09/10/2019

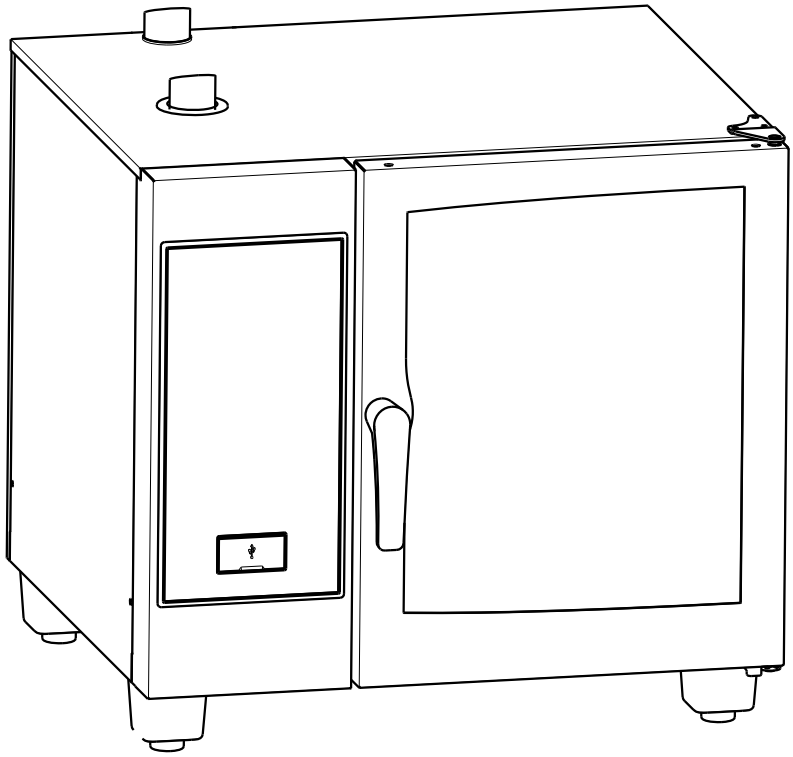
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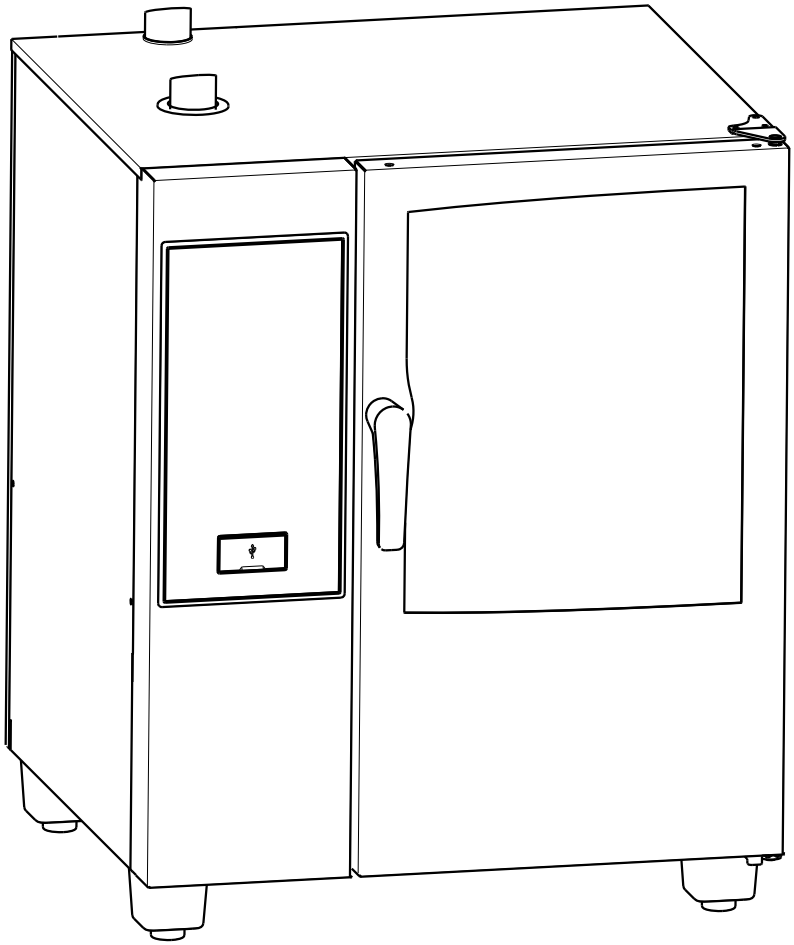
Diamond

ELECTRIC OVENS

Electrical Documentation



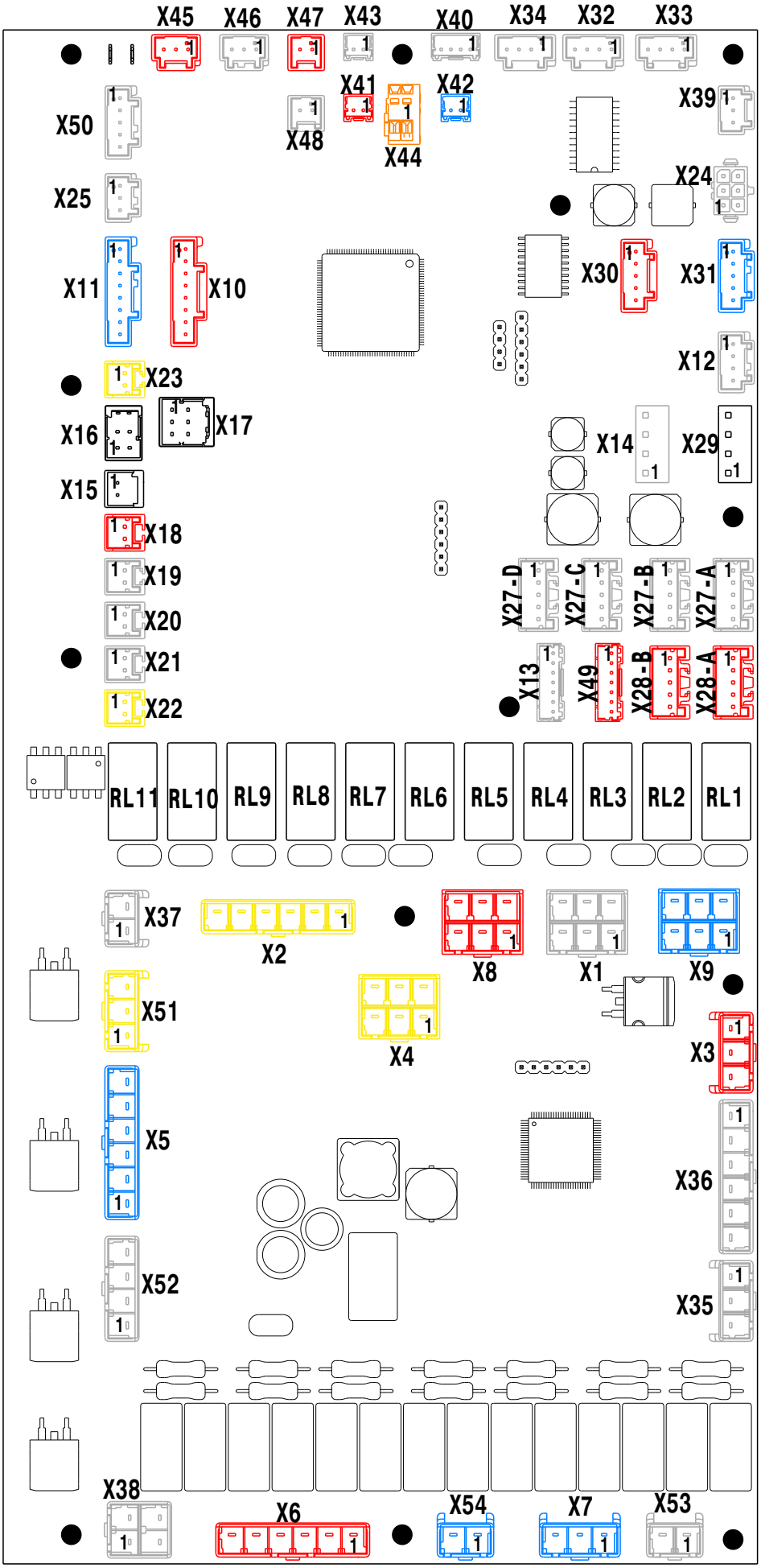
6 1/1
&
6 2/1



10 1/1
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10 2/1

COD 602402F01	ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM	From S/N :

