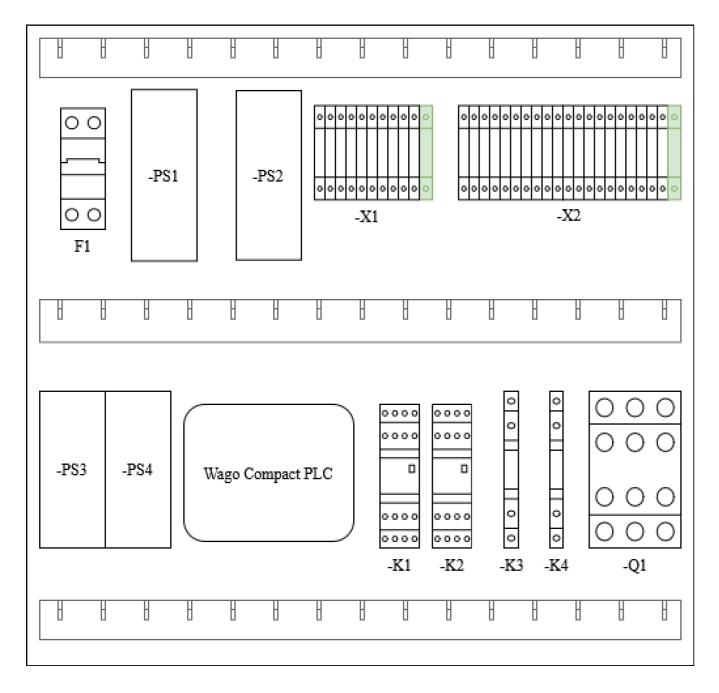
Layout	Pages PLC_list - terminal list1	11
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Power Supply	-PS1PS4
DC terminals	-X1
AC terminals	-X2
Circuit breaker	-F1
Contactor	-Q1
Relay	-K1K4
Power out	-P01P03
Power plug	-PP1PP3
10 pins cable	-ELCO
Braking Resistor	-R1R3
Power supply	-PS1PS3
Programablr logic controller	-PLC1
Human user interface	-HMI

Name I/O Description Path Conn. component -PLC134 DI2 -PLC134 DI3 -PLC134 DI5 Ulimit switch do motor -PLC135 DI6 Signal from limit switch MOTOR1 -PLC136 DI7 Signal from limit switch MOTOR3 -PLC137 DI8 Signal from limit switch MOTOR3 -PLC137 DI9 Signal from limit switch MOTOR3 -PLC137 DO3 Motor start HMI -PLC137 DO3 Motor start HMI -PLC137 DO3 Activate relay PC signal -PLC137 DO3 Motor start HMI -PLC137 DO4 Activate relay PC signal -PLC137 DO5 Peda motor CW -PLC137 DO5 Peda motor CW -PLC137 DO5 Motor start HMI -PLC137 DO5					
-PLC1:X1 DI2 -PLC1:X2 DI3 -PLC1:X3 DI4 Signal from contactor -PLC1:X4 DI5 Llimit switch dc motor -PLC1:X5 DI6 signal from limit switch MOTOR1 -PLC1:X6 DI7 Signal from limit switch MOTOR2 -PLC1:X7 DI8 Signal from limit switch MOTOR3 -PLC1:Y1 DO1 Pedal motor CW -PLC1:Y2 DO2 Pedal motor CCW -PLC1:Y3 DO3 Motor start HMI	 Name	I/O	Description	Path	Conn. component
-PLC1:X2 DI3 -PLC1:X3 DI4 Signal from contactor -PLC1:X4 DI5 Llimit switch dc motor -PLC1:X5 DI6 signal from limit switch MOTOR1 -PLC1:X6 DI7 Signal from limit switch MOTOR2 -PLC1:X7 DI8 Signal from limit switch MOTOR3 -PLC1:Y1 DO1 Pedal motor CW -PLC1:Y2 DO2 Pedal motor CCW -PLC1:Y3 DO3 Motor start HMI	 -PLC1:X0	DI1			
-PLC1:X3 DI4 Signal from contactor -PLC1:X4 DI5 Llimit switch dc motor -PLC1:X5 DI6 signal from limit switch MOTOR1 -PLC1:X6 DI7 Signal from limit switch MOTOR2 -PLC1:X7 DI8 Signal from limit switch MOTOR3 -PLC1:Y1 DO1 Pedal motor CW -PLC1:Y2 DO2 Pedal motor CCW -PLC1:Y3 DO3 Motor start HMI	 -PLC1:X1	DI2			
-PLC1:X4 DI5 Llimit switch dc motor -PLC1:X5 DI6 signal from limit switch MOTOR1 -PLC1:X6 DI7 Signal from limit switch MOTOR2 -PLC1:X7 DI8 Signal from limit switch MOTOR3 -PLC1:Y1 DO1 Pedal motor CW -PLC1:Y2 DO2 Pedal motor CCW -PLC1:Y3 DO3 Motor start HMI	 -PLC1:X2	DI3			
-PLC1:X5 DI6 signal from limit switch MOTOR1 -PLC1:X6 DI7 Signal from limit switch MOTOR2 -PLC1:X7 DI8 Signal from limit switch MOTOR3 -PLC1:Y1 DO1 Pedal motor CW -PLC1:Y2 DO2 Pedal motor CCW -PLC1:Y3 DO3 Motor start HMI	 -PLC1:X3	DI4	Signal from contactor		
-PLC1:X6 DI7 Signal from limit switch MOTOR2 -PLC1:X7 DI8 Signal from limit switch MOTOR3 -PLC1:Y1 DO1 Pedal motor CW -PLC1:Y2 DO2 Pedal motor CCW -PLC1:Y3 DO3 Motor start HMI	 -PLC1:X4	DI5	Llimit switch dc motor		
-PLC1:X7 DI8 Signal from limit switch MOTOR3 -PLC1:Y1 DO1 Pedal motor CW -PLC1:Y2 DO2 Pedal motor CCW -PLC1:Y3 DO3 Motor start HMI	 -PLC1:X5	DI6	signal from limit switch MOTOR1		
-PLC1:Y1 DO1 Pedal motor CW -PLC1:Y2 DO2 Pedal motor CCW -PLC1:Y3 DO3 Motor start HMI	 -PLC1:X6	DI7	Signal from limit switch MOTOR2		
-PLC1:Y2 DO2 Pedal motor CCW -PLC1:Y3 DO3 Motor start HMI	 -PLC1:X7	DI8	Signal from limit switch MOTOR3		
-PLC1:Y3 DO3 Motor start HMI	 -PLC1:Y1	DO1	Pedal motor CW		
	 -PLC1:Y2	DO2	Pedal motor CCW		
-PLC1:Y4 DO4 Activate relay PC signal	 -PLC1:Y3	DO3	Motor start HMI		
	-PLC1:Y4	DO4	Activate relay PC signal		

