



ELECTRICAL WIRING DIAGRAM

VARMALOUSNIR EHF MISTRAL - C02VP DO2112H Education Center



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1ere Edition
Modification

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VARMALOUSNIR EHF
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Information and protection of persons

Competency

Authorized person: BR

Protection of persons

All class 1 to be connected to the earth, and equipotential bonding network, according to the standard (NF C 15-100). Conforms to all relevant standards, including standard (NF C 15-100) and standard (EN 60 204-1).

Here below a reminders tables of the maximum lengths of the three-phase cables 230V / 400V or single.

Setting

Depending on site conditions, all adjustable circuit breakers need to be adapted on-site by trained responders.

Tables on Neutral System EN

Minimum conductor cross section (mm ²)	Maximum length (m) of three-phase 230/400 V cables or single protected against indirect contact by circuit breakers											
	Curve C - According to the guide (UTE NF C 15-105)											
	6A	10A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A
1,5	100	60	37	30	24	18	15	12	9	7	6	5
2,5	167	100	62	50	40	31	25	20	16	12	10	8
4	267	160	100	80	64	50	40	32	25	20	16	13
6	400	240	150	120	96	75	60	48	38	30	24	19
10	667	400	250	200	160	125	100	80	63	50	40	32
16		640	400	320	256	200	160	128	101	80	64	51
25			625	500	400	312	250	200	159	125	100	80
35			875	700	560	437	350	280	222	175	140	112
50					760	594	475	380	301	237	190	152

Minimum conductor cross section (mm ²)	Maximum length (m) of three-phase 230/400 V cables or single protected against indirect contact by circuit breakers											
	Curve D - According to the guide (UTE NF C 15-105)											
	6A	10A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A
1,5	50	30	18	15	12	9	7	6	5	4	3	2
2,5	83	50	31	25	20	16	12	10	8	6	5	4
4	133	80	50	40	32	25	20	16	13	10	8	6
6	200	120	75	60	48	37	30	24	19	15	12	10
10	333	200	125	100	80	62	50	40	32	25	20	16
16	533	320	200	160	128	100	80	64	51	40	32	26
25	833	500	312	250	200	156	125	100	79	62	50	40
35		700	437	350	280	219	175	140	111	87	70	56
50			594	475	380	297	237	190	151	119	95	76

In Neutral System NI, or in case of circuit breakers curves other than C or D, refer to the relevant standard.

Information on chapter 5.3 of EN 60204-1

5.3 Supply disconnecting (isolating) device

5.3.1 General

A supply disconnecting device shall be provided for each incoming source of supply to a machine. The supply disconnecting device shall disconnect (isolate) the electrical equipment of the machine from the supply when required (for example for work on the machine, including the electrical equipment).

5.3.2 Type

The supply disconnecting device shall be one of the following types:

- a) switch-disconnector, with or without fuses, in accordance with IEC 60947-3, utilization category AC-23B or DC-23B
- b) disconnector, with or without fuses, in accordance with IEC 60947-3, that has an auxiliary contact that in all cases causes switching devices to break the load circuit before the opening of the main contacts of the disconnector
- c) a circuit-breaker suitable for isolation in accordance with IEC 60947-2
- d) any other switching device in accordance with an IEC product standard for that device and which meets the isolation requirements of IEC 60947-1 as well as a utilization category defined in the product standard as appropriate for on-load switching of motors or other inductive loads

5.3.3 Requirements

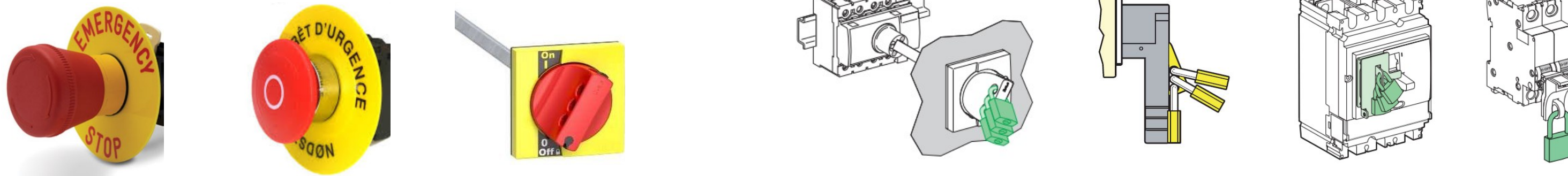
When the supply disconnecting device is one of the types specified in 5.3.2 a) to d) it shall fulfil all of the following requirements:
isolate the electrical equipment from the supply and have one OFF (isolated) and one ON position marked with "O" and "I" (symbols IEC 60417-5008 (DB:2002-10) and IEC 60417-5007 (DB:2002-10), see 10.2.2)

– have a visible contact gap or a position indicator which cannot indicate OFF (isolated) until all contacts are actually open and the requirements for the isolating function have been satisfied



- have an external operating means (for example handle), (exception: power-operated switchgear need not be operable from outside the enclosure where there are other means to open it). Where the external operating means is not intended for emergency operations, it is recommended that it be coloured BLACK or GREY (see 10.7.4 and 10.8.4)

- be provided with a means permitting it to be locked in the OFF (isolated) position (for example by padlocks). When so locked, remote as well as local closing shall be prevented



Dispositif de verrouillage hors fourniture PFI
Images utilisées non contractuelle

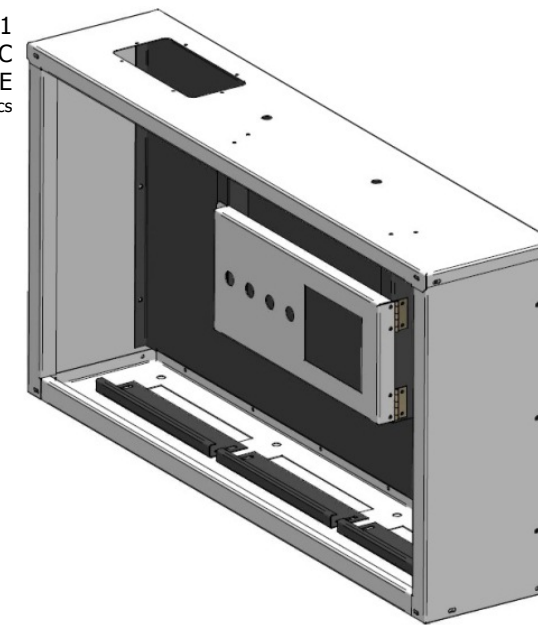
Voltage 400 V + N + PE
Short Circuit Current 15 kA
Neutral System EN
Terminal block Bottom
Airing 150 m3/h
Use Internal

MT Rack 9 A / 400 V
 Control 5 A / 230 V
 FLA : 14 A / 400 V

-----		Wire data	
Power Supply			
Phase 1	Black	L1	L1
Phase 2	Brown	L2	L2
Phase 3	Red	L3	L3
Neutral	Blue	N	N
Control			
230V AC	Orange		
0V AC	Blue or White		
24V AC	Violet		
0V AC	Dark Blue		
Light			
230V AC	Grey		
0V AC	Blue or White		
24V dc	Red		
0V dc	Dark Blue		

Gris		Grey	Grau
Orange		Orange	Orange
Jaune		Yellow	Gelb
Blanc		White	Weiß
Violet		Violet	Violett
Rose		Pink	Rosa
Rouge		Red	Rot
Vert		Green	Grün
Brun		Brown	Braun
Bleu		Blue	Blau
Noir		Black	Schwarz

E1
G&C
C-STORE
Groupement Mapics



GA01817
ARMVV45

Significant

The connections can loosen during transport. It will be necessary to check the tightness to commissioning. And every six months

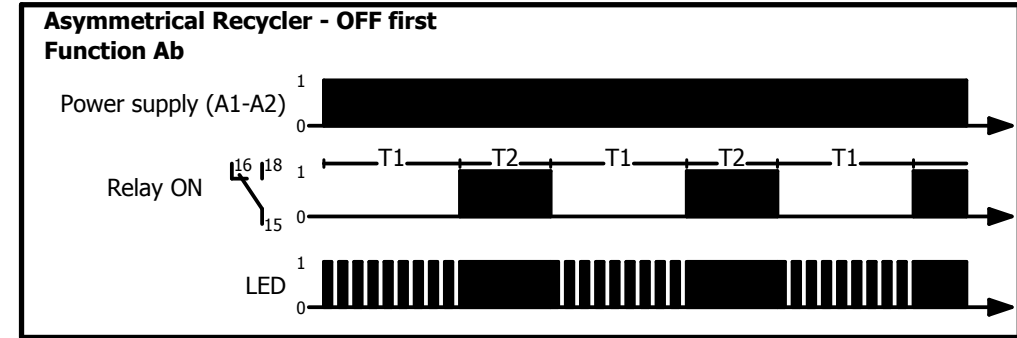
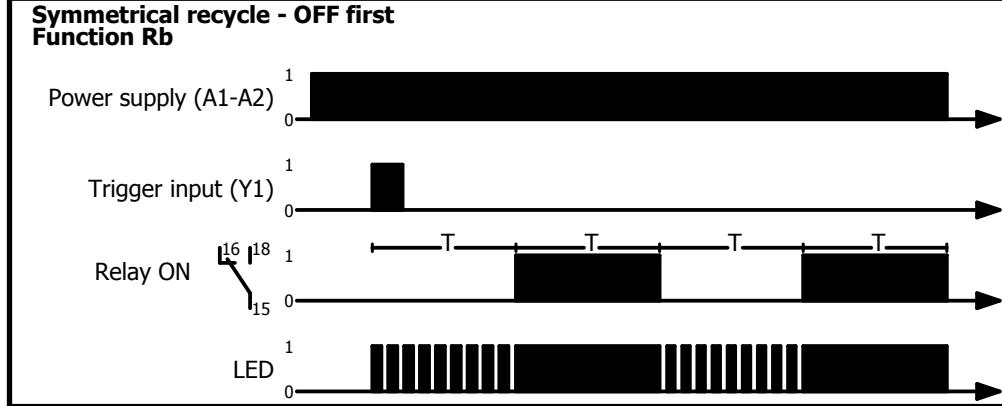
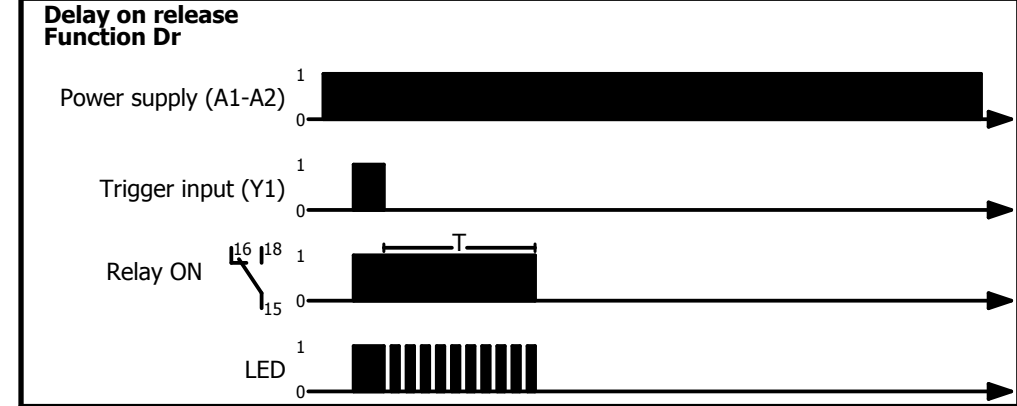
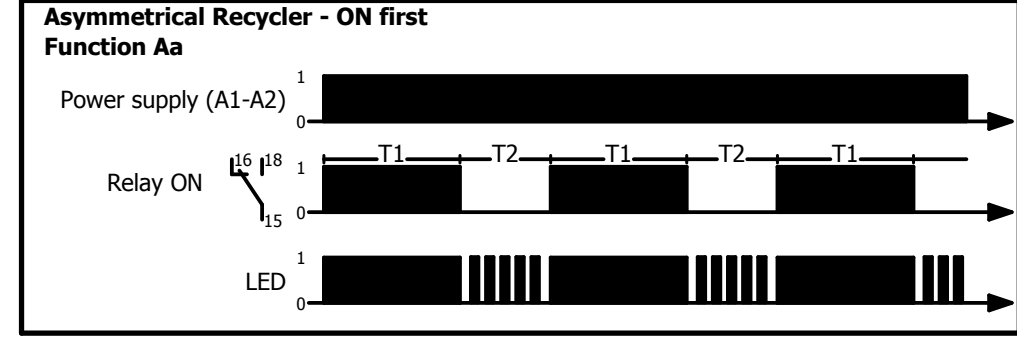
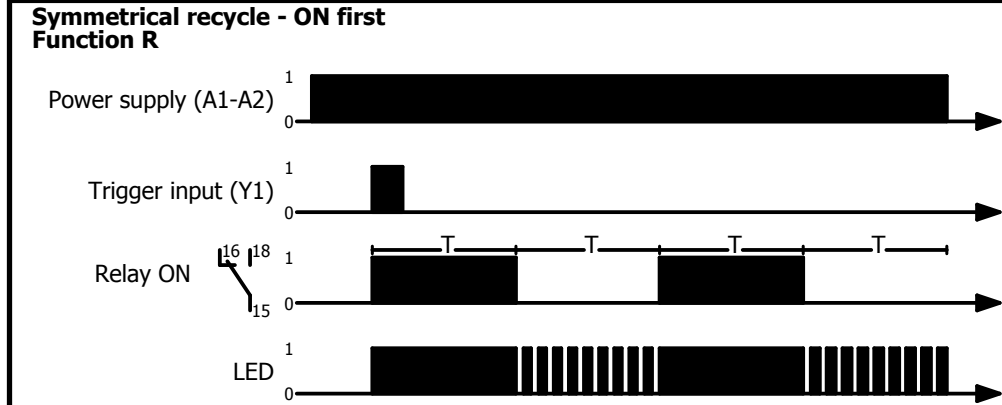
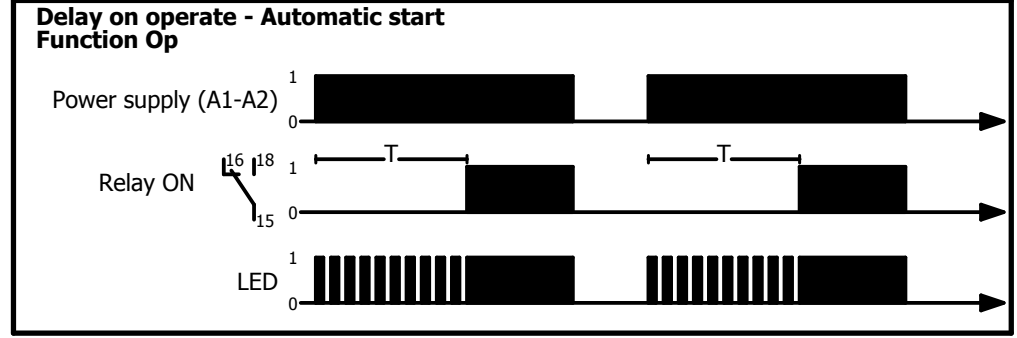
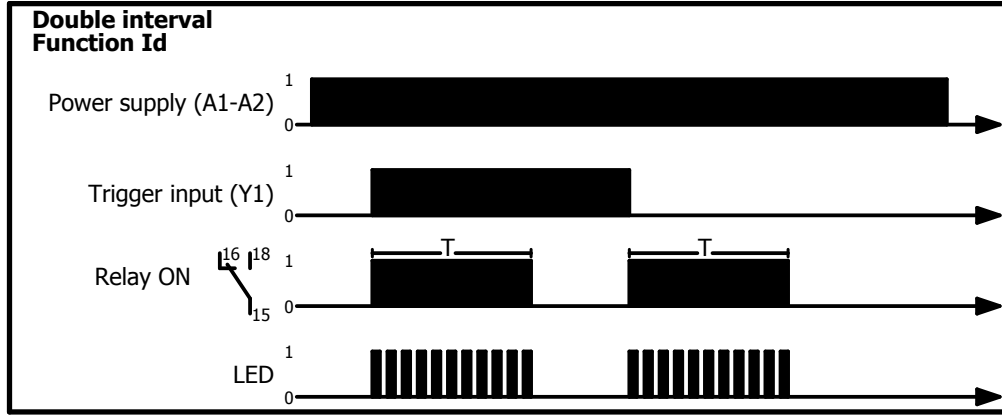
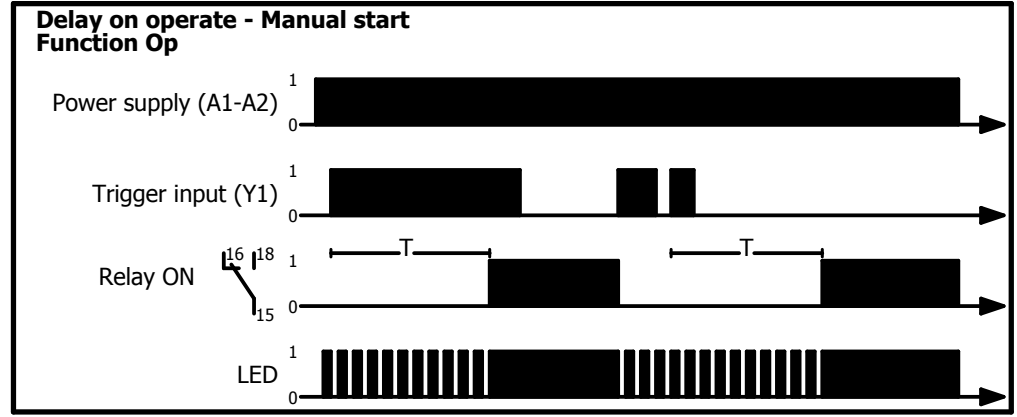
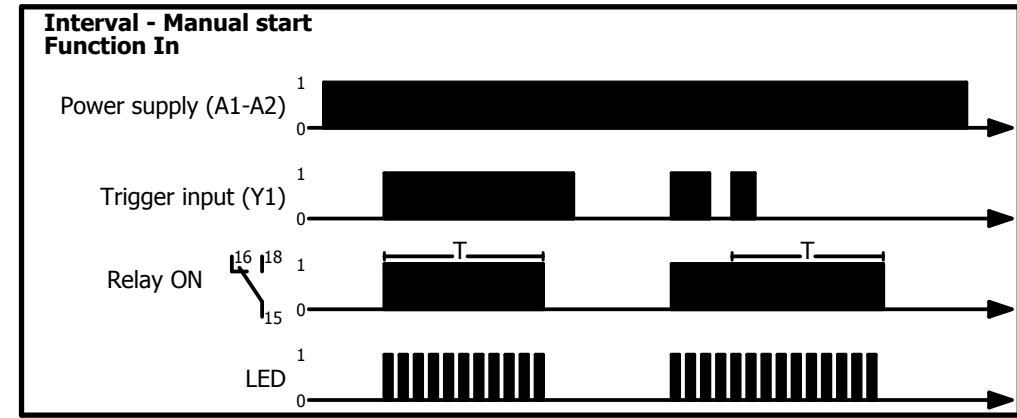
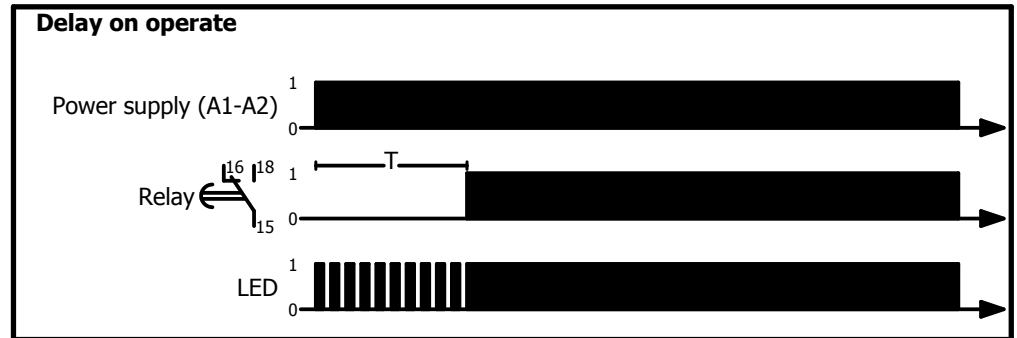
All settings breakers and delays inherent in the installation should be performed by trained responders on site

A		Level switch		Compressor Internal thermal protection		Coil Relays Contactor		Ground fault current module
B		Level switch		Motor Internal thermal protection		Time delay relay, multifunction		Thermal Protection
C		Oil Pressure Differential Switch		Compressor + Probe Thermal protection + Crankcase heater		Delayed contact		Switch, NO contact
D		Oil Pressure Differential Switch		Compressor + Probe Thermal protection + Crankcase heater		NO contact		Push button emergency stop
E		Pressure transducer		Solenoid valve		Power NO contact		Terminal
F		Pressure transducer		Heating element		NO contact, power circuit breaker		Fuse terminal
G		Flow switch		Heating element		Safety fuse		Female receptacle 230V + N
H		Temperature controller		Active oil management		Miniature circuit-breaker		Circuit breaker
I		Pressure switch		Motor overload switch		Potential transformer		
		Pressostatic voltage converter						



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Time delay relay, multifunction

