Project:

Hydrocontrol MPC-F5-SD18,5kW 4xIO351 2xRM4

Company:

Grundfos

control box design

CABINET DIMENSION:	1600x1800x400	(BxHxT)
COLOUR:	RAL 7032	
PROVISIONS:	IP54	
CABLE LEAD-IN:	below	(BxH)
DOOR:	left-right	

collor of circuit wiring

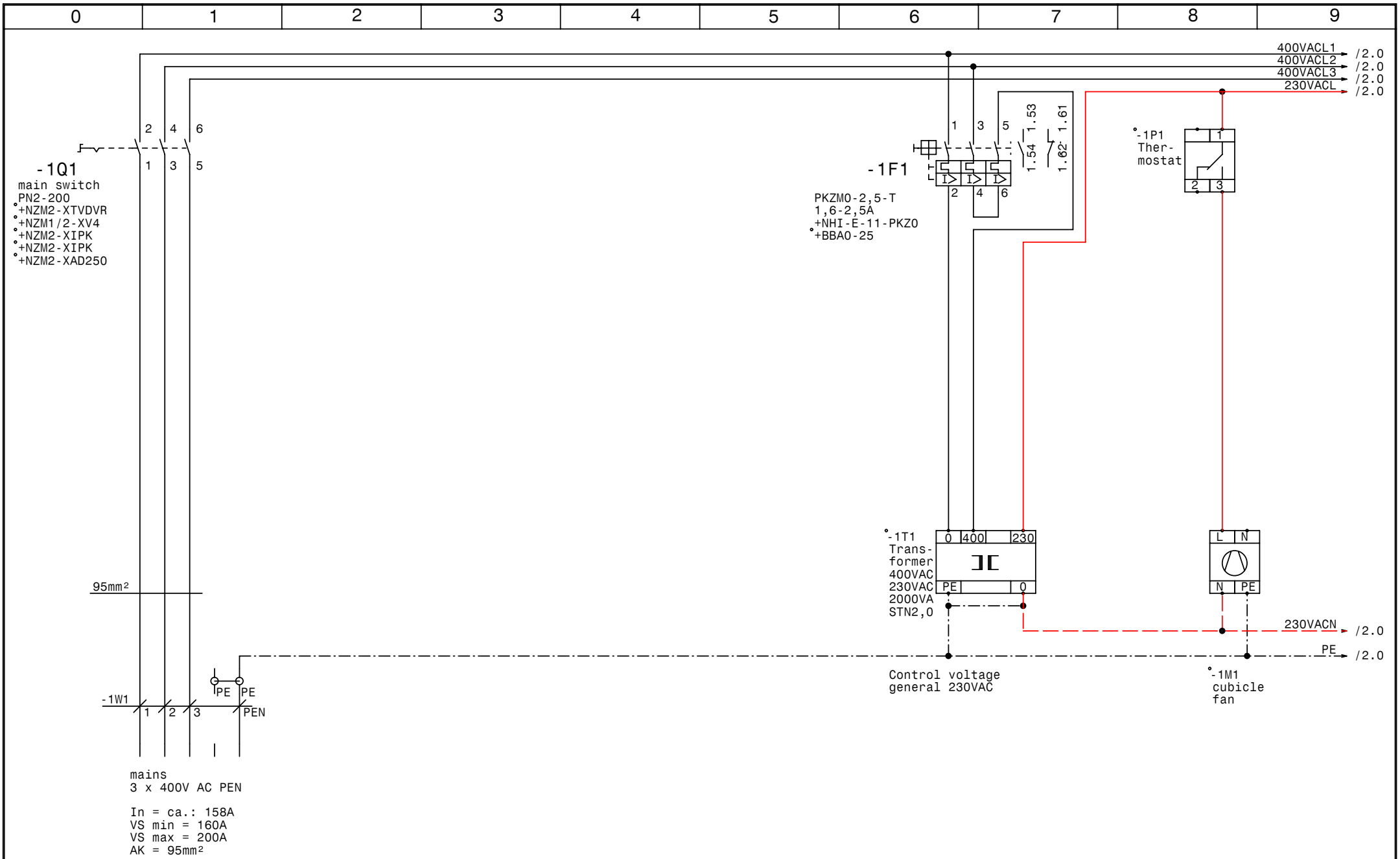
MAIN CURRENT WIRE 400/230V:		black
NEUTRAL WIRE:		blue
EARTH WIRE:		yelow/green
CONTROL VOLTAGE 230VAC:	L/N	red/red white
CONTROL VOLTAGE 0-24VAC:	L/N	deep blue /
CONTROL VOLTAGE 0-24VDC:	+/-	/deep blue-white
GND, DDC:		deep blue-white
MEASURE WIRE, SENSOR:		green
POTENTIAL FREE WIRE:		orange
SEPARATE VOLTAGE:		orange

_ ! ! A T T E N T I O N ! ! _

If changes will be made in the distributor or external plugs which are not done by producer, guarantee will run out. Costs arising through it would not be admitted. If it becomes necessary, out of technical reasons, you have to inform the producer. Pay attention to local electricity provisions! Synchronize engine protection plugs to the current input of the engines and control all screws, terminals and plugs, if necessary they have to be tighten up, before putting into operation.

C O N T E N T S

000 Front Page
001 Mains, Power Cirkuits
002 pump 1
003 pump 2
004 pump 3
005 pump 4
006 pump 5
007 VLT6027 Frequency Converter
008 CU351
009 IQ351B Pump module 1-3
010 IQ351B Signal module 1-3
011 IQ351B Pump module 4-5
012 IQ351B Signal module 4-5
013 water shortage
014 warning water shortage
015 signal horn



GRUNDFOS	DATE	03.12.07	elpe ELEKTRO ANLAGENBAU	Hydrocontrol MPC-F5-SD18,5kW 4xIO351 2xRM4	DRAWING No.: 289/07
	DRAWN	Hattinger		Mains, Power Cirkuits	Blatt 1
	CHECK				von 15 PAGES
	Norm				

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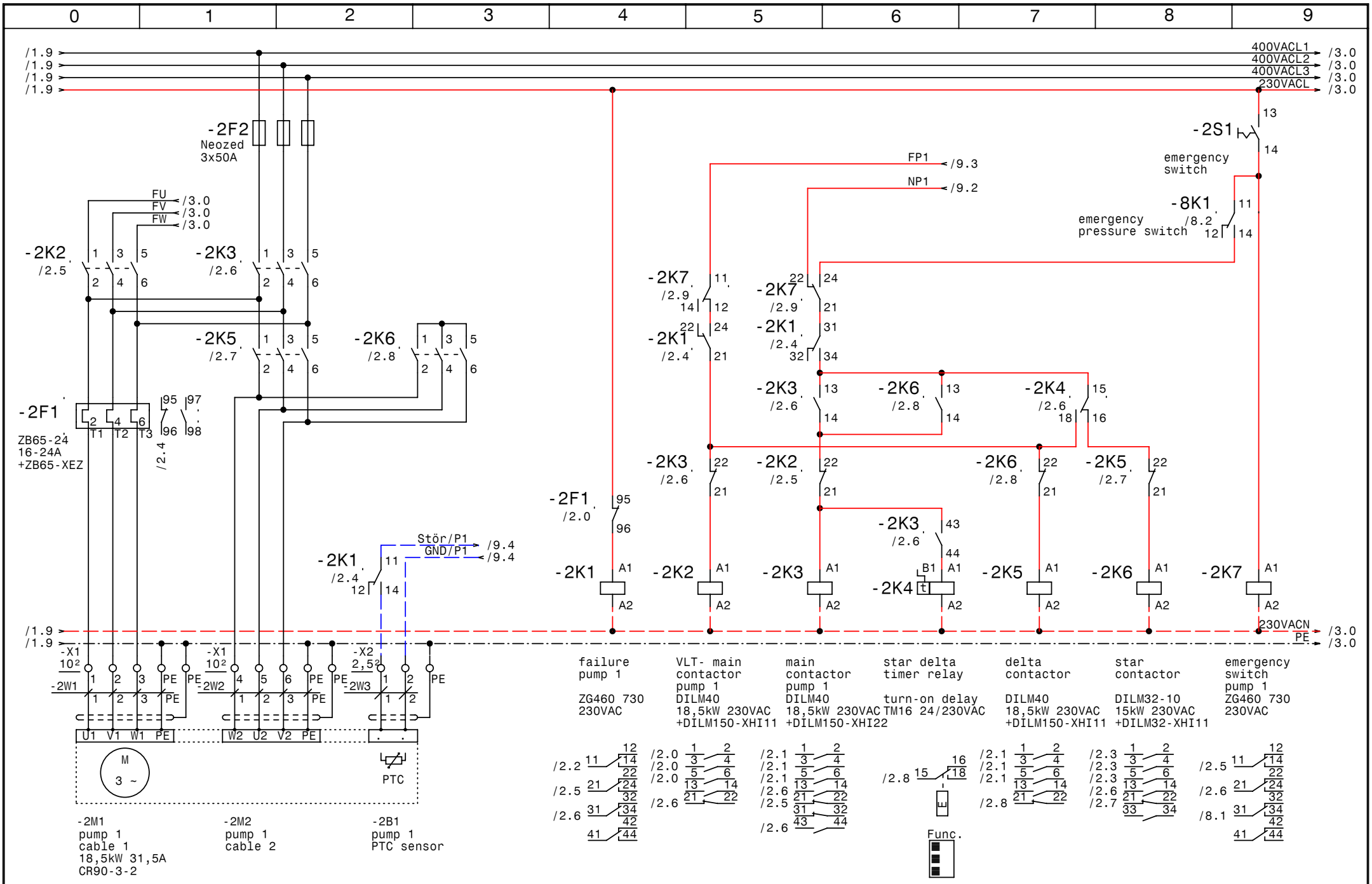