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Position

/PLC1.2

Position	Manufacturer	Description	Function	Туре	Article no.	Component
/PLC1.1	PCSCHEMATIC	Compact plc 8 inputs, 8 outputs, type 2	POWER	PCS-PLC-Com1-2	PCS8920102	-PLC1
/servo motor.1		3 conductors with screen		PCS-CBLS01	PCS330005	-W1
/servo motor.4		3 conductors with screen				-W2
/servo motor.2		4 conductors with screen		PCS-CBLS02	PCS330006	-W4
/servo motor.3		3 conductors with screen		PCS-CBLS01	PCS330005	-W5
/servo motor.5		3 conductors with screen				-W6
Station Enclosure.3	/Control	6 conductors with screen		PCS-CBLS04	PCS330008	-W7
topology diagram.2	/ETHERCAT	3 conductors with screen		PCS-CBLS01	PCS330005	-W16
/HMI.8		3 conductors with screen				-W20
/Terminals.7		1 layer Through terminal - 1 x 1 in 1 out GY		PCS-XX1GY	PCS212001	-X2
/DC-motor.4						-DC_M
/Elco cable.3						-ELCO
trol Center (MCC).2	/Motor Cor					-F1
/HMI.8						-НМІ
/Elco cable.5						-JB
/DC-motor.5						-K1
/DC-motor.4						-K2
trol Center (MCC).7	/Motor Cor					-K3
trol Center (MCC).8	/Motor Cor					-K4
/EMG stop motors.1						-LS1
/EMG stop motors.4						-LS2
/EMG stop motors.7						-LS3
/DC-motor.8						-LS4
topology diagram.3	/ETHERCAT					-M1
topology diagram.5	/ETHERCAT					-M2
topology diagram.6	/ETHERCAT					-M3
/Elco cable.2						-P1



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PCSCHEMATIC Automation

Component	Article no.	Туре	Function	Description	
-PC					
-PO1					
-PO2					
-PO3					
-PP1					
-PP2					
-PP3					
-PS1					
-PS2					
-PS3					
-PS4					
-Q1					
-R1					
-R2					
-R3					
-\$0					
-S1					
-S2				-	
-S5					
-S6					
-S01					
-\$02					
-\$03					
-\$04					
-SW1					
-W2					
-W9					
-W10					

PCSCHEMATIC A	Automation
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Manufacturer

