Ballard Power Systems Europe A/S
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Revision history		
Rev.	**Date.**	**Description**
001	6/5/2024	First Issue
002	28/03/2025	Update with RM safety relay
003	29/09/2025	Update according to CRS - as buid

Document Title:	**BLPH Project - Panel Cabinet Layout: UC20 40ft Control Cabinet**
Document Number:	K559-2254-CWIWP4202202-E03-002
Revision:	Rev003
Sequence Number:	002
File Name:	K559-2254-CWIWP4202202-E03-002Rev003
Purchaser Job:	K559-2254
Purchase Order:	CWIWP4202202
Code:	E03
Requsition Number:	n/a
Customer:	CrossWind C.V., Rotterdam, The Netherlands

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

BALLARD™

+UC20

Ballard Power Systems Europe - Technology Solutions

Cabinet: 40ft Container Control
Location: 40ft Container, Middle

Vin = 400VAC, 3ph

Ikmax = 6kA - AC Supply

IP20

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& A01

REVISION INFORMATION
DESCRIPTION
DATE
29-Sep-25

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Front Page		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 1 / 255

FRM5103656/0B

Ballard Power Systems Europe - Technology Solutions, Cabinet Wiring Colors

Standard Basis: EN 61439

Required wire standard compliance:

Required: IEC Wire
Required: UL Recognized
Required: CSA/UL

Wire Numbering:

- Wires inside panels are to be numbered
- Wire number system is perferably "potential oriented with subnumber"
- All wires of the same potential (e.g. DC Common) have the same main number, with sequential subnumber.
- Potential numbers with fewer digits may be leading zero padded (e.g. 19 -> 019)
- Separator between main and subnumber is "."

Example: 019.1 BUWH 0.75mm²

- 019 — Wire potential number
- 1 — Wire sequential subnumber with separator
- BUWH — Wire color code (Dark Blue with White stripe)
- 0.75mm² — Wire dimension

AC Wiring Colors

AC Power Circuit (Generic)	Black (BK)
AC Phase L1	Brown (BN)
AC Phase L2	Black (BK)
AC Phase L3	Grey (GY)
AC Neutral	Light Blue (BU)
Externally supplied circuit	Orange (OG)

DC Wiring Colors

DC Power Circuit	Black (BK)
DC Control Voltage (24V)	Dark Blue (BU)
DC Control Voltage Refence (0V)	Dark Blue with White Stripe (BUWH)
Signal Wire (DI, DO)	White (WH)
Signal Wire (AI, AO)	Violet (VT)
Externally supplied circuit	Orange (OG)

PE Wiring Colors

Protective Earth (PE)	Green/Yellow (GNYE)

Conductor Colour Identification

IEC 60757:1983 Designation	Description
BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Gray
WH	White
PK	Pink
GD	Gold
TQ	Turquoise
SR	Silver
GNYE	Green/Yellow
SH	Shield

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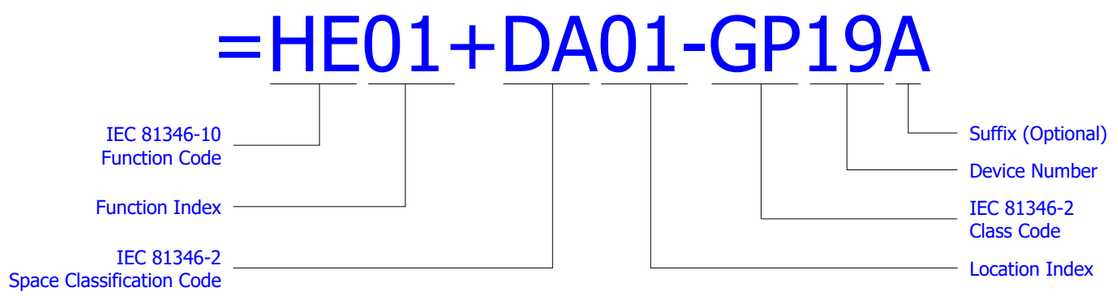
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Standard Wire Colors		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 2 / 255

Ballard Power Systems Europe - Technology Solutions Device Tag Process

A Ballard Device Tagname consists of three parts:
- A function designation (=)
  - According to IEC81346-10, Table B.1 and B2.
  - Always two letters followed by two digits
- A location designation (+)
  - According to IEC81346-2, Table 4
  - Always two letters followed by two digits
- A class code (-)
  - According to IEC81346-2, Table 2
  - Always two letters followed by two or three digits plus optional suffix

Sample fully qualified Device Tag (DT) for a Coolant Pump



IEC81346-10 Function Examples

IEC 81346-10 Table B.1 and B.2 provide a class definition system, which provides a two letter code for the functional description
Table B.1 is used for power supply systems and table B.2 for other systems

IEC 81346-10 Table B.1 / B.2	Function Codes (Example)
=AA	Structural System, Load support (Frame)
=BA	Transporting Electrical Energy (Power Converters)
=HA	Supply System, Gaseous Matter (Gas Piping)
=HE	Supply System, Heating/Cooling (Radiator)
=JA	Distribution System, Gaseous Matter (Gas Handling Unit)
=JB	Distribution System, Liquid Matter (Fluid Drain)
=LA	Control System, Process (PLC, SCADA)
=LB	Control System, Safety (Safety PLC)
=QA	Storage System, Gaseous Matter (Gas Storage)
=RE	Energy Conversion System, Chemical to Electricity (Fuel cells, Batteries)

IEC81346-2 Space Classification

IEC 81346-2 Table 4 provide a classification scheme for spaces, which provides a two and three letter code for the space (location) classification.
Class code "1" and "1" is used for the location scheme

IEC 81346-2 Table 4	Location Codes (Example)
+GB	Space for power generation, Chemical (Fuel Cells)
+DA	Space for active technical equipment
+UC	Space for electrical equipment (Electrical Cabinet)

IEC81346-2 Class Code

IEC 81346-2 Class Codes is a scheme for defined objects for reference designations according to their inherent function

IEC 81346-2 Table 2	Class Codes (Example)
-BA	Sensing, electrical potential (Voltage Transducer)
-BC	Sensing, electrical current (Current Transducer)
-BP	Sensing, pressure (Pressure Transducer)
-BT	Sensing, temperature (Temperature Transducer)
-EA	Emitting, light (Light Fixture)
-FC	Protecting, overcurrent (Fuse, MCCB)
-GB	Generating, Chemical Reaction (Fuel Cell)
-GP	Generating, Liquid Flow (Pump)
-GQ	Generating, Gas Flow (Van, Ventilator)
-KE	Processing, Electrical signals (PLC)
-KF	Processing, Information (Network Switch)
-MA	Driving, Torque (AC Motor)
-QA	Controlling, Electric Current (Contactor, Motor Starter)
-QB	Controlling, Electric Separation (Disconnector)
-QM	Controlling, Fluid On/Off (Valve)
-QN	Controlling, Fluid Regulation (Damper, Gas Control Valve)
-WD	Guiding, Low Voltage Electric Energy (AC or DC power Cable)
-WE	Guiding, Reference Potential (Grounding Wire/Cable)
-WG	Guiding, Electric Signals (Control, Network Cable)

Reference Item Number	Ballard Part # TBD
EPLAN Project Name	601456B - Shell Baseload Power Hub
EPLAN Revision	12
EPLAN Project Pages	627
= ++ + UC20 & A01	

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Tagging Standard		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 3 / 255

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Ballard Power Systems Europe - Technology Solutions

Controller IO Overview Documentation

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Controller IO Overview Introduction		

ALL SHEETS ARE THE SAME REVISION STATUS | SIZE A3 | LANGUAGE EN | SHEET/TOTAL 4 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20-KE01
DEIF AMC300
Fuel Cell Genset Controller
Container Control Cabinet

-Slot1
DEIF PSM3.1
Power Supply Module 3.1

PSM3.1

	PE PE		Frame Ground					
	1 12-24V		Supply +					
	2 0V		Supply COM					
	3 R1 COM		Status OK Relay COM					
A1.0	4 DO1	DO1	Status OK Relay					
	5 R2 COM		Relay 2 COM					
A1.1	6 DO2	DO2	Relay 1 Out					
	7 R3 COM		Relay 3 COM					
A1.2	8 DO3	DO3	Relay 3 Out					

EtherCAT Master Ring Topology — EtherCAT +&C01/5.4:C X03 — Ethernet-1 IN

EtherCAT Master Ring Topology — EtherCAT +&C01/5.4:C X03 — Ethernet-2 OUT

Bus Master
Multi-line 300

-Slot2
ACM3.1
Alternating Current Module 3.1

ACM3.1

1 L1	BA20_BA01_L1	AUX Customer Supply - L1 Voltage		
2 L2	BA20_BA01_L2	AUX Customer Supply - L2 Voltage		
3 L3	BA20_BA01_L3	AUX Customer Supply - L3 Voltage		
4 N	BA20_BA01_N	AUX Customer Supply - N Voltage		
5 L1	BA20_BA02_L1	Nanogrid Internal - L1 Voltage		
6 L2	BA20_BA02_L2	Nanogrid Internal - L2 Voltage		
7 L3	BA20_BA02_L3	Nanogrid Internal - L3 Voltage		
8 N	BA20_BA02_N	AUX Customer Supply - N Voltage		
9 L1-S1	BA20_BC01_L1	AUX Customer Supply - L1 Current		
10 L1-S2	CH1-S2	Channel 1 - S2		
11 L2-S1	BA20_BC01_L2	AUX Customer Supply - L2 Current		
12 L2-S2	CH2-S2	Channel 2 - S2		
13 L3-S1	BA20_BC01_L3	AUX Customer Supply - L3 Current		
14 L3-S2	CH3-S2	Channel 3 - S2		
15 4-S1	CH4-S1	Channel 4 - S1		
16 4-S2	CH4-S2	Channel 4 - S2		

-Slot3
&C03/104.3
&C03/85.5
&C03/42.3
&C03/105.8
&C03/32.6
&C03/27.7
&C03/27.7
&C03/27.7
&C03/27.7
IOM3.1
Alternating Current Module 3.1

IOM3.1

3 1 2	1 DO1.1	JS_EA01	Container light 1/3	
	2 R1 COM		Relay 1 Common	
	3 DO1.2		Relay 1 NC	
6 4 5	4 DO2.1	JS_EA02	Container lighting, 40ft 2/2	
	5 R2 COM		Relay 2 Common	
	6 DO2.2		Relay 2 NC	
9 7 8	7 DO3.1	JS_EA03	Container light 3/3 UPS Supply	&C03/104.3
	8 R3 COM		Relay 3 Com	&C03/104.3
	9 DO3.2		Relay 3 NC	
12 10 11	10 DO4.1	JB01_QB18_EB01	Heatracing drain	&C03/85.5
	11 R4 COM		Relay 4 Com	&C03/85.5
	12 DO4.2		Relay 4 NC	
	13 DI01	UC20_FCXX	400/230VAC Fuse Trip	&C03/42.3
	14 DI02	UC20_FC101	24VDC Fuse Trip	&C03/42.5
	15 DI03	DA01_SG100	Light Switch Container	&C03/105.8
	16 DI04	UC50_QA01_FB	Container Nanogrid Supply Feedback	
	17 DI05	UC50_QA02_FB	Container AUX Supply Feedback	
	18 DI06	UC20_FC210	24VDC light Fuse Trip	&C03/32.6
	19 DI07		Spare	
	20 DI08	UC20_RB30_RDY	PLC UPS Battery Ready	&C03/27.7
	21 DI09	UC20_RB30_BAT	PLC UPS Battery Operation	&C03/27.7
	22 DI10	UC20_RB30_SOH	PLC UPS Battery Low SOH	&C03/27.7
	23 COM		Supply COM	&C03/27.7

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Container Controller, Main Rack 1/3		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 5 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20-KE01
DEIF AMC300
Fuel Cell Genset Controller

-Slot4

&C03/64.1
&C03/64.2
&C03/64.3
&C03/64.4
&C03/92.1
&C03/45.4
&C03/45.5
&C03/45.5
&C03/85.2
IOM3.2
IO Module 3.2

IOM3.2

1	R1 COM	&C03/64.1		Relay 1 In
2	DO1	&C03/64.2	FC1_RESET	FC1 Safety PLC Circuit Reset
3	R2 COM	&C03/64.3		Relay 2 COM
4	DO2	&C03/64.3	FC2_RESET	FC2 Safety PLC Circuit Reset
5	R3 COM	&C03/64.4		Relay 3 In
6	DO3	&C03/64.4	FC3_RESET	FC3 Safety PLC Circuit Reset
7	R4 COM			Relay 4 In
8	DO4			Relay 4 Out
9	AO1	&C03/92.1	JA01_QM01_SP	Ventilation Intake 1 Damper Postion SP
10	AO1 COM	&C03/92.2		AO1 COM
11	AO2	&C03/92.4	JA01_QM02_SP	Ventilation Intake 2 Damper Postion SP
12	AO2 COM	&C03/92.4		AO2 COM
13	AO3		LT_QN01_SP	LT Mixing Valve Setpoint
14	AO3 COM			AO3 COM
15	AO4			Spare
16	AO4 COM			AO4 COM
17	DI1	&C03/45.4	VT_GB03	FC3 24V Supply Feedback
18	DI2	&C03/45.5	VT_GB04	FC4 24V Supply Feedback
19	DI3			Spare
20	DI4			Spare
21	DI1-4 COM	&C03/45.5		DI1-4 COM
22	AI1	&C03/92.3	JA01_QM01_FB	Ventilation Intake 1 Damper Postion FB
23	AI1 COM	&C03/92.3		AI1 COM
24	AI2	&C03/92.5	JA01_QM02_FB	Ventilation Intake 2 Damper Postion FB
25	AI2 COM	&C03/92.5		AI2 COM
26	AI3		LT_QN01_FB	LT Mixing Valve Feedback
27	AI3 COM			AI3 COM
28	AI4	&C03/85.2	JB01_BL02_LSH	Condensate Drain Tank High Level
29	AI4 COM			AI4 COM

-Slot5

&C03/96.1
&C03/96.4
&C03/95.7
&C03/95.2
&C03/101.2
&C03/91.7
IOM3.3
IO Module 3.3

IOM3.3

1	AI1	&C03/96.1	JA01_BT01_TT	Ventilation Intake Temperature
2	AI1			Spare
3	AI1			Spare
4	AI2	&C03/96.4	JA01_BT02_TT	Container Temperature
5	AI2	&C03/96.4		Spare
6	AI2	&C03/96.4		Spare
7	AI3	&C03/96.6	JA01_BT03_TT	Container Temperature
8	AI3	&C03/96.7		Spare
9	AI3	&C03/96.7		Spare
10	AI4		JA01_BP05_TT	Vent. Duct Air Temperature
11	AI4			Spare
12	AI4			Spare
13	AI5			Spare
14	AI5	&C03/95.7	JA01_BP01_PDT	Ventilation Intake Filter Differential-pressure
15	AI5	&C03/95.7		Spare
16	AI6			Spare
17	AI6	&C03/95.2	JA01_BP02_PDT	Container Indoor/Outdoor Diffential Pressure
18	AI6	&C03/95.2		COM
19	AI7			Spare
20	AI7	&C03/101.2	HE03_DA01_BP01	LT Circuit Differential-pressure
21	AI7	&C03/101.2		COM
22	AI8	&C03/91.7	JA01_EB01_TT	Container Heater Internal Temperature
23	AI8			Spare
24	AI8			Spare
25	AI9			Spare
26	AI9			Spare
27	AI9			Spare
28	AI10			Spare
29	AI10			Spare
30	AI10			Spare

-Slot6

&C03/99.3
&C03/100.3
IOM3.3
IO Module 3.3

IOM3.3

1	AI1			Spare
2	AI1		LT_BF01_FT	LT Coolant Flow
3	AI1			-
4	AI2			Spare
5	AI2	&C03/99.3	HE03_DA01_BP02	LT feed pressure FC1
6	AI2	&C03/99.3		-
7	AI3			Spare
8	AI3	&C03/99.4	HE03_DA01_BP03	LT feed pressure FC2
9	AI3	&C03/99.4		-
10	AI4			Spare
11	AI4	&C03/99.6	HE03_DA01_BP04	LT feed pressure FC3
12	AI4	&C03/99.6		-
13	AI5			Spare
14	AI5	&C03/100.3	HE03_DA01_BP05	LT feed pressure FC4
15	AI5	&C03/100.3		-
16	AI6			Spare
17	AI6	&C03/100.4	HE03_DA01_BP06	LT feed pressure FC5
18	AI6	&C03/100.4		-
19	AI7			Spare
20	AI7	&C03/100.6	HE03_DA01_BP07	LT feed pressure FC6
21	AI7			-
22	AI8		LT_BT04_TT	LT Return Temperature
23	AI8			Spare
24	AI8			Spare
25	AI9		LT_BT05_TT	LT Radiator Return Temperature
26	AI9			Spare
27	AI9			Spare
28	AI10		LT_BT06_TT	LT Forward Temperature
29	AI10			Spare
30	AI10			Spare

Reference Item Number	Ballard Part # TBD
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EPLAN Revision	12
EPLAN Project Pages	627
=	++ | + UC20 | & C02

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Container Controller, Main Rack 2/3		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 6 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20-KE01
DEIF AMC300
Fuel Cell Genset Controller

-Slot7
DEIF PCM3.1
Processor and
Communication
Module 3.1

PCM3.1

CAN-A H
1
Other bus systems X01
CAN-A SH
2
Other bus systems X01
CAN-A L
3
Other bus systems X01

CAN-B H
4
Other bus systems X01
CAN-B SH
5
Other bus systems X01
CAN-B L
6
Other bus systems X01

SD Card

Ethernet-3
1
ETH1 Other bus systems X02

Ethernet-4
1
AGI Screen Connection Other bus systems X03

Ethernet-5
1
ETH04 Other bus systems X04

CPU
Multi-line 300

Reference Item Number	Ballard Part # TBD		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Container Controller, Main Rack 3/3		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 7 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20-KE02
DEIF AMC300
Fuel Cell Genset Controller - Extension Rack

-Slot1
DEIF PSM3.2
Power Supply Module 3.2

PSM3.2

	PE PE		Frame Ground	
	1 12-24V		Supply +	
	2 0V		Supply COM	
	3 R1 COM		Status OK Relay COM	
A52.4	4 DO1	DO1	Status OK Relay	
	5 R2 COM		Relay 2 COM	
A52.5	6 DO2	DO2	Relay 1 Out	
	7 R3 COM		Relay 3 COM	
A52.6	8 DO3	DO3	Relay 3 Out	

Ethernet-1
EtherCAT Follower Ring Topology — EtherCAT +&C01/5.6:C X03 — IN

Ethernet-2
EtherCAT Follower Ring Topology — EtherCAT +&C01/5.7:C X03 — OUT

Bus Follower
Multi-line 300

-Slot02
IOM3.3
IO Module 3.3

IOM3.3

1 AI1			Spare
2 AI2			Spare
3 AI3			Spare
4 AI4			Spare
5 AI5			Spare
6 AI6			Spare
7 AI7			Spare
8 AI8			Spare
9 AI9			Spare
10 AI10			Spare
11 AI11			Spare
12 AI12			Spare
13 AI13			Spare
14 AI14			Spare
15 AI15			Spare
16 AI16			Spare
17 AI17			Spare
18 AI18			Spare
19 AI19			Spare
20 AI20			Spare
21 AI21			Spare
22 AI22			Spare
23 AI23			Spare
24 AI24			Spare
25 AI25			Spare
26 AI26			Spare
27 AI27			Spare
28 AI28			Spare
29 AI29			Spare
30 AI30			Spare

-Slot03
&C03/91.2
&C03/43.2
&C03/43.1
&C03/33.7
&C03/33.7
&C03/33.7
&C03/33.7
&C03/36.7
&C03/33.7
&C03/36.7
&C03/36.7
&C03/36.7
&C03/39.7
&C03/39.7
&C03/39.7
&C03/39.7
&C03/39.7
IOM3.4
IO Module 3.4

IOM3.4

	1 12-24V			Supply +
	2 DO01	&C03/91.2	JA01_EB01_1	Heating element 1 ON
	3 DO02	&C03/91.4	JA01_EB01_2	Heating element 2 ON
	4 DO03	&C03/91.5	JA01_EB01_3	Heating element 3 ON
A3.1	5 DO04		DO04	Digital Out 04
	6 DO05	&C03/43.2	UC20_KF20.2	FC1 24V Toggle
	7 DO06	&C03/43.3	UC20_KF20.4	FC2 24V Toggle
	8 DO07	&C03/43.4	UC20_KF21.2	FC3 24V Toggle
	9 DO08	&C03/43.5	UC20_KF21.4	FC4 24V Toggle
	10 DO09	&C03/43.6	UC20_KF22.2	FC5 24V Toggle
	11 DO10	&C03/43.7	UC20_KF22.4	FC6 24V Toggle
A4.0	12 DO11		DO11	Digital Out 11
A4.1	13 DO12		DO12	Digital Out 12
	14 COM	&C03/43.1		Supply COM
E6.5	15 DI01		DI01	Digital In 01
E6.6	16 DI02		DI02	Digital In 02
E6.7	17 DI03		DI03	Digital In 03
	18 DI04	&C03/33.7	UC20_RB01_RDY	FC1+2 UPS Battery Ready
	19 DI05	&C03/33.7	UC20_RB01_BAT	FC1+2 UPS Battery Operation
	20 DI06	&C03/33.7	UC20_RB01_SOH	FC1+2 UPS Battery Low SOH
	21 DI07	&C03/33.7	UC20_RB01_DIS	FC1+2 UPS Battery Discharged
	22 DI08	&C03/36.7	UC20_RB02_RDY	FC3+4 UPS Battery Ready
	23 COM	&C03/33.7		Supply COM
	24 DI09	&C03/36.7	UC20_RB02_BAT	FC3+4 UPS Battery Operation
	25 DI10	&C03/36.7	UC20_RB02_SOH	FC3+4 UPS Battery Low SOH
	26 DI11	&C03/36.7	UC20_RB02_DIS	FC3+4 UPS Battery Discharged
	27 DI12	&C03/39.7	UC20_RB03_RDY	FC5+6 UPS Battery Ready
	28 DI13	&C03/39.7	UC20_RB03_BAT	FC5+6 UPS Battery Operation
	29 DI14	&C03/39.7	UC20_RB03_SOH	FC5+6 UPS Battery Low SOH
	30 DI15	&C03/39.7	UC20_RB03_DIS	FC5+6 UPS Battery Discharged
E8.4	31 DI16		DI16	Digital In 16
	32 COM	&C03/39.7		Supply COM

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C02

REVISION INFORMATION	
DESCRIPTION	
DATE	29-Sep-25

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Container Controller, Extension Rack 1/3		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 8 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20-KE02
DEIF AMC300
Fuel Cell Genset Controller - Extension Rack

-Slot04

&C03/66.5
&C03/69.5
&C03/67.1
IOM3.4
IO Module 3.4

IOM3.4

1	12-24V			Supply +
2	DO01	&C03/66.5	GB01_MD_ENABLE	MD_Enable Signal
3	DO02	&C03/69.5	GB02_MD_ENABLE	MD_Enable Signal
4	DO03			SPARE
5	DO04			SPARE
6	DO05			SPARE
7	DO06			SPARE
8	DO07			SPARE
9	DO08			SPARE
10	DO09			SPARE
11	DO10			SPARE
12	DO11			SPARE
13	DO12			SPARE
14	COM			Supply COM
15	DI01	&C03/67.1	GB01_SAFE_FIRE	SAFE_FIRE Safety Signal
16	DI02	&C03/67.2	GB01_SAFE_H2CONC	SAFE_H2CONC Safety Signal
17	DI03	&C03/67.3	GB01_SAFE_VENT	SAFE_VENT Safety Signal
18	DI04	&C03/67.4	GB01_SAFE_WD	SAFE_WD Safety Signal
19	DI05	&C03/67.7	GB01_SAFE_FIREMALF	SAFE_FIREMALF Safety Signal
20	DI06	&C03/67.8	GB01_SAFE_EXTERN	SAFE_EXTERN Safety Signal
21	DI07	&C03/66.3	GB01_FCM_OK	Fuel Cell Module OK
22	DI08	&C03/70.1	GB02_SAFE_FIRE	SAFE_FIRE Safety Signal
23	COM			Supply COM
24	DI09	&C03/70.2	GB02_SAFE_H2CONC	SAFE_H2CONC Safety Signal
25	DI10	&C03/70.3	GB02_SAFE_VENT	SAFE_VENT Safety Signal
26	DI11	&C03/70.4	GB02_SAFE_WD	SAFE_WD Safety Signal
27	DI12	&C03/70.7	GB02_SAFE_FIREMALF	SAFE_FIREMALF Safety Signal
28	DI13	&C03/70.8	GB02_SAFE_EXTERN	SAFE_EXTERN Safety Signal
29	DI14	&C03/69.3	GB02_FCM_OK	Fuel Cell Module OK
30	DI15			SPARE
31	DI16			SPARE
32	COM			Supply COM

=RE01+GB01-KE02-Slot04:

-Slot05

&C03/73.1
&C03/73.7
&C03/73.8
&C03/72.3
&C03/76.1
&C03/76.7
&C03/76.8
&C03/75.3
IOM3.4
IO Module 3.4

IOM3.4

1	12-24V			Supply +
2	DO01	&C03/72.5	GB03_MD_ENABLE	MD_Enable Signal
3	DO02	&C03/75.5	GB04_MD_ENABLE	MD_Enable Signal
4	DO03			SPARE
5	DO04			SPARE
6	DO05			SPARE
7	DO06			SPARE
8	DO07			SPARE
9	DO08			SPARE
10	DO09			SPARE
11	DO10			SPARE
12	DO11			SPARE
13	DO12			SPARE
14	COM			Supply COM
15	DI01	&C03/73.1	GB03_SAFE_FIRE	SAFE_FIRE Safety Signal
16	DI02	&C03/73.2	GB03_SAFE_H2CONC	SAFE_H2CONC Safety Signal
17	DI03	&C03/73.3	GB03_SAFE_VENT	SAFE_VENT Safety Signal
18	DI04	&C03/73.4	GB03_SAFE_WD	SAFE_WD Safety Signal
19	DI05	&C03/73.7	GB03_SAFE_FIREMALF	SAFE_FIREMALF Safety Signal
20	DI06	&C03/73.8	GB03_SAFE_EXTERN	SAFE_EXTERN Safety Signal
21	DI07	&C03/72.3	GB03_FCM_OK	Fuel Cell Module OK
22	DI08	&C03/76.1	GB04_SAFE_FIRE	SAFE_FIRE Safety Signal
23	COM			Supply COM
24	DI09	&C03/76.2	GB04_SAFE_H2CONC	SAFE_H2CONC Safety Signal
25	DI10	&C03/76.3	GB04_SAFE_VENT	SAFE_VENT Safety Signal
26	DI11	&C03/76.4	GB04_SAFE_WD	SAFE_WD Safety Signal
27	DI12	&C03/76.7	GB04_SAFE_FIREMALF	SAFE_FIREMALF Safety Signal
28	DI13	&C03/76.8	GB04_SAFE_EXTERN	SAFE_EXTERN Safety Signal
29	DI14	&C03/75.3	GB04_FCM_OK	Fuel Cell Module OK
30	DI15			SPARE
31	DI16			SPARE
32	COM			Supply COM

-Slot06

&C03/79.1
&C03/79.7
&C03/79.8
&C03/78.3
&C03/82.1
&C03/82.7
&C03/82.8
&C03/81.3
IOM3.4
IO Module 3.4

IOM3.4

1	12-24V			Supply +
2	DO01	&C03/78.5	GB05_MD_ENABLE	MD_Enable Signal
3	DO02	&C03/81.5	GB06_MD_ENABLE	MD_Enable Signal
4	DO03			SPARE
5	DO04			SPARE
6	DO05			SPARE
7	DO06			SPARE
8	DO07			SPARE
9	DO08			SPARE
10	DO09			SPARE
11	DO10			SPARE
12	DO11			SPARE
13	DO12			SPARE
14	COM			Supply COM
15	DI01	&C03/79.1	GB05_SAFE_FIRE	SAFE_FIRE Safety Signal
16	DI02	&C03/79.2	GB05_SAFE_H2CONC	SAFE_H2CONC Safety Signal
17	DI03	&C03/79.3	GB05_SAFE_VENT	SAFE_VENT Safety Signal
18	DI04	&C03/79.4	GB05_SAFE_WD	SAFE_WD Safety Signal
19	DI05	&C03/79.7	GB05_SAFE_FIREMALF	SAFE_FIREMALF Safety Signal
20	DI06	&C03/79.8	GB05_SAFE_EXTERN	SAFE_EXTERN Safety Signal
21	DI07	&C03/78.3	GB05_FCM_OK	Fuel Cell Module OK
22	DI08	&C03/82.1	GB06_SAFE_FIRE	SAFE_FIRE Safety Signal
23	COM			Supply COM
24	DI09	&C03/82.2	GB06_SAFE_H2CONC	SAFE_H2CONC Safety Signal
25	DI10	&C03/82.3	GB06_SAFE_VENT	SAFE_VENT Safety Signal
26	DI11	&C03/82.4	GB06_SAFE_WD	SAFE_WD Safety Signal
27	DI12	&C03/82.7	GB06_SAFE_FIREMALF	SAFE_FIREMALF Safety Signal
28	DI13	&C03/82.8	GB06_SAFE_EXTERN	SAFE_EXTERN Safety Signal
29	DI14	&C03/81.3	GB06_FCM_OK	Fuel Cell Module OK
30	DI15		DI15	Digital In 15
31	DI16		DI16	Digital In 16
32	COM			Supply COM

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C02

REVISION INFORMATION	
DESCRIPTION	
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Container Controller, Extension Rack 2/3		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 9 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20-KE02
DEIF AMC300
Fuel Cell Genset Controller - Extension Rack

-Slot07
&C03/64.5
&C03/64.5
&C03/64.6
&C03/93.1
&C03/94.1
&C03/45.6
&C03/45.8
&C03/93.2
&C03/94.2
IOM3.2
IO Module 3.2

IOM3.2

1	R1 COM	&C03/64.5		Relay 1 In
2	DO1	&C03/64.5	FC4_RESET	FC4 Safety PLC Circuit Reset
3	R2 COM	&C03/64.6		Relay 2 COM
4	DO2	&C03/64.6	FC5_RESET	FC5 Safety PLC Circuit Reset
5	R3 COM			Relay 3 In
6	DO3		FC6_RESET	FC6 Safety PLC Circuit Reset
7	R4 COM			Relay 4 In
8	DO4			Relay 4 Out
9	AO1	&C03/93.1 &C03/94.1	JA01_QM03_SP	Ventilation Outlet A Damper Postion SP
10	AO1 COM	&C03/93.2 &C03/94.2		AO1 COM
11	AO2	&C03/93.6 &C03/94.6	JA01_QM04_SP	Ventilation Outlet B Damper Postion SP
12	AO2 COM	&C03/93.6 &C03/94.6		AO2 COM
13	AO3			Ventilation Outlet C Damper Postion SP
14	AO3 COM			AO3 COM
15	AO4			Ventilation Intake D Damper Postion SP
16	AO4 COM			AO4 COM
17	DI1			FC4 24V Supply Feedback
18	DI2	&C03/45.6	VT_GB05	FC5 24V Supply Feedback
19	DI3	&C03/45.7	VT_GB06	FC6 24V Supply Feedback
20	DI4			Spare
21	DI1-4 COM	&C03/45.8		DI1-4 COM
22	AI1	&C03/93.2 &C03/94.2	JA01_QM03_FB	Ventilation Outlet A Damper Postion FB
23	AI1 COM	&C03/93.3 &C03/94.3		AI1 COM
24	AI2	&C03/93.5 &C03/94.5	JA01_QM04_FB	Ventilation Outlet B Damper Postion FB
25	AI2 COM	&C03/93.5 &C03/94.5		AI2 COM
26	AI3			Ventilation Outlet C Damper Postion FB
27	AI3 COM			AI3 COM
28	AI4			Ventilation Intake D Damper Postion FB
29	AI4 COM			AI4 COM

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Container Controller, Extension Rack 3/3		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 10 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20-KE03

DEIF AMC300
Fuel Cell Genset Controller - Extension Rack 2

-Slot1

&C03/44.6
&C03/44.7
PSM3.2
Power Supply
Module 3.2

PSM3.2

1	12-24V		Frame Ground
2	0V		Supply +
PE	PE		Supply COM
7	R1 COM	&C03/44.6	Status OK Relay COM
8	DO1	&C03/44.7 FC5_24VON	FC5 24V Supply On Signal
3	R2 COM		Relay 2 COM
4	DO1	DO2	<Reserved>
5	R3 COM		Relay 3 COM
6	DO2	DO3	Relay 3 Out

Ethernet-1
IN
Rack Connection IN EtherCAT +&C01/5.8:C X03

Ethernet-2
OUT
Rack Connection OUT EtherCAT +&C01/5.9:C X03

Bus Slave
Multi-line 300

-Slot2

&C03/44.1
&C03/44.1
&C03/44.2
&C03/44.2
&C03/44.4
&C03/44.4
&C03/44.5
&C03/44.5
&C03/45.1
&C03/45.3
IOM3.2
IO Module 3.2

IOM3.2

1	R1 COM	&C03/44.1	Relay 1 In
2	DO1	&C03/44.1 FC1_24VON	FC1 24V Supply On Signal
3	R2 COM	&C03/44.2	Relay 2 COM
4	DO2	&C03/44.2 FC2_24VON	FC2 24V Supply On Signal
5	R3 COM	&C03/44.4	Relay 3 In
6	DO3	&C03/44.4 FC3_24VON	FC3 24V Supply On Signal
7	R4 COM	&C03/44.5	Relay 4 In
8	DO4	&C03/44.5 FC4_24VON	FC4 24V Supply On Signal
9	AO1		Spare
10	AO1 COM		AO1 COM
11	AO2		Spare
12	AO2 COM		AO2 COM
13	AO3		Spare
14	AO3 COM		AO3 COM
15	AO4		Spare
16	AO4 COM		AO4 COM
17	DI1	&C03/45.1 VT_GB01	FC1 24V Supply Feedback
18	DI2	&C03/45.2 VT_GB02	FC2 24V Supply Feedback
19	DI3		FC3 24V Supply Feedback
20	DI4		Spare
21	DI1-4 COM	&C03/45.3	DI1-4 COM
22	AI1		Spare
23	AI1 COM		AI1 COM
24	AI2		Spare
25	AI2 COM		AI2 COM
26	AI3		Spare
27	AI3 COM		AI3 COM
28	AI4		Spare
29	AI4 COM		AI4 COM

-Slot3

&C03/102.1
&C03/102.3
IOM3.3
IO Module 3.3

IOM3.3

1	AI1	H2_BT01_TT	FC1 Hydrogen Supply Pipe Temperature
2	AI2		Spare
3	AI3		Spare
4	AI4	H2_BT02_TT	FC2 Hydrogen Supply Pipe Temperature
5	AI5		Spare
6	AI6		Spare
7	AI7	H2_BT03_TT	FC3 Hydrogen Supply Pipe Temperature
8	AI3		Spare
9	AI9		Spare
10	AI10	H2_BT04_TT	FC4 Hydrogen Supply Pipe Temperature
11	AI11		Spare
12	AI12		Spare
13	AI13	H2_BT05_TT	FC5 Hydrogen Supply Pipe Temperature
14	AI14		Spare
15	AI15		Spare
16	AI16		FC6 Hydrogen Supply Pipe Temperature
17	AI17		Spare
18	AI18		Spare
19	AI19 &C03/102.1	HE03_DA01_BT01	FC1 HT Coolant Outlet Temperature
20	AI20 &C03/102.1		Spare
21	AI21 &C03/102.1		Spare
22	AI22 &C03/102.3	HE03_DA01_BT02	FC2 HT Coolant Outlet Temperature
23	AI23 &C03/102.3		Spare
24	AI24 &C03/102.3		Spare
25	AI25 &C03/102.4	HE03_DA01_BT03	FC3 HT Coolant Outlet Temperature
26	AI26 &C03/102.4		Spare
27	AI27 &C03/102.5		Spare
28	AI28		Spare
29	AI29		Spare
30	AI30		Spare

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Container Controller, Extension Rack 2 1/2		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 11 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20-KE03
DEIF AMC300
Fuel Cell Genset Controller - Extension Rack 2

Slot4
&C03/86.1
&C03/86.4
&C03/87.1
&C03/103.1
IOM3.3
IO Module 3.3

IOM3.3

1	AI1	&C03/86.1	UC01_BT01_TT	Cabinet temperature UC01
2	AI2	&C03/86.1		Spare
3	AI3	&C03/86.1		Spare
4	AI4	&C03/86.4	UC02_BT01_TT	Cabinet temperature UC02
5	AI5	&C03/86.4		Spare
6	AI6	&C03/86.4		Spare
7	AI7	&C03/86.7	UC03_BT01_TT	Cabinet temperature UC03
8	AI8	&C03/86.7		Spare
9	AI9	&C03/86.7		Spare
10	AI10	&C03/87.1	UC04_BT01_TT	Cabinet temperature UC04
11	AI11	&C03/87.1		Spare
12	AI12	&C03/87.1		Spare
13	AI13	&C03/87.4	UC05_BT01_TT	Cabinet temperature UC05
14	AI14	&C03/87.4		Spare
15	AI15	&C03/87.4		Spare
16	AI16	&C03/87.7	UC06_BT01_TT	Cabinet temperature UC06
17	AI17	&C03/87.7		Spare
18	AI18	&C03/87.7		Spare
19	AI19	&C03/103.1	HE03_DA01_BT04	FC4 HT Coolant Outlet Temperature
20	AI20	&C03/103.1		Spare
21	AI21	&C03/103.1		Spare
22	AI22	&C03/103.3	HE03_DA01_BT05	FC5 HT Coolant Outlet Temperature
23	AI23	&C03/103.3		Spare
24	AI24	&C03/103.3		Spare
25	AI25	&C03/103.4	2HE03_DA01_BT06	FC6 HT Coolant Outlet Temperature
26	AI26			Spare
27	AI27			Spare
28	AI28			Spare
29	AI29			Spare
30	AI30			Spare

-Slot5
&C03/97.3
IOM3.3
IO Module 3.3

IOM3.3

1	AI1			Spare
2	AI2	&C03/97.3	JA01_BU01_TT	Container Ambient Temperature - Center
3	AI3	&C03/97.4		Spare
4	AI4			Spare
5	AI5	&C03/97.4	JA01_BU01_RH	Container Relative Humidity
6	AI6	&C03/97.4		Spare
7	AI7			Spare
8	AI8	&C03/97.5	JA01_BU01_CO2	Container CO2 Concentration
9	AI9	&C03/97.5		Spare
10	AI10			Spare
11	AI11	&C03/97.6	JA01_BU01_VOC	Container Ambient VOC Concentration
12	AI12	&C03/97.6		Spare
13	AI13			Spare
14	AI14			Spare
15	AI15			Spare
16	AI16			Spare
17	AI17			Spare
18	AI18			Spare
19	AI19			Spare
20	AI20			Spare
21	AI21			Spare
22	AI22			Spare
23	AI23			Spare
24	AI24			Spare
25	AI25			Spare
26	AI26			Spare
27	AI27			Spare
28	AI28			Spare
29	AI29			Spare
30	AI30			Spare

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DESCRIPTION
DATE
29-Sep-25

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Container Controller, Extension Rack 2 2/2		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 12 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Safety System, Control Cabinet

-KE10
24 VDC
Safety PLC, PLC

+ A1
- A2
X03 BUS
<CANbus>
BUS EFI1_A &C03/46.1
BUS EFI1_B &C03/46.1
BUS EFI2_A &C03/46.1

EFI bus Master

-KE11
24 VDC
Safety PLC, Modbus Gateway

PORT 1
1
-X1
Other bus systems
Safety PLC

Other bus systems
-X2
2
PORT 2

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C02

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Safety Controller, 40ft Container 1/5		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 13 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Safety System, Control Cabinet

-KE12

&C03/46.2
&C03/47.1
&C03/47.2
&C03/47.5
&C03/59.5
&C03/59.3
&C03/47.6
&C03/57.2
&C03/59.4
&C03/25.1
8DI, 4DO
Safe Digital Input/Output Module

Flexi Soft, expansion module, I/O module, FX3-XTIO

X1	&C03/25.1	KE12PULSE01	KE12 Test pulse output CH1
X2	&C03/25.2	KE12PULSE02	KE12 Test pulse output CH2
+ A1			
- A2			
I1	&C03/47.1	UC20_SG10_CH1	E-stop UC20 CH01
I2	&C03/47.2	UC20_SG10_CH2	E-stop UC20 CH02
I3	&C03/47.5	UC20_SG11.S	Reset Button E-Stop
I4		UC20_KF17_FB	KF17 Feedback safety relay
I5	&C03/59.5	UC30_SG20-1	Coolant Skid ESTOP CH1
I6	&C03/59.6	UC30_SG20-2	Coolant Skid ESTOP CH2
I7	&C03/59.3	UC30_KF10_FB	Coolant Skid Safety Relay FB
I8		UC21_KF108	Feedback safety relay UC21
Q1	&C03/47.6	UC20_SG11.P	Reset Button E-Stop Light
Q2	&C03/57.2	UC20_KF17	KF17 Safety Relay Coil
Q3	&C03/59.4	UC30_KF10_Q	Coolant Skid Safety Relay Coil
Q4			Spare

SICK.1044125

-KE13

&C03/46.3
&C03/64.2
&C03/48.3
&C03/49.3
&C03/25.2
8DI, 4DO
Safe Digital Input/Output Module

Flexi Soft, expansion module, I/O module, FX3-XTIO

X1	&C03/25.2	KE13PULSE01	KE13 Test pulse output CH1
X2	&C03/25.3	KE13PULSE02	KE13 Test pulse output CH2
+ A1			
- A2			
I1	&C03/48.4	UC20_KF100	Feedback Safety Relay GB01 & UC01
I2		GB01	SAFE_Main GB01
I3	&C03/49.4	UC20_KF101	Feedback Safety Relay GB02 & UC02
I4		GB02	SAFE_Main GB02
I5	&C03/64.2	FC1_RESET_IN	FC1 Safety PLC Circuit Reset
I6			SPARE
I7	&C03/64.3	FC2_RESET_IN	FC2 Safety PLC Circuit Reset
I8			SPARE
Q1	&C03/48.3	UC20_KF100	Coil Safety relay GB01 & UC01
Q2		GB01	SAFE_In GB01
Q3	&C03/49.3	UC20_KF101	Coil Safety relay GB02 & UC02
Q4		GB02	SAFE_In GB02

SICK.1044125

Reference Item Number	Ballard Part # TBD
EPLAN Project Name	601456B - Shell Baseload Power Hub
EPLAN Revision	12
EPLAN Project Pages	627
= ++ + UC20 & C02	

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Safety Controller, 40ft Container 2/5		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 14 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Safety System, Control Cabinet

-KE14

&C03/46.5
&C03/64.4
&C03/50.3
&C03/51.3
&C03/25.4
8DI, 4DO
Safe Digital Input/Output Module

Flexi Soft, expansion module, I/O module, FX3-XTIO

X1		&C03/25.4	KE14PULSE01	KE14 Test pulse output CH1
X2		&C03/25.5	KE14PULSE02	KE14 Test pulse output CH2
+	A1			
-	A2			
I1		&C03/50.4	UC20_KF102	Feedback Safety Relay GB03 & UC03
I2			GB03	SAFE_Main GB03
I3		&C03/51.4	UC20_KF103	Feedback Safety Relay GB04 & UC04
I4			GB04	SAFE_Main GB04
I5		&C03/64.4	FC3_RESET_IN	FC3 Safety PLC Circuit Reset
I6				
I7		&C03/64.5	FC4_RESET_IN	FC4 Safety PLC Circuit Reset
I8				
Q1		&C03/50.3	UC20_KF102	Coil Safety relay GB03 & UC03
Q2			GB03	SAFE_In GB03
Q3		&C03/51.3	UC20_KF103	Coil Safety relay GB04 & UC04
Q4			GB04	SAFE_In GB04

SICK.1044125

-KE15

8DI, 4DO
FC6 Safety PLC Circuit Reset

Flexi Soft, expansion module, I/O module, FX3-XTIO

X1		&C03/25.6	KE15PULSE01	KE15 Test pulse output CH1
X2		&C03/25.7	KE15PULSE02	KE15 Test pulse output CH2
+	A1			
-	A2			
I1		&C03/52.4	UC20_KF104	Feedback Safety Relay GB05 & UC05
I2			GB05	SAFE_Main GB05
I3		&C03/53.4	UC20_KF105	Feedback Safety Relay GB06 & UC06
I4			GB06	SAFE_Main GB06
I5		&C03/64.6	FC5_RESET_IN	FC5 Safety PLC Circuit Reset
I6				
I7		&C03/64.8	FC6_RESET_IN	FC6 Safety PLC Circuit Reset
I8				
Q1		&C03/52.3	UC20_KF104	Coil Safety relay GB05 & UC05
Q2			GB05	SAFE_In GB05
Q3		&C03/53.3	UC20_KF105	Coil Safety relay GB06 & UC06
Q4			GB06	SAFE_In GB06

SICK.1044125

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C02

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Safety Controller, 40ft Container 3/5		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 15 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Safety System, Control Cabinet

-KE16
&C03/46.7
&C03/62.4
&C03/63.5
&C03/63.6
&C03/57.3
&C03/56.2
&C03/26.1
Safety Digital
Input/Output Module

Flexi Soft, expansion module, I/O module, FX3-XTIO

X1	&C03/26.1	KE16PULSE01	KE16 Test pulse output CH1
X2	&C03/26.2	KE16PULSE02	KE16 Test pulse output CH2
+ A1			
- A2			
I1	&C03/57.3	+UC20-KF16	Coil Safety Relay Nanogrid DC/AC
I2		JA01_BQ04_ASZ	Smoke Detector Ventilation Inlet
I3		JA01_BQ05_ASZ	Smoke Detector Ventilation Outlet A
I4		JA01_BQ06_ASZ	Smoke Detector Ventilation Outlet B
I5			ESTOP - 40ft Container Door CH1
I6			ESTOP - 40ft Container Door CH2
I7	&C03/62.4	SG23_CH1	ESTOP - 40ft Container Door CH1
I8	&C03/62.5	SG23_CH2	ESTOP - 40ft Container Door CH2
Q1	&C03/56.2 &C03/56.3	+UC20-KF16	Coil Safety Relay Nanogrid DC/AC
Q2	&C03/63.7	UC20_KF53	Customer Gas Status
Q3	&C03/63.5	UC20_KF50	Customer Safety Status
Q4	&C03/63.6	UC20_KF51	Customer Fire Status

SICK.1044125

-KE17
1 AI
Safe Analog Input Module

Flexi Soft Analog input module, FX3-ANA0

AI+ AI1+		JA01_BQ01_AZT	H2 Sensor Ventilation Inlet
AI1- AI- AI1-			
AI2+ AI+ AI2+			
AI2- AI- AI2-			

SICK.1051134

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C02

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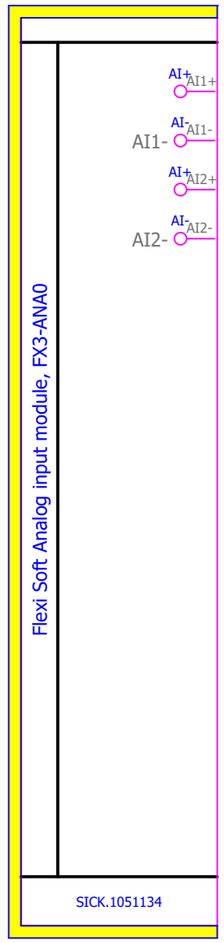
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Safety Controller, 40ft Container 4/5		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 16 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Safety System, Control Cabinet

-KE18
1 AI
Safe Analog Input Module



JA01_BQ02_AZT

H2 Sensor Ventilation Outlet A

-KE19
1 AI
Safe Analog Input Module



JA01_BQ03_AZT

H2 Sensor Ventilation Outlet B

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C02

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DRAWING	601456B UC20 40ft Control Cabinet		REVISION	12	
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet				
SHEET TYPE/DESC	Safety Controller, 40ft Container 5/5				
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL	17 / 255	

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Ballard Power Systems Europe - Technology Solutions

Multiline Documentation

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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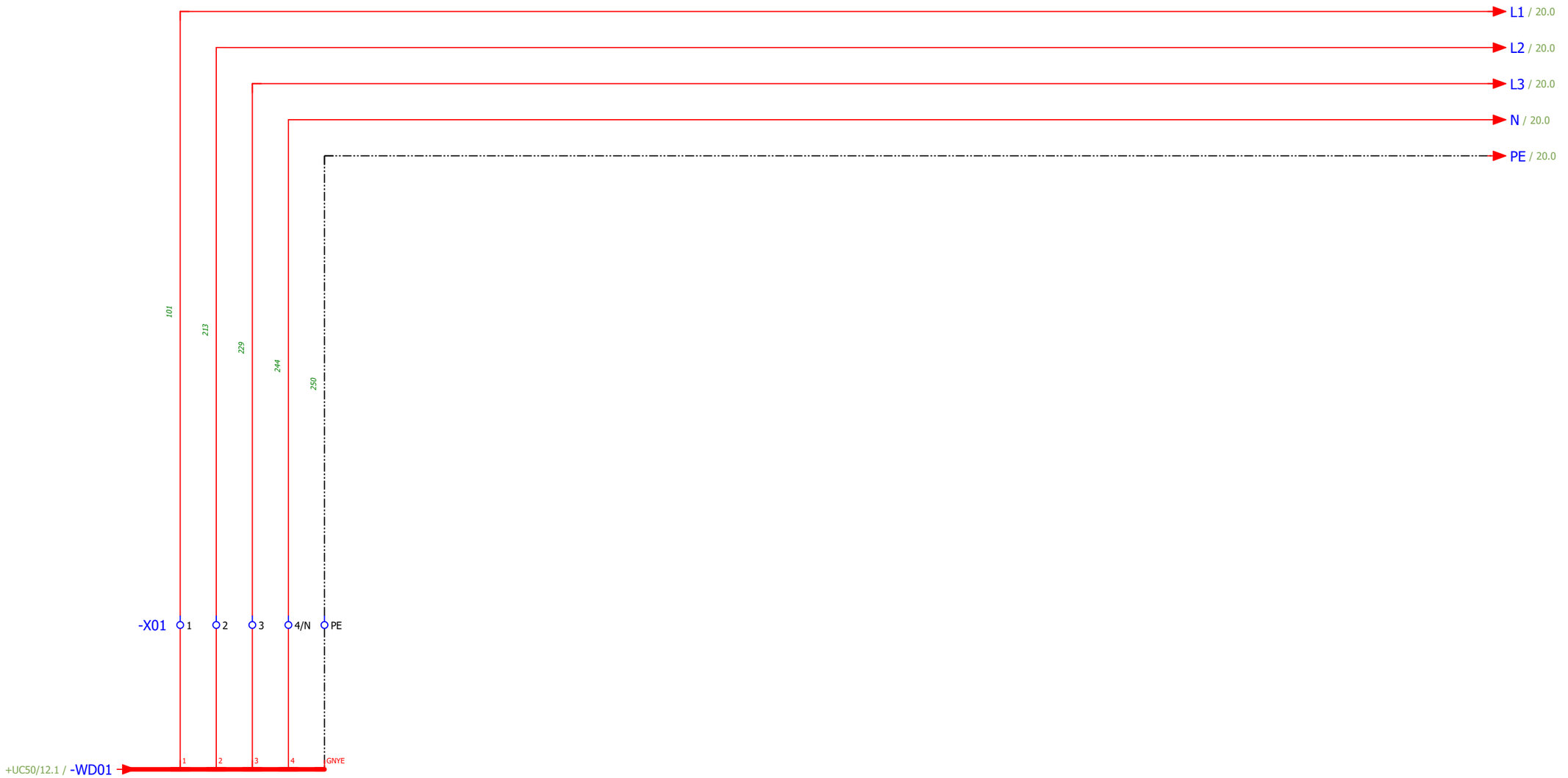
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Multiline Documentation Intro		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 18 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20

Container Safety System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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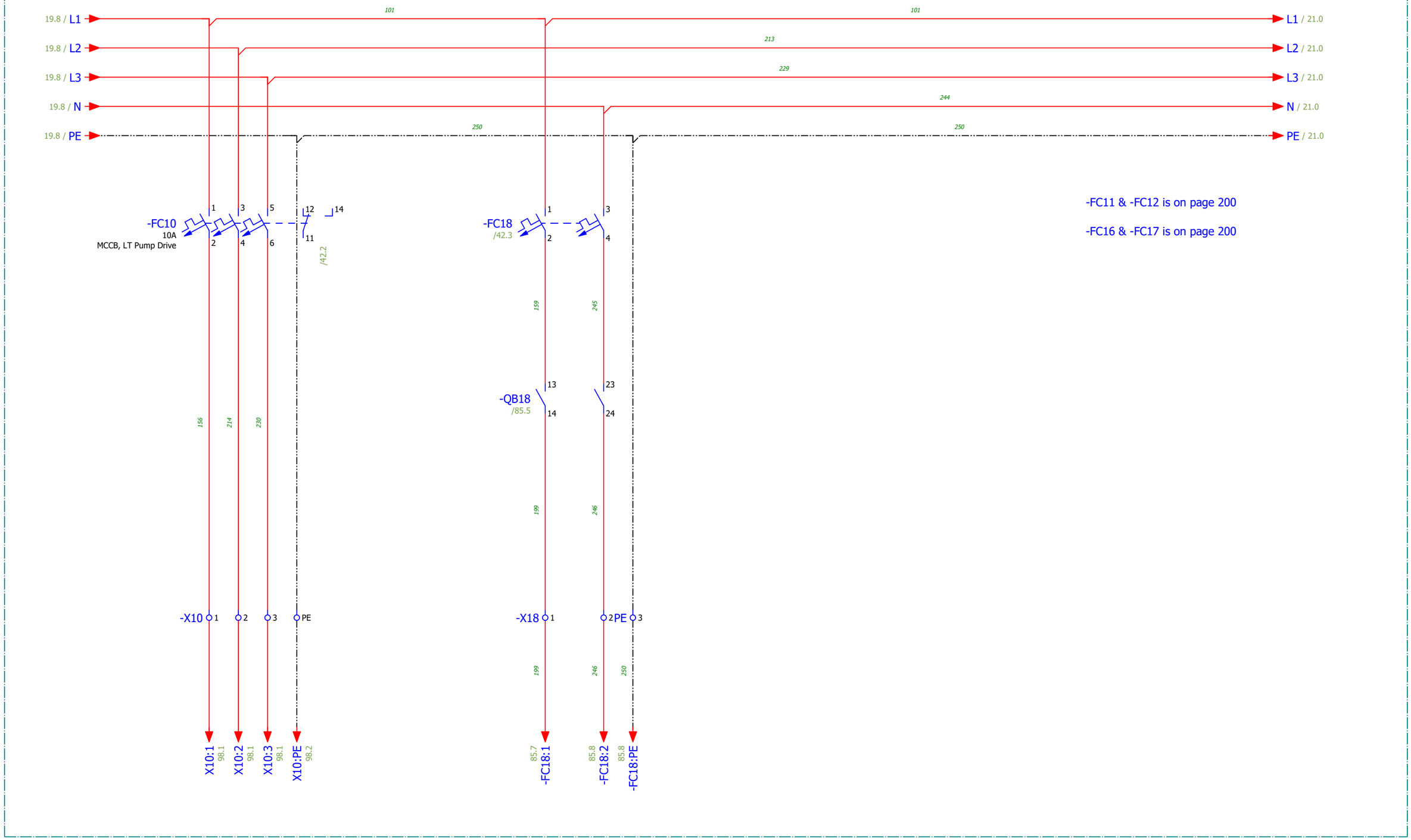
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft container MCU Power supply		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 19 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20

Container Safety System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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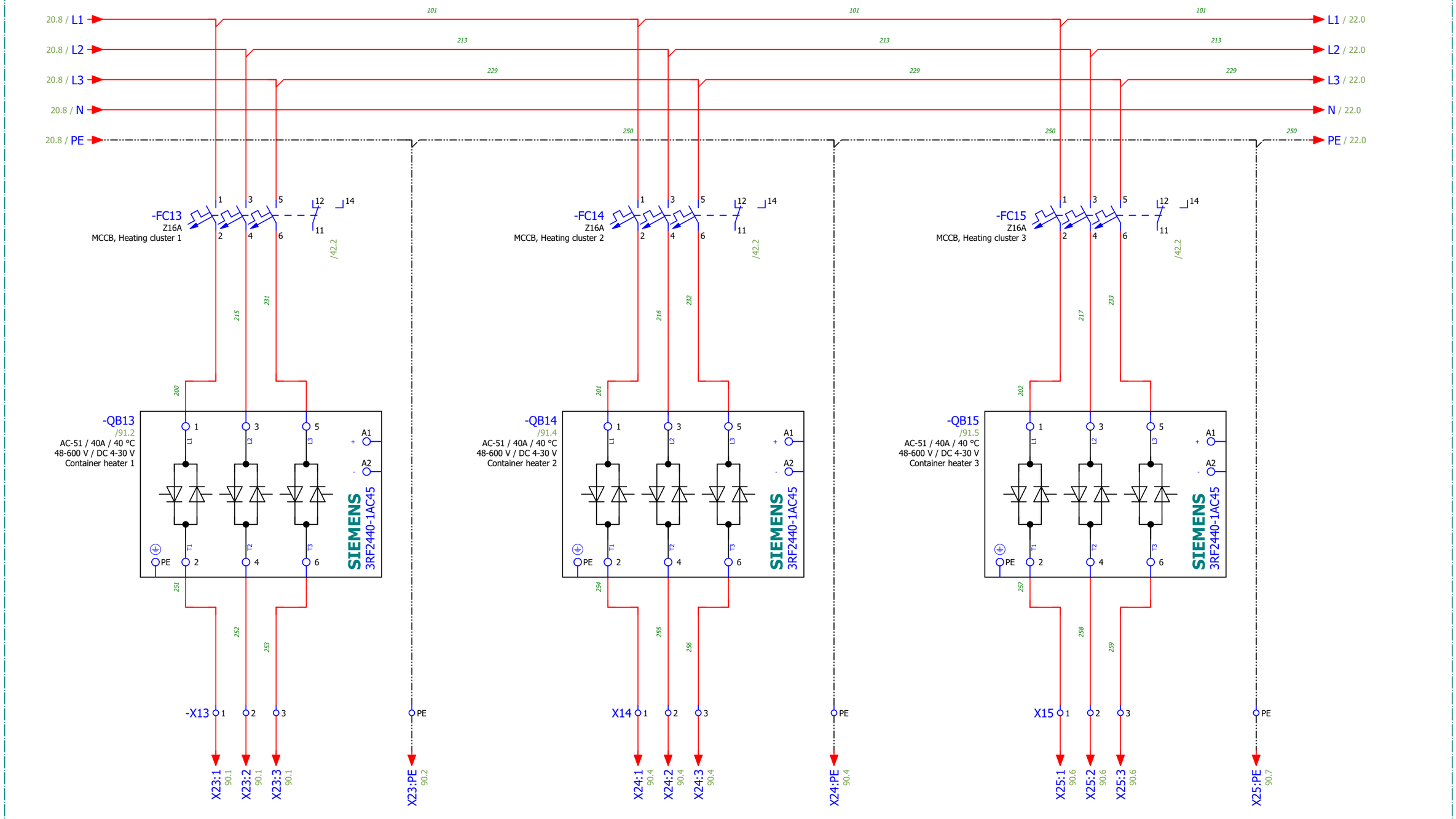
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft container MCU Power supply		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 20 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20

Container Safety System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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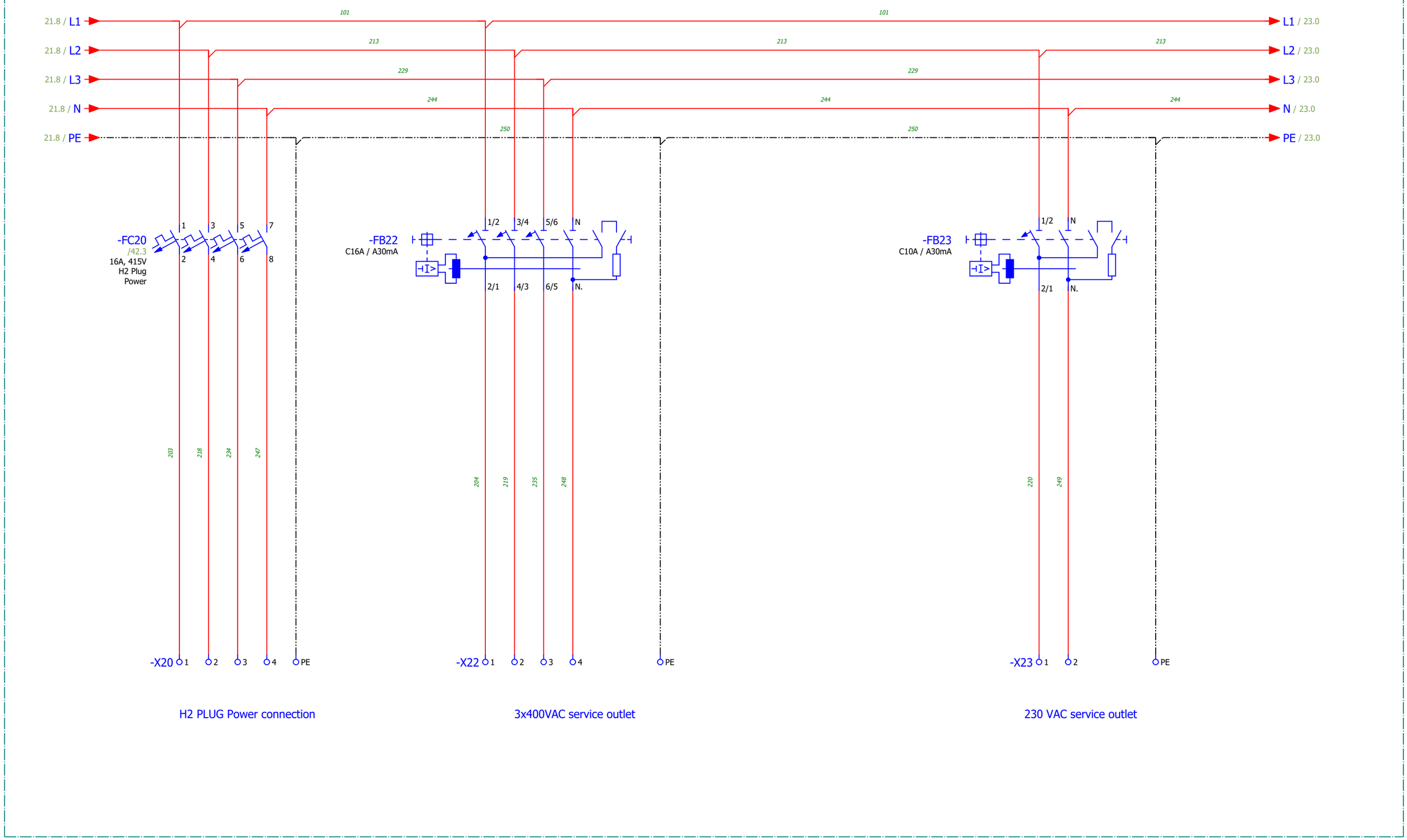
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft container Heater control		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 21 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20

Container Safety System, Control Cabinet 40 ft



H2 PLUG Power connection

3x400VAC service outlet

230 VAC service outlet

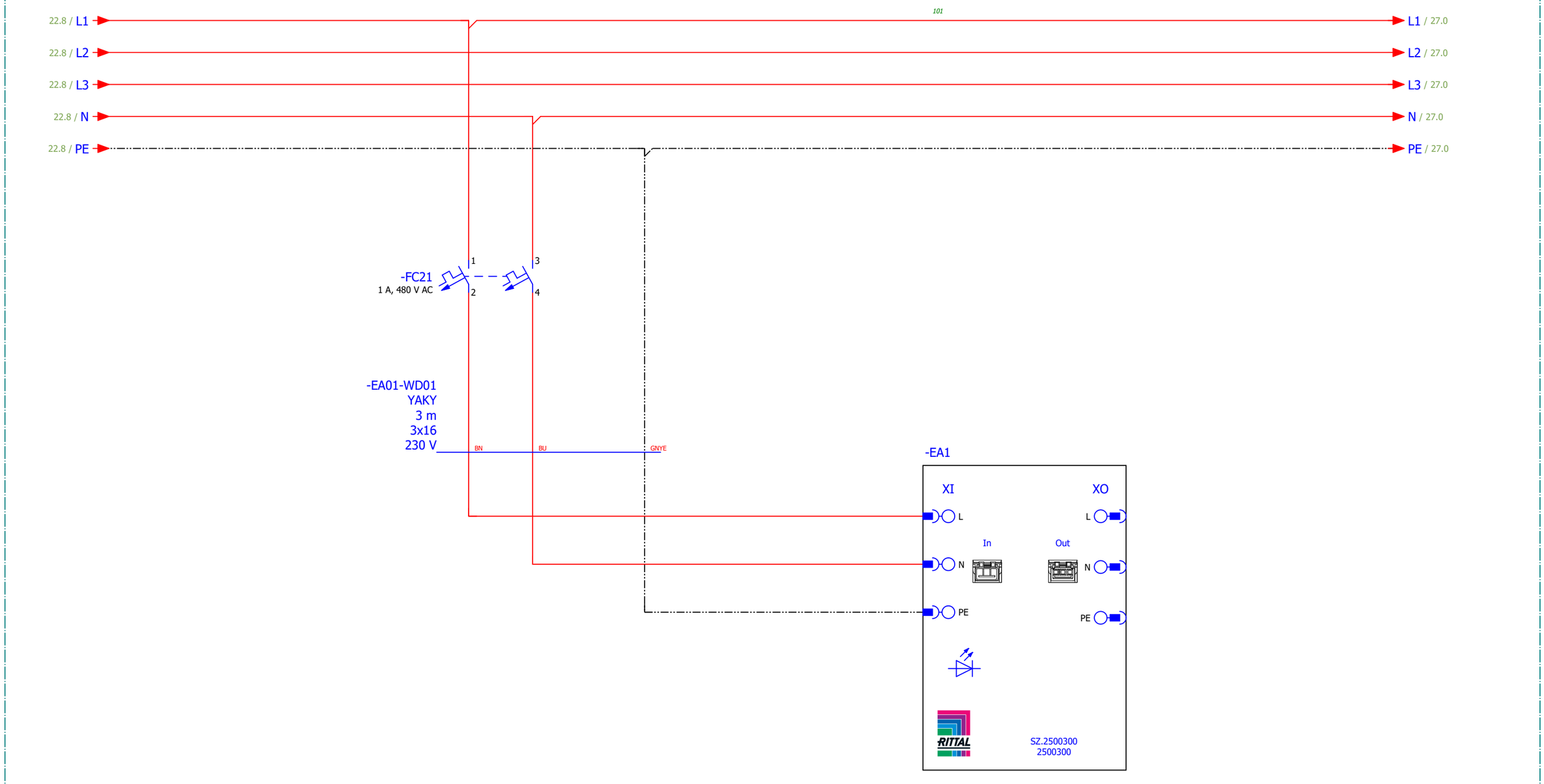
Reference Item Number	Ballard Part # TBD			REVISION INFORMATION	THIS DOCUMENT, SUBMITTED IN CONFIDENCE, CONTAINS PROPRIETARY INFORMATION WHICH SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR MANUFACTURING OR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN PERMISSION OF BALLARD POWER SYSTEMS INC. OR A RELATED WHOLLY-OWNED SUBSIDIARY OR AFFILIATE.	BALLARD™ CONFIDENTIAL	DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
EPLAN Project Name	601456B - Shell Baseload Power Hub			DESCRIPTION			DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
EPLAN Revision	12					THIS DOCUMENT'S APPROVAL IS MANAGED BY E-SIGNATURE ON FILE IN BALLARD POWER SYSTEMS' PLM SYSTEM	SHEET TYPE/DESC	40ft container Service outlets		
EPLAN Project Pages	627			DATE			ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 22 / 255
=	++	+ UC20	& C03	29-Sep-25						

