

# Schaltplan

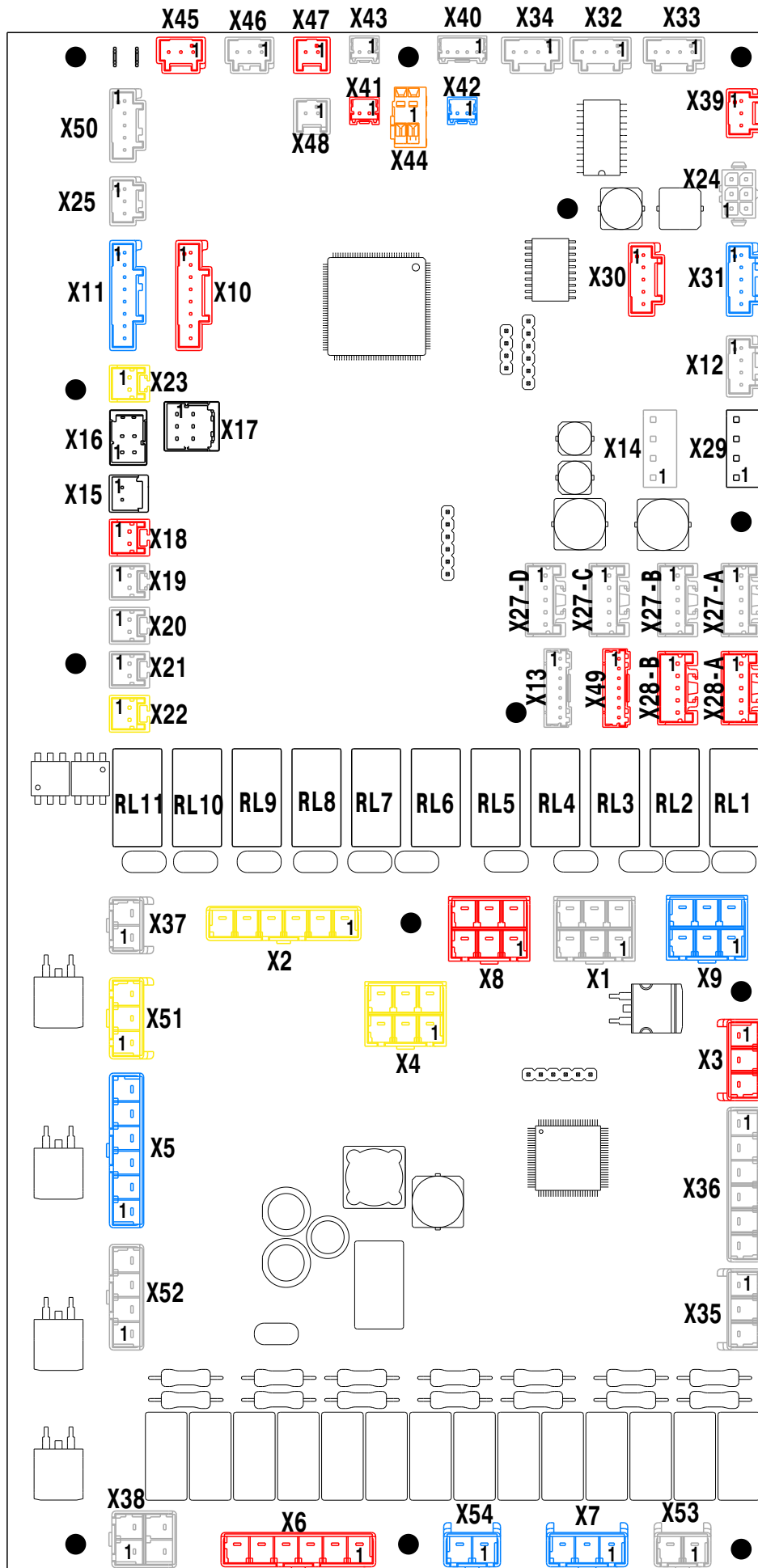
## Heißluftdämpfer **MAGISTAR DS**

## **MAGISTAR Combi DS 6 x GN1/1-E**

[Art. 406218820]



# MAIN BOARD ACU



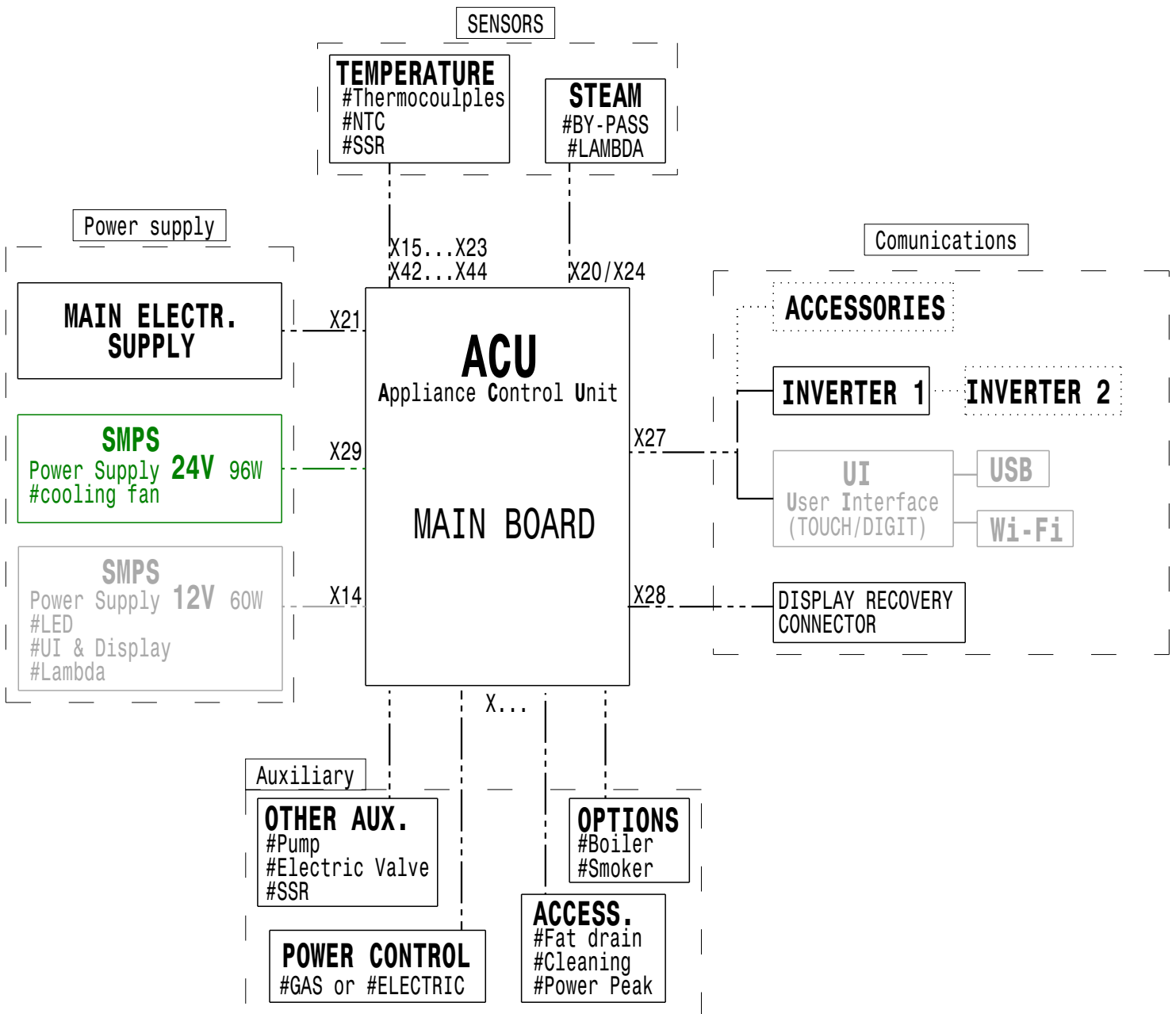
# ACU LEGENDA

Ref.	Group	Pin	Direct.	Function
X1	Power Supply	1	IN	L Power Supply
		2	IN	N Power Supply
		3	IN	L Power Supply
		4	IN	N Power Supply
		5	IN	
		6	OUT	SW-OFF
X2	Water Service	1	OUT	EV1 Instant steam solenoid valve
		2	OUT	EV2 Quenching solenoid valve
		3	OUT	EV4 Spray unit solenoid valve
		4	OUT	BV3 Cavity drain ball valve OPEN
		5	OUT	BV3 Cavity drain ball valve CLOSE
		6	OUT	N
X3	Clean. Syst. Basic	1	OUT	EV7 Cleaning water fill solenoid valve
		2	OUT	M8 Cleaning pump
		3	OUT	N
X4	Cleaning System Drawer Rinse	1	OUT	EV11 Drawer fill solenoid valve
		2	OUT	EV12 Drawer drain solenoid valve
		3	OUT	
		4	OUT	
		5	OUT	
		6	OUT	N
X5	Boiler Fill & Clean	1	OUT	EV5 Boiler fill solenoid valve
		2	OUT	
		3	OUT	BV6 Boiler drain ball valve OPEN
		4	OUT	BV6 Boiler drain ball valve CLOSE
		5	OUT	
		6	OUT	N
X6	Sensing	1	IN	TSC Cavity safety thermostat
		2	IN	BBC1 Cavity gas blower burner
		3	IN	
		4	IN	HVI4 Motor drive fuse
		5	IN	
		6	IN	
X7	Sensing	1	IN	TSB Boiler safety thermostat
		2	IN	BBB1 Boiler gas blower burner
		3	IN	
X8	Cavity GAS burner	1	OUT	N
		2	OUT	FCU Cavity flame control unit reset
		3	OUT	
		4	IN	FCU Cavity flame control unit power supply IN
		5	OUT	FCU Cavity flame control unit power supply OUT
		6	OUT	
X9	Boiler GAS burner	1	OUT	N
		2	OUT	FBU Boiler flame control unit reset
		3	OUT	
		4	IN	FBU Boiler flame control unit power supply IN
		5	OUT	FBU Boiler flame control unit power supply OUT
		6	OUT	
X10	Cavity GAS blower	1	OUT	VTCU Cavity blower control Power supply
		2	IN	VTCU Cavity blower control Tachometer
		3	IN	
		4	OUT	VTCU Cavity blower control Speed
		5	IN	
		6	IN	
		7	OUT	
		8	OUT	VTCU Boiler blower control GND
X11	Boiler GAS blower	1	OUT	VTBU Boiler blower control Power supply
		2	IN	VTBU Boiler blower control Tachometer
		3	IN	
		4	OUT	VTBU Boiler blower control Speed control
		5	IN	
		6	IN	
		7	OUT	
		8	OUT	VTBU Boiler blower control GND

