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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 analoge signals
 X5 signal-exchange with external unit
 X6 bus lines
 X7 external voltage
 X8 Ex area

Switch cabinet

Switch cabinet : im Lüftungsgerät integriert
 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 - Braband			Component Lüftung		customer 	
Created on	03.Jul.2024	Planned :	K. Werner	highest page number:		160
Last rev. date:	02.Aug.2024	Drafted :	K. Werner	Quantity of pages :		78
Test date: -> previous page	10.Jul.2024	Name :	Hr. Strunk			

Leistungsdaten Antriebe	KW	A	U	U/min
supply air fan kitchen	2,77	7,25	400	3115
exhaust air ventilation kitchen	0,9	1,5	400	1160
exhaust air ventilation dishes	0,14	0,89	230	1338
reverse cycle heating system kitchen	max. 5,49	max. 18,0	400	DVM-S AM080AXVGGH/EU
supply air fan Lobby	2,77	7,25	400	3115
exhaust air ventilation Lobby	2,77	10,5	400	1470
reverse cycle heating system Lobby	max. 5,49	max. 18,0	400	DVM-S AM080AXVGGH/EU
others	2,0	4,0	400	
total	~ 22	~ 64		

Change	Date	Name	Date	05.Jul.2024	Mc Donald`s DK - Braband ventilation
				KW	



Output data

Fabr.. Nr. 7270	=	Page 1.a
Auftr. Nr. 24450	+	Page 160
Z.No.: 9773		

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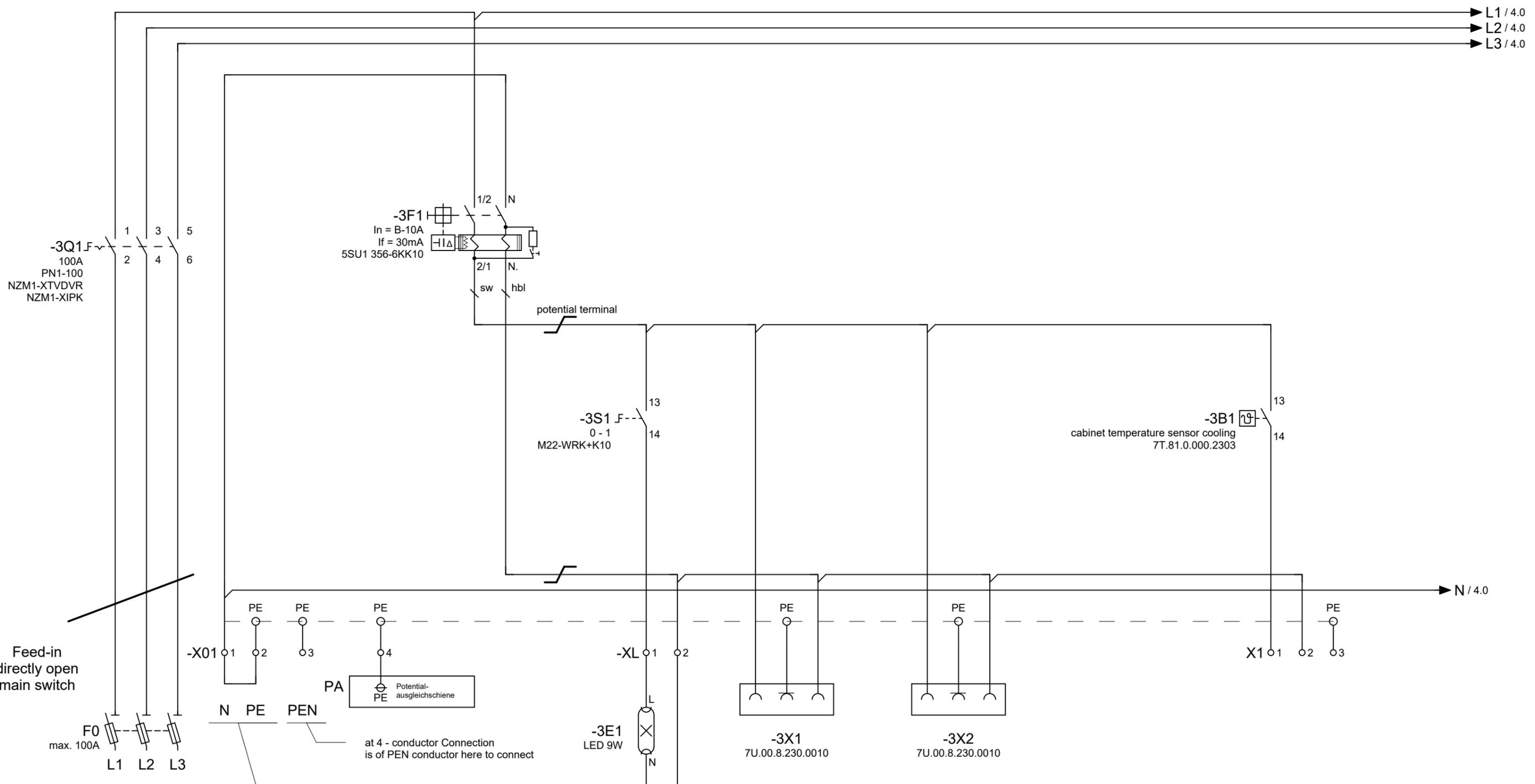
Mueller

Page	Page designation	Page supplementary field	Date	processed by
60	plant distinguishing DDC		05.Jul.2024	KW
61	overview occupancy board 1		05.Jul.2024	KW
62	overview occupancy board 2		02.Aug.2024	KW
64	overview module		02.Aug.2024	KW
65	DDC - CPU Controller		11.Jul.2024	KW
66	CPU - digital inputs 8 x DI		05.Jul.2024	KW
67	CPU - digital outputs 8 x DO		11.Jul.2024	KW
68	CPU - digital outputs 8 x DO		08.Jul.2024	KW
69	CPU - analoge outputs 4 x AO		05.Jul.2024	LO
70	CPU - analoge inputs 8xAI		02.Aug.2024	KW
71	DDC - digital inputs 16 x DI		05.Jul.2024	KW
72	DDC - digital inputs 16 x DI		08.Jul.2024	KW
74	DDC - analoge on / outputs 8 x AI / 4 x AO		02.Aug.2024	KW
75	DDC - analoge on / outputs 8 x AI / 4 x AO		08.Jul.2024	KW
76	DDC - analoge on / outputs 8 x AI / 4 x AO		02.Aug.2024	KW
77	DDC - analoge on / outputs 8 x AI / 4 x AO		02.Aug.2024	KW
78	DDC - digital outputs 8 x DO - T		02.Aug.2024	KW
79	DDC - analoge on / outputs 8 x AI / 4 x AO		02.Aug.2024	KW
80	DDC - analoge on / outputs 8 x AI / 4 x AO		02.Aug.2024	KW
100	Overview terminal strips		02.Aug.2024	KW
101	terminal layout X1		11.Jul.2024	KW
102	terminal layout X1		11.Jul.2024	KW
103	terminal layout X1		11.Jul.2024	KW
104	terminal layout X01		11.Jul.2024	KW
105	terminal layout X2		11.Jul.2024	KW
106	terminal layout X3		11.Jul.2024	KW

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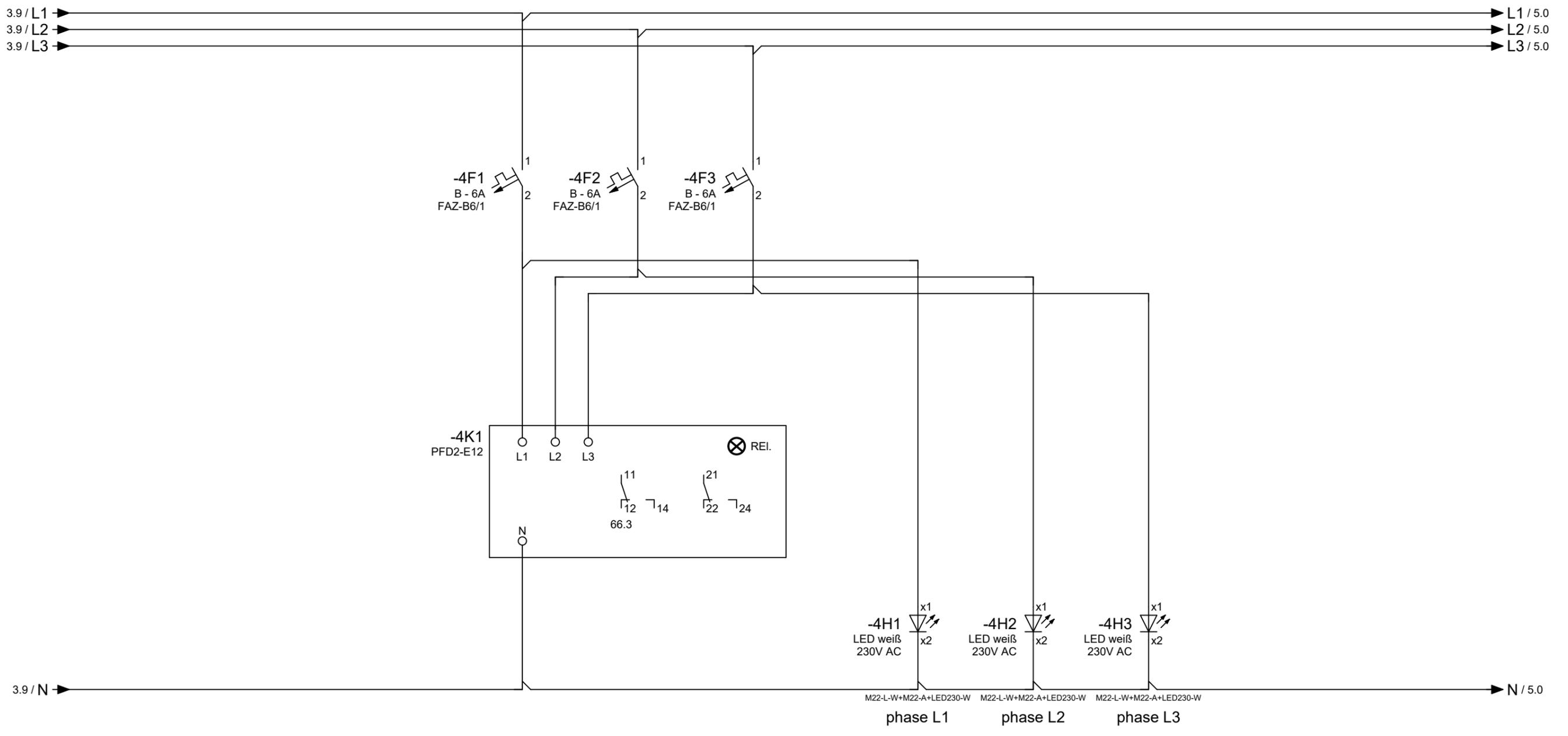
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		Date	02.Aug.2024	Mc Donald`s DK - Braband ventilation		Table of contents	Fabr.. Nr. 7270		=	Page 2.a
			KW				Auftr. Nr. 24450		Z.No.: 9773	
Change	Date	Name								



supply-line from : _____
 Back-up fuse ID : _____
 Back-up fuse A : _____

Output data	
P=	ca. 22 KW
I=	ca. 64 A
U=	400 V
F=	50 Hz



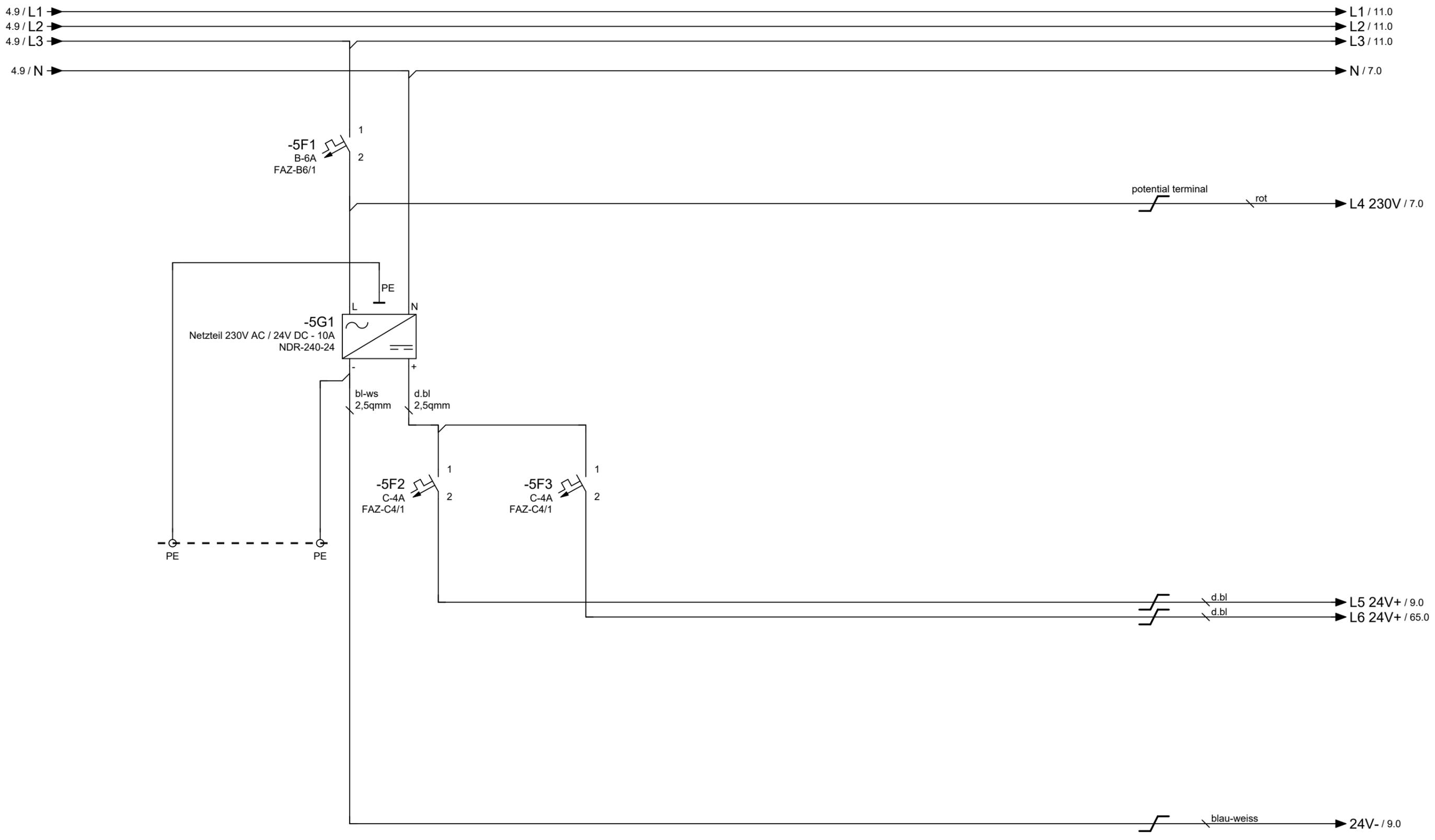
Change	Date	Name	

Date 08.Jul.2024
 KW
 Mc Donald`s DK - Braband
 ventilation



mains supply control

Fabr.. Nr. 7270	=	
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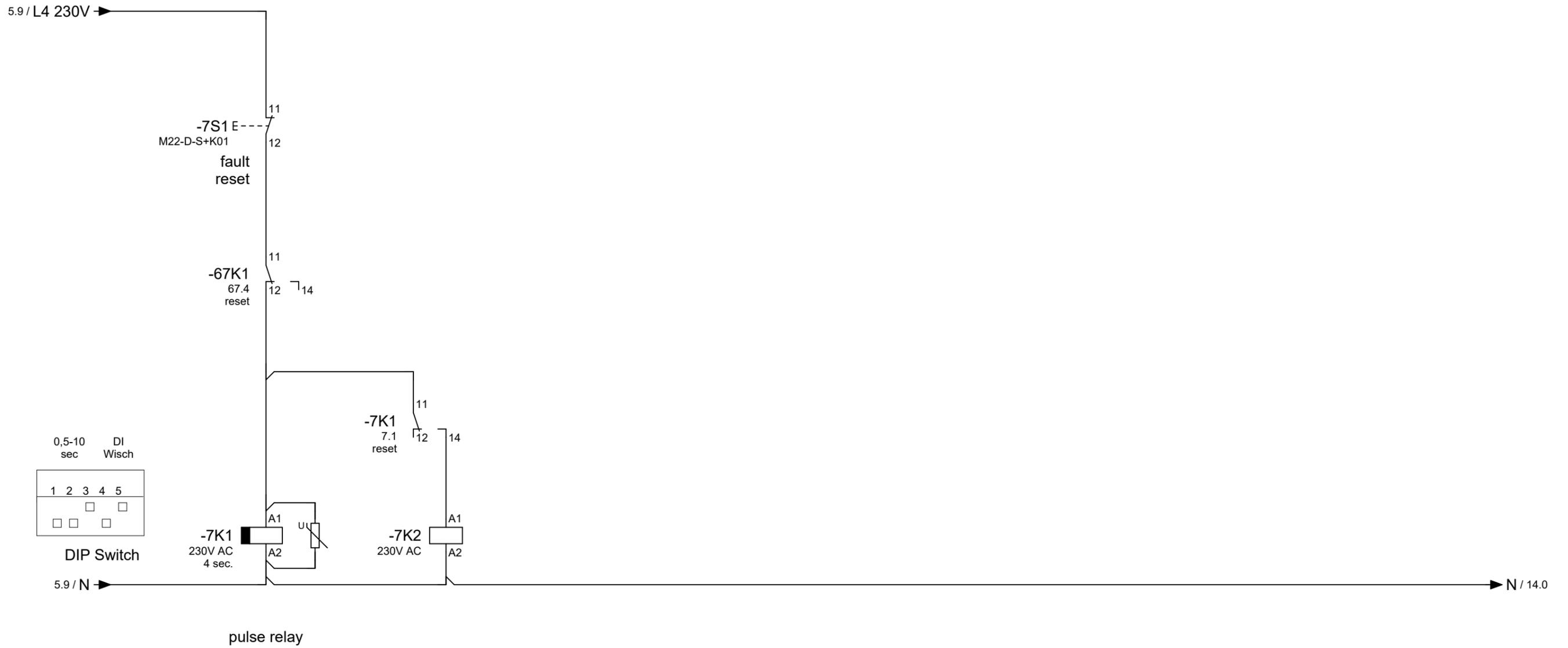
control voltage 24V DC
 control unit control system

Change	Date	Name	Date	08.Jul.2024	Mc Donald's DK - Braband ventilation
				KW	



control voltage 230V AC
 and
 24V DC

Fabr.. Nr. 7270	=	Page 5
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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