GRUNDFOS	DATE	03.12.07	elpe ELEKTRO ANLAGENBAU	Hydrocontrol MPC-F5-SD18,5kW 4xIO351 2xRM4	DRAWING No.: 289/07
	DRAWN	Hattinger		pump 1	Blatt 2
	CHECK				von 15 PAGES
	Norm				

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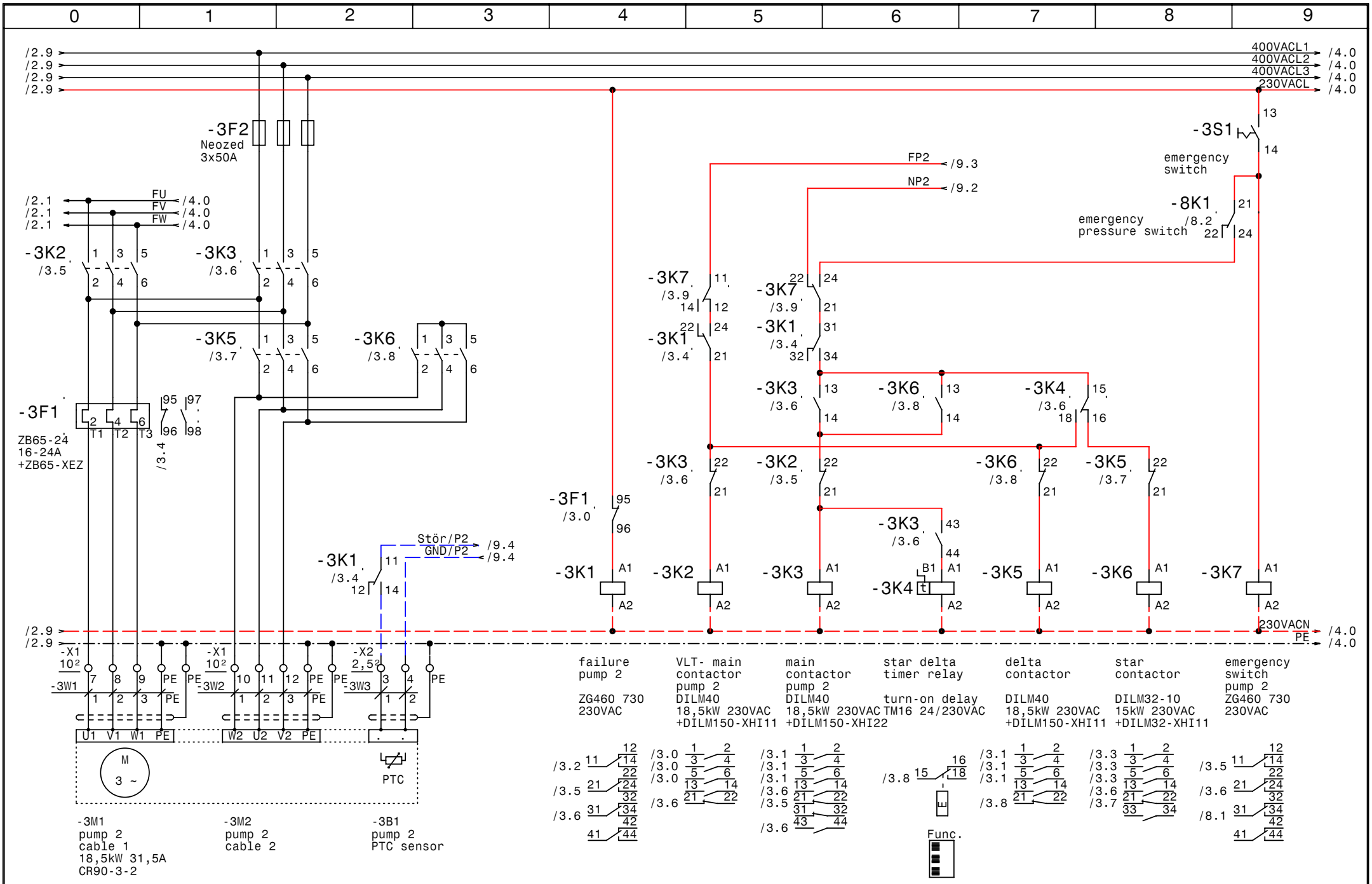

GRUNDFOS	DATE	03.12.07	elpe ELEKTRO ANLAGENBAU	Hydrocontrol MPC-F5-SD18,5kW 4xIO351 2xRM4	DRAWING No.: 289/07
	DRAWN	Hattinger		pump 2	Blatt 3
	CHECK				von 15 PAGES
	Norm				

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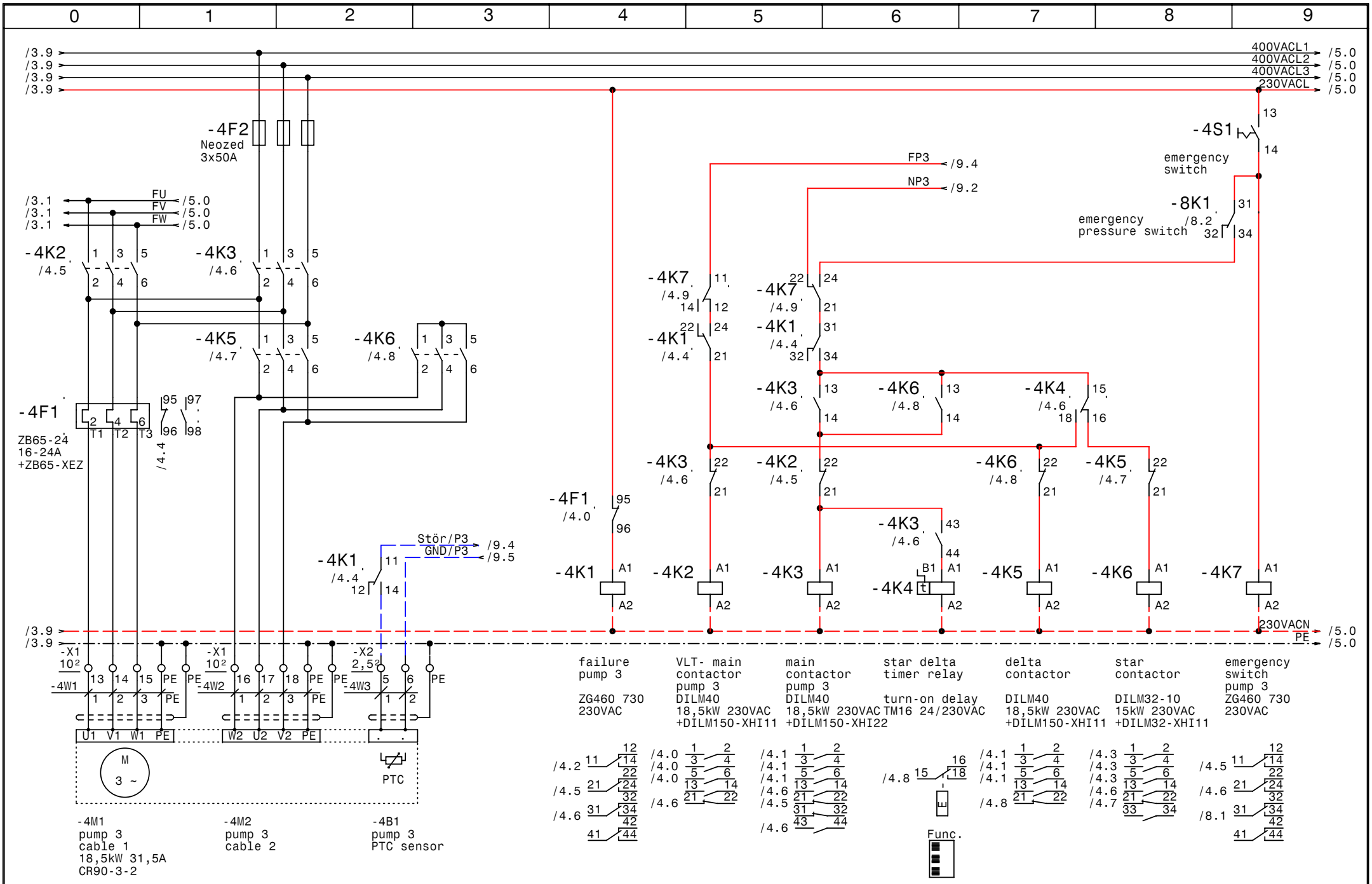

