



STAHL CraneSystems GmbH

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Dokumente documents	Zeichnungs-Nr. drawing no.	Blatt sheet	Bemerkung notes
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Kunde:
customer:

STAHL CraneSystems, S.L.

Projekt-Nr.:
drawing-no.:

Bezeichnung:
description:

crane control with wire rope hoist
SH3exn, 12/2H33exn

Aufr. Nr.:
order no.:

273-10-099553

Fabrik - Nr.:
serial number:

59 00 940-43

Betriebssp.-Frequenz:
supply voltage-cycles:

400 V/ 50 Hz

Steuerspannung:
control voltage:

230 V

Schutzart:
protection mode:

IP 55

Explosionsschutz:
explosion protection:

II 3G Ex nA de IIB T3 Gc
ATEX

Umgebungstemperatur:
ambient temperature:

-20°C bis +40°C

Bearbeiter:
designed:

Kehl, Andreas

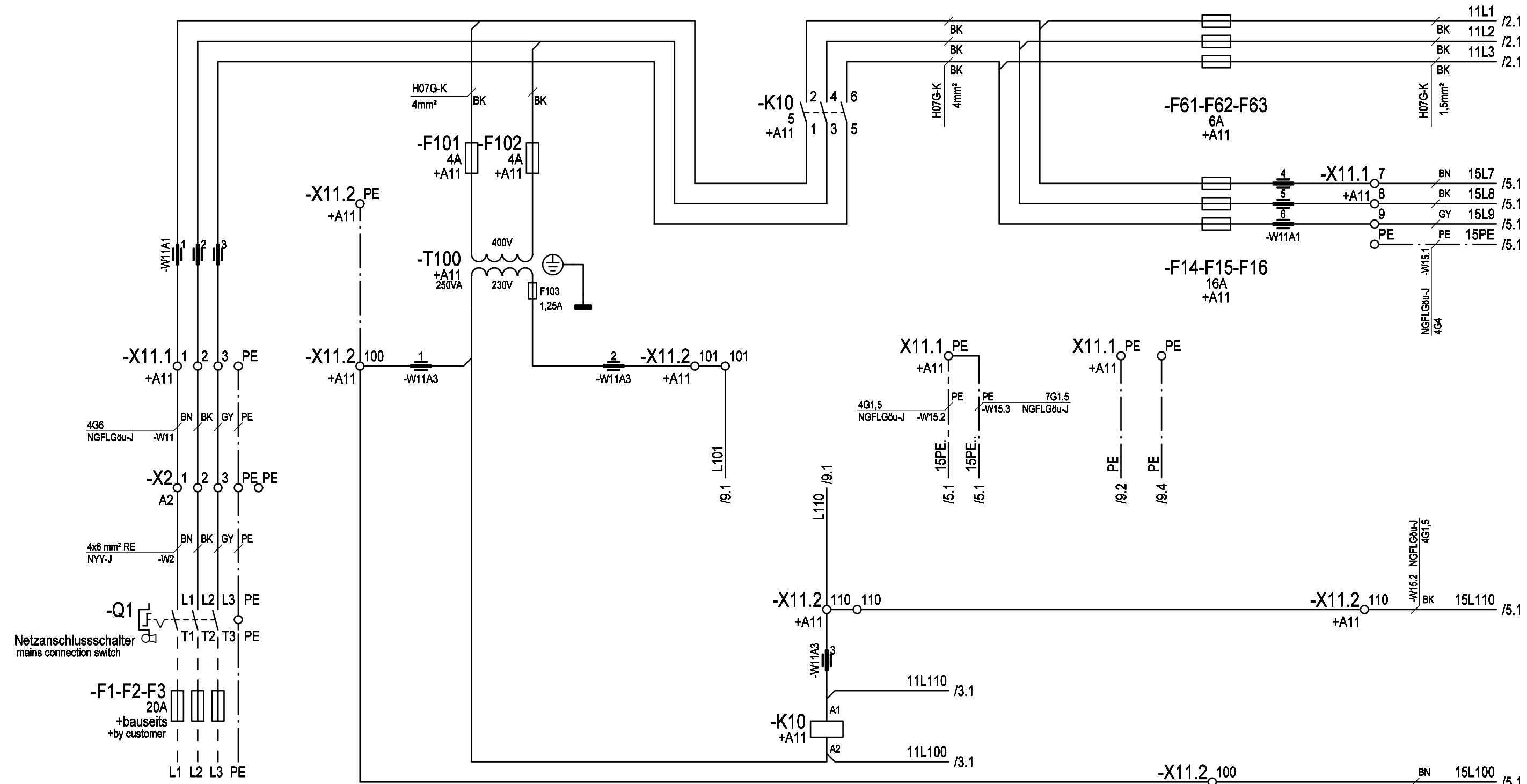
Datum/date:
plot date:

08.06.15
10.06.2015

Einspeisung/Hauptsicherung
supply/main fuse

Steuertransformator
control transformer

Hauptschütz
main contactor



Für die Errichtung der Anlage in explosionsgefährdeten Bereichen,
sind die einschlägigen Vorschriften, insbesondere EN / IEC 60 079-14 zu beachten

For the erection of the system in hazardous areas
please see the responsible instructions, especially EN / IEC 60 079-14.

Changes	Date	Name	Date	Name
			08.06.15	Kehl
Rev.		Plot	10.06.2015	

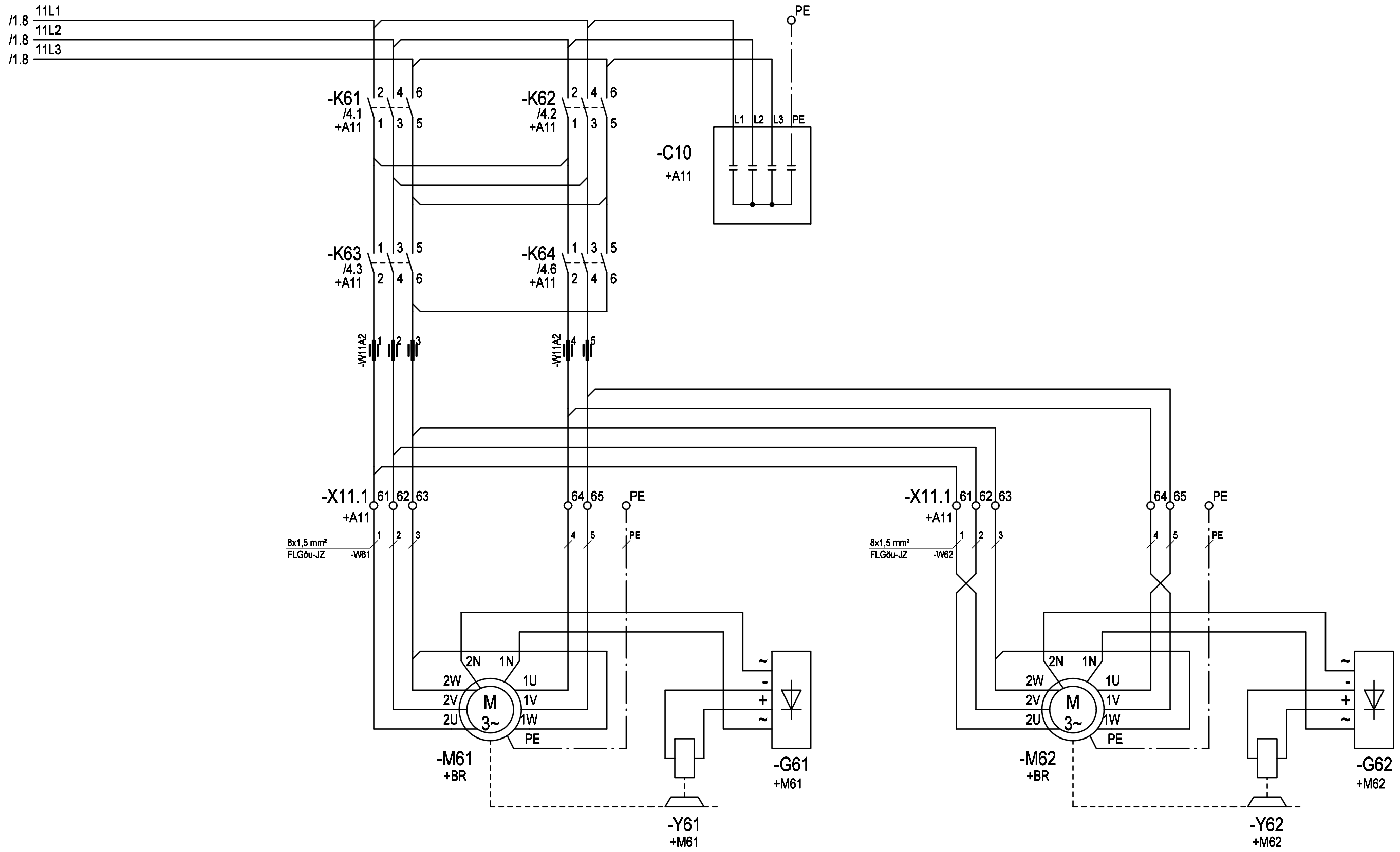
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STAHL Crane Systems		Stromlaufplan / Circuit diagram	
Order No. 273-10-099553	Serial No. 59 00 940-43	22785123-D	

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Kranfahrmotor 1
long travel motor 1

