

Wire colors

Primary current : black
 230V AC / 230V/0 : red / red-white
 24V AC / 24V/0 : grey / grey-white
 24V + / 24V - : darkblue / blue-white
 external voltage : orange
 DDC : brown
 Test cable : white
 Neutral conductor : blue
 Ground connection : green - yellow
 others : violet

Terminal strips

X01 in front of main switch
 X1 Primary current
 X2 control unit 230V
 X3 low voltage
 X4 analog signals
 X5 signal-exchange with external unit
 X6 bus lines
 X7 external voltage
 X8 ex area

Electrical cabinet

Electrical cabinet : integrated in the AHU
 Housing color :
 Protection class : IP 54
 Cable entry : bottom
 Door hinges : left and right

Operating values

Operating voltage : 400V AC
 control unit General : 230V AC / 24V DC
 Optical Display : Auf Display
 Frequency : 50 Hz
 control system : DEOS
 Feed-in : 100A

EN regulations

HD 60364
 EN 61439-1

VDE

VDE 0100
 VDE 0660

international IEC

IEC 60364
 IEC 61439-1

Project Mc Donald`s DK - Lystrup			Component ventilation		customer 
Created on	10.Okt.2024	Plannend : K. Werner	highest page number :	160	
Last rev. date:	17.Okt.2024	Drafted : K. Werner	Quantity of pages :	92	
Test date: <small>-> previous page</small>	17.Sep.2024	Name : Hr. Strunk			

Leistungsdaten Antriebe	kW	A	U	U/min
supply air fan kitchen	2,77	7,25	400	3115
exhaust fan kitchen	1,7	2,6	400	1440
exhaust fan dishes	0,18	0,85	230	1400
heatpump 1 kitchen	max. 3,6	max. 24	230	DVM-S AM040DXMDKG/EU
heatpump 2 kitchen	max. 3,6	max. 24	230	DVM-S AM040DXMDKG/EU
supply air fan Lobby	2,77	7,25	400	3115
exhaust fan Lobby	4,44	6,8	400	3650
heatpump 1 Lobby	max. 3,6	max. 24	230	DVM-S AM040DXMDKG/EU
heatpump 2 Lobby	max. 3,6	max. 24	230	DVM-S AM040DXMDKG/EU
others	2,0	4,0	400	
total	~ 21	~ 77		

Change	Date	Name	Date	17.Okt.2024
				KW

Mc Donald`s DK - Lystrup
ventilation



Output data

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2.b	Table of contents		17.Okt.2024	KW
2.c	Table of contents		17.Okt.2024	PTH
3	Feed-in and lighting		17.Okt.2024	KW
4	phase monitoring		10.Okt.2024	PTH
5	control voltage 230V AC and 24V DC		10.Okt.2024	PTH
7	fault reset		17.Okt.2024	KW
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10	air handling unit kitchen		17.Okt.2024	KW
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14	exhaust fan dishes		17.Okt.2024	KW
16	flap drives kitchen		17.Okt.2024	KW
19	antifreeze thermostat		17.Okt.2024	KW
20	heating pump		17.Okt.2024	KW
21	heatpump 1 kitchen		17.Okt.2024	KW
22	heatpump 2 kitchen		17.Okt.2024	KW
23	heatpump 1 kitchen indoor unit		17.Okt.2024	KW
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30	air handling unit Lobby		17.Okt.2024	KW
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36	flap drives Lobby		17.Okt.2024	KW

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50	unit discription General		17.Okt.2024	KW
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60	unit discription DDC		17.Okt.2024	KW
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64	overview module		10.Okt.2024	PTH
65	DDC - CPU Controller		17.Okt.2024	KW
66	CPU - digital inputs 8 x DI		17.Okt.2024	KW
67	CPU - digital outputs 8 x DO		17.Okt.2024	KW
68	CPU - digital outputs 8 x DO		17.Okt.2024	KW
69	CPU - analog outputs 4 x AO		17.Okt.2024	KW
70	CPU - analog inputs 8xAI		17.Okt.2024	KW
71	DDC - digital inputs 16 x DI		17.Okt.2024	KW
72	DDC - digital inputs 16 x DI		17.Okt.2024	KW
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75	DDC - analog in- / outputs 8 x AI / 4 x AO		17.Okt.2024	KW
76	DDC - analog in- / outputs 8 x AI / 4 x AO		17.Okt.2024	KW
77	DDC - analog in- / outputs 8 x AI / 4 x AO		17.Okt.2024	KW
78	DDC - digital outputs 8 x DO - T		17.Okt.2024	KW
79	DDC - analog in- / outputs 8 x AI / 4 x AO		17.Okt.2024	KW

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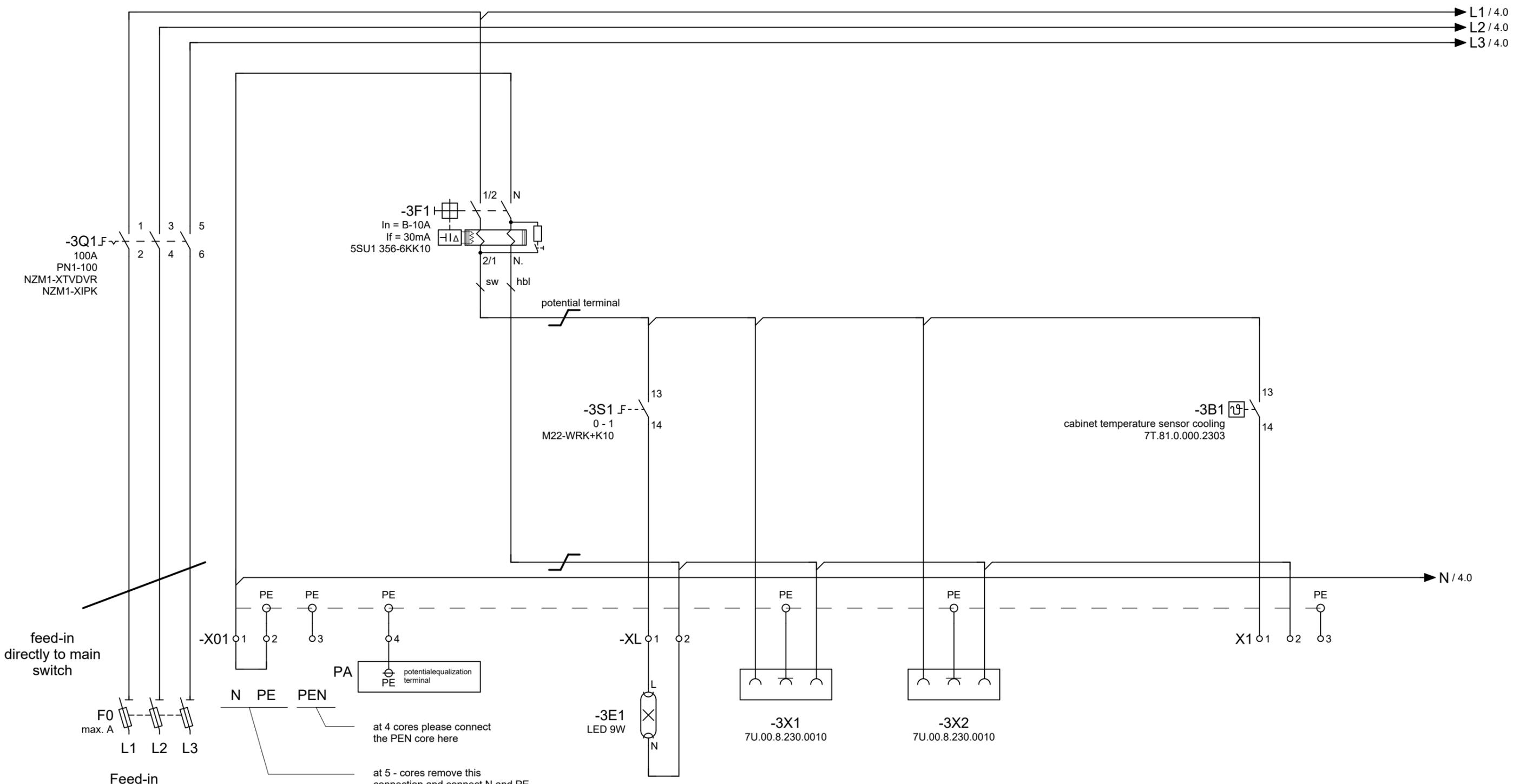
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Mueller

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100	Overview terminal strips		17.Okt.2024	KW
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103	terminal layout X1		17.Okt.2024	KW
104	terminal layout X01		17.Okt.2024	KW
105	terminal layout X2		17.Okt.2024	KW
106	terminal layout X3		17.Okt.2024	KW
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109	terminal layout X3		17.Okt.2024	KW
110	terminal layout X3		17.Okt.2024	KW
111	terminal layout X3		17.Okt.2024	KW
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117	terminal layout X4		17.Okt.2024	KW
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119	terminal layout X4		17.Okt.2024	KW
120	terminal layout X6		17.Okt.2024	KW
121	terminal layout X6		17.Okt.2024	KW
122	terminal layout X7		17.Okt.2024	KW
123	terminal layout XR		17.Okt.2024	KW
130	Cable overview		17.Okt.2024	KW

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feed-in directly to main switch

Feed-in

F0 max. A

L1 L2 L3



supply-line from : _____

Back-up fuse ID : _____

Back-up fuse A : _____

at 4 cores please connect the PEN core here

at 5 - cores remove this connection and connect N and PE here

Output data

P=	ca. 21	kW
I=	ca. 77	A
U=	400	V
F=	50	Hz

-X01 01 02 03 04

PE PE PE PE

PA

potential equalization terminal

N PE PEN

-XL 01 02

LED 9W

lighting control-cabinet

-3E1

service plug 230V 10A

-3X1 7U.00.8.230.0010

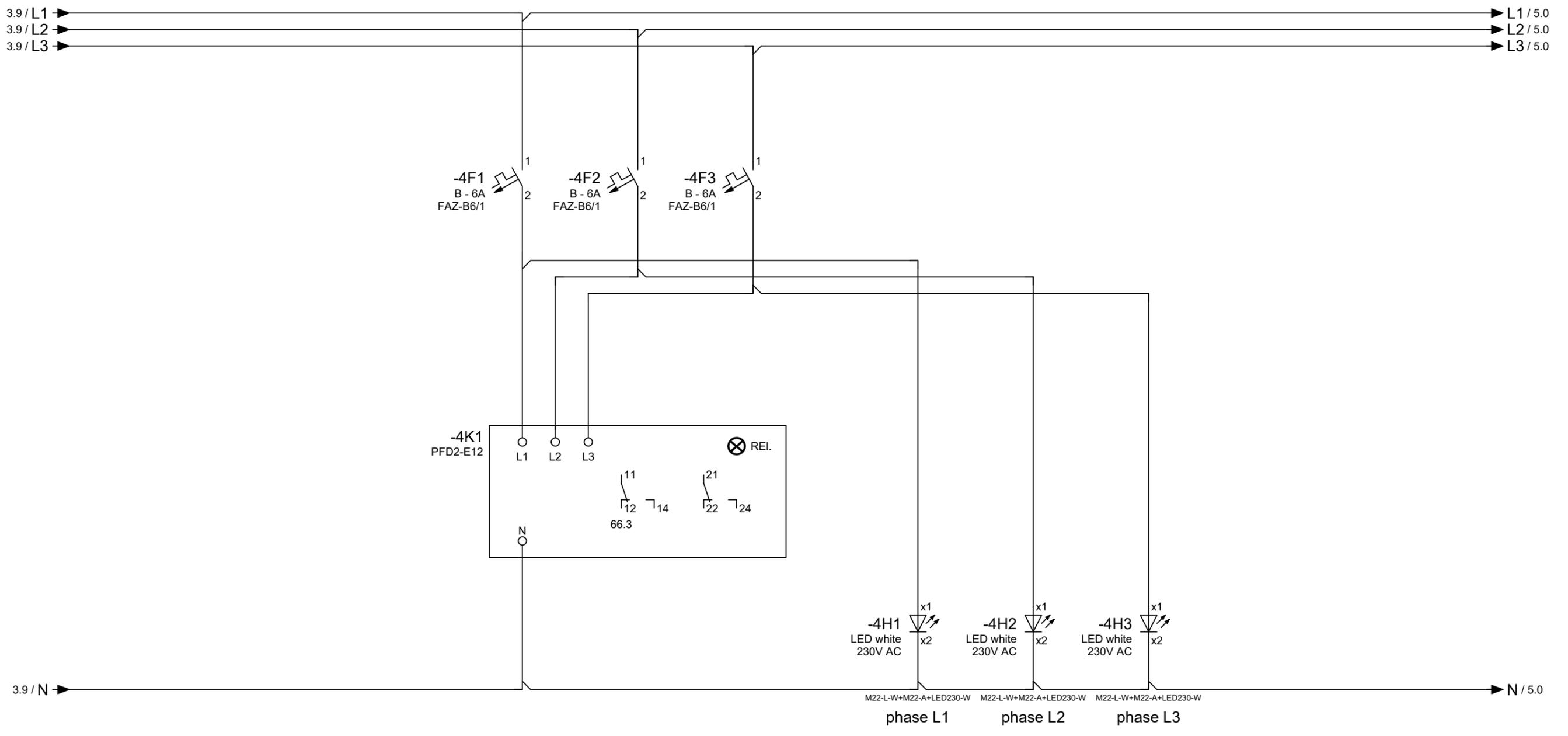
service plug 230V 10A

-3X2 7U.00.8.230.0010

X1 01 02 03

PE PE PE

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				KW				Auftr. Nr. 24501	D.No.: 9803	

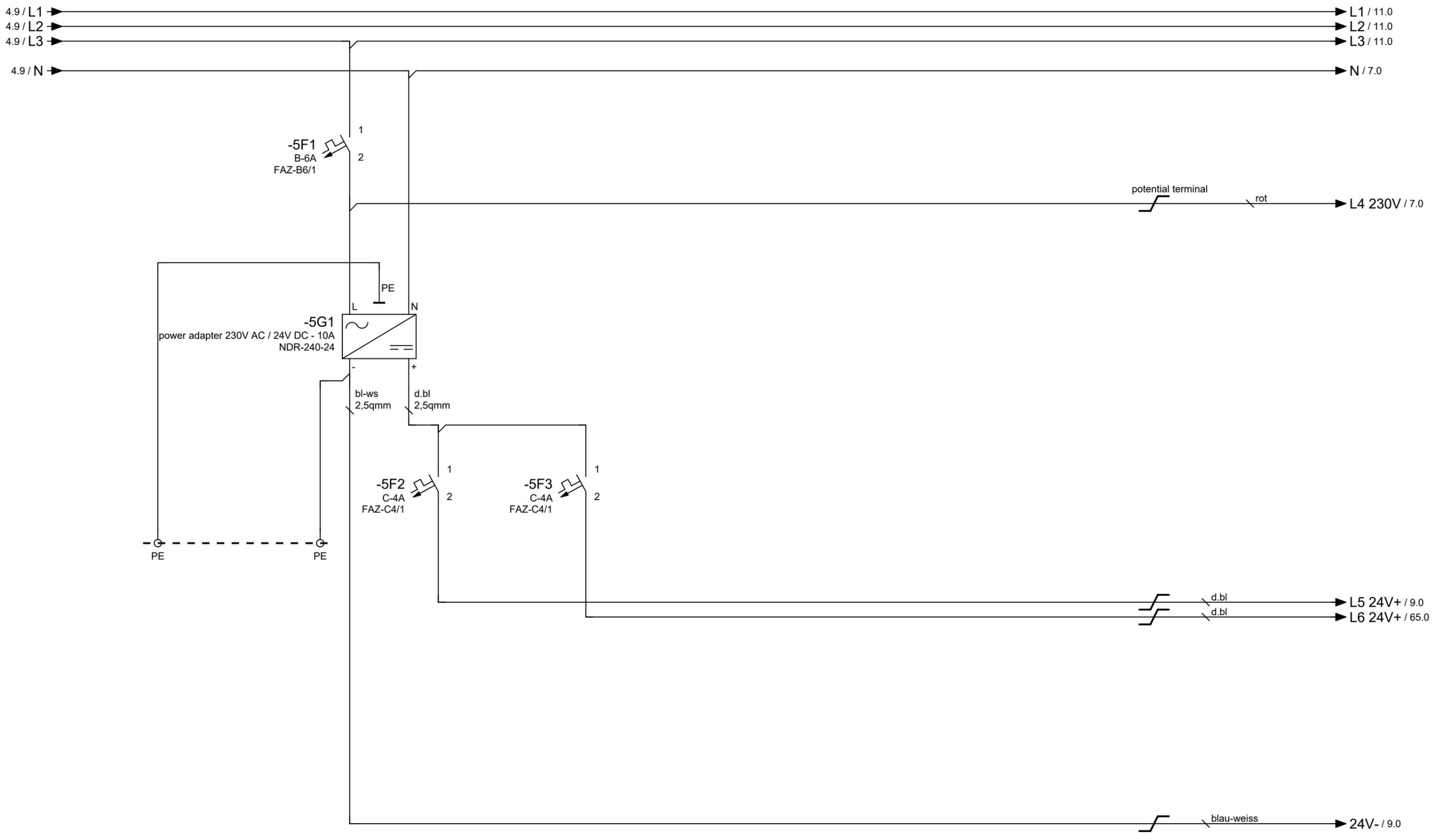


Change	Date	Name	Date	10.Okt.2024	Mc Donald`s DK - Lystrup ventilation
				PTH	



phase monitoring

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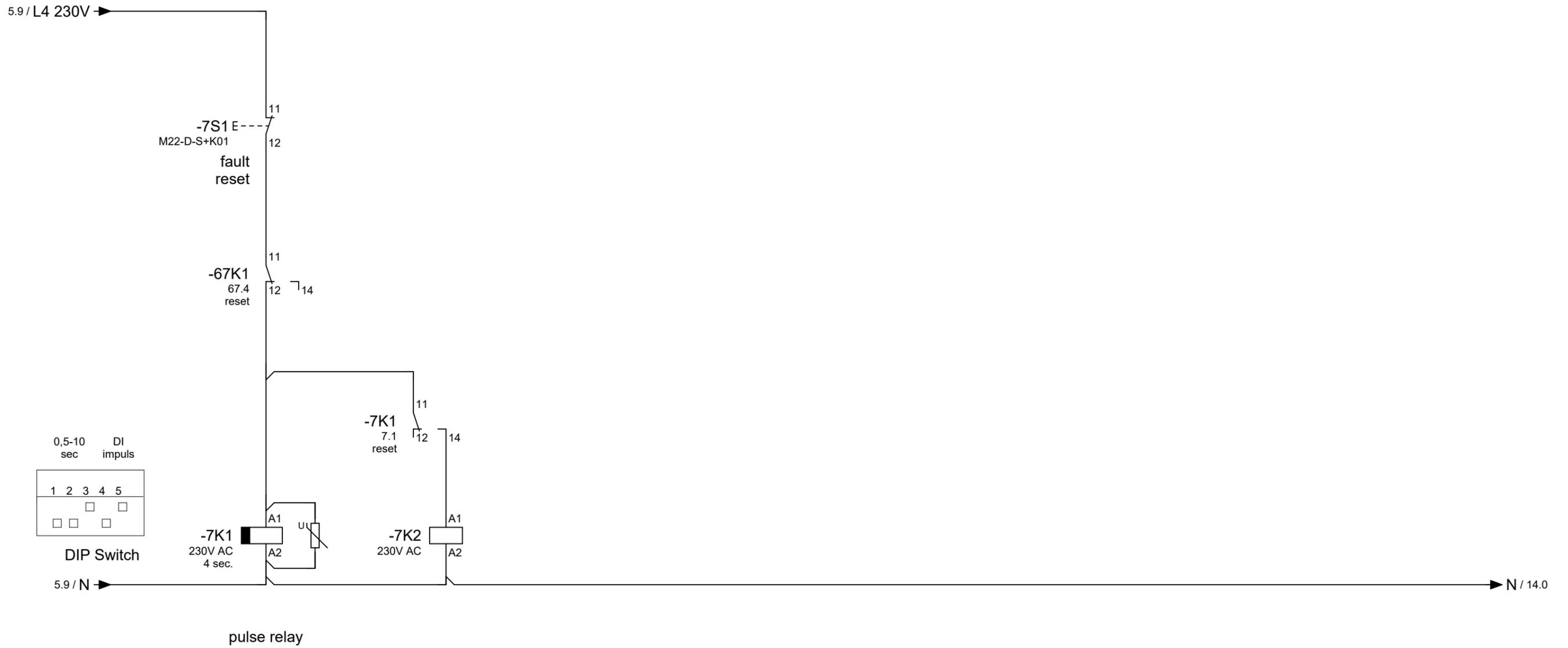
control voltage 24V DC
control unit control system

Change	Date	Name	Date	10.Okt.2024	Mc Donald's DK - Lystrup ventilation
				PTH	



control voltage 230V AC
and
24V DC

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85.04.8.240.0000 + 94.P4
 14 ↗
 12 ↗ 11 7.2
 24 ↗
 22 ↗ 21 9.4
 34 ↗
 32 ↗ 31
 44 ↗
 42 ↗ 41

55.34.8.230.0040 + 94.P4
 14 ↗
 12 ↗ 11
 24 ↗
 22 ↗ 21 19.4
 34 ↗
 32 ↗ 31
 44 ↗
 42 ↗ 41 66.2

Date	17.Okt.2024
	KW
Change	Date
	Name

Mc Donald's DK - Lystrup
 ventilation

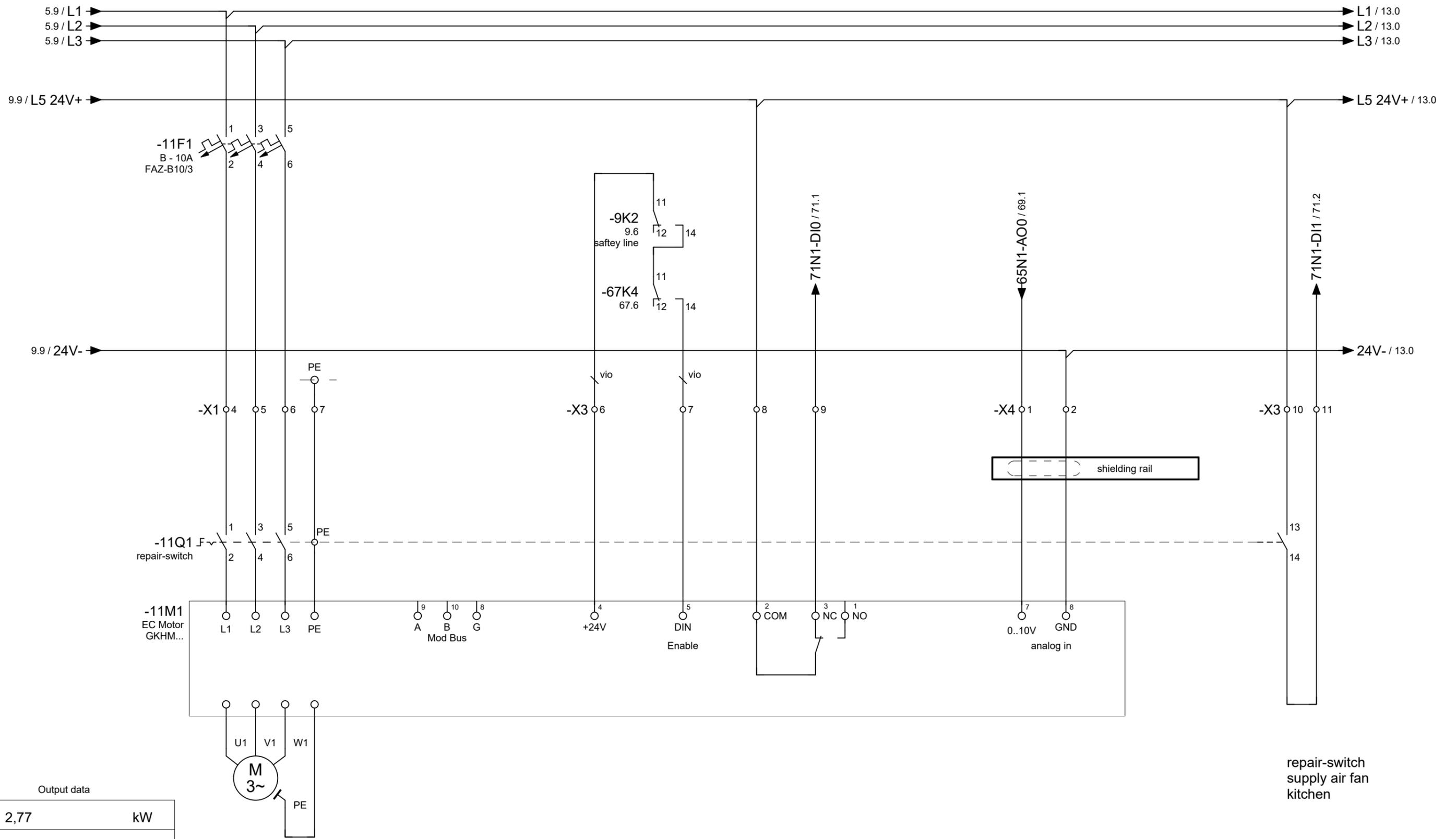


fault reset

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Auftr. Nr. 24501	+	
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AHU KITCHEN