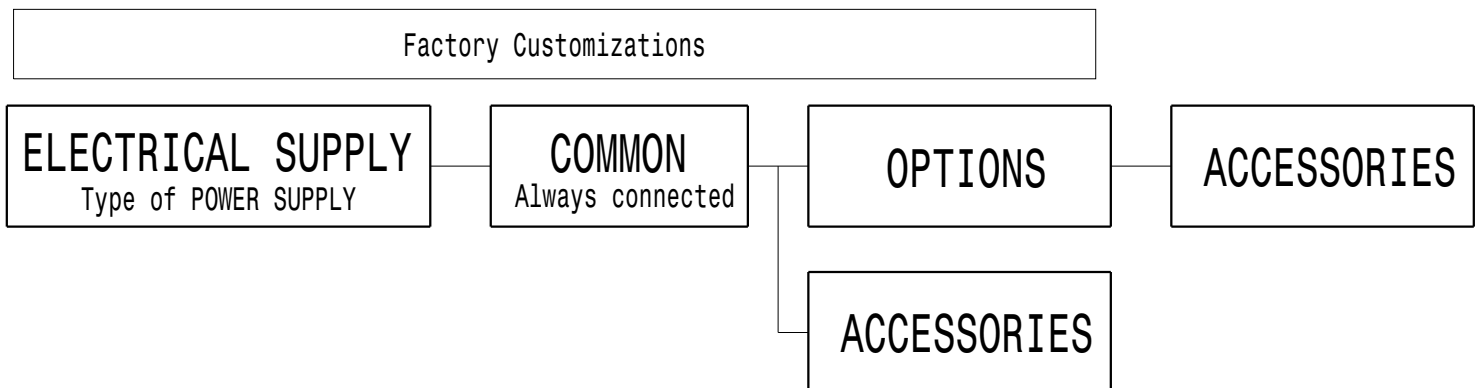
Ref.	Group	Pin	Direct.	Function
X12	Led	1	OUT	H1 LED lighting 1 anode
		2	IN	H1 LED lighting 1 catode
		3	IN	H2 LED lighting 2 catode
		4	OUT	H2 LED lighting 2 anode
X13				Adress
X14	12V	1	IN	+12V dc
		2	IN	
		3	IN	0V dc
		4	IN	
X15	Food probe temperature	A1	IN	TFP 1 <sup>st</sup> point food probe temperature
		B1	IN	
X16	Food probe temperature	A1	IN	TFP 2 <sup>nd</sup> point food probe temperature
		B1	IN	
		A2	IN	TFP 3 <sup>rd</sup> point food probe temperature
		B2	IN	
X17	Food probe temperature	A1	IN	TFP 4 <sup>th</sup> point food probe temperature
		B1	IN	
		A2	IN	TFP 5 <sup>th</sup> point food probe temperature
		B2	IN	
		A3	IN	TFP 6 <sup>th</sup> point food probe temperature
		B3	IN	
X18	Temper.	1	IN	TCAV Cavity Thermocouple
		2	IN	
X19	Temper.	1	IN	TBO1 Boiler Thermocouple
		2	IN	
X20	Temper.			-- NOT USE --
X21	Temper.			-- NOT USE --
X22	Temper.	1	IN	TQS Quenching System Thermocouple
		2	IN	
X23	Temper.	1	IN	TAR Aromatizer Thermocouple
		2	IN	
X24	Lambda			Lambda sensor
X25	Boiler level	1	IN/OUT	SL Boiler safety level dection probe
		2	IN/OUT	WL Boiler working level dection probe
		3	IN	REF Boiler level detection probes reference
X27-A			IN/OUT	PMACS communication BUS
X27-B			IN/OUT	PMACS communication BUS
X27-C			IN/OUT	PMACS communication BUS
X27-D			IN/OUT	PMACS communication BUS
X28-A			IN/OUT	PMACS Recovery communication BUS
X28-B			IN/OUT	PMACS Recovery communication BUS
X29	24V	1	IN	+24V dc
		2	IN	
		3	IN	0V dc
		4	IN	
X30	Cavity SSR	1	OUT	KC1 Cavity 1 solid state relay
		2	OUT	KC2 Cavity 2 solid state relay
		3	OUT	
		4	OUT	
		5	OUT	0V dc
X31	Boiler SSR	1	OUT	KB1 Boiler 1 solid state relay
		2	OUT	KB2 Boiler 2 solid state relay
		3	OUT	
		4	OUT	
		5	OUT	0V dc

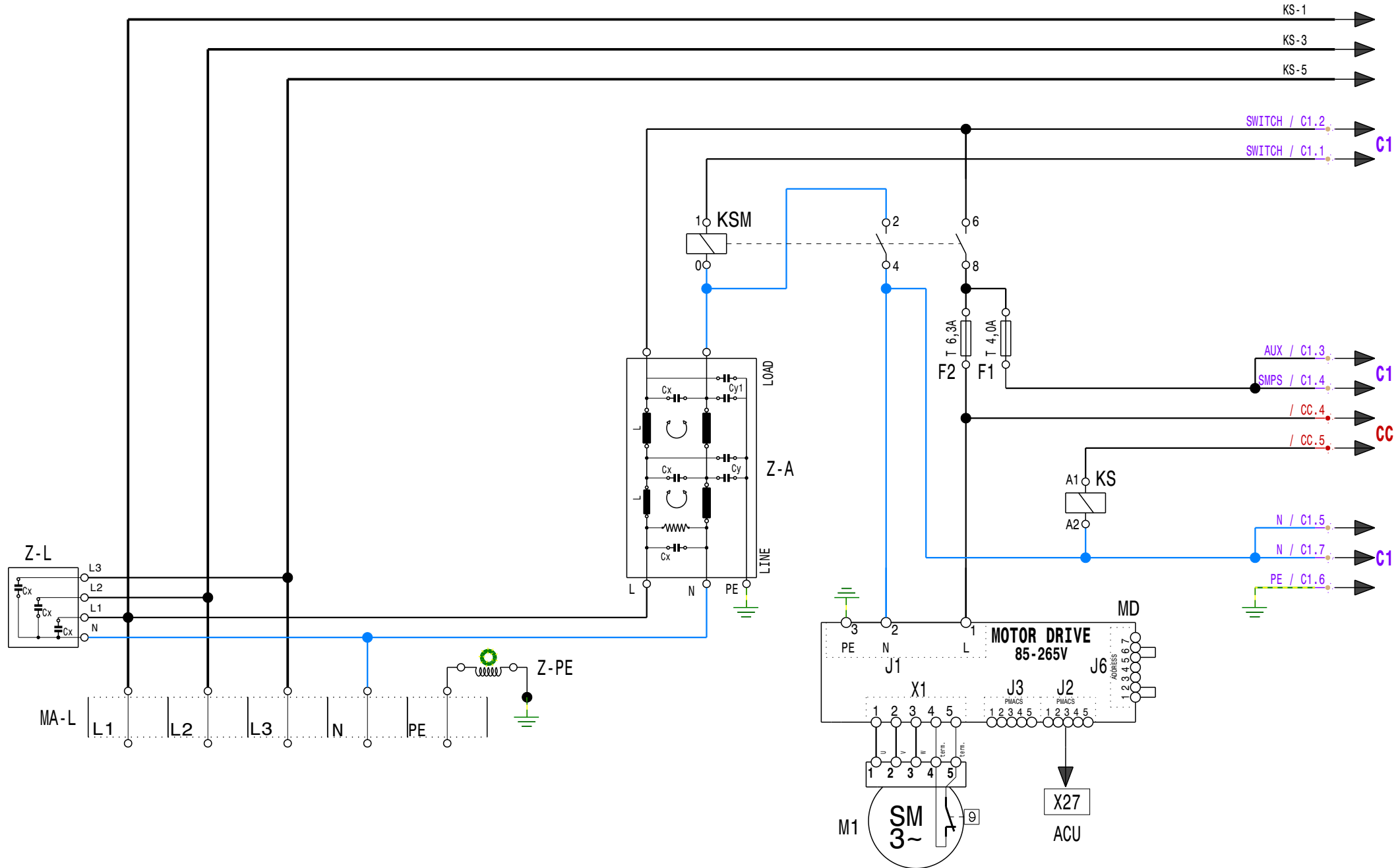
Ref.	Group	Pin	Direct.	Function
X32	Cooling Fan 1	1	OUT	FAN1 Cooling fan 1 power supply 24Vdc
		2	IN	FAN1 Cooling fan 1 tachometer sensor
		3	OUT	FAN1 Cooling fan 1 speed control
		4	OUT	FAN1 Cooling fan 1 power supply 0Vdc
X33	Cooling Fan 2			-- NOT USE --
X34	Cooling Fan 3			-- NOT USE --
X35	Vent. Valve	1	OUT	VV1 Venting valve 1 cw rotation
		2	OUT	N
		3	OUT	VV1 Venting valve 1 ccw rotation
X36				-- NOT USE --
X37	KS	1	OUT	KS Safety contactor
		2	OUT	
X38	Smoker	1	OUT	N
		2	OUT	R1 (Smoker heating element)
		3	OUT	
		4	IN	
X39	Flow meter	1		
		2	OUT	FM Flow meter reference
		3	IN	FM Flow meter feedback
X40	Temper.	1	OUT	NCC NTC cabinet components
		2	IN	
		3	OUT	
		4	IN	
X41	Temper.	1	OUT	NHSC NTC Cavity SSR heatsink
		2	IN	
X42	Temper.	1	OUT	NH5B NTC Boiler SSR heatsink
		2	IN	
X43	Temper.			-- NOT USE --
X44	Softner	1	OUT	SSW1 Softner interface
		2	IN	
X45	Switch	1	OUT	24V Reference
		2	IN	DS Door switch
		3	IN	AFS Air filter switch
X46	switch	1	OUT	24V Reference
		2	IN	SVV1 Venting valve CLOSE switch
		3	IN	SVV1 Venting valve OPEN switch
X47		1	OUT	24V Reference
		2	IN	SF Fat drain valve status switch
X48	Switch	1	OUT	24V Reference
		2	IN	DRS Cleaning drawer switch
X49				Recovery Adress
X50		1	OUT	24V Reference
		2	IN	HER Hood error
		3	IN	
		4	IN	
		5	IN	
X51	Liquid Clean. Syst.	1	OUT	P1 Liquid dergent pump
		2	OUT	P2 Liquid rinse pump
		3	OUT	N
X52		1	OUT	HS2 Hood speed 2
		2	OUT	HS1 Hood speed 1
		3	OUT	HON Hood ON
		4	OUT	N Neutral
X53		1	IN	PPM1 Peak power managment 1
		2	IN	PPM2 Peak power managment 2
X54				-- NOT USE --

