

PT. Satria Nusa Enjinering

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Jl. R.A Kartini II No. 11, Madras Hulu, Kec. Medan Polonia
Medan

PT Satria Nusa Enjinering

Customer:

Project description:

Customer order number:

Drawing number:

Order no.:

Project name:

WWTP Soci Mas

Plant type:

Location:

Responsible for the project:

Parts feature:

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Created on: 10.08.24 Drawn by: Raisha

Edited on:

		Date	10.08.24		PT Satria Nusa Enjining	Cover sheet	Project number		=		
		Work	Raisha						+		
		Check	Budiman						Drawing number		sheet
Rev.	Date	Name	Norm	DIN 81346						of	

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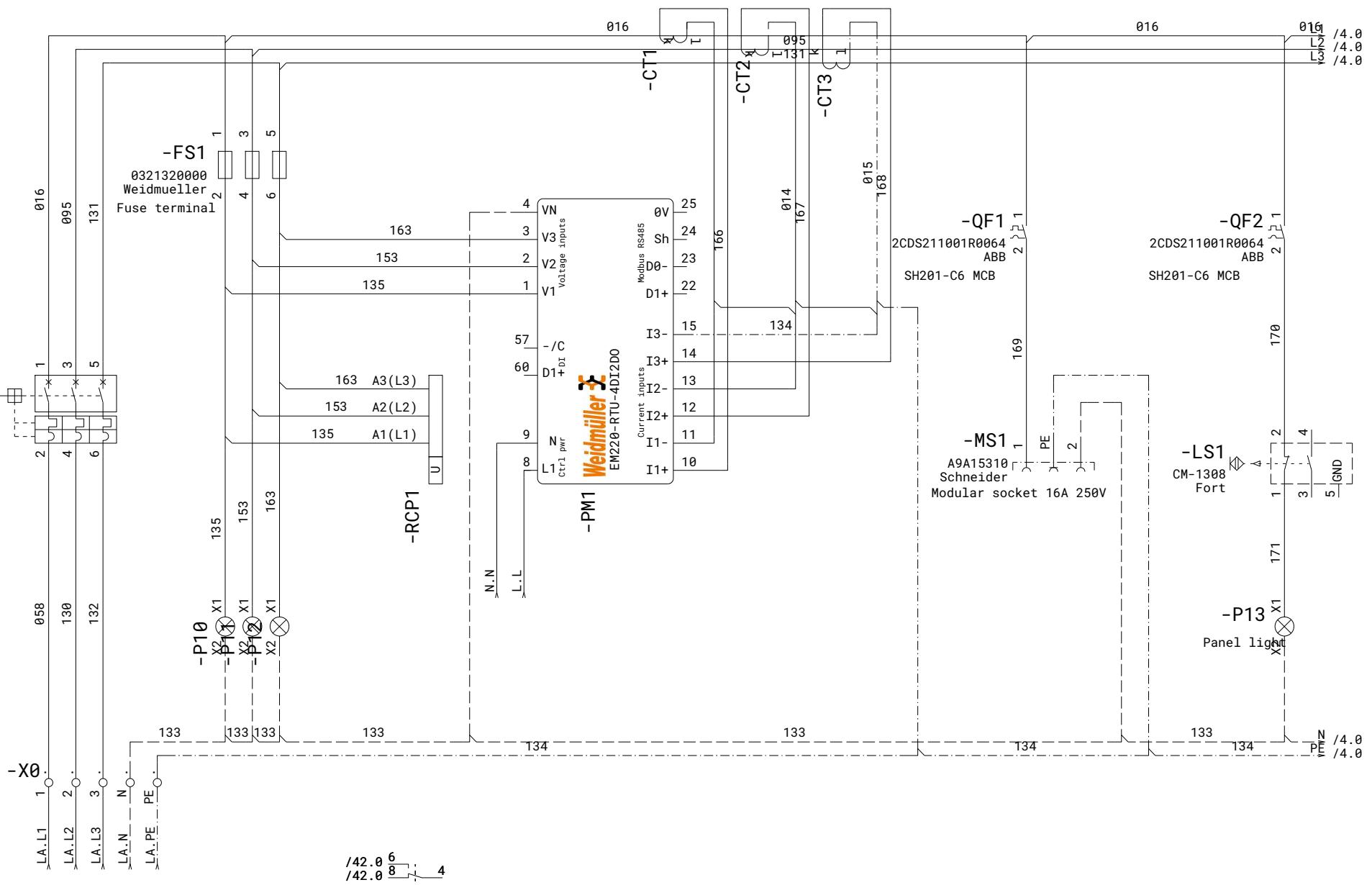
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PANEL 1

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			check	Budiman				Drawing number		sheet	2
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			of	114

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			Date	10.08.24				Project number		Unit	=Panel Layout 1,2,4,6
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Status	rev.	Date	name	norm	DIN 81346	created for	Created by			of	114

0 1 2 3 4 5 6 7 8 9

/3.9 L1 016 /3.9 L2 095 /3.9 L3 131 016 095 131 016 095 131 016 095 131 016 095 131 016 L1 /5.0

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/3.9 L1 016 /3.9 L2 095 /3.9 L3 131

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016 095 L1 /5.0 L2 /5.0 L3 /5.0

-QF 1
1SAM250000R1010
ABB
MS116-10 MMS

-QF 2
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ABB
MS116-10 MMS

-QF 3
1SAM250000R1008
ABB
MS116-4.0 MMS

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ABB
MS116-4.0 MMS

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-Q2
/71.4

-Q3
/71.7

-Q4
/72.2

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/3.9 N PE
/3.9 N PE

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TF. PUMP AERATION-CLARIFIER 1
0.37 KW

TF. PUMP AERATION-CLARIFIER 2
0.37 KW

SUCTION PUMP 1
0.37 KW

SUCTION PUMP 2
0.37 KW

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-M1
/42.4 13 21 22
/71.1 21 22

-M2
/42.6 13 21 22
/71.4 21 22

-M3
/42.7 13 21 22
/71.7 21 22

-M4
/42.8 13 21 22
/72.2 21 22

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		Date	10.08.24
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		work	Raisha
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		check	Budiman
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created for

**SNE SATRIA
NUSA ENGINERING**

Created by

Project number	Unit	=Panel Layout 1,2,4,6
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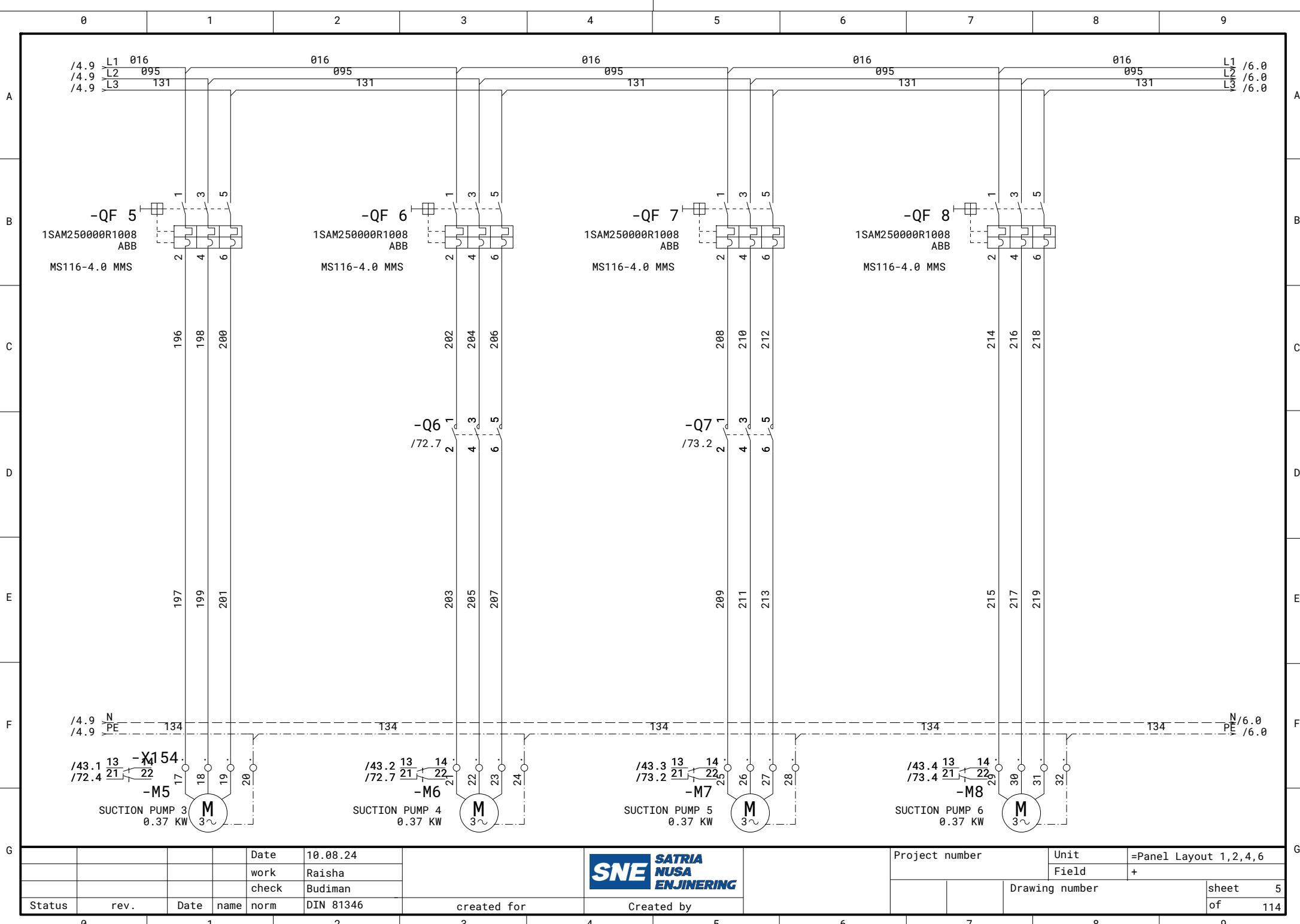
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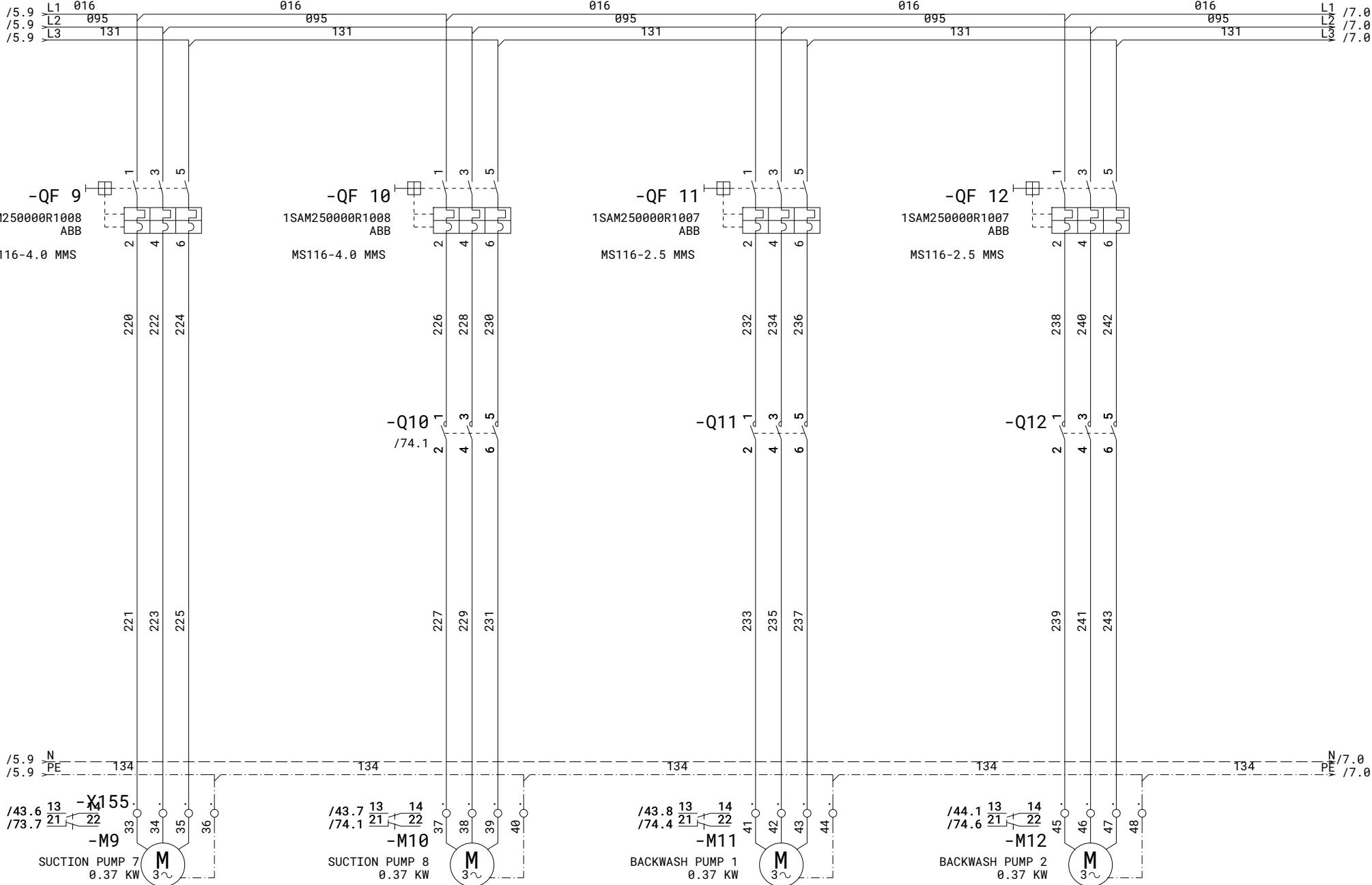
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/6.9 L1 016 /6.9 L2 095 /6.9 L3 131 016 095 131 016 095 131 016 095 131 016 095 131 L1 /8.0 L2 /8.0 L3 /8.0

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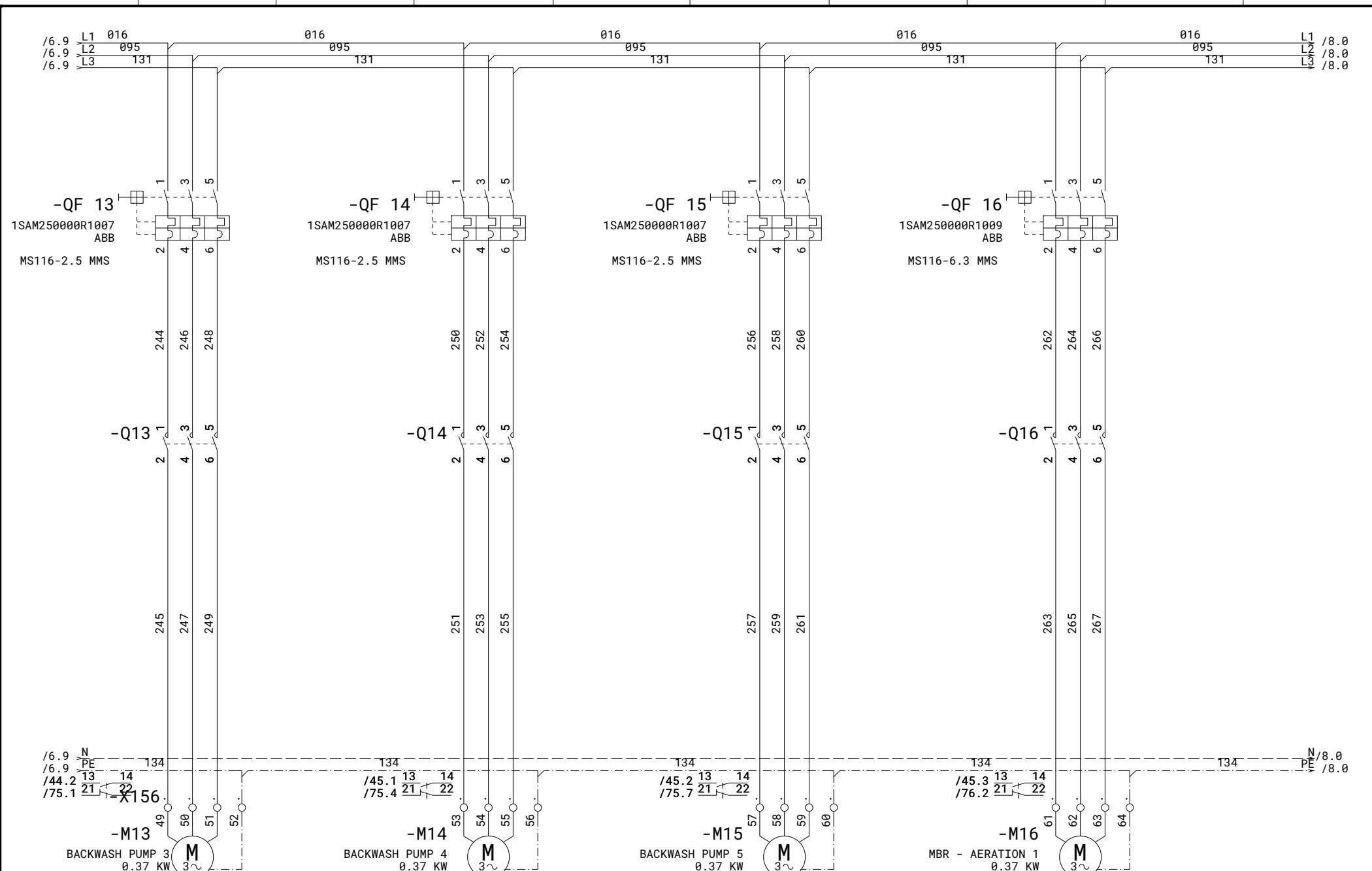
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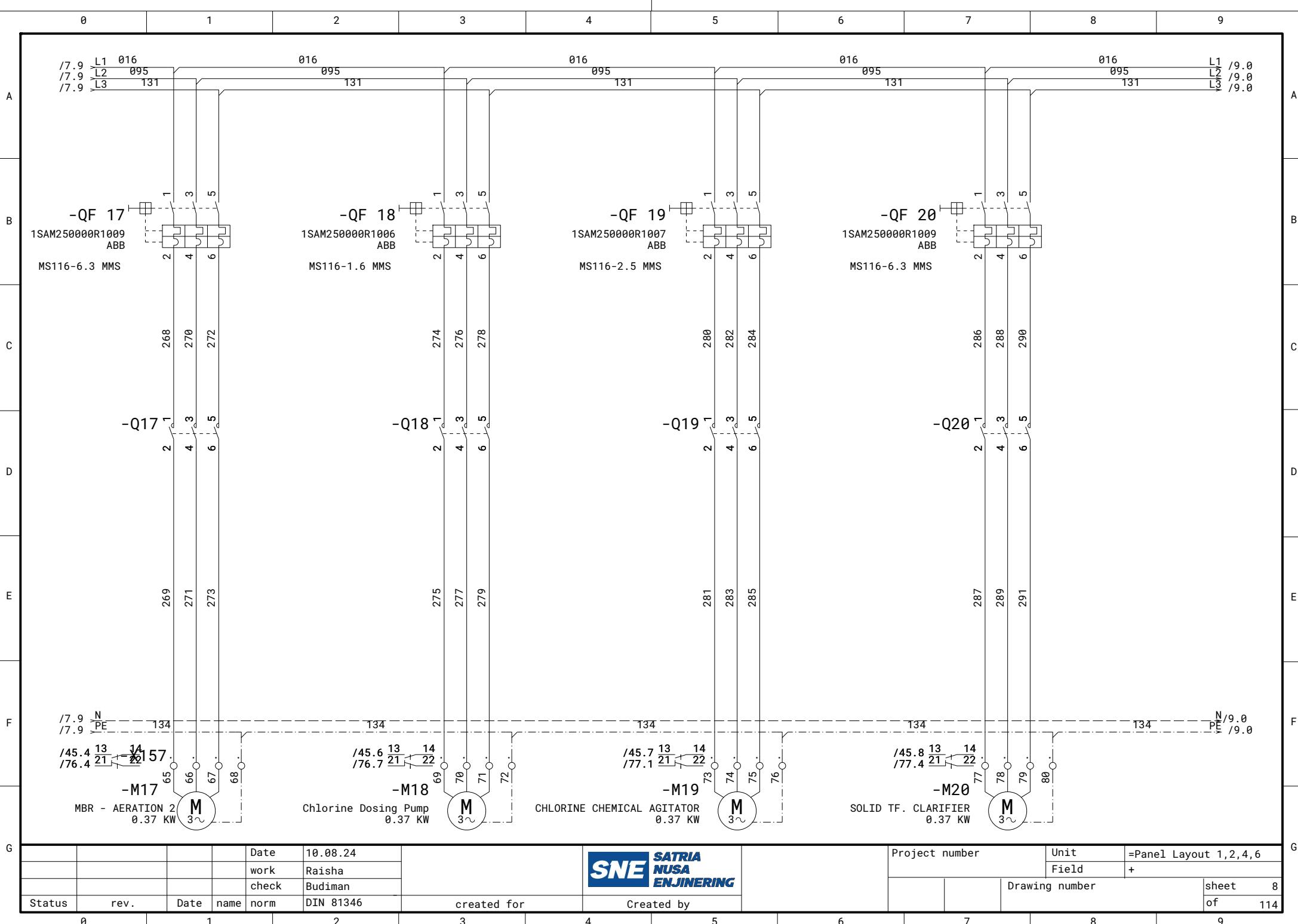
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		Date	10.08.24		SNE Satria Nusa ENJINERING	Project number	Unit	=Panel Layout 1,2,4,6
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		check	Budiman					
Status	rev.	Date	norm	DIN 81346	created for	Created by	Drawing number	sheet 7 of 114

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/8.9 L1 016 /10.0
 /8.9 L2 095 /10.0
 /8.9 L3 131 /10.0

-QF 21
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MS116-6.3 MMS

-QF 22
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MS116-6.3 MMS

-QF 23
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-QF 24
1SAM25000R1011 ABB
MS116-16 MMS

-Q21 1 292
2 4 3 294
6 5 296
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-Q22 1 298
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-Q23 1 304
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6 5 308
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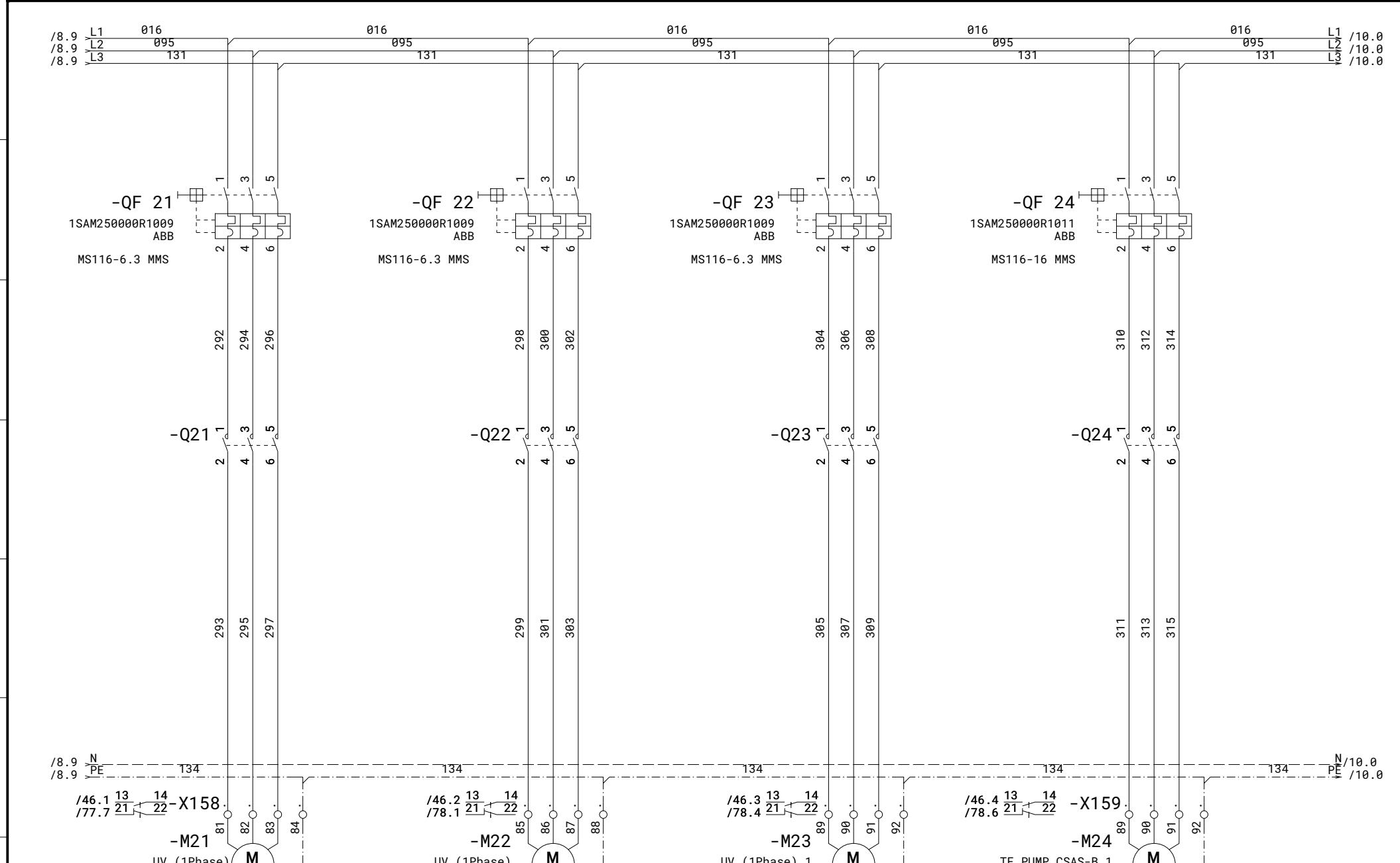
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/8.9 N PE 134
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-M21 M 3~

134
/46.2 13 14 21 22 UV (1Phase) 0.37 KW
-M22 M 3~

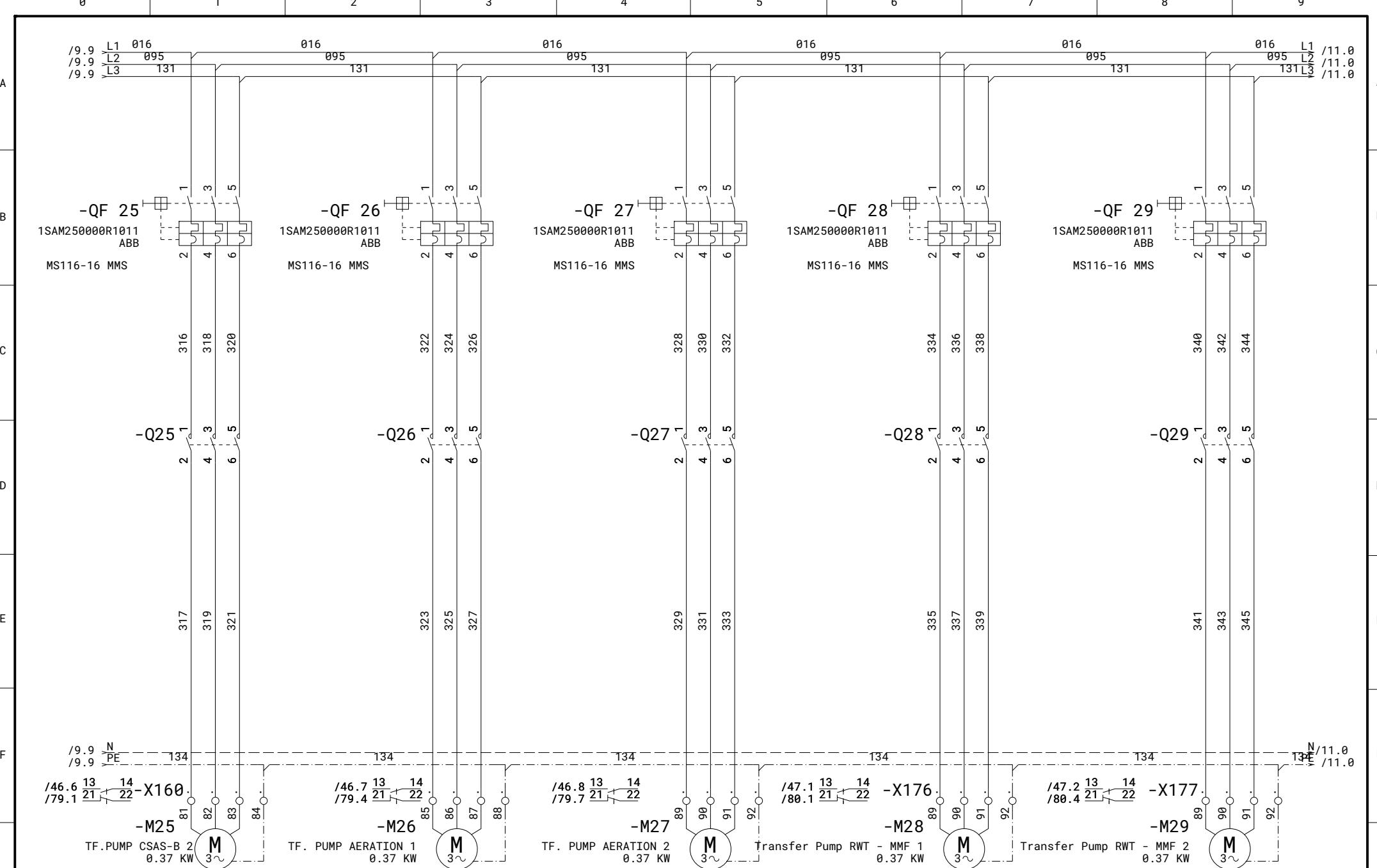
134
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-M24 M 3~

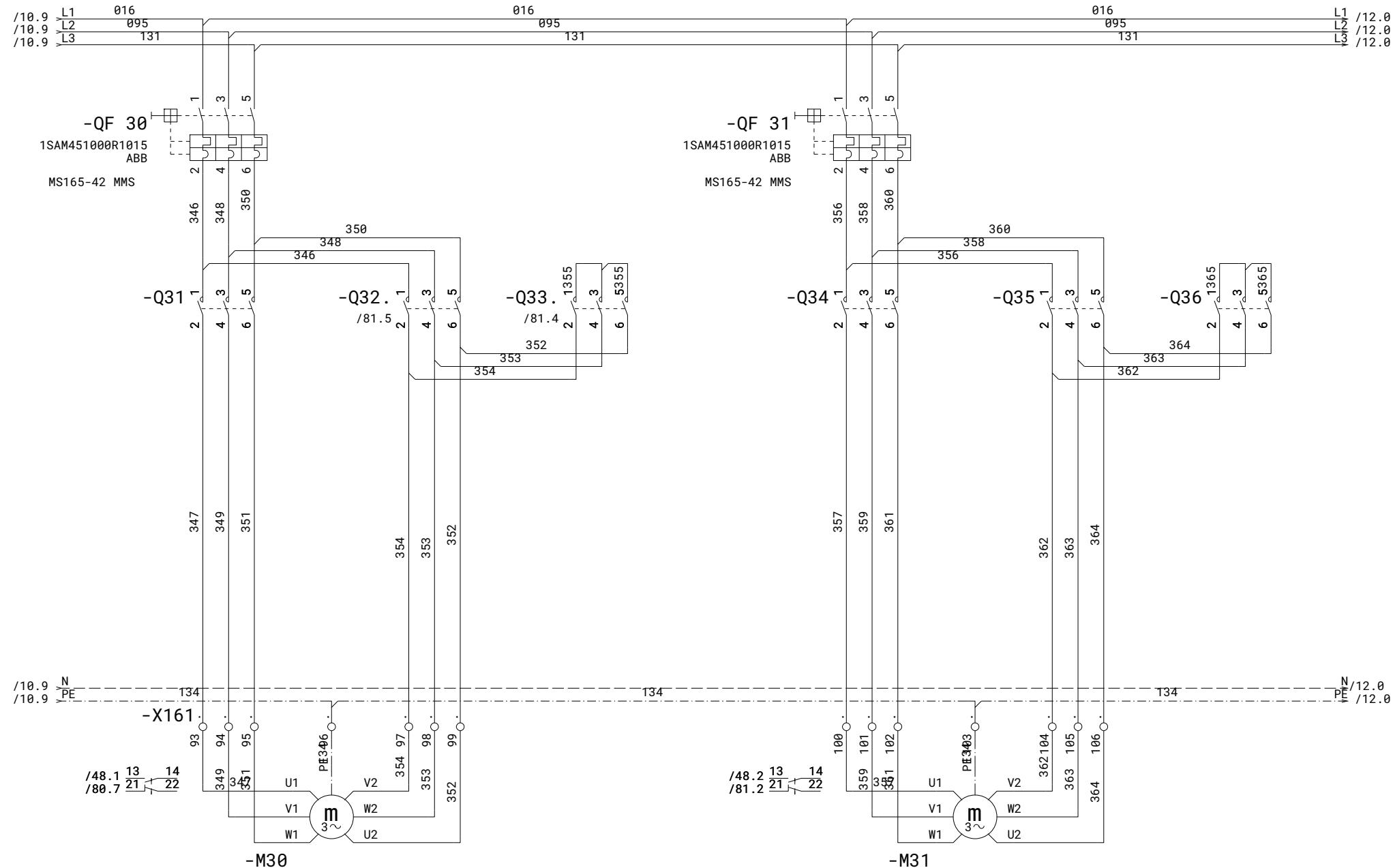


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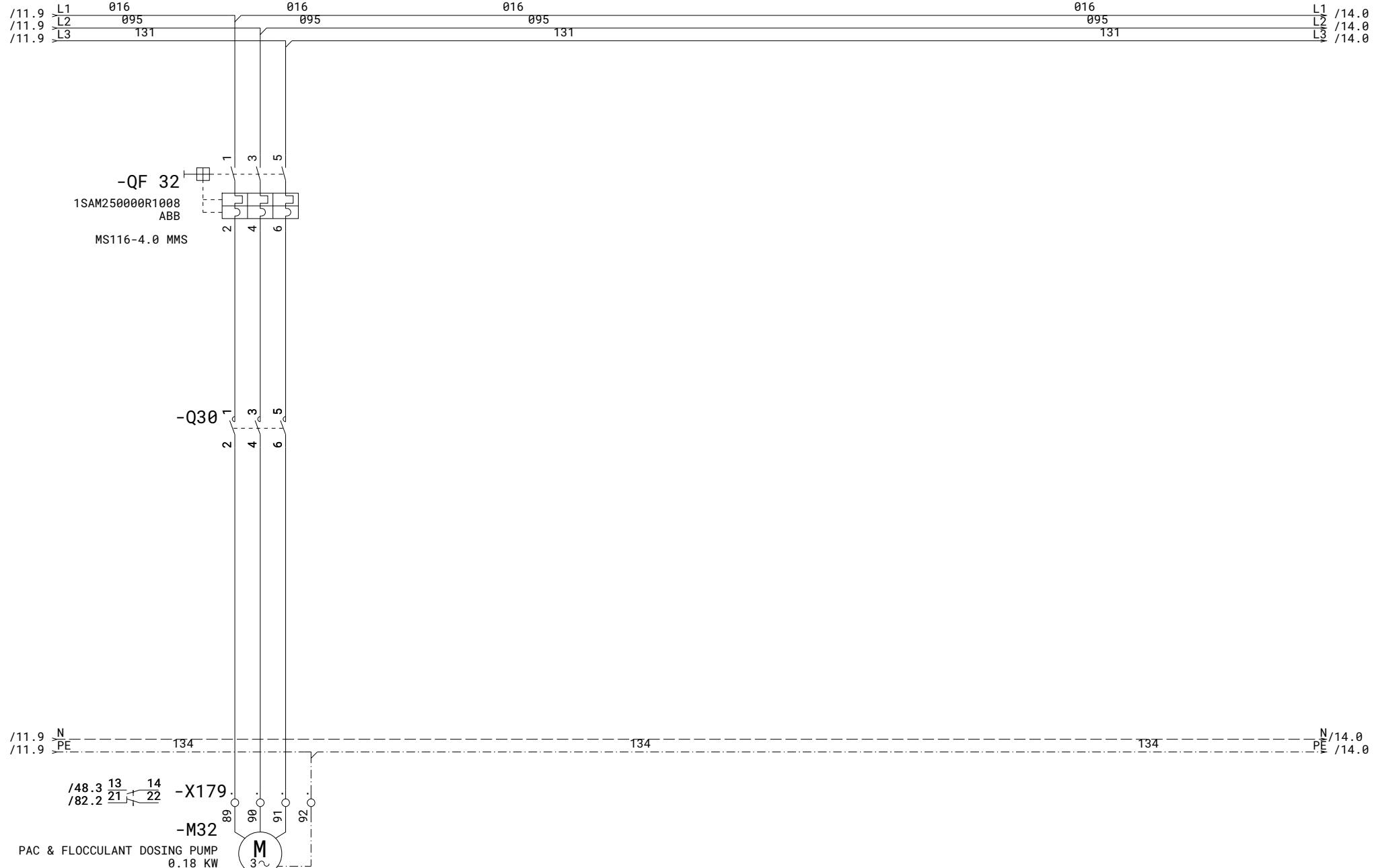


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Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet 12 of 114