Kranfahrmotor 2
long travel motor 2



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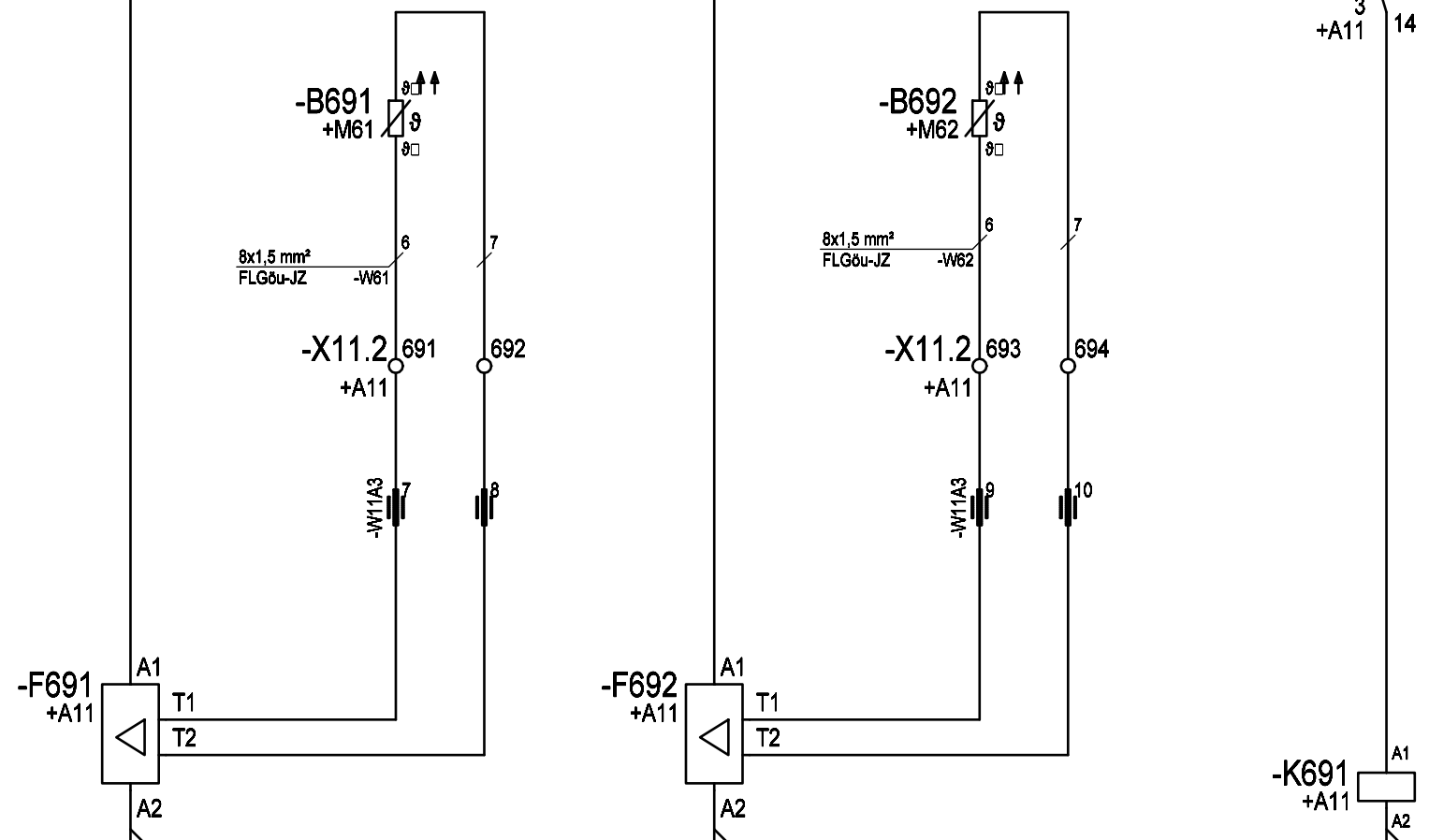
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Temperaturüberwachung 1
temperature monitoring 1

Temperaturüberwachung 2
temperature monitoring 2

/1.5 11L110 11L110 /4.4



-F691 2 13 14
+A11

-F692 3 13 14
+A11

/1.5 11L100 11L100 /4.1

5 13 14
21 22

5 13 14
21 22

/4.1 13 14
/4.2 23 24
/4.3 33 34
43 44

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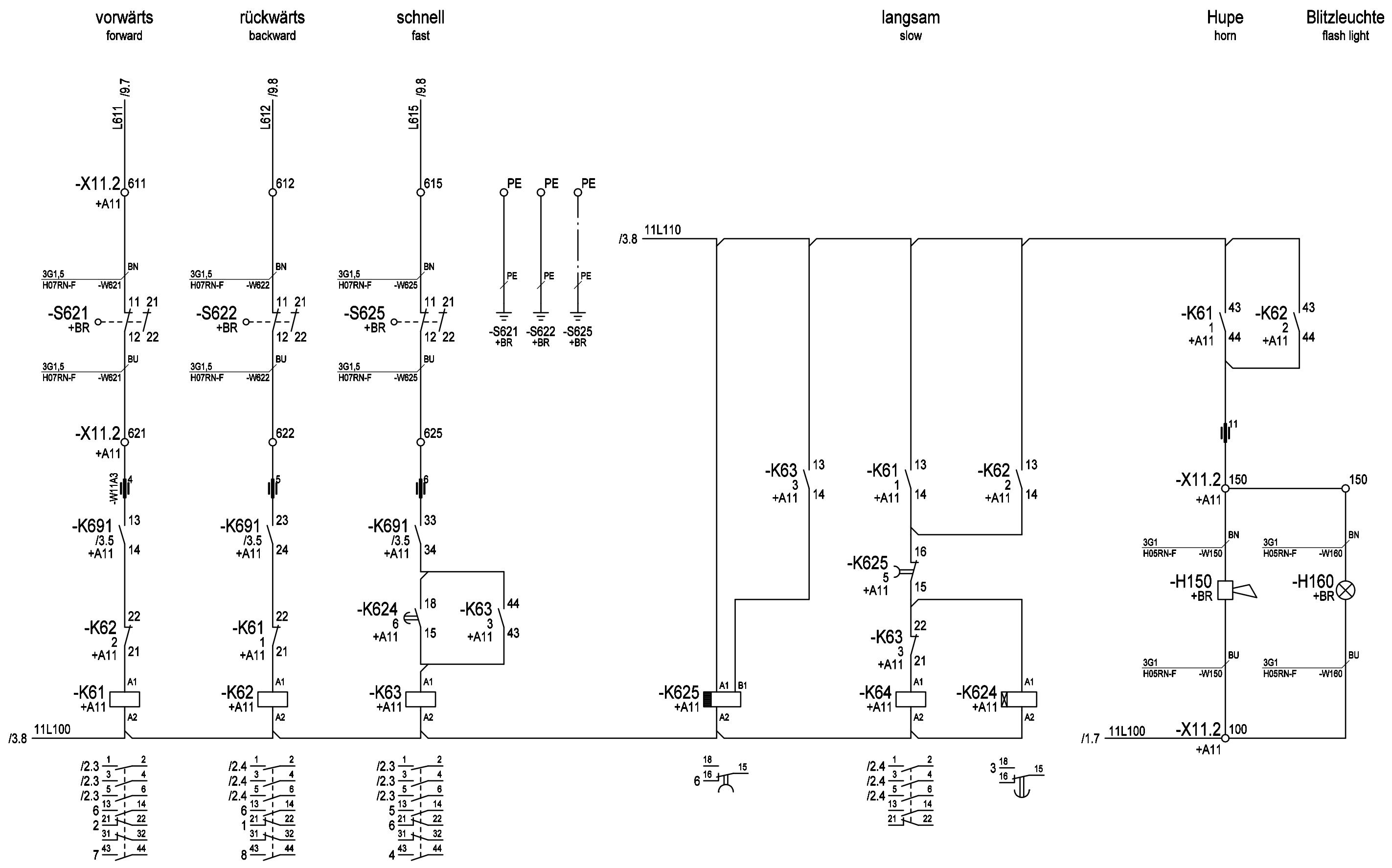
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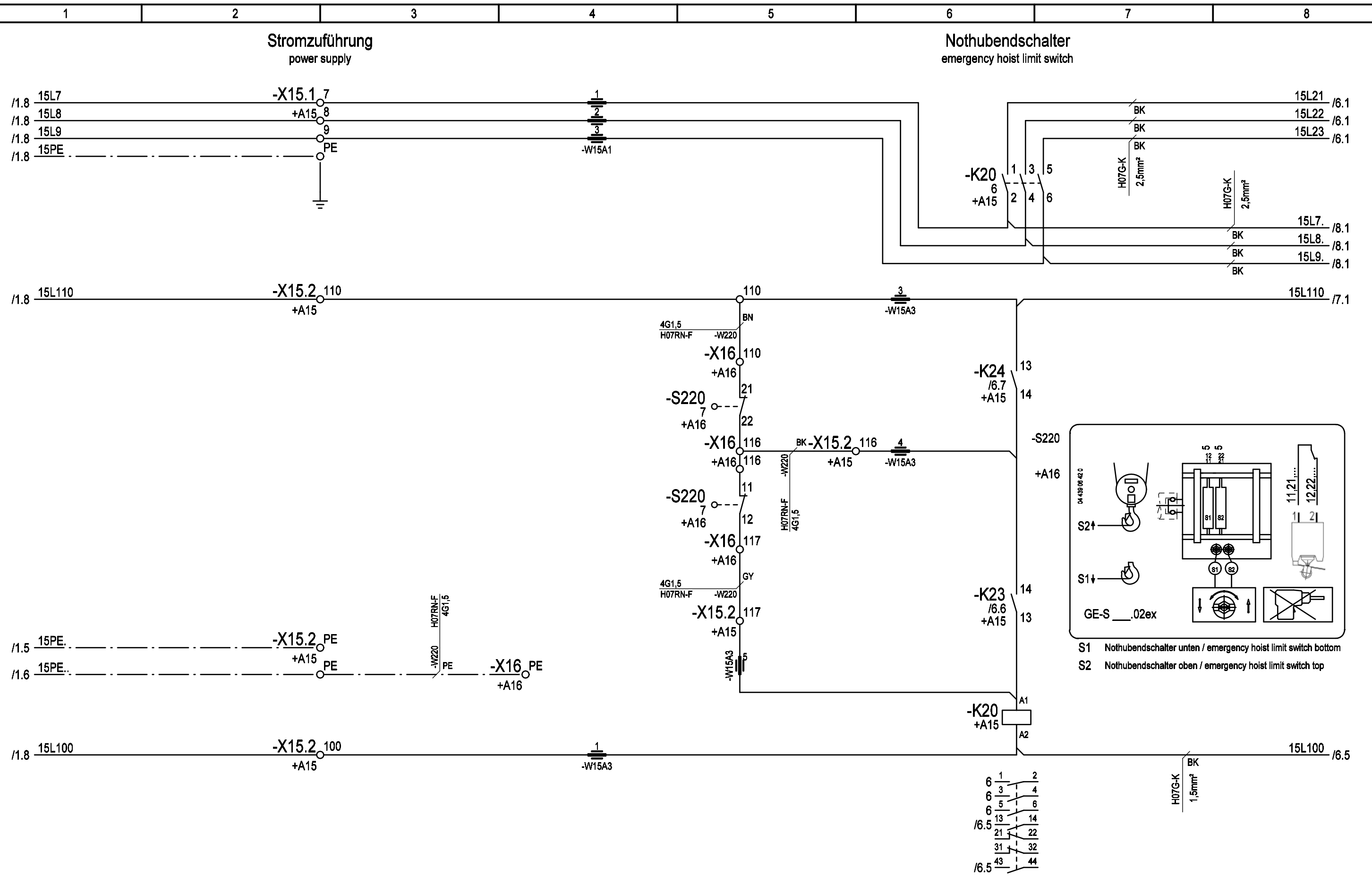
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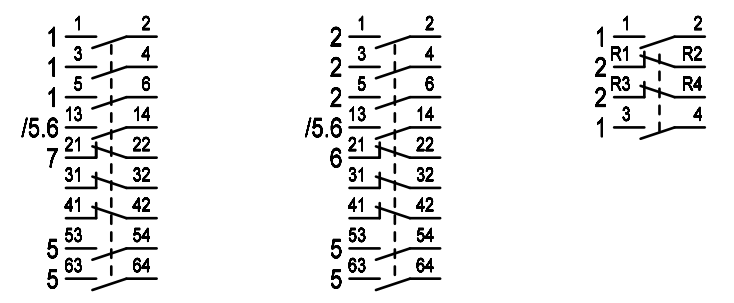
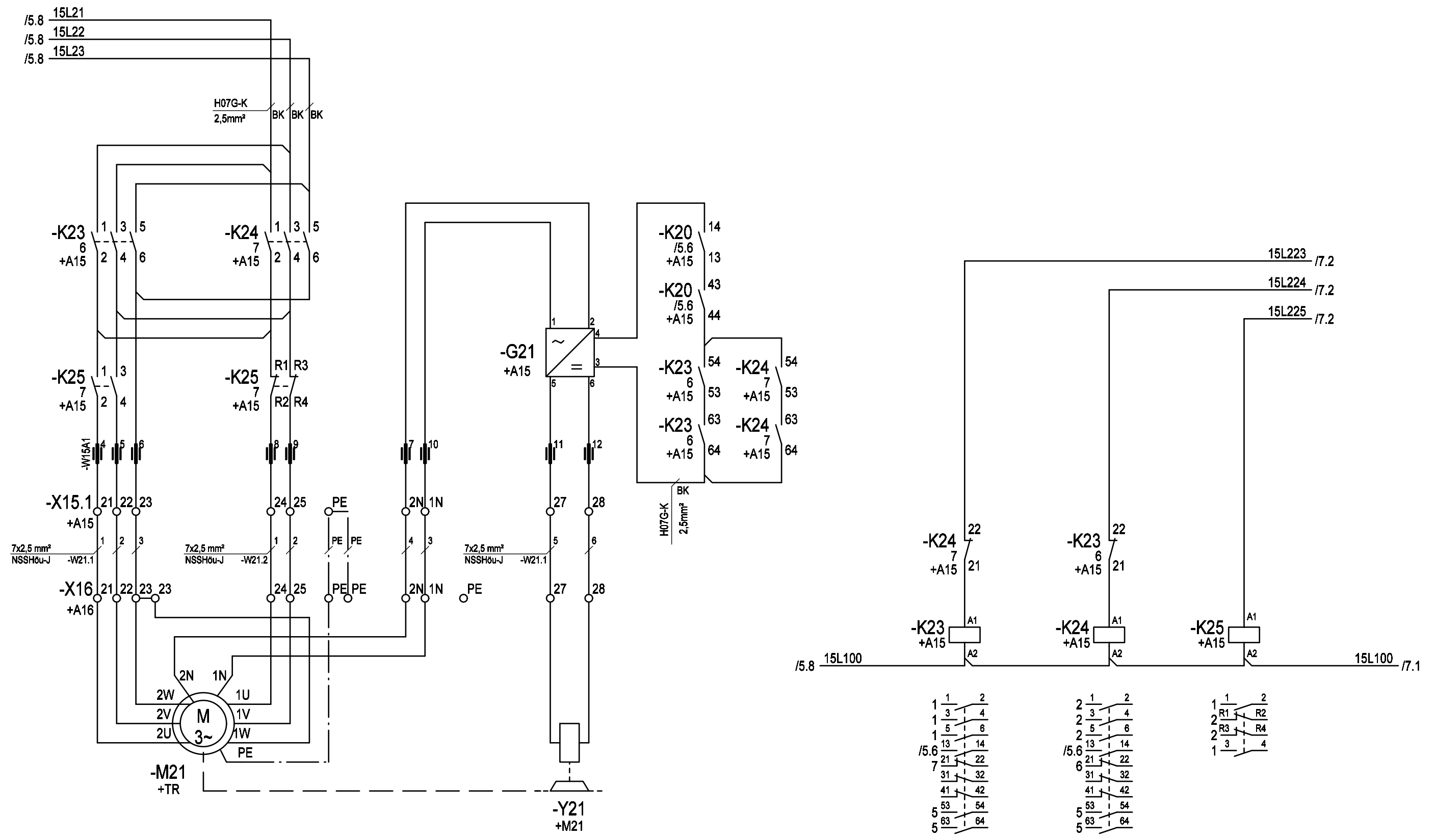
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Hubmotor
hoist motor

