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ABB Engineering (Shanghai) Ltd
No.4528, Kangxin Highway,Kangqiao Town
Pudong New District, Shanghai, 201319
P.R.China

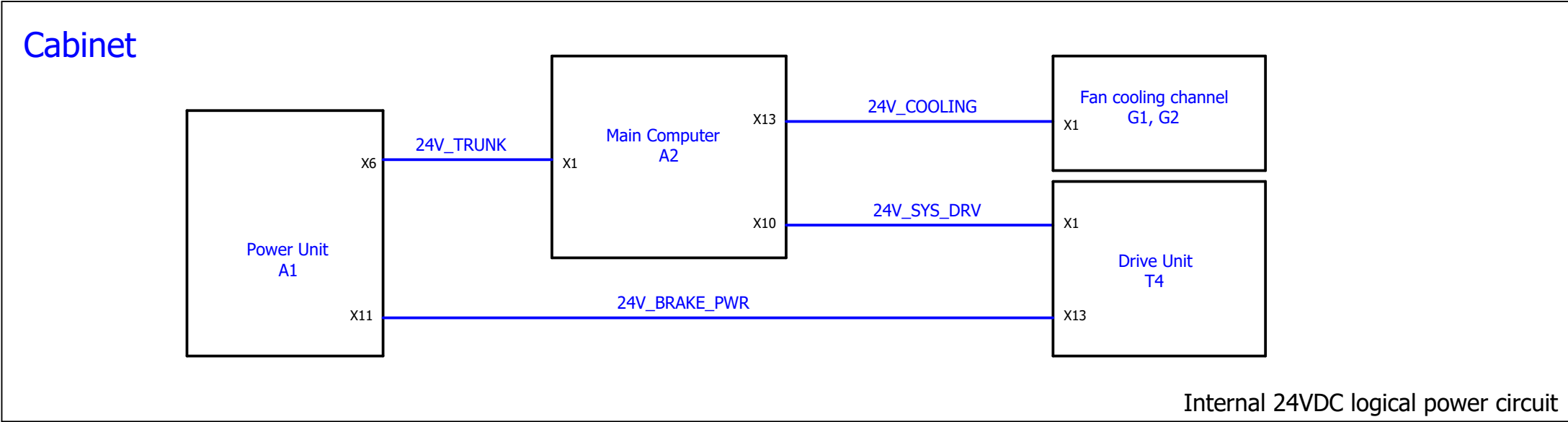
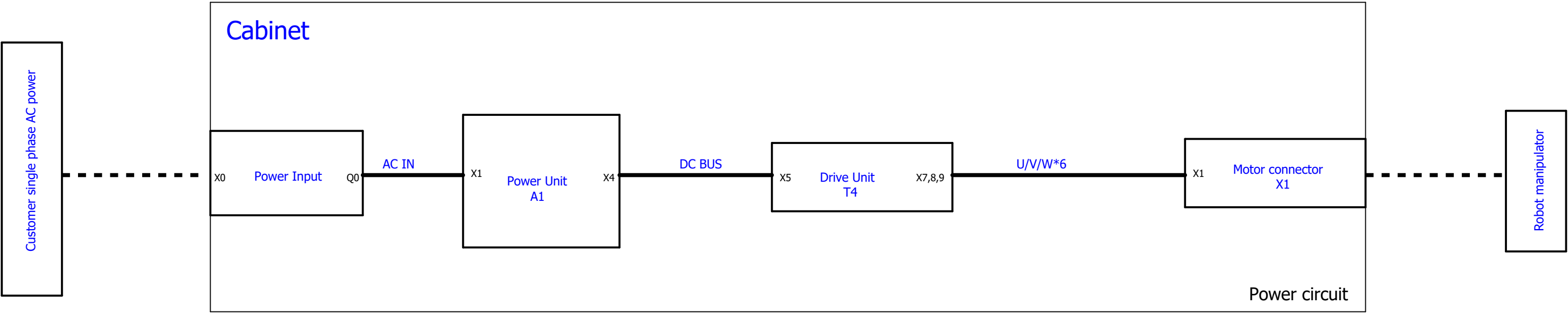
Latest revision: Rev 00 4/30/2025		ABB Lab/Office: RA/RDP ABB Engineering (Shanghai) Ltd. No.4528, Kangxin Highway, Pudong New District, Shanghai, 201319, P. R. China	Copyright	Status: Approved		High-level function: = Overview Mounting location: +	
Prepared by, date:				Document no. 3HAC092963-010	Page: 001		
					Next: 002		
Approved by, date: Per V. Carlsson				Total: 31			



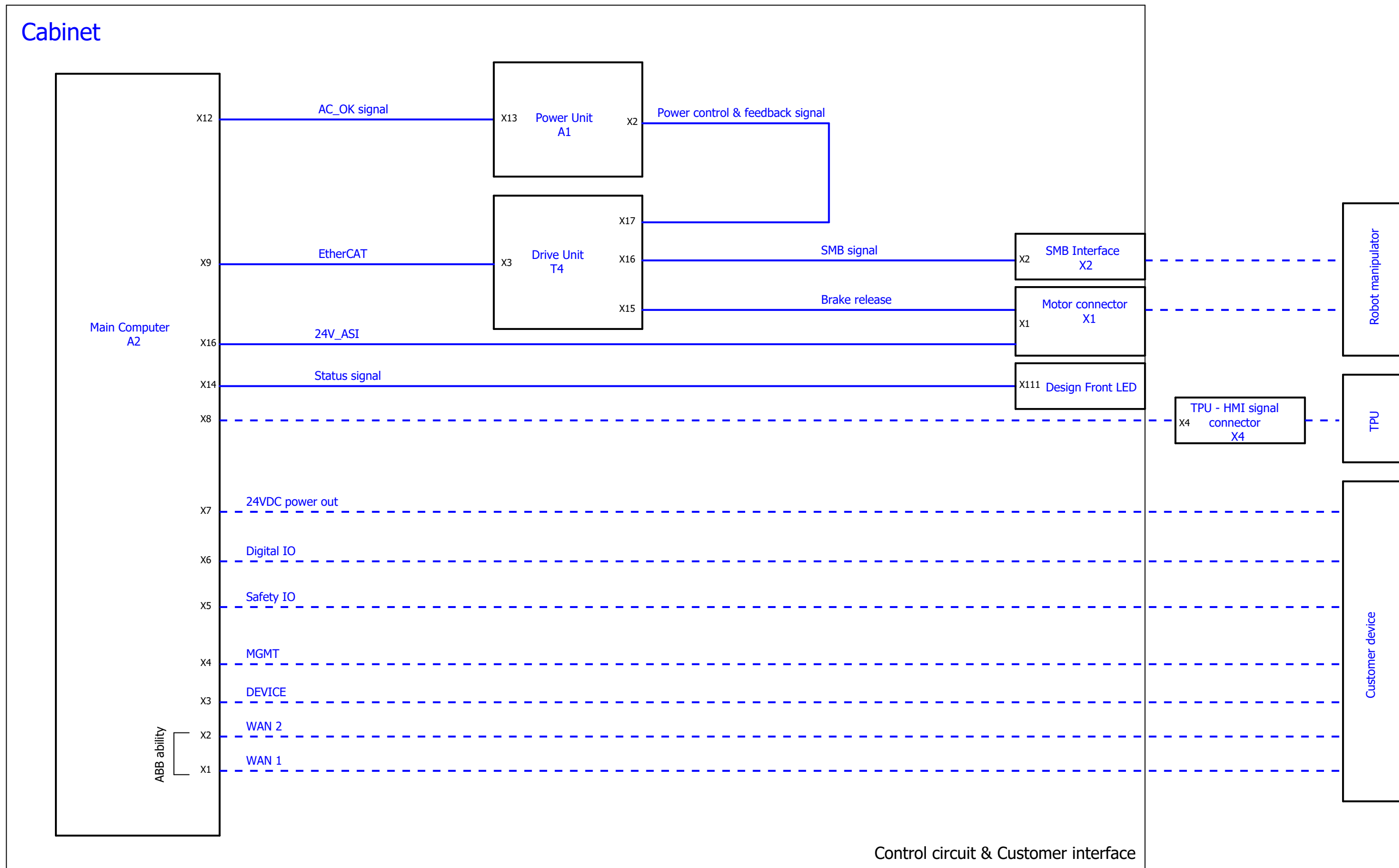
Customer	:	
	:	
Drawing number	:	3HAC092963-010
Drawing version	:	Rev 00
Manufacture	:	ABB Engineering (Shanghai) Ltd.
Type	:	Industrial robot controller
Type of installation	:	
Control cabinet	:	OmniCore E10 Type A
Mains voltage	:	100-230VAC, For IRB 1100;
Supply	:	220/230VAC, For other manipulators.
Control voltage	:	
Year of construction	:	2025
Project start	:	
Project manager	:	
Last revision	:	
Designed by	:	
Designed date	:	4/30/2025
Number of pages	:	31
	:	

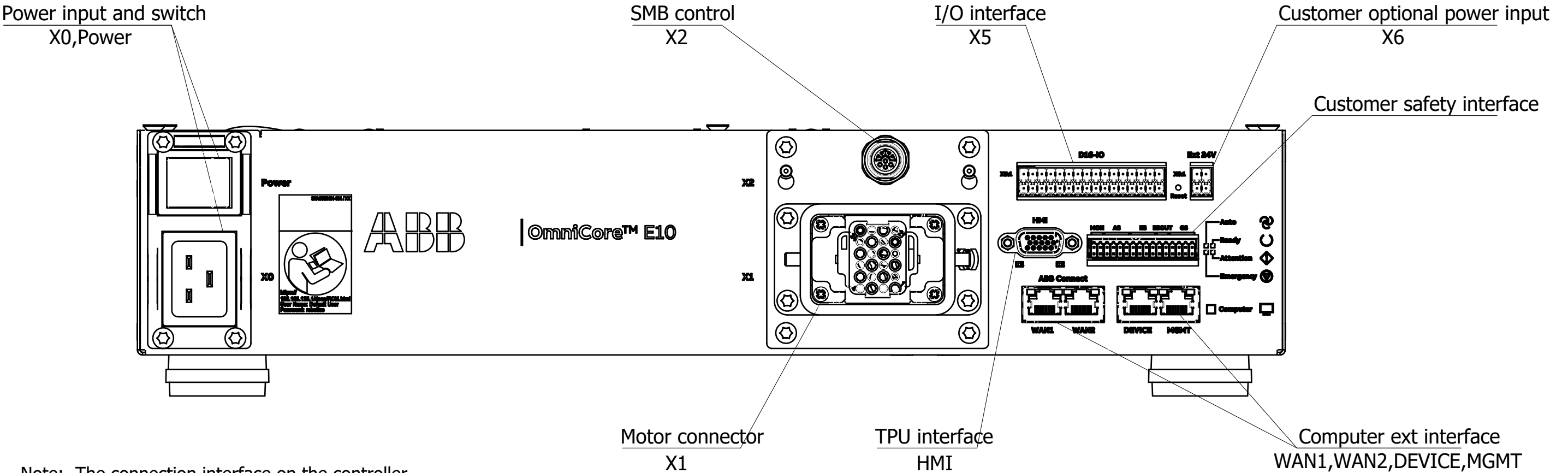
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Rev 00 2025/04/30 New release							
Latest revision: Rev 00 4/30/2025		ABB ABB Engineering (Shanghai) Ltd. No.4528, Kangxin Highway, Pudong New District, Shanghai, 201319, P. R. China	Lab/Office: RA/RDP	Revision	Status: Approved	High-level function: = Overview Mounting location: +	
					Document no. 3HAC092963-010	Page: 003	
Prepared by, date: Brian Zhang			Approved by, date: Per V. Carlsson			Next: 004	
						Total: 31	