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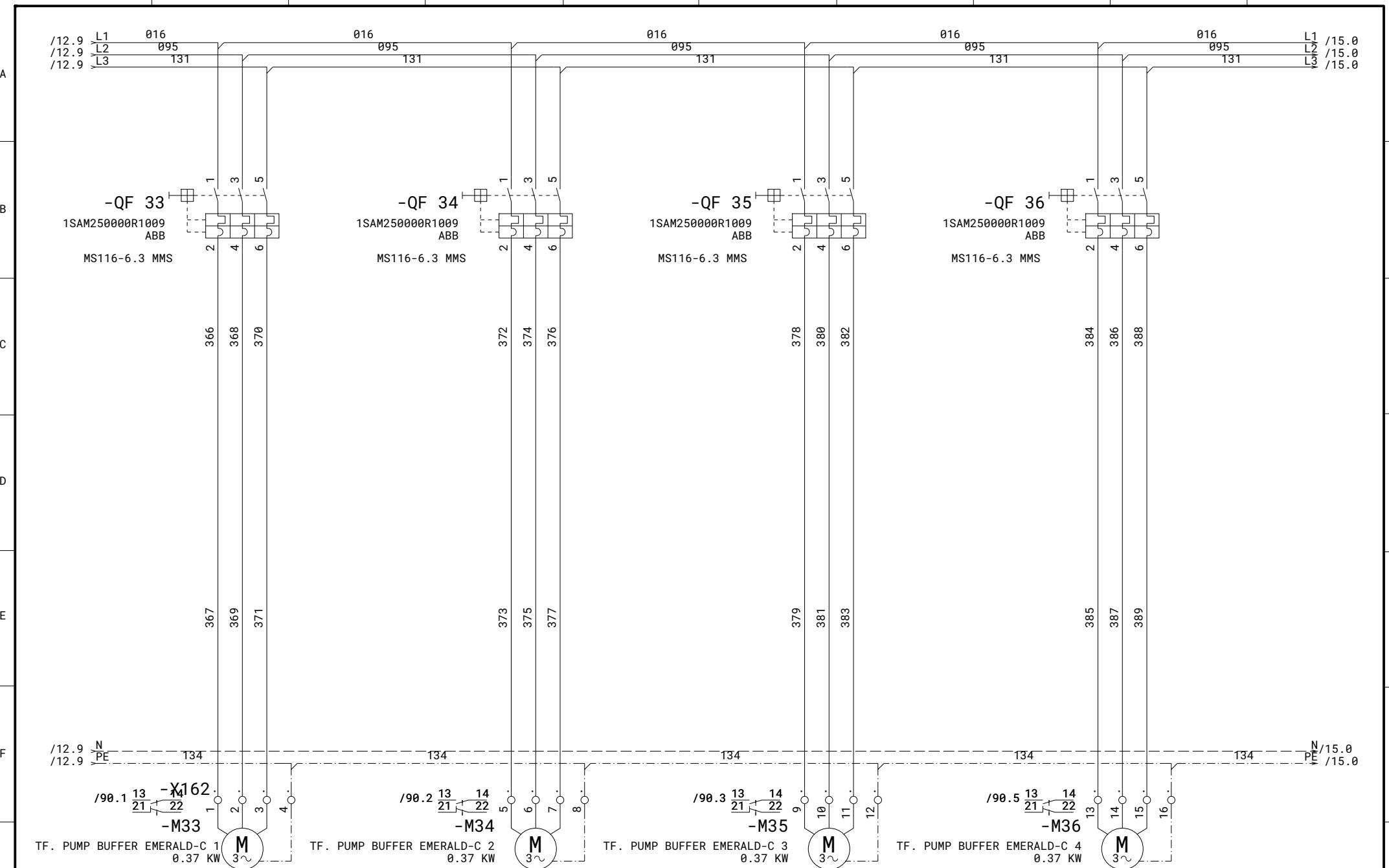
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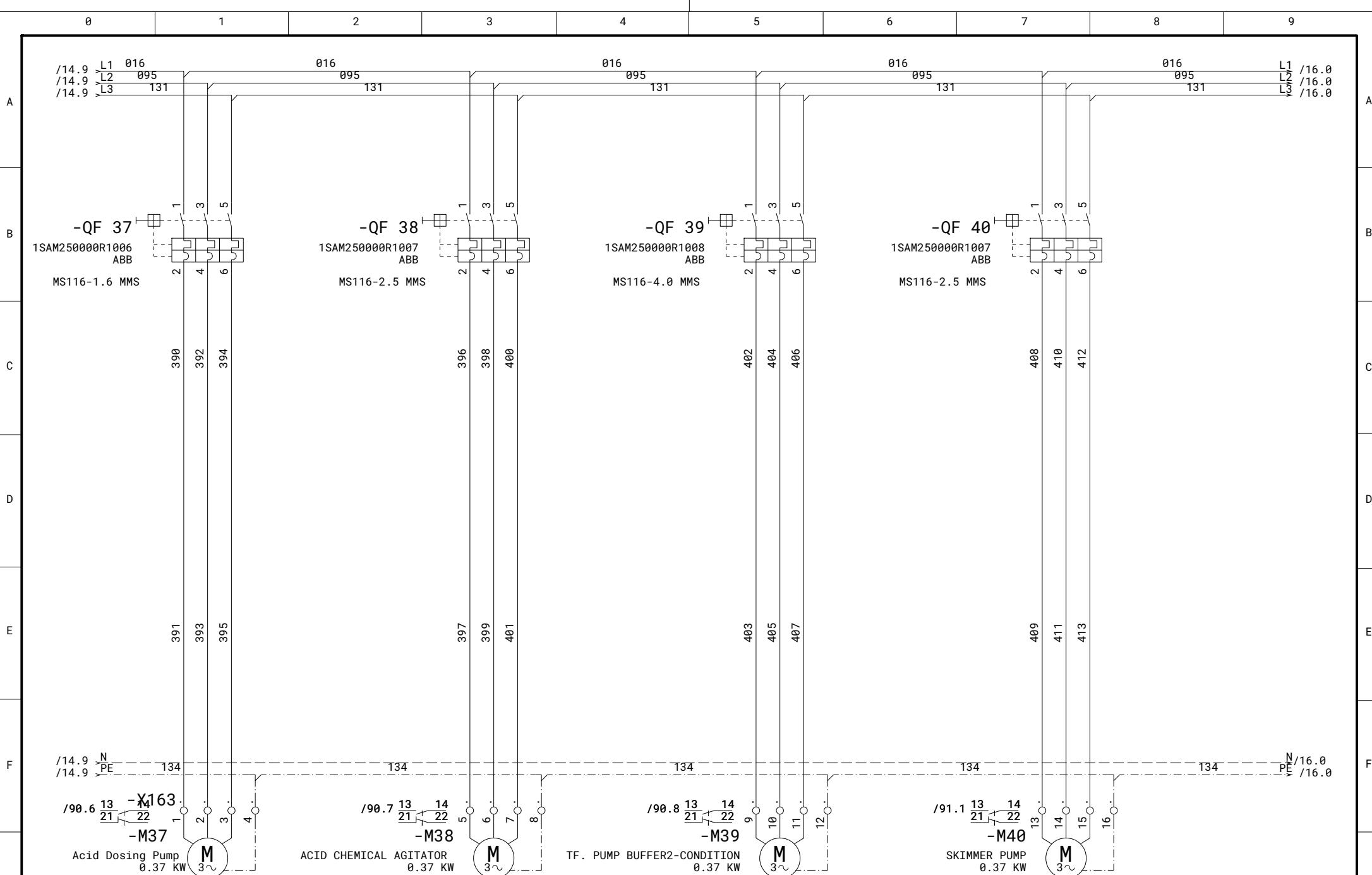
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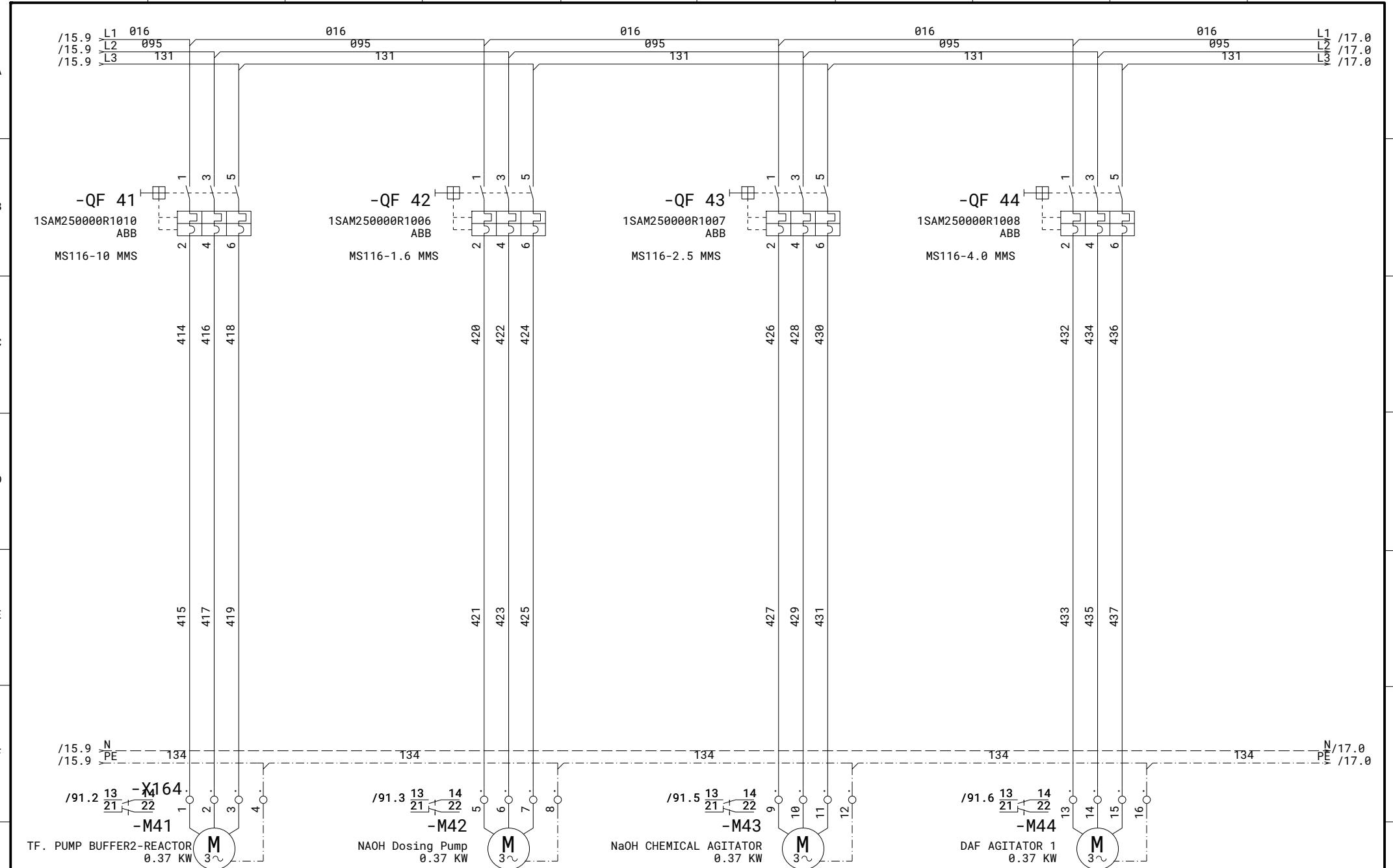
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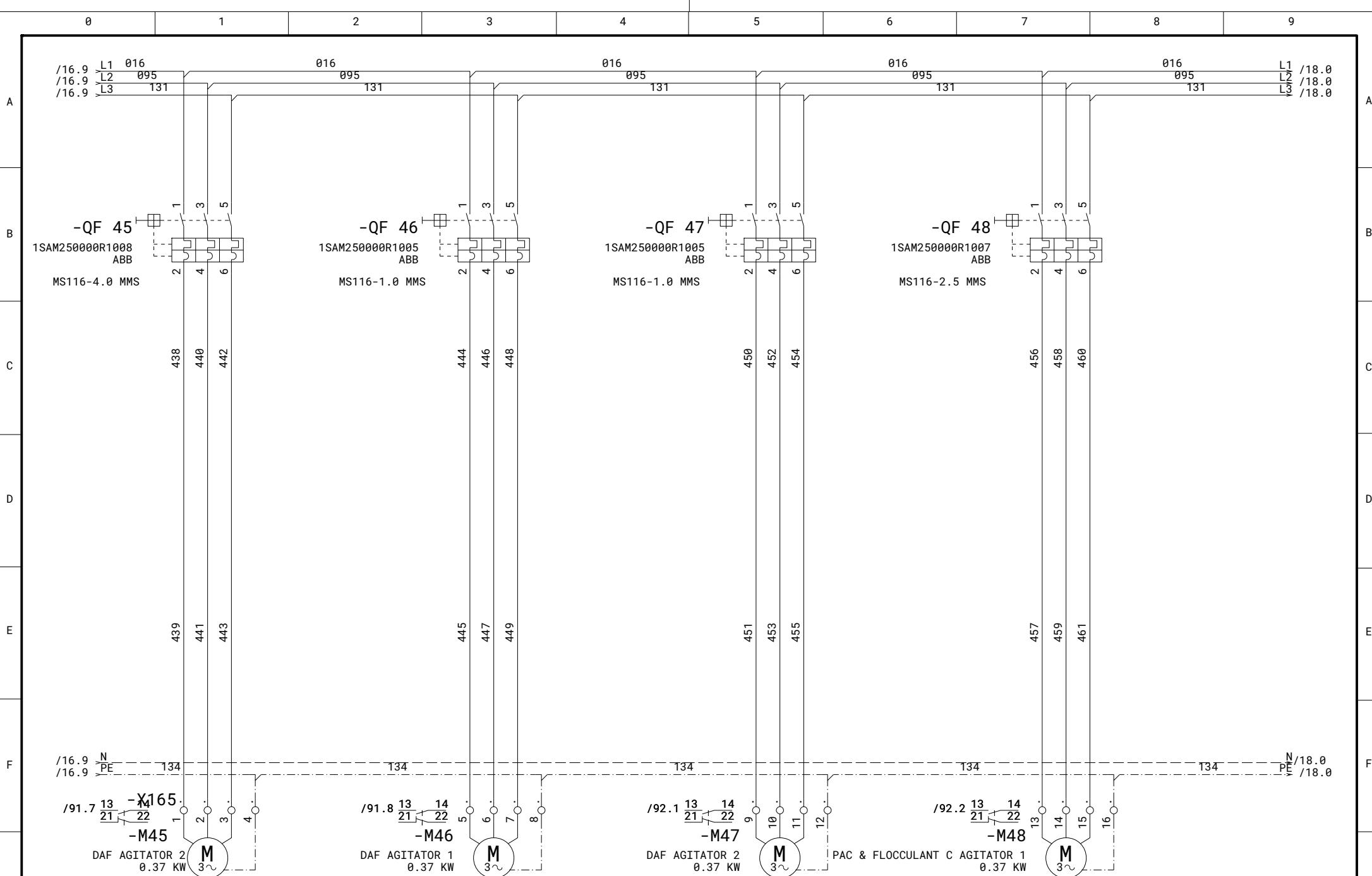


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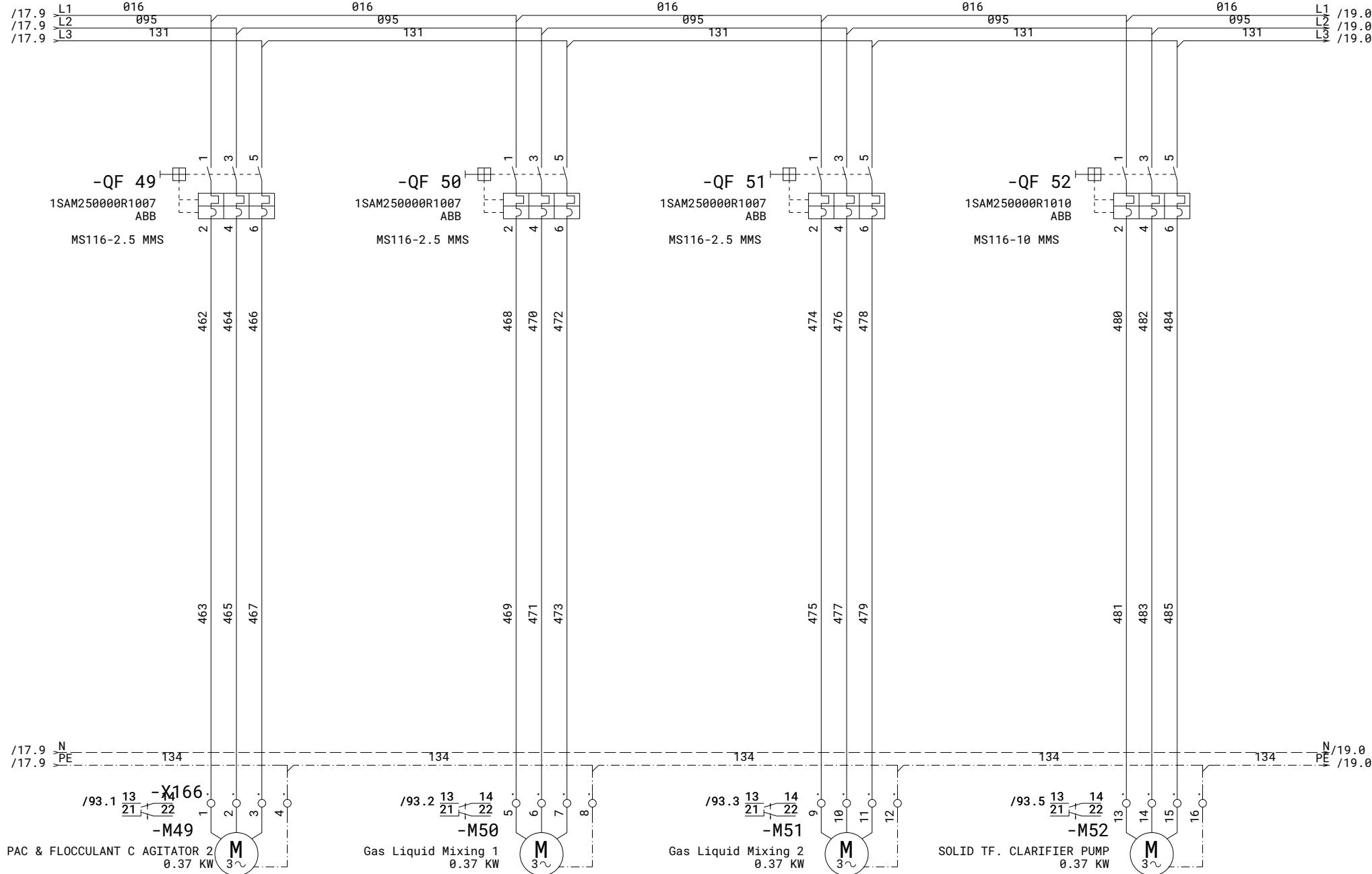
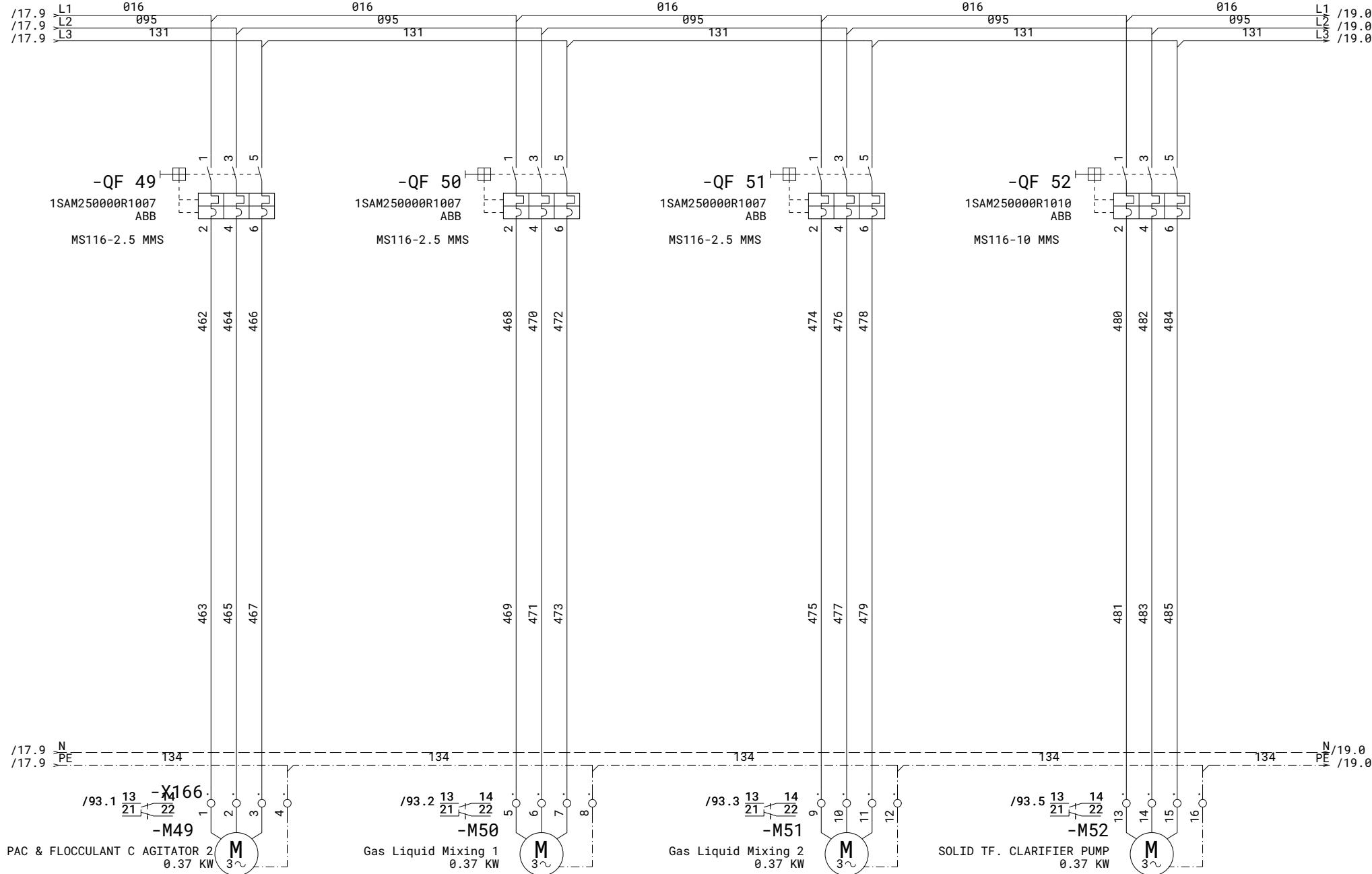


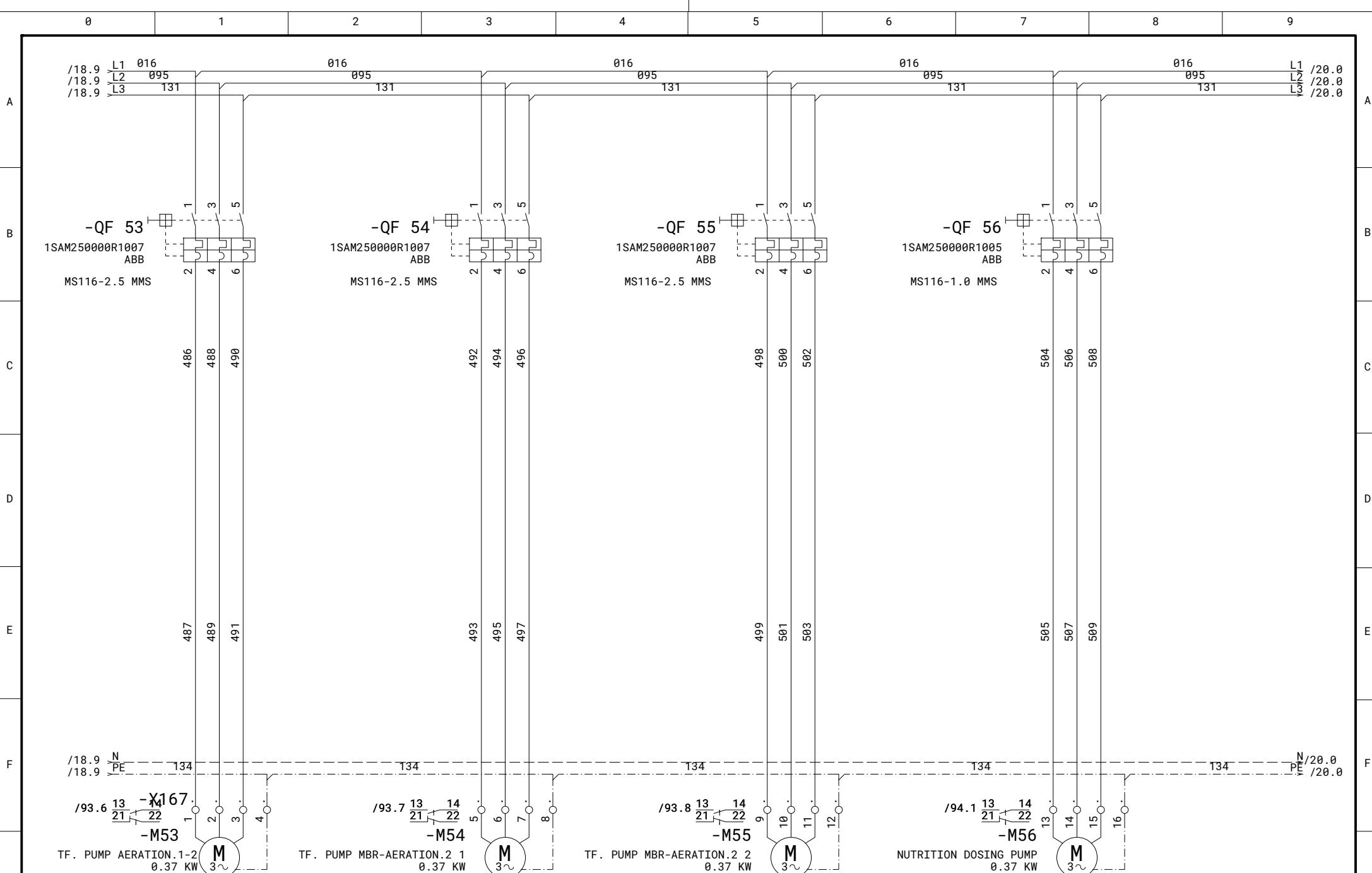
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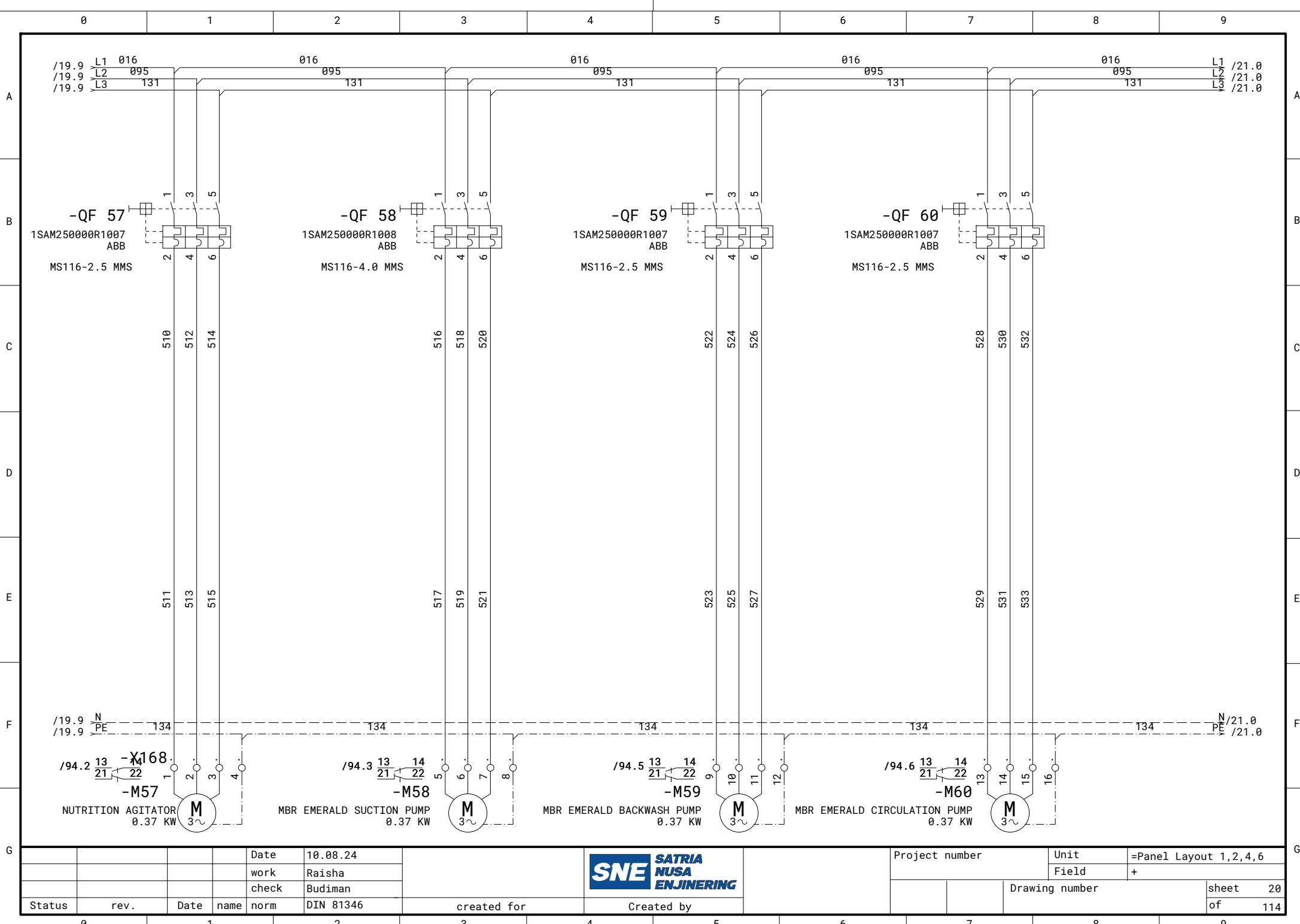
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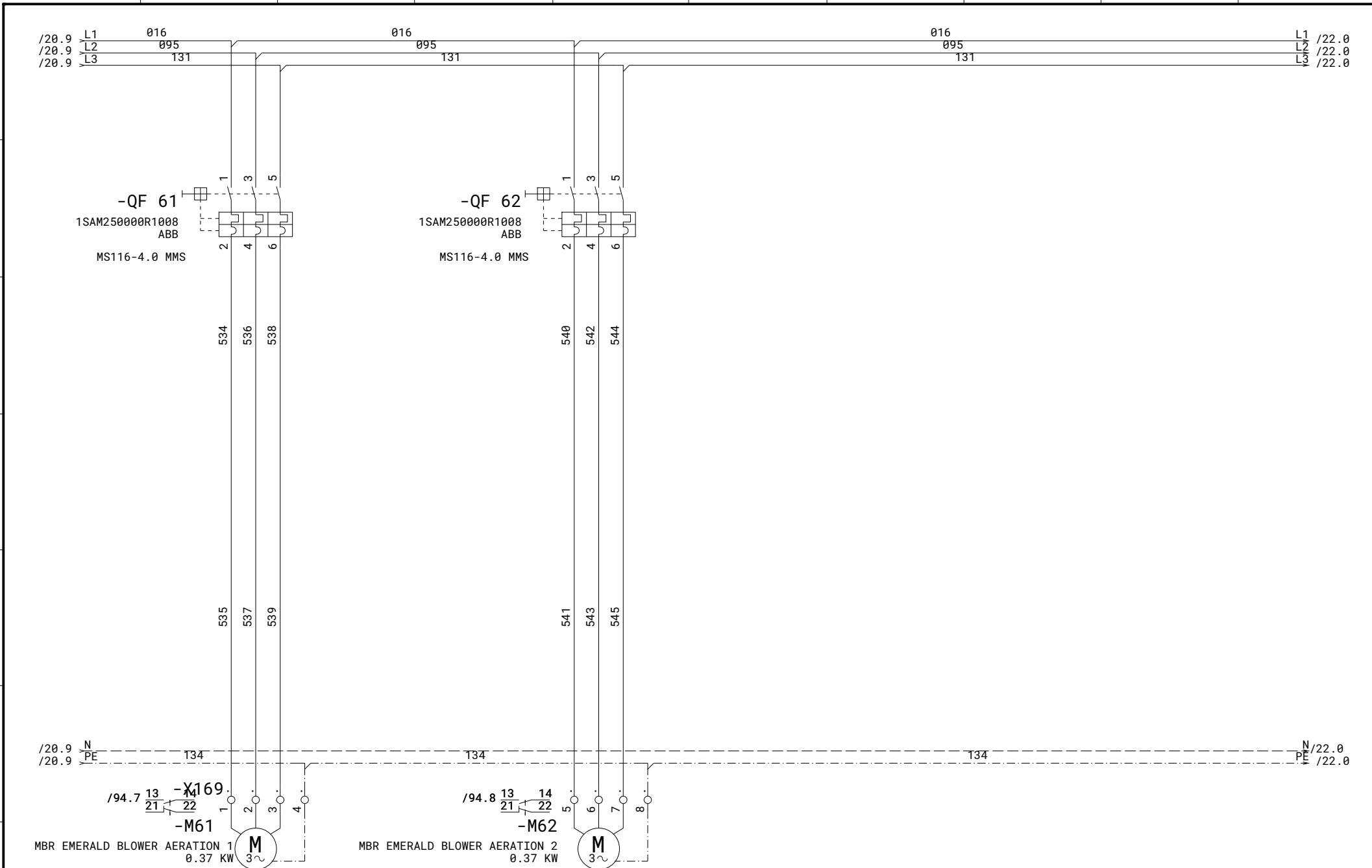




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Status	rev.	Date	name	norm	DIN 81346	created for	Created by				of 114



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			Date	10.08.24	SNE Satria Nusa Enjinering		Project number	Unit	=Panel Layout 1,2,4,6
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-QF 63
 1SAM25000R1015
 ABB
 MS116-32 MMS

-QF 64
 1SAM25000R1015
 ABB
 MS116-32 Manual Motor Starter

-Q150
 Main Contactor

-Q151
 Star Contactor

-Q152
 1555
 554
 553
 552

-Q153
 Main Contactor

-Q154
 Delta Contactor

-Q155
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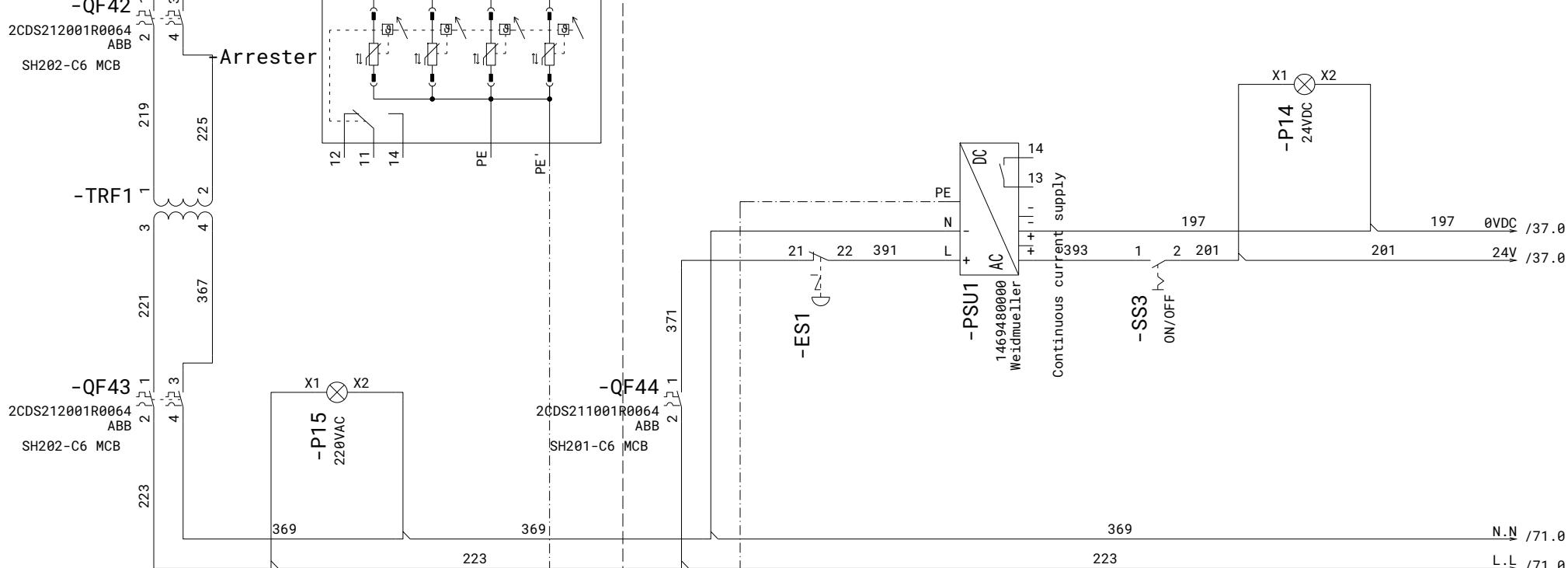
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CONTROL PANEL 1

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Status	rev.	Date	name	norm	DIN 81346	created for	Created by			Drawing number	sheet 35
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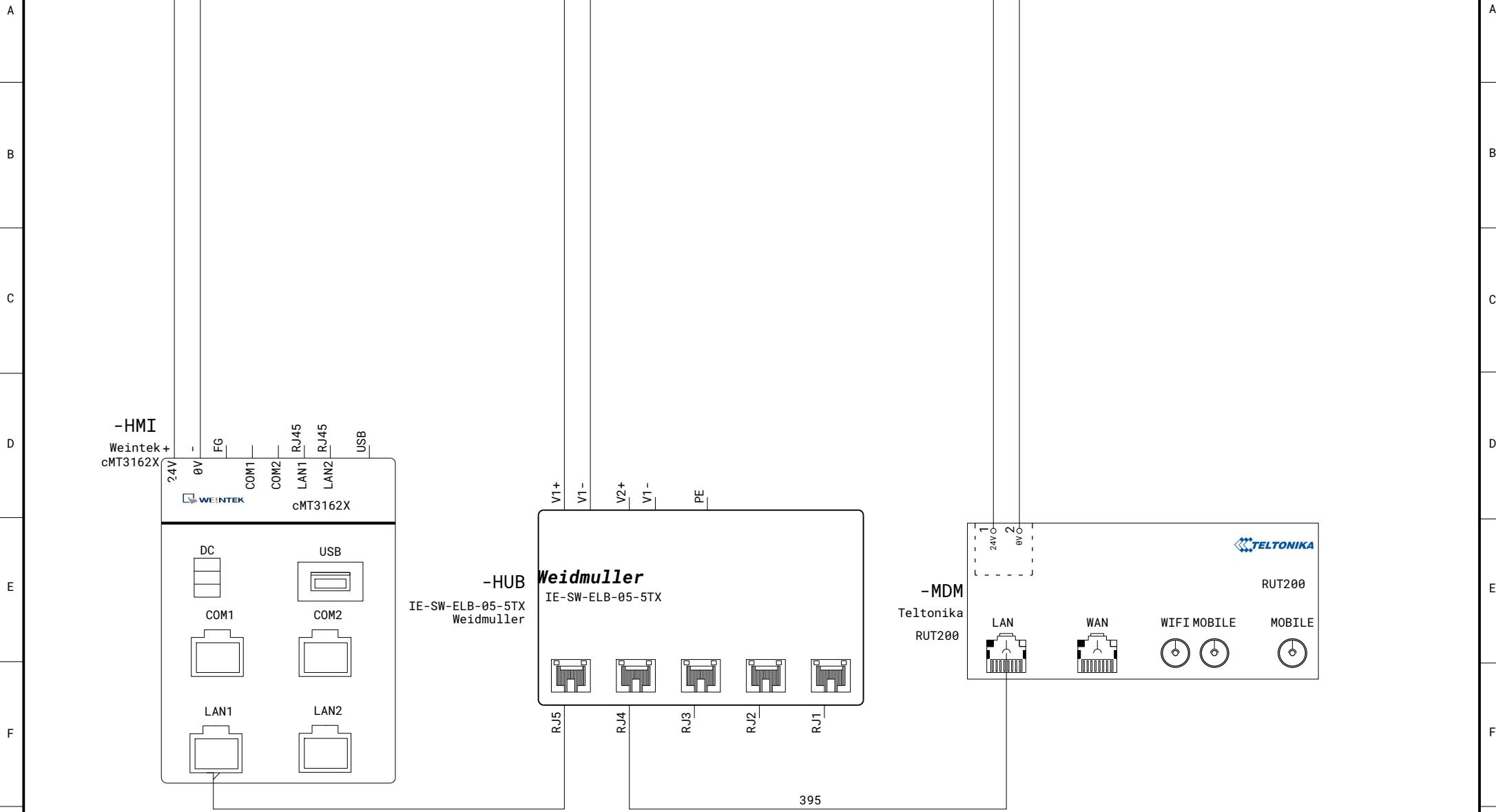


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0VDC /38.0

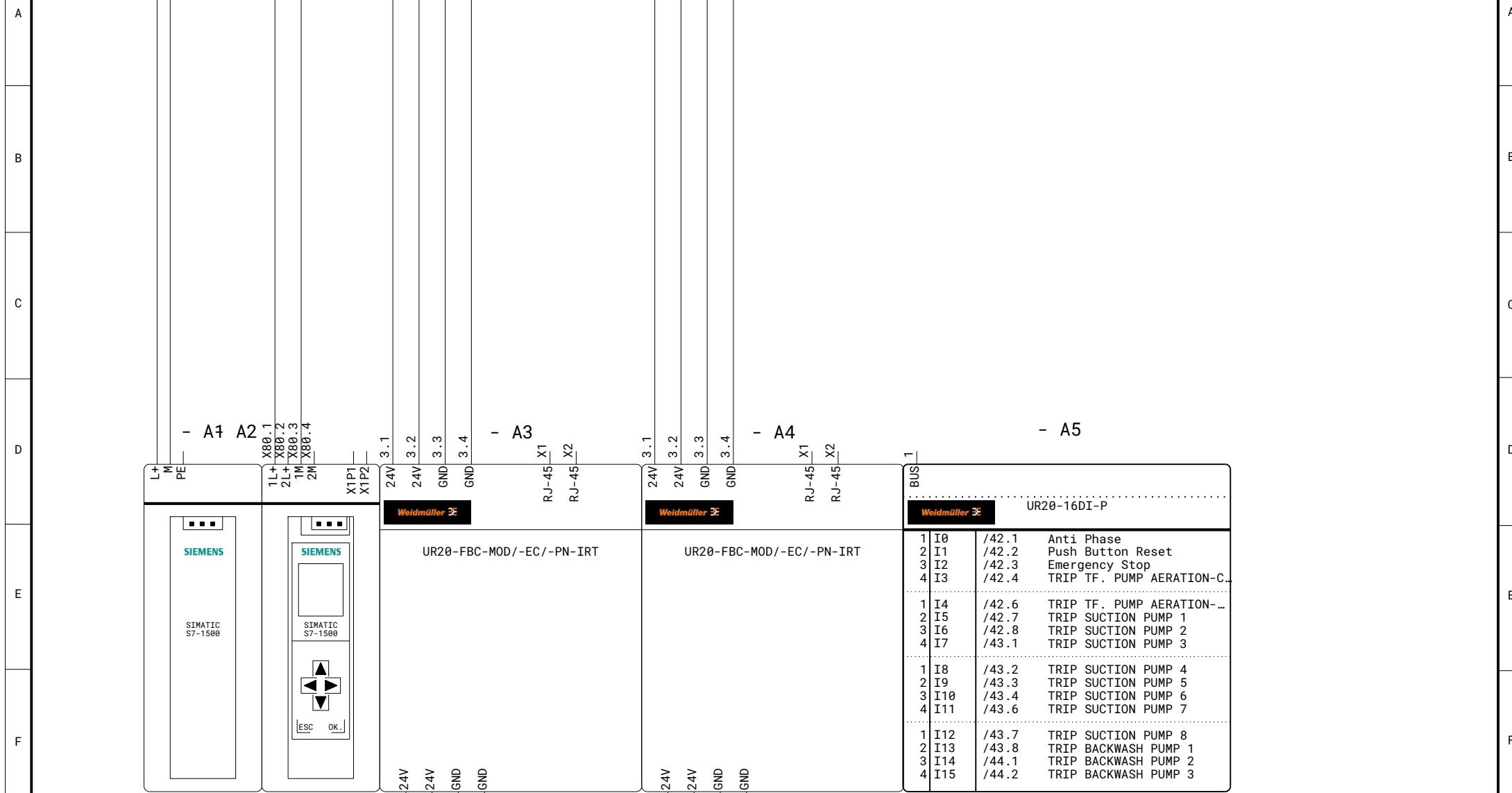


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Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet 37
									of 114

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/37.8 24V 0VDC /37.8 24V 0VDC /39.0 /39.0



6ES7505-0RA00-0AB0

6ES7513-1AL02-0AB0

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/38.8	<u>24V</u>	24V /40.0
/38.8	<u>0VDC</u>	0VDC /40.0