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20

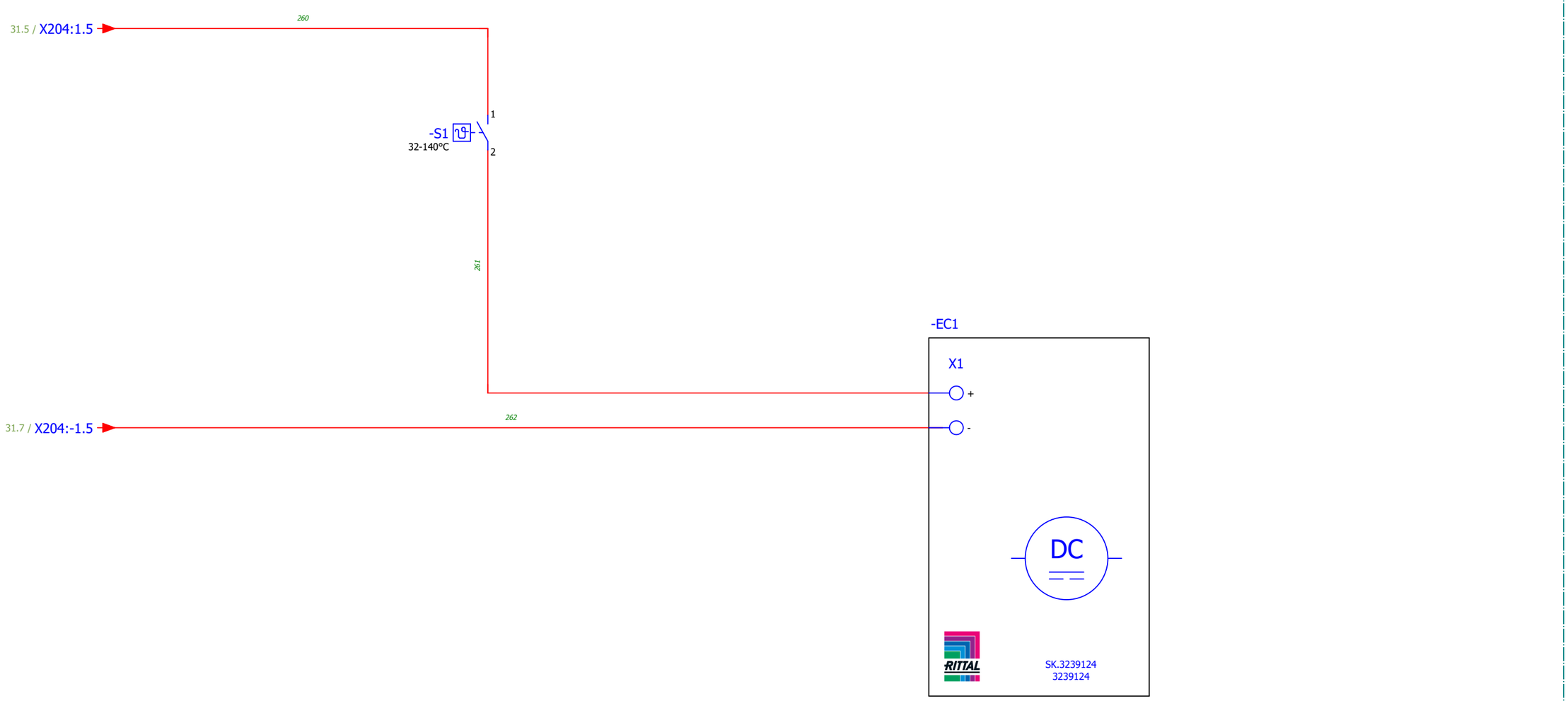
Container Safety System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD			REVISION INFORMATION	THIS DOCUMENT, SUBMITTED IN CONFIDENCE, CONTAINS PROPRIETARY INFORMATION WHICH SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR MANUFACTURING OR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN PERMISSION OF BALLARD POWER SYSTEMS INC. OR A RELATED WHOLLY-OWNED SUBSIDIARY OR AFFILIATE.	BALLARD™ CONFIDENTIAL	DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
EPLAN Project Name	601456B - Shell Baseload Power Hub			DESCRIPTION			DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
EPLAN Revision	12					THIS DOCUMENT'S APPROVAL IS MANAGED BY E-SIGNATURE ON FILE IN BALLARD POWER SYSTEMS' PLM SYSTEM	SHEET TYPE/DESC	40ft container Cabinet light		
EPLAN Project Pages	627			DATE			ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 23 / 255
=	++	+ UC20	& C03	29-Sep-25						

FRM5103656/0B

=LA01+UC20
Container Safety System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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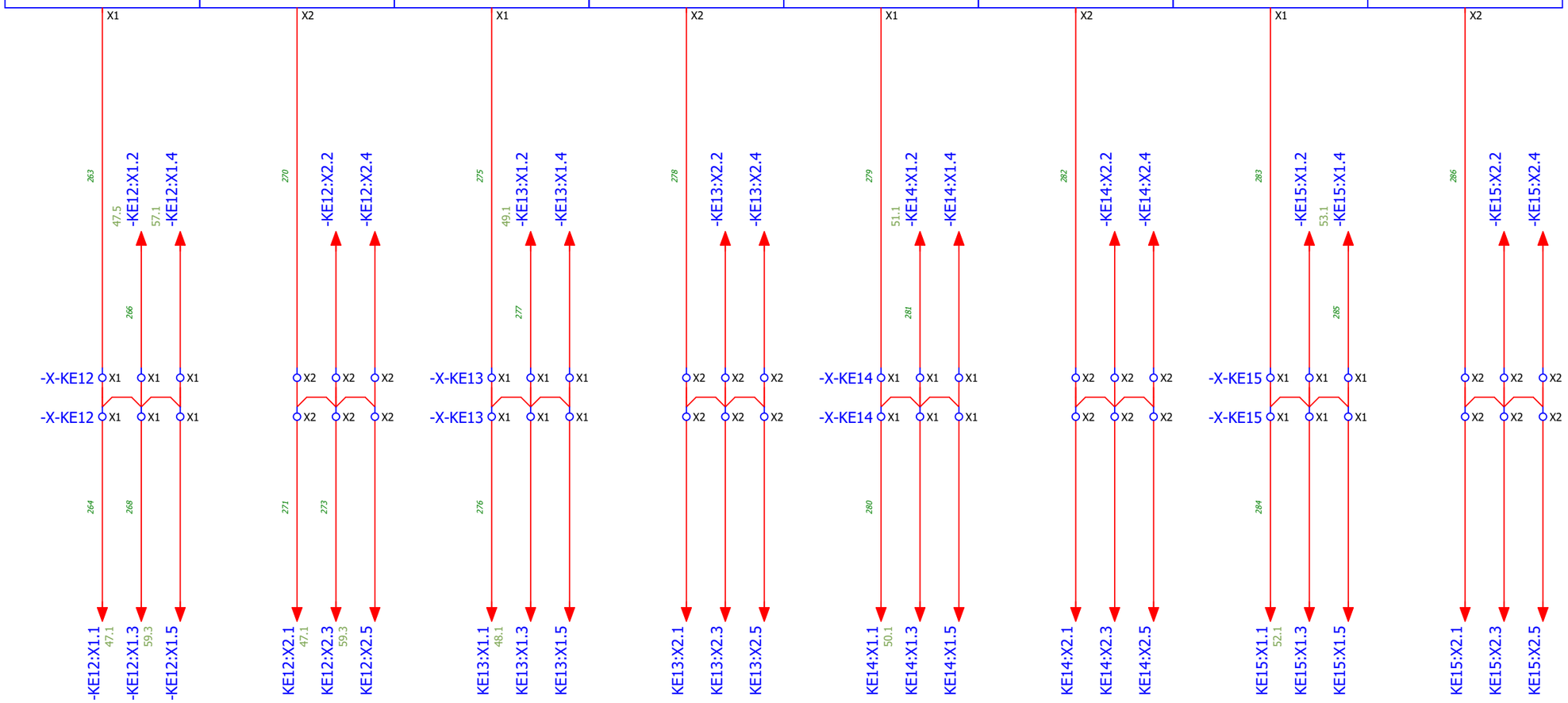
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft container Cabinet fan		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 24 / 255

=LA01+UC20
Container Safety System, Control Cabinet 40 ft

KE12 Test pulse output CH1	KE12 Test pulse output CH2	KE13 Test pulse output CH1	KE13 Test pulse output CH2	KE14 Test pulse output CH1	KE14 Test pulse output CH2	KE15 Test pulse output CH1	KE15 Test pulse output CH2
KE12PULSE01	KE12PULSE02	KE13PULSE01	KE13PULSE02	KE14PULSE01	KE14PULSE02	KE15PULSE01	KE15PULSE02
&C02/14.1	&C02/14.1	&C02/14.5	&C02/14.5	&C02/15.1	&C02/15.1	&C02/15.4	&C02/15.4
-KE12		KE13		KE14		-KE15	



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

REVISION INFORMATION
DESCRIPTION
DATE
29-Sep-25

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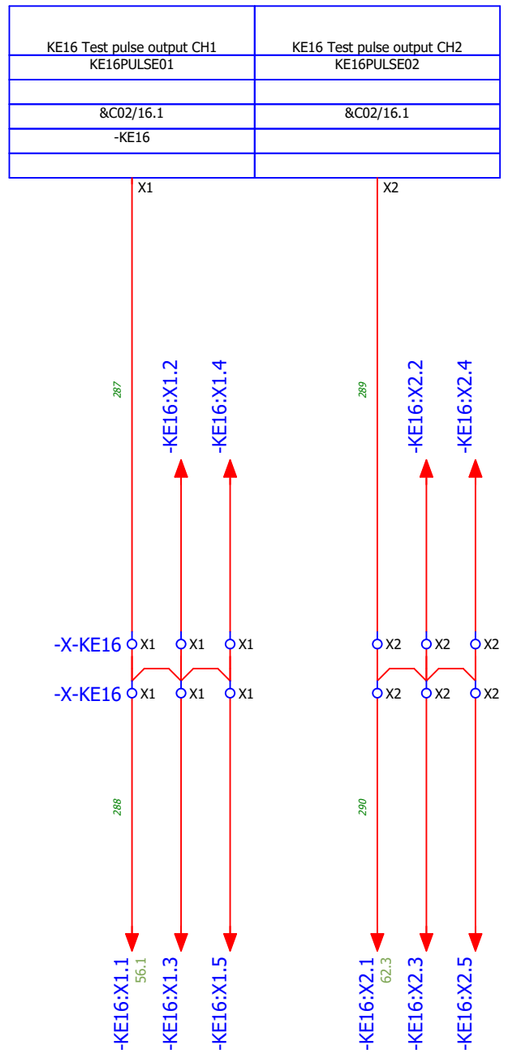
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Pulse generator		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 25 / 255

FRM5103656/0B

=LA01+UC20

Container Safety System, Control Cabinet 40 ft

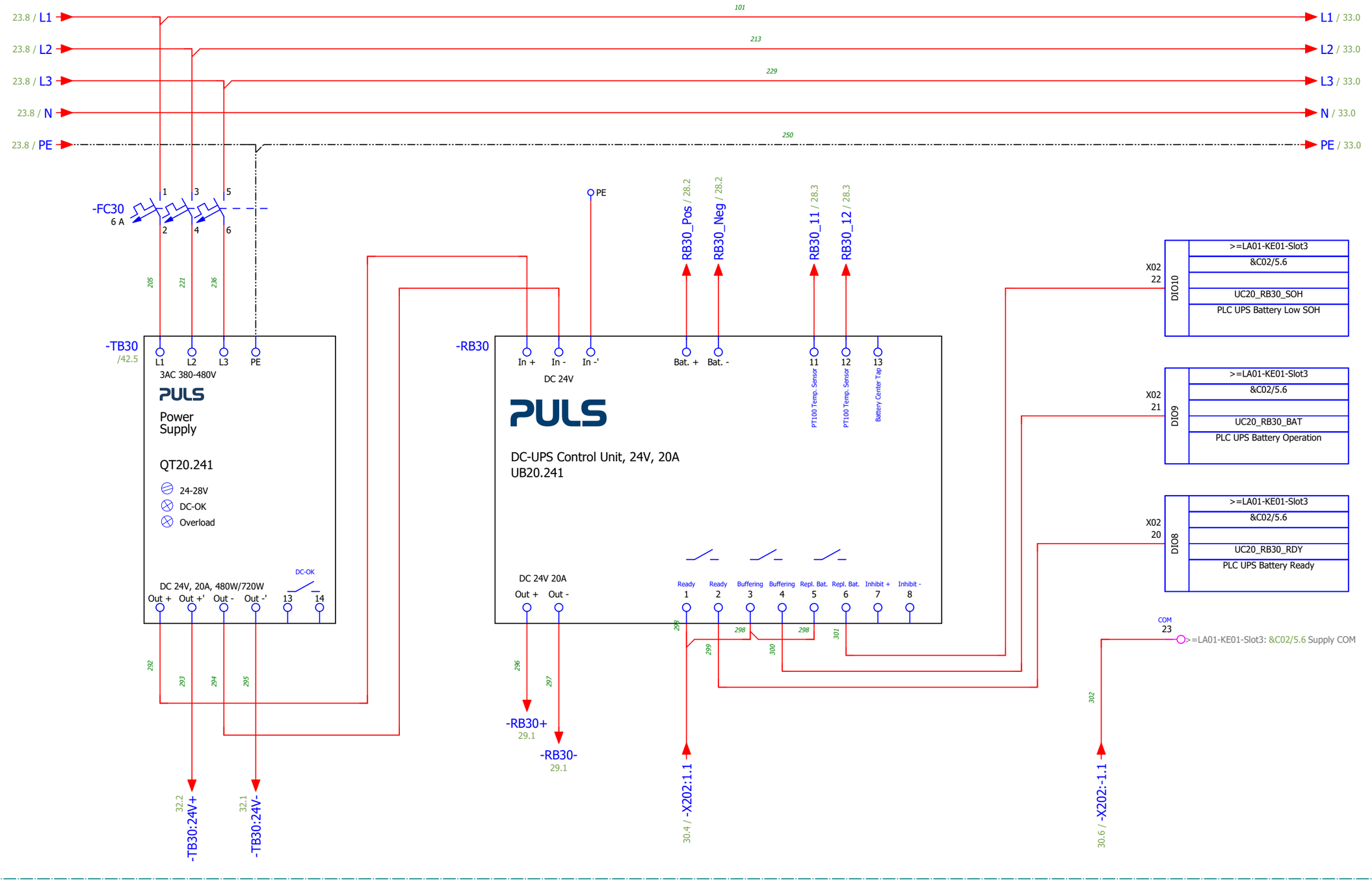


Reference Item Number	Ballard Part # TBD			REVISION INFORMATION	THIS DOCUMENT, SUBMITTED IN CONFIDENCE, CONTAINS PROPRIETARY INFORMATION WHICH SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR MANUFACTURING OR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN PERMISSION OF BALLARD POWER SYSTEMS INC. OR A RELATED WHOLLY-OWNED SUBSIDIARY OR AFFILIATE.	BALLARD™ CONFIDENTIAL	DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
EPLAN Project Name	601456B - Shell Baseload Power Hub			DESCRIPTION			DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
EPLAN Revision	12					THIS DOCUMENT'S APPROVAL IS MANAGED BY E-SIGNATURE ON FILE IN BALLARD POWER SYSTEMS' PLM SYSTEM	SHEET TYPE/DESC	40ft Container - Pulse generator		
EPLAN Project Pages	627			DATE			ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 26 / 255
=	++	+ UC20	& C03	29-Sep-25						

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - 24V Supply and UPS		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 27 / 255

0	1	2	3	4	5	6	7	8

=LA01+DA01

-CA30

PULS

Battery Module, 24V, 12Ah
UZK24.121

DC 24V
Out + Out -

PT100 Temp. Sensor 11
PT100 Temp. Sensor 12
Battery Center Tap 13

-CA30-WD01
ÖLFLEX CLASSIC 100 H
3G2,5
450 V
Battery supply RB30 1 2

-CA30-WG01
ÖLFLEX® CLASSIC 130 H
3G1
300/500 V
1 2 Temp sensor CA30

27.4 / >+UC20-RB30_Pos
27.4 / >+UC20-RB30_Neg
27.5 / >+UC20-RB30_11
27.5 / >+UC20-RB30_12

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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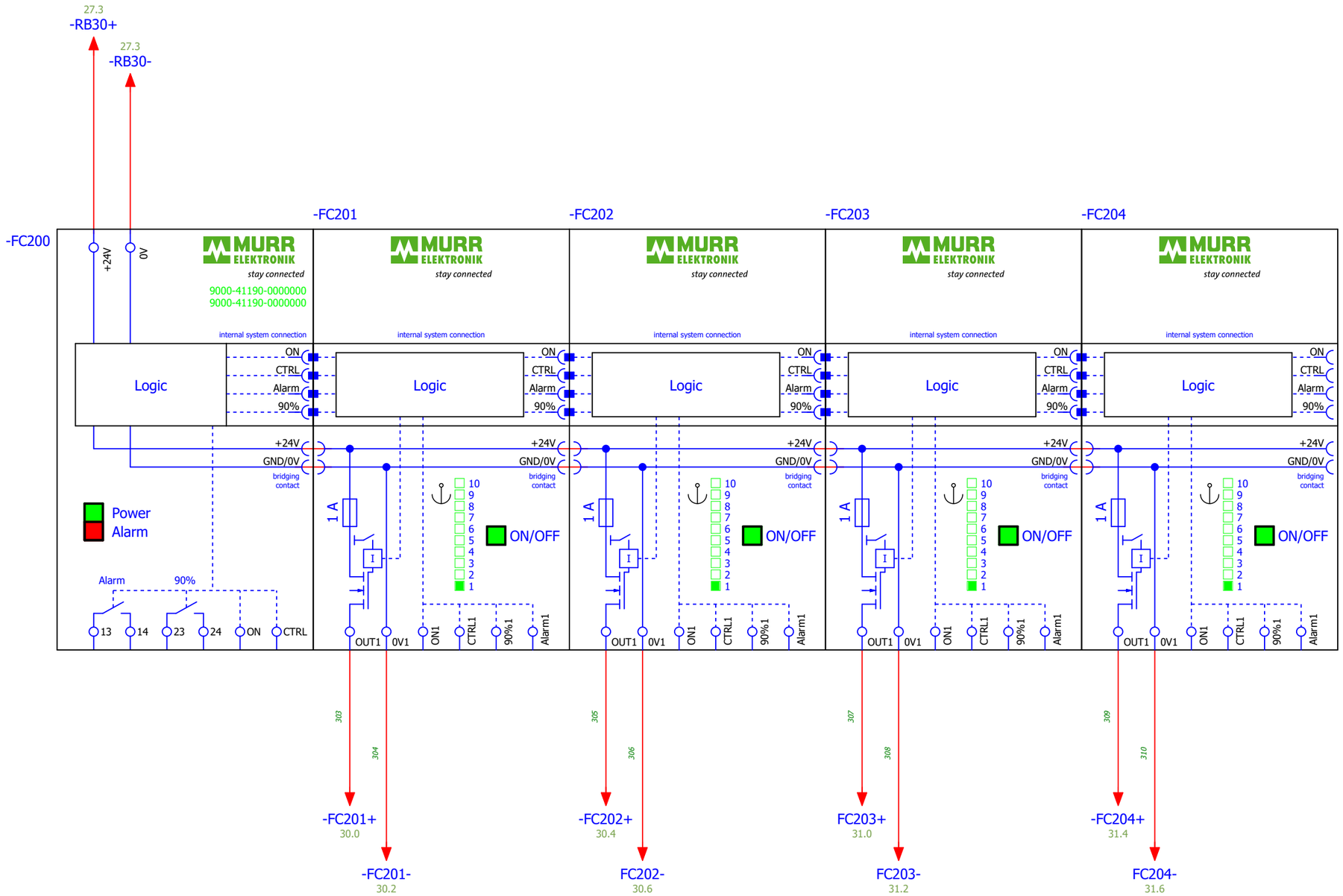
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - 24V Backup Battery		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 28 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - 24 VDC Supply Fuses		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 29 / 255

FRM5103656/0B

=LA01+UC20

Safety

FC201+ 29.2

-X201 0.1

1.2	1.4	1.6	2.2	2.4	2.6	3.2	3.4	3.6	
48.1	56.1	57.1	64.0				57.1		-X201:1.2 … -X201:3.6
311	313	315	316				320		
1.1	1.3	1.5	2.1	2.3	2.5	3.1	3.3	3.5	
312	314		317	318	319				
46.1	59.3		64.0	60.0	61.1				-X201:1.1 … -X201:3.5

FC201- 29.3

-X201- 1-

1.2	1.4	1.6	2.2	2.4	2.6	3.2	3.4	3.6	
48.1	56.1	57.1	60.0						-X201:-1.2 … -X201:-3.6
311	322	324	326	328					
1.1	1.3	1.5	2.1	2.3	2.5	3.1	3.3	3.5	
321	323	325	327	329	330				
46.1	48.1	56.1	57.1	60.0	61.1				-X201:-1.1 … -X201:-3.5

Internal 24VDC Supply

FC202+ 29.4

-X202 1

1.2	1.4	1.6	2.2	2.4	2.6	3.2	3.4	3.6	
33.4	108.2	106.1	85.4	42.1					-X202:1.2 … -X202:3.6
332	334	336	338						
1.1	1.3	1.5	2.1	2.3	2.5	3.1	3.3	3.5	
	335	337	340						
27.4	39.4	43.0	107.2	42.1	36.4				-X202:1.1 … -X202:3.5

FC202- 29.4

-X202- 1-

1.2	1.4	1.6	2.2	2.4	2.6	3.2	3.4	3.6	
33.6	108.2	106.1	85.4						-X202:-1.2 … -X202:-3.6
354	355	357	359						
1.1	1.3	1.5	2.1	2.3	2.5	3.1	3.3	3.5	
356	358	360	361						
27.6	39.7	43.1	107.1	91.0	43.0				-X202:-1.1 … -X202:-3.5

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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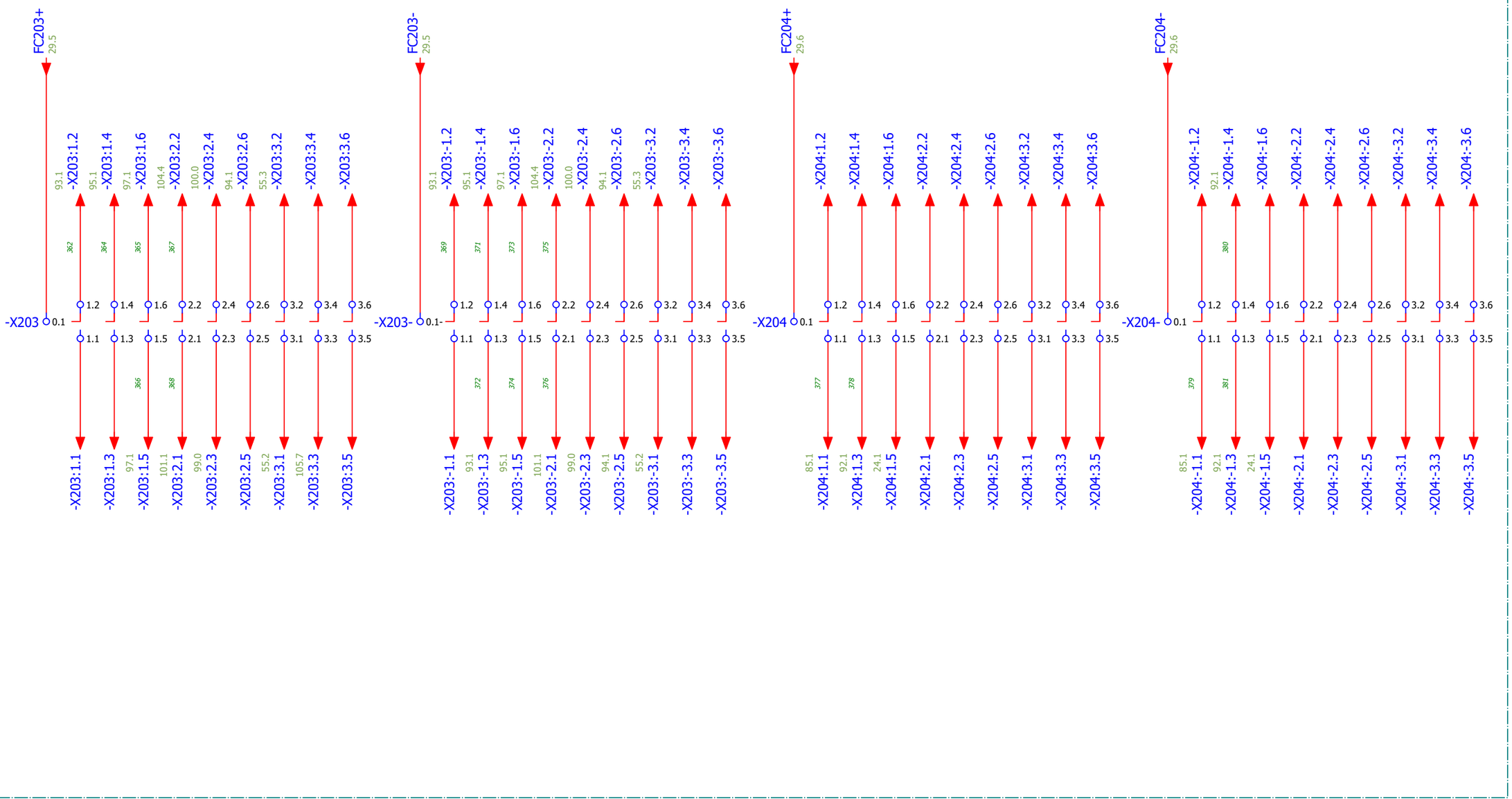
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - 24 VDC Supply		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 30 / 255

=LA01+UC20

External 24VDC Supply

External 24VDC Supply + Cabinet ventilation



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - 24 VDC Supply		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 31 / 255

=LA01+UC20

-TB30:24V-
27.2

-TB30:24V+
27.1

24VDC light Fuse Trip
UC20_FC210

&C02/5.6
>=LA01-KE01-Slot3
DIO6
X02 18

No Alarm = 24VDC High

-FC210
Weidmüller AMG FIM-C
+24V | Bridge +24V | Bridge +24V | Bridge +24V | Bridge +24V | Bridge BUS | Bridge BUS
GND | GND Bridge | GND Bridge | GND Bridge | GND Bridge | Alarm | Reset

384

-FC210.1
Weidmüller AMG ELM-6
Bridge +24V | Bridge +24V | Bridge BUS | Bridge BUS
6 A
1+ | 1+ Bridge | 1- | 1- Bridge | GND Bridge | GND Bridge

-FC210.2
Weidmüller AMG ELM-6
Bridge +24V | Bridge +24V | Bridge BUS | Bridge BUS
6 A
1+ | 1+ Bridge | 1- | 1- Bridge | GND Bridge | GND Bridge

382 383 385 386

-FC210.1+ 104.1
-FC210.1- 104.1
-FC210.2+ 105.0
-FC210.2- 105.0

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - 24 VDC Supply Container light		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 32 / 255

FRM5103656/0B

=LA01+UC20

27.7 / L1 → L1 / 36.0 (101)
27.7 / L2 → L2 / 36.0 (213)
27.7 / L3 → L3 / 36.0 (229)
27.7 / N → N / 36.0
27.7 / PE → PE / 36.0 (250)

-FC31
6 A
1 3 5
2 4 6
206 222 237

-TB01
L1 L2 L3 PE
3AC 380-480V

PULS
Power Supply
QT40.241
24-28V
DC-OK
Overload
Single/Parallel Mode

DC 24V, 40A, 960W/1440W
Out + Out +' Out - Out -' 13 14 15 16
DC-OK Shut-Down
387 388

>=LA01+DA01-RB01-WG01
UNITRONIC®-FD CP (TP) PLUS
4x0,5
500 V
Temp Sensor CA01
WH BN

>=LA01+DA01-RB01-WD01
ÖLFLEX® CLASSIC 110 CH
3x2,5
300/500 V
Battery Supply RB01
1 2

RB01_11 / 34.2
RB01_12 / 34.3
RB01_Pos / 34.1
RB01_Neg / 34.2

-RB01
FC1+2 24V UPS Module
IN + - BAT_MON 11 12 BAT + 13 -
OUT + - 7 8 1 2 3 4 5 6 14 15 PE
Inhibit + Inhibit - Rdy Rdy Buffer Buffer BAT. Replace BAT. Replace Low BAT. Low BAT.
331 331 331 331
389 390 391 392 393 394

PULS
UB40.21
DC-UPS CONTROL UNIT

-RB01+
35.0
-RB01-
35.0

30.4 / -X202:1.2

X02 18 DI04
>=LA01-KE02-Slot03
&C02/8.6
UC20_RB01_RDY
FC1+2 UPS Battery Ready

X02 19 DI05
>=LA01-KE02-Slot03
&C02/8.6
UC20_RB01_BAT
FC1+2 UPS Battery Operation

X02 20 DI06
>=LA01-KE02-Slot03
&C02/8.6
UC20_RB01_SOH
FC1+2 UPS Battery Low SOH

X02 21 DI07
>=LA01-KE02-Slot03
&C02/8.6
UC20_RB01_DIS
FC1+2 UPS Battery Discharged

COM 23
>=LA01-KE02-Slot03: &C02/8.6 Supply COM

30.6 / -X202:-1.2

PE

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC1+2 24V Supply and UPS		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 33 / 255

FRM5103656/0B

=LA01+DA01

-CA01

PULS

Battery Module, 24V, 12Ah
UZK24.121

DC 24V
Out + Out -

PT100 Temp. Sensor 11
PT100 Temp. Sensor 12
Battery Center Tap 13

33.4 / >+UC20-RB01_Pos
33.4 / >+UC20-RB01_Neg
33.4 / >+UC20-RB01_11
33.4 / >+UC20-RB01_12

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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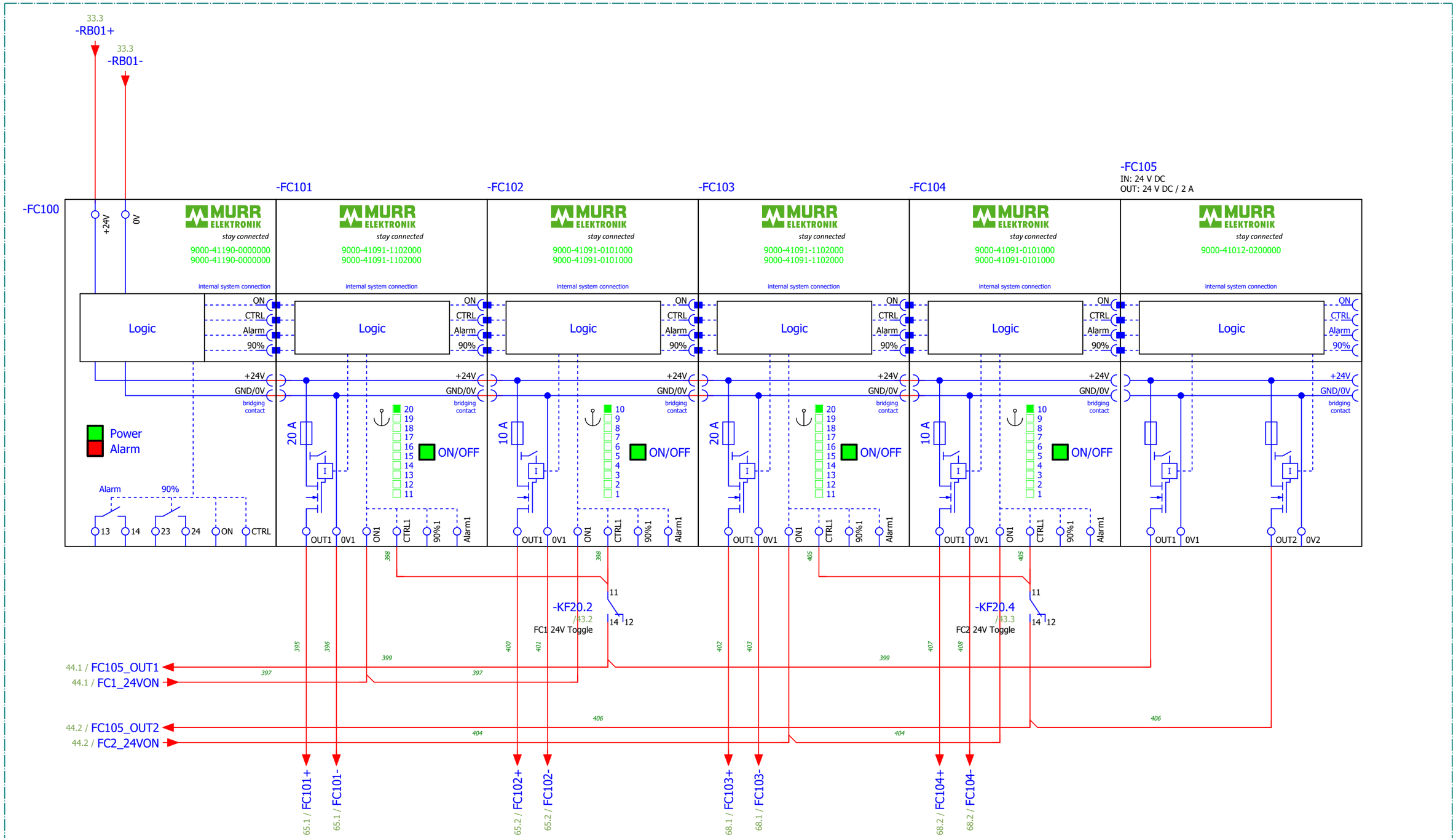
DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC1+2 24V Backup Battery		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 34 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20

Container Safety System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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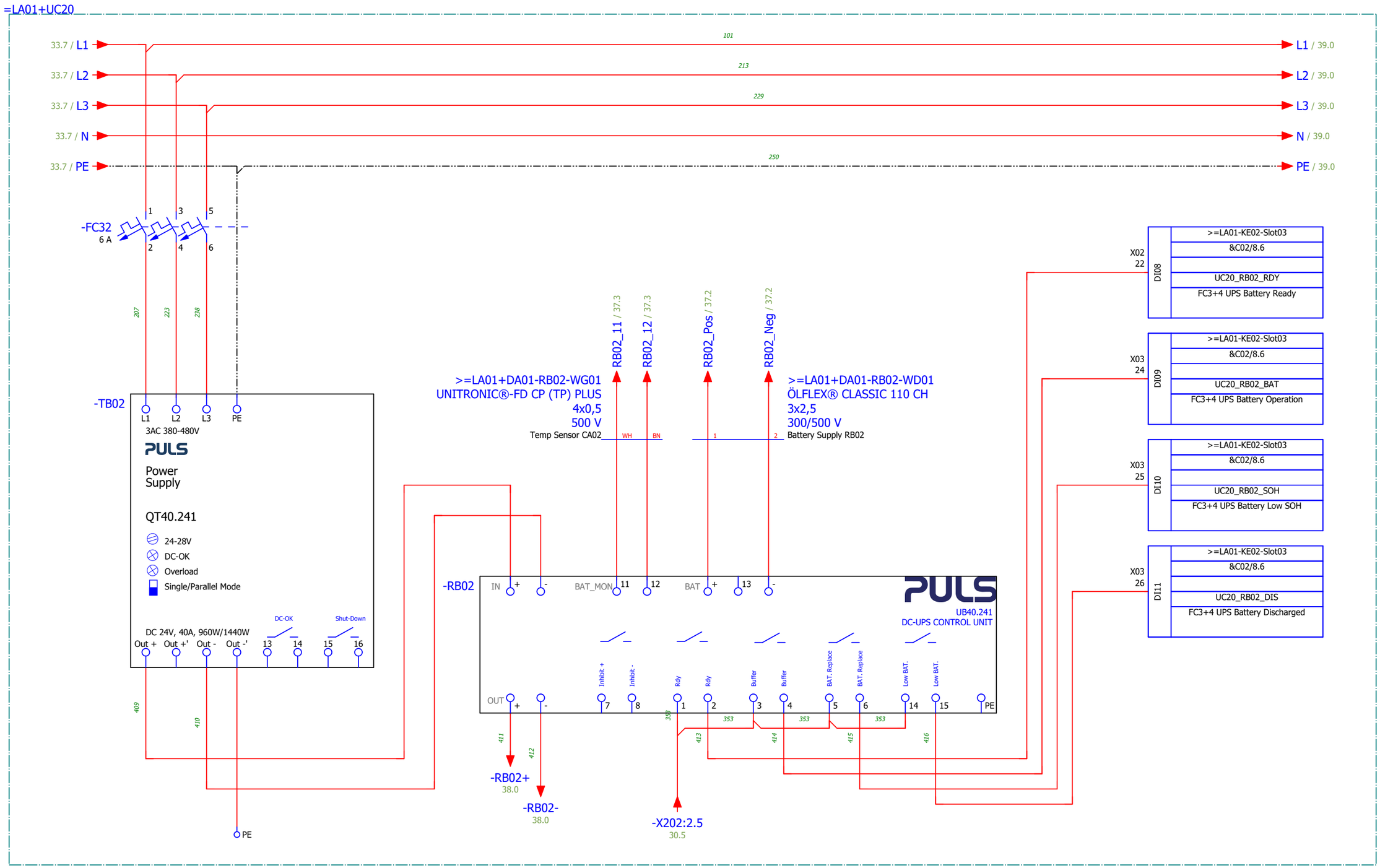
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC1+2 24V Fuses		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 35 / 255

FRM5103656/0B



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC3+4 Supply and UPS		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 36 / 255

=LA01+DA01

-CA02

PULS

Battery Module, 24V, 12Ah
UZK24.121

DC 24V
Out + Out -

PT100 Temp. Sensor
PT100 Temp. Sensor
Battery Center Tap
11 12 13

36.4 / >+UC20-RB02_Pos
36.4 / >+UC20-RB02_Neg
36.4 / >+UC20-RB02_11
36.4 / >+UC20-RB02_12

Reference Item Number	Ballard Part # TBD		
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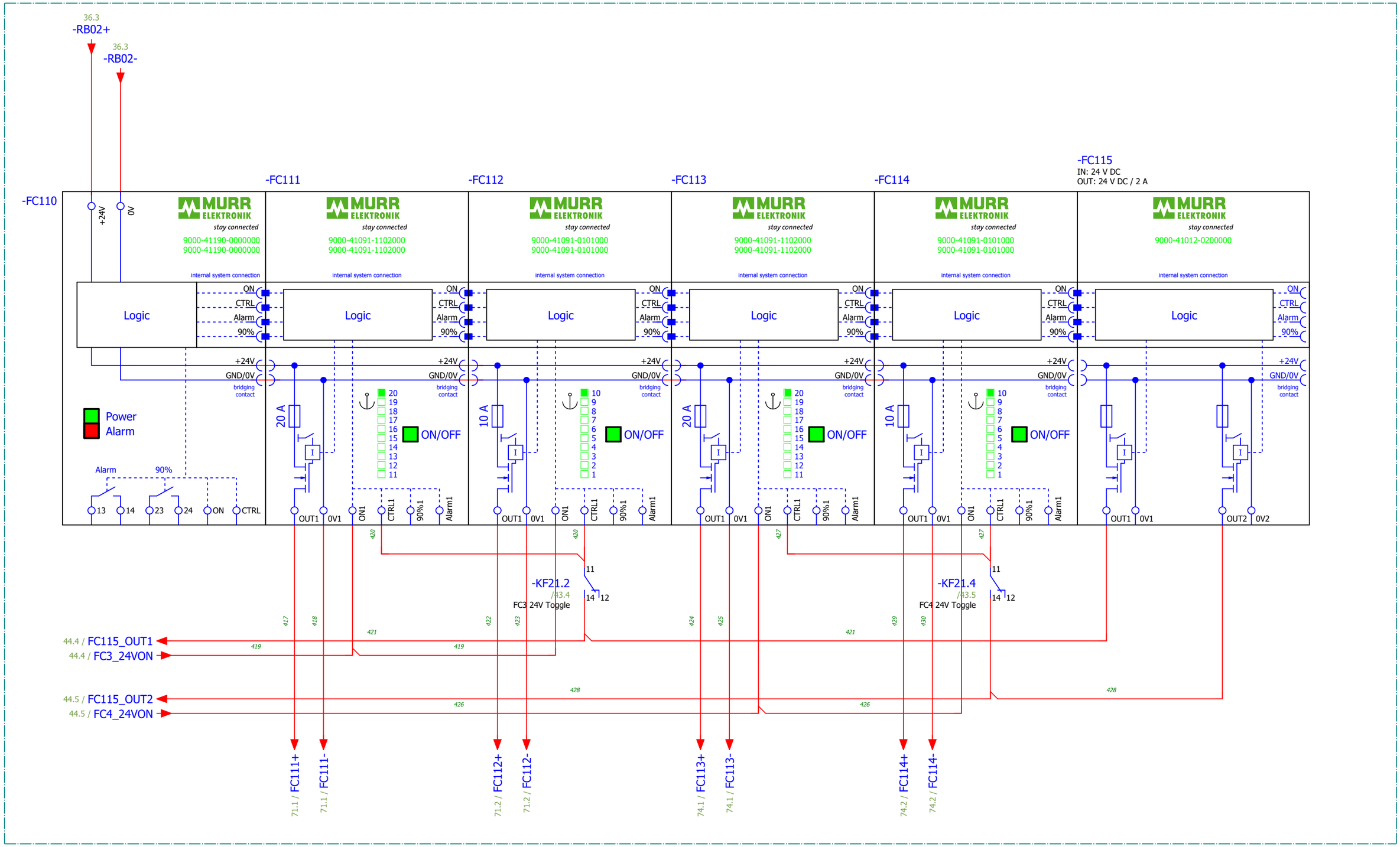
DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC3+4 24V Backup Battery		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 37 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20

Container Safety System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC3+4 24V Fuses		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 38 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20

36.7 / L1 → 101 → L1 / 88.0
36.7 / L2 → 213 → L2 / 88.0
36.7 / L3 → 229 → L3 / 88.0
36.7 / N → N /
36.7 / PE → 250 → PE / 88.0

-FC33
6 A
1 3 5
2 4 6

208 224 239

-TB03
L1 L2 L3 PE
3AC 380-480V

PULS
Power Supply
QT40.241
24-28V
DC-OK
Overload
Single/Parallel Mode

DC 24V, 40A, 960W/1440W
Out + Out +' Out - Out -' 13 14 15 16
DC-OK Shut-Down

431 432

PE

>=LA01+DA01-RB03-WG01
UNITRONIC®-FD CP (TP) PLUS
4x0,5
500 V
Temp Sensor CA03
WH BN

RB03_11 / 40.3
RB03_12 / 40.3
RB03_Pos / 40.2
RB03_Neg / 40.2

>=LA01+DA01-RB03-WD01
ÖLFLEX® CLASSIC 110 CH
3x2,5
300/500 V
Battery Supply RB03
1 2

-RB03
IN + - BAT_MON 11 12 BAT + 13 -
OUT + - 7 8 1 2 3 4 5 6 14 15 PE
Inhibit + Inhibit - Rdy Rdy Buffer Buffer BAT. Replace BAT. Replace Low BAT. Low BAT.

PULS
UB40.241
DC-UPS CONTROL UNIT

333 333 333
338
433 434 435 436 437 438

-RB03+
41.0
-RB03-
41.0
-X202:1.3
30.5

X03 27 DI12
>=LA01-KE02-Slot03
&C02/8.6
UC20_RB03_RDY
FC5+6 UPS Battery Ready

X03 28 DI13
>=LA01-KE02-Slot03
&C02/8.6
UC20_RB03_BAT
FC5+6 UPS Battery Operation

X03 29 DI14
>=LA01-KE02-Slot03
&C02/8.6
UC20_RB03_SOH
FC5+6 UPS Battery Low SOH

X03 30 DI15
>=LA01-KE02-Slot03
&C02/8.6
UC20_RB03_DIS
FC5+6 UPS Battery Discharged

COM 32
>=LA01-KE02-Slot03: &C02/8.6 Supply COM
-X202:-1.3
30.7

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

REVISION INFORMATION
DESCRIPTION
DATE
29-Sep-25

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC5+6 24V Supply and UPS		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 39 / 255

=LA01+DA01

-CA03

PULS

Battery Module, 24V, 12Ah
UZK24.121

DC 24V
Out + Out -

PT100 Temp. Sensor 11
PT100 Temp. Sensor 12
Battery Center Tap 13

39.4 / >=LA01+UC20-RB03_Pos
39.4 / >=LA01+UC20-RB03_Neg
39.4 / >=LA01+UC20-RB03_11
39.4 / >=LA01+UC20-RB03_12

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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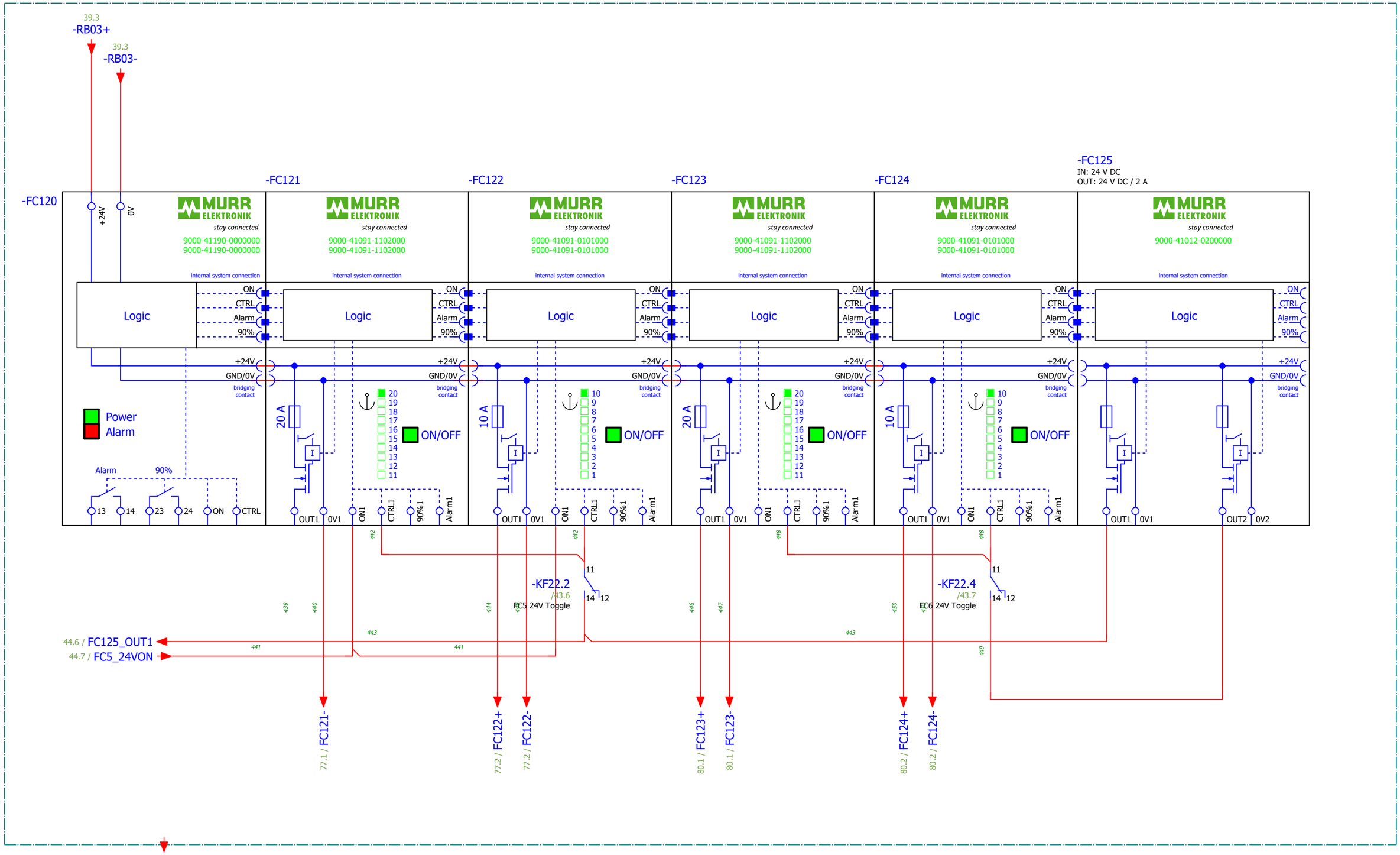
DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC5+6 Backup Battery		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 40 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20

Container Safety System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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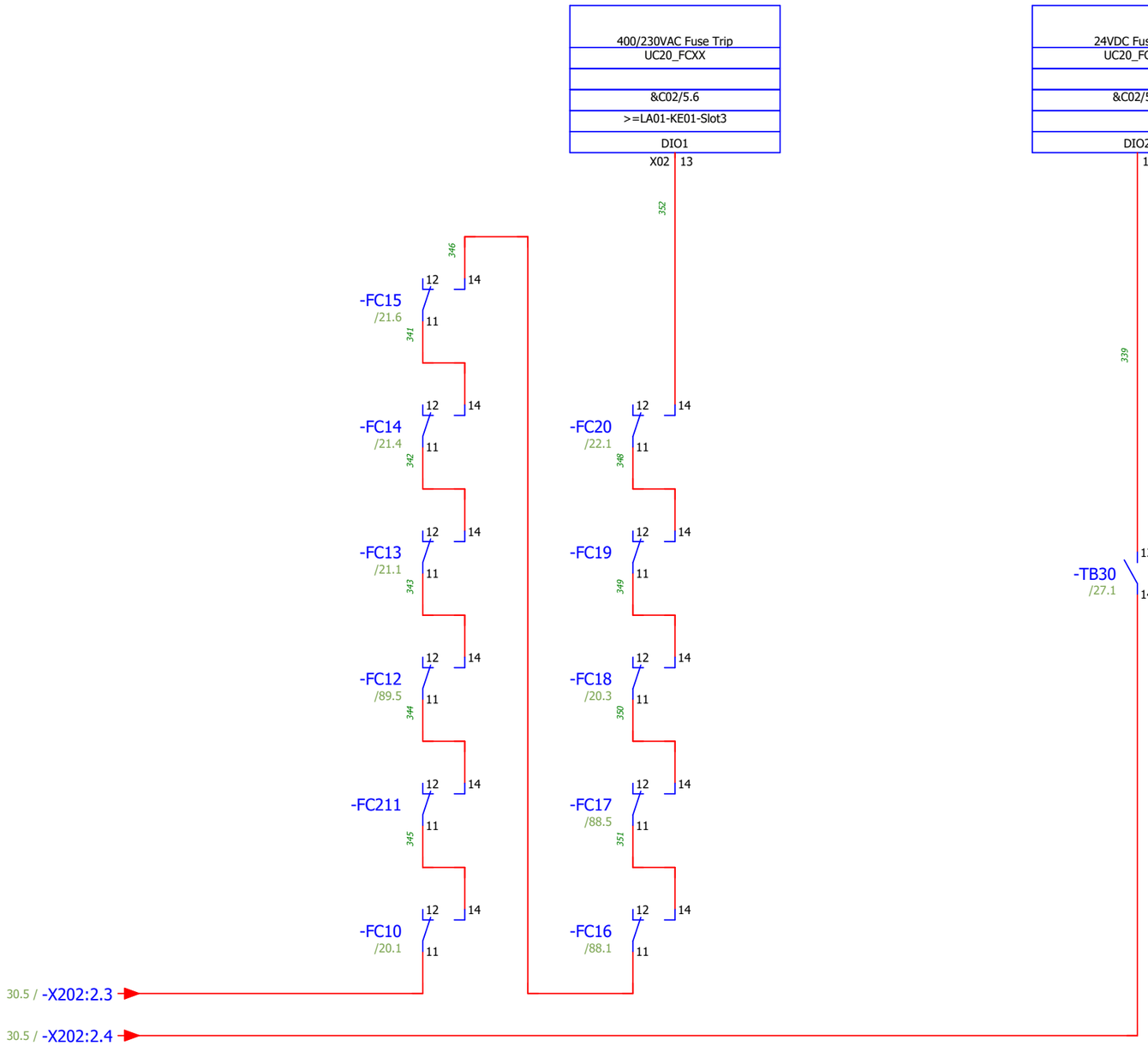
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC5+6 24V Fuses		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 41 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20

Container Safety System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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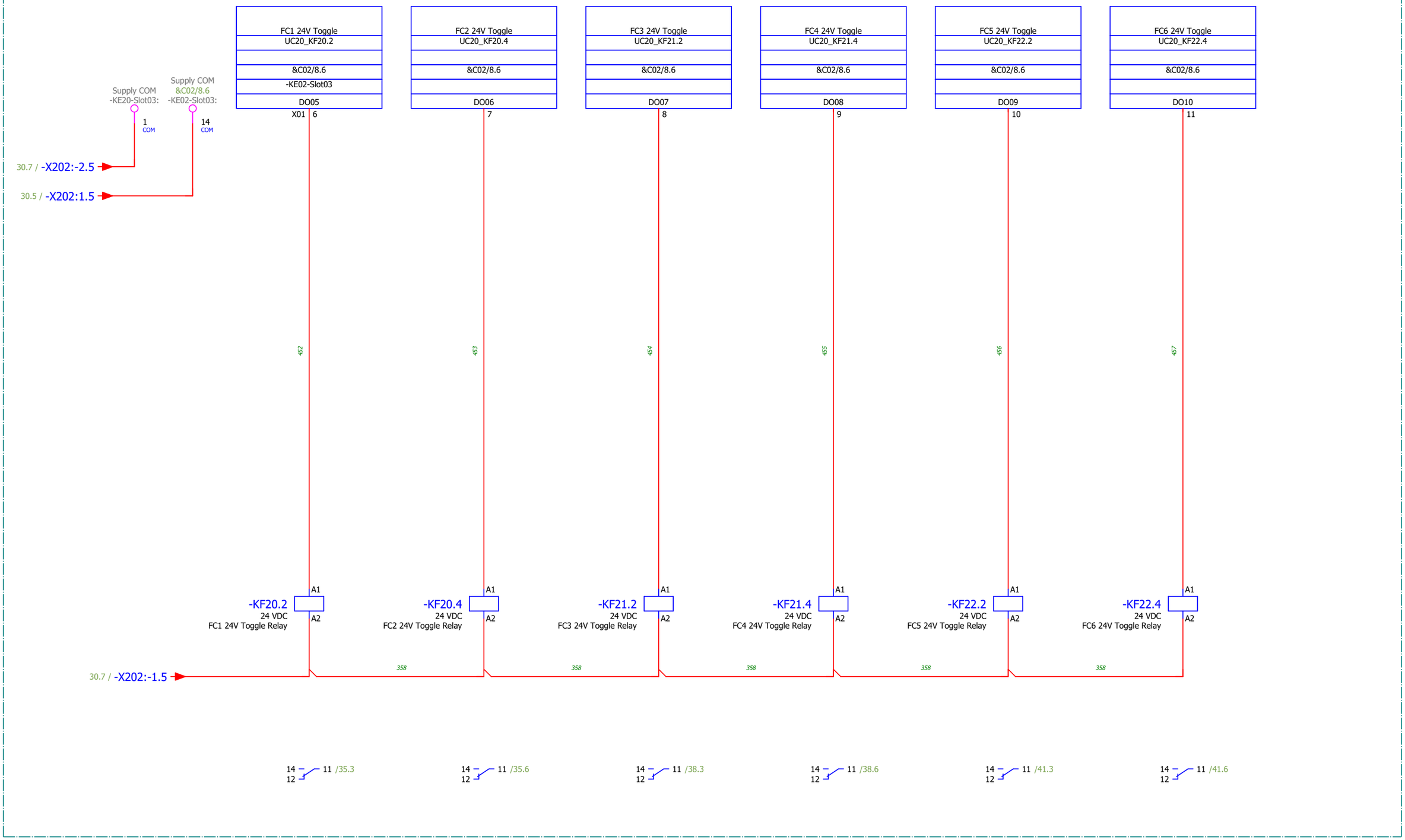
DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft container MCU Fuse trip feed back		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 42 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20

Container Control System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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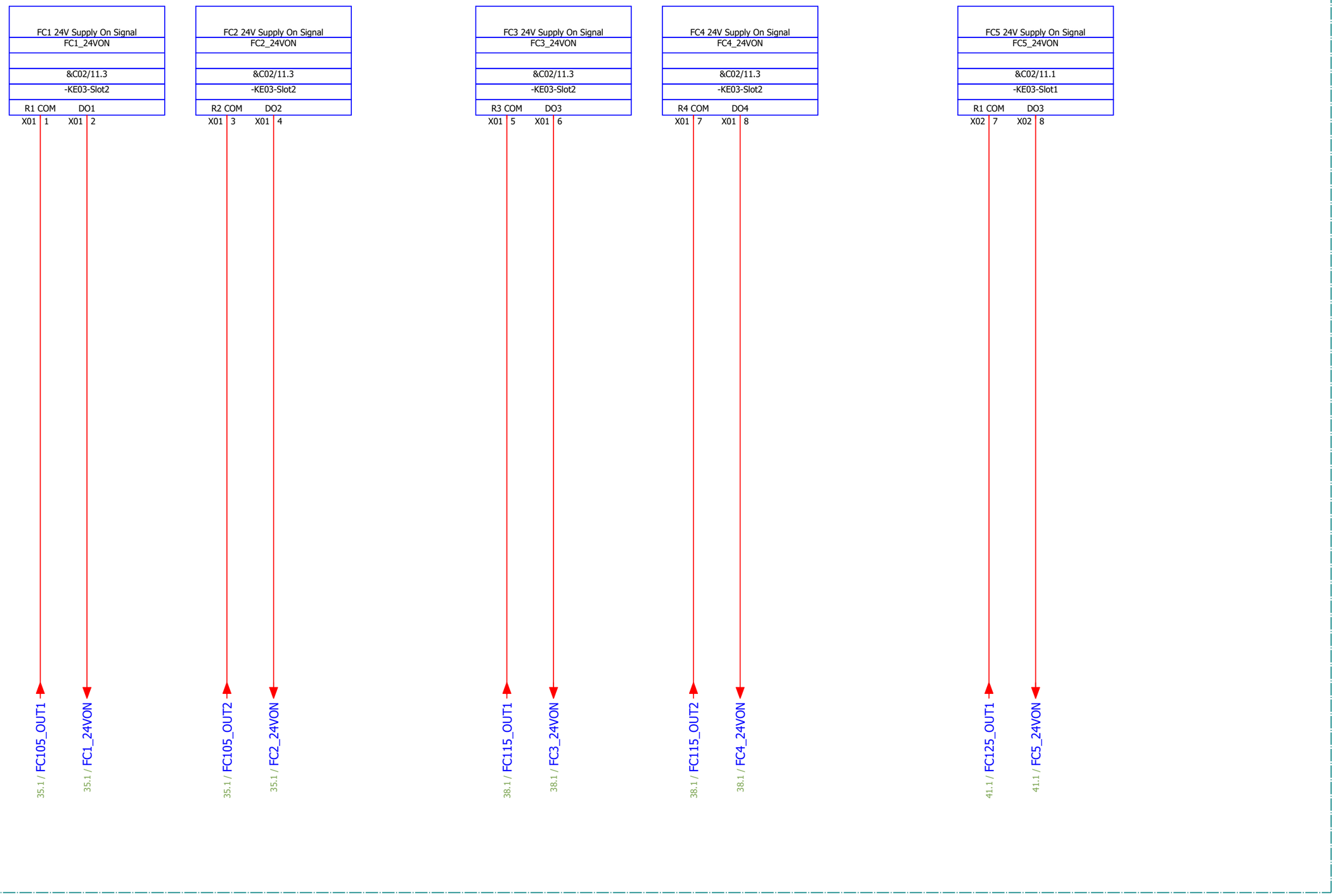
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC1-6 24V Toggle		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 43 / 255

FRM5103656/0B

=LA01+UC20

Container Control System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC1-6 24V Toggle On		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 44 / 255

=LA01+UC20

Container Control System, Control Cabinet 40 ft

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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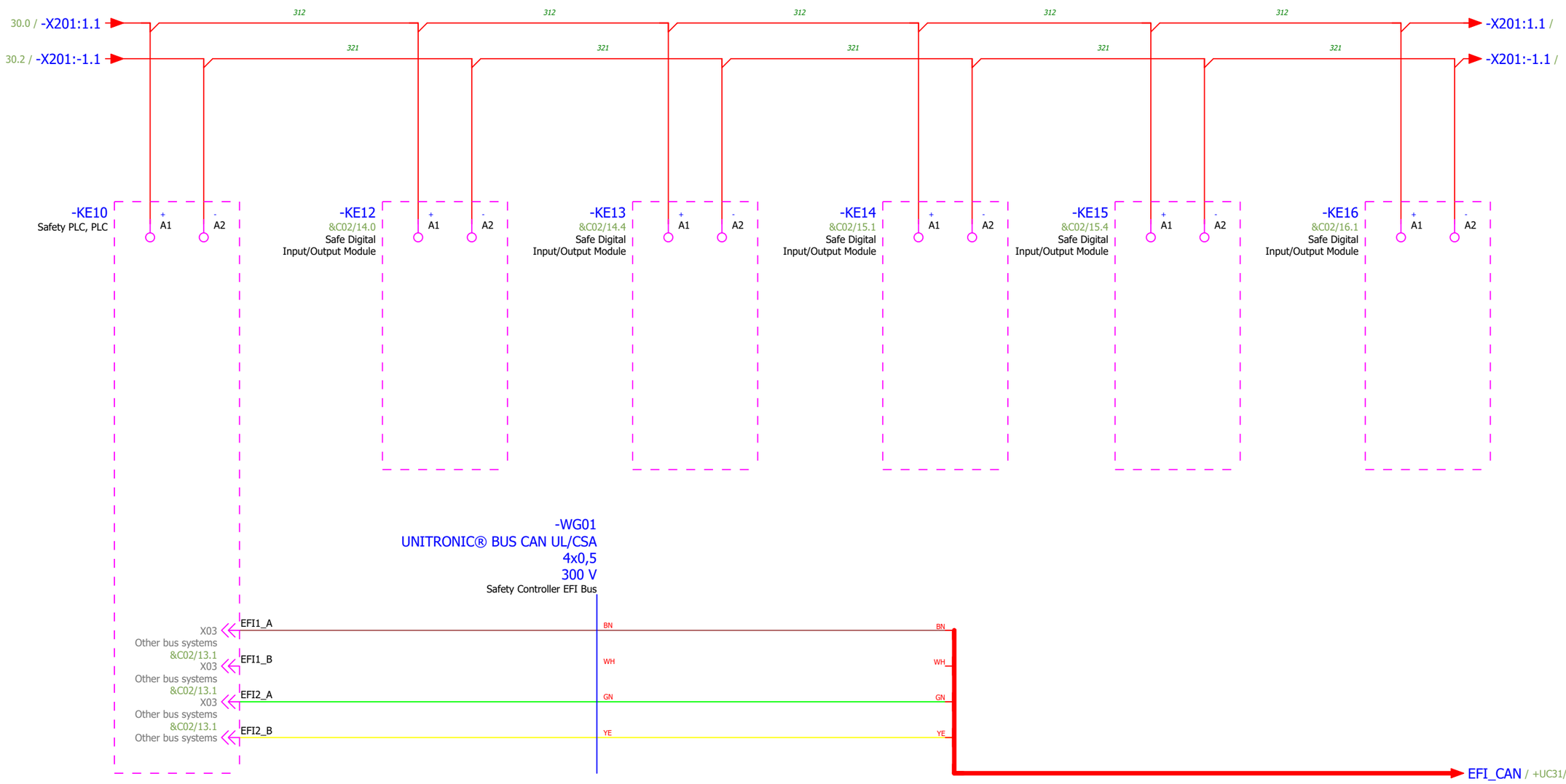
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC1-6 24V Feedback		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 45 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20

Container Safety System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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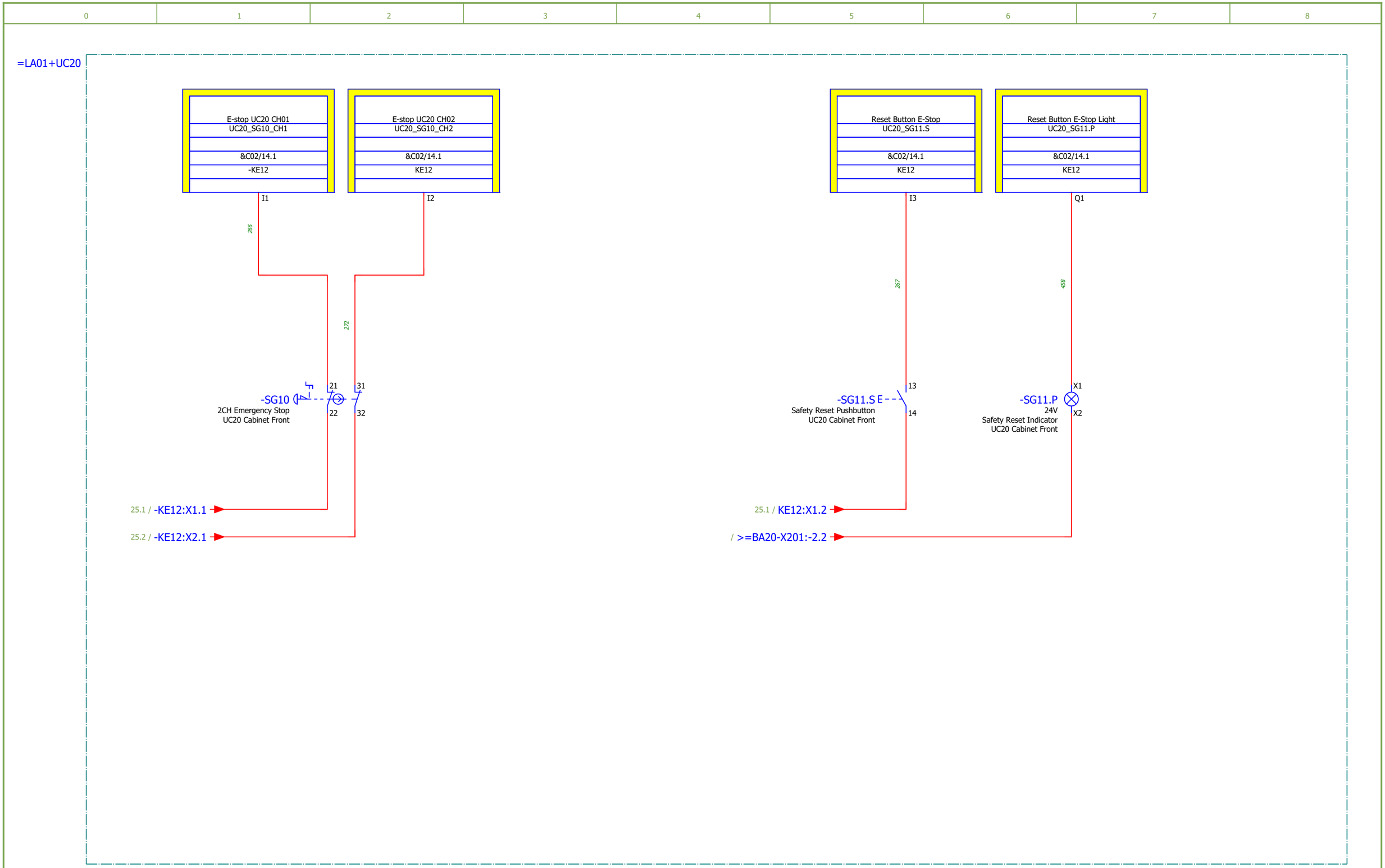
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet - Safety PLC 24V Supply		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 46 / 255