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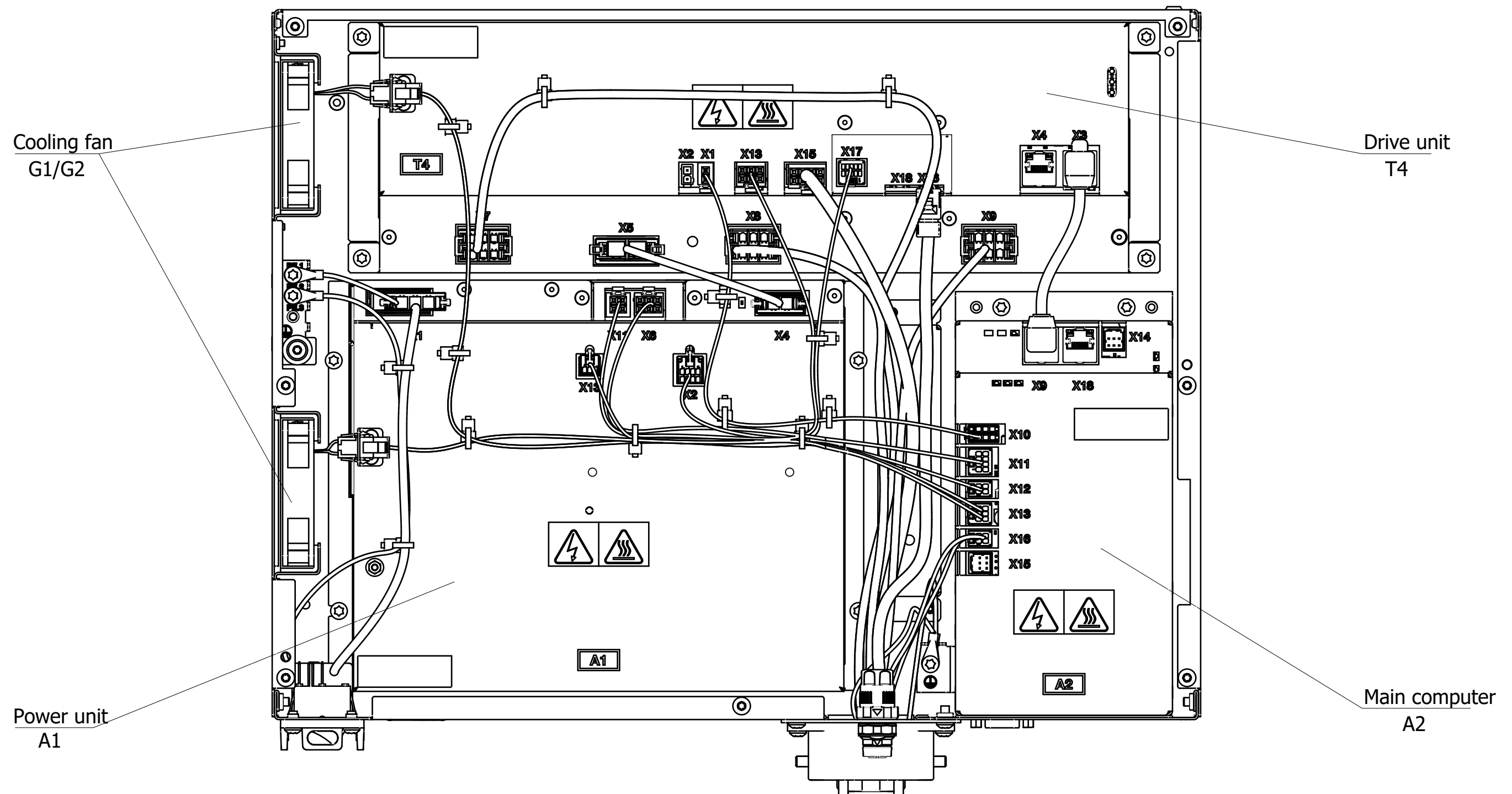


Note: The connection interface on the controller

	Description	Label	Reference on the circuit diagram
1	Power inlet switch	Power	Q0
2	Power inlet connector	X0	X0
3	Manipulator signal connector(SMB)	X2	X2
4	Motor connector	X1	X1
5	I/O interface	X5	A2.X6
6	FlexPendant adaptor connector(HMI)	HMI	A2.X8
7	WAN1 port	WAN1	A2.X1
8	WAN2 port	WAN2	A2.X2
9	Customer safety interface	MON,AS,ES,ESOUT,GS	A2.X5
10	DEVICE port	DEVICE	A2.X3
11	Management port	MGMT	A2.X4
12	External 24V power inlet connector	X6	A2.X7

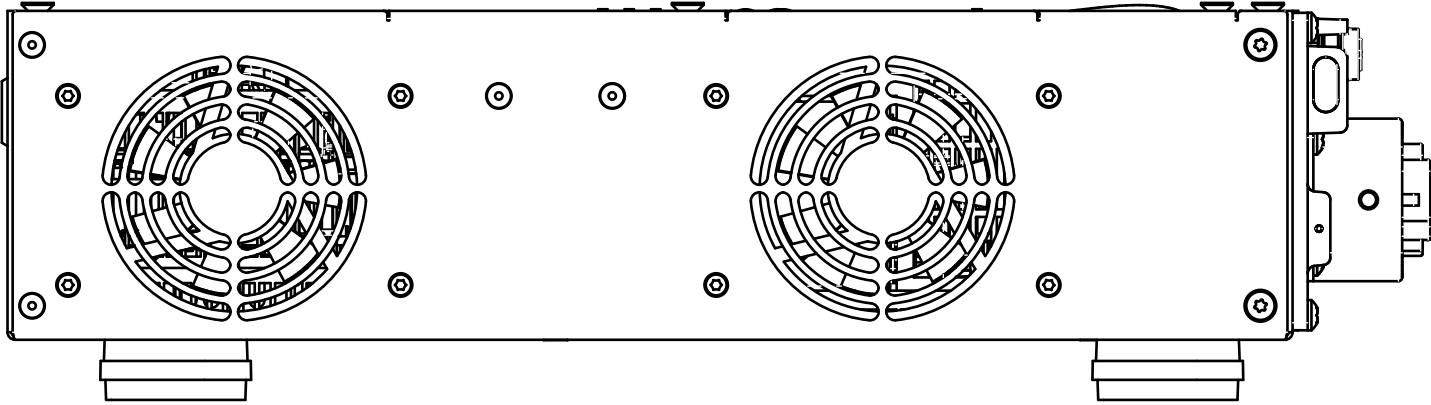
Front view

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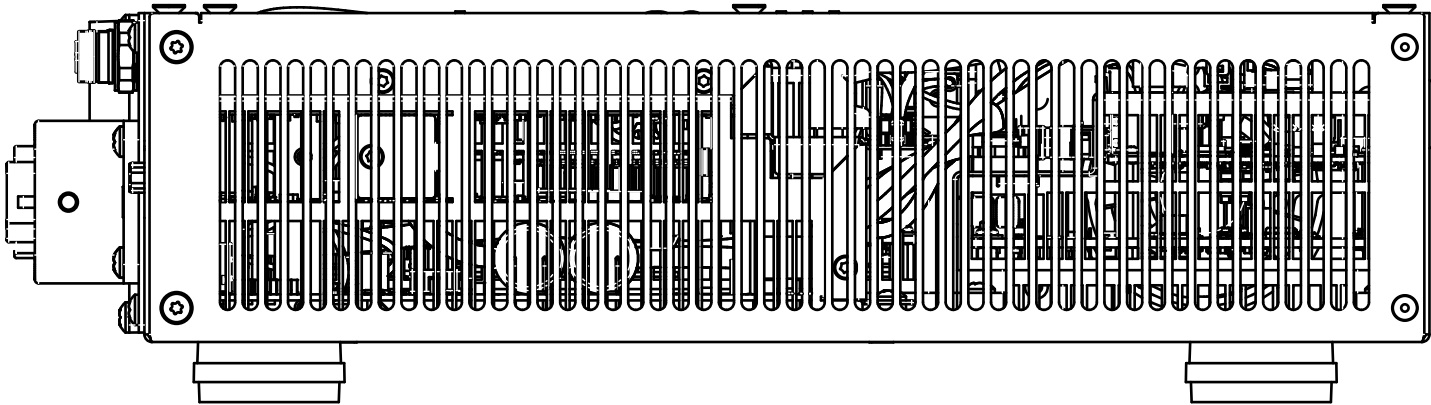


Top view

Latest revision: Rev 00 4/30/2025		 Lab/Office: RA/RDP ABB Engineering (Shanghai) Ltd. No.4528, Kangxin Highway, Pudong New District, Shanghai, 201319, P. R. China	Cabinet - U1	Status: Approved	High-level function: = Overview Mounting location: +
Prepared by, date: Brian Zhang	Approved by, date: Per V. Carlsson			Document no. 3HAC092963-010	Page: 006.a Next: 006.b Total: 31



Left view



Right view

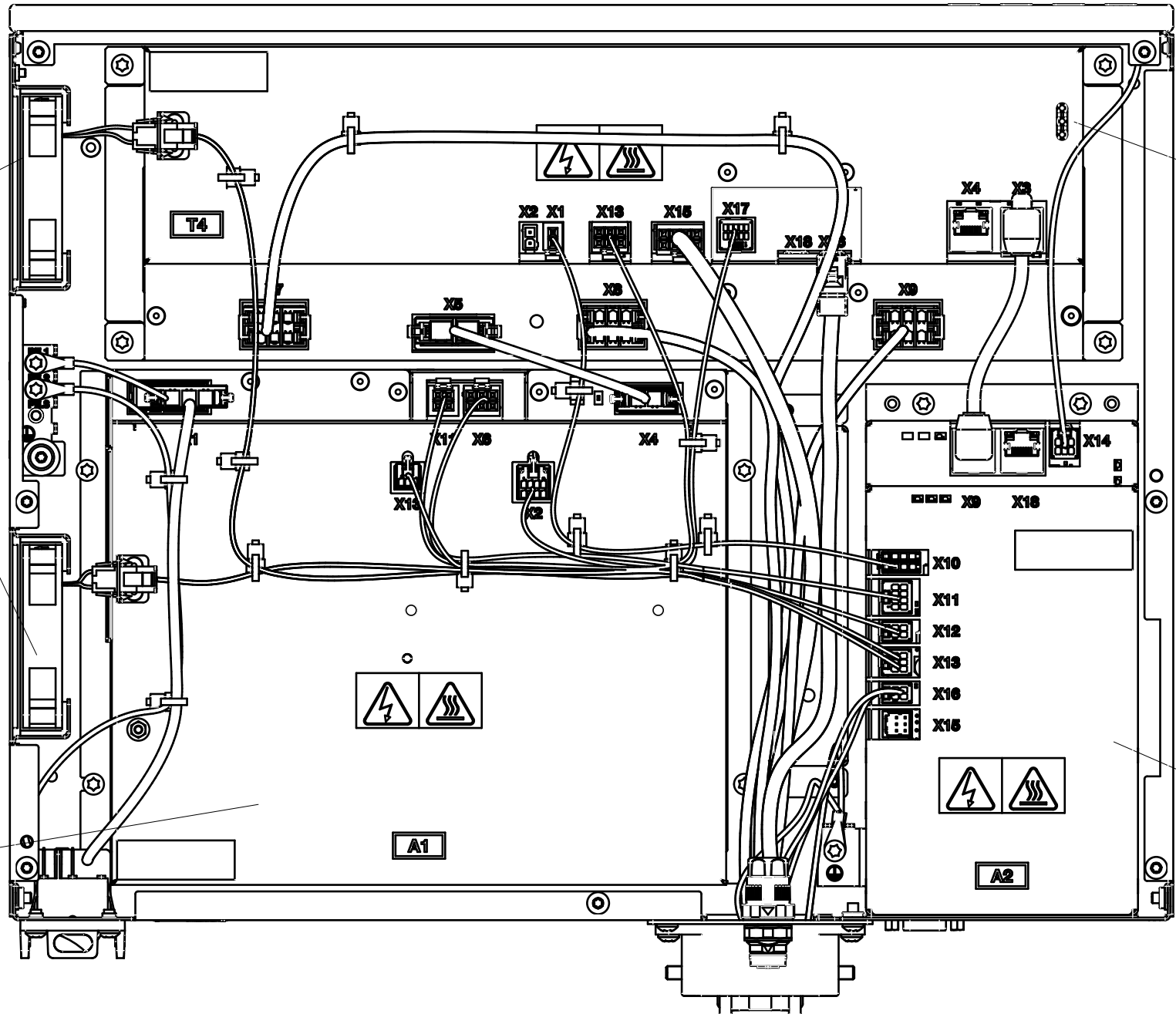
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Cooling fan
G1/G2

