Electrical Schematic Diagram

Company: Oxycom Fresh Air B.V.
Project: IntrCooll Plus (all configurations)
Project number: 2201
Revision: A

OXYCOM natural air conditioning

REVISION A

Oxycom Fresh Air B.V.
Kaagstraat 31 / 8102 GZ Raalte / The Netherlands
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Email: info@oxy-com.com / internet: www.oxy-com.com

	NAME	DATE
DRAWN	D. Grondhuis	14-9-2022
CHK'D	D. Grondhuis	10-10-2022

TITLE: Wiring diagram - IntrCooll Plus

DWG NO. 2201_000_999-A

A3

File name: 2201_000_999 Wiring IntrCooll Plus configurations

SHEET 1 OF 15

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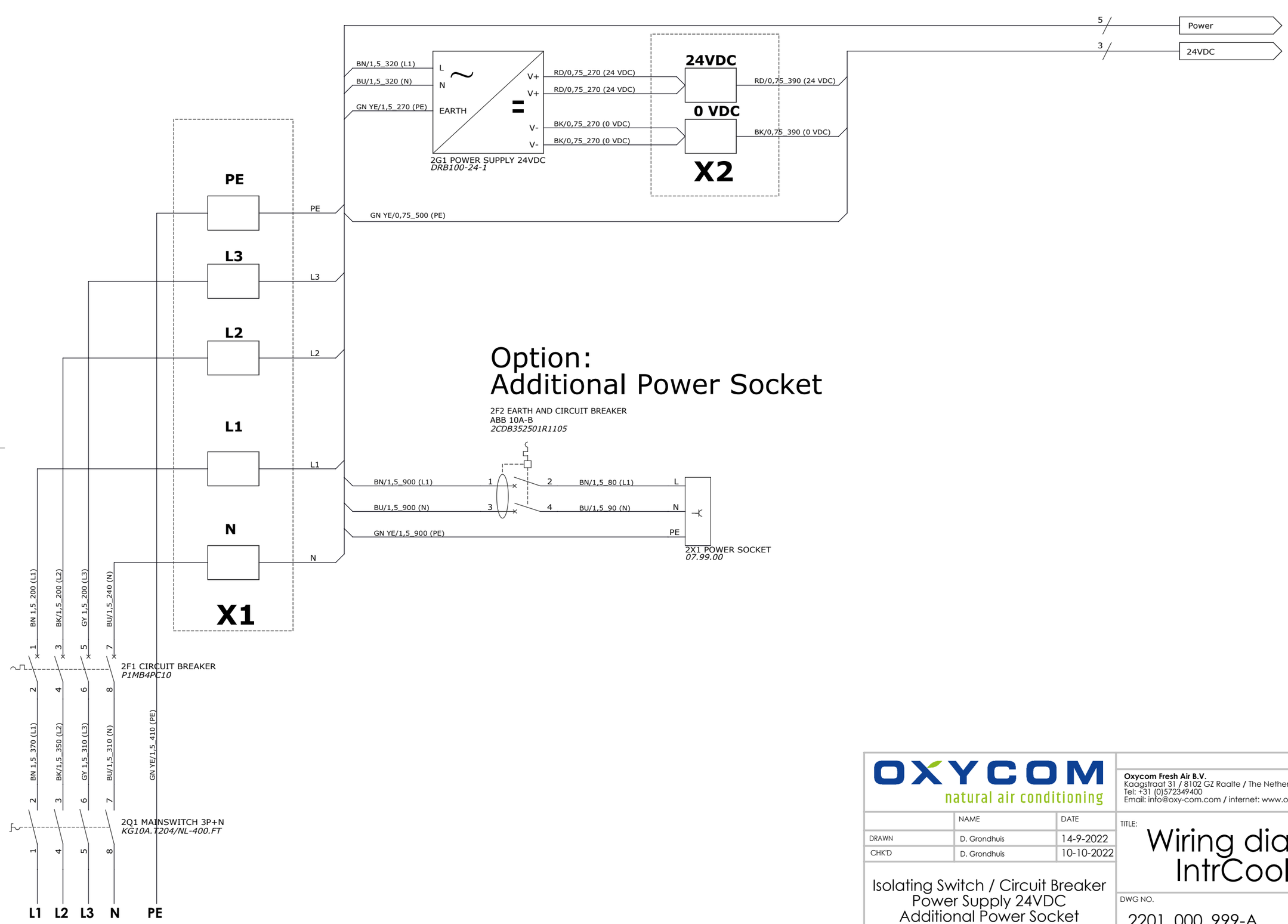

Option:
Additional Power Socket

2F2 EARTH AND CIRCUIT BREAKER
ABB 10A-B
2CDB352501R1105

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	NAME	DATE
DRAWN	D. Grondhuis	14-9-2022
CHK'D	D. Grondhuis	10-10-2022

Isolating Switch / Circuit Breaker
Power Supply 24VDC
Additional Power Socket

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Wiring diagram - IntrCooll Plus

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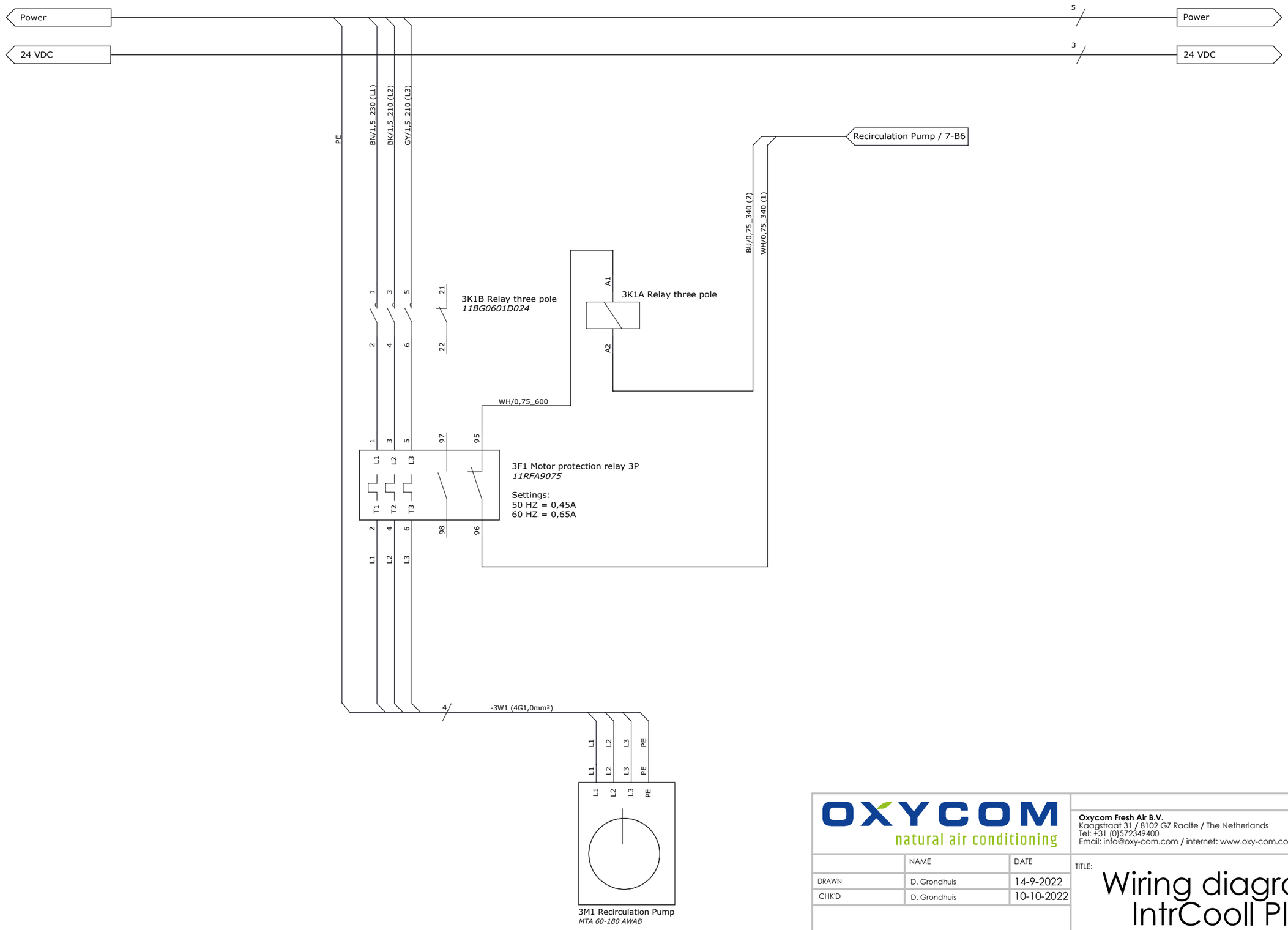

