Optiheat Economy

OH 1-22e – OH 1-33e
Brine/water

Technical documentation

AC Cooling Heating

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Technical data
Optiheat Economy

Dimension drawing
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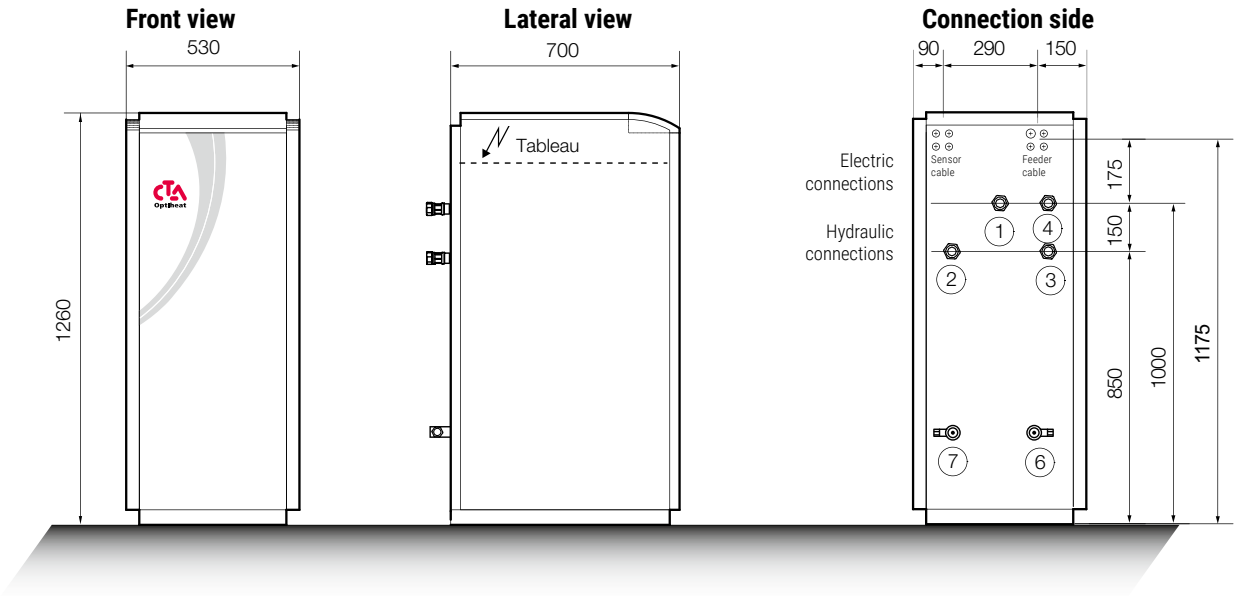
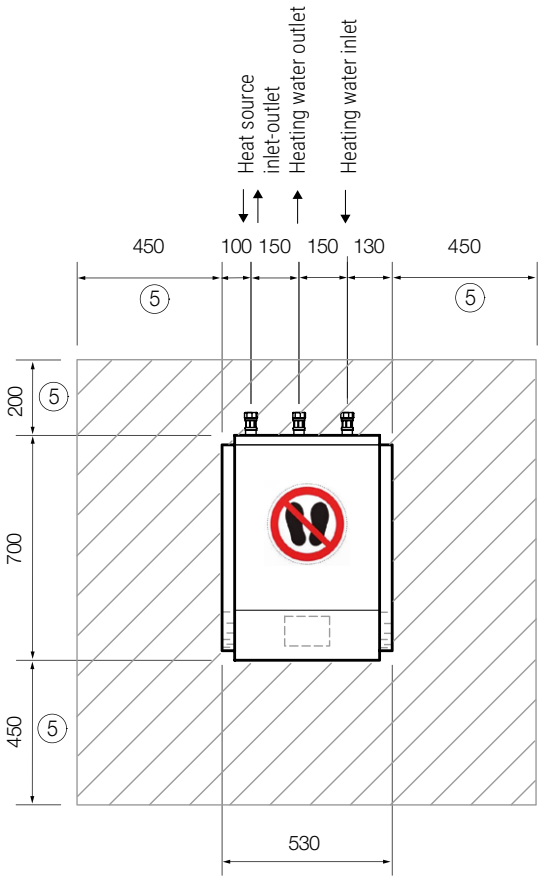
OH 1-22e to OH 1-33e, brine/water with Optiplus controller



Layout



Legend

1 Heating water outlet
2 Heating water inlet
3 Heat source outlet
4 Heat source inlet
5 Minimum distances
6 Filling/emptying nozzles ¾" source circuit
7 Filling/emptying nozzles ¾" heating circuit

All dimensions are in mm

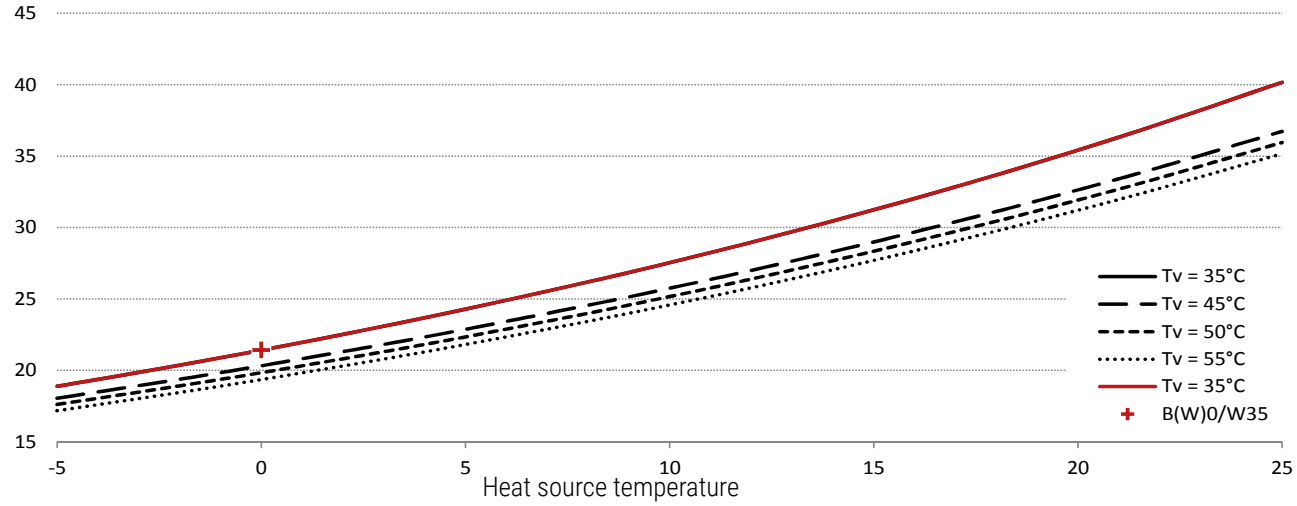
The external sensor (QAC 34/101) and the documents are enclosed in the electric panel.

Power curves
Optiheat OH 1-22e

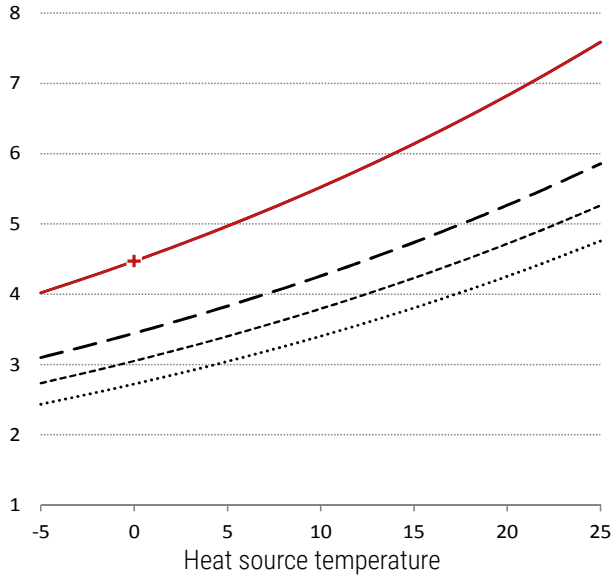
Volume flow source minimum / nominal / standard **3.8/4.3/5.0 m³/h**
Volume flow heater minimum / nominal / standard **1.8/2.6/3.7 m³/h**

Performance data as per EN 14511

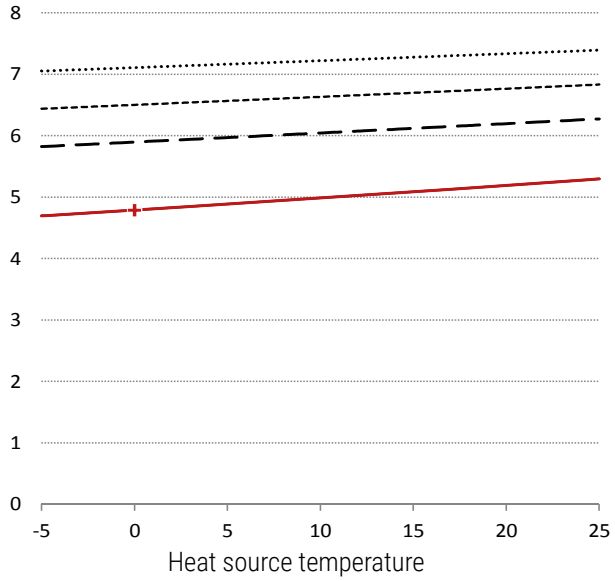
Heat output in kW



Electric output in kW



Performance data COP

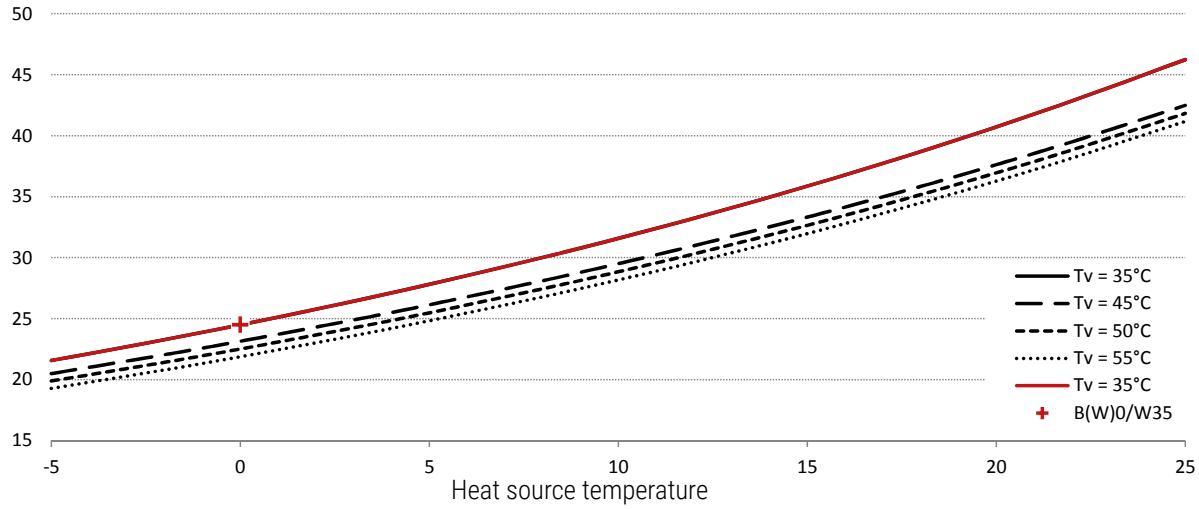


Power curves
Optiheat OH 1-25e

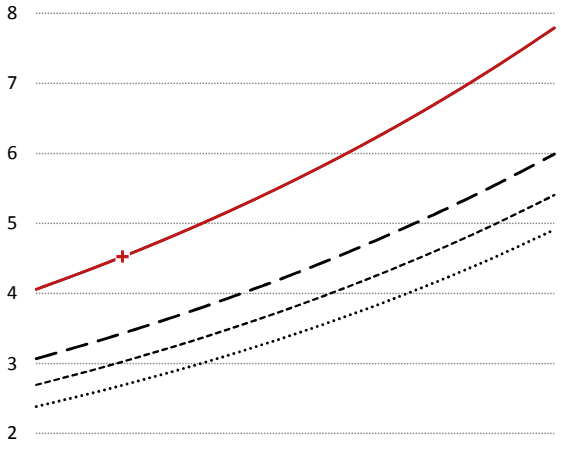
Volume flow source minimum / nominal / standard **4.3/5.0/5.8 m³/h**
Volume flow heater minimum / nominal / standard **21./3.0/4.2 m³/h**

Performance data as per EN 14511

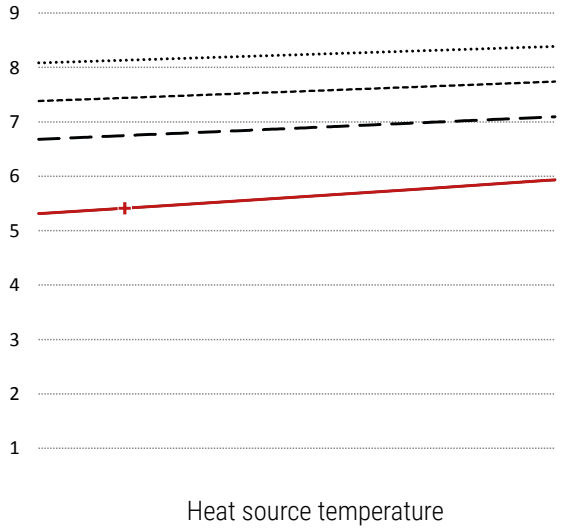
Heat output in kW



Electric output in kW



Performance data COP

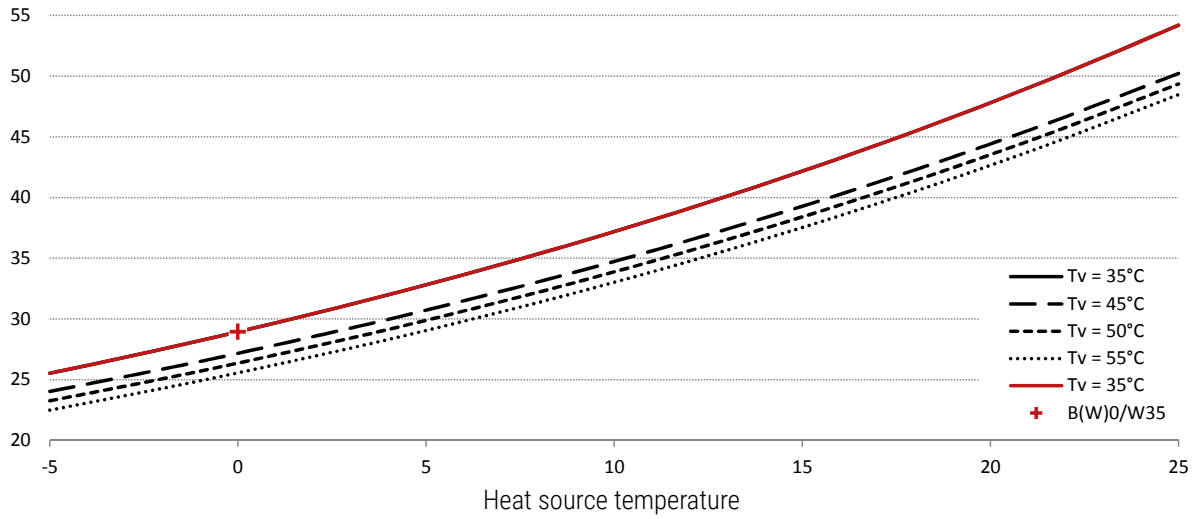


Power curves
Optiheat OH 1-29e

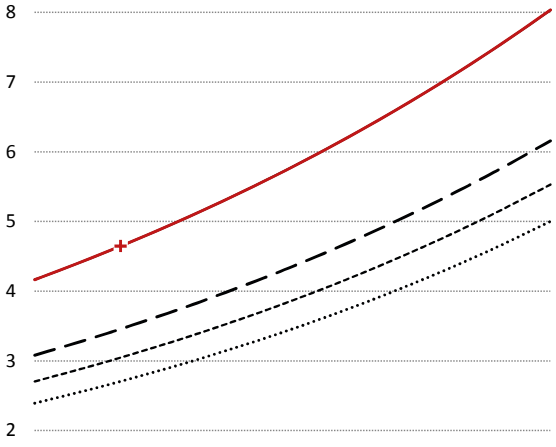
Volume flow source minimum / nominal / standard **5.2/5.9/6.9 m³/h**
Volume flow heater minimum / nominal / standard **2.5/3.6/5.0 m³/h**

Performance data as per EN 14511

Heat output in kW



Electric output in kW



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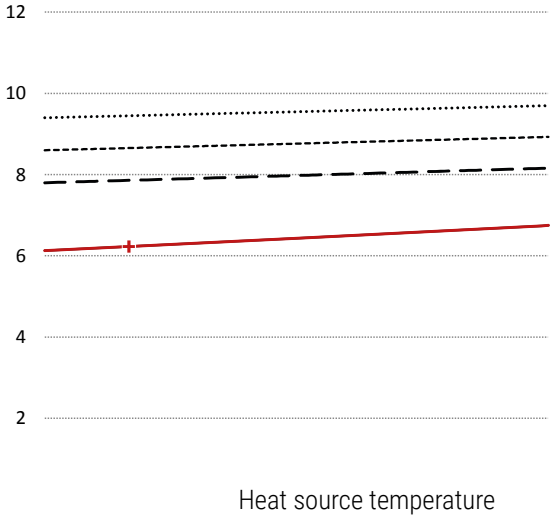
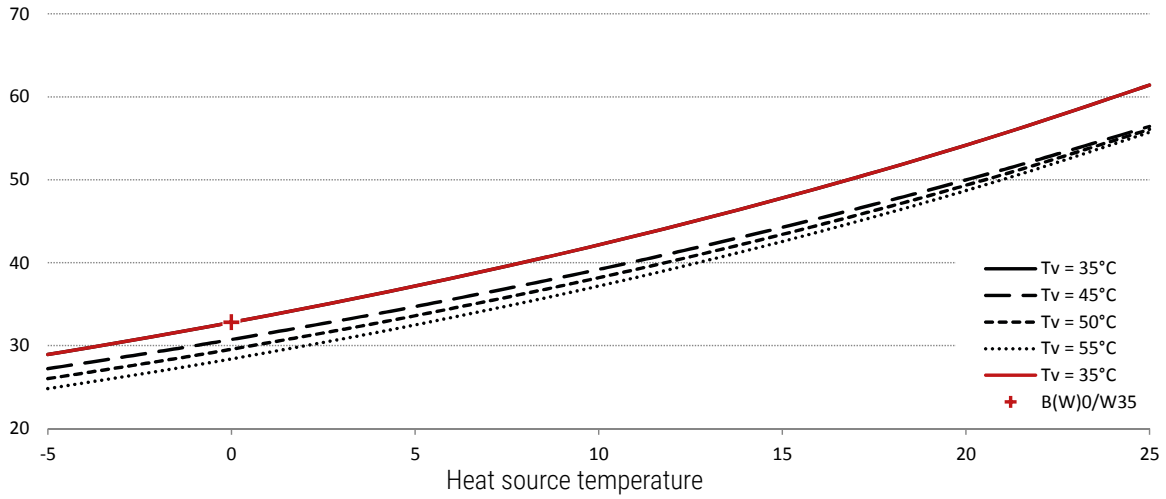


Power curves
Optiheat OH 1-33e

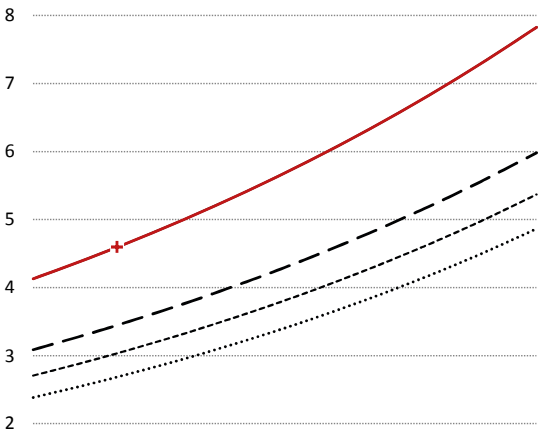
Volume flow source minimum / nominal / standard **5.8/6.7/7.8 m³/h**
Volume flow heater minimum / nominal / standard **2.8/4.0/5.7 m³/h**