DO2112H

VARMALOUSNIR EHF

A.R. 216366-00040

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Landmark	Folio	Designation	Type number	Order number	Manufacturer	Description 1	Description 2	N° ERP	
-A1	/19.2:D	Expansion valve driver	080G5400	080G5400	Danfoss	EKE	EKE 1C	2204263	
-A2	/20.2:D	Expansion valve driver	080G5400	080G5400	Danfoss	EKE	EKE 1C	2204263	
-A3	/21.6:E	Expansion valve driver	080G5400	080G5400	Danfoss	EKE	EKE 1C	2204263	
-A4	/23.1:G	Automate M241	TM241CE40T	TM241CE40T	Schneider Electric GmbH	Processor	16 S / 24 E	6800273	
-A4-A1	/23.4:G	Automate M241	TM3AM6	TM3AM6	Schneider Electric GmbH	PLC input card analog	4 A-I / 2 A-O	6800615	
-A4-A2	/23.4:G	Automate M241	TM3AM6	TM3AM6	Schneider Electric GmbH	PLC input card analog	4 A-I / 2 A-O	6800615	
-A4-A3	/23.4:G	Automate M241	TM3TI4	TM3TI4	Schneider Electric GmbH	PLC input card analog	4 A-I	6800616	
-A4-A4	/23.5:G	Automate M241	TM3TI4	TM3TI4	Schneider Electric GmbH	PLC input card analog	4 A-I	6800616	
-A4-A5	/23.5:G	Automate M241	TM3TI4	TM3TI4	Schneider Electric GmbH	PLC input card analog	4 A-I	6800616	
-A4-A6	/23.5:G	Automate M241	TM3TI4	TM3TI4	Schneider Electric GmbH	PLC input card analog	4 A-I	6800616	
-A4-A10	/23.1:G	PLC (Part)	TM4ES4	TM4ES4	Schneider Electric GmbH	PLC card	Interface module	6800612	
-A4-A10	/23.1:G	Cable	Ethernet 2 x RJ45		Schneider Electric GmbH	Ethernet	RJ45 / RJ45	6800340	
-A5	/23.2:A	Advanced touchscreen panel	HMIGTO4310	HMIGTO4310	Schneider Electric GmbH	HMIGTO	7"5	6800318	
-A5	/23.2:A	PLC (Part)	HMIZSD4G	HMIZSD4G	Schneider Electric GmbH	Memory card	4 GB	6801060	
-A5	/23.2:A	Cable	Ethernet 2 x RJ45		Schneider Electric GmbH	Ethernet	RJ45 / RJ45	6800342	
-A6	/24.6:D	Cable	VW3A8306R30	OF Jenko	Schneider Electric GmbH	Modbus	RJ45 / RJ45	6801058	
-A7	/36.1:C	Cable	VW3A8306R30	OF Jenko	Schneider Electric GmbH	Modbus	RJ45 / RJ45	6801058	
-CV1	/31.6:C	Isolation amplifier	857-412	857-412	WAGO	Inputs 0/10V	Outputs 0/10V	6304272	
-E1	/4.7:D	Enclosure	Groupement Mapics		Green & Cool	G&C	C-STORE	ARMVV45	
-I1	/10.3:B	Main switch (Part)	28917	28917	Schneider Electric GmbH	INS	4 x 40 A	_____	
-I1	/10.3:B	Main switch (Part)	LV428942	LV428942	Schneider Electric GmbH	INS (Poignée)	<= 160A	5903251	
-I1	/10.3:B	Main switch (Part)	28958	28958	Schneider Electric GmbH	INS (Cache bornes)	100 / 160A	5903211	
-KA1	/16.5:F	Relays (Part)	ZMI4NAS	ZMI4NAS	CARLO GAVAZZI	24V / 230V	Base	6007025	
-KA1	/16.5:F	Relays (Part)	RMIA4524DC	RMIA4524DC	CARLO GAVAZZI	24Vdc	4 changeover contact	6007028	
-KA2	/17.3:G	Relays	PLC-RSC-230UC/21	2966207	Phoenix Contact GmbH	230V	1 changeover contact	6602450	
-KA3	/17.4:G	Relays (Part)	RMIA45230AC	RMIA45230AC	CARLO GAVAZZI	230Vac	4 changeover contact	6007027	
-KA3	/17.4:G	Relays (Part)	ZMI4NAS	ZMI4NAS	CARLO GAVAZZI	24V / 230V	Base	6007025	
-KA4	/18.2:G	Relays	PLC-RSC-230UC/21	2966207	Phoenix Contact GmbH	230V	1 changeover contact	6602450	
-KA5	/25.2:H	Relays	PLC-RSC- 24UC/21	2966184	Phoenix Contact GmbH	24V ac/dc	1 changeover contact	6007085	
-KA6	/25.3:H	Relays	PLC-RSC- 24UC/21	2966184	Phoenix Contact GmbH	24V ac/dc	1 changeover contact	6007085	
-KA7	/25.5:H	Relays	PLC-RSC- 24UC/21	2966184	Phoenix Contact GmbH	24V ac/dc	1 changeover contact	6007085	
-KA8	/25.7:H	Relays	PLC-RSC- 24UC/21	2966184	Phoenix Contact GmbH	24V ac/dc	1 changeover contact	6007085	
-KA9	/25.7:H	Relays	PLC-RSC- 24UC/21	2966184	Phoenix Contact GmbH	24V ac/dc	1 changeover contact	6007085	
-KA10	/25.8:H	Relays	PLC-RSC- 24UC/21	2966184	Phoenix Contact GmbH	24V ac/dc	1 changeover contact	6007085	
-KA11	/25.9:H	Relays	PLC-RSC- 24UC/21	2966184	Phoenix Contact GmbH	24V ac/dc	1 changeover contact	6007085	
-KA12	/26.2:G	Relays	PLC-RSC- 24UC/21	2966184	Phoenix Contact GmbH	24V ac/dc	1 changeover contact	6007085	
-KA13	/26.9:G	Relays	PLC-RSC- 24UC/21	2966184	Phoenix Contact GmbH	24V ac/dc	1 changeover contact	6007085	
-KM1	/18.3:G	Contacteur	LC1D09P7	LC1D09P7	Schneider Electric GmbH	230V 3P	9A (AC.3) / 25A (AC.1) / 4kW	6003109	
-Q1	/11.2:A	Circuit breaker, three-pole	A9F87316	A9F87316	Schneider Electric GmbH	3 X 16A	IC60H	6501500	
-Q2	/13.2:C	Motor overload switch	GV2P10	GV2P10	Schneider Electric GmbH	4/6,3A	GV2-P	6502262	



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Part and device tag lists

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Landmark	Folio	Designation	Type number	Order number	Manufacturer	Description 1	Description 2	N° ERP	
-Q2	/13.2:C	Auxiliary	GVAE20	GVAE20	Schneider Electric GmbH	GV2	2 NO	6502291	
-Q3	/14.2:D	Single circuit breaker + N	A9N21020	A9N21020	Schneider Electric GmbH	1 X 2A	DT40	6501425	
-Q4	/14.2:A	Single circuit breaker	A9F85106	A9F85106	Schneider Electric GmbH	1 X 6A	IC60H	6501568	
-Q5	/14.3:D	Single circuit breaker + N	A9N21020	A9N21020	Schneider Electric GmbH	1 X 2A	DT40	6501425	
-Q6	/14.4:A	Single circuit breaker	A9F85106	A9F85106	Schneider Electric GmbH	1 X 6A	IC60H	6501568	
-Q7	/14.5:A	Single circuit breaker	A9F85106	A9F85106	Schneider Electric GmbH	1 X 6A	IC60H	6501568	
-Q8	/14.7:A	Single circuit breaker	A9F85106	A9F85106	Schneider Electric GmbH	1 X 6A	IC60H	6501568	
-Rep1	/10.5:C	Supply distributor	563820	563820	ERICO	125A	4 x 6 Pin	6606001	
-Rep2	/15.2:B	Supply distributor	117389000	117389000	Weidmüller GmbH & Co.	17A	4 x 4 Pin	6602197	
-Rep3	/15.2:G	Supply distributor	117389000	117389000	Weidmüller GmbH & Co.	17A	4 x 4 Pin	6602197	
-Rep4	/15.4:B	Supply distributor	117389000	117389000	Weidmüller GmbH & Co.	17A	4 x 4 Pin	6602197	
-Rep5	/15.8:B	Supply distributor	117389000	117389000	Weidmüller GmbH & Co.	17A	4 x 4 Pin	6602197	
-Rep6	/15.8:G	Supply distributor	117389000	117389000	Weidmüller GmbH & Co.	17A	4 x 4 Pin	6602197	
-S1	/17.4:C	Interrupteur	XB5AD21	XB5AD21	Schneider Electric GmbH	Door	1 NO	6702001	
-S1	/17.4:C	Switch / pushbutton (Part)	ZBZ33	ZBZ33	Schneider Electric GmbH	Labeling	30 x 50	5201000	
-S2	/18.3:C	Interrupteur	XB5AD21	XB5AD21	Schneider Electric GmbH	Door	1 NO	6702001	
-S2	/18.3:C	Switch / pushbutton (Part)	ZBZ33	ZBZ33	Schneider Electric GmbH	Labeling	30 x 50	5201000	
-TR1	/14.2:C	AC / AC	ECT623	ECT623	EMERSON	230/24V~	60VA	2204615	
-TR2	/14.3:C	AC / AC	ECT623	ECT623	EMERSON	230/24V~	60VA	2204615	
-TR3	/14.5:C	AC / DC	ABL8REM24050	ABL8REM24050	Schneider Electric GmbH	230/24V=	120VA	6201203	
-TR4	/21.1:E	DC / DC	85460	85460	Murrelektronik GmbH	24/24V=	3A	6204035	
-VSD1	/11.2:D	Frequency inverter	ATV320U30N4	ATV320U30N4	Schneider Electric GmbH	ATV 320	3 kW		
-W20	/23.7:F	Cable	Ethernet 2 x RJ45		Schneider Electric GmbH	Ethernet	RJ45 / RJ45	6800340	



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Cable overview

Page	Cable name	Cable type	No. of conductors	Cross-section [mm²]	Function text	Length	Code	Cable description	Connecteur PE	
									Code	Qte
11 / 2	-W1		1	16			7203073		Clips PE 2.5-16mm²	0
11 / 2	-W2		4G	2,5	Inverter Comp C1		7202035		Clips PE 0.75-4mm²	1
11 / 3	-W3	LIY.CY	2x	0,34	Inverter C1 Fault		7204000			0
11 / 5	-W4	LIY.CY	4x	0,34	Inverter C1 On/Off		7204001			0
12 / 2	-W5	LIY.CY	4G	1.5	Compressor C1		7204023		Clips PE 0.75-4mm²	1
12 / 6	-W6		5G	0,75	Compressor C1		7202081		Clips PE 0.75-4mm²	1
12 / 8	-W7		3G	0,75	HP Comp 1 MT		7202077		Clips PE 0.75-4mm²	1
12 / 9	-W8		3G	0,75	C1-VM11		7202053		Clips PE 0.75-4mm²	1
13 / 2	-W9		4G	1.5	Compressor C2		7202033		Clips PE 0.75-4mm²	1
13 / 6	-W10		5G	0,75	Compressor C2		7202081		Clips PE 0.75-4mm²	1
13 / 8	-W11		3G	0,75	HP Comp 2 MT		7202077		Clips PE 0.75-4mm²	1
13 / 10	-W12		3G	0,75	C2-VM11		7202053		Clips PE 0.75-4mm²	1
14 / 6	-W13		3G	0,75	Airing		7202053		Clips PE 0.75-4mm²	1
14 / 7	-W14		3G	0,75	Temperature controller		7202077		Clips PE 0.75-4mm²	1
16 / 1	-W15		3G	0,75	HP - MT		7202077		Clips PE 0.75-4mm²	1
16 / 8	-W16		3G	0,75	VM7 Oil Return Separator		7202053		Clips PE 0.75-4mm²	1
19 / 2	-W17	034G2323	4x	0,50	Expansion Valve Vhp		0512041			0
20 / 2	-W18	034G2323	4x	0,50	Expansion Valve Vrec		0512041			0
21 / 6	-W19	034G2323	4x	0,50	Expansion Valve Cooler		0512041			0
23 / 7	-W20	Modbus	2xRJ45	0,3	ModBus		6800340			0
24 / 6	-W21	VW3A8306R30	2xRJ45	0.34	Modbus					0
27 / 2	-W22		3G	0,75	Receiver CO² Pressure		7202077		Clips PE 0.75-4mm²	1
27 / 6	-W23	152P3N5001P	4G	0,75	HE60 FZAL1 Cooler Flow Switch		2201133		Clips PE 0.75-4mm²	1
28 / 2	-W24				Oil Level C1		7202081		Clips PE 0.75-4mm²	1
28 / 4	-W25				Oil Level C2		7202081		Clips PE 0.75-4mm²	1
30 / 5	-W26	LIY.CY	4x	0,34	Discharge Pressure PT1		7204001			0
30 / 7	-W27	LIY.CY	4x	0,34	Suction Pressure PT2		7204001			0
30 / 8	-W28	LIY.CY	4x	0,34	Receiver Pressure PT3		7204001			0



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1ere Edition

Modification

Designed by : RD 2545
Checked by :
Date : 25/07/2019
Revision : A

Cable overview

DO2112H

VARMALOUSNIR EHF

A.R. 216366-00040

Project Creation Date : 03/07/2018

7.1 <-- 8.1 -->

Cable overview

Page	Cable name	Cable type	No. of conductors	Cross-section [mm ²]	Function text	Length	Code	Cable description	Connecteur PE	
									Code	Qte
31 / 5	-W29				Receiver Level LT70					0
32 / 5	-W30	LIY.CY	2x	0,34	Discharge Temp TT1		7204000			0
32 / 8	-W31	LIY.CY	2x	0,34	Liquid Temp TT3		7204000			0
32 / 9	-W32	LIY.CY	2x	0,34	Oil Temp TT4		7204000			0
33 / 5	-W33	LIY.CY	2x	0,34	MT Suction Temp TT5		7204000			0
34 / 5	-W34	LIY.CY	2x	0,34	Inlet Water Subcooler HP HE40-TT19		7204000			0
34 / 7	-W35	LIY.CY	2x	0,34	Outlet Water Subcooler HP HE40-TT20		7204000			0
34 / 8	-W36	LIY.CY	2x	0,34	Outlet CO2 Subcooler HP HE40-TT21		7204000			0
35 / 5	-W37	LIY.CY	2x	0,34	Inlet Water Cooler HE60-TT19		7204000			0
35 / 7	-W38	LIY.CY	2x	0,34	Outlet Water Cooler HE60-TT20		7204000			0
35 / 8	-W39	LIY.CY	2x	0,34	Outlet CO2 Subcooler HP HE60-TT21		7204000			0
31 / 7	-ZW1				EXT-REF 0-10V HR					0
33 / 7	-ZW2				External Temp TT6					0
34 / 9	-ZW3				SPARE					0
35 / 9	-ZW4				SPARE					0
36 / 1	-ZW5				ModBus RS485					0
36 / 3	-ZW6				ModBus RS485					0
36 / 6	-ZW7				A-Alarm				Clips PE 0.75-4mm ²	1
36 / 7	-ZW8				Unit RDY MT				Clips PE 0.75-4mm ²	1
36 / 8	-ZW9				Start / Stop				Clips PE 0.75-4mm ²	1
37 / 1	-ZW10				HE40-Control 0-10V					0
37 / 3	-ZW11				HE60-P20				Clips PE 0.75-4mm ²	1
37 / 4	-ZW12				HE60-START / ALARM				Clips PE 0.75-4mm ²	1
37 / 5	-ZW13				SP-OFFSET-AI					0
37 / 7	-ZW14				DI-SPARE-1				Clips PE 0.75-4mm ²	1
37 / 8	-ZW15				DO-SPARE-1				Clips PE 0.75-4mm ²	1
37 / 9	-ZW16				AI-SPARE-1					0



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1ere Edition

Modification

Designed by : RD 2545

Checked by :

Date : 25/07/2019

Revision : A

Cable overview

DO2112H

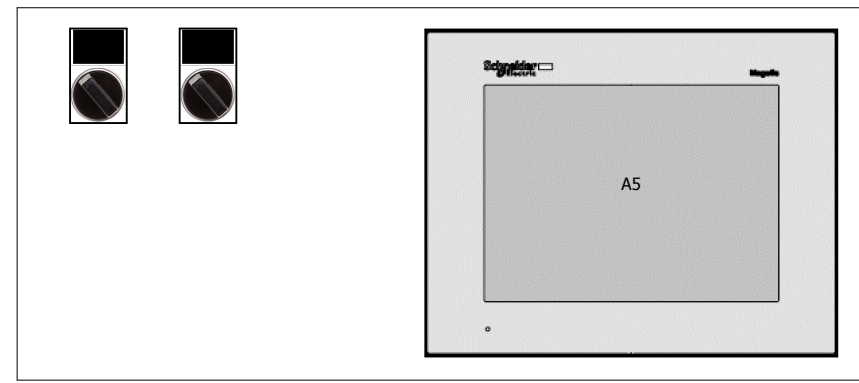
VARMALAUSNIR EHF

A.R. 216366-00040

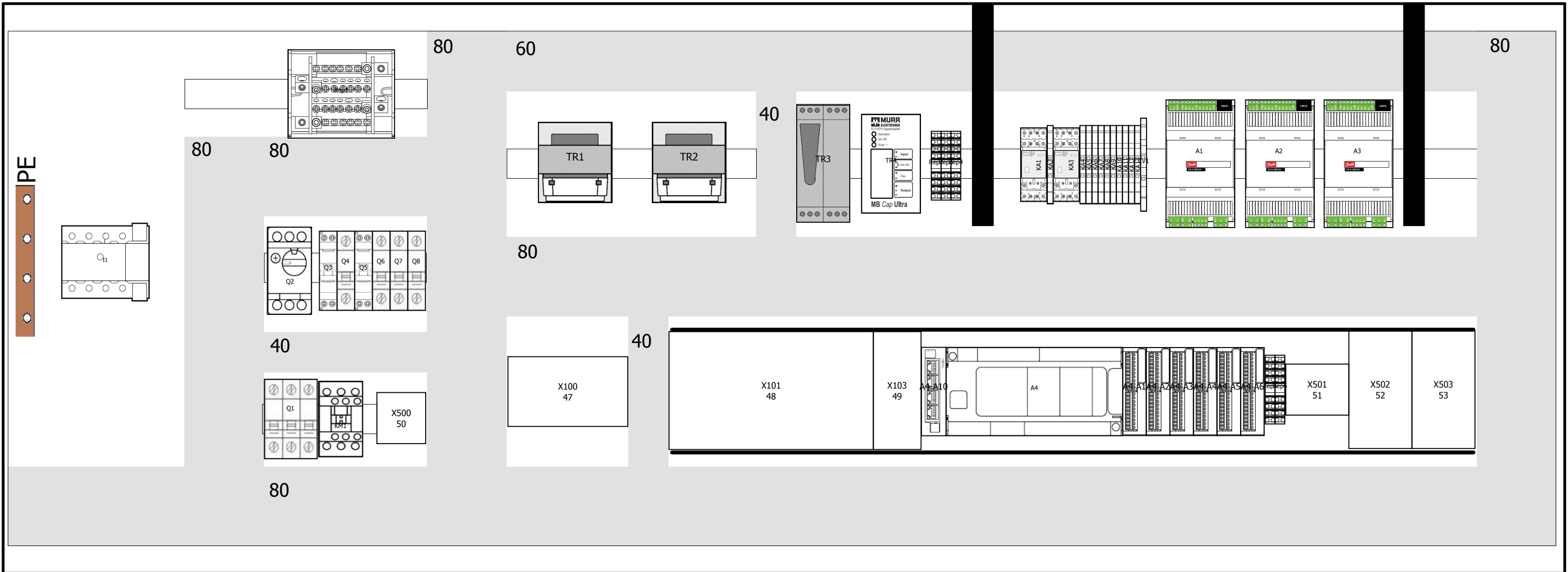
Project Creation Date : 03/07/2018

8 <-- **8.1** --> 9.2

PL2

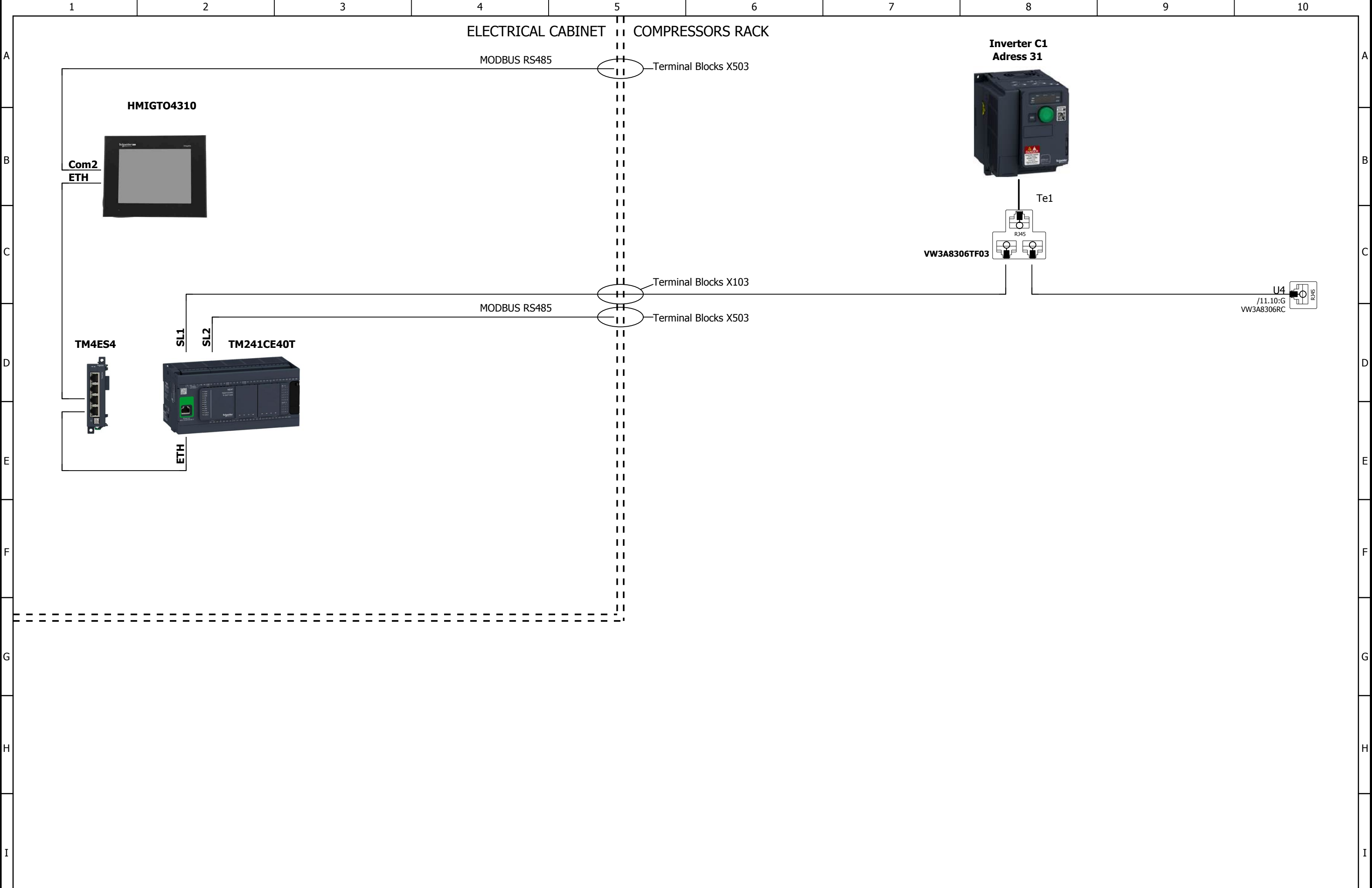


PL1
580 x 1590



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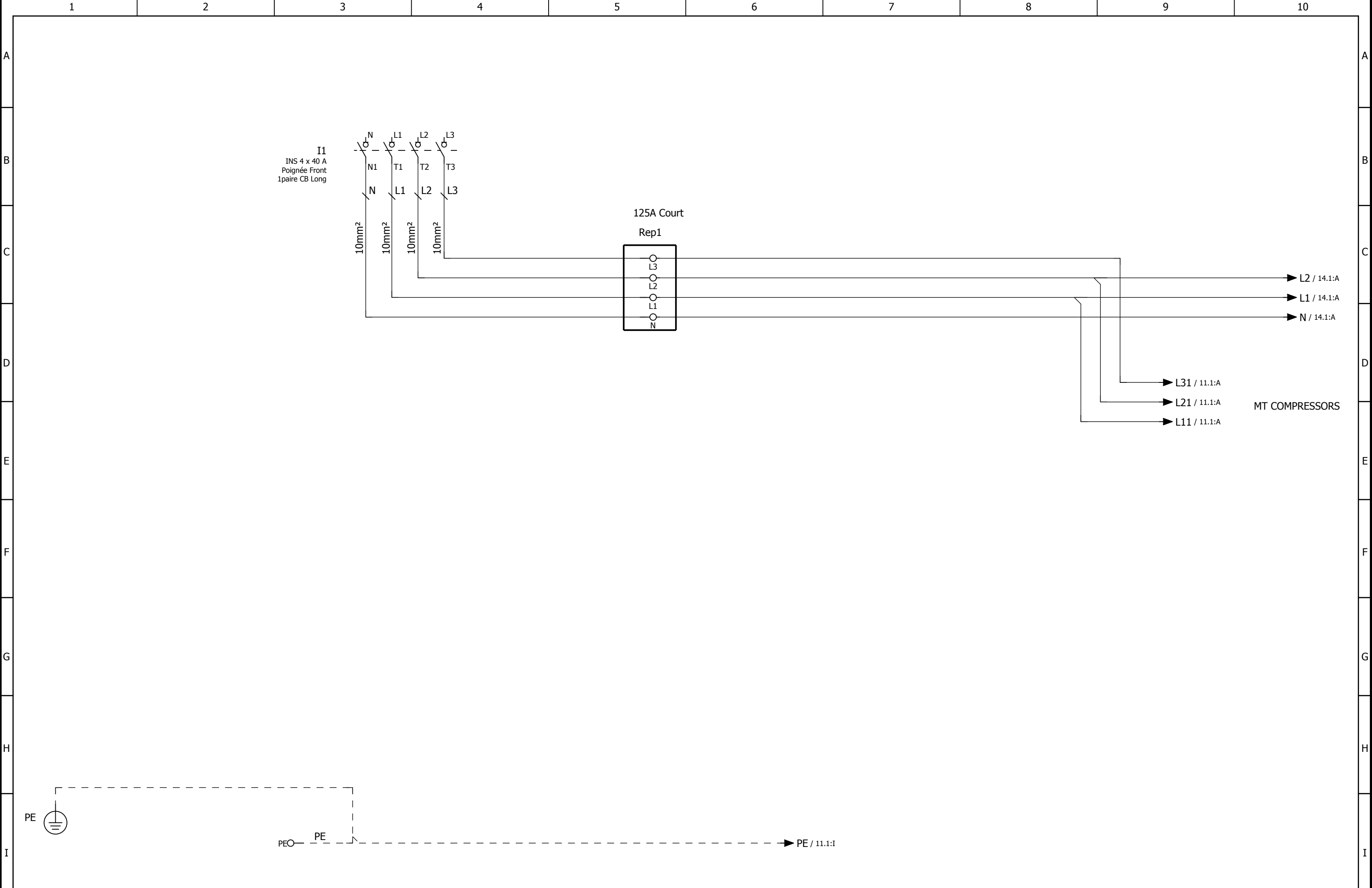
1ere Edition	Modification	Designed by : RD 2545	Panel layout	VARMALAU SNIR EHF	
		Checked by :		A.R. 216366-00040	
		Date : 25/07/2019	DO2112H	Project Creation Date :	03/07/2018
		Revision : A		8.1 <--	9.2



