sheet no. of project	document character	sheet no. of document character	total sheet of document character	description
1		1	6	table of contents
2		2	6	table of contents
3		3	6	table of contents
4		4	6	table of contents
5		5	6	table of contents
6		6	6	table of contents
7	PBÜSP	1	13	cover sheet
8	PBÜSP	2	13	Cover sheet of project
9	PBÜSP	3	13	Marking of equipment acc. to DIN
10	PBÜSP	4	13	Marking of equipment acc. to DIN
11	PBÜSP	5	13	earthing of plant
12	PBÜSP	6	13	equipment survey
13	PBÜSP	7	13	equipment survey
14	PBÜSP	8	13	equipment survey
15	PBÜSP	9	13	equipment survey
16	PBÜSP	10	13	survey diagram of emergency stop, security switches and main drive
17	PBÜSP	11	13	control of emergency stop and circuit switches
18	PBÜSP	12	13	control of emergency stop and circuit switches
19	PBÜSP	13	13	control of main drive/ready to start on/ off

KAMMANN
MASCHINENBAU GMBH
GERMANY

		Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
Datum	10.12.2010			
Bearb.	K.STUKE	230/400V	0	L1 0
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
CAD-Code	K09V-3	50Hz	0	L3 0

Benennung/Projekt
table of contents

Änderungsdatum:21.04.2011 16:43:59

CAD | Maschinen Typ 4.09.22 | =A +S1

Schaltplan Nr./Drawing No.
03.208-09.22/210053.0

Bl./Sh. 1
6 Bl.

sheet no. of project	document character	sheet no. of document character	total sheet of document character	description
20	PDSLP	1	73	earthing of plant
21	PDSLP	2	73	earthing of plant
22	PDSLP	3	73	main unit of 24V d.c. voltage supply
23	PDSLP	4	73	fuses of 24V d.c. voltage supply
24	PDSLP	5	73	230V a.c. voltage supply
25	PDSLP	6	73	ready to start control
26	PDSLP	7	73	emergency stop protection moduls of security switches
27	PDSLP	8	73	ventilator of electric cabinet S1
28	PDSLP	9	73	control and power of main drive with frequency inverter
29	PDSLP	10	73	control and power of main drive with frequency inverter
30	PDSLP	11	73	control and power of main drive with frequency inverter
31	PDSLP	12	73	control and power of main drive with frequency inverter
32	PDSLP	13	73	squeegee/air inflation at 1st screen station
33	PDSLP	14	73	Illumination within machine
34	PDSLP	15	73	actors and sensors of prismatic appliance
35	PDSLP	16	73	trouble messages by motor circuit breaker and power relays
36	PDSLP	17	73	control of uv blower, vacuum station and destatisizing
37	PDSLP	18	73	control of uv blower, vacuum station and destatisizing
38	PDSLP	19	73	motor circuit breaker of and 230 V a.c. voltage supply

KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
Bearb.	K.STUKE	230/400V	0	L1 0
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
CAD-Code	K09V-3	50Hz	0	L3 0

Benennung/Projekt
table of contents

Änderungsdatum:21.04.2011 16:43:59

CAD | Maschinen Typ 4.09.22 | =A +S1

Schaltplan Nr./Drawing No.
03.208-09.22/210053.0

Bl./Sh. 2
6 Bl.

sheet no. of project	document character	sheet no. of document character	total sheet of document character	description
39	PDSLP	20	73	destatisizing
40	PDSLP	21	73	output control of 1st ingition
41	PDSLP	22	73	control of 1st ignition
42	PDSLP	23	73	output control of 1st ingition
43	PDSLP	24	73	display to operate machine
44	PDSLP	25	73	security switch at infeed and transfer unit
45	PDSLP	26	73	construction of operator control panel at infeed
46	PDSLP	27	73	operator control panel at infeed
47	PDSLP	28	73	construction of operator control panels at screen stations
48	PDSLP	29	73	operator control panel at 1st screen station
49	PDSLP	30	73	operator control panel of ink refill at 1st screen stat.
50	PDSLP	31	73	security switch at 1st screen station
51	PDSLP	32	73	security switch at print detection
52	PDSLP	33	73	security switch at raising station
53	PDSLP	34	73	control of drive at article rotation of pre-treatment
54	PDSLP	35	73	stepper motor article rotation below 1st uv- drying
55	PDSLP	36	73	actors and sensors at transfer unit
56	PDSLP	37	73	actors and sensors at infeed conveyor belt and infeed
57	PDSLP	38	73	actors and sensors at outfeed/set up station

KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
Bearb.	K.STUKE	230/400V	0	L1 0
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
CAD-Code	K09V-3	50Hz	0	L3 0

Benennung/Projekt
table of contents

Änderungsdatum:21.04.2011 16:43:59

CAD | Maschinen Typ 4.09.22 | =A +S1

Schaltplan Nr./Drawing No.
03.208-09.22/210053.0

Bl./Sh. 3
6 Bl.

sheet no. of project	document character	sheet no. of document character	total sheet of document character	description
58	PDSLP	39	73	actors and sensors at outfeed/set up station
59	PDSLP	40	73	control of opto coupler at tilt over/ set up station
60	PDSLP	41	73	control of opto coupler at tilt over/ set up station
61	PDSLP	42	73	power and control at discharge conveyor belt
62	PDSLP	43	73	power and control at discharge
63	PDSLP	44	73	Actors and sensors of machine and at outfeed
64	PDSLP	45	73	emergency stop at discharge/ set up station
65	PDSLP	46	73	power supply with supply disconnection
66	PDSLP	47	73	fuses of machine
67	PDSLP	48	73	fuses of machine
68	PDSLP	49	73	connecting of unscrambler
69	PDSLP	50	73	basic wiring of S7-300 within electric cabinet S1
70	PDSLP	51	73	basic wiring of S7-300 within electric cabinet S1
71	PDSLP	52	73	basic wiring of S7-ET200 within electric cabinet S2
72	PDSLP	53	73	basic wiring of S7-300 within electric cabinet S1
73	PDSLP	54	73	PLC S7-300: Assignment of Inputs and Outputs
74	PDSLP	55	73	PLC S7-300: Assignment of Inputs and Outputs
75	PDSLP	56	73	PLC S7-300: Assignment of Inputs and Outputs
76	PDSLP	57	73	PLC S7-300: Assignment of Inputs and Outputs

KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
Bearb.	K.STUKE	230/400V	0	L1 0
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
CAD-Code	K09V-3	50Hz	0	L3 0

Benennung/Projekt
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Änderungsdatum:21.04.2011 16:43:59

CAD | Maschinen Typ 4.09.22 | =A +S1

Schaltplan Nr./Drawing No.
03.208-09.22/210053.0

Bl./Sh. 4
6 Bl.

sheet no. of project	document character	sheet no. of document character	total sheet of document character	description
77	PDSLP	58	73	PLC S7-300: Assignment of Inputs and Outputs
78	PDSLP	59	73	shielded bars within electric cabinet S1
79	PDSLP	60	73	junction of rotary encoder on the cam gear controller
80	PDSLP	61	73	junction of rotary encoder at step motor of print detection
81	PDSLP	62	73	junction of rotary encoder at step motor of print detection
82	PDSLP	63	73	stepper motor article rotation below print detection
83	PDSLP	64	73	interface print image
84	PDSLP	65	73	occupation of cams
85	PDSLP	66	73	temperature monitoring in the fresh air supply duct
86	PDSLP	67	73	waste air control of uv - drying
87	PDSLP	68	73	power and control of uv - drying
88	PDSLP	69	73	power and control of uv - drying
89	PDSLP	70	73	power and control of uv - drying
90	PDSLP	71	73	power and control of 1st uv - drying
91	PDSLP	72	73	power and control of 1st uv - drying
92	PDSLP	73	73	proximity switch of position at 1st uv station
93	PEKLP	1	9	terminal layout
94	PEKLP	2	9	terminal layout
95	PEKLP	3	9	terminal layout

KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
Bearb.	K.STUKE	230/400V	0	L1 0
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
CAD-Code	K09V-3	50Hz	0	L3 0

Benennung/Projekt
table of contents

Änderungsdatum:21.04.2011 16:43:59

CAD | Maschinen Typ 4.09.22 | =A +S1

Schaltplan Nr./Drawing No.
03.208-09.22/210053.0

Bl./Sh. 5
6 Bl.

sheet no. of project	document character	sheet no. of document character	total sheet of document character	description
96	PEKLP	4	9	terminal layout
97	PEKLP	5	9	terminal layout
98	PEKLP	6	9	terminal layout
99	PEKLP	7	9	terminal layout
100	PEKLP	8	9	terminal layout
101	PEKLP	9	9	terminal layout

KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010
Bearb.	K.STUKE
Siline	ME210053L1
CAD-Code	K09V-3

Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
230/400V	0	L1 0
Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
50Hz	0	L3 0

Benennung/Projekt
table of contents

Änderungsdatum:21.04.2011 16:43:59

C A D | Maschinen Typ 4.09.22 | =A +S1

Schaltplan Nr./Drawing No.
03.208-09.22/210053.0

Bl./Sh. 6
6 Bl.

Maschinen Type machine type	4.09.22	Baujahr Year of manufacture	2011	Nennstrom L1 Rated current L1	32 A
Auftrag Nr. Order No.	ME210053	Nennspannung Rated voltage	230/400V 50 Hz	Nennstrom L2 Rated current L2	32 A
Maschinen Nr. Machine no.	11520	Anschlussleistung Connection capacity	17 KW	Nennstrom L3 Rated current L3	32 A
Kunde customer	Artenius, UK	Steuerspannung Control voltage	24V DC	Sicherung in der Zuleitung Main fuse in customers supply line	63 A

Ergänzungen der Maschine nach der Auslieferung
Complements after distribution

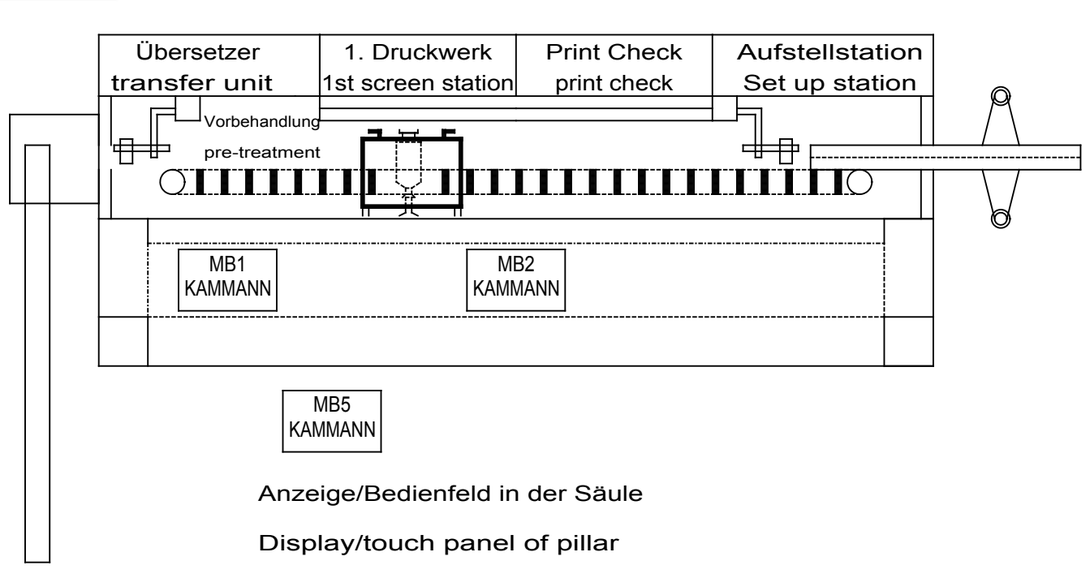
Auftragsnummer Order No.	Datum Date	Bearbeiter Revisor	Neue oder geänderte Blätter New or changed sheets
–	-	-	–

Attention: Control voltage incl. 4.23.14 #11519

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt cover sheet	Änderungsdatum:03.01.2011 13:36:26	C A D	Maschinen Typ 4.09.22	=A +S1
	Bearb.	K.STUKE	230/400V	0	L1 0					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 1 13 Bl.	
	CAD-Code	K09V-3	50Hz	0	L3 0					

Einspeisung / power supply

+S1



Anzeige/Bedienfeld in der Säule

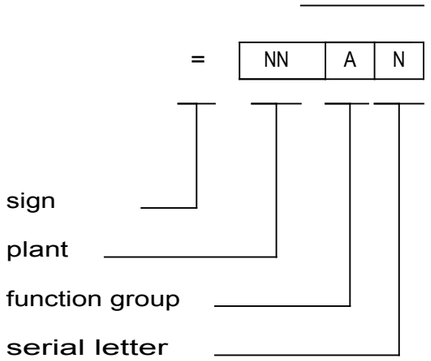
Display/touch panel of pillar

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW 0	Strom/Current A L1 0 L2 0 L3 0	Benennung/Projekt Cover sheet of project	Änderungsdatum:21.12.2010 16:15:56
	Bearb.	K.STUKE					
	Siline	ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V 24 DC		Cover sheet of project	
	CAD-Code	K09V-3					

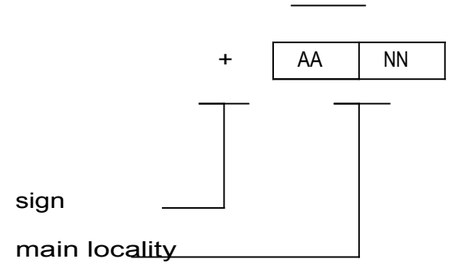
CAD	Maschinen Typ 4.14.21	=A	
		+M1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	2
			13 Bl.

Marking of equipment acc. to DIN

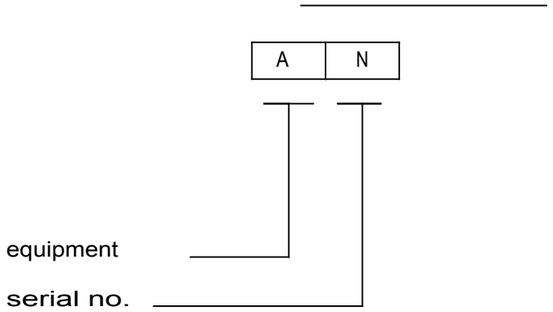
marking block: plant



marking block: locality



marking block: kind, serial no.



function group

- A voltage supply of 230V a.c. and 24V d.c..
- B control and power of main drive.
- C control of screen print stations.
- D motor circuit breaker 230V a.c. transformer
- E free
- F free
- G operator control panel and security switches at print station, infeed and discharge.
- H article rotation below pre-treatment
- I article rotation below uv-drying
- J infeed
- K discharge
- L free
- M free
- N free
- O free
- P power supply with supply disconnecting and power fuses.
- Q free
- R free
- S free
- T interface unscrambler K23N
- U PLC S7-300, rotary transmitter.
- V free
- W free
- X waste air control
- Y power and control of uv - drying.
- Z free

main locality

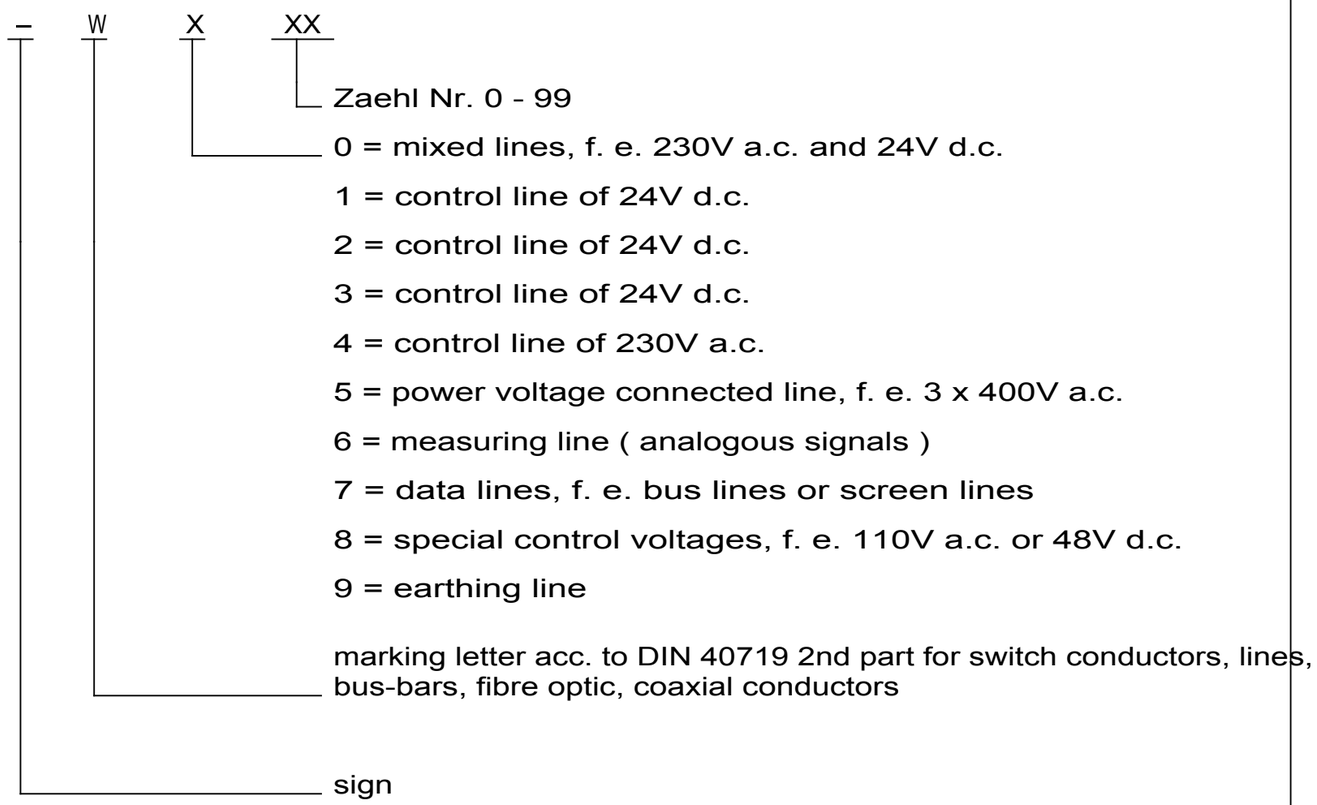
- M printing maschine
- MB1 operator control panel at infeed modul
- MB2 operator control panel at 1st screen station
- MB5 touch screen
- MA discharge, set up station
- MZ infeed, lay down station
- S1 electric cabinet
- UV UV-drying
- ...-K cable at analogic locality

equipment

- A sub - assembly
- B measure converters
- C condensers
- D binary elements
- E various things
- F protective device
- G generator
- H message device
- I free
- J free
- K contactors, relays
- L inductivities
- M motors
- N amplifiers, controllers
- O free
- P measure device
- Q high power switch units
- R resistors
- S switches
- T transformer
- U converter
- V semi - conductor
- W cable
- X terminals. plugs
- Y mech. units operated electrical
- Z filters, limiters

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.12.2010 16:26:40	CAD	Maschinen Typ 4.09.22	=A
	Bearb.	K.STUKE	230/400V	0	L1 0	Marking of equipment acc. to DIN				+S1
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No.		Bl./Sh. 3
	CAD-Code	K09V-3	50Hz	0	L3 0			03.208-09.22/210053.0		13 Bl.

Marking of equipment for wiring acc. to DIN 40719 2nd part



Marking of equipment for terminal strips

X1	terminal strip of 24V a.c. standard terminals for control voltage
X2	terminal strip of 24V a.c. control voltage
X3	terminal strip of emergency stop and security switches
X4	terminal strip of 230V a.c.
X5	terminal strip of power terminals
X6	terminal strip for varistors
X7	terminal strip for analogous signals
X8	terminal strip of special control voltages
XGND	terminal strip for earth connections
XSE	terminal strip for shielded lines

color marking of conductors acc. to EN 60204-1

sw	= black	main circuits of a.c. and d.c. current
rt	= red	control circuits of a.c. current
bl	= blue	control circuits of d.c. current
gn/ge	= green/yellow	protective conductor

color marking

bl	= blue	or	= orange	ws/ge	= white/yellow
br	= brown	rs	= pink		
br-gn	= brown/green	rt	= red		
ge	= yellow	rt/bl	= red/blue		
gn	= green	sw	= black		
gn/ge	= green/yellow	vio	= violett		
gr	= grey	ws	= white		
gr/rs	= grey/pink	ws/gn	= white/green		

KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010
Bearb.	K.STUKE
Siline	ME210053L1
CAD-Code	K09V-3

Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
230/400V	0	L1 0
Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
50Hz	0	L3 0

Benennung/Projekt
Marking of equipment acc. to DIN

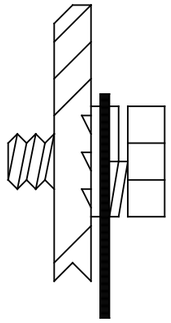
Änderungsdatum:21.12.2010 16:26:46

CAD | Maschinen Typ 4.09.22 | =A | +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

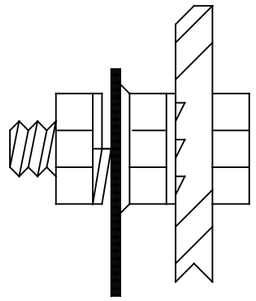
Bl./Sh. 4 | 13 Bl.

cabinet
contact disc M8
cable socket
spring washer M8
hexagonal screw M8 x 30mm



mounting of a screw bolt
for earth connection
within electric cabinet

female screw M8
spring washer M8
cable socket
u-disc M8
female screw M8
contact disc M8
assembly plate
hexagonal screw M8 x 30mm



mounting of a screw bolt
for earth or shield connection
on assembly plate

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt earthing of plant	Änderungsdatum:21.12.2010 16:26:49	C A D	Maschinen Typ 4.09.22	=A +S1
	Bearb.	K.STUKE	230/400V	0	L1 0					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No.		Bl./Sh. 5
	CAD-Code	K09V-3	50Hz	0	L3 0			03.208-09.22/210053.0		13 Bl.

equipment survey

power connection from customer

=P
-Q1
Supply disconnecting
/46.3

angle encoder

=U
+M
-A200
angle encoder
/60.1

emergency stop switch

=G
+MB1
-A1-S7
emergency stop switch
/27.1

=G
+MB2
-A2-S7
emergency stop switch
/29.1

=K
+MA
-A1-S1
emergency stop switch
/45.6

security switch

=G
+M
-S2
security switch at transfer unit
/25.3

=G
+M
-S3
security switch at infeed area
/25.5

=G
+M
-S11
security switch at 1st screen station
/31.3

=G
+M
-S91
security switch at print detection
/32.3

=G
+M
-S92
security switch at raising station
/33.3

plug connection

=G
+M
-X11
operator control panel at infeed modul
/27.1

=G
+M
-X12
/27.5

=G
+M
-X21
operator control panel between 1st and 2nd screen station
/29.1

=G
+M
-X22
/29.6

=T
+M
-X5
connecting of unscrambler
/49.7

=Y
+UV
-X1/A11
power and control of 1st uv - drying
/72.6

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.12.2010 16:36:23
	Bearb.	K.STUKE	230/400V	0	L1 0	equipment survey	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	0	L3 0		

C A D	Maschinen Typ 4.09.22	=A +S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	6
			13 Bl.

equipment survey

fuse

-F1
sensors and switches
/4.2

-F1
elements to adjust
at the printing machine
/4.2

-F1
elements to adjust
at the printing machine
/4.2

-F1
elements to adjust
at the printing machine
/4.2

-F2
operator control panels
TP270
/4.4

-F3
d.c.-drive
/4.5

-F6
24V d.c. fuse of
print image
/4.7

-F11
230V a.c. voltage supply
of printing machine
/5.4

-F12
230 V a.c. socket
within electric cabinet
/5.6

-F13
230V a.c. voltage supply
of printing machine
/5.5

=P
-F26
fuse of stepper motor
control card
of rotation articles
at 1st uv drying
/48.5

=P
-F28
fuse of stepper motor
control card of rotation
articles at visiual
detection
/48.6

=P
-F29
fuse of
print image detection
/48.7

=P
-F17
fuses of
discharge
conveyor belt
/47.1

=P
-F18
fuses of
main drive unit
/47.3

=P
-F19
previous fuses of
motor cirucit breakers
/47.4

=P
-F20
previous fuse of
24V d.c. power supply
/47.6

=P
-F21
fuse/power supply of
1st uv drying
/48.2

=P
-F22
fuse/power supply of
unscrambler
/48.3

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.12.2010 16:46:06
	Bearb.	K.STUKE	230/400V	0	L1 0	equipment survey	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	0	L3 0		

C A D	Maschinen Typ 4.09.22	=A +S1		
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh. 7	13 Bl.	

equipment survey

relays/Relais

-K31
relay turned on/off readiness
(static signal)
/6.1

-K32
relay turned on readiness
(pulse signal)
/6.2

-K33
relay to turn off drive
during emergency by PLC
and emgergency stop relay
of security switches
/6.3

=B
-K1
power relay to turn on
frequency converter
/9.5

=B
-K2
relay to release
main drive
/12.4

=C
-K11
relay to turn on
illumination at 1st
screen station
/14.5

=D
-K1
relay of uv waste
air exhauster
/18.2

=D
-K7
relay of
vacuum
/18.3

=D
-K8
relay of
destatisizing
/18.5

=K
-K1
power relay of
discharge conveyor belt
/42.5

=V
-K1
relais start
camerasystem
/62.6

=Y
-K12
relay 1st uv
power on
5kW
/70.2

motor circuit breaker

-Q41
motor circuit breaker
of ventilator within
electric cabinet
/8.4

=Y
-Q12
motor circuit
breaker first uv
power by 5kW
/68.2

=D
-Q1
motor circuit breaker
of waste air exhauster
at 1st UV
/17.2

=D
-Q7
motor circuit
breaker of vacuum
/17.3

=D
-Q8
motor circuit
breaker of destatisizing
/17.5

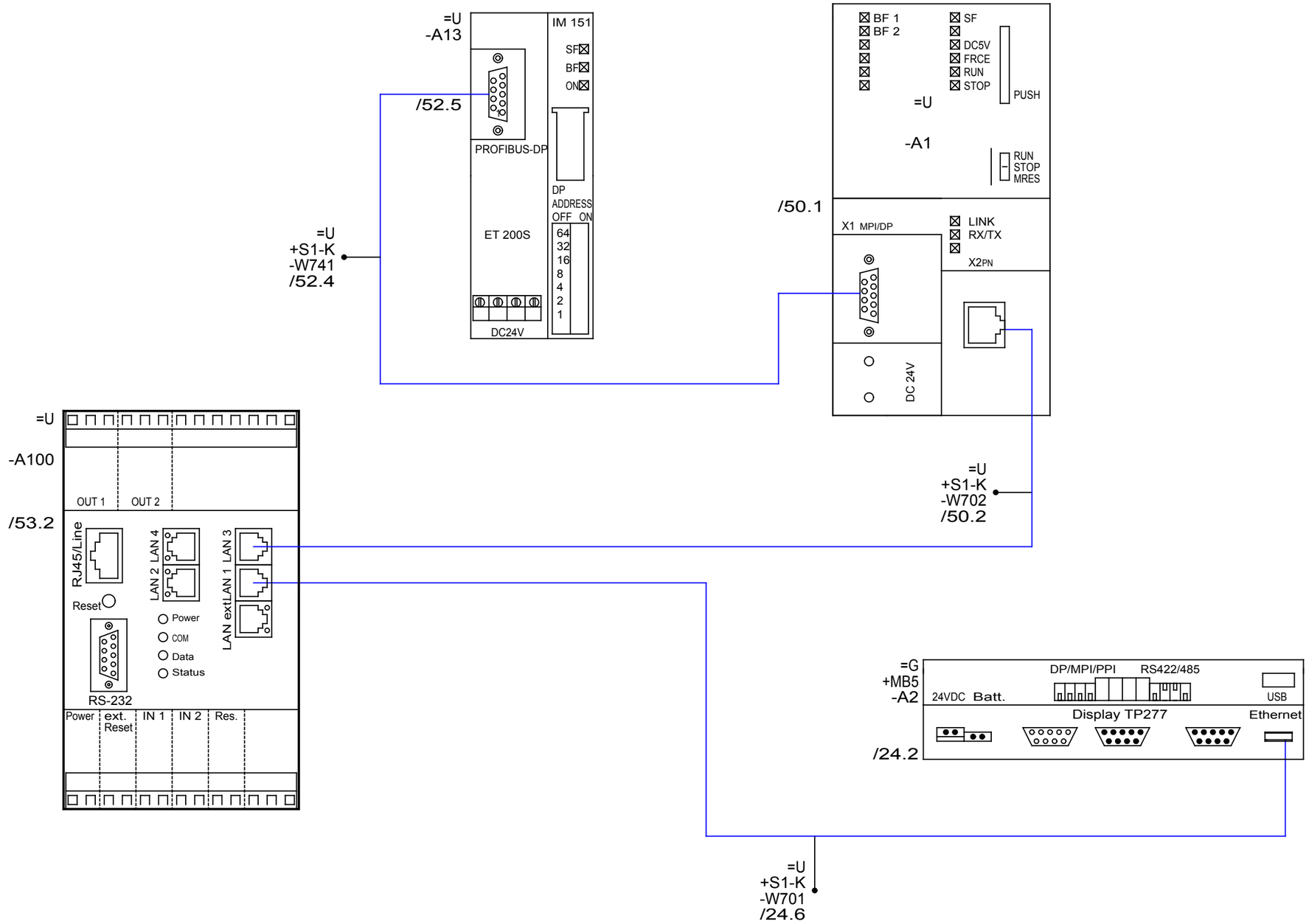
=D
-Q11
motor circuit breaker
transformer for
230V a.c. voltage
supply
/19.5

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.03.2011 10:45:32
	Bearb.	K.STUKE	230/400V	0	L1 0	equipment survey	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	0	L3 0		

C A D	Maschinen Typ 4.09.22	=A +S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	8
			13 Bl.

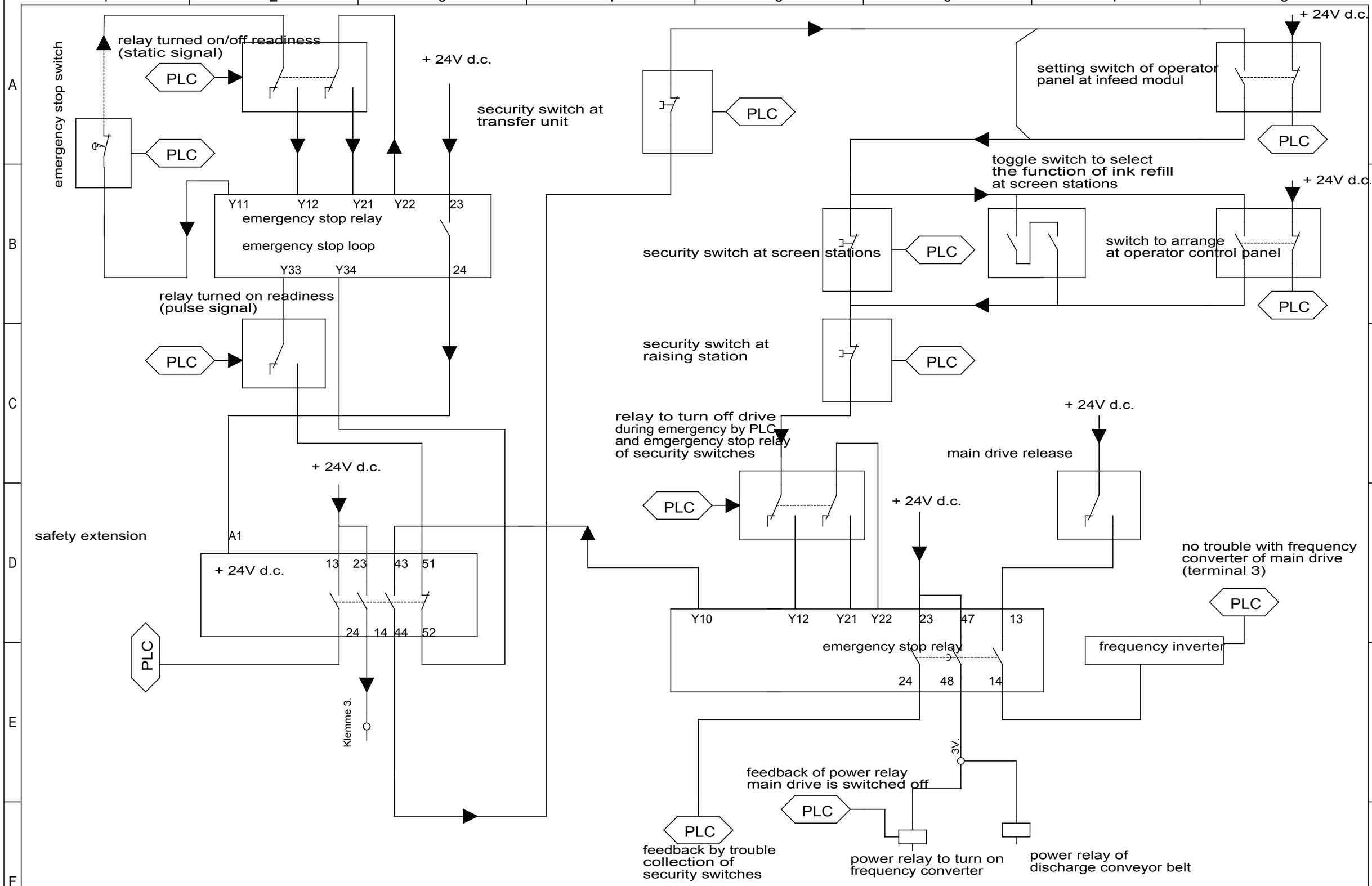
equipment survey

Profibus DP / Ethernet

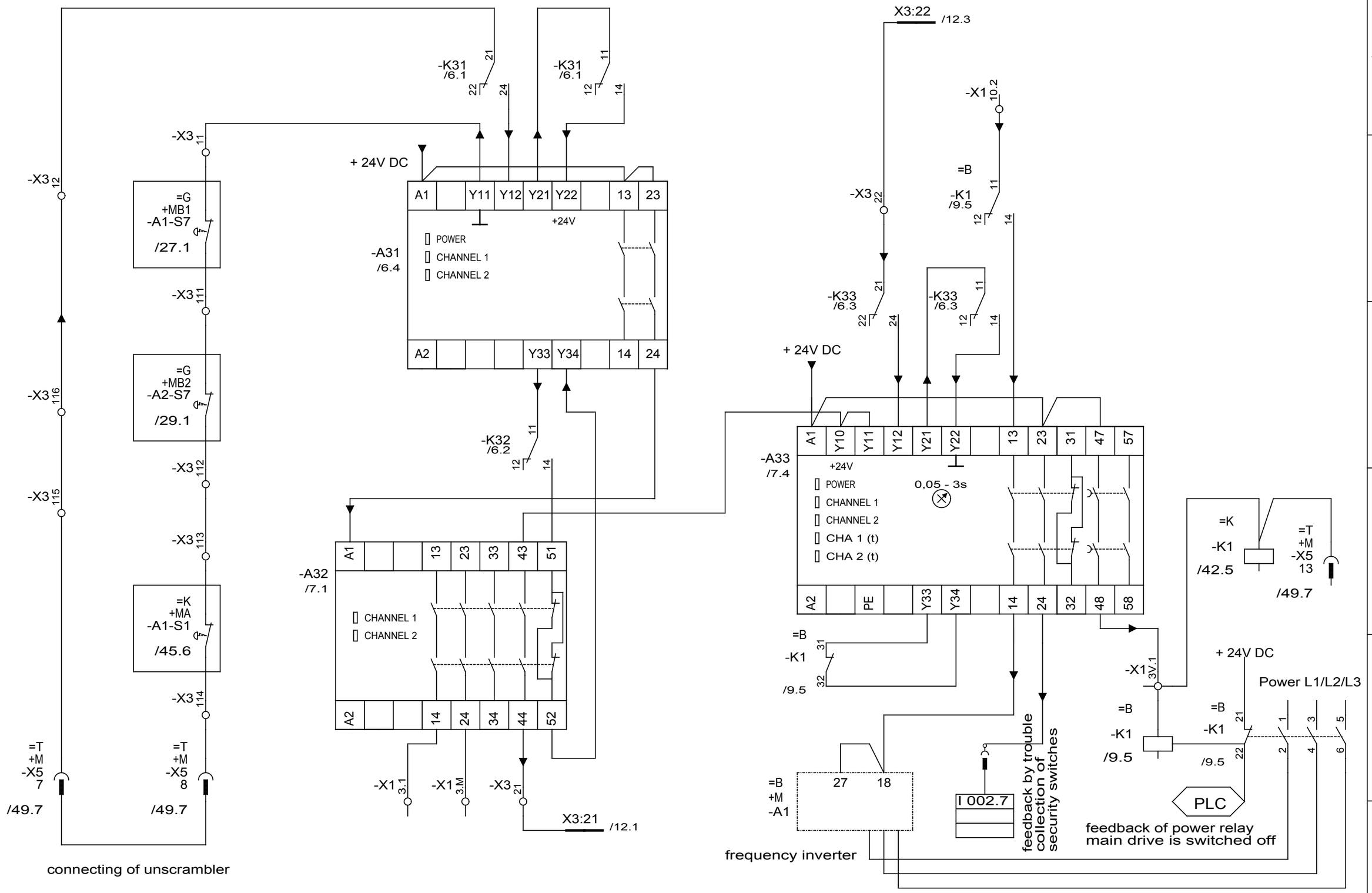


KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW 0	Strom/Current A L1 0 L2 0 L3 0	Benennung/Projekt equipment survey	Änderungsdatum:03.01.2011 13:35:59
	Bearb.	K.STUKE					
	Siline	ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V 0			
	CAD-Code	K09V-3					

C A D	Maschinen Typ 4.09.22	=A +S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh. 9	13 Bl.

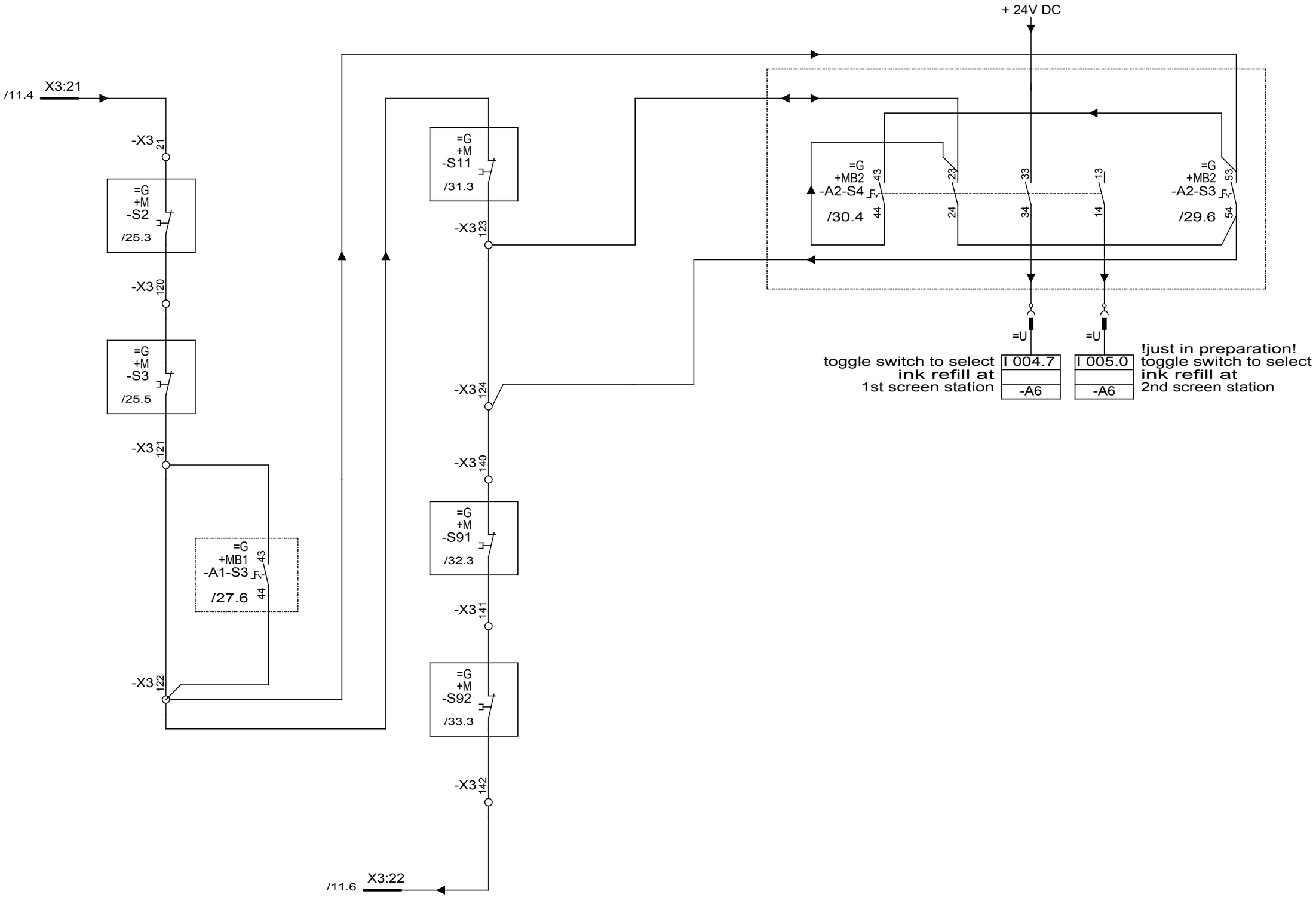


KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:22.12.2010 12:37:43	CAD Maschinen Typ 4.09.22 =A +S1
	Bearb.	K.STUKE	230/400V	0	L1 0	survey diagram of emergency stop, security switches and main drive		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0
	CAD-Code	K09V-3	50Hz	0	L3 0			Bl./Sh. 10 13 Bl.