Performance data as per EN 14511

Heat output in kW

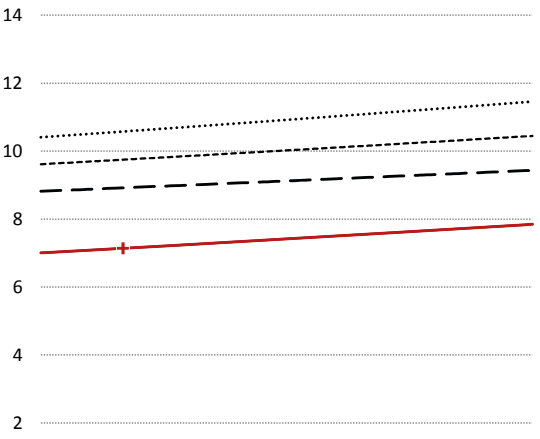


Electric output in kW



Heat source temperature

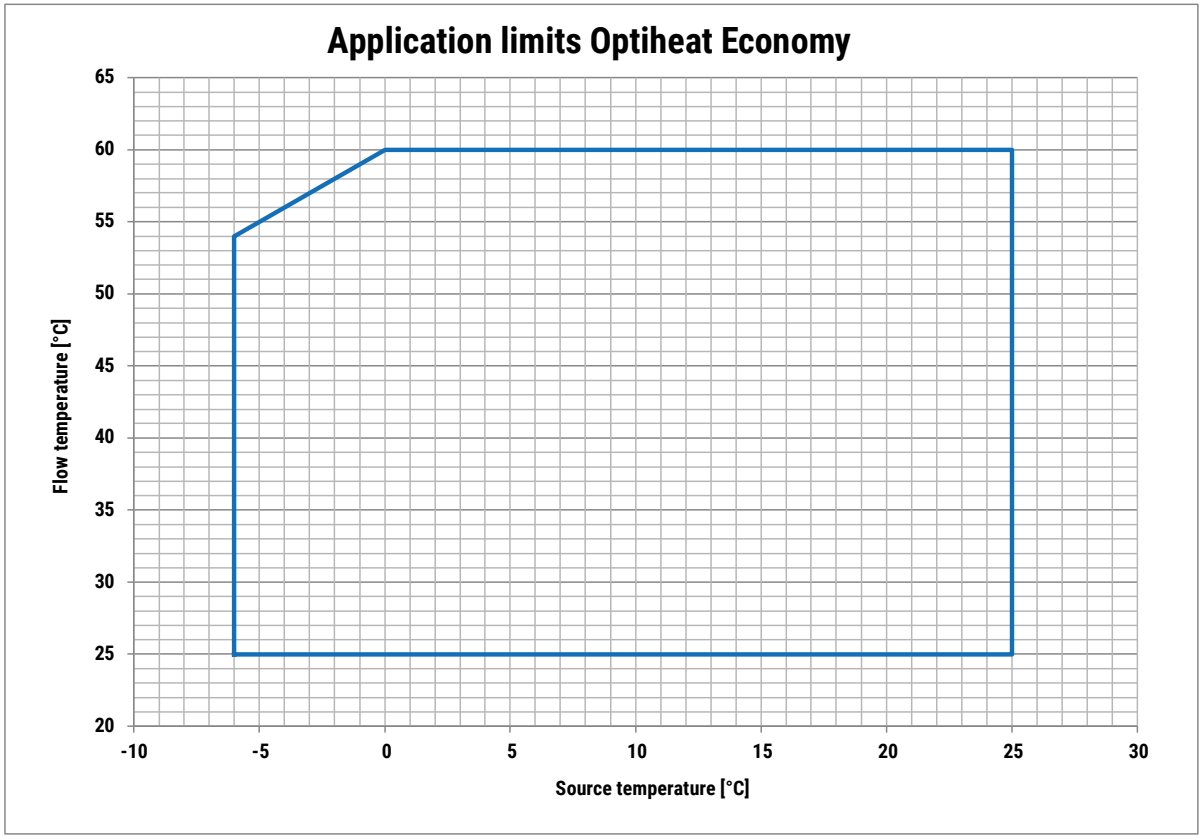
Performance data COP



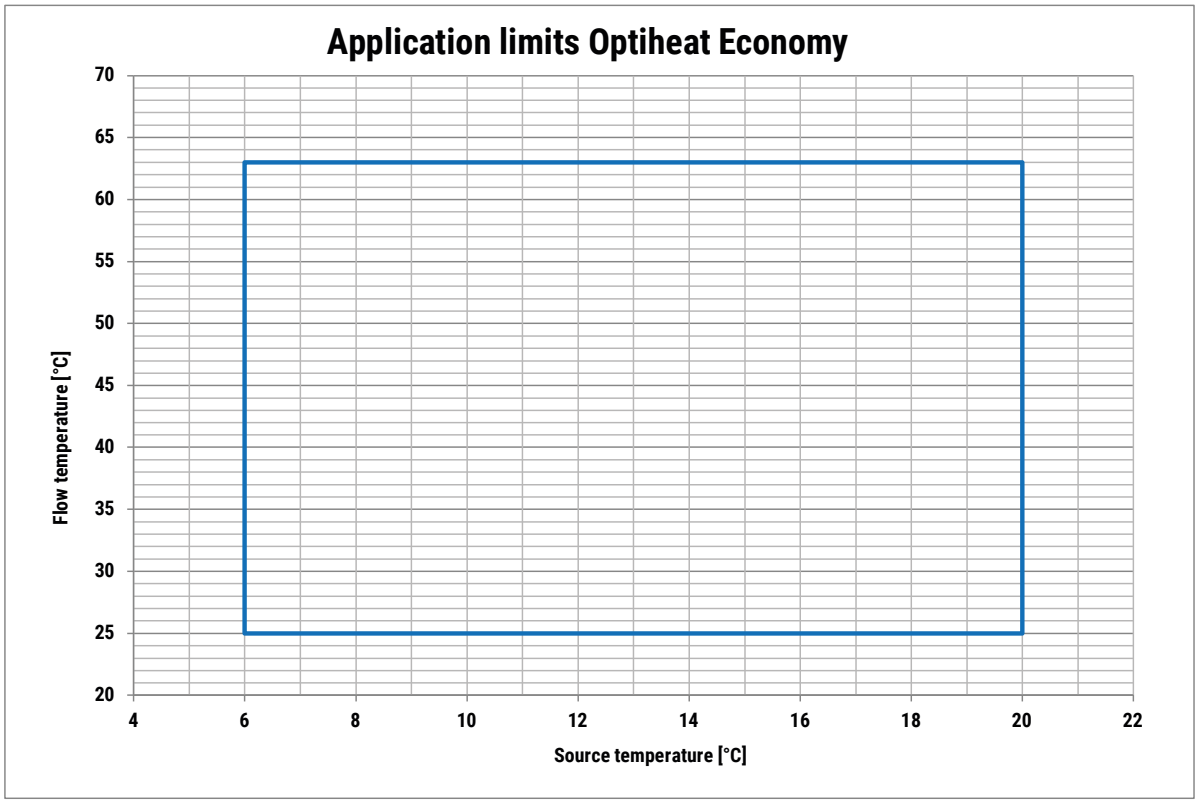
Heat source temperature

Application limits
Optiheat Economy

Brine OH 1-22e to OH 1-33e



Water OH 1-22e to OH 1-33e



Function description

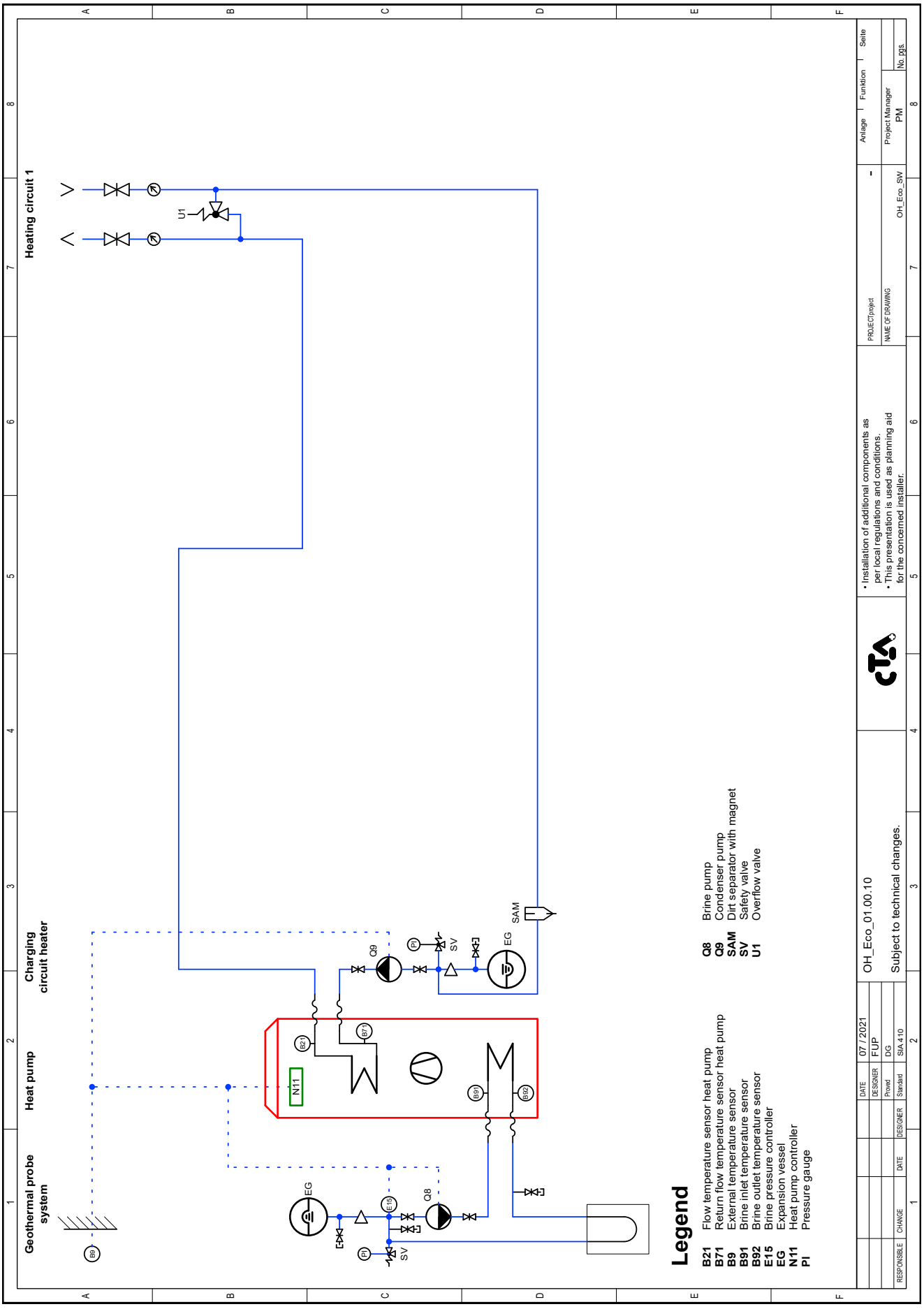
Heat pump
Start the heat pump via the external temperature sensor B9. Depending on the hydraulic integration, this works directly on the buffer storage or directly in the heating circulation. Depending on the heat demand, the heat pump is switched on and off via the temperature sensors B4/B41 or B71.
The heat pump has a restart delay in order to prevent wobbling. In case of direct heat operation (e. g. underfloor heating), the condenser pump Q9 is in operation during the entire heating period.

DHW charging
DHW is charged according to the time program to the respective setpoint value. Charge is released via the temperature sensor B3, and the deflector valve Q3 is switched. The electrical heating element K6 in the DHW storage is released by the heat pump controller (further release necessary).
An external heat exchanger is used for DHW storage without internal register. Two additional temperature sensors B31 and B36 must be installed for controlling the intermediate circuit pump Q33.

Buffer storage
If a buffer storage is used in the hydraulic system, the heat generator side and consumer side are decoupled. The storage is used to bridge heat generator locks. The setpoint value of the storage is calculated by the maximum demand of the consumer groups.

Discharge control
The setpoint value for the heating flow is calculated with the current outside temperature and the set heating curve. The discharge control adjusts the flow temperature B1 with the mixing valve Y1 to this setpoint value. The discharge pump Q2 is in operation during the entire heating period.

Free Cooling
For passive cooling, cooling is done without operating a cooling generator. Heat is returned to the connected source (soil sensor or ground water).
For cooling requirement, the source circuit is controlled by means of the deflector valves Y28 and Y21 (in case of mixed discharge group) via the plate heat exchanger (PWT).
The heat pump controller runs a cooling curve via the external temperature B9, this is controlled with the mixer Y1 and the flow temperature B1. For available room thermostat valves, these must be adaptable for the cooling as well as the heating operation.


Heating circuit 1
U1
Geothermal probe system
Heat pump
Charging circuit heater
B9
B21
B71
N11
B91
B92
E15
EG
Q8
Q9
SAM
SV
PI
Legend
B21 Flow temperature sensor heat pump
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller
EG Expansion vessel
N11 Heat pump controller
PI Pressure gauge
Q8 Brine pump
Q9 Condenser pump
SAM Dirt separator with magnet
SV Safety valve
U1 Overflow valve
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
OH_Eco_01.00.10
Subject to technical changes.
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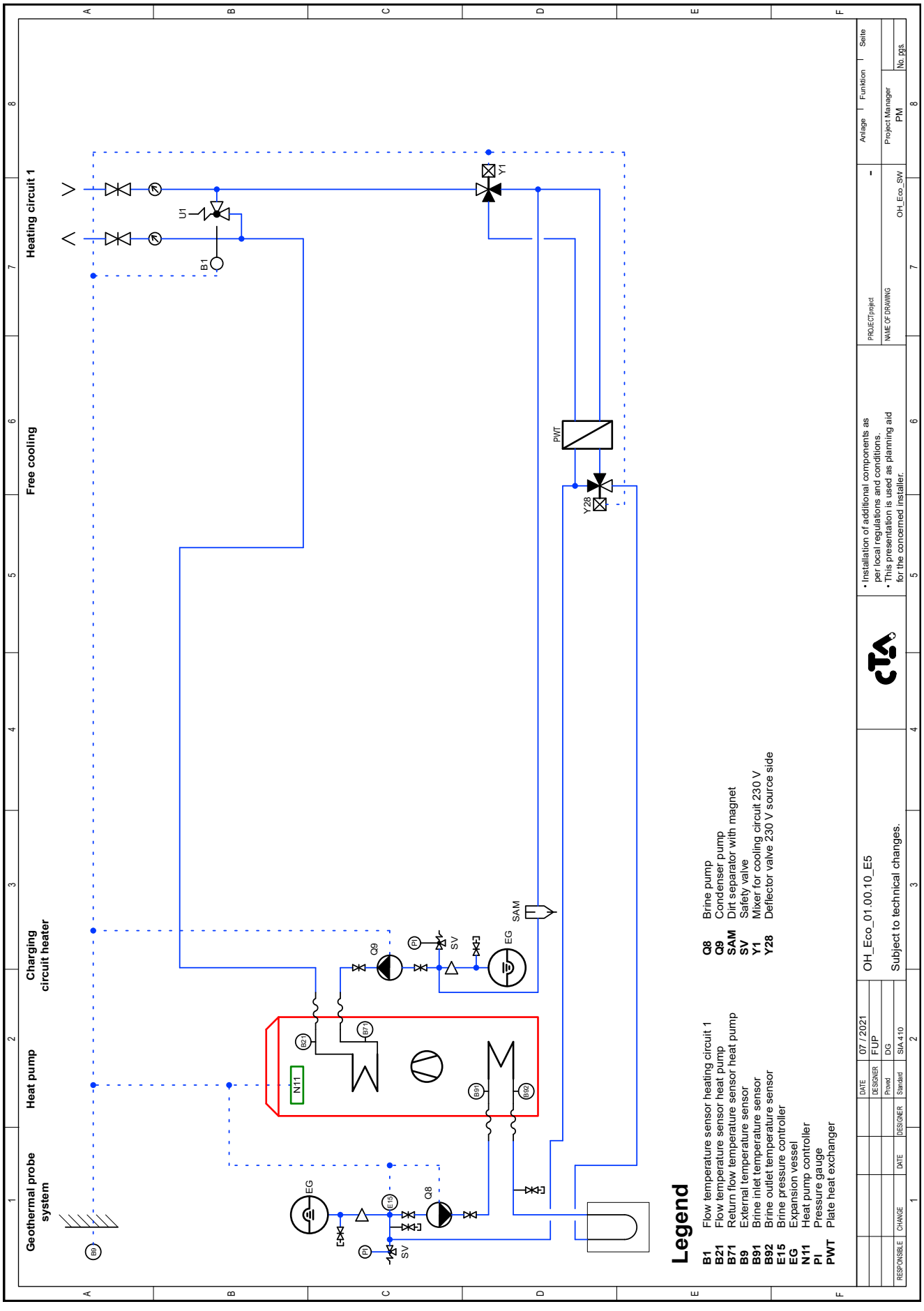
Geothermal probe system
Heat pump
Charging circuit heater
Free cooling
Heating circuit 1
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller
EG Expansion vessel
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q8 Brine pump
Q9 Condenser pump
SAM Dirt separator with magnet
SV Safety valve
Y1 Mixer for cooling circuit 230 V
Y28 Deflector valve 230 V source side
OH_Eco_01.00.10_E5
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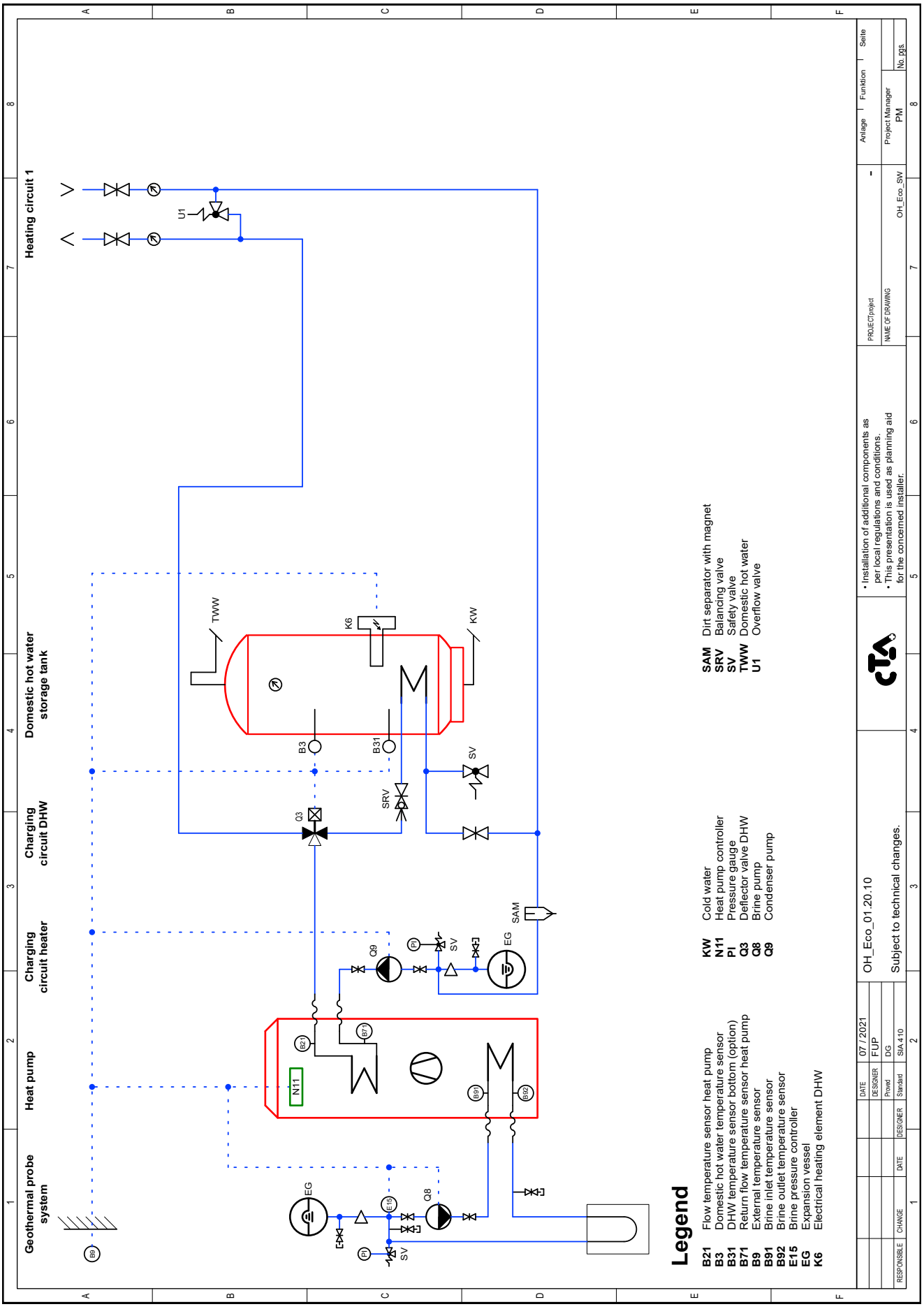
Geothermal probe system
Heat pump
Charging circuit heater
Charging circuit DHW
Domestic hot water storage tank
Heating circuit 1
Legend
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
SAM Dirt separator with magnet
SRV Balancing valve
SV Safety valve
TWW Domestic hot water
U1 Overflow valve
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
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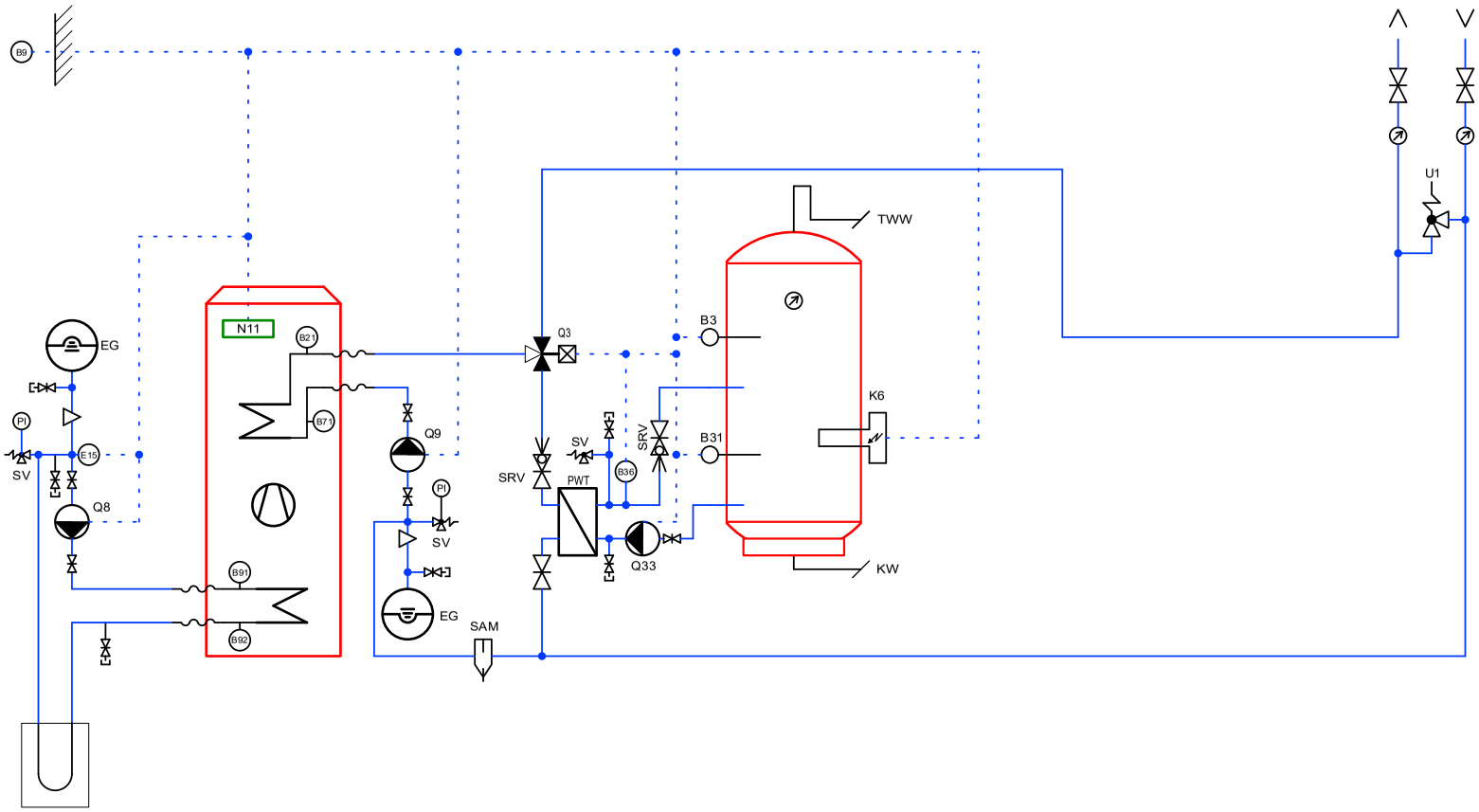

Legend

B21	Flow temperature sensor heat pump	**KW**	Cold water	**SRV**	Balancing valve
B3	Domestic hot water temperature sensor	**N11**	Heat pump controller	**SV**	Safety valve
B31	DHW temperature sensor bottom (option)	**PI**	Pressure gauge	**TWW**	Domestic hot water
B36	DHW charging temperature sensor	**PWT**	Plate heat exchanger		
B71	Return flow temperature sensor heat pump	**Q3**	Deflector valve DHW		
B9	External temperature sensor	**Q8**	Brine pump		
B91	Brine inlet temperature sensor	**Q9**	Condenser pump		
B92	Brine outlet temperature sensor	**Q33**	DHW intermediate circuit pump		
E15	Brine pressure controller	**SAM**	Dirt separator with magnet		
EG	Expansion vessel				
K6	Electrical heating element DHW				