1ere Edition	Modification	Designed by : RD 2545	Checked by :	Date : 25/07/2019	Revision : A
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Modbus Line VSD M241	DO2112H
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VARMALOUSNIR EHF	A.R. 216366-00040	Project Creation Date : 03/07/2018	9.2 <-- 9.91 --> 10
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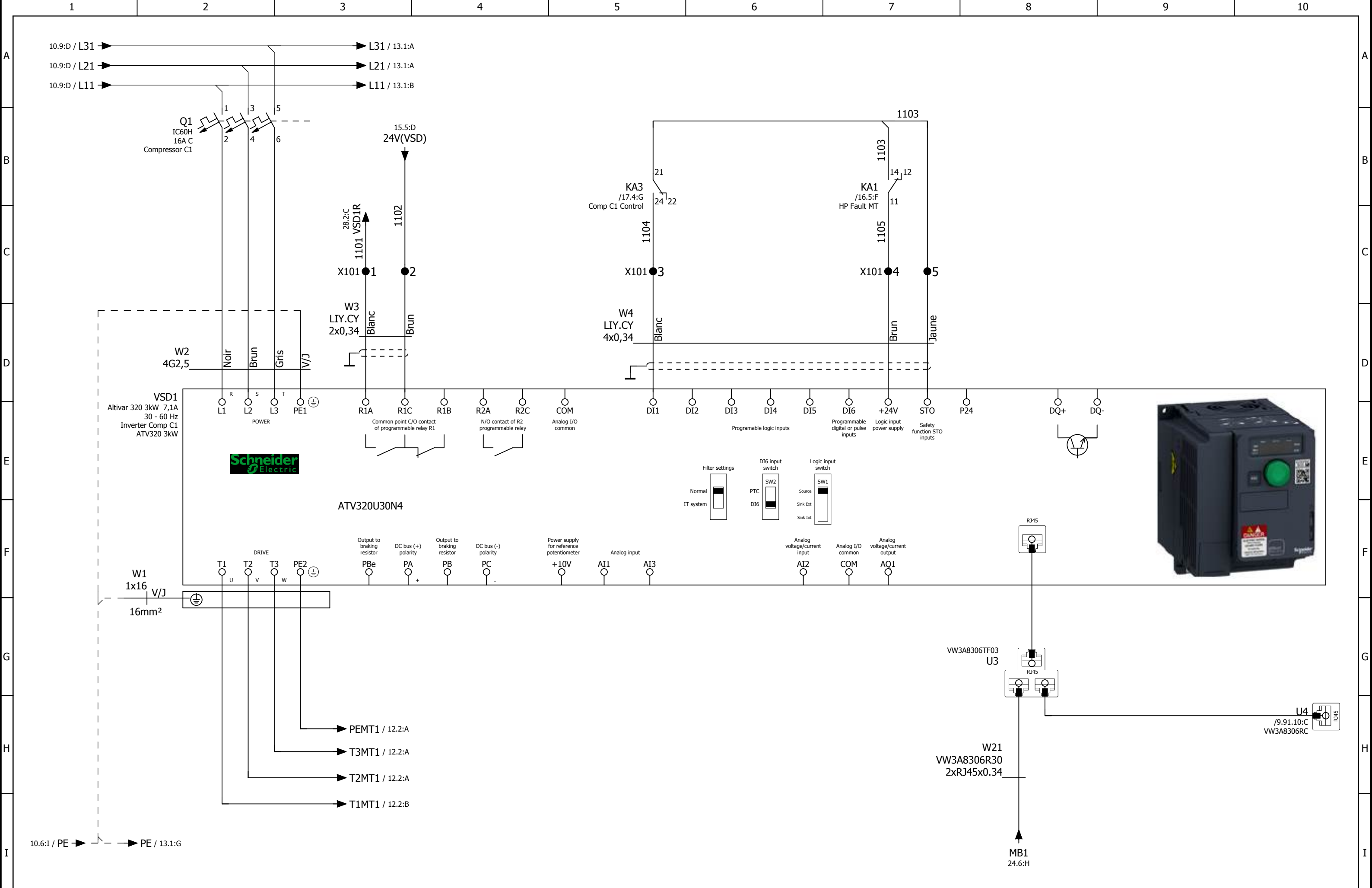
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1ere Edition	Modification
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Designed by : RD 2545
Checked by :
Date : 25/07/2019
Revision : A

Main Supply
DO2112H

VARMALOUSNIR EHF	9.91 <-- 10 --> 11
A.R. 216366-00040	
Project Creation Date : 03/07/2018	



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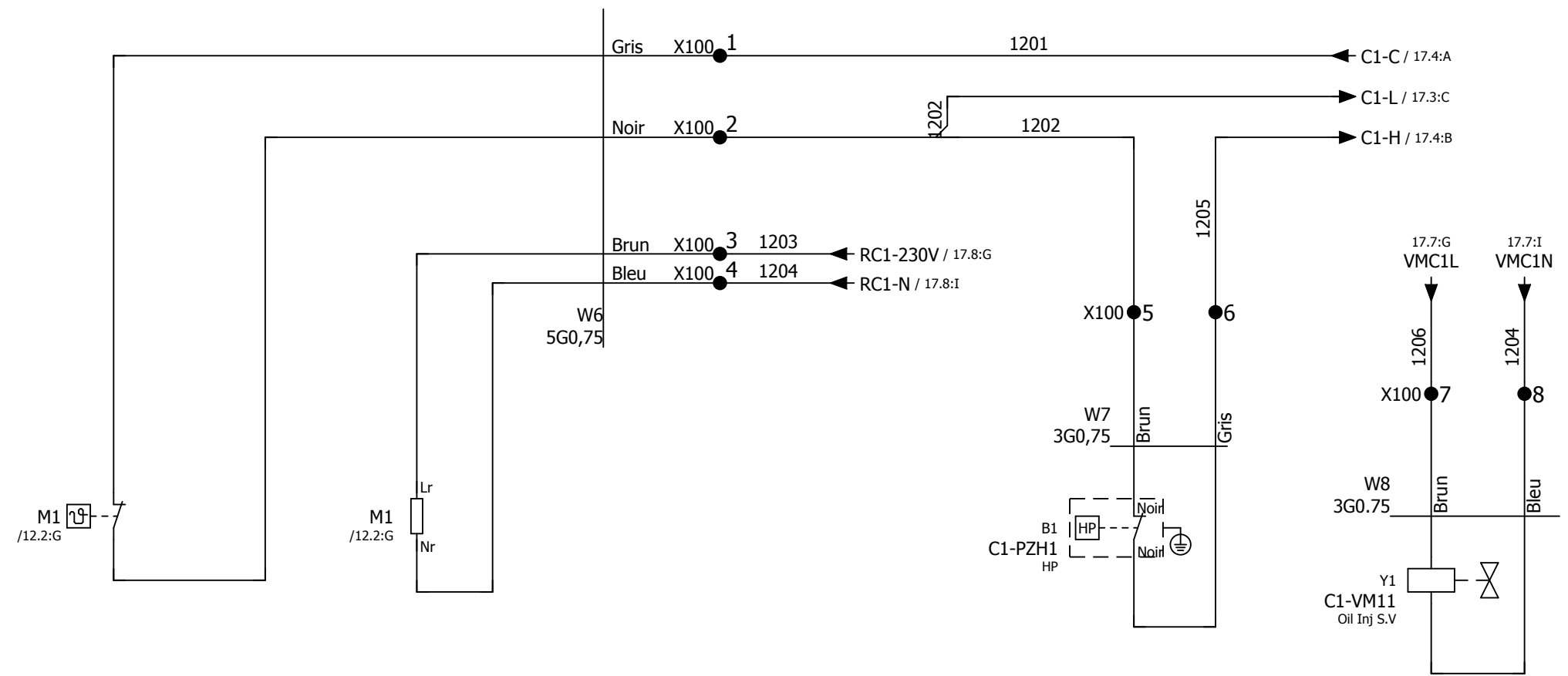
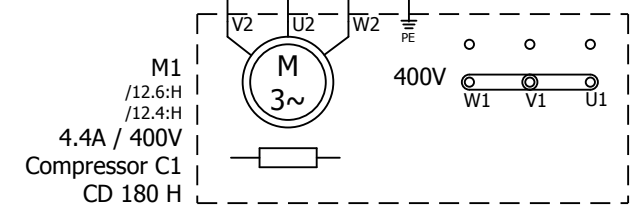
1ere Edition	Modification
Designed by : RD 2545	Checked by :
Date : 25/07/2019	Revision : A

Inverter Comp C1
ATV320
DO2112H

VARMALOUSNIR EHF	A.R. 216366-00040
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11.3:H / PENT1
 11.3:H / T3MT1
 11.3:H / T2MT1
 11.3:H / T1MT1

W5
 LIY.CY
 4G1.5
 Noir [1]
 Noir [2]
 Noir [3]
 V3



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1ere Edition

Modification

Designed by : RD 2545
 Checked by :
 Date : 25/07/2019
 Revision : A

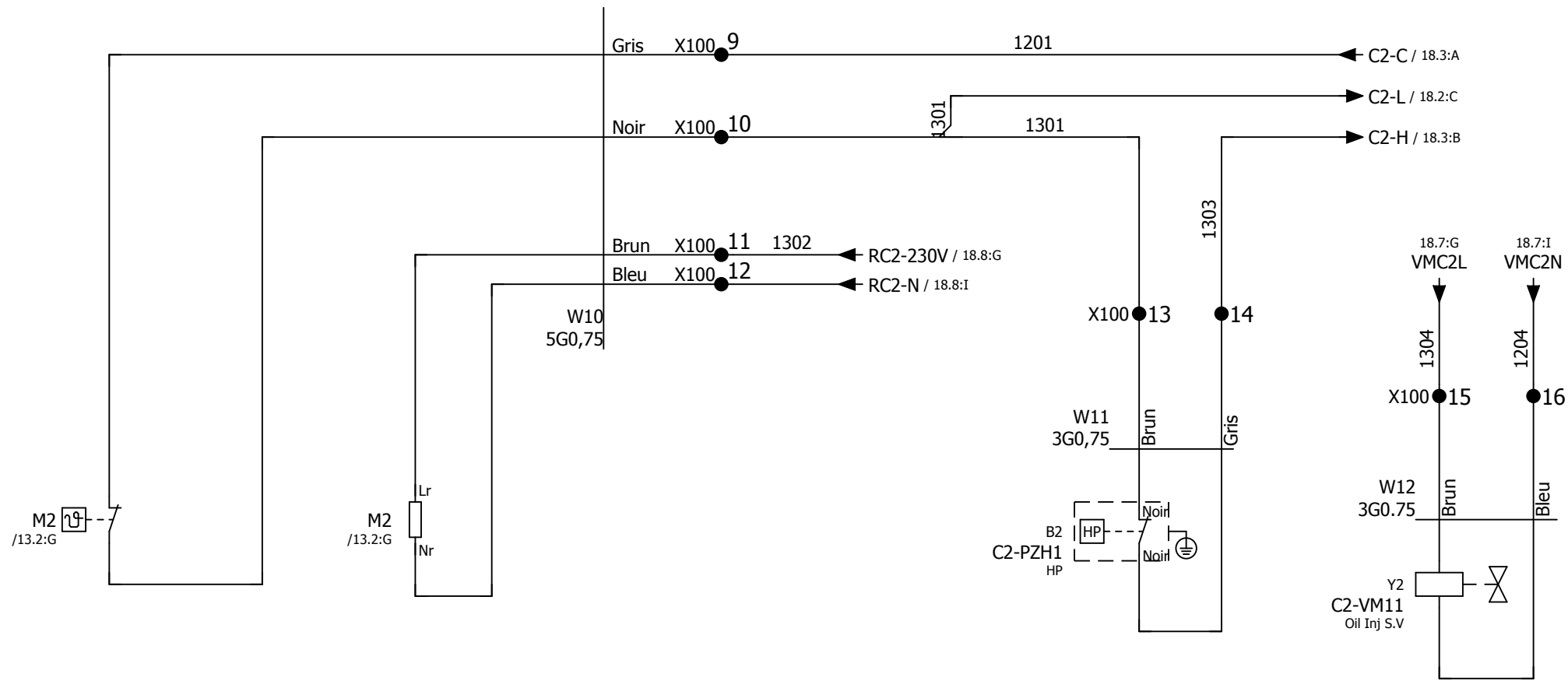
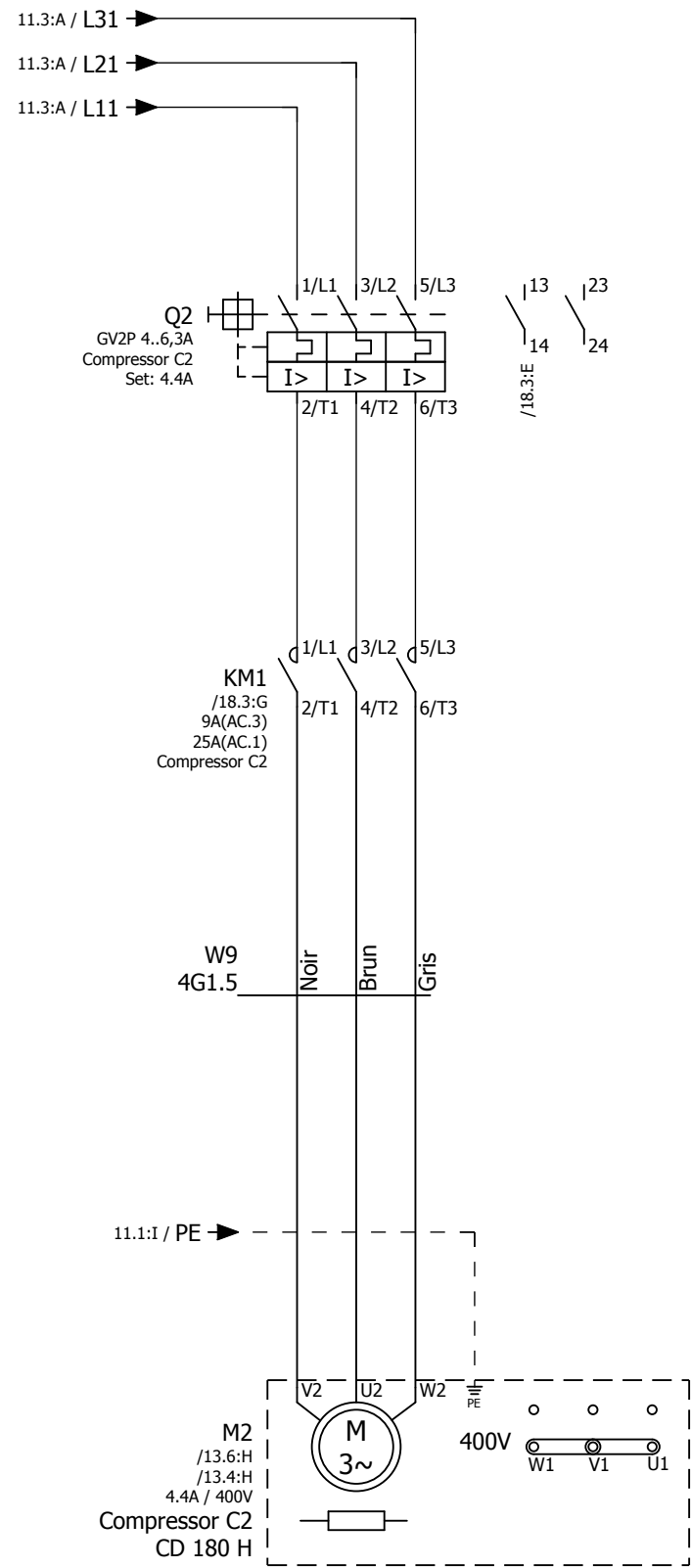
Compressor C1 Supply

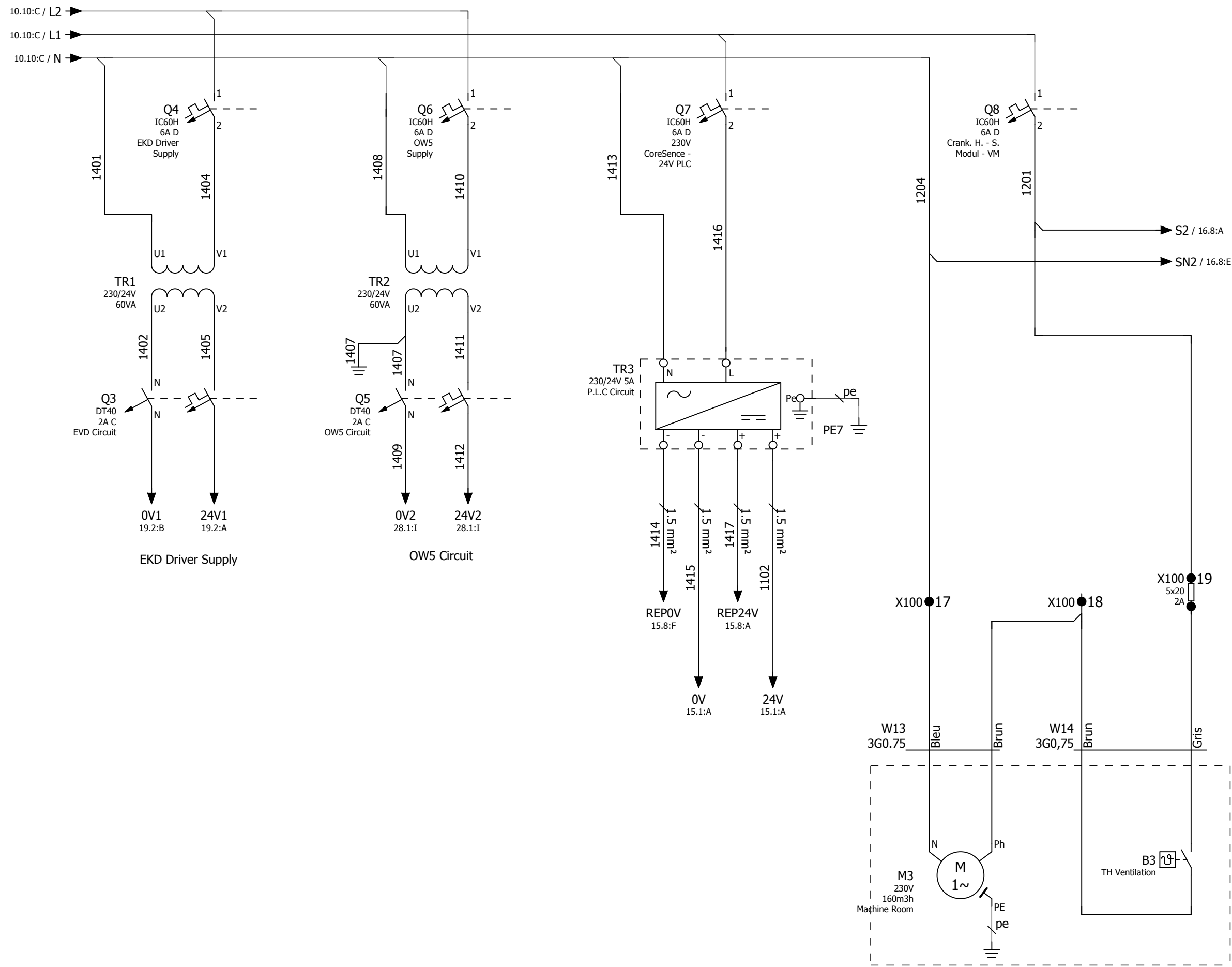
DO2112H

VARMALOUSNIR EHF

A.R. 216366-00040

Project Creation Date : 03/07/2018

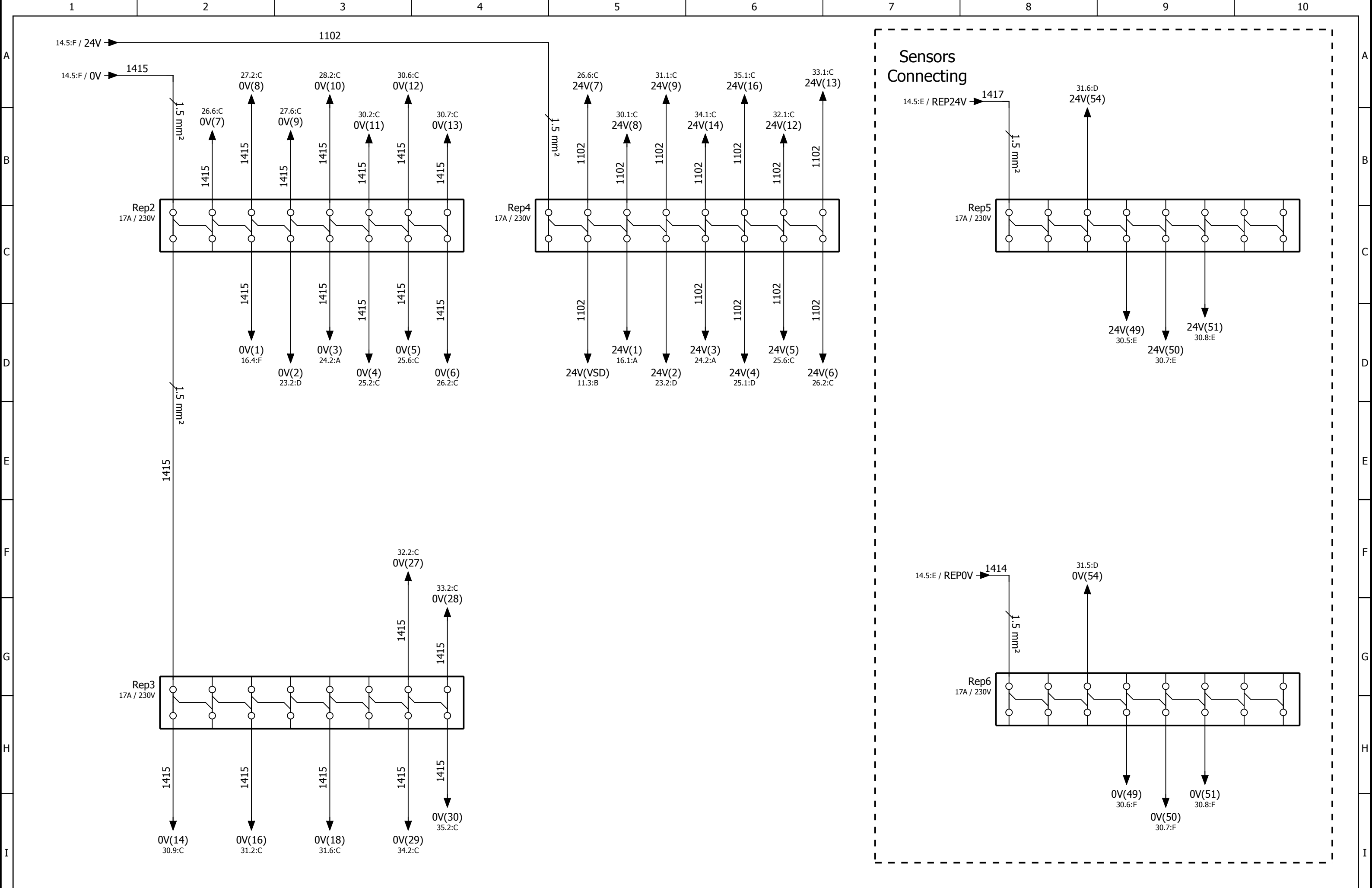




1ere Edition	Modification
Designed by : RD 2545	Checked by :
Date : 25/07/2019	Revision : A