GRUNDFOS	DATE	03.12.07	elpe ELEKTRO ANLAGENBAU	Hydrocontrol MPC-F5-SD18,5kW 4xIO351 2xRM4	DRAWING No.: 289/07
	DRAWN	Hattinger		pump 3	Blatt 4
	CHECK				von 15 PAGES
	Norm				

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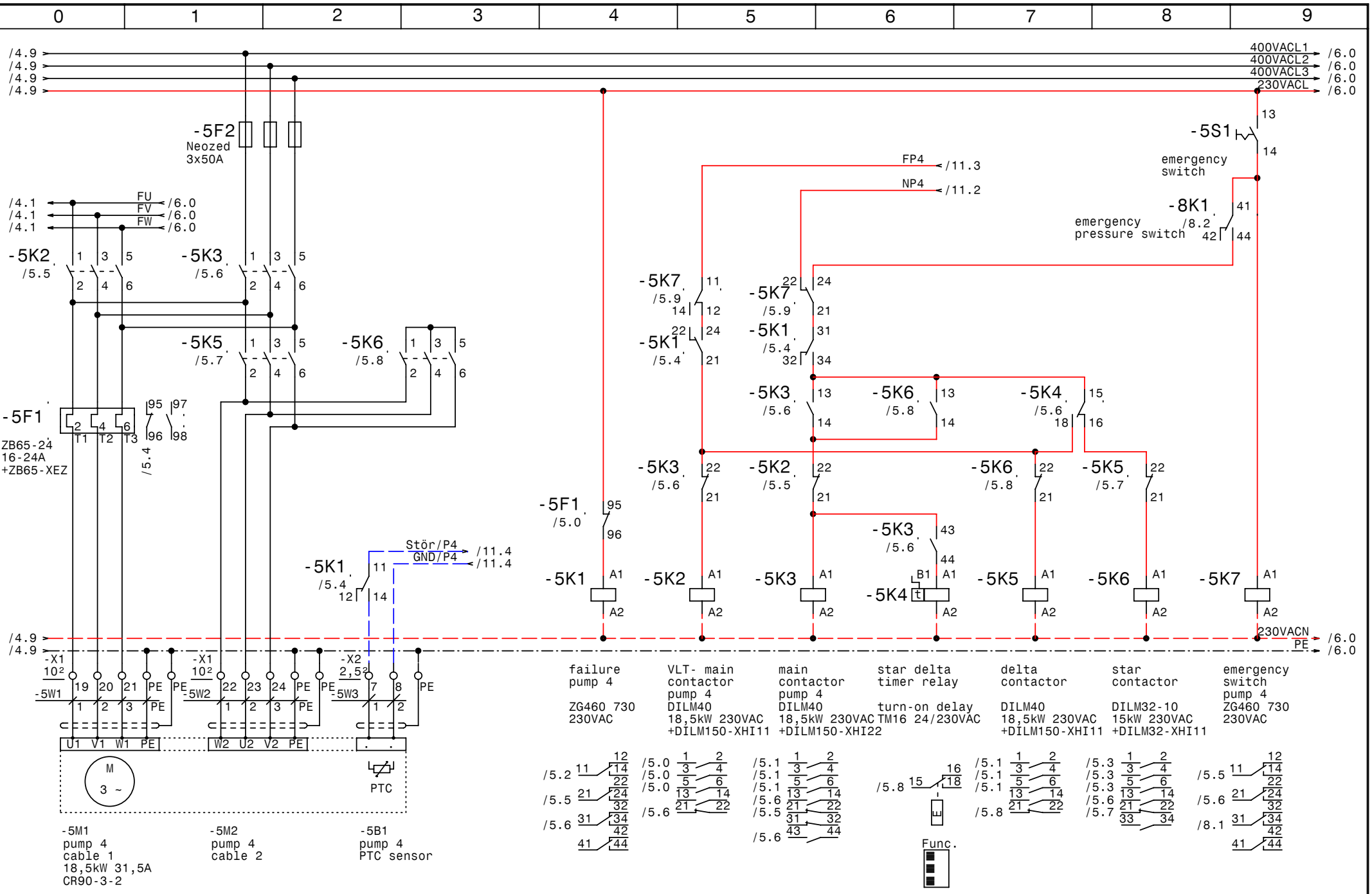

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	DRAWN	Hattinger		pump 4	Blatt 5
	CHECK				von 15 PAGES
	Norm				

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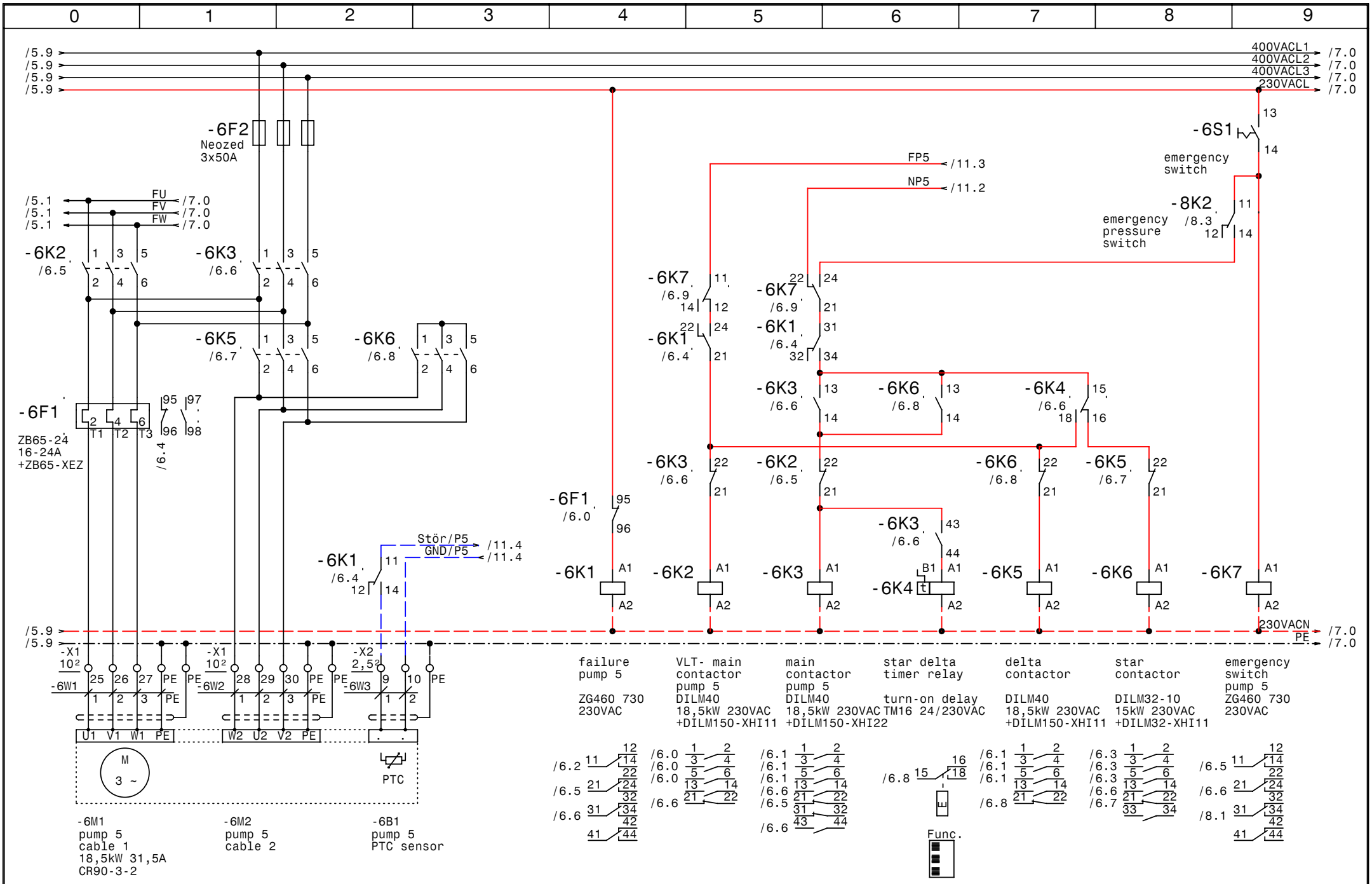