# LOGIC DIAGRAM



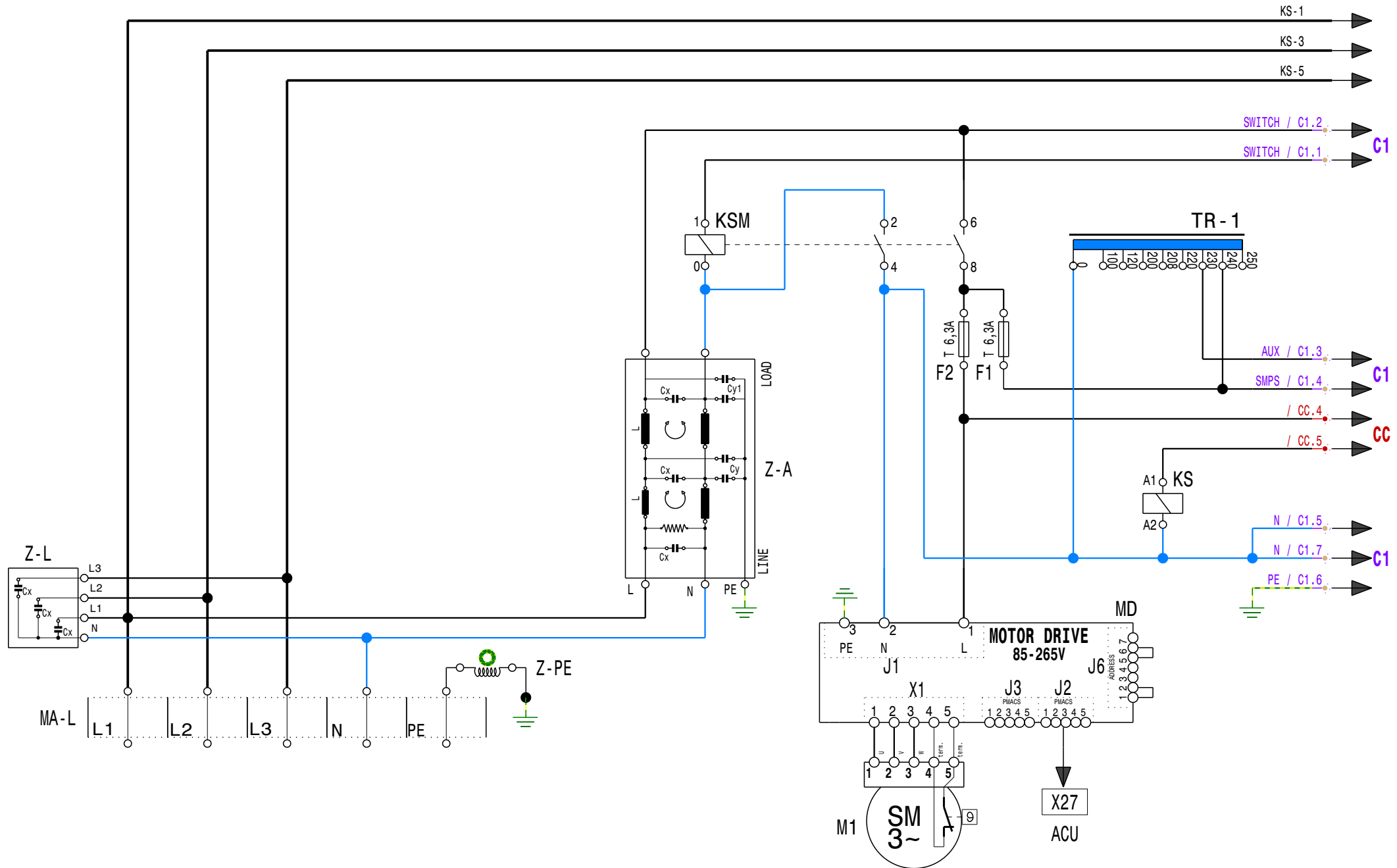
# HARNES DIAGRAM



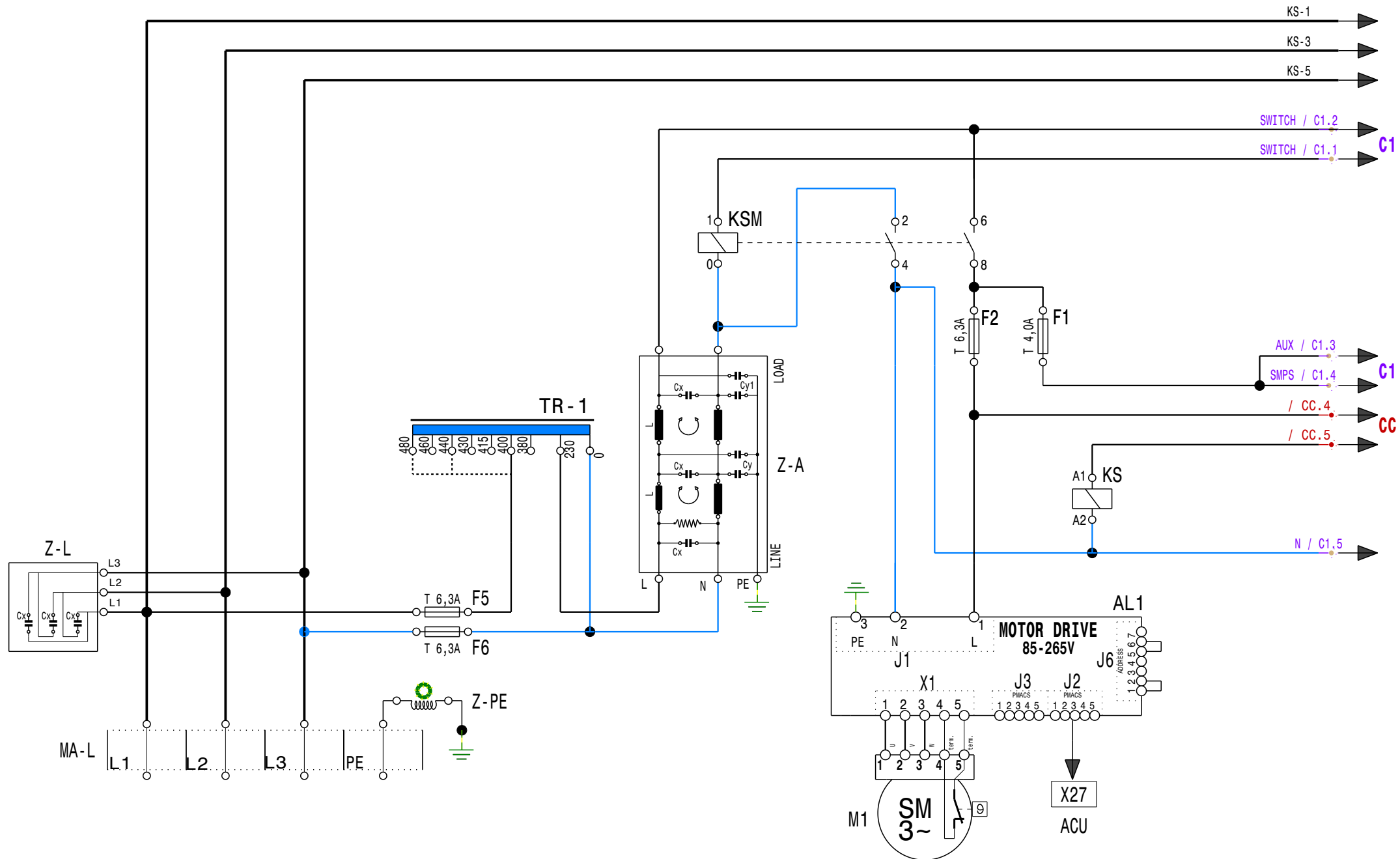


MA-L	TERMINAL BLOCK	Z-A	AUXILIARY FILTER	MD	MOTOR DRIVE	F1	AUXILIARY FUSE	-	-	-	-
Z-L	CAPACITIVE FILTER	KSM	ON/OFF RELAY	M1	MOTOR	F2	MOTOR DRIVE FUSE	-	-	-	-
Z-PE	GROUND FILTER	KS	SAFETY CONTACTOR	-	-	-	-	-	-	-	-