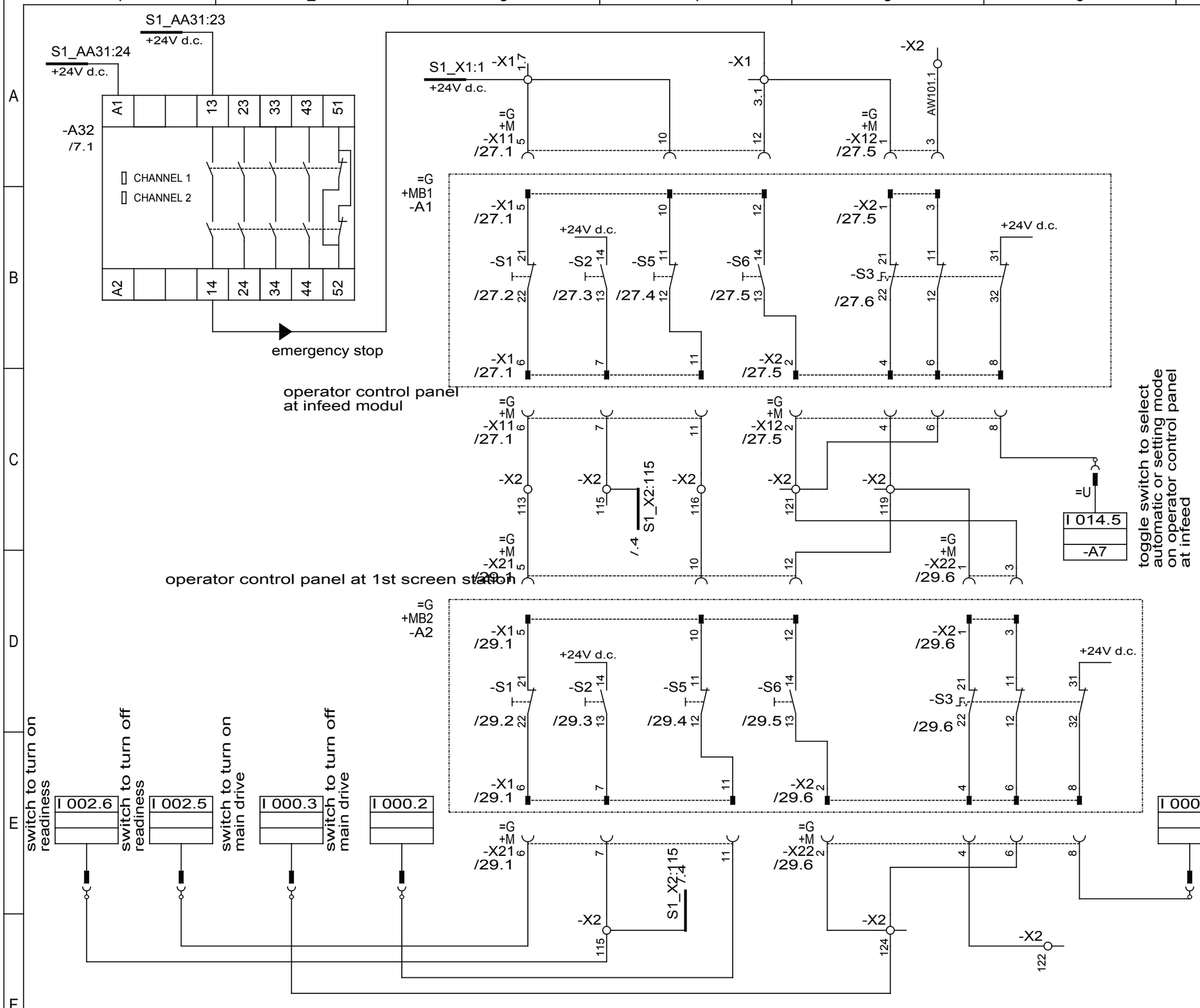
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:22.12.2010 12:35:22
	Bearb.	K.STUKE	230/400V	0	L1 0	control of emergency stop and circuit switches	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	0	L3 0		

C A D	Maschinen Typ 4.09.22	=A +S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	11
			13 Bl.



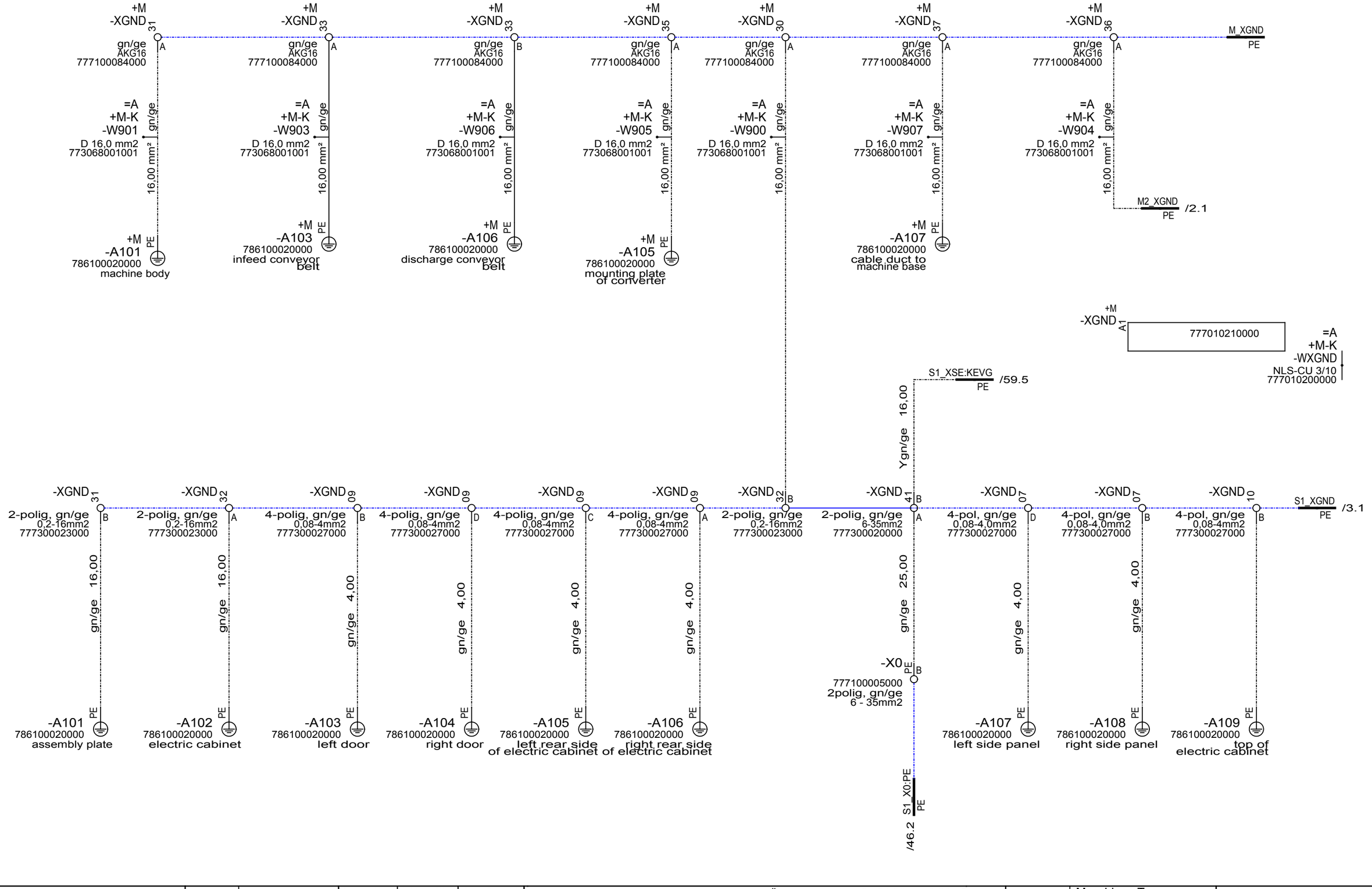
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW 0	Strom/Current A L1 0 L2 0 L3 0	Benennung/Projekt control of emergency stop and circuit switches	Änderungsdatum:22.12.2010 13:02:34
	Bearb.	K.STUKE					
	Siline	ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V 0			
	CAD-Code	K09V-3					

C A D	Maschinen Typ 4.09.22	=A	+S1
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh. 12	13 Bl.



No. < >	
1	GA1-S1/ GA2-S1 switch to turn readiness off
2	GA1-S2/ GA2-S2 switch to turn readiness on with light message
3	GA1-S3/ GA2-S3 toggle switch to select automatic or setting mode at operator control panel
4	GA1-S5/ GA2-S5 switch to turn main drive off
5	GA1-S6/ GA2-S6 switch to turn main drive on

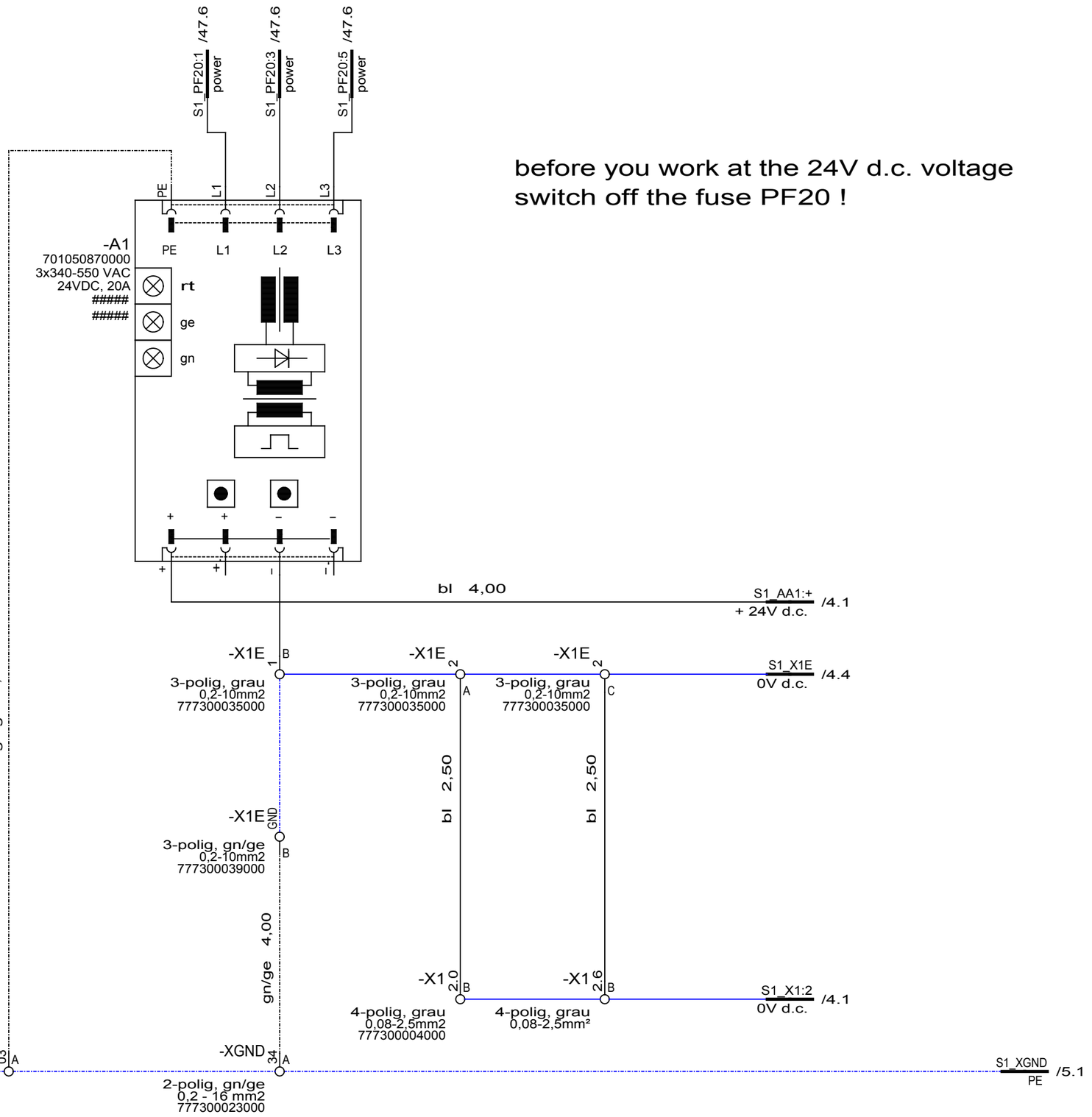
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt control of main drive/ready to start on/ off	Änderungsdatum:22.12.2010 13:03:26	C A D	Maschinen Typ 4.09.22	=A +S1
	Bearb.	K.STUKE	230/400V	0	L1 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 13 13 Bl.	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0					
	CAD-Code	K09V-3	50Hz	0	L3 0					



KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 13:26:15	C A D	Maschinen Typ 4.09.22	=A +S1
	Bearb.	K.STUKE	230/400V	0	L1 0	earthing of plant				
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 1	
	CAD-Code	K09V-3	50Hz	0	L3 0				73 Bl.	



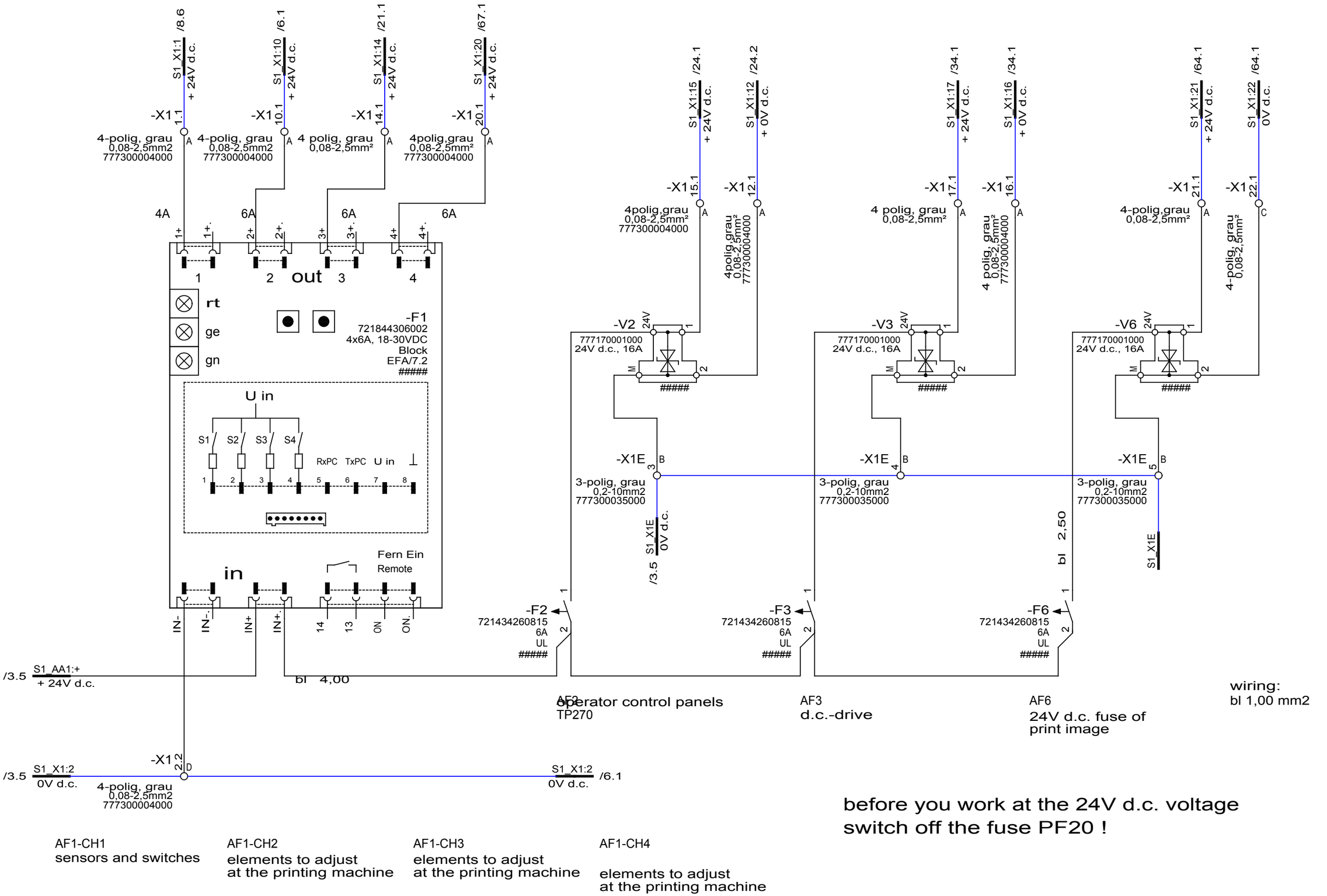
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt earthing of plant	Änderungsdatum:21.04.2011 13:26:15	C A D	Maschinen Typ 4.09.22	=A +M2
	Bearb.	K.STUKE	230/400V	0	L1 0					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 2 73 Bl.	
	CAD-Code	K09V-3	50Hz	0	L3 0					



before you work at the 24V d.c. voltage switch off the fuse PF20 !

No. < >	
1	AA1 main unit of 24V d.c. power supply
2	AX1 terminal strip of 24V a.c. control voltage

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt main unit of 24V d.c. voltage supply	Änderungsdatum:21.04.2011 13:26:15	C A D	Maschinen Typ 4.09.22	=A +S1
	Bearb.	K.STUKE	230/400V	0	L1 0					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	3
	CAD-Code	K09V-3	50Hz	0	L3 0					73 Bl.



KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 13:26:15	CAD Maschinen Typ 4.09.22 =A +S1
	Bearb.	K.STUKE	230/400V	0	L1 0	fuses of 24V d.c. voltage supply		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0
	CAD-Code	K09V-3	50Hz	24	L3 0			Bl./Sh. 4 / 73 Bl.

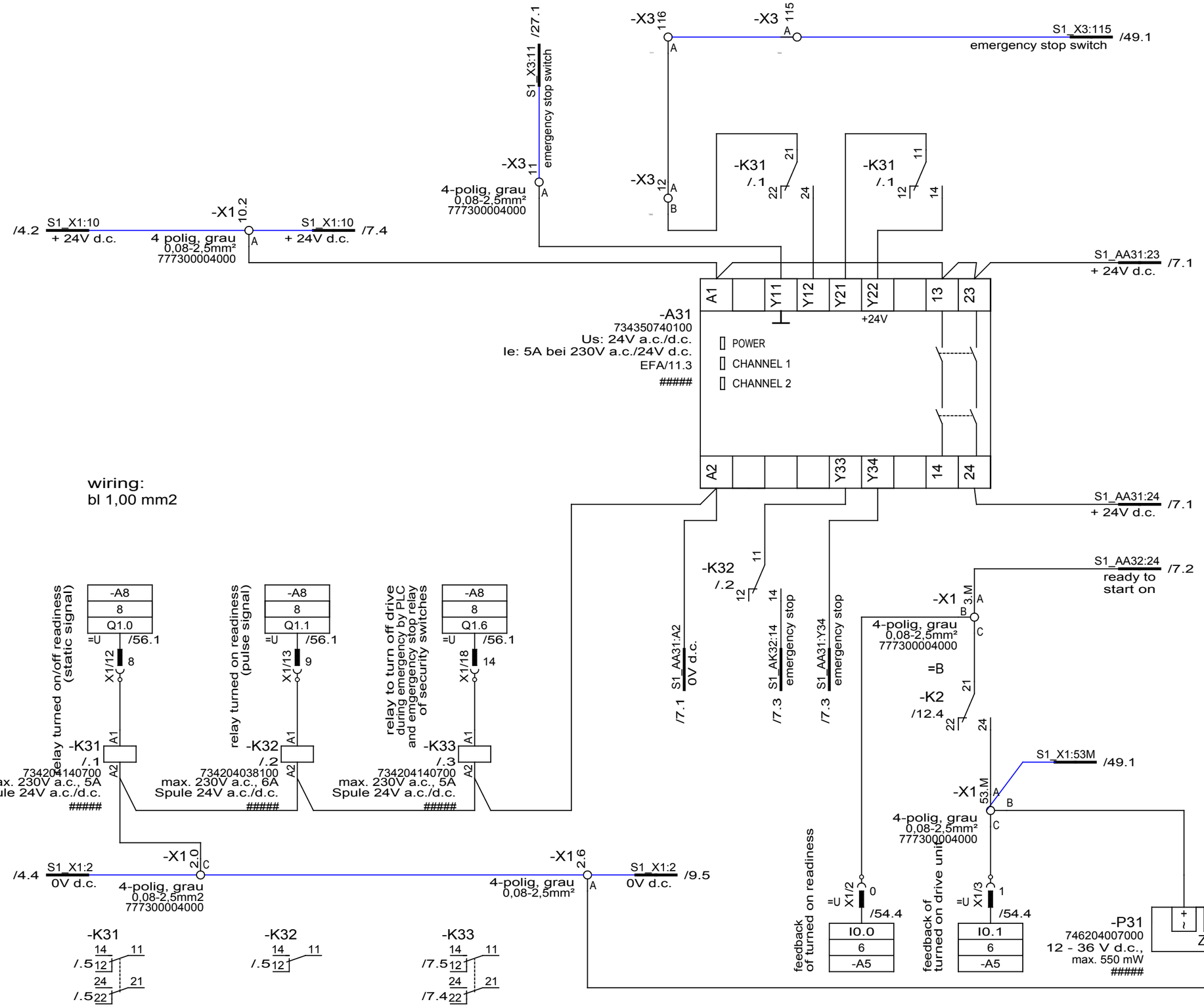
Primärseite/primary side		
Spannung voltage Volt	Anschluß an connection to	Verbindung zwischen junction between
208	1 + 2	1+37/2+31
230	1 + 2	1+36/2+32
380	1 + 2	31 + 38
400	1 + 2	32 + 38
415	1 + 2	31 + 37
440	1 + 2	32 + 37
460	1 + 2	32 + 36
480	1 + 2	33 + 36
500	1 + 2	34 + 36
525	1 + 2	31 + 35
550	1 + 2	32 + 35
575	1 + 2	33 + 35
600	1 + 2	34 + 35

Sekundärseite/secondary side	
Spannung voltage Volt	Anschluß an connection to
230	0 115V 0 115V

Primärseite/primary side Trafo / transformer 1200VA	
Spannung voltage (V)	Einstellstrom setting current (A)
208	05,50
230	05,50
380	03,20
390	03,20
400	03,20
415	03,20
440	02,90
460	02,90
480	02,60
500	02,60
525	02,60
550	02,30
525	02,30
550	02,30

No. < >	
1	AF11,13 230V a.c. voltage supply of printing machine
2	AF12 230 V a.c. socket within electric cabinet
3	AT11 transformer for 230V a.c. voltage supply
3	AX12 socket of 230V a.c. within electric cabinet
4	AX4 terminal strip of 230V a.c.

Werner Kammann Maschinenfabrik D-32221 Buende Postf. 2109	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt 230V a.c. voltage supply
	Bearb.	K.STUKE	230/400V	1,30	L1 6,30	Änderungsdatum:21.04.2011 13:26:15
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0	C A D Maschinen Typ 4.09.22 =A +S1
	CAD-Code	K09V-3	50Hz	0	L3	Schaltplan Nr./Drawing No. 03.208-09.22/210053.0 Bl./Sh. 5 73 Bl.



No. < >	
1	AA31 emergency stop protection modul
2	AK31 relay turned on/off readiness (static signal)
3	AK32 relay turned on readiness (pulse signal)
4	AK33 relay to turn off drive during emergency by PLC and emergency stop relay of security switches
5	AP31 working hours counter
6	AX1 terminal strip of 24V a.c. control voltage
7	AX3 terminal strip of emergency stop and security switches
8	terminal no. 3: machine is ready to start
9	terminal no. 53: main drive on

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
	Bearb.	K.STUKE	230/400V	0	L1 0
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
	CAD-Code	K09V-3	50Hz	24	L3 0

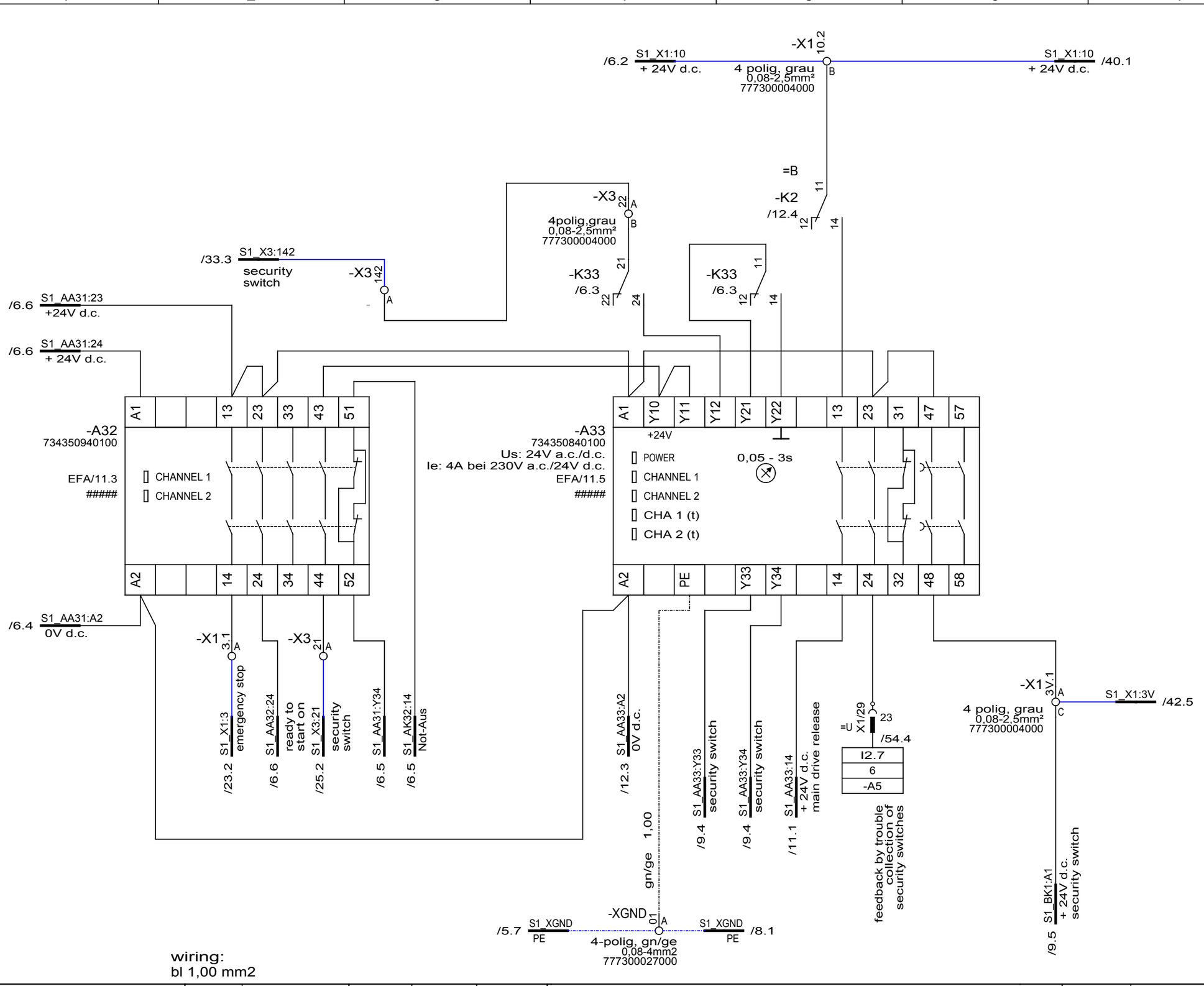
Benennung/Projekt
ready to start control

Änderungsdatum:21.04.2011 13:27:54

CAD | Maschinen Typ 4.09.22 | =A | +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

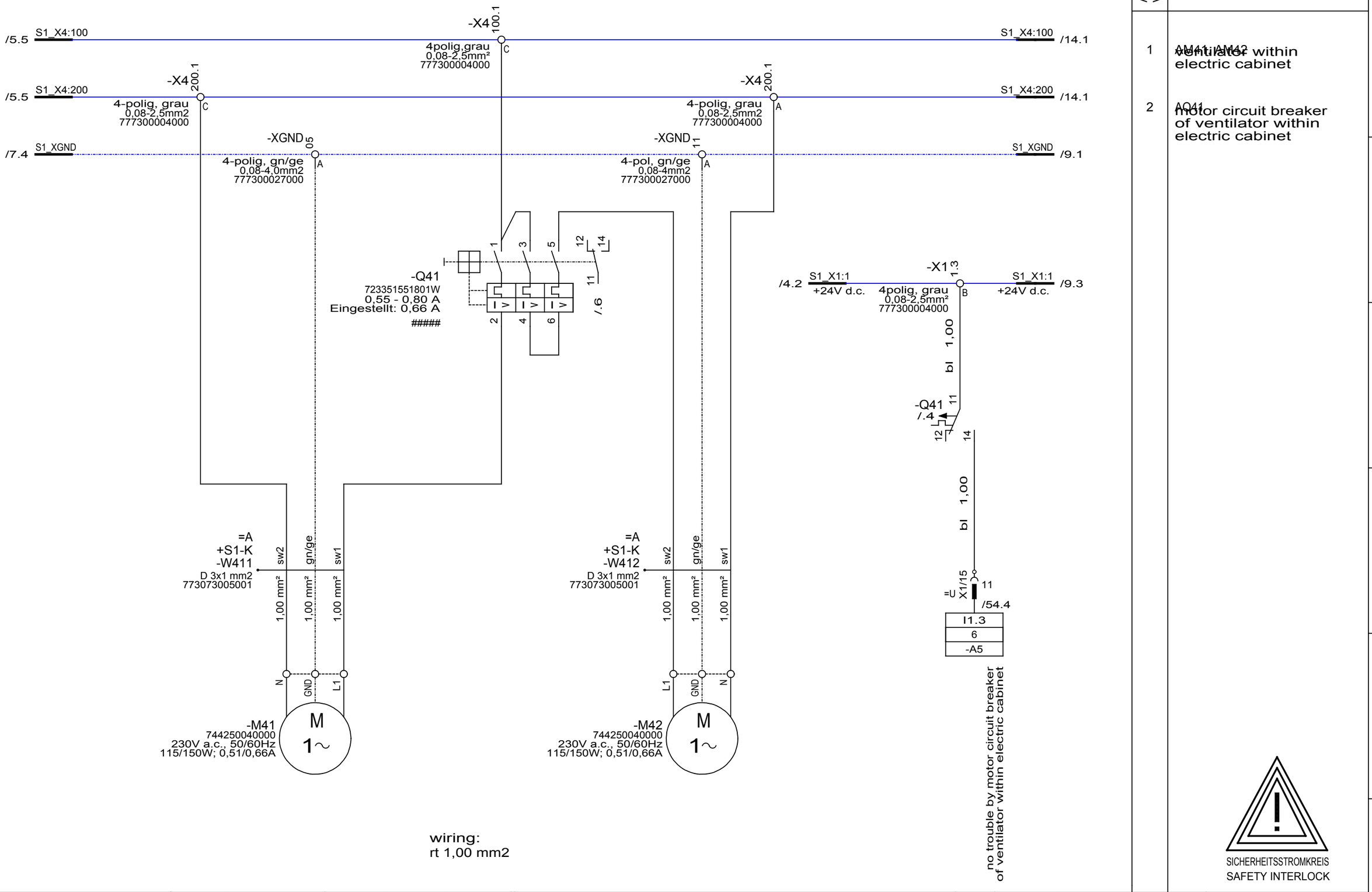
Bl./Sh. 6 | 73 Bl.



No. < >	
1	AA32 emergency stop protection modul
2	AA33 emergency stop protection modul of security switches
3	AK33 relay to turn off drive during emergency by PLC and emgergency stop relay of security switches
4	BK2 relay to release main drive
5	AX3 terminal strip of emergency stop and security switches

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 13:27:54
	Bearb.	K.STUKE	230/400V	0	L1 0	emergency stop protection moduls of security switches	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	24	L3 0		

CAD	Maschinen Typ	=A
	4.09.22	+S1
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh. 7
		73 Bl.



No. < >	
1	AM41, AM42 ventilator within electric cabinet
2	AQ41 motor circuit breaker of ventilator within electric cabinet

KAMMANN
MASCHINENBAU GMBH
GERMANY

		Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
Datum	10.12.2010			
Bearb.	K.STUKE	230/400V	0	L1 0
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
CAD-Code	K09V-3	50Hz	24	L3 0

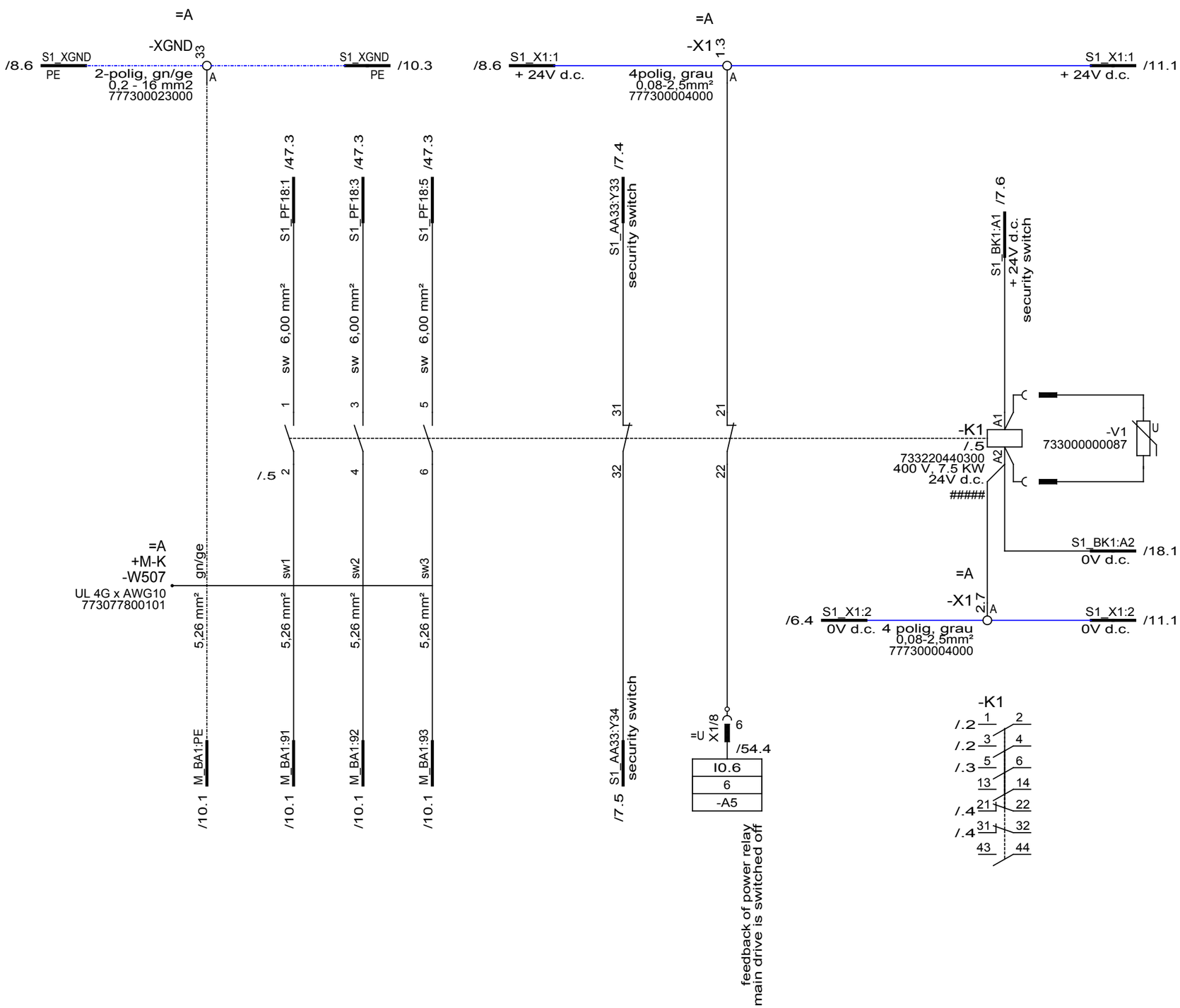
Benennung/Projekt
ventilator of electric cabinet S1

Änderungsdatum:21.04.2011 13:27:54

CAD | Maschinen Typ 4.09.22 | =A +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

Bl./Sh. 8 | 73 Bl.



No. < >	
1	BK1 power relay to turn on frequency converter
2	AX1 terminal strip of 24V a.c. control voltage

wiring:
bl 1,00 mm2

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt control and power of main drive with frequency inverter	Änderungsdatum:21.04.2011 13:42:22
	Bearb.	K.STUKE	230/400V	0	L1 0		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	24	L3 0		

C A D	Maschinen Typ 4.09.22	=B +S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	9
			73 Bl.

Warning: Touching the electrical parts even when the mains supply has been switched off can cause serious in jury or death. When using converter please wait 15 minutes.

-A1
701731631600
FC-302, f. 4,0kW
3x 380-500VAC
50/60 Hz
#####

91 92 93 95 96 97 98 99 SE R+ R- PE1 SE1 55 53 20 18 27 29 32 33 39 42 12 37 PE2

interne Brücke 12/37

01 02 03 06 05 04

=A
+M-K
-W110
UL 16 x AWG20
773077302102

rt M_BA1:01 /11.2 + 24V d.c. 0,56 mm²
sw M_BA1:02 /11.2 I1.2 0,56 mm²

=A
+M-K
-W507
UL 4G x AWG10
773077800101

sw1 sw2 sw3 gn/ge 5,26 mm²

/9.2 M_BA1:91
/9.2 M_BA1:92
/9.3 M_BA1:93
/9.2 M_BA1:PE

=A
+M-K
-W806
D 3x1,5 mm2, gesch.
773073312101

sw1 sw2 gn/ge 1,50 mm²

-R1
753228421110
380-500V
210 Ohm, 285 W
#####

SE RB1 RB2 PE

=A
+M-K
-W110
UL 16 x AWG20
773077302102

or ge bl vio ws-sw ws ws-or ws-br ws-rt 0,56 mm²

M_BA1:SE1 /11.8 0 V d.c.
M_BA1:55 /11.8 MANA
M_BA1:53 /11.7 QW320+
M_BA1:20 /11.2 0V d.c.
M_BA1:18 /11.1 + 24V d.c. main drive release
M_BA1:29 /11.4 Q1.4
M_BA1:32 /11.3 Q1.5
M_BA1:33 /11.3
M_BA1:39 /11.5 IW320-
M_BA1:45 /11.5 IW320+

=A
+M-K
-W508
4x4mm2, gesch.
773074212102

sw gr br gn/ge Schirm 4,00 mm²

U1 V1 W1 PE T1 T2

-M1
742300701000
50Hz,220-240/380-415 V
60Hz ;220-277/380-480 V
3.0 KW
incl bimetal contact/NC contact
#####

U2 V2 W2

=A
+M-K
-W007
UL 3x1,5 mm2
773073305001

sw2 sw1 gn/ge 1,50 mm²

M_BM1:T2 /12.1
M_BM1:T1 /12.1

=A
+M-K
-W910
D 16,0 mm2
773068001001

gn/ge 16,00 mm²

=A
+S1
-XGND 06 A

/9.2 S1_XGND PE
777300027000
4-polig, gn/ge
0,08-4mm2

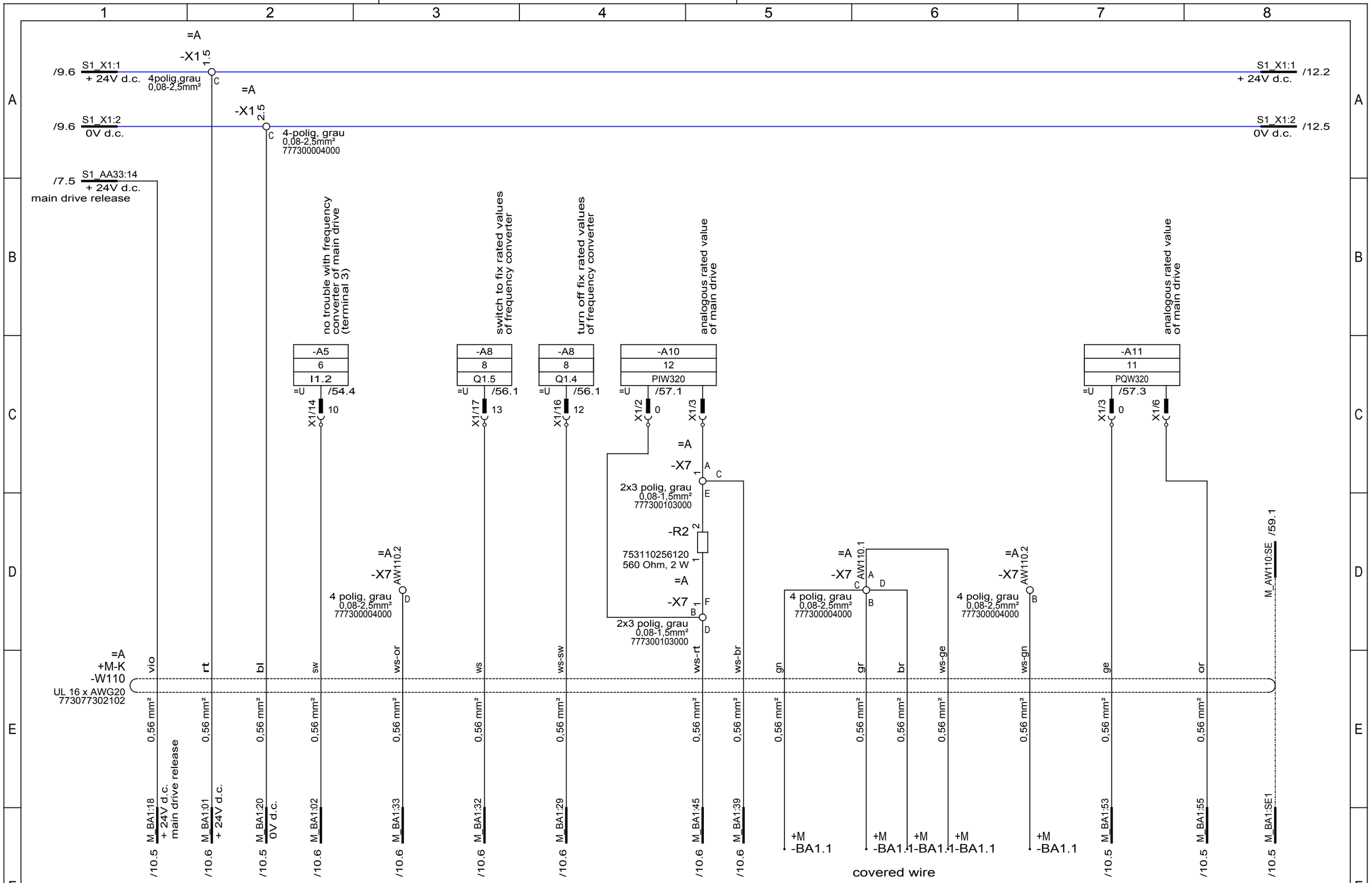
=A
+S1
-XGND 33 B

S1_XGND PE /12.5
777300023000
2-polig, gn/ge
0,2 - 16 mm2

QUALIFIZIERTES PERSONAL
QUALIFIED PERSONNEL

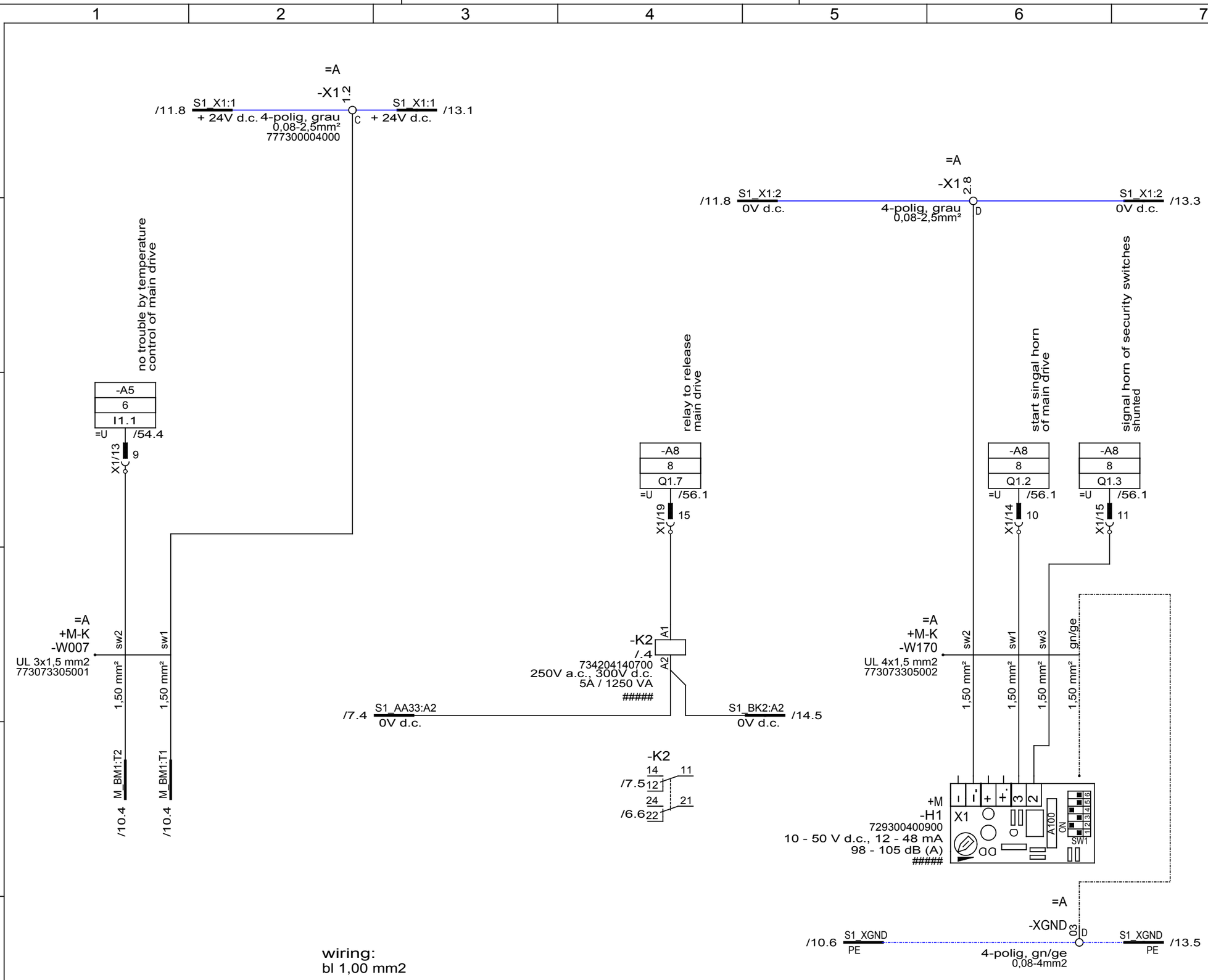
No. < >	
1	BA1 frequency converter
2	BM1 main drive
3	BR1 brake resistor of main drive