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	DRAWN	Hattinger		pump 5	Blatt 6
	CHECK				von 15 PAGES
	Norm				

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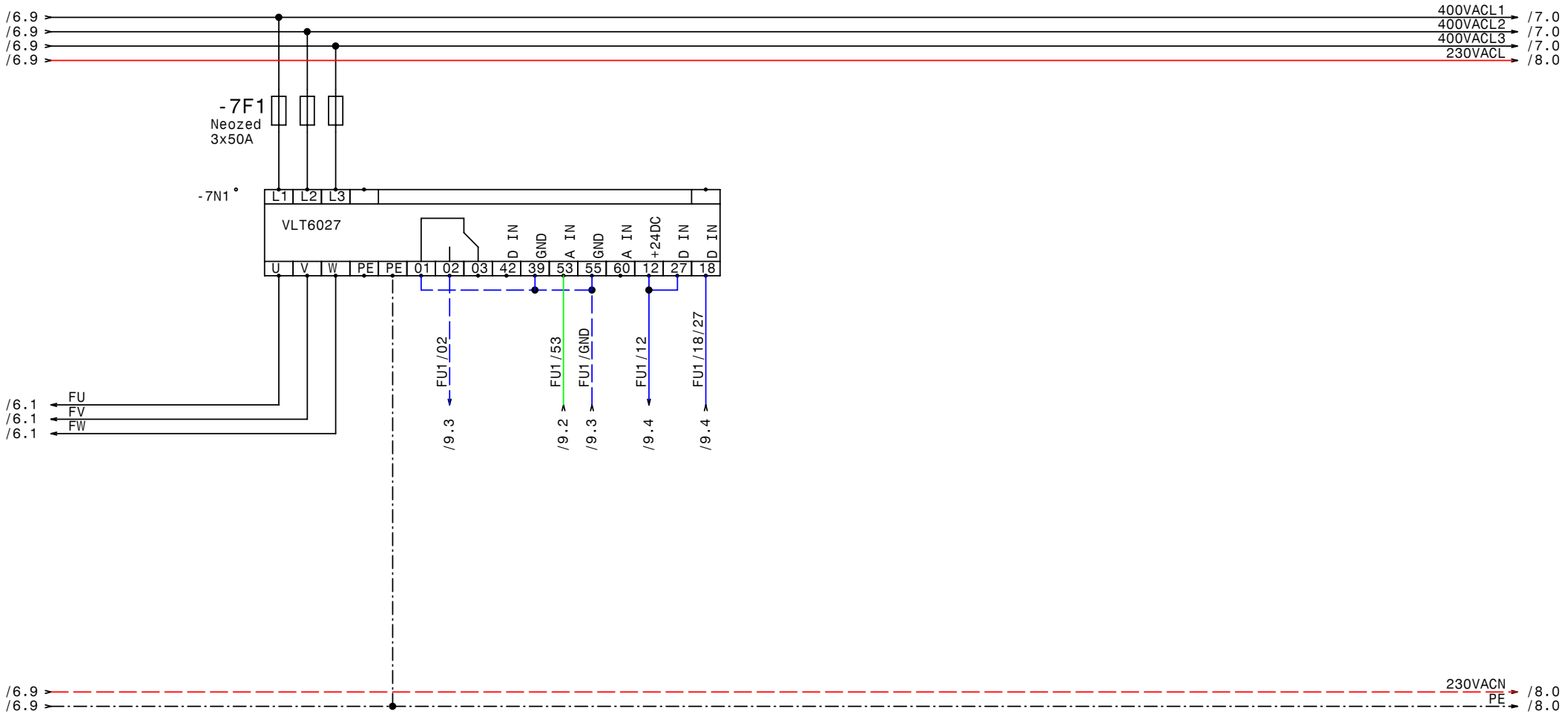

GRUNDFOS	DATE	03.12.07	ELEKTRO ANLAGENBAU	Hydrocontrol MPC-F5-SD18,5kW 4xIO351 2xRM4	DRAWING No.: 289/07
	DRAWN	Hattinger		VLT6027 Frequency Converter	Blatt 7
	CHECK				von 15 PAGES
	Norm				

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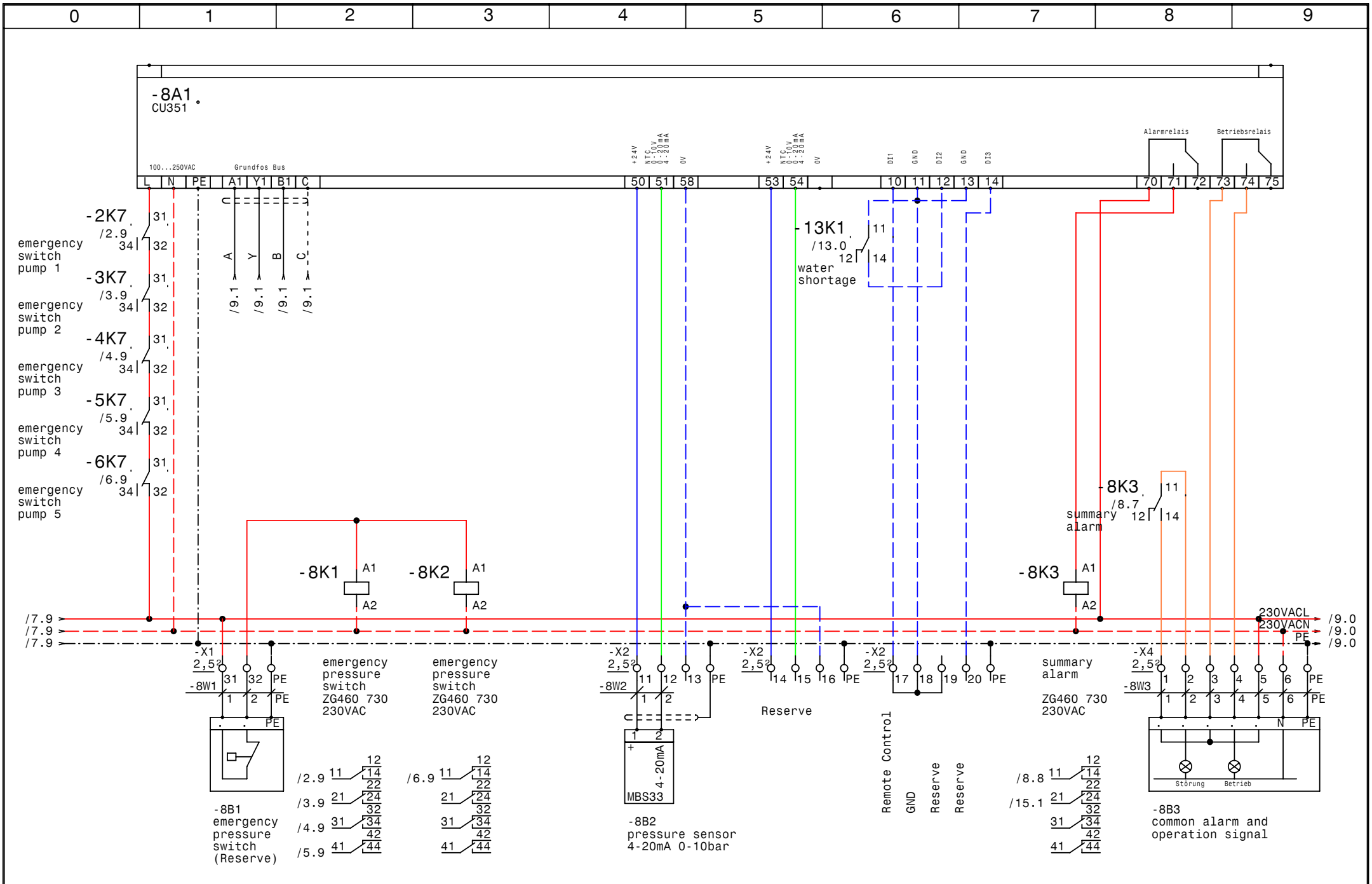

GRUNDFOS	DATE	03.12.07	elpe ELEKTRO ANLAGENBAU	Hydrocontrol MPC-F5-SD18,5kW 4xIO351 2xRM4	DRAWING No.: 289/07
	DRAWN	Hattinger		CU351	Blatt 8
	CHECK				von 15 PAGES
	Norm				