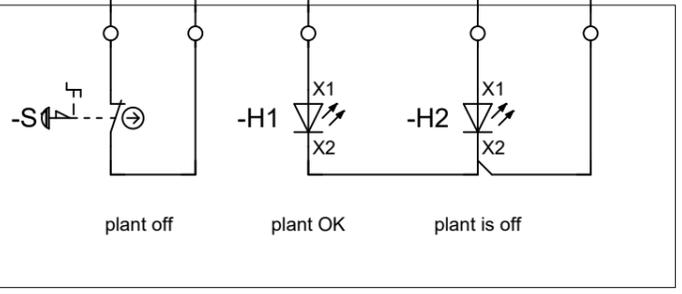
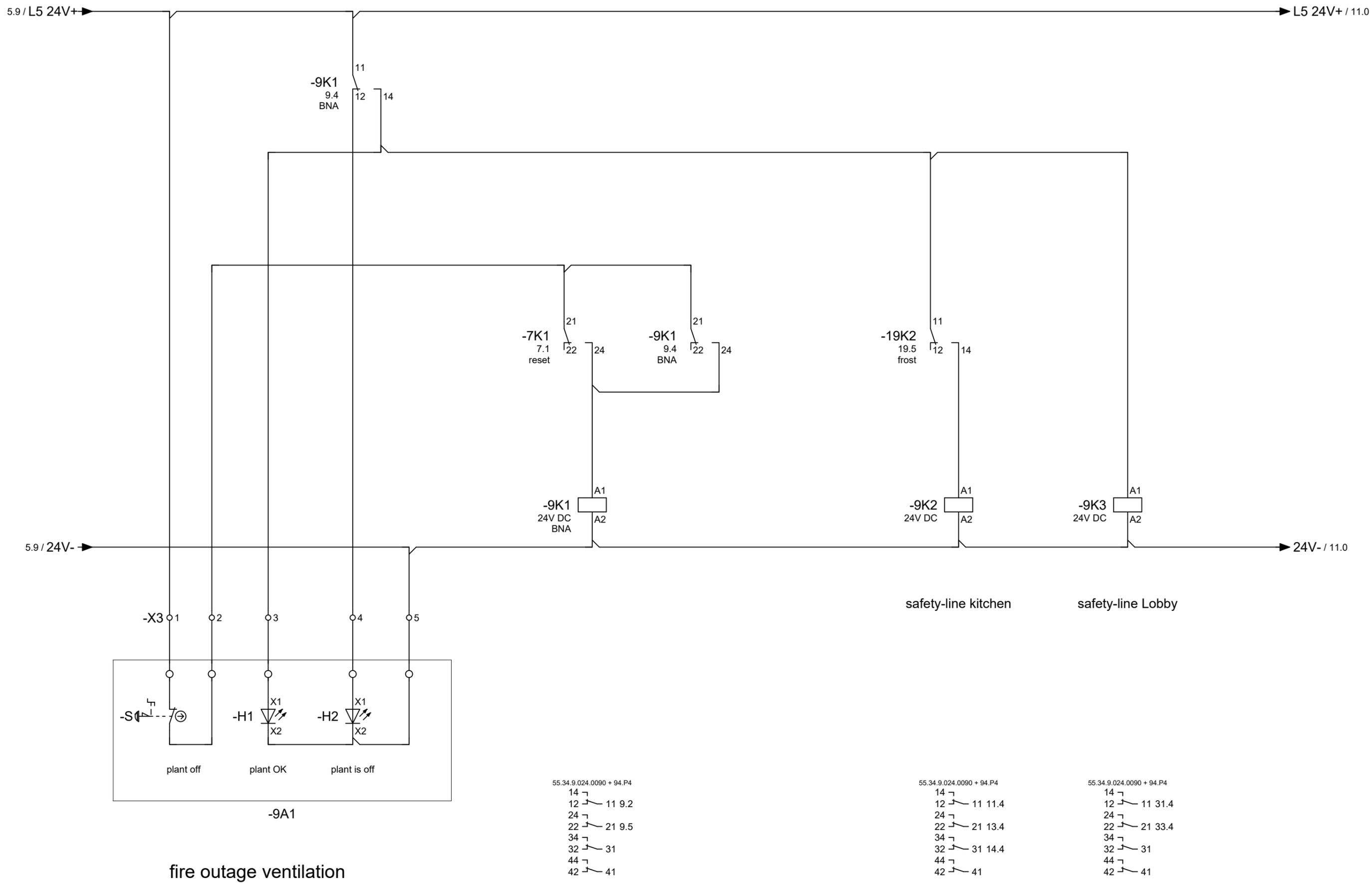
Date	05.Jul.2024
	KW
Change	Date
	Name

Mc Donald's DK - Braband
 ventilation



fault reset

Fabr.. Nr. 7270	=	Page 7
Auftr. Nr. 24450	+	Page 160
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55.34.9.024.0090 + 94.P4
 14 ↗
 12 ↘ 11 9.2
 24 ↗
 22 ↘ 21 9.5
 34 ↗
 32 ↘ 31
 44 ↗
 42 ↘ 41

55.34.9.024.0090 + 94.P4
 14 ↗
 12 ↘ 11 11.4
 24 ↗
 22 ↘ 21 13.4
 34 ↗
 32 ↘ 31 14.4
 44 ↗
 42 ↘ 41

55.34.9.024.0090 + 94.P4
 14 ↗
 12 ↘ 11 31.4
 24 ↗
 22 ↘ 21 33.4
 34 ↗
 32 ↘ 31
 44 ↗
 42 ↘ 41

fire outage ventilation

safety-line kitchen

safety-line Lobby

Change	Date	Name	Date	08.Jul.2024	Mc Donald's DK - Braband
				KW	ventilation



safety-line

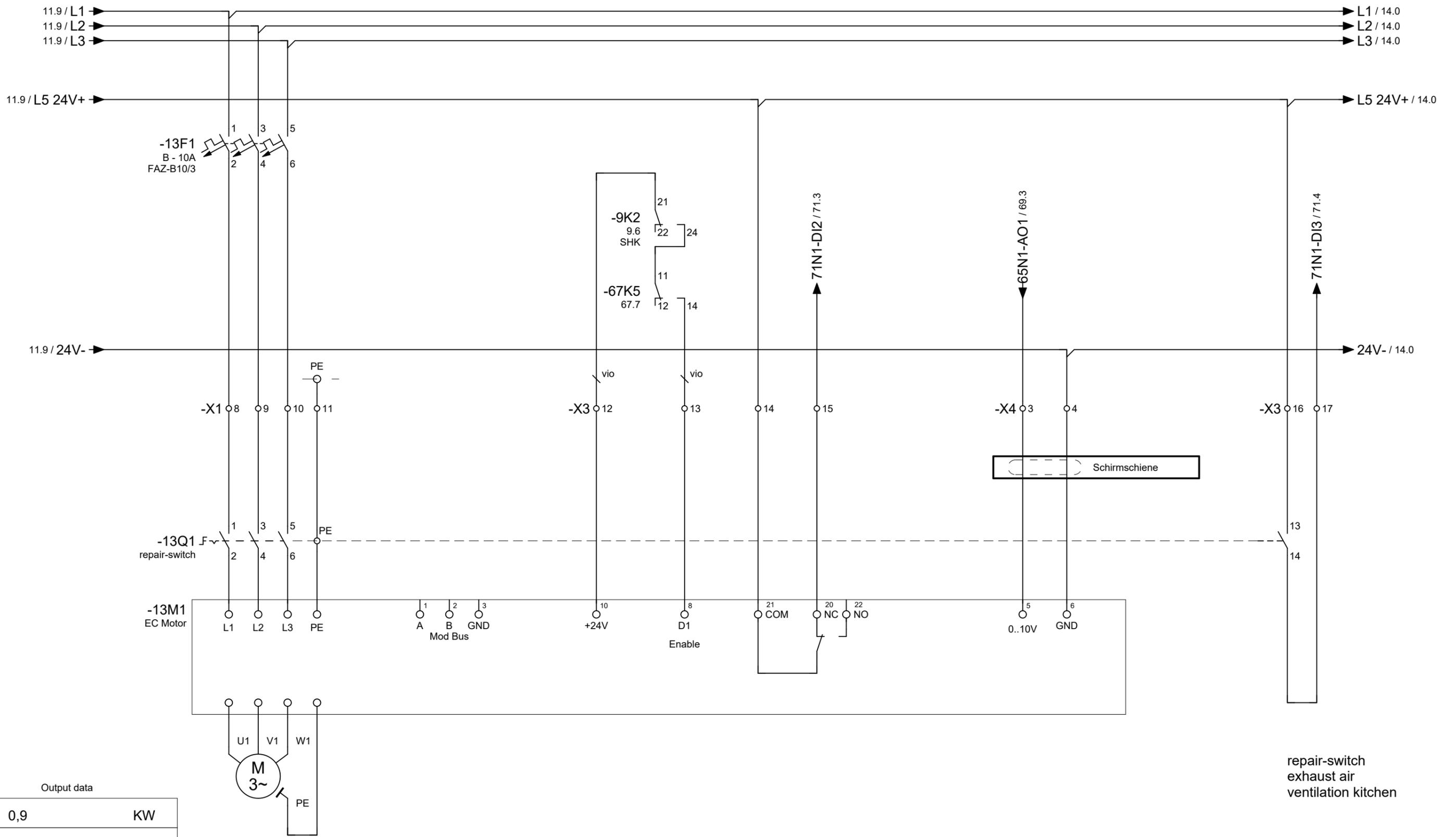
Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773

plant ventilation kitchen

			Date	04.Jul.2024	Mc Donald`s DK - Braband ventilation		plant distinguishing ventilation kitchen	Fabr.. Nr. 7270		=	Page 10
Change	Date	Name						Auftr. Nr. 24450	Z.No.: 9773	+	Page 160



Output data

P= 0,9	KW
I= 1,5	A
U= 400	V
N= 1160	rpm

exhaust air
ventilation kitchen

repair-switch
exhaust air
ventilation kitchen

Date	02.Aug.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Braband
ventilation

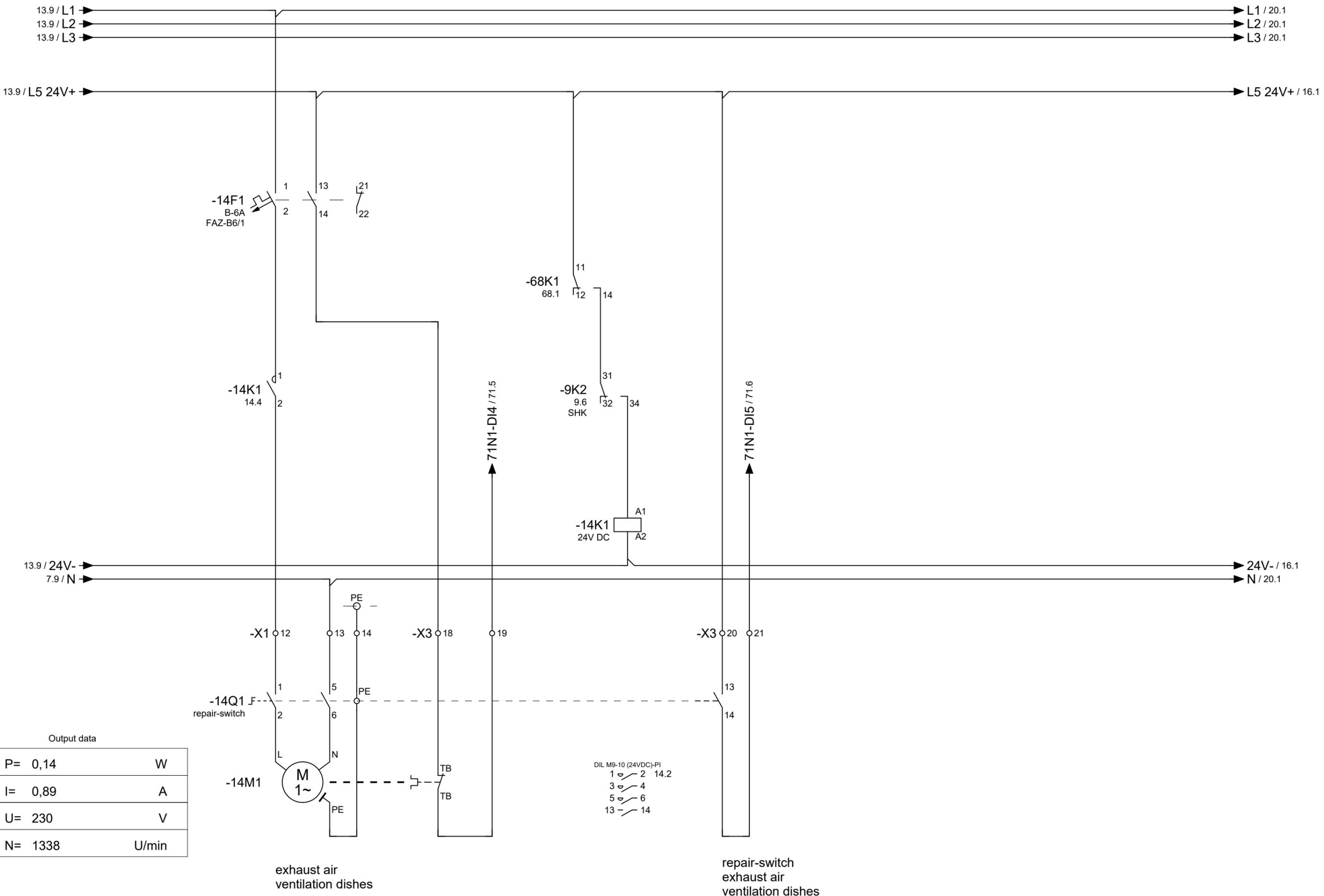


exhaust air
ventilation kitchen

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773



Output data

P= 0,14	W
I= 0,89	A
U= 230	V
N= 1338	U/min

exhaust air ventilation dishes

repair-switch exhaust air ventilation dishes

Date	08.Jul.2024
	KW
Change	Date
	Name

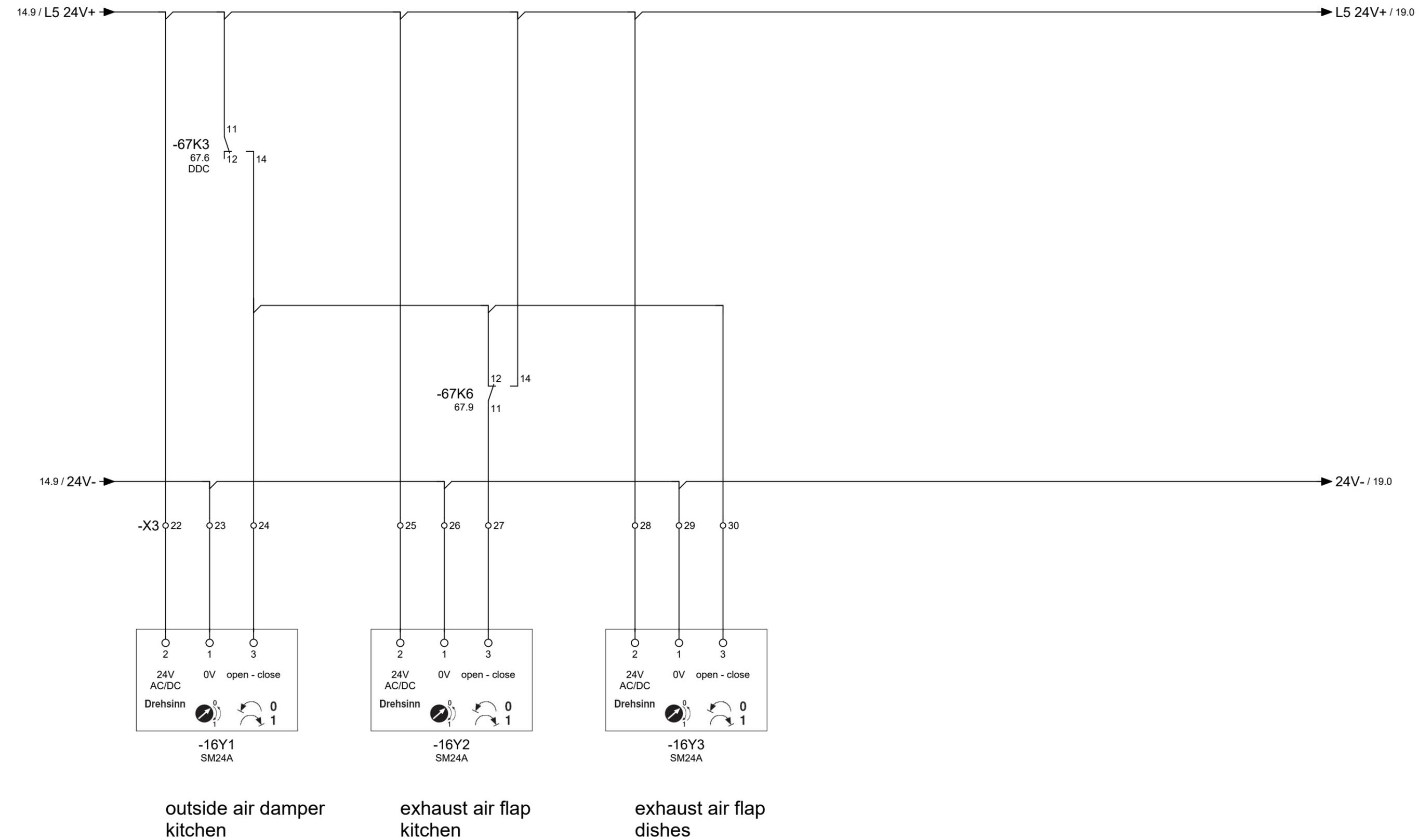
Mc Donald's DK - Braband ventilation



exhaust air ventilation dishes

Fabr.. Nr. 7270
Auftr. Nr. 24450

Z.No.: 9773



outside air damper
kitchen

exhaust air flap
kitchen

exhaust air flap
dishes

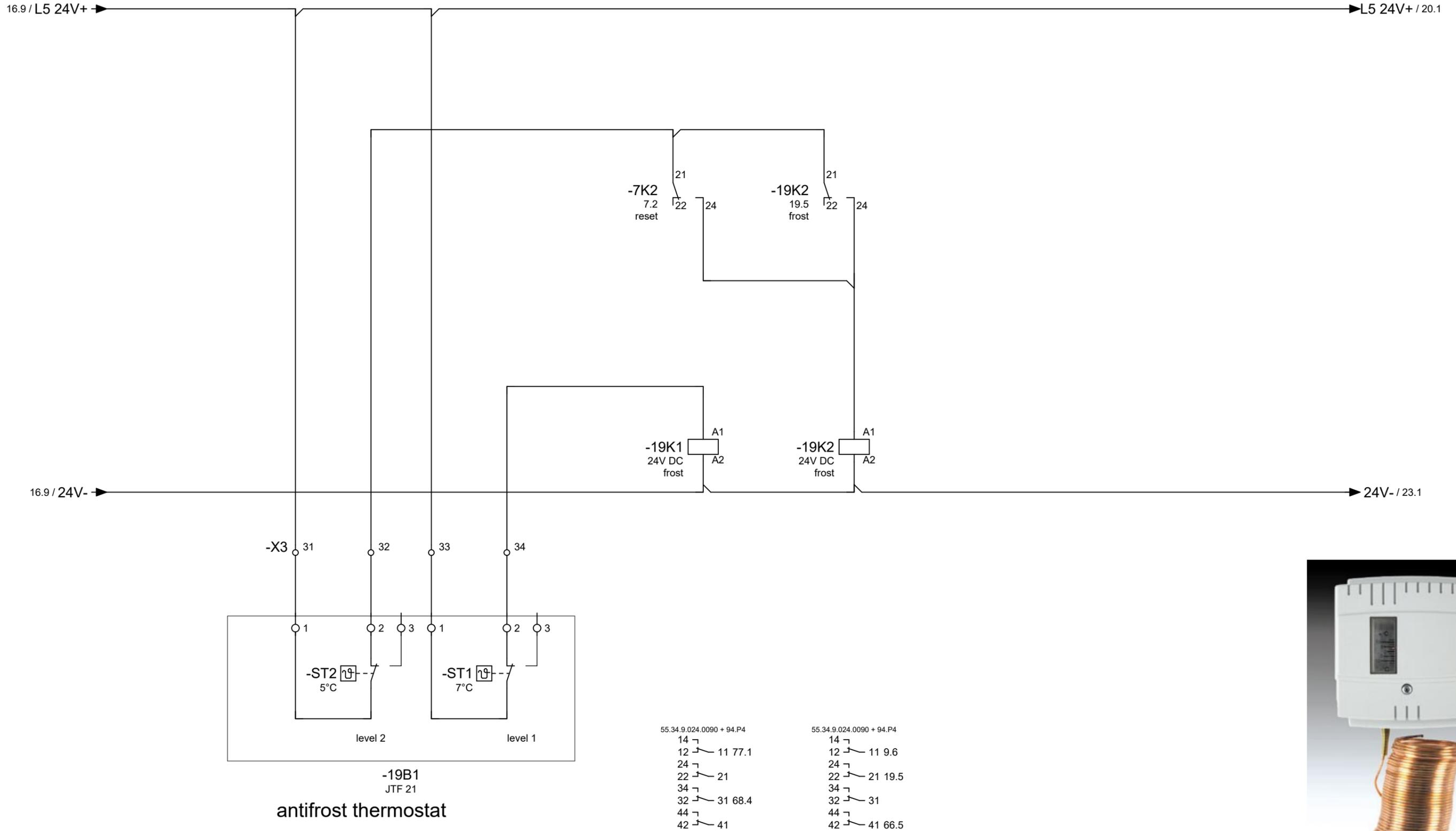
Date	08.Jul.2024
	KW
Change	Date
Name	

Mc Donald`s DK - Braband
ventilation



flap drives kitchen

Fabr.. Nr. 7270	=	Page 16
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Date	08.Jul.2024
	KW
Change	Date
	Name