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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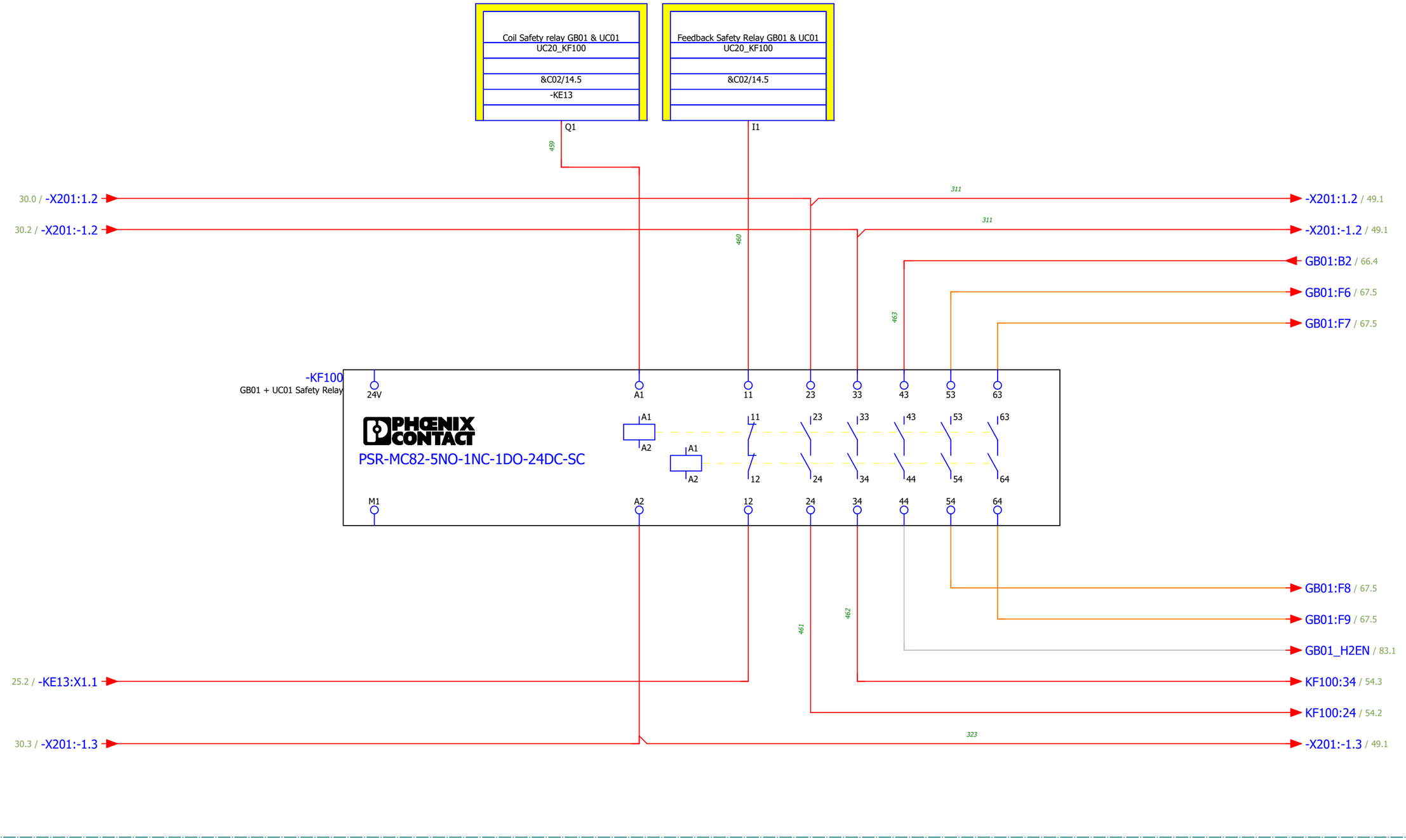
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet - Emergency stop button		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 47 / 255

FRM5103656/0B

=LA01+UC20
Control System



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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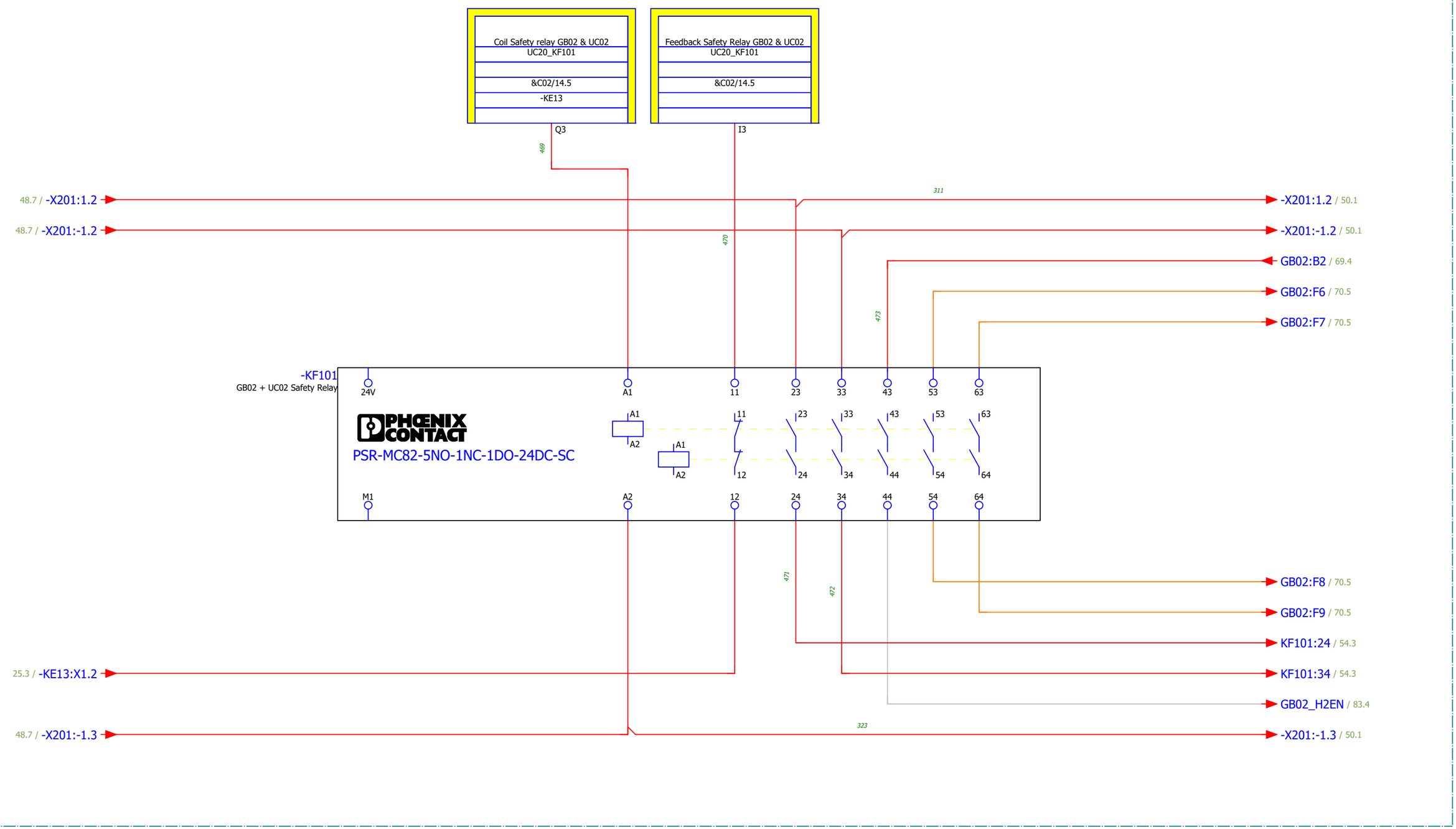
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet, GB01 + UC01 Safety Relay		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 48 / 255

FRM5103656/0B

=LA01+UC20
Control System



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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=	++	+ UC20	& C03

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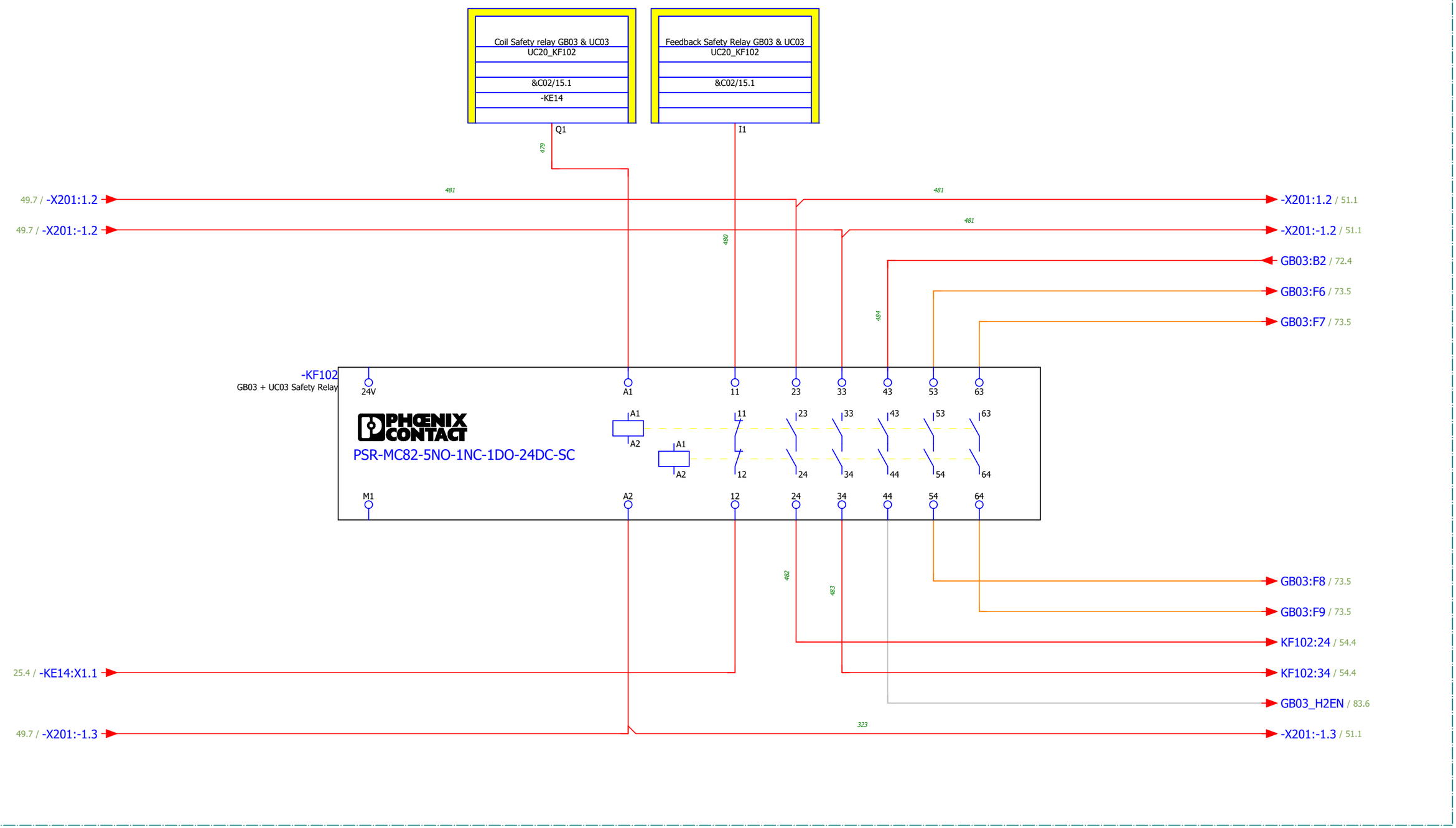
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet, GB02 + UC02 Safety Relay		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 49 / 255

FRM5103656/0B

=LA01+UC20
Control System



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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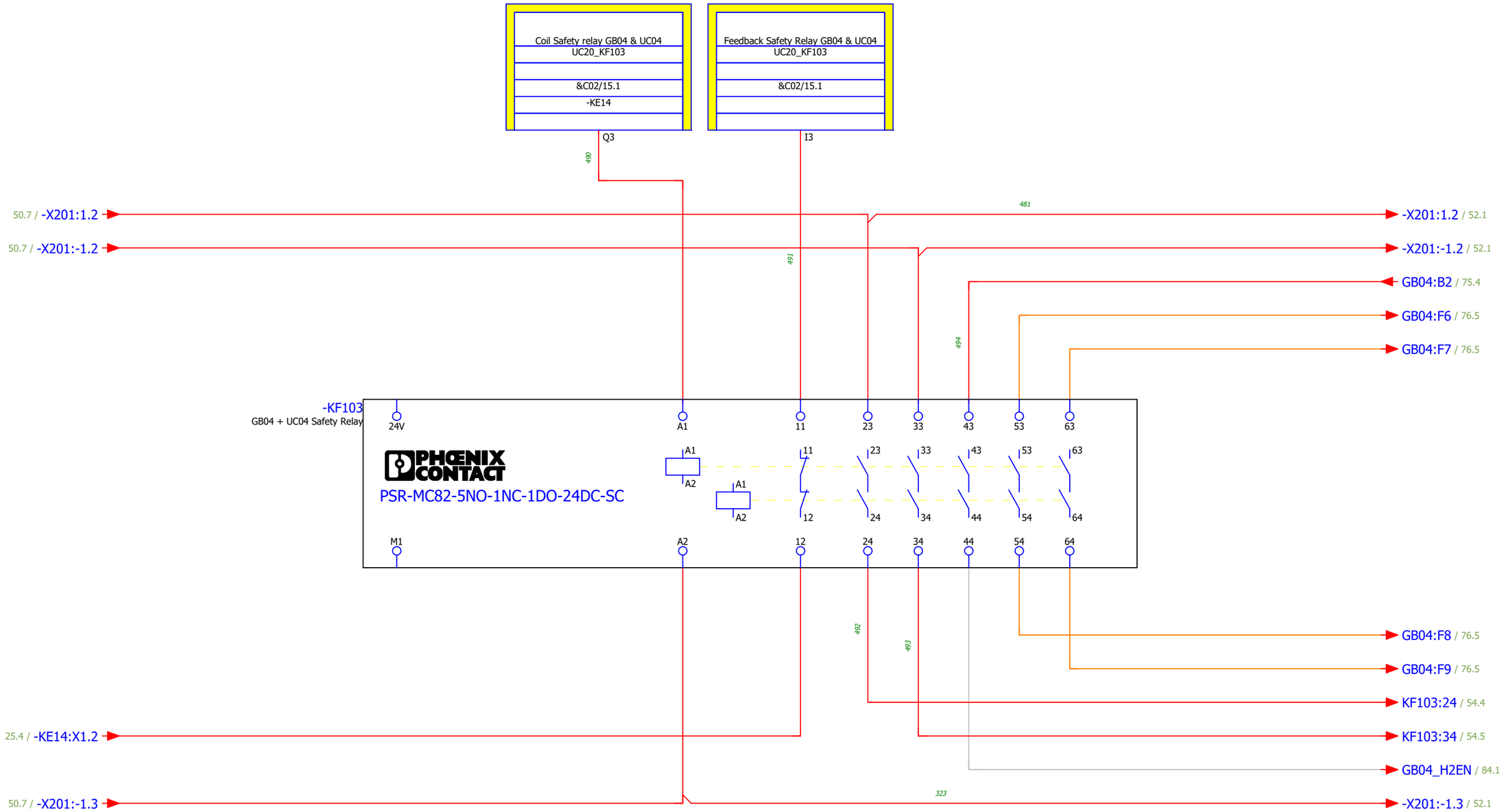
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet, GB03 + UC03 Safety Relay		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 50 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

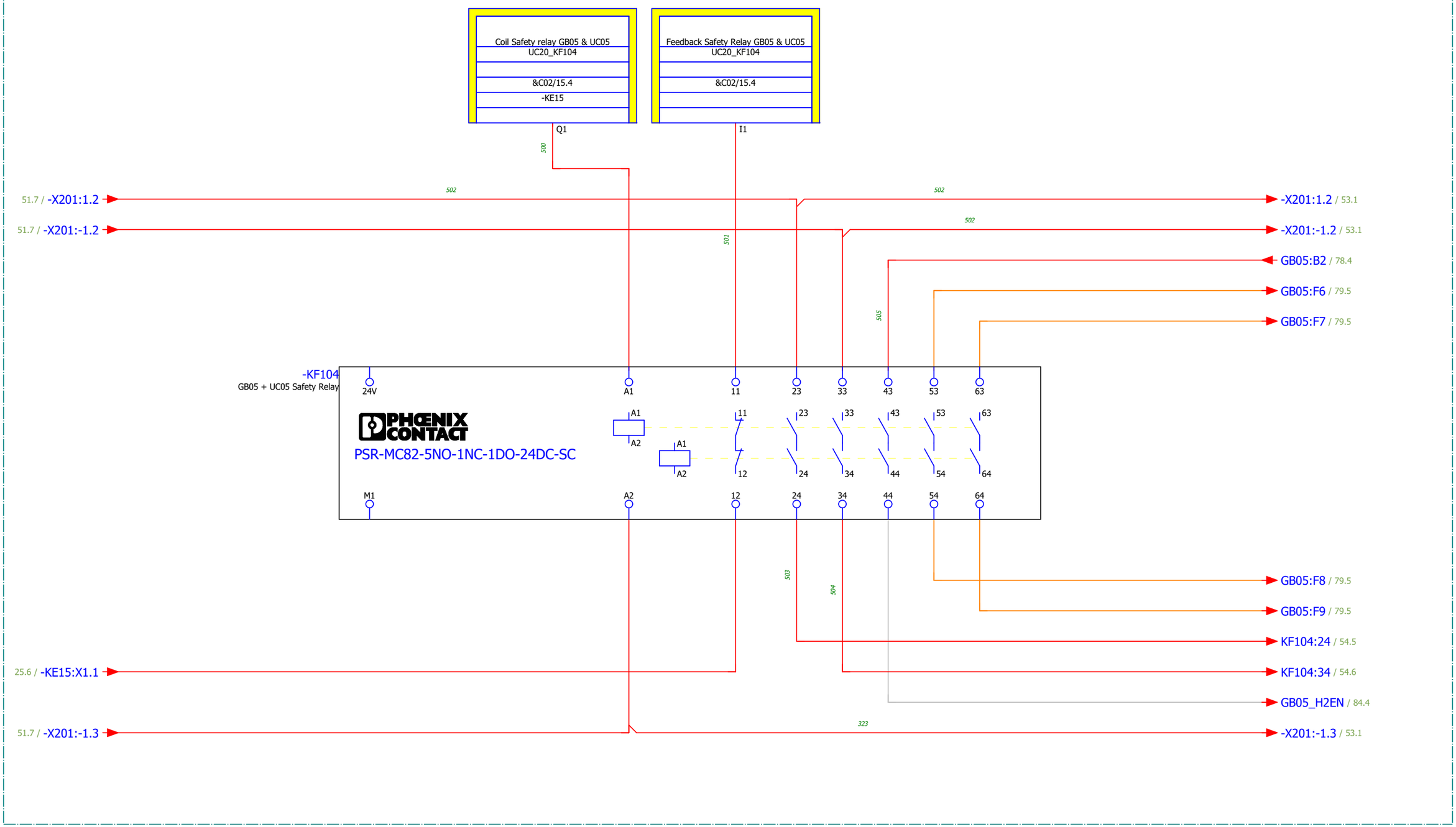
=LA01+UC20
Control System



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EPLAN Project Name	601456B - Shell Baseload Power Hub			DESCRIPTION			DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
EPLAN Revision	12					THIS DOCUMENT'S APPROVAL IS MANAGED BY E-SIGNATURE ON FILE IN BALLARD POWER SYSTEMS' PLM SYSTEM		SHEET TYPE/DESC	40ft Control Cabinet, GB04 + UC04 Safety Relay		
EPLAN Project Pages	627			DATE			ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 51 / 255
=	++	+ UC20	& C03	29-Sep-25						

FRM5103656/0B

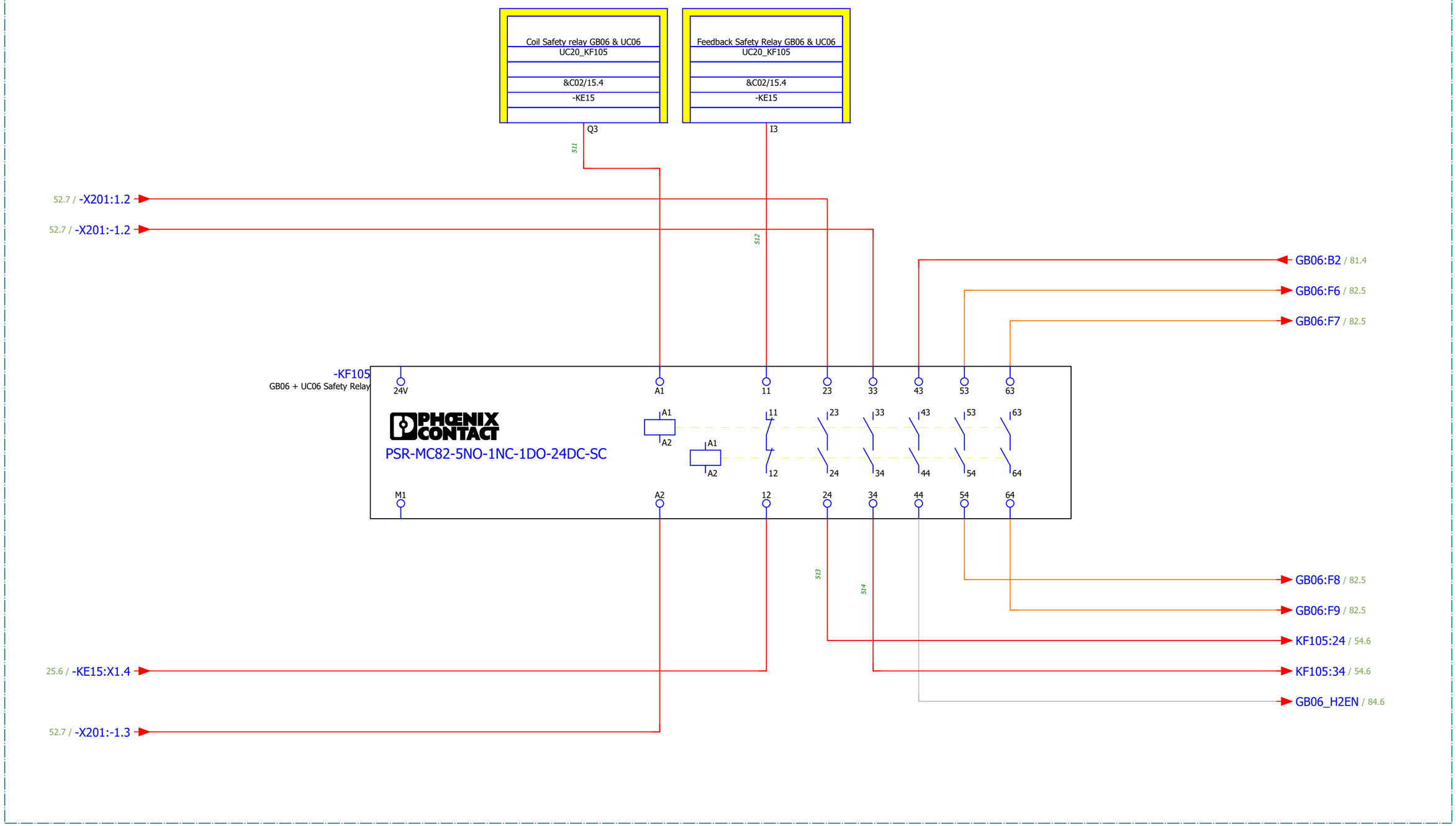
=LA01+UC20
Control System



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EPLAN Project Name	601456B - Shell Baseload Power Hub			DESCRIPTION			DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
EPLAN Revision	12					THIS DOCUMENT'S APPROVAL IS MANAGED BY E-SIGNATURE ON FILE IN BALLARD POWER SYSTEMS' PLM SYSTEM	SHEET TYPE/DESC	40ft Control Cabinet, GB05 + UC05 Safety Relay		
EPLAN Project Pages	627			DATE			ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 52 / 255
=	++	+ UC20	& C03	29-Sep-25						

FRM5103656/0B

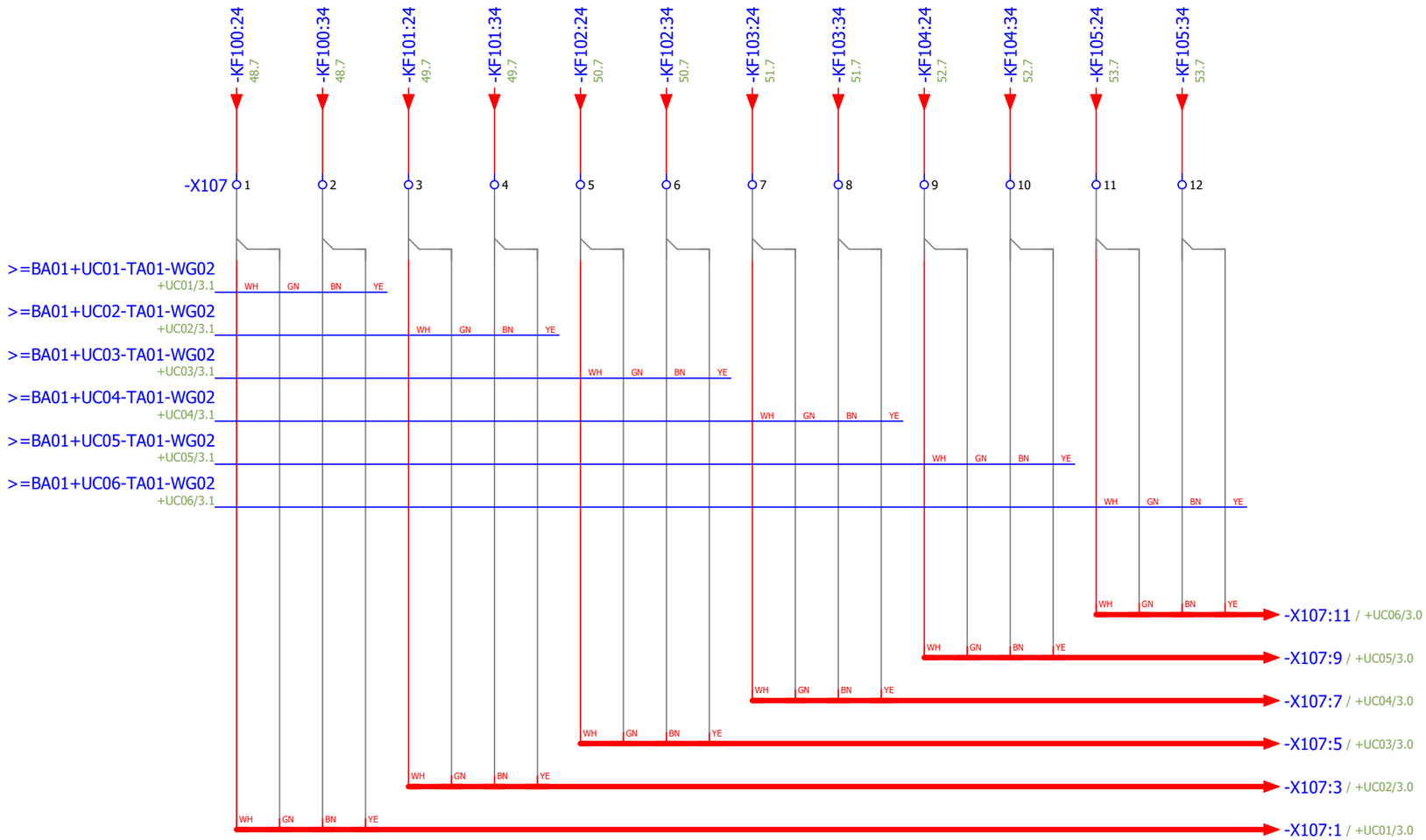
=LA01+UC20
Control System



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EPLAN Project Name	601456B - Shell Baseload Power Hub			DESCRIPTION			DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
EPLAN Revision	12					THIS DOCUMENT'S APPROVAL IS MANAGED BY E-SIGNATURE ON FILE IN BALLARD POWER SYSTEMS' PLM SYSTEM	SHEET TYPE/DESC	40ft Control Cabinet, GB06 + UC06 Safety Relay		
EPLAN Project Pages	627			DATE			ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 53 / 255
=	++	+ UC20	& C03	29-Sep-25						

FRM5103656/0B

=LA01+UC20
Control System



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

REVISION INFORMATION
DESCRIPTION
DATE
29-Sep-25

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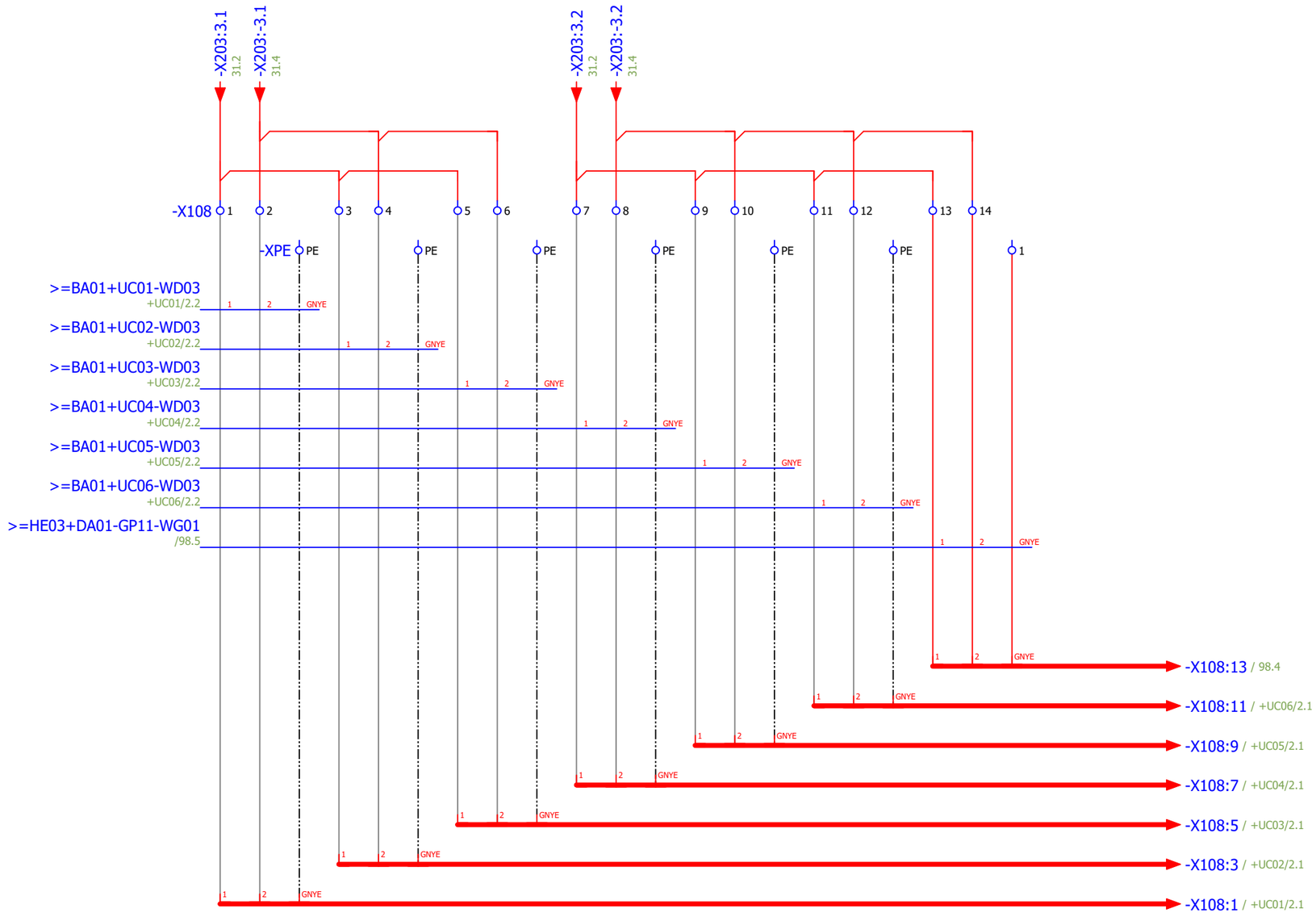
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet, -X107 STO Connections UC01 - UC06		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 54 / 255

FRM5103656/0B

=LA01+UC20
Control System



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet, -X108 24VDC Connections UC01 - UC06		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 55 / 255

=LA01+UC20

Coil Safety Relay Nanogrid DC/AC
&C02/16.1
-KE16
Q1

Coil Safety Relay Nanogrid DC/AC
+UC20-KF16
&C02/16.1
Q1

520
521
522
523
524
525

-X101 1 2 3 4

-KF106
Safety Relay, Nanogrid

24V A1 11 23 33 43 53 63

PHOENIX CONTACT
PSR-MC82-5NO-1NC-1DO-24DC-SC

A1 A2 11 12 23 24 33 34 43 44 53 54 63 64

M1 A2 12 24 34 44 54 64

26.1 / KE16:X1.1
30.3 / -X201:-1.5
30.1 / -X201:1.4
30.3 / -X201:-1.4

313
322

=LA01+UC20

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet, Safety Relay Nanogrid		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 56 / 255

=LA01+UC20

KF17 Safety Relay Coil
UC20_KF17
&C02/14.1
-KE12

Coil Safety Relay Nanogrid DC/AC
+UC20-KF16
&C02/16.1
-KE16

Q2
I1

527
528
531
532
533
534

-KF107
Safety Relay, +UC20

PHOENIX CONTACT
PSR-MC82-5NO-1NC-1DO-24DC-SC

24V A1 11 23 33 43 53 63
A1 A2 A1 A2
11 12 23 24 33 34 43 44 53 54 63 64
M1 A2 12 24 34 44 54 64

-X102 1 2 3 4

-KF107:23 58.1
-KF107:33 58.1
-KF107:43 58.1
-KF107:53 58.1

529
315
324

25.1 / KE12:X1.4
30.3 / -X201:-2.1
30.1 / -X201:1.6
30.3 / -X201:-1.6
30.2 / -X201:3.6

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet, LT Pump		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 57 / 255

0	1	2	3	4	5	6	7	8

=HE03+DA01
Control System

57.6 / >=LA01+UC20-KF107:23
57.6 / >=LA01+UC20-KF107:33
57.6 / >=LA01+UC20-KF107:43
57.7 / >=LA01+UC20-KF107:53

-GP11.WG02
ÖLFLEX® CLASSIC 110 CH
4x1
300/500 V
STO LT Pump

-TA11
/98.1
/98.4
/98.4

1	2	3	4	21	22	23	25	26	28	29
SD1+	SD1-	SD2+	SD2-	RO1 NC	RO1 CO	RO1 NO	RO2 CO	RO2 NO	TI1+	TI1-

535

VACON

VACON NX
STO board
OPT-AF

X10 OFF

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet, STO LT pump		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 58 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC30
Control Cabinet, Coolant Skid

=HA01+DA02
Exterior location, hydrogen supply

=LA01+UC20
Control Cabinet, 40ft Container

Coolant Skid Safety Relay FB
UC30_KF10_FB
&C02/14.1
-KE12
I7

Coolant Skid Safety Relay Coil
UC30_KF10_Q
&C02/14.1
-KE12
Q3

Coolant Skid ESTOP CH1
UC30_SG20-1
&C02/14.1
-KE12
I5

Coolant Skid ESTOP CH2
UC30_SG20-2
&C02/14.1
I6

536
537
269
274

Safety 0V

30.1 / >=LA01-X201:1.3

25.2 / -KE12:X2.3 — KE12 Pulse CH2

25.1 / -KE12:X1.3 — KE12 Pulse CH1

-X100 1 2 3 4 5 6 7

+UC30/20.0 / -WG01 — 4x1 from Coolant Skid

-XT08
/59.1
EX Cable gland
Wall pass-through

+UC30/20.3 / -WG02 — 18G0,75 From Coolant Skid

-XT08
/59.1
EX Cable gland
Wall pass-through

Reference Item Number	Ballard Part # TBD		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet, Safety Coolant Skid		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 59 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20

H2 Sensor Ventilation Inlet
JA01_BQ01_AZT
>=LB02+UC20-KE17
AI+ AI- AI+ AI-
AI1+ AI1- AI2+ AI2-

H2 Sensor Ventilation Outlet A
JA01_BQ02_AZT
>=LB02+UC20-KE18
AI+ AI- AI+ AI-
AI1+ AI1- AI2+ AI2-

H2 Sensor Ventilation Outlet B
JA01_BQ03_AZT
>=LB02+UC20-KE19
AI+ AI- AI+ AI-
AI1+ AI1- AI2+ AI2-

538 540 542

328 328

30.3 / -X201:-2.4
30.1 / -X201:2.3
30.3 / -X201:-2.3

-X103 1 2 3 4 5 6 7 8 9 10 11 12

=JA01+DA01

-BQ01-WG01
ÖLFLEX® CLASSIC 110 CH
4x1
300/500 V
H2 Sensor Ventlation Inlet Signal
1 2 3 4

-BQ02-WG01
ÖLFLEX® CLASSIC 110 CH
4x1
300/500 V
H2 Sensor Ventlation Outlet A Signal
1 2 3 4

-BQ03-WG01
ÖLFLEX® CLASSIC 110 CH
4x1
300/500 V
H2 Sensor Ventlation Outlet B Signal
1 2 3 4

-BQ01
0-100 %LEL to 4-20mA
H2 Sensor
Ventilation Inlet

+ - mA PE
1 2 3 4

Dräger

4-20mA
H2 - %LEL

-BQ02
0-100 %LEL to 4-20mA
H2 Sensor
Ventilation Outlet A

+ - mA PE
1 2 3 4

Dräger

4-20mA
H2 - %LEL

-BQ03
0-100 %LEL to 4-20mA
H2 Sensor
Ventilation Outlet B

+ - mA PE
1 2 3 4

Dräger

4-20mA
H2 - %LEL

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Safety, Hydrogen Sensors		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 60 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20

KE16 Test pulse output CH2
>=LB02+UC20-KE16
X2

Smoke Detector Ventilation Inlet
JA01_BQ04_ASZ
>=LB02+UC20-KE16
I2

KE16 Test pulse output CH1
>=LB02+UC20-KE16
X1

Smoke Detector Ventilation Outlet A
JA01_BQ05_ASZ
>
I3

Smoke Detector Ventilation Outlet B
JA01_BQ06_ASZ
I4

544
545
546
544
547
548

30.1 / -X201:2.5
30.3 / -X201:-2.5

-X104 1 2 3 4 5 6 7 8 9 10 11 12

=JA01+DA01

-BQ04-WG01
ÖLFLEX® CLASSIC 110 CH
4x1
300/500 V
Smoke Detector Ventlation Inlet Signal

-BQ05-WG01
ÖLFLEX® CLASSIC 110 CH
4x1
300/500 V
Smoke Detector Ventlation Outlet B Signal

-BQ06-WG01
ÖLFLEX® CLASSIC 110 CH
4x1
300/500 V
Smoke Detector Ventlation Outlet B Signal

-BQ04
Smoke Detector
Ventilation Inlet

-BQ05
Smoke Detector
Ventilation Outlet A

-BQ06
Smoke Detector
Ventilation Outlet B

-X2
IN COM OUT 1 2 3 4

2 3
1

Orbis Marine Relay Base
ORB-RB-40004-MAR

-X1
IN COM OUT LED

-BQ04
Smoke Detector
Ventilation Inlet

-BQ05
Smoke Detector
Ventilation Outlet A

-BQ06
Smoke Detector
Ventilation Outlet B

-X1
IN COM OUT LED

Orbis Marine Smoke Detector
ORB-OP-42001-MAR

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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=	++	+ UC20	& C03

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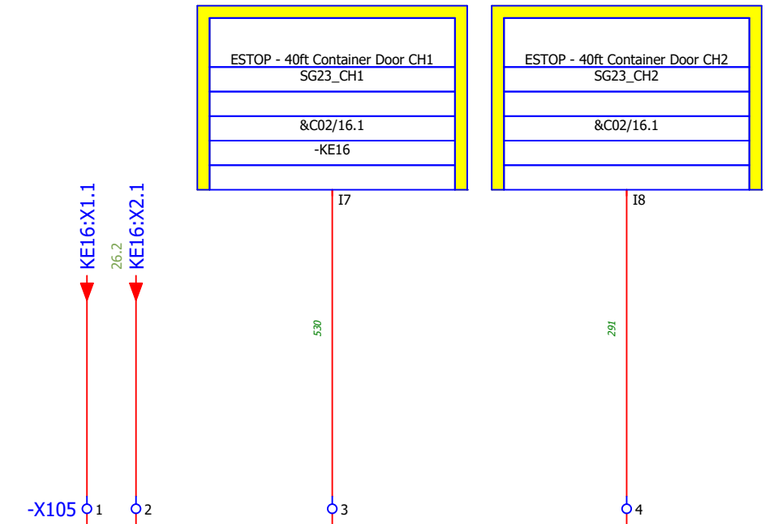
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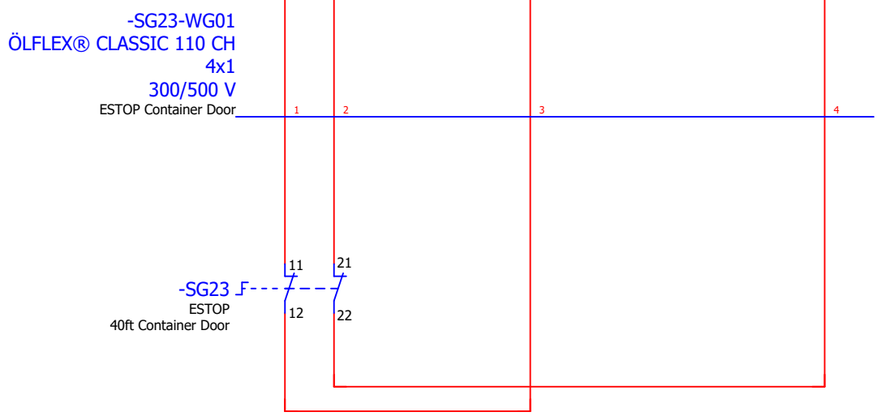
DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Safety, Smoke Detectors		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 61 / 255

0	1	2	3	4	5	6	7	8

=LA01
Control Cabinet, 40ft Container Inside



=LB02+DA01
40ft Container Inside



Reference Item Number	Ballard Part # TBD		
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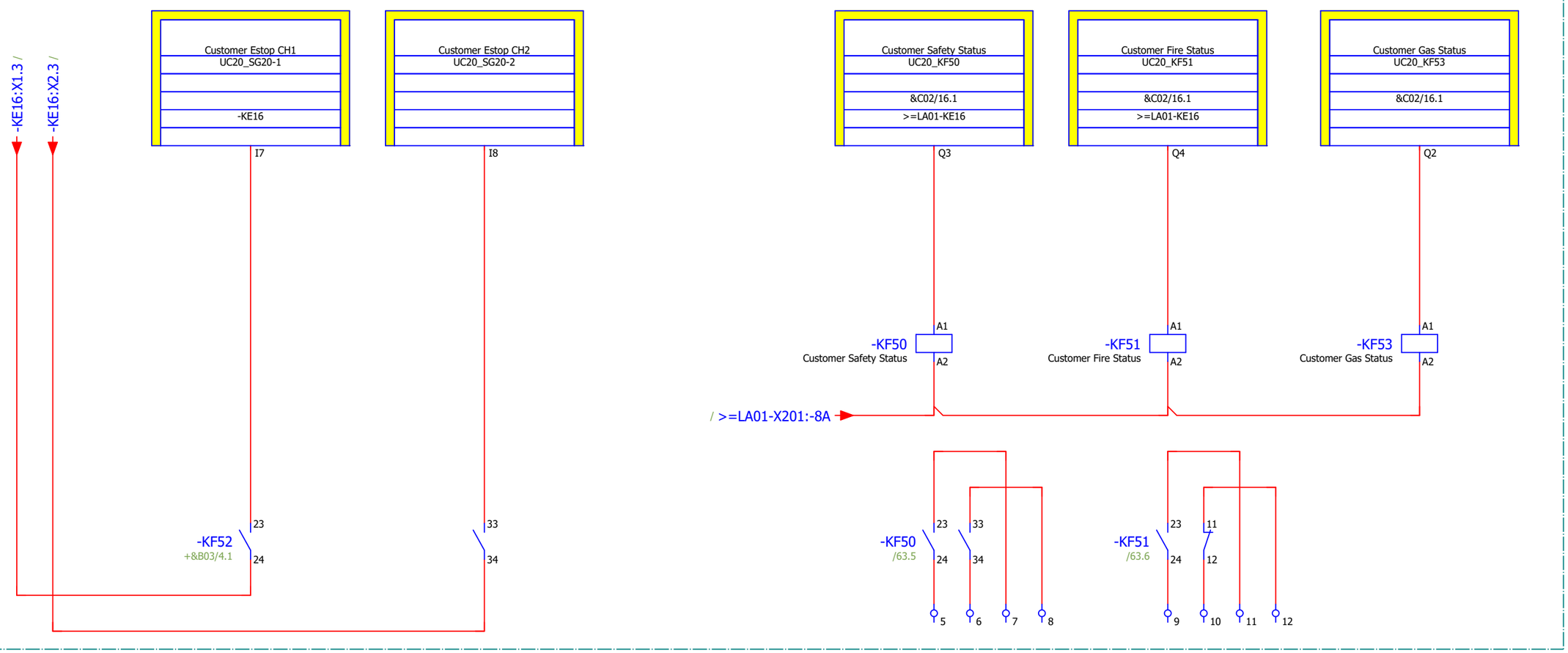
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Safety, ESTOP Container Door		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 62 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LB02
Control Cabinet, 40ft Container Inside



>=EXT+
Customer Scope

23 24 /63.5
23 24 +&B03/4.6
33 34 /63.5
33 34 +&B03/4.6

11 12 /63.6
23 24 /63.6
23 24 +&B03/4.3

23 24 +&B03/4.4

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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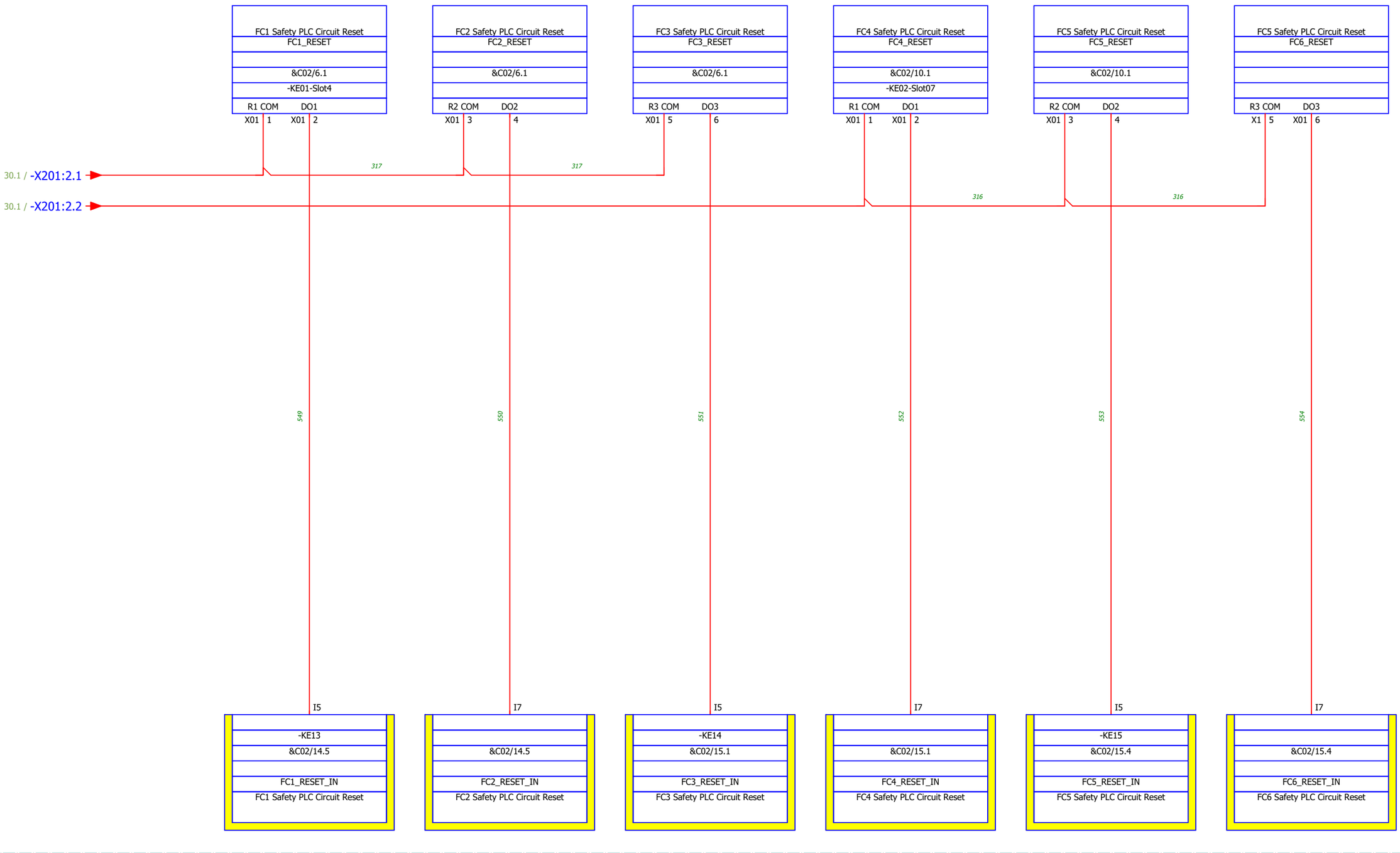
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DRAWING	5500232B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Customer Interface Diagram, ???		
SHEET TYPE/DESC	40ft Container - Safety, Customer Interface		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 63 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20



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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet - FC1-6 Safety Circuit Reset		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 64 / 255

=LA01+UC20
40ft Container, Control Cabinet

-KF201
16 port
100/10 Ethernet Switch

Ethernet
2
Port 2

>=RE01+GB01-GB01-XG01
/80.3
Cat 6A
FC1 Ethernet

FC101_24VFB / 45.1
-FC101+ / 35.2
FC101- / 35.2
FC101_0VFB / 45.3
FC102+ / 35.3
FC102- / 35.3
-X50:4 / 83.1

-X_PE 1
-X50 1 2 3 4

=RE01+GB01
FCwave #1

-GB01-WD05
CLASSIC 110 CH
5x6
300/500 V
FCwave #1 24V Supply
GNYE 1 2 3 4

-GB01-WG01
Cat.6A PUR
8x24
300 V
FCwave #1 Ethernet

-XZ01
/66.0
/67.0
FCwave #2 Control Connector
-PE PE
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD Not Connected

GB01-X_E01
/66.0
/67.0
FCwave #1 Control Connector
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD

Reference Item Number	Ballard Part # TBD		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC1: 24V and Ethernet		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 65 / 255

=LA01+UC20
40ft Container, Control Cabinet

Fuel Cell Module OK
GB01_FCM_OK
&C02/9.1
>=RE01+GB01-KE02-Slot04
DI07
X02 21

MD_Enable Signal
GB01_MD_ENABLE
&C02/9.1
-KE02-Slot04
DO01
X01 2

48.7
GB01:B2

555 VT 0,5 mm²
556 VT 0,5 mm²

-X60 13 14 15

=RE01+GB01
FCwave #1

-GB01-WG02
/67.0
ÖLFLEX® CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals
13 14 15

FC1_FCM_OK
FC1_H2_EN
FC1_MD_EN

-XZ01
/65.0
FCwave #2 Control Connector
-SlotB
1 2 3

GB01-X_E01
/65.0
/67.0
FCwave #1 Control Connector
-SlotB
1 2 3

Reference Item Number	Ballard Part # TBD		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC1: Control		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 66 / 255

=LA01+UC20
40ft Container, Control Cabinet

SAFE_Main GB01 | GB01 | >=LB02-KE13 | I2
SAFE_FIRE Safety Signal | GB01_SAFE_FIRE | &C02/9.1 | -KE02-Slot04 | DI01 | X02 15
SAFE_H2CONC Safety Signal | GB01_SAFE_H2CONC | &C02/9.1 | >=RE01+GB01-KE02-Slot04 | DI02 | X02 16
SAFE_VENT Safety Signal | GB01_SAFE_VENT | &C02/9.1 | DI03 | 17
SAFE_WD Safety Signal | GB01_SAFE_WD | &C02/9.1 | DI04 | 18
SAFE_In GB01 | GB01 | >=LB02-KE02-KE13 | Q2
SAFE_FIREMALF Safety Signal | GB01_SAFE_FIREMALF | &C02/9.1 | >=RE01+GB01-KE02-Slot04 | DI05 | X02 19
SAFE_EXTERN Safety Signal | GB01_SAFE_EXTERN | &C02/9.1 | >=RE01+GB01-KE02-Slot04 | DI06 | X02 20

557 VT 0,5 mm² | 558 VT 0,5 mm² | 559 VT 0,5 mm² | 560 VT 0,5 mm² | 561 VT 0,5 mm²
GB01:F6 / 48.7 — 465 OG 0,5 mm²
GB01:F7 / 48.7 — 467 OG 0,5 mm²
GB01:F8 / 48.7 — 466 OG 0,5 mm²
GB01:F9 / 48.7 — 468 OG 0,5 mm²
562 VT 0,5 mm² | 563 VT 0,5 mm² | 564 VT 0,5 mm²

-X60 1 2 3 4 5 6 7 8 9 10 11 12

=RE01+GB01
FCwave #1

-GB01-WG02
/66.4
CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals

1 FC1_SAFE_MAIN
2 FC1_SAFE_FIRE
3 FC1_SAFE_H2
4 FC1_SAFE_VENT
5 FC1_SAFE_WD
6 FC1_ESTOP_OUT1
7 FC1_ESTOP_OUT2
8 FC1_ESTOP_IN1
9 FC1_ESTOP_IN2
10 FC1_SAFE_IN
11 FC1_SAFE_FIREMALF
12 FC1_SAFE_EXTERN

-XZ01
/65.0
FCwave #2 Control Connector
-SlotF: 1 2 3 4 5 6 7 8 9 10 11 12

GB01-X_E01
/65.0
/66.0
FCwave #1 Control Connector
-SlotF: 1 2 3 4 5 6 7 8 9 10 11 12

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC1: Safety		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 67 / 255

FRM5103656/0B

=LA01+UC20
40ft Container, Control Cabinet

-KF201
16 port
100/10 Ethernet Switch

Ethernet
3
Port 3

FC103_24VFB / 45.2
-FC103+ / 35.4
FC103- / 35.4
FC104+ / 35.5
FC104- / 35.5
-X51:4 / 83.3

>=RE01+GB02-GB02-XG01
Cat 6A
FC1 Ethernet
1

-X_PE 1
-X51 1 2 3 4

=RE01+GB02
FCwave #2

-GB02-WD05
CLASSIC 110 CH
5x6
300/500 V
FCwave #1 24V Supply
GNYE 1 2 3 4

-GB02-WG01
Cat.6A PUR
8x24
300 V
FCwave #1 Ethernet

-XZ01
/69.0
/70.0
FCwave #2 Control Connector
-PE
PE
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD
Not Connected

GB02-X_E01
/69.0
/70.0
FCwave #1 Control Connector
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC2: 24V and Ethernet		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 68 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20
40ft Container, Control Cabinet

Fuel Cell Module OK
GB02_FCM_OK
&C02/9.1
>=RE01+GB01-KE02-Slot04
DI14
X03 29

MD_Enable Signal
GB02_MD_ENABLE
&C02/9.1
-KE02-Slot04
DO02
X01 3

49.7
GB02:B2

565 VT 0,5 mm²
566 VT 0,5 mm²

-X61 13 14 15

=RE01+GB02
FCwave #2

-GB02-WG02
/70.0
ÖLFLEX® CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals
13 14 15

FC1_FCM_OK
FC1_H2_EN
FC1_MD_EN

-XZ01
/68.0
FCwave #2 Control Connector
-SlotB 1 2 3

GB02-X_E01
/68.0
/70.0
FCwave #1 Control Connector
-SlotB 1 2 3

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC2: Control		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 69 / 255

=LA01+UC20
40ft Container, Control Cabinet

SAFE_Main GB02 | GB02 | >=LB02-KE13 | I4
SAFE_FIRE Safety Signal | GB02_SAFE_FIRE | &C02/9.1 | >=RE01+GB01-KE02-Slot04 | DI08 | X02 22
SAFE_H2CONC Safety Signal | GB02_SAFE_H2CONC | &C02/9.1 | DI09 | X03 24
SAFE_VENT Safety Signal | GB02_SAFE_VENT | &C02/9.1 | DI10 | 25
SAFE_WD Safety Signal | GB02_SAFE_WD | &C02/9.1 | DI11 | 26
SAFE_In GB02 | GB02 | >=LB02-KE02-KE13 | Q4
SAFE_FIREMALF Safety Signal | GB02_SAFE_FIREMALF | &C02/9.1 | >=RE01+GB01-KE02-Slot04 | DI12 | X03 27
SAFE_EXTERN Safety Signal | GB02_SAFE_EXTERN | &C02/9.1 | >=RE01+GB01-KE02-Slot04 | DI13 | X03 28

GB02:F6 / 49.7
GB02:F7 / 49.7
GB02:F8 / 49.7
GB02:F9 / 49.7

567 VT 0,5 mm² | 568 VT 0,5 mm² | 569 VT 0,5 mm² | 570 VT 0,5 mm² | 571 VT 0,5 mm²
475 OG 0,5 mm² | 477 OG 0,5 mm² | 476 OG 0,5 mm² | 478 OG 0,5 mm²
572 VT 0,5 mm² | 573 VT 0,5 mm² | 574 VT 0,5 mm²

-X61 1 2 3 4 5 6 7 8 9 10 11 12

=RE01+GB02
FCwave #2

-GB02-WG02
/69.4
CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals

1 FC1_SAFE_MAIN
2 FC1_SAFE_FIRE
3 FC1_SAFE_H2
4 FC1_SAFE_VENT
5 FC1_SAFE_WD
6 FC1_ESTOP_OUT1
7 FC1_ESTOP_OUT2
8 FC1_ESTOP_IN1
9 FC1_ESTOP_IN2
10 FC1_SAFE_IN
11 FC1_SAFE_FIREMALF
12 FC1_SAFE_EXTERN

-XZ01
/68.0
FCwave #2 Control Connector
-SlotF 1 2 3 4 5 6 7 8 9 10 11 12

GB02-X_E01
/68.0
/69.0
FCwave #1 Control Connector
-SlotF 1 2 3 4 5 6 7 8 9 10 11 12

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC2: Safety		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 70 / 255

=LA01+UC20
40ft Container, Control Cabinet

-KF201
16 port
100/10 Ethernet Switch

Ethernet
4
Port 4

FC111_24VFB / 45.4
-FC111+ / 38.2
FC111- / 38.2
FC111_0VFB / 45.5
FC112+ / 38.3
FC112- / 38.3
-X52:4 / 83.6

>=RE01+GB03-GB03-XG01
Cat 6A
FC1 Ethernet
1

-X_PE 1
-X52 1 2 3 4

=RE01+GB03
FCwave #3

-GB03-WD05
CLASSIC 110 CH
5x6
300/500 V
FCwave #1 24V Supply
GNYE 1 2 3 4

-GB03-WG01
Cat.6A PUR
8x24
300 V
FCwave #1 Ethernet

-XZ01
/72.0
/73.0
FCwave #2 Control Connector
-PE
PE
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD
Not Connected

GB03-X_E01
/72.0
/73.0
FCwave #1 Control Connector
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC3: 24V and Ethernet		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 71 / 255

=LA01+UC20
40ft Container, Control Cabinet

Fuel Cell Module OK
GB03_FCM_OK
&C02/9.4
-KE02-Slot05
DI07
X02 21

MD_Enable Signal
GB03_MD_ENABLE
&C02/9.4
DO01
X01 2

50.7
GB03:B2

575 VT 0,5 mm²
576 VT 0,5 mm²

-X62 13 14 15

=RE01+GB03
FCwave #3

-GB03-WG02
/73.0
ÖLFLEX® CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals
13 14 15

FC1_FCM_OK
FC1_H2_EN
FC1_MD_EN

-XZ01
/71.0
FCwave #2 Control Connector
-SlotB
1 2 3

GB03-X_E01
/71.0
/73.0
FCwave #1 Control Connector
-SlotB
1 2 3

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC3: Control		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 72 / 255

=LA01+UC20
40ft Container, Control Cabinet

SAFE_Main GB03 | GB03 | >=LB02-KE14 | I2
SAFE_FIRE Safety Signal | GB03_SAFE_FIRE | &C02/9.4 | -KE02-Slot05 | DI01 | X02 15
SAFE_H2CONC Safety Signal | GB03_SAFE_H2CONC | &C02/9.4 | DI02 | 16
SAFE_VENT Safety Signal | GB03_SAFE_VENT | &C02/9.4 | DI03 | 17
SAFE_WD Safety Signal | GB03_SAFE_WD | &C02/9.4 | DI04 | 18
SAFE_In GB03 | GB03 | >=LB02-KE14 | Q2
SAFE_FIREMALF Safety Signal | GB03_SAFE_FIREMALF | &C02/9.4 | -KE02-Slot05 | DI05 | X02 19
SAFE_EXTERN Safety Signal | GB03_SAFE_EXTERN | &C02/9.4 | -KE02-Slot05 | DI06 | X02 20

GB03:F6 / 50.7
GB03:F7 / 50.7
GB03:F8 / 50.7
GB03:F9 / 50.7

577 VT 0,5 mm² | 578 VT 0,5 mm² | 579 VT 0,5 mm² | 580 VT 0,5 mm² | 581 VT 0,5 mm²
486 OG 0,5 mm² | 488 OG 0,5 mm² | 487 OG 0,5 mm² | 489 OG 0,5 mm²
582 VT 0,5 mm² | 583 VT 0,5 mm² | 584 VT 0,5 mm²

-X62 1 2 3 4 5 6 7 8 9 10 11 12

=RE01+GB03
FCwave #3

-GB03-WG02
/72.4
CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals

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

FC1_SAFE_MAIN | FC1_SAFE_FIRE | FC1_SAFE_H2 | FC1_SAFE_VENT | FC1_SAFE_WD | FC1_ESTOP_OUT1 | FC1_ESTOP_OUT2 | FC1_ESTOP_IN1 | FC1_ESTOP_IN2 | FC1_SAFE_IN | FC1_SAFE_FIREMALF | FC1_SAFE_EXTERN

-XZ01
/71.0
FCwave #2 Control Connector
-SlotF
1 2 3 4 5 6 7 8 9 10 11 12

GB03-X_E01
/71.0
/72.0
FCwave #1 Control Connector
-SlotF
1 2 3 4 5 6 7 8 9 10 11 12

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC3: Safety		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 73 / 255

FRM5103656/0B

=LA01+UC20
40ft Container, Control Cabinet

-KF201
16 port
100/10 Ethernet Switch

Ethernet
5
Port 5

FC113_24VFB / 45.5
-FC113+ / 38.4
FC113- / 38.4
FC114+ / 38.5
FC114- / 38.5
-X53:4 / 84.1

>=RE01+GB04-GB04-XG01
Cat 6A
FC1 Ethernet
1

-X_PE 1
-X53 1 2 3 4

=RE02+GB04
FCwave #4

-GB04-WD05
CLASSIC 110 CH
5x6
300/500 V
FCwave #1 24V Supply
GNYE 1 2 3 4

-GB04-WG01
Cat.6A PUR
8x24
300 V
FCwave #1 Ethernet

-XZ01
/75.0
/76.0
FCwave #2 Control
Connector
-PE
PE
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD
Not Connected

GB04-X_E01
/75.0
/76.0
FCwave #1
Control Connector
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC4: 24V and Ethernet		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 74 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20
40ft Container, Control Cabinet

Fuel Cell Module OK
GB04_FCM_OK
&C02/9.4
-KE02-Slot05
DI14
X03 29

MD_Enable Signal
GB04_MD_ENABLE
&C02/9.4
DO02
X01 3

51.7
GB04:B2

585 VT 0,5 mm²
586 VT 0,5 mm²

-X63 13 14 15

=RE02+GB04
FCwave #4

-GB04-WG02
/76.0
ÖLFLEX® CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals
13 14 15

FC1_FCM_OK
FC1_H2_EN
FC1_MD_EN

-XZ01
/74.0
FCwave #2 Control Connector
-SlotB
1 2 3

GB04-X_E01
/74.0
/76.0
FCwave #1 Control Connector
-SlotB
1 2 3

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC4: Control		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 75 / 255

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

=LA01+UC20
40ft Container, Control Cabinet

SAFE_Main GB04 | GB04 | >=LB02-KE14 | I4
SAFE_FIRE Safety Signal | GB04_SAFE_FIRE | &C02/9.4 | -KE02-Slot05 | DI08 | X02 22
SAFE_H2CONC Safety Signal | GB04_SAFE_H2CONC | &C02/9.4 | DI09 | X03 24
SAFE_VENT Safety Signal | GB04_SAFE_VENT | &C02/9.4 | DI10 | 25
SAFE_WD Safety Signal | GB04_SAFE_WD | &C02/9.4 | DI11 | 26
SAFE_In GB04 | GB04 | >=LB02-KE14 | Q4
SAFE_FIREMALF Safety Signal | GB04_SAFE_FIREMALF | &C02/9.4 | -KE02-Slot05 | DI12 | X03 27
SAFE_EXTERN Safety Signal | GB04_SAFE_EXTERN | &C02/9.4 | -KE02-Slot05 | DI13 | X03 28

587 VT 0,5 mm² | 588 VT 0,5 mm² | 589 VT 0,5 mm² | 590 VT 0,5 mm² | 591 VT 0,5 mm²
GB04:F6 / 51.7 → 496 OG 0,5 mm²
GB04:F7 / 51.7 → 498 OG 0,5 mm²
GB04:F8 / 51.7 → 497 OG 0,5 mm²
GB04:F9 / 51.7 → 499 OG 0,5 mm²
592 VT 0,5 mm² | 593 VT 0,5 mm² | 594 VT 0,5 mm²

-X63: 1 2 3 4 5 6 7 8 9 10 11 12

=RE02+GB04
FCwave #4

-GB04-WG02
/75.4
CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals
1 2 3 4 5 6 7 8 9 10 11 12
FC1_SAFE_MAIN | FC1_SAFE_FIRE | FC1_SAFE_H2 | FC1_SAFE_VENT | FC1_SAFE_WD | FC1_ESTOP_OUT1 | FC1_ESTOP_OUT2 | FC1_ESTOP_IN1 | FC1_ESTOP_IN2 | FC1_SAFE_IN | FC1_SAFE_FIREMALF | FC1_SAFE_EXTERN

-XZ01
/74.0
FCwave #2 Control Connector
-SlotF: 1 2 3 4 5 6 7 8 9 10 11 12

GB04-X_E01
/74.0
/75.0
FCwave #1 Control Connector
-SlotF: 1 2 3 4 5 6 7 8 9 10 11 12

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC4: Safety		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 76 / 255

FRM5103656/0B

=LA01+UC20
40ft Container, Control Cabinet

-KF201
16 port
100/10 Ethernet Switch

Ethernet
6
Port 6

>=RE01+GB05-GB05-XG01
Cat 6A
FC1 Ethernet

FC121_24VFB / 45.6
-FC121+ / 41.1
FC121- / 41.2
FC121_0VFB / 45.8
FC122+ / 41.3
FC122- / 41.3
-X54:4 / 84.3

-X_PE 1
-X54 1 2 3 4

=RE02+GB05
FCwave #5

-GB05-WD05
CLASSIC 110 CH
5x6
300/500 V
FCwave #1 24V Supply
GNYE 1 2 3 4

-GB05-WG01
Cat.6A PUR
8x24
300 V
FCwave #1 Ethernet

-XZ01
/78.0
/79.0
FCwave #2 Control
Connector
-PE PE
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD Not Connected

GB05-X_E01
/78.0
/79.0
FCwave #1
Control Connector
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC5: 24V and Ethernet		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 77 / 255

=LA01+UC20
40ft Container, Control Cabinet

Fuel Cell Module OK
GB05_FCM_OK
&C02/9.6
-KE02-Slot06
DI07
X02 21

MD_Enable Signal
GB05_MD_ENABLE
&C02/9.6
DO01
X01 2

52.7
GB05:B2

595 VT 0,5 mm²
596 VT 0,5 mm²

-X64 13 14 15

=RE02+GB05
FCwave #5

-GB05-WG02
/79.0
ÖLFLEX® CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals
13 14 15
FC1_FCM_OK
FC1_H2_EN
FC1_MD_EN

-XZ01
/77.0
FCwave #2 Control Connector
-SlotB
1 2 3

GB05-X_E01
/77.0
/79.0
FCwave #1 Control Connector
-SlotB
1 2 3

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC5: Control		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 78 / 255