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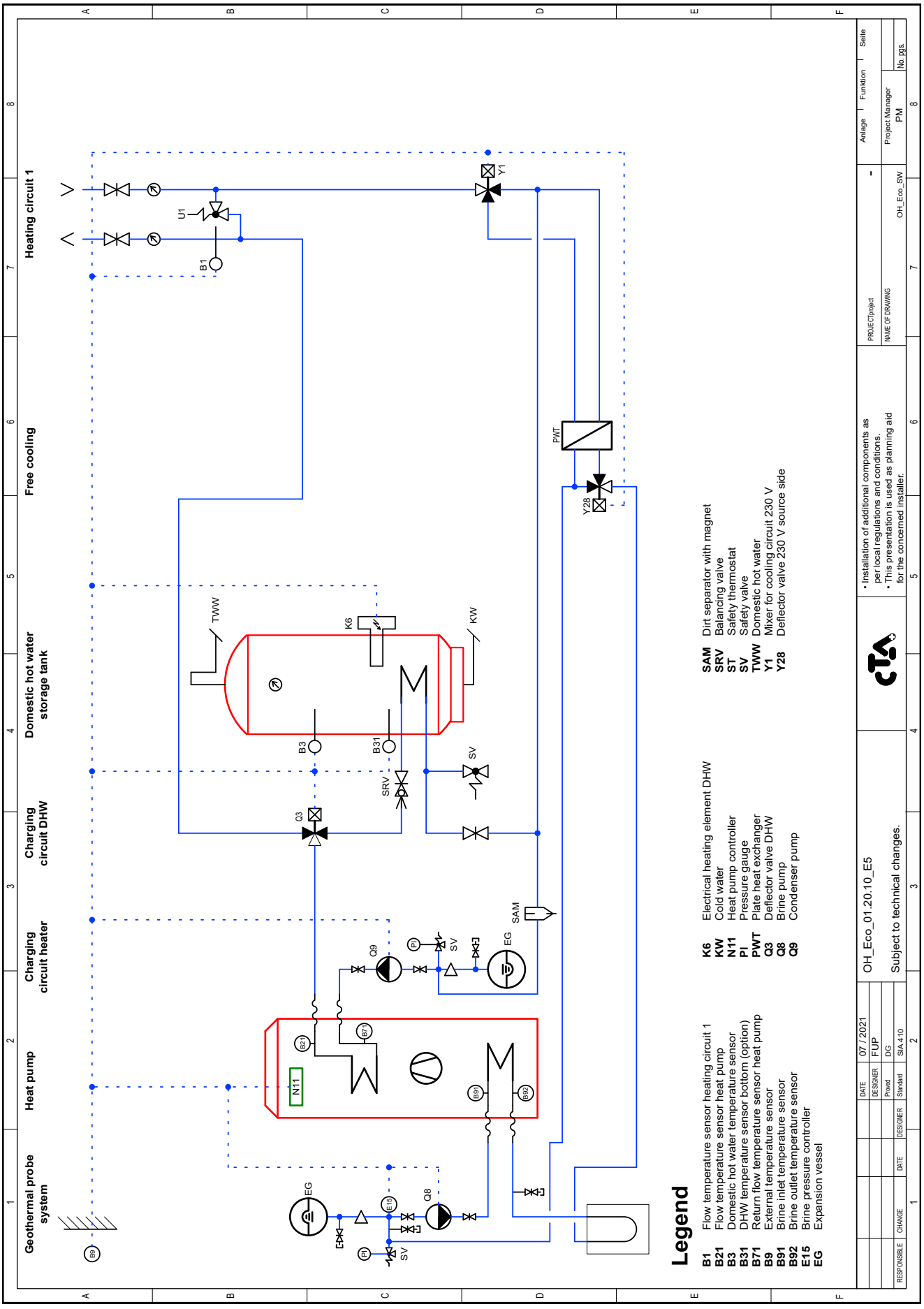
Geothermal probe system
Heat pump
Charging circuit heater
Charging circuit DHW
Domestic hot water storage tank
Free cooling
Heating circuit 1
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Mixer for cooling circuit 230 V
Y28 Deflector valve 230 V source side
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
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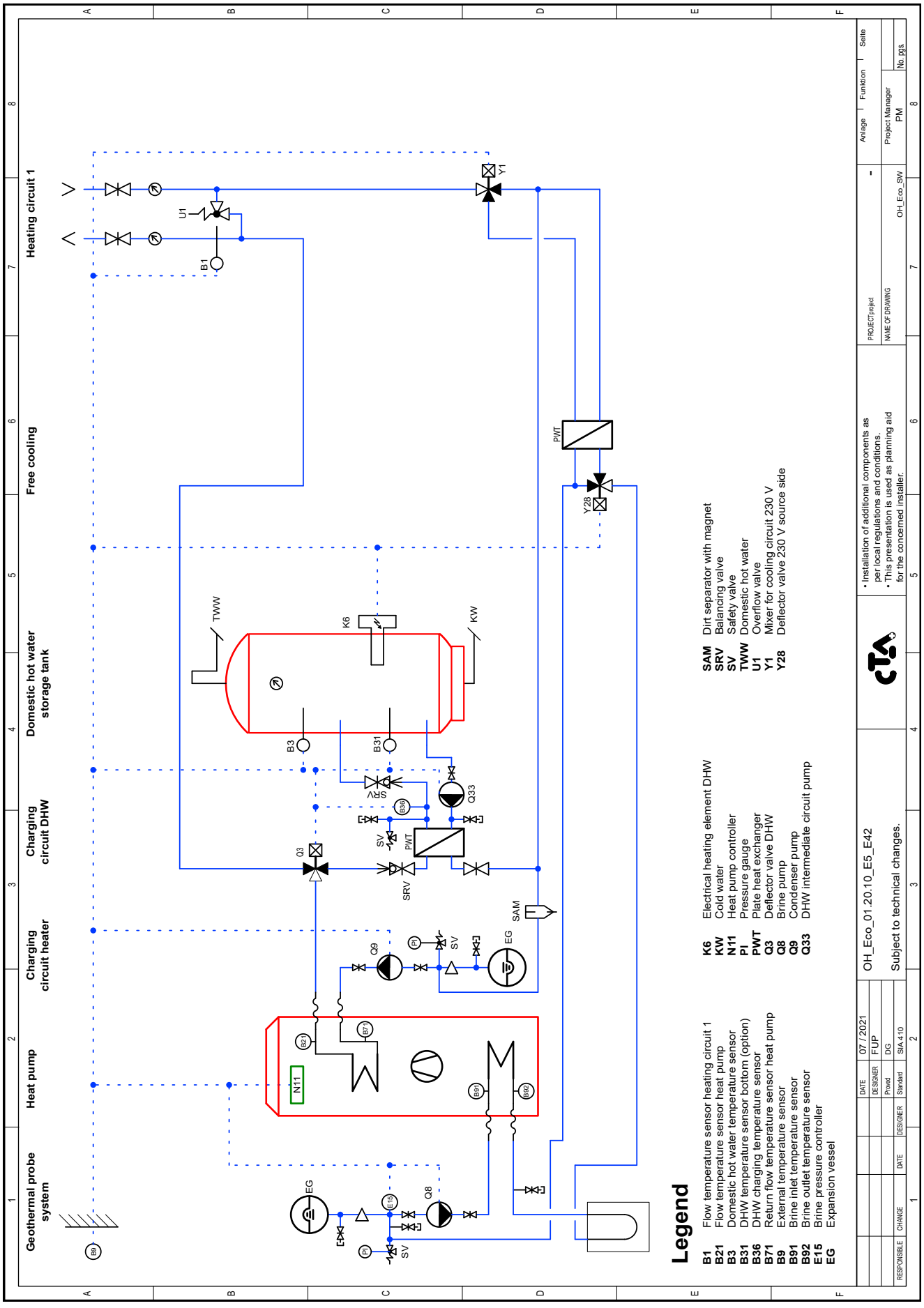
Geothermal probe system
Heat pump
Charging circuit heater
Charging circuit DHW
Domestic hot water storage tank
Free cooling
Heating circuit 1
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B36 DHW charging temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
Q33 DHW intermediate circuit pump
SAM Dirt separator with magnet
SRV Balancing valve
SV Safety valve
TWW Domestic hot water
U1 Overflow valve
Y1 Mixer for cooling circuit 230 V
Y28 Deflector valve 230 V source side
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
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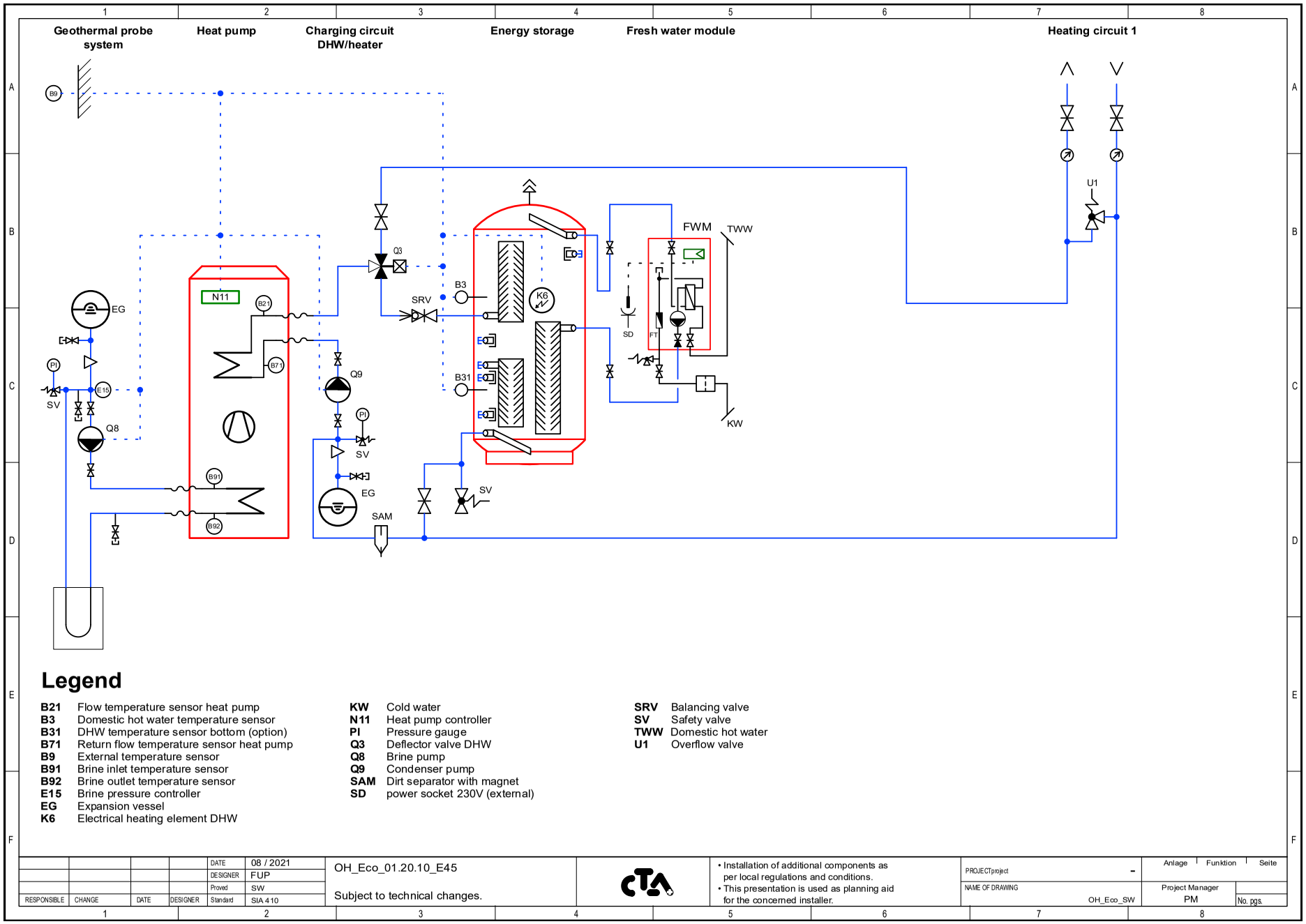

Legend

B21	Flow temperature sensor heat pump	**KW**	Cold water	**SRV**	Balancing valve
B3	Domestic hot water temperature sensor	**N11**	Heat pump controller	**SV**	Safety valve
B31	DHW temperature sensor bottom (option)	**PI**	Pressure gauge	**TWW**	Domestic hot water
B71	Return flow temperature sensor heat pump	**Q3**	Deflector valve DHW	**U1**	Overflow valve
B9	External temperature sensor	**Q8**	Brine pump		
B91	Brine inlet temperature sensor	**Q9**	Condenser pump		
B92	Brine outlet temperature sensor	**SAM**	Dirt separator with magnet		
E15	Brine pressure controller	**SD**	power socket 230V (external)		
EG	Expansion vessel				
K6	Electrical heating element DHW				

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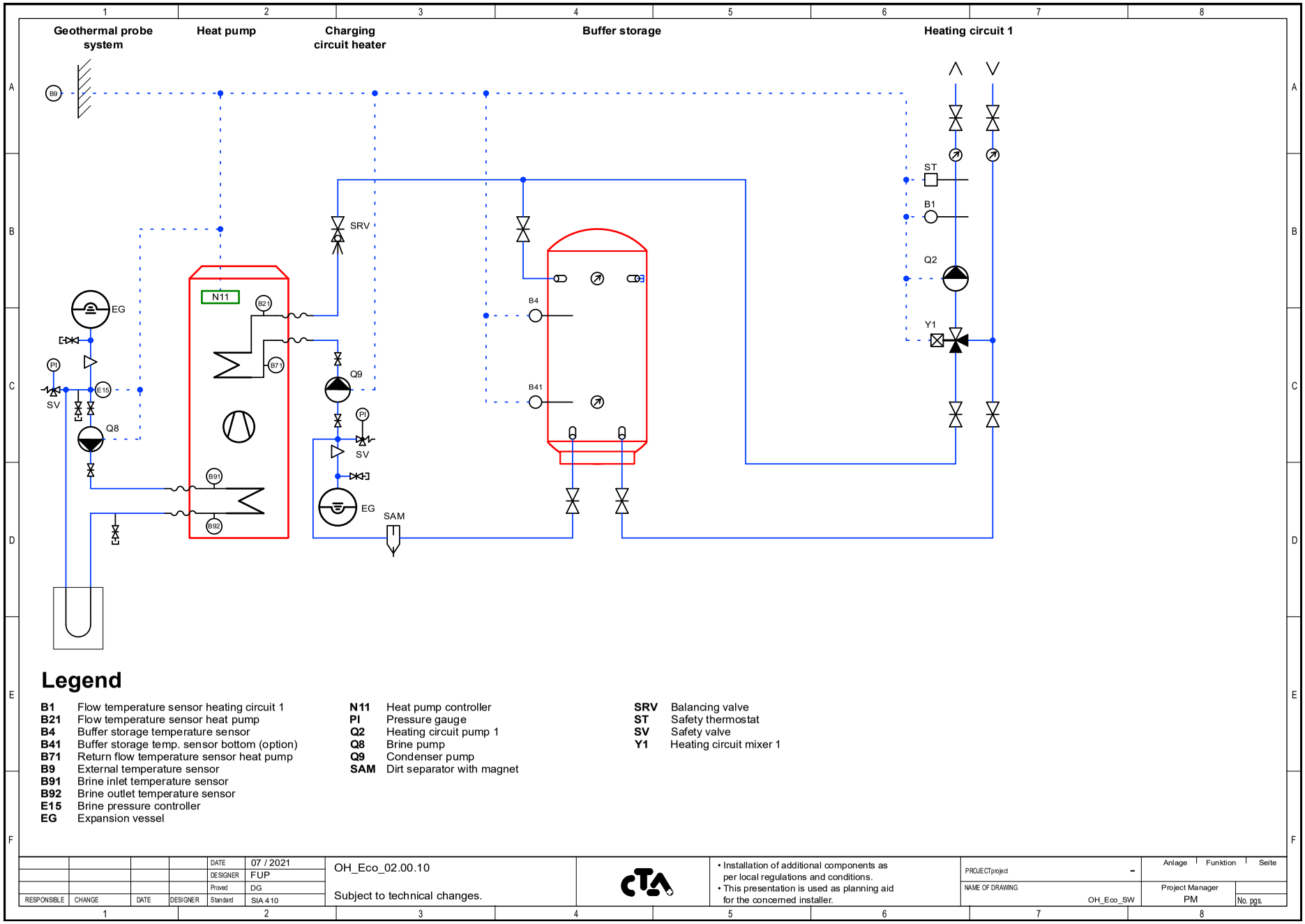

Legend

B1	Flow temperature sensor heating circuit 1	**N11**	Heat pump controller	**SRV**	Balancing valve
B21	Flow temperature sensor heat pump	**PI**	Pressure gauge	**ST**	Safety thermostat
B4	Buffer storage temperature sensor	**Q2**	Heating circuit pump 1	**SV**	Safety valve
B41	Buffer storage temp. sensor bottom (option)	**Q8**	Brine pump	**Y1**	Heating circuit mixer 1
B71	Return flow temperature sensor heat pump	**Q9**	Condenser pump		
B9	External temperature sensor	**SAM**	Dirt separator with magnet		
B91	Brine inlet temperature sensor				
B92	Brine outlet temperature sensor				
E15	Brine pressure controller				
EG	Expansion vessel				

				DATE	07 / 2021
				DESIGNER	FUP
				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.00.10

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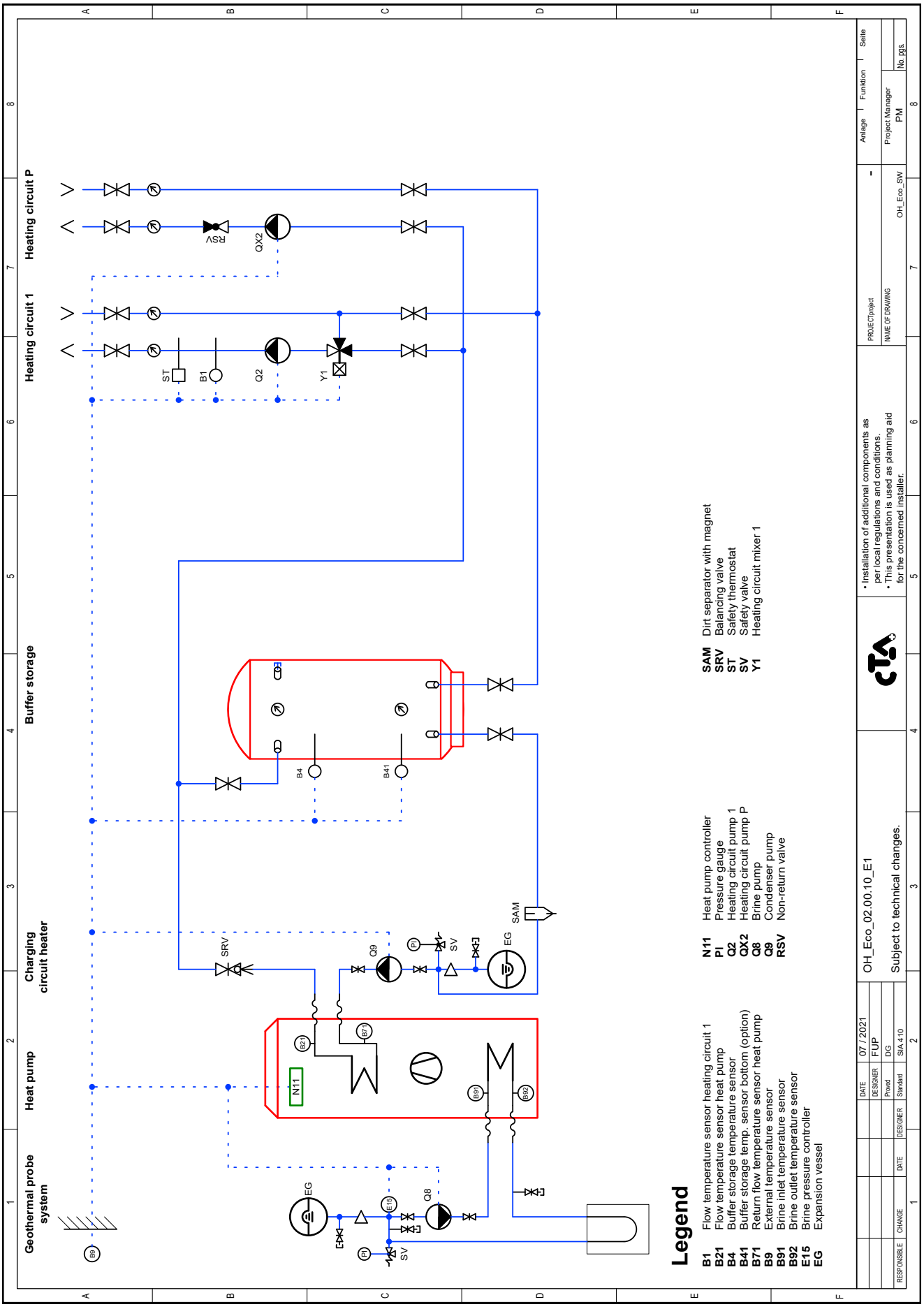
Geothermal probe system
Heat pump
Charging circuit heater
Buffer storage
Heating circuit 1
Heating circuit P
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller
EG Expansion vessel
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
QX2 Heating circuit pump P
Q8 Brine pump
Q9 Condenser pump
RSV Non-return valve
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
Y1 Heating circuit mixer 1
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
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OH_Eco_SW
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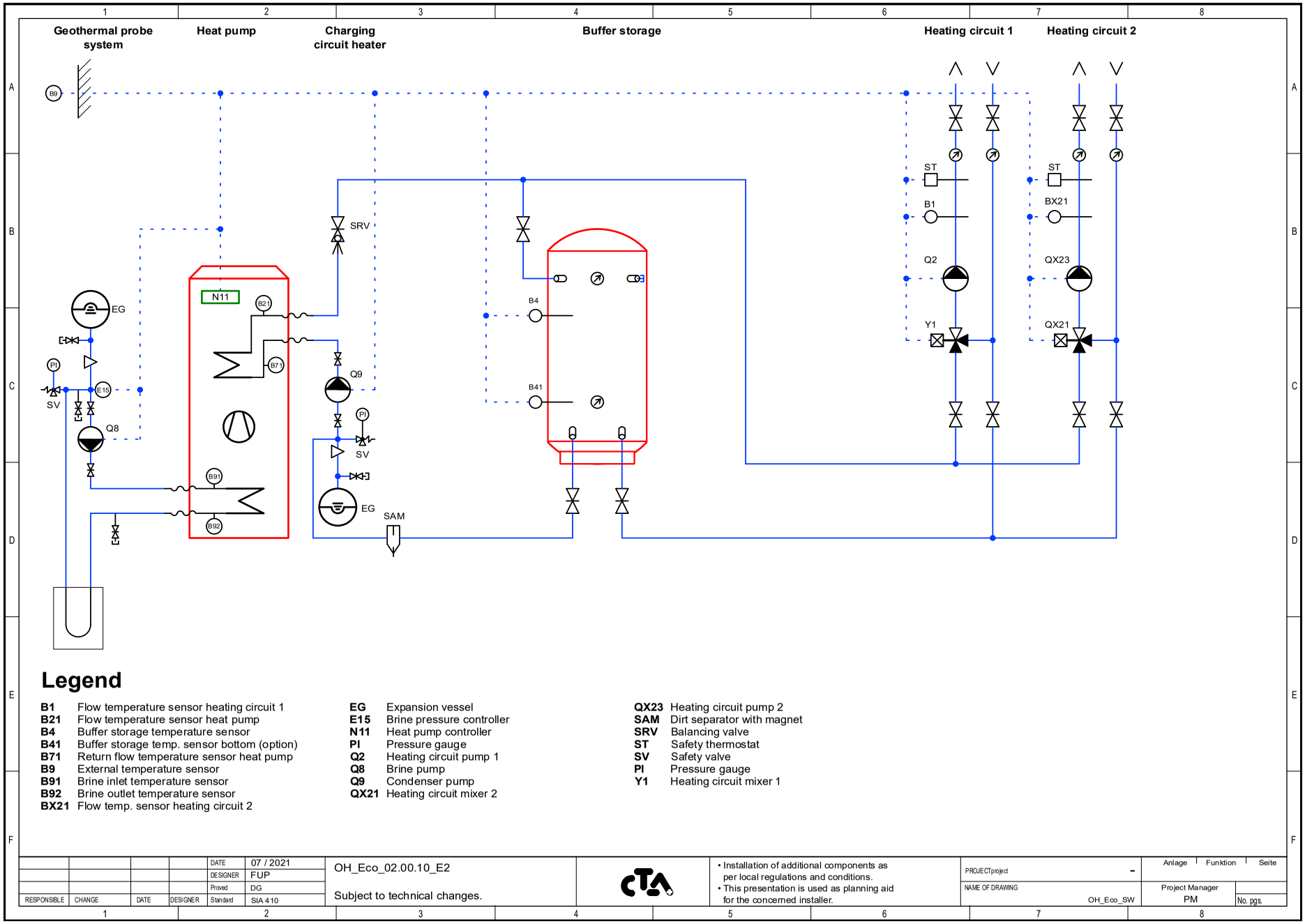

Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2
EG Expansion vessel
E15 Brine pressure controller
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q8 Brine pump
Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
PI Pressure gauge
Y1 Heating circuit mixer 1

				DATE	07 / 2021
				DESIGNER	FUP
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RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.00.10_E2

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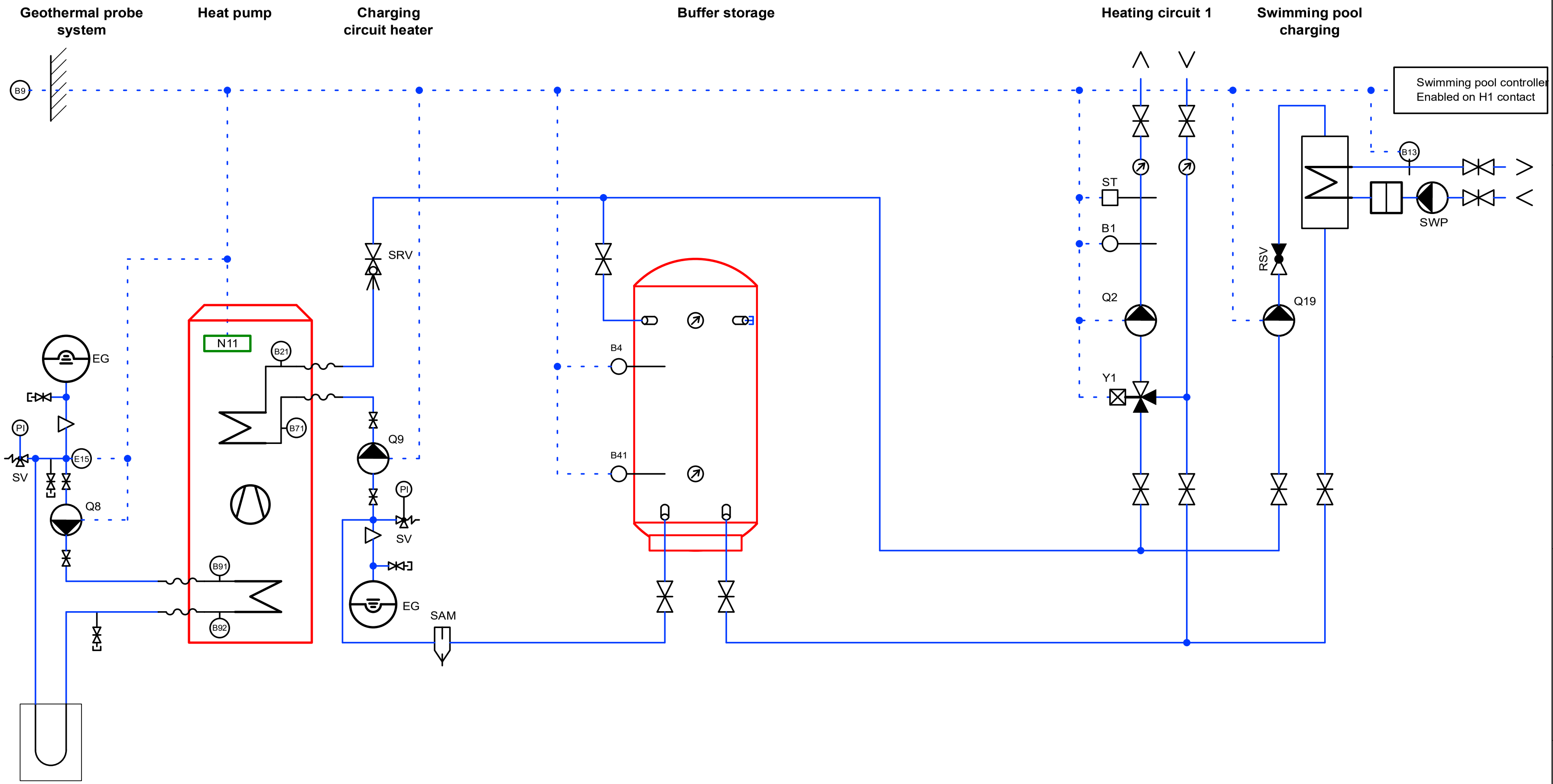
Project Manager PM		No. pgs.