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Change	Date	Name								



Output data

P=	2,77	kW
I=	7,25	A
U=	400	V
N=	3115	rpm

supply air fan
kitchen

repair-switch
supply air fan
kitchen

Change	Date	Name

Date	17.Okt.2024

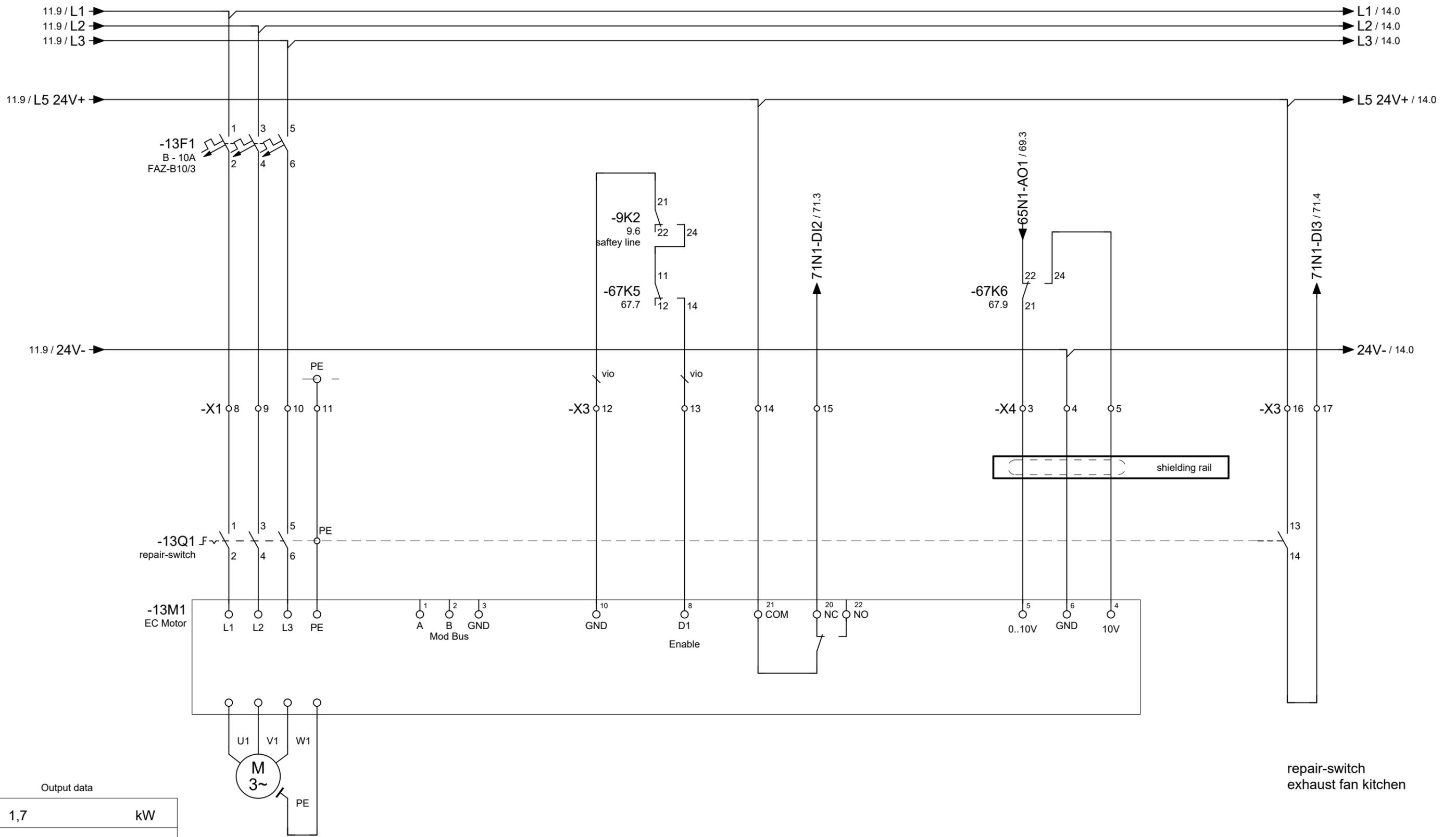
Mc Donald's DK - Lystrup
ventilation



supply air fan
kitchen

Fabr.. Nr. 7295
Auftr. Nr. 24501

D.No.: 9803



Output data

P= 1,7	kW
I= 2,6	A
U= 400	V
N= 1440	rpm

exhaust fan kitchen

repair-switch
exhaust fan kitchen

Date	17.Okt.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Lystrup
ventilation

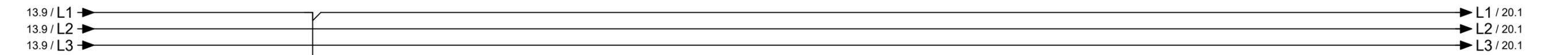


exhaust fan kitchen

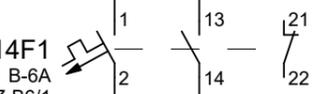
Fabr.. Nr. 7295

Auftr. Nr. 24501

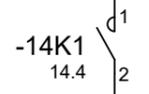
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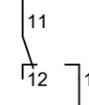
-14F1
B-6A
FAZ-B6/1
FAZ-XHIN11



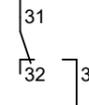
-14K1
14.4



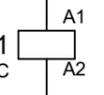
-68K1
68.1



-9K2
9.6
saftey line

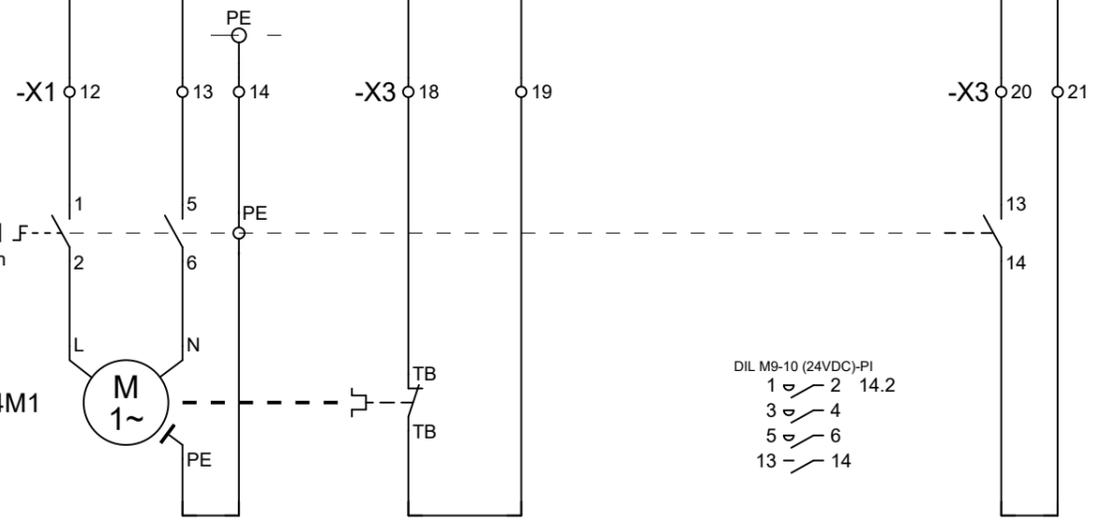
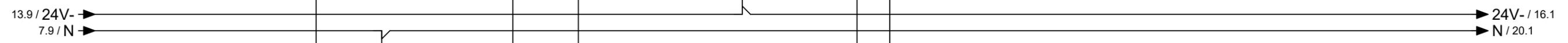


-14K1
24V DC

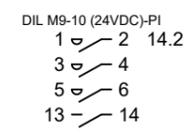


71N1-DI4 / 71.5

71N1-DI5 / 71.6



-14Q1 F
repair-switch



Output data	
P= 0,18	W
I= 0,85	A
U= 230	V
N= 1400	U/min

exhaust fan dishes

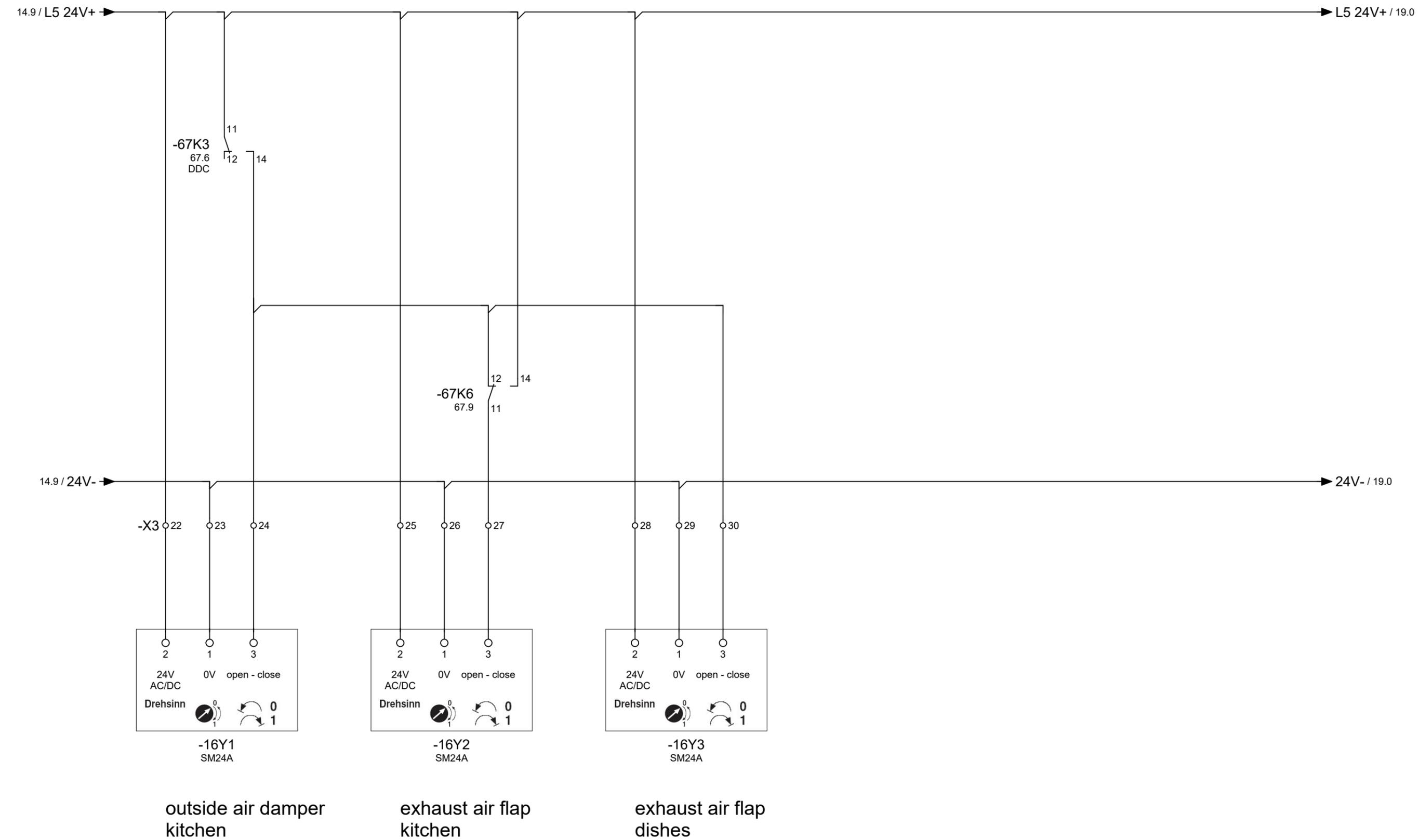
repair-switch
exhaust fan dishes

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				KW	



exhaust fan dishes

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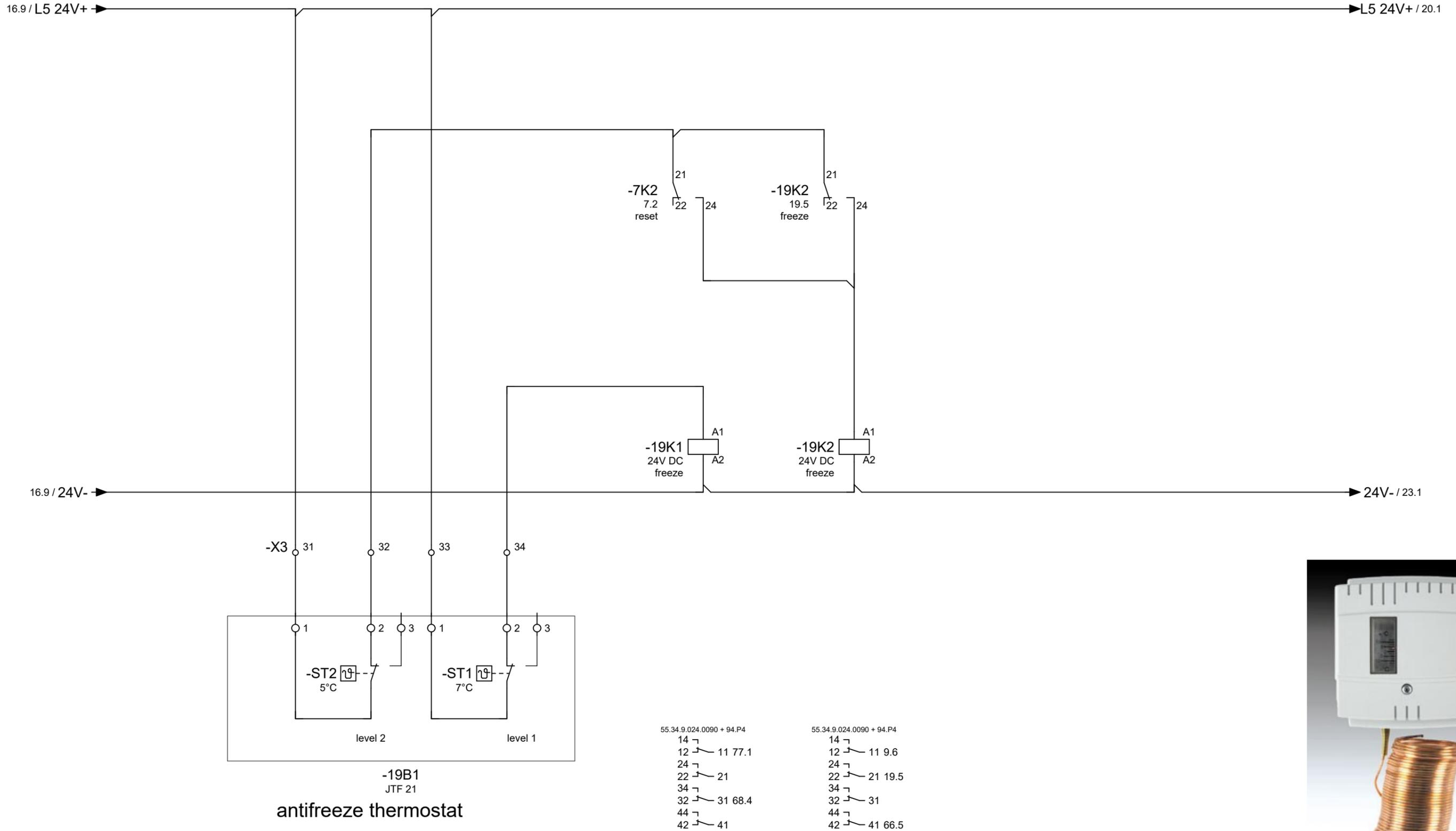
Date	17.Okt.2024
	KW
Change	Date
Name	

Mc Donald's DK - Lystrup
ventilation



flap drives kitchen

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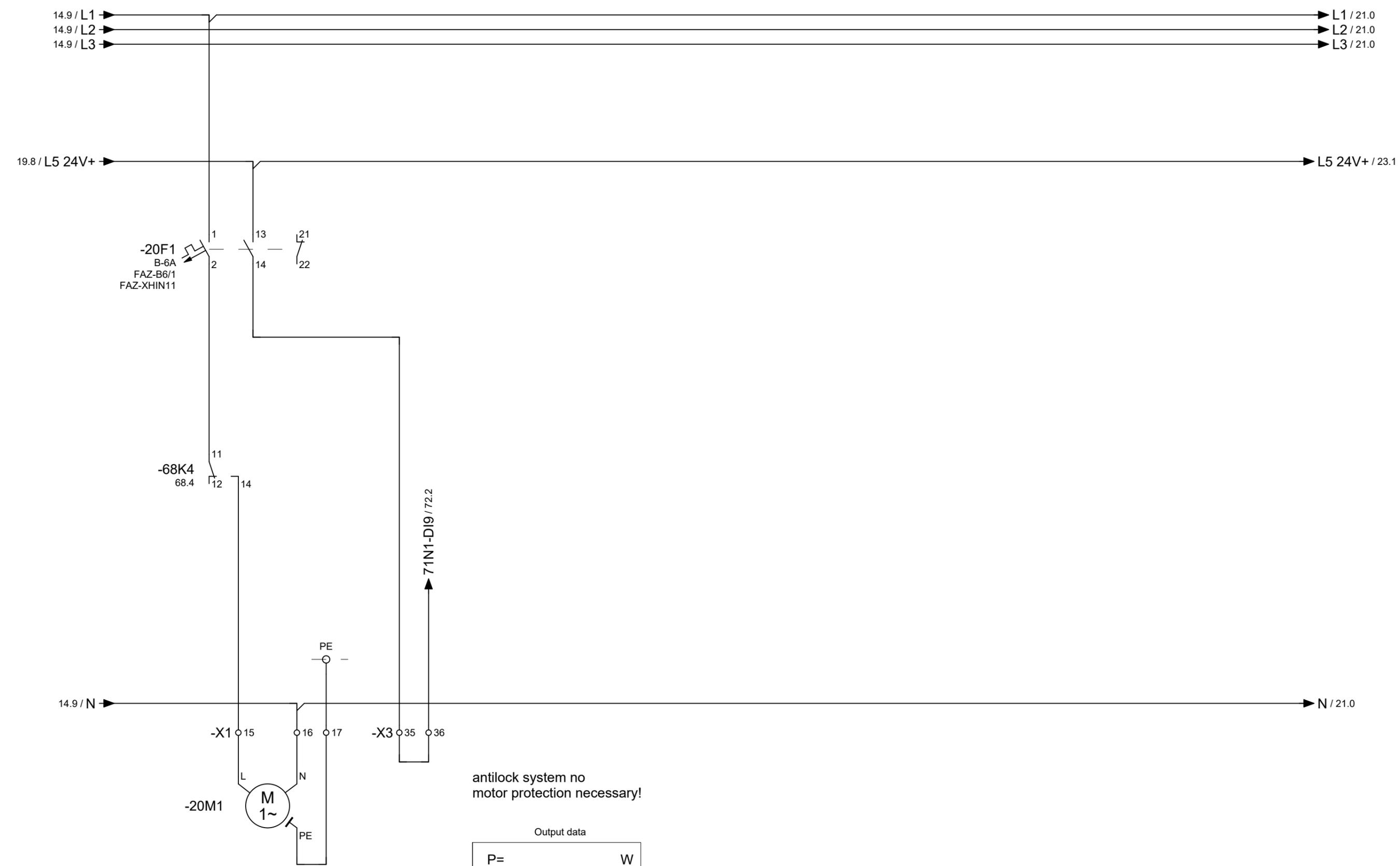


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				KW	ventilation



antifreeze thermostat

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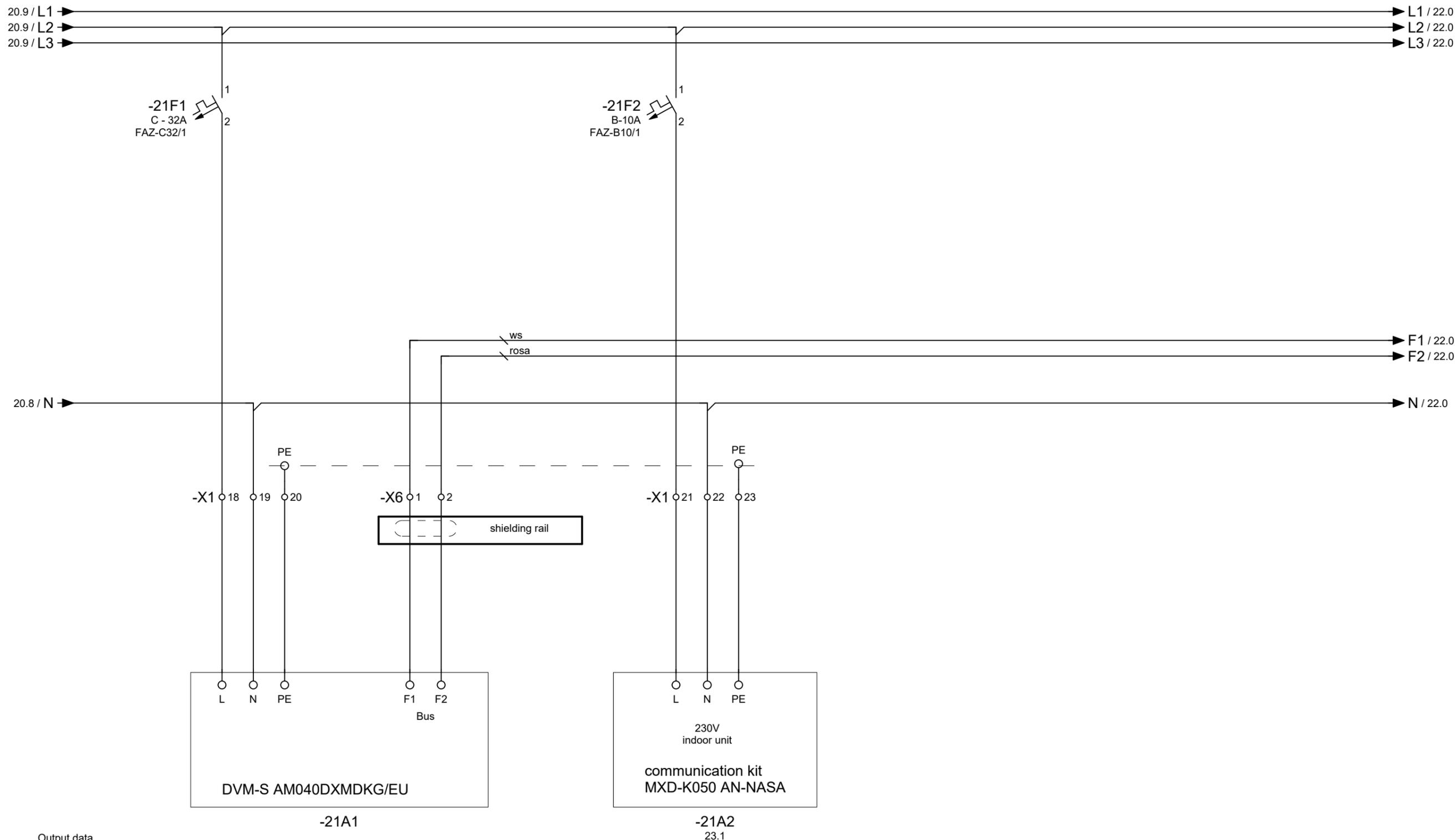
Change	Date	Name	