Mc Donald's DK - Braband
ventilation

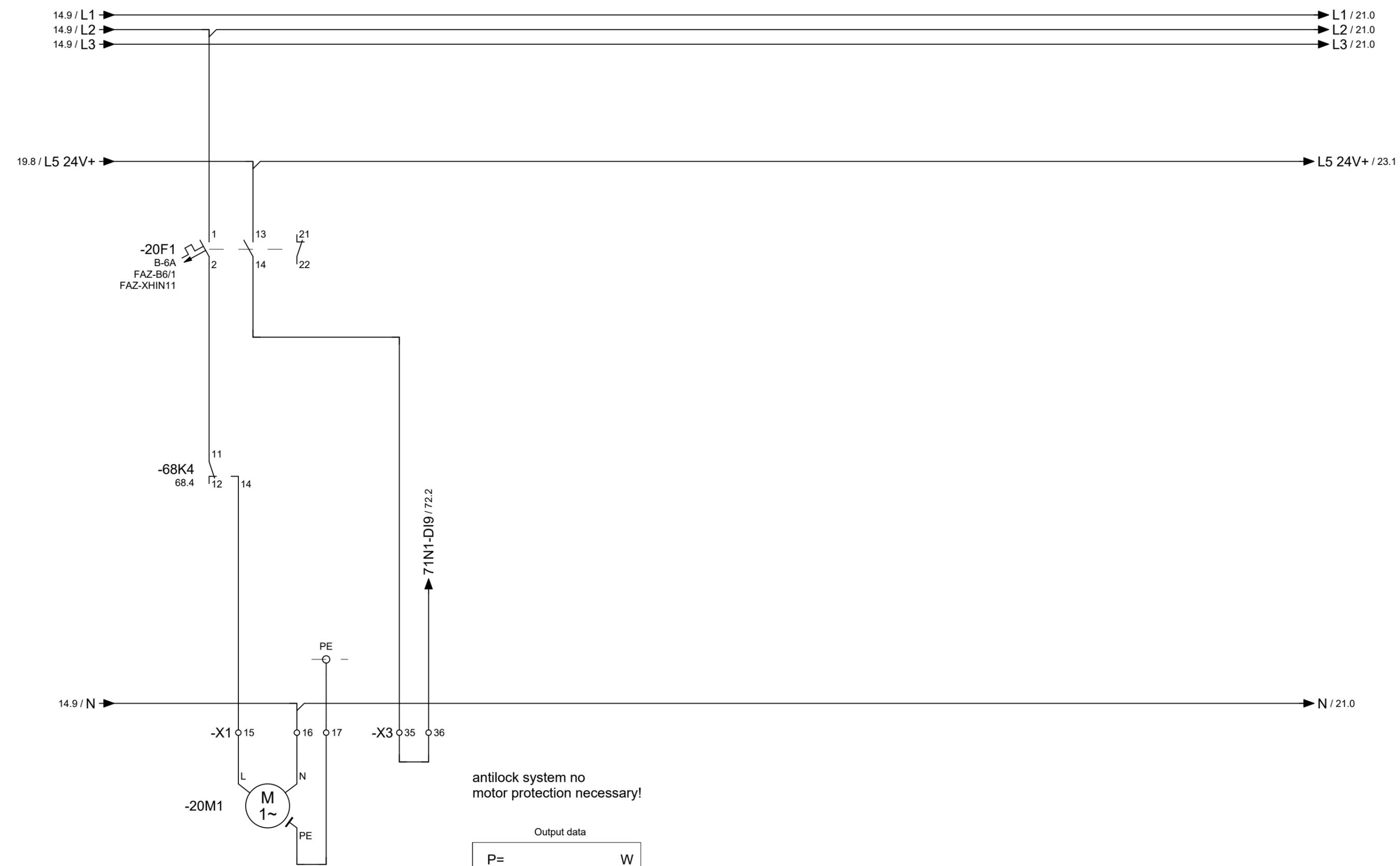


antifrost

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773



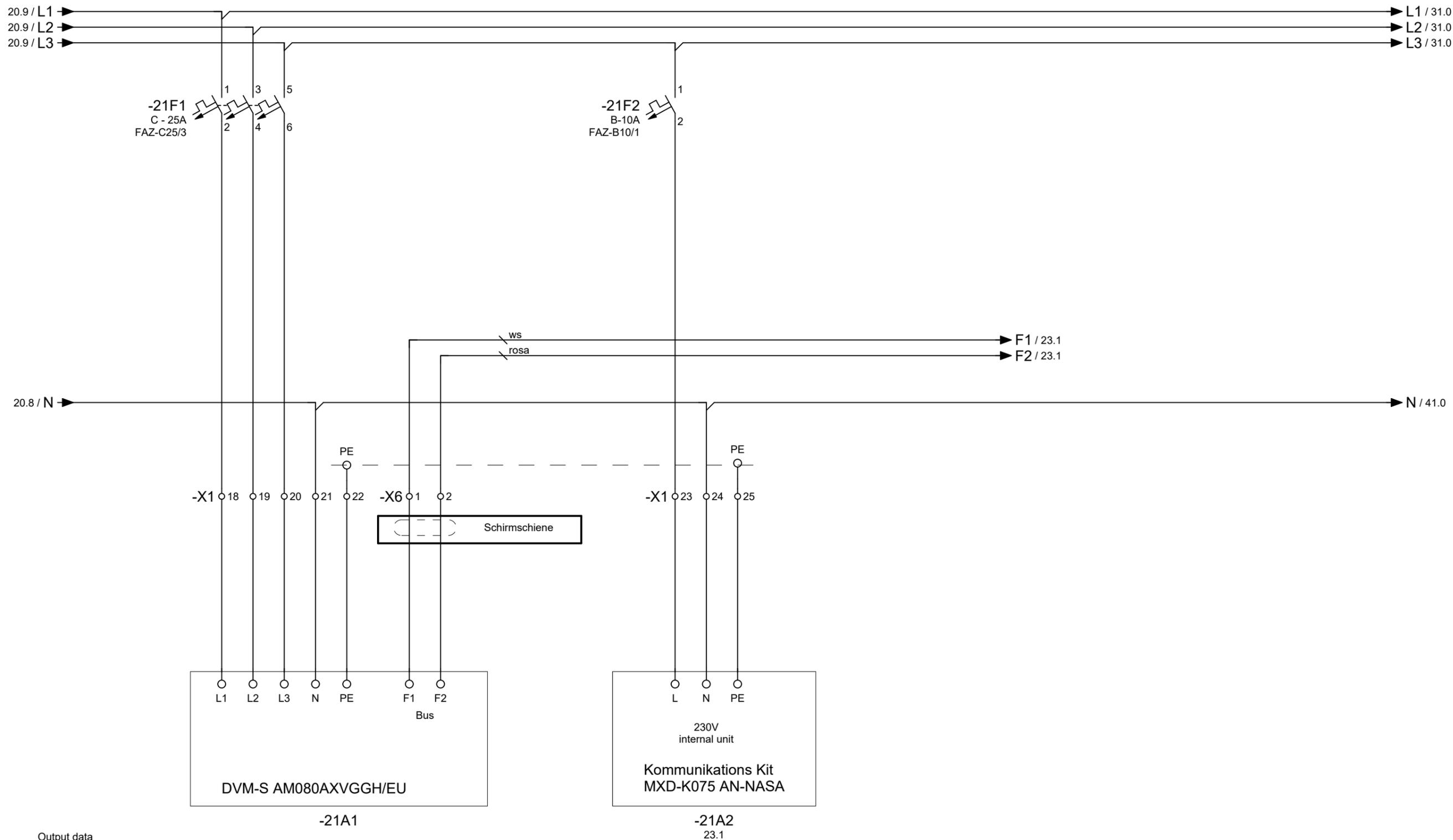
Change	Date	Name	

Date 08.Jul.2024
KW
Mc Donald's DK - Braband
ventilation



heating pump

Fabr.. Nr. 7270	=	
Auftr. Nr. 24450	+	
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	Page	20
	Page	160



Output data

P_{EL}	: max. 5,49	KW
I	: max. 18,0	A
U	: 400	V
$I_{Betr.}$		A

reverse cycle
heating
system kitchen outside unit

reverse cycle
heating
system kitchen internal unit

Date	08.Jul.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Braband
ventilation

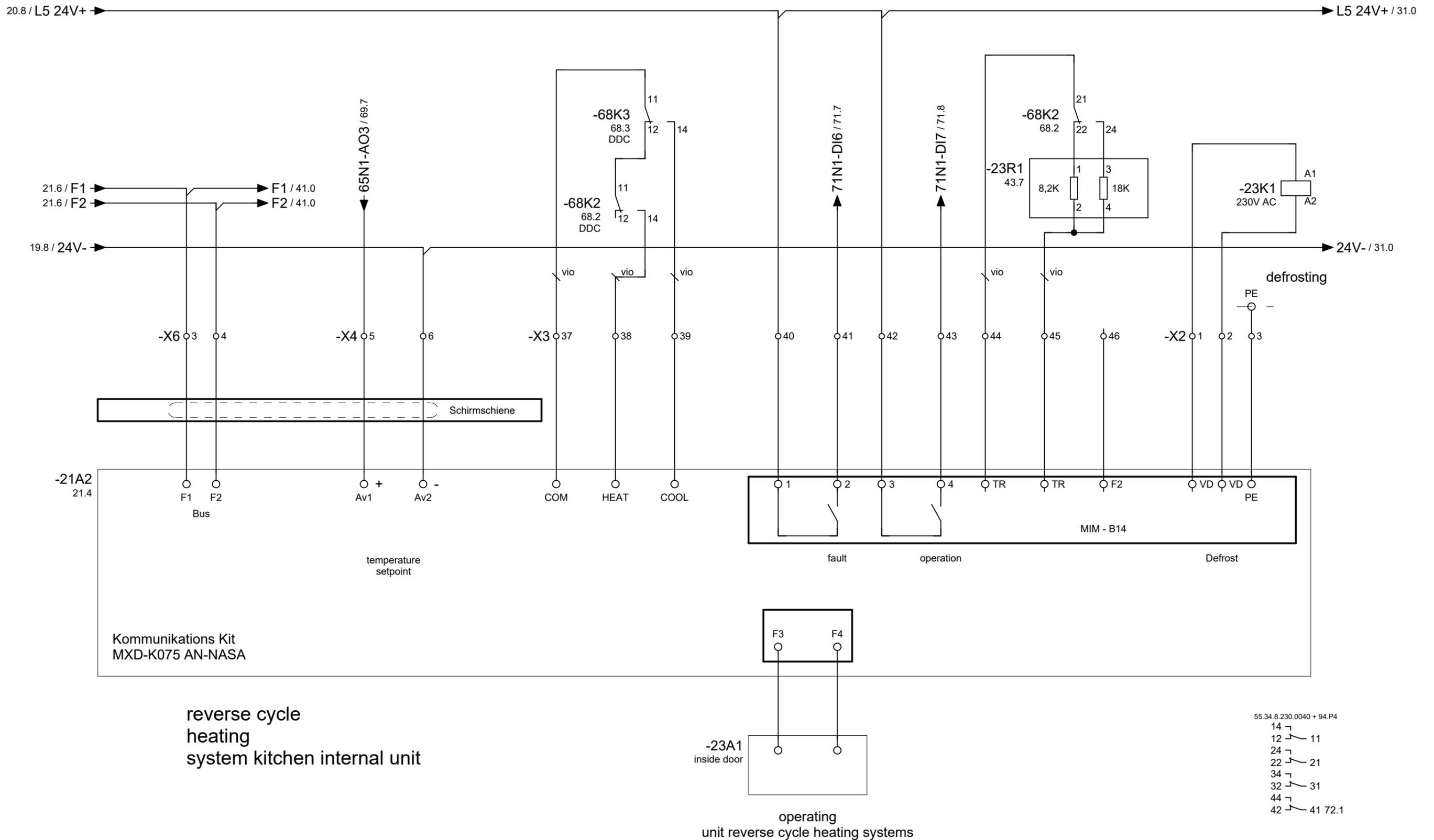


reverse cycle
heating system kitchen

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773



reverse cycle
heating
system kitchen internal unit

-23A1
inside door

operating
unit reverse cycle heating systems

- 55.34.8.230.0040 + 94.P4
- 14 ↗ 11
 - 12 ↗ 11
 - 24 ↗ 21
 - 22 ↗ 21
 - 34 ↗ 31
 - 32 ↗ 31
 - 44 ↗ 41
 - 42 ↗ 41 72.1

Date	02.Aug.2024
	KW
Change	Date
Name	

Mc Donald's DK - Braband
ventilation

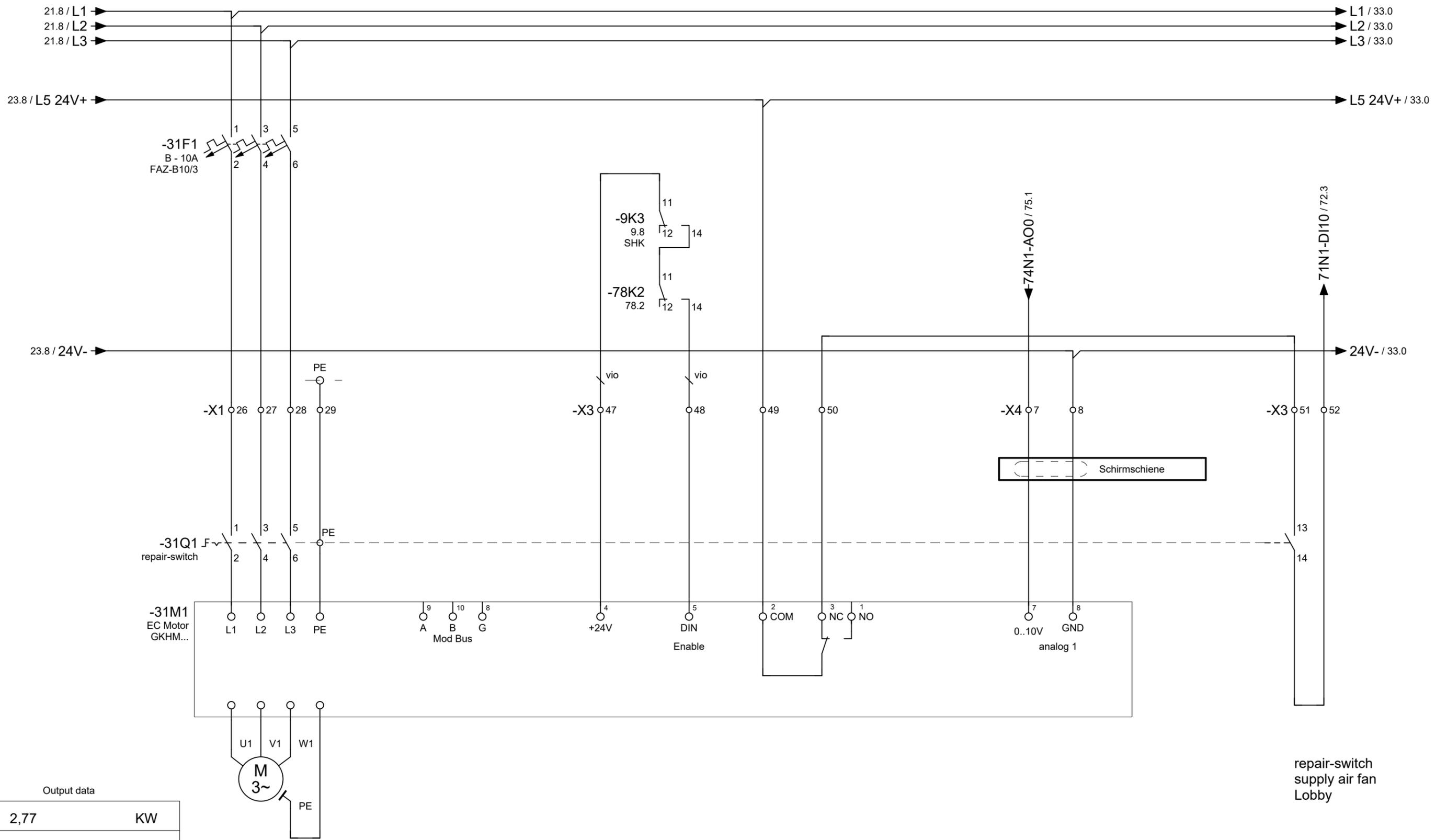


reverse cycle
heating system kitchen internal unit

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773



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	02.Aug.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Braband
ventilation

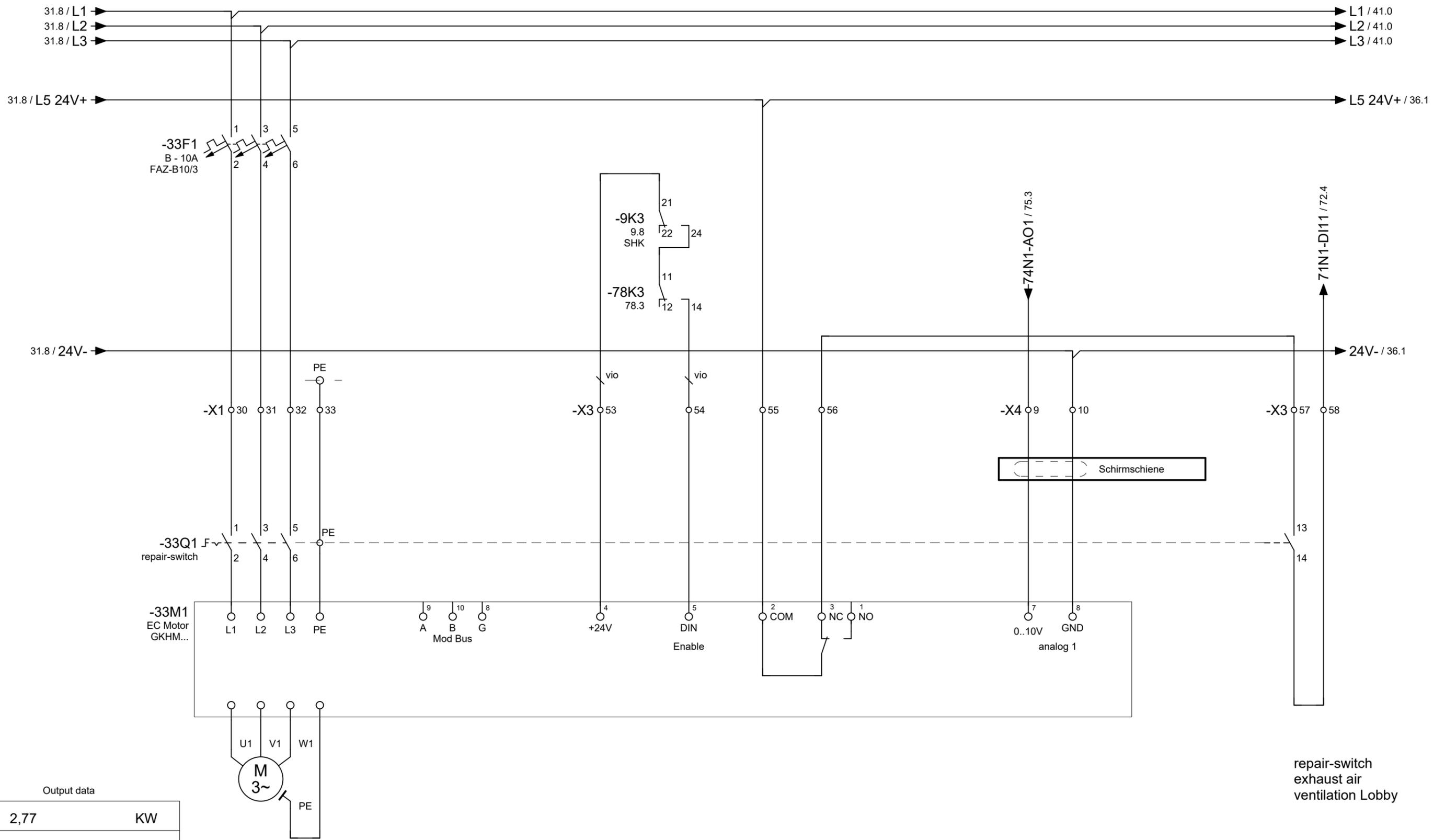


supply air fan
Lobby

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773



Output data

P= 2,77	KW
I= 10,5	A
U= 400	V
N= 1470	rpm

exhaust air
ventilation Lobby

repair-switch
exhaust air
ventilation Lobby

Date	02.Aug.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Braband
ventilation

