RESERVE
TRANSMISSION
BUS SYSTEMRESERVE
TRANSMISSION
BUS SYSTEM

B

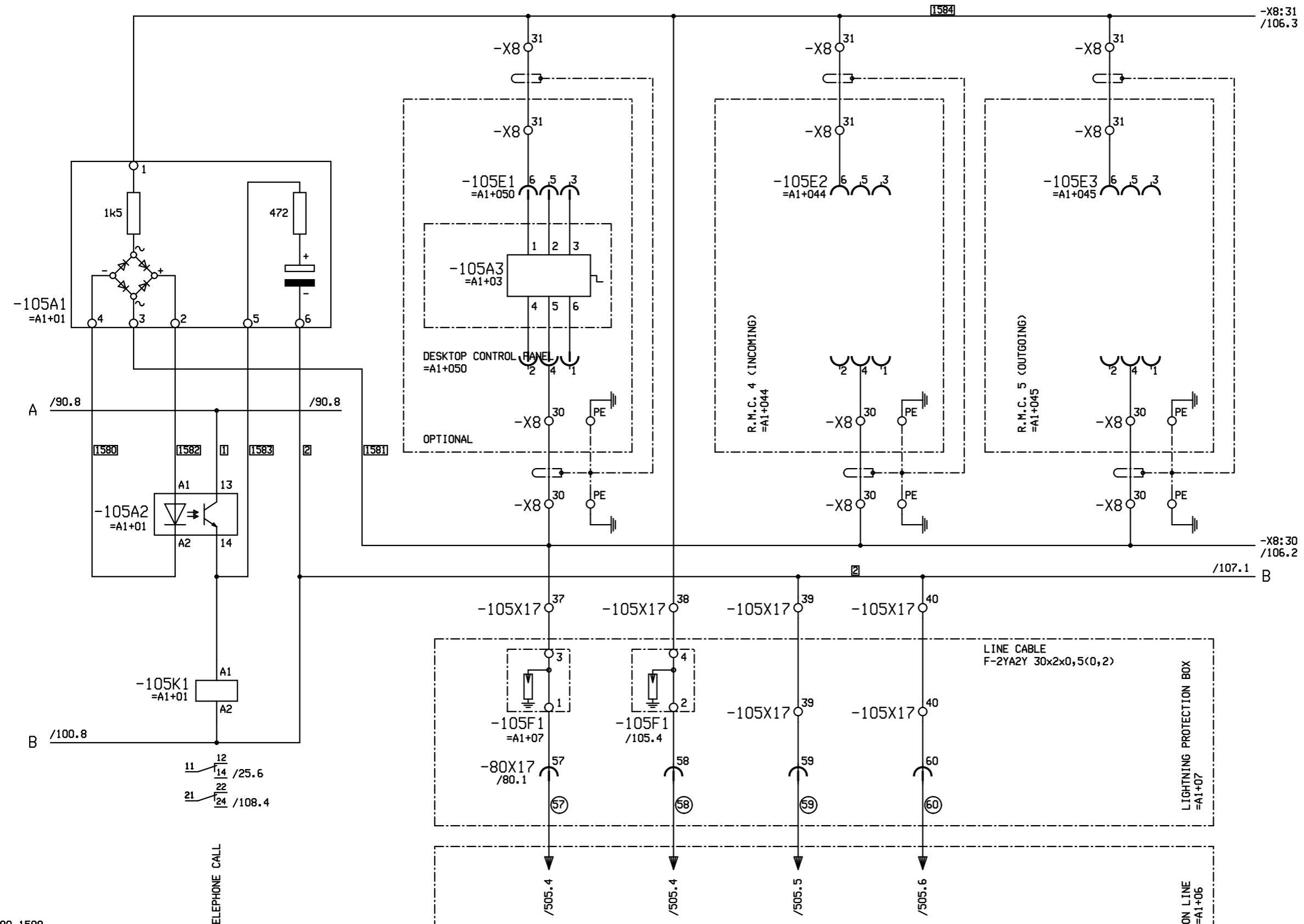
LINE CABLE
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=A1+07

ID 10725232+10725233

ON LINE
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/504.2
/504.3
/504.3ATTENTION
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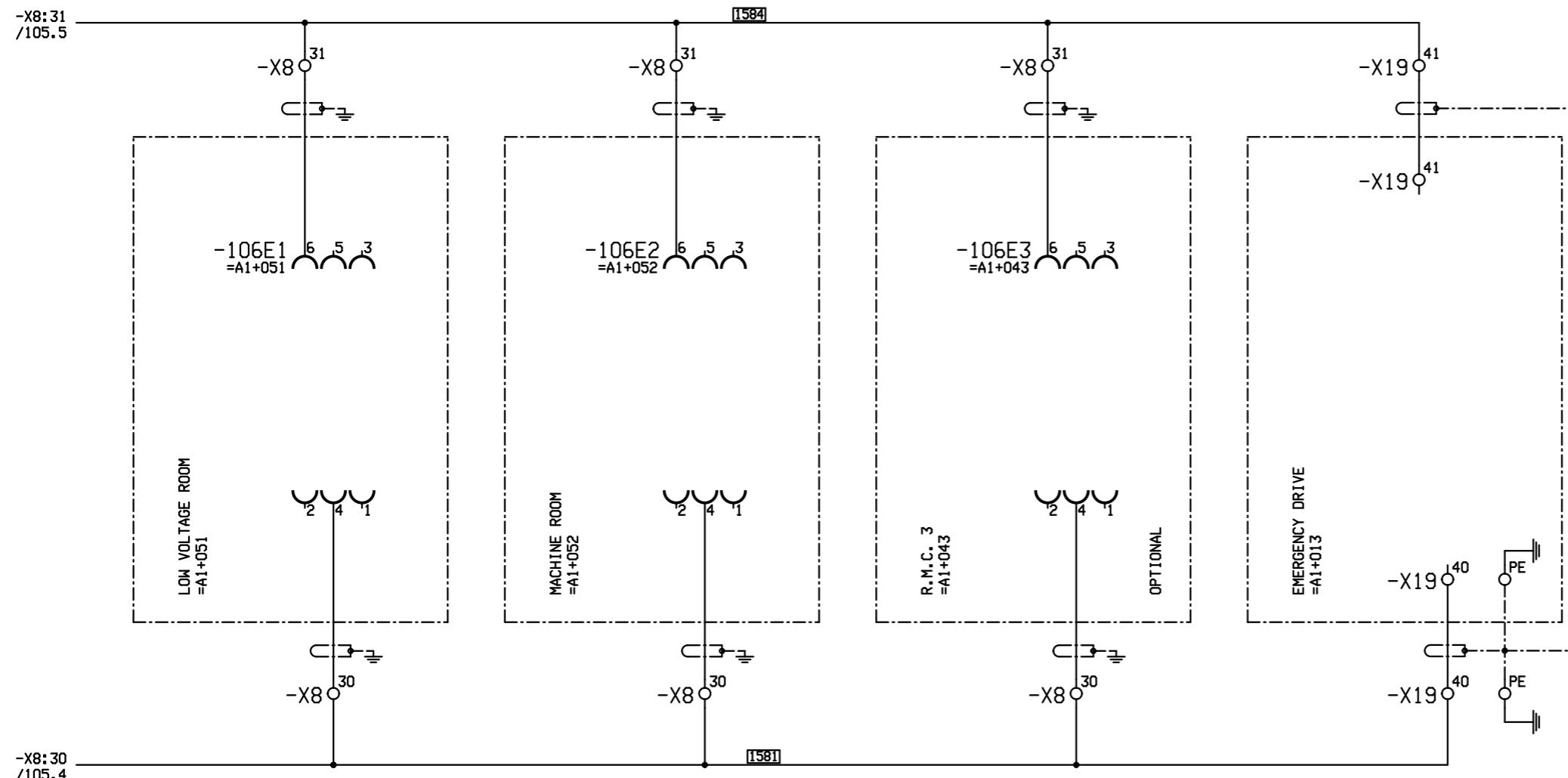
1570-1579

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						Dr.ch.by	Fhs	Cont.sheet: 105	



Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

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Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr <small>Innova Patent GmbH A-6960 WOLFURT / AUSTRIA</small>	Rev.ind.	2.0	= =A1+01
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A1 /100.8

SIGNAL BUTTONS

@PXR

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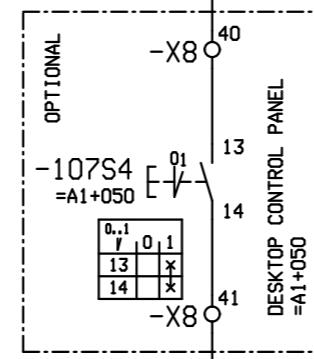
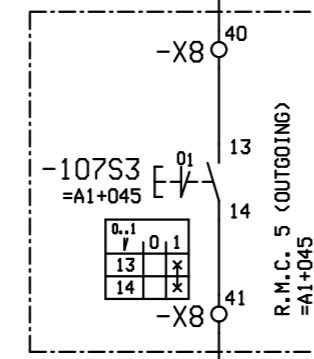
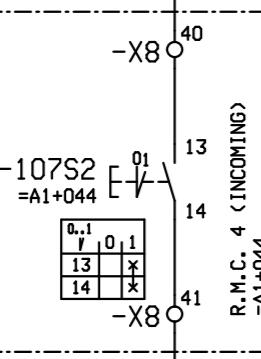
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Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs

File: ANWAA1583



OPTIONAL

-107S4
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=A1+050

-X8 41

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1600

B /105.8

2

/108.1

1600-1609

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM



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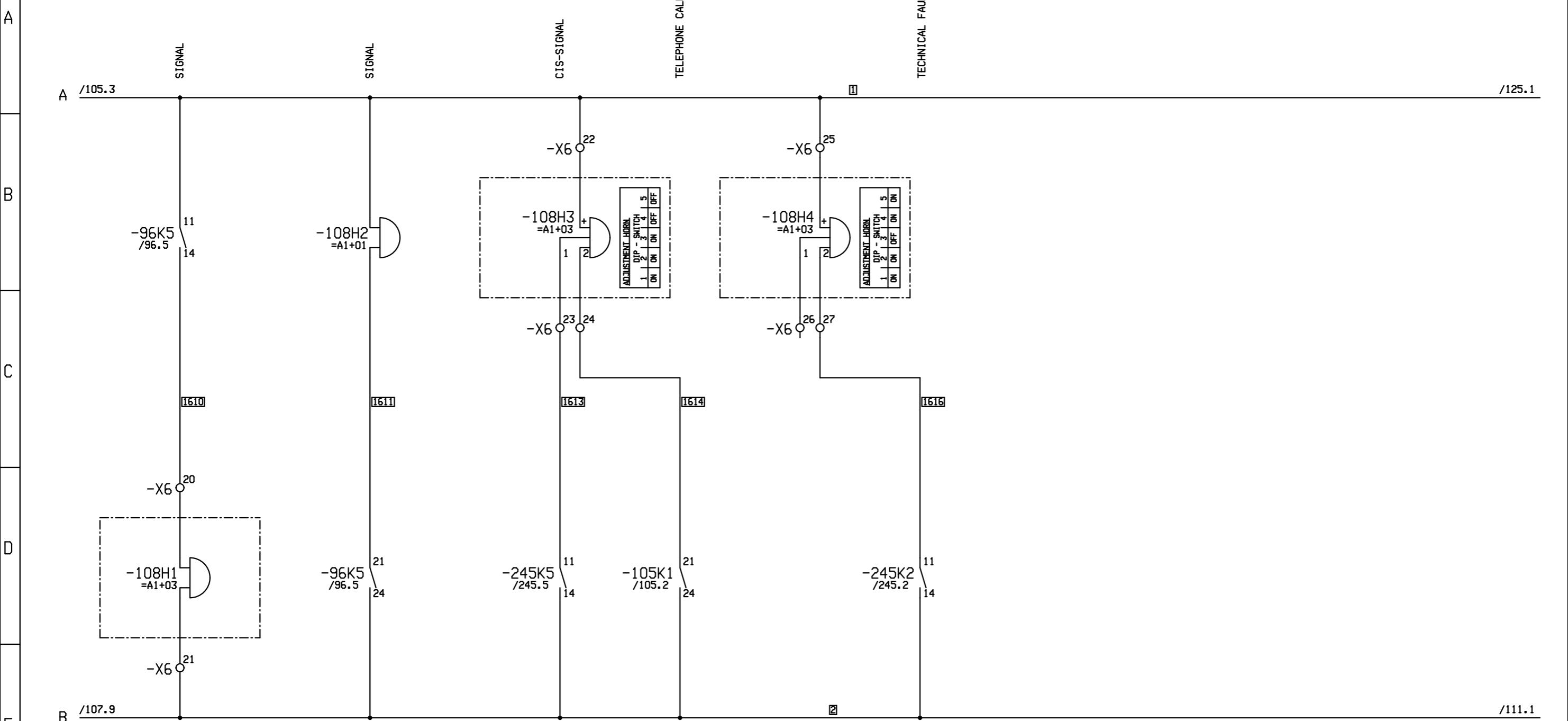
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DRIVE STATION

LV-CONTROL

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Dr.ch/by	Fhs	Cont.sheet:	108



1610-1619

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Doppelmayr
Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA


SIGNAL

DRIVE STATION

LV-CONTROL



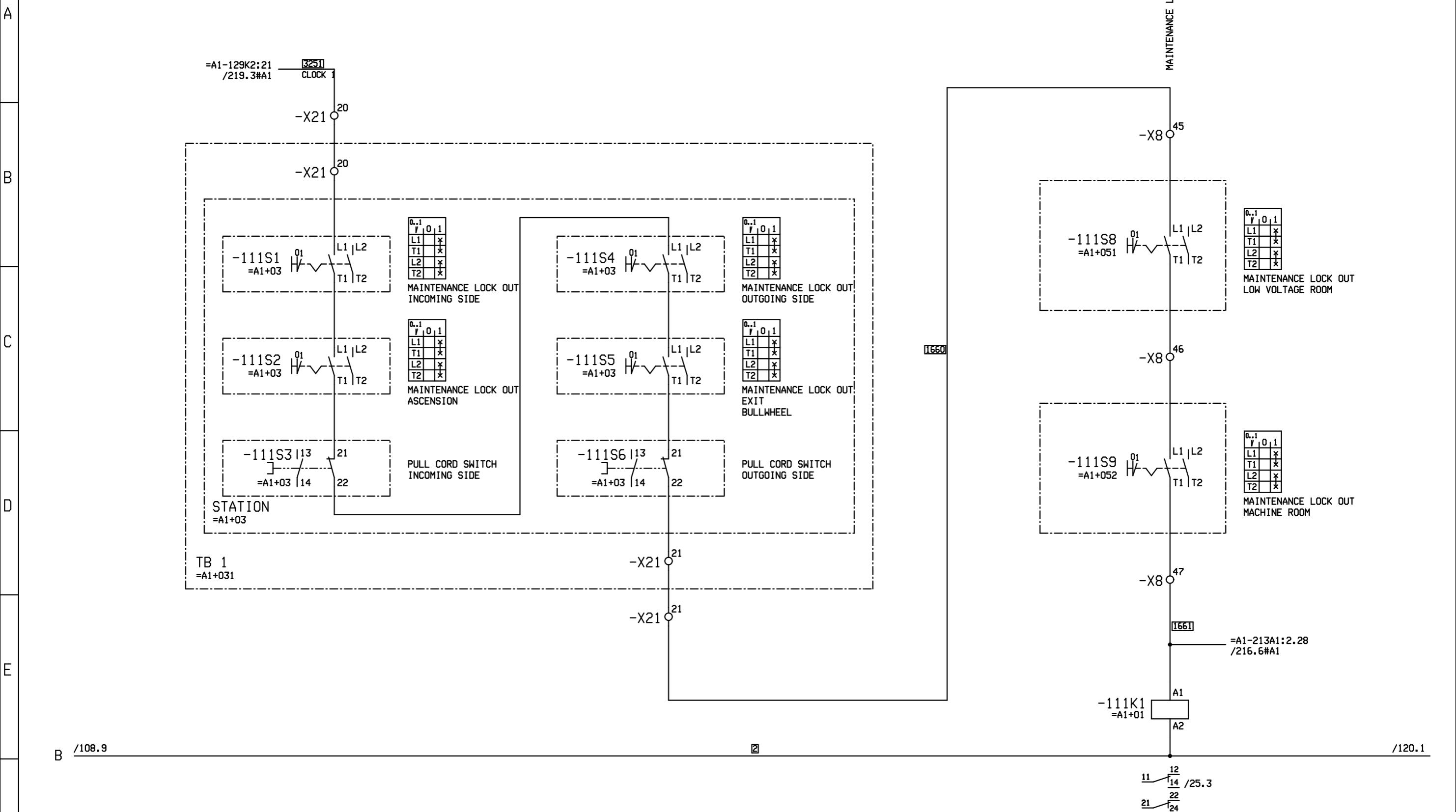
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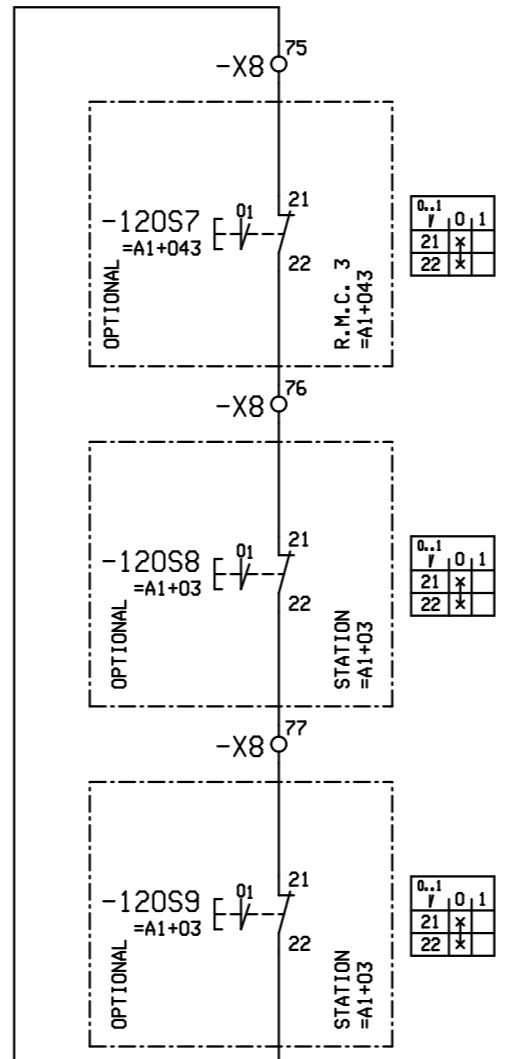
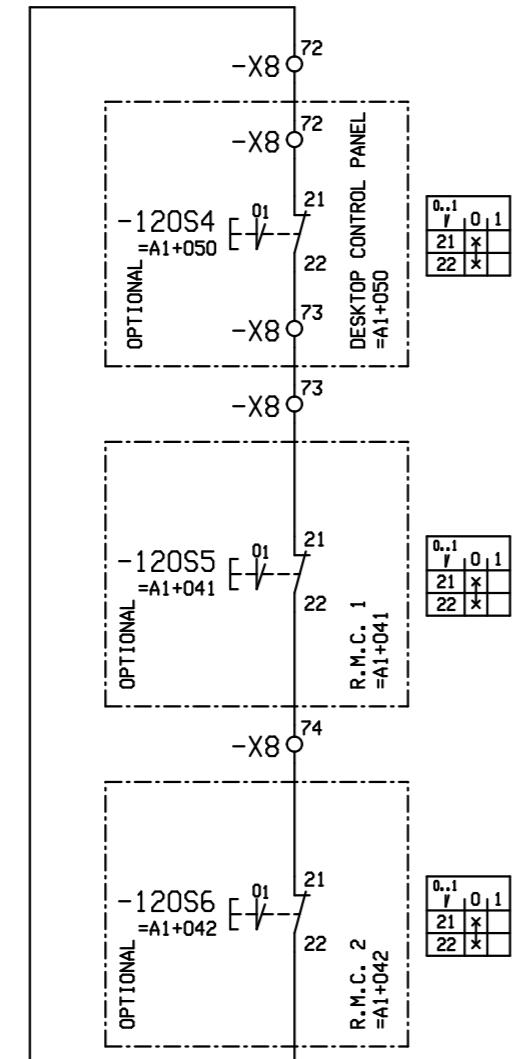
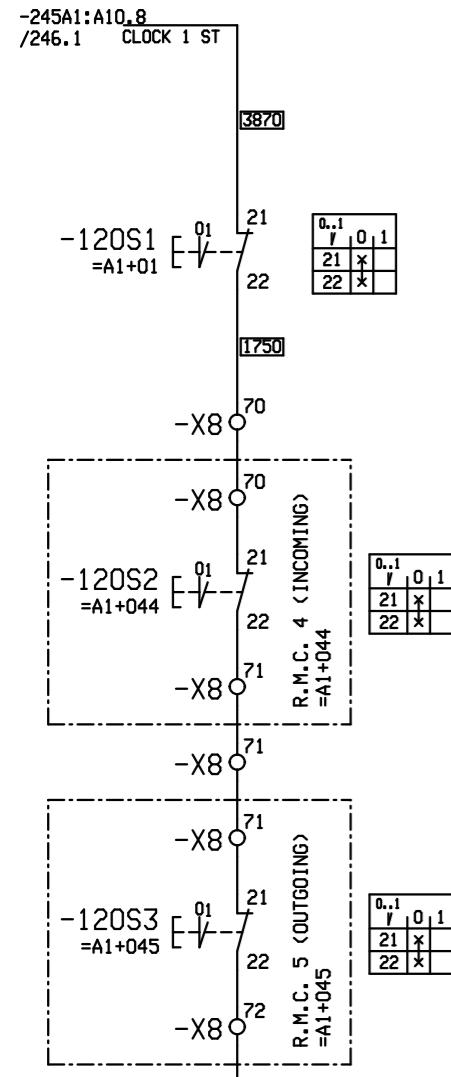
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□

/122.1

1750-1759

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STOP BUTTONS

DRIVE STATION

LV-CONTROL

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Rev.ind.

Date

Dr.ch.by

Cont.sheet:

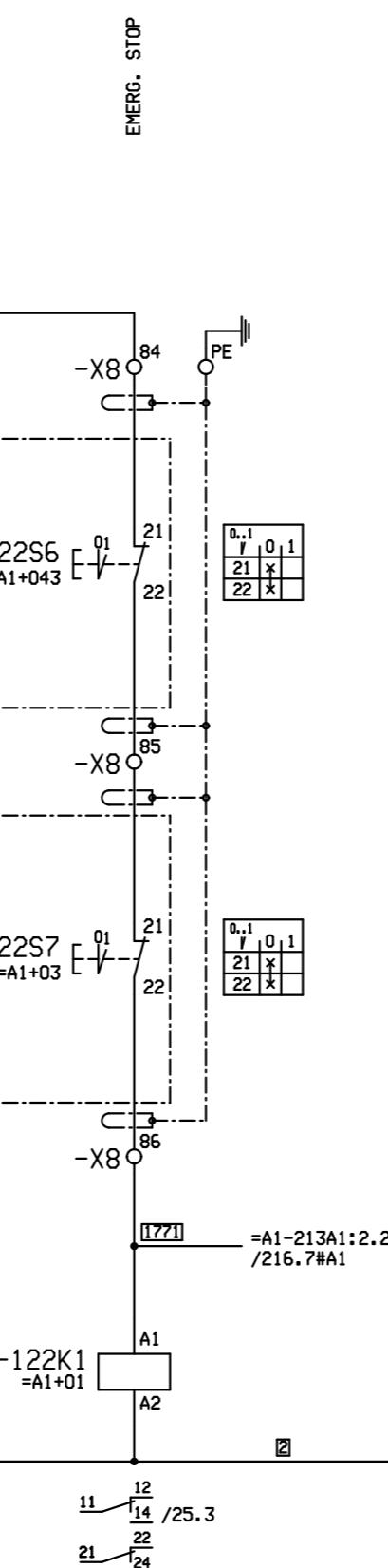
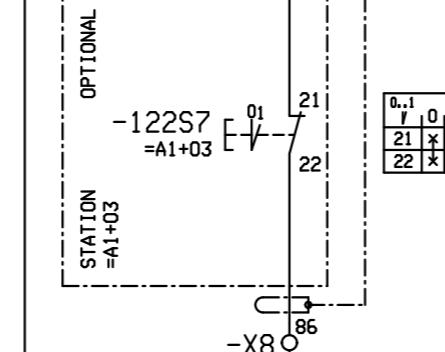
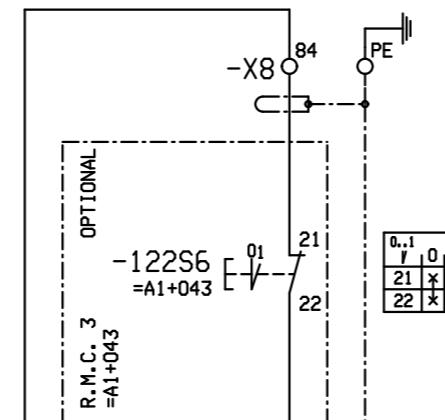
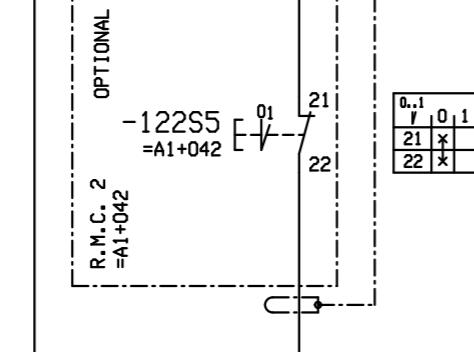
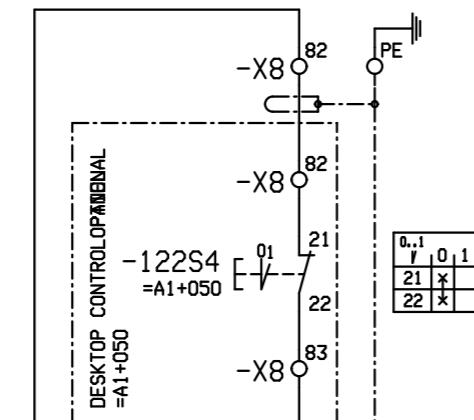
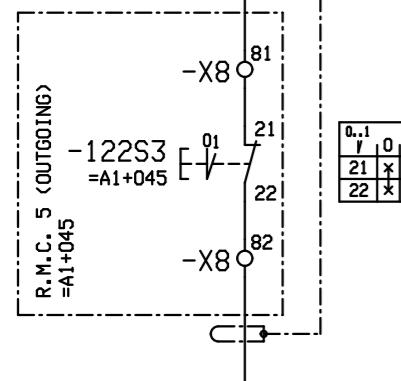
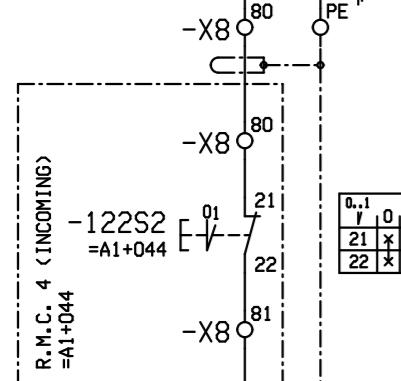
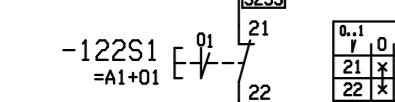
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122

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-129K3:21 /219.4 CLOCK 3



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/123.1

1770-1779

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM



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A-6960 WOLFURT / AUSTRIA

EMERG. STOP BUTTONS

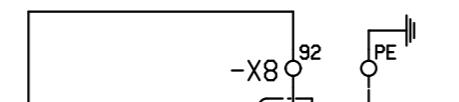
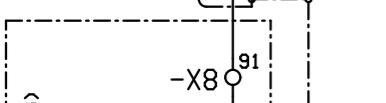
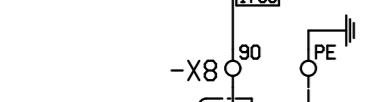
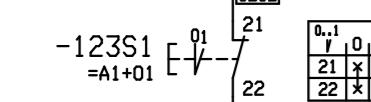
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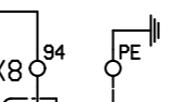
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Dr.ch/by	Fhs	Cont.sheet: 123

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14 25.3
21 22
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1780-1789

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Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs

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8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAMInnova Patent GmbH
A-6960 WOLFURT / AUSTRIA

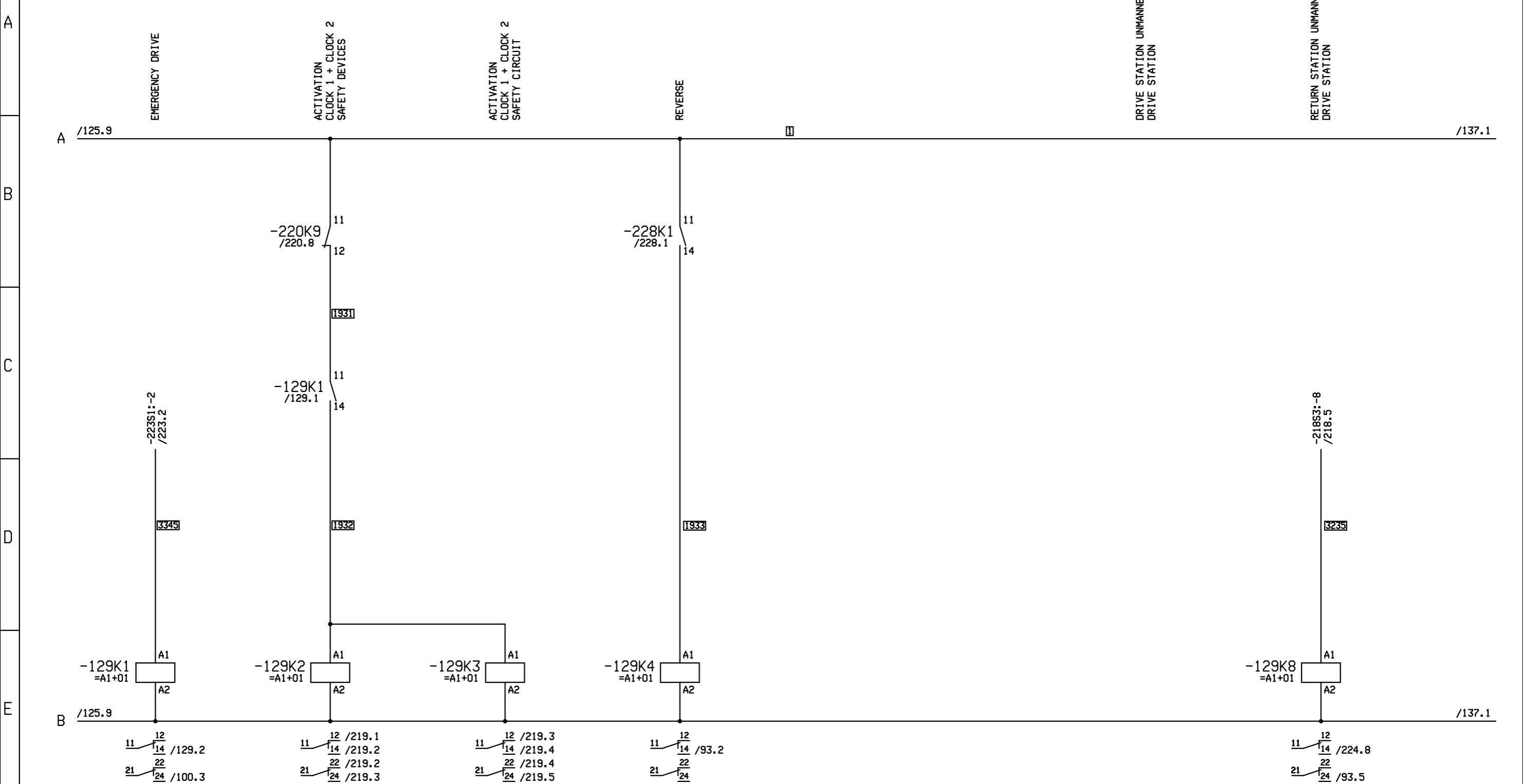
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DRIVE STATION

