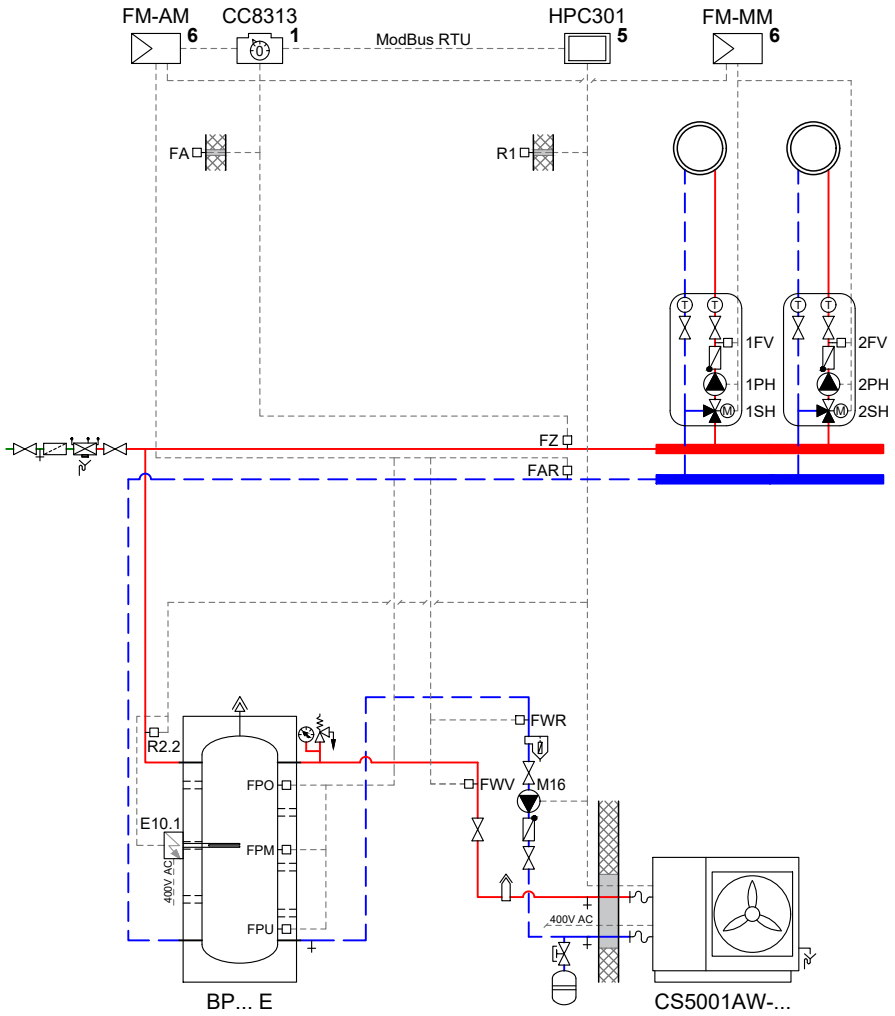
System schematic