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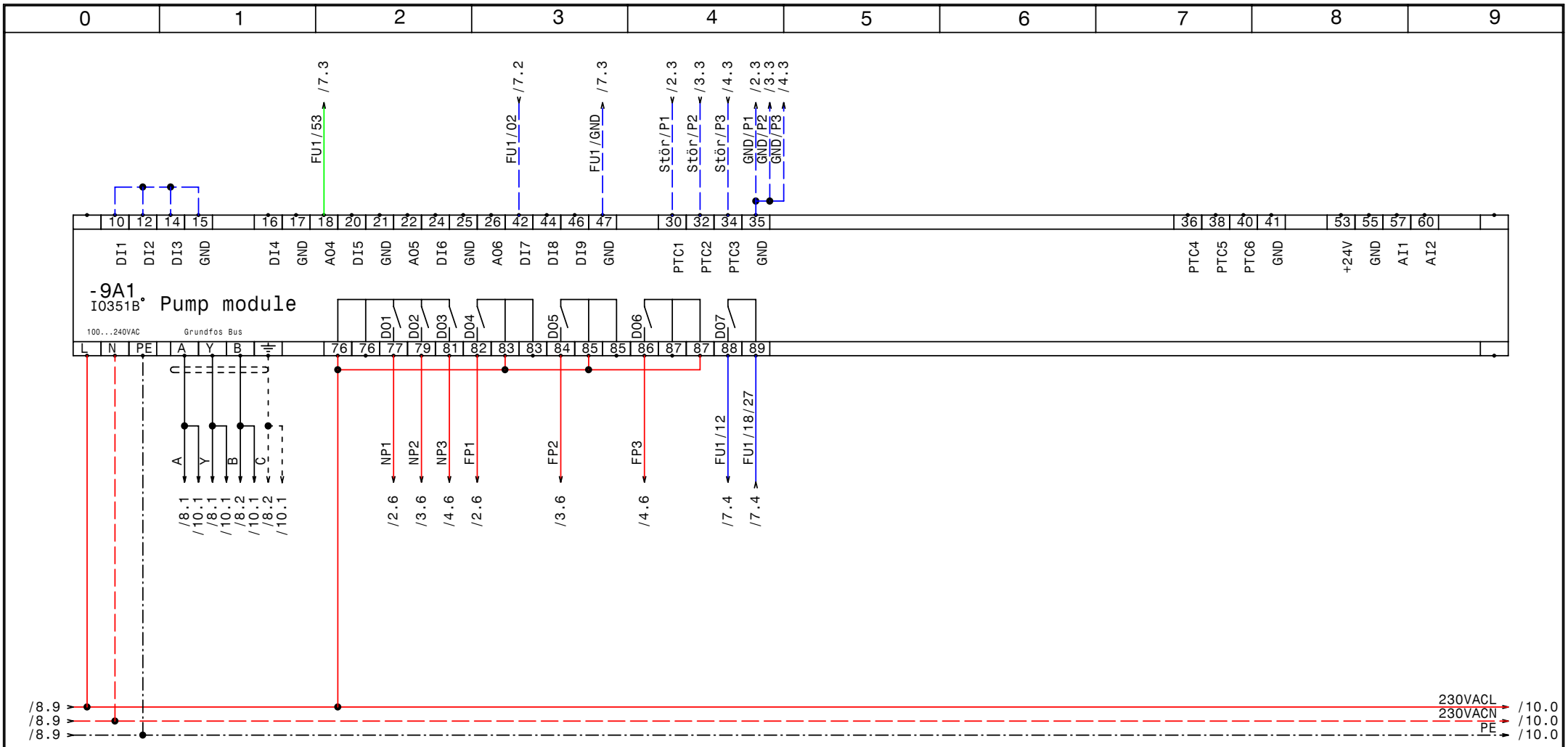

GRUNDFOS	DATE	03.12.07	elpe ELEKTRO ANLAGENBAU	Hydrocontrol MPC-F5-SD18,5kW 4xIO351 2xRM4	DRAWING No.: 289/07
	DRAWN	Hattinger		IQ351B Pump module 1-3	Blatt 9
	CHECK				von 15 PAGES
	Norm				

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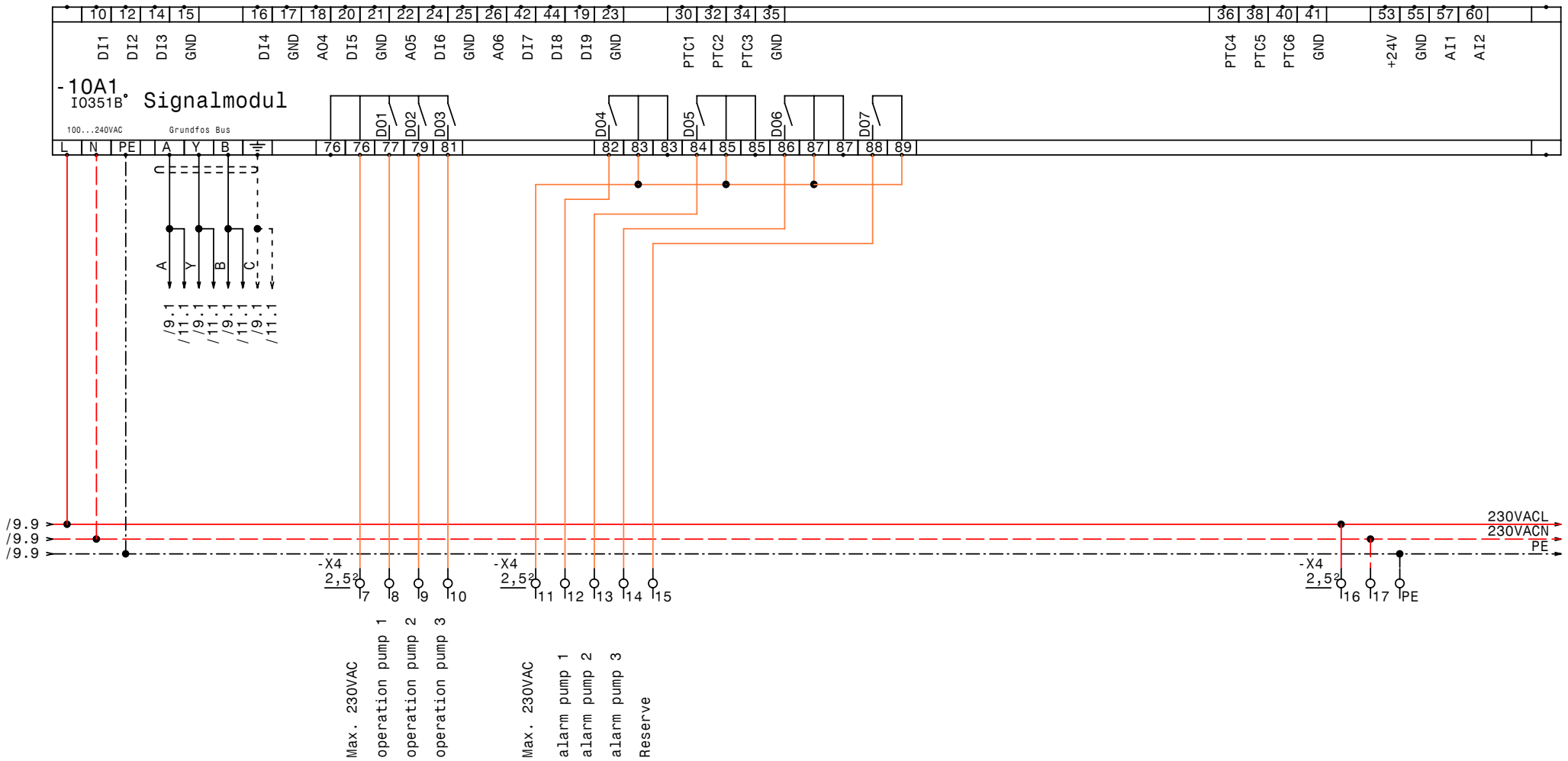

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	DRAWN	Hattinger		IQ351B Signal module 1-3	Blatt 10
	CHECK				von 15 PAGES
	Norm				