MAIN BOARD ACU



COD 602402F01	ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM	From S/N :

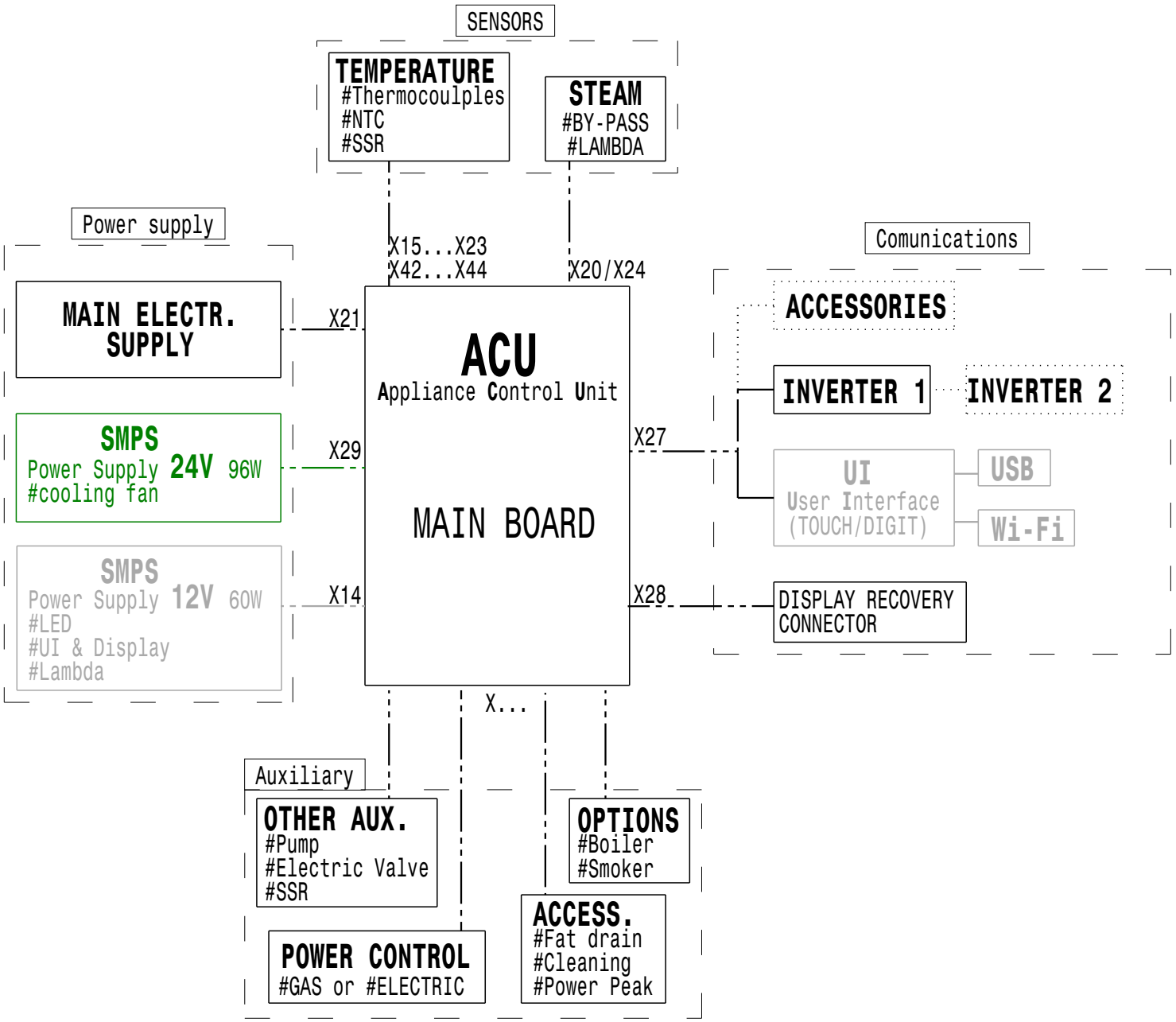
ACU LEGENDA

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	**SW-OFF** Auto switch off
		6	OUT	
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

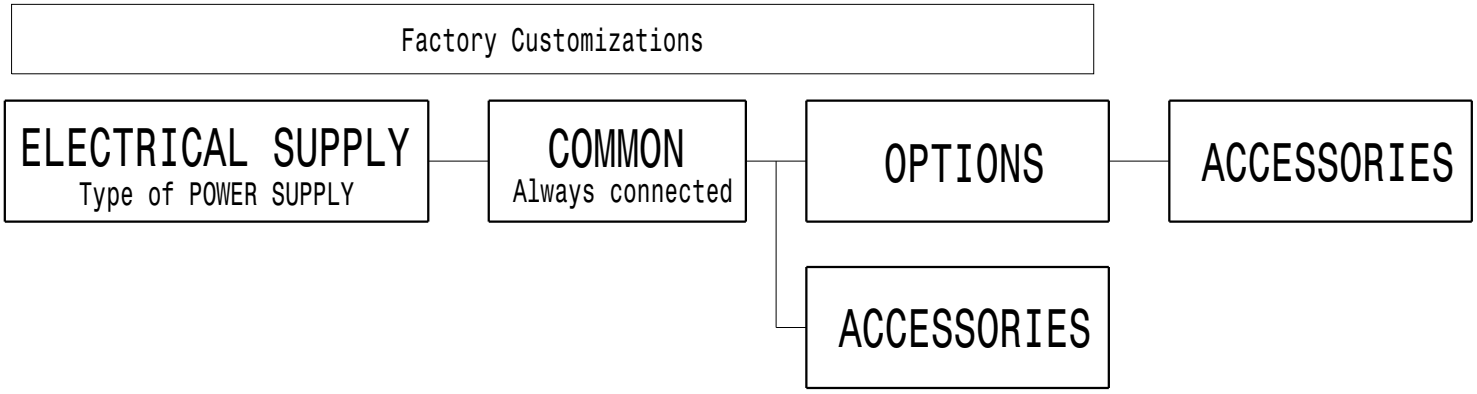
Ref.	Group	Pin	Direct.	Function
X12	Led	1	OUT	**H1** LED lighting 1 anode
		2	IN	**H1** LED lighting 1 catode
		3	IN	**H2** LED lighting 2 catode
		4	OUT	**H2** LED lighting 2 anode
X13				Adress
X14	12V	1	IN	**+12V** dc
		2	IN	
		3	IN	**0V** dc
		4	IN	
X15	Food probe temperature	A1	IN	**TFP** 1st point food probe temperature
		B1	IN	
X16		A1	IN	**TFP** 2nd point food probe temperature
		B1	IN	
		A2	IN	**TFP** 3rd point food probe temperature
		B2	IN	
X17		A1	IN	**TFP** 4th point food probe temperature
		B1	IN	
		A2	IN	**TFP** 5th point food probe temperature
		B2	IN	
		A3	IN	**TFP** 6th point food probe temperature
		B3	IN	
X18	Temper.	1	IN	**TCAV** Cavity Thermocouple
		2	IN	
X19	Temper.	1	IN	**TBOI** 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** comunication BUS
X27-B			IN/OUT	**PMACS** comunication BUS
X27-C			IN/OUT	**PMACS** comunication BUS
X27-D			IN/OUT	**PMACS** comunication BUS
X28-A			IN/OUT	**PMACS** Recovery comunication BUS
X28-B			IN/OUT	**PMACS** Recovery comunication 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 --		
X32	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 mer reference
		3	IN	**FM** Flow mer feedback
X40	Temper.	1	OUT	**NCC** NTC cabinet components
		2	IN	
		3	OUT	**NM8** NTC pump M8
		4	IN	
X41	Temper.	1	OUT	**NHSC** NTC Cavity SSR heatsink
		2	IN	
X42	Temper.	1	OUT	**NHSB** 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	**0V** dc
		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