Legend

B1	Flow temperature sensor heating circuit 1	**E15**	Brine pressure controller	**SRV**	Balancing valve
B13	Swimming pool sensor (Limit Tmax.)	**N11**	Heat pump controller	**ST**	Safety thermostat
B21	Flow temperature sensor heat pump	**PI**	Pressure gauge	**SV**	Safety valve
B4	Buffer storage temperature sensor	**Q2**	Heating circuit pump 1	**SWP**	Swimming pool pump (controlled externally)
B41	Buffer storage temp. sensor bottom (option)	**Q8**	Brine pump	**Y1**	Heating circuit mixer 1
B71	Return flow temperature sensor heat pump	**Q9**	Condenser pump		
B9	External temperature sensor	**Q19**	Swimming pool circulation pump		
B91	Brine inlet temperature sensor	**RSV**	Non-return valve		
B92	Brine outlet temperature sensor	**SAM**	Dirt separator with magnet		
EG	Expansion vessel				

RESPONSIBLE	CHANGE	DATE	DESIGNER		
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				DESIGNER	FUP
				Proved	DG
				Standard	SIA 410

OH_Eco_02.00.10_E4

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject -

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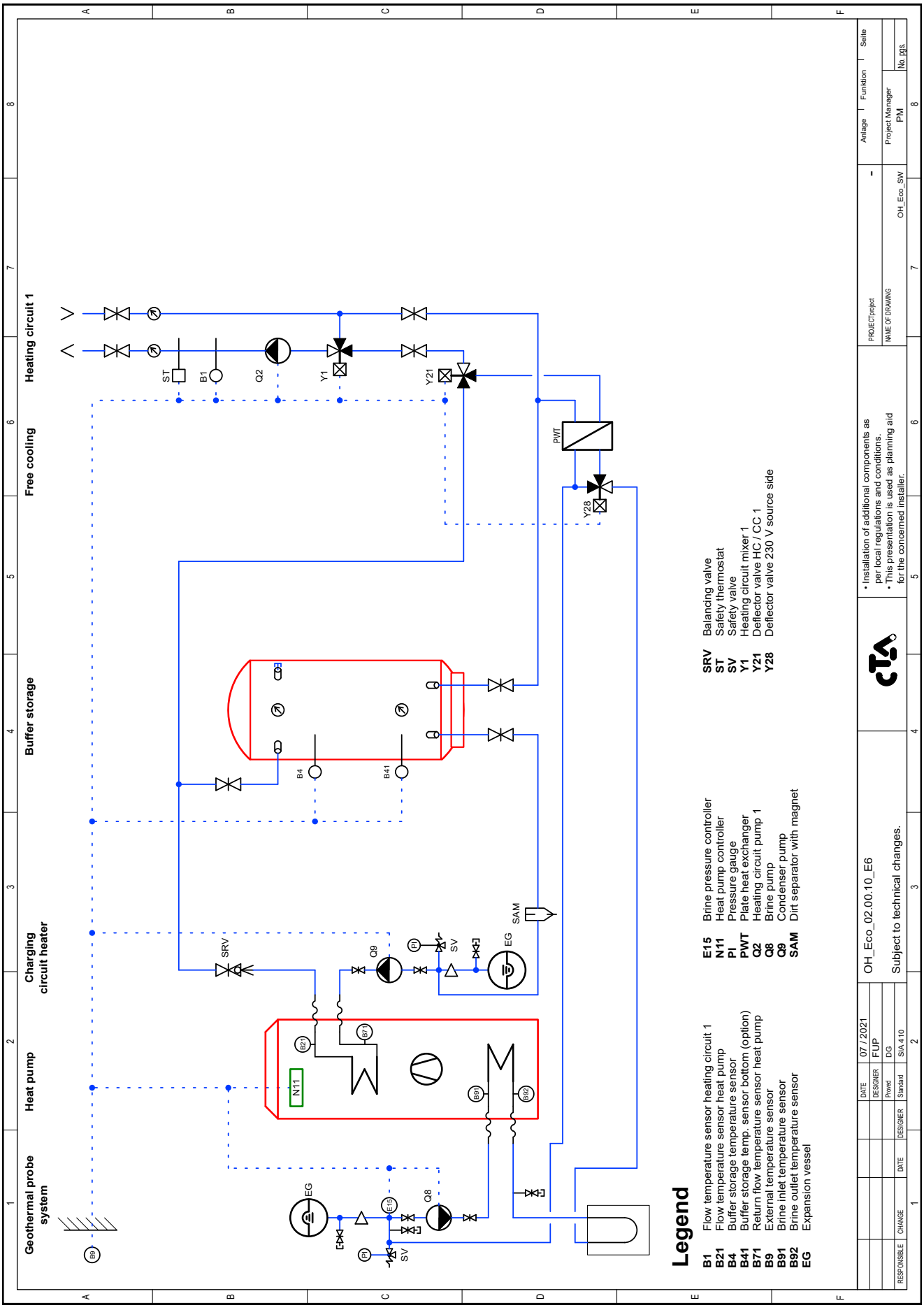
Anlage | Funktion | Seite

Project Manager PM

No. pgs.


Geothermal probe system
Heat pump
Charging circuit heater
Buffer storage
Free cooling
Heating circuit 1
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
EG Expansion vessel
E15 Brine pressure controller
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q8 Brine pump
Q9 Condenser pump
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
Y1 Heating circuit mixer 1
Y21 Deflector valve HC / CC 1
Y28 Deflector valve 230 V source side
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
OH_Eco_02.00.10_E6
Subject to technical changes.
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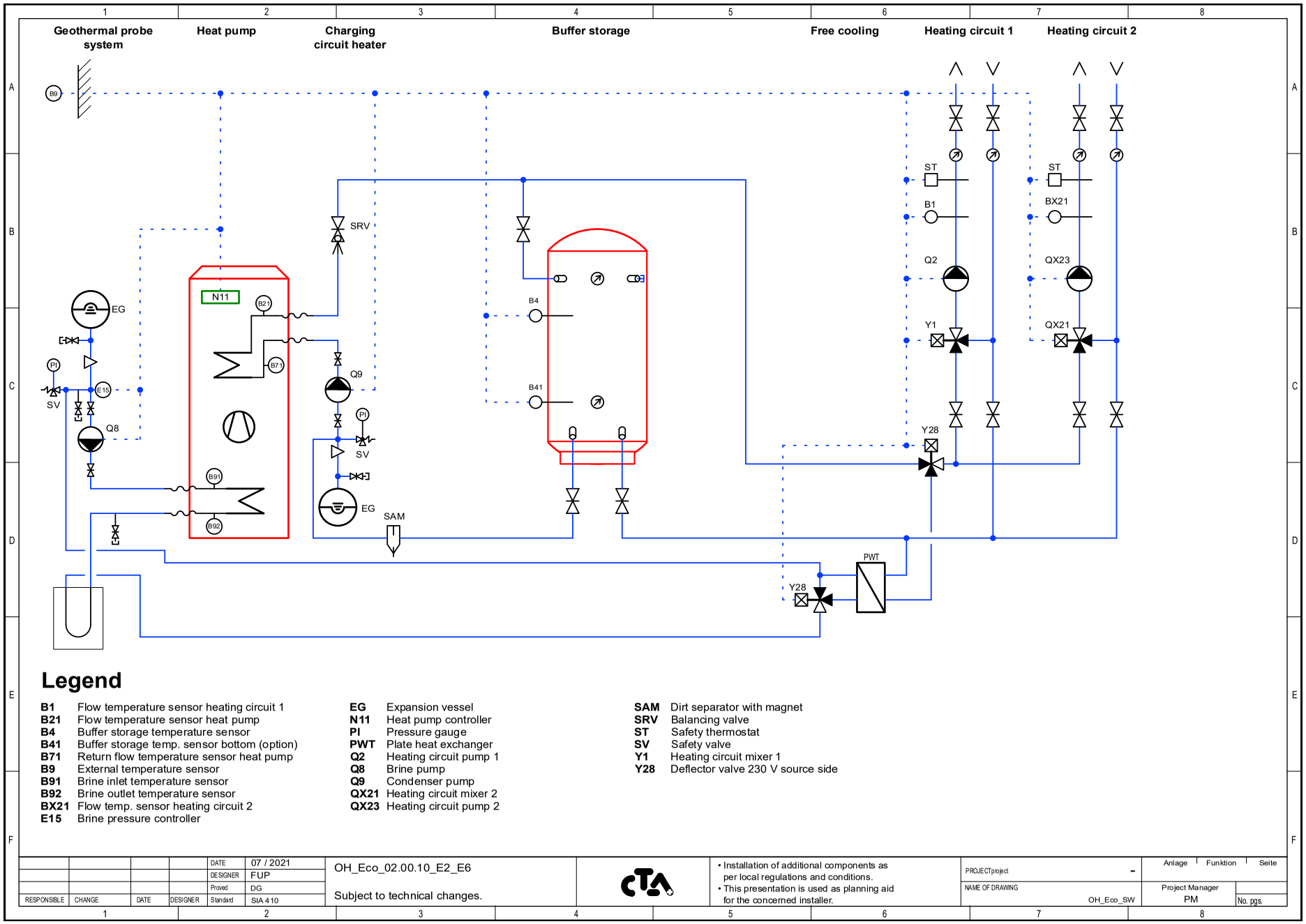
SIA 410
OH_Eco_SW
PM



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2
E15 Brine pressure controller

EG Expansion vessel
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q8 Brine pump
Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2

SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
Y1 Heating circuit mixer 1
Y28 Deflector valve 230 V source side

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RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.00.10_E2_E6

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject	-	Anlage / Funktion / Seite	
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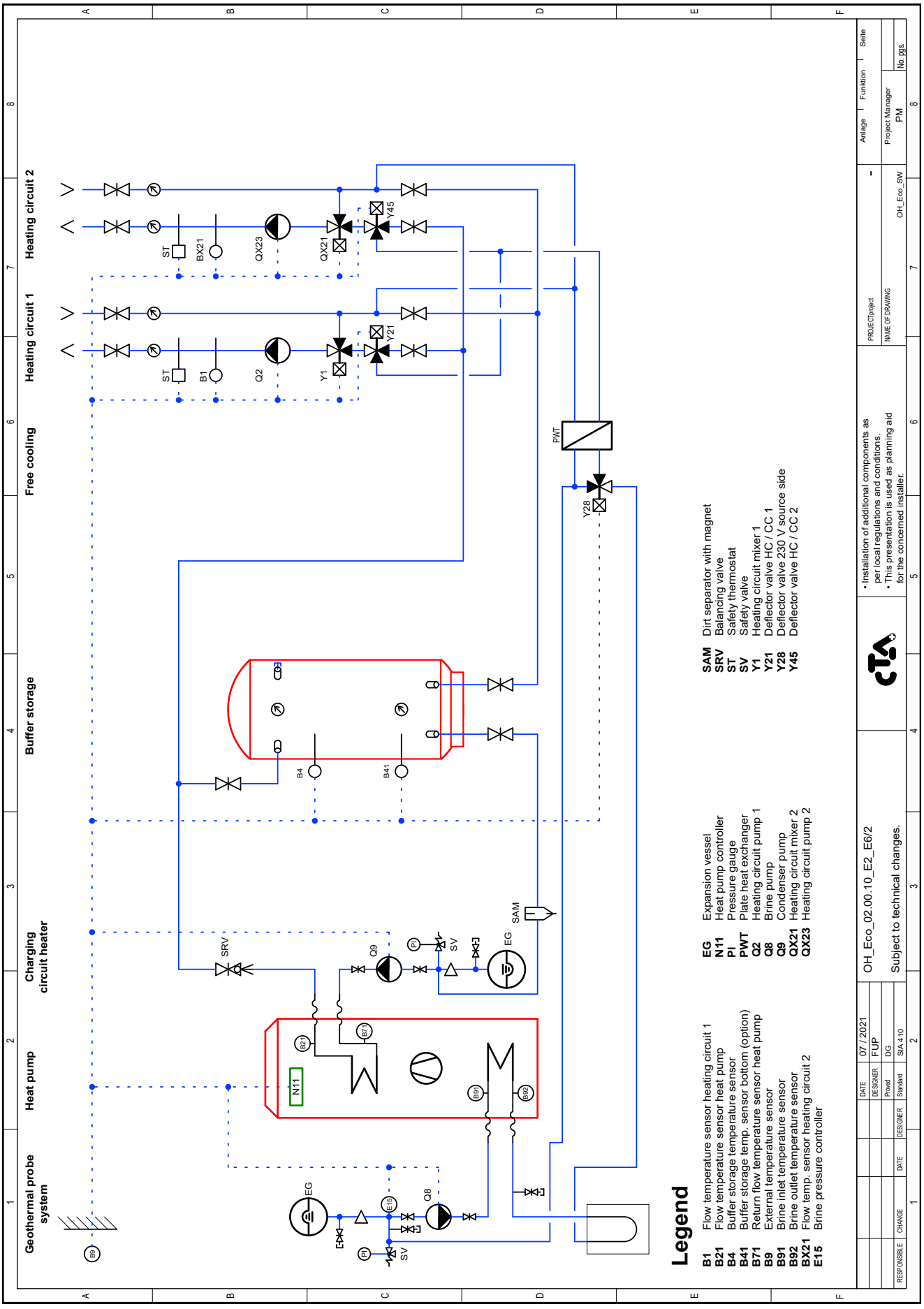
Geothermal probe system
Heat pump
Charging circuit heater
Buffer storage
Free cooling
Heating circuit 1
Heating circuit 2
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2
E15 Brine pressure controller
EG Expansion vessel
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q8 Brine pump
Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
Y1 Heating circuit mixer 1
Y21 Deflector valve HC / CC 1
Y28 Deflector valve 230 V source side
Y45 Deflector valve HC / CC 2
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
OH_Eco_02.00.10_E2_E6/2
Subject to technical changes.
OH_Eco_SW
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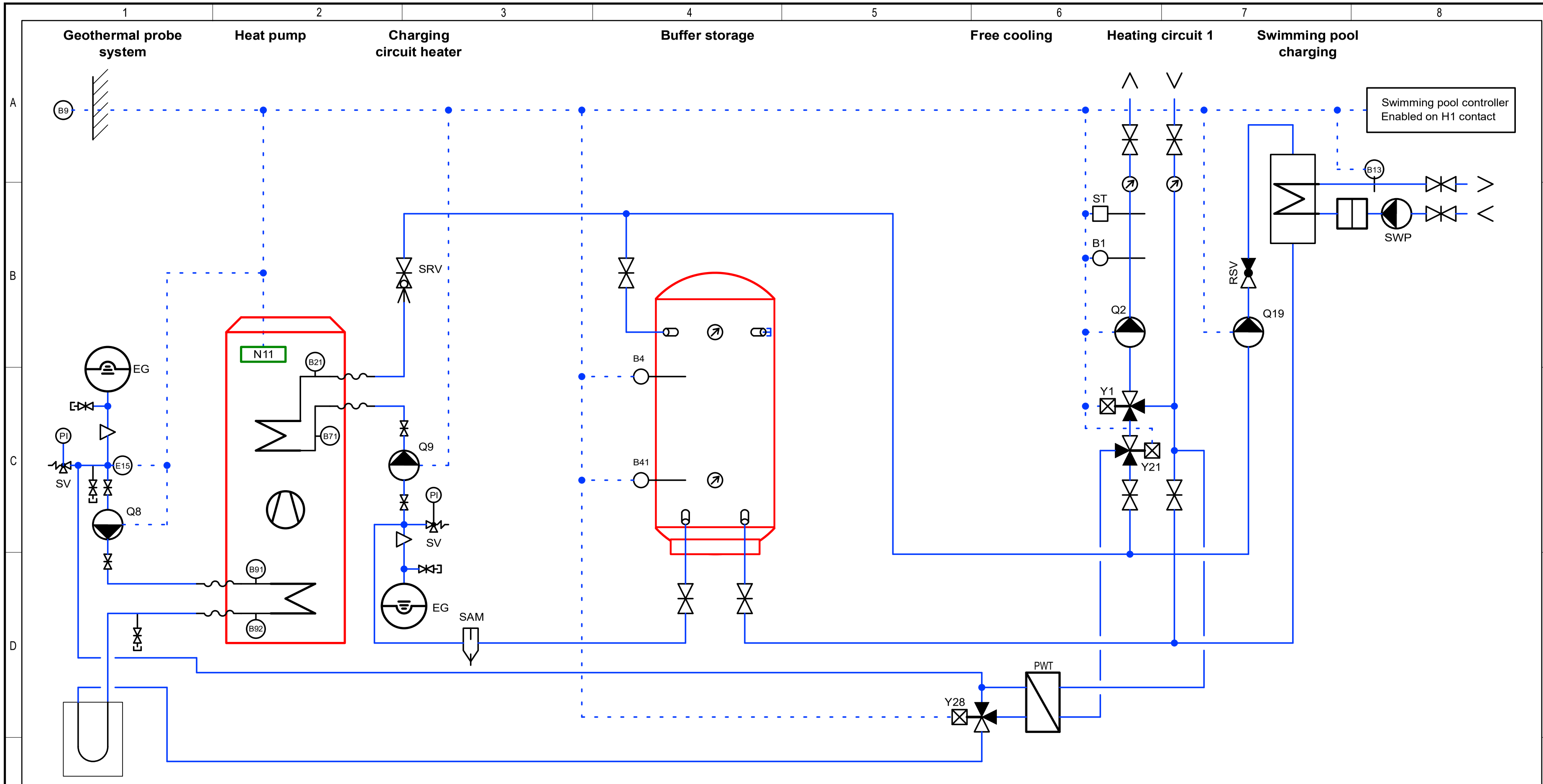

Legend

B1 Flow temperature sensor heating circuit 1
B13 Swimming pool sensor (Limit Tmax.)
B21 Flow temperature sensor heat pump
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
EG Expansion vessel
E15 Brine pressure controller

N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q8 Brine pump
Q9 Condenser pump
Q19 Swimming pool circulation pump
SAM Dirt separator with magnet
RSV Non-return valve

SRV Balancing valve
ST Safety thermostat
SV Safety valve
SWP Swimming pool pump (controlled externally)
Y1 Heating circuit mixer 1
Y21 Deflector valve HC / CC 1
Y28 Deflector valve 230 V source side

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DESIGNER	FUP
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Standard	SIA 410

RESPONSIBLE | CHANGE | DATE | DESIGNER

OH_Eco_02.00.10_E4_E6

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject -
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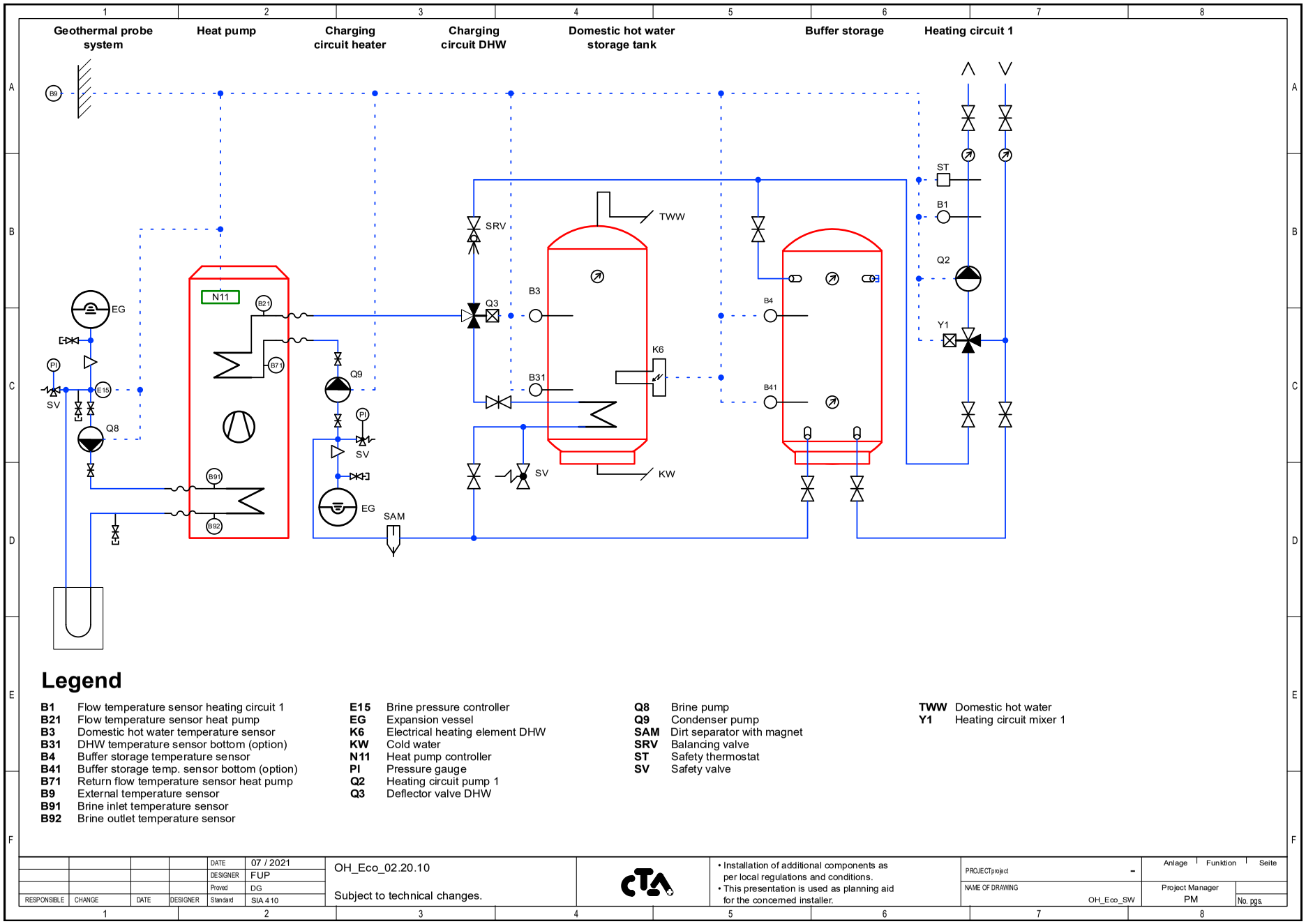
Anlage | Funktion | Seite
Project Manager PM
No. pgs.