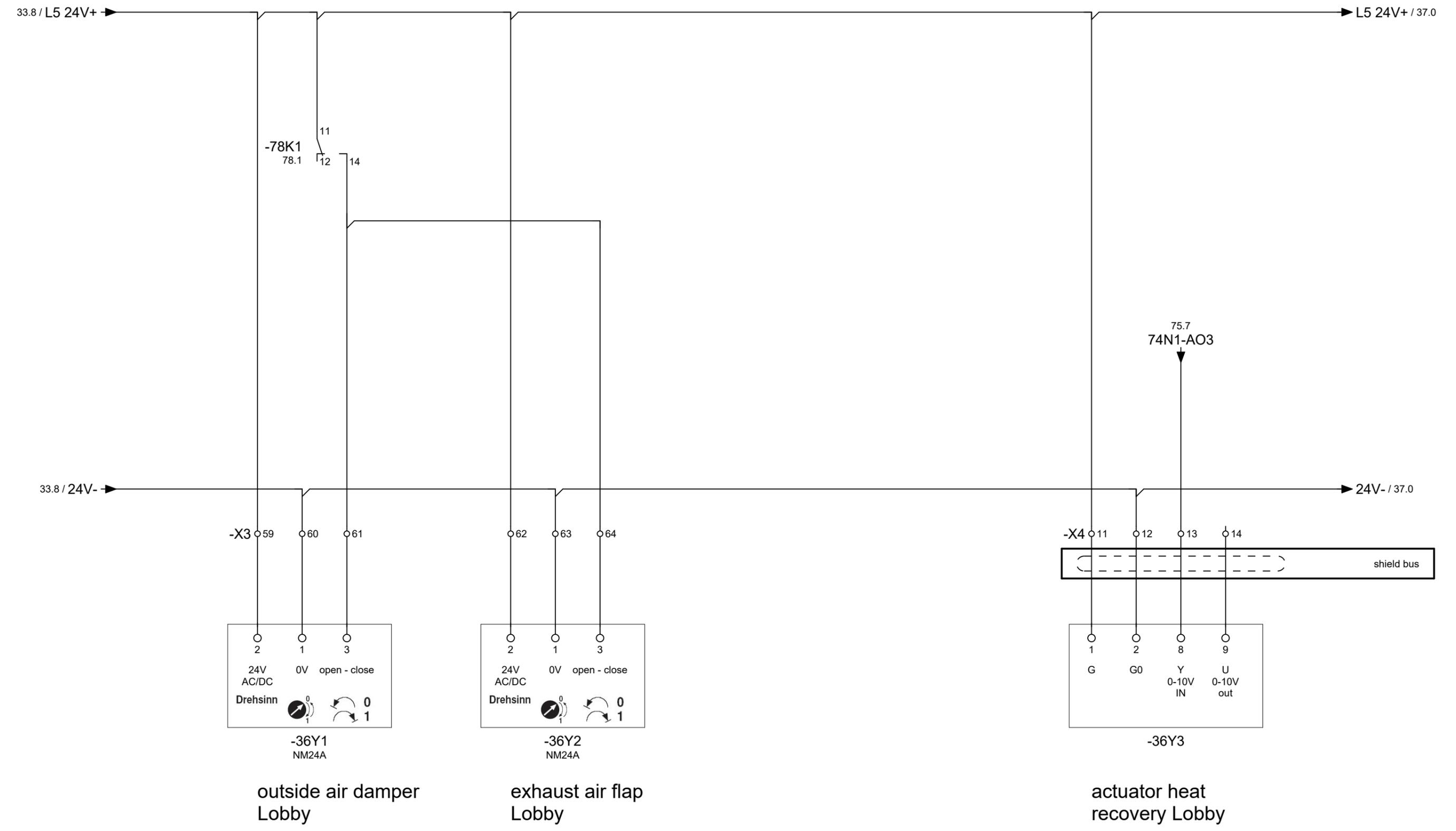


exhaust air
ventilation Lobby

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773



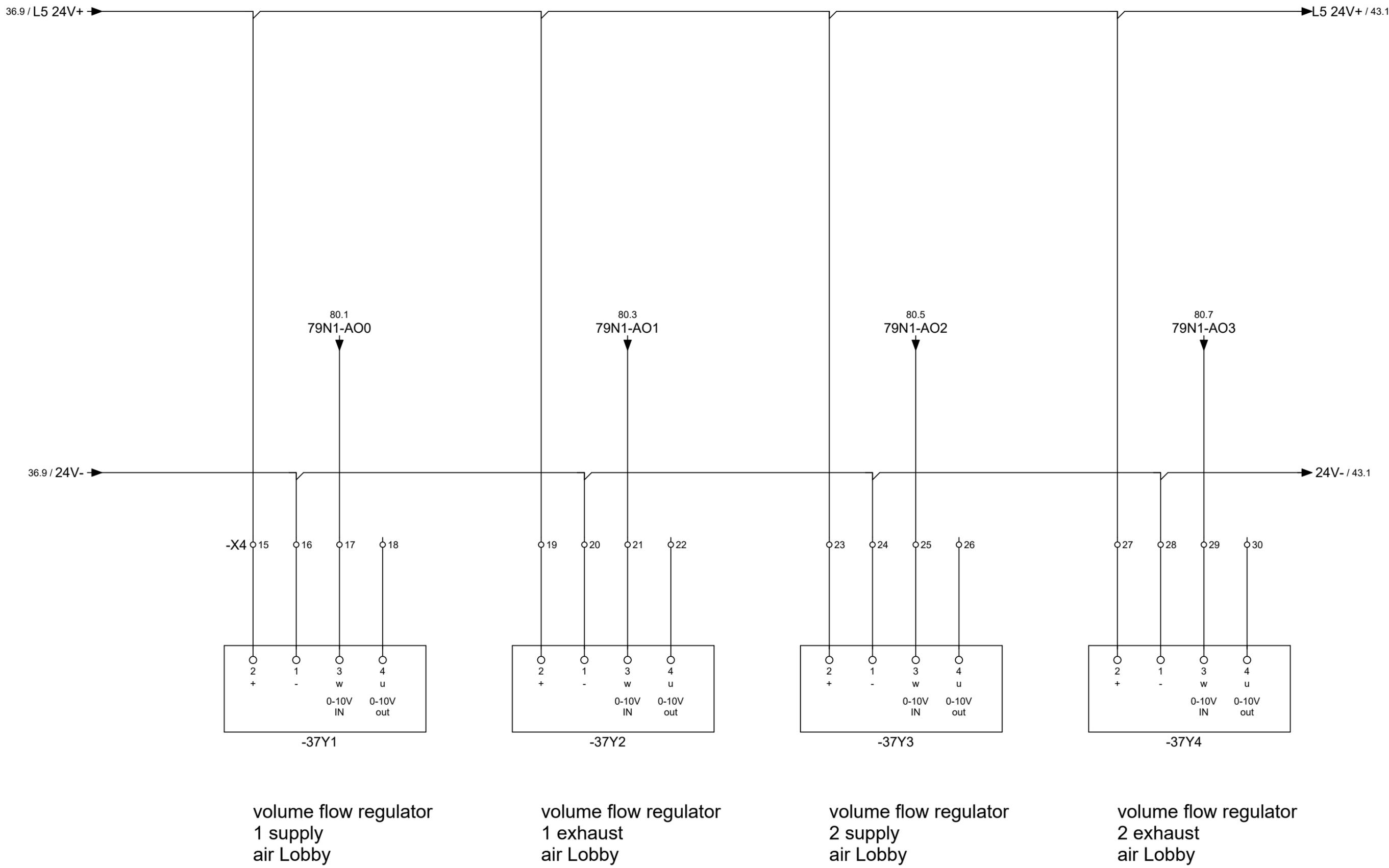
Change	Date	Name	

Date	02.Aug.2024
	KW
Mc Donald's DK - Braband ventilation	



flap drives Lobby

Fabr.. Nr. 7270	=	
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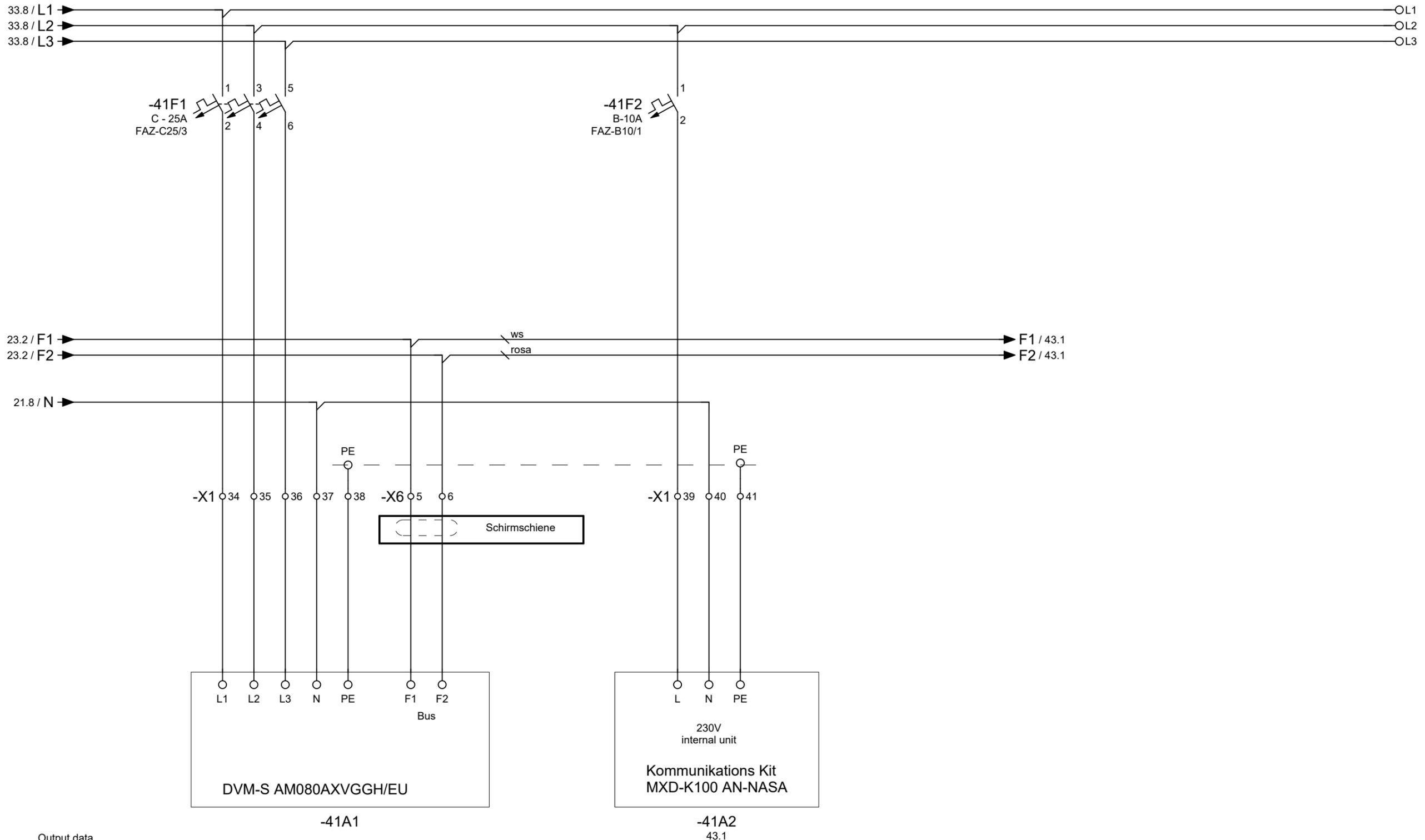


Change	Date	Name	Date	02.Aug.2024	Mc Donald's DK - Braband ventilation
				KW	



volume flow controller

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Output data

P_{EL}	: max. 5,49	KW
I	: max. 18,0	A
U	: 400	V
$I_{Betr.}$		A

reverse cycle
heating
system Lobby outside unit

reverse cycle
heating
system Lobby internal unit

Date	05.Jul.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Braband
ventilation



reverse cycle
heating system Lobby

Fabr.. Nr. 7270

Auftr. Nr. 24450

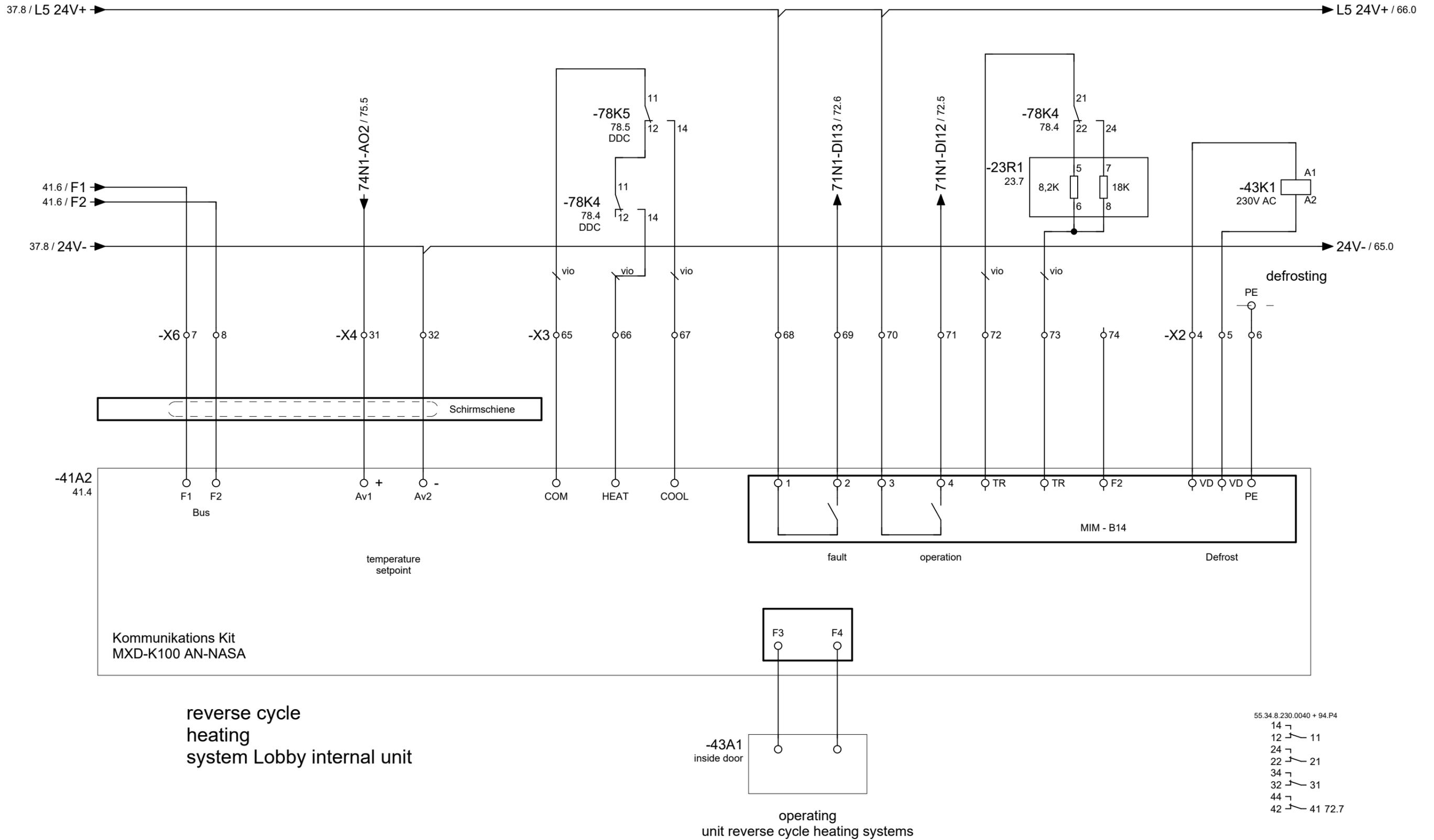
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Date	02.Aug.2024
	KW
Change	Date
	Name

Mc Donald's DK - Braband
ventilation



reverse cycle heating system Lobby internal unit

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Auftr. Nr. 24450

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plant DDC

			Date	05.Jul.2024	Mc Donald`s DK - Braband ventilation		plant distinguishing DDC	Fabr.. Nr. 7270		=	Page 60
Change	Date	Name						Auftr. Nr. 24450	Z.No.: 9773		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	mains supply control
DI3	66.4	exhaust air kitchen Switch in position manual
DI4	66.5	fault antifrost kitchen
DI5	66.6	reserve
DI6	66.7	reserve
DI7	66.8	reserve

12 digital outputs 24V DC

DO0	67.1	message plant operation
DO1	67.2	message plant fault
DO2	67.3	message plant maintenance
DO3	67.4	fault reset
DO4	67.5	reserve
DO5	67.6	flap drives kitchen
DO6	67.6	supply air fan kitchen
DO7	67.7	exhaust air ventilation kitchen
DO8	68.1	exhaust air ventilation dishes
DO9	68.2	reverse cycle heating system kitchen heating
DO10	68.3	reverse cycle heating system kitchen cooling
DO11	68.4	heating pump

8 analoge 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 analoge outputs 0...10V

AO0	69.1	Switching supply air fan kitchen
AO1	69.3	Switching exhaust air ventilation kitchen
AO2	69.5	reserve
AO3	69.7	reverse cycle heating system 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 supply air fan repair-switch kitchen
DI2	71.3	fault exhaust air ventilation kitchen
DI3	71.4	fault exhaust air ventilation repair-switch kitchen
DI4	71.5	fault exhaust air ventilation dishes
DI5	71.6	fault exhaust air ventilation repair-switch dishes
DI6	71.7	fault reverse cycle heating system kitchen
DI7	71.8	operation reverse cycle heating system kitchen
DI8	72.1	defrosting reverse cycle heating system kitchen
DI9	72.2	fault heating pump
DI10	72.3	fault supply air fan / repair switch Lobby
DI11	72.4	fault exhaust air ventilation / repair switch Lobby
DI12	72.5	operation reverse cycle heating system Lobby
DI13	72.6	fault reverse cycle heating system Lobby
DI14	72.7	defrosting reverse cycle heating system Lobby
DI15	72.8	Usage time extension