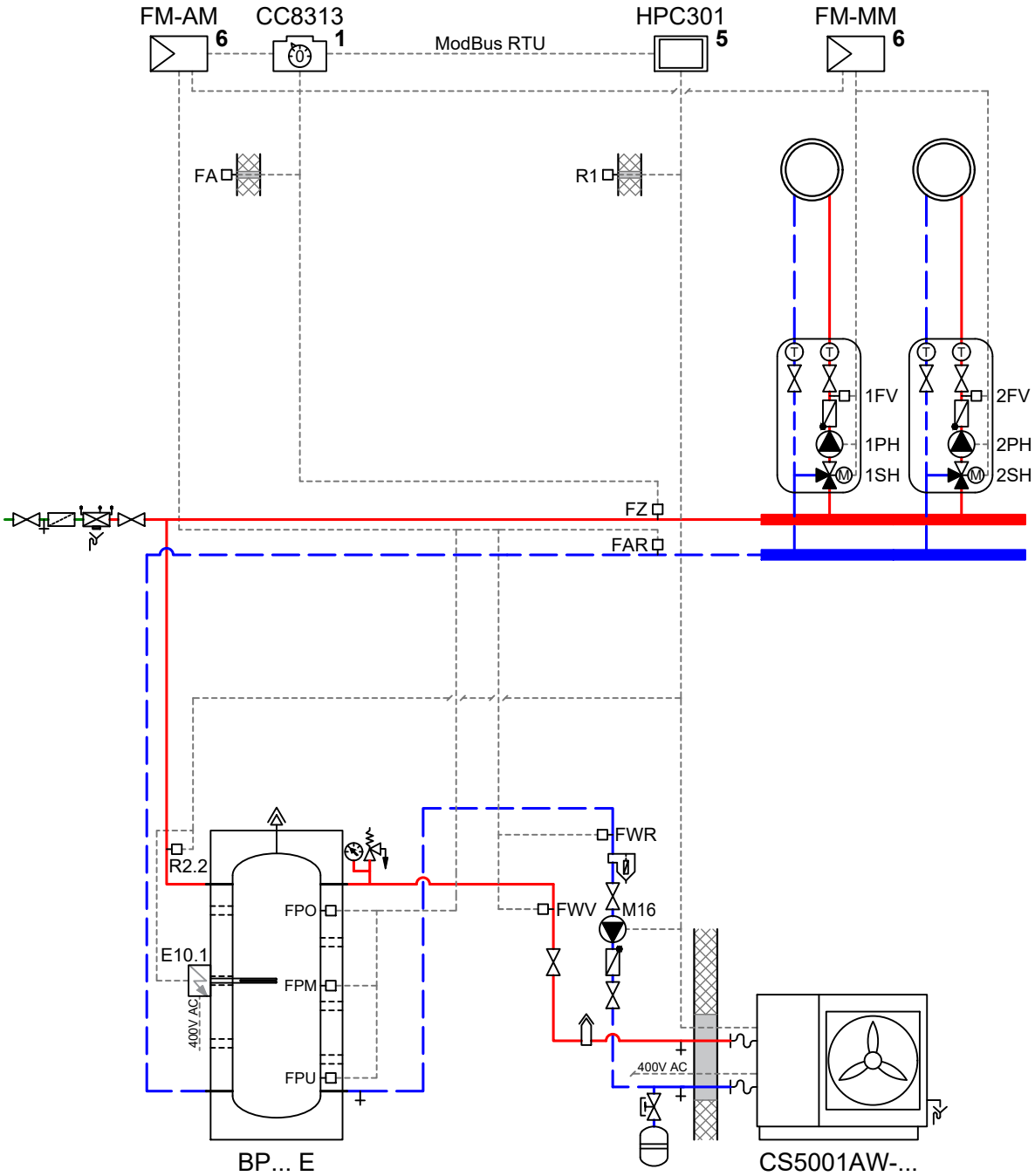
Compress CS5001 AW- ...