Date 17.Okt.2024
 KW
 Mc Donald's DK - Lystrup
 ventilation



heating pump

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Output data

P_{EL}	: max. 3,6	kW
I	: max. 24	A
U	: 230	V
$I_{Betr.}$		A

heatpump 1
kitchen
outdoor unit

heatpump 1
kitchen
indoor unit

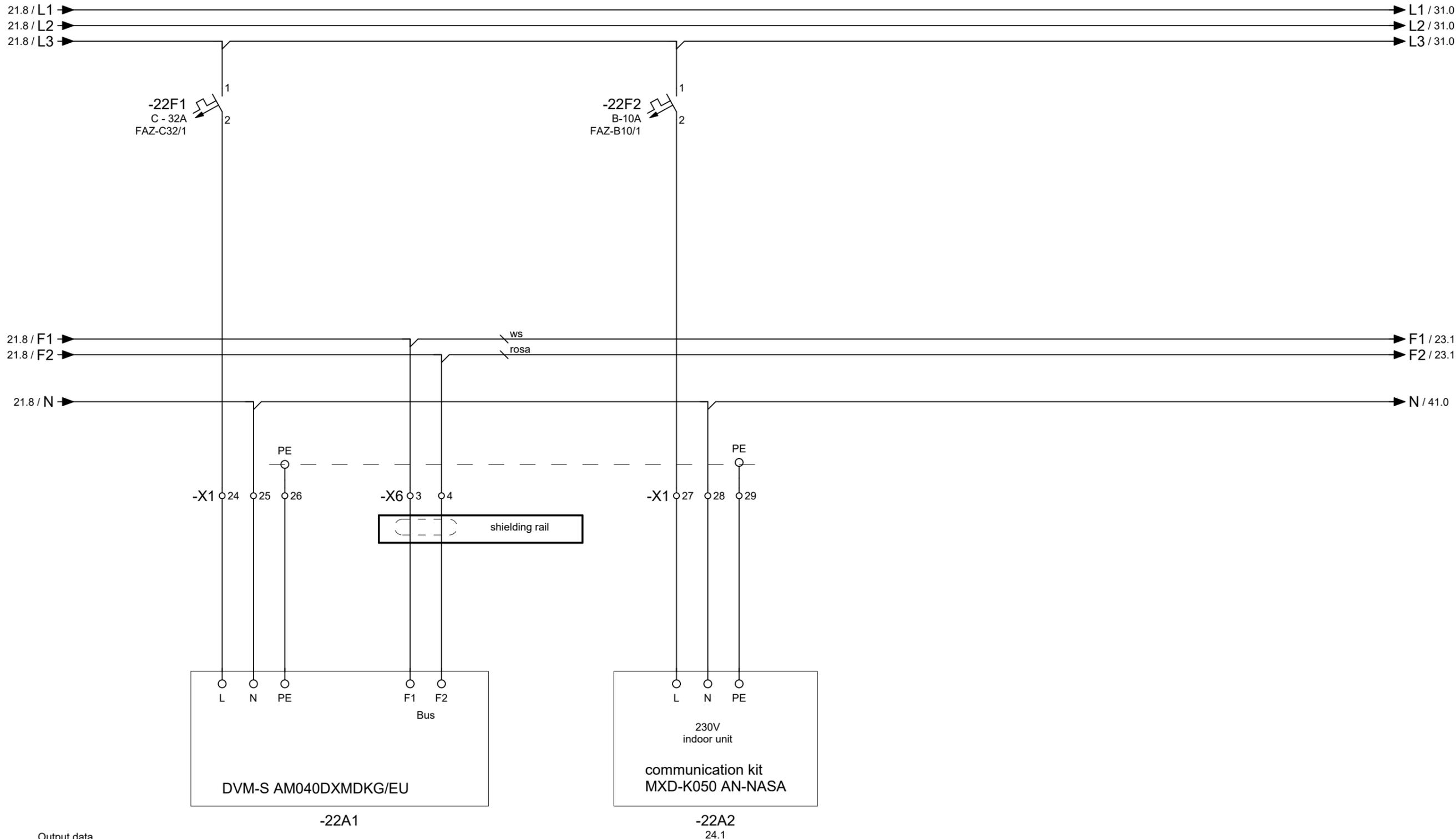
Change	Date	Name	

Date	17.Okt.2024
	KW
Mc Donald's DK - Lystrup	
ventilation	



heatpump 1 kitchen

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Output data

P_{EL}	: max. 3,6	kW
I	: max. 24	A
U	: 230	V
$I_{Betr.}$		A

heatpump 2
kitchen
outdoor unit

heatpump 2
kitchen
indoor unit

Date	17.Okt.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Lystrup
ventilation

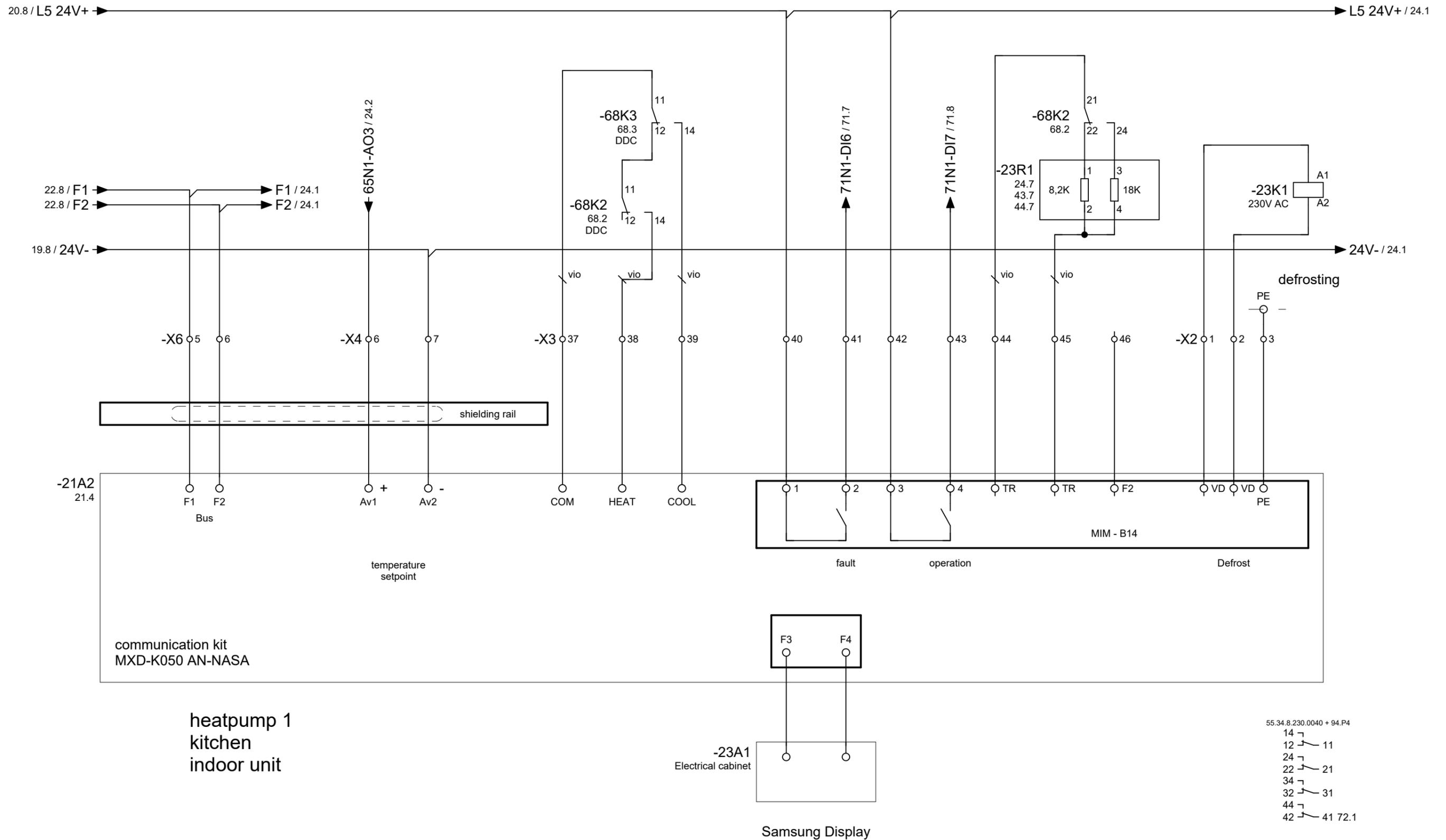


heatpump 2
kitchen

Fabr.. Nr. 7295

Auftr. Nr. 24501

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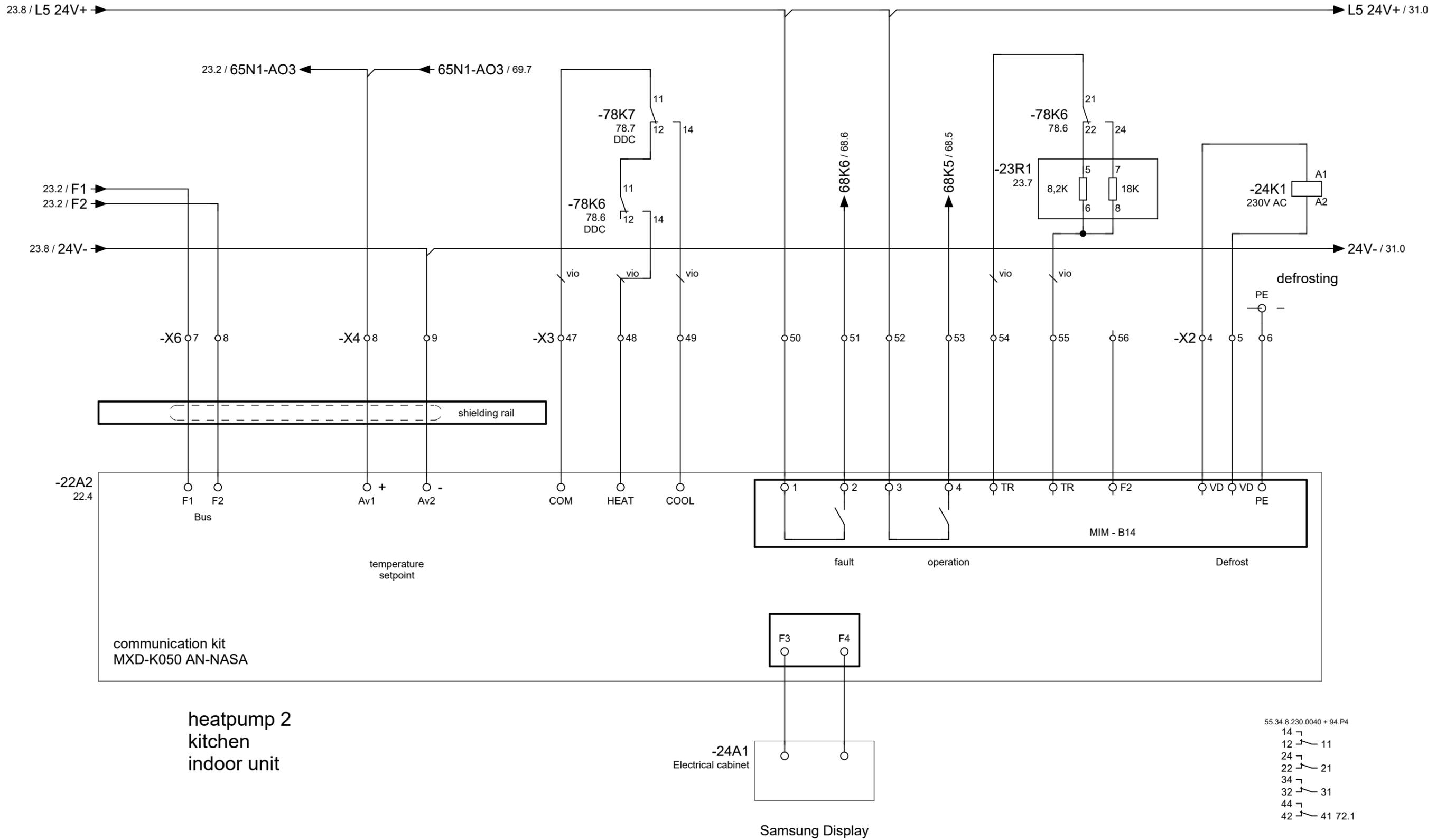


heatpump 1
kitchen
indoor unit

Fabr.. Nr. 7295

Auftr. Nr. 24501

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Change	Date	Name	Date	17.Okt.2024	Mc Donald's DK - Lystrup ventilation
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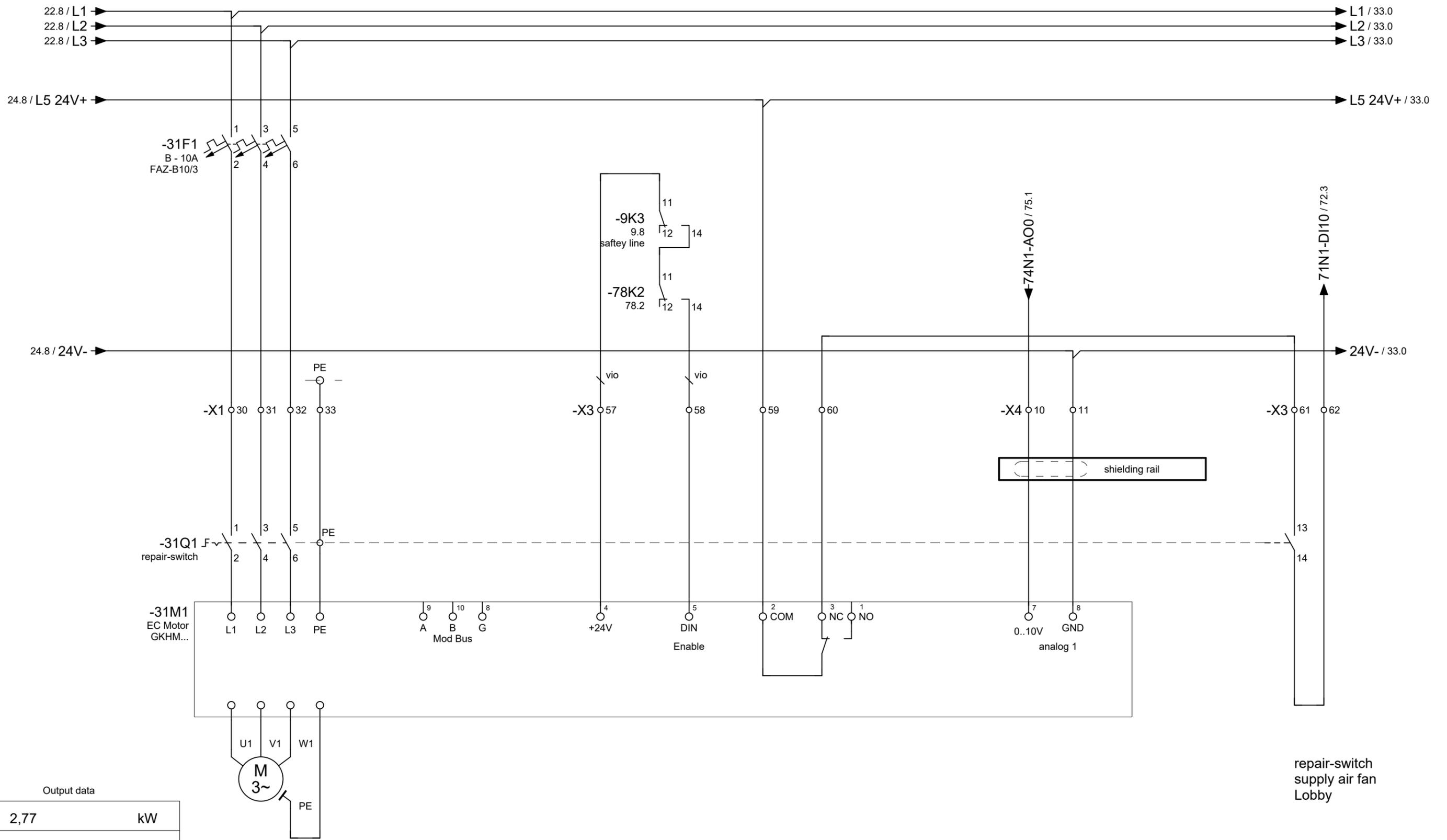


heatpump 2
kitchen
indoor unit

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AHU Lobby

			Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation		air handling unit Lobby	Fabr.. Nr. 7295		=	Page 30
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Output data

P= 2,77	kW
I= 7,25	A
U= 400	V
N= 3115	rpm

supply air fan
Lobby

repair-switch
supply air fan
Lobby

Date	17.Okt.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Lystrup
ventilation

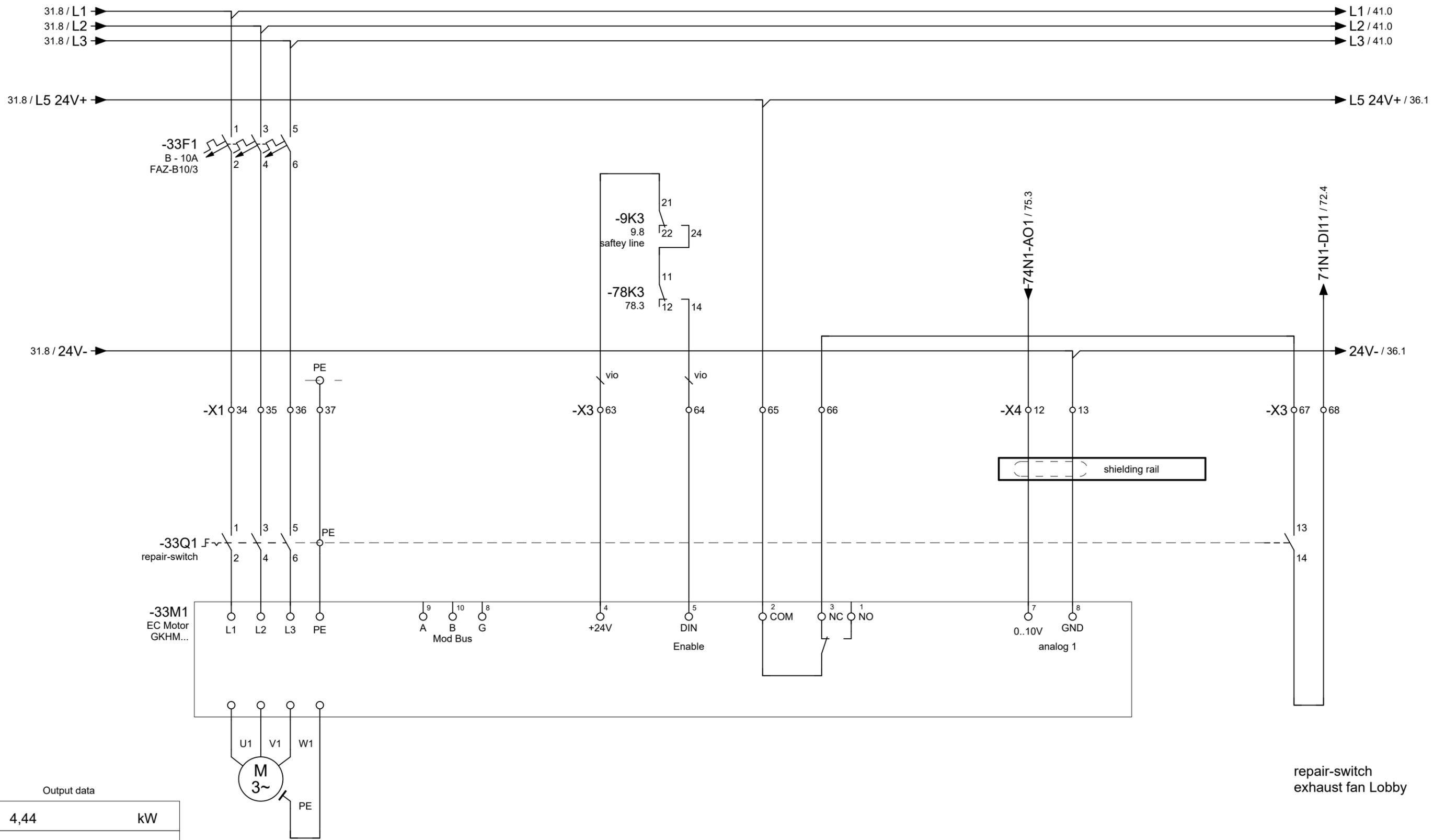


supply air fan
Lobby

Fabr.. Nr. 7295

Auftr. Nr. 24501

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Output data

P=	4,44	kW
I=	6,8	A
U=	400	V
N=	3650	rpm

exhaust fan Lobby

repair-switch
exhaust fan Lobby

Date	17.Okt.2024
	KW
Change	Date
	Name

Mc Donald's DK - Lystrup
ventilation

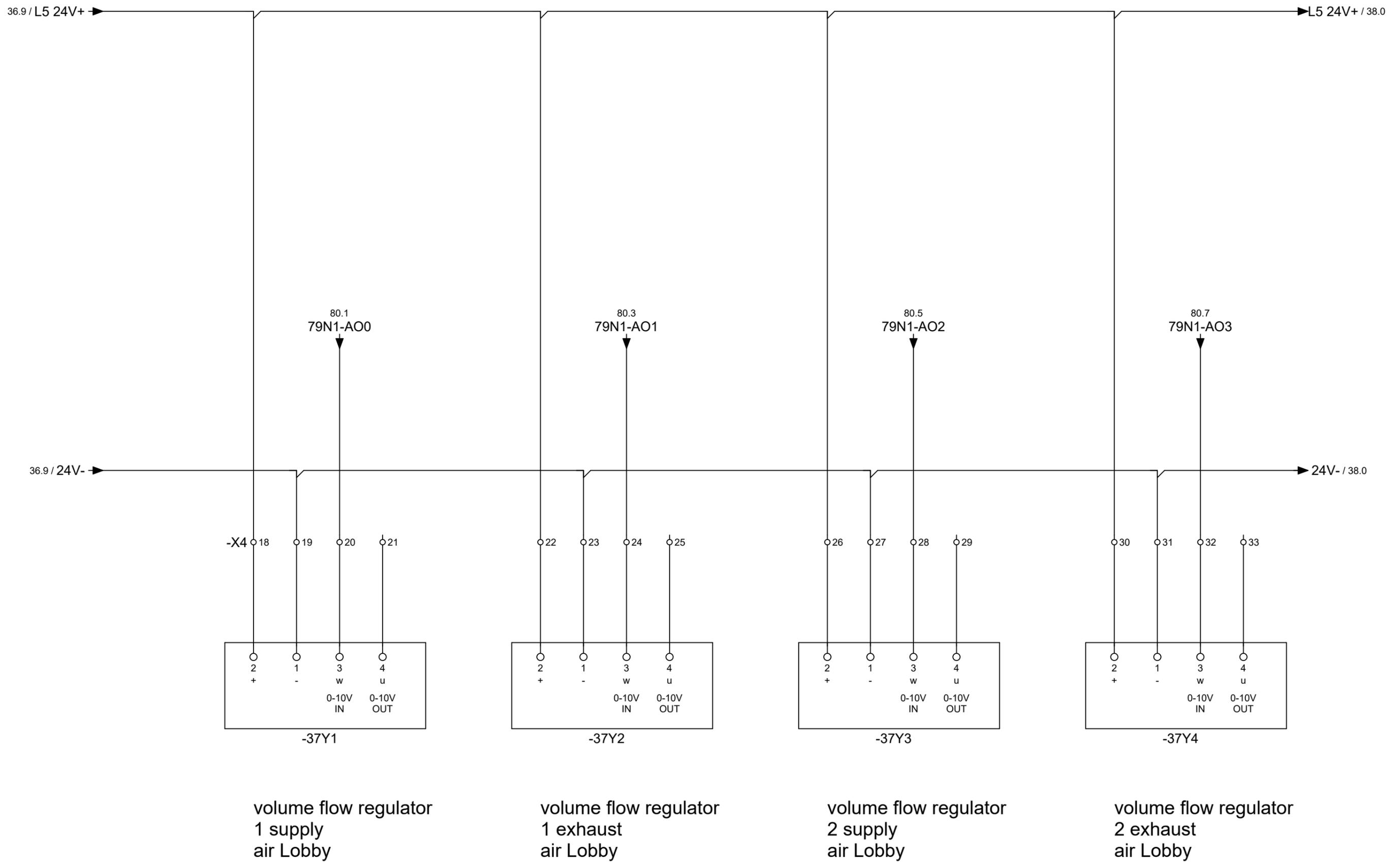


exhaust fan Lobby

Fabr.. Nr. 7295

Auftr. Nr. 24501

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Change	Date	Name	Date	17.Okt.2024	Mc Donald's DK - Lystrup ventilation
				KW	