-74N1
74.0

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

8 analoge 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 analoge outputs 0...10V	
AO0	75.1 Switching supply air fan Lobby
AO1	75.3 Switching exhaust air ventilation Lobby
AO2	75.5 setpoint reverse cycle heating system Lobby
AO3	75.7 setpoint actuator heat recovery Lobby

-76N1
76.0

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

8 analoge 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 analoge outputs 0...10V	
AO0	77.1 heating valve kitchen
AO1	77.3 reserve
AO2	77.5 reserve
AO3	77.7 reserve

-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 air ventilation Lobby
DO3 ○— 78.4	reverse cycle heating system heating Lobby
DO4 ○— 78.5	reverse cycle heating system cooling Lobby
DO5 ○— 78.6	reserve
DO6 ○— 78.7	reserve
DO7 ○— 78.8	reserve

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

8 analoge inputs

aktiv/passiv AI0 ○— 79.1	reserve
aktiv/passiv AI1 ○— 79.2	reserve
aktiv/passiv AI2 ○— 79.3	reserve
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 analoge 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

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Change	Date	Name								

-65N1
65.0

-71N1
71.0

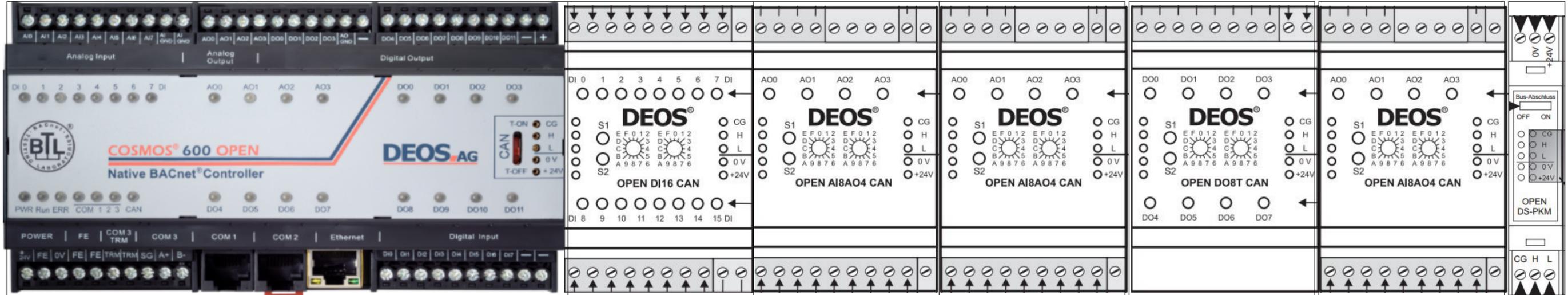
-74N1
74.0

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

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

digital output module 8 x DO
DS-C-DO8T

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

Switch ON

Date	02.Aug.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Braband
ventilation

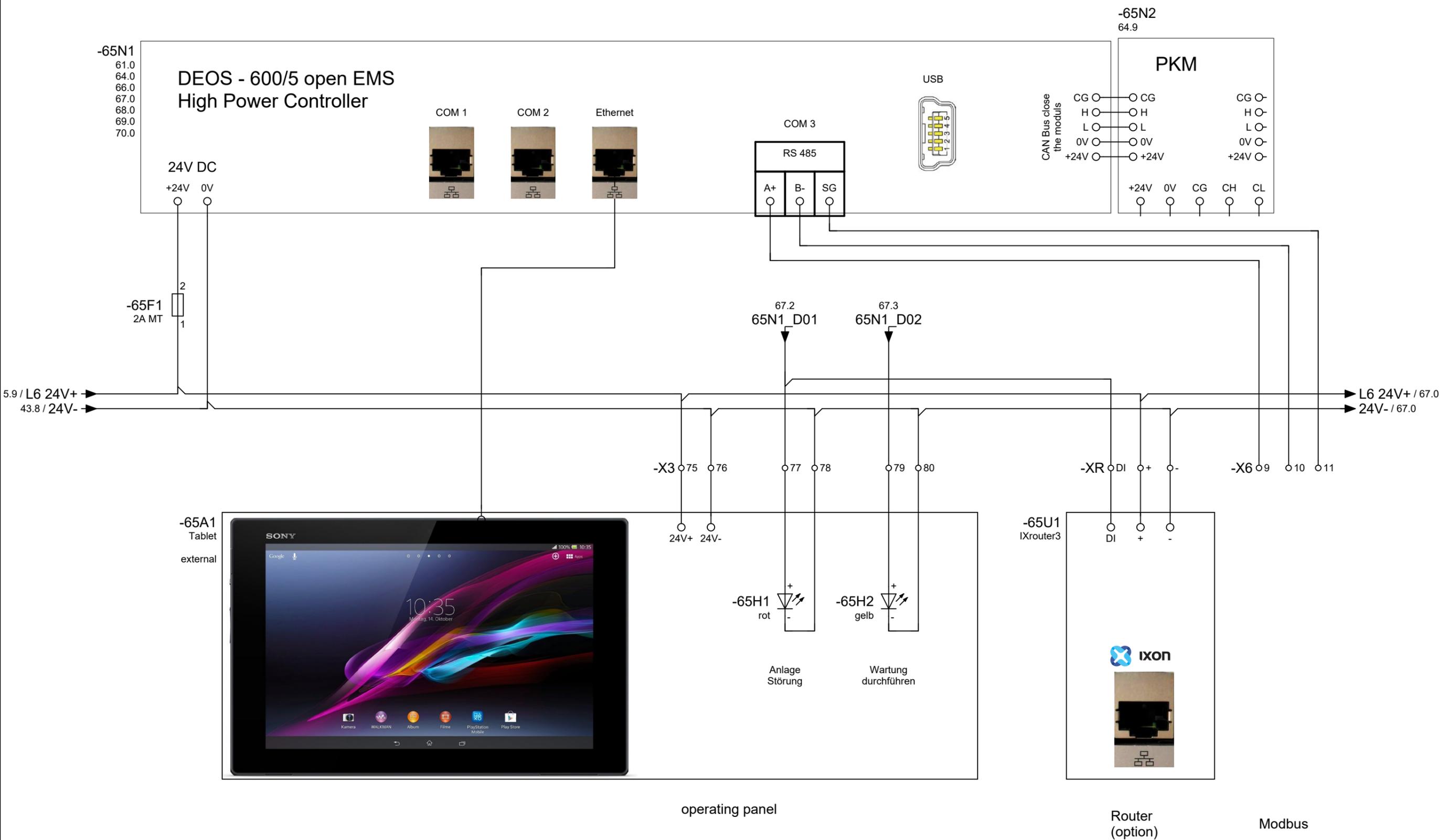


overview module

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773



Change	Date	Name	

Date	02.Aug.2024
	KW
Mc Donald's DK - Braband ventilation	



DDC - CPU Controller

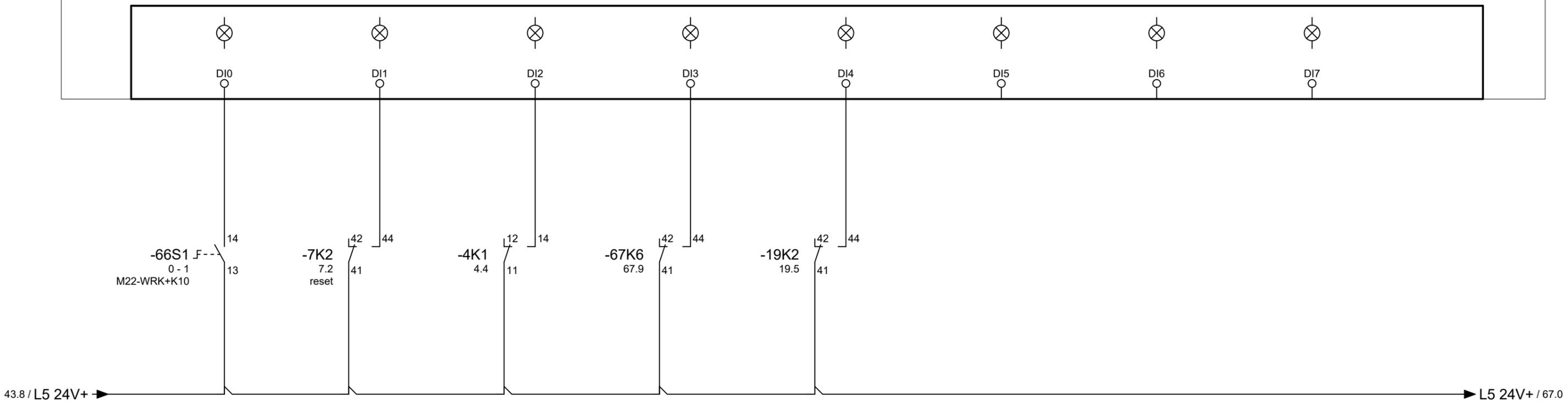
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-65N1
65.0

DEOS - 600/5 open EMS
High Power Controller

part 1 from 5

digital inputs 24V DC



start ventilation

fault reset

mains supply control

exhaust air kitchen Switch in position manual

fault antifrost kitchen

reserve

reserve

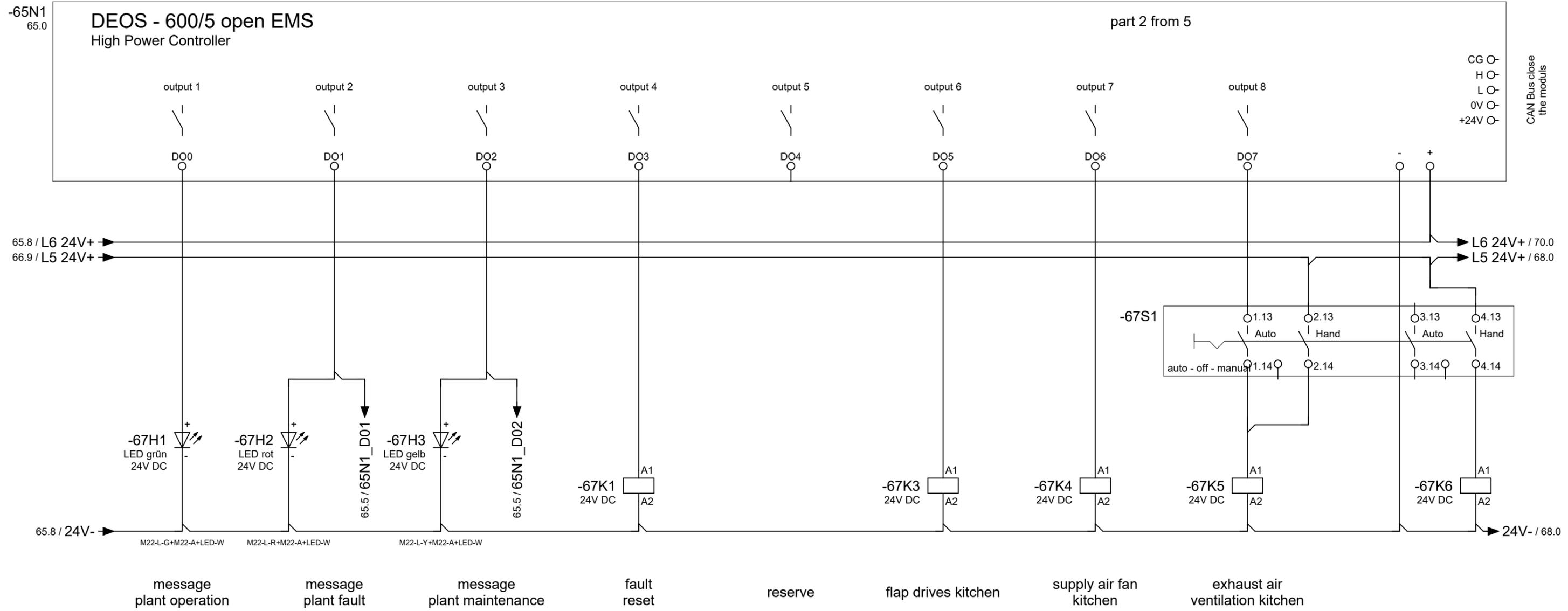
reserve

Change	Date	Name	Date	05.Jul.2024	Mc Donald`s DK - Braband ventilation
				KW	



CPU - digital inputs 8 x DI

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38.51.7.024.0050
 14 ↗
 12 ↘ 11 7.1

38.51.7.024.0050
 14 ↗
 12 ↘ 11 16.1

38.51.7.024.0050
 14 ↗
 12 ↘ 11 11.4

38.51.7.024.0050
 14 ↗
 12 ↘ 11 13.4

55.34.9.024.0090 + 94.P4
 14 ↗
 12 ↘ 11 16.3
 24 ↗
 22 ↘ 21
 34 ↗
 32 ↘ 31
 44 ↗
 42 ↘ 41 66.4

Change	Date	Name	Date	11.Jul.2024	Mc Donald's DK - Braband ventilation
				KW	



CPU - digital outputs 8 x DO

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773

-65N1
65.0

DEOS - 600/5 open EMS
High Power Controller

part 4 from 5

analoge outputs 0...10V

AO0

ws

11.6 / 65N1-AO0

Switching
supply air fan kitchen

AO1

ws

13.6 / 65N1-AO1

Switching
exhaust air ventilation
kitchen

AO2

reserve

AO3

ws

23.2 / 65N1-AO3

reverse cycle
heating system kitchen

Change	Date	Name

Date	05.Jul.2024
	LO



CPU - analoge outputs 4 x AO

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Auftr. Nr. 24450

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Page 160

-65N1
65.0

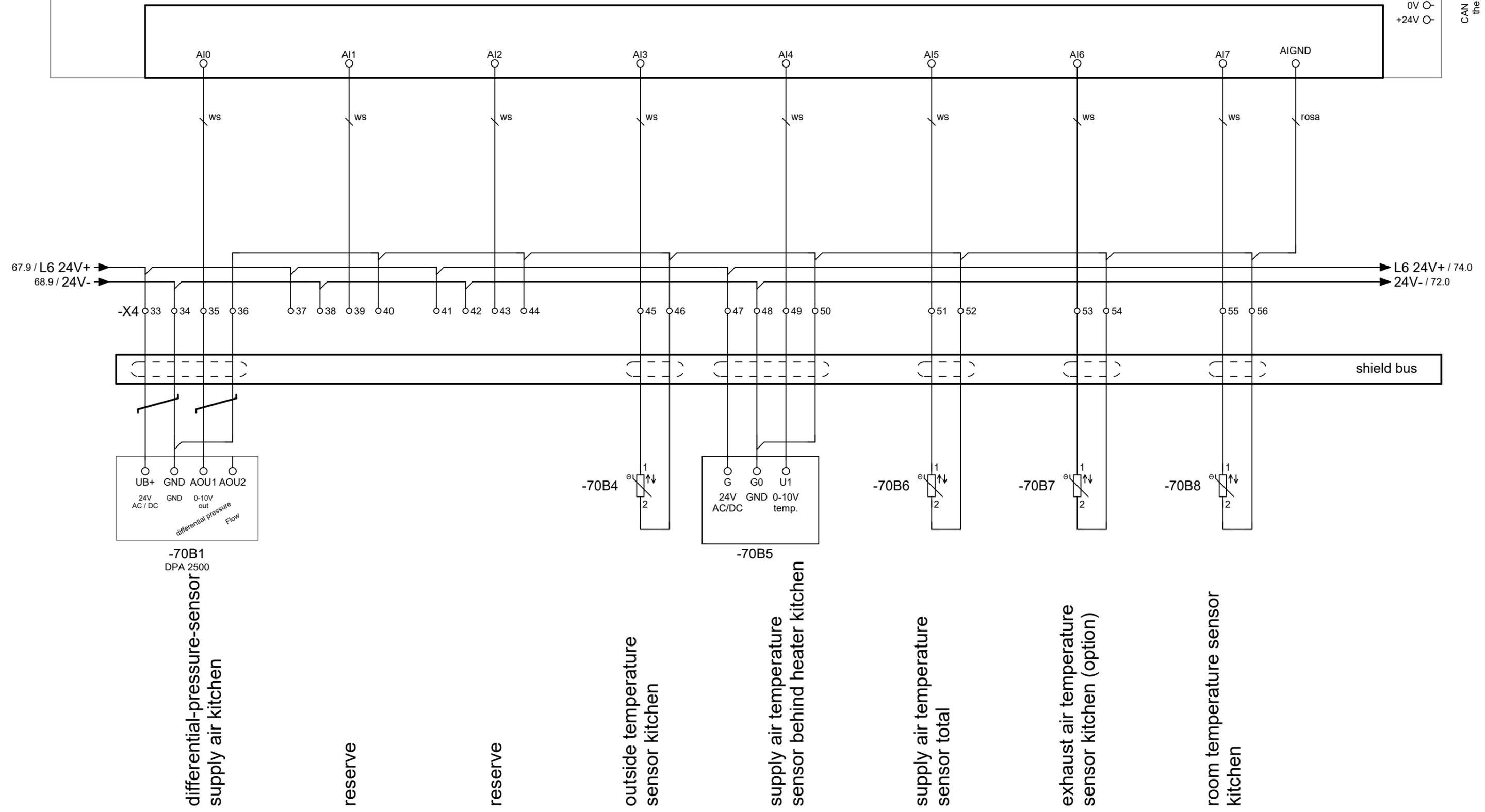
DEOS - 600/5 open EMS
High Power Controller

part 5 from 5

universal analoge inputs

- CG ○
- H ○
- L ○
- 0V ○
- +24V ○

CAN Bus close
the moduls



Change	Date	Name	Date	02.Aug.2024	Mc Donald`s DK - Braband ventilation
				KW	



CPU - analoge inputs 8xAI

Fabr.. Nr. 7270

Auftr. Nr. 24450

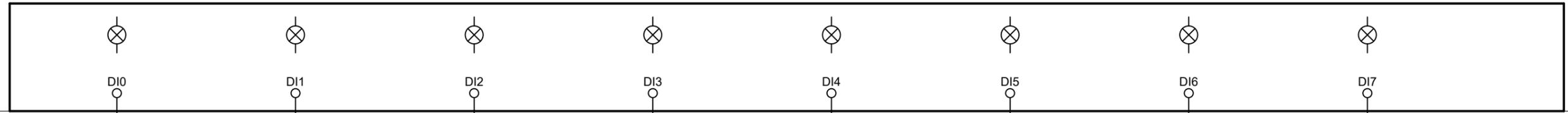
Z.No.: 9773

-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



DI0

DI1

DI2

DI3

DI4

DI5

DI6

DI7

11.5 / 71N1-DI0

11.8 / 71N1-DI1

13.5 / 71N1-DI2

13.8 / 71N1-DI3

14.3 / 71N1-DI4

14.5 / 71N1-DI5

23.5 / 71N1-DI6

23.6 / 71N1-DI7

fault
supply air fan kitchen

fault
supply air fan
repair-switch kitchen

fault
exhaust air ventilation
kitchen

fault
exhaust air ventilation
repair-switch
kitchen

fault
exhaust air ventilation
dishes

fault
exhaust air ventilation
repair-switch
dishes

fault
reverse cycle
heating system kitchen

operation
reverse
cycle heating system kitchen

Change	Date	Name	Date	05.Jul.2024	Mc Donald`s DK - Braband ventilation
				KW	



DDC - digital inputs 16 x DI

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773

-71N1
71.0

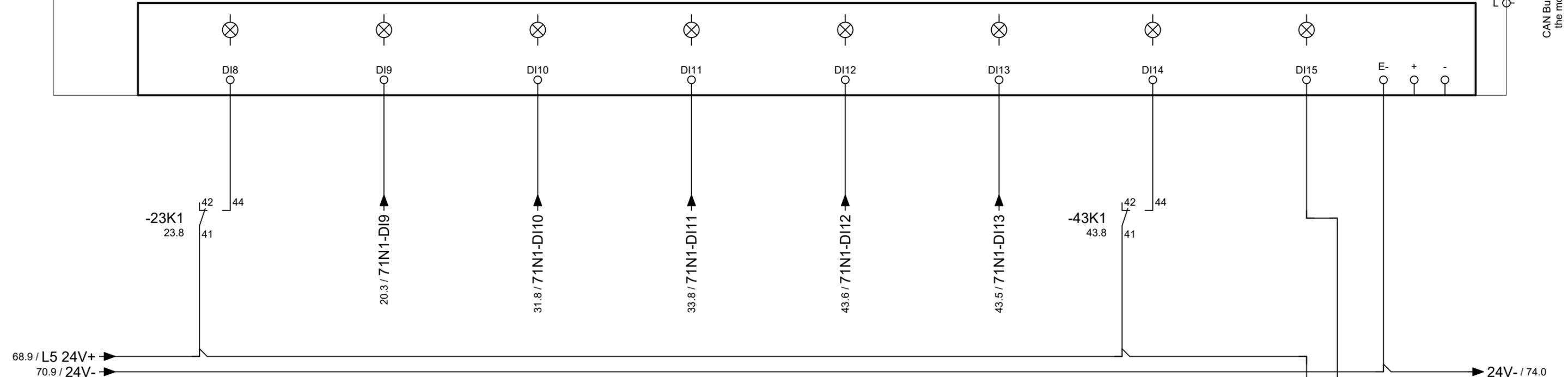
DS-C-DI 16 digital input module 16 x DI

part 2 from 2

digital inputs 24V DC

CG
H
L

CAN Bus close
the module



defrosting
reverse
cycle heating system kitchen

fault
heating pump

fault
supply air fan / repair
switch Lobby

fault
exhaust air ventilation
/ repair switch
Lobby

operation
reverse
cycle heating system Lobby

fault
reverse cycle
heating system Lobby

defrosting
reverse
cycle heating system Lobby

Usage time extension

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Change	Date	Name	Date	08.Jul.2024	Mc Donald`s DK - Braband ventilation
				KW	