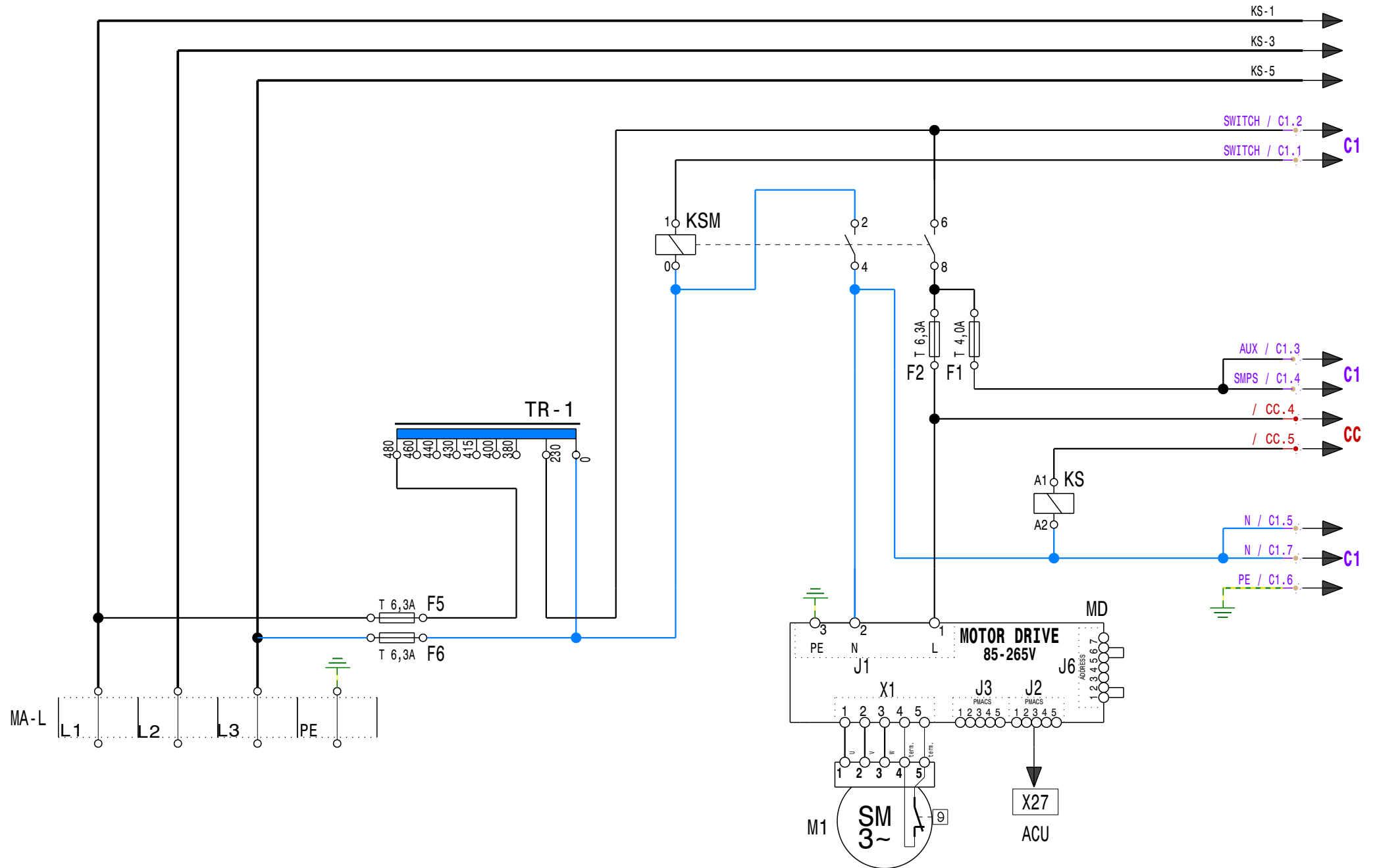
COD 602402F02 | ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM | From S/N :



<b>MA-L</b> TERMINAL BLOCK	<b>Z-A</b> AUXILIARY FILTER	<b>MD</b> MOTOR DRIVE	<b>F1</b> AUXILIARY FUSE	<b>TR-1</b> TRANSFORMER	-	-
<b>Z-L</b> CAPACITIVE FILTER	<b>KSM</b> ON/OFF RELAY	<b>M1</b> MOTOR	<b>F2</b> MOTOR DRIVE FUSE	-	-	-
<b>Z-PE</b> GROUND FILTER	<b>KS</b> SAFETY CONTACTOR	-	-	-	-	-
				COD 602402F02		From S/N :

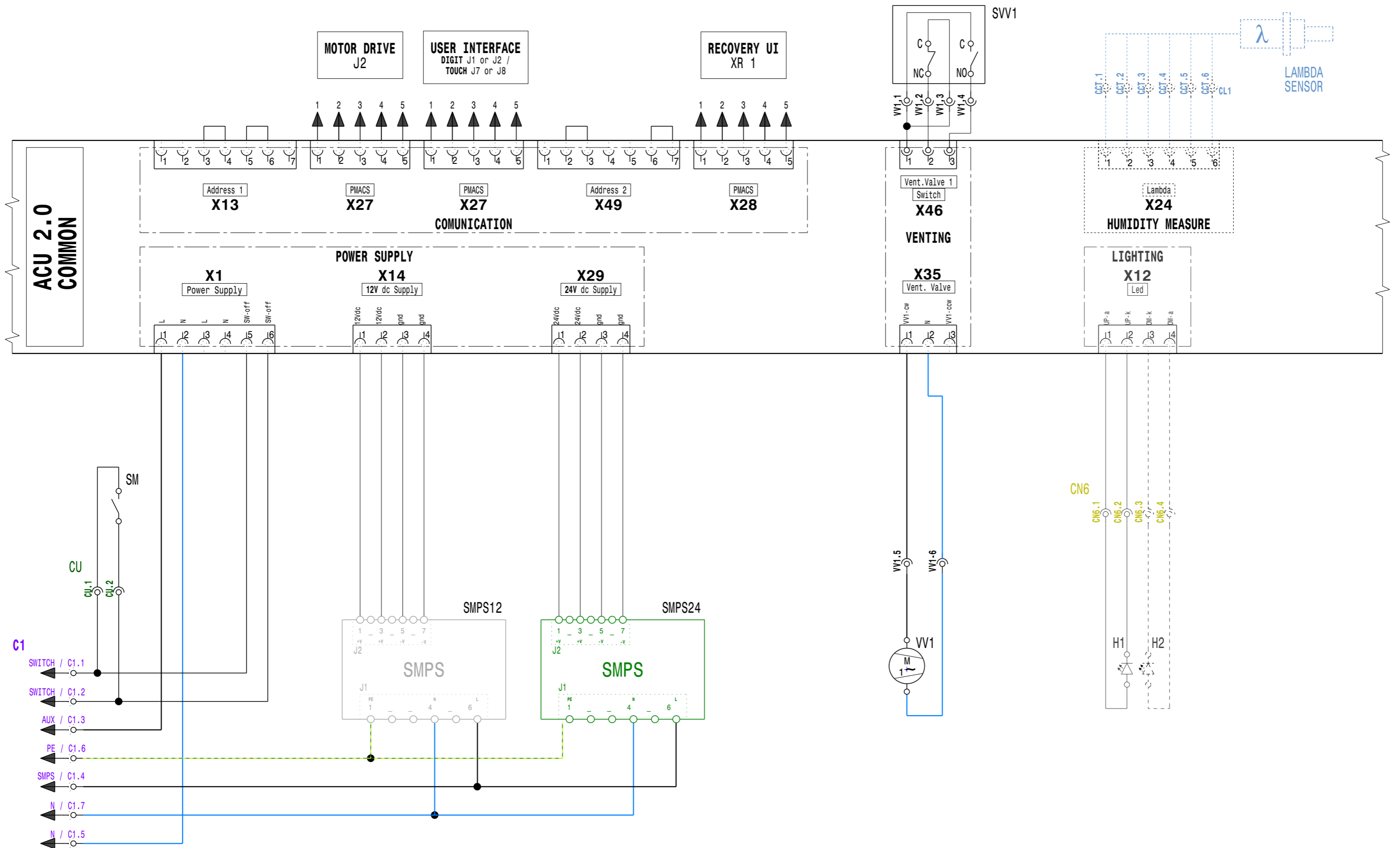


MA-L	TERMINAL BLOCK	Z-A	AUXILIARY FILTER	MD	MOTOR DRIVE	F1	AUXILIARY FUSE	F5	TRANSFORMER FUSE	TR-1	TRANSFORMER
Z-L	CAPACITIVE FILTER	KSM	ON/OFF RELAY	M1	MOTOR	F2	MOTOR DRIVE FUSE	F6	TRANSFORMER FUSE	-	-
Z-PE	GROUND FILTER	KS	SAFETY CONTACTOR	-	-	COD 602402F02			ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM		From S/N :