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UR20-16DI-P				UR20-16DI-P				UR20-16DI-P				UR20-16DI-P			
1	I0	/45.1	TRIP BACKWASH PUMP 4	1	I0	/48.1	TRIP TF. PUMP WTRPOOL -	1	I0	/51.0	READY BACKWASH PUMP 4	1	I0	/54.0	READY PAC & FLOCCULANT ..
2	I1	/45.2	TRIP BACKWASH PUMP 5	2	I1	/48.2	TRIP TF. PUMP WTRPOOL -	2	I1	/51.2	READY BACKWASH PUMP 5	2	I1	/54.2	READY TF. PUMP WTRPOOL -
3	I2	/45.3	TRIP MBR - AERATION 1	3	I2	/48.3	TRIP PAC & FLOCCULANT D...	3	I2	/51.3	READY MBR - AERATION 1	3	I2	/54.3	READY TF. PUMP WTRPOOL -
4	I3	/45.4	TRIP MBR - AERATION 2	4	I3	/48.4	READY TF. PUMP AERATION -	4	I3	/51.4	READY MBR - AERATION 2	4	I3	/54.4	READY TF. PUMP WTRPOOL -
1	I4	/45.6	TRIP Chlorine Dosing Pu...	1	I4	/48.6	READY TF. PUMP AERATION...	1	I4	/51.5	READY Chlorine Dosing Pu...	1	I4	/54.5	READY TF. PUMP WTRPOOL -
2	I5	/45.7	TRIP CHLORINE CHEMICAL ..	2	I5	/48.7	READY SUCTION PUMP 1	2	I5	/51.7	READY CHLORINE CHEMICAL...	2	I5	/54.7	READY TF. PUMP WTRPOOL -
3	I6	/45.8	TRIP SOLID TF. CLARIFIER	3	I6	/48.8	READY SUCTION PUMP 2	3	I6	/51.8	READY SOLID TF. CLARIFIER	3	I6	/54.8	READY TF. PUMP WTRPOOL -
4	I7	/46.1	TRIP UV (1Phase) 1	4	I7	/49.0	READY SUCTION PUMP 3	4	I7	/52.0	READY UV (1Phase) 1	4	I7	/55.1	Floater Swtch 1
1	I8	/46.2	TRIP UV (1Phase) 2	1	I8	/49.2	READY SUCTION PUMP 4	1	I8	/52.2	READY UV (1Phase) 2	1	I8	/55.2	Floater Swtch 2
2	I9	/46.3	TRIP UV (1Phase) 3	2	I9	/49.3	READY SUCTION PUMP 5	2	I9	/52.3	READY UV (1Phase) 3	2	I9	/55.3	Floater Swtch 3
3	I10	/46.4	TRIP TF.PUMP CSAS-B 1	3	I10	/49.4	READY SUCTION PUMP 6	3	I10	/52.4	READY TF.PUMP CSAS-B 1	3	I10	/55.4	Floater Swtch 4
4	I11	/46.6	TRIP TF.PUMP CSAS-B 2	4	I11	/49.5	READY SUCTION PUMP 7	4	I11	/52.5	READY TF.PUMP CSAS-B 2	4	I11	/55.6	Floater Swtch 5
1	I12	/46.7	TRIP TF. PUMP AERATION 1	1	I12	/49.7	READY SUCTION PUMP 8	1	I12	/52.7	READY TF. PUMP AERATION ..	1	I12	/55.7	Floater Swtch 6
2	I13	/46.8	TRIP TF. PUMP AERATION 2	2	I13	/49.8	READY BACKWASH PUMP 1	2	I13	/52.8	READY TF. PUMP AERATION...	2	I13	/55.8	Floater Swtch 7
3	I14	/47.1	TRIP Transfer Pump RWT -	3	I14	/50.0	READY BACKWASH PUMP 2	3	I14	/53.0	READY Transfer Pump RWT...	3	I14	/56.1	Floater Swtch 8
4	I15	/47.2	TRIP Transfer Pump RWT ..	4	I15	/50.2	READY BACKWASH PUMP 3	4	I15	/53.2	READY Transfer Pump RWT 2	4	I15	/56.2	Floater Swtch 9

Date	10.08.24					Project number			Unit	=Panel Layout 1,2,4,6
work	Raisha					Field	+			
check	Budiman					Drawing number			sheet	39
Status	rev.	Date	name	norm	DIN 81346	created for		Created by	of	114

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/39.9	<u>24V</u>	24V /41.0
/39.9	<u>0VDC</u>	0VDC /41.0

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- A12

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Weidmüller	UR20-16DO-P	Weidmüller	UR20-16DO-P	Weidmüller	UR20-16DO-P	Weidmüller	UR20-16DO-P
1 Q0	/57.1 Relay Auto/Manual	1 Q0	/60.1 RUN BACKWASH PUMP 3	1 Q0	/63.1 RUN Transfer Pump RWT -	1 Q0	/66.1 Selenoid Valve 13
2 Q1	/57.2 PL Auto	2 Q1	/60.2 RUN BACKWASH PUMP 4	2 Q1	/63.2 RUN PAC & FLOCCULANT DO...	2 Q1	/66.2 Selenoid Valve 14
3 Q2	/57.3 PL Manual	3 Q2	/60.3 RUN BACKWASH PUMP 5	3 Q2	/63.3 RUN TF. PUMP WTRPOOL - W...	3 Q2	/66.3 Selenoid Valve 15
4 Q3	/57.4 Buzzer	4 Q3	/60.5 RUN MBR - AERATION 1	4 Q3	/63.4 RUN TF. PUMP WTRPOOL - ...	4 Q3	/66.4 Selenoid Valve 16
1 Q4	/57.6 RUN TF. PUMP AERATION-CL...	1 Q4	/60.6 RUN MBR - AERATION 2	1 Q4	/63.6 SELENOID VALVE 1	1 Q4	/66.6 Selenoid Valve 17
2 Q5	/57.7 RUN TF. PUMP AERATION-C...	2 Q5	/60.7 RUN Chlorine Dosing Pump	2 Q5	/63.7 SELENOID VALVE 2	2 Q5	/66.7 Selenoid Valve 18
3 Q6	/57.8 RUN SUCTION PUMP 1	3 Q6	/60.8 RUN CHLORINE CHEMICAL A...	3 Q6	/63.8 SELENOID VALVE 3	3 Q6	/66.8 SPARE DIG OUTPUT 1
4 Q7	/58.0 RUN SUCTION PUMP 2	4 Q7	/61.0 RUN SOLID TF. CLARIFIER	4 Q7	/64.1 SELENOID VALVE 4	4 Q7	/67.1 SPARE DIG OUTPUT 2
1 Q8	/58.2 RUN SUCTION PUMP 3	1 Q8	/61.2 RUN UV (1Phase) 1	1 Q8	/64.2 SELENOID VALVE 5	1 Q8	/67.2 SPARE DIG OUTPUT 3
2 Q9	/58.3 RUN SUCTION PUMP 4	2 Q9	/61.3 RUN UV (1Phase) 2	2 Q9	/64.3 SELENOID VALVE 6	2 Q9	/67.3
3 Q10	/58.4 RUN SUCTION PUMP 5	3 Q10	/61.4 RUN UV (1Phase) 3	3 Q10	/64.4 SELENOID VALVE 7	3 Q10	/67.4
4 Q11	/58.5 RUN SUCTION PUMP 6	4 Q11	/61.5 RUN TF.PUMP CSAS-B 1	4 Q11	/64.6 SELENOID VALVE 8	4 Q11	/67.6
1 Q12	/58.7 RUN SUCTION PUMP 7	1 Q12	/61.7 RUN TF.PUMP CSAS-B 2	1 Q12	/64.7 SELENOID VALVE 9	1 Q12	/67.7
2 Q13	/58.8 RUN SUCTION PUMP 8	2 Q13	/61.8 RUN TF. PUMP AERATION -	2 Q13	/64.8 SELENOID VALVE 10	2 Q13	/67.8
3 Q14	/59.1 RUN BACKWASH PUMP 1	3 Q14	/62.0 RUN TF. PUMP AERATION -	3 Q14	/65.0 SELENOID VALVE 11	3 Q14	/68.1
4 Q15	/59.2 RUN BACKWASH PUMP 2	4 Q15	/62.2 RUN Transfer Pump RWT -	4 Q15	/65.2 SELENOID VALVE 12	4 Q15	/68.2

			Date	10.08.24	SNE SATRIA NUSA ENJINERING	Project number		Unit	=Panel Layout 1,2,4,6
			work	Raisha		Field		+	
			check	Budiman		Drawing number		sheet	40
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	of	114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

 $\frac{24V}{40.9}$
 $\frac{0VDC}{40.9}$ 201
197 $\frac{24V}{42.0}$
 $\frac{0VDC}{42.0}$

A

A

B

B

C

C

D

D

-A14

-A15

BUS 1		UR20-4DO-P/-2A		BUS 1	
Weidmüller			Weidmüller		
AIW1	1 AI0 /69.1 Flowmeter 1		AIW1	1 AI0 /70.1 Water Meter 3	
2 GND			2 GND		
3 24V			3 24V		
4 FE			4 FE		
AIW2	1 AI1 /69.3 Flowmeter 2		AIW2	1 AI1 /70.3 Spare Analog Input 1	
2 GND			2 GND		
3 24V			3 24V		
4 FE			4 FE		
AIW3	1 AI2 /69.5 Water meter 1		AIW3	1 AI2 /70.5 Spare Analog Input 2	
2 GND			2 GND		
3 24V			3 24V		
4 FE			4 FE		
AIW4	1 AI3 /69.7 Water meter 2		AIW4	1 AI3 /70.7 Spare Analog Input 3	
2 GND			2 GND		
3 24V			3 24V		
4 FE			4 FE		

E

E

F

F

G

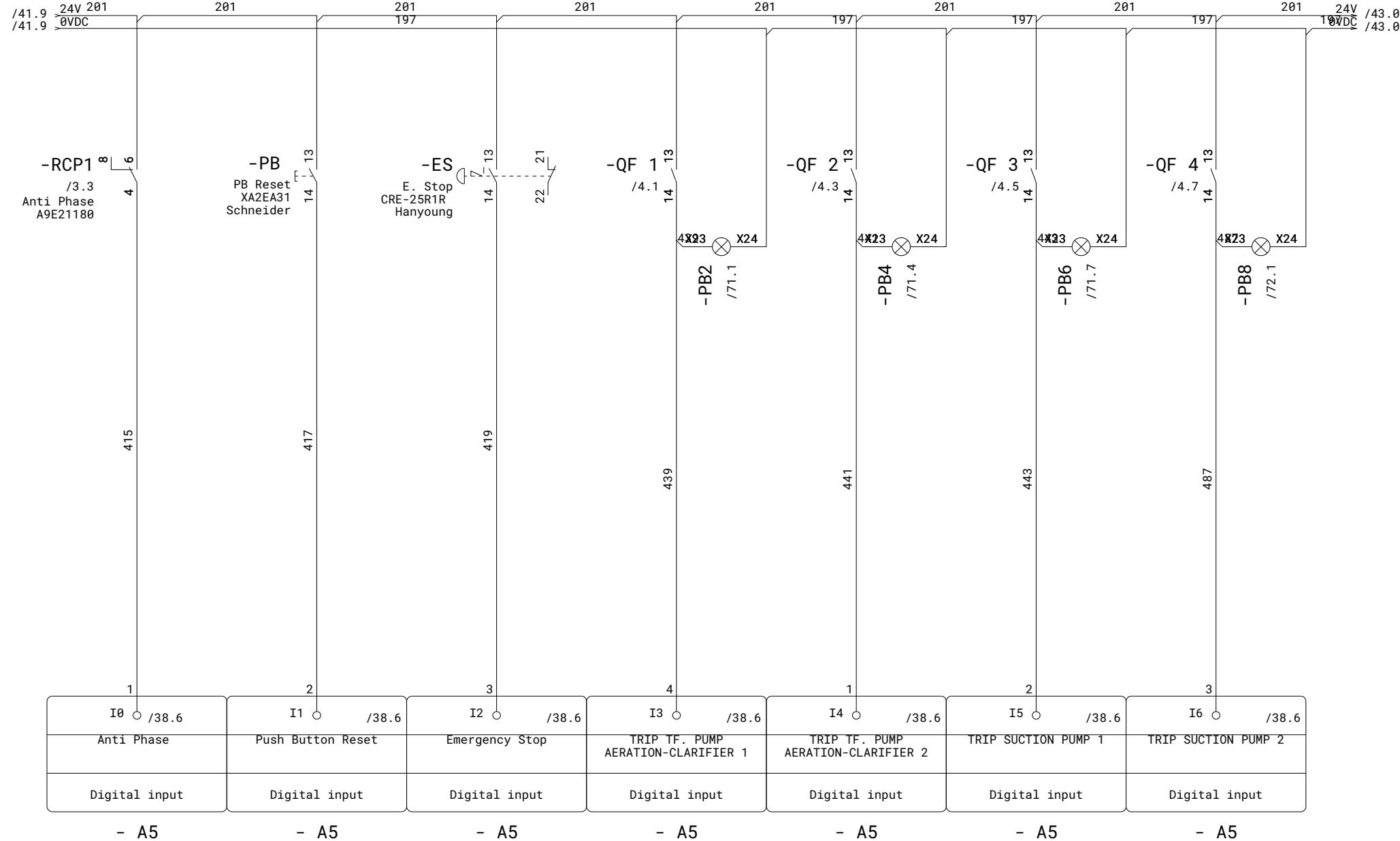
G

			Date	10.08.24				Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha					Field	+
			check	Budiman						
Status	rev.	Date	name	norm	DIN 81346	created for		Created by	Drawing number	
									sheet	41
									of	114

0 1 2 3 4 5 6 7 8 9



0 1 2 3 4 5 6 7 8 9

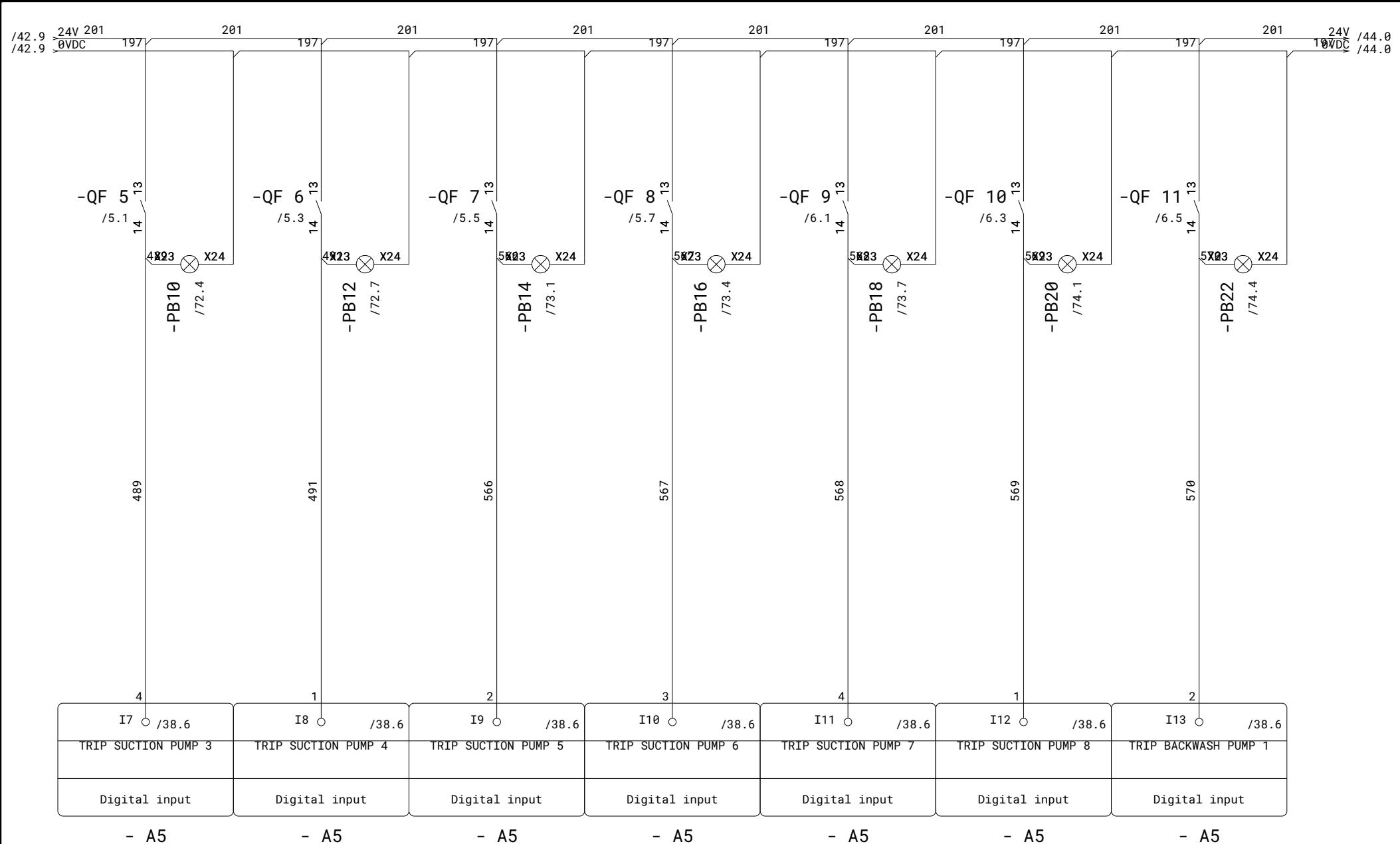


- A5 - A5 - A5 - A5 - A5 - A5 - A5

			Date	10.08.24			Project number		Unit	=Panel Layout 1,2,4,6
			work	Raisha					Field	+
			check	Budiman					Drawing number	sheet 42
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			of 114

0 1 2 3 4 5 6 7 8 9

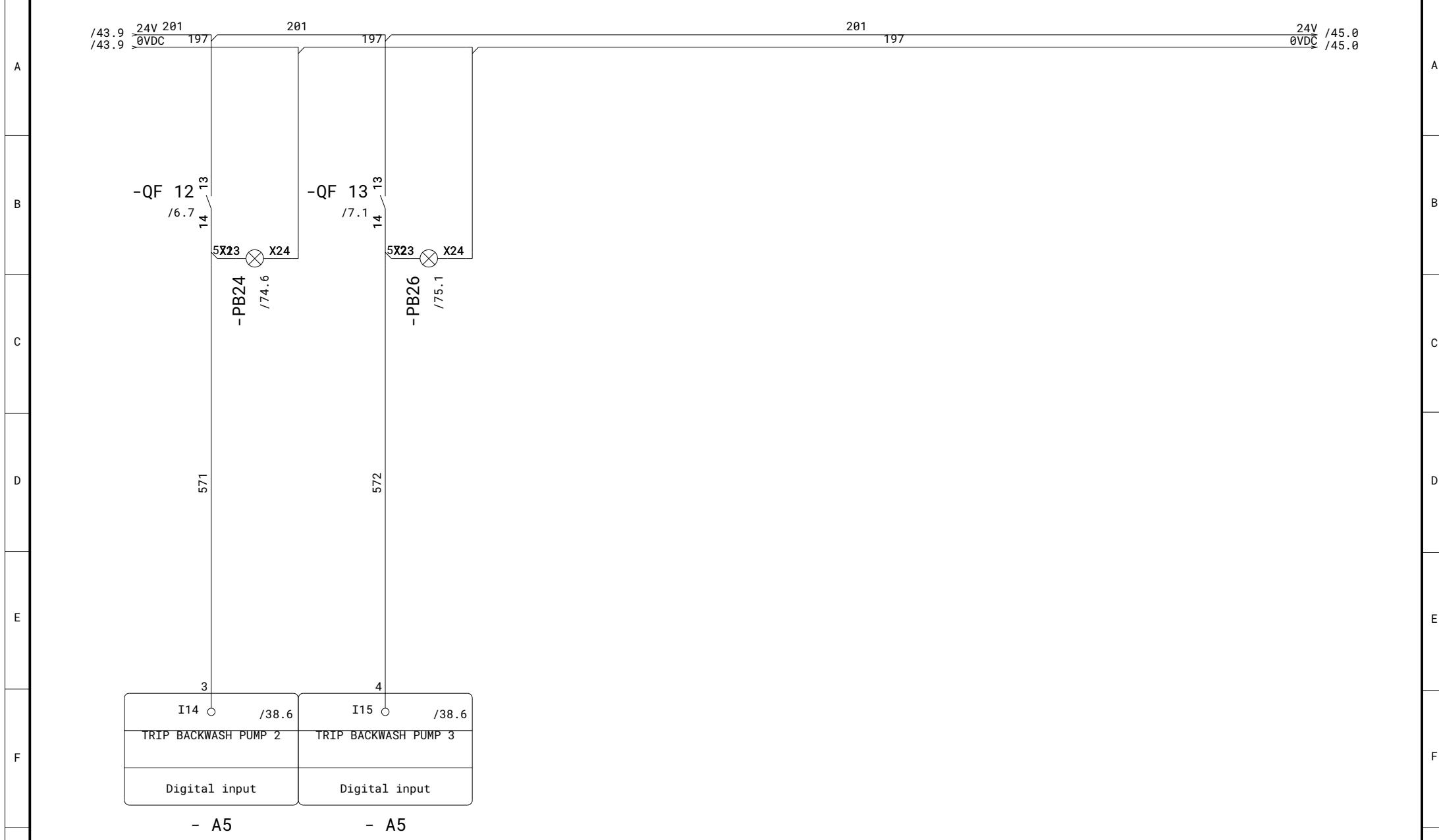
0 1 2 3 4 5 6 7 8 9



0 1 2 3 4 5 6 7 8 9

0	1	2	3	4	5	6	7	8	9
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/43.9	24V	201	201		201			24V	/45.0
/43.9	0VDC	197	197		197			0VDC	/45.0



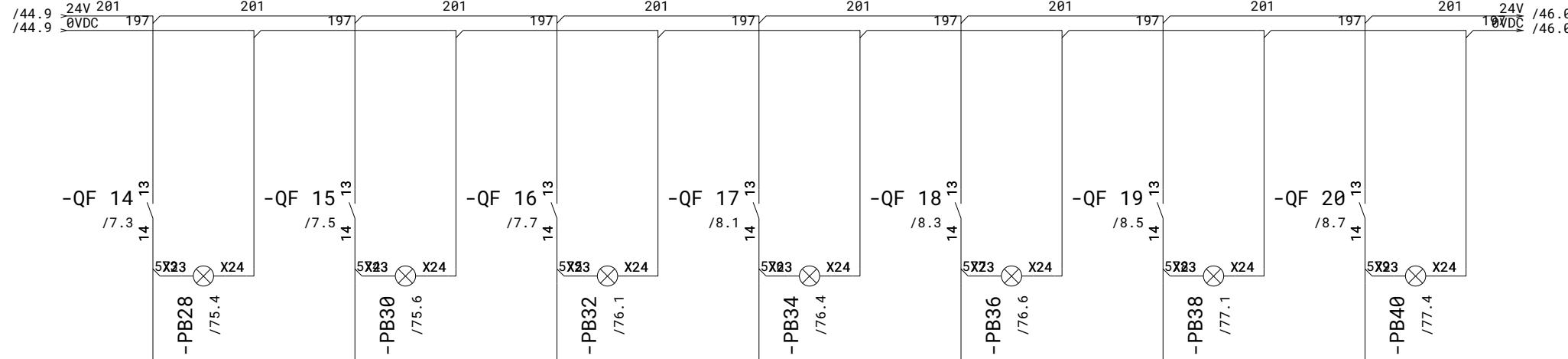
- A5

- A5

			Date	10.08.24		SNE SATRIA NUSA ENJINERING		Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field	+	
			check	Budiman						
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet	44
									of	114

0	1	2	3	4	5	6	7	8	9
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0	1	2	3	4	5	6	7	8	9
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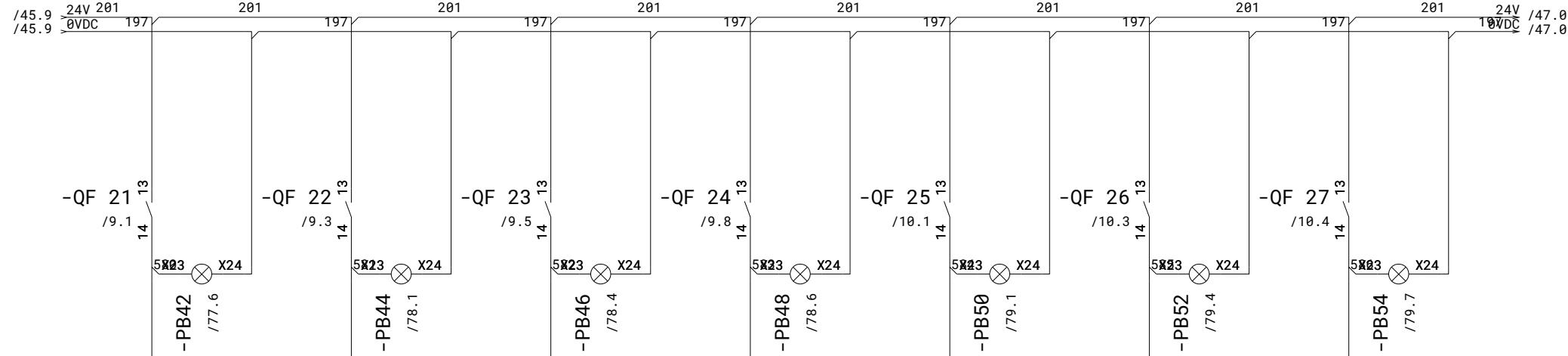
I0 ○ /39.0	I1 ○ /39.0	I2 ○ /39.0	I3 ○ /39.0	I4 ○ /39.0	I5 ○ /39.0	I6 ○ /39.0
TRIP BACKWASH PUMP 4	TRIP BACKWASH PUMP 5	TRIP MBR - AERATION 1	TRIP MBR - AERATION 2	TRIP Chlorine Dosing Pump	TRIP CHLORINE CHEMICAL AGITATOR	TRIP SOLID TF. CLARIFIER
Digital input	Digital input	Digital input	Digital input	Digital input	Digital input	Digital input

- A6 - A6 - A6 - A6 - A6 - A6 - A6

			Date	10.08.24	SNE Satria Nusa Enjinering	Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha			Field	+
			check	Budiman				
Status	rev.	Date	name	norm	DIN 81346	Created for	Drawing number	sheet 45
						Created by		of 114

0	1	2	3	4	5	6	7	8	9
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0 1 2 3 4 5 6 7 8 9

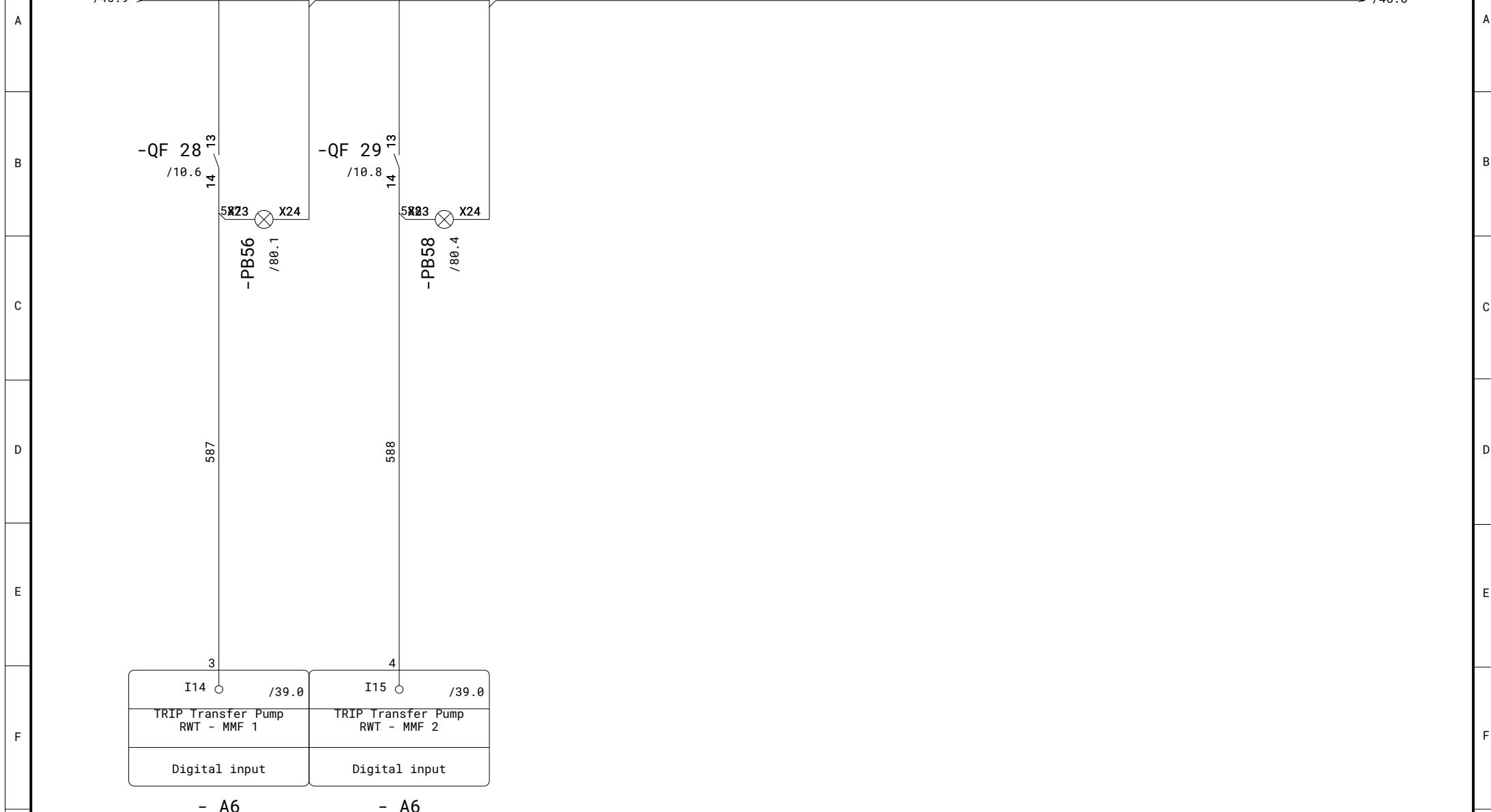


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			work	Raisha				Field	+
			check	Budiman					
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet 46 of 114

0 1 2 3 4 5 6 7 8 9

0	1	2	3	4	5	6	7	8	9
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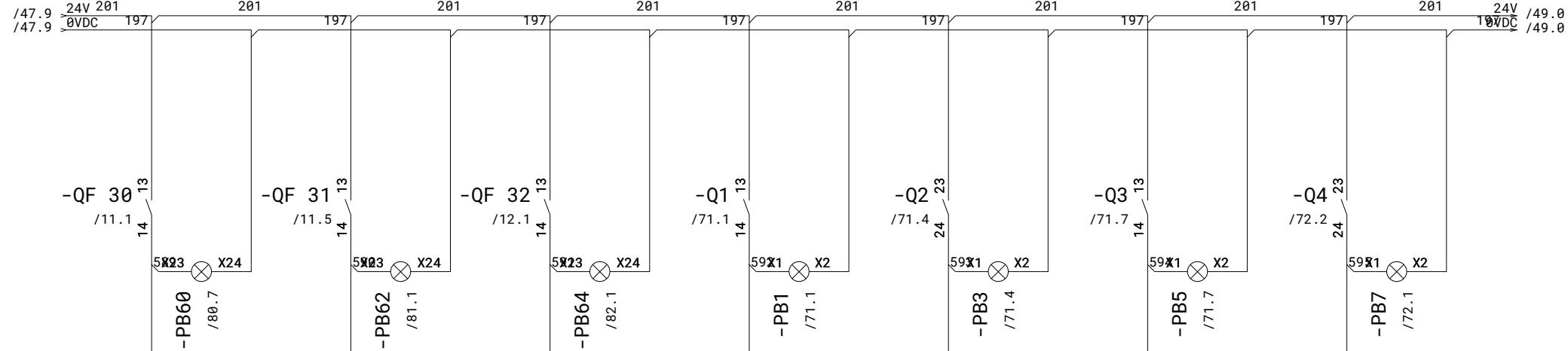
/46.9	24V	201	201		201			24V	/48.0
/46.9	0VDC	197	197		197			0VDC	/48.0



			Date	10.08.24		SNE Satria Nusa Enjinering	Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field	+
			check	Budiman					
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet 47
									of 114

0	1	2	3	4	5	6	7	8	9
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0 1 2 3 4 5 6 7 8 9



589 590 591 592 593 594 595

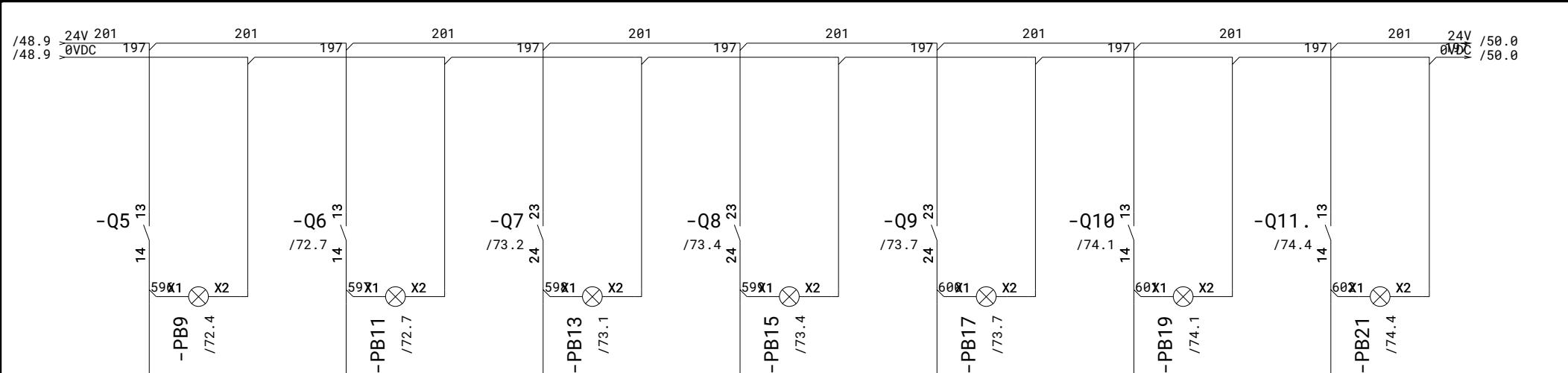
I0 ○ /39.2	I1 ○ /39.2	I2 ○ /39.2	I3 ○ /39.2	I4 ○ /39.2	I5 ○ /39.2	I6 ○ /39.2
TRIP TF. PUMP WTRPOOL - WTRPOOL BUFFER 1	TRIP TF. PUMP WTRPOOL - WTRPOOL BUFFER 2	TRIP PAC & FLOCCULANT DOSING PUMP	READY TF. PUMP AERATION-CLARIFIER 1	READY TF. PUMP AERATION-CLARIFIER 2	READY SUCTION PUMP 1	READY SUCTION PUMP 2
Digital input	Digital input	Digital input	Digital input	Digital input	Digital input	Digital input

- A7 - A7 - A7 - A7 - A7 - A7 - A7

		Date	10.08.24	SNE Satria Nusa Enjinering	Project number	Unit	=Panel Layout 1,2,4,6
		work	Raisha			Field	+
		check	Budiman				
Status	rev.	Date	name norm	DIN 81346	Created for	Created by	Drawing number sheet 48 of 114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9



I7 /39.2 I8 /39.2 I9 /39.2 I10 /39.2 I11 /39.2 I12 /39.2 I13 /39.2

READY SUCTION PUMP 3 READY SUCTION PUMP 4 READY SUCTION PUMP 5 READY SUCTION PUMP 6 READY SUCTION PUMP 7 READY SUCTION PUMP 8 READY BACKWASH PUMP 1

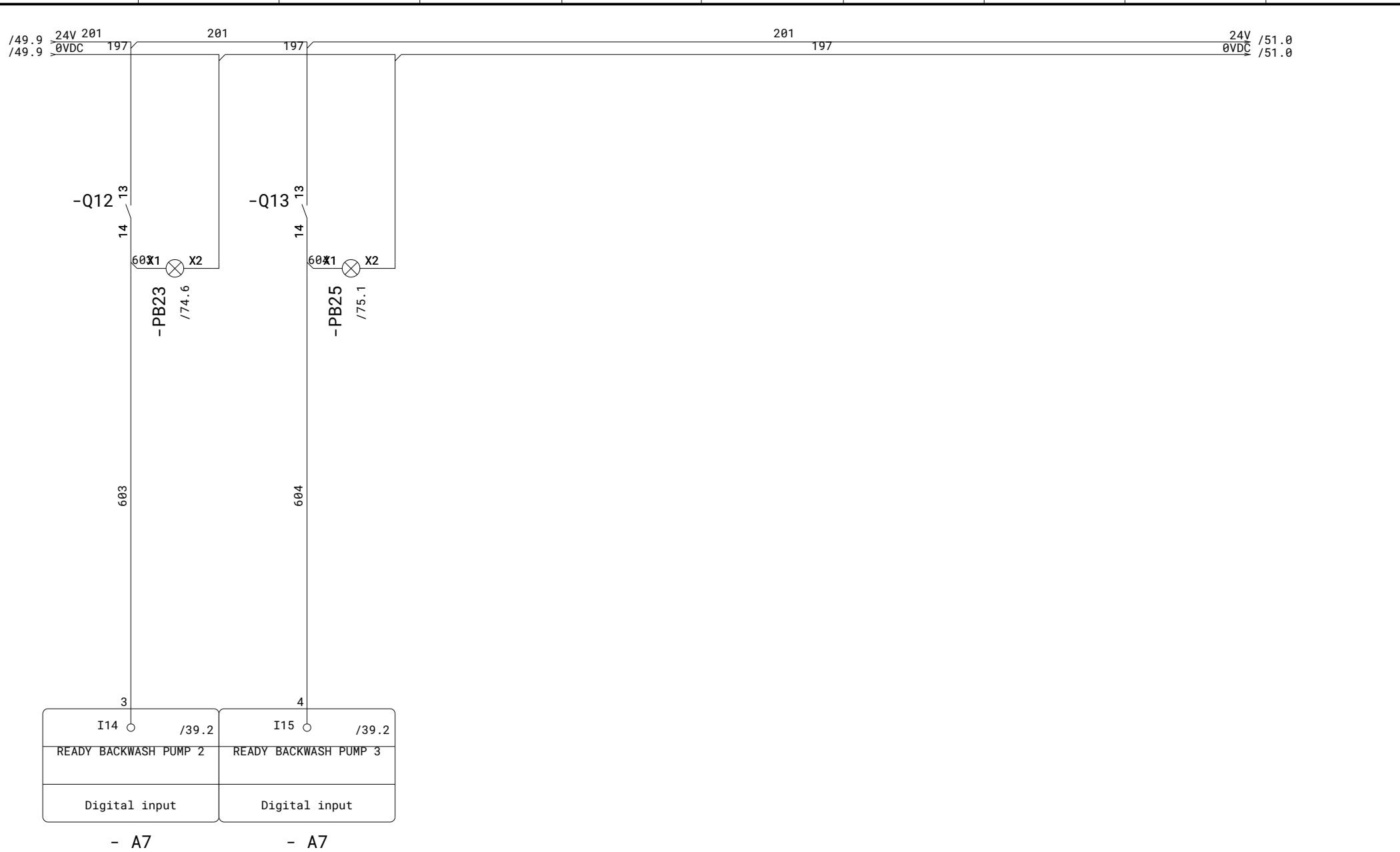
Digital input Digital input Digital input Digital input Digital input Digital input Digital input

- A7 - A7 - A7 - A7 - A7 - A7 - A7

			Date	10.08.24	 SNE SATRIA NUSA ENJINERING	Project number Field	Unit	=Panel Layout 1,2,4,6
			work	Raisha			Field	+
			check	Budiman				
Status	rev.	Date	name	norm	DIN 81346	Created for	Created by	Drawing number sheet 49 of 114

0 1 2 3 4 5 6 7 8 9

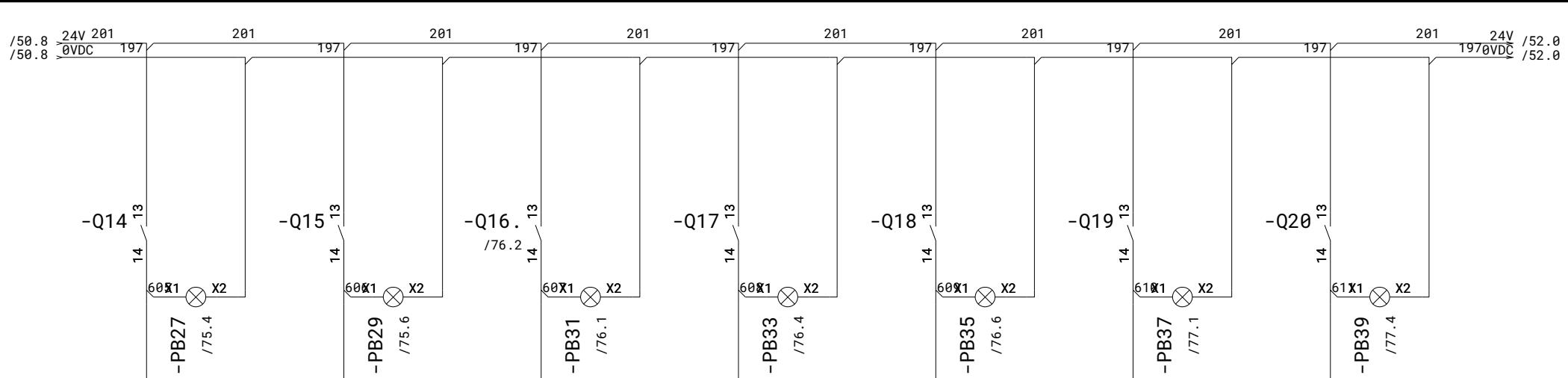
0 1 2 3 4 5 6 7 8 9



		Date	10.08.24	SNE Satria Nusa Enjineering		Project number	Unit	=Panel Layout 1,2,4,6
		work	Raisha				Field	+
		check	Budiman					
Status	rev.	Date	name norm	DIN 81346	created for	Created by	Drawing number	sheet 50 of 114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9