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DRAWN	D. Grondhuis	14-9-2022
CHK'D	D. Grondhuis	10-10-2022

TITLE:

Wiring diagram - IntrCooll Plus

Recirculation Pump

DWG NO. 2201_000_999-A

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SHEET 3 OF 15

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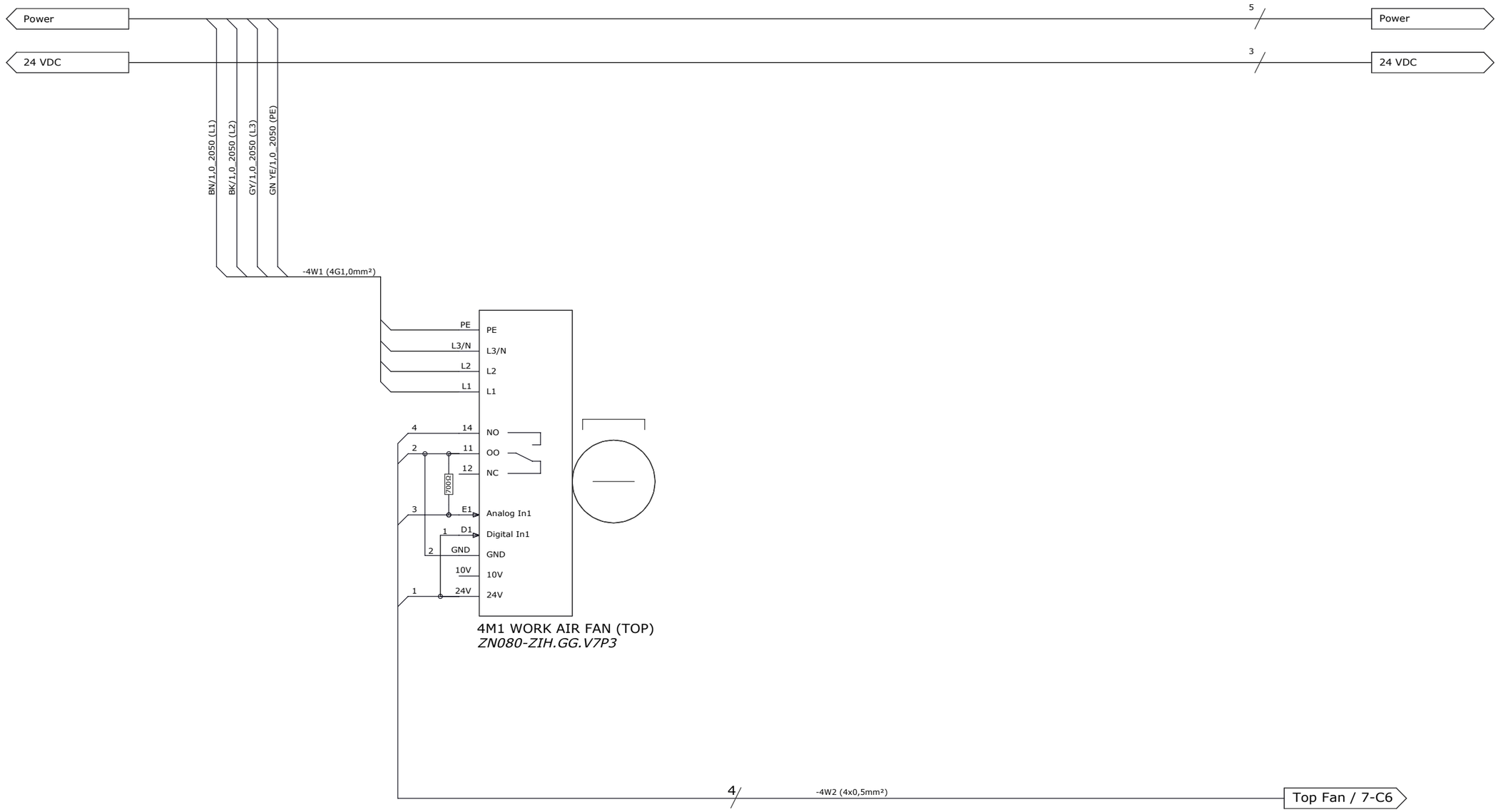

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DRAWN	D. Grondhuis	14-9-2022
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Work Air Fan

TITLE:
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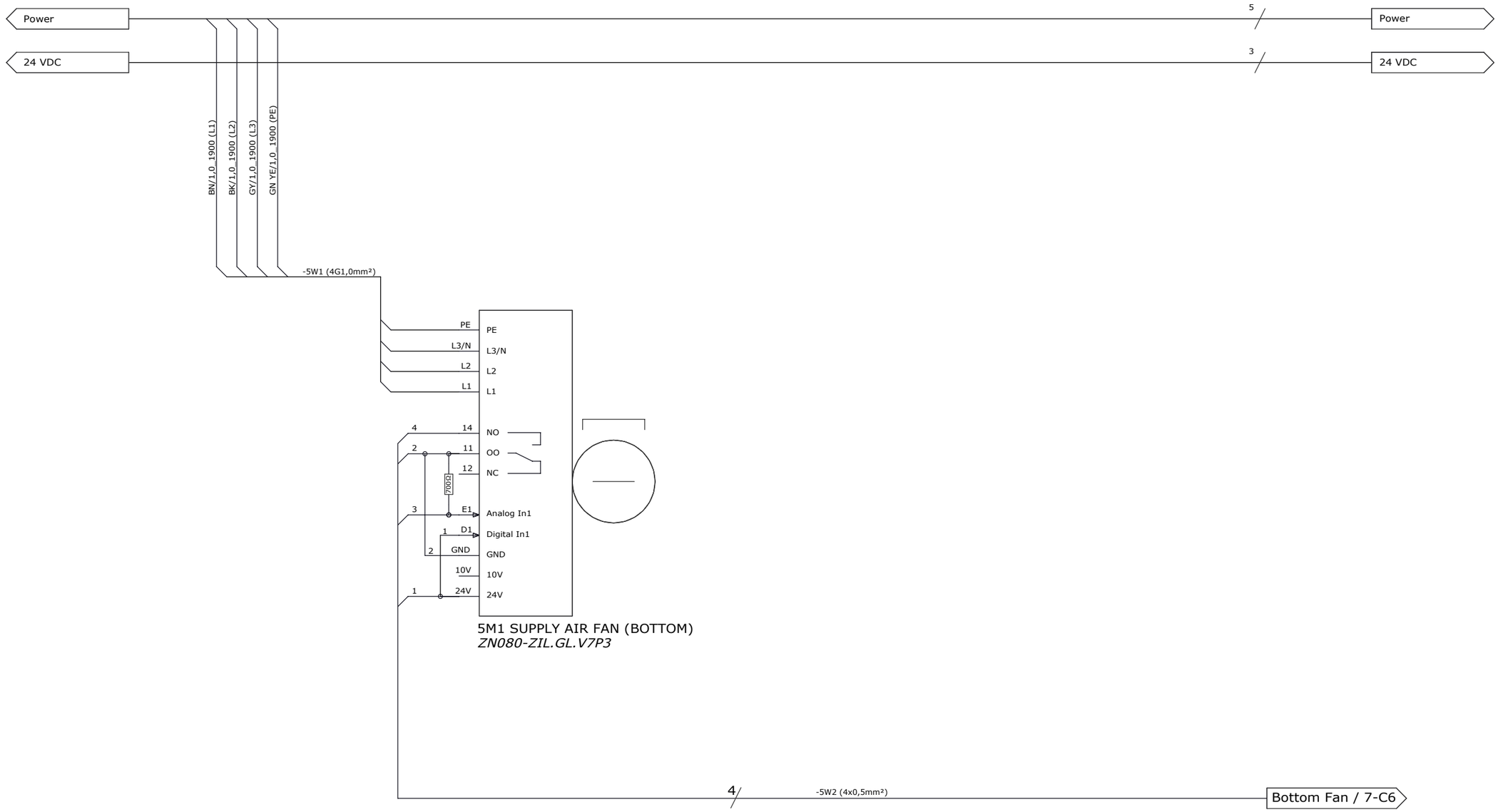