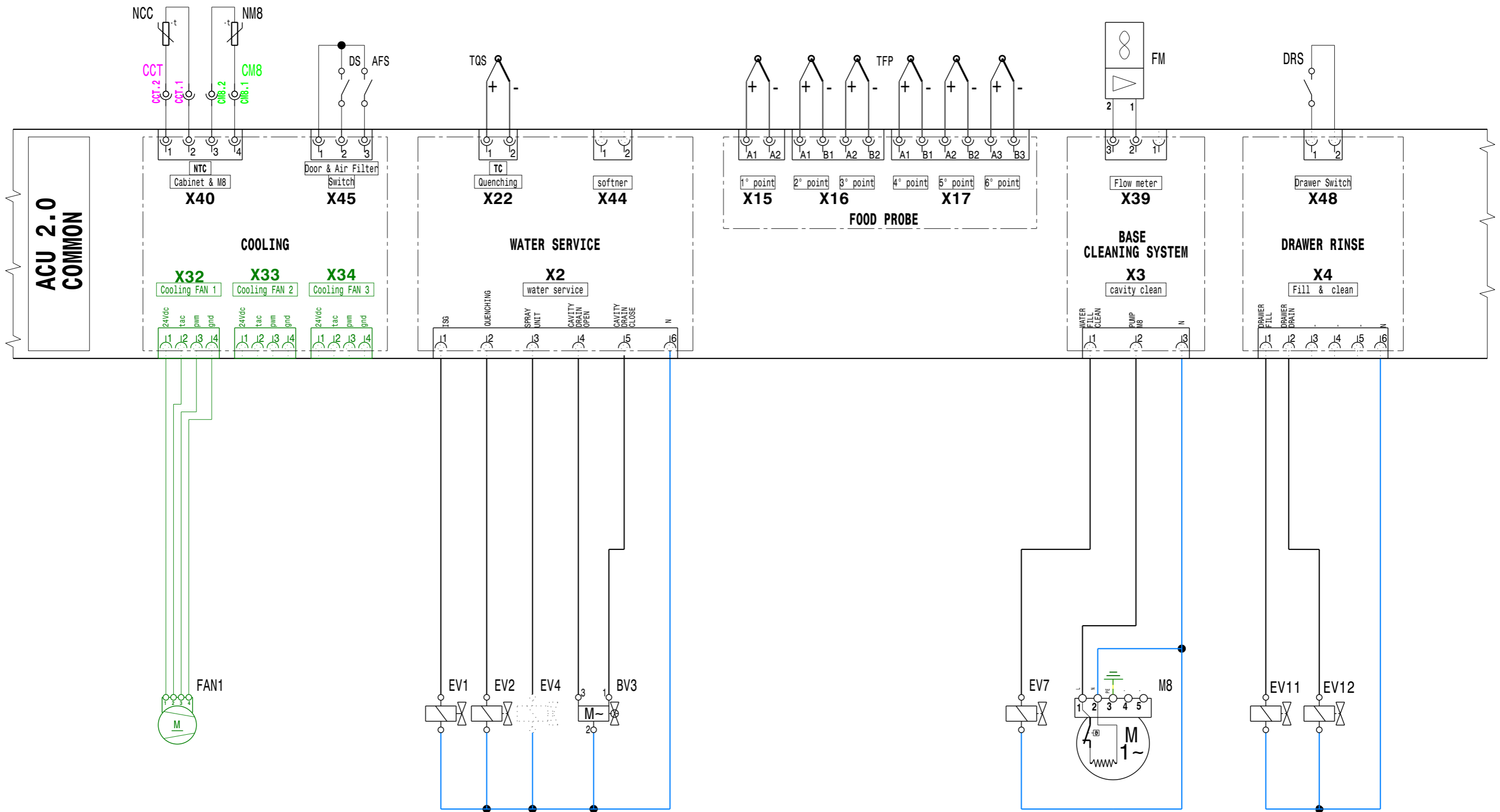


MA-L	TERMINAL BLOCK	-	-	MD	MOTOR DRIVE	F1	AUXILIARY FUSE	F5	TRANSFORMER FUSE	TR-1	TRANSFORMER
-	-	KSM	ON/OFF RELAY	M1	MOTOR	F2	MOTOR DRIVE FUSE	F6	TRANSFORMER FUSE	-	-
-	-	KS	SAFETY CONTACTOR	-	-	COD 602402F02			ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM		
From S/N :											





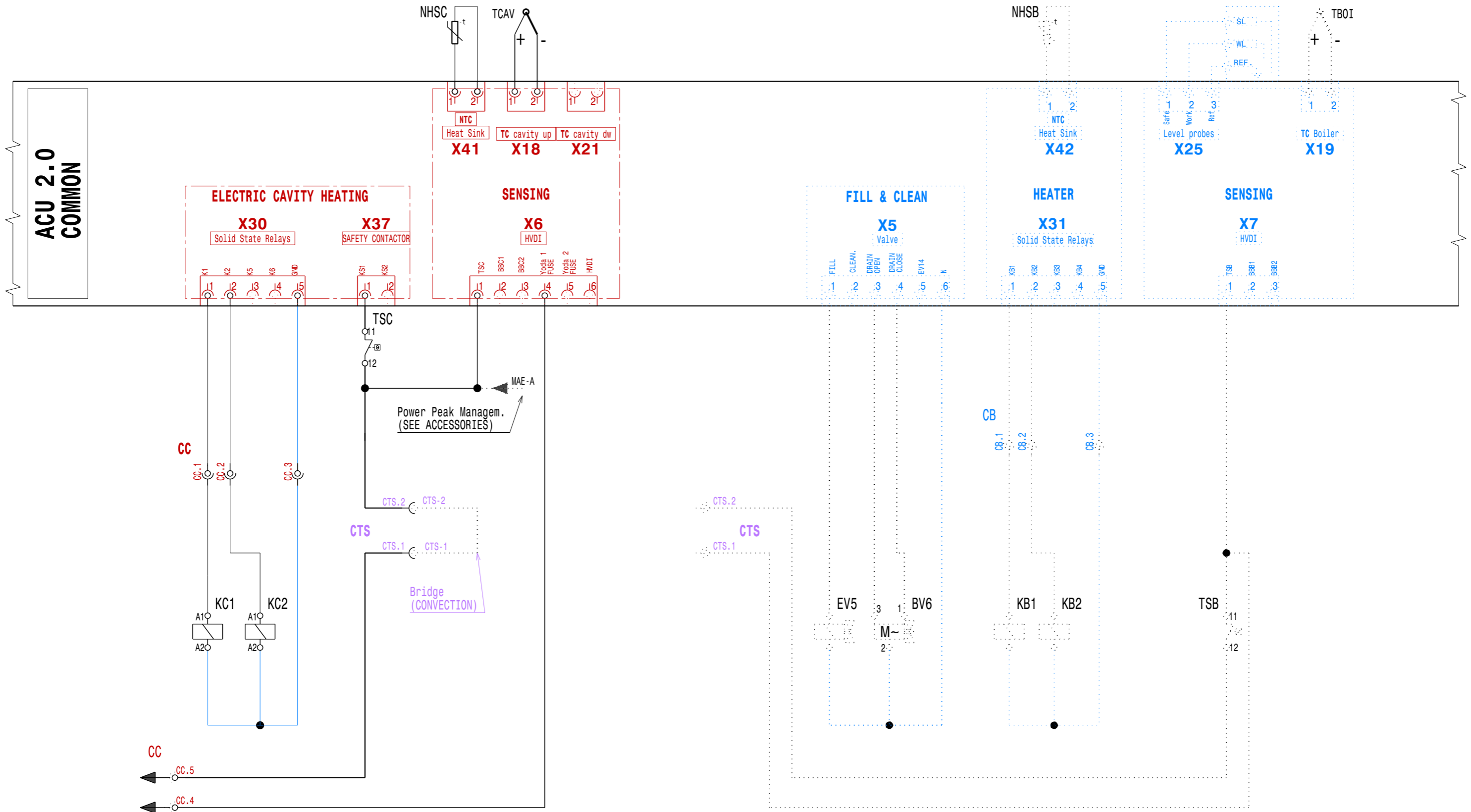
SM	MAIN SWITCH	-	-	SMPS12	SMPS 12V	VV1	VENTING VALVE 1	H1	LED LIGHTING 1	-	-
-	-	-	-	SMPS24	SMPS 24V	SVV1	VENTING VALVE SWITCHES	H2	LED LIGHTING 2	-	-
-	-	-	-	-	-	-	-	-	-	COD 602402F02   ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM   From S/N :	



<b>FAN1</b>	COOLING FAN	<b>DS</b>	DOOR SWITCH	<b>TFP</b>	FOOD PROBE TEMPERATURE	<b>FM</b>	FLOW METER	<b>DRS</b>	DRAWER SWITCH
<b>NCC</b>	NTC CABINET COMPONENTS	<b>AFS</b>	AIR FILTER SWITCH	<b>EV1</b>	INSTANT STEAM SOLENOID VALVE	<b>EV7</b>	CLEANING WATER FILL S. VALVE	<b>EV11</b>	DRAWER FILL S. VALVE
<b>NM8</b>	NTC PUMP M8	<b>TQS</b>	QUENCHING THERMOC.	<b>EV2</b>	QUENCHING SOL.VALVE	<b>M8</b>	CLEANING PUMP	<b>EV12</b>	DRAWER DRAIN S. VALVE
-	-	-	-	<b>BV3</b>	CAVITY DRAIN BALL VALVE	COD 602402F02   ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM		From S/N :	