Position

/Motor Control Center (MCC).8

/230 V AC Power Supply.4

/230 V AC Power Supply.4

/230 V AC Power Supply.4

/Motor Control Center (MCC).2

/Motor Control Center (MCC).2

/Motor Control Center (MCC).3

/Motor Control Center (MCC).4

/Motor Control Center (MCC).4

/Control Station Enclosure.4

/Control Station Enclosure.4

/EMG stop motors.5

/EMG stop motors.2

/EMG stop motors.8

/EMG stop motors.2

/Elco cable.8

/servo motor.2

/Elco cable.1

/Elco cable.4

/EMG stop motors.2

/EMG stop motors.4

/EMG stop motors.7

/servo motor.1

/servo motor.3

/servo motor.4

/Elco cable.3

/Elco cable.2

/Elco cable.2



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'n	File name:	bil_simulator	Eng. (proj/page): Gruppe 1	Last print: 6/1/2025	Next pageComponents List2
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Position	Manufacturer		Description	Function	Туре	Article no.	Component
/Elco cable.4							-W11
/Elco cable.5							-W12
/EMG stop motors.1			-				-W13
/EMG stop motors.3							-W14
/EMG stop motors.6							-W15
RCAT topology diagram.4	/ETHE						-W17
RCAT topology diagram.5	/ETHEI						-W18
/DC-motor.4							-W21
/servo motor.1							-X1
ontrol Station Enclosure.3	/Co						-X2
							
PCSCHEMATIC Autom	Project rev.:				Ta		
Page Components	Lingia of May I	Project no.: 1.0.3	I Project	Bil simulator	Project title:	TNU	

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FROM	то	Wire no	Signal	Cable	Jumper	Line name	Line type	Routing class
-X1:1	-X1:1		-X1:1					
-X1:1	-X1:1		-X1:1					
-R1:1	-M1:PD							
-X2:5	-JB:1		L1					
-M1:L1	-M2:L1		L1	-W1:L1				
-M2:L1	-M3:L1		L1	-W2:L1				
-JB:1	-X2:6		L1					
-JB:1	-M1:L1		L1	-W1:L1				
-JB:1	-JB:1		L1					
-X2:4	-X2:5		L1					
-X1:1	-PP1:+24			-W13:2				
-LS1:3	-X1:1							
-LS1:4	-PP1:DO:07							
-X2:5	-F1:4							
-F1:4	-Q1:3							
-Q1:3	-X2:5							
-X2:4	-F1:2							
-F1:2	-Q1:1							
-Q1:1	-X2:4							
-M1:N	-M2:N		N	-W1:N				
-M2:N	-M3:N		N	-W2:N				
-JB:2	-X2:7		N	-W10:9				
-JB:2	-M1:N		N	-W12:2				
-JB:2	-JB:2		N	-W11:2				
-M1:PE	-M2:PE		PE	-W1:PE				
-M2:PE	-M3:PE		PE	-W2:PE				
-X2	-X2		PE	-W7:7				
-X2:PE	-PLC1:PE		PE					

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FROM	то	Wire no	Signal	Cable	Jumper	Line name	Line type	Routing class
-M3:PE	-X2		PE	-W2:PE				
-JB:3	-ELCO:10		PE	-W10:10				
-JB:3	-M1:PE		PE	-W12:3				
-JB:3	-JB:3		PE	-W11:3				
-PLC1:PE	-JB:3		PE	-W11:3				
-HMI:PE	-X2:PE		PE	-W20:GNYE				
-X1:1	-PS1:+		+24V					
-X1:5	-PS3:+		+24V					
-X1:5	-M3:WH		+24V	-W6:WHITE				
-X1:7	-X1:5		+24V					
-M1:BR+BL	-X1:5		+24V	-W4:TWO W	IRE			
-M1:BR+BL	-M2:BR+BL		+24V	-W4:TWO W	IRE			
-M1:WH	-X1:7		+24V	-W4:WHITE				
-M1:WH	-M2:WH		+24V	-W4:WHITE				
-PS1:+	-PS1:+		+24V					
-PS1:+	-PS4:+		+24V					
-PS2:+	-PS3:+		+24V					
-PS2:+	-PS4:+		+24V					
-M2:BR+BL	-M3:BR+BL		+24V	-W5:TO WIR	E			
-M2:WH	-M3:WH		+24V	-W5:WHITE				
-PS3:+	-Q1:5		+24V					
-K2:12	-K1:12		+24V					
-Q1:5	-HMI:+24V		+24V	-W20:BK				
-M3:WH	-M3:BR+BL		+24V	-W6:WHITE				
-K1:12	-LS4:1		+24V					
-SW1:1	-SW1:3		+24V					
-LS4:1	-SW1:3		+24V					
-HMI:+24V	-K2:12		+24V	-W20:BK				