heben
hoisting

senken
lowering

schnell
fast



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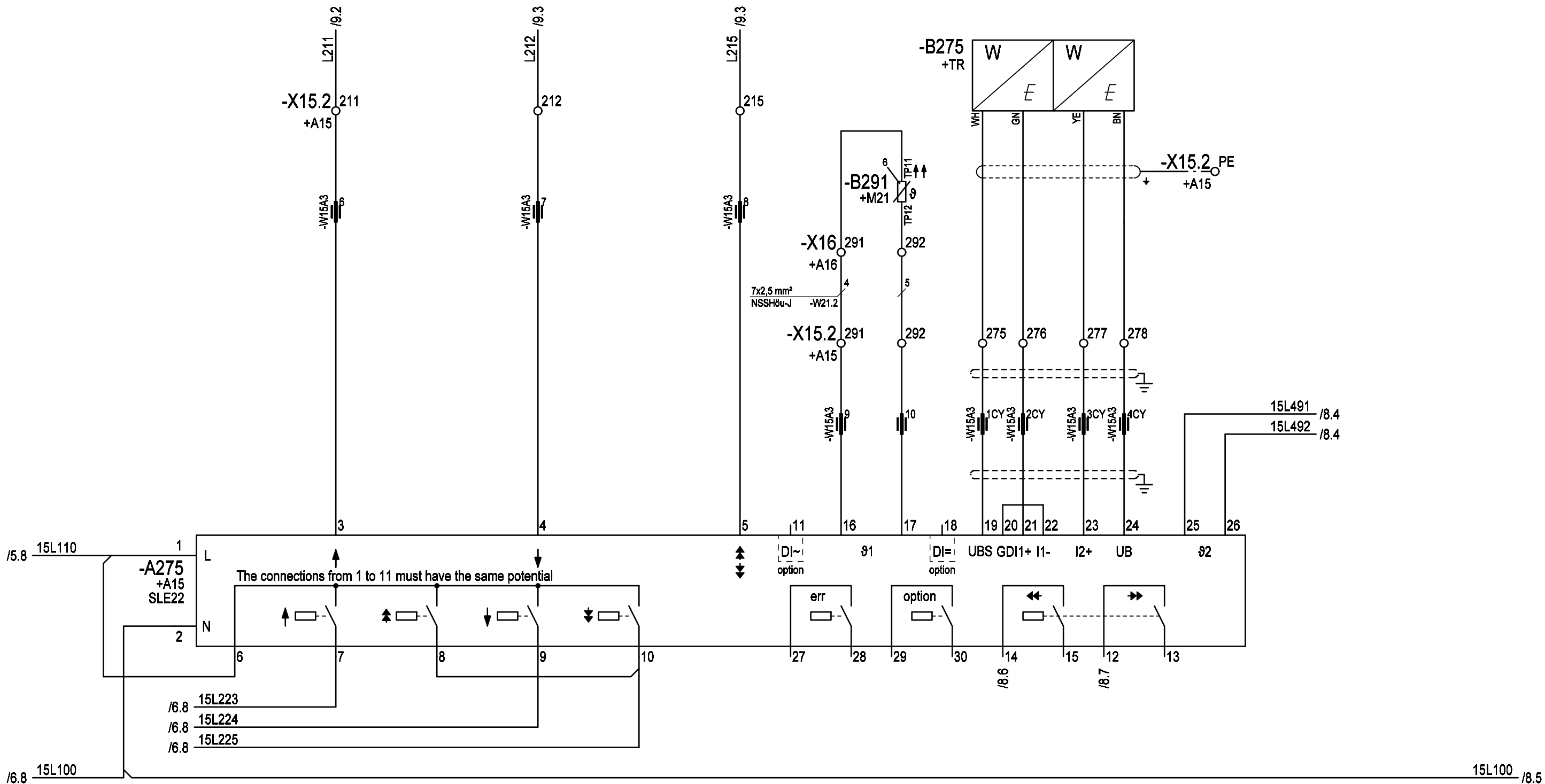
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heben
hoisting