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor

E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW

Q8 Brine pump
Q9 Condenser pump
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve

TWW Domestic hot water
Y1 Heating circuit mixer 1

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OH_Eco_02.20.10

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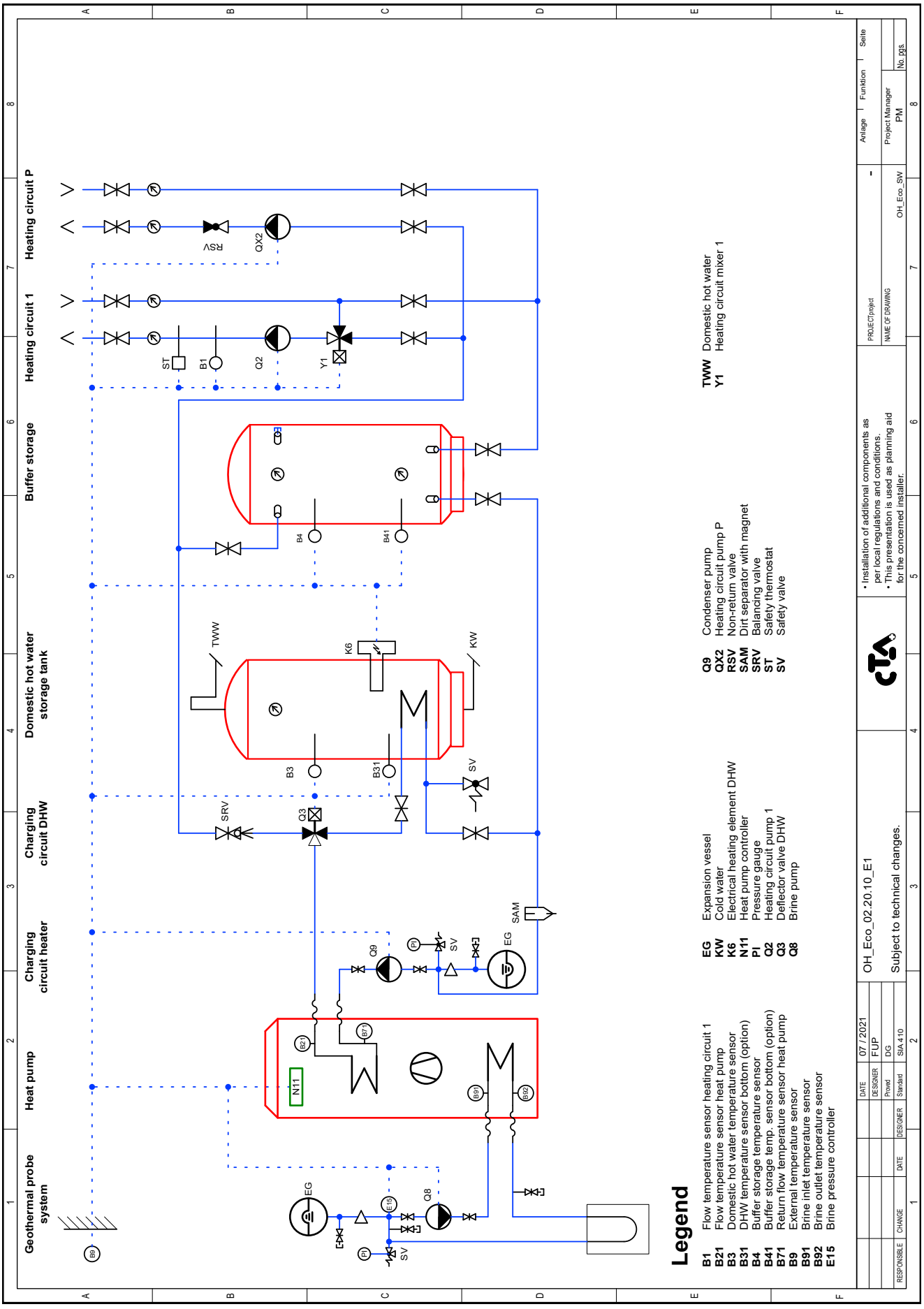
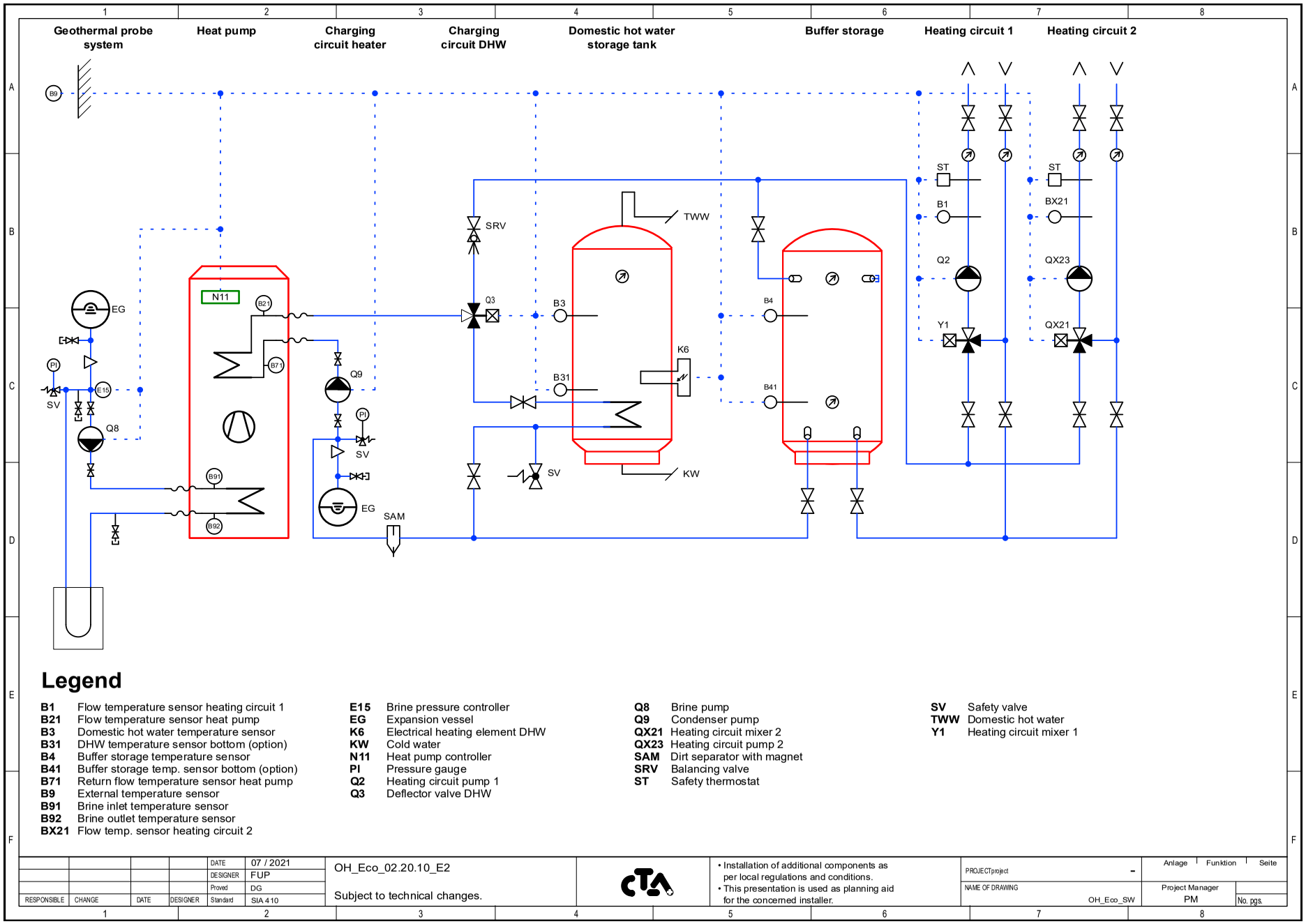
- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject -
NAME OF DRAWING OH_Eco_SW

Anlage	Funktion	Seite
Project Manager PM		No. pgs.


Geothermal probe system
Heat pump
Charging circuit heater
Charging circuit DHW
Domestic hot water storage tank
Buffer storage
Heating circuit 1
Heating circuit P
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller
EG Expansion vessel
KW Cold water
K6 Electrical heating element DHW
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
QX2 Heating circuit pump P
RSV Non-return valve
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
OH_Eco_02.20.10_E1
Subject to technical changes.
OH_Eco_SW
Project Manager PM



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2

E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW

Q8 Brine pump
Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat

SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1

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				DESIGNER	FUP
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RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.20.10_E2

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject	-	Anlage	Funktion / Seite
NAME OF DRAWING	OH_Eco_SW	Project Manager	PM
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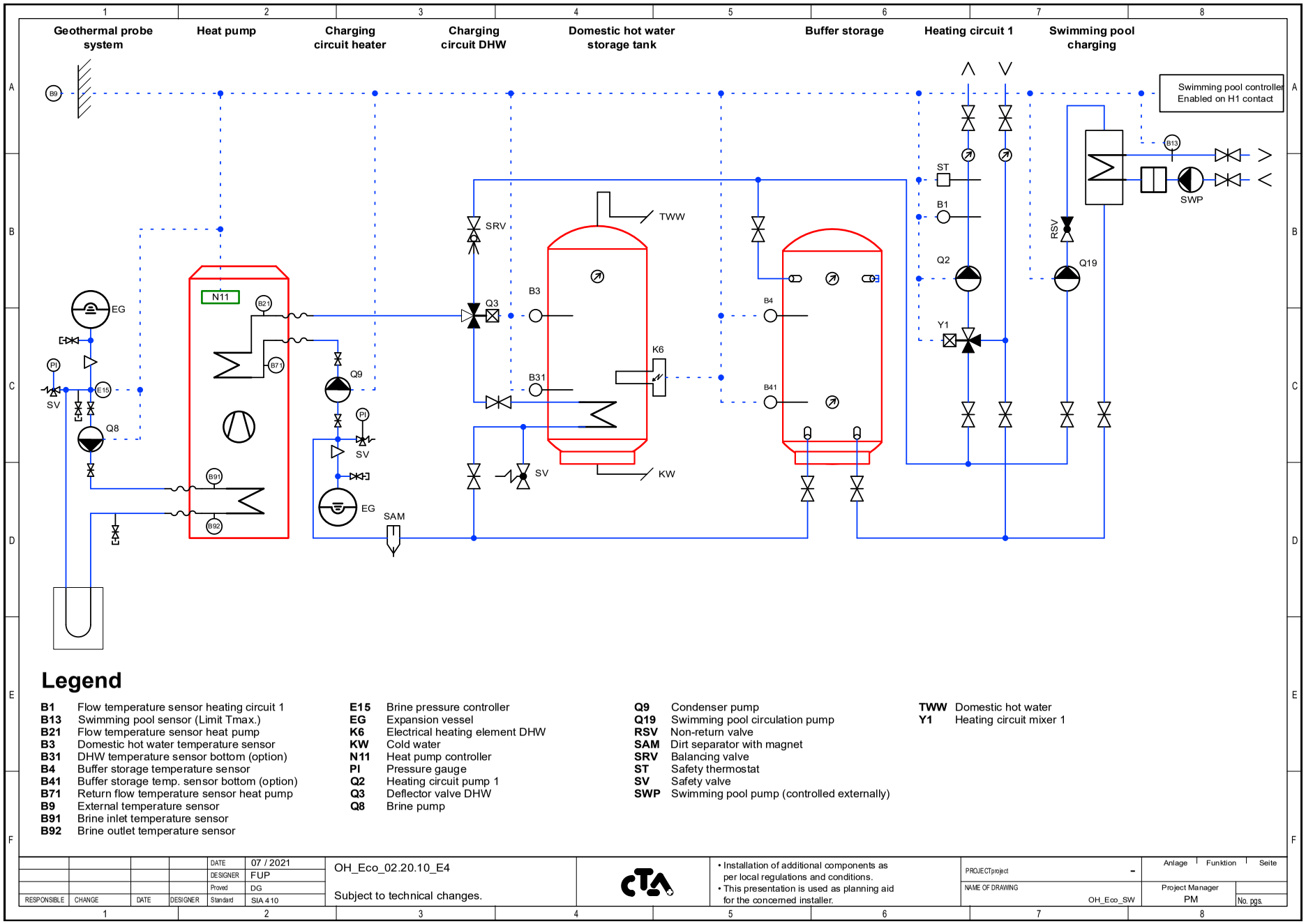

Legend

B1 Flow temperature sensor heating circuit 1
B13 Swimming pool sensor (Limit Tmax.)
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor

E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump

Q9 Condenser pump
Q19 Swimming pool circulation pump
RSV Non-return valve
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
SWP Swimming pool pump (controlled externally)

TWW Domestic hot water
Y1 Heating circuit mixer 1

				DATE	07 / 2021
				DESIGNER	FUP
				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.20.10_E4

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

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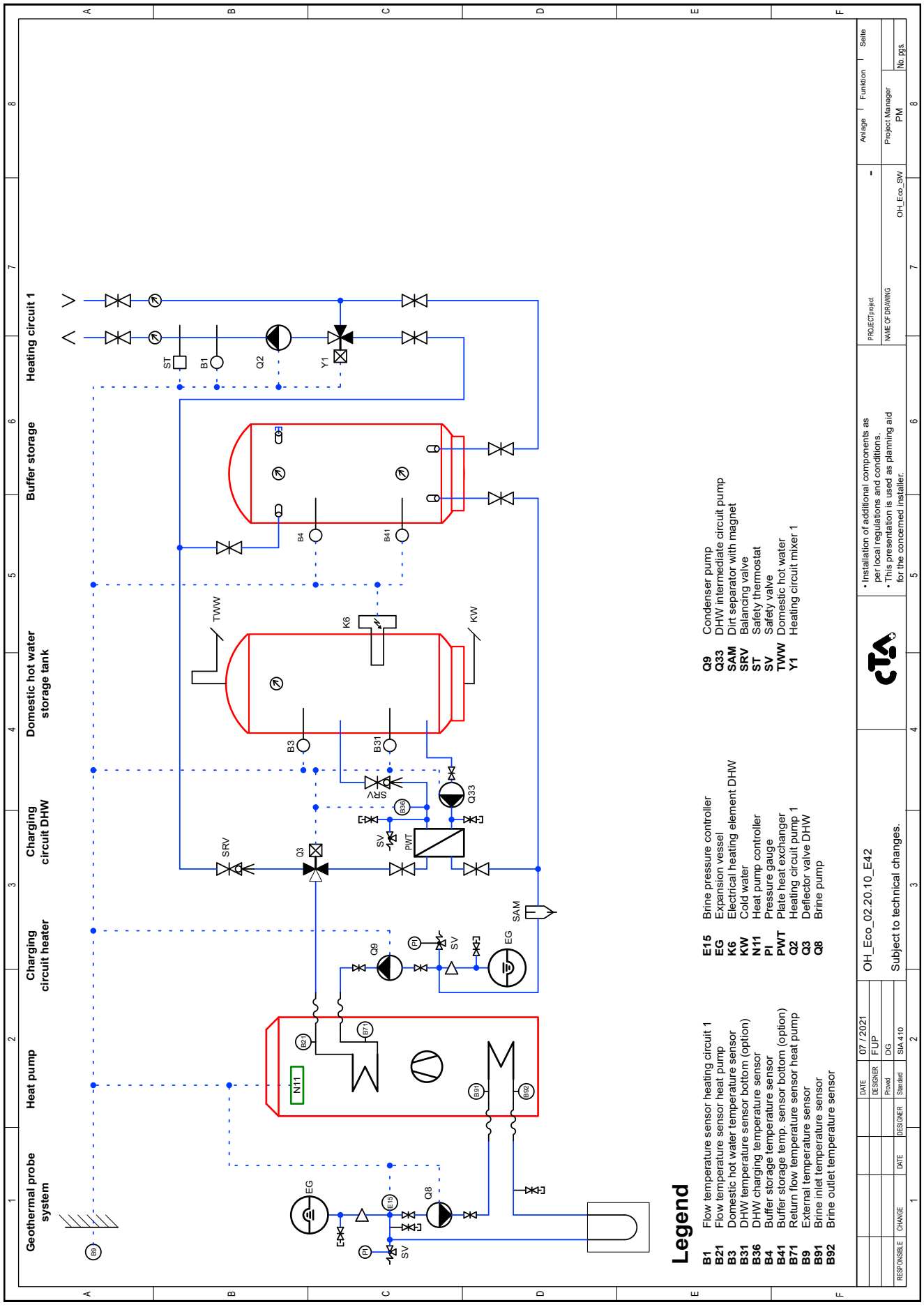
NAME OF DRAWING OH_Eco_SW

Anlage	Funktion	Seite
Project Manager PM		No. pgs.


Geothermal probe system
Heat pump
Charging circuit heater
Charging circuit DHW
Domestic hot water storage tank
Buffer storage
Heating circuit 1
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B36 DHW charging temperature sensor
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
Q33 DHW intermediate circuit pump
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
OH_Eco_02.20.10_E42
Subject to technical changes.
OH_Eco_SW
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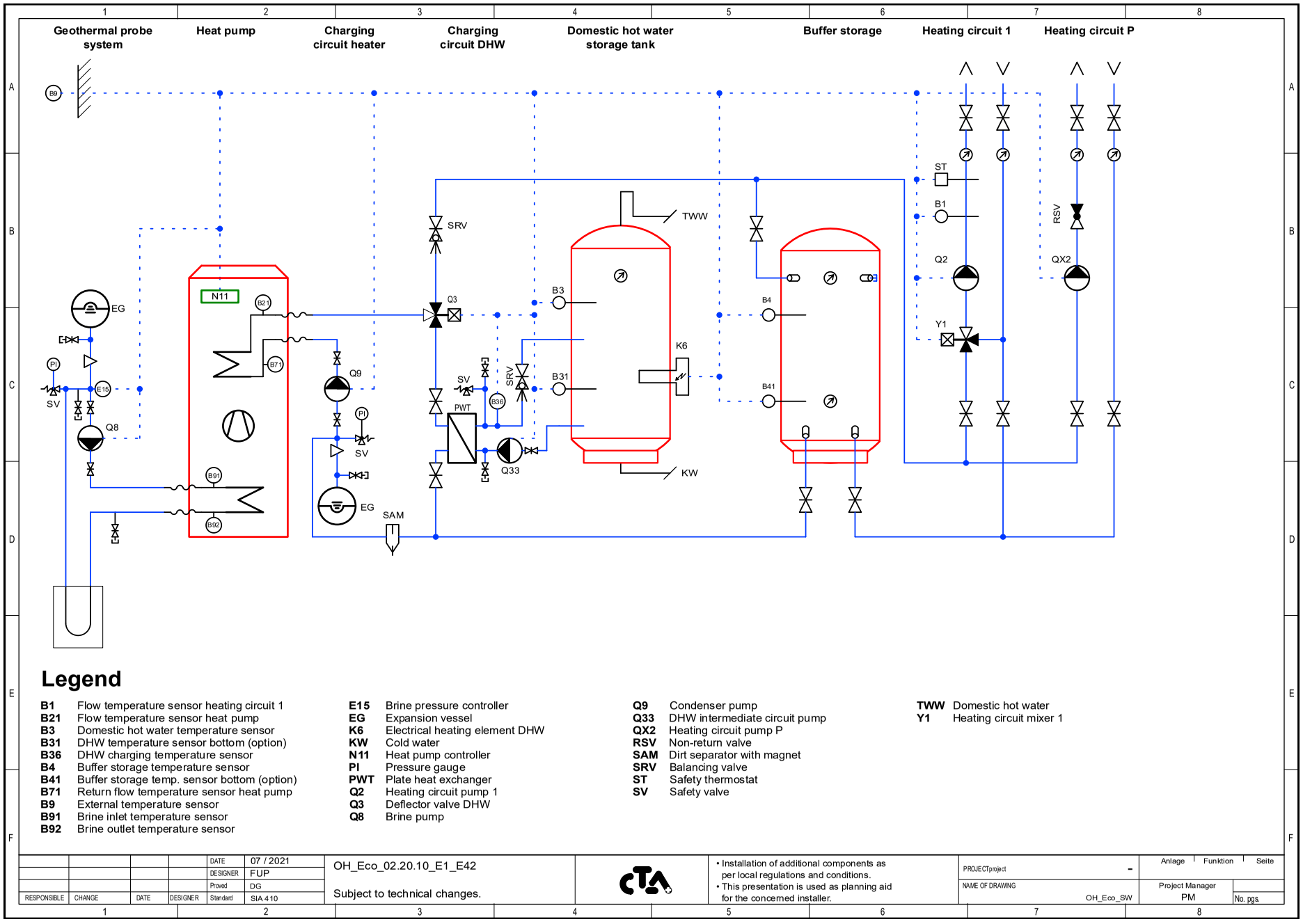

Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B36 DHW charging temperature sensor
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor

E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump

Q9 Condenser pump
Q33 DHW intermediate circuit pump
QX2 Heating circuit pump P
RSV Non-return valve
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve

TWW Domestic hot water
Y1 Heating circuit mixer 1

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				DESIGNER	FUP
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OH_Eco_02.20.10_E1_E42

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
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PROJECTproject -
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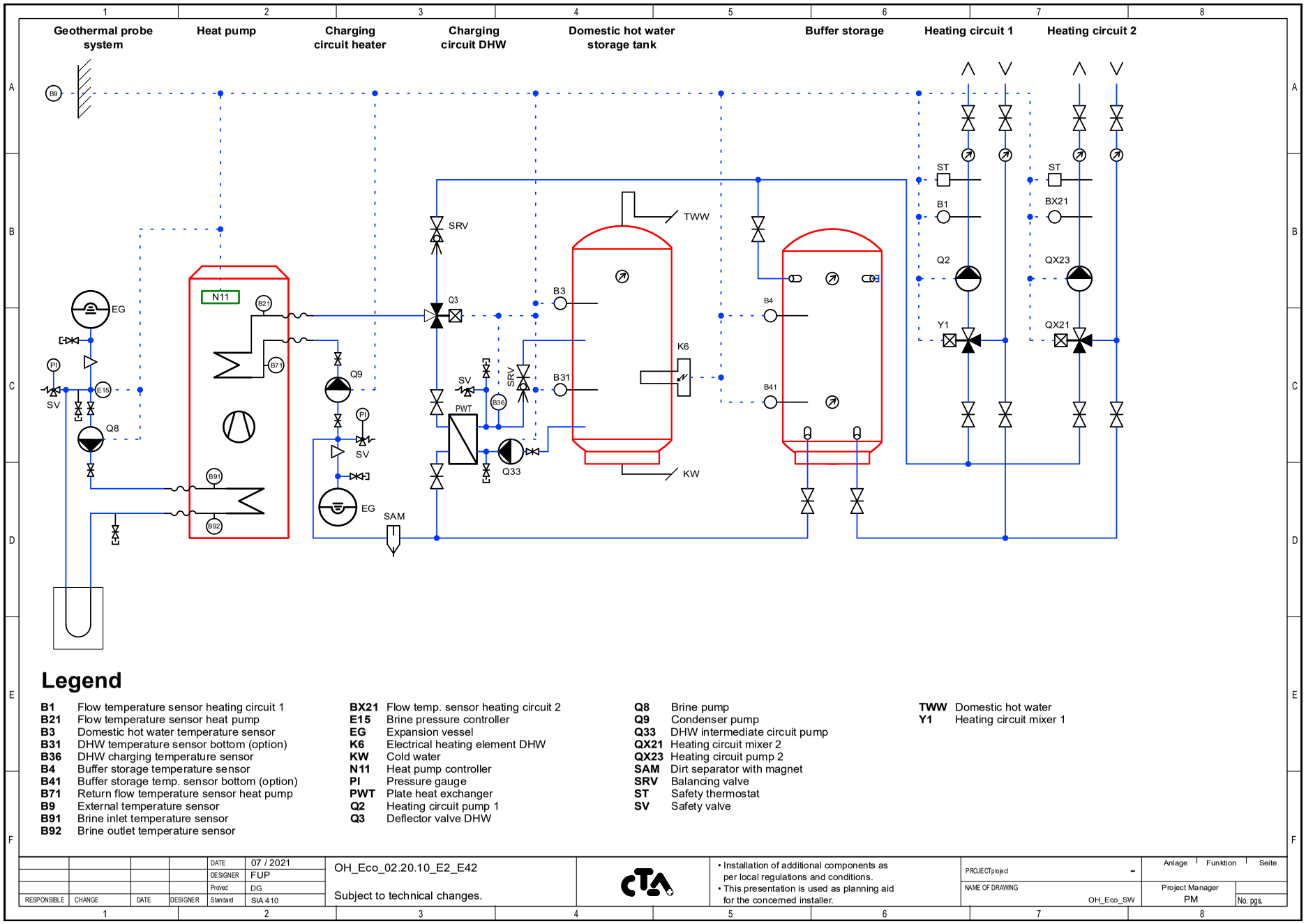
Project Manager PM		No. pgs.



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B36 DHW charging temperature sensor
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor

BX21 Flow temp. sensor heating circuit 2
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW

Q8 Brine pump
Q9 Condenser pump
Q33 DHW intermediate circuit pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve

TWW Domestic hot water
Y1 Heating circuit mixer 1

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OH_Eco_02.20.10_E2_E42

Subject to technical changes.

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PROJECTproject -
NAME OF DRAWING OH_Eco_SW

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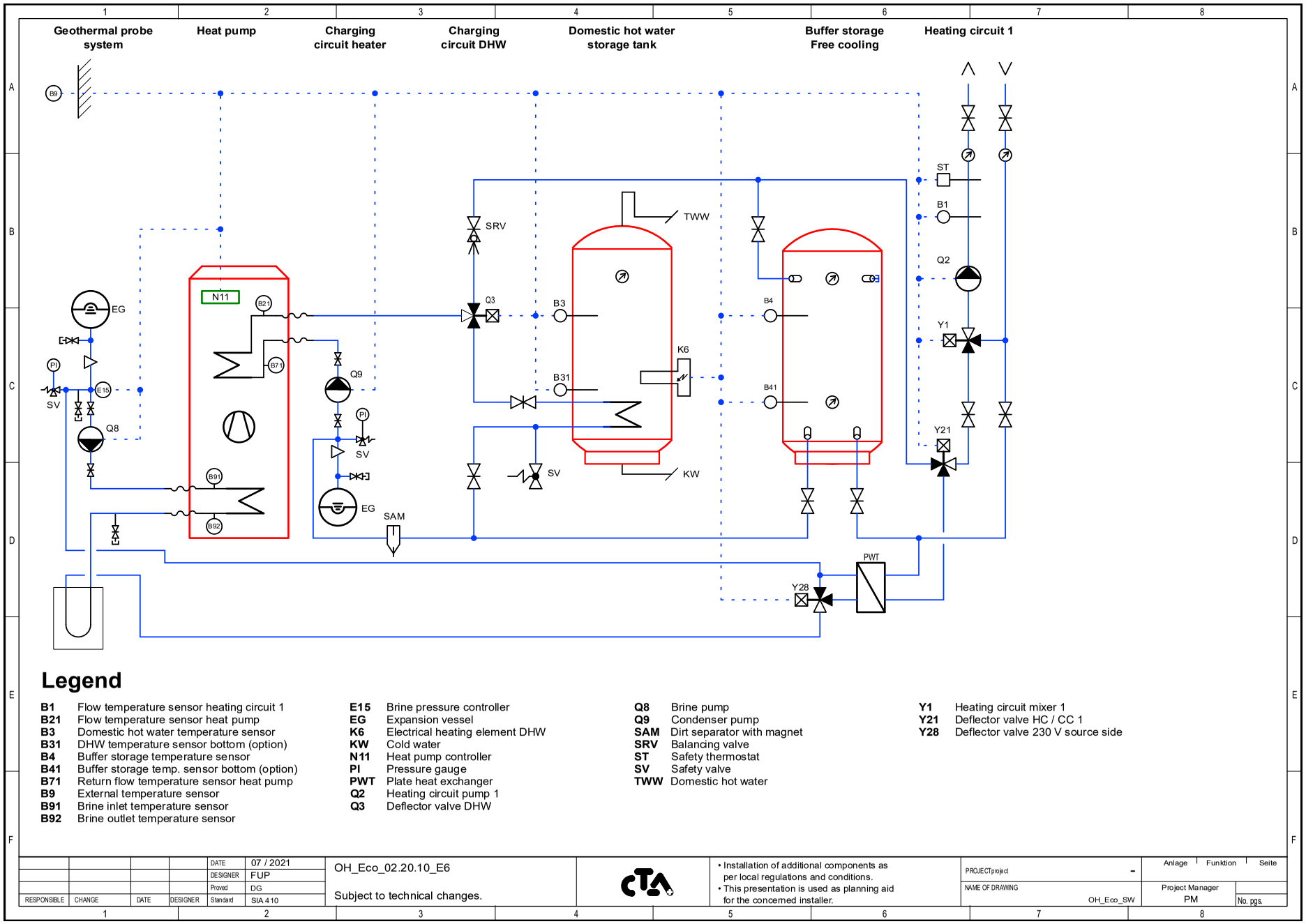
Project Manager PM		No. pgs.