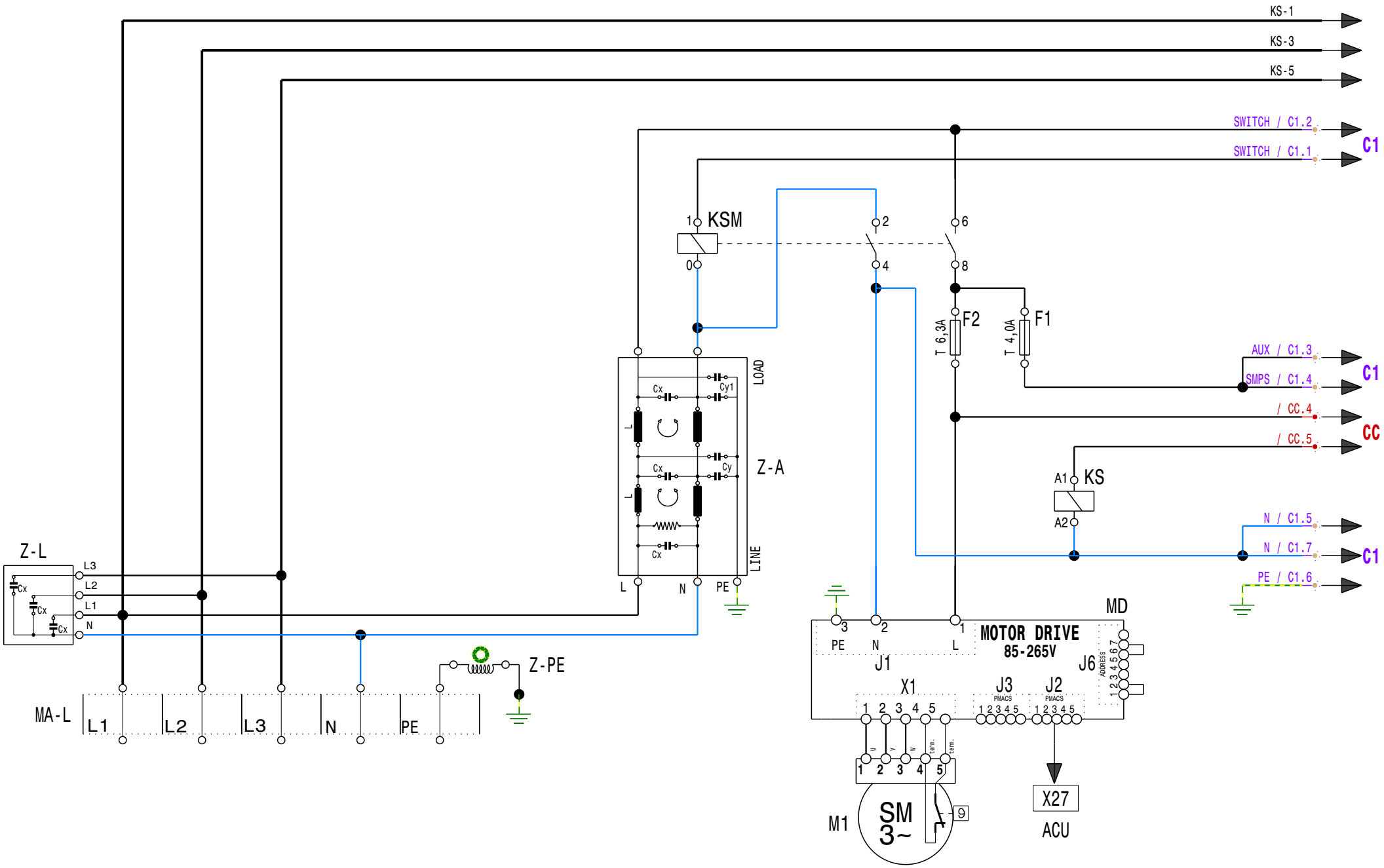


HARNESS DIAGRAM



ELECTRICAL SUPPLY 380/400/415V - 3N - 50/60Hz

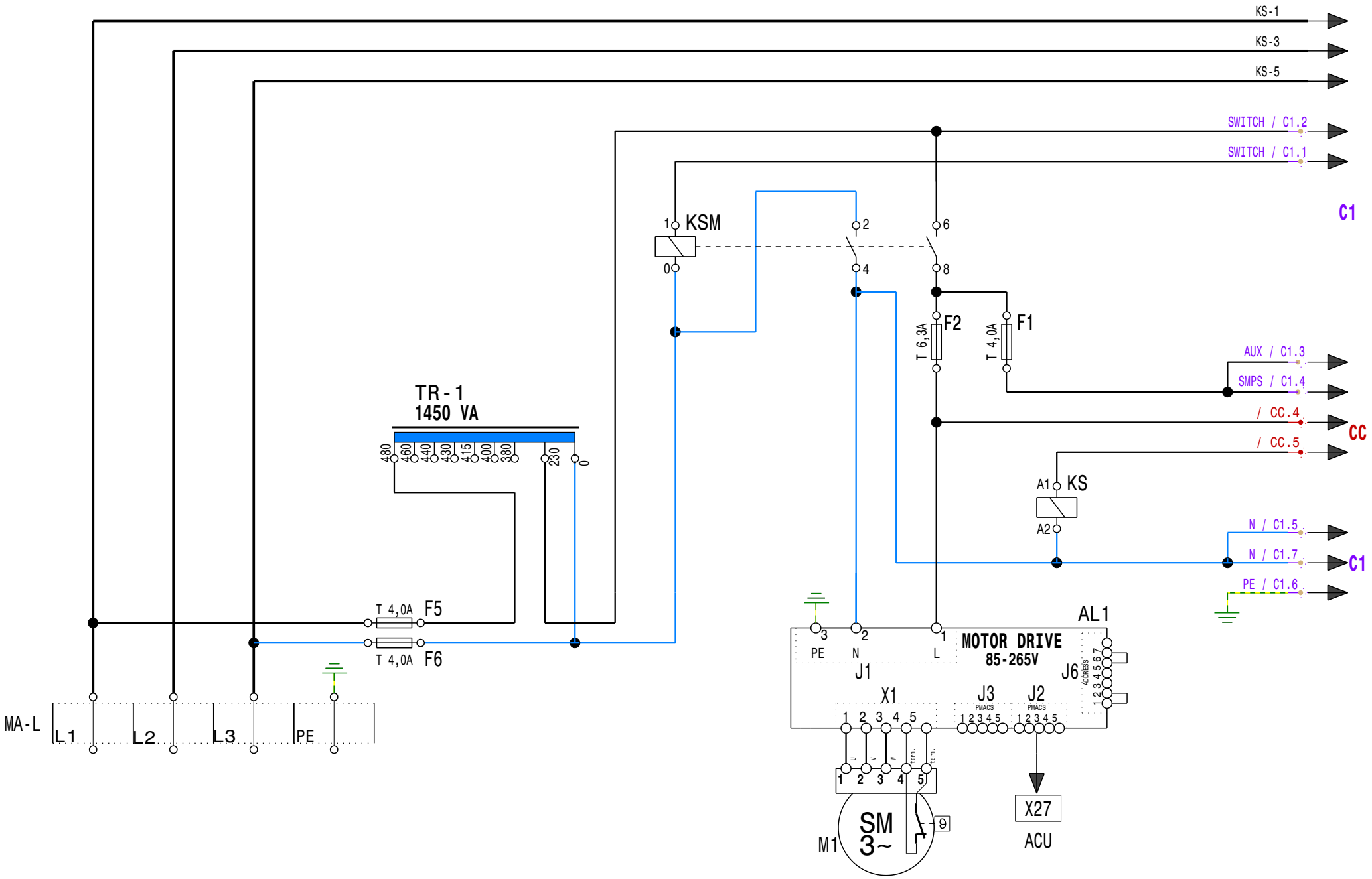
"ELECTRIC"



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 602402F01	ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM		From S/N :