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FROM	то	Wire no	Signal	Cable	Jumper	Line name	Line type	Routing class
-SW1:2	-X1:7		+24V					
-SW1:3	-SW1:2		+24V					
-X1:4	-PS1:-		0V					
-X1:6	-PS3:-		0V					
-X1:6	-M3:BU		0V	-W6:BLUE				
-M1:BU	-X1:6		0V	-W4:BLUE				
-M1:BU	-M2:BU		0V	-W4:BLUE				
-PS1:-	-PS1:-		0V					
-PS1:-	-PS4:-		0V					
-PS2:-	-PS3:-		0V					
-PS2:-	-PS4:-		0V					
-PS2:-	-PS3:-		0V					
-M2:BU	-M3:BU		0V	-W5:BLUE				
-PS3:-	-PS3:-		0V					
-PS3:-	-HMI:-0V		0V	-W20:BN				
-K2:14	-K1:14		0V					
-K1:14	-SW1:2		0V					
-SW1:3	-SW1:2		0V					
-SW1:3	-SW1:1		0V					
-SW1:3	-X1:6		0V					
-HMI:-0V	-K2:14		0V	-W20:BN				
-X1:7	-PS2:+							
-PS2:+	-PS3:+							
-R1:2	-M1:BO							
-X1:4	-X1:4		-X1:4					
-PLC1:out	-M1:in							
-X1:5	-X1:5		-X1:5					
-ELCO:1	-P1:2							

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FROM	то	Wire no	Signal	Cable	Jumper	Line name	Line type	Routing class
-P1:2	-S2:13							
-S2:13	-S1:13							
-X1:6	-X1:6		-X1:6					
-X1:7	-X1:7		-X1:7					
-F1:1	-PS2:L							
-PS1:L	-PS2:L							
-PS2:L	-PS3:L							
-PS3:L	-PS4:L							
-F1:3	-PS2:N							
-PS1:N	-PS2:N							
-PS2:N	-PS3:N							
-PS3:N	-PS4:N							
-P1:1	-ELCO:2			-W9:2				
-PS1:PE	-PS2:PE							
-PS2:PE	-PS3:PE							
-PS3:PE	-PS4:PE							
-X1:10	-X1:10		-X1:10					
-PP1:L1	-X2:11			-W13:4				
-X2:10	-PP1:N			-W13:3				
-X2:10	-S04:2							
-S2:14	-ELCO:3			-W9:3				
-S02:1	-X2:11							
-S04:1	-S02:2							
-S1:14	-ELCO:4			-W9:4				
-K2:24	-K1:A1							
-R2:1	-M2:PD							
-X2:10	-ELCO:5							
-X2:2	-X2:2		-X2:2					

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FROM	ТО	Wire no	Signal	Cable	Jumper	Line name	Line type	Routing class
-X2:2	-X2:2		-X2:2					
-X2:2	-X2:2		-X2:2					
-X2:2	-X2:2		-X2:2					
-X2:3	-X2:3		-X2:3					
-X2:3	-X2:3		-X2:3					
-X2:3	-X2:3		-X2:3					
-X2:3	-X2:3		-X2:3					
-S0:1	-X2:10			-W9:5				
-S0:2	-X2:11			-W9:6				
-R2:2	-M2:BO							
-X2:2	-P01:1							
-X2:3	-PO1:2							
-X2:2	-PO2:1							
-X2:3	-PO2:2							
-X2:2	-PO3:1							
-X2:3	-PO3:2							
-X2:12	-S5:1							
-X2:13	-S6:3			-W7:2				
-X2:13	-S5:2			-W7:2				
-X2:14	-S6:4			-W7:3				
-X2:14	-P1:1			-W7:4				
-X2:7	-P1:2			-W7:5				
-K1:24	-K2:A1							
-M1:out	-M2:in							
-X2:11	-ELCO:6							
-X1:2	-PP2:+24			-W14:2				
-LS2:3	-X1:2							
-LS2:4	-PP2:DO:03							



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FROM	то	Wire no	Signal	Cable	Jumper	Line name	Line type	Routing class
-X2:6	-ELCO:8							
-Q1:2	-X2:2							
-K2:11	-DC_M:1							
-Q1:4	-X2:3							
-R3:1	-M3:PD							
-X2:7	-ELCO:9							
-R3:2	-M3:BO							
-PP2:L1	-X2:9			-W14:4				
-X2:8	-PP2:N			-W14:3				
-X2:8	-S01:2							
-Q1:13	-X2:6							
-Q1:14	-X2:7							
-DC_M:2	-K1:11			-W21				
-PLC1:+	-X1:10							
-M2:out	-M3:in							
-PLC1:-	-X1:1							
-S01:1	-X2:9							
-X2:7	-X2:7		-X2:7					
-X2:7	-X2:7		-X2:7					
-Q1:A1	-X2:14							
-Q1:A2	-X2:7							
-X2:5	-X2:4		L2					
-X2:6	-X2:6		-X2:6					
-X1:2	-PP3:+24			-W15:2				
-LS3:3	-X1:2							
-LS3:4	-PP3:DO:05							
-X2:13	-X2:13		-X2:13					
	-X2:14		-X2:14					

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FROM	то	Wire no	Signal	Cable	Jumper	Line name	Line type	Routing class
-PP3:L1	-X2:9			-W15:4				
-X2:10	-PP3:N			-W15:3				
-X2:10	-S03:2							
-PC:+	-K3:14							
-K3:11	-PC:-							
-S03:1	-X2:9							
-K4:11	-X2:13							
-								
-								