A A
B B
C C
D D
E E

605 606 607 608 609 610 611

I0 /39.5	I1 /39.5	I2 /39.5	I3 /39.5	I4 /39.5	I5 /39.5	I6 /39.5
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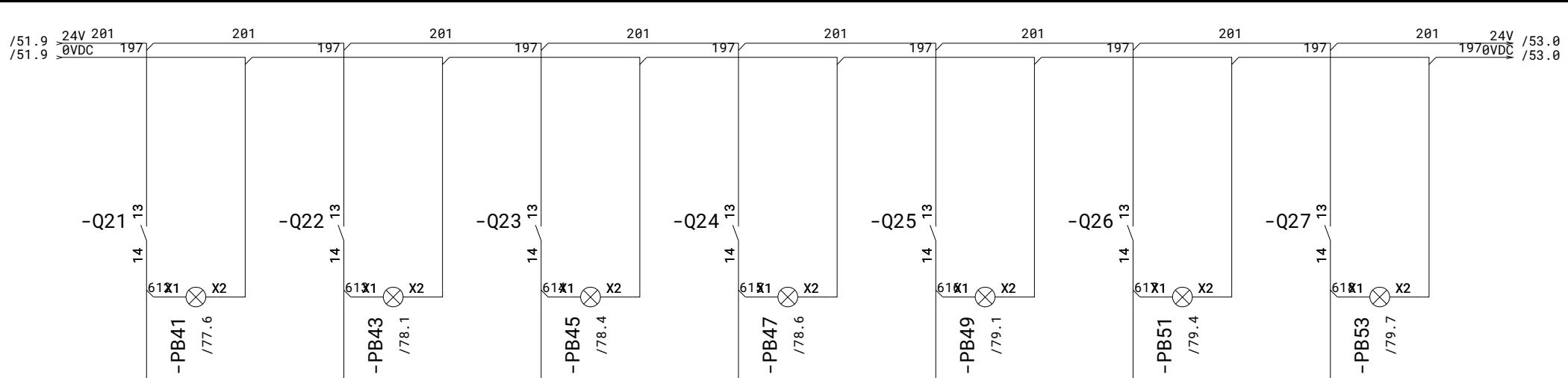
READY BACKWASH PUMP 4	READY BACKWASH PUMP 5	READY MBR - AERATION 1	READY MBR - AERATION 2	READY Chlorine Dosing Pump 1	READY CHLORINE CHEMICAL AGITATOR	READY SOLID TF. CLARIFIER
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Digital input						
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- A8 - A8 - A8 - A8 - A8 - A8 - A8

			Date	10.08.24			Project number		Unit	=Panel Layout 1,2,4,6
			work	Raisha					Field	+
			check	Budiman						
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			
0	1	2	3	4	5	6	7	8	9	

0 1 2 3 4 5 6 7 8 9



I7 ○ /39.5	I8 ○ /39.5	I9 ○ /39.5	I10 ○ /39.5	I11 ○ /39.5	I12 ○ /39.5	I13 ○ /39.5
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READY UV (1Phase) 1	READY UV (1Phase) 2	READY UV (1Phase) 3	READY TF.PUMP CSAS-B 1	READY TF.PUMP CSAS-B 2	READY TF. PUMP AERATION - CLARIFIER 1	READY TF. PUMP AERATION - CLARIFIER 2
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Digital input						
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- A8 - A8 - A8 - A8 - A8 - A8 - A8

			Date	10.08.24		SNE Satria Nusa Enjinering	Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field	+
			check	Budiman					
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet 52 of 114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

/52.9 24V 201
/52.9 0VDC 197

201

197

201

197

24V /54.0
0VDC /54.0

A

A

B

B

C

C

D

D

E

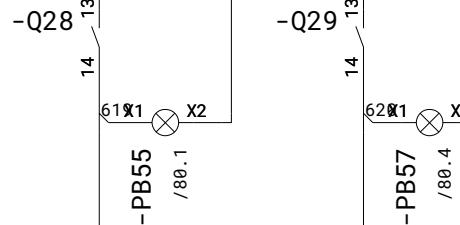
E

F

F

G

G



619

620

I14 ○ /39.5	I15 ○ /39.5
READY Transfer Pump RWT 1	READY Transfer Pump RWT 2
Digital input	Digital input

- A8

- A8

			Date	10.08.24	SNE Satria Nusa Enjinering		Project number		Unit	=Panel Layout 1,2,4,6
			work	Raisha					Field	+
			check	Budiman					Drawing number	sheet 53
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			of 114

0

1

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3

4

5

6

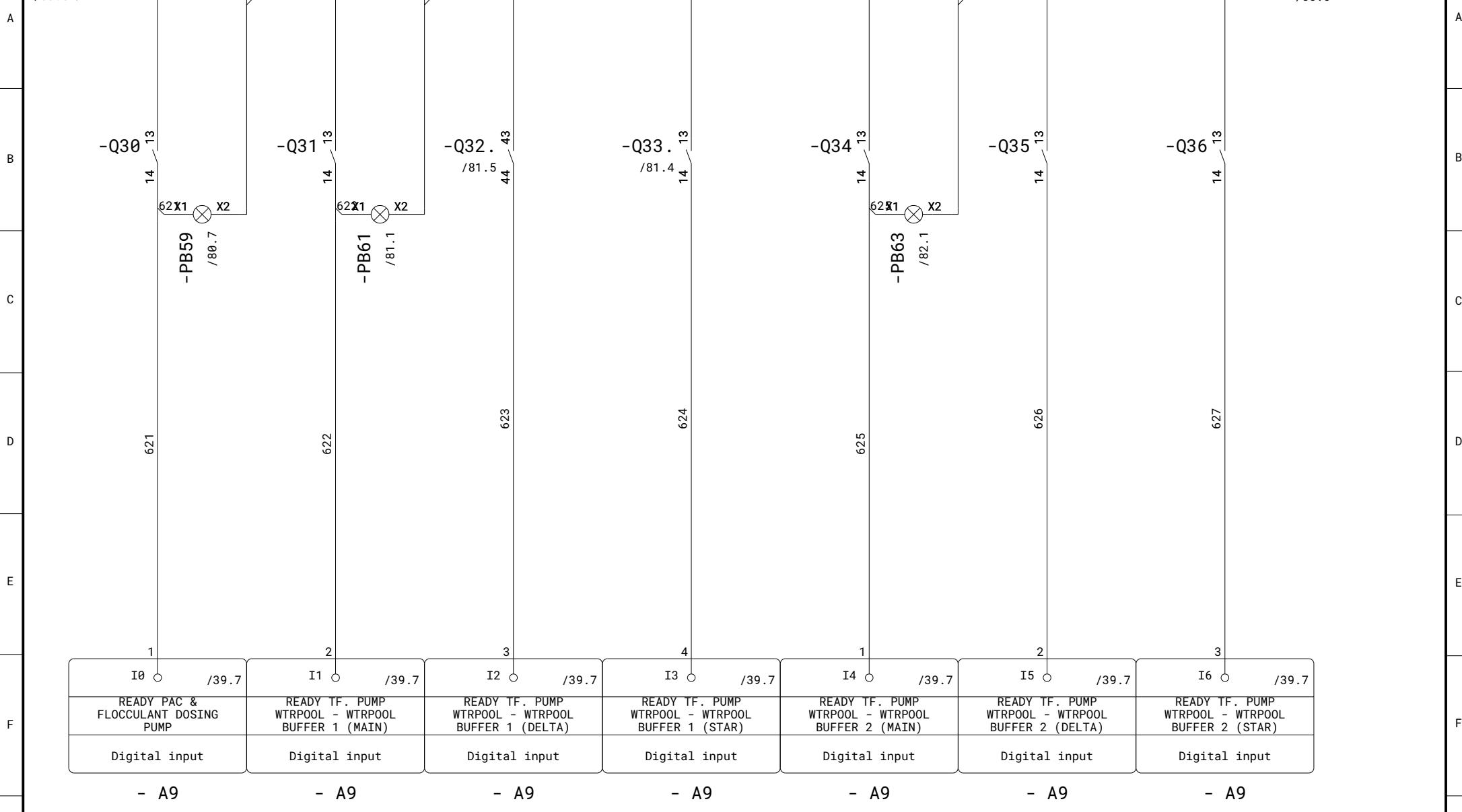
7

8

9

0 1 2 3 4 5 6 7 8 9

/53.8 24V 201
/53.8 0VDC 197 201 201 201 201 201 201 201 201 24V /55.0
0VDC /55.0



I0 ○ /39.7	I1 ○ /39.7	I2 ○ /39.7	I3 ○ /39.7	I4 ○ /39.7	I5 ○ /39.7	I6 ○ /39.7
READY PAC & FLOCCULANT DOSING PUMP	READY TF. PUMP WTRPOOL - WTRPOOL BUFFER 1 (MAIN)	READY TF. PUMP WTRPOOL - WTRPOOL BUFFER 1 (DELTA)	READY TF. PUMP WTRPOOL - WTRPOOL BUFFER 1 (STAR)	READY TF. PUMP WTRPOOL - WTRPOOL BUFFER 2 (MAIN)	READY TF. PUMP WTRPOOL - WTRPOOL BUFFER 2 (DELTA)	READY TF. PUMP WTRPOOL - WTRPOOL BUFFER 2 (STAR)
Digital input	Digital input	Digital input	Digital input	Digital input	Digital input	Digital input

- A9 - A9 - A9 - A9 - A9 - A9 - A9

			Date	10.08.24	SNE Satria Nusa Enjinering		Project number		Unit	=Panel Layout 1,2,4,6
			work	Raisha					Field	+
			check	Budiman						
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		Drawing number	sheet 54
										of 114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

/54.8 24V 201 /54.8 0VDC /54.8 0VDC /56.0 24V 201 /56.0

- FS1 Floater Switch 1 - FS2 Floater Switch 2 - FS3 Floater Switch 3 - FS4 Floater Switch 4 - FS5 Floater Switch 5 - FS6 Floater Switch 6 - FS7 Floater Switch 7

22 21 22 21 22 21 22 21 22 21 22 21 22 21 22 21

A A B B C C D D E E F F G G

Floater Switch 1 Floater Switch 2 Floater Switch 3 Floater Switch 4 Floater Switch 5 Floater Switch 6 Floater Switch 7

628 629 630 631 632 633 634

I7 1 /39.7 I8 1 /39.7 I9 1 /39.7 I10 1 /39.7 I11 1 /39.7 I12 1 /39.7 I13 1 /39.7

Floater Siwtch 1	Floater Siwtch 2	Floater Siwtch 3	Floater Siwtch 4	Floater Siwtch 5	Floater Siwtch 6	Floater Siwtch 7
Digital input						

- A9 - A9 - A9 - A9 - A9 - A9 - A9

			Date	10.08.24	SNE Satria NUSA ENGINERING	Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha			Field	+
			check	Budiman				
Status	rev.	Date	name	norm	DIN 81346	Created for	Created by	
							Drawing number	sheet 55
								of 114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

/55.9 24V 201
/55.9 0VDC

201

201

24V /57.0
0VDC /57.0

A

A

B

B

C

C

D

D

E

E

F

F

G

G

- FS8
Floater Switch 8

201
Floater Switch 9

22 21

22 21

635

636

3

4

I14 /39.7 I15 /39.7

Floater Siwtch 8 Floater Siwtch 9

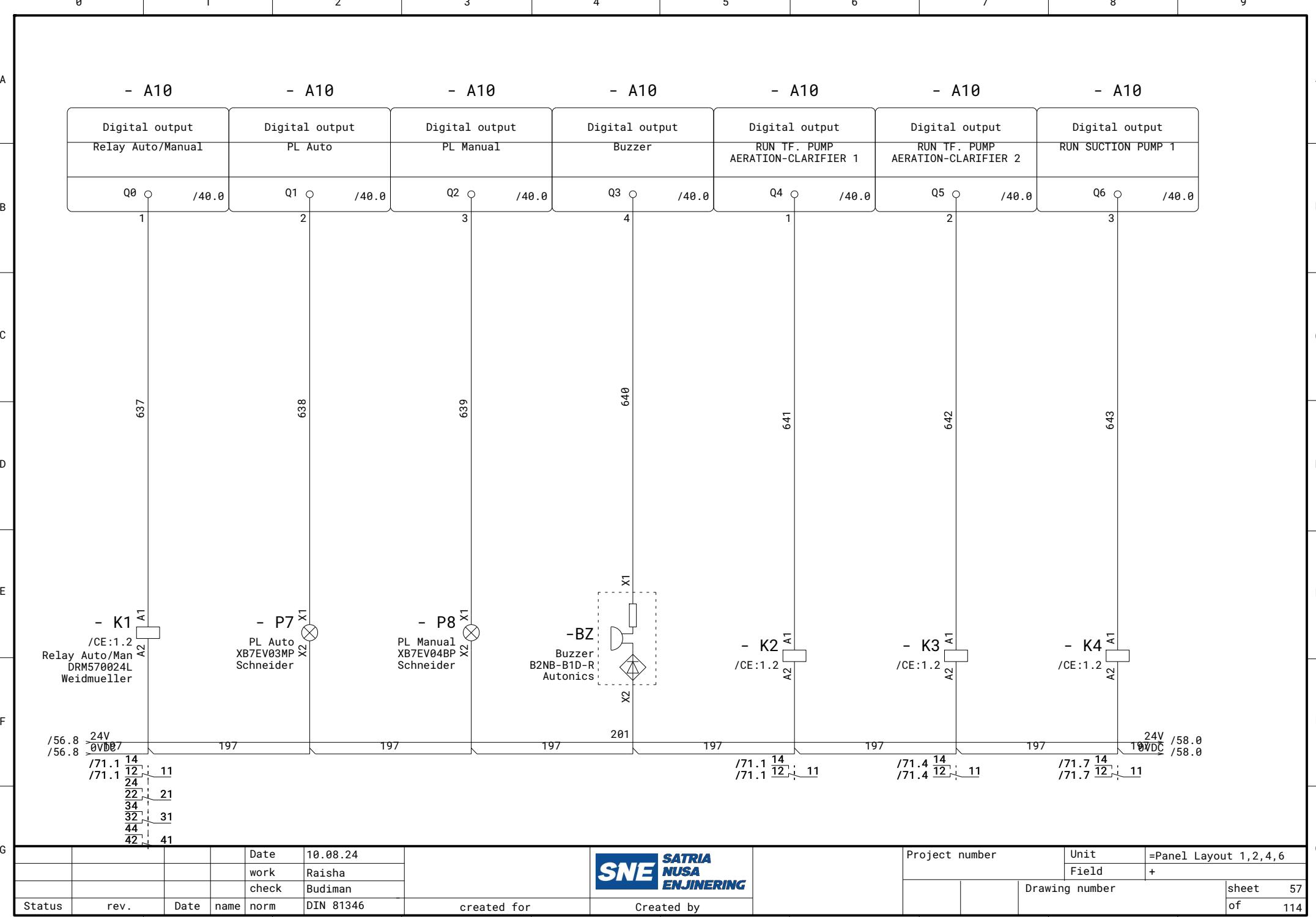
Digital input

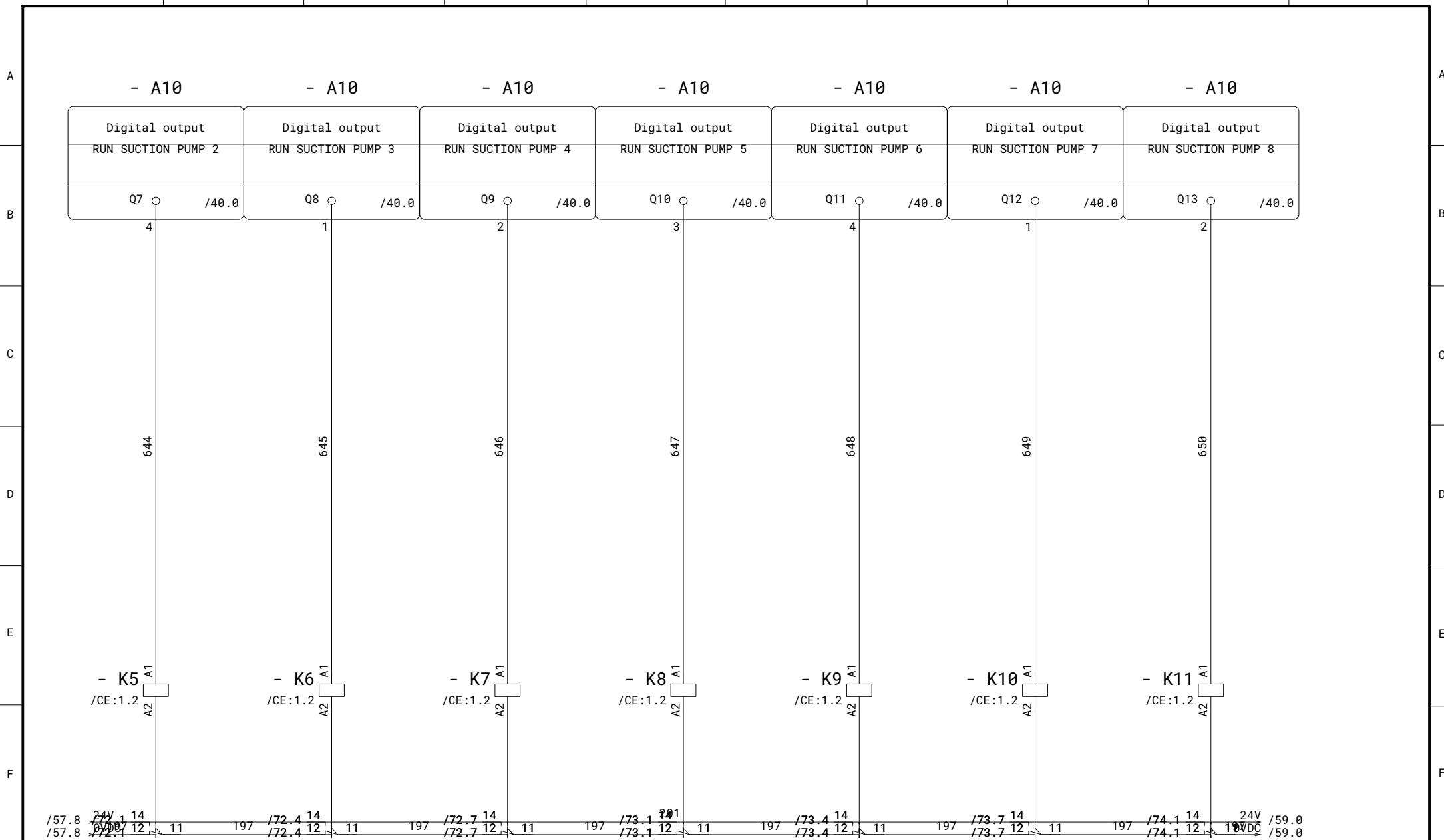
Digital input

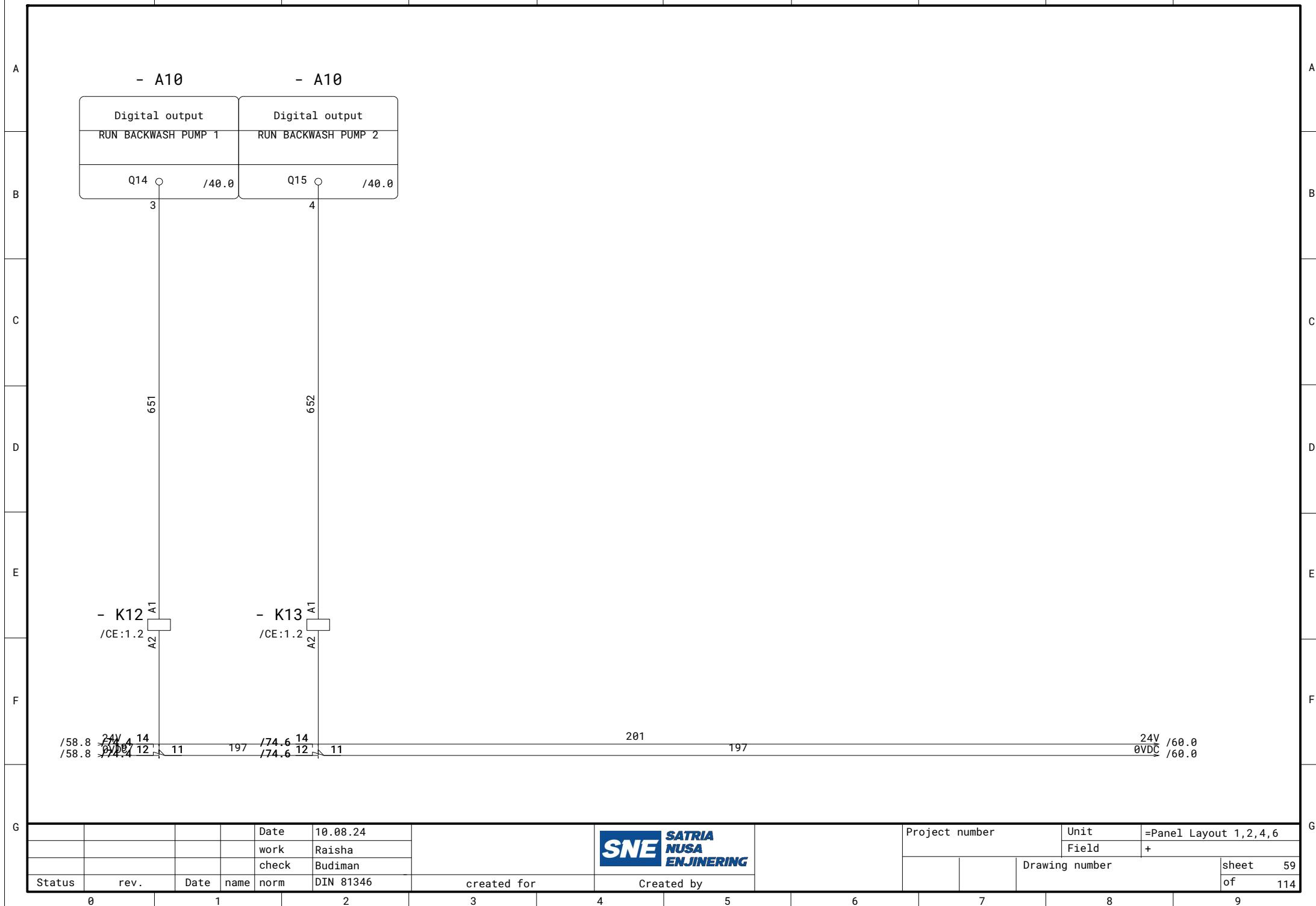
- A9

- A9

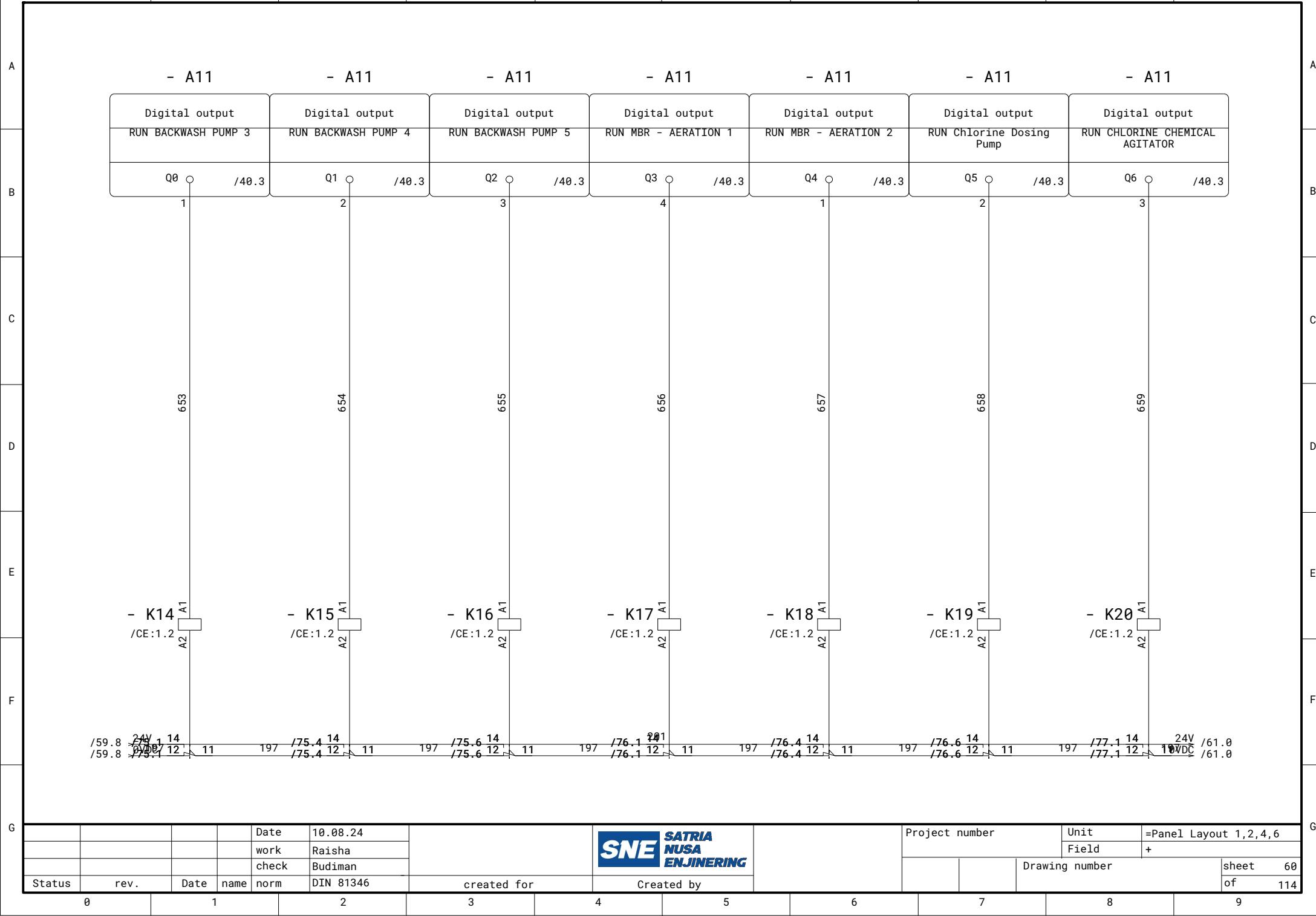
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			work	Raisha				Field	+		
			check	Budiman							
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			Drawing number	sheet 56
0	1	2	3	4	5	6	7	8	9	of	114

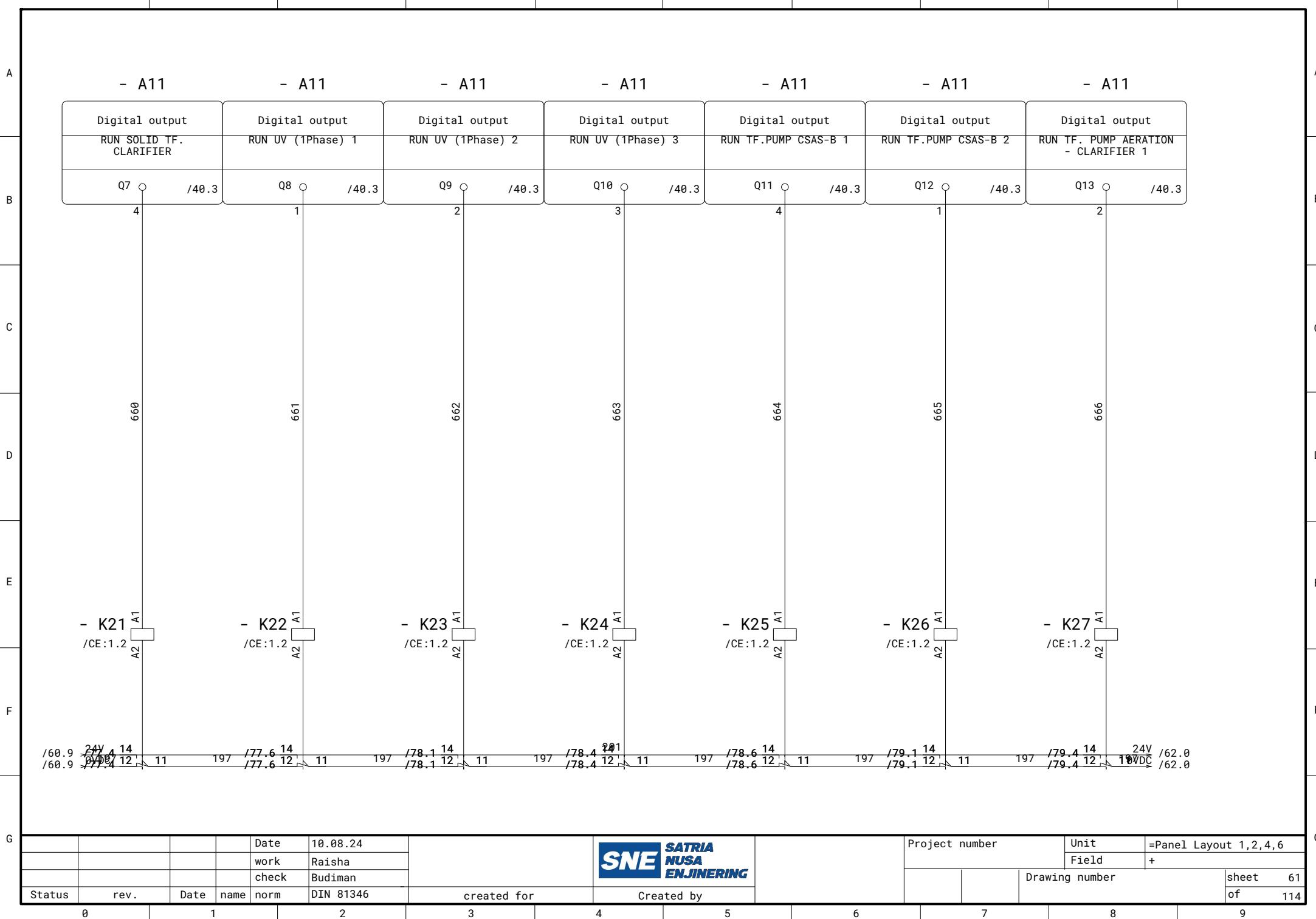


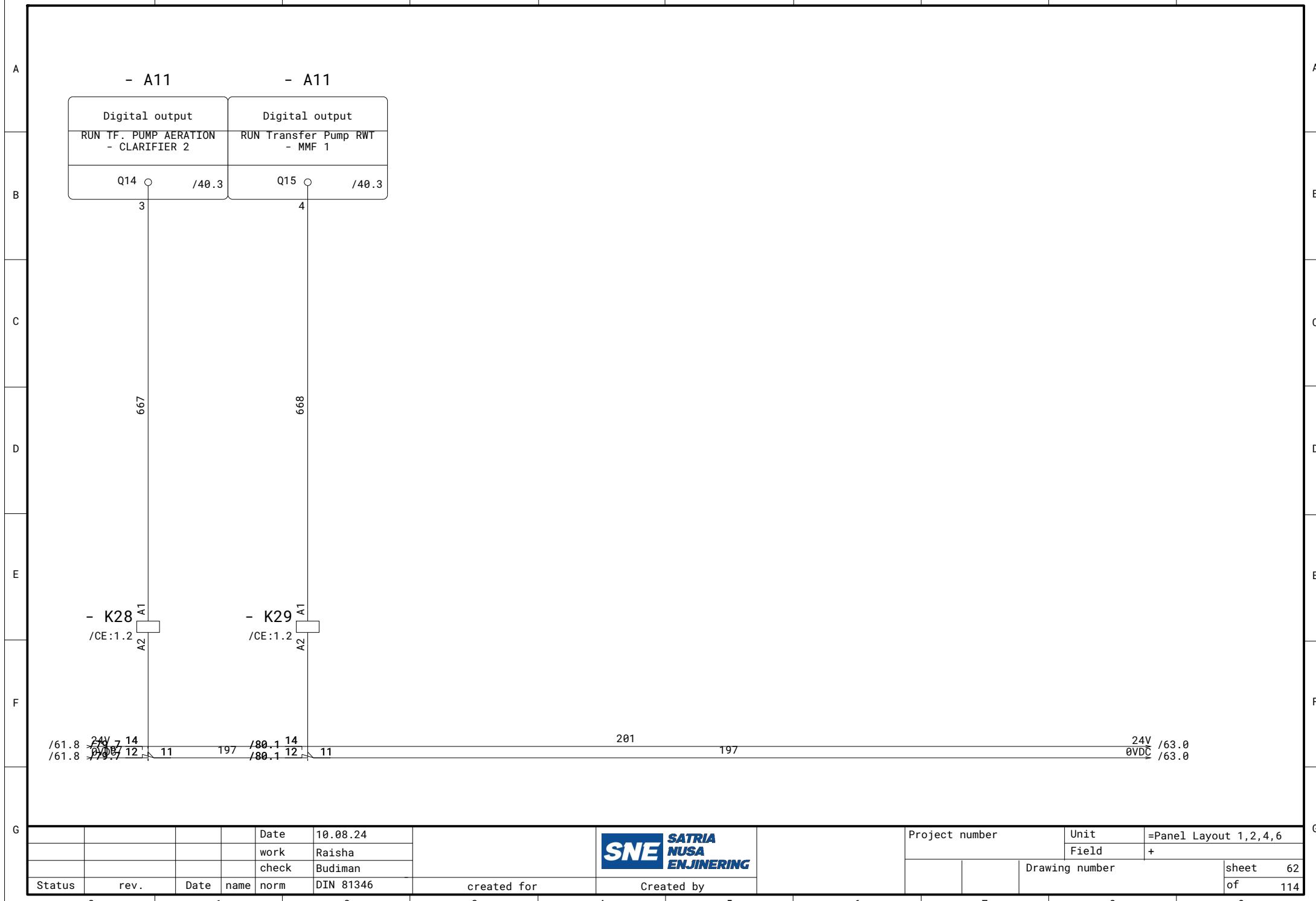


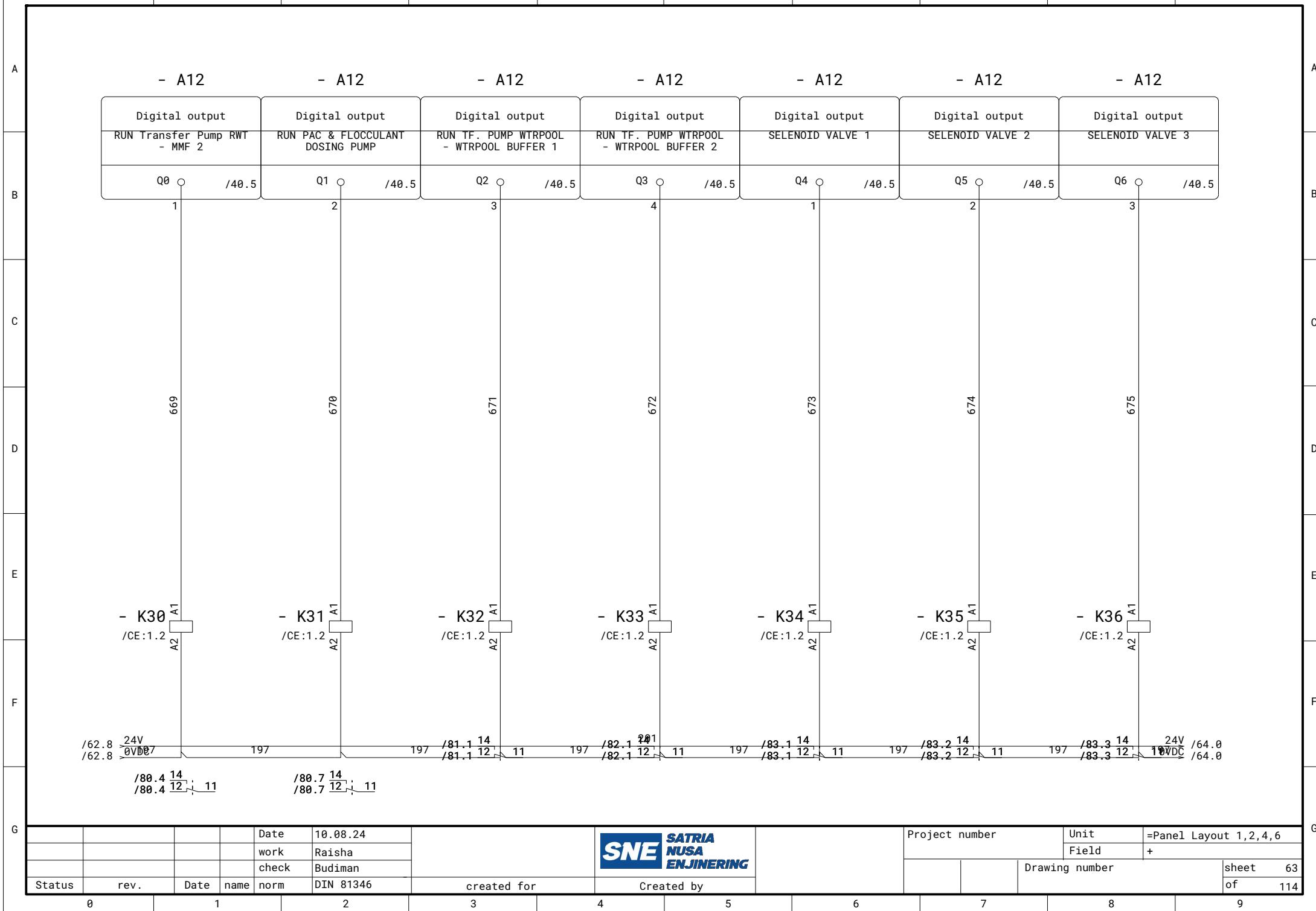


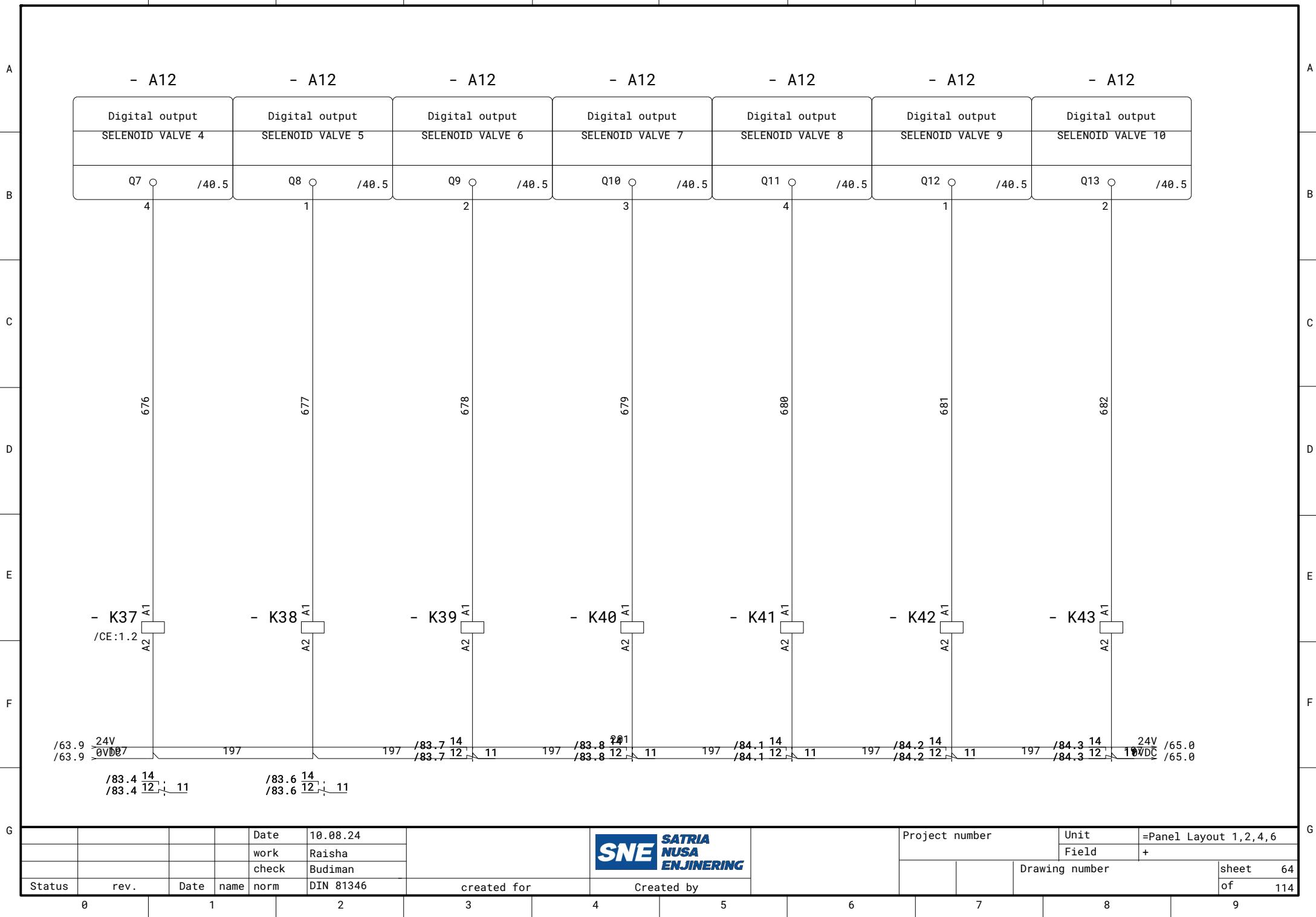
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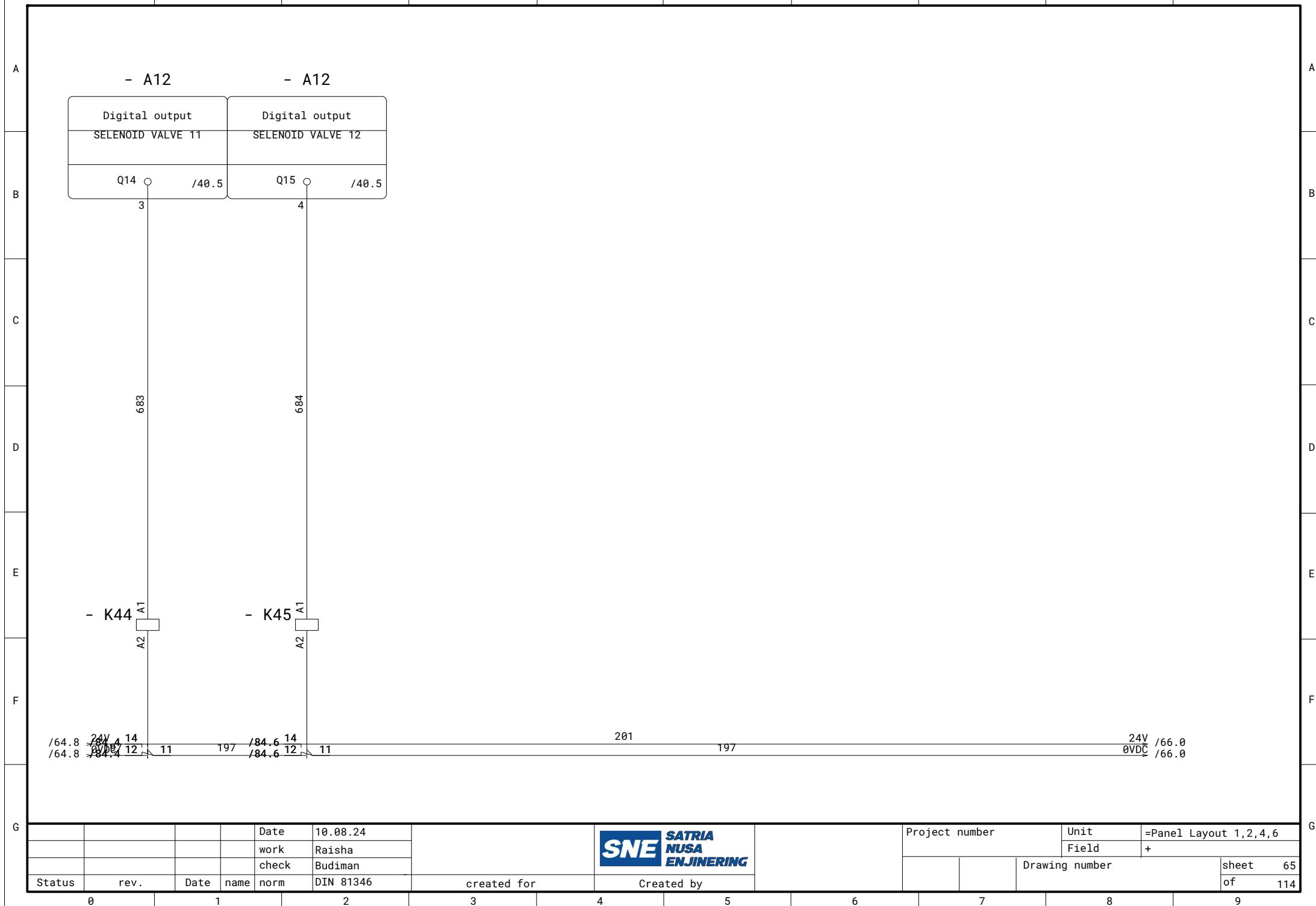