LV-CONTROL

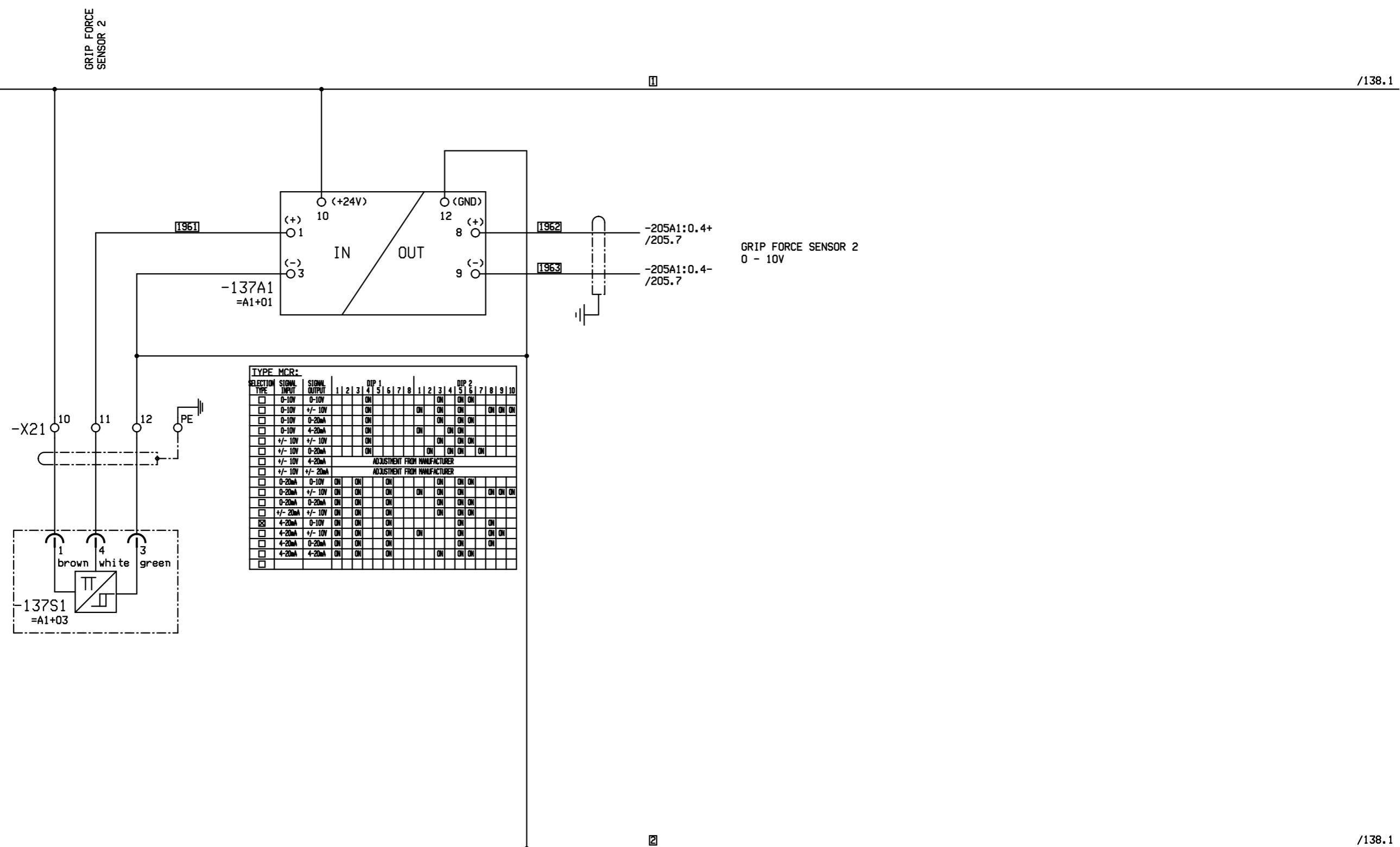
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Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	129
						Dr.ch.by	Fhs	Cont.sheet:	137

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Revision

2.0

Drawn by

MaM

Date

09.02.09

Dr.ch.by

Fhs

8-MGD BANA CABLE CAR

WAA0001583

DANANG / VIETNAM

File: ANWAA1583

Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA

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GRIP FORCE SENSOR 2

DRIVE STATION

LV-CONTROL

Rev.ind.

2.0

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Date

09.02.09

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Dr.ch.by

Drawn by

Sst

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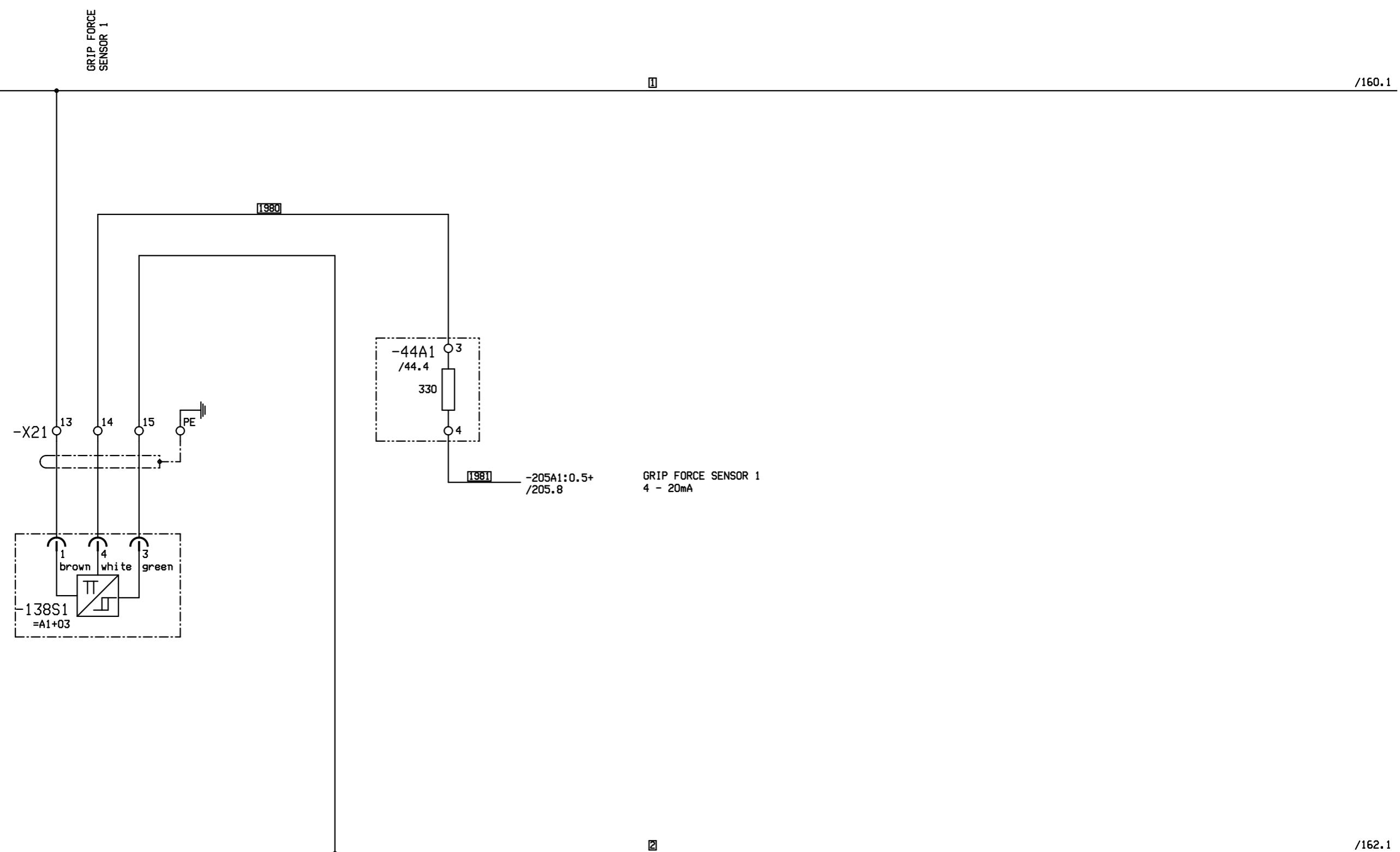
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Fhs

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138

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Revision	2.0	Drawn by	MaM
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File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
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Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA



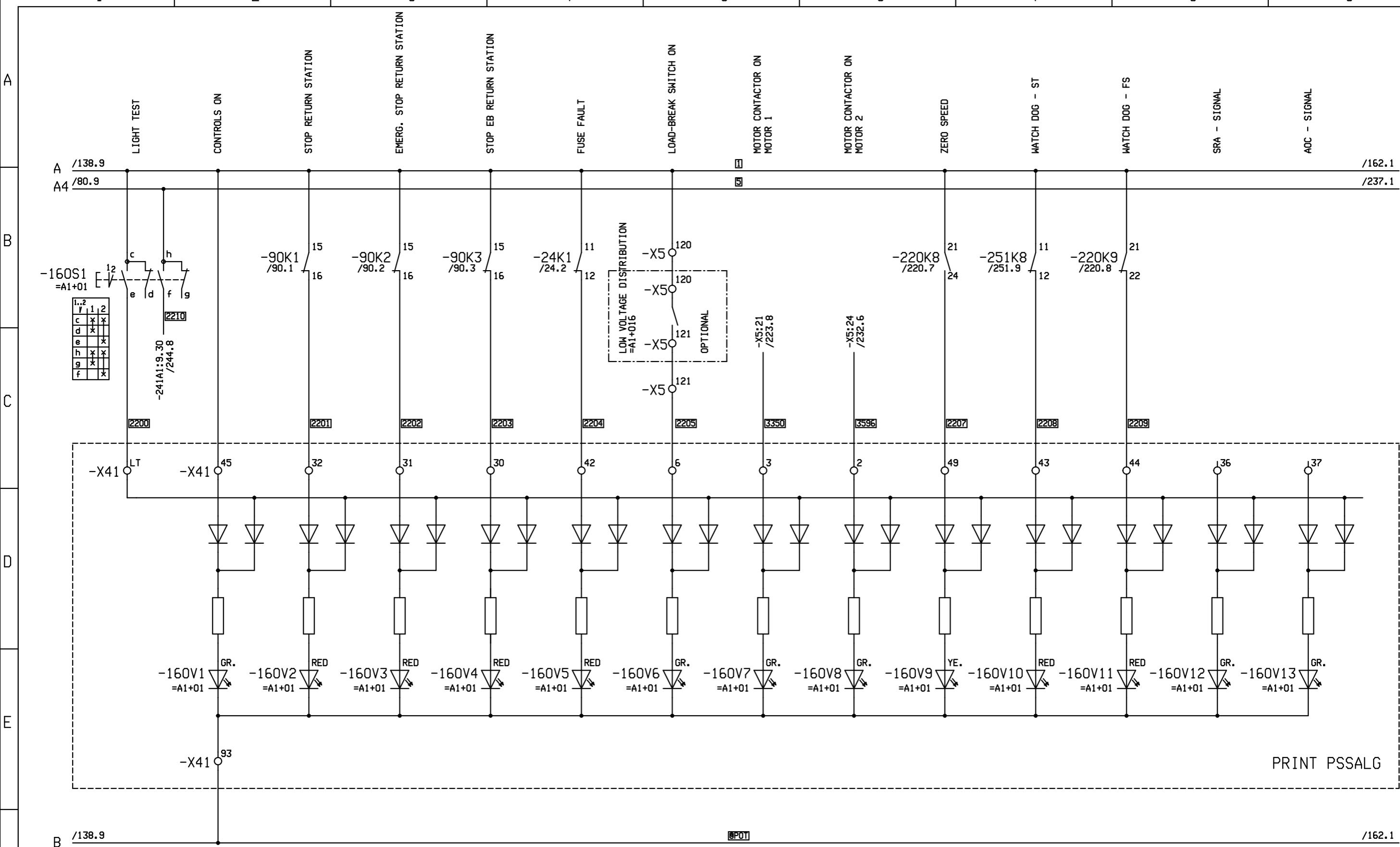
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DRIVE STATION

LV-CONTROL

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Dr.ch.by	Fhs	Cont.sheet:	160

1 2 3 4 5 6 7 8 9



Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev. ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
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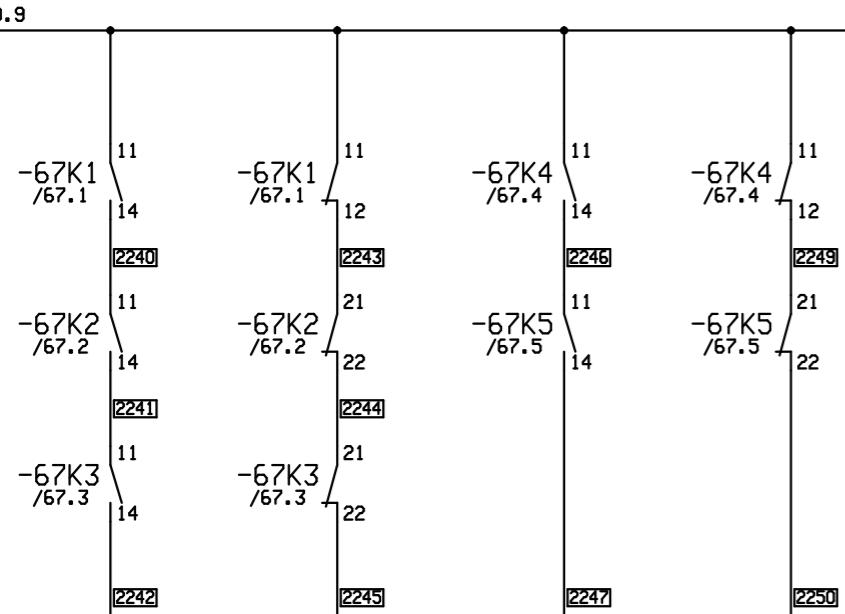
A

EMERGENCY BRAKE OPEN
EMERGENCY BRAKE CLOSED
SERVICE BRAKE OPEN
SERVICE BRAKE CLOSED

II

/243.8

A



B

C

D

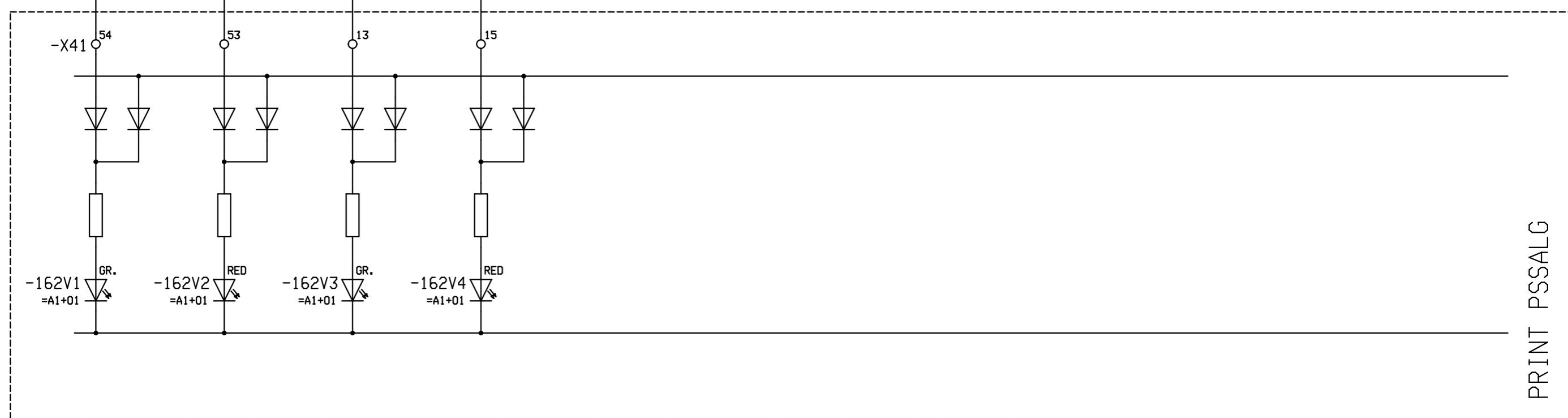
E

B

II

/168.1

PRINT PSSALG



2240-2259

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	162

CONTROL LIGHTS

DRIVE STATION

LV-CONTROL

Dr.ch.by

Fhs

Cont.sheet:

168

A

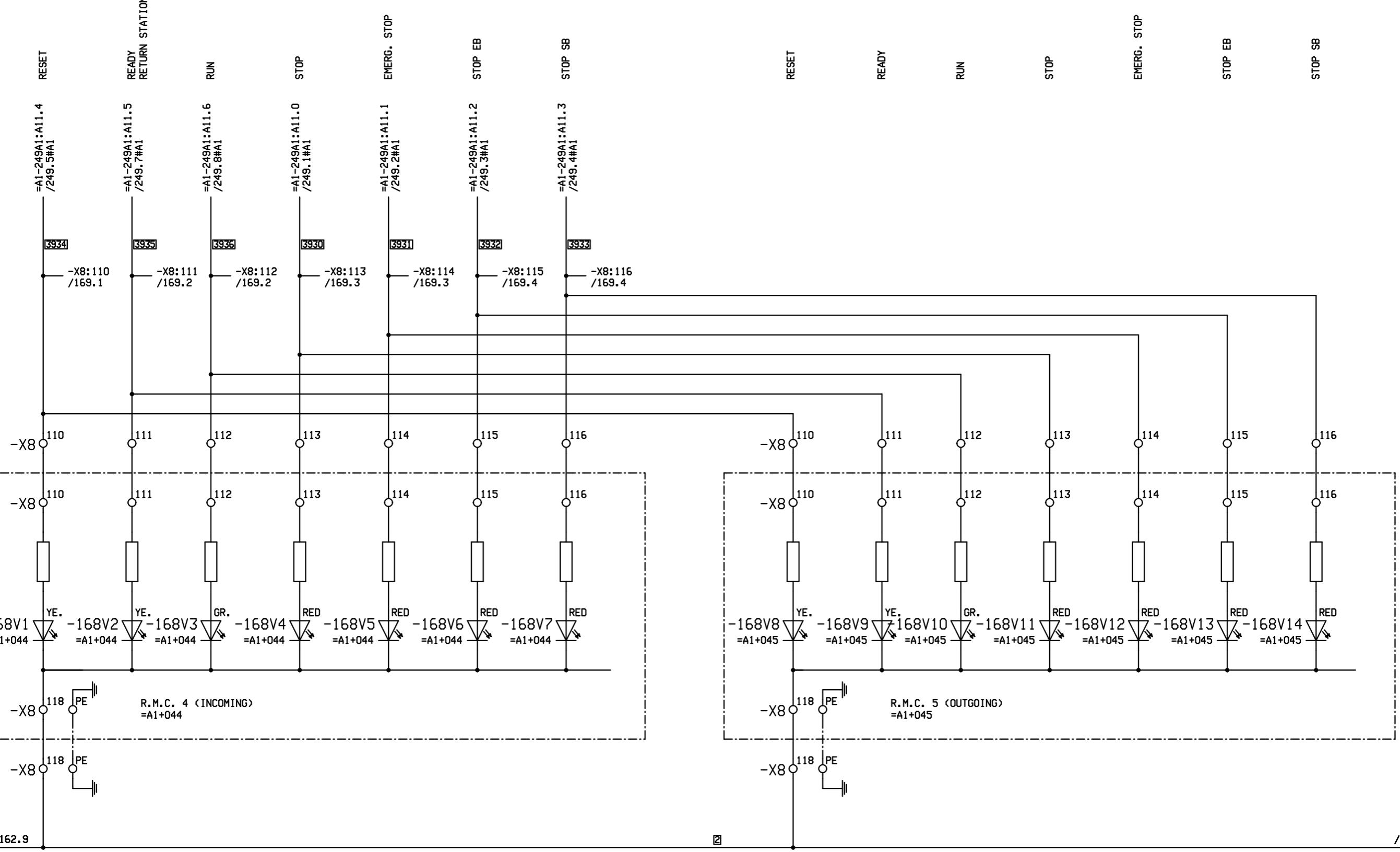
B

C

D

E

F



2360-2379

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	D Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev. ind.	2.0	= A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+ A1+01
File:	ANWAA1583					Drawn by	Sst	Sheet : 168

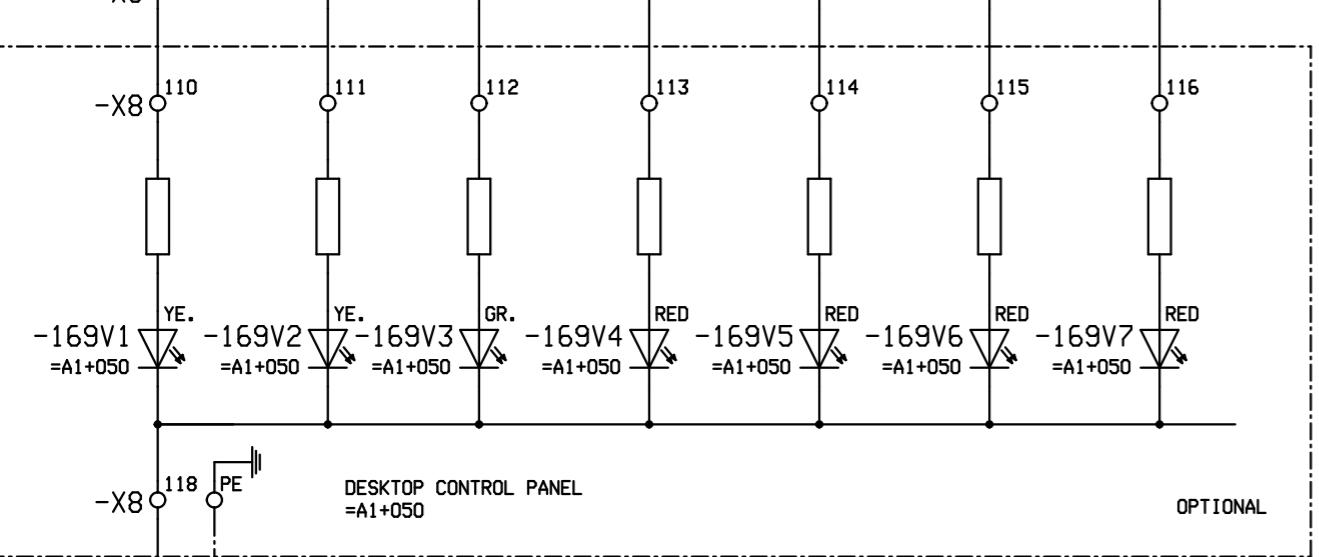
A

READY RETURN STATION
RESET
RUN
STOP
EMERG. STOP
STOP EB
STOP SB

B

-X8:110 /168.1
3934
110
-X8
110
-X8:111 /168.2
3935
111
-X8:112 /168.2
3936
112
-X8:113 /168.3
3930
113
-X8:114 /168.3
3931
114
-X8:115 /168.4
3932
115
-X8:116 /168.4
3933
116

C



D

B /168.9

/200.1

2

E

Revision 2.0 Drawn by MaM

Date 09.02.09 Dr.ch.bv Fhs

File: ANWAA1583

8-MGD BANA CABLE CAR

WAA0001583

DANANG / VIETNAM

Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA

CONTROL LIGHTS

DRIVE STATION

LV-CONTROL

Rev.ind. 2.0 = =A1+01

Date 09.02.09 +

Drawn by Sst Sheet : 169

Dr.ch.bv Fhs Cont.sheet: 200

A

B

C

D

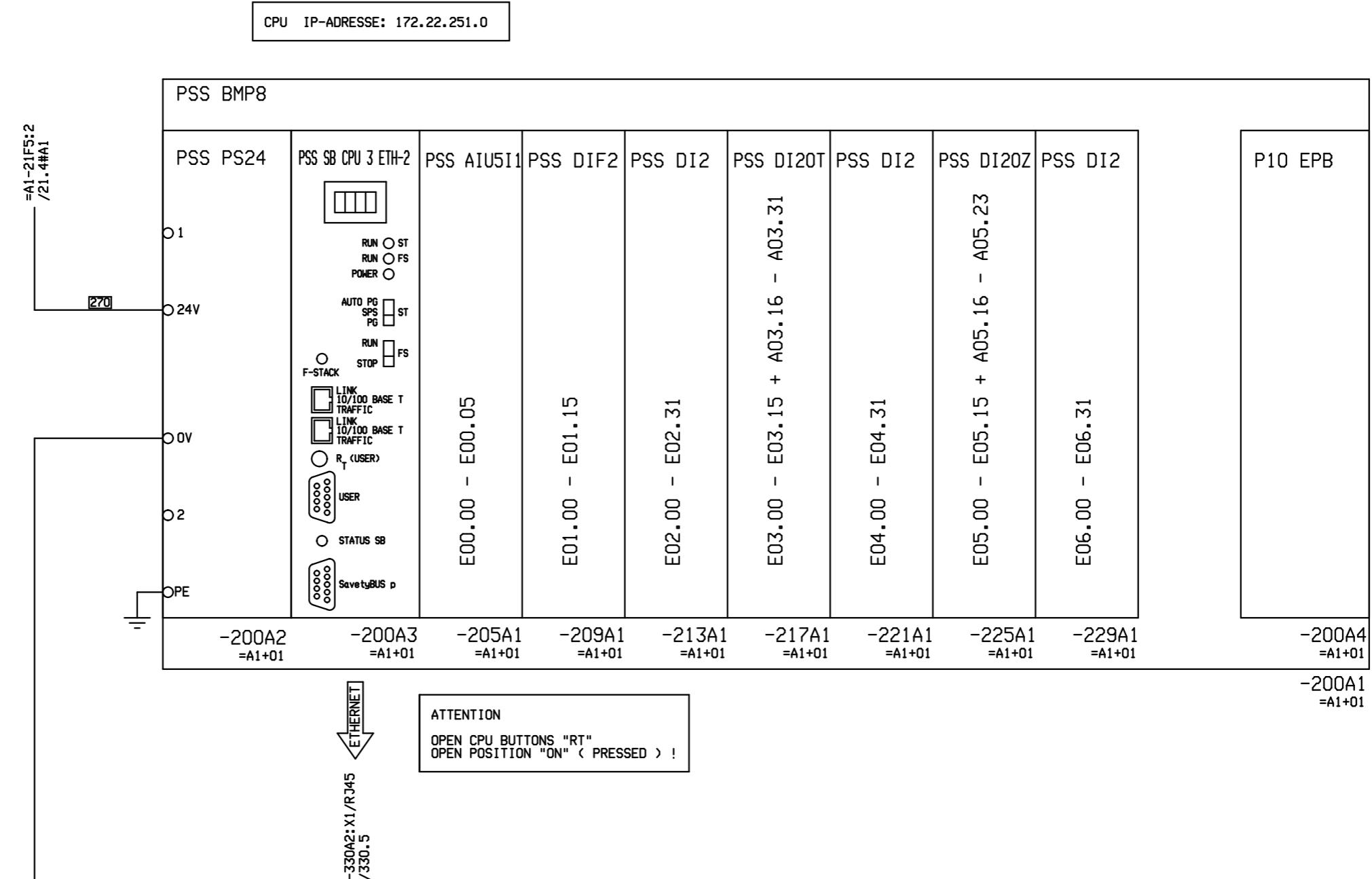
E

B /169.9

/201.1

3000-3009

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr Innovia Patent GmbH A-6960 WOLFURT / AUSTRIA	POWER SUPPLY PC-SYSTEM	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			DRIVE STATION	Drawn by	Sst	Sheet :	200
File:	ANWAA1583					LV-CONTROL	Dr.ch.by	Fhs	Cont.sheet:	201



A

B

C

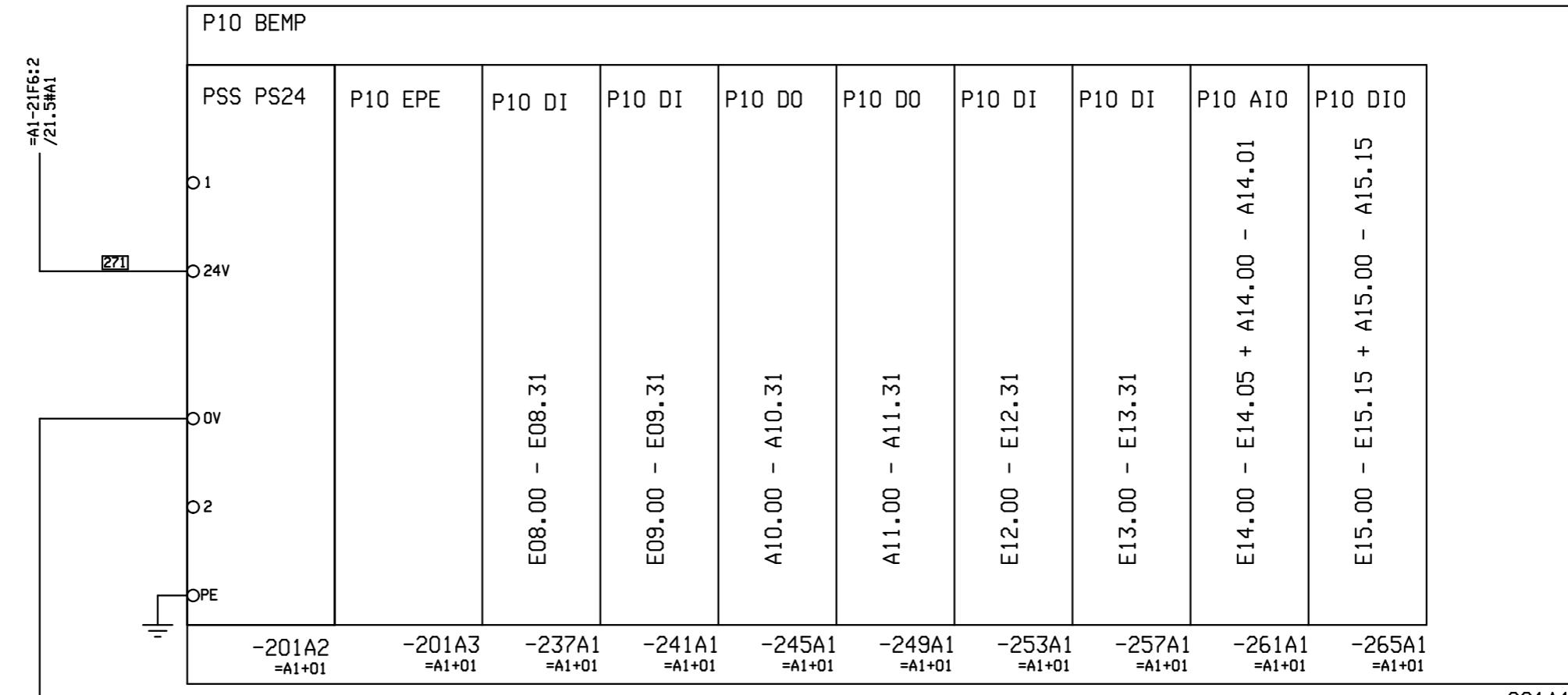
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E