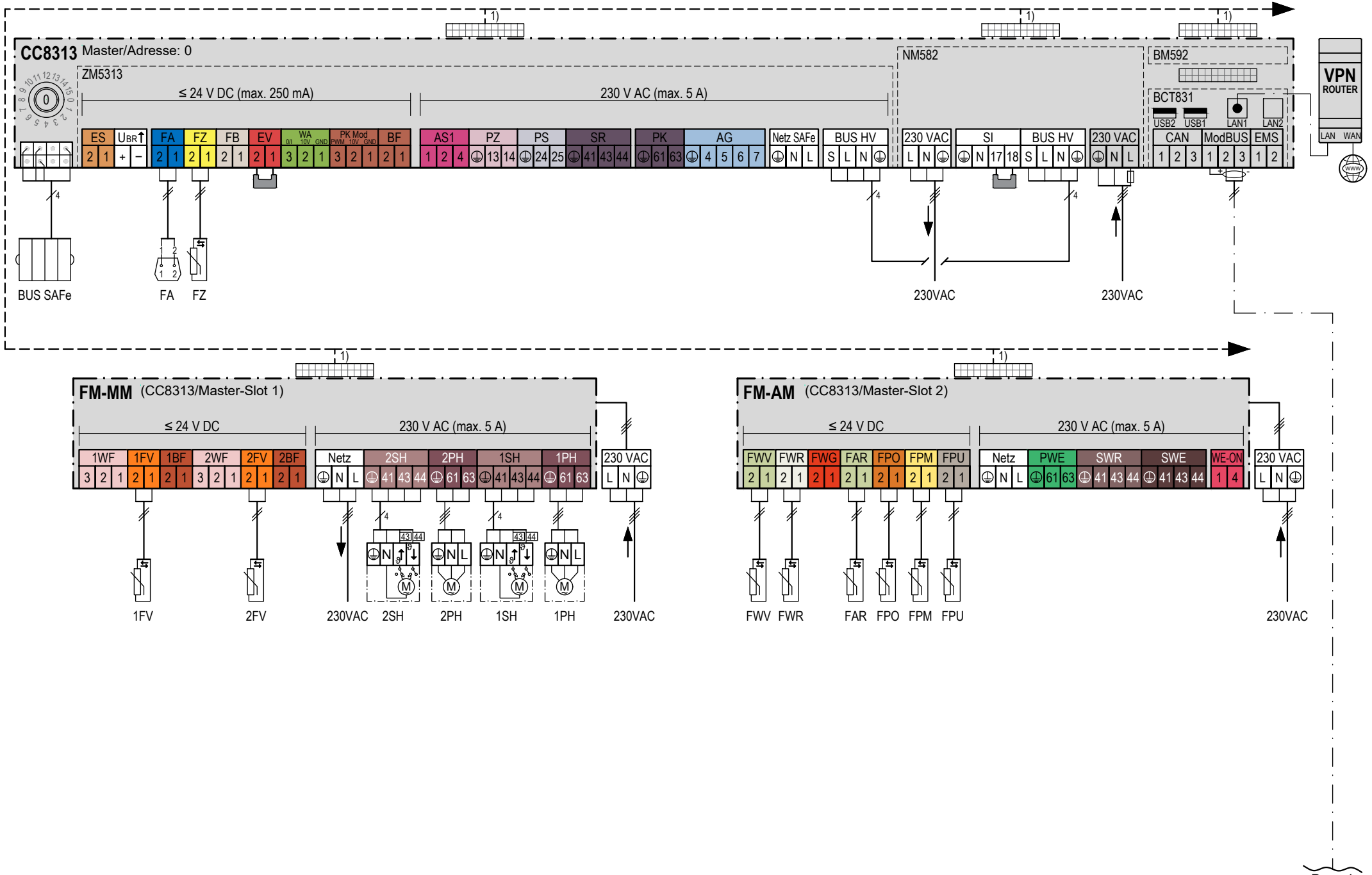
System example for qualified contractors