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt control and power of main drive with frequency inverter	Änderungsdatum:21.04.2011 13:42:22	CAD	Maschinen Typ 4.09.22	=B +M
	Bearb.	K.STUKE	230/400V	0	L1 0					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0				Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 10 73 Bl.
	CAD-Code	K09V-3	50Hz	24	L3 0					



KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 13:42:22
	Bearb.	K.STUKE	230/400V	0	L1 0	control and power of main drive with frequency inverter	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	24	L3 0		

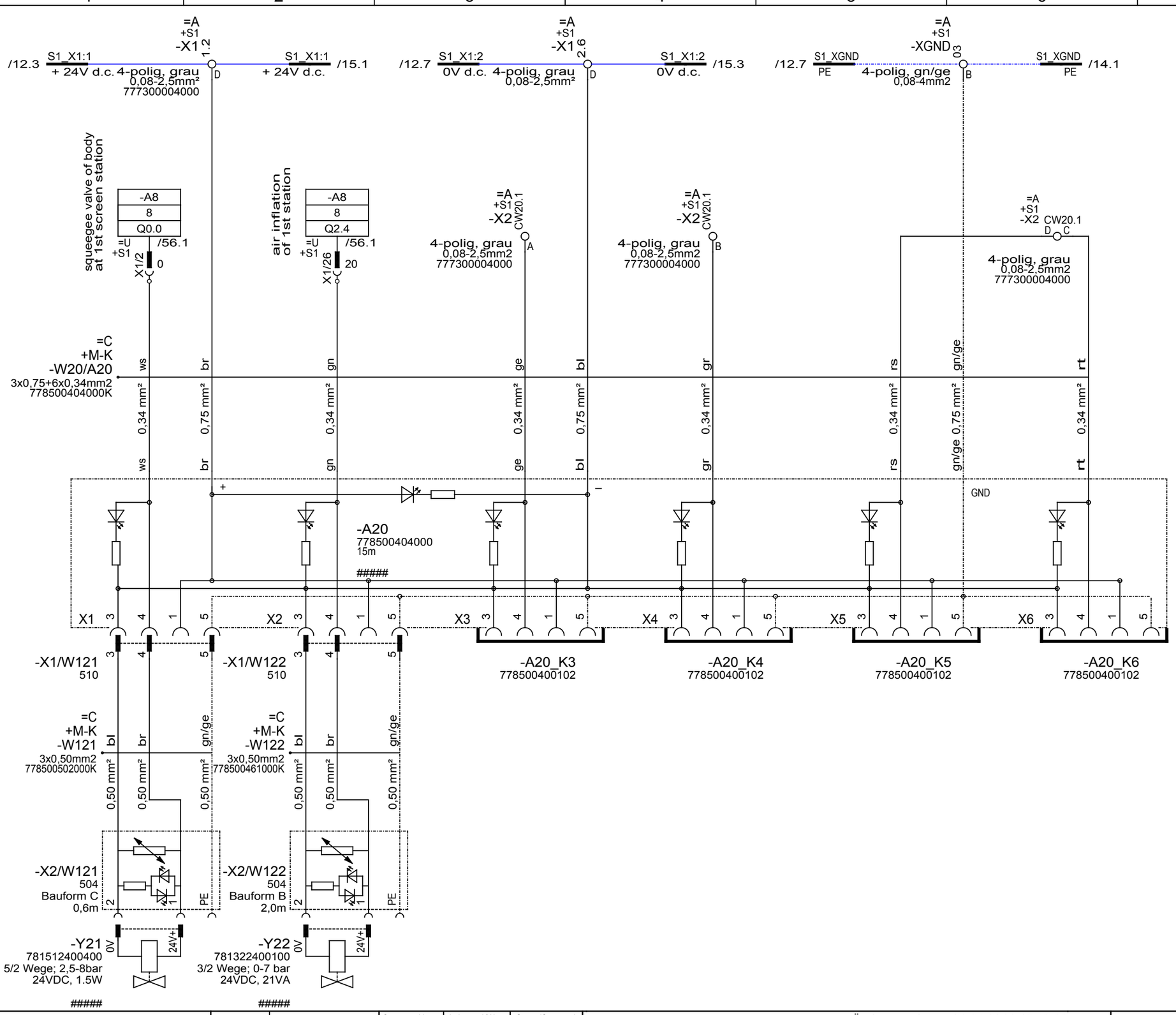
C A D	Maschinen Typ 4.09.22	=B +S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh. 11	73 Bl.



No. < >	
1	BH1 signal horn
2	BK2 relay to release main drive
3	AX1 terminal strip of 24V a.c. control voltage
4	AX4 terminal strip of 230V a.c.

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt control and power of main drive with frequency inverter	Änderungsdatum:21.04.2011 13:42:22
	Bearb.	K.STUKE	230/400V	0	L1 0		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	24	L3 0		

C A D	Maschinen Typ 4.09.22	=B +S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	12
			73 Bl.



No. < >	
1	CY21 valve to guide squeegee at 1st station
2	CY22 air inflation at 1st screen station

wiring:
bl 1,00 mm2

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt squeegee/air inflation at 1st screen station	Änderungsdatum:21.04.2011 13:42:22
	Bearb.	K.STUKE	230/400V		L1		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2		
	CAD-Code	K09V-3	50Hz		L3		

C A D	Maschinen Typ 4.09.22	=C +M	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	13 73 Bl.

No. < >	
1	CH11 illumination at the 1st screen station
2	CK11 relay to turn on illumination at 1st screen station

=A
-X4 100.2
/8.6 S1_X4:100 230V a.c.
C
S1_X4:100 230V a.c. /20.1

=A
-X4 200.2
/8.6 S1_X4:200 230V a.c.
B
4-polig, grau
0,08-2,5mm2
S1_X4:200 230V a.c. /20.1

rt 1,00 mm²

-K11
/.5
11
12
14

relay to turn on/off illumination at the 1st screen station

-A8
8
Q0.6
=U /56.1
X1/8 6

-K11 A1
A2
734204038100
max. 230V a.c., 6A
Spule 24V a.c./d.c.
#####
/12.5 S1_BK2:A2 0V d.c.
S1_CK11:A2 0V d.c.

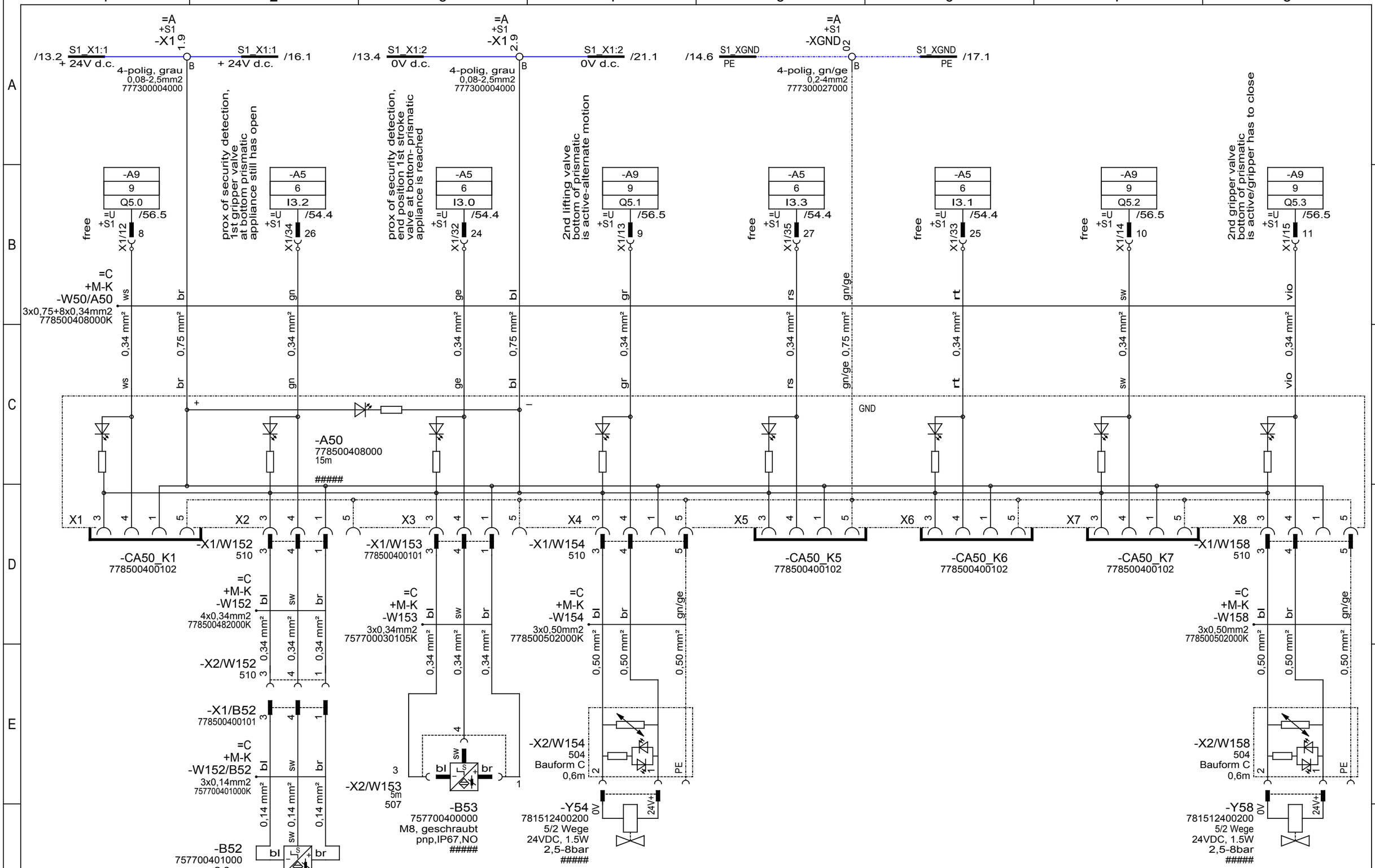
=C
+M-K
-W411
UL 3x1,5 mm2
773073305001
sw1 1,50 mm²
sw2 1,50 mm²
gn/ge 1,50 mm²

+M
-H11
718050006000
18W, IP65
additional: fluorescent lamp
#####
L
N
PE

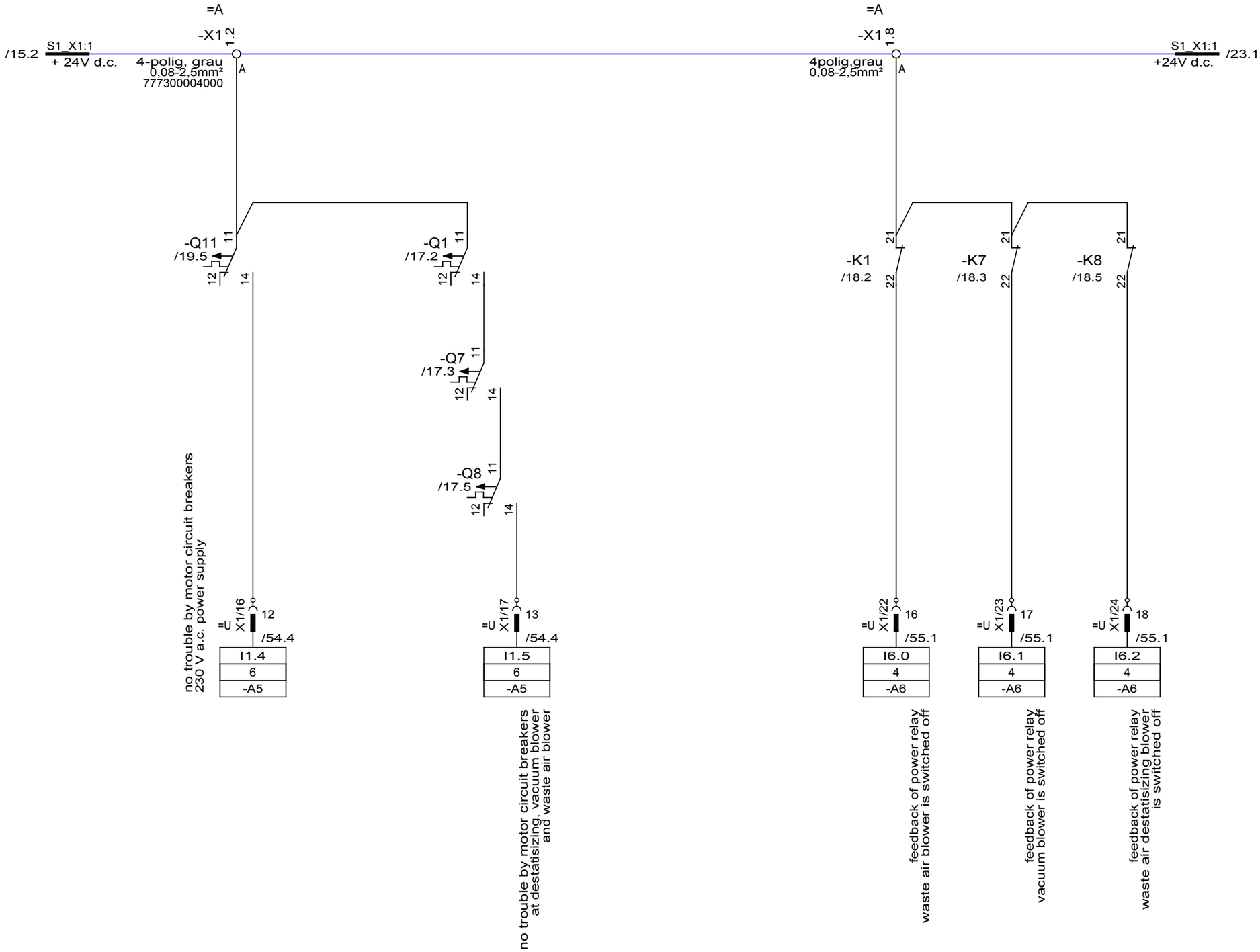
=A
-XGND
06
B
/13.6 S1_XGND PE
4-polig, gn/ge
0,08-4mm2
777300027000
S1_XGND PE /15.5

wiring:
bl 1,00 mm2

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt Illumination within machine	Änderungsdatum:21.04.2011 13:42:22	CAD	Maschinen Typ 4.09.22	=C +S1
	Bearb.	K.STUKE	230/400V	0	L1 0					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 14 73 Bl.	
	CAD-Code	K09V-3	50Hz	24	L3 0					



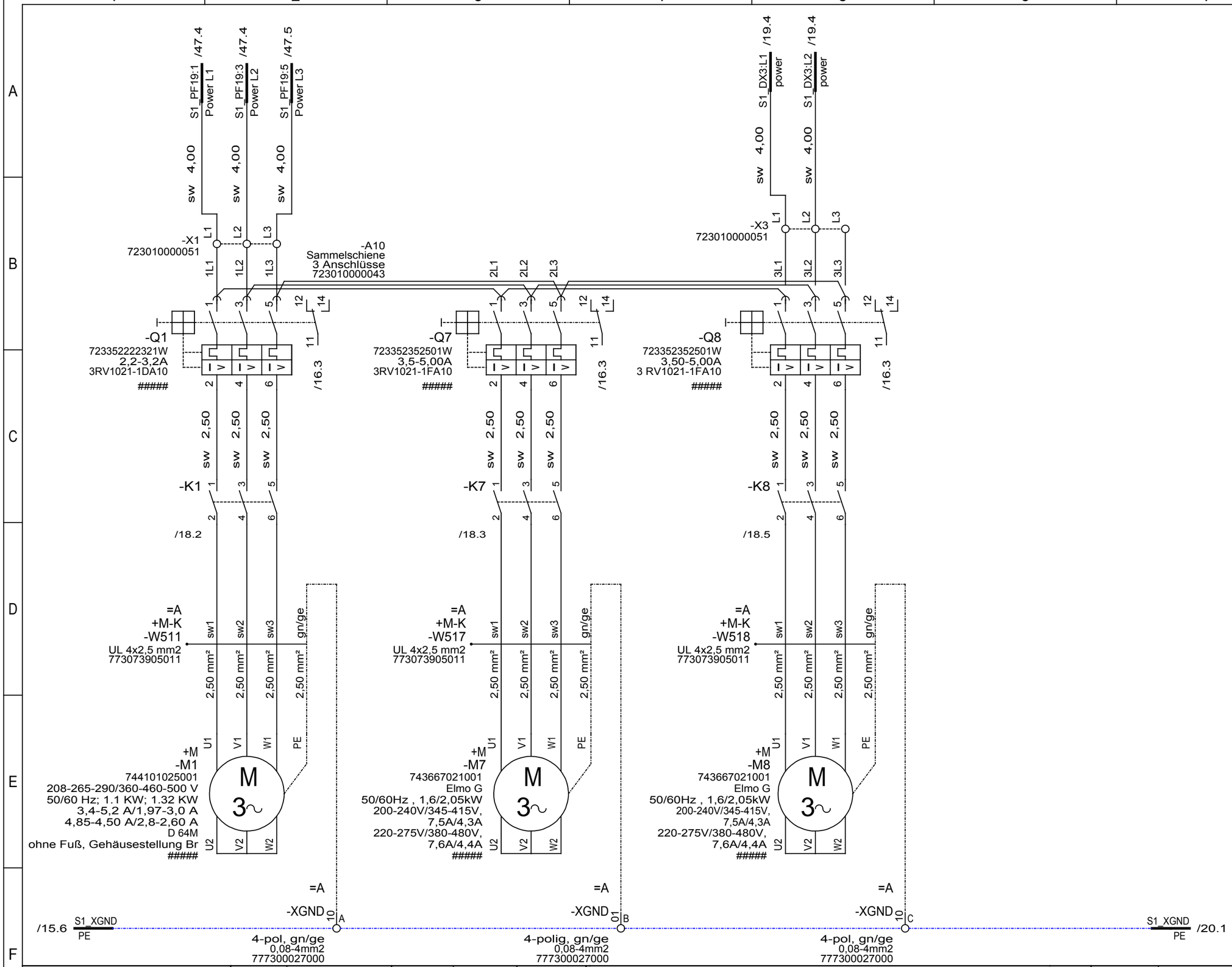
Werner Kammann Maschinenfabrik D-32221 Buende Postf. 2109	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt actors and sensors of prismatic appliance	Änderungsdatum:21.04.2011 13:42:15	C A D	Maschinen Typ 4.09.22	=C +M
	Bearb.	K.STUKE	230/400V		L1					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	15
	CAD-Code	K09V-3	50Hz		L3					73 Bl.



wiring:
bl 1,00 mm2

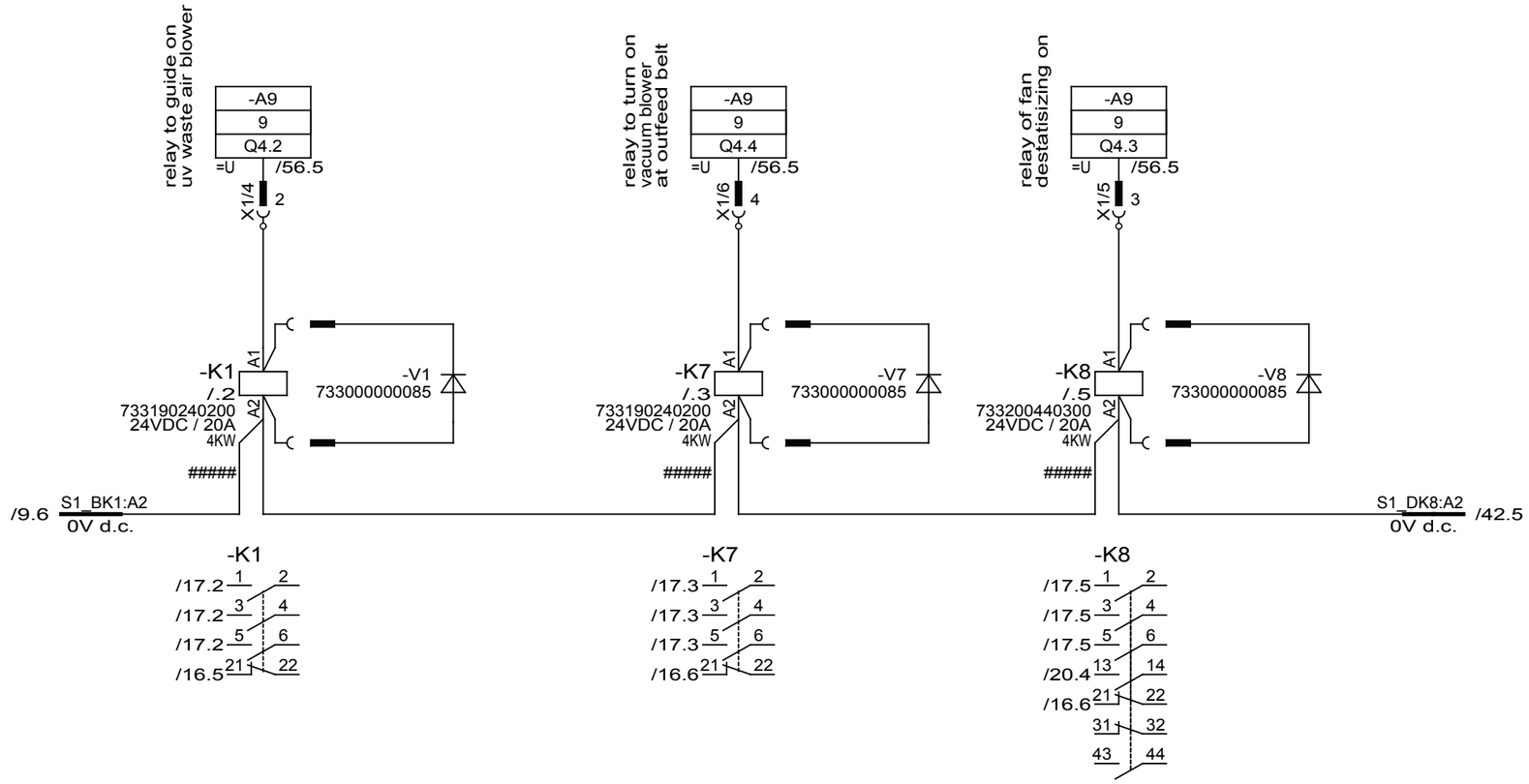
No.
< >

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt trouble messages by motor circuit breaker and power relays	Änderungsdatum:21.04.2011 13:48:47	C A D	Maschinen Typ 4.09.22	=D +S1
	Bearb.	K.STUKE	230/400V	0	L1 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 16 73 Bl.	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0					
	CAD-Code	K09V-3	50Hz	0	L3 0					



No. < >	
1	DM1 exhauster of waste air of 1st UV drying
2	DQ1 motor circuit breaker of waste air exhauster at 1st UV
3	DM7 vacuum fan at outfeet belt
4	DQ7 motor circuit breaker of vacuum
5	DM8 exhauster at destatisizing
6	DQ8 motor circuit breaker of destatisizing

KAMMANN MASCHINENBAU GMBH GERMANY	Datum 10.12.2010 Bearb. K.STUKE Siline ME210053L1 CAD-Code K09V-3	Spannung V Voltage V 230/400V Frequenz Hz cycle 50Hz	Leistung KW Power KW 0 Steuersp. V Contr.voltage V 0	Strom/Current A L1 0 L2 0 L3 0	Benennung/Projekt control of uv blower, vacuum station and destatisizing Änderungsdatum:21.04.2011 13:48:47	C A D Maschinen Typ 4.09.22 =D +S1 Schaltplan Nr./Drawing No. 03.208-09.22/210053.0 Bl./Sh. 17 73 Bl.



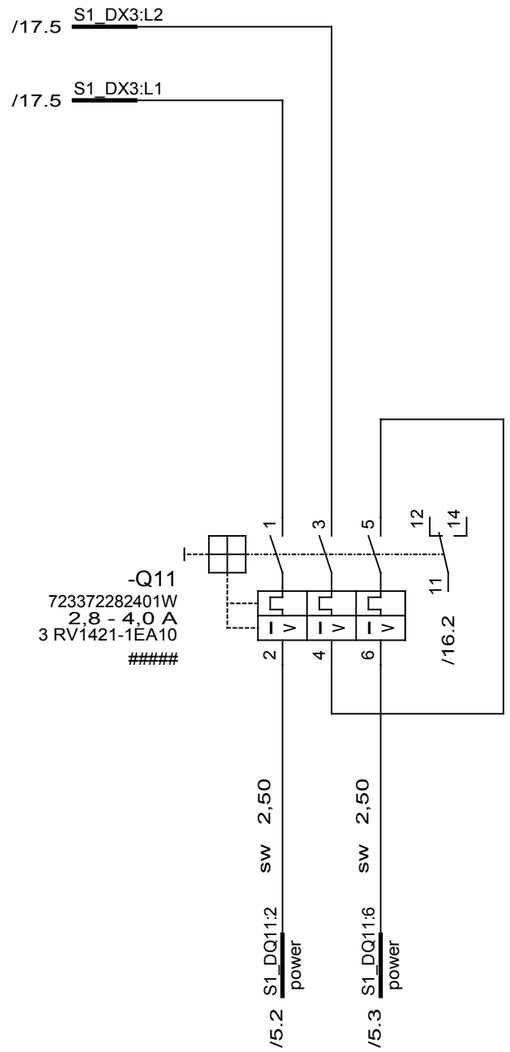
No. < >	
1	DK1 relay of uv waste air exhauster
2	DK7 relay of vacuum
3	DK8 relay of destatisizing

wiring:
bl 1,00 mm2

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt control of uv blower, vacuum station and destatisizing	Änderungsdatum:21.04.2011 13:49:06
	Bearb.	K.STUKE	230/400V	0	L1 0		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	0	L3 0		

C A D	Maschinen Typ 4.09.22	=D +S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	18
			73 Bl.

No. < >	
1	D11 motor circuit breaker transformer for 230V a.c. voltage supply



Q11_Z

Primärseite/primary side Trafo / transformer 1200VA	
Spannung voltage (V)	Einstellstrom setting current (A)
208	05,50
230	05,50
380	03,20
390	03,20
400	03,20
415	03,20
440	02,90
460	02,90
480	02,60
500	02,60
525	02,60
550	02,30
525	02,30
550	02,30

wiring:

sw, 2.5mm2

KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010
Bearb.	K.STUKE
Siline	ME210053L1
CAD-Code	K09V-3

Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
230/400V	0	L1 0
Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
50Hz	0	L3 0

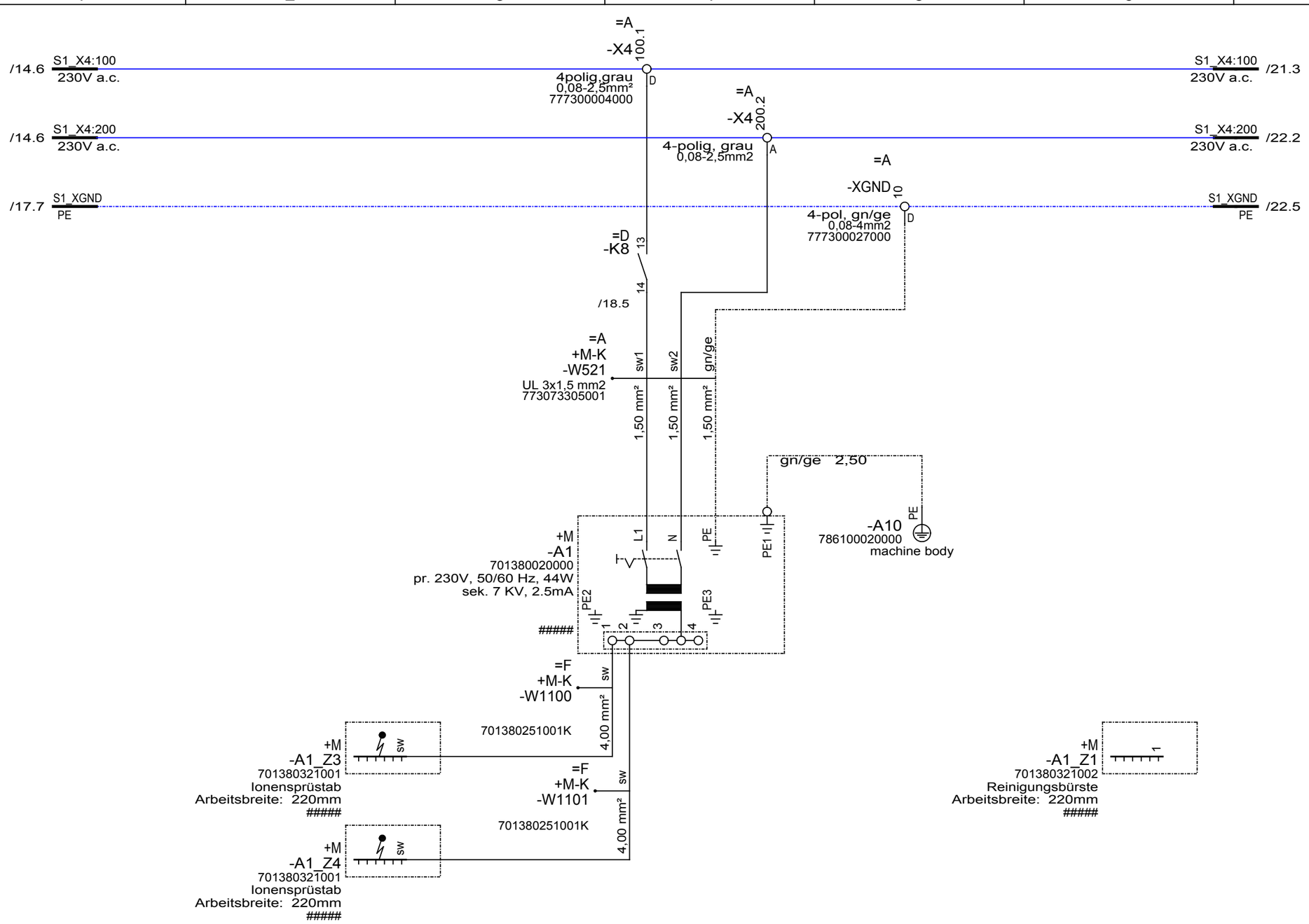
Benennung/Projekt
motor circuit breaker of and 230 V a.c. voltage supply

Änderungsdatum:21.04.2011 13:49:06

CAD | Maschinen Typ 4.09.22 | =D +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

Bl./Sh. 19
73 Bl.

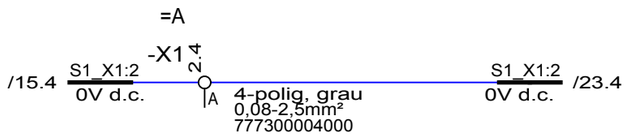


No. < >	
1	FA1 power supply of destatisizing

wiring:

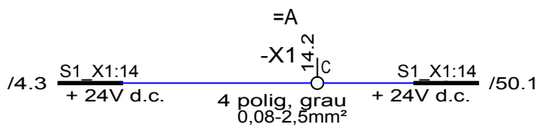
bl 1,00mm²

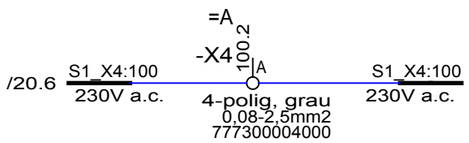
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt destatisizing	Änderungsdatum:21.04.2011 14:18:14	C A D	Maschinen Typ 4.09.22	=F +S1
	Bearb.	K.STUKE	230/400V		L1					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	20
	CAD-Code	K09V-3	50Hz		L3					73 Bl.



No. < >	
1	FK11 relay to turn on/off 1st ignition
2	FV11 opto coupler module to guide chamber valves of 1st ignition
3	FV12 opto coupler module to guide transformer of 1st ignition

just in preparation!





wiring:
bl 1,00 mm2

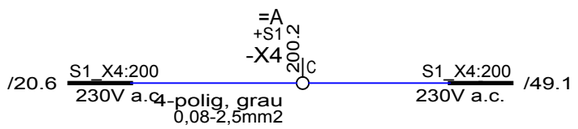
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt output control of 1st ingition	Änderungsdatum:21.04.2011 14:18:14	C A D	Maschinen Typ 4.09.22	=F +S1
	Bearb.	K.STUKE	230/400V	0	L1 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 21 73 Bl.
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0				
	CAD-Code	K09V-3	50Hz	24	L3 0				

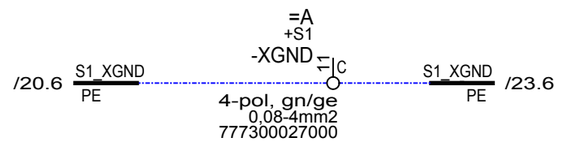
No. < >	
1	FA15 flame monitoring of 1st ignition
2	FA16 plastic housing
3	FA17 flame monitoring electrode of 1st ignition
4	FA18 transformer of 1st ignition
5	FA19 flame ignition electrode of 1st ignition

just in preparation!

bl 1,00 mm2

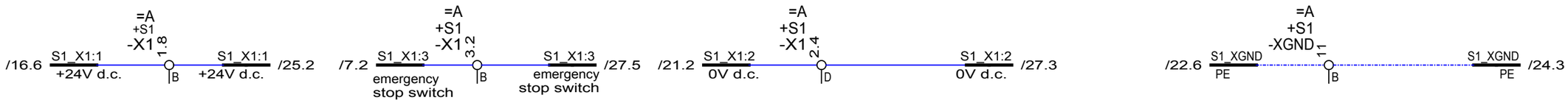
wiring:





KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt control of 1st ignition	Änderungsdatum:21.04.2011 14:18:14
	Bearb.	K.STUKE	230/400V	0	L1 0		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	24	L3 0		

C A D	Maschinen Typ 4.09.22	=F +M	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	22
			73 Bl.

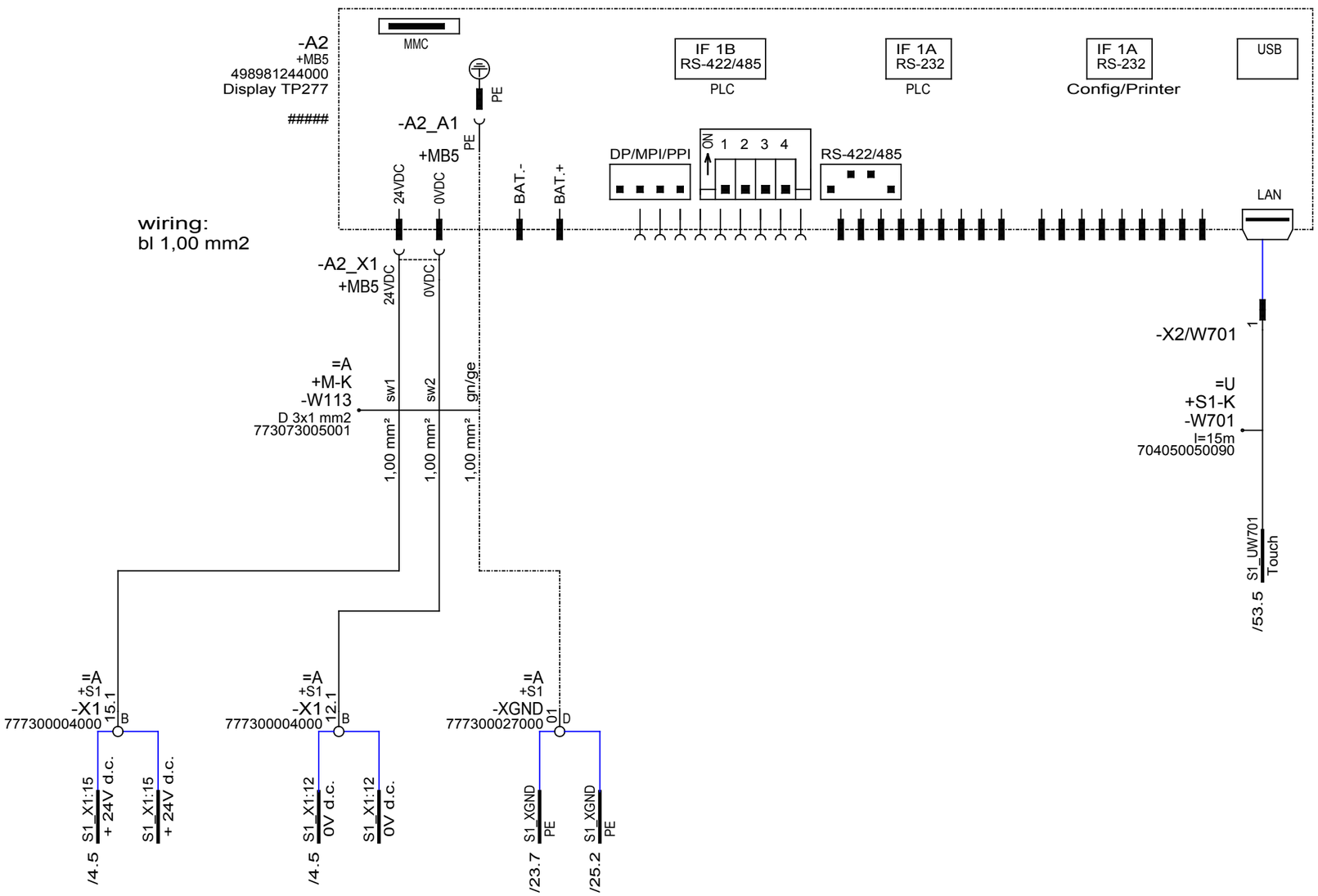


just in preparation!

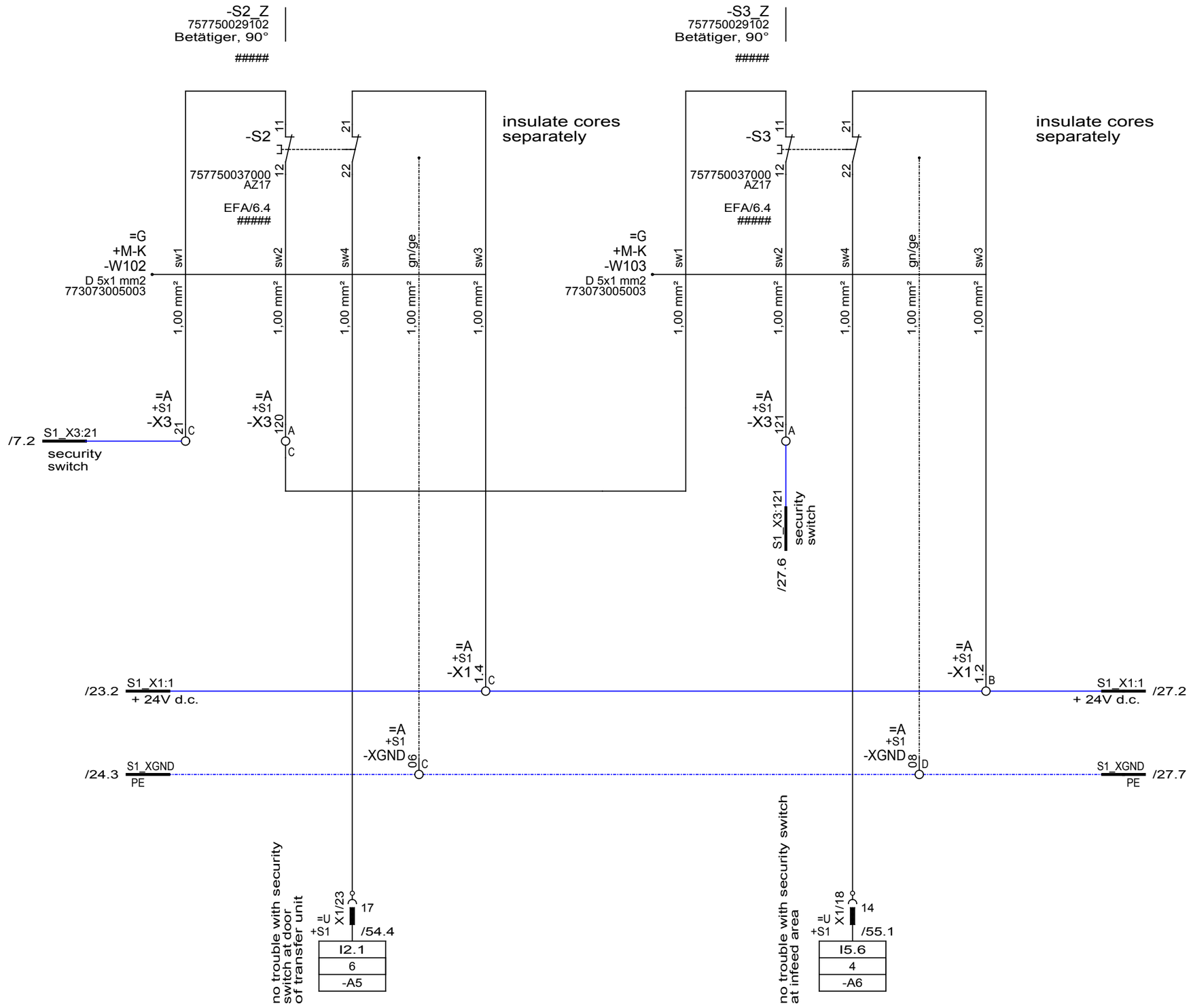
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW 0	Strom/Current A L1 0 L2 0 L3 0	Benennung/Projekt output control of 1st ingition	Änderungsdatum:21.04.2011 14:18:14
	Bearb.	K.STUKE					
	Siline	ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V 24			
	CAD-Code	K09V-3					

C A D	Maschinen Typ 4.09.22	=F	
		+M	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	23
			73 Bl.