## ELECTRIC CONVECTION

## ELECTRIC BOILER (OPTION)

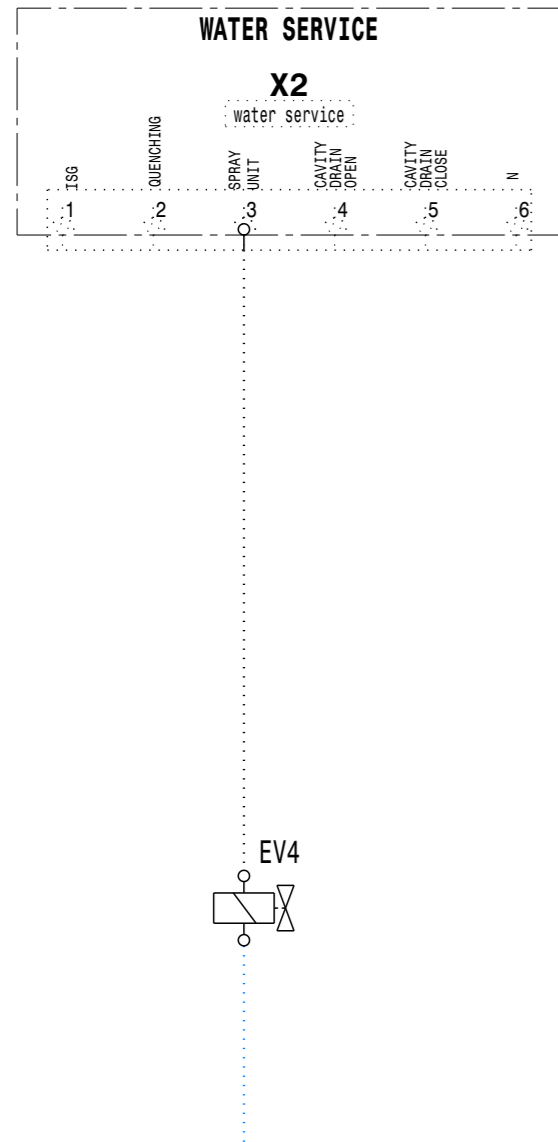


-	-	<b>KC1</b>	CAVITY SOLID STATE RELAY 1	<b>NHSC</b>	NTC CAVITY SSR HEAT SINK	-	-	-	-
-	-	<b>KC2</b>	CAVITY SOLID STATE RELAY 2	<b>TCAV</b>	CAVITY THERMOCOUPLE	-	-	-	-
-	-	<b>TSC</b>	CAVITY SAFETY THERMOSTAT	-	-	-	-	-	-

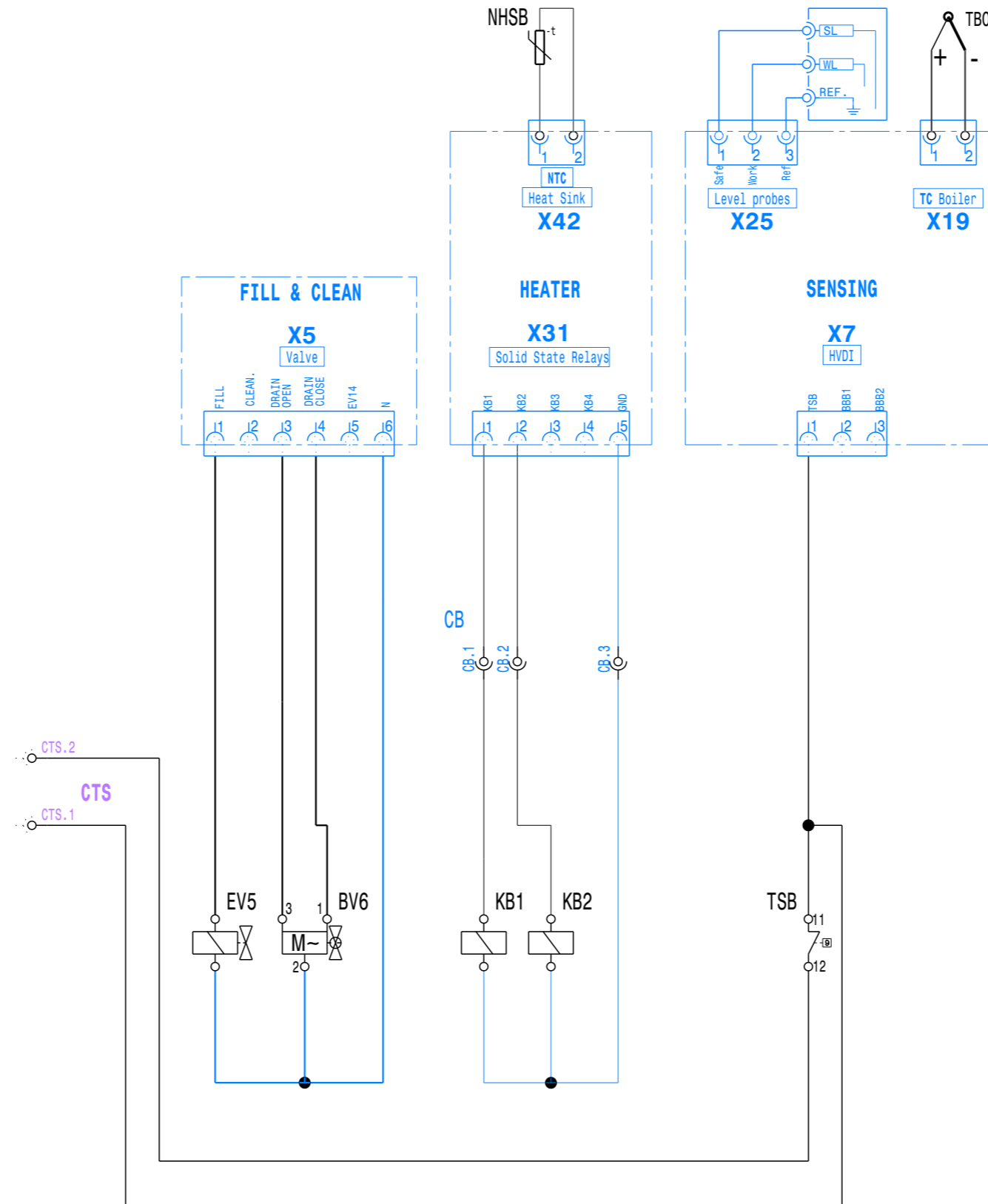
# OPTIONS

# "ELECTRIC"

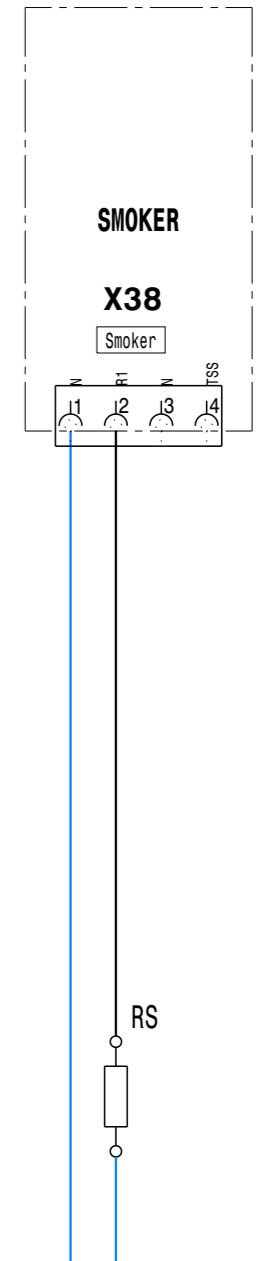
## WATER SPRAY



## ELECTRIC BOILER (OPTION)

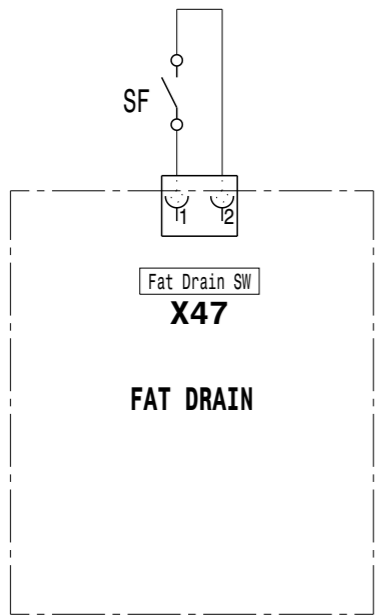


## SMOKER

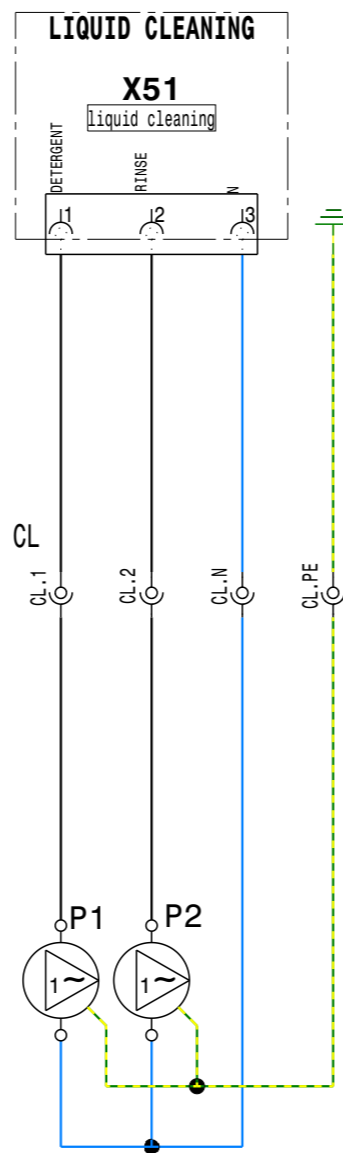


<b>EV4</b>	SPRAY UNIT	-	-	<b>EV5</b>	BOILER FILL SOLENOID VALVE	<b>NHSB</b>	NTC BOILER SSR HEAT SINK	-	-	<b>RS</b>	SMOKER HEATER
-	-	-	-	<b>BV6</b>	BOILER DRAIN BALL VALVE	<b>TSB</b>	BOILER SAFETY THERMOSTAT	-	-	-	-
-	-	-	-	<b>KB1</b>	BOILER SOLID STATE RELAY 1	<b>TBO1</b>	BOILER THERMOCOUPLE	-	-	-	-
-	-	-	-	<b>KB2</b>	BOILER SOLID STATE RELAY 2	-	-	COD 602402F02   ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM		From S/N :	