senken
lowering

schnell
fast

Temperatur- / Lastüberwachung
temperature / load monitoring



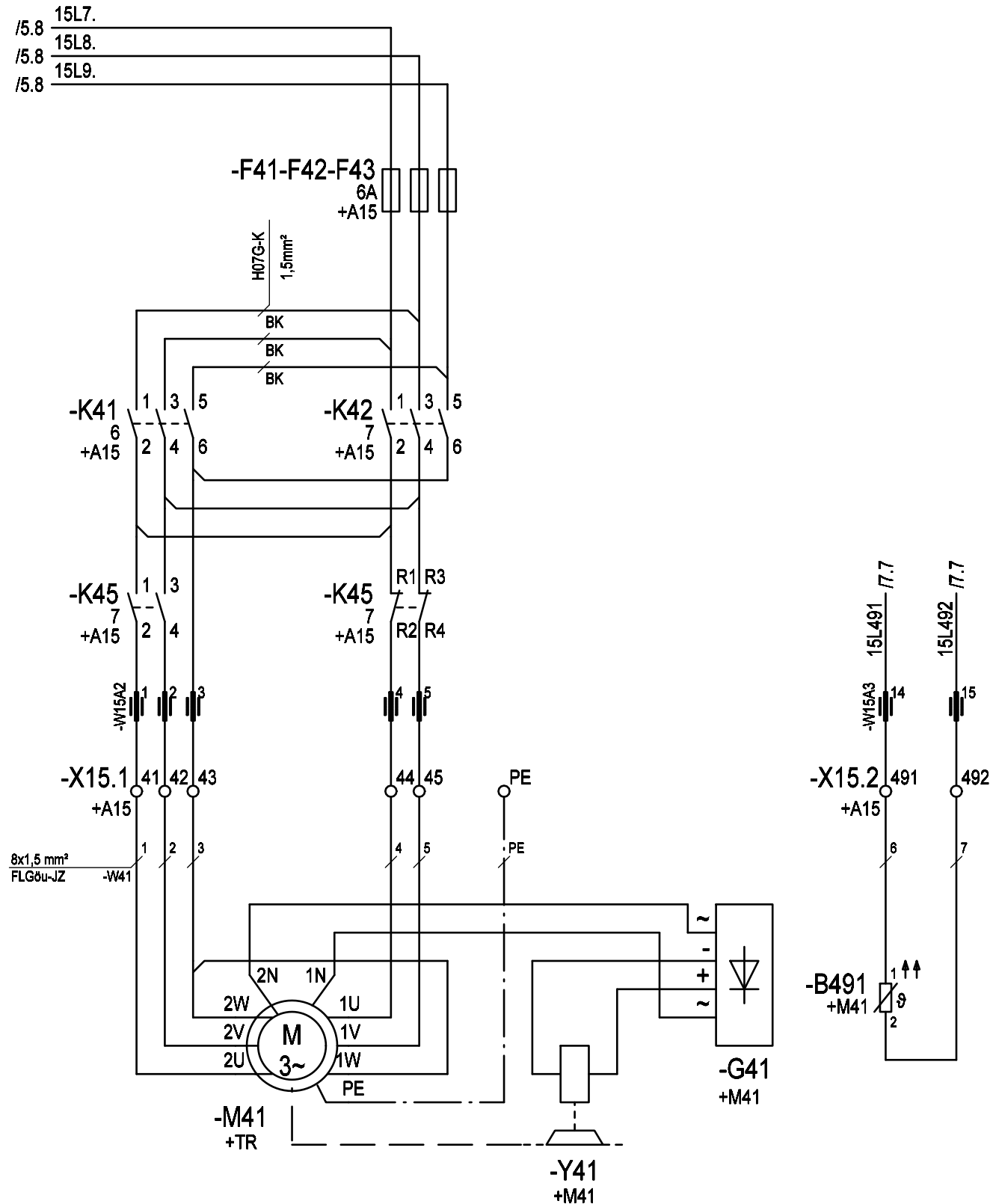
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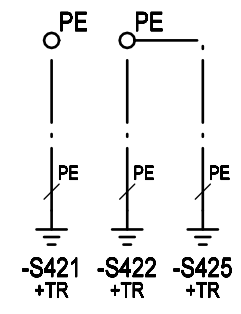
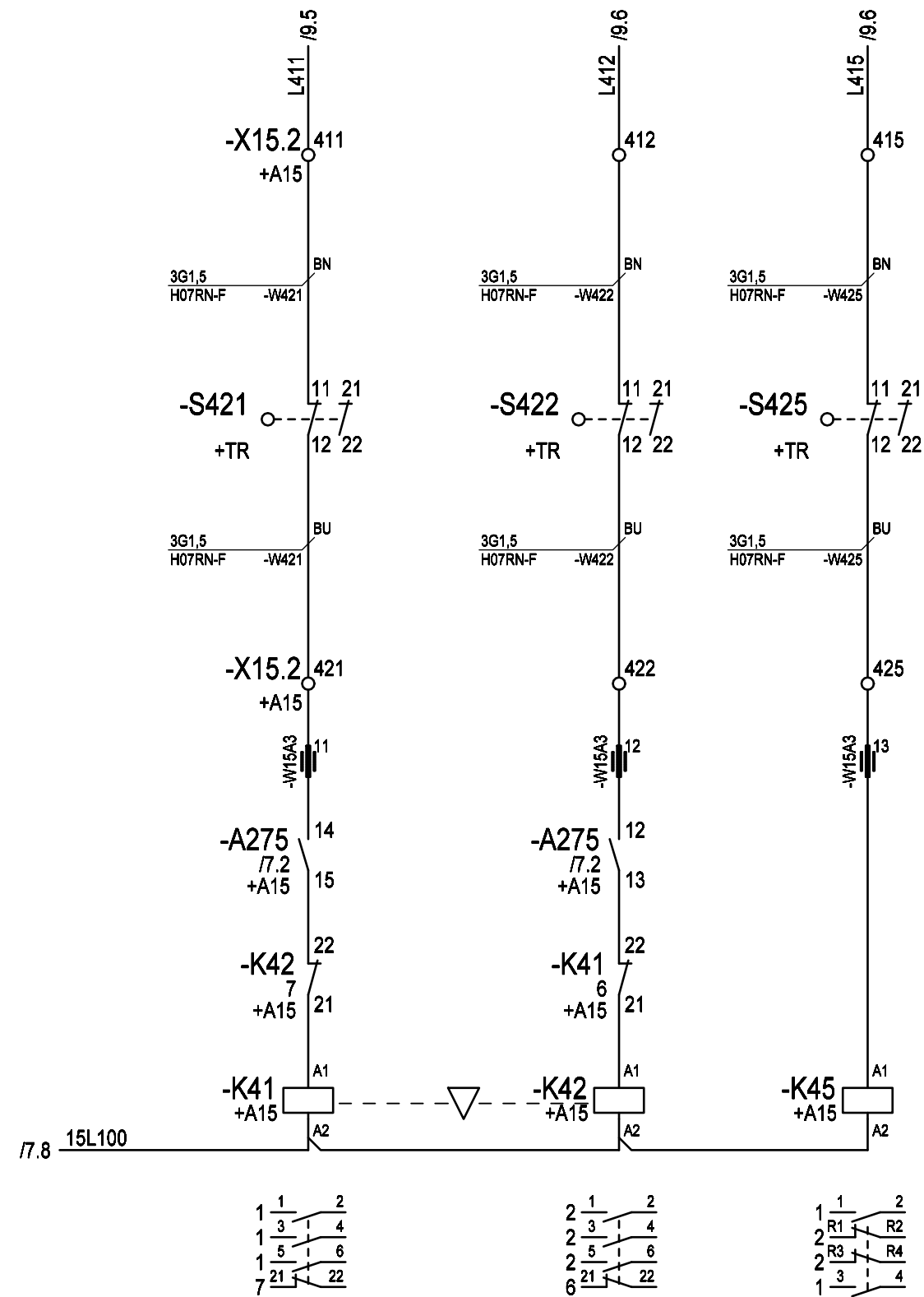
Katzfahrmotor
cross travel motor



links
left

rechts
right

schnell
fast



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Stromlaufplan / Circuit diagram

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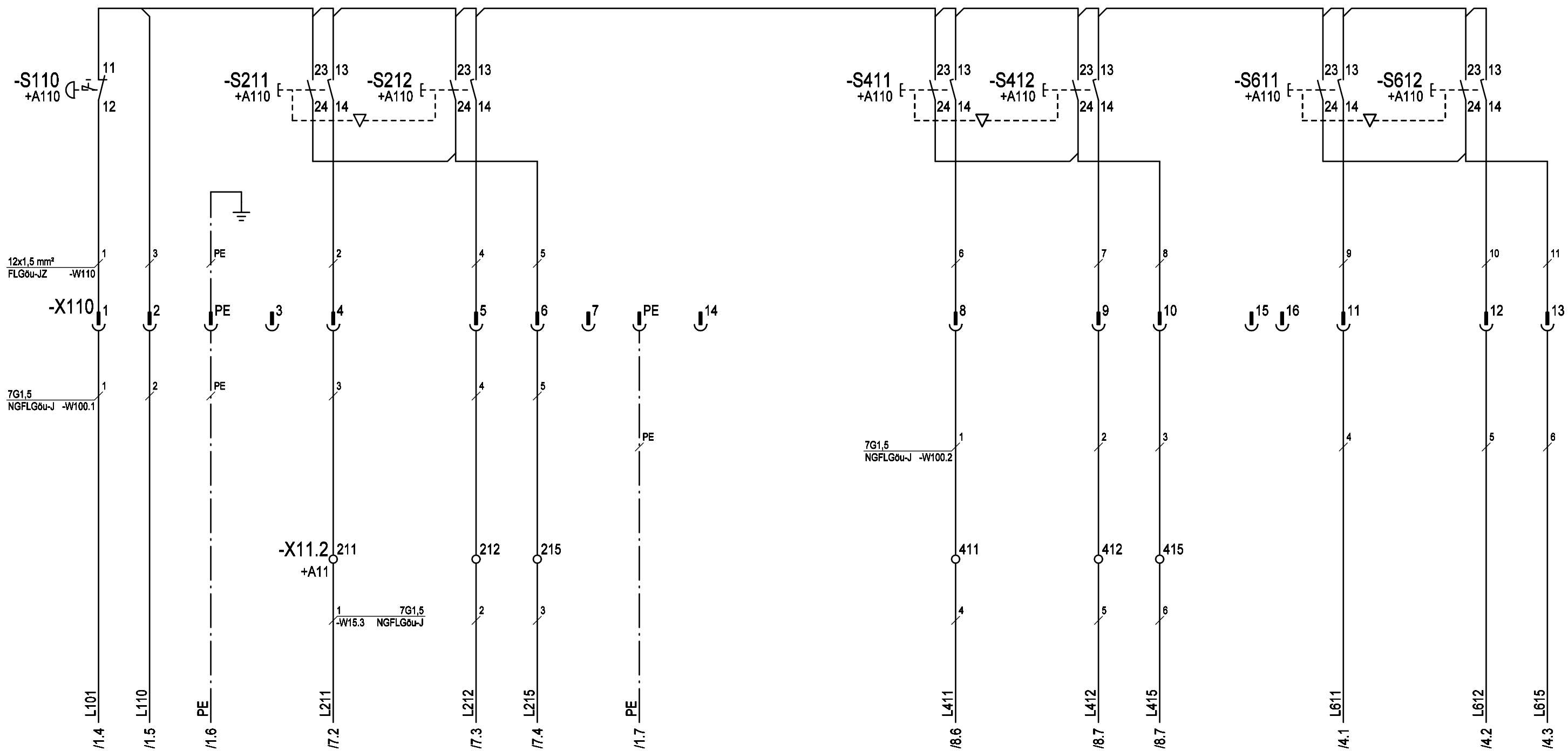
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Hubwerk
hoisting gear

Katzfahrwerk
trolley traveling gear

Kranfahrwerk
crane traveling gear

Not-Halt emergency stop heben hoisting senken lowering schnell fast links left rechts right schnell fast vorwärts forward rückwärts backward schnell fast