No. < >	
1	GA2 touch screen at screen station to handle the machine



KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt display to operate machine	Änderungsdatum:21.04.2011 14:18:14	C A D	Maschinen Typ 4.09.22	=G +M
	Bearb.	K.STUKE	230/400V		L1					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	24
	CAD-Code	K09V-3	50Hz		L3					73 Bl.



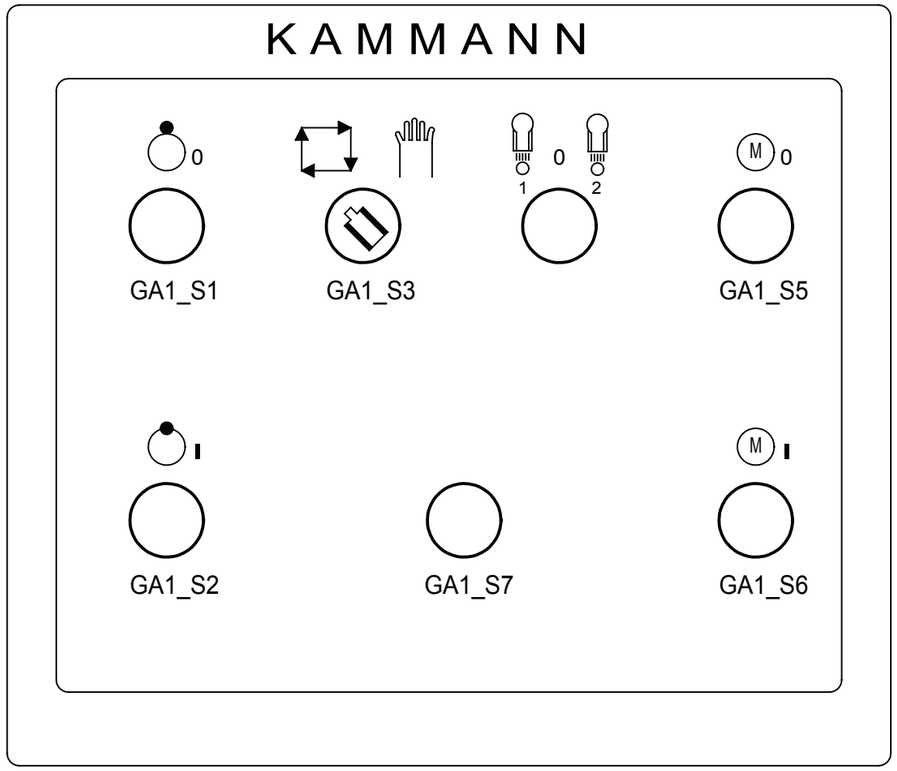
No. < >	
1	GS2 security switch at transfer unit
2	GS3 security switch at infeed area

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
	Bearb.	K.STUKE	230/400V		L1
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2
	CAD-Code	K09V-3	50Hz		L3

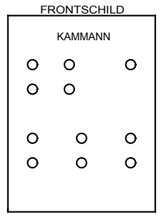
Benennung/Projekt
security switch at infeed and transfer unit

Änderungsdatum:21.04.2011 14:18:14

CAD	Maschinen Typ 4.09.22	=G +M
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh. 25 73 Bl.



-A1
498990620907
Einlauf
212 x 156mm



GA1_S1
switch to turn readiness off

GA1_S2
switch to turn readiness on with light message

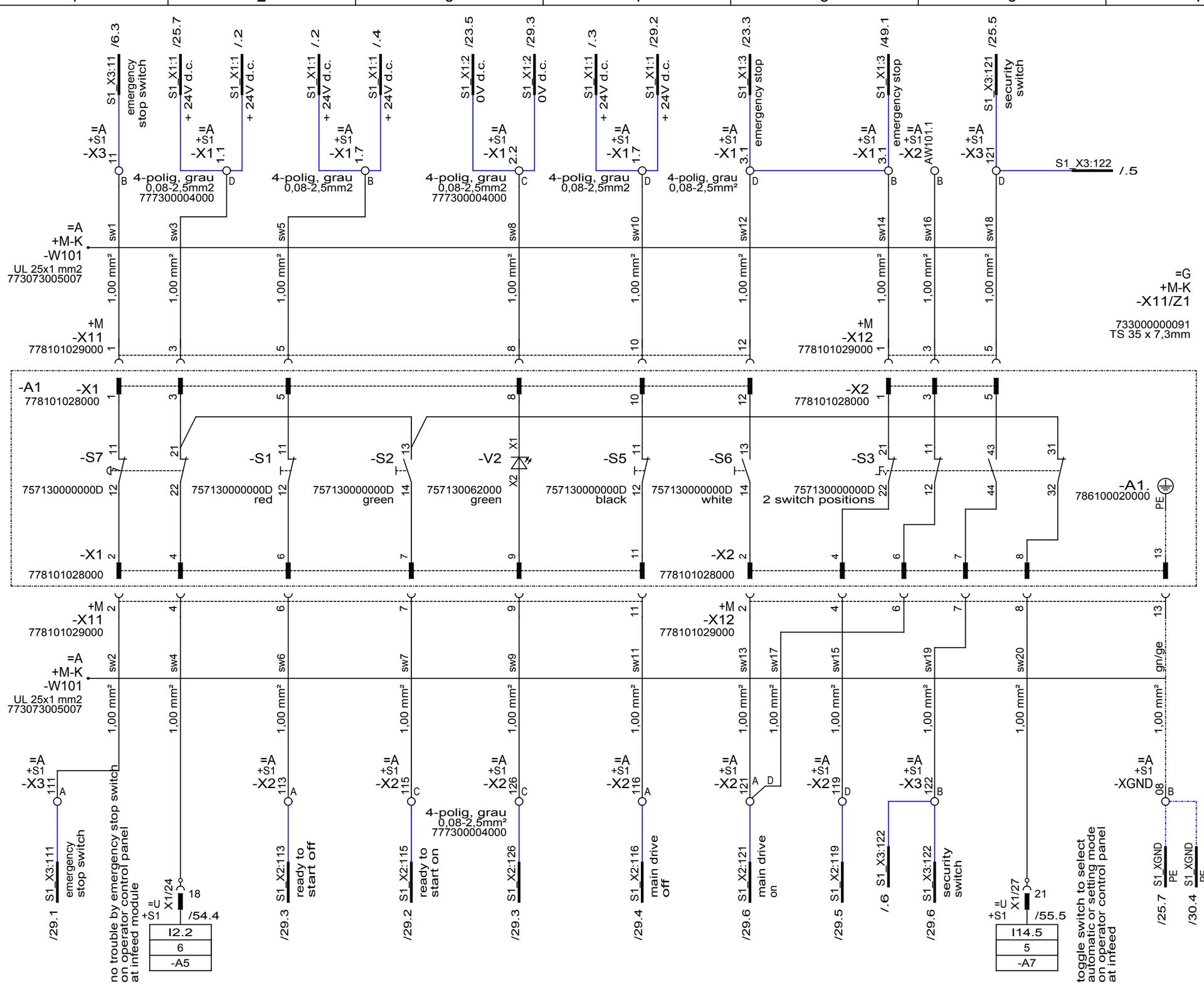
GA1_S3
toggle switch to select automatic or setting mode at operator control panel

GA1_S5
switch to turn main drive off

GA1_S6
switch to turn main drive on

GA1_S7
emergency stop switch

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	CAD	Maschinen Typ 4.09.22
	Bearb.	K.STUKE	230/400V		L1	Änderungsdatum:21.04.2011 14:18:14		=G
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2	construction of operator control panel at infeed		+MB1
	CAD-Code	K09V-3	50Hz		L3		Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 26 / 73 Bl.



No. < >	
1	GA1-S1 switch to turn readiness off
2	GA1-S2 switch to turn readiness on with light message
3	GA1-S3 toggle switch to select automatic or setting mode at operator control panel
4	GA1-S5 switch to turn main drive off
5	GA1-S6 switch to turn main drive on
6	GA1-S7 emergency stop switch
7	GA1-V2 luminous message of turned on readiness

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt operator control panel at infeed	Änderungsdatum:21.04.2011 14:18:14	C A D	Maschinen Typ 4.09.22	=G +MB1
	Bearb.	K.STUKE	230/400V		L1					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh. 27
	CAD-Code	K09V-3	50Hz		L3					73 Bl.

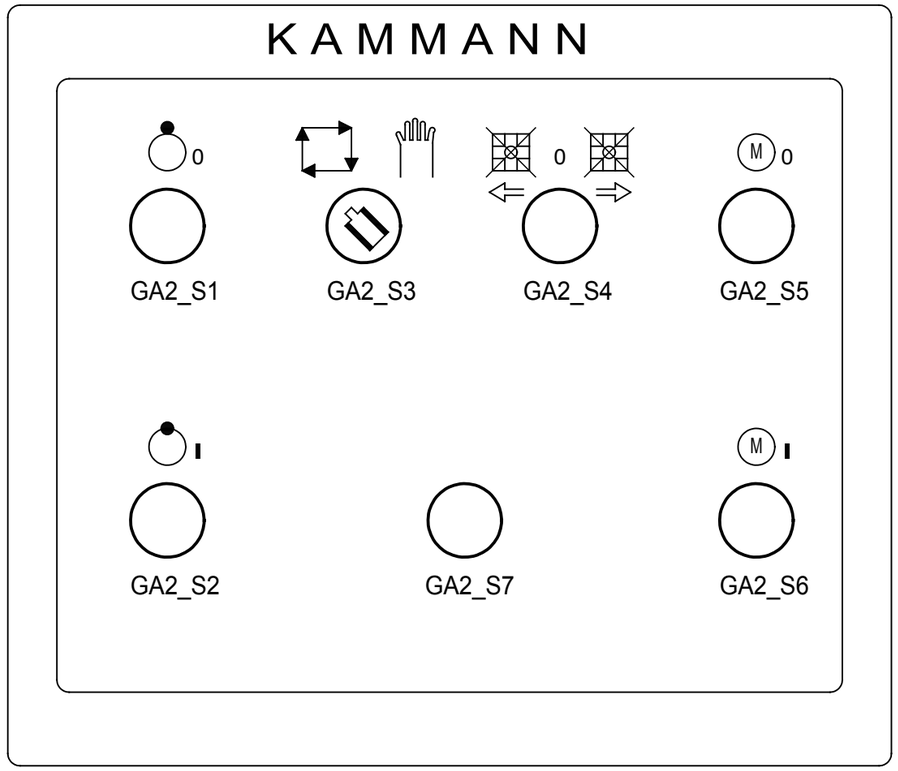
operator control panel between 1st and 2nd screen station

-A2
498990620906
1./2. Druckwerk
212 x 156mm

FRONTSCHILD

KAMMANN

+MB2



GA2_S1
switch to turn readiness off

GA2_S2
switch to turn readiness on with light message

GA2_S3
toggle switch to select automatic or setting mode at operator control panel

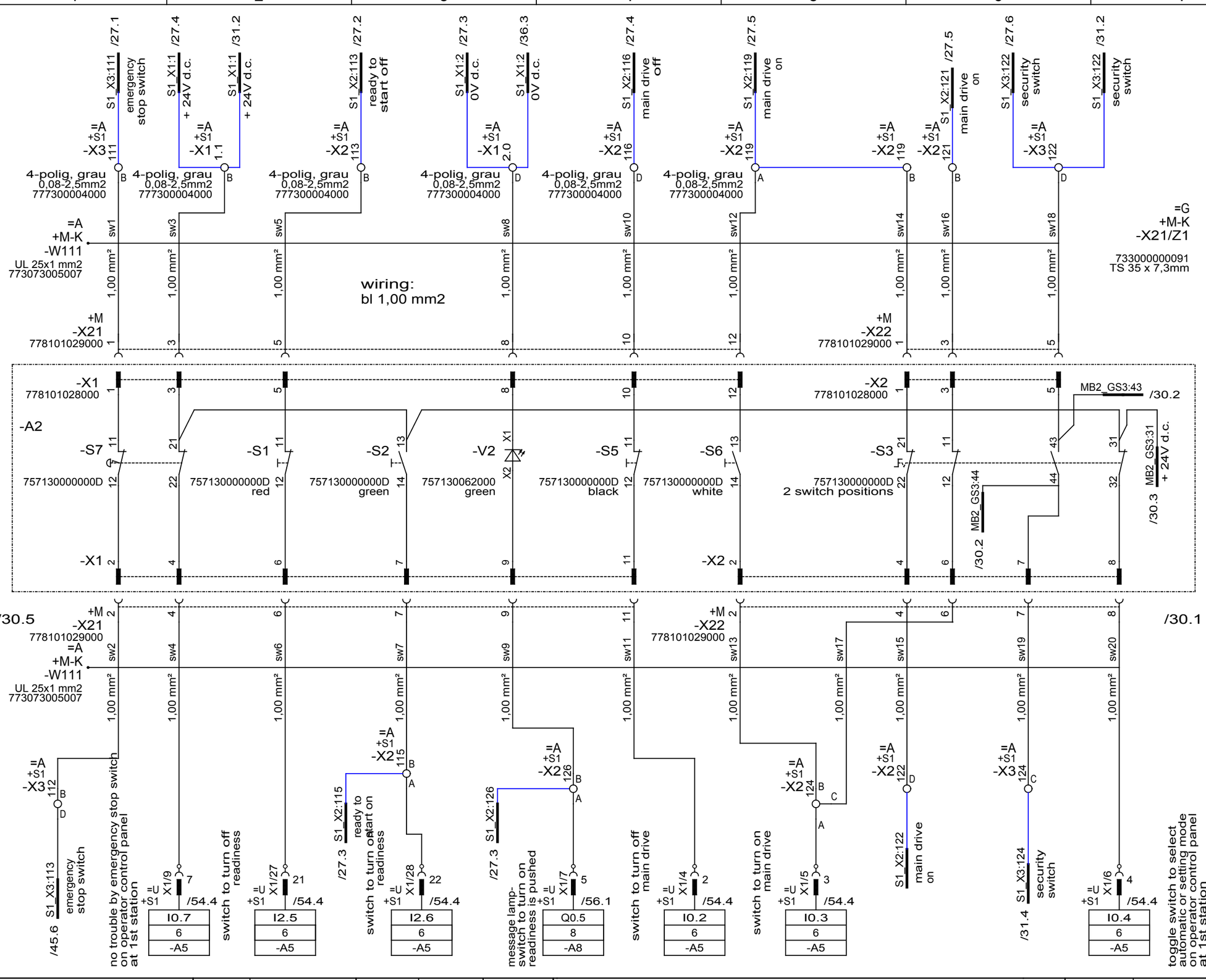
GA2_S4
toggle switch to select the function of ink refill at 1st screen station

GA2_S5
switch to turn main drive off

GA2_S6
switch to turn main drive on

GA2_S7
emergency stop switch

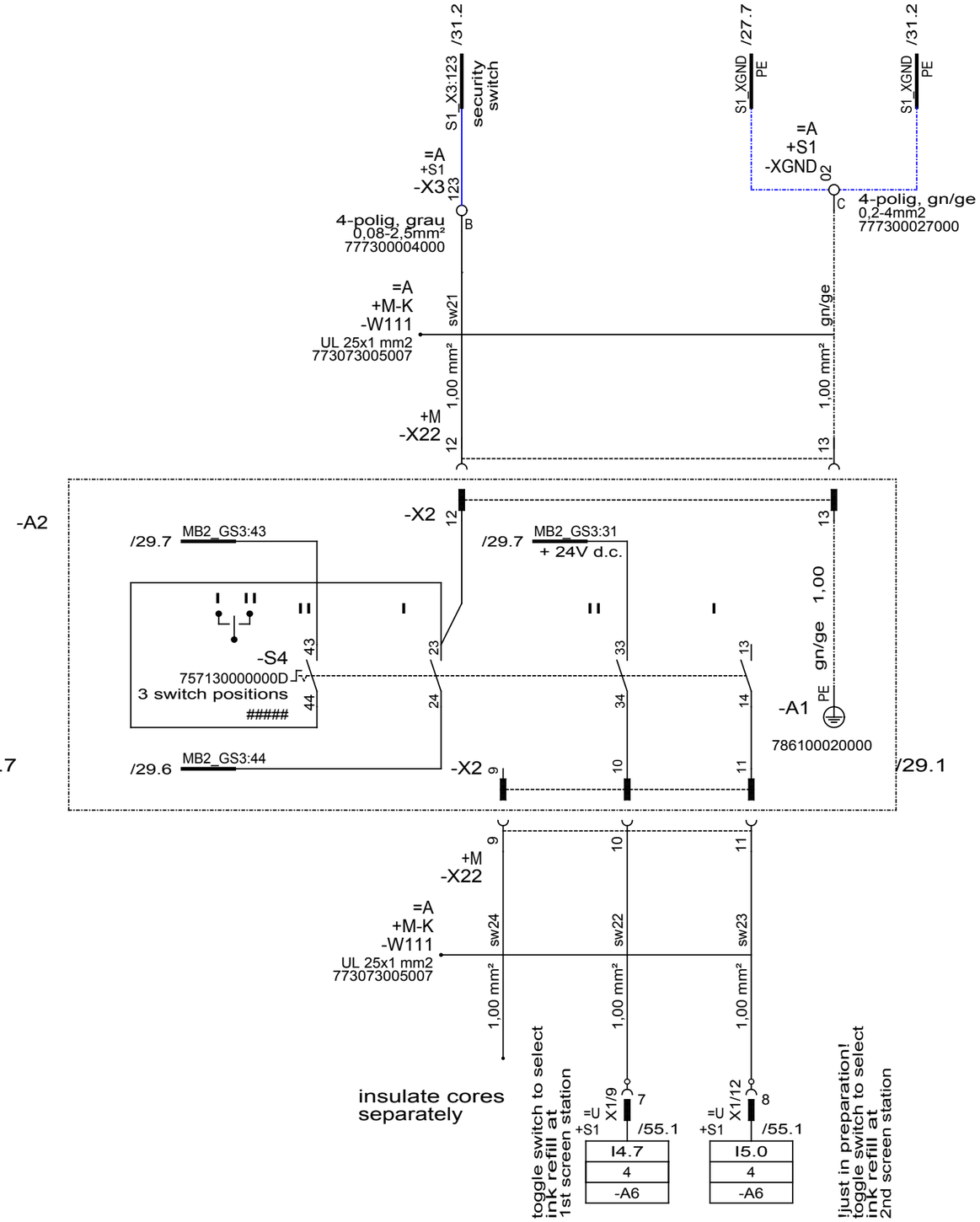
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW	Strom/Current A L1 L2 L3	Benennung/Projekt construction of operator control panels at screen stations	Änderungsdatum:21.04.2011 14:18:14	CAD Maschinen Typ 4.09.22 =G +MB2
	Bearb.	K.STUKE						
	Siline	ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V				Schaltplan Nr./Drawing No. 03.208-09.22/210053.0 Bl./Sh. 28 73 Bl.
	CAD-Code	K09V-3						



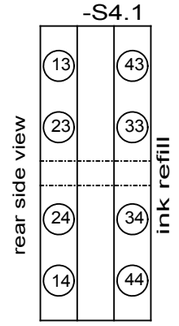
No.	
1	GA2-S1 switch to turn readiness off
2	GA2-S2 switch to turn readiness on with light message
3	GA2-S3 toggle switch to select automatic or setting mode at operator control panel
4	GA2-S5 switch to turn main drive off
5	GA2-S6 switch to turn main drive on
6	GA2-S7 emergency stop switch
7	GA2-V2 luminous message of turned on readiness

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt operator control panel at 1st screen station	Änderungsdatum:21.04.2011 14:18:14
	Bearb.	K.STUKE	230/400V		L1		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2		
	CAD-Code	K09V-3	50Hz		L3		

C A D	Maschinen Typ 4.09.22	=G +MB2	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	29
			73 Bl.



No. < >	
1	GA2-S4 toggle switch to select the function of ink refill at 1st screen station



L-Lauf 1.DW 2.DW

wiring:
bl 1,00 mm2

SICHERHEITSSTROMKREIS
SAFETY INTERLOCK

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt operator control panel of ink refill at 1st screen stat.	Änderungsdatum:21.04.2011 14:18:14
	Bearb.	K.STUKE	230/400V		L1		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2		
	CAD-Code	K09V-3	50Hz		L3		

C A D	Maschinen Typ 4.09.22	=G +MB2	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	30
			73 Bl.

-S11_Z
757750029102
Betätiger, 90°
#####

insulate cores separately

-S11
757750037000
AZ17
EFA/6.4
#####

=G
+M-K
-W111
D 5x1 mm2
773073005003

sw1 1,00 mm²
sw2 1,00 mm²
sw4 1,00 mm²
gn/ge 1,00 mm²
sw3 1,00 mm²

=A +S1 -X3 122 C
=A +S1 -X3 123 D A
=A +S1 -X3 124 A
=A +S1 -X1 1.5 A
=A +S1 -XGND 02 A

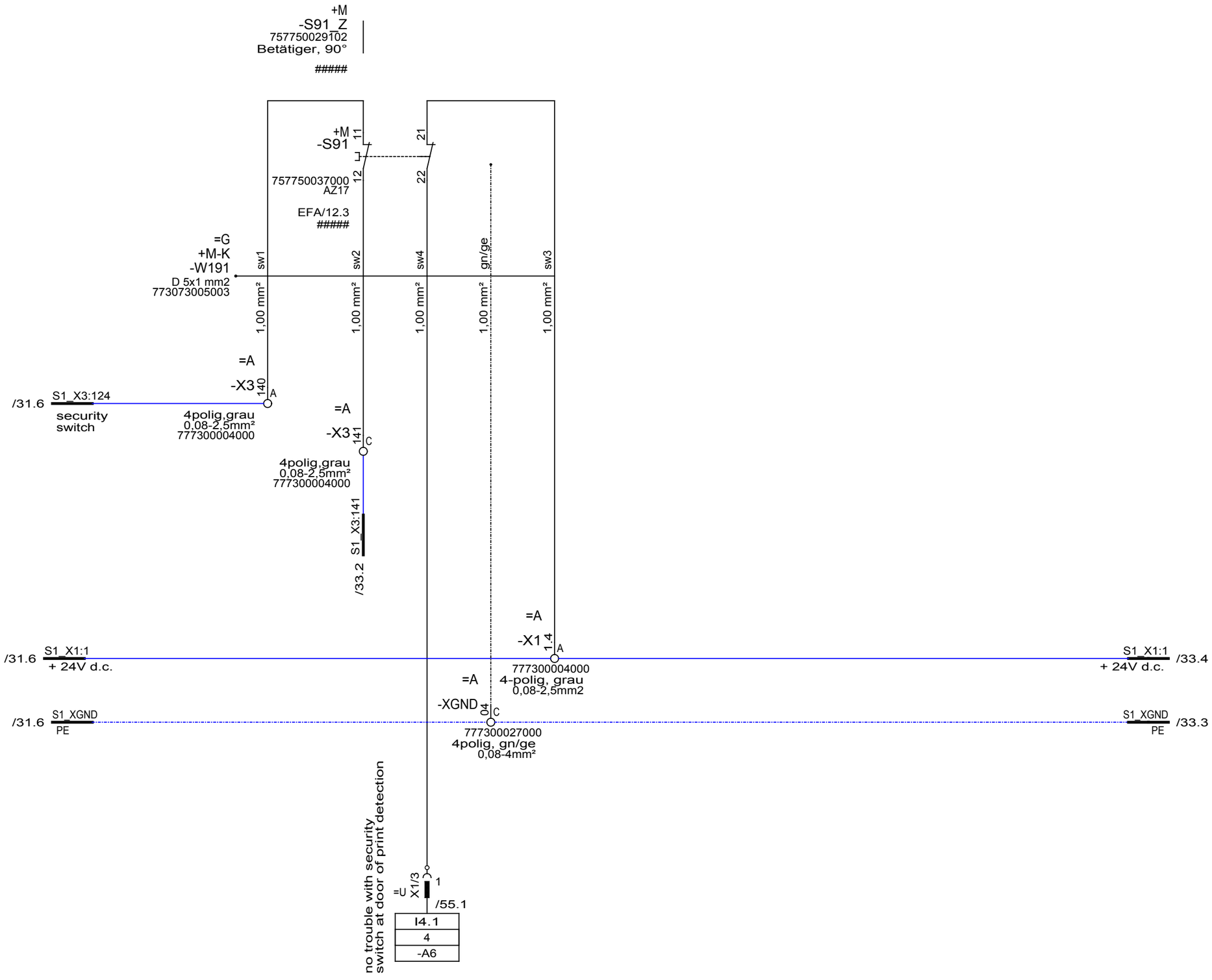
/29.7 S1_X3:122 security switch
/30.3 S1_X3:123 security switch
/29.6 S1_X3:124 security switch → S1_X3:124 /32.1 security switch
/29.2 S1_X1:1 + 24V d.c. → S1_X1:1 /32.1 + 24V d.c.
/30.5 S1_XGND PE → S1_XGND /32.1 PE

no trouble with security switch at 1st station and pre-treatment
=U +S1 X1/2 0 /55.1
I4.0
4
-A6

SICHERHEITSSTROMKREIS
SAFETY INTERLOCK

No. < >	
1	GS11 security switch at 1st screen station

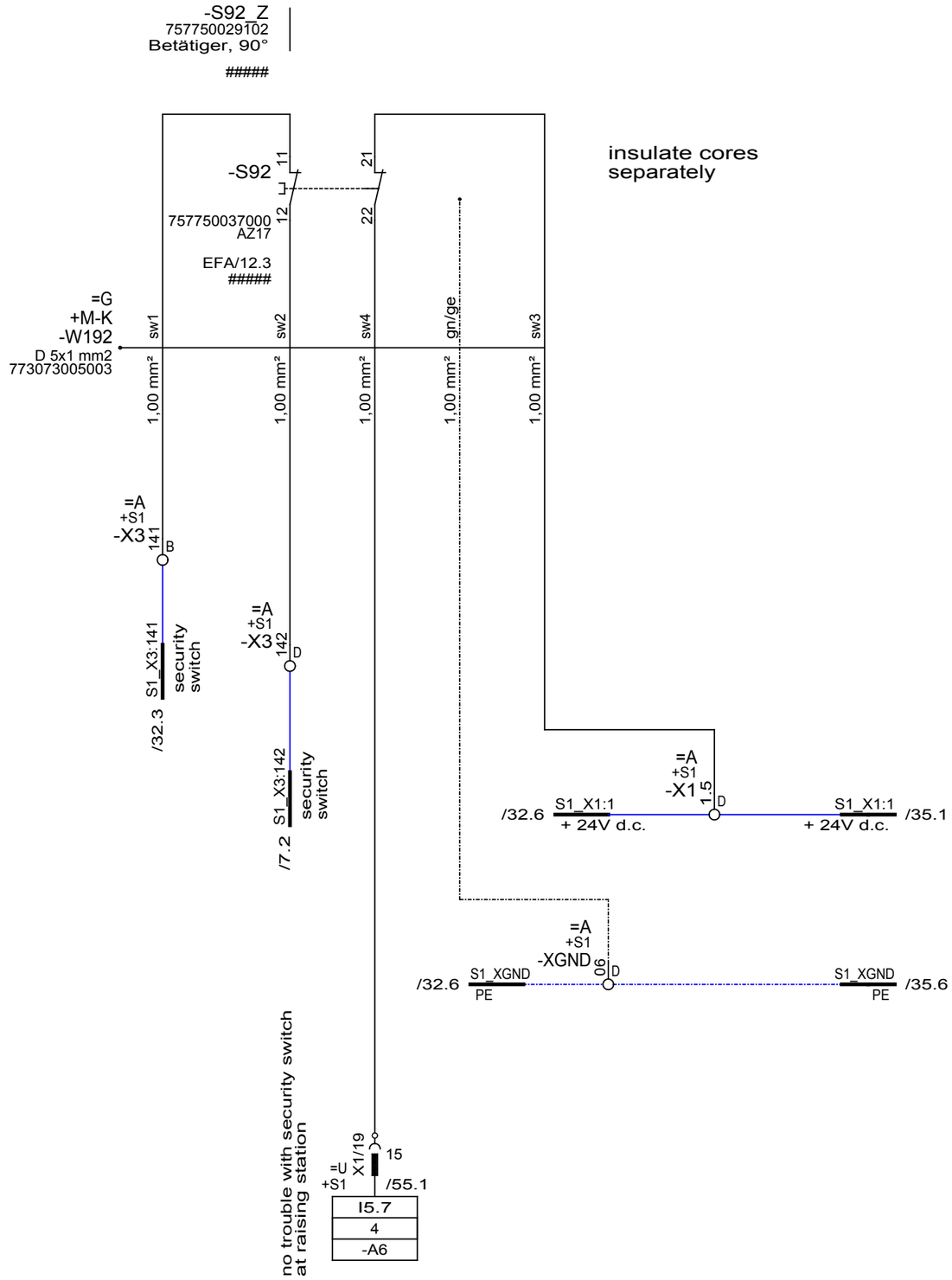
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt security switch at 1st screen station	Änderungsdatum:21.04.2011 14:18:14	C A D	Maschinen Typ 4.09.22	=G +M
	Bearb.	K.STUKE	230/400V		L1					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	31
	CAD-Code	K09V-3	50Hz		L3					73 Bl.



No. < >	
1	GS91 security switch at print detection

SICHERHEITSSTROMKREIS
SAFETY INTERLOCK

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt security switch at print detection	Änderungsdatum:21.04.2011 14:18:14	C A D	Maschinen Typ 4.09.22	=G +S1
	Bearb.	K.STUKE	230/400V		L1					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	32
	CAD-Code	K09V-3	50Hz		L3					73 Bl.



No. < >	
1	GS92 security switch at raising station

SICHERHEITSSTROMKREIS
SAFETY INTERLOCK

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt security switch at raising station	Änderungsdatum:21.04.2011 14:18:14	C A D	Maschinen Typ 4.09.22	=G +M
	Bearb.	K.STUKE	230/400V		L1					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2				Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 33 73 Bl.
	CAD-Code	K09V-3	50Hz		L3					

/4.6 S1_X1:16 0V d.c.

=A -X1 16.1 4 polig, grau 0,08-2,5mm² 777300004000 B

S1_X1:16 0V d.c.

/4.6 S1_X1:17 + 24V d.c.

=A -X1 17.1 4 polig, grau 0,08-2,5mm² B

S1_X1:17 + 24V d.c.

release drive of pre-treatment

-A8 | 8 | Q2.5 | =U /56.1

X1/27 21

analogous rated value of article rotation at pre-treatment

-A11 | 11 | PQW324 | =U /57.3

X1/11 2

X1/14

trouble drive of pre-treatment

-A6 | 4 | I7.0 | =U /55.1

X1/32 24

=A -X7 34 A

=A -X7 37 A 4 polig, grau 0,08-2,5mm² 777300004000

=A -X7 38 A 4 polig, grau 0,08-2,5mm² 777300004000

39 A 4 polig, grau 0,08-2,5mm² 777300004000

=A +M-K -W051 8x0,22+2x1mm2 741410500113 L=10m

	rt	sw	ge	bl	rs	vio	or	ws	br	gn	S
	1,00 mm²	1,00 mm²	0,22 mm²	0,22 mm²	0,22 mm²	0,22 mm²	0,22 mm²	0,22 mm²	0,22 mm²	0,22 mm²	

/59.2 M_AW051:SE

=A +M -X1/W051

E	F	M	G	B	C	J	H	A	K	L	D

+M -M1 741410500500

E	F	M	G	B	C	J	H	A	K	L	D
UE		GND		IN1	IN2	AL+	AL-	OUT1	OUT3	IN3	IN4
+24VDC		0 VDC		Left	Right	0..+10V		Pulse	Fault	Teach	spd1/spd2

24V CD, 100W
10Nm
#####

M

No. < >	
1	HM1 motor of rotation pre-treatment

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW 0	Strom/Current A L1 0 L2 0 L3 0	Benennung/Projekt: control of drive at article rotation of pre-treatment	Änderungsdatum:21.04.2011 14:18:14
	Bearb.	K.STUKE					
	Siline	ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V 24			
	CAD-Code	K09V-3					

C A D	Maschinen Typ 4.09.22	=H	
		+S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	34
			73 Bl.

step-module of
1st uv-drying
drive

-A16
18
PQW580

=U /58.1
1/P 0
5/PN
4/D
8/DN

S1_AW711:SE /59.4

=A
+S1-K
-W711
2K 2x2x0,2mm2
498985210002

-X1/W711

0,20 mm²	1|gn	2
0,20 mm²	1|ge	14
0,20 mm²	1|br	1
0,20 mm²	1|ws	13
0,20 mm²	2|br	7
0,20 mm²	2|ws	19
0,20 mm²	2|gn	
0,20 mm²	2|ge	

no trouble with stepper motor control
card article rotation below 1st uv- drying

=U X1/38 30
/54.4

I3.6
6
-A5

=A
-X1 1.9 A
/33.5 S1_X1:1 +24V d.c.
4-polig, grau
0,08-2,5mm2
777300004000
S1_X1:1 +24V d.c. /36.1

READY FAULT TEMP OVER-VOLT LOW-VOLT RM-FAULT

1 2 3 4 5 6 7 8 ON OFF

-A1
701690320000

#####

CN2 12 7 6 1
CN3 11 12 13 14 15
CN1 24 13 12 1

S1_PF311:1 /48.5
230V a.c.

=A
-X5 N1
S1_X5:N N 3-polig, blau 0,2-10mm2 777300034000 B
S1_X5:N N /48.5

Psw 1,50
bl 1,50 mm²

PE. PE L2/N L1

DC+ VS1 VS2 DC- U V W PE

gn/ge 1,50 mm²

1,50 mm² S

+M
-M1
738084400100
VRDM 3910/50 LWB
4 Nm
#####

U 1
V 2
W 3
PE
PE.

1,50 mm² sw1
1,50 mm² sw2
1,50 mm² sw3

M_AW811:SE /59.3

=A
+M-K
-W811
3x1,5 mm2, gesch.
777303303101

/2.2 IM1 PE

=A
-XGND 12 A
/33.5 S1_XGND PE
4 polig, gn/ge
0,08-4mm²
777300027000
S1_XGND PE /36.6

QUALIFIZIERTES PERSONAL
QUALIFIED PERSONNEL

No. < >	
1	IA1 stepper motor control card rotation articles at 1st uv drying
2	IM1 motor of rotation articles at 1st uv drying

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
	Bearb.	K.STUKE	230/400V	0	L1 0
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
	CAD-Code	K09V-3	50Hz	24	L3 0

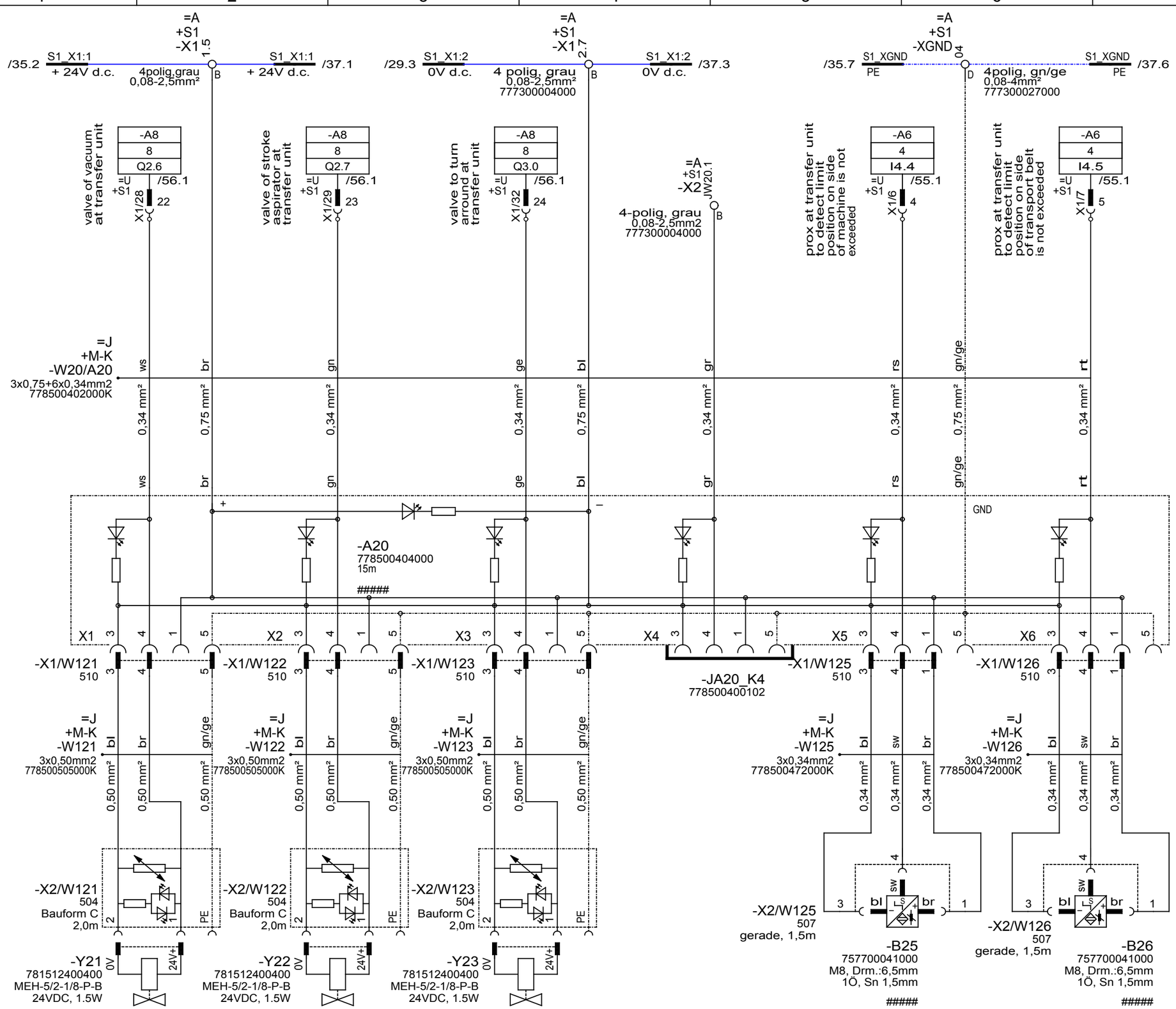
Benennung/Projekt
stepper motor article rotation below 1st uv- drying

Änderungsdatum:21.04.2011 14:18:14

CAD Maschinen Typ 4.09.22 =I +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

Bl./Sh. 35
73 Bl.



No. < >	
1	JY21 valve of vacuum at transfer unit
2	JY22 valve of stroke aspirator at transfer unit
3	JY23 valve to turn arround at transfer unit
4	JB25 prox at transfer unit to detect limit position on side of machine
5	JB26 prox at transfer unit to detect limit position on side of transport belt

KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW	Strom/Current A L1 L2 L3
Bearb.	K.STUKE			
Siline	ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V	
CAD-Code	K09V-3			

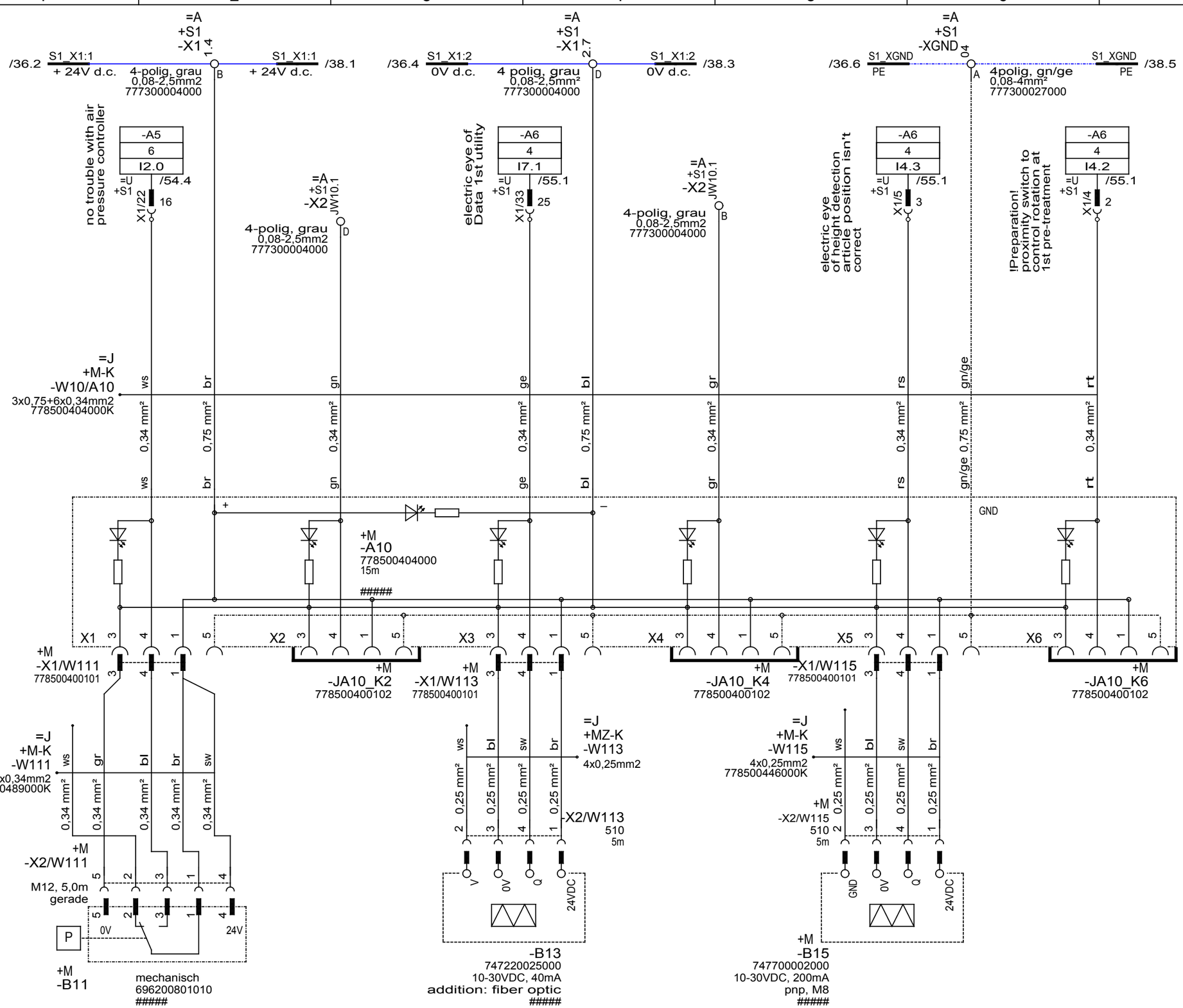
Benennung/Projekt
actors and sensors at transfer unit

Änderungsdatum:21.04.2011 14:18:14

CAD
Maschinen Typ 4.09.22
=J
+M

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

Bl./Sh. 36
73 Bl.