B /200.9

/205.1

3010-3019



Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM

D Doppelmayr
Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA

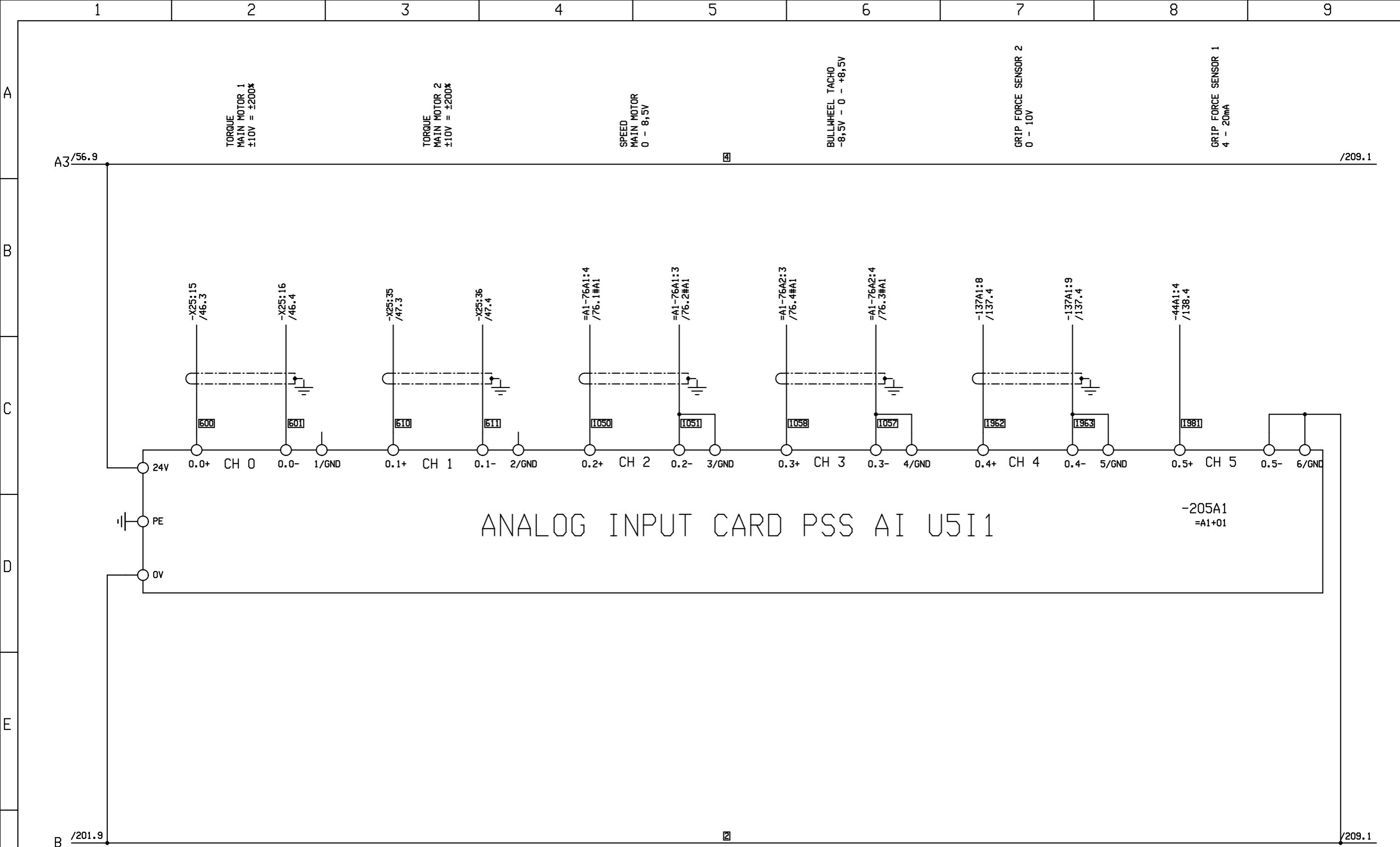


POWER SUPPLY PC-SYSTEM

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	=	A1+01
Date	09.02.09	+	
Drawn by	Sst	Sheet :	201
Dr.ch.by	Fhs	Cont.sheet:	205



3040-3049

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr <small>Innova Patent GmbH</small> <small>A-6960 WOLFURT / AUSTRIA</small>	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	205

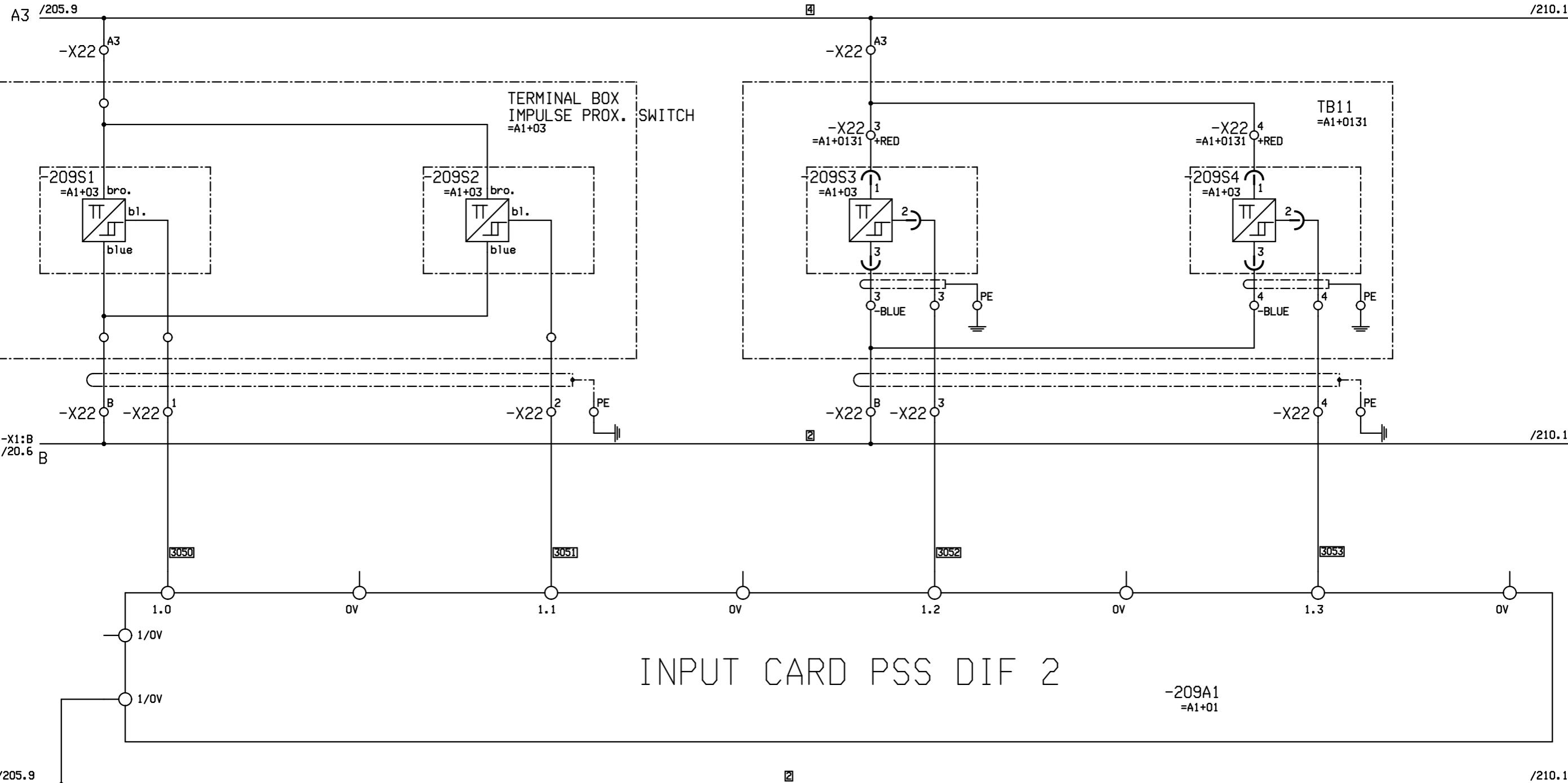
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IMPULSE PROX. SWITCH 1.1

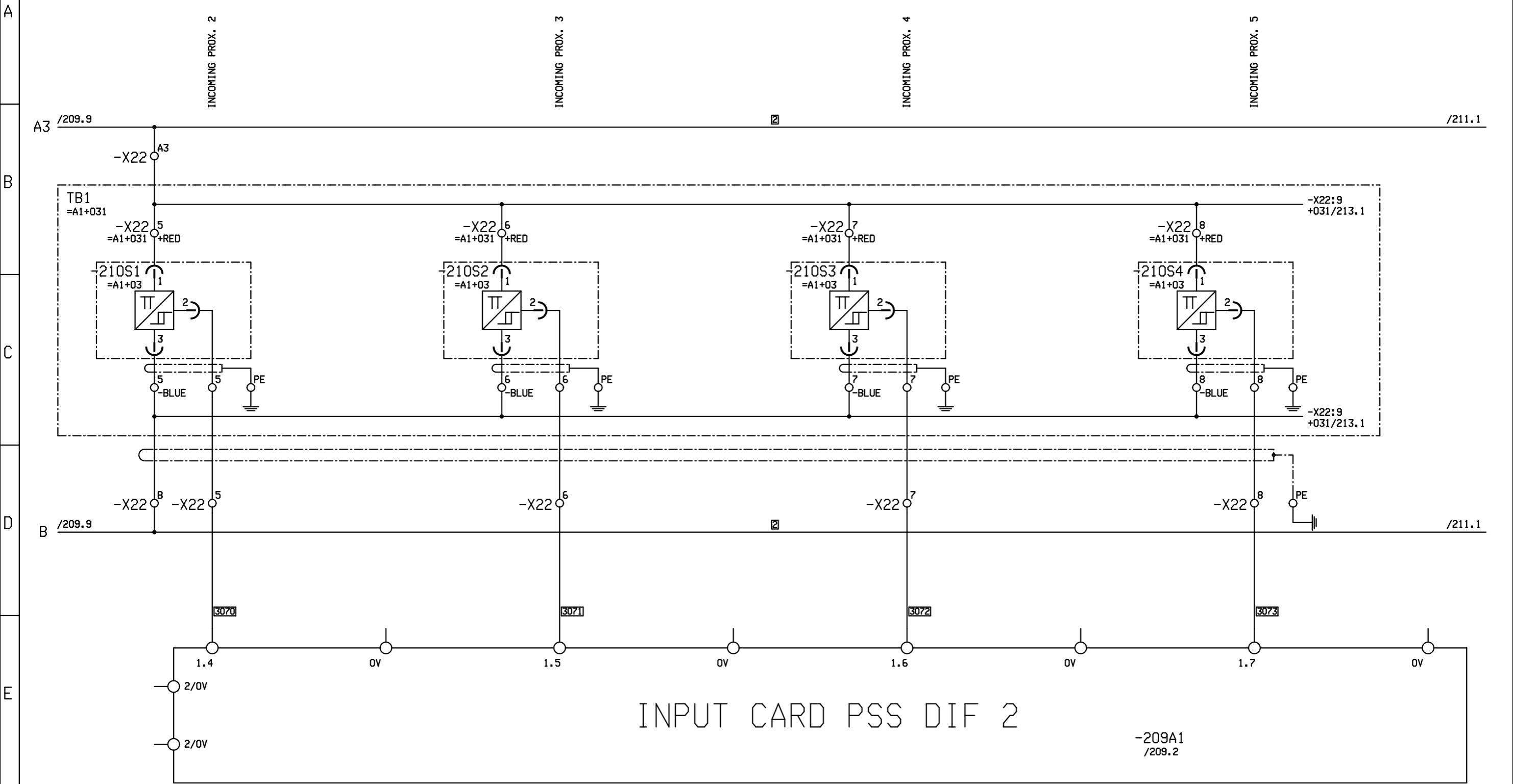
IMPULSE PROX. SWITCH 1.2

INCOMING PROX. 1.1

INCOMING PROX. 1.2



Rev.ind.	2.0	= =A1+01
Date	09.02.09	+
Drawn by	Sst	Sheet : 209
Dr.ch.by	Fhs	Cont.sheet: 210



Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			



Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA



INPUT PLC (FS)

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	= =A1+01
Date	09.02.09	
Drawn by	Sst	Sheet : 210
Dr.ch.by	Fhs	Cont.sheet: 211

A

CARRIER STARTED

CARRIER OUTSIDE STATION

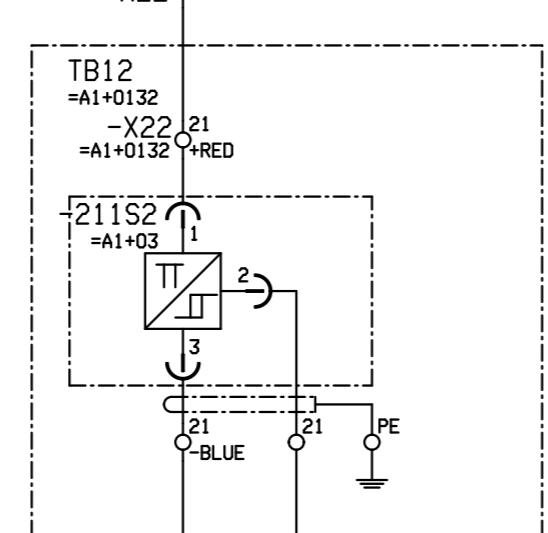
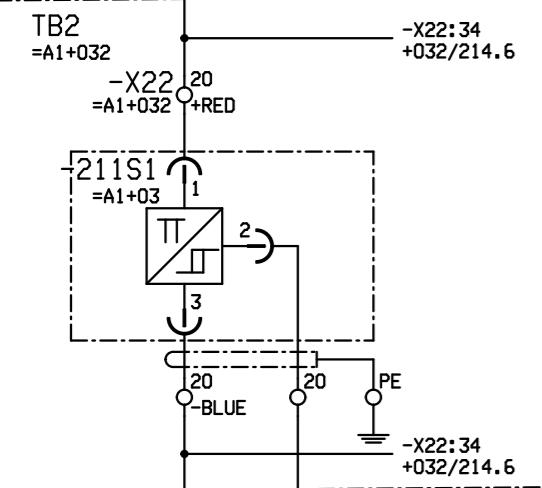
START OF MEASUREMENT

A3 /210.9

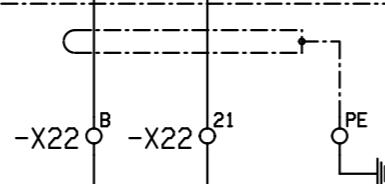
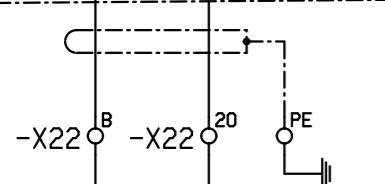
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4

B



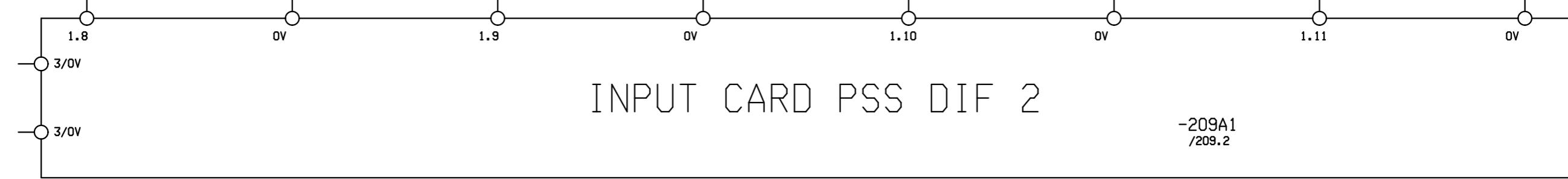
C



D

3090

3091



E

B /210.9

/212.1

2

F

3090-3109

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	= =A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+ +
File:	ANWAA1583					Drawn by	Sst	Sheet : 211
						Dr.ch.by	Fhs	Cont.sheet: 212

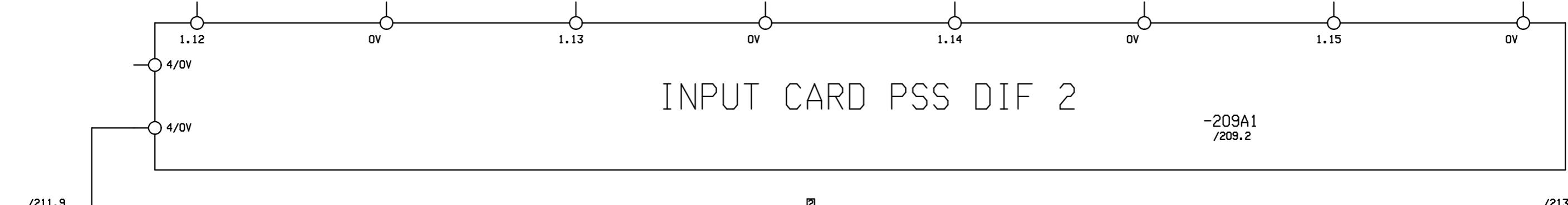
A

B

C

D

E



B /211.9

/213.1

3110-3129

Revision	2.0	Drawn by	MaM
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File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM

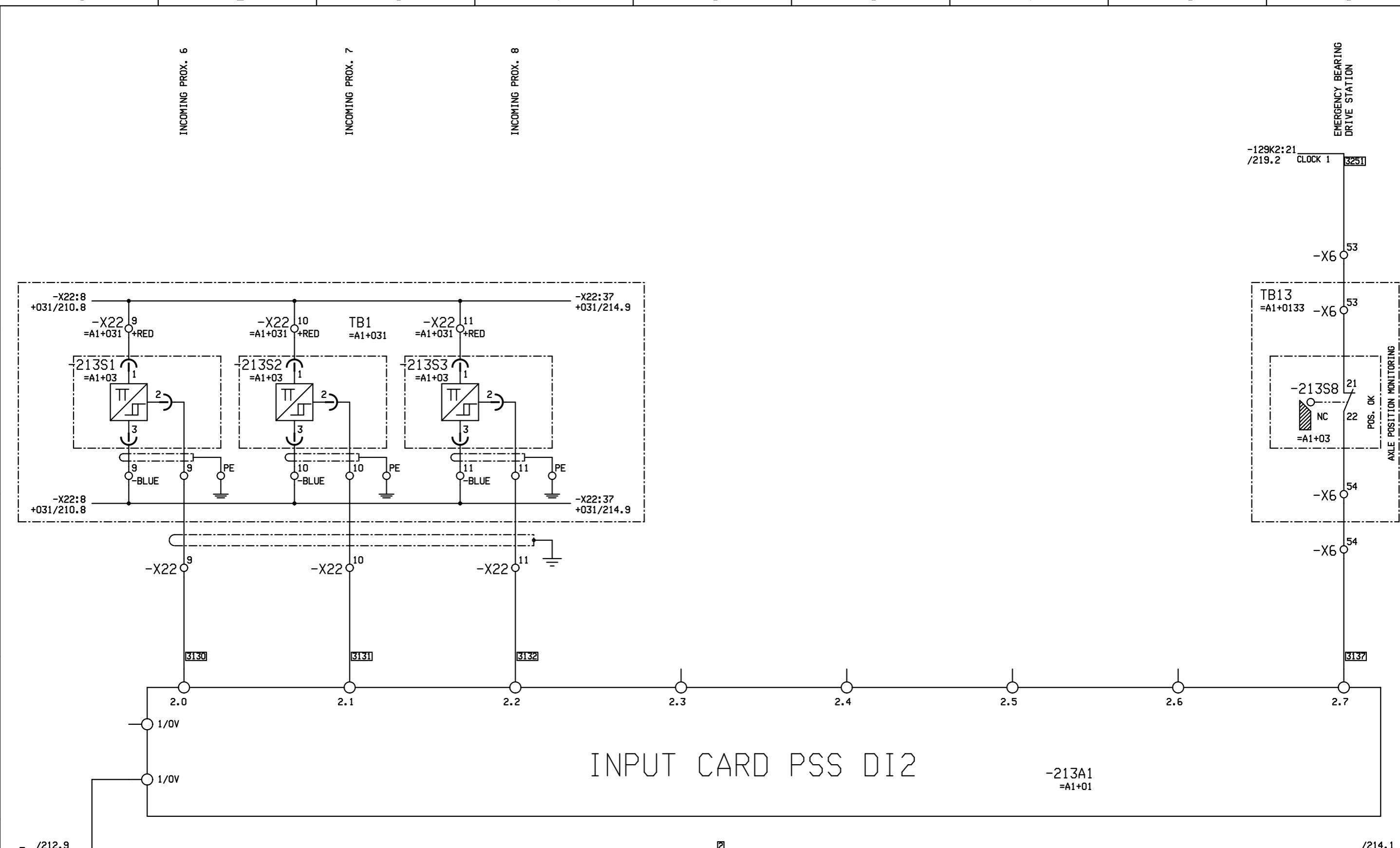


INPUT PLC (FS)

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	=	A1+01
Date	09.02.09	+	
Drawn by	Sst	Sheet :	212
Dr.ch.by	Fhs	Cont.sheet:	213



A

A3 /211.9

START POSITION

④

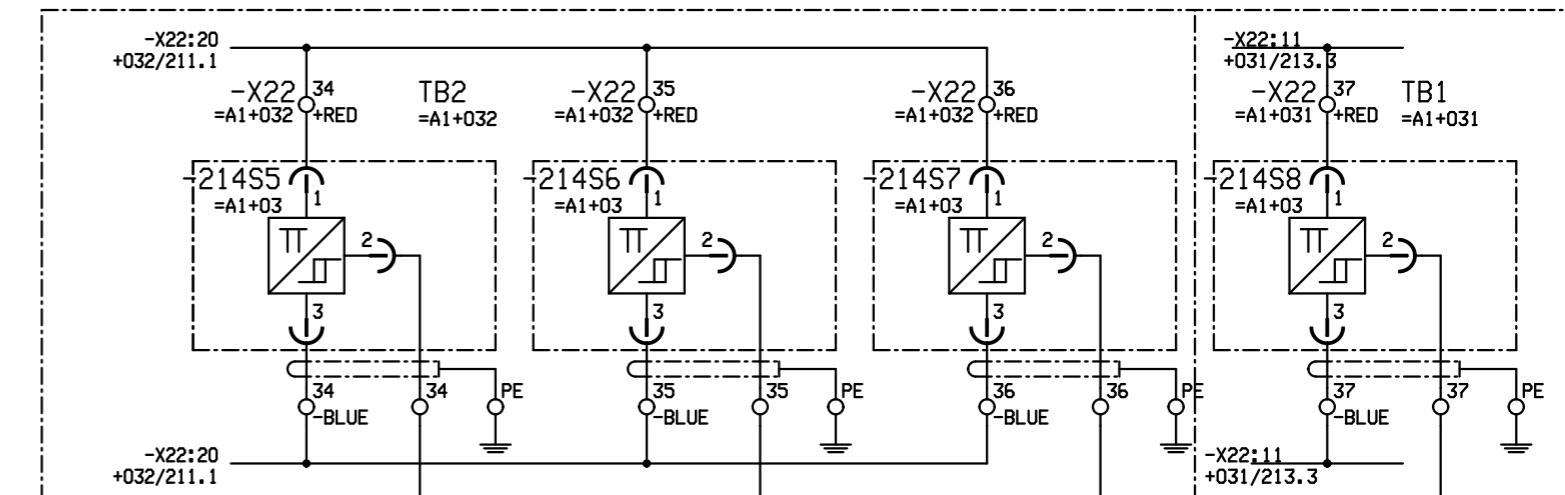
STOP 1

STOP 2

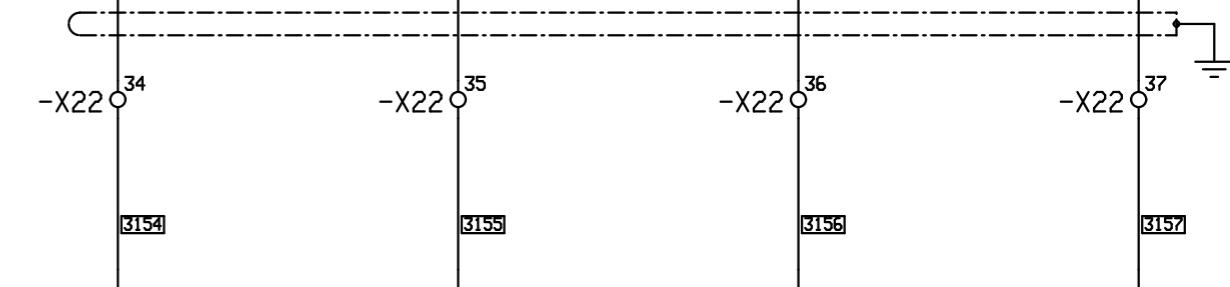
STOP 3

/216.1

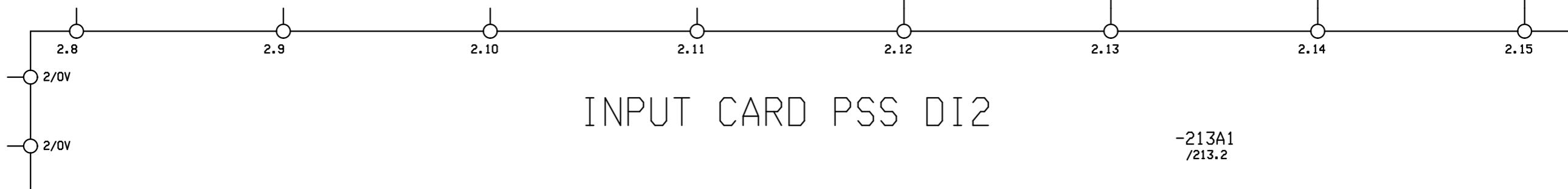
B



C



D



E

B /213.9

/215.1

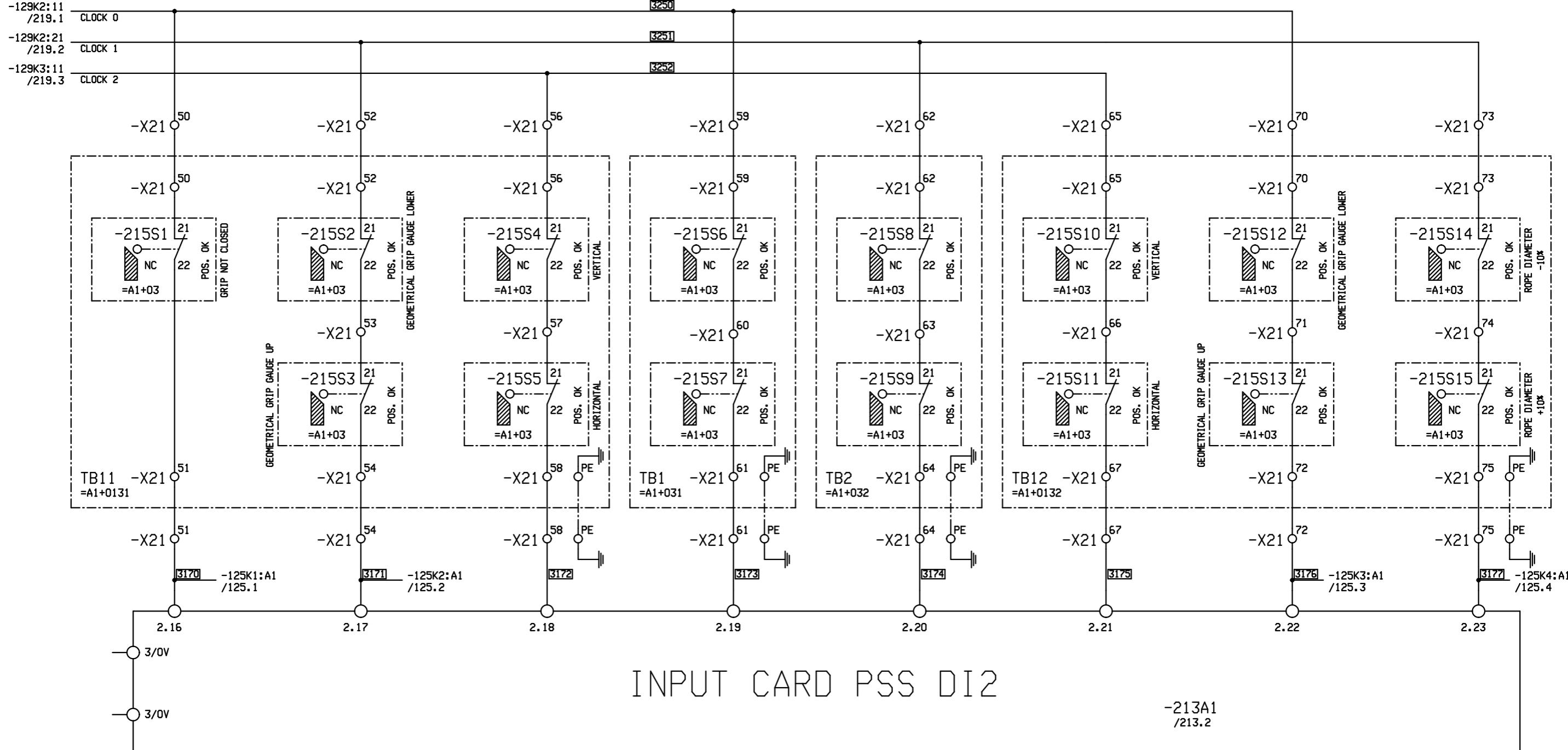
3150-3169

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	= =A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+
File:	ANWAA1583					Drawn by	Sst	Sheet : 214
						Dr.ch.by	Fhs	Cont.sheet: 215

②

1 2 3 4 5 6 7 8 9

A

GRIP NOT CLOSED
REVERSEGEOMETRICAL GRIP GAUGE
REVERSEROPE POSITION MONITORING
STATION INCOMINGGRIP FAULT
BEFORE LAUNCH
REVERSEGRIP FAULT
BEFORE LAUNCH
FORWARDROPE POSITION MONITORING
STATION OUTGOINGGEOMETRICAL GRIP GAUGE
FORWARDGRIP NOT CLOSED
FORWARD