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Terminal	Cable	Conn. component (ext.)	Terminal	Cable	Conn. component (ext.)
-JB:1			-X1:11		
-JB:2			-X1:12		
-JB:3			-X1:PE		
-X1:1		-LS1:3	-X2:10		-\$04:2
-X1:2		-LS2:3	-X2:11		
-X1:2		-LS3:3	-X2:11		-S02:1
-X1:5			-X2:12		
-X1:6			-X2:9		-S01:1
-X1:7			-X2:13		-X2:13
-X1:10		-PLC1:+	-X2:8		-S01:2
-X1:1		-PLC1:-	-X2:14		-X2:14
-X1:1		-X1:1	-X2:9		-S03:1
-X1:1		-X1:1	-X2:15		
-X1:4		-X1:4	-X2:10		-S03:2
-X1:7		-X1:7	-X2:16		
-X1:5		-X1:5	-X2:5		L1
-X1:6		-X1:6	-X2:17		
-X1:1		-X1:1	-X2:4		-X2:5
-X1:2			-X2:5		-Q1:3
-X1:3			-X2:4		-Q1:1
-X1:4		-X1:4	-X2:14		
-X1:5		-X1:5	-X2:7		
-X1:6		-X1:6	-X2:12		
-X1:7		-X1:7	-X2:1		
-X1:8			-X2:13		
-X1:9			-X2:2		-X2:2
-X1:10		-X1:10	-X2:14		

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Terminal	Cable	Conn. component (ext
-X2		
-X2:3		-X2:3
-X2:2		-X2:2
-X2:4		L1
-X2:3		-X2:3
-X2:5		-X2:4
-X2:2		-X2:2
-X2:2		-X2:2
-X2:6		-X2:6
-X2:3		-X2:3
-X2:3		-X2:3
-X2:7		-X2:7
-X2:2		-X2:2
-X2:2		-X2:2
-X2:8		
-X2:3		-X2:3
-X2:3		-X2:3
-X2:9		
-X2:10		
-X2:PE		PE
-X2:PE		
-X2:6		-Q1:13
-X2:7		-Q1:14
-X2:3		-Q1:4
-X2:2		-Q1:2
-X2:14		-Q1:A1
-X2:7		-Q1:A2
-X2:13		-K4:11

Terminal	Cable	Conn. component (ext.)
-X2:10	-W9:5	-S0:1
-X2:11	-W9:6	-S0:2
-X2:6		L1
-X2:7	-W10:9	N
-		
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n	File name:	bil_simulator	Eng. (proj/page): Gruppe 1		Last print:	6/1/2025	Next page:	Terminals
"	Page ref.:		Appr. (date/init):		Last edit: 5	5/31/2025	Total no. of pag	es: 27