***** The Bottom Fan is not installed inside the IntrCooll, when using a Fan-Module *****

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Supply Air Fan

TITLE: Wiring diagram - IntrCooll Plus

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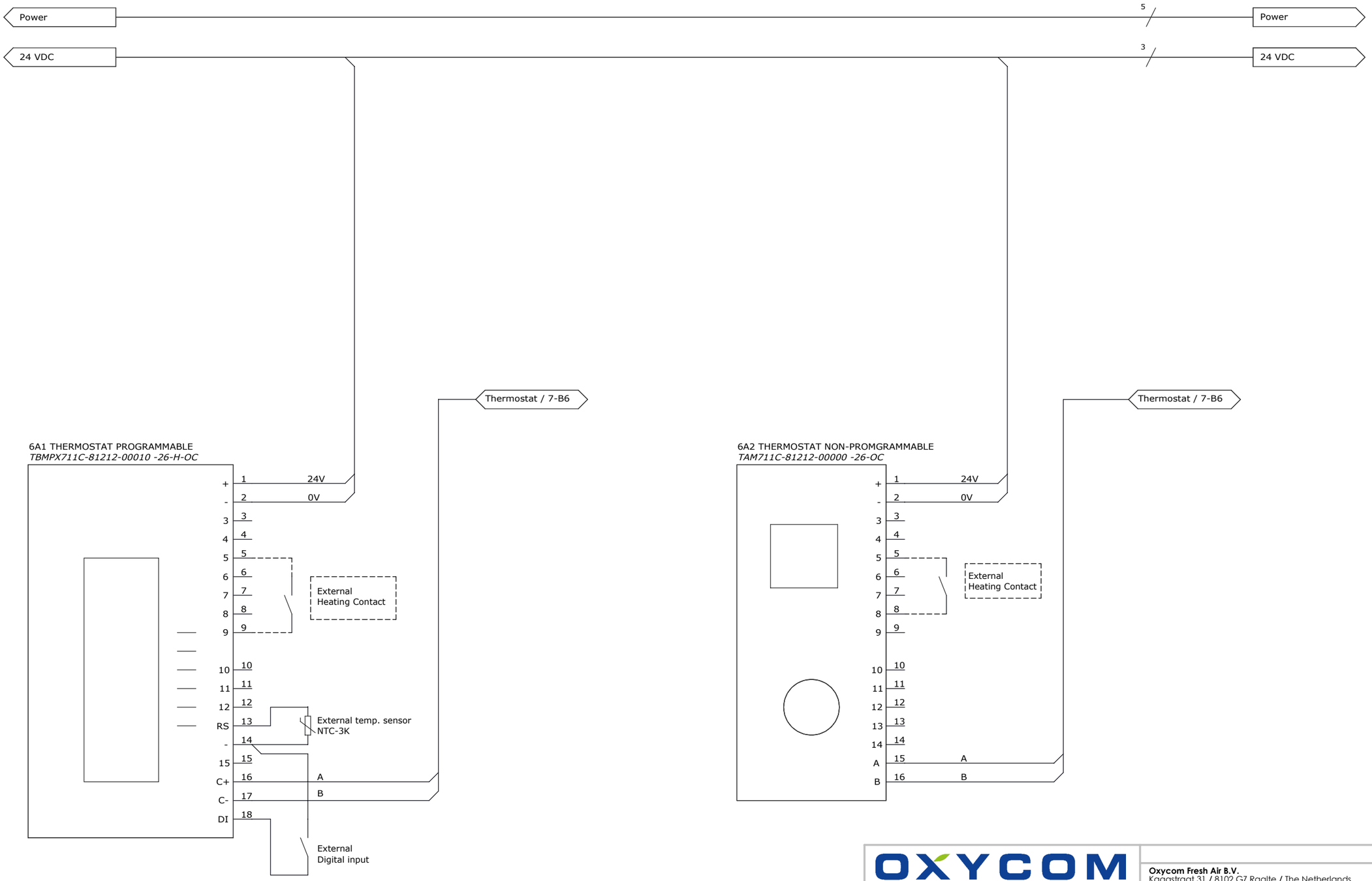

NOTE:
If thermostat is connected, connect only Option 1 or Option2

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TITLE:
Wiring diagram - IntrCooll Plus