INPUT CARD PSS DI2

B /214.9

/216.1

3170-3189

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM

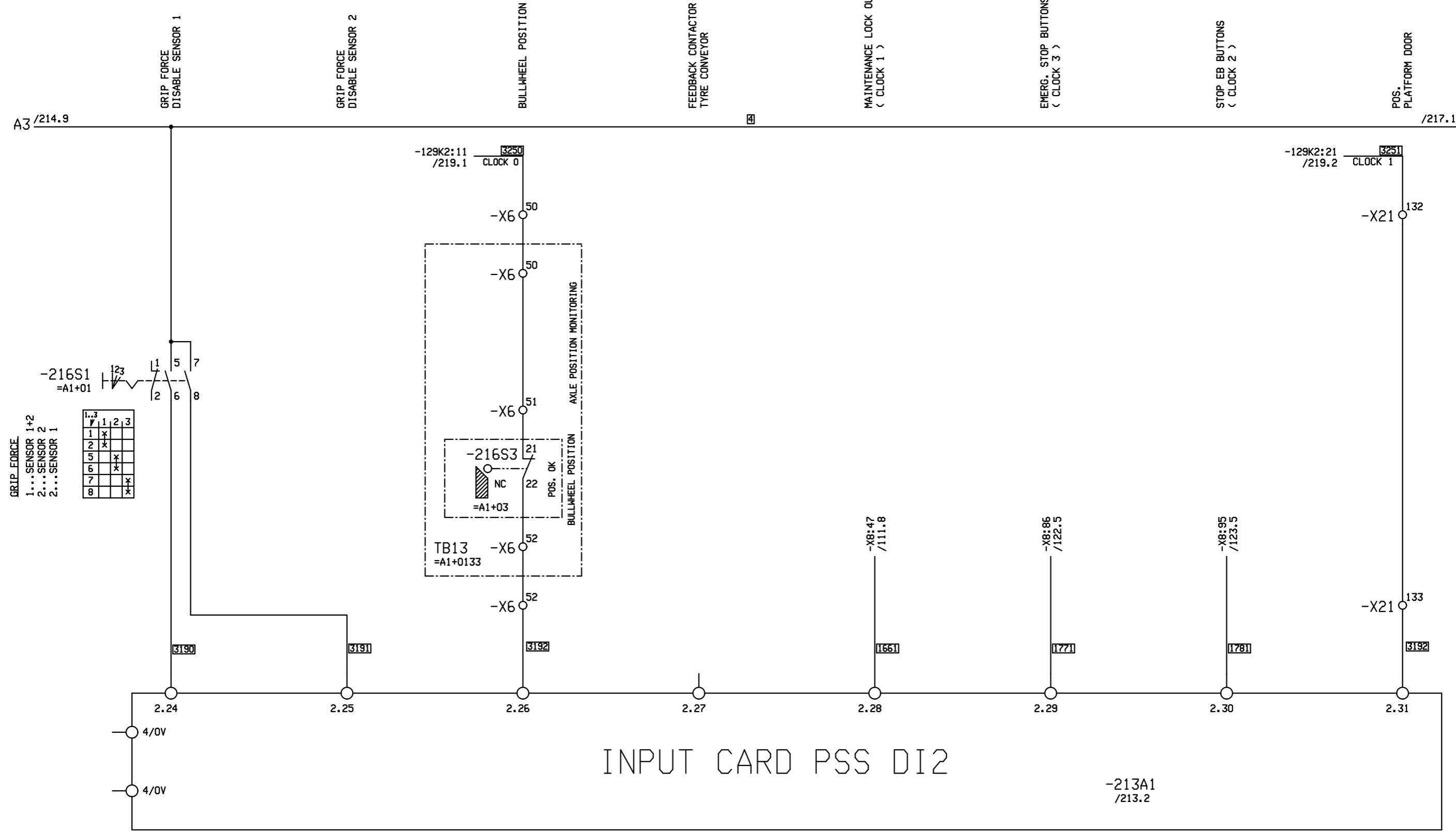


Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA

INPUT PLC (FS)	
DRIVE STATION	LV-CONTROL

Rev.ind.	2.0	= =A1+01
Date	09.02.09	
Drawn by	Sst	Sheet : 215
Dr.ch/by	Fhs	Cont.sheet: 216

A



F 3190-3209

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs

File: ANWAA1583

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM

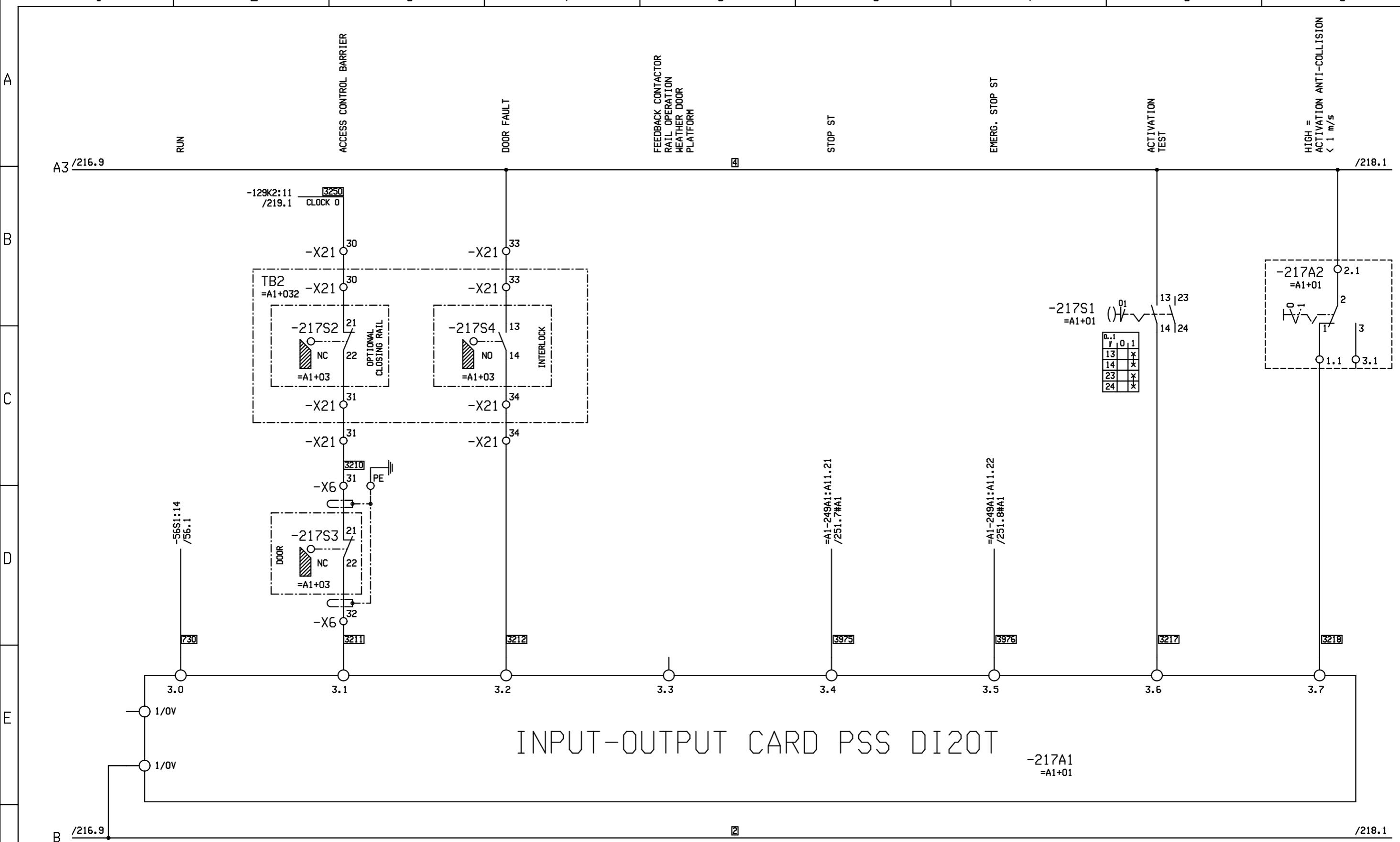
D Doppelmayr
Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA

INPUT PLC (FS)

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	= =A1+01
Date	09.02.09	+ +
Drawn by	Sst	Sheet : 216
Dr.ch.by	Fhs	Cont.sheet: 217



Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	INPUT PLC (FS)	Rev. ind.	2.0	= A1+01
Date	09.02.09	Dr.ch.by	Fhs		DRIVE STATION	Date	09.02.09	+ A1+01
File:	ANWAA1583				LV-CONTROL	Drawn by	Sst	Sheet : 217
						Dr.ch.by	Fhs	Cont.sheet: 218

1 2 3 4 5 6 7 8 9

A

RESET INTERNAL

RESET ANTICOLLISION SYSTEM

ACTIVATION ANTICOLLISION SYSTEM

STATIONS MANNED
DRIVE STATIONDRIVE STATION
UNMANNEDOVERIDE
EMERGENCY BEARING
DRIVE STATIONDRIVE DIRECTION
FORWARDDRIVE DIRECTION
REVERSE

/219.1

A3/217.9

-218S1
=A1+01

0..1	0..1
13	x
14	x

-218S2
=A1+01

0..1	0..1
13	x
14	x
23	x
24	x

-218S3
=A1+01

1..5	2	3	4	5
1	x			
2	x			
5		x		
6		x		
9		x		
10		x		
3			x	
4			x	
7			x	
8			x	
19	x			
20	x			
15	x			
16	x			
11	x			
12	x			
17		x		
18		x		
13		x		
14		x		

- 1...STATIONS MANNED
2...0
3...DRIVE STATION UNMANNED
4...0
5...RETURN STATION UNMANNED

/20.4

/23.9

/20.4

-218S4
=A1+01

0..1	0..1
1	x
2	x
3	
4	x
5	x
6	x
7	
8	x
9	x
10	x
11	x
12	x

-218S5
=A1+01

0..2	1..0..2
1	x
2	x
3	
4	x
5	x
6	x
7	
8	x
9	x
10	x
11	x
12	x

INPUT-OUTPUT CARD PSS DI20T

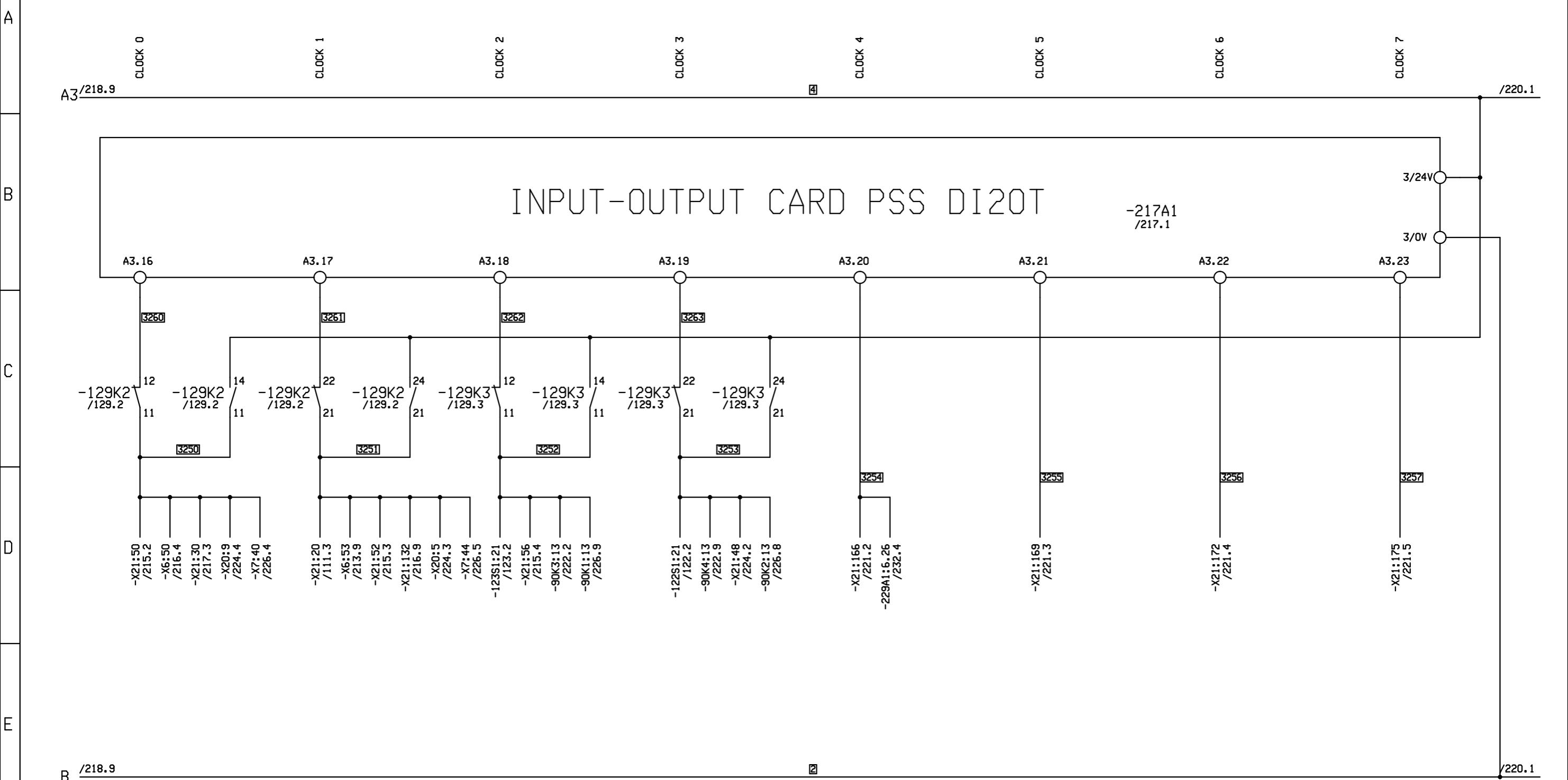
-217A1
/217.1

B /217.9

/219.1

3230-3249

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev. ind.	2.0	= =A1+01
Date	09.02.09	Drawn by	Fhs			Date	09.02.09	+ +
File:	ANWAA1583	Drawn by	Sst			Sheet :	218	
Drawn by	Sst	Sheet :	218	Dr.ch.by	Fhs	Cont.sheet:	219	



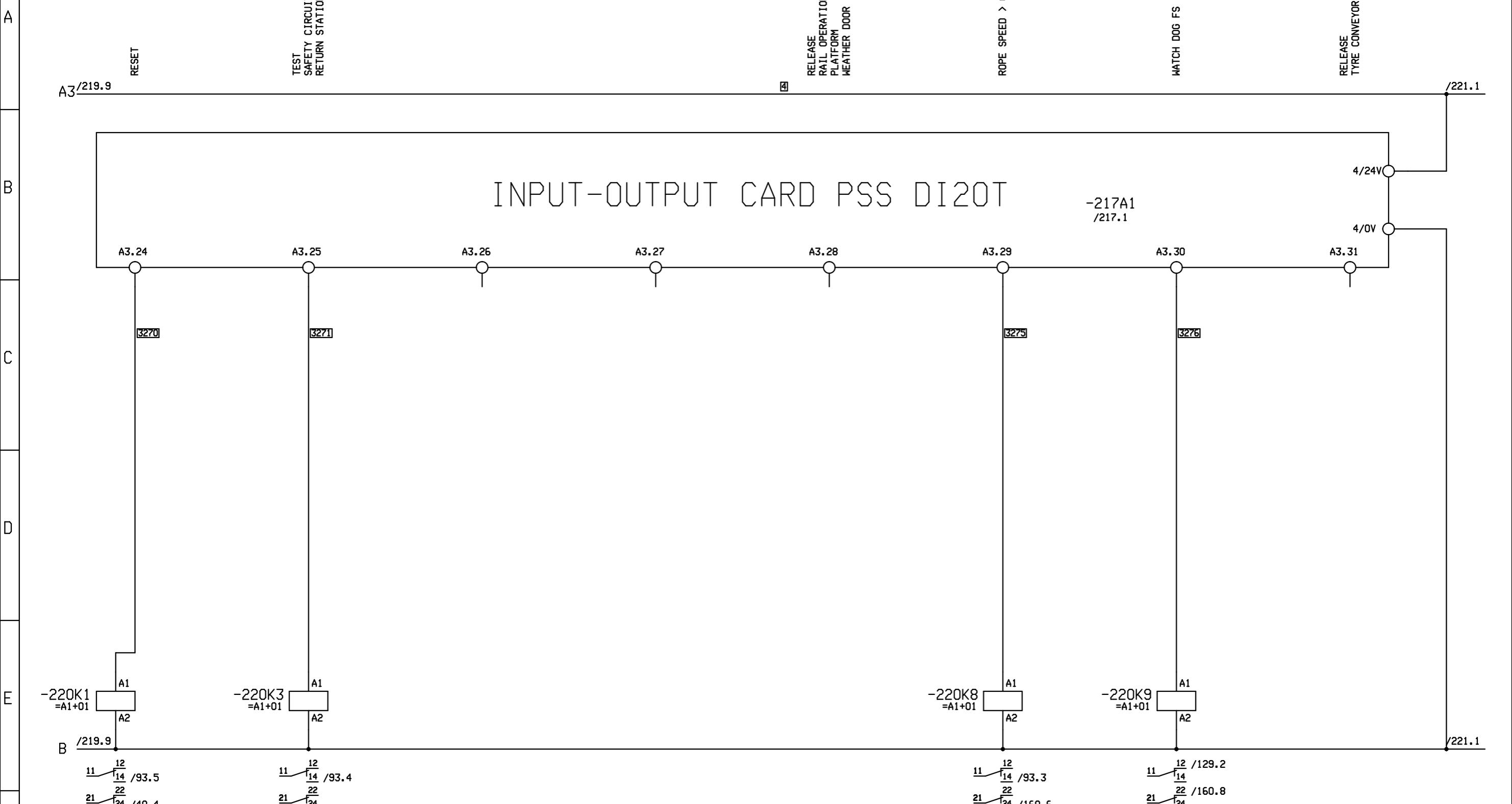
3250-3269

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	= =A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+ +
File:	ANWAA1583					Drawn by	Sst	Sheet : 219

DRIVE STATION

LV-CONTROL

Dr.ch.by	Fhs	Cont.sheet: 220
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3270-3289

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	220

OUTPUT PLC (FS)

DRIVE STATION

LV-CONTROL

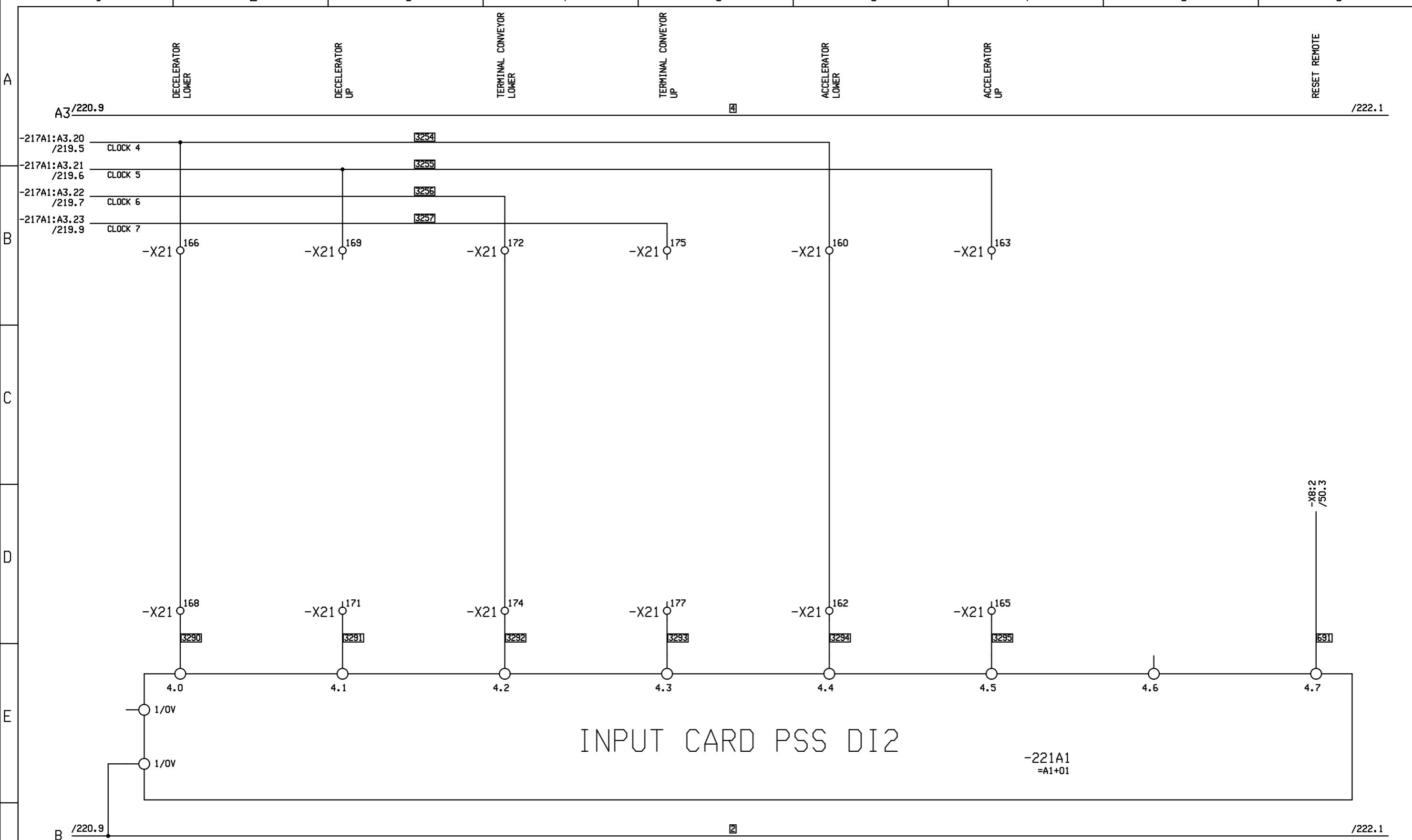
Rev.ind. 2.0

Date 09.02.09

Drawn by Sst Sheet : 220

Dr.ch.by Fhs Cont.sheet: 221

1 2 3 4 5 6 7 8 9



3290-3309

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	A1+01
Date	09.02.09	Dr.ch.bv	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	221

A

A3/221.9

STOP EB
RETURN STATIONREADY
RETURN STATION

AUXILIARY READY

RESET
DRIVE STATION
UNMANNEDRUN
DRIVE STATION
UNMANNEDSTATIONS MANNED
RETURN STATIONDRIVE STATION
UNMANNED
RETURN STATIONSAFETY CIRCUIT O.K.
RETURN STATION

/223.1

=A1-129K3:11
/219.3#A1 CLOCK 2=A1-129K3:2
/219.4#A1 CLOCK 3-90K3
/90.313
14

3310

-90K3
/90.320
194.8
2/0V
4.9
2/0V-222S1
=A1+01
0 01
13 23
14 24
13 23
14 24
13 23
14 24
13 23
14 24-90X17:5
/90.5

1285

-265A1:A15.0
/265.1

1286

-265A1:A15.1
/265.2

1287

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/265.3

1400

-265A1:A15.3
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1401

-90K4
/90.413
14

3317

-90K4
/90.420
19

3318

INPUT CARD PSS DI2

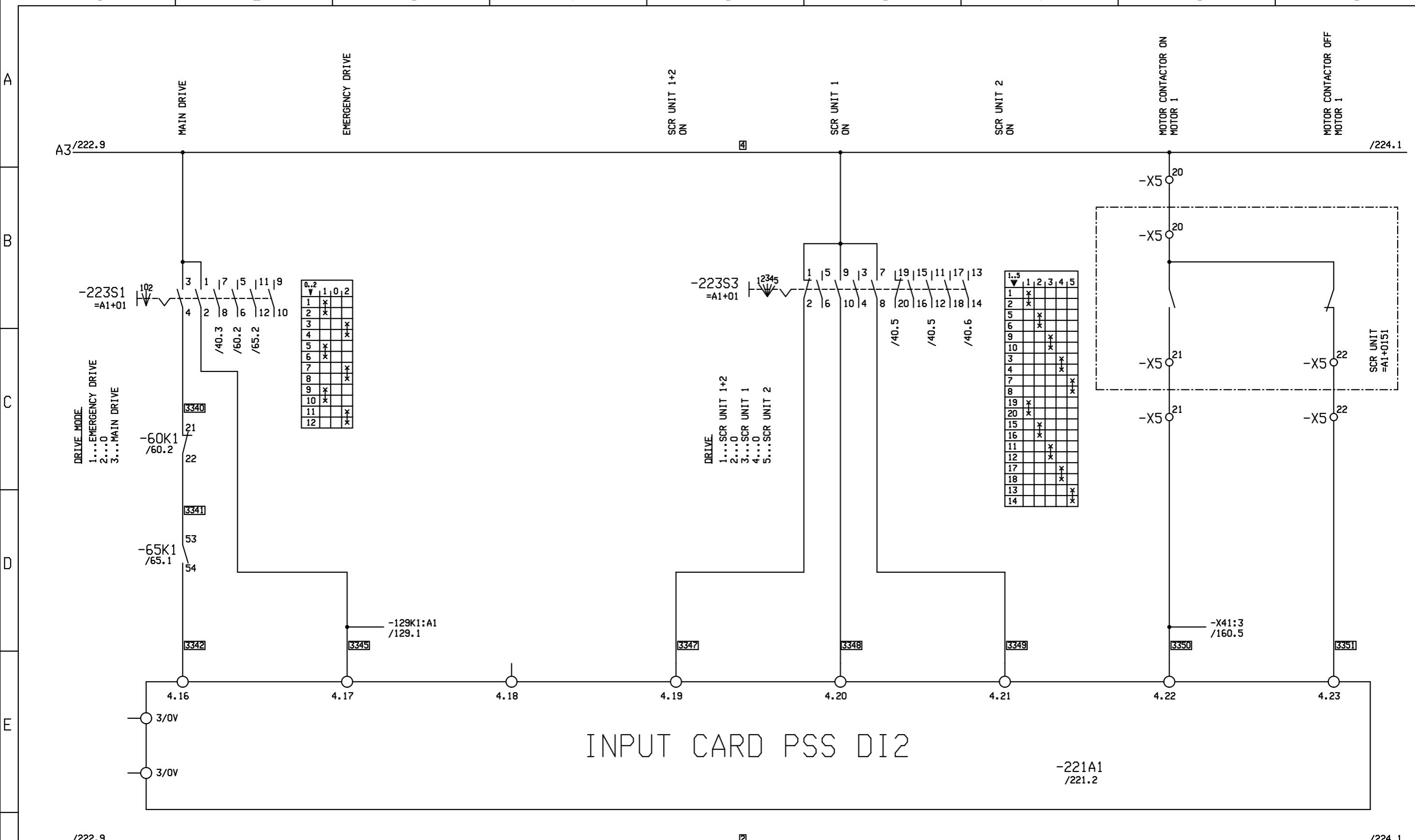
-221A1
/221.2

B /221.9

/223.1

3310-3329

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev. ind.	2.0	= =A1+01	
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+ +	
File:	ANWAA1583					Drawn by	Sst	Sheet : 222	
				INPUT PLC (FS)		Dr.ch.by	Fhs	Cont.sheet: 223	
				DRIVE STATION		LV-CONTROL			

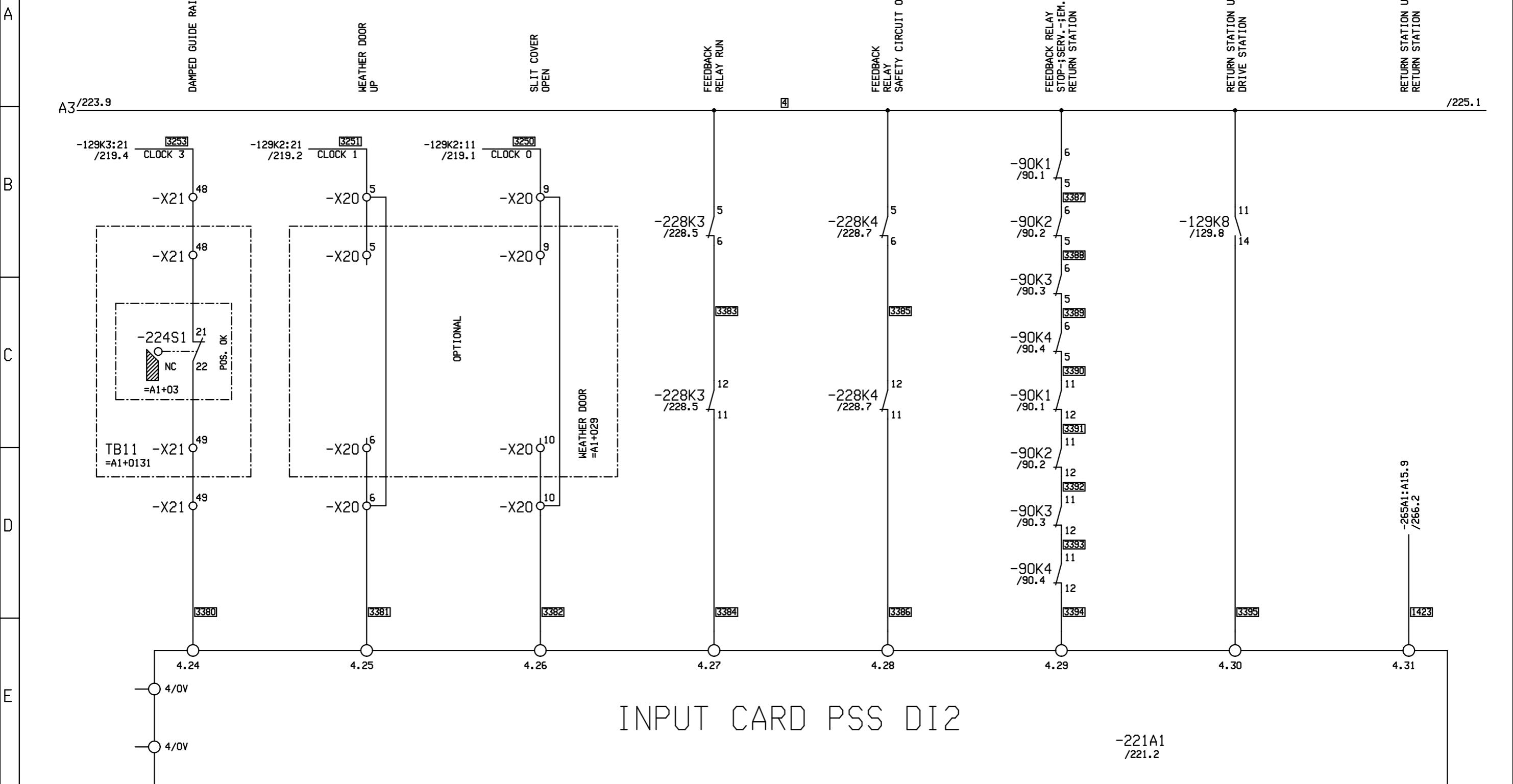


Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
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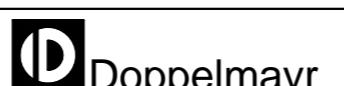
8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM



Rev.ind.	2.0	=	=A1+01
Date	09.02.09	+	
Drawn by	Sst	Sheet :	223
Dr.ch.by	Fhs	Cont.sheet:	224