=LA01+UC20
40ft Container, Control Cabinet

SAFE_Main GB05 | GB05 | >=LB02-KE15 | I2
SAFE_FIRE Safety Signal | GB05_SAFE_FIRE | &C02/9.6 | -KE02-Slot06 | DI01 | X02 15
SAFE_H2CONC Safety Signal | GB05_SAFE_H2CONC | &C02/9.6 | DI02 | 16
SAFE_VENT Safety Signal | GB05_SAFE_VENT | &C02/9.6 | DI03 | 17
SAFE_WD Safety Signal | GB05_SAFE_WD | &C02/9.6 | DI04 | 18
SAFE_In GB05 | GB05 | >=LB02-KE15 | Q2
SAFE_FIREMALF Safety Signal | GB05_SAFE_FIREMALF | &C02/9.6 | -KE02-Slot06 | DI05 | X02 19
SAFE_EXTERN Safety Signal | GB05_SAFE_EXTERN | &C02/9.6 | -KE02-Slot06 | DI06 | X02 20

GB05:F6 / 52.7
GB05:F7 / 52.7
GB05:F8 / 52.7
GB05:F9 / 52.7

597 VT 0,5 mm² | 598 VT 0,5 mm² | 599 VT 0,5 mm² | 600 VT 0,5 mm² | 601 VT 0,5 mm²
507 OG 0,5 mm² | 509 OG 0,5 mm² | 508 OG 0,5 mm² | 510 OG 0,5 mm²
602 VT 0,5 mm² | 603 VT 0,5 mm² | 604 VT 0,5 mm²

-X64 1 2 3 4 5 6 7 8 9 10 11 12

=RE02+GB05
FCwave #5

-GB05-WG02
/78.4
CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals

1 FC1_SAFE_MAIN
2 FC1_SAFE_FIRE
3 FC1_SAFE_H2
4 FC1_SAFE_VENT
5 FC1_SAFE_WD
6 FC1_ESTOP_OUT1
7 FC1_ESTOP_OUT2
8 FC1_ESTOP_IN1
9 FC1_ESTOP_IN2
10 FC1_SAFE_IN
11 FC1_SAFE_FIREMALF
12 FC1_SAFE_EXTERN

-XZ01
/77.0
FCwave #2 Control Connector
-SlotF
1 2 3 4 5 6 7 8 9 10 11 12

GB05-X_E01
/77.0
/78.0
FCwave #1 Control Connector
-SlotF
1 2 3 4 5 6 7 8 9 10 11 12

Reference Item Number	Ballard Part # TBD		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC5: Safety		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 79 / 255

FRM5103656/0B

=LA01+UC20
40ft Container, Control Cabinet

-KF201
16 port
100/10 Ethernet Switch

Ethernet
7
Port 7

FC123_24VFB / 45.7
-FC123+ / 41.4
-FC123- / 41.4
-FC124+ / 41.5
-FC124- / 41.5
-X55:4 / 84.6

>=RE01+GB01-GB01-XG01
/65.3
Cat 6A
FC1 Ethernet

-X_PE 1
-X55 1 2 3 4

=RE02+GB06
FCwave #6

-GB06-WD05
CLASSIC 110 CH
5x6
300/500 V
FCwave #1 24V Supply
GNYE 1 2 3 4

-GB06-WG01
Cat.6A PUR
8x24
300 V
FCwave #1 Ethernet

-XZ01
/81.0
/82.0
FCwave #2 Control Connector
-PE PE
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD Not Connected

GB06-X_E01
/81.0
/82.0
FCwave #1 Control Connector
-SlotA 1 2
-SlotE 1 2
-SlotC 1-8
-SlotD

Reference Item Number	Ballard Part # TBD
EPLAN Project Name	601456B - Shell Baseload Power Hub
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC6: 24V and Ethernet		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 80 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
40ft Container, Control Cabinet

Fuel Cell Module OK
GB06_FCM_OK
&C02/9.6
-KE02-Slot06
DI14
X03 29

MD_Enable Signal
GB06_MD_ENABLE
&C02/9.6
DO02
X01 3

53.7
GB06:B2

0,5 mm² VT 605

0,5 mm² VT 606

-X65 13 14 15

=RE02+GB06
FCwave #6

-GB06-WG02
/82.0
ÖLFLEX® CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals
13 14 15

FC1_FCM_OK
FC1_H2_EN
FC1_MD_EN

-XZ01
/80.0
FCwave #2 Control Connector
-SlotB
1 2 3

GB06-X_E01
/80.0
/82.0
FCwave #1 Control Connector
-SlotB
1 2 3

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC6: Control		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 81 / 255

=LA01+UC20
40ft Container, Control Cabinet

SAFE_Main GB06 | GB06 | >=LB02-KE15 | I4
SAFE_FIRE Safety Signal | GB06_SAFE_FIRE | &C02/9.6 | -KE02-Slot06 | DI08 | X02 22
SAFE_H2CONC Safety Signal | GB06_SAFE_H2CONC | &C02/9.6 | DI09 | X03 24
SAFE_VENT Safety Signal | GB06_SAFE_VENT | &C02/9.6 | DI10 | 25
SAFE_WD Safety Signal | GB06_SAFE_WD | &C02/9.6 | DI11 | 26
SAFE_In GB06 | GB06 | >=LB02-KE15 | Q4
SAFE_FIREMALF Safety Signal | GB06_SAFE_FIREMALF | &C02/9.6 | -KE02-Slot06 | DI12 | X03 27
SAFE_EXTERN Safety Signal | GB06_SAFE_EXTERN | &C02/9.6 | -KE02-Slot06 | DI13 | X03 28

607 VT 0,5 mm² | 608 VT 0,5 mm² | 609 VT 0,5 mm² | 610 VT 0,5 mm² | 611 VT 0,5 mm²
GB06:F6 / 53.7 — 516 OG 0,5 mm²
GB06:F7 / 53.7 — 518 OG 0,5 mm²
GB06:F8 / 53.7 — 517 OG 0,5 mm²
GB06:F9 / 53.7 — 519 OG 0,5 mm²
612 VT 0,5 mm² | 613 VT 0,5 mm² | 614 VT 0,5 mm²

-X65 1 2 3 4 5 6 7 8 9 10 11 12

=RE02+GB06
FCwave #6

-GB06-WG02
/81.4
CLASSIC 110 CH
18x0,75
300/500 V
Fcwave #1 24V Signals
1 2 3 4 5 6 7 8 9 10 11 12
FC1_SAFE_MAIN | FC1_SAFE_FIRE | FC1_SAFE_H2 | FC1_SAFE_VENT | FC1_SAFE_WD | FC1_ESTOP_OUT1 | FC1_ESTOP_OUT2 | FC1_ESTOP_IN1 | FC1_ESTOP_IN2 | FC1_SAFE_IN | FC1_SAFE_FIREMALF | FC1_SAFE_EXTERN

-XZ01
/80.0
FCwave #2 Control Connector
-SlotF
1 2 3 4 5 6 7 8 9 10 11 12

GB06-X_E01
/80.0
/81.0
FCwave #1 Control Connector
-SlotF
1 2 3 4 5 6 7 8 9 10 11 12

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - FC6: Safety		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 82 / 255

FRM5103656/0B

=LA01+UC20
Container Control Cabinet, 40ft

-X50:4 / 65.2
GB01_H2EN / 48.7
-X51:4 / 68.2
GB02_H2EN / 49.7
-X52:4 / 71.2
GB03_H2EN / 50.7

0,5 mm² WH 615
0,5 mm² WH 464
0,5 mm² WH 616
0,5 mm² WH 474
0,5 mm² WH 617
0,5 mm² WH 485

-X106 1 2 3 4 5 6

X106 / 84.1

=HA01+DA02-AC01
Hydrogen Supply System - Non EX Box

-XT07
EX Cable gland
Wall pass-through

AC01-WG01
H2 Valve Connections
300/500 V
18x0,75
6 m
ÖLFLEX® CLASSIC 110 CH
/84.1

XD01 / 84.1

-XD01 1 2 3 4 5 6

=HA01+DA02
Hydrogen Supply System

-QM1.1-WG01
ÖLFLEX® CLASSIC 110 CH
3x1
300/500 V
-QM1.1 x1 x2

-QM1.2-WG01
ÖLFLEX® CLASSIC 110 CH
3x1
300/500 V
-QM1.2 x1 x2

-QM1.3-WG01
ÖLFLEX® CLASSIC 110 CH
3x1
300/500 V
-QM1.3 x1 x2

-QM2.1-WG01
ÖLFLEX® CLASSIC 110 CH
3x1
300/500 V
-QM2.1 x1 x2

-QM2.2-WG01
ÖLFLEX® CLASSIC 110 CH
3x1
300/500 V
-QM2.2 x1 x2

-QM2.3-WG01
ÖLFLEX® CLASSIC 110 CH
3x1
300/500 V
-QM2.3 x1 x2

Reference Item Number	Ballard Part # TBD		
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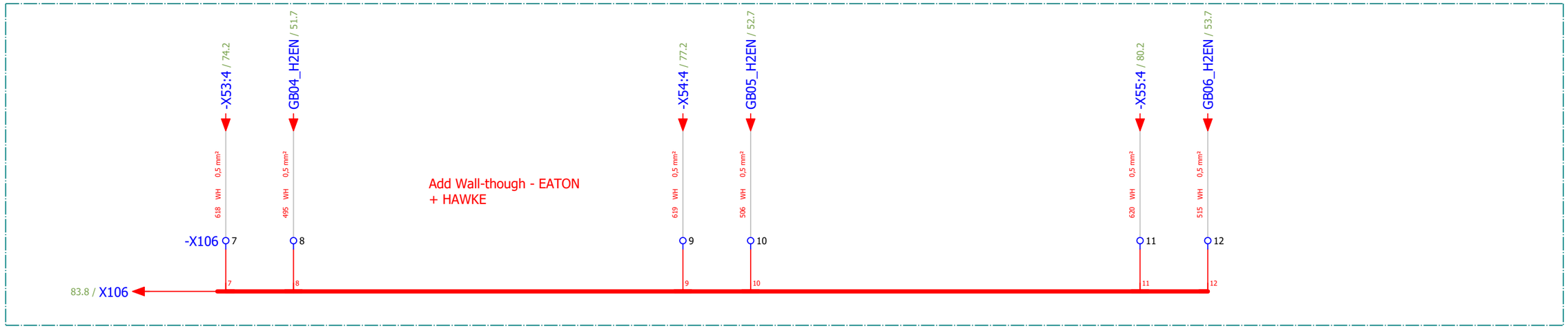
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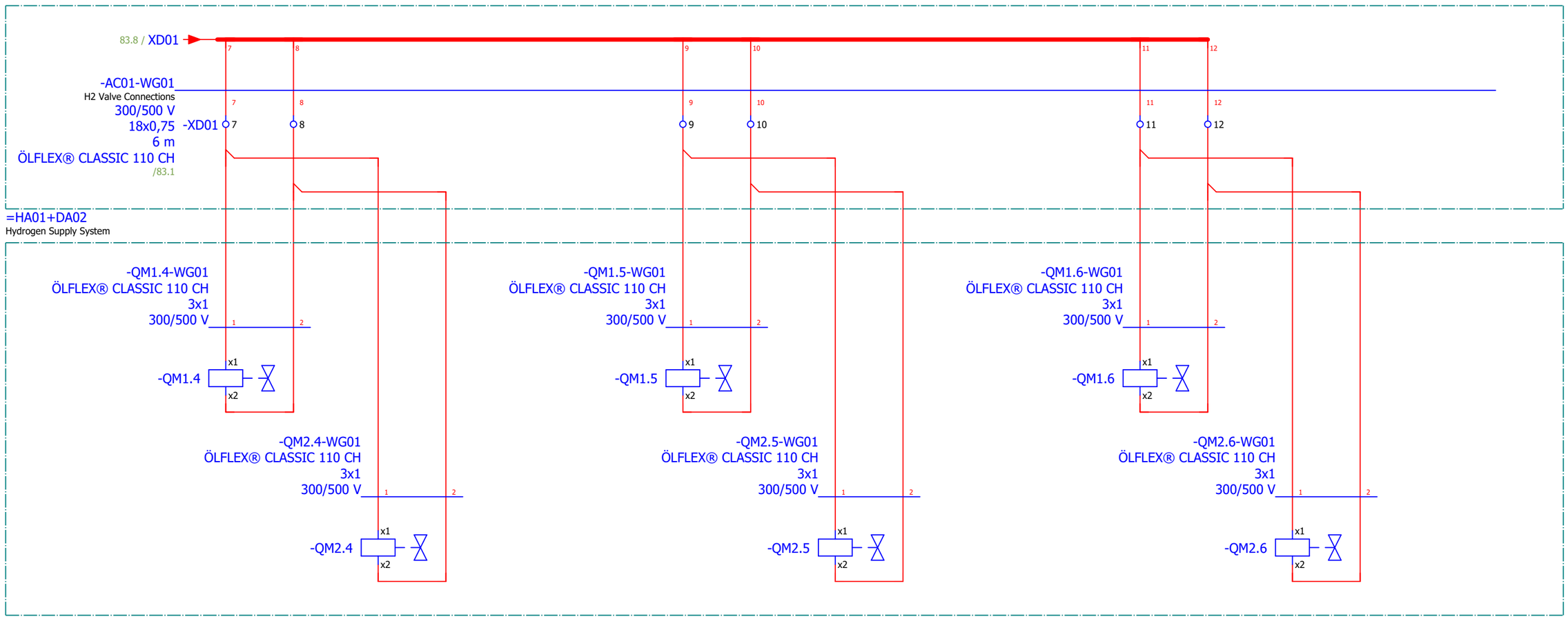
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Hydrogen Valve Cable FC1 - FC3		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 83 / 255

=LA01+UC20
Container Control Cabinet, 40ft



=HA01+DA02-AC01
Hydrogen Supply System - Non-EX Box



Reference Item Number	Ballard Part # TBD		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Hydrogen Valve Cable FC4 -FC6		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 84 / 255

FRM5103656/0B

=LA01+UC20
Container Control Cabinet, 40ft Container

Condensate Drain Tank High Level
JB01_BL02_LSH
&C02/6.1
-KE01-Slot4
AI4
X03 28

Heatracing drain
JB01_QB18_EB01
&C02/5.6
-KE01-Slot3
DO4.1
X01 10 11

622

30.5 / -X202:2.2

A1
-QB18
A2

30.7 / -X202:-2.2

621

31.4 / -X204:1.1

31.6 / -X204:-1.1

-X110 1 2 3 4

20.3 -FC18:1
20.3 -FC18:2
20.4 -FC18:PE

=JA01+DA01
Condensate Drain System, Inside 40ft Container

-BL02-WG01
PUR
10 m
4x0,34
50/60 V
Process Drain Tank Level Signal
BN BU BK WH

-BL01-XG01
M12 F
1 2 3 4

-BL02
Process Water
Catchment Tank
Level Transmitter
1 L+
3 L-
4 Out 1/ IO-Link
2 Out 2
V

-EB01
/90.0
Heatracing drain line
L
PE
N

1 2
R3 R4
R5 R6
7 8
13 14 /20.3
23 24 /20.3

Reference Item Number	Ballard Part # TBD		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Fuel Cell Drain line		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 85 / 255

=LA01+UC20
Control Cabinet

Cabinet temperature UC01
UC01_BT01_TT
&C02/12.1
-KE03-Slot4
AI1 AI20 AI21
X01 1 2 3
623 624 625

Cabinet temperature UC02
UC02_BT01_TT
&C02/12.1
-KE03-Slot4
AI4 AI23 AI24
X02 4 5 6
626 627 628

Cabinet temperature UC03
UC03_BT01_TT
&C02/12.1
AI7 AI26 AI27
X03 7 8 9
629 630 631

-X120 1 2 3 4 5 6 7 8 9 10 11 12

=BA01+UC01
DC/DC cabinet 1

-BT01-WG01
PUR
10 m
4x0,34
50/60 V
FC1 HT Outlet Temp Signal
BN WH BU BK

-BT01-XG01
M12 F
1 2 3 4

-BT01
EL: 160 mm
FC1 HT Outlet
Temperature
1 2 3 4
PT1000
M12

=BA01+UC02
DC/DC cabinet 2

-BT01-WG01
PUR
10 m
4x0,34
50/60 V
FC1 HT Outlet Temp Signal
BN WH BU BK

-BT01-XG01
M12 F
1 2 3 4

-BT01
EL: 160 mm
FC1 HT Outlet
Temperature
1 2 3 4
PT1000
M12

=BA01+UC03
DC/DC cabinet 3

-BT01-WG01
PUR
10 m
4x0,34
50/60 V
FC1 HT Outlet Temp Signal
BN WH BU BK

-BT01-XG01
M12 F
1 2 3 4

-BT01
EL: 160 mm
FC1 HT Outlet
Temperature
1 2 3 4
PT1000
M12

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container -DC/DC cab 1 - 3 Temperature		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 86 / 255

=LA01+UC20
Control Cabinet

Cabinet temperature UC04
UC04_BT01_TT
&C02/12.1
-KE03-Slot4
AI10 AI20 AI21
X04 10 11 12
632 633 634
-X120 13 14 15 16

Cabinet temperature UC05
UC05_BT01_TT
&C02/12.1
AI13 AI23 AI24
X05 13 14 15
635 636 637
17 18 19 20

Cabinet temperature UC06
UC06_BT01_TT
&C02/12.1
AI16 AI23 AI24
X06 16 17 18
638 639 640
21 22 23 24

=BA02+UC04
DC/DC cabinet 4

-BT01-WG01
PUR
10 m
4x0,34
50/60 V
FC1 HT Outlet Temp Signal
BN WH BU BK

-BT01-XG01
M12 F
1 2 3 4

-BT01
EL: 160 mm
FC1 HT Outlet
Temperature
1 2 3 4
PT1000
M12

=BA02+UC05
DC/DC cabinet 5

-BT01-WG01
PUR
10 m
4x0,34
50/60 V
FC1 HT Outlet Temp Signal
BN WH BU BK

-BT01-XG01
M12 F
1 2 3 4

-BT01
EL: 160 mm
FC1 HT Outlet
Temperature
1 2 3 4
PT1000
M12

=BA02+UC06
DC/DC cabinet 6

-BT01-WG01
PUR
10 m
4x0,34
50/60 V
FC1 HT Outlet Temp Signal
BN WH BU BK

-BT01-XG01
M12 F
1 2 3 4

-BT01
EL: 160 mm
FC1 HT Outlet
Temperature
1 2 3 4
PT1000
M12

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

REVISION INFORMATION	
DESCRIPTION	
DATE	
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - DC/DC cab 4 - 6 Temperature		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 87 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Control Cabinet, 40ft Container

39.7 / L1
39.7 / L2
39.7 / L3
39.7 / PE

101
213
229
250

L1 / 89.0
L2 / 89.0
L3 / 89.0
PE / 89.0

-FC16
/42.3
6A, B-curve
MCCB, DCDC Cooling Fan A

-FC17
/42.3
6A, B-curve
MCCB, DCDC Cooling Fan B

209
225
240
210
226
241

-X16 PE 1 2 3
-X17 PE 1 2 3

108.7
>=LA01-WG206
BN WH
641
643

=JA01+DA01
Power Converters Cooling 40ft Container

-GQ08-WD01
ÖLFLEX® CLASSIC 135 CH BK 0,6/1 kV
4x2,5
0,6/1,0 kV
GNYE 1 2 3

-GQ09-WD01
ÖLFLEX® CLASSIC 135 CH BK 0,6/1 kV
4x2,5
0,6/1,0 kV
GNYE 1 2 3

-AC07-WG01
/108.5
BUS CAN FD P
2x0,5
300 V
Ventilation (Upper) Signal
BN WH

-AC08
93x93mm
Junction Box

-AC07
93x93mm
Junction Box

-RE01
643
641
120 Ω
1 2 3 4

-GQ08-WD02
0,6/1 kV
4x2,5
0,6/1,0 kV
DCDC Cooling Fan A Power
GNYE BN BK GY

-GQ08-WG01
2x0,5
300 V
DCDC Cooling Fan B Signal
BN
WH

-GQ09-WD02
0,6/1 kV
4x2,5
0,6/1,0 kV
DCDC Cooling Fan B Power
GNYE BN BK GY

-GQ09-WG01
2x0,5
300 V
DCDC Cooling Fan A Signal
BN WH

-GQ08
1kW
DCDC Cooling Fan A
PE PE L1 L2 L3 NC COM 0-10V RSB RSA GND 10V
1 2 3 4 5 6 7 8 10 11 12 13
M 3~
PE

-GQ09
1kW
DCDC Cooling Fan B
PE PE L1 L2 L3 NC COM 0-10V RSB RSA GND 10V
1 2 3 4 5 6 7 8 10 11 12 13
M 3~
PE

Reference Item Number	Ballard Part # TBD		
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=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - DCDC Ventilation Fans		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 88 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Control Cabinet, 40ft Container

88.8 / L1
88.8 / L2
88.8 / L3
88.8 / PE
101
213
229
250
L1 /
L2 /
L3 /
PE /

-FC11
6A, B-curve
MCCB, Ventiation Fan A
1 3 5
2 4 6
211 227 242

-FC12
/42.2
6A, B-curve
MCCB, Ventilation Fan B
1 3 5
2 4 6
212 228 243

108.7
>=LA01-WG202
WH OR SH

-X11 1 2 3 PE
-X12 1 2 3 PE

=JA01+DA01
Container Ventilation System 40ft Container Inside

-GQ06-WD01
/89.0
0,6/1 kV
4x2,5
0,6/1,0 kV
Ventilation (Upper) Supply
BK 1 BK 2 BK 3 GNYE

-GQ06-WG01
/108.4
BUS CAN FD P
2x0,5
300 V
Ventilation (Upper) Signal
WH OR SH

WH BN

-GQ07-WD01
/89.5
0,6/1 kV
4x2,5
0,6/1,0 kV
Ventilation (Lower) Supply
BK 1 BK 2 BK 3 GNYE

-GQ07-WG01
BUS CAN FD P
2x0,5
300 V
Ventilation (Upper) Signal
WH BN SH
WH BN

-GQ06-WD01
/89.1
1 2 3 PE

-GQ06-XD01
4x2,5
1 2 3 PE
211 227 242 250

-GQ06
4,3 kW
Container Ventilation Fan
(Upper)
L1 L2 L3 PE
GND IO1 IO2 IO3 Vout GND RSA RSB RSA RSB
-CON1
-CON2
M
3~

-GQ07-WD01
/89.5
1 2 3 4

-GQ07-XD01
4x2,5
1 2 3 PE
212 228 243 250

-GQ07
4,3 kW
Container Ventilation Fan
(Lower)
L1 L2 L3 PE
GND IO1 IO2 IO3 Vout GND RSA RSB RSA RSB
-CON1
-CON2
M
3~

644 642
-GQ07-RA01
120Ω
RS485 Termination
Resistor

Reference Item Number	Ballard Part # TBD		
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=	++	+ UC20	& C03

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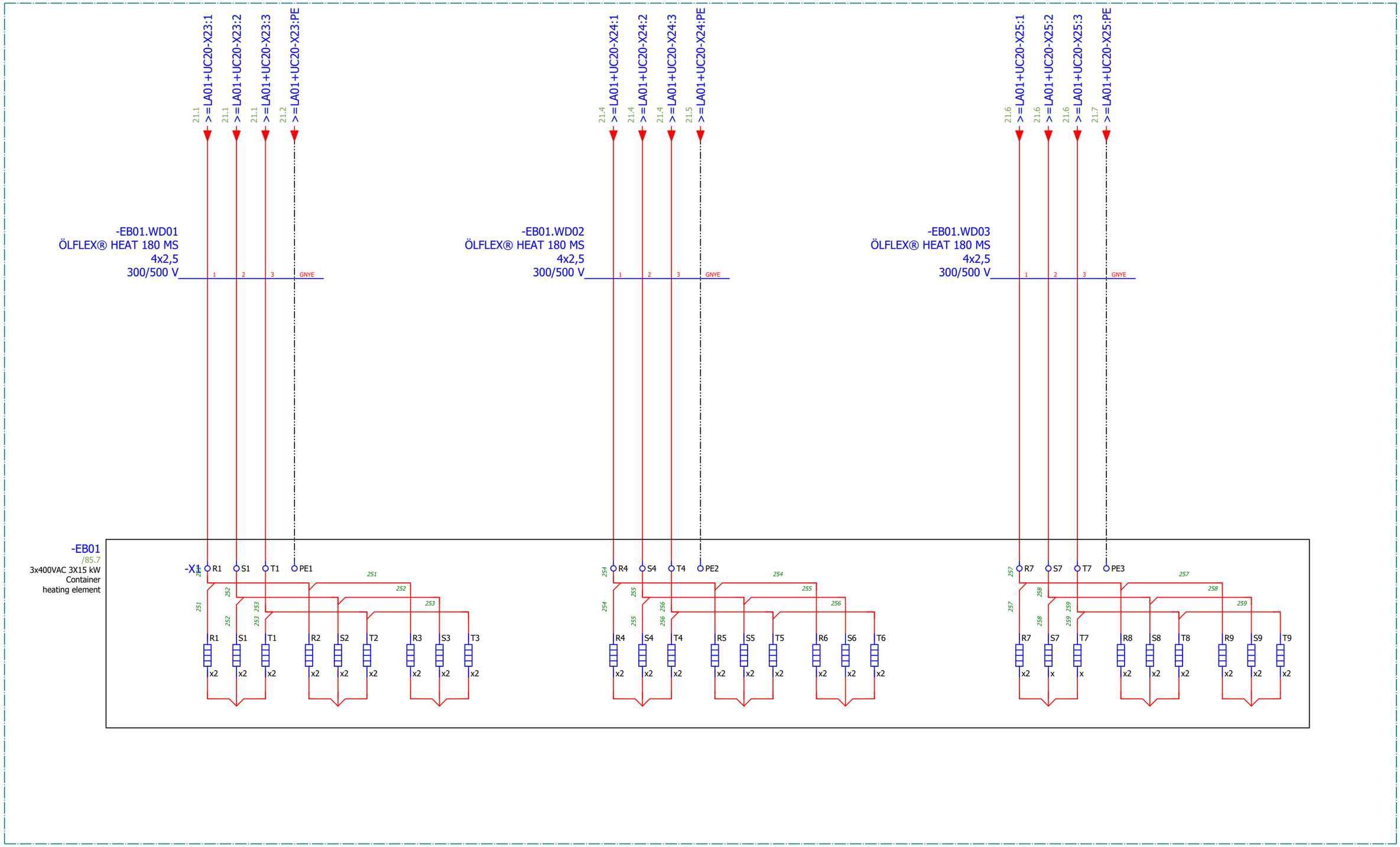
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Ventilation Intake Fans		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 89 / 255

=JA01+DA01

Container Safety System, Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
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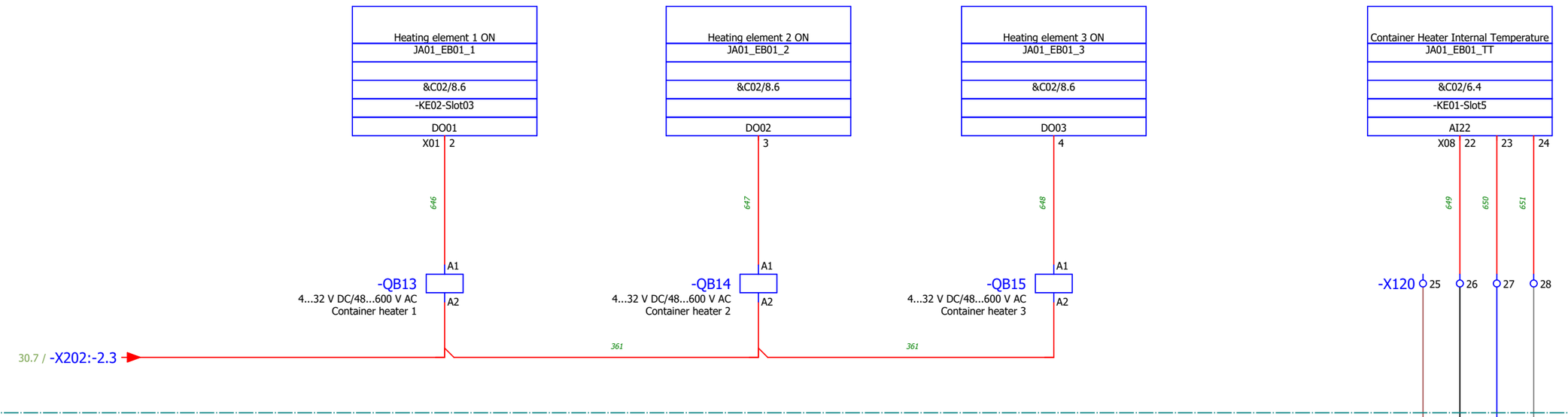
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft container heater		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 90 / 255

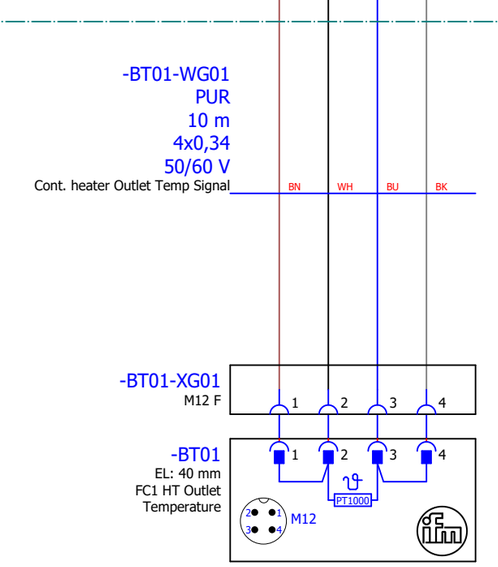
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0	1	2	3	4	5	6	7	8

=LA01+UC20



=JA01+UC07
Container Heating System
40ft Container



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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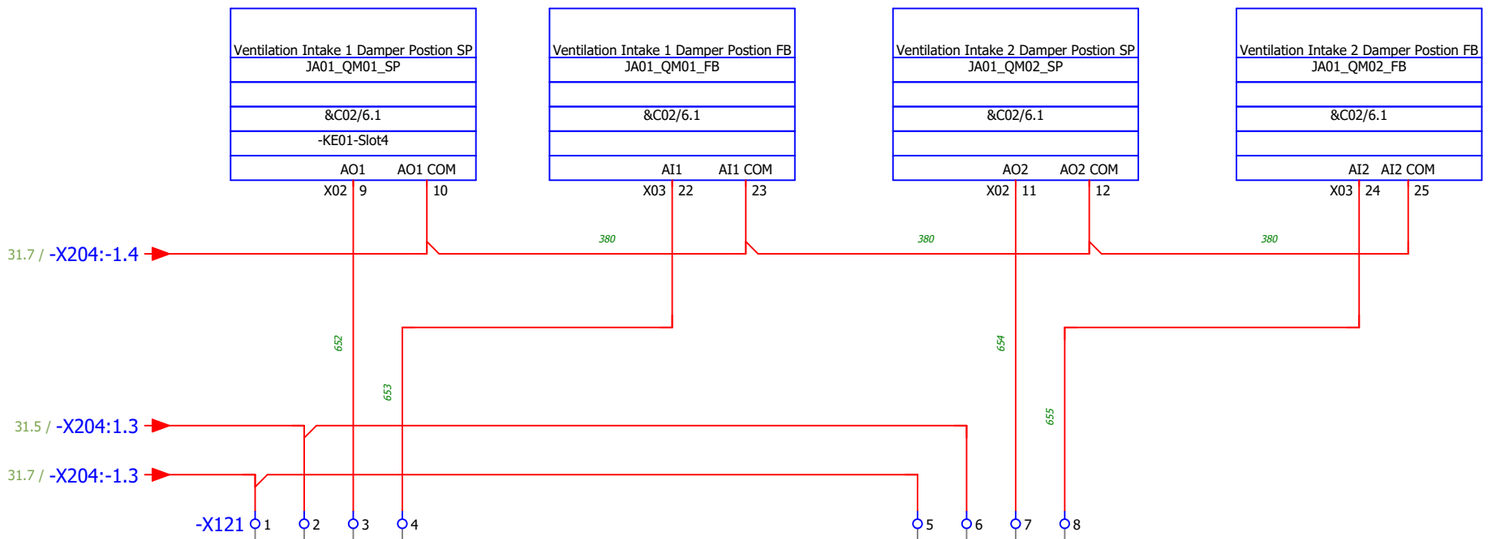
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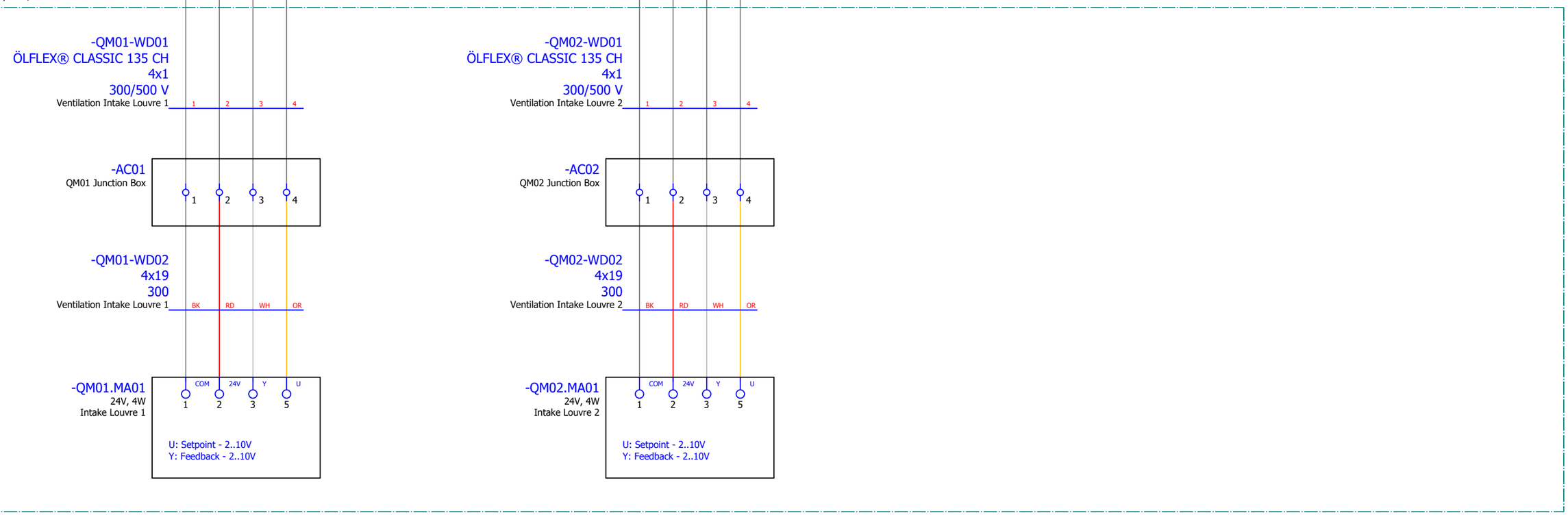
DRAWING	601456B UC20 40ft Control Cabinet		REVISION	12	
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet				
SHEET TYPE/DESC	40ft Container - Container Heating Control				
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL	91 / 255	

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Control System, Container #1 Inside



=JA01+DA01
Ventilation System, Container #1 Inside



Reference Item Number	Ballard Part # TBD		
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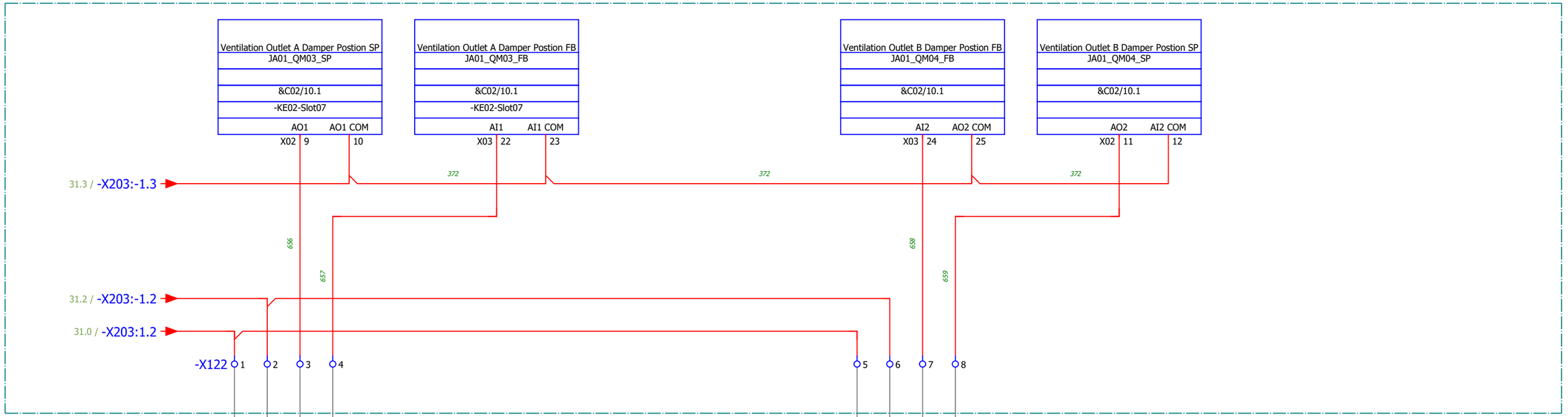
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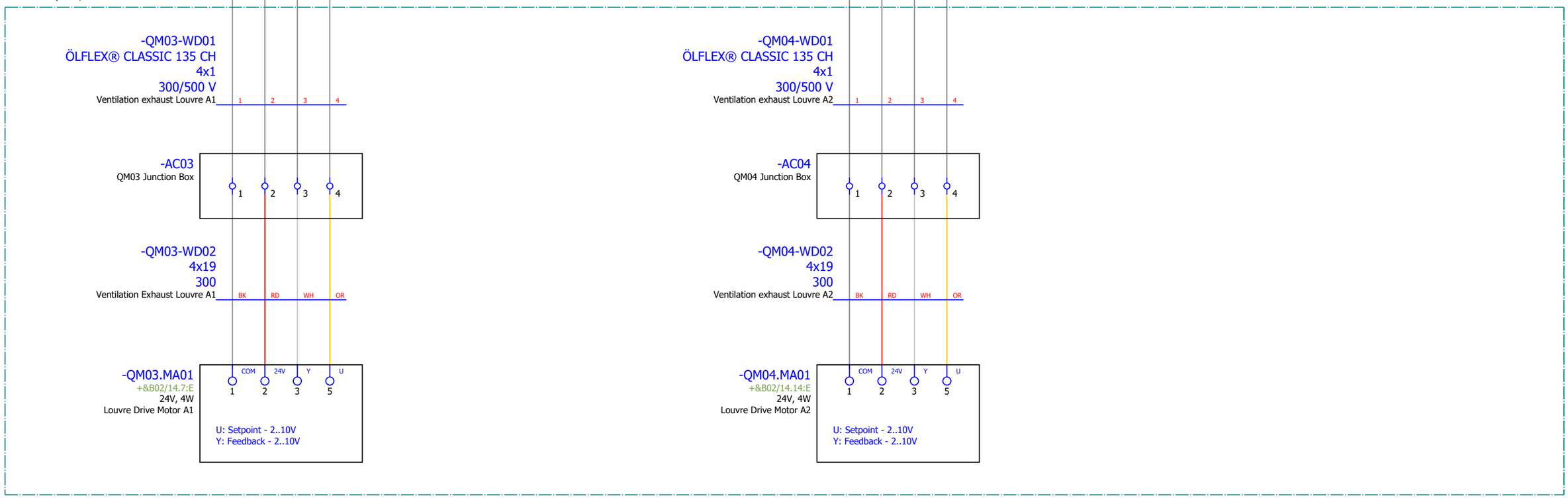
DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Container Intake Louvres		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 92 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Control System, Container #1 Inside



=JA01+DA01
Ventilation System, Container #1 Inside



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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=	++	+ UC20	& C03

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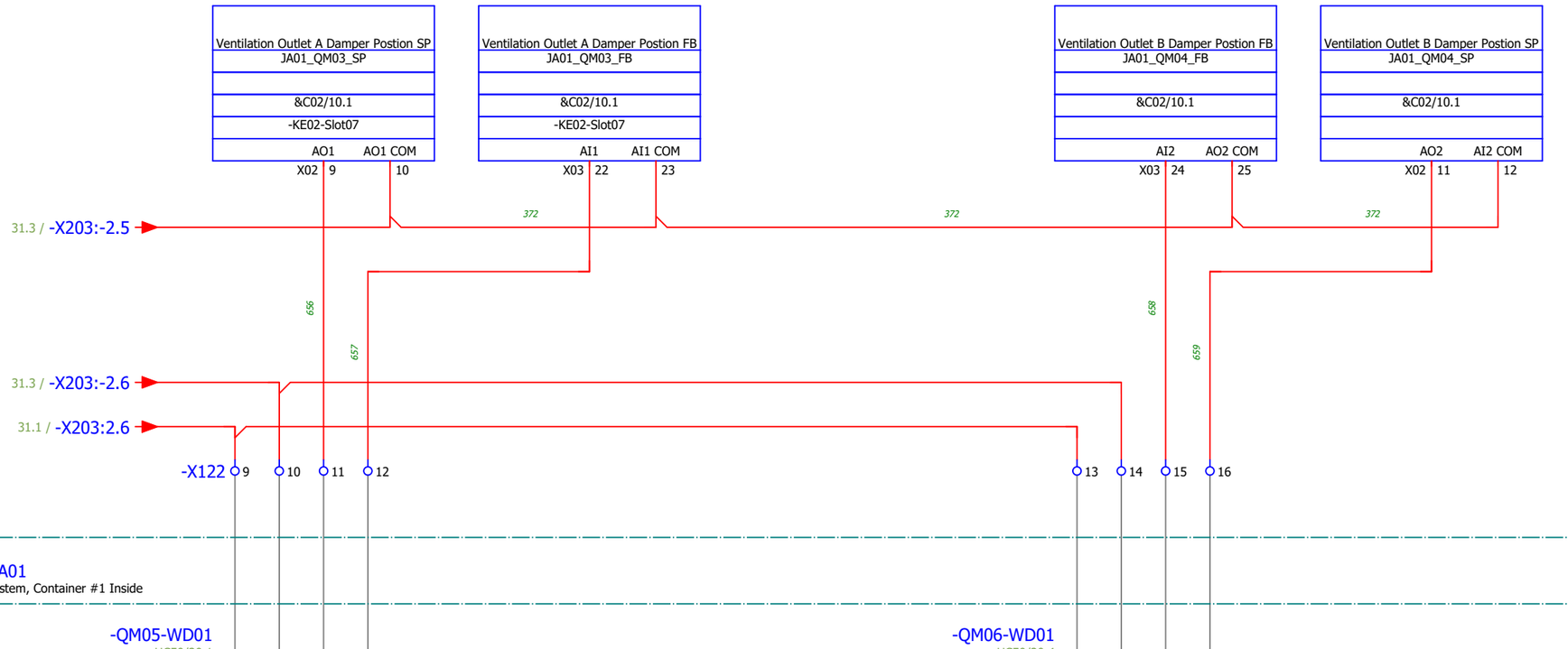
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Container Exhaust Louvre A		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 93 / 255

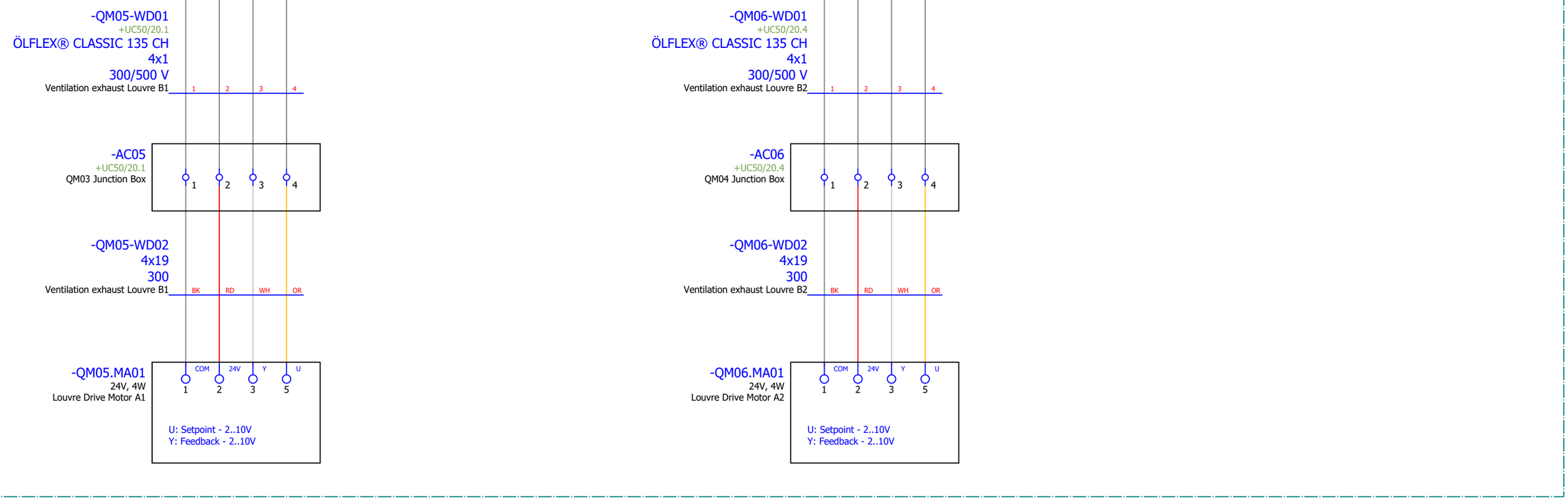
FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Control System, Container #1 Inside



=JA01+DA01
Ventilation System, Container #1 Inside



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Container Exhaust Louvre B		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 94 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Control System, Container #1 Inside

Container Indoor/Outdoor Diffential Pressure
JA01_BP02_PDT
&C02/6.4
-KE01-Slot5
AI6 AI6
X06 17 18

Ventilation Intake Filter Differential-pressure
JA01_BP01_PDT
&C02/6.4
-KE01-Slot5
AI5 AI5
X05 14 15

31.3 / -X203:-1.5
374
660
661
31.1 / -X203:1.4
31.3 / -X203:-1.4
-X123 1 2 3 4 5 6

=JA01+DA01
Ventilation System, Container #1 Inside

-BP02-WD01
ÖLFLEX® CLASSIC 110 CH
4x1
300/500 V
In/Out dP Sensor 1 2 3

-BP02
Container Indoor/Outdoor Diffential Pressure Sensor
UB+ GND AOU1 AOI1
AC/DC 24 V
DC 0...5/10V
DC 4...20mA
ON 1 2 3 4 5 6
Setting: -100 to 100 Pa

-BP01-WD01
ÖLFLEX® CLASSIC 110 CH
4x1
300/500 V
Intake dP Sensor 1 2 3

-BP01
Intake dP Transducer
UB+ GND AOU1 AOI1
AC/DC 24 V
DC 0...5/10V
DC 4...20mA
ON 1 2 3 4 5 6
Setting: 0 to 500 Pa

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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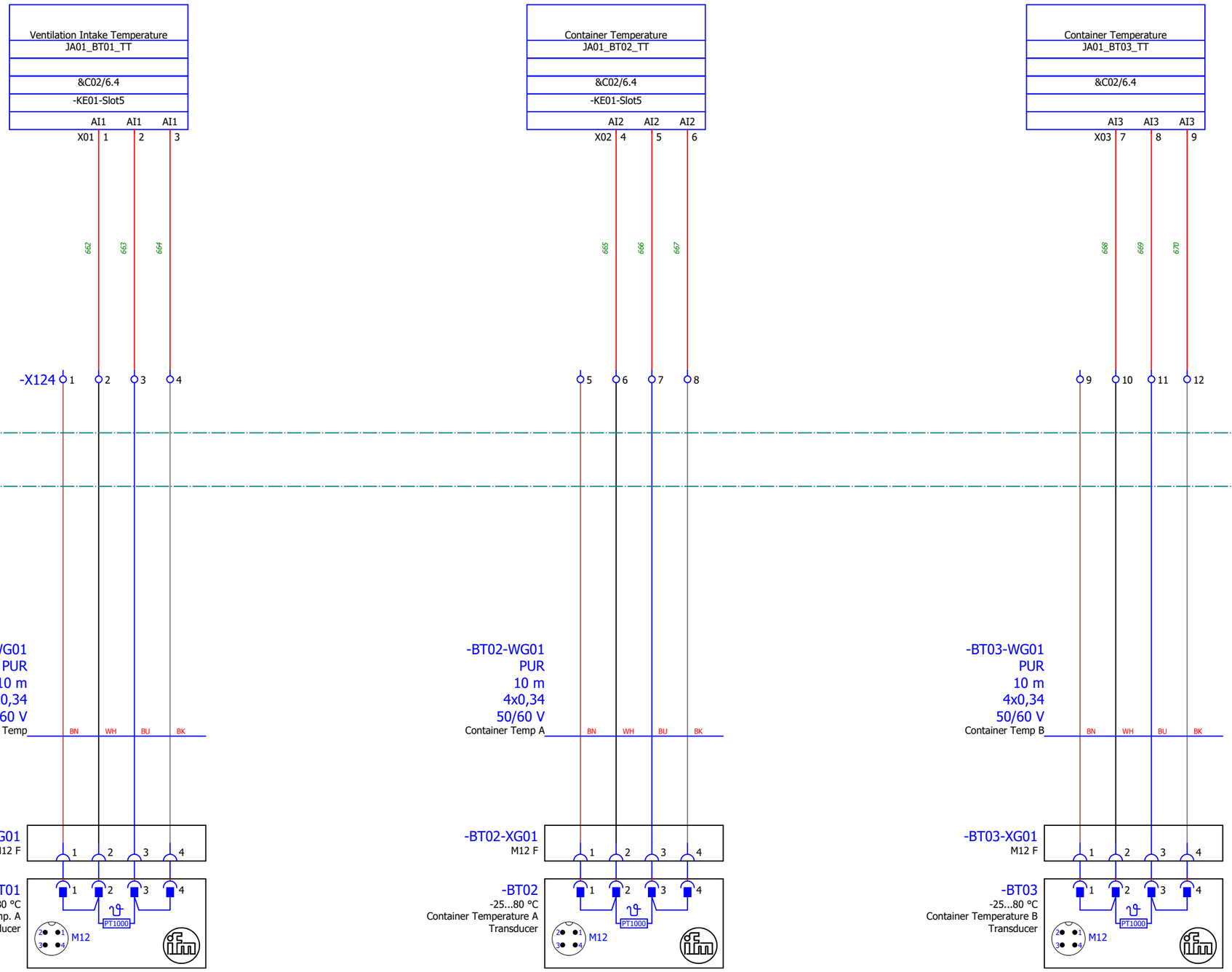
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Container In/Out and Filter Diff Pressure		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 95 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Control System, Container #1 Inside



Reference Item Number	Ballard Part # TBD		
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=	++	+ UC20	& C03

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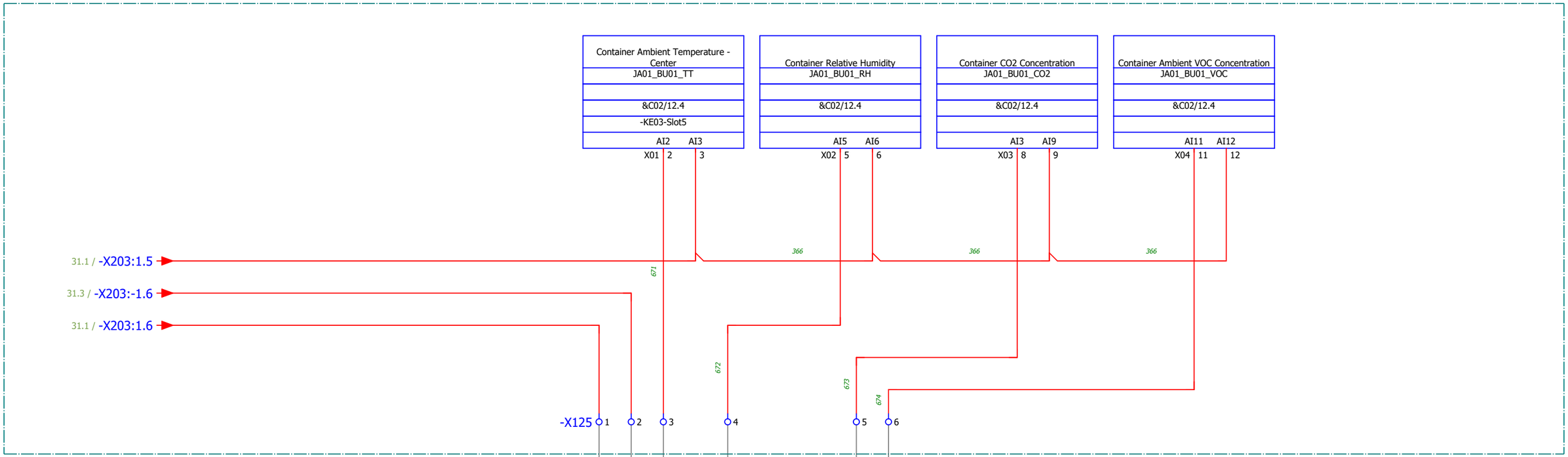
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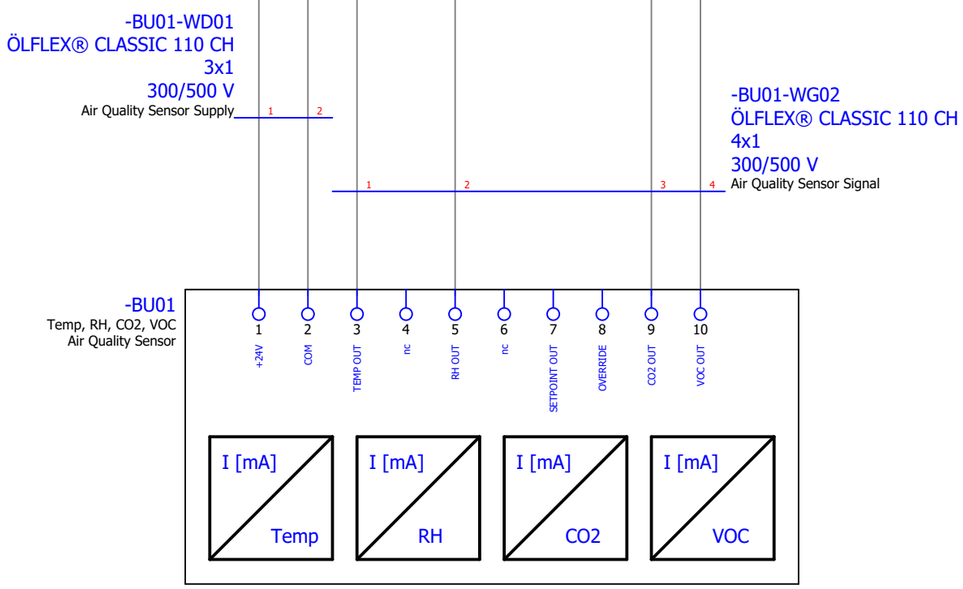
DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Container Temp Sensors		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 96 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Control Cabinet, 40ft Container



=JA01+DA01
40ft Container, Ventilation System



Reference Item Number	Ballard Part # TBD		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Container Air Quality Sensor		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 97 / 255

=HE03+DA01
LT Coolant System

-GP11.WD01
/98.1
ÖLFLEX® CLASSIC 135 CH
4x2,5
300/500 V
Power supply LT Pump

>=LA01+UC20-X10:1 20.1
>=LA01+UC20-X10:2 20.1
>=LA01+UC20-X10:3 20.1
>=LA01+UC20-X10:PE 20.2

-TA11
/58.2
/98.4
/98.4
4kW, 3x 380-500 VAC

L1 L2 L3 PE1
INPUT

VACON
Vacon NXP
NXP00095-A5H1SSV

MOTOR DC SUPPLY BRAKE
U/T1 V/T2 W/T3 PE2 B- B+/R+ R-

-GP11.WD02
/98.1
ÖLFLEX® CLASSIC 135 CH
4x2,5
300/500 V
Power supply LT Pump

U1 V1 W1
M
3~
-GP11
4kW
LT
Coolant Pump
PE

55.6 / >=LA01+UC20-X108:13

-GP11-WG01
/55.2
ÖLFLEX CLASSIC 110
3G1
300 V
24 VDC supply VFD LT Pump

-TA11
/58.2
/98.1
/98.4
OPT-A1
Danfoss Vacon Control Unit

1 Vref
2 AI1+
3 AI1-
4 AI2+
5 AI2-
6 24V Supply
7 GND Supply
8 DIN1
9 DIN2
10 DIN3
11 CMA
12 24V Supply
13 GND Supply
14 DIN4
15 DIN5
16 DIN6
17 CMB
18 AO1+
19 AO1-
20 DO1

Danfoss Vacon NX
OPT-A1 Control Board

GP11.WG3 /

-TA11
/58.2
/98.1
/98.4

1 RJ-45
2 RJ-45

LED Indications
RN ER BS

VACON
VACON NX
Dual Port Ethernet option board
OPT-E9

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

REVISION INFORMATION	
DESCRIPTION	
DATE	29-Sep-25

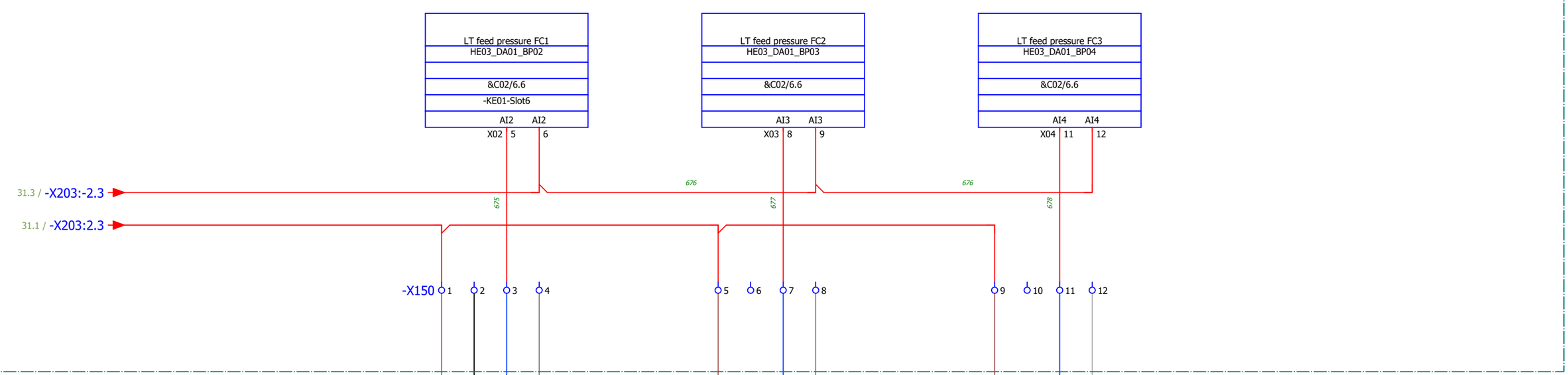
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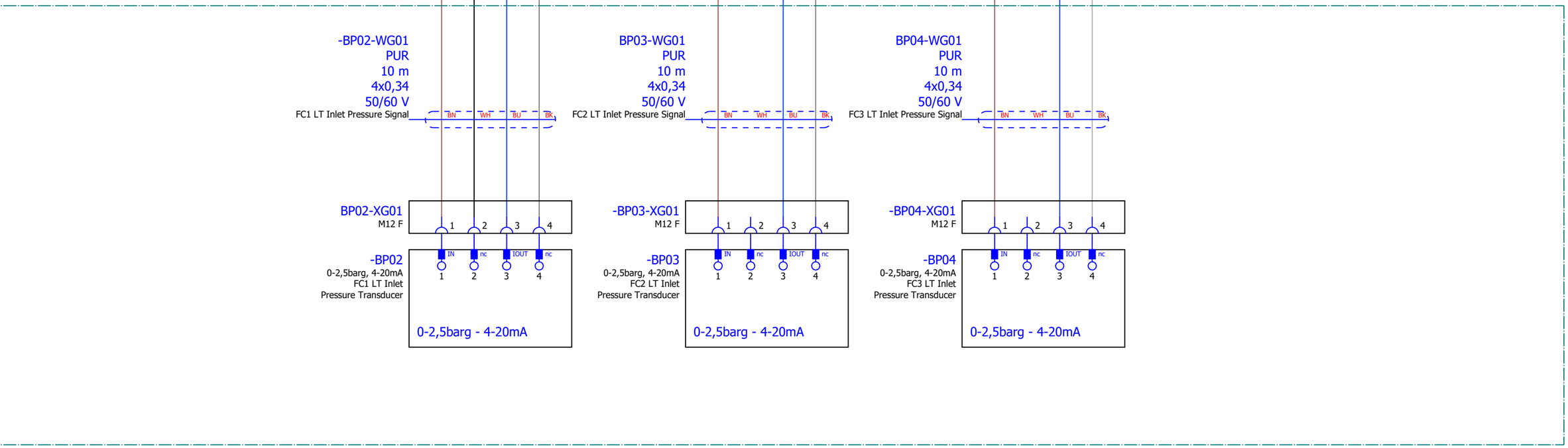
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft container - LT Pump Power Supply		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 98 / 255

=LA01+UC20



=HE03+DA01



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DESCRIPTION	
DATE	29-Sep-25

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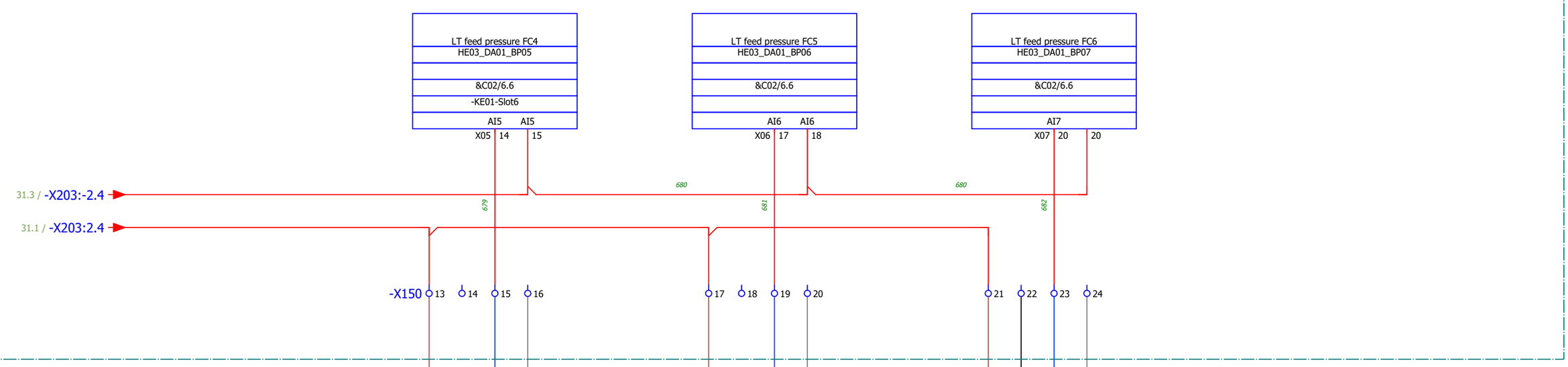
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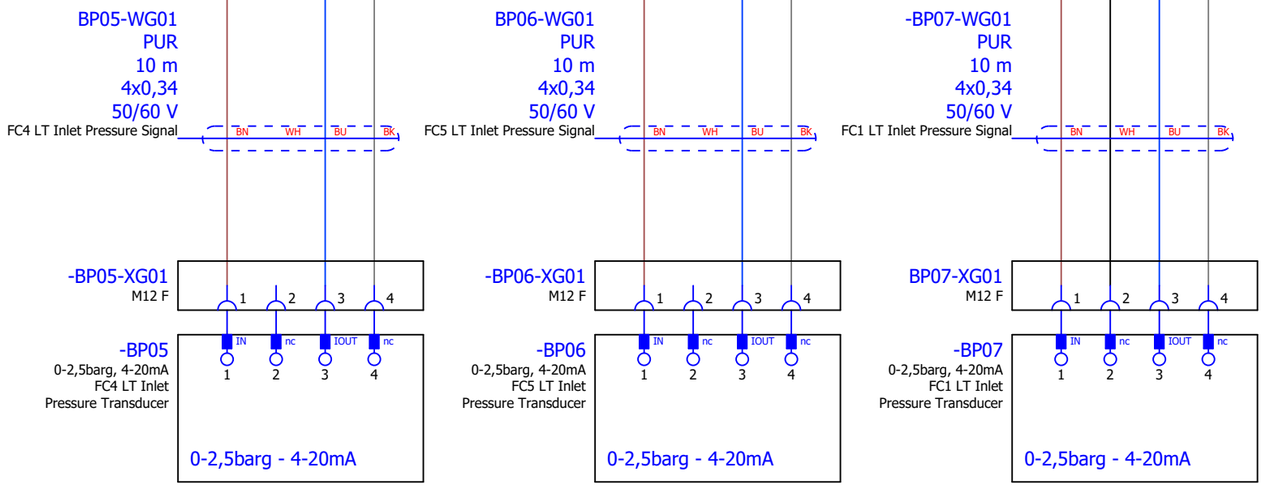
DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - LT Cooling System		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 99 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20



=HE03+DA01



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - LT Cooling System		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 100 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20

LT Circuit Differential-pressure
HE03_DA01_BP01
&C02/6.4
-KE01-Slot5
AI7 AI7
X07 20 21

31.3 / -X203:-2.1

683

31.1 / -X203:2.1

-X150 25 26 PE

=HE03+DA01

-BP01-WG01
ÖLFLEX® CLASSIC 110 CH
3x1
300/500 V
LT Circuit dP Signal
1 2 3

-BP01-XD01
DIN 43650 Form A
Valve Plug
1 2 3 PE

-BP01
LT Circuit
Differential-pressure
Transmitter
UB+ nc AOU1 PE
AC/DC
24 V
DC
4..20mA
0..4 barg

BELIMO

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - LT Cooling System		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 101 / 255

=LA01+UC20
Control Cabinet

FC1 HT Coolant Outlet Temperature
HE03_DA01_BT01
&C02/11.6
-KE03-Slot3
AI19 AI20 AI21
X07 19 20 21

FC2 HT Coolant Outlet Temperature
HE03_DA01_BT02
&C02/11.6
-KE03-Slot3
AI22 AI23 AI24
X08 22 23 24

FC3 HT Coolant Outlet Temperature
HE03_DA01_BT03
&C02/11.6
AI25 AI26 AI27
X09 25 26 27

684 685 686 687 688 689 690 691 692

-X160 1 2 3 4 5 6 7 8 9 10 11 12

=HE01+DA01
HT Coolant System #1, Inside 40ft Container

-BT01-WG01
PUR
10 m
4x0,34
50/60 V
FC1 HT Outlet Temp Signal
BN WH BU BK

-BT02-WG01
PUR
10 m
4x0,34
50/60 V
FC2 HT Outlet Temp Signal
BN WH BU BK

-BT03-WG01
PUR
10 m
4x0,34
50/60 V
FC3 HT Outlet Temp Signal
BN WH BU BK

-BT01-XG01
M12 F
1 2 3 4

-BT02-XG01
M12 F
1 2 3 4

-BT03-XG01
M12 F
1 2 3 4

-BT01
EL: 160 mm
FC1 HT Outlet Temperature
1 2 3 4
PT1000
M12

-BT02
EL: 160 mm
FC2 HT Outlet Temperature
1 2 3 4
PT1000
M12

-BT03
EL: 160 mm
FC3 HT Outlet Temperature
1 2 3 4
PT1000
M12

Reference Item Number	Ballard Part # TBD
EPLAN Project Name	601456B - Shell Baseload Power Hub
EPLAN Revision	12
EPLAN Project Pages	627
=	++ + UC20 & C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - HT #1/2 Module Outlet Temperature		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 102 / 255

0	1	2	3	4	5	6	7	8

=LA01+UC20
Control Cabinet

FC4 HT Coolant Outlet Temperature
HE03_DA01_BT04
&C02/12.1
-KE03-Slot4
AI19 AI20 AI21
X07 19 20 21

FC5 HT Coolant Outlet Temperature
HE03_DA01_BT05
&C02/12.1
AI22 AI23 AI24
X08 22 23 24

FC6 HT Coolant Outlet Temperature
2HE03_DA01_BT06
&C02/12.1
AI25 AI23 AI24
X09 25 23 24