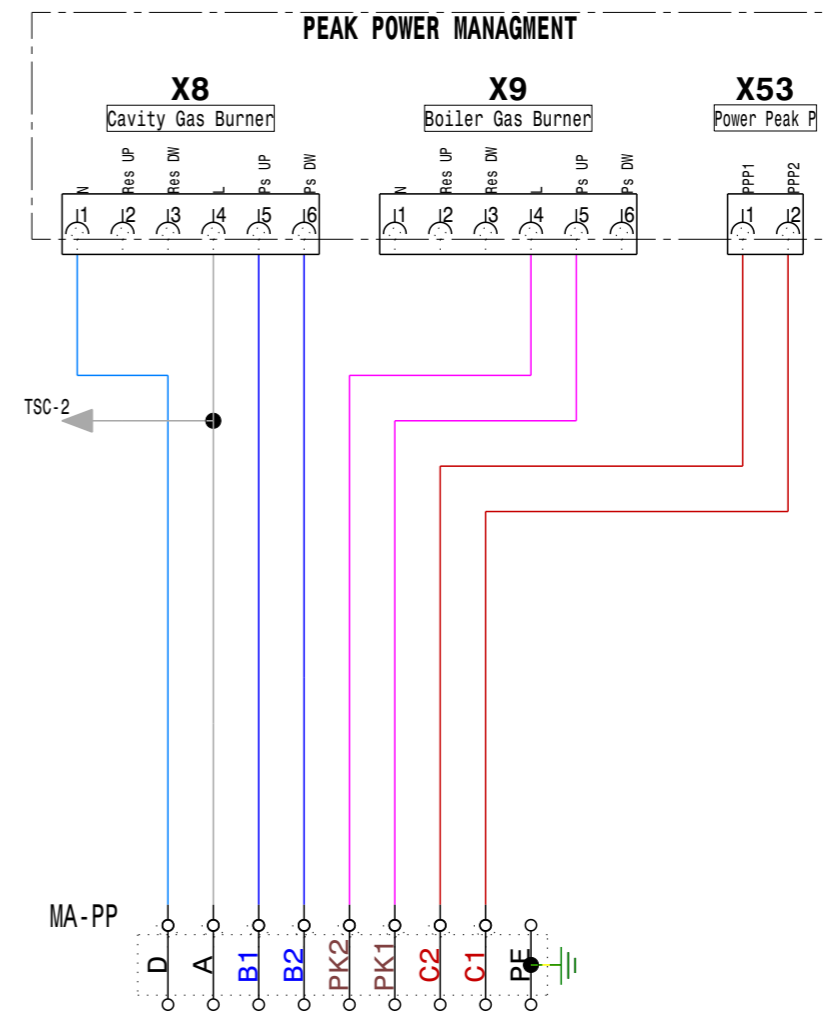
## FAT DRAIN SYSTEM



## LIQUID CLEANING

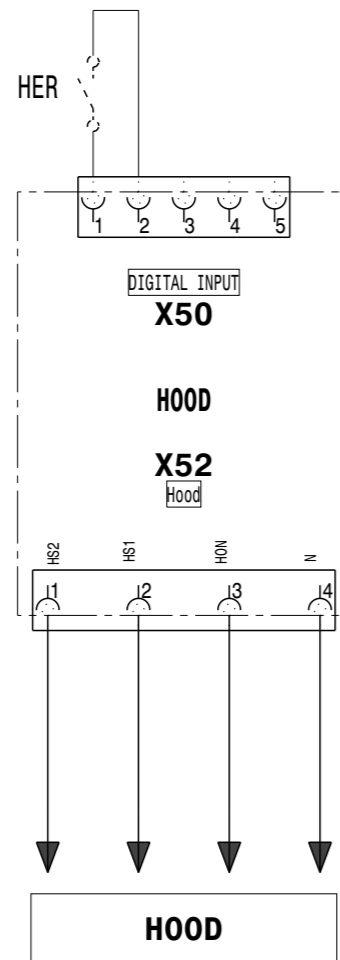


## PEAK POWER MANAGEMENT

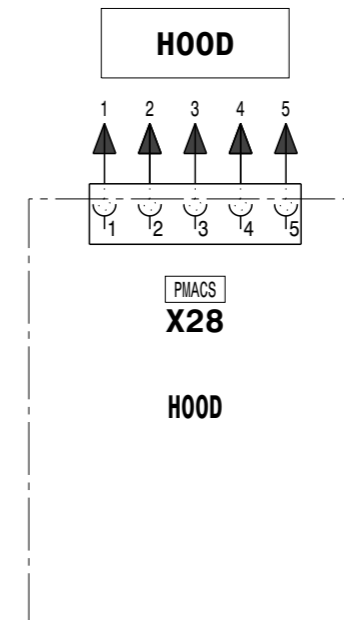


SF	FAT DRAIN SWITCH	-	-	P1	RINSE PUMP	-	-	MA-PP	TERMINAL BLOCK PEAK POWER MANAGEMENT
-	-	-	-	P2	DETERGENT PUMP	-	-	-	-
-	-	-	-	-	-	-	-	COD 602402F02	ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM
								From S/N :	

## EXTRACTION HOOD CONDENSATION HOOD



## ODOURLESS HOOD

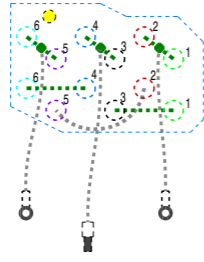


-	-	-	-	-	-	
-	-	-	-	-	-	
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				COD 602402F02	ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM	From S/N :

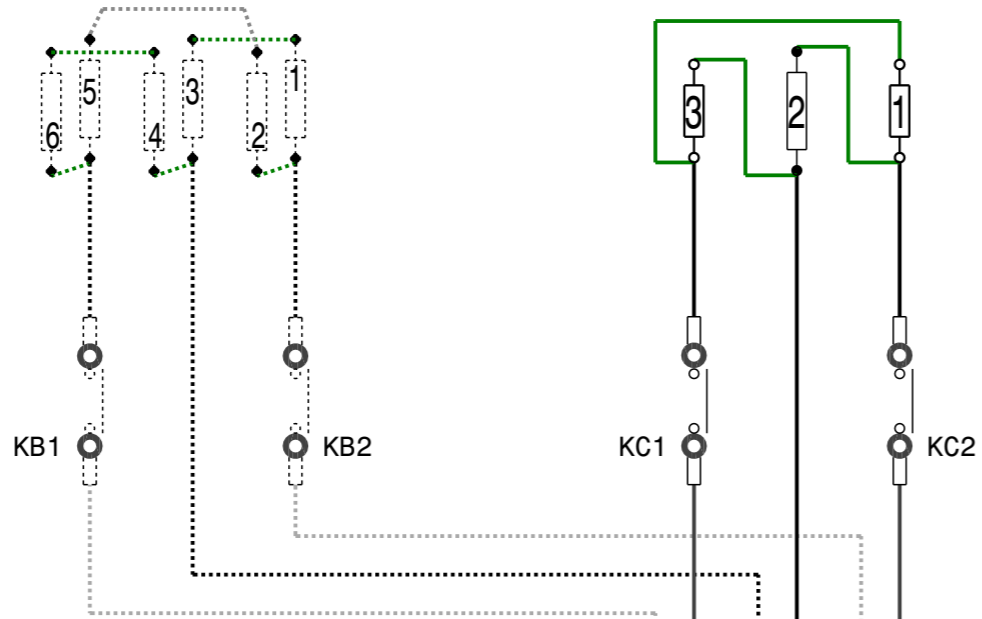
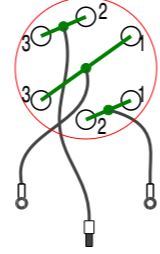
# ELECTRICAL POWER WIRING

# "ELECTRIC"

BOILER

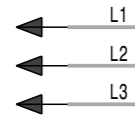


CAVITY



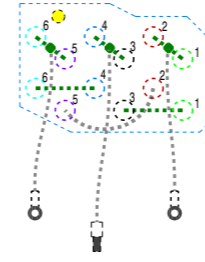
**6 1/1**  
380-480V

MA-L

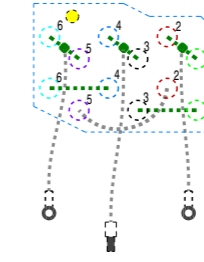


Rated Voltage [V]	Supply Voltage [V]	CONVECTION		STEAM	
		Ir [A]	Ir [A]	Ir [A]	Ir [A]
380-415	380	13.7	12.3		
	400	14.4	13.0		
	415	15.0	13.5		
415-440	415	13.0	11.7		
	430	13.4	12.1		
	440	13.7	12.4		
460-480	460	11.5	10.4		
	480	12.0	10.8		

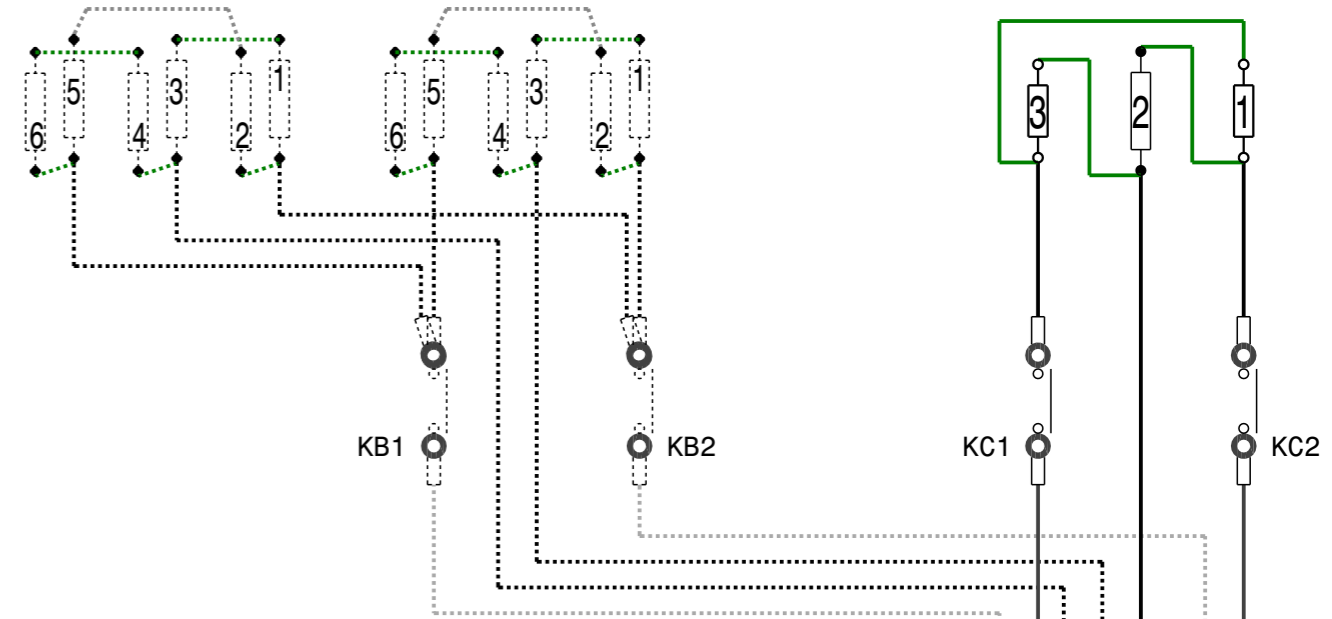
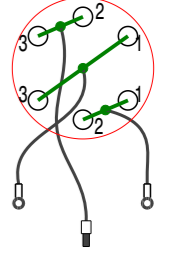
BOILER DOWN