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor

E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW

Q8 Brine pump
Q9 Condenser pump
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water

Y1 Heating circuit mixer 1
Y21 Deflector valve HC / CC 1
Y28 Deflector valve 230 V source side

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OH_Eco_02.20.10_E6

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
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PROJECTproject	-	Anlage / Funktion / Seite	
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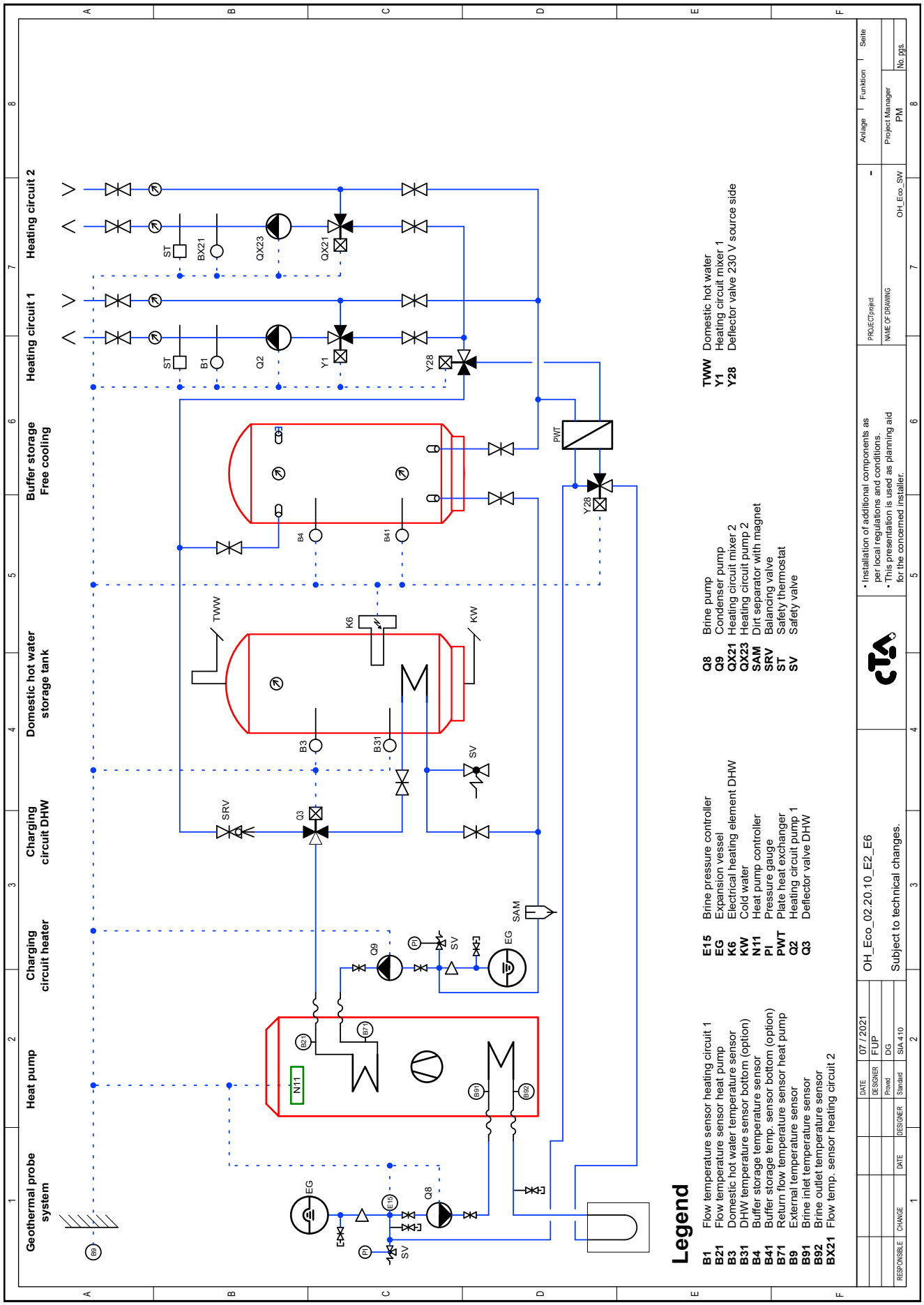
		No. pgs.	


Geothermal probe system
Heat pump
Charging circuit heater
Charging circuit DHW
Domestic hot water storage tank
Buffer storage Free cooling
Heating circuit 1
Heating circuit 2
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
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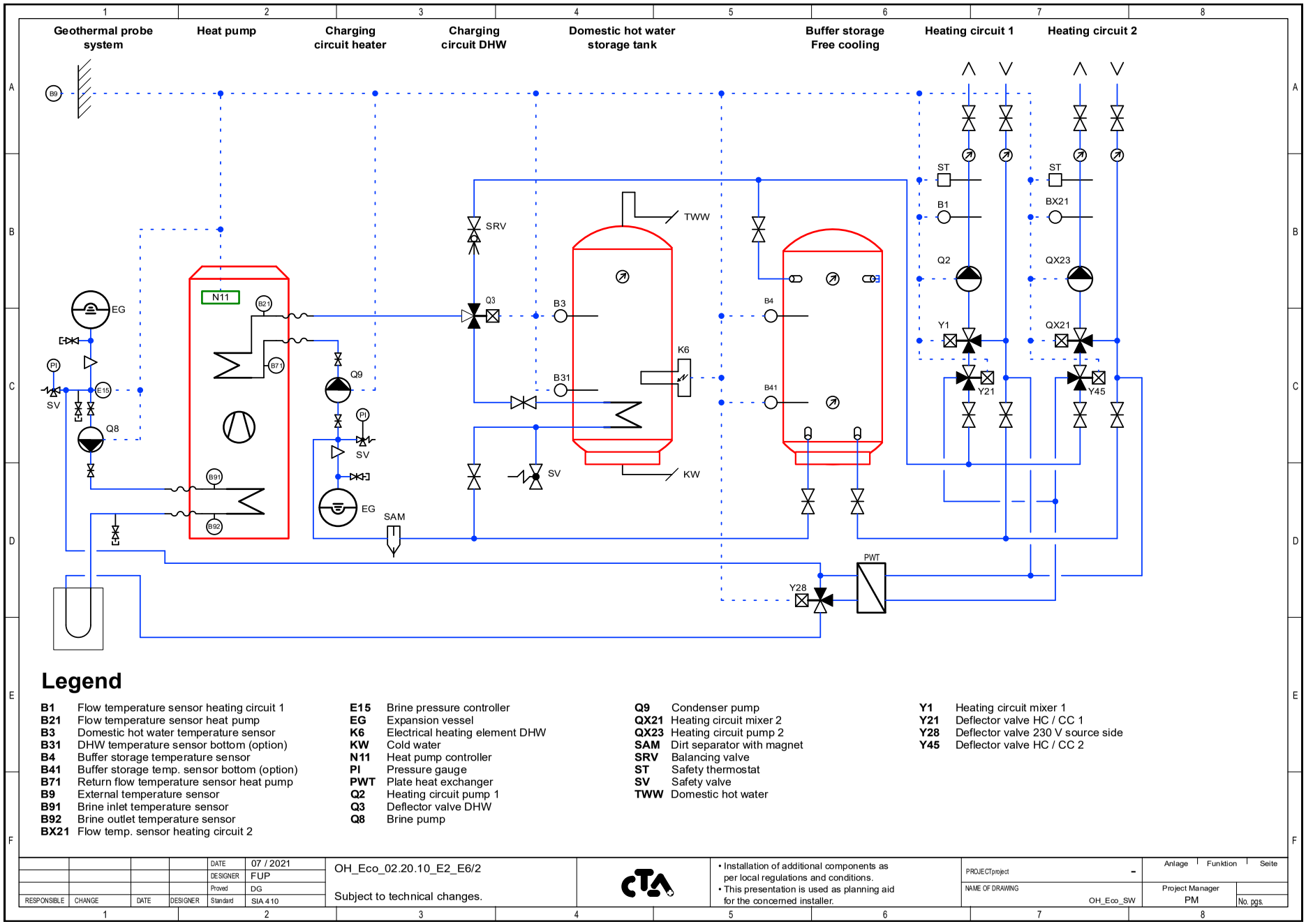
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1
Y28 Deflector valve 230 V source side
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
OH_Eco_02.20.10_E2_E6
Subject to technical changes.
OH_Eco_SW
Project Manager PM



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
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B92 Brine outlet temperature sensor
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E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1
Y21 Deflector valve HC / CC 1
Y28 Deflector valve 230 V source side
Y45 Deflector valve HC / CC 2

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				DESIGNER	FUP
				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.20.10_E2_E6/2

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject -
NAME OF DRAWING OH_Eco_SW

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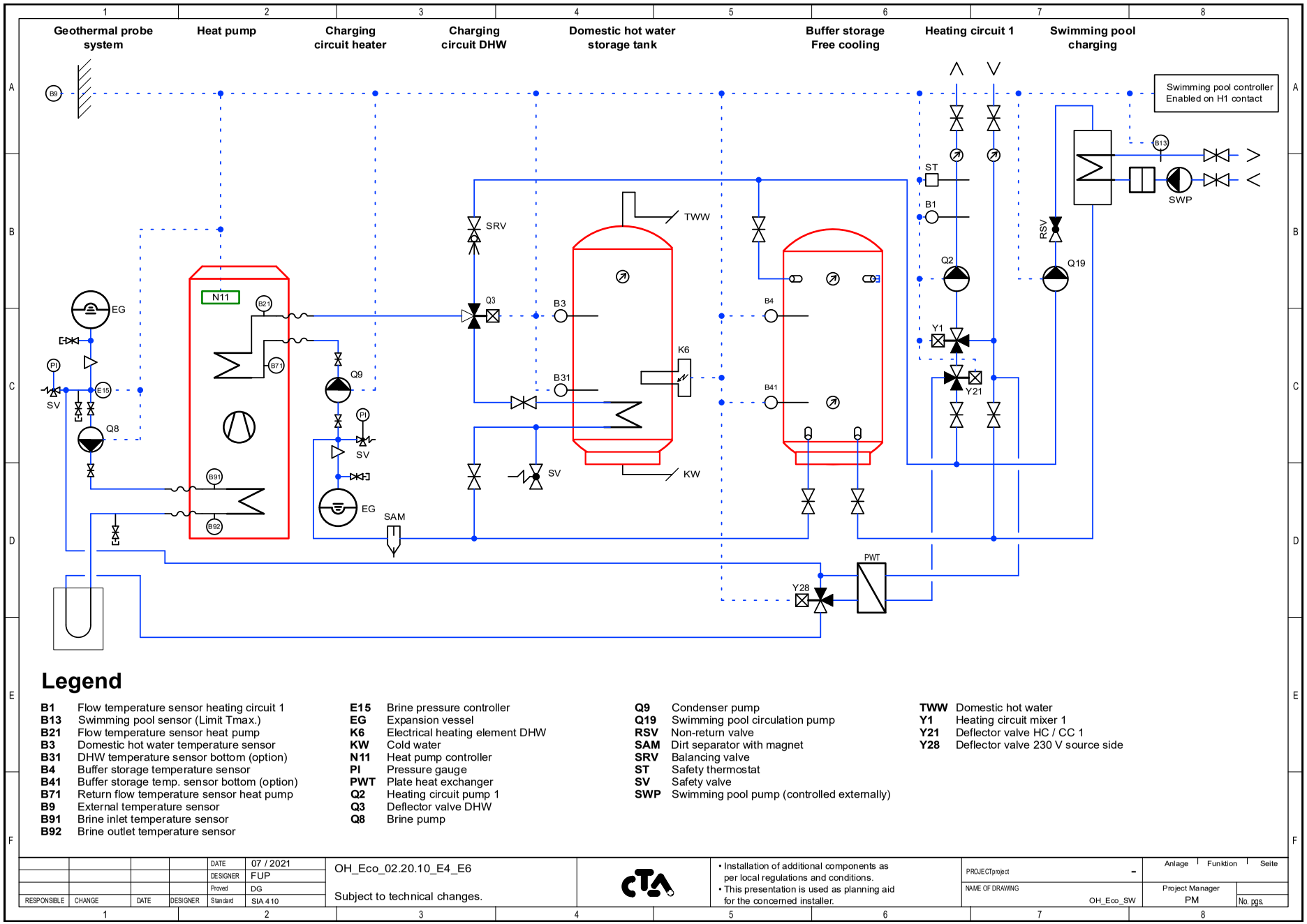
Project Manager PM		No. pgs.



Legend

B1 Flow temperature sensor heating circuit 1
B13 Swimming pool sensor (Limit Tmax.)
B21 Flow temperature sensor heat pump
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N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump

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Q19 Swimming pool circulation pump
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ST Safety thermostat
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TWW Domestic hot water
Y1 Heating circuit mixer 1
Y21 Deflector valve HC / CC 1
Y28 Deflector valve 230 V source side

				DATE	07 / 2021
				DESIGNER	FUP
				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.20.10_E4_E6

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject	-	Anlage	Funktion / Seite
NAME OF DRAWING	OH_Eco_SW	Project Manager	PM
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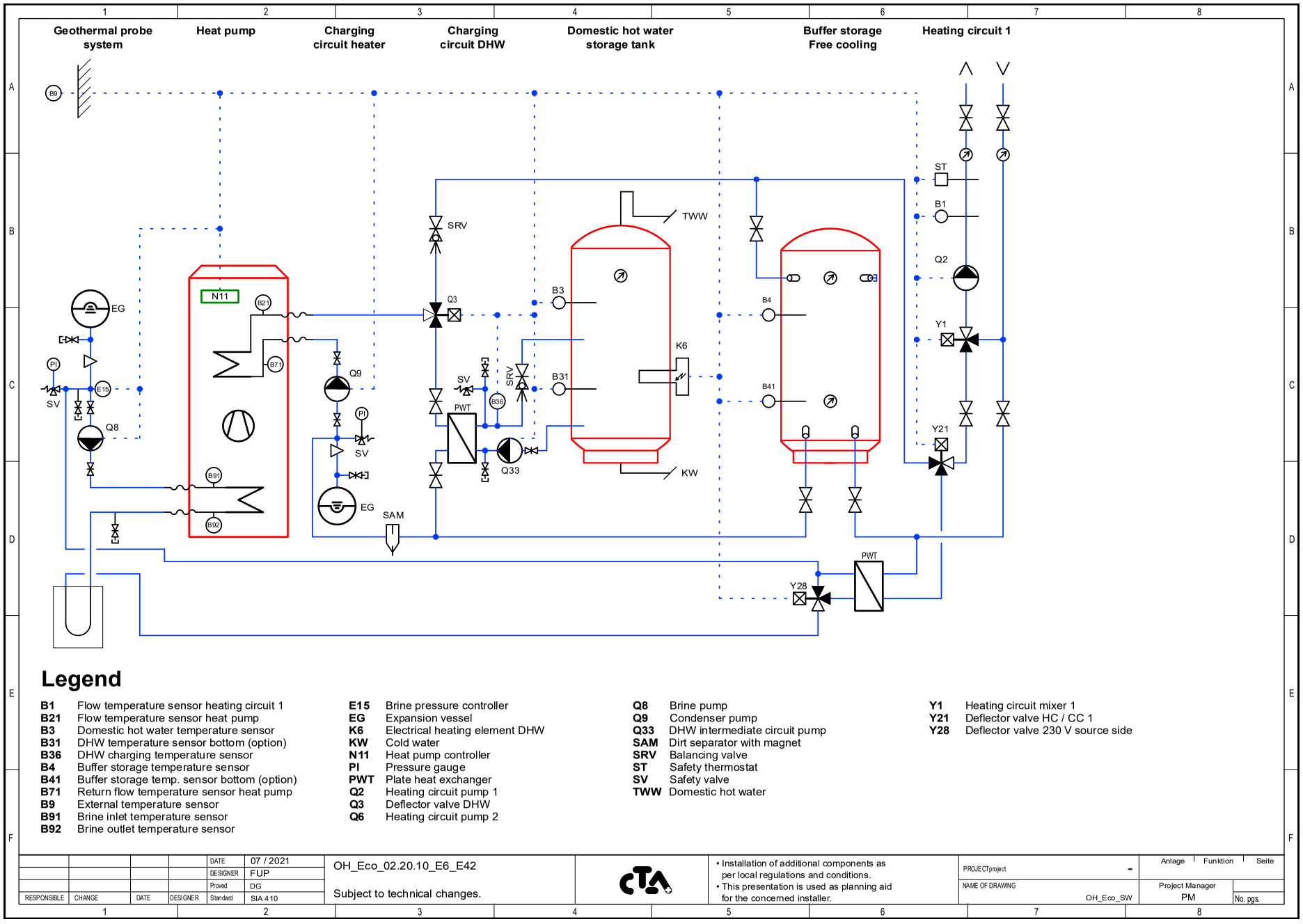

Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
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B31 DHW temperature sensor bottom (option)
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E15 Brine pressure controller
EG Expansion vessel
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KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q6 Heating circuit pump 2

Q8 Brine pump
Q9 Condenser pump
Q33 DHW intermediate circuit pump
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water

Y1 Heating circuit mixer 1
Y21 Deflector valve HC / CC 1
Y28 Deflector valve 230 V source side

				DATE	07 / 2021
				DESIGNER	FUP
				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

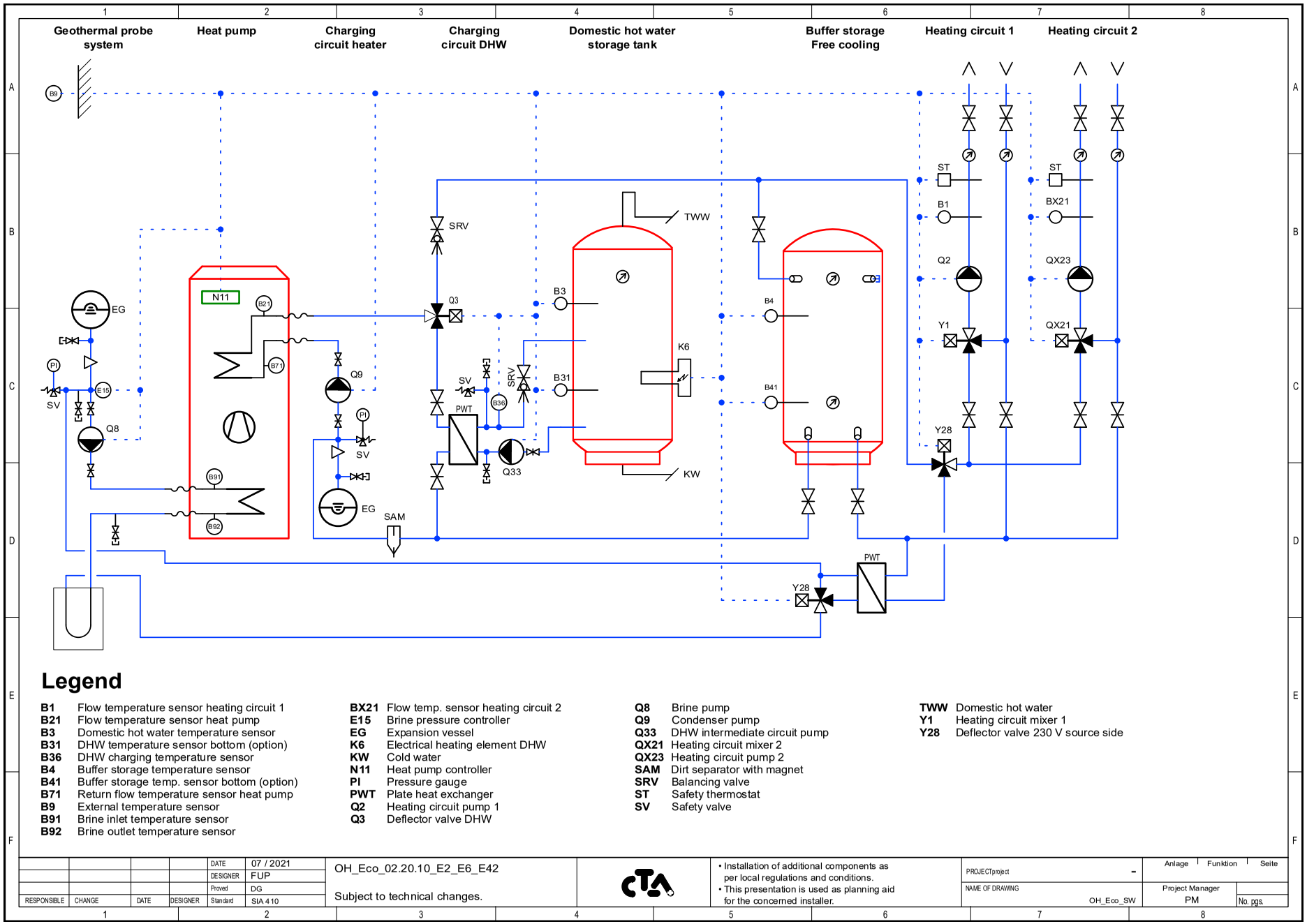
OH_Eco_02.20.10_E6_E42

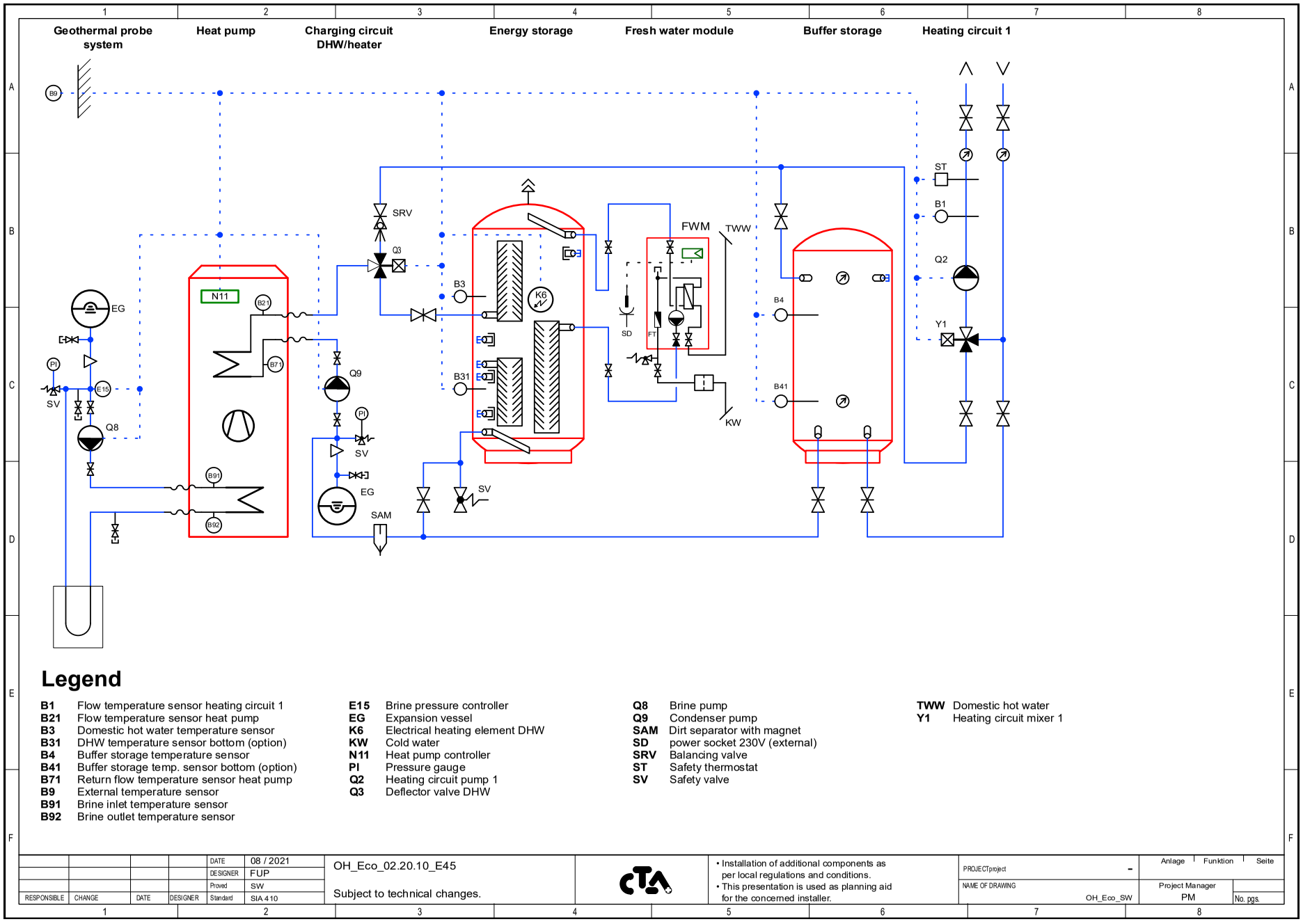
Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject -
NAME OF DRAWING OH_Eco_SW

Anlage	Funktion	Seite
Project Manager PM		No. pgs.