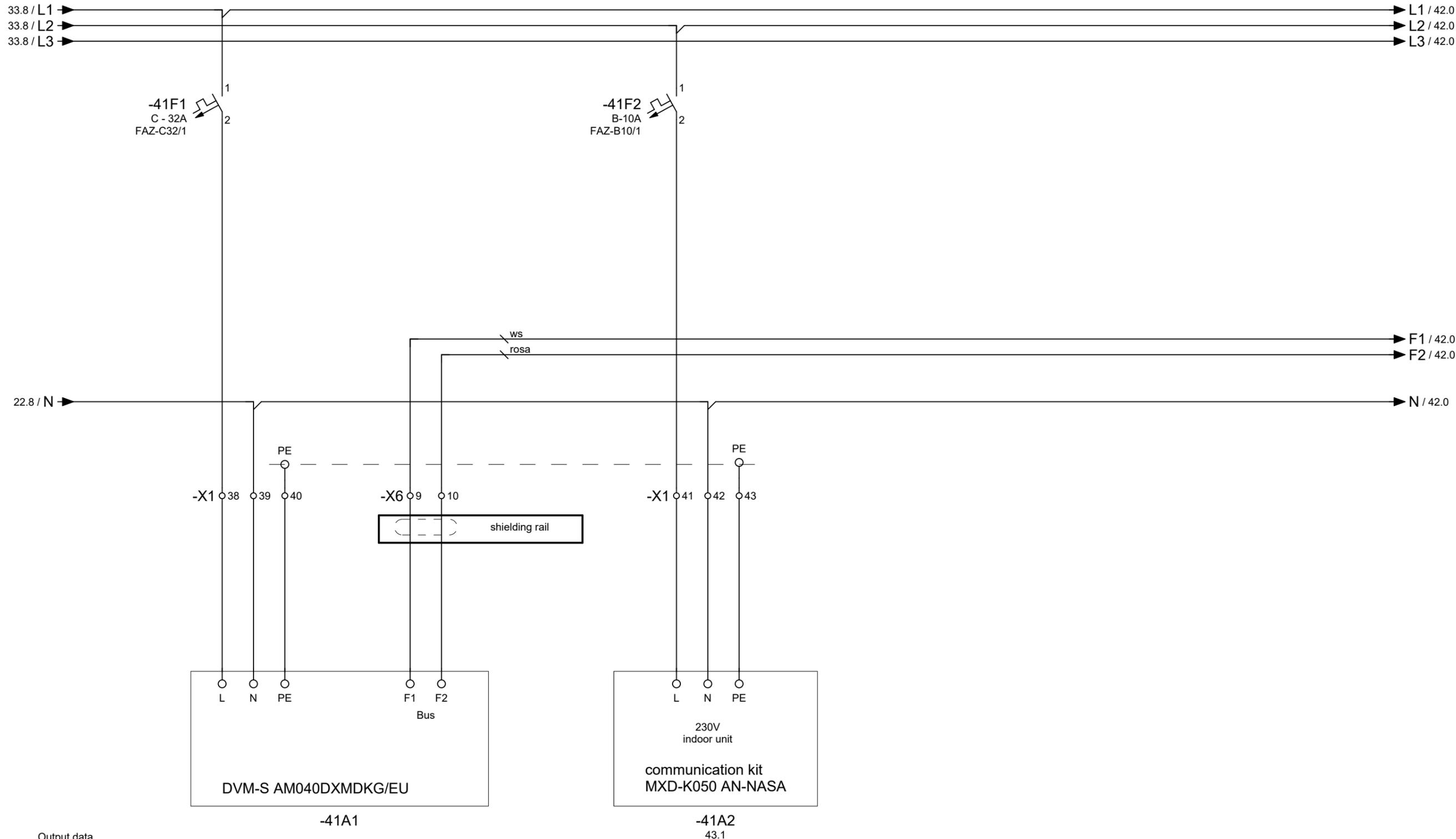


volume flow regulator

Fabr.. Nr. 7295

Auftr. Nr. 24501

D.No.: 9803



Output data

P_{EL}	: max. 3,6	kW
I	: max. 24	A
U	: 230	V
$I_{Betr.}$		A

heatpump 1
Lobby
outdoor unit

heatpump 1
Lobby
indoor unit

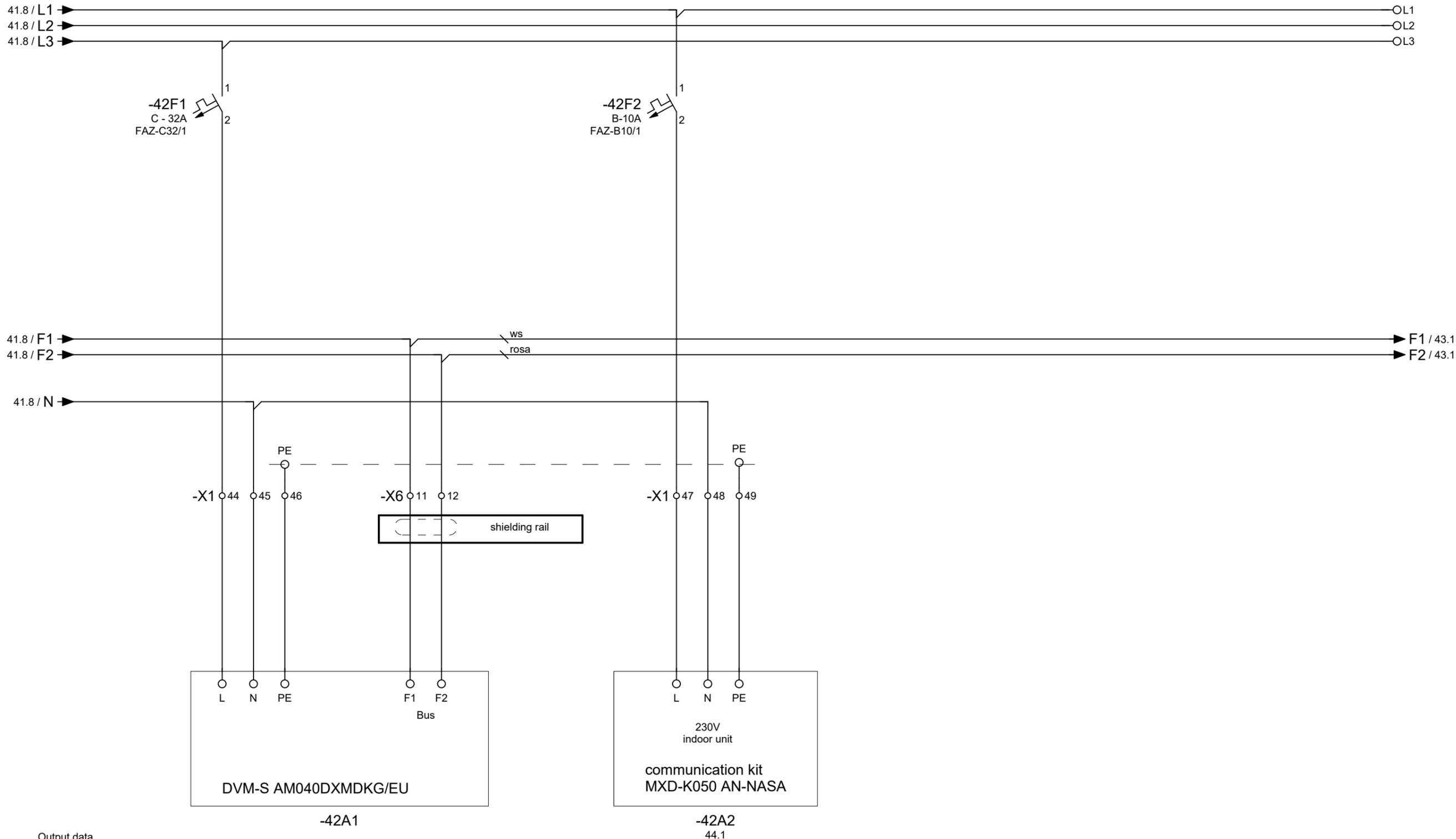
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	KW
Change	Date
	Name

Mc Donald`s DK - Lystrup
ventilation



heatpump 1
Lobby

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Output data

P_{EL}	: max. 3,6	kW
I	: max. 24	A
U	: 230	V
$I_{Betr.}$		A

heatpump 2
Lobby
outdoor unit

heatpump 2
Lobby
indoor unit

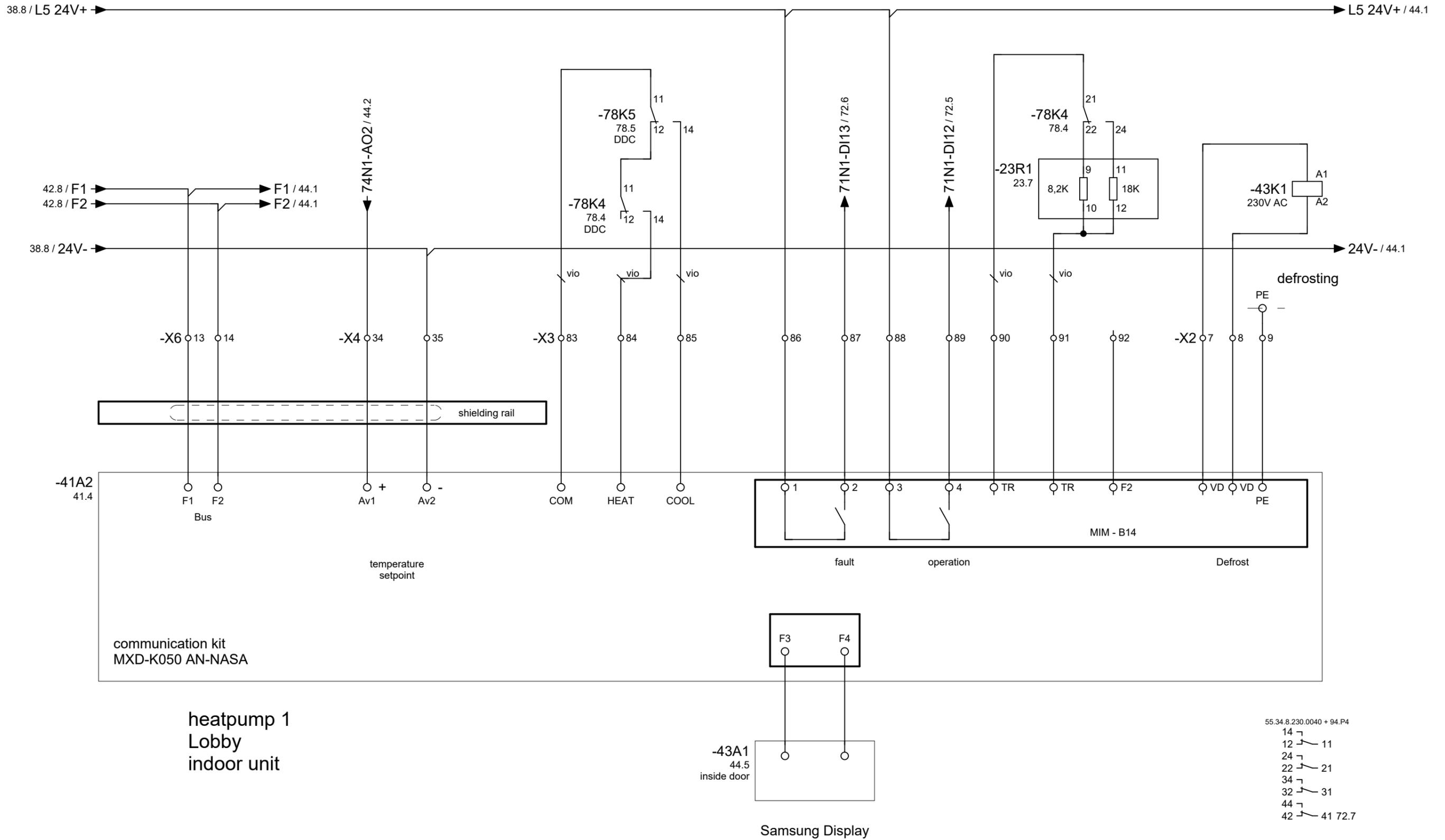
Date	17.Okt.2024
	KW
Change	Date
	Name

Mc Donald's DK - Lystrup
ventilation



heatpump 2
Lobby

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Change	Date	Name	Date	17.Okt.2024	Mc Donald's DK - Lystrup ventilation
				KW	



heatpump1
Lobby
indoor unit

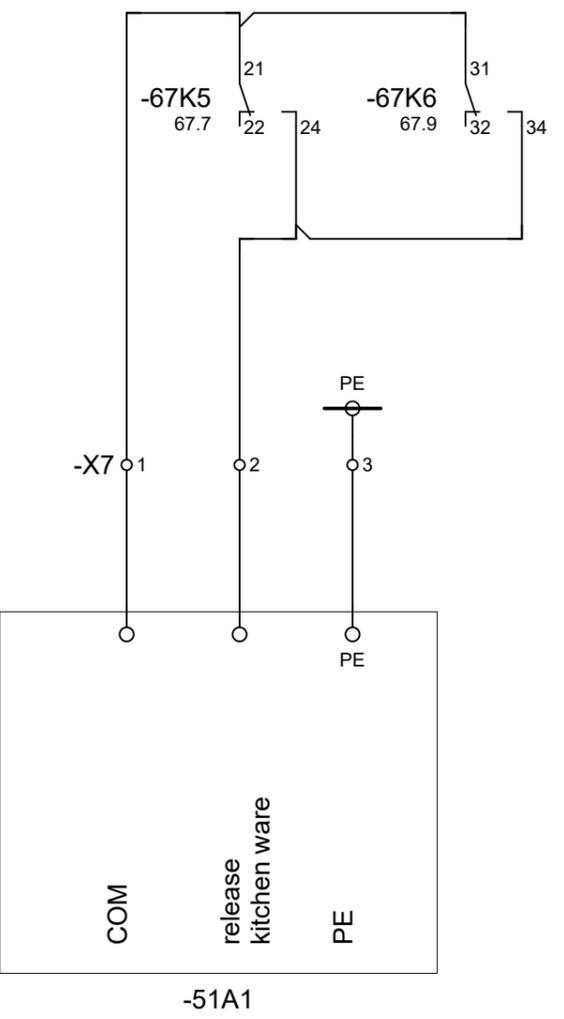
Fabr.. Nr. 7295

Auftr. Nr. 24501

D.No.: 9803

Anlage Allgemein

			Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation		unit discription General	Fabr.. Nr. 7295	=	Page 50
				KW					+	
Change	Date	Name						Auftr. Nr. 24501	D.No.: 9803	Page 160



release
kitchen ware
Interlock

Change	Date	Name	Date	Mc Donald`s DK - Lystrup ventilation		release kitchen ware	Fabr.. Nr. 7295	=	Page 51
							KW		

DDC

			Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation		unit discription DDC	Fabr.. Nr. 7295		=	Page 60
				KW							
Change	Date	Name						Auftr. Nr. 24501	D.No.: 9803		Page 160

-65N1
65.0

High Power Controller DEOS - 600/5 open EMS

8 digital inputs 24V DC

DI0 ○— 66.1	start ventilation
DI1 ○— 66.2	fault reset
DI2 ○— 66.3	phase monitoring
DI3 ○— 66.4	exhaust fan kitchen Switch in position manual
DI4 ○— 66.5	fault antifreeze kitchen
DI5 ○— 66.6	operation heatpump 2 Lobby
DI6 ○— 66.7	fault heatpump 2 Lobby
DI7 ○— 66.8	fault gas detector kitchen

12 digital outputs 24V DC

DO0 ○— 67.1	report AHU running
DO1 ○— 67.2	report AHU fault
DO2 ○— 67.3	report AHU maintenance
DO3 ○— 67.4	fault reset
DO4 ○— 67.5	heatpump 2 cooling Lobby
DO5 ○— 67.6	flap drives kitchen
DO6 ○— 67.6	supply air fan kitchen
DO7 ○— 67.7	exhaust fan kitchen
DO8 ○— 68.1	exhaust fan dishes
DO9 ○— 68.2	heatpump 1 kitchen heating
DO10 ○— 68.3	heatpump 1 kitchen cooling
DO11 ○— 68.4	heating pump

8 analog inputs

AI0 ○— 70.1	differential-pressure-sensor supply air kitchen
AI1 ○— 70.2	reserve
AI2 ○— 70.3	reserve
AI3 ○— 70.4	outside temperature sensor kitchen
AI4 ○— 70.5	supply air temperature sensor behind heater kitchen
AI5 ○— 70.6	supply air temperature sensor total
AI6 ○— 70.7	exhaust air temperature sensor kitchen (option)
AI7 ○— 70.8	room temperature sensor kitchen

4 analog outputs 0...10V

AO0 ○— 69.1	setpoint supply air fan kitchen
AO1 ○— 69.3	setpoint exhaust fan kitchen
AO2 ○— 69.5	reserve
AO3 ○— 69.7	heatpump kitchen

71N1
71.0

digital input module 16 x DI DS-C-DI 16

DI0 ○— 71.1	fault supply air fan kitchen
DI1 ○— 71.2	fault repair-switch supply air fan kitchen
DI2 ○— 71.3	fault exhaust fan kitchen
DI3 ○— 71.4	fault repair-switch exhaust fan kitchen
DI4 ○— 71.5	fault exhaust fan dishes
DI5 ○— 71.6	fault exhaust fan repair-switch dishes
DI6 ○— 71.7	fault heatpump 1 kitchen
DI7 ○— 71.8	operation heatpump 1 kitchen
DI8 ○— 72.1	defrosting reverse cycle heating systems 1+2 kitchen
DI9 ○— 72.2	fault heating pump
DI10 ○— 72.3	fault supply air fan / repair switch Lobby
DI11 ○— 72.4	fault exhaust fan / repair switch Lobby
DI12 ○— 72.5	operation heatpump 1 Lobby
DI13 ○— 72.6	fault heatpump 1 Lobby
DI14 ○— 72.7	defrosting heatpump 1+2 Lobby
DI15 ○— 72.8	term extension

-74N1
74.0

analog in / output module 8 x AI / 4 x AO DS-C-AI8AO4

8 analog inputs	
aktiv AI0 ○— 74.1	differential-pressure-sensor supply air Lobby
aktiv AI1 ○— 74.2	differential-pressure-sensor exhaust air Lobby
aktiv AI2 ○— 74.3	differential-pressure-sensor heat recovery Lobby
aktiv AI3 ○— 74.4	supply air temperature sensor behind heat recovery Lobby
passiv AI4 ○— 74.5	supply air temperature sensor total Lobby
passiv AI5 ○— 74.6	exhaust air temperature sensor Lobby
aktiv AI6 ○— 74.7	differential-pressure-sensor outside-airfilter Lobby
aktiv AI7 ○— 74.8	differential-pressure-sensor exhaust air filter Lobby
4 analog outputs 0...10V	
AO0 ○— 75.1	setpoint supply air fan Lobby
AO1 ○— 75.3	setpoint exhaust fan Lobby
AO2 ○— 75.5	setpoint heatpump Lobby
AO3 ○— 75.7	setpoint actuator heat recovery Lobby

-76N1
76.0

analog in / output module 8 x AI / 4 x AO DS-C-AI8AO4

8 analog inputs	
passiv AI0 ○— 76.1	room temperature Lobby
aktiv AI1 ○— 76.2	Air quality sensor Lobby
aktiv AI2 ○— 76.3	differential-pressure-sensor outside-airfilter kitchen
aktiv/passiv AI3 ○— 76.4	reserve
aktiv AI4 ○— 76.5	differential-pressure-sensor exhaust air filter kitchen
passiv AI5 ○— 76.6	return temperature sensor heater kitchen
aktiv/passiv AI6 ○— 76.7	air channel pressure supply air Lobby
aktiv/passiv AI7 ○— 76.8	air channel pressure exhaust air Lobby
4 analog outputs 0...10V	
AO0 ○— 77.1	heater valve kitchen
AO1 ○— 77.3	reserve
AO2 ○— 77.5	reserve
AO3 ○— 77.7	reserve

		Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation		overview occupancy board 1	Fabr.. Nr. 7295		=	Page 61
			KW				Auftr. Nr. 24501		D.No.: 9803	
Change	Date	Name								

-78N1
78.0

-79N1
79.0

digital output module 8 x DO
DS-C-DO8T

- DO0 ○— 78.1 flap drives Lobby
- DO1 ○— 78.2 supply air fan Lobby
- DO2 ○— 78.3 exhaust fan Lobby
- DO3 ○— 78.4 heatpump 1 heating Lobby
- DO4 ○— 78.5 heatpump 1 cooling Lobby
- DO5 ○— 78.6 heatpump 2 heating kitchen
- DO6 ○— 78.7 heatpump 2 cooling kitchen
- DO7 ○— 78.8 heatpump 2 heating Lobby

analog in / output module 8 x AI / 4 x AO
DS-C-AI8AO4

8 analog inputs

- aktiv/passiv AI0 ○— 79.1 operation heatpump 2 kitchen
- aktiv/passiv AI1 ○— 79.2 fault heatpump 2 kitchen
- aktiv/passiv AI2 ○— 79.3 fault gas detector Lobby
- aktiv/passiv AI3 ○— 79.4 reserve
- aktiv/passiv AI4 ○— 79.5 reserve
- aktiv/passiv AI5 ○— 79.6 reserve
- aktiv/passiv AI6 ○— 79.7 reserve
- aktiv/passiv AI7 ○— 79.8 reserve

4 analog outputs
0...10V

- AO0 ○— 80.1 volume flow regulator 1 supply air Lobby
- AO1 ○— 80.3 volume flow regulator 1 exhaust air Lobby
- AO2 ○— 80.5 volume flow regulator 2 supply air Lobby
- AO3 ○— 80.7 volume flow regulator 2 exhaust air Lobby

			Date	17.Okt.2024	Mc Donald`s DK - Lystrup		overview occupancy board 2	Fabr.. Nr. 7295	=		
				KW	ventilation					+	
Change	Date	Name						Auftr. Nr. 24501		D.No.: 9803	Page 160

-65N1
65.0

-71N1
71.0

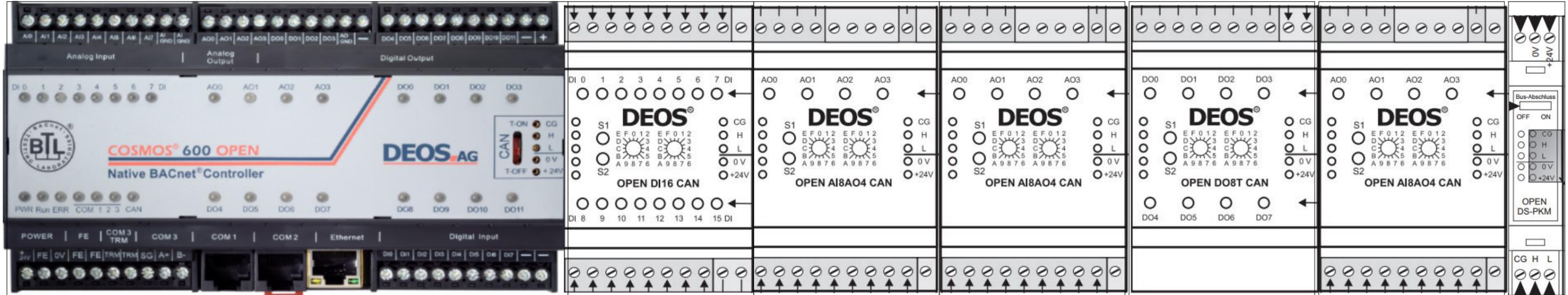
-74N1
74.0

-76N1
76.0

-78N1
78.0

-79N1
79.0

-65N2
65.7



High Power Controller
DEOS - 600/5 open EMS

digital input module 16 x DI
DS-C-DI 16

analog in / output module 8 x AI / 4 x AO
DS-C-AI8AO4

analog in / output module 8 x AI / 4 x AO
DS-C-AI8AO4

digital output module 8 x DO
DS-C-DO8T

analog in / output module 8 x AI / 4 x AO
DS-C-AI8AO4

Switch ON

Date	10.Okt.2024
	PTH
Change	Date
	Name

Mc Donald`s DK - Lystrup
ventilation

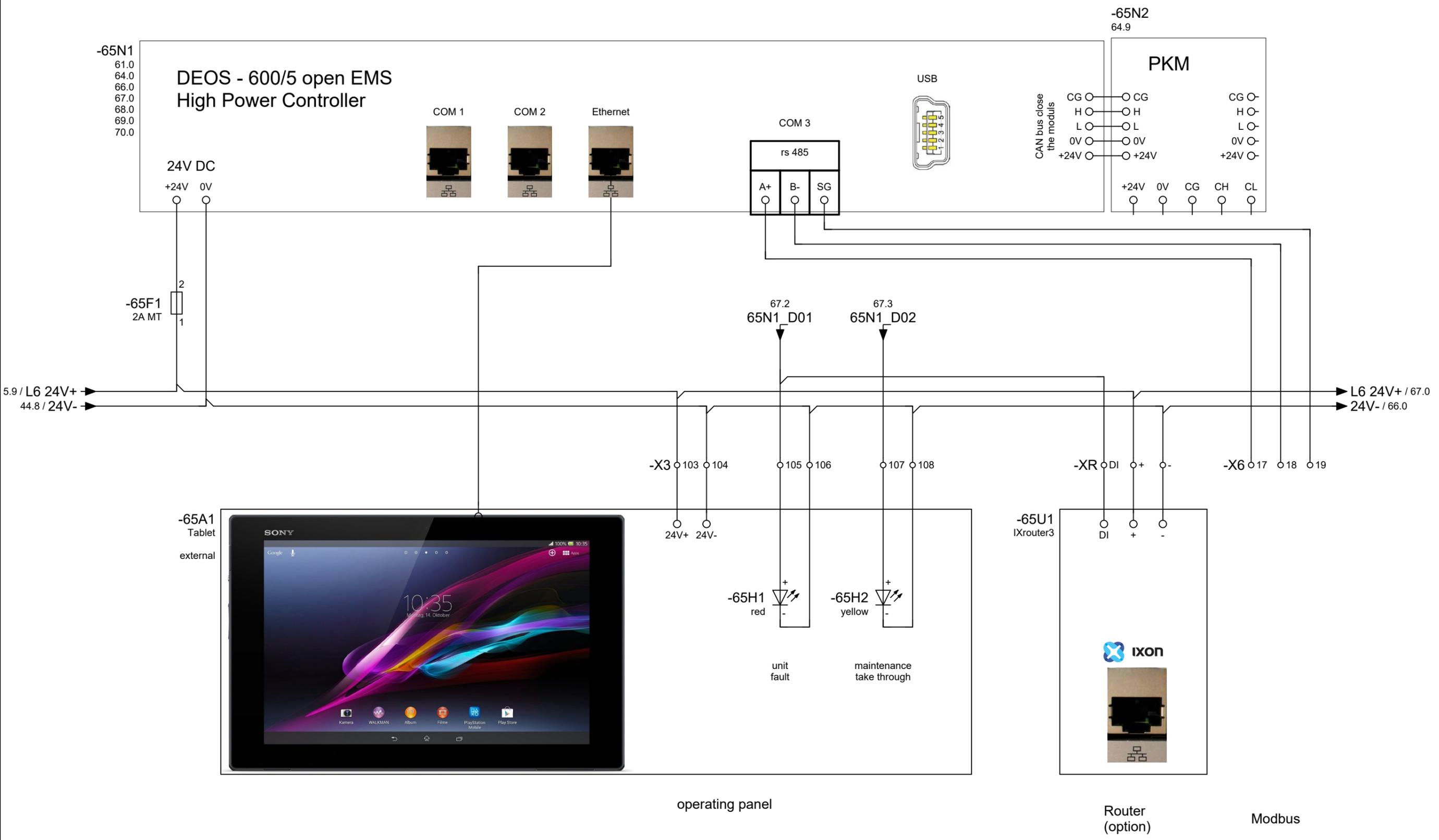


overview module

Fabr.. Nr. 7295

Auftr. Nr. 24501

D.No.: 9803



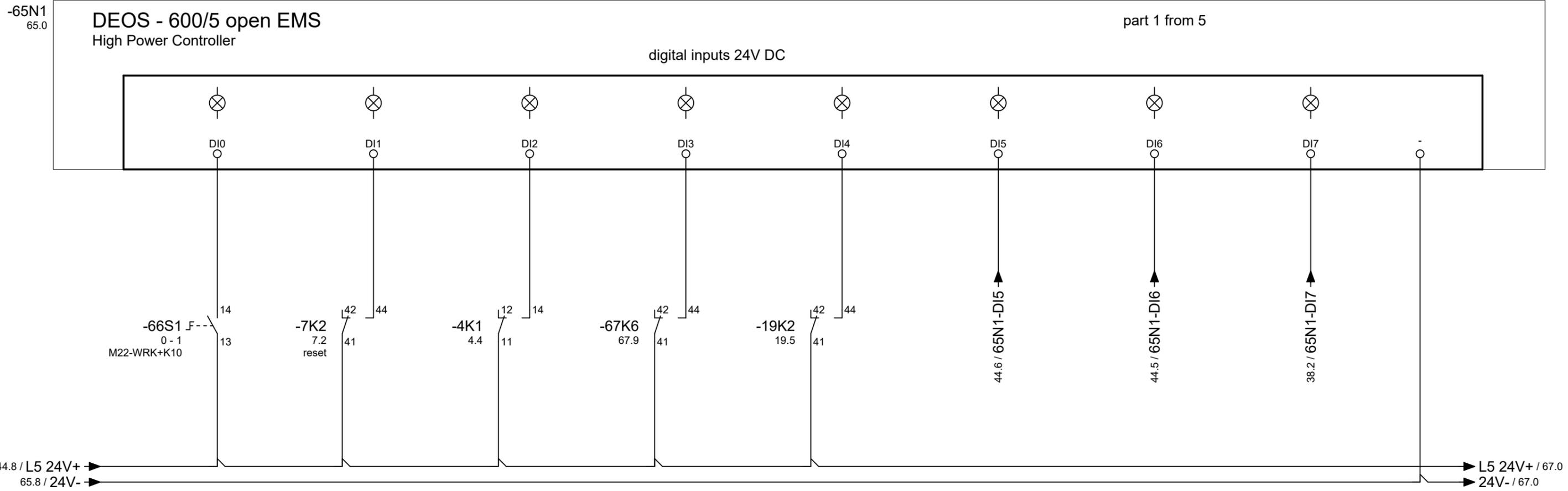
Change	Date	Name	

Date	17.Okt.2024
	KW
Mc Donald's DK - Lystrup ventilation	



DDC - CPU Controller

Fabr.. Nr. 7295	=
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	Page 65
	Page 160



start ventilation

fault reset

phase monitoring

exhaust fan kitchen
Switch in position
manual

fault antifreeze
kitchen

operation
heatpump 2
Lobby

fault
heatpump 2 Lobby

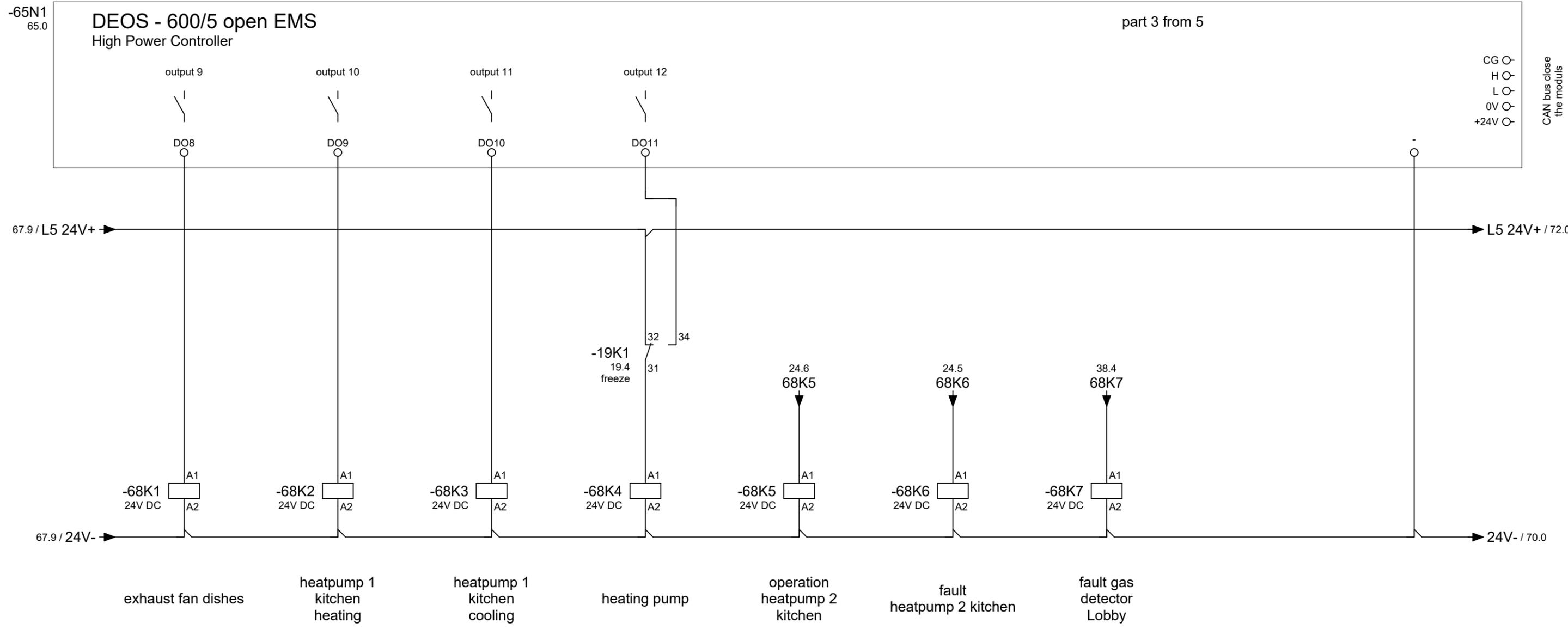
fault gas
detector
kitchen

Change	Date	Name	Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation
				KW	



CPU - digital inputs 8 x DI

Fabr.. Nr. 7295	=	Page 66
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38.51.7.024.0050 14 ↗ 12 ↘ 11 14.4	55.34.9.024.0090 + 94.P4 14 ↗ 12 ↘ 11 23.4 24 ↗ 22 ↘ 21 23.7 34 ↗ 32 ↘ 31 44 ↗ 42 ↘ 41	38.51.7.024.0050 14 ↗ 12 ↘ 11 23.4	38.51.7.024.0050 14 ↗ 12 ↘ 11 20.1	38.51.7.024.0050 14 ↗ 12 ↘ 11 79.1	38.51.7.024.0050 14 ↗ 12 ↘ 11 79.2	38.51.7.024.0050 14 ↗ 12 ↘ 11 79.3
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-65N1
65.0

DEOS - 600/5 open EMS
High Power Controller

part 4 from 5

analog outputs 0...10V

AO0

ws

11.6 / 65N1-AO0

setpoint
supply air fan
kitchen

AO1

ws

13.6 / 65N1-AO1

setpoint
exhaust fan kitchen

AO2

reserve

AO3

ws

24.3 / 65N1-AO3

heatpump
kitchen

Change	Date	Name

Date	17.Okt.2024
	KW

Mc Donald`s DK - Lystrup
ventilation



CPU - analog outputs 4 x AO

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-65N1
65.0

DEOS - 600/5 open EMS

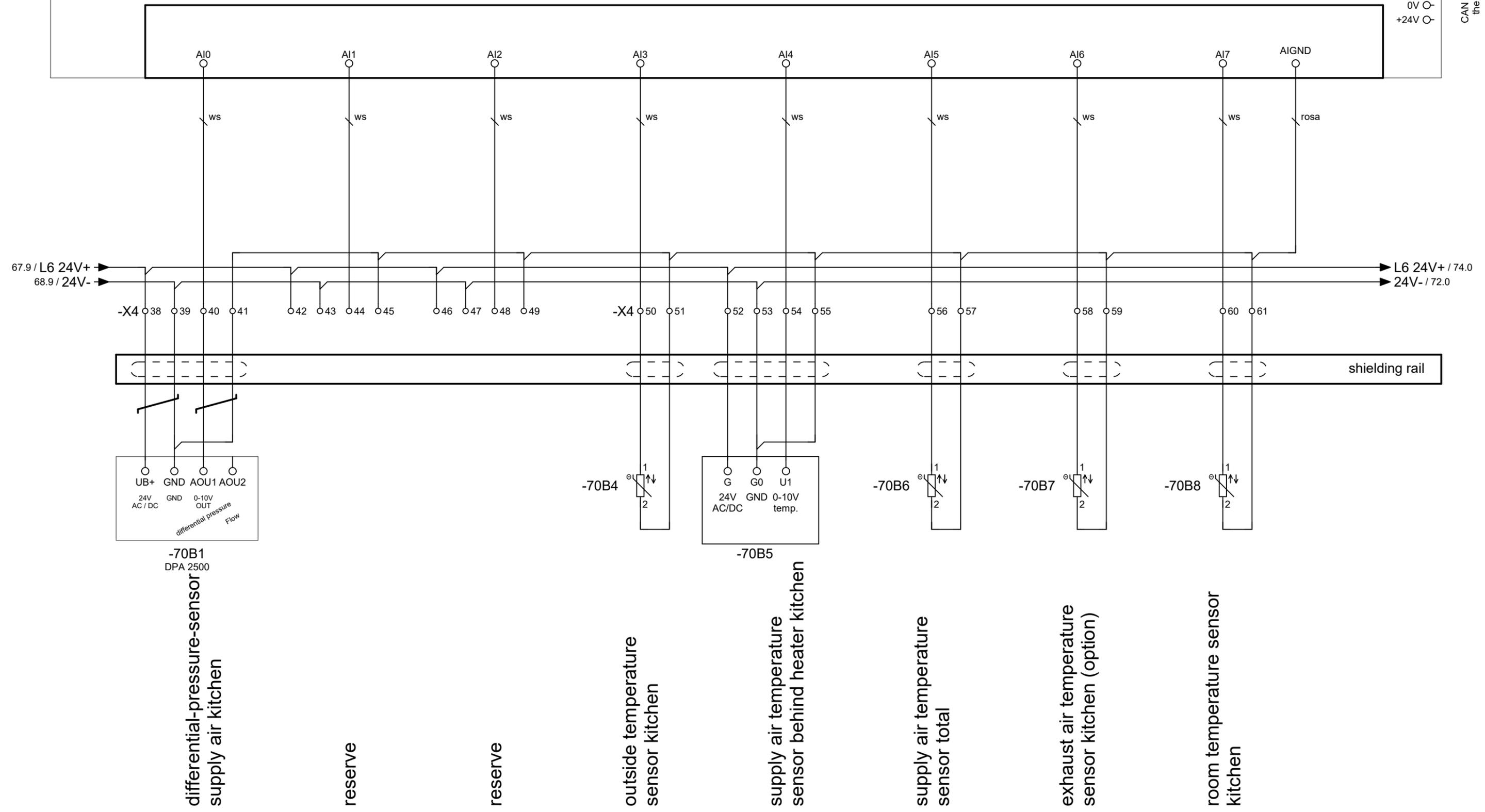
High Power Controller

part 5 from 5

universal analog inputs

- CG ○
- H ○
- L ○
- 0V ○
- +24V ○

CAN bus close
the moduls



Change	Date	Name	Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation
				KW	



CPU - analog inputs 8xAI

Fabr.. Nr. 7295

Auftr. Nr. 24501

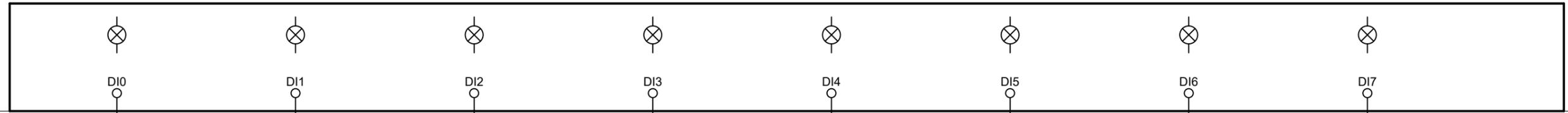
D.No.: 9803

-71N1
61.0
64.3
72.0

DS-C-DI 16
digital input module 16 x DI

part 1 from 2

digital inputs 24V DC



fault
supply air fan kitchen

fault
repair-switch
supply air fan kitchen

fault
exhaust fan kitchen

fault
repair-switch
exhaust fan kitchen

fault
exhaust fan dishes

fault
exhaust fan repair-switch
dishes

fault
heatpump 1 kitchen

operation
heatpump 1
kitchen

Change	Date	Name	Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation
				KW	



DDC - digital inputs 16 x DI

Fabr.. Nr. 7295

Auftr. Nr. 24501

D.No.: 9803

-71N1
71.0

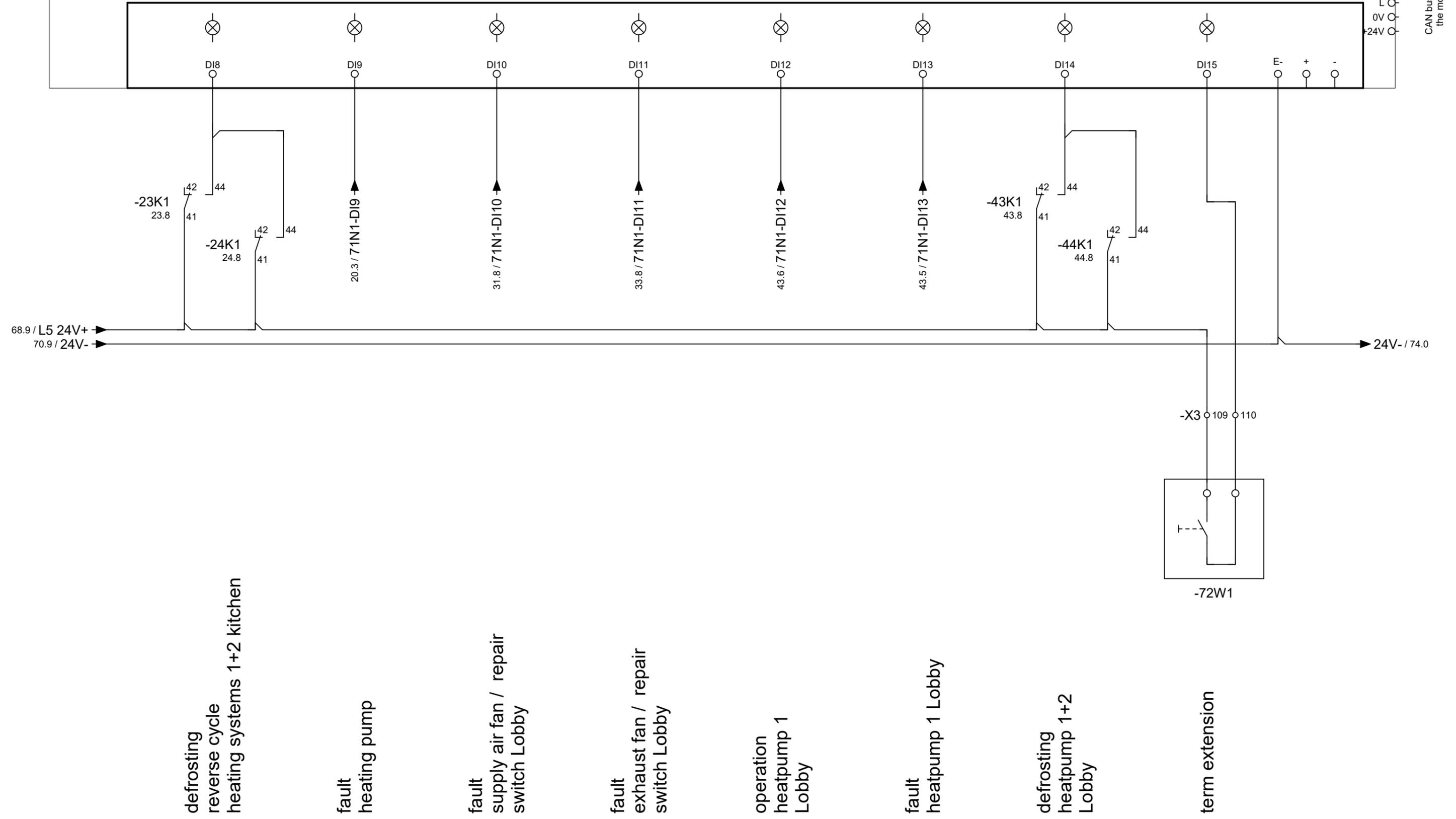
DS-C-DI 16 digital input module 16 x DI

part 2 from 2

digital inputs 24V DC

CG
H
L
0V
+24V

CAN bus close
the module



defrosting
reverse cycle
heating systems 1+2 kitchen

fault
heating pump

fault
supply air fan / repair
switch Lobby

fault
exhaust fan / repair
switch Lobby

operation
heatpump 1
Lobby

fault
heatpump 1 Lobby

defrosting
heatpump 1+2
Lobby

term extension

-> previous page 71

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Change	Date	Name	Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation
				KW	