Main control supply
DO2112H

VARMALOUSNIR EHF	Project Creation Date : 03/07/2018
A.R. 216366-00040	13 <-- 14 --> 15

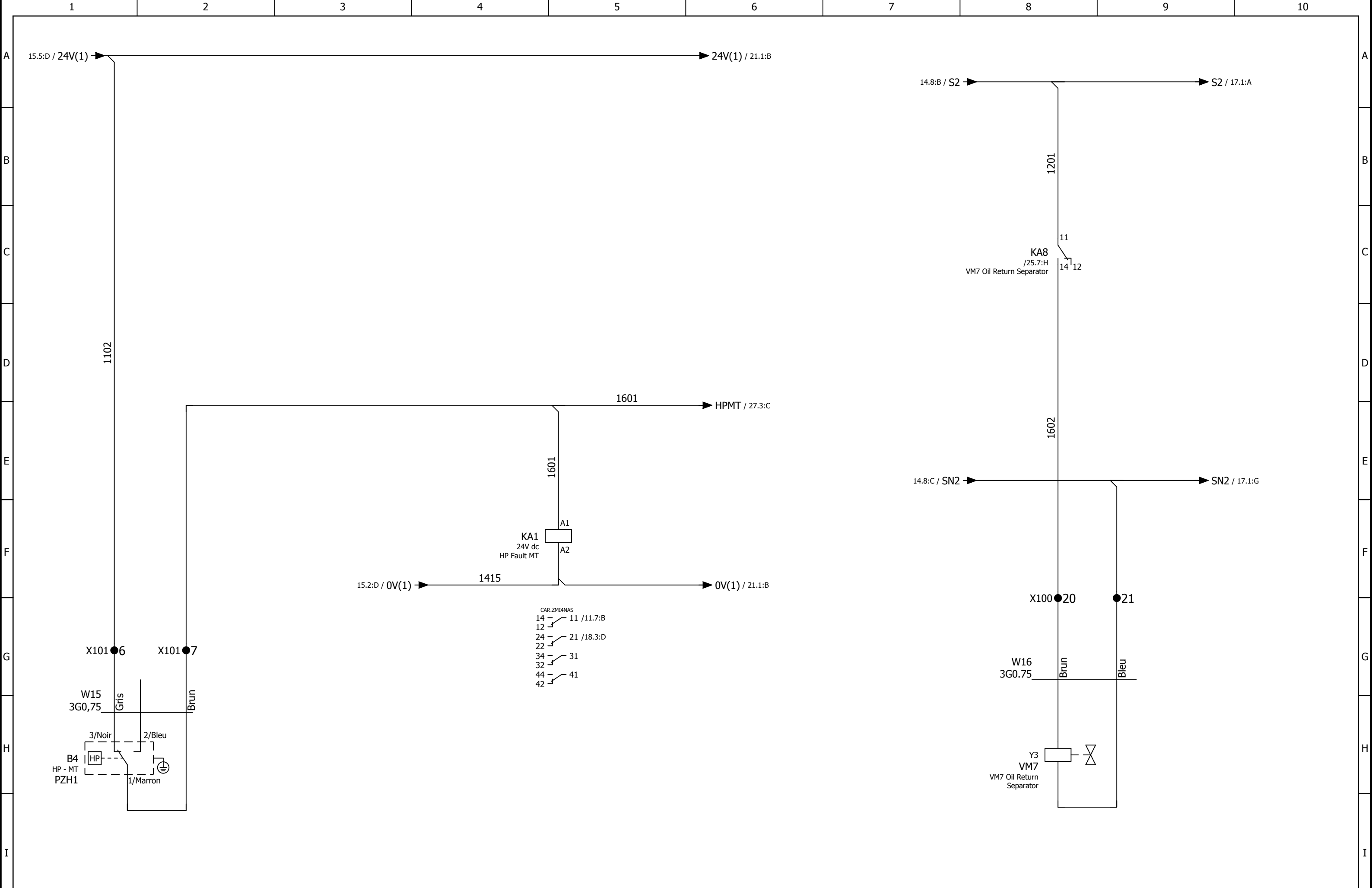


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1ere Edition	Modification
Designed by : RD 2545	Checked by :
Date : 25/07/2019	Revision : A

Main control supply
DO2112H

VARMALOUSNIR EHF	Project Creation Date : 03/07/2018
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- CAR.ZM4NAS
- 14 - 11 /11.7:B
 - 12 - 21 /18.3:D
 - 22 - 31
 - 34 - 41
 - 44 - 41
 - 42 - 41

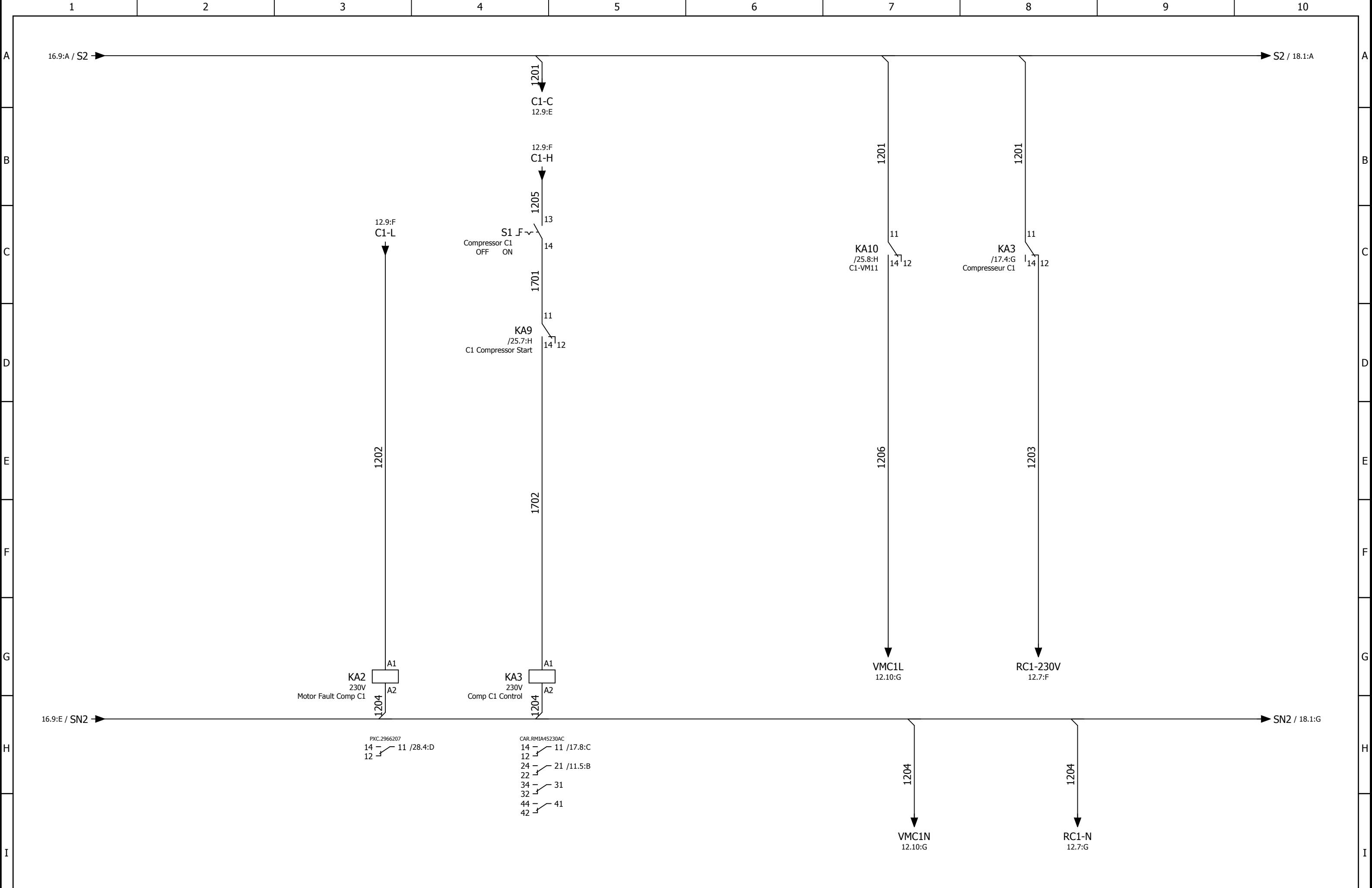


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1ere Edition	Modification
Designed by : RD 2545	Checked by :
Date : 25/07/2019	Revision : A

MAIN HP	DO2112H
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VARMALOUSNIR EHF	A.R. 216366-00040	Project Creation Date : 03/07/2018	15 <-- 16 --> 17
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1ere Edition

Modification

Designed by : RD 2545

Checked by :

Date : 25/07/2019

Revision : A

Comp C1 Control

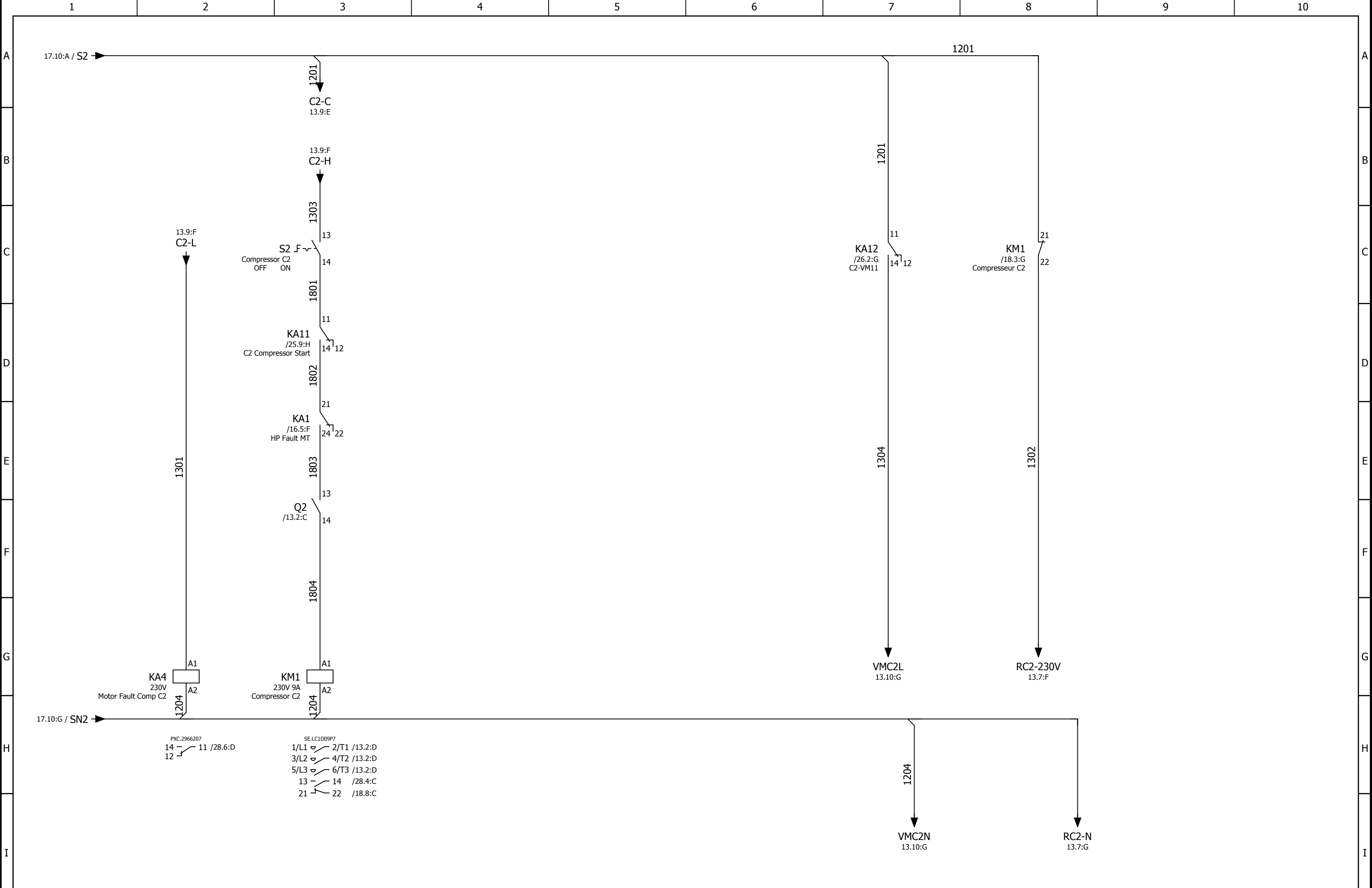
DO2112H

VARMALOUSNIR EHF

A.R. 216366-00040

Project Creation Date : 03/07/2018

16 <-- 17 --> 18

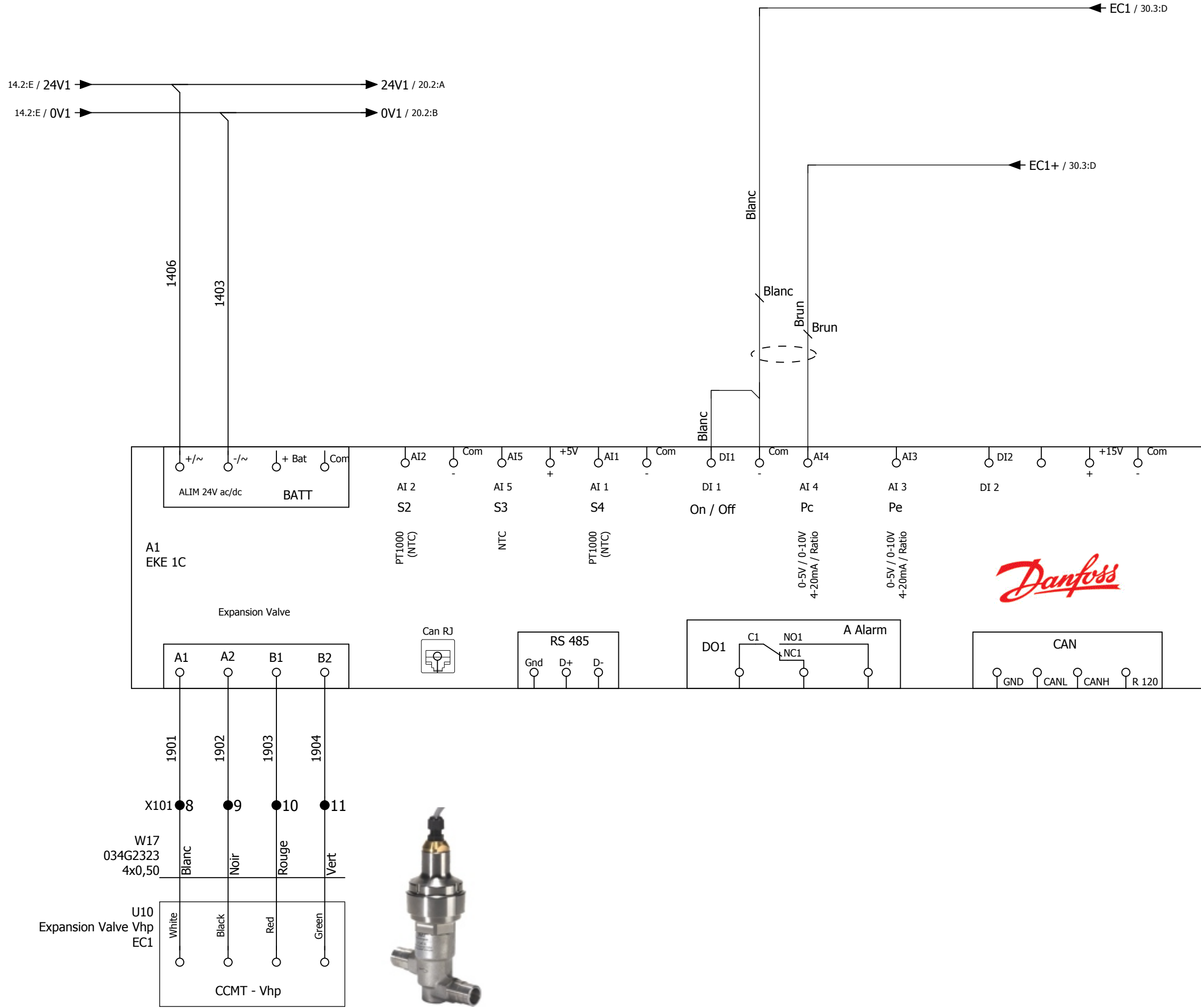


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1ere Edition	Modification
Designed by : RD 2545	Checked by :
Date : 25/07/2019	Revision : A

Comp C2 Control
DO2112H

VARMALOUSNIR EHF	Project Creation Date : 03/07/2018
A.R. 216366-00040	17 <-- 18 --> 19



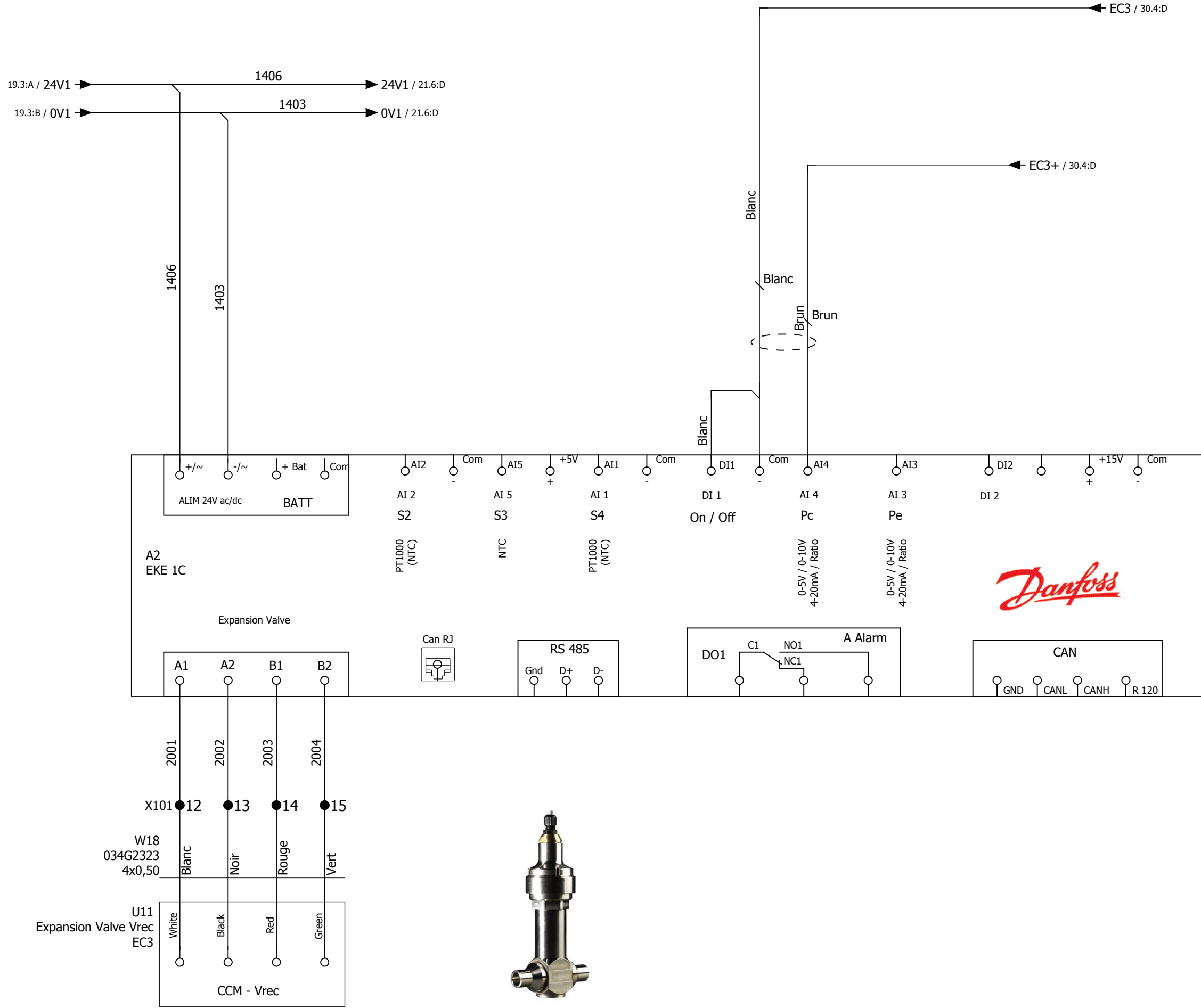
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1ere Edition	Modification
Designed by : RD 2545	Checked by :
Date : 25/07/2019	Revision : A