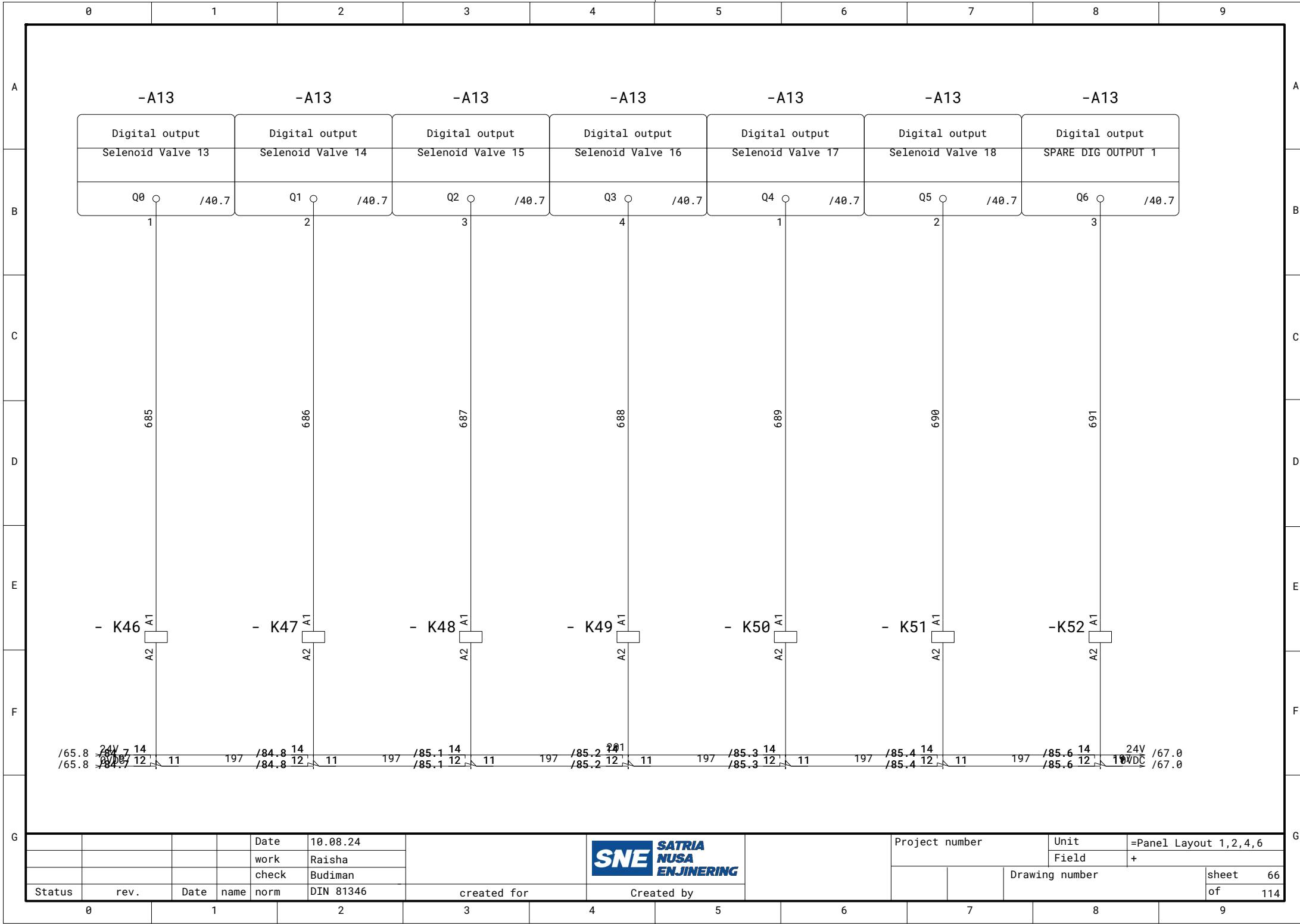


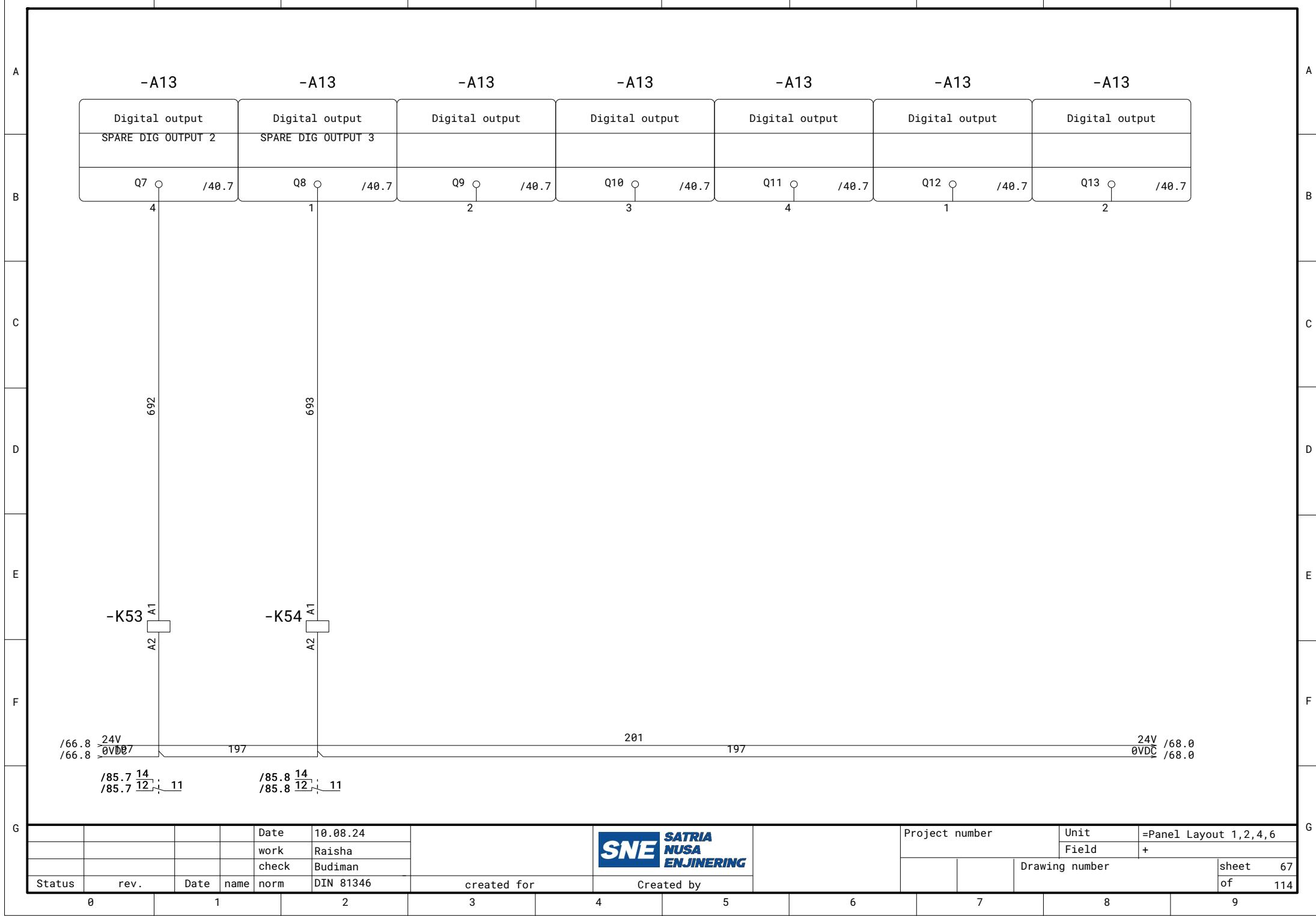




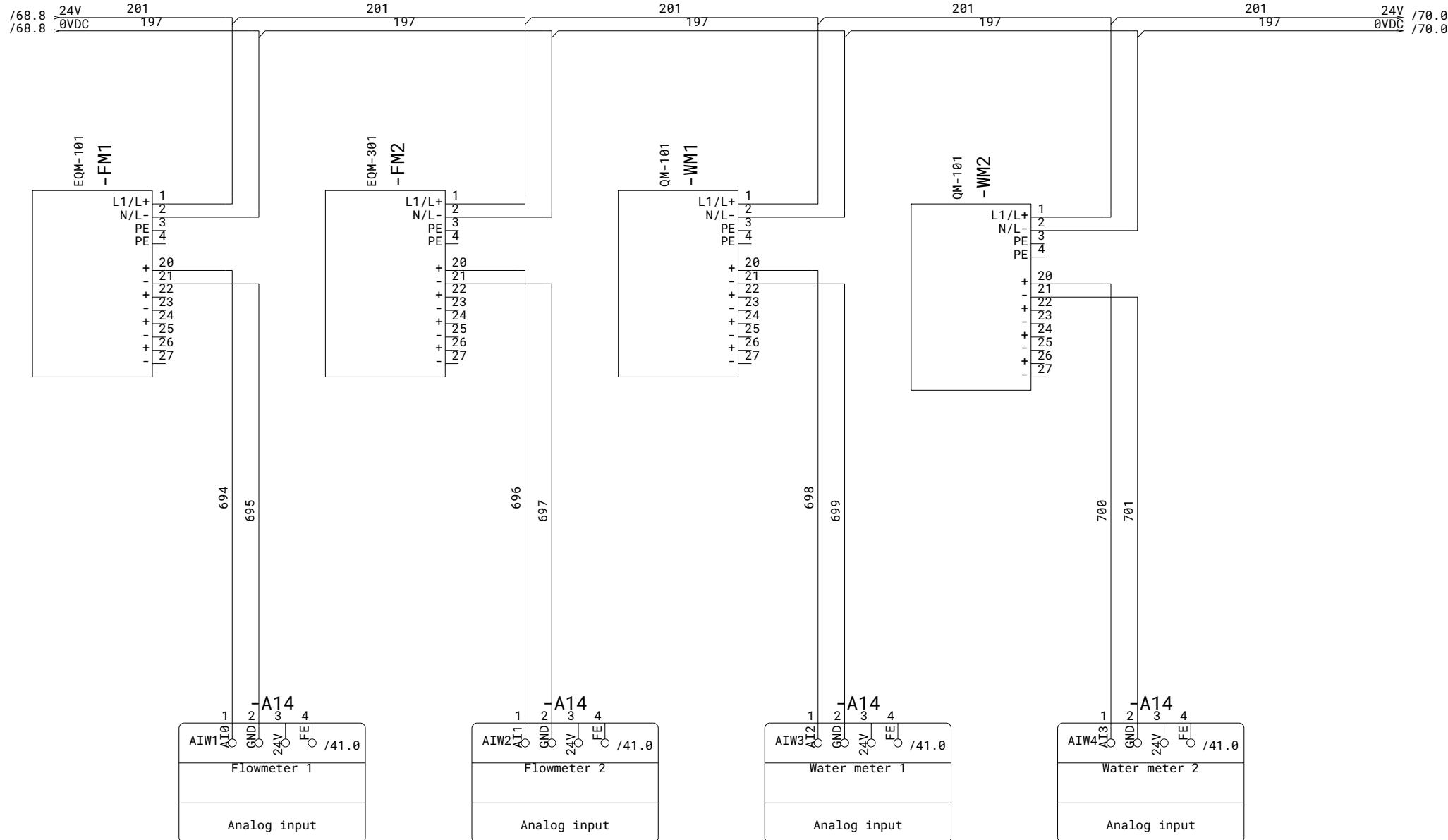


0 1 2 3 4 5 6 7 8 9





0 1 2 3 4 5 6 7 8 9

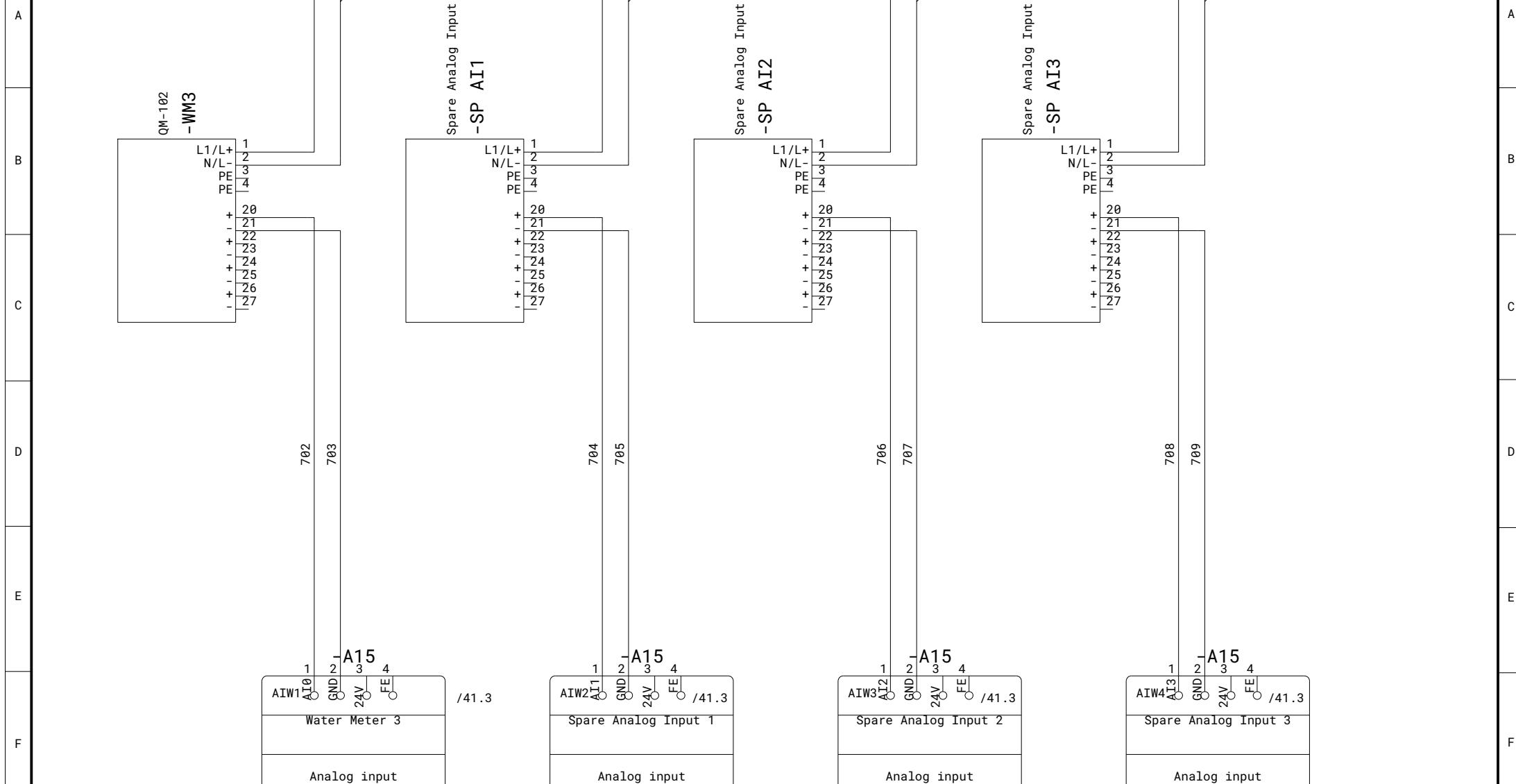


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			work	Raisha				Field	+
			check	Budiman				Drawing number	sheet 69
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		of 114

0 1 2 3 4 5 6 7 8 9

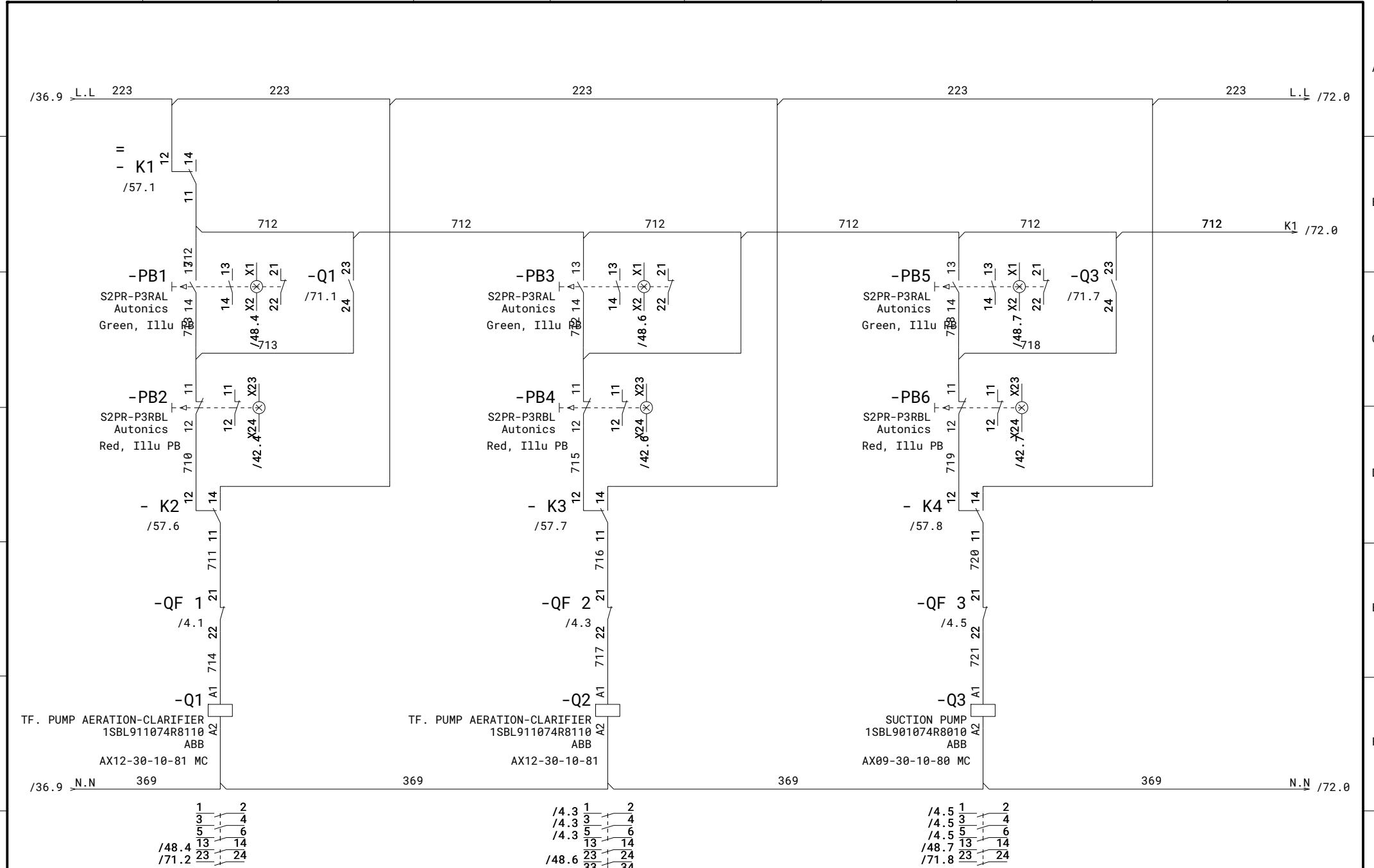
0 1 2 3 4 5 6 7 8 9

/69.9 24V 201 197 201 197 201 197 201 197 24V /87.0
 /69.9 0VDC 0VDC 0VDC 0VDC 0VDC 0VDC 0VDC 0VDC /87.0

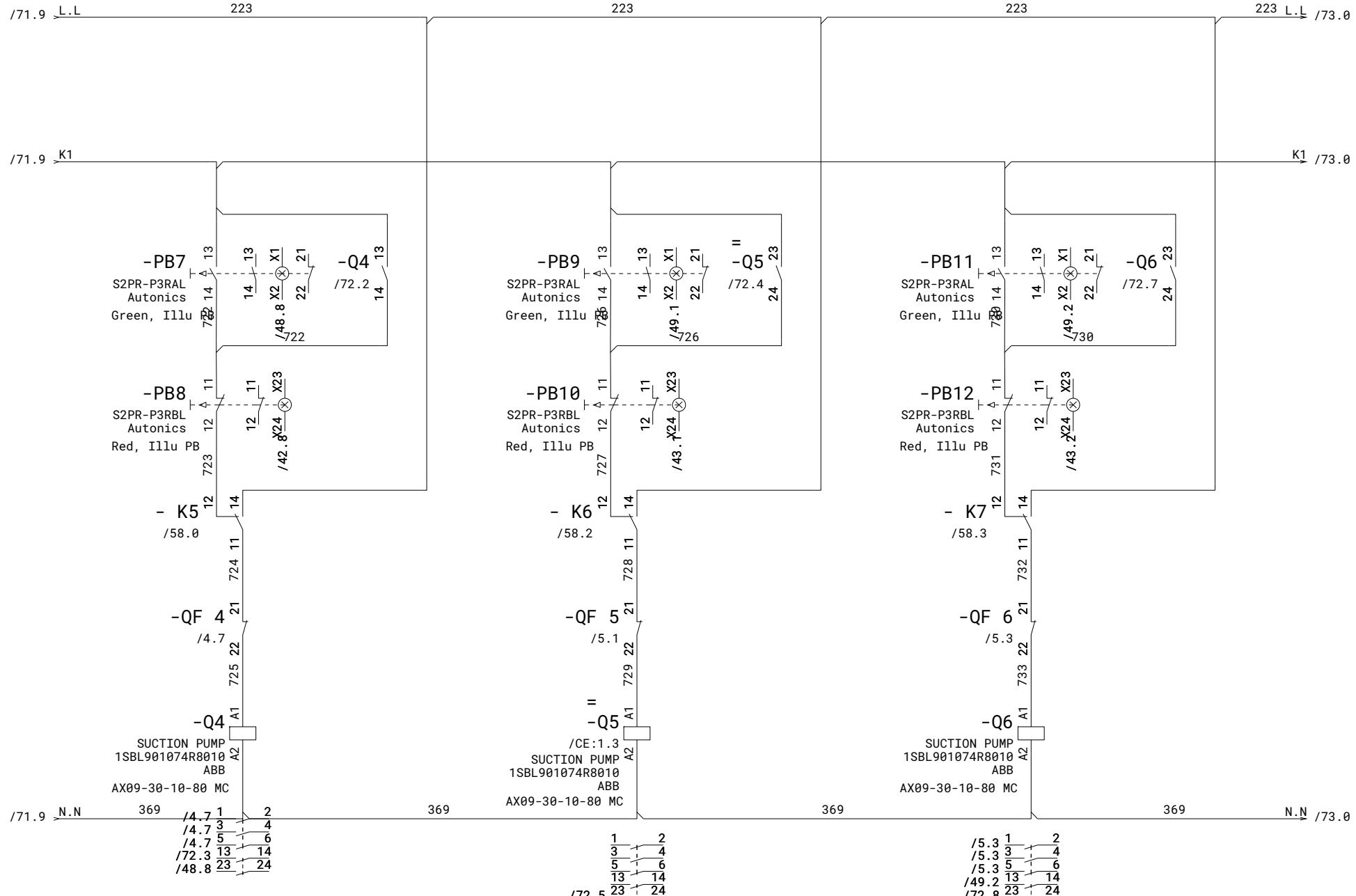


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			work	Raisha				Field	
			check	Budiman				+	
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet 70 of 114

0 1 2 3 4 5 6 7 8 9



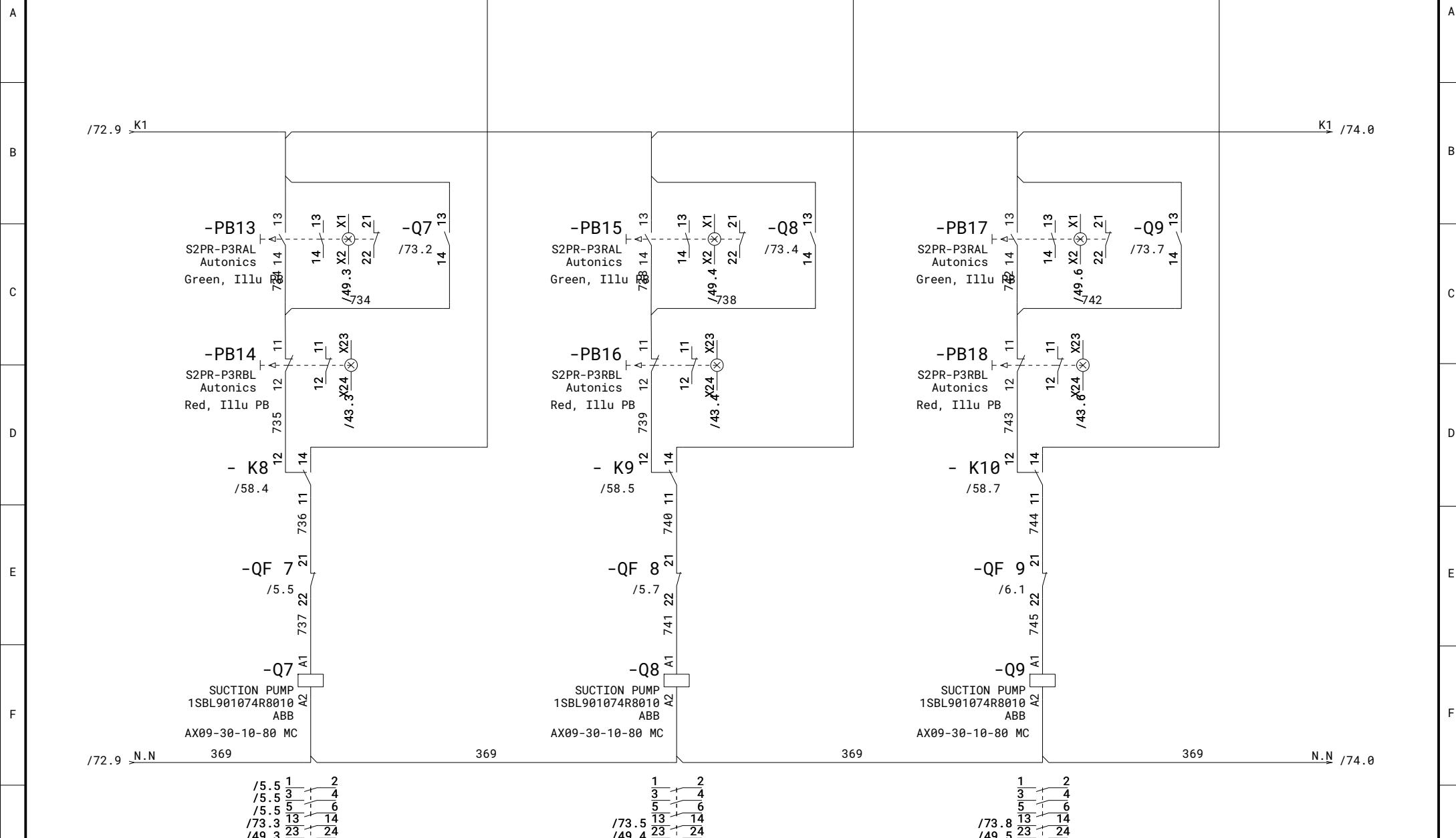
			Date	10.08.24		SNE Satria Nusa Enjinering		Project number		Unit	=Panel Layout 1,2,4,6
			work	Raisha					Field	+	
			check	Budiman					Drawing number		sheet 71
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			of	114



Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Project number		Unit	=Panel Layout 1, 2, 4, 6	
								Field	Field		Field	Field
0	1	2	3	4	5	6	7	8	9	sheet	72	of 114

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/72.9 L.L 223 223 223 223 L.L /74.0



/72.9 N.N 369 369 369 369 N.N /74.0

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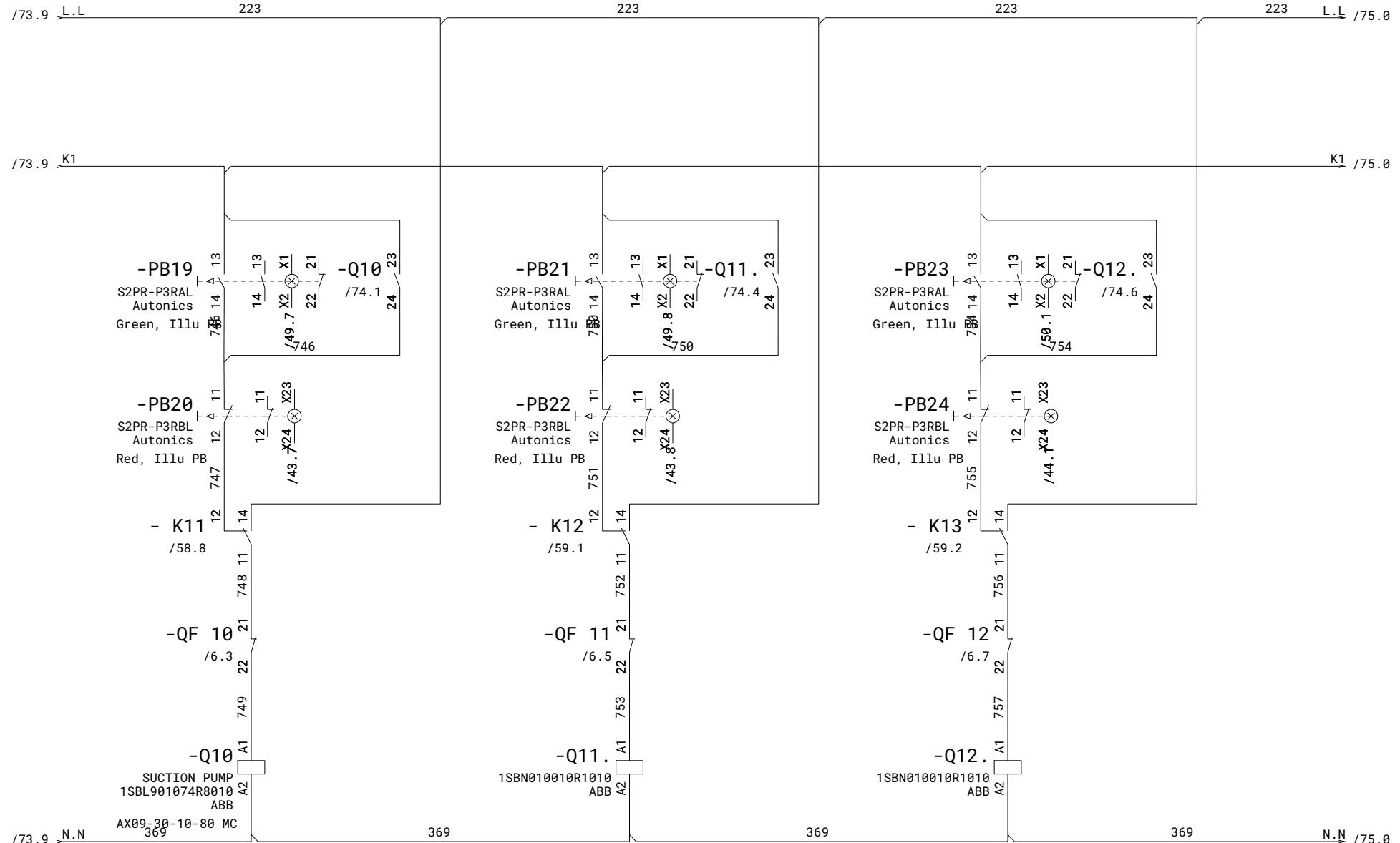
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				Date	10.08.24	SNE Satria Nusa Enjinering	Project number			Unit	=Panel Layout 1,2,4,6
				work	Raisha					Field	+
				check	Budiman					Drawing number	sheet 73
Status	rev.	Date	name	norm	DIN 81346	created for	Created by				of 114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9



/6.3 1 2
/6.3 3 4
/6.3 5 6
/49.7 13 14
/74.2 23 24

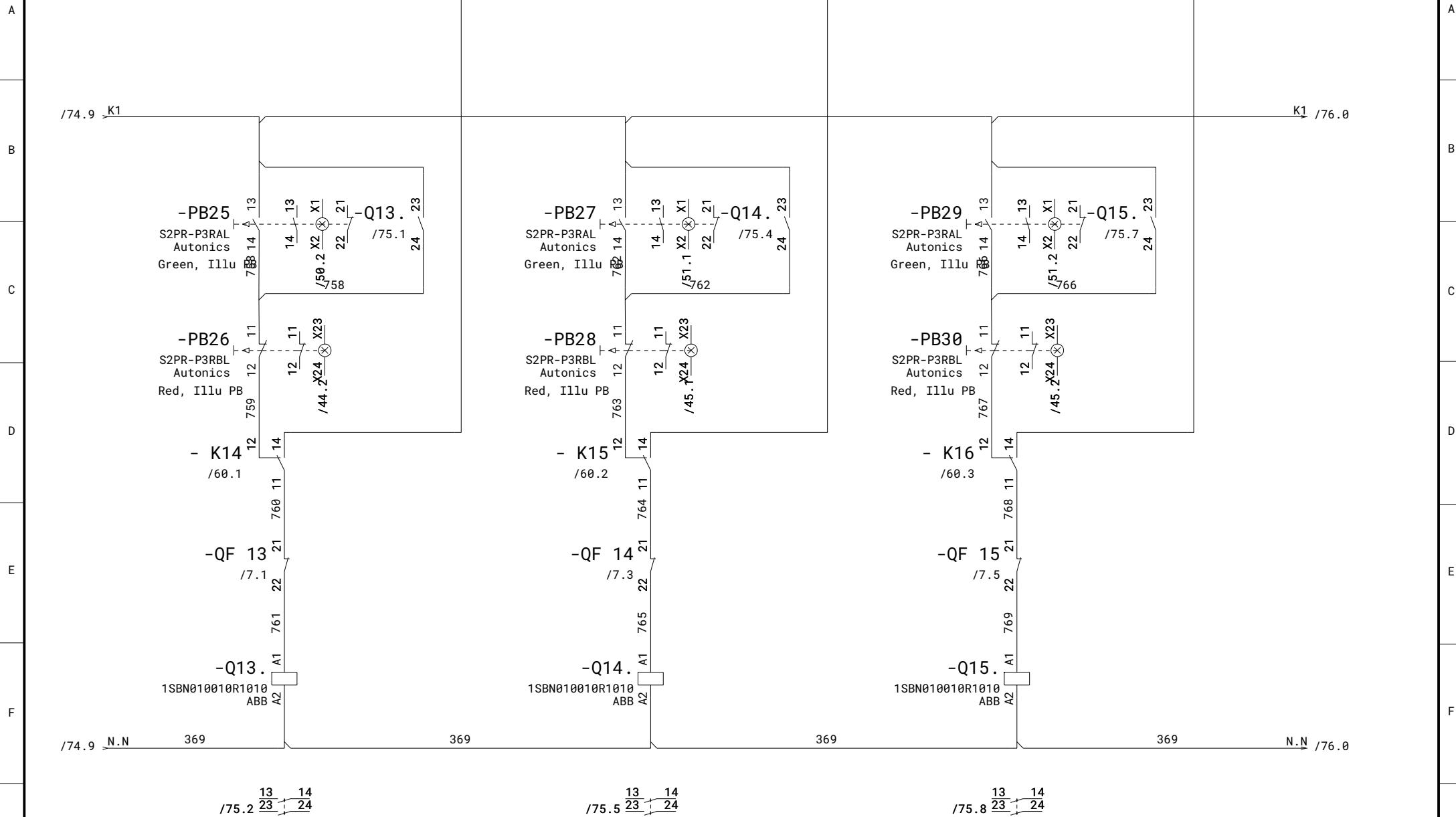
/49.8 13 14
/74.5 23 24

13 14
/74.7 23 24

Date 10.08.24				Project number	Unit	=Panel Layout 1, 2, 4, 6			
work Raisha		check Budiman				Field			
Status rev.	Date	name norm	DIN 81346			Created for	Created by		
0	1	2	3	4	5	6	7		
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/74.9 L.L 223 223 223 223 L.L /76.0



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13 14
/75.5 23 24

13 14
/75.8 23 24

			Date	10.08.24			Project number	Unit	=Panel Layout 1, 2, 4, 6
			work	Raisha				Field	
			check	Budiman					
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		
0	1	2	3	4	5	6	7	8	9

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/75.9 L.L

223

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223 L.L /77.0

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/75.9 K1

-PB31
S2PR-P3RAL
Autonics
Green, Illu

-PB32
S2PR-P3RBL
Autonics
Red, Illu PB

- K17

-QF 16

-Q16.

1ISBN010010R1010
ABB A2

-PB33
S2PR-P3RAL
Autonics
Green, Illu

-PB34
S2PR-P3RBL
Autonics
Red, Illu PB

- K18

-QF 17

-Q17.

1ISBN010010R1010
ABB A2

-PB35
S2PR-P3RAL
Autonics
Green, Illu

-PB36
S2PR-P3RBL
Autonics
Red, Illu PB

- K19

-QF 18

-Q18.