DDC - digital inputs 16 x DI

Fabr.. Nr. 7295

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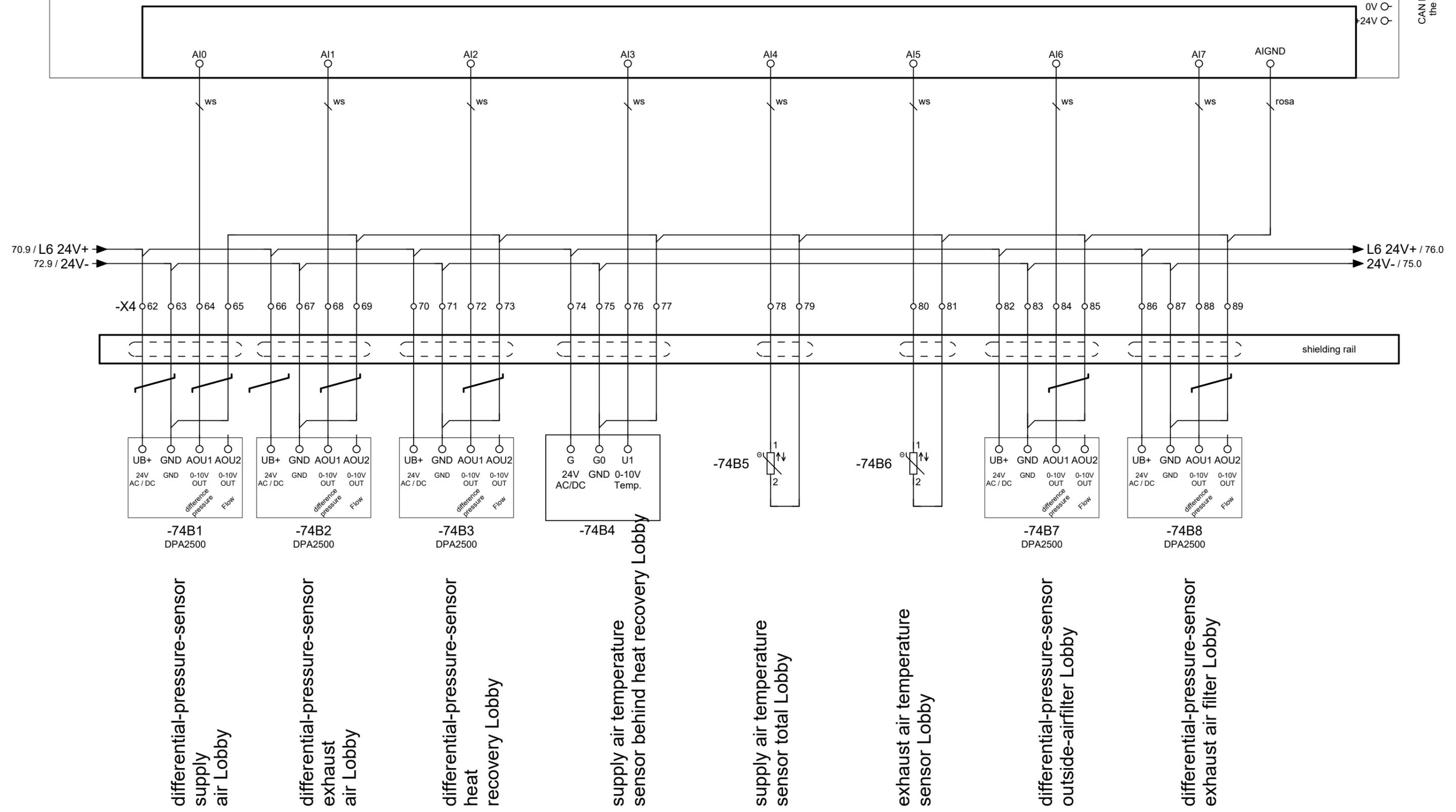
-74N1
61.3
64.4
75.0

DS-C-AI8AO4
analog in / output module 8 x AI / 4 x AO

universal analog inputs

- CG ○
- H ○
- L ○
- 0V ○
- +24V ○

CAN bus close
the module



-> previous page 72

Following page -> 75

Change	Date	Name	Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation
				KW	



DDC - analog
in- / outputs 8 x AI / 4 x AO

Fabr.. Nr. 7295

Auftr. Nr. 24501

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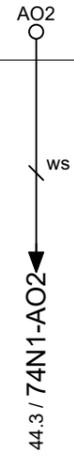
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Page 160

-74N1
74.0

DS-C-AI8AO4
analog in / output module 8 x AI / 4 x AO

analog outputs 0...10V



74.9 / 24V- →

→ 24V- / 76.0

setpoint
supply air fan Lobby

setpoint
exhaust fan Lobby

setpoint
heatpump
Lobby

setpoint
actuator heat
recovery Lobby

Change	Date	Name	Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation
				KW	



DDC - analog
in- / outputs 8 x AI / 4 x AO

Fabr.. Nr. 7295

Auftr. Nr. 24501

D.No.: 9803

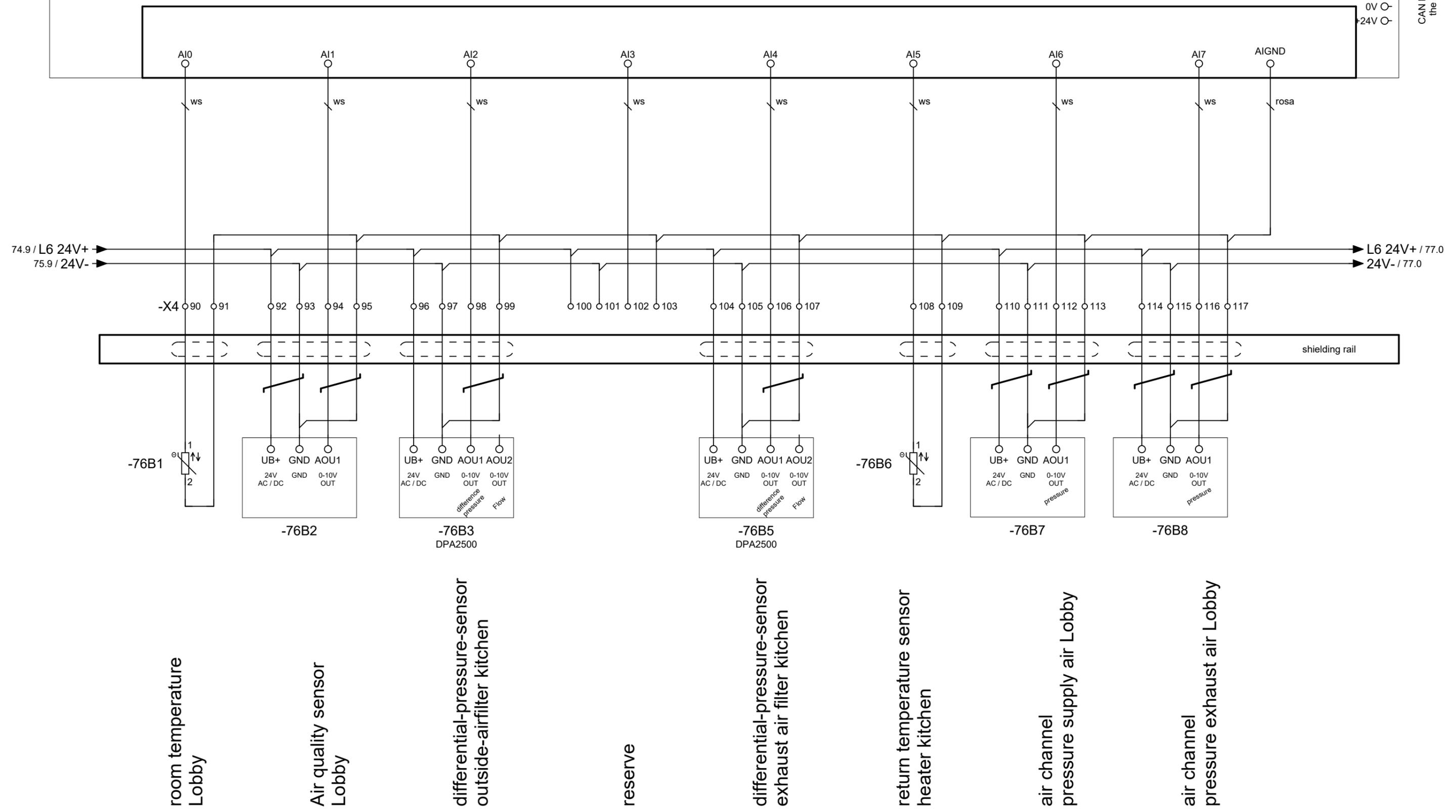
-76N1
61.6
64.6
77.0

DS-C-AI8AO4
analog in / output module 8 x AI / 4 x AO

universal analog inputs

- CG ○
- H ○
- L ○
- 0V ○
- 24V ○

CAN bus close
the moduls



room temperature
Lobby

Air quality sensor
Lobby

differential-pressure-sensor
outside-airfilter kitchen

reserve

differential-pressure-sensor
exhaust air filter kitchen

return temperature sensor
heater kitchen

air channel
pressure supply air Lobby

air channel
pressure exhaust air Lobby

Change	Date	Name	Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation
				KW	



DDC - analog
in- / outputs 8 x AI / 4 x AO

Fabr.. Nr. 7295

Auftr. Nr. 24501

D.No.: 9803

-76N1
76.0

DS-C-AI8AO4

analog in / output module 8 x AI / 4 x AO

analog outputs 0...10V

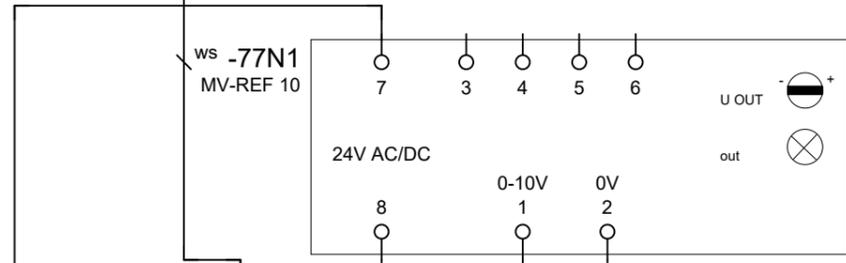
AO0

AO1

AO2

AO3

-

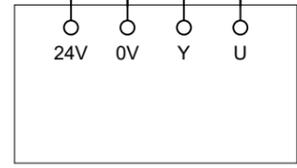
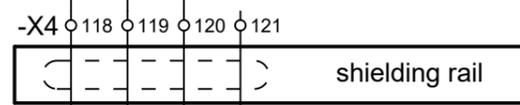


-19K1
19.4

12 14
11

76.9 / L6 24V+
76.9 / 24V-

L6 24V+ / 78.0
24V- / 78.0



-77Y1

heater valve
kitchen

reserve

reserve

reserve

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Change	Date	Name	Date	17.Okt.2024	Mc Donald`s DK - Lystrup ventilation
				KW	



DDC - analog
in- / outputs 8 x AI / 4 x AO

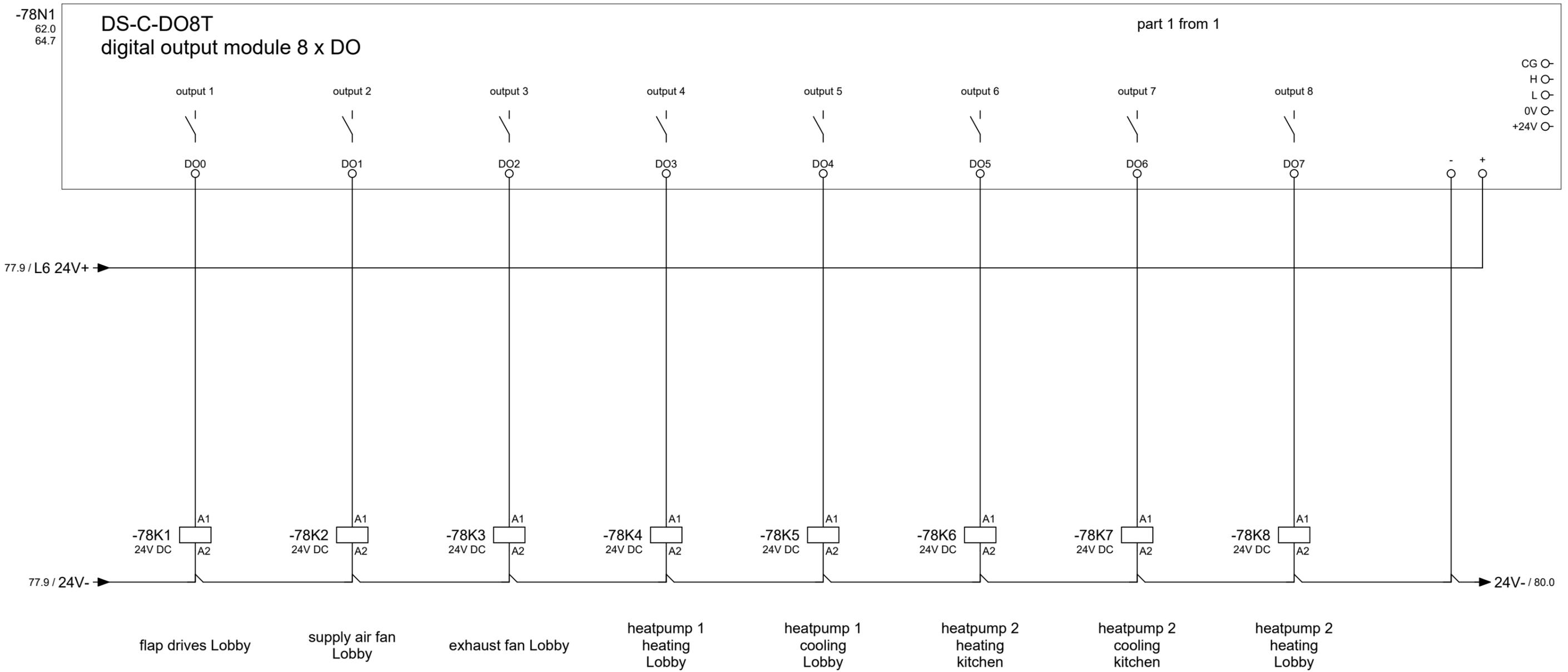
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38.51.7.024.0050
14 ↗
12 ↘ 11 36.2

38.51.7.024.0050
14 ↗
12 ↘ 11 31.4

38.51.7.024.0050
14 ↗
12 ↘ 11 33.4

55.34.9.024.0090 + 94.P4
14 ↗
12 ↘ 11 43.4
24 ↗
22 ↘ 21 43.7
34 ↗
32 ↘ 31
44 ↗
42 ↘ 41

38.51.7.024.0050
14 ↗
12 ↘ 11 43.4

55.34.9.024.0090 + 94.P4
14 ↗
12 ↘ 11 24.4
24 ↗
22 ↘ 21 24.7
34 ↗
32 ↘ 31
44 ↗
42 ↘ 41

38.51.7.024.0050
14 ↗
12 ↘ 11 24.4

55.34.9.024.0090 + 94.P4
14 ↗
12 ↘ 11 44.4
24 ↗
22 ↘ 21 44.7
34 ↗
32 ↘ 31
44 ↗
42 ↘ 41

Change	Date	Name	

Mc Donald`s DK - Lystrup
ventilation



DDC - digital outputs 8 x DO - T

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Auftr. Nr. 24501

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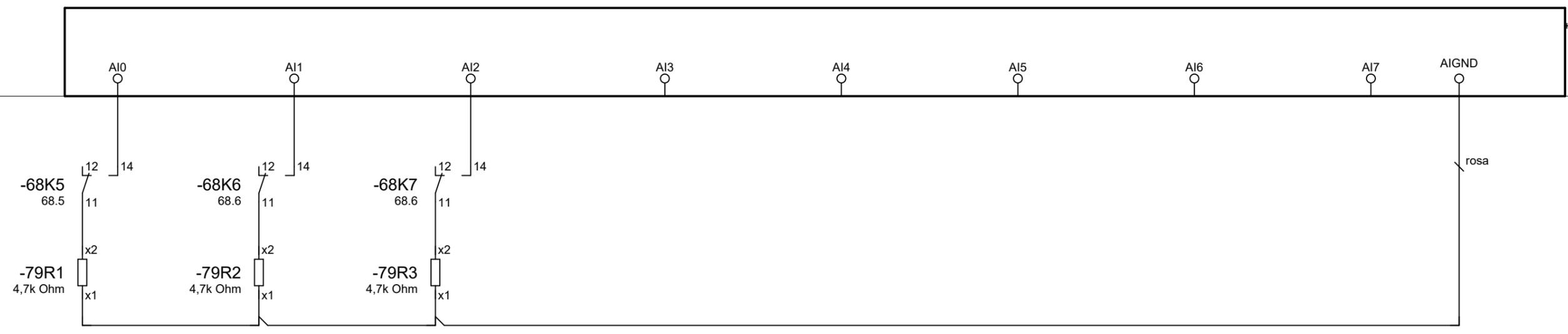
-79N1
62.3
64.8
80.0

DS-C-AI8AO4
analog in / output module 8 x AI / 4 x AO

universal analog inputs

- CG ○
- H ○
- L ○
- 0V ○
- +24V ○

CAN bus close
the module



operation
heatpump 2
kitchen

fault
heatpump 2 kitchen

fault gas
detector
Lobby

reserve

reserve

reserve

reserve

reserve

Change	Date	Name	Date	17.Okt.2024
				KW

Mc Donald`s DK - Lystrup
ventilation



DDC - analog
in- / outputs 8 x AI / 4 x AO

Fabr.. Nr. 7295

Auftr. Nr. 24501

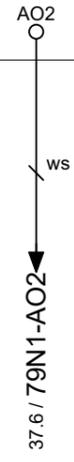
D.No.: 9803

-79N1
79.0

DS-C-AI8AO4

analog in / output module 8 x AI / 4 x AO

analog outputs 0...10V



78.9 / 24V- →

volume flow regulator
1 supply
air Lobby

volume flow regulator
1 exhaust
air Lobby

volume flow regulator
2 supply
air Lobby

volume flow regulator
2 exhaust
air Lobby

Change	Date	Name	

Date 17.Okt.2024
KW
Mc Donald`s DK - Lystrup
ventilation



DDC - analog
in- / outputs 8 x AI / 4 x AO

Fabr.. Nr. 7295
Auftr. Nr. 24501

D.No.: 9803

Terminal layout

Mueller

		Strip X1 X1 = terminal strip Primary current																	
		ÖLFLEX CLASSIC 110 4G4 4x4 mm²	ÖLFLEX 110 3G1,5 3x1,5 qmm	NYM-J 5x1,5 qmm	ÖLFLEX 110 4G1,5 4x1,5 qmm	ÖLFLEX 110 4G1,5 4x1,5 qmm	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page				
lighting control-cabinet		W-21A1/1	W-20M1	W-14M1	W-13M1/1	W-11M1/1			1		3B1	14					3.8		
=									2								3.8		
=									3								3.8		
supply air fan kitchen							1	11Q1	1	4	11F1	2					11.1		
=							2	11Q1	3	5	11F1	4					11.2		
=							3	11Q1	5	6	11F1	6					11.2		
=						gnge		11Q1	PE	7		PE					11.2		
exhaust fan kitchen							1	13Q1	1	8	13F1	2					13.1		
=							2	13Q1	3	9	13F1	4					13.2		
=							3	13Q1	5	10	13F1	6					13.2		
=						gnge		13Q1	PE	11		PE					13.2		
exhaust fan dishes				br				14Q1	1	12	14K1	2					14.2		
=				sw				14Q1	5	13	7K2	A2					14.2		
=				gn/ge				14Q1	PE	14							14.2		
heating pump			1					20M1	L	15	68K4	14					20.2		
=			2					20M1	N	16							20.2		
=			gnge					20M1	PE	17		PE					20.2		
heatpump 1 kitchen outdoor unit			1					21A1	L	18	21F1	2					21.1		

Date	17.Okt.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Lystrup
ventilation



terminal layout X1

Fabr.. Nr. 7295

Auftr. Nr. 24501

D.No.: 9803

=

+

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Terminal layout

Mueller

		OELFLEX 4x1,5 qmm 110.4G1,5	OELFLEX 4x1,5 qmm 110.4G1,5	OELFLEX 3x1,5 qmm 110.3G1,5	ÖFLEX CLASSIC 4x4 mm² 110.4G4	OELFLEX 3x1,5 qmm 110.3G1,5	ÖFLEX CLASSIC 4x4 mm² 110.4G4	Strip X1 X1 = terminal strip Primary current											
		W-33M1/1	W-31M1/1	W-22A2/1	W-22A1/1	W-21A2/1	W-21A1/1	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page			
heatpump 1 kitchen outdoor unit							2		21A1	N	19	•				21.2			
=							GNYE		21A1	PE	20					21.2			
heatpump 1 kitchen indoor unit						1			21A2	L	21		21F2	2		21.4			
=						2			21A2	N	22	•				21.4			
=						PE			21A2	PE	23					21.4			
heatpump 2 kitchen outdoor unit					1				22A1	L	24		22F1	2		22.1			
=					2				22A1	N	25	•				22.2			
=					GNYE				22A1	PE	26					22.2			
heatpump 2 kitchen indoor unit				1					22A2	L	27	•	22F2	2		22.4			
=				2					22A2	N	28	•				22.4			
=				PE					22A2	PE	29					22.4			
supply air fan Lobby			1						31Q1	1	30		31F1	2		31.1			
=			2						31Q1	3	31		31F1	4		31.2			
=			3						31Q1	5	32		31F1	6		31.2			
=			gnge						31Q1	PE	33			PE		31.2			
exhaust fan Lobby			1						33Q1	1	34		33F1	2		33.1			
=			2						33Q1	3	35		33F1	4		33.2			
=			3						33Q1	5	36		33F1	6		33.2			