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1		2		3		4		5		6		7		8	
-W11	NGFLGöu-J	4G6	BN	BK	GY	PE									
Kabelbezeichnung cable designation	Kabel-Typ cable type		1	2	3	PE									
Zielzeichen target symbol	Anschlussbezeichnung designation of connection		+A11-X11.1	+A11-X11.1	+A11-X11.1	+A11-X11.1									
	Kennzeichen sign														
-X2	Darstellungsort place discription	/1.2	/1.2	/1.2	/1.2	/1.2									
	Klemmentyp typ	UT10-PE	UT6	UT6	UT6	UT10-PE									
	Klemmen-Nr. terminal number	PE	1	2	3	PE									
	Laschenverbindung link	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Anschluss-Leiste terminal connector strip	Zielzeichen target symbol	Anschlussbezeichnung designation of connection	L1	L2	L3	PE									
		Kennzeichen sign													
Kabelbezeichnung cable designation	Kabel-Typ cable type		+Q1	+Q1	+Q1	+Q1									
-W2	NYJ-J	4x6 mm ² RE	BN	BK	GY	PE									

from other sheets
 total 5
 connection see page

1		2		3		4		5		6		7		8																	
-W160	H05RN-F	3G1																													
-W100.2	NGFLGöu-J	7G1,5																													
-W100.1	NGFLGöu-J	7G1,5						1	2	3	4	5	6																		
-W11A3	H07G-K	12x1,5 mm²																													
Kabelbezeichnung cable designation	Kabel-Typ cable type																														
Zielzeichen target symbol	Anschlussbezeichnung designation of connection																														
	Kennzeichen sign																														
-X11.2	Darstellungsort place discription	/1.3	/1.3	/1.7	/4.7	/1.4	/1.4	/1.5	/1.5	/1.8	/4.7	/4.8	/9.2	/9.3	/9.3	/9.5	/9.6	/9.6	/4.1	/4.2	/4.3	/4.1	/4.2	/4.3	/3.2	/3.3	/3.4	/3.4	/4.4	/4.4	/4.4
	Klemmentyp typ	UT4-PE	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4-PE	UT4-PE	UT4-PE
	Klemmen-Nr. terminal number	PE	100	100	100	101	101	110	110	110	150	150	211	212	215	411	412	415	611	612	615	621	622	625	691	692	693	694	PE	PE	PE
	Laschenverbindung link	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Anschluss-Leiste terminal connector strip	Zielzeichen target symbol			100		1	2			110			211	212	215	411	412	415	11	11	11	12	12	12	9□	9□	9□	9□	PE	PE	PE
	Anschlussbezeichnung designation of connection																														
	Kennzeichen sign																														
Kabelbezeichnung cable designation	Kabel-Typ cable type																														
-W15.2	NGFLGöu-J	4G1,5																													
-W15.3	NGFLGöu-J	7G1,5																													
-W61	FLGöu-JZ	8x1,5 mm²																													
-W62	FLGöu-JZ	8x1,5 mm²																													
-W100.1	NGFLGöu-J	7G1,5																													
-W150	H05RN-F	3G1																													
-W160	H05RN-F	3G1																													
-W621	H07RN-F	3G1,5																													
-W622	H07RN-F	3G1,5																													
-W625	H07RN-F	3G1,5																													

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connection see page

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Klemmenplan / terminal diagram

=
+A11
=+A11-X11.2

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1			2				3				4				5				6				7				8															
-W21.2	NSSHöu-J	7x2,5 mm²					PE																																			
-W15A2	H07G-K	6x1,5 mm²															1	2	3	4	5																					
-W15A1	H07G-K	12x2,5 mm²	1	2	3			4	5	6	7	8	9	10	11	12																										
Kabelbezeichnung cable designation	Kabel-Typ cable type	PE	2	4	6		PE	2	4	6	2	R2	R4	1	5	6																										
Zielzeichen target symbol	Anschlussbezeichnung designation of connection	+A15-PE	-K20	-K20	-K20		+A16-X16	-K25	-K25	-K23	-G21	-K25	-K25	-G21	-G21	-G21		-K45	-K45	-K41	-K45	-K45																				
Zielzeichen target symbol	Kennzeichen sign	+A15-PE	-K20	-K20	-K20		+A16-X16	-K25	-K25	-K23	-G21	-K25	-K25	-G21	-G21	-G21		-K45	-K45	-K41	-K45	-K45																				
-X15.1	Darstellungsort place discription	/5.2	/5.2	/5.2	/5.2	/6.3	/6.1	/6.2	/6.2	/6.3	/6.2	/6.2	/6.3	/6.4	/6.4	/6.2		/8.1	/8.1	/8.1	/8.2	/8.2																				
	Klemmentyp typ	UT10-PE	UT10	UT10	UT10	UT10-PE	UT10	UT10	UT10	UT10	UT10	UT10	UT10	UT4	UT4	UT4-PE		UT4	UT4	UT4	UT4	UT4																				
	Klemmen-Nr. terminal number	PE	7	8	9	PE	21	22	23	2N	24	25	1N	27	28	PE		41	42	43	44	45																				
	Laschenverbindung link	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
	Zielzeichen target symbol	Anschlussbezeichnung designation of connection	PE	7	8	9	PE	21	22	23	24	25	26	27	29	30	PE		2U	2V	2W	1U	1V																			
Zielzeichen target symbol	Kennzeichen sign	+A11-X11.1	-X11.1	-X11.1	-X11.1	PE	A16-X16	A16-X16	A16-X16	A16-X16	A16-X16	A16-X16	A16-X16	A16-X16	A16-X16	PE		M41	M41	M41	M41	M41																				
Kabelbezeichnung cable designation	Kabel-Typ cable type	+A11-X11.1	+A11-X11.1	+A11-X11.1	+A11-X11.1	+A16-X16	+A16-X16	+A16-X16	+A16-X16	+A16-X16	+A16-X16	+A16-X16	+A16-X16	+A16-X16	+A16-X16	+TR-M41		+TR-M41	+TR-M41	+TR-M41	+TR-M41	+TR-M41																				
-W15.1	NGFLGöu-J	4G6	PE	BN	BK	GY																																				
-W21.1	NSSHöu-J	7x2,5 mm²					PE	1	2	3	4																															
-W21.2	NSSHöu-J	7x2,5 mm²												1	2	3																										
-W41	FLGöu-JZ	8x1,5 mm²															PE	1	2	3	4	5																				

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Klemmenplan / terminal diagram

= +A15-X15.1

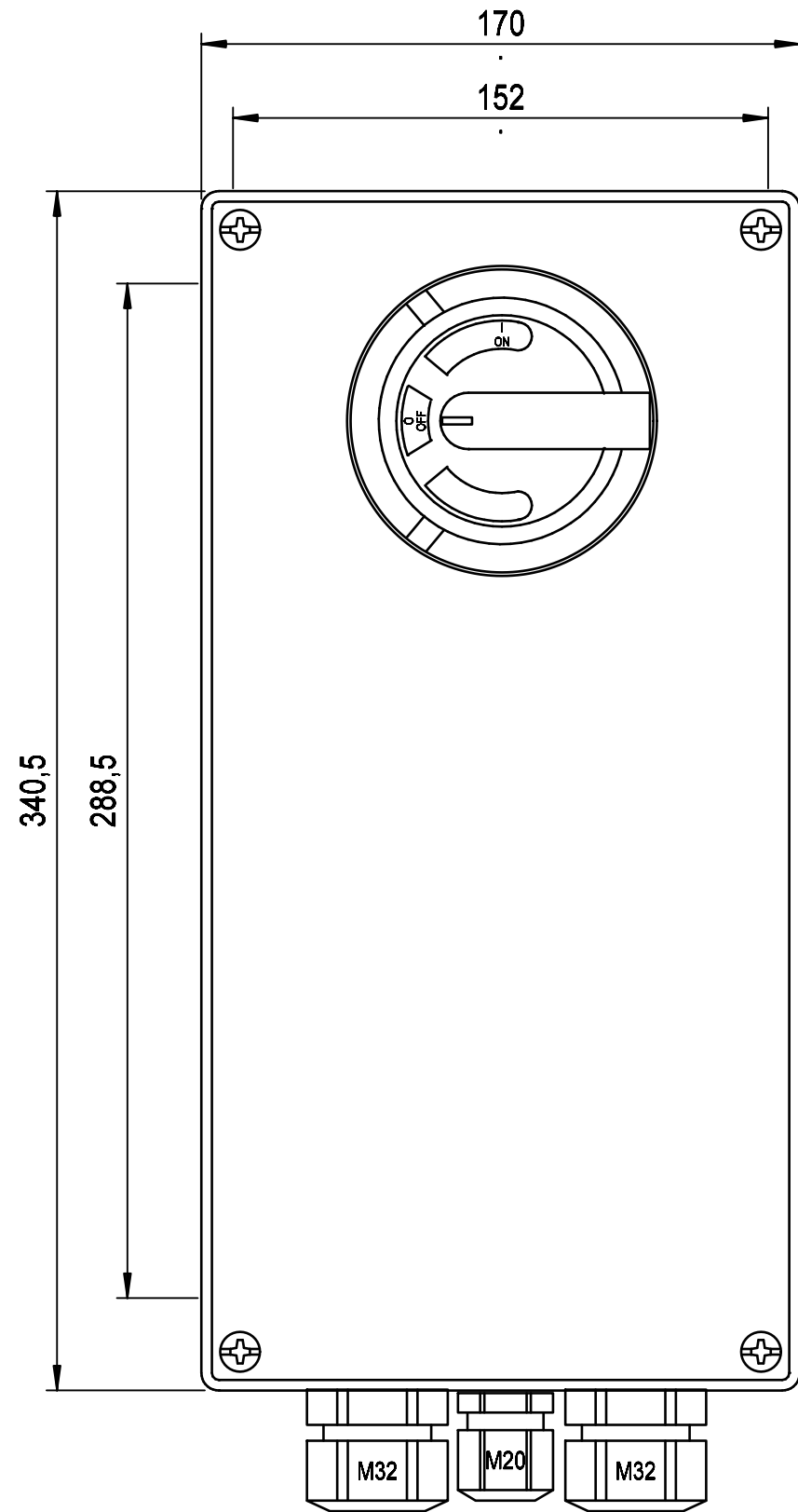
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22785123-E