1ISBN010010R1010
ABB A2

/75.9 N.N

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N.N /77.0

/51.3 13
/76.3 23 2413 14
/76.5 23 2413 14
/76.8 23 24

			Date	10.08.24			Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field	+
			check	Budiman					
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		

0 1 2 3 4 5 6 7 8 9

/76.9 L.L

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223 L.L /78.0

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/76.9 K1

K1 /78.0

-PB37
S2PR-P3RAL
Autonics
Green, Illum
782

-PB39
S2PR-P3RAL
Autonics
Green, Illum
786

-PB41
S2PR-P3RAL
Autonics
Green, Illum
790

-PB38
S2PR-P3RBL
Autonics
Red, Illum PB
/45.824

-PB40
S2PR-P3RBL
Autonics
Red, Illum PB
/45.824

-PB42
S2PR-P3RBL
Autonics
Red, Illum PB
/46.824

-K20
/60.8

-K21
/61.0

-K22
/61.2

-QF 19
/8.5

-QF 20
/8.7

-QF 21
/9.1

-Q19.
1ISBN010010R1010
ABB A2

-Q20.
1ISBN010010R1010
ABB A2

-Q21.
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ABB A2

/76.9 N.N 369

369

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369 N.N /78.0

13 23 14
/77.2 23 24

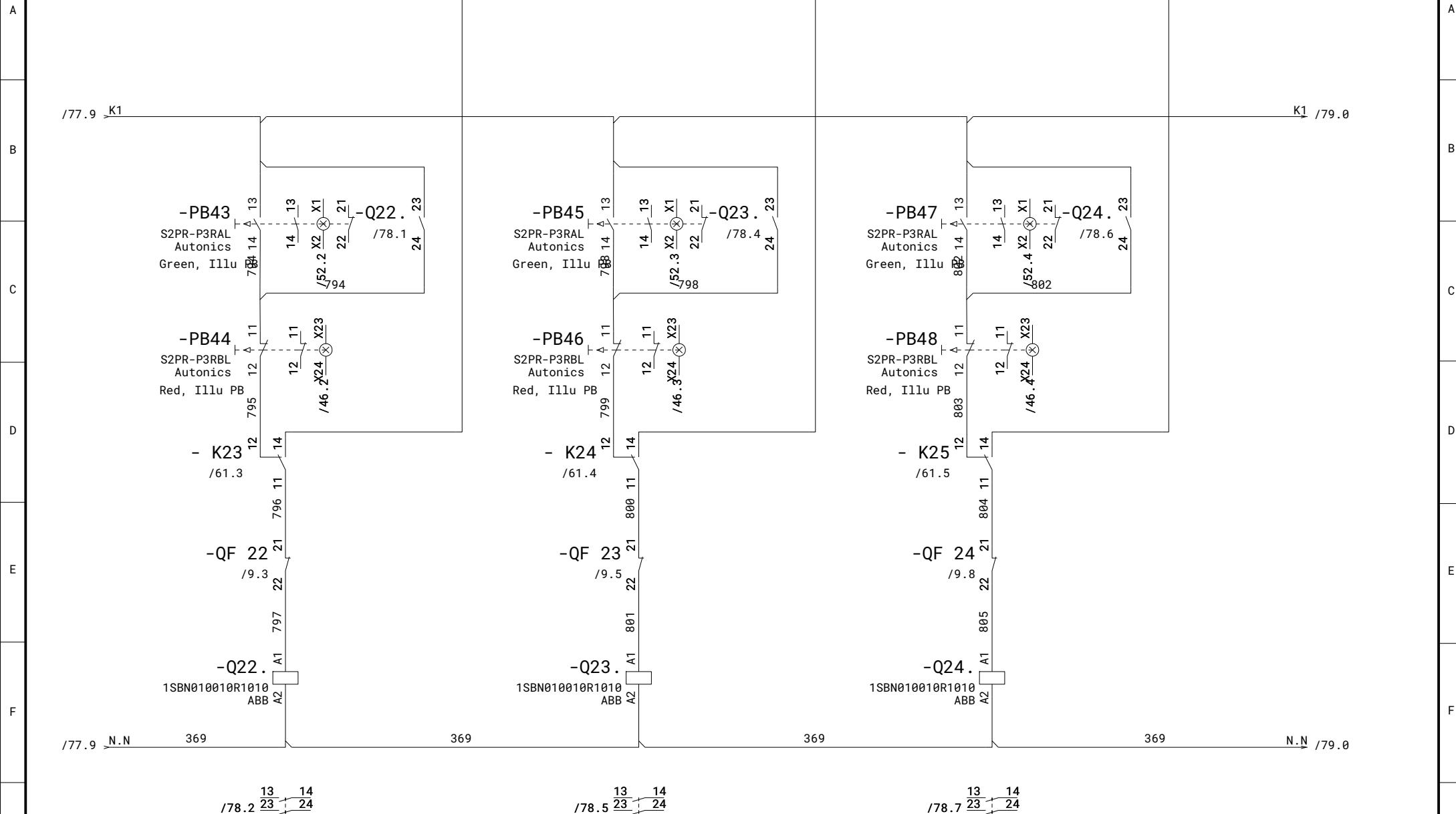
13 23 14
/77.5 23 24

13 23 14
/77.8 23 24

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			work	Raisha				Field	+
			check	Budiman					
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		
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0 1 2 3 4 5 6 7 8 9

/77.9 L.L 223 223 223 223 L.L /79.0



			Date	10.08.24			Project number	Unit	=Panel Layout 1, 2, 4, 6
			work	Raisha				Field	+
			check	Budiman					
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		

SNE SATRIA
NUSA ENGINERING

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

/78.9 L.L

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223

223 L.L /80.0

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-PB49
S2PR-P3RAL
Autonics
Green, Illum
806 14 13
806 14 13
/52.6 X2 X1
/79.1 23

-PB50
S2PR-P3RBL
Autonics
Red, Illum PB
807 12 11
807 12 11
/46.8 X2 X1
/46.8 X2 X1

- K26
/61.7
14
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808 11
808 11
-QF 25
/10.1
21
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809 21
809 22
-Q25.
1ISBN010010R1010
ABB A2 A1

-PB51
S2PR-P3RAL
Autonics
Green, Illum
810 14 13
810 14 13
/52.7 X2 X1
/79.4 23

-PB52
S2PR-P3RBL
Autonics
Red, Illum PB
811 12 11
811 12 11
/46.8 X2 X1
/46.8 X2 X1

- K27
/61.8
14
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812 11
812 11
-QF 26
/10.3
21
22
813 21
813 22
-Q26.
1ISBN010010R1010
ABB A2 A1

-PB53
S2PR-P3RAL
Autonics
Green, Illum
814 14 13
814 14 13
/52.8 X2 X1
/79.7 23

-PB54
S2PR-P3RBL
Autonics
Red, Illum PB
815 12 11
815 12 11
/46.8 X2 X1
/46.8 X2 X1

- K28
/62.0
14
12
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816 11
816 11
-QF 27
/10.4
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817 21
817 22
-Q27.
1ISBN010010R1010
ABB A2 A1

/78.9 N.N

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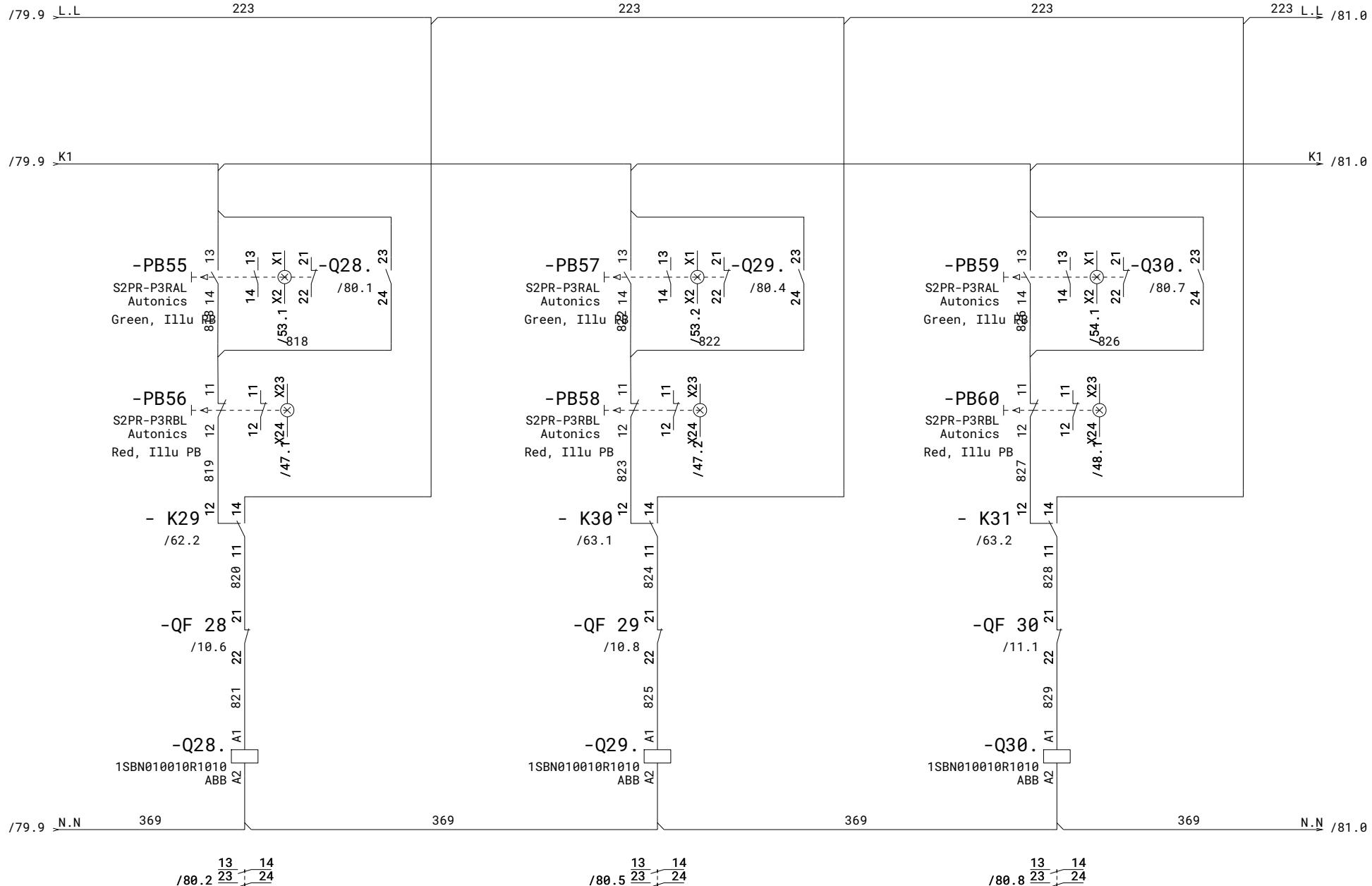
369

N.N /80.0

/79.2 13 14
23 24/79.5 13 14
23 24/79.8 13 14
23 24

			Date	10.08.24			Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field	+
			check	Budiman					
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		
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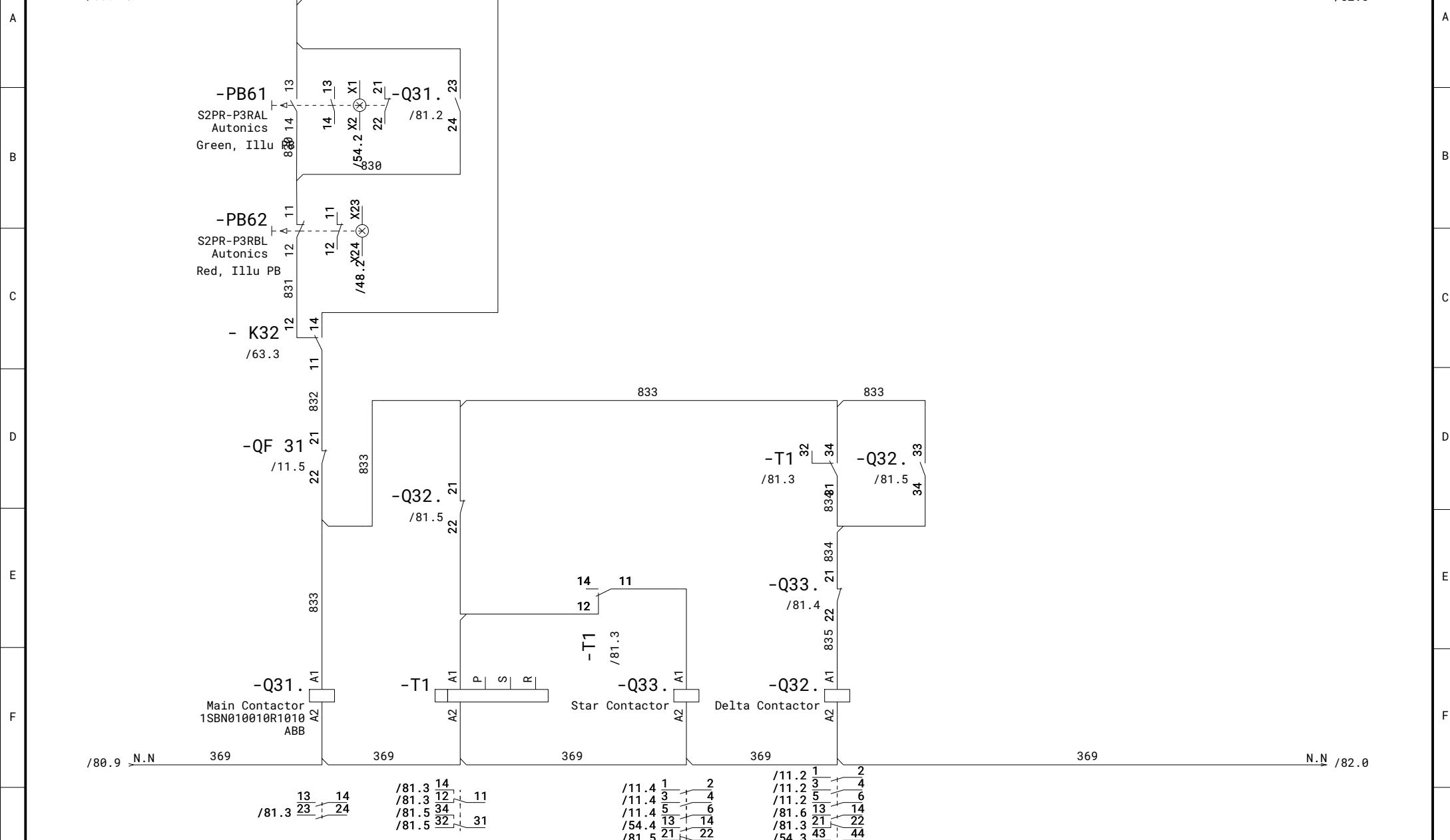
0 1 2 3 4 5 6 7 8 9



			Date	10.08.24			Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field	+
			check	Budiman				Drawing number	sheet 80
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		of 114
0	1	2	3	4	5	6	7	8	9

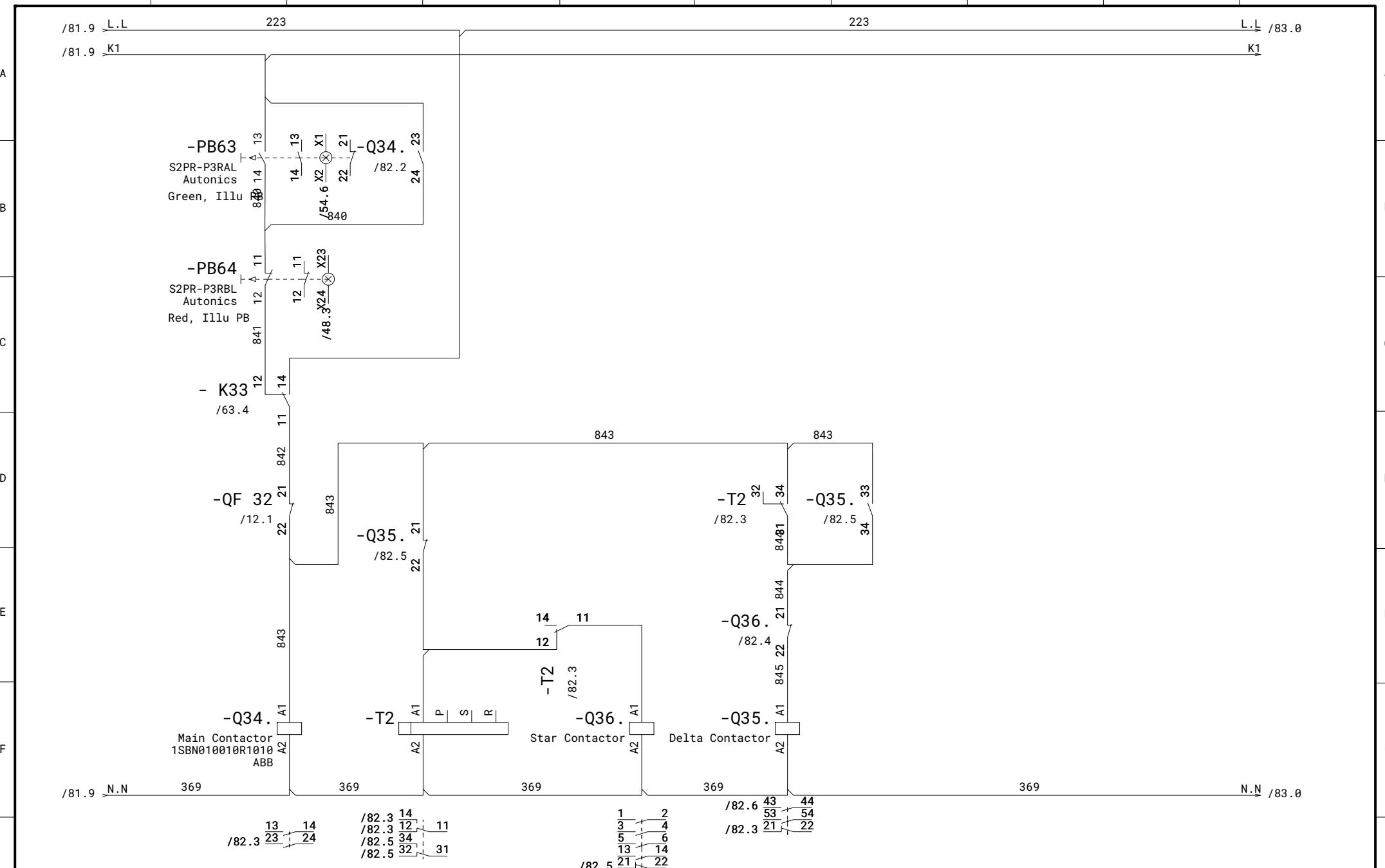
0 1 2 3 4 5 6 7 8 9

/80.9 L.L 223 223 L.L /82.0
 /80.9 K1 K1 /82.0



			Date	10.08.24			Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field	
			check	Budiman				+	
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		
0	1	2	3	4	5	6	7	8	9

0 1 2 3 4 5 6 7 8 9



		Date	10.08.24			Project number		Unit	=Panel Layout 1,2,4,6
		work	Raisha					Field	+
		check	Budiman					Drawing number	
Status	rev.	Date	name norm	DIN 81346	created for	Created by			sheet 82
									of 114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

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/82.9 L.L 223 223 223 223 223 223 223 223 L.L /84.0

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- K34¹²
/63.6 11 14
- K35¹²
/63.7 11 14
- K36¹²
/63.8 11 14
- K37¹²
/64.1 11 14
- K38¹²
/64.2 11 14
- K39¹²
/64.3 11 14
- K40¹²
/64.4 11 14

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846 847 848 849 850 851 852

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-X182 -X183 -X184 -X185 -X186 -X187 -X188

E

-SV1 A1 8469 Selenoid Valve 3692 -SV2 A1 8469 Selenoid Valve 3692 -SV3 A1 8469 Selenoid Valve 3692 -SV4 A1 8469 Selenoid Valve 3692 -SV5 A1 8569 Selenoid Valve 3692 -SV6 A1 8569 Selenoid Valve 3692 -SV7 A1 8569 Selenoid Valve 3692

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-X182 -X183 -X184 -X185 -X186 -X187 -X188

70 70 70 70 70 70 70

/82.9 N.N 369 369 369 369 369 369 369 N.N /84.0

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			Date	10.08.24		SNE Satria NUSA ENJINERING		Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha					Field	+
			check	Budiman						
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet	83
									of	114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

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/83.9 L.L 223 223 223 223 223 223 223 223 L.L /85.0

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- K41 12 14
/64.6 11 - K42 12 14
/64.7 11 - K43 12 14
/64.8 11 - K44 12 14
/65.0 11 - K45 12 14
/65.2 11 - K46 12 14
/66.1 11 - K47 12 14
/66.2 11

C

853 854 855 856 857 858 859

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-X189 -X190 -X191 -X192 -X193 -X194 -X195
-SV8 A1 853 9 -SV9 A1 854 9 -SV10 A1 855 9 -SV11 A1 856 9 -SV12 A1 857 9 -SV13 A1 858 9 -SV14 A1 859 9

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Solenoid Valve 3692 70

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/83.9 N.N 369 369 369 369 369 369 369 N.N /85.0

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			Date	10.08.24		SNE Satria NUSA ENJINERING	Project number	Unit	=Panel Layout 1,2,4,6
		work	Raisha	Field				+	
		check	Budiman						
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet 84 of 114

0 1 2 3 4 5 6 7 8 9

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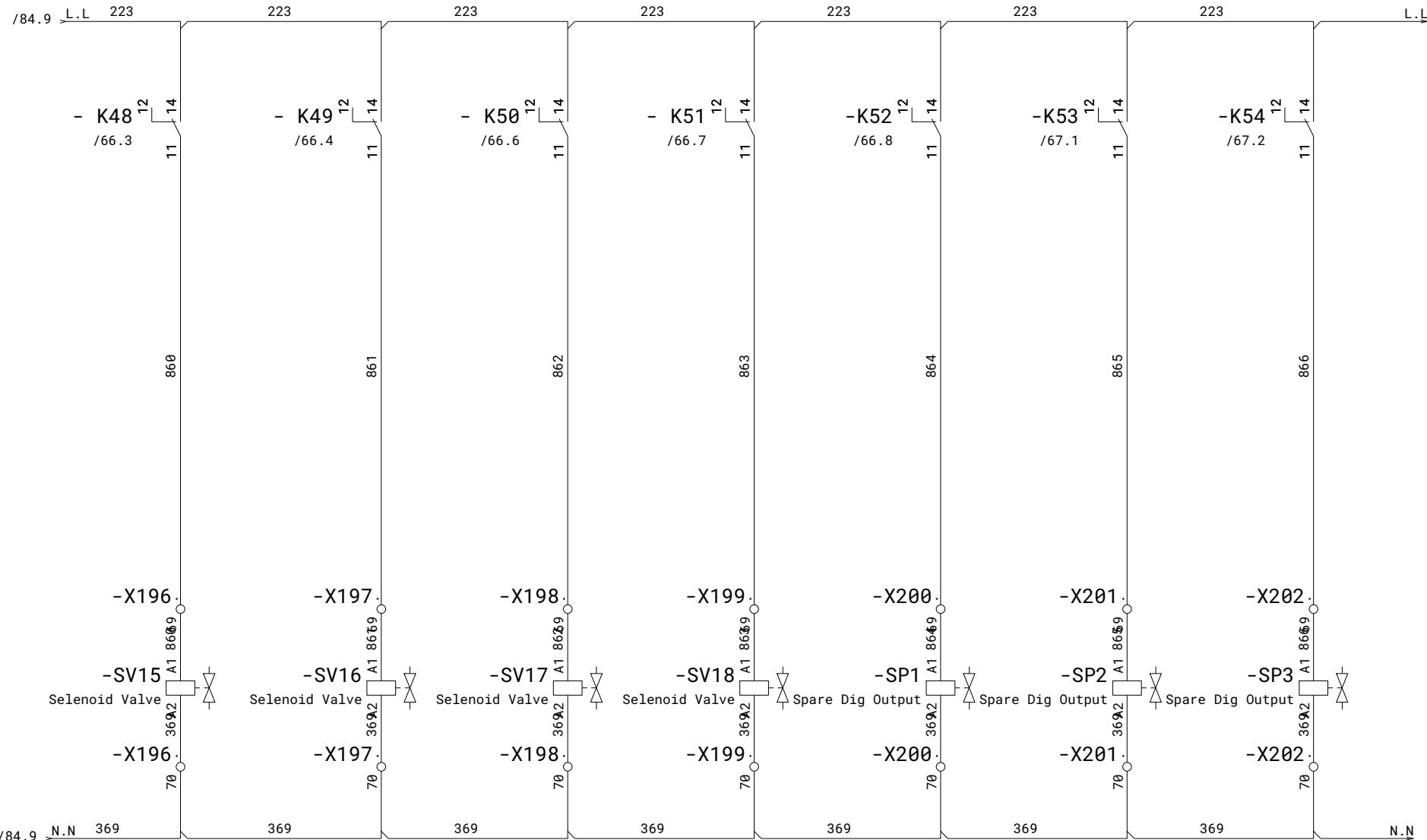
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			Date	10.08.24		SNE Satria Nusa Enjinering		Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha					Field	+
			check	Budiman					Drawing number	sheet 85
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			of 114

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CONTROL PANEL 2

			Date	10.08.24				Project number		Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field		+	
			check	Budiman				Drawing number			sheet 86
Status	rev.	Date	name	norm	DIN 81346		Created for	Created by			of 114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

/70.8 24V
/70.8 0VDC201
19724V /88.0
0VDC /88.0

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-A17

-A18

-A19

		BUS		Weidmüller ☰ UR20-16DI-P		BUS		Weidmüller ☰ UR20-16DI-P		BUS		Weidmüller ☰ UR20-16DI-P		BUS		Weidmüller ☰ UR20-16DI-P	
		1	I0	/90.1	TRIP TF. PUMP BUFFER EME...	1	I0	/93.1	TRIP PAC & FLOCCULANT C...	1	I0	/96.1	READY TF. PUMP BUFFER E...	1	I0	/99.1	READY PAC & FLOCCULANT ...
		2	I1	/90.2	TRIP TF. PUMP BUFFER EM...	2	I1	/93.2	TRIP Gas Liquid Mixing 1	2	I1	/96.2	READY TF. PUMP BUFFER E...	2	I1	/99.2	READY Gas Liquid Mixing
		3	I2	/90.3	TRIP TF. PUMP BUFFER EM...	3	I2	/93.3	TRIP Gas Liquid Mixing 2	3	I2	/96.3	READY TF. PUMP BUFFER E...	3	I2	/99.3	READY Gas Liquid Mixing
		4	I3	/90.5	TRIP TF. PUMP BUFFER EM...	4	I3	/93.5	TRIP SOLID TF. CLARIFI...	4	I3	/96.5	READY TF. PUMP BUFFER E...	4	I3	/99.5	READY SOLID TF. CLARIFI...
		1	I4	/90.6	TRIP Acid Dosing Pump 1	1	I4	/93.6	TRIP TF. PUMP AERATION	1	I4	/96.6	READY Acid Dosing Pump	1	I4	/99.6	READY TF. PUMP AERATION...
		2	I5	/90.7	TRIP ACID CHEMICAL AGIT...	2	I5	/93.7	TRIP TF. PUMP MBR-AERATI...	2	I5	/96.7	READY ACID CHEMICAL AGI...	2	I5	/99.7	READY TF. PUMP MBR-AERAT...
		3	I6	/90.8	TRIP TF. PUMP BUFFER2-C...	3	I6	/93.8	TRIP TF. PUMP MBR-AERAT...	3	I6	/96.8	READY TF. PUMP BUFFER2-C...	3	I6	/99.8	READY TF. PUMP MBR-AERAT...
		4	I7	/91.1	TRIP SKIMMER PUMP	4	I7	/94.1	TRIP NUTRITION DOSING P...	4	I7	/97.1	READY SKIMMER PUMP	4	I7	/100.1	READY NUTRITION DOSING ...
		1	I8	/91.2	TRIP TF. PUMP BUFFER2-R...	1	I8	/94.2	TRIP NUTRITION AGITATOR	1	I8	/97.2	READY TF. PUMP BUFFER2-R...	1	I8	/100.2	READY NUTRITION AGITATOR
		2	I9	/91.3	TRIP NaOH Dosing Pump	2	I9	/94.3	TRIP MBR EMERALD SUCTION	2	I9	/97.3	READY NaOH Dosing Pump	2	I9	/100.3	READY MBR EMERALD SUCTION
		3	I10	/91.5	TRIP NaOH CHEMICAL AGIT...	3	I10	/94.5	TRIP MBR EMERALD BACKWASH	3	I10	/97.5	READY NaOH CHEMICAL AGI...	3	I10	/100.5	READY MBR EMERALD BACKWASH
		4	I11	/91.6	TRIP DAF AGITATOR 1	4	I11	/94.6	TRIP CIRCULATION PUMP MB	4	I11	/97.6	READY DAF AGITATOR 1	4	I11	/100.6	READY CIRCULATION PUMP MB
		1	I12	/91.7	TRIP DAF AGITATOR 2	1	I12	/94.7	TRIP BLOWER AERATION RO...	1	I12	/97.7	READY DAF AGITATOR 2	1	I12	/100.7	READY BLOWER AERATION RO...
		2	I13	/91.8	TRIP PAC & FLOCCULANT DO...	2	I13	/94.8	TRIP BLOWER AERATION RO...	2	I13	/97.8	READY PAC & FLOCCULANT DO...	2	I13	/100.8	READY BLOWER AERATION RO...
		3	I14	/92.1	TRIP PAC & FLOCCULANT D...	3	I14	/95.1	TRIP Blower Aeration 1	3	I14	/98.1	READY PAC & FLOCCULANT D...	3	I14	/101.1	READY Blower Aeration 1
		4	I15	/92.2	TRIP PAC & FLOCCULANT CH...	4	I15	/95.2	TRIP Blower Aeration 2	4	I15	/98.2	READY PAC & FLOCCULANT CH...	4	I15	/101.2	READY Blower Aeration 1

Date	10.08.24					Project number		Unit	=Panel Layout 1,2,4,6
work	Raisha							Field	+
check	Budiman							Drawing number	sheet 87
Status	rev.	Date	name	norm	DIN 81346	created for		Created by	of 114

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/87.9 24V
/87.9 0VDC

201
197

24V /89.0
0VDC /89.0

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-A22

-A23

		BUS		Weidmüller ☒ UR20-16DI-P		BUS		Weidmüller ☒ UR20-16DO-P		BUS		Weidmüller ☒ UR20-16DO-P		BUS		Weidmüller ☒ UR20-16DO-P	
		1 I0	/102.1	READY Blower Aeration 1		1 Q0	/105.1	RUN TF. PUMP BUFFER EMER...		1 Q0	/108.1	RUN PAC & FLOCCULANT CH...		1 Q0	/111.1	SELENOID VALVE 1	
		2 I1	/102.2	READY Blower Aeration 2		2 Q1	/105.2	RUN TF. PUMP BUFFER EME...		2 Q1	/108.2	RUN Gas Liquid Mixing 1		2 Q1	/111.2	SELENOID VALVE 2	
		3 I2	/102.3	READY Blower Aeration 2		3 Q2	/105.3	RUN TF. PUMP BUFFER EME...		3 Q2	/108.3	RUN Gas Liquid Mixing 2		3 Q2	/111.3	SPARE DIG OUTPUT 1	
		4 I3	/102.5	READY Blower Aeration 2		4 Q3	/105.5	RUN TF. PUMP BUFFER EME...		4 Q3	/108.5	RUN SOLID TF. CLARIFIER ..		4 Q3	/111.5	SPARE DIG OUTPUT 2	
		1 I4	/102.6	Floatswitch 1		1 Q4	/105.6	RUN Acid Dosing Pump		1 Q4	/108.6	RUN TF. PUMP AERATION 1-2		1 Q4	/111.6	SPARE DIG OUTPUT 3	
		2 I5	/102.7	Floatswitch 2		2 Q5	/105.7	RUN ACID CHEMICAL AGITA...		2 Q5	/108.7	RUN TF. PUMP MBR-AERATIO...		2 Q5	/111.7	SPARE DIG OUTPUT 4	
		3 I6	/102.8	Floatswitch 3		3 Q6	/105.8	RUN TF. PUMP BUFFER2-CON...		3 Q6	/108.8	RUN TF. PUMP MBR-AERATIO...		3 Q6	/111.8		
		4 I7	/103.1	Floatswitch 4		4 Q7	/106.1	RUN SKIMMER PUMP		4 Q7	/109.1	RUN NUTRITION DOSING PUMP		4 Q7	/112.1		
		1 I8	/103.2	Floatswitch 5		1 Q8	/106.2	RUN TF. PUMP BUFFER2-REA...		1 Q8	/109.2	RUN NUTRITION AGITATOR		1 Q8	/112.2		
		2 I9	/103.3	Floatswitch 6		2 Q9	/106.3	RUN NaOH Dosing Pump		2 Q9	/109.3	RUN MBR EMERALD SUCTION...		2 Q9	/112.3		
		3 I10	/103.5			3 Q10	/106.5	RUN NaOH CHEMICAL AGITA...		3 Q10	/109.5	RUN MBR EMERALD BACKWAS...		3 Q10	/112.5		
		4 I11	/103.6			4 Q11	/106.6	RUN DAF AGITATOR 1		4 Q11	/109.6	RUN CIRCULATION PUMP MBR...		4 Q11	/112.6		
		1 I12	/103.7			1 Q12	/106.7	RUN DAF AGITATOR 2		1 Q12	/109.7	RUN BLOWER AERATION ROOT...		1 Q12	/112.7		
		2 I13	/103.8			2 Q13	/106.8	RUN PAC & FLOCCULANT DOS...		2 Q13	/109.8	RUN BLOWER AERATION ROO...		2 Q13	/112.8		
		3 I14	/104.1			3 Q14	/107.1	RUN PAC & FLOCCULANT DO...		3 Q14	/110.1	RUN Blower Aeration 1		3 Q14	/113.1		
		4 I15	/104.2			4 Q15	/107.2	RUN PAC & FLOCCULANT CHE...		4 Q15	/110.2	RUN Blower Aeration 2		4 Q15	/113.2		

		Date	10.08.24															
		work	Raisha															
		check	Budiman															
Status	rev.	Date	name	norm	DIN 81346													
						created for												
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			Project number	Unit	=Panel Layout 1,2,4,6
			Field	+	
			Drawing number	sheet	88
				of	114

0 1 2 3 4 5 6 7 8 9

/88.9 24V 201
/88.9 0VDC 197

24V /90.0
0VDC /90.0

1

A

10

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1

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10

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10

5

10

5

1

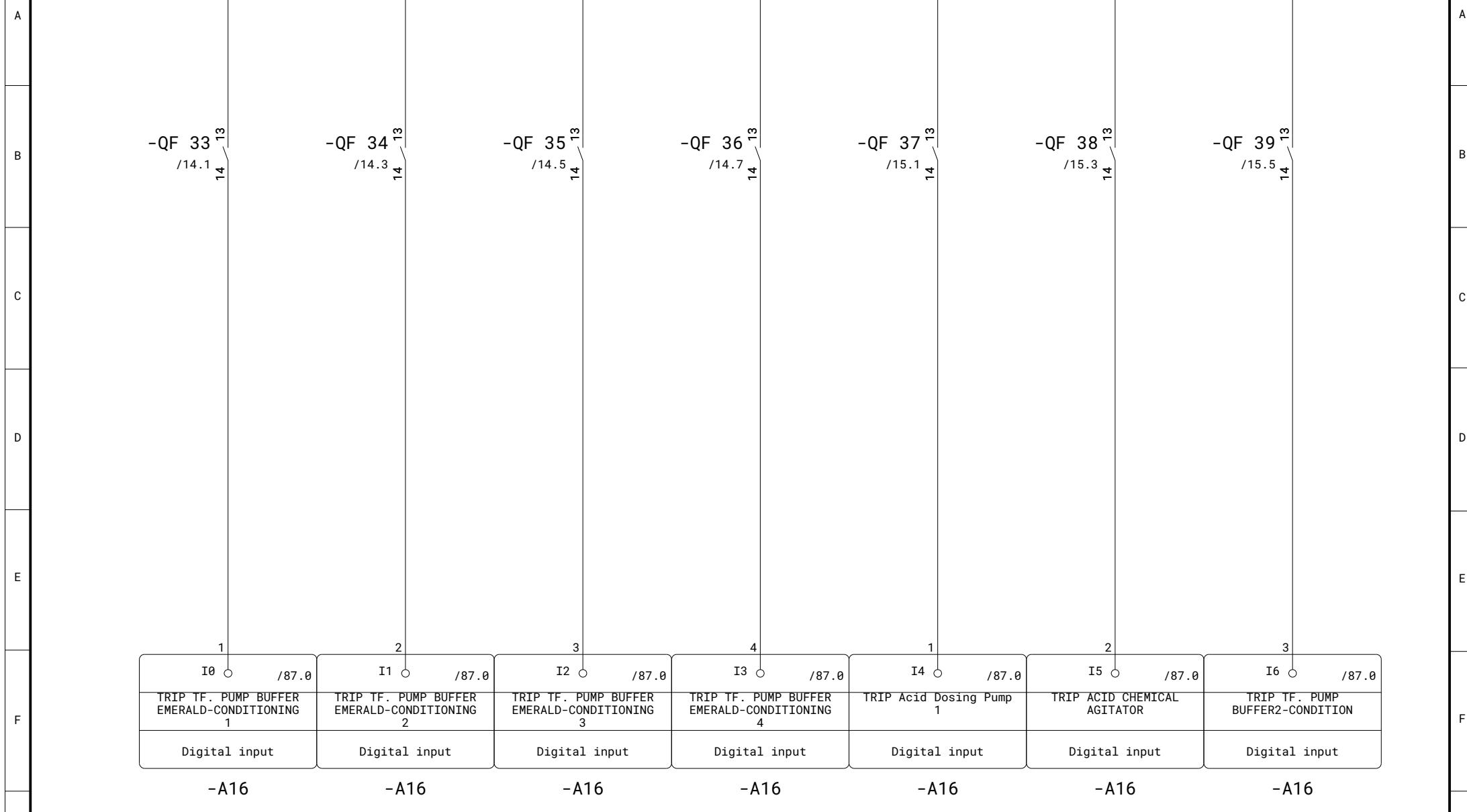
G

-A24

Weidmüller		UR20-4AI-UI-12/-16	
		BUS	
AIW1	AIW2	AIW3	AIW4
1 AI0	/114.1	PH SENSOR 1	
2 GND			
3 24V			
4 FE			
1 AI1	/114.3	PH SENSOR 2	
2 GND			
3 24V			
4 FE			
1 AI2	/114.5	TSS SENSOR	
2 GND			
3 24V			
4 FE			
1 AI3	/114.7	SPARE ANALOG INPUT	
2 GND			
3 24V			
4 FE			

0	1	2	3	4	5	6	7	8	9
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/89.9	24V 0VDC	201	197						24V 0VDC /91.0	/91.0
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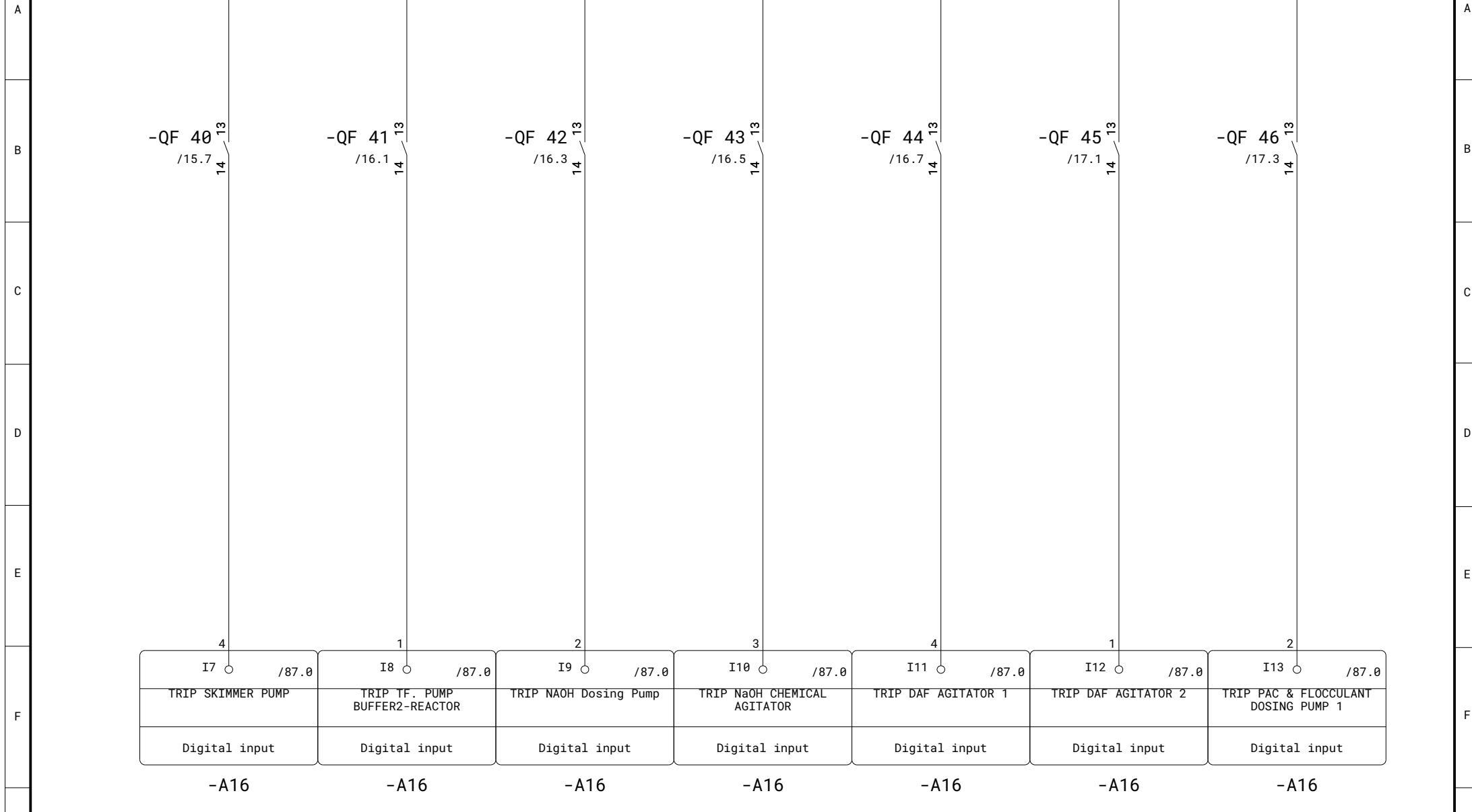