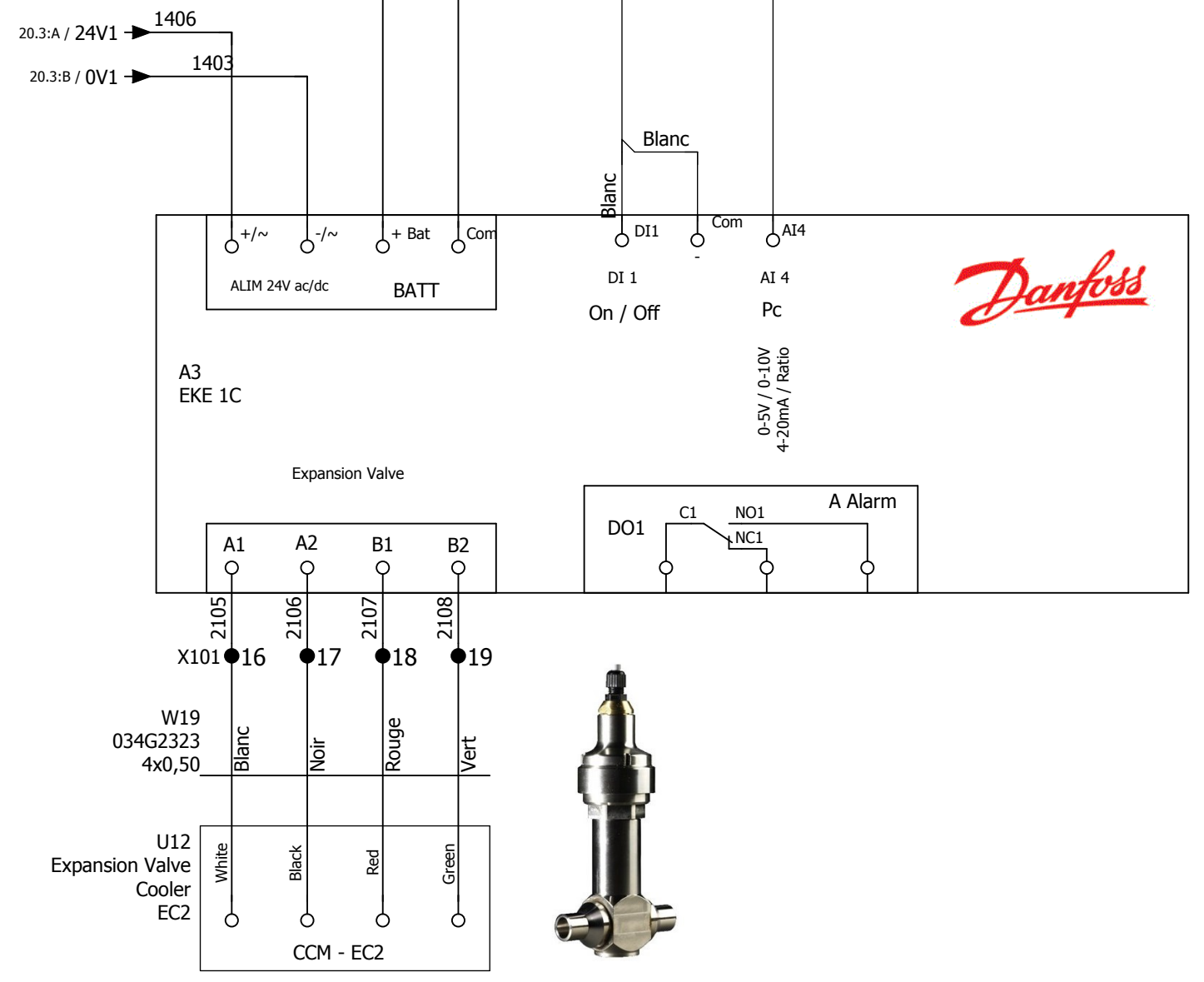
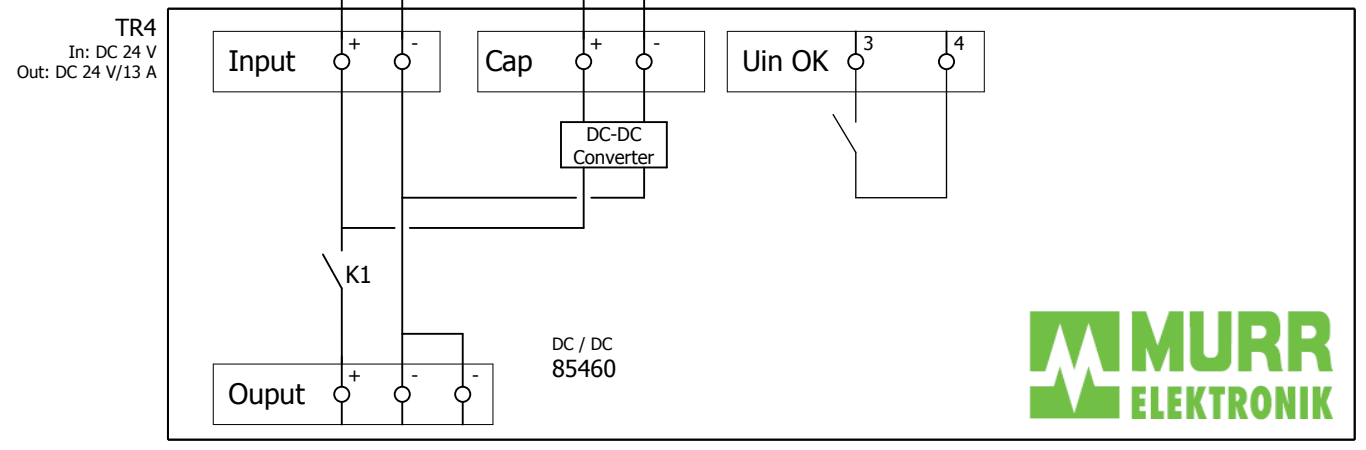
Expansion Valve Vhp [EKD EC1]

DO2112H

VARMALOUSNIR EHF	Project Creation Date : 03/07/2018
A.R. 216366-00040	18 <-- 19 --> 20



16.6:A / 24V(1) → 24V(1) / 27.1:F
 16.6:F / 0V(1) → 0V(1) / 25.1:H



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1ere Edition	Modification
Designed by : RD 2545	Checked by :
Date : 25/07/2019	Revision : A

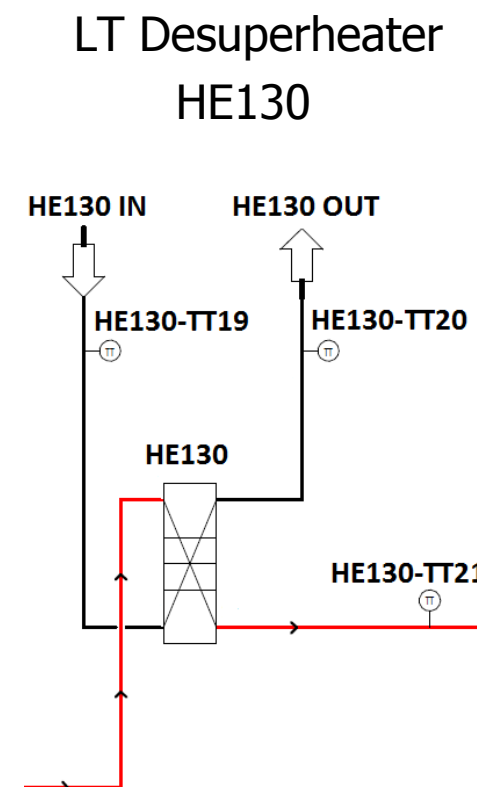
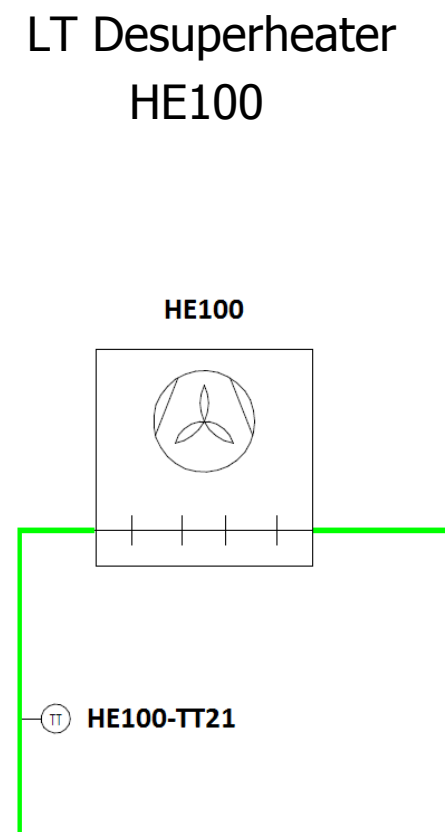
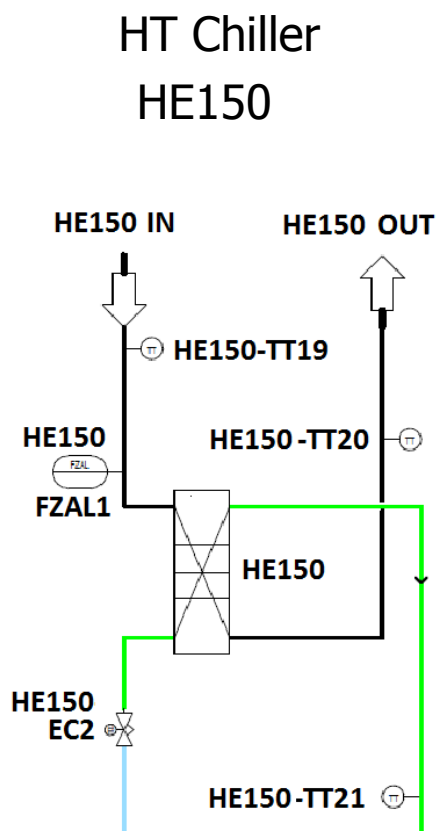
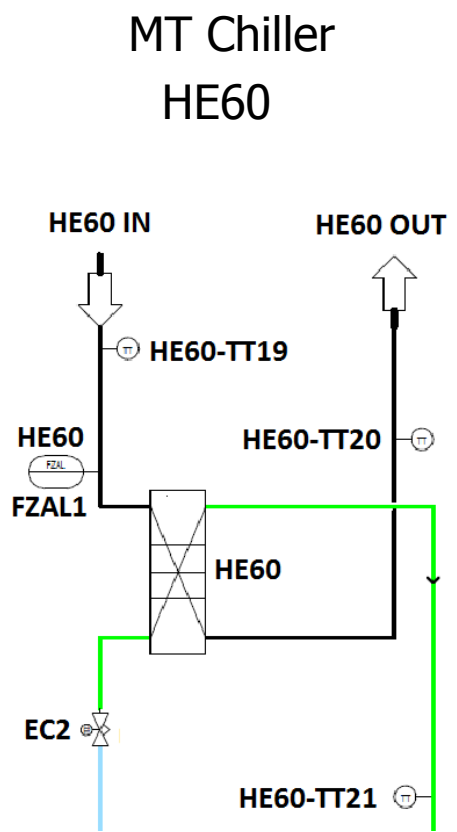
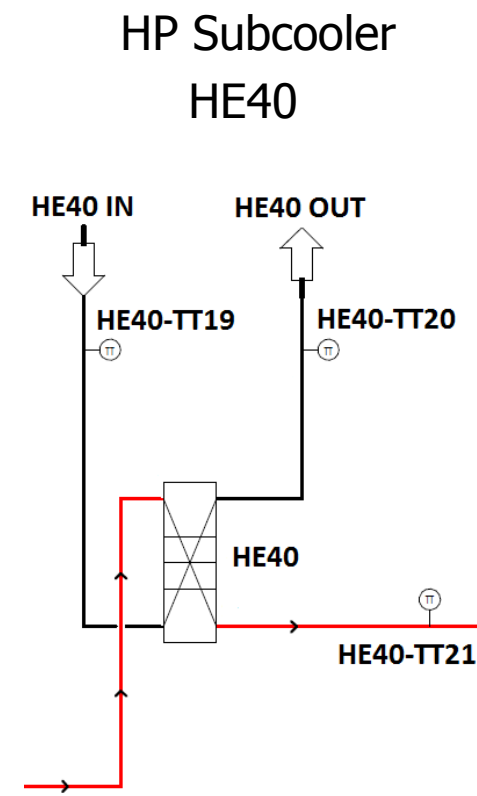
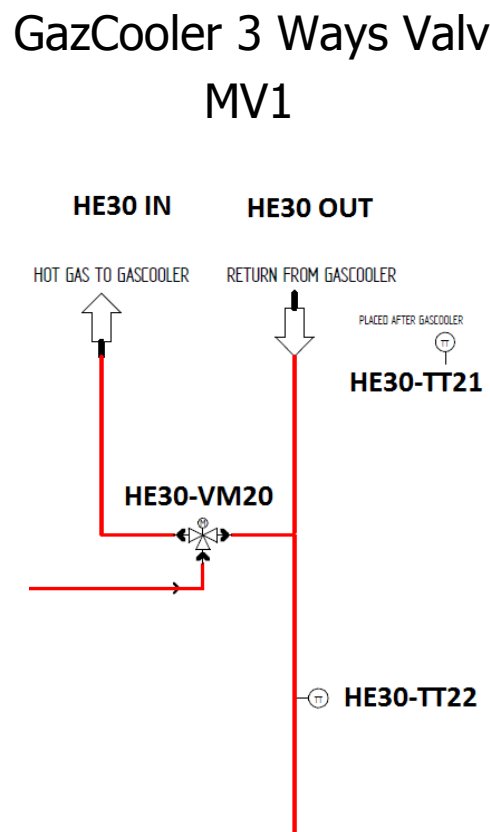
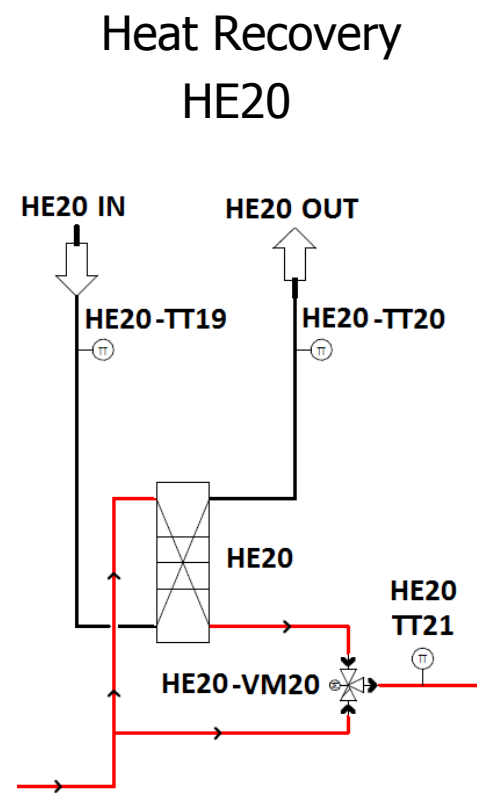
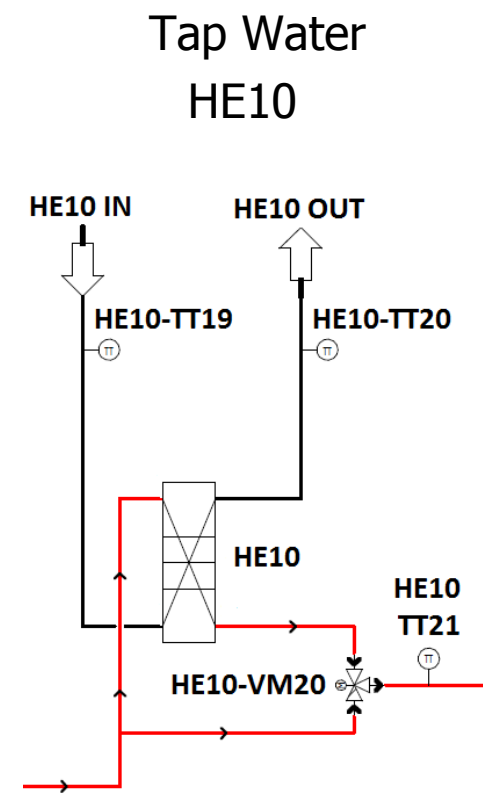
Expansion Valve Cooler [EC2]

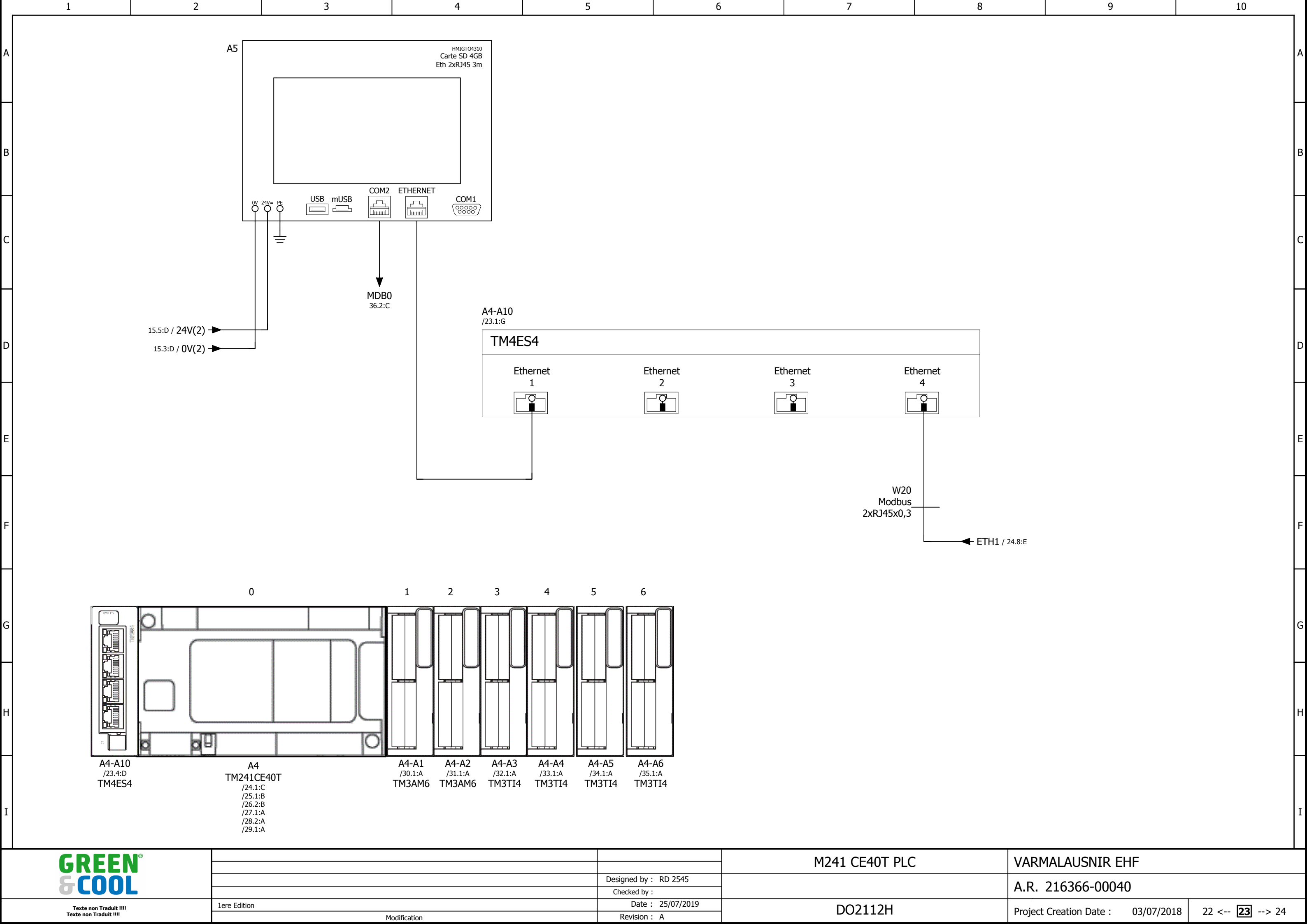
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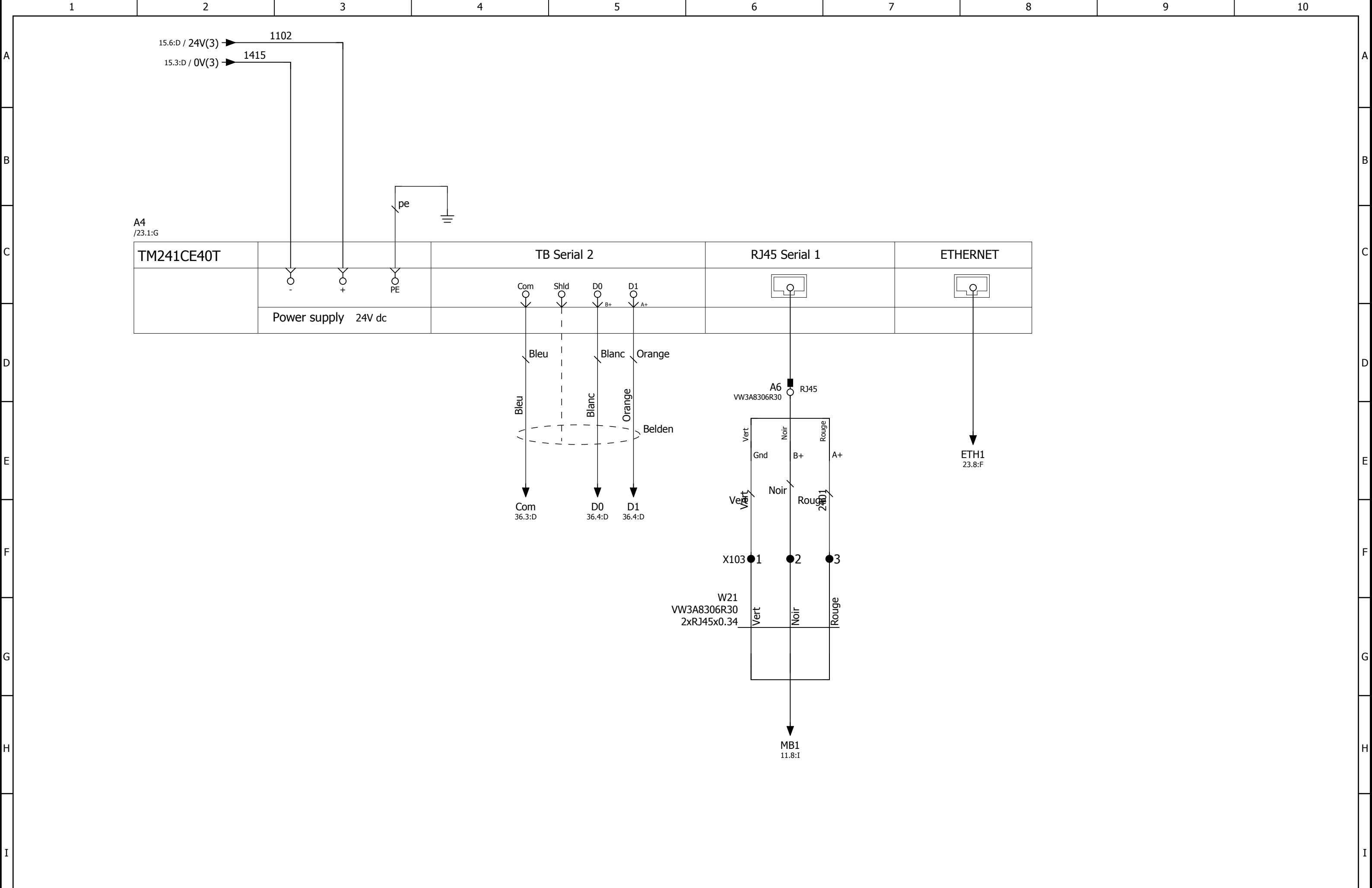
A.R. 216366-00040

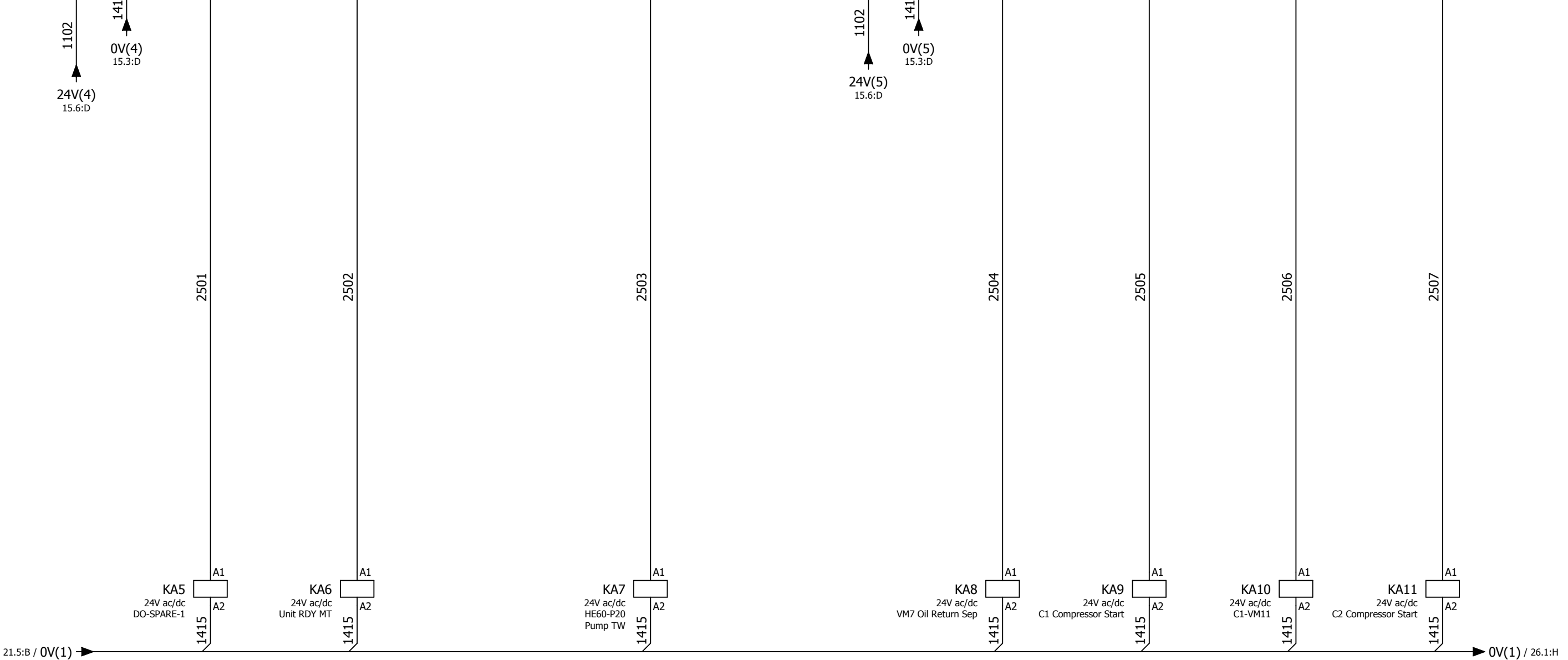
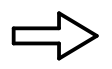
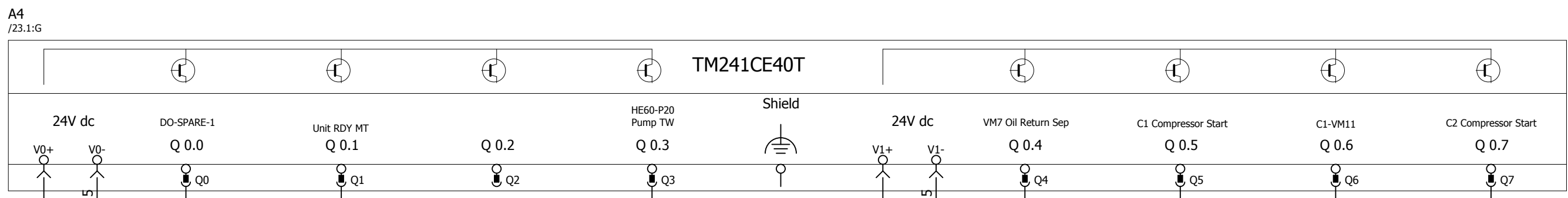
DO2112H