Option:
Thermostat - programmable
Thermostat - non-programmable

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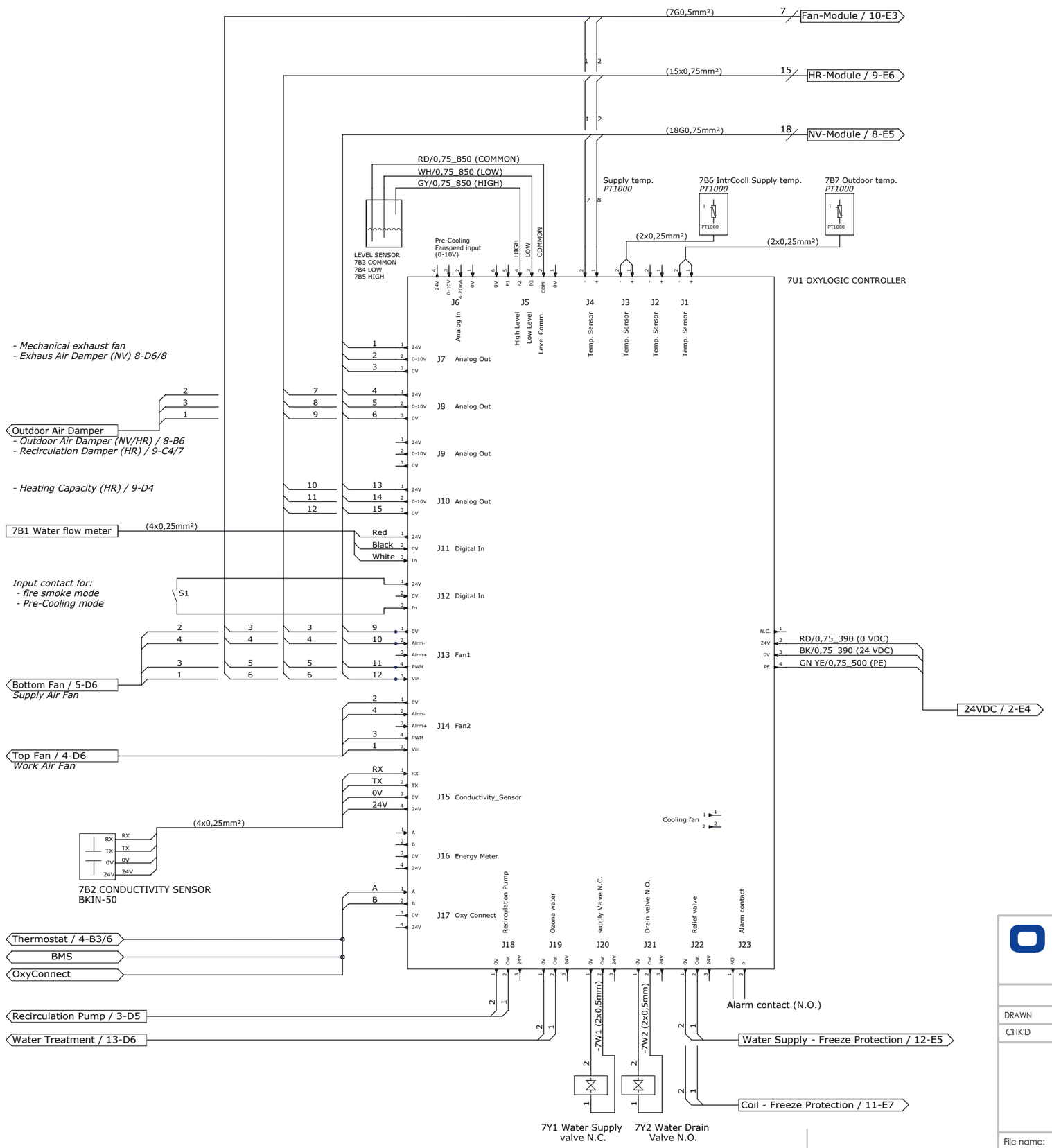

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DRAWN	D. Grondhuis	14-9-2022
CHK'D	D. Grondhuis	10-10-2022

OxyLogic Controller

TITLE:
Wiring diagram - IntrCooll Plus

DWG NO.
2201_000_999-A

A3

File name: 2201_000_999 Wiring IntrCooll Plus configurations

SHEET 7 OF 15

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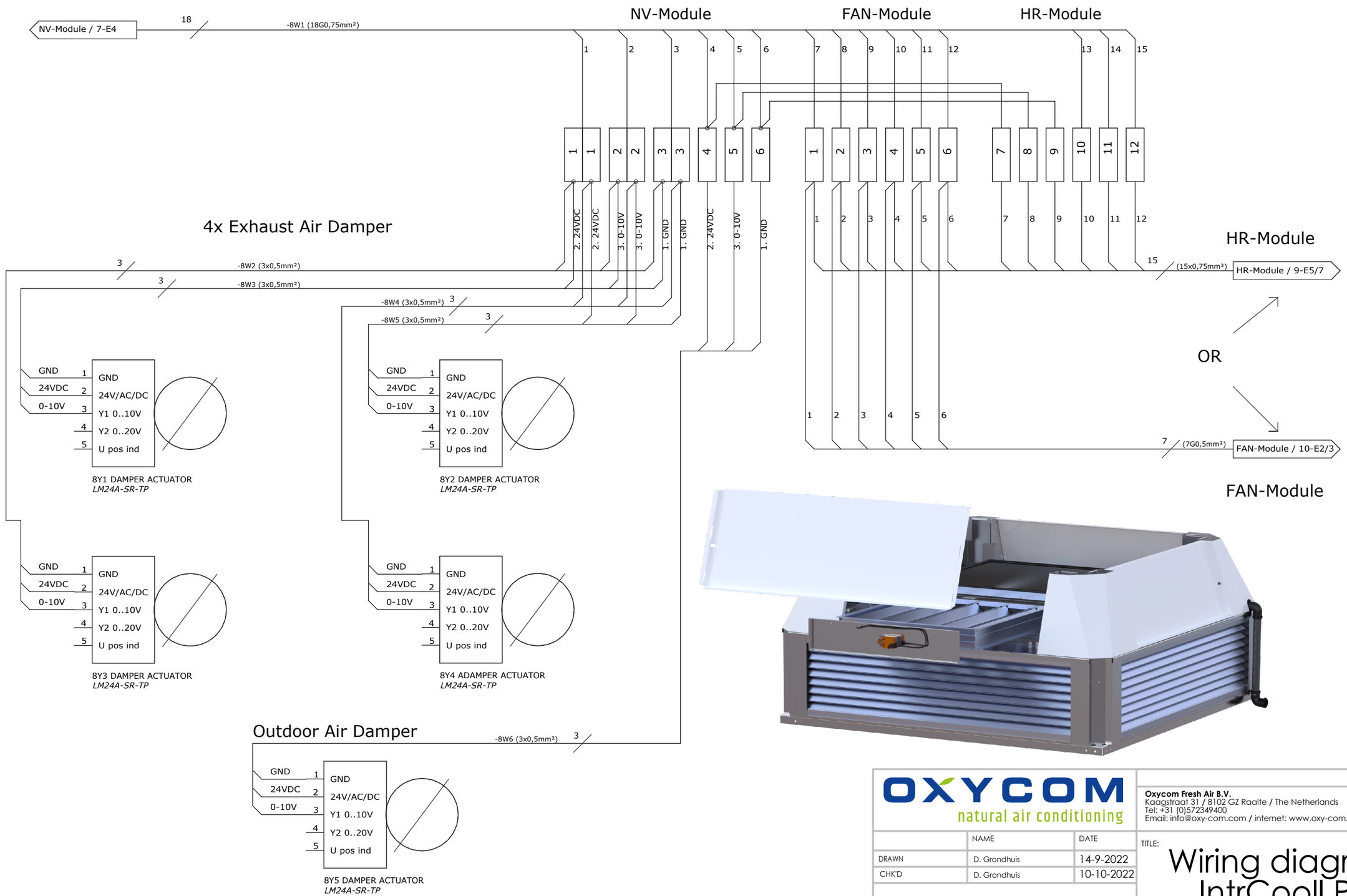

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DRAWN	D. Grondhuis	14-9-2022
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Option:
NV-Module