DDC - digital inputs 16 x DI

Fabr.. Nr. 7270

Auftr. Nr. 24450

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Page 160

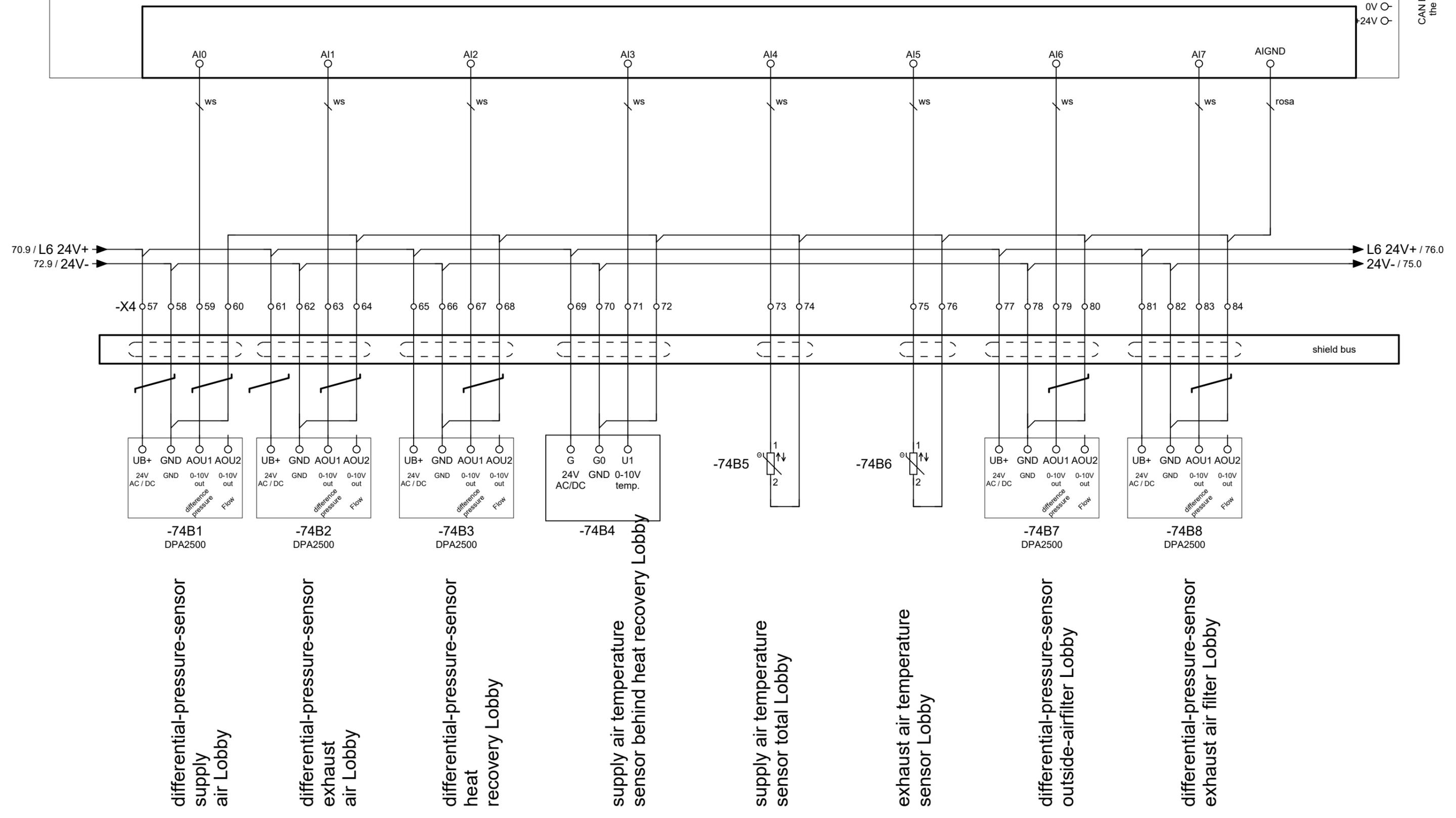
-74N1
61.3
64.4
75.0

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

universal analoge inputs

- CG ○
- H ○
- L ○
- 0V ○
- +24V ○

CAN Bus close
the moduls



Change	Date	Name	Date	02.Aug.2024	Mc Donald`s DK - Braband ventilation
				KW	



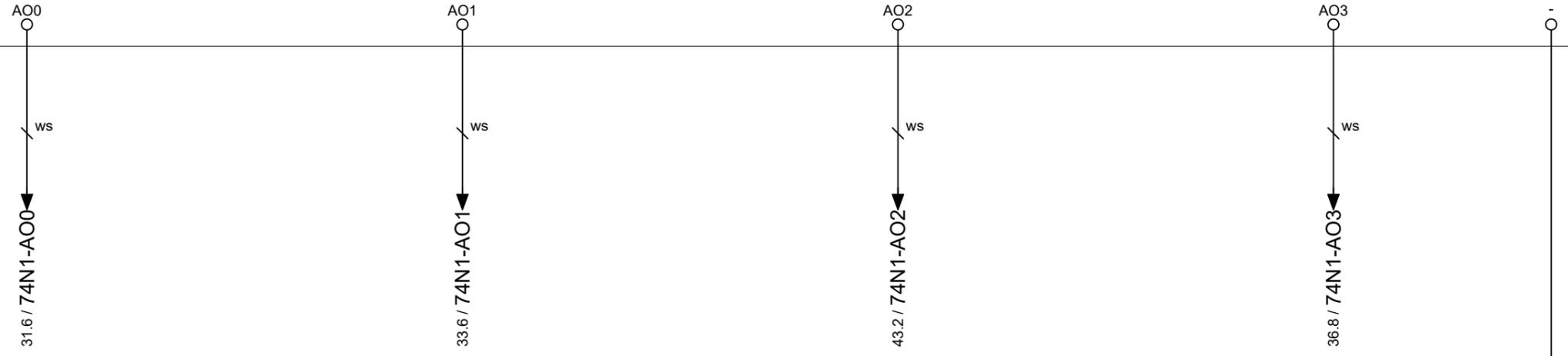
DDC - analoge
on / outputs 8 x AI / 4 x AO

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-74N1
74.0

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

analoge outputs 0...10V



74.9 / 24V- →

→ 24V- / 76.0

Switching
supply air fan Lobby

Switching
exhaust air ventilation
Lobby

setpoint
reverse cycle
heating system Lobby

setpoint
actuator heat
recovery Lobby

Change	Date	Name	

Mc Donald`s DK - Braband
ventilation



DDC - analoge
on / outputs 8 x AI / 4 x AO

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773

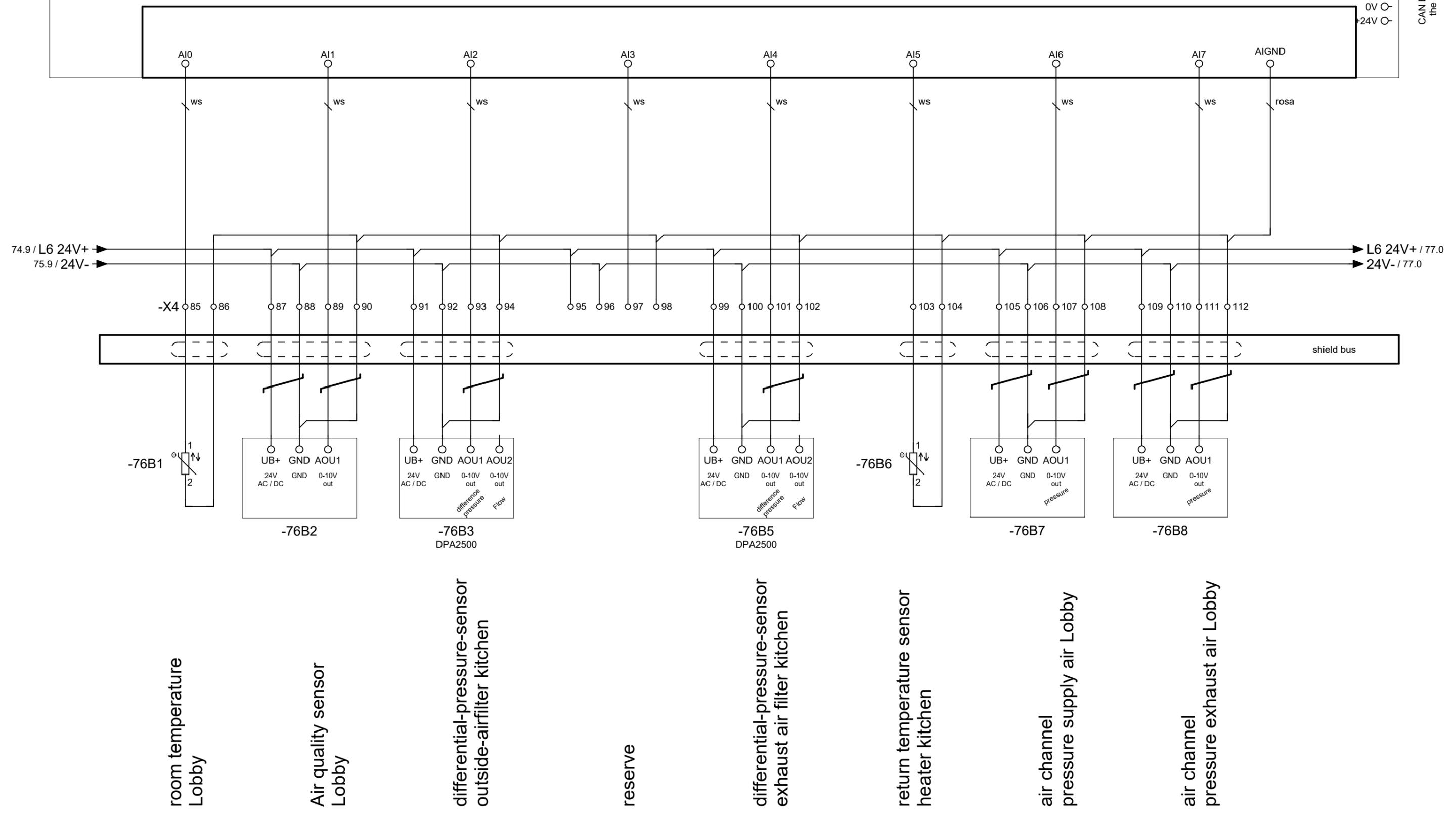
-76N1
61.6
64.6
77.0

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

universal analoge inputs

- CG ○
- H ○
- L ○
- 0V ○
- 24V ○

CAN Bus close
the moduls

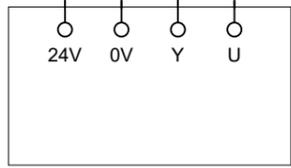
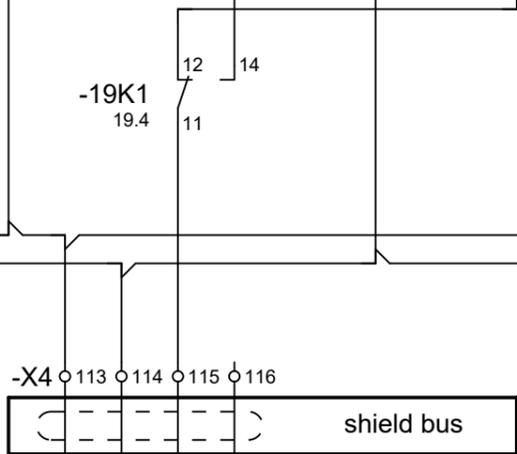
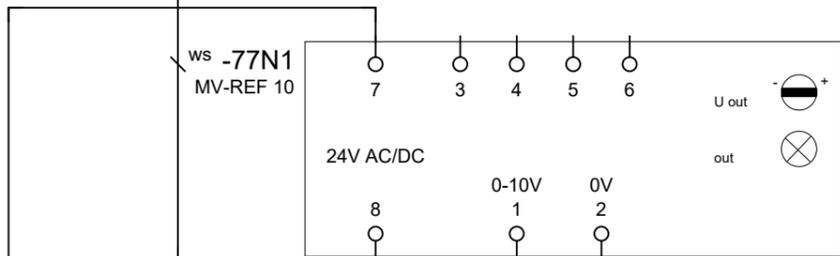
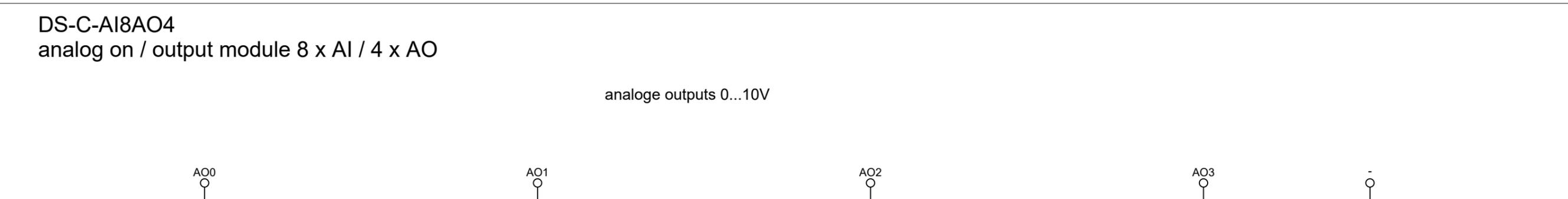


Change	Date	Name	Date	02.Aug.2024	Mc Donald`s DK - Braband ventilation
				KW	



DDC - analoge
on / outputs 8 x AI / 4 x AO

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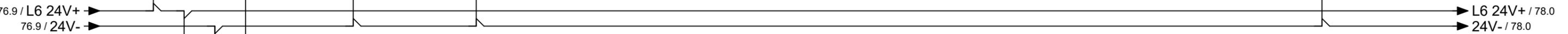


heating valve
kitchen

reserve

reserve

reserve



-77Y1

Change	Date	Name	
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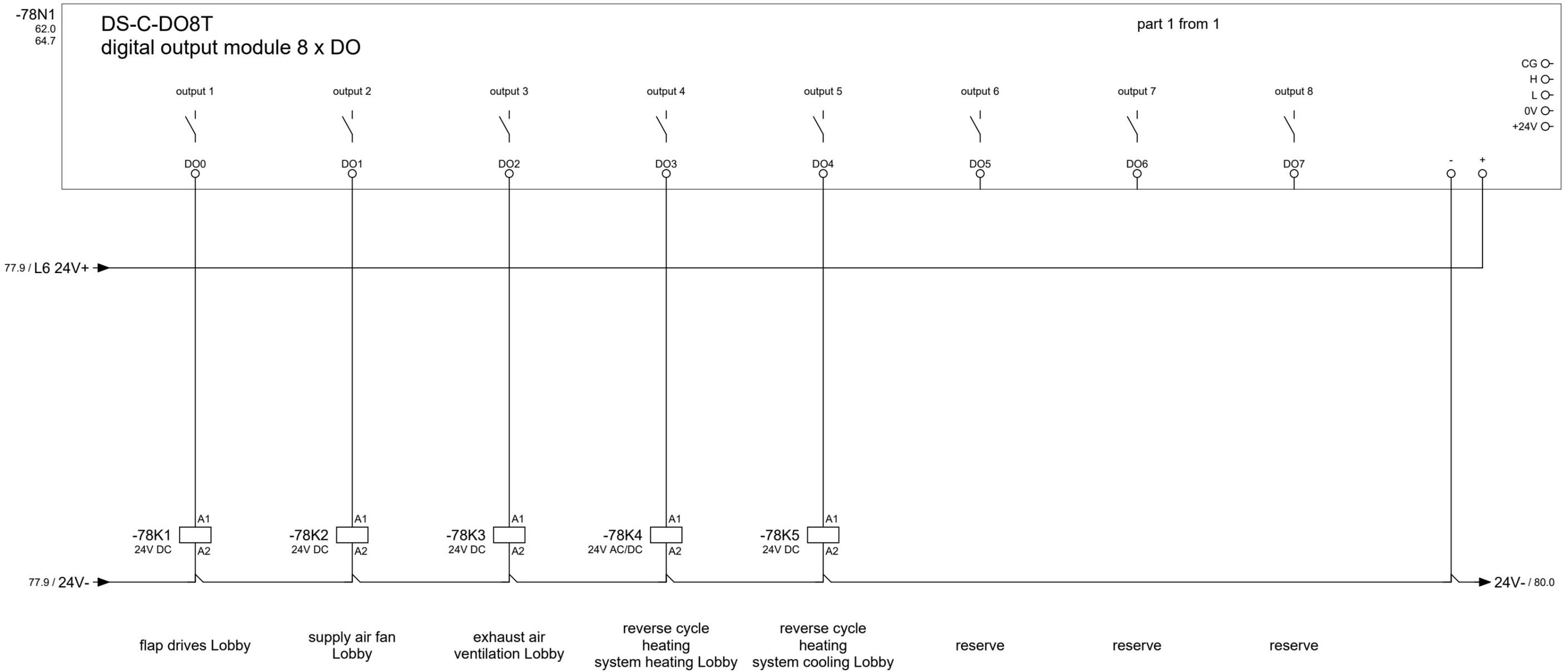
Date	02.Aug.2024
	KW
Mc Donald's DK - Brabant	
ventilation	



DDC - analoge on / outputs 8 x AI / 4 x AO

Fabr.. Nr. 7270	=
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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