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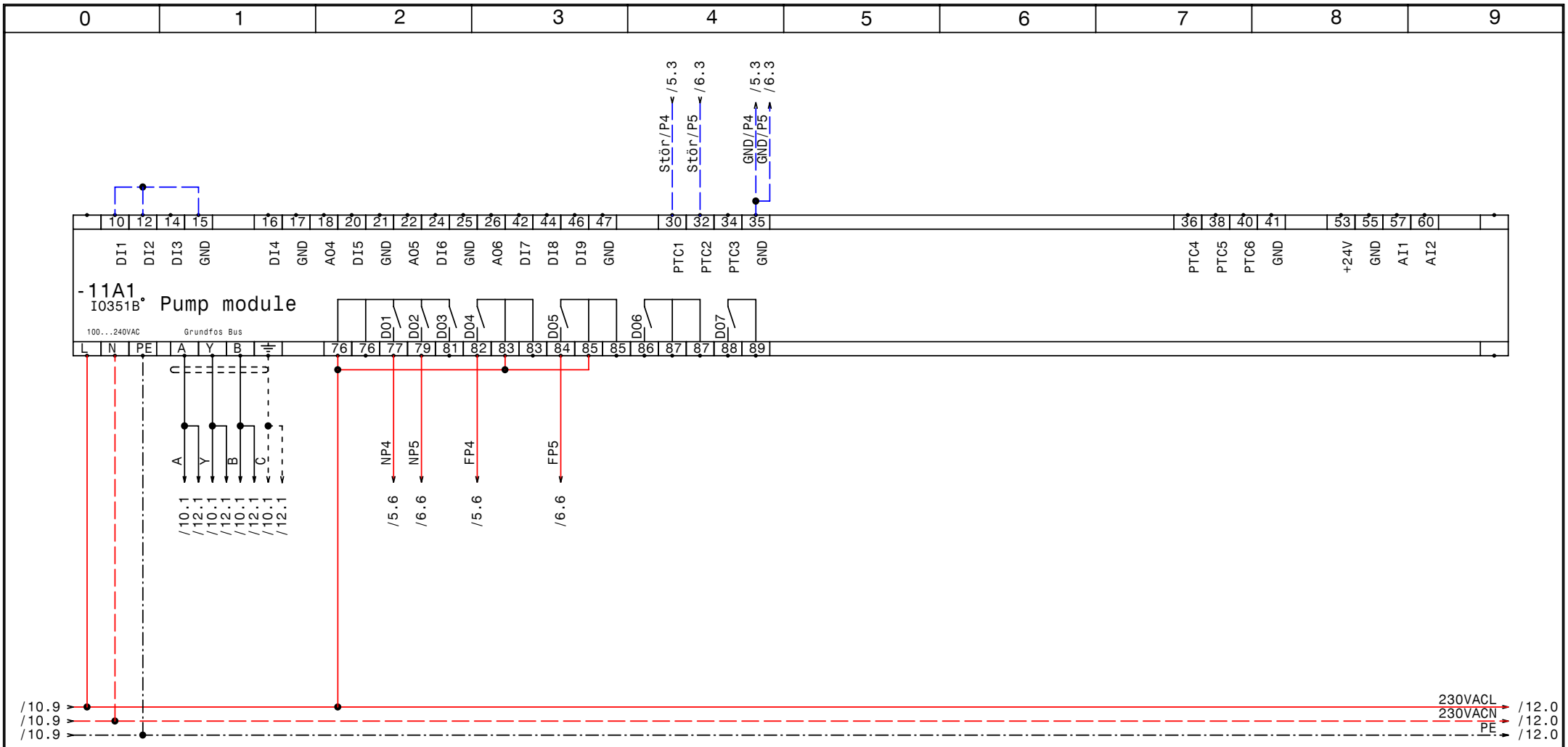

GRUNDFOS	DATE	03.12.07	elpe ELEKTRO ANLAGENBAU	Hydrocontrol MPC-F5-SD18,5kW 4xIO351 2xRM4	DRAWING No.: 289/07
	DRAWN	Hattinger		IQ351B Pump module 4-5	Blatt 11
	CHECK				von 15 PAGES
	Norm				

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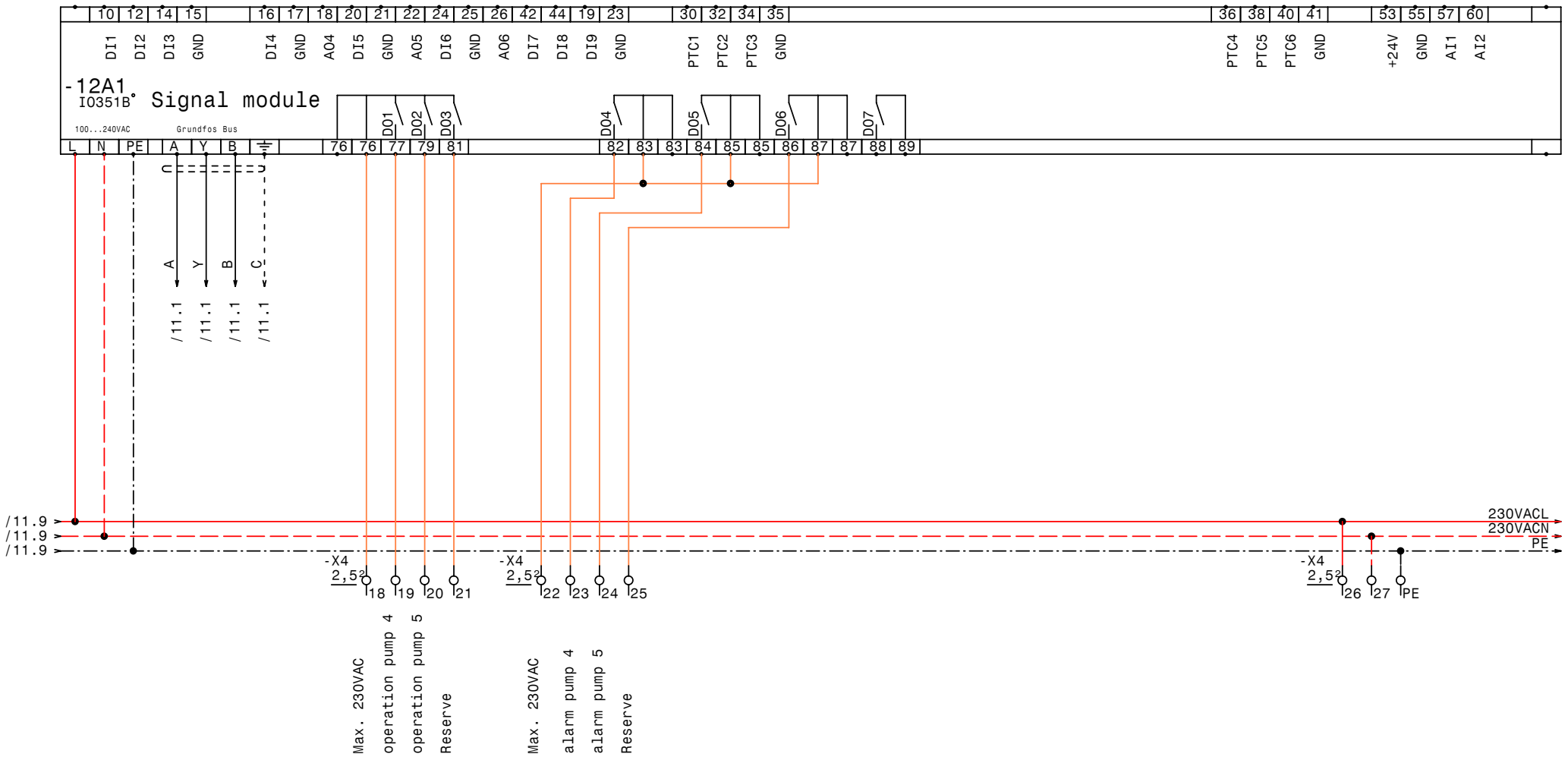

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	DRAWN	Hattinger		IQ351B Signal module 4-5	Blatt 12
	CHECK				von 15 PAGES
	Norm				