Drive unit
T4

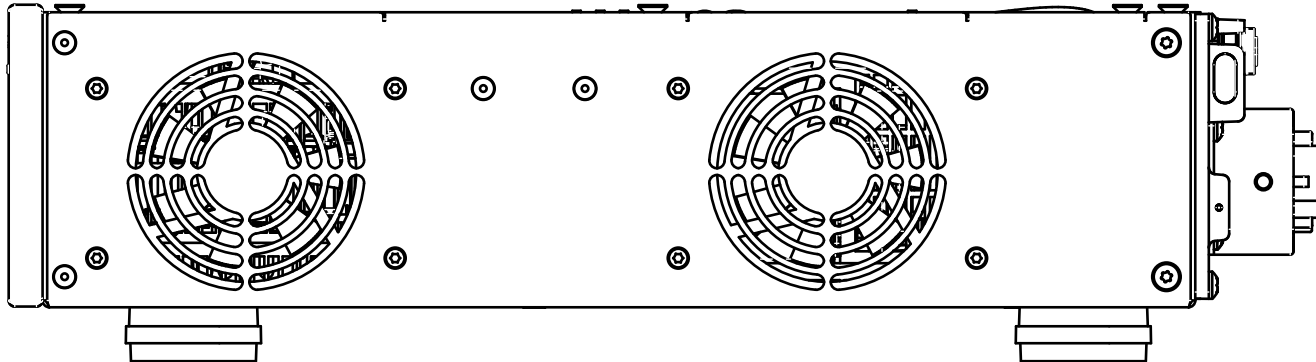
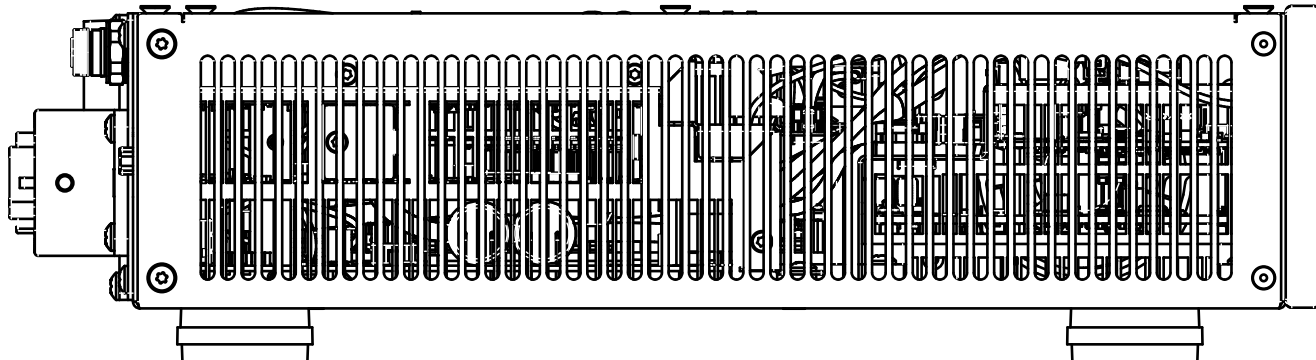
Power unit
A1