1 2	3 4	5	6	7	8	
-X1			-X2			
O O O O O O O O O O O O O O O O O O O				E 7 6 5 4 3 2 1 0		
				O O O O O O O O O O O O O O O O O O O		
01 04 05 05 05 05 05 05 05 05 05 05 05 05 05			20000000000000000000000000000000000000	OPE		
24V DC terminals			230V AC	Cterminals		
PE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1100 1100 1100 1100 1100 1100 1100 110		
			99999999			
X X X X X X X X X X X X X X X X X X X				-X2:10 -X2:11 -X2:12 -X2:14 -X2:16 -X2:16 -X2:16 -X2:17 -X2:16 -X2:17 -X2:16 -X2:17 -X2:16 -X2:17 -X		
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			0 0 7 7 0 0	ω ω		
Senter (MCC). Senter (MCC). Senter (MCC)X1:10/PLC1.			(MCC).	Center (MCC).8 Center (MCC).0		
Center Center Center Center -X1:1			Center (Center	Center		
Control Control Control Control Control			control control control control control	Control		
Notor C Notor C Notor C			Notor C Notor C Notor C Notor C Notor C	Notor C		
-X1:1/Motor Control C -X1:4/Motor Control C -X1:5/Motor Control C -X1:7/Motor Control C			-X2:2/Motor Control C -X2:3/Motor Control C -X2:4/Motor Control C -X2:5/Motor Control C -X2:7/Motor Control C	-X2:13/Motor (-X2:14/Motor (
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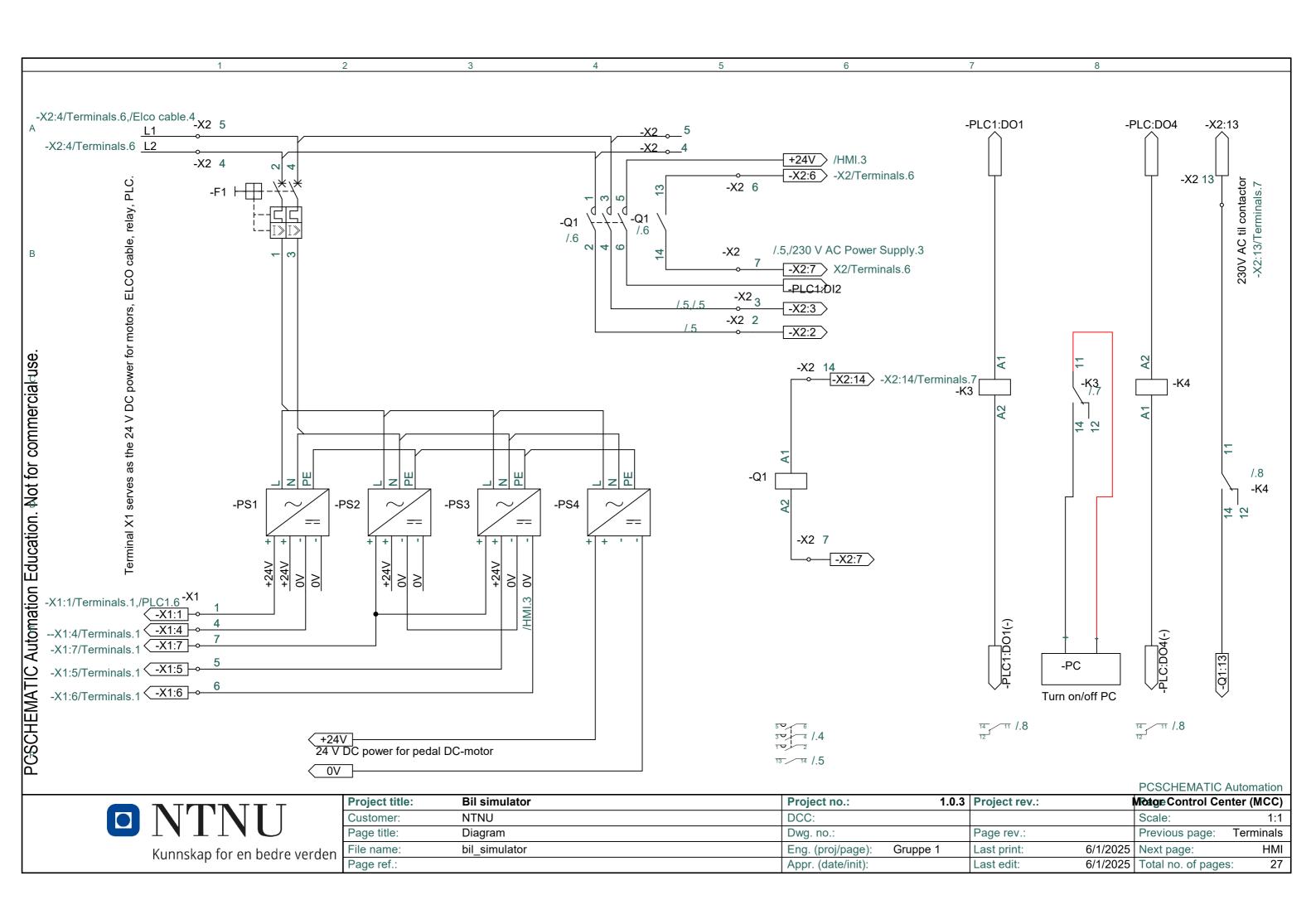
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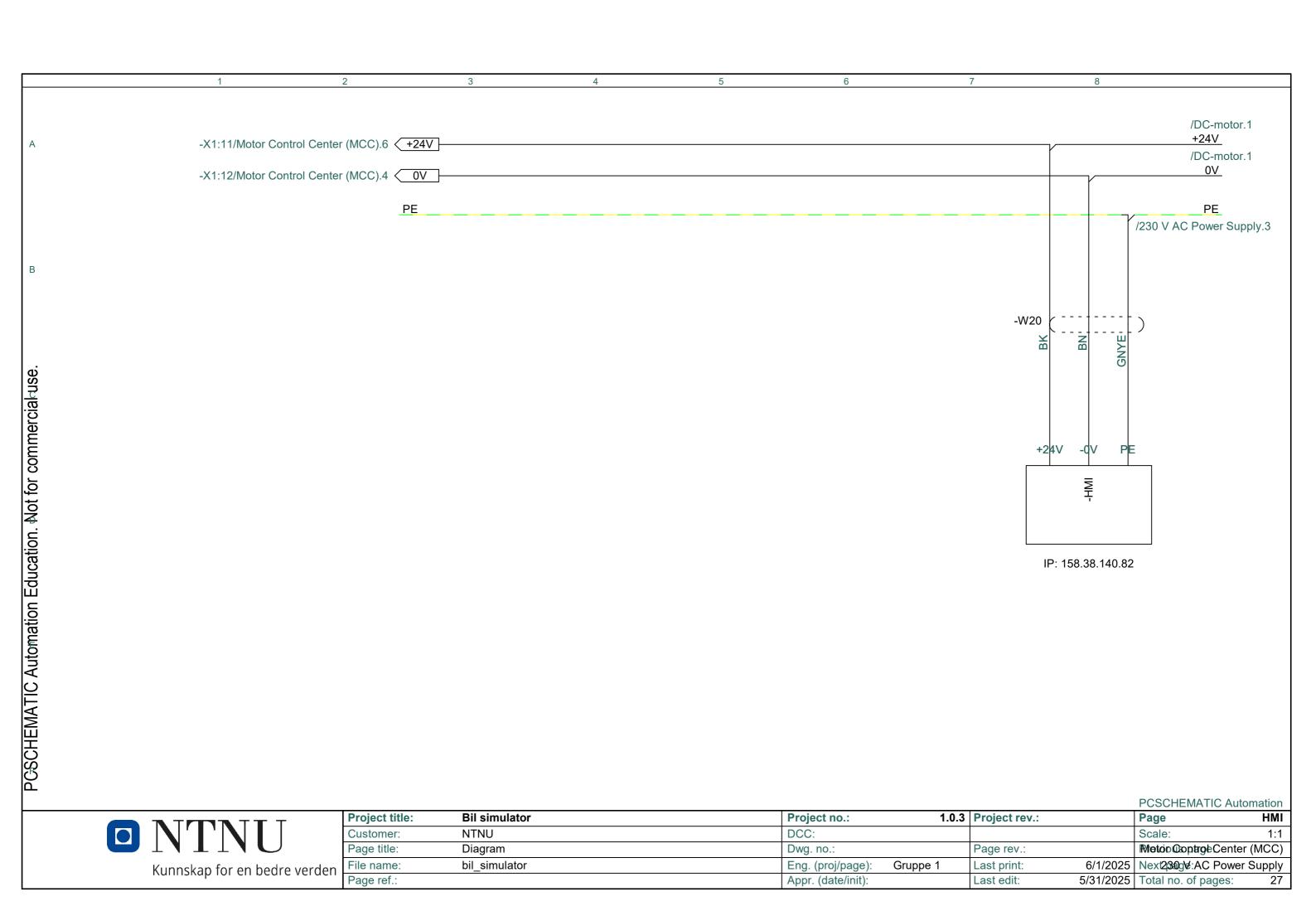
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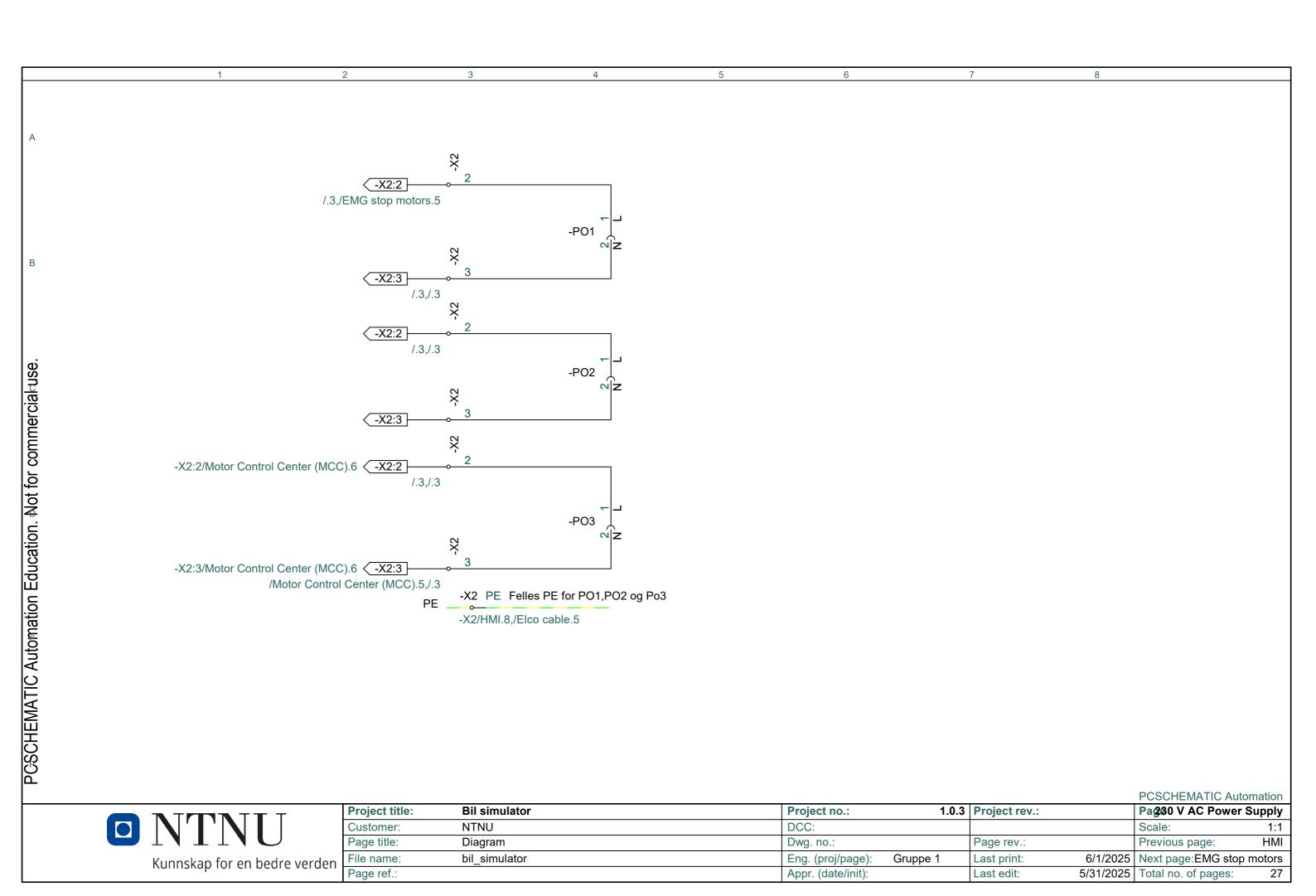
Gruppe 1

