

REFERENCE AND TESTING CE/UL



Modification journal

Revision:	Date:	Modifications	Initials:
0	2009-06-04	Basic document, first edition	RZ
1	2009-06-29	Supplemented, Electrical Diagram Refrigerator (millevel low)	MBO
2	2010-07-14	Adjustment Hydraulic Diagram CTM	MBO
3	2010-10-12	Updated all electrical and hydraulic diagrams	SO
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Overview modifications

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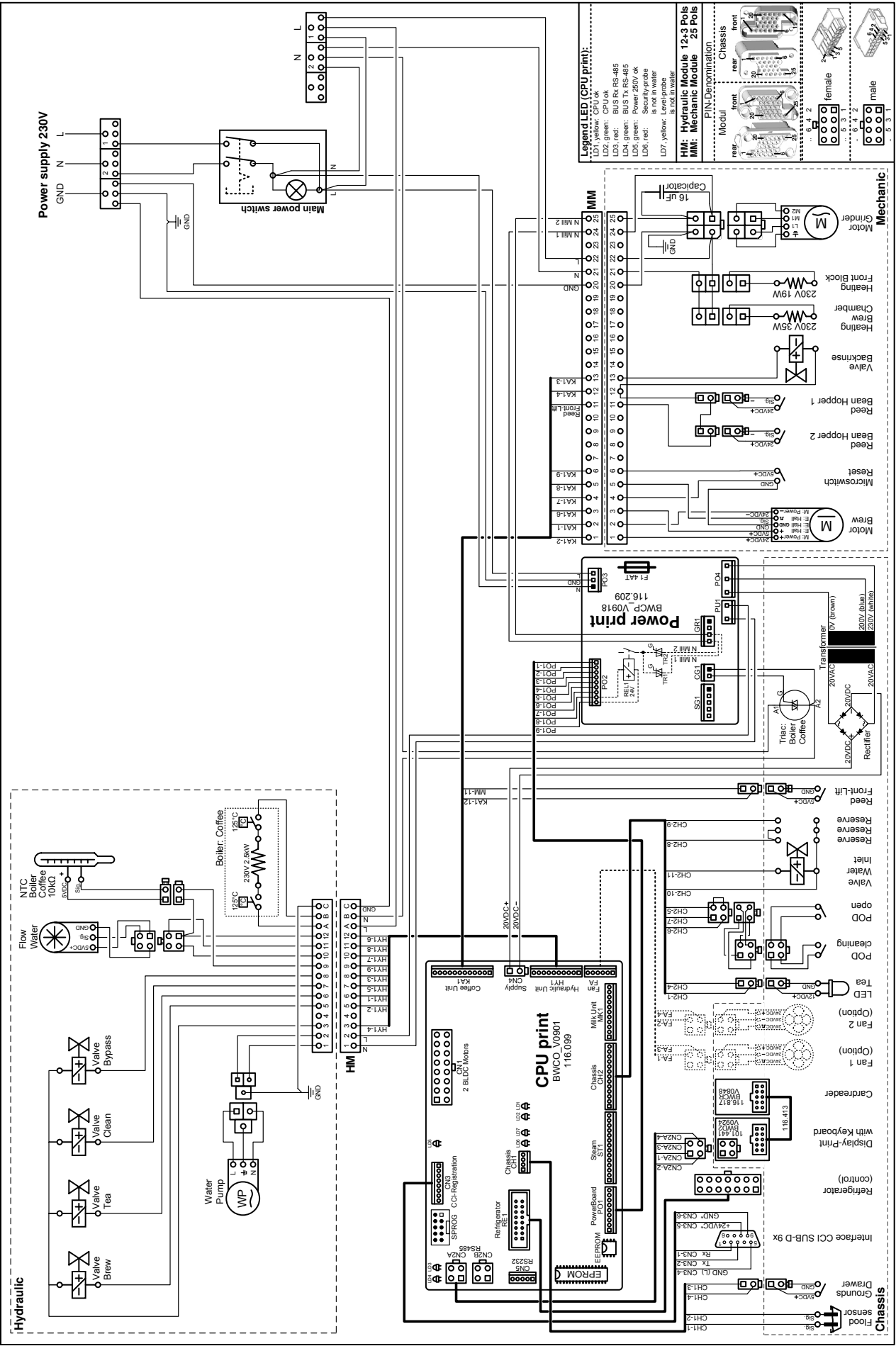
X	Changes in content, corrections	S	New paging
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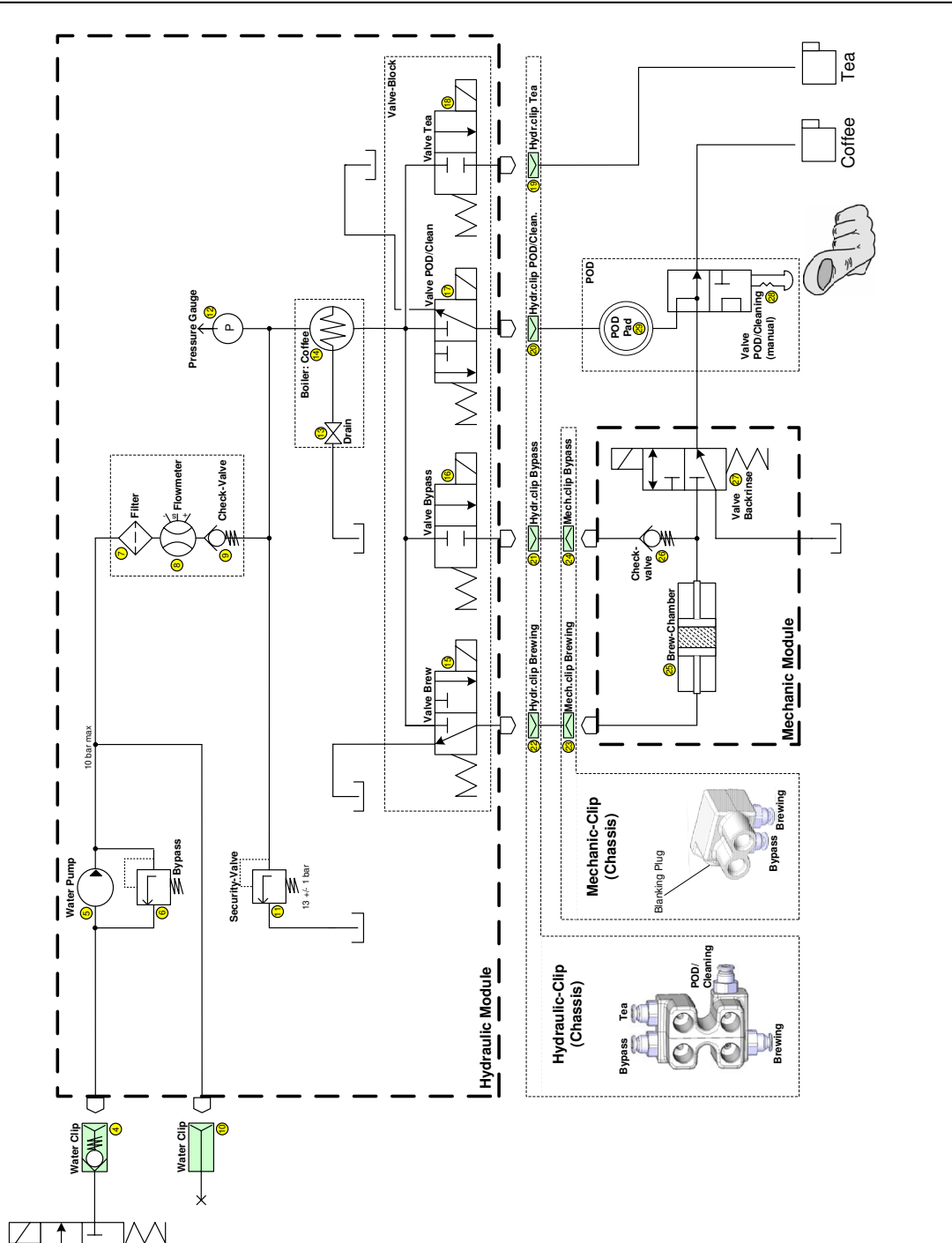
Coffee machine Black & White 2 v3: CT