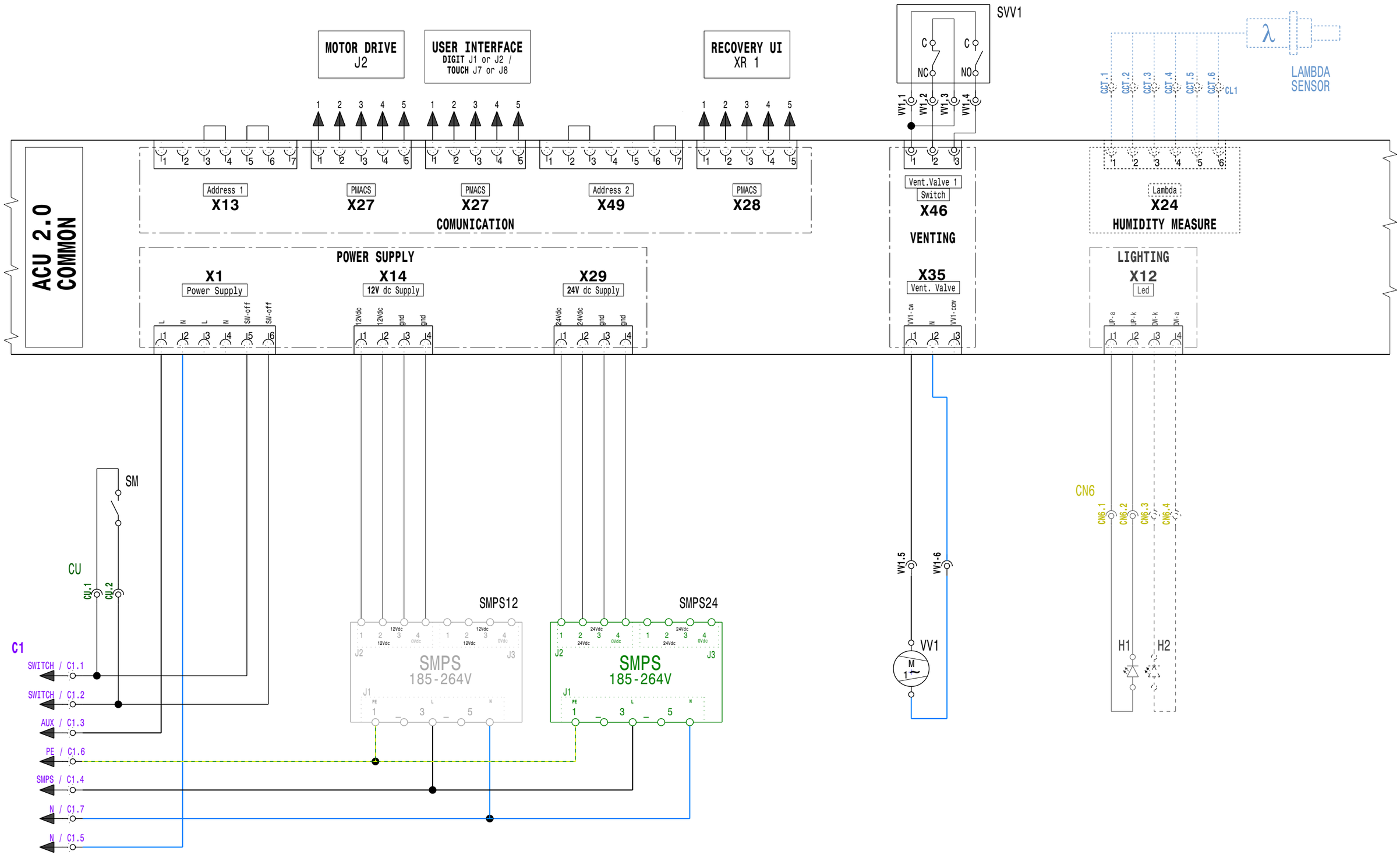
ELECTRICAL SUPPLY 480V - 3 - 60Hz

"ELECTRIC"



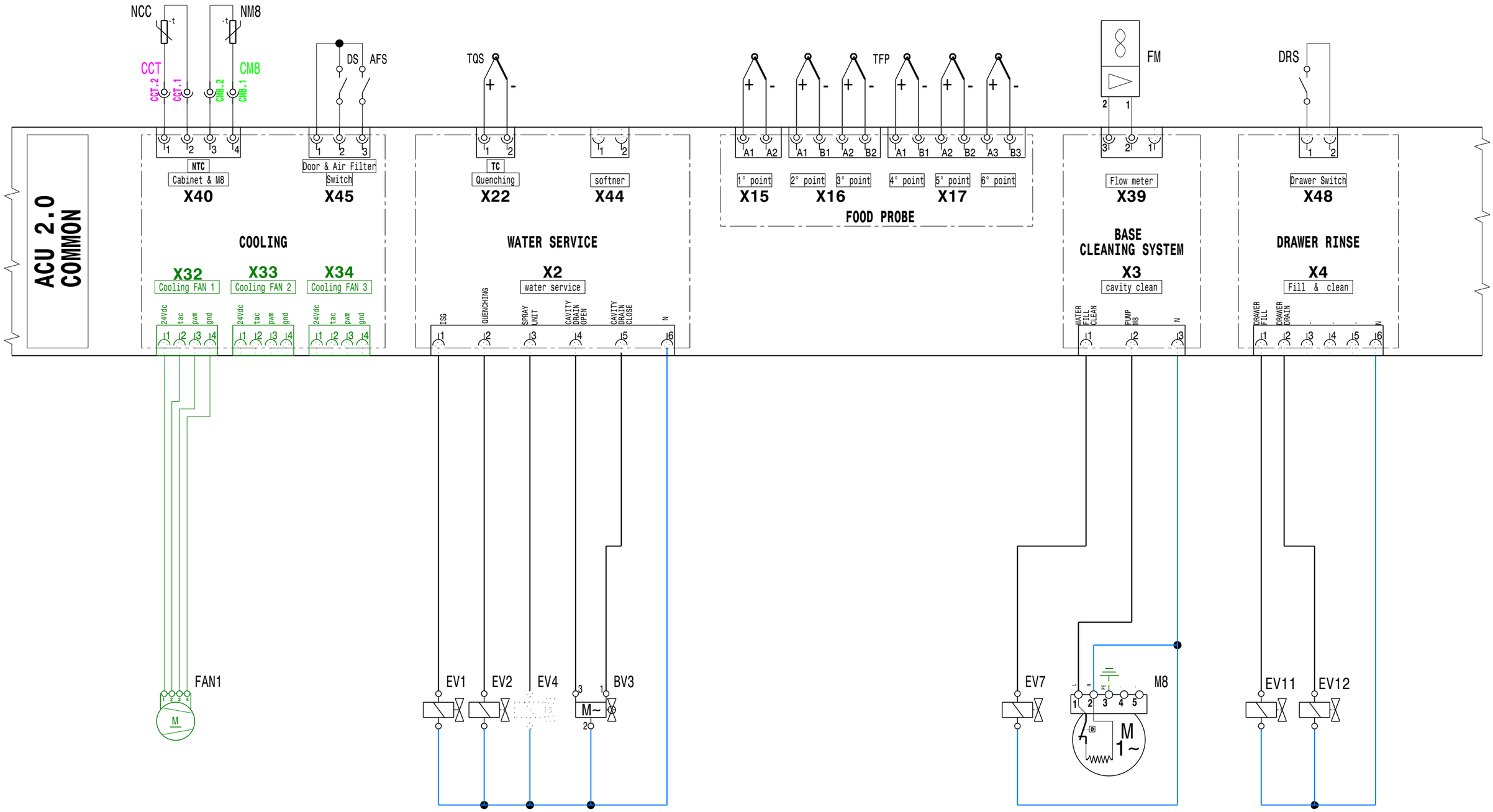
MA-L	TERMINAL BLOCK	**Z-A**	AUXILIARY FILTER	**MD**	MOTOR DRIVE	**F1**	AUXILIARY FUSE	-	-	-	-
Z-L	CAPACITIVE FILTER	**KSM**	ON/OFF RELAY	**M1**	MOTOR	**F2**	MOTOR DRIVE FUSE	-	-	-	-
Z-PE	GROUND FILTER	**KS**	SAFETY CONTACTOR	-	-		COD 602402F01	ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM		From S/N :	

COMMON



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 602402F01	ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM	From S/N :	