TITLE:
Wiring diagram - IntrCooll Plus

DWG NO. 2201_000_999-A

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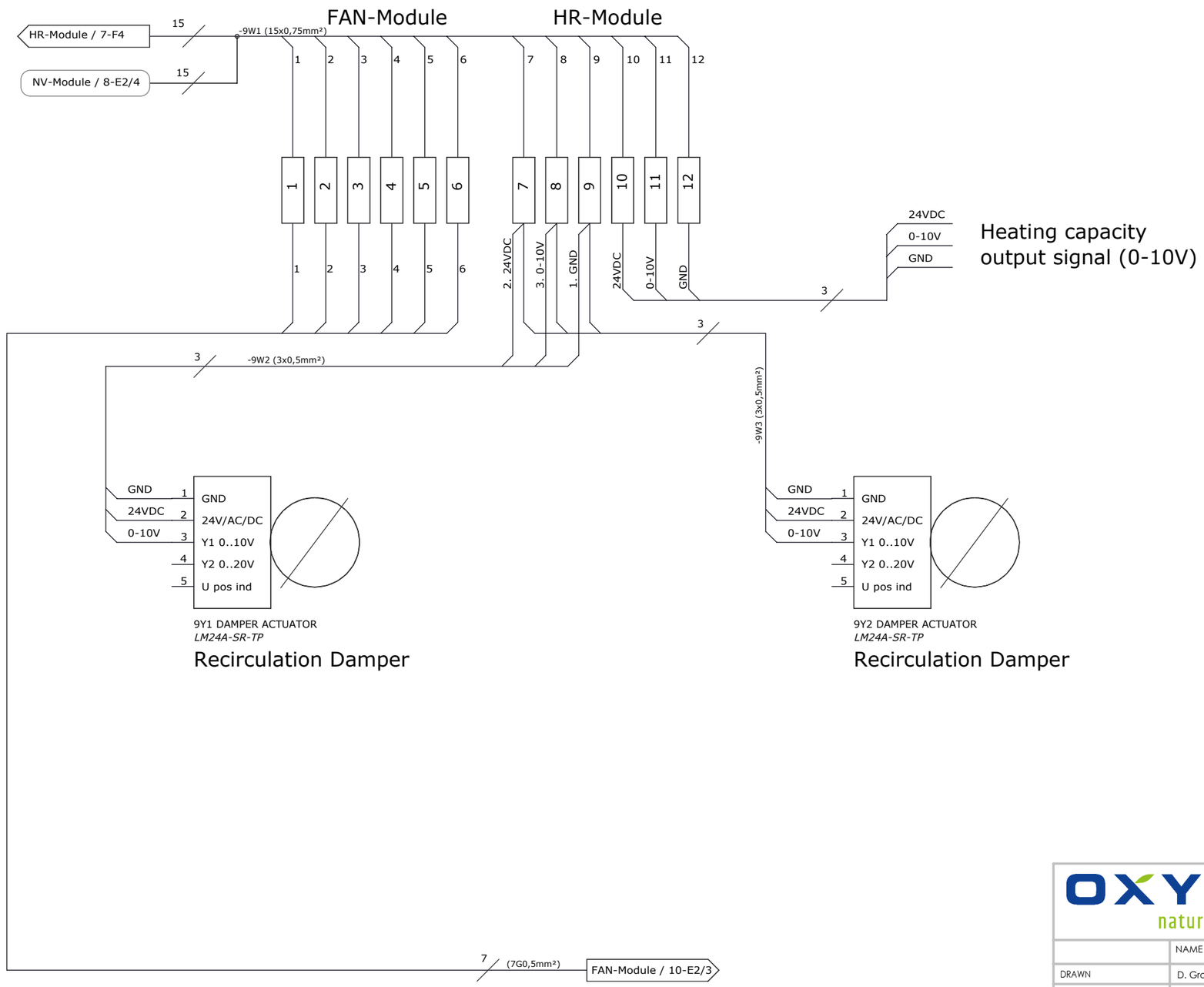

Heating capacity output signal (0-10V)

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DRAWN	D. Grondhuis	14-9-2022
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Option:
HR-Module

TITLE:
Wiring diagram - IntrCooll Plus

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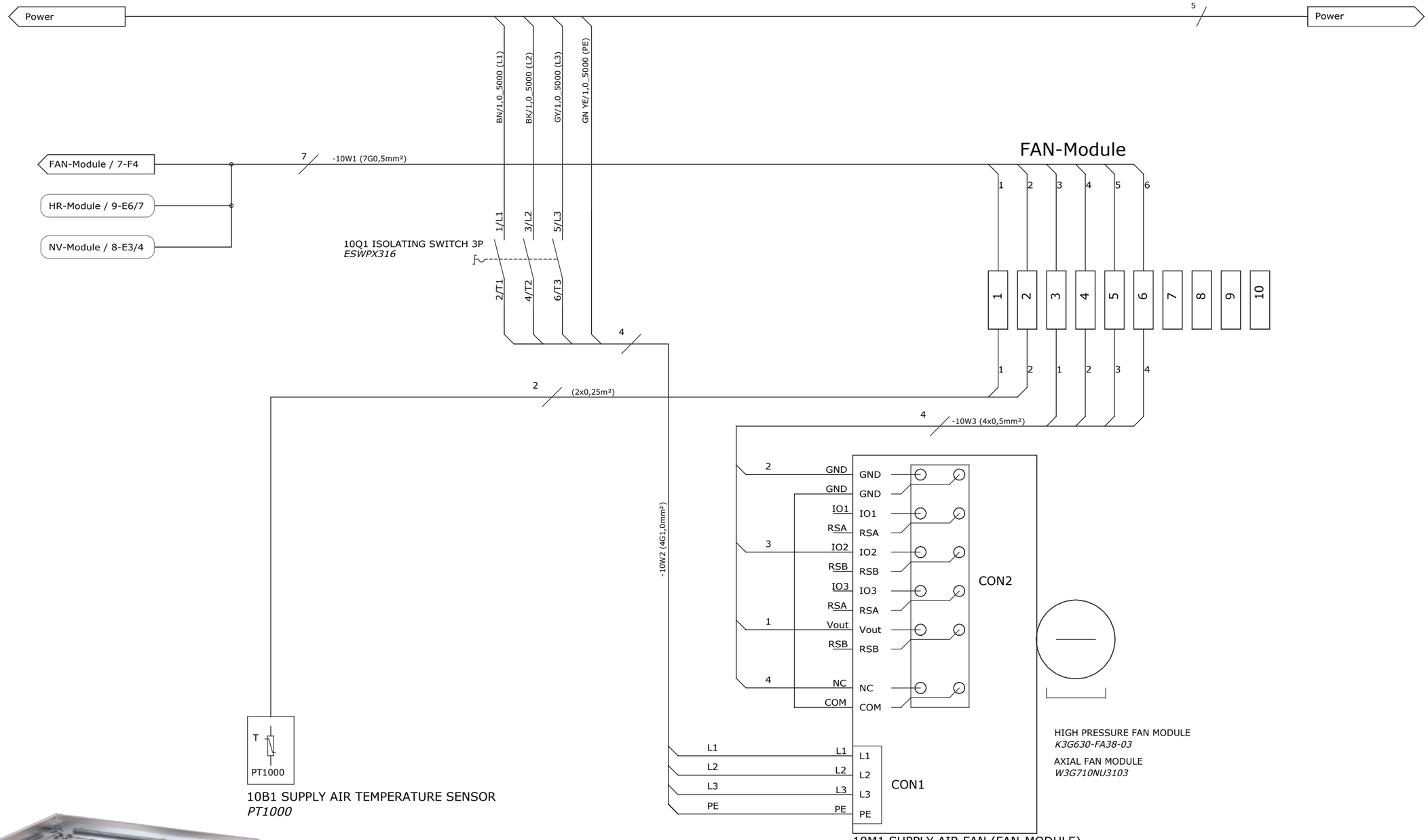

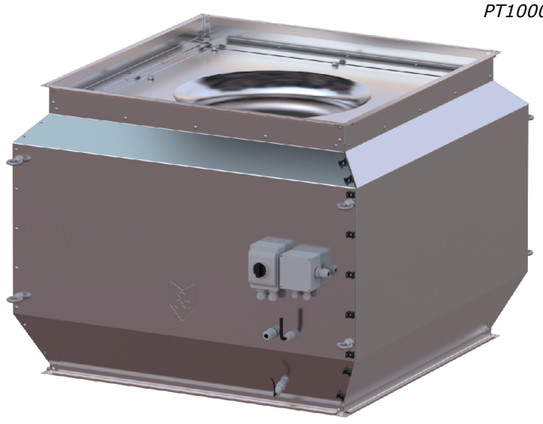

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	NAME	DATE
DRAWN	D. Grondhuis	14-9-2022
CHK'D	D. Grondhuis	10-10-2022

TITLE:

Wiring diagram - IntrCooll Plus

Option:
Fan-Module

DWG NO. 2201_000_999-A

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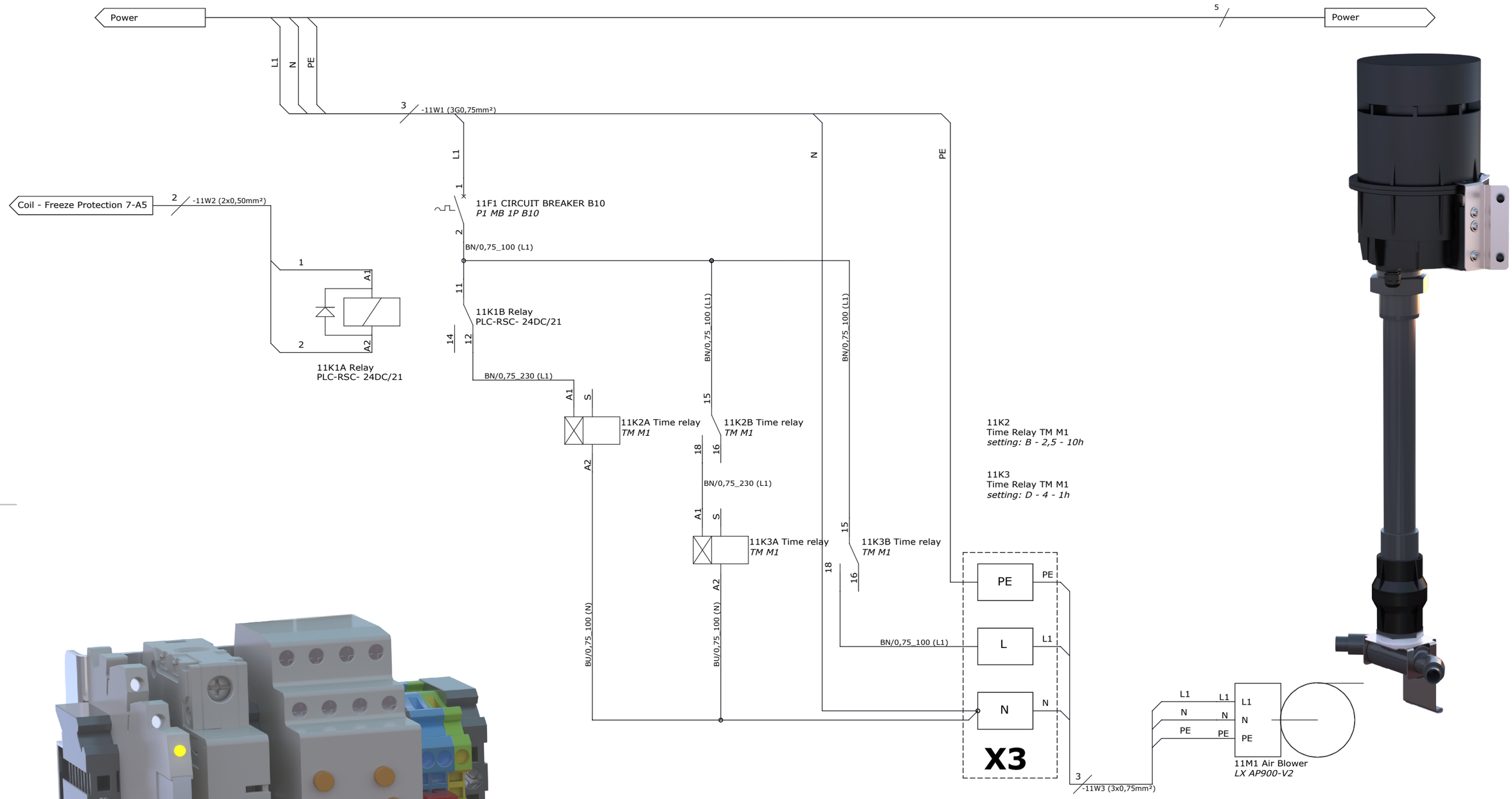

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DRAWN	D. Grondhuis	14-9-2022
CHK'D	D. Grondhuis	10-10-2022

Option:
Coil Freeze Protection

TITLE:
Wiring diagram - IntrCooll Plus

DWG NO.
2201_000_999-A

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File name: 2201_000_999 Wiring IntrCooll Plus configurations

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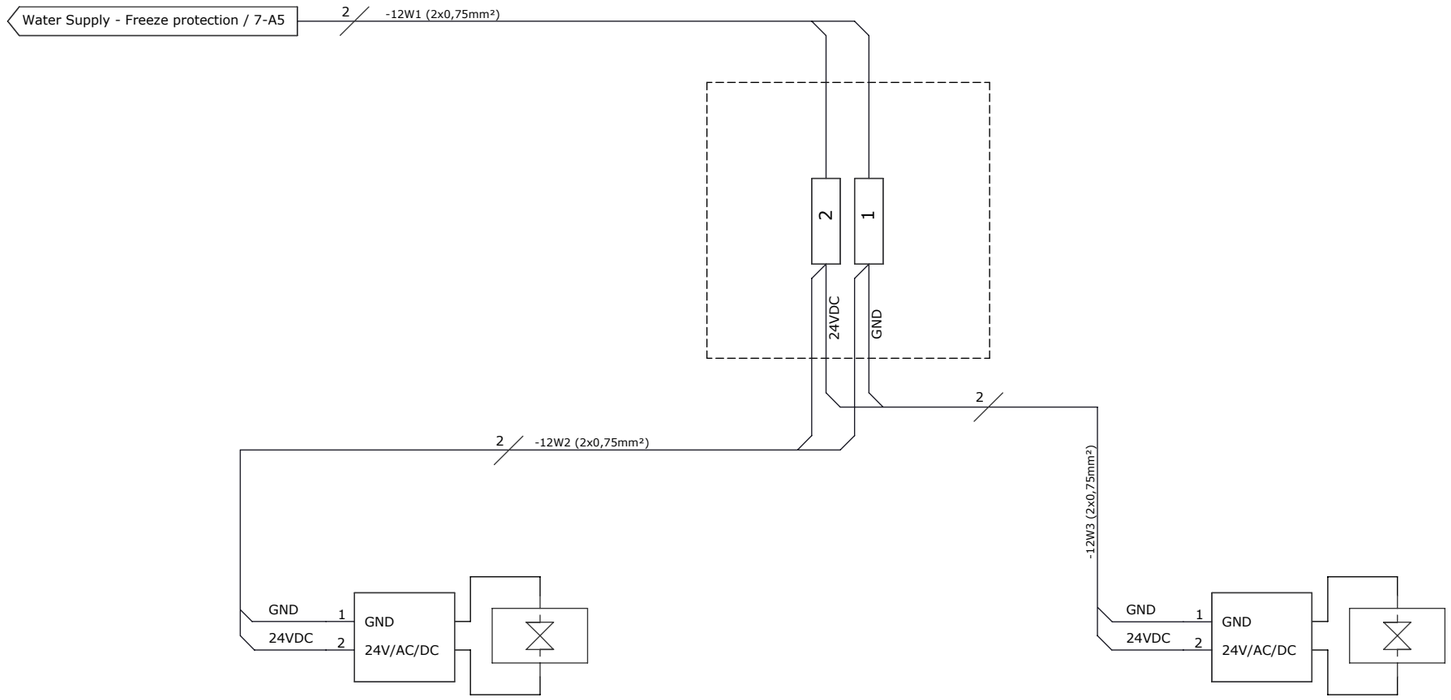
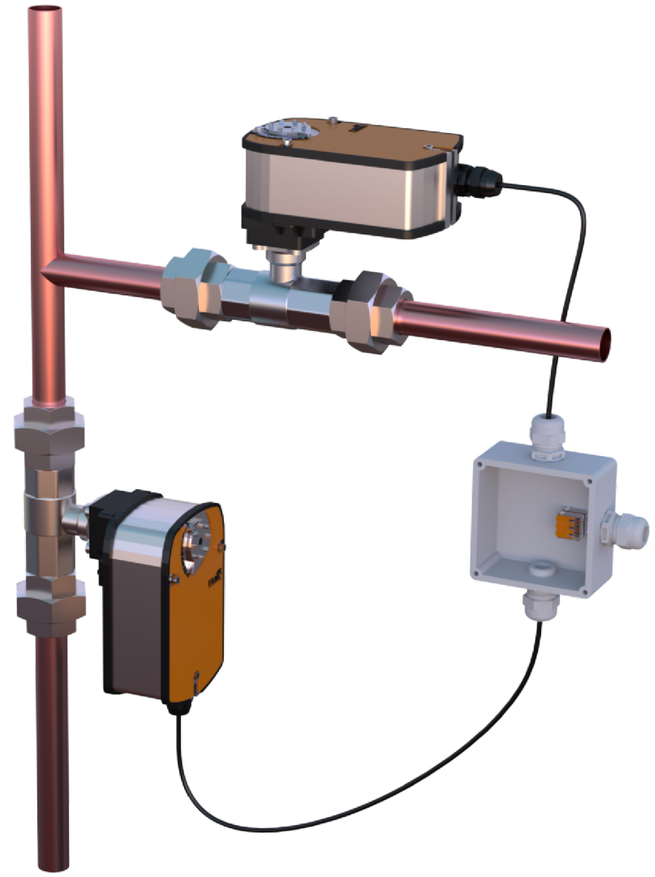