693 694 695 696 697 698 699 700 701

-X160 13 14 15 16 17 18 19 20 21 22 23 24

=HE02+DA01
HT Coolant System #2, Inside 40ft Container

-BT04-WG01
PUR
10 m
4x0,34
50/60 V
FC4 HT Outlet Temp Signal
BN WH BU BK

-BT05-WG01
PUR
10 m
4x0,34
50/60 V
FC5 HT Outlet Temp Signal
BN WH BU BK

-BT06-WG01
PUR
10 m
4x0,34
50/60 V
FC5 HT Outlet Temp Signal
BN WH BU BK

-BT04-XG01
M12 F
1 2 3 4

-BT05-XG01
M12 F
1 2 3 4

-BT06-XG01
M12 F
1 2 3 4

-BT04
EL: 160 mm
FC4 HT Outlet Temperature
1 2 3 4
PT1000
M12
2 1 3 4

-BT05
EL: 160 mm
FC5 HT Outlet Temperature
1 2 3 4
PT1000
M12
2 1 3 4

-BT06
EL: 160 mm
FC5 HT Outlet Temperature
1 2 3 4
PT1000
M12
2 1 3 4

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DESCRIPTION
DATE
29-Sep-25

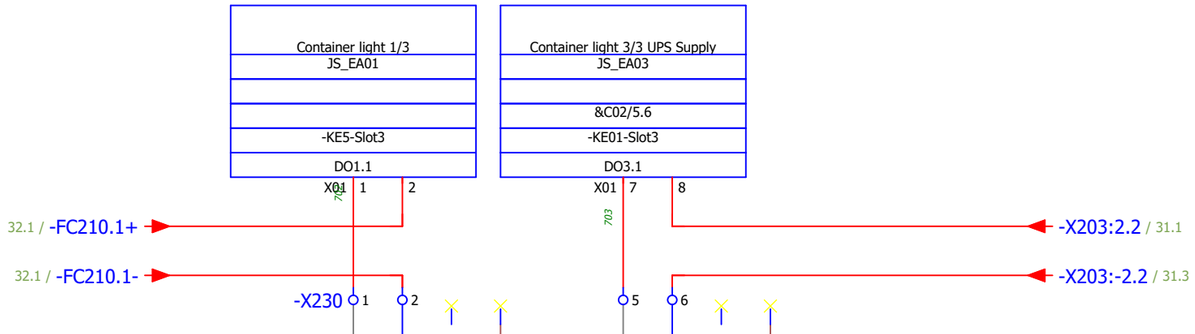
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - HT #2/2 Module Outlet Temperature		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 103 / 255

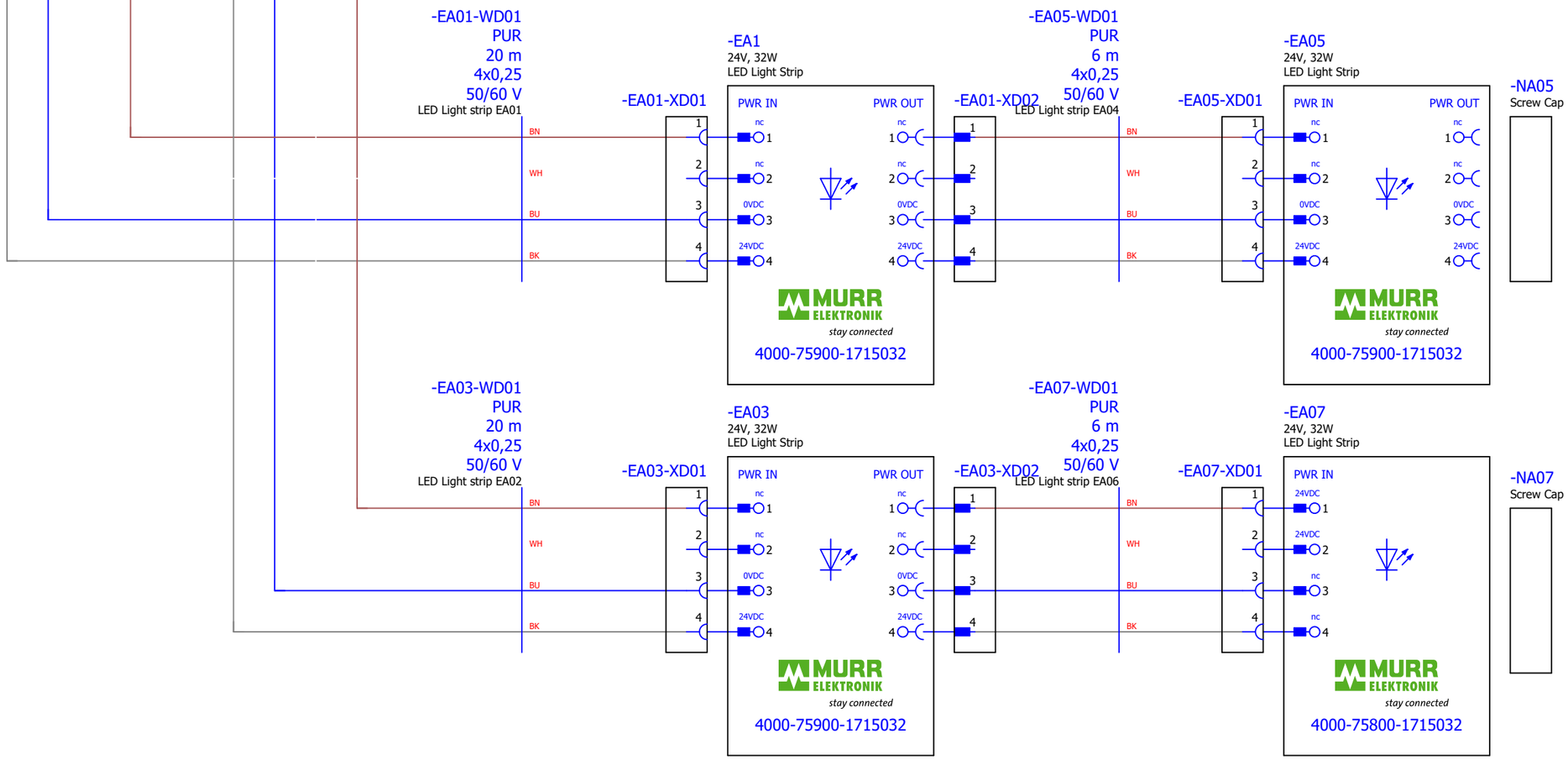
0	1	2	3	4	5	6	7	8

=LA01+UC20



=JA01+DA01

Container Ventilation, Inside Container #1



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DATE
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Lighting 1/2		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 104 / 255

=LA01+UC20

Container light 2/3
JS_EA02
-KE5-Slot3
DO2.1
X01 4 5

32.3 / -FC210.2+
32.4 / -FC210.2-
-X230 3 4

Light Switch Container
DA01_SG100
&C02/5.6
-KE01-Slot3
DIO3
X02 15

31.2 / -X203:3.3
7 8

=JA01+DA01
Container Ventilation, Inside Container #1

-EA02-WD01
PUR
20 m
4x0,25
50/60 V
LED Light strip EA05

-EA02
24V, 32W
LED Light Strip

-EA02-XD01
PWR IN
PWR OUT
BN
WH
BU
BK
nc
0VDC
24VDC
MURR ELEKTRONIK
stay connected
4000-75900-1715032

-EA02-XD02

-EA06-WD01
PUR
6 m
4x0,25
50/60 V
LED Light strip EA06

-EA06
24V, 32W
LED Light Strip

-EA06-XD01

-SG01-WG01
ÖLFLEX® CLASSIC 110 CH
3x1
300/500 V
1 2

-SG01 E
13
14

-EA04-WD01
PUR
20 m
4x0,25
50/60 V
LED Light strip EA07

-EA04
24V, 32W
LED Light Strip

-EA04-XD01

-EA04-XD02

-EA08-WD01
PUR
6 m
4x0,25
50/60 V
LED Light strip EA08

-EA08
24V, 32W
LED Light Strip

-EA08-XD01

Reference Item Number	Ballard Part # TBD
EPLAN Project Name	601456B - Shell Baseload Power Hub
EPLAN Revision	12
EPLAN Project Pages	627
=	++ | + UC20 | & C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Lighting 2/2		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 105 / 255

=LA01+UC20

=HA01+DA02
Exterior location, hydrogen supply

Placed Top right side of cabinet

-X202:-1.6
30.7

-X202:1.6
30.5

-KF200-XD01
1 2 3 4 5 6

-KF200
16 port switch
V1- V1+ COM NO V2- V2+
-U1:1 2 3 4 5 6
PWR1 FAULT PWR2

-U2
Chassis
CHA

Other bus systems
1 2 3 4 5 6 7 8
9 10 11 12 13 14
15 16

-KF200-WG01
Cat.6
STP 1
/ KE01-Slot7:P1
Deif Ethernet Port 1

-KF200-WG02
Cat.6
STP
108.4 / -KF210:1

-KF200-WG16
-KF200-WG15
Cat.6
4x2x
STP 1
-KF200:16 / 107.1

-KF200:15 / Cooling skid

-XT11
EX Cable gland
Wall pass-through

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet - Ethernet switch 1		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 106 / 255

FRM5103656/0B

=LA01+UC20

Placed bottom right side of cabinet

-X202:-2.1
30.7

-X202:2.1
30.5

-KF201-XD01

1 2 3 4 5 6

-KF201
16 port switch

V1- V1+ COM NO V2- V2+

-U1:1 2 3 4 5 6

PWR1 FAULT PWR2

-U2
Chassis
CHA

Other bus systems 1 2 3 4 5 6 7 8

Other bus systems 9 10 11 12 13 14

Other bus systems 15 16

106.6 / -KF200:16

-KF201:16 /

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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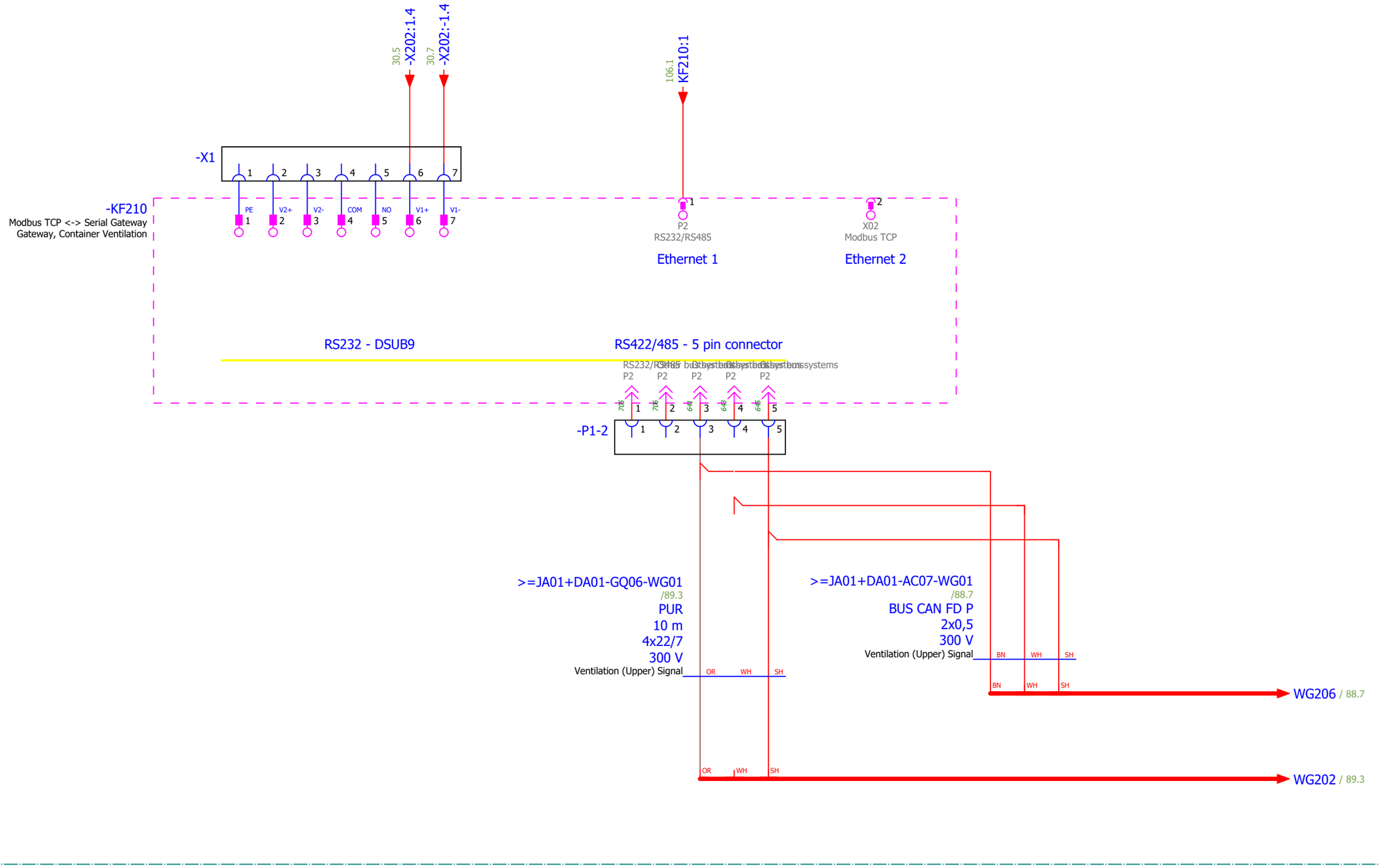
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Control Cabinet - Ethernet switch 2		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 107 / 255

FRM5103656/0B

0	1	2	3	4	5	6	7	8

=LA01+UC20
Container Control System
Control Cabinet 40 ft



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C03

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	40ft Container - Modbus Converter		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 108 / 255

FRM5103656/0B

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Ballard Power Systems Europe - Technology Solutions

Panel Documentation

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE	Crosswind UC20 40ft Control Cabinet		
SHEET TYPE/DESC	Panel Documentation and Layout		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 109 / 255

FRM5103656/0B

Terminal-strip overview

F14_001

Terminal strip	Terminal strip definition text	Terminals					Graphical page of terminal diagrams
		first	last	Total PE	Total N	Total number	
=BA20-XB01		1	1	0	0	1	
=LA01-PE		3	3	0	0	1	
=LA01-X-KE12		X1	X2	0	0	12	
=LA01-X-KE13		X1	X2	0	0	12	
=LA01-X-KE14		X1	X2	0	0	12	
=LA01-X-KE15		X1	X2	0	0	12	
=LA01-X-KE16		X1	X2	0	0	12	
=LA01-X01		1	PE	0	0	5	
=LA01-X10		1	PE	0	0	4	
=LA01-X11		1	3	1	0	4	
=LA01-X12		1	3	1	0	4	
=LA01-X13		1	PE	0	0	4	
=LA01-X14		1	PE	0	0	4	
=LA01-X15		1	PE	0	0	4	
=LA01-X16		1	3	1	0	4	
=LA01-X17		1	3	1	0	4	
=LA01-X18		1	2	0	0	2	
=LA01-X20		1	PE	0	0	5	
=LA01-X22		1	PE	0	0	5	
=LA01-X23		1	PE	0	0	3	
=LA01-X50		1	4	0	0	4	
=LA01-X51		1	4	0	0	4	
=LA01-X52		1	4	0	0	4	
=LA01-X53		1	4	0	0	4	
=LA01-X54		1	4	0	0	4	
=LA01-X55		1	4	0	0	4	
=LA01-X60		1	15	0	0	15	
=LA01-X61		1	15	0	0	15	
=LA01-X62		1	15	0	0	15	
=LA01-X63		1	15	0	0	15	
=LA01-X64		1	15	0	0	15	
=LA01-X65		1	15	0	0	15	
=LA01-X100		1	7	0	0	7	
=LA01-X101		1	4	0	0	4	
=LA01-X102		1	4	0	0	6	
=LA01-X103		1	12	0	0	12	
=LA01-X104		1	12	0	0	12	

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Terminal-strip overview

F14_001

Terminal strip	Terminal strip definition text	Terminals					Graphical page of terminal diagrams
		first	last	Total PE	Total N	Total number	
=LA01-X105		1	4	0	0	4	
=LA01-X106		1	12	0	0	12	
=LA01-X107		1	12	0	0	12	
=LA01-X108		1	14	0	0	14	
=LA01-X110		1	4	0	0	6	
=LA01-X120		1	28	0	0	31	
=LA01-X121		1	8	0	0	10	
=LA01-X122		3	16	0	0	18	
=LA01-X123		1	6	0	0	8	
=LA01-X124		11	12	0	0	13	
=LA01-X125		1	6	0	0	6	
=LA01-X150		1	PE	0	0	30	
=LA01-X160		1	24	0	0	26	
=LA01-X201		0.1	0.1	0	0	1	
=LA01-X201-		1-	1-	0	0	1	
=LA01-X202		1	1	0	0	1	
=LA01-X202-		1-	1-	0	0	1	
=LA01-X203		0.1	0.1	0	0	1	
=LA01-X203-		0.1-	0.1-	0	0	1	
=LA01-X204		0.1	0.1	0	0	1	
=LA01-X204-		0.1	0.1	0	0	1	
=LA01-X230		1	8	0	0	8	
=LA01-XPE		1	PE	0	0	7	
=LA01-X_PE		1	1	0	0	6	
=LB02-X101		9	12	0	0	4	

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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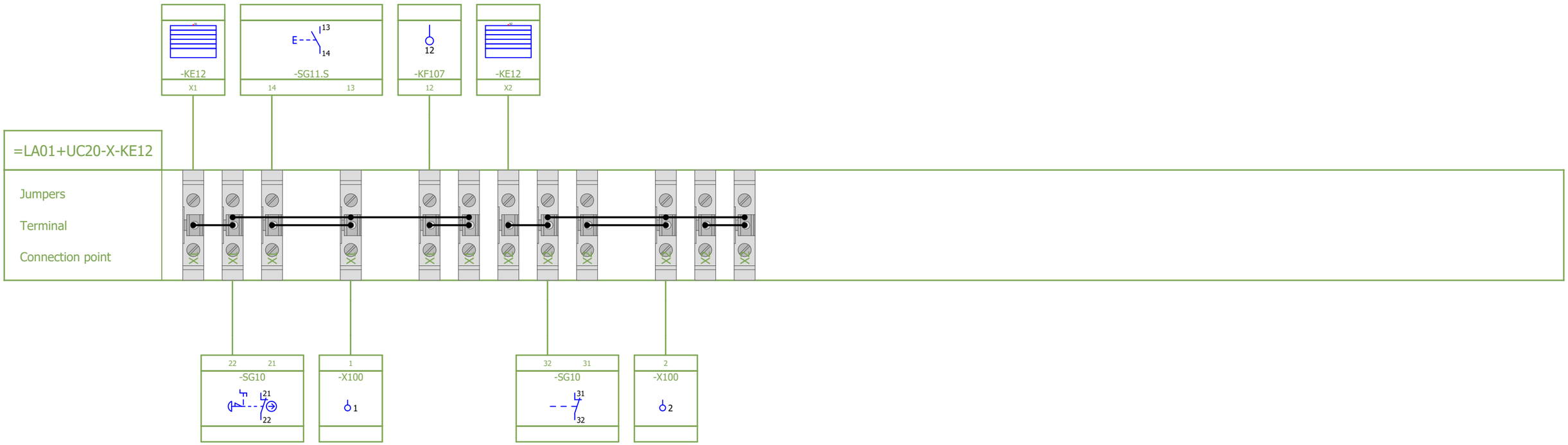
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 110.a

FRM5103656/0B

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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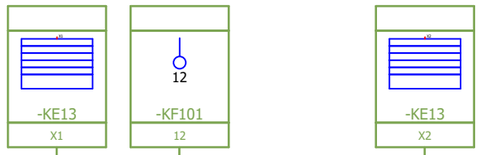
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Terminal-connection diagram

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PBL 29-Sep-25

Internal targets

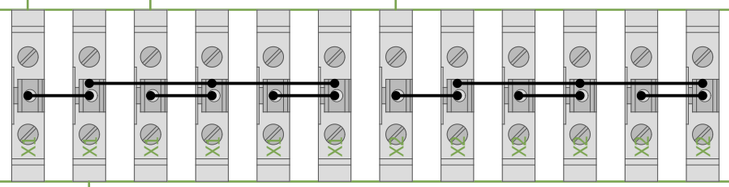


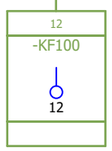
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Jumpers

Terminal

Connection point





External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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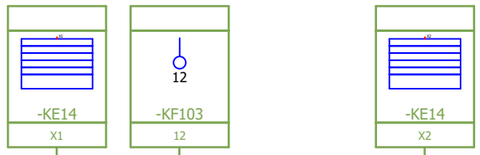
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Terminal-connection diagram

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Internal targets

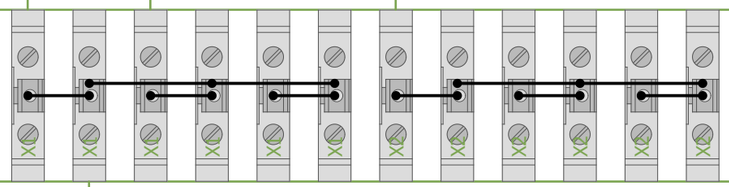


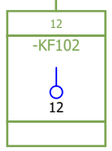
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Jumpers

Terminal

Connection point





External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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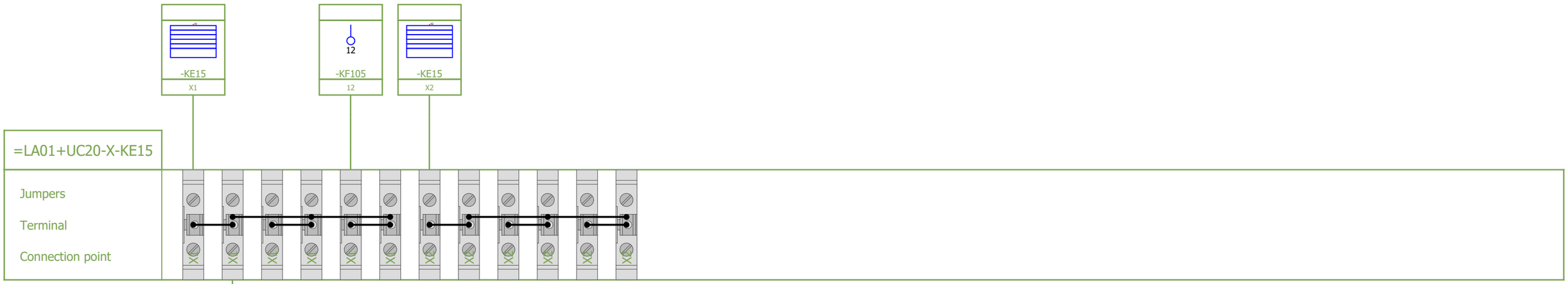
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X-KE14		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 114 / 255

Terminal-connection diagram

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Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X-KE15		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 115 / 255

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Terminal-connection diagram

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Internal targets



External targets

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EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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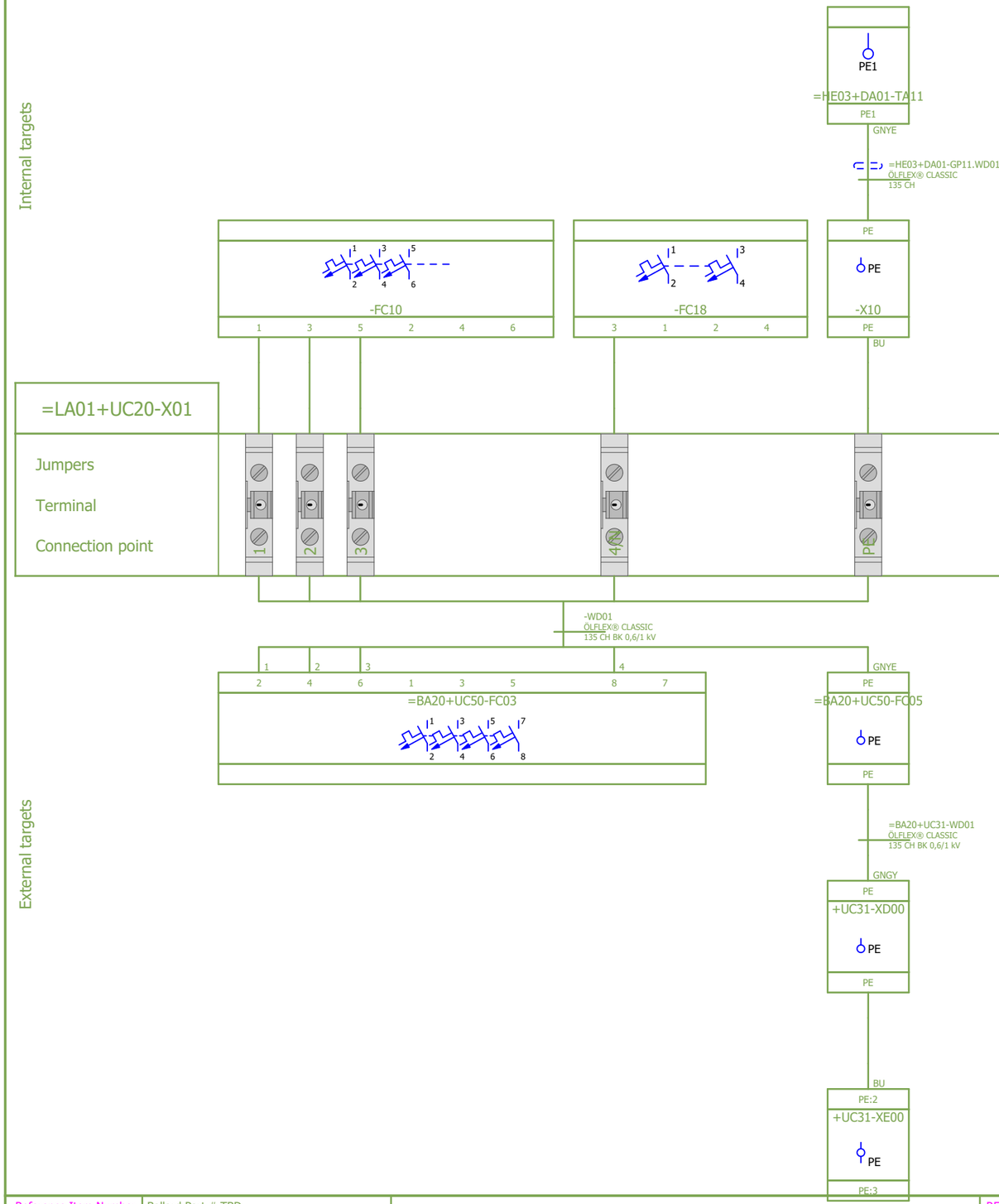
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 116 / 255

Terminal-connection diagram

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Internal targets



External targets

Reference Item Number	Ballard Part # TBD
EPLAN Project Name	601456B - Shell Baseload Power Hub
EPLAN Revision	12
EPLAN Project Pages	627
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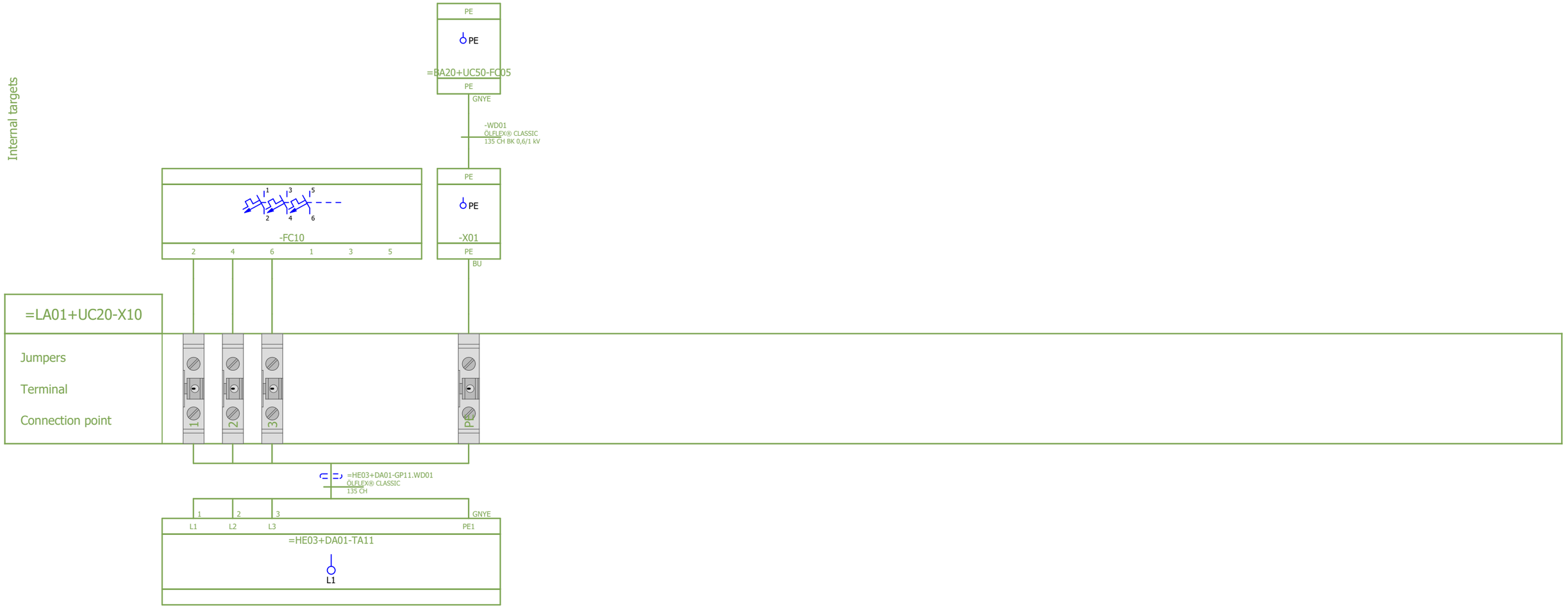
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Terminal-connection diagram

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Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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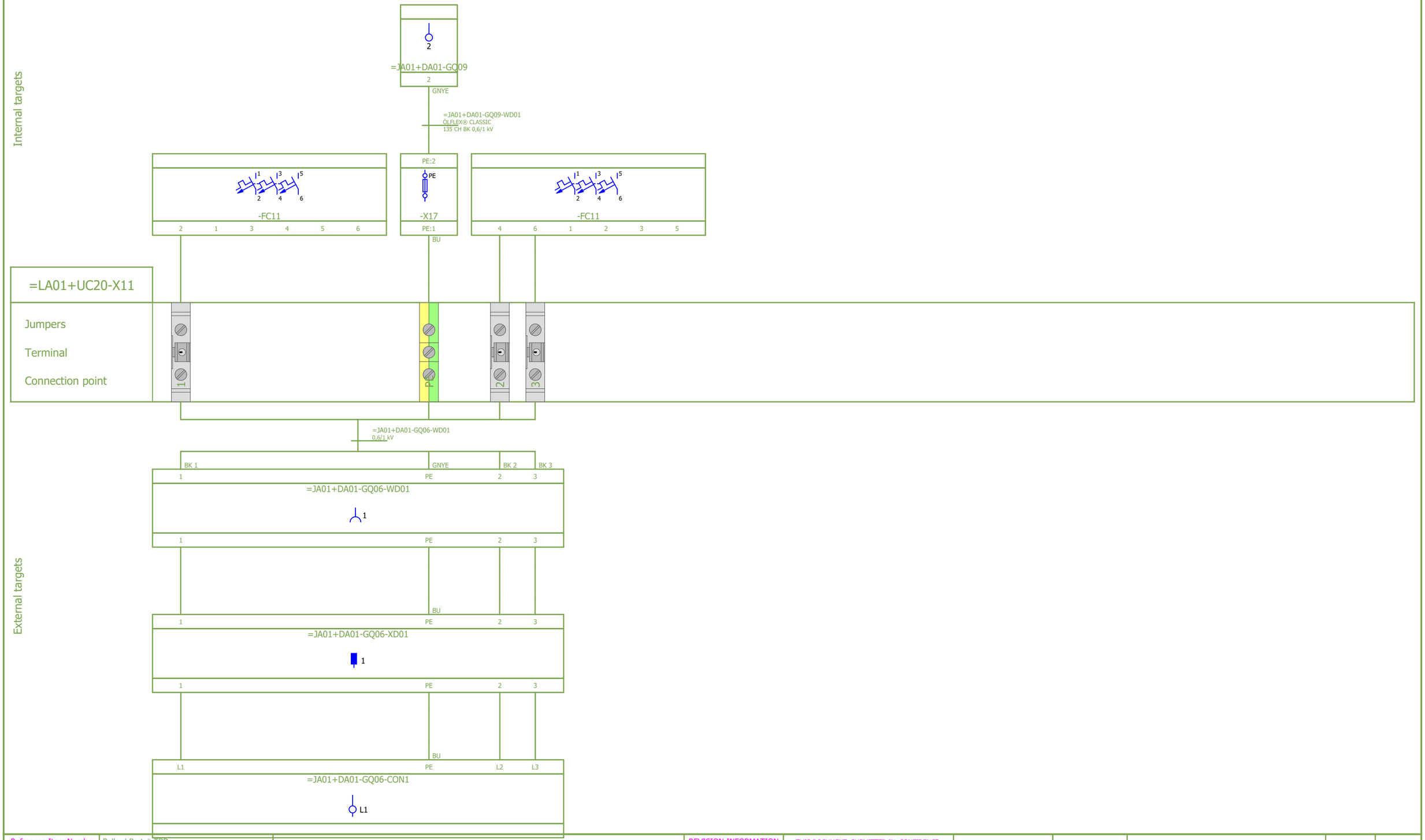
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Terminal-connection diagram

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Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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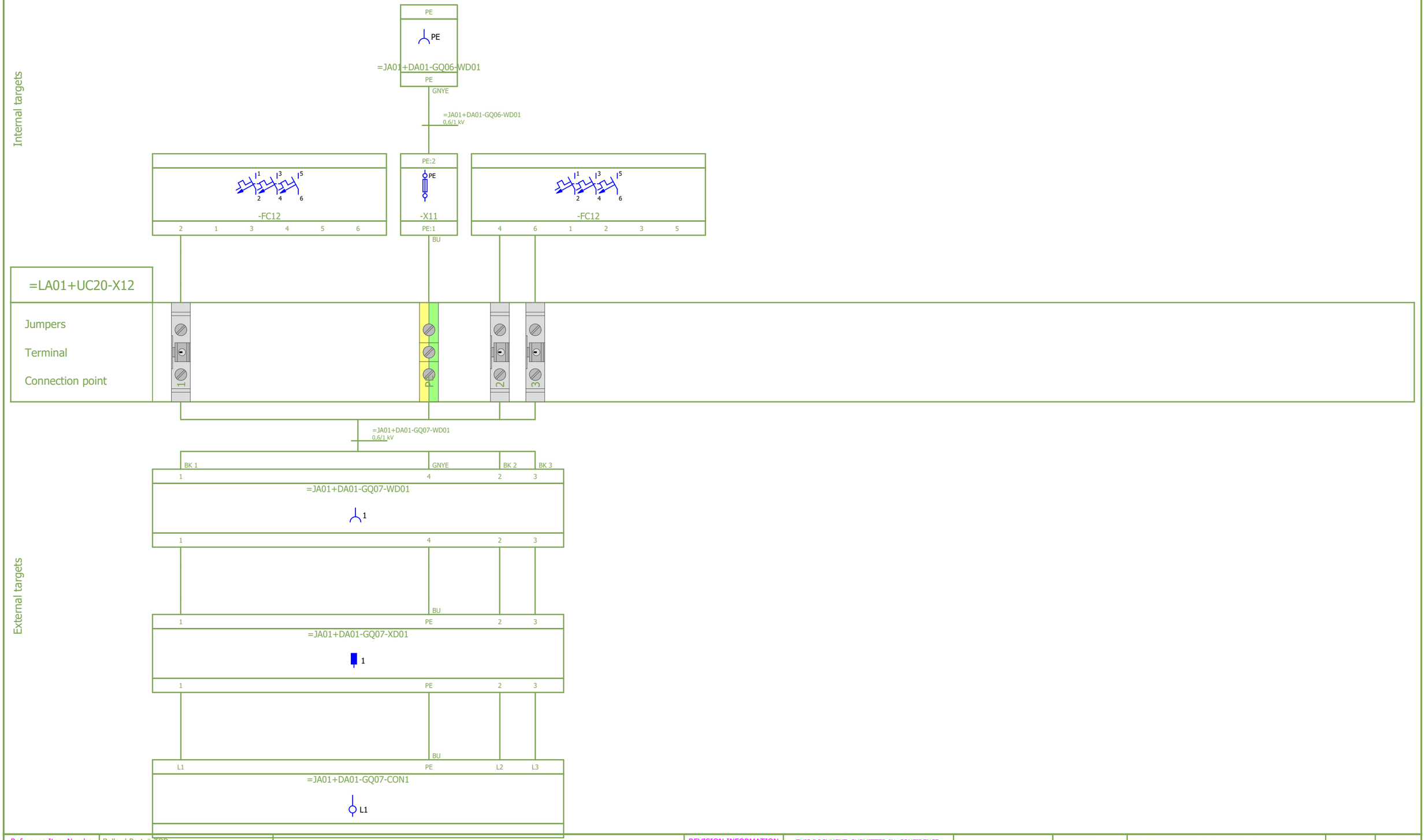
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Terminal-connection diagram

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Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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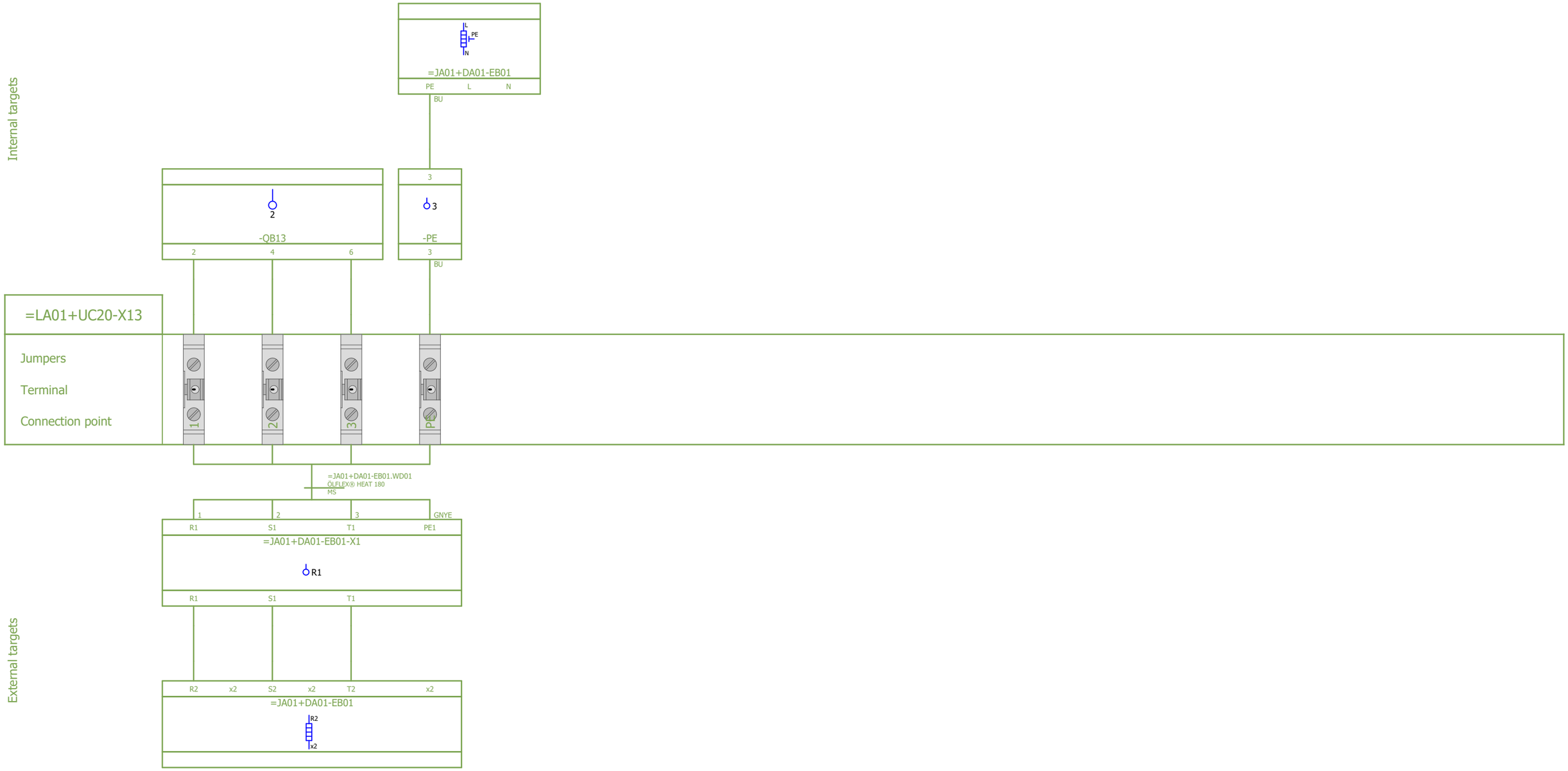
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Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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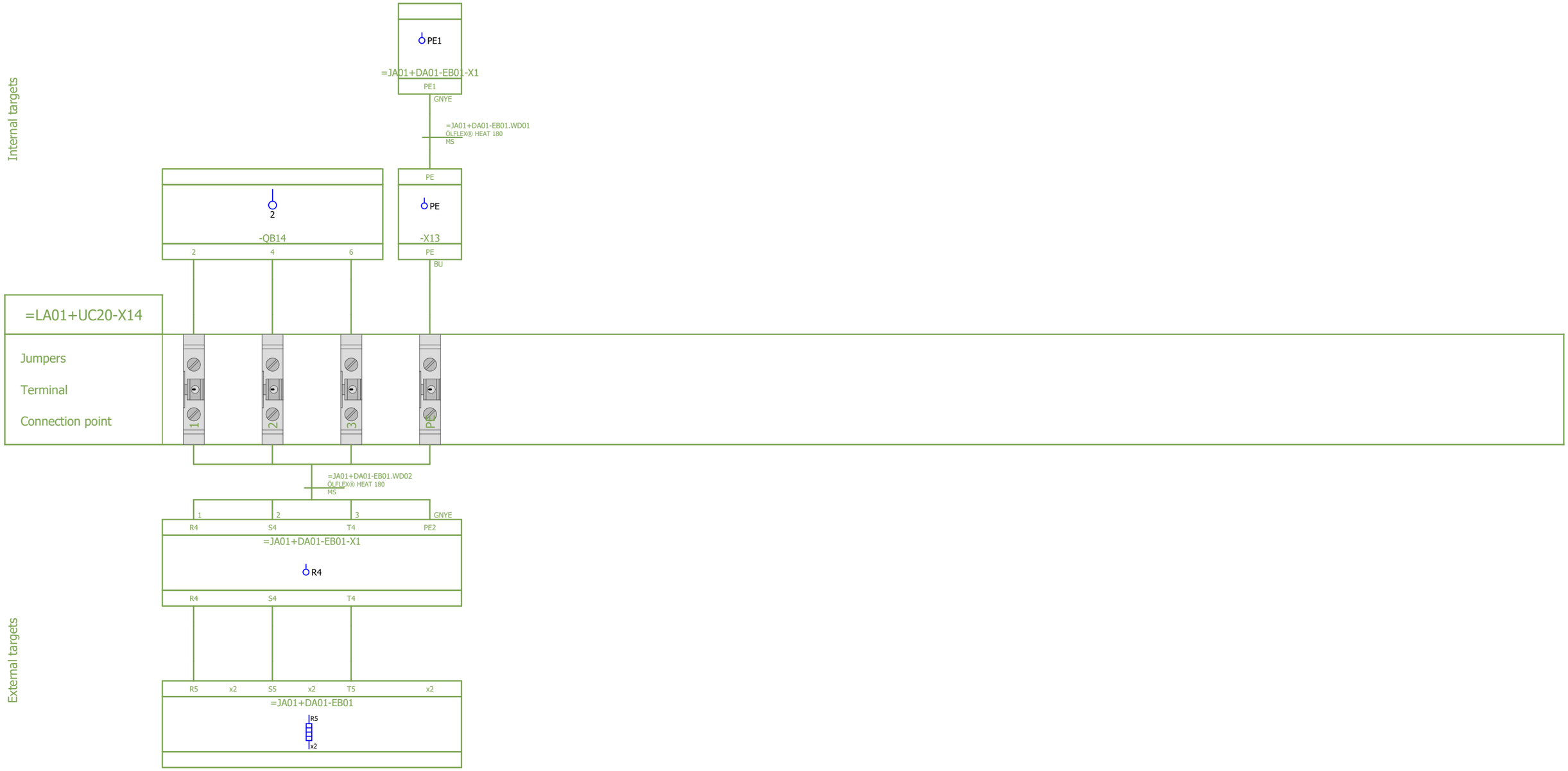
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 121 / 255

Terminal-connection diagram

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Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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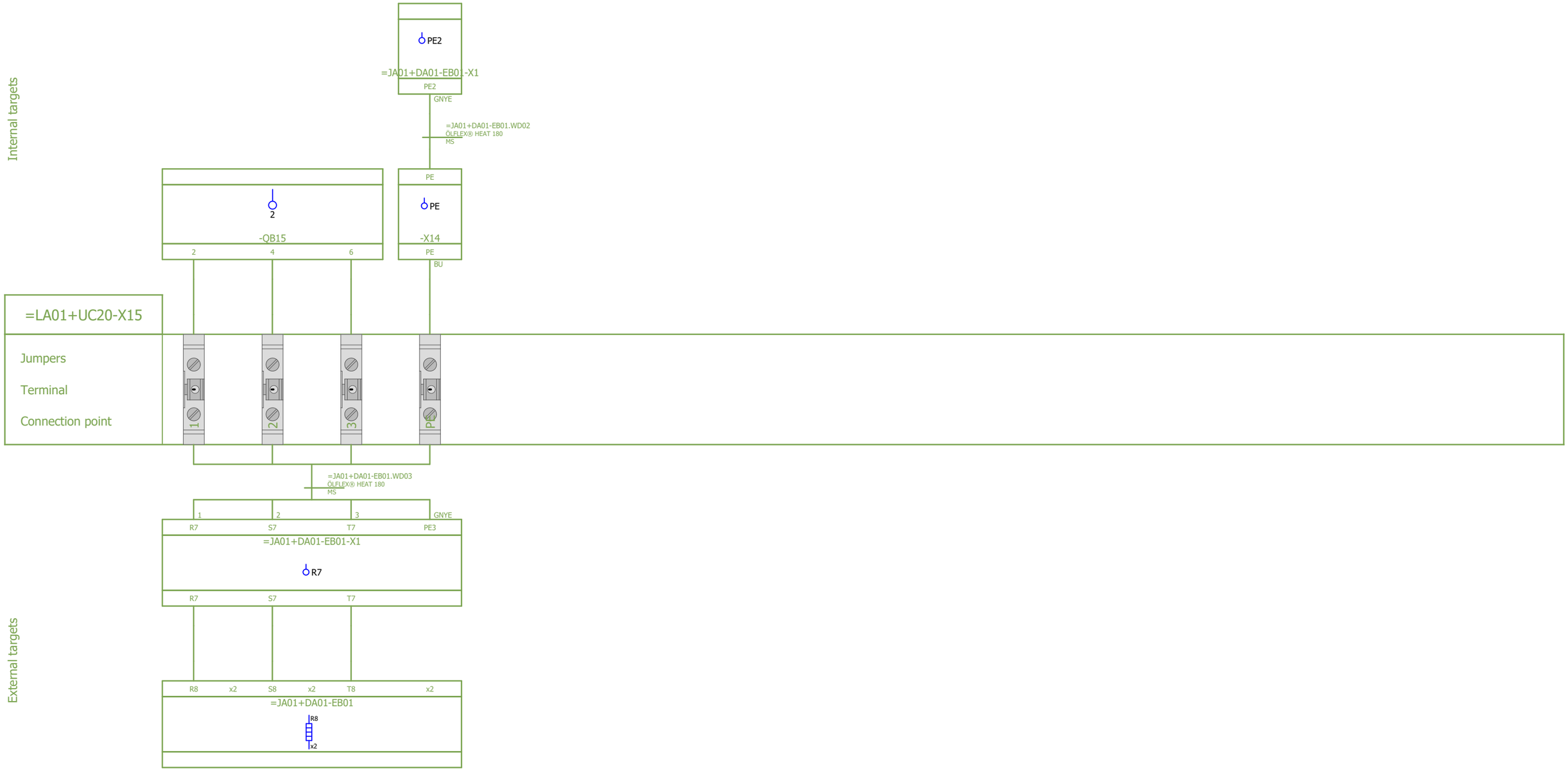
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Terminal-connection diagram

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Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
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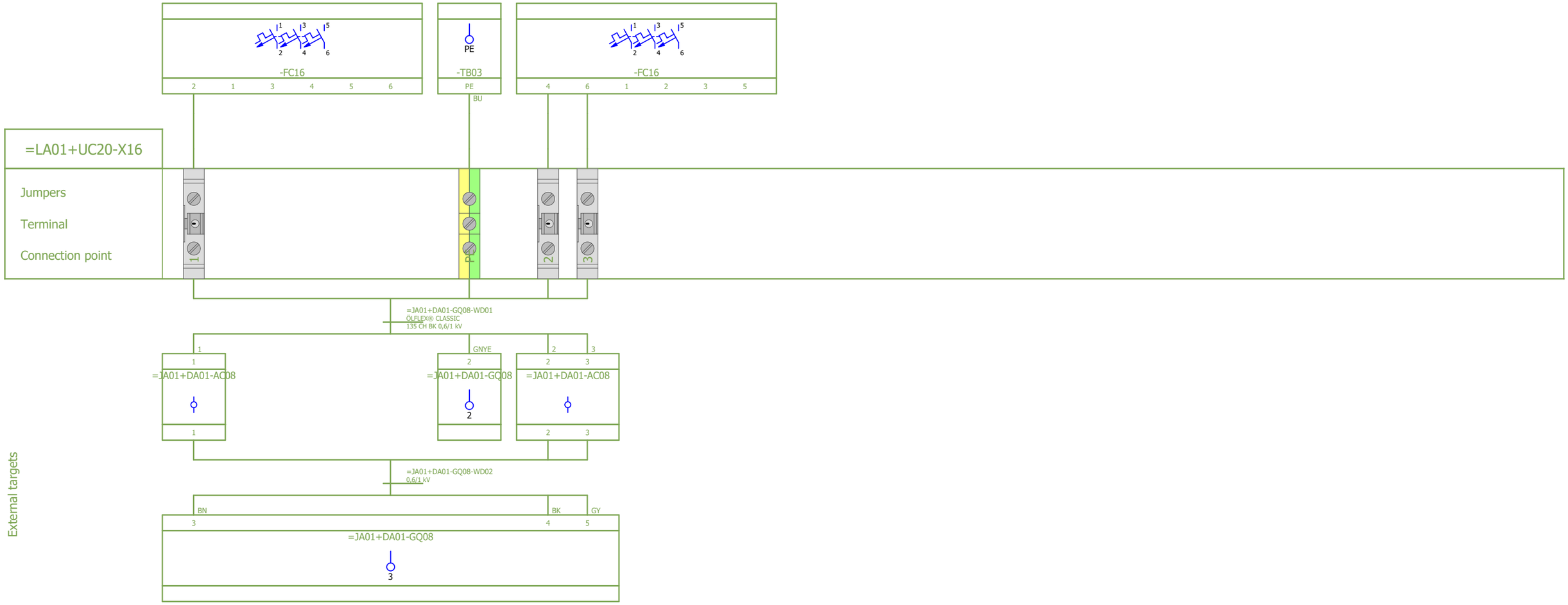
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X15		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 123 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

REVISION INFORMATION
DESCRIPTION
DATE
29-Sep-25

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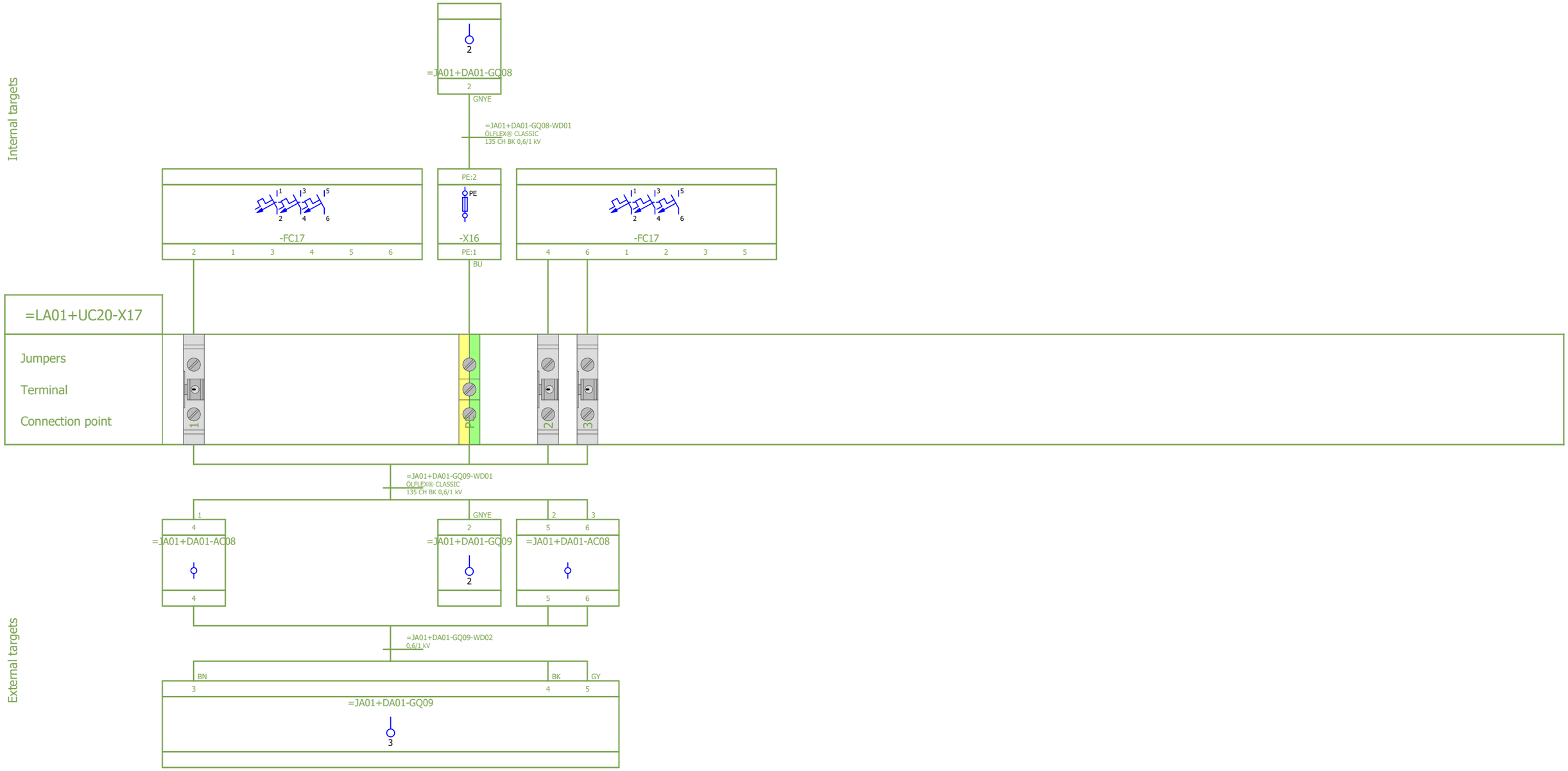
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X16		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 124 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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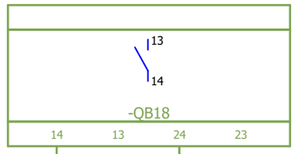
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X17		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 125 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

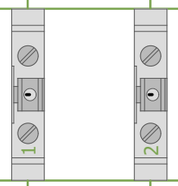


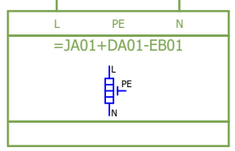
=LA01+UC20-X18

Jumpers

Terminal

Connection point





External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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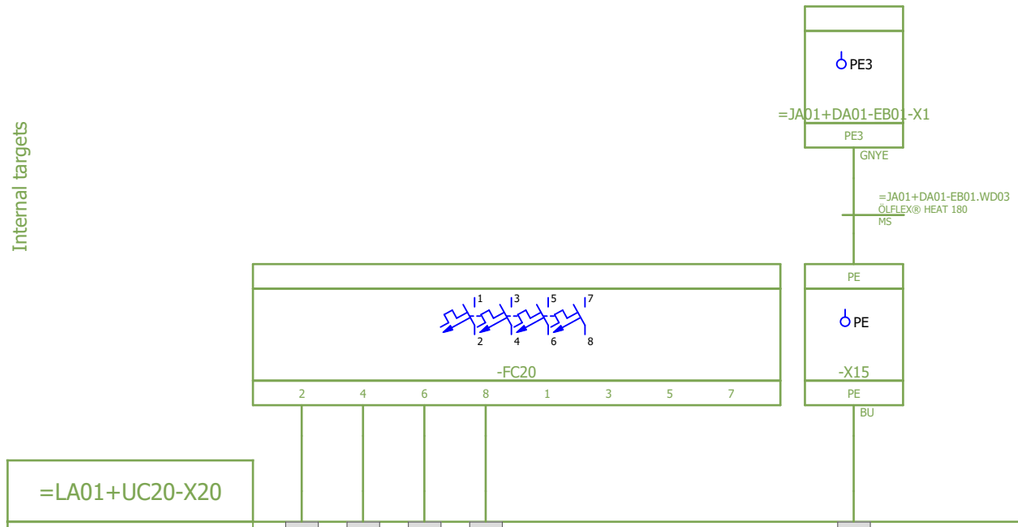
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X18		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 126 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



=LA01+UC20-X20

Jumpers

Terminal

Connection point

1 2 3 4 PE

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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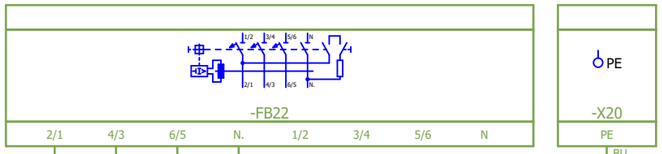
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X20		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 127 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



=LA01+UC20-X22

Jumpers

Terminal

Connection point



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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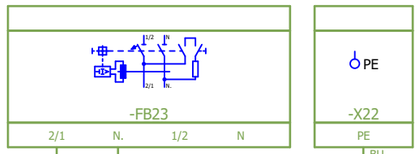
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X22		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 128 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



=LA01+UC20-X23

Jumpers

Terminal

Connection point



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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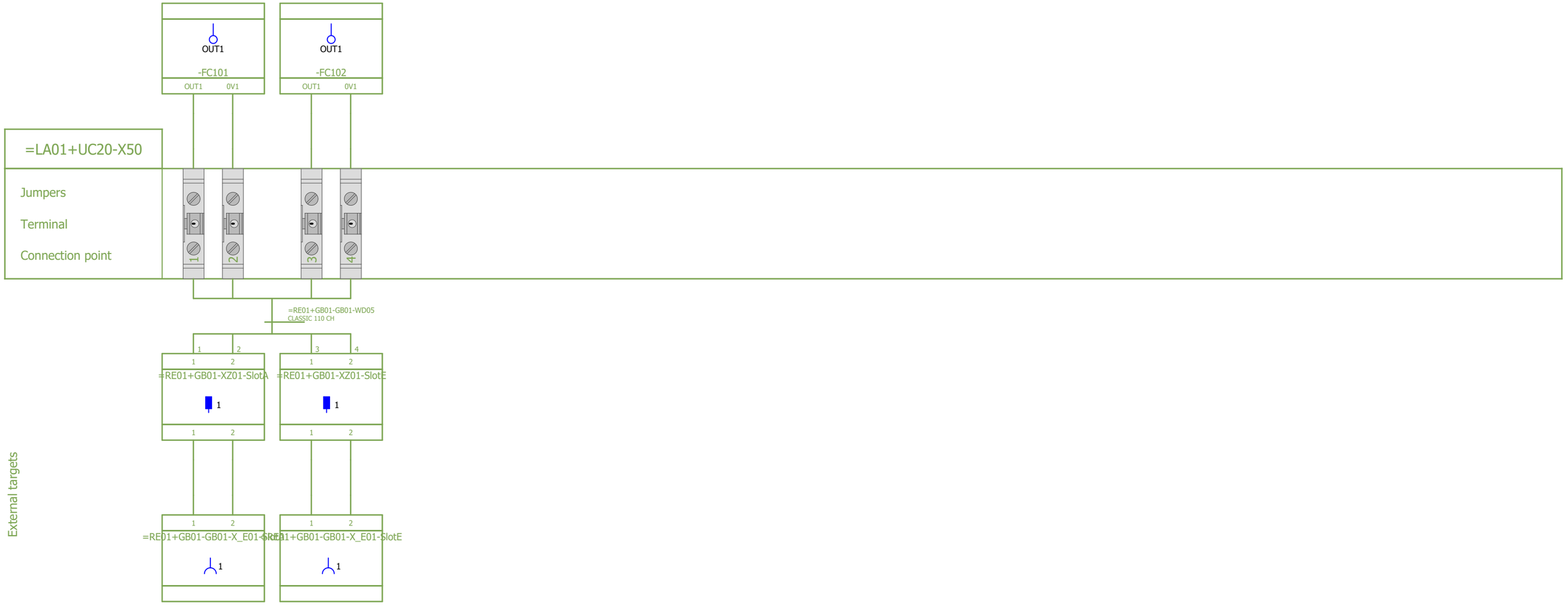
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X23		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 129 / 255