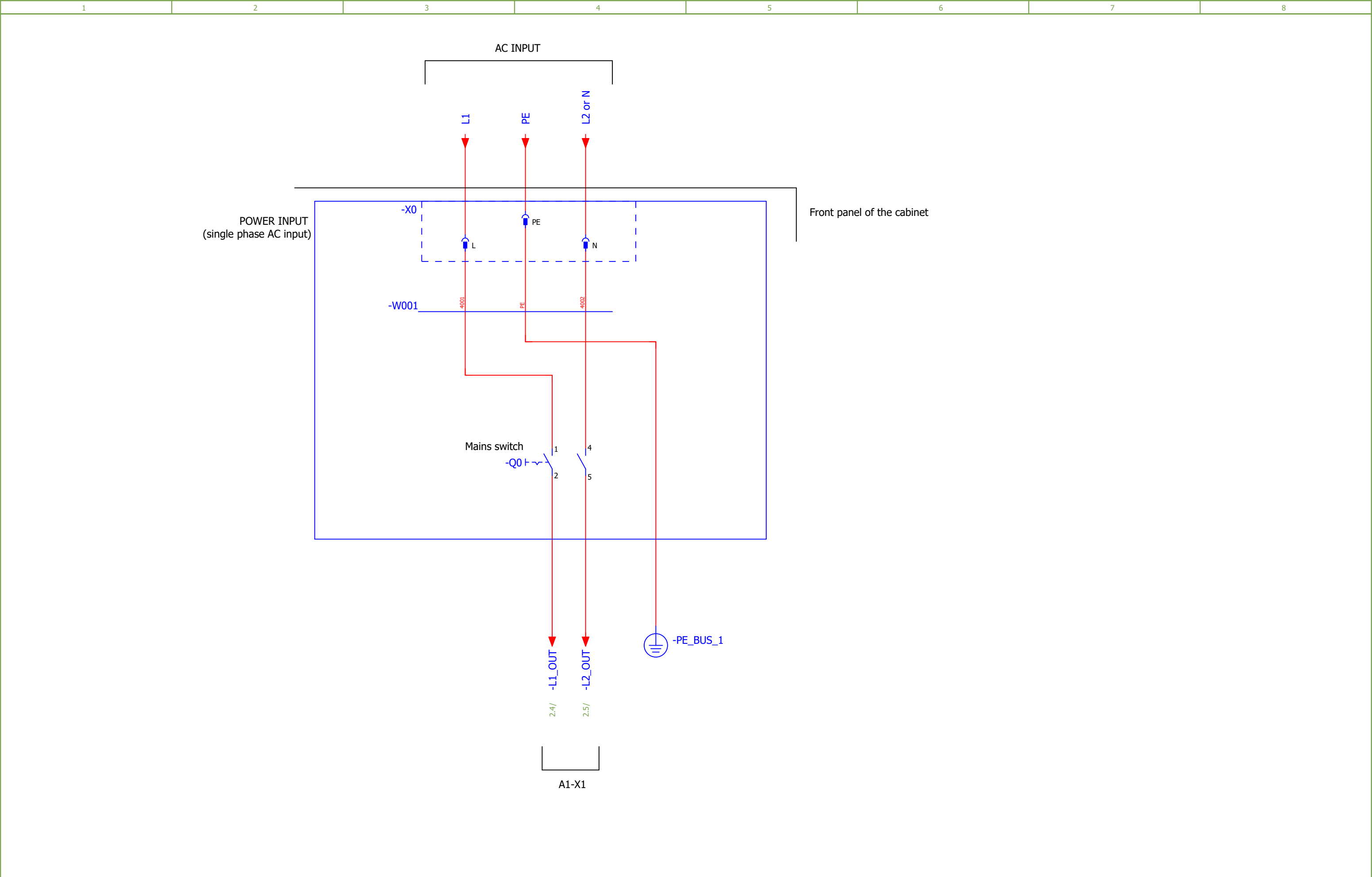
Main computer
A2



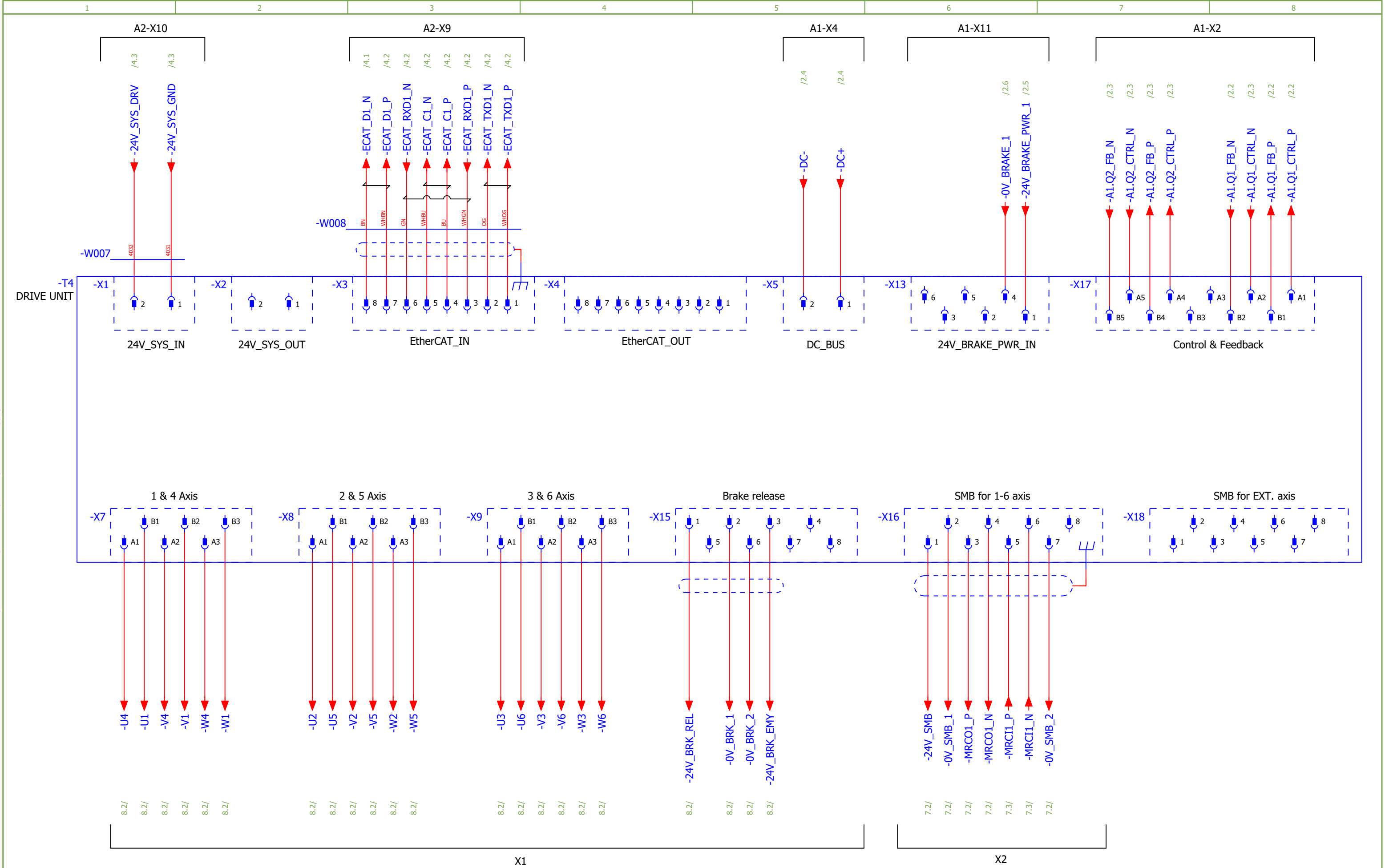
Top view

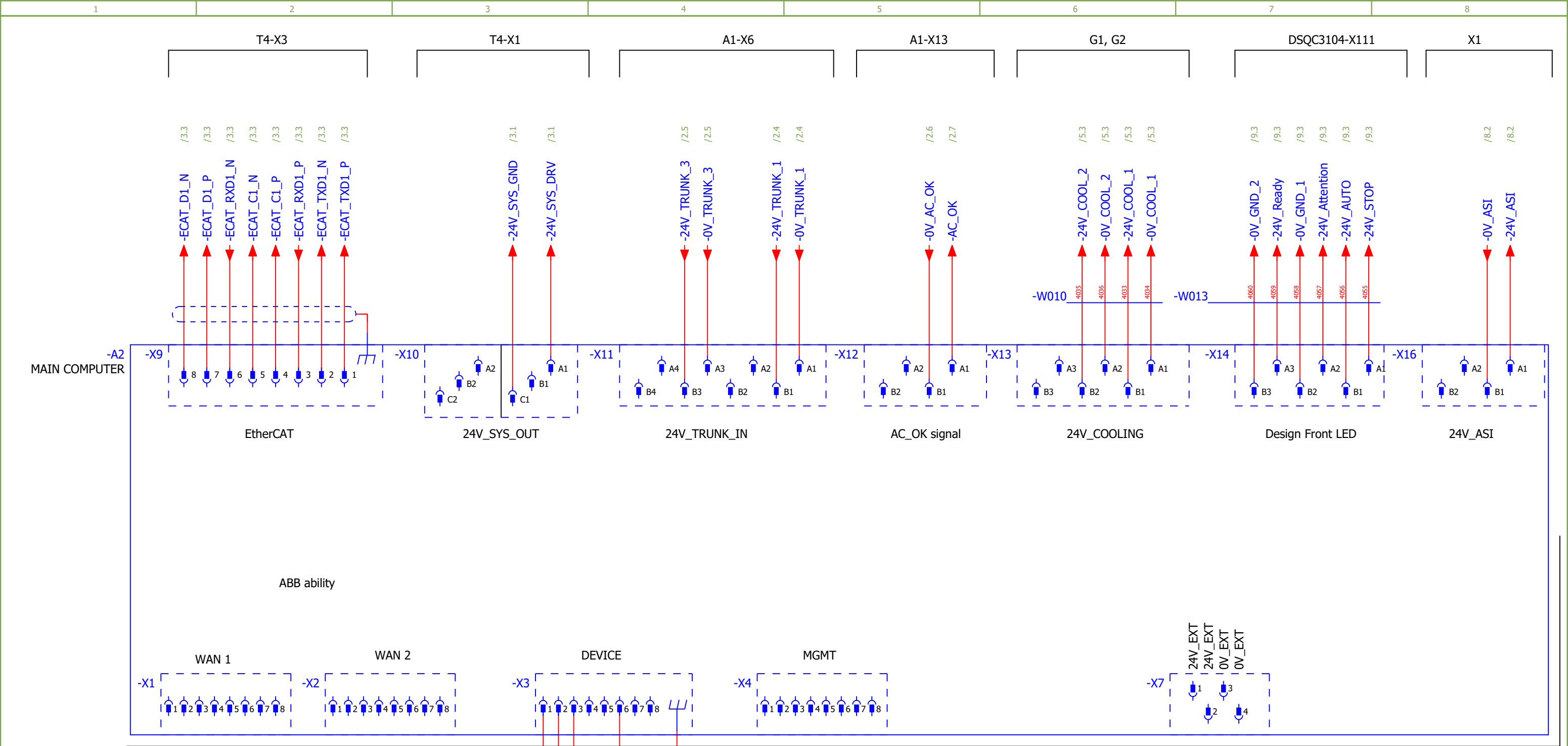
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1	2	3	4	5	6	7	8
				Left view			
				Right view			
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Prepared by, date: Brian Zhang				Document no. 3HAC092963-010	Page: 007.b Next: =SCH+U1/1 Total: 31		
Approved by, date: Per V. Carlsson							



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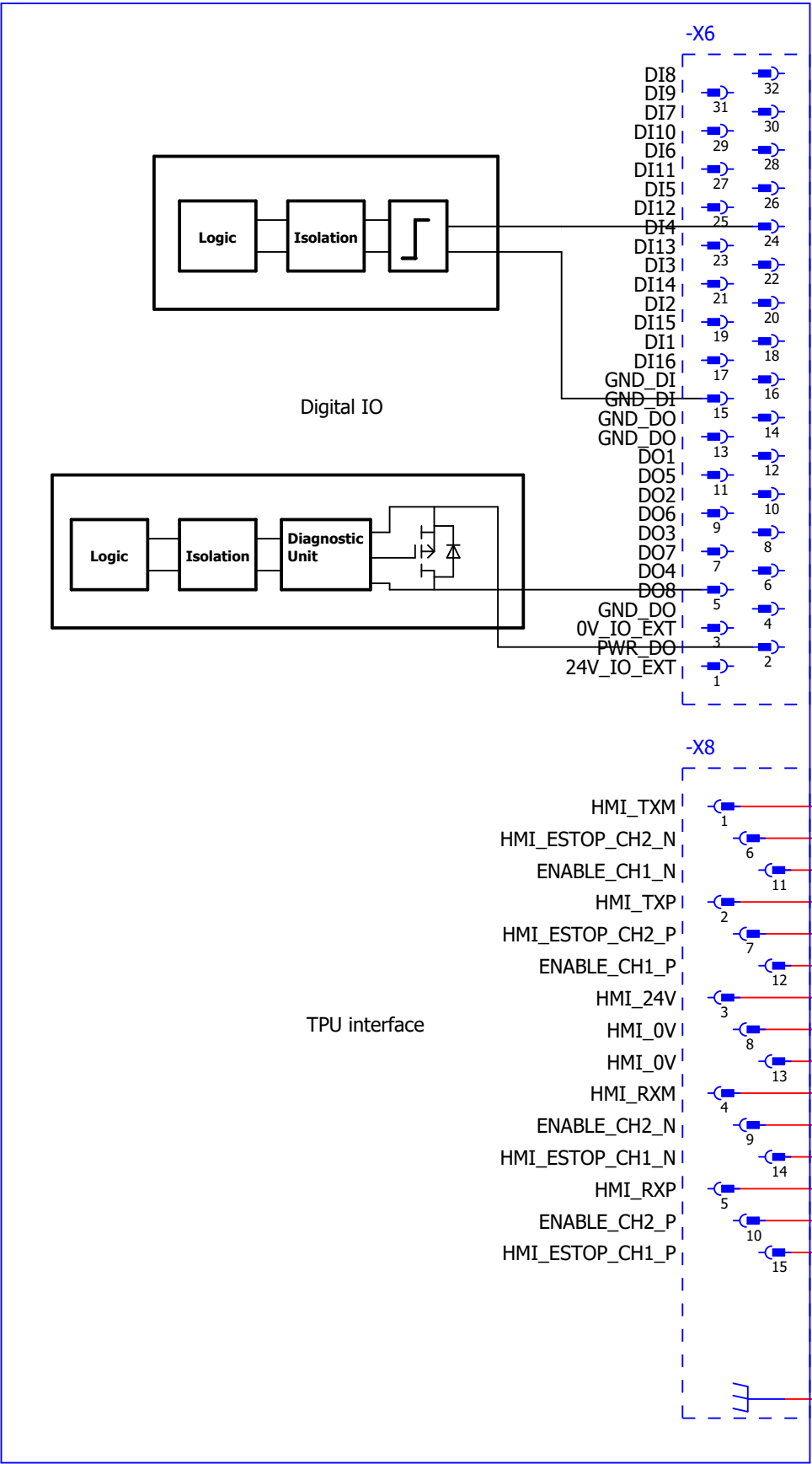
Front panel of the cabinet

+EXT/10.b.3/
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Manipulator ASI when delivered with CRB 1810

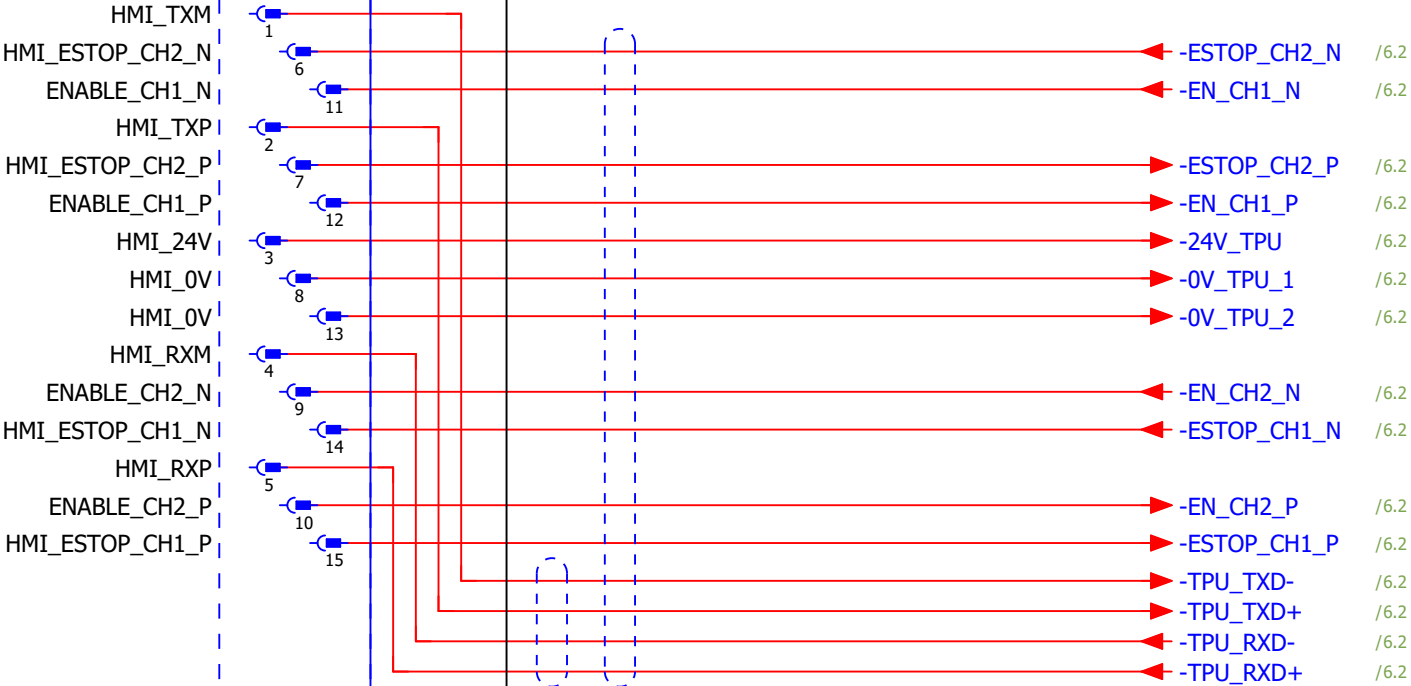
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-A2
MAIN COMPUTER