thermoplan

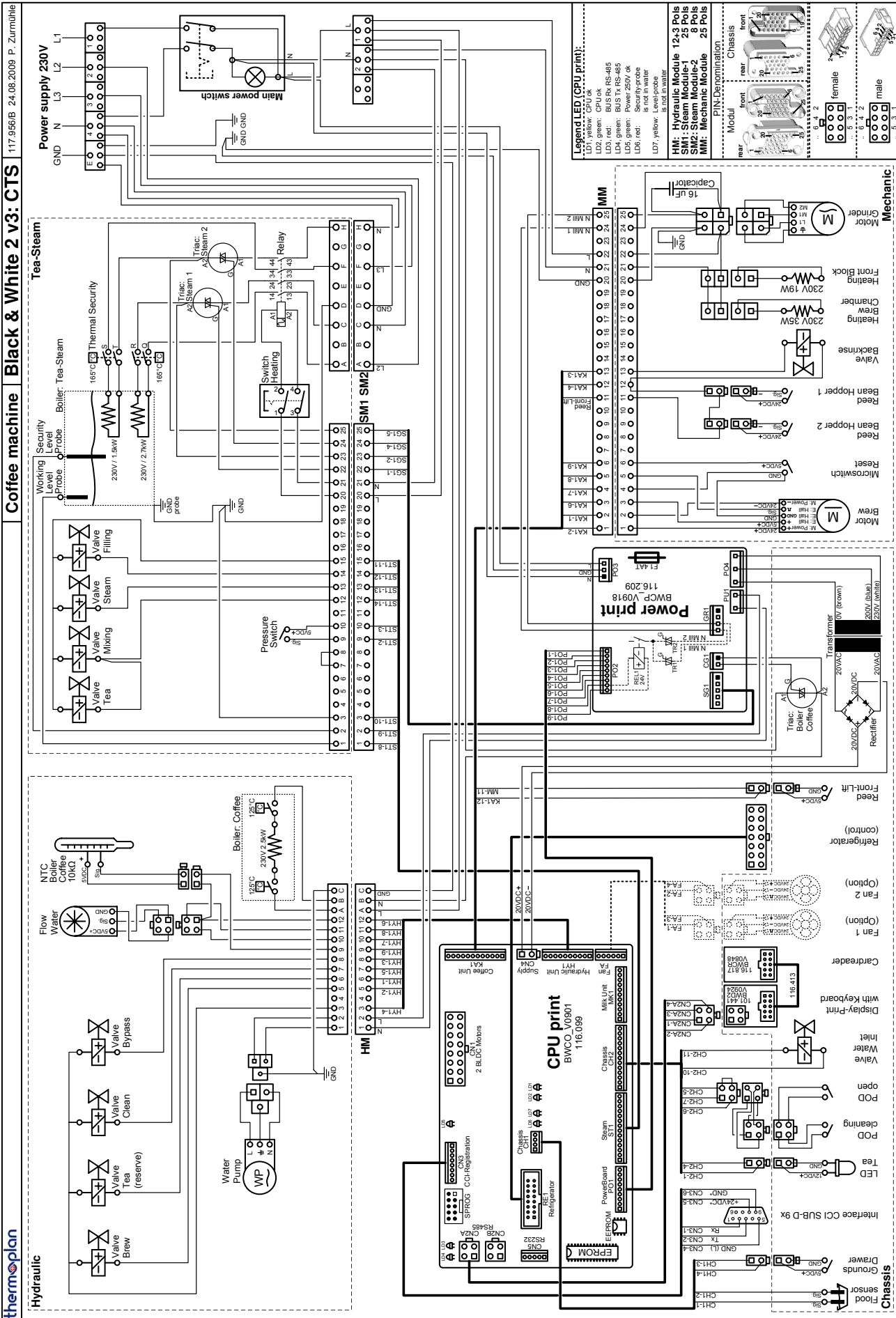
117.963/B 24.08.2009 P. Zurmühle



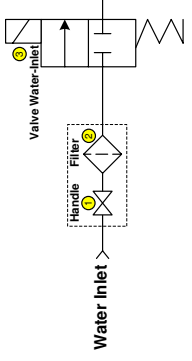
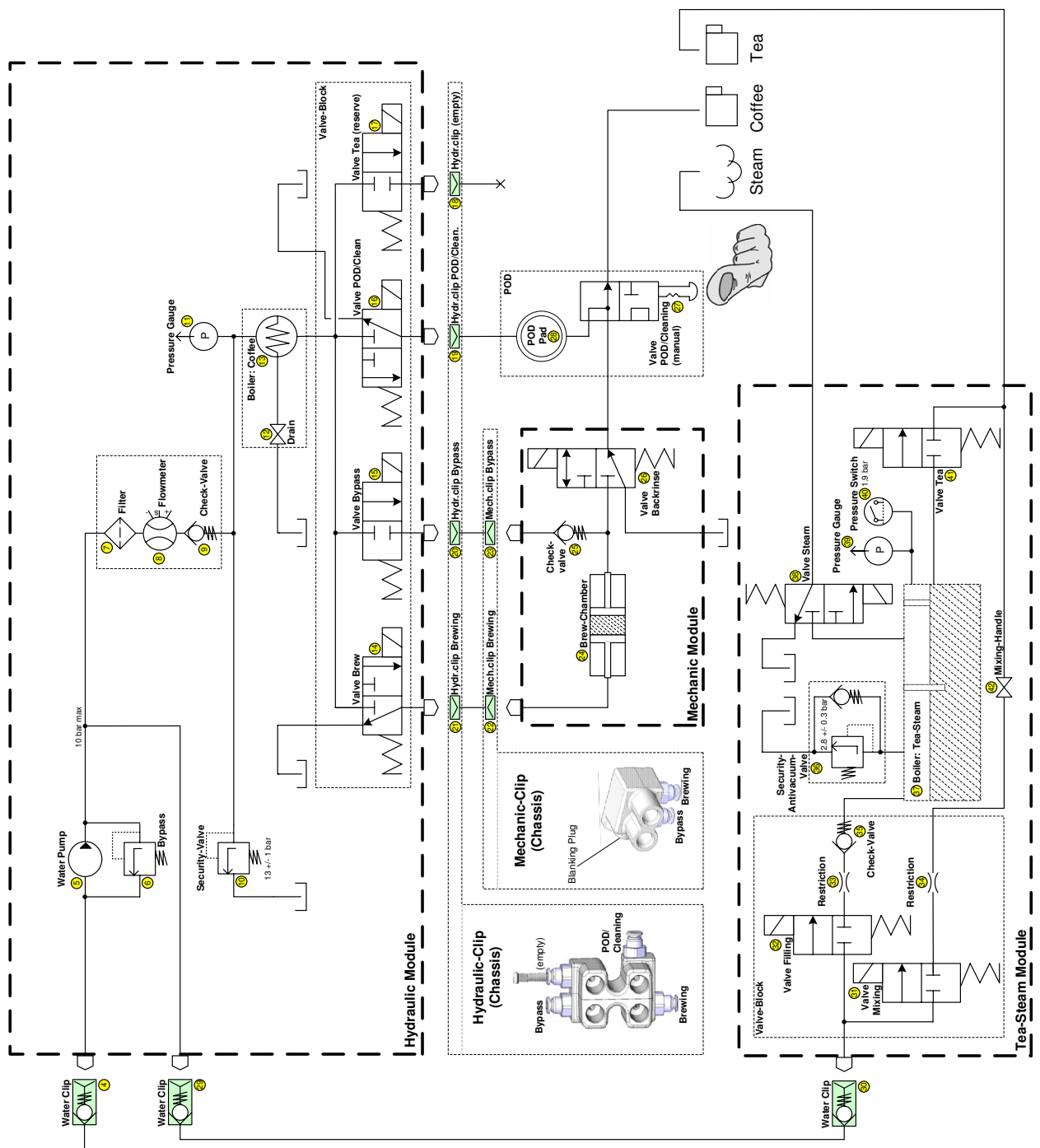
thermoplan | Schema Hydraulic | Coffee machine Black & White 2 v3: CT | 117.963/B | 24.08.2009 | P. Zurnühle