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1		2				3				4				5				6				7				8															
-W425	H07RN-F	3G1,5																																							
-W220	H07RN-F	4G1,5		PE																																					
-W15A3	H07G-K	20x1,5+4x0,75		1		3	4	5	6	7	8	1CY	2CY	3CY	4CY	9	10			11	12	13	14	15																	
-W15.3	NGFLGöu-J	7G1,5																																							
Kabelbezeichnung cable designation		Kabel-Typ cable type		PE	A2		13	14	A1	3	4	5		19	21	23	24		16	17	411	412	412	14	12	A1	25	26			PE										
Zielzeichen target symbol		Anschlussbezeichnung designation of connection		+A16-X16		-K20	-K24	-K23	-K20	-A275	-A275	-A275		-A275	-A275	-A275	-A275		-A275	-A275	+A11-X11.2	+A11-X11.2	+A11-X11.2	-A275	-A275	-K45	-A275	-A275			+TR-S425										
Zielzeichen target symbol		Kennzeichen sign		+A16-X16		-K20	-K24	-K23	-K20	-A275	-A275	-A275		-A275	-A275	-A275	-A275		-A275	-A275	+A11-X11.2	+A11-X11.2	+A11-X11.2	-A275	-A275	-K45	-A275	-A275			+TR-S425										
-X15.2	Darstellungsort place description			/5.2	/5.2	/5.2	/5.5	/5.5	/5.5	/7.2	/7.3	/7.4	/5.2	/7.6	/7.6	/7.6	/7.6	/7.7	/7.5	/7.5	/8.6	/8.7	/8.7	/8.6	/8.7	/8.7	/8.4	/8.4	/8.8	/8.8											
	Klemmentyp typ			UT4-PE	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4-PE	UT4	UT4	UT4	UT4	UT4	UT4-PE	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4	UT4-PE	UT4-PE										
Klemmen-Nr. terminal number			PE	100	110	110	116	117	211	212	215	PE	275	276	277	278	PE	291	292	411	412	415	421	422	425	491	492	PE	PE												
Laschenverbindung link			<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
Anschluss-Leiste terminal connector strip		Zielzeichen target symbol		+A11-X11.1		+A11-X11.2	+A11-X11.2	+A16-X16	+A16-X16	+A11-X11.2	+A11-X11.2	+A11-X11.2	PE	+TR-B275	+TR-B275	+TR-B275	+TR-B275	+TR-B275	+A16-X16	+A16-X16	+TR-S421	+TR-S422	+TR-S425	+TR-S421	+TR-S422	+TR-S425	+M41-B491	+M41-B491	+TR-S421	+TR-S422											
Anschluss-Leiste terminal connector strip		Anschlussbezeichnung designation of connection		PE	100	110	110	116	117	211	212	215	PE						291	292	11	11	11	12	12	12	1	2	PE	PE											
Anschluss-Leiste terminal connector strip		Kennzeichen sign		+A11-X11.1	+A11-X11.2	+A11-X11.2	+A16-X16	+A16-X16	+A11-X11.2	+A11-X11.2	+A11-X11.2	PE	+TR-B275	+TR-B275	+TR-B275	+TR-B275	+TR-B275	+TR-B275	+A16-X16	+A16-X16	+TR-S421	+TR-S422	+TR-S425	+TR-S421	+TR-S422	+TR-S425	+M41-B491	+M41-B491	+TR-S421	+TR-S422											
Kabelbezeichnung cable designation		Kabel-Typ cable type		+A11-X11.1	+A11-X11.2	+A11-X11.2	+A16-X16	+A16-X16	+A11-X11.2	+A11-X11.2	+A11-X11.2	PE	+TR-B275	+TR-B275	+TR-B275	+TR-B275	+TR-B275	+TR-B275	+A16-X16	+A16-X16	+TR-S421	+TR-S422	+TR-S425	+TR-S421	+TR-S422	+TR-S425	+M41-B491	+M41-B491	+TR-S421	+TR-S422											
-W15.2	NGFLGöu-J	4G1,5		BN	BK							PE																													
-W15.3	NGFLGöu-J	7G1,5		PE					1	2	3																														
-W21.2	NSSHöu-J	7x2,5 mm²																		4	5																				
-W41	FLGöu-JZ	8x1,5 mm²																																							
-W220	H07RN-F	4G1,5			BN	BK	GY																																		
-W421	H07RN-F	3G1,5																			BN		BU						PE												
-W422	H07RN-F	3G1,5																												PE											
-W425	H07RN-F	3G1,5																																							
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Q1

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578 563 0

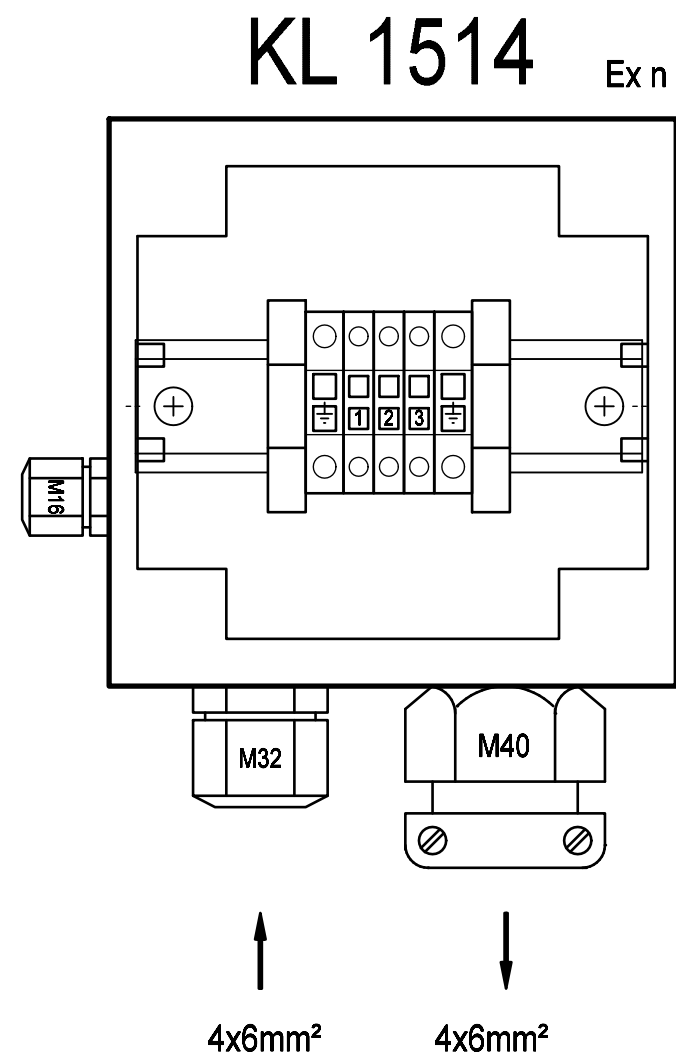
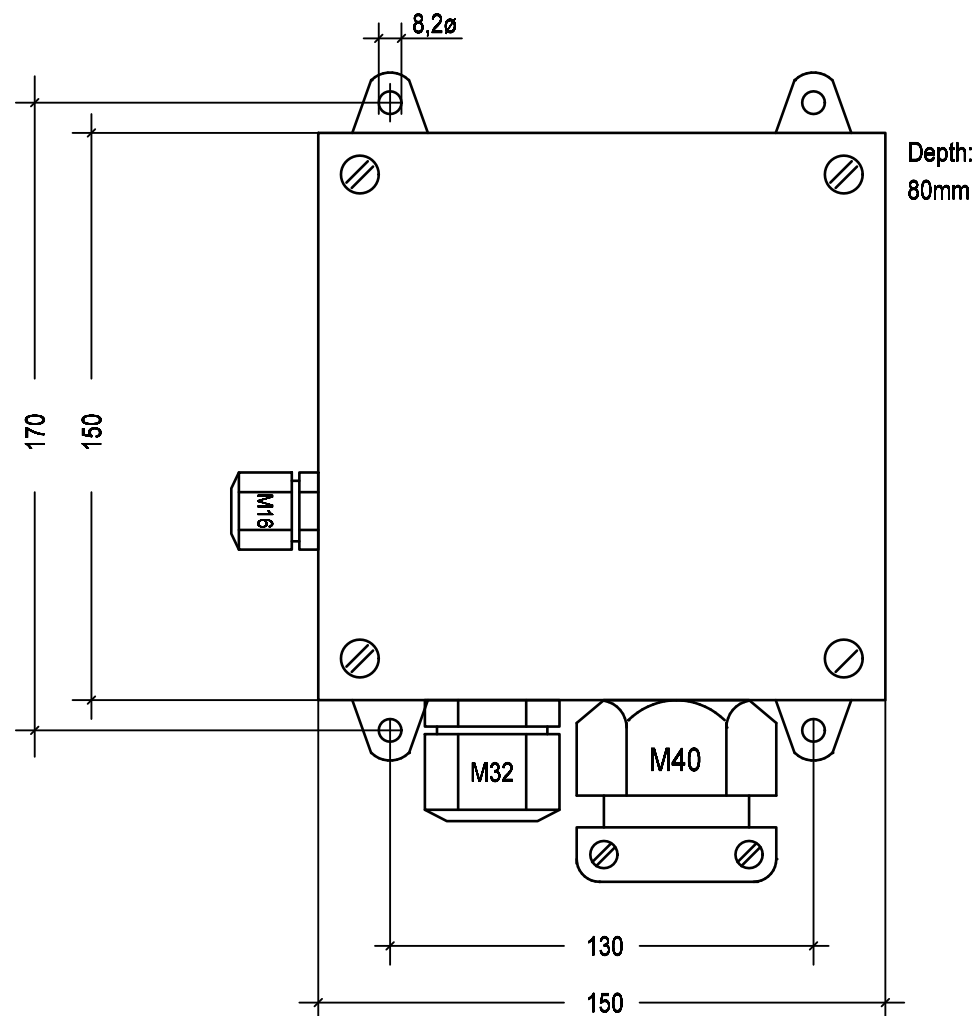
Changes	Date	Name	Date	Name
			08.06.15	Kehl
Rev.			10.06.2015	

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	+Q1	
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A2



Ex-Schutz

Zone2

⊗ II 3G Ex nA II T6

05 220 90 03 0

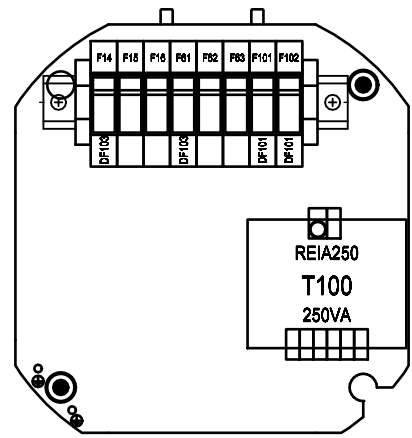
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Rev.			10.06.2015	