BOILER UP

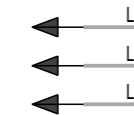


CAVITY



**10 1/1**  
380-480V

MA-L

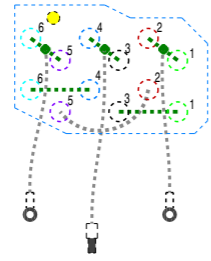


Rated Voltage [V]	Supply Voltage [V]	CONVECTION		STEAM	
		Ir [A]	Ir [A]	Ir [A]	Ir [A]
380-415	380	24.7	24.7		
	400	26.0	26.0		
	415	27.0	27.0		
415-440	415	23.3	23.3		
	430	24.2	24.2		
	440	24.7	24.7		
460-480	460	20.7	20.7		
	480	21.7	21.7		

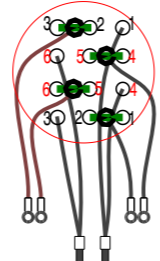
# ELECTRICAL POWER WIRING

# "ELECTRIC"

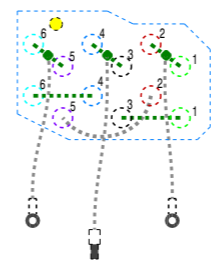
BOILER



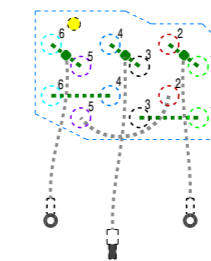
CAVITY



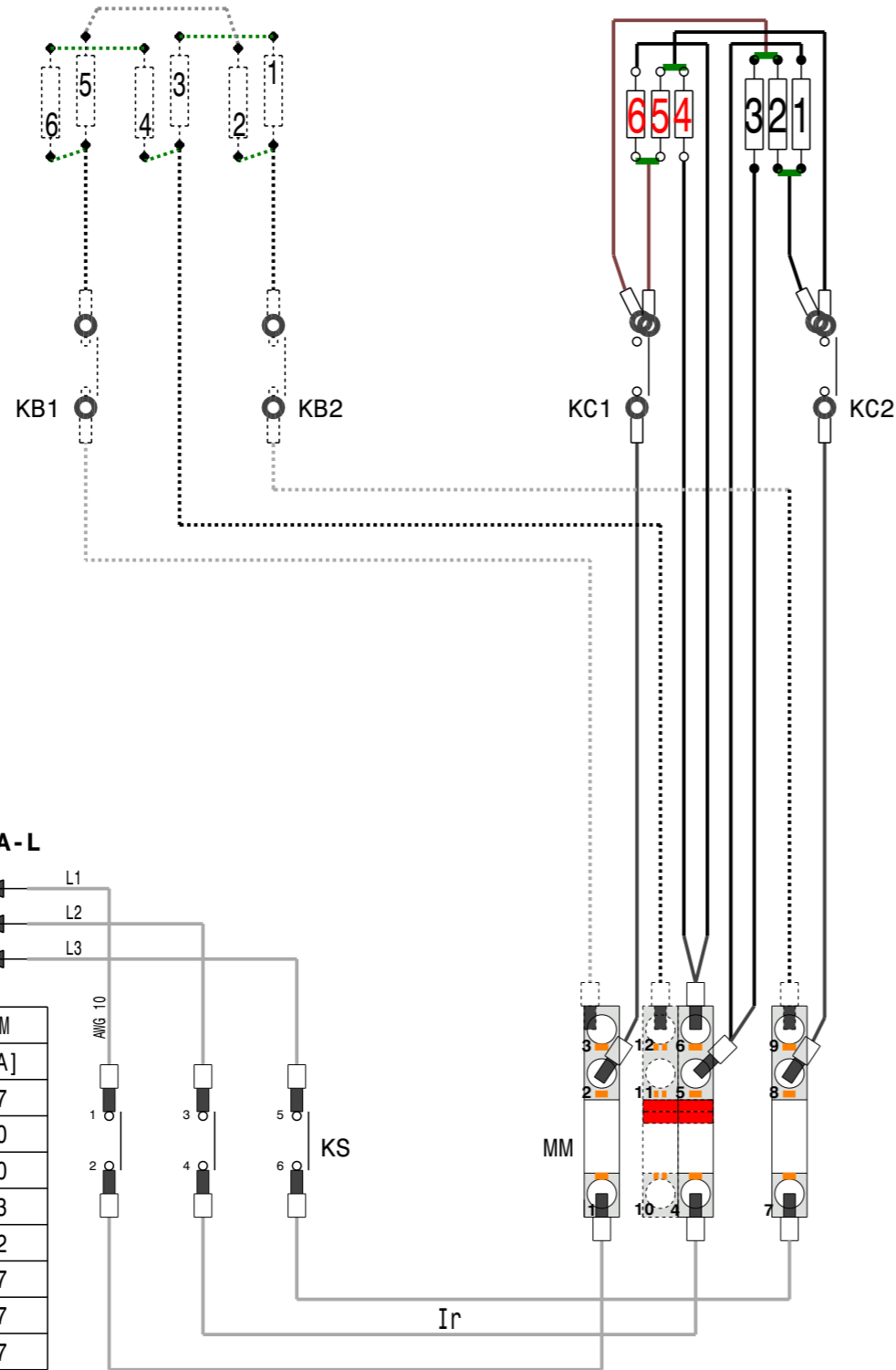
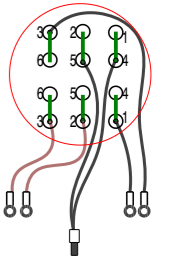
BOILER DOWN



BOILER UP



CAVITY

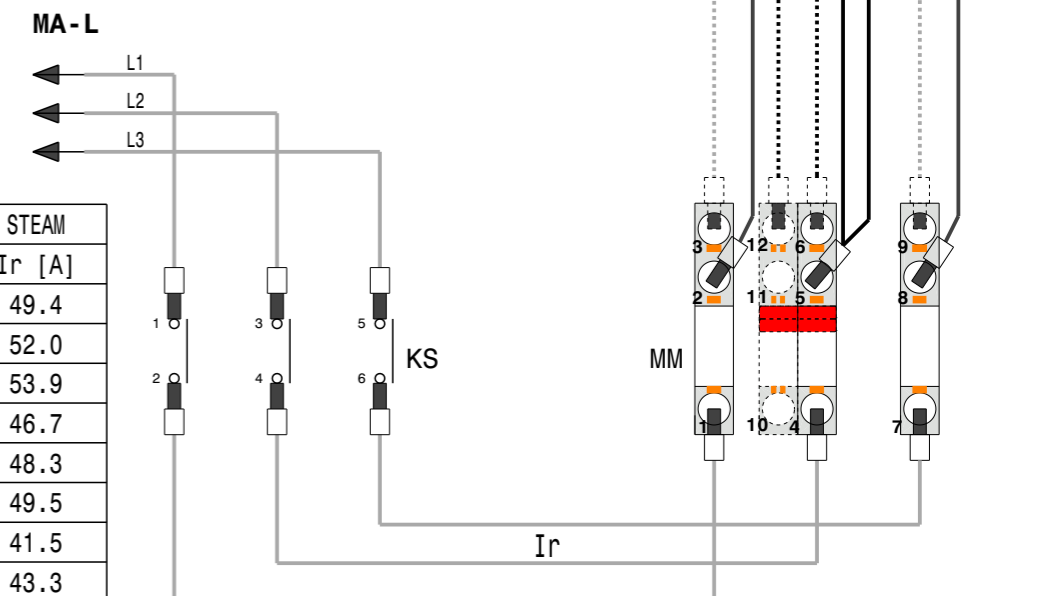


**6 2/1**  
380-480V

Rated Voltage [V]	Supply Voltage [V]	CONVECTION		STEAM	
		Ir [A]	Ir [A]	Ir [A]	Ir [A]
380-415	380	27.4	24.7		
	400	28.9	26.0		
	415	30.0	27.0		
415-440	415	25.9	23.3		
	430	26.9	24.2		
460-480	440	27.5	24.7		
	460	23.1	20.7		
	480	24.1	21.7		

**10 2/1**  
380-480V

Rated Voltage [V]	Supply Voltage [V]	CONVECTION		STEAM	
		Ir [A]	Ir [A]	Ir [A]	Ir [A]
380-415	380	46.6	49.4		
	400	49.1	52.0		
	415	50.9	53.9		
415-440	415	44.1	46.7		
	430	45.7	48.3		
460-480	440	46.7	49.5		
	460	39.2	41.5		
	480	40.9	43.3		







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