Geothermal probe system
Heat pump
Charging circuit heater
Charging circuit DHW
Domestic hot water storage tank
Buffer storage Free cooling
Heating circuit 1
Heating circuit 2
B9
EG
PI
SV
E15
Q8
N11
B21
B71
B91
B92
Q9
SAM
SRV
Q3
B3
B31
B36
PWT
Q33
TWW
K6
KW
B4
B41
ST
B1
Q2
Y1
Y28
BX21
QX23
QX21
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B36 DHW charging temperature sensor
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
Q33 DHW intermediate circuit pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1
Y28 Deflector valve 230 V source side
DATE 07 / 2021
DESIGNER FUP
Proved DG
Standard SIA 410
RESPONSIBLE CHANGE DATE DESIGNER
OH_Eco_02.20.10_E2_E6_E42
Subject to technical changes.
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
PROJECTproject -
NAME OF DRAWING OH_Eco_SW
Anlage Funktion Seite
Project Manager PM
No. pgs.



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor

E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW

Q8 Brine pump
Q9 Condenser pump
SAM Dirt separator with magnet
SD power socket 230V (external)
SRV Balancing valve
ST Safety thermostat
SV Safety valve

TWW Domestic hot water
Y1 Heating circuit mixer 1

				DATE	08 / 2021
				DESIGNER	FUP
				Proved	SW
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.20.10_E45

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject	-	Anlage	Funktion / Seite
NAME OF DRAWING	OH_Eco_SW	Project Manager	PM
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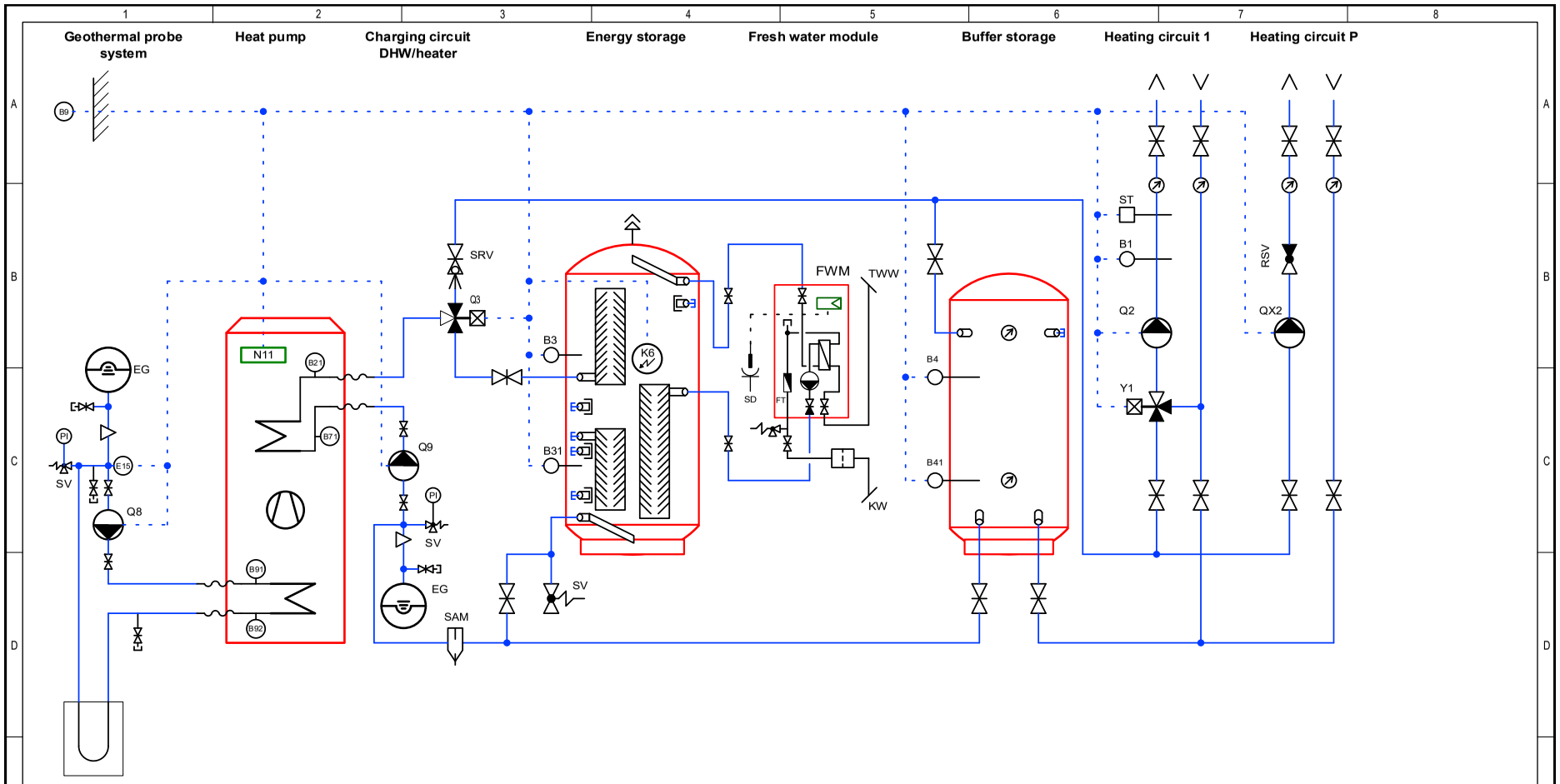


Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller

EG Expansion vessel
KW Cold water
K6 Electrical heating element DHW
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump

QX2 Heating circuit pump P
RSV Non-return valve
SAM Dirt separator with magnet
SD power socket 230V (external)
SRV Balancing valve
ST Safety thermostat
SV Safety valve

TWW Domestic hot water
Y1 Heating circuit mixer 1

				DATE	08 / 2021
				DESIGNER	FUP
				Proved	SW
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

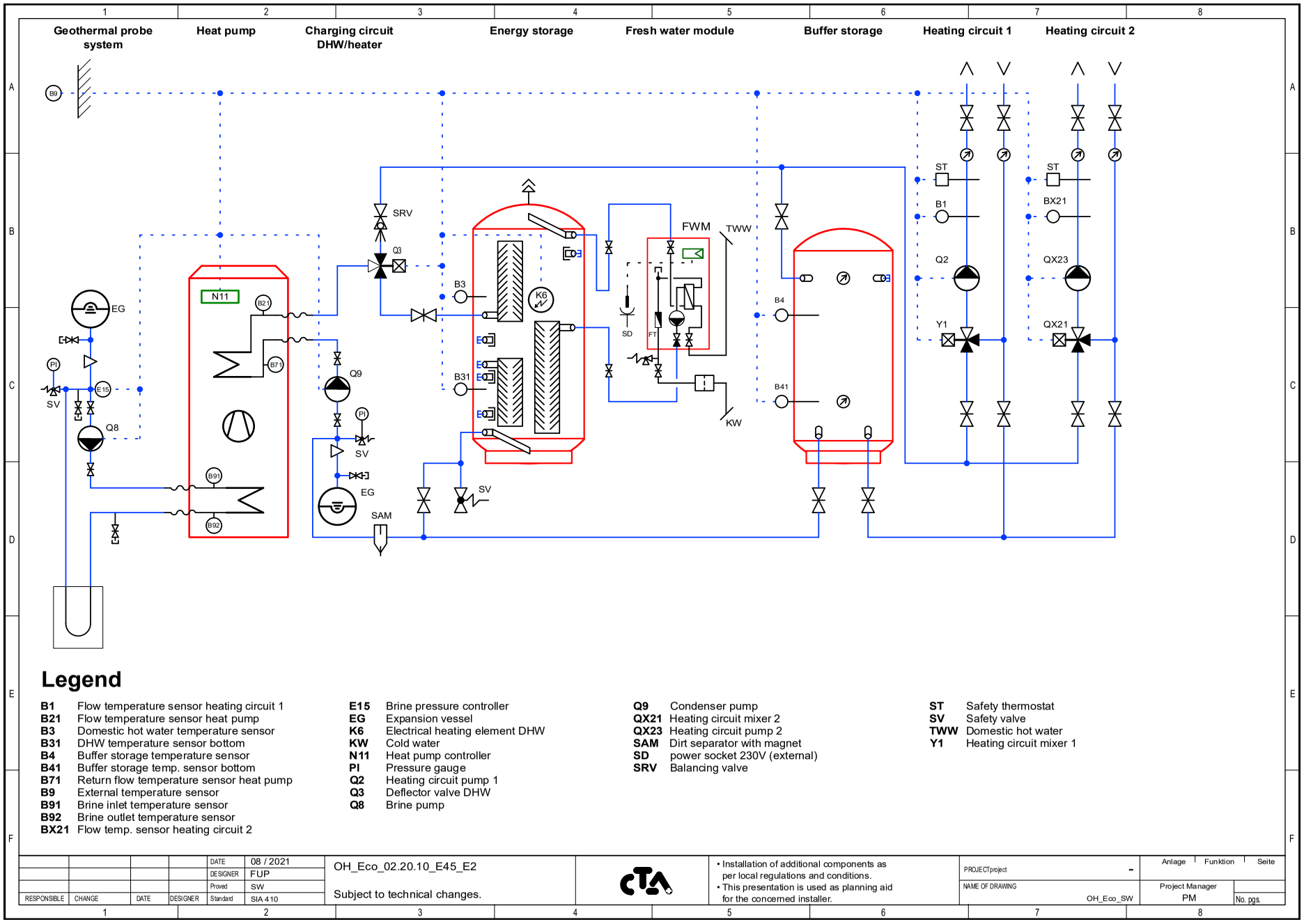
OH_Eco_02.20.10_E45_E1

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject -
NAME OF DRAWING OH_Eco_SW

Anlage	Funktion	Seite
Project Manager PM		No. pgs.



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2

E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump

Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
SAM Dirt separator with magnet
SD power socket 230V (external)
SRV Balancing valve

ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1

				DATE	08 / 2021
				DESIGNER	FUP
				Proved	SW
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

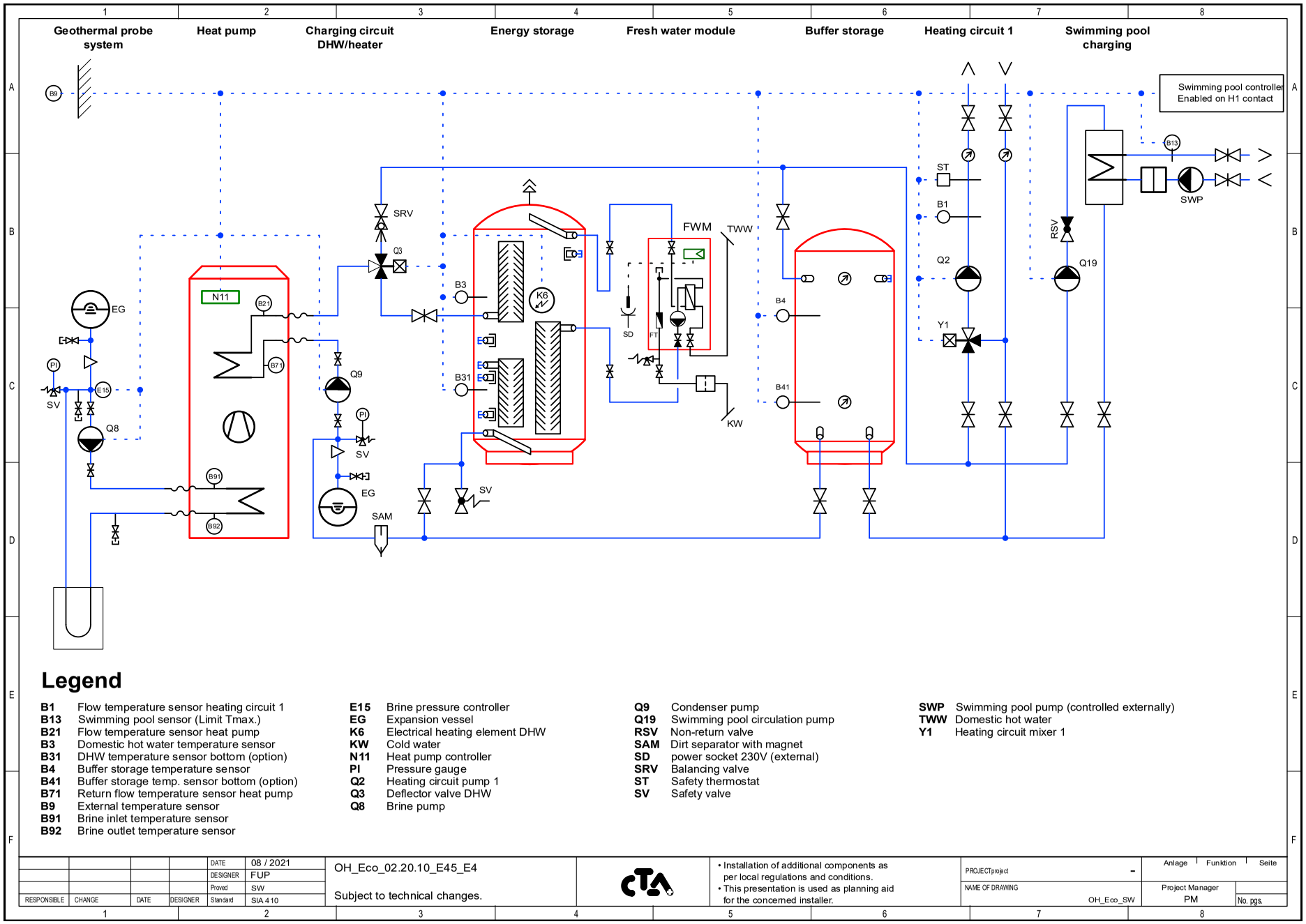
OH_Eco_02.20.10_E45_E2

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject -
NAME OF DRAWING OH_Eco_SW

Anlage	Funktion	Seite
Project Manager PM		No. pgs.



Legend

B1	Flow temperature sensor heating circuit 1
B13	Swimming pool sensor (Limit Tmax.)
B21	Flow temperature sensor heat pump
B3	Domestic hot water temperature sensor
B31	DHW temperature sensor bottom (option)
B4	Buffer storage temperature sensor
B41	Buffer storage temp. sensor bottom (option)
B71	Return flow temperature sensor heat pump
B9	External temperature sensor
B91	Brine inlet temperature sensor
B92	Brine outlet temperature sensor
E15	Brine pressure controller
EG	Expansion vessel
K6	Electrical heating element DHW
KW	Cold water
N11	Heat pump controller
PI	Pressure gauge
Q2	Heating circuit pump 1
Q3	Deflector valve DHW
Q8	Brine pump
Q9	Condenser pump
Q19	Swimming pool circulation pump
RSV	Non-return valve
SAM	Dirt separator with magnet
SD	power socket 230V (external)
SRV	Balancing valve
ST	Safety thermostat
SV	Safety valve
SWP	Swimming pool pump (controlled externally)
TWW	Domestic hot water
Y1	Heating circuit mixer 1

				DATE	08 / 2021
				DESIGNER	FUP
				Proved	SW
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.20.10_E45_E4

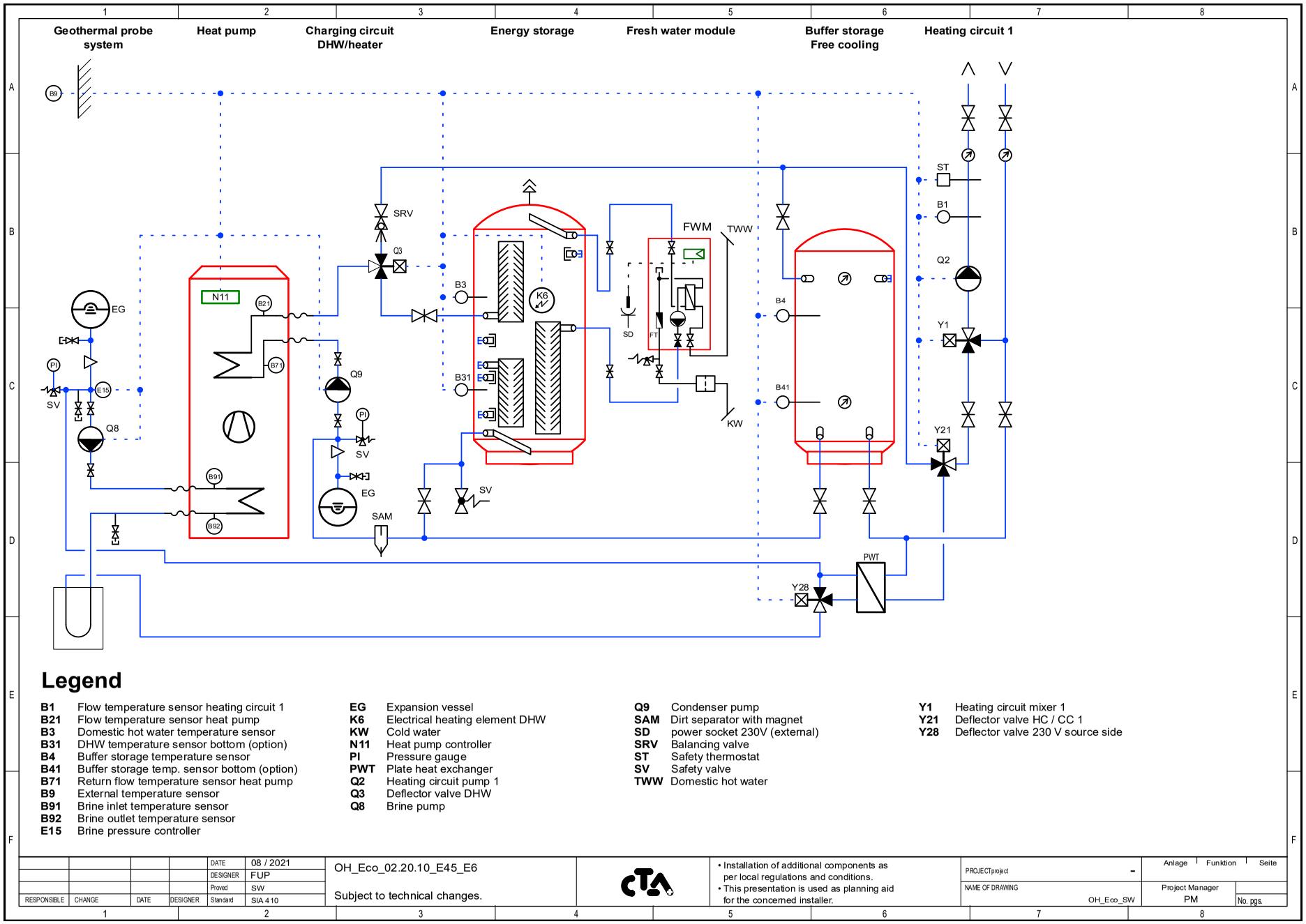
Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject -

NAME OF DRAWING OH_Eco_SW

Anlage	Funktion	Seite
Project Manager PM		No. pgs.



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller

EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump

Q9 Condenser pump
SAM Dirt separator with magnet
SD power socket 230V (external)
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water

Y1 Heating circuit mixer 1
Y21 Deflector valve HC / CC 1
Y28 Deflector valve 230 V source side

				DATE	08 / 2021
				DESIGNER	FUP
				Proved	SW
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.20.10_E45_E6

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject	-	Anlage / Funktion / Seite	
NAME OF DRAWING	OH_Eco_SW	Project Manager	PM
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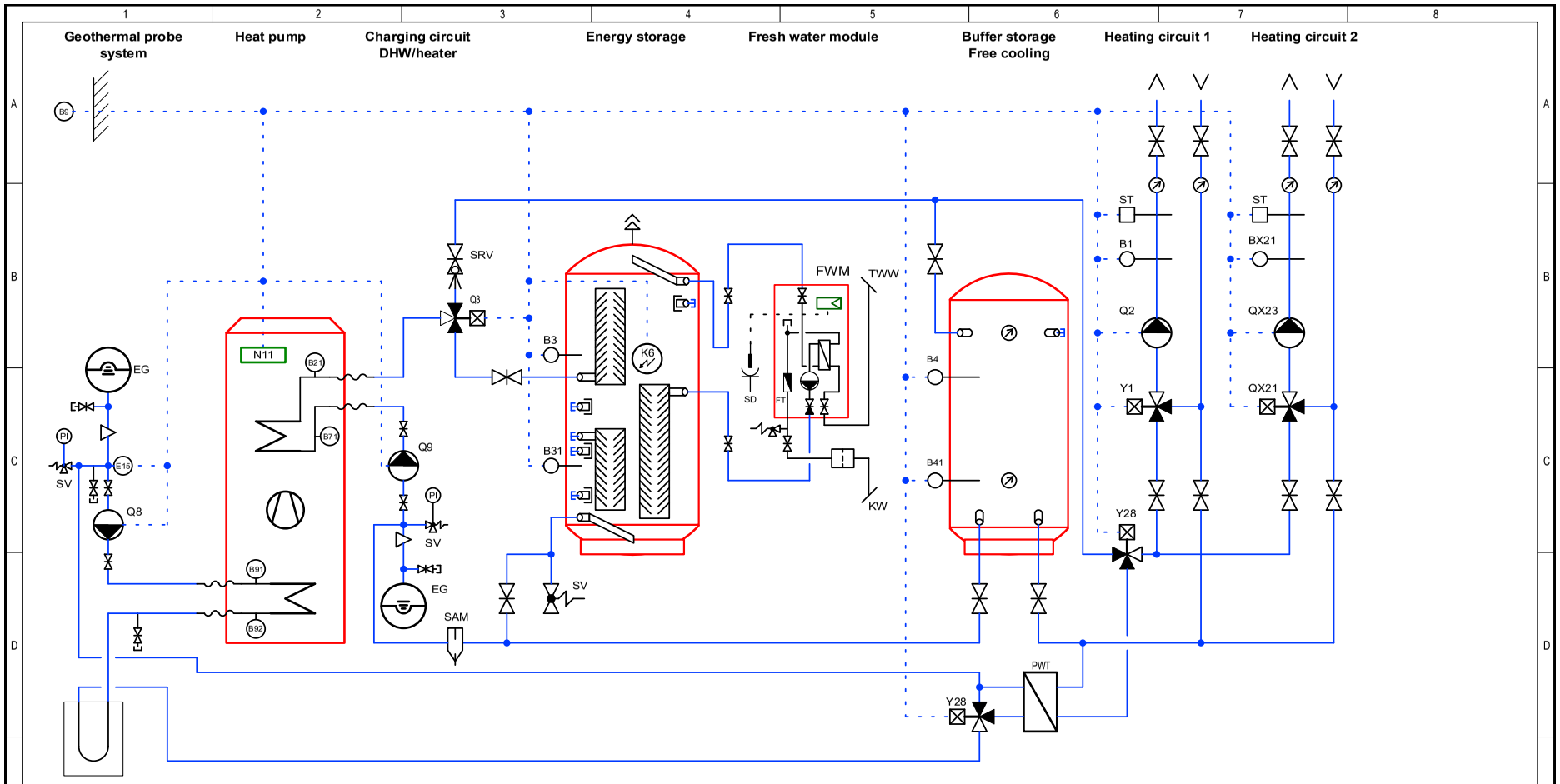

Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
SAM Dirt separator with magnet
SD power socket 230V (external)
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1
Y28 Deflector valve 230 V source side

				DATE	08 / 2021
				DESIGNER	FUP
				Proved	SW
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.20.10_E45_E2_E6