Front panel of the cabinet



Customer interface

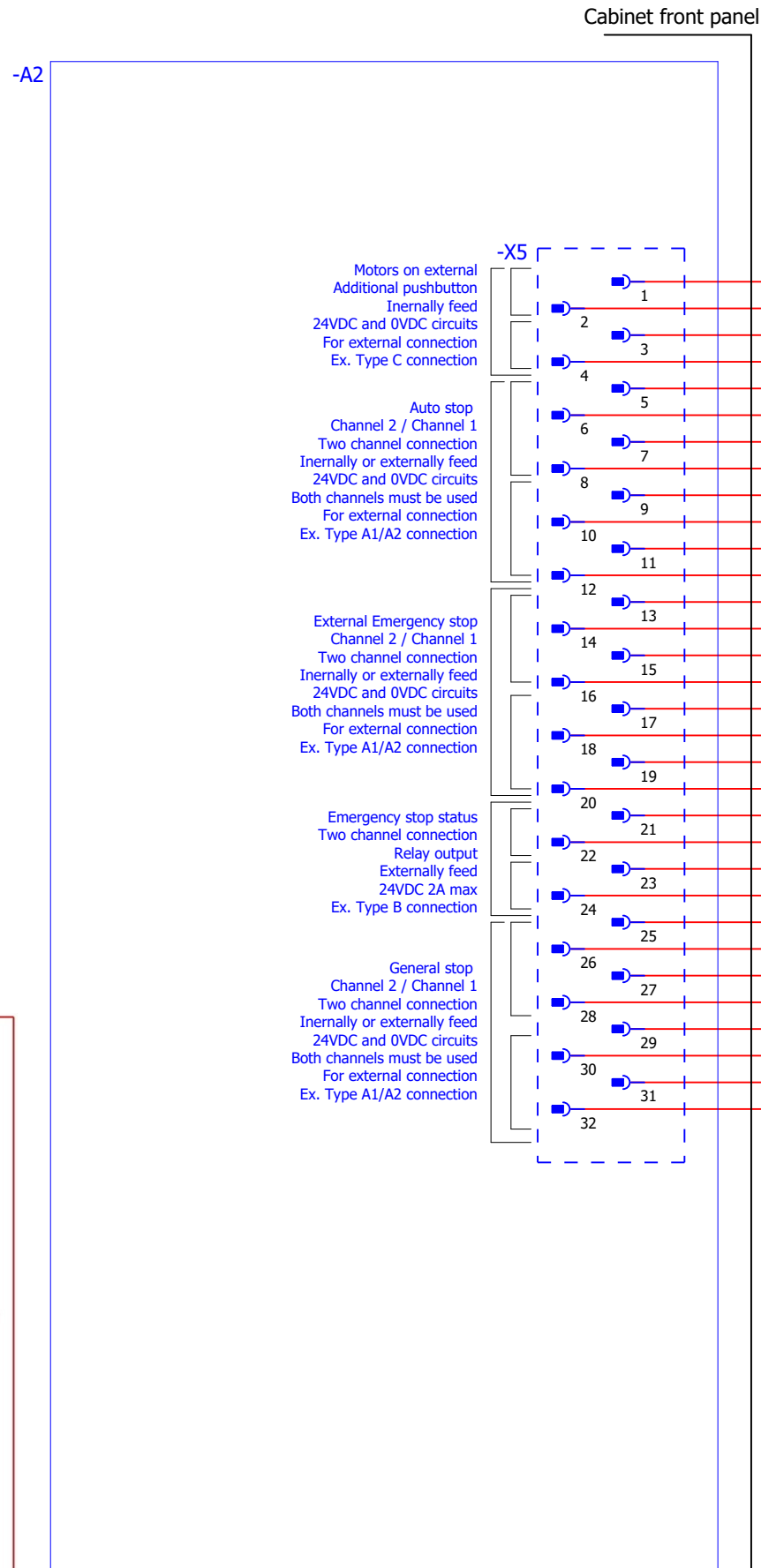
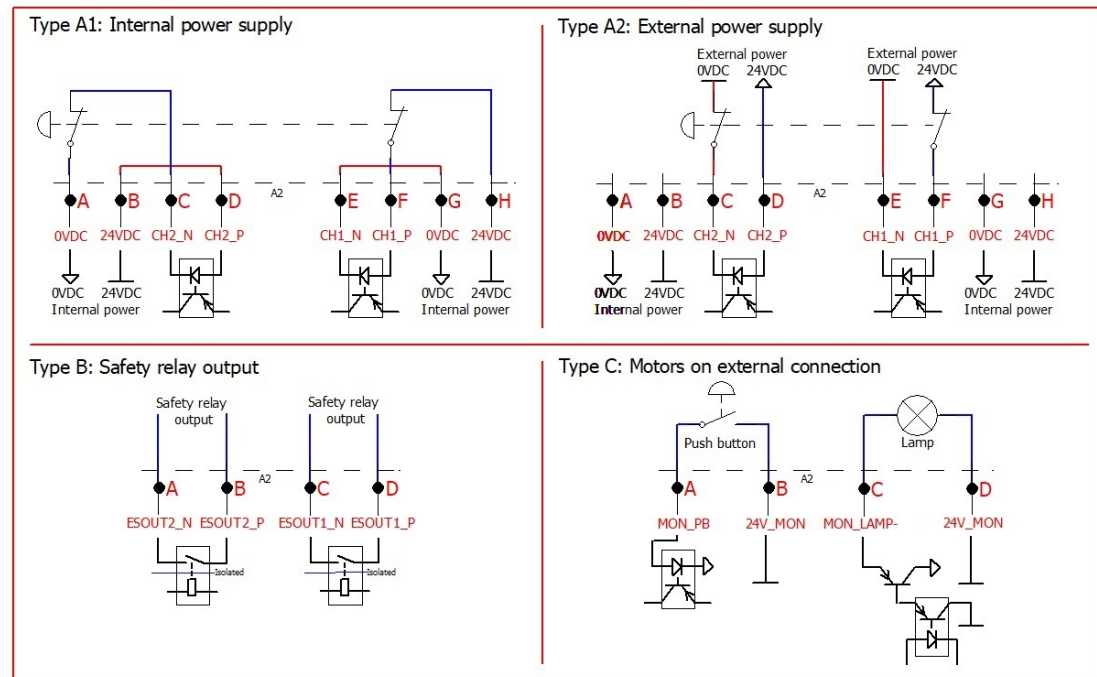


X4

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Safety circuits Example of connections

See product manual chapter 3 for connection examples



Customer Safety Interface

Note 1. By adding jumper/bridge connectors, external safety equipment is bypassed. Jumper/bridge connection may only be performed by trained personnel.

Note 2. Auto Stop (AS), General Stop (GS) bypass jumpers are not pre-mounted when the controller is delivered together with an IRB manipulator.

Note 3. Auto Stop (AS), General Stop (GS) bypass jumpers are pre-mounted when the controller is delivered together with a CRB manipulator.

Motor on PB

Motor on lamp

Auto Stop

External Emergency Stop

E-stop status output

General Stop

Latest revision:

Rev 00

4/30/2025

Prepared by, date: Brian Zhang

Approved by, date: Per V. Carlsson



Lab/Office:

RA/RDP

ABB Engineering (Shanghai) Ltd.

No.4528, Kangxin Highway,
Pudong New District, Shanghai,
201319, P. R. China

MAIN COMPUTER - A2

Status:

Approved

High-level function: = SCH
Mounting location: + U1

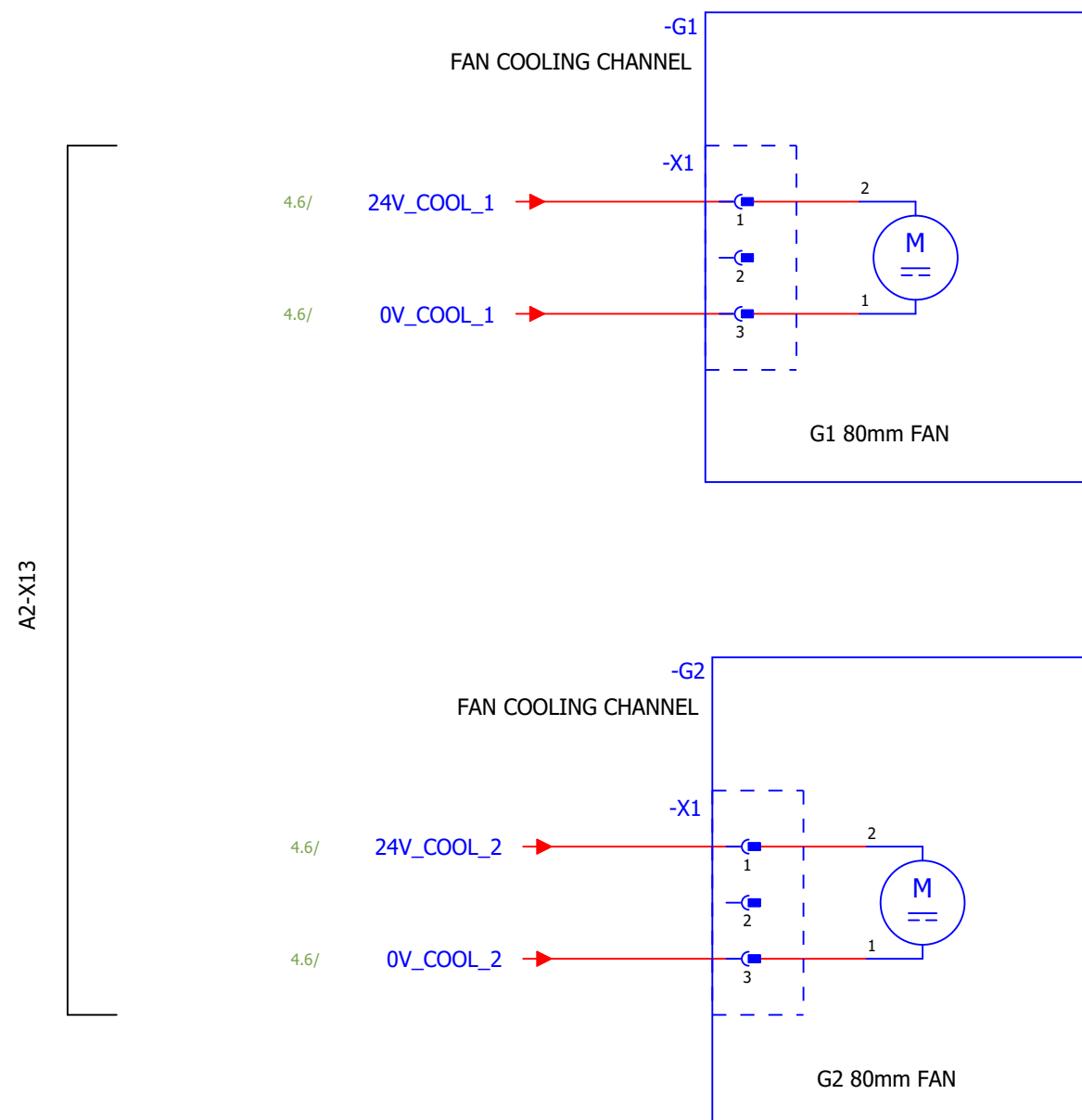
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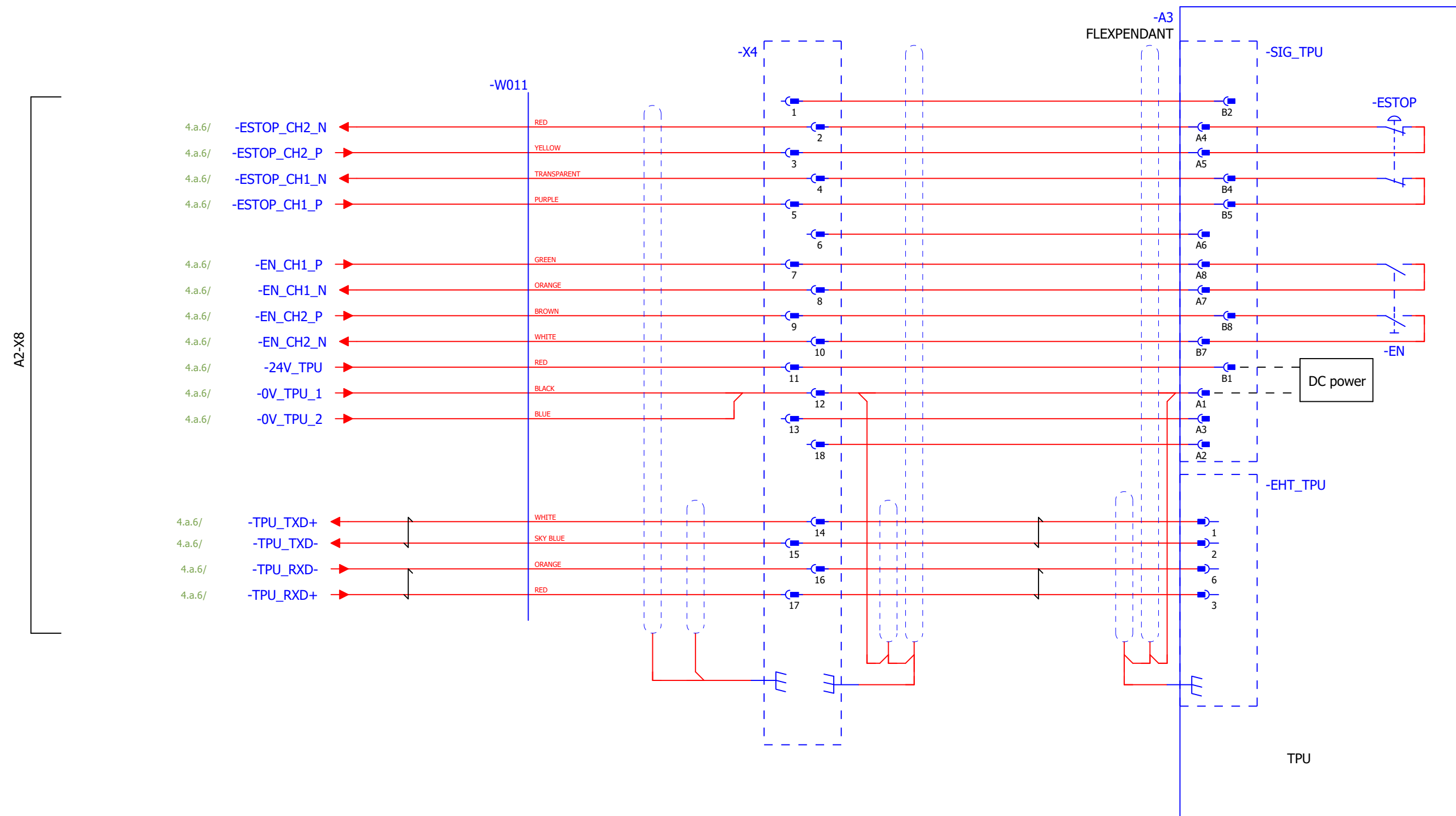
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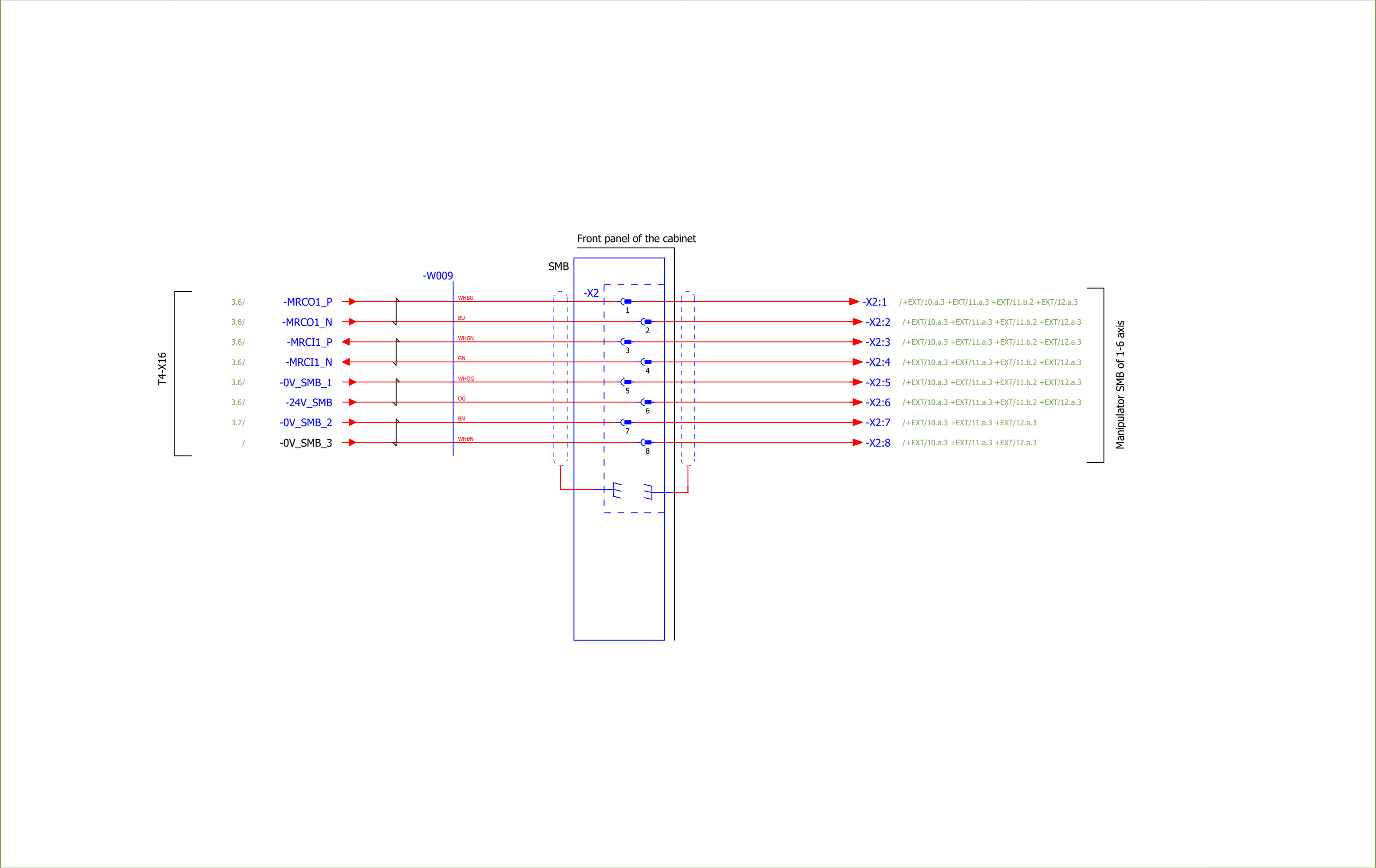
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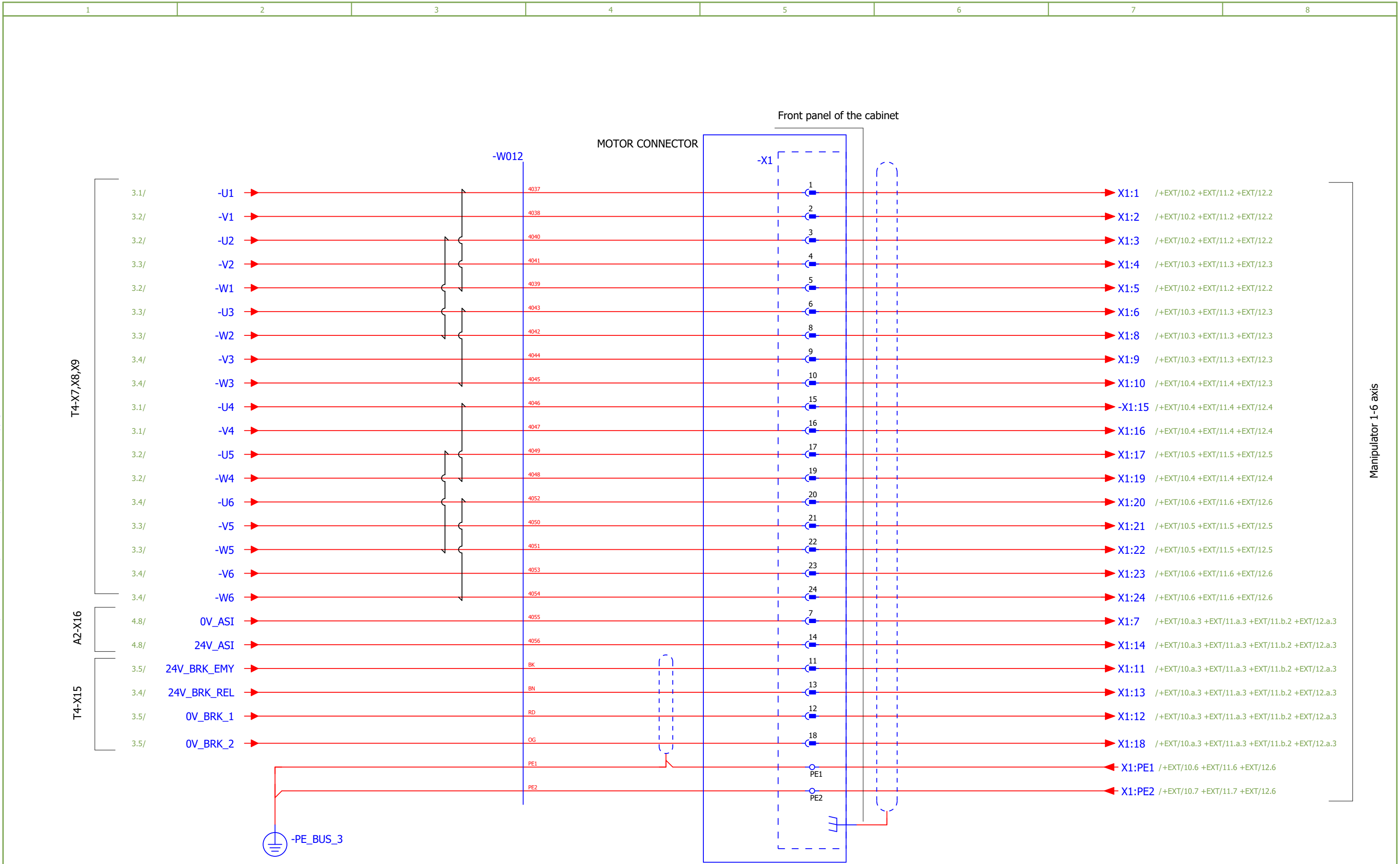
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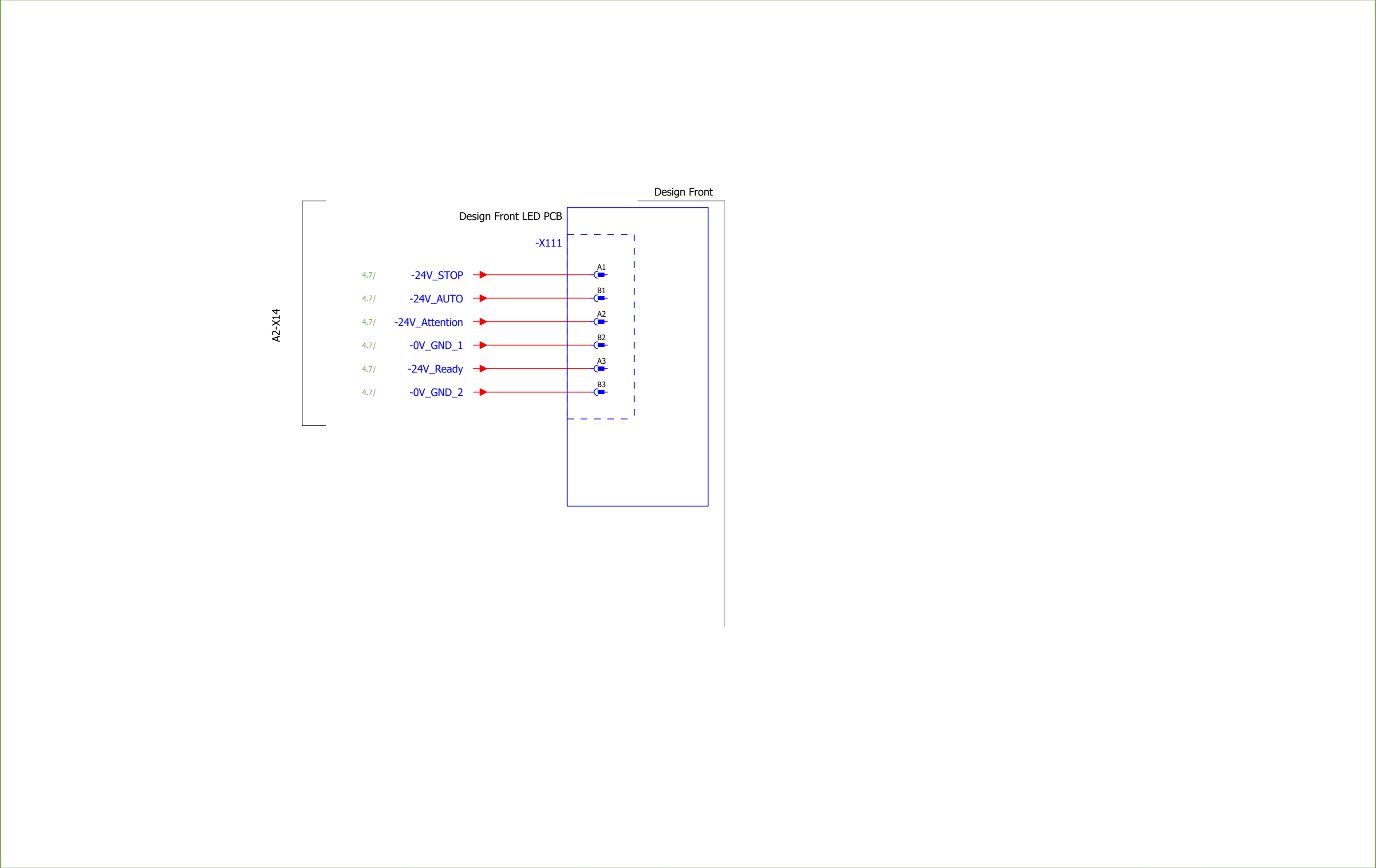