COMMON

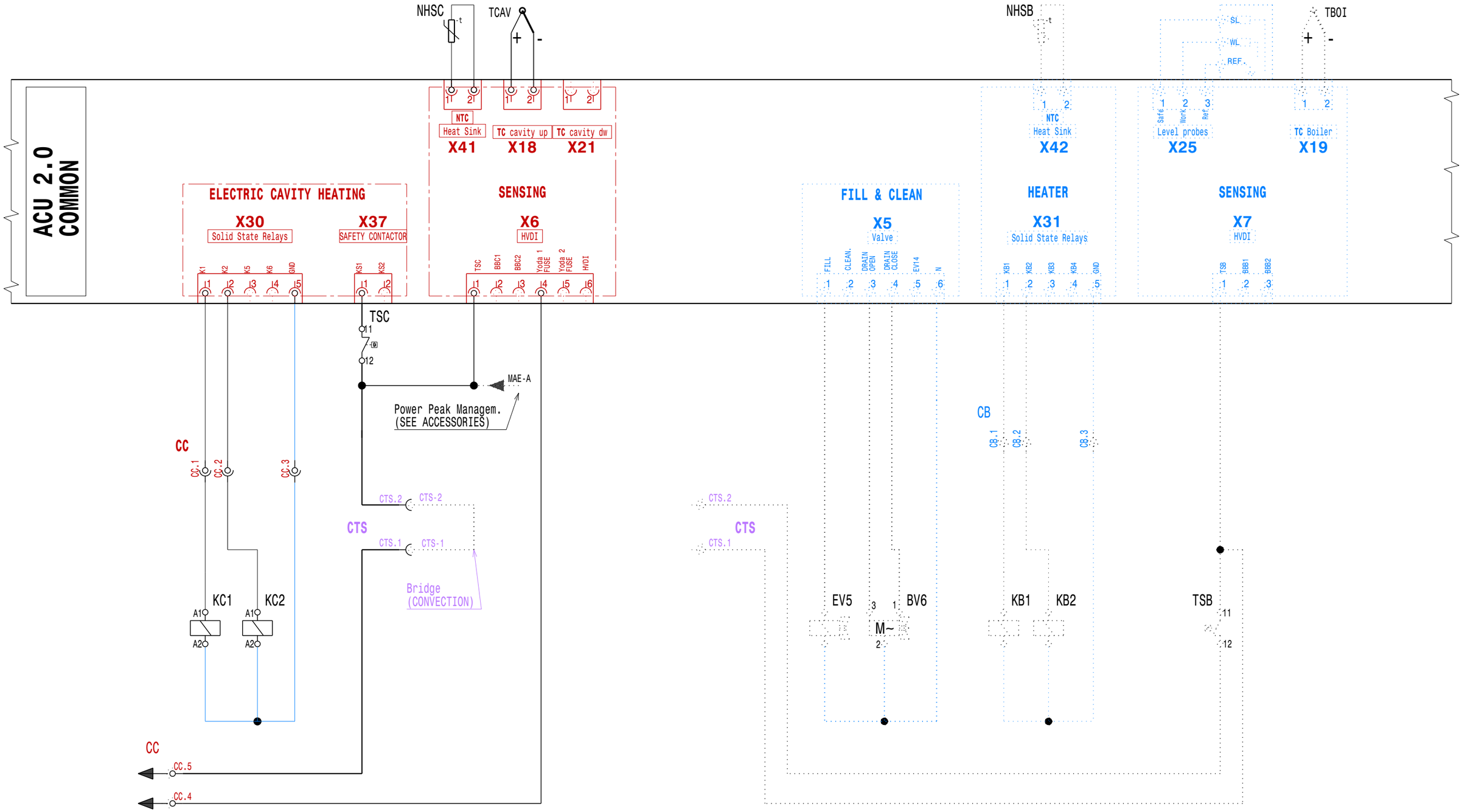


FAN1	COOLING FAN	**DS**	DOOR SWITCH	**TFP**	FOOD PROBE TEMPERATURE	**FM**	FLOW METER	**DRS**	DRAWER SWITCH
NCC	NTC CABINET COMPONENTS	**AFS**	AIR FILTER SWITCH	**EV1**	INSTANT STEAM SOLENOID VALVE	**EV7**	CLEANING WATER FILL S. VALVE	**EV11**	DRAWER FILL S. VALVE
NM8	NTC PUMP M8	**TQS**	QUENCHING THERMOC.	**EV2**	QUENCHING SOL.VALVE	**M8**	CLEANING PUMP	**EV12**	DRAWER DRAIN S. VALVE
-	-	**-**	-	**BV3**	CAVITY DRAIN BALL VALVE	COD	602402F01	ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM		From S/N :	

SPECIFIC "ELECTRIC"

ELECTRIC CONVECTION

ELECTRIC BOILER (OPTION)

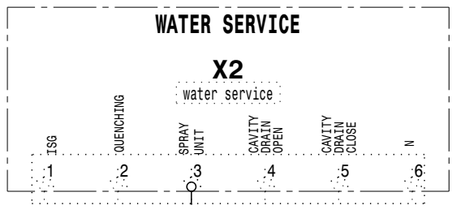


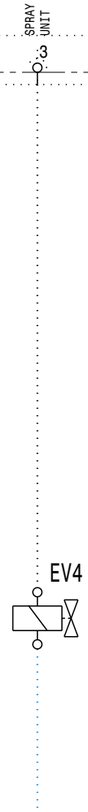
-	-	**KC1**	CAVITY SOLID STATE RELAY 1	**NHSC**	NTC CAVITY SSR HEAT SINK	-	-	-	-	-	-
-	-	**KC2**	CAVITY SOLID STATE RELAY 2	**TCAV**	CAVITY THERMOCOUPLE	-	-	-	-	-	-
-	-	**TSC**	CAVITY SAFETY THERMOSTAT	-	-	-	-	COD 602402F01	ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM	From S/N :	

OPTIONS

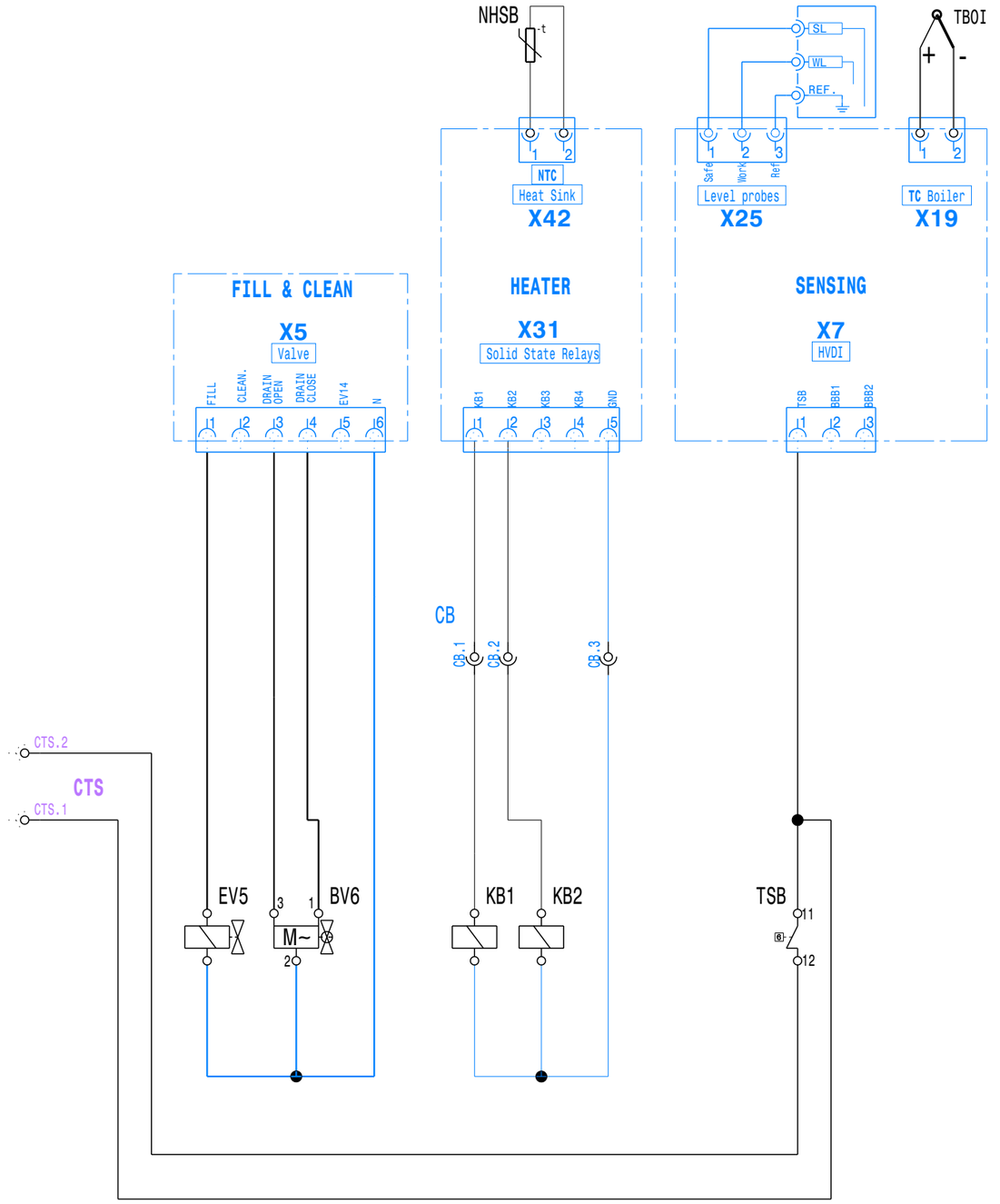
"ELECTRIC"