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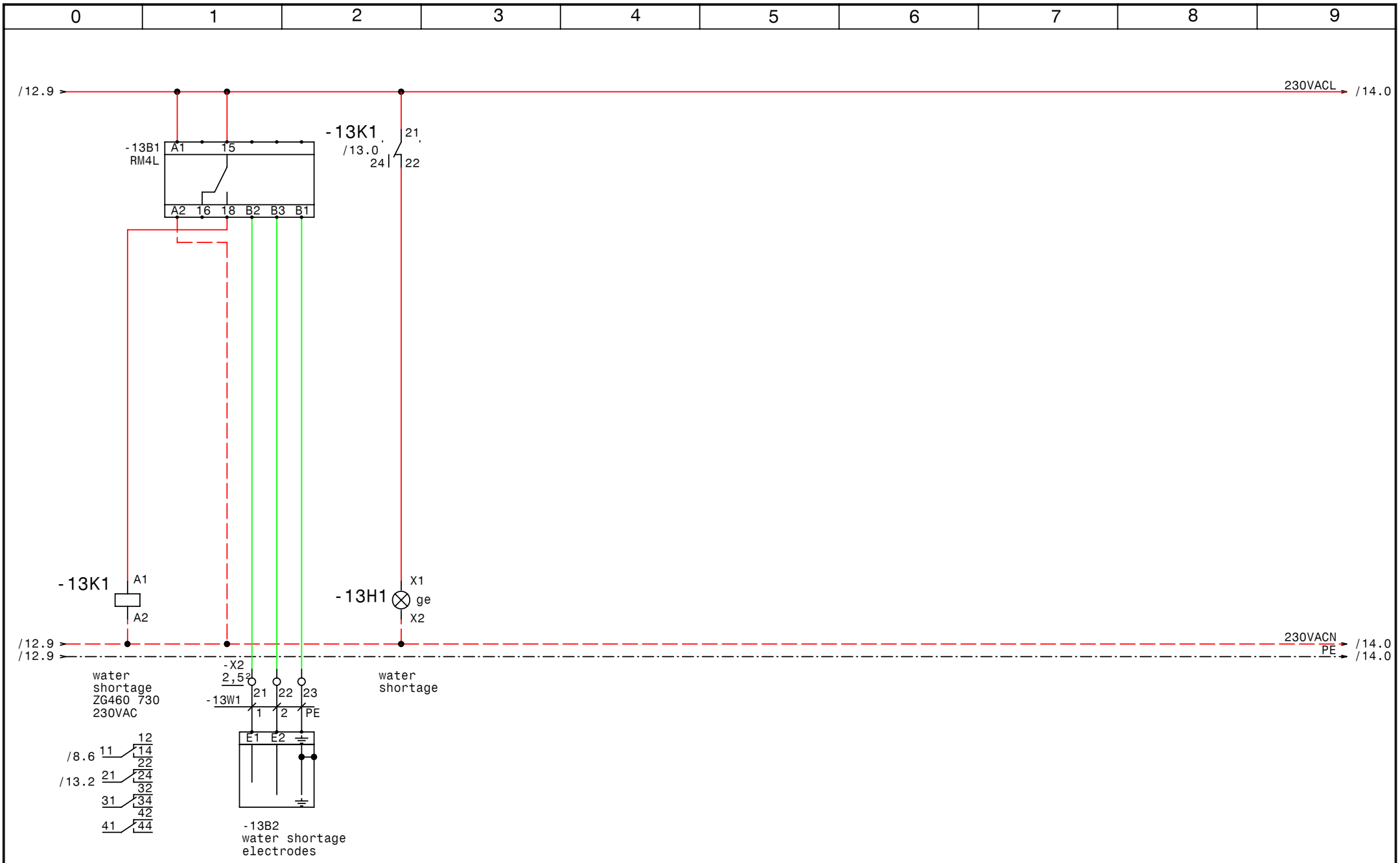

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	DRAWN	Hattinger		water shortage	PAGE 13
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	Norm				

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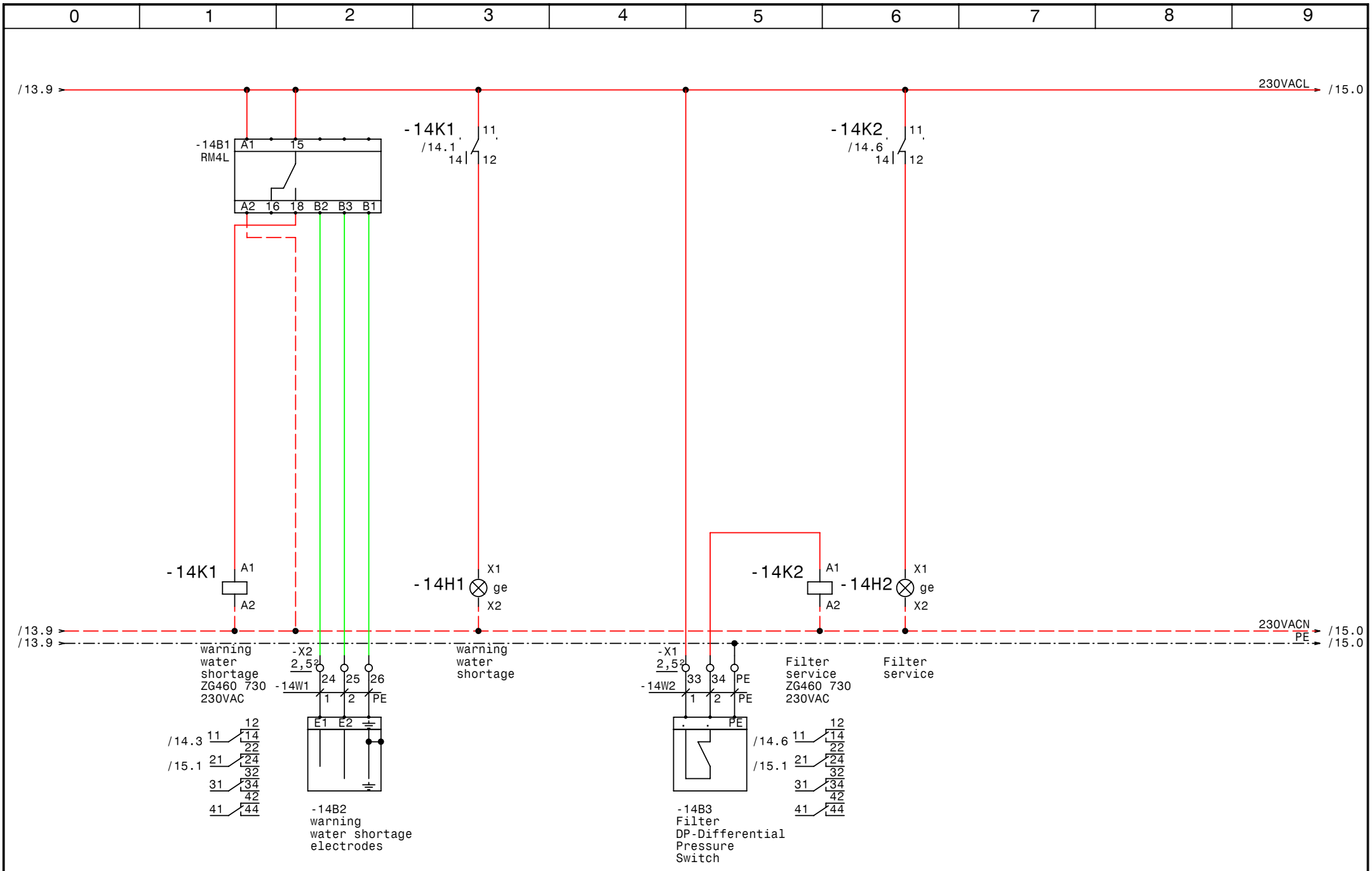

GRUNDFOS	DATE	03.12.07	elpe ELEKTRO ANLAGENBAU	Hydrocontrol MPC-F5-SD18,5kW 4xIO351 2xRM4	DRAWING No.: 289/07
	DRAWN	Hattinger		warning water shortage	PAGE 14
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	Norm				