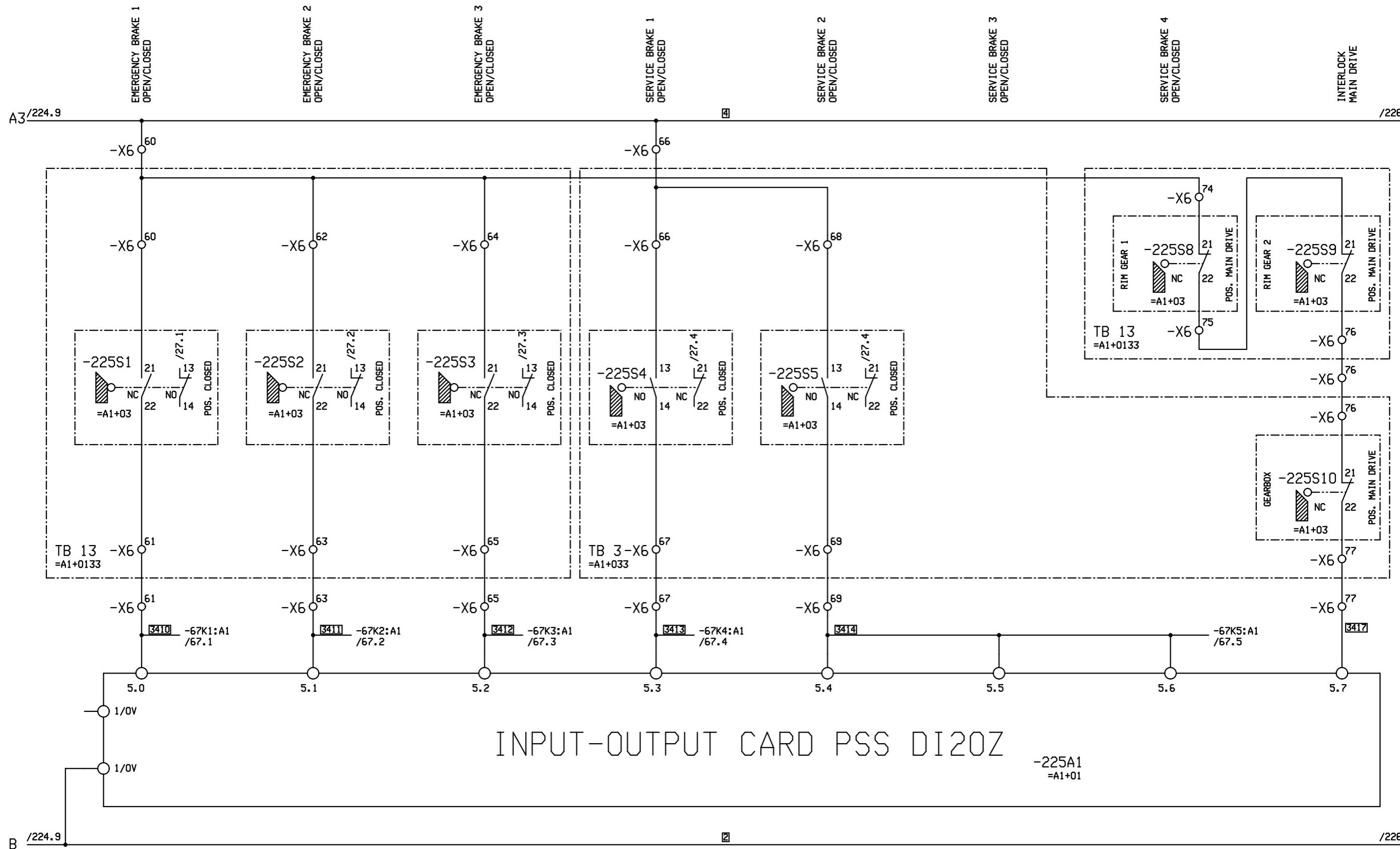


Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	INPUT PLC (FS)	Rev. ind.	2.0	= =A1+01
Date	09.02.09	Dr.ch.by	Fhs		DRIVE STATION	Date	09.02.09	+ +
File:	ANWAA1583				LV-CONTROL	Drawn by	Sst	Sheet : 224
						Dr.ch.by	Fhs	Cont.sheet: 225



Innova Patent GmbH
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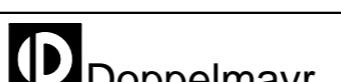
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INPUT-OUTPUT CARD PSS DI20Z

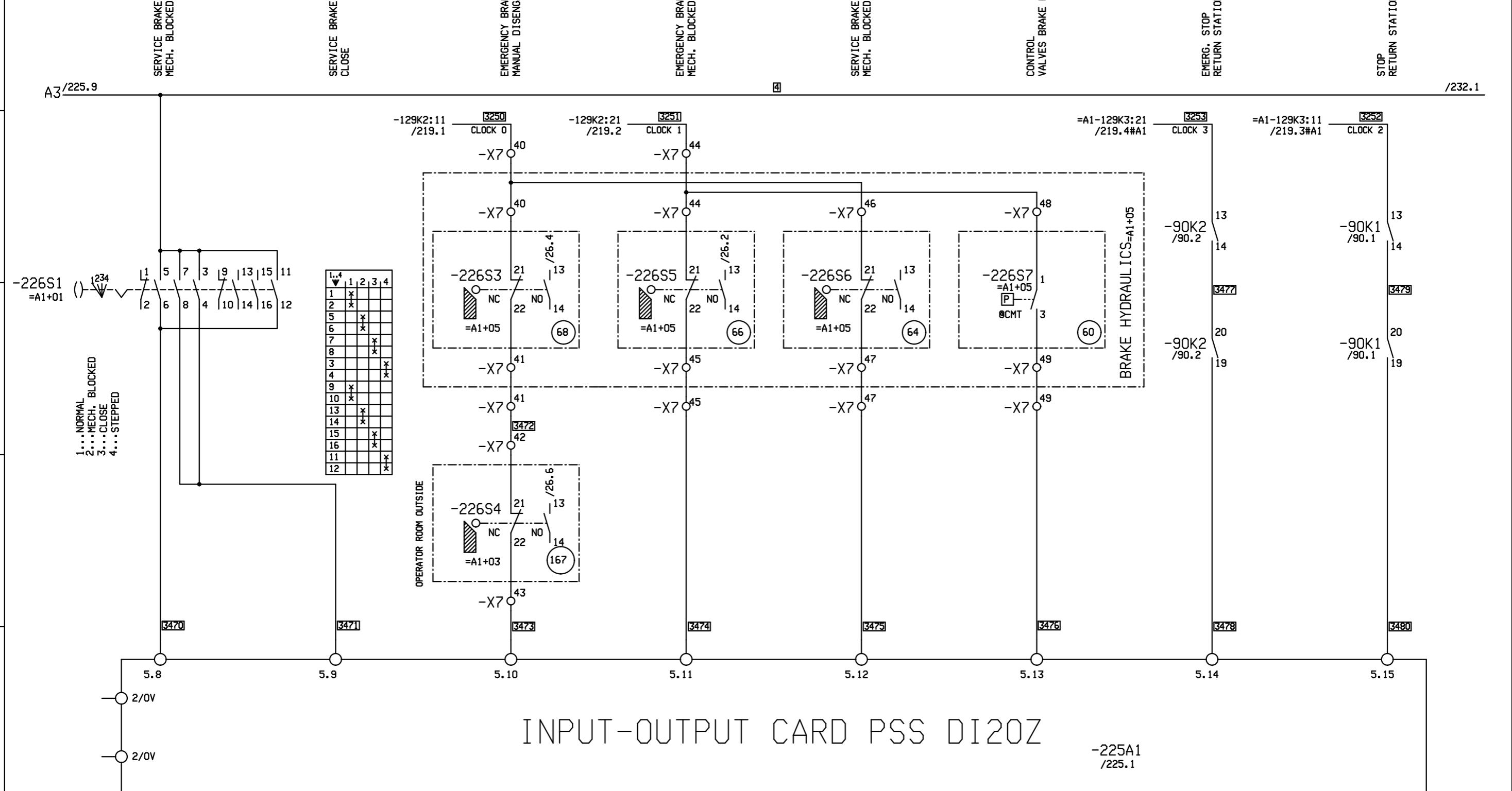
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Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Rev. ind.	2.0	=	A1+01
Date	09.02.09	Dr.ch.by	Fhs		Date	09.02.09	+	
File:	ANWAA1583				Drawn by	Sst	Sheet :	225
					INPUT PLC (FS)			
					DRIVE STATION	LV-CONTROL		

Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA

Doppelmayr

ONLY FOR BRAKE TESTS



B /225.9

2

/227.1

3470-3489

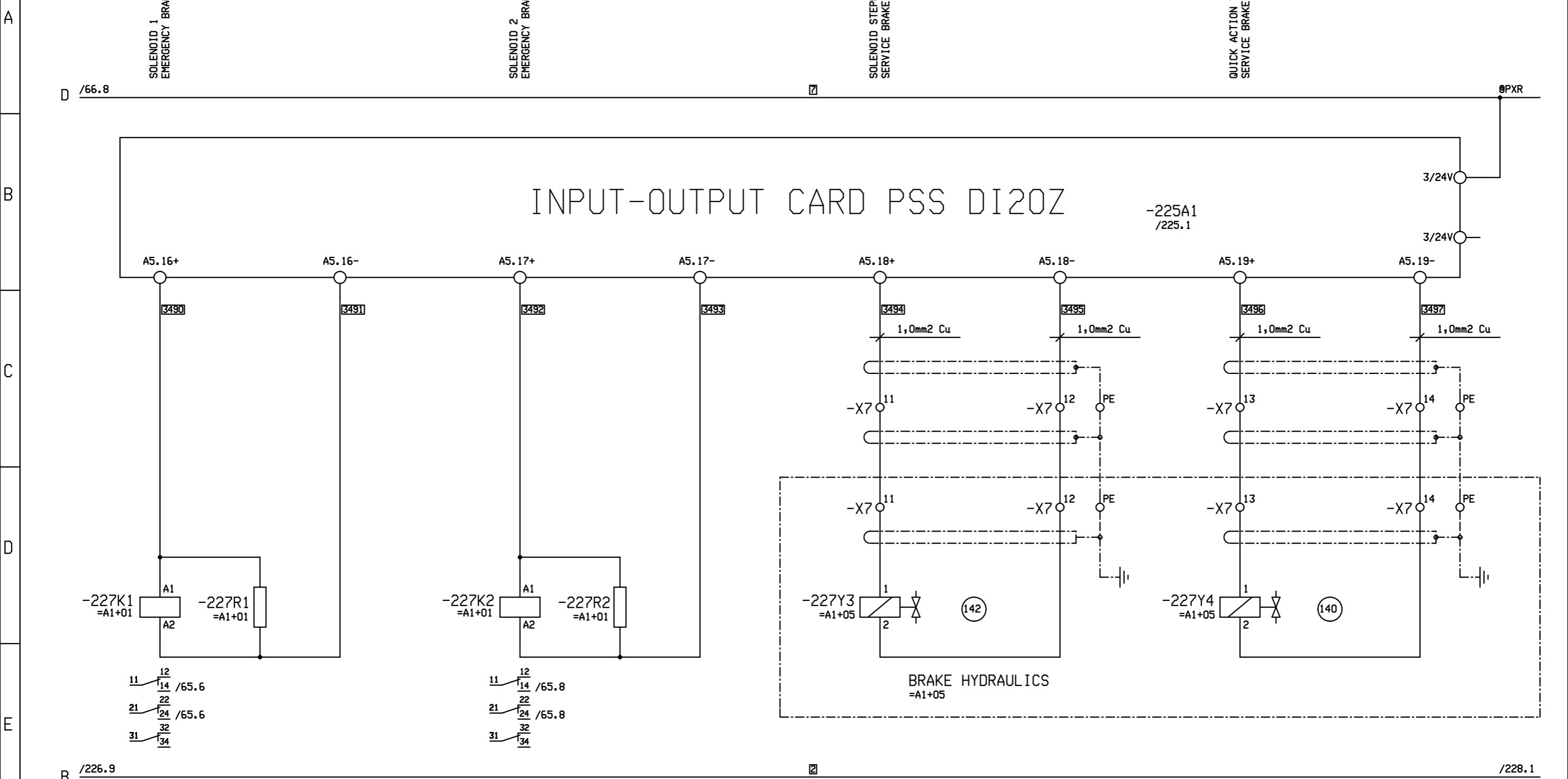
Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Rev. ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs		Date	09.02.09	+	
File:	ANWAA1583				Drawn by	Sst	Sheet :	226
							Dr.ch.by	Fhs
							Cont.sheet:	227

Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA

INPUT PLC (FS)

DRIVE STATION

LV-CONTROL



3490-3509

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr <small>Innova Patent GmbH A-6960 WOLFURT / AUSTRIA</small>	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	227

OUTPUT PLC (FS)

DRIVE STATION

LV-CONTROL

Rev.ind. 2.0
Date 09.02.09

Drawn by Sst Sheet : 227

Dr.ch.by Fhs Cont.sheet: 228

A

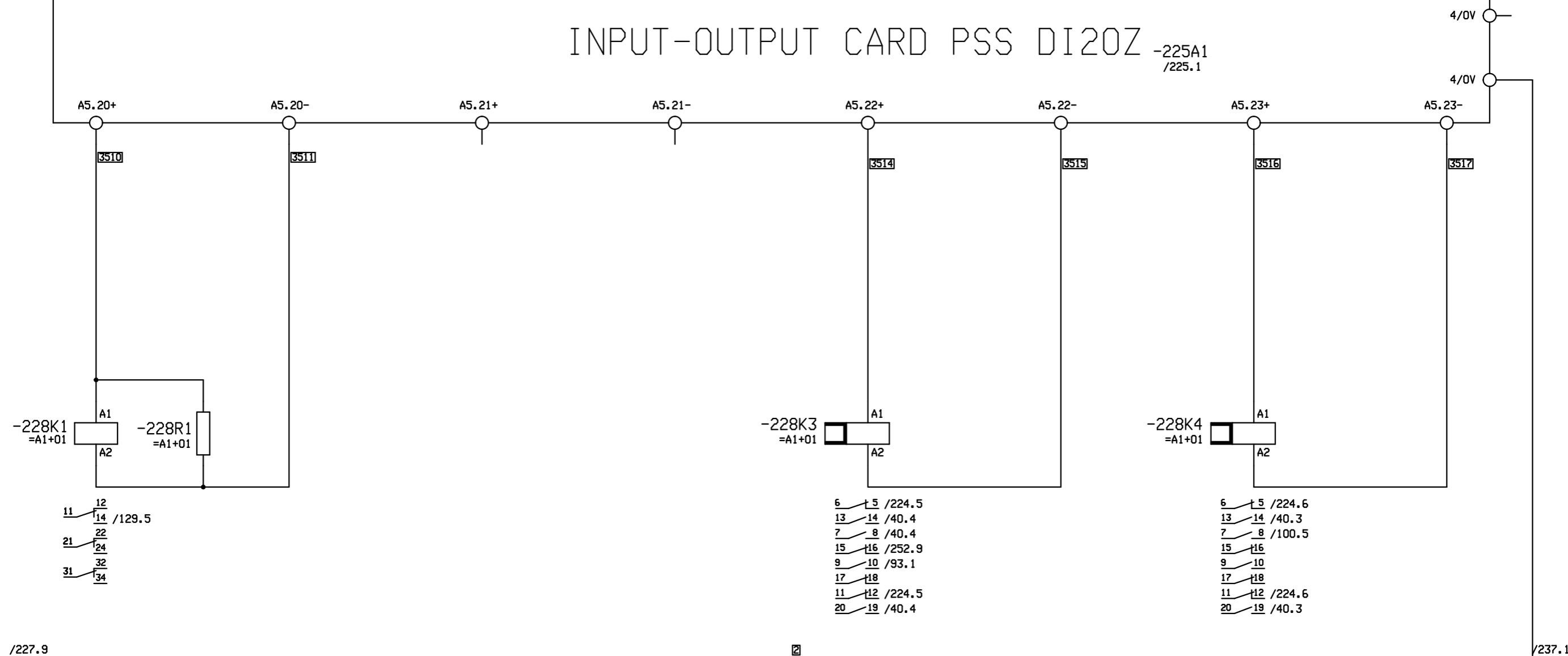
REVERSE

RUN

SAFETY CIRCUIT
O.K.

B

INPUT-OUTPUT CARD PSS DI20Z

-225A1
/225.1

F

3510-3529

1 2 3 4 5 6 7 8 9

A

B

C

D

E

F

ROPE POSITION MONITORING
TOWER 1

ROPE POSITION MONITORING
TOWER 2

ROPE POSITION MONITORING
TOWER 3

ROPE POSITION MONITORING
TOWER 4

ROPE POSITION MONITORING
TOWER 5

ROPE POSITION MONITORING
TOWER 6

ROPE POSITION MONITORING
TOWER 7

ROPE POSITION MONITORING
TOWER 8

-80X16:1
/80.1

-80X16:2
/80.2

-80X16:3
/80.3

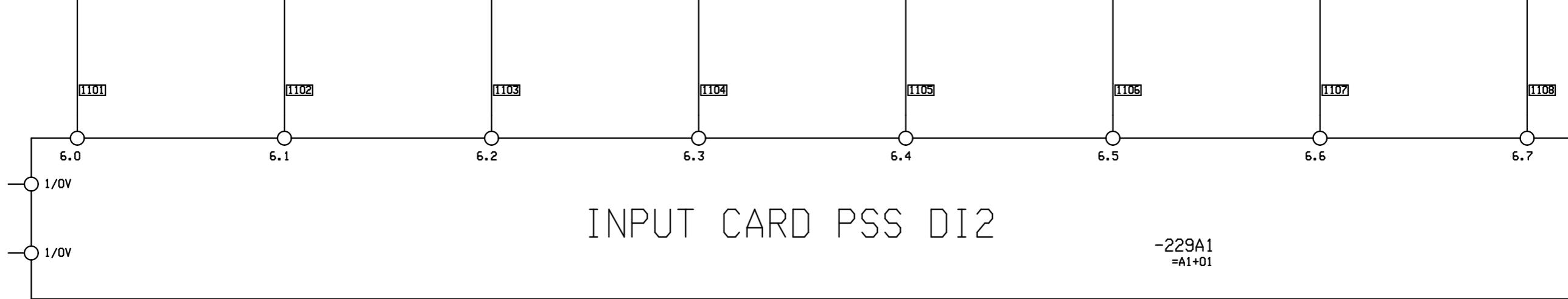
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/80.5

-80X16:5
/80.6

-80X16:6
/80.7

-80X16:7
/80.8

-80X16:8
/80.9



/82.9

/230.1

3530-3549

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	229

1 2 3 4 5 6 7 8 9

A

B

C

D

E

F

ROPE POSITION MONITORING
TOWER 9

ROPE POSITION MONITORING
TOWER 10

ROPE POSITION MONITORING
TOWER 11

ROPE POSITION MONITORING
TOWER 12

ROPE POSITION MONITORING
TOWER 13

ROPE POSITION MONITORING
TOWER 14

ROPE POSITION MONITORING
TOWER 15

ROPE POSITION MONITORING
TOWER 16

-80X16:9
/81.1

-80X16:10
/81.2

-80X16:11
/81.3

-80X16:12
/81.5

-80X16:13
/81.6

-80X16:14
/81.7

-80X16:15
/81.8

-80X16:16
/81.9

2/0V

2/0V

2/0V

2/0V

2/0V

2/0V

2/0V

2/0V

/229.9

I100

/231.1

3550-3569

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev. ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	230



Doppelmayr



INPUT PLC (FS)

DRIVE STATION

LV-CONTROL



Rev. ind.

2.0

=

Date

09.02.09

+

Drawn by

Sst

Sheet :

230

Dr.ch.by

Fhs

Cont.sheet:

231

1 2 3 4 5 6 7 8 9

A

B

C

D

E

F

ROPE POSITION MONITORING
TOWER 17

ROPE POSITION MONITORING
TOWER 18

ROPE POSITION MONITORING
TOWER 19

ROPE POSITION MONITORING
TOWER 20

ROPE POSITION MONITORING
TOWER 21

ROPE POSITION MONITORING
TOWER 22

-80X16:17
/82.1

-80X16:18
/82.2

-80X16:19
/82.3

-80X16:20
/82.5

-80X16:21
/82.6

-80X16:22
/82.7

3/0V

3/0V

/230.9

1100

/232.1

INPUT CARD PSS DI2

-229A1
/229.2

3570-3589

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			
			= A1+01

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM



Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA



INPUT PLC (FS)

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	=	A1+01
Date	09.02.09	+	
Drawn by	Sst	Sheet :	231
Dr.ch/by	Fhs	Cont.sheet:	232

1 2 3 4 5 6 7 8 9

A

SRA - PROCESSING
ROPE MISSING OR TOO CLOSE
RPD SYSTEMAOC - PROCESSING
ROPE OUT OF CENTER
RPD SYSTEMDISABLE
RPD SYSTEMDISABLE
BREAK FORK SWITCH SYSTEMMOTOR CONTACTOR ON
MOTOR 2MOTOR CONTACTOR OFF
MOTOR 2

STOP SB ST

SPEED V2

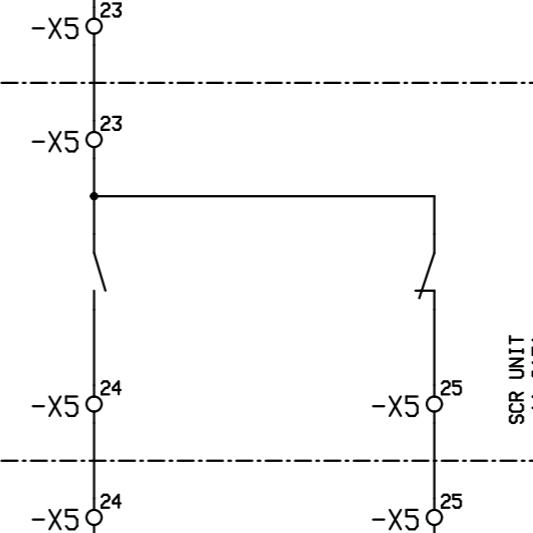
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A3/226.9

-217A1:A3.20
/219.5 CLOCK 4

3254

④

-X41:2
/160.6

3596

3597

-245A1:A10.5
/245.7

3598

6.24

6.25

6.26

6.27

6.28

6.29

6.30

6.31

INPUT CARD PSS DI2

-229A1
/229.2

/231.9

1100

3590-3609

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAMInnova Patent GmbH
A-6960 WOLFURT / AUSTRIA

INPUT PLC (FS)

Rev.ind.	2.0	=	A1+01
Date	09.02.09	+	
Drawn by	Sst	Sheet :	232
Dr.ch.by	Fhs	Cont.sheet:	237

A

A4 /160.9

PARK RAIL
RAIL POS. OUTPARK RAIL
THROUGH RAIL
POS. OUTPARK RAIL
GUIDE RAIL
POS. OUTPARK RAIL
RAIL POS. INPARK RAIL
THROUGH RAIL
POS. INPARK RAIL
GUIDE RAIL
POS. INFEED RAIL
RAIL POS. OUTFEED RAIL
THROUGH RAIL
POS. OUT

/238.1

B

5

5

5

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C

D

E



INPUT CARD P10 DI

-237A1
=A1+01

B

RAILS DRAWN IN POSITION OUT

/238.1

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAMInnova Patent GmbH
A-6960 WOLFURT / AUSTRIA

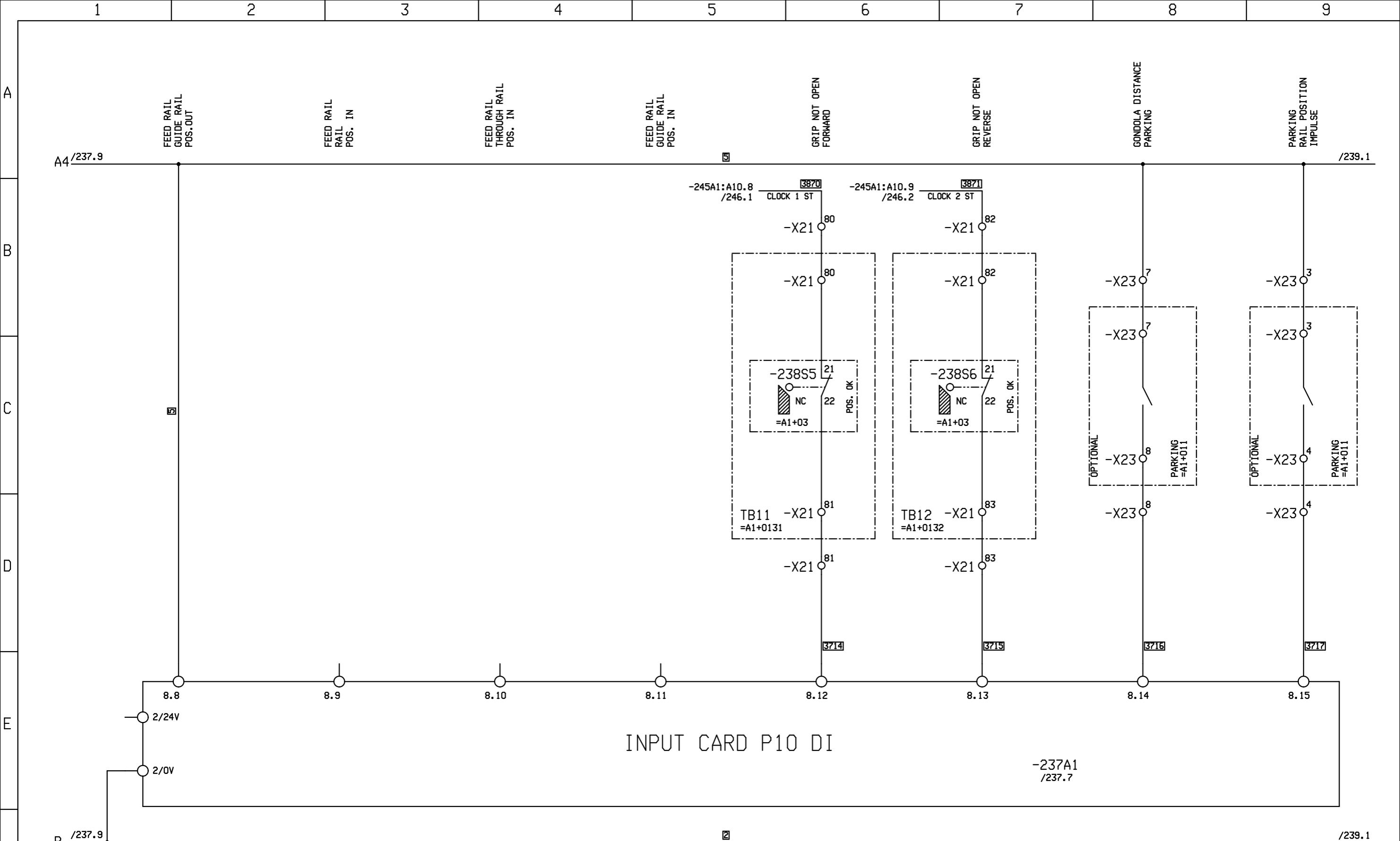
INPUT PLC (ST)

DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	=	A1+01
Date	09.02.09	+	
Drawn by	Sst	Sheet :	237
Dr.ch.by	Fhs	Cont.sheet:	238

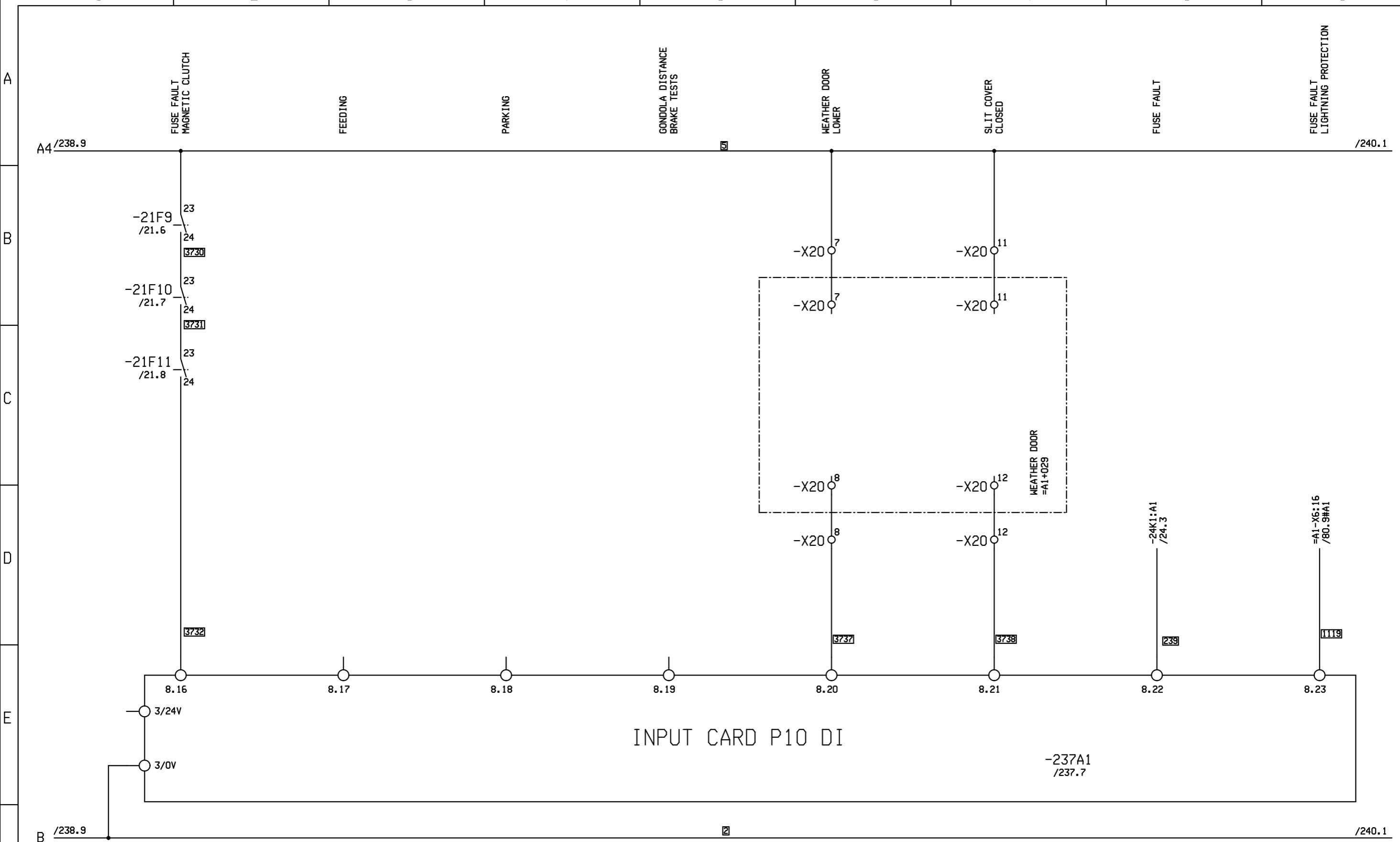
3690-3709



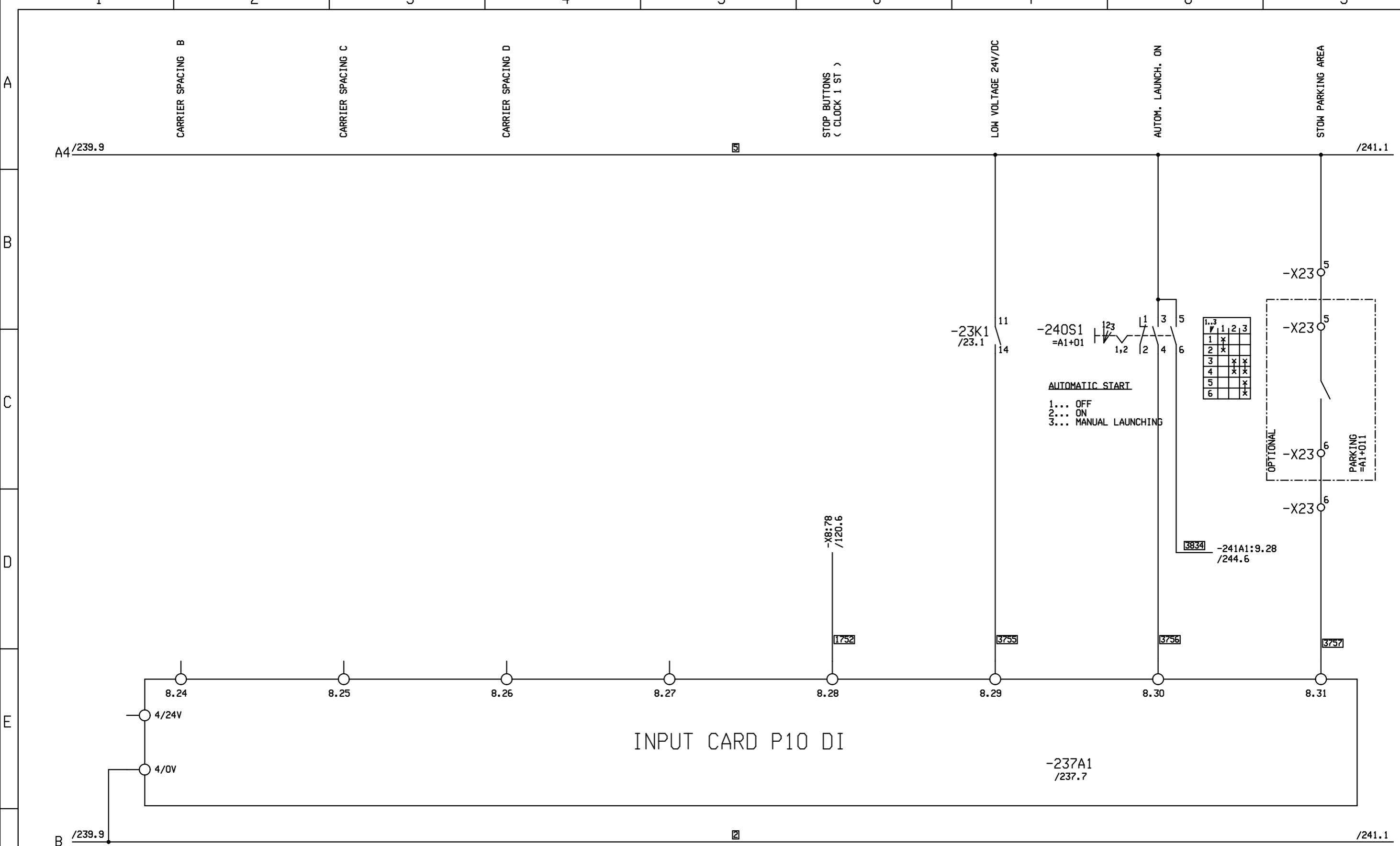
3710-3729

RAILS DRAWN IN POSITION OUT

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev. ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	238



Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev. ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	239
						Dr.ch.by	Fhs	Cont.sheet:	240



Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

A

A4 /240.9

5

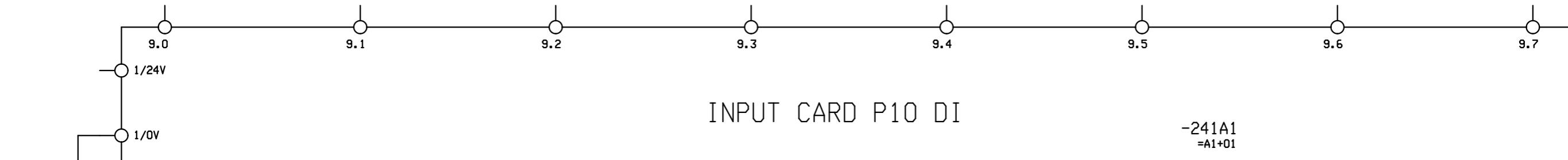
/242.1

B

C

D

E



B /240.9

2

/242.1

3770-3789

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM

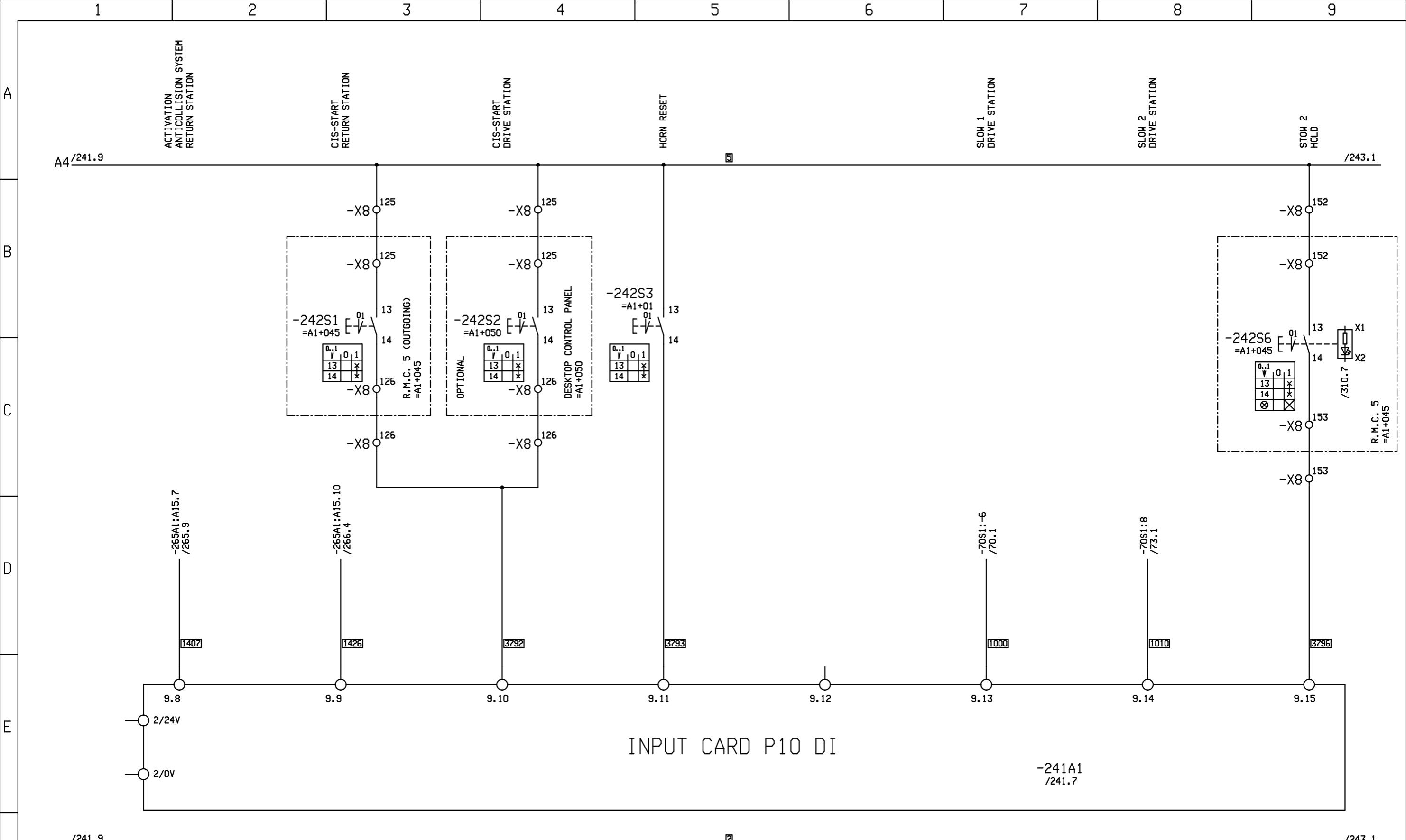


INPUT PLC (ST)

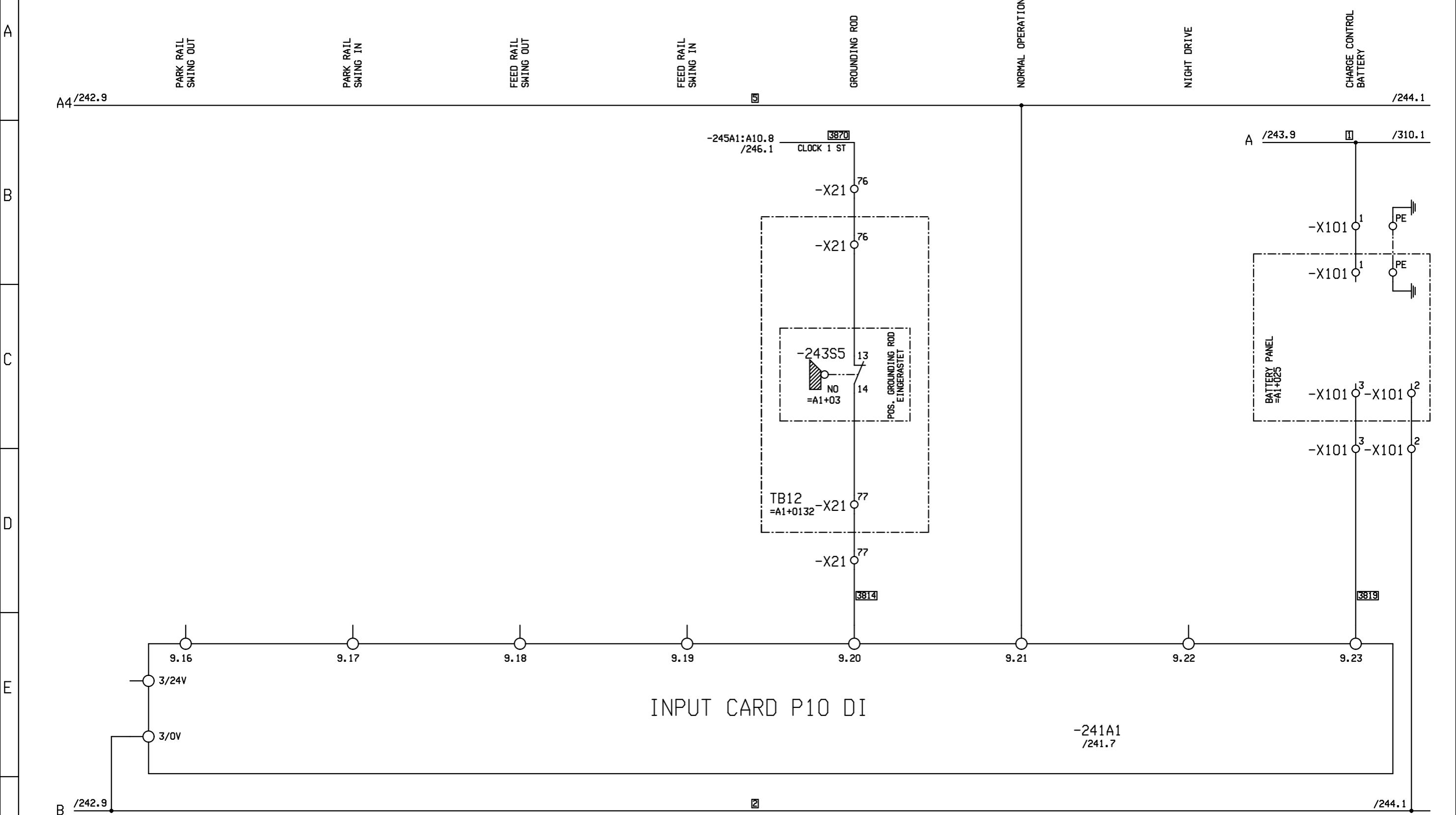
DRIVE STATION

LV-CONTROL

Rev.ind.	2.0	=	A1+01
Date	09.02.09	+	
Drawn by	Sst	Sheet :	241
Dr.ch.by	Fhs	Cont.sheet:	242



Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Rev. ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs		Date	09.02.09	+	
File:	ANWAA1583				Drawn by	Sst	Sheet :	242
							Dr.ch.by	Fhs
							Cont.sheet:	243



Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	243
						Dr.ch.by	Fhs	Cont.sheet:	244

A

START POSITION
SPACING CLUTCH
OUTGOINGSTART POSITION
SPACING CLUTCH
CURVED SECTIONSTOW
FEED CONVEYOR

MANUAL LAUNCHING

LIGHT TEST

A4/243.9

/245.1

B

-X8 140

-X8 140

-244S5 01

=A1+045

0..1	
13	X
14	X

13

14

R.M.C. 5 (OUTGOING)

=A1+045

-X8 141

-X8 141

-240S1:6

/240.8

3834

-160S1:f

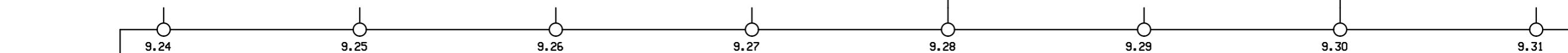
/160.1

2210

C

D

E



INPUT CARD P10 DI

-241A1
/241.7

B /243.9

/245.1

3830-3849

Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM



Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA

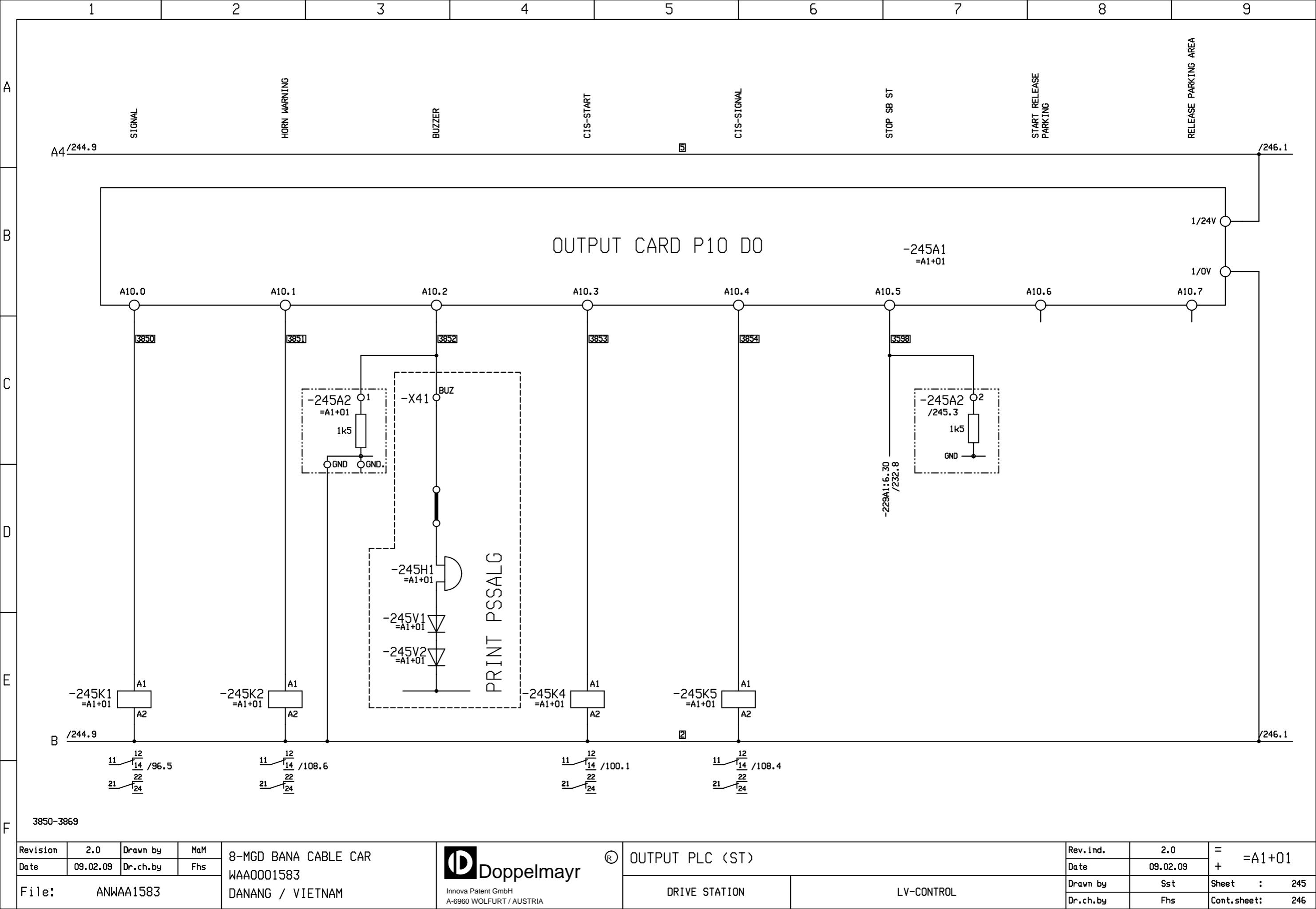


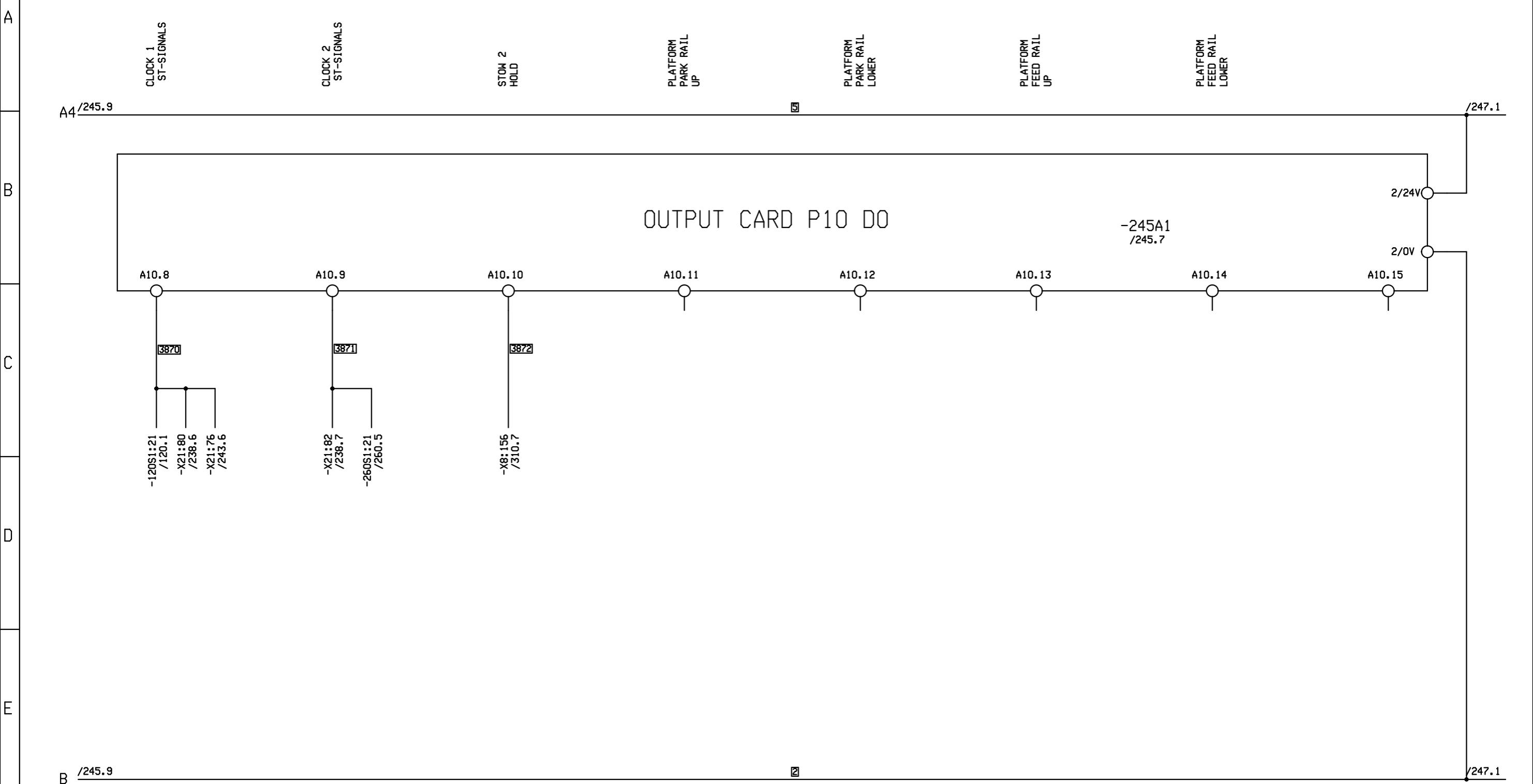
INPUT PLC (ST)

DRIVE STATION

LV-CONTROL

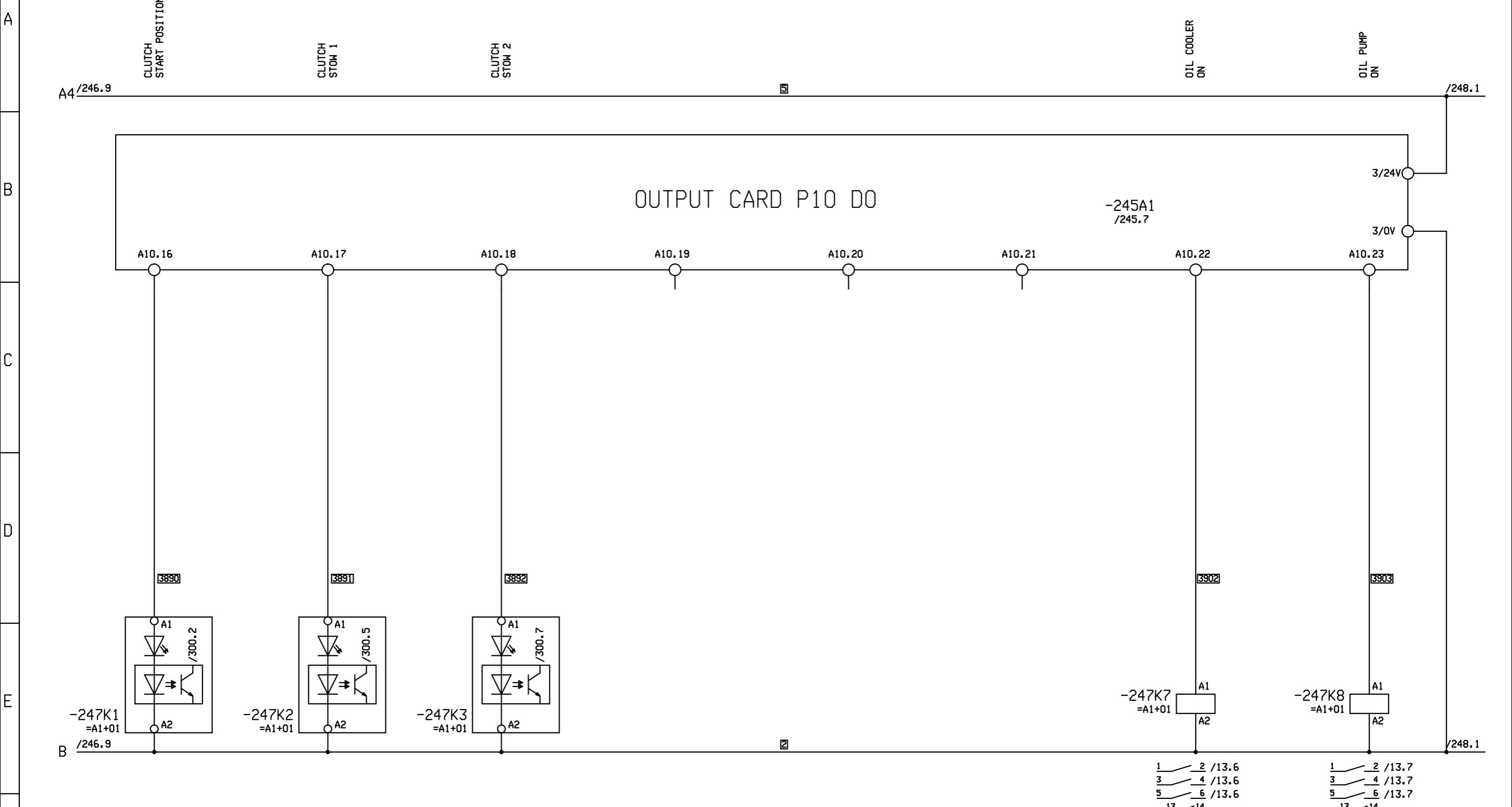
Rev.ind.	2.0	= =A1+01
Date	09.02.09	
Drawn by	Sst	Sheet : 244
Dr.ch.by	Fhs	Cont.sheet: 245



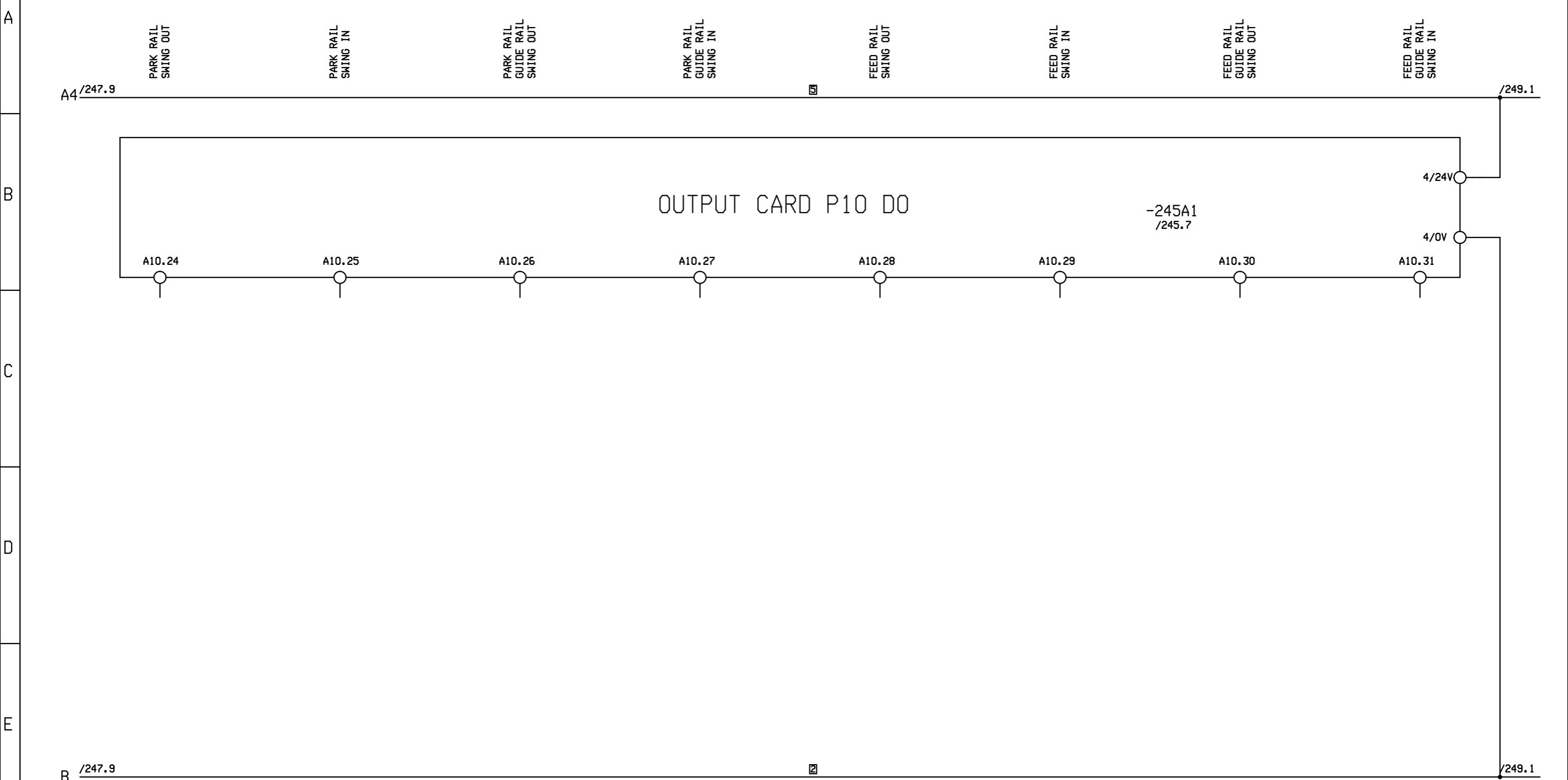


3870-3889

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	246
						Dr.ch.by	Fhs	Cont.sheet:	247
OUTPUT PLC (ST)				DRIVE STATION			LV-CONTROL		



Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr <small>Innova Patent GmbH A-6960 WOLFURT / AUSTRIA</small>	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	247



3910-3929

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	248



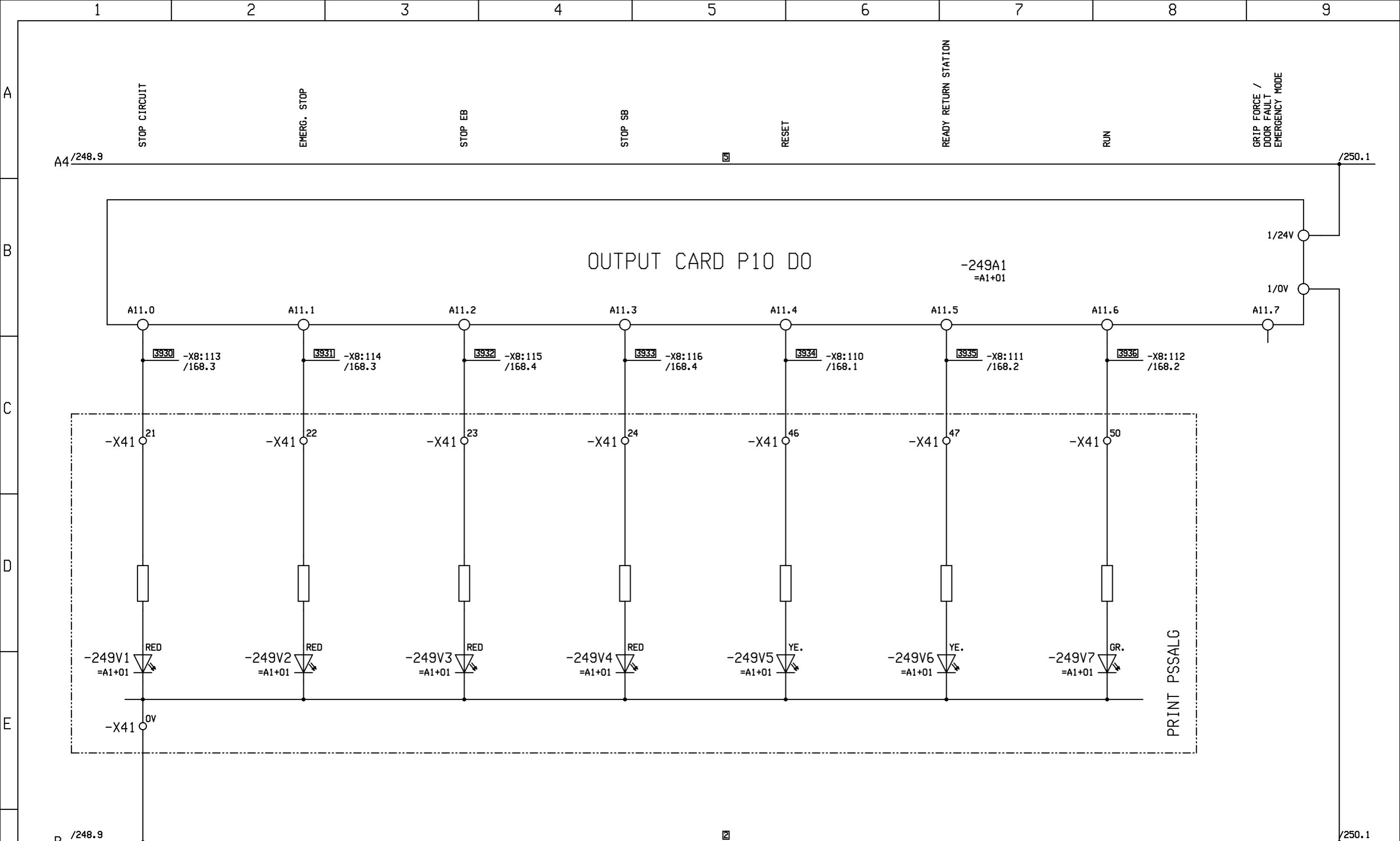
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OUTPUT PLC (ST)