WATER SPRAY

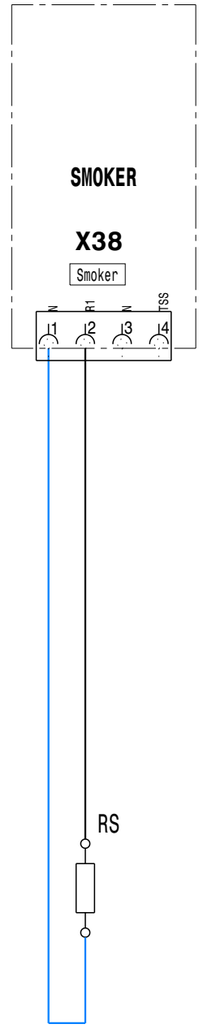




ELECTRIC BOILER (OPTION)



SMOKER

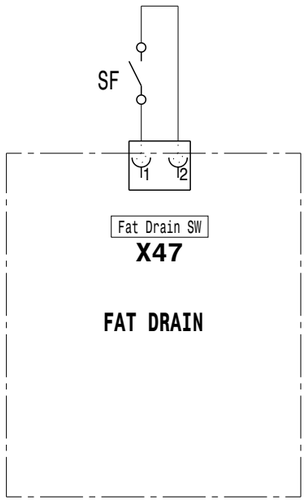


EV4	SPRAY UNIT	-	-	**EV5**	BOILER FILL SOLENOID VALVE	**NHSB**	NTC BOILER SSR HEAT SINK	-	-	**RS**	SMOKER HEATER
-	-	-	-	**BV6**	BOILER DRAIN BALL VALVE	**TSB**	BOILER SAFETY THERMOSTAT	-	-	-	-
-	-	-	-	**KB1**	BOILER SOLID STATE RELAY 1	**TBOI**	BOILER THERMOCOUPLE	-	-	-	-
-	-	-	-	**KB2**	BOILER SOLID STATE RELAY 2	-	-	COD 602402F01	ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM	From S/N :	

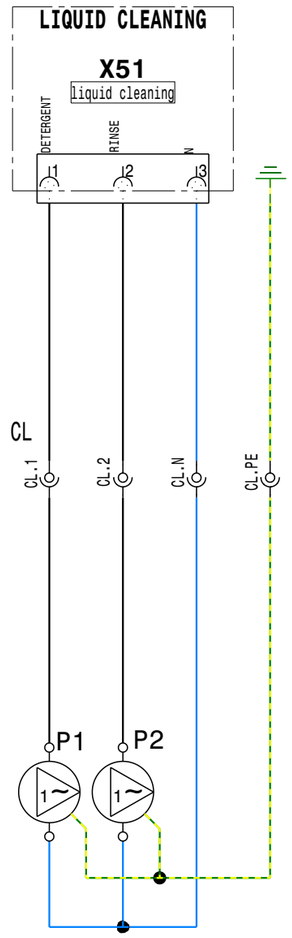
ACCESSORIES 1/2

"ELECTRIC"

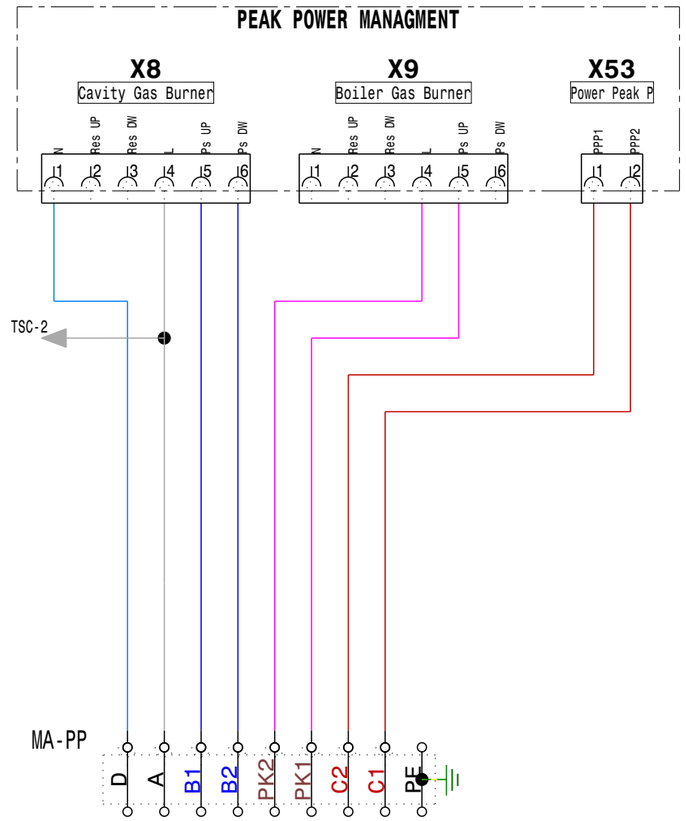
FAT DRAIN SYSTEM



LIQUID CLEANING



PEAK POWER MANAGMENT



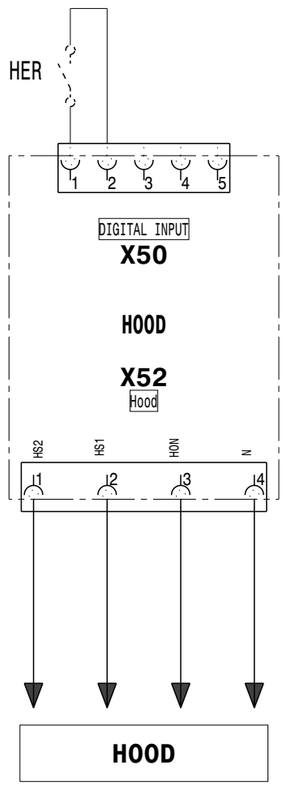
SF	FAT DRAIN SWITCH	-	-	**P1**	RINSE PUMP	-	-	**MA-PP**	TERMINAL BLOCK PEAK POWER MANAGEMENT
-	-	-	-	**P2**	DETERGENT PUMP	-	-	-	-
-	-	-	-	-	-	-	-	COD 602402F01	ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM

From S/N :

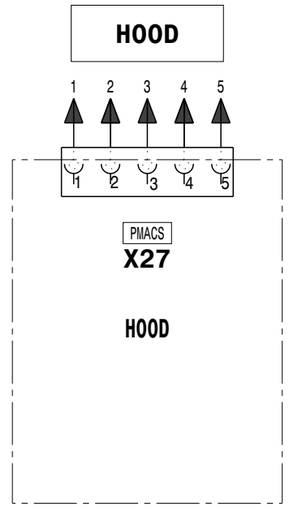
ACCESSORIES 2/2

"ELECTRIC"