No. < >	
1	JB11 pressure controller
2	JB13 electric eye to detect data at infeed 1st utility
3	JB15 electric eye of height detection

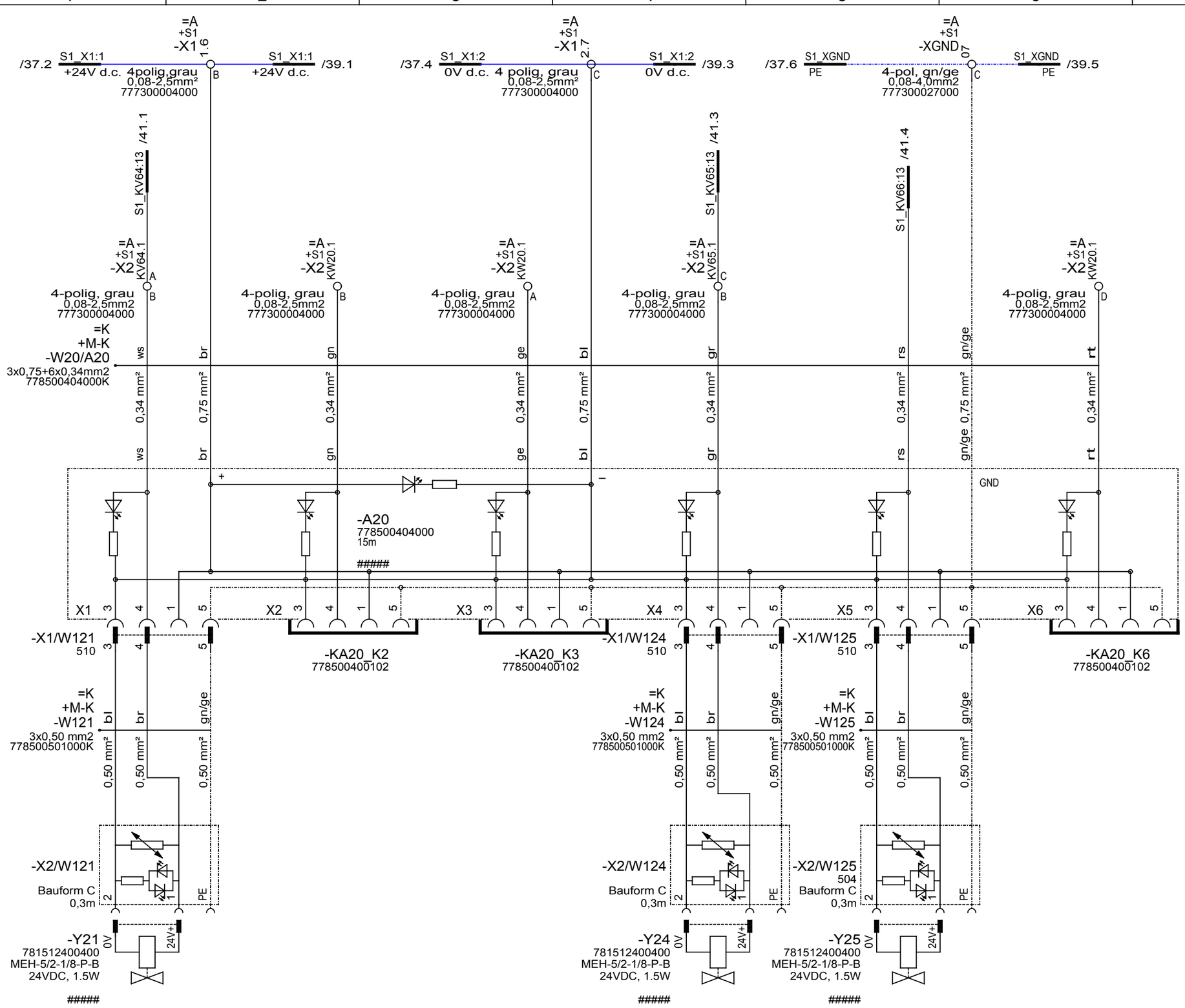
KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	
Bearb.	K.STUKE	230/400V		L1	
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2	
CAD-Code	K09V-3	50Hz		L3	

Benennung/Projekt
actors and sensors at infeed conveyor belt and infeed

Änderungsdatum:21.04.2011 14:18:14

C A D	Maschinen Typ 4.09.22	=J +MZ
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	37
		73 Bl.

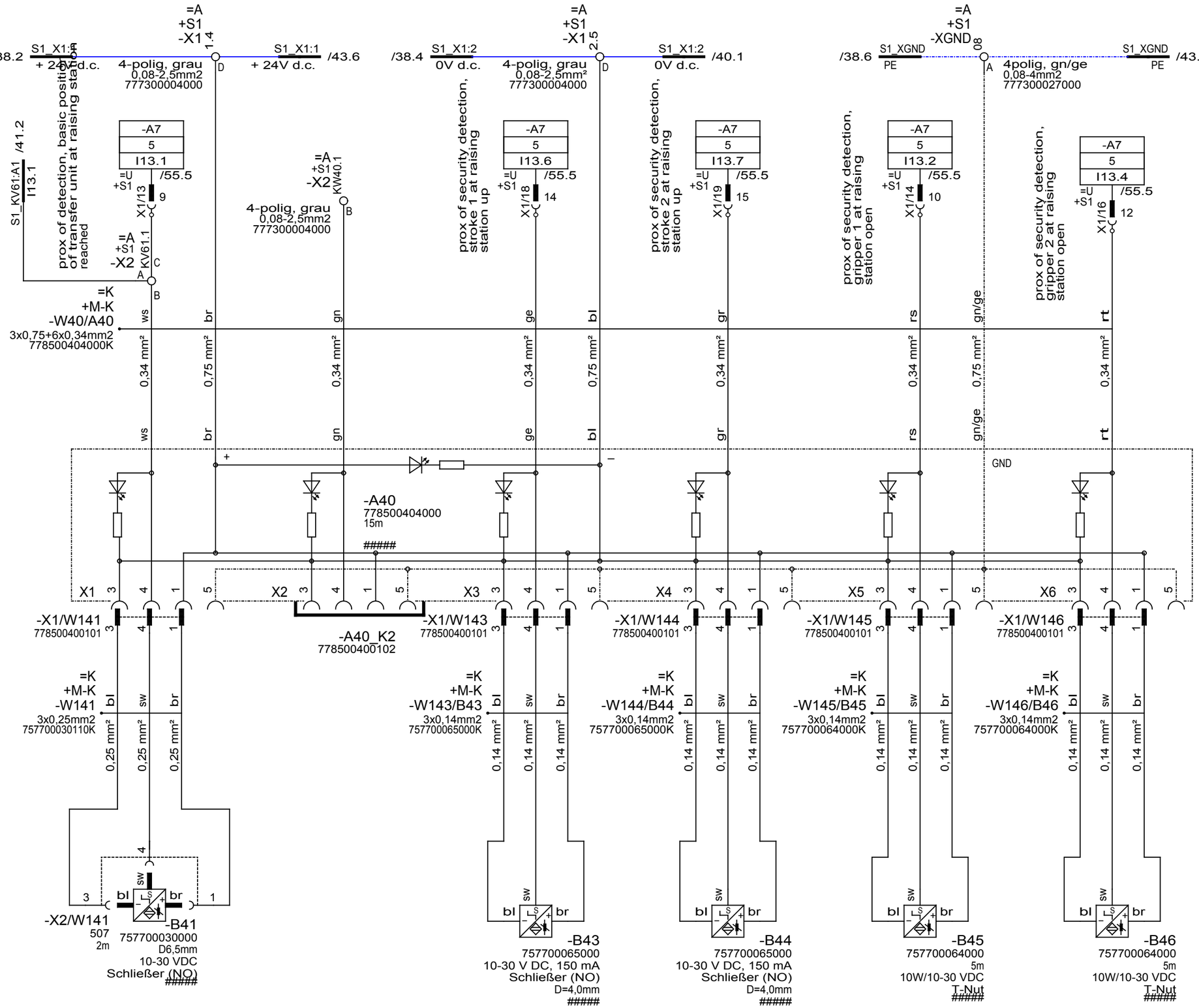


No. < >	
1	KY21 gripper valve 1 of set up station at outfeed
2	KY24 stroke valve 1 at set up station
3	KY25 stroke valve 2 at set up station

wiring:

bl 1,00²

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt actors and sensors at outfeed/set up station	Änderungsdatum:21.04.2011 14:20:26	C A D	Maschinen Typ 4.09.22	=K +M
	Bearb.	K.STUKE	230/400V		L1			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	38
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2					73 Bl.
	CAD-Code	K09V-3	50Hz		L3					



No. < >	
1	KB41 prox at outfeed to detect basic position of transfer unit
2	KB43 prox of security detection stroke up at set up station
3	KB44 prox of security detection height compensation up at set up station
4	KB45 prox of security detection, gripper 1 open
5	KB46 prox of security detection, gripper 2 open

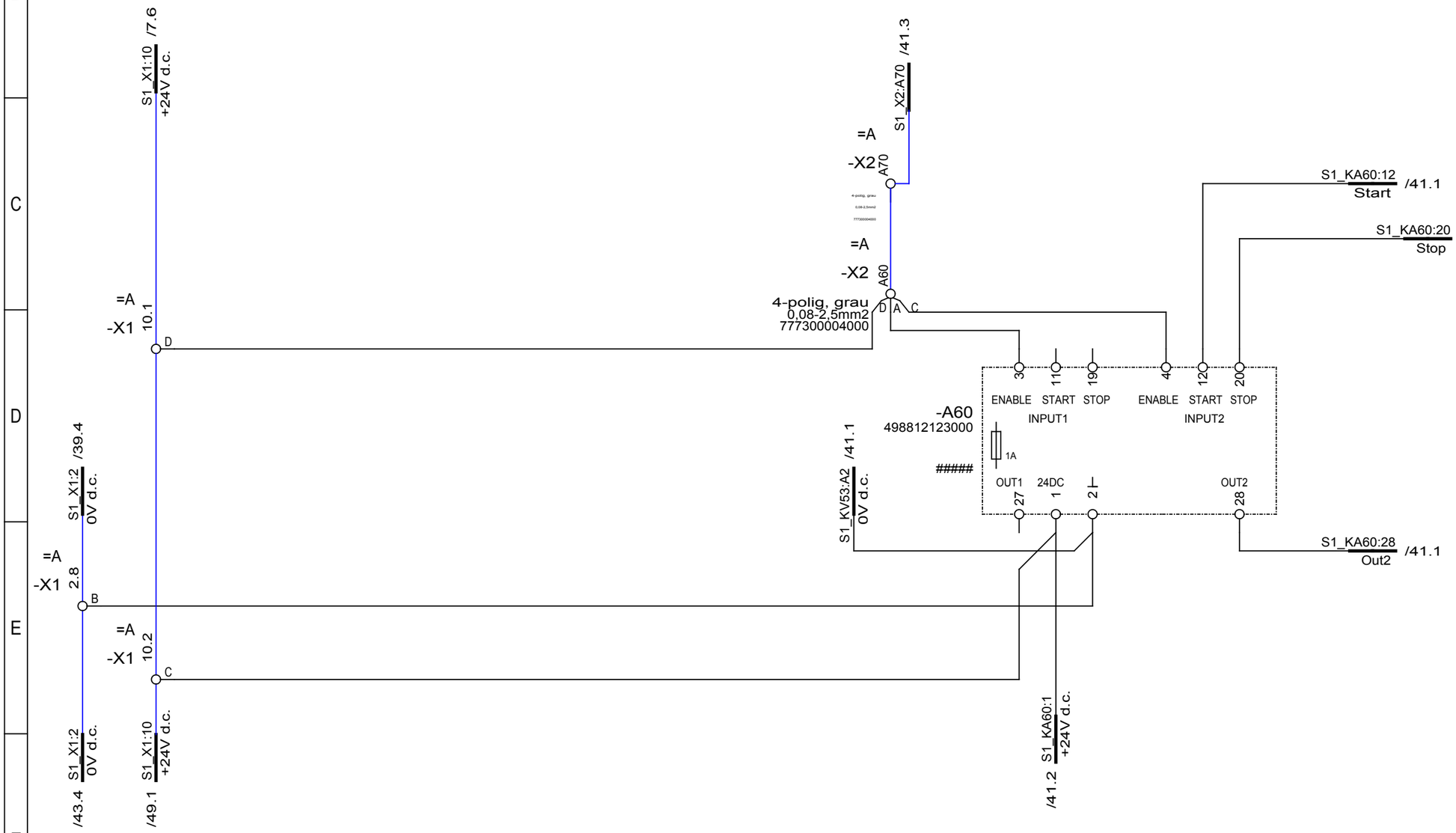
wiring:

bl 1,00²

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 14:41:24
	Bearb.	K.STUKE	230/400V		L1	actors and sensors at outfeed/set up station	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2		
	CAD-Code	K09V-3	50Hz		L3		

CAD	Maschinen Typ 4.09.22	=K	
		+M	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	39
			73 Bl.

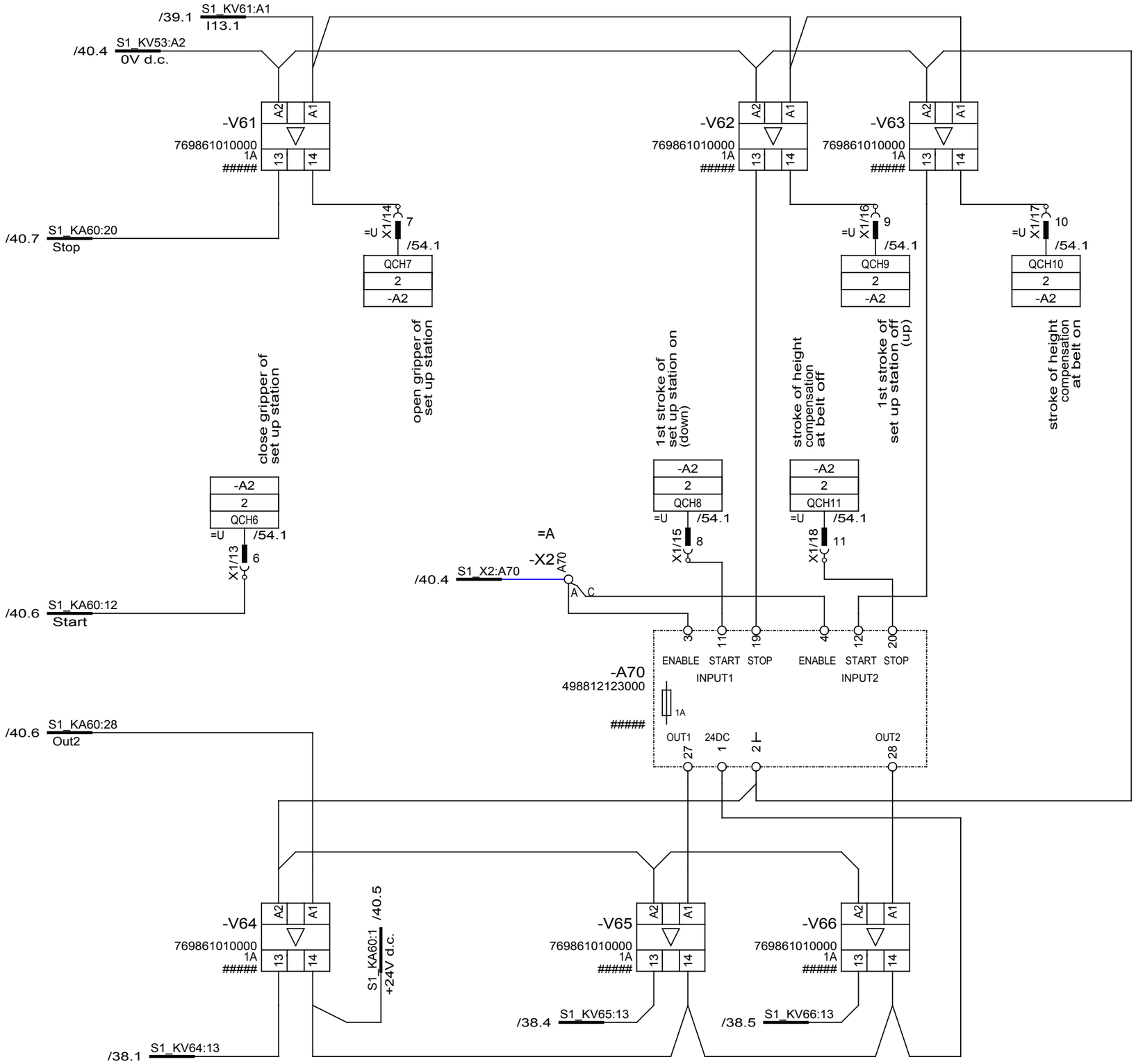
No. < >	
1	KA60 logic units



wiring:

bl 1,00²

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt control of opto coupler at tilt over/ set up station	Änderungsdatum:21.04.2011 14:41:24	C A D	Maschinen Typ 4.09.22	=K +S1
	Bearb.	K.STUKE	230/400V		L1					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	40
	CAD-Code	K09V-3	50Hz		L3					73 Bl.



No. < >	
1	KA70 logic units
2	KV61-66 opto coupler of set up station

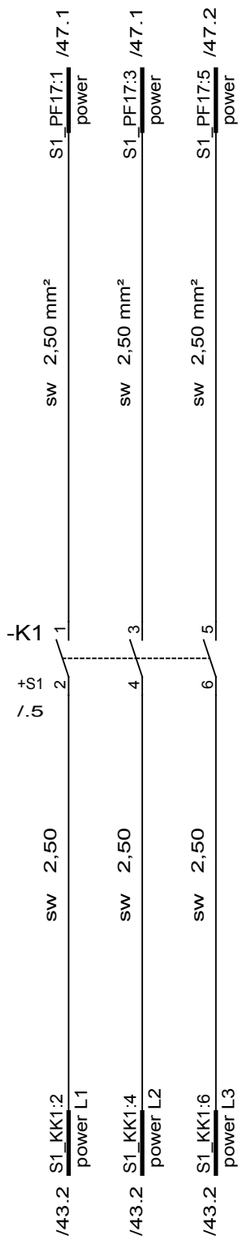
wiring:

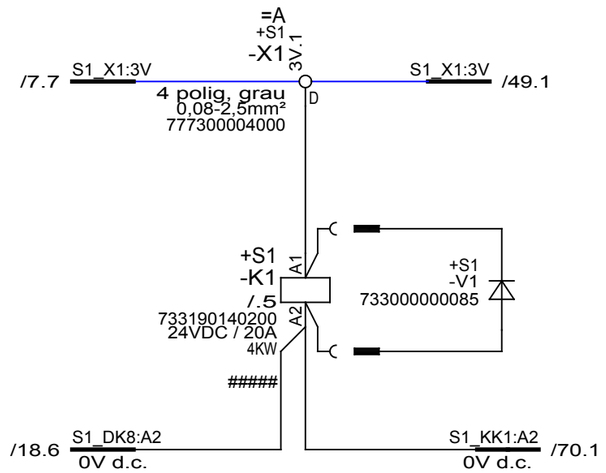
bl 1,00²

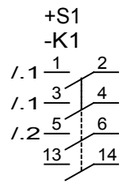
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt control of opto coupler at tilt over/ set up station	Änderungsdatum:21.04.2011 14:41:24
	Bearb.	K.STUKE	230/400V		L1		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2		
	CAD-Code	K09V-3	50Hz		L3		

C A D	Maschinen Typ 4.09.22	=K +S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	41 73 Bl.

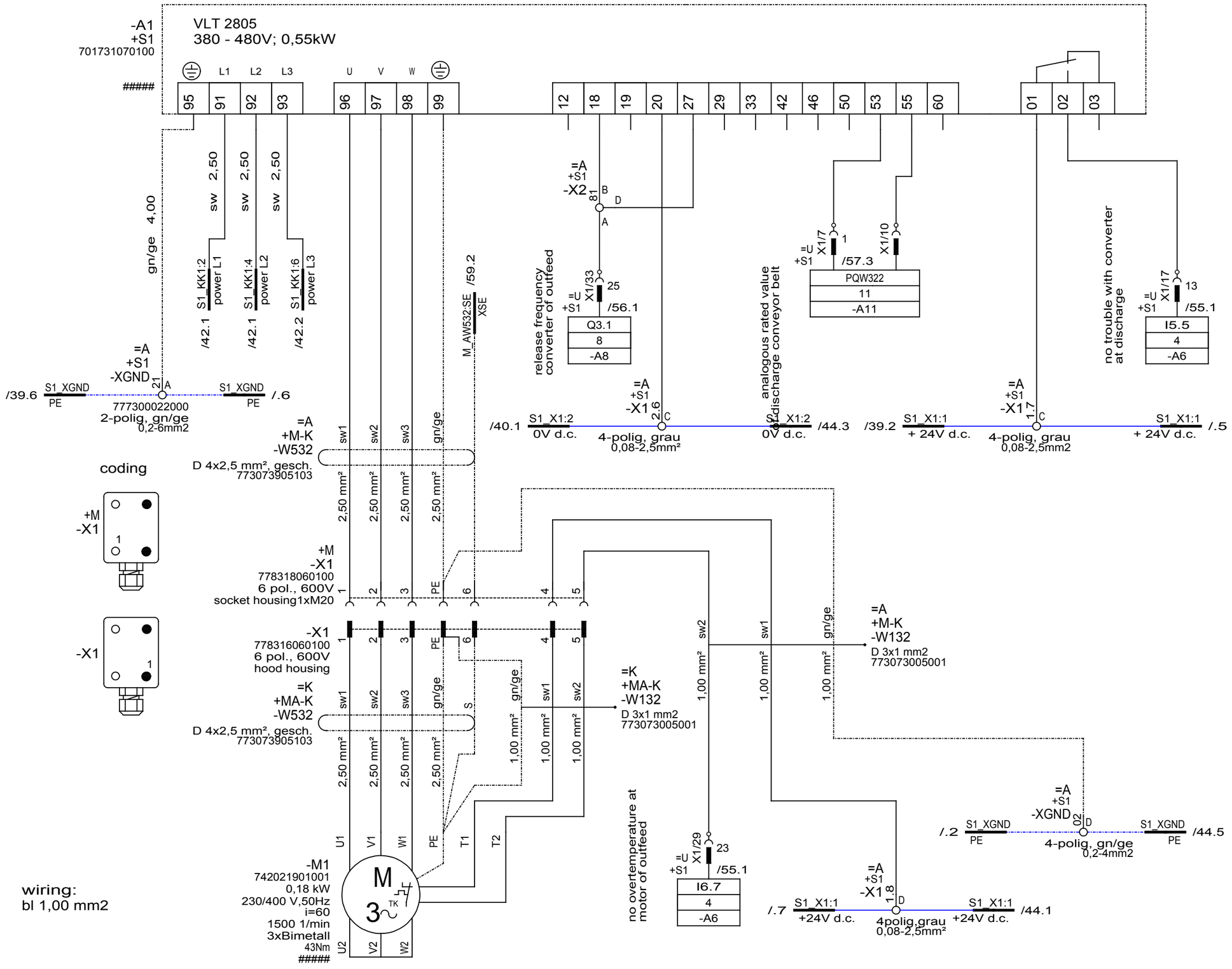
No. < >	
1	KK1 power relay of discharge conveyor belt







Werner Kammann Maschinenfabrik D-32221 Buende Postf. 2109	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt power and control at discharge conveyor belt power and control at discharge conveyor belt	Änderungsdatum:21.04.2011 14:43:18	C A D	Maschinen Typ 4.09.22	=K +MA
	Bearb.	K.STUKE	230/400V		L1			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 42
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2				73 Bl.
	CAD-Code	K09V-3	50Hz		L3				



No. < >	
1	KA1 frequency converter at discharge conveyor belt
2	KM1 motor of discharge conveyor belt

BY WORK AT THE FREQUENCY INVERTER DISCONNECT THE WORKING VOLTAGE !

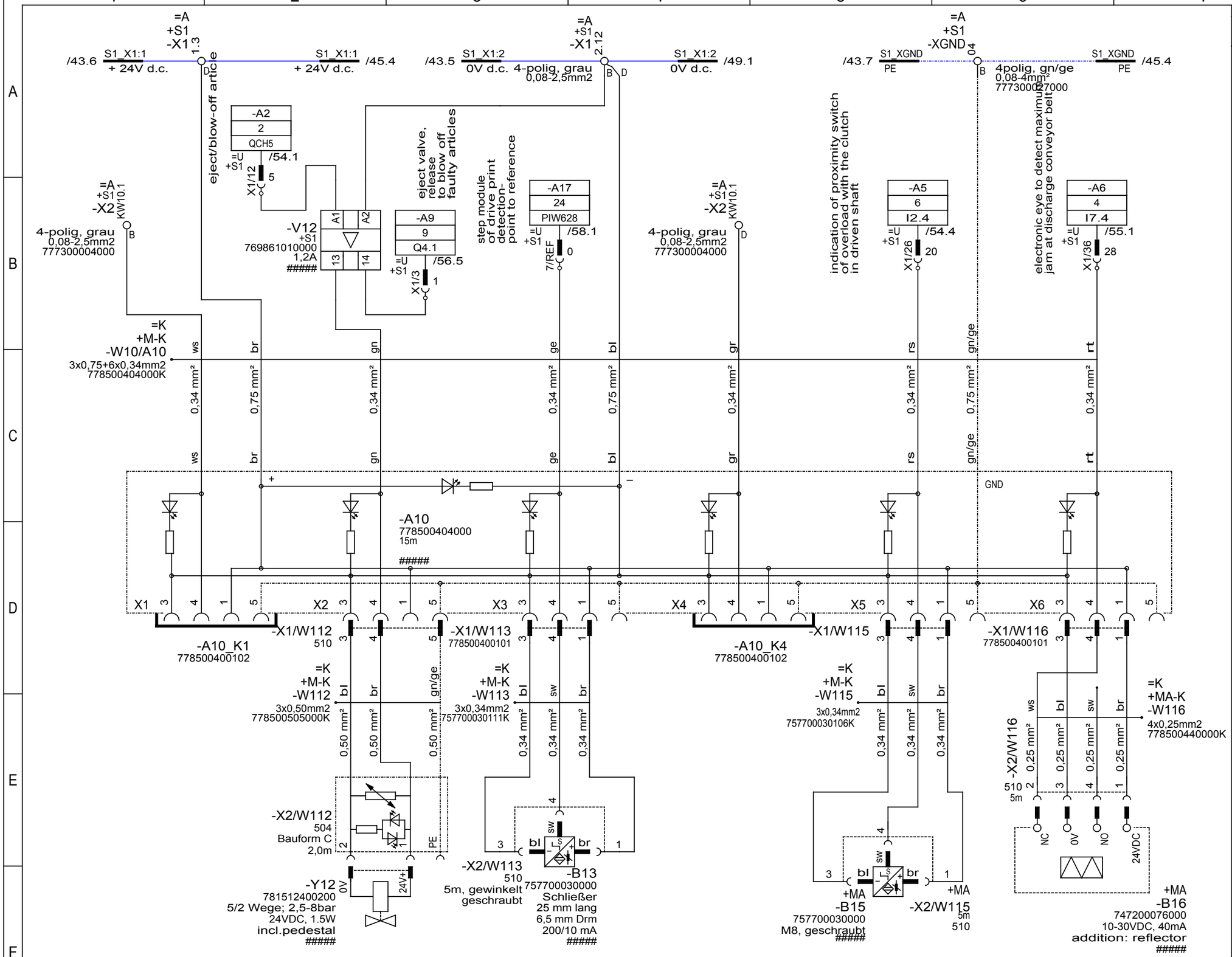
SWITH THE SUPPLY DISCONNECTING OFF !

WORK AT THE UNIT IS ALLOWED AFTER 4 MINUTES DELAY.

QUALIFIZIERTES PERSONAL
QUALIFIED PERSONNEL

Werner Kammann Maschinenfabrik D-32221 Buende Postf. 2109	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 14:43:18
	Bearb.	K.STUKE	230/400V		L1	power and control at discharge	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2		
	CAD-Code	K09V-3	50Hz		L3		

C A D	Maschinen Typ 4.09.22	=K	
		+MA	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	43
			73 Bl.

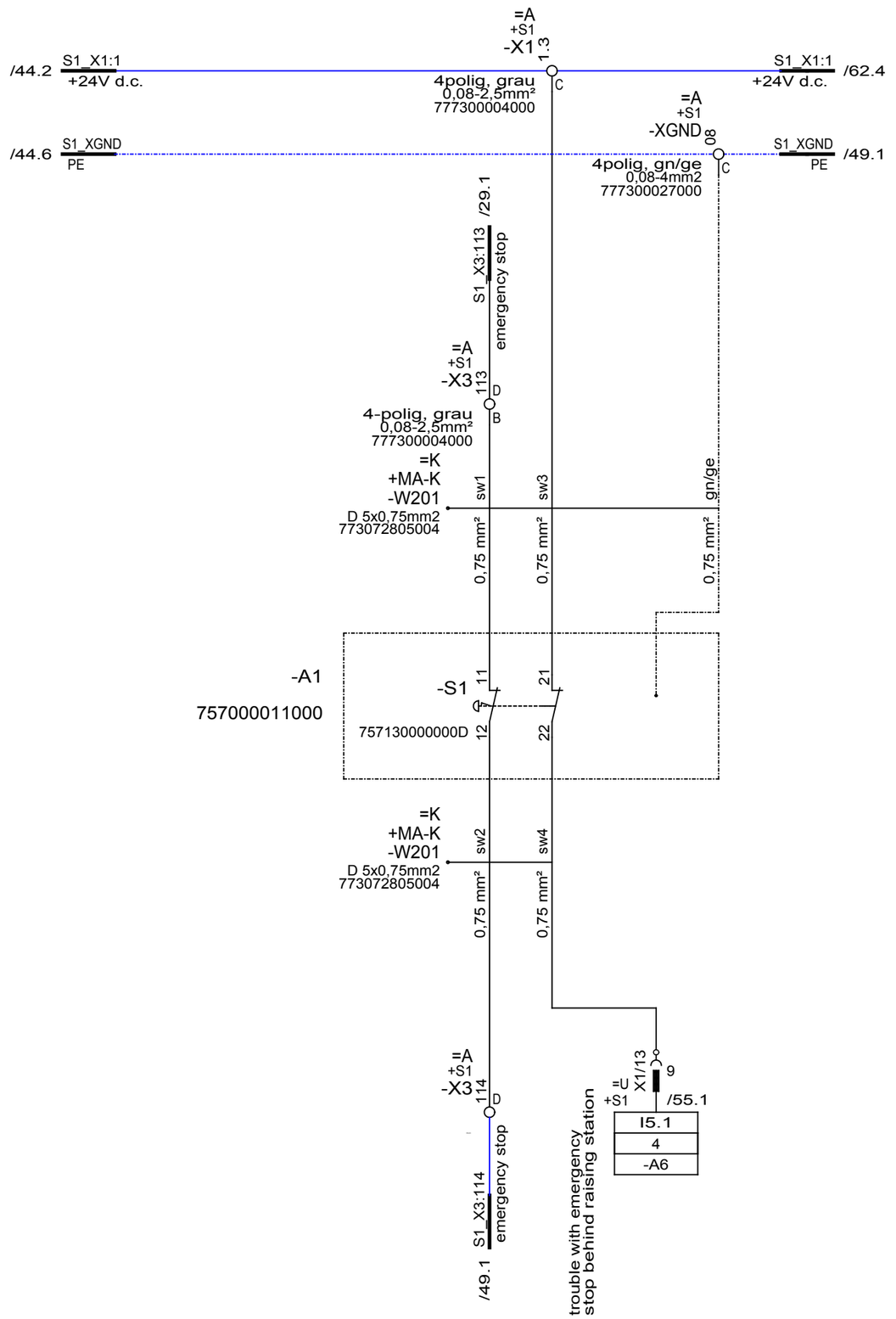


No. < >	
1	KY12 valve to eject blow out 1st utility
2	KB13 proximity switch of setting reference point rotation print check
3	KB15 prox of overload with the clutch in driven shaft
4	KB16 electronic eye to detect maximum jam at discharge belt

insulate cores separately

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 14:43:18
	Bearb.	K.STUKE	230/400V		L1	Actors and sensors of machine and at outfeed	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2		
	CAD-Code	K09V-3	50Hz		L3		

C A D	Maschinen Typ 4.09.22	=K	
		+M	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	44
			73 Bl.



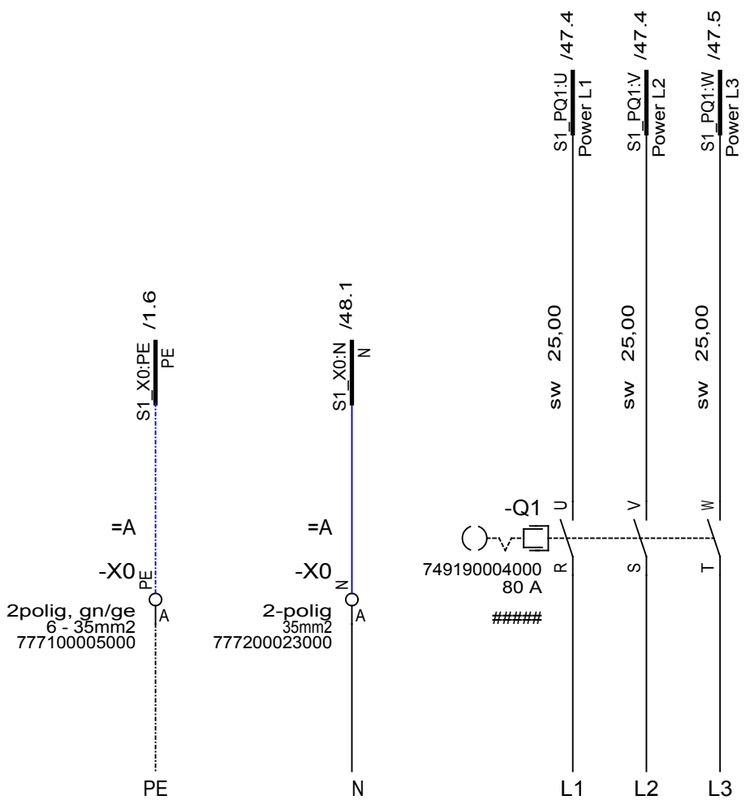
No. < >	
1	KA1-S1 emergency stop switch placed in housing at setting up station

wiring:

bl 1,00²

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt emergency stop at discharge/ set up station	Änderungsdatum:21.04.2011 14:43:18
	Bearb.	K.STUKE	230/400V		L1		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2		
	CAD-Code	K09V-3	50Hz		L3		

C A D	Maschinen Typ 4.09.22	=K +MA	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	45 73 Bl.

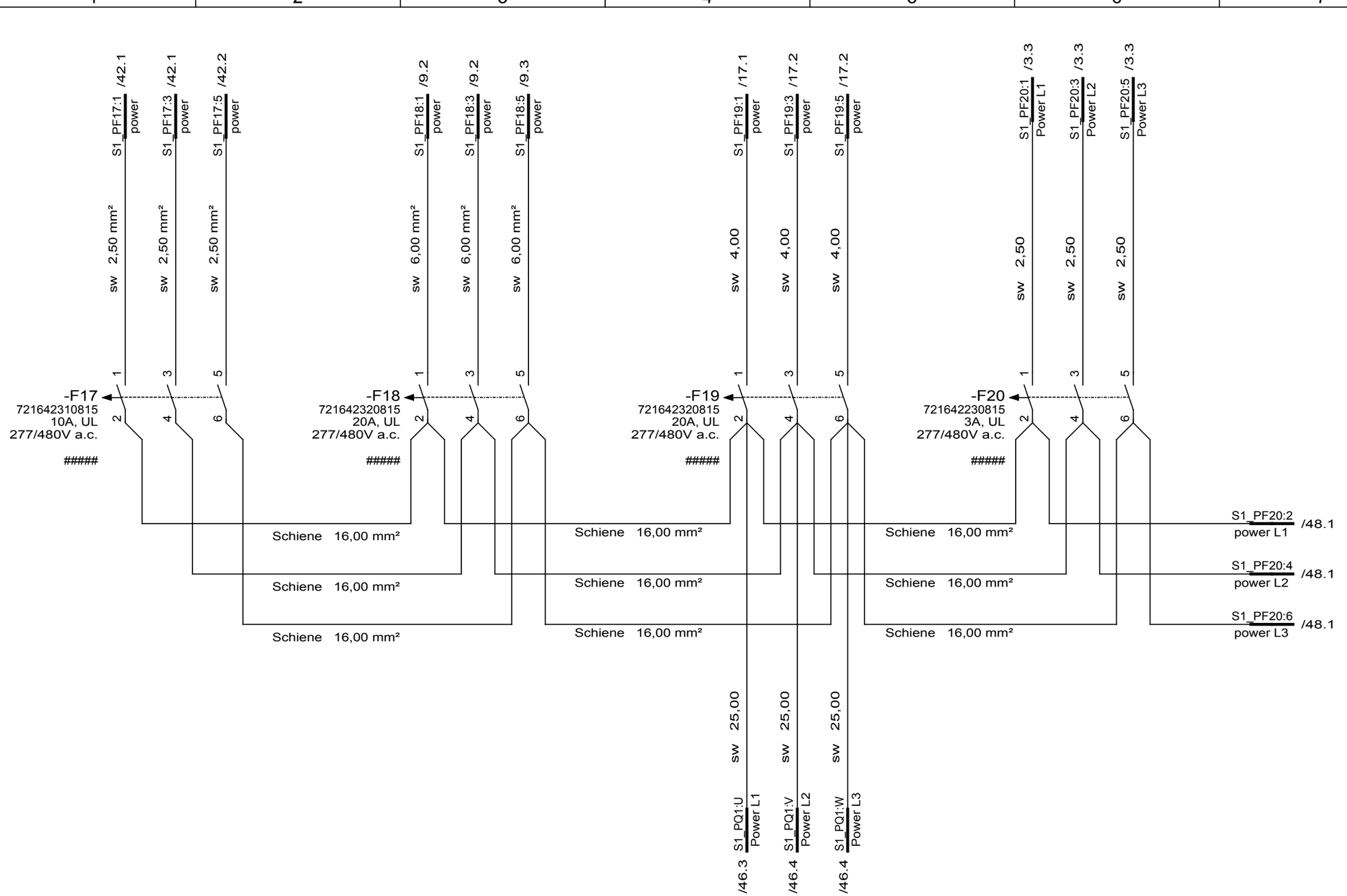


electrical connection from customer

-A1
779120016000;498990701400;779100000127;779100000130;779110043101;779120016101
electric cabinet1200x1800x400mm
socket1200x400mm side panel set400x1800mm

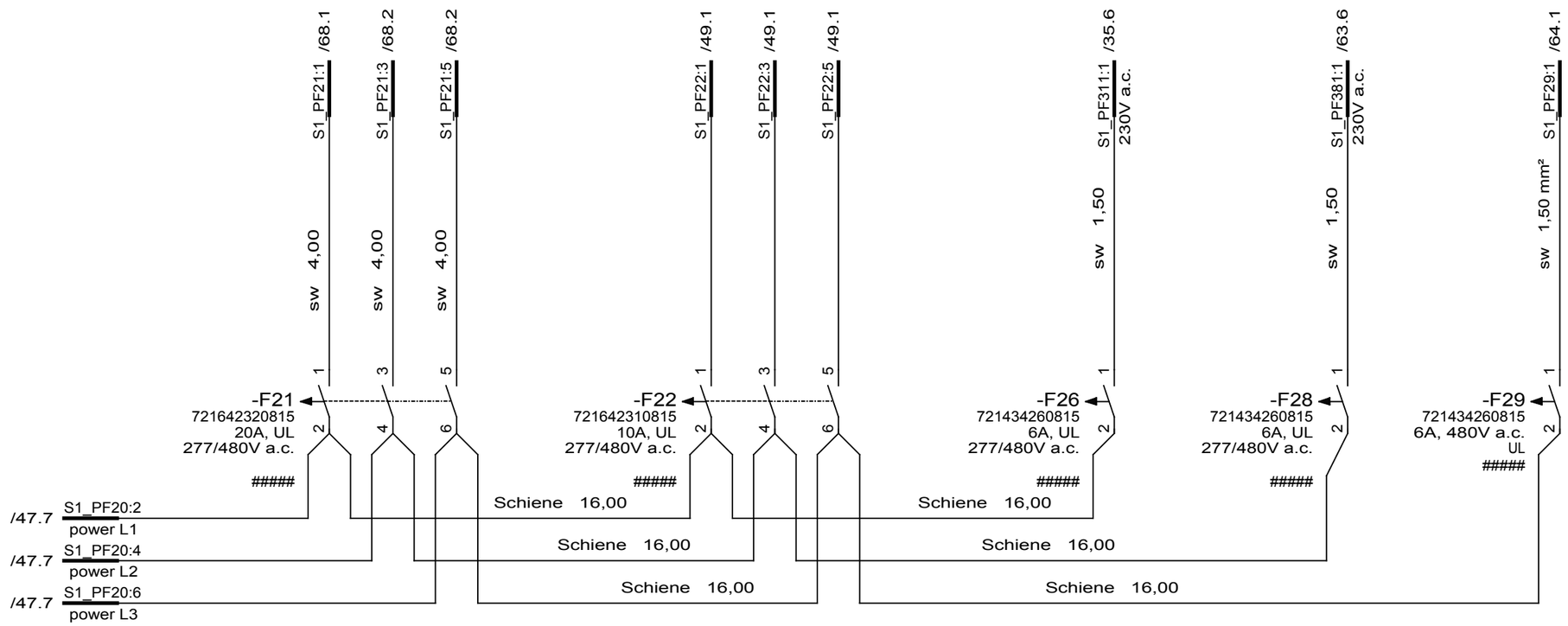
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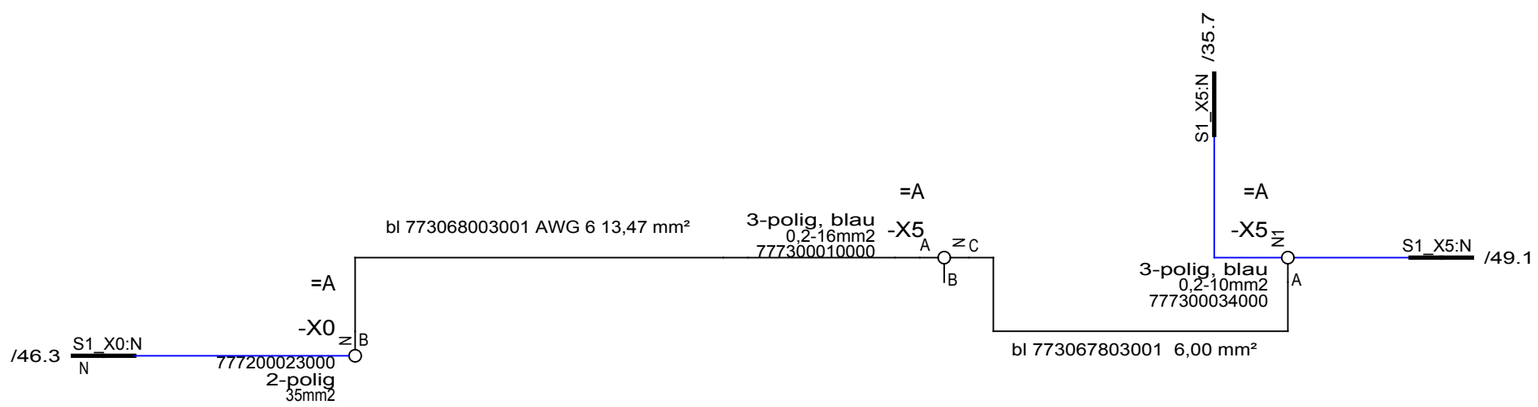
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt power supply with supply disconnection	Änderungsdatum:21.04.2011 14:46:33	C A D	Maschinen Typ 4.09.22	=P +S1
	Bearb.	K.STUKE	230/400V	0	L1 0					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	46
	CAD-Code	K09V-3	50Hz	0	L3 0					73 Bl.