DRIVE STATION

LV-CONTROL

Dr.ch.by Fhs Cont.sheet: 249



Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs		Date	09.02.09	+	
File:	ANWAA1583				Drawn by	Sst	Sheet :	249
							Dr.ch.by	Fhs
							Cont.sheet:	250



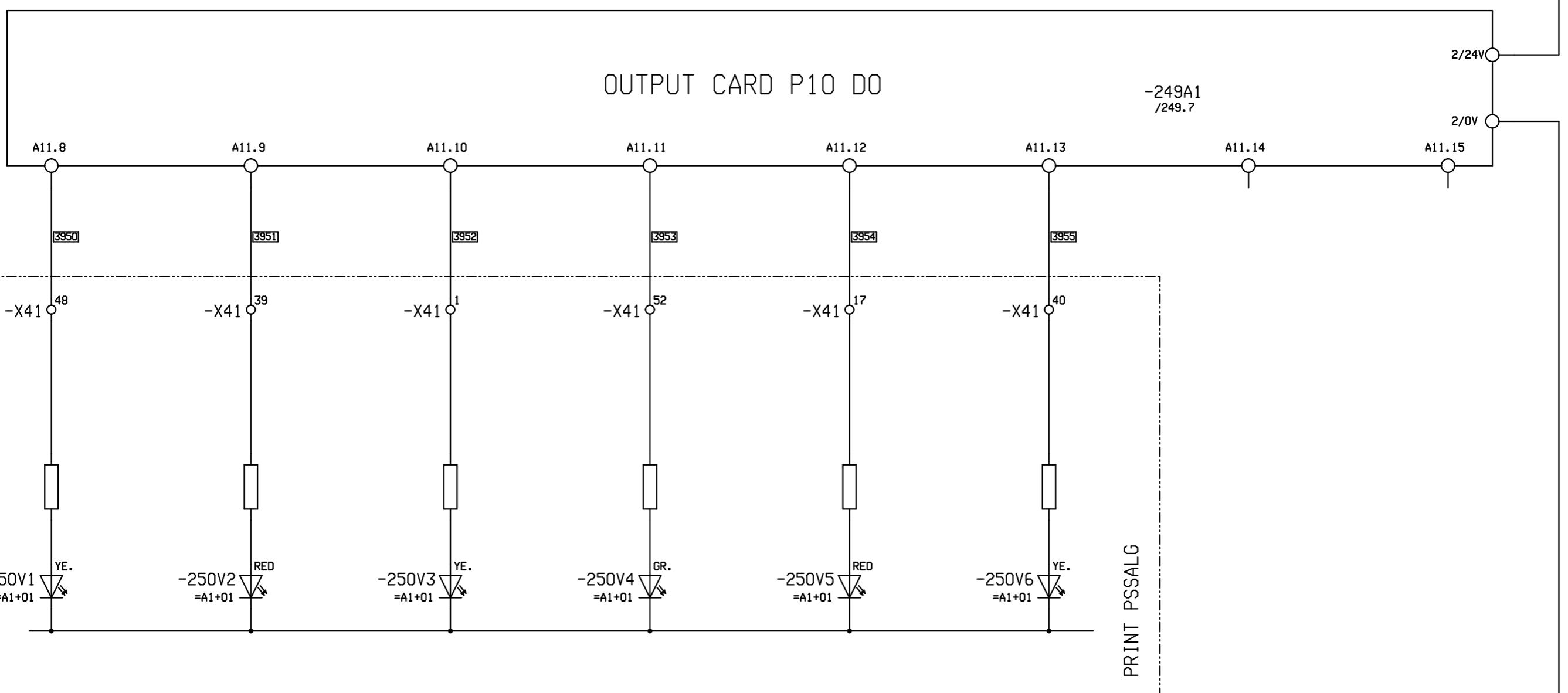
Innova Patent GmbH
A-6960 WOLFURT / AUSTRIA



OUTPUT PLC (ST)

DRIVE STATION

LV-CONTROL



3950-3969

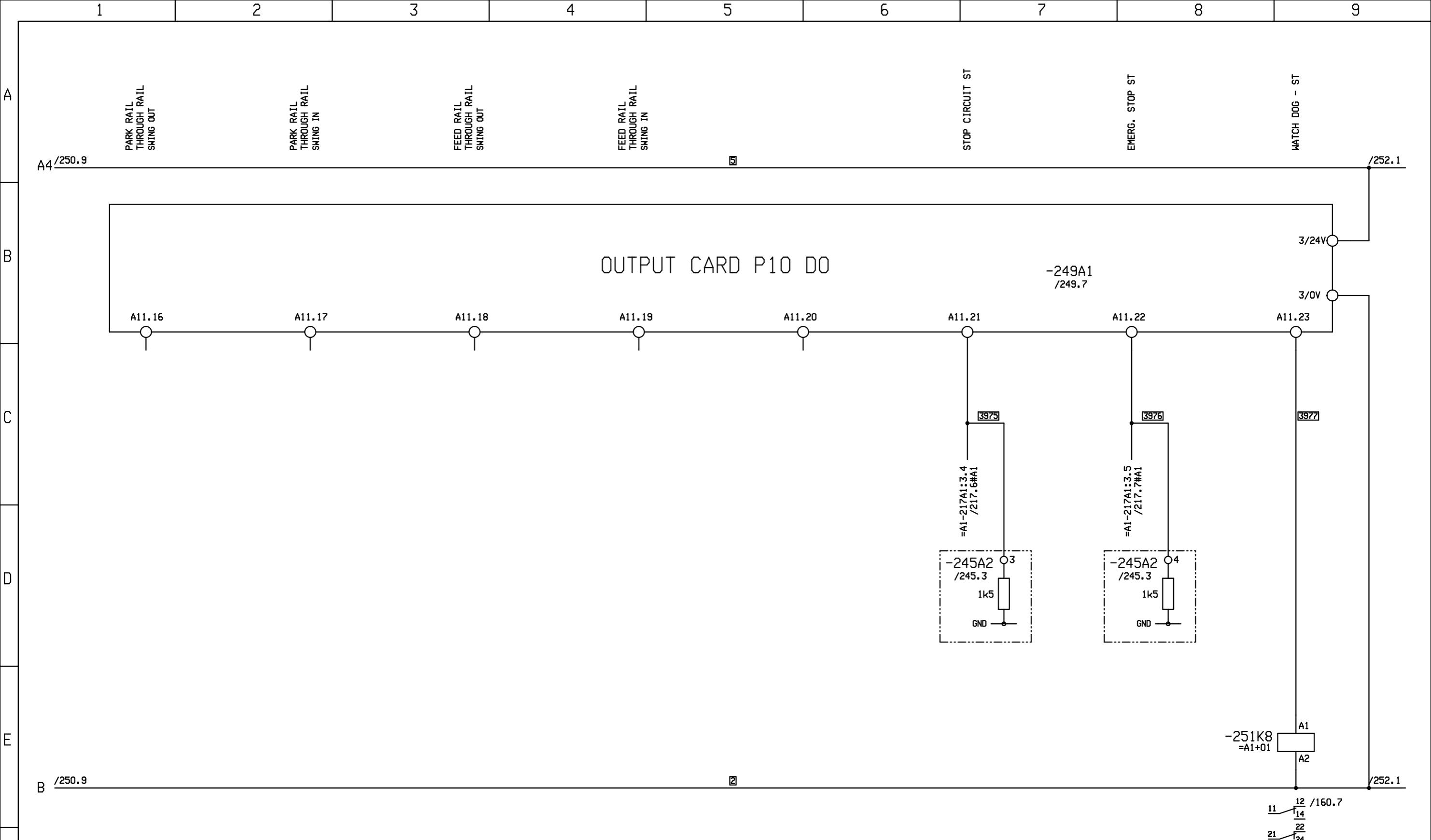
Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.bv	Fhs			Date	09.02.09	+	
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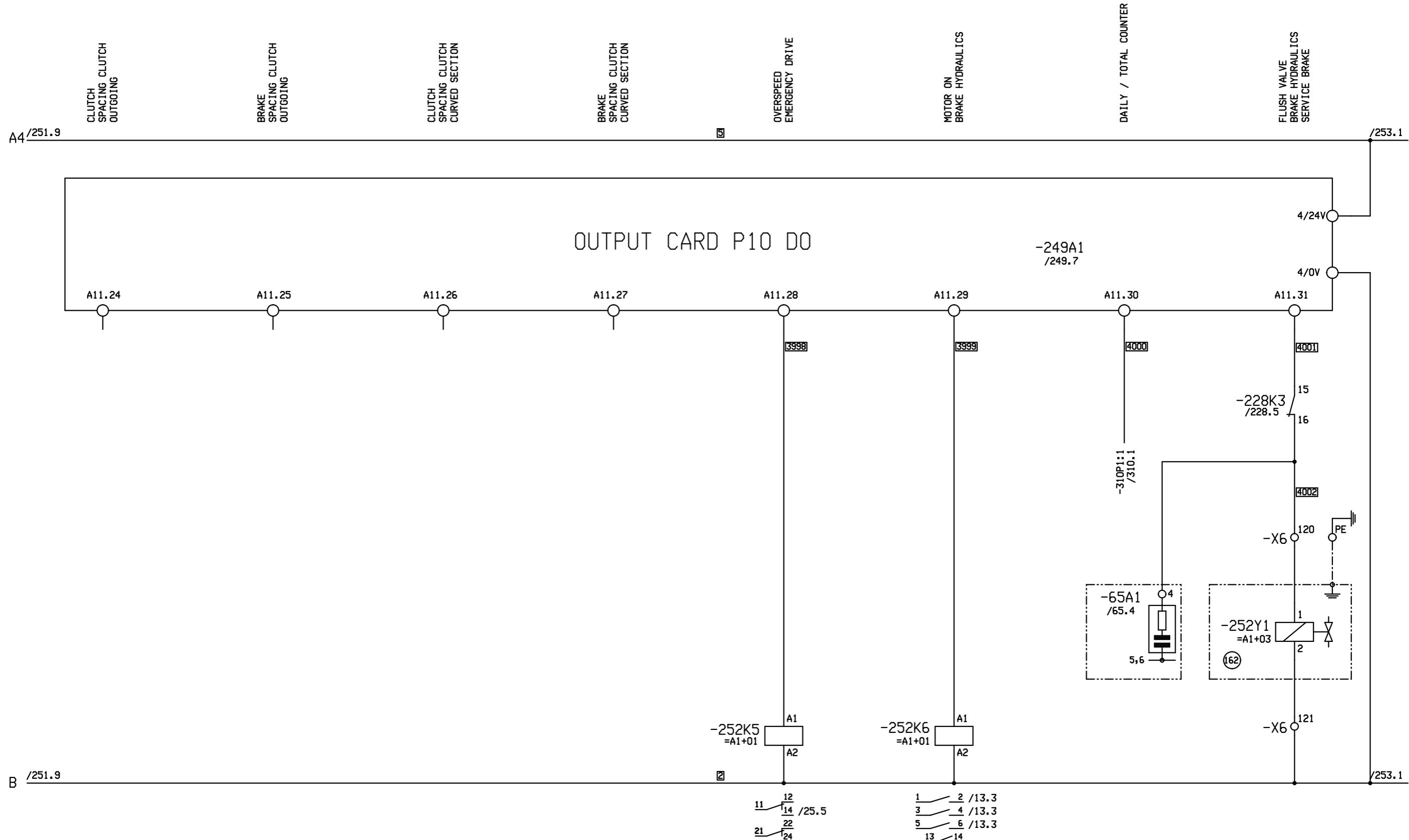
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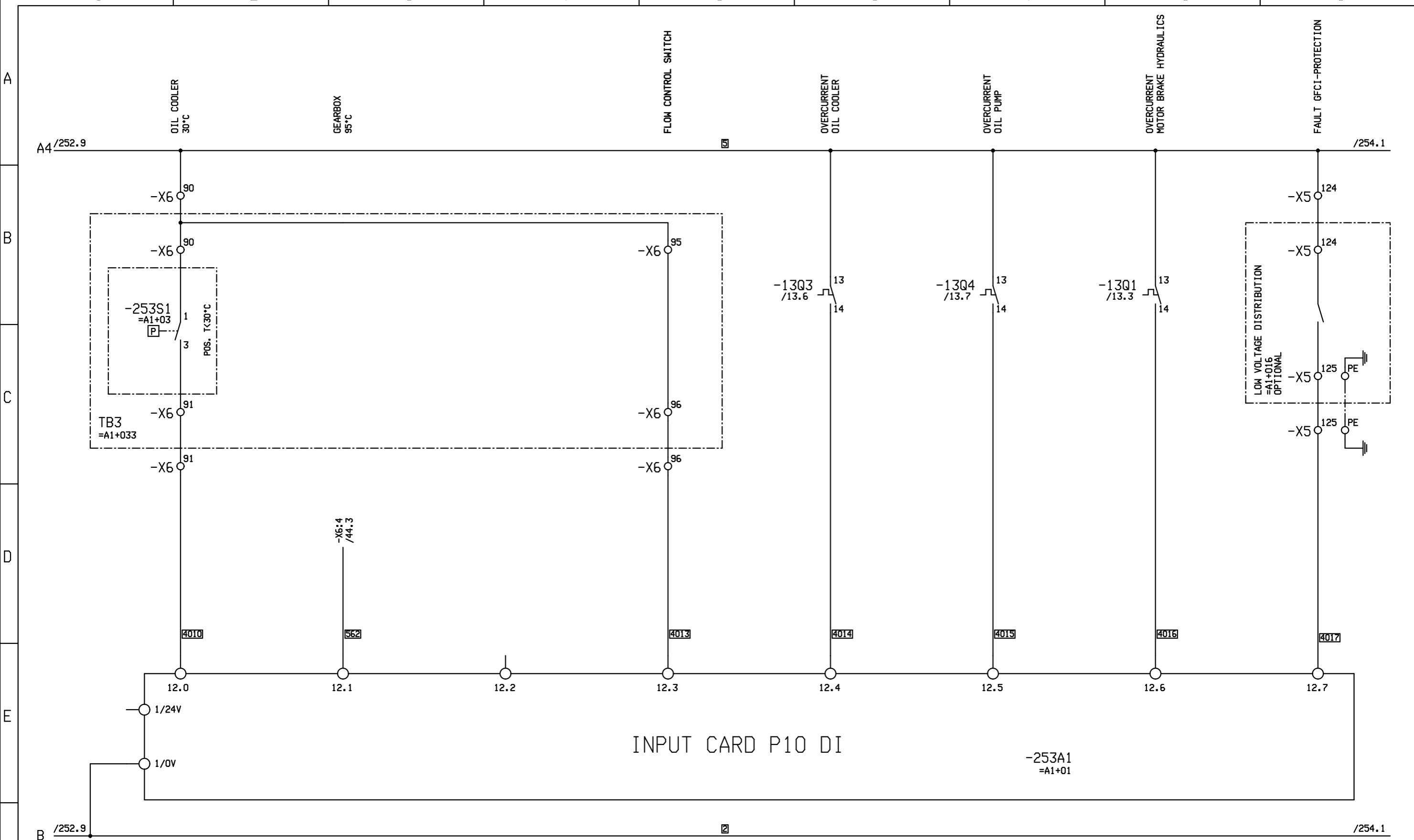
DRIVE STATION

LV-CONTROL

Drawn by	Sst	Sheet :	250
Dr.ch.bv	Fhs	Cont.sheet:	251







1

2

3

4

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6

7

8

9

A

PLATFORM
PARK RAIL
NORMAL
MOTOR 1PLATFORM
PARK RAIL
NORMAL
MOTOR 2PLATFORM
PARK RAIL
LOWER
MOTOR 1PLATFORM
PARK RAIL
LOWER
MOTOR 2PLATFORM
PARK RAIL
NORMAL
MOTOR 3PLATFORM
PARK RAIL
NORMAL
MOTOR 4PLATFORM
PARK RAIL
LOWER
MOTOR 3PLATFORM
PARK RAIL
LOWER
MOTOR 4

A4/253.9

/255.1

B

C

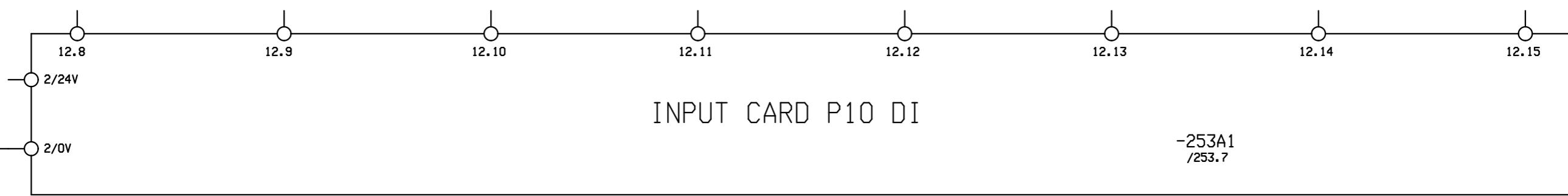
D

E

B /253.9

/255.1

INPUT CARD P10 DI

-253A1
/253.7

4030-4049

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev. ind.	2.0	= =A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+ +
File:	ANWAA1583					Drawn by	Sst	Sheet : 254

⑤

INPUT PLC (ST)

DRIVE STATION

LV-CONTROL

⑥

Rev. ind. 2.0
Date 09.02.09
Drawn by Sst
Dr.ch.by Fhs+ +
Cont.sheet: 255

A

A4/254.9

PLATFORM
FEED RAIL
NORMAL
MOTOR 1PLATFORM
FEED RAIL
NORMAL
MOTOR 2PLATFORM
FEED RAIL
LOWER
MOTOR 1PLATFORM
FEED RAIL
LOWER
MOTOR 2PLATFORM
FEED RAIL
NORMAL
MOTOR 3PLATFORM
FEED RAIL
NORMAL
MOTOR 4PLATFORM
FEED RAIL
LOWER
MOTOR 3PLATFORM
FEED RAIL
LOWER
MOTOR 4

/256.1

B

C

D

E

B /254.9

INPUT CARD P10 DI

-253A1
/253.7

/256.1

4050-4069

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev. ind.	2.0	= =A1+01
Date	09.02.09	Dr.ch.bv	Fhs			Date	09.02.09	+ 255
File:	ANWAA1583					Drawn by	Sst	Sheet : 255



®

INPUT PLC (ST)

DRIVE STATION

LV-CONTROL

2

256

A

A4/255.9

5

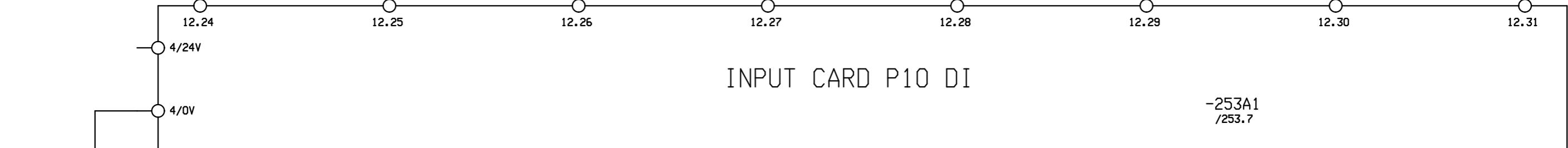
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B

C

D

E



B /255.9

2

/257.1

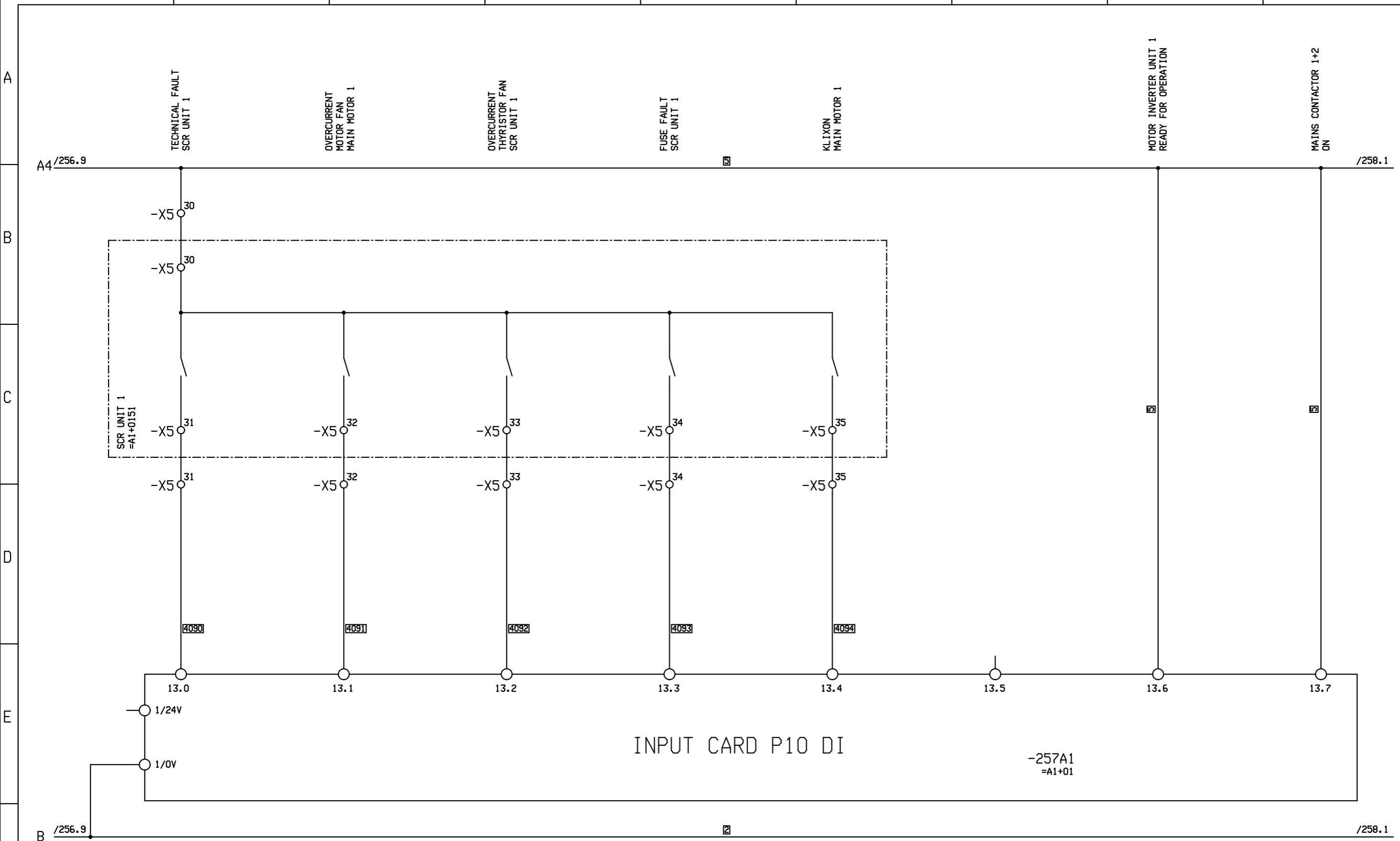
4070-4089

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	256

DRIVE STATION

LV-CONTROL

Dr.ch.by Fhs Cont.sheet: 257



Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM

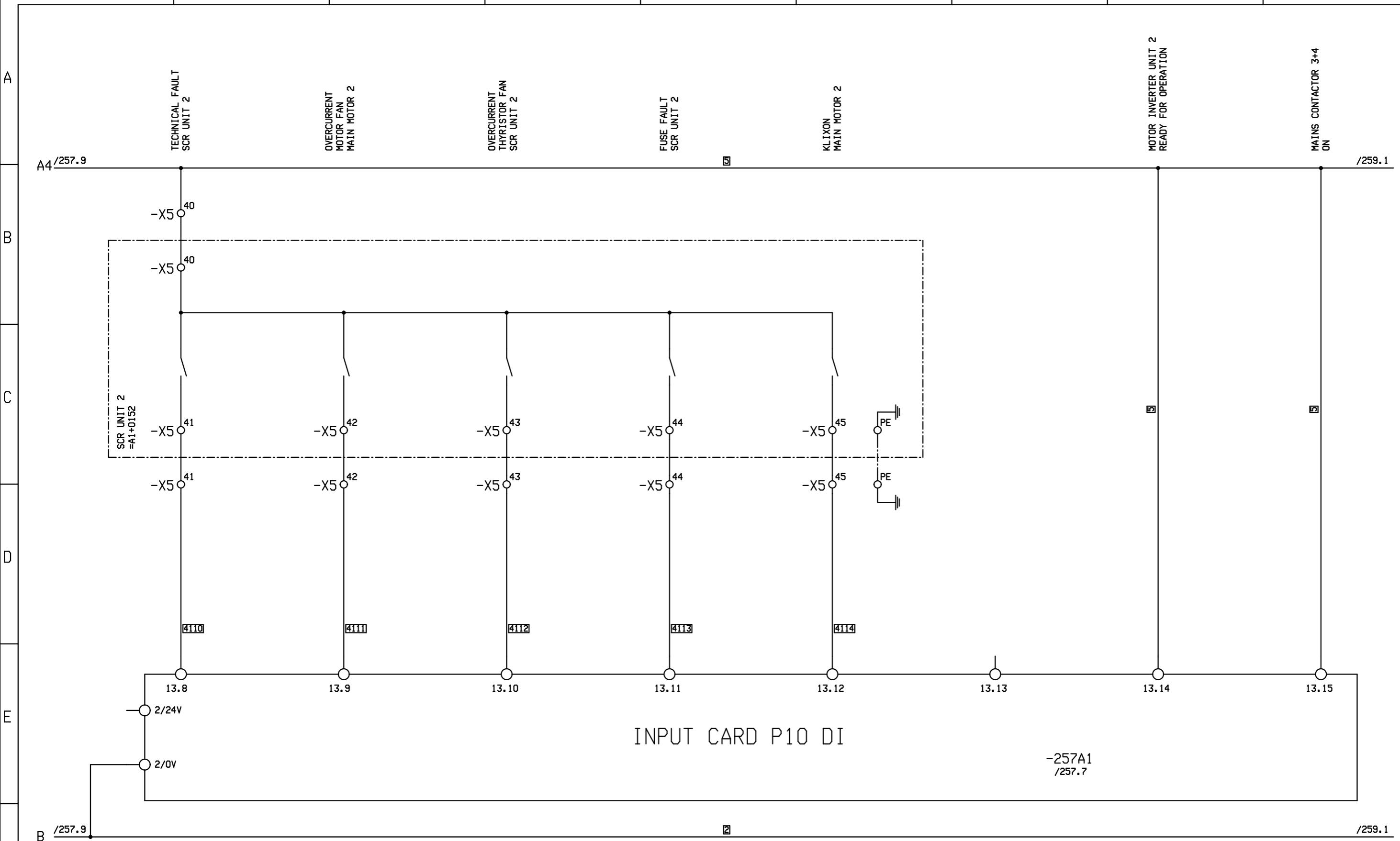


INPUT PLC (ST)

DRIVE STATION

LV-CONTROL

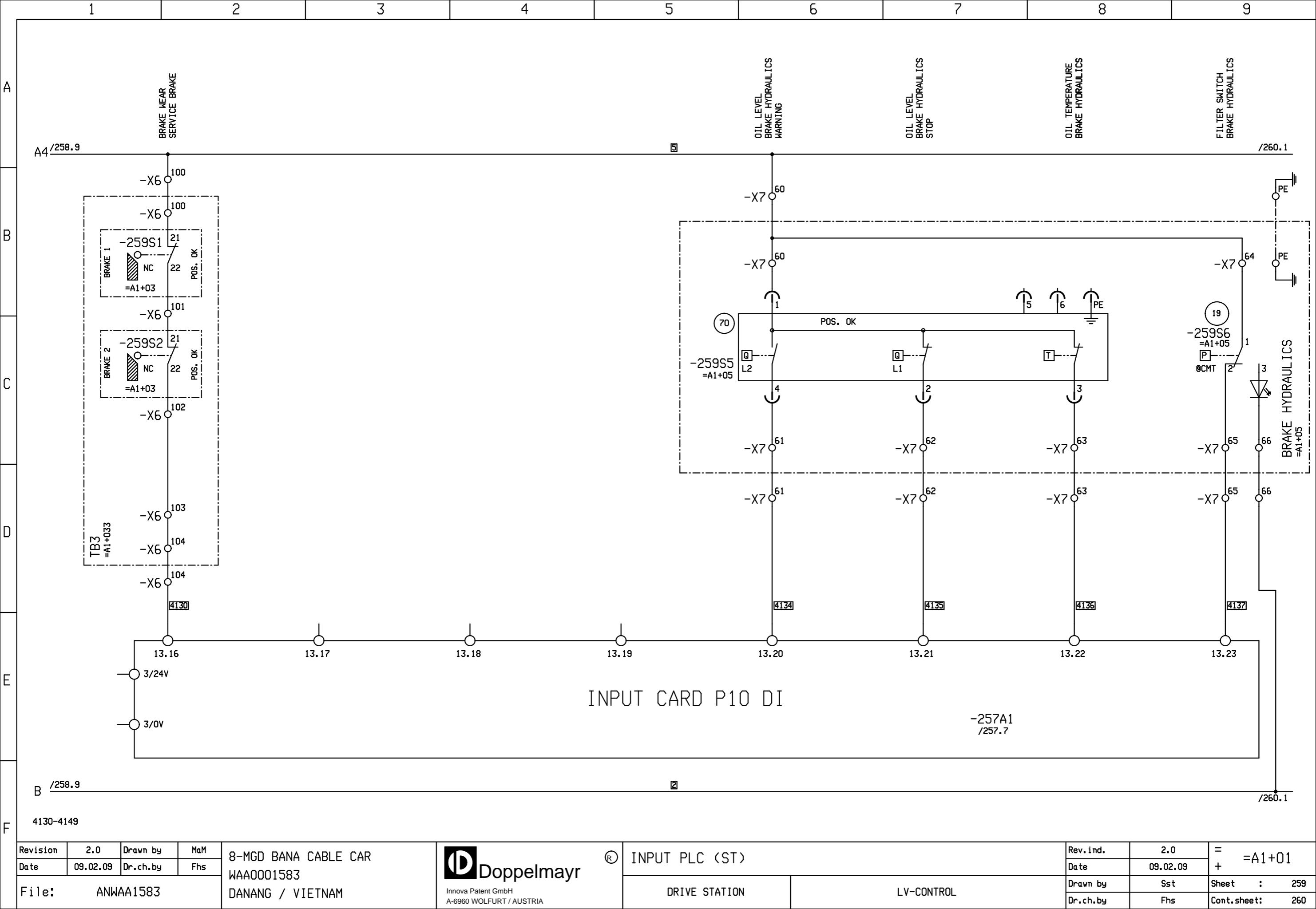
Rev.ind.	2.0	=	=A1+01
Date	09.02.09	+	
Drawn by	Sst	Sheet :	257
Dr.ch.by	Fhs	Cont.sheet:	258



Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	INPUT PLC (ST)	Rev. ind.	2.0	= =A1+01
Date	09.02.09	Dr.ch.by	Fhs		DRIVE STATION	Date	09.02.09	+ +
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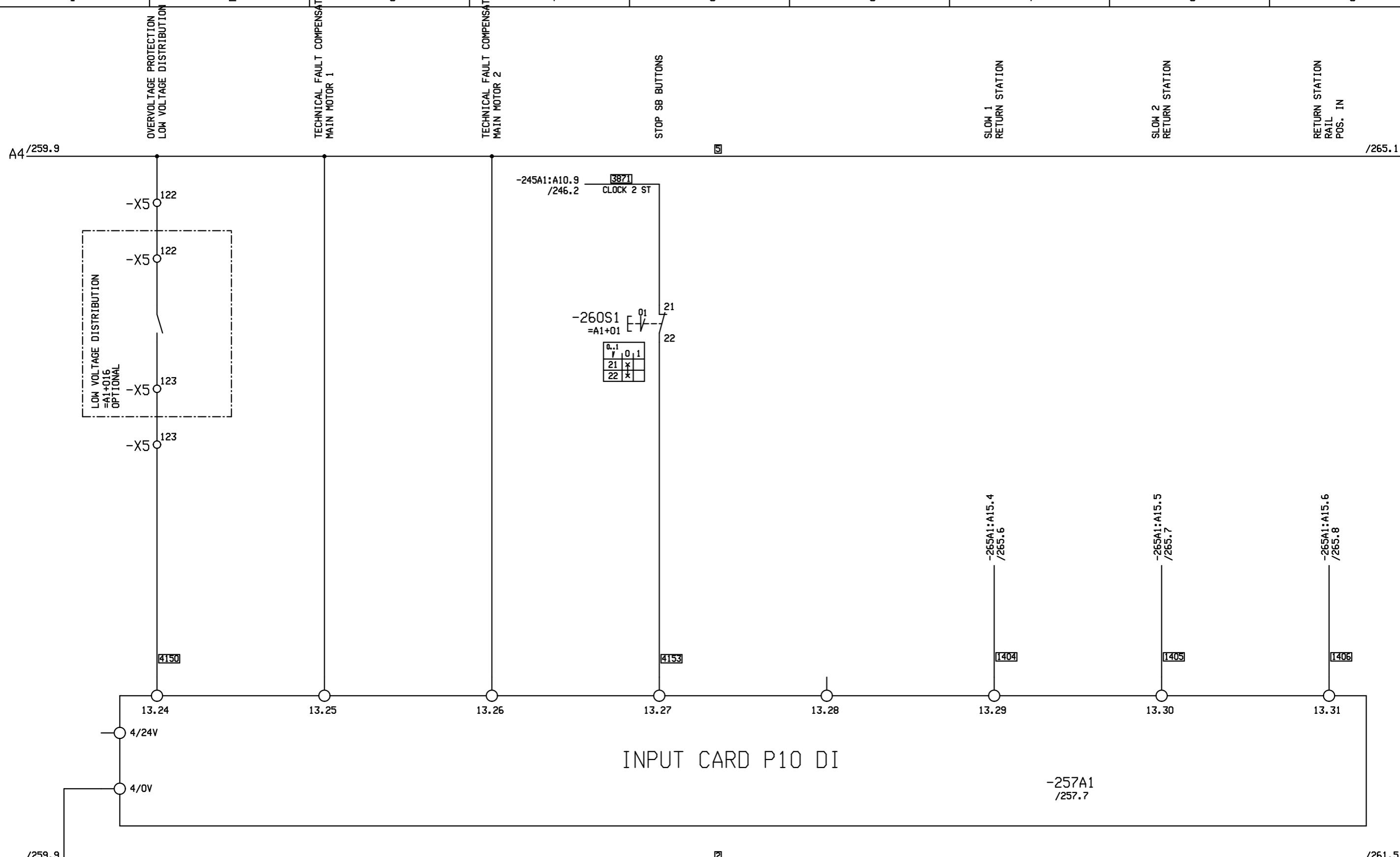


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1 2 3 4 5 6 7 8 9

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Revision	2.0	Drawn by	MaM
Date	09.02.09	Dr.ch.by	Fhs
File: ANWAA1583			

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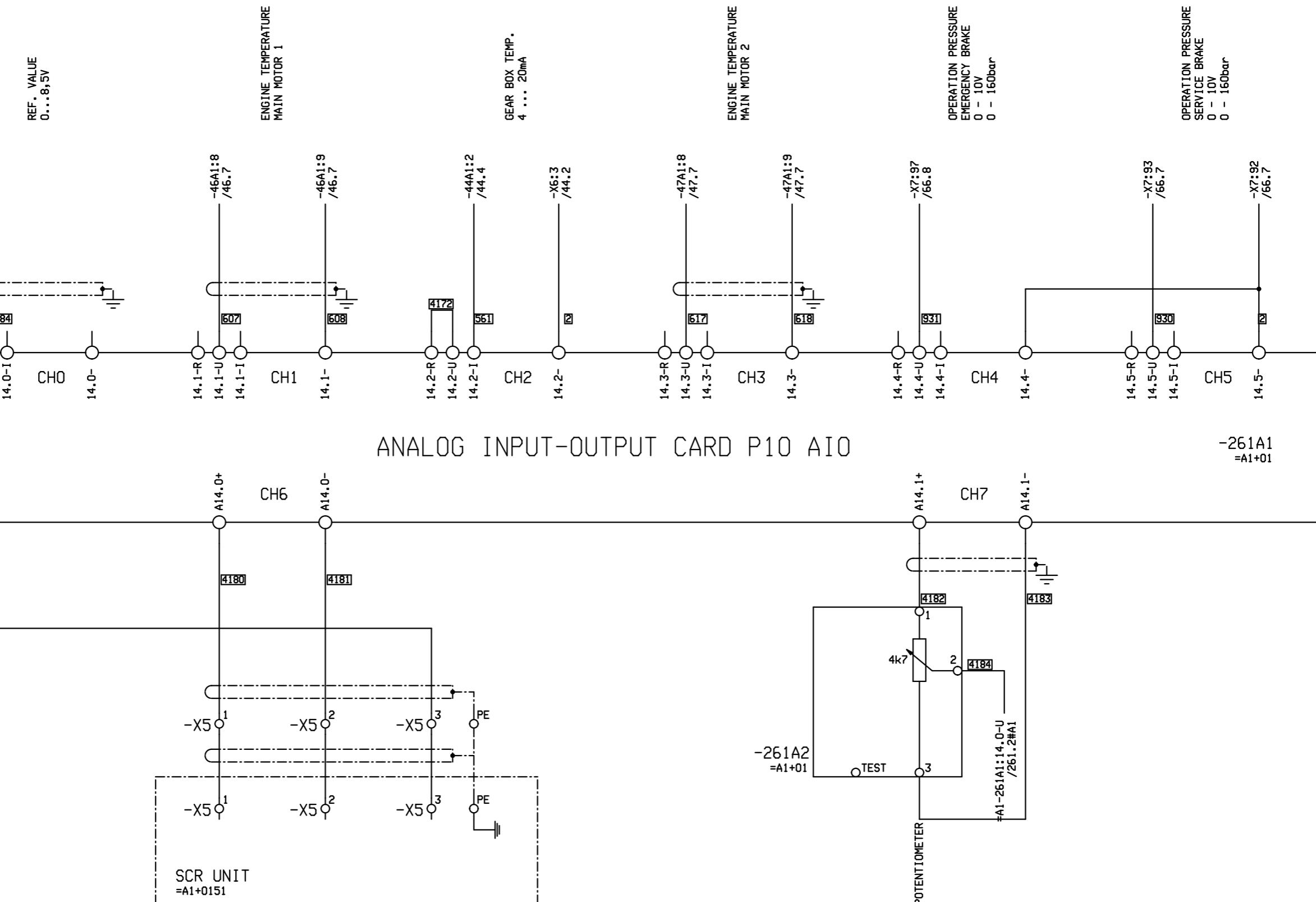
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C

D

E

F



4170-4189

REF. VALUE
SCR UNIT
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Revision

2.0

Drawn by

MaM

Date

09.02.09

Dr.ch.by

Fhs

8-MGD BANA CABLE CAR
WAA0001583
DANANG / VIETNAM



Innova Patent GmbH
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(R)

ANALOG IN/OUTPUT PLC (ST)

DRIVE STATION

LV-CONTROL

Rev.ind.

2.0

= =A1+01

+

+

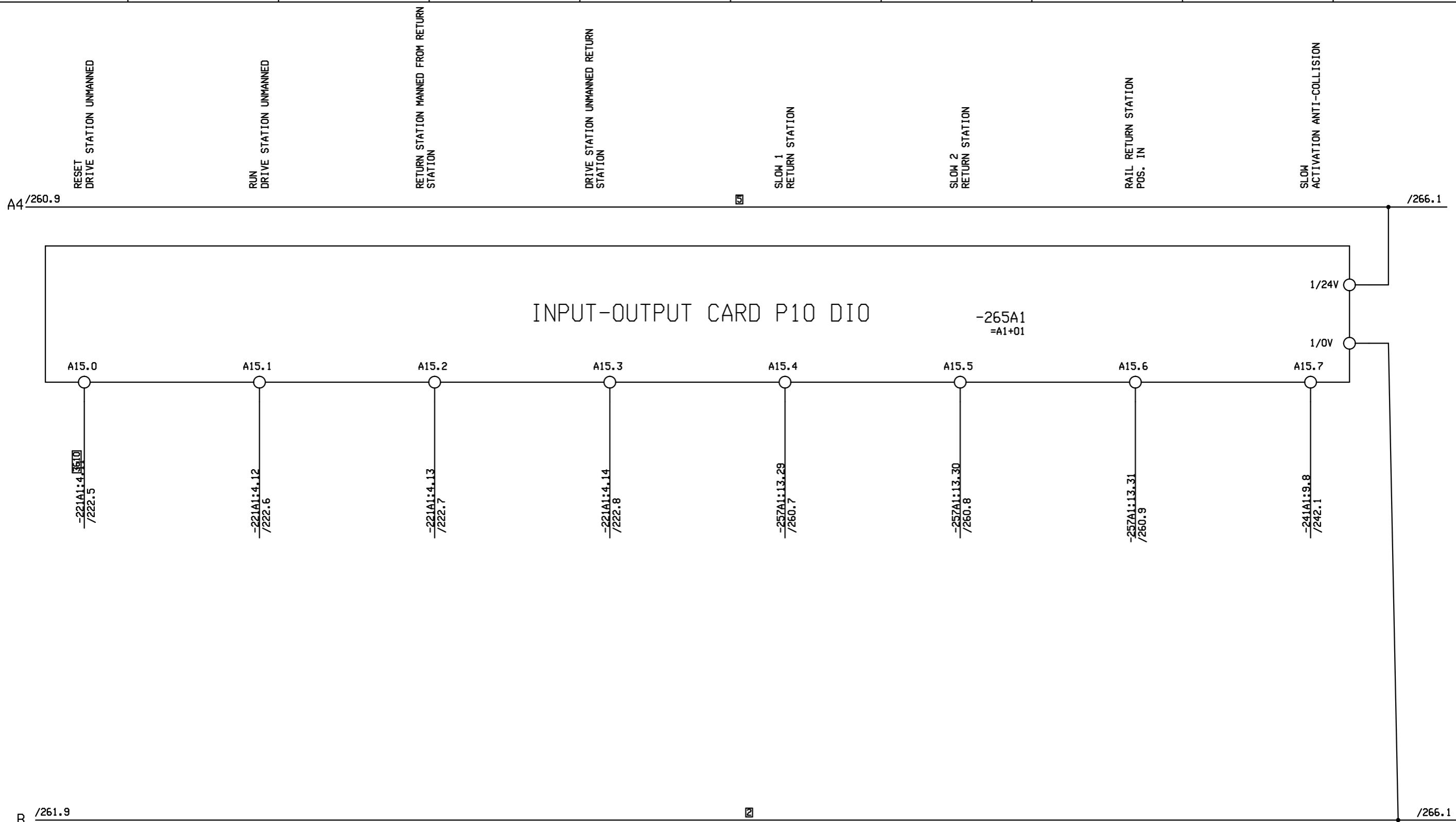
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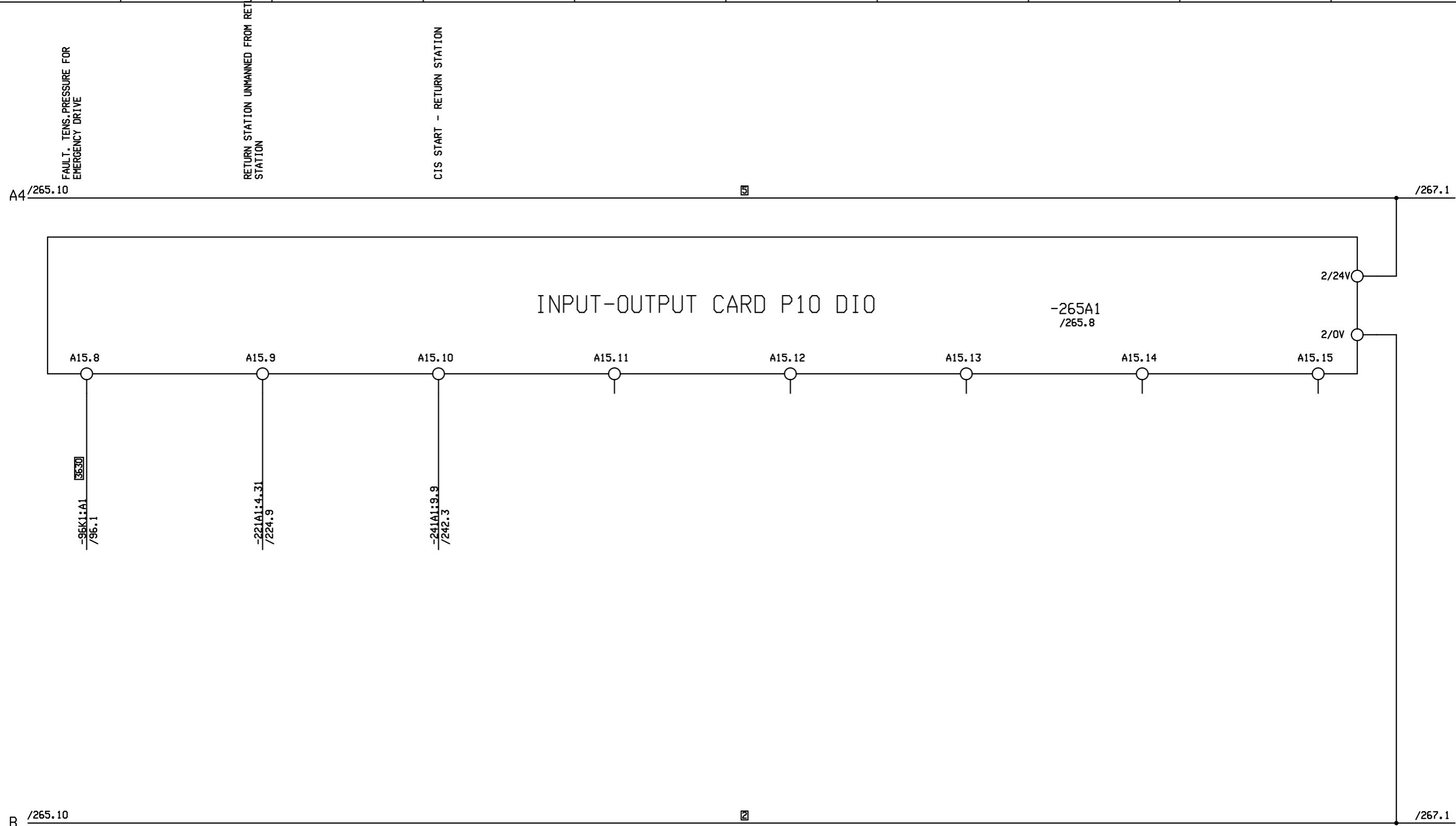
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1 2 3 4 5 6 7 8 9 10



3630-3649

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	266
						Dr.ch.by	Fhs	Cont.sheet:	267

A

A4 /266.10

/268.1

TEST SAFETY CIRCUIT

RESET RETURN STATION UNMANNED

CIS START - DRIVE STATION

EMERGENCY DRIVE

SAFETY CIRCUITS O.K. DRIVE STATION
UNMANNEDROPE POSITION MONITORING HYDRAULIC
TENSIONING RETURN STATION

B

220k3:14
/93.4220k1:14
/93.5245k4:14
/100.1228k4:8
/100.584k1:24
/100.6

C

3650

15.0

15.1

15.2

15.3

15.4

15.5

15.6

15.7

15.0
3/24V

15.1

15.2

15.3

15.4

15.5

15.6

15.7

3/0V

15.0

15.1

15.2

15.3

15.4

15.5

15.6

15.7

INPUT-OUTPUT CARD P10 DIO

B /266.10

/268.1

3650-3669

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	= =A1+01
Date	09.02.09	Dr.ch.bv	Fhs			Date	09.02.09	+ +
File:	ANWAA1583					Drawn by	Sst	Sheet : 267



®

INPUT PLC (ST)

DRIVE STATION

LV-CONTROL

Dr.ch.bv

Fhs

Cont.sheet:

268

A

A4/267.10

5

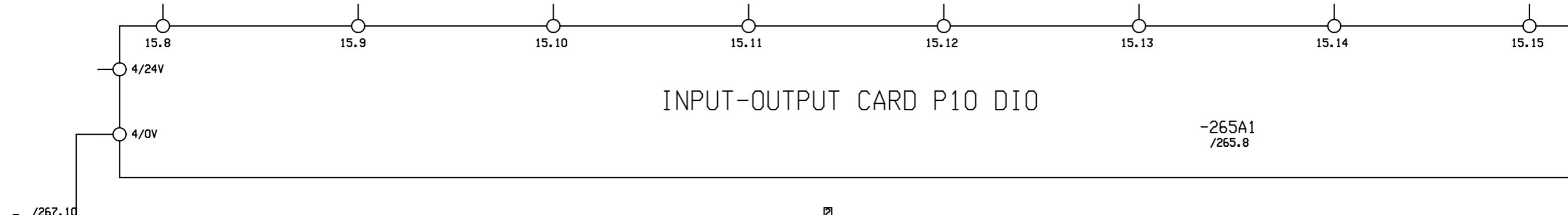
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3670-3689

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Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
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INPUT PLC (ST)

DRIVE STATION

LV-CONTROL



2

/300.1

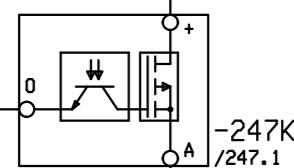
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MAGNETIC CLUTCH
START APPARATUS

-21F9:2 /21.6

2,5mm² Cu



-247K1 /247.1

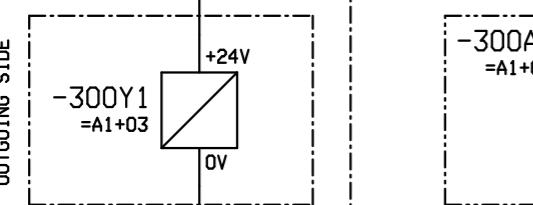
2,5mm² Cu

2,5mm² Cu

6500

-X60 1

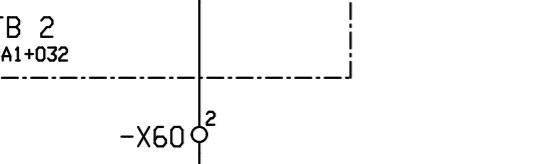
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-300Y1 =A1+03

+24V

OV

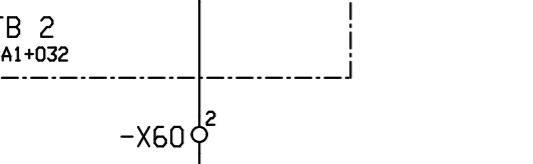


-300A1 =A1+01

+24V

OV

5,6

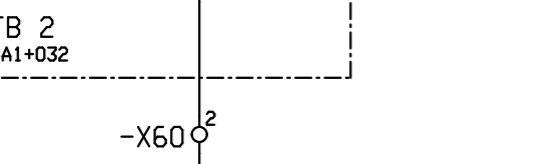


-300Y2 =A1+03

+24V

OV

4

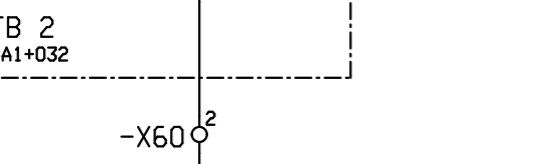


-300A1 /300.3

+24V

OV

5,6

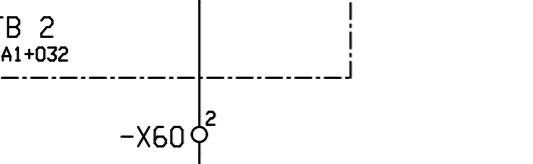


-300Y3 =A1+03

+24V

OV

6



-300A1 /300.3

+24V

OV

5,6

6

B /268.10

/300.7

ATTENTION

THE MAIN SUPPLY WIRES OF THE SPACING CLUTCHES
Must be wired with 2.5 mm² copper.

6500-6529

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Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	
File:	ANWAA1583					Drawn by	Sst	Sheet : 300
						Dr.ch.by	Fhs	Cont.sheet: 310

MAGNETIC CLUTCH

DRIVE STATION

LV-CONTROL

A

A /243.9

TOTAL TRIPS

□

STOW 2
HOLD

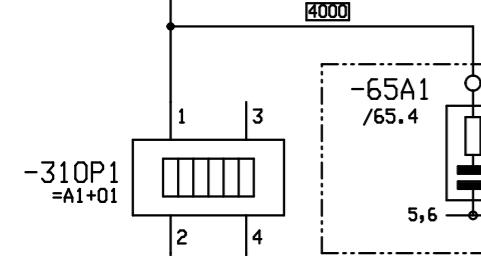
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B

C

D

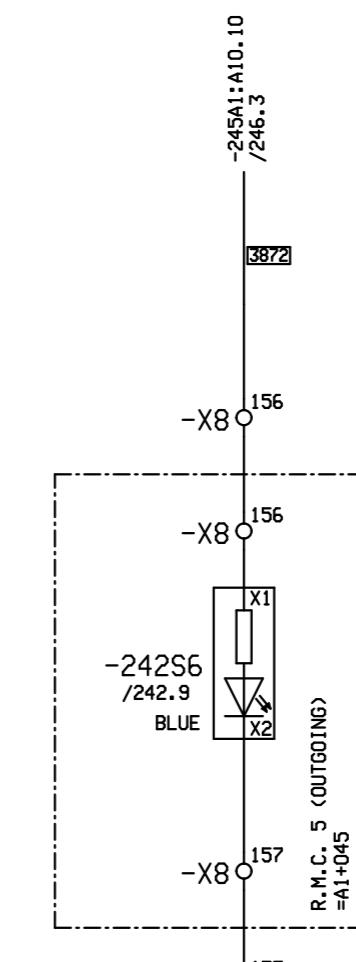
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□

/329.1

E



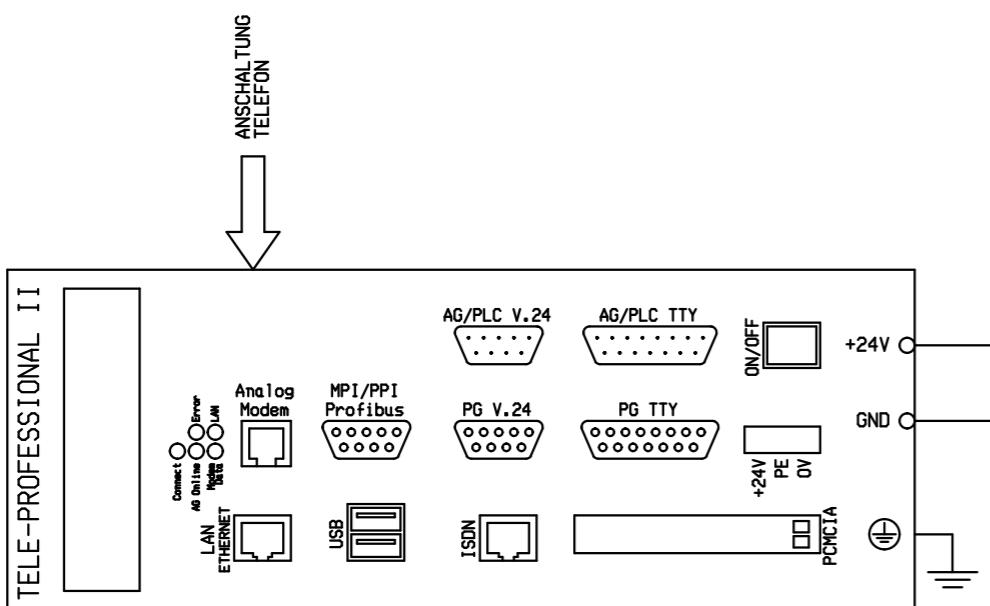
6800-6819

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	DAILY / TOTAL COUNTER	Rev.ind.	2.0	= =A1+01
Date	09.02.09	Dr.ch.by	Fhs			DRIVE STATION	Drawn by	Sst	Sheet : 310
File:	ANWAA1583					LV-CONTROL	Dr.ch.by	Fhs	Cont.sheet: 329

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A /310.9

/330.1

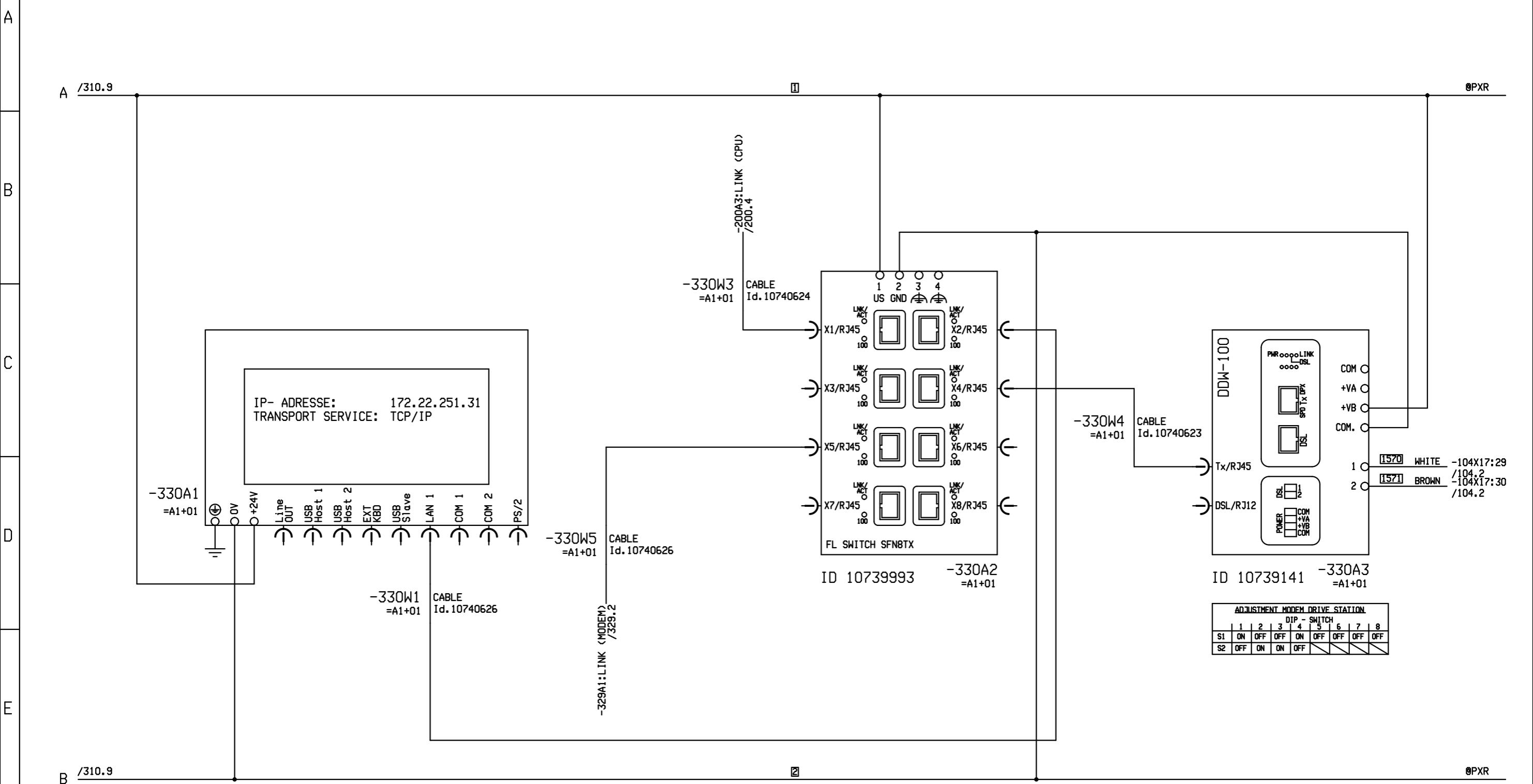
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B /310.9

/330.1

6980-6999

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	 Doppelmayr Innova Patent GmbH A-6960 WOLFURT / AUSTRIA	Rev.ind.	2.0	=	=A1+01
Date	09.02.09	Dr.ch.by	Fhs			Date	09.02.09	+	
File:	ANWAA1583					Drawn by	Sst	Sheet :	329
						Dr.ch.by	Fhs	Cont.sheet:	330



7000-7019

Revision	2.0	Drawn by	MaM	8-MGD BANA CABLE CAR WAA0001583 DANANG / VIETNAM	TOUCH SCREEN	Rev.ind.	2.0	= =A1+01
Date	09.02.09	Dr.ch.by	Fhs		DRIVE STATION	Date	09.02.09	
File:	ANWAA1583				LV-CONTROL	Drawn by	Sst	Sheet : 330
						Dr.ch.by	Fhs	Cont.sheet: +

D Doppelmayr

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