EXTRACTION HOOD
CONDENSATION HOOD



ODOURLESS HOOD

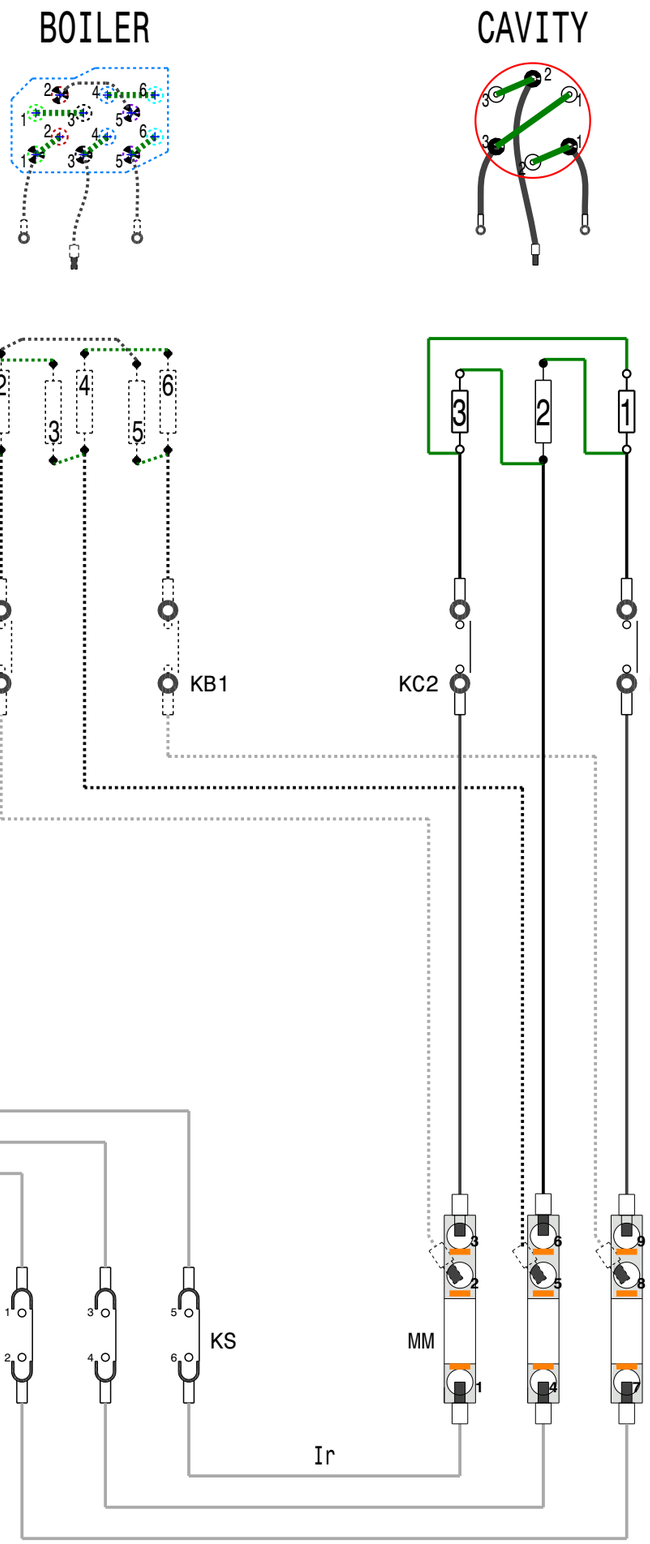


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-	-	-	-	-
-	-	-	-	COD 602402F01 | ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM | From S/N :

ELECTRICAL POWER WIRING

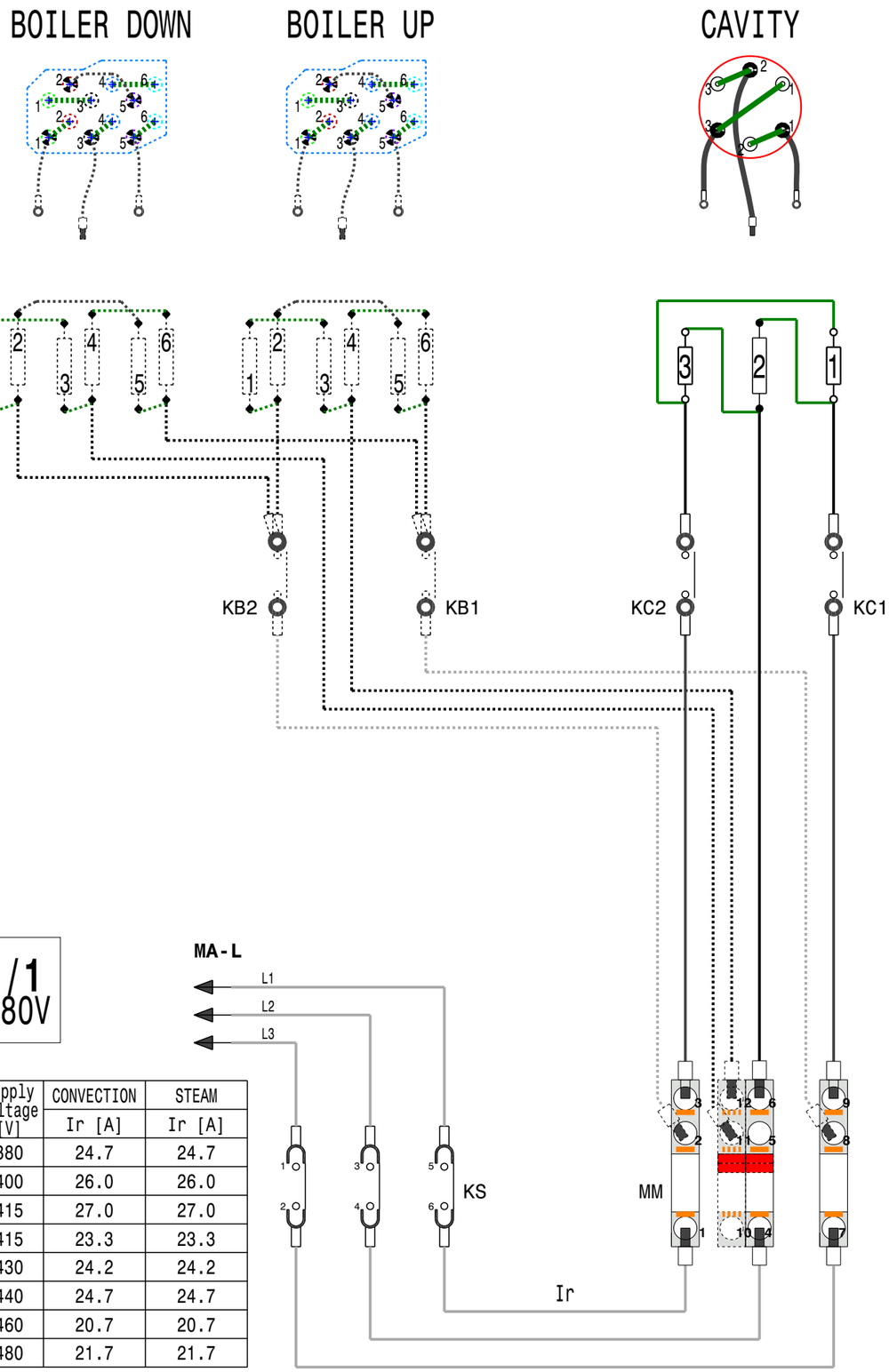
"ELECTRIC"

6 1/1
380-480V



Rated Voltage [V]	Supply Voltage [V]	CONVECTION Ir [A]	STEAM 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

10 1/1
380-480V



Rated Voltage [V]	Supply Voltage [V]	CONVECTION Ir [A]	STEAM 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

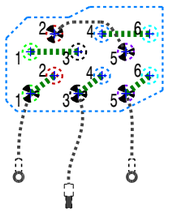
COD 602402F01 | ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM | From S/N :

ELECTRICAL POWER WIRING

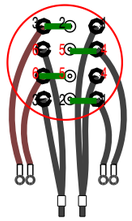
"ELECTRIC"