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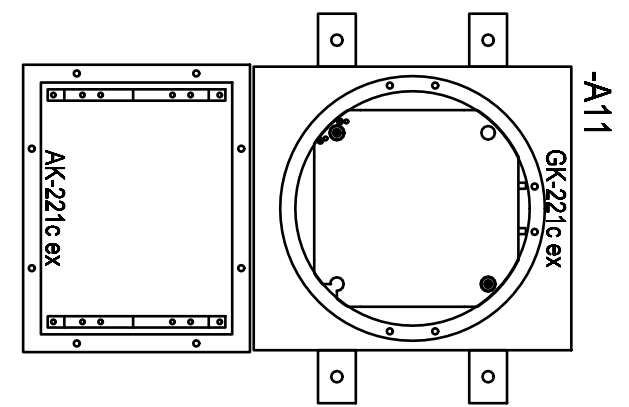
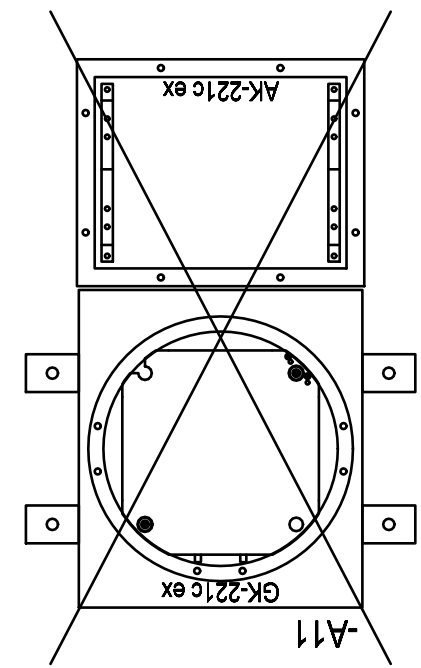
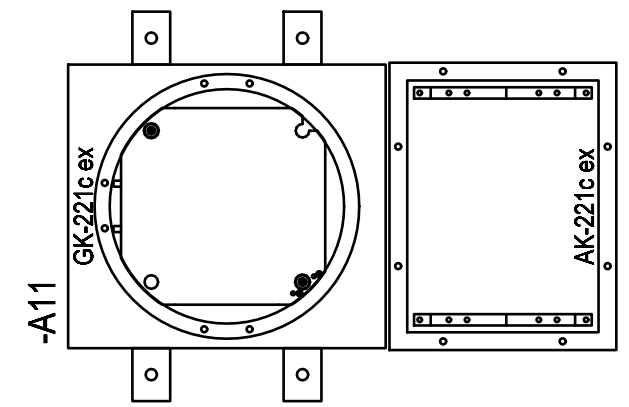
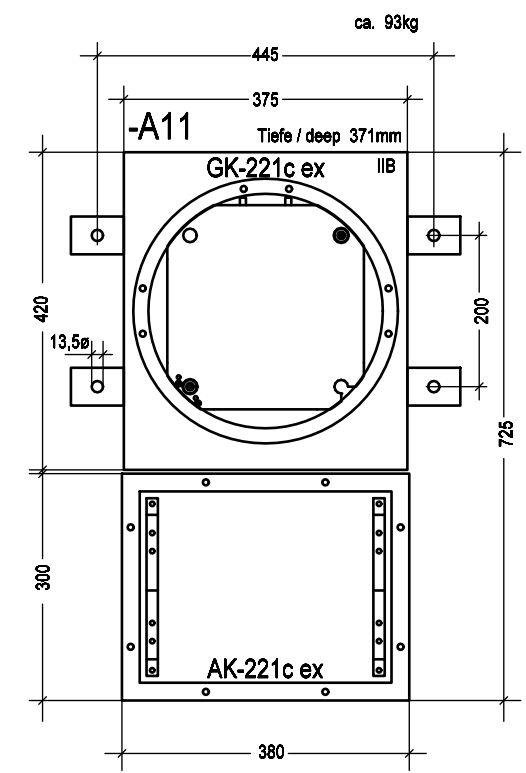
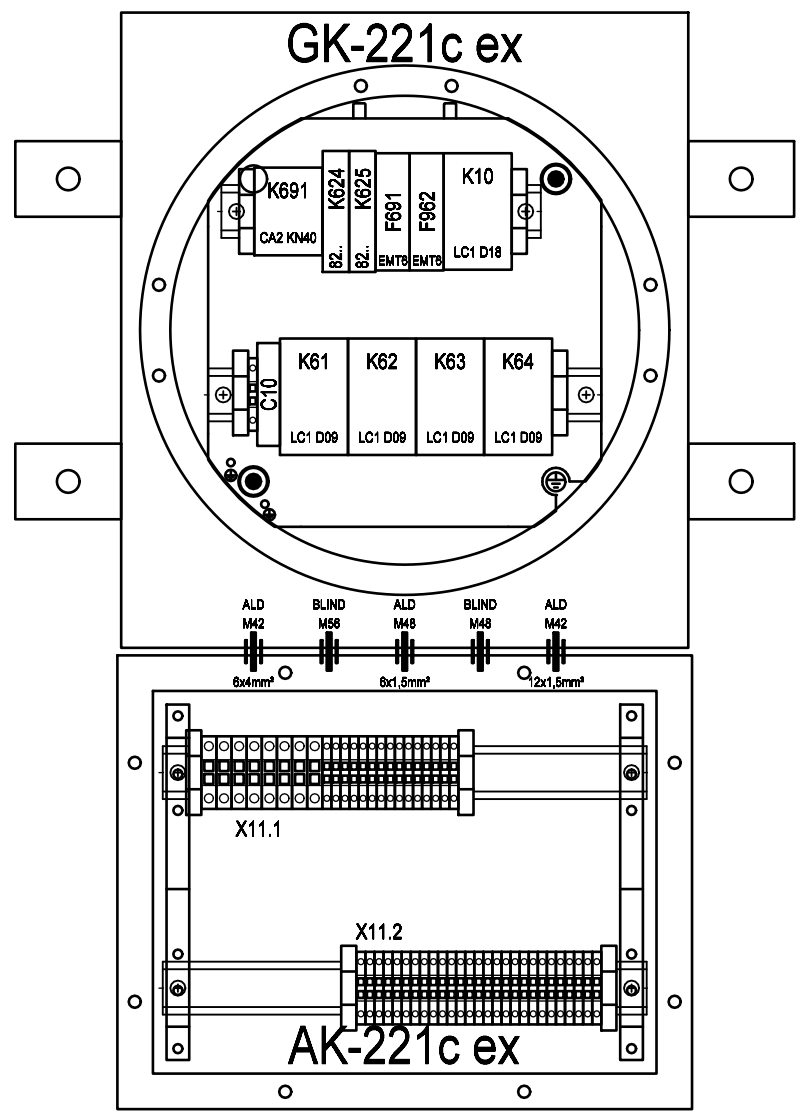
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-A11



Verlustleistung
power loss 79,7 W

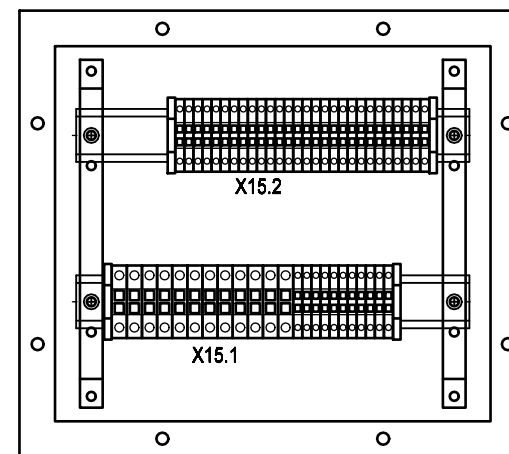
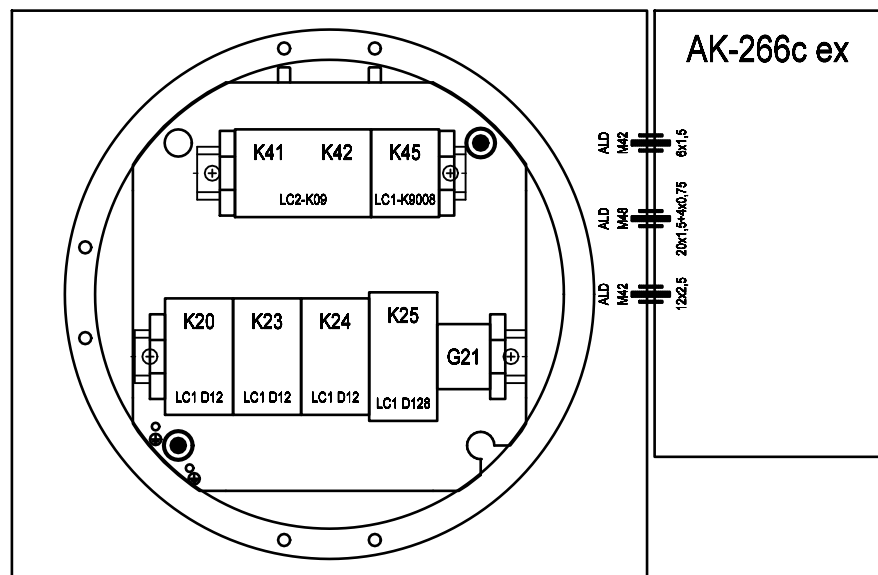
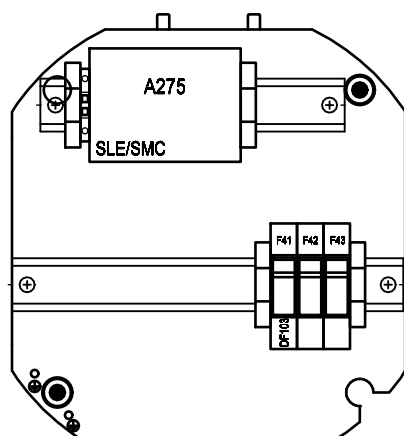
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-A15 GK-226c exIIC



Verlustleistung
power loss 50,0 W

Changes	Date	Name	Date	Name
			08.06.15	Kehl

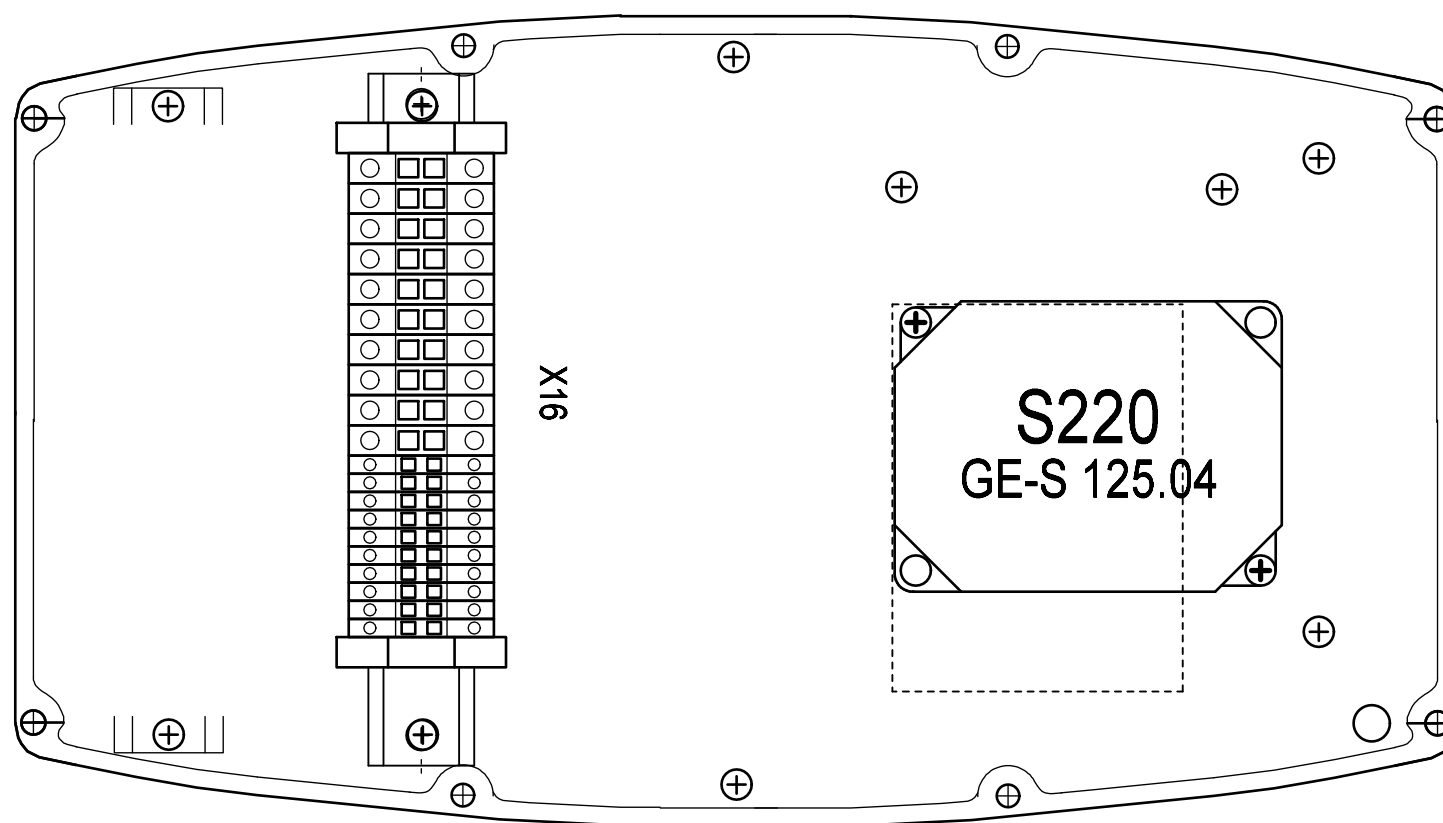
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-A16