Terminal-connection diagram

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PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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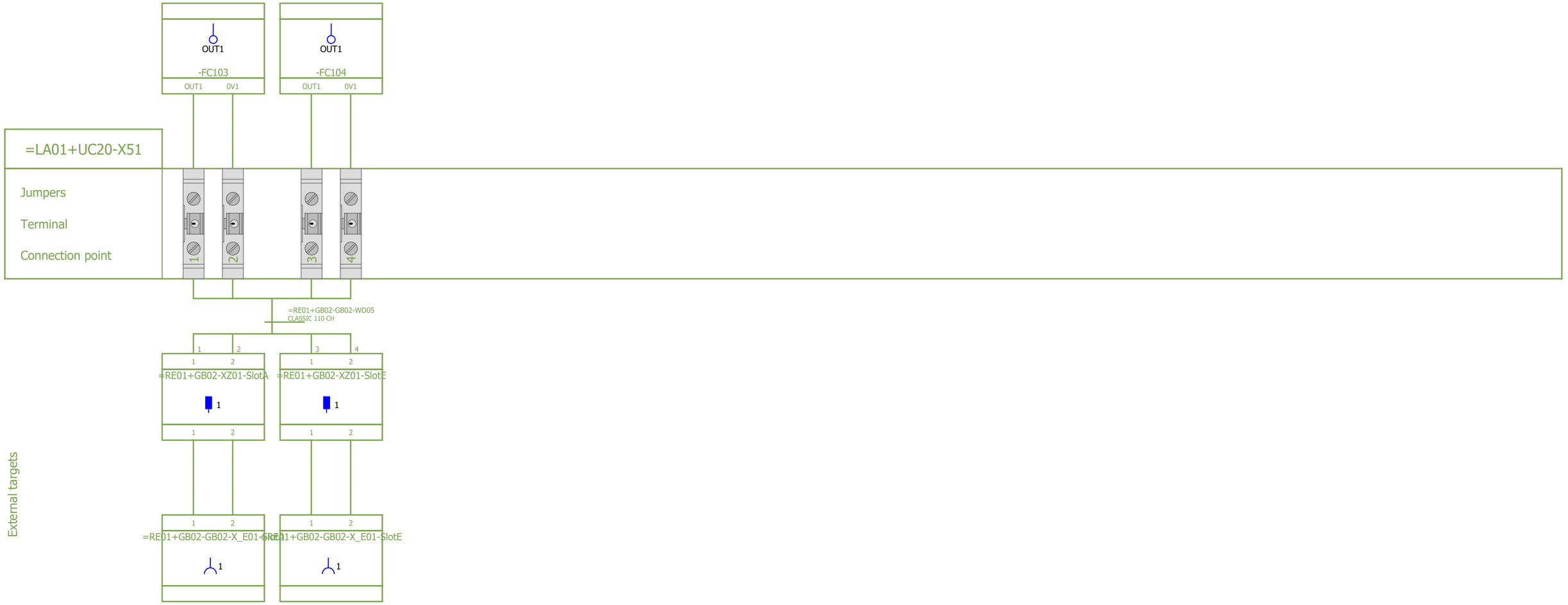
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X50		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 130 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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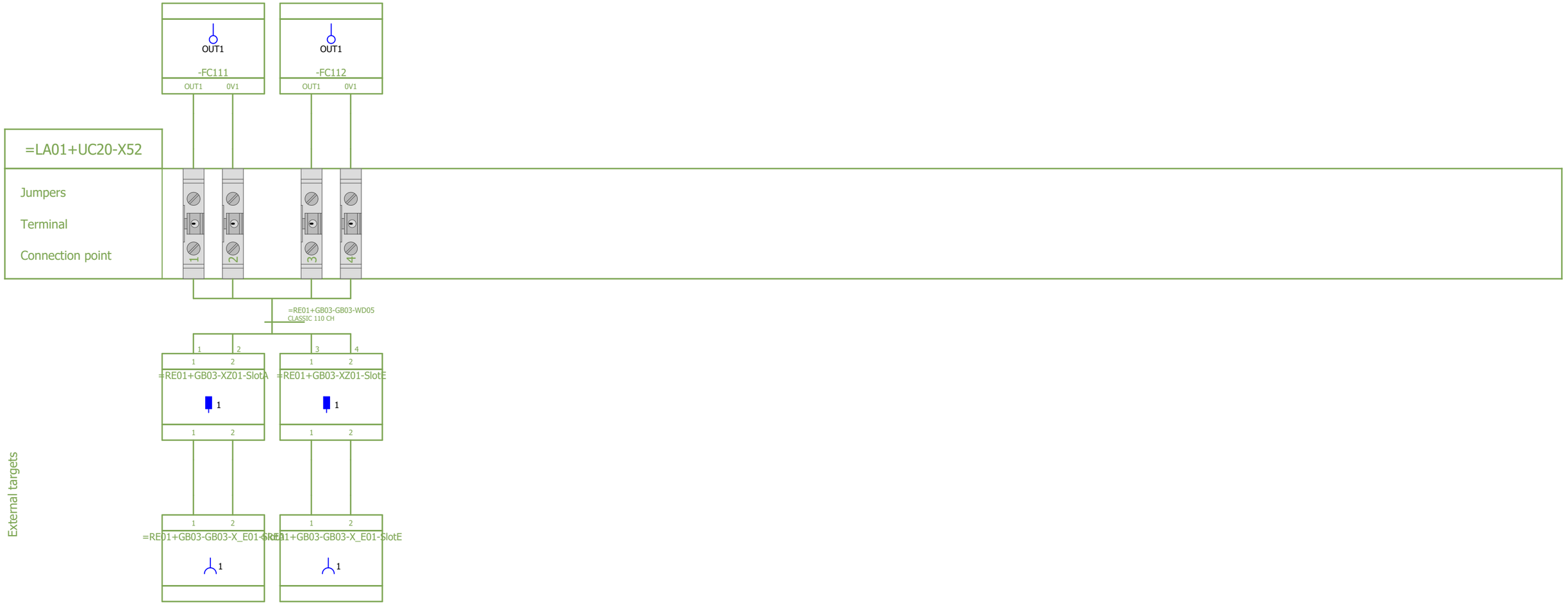
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X51		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 131 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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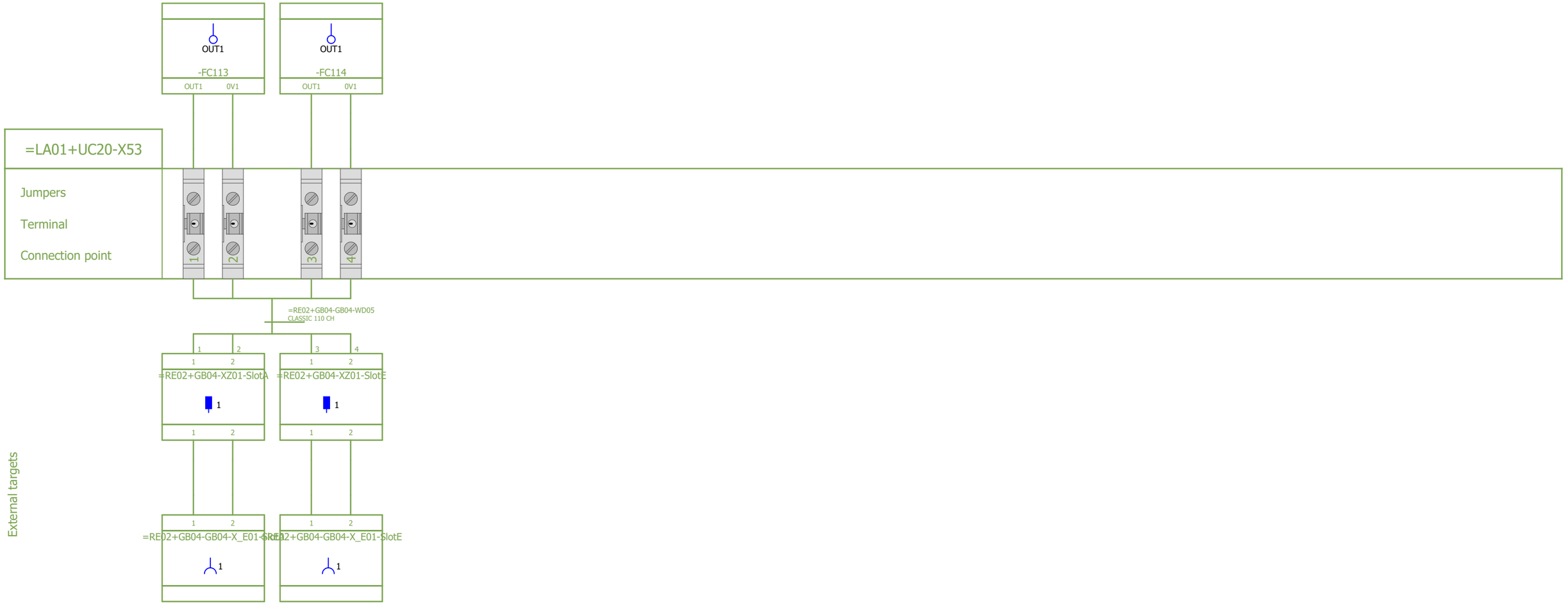
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X52		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 132 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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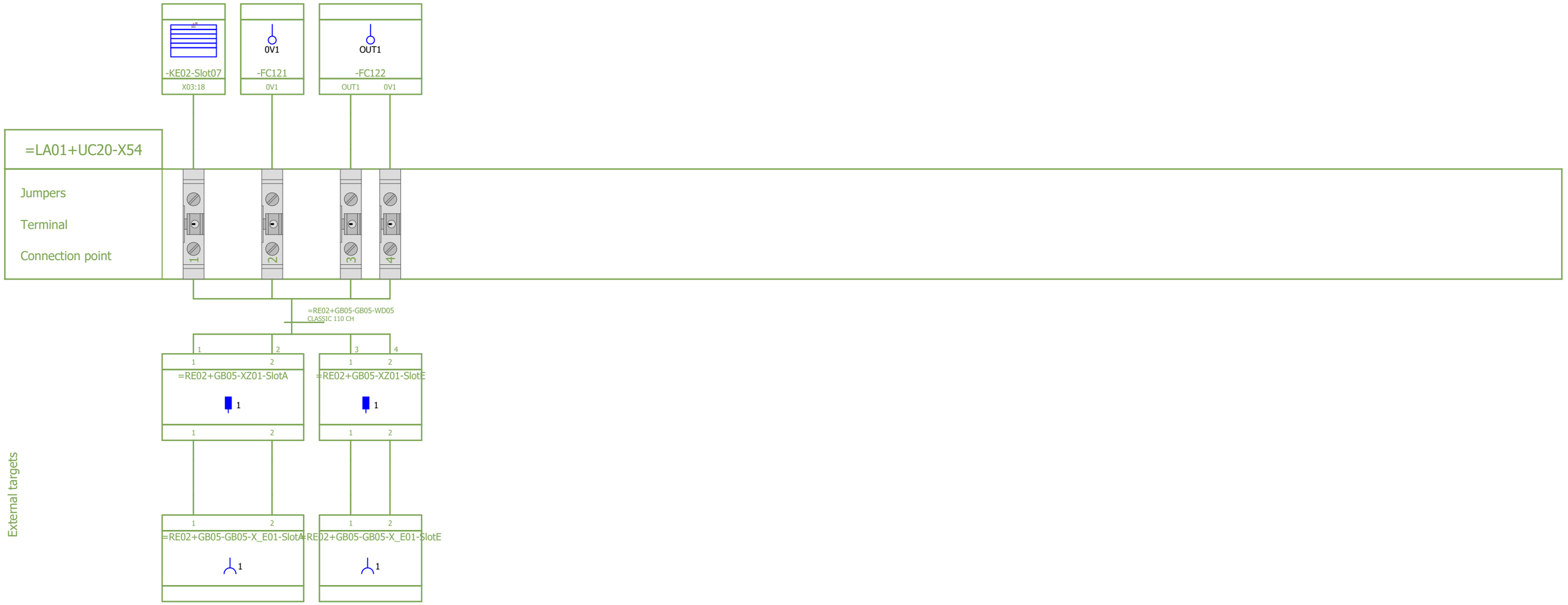
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X53		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 133 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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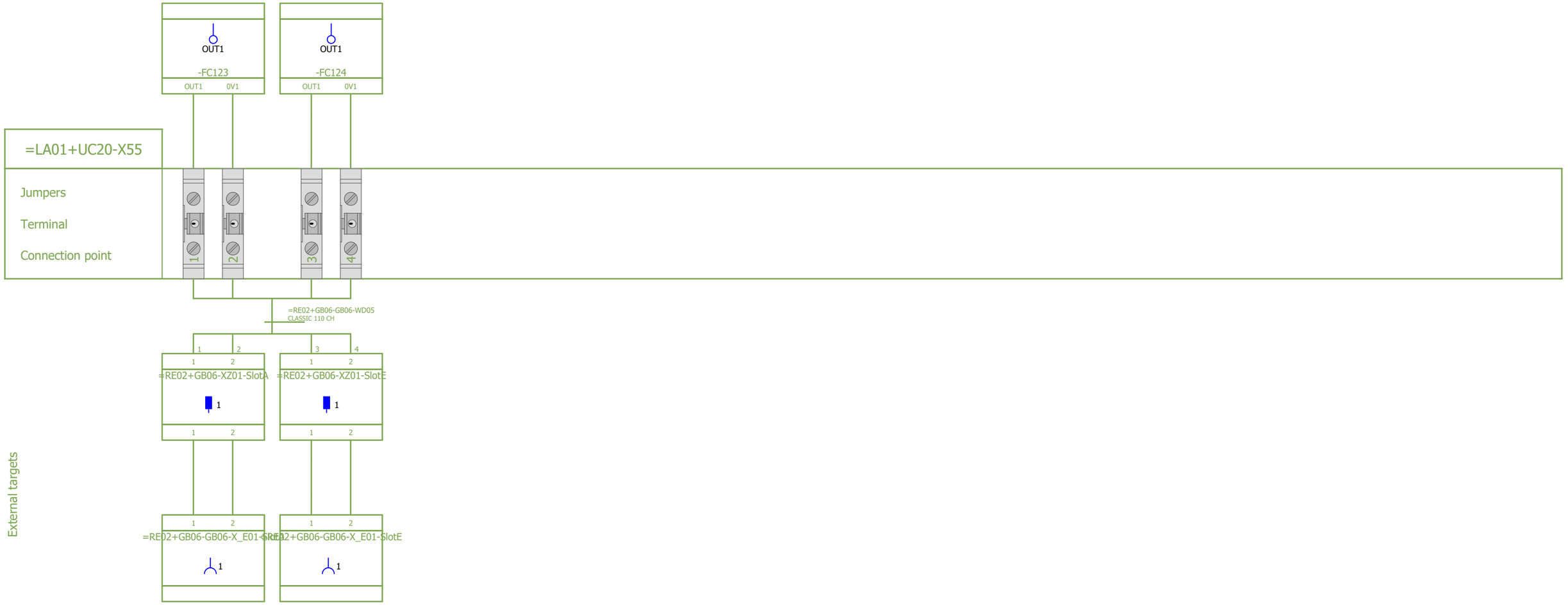
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X54		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 134 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X55		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 135 / 255

FRM5103656/0B

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

=LB02-KE13 | -KE02-Slot04 | =RE01+GB01-KE02-Slot04 | -KF100 | =LB02-KE13 | =RE01+GB01-KE02-Slot04 | -KF100 | -KE02-Slot04

I2	X02:15	X02:16	X02:17	X02:18	53	63	54	64	Q2	X02:19	X02:20	X02:21	43	X01:2
VT	VT	VT	VT	VT	OG	OG	OG	OG	VT	VT	VT	VT		VT

=LA01+UC20-X60

Jumpers

Terminal

Connection point

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

=RE01+GB01-GB01-WG02
ÖLFLEX® CLASSIC
110 CH

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

=RE01+GB01-XZ01-SlotF

1

1 2 3

=RE01+GB01-XZ01-SlotB

1

External targets

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

=RE01+GB01-GB01-X_E01-SlotF

1

1 2 3

=RE01+GB01-GB01-X_E01-SlotB

1

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X60		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 136 / 255

FRM5103656/0B

Terminal-connection diagram

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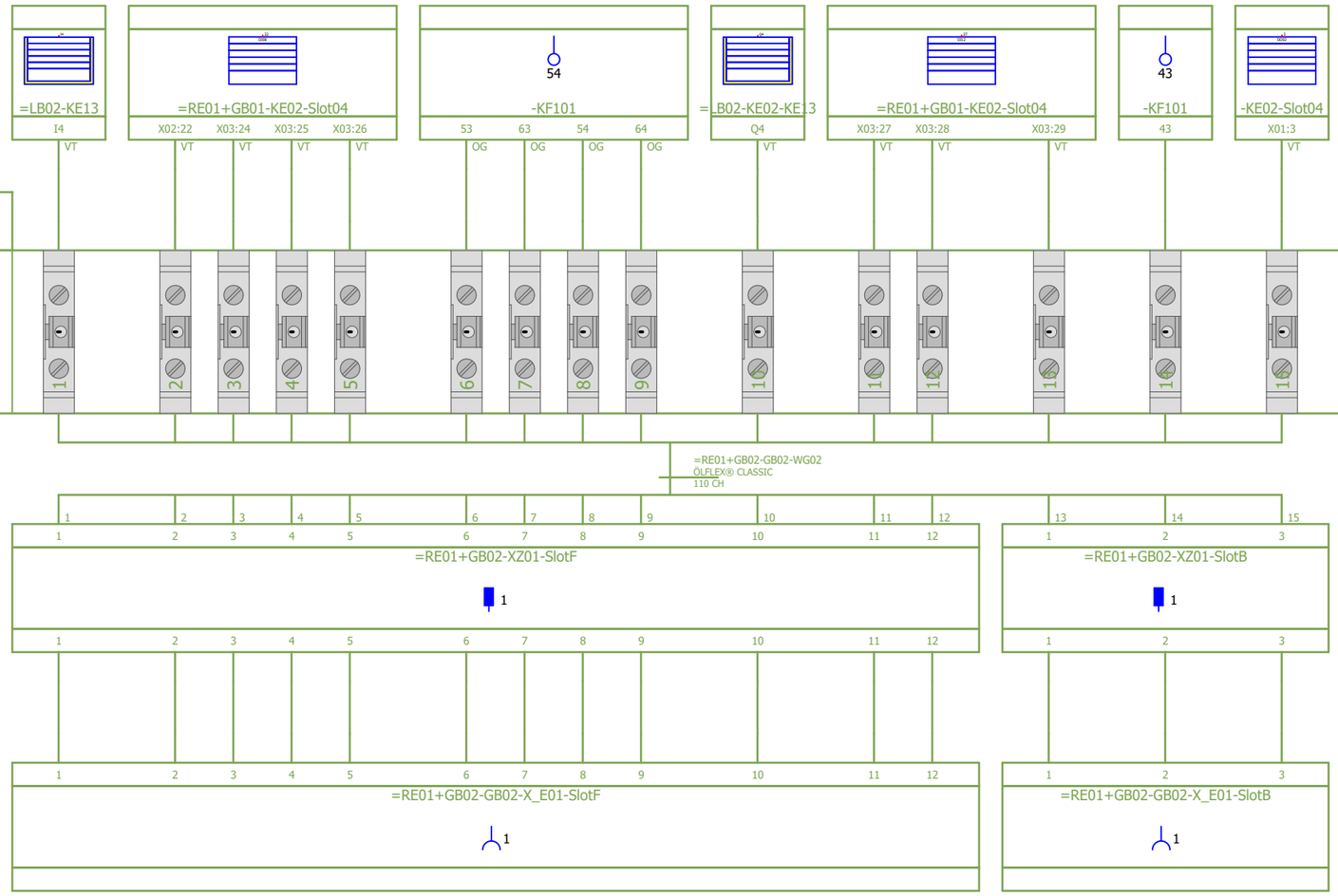
Internal targets

=LA01+UC20-X61

Jumpers

Terminal

Connection point



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X61		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 137 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

=LA01+UC20-X62

Jumpers

Terminal

Connection point

=LB02-KE14	-KE02-Slot05				-KF102				=LB02-KE14	-KE02-Slot05			-KF102	-KE02-Slot05
I2	X02:15	X02:16	X02:17	X02:18	53	63	54	64	Q2	X02:19	X02:20	X02:21	43	X01:2
VT	VT	VT	VT	VT	OG	OG	OG	OG	VT	VT	VT	VT	VT	VT
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

54

43

=RE01+GB03-GB03-WG02
ÖLFLEX® CLASSIC
110 CH

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

=RE01+GB03-XZ01-SlotF

1

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

=RE01+GB03-XZ01-SlotB

1

1 2 3

External targets

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

=RE01+GB03-GB03-X_E01-SlotF

1

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

=RE01+GB03-GB03-X_E01-SlotB

1

1 2 3

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X62		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 138 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

=LA01+UC20-X63

Jumpers

Terminal

Connection point

	=LB02-KE14	-KE02-Slot05				-KF103				=LB02-KE14	-KE02-Slot05			-KF103	-KE02-Slot05
	I4	X02:22	X03:24	X03:25	X03:26	53	63	54	64	Q4	X03:27	X03:28	X03:29	43	X01:3
	VT	VT	VT	VT	VT	OG	OG	OG	OG	VT	VT	VT	VT	VT	VT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

54 43

=RE02+GB04-GB04-WG02
ÖLFLEX® CLASSIC
110 CH

External targets

=RE02+GB04-XZ01-SlotF

1

=RE02+GB04-XZ01-SlotB

1

=RE02+GB04-GB04-X_E01-SlotF

1

=RE02+GB04-GB04-X_E01-SlotB

1

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

REVISION INFORMATION
DESCRIPTION
DATE
29-Sep-25

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X63		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 139 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

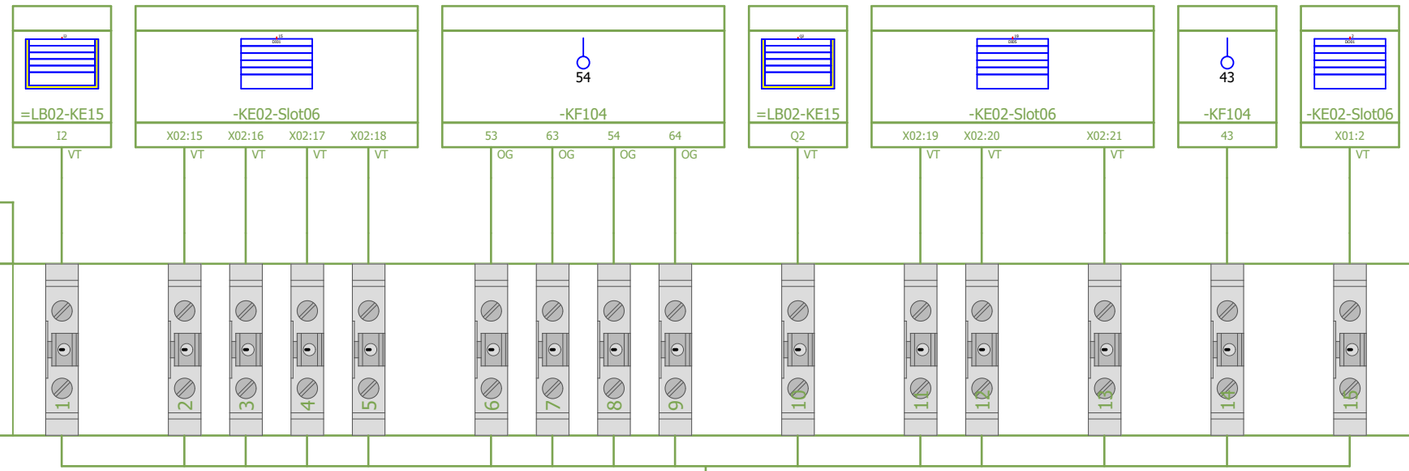
Internal targets

=LA01+UC20-X64

Jumpers

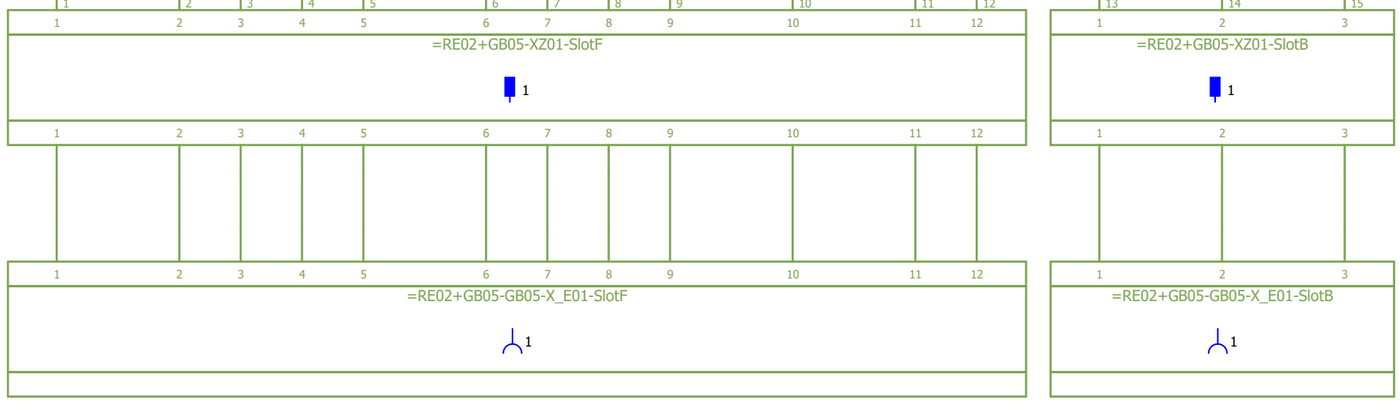
Terminal

Connection point



=RE02+GB05-GB05-WG02
ÖLFLEX® CLASSIC
110 CH

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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DESCRIPTION
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X64		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 140 / 255

FRM5103656/0B

Terminal-connection diagram

F11_001
PBL 29-Sep-25

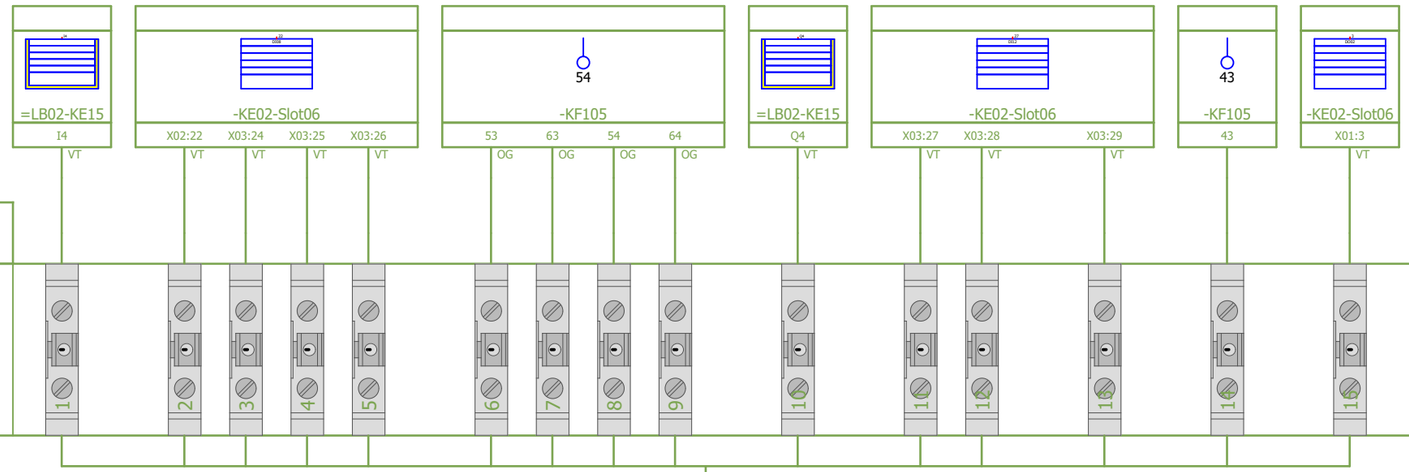
Internal targets

=LA01+UC20-X65

Jumpers

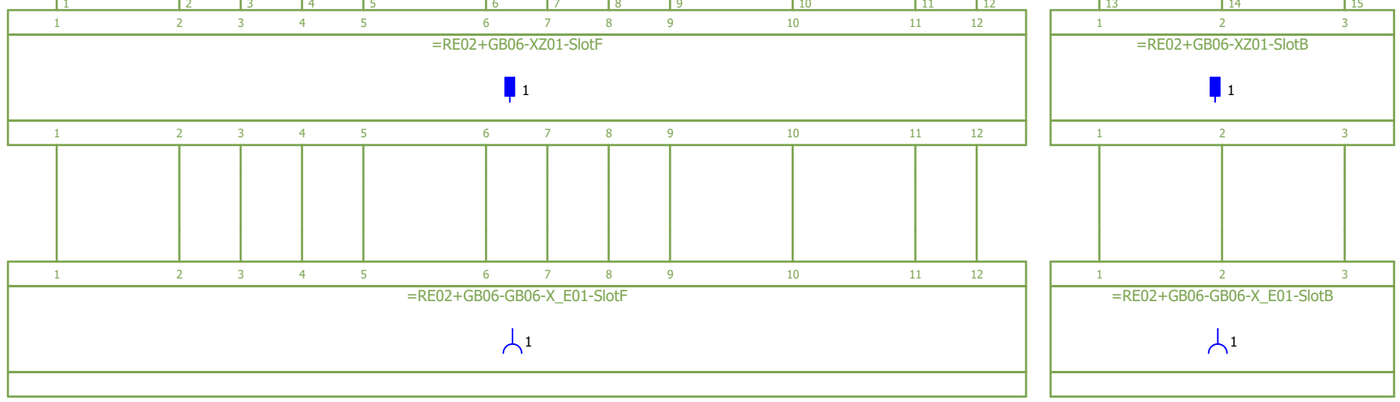
Terminal

Connection point



=RE02+GB06-GB06-WG02
ÖLFLEX® CLASSIC
110 CH

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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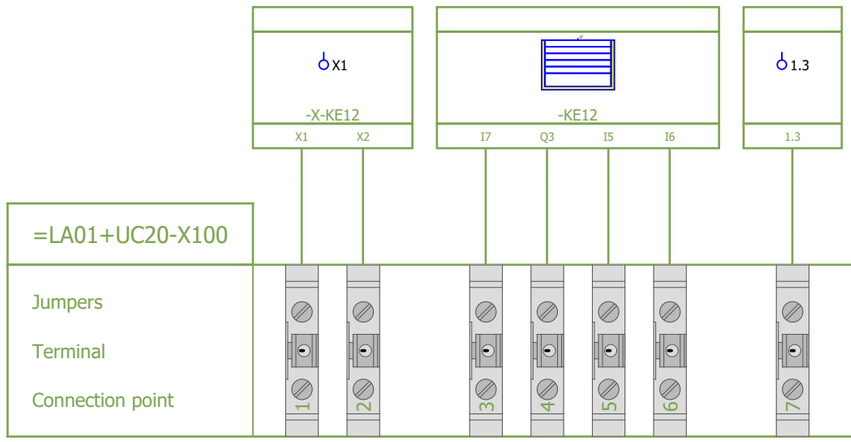
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X65		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 141 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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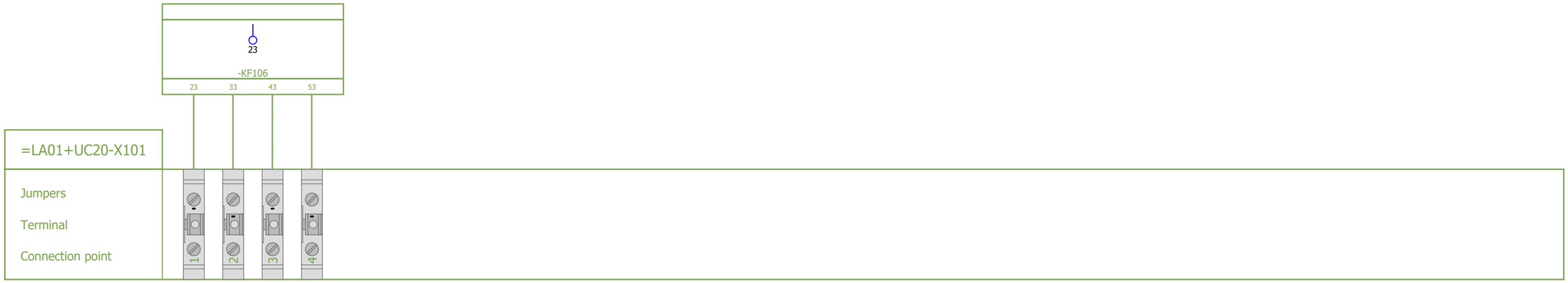
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X100		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 142 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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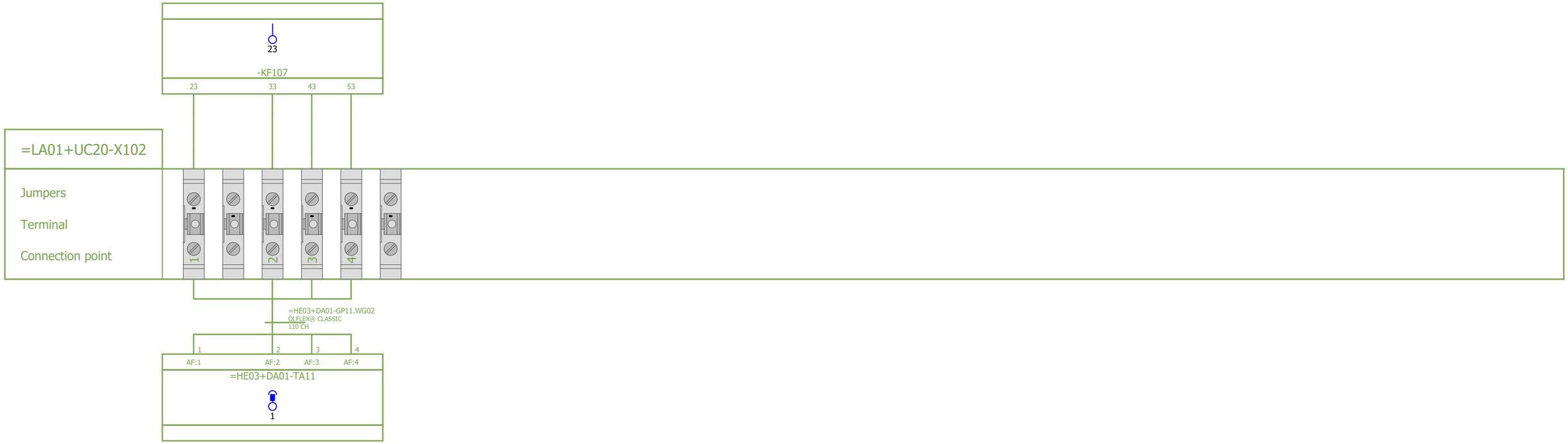
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X101		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 143 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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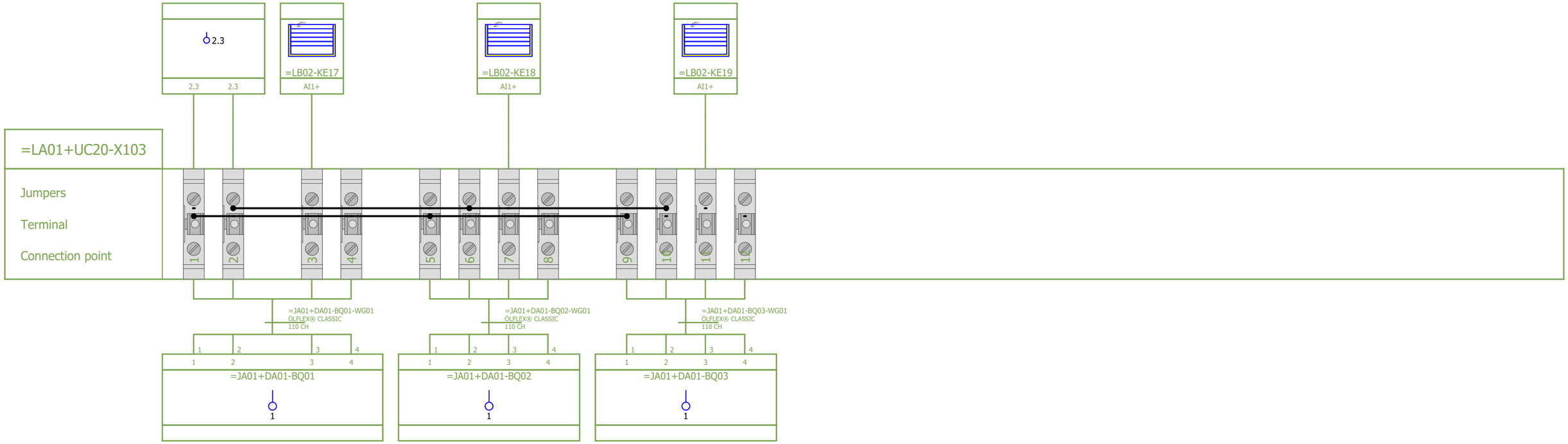
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X102		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 144 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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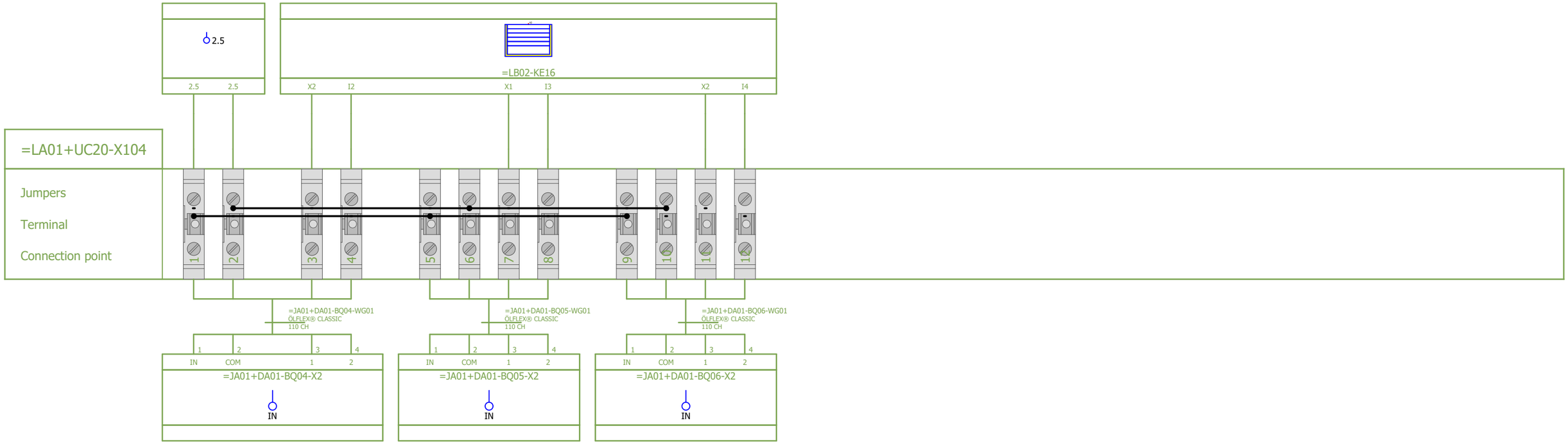
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X103		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 145 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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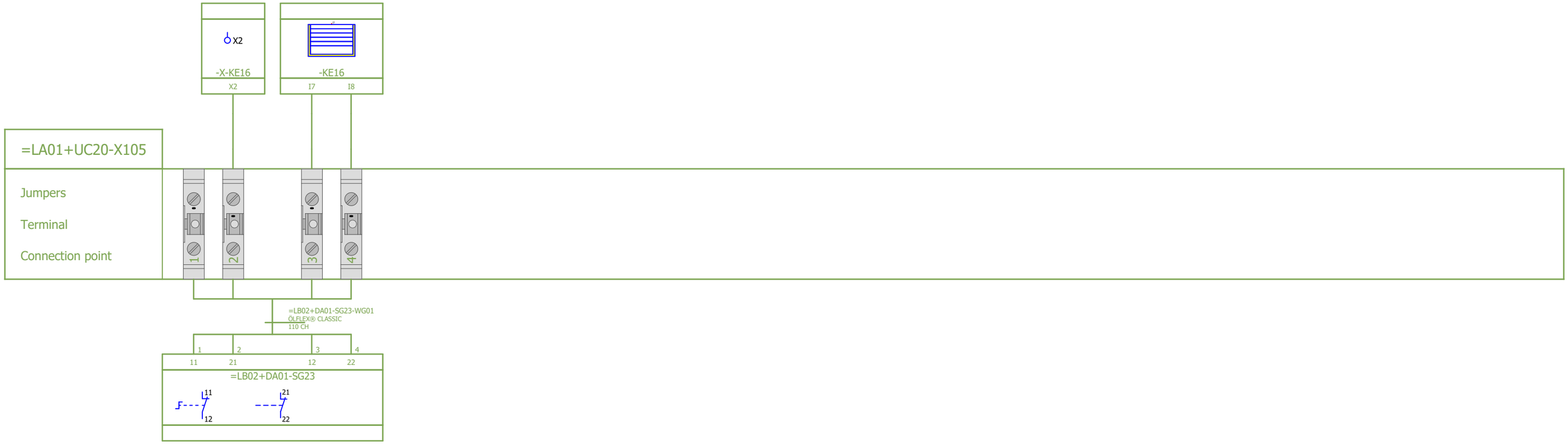
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X104		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 146 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X105		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 147 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

External targets

=LA01+UC20-X106

Jumpers

Terminal

Connection point

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

	-X50	-KF100	-X51	-KF101	-X52	-KF102	-X53	-KF103	-X54	-KF104	-X55	-KF105
	WH	WH	WH	WH	WH	WH	WH	WH	WH	WH	WH	WH
	4	44	4	44	4	44	4	44	4	44	4	44
	4		4		4		4		4		4	
	=RE01+GB01-GB01-WD05 CLASSIC 110 CH		=RE01+GB02-GB02-WD05 CLASSIC 110 CH		=RE01+GB03-GB03-WD05 CLASSIC 110 CH		=RE02+GB04-GB04-WD05 CLASSIC 110 CH		=RE02+GB05-GB05-WD05 CLASSIC 110 CH		=RE02+GB06-GB06-WD05 CLASSIC 110 CH	
	4		4		4		4		4		4	
	=RE01+GB01-XZ01-SlotE		=RE01+GB02-XZ01-SlotE		=RE01+GB03-XZ01-SlotE		=RE02+GB04-XZ01-SlotE		=RE02+GB05-XZ01-SlotE		=RE02+GB06-XZ01-SlotE	
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	2		2		2		2		2		2	

Reference Item Number	Ballard Part # TBD
EPLAN Project Name	601456B - Shell Baseload Power Hub
EPLAN Revision	12
EPLAN Project Pages	627
=	++ | + UC20 | & C04

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X106		
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Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

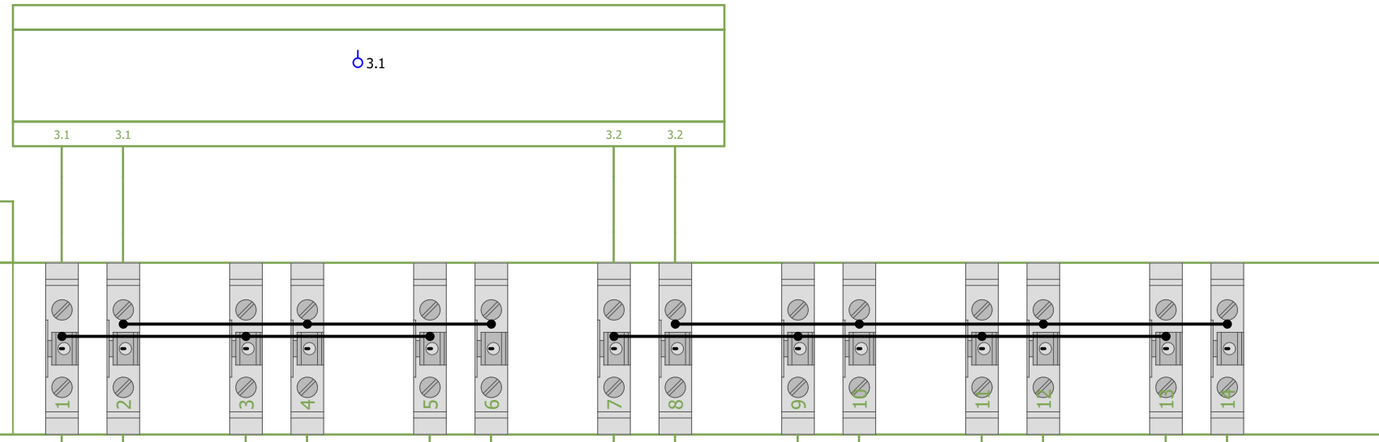
External targets

=LA01+UC20-X108

Jumpers

Terminal

Connection point



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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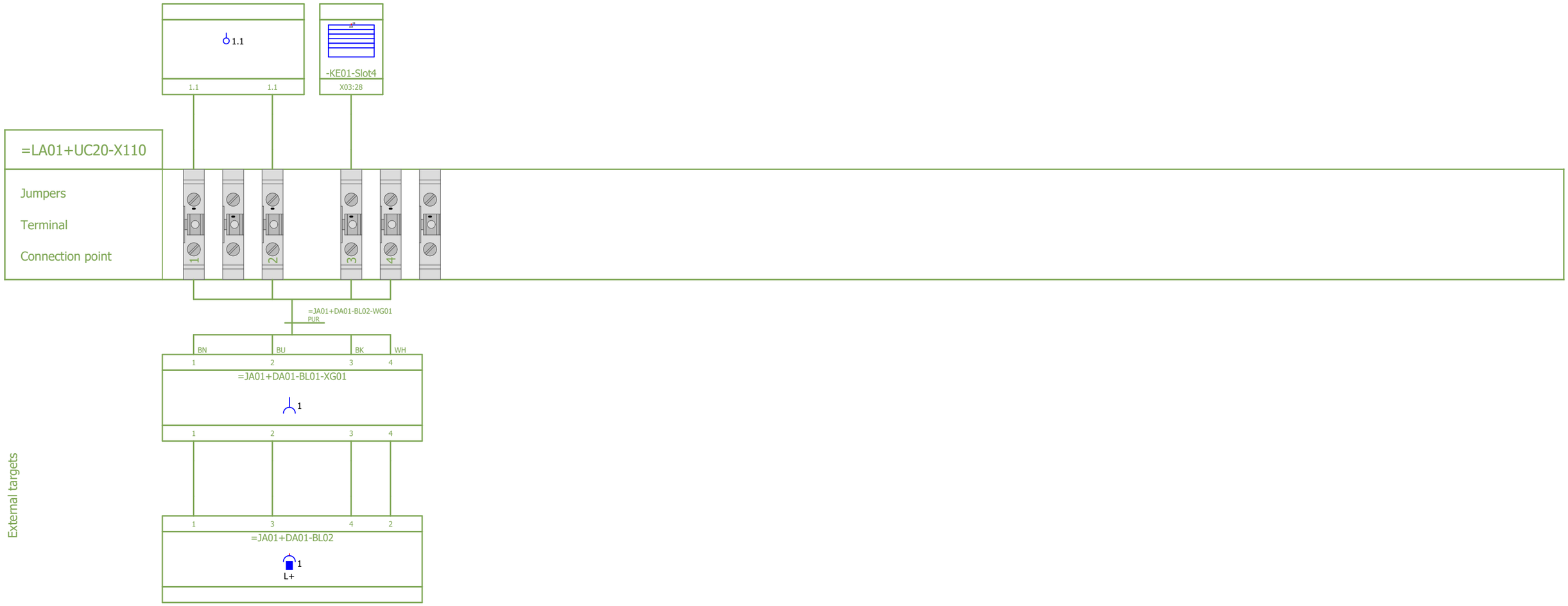
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X108		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 149 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X110		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 150 / 255

FRM5103656/0B

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

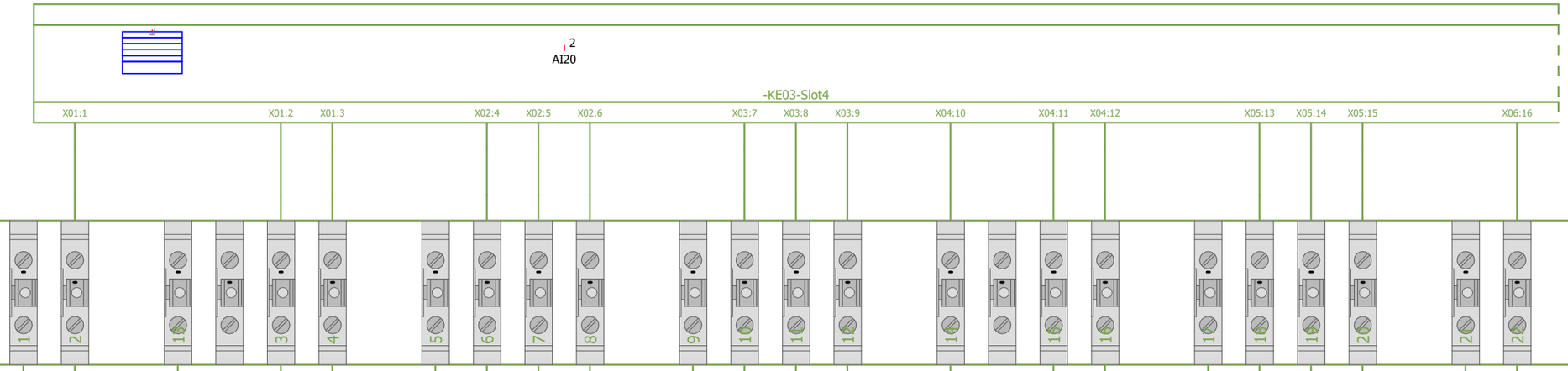
External targets

=LA01+UC20-X120

Jumpers

Terminal

Connection point



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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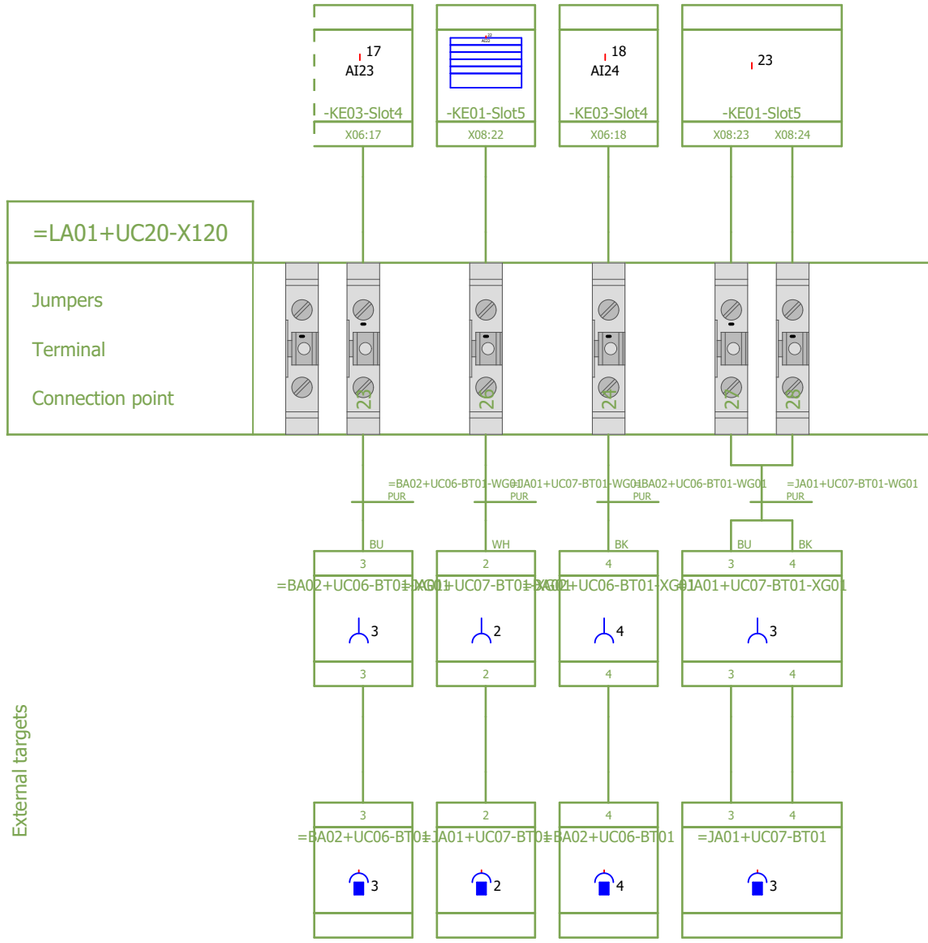
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 151 / 255

FRM5103656/0B

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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DRAWING TITLE			
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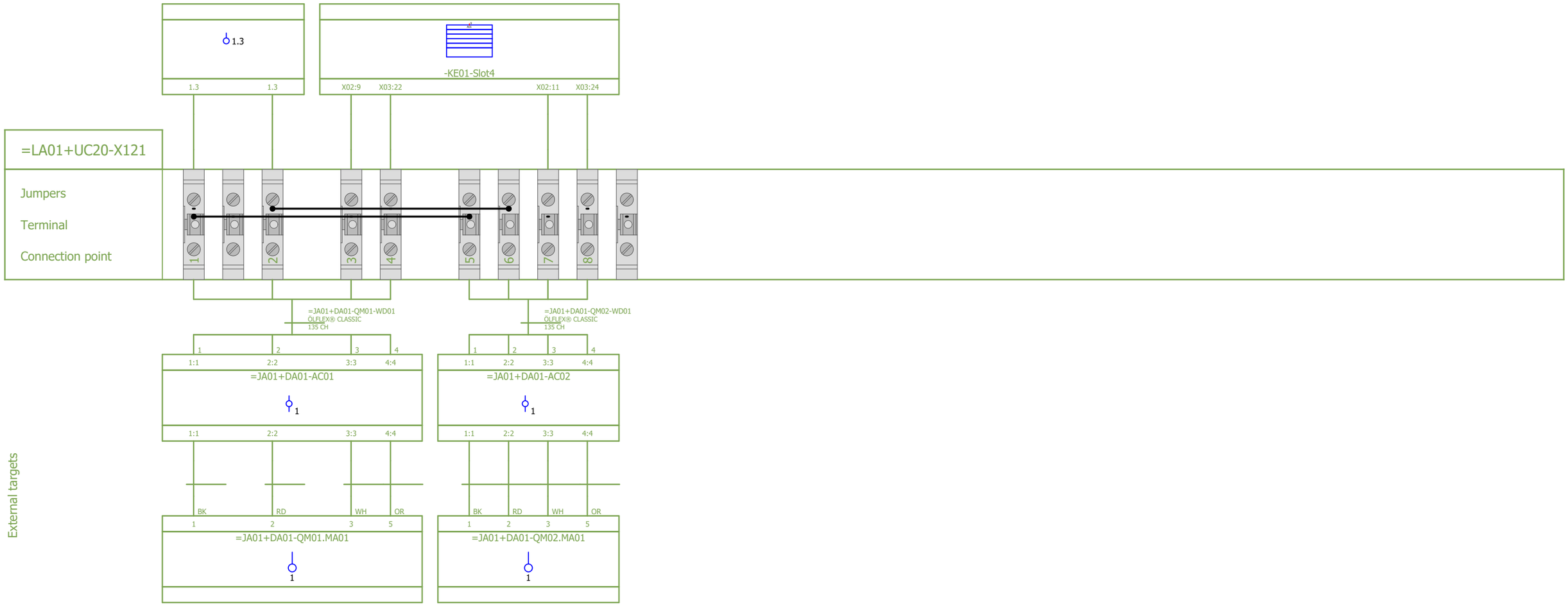
FRM5103656/0B

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X121		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 153 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

External targets

=LA01+UC20-X122

Jumpers

Terminal

Connection point

-KE02-Slot07 X02:9 X02:9

1.2 1.2 1.2 2.6 2.6

-KE02-Slot07 X03:22 X03:22 X03:24 X03:24 X02:11 X02:11

3 | 14 | 11 | 12 | 9 | 10 | 4 | 5 | 13 | 16 | 6 | 7 | 14 | 16 | 8 | | 16 |

=JA01+DA01-QM03-WD01 ÖLFLEX® CLASSIC 135 CH 3
=JA01+DA01-QM05-WD01 ÖLFLEX® CLASSIC 135 CH 3
=JA01+DA01-QM03-WD01 ÖLFLEX® CLASSIC 135 CH 1 2
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=JA01+DA01-QM03-WD01 ÖLFLEX® CLASSIC 135 CH 4
=JA01+DA01-QM04-WD01 ÖLFLEX® CLASSIC 135 CH 1
=JA01+DA01-QM05-WD01 ÖLFLEX® CLASSIC 135 CH 4
=JA01+DA01-QM06-WD01 ÖLFLEX® CLASSIC 135 CH 1
=JA01+DA01-QM04-WD01 ÖLFLEX® CLASSIC 135 CH 2 3
=JA01+DA01-QM06-WD01 ÖLFLEX® CLASSIC 135 CH 2 3
=JA01+DA01-QM04-WD01 ÖLFLEX® CLASSIC 135 CH 4
=JA01+DA01-QM06-WD01 ÖLFLEX® CLASSIC 135 CH 4

3:3 =JA01+DA01-AC03 3
3:3 =JA01+DA01-AC05 3
1:1 2:2 =JA01+DA01-AC03 1
1:1 2:2 =JA01+DA01-AC05 1
4:4 =JA01+DA01-AC03 4
1:1 =JA01+DA01-AC04 1
4:4 =JA01+DA01-AC05 4
1:1 =JA01+DA01-AC06 1
2:2 3:3 =JA01+DA01-AC04 2
2:2 3:3 =JA01+DA01-AC06 2
4:4 =JA01+DA01-AC04 4
4:4 =JA01+DA01-AC06 4

WH 3 =JA01+DA01-QM03.MA01 3
WH 3 =JA01+DA01-QM05.MA01 3
BK 1 =JA01+DA01-QM03.MA01 1
RD 2
BK 1 =JA01+DA01-QM05.MA01 1
RD 2
OR 5 =JA01+DA01-QM03.MA01 5
BK 1 =JA01+DA01-QM04.MA01 1
OR 5 =JA01+DA01-QM05.MA01 5
BK 1 =JA01+DA01-QM06.MA01 1
RD 2 =JA01+DA01-QM04.MA01 2
WH 3
RD 2 =JA01+DA01-QM06.MA01 2
WH 3
OR 5 =JA01+DA01-QM04.MA01 5
OR 5 =JA01+DA01-QM06.MA01 5

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

REVISION INFORMATION
DESCRIPTION
DATE
29-Sep-25

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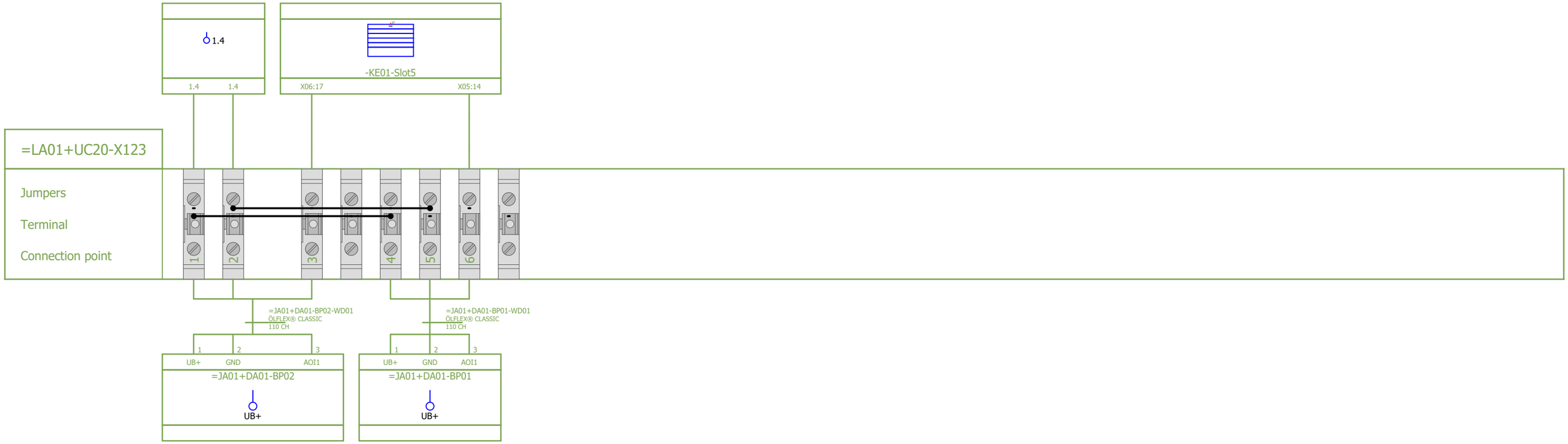
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X122		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 154 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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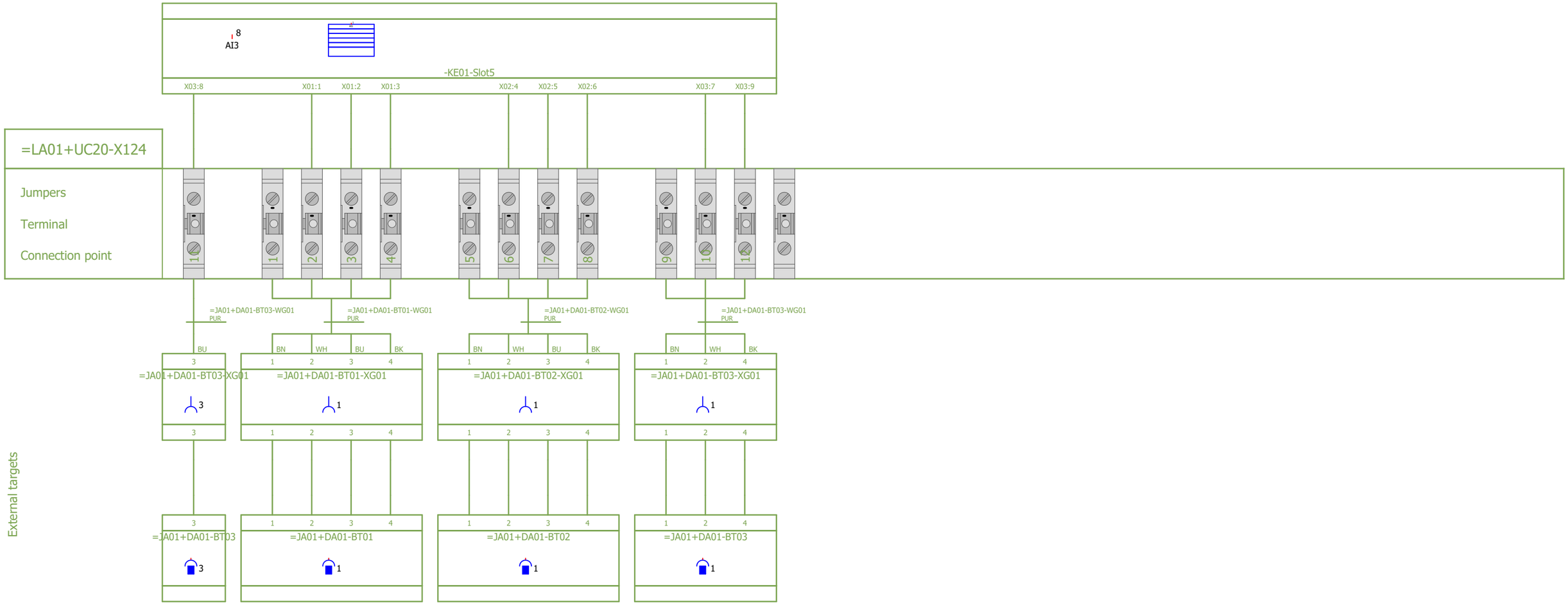
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X123		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 155 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

External targets



Reference Item Number	Ballard Part # TBD		
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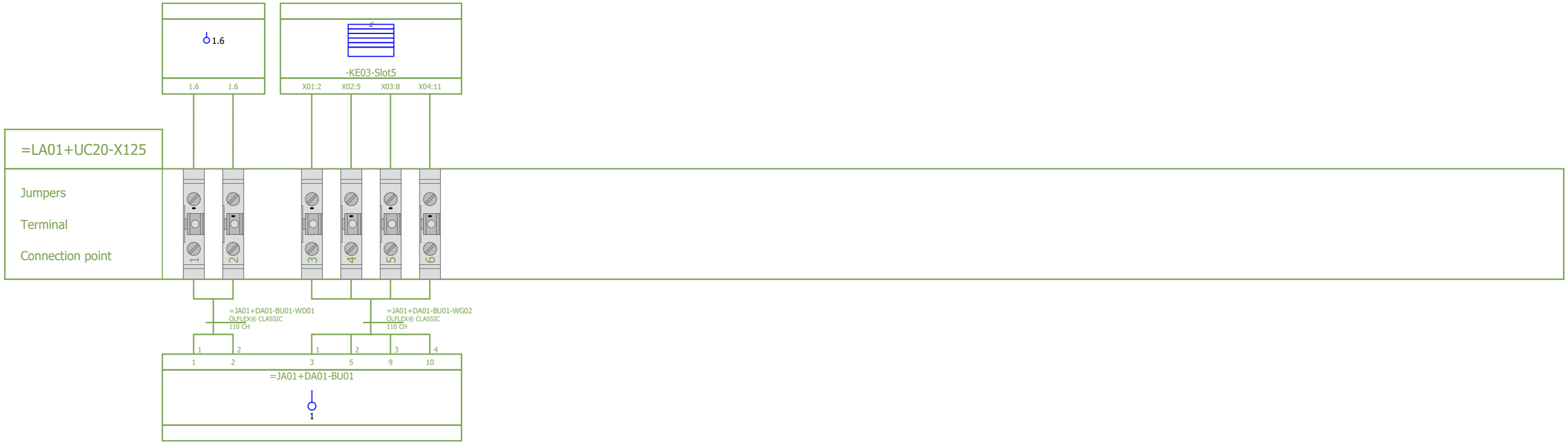
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DRAWING TITLE			
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 156 / 255

FRM5103656/0B

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X125		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 157 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

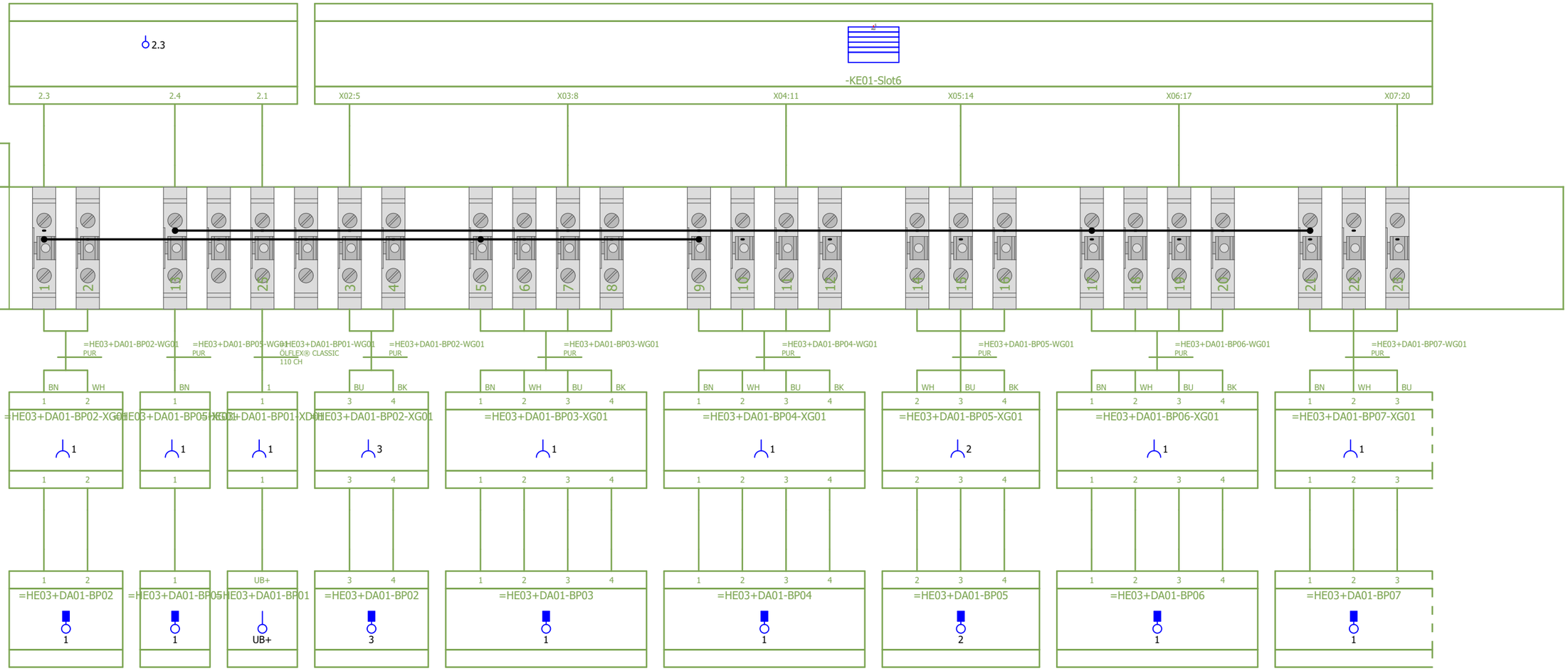
External targets

=LA01+UC20-X150

Jumpers

Terminal

Connection point



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X150		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 158 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

External targets

-KE01-Slot5
X07:20

=LA01+UC20-X150

Jumpers

Terminal

Connection point

24 | 24 | PE

=HE03+DA01-BP07-WG01
PUR
BK
4
4

=HE03+DA01-BP01-WG01
ÖLFLEX® CLASSIC
110 CH
2 | 3
3 | PE
3 | PE

=HE03+DA01-BP07-XG01

=HE03+DA01-BP01-XD01

4

3

4

4

=HE03+DA01-BP07

4

AOU1 | PE

=HE03+DA01-BP01

AOU1

Reference Item Number	Ballard Part # TBD		
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X150		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 159 / 255

FRM5103656/0B

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

External targets

=LA01+UC20-X160

Jumpers

Terminal

Connection point

-KE03-Slot3

20
AI20

X07:19 X07:20 X07:21 X08:22 X08:23 X08:24 X09:25 X09:26 X09:27

-KE03-Slot4

20
AI20

X07:19 X07:20 X07:21 X08:22 X08:23 X08:24 X09:25 X09:23 X09:24

1 2 16 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19 20 21 22 23 24

=HE01+DA01-BT01-WG01 PUR BN WH
=HE02+DA01-BT04-WG01 PUR BN
=HE01+DA01-BT01-WG01 PUR BU BK
=HE01+DA01-BT02-WG01 PUR BN WH BU BK
=HE01+DA01-BT03-WG01 PUR BN WH BU BK
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=HE01+DA01-BT01-XG01 1 2 1
=HE02+DA01-BT04-XG01 1 1
=HE01+DA01-BT01-XG01 3 3 4
=HE01+DA01-BT02-XG01 1 1 2 3 4
=HE01+DA01-BT03-XG01 1 1 2 3 4
=HE02+DA01-BT04-XG01 2 2 3 4
=HE02+DA01-BT05-XG01 1 1 2 3 4
=HE02+DA01-BT06-XG01 1 1 2 3 4

=HE01+DA01-BT01 1 2 1
=HE02+DA01-BT04 1 1
=HE01+DA01-BT01 3 3 4
=HE01+DA01-BT02 1 1 2 3 4
=HE01+DA01-BT03 1 1 2 3 4
=HE02+DA01-BT04 2 2 3 4
=HE02+DA01-BT05 1 1 2 3 4
=HE02+DA01-BT06 1 1 2 3 4

Reference Item Number	Ballard Part # TBD
EPLAN Project Name	601456B - Shell Baseload Power Hub
EPLAN Revision	12
EPLAN Project Pages	627
=	++ | + UC20 | & C04

REVISION INFORMATION
DESCRIPTION
DATE
29-Sep-25

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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X160		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 160 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

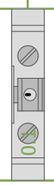


=LA01+UC20-X201

Jumpers

Terminal

Connection point



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

REVISION INFORMATION	
DESCRIPTION	
DATE	
29-Sep-25	

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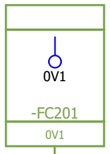
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X201		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 161 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

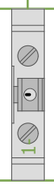


=LA01+UC20-X201-

Jumpers

Terminal

Connection point



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X201-		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 162 / 255

Terminal-connection diagram

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PBL 29-Sep-25

Internal targets

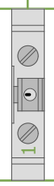


=LA01+UC20-X202

Jumpers

Terminal

Connection point



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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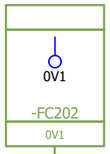
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X202		
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Terminal-connection diagram

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PBL 29-Sep-25

Internal targets

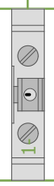


=LA01+UC20-X202-

Jumpers

Terminal

Connection point



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X202-		
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Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

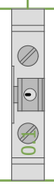


=LA01+UC20-X203

Jumpers

Terminal

Connection point



External targets

Reference Item Number	Ballard Part # TBD		
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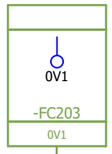
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DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X203		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 165 / 255

FRM5103656/0B

Terminal-connection diagram

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PBL 29-Sep-25

Internal targets

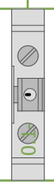


=LA01+UC20-X203-

Jumpers

Terminal

Connection point



External targets

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DATE
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X203-		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 166 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

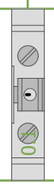


=LA01+UC20-X204

Jumpers

Terminal

Connection point



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

REVISION INFORMATION	
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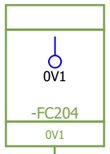
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X204		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 167 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

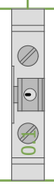


=LA01+UC20-X204-

Jumpers

Terminal

Connection point



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X204-		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 168 / 255

Terminal-connection diagram

F11_001
PBL 29-Sep-25

Internal targets

External targets

=LA01+UC20-X230

Jumpers

Terminal

Connection point

-KE5-Slot3	-FC210.1	-KE5-Slot3	-FC210.2	-KE01-Slot3		-KE01-Slot3
X01:1	1-	X01:4	1-	X01:7	2.2 3.3	X02:15

1 2 3 4 5 6 7 8

=JA01+DA01-EA01-WD01 PUR BK BU
=JA01+DA01-EA02-WD01 PUR BK BU
=JA01+DA01-EA03-WD01 PUR BK BU
=JA01+DA01-SG01-WG01 ÖLFLEX® CLASSIC 110 CH 1 2

=JA01+DA01-EA01-XD01	=JA01+DA01-EA02-XD01	=JA01+DA01-EA03-XD01	=JA01+DA01-SG01
4 3	4 3	4 3	13 14
4	4	4	E 13 14
4 3	4 3	4 3	

=JA01+DA01-EA1	=JA01+DA01-EA02	=JA01+DA01-EA03
4 3	4 3	4 3
4	4	4

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& C04

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Terminal-connection diagram =LA01+UC20-X230		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 169 / 255