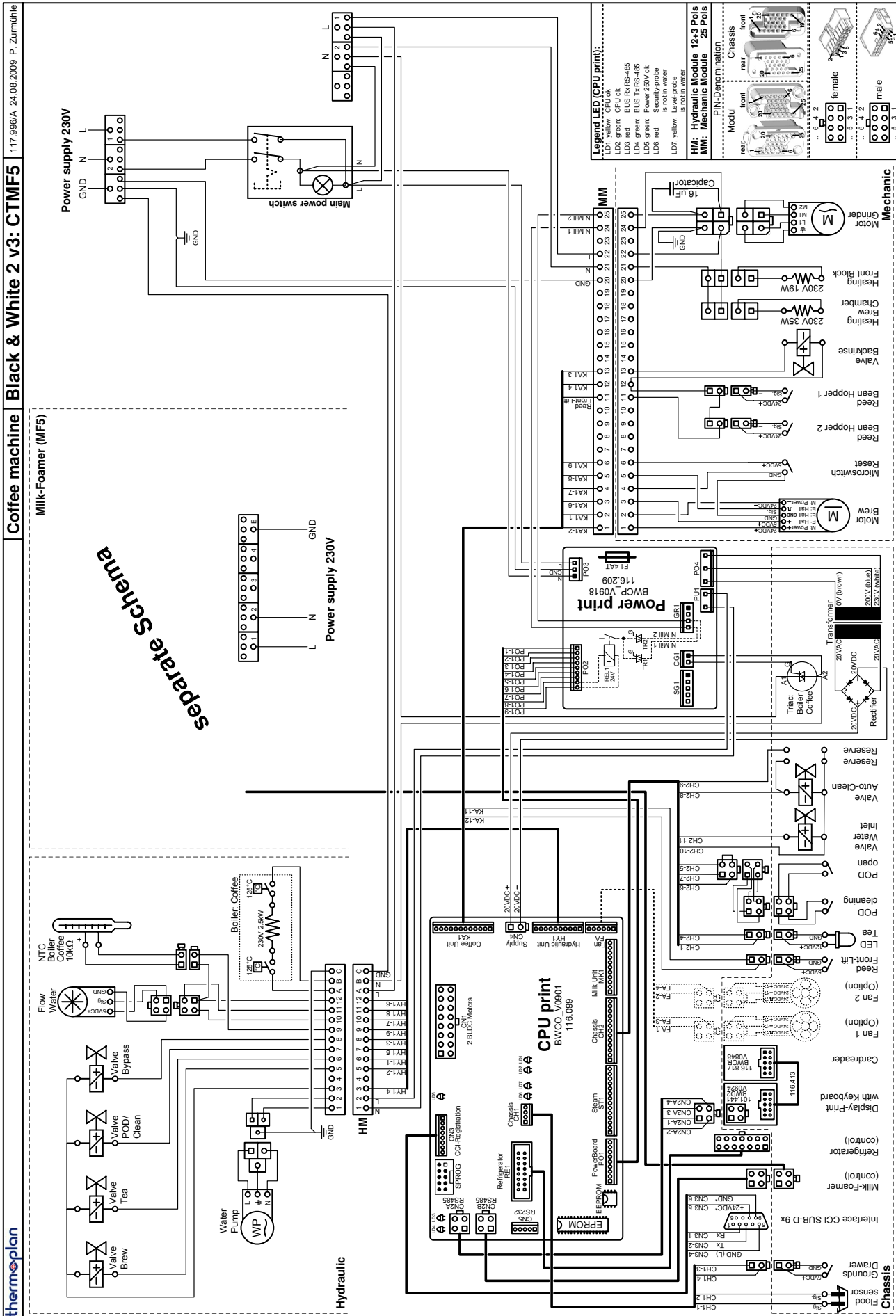
Nr. Components	Medium	Temp °C	Type
1. Handle (manual)	Water		
2. Filter	Water		
3. Valve Water-Inlet	Water		
4. Water Pump	Water		
5. Water Clip	Water		
6. Bypass 9 bar (adjustable)	Water		
7. Filter	Water		
8. Flowmeter	Water		
9. Check-Valve	Water		
10. Water Clip	Water		
11. Security-Valve (13 +/-1 bar)	Water		
12. Pressure Gauge	Water		
13. Drain	Water		
14. Boiler: Coffee	Water		
15. Valve Brew	Water		
16. Valve Bypass	Water		
17. Valve POD/Clean	Water		
18. Valve Tea	Water		
19. Hydraulic Clip Tea	Water		
20. Hydraulic Clip Bypass	Water		
21. Hydraulic Clip POD/Cleaning	Water		
22. Hydraulic Clip Bypass	Water		
23. Hydraulic Clip Brewing	Water		
24. Mechanic Clip Bypass	Water		
25. Brew-Chamber	Water		
26. Check-Valve	Water		
27. Valve Backrinse	Water		
28. Valve POD/Cleaning (manual)	Water		
29. POD Pad	Water		



thermoplan | Schema Hydraulic | Coffee machine Black & White 2 v3: CTS | 117.956/A, 24.08.2009, P. Zumühle