Project Creation Date : 03/07/2018







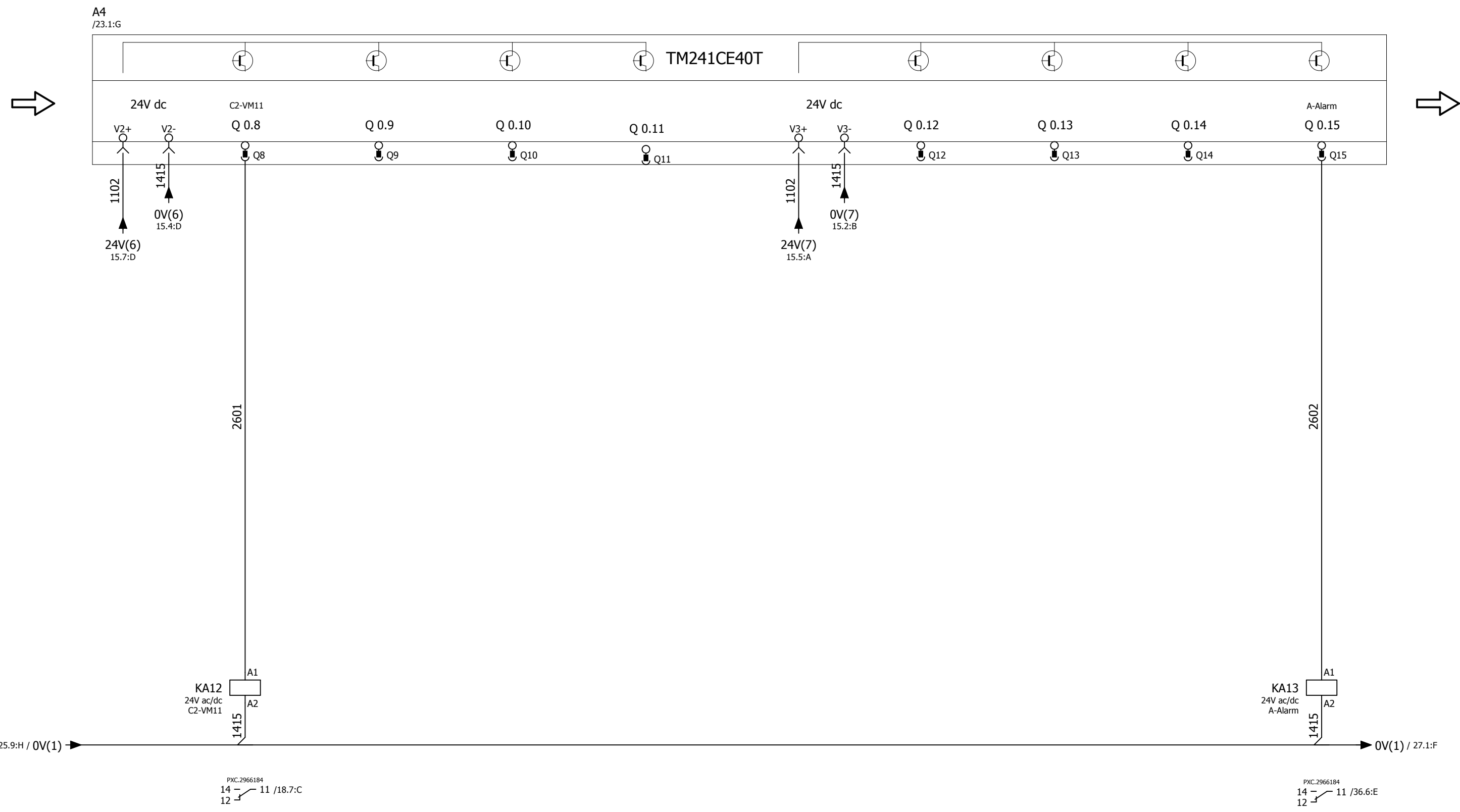


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1ere Edition	Modification
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M241 CE40T PLC	DO2112H
Designed by : RD 2545	
Checked by :	
Date : 25/07/2019	
Revision : A	

VARMALOUSNIR EHF	Project Creation Date : 03/07/2018
A.R. 216366-00040	24 <-- 25 --> 26



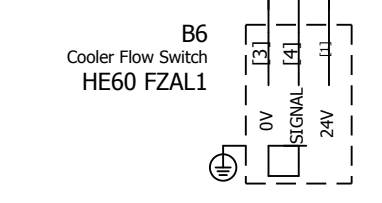
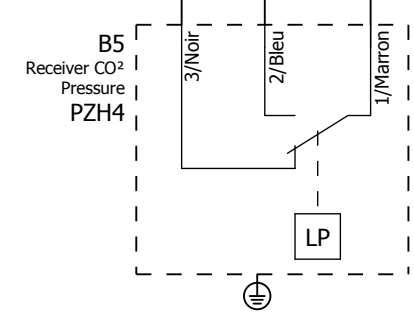
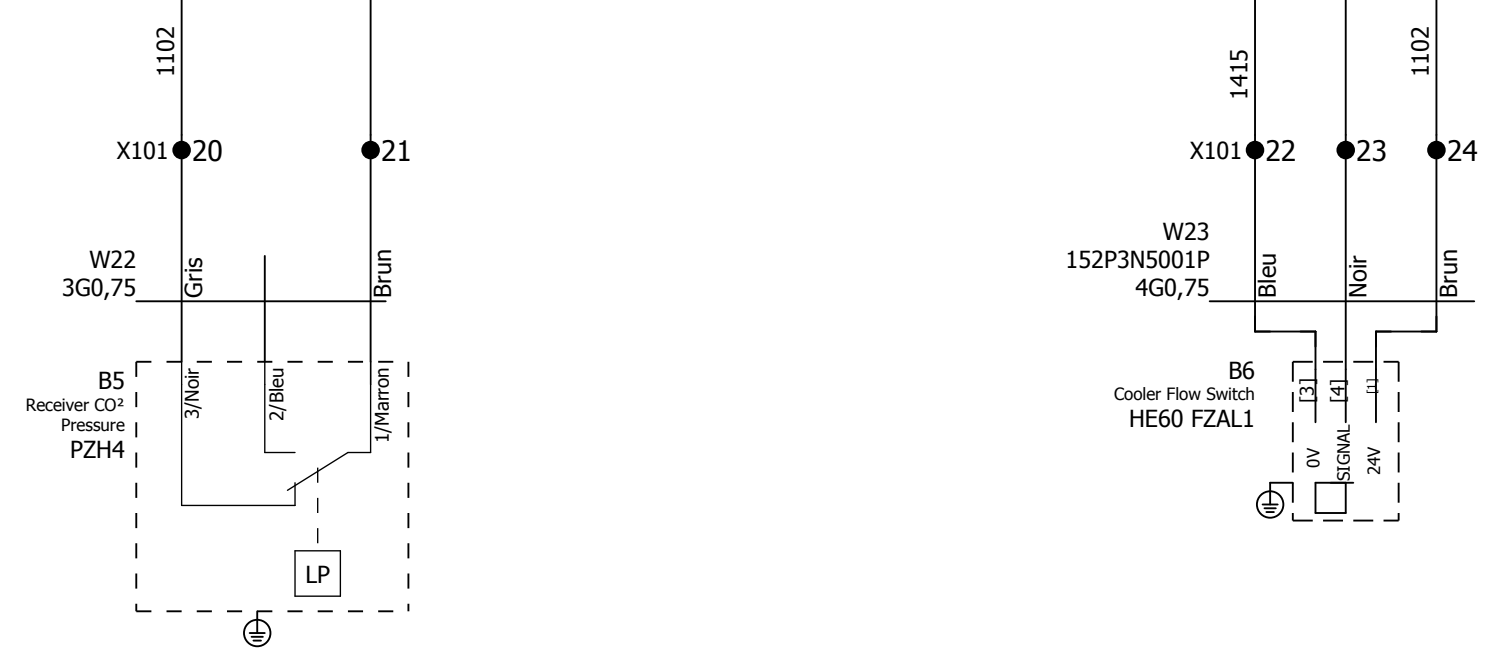
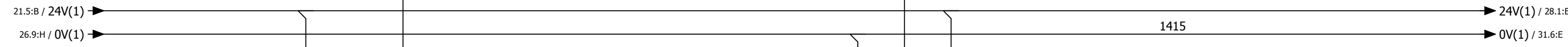
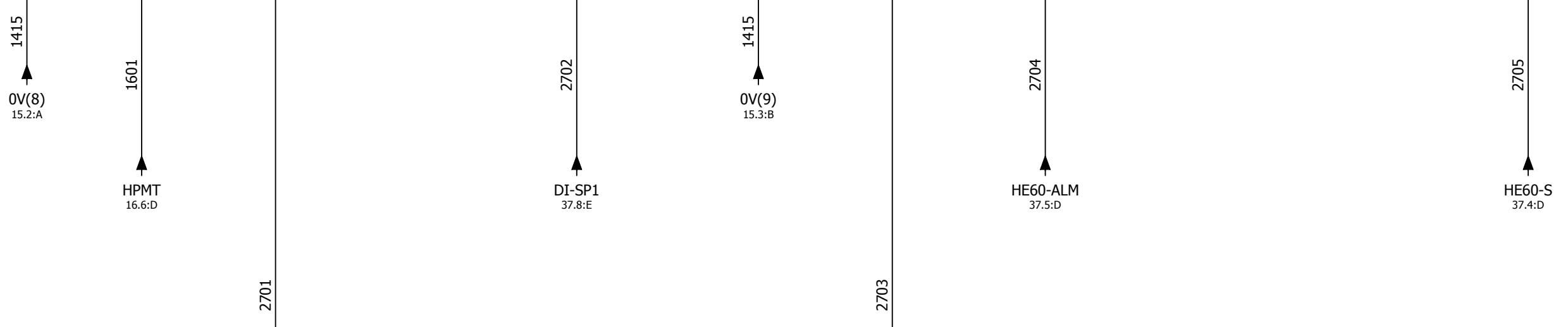
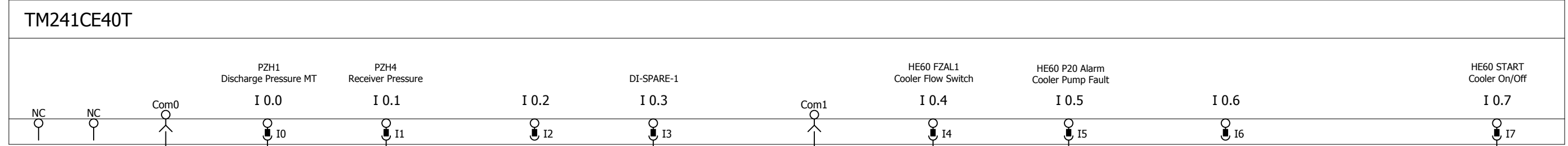
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1ere Edition	Modification
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M241 CE40T PLC	DO2112H
Designed by : RD 2545	Revision : A
Checked by :	
Date : 25/07/2019	

VARMALOUSNIR EHF	Project Creation Date : 03/07/2018
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A4
/23.1:G



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1ere Edition

Modification

Designed by : RD 2545
Checked by :
Date : 25/07/2019
Revision : A

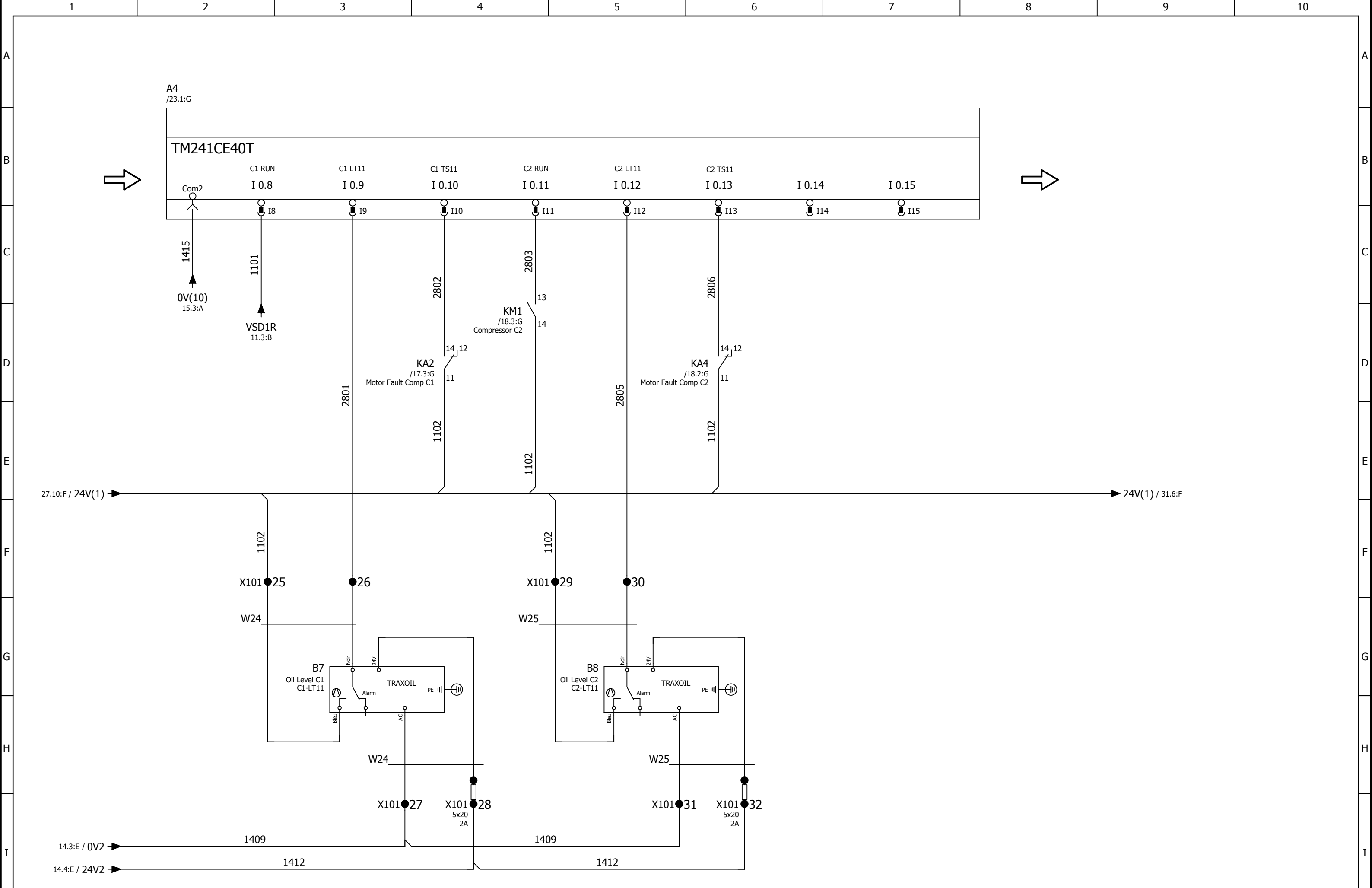
M241 CE40T PLC

DO2112H

VARMALOUSNIR EHF

A.R. 216366-00040

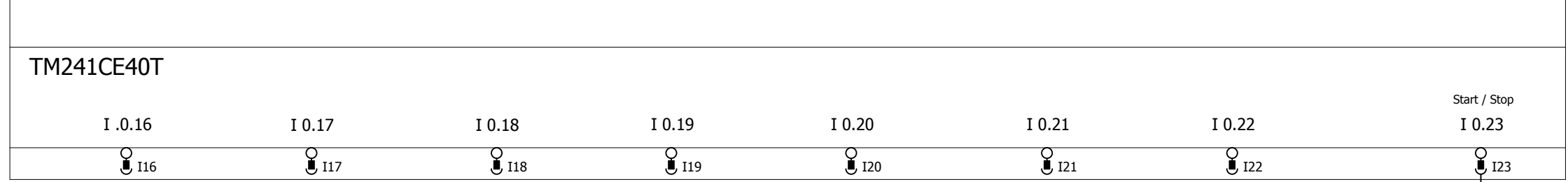
Project Creation Date : 03/07/2018



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1ere Edition	Modification	Designed by : RD 2545	M241 CE40T PLC	VARMALOUSNIR EHF
		Checked by :		A.R. 216366-00040
		Date : 25/07/2019	DO2112H	Project Creation Date : 03/07/2018
		Revision : A		27 <-- 28 --> 29

A4
/23.1:G



2901
S/S
36.9:E



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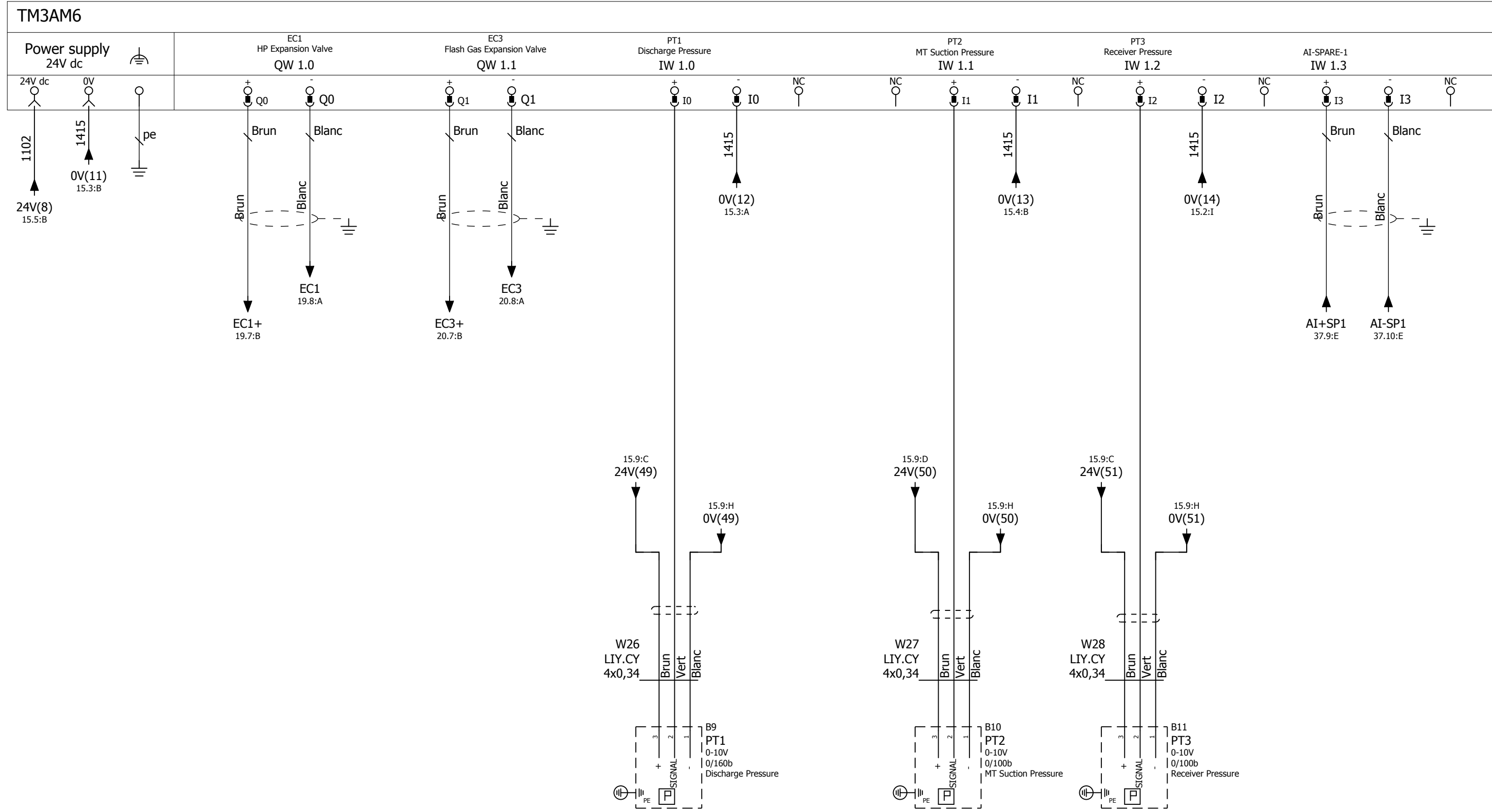
1ere Edition	Modification
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Designed by : RD 2545
Checked by :
Date : 25/07/2019
Revision : A

M241 CE40T PLC
DO2112H

VARMALOUSNIR EHF	A.R. 216366-00040
Project Creation Date : 03/07/2018	28 <-- 29 --> 30