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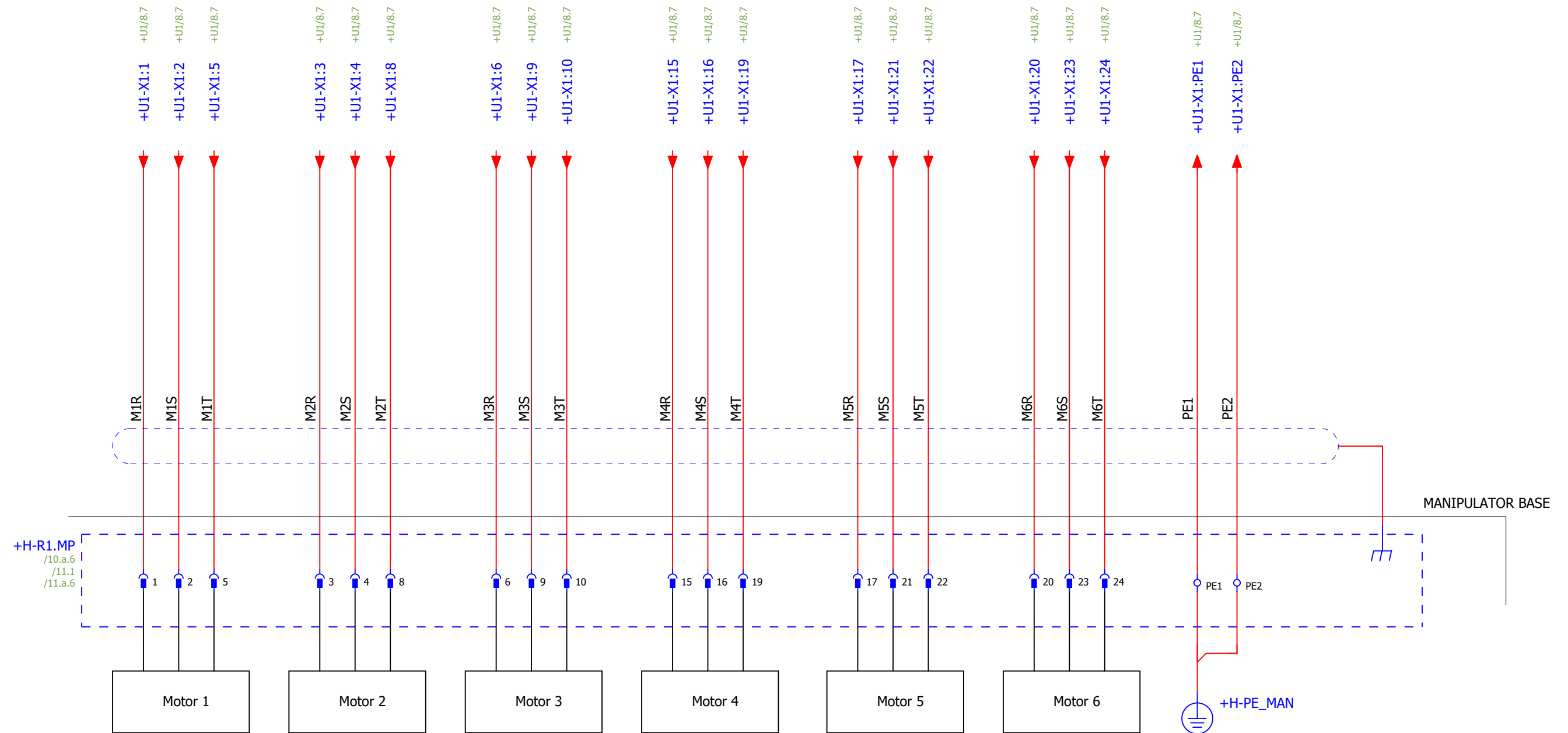


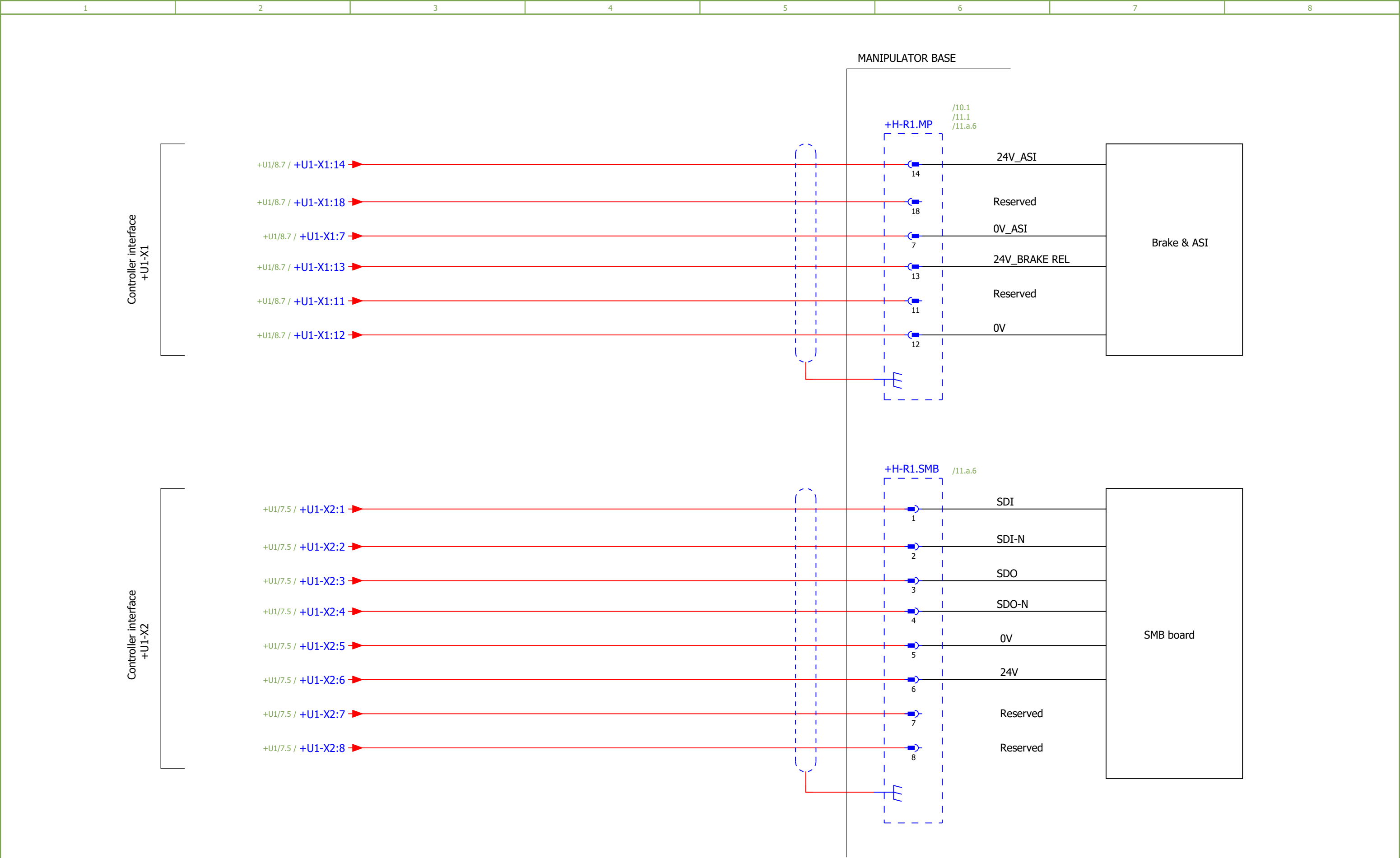


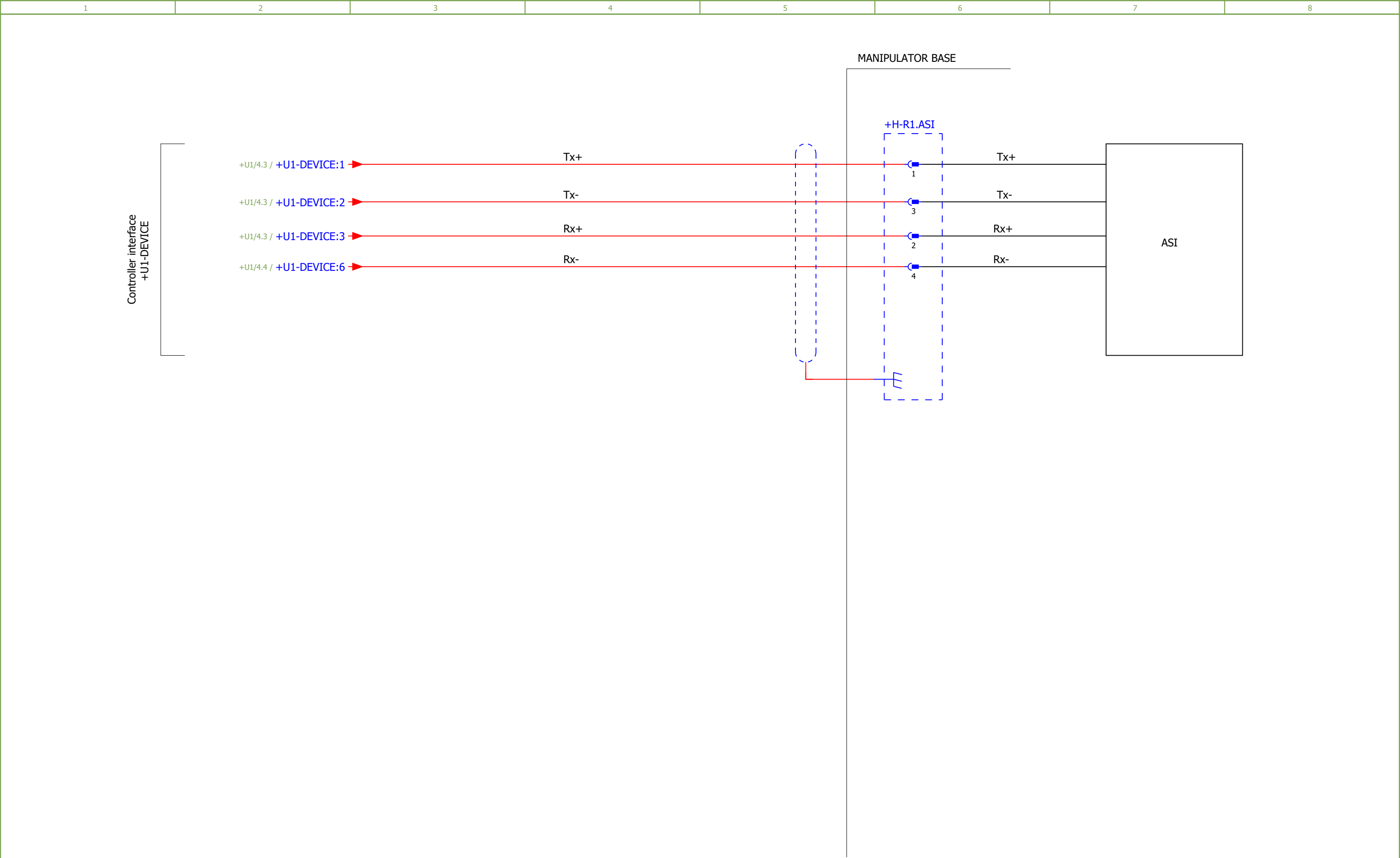
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CRB 1810 cabinet