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Terminal layout

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		Strip X3 X3 = terminal strip low voltage																		
		5x1,5 qmm	2x1 qmm	4x1 qmm	2x1 qmm	4x1 qmm	4x2x0,8 qmm	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page				
		NYM-J	OELFLEX 110 2X1	OELFLEX 110 4X1	OELFLEX 110 2X1	OELFLEX 110 4X1	J-Y(ST)-Y									W-14M1	W-13Q1	W-13M1/2	W-11Q1	W-11M1/2
Fire emergency shutdown								rtbl	9A1		1		5F2	2;11					9.1	
=								wsge	9A1		2		7K1	21					9.1	
=								ws	9A1		3		9K1	14					9.2	
=								gn	9A1		4		9K1	12					9.2	
=								ws	9A1		5		9K1	A2					9.3	
supply air fan kitchen								1	11M1	+24V	6		9K2	11					11.4	
=								2	11M1	DIN	7		67K4	14					11.4	
=								3	11M1	COM	8	•	9K1	11					11.5	
=								4	11M1	NC	9	•	71N1						11.5	
repair-switch supply air fan kitchen								1	11Q1	13	10	•							11.8	
=								2	11Q1	14	11	•	71N1						11.8	
exhaust fan kitchen								1	13M1	GND	12	•	9K2	21					13.4	
=								2	13M1	D1	13	•	67K5	14					13.4	
=								3	13M1	COM	14	•							13.5	
=								4	13M1	NC	15	•	71N1						13.5	
repair-switch exhaust fan kitchen								1	13Q1	13	16	•	14F1	13					13.8	
=								2	13Q1	14	17		71N1						13.8	
exhaust fan dishes		gr							14M1	TB	18		14F1	14					14.3	

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Terminal layout

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		OELFLEX 110 4X1 4x1 qmm	OELFLEX 110 3X1 3x1 qmm	OELFLEX 110 3X1 3x1 qmm	OELFLEX 110 3X1 3x1 qmm	OELFLEX 110 2X1 2x1 qmm	NYM-J 5x1,5 qmm	Strip X3 X3 = terminal strip low voltage											
		W-19B1	W-16Y3	W-16Y2	W-16Y1	W-14Q1	W-14M1	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page			
exhaust fan dishes								bl	14M1	TB	19		71N1					14.3	
repair-switch exhaust fan dishes							1		14Q1	13	20	┌	68K1	11				14.5	
=							2		14Q1	14	21	└	71N1					14.5	
outside air damper kitchen					1				16Y1	2	22	┌	67K3	11				16.1	
=					2				16Y1	1	23	┌	14K1	A2				16.1	
=					3				16Y1	3	24	└	67K3	14;12				16.2	
exhaust air flap kitchen				1					16Y2	2	25	└	67K3	11;14				16.3	
=				2					16Y2	1	26	└						16.3	
=				3					16Y2	3	27	└	67K6	11				16.3	
exhaust air flap dishes			1						16Y3	2	28	┌	67K6	14				16.4	
=			2						16Y3	1	29	┌	19K1	A2				16.4	
=			3						16Y3	3	30	└	67K6	12				16.5	
antifreeze thermostat on pre heater		1							19B1	1	31	└						19.2	
=		2							19B1	2	32	└	7K2	21				19.2	
=		3							19B1	1	33	└	20F1	13				19.3	
=		4							19B1	2	34	└	19K1	A1				19.3	
heating pump											35	┌	20F1	14				20.3	
=											36	└	71N1					20.3	

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Terminal layout

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		OELFLEX 10x1 qmm 110 10X1		OELFLEX 10x1 qmm 110 10X1		Strip X3 X3 = terminal strip low voltage									
		W-22A2/3	W-21A2/3	Cable		Finish	Connection	Terminal	Jumper	Finish	Connection	Cable		Page	
heatpump 1 kitchen indoor unit			1	21A2	COM	37		68K3		11					23.4
=			2	21A2	HEAT	38		68K2		14					23.4
=			3	21A2	COOL	39		68K3		14					23.4
=			4	21A2	1	40	•	20F1		13					23.5
=			5	21A2	2	41		71N1							23.5
=			6	21A2	3	42	•								23.6
=			7	21A2	4	43		71N1							23.6
=			8	21A2	TR	44		68K2		21					23.6
=			9	21A2	TR	45		23R1		2					23.7
=			10	21A2	F2	46									23.7
heatpump 2 kitchen indoor unit			1	22A2	COM	47		78K7		11					24.4
=			2	22A2	HEAT	48		78K6		14					24.4
=			3	22A2	COOL	49		78K7		14					24.4
=			4	22A2	1	50	•								24.5
=			5	22A2	2	51		68K6		A1					24.5
=			6	22A2	3	52	•								24.6
=			7	22A2	4	53		68K5		A1					24.6
=			8	22A2	TR	54		78K6		21					24.6

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	Strip X3 X3 = terminal strip low voltage								Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page
	OELFLEX 110 3X1 3x1 qmm	OELFLEX 110 3X1 3x1 qmm	OELFLEX 110 2X1 2x1 qmm	OELFLEX 110 4X1 4x1 qmm	OELFLEX 110 2X1 2x1 qmm	OELFLEX 110 4X1 4x1 qmm	OELFLEX 110 10X1 10x1 qmm										
heatpump 2 kitchen indoor unit	W-36Y2	W-36Y1	W-33Q1	W-33M1/2	W-31Q1	W-31M1/2	W-22A2/3	9	22A2	TR	55		23R1	6		24.7	
=								10	22A2	F2	56					24.7	
supply air fan Lobby								1	31M1	+24V	57		9K3	11		31.4	
=								2	31M1	DIN	58		78K2	14		31.4	
=								3	31M1	COM	59	•				31.5	
=								4	31M1	NC	60	┌				31.5	
repair-switch supply air fan Lobby								1	31Q1	13	61	•				31.8	
=								2	31Q1	14	62	┌	71N1			31.8	
exhaust fan Lobby				1					33M1	+24V	63		9K3	21		33.4	
=				2					33M1	DIN	64		78K3	14		33.4	
=				3					33M1	COM	65	•				33.5	
=				4					33M1	NC	66	┌				33.5	
repair-switch exhaust fan Lobby				1					33Q1	13	67	•				33.8	
=				2					33Q1	14	68		71N1			33.8	
outside air damper Lobby		1							36Y1	2	69	•	78K1	11		36.2	
=		2							36Y1	1	70	┌	X4	13		36.2	
=		3							36Y1	3	71	•	78K1	14		36.2	
exhaust air flap Lobby	1								36Y2	2	72		78K1	11;14		36.3	

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										Strip X3 X3 = terminal strip low voltage																		
										Cable		Finish	Connection	Terminal	Jumper	Finish	Connection	Cable										
										W-65A1	W-42A2/3	W-41A2/3									Page							
										J-Y(ST)-Y 4x2x0,8 qmm	OELFLEX 110 10X1 10x1 qmm	OELFLEX 110 10X1 10x1 qmm																
heatpump 1 Lobby indoor unit												9	41A2	TR	91		23R1	10					43.7					
=												10	41A2	F2	92											43.7		
heatpump 2 Lobby indoor unit												1	42A2	COM	93			67K2	11								44.4	
=												2	42A2	HEAT	94			78K8	14								44.4	
=												3	42A2	COOL	95			67K2	14								44.4	
=												4	42A2	1	96												44.5	
=												5	42A2	2	97			65N1										44.5
=												6	42A2	3	98			66S1	13									44.6
=												7	42A2	4	99			65N1										44.6
=												8	42A2	TR	100			78K8	21									44.6
=												9	42A2	TR	101		23R1	14									44.7	
=												10	42A2	F2	102												44.7	
operating panel												rt	65A1	24V+	103		65F1	1;+									65.4	
=												bl	65A1	24V-	104		65N1	0V									65.4	
=												ws	65A1-65H1	+	105		65N1	DI									65.5	
=												ge	65A1-65H1	-	106												65.5	
=												ws	65A1-65H2	+	107		65N1										65.5	
=												gn	65A1-65H2	-	108		XR	-									65.5	

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Terminal layout

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		4x2x0.8 qmm	4x0.5 qmm	2x0.5 qmm	2x0.5 qmm	4x0.5 qmm	4x0.5 qmm	3x0.5 qmm	2x0.5 qmm	Strip X4 X4 = terminal strip signals											
		J-Y(ST)-Y	LIYC	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page									
W-37Y1	W-36Y3	W-33M1/3	W-31M1/3	W-22A2/2	W-21A2/2	W-13M1/3	W-11M1/3	Finish	Connection									Terminal	Finish	Connection	Page
supply air fan kitchen									ws		11M1		1		65N1					11.6	
=									br		11M1	GND	2	┌	9K3	A2				11.7	
exhaust fan kitchen									ws		13M1		3	┌	67K6	21				13.6	
=									br		13M1	GND	4	┌	14K1	A2				13.7	
=									gn		13M1		5		67K6	24				13.7	
heatpump 1 kitchen indoor unit									ws		21A2	Av1	6	┌						23.2	
=									br		21A2	Av2	7	┌	19K2	A2				23.3	
heatpump 2 kitchen indoor unit									ws		22A2	Av1	8	┌	65N1					24.2	
=									br		22A2	Av2	9	┌						24.3	
supply air fan Lobby									ws		31M1		10	┌	74N1					31.6	
=									br		31M1	GND	11	┌						31.7	
exhaust fan Lobby									ws		33M1		12	┌	74N1					33.6	
=									br		33M1	GND	13	┌	X3	70				33.7	
actuator plate heat exchanger Lobby									ws		36Y3	1	14	┌	X3	72				36.7	
=									br		36Y3	2	15	┌	X3	73				36.7	
=									gn		36Y3	8	16		74N1					36.8	
=									ge		36Y3	9	17							36.8	
volume flow regulator 1 supply air Lobby	rtbl										37Y1	2	18	┌						37.2	

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Terminal layout

Mueller

		4x0,5 qmm	4x0,5 qmm	4x2x0,8 qmm	4x2x0,8 qmm	4x2x0,8 qmm	4x2x0,8 qmm	Strip X4 X4 = terminal strip signals											
		LIYC	LIYC	J-Y(ST)-Y	J-Y(ST)-Y	J-Y(ST)-Y	J-Y(ST)-Y	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page			
volume flow regulator 1 supply air Lobby								wsge	37Y1	1	19	•						37.2	
=								wsgn	37Y1	3	20		79N1					37.2	
=								wsbn	37Y1	4	21							37.2	
volume flow regulator 1 exhaust air Lobby								rtbl	37Y2	2	22	••						37.3	
=								wsge	37Y2	1	23	•						37.4	
=								wsgn	37Y2	3	24		79N1					37.4	
=								wsbn	37Y2	4	25							37.4	
volume flow regulator 2 supply air Lobby								rtbl	37Y3	2	26	••						37.5	
=								wsge	37Y3	1	27	•						37.6	
=								wsgn	37Y3	3	28		79N1					37.6	
=								wsbn	37Y3	4	29							37.6	
volume flow regulator 2 exhaust air Lobby								rtbl	37Y4	2	30	•	X3	75				37.7	
=								wsge	37Y4	1	31	•	X3	76				37.8	
=								wsgn	37Y4	3	32		79N1					37.8	
=								wsbn	37Y4	4	33							37.8	
heatpump 1 Lobby indoor unit								ws	41A2	Av1	34	•						43.2	
=								br	41A2	Av2	35	•	X3	80				43.3	
heatpump 2 Lobby indoor unit								ws	42A2	Av1	36	•	74N1					44.2	

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Terminal layout

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				4x0,5 qmm	2x0,5 qmm	2x2x0,75 qmm	4x0,5 qmm	Strip X4 X4 = terminal strip signals											
				LIYC	LIYC	LIYC-TP	LIYC												
				W-70B5	W-70B4	W-70B1	W-42A2/2	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page			
heatpump 2 Lobby indoor unit							br		42A2	Av2	37		65N1	0V				44.3	
differential-pressure-sensor supply air kitchen							ws		70B1	UB+	38							70.1	
=							br		70B1	GND	39							70.1	
=							gn		70B1	AOU1	40		65N1					70.1	
=							ge		70B1	GND	41							70.1	
reserve											42							70.2	
=											43							70.2	
reserve											44		65N1					70.2	
=											45							70.2	
reserve											46							70.2	
=											47							70.3	
reserve											48		65N1					70.3	
=											49							70.3	
outside temperature sensor kitchen							ws		70B4	1	50		65N1					70.4	
=							br		70B4	2	51							70.4	
supply air temperature sensor behind heater kitchen							ws		70B5	G	52							70.4	
=							br		70B5	G0	53							70.5	
supply air temperature sensor behind heater kitchen							gn		70B5	U1	54		65N1					70.5	

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Terminal layout

Mueller

		2x2x0,75 qmm	2x2x0,75 qmm	2x2x0,75 qmm	2x0,5 qmm	2x0,5 qmm	2x0,5 qmm	4x0,5 qmm	Strip X4 X4 = terminal strip signals											
		LIYCY-TP	LIYCY-TP	LIYCY-TP	LIYCY	LIYCY	LIYCY	LIYCY	Cable		Connection	Terminal	Jumper	Connection	Cable		Page			
		W-74B3	W-74B2	W-74B1	W-70B8	W-70B7	W-70B6	W-70B5	Cable		Connection	Terminal	Jumper	Connection	Cable		Page			
supply air temperature sensor behind heater kitchen								ge	70B5	G0	55	•							70.5	
supply air temperature sensor total							ws		70B6	1	56			65N1					70.6	
=							br		70B6	2	57	•							70.6	
exhaust air temperature sensor kitchen (option)						ws			70B7	1	58			65N1					70.7	
=						br			70B7	2	59	•							70.7	
room temperature sensor kitchen					ws				70B8	1	60			65N1					70.8	
=					br				70B8	2	61	•		65N1	AIGND				70.8	
differential-pressure-sensor supply air Lobby				ws					74B1	UB+	62	•							74.1	
=				br					74B1	GND	63	•							74.1	
=				gn					74B1	AOU1	64			74N1					74.1	
=				ge					74B1	GND	65	•							74.1	
differential-pressure-sensor exhaust air Lobby			ws						74B2	UB+	66	•	•						74.1	
=			br						74B2	GND	67	•	•						74.2	
=			gn						74B2	AOU1	68			74N1					74.2	
=			ge						74B2	GND	69	•							74.2	
differential-pressure-sensor heat recovery Lobby	ws								74B3	UB+	70	•	•						74.2	
=			br						74B3	GND	71	•	•						74.3	
=			gn						74B3	AOU1	72			74N1					74.3	

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Terminal layout

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		LIYC 2x0,5 qmm	LIYC-TP 2x2x0,75 qmm	LIYC-TP 2x2x0,75 qmm	LIYC 2x0,5 qmm	LIYC 2x0,5 qmm	LIYC 4x0,5 qmm	LIYC-TP 2x2x0,75 qmm	Strip X4 X4 = terminal strip signals											
		W-76B1	W-74B8	W-74B7	W-74B6	W-74B5	W-74B4	W-74B3	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page			
differential-pressure-sensor heat recovery Lobby								ge		74B3	GND	73	•						74.3	
supply air temperature sensor behind heat recovery Lobby							ws			74B4	G	74	••						74.3	
=							br			74B4	G0	75	••						74.4	
=							gn			74B4	U1	76		74N1					74.4	
=							ge			74B4	G0	77	•						74.4	
supply air temperature sensor total Lobby							ws			74B5	1	78		74N1					74.5	
=							br			74B5	2	79	•						74.5	
exhaust air temperature sensor Lobby							ws			74B6	1	80		74N1					74.6	
=							br			74B6	2	81	•						74.6	
differential-pressure-sensor outside-airfilter Lobby							ws			74B7	UB+	82	••						74.6	
=							br			74B7	GND	83	••						74.6	
=							gn			74B7	AOU1	84		74N1					74.7	
=							ge			74B7	GND	85	•						74.7	
differential-pressure-sensor exhaust air filter Lobby							ws			74B8	UB+	86	••						74.7	
=							br			74B8	GND	87	•	74N1	-				74.7	
=							gn			74B8	AOU1	88		74N1					74.8	
=							ge			74B8	GND	89	•	74N1	AIGND				74.8	
room temperature Lobby							ws			76B1	1	90		76N1					76.1	

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terminal layout X4

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Terminal layout

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				Strip X4 X4 = terminal strip signals														
				4x0,5 qmm LIYC W-55Y1	2x2x0,75 qmm LIYC-TP W-76B8	2x2x0,75 qmm LIYC-TP W-76B7	2x0,5 qmm LIYC W-76B6	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page		
							br		76B6	2	109					76.6		
						ws			76B7	UB+	110							76.6
						br			76B7	GND	111							76.6
						gn			76B7	AOU1	112			76N1				76.7
						ge			76B7	GND	113							76.7
						ws			76B8	UB+	114			77N1	7			76.7
						br			76B8	GND	115							76.7
						gn			76B8	AOU1	116			76N1				76.8
						ge			76B8	GND	117			76N1	AIGND			76.8
						ws			77Y1	24V	118			77N1	7			77.1
						br			77Y1	0V	119			77N1	8			77.1
						gn			77Y1	Y	120			19K1	11			77.1
						ge			77Y1	U	121						77.1	

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		4x0,5 qmm	4x0,5 qmm	2x0,5 qmm	2x0,5 qmm	4x0,5 qmm	4x0,5 qmm	2x0,5 qmm	2x0,5 qmm	Strip X6 X6 = terminal strip bus cable														
		LIYC	Cable		Finish	Connection	Terminal	Jumper	Finish	Connection	Cable		Page											
		W-42A2/2	W-41A2/2	W-42A1/2	W-41A1/2	W-22A2/2	W-21A2/2	W-22A1/2	W-21A1/2	Cable		Finish	Connection	Terminal	Jumper	Finish	Connection	Cable		Page				
heatpump 1 kitchen outdoor unit									ws		21A1	F1	1									21.2		
=								br			21A1	F2	2											21.3
heatpump 2 kitchen outdoor unit								ws			22A1	F1	3											22.2
=								br			22A1	F2	4											22.3
heatpump 1 kitchen indoor unit							gn				21A2	F1	5											23.1
=							ge				21A2	F2	6											23.1
heatpump 2 kitchen indoor unit						gn					22A2	F1	7											24.1
=						ge					22A2	F2	8											24.1
heatpump 1 Lobby outdoor unit				ws							41A1	F1	9											41.2
=				br							41A1	F2	10											41.3
heatpump 2 Lobby outdoor unit			ws								42A1	F1	11											42.2
=			br								42A1	F2	12											42.3
heatpump 1 Lobby indoor unit		gn									41A2	F1	13											43.1
=		ge									41A2	F2	14											43.1
heatpump 2 Lobby indoor unit		gn									42A2	F1	15											44.1
=		ge									42A2	F2	16											44.1
Modbus													17	'	65N1		A+						65.8	
=													18	'	65N1		B-						65.8	

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terminal layout X6

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Cable overview

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Cable	Source from	Finish to	Cable	Quantity cores	Cross-section	Remark
W-41A1/1	X1	41A1	ÖLFLEX CLASSIC 110 4G4	4	4 mm²	heatpump 1 Lobby outdoor unit
W-41A1/2	X6	41A1	LIYCY	2	0,5 qmm	=
W-41A2/1	X1	41A2	OELFLEX 110 3G1,5	3	1,5 qmm	heatpump 1 Lobby indoor unit
W-41A2/2	X4	41A2	LIYCY	4	0,5 qmm	=
W-41A2/3	X3	41A2	OELFLEX 110 10X1	10	1 qmm	=
W-41A2/4	X2	41A2	OELFLEX 110 3G1,5	3	1,5 qmm	=
W-42A1/1	X1	42A1	ÖLFLEX CLASSIC 110 4G4	4	4 mm²	heatpump 2 Lobby outdoor unit
W-42A1/2	X6	42A1	LIYCY	2	0,5 qmm	=
W-42A2/1	X1	42A2	OELFLEX 110 3G1,5	3	1,5 qmm	heatpump 2 Lobby indoor unit
W-42A2/2	X4	42A2	LIYCY	4	0,5 qmm	=
W-42A2/3	X3	42A2	OELFLEX 110 10X1	10	1 qmm	=
W-42A2/4	X2	42A2	OELFLEX 110 3G1,5	3	1,5 qmm	=
W-51A1	X7	51A1	OELFLEX 110 3G1,5	3	1,5 qmm	release kitchen ware Interlock
W-55Y1	X4	77Y1	LIYCY	4	0,5 qmm	heater valve kitchen
W-65A1	X3	65A1	J-Y(ST)-Y	4x2x	0,8 qmm	operating panel
W-70B1	X4	70B1	LIYCY-TP	2x2x	0,75 qmm	differential-pressure-sensor supply air kitchen
W-70B4	X4	70B4	LIYCY	2	0,5 qmm	outside temperature sensor kitchen
W-70B5	X4	70B5	LIYCY	4	0,5 qmm	supply air temperature sensor behind heater kitchen
W-70B6	X4	70B6	LIYCY	2	0,5 qmm	supply air temperature sensor total
W-70B7	X4	70B7	LIYCY	2	0,5 qmm	exhaust air temperature sensor kitchen (option)
W-70B8	X4	70B8	LIYCY	2	0,5 qmm	room temperature sensor kitchen
W-74B1	X4	74B1	LIYCY-TP	2x2x	0,75 qmm	differential-pressure-sensor supply air Lobby
W-74B2	X4	74B2	LIYCY-TP	2x2x	0,75 qmm	differential-pressure-sensor exhaust air Lobby

1. the quality and the requirements for the cable must be requested from the client or the construction site supervision. (e.g. halogen-free, etc.)