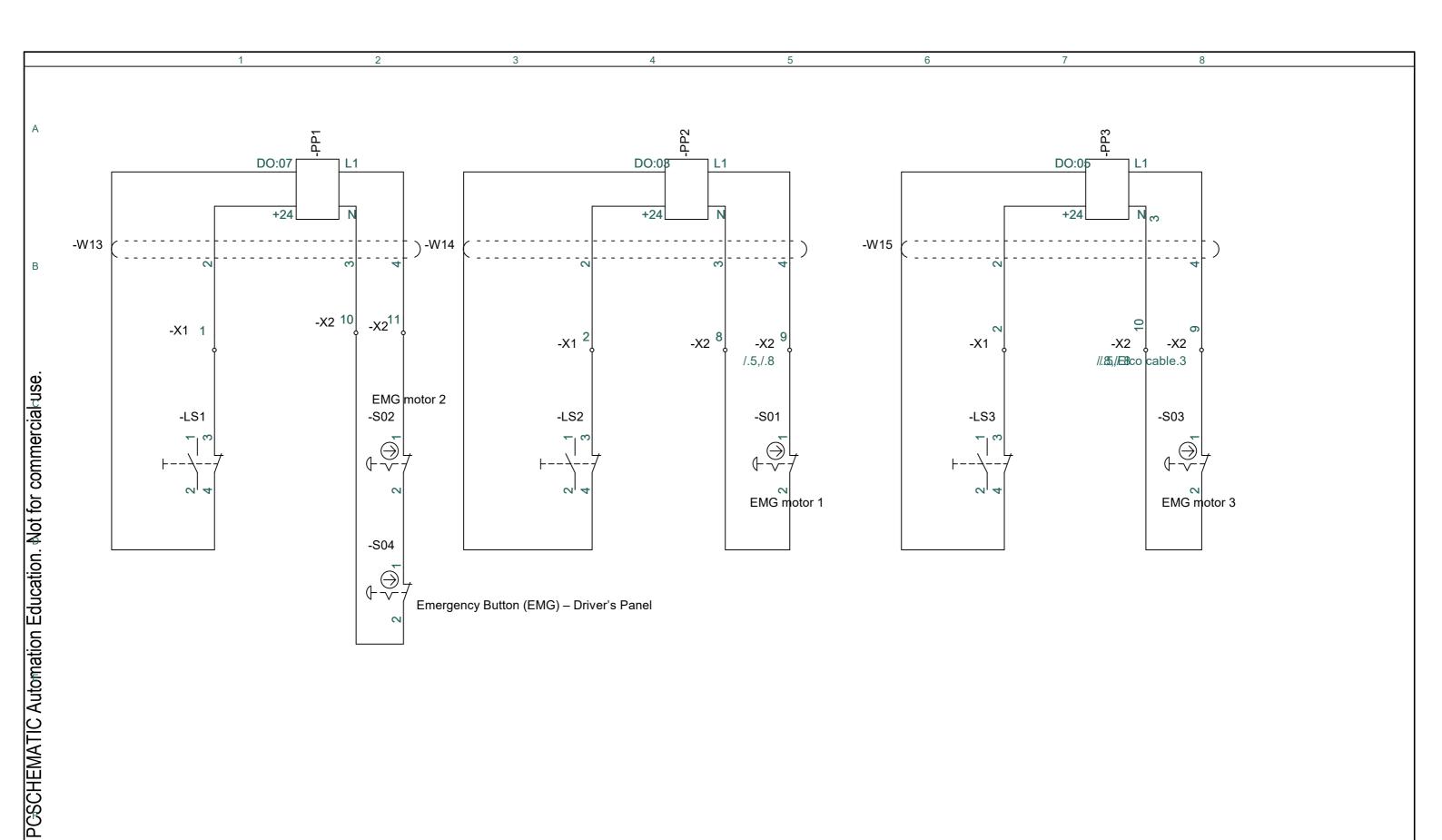
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