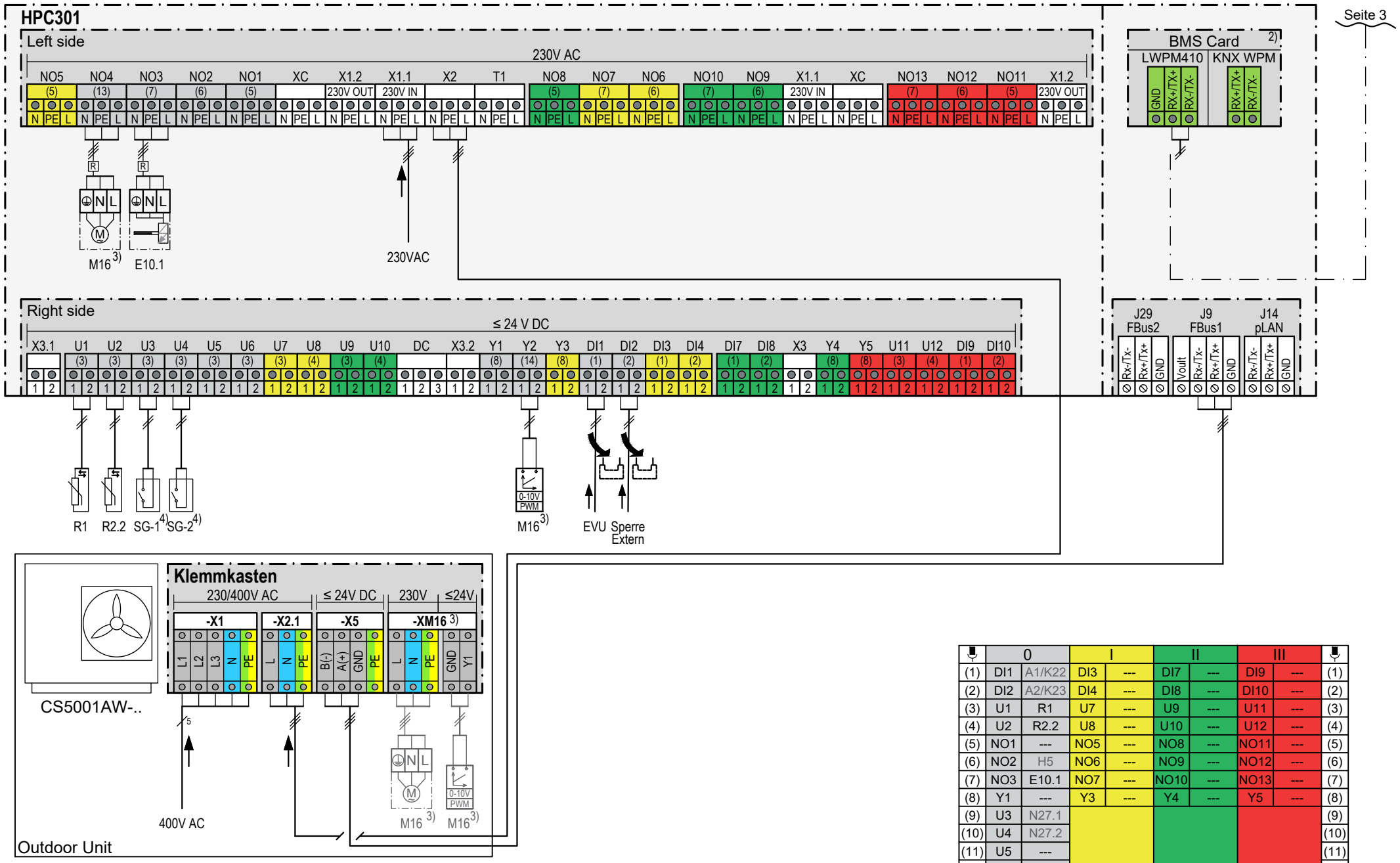
Hydraulic components:

- Air-to-water heat pump
- Buffer tank
- Heating circuits
- Control system CC8000


FM-AM
6
CC8313
1
ModBus RTU
HPC301
5
FM-MM
6
FA
R1
1FV
1PH
1SH
2FV
2PH
2SH
FZ
FAR
R2.2
FPO
FPM
FPU
E10.1
400V AC
FWR
FWV
M16
400V AC
BP... E
CS5001AW-...