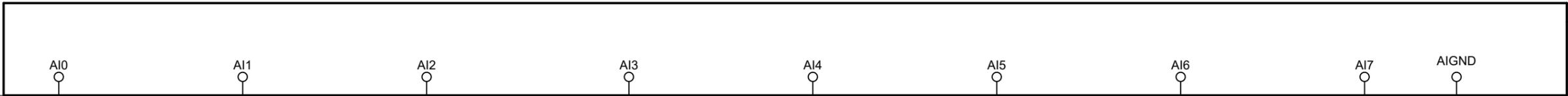
38.51.7.024.0050
14 ↗
12 ↘ 11 43.4

		Date	02.Aug.2024	Mc Donald`s DK - Braband ventilation		DDC - digital outputs 8 x DO - T	Fabr.. Nr. 7270		=
			KW				Auftr. Nr. 24450		Z.No.: 9773
Change	Date	Name							Page 160

-79N1
62.3
64.8
80.0

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

universal analoge inputs



CG ○
H ○
L ○
0V ○
+24V ○

CAN Bus close
the moduls

reserve

reserve

reserve

reserve

reserve

reserve

reserve

reserve

Change	Date	Name	Date	02.Aug.2024
				KW

Mc Donald`s DK - Braband
ventilation



DDC - analoge
on / outputs 8 x AI / 4 x AO

Fabr.. Nr. 7270

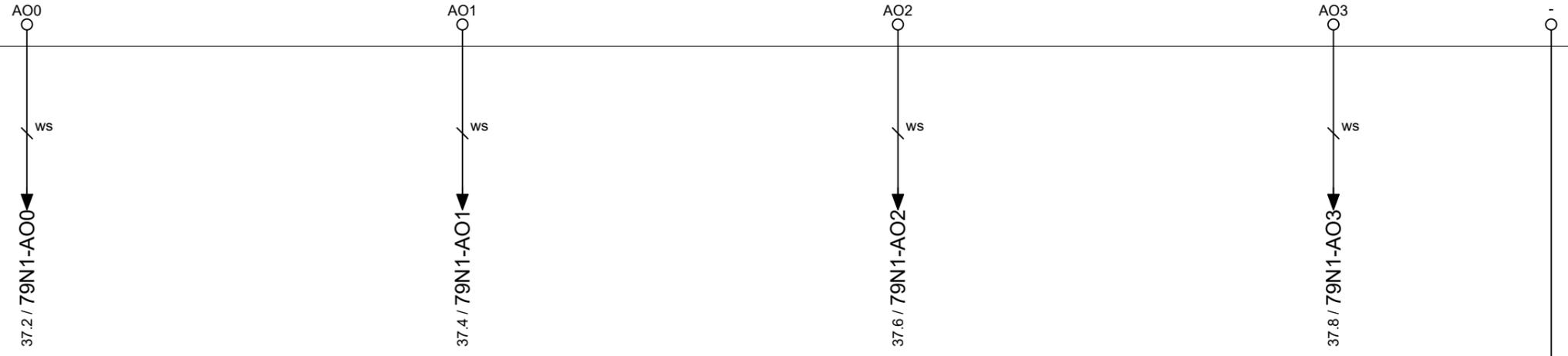
Auftr. Nr. 24450

Z.No.: 9773

-79N1
79.0

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

analoge 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	02.Aug.2024
				KW

Mc Donald`s DK - Braband
ventilation



DDC - analoge
on / outputs 8 x AI / 4 x AO

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773

Terminal layout

Mueller

				OELFLEX 110 5G6 5G6 qmm	OELFLEX 110 3G1,5 3x1,5 qmm	NYM-J 5x1,5 qmm	OELFLEX 110 4G1,5 4x1,5 qmm	OELFLEX 110 4G1,5 4x1,5 qmm	Cable	Strip X1 X1 = terminal strip Primary current					Cable					Page
										Finish	Connection	Terminal	Jumper	Finish						
illumination control-cabinet												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 air ventilation 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 air ventilation dishes												14Q1	1	12		14K1	2			14.2
=												14Q1	5	13		7K2	A2			14.2
=												14Q1	PE	14						14.2
heating pump												20M1	L	15		68K4	14			20.2
=												20M1	N	16						20.2
=												20M1	PE	17			PE			20.2
reverse cycle heating system kitchen outside unit												21A1	L1	18		21F1	2			21.1

Date	11.Jul.2024
	KW
Change	Date
Name	

Mc Donald`s DK - Braband
ventilation



terminal layout X1

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773

Terminal layout

Mueller

		Strip X3 X3 = terminal strip low voltage																
		NYM-J 5x1,5 qmm	OELFLEX 110 2X1 2x1 qmm	OELFLEX 110 4X1 4x1 qmm	OELFLEX 110 2X1 2x1 qmm	OELFLEX 110 4X1 4x1 qmm	J-Y(ST)-Y 4x2x0,8 qmm		Connection	Terminal	Jumper	Connection	Cable	Page				
		W-14M1	W-13Q1	W-13M1/2	W-11Q1	W-11M1/2	W-9A1	Cable	Finish			Finish						
fire outage ventilation							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 air ventilation kitchen				1				13M1	+24V	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 air ventilation kitchen			1					13Q1	13	16	•	14F1	13	13.8				
=			2					13Q1	14	17		71N1		13.8				
exhaust air ventilation dishes		gr						14M1	TB	18		14F1	14	14.3				

Date	11.Jul.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Braband
ventilation



terminal layout X3

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773

Terminal layout

Mueller

		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 air ventilation dishes								bl	14M1	TB	19		71N1					14.3	
repair-switch exhaust air ventilation 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	
antifrost 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	

Date	11.Jul.2024
	KW
Change	Date
	Name

Mc Donald's DK - Brabant
ventilation



terminal layout X3

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773

=	
+	
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Terminal layout

Mueller

		Strip X3 X3 = terminal strip low voltage																		
		OELFLEX 110 10X1	OELFLEX 110 3X1	OELFLEX 110 3X1	OELFLEX 110 2X1	OELFLEX 110 4X1		Finish	Connection	Terminal	Jumper	Finish	Connection	Cable					Page	
		W-41A2/3	W-36Y2	W-36Y1	W-33Q1	W-33M1/2	Cable													
exhaust air ventilation Lobby						3		33M1	COM	55									33.5	
=						4		33M1	NC	56										33.5
repair-switch exhaust air ventilation Lobby					1			33Q1	13	57										33.8
=					2			33Q1	14	58			71N1							33.8
outside air damper Lobby				1				36Y1	2	59			78K1	11						36.2
=				2				36Y1	1	60			X4	10						36.2
=				3				36Y1	3	61			78K1	14						36.2
exhaust air flap Lobby			1					36Y2	2	62			78K1	11;11						36.3
=			2					36Y2	1	63			X4	12						36.4
=			3					36Y2	3	64										36.4
reverse cycle heating system Lobby internal unit		1						41A2	COM	65		78K5	11						43.4	
=		2						41A2	HEAT	66		78K4	14						43.4	
=		3						41A2	COOL	67		78K5	14						43.4	
=		4						41A2	1	68		X4	27						43.5	
=		5						41A2	2	69		71N1							43.5	
=		6						41A2	3	70		66S1	13						43.6	
=		7						41A2	4	71		71N1							43.6	
=		8						41A2	TR	72		78K4	21						43.6	

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	KW
Change	Date
Name	

Mc Donald`s DK - Braband
ventilation



terminal layout X3

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773

Terminal layout

Mueller

										Strip X3 X3 = terminal strip low voltage																
										4x2x0,8 qmm J-Y(ST)-Y OELFLEX 110 10X1																
										W-65A1	W-41A2/3	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable							
																				Page						
reverse cycle heating system Lobby internal unit											9		41A2	TR	73		23R1	6							43.7	
=											10		41A2	F2	74									43.7		
operating panel											rt		65A1	24V+	75		65F1	1;+							65.4	
=											bl		65A1	24V-	76		65N1	0V						65.4		
=											ws		65A1-65H1	+	77		65N1	DI							65.5	
=											ge		65A1-65H1	-	78										65.5	
=											ws		65A1-65H2	+	79		65N1									65.5
=											gn		65A1-65H2	-	80		XR	-								65.5
Usage time extension													72W1		81		43K1	41								72.8
=													72W1		82		71N1									72.8

Date	11.Jul.2024
	KW
Change	Date
	Name

Mc Donald`s DK - Braband
ventilation



terminal layout X3

Fabr.. Nr. 7270

Auftr. Nr. 24450

Z.No.: 9773

Terminal layout

Mueller

		4x2x0,8 qmm	4x0,5 qmm	2x0,5 qmm	2x0,5 qmm	4x0,5 qmm	2x0,5 qmm	2x0,5 qmm	Strip X4 X4 = terminal strip signals											
		J-Y(ST)-Y	LIYC	LIYC	LIYC	LIYC	LIYC	LIYC	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page			
		W-37Y1	W-36Y3	W-33M1/3	W-31M1/3	W-21A2/2	W-13M1/3	W-11M1/3									Finish	Connection	Terminal	Finish
supply air fan kitchen								ws	11M1		1		65N1					11.6		
=								br	11M1	GND	2	┌	9K3	A2				11.7		
exhaust air ventilation kitchen								ws	13M1		3	┌	65N1					13.6		
=								br	13M1	GND	4	┌	14K1	A2				13.7		
reverse cycle heating system kitchen internal unit								ws	21A2	Av1	5		65N1					23.2		
=								br	21A2	Av2	6	┌	19K2	A2				23.3		
supply air fan Lobby								ws	31M1		7	┌	74N1					31.6		
=								br	31M1	GND	8	┌						31.7		
exhaust air ventilation Lobby								ws	33M1		9	┌	74N1					33.6		
=								br	33M1	GND	10	┌	X3	60				33.7		
actuator heat recovery Lobby								ws	36Y3	1	11	┌	X3	62				36.7		
=								br	36Y3	2	12	┌	X3	63				36.7		
=								gn	36Y3	8	13		74N1					36.8		
=								ge	36Y3	9	14							36.8		
volume flow regulator 1 supply air Lobby								rtbl	37Y1	2	15	┌						37.2		
=								wsge	37Y1	1	16	┌						37.2		
=								wsgn	37Y1	3	17		79N1					37.2		
=								wsbn	37Y1	4	18							37.2		

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Terminal layout

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		Strip X4 X4 = terminal strip signals													
		2x2x0,75 qmm LIYCY-TP	4x0,5 qmm LIYCY	4x2x0,8 qmm J-Y(ST)-Y	4x2x0,8 qmm J-Y(ST)-Y	4x2x0,8 qmm J-Y(ST)-Y	Connection	Terminal	Jumper	Connection	Cable	Page			
		W-70B1	W-41A2/2	W-37Y4	W-37Y3	W-37Y2	Finish		Finish						
volume flow regulator 1 exhaust air Lobby						rtbl	37Y2	2	19	••					37.3
=						wsge	37Y2	1	20	•					37.4
=						wsgn	37Y2	3	21			79N1			37.4
=						wsbn	37Y2	4	22						37.4
volume flow regulator 2 supply air Lobby						rtbl	37Y3	2	23	••					37.5
=						wsge	37Y3	1	24	•					37.6
=						wsgn	37Y3	3	25			79N1			37.6
=						wsbn	37Y3	4	26						37.6
volume flow regulator 2 exhaust air Lobby						rtbl	37Y4	2	27	•		X3	68		37.7
=						wsge	37Y4	1	28	•					37.8
=						wsgn	37Y4	3	29			79N1			37.8
=						wsbn	37Y4	4	30						37.8
reverse cycle heating system Lobby internal unit						ws	41A2	Av1	31			74N1			43.2
=						br	41A2	Av2	32	•		65N1	0V		43.3
differential-pressure-sensor supply air kitchen						ws	70B1	UB+	33	•					70.1
=						br	70B1	GND	34	•					70.1
=						gn	70B1	AOU1	35			65N1			70.1
=						ge	70B1	GND	36	•					70.1

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Terminal layout

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				Strip X4 X4 = terminal strip signals																
				2x0,5 qmm LIYC	2x0,5 qmm LIYC	4x0,5 qmm LIYC	2x0,5 qmm LIYC		Finish	Connection	Terminal	Jumper	Finish	Connection	Cable					Page
				W-70B7	W-70B6	W-70B5	W-70B4	Cable												
reserve											37	••								70.2
=											38	••								70.2
=											39		65N1							70.2
=											40	•								70.2
=											41	••								70.2
=											42	••								70.3
=											43		65N1							70.3
=											44	•								70.3
outside temperature sensor kitchen							ws	70B4	1	45		65N1								70.4
=							br	70B4	2	46	•									70.4
supply air temperature sensor behind heater kitchen							ws	70B5	G	47	••									70.4
=							br	70B5	G0	48	•									70.5
supply air temperature sensor behind heater kitchen							gn	70B5	U1	49		65N1								70.5
=							ge	70B5	G0	50	•									70.5
supply air temperature sensor total							ws	70B6	1	51		65N1								70.6
=							br	70B6	2	52	•									70.6
exhaust air temperature sensor kitchen (option)							ws	70B7	1	53		65N1								70.7
=							br	70B7	2	54	•									70.7

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		LIYC 4x0,5 qmm	LIYC-TP 2x2x0,75 qmm	LIYC-TP 2x2x0,75 qmm	LIYC-TP 2x2x0,75 qmm	LIYC 2x0,5 qmm	Strip X4 X4 = terminal strip signals												
		W-74B4	W-74B3	W-74B2	W-74B1	W-70B8	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page				
room temperature sensor kitchen						ws		70B8	1	55		65N1				70.8			
=						br		70B8	2	56			65N1	AIGND					70.8
differential-pressure-sensor supply air Lobby						ws		74B1	UB+	57									74.1
=						br		74B1	GND	58									74.1
=						gn		74B1	AOU1	59			74N1						74.1
=						ge		74B1	GND	60									74.1
differential-pressure-sensor exhaust air Lobby						ws		74B2	UB+	61									74.1
=						br		74B2	GND	62									74.2
=						gn		74B2	AOU1	63			74N1						74.2
=						ge		74B2	GND	64									74.2
differential-pressure-sensor heat recovery Lobby						ws		74B3	UB+	65									74.2
=						br		74B3	GND	66									74.3
=						gn		74B3	AOU1	67			74N1						74.3
=						ge		74B3	GND	68									74.3
supply air temperature sensor behind heat recovery Lobby						ws		74B4	G	69									74.3
=						br		74B4	G0	70									74.4
=						gn		74B4	U1	71		74N1						74.4	
=						ge		74B4	G0	72								74.4	

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Terminal layout

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		2x2x0,75 qmm	2x0,5 qmm	2x2x0,75 qmm	2x2x0,75 qmm	2x0,5 qmm	2x0,5 qmm	Strip X4 X4 = terminal strip signals											
		LIYCY-TP	LIYCY	LIYCY-TP	LIYCY-TP	LIYCY	LIYCY	Cable	Finish	Connection	Terminal	Jumper	Finish	Connection	Cable	Page			
		W-76B2	W-76B1	W-74B8	W-74B7	W-74B6	W-74B5												
supply air temperature sensor total Lobby							ws	74B5	1	73		74N1				74.5			
=							br	74B5	2	74	•					74.5			
exhaust air temperature sensor Lobby							ws	74B6	1	75		74N1				74.6			
=							br	74B6	2	76	•					74.6			
differential-pressure-sensor outside-airfilter Lobby							ws	74B7	UB+	77	••					74.6			
=							br	74B7	GND	78	••					74.6			
=							gn	74B7	AOU1	79		74N1				74.7			
=							ge	74B7	GND	80	•					74.7			
differential-pressure-sensor exhaust air filter Lobby							ws	74B8	UB+	81	••					74.7			
=							br	74B8	GND	82	•	74N1	-			74.7			
=							gn	74B8	AOU1	83		74N1				74.8			
=							ge	74B8	GND	84	•	74N1	AIGND			74.8			
room temperature Lobby							ws	76B1	1	85		76N1				76.1			
=							br	76B1	2	86	└					76.1			
Air quality sensor Lobby							ws	76B2	UB+	87	••					76.1			
=							br	76B2	GND	88	•	74N1	-			76.2			
=							gn	76B2	AOU1	89		76N1				76.2			
=							ge	76B2	GND	90	••					76.2			

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Terminal layout

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				Strip X4 X4 = terminal strip signals											
				2x2x0,75 qmm LIYCY-TP	2x0,5 qmm LIYCY	2x2x0,75 qmm LIYCY-TP	2x2x0,75 qmm LIYCY-TP	Connection	Terminal	Jumper	Connection				
				W-76B7	W-76B6	W-76B5	W-76B3	Finish			Finish	Page			
differential-pressure-sensor outside-airfilter kitchen							ws	76B3	UB+	91					76.2
=							br	76B3	GND	92					76.3
=							gn	76B3	AOU1	93		76N1			76.3
=							ge	76B3	GND	94					76.3
reserve										95					76.3
=										96					76.4
=										97		76N1			76.4
=										98					76.4
differential-pressure-sensor exhaust air filter kitchen							ws	76B5	UB+	99					76.4
=							br	76B5	GND	100					76.5
=							gn	76B5	AOU1	101		76N1			76.5
=							ge	76B5	GND	102					76.5
return temperature sensor heater kitchen							ws	76B6	1	103		76N1			76.6
=							br	76B6	2	104					76.6
reserve							ws	76B7	UB+	105					76.6
=							br	76B7	GND	106					76.6
=							gn	76B7	AOU1	107		76N1			76.7
=							ge	76B7	GND	108					76.7

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Cable overview

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Cable	Source from	Finish to	Cable	Quantity cores	Cross-section	Remark
W-31M1/1	X1	31Q1	OELFLEX 110 4G1,5	4	1,5 qmm	supply air fan Lobby
W-31M1/2	X3	31M1	OELFLEX 110 4X1	4	1 qmm	=
W-31M1/3	X4	31M1	LIYCY	2	0,5 qmm	=
W-31Q1	X3	31Q1	OELFLEX 110 2X1	2	1 qmm	repair-switch supply air fan Lobby
W-33M1/1	X1	33Q1	OELFLEX 110 4G1,5	4	1,5 qmm	exhaust air ventilation Lobby
W-33M1/2	X3	33M1	OELFLEX 110 4X1	4	1 qmm	=
W-33M1/3	X4	33M1	LIYCY	2	0,5 qmm	=
W-33Q1	X3	33Q1	OELFLEX 110 2X1	2	1 qmm	repair-switch exhaust air ventilation Lobby
W-36Y1	X3	36Y1	OELFLEX 110 3X1	3	1 qmm	outside air damper Lobby
W-36Y2	X3	36Y2	OELFLEX 110 3X1	3	1 qmm	exhaust air flap Lobby
W-36Y3	X4	36Y3	LIYCY	4	0,5 qmm	actuator heat recovery Lobby
W-37Y1	X4	37Y1	J-Y(ST)-Y	4x2x	0,8 qmm	volume flow regulator 1 supply air Lobby
W-37Y2	X4	37Y2	J-Y(ST)-Y	4x2x	0,8 qmm	volume flow regulator 1 exhaust air Lobby
W-37Y3	X4	37Y3	J-Y(ST)-Y	4x2x	0,8 qmm	volume flow regulator 2 supply air Lobby
W-37Y4	X4	37Y4	J-Y(ST)-Y	4x2x	0,8 qmm	volume flow regulator 2 exhaust air Lobby
W-41A1/1	X1	41A1	OELFLEX 110 5G6	5G	6 qmm	reverse cycle heating system Lobby outside unit
W-41A1/2	X6	41A1	LIYCY	2	0,5 qmm	=
W-41A2/1	X1	41A2	OELFLEX 110 3G1,5	3	1,5 qmm	reverse cycle heating system Lobby internal 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-55Y1	X4	77Y1	LIYCY	4	0,5 qmm	heating valve kitchen
W-65A1	X3	65A1	J-Y(ST)-Y	4x2x	0,8 qmm	operating panel