No. < >	
1	PF17 fuses of discharge conveyor belt
2	PF18 fuses of main drive unit
3	PF19 previous fuses of motor cirucit breakers
4	PF20 previous fuse of 24V d.c. power supply

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt fuses of machine	Änderungsdatum:21.04.2011 15:57:22	CAD	Maschinen Typ 4.09.22	=P +S1
	Bearb.	K.STUKE	230/400V	0	L1 0					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh. 47 73 Bl.
	CAD-Code	K09V-3	50Hz	0	L3 0					





No. < >	
1	PF21 fuse/power supply of 1st uv drying
2	PF22 fuse/power supply of unscrambler
3	PF26 fuse of stepper motor control card of rotation articles at 1st uv drying
4	PF28 fuse of stepper motor control card of rotation articles at visiual detection
25	PF29 fuse of print image detection

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MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	
Bearb.	K.STUKE	230/400V	0	L1 0	
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0	
CAD-Code	K09V-3	50Hz	0	L3 0	

Benennung/Projekt
fuses of machine

Änderungsdatum:21.04.2011 15:57:22

C A D | Maschinen Typ 4.09.22 | =P | +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

Bl./Sh. 48
73 Bl.

1	2	3	4	5	6	7	8

No. < >

/42.6 S1_X1:3V → =A -X1 3V.2 B → S1_X1:3V

/6.6 S1_X1:53M (Freigabe K23N) → =A -X1 53.M D

/40.1 S1_X1:10 (+24V d.c.) → =A -X1 10.2 D → S1_X1:10 /50.1

/45.6 S1_X3:114 (emergency stop switch) → =A -X3 114 B

/6.6 S1_X3:115 (emergency stop switch) → =A -X3 115 B

/27.5 S1_X1:3 → =A -X1 3.2 D → S1_X1:3

/44.4 S1_X1:2 (0V d.c.) → =A -X1 2.10 D → S1_X1:2 /50.1

/48.6 S1_X5:N → =A -X5 N2 A → S1_X5:N /63.6

/45.7 S1_XGND → =A -XGND 12 B → S1_XGND /63.6

/5.5 S1_X4:101 (230V a.c.) → =A -X4 101.1 B → S1_X4:101 (230V a.c.)

/22.3 S1_X4:200 (230V a.c.) → =A -X4 200.2 D → S1_X4:200 (230V a.c.)

/48.3 S1_PF22:1

/48.4 S1_PF22:3

/48.4 S1_PF22:5

=A -X5 55 A B, 56 A B, 57 A B — 4-polig, grau 0,08-2,5mm2 777300004000

=A +M -W001 IEC 18x2,5 mm2 773073905014

sw2	sw3	sw4	sw15	sw16	gn/ge	sw1	sw5	sw6	sw7	sw8	sw9	sw11	sw13	sw10	sw12
2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²	2,50 mm²

+M -X5 778314130400 HanCom 24B M32, seitlich

2	3	4	15	16	GND	1	5	6	7	8	9	11	13	10	12

+M -X6 778313130400 HanCom 24B M40, seitlich

=A -X2 48 A B, 49 A B

=U X1/16 12 /55.1 — I5.4 / 4 / -A6 — trouble message by K23N

=U X1/15 11 /55.1 — I5.3 / 4 / -A6 — message drive on at straight infeed belt of K23N

-X5 +M 778314130400 coding (1)

Werner Kammann Maschinenfabrik D-32221 Buende Postf. 2109	Datum	10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW	Strom/Current A L1 L2 L3	Benennung/Projekt: connecting of unscrambler	Änderungsdatum:21.04.2011 15:57:22
	Bearb.	K.STUKE					
	Siline	ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V			
	CAD-Code	K09V-3					

C A D | Maschinen Typ 4.09.22 | =T +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0 | Bl./Sh. 49 | 73 Bl.

1	2	3	4	5	6	7	8

wiring:
bl 1,00 mm2

-A1_Z1
498851160000
512kB, 703010085000
MM-Card

#####

-A1
703150018000
CPU 317-2 PN/DP
BF 1
BF 2
SF
DC5V
FRCE
RUN
STOP
PUSH
RUN
STOP
MRES
X1 MPI/DP
LINK
RX/TX
X2PN
L+
M
DC 24V
/52.3 S1_UA1:DP

-X2/W702
1
=U
+S1-K
-W702
l=1,5m
704050050050
/53.5 S1_UW702
PLC

SF -A2
703440020000
FM 352
/54.1
X2
/60.6 S1_UA2:X2
FM 352
L+
M
I0 I1 I2 I3 Q0 Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12

-A5
703160003000
SM 321
/54.4
I 0.0 - 3.7

-A6
703160003000
SM 321
/55.1
I 4.0 - 7.7

-A7
703160003000
SM 321
/55.5
I 12.0 - 15.7

-A8
703210003000
SM 322
/56.1
Q 12.0 - 15.7

-A9
703210001000
SM 322
/56.5
Q 12.0 - 13.7

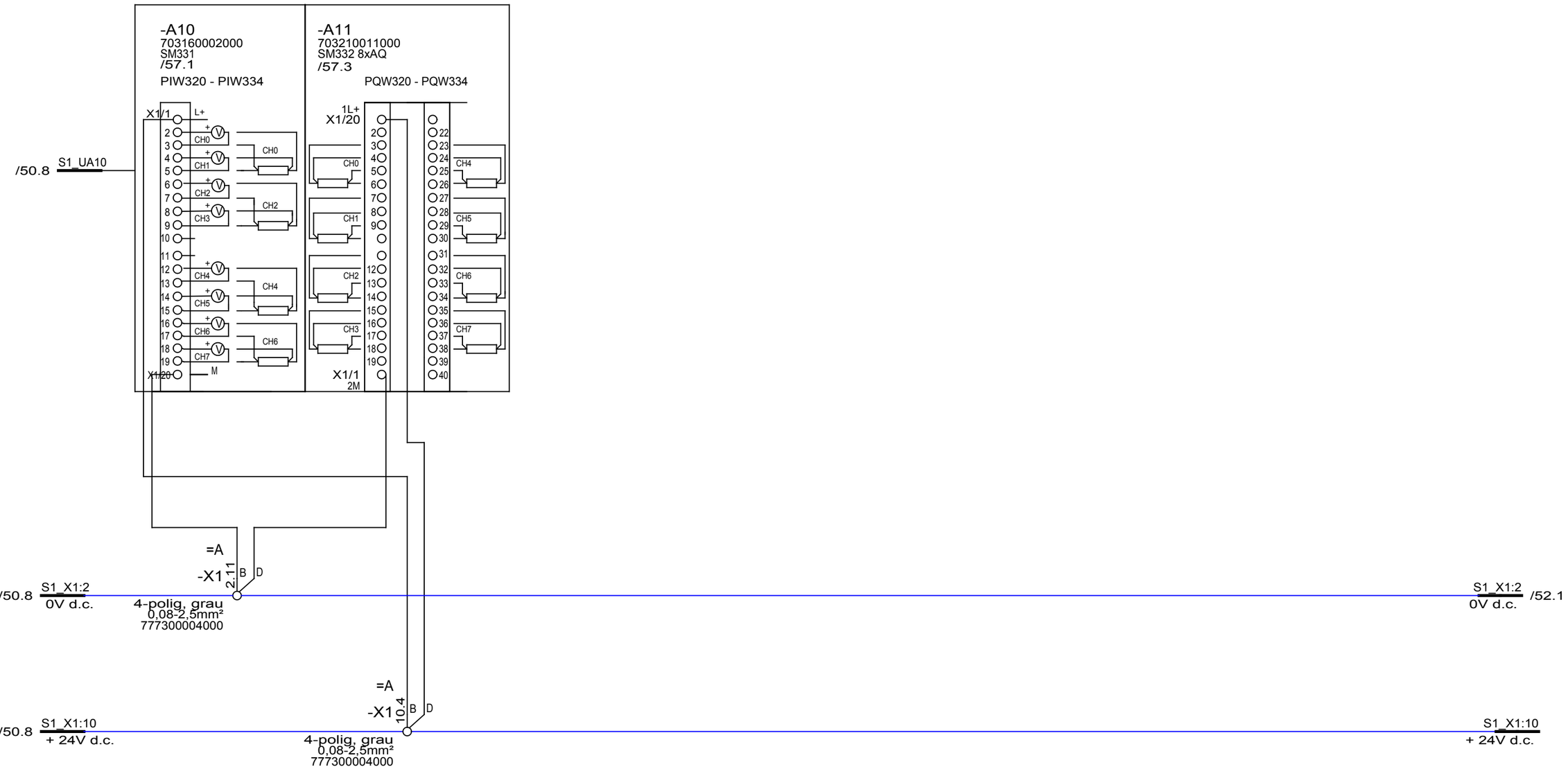
S1_UA10 /51.1

/49.7 S1_X1:2 0V d.c.
/49.7 S1_X1:10 + 24V d.c.
/21.2 S1_X1:14 + 24V d.c.

=A -X1 2.0 A — 4-polig, grau 0,08-2,5mm2 777300004000
=A -X1 2.2 A — 4-polig, grau 0,08-2,5mm2 777300004000
=A -X1 2.10 C A — 4-polig, grau 0,08-2,5mm²
=A -X1 2.3 A C — 4-polig, grau 0,08-2,5mm2 777300004000
=A -X1 2.3 B D — 4-polig, grau 0,08-2,5mm2 777300004000
=A -X1 2.1 A B C D — 4-polig, grau 0,08-2,5mm2 777300004000
=A -X1 2.11 C A
=A -X1 10.1 B — 4-polig, grau 0,08-2,5mm2 777300004000
=A -X1 10.3 A B C D — 4-polig, grau 0,08-2,5mm2 777300004000
=A -X1 10.4 C A
=A -X1 14.2 D — 4 polig, grau 0,08-2,5mm²

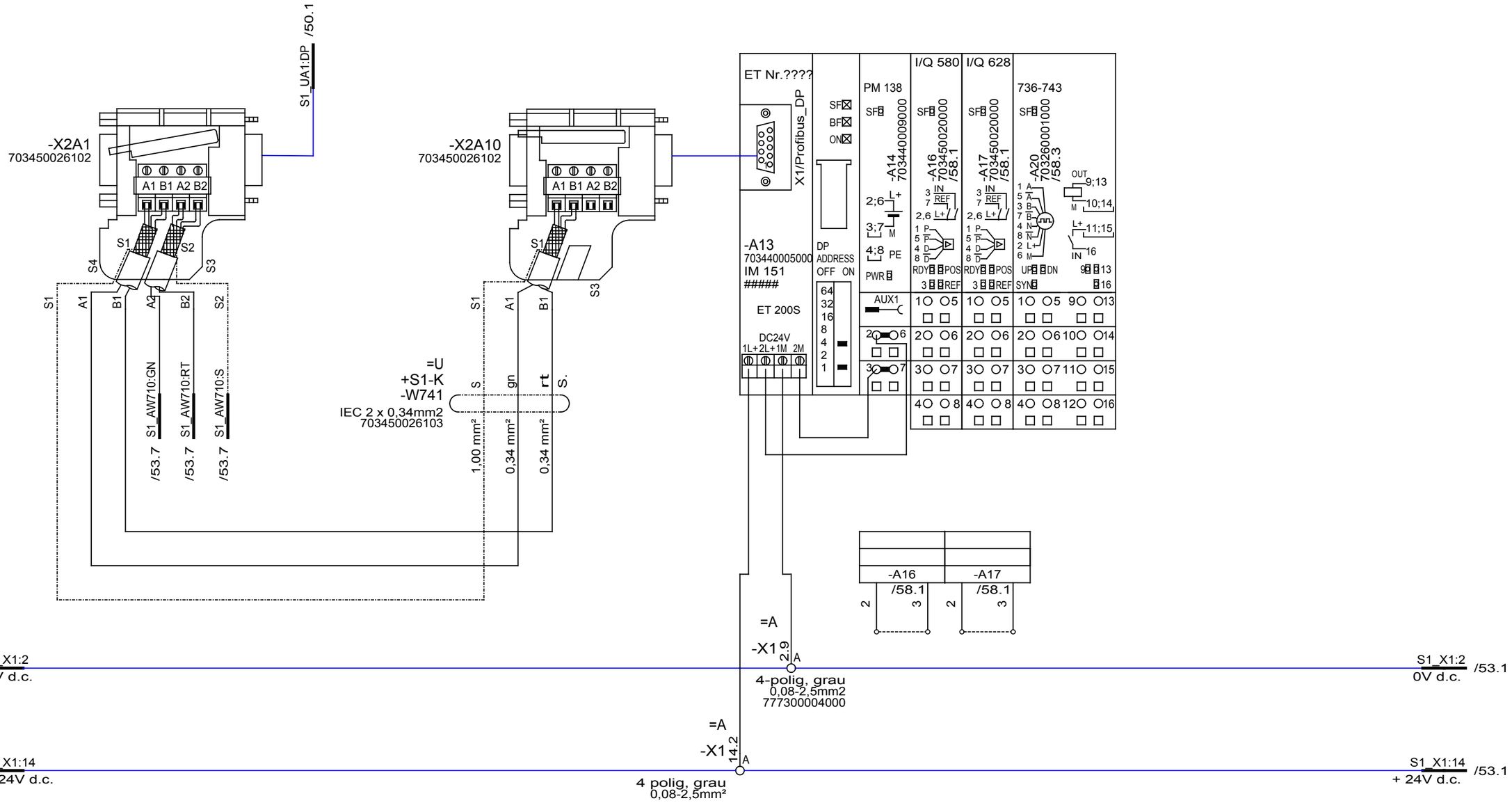
S1_X1:2 0V d.c. /51.1
S1_X1:10 + 24V d.c. /51.1
S1_X1:14 + 24V d.c. /52.1

KAMMANN MASCHINENBAU GMBH GERMANY	Datum 10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW 0	Strom/Current A L1 0 L2 0 L3 0	Benennung/Projekt: basic wiring of S7-300 within electric cabinet S1
	Bearb. K.STUKE				Änderungsdatum:21.04.2011 15:57:22
	Siline ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V 24		CAD Maschinen Typ 4.09.22 =U +S1
	CAD-Code K09V-3				Schaltplan Nr./Drawing No. 03.208-09.22/210053.0 Bl./Sh. 50 73 Bl.

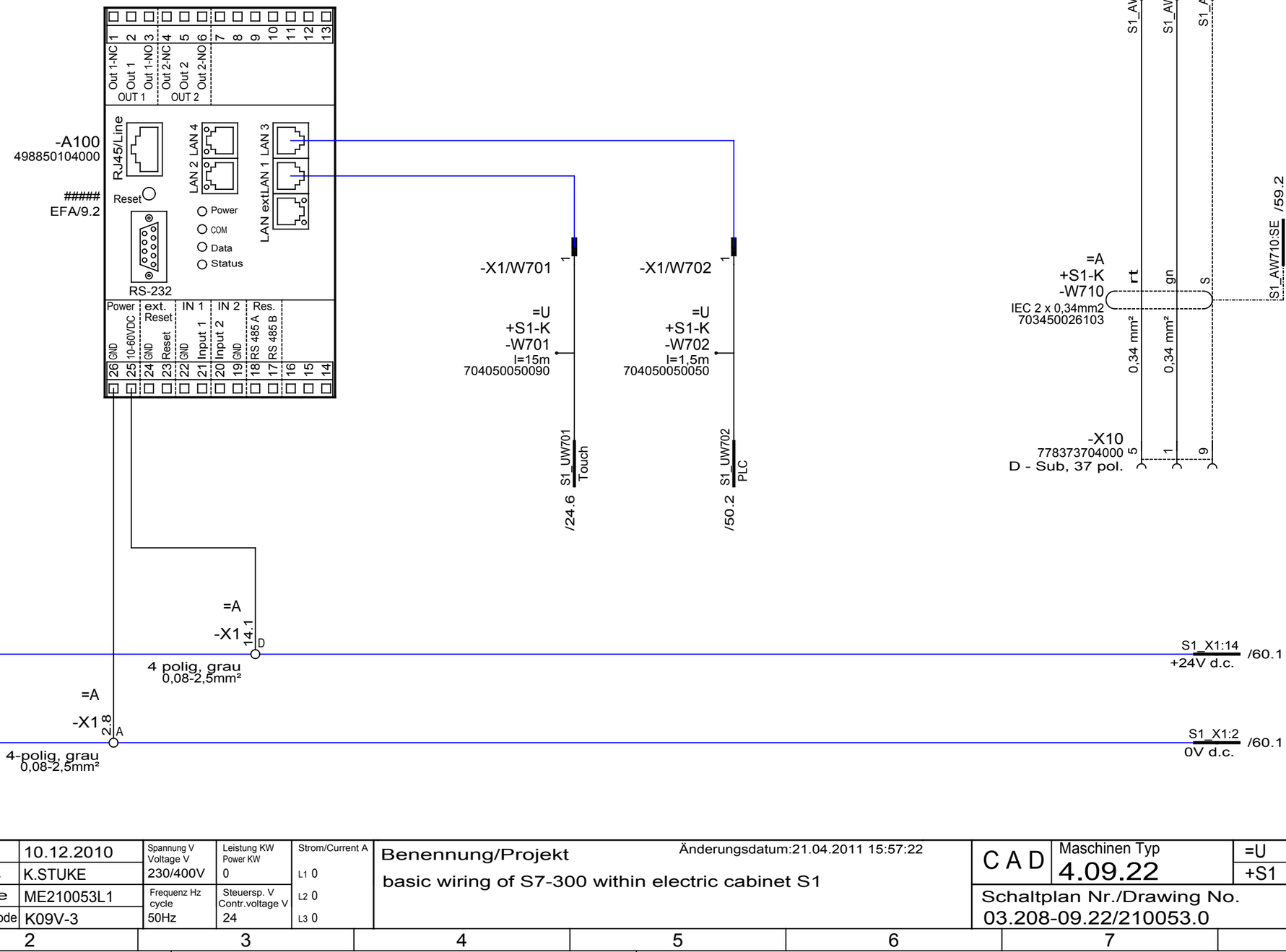


KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 15:57:22	C A D	Maschinen Typ 4.09.22	=U +S1
	Bearb.	K.STUKE	230/400V	0	L1 0	basic wiring of S7-300 within electric cabinet S1				
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0				Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh. 51
	CAD-Code	K09V-3	50Hz	24	L3 0					73 Bl.

wiring:
bl 1,00 mm2



KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 15:57:22	C A D	Maschinen Typ 4.09.22	=U +S1
	Bearb.	K.STUKE	230/400V	0	L1 0	basic wiring of S7-ET200 within electric cabinet S2				
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No.		Bl./Sh. 52
	CAD-Code	K09V-3	50Hz	24	L3 0			03.208-09.22/210053.0		73 Bl.



KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 15:57:22
	Bearb.	K.STUKE	230/400V	0	L1 0	basic wiring of S7-300 within electric cabinet S1	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	24	L3 0		

C A D	Maschinen Typ 4.09.22	=U	
		+S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	53
			73 Bl.

3L+ 2M 4M

-A2 /50.2

ICH0 X1/3	free	QCH5 /44.2 X1/12	eject/blow-off article
ICH1 X1/4	free	QCH6 /41.2 X1/13	close gripper of set up station
ICH2 X1/5	free	QCH7 /41.2 X1/14	open gripper of set up station
ICH3 X1/6	free	QCH8 /41.4 X1/15	1st stroke of set up station on (down)
QCH0 X1/7	rotation drive uv	QCH9 /41.5 X1/16	1st stroke of set up station off (up)
QCH1 X1/8	clock running uv power	QCH10 /41.6 X1/17	stroke of height compensation at belt on
QCH2 X1/9	Drehantrieb Vorbehandlung	QCH11 /41.5 X1/18	stroke of height compensation at belt off
QCH3 X1/10	rotation control of pre-treatment	QCH12 /44.5 X1/19	start print detection
QCH4 X1/11	free		

-A5 /50.3

I0.0 /6.5 X1/2	feedback of turned on readiness	I2.0 /37.2 X1/22	no trouble with air pressure controller
I0.1 /6.6 X1/3	feedback of turned on drive unit	I2.1 /25.3 X1/23	no trouble with security switch at door of transfer unit
I0.2 /29.4 X1/4	switch to turn off main drive	I2.2 /27.2 X1/24	no trouble by emergency stop switch on operator control panel at infeed module
I0.3 /29.5 X1/5	switch to turn on main drive	I2.3 X1/25	free
I0.4 /29.7 X1/6	toggle switch to select automatic or setting mode on operator control panel at 1st station	I2.4 /44.5 X1/26	indication of proximity switch of overload with the clutch in driven shaft
I0.5 X1/7	free	I2.5 /29.2 X1/27	switch to turn off readiness
I0.6 /9.4 X1/8	feedback of power relay main drive is switched off	I2.6 /29.3 X1/28	switch to turn on readiness
I0.7 /29.2 X1/9	no trouble by emergency stop switch on operator control panel at 1st station	I2.7 /7.5 X1/29	feedback by trouble collection of security switches
I1.0 X1/12	free	I3.0 /15.3 X1/32	prox of security detection, end position 1st stroke valve at bottom- prismatic appliance is reached
I1.1 /12.1 X1/13	no trouble by temperature control of main drive	I3.1 /15.6 X1/33	free
I1.2 /11.2 X1/14	no trouble with frequency converter of main drive (terminal 3)	I3.2 /15.2 X1/34	prox of security detection, 1st gripper valve at bottom prismatic appliance still has open
I1.3 /8.6 X1/15	no trouble by motor circuit breaker of ventilator within electric cabinet	I3.3 /15.5 X1/35	free
I1.4 /16.2 X1/16	no trouble by motor circuit breakers 230 V a.c. power supply	I3.4 /73.3 X1/36	no trouble with proximity switch, 1st uv-unit is in correct positioning
I1.5 /16.3 X1/17	no trouble by motor circuit breakers at destatisizing, vacuum blower and waste air blower	I3.5 X1/37	frei
I1.6 X1/18	free	I3.6 /35.1 X1/38	no trouble with stepper motor control card article rotation below 1st uv- drying
I1.7 X1/19	free	I3.7 /63.1 X1/39	no trouble with stepper motor control card article rotation print detection

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW	Strom/Current A L1 L2 L3	Benennung/Projekt PLC S7-300: Assignment of Inputs and Outputs	Änderungsdatum:21.04.2011 15:57:22
	Bearb.	K.STUKE					
	Siline	ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V			
	CAD-Code	K09V-3					

CAD | Maschinen Typ 4.09.22 | =U +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

Bl./Sh. 54 | 73 Bl.

		-A6 /50.4			-A7 /50.5		
I4.0 /31.3 X1/2	no trouble with security switch at 1st station and pre-treatment	I6.0 /16.5 X1/22	feedback of power relay waste air blower is switched off	I12.0 /69.3 X1/2	trouble message of all motor circuit breakers at "KEVG"- feeder line	I14.0 /64.6 X1/22	print image detection is ready to check
I4.1 /32.3 X1/3	no trouble with security switch at door of print detection	I6.1 /16.6 X1/23	feedback of power relay vacuum blower is switched off	I12.1 /69.4 X1/3	feedback signal of 1st uv- power relay	I14.1 /64.7 X1/23	print image detection alarm
I4.2 /37.6 X1/4	!Preparation! proximity switch to control rotation at 1st pre-treatment	I6.2 /16.6 X1/24	feedback of power relay waste air destatisizing blower is switched off	I12.2 /71.3 X1/4	no trouble at 1st uv "KEVG"	I14.2 /64.7 X1/24	print image detection NOK
I4.3 /37.6 X1/5	electric eye of height detection article position isn't correct	I6.3 X1/25	free	I12.3 /72.4 X1/5	message of swivel drive at uv of 1st station "shutter closed"	I14.3 /64.8 X1/25	print image detection valid out
I4.4 /36.6 X1/6	prox at transfer unit to detect limit position on side of machine is not exceeded	I6.4 X1/26	operation without Reset FiFo	I12.4 /72.4 X1/6	message of swivel drive at uv of 1st station "shutter open"	I14.4 X1/26	free
I4.5 /36.6 X1/7	prox at transfer unit to detect limit position on side of transport belt is not exceeded	I6.5 X1/27	free	I12.5 /72.5 X1/7	no trouble with security switch at uv of 1st station	I14.5 /27.6 X1/27	toggle switch to select automatic or setting mode on operator control panel at infeed
I4.6 X1/8	free	I6.6 X1/28	free	I12.6 /72.5 X1/8	overtemperature at uv-unit of 1st station	I14.6 X1/28	free
I4.7 /30.3 X1/9	toggle switch to select ink refill at 1st screen station	I6.7 /43.4 X1/29	no overtemperature at motor of outfeed	I12.7 X1/9	free	I14.7 X1/29	free
I5.0 /30.4 X1/12	!just in preparation! toggle switch to select ink refill at 2nd screen station	I7.0 /34.6 X1/32	trouble drive of pre-treatment	I13.0 X1/12	free	I15.0 X1/32	free
I5.1 /45.6 X1/13	trouble with emergency stop behind raising station	I7.1 /37.4 X1/33	electric eye of Data 1st utility	I13.1 /39.1 X1/13	prox of detection, basic position of transfer unit at raising station reached	I15.1 X1/33	free
I5.2 X1/14	free	I7.2 X1/34	free	I13.2 /39.5 X1/14	prox of security detection, gripper 1 at raising station open	I15.2 X1/34	free
I5.3 /49.7 X1/15	message drive on at straight infeed belt of K23N	I7.3 X1/35	operation without gripper	I13.3 X1/15	free	I15.3 X1/35	free
I5.4 /49.6 X1/16	trouble message by K23N	I7.4 /44.6 X1/36	electronic eye to detect maximum jam at discharge conveyor belt	I13.4 /39.6 X1/16	prox of security detection, gripper 2 at raising station open	I15.4 X1/36	free
I5.5 /43.7 X1/17	no trouble with converter at discharge	I7.5 X1/37	free	I13.5 X1/17	free	I15.5 X1/37	free
I5.6 /25.5 X1/18	no trouble with security switch at infeed area	I7.6 X1/38	operation without UV drying	I13.6 /39.3 X1/18	prox of security detection, stroke 1 at raising station up	I15.6 X1/38	free
I5.7 /33.3 X1/19	no trouble with security switch at raising station	I7.7 X1/39	operation without speed control	I13.7 /39.4 X1/19	prox of security detection, stroke 2 at raising station up	I15.7 X1/39	free

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 15:57:22	CAD Maschinen Typ 4.09.22 =U +S1
	Bearb.	K.STUKE	230/400V		L1	PLC S7-300: Assignment of Inputs and Outputs		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0
	CAD-Code	K09V-3	50Hz		L3			Bl./Sh. 55 / 73 Bl.

1 11 2L+ 21 3L+ 31 4L+ 10 1M 20 2M 30 3M 40 4M X1/1L+ X1/11+ X1/10 X1/20

	1	2	3	4	5	6	7	8

-A8 /50.6

A	Q0.0 /13.1 X1/2	squeegee valve of body at 1st screen station	Q2.0 X1/22	free	Q4.0 /62.6 X1/2	switch over relay print detection to setting mode		A
	Q0.1 X1/3	free	Q2.1 X1/23	free	Q4.1 /44.3 X1/3	eject valve, release to blow off faulty articles		
	Q0.2 X1/4	free	Q2.2 X1/24	free	Q4.2 /18.2 X1/4	relay to guide on uv waste air blower		
B	Q0.3 X1/5	free	Q2.3 X1/25	free	Q4.3 /18.5 X1/5	relay of fan destatisizing on		B
	Q0.4 X1/6	free	Q2.4 /13.2 X1/26	air inflation of 1st station	Q4.4 /18.3 X1/6	relay to turn on vacuum blower at outfeed belt		
	Q0.5 /29.4 X1/7	message lamp- switch to turn on readiness is pushed	Q2.5 /34.4 X1/27	release drive of pre-treatment	Q4.5 X1/7	free		
C	Q0.6 /14.5 X1/8	relay to turn on/off illumination at the 1st screen station	Q2.6 /36.2 X1/28	valve of vacuum at transfer unit	Q4.6 /70.2 X1/8	relay 1st uv power on 5kW		C
	Q0.7 X1/9	free	Q2.7 /36.3 X1/29	valve of stroke aspirator at transfer unit	Q4.7 /73.2 X1/9	shutter valve of uv drying open/close		
	Q1.0 /6.1 X1/12	relay turned on/off readiness (static signal)	Q3.0 /36.4 X1/32	valve to turn arround at transfer unit	Q5.0 /15.1 X1/12	free		
D	Q1.1 /6.2 X1/13	relay turned on readiness (pulse signal)	Q3.1 /43.4 X1/33	release frequency converter of outfeed	Q5.1 /15.4 X1/13	2nd lifting valve bottom of prismatic is active-alternate motion		D
	Q1.2 /12.6 X1/14	start singal horn of main drive	Q3.2 X1/34	free	Q5.2 /15.7 X1/14	free		
	Q1.3 /12.6 X1/15	signal horn of security switches shunted	Q3.3 X1/35	free	Q5.3 /15.8 X1/15	2nd gripper valve bottom of prismatic is active/gripper has to close		
E	Q1.4 /11.4 X1/16	turn off fix rated values of frequency converter	Q3.4 X1/36	free	Q5.4 X1/16	free		E
	Q1.5 /11.3 X1/17	switch to fix rated values of frequency converter	Q3.5 X1/37	free	Q5.5 X1/17	free		
	Q1.6 /6.3 X1/18	relay to turn off drive during emergency by PLC and emgergency stop relay of security switches	Q3.6 X1/38	free	Q5.6 X1/18	free		
F	Q1.7 /12.4 X1/19	relay to release main drive	Q3.7 X1/39	free	Q5.7 X1/19	free		F

1	2	3	4	5	6	7	8	

KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	
Bearb.	K.STUKE	230/400V		L1	
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2	
CAD-Code	K09V-3	50Hz		L3	

Benennung/Projekt
PLC S7-300: Assignment of Inputs and Outputs

Änderungsdatum:21.04.2011 15:57:22

CAD	Maschinen Typ 4.09.22	=U	
		+S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	56
			73 Bl.

-A10 /51.1

PIW320 /11.4 X1/2 X1/3 — analogous rated value of main drive

PIW322 /71.2 X1/4 X1/5 — analogous rated value of lamp at 1st. uv unit

PIW324 X1/6 X1/7 — free

PIW326 X1/8 X1/9 — free

PIW328 /66.1 X1/12 X1/13 — analogous rated value of temperature at UV air intake duct (PT100)

PIW328 /66.1 X1/14 X1/15 — analogous rated value of temperature at UV air intake duct (PT100)

PIW332 /72.6 X1/16 X1/17 — analogous rated value of lamptemperature at 1st uv unit (PT100)

PIW332 /72.6 X1/18 X1/19 — analogous rated value of lamptemperature at 1st uv unit (PT100)

-A11 /51.2

PQW320 /11.7 X1/3 X1/4 X1/5 X1/6 — analogous rated value of main drive

PQW322 /43.5 X1/7 X1/8 X1/9 X1/10 — analogous rated value of discharge conveyor belt

PQW324 /34.4 X1/11 X1/12 X1/13 X1/14 — analogous rated value of article rotation at pre-treatment

PQW326 /67.2 X1/15 X1/16 X1/17 X1/18 — rated value of waste air control at 1st uv-station

PQW328 /71.1 X1/23 X1/24 X1/25 X1/26 — rated value of 1st uv power (0 - 10V d.c.)

PQW330 X1/27 X1/28 X1/29 X1/30 — free

PQW332 X1/31 X1/32 X1/33 X1/34 — free

PQW334 X1/35 X1/36 X1/37 X1/38 — free

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 15:57:22	C A D	Maschinen Typ 4.09.22	=U +S1
	Bearb.	K.STUKE	230/400V		L1	PLC S7-300: Assignment of Inputs and Outputs				
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh. 57
	CAD-Code	K09V-3	50Hz		L3					73 Bl.

-A16 /52.5

PQW580 /35.1 1/P 4/D 8/DN 5/PN 2 3 4 6 7/REF — step-module of 1st uv-drying drive

/52.5

free

9

-A17 /52.6

PQW628 /63.1 1/P 4/D 8/DN 5/PN 2 3 4 6 7/REF — step module of drive print detection

/52.6

step module of drive print detection- point to reference /44.3

-A20 /52.6

PIW630 /62.2 1/A 5/AN 3/B 7/BN 4/N 8/NN 2/L+ 6/M 11 — count steps at rotary of print check step motor

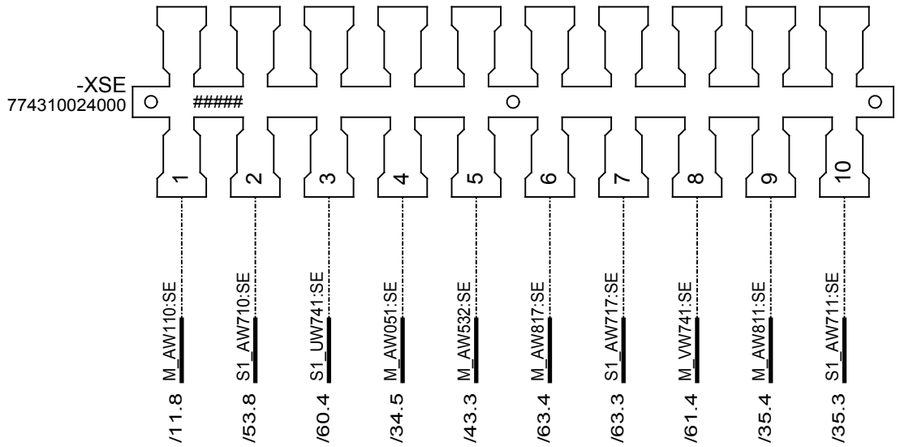
16/DI /62.6 — occupation of cam start print detection

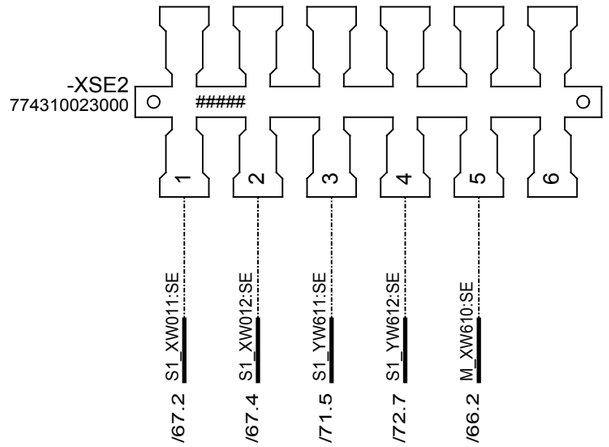
15 9/DQ /64.6 — trigger signal Print Check

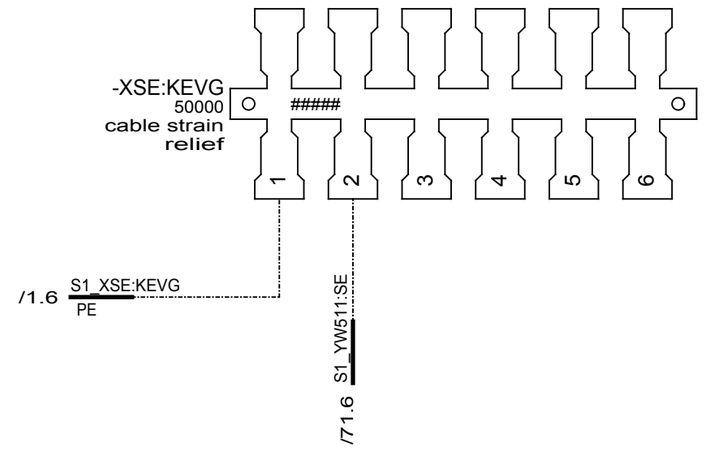
10 13/DQ — print image detection start to test print image

14 — free

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 15:57:22	C A D	Maschinen Typ	=U
	Bearb.	K.STUKE	230/400V		L1	PLC S7-300: Assignment of Inputs and Outputs			4.09.22	+S1
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2			Schaltplan Nr./Drawing No.		Bl./Sh. 58
	CAD-Code	K09V-3	50Hz		L3			03.208-09.22/210053.0		73 Bl.







KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 15:57:22
	Bearb.	K.STUKE	230/400V	0	L1 0	shielded bars within electric cabinet S1	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	0	L3 0		

C A D	Maschinen Typ 4.09.22	=U +S1		
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	59	
			73 Bl.	

X1

X10/11

X20/21

X30/31

X40/41

X50/51

X60/61

Eingang

Eingang VDC

X100

Ausgang 1

Ausgang 2

Ausgang 3

Ausgang 4

Ausgang 5

Ausgang 6

-A200
498360801000

=A
-X41
778371503000

=A
-X1
2.8
S1_X1:2
/53.7
0V d.c.

=A
-X1
14.1
S1_X1:14
/53.7
+24V d.c.

S1_X1:2
0V d.c.
/61.1

S1_X1:14
+24V d.c.
/61.1

=A
+S1-K
-W141
IEC 4x2x0,2mm2
773301905103

ws br gn ge gr rs bl S
0,20 mm² 0,20 mm² 0,20 mm² 0,20 mm² 0,20 mm² 0,20 mm² 0,20 mm²

S1_UA2:X2
FM352
/50.2

insulate cores separately

S1_UW741:SE
/59.2

=U
+M-K
-W741
4 x 2x0,14+ 4x0,5 mm
498985211000

1|gr 1|rs 1|rt 1|sw 2|ws/gn 1|br 1|gn 2|br/gn 2|bl 2|ws 1|vio 1|ge
0,14 mm² 0,14 mm² 0,14 mm² 0,14 mm² 0,50 mm² 0,14 mm² 0,14 mm² 0,50 mm² 0,50 mm² 0,50 mm² 0,14 mm² 0,14 mm²

+M
-X1/UW741
507

5 6 3 4 2 7 10 11 8 1 12 9 S

+M
-A200
757780007001
ROD 426
#####

Ua1 Ua1 Ua0 Ua0 +5V Sensor free 0V 0V Sensor Ua2 Ua2 +5V free Schirm Shield

Rotationsimpulsgeber Rotary impulse transmitter angle encoder

=A
+M
-XGND
XSE1
A
777200065000
AKG16, sw

=A
+M
-XGND
XSE2
B
AKG16, gn/ge
777100084000

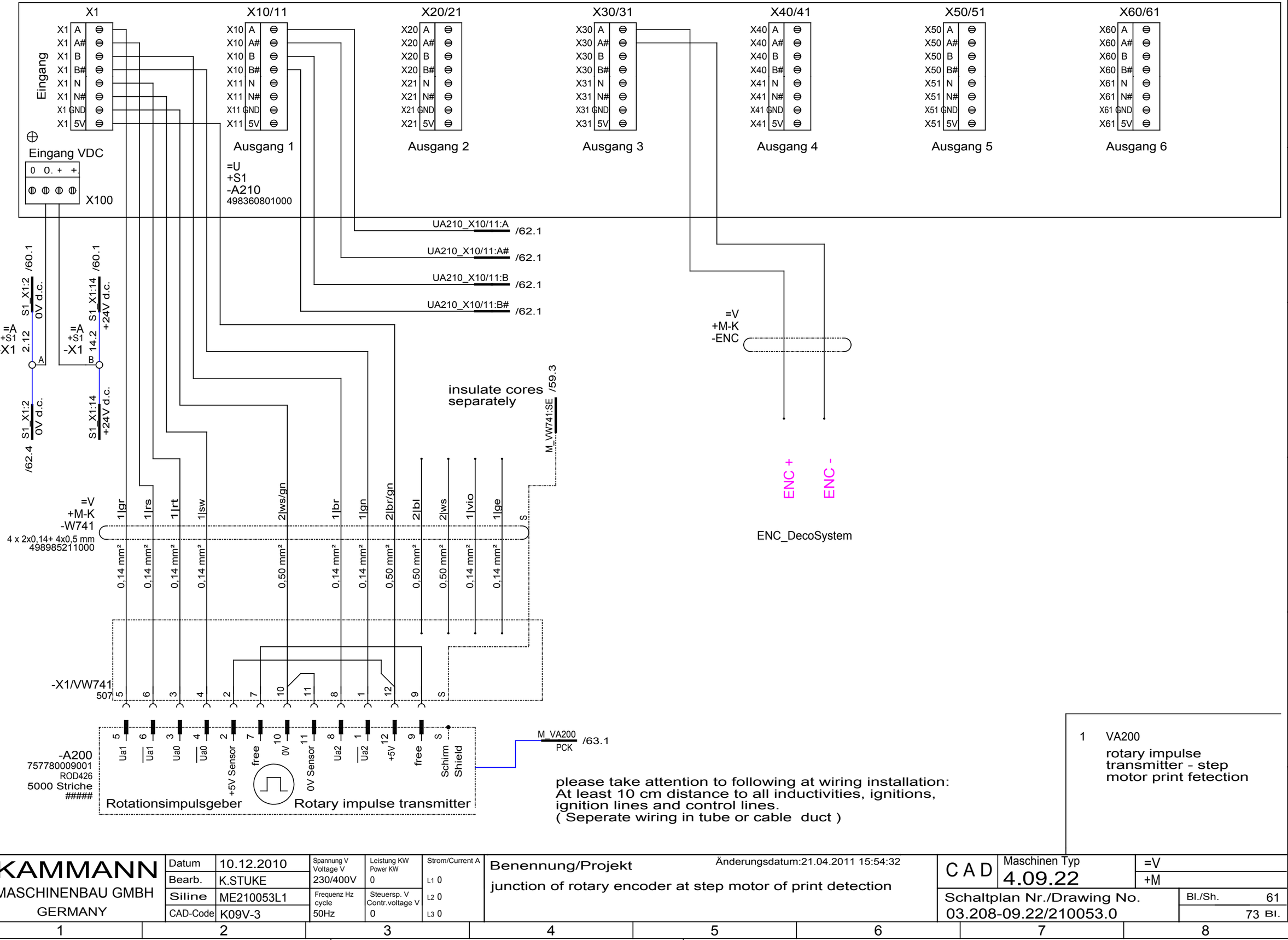
gn/ge 16,00

+M
-XGND
786100020000

please take attention to following at wiring installation:
At least 10 cm distance to all inductivities, ignitions, ignition lines and control lines.
(Seperate wiring in tube or cable duct)

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 15:54:32
	Bearb.	K.STUKE	230/400V	0	L1 0	junction of rotary encoder on the cam gear controller	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	24	L3 0		

C A D	Maschinen Typ 4.09.22	=U	
		+S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	60
			73 Bl.



KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW 0	Strom/Current A L1 0 L2 0 L3 0	Benennung/Projekt junction of rotary encoder at step motor of print detection	Änderungsdatum:21.04.2011 15:54:32	CAD Maschinen Typ 4.09.22 =V +M
	Bearb.	K.STUKE						
	Siline	ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V 0				Schaltplan Nr./Drawing No. 03.208-09.22/210053.0 Bl./Sh. 61 73 Bl.
	CAD-Code	K09V-3						

No. < >	
1	VK1 **relais start** camerasystem

count steps at rotary
of print check step motor

-A20
13
PIW630
=U /58.3
1/A 0
3/B
5/AN
7/BN

covered wire

=A
+S1-K
-W142
IEC 4x2x0,2mm2
773301905103

ws br gn ge gr rs bl s
0,20 mm² 0,20 mm² 0,20 mm² 0,20 mm² 0,20 mm² 0,20 mm² 0,20 mm²

/61.4 UA210_X10/11:A
/61.4 UA210_X10/11:A#
/61.4 UA210_X10/11:B
/61.4 UA210_X10/11:B#

start print detection

-A2
2
QCH12
=U /54.1
X1/19 12

occupation of cam
start print detection

-A20
13
I016.0
=U /58.3
16/DI 0

switch over relay
print detection
to setting mode

-A9
9
Q4.0
=U /56.5
X1/2 0

-K1
/.6
11
12
14

-K1
/.7
A1
A2
734204038100
max. 230V a.c., 6A
Spule 24V a.c./d.c.
#####

-K1
/.5
14 11
12

=A
-X1
1.8 C

/45.7 S1_X1:1 +24V d.c.
4polig,grau
0,08-2,5mm²
S1_X1:1 +24V d.c. /63.1

=A
-X1
2.9 C

/61.1 S1_X1:2 0V d.c.
4-polig, grau
0,08-2,5mm2
777300004000
S1_X1:2 0V d.c. /67.1

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt junction of rotary encoder at step motor of print detection	Änderungsdatum:21.04.2011 15:54:32	C A D	Maschinen Typ 4.09.22	=V +S1
	Bearb.	K.STUKE	230/400V		L1			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	62
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2					73 Bl.
	CAD-Code	K09V-3	50Hz		L3					

step module
of drive print
detection

-A17
24
PQW628

=U /58.1
1/P 0
5/PN
4/D
8/DN

S1_AW717:SE /59.3

=A
+S1-K
-W717
2K 2x2x0,2mm2
498985210002

-X1/W717

0,20 mm²	1|gn	2	
0,20 mm²	1|ge	14	
0,20 mm²	1|br	1	
0,20 mm²	1|ws	13	
0,20 mm²	2|br	7	
0,20 mm²	2|ws	19	
0,20 mm²	2|gn		
0,20 mm²	2|ge		

cable with stepper motor control
card article rotation print detection

=U X1/39 31 /54.4
I3.7
6
-A5

=A
-X1 19 C
/62.7 S1_X1:1 +24V d.c.
4-polig, grau
0,08-2,5mm2
777300004000
S1_X1:1 +24V d.c. /69.1

READY FAULT TEMP OVER-VOLT LOW-VOLT RM-FAULT

1 2 3 4 5 6 7 8 ON OFF

-A1
701690320000

#####

CN2 12 7 6 1
CN3 11 12 13 14 15
CN1 24 13 12 1

S1_PF381:1 /48.6
230V a.c.

=A
-X5 N2
/49.7 S1_X5:N N
3 polig blau
0,2 - 10mm2
777300034000
C S1_X5:N N /64.1

Psw 1,50
Ibl 1,50

PE. PE L2/N L1

DC+ VS1 VS2 DC- U V W PE

gn/ge 1,50 mm²

1,50 mm² S

+M
-M1
738084400100
VRDM 3910/50 LWB
4 Nm

U 1 1,50 mm² sw1
V 2 1,50 mm² sw2
W 3 1,50 mm² sw3

PE PE.

/61.4 M_VA200 PCK
/2.7 VM1 PE

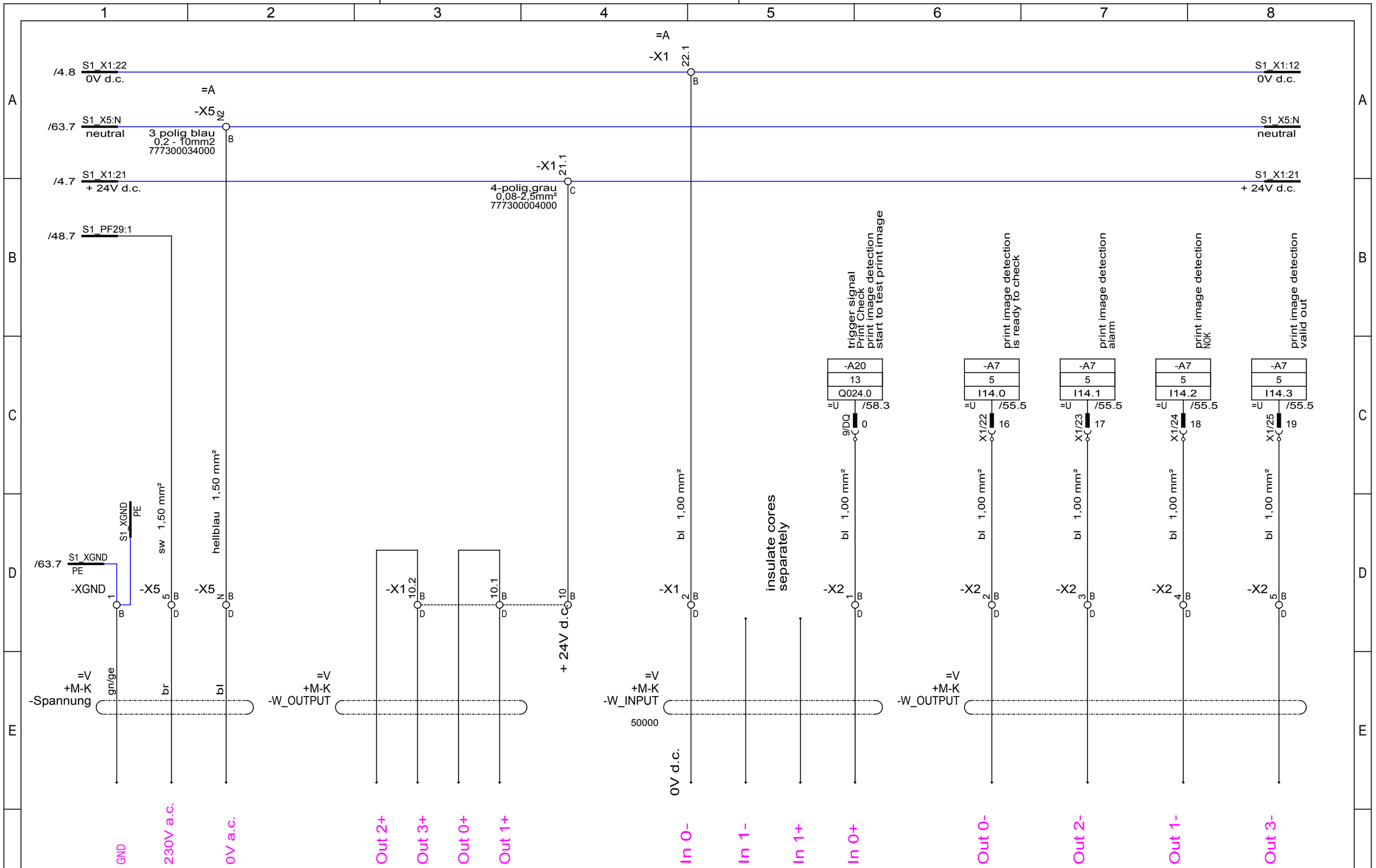
M_AW817:SE /59.3
=A
+M-K
-W817
3x1,5 mm2, gesch.
773303303101

=A
-XGND 12 C
/49.7 S1_XGND PE
4 polig, gn/ge
0,08-4mm²
777300027000
S1_XGND PE /64.1

QUALIFIZIERTES PERSONAL
QUALIFIED PERSONNEL

No. < >	
1	VA1 stepper motor control card rotation articles print detection
2	VM1 motor of rotation articles at print detection

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt stepper motor article rotation below print detection	Änderungsdatum:21.04.2011 15:54:32	CAD	Maschinen Typ 4.09.22	=V +S1
	Bearb.	K.STUKE	230/400V	0	L1 0					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh. 63
	CAD-Code	K09V-3	50Hz	24	L3 0					73 Bl.



KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V 230/400V	Leistung KW Power KW 0	Strom/Current A L1 0 L2 0 L3 0	Benennung/Projekt interface print image	Änderungsdatum:21.04.2011 15:56:59	C A D Maschinen Typ 4.09.22
	Bearb.	K.STUKE						=V +S1
	Siline	ME210053L1	Frequenz Hz cycle 50Hz	Steuersp. V Contr.voltage V 24				Schaltplan Nr./Drawing No. 03.208-09.22/210053.0
	CAD-Code	K09V-3						Bl./Sh. 64 73 Bl.

switch angle	occupation of cams	on	off	time ms
001	rotation drive uv	000	175	060
002	clock running uv power	000	175	000
003	Drehantrieb Vorbehandlung	125	155	100
004	rotation control of pre-treatment	155	185	000
005	free	000	000	000
006	eject/blow-off article	000	100	040
007	close gripper of set up station	060	090	050
008	open gripper of set up station	030	095	050
009	1st stroke of set up station on (down)	020	040	100
010	1st stroke of set up station off (up)	070	090	100
011	stroke of height compensation at belt on	320	340	040
012	stroke of height compensation at belt off	070	090	040
013	start print detection	000	180	000
014	rotation drive print detection (camera)	000	180	000
015	!preparation! ignition of 1st burner	000	000	000
016	!preparation! preflooding of 1st burner	000	000	000

switch angle	occupation of cams	on	off	time ms
017	free	000	000	000
018	detection of open gripper at raising station	060	090	000
019	detection of lifting on top at raising station	110	140	000
020	detection of height compensation on top	110	140	000
021	free	000	000	000
022	moment to turn off main drive	220	240	000
023	clock	170	210	000
024	air inflation	355	175	060
025	release article at infeed	265	030	080
026	seperate article at infeed	280	030	080
027	detecting position article at infeed	230	240	000
028	vacuum at turning article	235	170	040
029	turn arround article at infeed	030	210	060
030	stroke of sucker at turning article	225	025	040
031	prismatic appliance gripper	000	120	040
032	prismatic appliance stroke	180	025	040

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MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
Bearb.	K.STUKE	230/400V	0	L1 0
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
CAD-Code	K09V-3	50Hz	0	L3 0

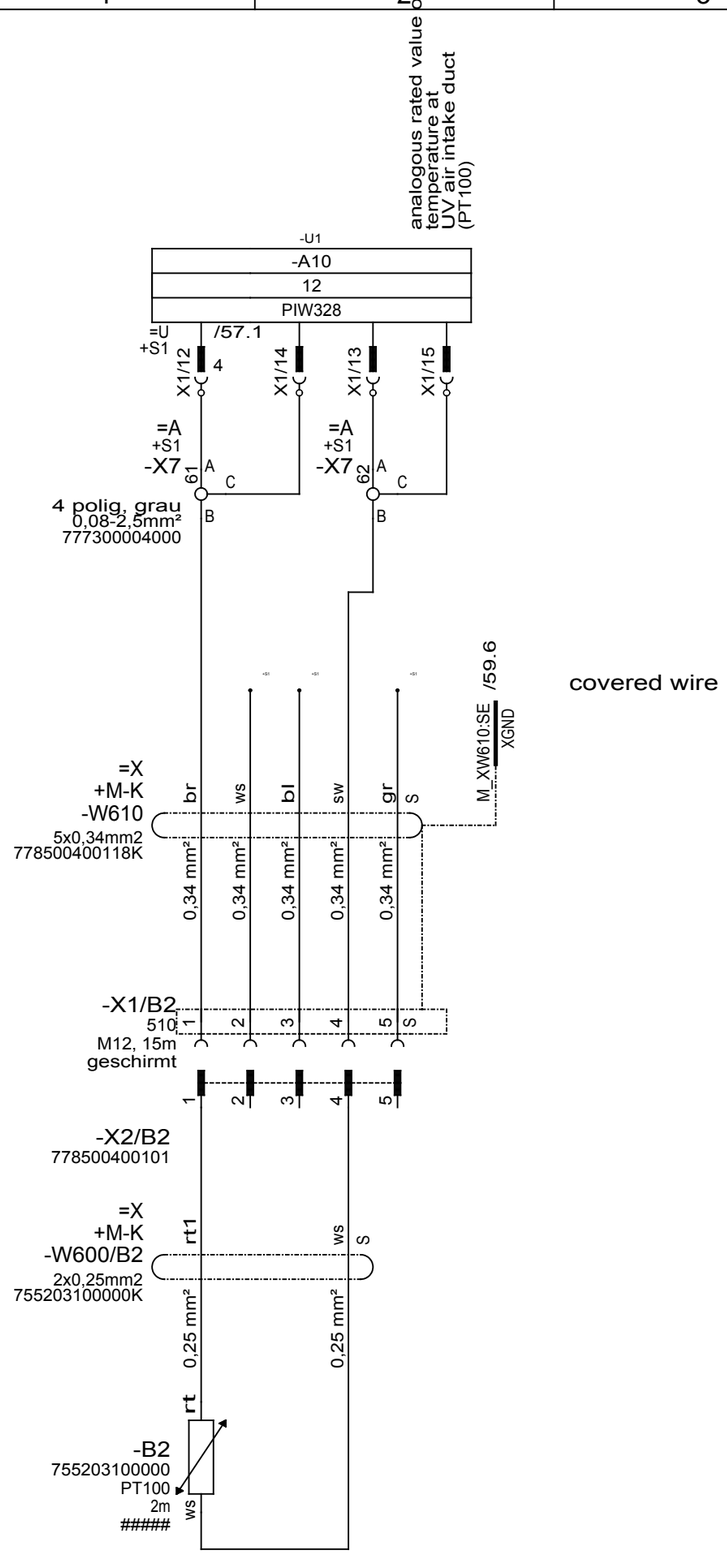
Benennung/Projekt
occupation of cams

Änderungsdatum:21.04.2011 16:20:55

C A D | Maschinen Typ 4.09.22 | =U | +S1

Schaltplan Nr./Drawing No.
03.208-09.22/210053.0

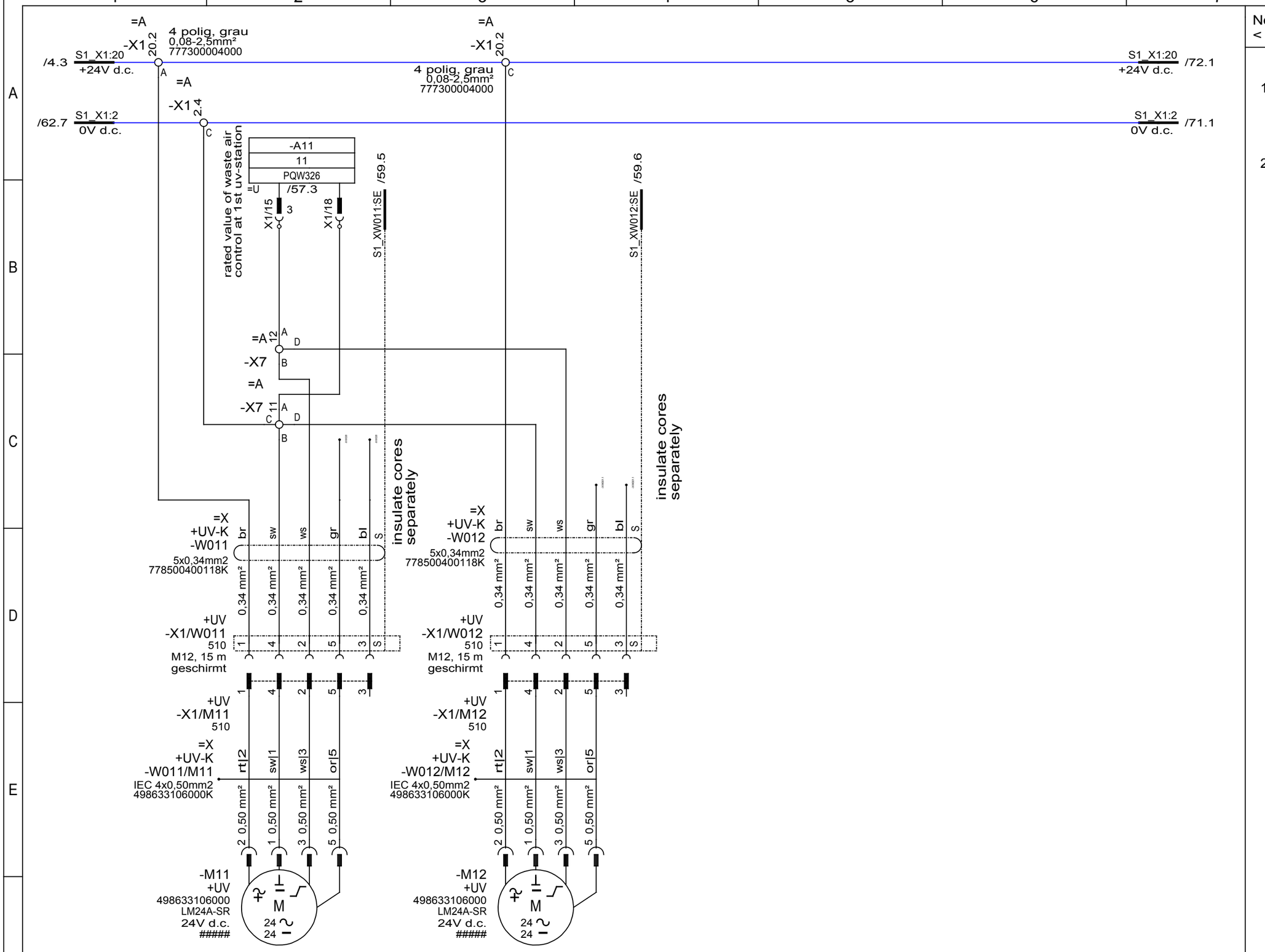
Bl./Sh. 65
73 Bl.



No. < >	
1	temperature detector XB2 in the air intake duct of UV

wiring:
bl 1,00 mm²

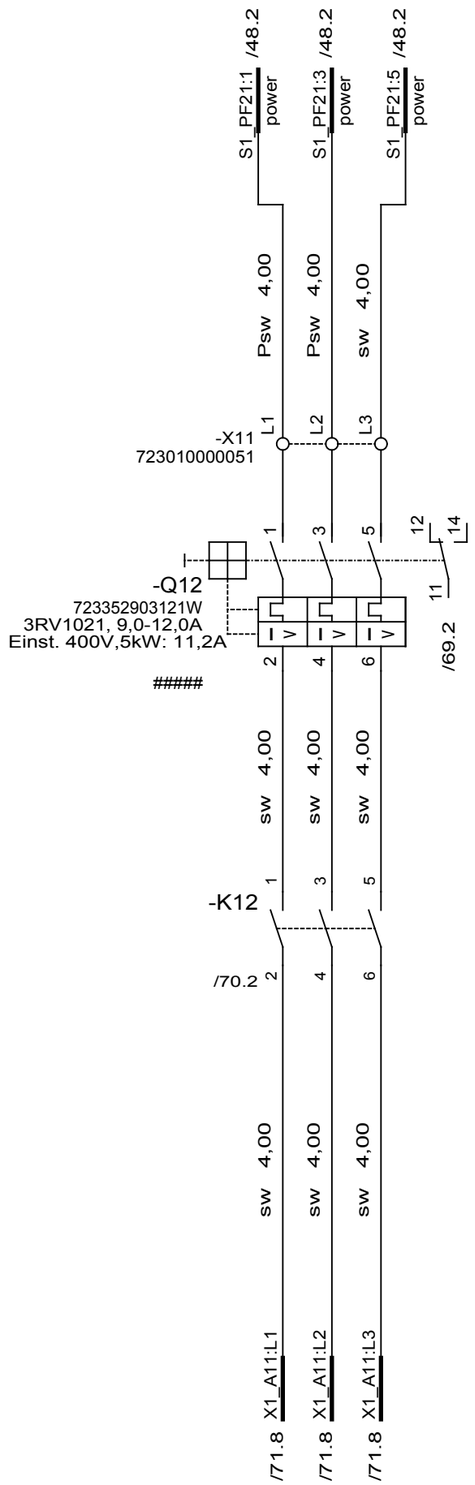
KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt temperature monitoring in the fresh air supply duct	Änderungsdatum:16.12.2010 13:02:33	CAD Maschinen Typ 4.09.22 =X +M
	Bearb.	K.STUKE	230/400V	0	L1 0			
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0
	CAD-Code	K09V-3	50Hz	24	L3 0			Bl./Sh. 66 / 73 Bl.



No. < >	
1	XM11 stepper motor at waste air flap of 1st uv drying
2	XM12 stepper motor at waste air flap of 1st uv drying

wiring:
bl 1,00 mm2

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt waste air control of uv - drying	Änderungsdatum:14.12.2010 11:48:53	CAD	Maschinen Typ 4.09.22	=X +S1
	Bearb.	K.STUKE	230/400V	0	L1 0					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh. 67 73 Bl.
	CAD-Code	K09V-3	50Hz	230	L3 0					



No. < >	
1	YQ12 motor circuit breaker first uv power by 5kW

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt power and control of uv - drying	Änderungsdatum:11.03.2011 11:05:38	C A D	Maschinen Typ 4.09.22	=Y +S1
	Bearb.	K.STUKE	230/400V	0	L1 0					
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No. 03.208-09.22/210053.0	Bl./Sh.	68
	CAD-Code	K09V-3	50Hz	0	L3 0					73 Bl.

=A -X1 1.6 A

4polig,grau
0,08-2,5mm²
777300004000

=A -X1 1.6 C

4polig,grau
0,08-2,5mm²
777300004000

/63.2 S1_X1:1 +24V d.c.

S1_X1:1 + 24V d.c. /71.3

-Q12 /68.2
11
12
14

-K12 /70.2
21
22

=U X1/2 0 /55.5
I12.0
5
-A7

trouble message of all motor circuit breakers at "KEVG"- feeder line

=U X1/3 1 /55.5
I12.1
5
-A7

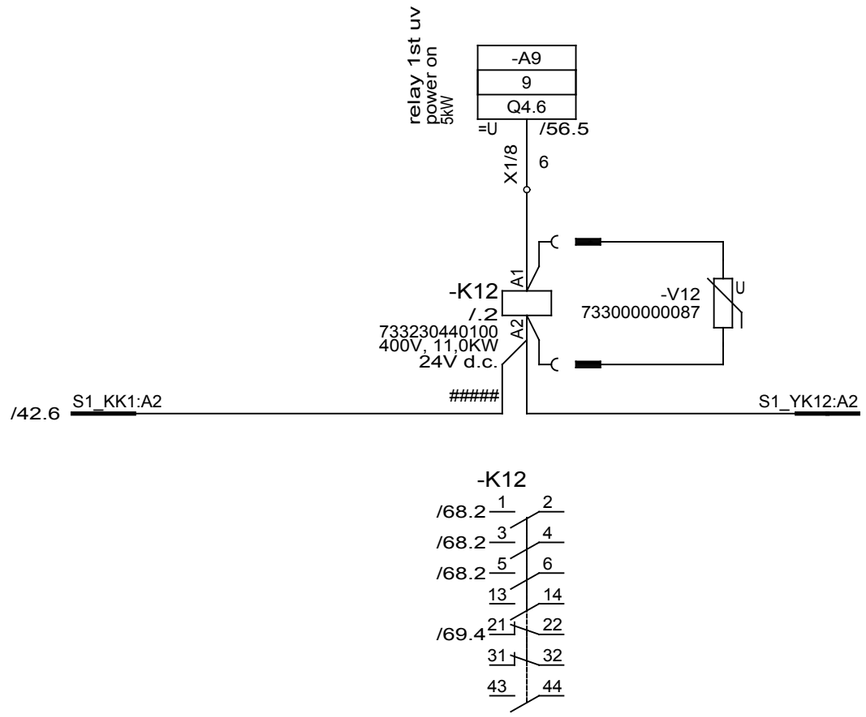
feedback signal of 1st uv- power relay

No. < >

wiring:
bl 1,00 mm2

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:11.03.2011 11:05:38
	Bearb.	K.STUKE	230/400V	0	L1 0	power and control of uv - drying	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	0	L3 0		

C A D	Maschinen Typ 4.09.22	=Y	
		+S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	69
			73 Bl.

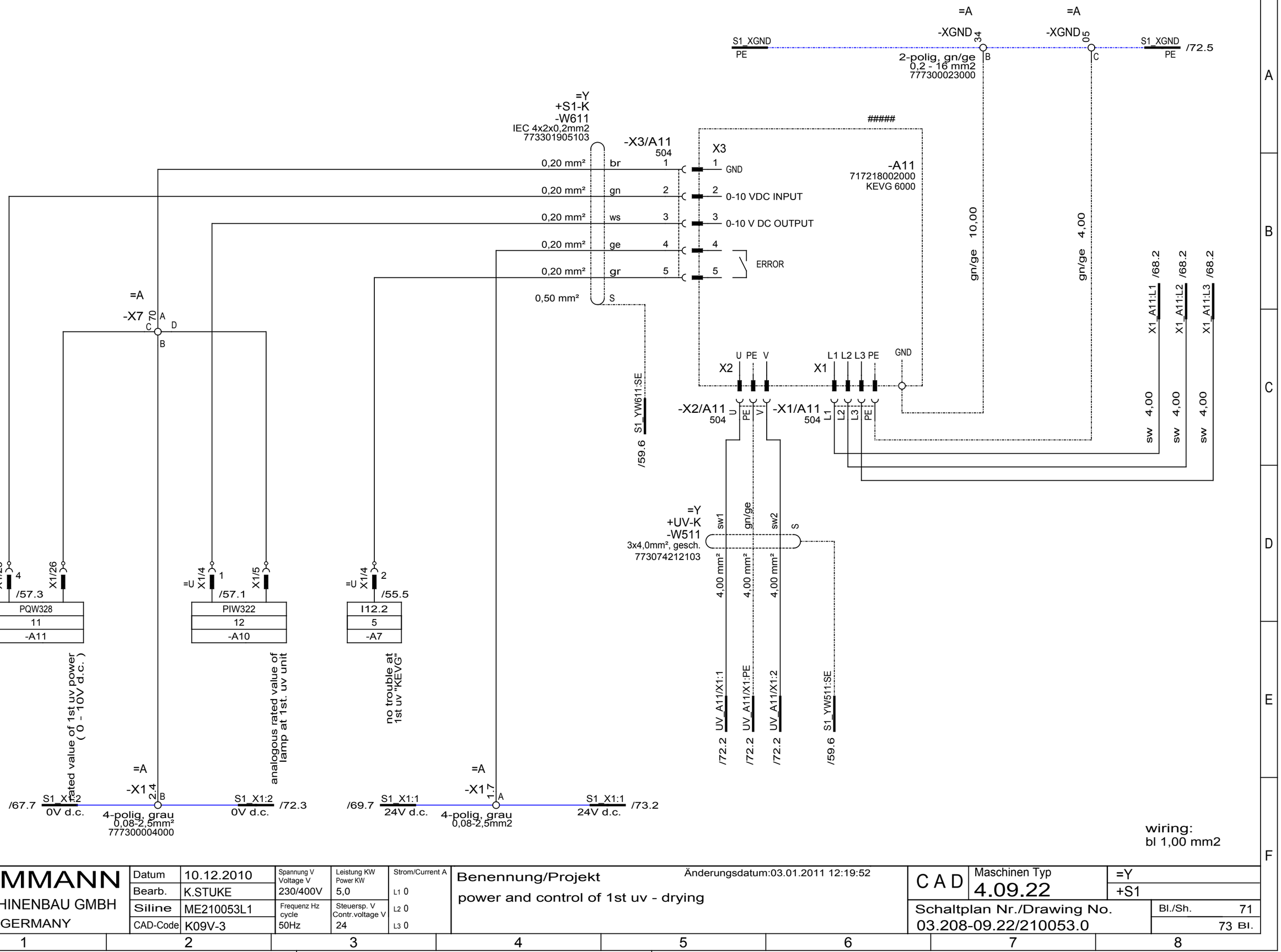


No. < >	
1	YK12 relay 1st uv power on 5kW

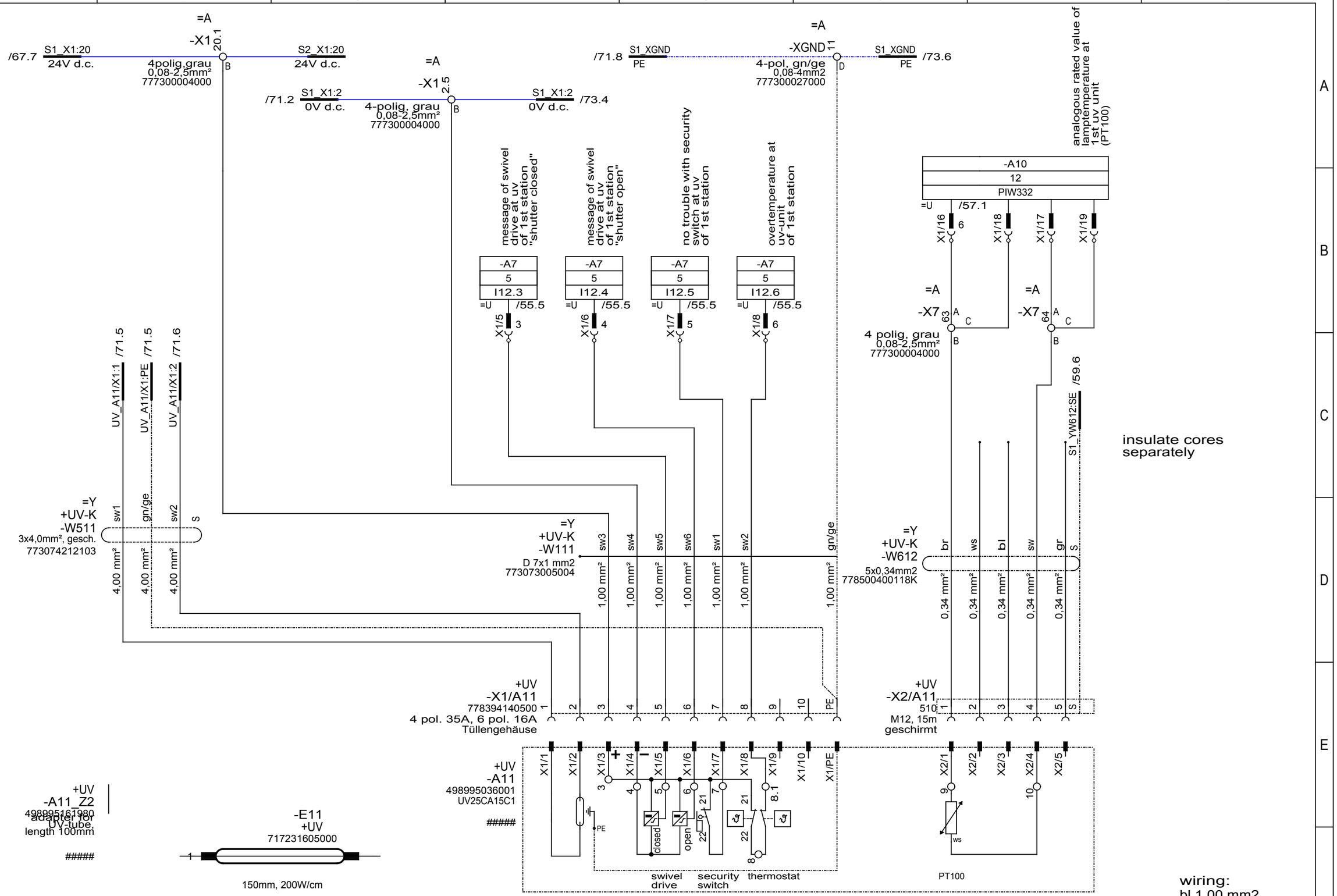
wiring:
bl 1,00 mm2

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt power and control of uv - drying	Änderungsdatum:11.03.2011 11:05:38
	Bearb.	K.STUKE	230/400V	0	L1 0		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	24	L3 0		

C A D	Maschinen Typ 4.09.22	=Y +S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	70
			73 Bl.

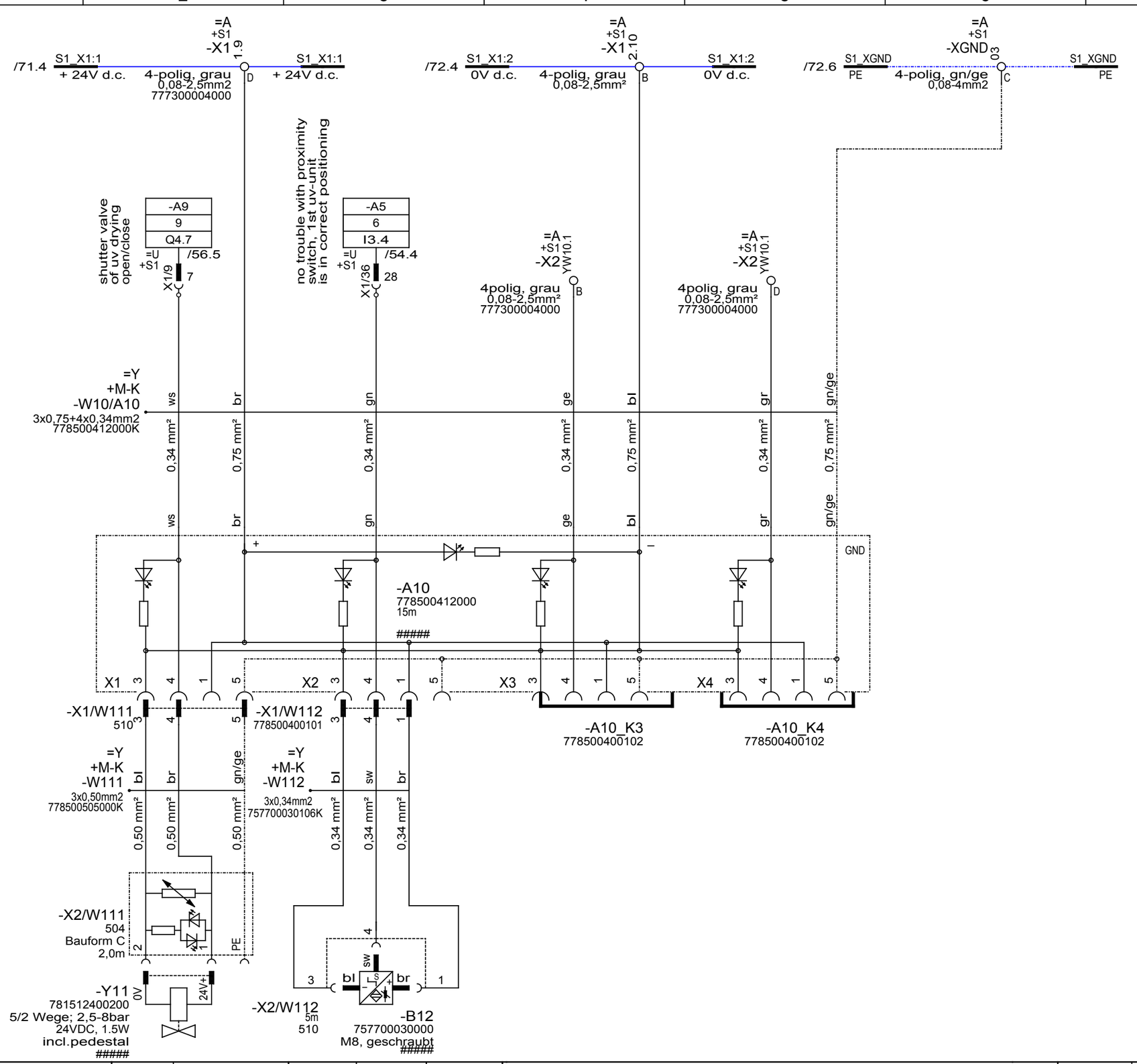


KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:03.01.2011 12:19:52	C A D Maschinen Typ 4.09.22 =Y +S1
	Bearb.	K.STUKE	230/400V	5,0	L1 0	power and control of 1st uv - drying		Schaltplan Nr./Drawing No. 03.208-09.22/210053.0 Bl./Sh. 71
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			73 Bl.
	CAD-Code	K09V-3	50Hz	24	L3 0			



KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:03.01.2011 12:25:44
	Bearb.	K.STUKE	230/400V	5,0	L1 0	power and control of 1st uv - drying	
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0		
	CAD-Code	K09V-3	50Hz	24	L3 0		

CAD	Maschinen Typ 4.09.22	=Y	
		+S1	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	72
			73 Bl.



No. < >	
1	YY11 valve at shutter uv drying
2	YB12 proximity switch at 1st uv station position detection

wiring:
bl 1,00 mm2

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt proximity switch of position at 1st uv station	Änderungsdatum:16.12.2010 13:02:16
	Bearb.	K.STUKE	230/400V		L1		
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2		
	CAD-Code	K09V-3	50Hz		L3		

C A D	Maschinen Typ 4.09.22	=Y +M	
Schaltplan Nr./Drawing No. 03.208-09.22/210053.0		Bl./Sh.	73
			73 Bl.

Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type
1	=A+M-K-W900	D 16,0 mm2	16	=K+MA-K-W201	D 5x0,75mm2	31			46		
2	=A+M-K-W901	D 16,0 mm2	17	=J+M-K-W10/A10	3x0,75+6x0,34mm2	32			47		
3	=A+M-K-W903	D 16,0 mm2	18	=K+M-K-W40/A40	3x0,75+6x0,34mm2	33			48		
4	=A+M-K-W906	D 16,0 mm2	19	=G+M-K-W102	D 5x1 mm2	34			49		
5	=A+M-K-W905	D 16,0 mm2	20	=G+M-K-W191	D 5x1 mm2	35			50		
6	=A+M-K-W904	D 16,0 mm2	21	=J+M-K-W20/A20	3x0,75+6x0,34mm2	36			51		
7	=A+M-K-W907	D 16,0 mm2	22	=G+M-K-W111	D 5x1 mm2	37			52		
8	=A+M-K-W911	D 4,0 mm2	23	=G+M-K-W192	D 5x1 mm2	38			53		
9	=A+M-K-W916	D 4,0 mm2	24	=A+M-K-W110	UL 16 x AWG20	39			54		
10	=A+M-K-W111	UL 25x1 mm2	25	=K+M-K-W20/A20	3x0,75+6x0,34mm2	40			55		
11	=A+M-K-W101	UL 25x1 mm2	26	=Y+S1-K-W611	IEC 4x2x0,2mm2	41			56		
12	=C+M-K-W20/A20	3x0,75+6x0,34mm2	27	=A+M-K-W132	D 3x1 mm2	42			57		
13	=A+M-K-W007	UL 3x1,5 mm2	28			43			58		
14	=G+M-K-W103	D 5x1 mm2	29			44			59		
15	=K+M-K-W10/A10	3x0,75+6x0,34mm2	30			45			60		

teminal block	terminal type

teminal block: **=A**
+M
-XGND

wire		target designation						terminal no.				target designation					wire	
Idx	core	cross reference wiring diagramm	function group	main locality	equipment indication	connection						function group	main locality	equipment indication	connection	cross reference wiring diagramm	core	Idx
1	gn/ge	=SLP/1.5	=A	+S1	-XGND	32 B	A	o		30								
2	gn/ge	=SLP/1.1	=A	+M	-A101	PE	A	o		31								
3	gn/ge	=SLP/1.2	=A	+M	-A103	PE	A	o		33	B	=A	+M	-A106	PE	=SLP/1.4	gn/ge	**4**
5	gn/ge	=SLP/1.4	=A	+M	-A105	PE	A	o		35								
6	gn/ge	=SLP/2.1	=A	+M2	-XGND	21 A	A	o		36								
7	gn/ge	=SLP/1.6	=A	+M	-A107	PE	A	o		37								
								o		A1								
							A	o		XSE1								
								o		XSE2	B	=U	+M	-XGND	1	=SLP/60.5		
		=A		+M2					-XGND									
6	gn/ge	=SLP/1.7	=A	+M	-XGND	36 A	A	o		21								
8	gn/ge	=SLP/35.2	=I	+M	-M1	PE.	A	o		22								
9	gn/ge	=SLP/63.2	=V	+M	-M1	PE.	A	o		28								
		=A		+S1					-X0									
							A	o		N	B	=A	+S1	-X5	N A	=SLP/48.4		
							A	o		PE	B	=A	+S1	-XGND	41 A	=SLP/1.6		
		=A		+S1					-X1									
		=SLP/4.2	=A	+S1	-F1	1+	A	o		1.1	B	=G	+M	-X21	3	=SLP/29.2	sw3	**10**
							C				D	=G	+M	-X11	3	=SLP/27.2	sw3	**11**
		=SLP/16.2	=D	+S1	-Q11	11	A	o		1.2	B	=G	+M	-S3	21	=SLP/25.5	sw3	**14**
13	sw1	=SLP/10.3	=B	+M	-M1	T1	C				D	=C	+M	-A20	br	=SLP/13.2	br	**12**
		=SLP/9.4	=B	+S1	-K1	21	A	o		1.3	B	=A	+S1	-Q41	11	=SLP/8.6		
16	sw3	=SLP/45.6	=K	+MA	-A1-S1	21	C				D	=K	+M	-A10	br	=SLP/44.2	br	**15**
20	sw3	=SLP/32.3	=G	+M	-S91	21	A	o		1.4	B	=J	+M	-A10	br	=SLP/37.2	br	**17**
19	sw3	=SLP/25.3	=G	+M	-S2	21	C				D	=K	+M	-A40	br	=SLP/39.2	br	**18**
22	sw3	=SLP/31.3	=G	+M	-S11	21	A	o		1.5	B	=J	+M	-A20	br	=SLP/36.2	br	**21**
24	rt	=SLP/10.6	=B	+M	-A1	01	C				D	=G	+M	-S92	21	=SLP/33.3	sw3	**23**
		=SLP/69.2	=Y	+S1	-Q12	11	A	o		1.6	B	=K	+M	-A20	br	=SLP/38.2	br	**25**
		=SLP/69.4	=Y	+S1	-K12	21	C											
26	ge	=SLP/71.5	=Y	+S1	-X3/A11	4	A	o		1.7	B	=G	+M	-X11	5	=SLP/27.2	sw5	**11**
		=SLP/43.6	=K	+S1	-A1	01	C				D	=G	+M	-X11	10	=SLP/27.4	sw10	**11**
		=SLP/16.5	=D	+S1	-K1	21	A	o		1.8	B							
		=SLP/62.5	=V	+S1	-K1	14	C				D	=K	+M	-X1	4	=SLP/43.4	sw1	**27**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	1	1	1	1	1	1	1	1	25	21	9	3	5	9	5	9	9	5	5	9	5	5	16	9	5	3																																			
8/11	--	--	--	--	--	--	--	--	2/5	2/6	2/10	7/22	5/9	2/16	5/7	2/11	2/9	5/5	5/11	2/13	5/10	6/2	2/8	2/12	7/4	7/10																																			

continued on sheet
used cores total
cable index

ME210053
K09V-3
KLP

KAMMANN	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt
MASCHINENBAU GMBH	Bearb.	K.STUKE	230/400V	0	L1 0	terminal layout
GERMANY	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0	Änderungsdatum:21.04.2011 16:40:07
	CAD-Code	K09V-3	50Hz	0	L3 0	

C A D | Maschinen Typ 4.09.22 | =A +M

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

Bl./Sh. 1 | 9 Bl.

Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type
1	=A+S1-K-W717	2K 2x2x0,2mm2	16	=K+M-K-W10/A10	3x0,75+6x0,34mm2	31			46		
2	=C+M-K-W50/A50	3x0,75+8x0,34mm2	17			32			47		
3	=Y+M-K-W10/A10	3x0,75+4x0,34mm2	18			33			48		
4	=A+S1-K-W711	2K 2x2x0,2mm2	19			34			49		
5	=A+M-K-W111	UL 25x1 mm2	20			35			50		
6	=A+M-K-W101	UL 25x1 mm2	21			36			51		
7	=Y+UV-K-W111	D 7x1 mm2	22			37			52		
8	=A+M-K-W110	UL 16 x AWG20	23			38			53		
9	=K+M-K-W40/A40	3x0,75+6x0,34mm2	24			39			54		
10	=C+M-K-W20/A20	3x0,75+6x0,34mm2	25			40			55		
11	=J+M-K-W10/A10	3x0,75+6x0,34mm2	26			41			56		
12	=K+M-K-W20/A20	3x0,75+6x0,34mm2	27			42			57		
13	=J+M-K-W20/A20	3x0,75+6x0,34mm2	28			43			58		
14	=A+M-K-W170	UL 4x1,5 mm2	29			44			59		
15	=A+M-W001	IEC 18x2,5 mm2	30			45			60		

teminal block	terminal type

teminal block: =A
+S1
-X1

wire		target designation					terminal no.					target designation					wire	
Idx	core	cross reference wiring diagramm	function group	main locality	equipment indication	connection						function group	main locality	equipment indication	connection	cross reference wiring diagramm	core	Idx
4	2|ws	=SLP/35.3	=I	+S1	-X1/W711	19	A	o	1.9	B		=C	+M	-A50	br	=SLP/15.1	br	**2**
1	2|ws	=SLP/63.3	=V	+S1	-X1/W717	19	C			D		=Y	+M	-A10	br	=SLP/73.2	br	**3**
		=SLP/50.2	=U	+S1	-A1	M	A	o	2.0	B		=A	+S1	-X1E	2 A	=SLP/3.4		
		=SLP/6.1	=A	+S1	-K31	A2	C			D		=G	+M	-X21	8	=SLP/29.3	sw8	**5**
		=SLP/50.6	=U	+S1	-A8	20	A	o	2.1	B		=U	+S1	-A8	10	=SLP/50.6		
		=SLP/50.6	=U	+S1	-A8	30	C			D		=U	+S1	-A8	40	=SLP/50.6		
		=SLP/50.3	=U	+S1	-A2	2	A	o	2.2									
6	sw8	=SLP/27.3	=G	+M	-X11	8	C			D		=A	+S1	-F1	IN-	=SLP/4.2		
		=SLP/50.4	=U	+S1	-A6	20	A	o	2.3	B		=U	+S1	-A7	20	=SLP/50.5		
		=SLP/50.5	=U	+S1	-A6	40	C			D		=U	+S1	-A7	40	=SLP/50.6		
							A	o	2.4	B		=A	+S1	-X7	70 B	=SLP/71.2		
		=SLP/67.2	=A	+S1	-X7	11 C	C			D								
								o	2.5	B		=Y	+UV	-X1/A11	4	=SLP/72.5	sw4	**7**
8	bl	=SLP/10.5	=B	+M	-A1	20	C			D		=K	+M	-A40	bl	=SLP/39.4	bl	**9**
		=SLP/6.7	=A	+S1	-P31	~ -	A	o	2.6	B		=A	+S1	-X1E	2 C	=SLP/3.4		
		=SLP/43.4	=K	+S1	-A1	20	C			D		=C	+M	-A20	bl	=SLP/13.4	bl	**10**
		=SLP/9.5	=B	+S1	-K1	A2	A	o	2.7	B		=J	+M	-A20	bl	=SLP/36.4	bl	**13**
12	bl	=SLP/38.4	=K	+M	-A20	bl	C			D		=J	+M	-A10	bl	=SLP/37.4	bl	**11**
		=SLP/53.2	=U	+S1	-A100	26	A	o	2.8	B		=K	+S1	-A60	2	=SLP/40.5		
		=SLP/60.1	=U	+S1	-A200	0.	C			D		=B	+M	-H1	–.	=SLP/12.6	sw2	**14**
		=SLP/52.5	=U	+S1	-A13	1M	A	o	2.9	B		=C	+M	-A50	bl	=SLP/15.3	bl	**2**
		=SLP/62.6	=V	+S1	-K1	A2	C			D								
		=SLP/50.4	=U	+S1	-A5	40	A	o	2.10	B		=Y	+M	-A10	bl	=SLP/73.4	bl	**3**
		=SLP/50.3	=U	+S1	-A5	20	C			D		=T	+M	-X5	5	=SLP/49.4	sw5	**15**
		=SLP/50.7	=U	+S1	-A9	X1/10	A	o	2.11	B		=U	+S1	-A10	X1/20	=SLP/51.2		
		=SLP/50.7	=U	+S1	-A9	X1/20	C			D		=U	+S1	-A11	X1/1	=SLP/51.3		
		=SLP/61.1	=U	+S1	-A210	0.	A	o	2.12	B		=K	+S1	-V12	A2	=SLP/44.2		
										D		=K	+M	-A10	bl	=SLP/44.4	bl	**16**
		=SLP/7.2	=A	+S1	-A32	14	A	o	3.1	B		=G	+M	-X12	1	=SLP/27.5	sw14	**6**
										D		=G	+M	-X11	12	=SLP/27.5	sw12	**6**
								o	3.2	B								
										D		=T	+M	-X5	6	=SLP/49.4	sw6	**15**
		=SLP/7.2	=A	+S1	-A32	24	A	o	3.M	B		=U	+S1	-A5	X1/2	=SLP/6.5		
		=SLP/6.6	=B	+S1	-K2	21	C											
		=SLP/7.6	=A	+S1	-A33	48	A	o	3V.1									
		=SLP/9.5	=B	+S1	-K1	A1	C			D		=K	+S1	-K1	A1	=SLP/42.5		
								o	3V.2	B		=T	+M	-X5	13	=SLP/49.6	sw13	**15**
		=SLP/4.2	=A	+S1	-F1	2+	A	o	10.1	B		=U	+S1	-A2	1	=SLP/50.3		
							C			D		=A	+S1	-X2	A60 D	=SLP/40.4		
		=SLP/6.4	=A	+S1	-A31	A1	A	o	10.2	B		=B	+S1	-K2	11	=SLP/7.5		
		=SLP/40.5	=K	+S1	-A60	1	C			D		=T	+M	-X5	9	=SLP/49.5	sw9	**15**

ME210053
K09V-3
KLP

continued on sheet
used cores total
cable index

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
8	11	7	8	25	21	7	16	9	9	9	9	9	4	16	9																																													
--	7/8	5/3	--	4/3	4/2	3/3	6/8	4/7	4/4	4/5	4/8	4/6	7/13	3/6	4/9																																													

KAMMANN					
MASCHINENBAU GMBH					
GERMANY					
Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	
Bearb.	K.STUKE	230/400V	0	L1 0	
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0	
CAD-Code	K09V-3	50Hz	0	L3 0	

Benennung/Projekt
terminal layout

Änderungsdatum:21.04.2011 16:40:11

CAD | Maschinen Typ 4.09.22 | =A +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

Bl./Sh. 2 | 9 Bl.

Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type
1	=A+M-K-W113	D 3x1 mm2	16			31			46		
2	=A+M-K-W051	8x0,22+2x1mm2	17			32			47		
3	=Y+UV-K-W111	D 7x1 mm2	18			33			48		
4	=X+UV-K-W011	5x0,34mm2	19			34			49		
5	=X+UV-K-W012	5x0,34mm2	20			35			50		
6	=A+M-W001	IEC 18x2,5 mm2	21			36			51		
7			22			37			52		
8			23			38			53		
9			24			39			54		
10			25			40			55		
11			26			41			56		
12			27			42			57		
13			28			43			58		
14			29			44			59		
15			30			45			60		

teminal block: **=A**
+S1
-X1

teminal block	terminal type

wire Idx	wire core	target designation: cross reference wiring diagramm	function group	main locality	equipment indication	connection		terminal no.		target designation: function group	main locality	equipment indication	connection	cross reference wiring diagramm	wire core	wire Idx
		=SLP/50.6	=U	+S1	-A8	11	A	10.3	B	=U	+S1	-A8	1	=SLP/50.6		
		=SLP/50.6	=U	+S1	-A8	21	C		D	=U	+S1	-A8	31	=SLP/50.6		
		=SLP/50.7	=U	+S1	-A9	X1/1	A	10.4	B	=U	+S1	-A10	X1/1	=SLP/51.2		
		=SLP/50.7	=U	+S1	-A9	X1/11	C		D	=U	+S1	-A11	X1/20	=SLP/51.3		
		=SLP/4.5	=A	+S1	-V2	2	A	12.1	B	=G	+MB5	-A2_X1	0VDC	=SLP/24.3	sw2	**1**
		=SLP/4.2	=A	+S1	-F1	3+	A	14.1	B							
		=SLP/60.1	=U	+S1	-A200	+	C		D	=U	+S1	-A100	25	=SLP/53.2		
		=SLP/52.5	=U	+S1	-A13	1L+	A	14.2	B	=U	+S1	-A210	+	=SLP/61.1		
							C		D	=U	+S1	-A1	L+	=SLP/50.2		
		=SLP/4.5	=A	+S1	-V2	1	A	15.1	B	=G	+MB5	-A2_X1	24VDC	=SLP/24.2	sw1	**1**
		=SLP/4.6	=A	+S1	-V3	2	A	16.1	B	=A	+M	-X1/W051	M	=SLP/34.3	sw	**2**
		=SLP/4.6	=A	+S1	-V3	1	A	17.1	B	=A	+M	-X1/W051	E	=SLP/34.3	**rt**	**2**
		=SLP/4.3	=A	+S1	-F1	4+	A	20.1	B	=Y	+UV	-X1/A11	3	=SLP/72.4	sw3	**3**
4	br	=SLP/67.2	=X	+UV	-X1/W011	1	A	20.2	B							
5	br	=SLP/67.3	=X	+UV	-X1/W012	1	C									
		=SLP/4.7	=A	+S1	-V6	1	A	21.1								
								22.1	B	=V	+S1	-X1	2 B	=SLP/64.5		
		=SLP/4.7	=A	+S1	-V6	2	C									
		=SLP/6.6	=B	+S1	-K2	24	A	53.M	B	=A	+S1	-P31	~ +	=SLP/6.7		
		=SLP/6.6	=U	+S1	-A5	X1/3	C		D	=T	+M	-X5	11	=SLP/49.5	sw11	**6**
=A			+S1					-X1E								
								1	B D	=A	+S1	-A1	–	=SLP/3.3		
		=SLP/3.4	=A	+S1	-X1	2.0 B	A	2								
		=SLP/3.4	=A	+S1	-X1	2.6 B	C									
								3	B	=A	+S1	-V2	M	=SLP/4.4		
								4	B	=A	+S1	-V3	M	=SLP/4.6		
								5	B	=A	+S1	-V6	M	=SLP/4.7		
								GND	B	=A	+S1	-XGND	34 A	=SLP/3.3		

ME210053
K09V-3
KLP

continued on sheet
used cores total
cable index

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
3	10	7	4	4	16																																																								
7/6	7/1	8/8	6/9	6/10	4/1																																																								

KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010
Bearb.	K.STUKE
Siline	ME210053L1
CAD-Code	K09V-3

Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
230/400V	0	L1 0
Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
50Hz	0	L3 0

Benennung/Projekt
terminal layout

Änderungsdatum:21.04.2011 16:40:17

CAD | Maschinen Typ 4.09.22 | =A +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

Bl./Sh. 3 | 9 Bl.

Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type
1	=A+M-W001	IEC 18x2,5 mm2	16			31			46		
2	=A+M-K-W101	UL 25x1 mm2	17			32			47		
3	=A+M-K-W111	UL 25x1 mm2	18			33			48		
4	=C+M-K-W20/A20	3x0,75+6x0,34mm2	19			34			49		
5	=J+M-K-W10/A10	3x0,75+6x0,34mm2	20			35			50		
6	=J+M-K-W20/A20	3x0,75+6x0,34mm2	21			36			51		
7	=K+M-K-W40/A40	3x0,75+6x0,34mm2	22			37			52		
8	=K+M-K-W20/A20	3x0,75+6x0,34mm2	23			38			53		
9	=K+M-K-W10/A10	3x0,75+6x0,34mm2	24			39			54		
10			25			40			55		
11			26			41			56		
12			27			42			57		
13			28			43			58		
14			29			44			59		
15			30			45			60		

teminal block	terminal type

teminal block: =A
+S1
-X2

wire		target designation					terminal no.					target designation					wire	
Idx	core	cross reference wiring diagramm	function group	main locality	equipment indication	connection						function group	main locality	equipment indication	connection	cross reference wiring diagramm	core	Idx
		=SLP/49.7	=U	+S1	-A6	X1/15	A	o		48	B	=T	+M	-X5	10	=SLP/49.6	sw10	**1**
		=SLP/49.6	=U	+S1	-A6	X1/16	A	o		49	B	=T	+M	-X5	12	=SLP/49.6	sw12	**1**
		=SLP/43.4	=U	+S1	-A8	X1/33	A	o		81	B	=K	+S1	-A1	18	=SLP/43.4		
											D	=K	+S1	-A1	27	=SLP/43.4		
2	sw6	=SLP/27.2	=G	+M	-X11	6	A	o		113	B	=G	+M	-X21	5	=SLP/29.2	sw5	**3**
		=SLP/29.3	=U	+S1	-A5	X1/28	A	o		115	B	=G	+M	-X21	7	=SLP/29.3	sw7	**3**
2	sw7	=SLP/27.3	=G	+M	-X11	7	C											
2	sw11	=SLP/27.4	=G	+M	-X11	11	A	o		116								
											D	=G	+M	-X21	10	=SLP/29.4	sw10	**3**
3	sw12	=SLP/29.5	=G	+M	-X21	12	A	o		119	B	=G	+M	-X22	1	=SLP/29.6	sw14	**3**
											D	=G	+M	-X12	4	=SLP/27.5	sw15	**2**
2	sw13	=SLP/27.5	=G	+M	-X12	2	A	o		121	B	=G	+M	-X22	3	=SLP/29.6	sw16	**3**
											D	=G	+M	-X12	6	=SLP/27.5	sw17	**2**
								o		122								
											D	=G	+M	-X22	4	=SLP/29.6	sw15	**3**
		=SLP/29.5	=U	+S1	-A5	X1/5	A	o		124	B	=G	+M	-X22	2	=SLP/29.5	sw13	**3**
3	sw17	=SLP/29.6	=G	+M	-X22	6	C											
		=SLP/29.4	=U	+S1	-A8	X1/7	A	o		126	B	=G	+M	-X21	9	=SLP/29.3	sw9	**3**
2	sw9	=SLP/27.3	=G	+M	-X11	9	C											
		=SLP/40.5	=K	+S1	-A60	3	A	o		A60								
		=SLP/40.6	=K	+S1	-A60	4	C				D	=A	+S1	-X1	10.1 D	=SLP/40.1		
		=SLP/41.4	=K	+S1	-A70	3	A	o		A70								
		=SLP/41.5	=K	+S1	-A70	4	C											
								o		AW101.1	B	=G	+M	-X12	3	=SLP/27.6	sw16	**2**
4	ge	=SLP/13.3	=C	+M	-A20	ge	A	o		CW20.1	B	=C	+M	-A20	gr	=SLP/13.4	gr	**4**
4	**rt**	=SLP/13.6	=C	+M	-A20	**rt**	C				D	=C	+M	-A20	rs	=SLP/13.5	rs	**4**
								o		JW10.1	B	=J	+M	-A10	gr	=SLP/37.5	gr	**5**
											D	=J	+M	-A10	gn	=SLP/37.3	gn	**5**
								o		JW20.1	B	=J	+M	-A20	gr	=SLP/36.5	gr	**6**
		=SLP/41.2	=K	+S1	-V61	A1	A	o		KV61.1	B	=K	+M	-A40	ws	=SLP/39.1	ws	**7**
		=SLP/39.1	=U	+S1	-A7	X1/13	C											
		=SLP/41.2	=K	+S1	-V64	13	A	o		KV64.1	B	=K	+M	-A20	ws	=SLP/38.1	ws	**8**
							A	o		KV65.1	B	=K	+M	-A20	gr	=SLP/38.4	gr	**8**
		=SLP/41.4	=K	+S1	-V65	13	C											
								o		KW10.1	B	=K	+M	-A10	ws	=SLP/44.1	ws	**9**
											D	=K	+M	-A10	gr	=SLP/44.4	gr	**9**

ME210053
K09V-3
KLP

continued on sheet
used cores total
cable index

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
16	21	25	9	9	9	9	9	9																																																						
5/8	5/4	5/6	7/14	7/18	7/17	5/2	5/1	7/15																																																						

KAMMANN	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt	Änderungsdatum:21.04.2011 16:40:22	CAD	Maschinen Typ	=A
MASCHINENBAU GMBH	Bearb.	K.STUKE	230/400V	0	L1 0	terminal layout			4.09.22	+S1
GERMANY	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0			Schaltplan Nr./Drawing No.		Bl./Sh. 4
	CAD-Code	K09V-3	50Hz	0	L3 0			03.208-09.22/210053.0		9 Bl.

Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type
1	=K+M-K-W20/A20	3x0,75+6x0,34mm2	16			31			46		
2	=K+M-K-W40/A40	3x0,75+6x0,34mm2	17			32			47		
3	=Y+M-K-W10/A10	3x0,75+4x0,34mm2	18			33			48		
4	=A+M-K-W101	UL 25x1 mm2	19			34			49		
5	=G+M-K-W102	D 5x1 mm2	20			35			50		
6	=A+M-K-W111	UL 25x1 mm2	21			36			51		
7	=K+MA-K-W201	D 5x0,75mm2	22			37			52		
8	=A+M-W001	IEC 18x2,5 mm2	23			38			53		
9	=G+M-K-W103	D 5x1 mm2	24			39			54		
10	=G+M-K-W111	D 5x1 mm2	25			40			55		
11	=G+M-K-W191	D 5x1 mm2	26			41			56		
12			27			42			57		
13			28			43			58		
14			29			44			59		
15			30			45			60		

teminal block: =A
+S1
-X2

teminal block	terminal type

wire Idx	wire core	target designation: cross reference wiring diagramm	function group	main locality	equipment indication	connection		terminal no.				target designation: function group	main locality	equipment indication	connection	cross reference wiring diagramm	wire core	wire Idx
1	ge	=SLP/38.3	=K	+M	-A20	ge	A	o		KW20.1	B	=K	+M	-A20	gn	=SLP/38.2	gn	**1**
											D	=K	+M	-A20	**rt**	=SLP/38.6	**rt**	**1**
							A	o		KW40.1	B	=K	+M	-A40	gn	=SLP/39.2	gn	**2**
							C												
								o		YW10.1	B	=Y	+M	-A10	ge	=SLP/73.4	ge	**3**
											D	=Y	+M	-A10	gr	=SLP/73.5	gr	**3**
		=A		+S1				-X3										
		=SLP/6.5	=A	+S1	-A31	Y11	A	o		11	B	=G	+M	-X11	1	=SLP/27.1	sw1	**4**
		=SLP/6.4	=A	+S1	-X3	116 A	A	o		12	B	=A	+S1	-K31	21	=SLP/6.5		
		=SLP/7.2	=A	+S1	-A32	44	A	o		21								
5	sw1	=SLP/25.3	=G	+M	-S2	11	C				D							
		=SLP/7.3	=A	+S1	-X3	142 A	A	o		22	B	=A	+S1	-K33	21	=SLP/7.4		
4	sw2	=SLP/27.1	=G	+M	-X11	2	A	o		111	B	=G	+M	-X21	1	=SLP/29.1	sw1	**6**
								o		112	B	=G	+M	-X21	2	=SLP/29.1	sw2	**6**
											D	=A	+S1	-X3	113 D	=SLP/45.6		
								o		113	B	=K	+MA	-A1-S1	11	=SLP/45.6	sw1	**7**
											D	=A	+S1	-X3	112 D	=SLP/29.1		
							A	o		114	B	=T	+M	-X5	8	=SLP/49.5	sw8	**8**
											D	=K	+MA	-A1-S1	12	=SLP/45.6	sw2	**7**
							A	o		115	B	=T	+M	-X5	7	=SLP/49.4	sw7	**8**
		=SLP/6.4	=A	+S1	-X3	12 A	A	o		116	B							
5	sw2	=SLP/25.3	=G	+M	-S2	12	A	o		120								
9	sw1	=SLP/25.5	=G	+M	-S3	11	C											
9	sw2	=SLP/25.5	=G	+M	-S3	12	A	o		121								
											D	=G	+M	-X12	5	=SLP/27.6	sw18	**4**
								o		122	B	=G	+M	-X12	7	=SLP/27.6	sw19	**4**
10	sw1	=SLP/31.3	=G	+M	-S11	11	C				D	=G	+M	-X22	5	=SLP/29.6	sw18	**6**
		=SLP/31.5	=A	+S1	-X3	124 A	A	o		123	B	=G	+M	-X22	12	=SLP/30.3	sw21	**6**
											D	=G	+M	-S11	12	=SLP/31.3	sw2	**10**
		=SLP/31.3	=A	+S1	-X3	123 A	A	o		124								
6	sw19	=SLP/29.6	=G	+M	-X22	7	C											
11	sw1	=SLP/32.3	=G	+M	-S91	11	A	o		140								

ME210053
K09V-3
KLP

continued on sheet
used cores total
cable index

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
9	9	7	21	5	25	5	16	5	5	5																																																		
7/24	8/4	7/12	8/2	7/21	7/11	8/1	6/3	8/3	7/9	6/1																																																

KAMMANN	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A
MASCHINENBAU GMBH	Bearb.	K.STUKE	230/400V	0	L1 0
GERMANY	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0
	CAD-Code	K09V-3	50Hz	0	L3 0

Benennung/Projekt
terminal layout

Änderungsdatum:21.04.2011 16:40:38

C A D | Maschinen Typ 4.09.22 | =A +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

Bl./Sh. 5 | 9 Bl.

Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type
1	=G+M-K-W191	D 5x1 mm2	16			31			46		
2	=G+M-K-W192	D 5x1 mm2	17			32			47		
3	=A+M-W001	IEC 18x2,5 mm2	18			33			48		
4	=A+S1-K-W411	D 3x1 mm2	19			34			49		
5	=A+S1-K-W412	D 3x1 mm2	20			35			50		
6	=C+M-K-W411	UL 3x1,5 mm2	21			36			51		
7	=A+M-K-W521	UL 3x1,5 mm2	22			37			52		
8	=A+M-K-W110	UL 16 x AWG20	23			38			53		
9	=X+UV-K-W011	5x0,34mm2	24			39			54		
10	=X+UV-K-W012	5x0,34mm2	25			40			55		
11			26			41			56		
12			27			42			57		
13			28			43			58		
14			29			44			59		
15			30			45			60		

teminal block	terminal type

teminal block: **=A**
+S1
-X3

wire		target designation						terminal no.				target designation					wire	
Idx	core	cross reference wiring diagramm	function group	main locality	equipment indication	connection						function group	main locality	equipment indication	connection	cross reference wiring diagramm	core	Idx
							A	o		141	B	=G	+M	-S92	11	=SLP/33.3	sw1	**2**
1	sw2	=SLP/32.3	=G	+M	-S91	12	C											
		=SLP/7.4	=A	+S1	-X3	22 A	A	o		142	B							
							C				D	=G	+M	-S92	12	=SLP/33.3	sw2	**2**
		=A		+S1					-X4									
								o		100.1	B	=A	+S1	-F11	1	=SLP/5.4		
		=SLP/8.4	=A	+S1	-Q41	1	C				D	=D	+S1	-K8	13	=SLP/20.4		
							A	o		100.2	B							
		=SLP/14.2	=C	+S1	-K11	11	C											
								o		101.1	B	=T	+M	-X5	15	=SLP/49.2	sw15	**3**
											D	=A	+S1	-F13	1	=SLP/5.5		
								o		199.E1	B	=A	+S1	-XGND	05 B	=SLP/5.2		
5	sw1	=SLP/8.5	=A	+S1	-M42	N	A	o		200.1	B	=A	+S1	-T11	0	=SLP/5.2		
4	sw2	=SLP/8.2	=A	+S1	-M41	N	C				D	=A	+S1	-X12	N	=SLP/5.5		
7	sw2	=SLP/20.4	=F	+M	-A1	N	A	o		200.2	B	=C	+M	-H11	N	=SLP/14.2	sw2	**6**
							C				D	=T	+M	-X5	16	=SLP/49.3	sw16	**3**
		=A		+S1					-X5									
		=SLP/48.3	=P	+S1	-F22	1	A	o		55	B	=T	+M	-X5	2	=SLP/49.1	sw2	**3**
		=SLP/48.4	=P	+S1	-F22	3	A	o		56	B	=T	+M	-X5	3	=SLP/49.2	sw3	**3**
		=SLP/48.4	=P	+S1	-F22	5	A	o		57	B	=T	+M	-X5	4	=SLP/49.2	sw4	**3**
		=SLP/48.2	=A	+S1	-X0	N B	A	o		N	B							
		=SLP/48.5	=A	+S1	-X5	N1 A	C											
		=SLP/48.4	=A	+S1	-X5	N C	A	o		N1	B	**=I**	+S1	-A1	L2/N	=SLP/35.5		
3	sw1	=SLP/49.3	=T	+M	-X5	1	A	o		N2	B	=V	+S1	-X5	N B	=SLP/64.2		
		=SLP/63.5	=V	+S1	-A1	L2/N	C											
		=A		+S1					-X7									
		=SLP/11.5	=U	+S1	-A10	X1/3	A			1	B	=U	+S1	-A10	X1/2	=SLP/11.4		
						39	C	o			D				42			
						2	E				F				1			
		=SLP/67.2	=U	+S1	-A11	X1/18	A	o		11	B	=X	+UV	-X1/W011	4	=SLP/67.2	sw	**9**
		=SLP/67.1	=A	+S1	-X1	2.4 C	C				D	=X	+UV	-X1/W012	4	=SLP/67.3	sw	**10**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
5	5	16	3	3	3	3	16	4	4																																																						
7/16	7/20	8/10	7/19	8/9	7/23	8/7	7/5	--	--																																																						

continued on sheet
used cores total
cable index

ME210053
K09V-3
KLP

KAMMANN MASCHINENBAU GMBH GERMANY	Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	Benennung/Projekt terminal layout
	Bearb.	K.STUKE	230/400V	0	L1 0	Änderungsdatum:21.04.2011 16:40:56
	Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2 0	C A D
	CAD-Code	K09V-3	50Hz	0	L3 0	Maschinen Typ 4.09.22
						=A +S1
						Schaltplan Nr./Drawing No. 03.208-09.22/210053.0
						Bl./Sh. 6 9 Bl.

Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type
1	=A+M-K-W051	8x0,22+2x1mm2	16	=G+M-K-W191	D 5x1 mm2	31			46		
2	=X+M-K-W610	5x0,34mm2	17	=J+M-K-W20/A20	3x0,75+6x0,34mm2	32			47		
3	=Y+UV-K-W612	5x0,34mm2	18	=J+M-K-W10/A10	3x0,75+6x0,34mm2	33			48		
4	=Y+S1-K-W611	IEC 4x2x0,2mm2	19	=A+S1-K-W411	D 3x1 mm2	34			49		
5	=A+M-K-W110	UL 16 x AWG20	20	=G+M-K-W192	D 5x1 mm2	35			50		
6	=A+M-K-W113	D 3x1 mm2	21	=G+M-K-W102	D 5x1 mm2	36			51		
7	=A+M-K-W517	UL 4x2,5 mm2	22	=A+M-K-W007	UL 3x1,5 mm2	37			52		
8	=C+M-K-W50/A50	3x0,75+8x0,34mm2	23	=C+M-K-W411	UL 3x1,5 mm2	38			53		
9	=G+M-K-W111	D 5x1 mm2	24	=K+M-K-W20/A20	3x0,75+6x0,34mm2	39			54		
10	=A+M-K-W132	D 3x1 mm2	25			40			55		
11	=A+M-K-W111	UL 25x1 mm2	26			41			56		
12	=Y+M-K-W10/A10	3x0,75+4x0,34mm2	27			42			57		
13	=A+M-K-W170	UL 4x1,5 mm2	28			43			58		
14	=C+M-K-W20/A20	3x0,75+6x0,34mm2	29			44			59		
15	=K+M-K-W10/A10	3x0,75+6x0,34mm2	30			45			60		

teminal block	terminal type

teminal block: =A
+S1
-X7

wire		target designation						terminal no.				target designation					wire	
Idx	core	cross reference wiring diagramm	function group	main locality	equipment indication	connection						function group	main locality	equipment indication	connection	cross reference wiring diagramm	core	Idx
		=SLP/67.2	=U	+S1	-A11	X1/15	A	o		12	B	=X	+UV	-X1/W011	2	=SLP/67.2		
											D	=X	+UV	-X1/W012	2	=SLP/67.3		
1	ge	=SLP/34.4	=A	+M	-X1/W051	B	A	o		34								
1	or	=SLP/34.4	=A	+M	-X1/W051	A	A	o		37								
1	br	=SLP/34.5	=A	+M	-X1/W051	L	A	o		38								
1	gn	=SLP/34.5	=A	+M	-X1/W051	D	A	o		39								
		=SLP/66.1	=U	+S1	-A10	X1/12	A	o		61	B	=X	+M	-X1/B2	1	=SLP/66.1	br	2
		=SLP/66.2	=U	+S1	-A10	X1/14	C											
		=SLP/66.2	=U	+S1	-A10	X1/13	A	o		62	B	=X	+M	-X1/B2	4	=SLP/66.2	sw	2
		=SLP/66.2	=U	+S1	-A10	X1/15	C											
		=SLP/72.6	=U	+S1	-A10	X1/16	A	o		63	B	=Y	+UV	-X2/A11	1	=SLP/72.6	br	3
		=SLP/72.7	=U	+S1	-A10	X1/18	C											
		=SLP/72.7	=U	+S1	-A10	X1/17	A	o		64	B	=Y	+UV	-X2/A11	4	=SLP/72.7	sw	3
		=SLP/72.7	=U	+S1	-A10	X1/19	C											
4	br	=SLP/71.5	=Y	+S1	-X3/A11	1	A	o		70	B	=A	+S1	-X1	2.4	B =SLP/71.2		
		=SLP/71.1	=U	+S1	-A11	X1/26	C				D	=U	+S1	-A10	X1/5	=SLP/71.2		
5	ws-ge	=SLP/11.6	=B	+M	-BA1.1	ws-ge	A	o		AW110.1	B	=B	+M	-BA1.1	gr	=SLP/11.6	gr	5
5	gn	=SLP/11.5	=B	+M	-BA1.1	gn	C				D	=B	+M	-BA1.1	br	=SLP/11.6	br	5
								o		AW110.2	B	=B	+M	-BA1.1	ws-gn	=SLP/11.7	ws-gn	5
											D	=B	+M	-A1	33	=SLP/10.6	ws-or	5

=A +S1 -XGND

		=SLP/7.4	=A	+S1	-A33	PE	A	o		01	B	=D	+M	-M7	PE	=SLP/17.4	gn/ge	7
		=SLP/5.4	=A	+S1	-X12	PE	C				D	=G	+MB5	-A2_A1	PE	=SLP/24.3	gn/ge	6
9	gn/ge	=SLP/31.3	=G	+M	-GS11.1	PE	A	o		02	B	=C	+M	-A50	gn/ge	=SLP/15.5	gn/ge	8
11	gn/ge	=SLP/30.4	=G	+M	-X22	13	C				D	=K	+M	-X1	PE	=SLP/43.3	gn/ge	10
		=SLP/3.2	=A	+S1	-A1	PE	A	o		03	B	=C	+M	-A20	gn/ge	=SLP/13.6	gn/ge	14
12	gn/ge	=SLP/73.5	=Y	+M	-A10	gn/ge	C				D	=B	+M	-H1.1	1	=SLP/12.6	gn/ge	13
18	gn/ge	=SLP/37.6	=J	+M	-A10	gn/ge	A	o		04	B	=K	+M	-A10	gn/ge	=SLP/44.6	gn/ge	15
16	gn/ge	=SLP/32.3	=G	+M	-GS91_1	PE	C				D	=J	+M	-A20	gn/ge	=SLP/36.6	gn/ge	17
19	gn/ge	=SLP/8.2	=A	+S1	-M41	GND	A	o		05	B	=A	+S1	-X4	199.E1	B =SLP/5.2		
		=SLP/71.6	=Y	+S1	-X1/A11	PE	C											
22	gn/ge	=SLP/10.3	=B	+M	-M1	PE	A	o		06	B	=C	+M	-H11	PE	=SLP/14.2	gn/ge	23
21	gn/ge	=SLP/25.3	=G	+M	-GS2.1	PE	C				D	=G	+M	-GS92.1	PE	=SLP/33.3	gn/ge	20
		=SLP/5.3	=A	+S1	-T11	PE	A	o		07	B	=A	+S1	-A108	PE	=SLP/1.7		
24	gn/ge	=SLP/38.6	=K	+M	-A20	gn/ge	C				D	=A	+S1	-A107	PE	=SLP/1.6		

ME210053
K09V-3
KLP

continued on sheet
used cores total
cable index

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
10	5	6	5	16	3	4	11	5	3	25	7	4	9	9	5	9	9	3	5	5	3	3	9																																									
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KAMMANN
MASCHINENBAU GMBH
GERMANY

Datum	10.12.2010	Spannung V Voltage V	Leistung KW Power KW	Strom/Current A	
Bearb.	K.STUKE	230/400V	0	L1	0
Siline	ME210053L1	Frequenz Hz cycle	Steuersp. V Contr.voltage V	L2	0
CAD-Code	K09V-3	50Hz	0	L3	0

Benennung/Projekt
terminal layout

Änderungsdatum:21.04.2011 16:41:11

CAD | Maschinen Typ 4.09.22 | =A +S1

Schaltplan Nr./Drawing No. 03.208-09.22/210053.0

Bl./Sh. 7 | 9 Bl.

Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type
1	=K+MA-K-W201	D 5x0,75mm2	16			31			46		
2	=A+M-K-W101	UL 25x1 mm2	17			32			47		
3	=G+M-K-W103	D 5x1 mm2	18			33			48		
4	=K+M-K-W40/A40	3x0,75+6x0,34mm2	19			34			49		
5	=A+M-K-W518	UL 4x2,5 mm2	20			35			50		
6	=A+M-K-W511	UL 4x2,5 mm2	21			36			51		
7	=A+M-K-W521	UL 3x1,5 mm2	22			37			52		
8	=Y+UV-K-W111	D 7x1 mm2	23			38			53		
9	=A+S1-K-W412	D 3x1 mm2	24			39			54		
10	=A+M-W001	IEC 18x2,5 mm2	25			40			55		
11	=A+M-K-W900	D 16,0 mm2	26			41			56		
12	=A+M-K-W507	UL 4G x AWG10	27			42			57		
13	=A+M-K-W910	D 16,0 mm2	28			43			58		
14			29			44			59		
15			30			45			60		

teminal block	terminal type

teminal block: **=A**
+S1
-XGND

wire		target designation					terminal no.					target designation					wire	
Idx	core	cross reference wiring diagramm	function group	main locality	equipment indication	connection						function group	main locality	equipment indication	connection	cross reference wiring diagramm	core	Idx
4	gn/ge	=SLP/39.6	=K	+M	-A40	gn/ge A	o		08	B		=G	+M	-X12	13	=SLP/27.7	gn/ge	**2**
1	gn/ge	=SLP/45.6	=K	+MA	-A1-S1.1	1 C				D		=G	+M	-GS3.1	PE	=SLP/25.6	gn/ge	**3**
		=SLP/1.5	=A	+S1	-A106	PE A	o		09	B		=A	+S1	-A103	PE	=SLP/1.3		
		=SLP/1.4	=A	+S1	-A105	PE C				D		=A	+S1	-A104	PE	=SLP/1.3		
6	gn/ge	=SLP/17.2	=D	+M	-M1	PE A	o		10	B		=A	+S1	-A109	PE	=SLP/1.8		
5	gn/ge	=SLP/17.5	=D	+M	-M8	PE C				D		=F	+M	-A1	PE	=SLP/20.4	gn/ge	**7**
9	gn/ge	=SLP/8.5	=A	+S1	-M42	GND A	o		11	B								
						C				D		=Y	+UV	-X1/A11	PE	=SLP/72.6	gn/ge	**8**
		=SLP/35.4	=I	+S1	-A1	PE A	o		12	B		=T	+M	-X5	GND	=SLP/49.3	gn/ge	**10**
		=SLP/63.4	=V	+S1	-A1	PE C												
		=SLP/43.2	=K	+S1	-A1	95 A	o		21									
							o		31	B		=A	+S1	-A101	PE	=SLP/1.1		
		=SLP/1.2	=A	+S1	-A102	PE A	o		32	B		=A	+M	-XGND	30 A	=SLP/1.5	gn/ge	**11**
12	gn/ge	=SLP/10.2	=B	+M	-A1	95 A	o		33	B		=B	+M	-A1	PE2	=SLP/10.7	gn/ge	**13**
		=SLP/3.3	=A	+S1	-X1E	GND B A	o		34	B		=Y	+S1	-A11	GND	=SLP/71.6		
		=SLP/1.6	=A	+S1	-X0	PE B A	o		41	B		=U	+S1	-XSE:KEVG	1	=SLP/59.5		
			=V		+S1				-X1									
							o		2	B		=A	+S1	-X1	22.1 B	=SLP/64.5		
										D		=V	+M	-VW_INPUT	gn	=SLP/64.5		
							o		10	B		=V	+S1	-X1	21.1 C	=SLP/64.4		
							o		10.1	B		=V	+M	-VW_OUTPUT	ge	=SLP/64.3		
										D		=V	+M	-VW_OUTPUT	rs	=SLP/64.3		
							o		10.2	B		=V	+M	-VW_OUTPUT	br	=SLP/64.3		
										D		=V	+M	-VW_OUTPUT	rt	=SLP/64.3		
		=SLP/64.4	=V	+S1	-X1	10 B C	o		21.1									
			=V		+S1				-X2									
							o		1	B		=U	+S1	-A20	9/DQ	=SLP/64.6		
										D		=V	+M	-VW_INPUT	ge	=SLP/64.6		
							o		2	B		=U	+S1	-A7	X1/22	=SLP/64.6		
										D		=V	+M	-VW_OUTPUT	bl	=SLP/64.6		
							o		3	B		=U	+S1	-A7	X1/23	=SLP/64.7		
										D		=V	+M	-VW_OUTPUT	ws	=SLP/64.7		
							o		4	B		=U	+S1	-A7	X1/24	=SLP/64.7		
										D		=V	+M	-VW_OUTPUT	gr	=SLP/64.7		
							o		5	B		=U	+S1	-A7	X1/25	=SLP/64.8		
										D		=V	+M	-VW_OUTPUT	sw	=SLP/64.8		

ME210053
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continued on sheet
used cores total
cable index

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
5	21	5	9	4	4	3	7	3	16	1	4	1																																																					
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Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type	Idx	cable indication	cable type
1			16			31			46		
2			17			32			47		
3			18			33			48		
4			19			34			49		
5			20			35			50		
6			21			36			51		
7			22			37			52		
8			23			38			53		
9			24			39			54		
10			25			40			55		
11			26			41			56		
12			27			42			57		
13			28			43			58		
14			29			44			59		
15			30			45			60		

teminal block: =V
+S1
-X5

teminal block	terminal type

wire		target designation					terminal no.				target designation					wire	
Idx	core	cross reference wiring diagramm	function group	main locality	equipment indication	connection					function group	main locality	equipment indication	connection	cross reference wiring diagramm	core	Idx
							o		5	B	=P	+S1	-F29	1	=SLP/48.7		
										D	=V	+M	-VW_Spannung	br	=SLP/64.1		
							o		N	B	=A	+S1	-X5	N2 B	=SLP/64.2		
										D	=V	+M	-VW_Spannung	bl	=SLP/64.2		
		=V		+S1			-XGND										
							o		1	B	=V	+M	-VW_Spannung	gn/ge	=SLP/64.1		

continued on sheet
used cores total
cable index

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60

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