FRM5103656/0B

Cable Overview / Cable Schedule

F10_001_Ballard

Cable Name	Function Text	Source (From)	Target (To)	Cable Type	All Conductors	Cross-Section [Unit]	Length [Unit]	Manufacturer	Type Number	Order Number
=HE01+DA01-BT01-WG01	FC1 HT Outlet Temp Signal	=HE01+DA01-BT01-XG01	=LA01-X160	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE01+DA01-BT02-WG01	FC2 HT Outlet Temp Signal	=HE01+DA01-BT02-XG01	=LA01-X160	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE01+DA01-BT03-WG01	FC3 HT Outlet Temp Signal	=HE01+DA01-BT03-XG01	=LA01-X160	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE02+DA01-BT04-WG01	FC4 HT Outlet Temp Signal	=HE02+DA01-BT04-XG01	=LA01-X160	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE02+DA01-BT05-WG01	FC5 HT Outlet Temp Signal	=HE02+DA01-BT05-XG01	=LA01-X160	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE02+DA01-BT06-WG01	=	=HE02+DA01-BT06-XG01	=LA01-X160	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE03+DA01-BF01-WG01	LT Circuit Flow Signal	=BA20+UC50-X10	=HE03+DA01-BF01-XD01	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE03+DA01-BP01-WG01	LT Circuit dP Signal	=HE03+DA01-BP01-XD01	=LA01-X150	ÖLFLEX® CLASSIC 110 CH	3	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035056
=HE03+DA01-BP02-WG01	FC1 LT Inlet Pressure Signal	=HE03+DA01-BP02-XG01	=LA01-X150	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE03+DA01-BP03-WG01	FC2 LT Inlet Pressure Signal	=HE03+DA01-BP03-XG01	=LA01-X150	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE03+DA01-BP04-WG01	FC3 LT Inlet Pressure Signal	=HE03+DA01-BP04-XG01	=LA01-X150	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE03+DA01-BP05-WG01	FC4 LT Inlet Pressure Signal	=HE03+DA01-BP05-XG01	=LA01-X150	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE03+DA01-BP06-WG01	FC5 LT Inlet Pressure Signal	=HE03+DA01-BP06-XG01	=LA01-X150	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE03+DA01-BP07-WG01	FC1 LT Inlet Pressure Signal	=HE03+DA01-BP07-XG01	=LA01-X150	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=HE03+DA01-BT04-WG01	LT Return Temp Signal	=BA20+UC50-X10	=HE03+DA01-BT04-XG01	PUR	4	0,34 mm²	15 m	IFM Electronic AS	ADOAH040MSS0015K04	EVC698
=HE03+DA01-BT05-WG01	LT Radiator Outlet Signal	=BA20+UC50-X10	=HE03+DA01-BT05-XG01	PUR	4	0,34 mm²	15 m	IFM Electronic AS	ADOAH040MSS0015K04	EVC698
=HE03+DA01-GP11-WG01	24 VDC supply VFD LT Pump	=LA01-X108	=HE03+DA01-TA11	ÖLFLEX CLASSIC 110	3G	1 mm²		Lapp Group	ÖLFLEX CLASSIC 110	1119 203
=HE03+DA01-GP11.WD01	Power supply LT Pump	=LA01-X10	=HE03+DA01-TA11	ÖLFLEX® CLASSIC 135 CH	4	2,5 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH	1123342
=HE03+DA01-GP11.WD02	=	=HE03+DA01-GP11	=HE03+DA01-TA11	ÖLFLEX® CLASSIC 135 CH	4	2,5 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH	1123342
=HE03+DA01-GP11.WG02	STO LT Pump	=LA01-X102	=HE03+DA01-TA11	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=HE03+DA01-QN01.WG01	LT Mixing Valve Supply and Signal	=BA20+UC50-X10	=HE03+DA01-TF01	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=HE03+DA01-QN01.WG02	=	=HE03+DA01-QN01.MA01	=HE03+DA01-TF01	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=JA01+DA01-AC07-WG01	Ventilation (Upper) Signal	=JA01+DA01-AC07	=LA01-P1-2	BUS CAN FD P	2	0,5 mm²		Lapp Group	UNITRONIC® BUS CAN FD P	2170278
								Lapp Group	UNITRONIC® BUS CAN FD P	2170278
=JA01+DA01-BL02-WG01	Process Drain Tank Level Signal	=JA01+DA01-BL01-XG01	=LA01-X110	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=JA01+DA01-BP01-WD01	Intake dP Sensor	=LA01-X123	=JA01+DA01-BP01	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=JA01+DA01-BP02-WD01	In/Out dP Sensor	=LA01-X123	=JA01+DA01-BP02	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=JA01+DA01-BQ01-WG01	H2 Sensor Ventlation Inlet Signal	=LA01-X103	=JA01+DA01-BQ01	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=JA01+DA01-BQ02-WG01	H2 Sensor Ventlation Outlet A Signal	=LA01-X103	=JA01+DA01-BQ02	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=JA01+DA01-BQ03-WG01	H2 Sensor Ventlation Outlet B Signal	=LA01-X103	=JA01+DA01-BQ03	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=JA01+DA01-BQ04-WG01	Smoke Detector Ventlation Inlet Signal	=LA01-X104	=JA01+DA01-BQ04-X2	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=JA01+DA01-BQ05-WG01	Smoke Detector Ventlation Outlet B Signal	=LA01-X104	=JA01+DA01-BQ05-X2	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=JA01+DA01-BQ06-WG01	=	=LA01-X104	=JA01+DA01-BQ06-X2	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=JA01+DA01-BT01-WG01	Container Intake Air Temp	=JA01+DA01-BT01-XG01	=LA01-X124	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=JA01+DA01-BT02-WG01	Container Temp A	=JA01+DA01-BT02-XG01	=LA01-X124	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=JA01+DA01-BT03-WG01	Container Temp B	=JA01+DA01-BT03-XG01	=LA01-X124	PUR	4	0,34 mm²	10 m	IFM Electronic AS	ADOGH040VAT0025H04/3G/2D	EVC540
=JA01+DA01-BU01-WD01	Air Quality Sensor Supply	=LA01-X125	=JA01+DA01-BU01	ÖLFLEX® CLASSIC 110 CH	3	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035056
=JA01+DA01-BU01-WG02	Air Quality Sensor Signal	=LA01-X125	=JA01+DA01-BU01	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059
=JA01+DA01-EA01-WD01	LED Light strip EA01	=JA01+DA01-EA01-XD01		PUR	4	0,25 mm²	20 m			
			=LA01-X230							
=JA01+DA01-EA02-WD01	LED Light strip EA05	=JA01+DA01-EA02-XD01		PUR	4	0,25 mm²	20 m			
			=LA01-X230							
			=JA01+DA01-EA04-XD01							
=JA01+DA01-EA03-WD01	LED Light strip EA02	=JA01+DA01-EA03-XD01		PUR	4	0,25 mm²	20 m			
			=LA01-X230							
=JA01+DA01-EA04-WD01	LED Light strip EA07	=JA01+DA01-EA04-XD01		PUR	4	0,25 mm²	20 m			

Reference Item Number	Ballard Part # TBD
EPLAN Project Name	601456B - Shell Baseload Power Hub
EPLAN Revision	12
EPLAN Project Pages	627
=	++ | + UC20 | & D01

REVISION INFORMATION
DESCRIPTION
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Cable overview : =HE01+DA01-BT01-WG01 - =JA01+DA01-EA04-WD01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 170 / 255

0	1	2	3	4	5	6	7	8

Cable Overview / Cable Schedule

F10_001_Ballard

Cable Name	Function Text	Source (From)	Target (To)	Cable Type	All Conductors	Cross-Section [Unit]	Length [Unit]	Manufacturer	Type Number	Order Number
=JA01+DA01-EA05-WD01	LED Light strip EA04	=JA01+DA01-EA01-XD02	=JA01+DA01-EA05-XD01	PUR	4	0,25 mm²	6 m			
=JA01+DA01-EA06-WD01	LED Light strip EA06	=JA01+DA01-EA02-XD02	=JA01+DA01-EA06-XD01	PUR	4	0,25 mm²	6 m			
=JA01+DA01-EA07-WD01	=	=JA01+DA01-EA03-XD02	=JA01+DA01-EA07-XD01	PUR	4	0,25 mm²	6 m			
=JA01+DA01-EA08-WD01	LED Light strip EA08	=JA01+DA01-EA04-XD02	=JA01+DA01-EA08-XD01	PUR	4	0,25 mm²	6 m			
=JA01+DA01-EB01.WD01		=JA01+DA01-EB01-X1	=LA01-X13	ÖLFLEX® HEAT 180 MS	4	2,5 mm²		Lapp Group	ÖLFLEX® HEAT 180 MS	00466303
=JA01+DA01-EB01.WD02		=JA01+DA01-EB01-X1	=LA01-X14	ÖLFLEX® HEAT 180 MS	4	2,5 mm²		Lapp Group	ÖLFLEX® HEAT 180 MS	00466303
=JA01+DA01-EB01.WD03		=JA01+DA01-EB01-X1	=LA01-X15	ÖLFLEX® HEAT 180 MS	4	2,5 mm²		Lapp Group	ÖLFLEX® HEAT 180 MS	00466303
=JA01+DA01-GQ06-WD01	Ventilation (Upper) Supply	=JA01+DA01-GQ06-WD01	=LA01-X11	0,6/1 kV	4	2,5 mm²		Murrelektronik	MQ15 Female 0° to open cable, 10m	7000-P8221-P361000
=JA01+DA01-GQ06-WG01	Ventilation (Upper) Signal	=LA01-P1-2	=JA01+DA01-GQ06-CON2	BUS CAN FD P	2	0,5 mm²		Lapp Group	UNITRONIC® BUS CAN FD P	2170278
								Murrelektronik	7000-14541-7981000	7000-14541-7981000
=JA01+DA01-GQ07-WD01	Ventilation (Lower) Supply	=JA01+DA01-GQ07-WD01	=LA01-X12	0,6/1 kV	4	2,5 mm²		Murrelektronik	MQ15 Female 0° to open cable, 10m	7000-P8221-P361000
=JA01+DA01-GQ07-WG01	Ventilation (Upper) Signal	=JA01+DA01-GQ06-CON2	=JA01+DA01-GQ07-CON2	BUS CAN FD P	2	0,5 mm²		Lapp Group	UNITRONIC® BUS CAN FD P	2170278
=JA01+DA01-GQ08-WD01		=LA01-X16	=JA01+DA01-AC08	ÖLFLEX® CLASSIC 135 CH	BK 0,6/1 kV	2,5 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH BK 0,6/1 kV	1123478
			=JA01+DA01-GQ08							
=JA01+DA01-GQ08-WD02	DCDC Cooling Fan A Power	=JA01+DA01-AC08	=JA01+DA01-GQ08	0,6/1 kV	4	2,5 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH BK 0,6/1 kV	1123478
=JA01+DA01-GQ08-WG01	DCDC Cooling Fan B Signal	=JA01+DA01-AC07	=JA01+DA01-GQ08		2	0,5 mm²		Lapp Group	UNITRONIC® BUS CAN FD P	2170278
=JA01+DA01-GQ09-WD01		=LA01-X17	=JA01+DA01-AC08	ÖLFLEX® CLASSIC 135 CH	BK 0,6/1 kV	2,5 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH BK 0,6/1 kV	1123478
			=JA01+DA01-GQ09							
=JA01+DA01-GQ09-WD02	DCDC Cooling Fan B Power	=JA01+DA01-AC08	=JA01+DA01-GQ09	0,6/1 kV	4	2,5 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH BK 0,6/1 kV	1123478
=JA01+DA01-GQ09-WG01	DCDC Cooling Fan A Signal	=JA01+DA01-AC07	=JA01+DA01-GQ09		2	0,5 mm²		Lapp Group	UNITRONIC® BUS CAN FD P	2170278
=JA01+DA01-QM01-WD01	Ventilation Intake Louvre 1	=JA01+DA01-AC01	=LA01-X121	ÖLFLEX® CLASSIC 135 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH	1123270
=JA01+DA01-QM02-WD01	Ventilation Intake Louvre 2	=JA01+DA01-AC02	=LA01-X121	ÖLFLEX® CLASSIC 135 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH	1123270
=JA01+DA01-QM03-WD01	Ventilation exhaust Louvre A1	=JA01+DA01-AC03	=LA01-X122	ÖLFLEX® CLASSIC 135 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH	1123270
=JA01+DA01-QM04-WD01	Ventilation exhaust Louvre A2	=JA01+DA01-AC04	=LA01-X122	ÖLFLEX® CLASSIC 135 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH	1123270
=JA01+DA01-QM05-WD01	Ventilation exhaust Louvre B1	=JA01+DA01-AC05	=LA01-X122	ÖLFLEX® CLASSIC 135 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH	1123270
			=BA20+UC50-X11					Lapp Group	ÖLFLEX® CLASSIC 135 CH	1123270
=JA01+DA01-QM06-WD01	Ventilation exhaust Louvre B2	=JA01+DA01-AC06	=LA01-X122	ÖLFLEX® CLASSIC 135 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH	1123270
			=BA20+UC50-X11					Lapp Group	ÖLFLEX® CLASSIC 135 CH	1123270
=JA01+DA01-SG01-WG01		=LA01-X230	=JA01+DA01-SG01	ÖLFLEX® CLASSIC 110 CH	3	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035056
=LA01+DA01-CA30-WD01	Battery supply RB30	=LA01+DA01-CA30	=LA01-RB30	ÖLFLEX CLASSIC 100 H	3G	2,5 mm²		Lapp Group	ÖLFLEX CLASSIC 100 H	0014 103
=LA01+DA01-CA30-WG01	Temp sensor CA30	=LA01+DA01-CA30	=LA01-RB30	ÖLFLEX® CLASSIC 130 H	3G	1 mm		Lapp Group	ÖLFLEX® CLASSIC 130 H	1123067
=LA01+DA01-RB01-WD01	Battery Supply RB01	=LA01+DA01-CA01	=LA01-RB01	ÖLFLEX® CLASSIC 110 CH	3	2,5 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035089
=LA01+DA01-RB01-WG01	Temp Sensor CA01	=LA01+DA01-CA01	=LA01-RB01	UNITRONIC®-FD CP (TP) PLUS	4	0,5 mm²		Lapp Group	UNITRONIC®-FD CP (TP) PLUS	0030937
=LA01+DA01-RB02-WD01	Battery Supply RB02	=LA01+DA01-CA02	=LA01-RB02	ÖLFLEX® CLASSIC 110 CH	3	2,5 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035089
=LA01+DA01-RB02-WG01	Temp Sensor CA02	=LA01+DA01-CA02	=LA01-RB02	UNITRONIC®-FD CP (TP) PLUS	4	0,5 mm²		Lapp Group	UNITRONIC®-FD CP (TP) PLUS	0030937
=LA01+DA01-RB03-WD01	Battery Supply RB03	=LA01+DA01-CA03	=LA01-RB03	ÖLFLEX® CLASSIC 110 CH	3	2,5 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035089
=LA01+DA01-RB03-WG01	Temp Sensor CA03	=LA01+DA01-CA03	=LA01-RB03	UNITRONIC®-FD CP (TP) PLUS	4	0,5 mm²		Lapp Group	UNITRONIC®-FD CP (TP) PLUS	0030937
=LA01-EA01-WD01		=LA01-X23	=LA01-EA1	YAKY	3	16 AWG	3 m	Rittal	SZ.2500500	2500500
		=LA01-FC21								
		=LA01-TB30								
=LA01-KE01-WG01		=LA01-KE01-Slot1	=LA01-KE02-Slot1					Lapp Group	IE-6A-RJ45-L0.5-P-4-26-7-RJ45	2172363
=LA01-KE02-WG01		=LA01-KE02-Slot1	=LA01-KE03-Slot1					Lapp Group	IE-6A-RJ45-L0.5-P-4-26-7-RJ45	2172363
=LA01-KE03-WG01		=HA01+DA02-XT10	=LA01-KE03-Slot1	Profinet 4pair cabling Cat.6A FRNC flexi	8	23 mm²		Lapp Group	Profinet 4pair cabling Cat.6A FRNC flexible	2170931
=LA01-KF200-WG01	STP			Cat.6						
=LA01-KF200-WG02	=	=LA01-KF200	=LA01-KF210	Cat.6						
=LA01-KF200-WG15	=	=HA01+DA02-XT11	=LA01-KF200	Cat.6	4x2					

Reference Item Number	Ballard Part # TBD
EPLAN Project Name	601456B - Shell Baseload Power Hub
EPLAN Revision	12
EPLAN Project Pages	627
=	++ | + UC20 | & D01

REVISION INFORMATION
DESCRIPTION
DATE
29-Sep-25

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DRAWING		REVISION	12
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 170.a /

FRM5103656/0B

0	1	2	3	4	5	6	7	8

Cable Overview / Cable Schedule

F10_001_Ballard

Cable Name	Function Text	Source (From)	Target (To)	Cable Type	All Conductors	Cross-Section [Unit]	Length [Unit]	Manufacturer	Type Number	Order Number
=LA01-KF200-WG16	STP	=LA01-KF200	=LA01-KF201	Cat.6	4x2					
=LA01-WD01	Supply UC20 MCU cabinet	=LA01-X01	=BA20+UC50-FC03	ÖLFLEX® CLASSIC 135 CH	BK 0,6/1 kV	16 mm²		Lapp Group	ÖLFLEX® CLASSIC 135 CH BK 0,6/1 kV	1123493
			=BA20+UC50-FC05							
=LB02+DA01-SG23-WG01	ESTOP Container Door	=LA01-X105	=LB02+DA01-SG23	ÖLFLEX® CLASSIC 110 CH	4	1 mm²		Lapp Group	ÖLFLEX® CLASSIC 110 CH	10035059

Reference Item Number	Ballard Part # TBD		
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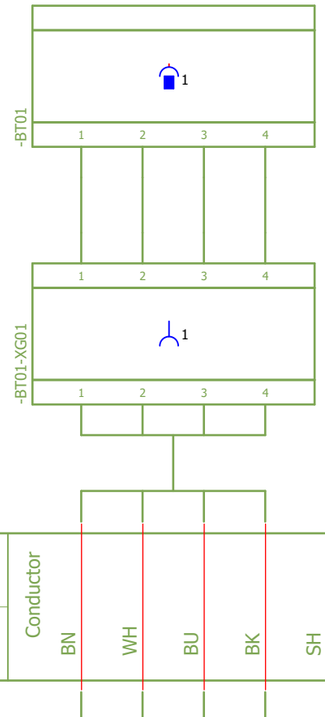
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Cable connection diagram

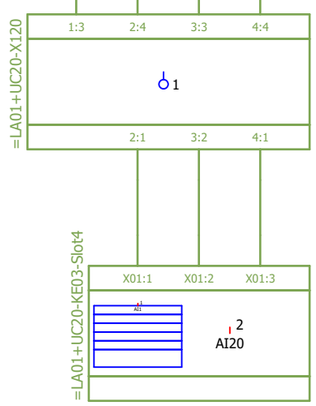
F07_001
PBL 29-Sep-25

Internal targets



=BA01+UC01-BT01-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets



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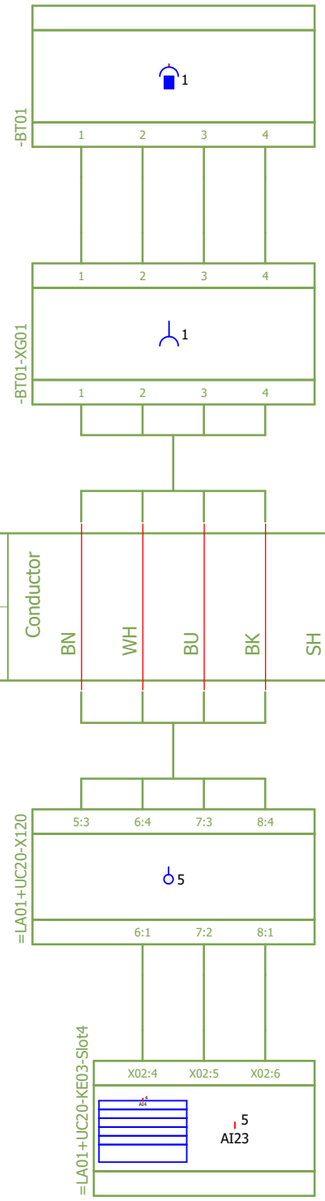
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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =BA01+UC01-BT01-WG01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 173 / 255

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=BA01+UC02-BT01-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets

Reference Item Number	Ballard Part # TBD		
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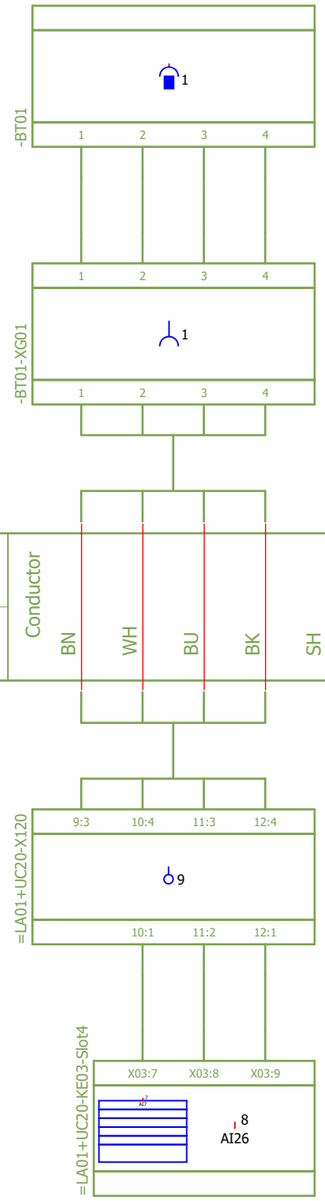
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Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=BA01+UC03-BT01-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets

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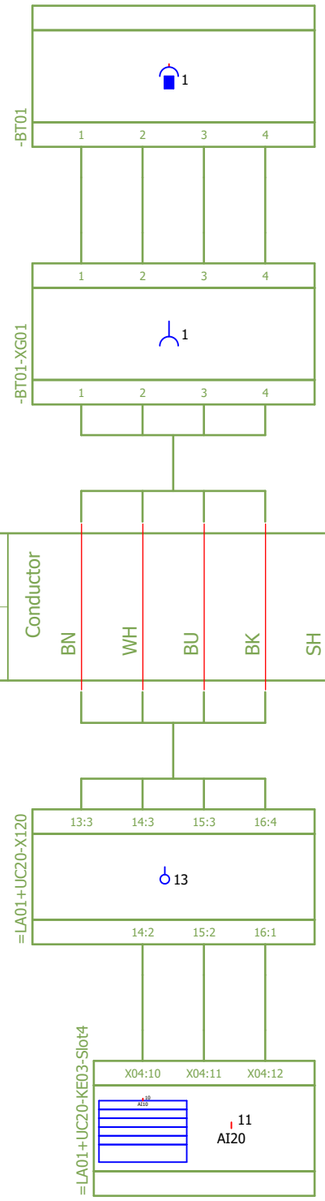
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 175 / 255

FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=BA02+UC04-BT01-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets

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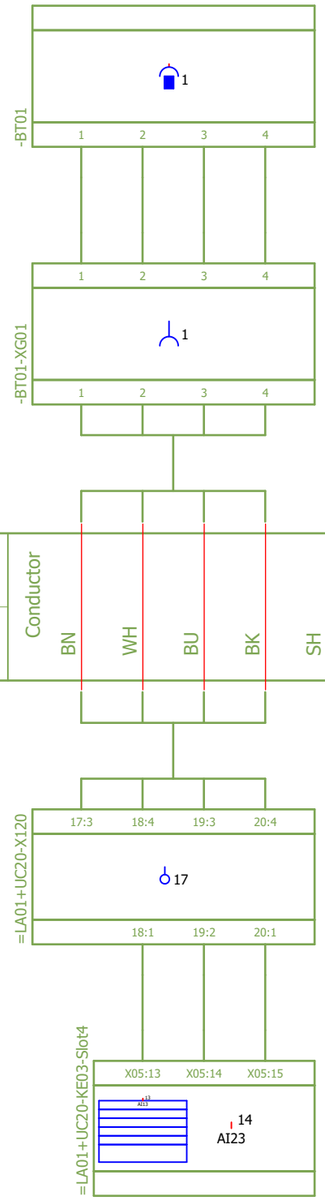
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Cable connection diagram

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PBL 29-Sep-25

Internal targets



=BA02+UC05-BT01-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets

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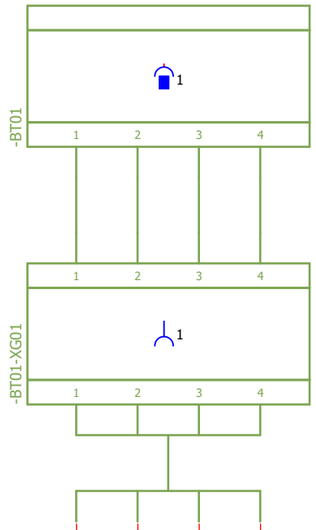
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Cable connection diagram

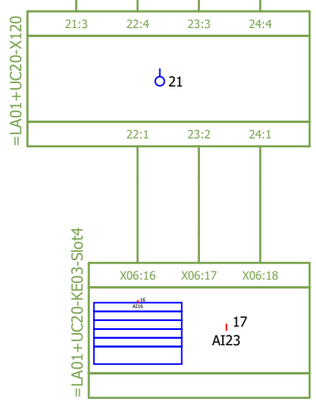
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Internal targets



=BA02+UC06-BT01-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets



Reference Item Number	Ballard Part # TBD		
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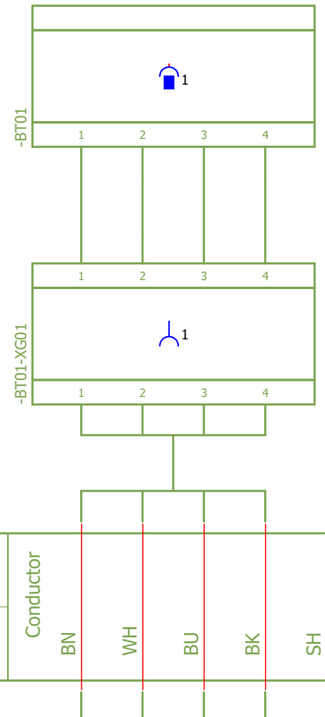
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FRM5103656/0B

Cable connection diagram

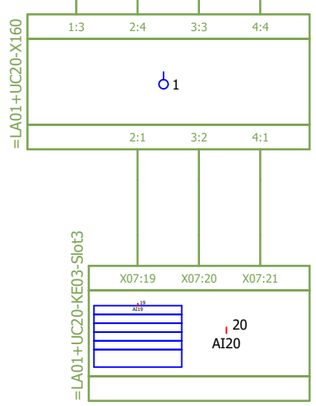
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Internal targets



=HE01+DA01-BT01-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets



Reference Item Number	Ballard Part # TBD		
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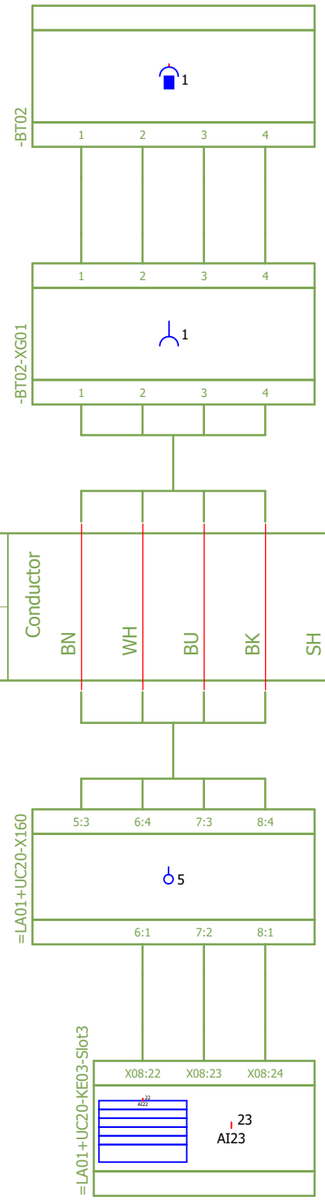
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Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=HE01+DA01-BT02-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets

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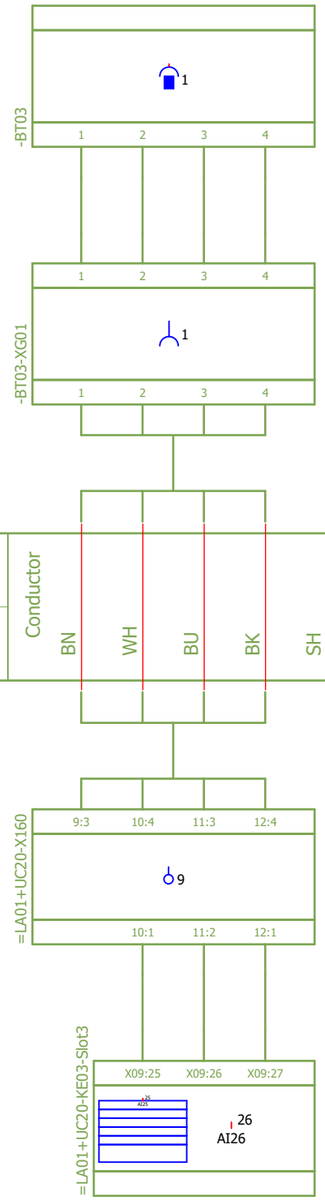
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FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=HE01+DA01-BT03-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets

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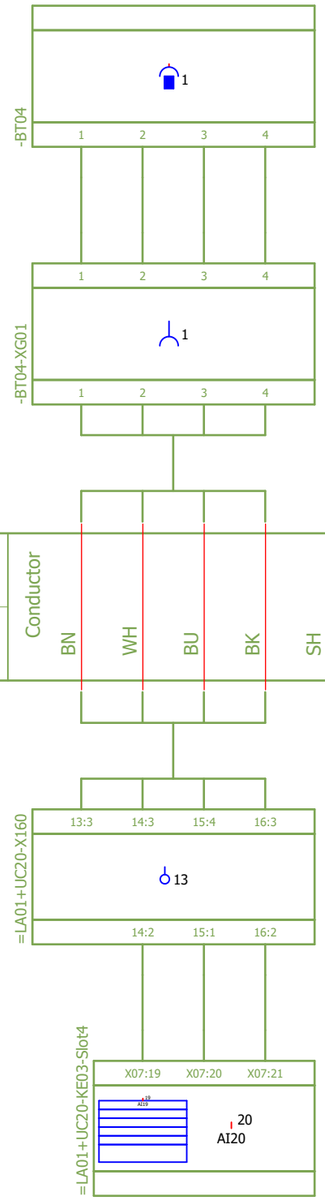
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FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=HE02+DA01-BT04-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets

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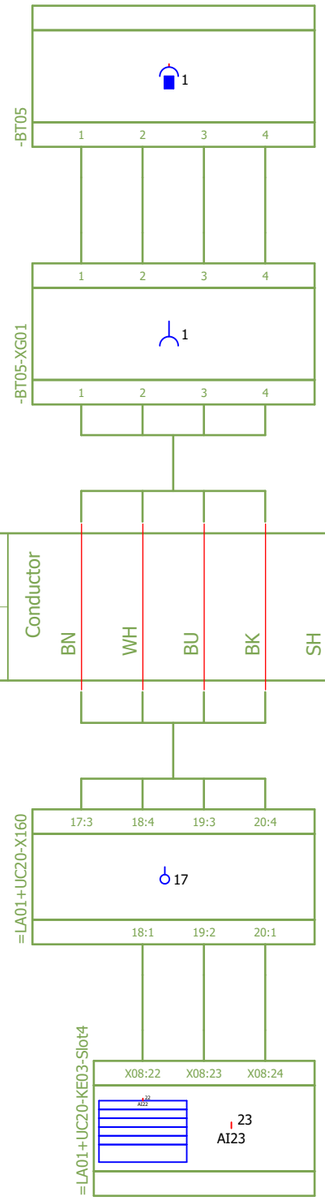
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FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



External targets

=HE02+DA01-BT05-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

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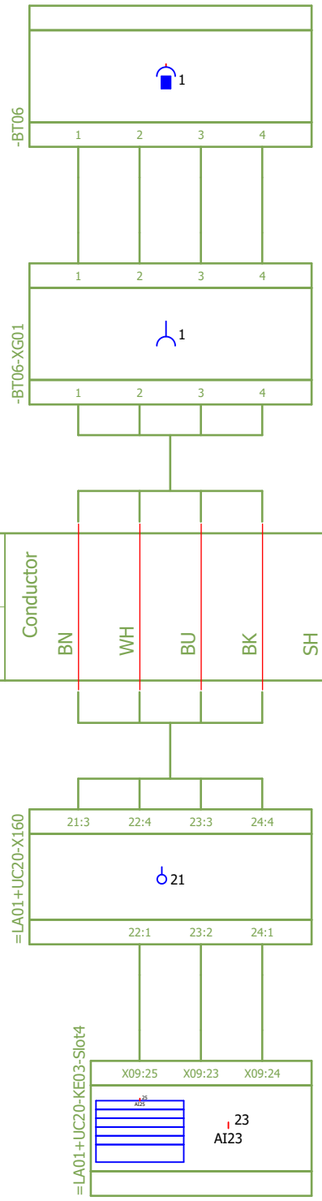
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FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



External targets

=HE02+DA01-BT06-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

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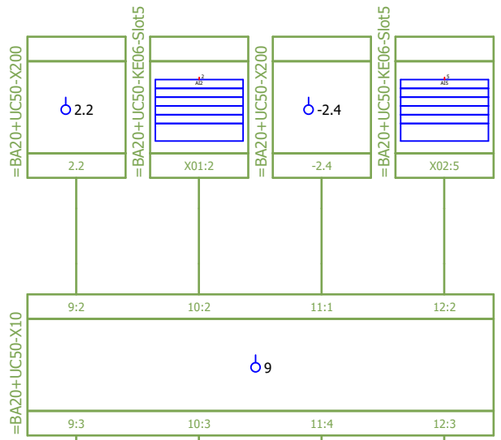
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FRM5103656/0B

Cable connection diagram

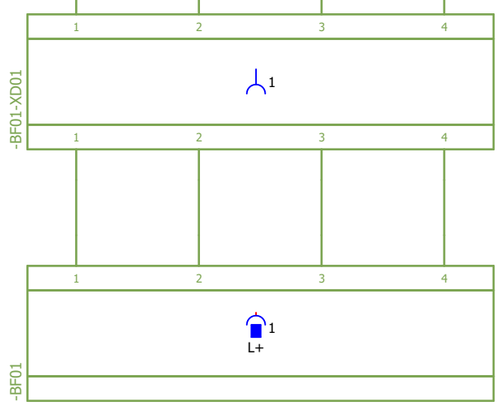
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PBL 29-Sep-25

Internal targets



=HE03+DA01-BF01-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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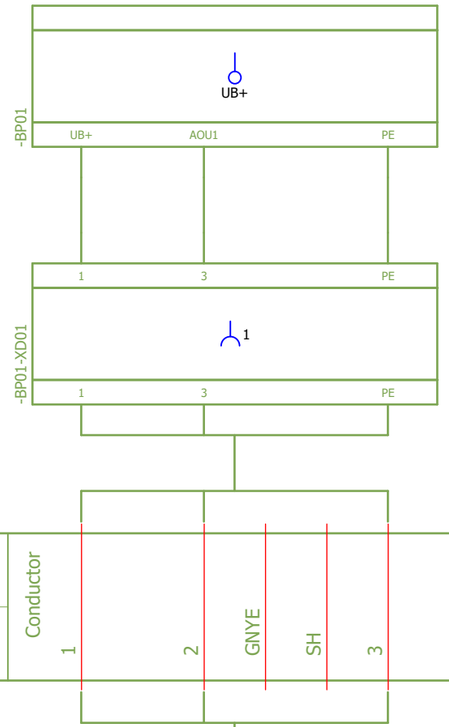
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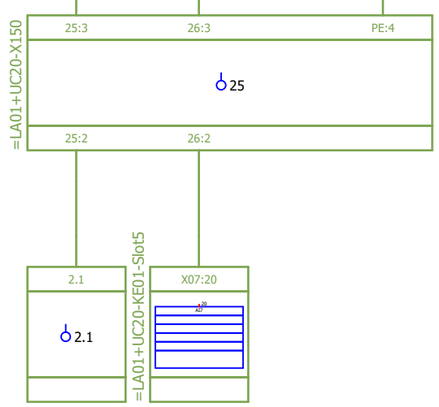
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PBL 29-Sep-25

Internal targets



=HE03+DA01-BP01-WG01	Conductor	1	2	GNYE	SH	3
ÖLFLEX® CLASSIC 110 CH						

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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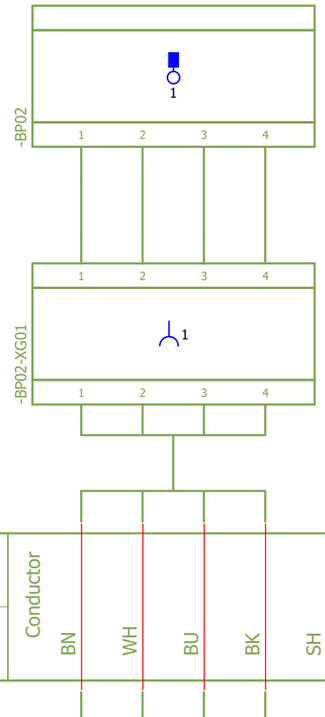
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 186 / 255

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Cable connection diagram

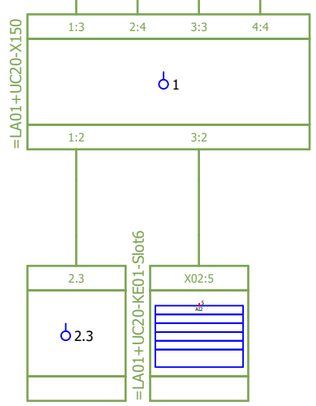
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PBL 29-Sep-25

Internal targets



=HE03+DA01-BP02-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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EPLAN Project Pages	627		
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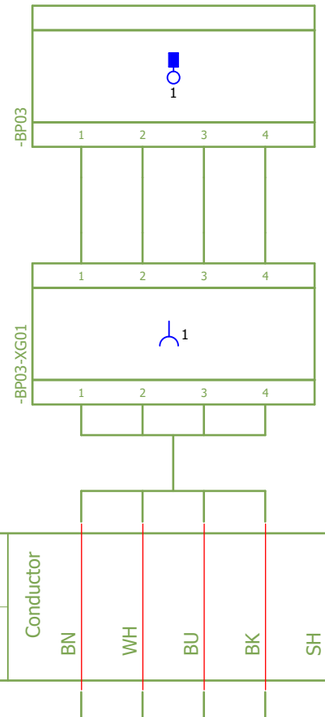
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DRAWING TITLE			
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FRM5103656/0B

Cable connection diagram

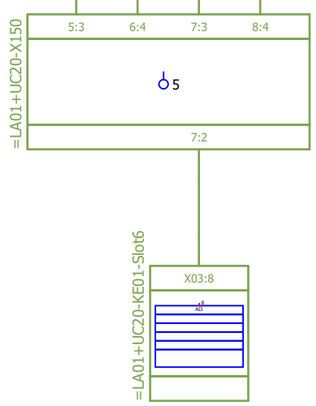
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PBL 29-Sep-25

Internal targets



=HE03+DA01-BP03-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets



Reference Item Number	Ballard Part # TBD		
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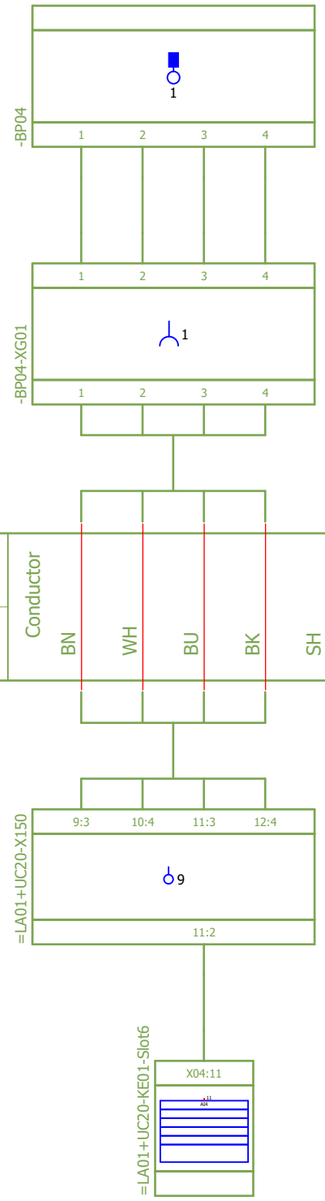
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SHEET TYPE/DESC	Cable-connection diagram =HE03+DA01-BP03-WG01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 188 / 255

Cable connection diagram

F07_001
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Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
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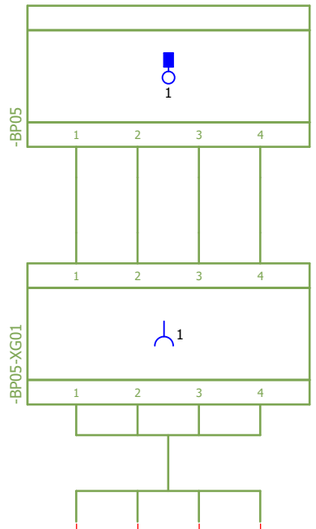
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FRM5103656/0B

Cable connection diagram

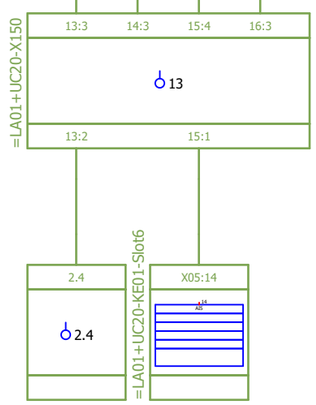
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Internal targets



=HE03+DA01-BP05-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets



Reference Item Number	Ballard Part # TBD		
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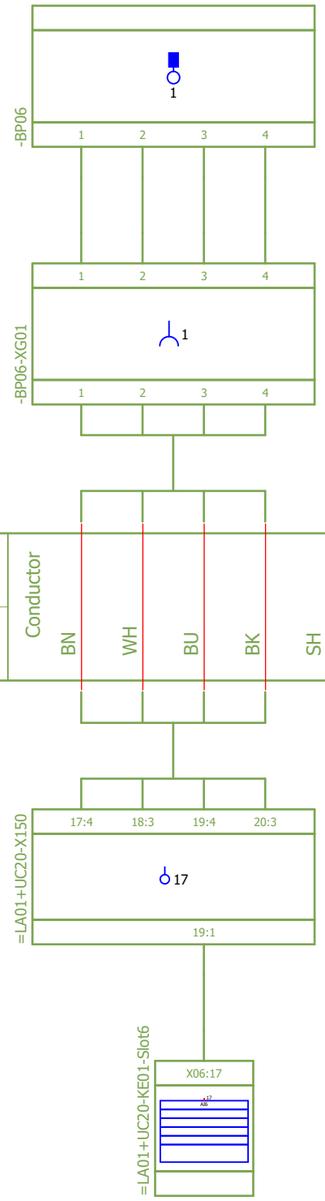
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 190 / 255

FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



External targets

=HE03+DA01-BP06-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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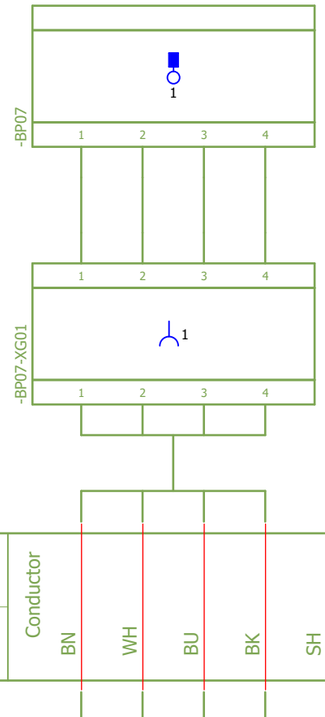
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Cable connection diagram

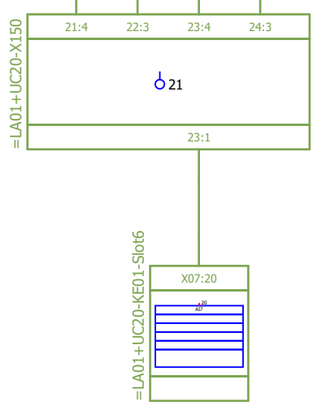
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PBL 29-Sep-25

Internal targets



=HE03+DA01-BP07-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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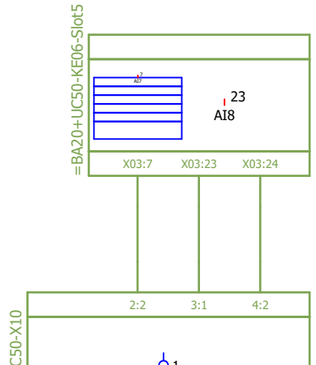
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Cable connection diagram

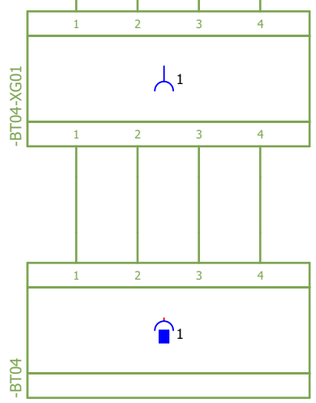
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PBL 29-Sep-25

Internal targets



=HE03+DA01-BT04-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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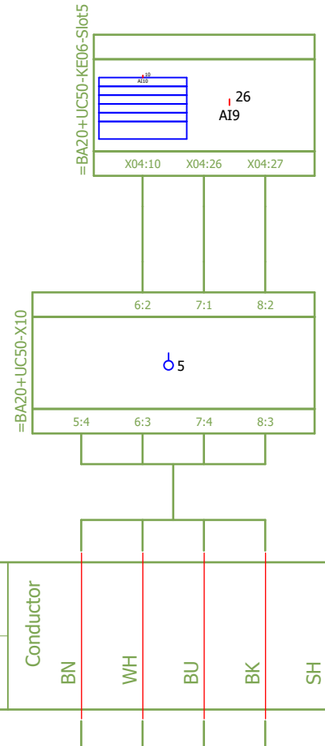
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FRM5103656/0B

Cable connection diagram

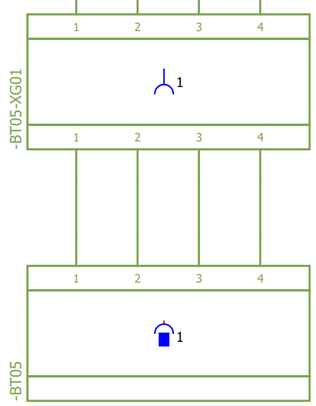
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PBL 29-Sep-25

Internal targets



=HE03+DA01-BT05-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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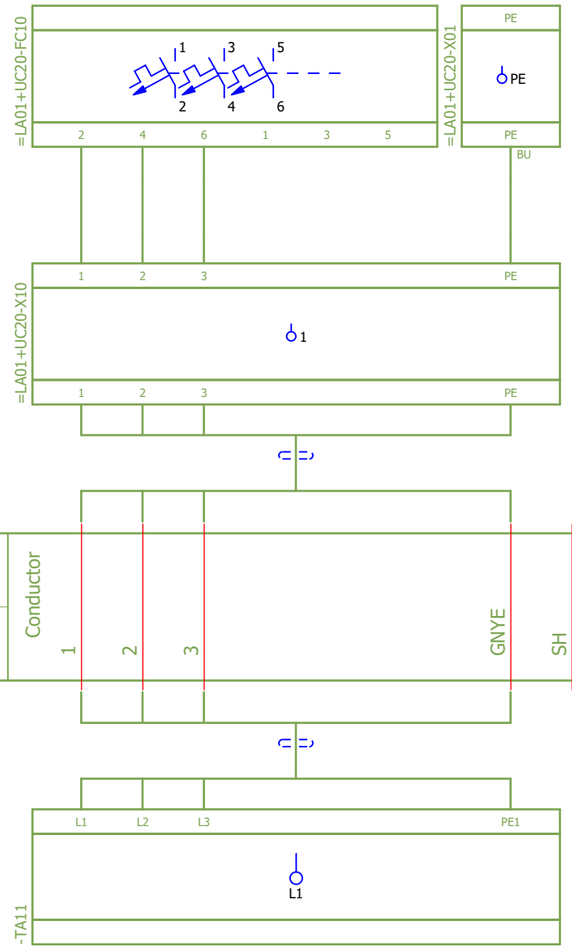
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0	1	2	3	4	5	6	7	8

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=HE03+DA01-GP11.WD01	Conductor	1	2	3	GNYE	SH
ÖLFLEX® CLASSIC 135 CH						

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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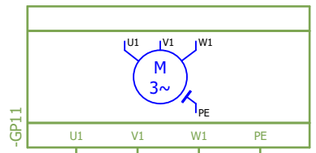
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FRM5103656/0B

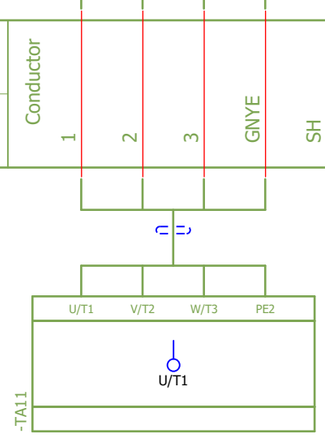
Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=HE03+DA01-GP11.WD02	Conductor	1	2	3	GNYE	SH
ÖLFLEX® CLASSIC 135 CH						



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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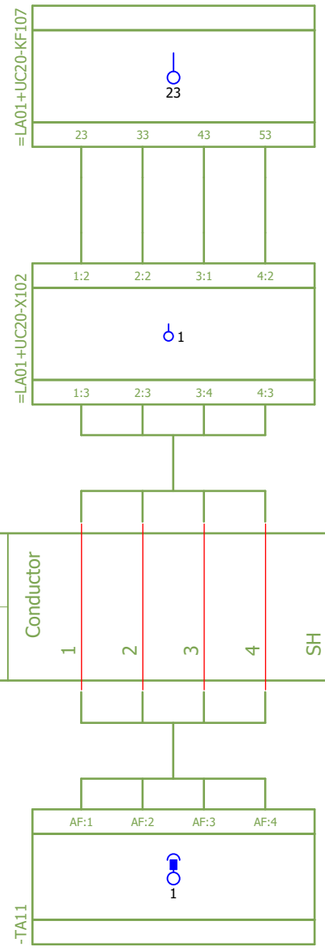
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FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=HE03+DA01-GP11.WG02	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 110 CH						

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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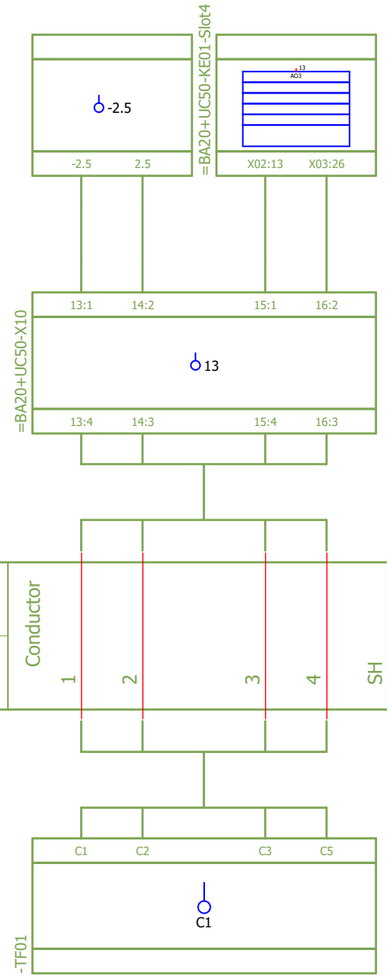
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 197 / 255

FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=HE03+DA01-QN01.WG01	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 110 CH						

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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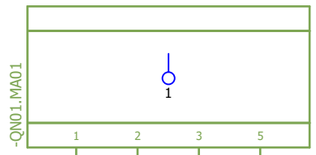
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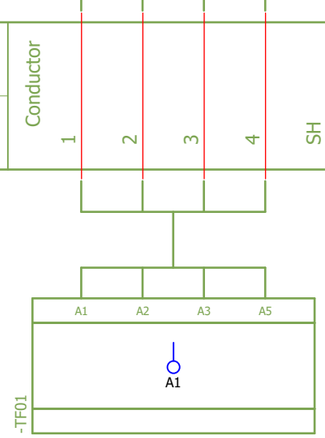
Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=HE03+DA01-QN01.WG02	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 110 CH						



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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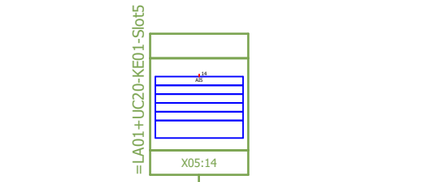
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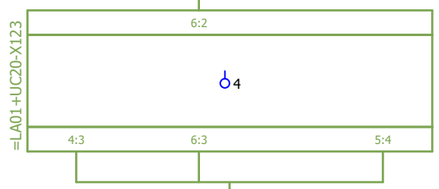
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Cable connection diagram

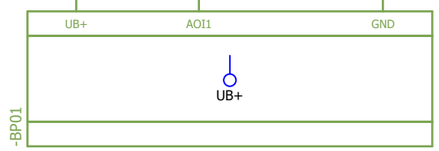
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PBL 29-Sep-25

Internal targets





=JA01+DA01-BP01-WD01	Conductor	1	2	3	4	SH	2
ÖLFLEX® CLASSIC 110 CH							



External targets

Reference Item Number	Ballard Part # TBD		
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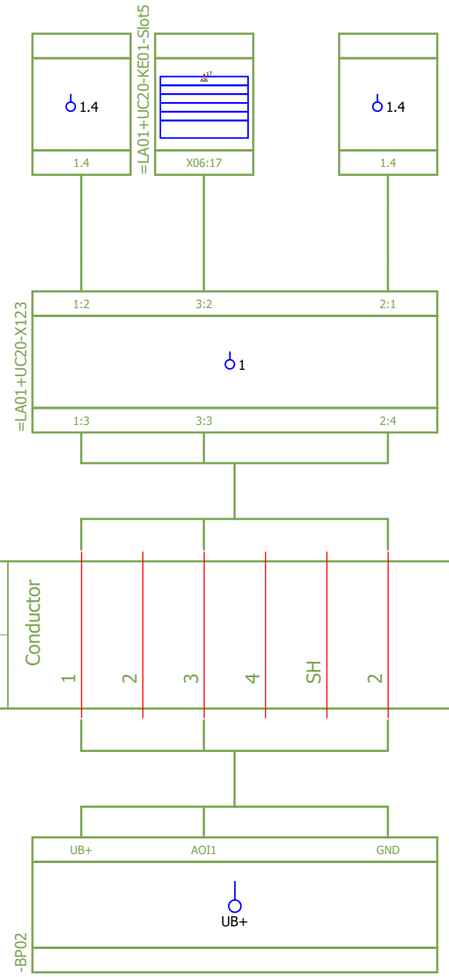
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 200 / 255

FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-BP02-WD01	Conductor	1	2	3	4	SH	2
ÖLFLEX® CLASSIC 110 CH							

External targets

Reference Item Number	Ballard Part # TBD		
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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =JA01+DA01-BP02-WD01		

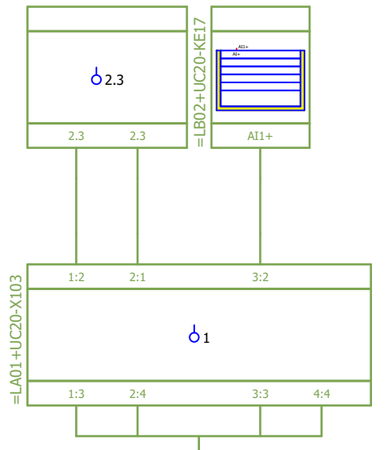
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FRM5103656/0B

Cable connection diagram

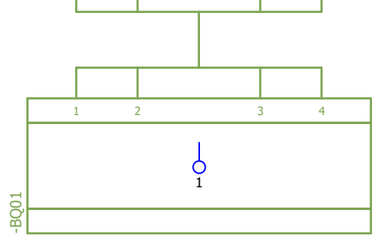
F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-BQ01-WG01	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 110 CH						

External targets



Reference Item Number	Ballard Part # TBD		
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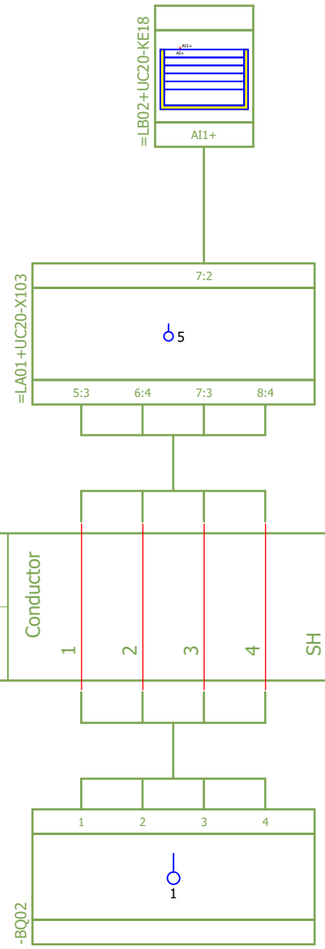
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 202 / 255

FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-BQ02-WG01	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 110 CH						

External targets

Reference Item Number	Ballard Part # TBD		
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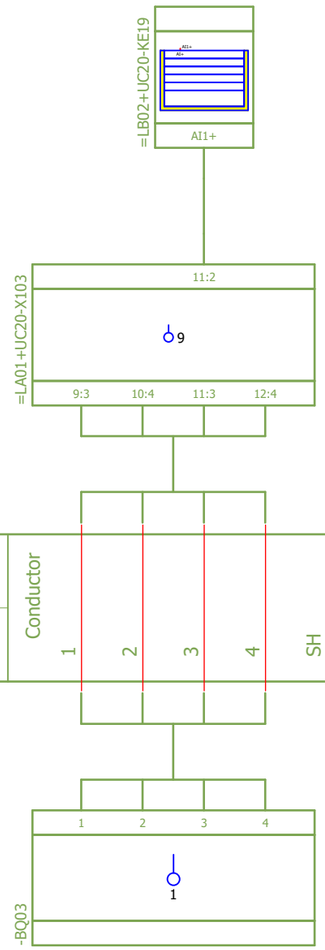
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FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-BQ03-WG01	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 110 CH						

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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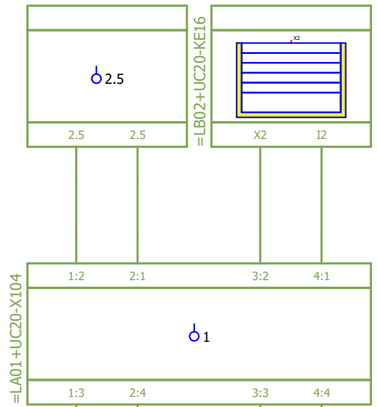
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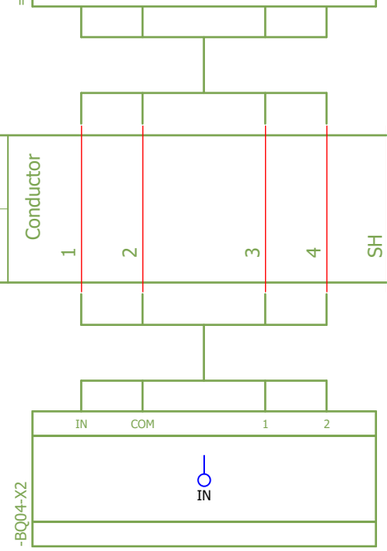
Cable connection diagram

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PBL 29-Sep-25

Internal targets



=JA01+DA01-BQ04-WG01	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 110 CH						



External targets

Reference Item Number	Ballard Part # TBD		
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EPLAN Revision	12		
EPLAN Project Pages	627		
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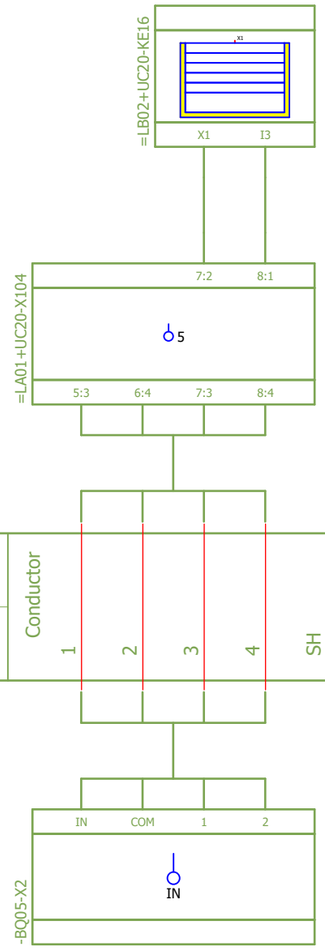
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Cable connection diagram

F07_001
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Internal targets



=JA01+DA01-BQ05-WG01	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 110 CH						

External targets

Reference Item Number	Ballard Part # TBD		
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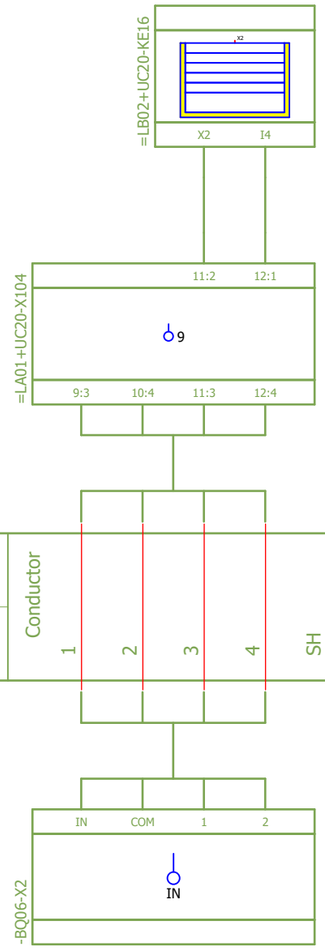
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Cable connection diagram

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Internal targets



External targets

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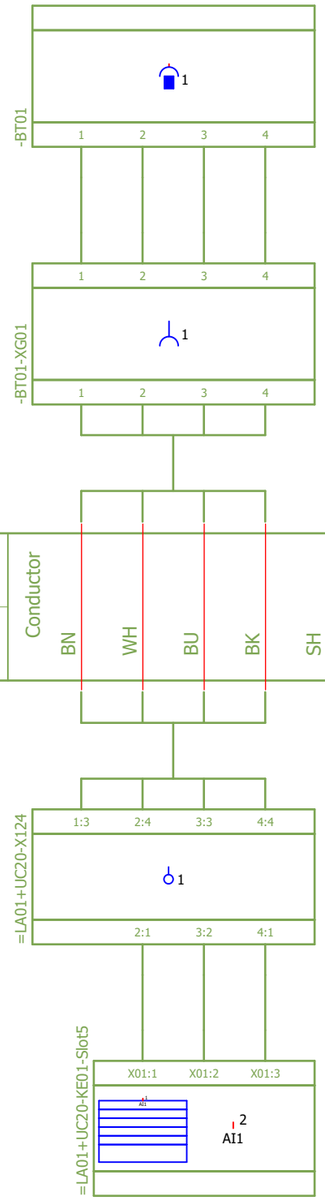
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FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



External targets

=JA01+DA01-BT01-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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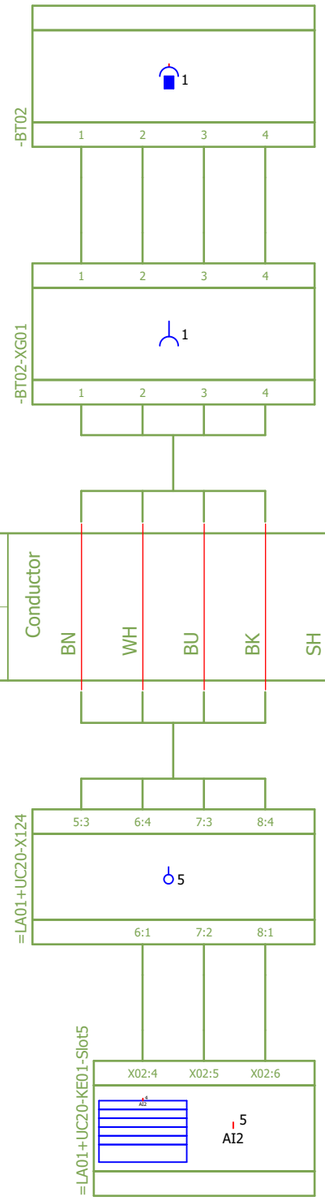
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Cable connection diagram

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Internal targets



=JA01+DA01-BT02-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

External targets

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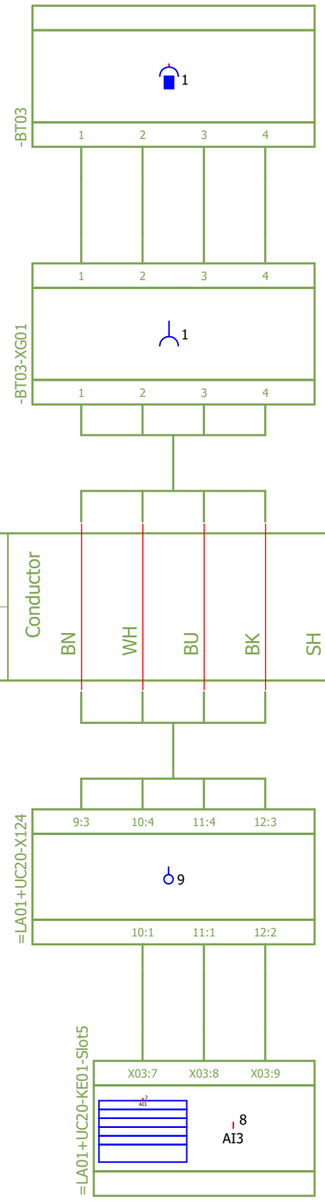
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FRM5103656/0B

Cable connection diagram

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Internal targets



=JA01+DA01-BT03-WG01	Conductor	BN	WH	BU	BK	SH
PUR						

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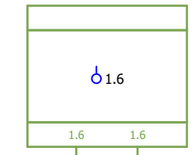
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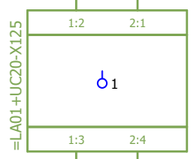
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Cable connection diagram

F07_001
PBL 29-Sep-25

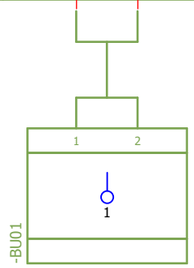
Internal targets





=LA01+UC20-X125

=JA01+DA01-BU01-WD01	Conductor	1	2	GNYE	SH
ÖLFLEX® CLASSIC 110 CH					



-BU01

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

REVISION INFORMATION
DESCRIPTION
DATE
29-Sep-25

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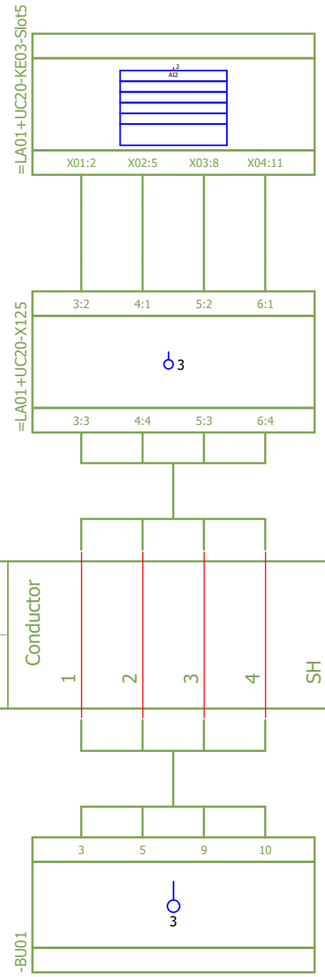
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SHEET TYPE/DESC	Cable-connection diagram =JA01+DA01-BU01-WD01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 211 / 255

FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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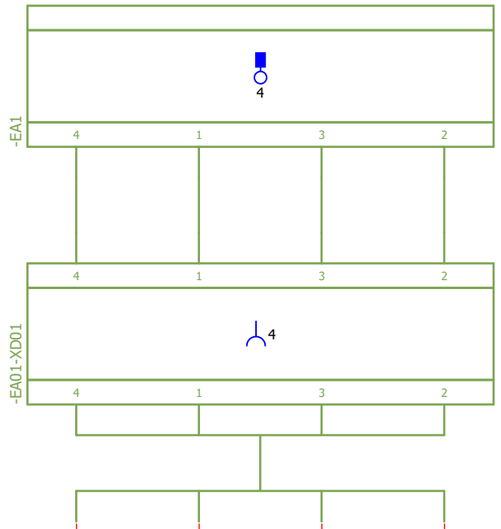
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FRM5103656/0B

Cable connection diagram

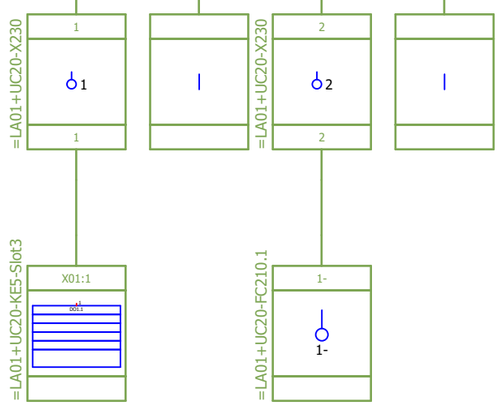
F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-EA01-WD01	Conductor	BK	BN	BU	WH
PUR					

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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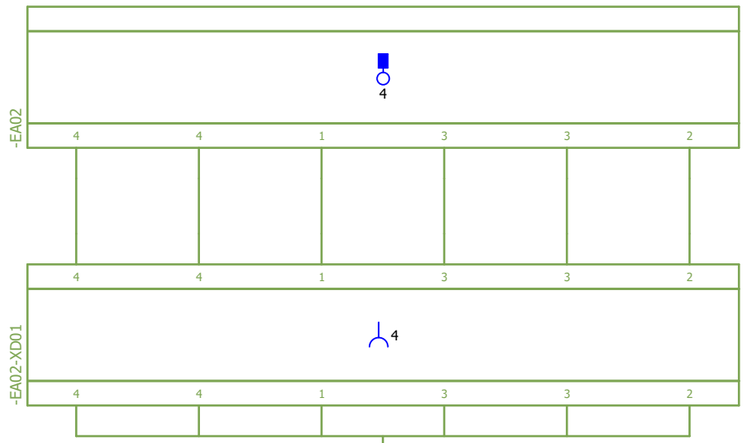
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DRAWING TITLE			
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FRM5103656/0B

Cable connection diagram

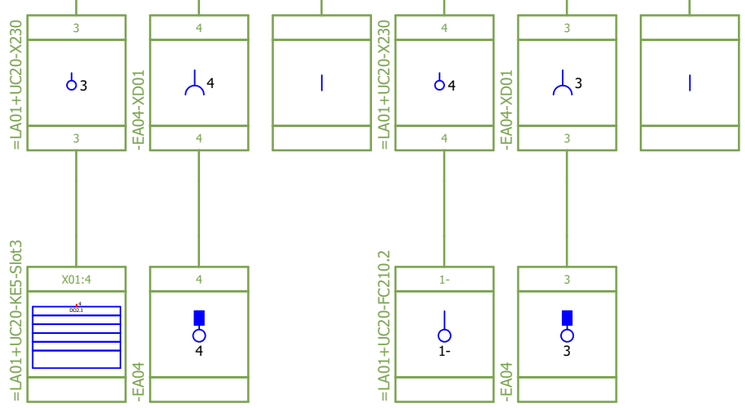
F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-EA02-WD01	Conductor	BK	BK	BN	BU	BU	WH
PUR							

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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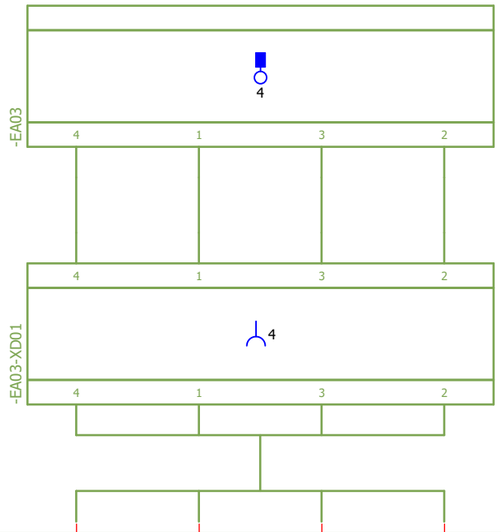
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DRAWING TITLE			
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Cable connection diagram

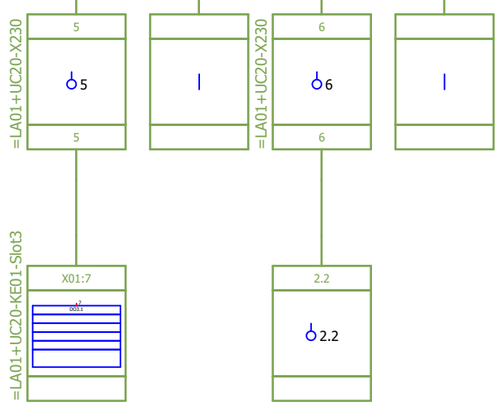
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PBL 29-Sep-25

Internal targets



=JA01+DA01-EA03-WD01	Conductor	BK	BN	BU	WH
PUR					

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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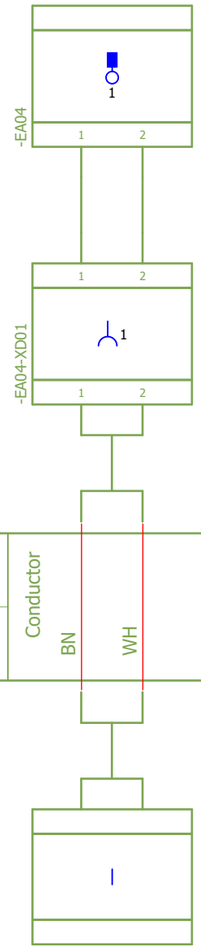
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DRAWING TITLE			
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FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-EA04-WD01	Conductor	
PUR	BN	WH

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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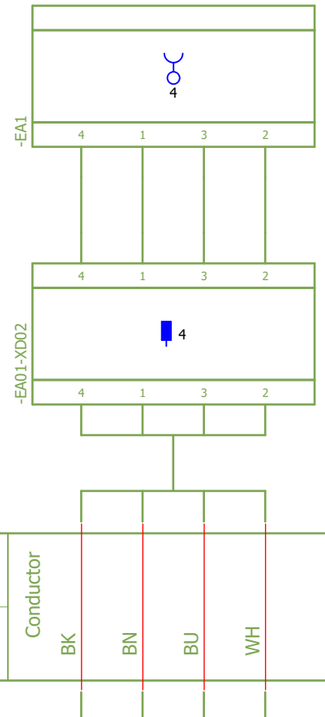
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Cable connection diagram

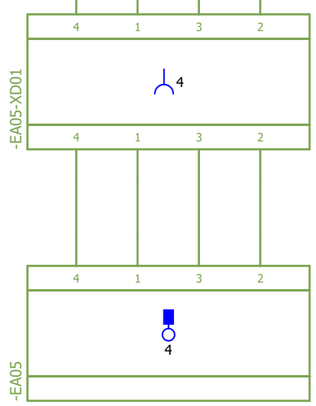
F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-EA05-WD01	Conductor	BK	BN	BU	WH
PUR					

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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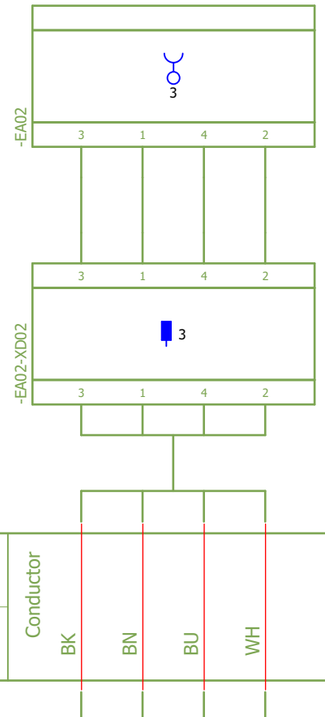
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FRM5103656/0B

Cable connection diagram

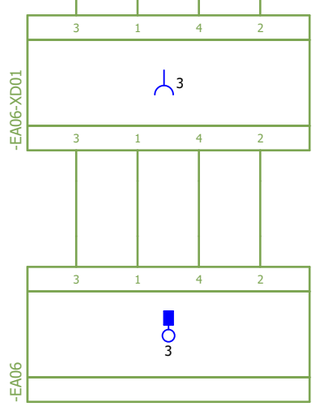
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PBL 29-Sep-25

Internal targets



=JA01+DA01-EA06-WD01	Conductor	BK	BN	BU	WH
PUR					

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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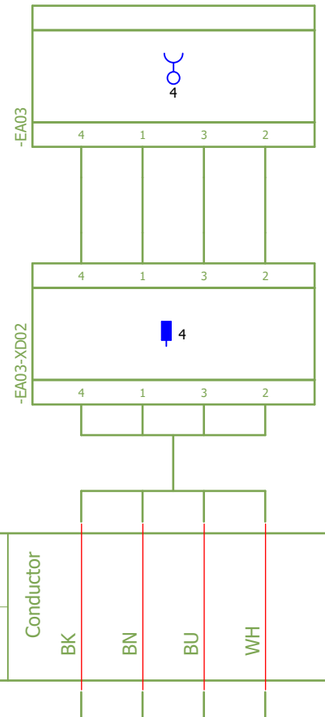
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FRM5103656/0B

Cable connection diagram

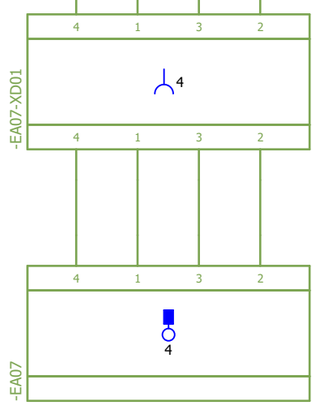
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PBL 29-Sep-25

Internal targets



=JA01+DA01-EA07-WD01	Conductor	BK	BN	BU	WH
PUR					

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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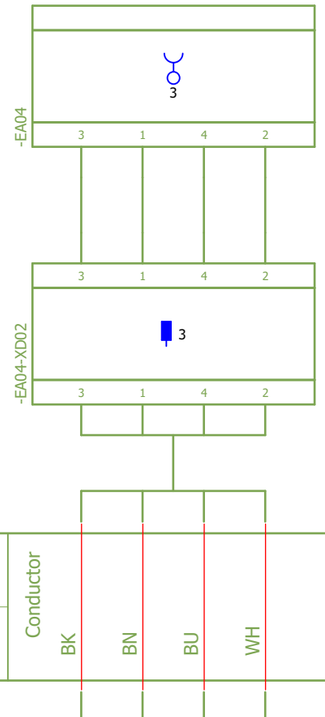
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FRM5103656/0B

Cable connection diagram

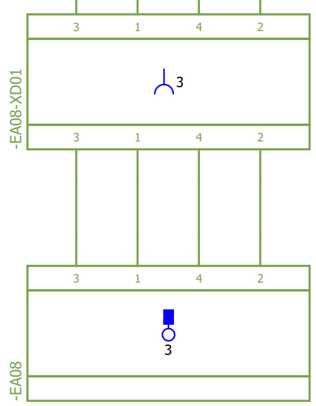
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PBL 29-Sep-25

Internal targets



=JA01+DA01-EA08-WD01	Conductor	BK	BN	BU	WH
PUR					

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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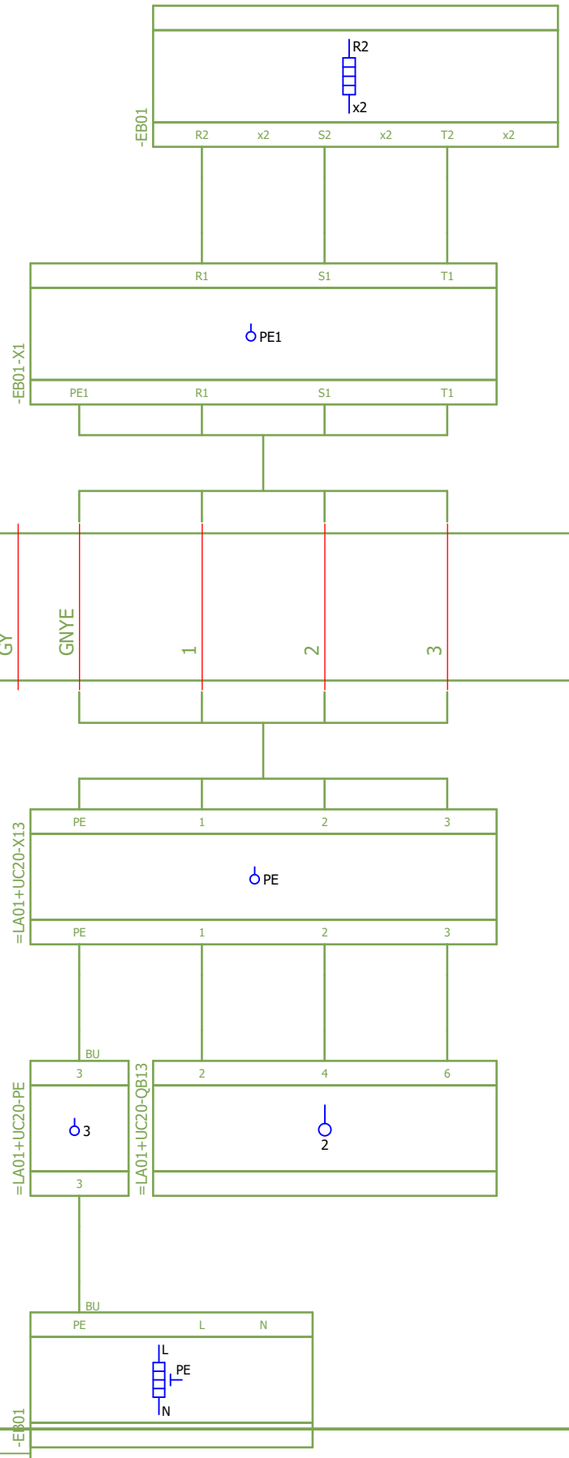
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FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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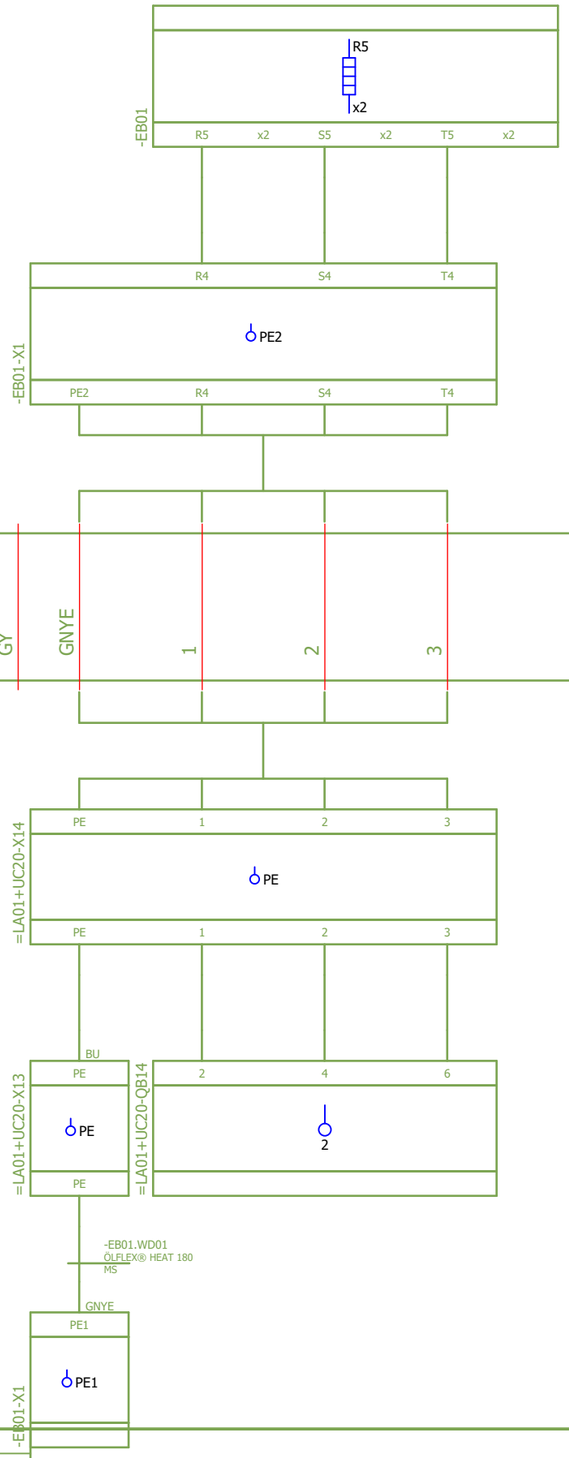
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 221 / 255

FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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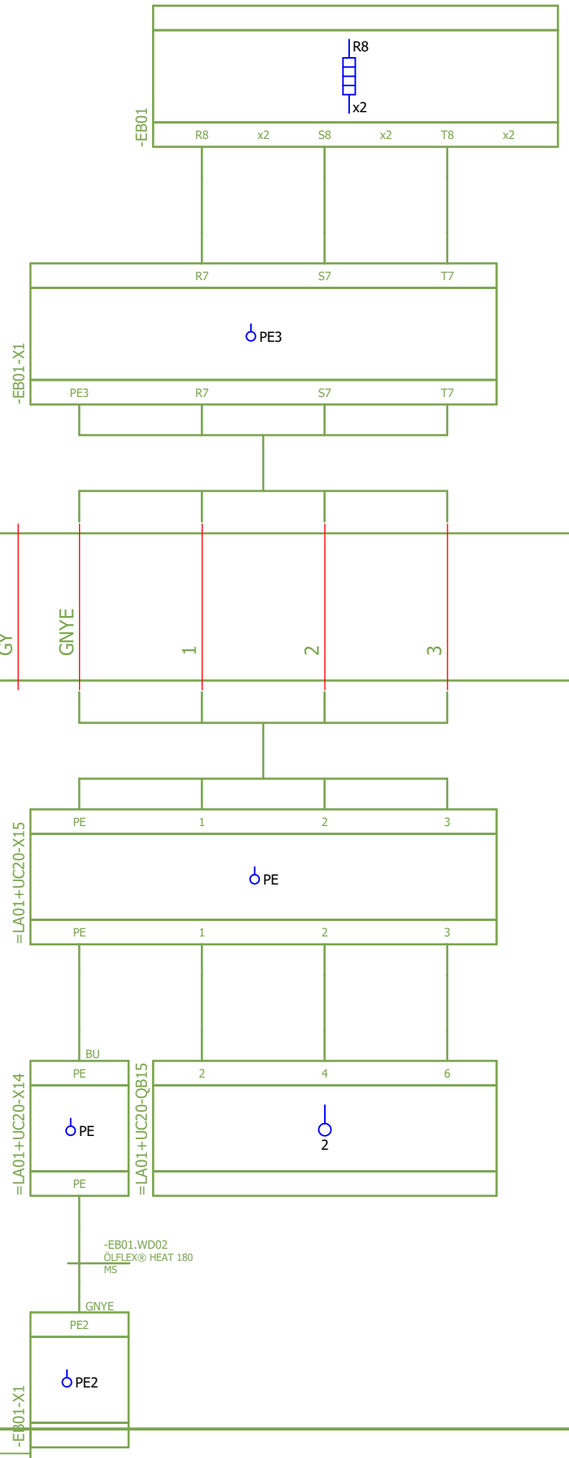
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FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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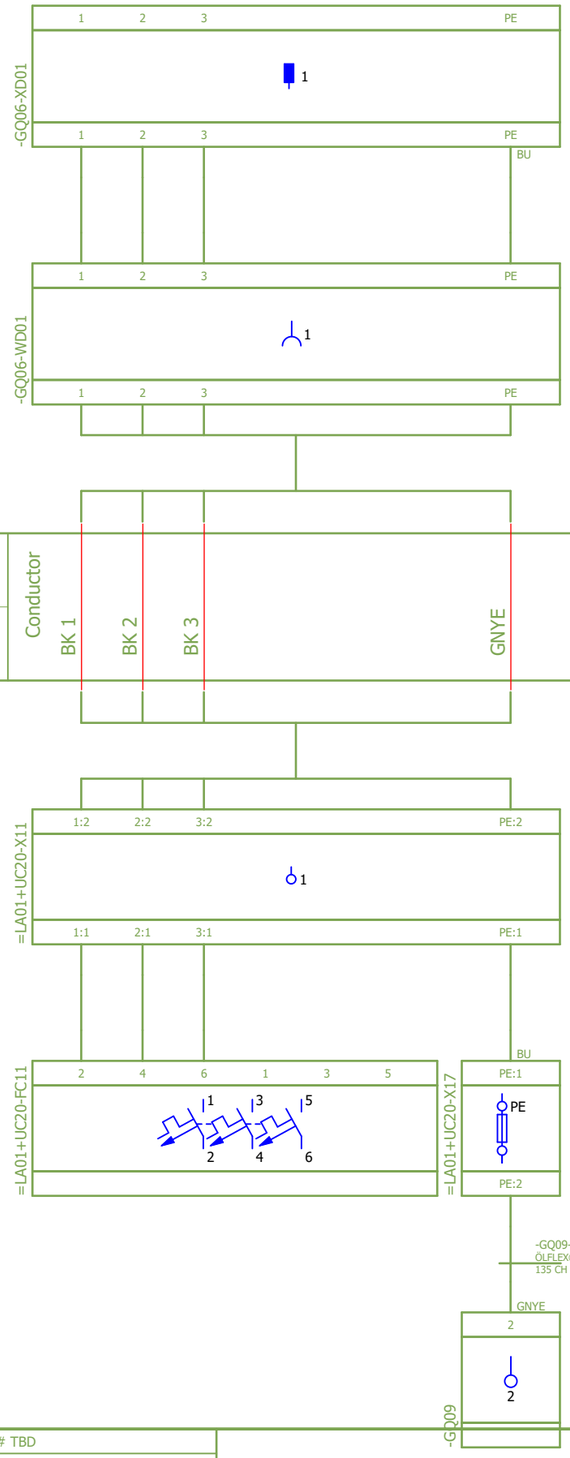
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DRAWING TITLE			
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 223 / 255

FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-GQ06-WD01	Conductor	BK 1	BK 2	BK 3	GNYE
0,6/1 kV					

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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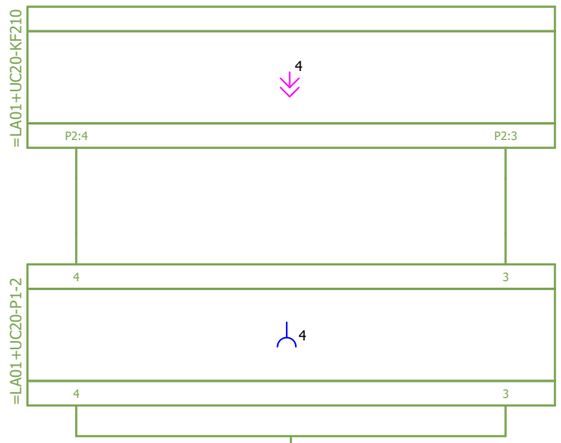
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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =JA01+DA01-GQ06-WD01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 224 / 255

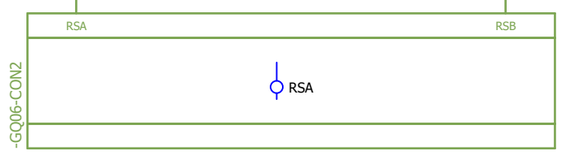
Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-GQ06-WG01	Conductor	WH	BN	SH	WH	BU	YE	OG	OR
BUS CAN FD P									



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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DESCRIPTION
DATE
29-Sep-25

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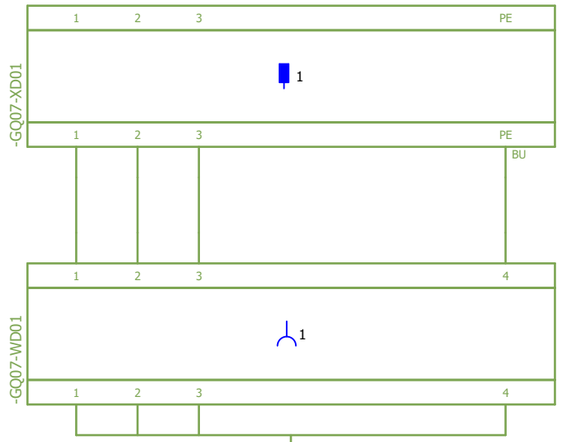
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 225 / 255

FRM5103656/0B

Cable connection diagram

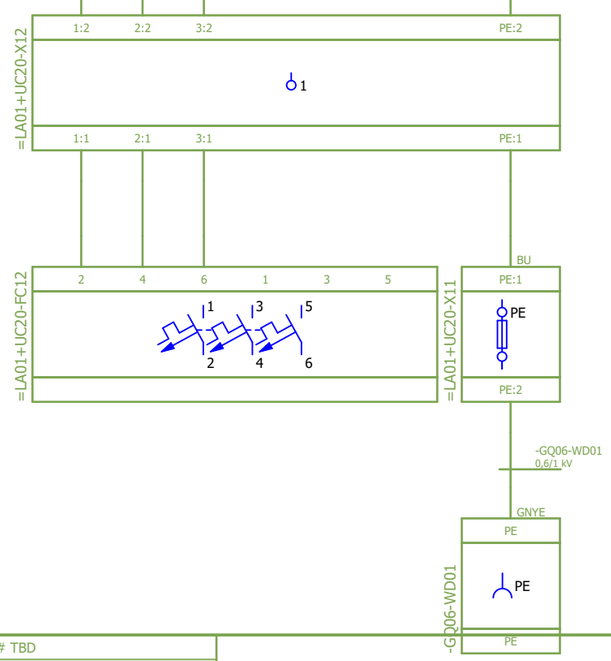
F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-GQ07-WD01	Conductor	BK 1	BK 2	BK 3	GNYE
0,6/1 kV					

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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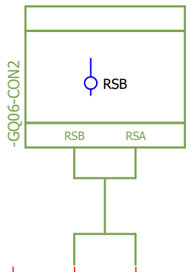
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DRAWING TITLE			
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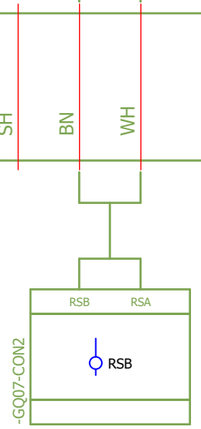
Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-GQ07-WG01	Conductor	WH	BN	SH	BN	WH
BUS CAN FD P						



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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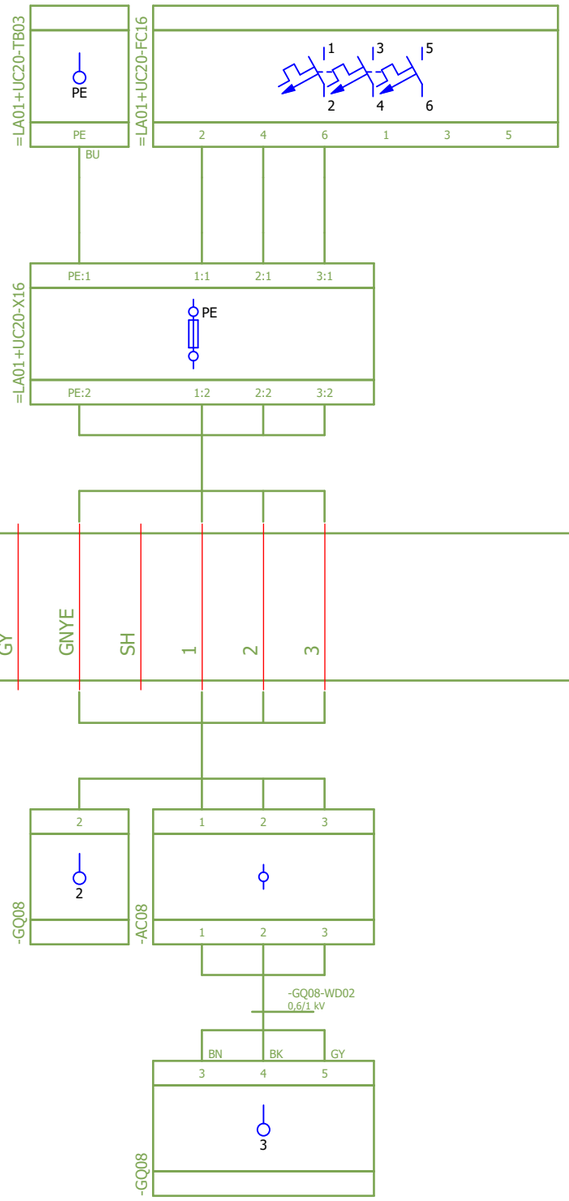
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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =JA01+DA01-GQ07-WG01		
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Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
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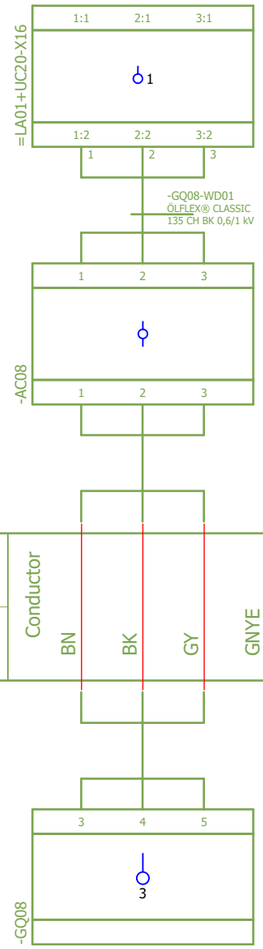
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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =JA01+DA01-GQ08-WD01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 228 / 255

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-GQ08-WD02	Conductor	BN	BK	GY	GNYE	SH
0,6/1 kV						

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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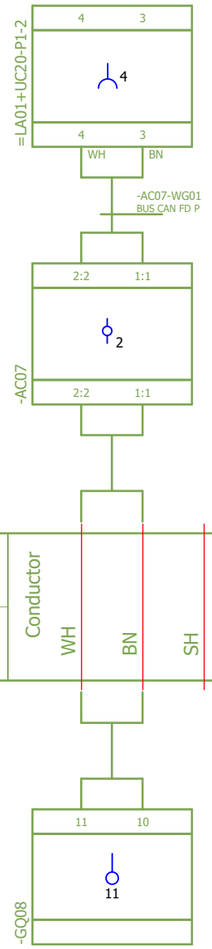
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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =JA01+DA01-GQ08-WD02		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 229 / 255

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-GQ08-WG01	Conductor	WH	BN	SH

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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SHEET TYPE/DESC	Cable-connection diagram =JA01+DA01-GQ08-WG01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 230 / 255

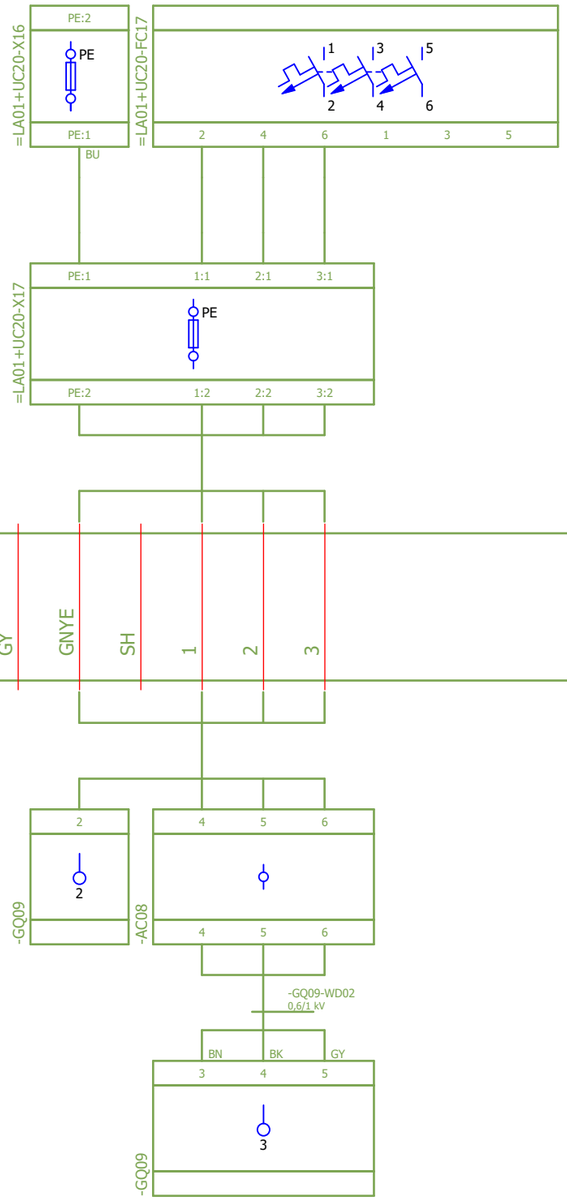
FRM5103656/0B

0	1	2	3	4	5	6	7	8

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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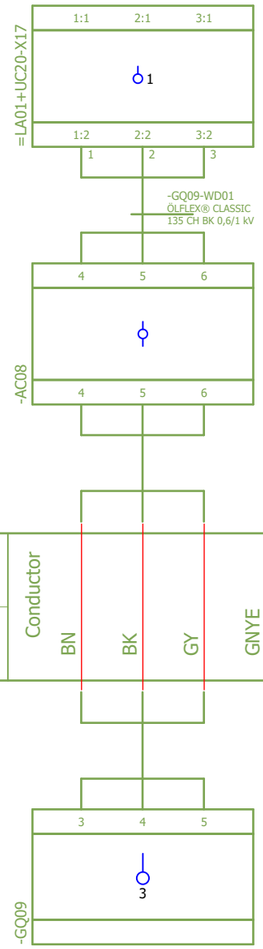
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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =JA01+DA01-GQ09-WD01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 231 / 255

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-GQ09-WD02	Conductor	BN	BK	GY	GNYE	SH
0,6/1 kV						

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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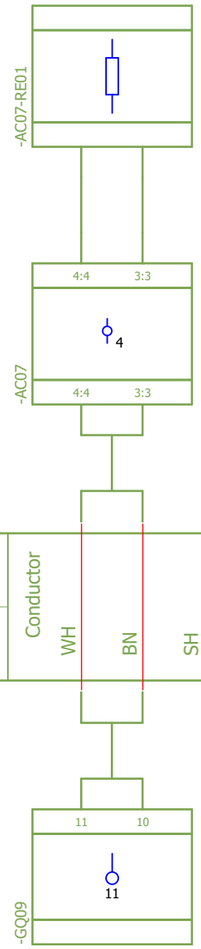
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Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-GQ09-WG01	Conductor	WH	BN	SH

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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=	++	+ UC20	& D01

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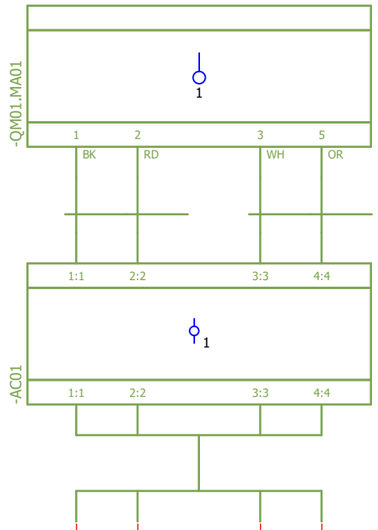
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Cable connection diagram

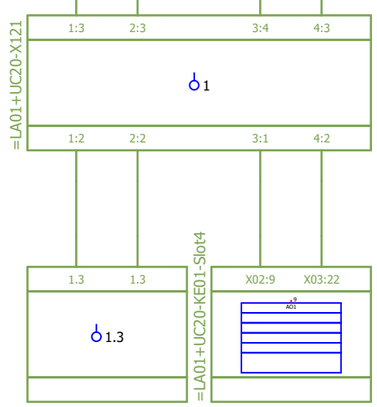
F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-QM01-WD01	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 135 CH						

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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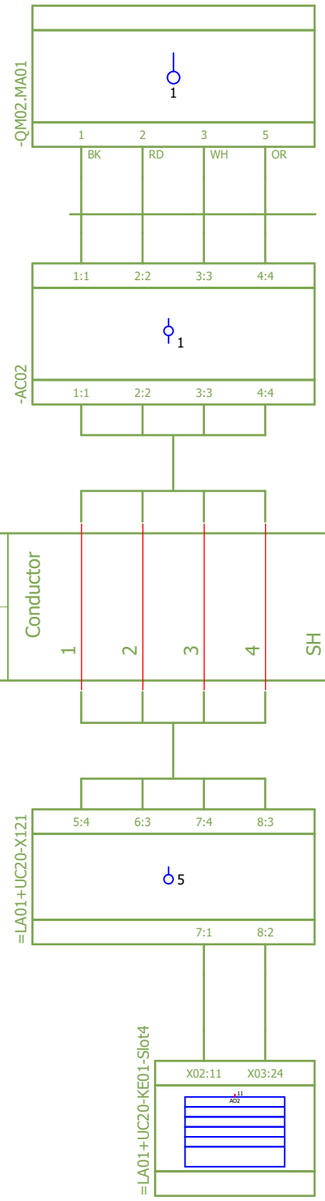
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DRAWING TITLE			
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 234 / 255

FRM5103656/0B

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-QM02-WD01	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 135 CH						

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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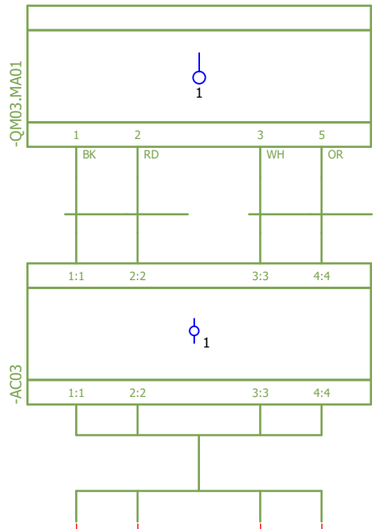
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FRM5103656/0B

Cable connection diagram

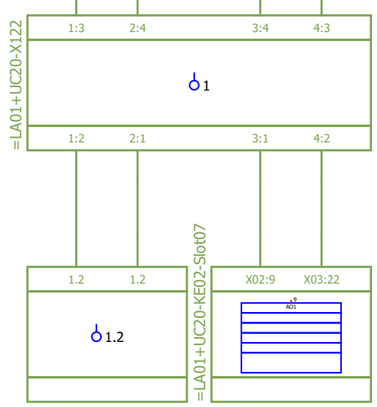
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PBL 29-Sep-25

Internal targets



=JA01+DA01-QM03-WD01	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 135 CH						

External targets



Reference Item Number	Ballard Part # TBD		
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EPLAN Revision	12		
EPLAN Project Pages	627		
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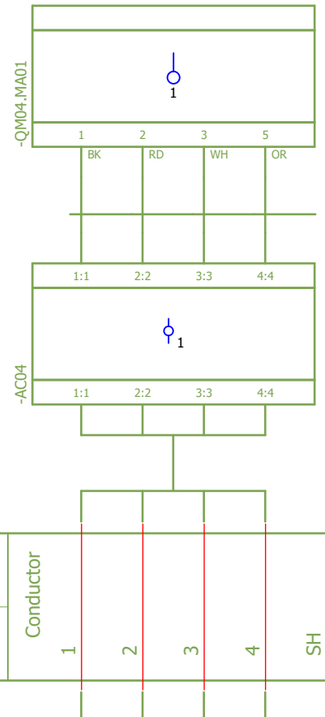
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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =JA01+DA01-QM03-WD01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 236 / 255

FRM5103656/0B

Cable connection diagram

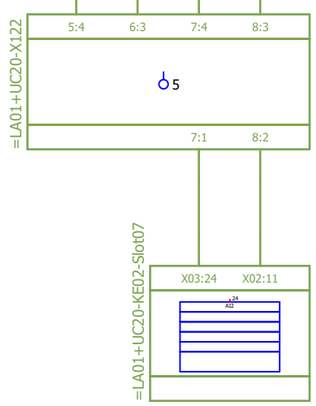
F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-QM04-WD01	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 135 CH						

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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DRAWING TITLE			
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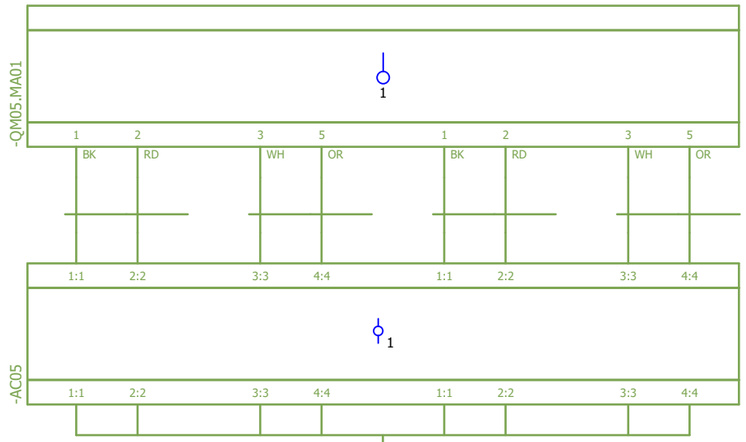
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Cable connection diagram

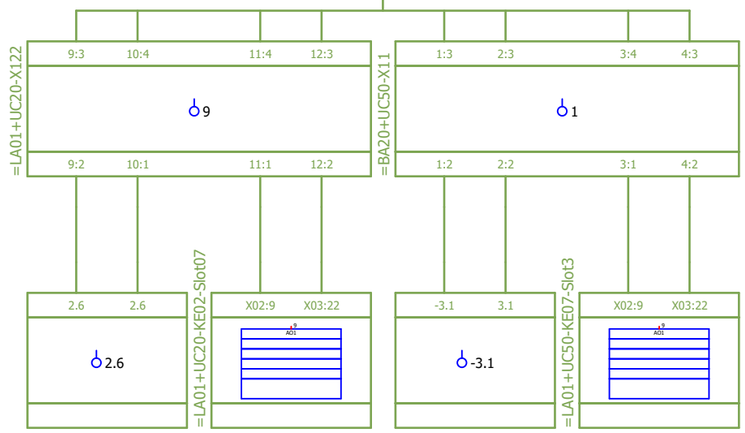
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Internal targets



=JA01+DA01-QM05-WD01	Conductor	1	2	3	4	SH	1	2	3	4	SH
ÖLFLEX® CLASSIC 135 CH											

External targets



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EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

REVISION INFORMATION
DESCRIPTION
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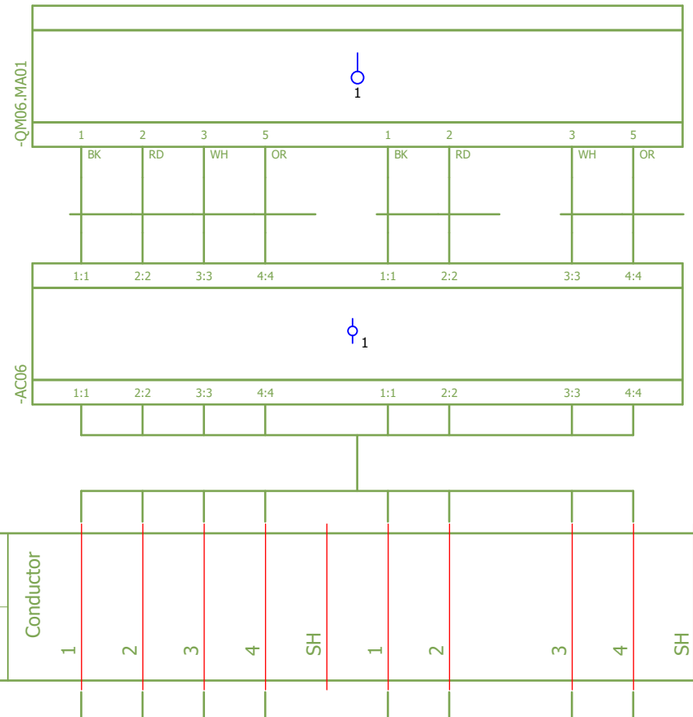
DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =JA01+DA01-QM05-WD01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 238 / 255

FRM5103656/0B

Cable connection diagram

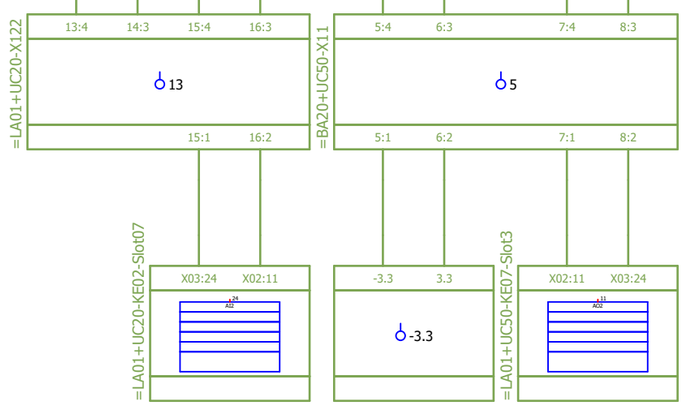
F07_001
PBL 29-Sep-25

Internal targets



=JA01+DA01-QM06-WD01	Conductor	1	2	3	4	SH	1	2	3	4	SH
ÖLFLEX® CLASSIC 135 CH											

External targets



Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
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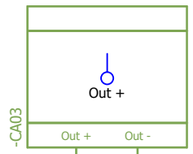
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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =JA01+DA01-QM06-WD01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 239 / 255

FRM5103656/0B

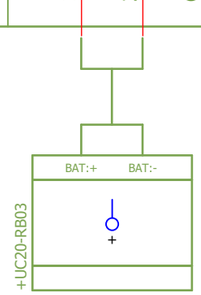
Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



=LA01+DA01-RB03-WD01	Conductor	1	2	GNYE	SH
ÖLFLEX® CLASSIC 110 CH					



External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =LA01+DA01-RB03-WD01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 240 / 255

FRM5103656/0B

Cable connection diagram

F07_001
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Internal targets

=LA01+UC20-KE03-WG01	Conductor	WHBU	BU	WHOG	OG	WHGN	GN	WHBN	BN	SH
Profinet 4pair cabling Cat.6A FRNC flexi										

External targets

Reference Item Number	Ballard Part # TBD			REVISION INFORMATION	THIS DOCUMENT, SUBMITTED IN CONFIDENCE, CONTAINS PROPRIETARY INFORMATION WHICH SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR MANUFACTURING OR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN PERMISSION OF BALLARD POWER SYSTEMS INC. OR A RELATED WHOLLY-OWNED SUBSIDIARY OR AFFILIATE.	BALLARD™ CONFIDENTIAL	DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
EPLAN Project Name	601456B - Shell Baseload Power Hub			DESCRIPTION			DRAWING TITLE			
EPLAN Revision	12					THIS DOCUMENT'S APPROVAL IS MANAGED BY E-SIGNATURE ON FILE IN BALLARD POWER SYSTEMS' PLM SYSTEM		SHEET TYPE/DESC	Cable-connection diagram =LA01+UC20-KE03-WG01		
EPLAN Project Pages	627			DATE			ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 241 / 255
=	++	+ UC20	& D01	29-Sep-25						

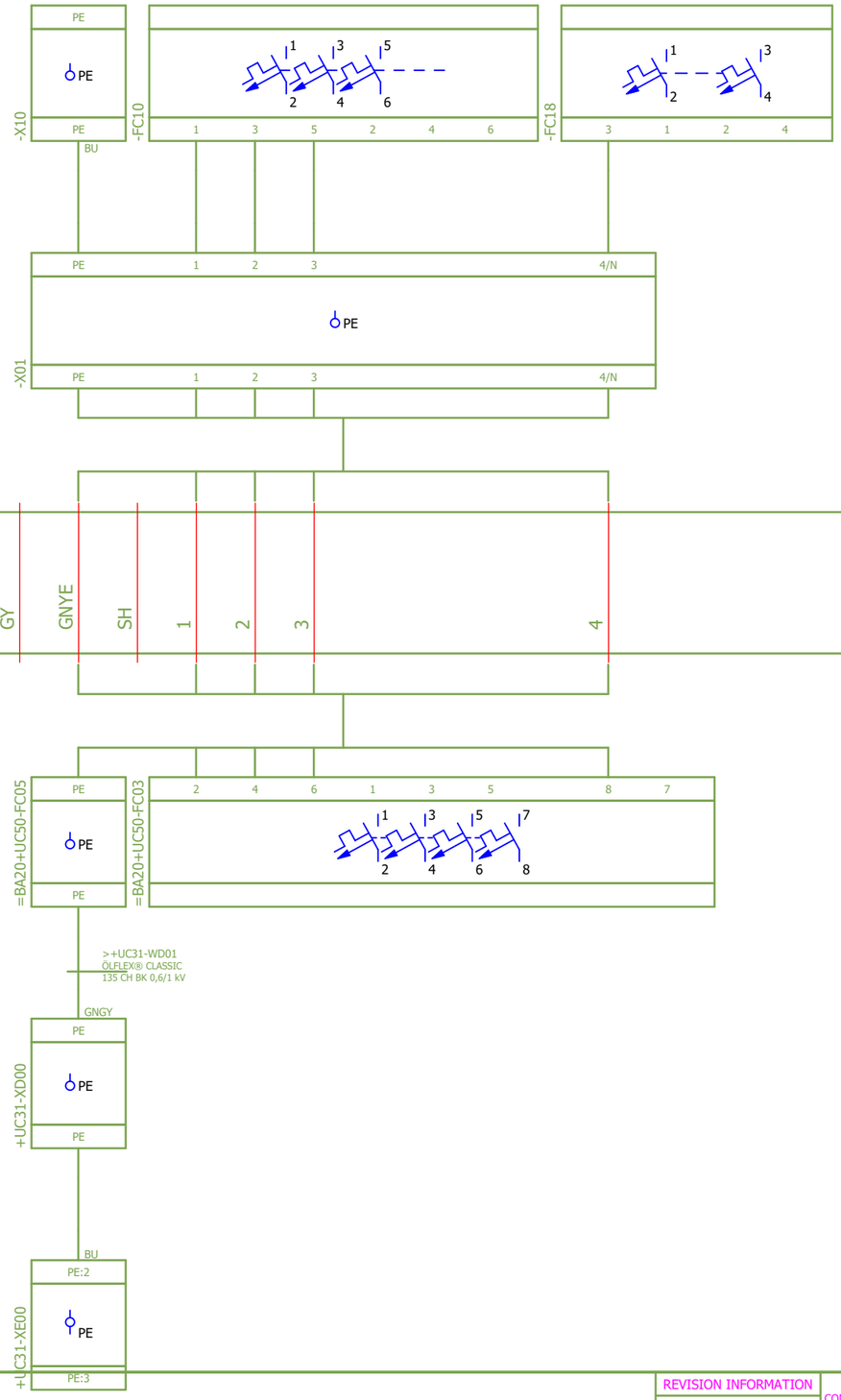
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0	1	2	3	4	5	6	7	8

Cable connection diagram

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Internal targets



External targets

Reference Item Number	Ballard Part # TBD		
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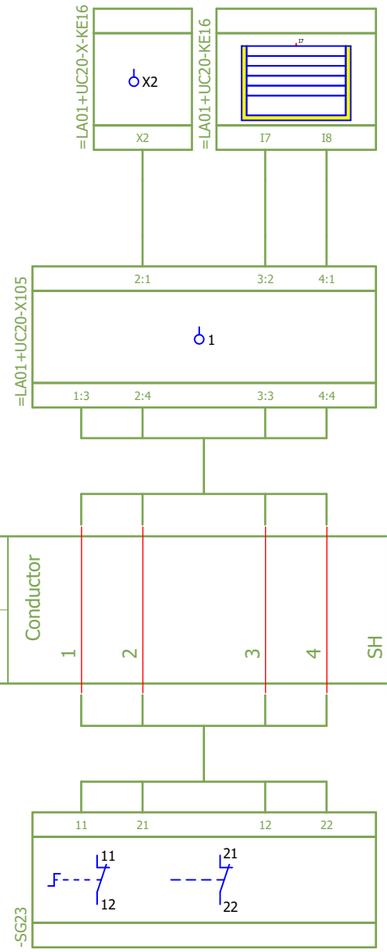
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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =LA01+UC20-WD01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 242 / 255

FRM5103656/0B

Cable connection diagram

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PBL 29-Sep-25

Internal targets



=LB02+DA01-SG23-WG01	Conductor	1	2	3	4	SH
ÖLFLEX® CLASSIC 110 CH						

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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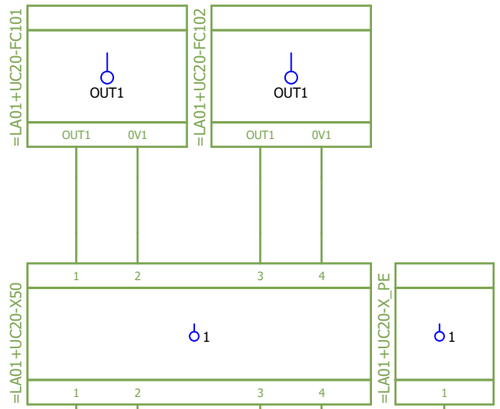
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 243 / 255

FRM5103656/0B

Cable connection diagram

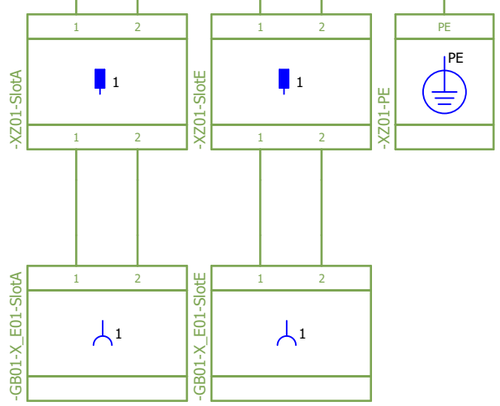
F07_001
PBL 29-Sep-25

Internal targets



=RE01+GB01-GB01-WD05	Conductor	1	2	3	4	GNYE	SH
CLASSIC 110 CH							

External targets



Reference Item Number	Ballard Part # TBD		
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 244 / 255

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets

-GB01-XG01
1
1

=RE01+GB01-GB01-WG01
Cat.6A PUR

Conductor	WHBU	BU	WHOG	OG	WHGN	GN	WHBN	BN	SH

External targets

-XZ01-SlotC
1-8
1-8
1-8

-GB01-X_E01-SlotC
1-8
1-8

Reference Item Number	Ballard Part # TBD		
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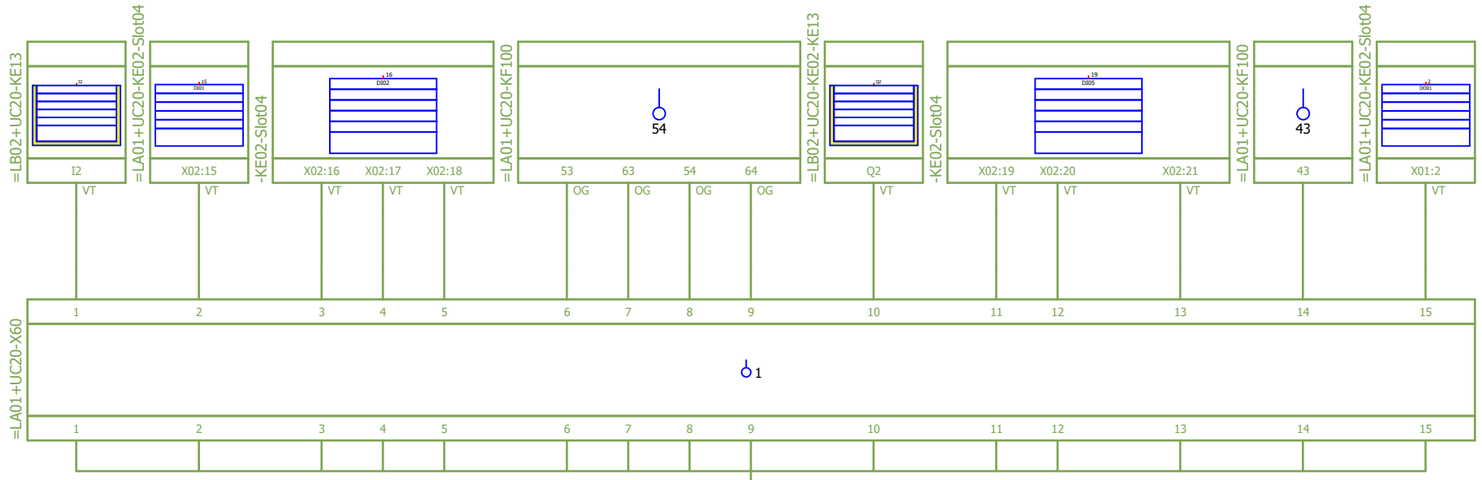
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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =RE01+GB01-GB01-WG01		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 245 / 255

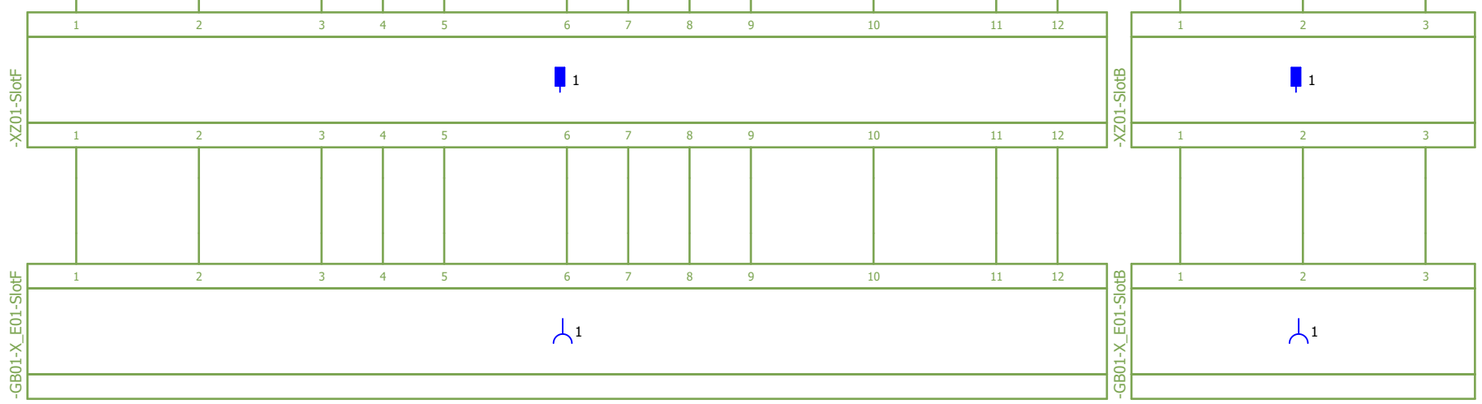
Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets



External targets



=RE01+GB01-GB01-WG02	Conductor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	GNYE	SH	1	2	3	4	5
ÖLFLEX® CLASSIC 110 CH																									

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =RE01+GB01-GB01-WG02		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 246 / 255

FRM5103656/0B

Cable connection diagram

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Internal targets

=RE01+GB01-GB01-WG02	Conductor	6	7	8	9	10	11	12	13	14	15	16	17	GNYE	SH
ÖLFLEX® CLASSIC 110 CH															

External targets

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
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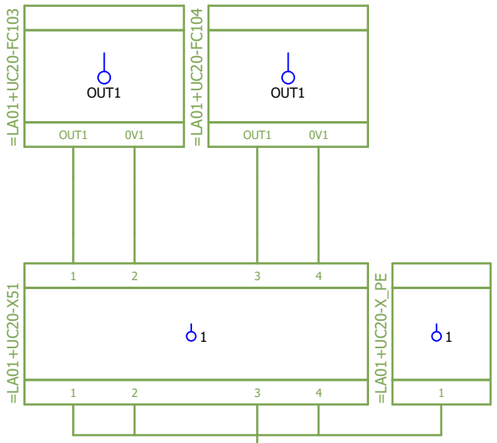
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Cable connection diagram

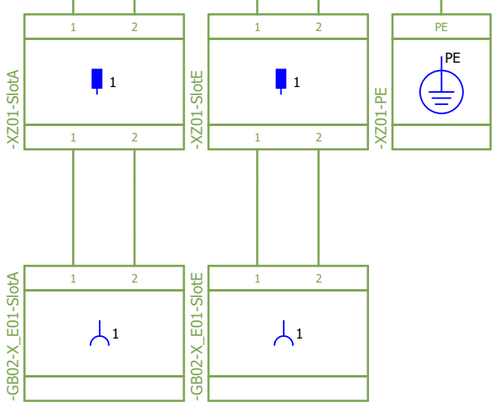
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PBL 29-Sep-25

Internal targets



=RE01+GB02-GB02-WD05	Conductor	1	2	3	4	GNYE	SH
CLASSIC 110 CH							

External targets



Reference Item Number	Ballard Part # TBD		
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DRAWING TITLE			
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ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 248 / 255

Cable connection diagram

F07_001
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Internal targets

-GB02-XG01
1
1

=RE01+GB02-GB02-WG01
Cat.6A PUR

Conductor	WHBU	BU	WHOG	OG	WHGN	GN	WHBN	BN	SH

External targets

-XZ01-SlotC
1-8
1-8
1-8

-GB02-X_E01-SlotC
1-8
1-8

Reference Item Number	Ballard Part # TBD		
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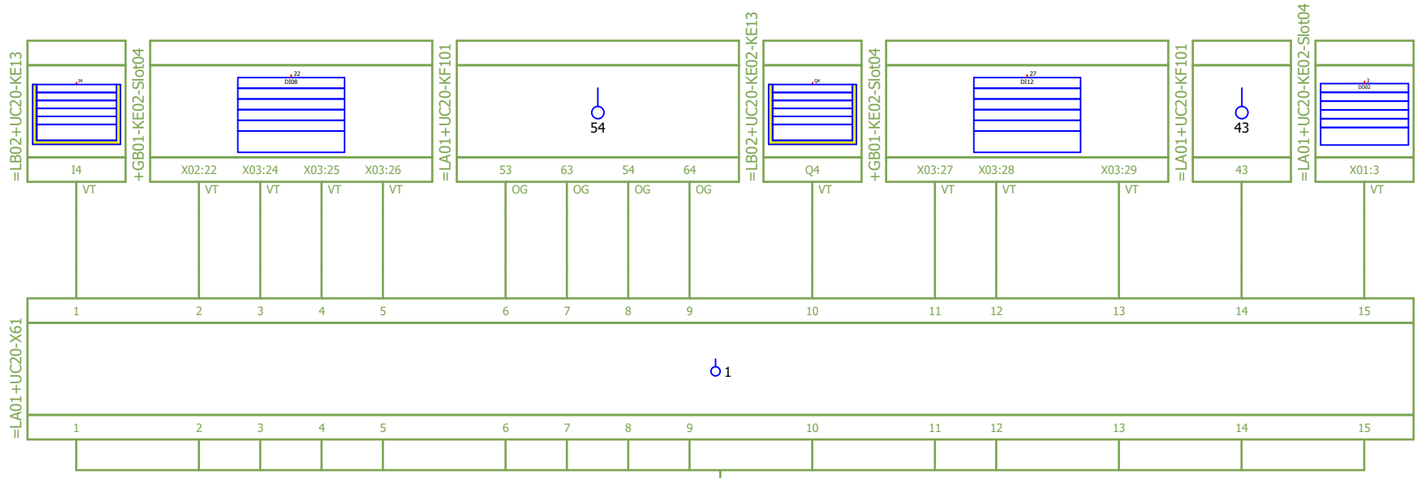
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DRAWING TITLE			
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Cable connection diagram

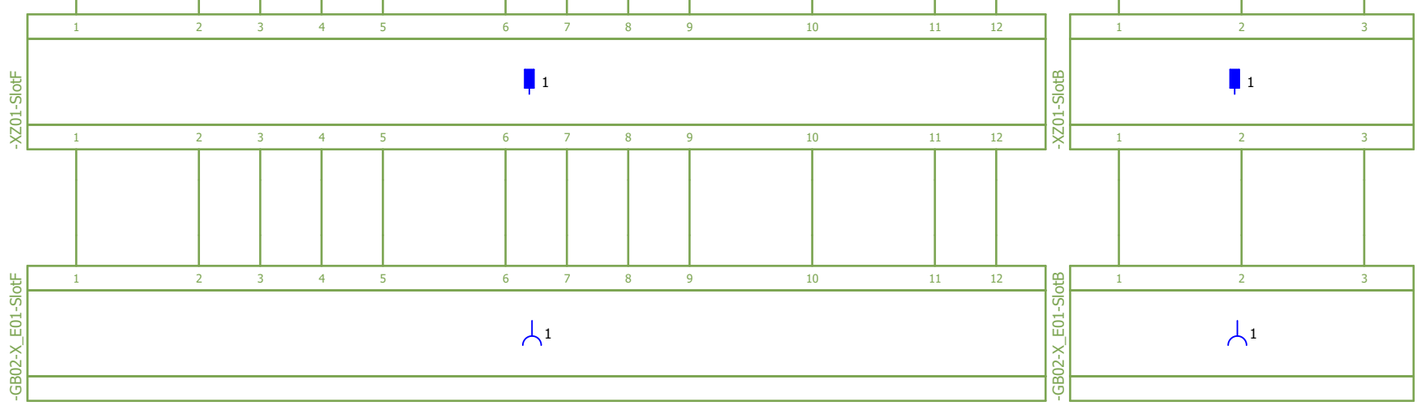
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Internal targets



=RE01+GB02-GB02-WG02	Conductor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	GNYE	SH	1	2	3	4	5	6
ÖLFLEX® CLASSIC 110 CH																										

External targets



Reference Item Number	Ballard Part # TBD		
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Cable connection diagram

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Internal targets

=RE01+GB02-GB02-WG02	Conductor	7	8	9	10	11	12	13	14	15	16	17	GNYE	SH
ÖLFLEX® CLASSIC 110 CH														

External targets

Reference Item Number	Ballard Part # TBD		
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FRM5103656/0B

Cable connection diagram

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PBL 29-Sep-25

Internal targets

=BA01+UC02-X02
1
1

=RE01+GB02-WD01	Conductor	BK	SH
ÖLFLEX® FD 90 CP			

External targets

-XB01
1
1
1

-GB02-X_HV
1:A+
1
(empty)

Reference Item Number	Ballard Part # TBD		
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DRAWING TITLE			
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Cable connection diagram

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Internal targets

=BA01+UC02-X02
2
2

=RE01+GB02-WD02	Conductor	BK	SH
ÖLFLEX® FD 90 CP			

External targets

-XB02
1
1
1

-GB02-X_HV
3
3

Reference Item Number	Ballard Part # TBD		
EPLAN Project Name	601456B - Shell Baseload Power Hub		
EPLAN Revision	12		
EPLAN Project Pages	627		
=	++	+ UC20	& D01

REVISION INFORMATION
DESCRIPTION
DATE
29-Sep-25

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DRAWING	601456B UC20 40ft Control Cabinet	REVISION	12
DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =RE01+GB02-WD02		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 253 / 255

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets

=BA01+UC02-X02
3
3

=RE01+GB02-WD03	Conductor	BK	SH
ÖLFLEX® FD 90 CP			

External targets

-XB03
1
1
1

-GB02-X_HV
2
2

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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =RE01+GB02-WD03		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 254 / 255

Cable connection diagram

F07_001
PBL 29-Sep-25

Internal targets

=BA01+UC02-X02
4
4

=RE01+GB02-WD04	Conductor	BK	SH
ÖLFLEX® FD 90 CP			

External targets

-XB04
1
1
1

-GB02-X_HV
4
4

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DRAWING TITLE			
SHEET TYPE/DESC	Cable-connection diagram =RE01+GB02-WD04		
ALL SHEETS ARE THE SAME REVISION STATUS	SIZE A3	LANGUAGE EN	SHEET/TOTAL 255 / 255