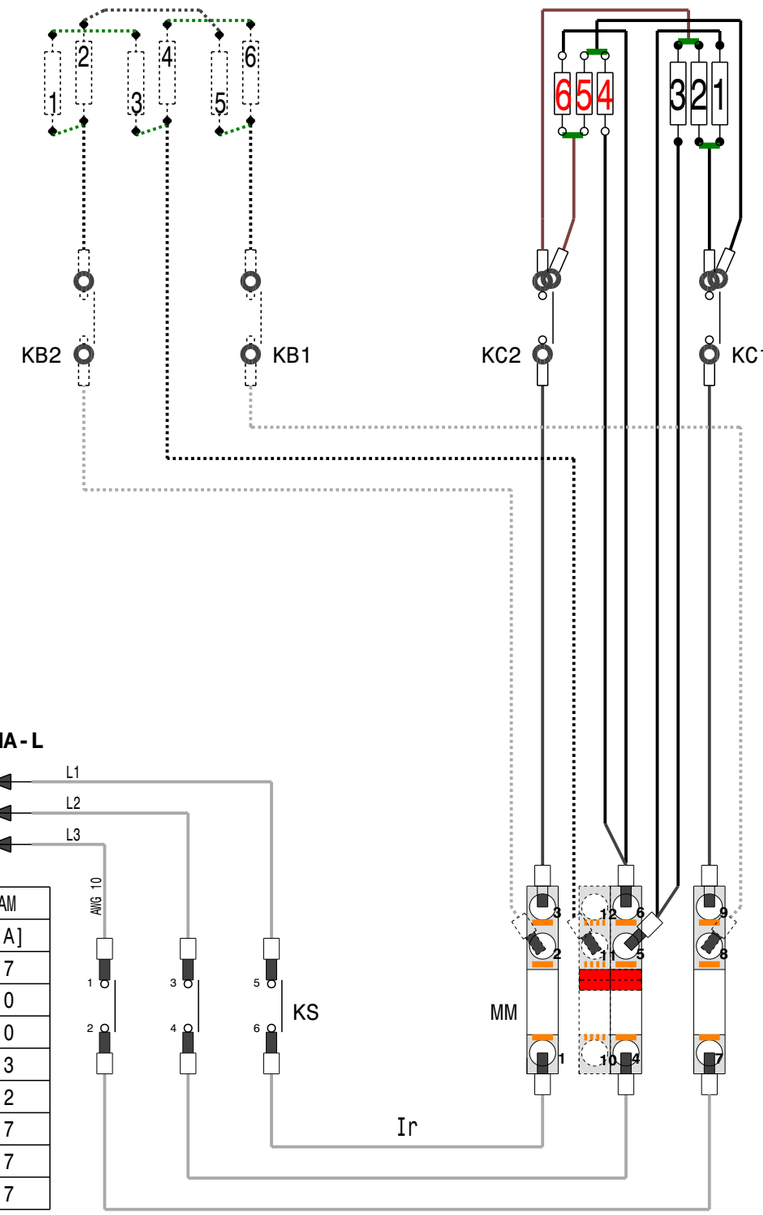
6 2/1 380-480V

BOILER



CAVITY

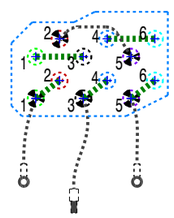




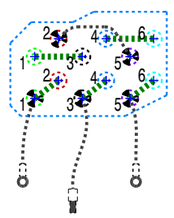
Rated Voltage [V]	Supply Voltage [V]	CONVECTION Ir [A]	STEAM Ir [A]
380-415	380	27.4	24.7
	400	28.9	26.0
	415	30.0	27.0
415-440	415	25.9	23.3
	430	26.9	24.2
	440	27.5	24.7
460-480	460	23.1	20.7
	480	24.1	21.7

10 2/1 380-480V

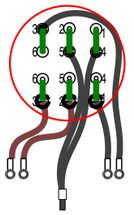
BOILER DOWN

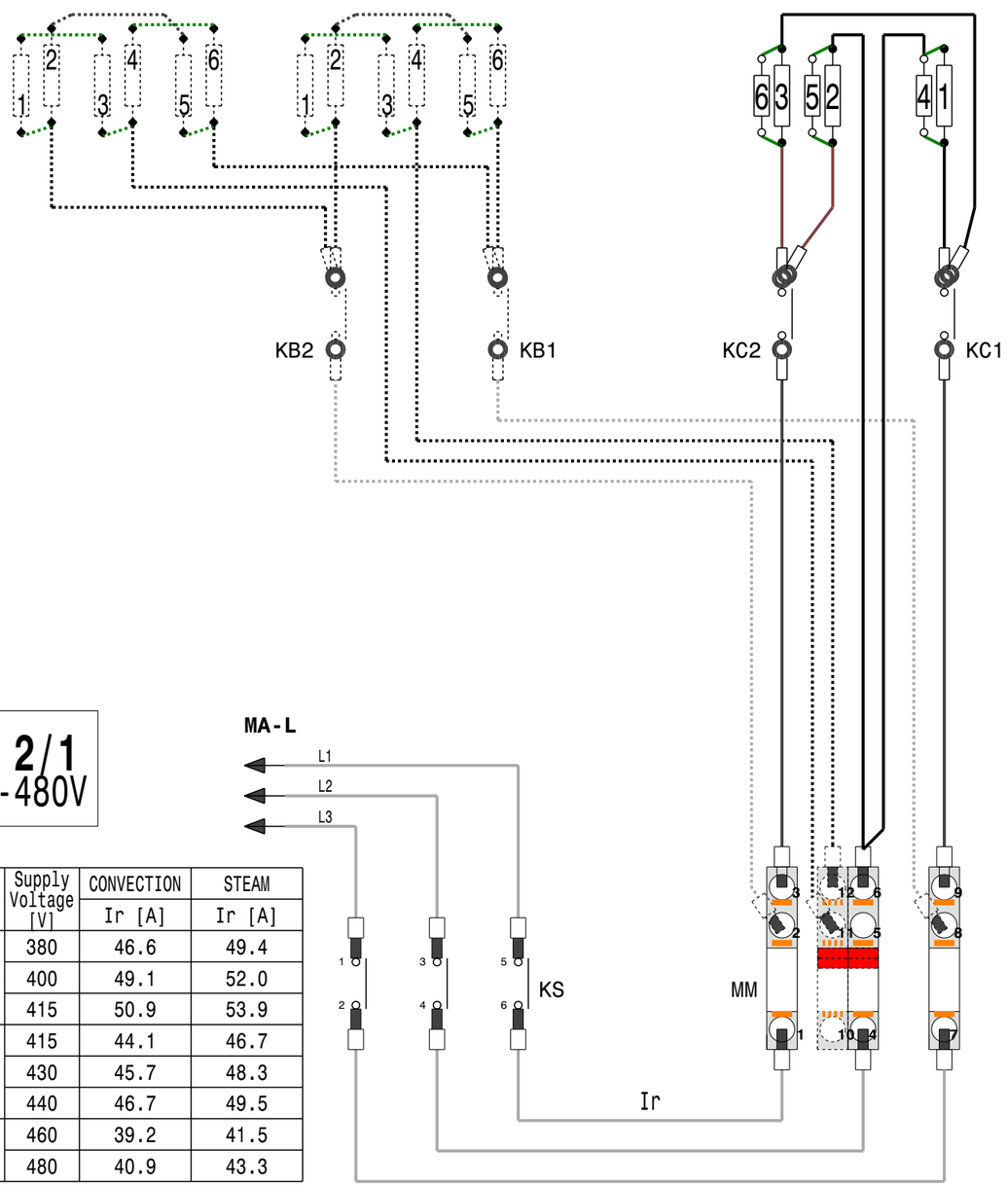


BOILER UP



CAVITY





Rated Voltage [V]	Supply Voltage [V]	CONVECTION Ir [A]	STEAM 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
	440	46.7	49.5
460-480	460	39.2	41.5
	480	40.9	43.3

COD 602402F01 | ELECTRIC DIAGRAM 6/10 "ELT" 380-480V 3-3N CKM | From S/N :