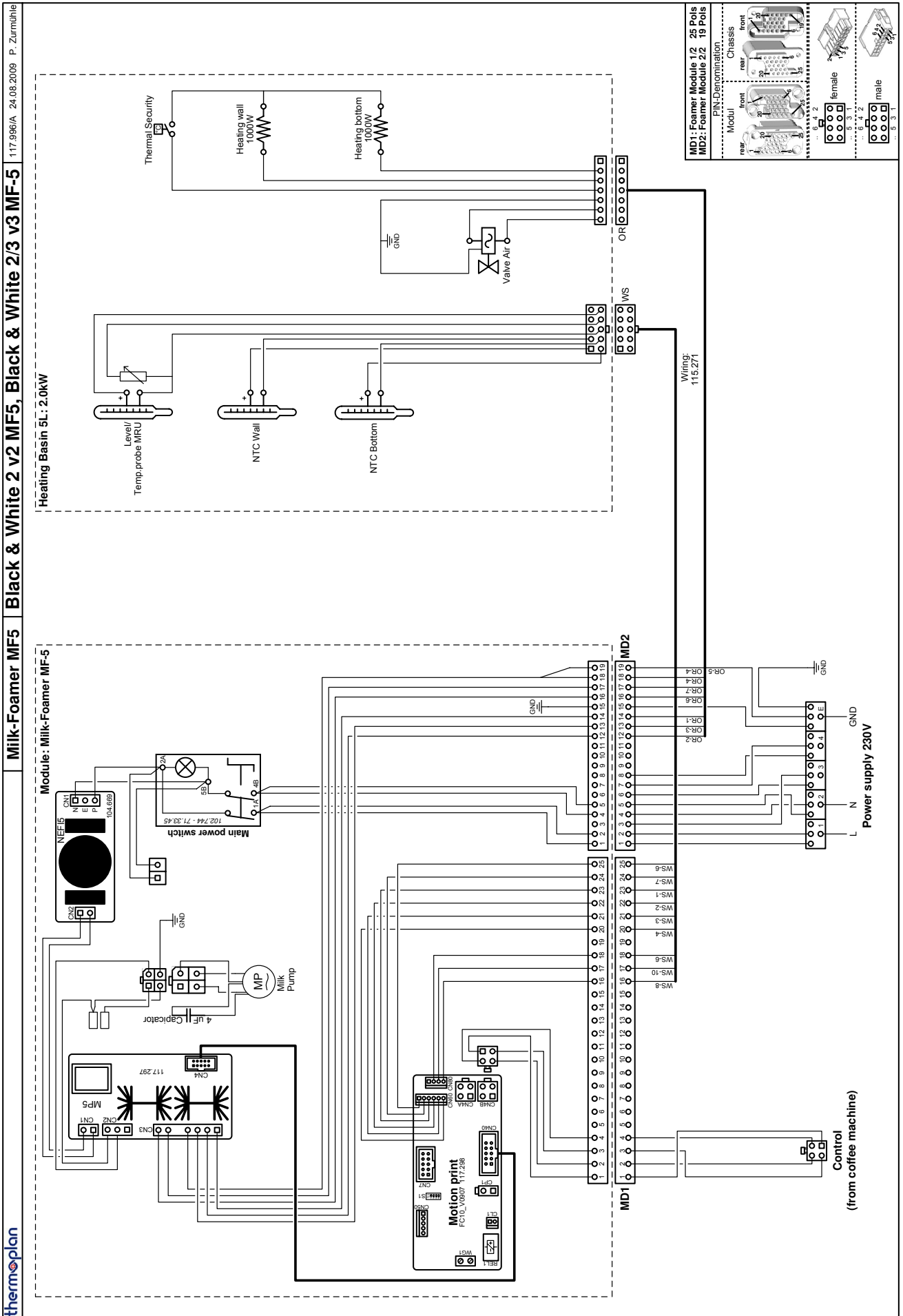


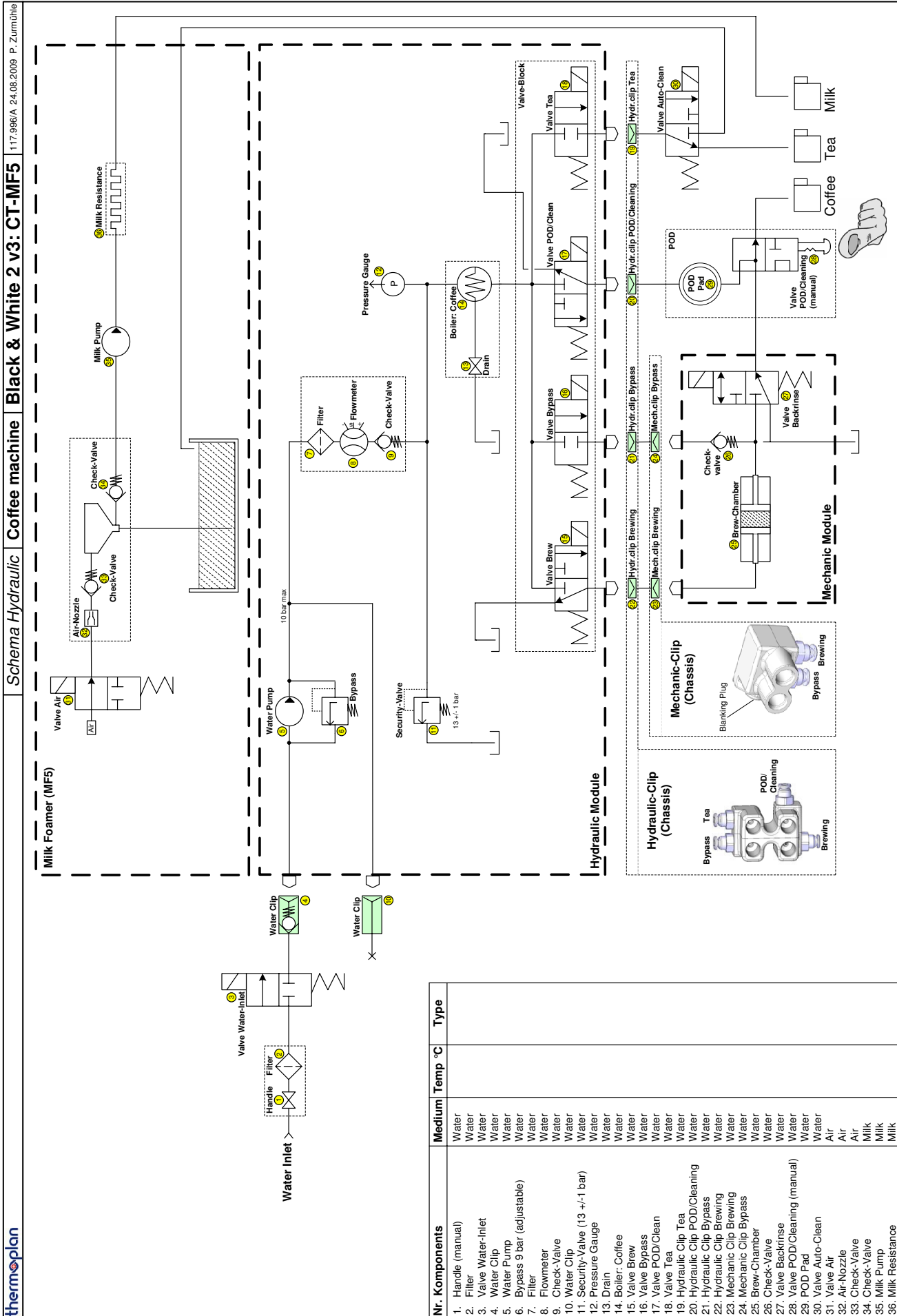
Nr. Komponenten	Medium	Temp °C	Type
1. Handle (manual)	Water		
2. Filter	Water		
3. Valve Water-Inlet	Water		
4. Water Clip	Water		
5. Water Pump	Water		
6. Bypass 9 bar (adjustable)	Water		
7. Flowmeter	Water		
8. Check-Valve	Water		
9. Security-Valve (13 +/-1 bar)	Water		
10. Pressure Gauge	Water		
11. Drain	Water		
12. Boiler: Coffee	Water		
13. Valve Brew	Water		
14. Valve Bypass	Water		
15. Valve POD/Clean	Water		
16. Valve Tea (reserve)	Water		
17. Hydrclip (empty)	Water		
18. Hydrclip (empty)	Water		
19. Hydrclip POD/Cleaning	Water		
20. Hydrclip Bypass	Water		
21. Hydrclip Brew	Water		
22. Mechanic Clip Bypass	Water		
23. Brew-Chamber	Water		
24. Check-Valve	Water		
25. Valve Backrinse	Water		
26. Valve POD/Cleaning (manual)	Water		
27. POD Pad	Water		
28. Water Clip	Water		
29. Water Clip	Water		
30. Water Clip	Water		
31. Valve Mixing	Water		
32. Valve Filling	Water		
33. Restriction	Water		
34. Restriction	Water		
35. Check-Valve	Water		
36. Security-Antivacuum-Valve	Steam		
37. Boiler: Tea-Steam	Water		
38. Valve Steam	Steam		
39. Pressure Gauge	Steam		
40. Pressure Switch (1.9bar)	Water		
41. Valve Tea	Water		
42. Mixing-Handle	Water		