GK SH4



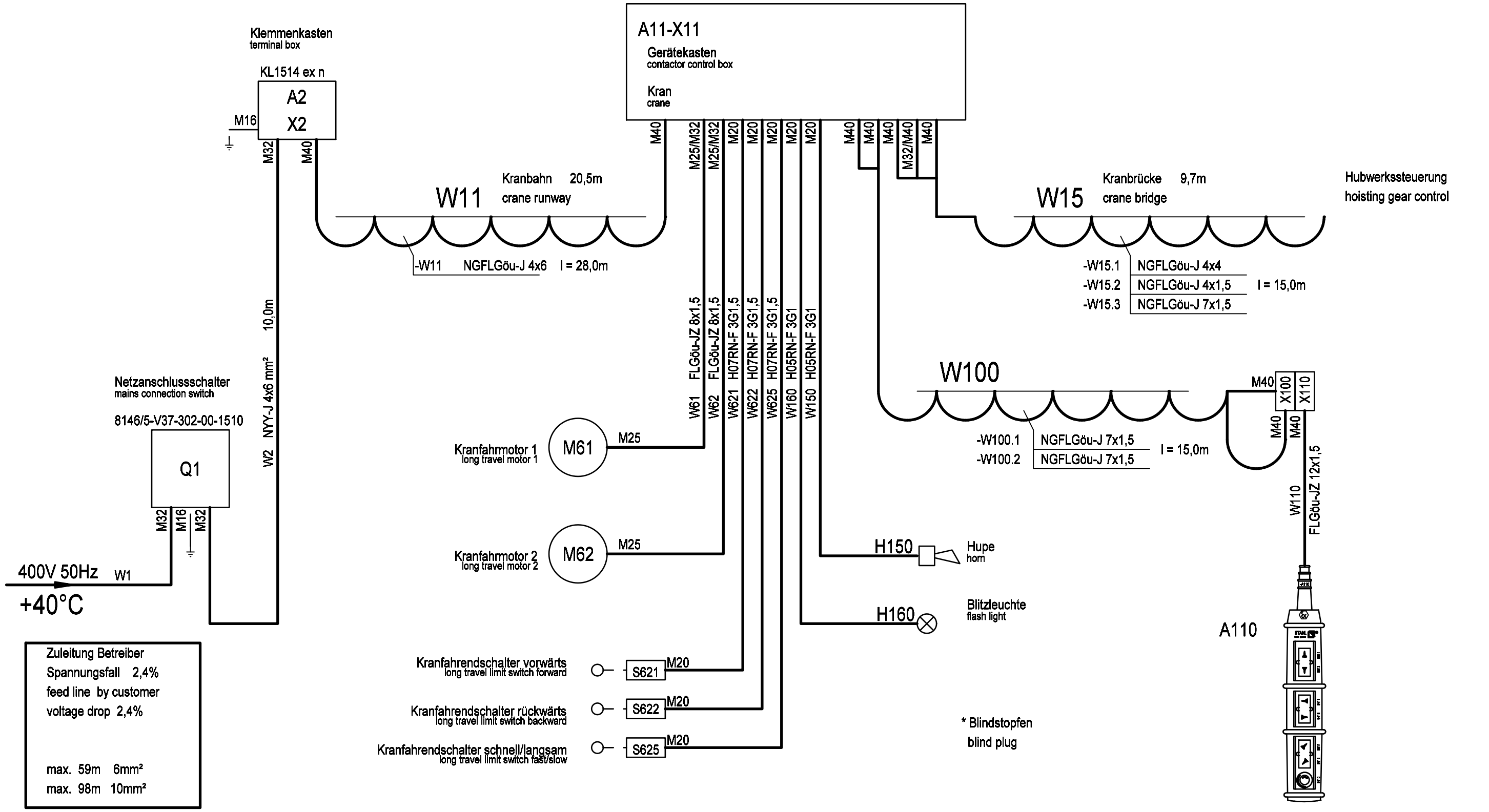
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Crane Systems

Verbindungsplan /
interconnection diagram

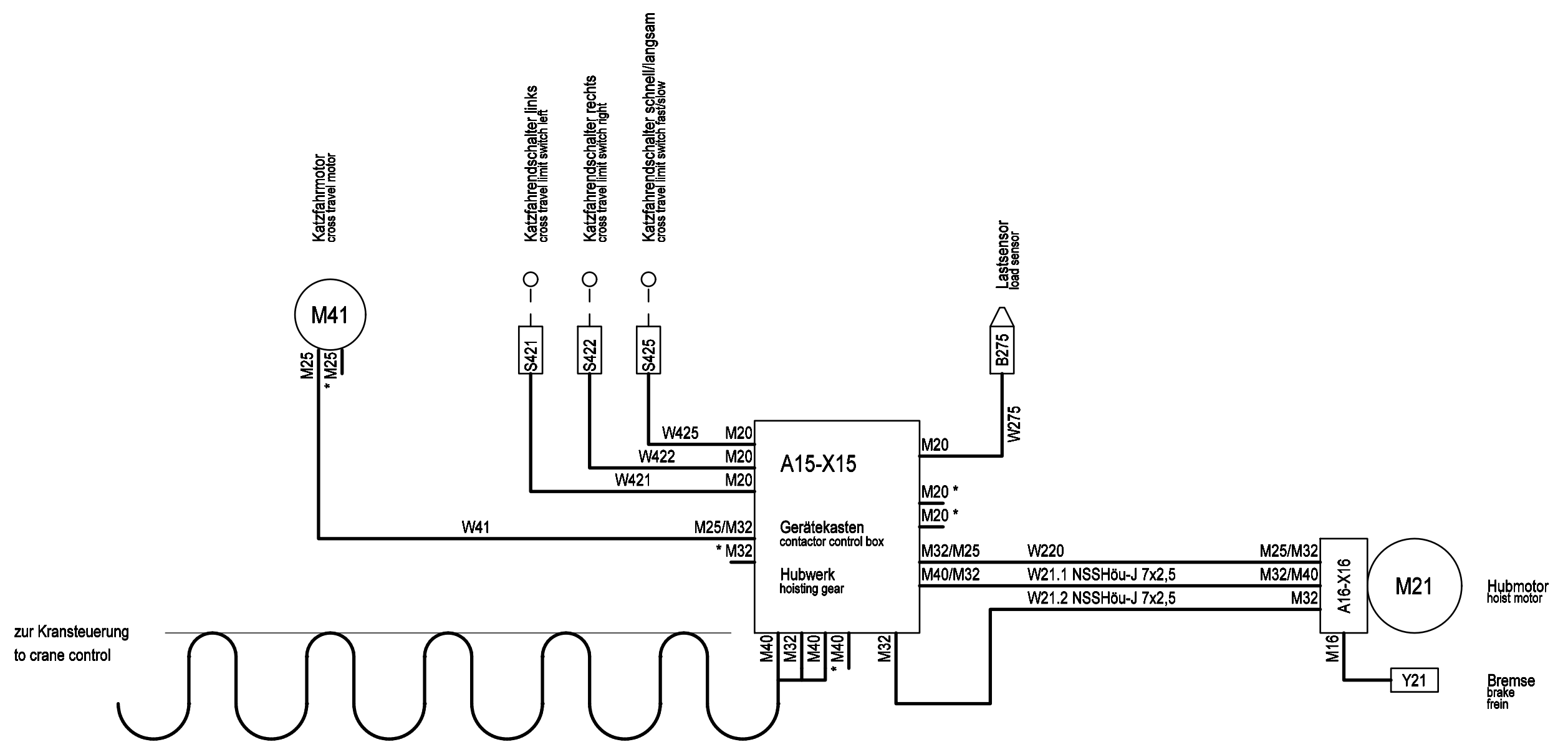
Order No. 273-10-099553 Serial No. 59 00 940-43

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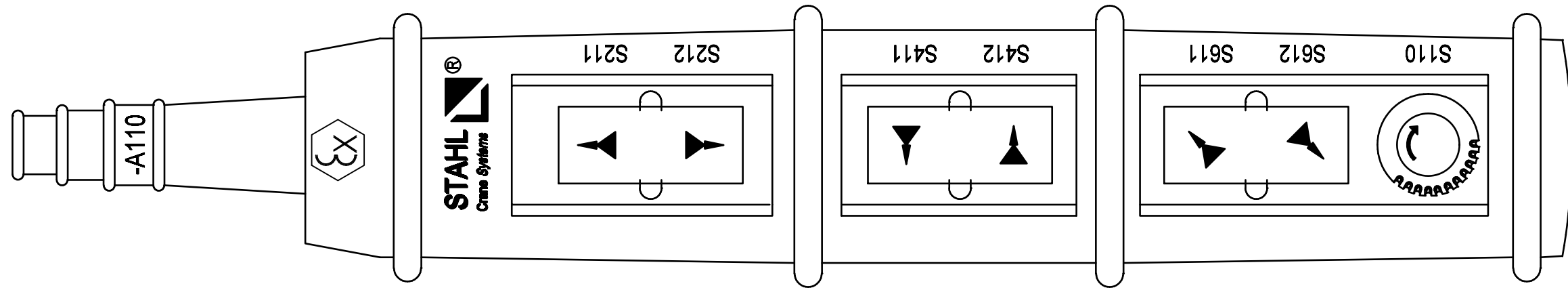
* Blindstopfen
blind plug

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