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Component designation	Wiring diagram position	Qty.	Manufacturer's designation	Manufacturer's type No.	Manufacturer	Pos
X1		4	Installation level terminal block	PTI 2,5-L/L	Phoenix Contact	
X1		2	Installation ground terminal block	PTI 2,5-PE/L/L	Phoenix Contact	
X1		6	Three-tier terminal L / N / PE	PTI 2,5-PE/L/NT	Phoenix Contact	
X1		4	Installation terminal block	PTI 16/S	Phoenix Contact	
X1		4	N disconnect terminal block	PTN 16/S	Phoenix Contact	
X1		4	Installation ground terminal block	PTI 16/S-PE	Phoenix Contact	
X1		1	Installation terminal block	PTI 2,5	Phoenix Contact	
X1		1	Installation terminal block	PTI 2,5 BU	Phoenix Contact	
X1		1	Installation ground terminal block	PTI 2,5-PE	Phoenix Contact	
X01		1	High-current terminal block	UKH 50 BU	Phoenix Contact	
X01		2	PE - Terminal 50 qmm	USLKG 50	Phoenix Contact	
X01		1	Ground modular terminal block	USLKG 16	Phoenix Contact	
X2		4	Installation terminal block	PTI 2,5	Phoenix Contact	
X2		4	Installation terminal block	PTI 2,5 BU	Phoenix Contact	
X2		4	Installation ground terminal block	PTI 2,5-PE	Phoenix Contact	
X3		110	Installation terminal block	PTI 2,5	Phoenix Contact	
X4		61	Two-tier terminal 2,5 qmm	PTTBS 2,5	Phoenix Contact	
X6		10	Two-tier terminal 2,5 qmm	PTTBS 2,5	Phoenix Contact	
XL		1	Installation terminal block	PTI 2,5	Phoenix Contact	

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Component designation	Wiring diagram position	Qty.	Manufacturer's designation	Manufacturer's type No.	Manufacturer	Pos
XL		1	Installation terminal block	PTI 2,5 BU	Phoenix Contact	
XR		3	Installation terminal block	PTI 2,5	Phoenix Contact	
3B1	3.8	1	cabinet temperature sensor cooling	7T.81.0.000.2303	Finder Relais	
3F1	3.3	1	FI / LS - Switch 30 mA - B10	5SU1 356-6KK10	Siemens	
3Q1	3.0	1	Hauptschalter 100 A 3 polig	PN1-100	Eaton Electric Gmbh	
3Q1	3.0	1	turning handle red - yellow for NZMN 1	NZM1-XTVDVR	Eaton Electric Gmbh	
3Q1	3.0	1	finger protection for NZM 1	NZM1-XIPK	Eaton Electric Gmbh	
3Q1	3.0	1	cover screw	NZM1-XKSA	Eaton Electric Gmbh	
3S1	3.4	1	Selector switch, 1N/O, 2 positions, front mount	M22-WRK+K10	Eaton Electric Gmbh	
3X1	3.4	1	plug socket 230V / 10 A grey	7U.00.8.230.0010	Finder Relais	
3X2	3.5	1	plug socket 230V / 10 A grey	7U.00.8.230.0010	Finder Relais	
Schrank	3.4	1	subplate / door	MONTAGEPLATTE	Rox Klimatechnik	
Schrank	3.4	1	operating panel 250 x 180 mm	Schaltpanel	Mueller Schaltanlagen GmbH	
Schrank	3.4	5	Feed-through terminal	PT 2,5-QUATTRO	Phoenix Contact	
Schrank	3.4	9	Feed-through terminal	PT 2,5-QUATTRO BU	Phoenix Contact	
Schrank	3.4	1	Installation ground terminal block	PTI 16/S-PE	Phoenix Contact	
4F1	4.3	1	Automatic circuit breaker B - 6A 1 pole 10 KA	FAZ-B6/1	Eaton Electric Gmbh	
4F2	4.4	1	Automatic circuit breaker B - 6A 1 pole 10 KA	FAZ-B6/1	Eaton Electric Gmbh	
4F3	4.4	1	Automatic circuit breaker B - 6A 1 pole 10 KA	FAZ-B6/1	Eaton Electric Gmbh	

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4H1	4.5	1	Indicator light white 230V	M22-L-W+M22-A+LED230-W	Eaton Electric Gmbh	
4H2	4.6	1	Indicator light white 230V	M22-L-W+M22-A+LED230-W	Eaton Electric Gmbh	
4H3	4.7	1	Indicator light white 230V	M22-L-W+M22-A+LED230-W	Eaton Electric Gmbh	
4K1	4.3	1	Phase monitoring, 2 changeover contacts	PFD2-E12	BTR Metz Connect GMBH	
5F1	5.2	1	Automatic circuit breaker B - 6A 1 pole 10 KA	FAZ-B6/1	Eaton Electric Gmbh	
5F2	5.3	1	Automatic circuit breaker C - 4A 1 pole 10 kA	FAZ-C4/1	Eaton Electric Gmbh	
5F3	5.4	1	Automatic circuit breaker C - 4A 1 pole 10 kA	FAZ-C4/1	Eaton Electric Gmbh	
5G1	5.2	1	power adapter 230V AC / 24V DC - 10A	NDR-240-24	MeanWell	
7K1	7.1	1	Miniature Plug-in timer, Multi-function (AI, DI, GI, SW) - 4 pole, 7.5 AC (24VDC) - 230 V	85.0C8.206010-230.P4	Finder Relais	
7K2	7.2	1	Relay 4 changeover contact 230 V AC	55.34.8.230.0040 + 94.P4	Finder Relais	
7S1	7.1	1	push button black with 1 Ö	M22-D-S+K01	Eaton Electric Gmbh	
9K1	9.4	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
9K2	9.6	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
9K3	9.8	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
11F1	11.1	1	Sicherungsautomat B - 10A 3 polig 10 kA	FAZ-B10/3	Eaton Electric Gmbh	
13F1	13.1	1	Sicherungsautomat B - 10A 3 polig 10 kA	FAZ-B10/3	Eaton Electric Gmbh	
14F1	14.2	1	Automatic circuit breaker B - 6A 1 pole 10 KA	FAZ-B6/1	Eaton Electric Gmbh	
14F1	14.2	1	Auxiliary contact, for FAZ, PKNM, 1N/O+1N/C, 0.5HP	FAZ-XHIN11	Eaton Electric Gmbh	
14K1	14.4	1	contactor 4kW 24V DC 1S	DIL M9-10 (24VDC)-PI	Eaton Electric Gmbh	43

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Component designation	Wiring diagram position	Qty.	Manufacturer's designation	Manufacturer's type No.	Manufacturer	Pos
19K1	19.4	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
19K2	19.5	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
20F1	20.1	1	Automatic circuit breaker B - 6A 1 pole 10 KA	FAZ-B6/1	Eaton Electric Gmbh	
20F1	20.1	1	Auxiliary contact, for FAZ, PKNM, 1N/O+1N/C, 0.5HP	FAZ-XHIN11	Eaton Electric Gmbh	
21F1	21.1	1	Automatic circuit breaker C - 32A 1 pole 10 kA	FAZ-C32/1	Eaton Electric Gmbh	
21F2	21.4	1	Automatic circuit breaker B - 10A 1 pole 10 kA	FAZ-B10/1	Eaton Electric Gmbh	
22F1	22.1	1	Automatic circuit breaker C - 32A 1 pole 10 kA	FAZ-C32/1	Eaton Electric Gmbh	
22F2	22.4	1	Automatic circuit breaker B - 10A 1 pole 10 kA	FAZ-B10/1	Eaton Electric Gmbh	
23K1	23.8	1	Relay 4 changeover contact 230 V AC	55.34.8.230.0040 + 94.P4	Finder Relais	
23R1	23.7	1	subplate with 16 solder points	MP 16	Murr Elektronik	
24K1	24.8	1	Relay 4 changeover contact 230 V AC	55.34.8.230.0040 + 94.P4	Finder Relais	
31F1	31.1	1	Automatic circuit breaker B - 10A 3 pole 10 kA	FAZ-B10/3	Eaton Electric Gmbh	
33F1	33.1	1	Automatic circuit breaker B - 10A 3 pole 10 kA	FAZ-B10/3	Eaton Electric Gmbh	
41F1	41.1	1	Automatic circuit breaker C - 32A 1 pole 10 kA	FAZ-C32/1	Eaton Electric Gmbh	
41F2	41.4	1	Automatic circuit breaker B - 10A 1 pole 10 kA	FAZ-B10/1	Eaton Electric Gmbh	
42F1	42.1	1	Automatic circuit breaker C - 32A 1 pole 10 kA	FAZ-C32/1	Eaton Electric Gmbh	
42F2	42.4	1	Automatic circuit breaker B - 10A 1 pole 10 kA	FAZ-B10/1	Eaton Electric Gmbh	
43K1	43.8	1	Relay 4 changeover contact 230 V AC	55.34.8.230.0040 + 94.P4	Finder Relais	
44K1	44.8	1	Relay 4 changeover contact 230 V AC	55.34.8.230.0040 + 94.P4	Finder Relais	

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Component designation	Wiring diagram position	Qty.	Manufacturer's designation	Manufacturer's type No.	Manufacturer	Pos
65F1	65.1	1	Fuse modular terminal block	USIG + ST-SI	Phoenix Contact	
65N1	65.0	1	High Power Controller	DEOS - 600/5 open EMS	DEOS AG	
65N2	65.7	1	power supply module 24V and Bus	PKM	DEOS AG	
65U1	65.6	1	IXrouter3 Ethernet	IX2400	IXON	
66S1	66.1	1	Selector switch, 1N/O, 2 positions, front mount	M22-WRK+K10	Eaton Electric Gmbh	
67H1	67.1	1	indicator light green 24V	M22-L-G+M22-A+LED-W	Eaton Electric Gmbh	
67H2	67.1	1	indicator light red 24V	M22-L-R+M22-A+LED-W	Eaton Electric Gmbh	
67H3	67.2	1	indicator light yellow 24V	M22-L-Y+M22-A+LED-W	Eaton Electric Gmbh	
67K1	67.4	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
67K2	67.5	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
67K3	67.6	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
67K4	67.6	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
67K5	67.7	1	Relay 2 changeover contact 24 V DC	46.52.9.024.0074 + 97.P2	Finder Relais	
67K6	67.9	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
67S1	67.7	1	Selector switch, toggle, 3 positions, black, maintained	M22-WRK3+K10+K10	Eaton Electric Gmbh	
67S1	67.7	1	Contact element, 1N/O, front mount, 6. contact, screw connection	M22-K10	Eaton Electric Gmbh	
68K1	68.1	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
68K2	68.2	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
68K3	68.3	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	

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Component designation	Wiring diagram position	Qty.	Manufacturer's designation	Manufacturer's type No.	Manufacturer	Pos
68K4	68.4	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
68K5	68.5	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
68K6	68.6	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
68K7	68.6	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
71N1	71.0	1	digital input module 16 x DI	DS-C-DI 16	DEOS AG	
74N1	74.0	1	analog in / output module 8 x AI / 4 x AO	DS-C-AI8AO4	DEOS AG	
76N1	76.0	1	analog in / output module 8 x AI / 4 x AO	DS-C-AI8AO4	DEOS AG	
77N1	77.2	1	signal transmitter	MV-REF 10V	RINCK	
78K1	78.1	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
78K2	78.2	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
78K3	78.3	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
78K4	78.4	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
78K5	78.5	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
78K6	78.6	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
78K7	78.7	1	Coupling relay 24V DC 1W with led	38.51.7.024.0050	Finder Relais	
78K8	78.8	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
78N1	78.0	1	digital output module 8 x DO	DS-C-DO8T	DEOS AG	
79N1	79.0	1	analog in / output module 8 x AI / 4 x AO	DS-C-AI8AO4	DEOS AG	
79R1	79.1	1	Disconnect Terminal with resistance 0,5 W	P-CO	Phoenix Contact	

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Summarized parts list

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supplier	Order number	designation	Type number	Quantity	unit price	total price
BTR Metz Connect GMBH						
	110292032215	Phase monitoring, 2 changeover contacts	PFD2-E12	1		
DEOS AG						
		High Power Controller	DEOS - 600/5 open EMS	1		
		power supply module 24V and Bus	PKM	1		
		digital input module 16 x DI	DS-C-DI 16	1		
		analog in / output module 8 x AI / 4 x AO	DS-C-AI8AO4	3		
		digital output module 8 x DO	DS-C-DO8T	1		
Eaton Electric Gmbh						
	278529	Automatic circuit breaker B - 6A 1 pole 10 KA	FAZ-B6/1	6		
	278553	Automatic circuit breaker C - 4A 1 pole 10 kA	FAZ-C4/1	2		
	278843	Sicherungsautomat B - 10A 3 polig 10 kA	FAZ-B10/3	4		
	286054	Auxiliary contact, for FAZ, PKNM, 1N/O+1N/C, 0.5HP	FAZ-XHIN11	2		
	278564	Sicherungsautomat C - 32A 1 polig 10 kA	FAZ-C32/1	4		
	278531	Automatic circuit breaker B - 10A 1 pole 10 kA	FAZ-B10/1	4		
		xxxxxxxxxxxxxxxx	M22-L-W+M22-A+LED230-W	3		
		indicator light green 24V	M22-L-G+M22-A+LED-W	1		
		indicator light red 24V	M22-L-R+M22-A+LED-W	1		
		indicator light yellow 24V	M22-L-Y+M22-A+LED-W	1		
	199233	Schuetz 4 KW 24V DC 1S	DIL M9-10 (24VDC)-PI	1		
	259141	Hauptschalter 100 A 3 polig	PN1-100	1		
		turning handle red - yellow for NZMN 1	NZM1-XTVDVR	1		
		finger protection for NZM 1	NZM1-XIPK	1		
		cover screw	NZM1-XKSA	1		
	216518	Selector switch, 1N/O, 2 positions, front mount	M22-WRK+K10	2		
		push button black with 1 Ö	M22-D-S+K01	1		
	216872	Selector switch, toggle, 3 positions, black, maintained	M22-WRK3+K10+K10	1		
	216376	Contact element, 1N/O, front mount, 6. contact, screw connection	M22-K10	1		

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Summarized parts list

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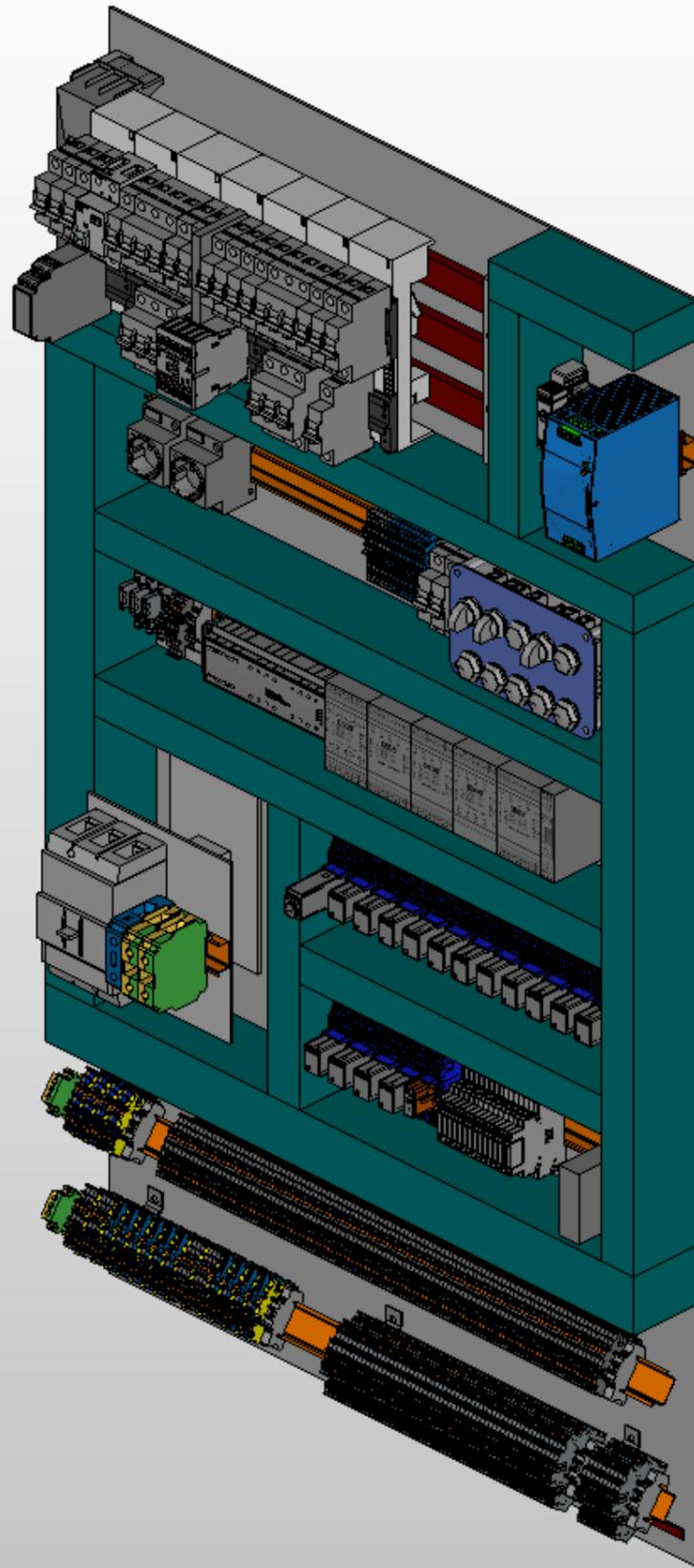
supplier	Order number	designation	Type number	Quantity	unit price	total price
Finder Relais						
	7T.81.0.000.2303	cabinet temperature sensor cooling	7T.81.0.000.2303	1		
	85.04.8.240.0000	Miniature Plug-in timer, Multi-function (AI, DI, GI, SW) - 4 pole, 7 A - AC (50/60Hz) - 230...240 V	85.04.8.240.0000 + 94.P4	1		
	55.34.8.230.0040	Miniaturrelais 4 Wechsler 230 V AC	55.34.8.230.0040 + 94.P4	5		
	55.34.9.024.0090	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	10		
	38.51.7.024.0050	Koppelrelais 24V DC 1W mit LED	38.51.7.024.0050	15		
	46.52.9.024.0074	Miniaturrelais 2 Wechsler 24 V DC	46.52.9.024.0074 + 97.P2	1		
	7U.00.8.230.0010	plug socket 230V / 10 A grey	7U.00.8.230.0010	2		
	IX2400	IXrouter3 Ethernet	IX2400	1		
MeanWell						
	NDR-240-24	power adapter 230V AC / 24V DC - 10A	NDR-240-24	1		
Mueller Schaltanlagen GmbH						
		operating panel 250 x 180 mm	Schaltpanel	1		
Murr Elektronik						
		subplate with 16 solder points	MP 16	1		
Phoenix Contact						
	0920083	Fuse modular terminal block	USIG + ST-SI	1		
		Disconnect Terminal with resistance 0,5 W	P-CO	3		
	3210185	Disconnect and test disconnect rail-mount terminal block	PT 2,5-TG	3		
	3209578	Feed-through terminal	PT 2,5-QUATTRO	5		
	3209581	Feed-through terminal	PT 2,5-QUATTRO BU	9		
	3214024	Installation ground terminal block	PTI 16/S-PE	5		
	3213953	Installation level terminal block	PTI 2,5-L/L	4		
	3213949	Installation ground terminal block	PTI 2,5-PE/L/L	2		
	32 13 946	Three-tier terminal L / N / PE	PTI 2,5-PE/L/NT	6		
	3214029	Installation terminal block	PTI 16/S	4		

Summarized parts list

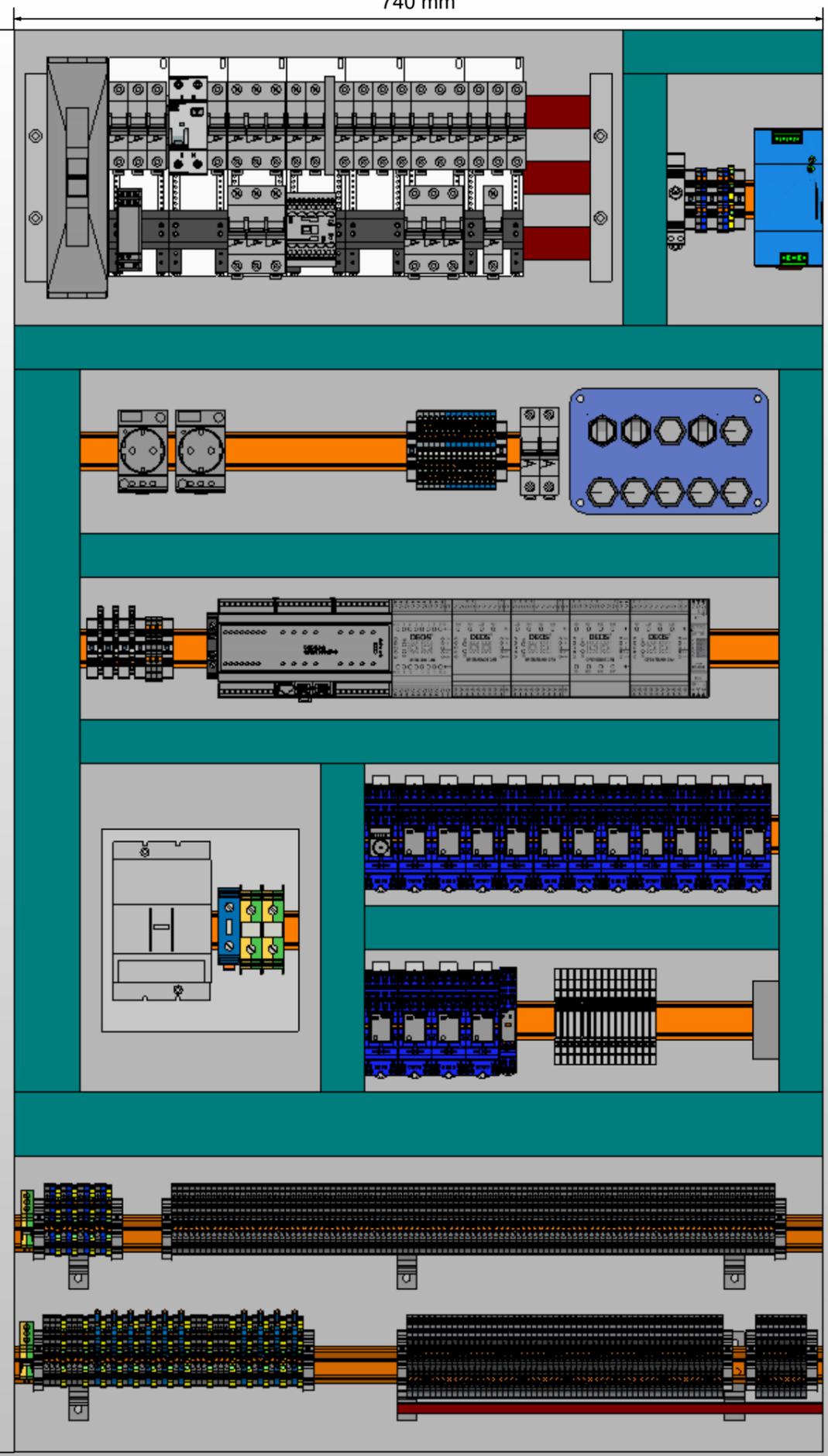
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supplier	Order number	designation	Type number	Quantity	unit price	total price
Phoenix Contact						
	3214025	N disconnect terminal block	PTN 16/S	4		
	3213968	Installation terminal block	PTI 2,5	119		
	3213969	Installation terminal block	PTI 2,5 BU	6		
	3213962	Installation ground terminal block	PTI 2,5-PE	5		
	3009105	High-current terminal block	UKH 50 BU	1		
	0443049	xxxxxxxxxxxxxxxxxx	USLKG 50	2		
	0443010	Ground modular terminal block	USLKG 16	1		
	3209604	Two-tier terminal 2,5 qmm	PTTBS 2,5	71		
RINCK						
		signal transmitter	MV-REF 10V	1		
Rox Klimatechnik						
		subplate / door	MONTAGEPLATTE	1		
Siemens						
	5SU1356-6KK10	FI / LS - Switch 30 mA - B10	5SU1 356-6KK10	1		

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Cabinet view

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