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			work	Raisha			Field		+	
			check	Budiman			Drawing number		sheet	90
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		of	114

0	1	2	3	4	5	6	7	8	9
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0	1	2	3	4	5	6	7	8	9
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/90.9 24V
/90.9 0VDC 201 197 /90.9 24V
/90.9 0VDC 92.0 92.0



		Date	10.08.24				Project number	Unit	=Panel Layout 1,2,4,6
		work	Raisha					Field	+
		check	Budiman						
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet 91



0	1	2	3	4	5	6	7	8	9
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0 1 2 3 4 5 6 7 8 9

/91.9 24V
/91.9 0VDC 201 197 /93.0
/93.0

-QF 47 13
/17.5 14

-QF 48 13
/17.7 14

I14 ○ /87.0 I15 ○ /87.0

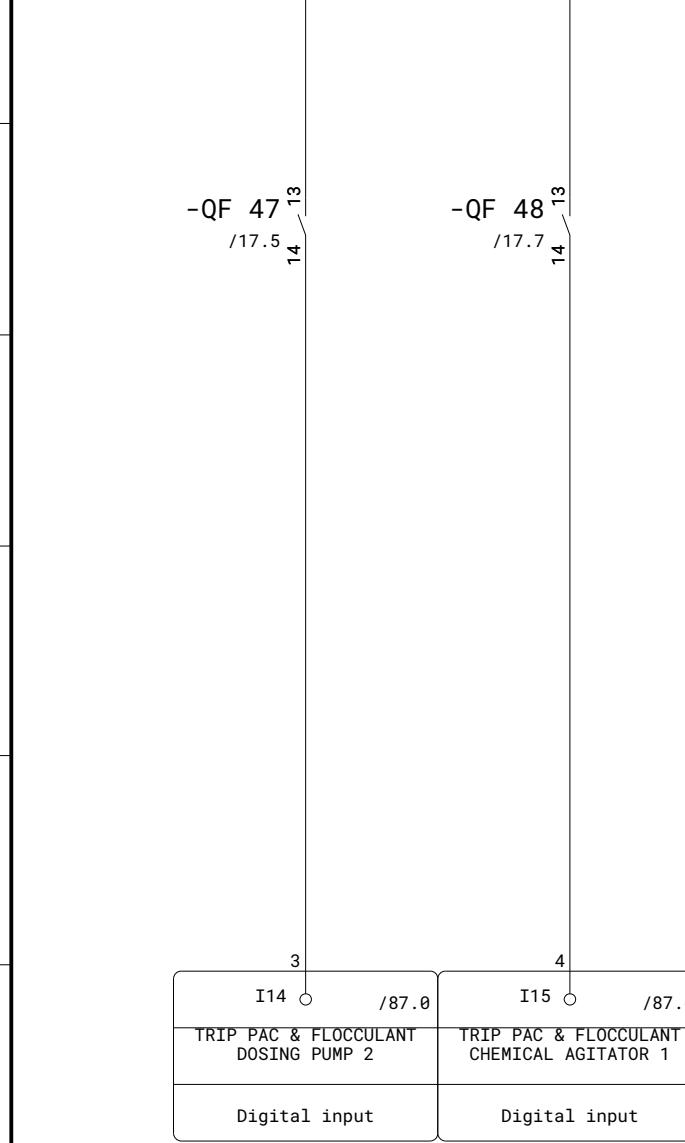
TRIP PAC & FLOCCULANT
DOSING PUMP 2 TRIP PAC & FLOCCULANT
CHEMICAL AGITATOR 1

Digital input

Digital input

-A16

-A16

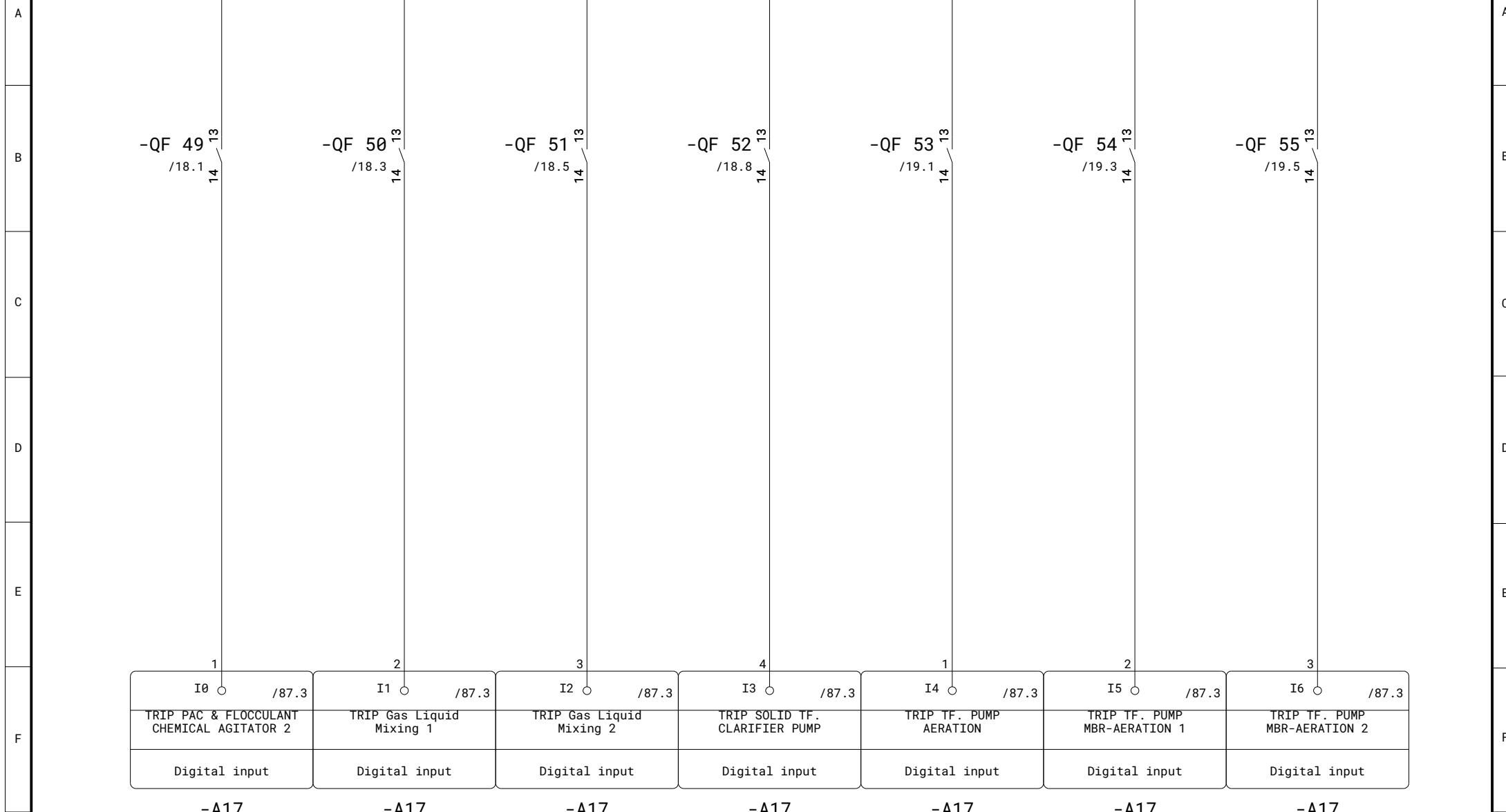


		Date	10.08.24	SNE Satria Nusa Enjinering	Project number	Unit	=Panel Layout 1,2,4,6
		work	Raisha			Field	+
		check	Budiman			Drawing number	sheet 92
Status	rev.	Date	name norm	DIN 81346	created for	Created by	of 114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

/92.9 24V
/92.9 0VDC 201 197 24V /94.0
0VDC /94.0

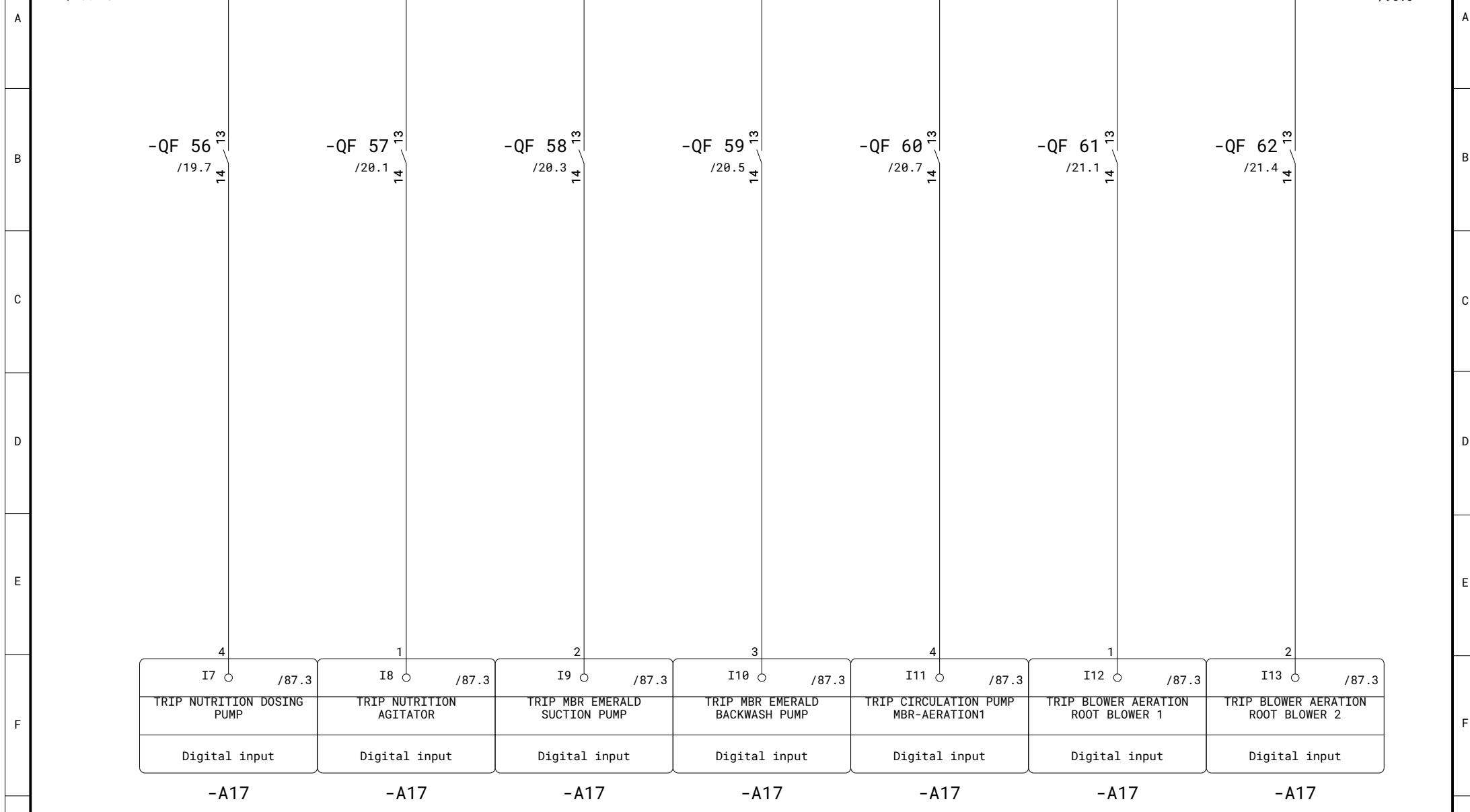


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		check	Budiman					
Status	rev.	Date	name norm	DIN 81346	created for	Created by	Drawing number	sheet 93 of 114

0 1 2 3 4 5 6 7 8 9

0	1	2	3	4	5	6	7	8	9
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/93.9 24V /93.9 0VDC	201	197							24V 0VDC /95.0 /95.0
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			Date	10.08.24		SNE SATRIA NUSA ENJINERING		Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field	+	
			check	Budiman						
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet	94
									of	114
0	1	2	3	4	5	6	7	8	9	

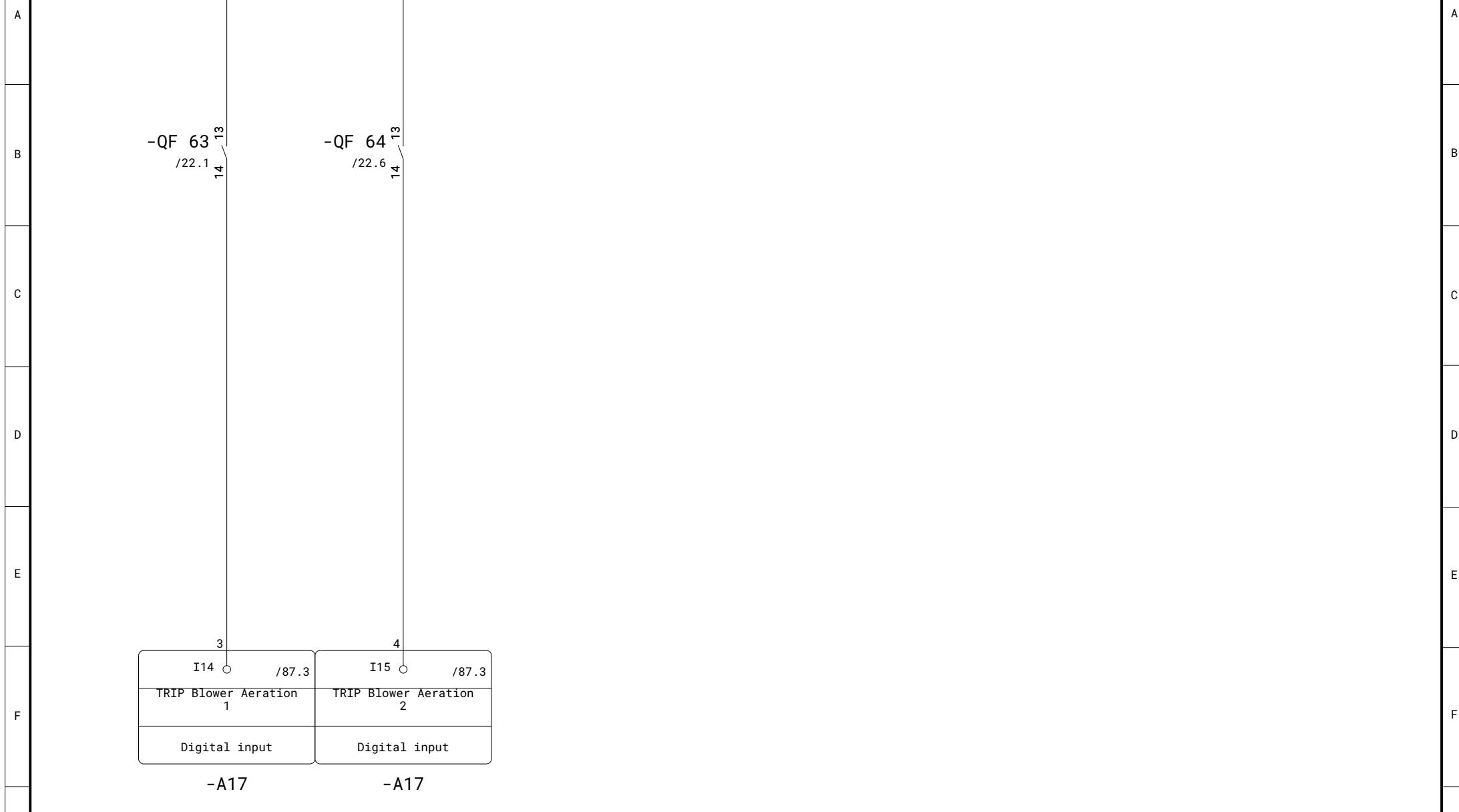
0	1	2	3	4	5	6	7	8	9
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/94.9 ^{24V}
/94.9 ^{0VDC}

201

197

24V /96.0
0VDC /96.0

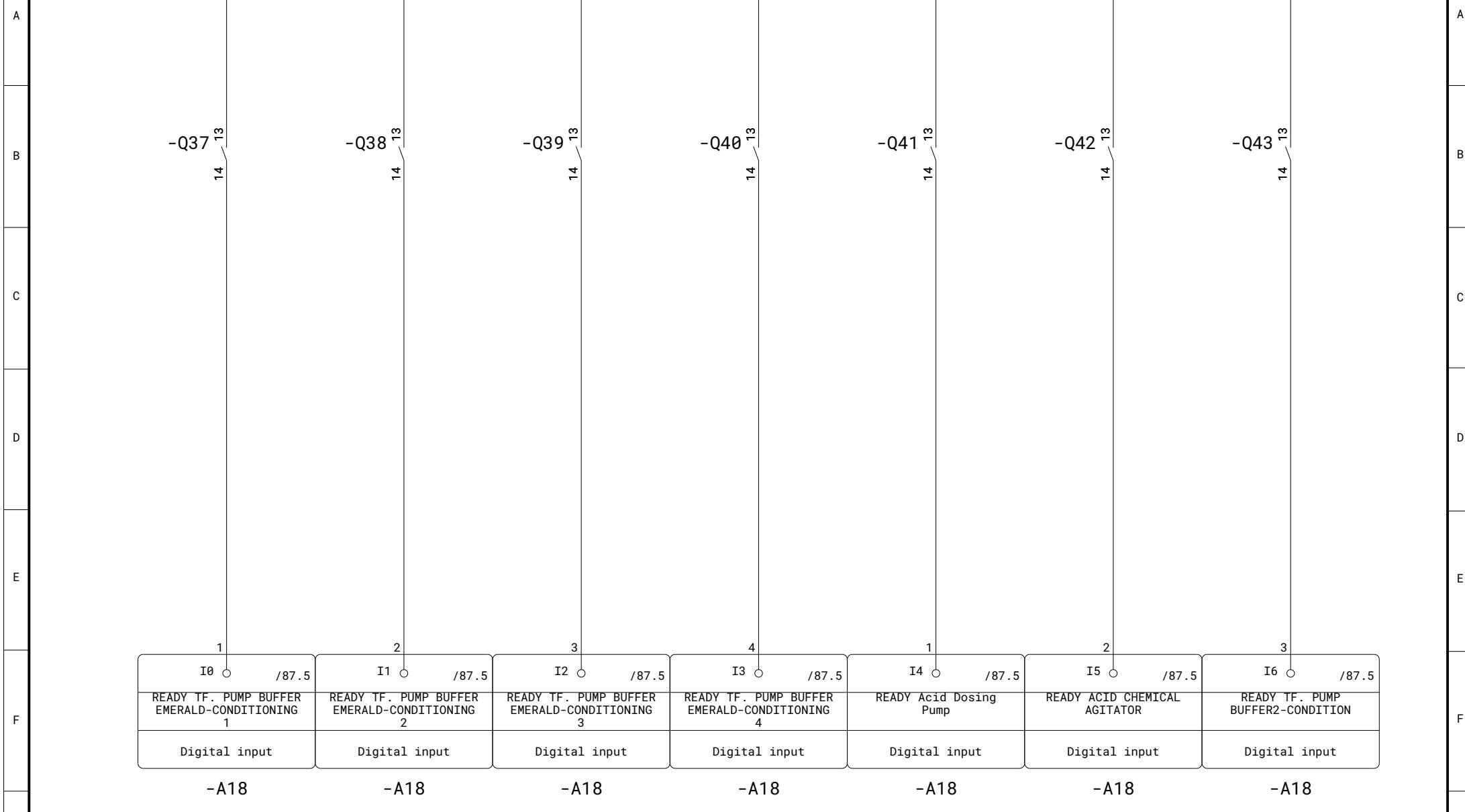


			Date	10.08.24		SNE Satria Nusa Enjineering	Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field	+
			check	Budiman					
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet 95
									of 114

0	1	2	3	4	5	6	7	8	9
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0 1 2 3 4 5 6 7 8 9

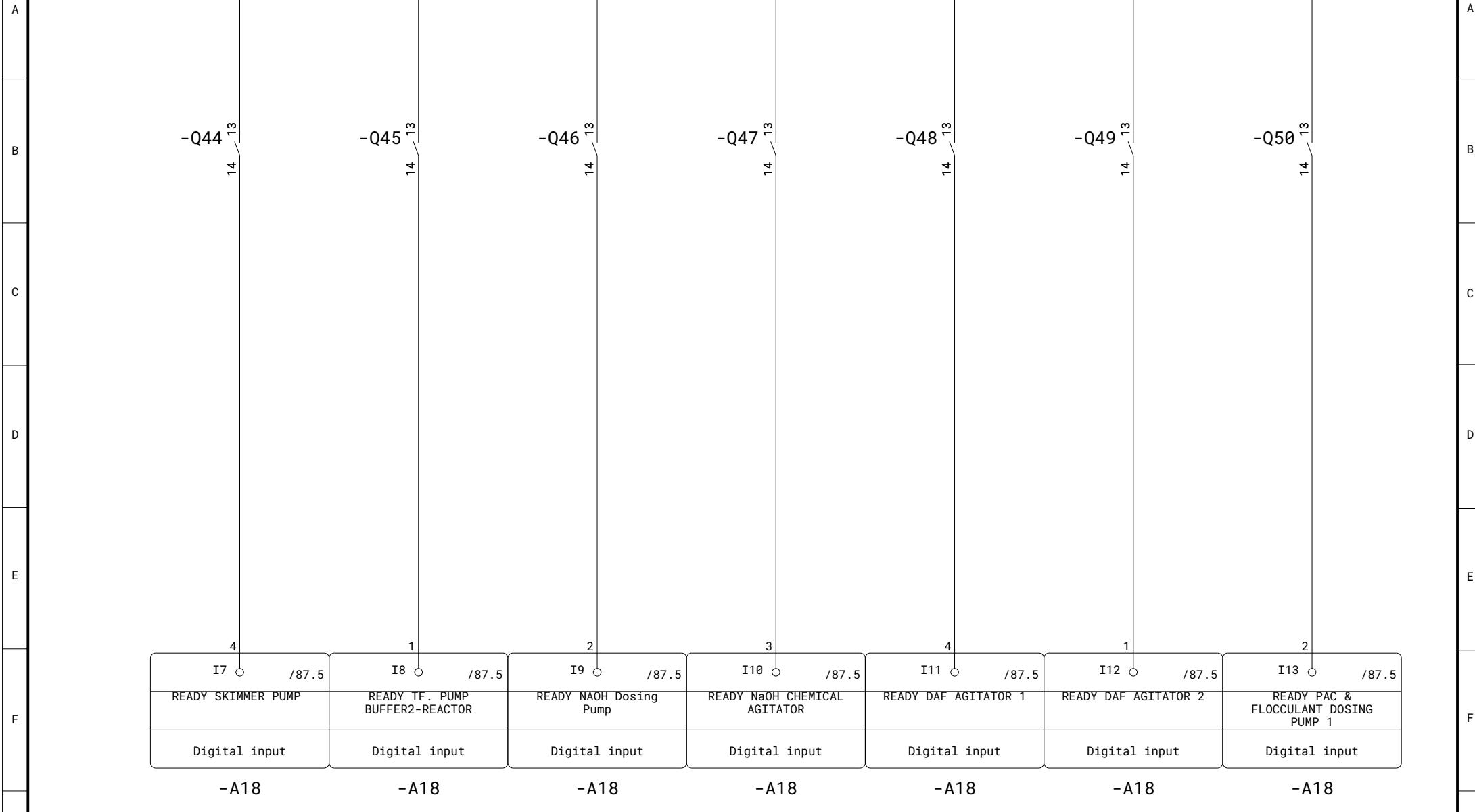
/95.9 24V
/95.9 0VDC 201 197 24V /97.0
/95.9 0VDC /97.0



			Date	10.08.24		Project number Field	Unit	=Panel Layout 1,2,4,6
			work	Raisha			Field	+
			check	Budiman				
Status	rev.	Date	name	norm	DIN 81346	Created for	Created by	Drawing number sheet of
0	1	2	3	4	5	6	7	8 96 114

0	1	2	3	4	5	6	7	8	9
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/96.9	24V 0VDC	201	197						24V /98.0 0VDC /98.0
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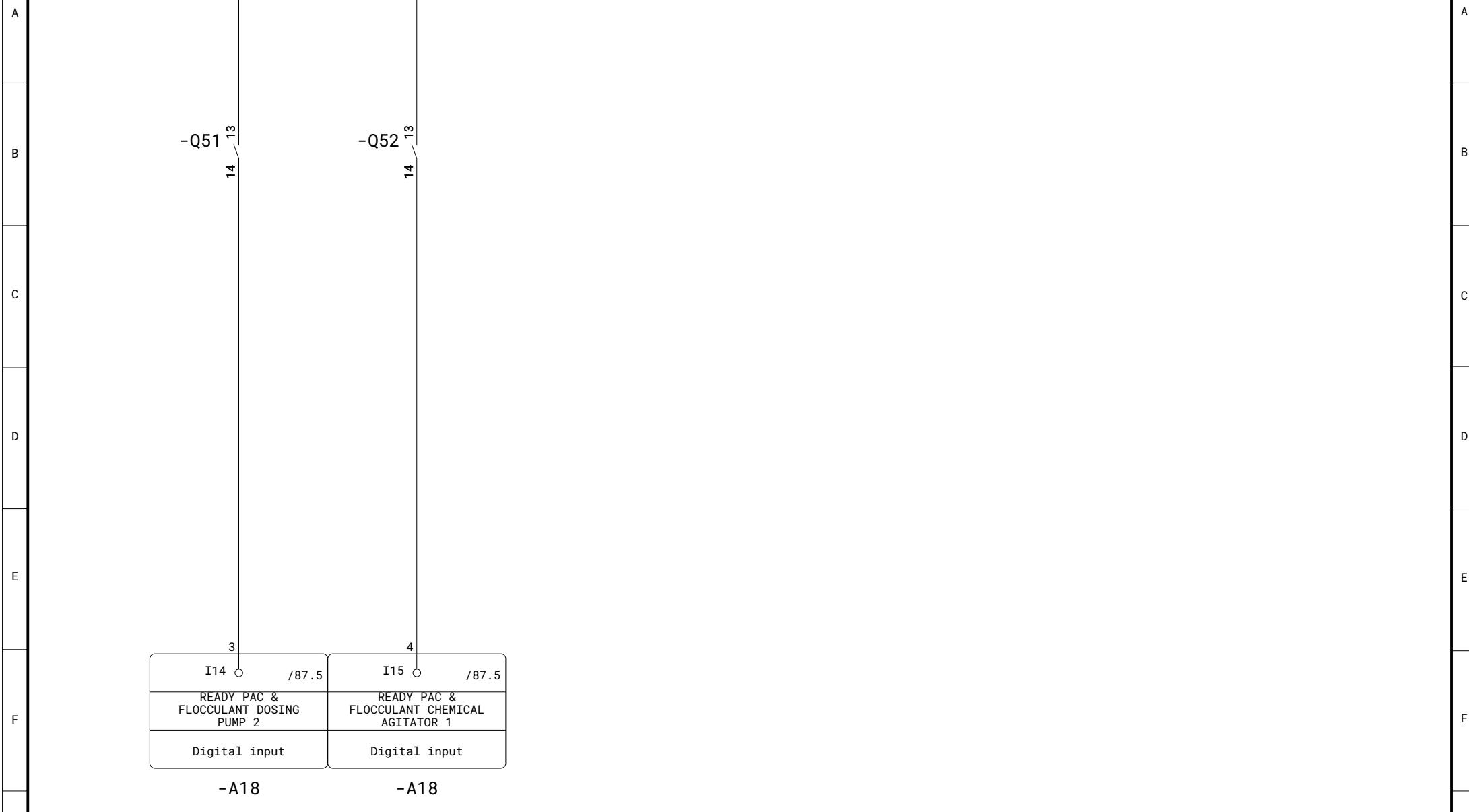


			Date	10.08.24		SNE Satria NUSA ENGINERING		Project number	Unit	=Panel Layout 1,2,4,6
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			check	Budiman						
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet	97
									of	114

0	1	2	3	4	5	6	7	8	9
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0 1 2 3 4 5 6 7 8 9

/97.9 24V /97.9 0VDC 201 197 24V /99.0 0VDC /99.0



			Date	10.08.24		SNE Satria Nusa Enjineering	Project number		Unit	=Panel Layout 1,2,4,6
		work	Raisha	Field	+					
		check	Budiman		<td data-kind="ghost"></td> <th></th> <th></th> <td></td> <td></td>					
Status	rev.	Date	name	norm	DIN 81346		created for	Created by		
0	1	2	3	4	5	6	7	8	9	

0 1 2 3 4 5 6 7 8 9

/98.9 24V
/98.9 0VDC 201 197 24V /100.0
/98.9 0VDC /100.0

-Q53 13
14

-Q54 13
14

-Q55 13
14

-Q56 13
14

-Q57 13
14

-Q58 13
14

-Q59 13
14

A

A

B

B

C

C

D

D

E

E

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F

I0 ○ /87.7	I1 ○ /87.7	I2 ○ /87.7	I3 ○ /87.7	I4 ○ /87.7	I5 ○ /87.7	I6 ○ /87.7
READY PAC & FLOCCULANT CHEMICAL AGITATOR 2	READY Gas Liquid Mixing 1	READY Gas Liquid Mixing 2	READY SOLID TF. CLARIFIER PUMP	READY TF. PUMP AERATION.1-2	READY TF. PUMP MBR-AERATION 1	READY TF. PUMP MBR-AERATION 2
Digital input	Digital input	Digital input	Digital input	Digital input	Digital input	Digital input

-A19

-A19

-A19

-A19

-A19

-A19

-A19

G

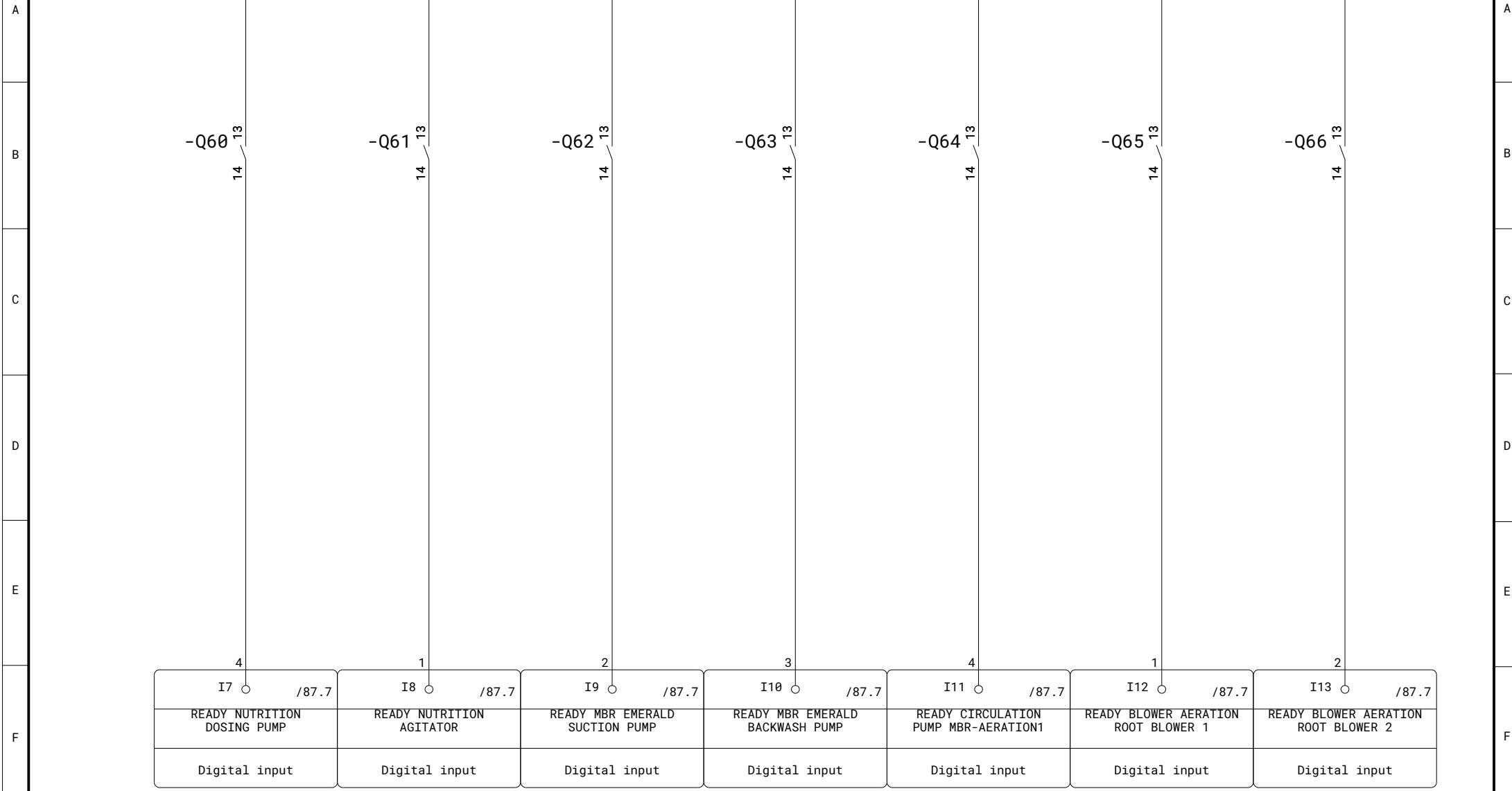
G

		Date	10.08.24		Project number Field	Unit	=Panel Layout 1,2,4,6
		work	Raisha			Field	+
		check	Budiman				
Status	rev.	Date	norm	DIN 81346	created for	Created by	Drawing number sheet of

0 1 2 3 4 5 6 7 8 9

0	1	2	3	4	5	6	7	8	9
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/99.9	24V 0VDC	201	197						24V 0VDC /101.0	/101.0
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			Date	10.08.24		SNE SATRIA NUSA ENGINERING		Project number	Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field	+	
			check	Budiman						
Status	rev.	Date	name	norm	DIN 81346	created for	Created by	Drawing number	sheet	100
									of	114

0	1	2	3	4	5	6	7	8	9
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0 1 2 3 4 5 6 7 8 9

/100.9
/100.9

24V
0VDC

24V
0VDC

/102.0
/102.0

24V
0VDC

24V
0VDC

-Q67
13
14

-Q68
13
14

I14	/87.7	I15	/87.7
READY Blower Aeration 1 (MAIN)		READY Blower Aeration 1 (DELTA)	
Digital input		Digital input	

-A19

-A19

A

A

B

B

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C

D

D

E

E

F

F

G

G

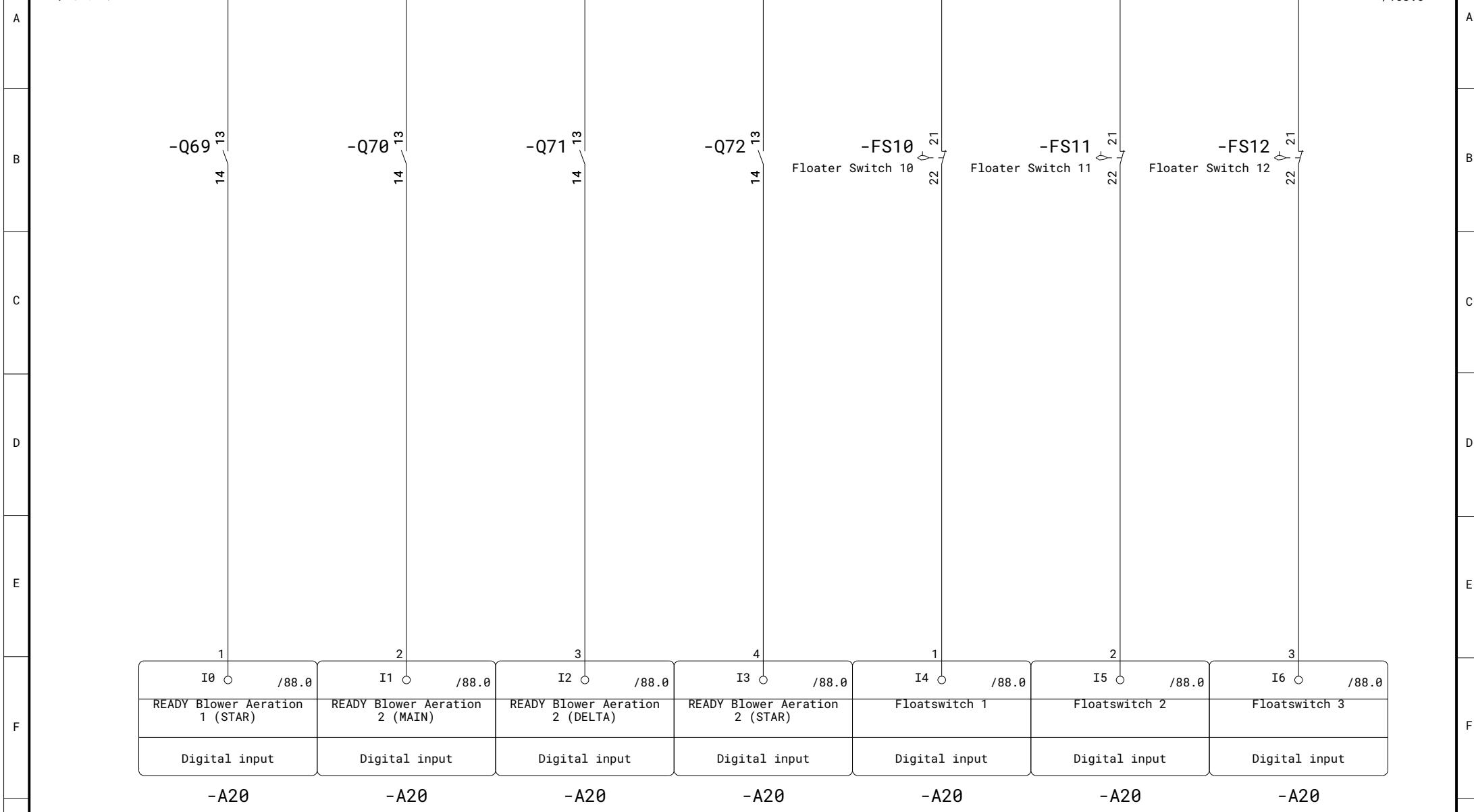


		Date	10.08.24				Project number		Unit	=Panel Layout 1,2,4,6
		work	Raisha				Field		+	
		check	Budiman				Drawing number		sheet	101
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		of	114

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

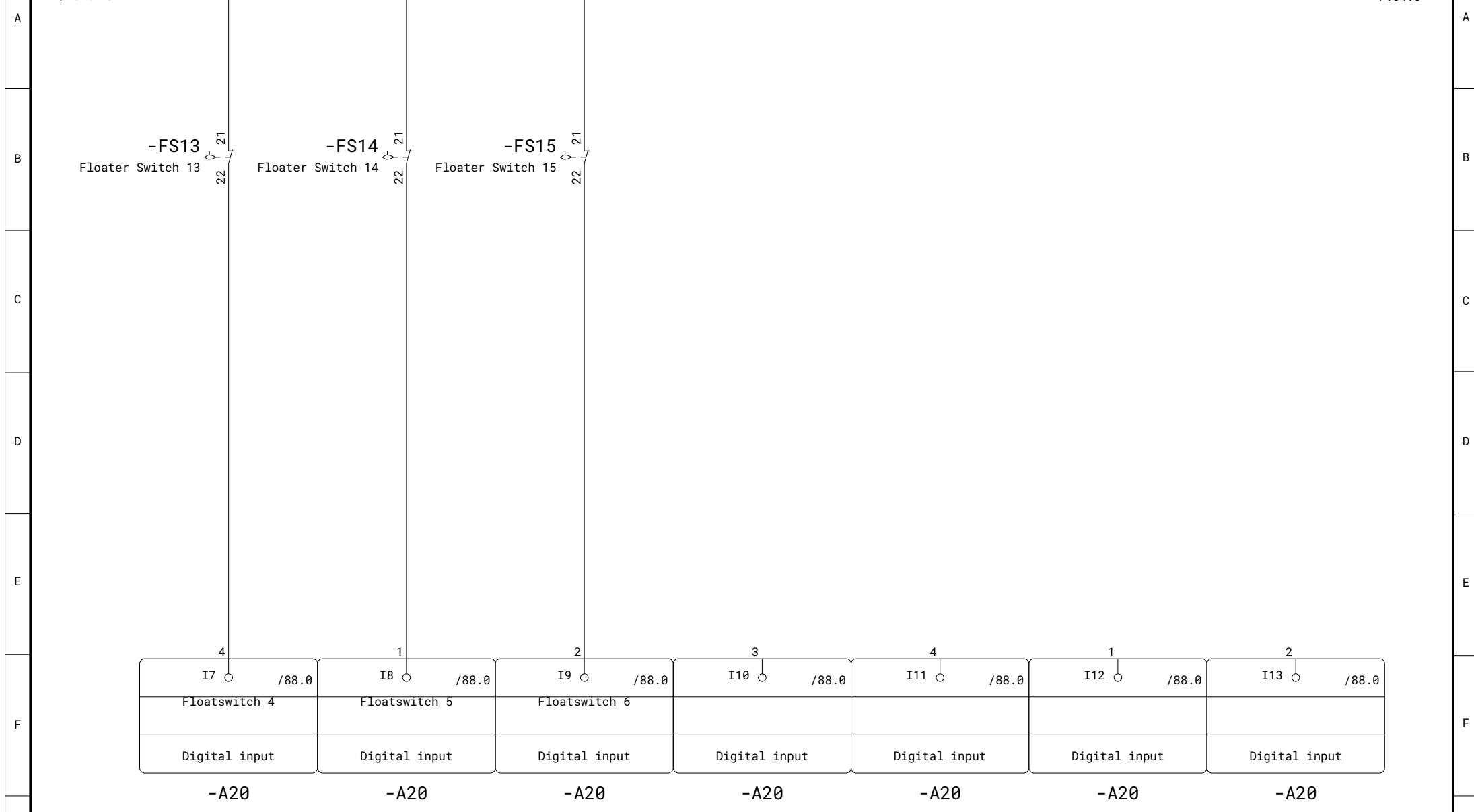
/101.9 24V /101.9 0VDC 201 197 24V /103.0 /103.0