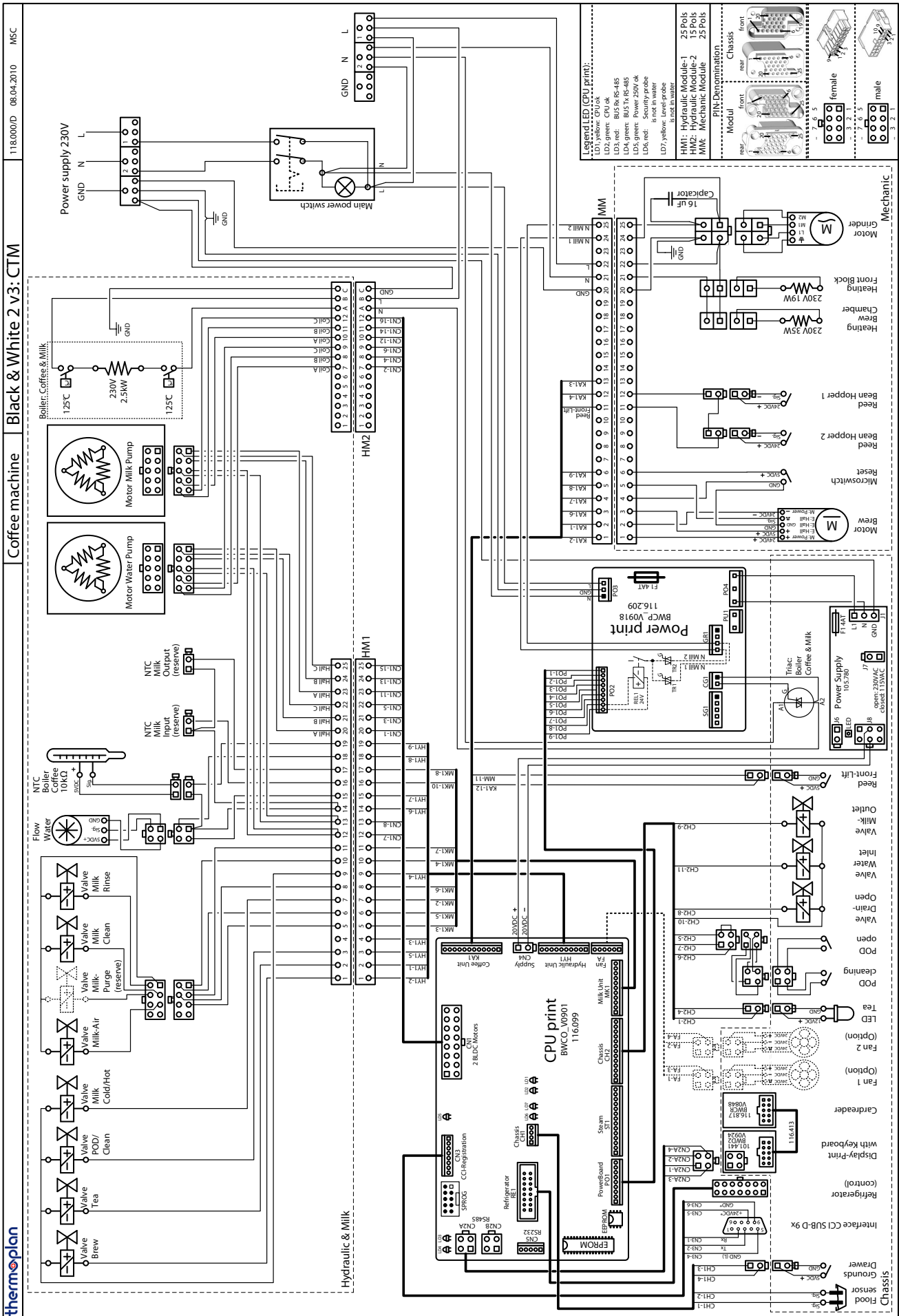


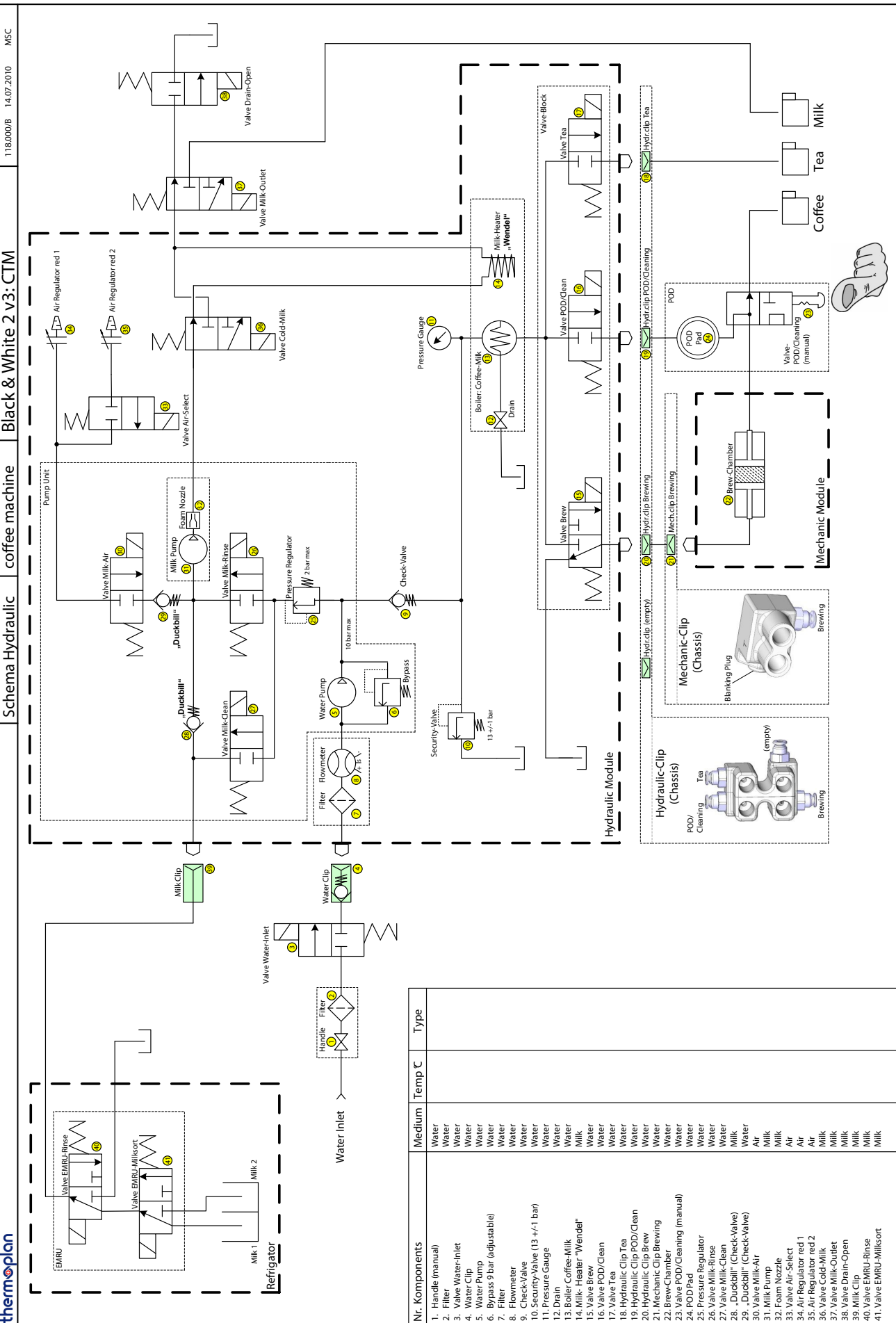
Electrical Diagram CTMF

SECTION 7









118.000/B 14.07.2010 MSC

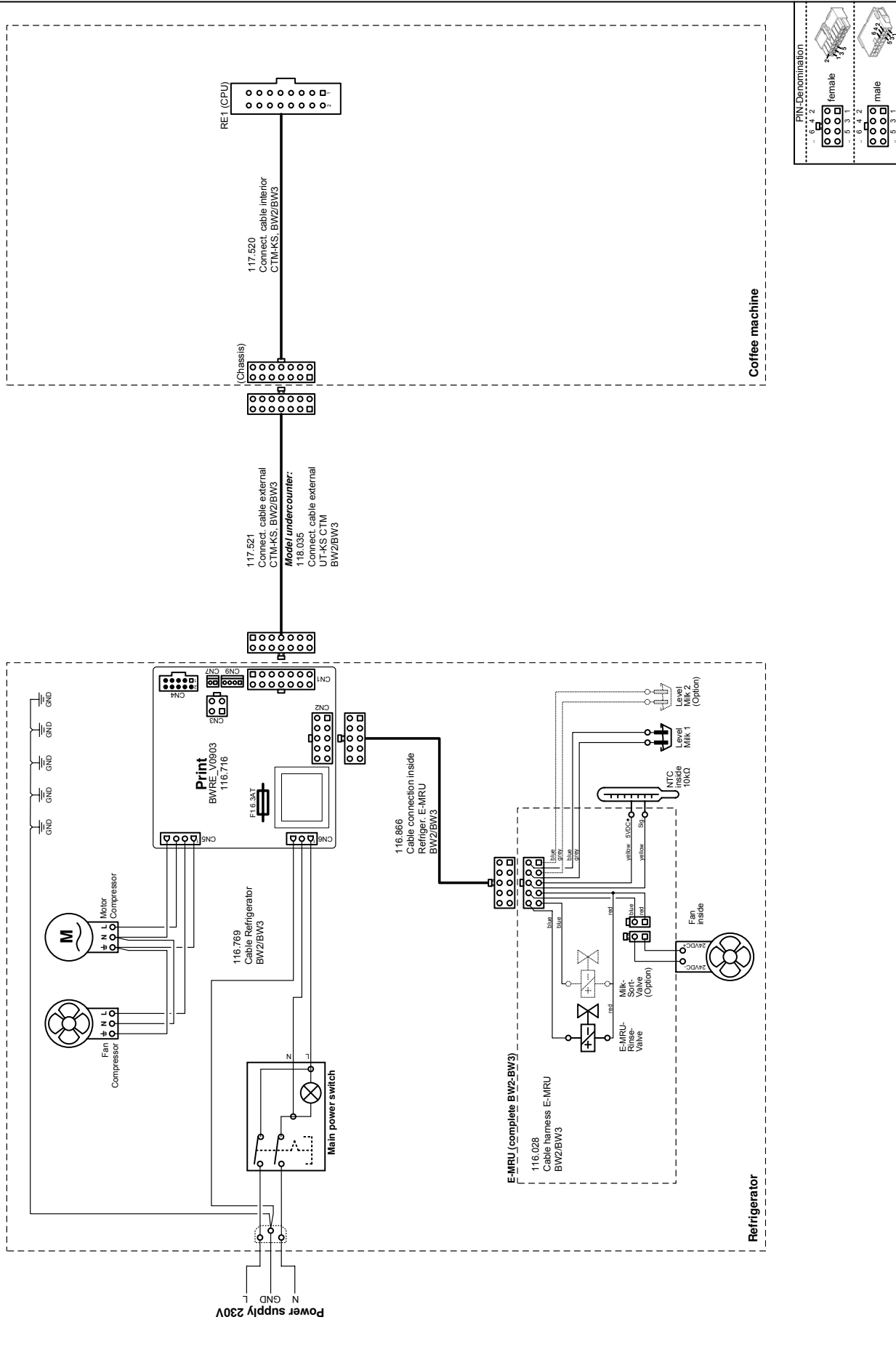
Black & White 2 v3: CTM

Schema Hydraulic coffee machine

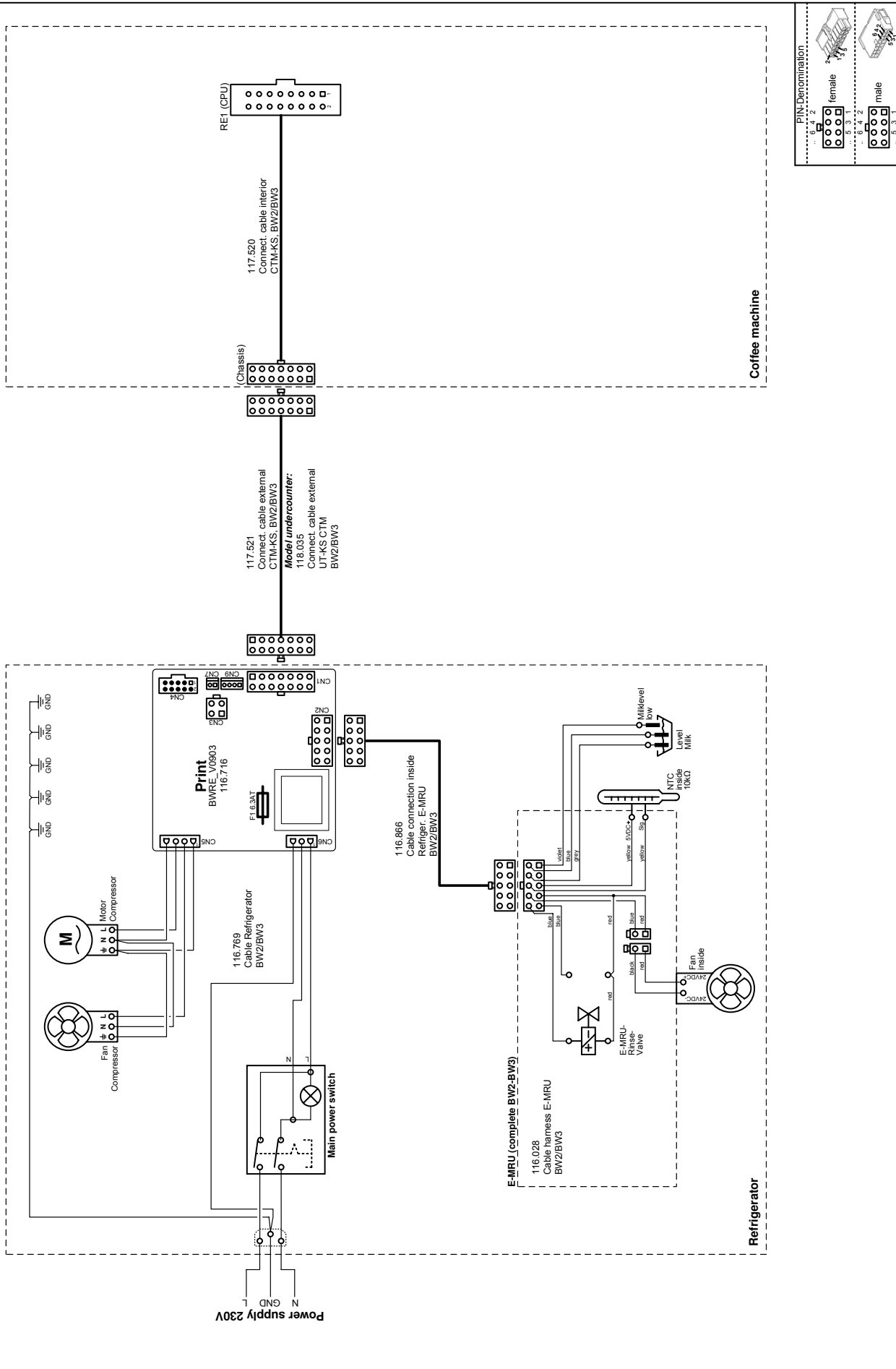
thermoplan

Nr. Komponenten	Medium	Temp °C	Type
1. Handle (manual)	Water		
2. Filter	Water		
3. Valve Water-Inlet	Water		
4. Water Clip	Water		
5. Water Pump	Water		
6. Bypass 9 bar (adjustable)	Water		
7. Filter	Water		
8. Flowmeter	Water		
9. Check-Valve	Water		
10. Security-Valve (13 +/-1 bar)	Water		