A4-A1
/23.4:G



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1ere Edition

Modification

Designed by : RD 2545
Checked by :
Date : 25/07/2019
Revision : A

TM3AM6

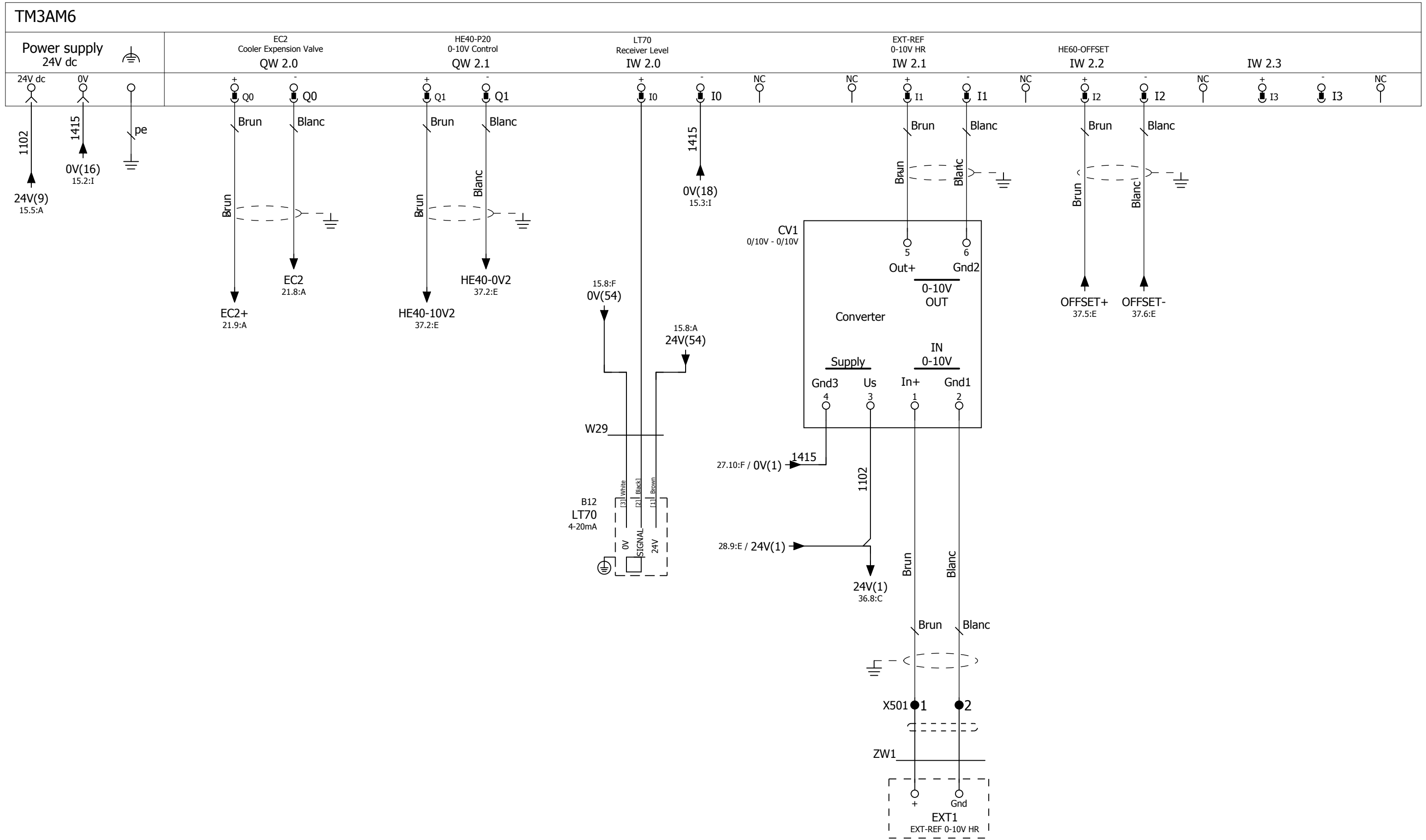
DO2112H

VARMALOUSNIR EHF

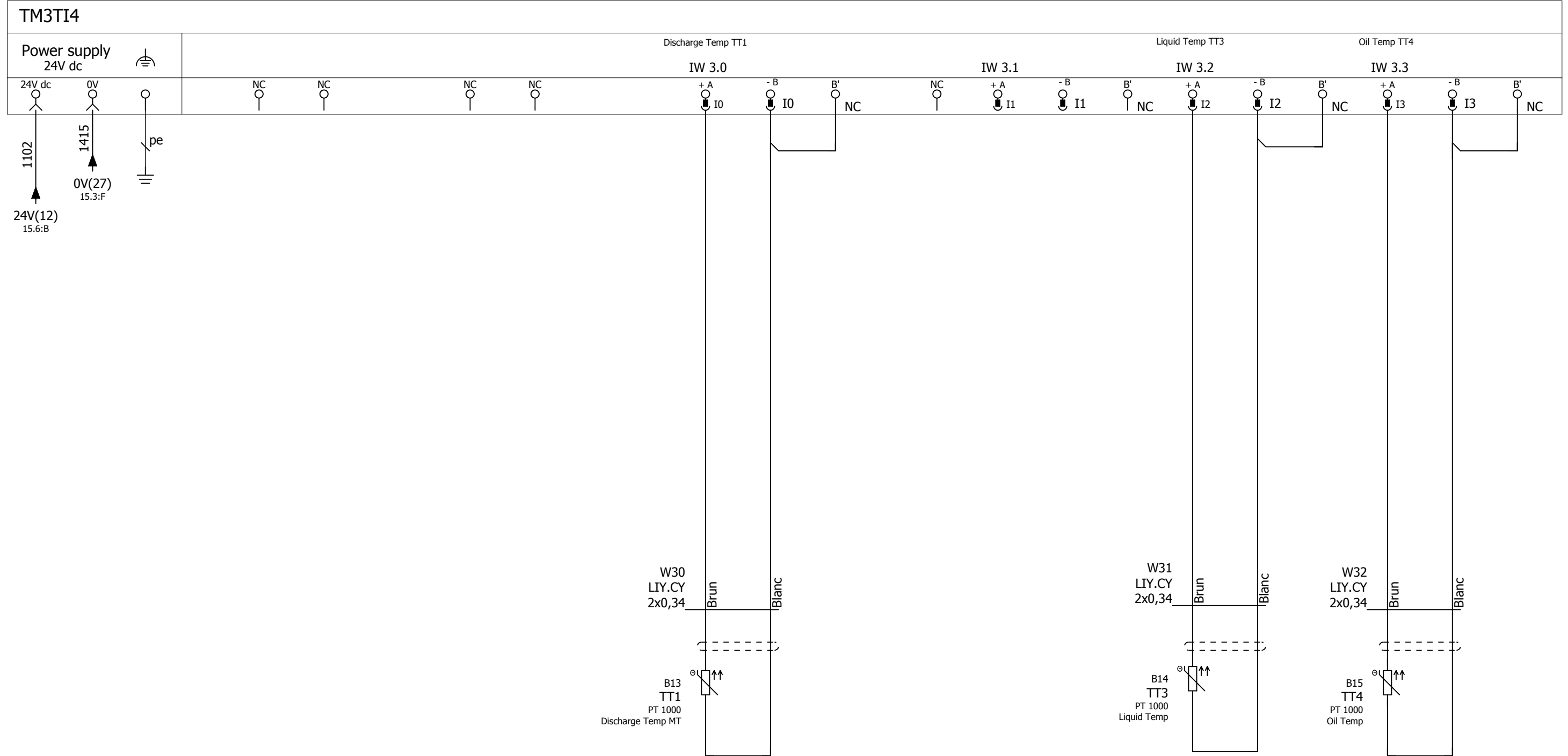
A.R. 216366-00040

Project Creation Date : 03/07/2018

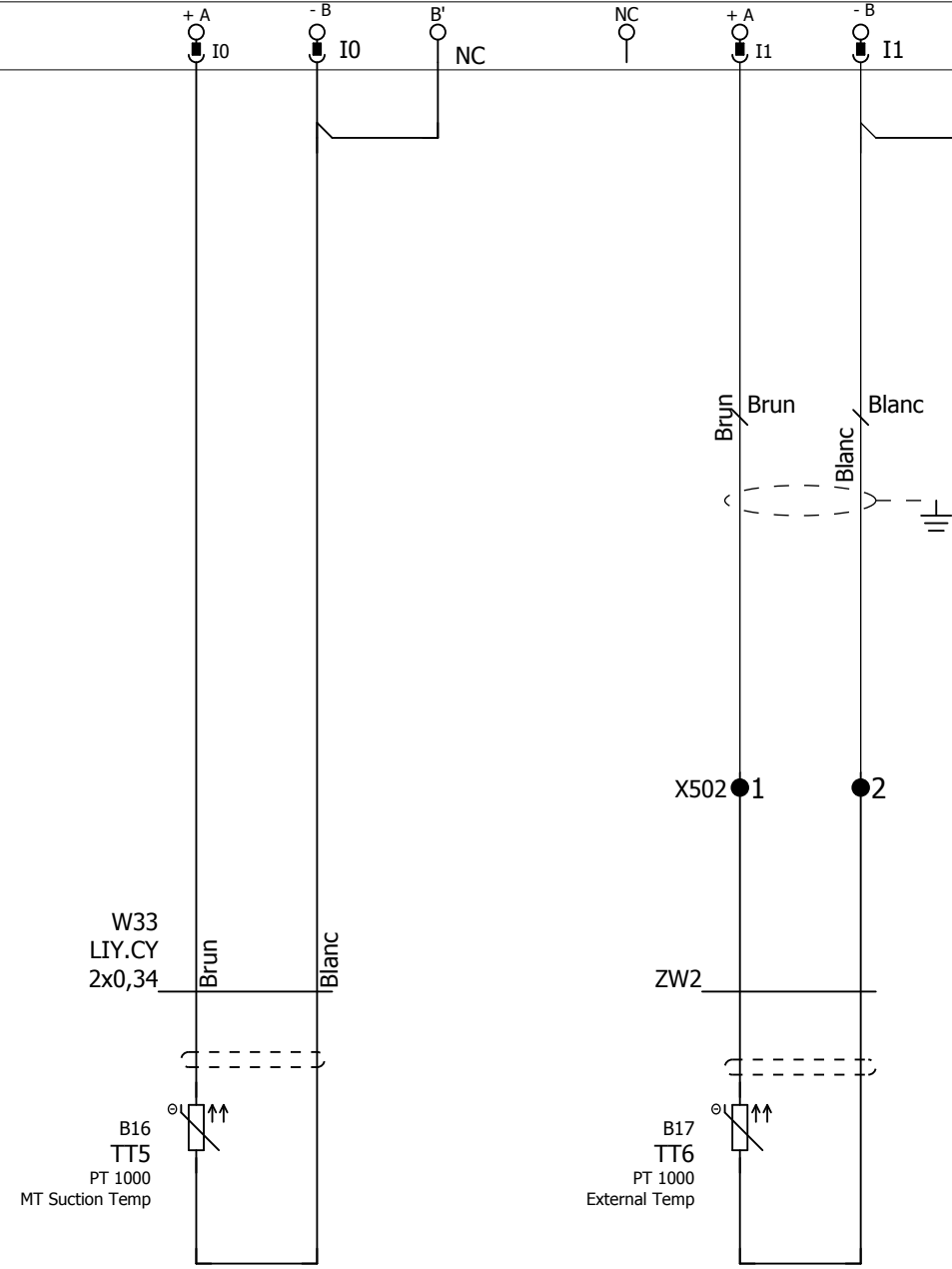
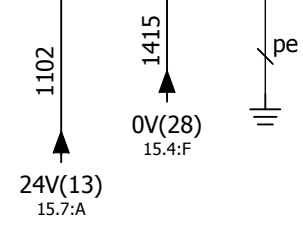
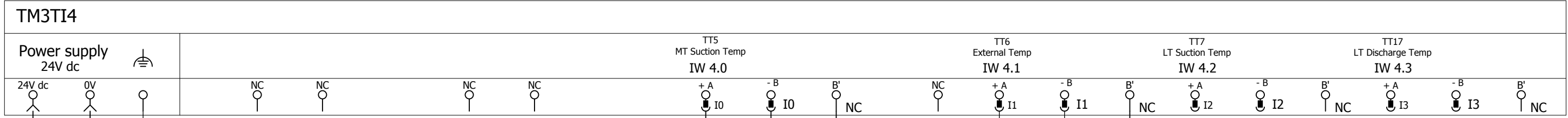
A4-A2
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A4-A3
/23.4:G



A4-A4
/23.5:G



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1ere Edition

Modification

Designed by : RD 2545
Checked by :
Date : 25/07/2019
Revision : A

TM3TI4

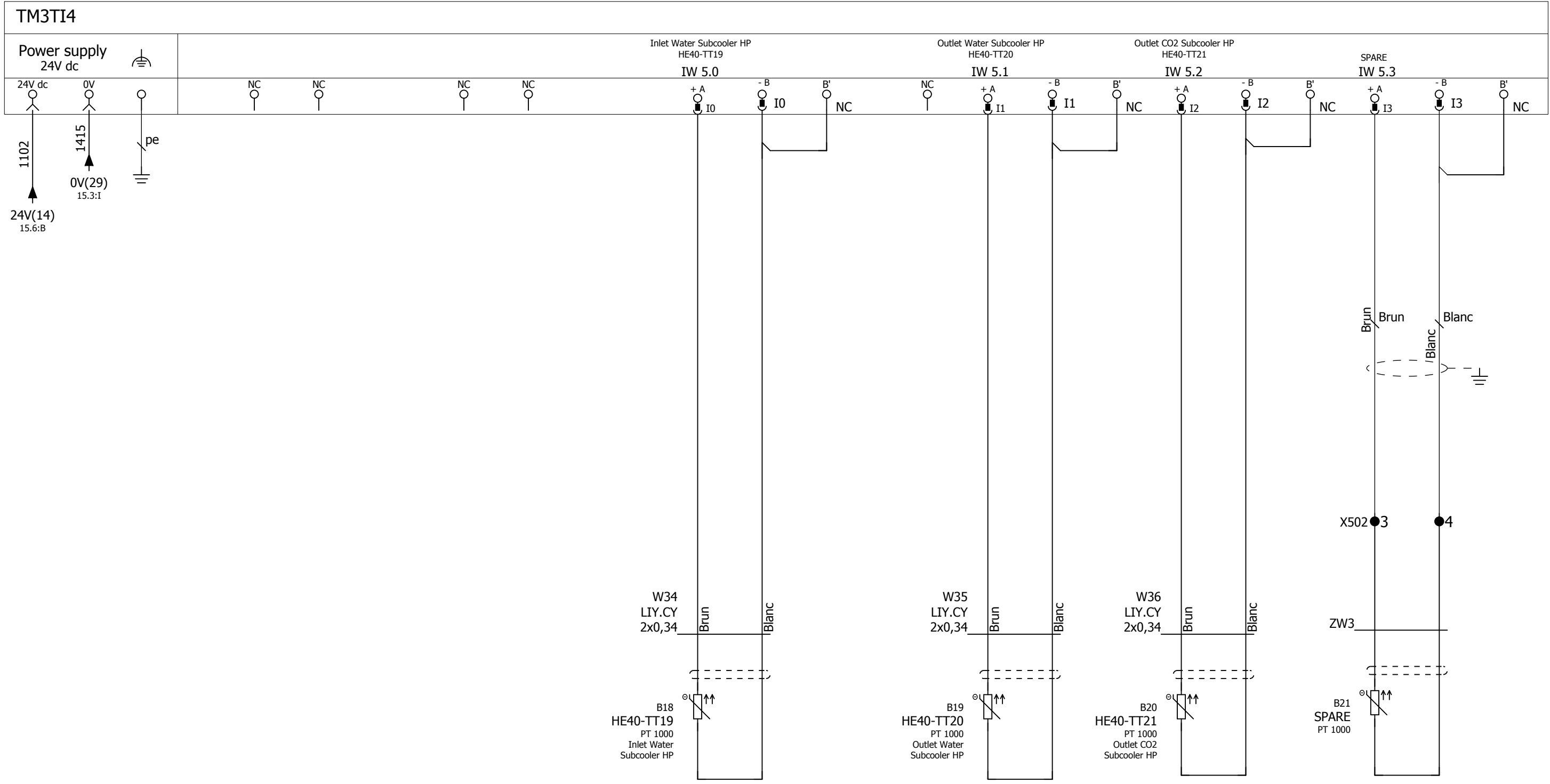
DO2112H

VARMALOUSNIR EHF

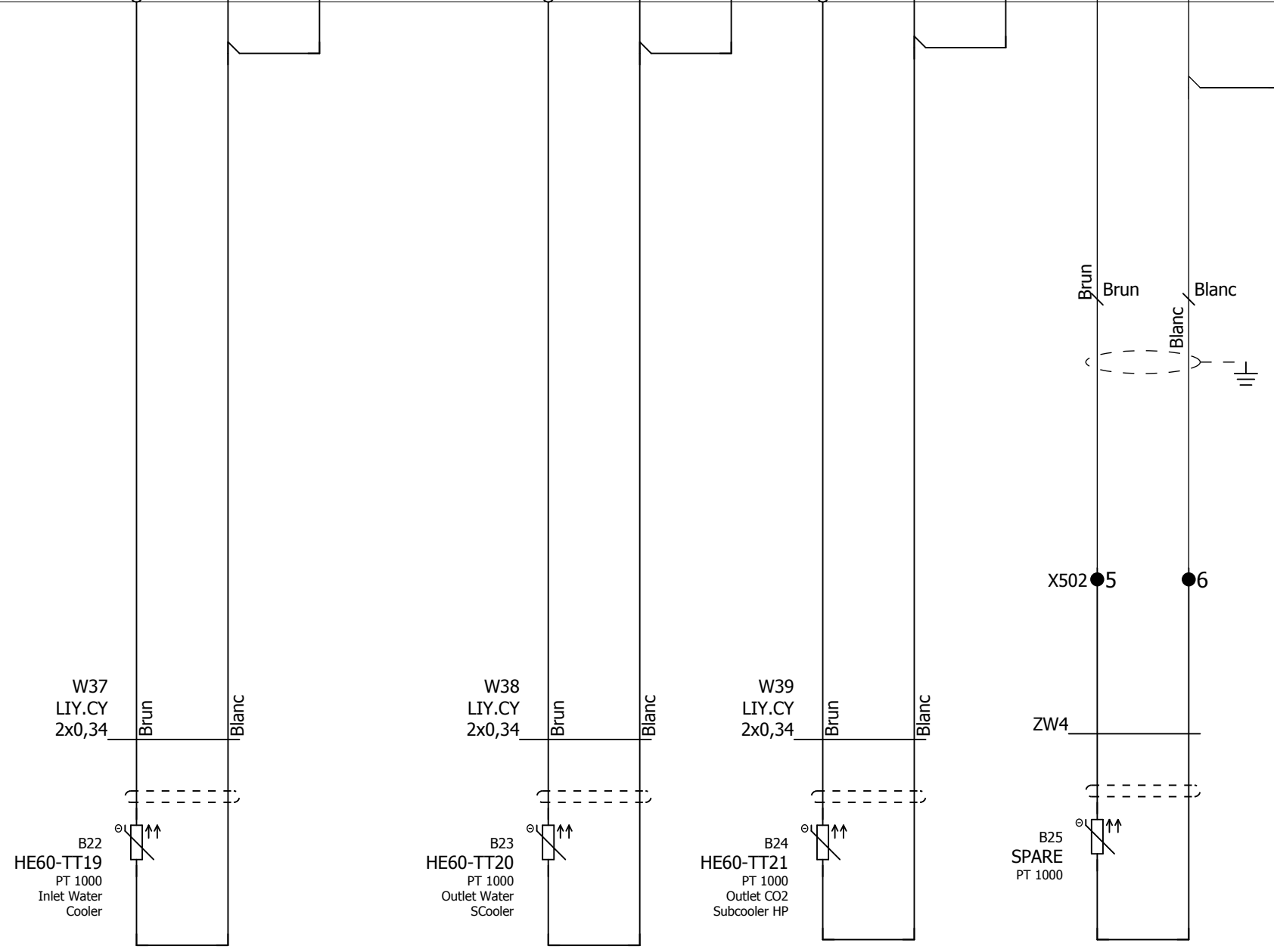
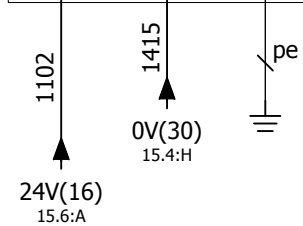
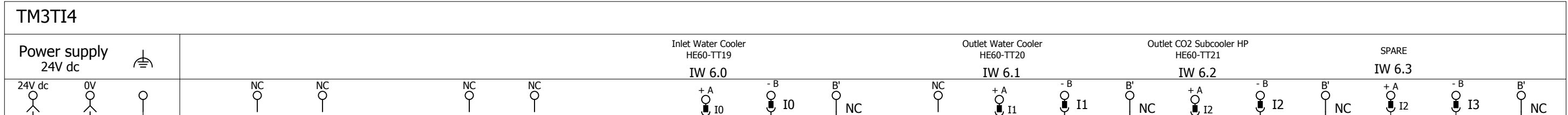
A.R. 216366-00040

Project Creation Date : 03/07/2018

A4-A5
/23.5:G



A4-A6
/23.5:G



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1ere Edition

Modification

Designed by : RD 2545
Checked by :
Date : 25/07/2019
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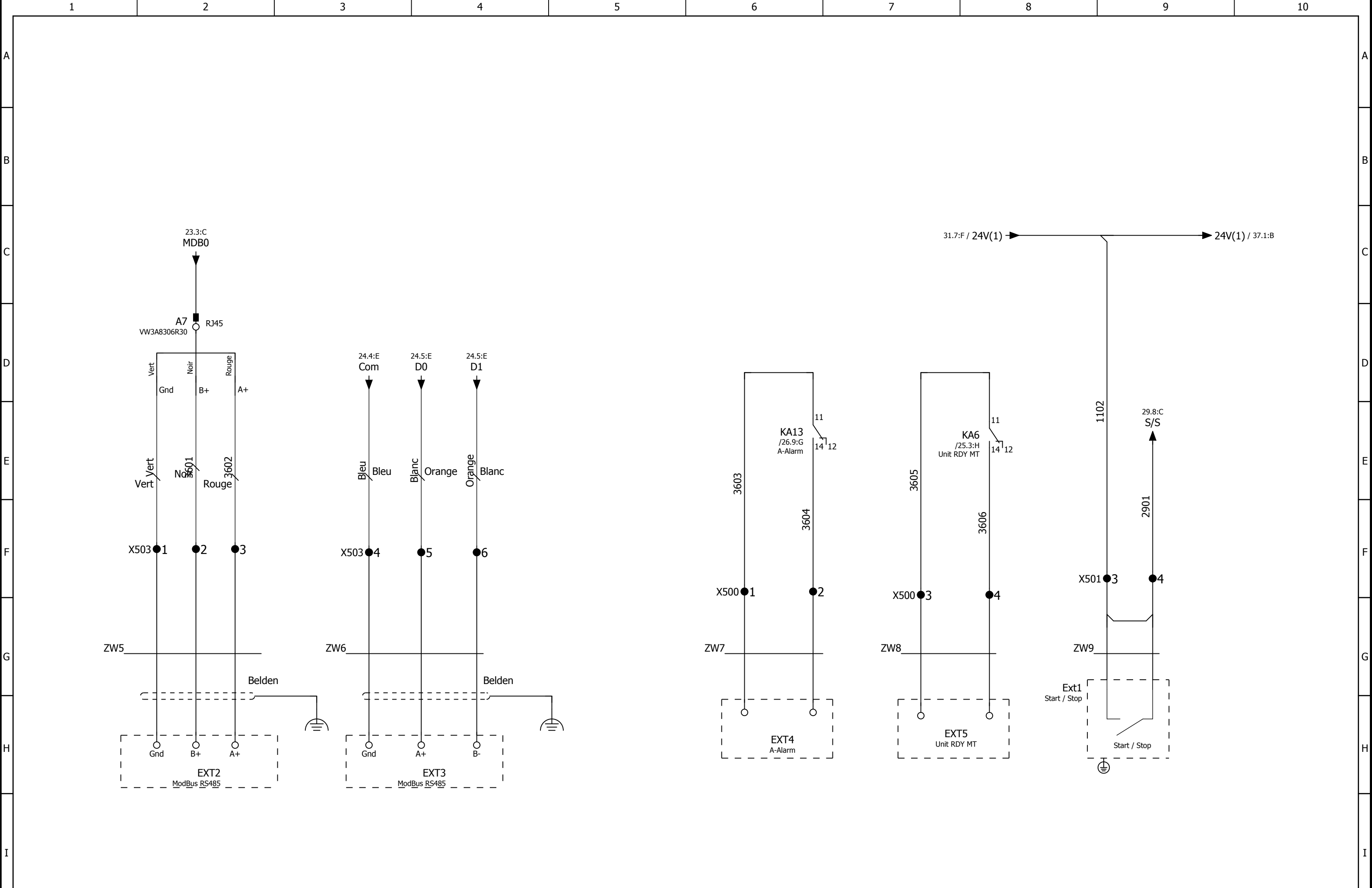
TM3TI4