0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

/102.9 24V /102.9 0VDC 201 197 24V /104.0 0VDC /104.0



			Date	10.08.24		SNE SATRIA NUSA ENJINERING	Project number		Unit	=Panel Layout 1,2,4,6
			work	Raisha			Field		+	
			check	Budiman			Drawing number		sheet	103
Status	rev.	Date	name	norm	DIN 81346	created for	Created by		of	114

0 1 2 3 4 5 6 7 8 9

0	1	2	3	4	5	6	7	8	9
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/103.9 24V
/103.9 0VDC 201
197

24V /105.0
0VDC /105.0

A

A

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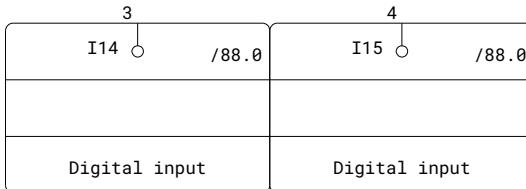
C

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D

E

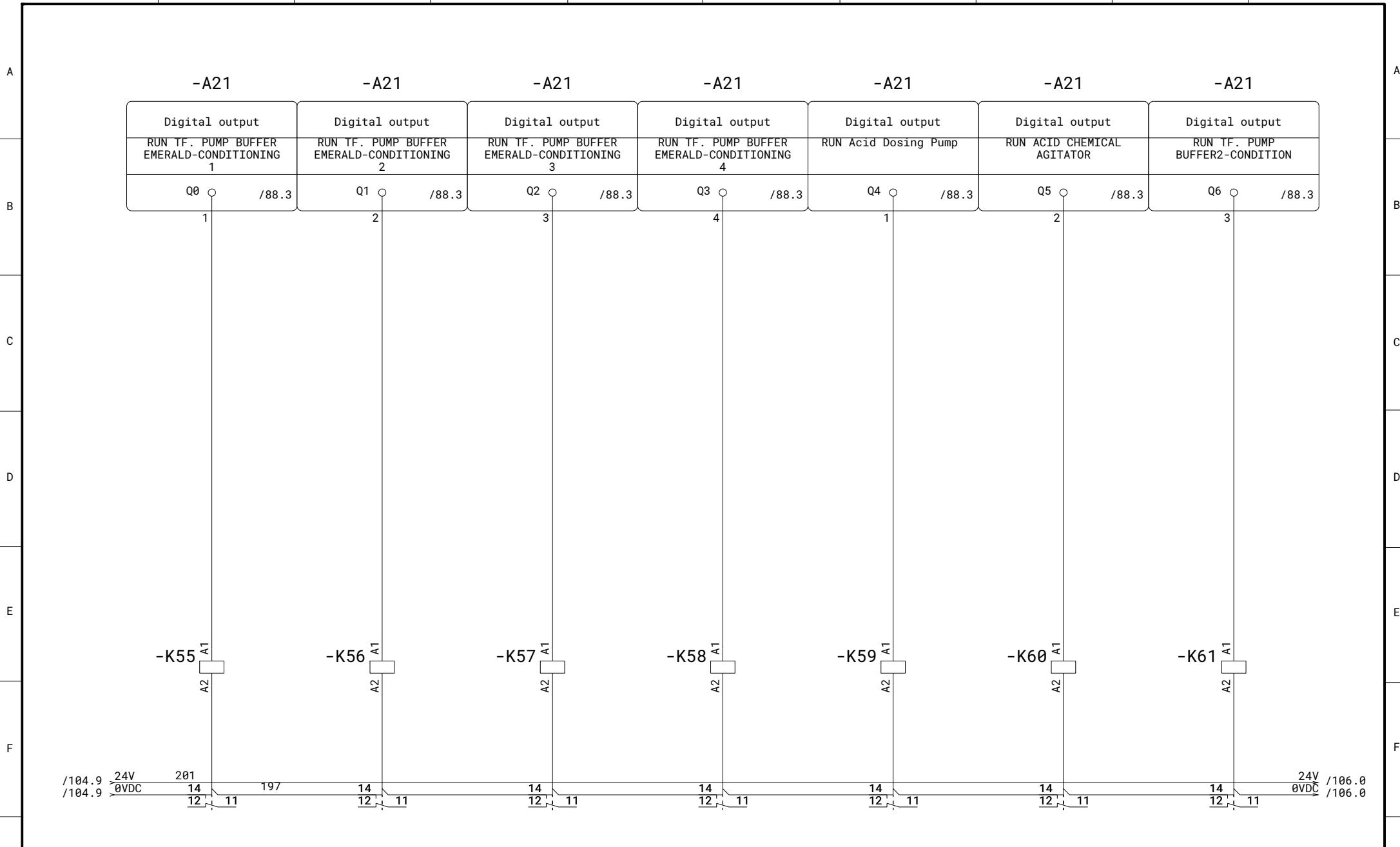
E



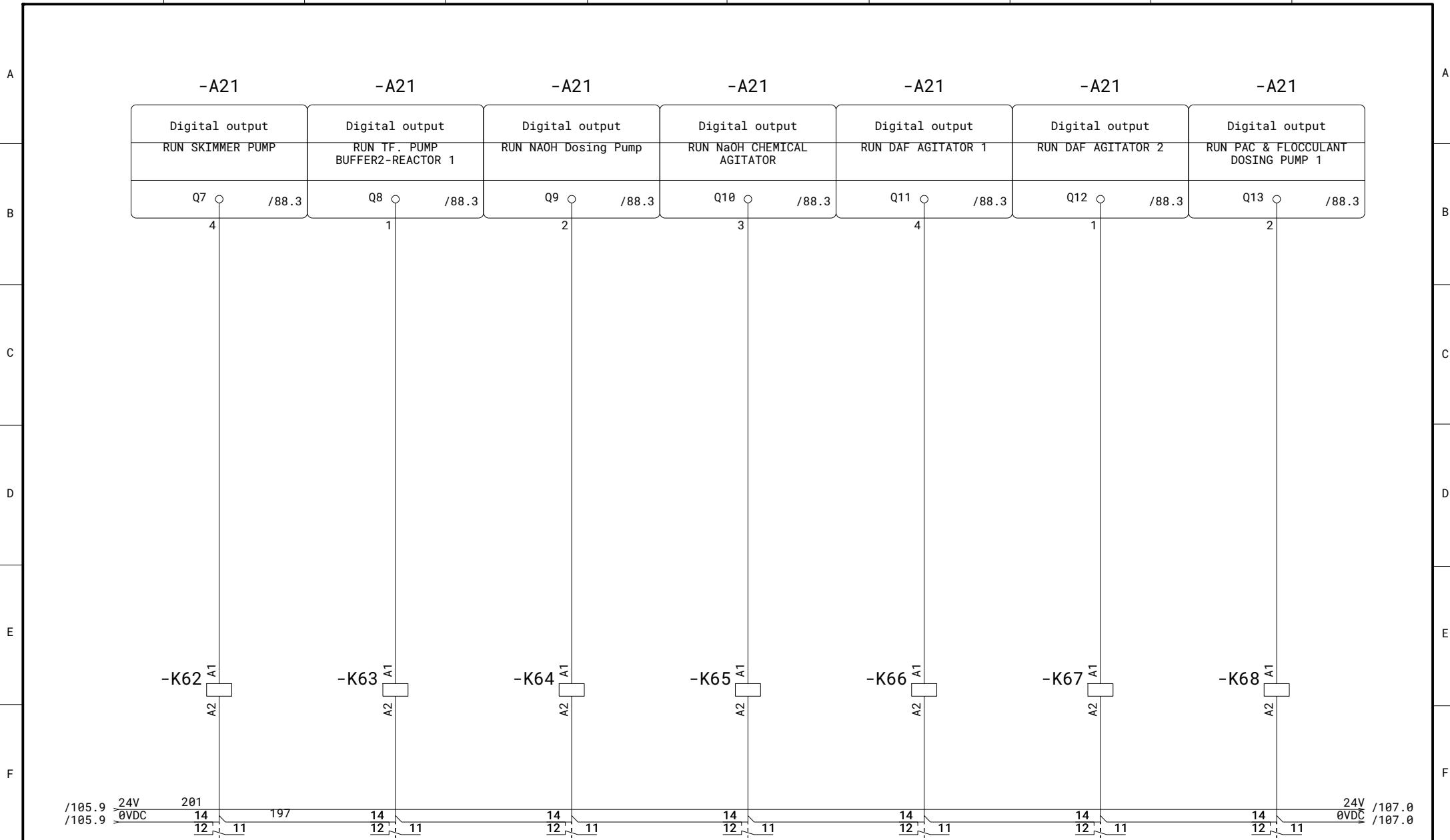
-A20

-A20

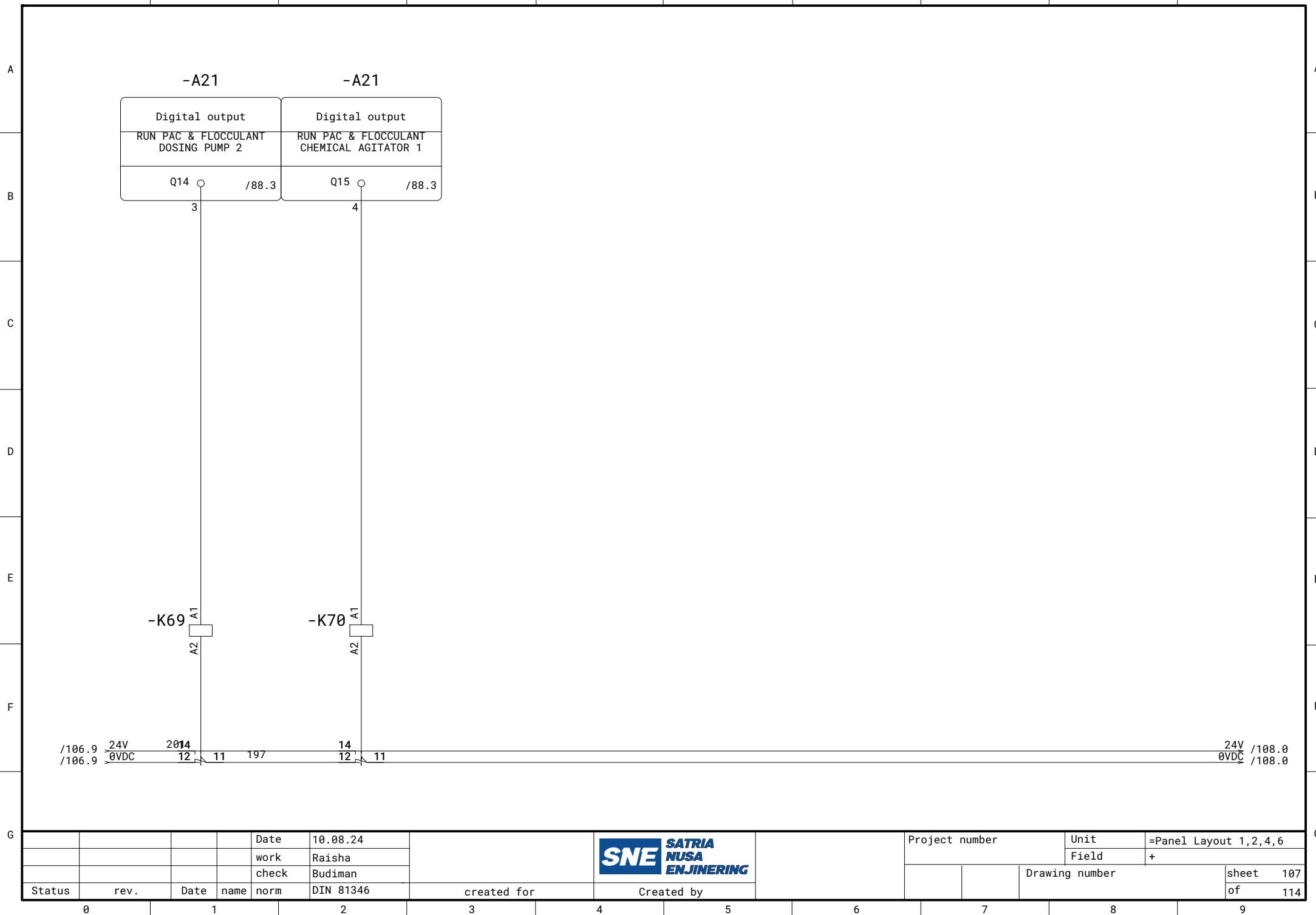
			Date	10.08.24				Project number		Unit	=Panel Layout 1,2,4,6
			work	Raisha				Field	+		
			check	Budiman							
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			Drawing number	sheet 104
0	1	2	3	4	5	6	7	8	9		of 114

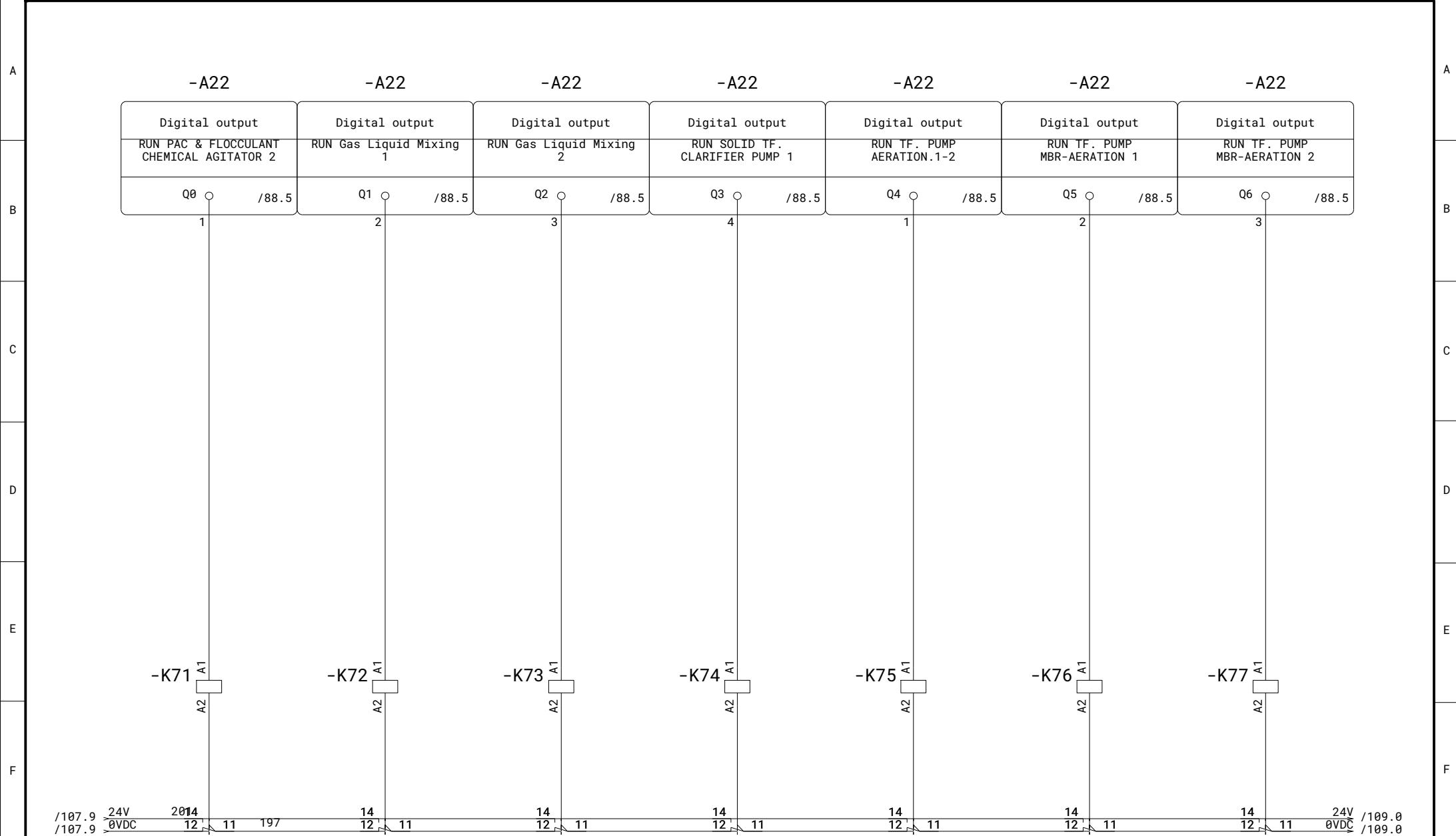


		Date	10.08.24				Project number		Unit	=Panel Layout 1,2,4,6	
		work	Raisha				Field	+ -			
		check	Budiman								
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			Drawing number	sheet 105 of 114
0	1	2	3	4	5	6	7	8	9		

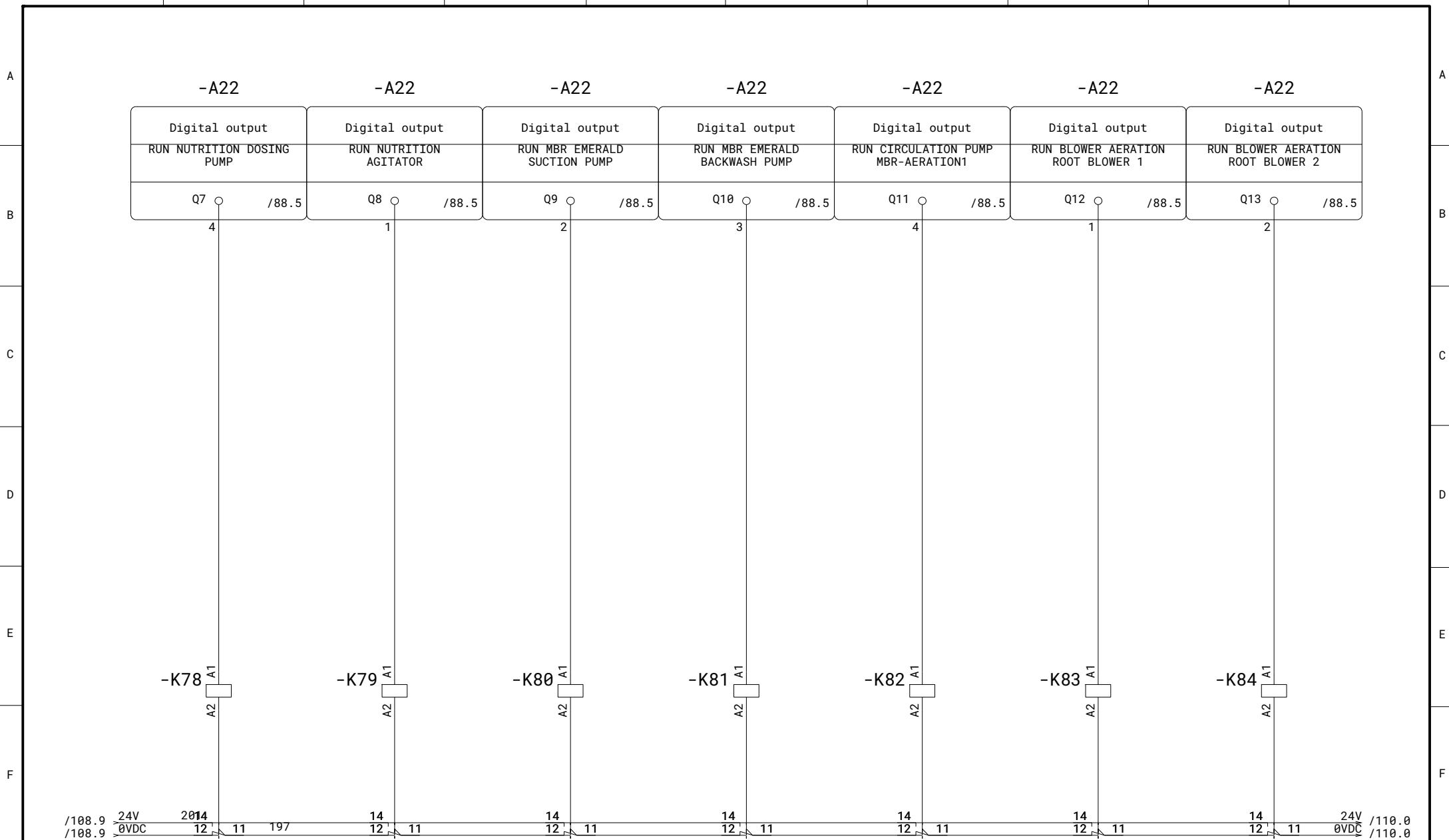


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		check	Budiman						Drawing number	sheet 106		
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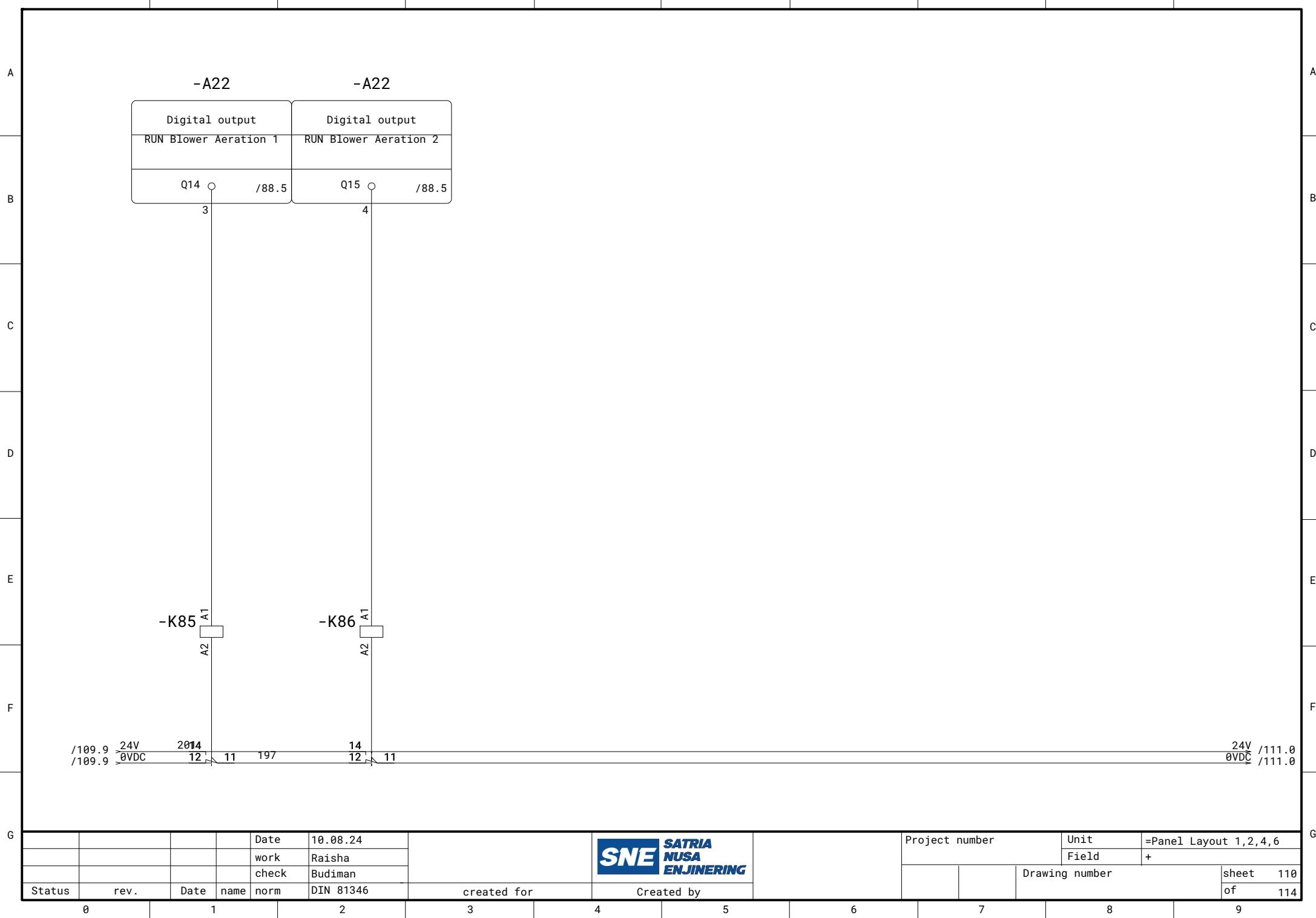


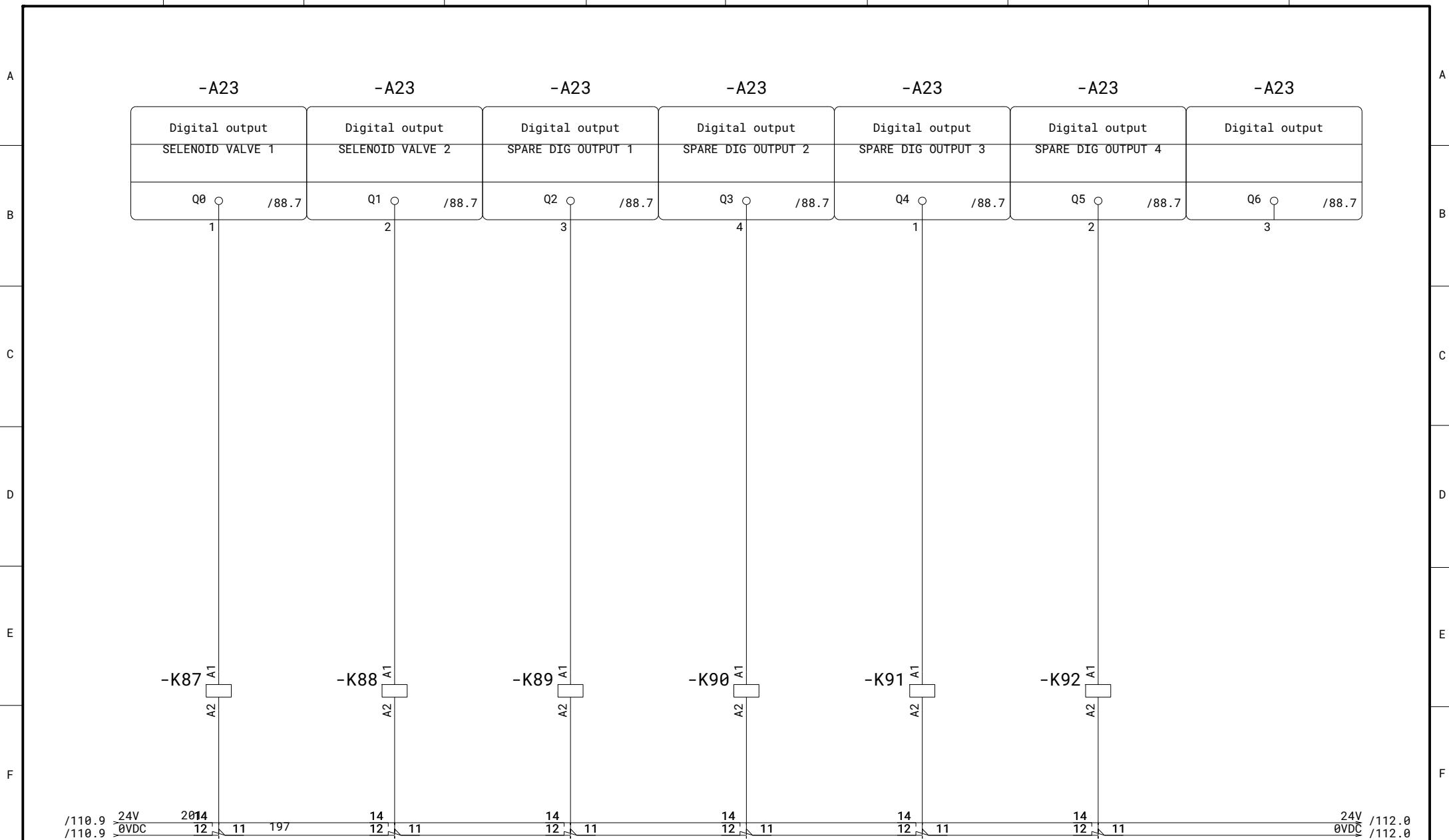


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			check	Budiman				Drawing number		sheet	108
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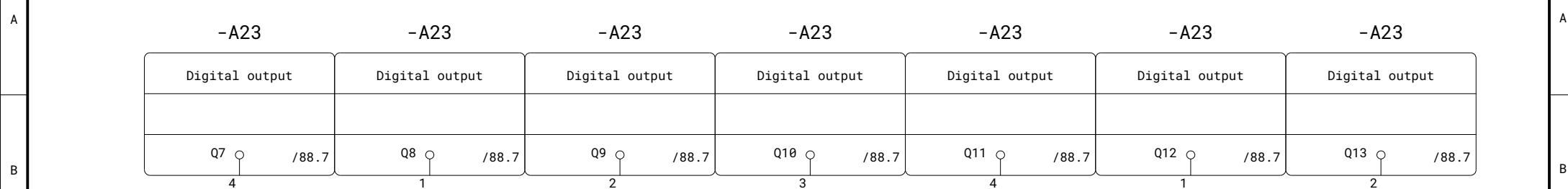
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			check	Budiman				Drawing number		sheet	109
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			of	114
0	1	2	3	4	5	6	7	8	9		





			Date	10.08.24				Project number		Unit	=Panel Layout 1,2,4,6	
			work	Raisha				Field		+		
			check	Budiman				Drawing number		sheet	111	
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			of	114	
0		1		2		3	4	5	6	7	8	9

0	1	2	3	4	5	6	7	8	9
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C		C
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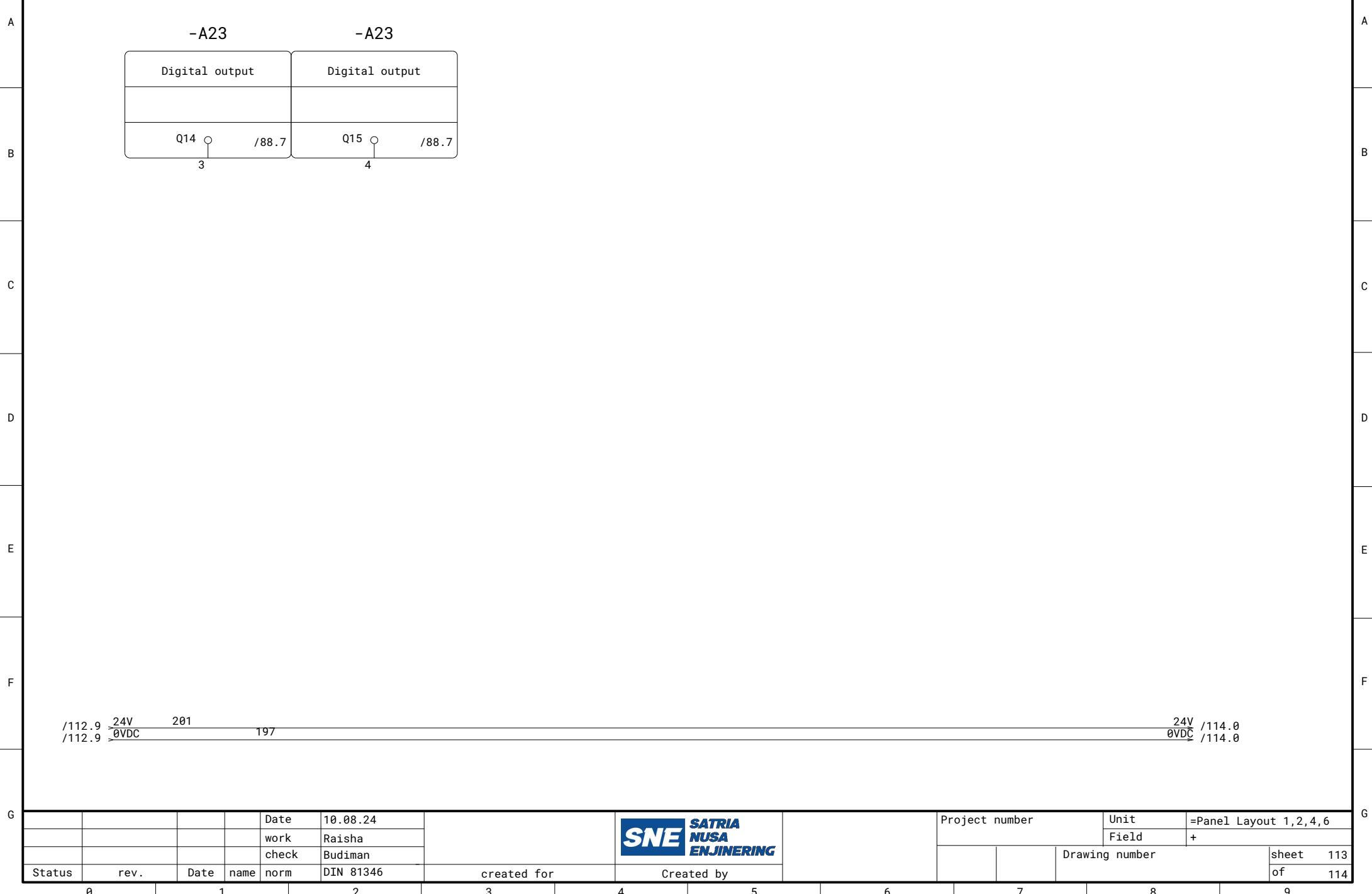
D		D
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E		E
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F		F					
/111.9	24V 0VDC	201	197	/111.9	24V 0VDC	/113.0	/113.0

G		Date	10.08.24			Project number	Unit	=Panel Layout 1,2,4,6	
		work	Raisha				Field	+	
		check	Budiman						
Status	rev.	Date	name	norm	DIN 81346	Created for	Created by	Drawing number	
								sheet 112	
								of 114	
0	1	2	3	4	5	6	7	8	9

0 1 2 3 4 5 6 7 8 9



0 1 2 3 4 5 6 7 8 9

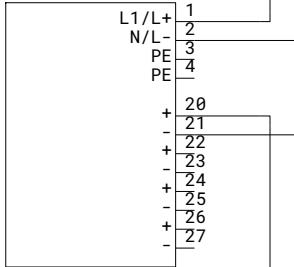
/113.8 24V
/113.8 0VDC

201

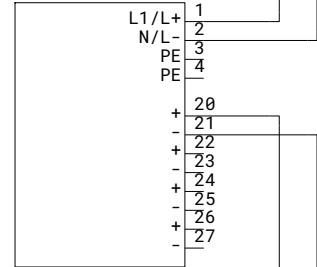
197

24V =Control Panel 5 /3.9
0VDC =Control Panel 5 /3.9

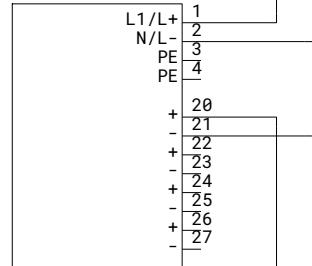
PH-201
-PH1



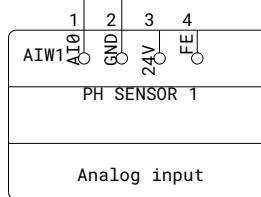
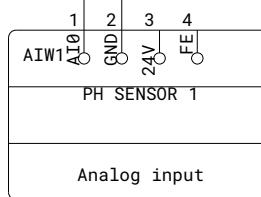
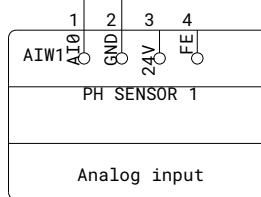
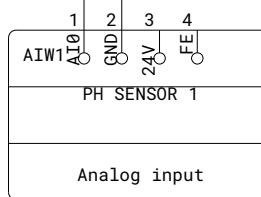
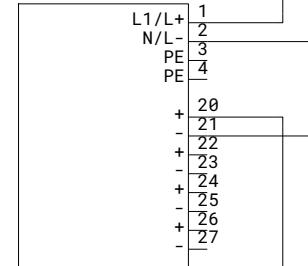
PH-202
-PH2



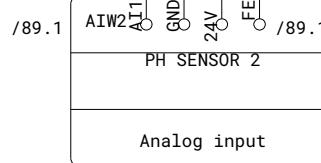
TSS-201
-TSS



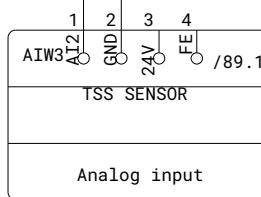
Spare Analog Input
-SP AI



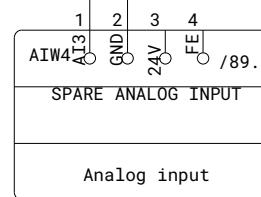
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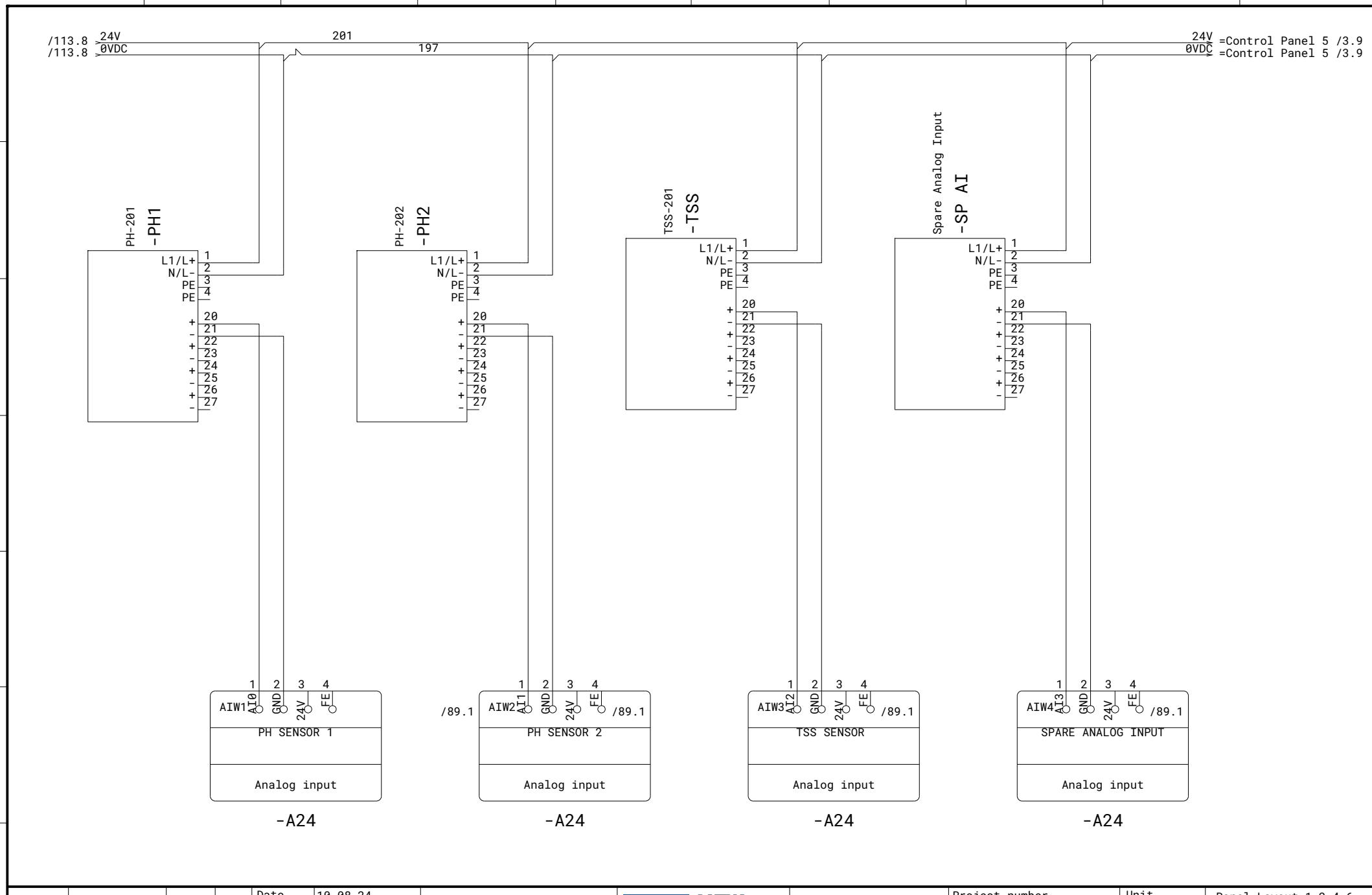
-A24



-A24



-A24



			Date	10.08.24		SNE Satria Nusa Enjinering	Project number		Unit	=Panel Layout 1,2,4,6
			work	Raisha					Field	+
			check	Budiman					Drawing number	sheet 114
Status	rev.	Date	name	norm	DIN 81346	created for	Created by			of 114
0	1	2	3	4	5	6	7	8	9	G