Controller interface
+U1-X1

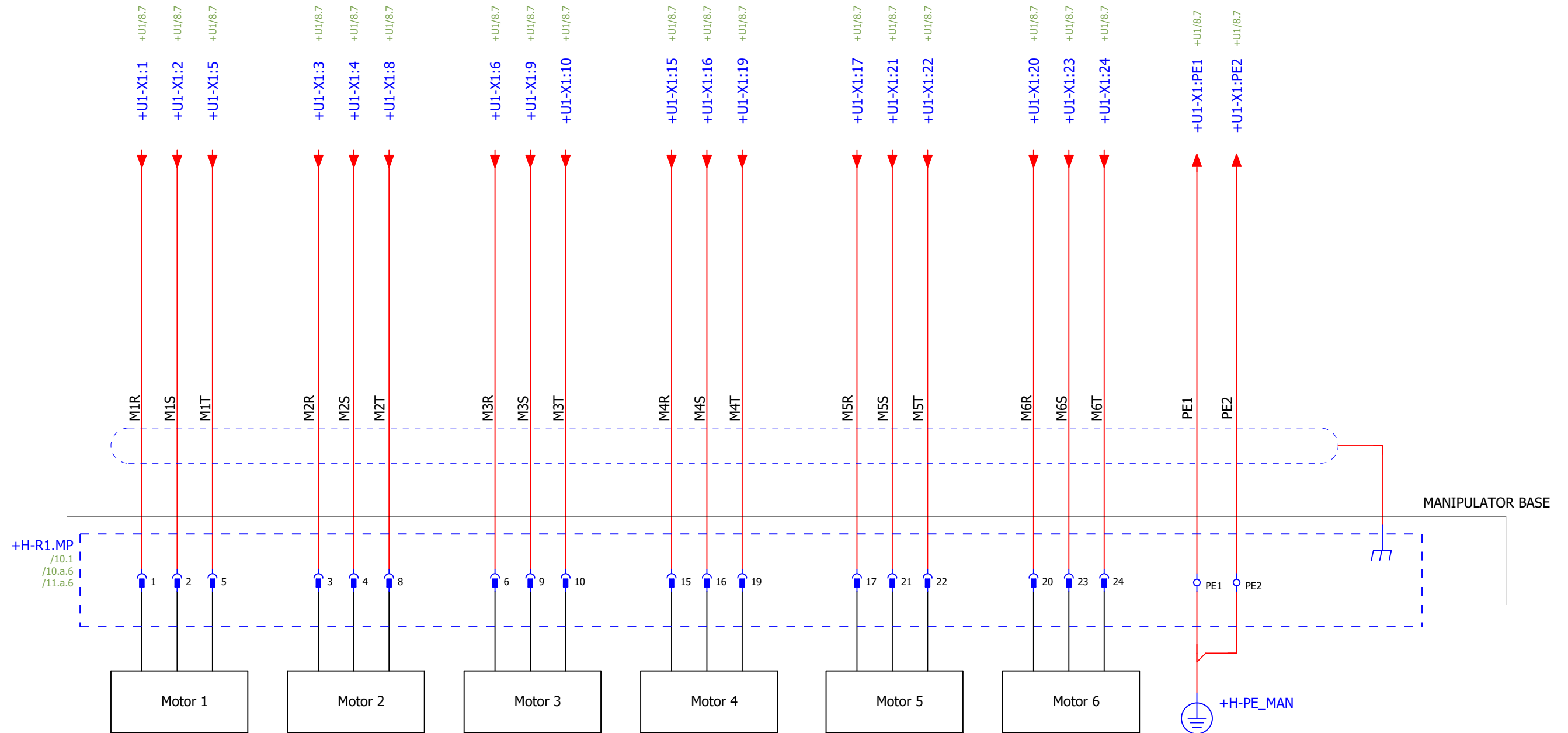


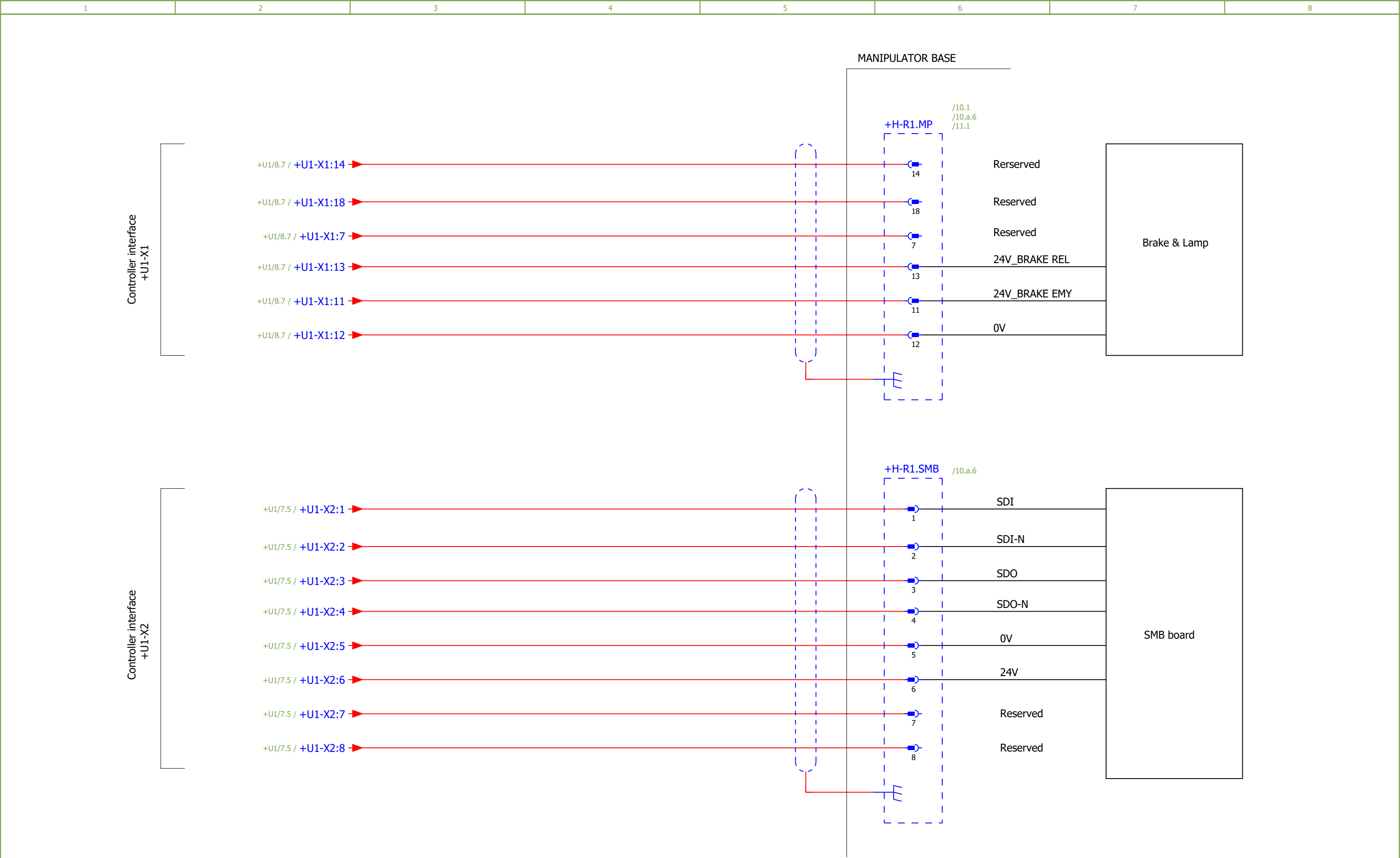


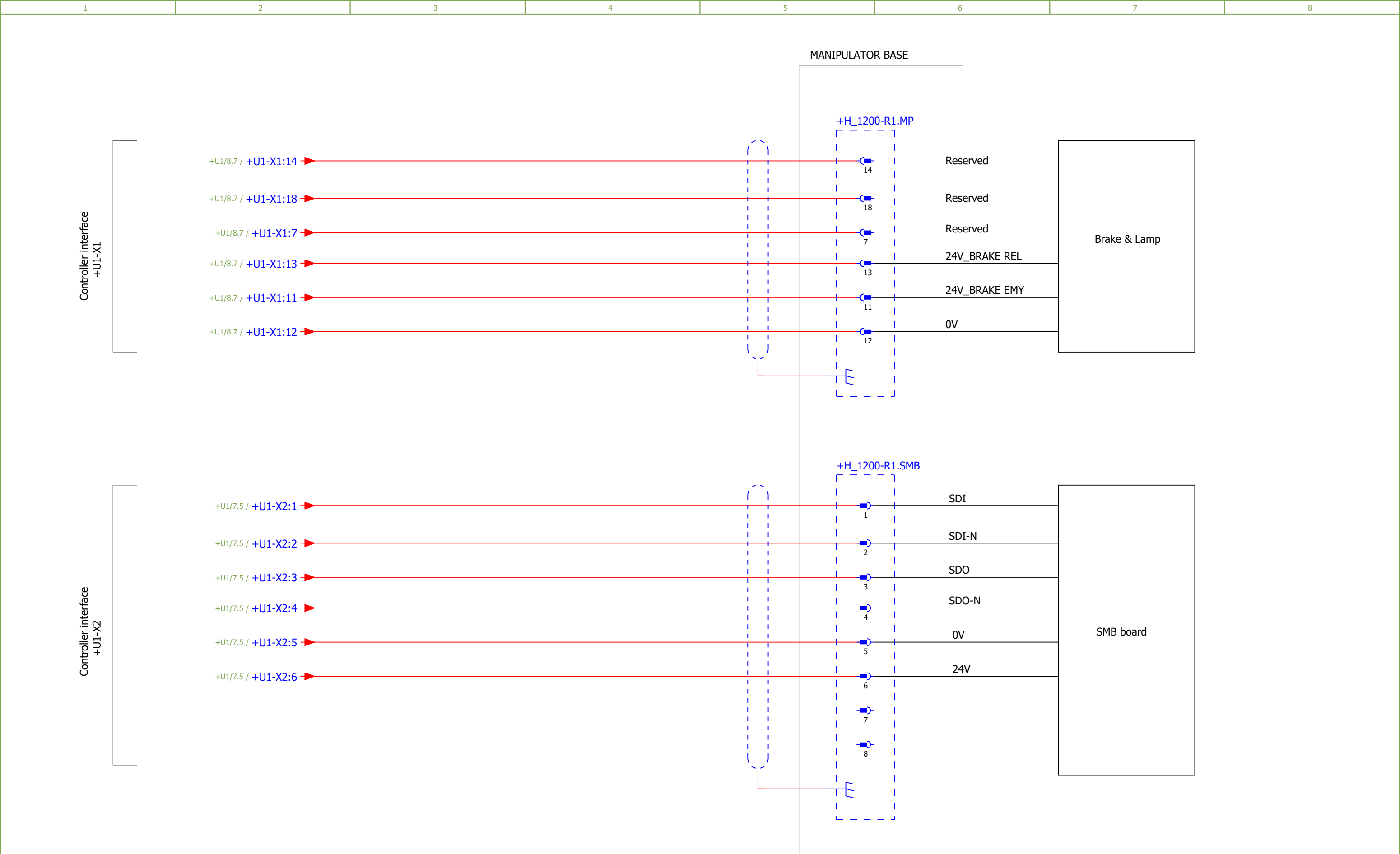


IRB 1100, IRB 1200, IRB 1300 cabinet

Controller interface
+U1-X1







IRB 910INV, IRB 920 cabinet