1) Internal bus in the control unit



	0		I		II		III		
(1)	DI1	A1/K22	DI3	---	DI7	---	DI9	---	(1)
(2)	DI2	A2/K23	DI4	---	DI8	---	DI10	---	(2)
(3)	U1	R1	U7	---	U9	---	U11	---	(3)
(4)	U2	R2.2	U8	---	U10	---	U12	---	(4)
(5)	NO1	---	NO5	---	NO8	---	NO11	---	(5)
(6)	NO2	H5	NO6	---	NO9	---	NO12	---	(6)
(7)	NO3	E10.1	NO7	---	NO10	---	NO13	---	(7)
(8)	Y1	---	Y3	---	Y4	---	Y5	---	(8)
(9)	U3	N27.1							(9)
(10)	U4	N27.2							(10)
(11)	U5	---							(11)
(12)	U6	---							(12)
(13)	NO4	M16 3)							(13)
(14)	Y2	M16 3)							(14)

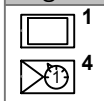
1) Speed control optional
2) Additional equipment - only one card can be installed (LWPM410 or KNX WPM).
3) Alternative connection option for M16: to XM16 in the outdoor unit (voltage and speed control)
4) Optional

General information

- Heat supply for mixed and unmixed heating circuits via a buffer tank connected in parallel. The FM-AM function module handles the heat pump control and loading of the buffer tank with a floating system setpoint.
- The heating circuits are controlled by means of CC8000 and function module FM-MM.
- The highest flow temperature setpoint of the heating circuits determines the system setpoint, which is transmitted to the heat pump via ModBus and determines the temperature level for loading the buffer tank. In order to supply the heating circuits with sufficient heat even below the bivalence point, the buffer tank must be equipped with an electric auxiliary heater E10.1 (heating element or electric heater TH3500). This is requested by the heat pump controller when required.
- The temperature sensor R2.2 should be placed directly at the storage tank outlet.
- An additional heat source (E10.1) must be provided in the hydraulic system to ensure the frost protection of the heat pump in all operating conditions.

Weitere Hinweise

This schematic diagram is a non-binding representation of a possible hydraulic circuit.
The dimensions and the location of the connections can be found in the respective installation instructions.
The electrical wiring is shown in detail in the wiring diagrams.
Safety devices must be installed in accordance with currently applicable standards and local regulations.

Symbol	Description
Regulators and modules position	
	1 at the heat/cooling generator 2 at the heat/cooling generator or on the wall 3 in the station 4 in the station or on the wall 5 on the wall 6 in the control unit

Symbol	Description	Symbol	Description	Symbol	Description	Symbol	Description	Symbol	Description
Piping/Electrical wiring									
	Flow - Heating/Solar		Flow Brine		Domestic hot water		Domestic cold water		Electrical wiring
	Return - Heating/Solar		Return Brine		Domestic hot water circulation		Refrigeration system		Electrical wiring with a break
Actuators/Valves/Temperature Sensors/Pumps									
	Ventil		Revisionsbypass		Balancing valve		Overflow valve		Shout-off valve with dirt trap (with or without magnet)
	Kappenventil		Shut-off valve with actuator		Shut-off valve with therm. thermostatic actuator or anti-freeze valve		Absperrventil, magnetically controlled		Differential pressure regulator
	3-way valve with actuator (mixing)		3-way valve with actuator (distributing)		3-way valve with thermostatic actuator		Pumpe		Check valve
	3-way valve with actuator (switching)		3-way valve with actuator (switching, adjustable)		4-way valve with actuator		Safety valve		Safety group
	Temperature sensor		Safety temperature limiter		Flue gas temperature sensor		Flue gas temperature limiter		Outdoor temperature sensor
Miscellaneous									
	Radio (e.g., Controller, Sensor)		Thermometer		Manometer		Drain funnel with odor trap		Filling/draining valve
	Relay		Automatic/manual air vent		Air separator		Dirt trap		Magnetite/Sludge separator
	Compensator		Domestic hot water outlet		Heat meter		Volumetric flow meter		Collection tank
	Low loss header with sensor		Heat exchanger		System separation according to EN1717		Expansion vessel with cape valve		Immersion heater
	Heating circuit		Underfloor heating circuit		Ventilation heating circuit		Swimming pool heating circuit		Circuit function (Heating/Cooling)