12Y1 VALVE ACTUATOR
LRF24/Z -NC

Ball valve with actuator - Water mains

12Y2 VALVE ACTUATOR
LRF-O/Z -NO

Ball valve with actuator - Drain



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REVISION A

	NAME	DATE
DRAWN	D. Grondhuis	14-9-2022
CHK'D	D. Grondhuis	10-10-2022

TITLE:
Wiring diagram - IntrCooll Plus

Option:
Water Supply - Freeze Protection

DWG NO.
2201_000_999-A

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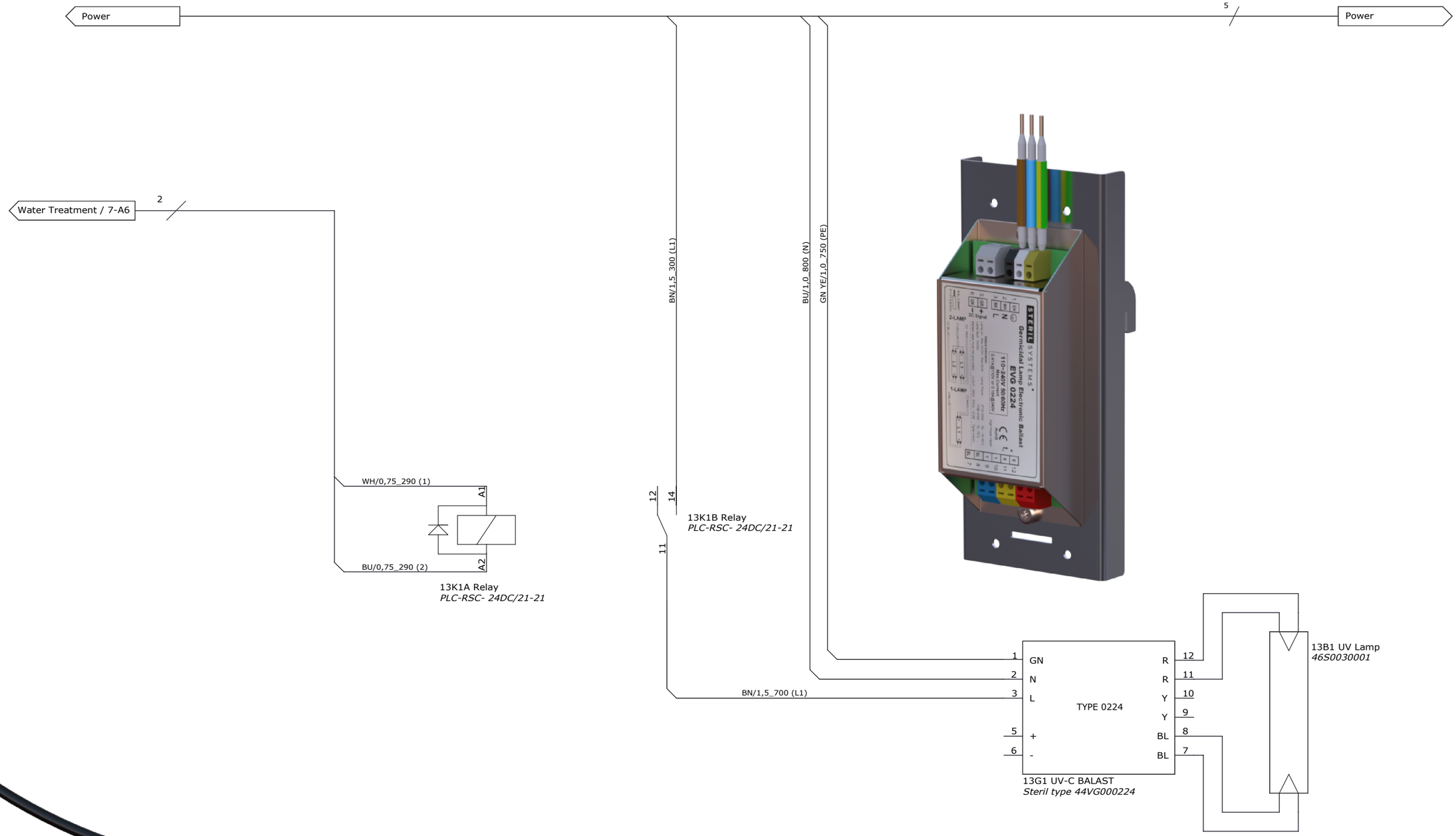

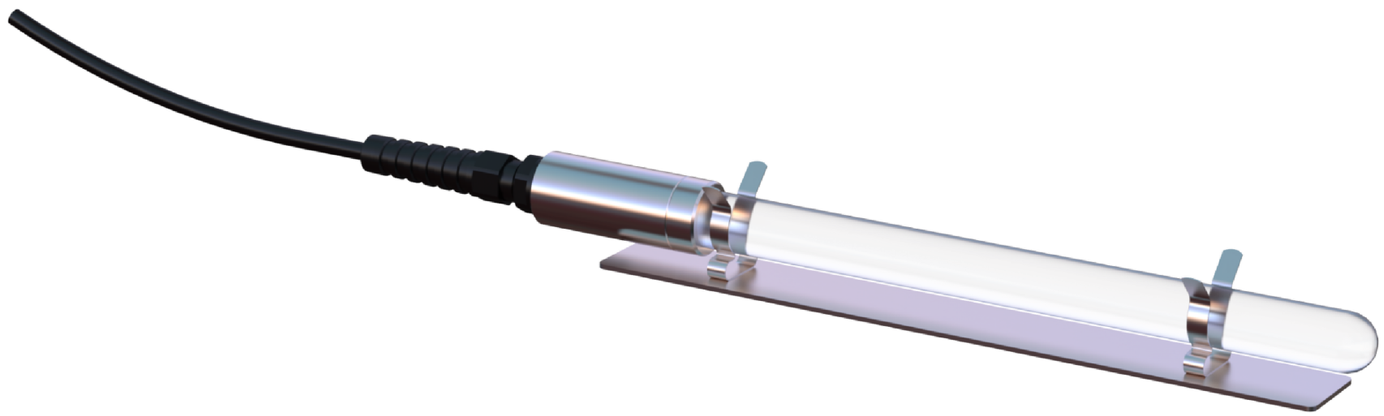

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REVISION A

	NAME	DATE
DRAWN	D. Grondhuis	14-9-2022
CHK'D	D. Grondhuis	10-10-2022

Option:
UV-C Diving Emitter

TITLE:
Wiring diagram - IntrCooll Plus

DWG NO.
2201_000_999-A

A3

File name: 2201_000_999 Wiring IntrCooll Plus configurations

Code Explanation - Cables:

Page Number
Page Number
Cable Size

-4W1 (4G1,0mm²)

Code Explanation - Wires:

Color Code
Wire Size
Wire Length (mm)
Wire marking

BU/1,5_900 (N)

List of Cables

Mark	Description	Size	Type number
3W1	Power - Recirculation Pump	*4x1mm²*	Nexans Titanex - H07RN-F
4W1	Power - Work Air Fan	*4x1mm²*	Nexans Titanex - H07RN-F
4W2	control - Work Air Fan	*4x0,5mm²*	Lapp Ölflex CLASSIC 110
5W1	Power - Supply Air Fan (when installed)	*4x1mm²*	Nexans Titanex - H07RN-F
5W2	Control - Supply Air Fan (when installed)	*4x0,5mm²*	Lapp Ölflex CLASSIC 110
8W1	Control - NV-Module	*18G0,75mm²*	Lapp Ölflex CLASSIC 110
8W2	Control/power - Exhaust Air Damper	*3x0,5mm²*	Lapp Ölflex CLASSIC 110
8W3	Control/power - Exhaust Air Damper	*3x0,5mm²*	Lapp Ölflex CLASSIC 110
8W4	Control/power - Exhaust Air Damper	*3x0,5mm²*	Lapp Ölflex CLASSIC 110
8W5	Control/power - Exhaust Air Damper	*3x0,5mm²*	Lapp Ölflex CLASSIC 110
8W6	Control/power - Outdoor Air Damper	*3x0,5mm²*	Lapp Ölflex CLASSIC 110
9W1	Control - HR-Module	*15x0,75mm²*	Lapp Ölflex CLASSIC 110
9W2	Control/power - Recirculation Damper	*3x0,5mm²*	Lapp Ölflex CLASSIC 110
9W3	Control/power - Recirculation Damper	*3x0,5mm²*	Lapp Ölflex CLASSIC 110
10W1	Control - Fan-Module	*7G0,5mm²*	Lapp Ölflex CLASSIC 110
10W2	Power - Fan-Module	*4x1mm²*	Nexans Titanex - H07RN-F
10W3	Control - Supply Air Fan (Fan-Module)	*4x0,5mm²*	Lapp Ölflex CLASSIC 110
11W1	Power - Timers for Air Blower	*3G0,75mm²*	DRAKA RWPK (H05RR-F)
11W2	Control - Coil - Freeze Protection Relais	*2x0,5mm²*	Lapp Ölflex CLASSIC 110
11W3	Power - Air Blower	*3G0,75mm²*	DRAKA RWPK (H05RR-F)
12W1	Power - Water Supply - Freeze Protection Valves	*2x0,75mm²*	To be provided by installer
12W2	Actuator Cable (Water mains)	*2x0,75mm²*	N.A.
12W3	Actuator Cable (Water drain)	*2x0,75mm²*	N.A.

Wire Colors

Color Code	Color	
BN	*Brown*	*L1*
BK	*Black*	*L2*
GY	*Gray*	*L3*
BU	*Blue*	*N - Neutral*
GN YE	*Green/Yellow*	*PE - Protective Earth / Ground*
WH	*White*	*Control circuit (24 VDC)*
BU	*Blue*	*Control circuit (0 VDC)*
RD	*Red*	*24 VDC*
BK	*Black*	*0 VDC*

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REVISION A

	NAME	DATE
DRAWN	D. Grondhuis	14-9-2022
CHK'D	D. Grondhuis	10-10-2022

TITLE: Wiring diagram - IntrCooll Plus

Info-Sheet - Circuit Wiring

DWG NO. 2201_000_999-A

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File name: 2201_000_999 Wiring IntrCooll Plus configurations

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Component list:

Mark	Description	Type number
2Q1	Main Switch 3P+N	*KG10A.T204/NL-400.FT*
10Q1	Isolating Switch 3P	*ESWPX316*
2F1	Circuit Breaker 3P+N - C10	*P1MB4PC10*
2F2	Earth and Circuit Breaker 1P+N - B10	*2CDB352501R1105*
3F1	Motor Protection Relay 3P	*11RFA9075*
11F1	Circuit Breaker - B10	*P1 MB 1P B10*
6A1	Thermostat - programmable	*TBMPX711C-81212-00010 -26-H-OC*
6A2	Thermostat non-programmable	*TAM711C-81212-00000 -26-OC*
2G1	Power Supply	*DRB100-24-1*
13G1	UV-C Balast	*44VG000224*
2X1	Power Socket 230Vac	*07.99.00*
3M1	Recirculation Pump	*MTA 60-180 AWAB*
4M1	Work Air Fan (Top)	*ZN080-ZIH.GG.V7P3*
5M1	Supply Air Fan (Bottom)	*ZN080-ZIL.GL.V7P3*
10M1	Axial Fan (Fan-Module)	*W3G710NU3103*
10M1	High Pressure Fan (Fan-Module)	*K3G630-FA38-03*
11M1	Air Blower	*LX AP900-V2*
8Y1	Actuator - Exhaust Air Damper	*LM24A-SR-TP*
8Y2	Actuator - Exhaust Air Damper	*LM24A-SR-TP*
8Y3	Actuator - Exhaust Air Damper	*LM24A-SR-TP*
8Y4	Actuator - Exhaust Air Damper	*LM24A-SR-TP*
8Y5	Actuator - Outdoor Air Damper	*LM24A-SR-TP*
9Y1	Actuator - Recirculation Damper	*LM24A-SR-TP*
9Y2	Actuator - Recirculation Damper	*LM24A-SR-TP*
12Y1	Valve Actuator - Freeze protection - water mains	*LRF24/Z - NC*
12Y2	Valve Actuator - Freeze protection - drain	*LR24O/Z - NO*
3K1	Relay - Recirculation Pump	*11BG0601D024*
11K1	Relay - Coil- Freeze Protection	*PLC-RSC-24DC/21*
11K2	Time Relay - Coil Freeze Protection	*TM M1*
11K3	Time Relay - Coil Freeze Protection	*TM M1*
13K1	Relay - Water treatment (UV-C Diving Emitter)	*PLC-RSC-24DC/21-21*
7B6	PT1000 - IntrCooll Supply Air Temperature	*41030020*
7B7	PT1000 - Outdoor Air Temperature	*PT102A-122L30D6X0*
10B1	PT1000 - Supply Air Temperature	*41030020*

Component list:

Mark	Description	Type number
7U1	OxyLogic Controller	*ROX050P01-B—A*
7B1	Water Flow Meter	*MR-A168-6 G3/4*
7B2	Conductivity sensor	*BKIN-50*
7B3	Water Level Sensor - Common	*1841_715_104-A*
7B4	Water Level Sensor - Low	*1841_715_102-A*
7B5	Water Level Sensor - High	*1841_715_103-A*
13B1	UV-Lamp	*46S0030001*
7Y1	Water Supply Valve N.C.	*01.010.126*
7Y2	Water Drain Valve N.O.	*04.040.916*

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CHK'D	D. Grondhuis	10-10-2022

TITLE: Wiring diagram - IntrCooll Plus

Component List

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