11. Pressure Gauge	Water		
12. Drain	Water		
13. Boiler Coffee-Milk	Milk		
14. Milk-Heater "Wendel"	Water		
15. Valve Brew	Water		
16. Valve POD/Clean	Water		
17. Valve Tea	Water		
18. Hydraulic Clip Tea	Water		
19. Hydraulic Clip POD/Clean	Water		
20. Hydraulic Clip Brew	Water		
21. Mechanical Clip Brewing	Water		
22. Brew-Chamber	Water		
23. Valve POD/Cleaning (manual)	Water		
24. POD Pad	Water		
25. Pressure Regulator	Water		
26. Valve Milk-Rinse	Water		
27. Valve Milk-Clean	Water		
28. "Duckbill" (Check-Valve)	Milk		
29. "Duckbill" (Check-Valve)	Water		
30. Valve Milk-Air	Air		
31. Milk Pump	Milk		
32. Foam Nozzle	Milk		
33. Valve Air-Select	Air		
34. Air Regulator red 1	Air		
35. Air Regulator red 2	Air		
36. Valve Cold-Milk	Milk		
37. Valve Milk-Outlet	Milk		
38. Valve Drain-Open	Milk		
39. Milk Clip	Milk		
40. Valve EMRU-Rinse	Milk		
41. Valve EMRU-Milkscort	Milk		

thermoplan Refrigerator 230V Black & White 2/3 v3 117.182/9 29.10.2009 P. Zumühle



Refrigerator 230V Milklevel low Black & White 2/3 v3 117.182/A 16.10.2009 P. Zurmühle



Refrigerator undercounter | Black & White 2/3 v3 | REV-A, 27.05.2009 P. Zurmühle