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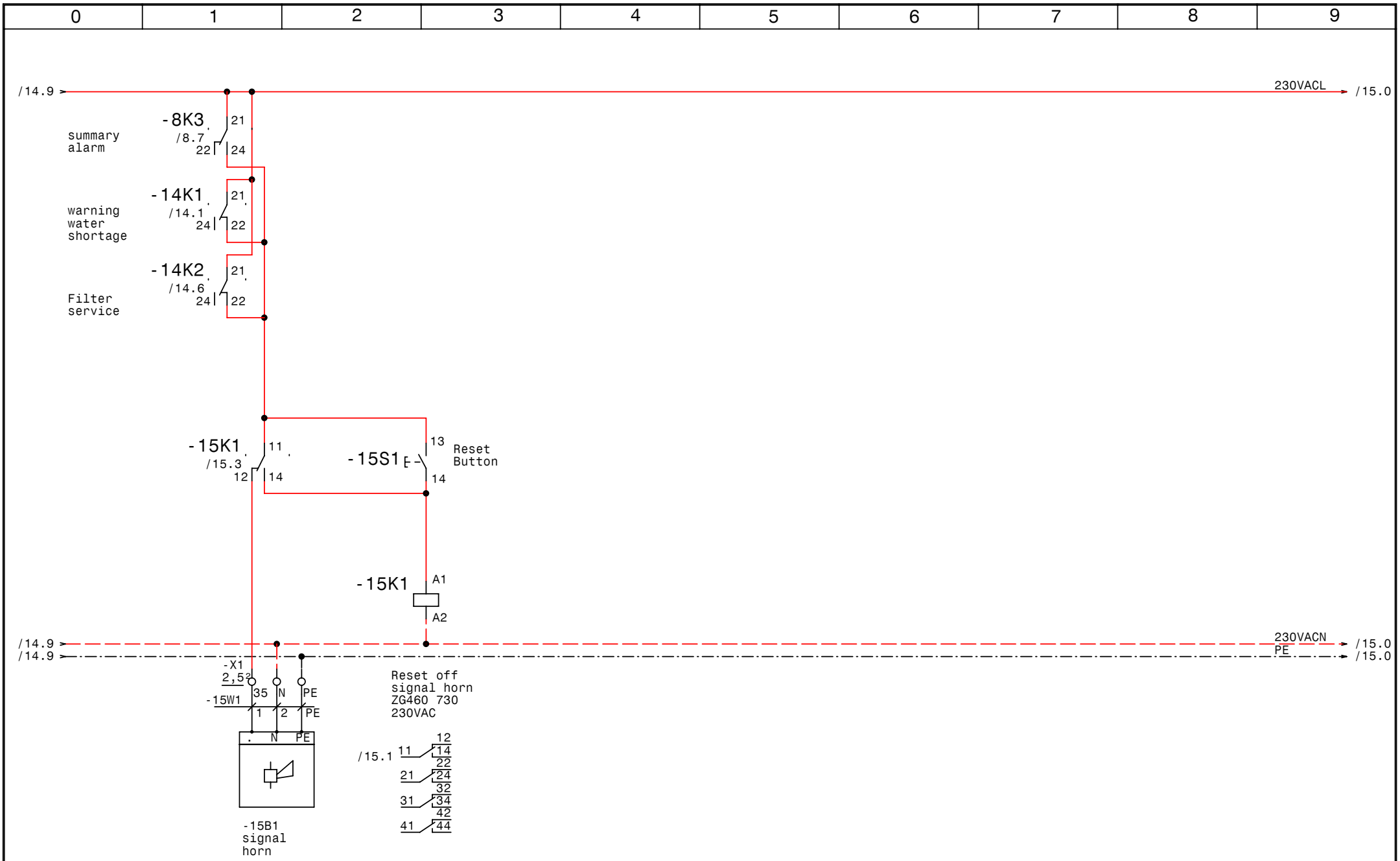

GRUNDFOS	DATE	03.12.07	elpe ELEKTRO ANLAGENBAU	Hydrocontrol MPC-F5-SD18,5kW 4xIO351 2xRM4	DRAWING No.: 289/07
	DRAWN	Hattinger		signal horn	PAGE 15
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	Norm				

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0	1	2	3	4	5	6	7	8	9

No.	extern plugs	wires code	kind of wires	number of cables	name
1	-1We1	-1W1	4x95JZ PG48	4	mains 3 x 400V AC PEN
2	-2M1	-2W1	4x10JZ-C PG29	4	pump 1 cable 1
3	-2M2	-2W2	4x10JZ-C PG29	4	pump 1 cable 2
4	-2B1	-2W3	2x1,5OZ-C PG 11	2	pump 1 PTC sensor
5	-3M1	-3W1	4x10JZ-C PG29	4	pump 2 cable 1
6	-3M2	-3W2	4x10JZ-C PG29	4	pump 2 cable 2
7	-3B1	-3W3	2x1,5OZ-C PG 11	2	pump 2 PTC sensor
8	-4M1	-4W1	4x10JZ-C PG29	4	pump 3 cable 1
9	-4M2	-4W2	4x10JZ-C PG29	4	pump 3 cable 2
10	-4B1	-4W3	2x1,5OZ-C PG 11	2	pump 3 PTC sensor
11	-5M1	-5W1	4x10JZ-C PG29	4	pump 4 cable 1
12	-5M2	-5W2	4x10JZ-C PG29	4	pump 4 cable 2
13	-5B1	-5W3	2x1,5OZ-C PG 11	2	pump 4 PTC sensor
14	-6M1	-6W1	4x10JZ-C PG29	4	pump 5 cable 1
15	-6M2	-6W2	4x10JZ-C PG29	4	pump 5 cable 2
16	-6B1	-6W3	2x1,5OZ-C PG 11	2	pump 5 PTC sensor
17	-8B1	-8W1	3x1,5JZ PG 11	3	emergency pressure switch (Reserve)
18	-8B2	-8W2	2x1,5OZ-C PG 11	2	pressure sensor 4-20mA 0-10bar
19	-8B3	-8W3	7x1,5JZ PG 13,5	7	common alarm and operation signal
20	-13B2	-13W1	3x1,5JZ PG 11	3	water shortage electrodes
21	-14B2	-14W1	3x1,5JZ PG 11	3	warning water shortage electrodes
22	-14B3	-14W2	3x1,5JZ PG 11	3	Filter DP-Differential Pressure Switch
23	-15B1	-15W1	3x1,5JZ PG 11	3	signal horn

GRUNDFOS

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DRAWN	Hattinger
CHECK	
NORM	

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Cable list

DRAWING No.: 289/07
PAGE 1
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0	1	2	3	4	5	6	7	8	9

number of pieces	produkt name	product description	produkt number
1		CU351	-8A1
4		IO351B	-10A1, -9A1, -11A1, -12A1
2	RM4L	Nivauregelgerät	-14B1, -13B1
1	PKZM0-2,5-T	Transformatorschutzschalter	-1F1
1	NHI-E-11-PKZ0	Normalhilfsschalter	
6	Neozed 3x50A	Neozed 3x50A	-3F2, -2F2, -5F2, -6F2, -7F1, -4F2
5	ZB65-24	Motorschutzrelais	-5F1, -6F1, -2F1, -3F1, -4F1
5	ZB65-XEZ	Sockel für Motorschutzrelais	
3	Signalleuchte gelb	Signalglimmlampe gelb	-13H1, -14H2, -14H1
5	TM16/E 24/230VAC	Multifunktion Zeitrelais	-2K4, -5K4, -3K4, -4K4, -6K4
15	DILM40(230V50HZ)	Schütz	-3K2, -5K2, -5K3, -5K5, -3K5, -2K3
			-3K3, -6K2, -6K5, -2K2, -4K5, -4K2
			-4K3, -2K5, -6K3
5	DILM150-XHI22	Hilfsschalterbaustein	
5	DILM32-XHI11	Hilfsschalterbaustein	
10	DILM150-XHI11	Hilfsschalterbaustein	
5	DILM32-10(230V50HZ)	Schütz	-6K6, -4K6, -3K6, -2K6, -5K6
17	ZG460 730 230VAC	Miniatur - Relais Type ZG	-6K7, -15K1, -3K7, -14K2, -13K1, -6K1
			-14K1, -3K1, -8K2, -8K3, -5K7, -5K1
			-8K1, -4K1, -2K7, -4K7, -2K1
17	YZG 78 700	Fassung für Miniatur Relais ZG	
1		cubicle fan	-1M1
1	ST 16184 B=1600 H=1800 T=400	Standschrank IP 55	-0N1
1		VLT6027	-7N1
1		Thermostat	-1P1
1	PN2-200	Hauptschalter	-1Q1
5	BZ A16/1S	Ausschalter, Serie BZ	-4S1, -6S1, -2S1, -5S1, -3S1
1		Taster 1S	-15S1
1	STN2,0	Transformer 400VAC 230VAC 2000VA	-1T1
1	PG 48	Kabelverschraubung	-1W1
10	PG 29	Kabelverschraubung	-4W1, -3W2, -3W1, -5W2, -6W1, -6W2
			-2W2, -4W2, -5W1, -2W1
11	PG 11	Kabelverschraubung	-5W3, -2W3, -3W3, -6W3, -14W2, -4W3

GRUNDFOS

DATE	19.06.00
DRAWN	Hattinger F.
CHECK	
NORM	

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Material list

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OF 2 PAGES

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0	1	2	3	4	5	6	7	8	9

number of pieces	produkt name	product description	produkt number
			-8W2, -15W1, -13W1, -14W1, -8W1
1	PG 13,5	Kabelverschraubung	-8W3
2	EK 120 ge/gr	Erdungsklemme	X1
30	Klemme 10 grau	Klemme L	-X1
20	EK 10 ge/gr	Erdungsklemme	-X1
58	Klemme 2,5 grau	Klemme L	-X1, -X2, -X4
1	Klemme 2,5 blau	Klemme N	-X1
14	EK 2,5 ge/gr	Erdungsklemme	-X2, -X4, -X1
1	+NZM2-XTVDVR	Türkuplungsdrehgriff für PN1	-1Z1
1	+NZM1/2-XV4	Verlängerungsachse 400mm für PN1	-1Z2
2	+NZM2-XIPK	Fingerschutz für NZMN2	-1Z3, -1Z4
1	+NZM2-XAD250	Adapter für NZM2	-1Z5
1	+BBA0-25	Adapter für PKZM0	-1Z6

GRUNDFOS

DATE	19.06.00
DRAWN	Hattinger F.
CHECK	
NORM	

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