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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Cable overview

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Cable	Source from	Finish to	Cable	Quantity cores	Cross-section	Remark
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
W-74B3	X4	74B3	LIYCY-TP	2x2x	0,75 qmm	differential-pressure-sensor heat recovery Lobby
W-74B4	X4	74B4	LIYCY	4	0,5 qmm	supply air temperature sensor behind heat recovery Lobby
W-74B5	X4	74B5	LIYCY	2	0,5 qmm	supply air temperature sensor total Lobby
W-74B6	X4	74B6	LIYCY	2	0,5 qmm	exhaust air temperature sensor Lobby
W-74B7	X4	74B7	LIYCY-TP	2x2x	0,75 qmm	differential-pressure-sensor outside-airfilter Lobby
W-74B8	X4	74B8	LIYCY-TP	2x2x	0,75 qmm	differential-pressure-sensor exhaust air filter Lobby
W-76B1	X4	76B1	LIYCY	2	0,5 qmm	room temperature Lobby
W-76B2	X4	76B2	LIYCY-TP	2x2x	0,75 qmm	Air quality sensor Lobby
W-76B3	X4	76B3	LIYCY-TP	2x2x	0,75 qmm	differential-pressure-sensor outside-airfilter kitchen
W-76B5	X4	76B5	LIYCY-TP	2x2x	0,75 qmm	differential-pressure-sensor exhaust air filter kitchen
W-76B6	X4	76B6	LIYCY	2	0,5 qmm	return temperature sensor heater kitchen
W-76B7	X4	76B7	LIYCY-TP	2x2x	0,75 qmm	reserve
W-76B8	X4	76B8	LIYCY-TP	2x2x	0,75 qmm	reserve

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
4K1	4.3	1	phase monitoring, 2 changeover contact	PFD2-E12	BTR Metz Connect GMBH	
65N1	65.0	1	high power Controller	DEOS - 600/5 open EMS	DEOS AG	
74N1	74.0	1	analog on / output module 8 x AI / 4 x AO	DS-C-AI8AO4	DEOS AG	
76N1	76.0	1	analog on / output module 8 x AI / 4 x AO	DS-C-AI8AO4	DEOS AG	
79N1	79.0	1	analog on / output module 8 x AI / 4 x AO	DS-C-AI8AO4	DEOS AG	
71N1	71.0	1	Digital input module 16 x DI	DS-C-DI 16	DEOS AG	
78N1	78.0	1	Digital output module 8 x DO	DS-C-DO8T	DEOS AG	
65N2	65.7	1	power supply module 24V and Bus	PKM	DEOS AG	
14K1	14.4	1	contactor 4 KW 24V DC 1S	DIL M9-10 (24VDC)-PI	Eaton Electric Gmbh	43
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	
5F1	5.2	1	Automatic circuit breaker B - 6A 1 pole 10 KA	FAZ-B6/1	Eaton Electric Gmbh	
14F1	14.2	1	Automatic circuit breaker B - 6A 1 pole 10 KA	FAZ-B6/1	Eaton Electric Gmbh	
20F1	20.1	1	Automatic circuit breaker B - 6A 1 pole 10 KA	FAZ-B6/1	Eaton Electric Gmbh	
21F2	21.4	1	Automatic circuit breaker B - 10A 1 pole 10 kA	FAZ-B10/1	Eaton Electric Gmbh	
41F2	41.4	1	Automatic circuit breaker B - 10A 1 pole 10 kA	FAZ-B10/1	Eaton Electric Gmbh	
11F1	11.1	1	Automatic circuit breaker B - 10A 3 pole 10 kA	FAZ-B10/3	Eaton Electric Gmbh	
13F1	13.1	1	Automatic circuit breaker B - 10A 3 pole 10 kA	FAZ-B10/3	Eaton Electric Gmbh	

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Component designation	Wiring diagram position	Qty.	Manufacturer's designation	Manufacturer's type No.	Manufacturer	Pos
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	
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	
21F1	21.1	1	Automatic circuit breaker C - 25A 3 pole 10 kA	FAZ-C25/3	Eaton Electric Gmbh	
41F1	41.1	1	Automatic circuit breaker C - 25A 3 pole 10 kA	FAZ-C25/3	Eaton Electric Gmbh	
20F1	20.1	1	Auxiliary contact, for FAZ, PKNM, 1N/O+1N/C, 0.5HP	FAZ-XHIN11	Eaton Electric Gmbh	
7S1	7.1	1	push button black with 1 Ö	M22-D-S+K01	Eaton Electric Gmbh	
67S1	67.7	1	contact 1 NO	M22-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	
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	
67H3	67.2	1	Indicator light yellow 24V	M22-L-Y+M22-A+LED-W	Eaton Electric Gmbh	
67S1	67.7	1	selector-switch black - 3 positions	M22-WRK3+K10+K10	Eaton Electric Gmbh	
3S1	3.4	1	selector-switch black - 2 positions	M22-WRK+K10	Eaton Electric Gmbh	
66S1	66.1	1	selector-switch black - 2 positions	M22-WRK+K10	Eaton Electric Gmbh	
3Q1	3.0	1	finger protection for NZM 1	NZM1-XIPK	Eaton Electric Gmbh	

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3Q1	3.0	1	cover screw	NZM1-XKSA	Eaton Electric Gmbh	
3Q1	3.0	1	turning handle red - yellow for NZMN 1	NZM1-XTVDVR	Eaton Electric Gmbh	
3Q1	3.0	1	main switch 100 A 3 pole	PN1-100	Eaton Electric Gmbh	
3B1	3.8	1	cabinet temperature sensor cooling	7T.81.0.000.2303	Finder Relais	
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	
67K1	67.4	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	Coupling relay 24V DC 1W with LED	38.51.7.024.0050	Finder Relais	
68K1	68.1	1	Coupling relay 24V DC 1W with LED	38.51.7.024.0050	Finder Relais	
68K3	68.3	1	Coupling relay 24V DC 1W with LED	38.51.7.024.0050	Finder Relais	
68K4	68.4	1	Coupling relay 24V DC 1W with LED	38.51.7.024.0050	Finder Relais	
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	
78K5	78.5	1	Coupling relay 24V DC 1W with LED	38.51.7.024.0050	Finder Relais	
7K2	7.2	1	Relay 4 changeover contact 230 V AC	55.34.8.230.0040 + 94.P4	Finder Relais	
23K1	23.8	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
43K1	43.8	1	Relay 4 changeover contact 230 V AC	55.34.8.230.0040 + 94.P4	Finder Relais	
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	
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	
67K6	67.9	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
68K2	68.2	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
78K4	78.4	1	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	Finder Relais	
7K1	7.1	1	timing relays 230V AC 4 changeover contact	85.04.8.240.0000 + 94.P4	Finder Relais	
65U1	65.6	1	IXrouter3 Ethernet	IX2400	IXON	
5G1	5.2	1	power supply unit 230V AC / 24V DC - 10A	NDR-240-24	MeanWell	
Schrank	3.4	1	operating panel 250 x 180 mm	Schaltpanel	Mueller Schaltanlagen GmbH	
23R1	23.7	1	subplate with 16 solder points	MP 16	Murr Elektronik	
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	
X1		17	Spring terminal 2,5 qmm	PTI 2,5	Phoenix Contact	
X2		2	Spring terminal 2,5 qmm	PTI 2,5	Phoenix Contact	
X3		82	Spring terminal 2,5 qmm	PTI 2,5	Phoenix Contact	

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Bill of material

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Component designation	Wiring diagram position	Qty.	Manufacturer's designation	Manufacturer's type No.	Manufacturer	Pos
X6		11	Spring terminal 2,5 qmm	PTI 2,5	Phoenix Contact	
XL		1	Spring terminal 2,5 qmm	PTI 2,5	Phoenix Contact	
XR		3	Spring terminal 2,5 qmm	PTI 2,5	Phoenix Contact	
X1		1	Terminal blue 2,5 qmm	PTI 2,5 BU	Phoenix Contact	
X2		2	Terminal blue 2,5 qmm	PTI 2,5 BU	Phoenix Contact	
XL		1	Terminal blue 2,5 qmm	PTI 2,5 BU	Phoenix Contact	
X1		9	PE - Spring terminal 2,5 qmm	PTI 2,5-PE	Phoenix Contact	
X2		2	PE - Spring terminal 2,5 qmm	PTI 2,5-PE	Phoenix Contact	
X1		6	Terminal 6 qmm	PTI 6	Phoenix Contact	
X1		2	PE - Terminal 6 qmm	PTI 6-PE	Phoenix Contact	
Schrank	3.4	1	PE - Terminal 16 qmm	PTI 16/S-PE	Phoenix Contact	
X1		4	N - Disconnect terminal 2,5 qmm	PTN 2,5	Phoenix Contact	
X1		2	N - Disconnect terminal 6 qmm	PTN 6	Phoenix Contact	
X4		58	Two-tier terminal 2,5 qmm	PTTBS 2,5	Phoenix Contact	
X01		1	High current terminal	UKH 50 BU	Phoenix Contact	
65F1	65.1	1	fuse terminal	USIG + ST-SI	Phoenix Contact	
X01		1	PE - Terminal 16 qmm	USLKG 16	Phoenix Contact	
X01		1	PE - Terminal 35 qmm	USLKG 35	Phoenix Contact	
X01		1	PE - Terminal 50 qmm	USLKG 50	Phoenix Contact	

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 contact	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 on / 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	Automatic circuit breaker B - 10A 3 pole 10 kA	FAZ-B10/3	4		
	286054	Auxiliary contact, for FAZ, PKNM, 1N/O+1N/C, 0.5HP	FAZ-XHIN11	1		
	278875	Automatic circuit breaker C - 25A 3 pole 10 kA	FAZ-C25/3	2		
	278531	Automatic circuit breaker B - 10A 1 pole 10 kA	FAZ-B10/1	2		
		Indicator light white 230V	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	contactor 4 KW 24V DC 1S	DIL M9-10 (24VDC)-PI	1		
	259141	main switch 100 A 3 pole	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 black - 2 positions	M22-WRK+K10	2		
		push button black with 1 Ö	M22-D-S+K01	1		
	216872	selector-switch black - 3 positions	M22-WRK3+K10+K10	1		
	216376	contact 1 NO	M22-K10	1		

Summarized parts list

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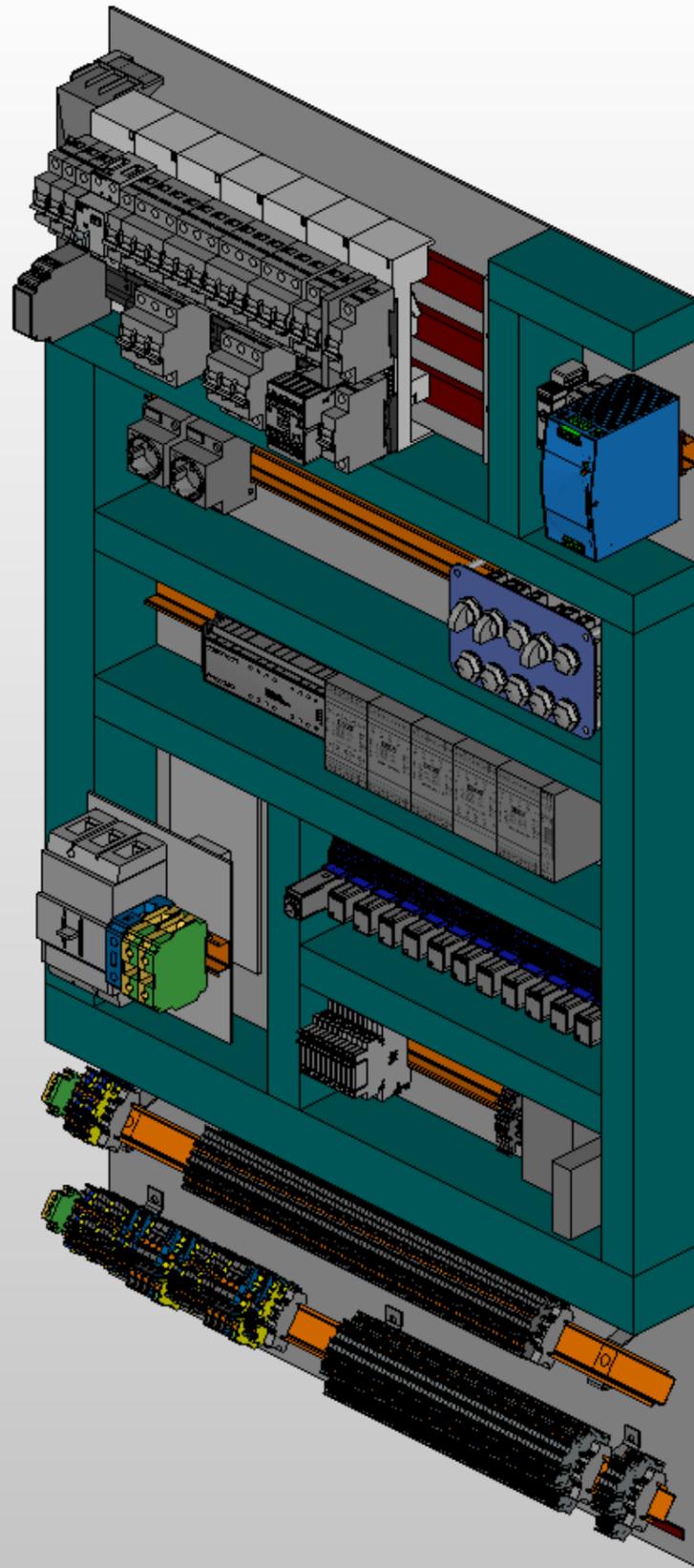
supplier	Order number	designation	Type number	Quantity	unit price	total price
Finder Relais						
	7T.81.0.000.2303	cabinet temperature sensor cooling	7T.81.0.000.2303	1		
	85.04.8.240.0000	timing relays 230V AC 4 changeover contact	85.04.8.240.0000 + 94.P4	1		
	55.34.8.230.0040	Relay 4 changeover contact 230 V AC	55.34.8.230.0040 + 94.P4	3		
	55.34.9.024.0090	Relay 4 changeover contact 24 V DC	55.34.9.024.0090 + 94.P4	8		
	38.51.7.024.0050	Coupling relay 24V DC 1W with LED	38.51.7.024.0050	11		
	7U.00.8.230.0010	plug socket 230V / 10 A grey	7U.00.8.230.0010	2		
	IX2400	IXrouter3 Ethernet	IX2400	1		
MeanWell						
		power supply unit 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 terminal	USIG + ST-SI	1		
	3209578	Feed-through terminal	PT 2,5-QUATTRO	5		
	3209581	Feed-through terminal	PT 2,5-QUATTRO BU	9		
	3214024	PE - Terminal 16 qmm	PTI 16/S-PE	1		
	3213968	Spring terminal 2,5 qmm	PTI 2,5	116		
	3213969	Terminal blue 2,5 qmm	PTI 2,5 BU	4		
	3213963	N - Disconnect terminal 2,5 qmm	PTN 2,5	4		
	3213962	PE - Spring terminal 2,5 qmm	PTI 2,5-PE	11		
	3213972	Terminal 6 qmm	PTI 6	6		
	3213967	N - Disconnect terminal 6 qmm	PTN 6	2		
	3213966	PE - Terminal 6 qmm	PTI 6-PE	2		
	3009105	High current terminal	UKH 50 BU	1		

Summarized parts list

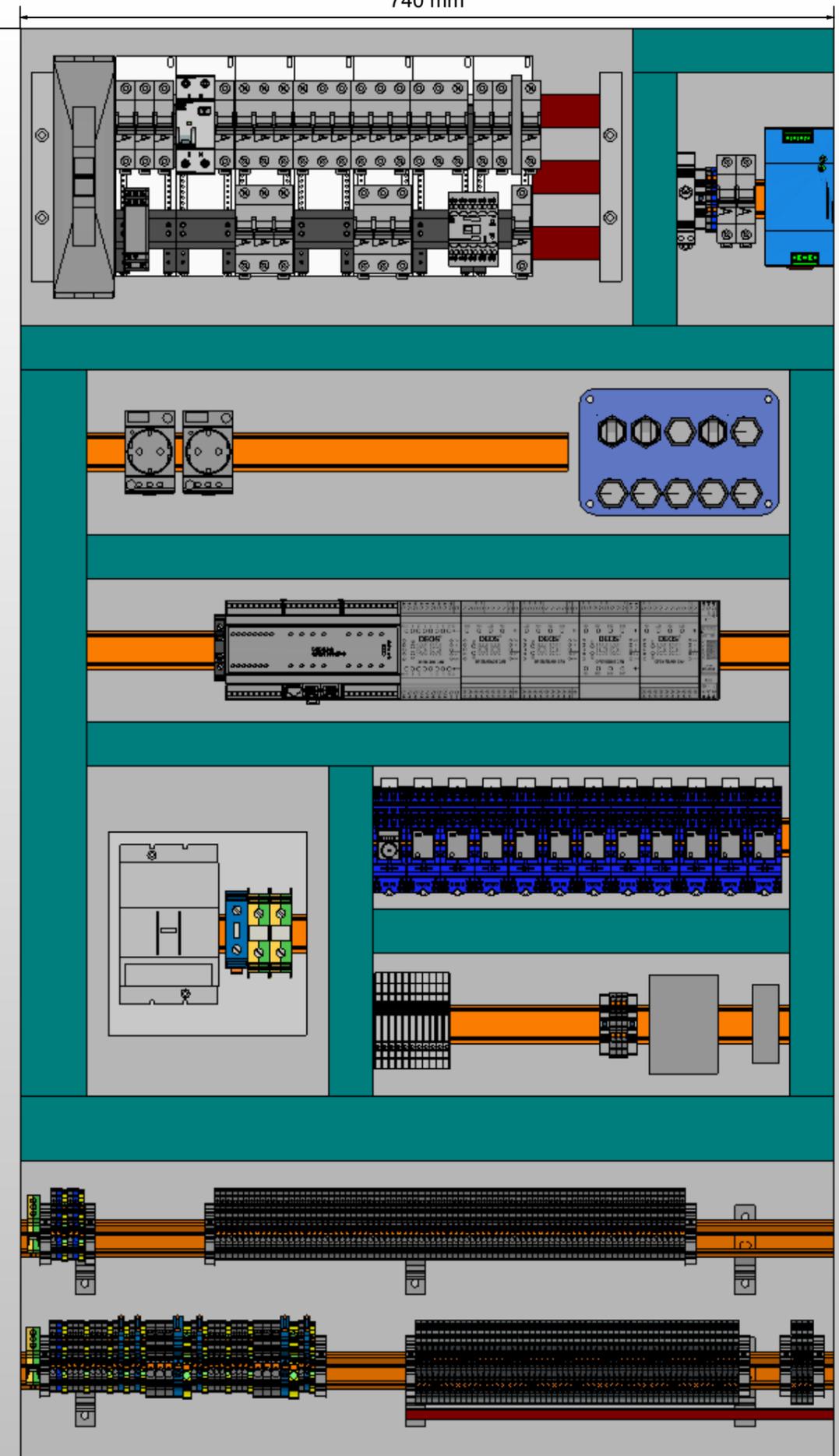
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supplier	Order number	designation	Type number	Quantity	unit price	total price
Phoenix Contact						
	0443049	PE - Terminal 50 qmm	USLKG 50	1		
	0443010	PE - Terminal 16 qmm	USLKG 16	1		
	0444019	PE - Terminal 35 qmm	USLKG 35	1		
	3209604	Two-tier terminal 2,5 qmm	PTTBS 2,5	58		
RINCK						
		signal transmitter 1,5 - 16V DC / 24V AC/DC	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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1300 mm



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				KW	



Cabinet view

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