DO2112H

VARMALOUSNIR EHF

A.R. 216366-00040

Project Creation Date : 03/07/2018

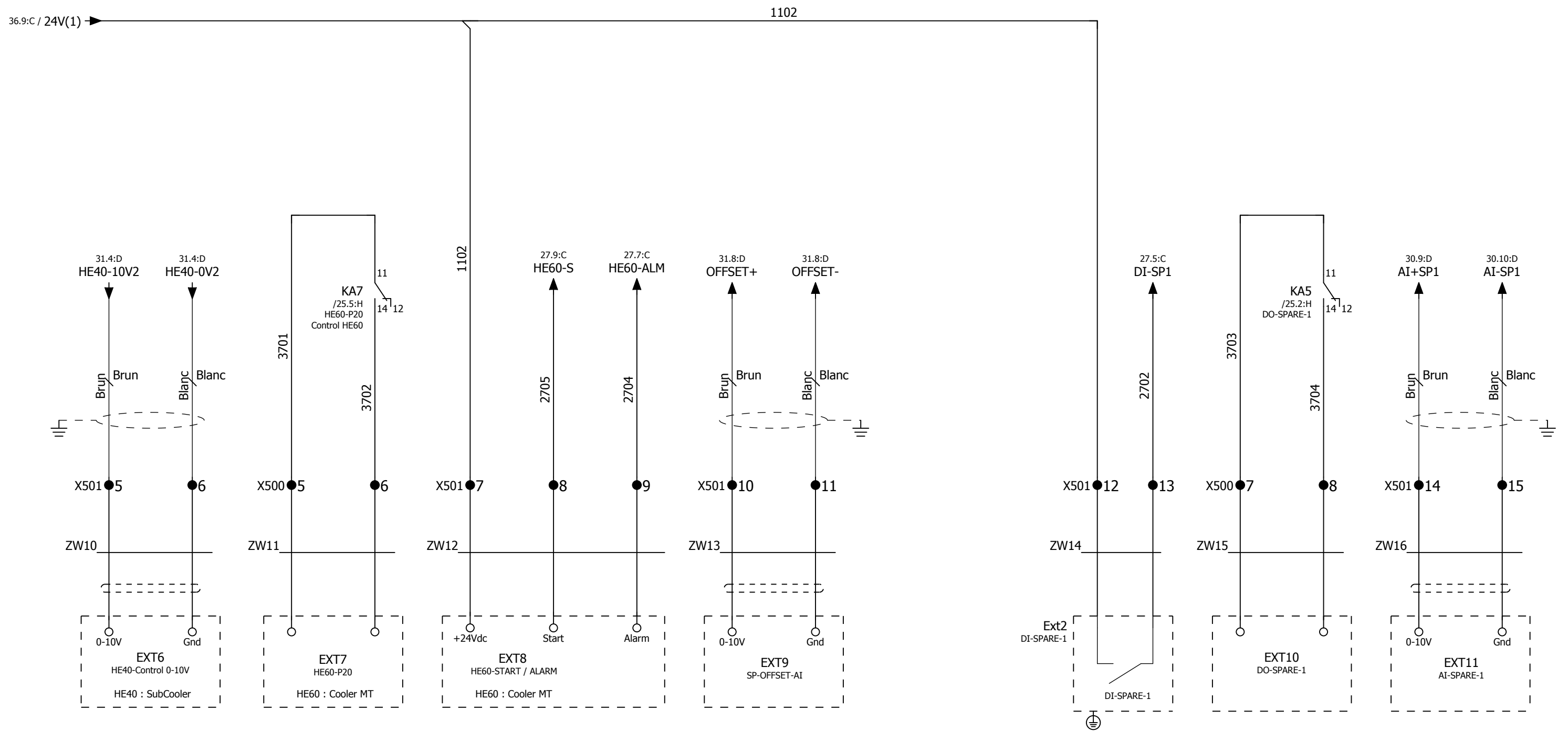


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Date : 25/07/2019	Revision : A

External Switch	DO2112H
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VARMALOUSNIR EHF	A.R. 216366-00040
Project Creation Date : 03/07/2018	35 <-- 36 --> 37



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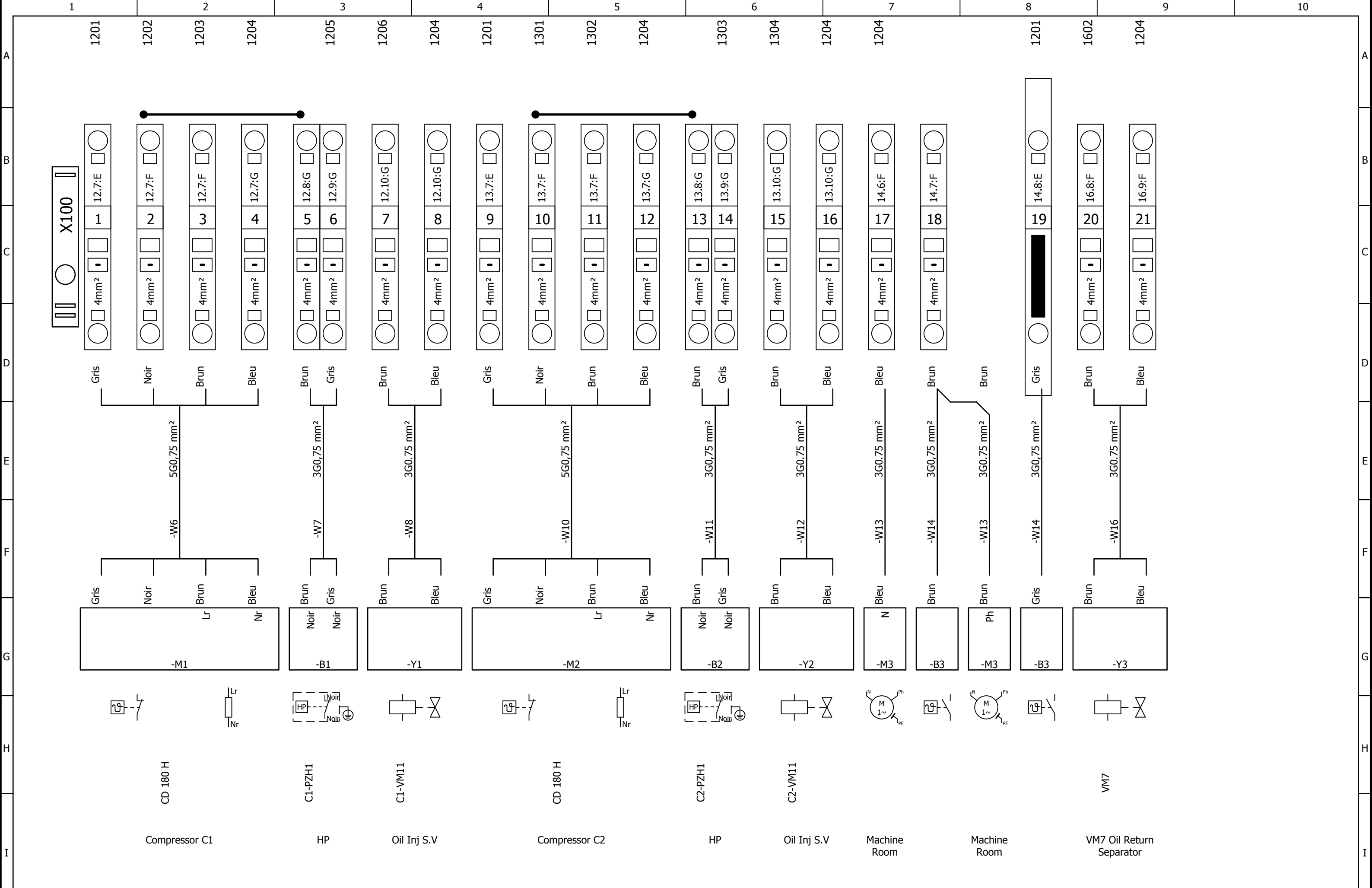
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Revision : A

External Switch
Backup M241
DO2112H

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A.R. 216366-00040
Project Creation Date : 03/07/2018



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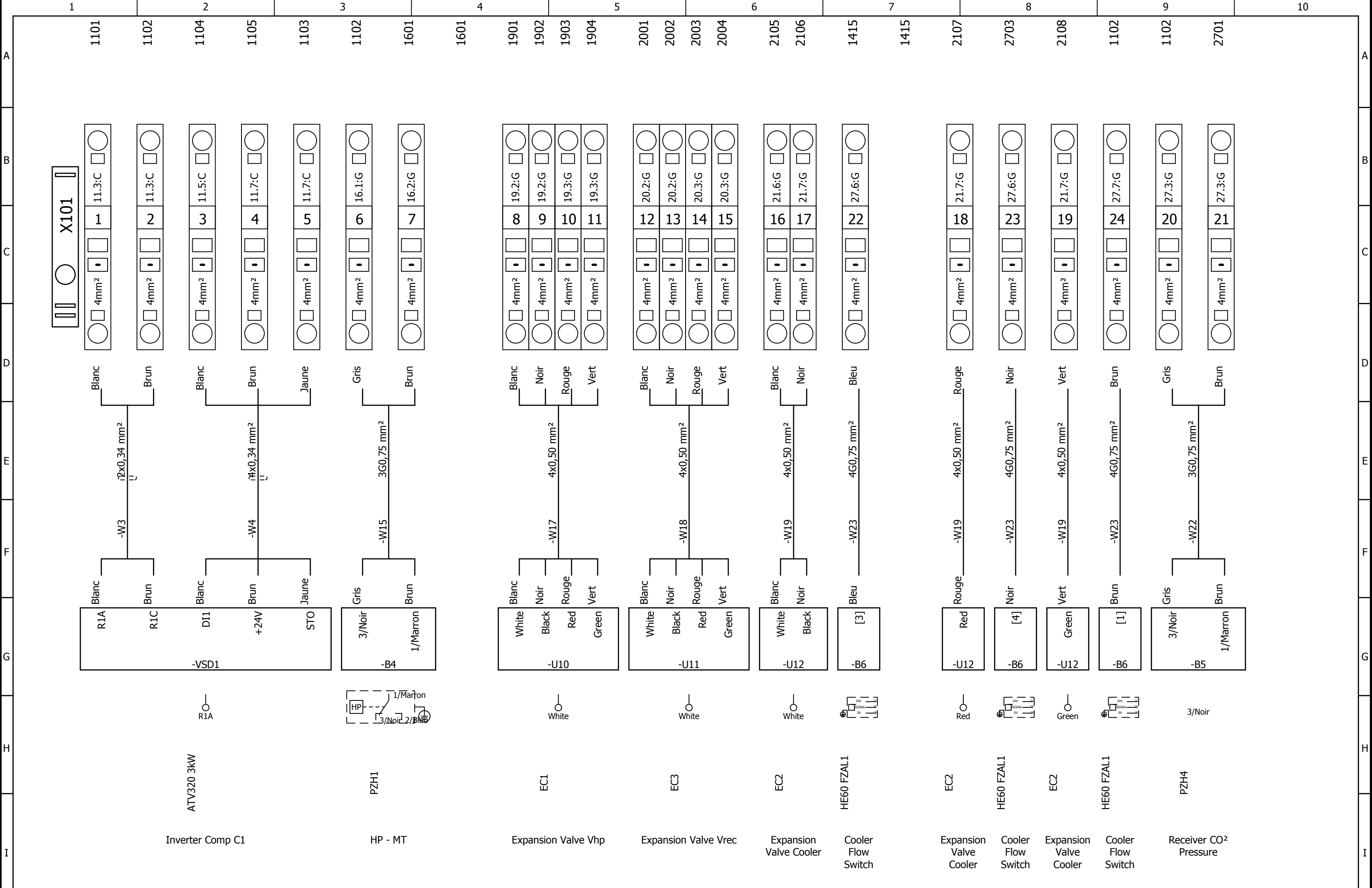
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Date : 25/07/2019
Revision : A

Terminal-connection diagram
X100 - Internal 230V / 400V
DO2112H

VARMALOUSNIR EHF
A.R. 216366-00040

Project Creation Date : 03/07/2018

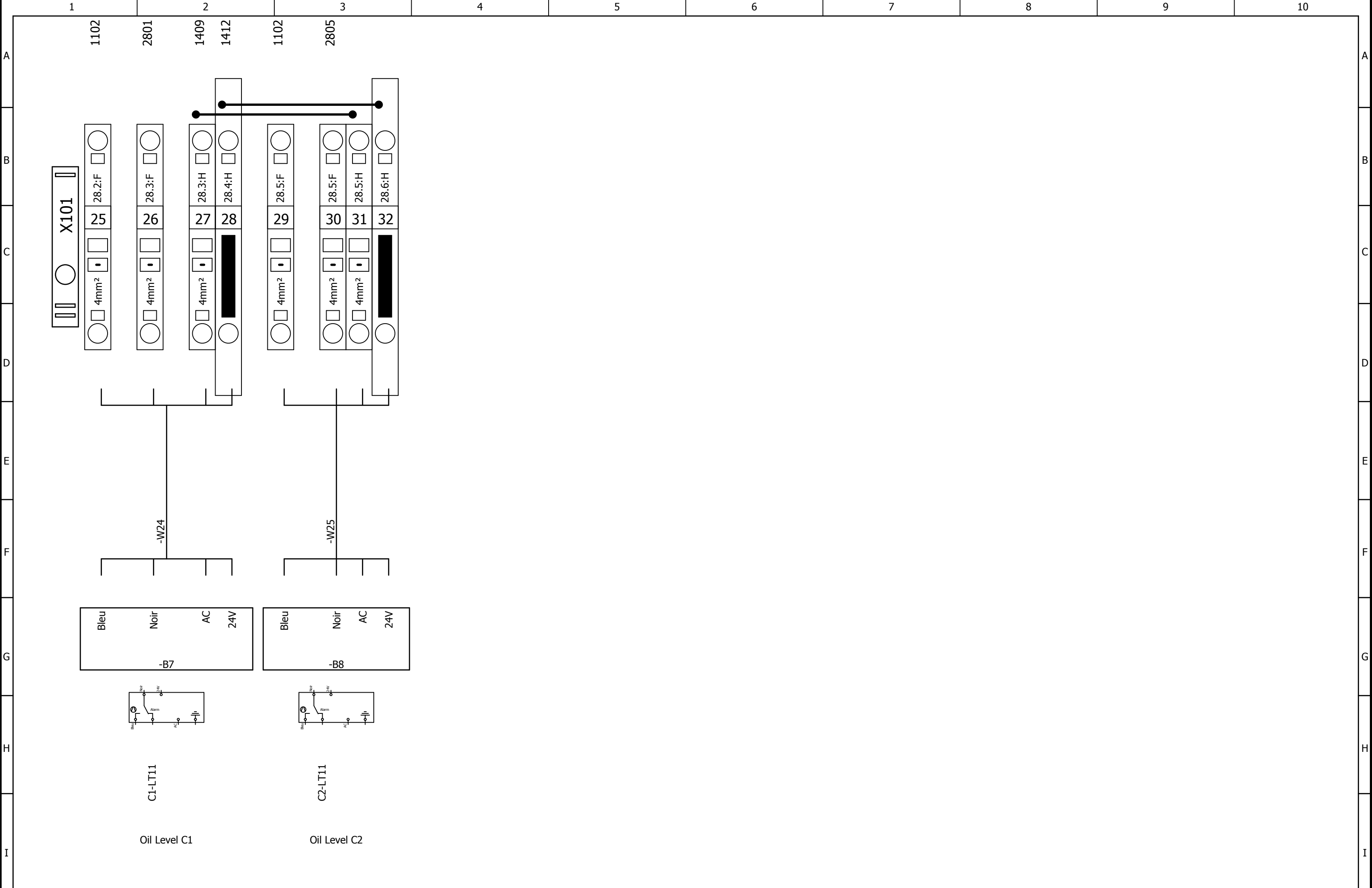


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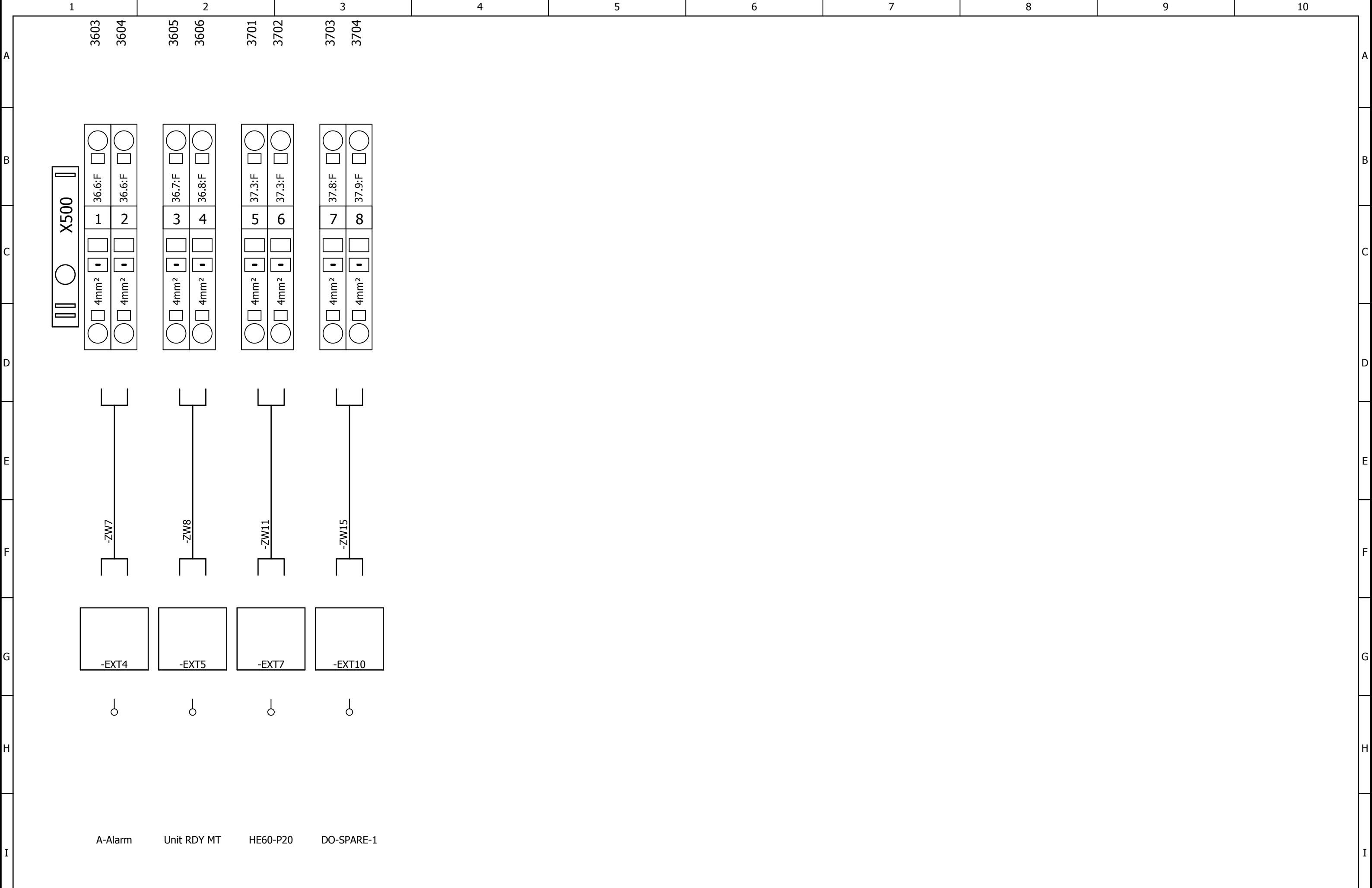
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Terminal-connection diagram
X101 - Internal 24V / 0-10V
DO2112H

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38 << 39 >> 39.1







A-Alarm Unit RDY MT HE60-P20 DO-SPARE-1



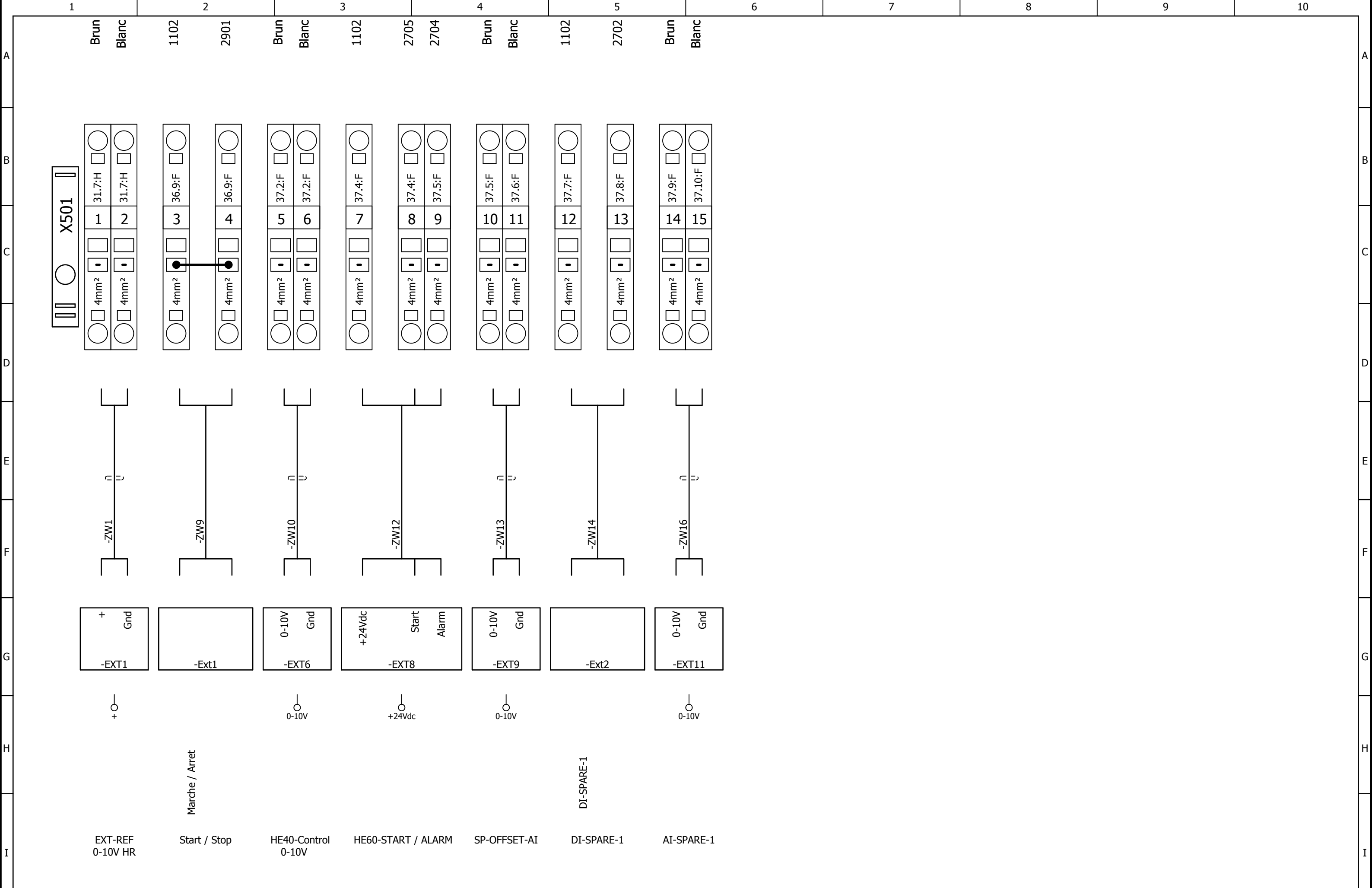
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Terminal-connection diagram
X500 - External 230V / 400V
DO2112H

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Terminal-connection diagram
X501 - External 24V / 0-10V
DO2112H

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