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject	-	Anlage / Funktion / Seite	
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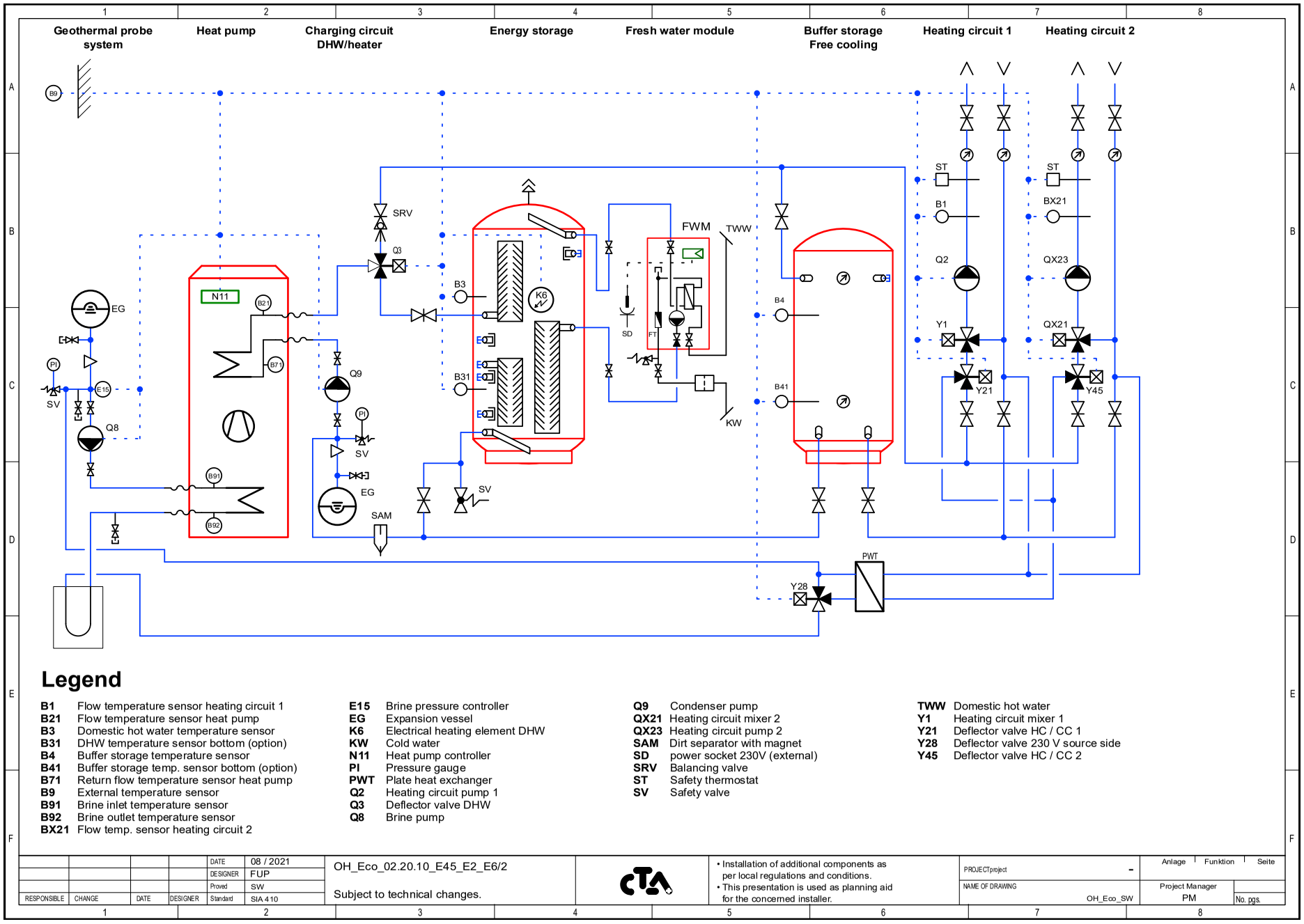


Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B41 Buffer storage temp. sensor bottom (option)
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2

E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump

Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
SAM Dirt separator with magnet
SD power socket 230V (external)
SRV Balancing valve
ST Safety thermostat
SV Safety valve

TWW Domestic hot water
Y1 Heating circuit mixer 1
Y21 Deflector valve HC / CC 1
Y28 Deflector valve 230 V source side
Y45 Deflector valve HC / CC 2

				DATE	08 / 2021
				DESIGNER	FUP
				Proved	SW
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

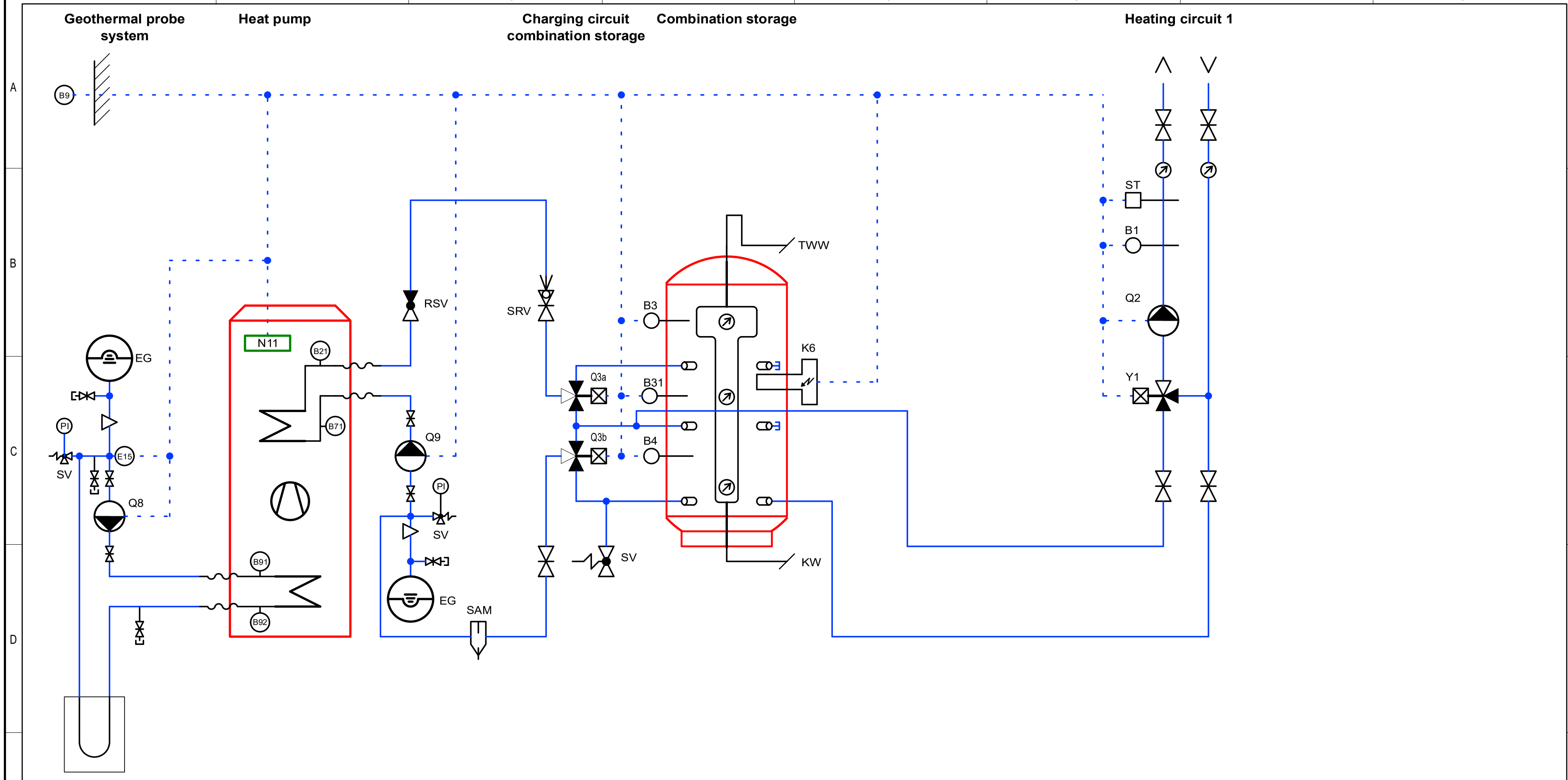
OH_Eco_02.20.10_E45_E2_E6/2

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject -
NAME OF DRAWING OH_Eco_SW

Anlage	Funktion	Seite
Project Manager PM		No. pgs.



Legend

B1	Flow temperature sensor heating circuit 1	**EG**	Expansion vessel	**Q8**	Brine pump	**SV**	Safety valve
B21	Flow temperature sensor heat pump	**K6**	Electrical heating element DHW	**Q9**	Condenser pump	**TWW**	Domestic hot water
B3	Domestic hot water temperature sensor	**KW**	Cold water	**RSV**	Non-return valve	**Y1**	Heating circuit mixer 1
B31	DHW temperature sensor bottom (option)	**N11**	Heat pump controller	**SAM**	Dirt separator with magnet		
B4	Buffer storage temperature sensor	**PI**	Pressure gauge	**SRV**	Balancing valve		
B71	Return flow temperature sensor heat pump	**Q2**	Heating circuit pump 1	**ST**	Safety thermostat		
B9	External temperature sensor	**Q3**	Deflector valve DHW				
B91	Brine inlet temperature sensor						
B92	Brine outlet temperature sensor						
E15	Brine pressure controller						

				DATE	07 / 2021
				DESIGNER	FUP
				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.30.10

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject -

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Anlage | Funktion | Seite

Project Manager PM

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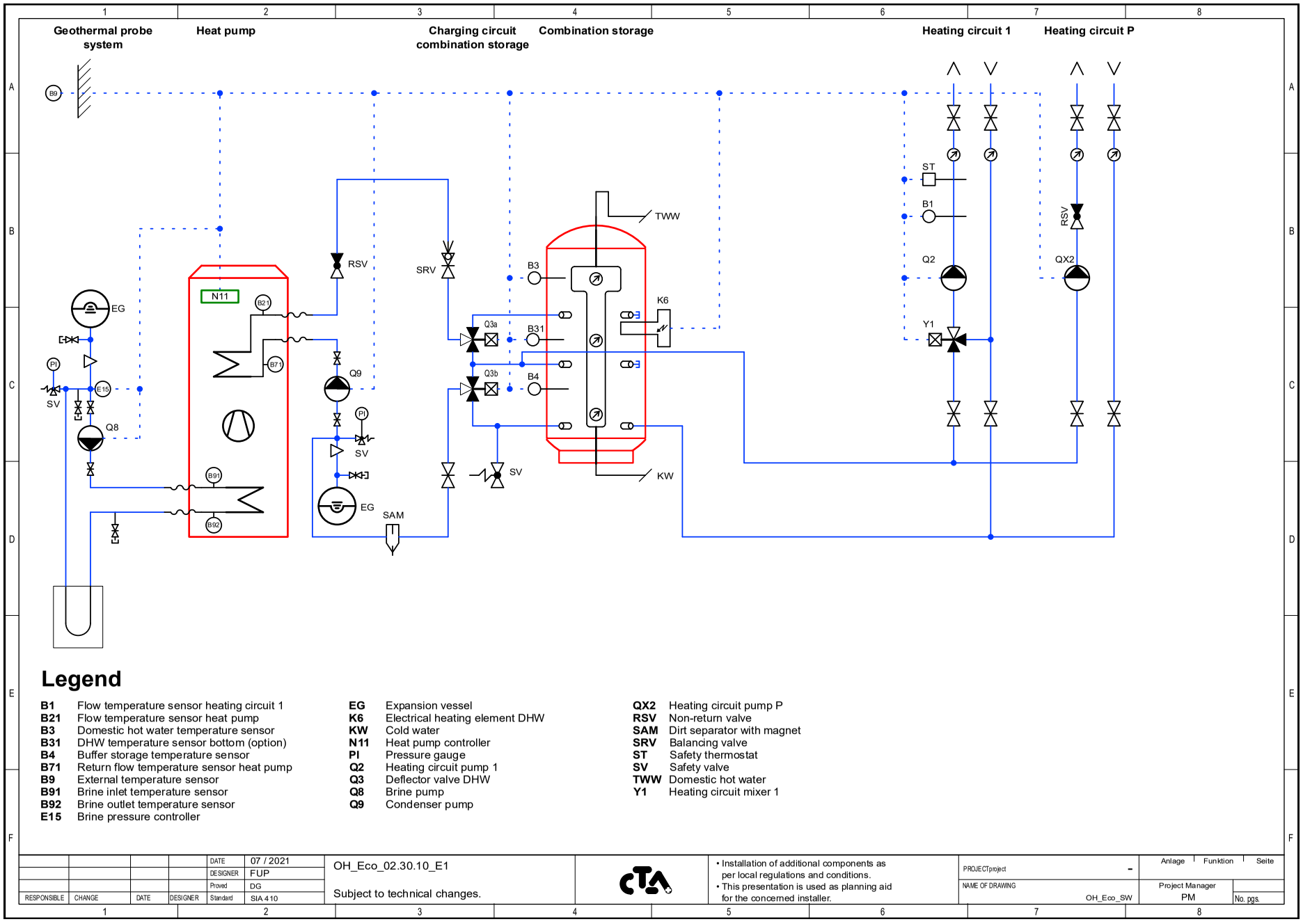

Legend

B1	Flow temperature sensor heating circuit 1
B21	Flow temperature sensor heat pump
B3	Domestic hot water temperature sensor
B31	DHW temperature sensor bottom (option)
B4	Buffer storage temperature sensor
B71	Return flow temperature sensor heat pump
B9	External temperature sensor
B91	Brine inlet temperature sensor
B92	Brine outlet temperature sensor
E15	Brine pressure controller
EG	Expansion vessel
K6	Electrical heating element DHW
KW	Cold water
N11	Heat pump controller
PI	Pressure gauge
Q2	Heating circuit pump 1
Q3	Deflector valve DHW
Q8	Brine pump
Q9	Condenser pump
QX2	Heating circuit pump P
RSV	Non-return valve
SAM	Dirt separator with magnet
SRV	Balancing valve
ST	Safety thermostat
SV	Safety valve
TWW	Domestic hot water
Y1	Heating circuit mixer 1

				DATE	07 / 2021
				DESIGNER	FUP
				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.30.10_E1

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject	-	Anlage / Funktion / Seite	
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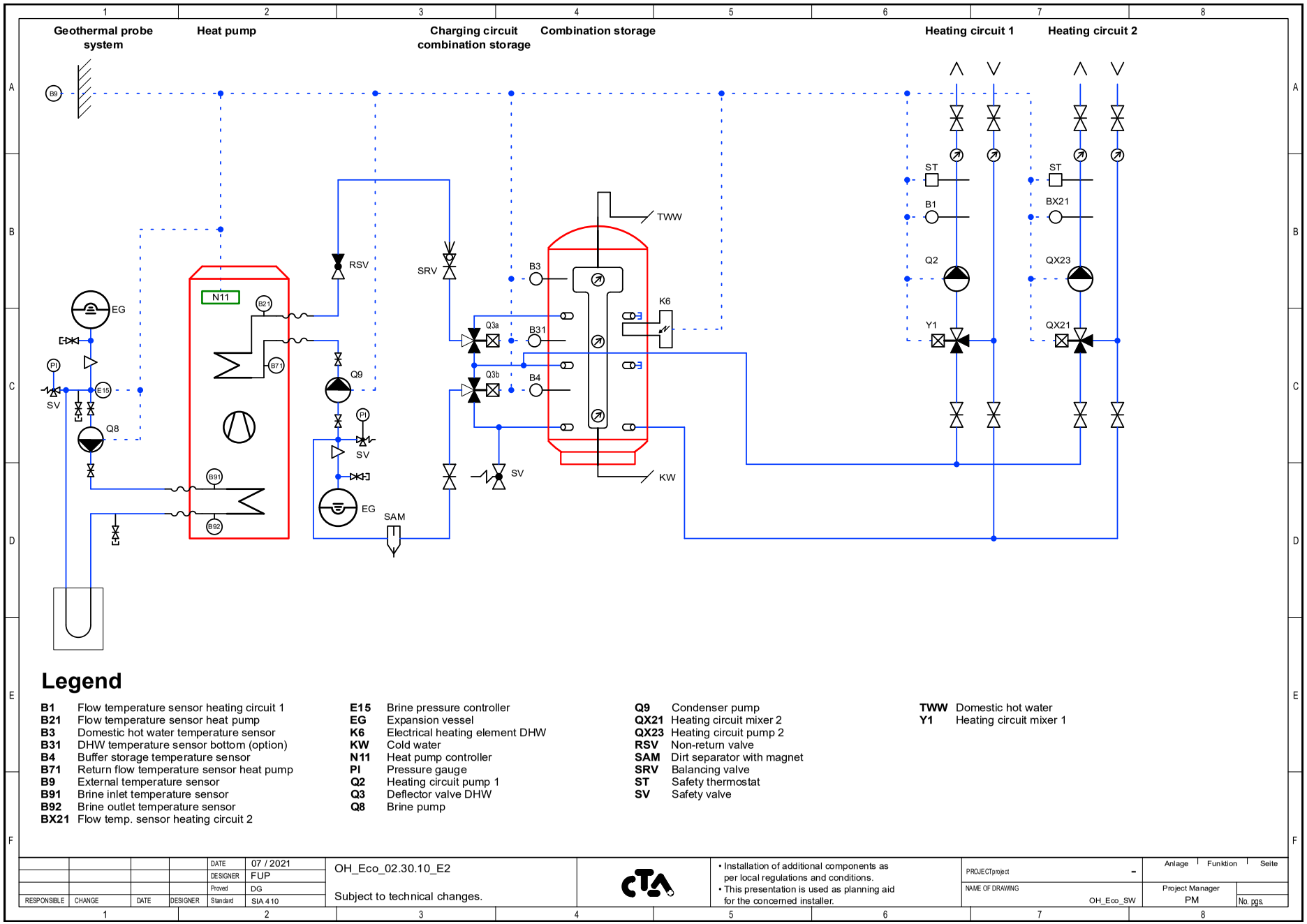
		No. pgs.	



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
RSV Non-return valve
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1

				DATE	07 / 2021
				DESIGNER	FUP
				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.30.10_E2

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

PROJECTproject	-	Anlage / Funktion / Seite	
NAME OF DRAWING	OH_Eco_SW	Project Manager	PM
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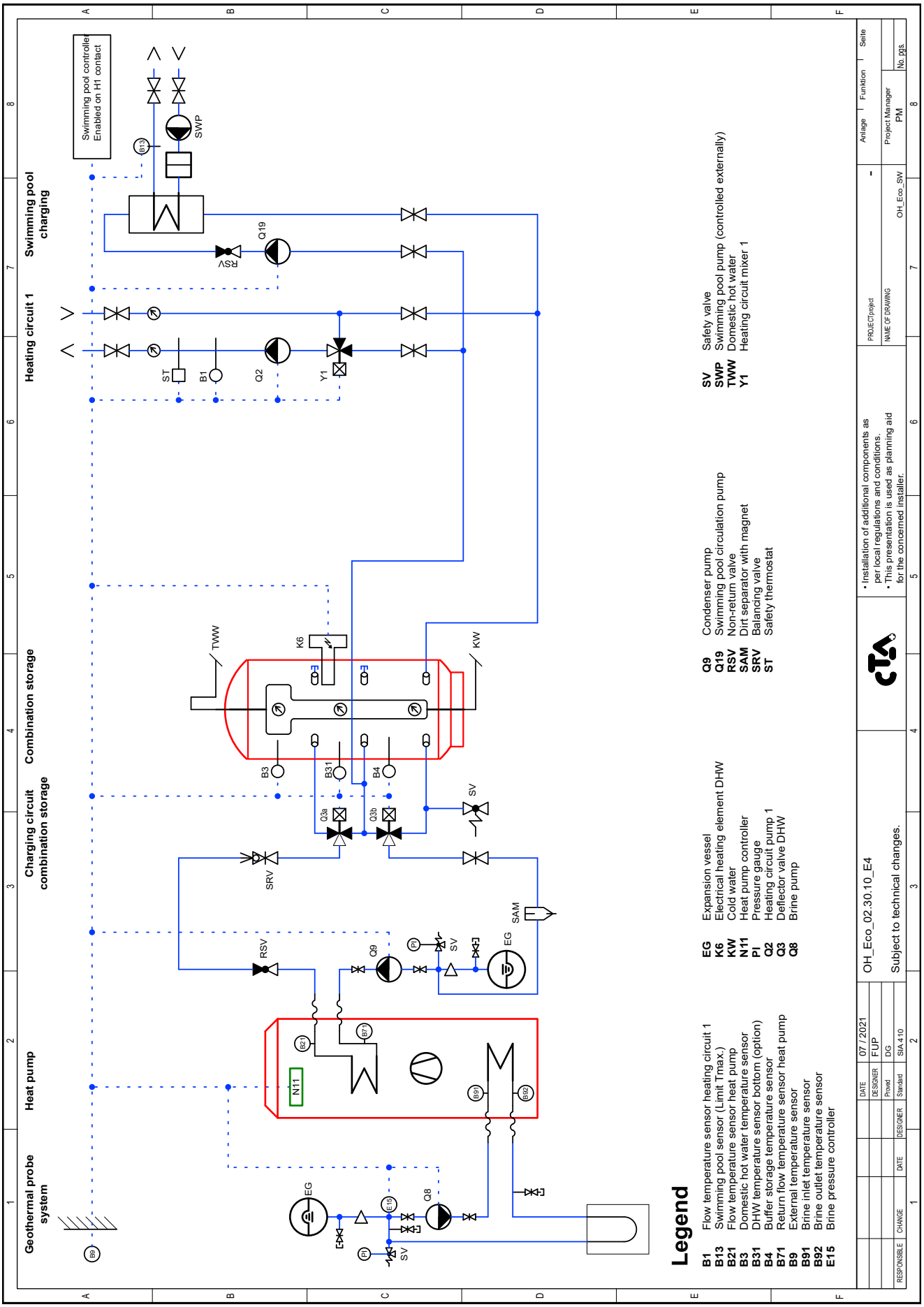
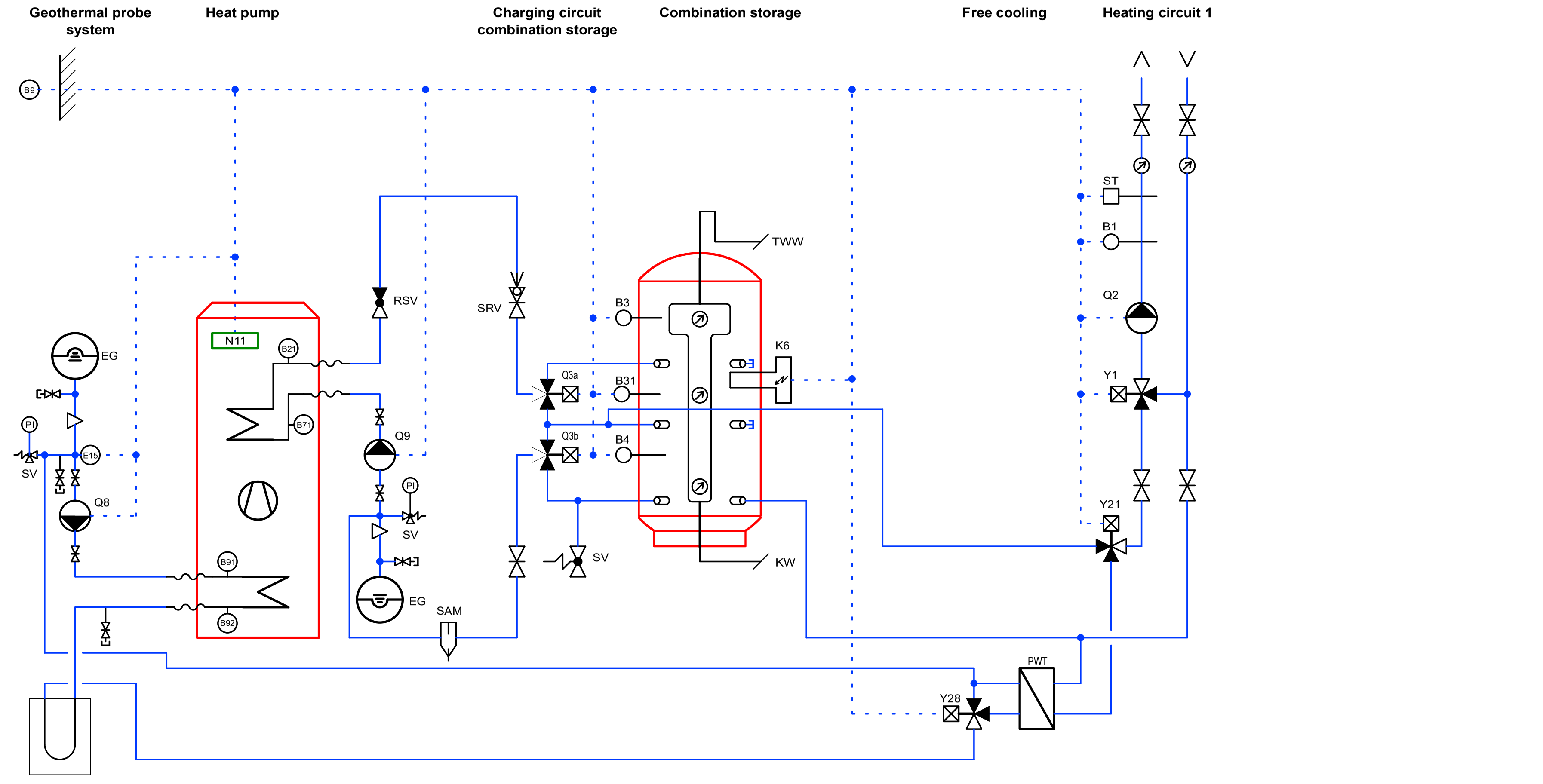

Geothermal probe system
Heat pump
Charging circuit combination storage
Combination storage
Heating circuit 1
Swimming pool charging
Swimming pool controller Enabled on H1 contact
SWP
RSV
Q19
ST
B1
Q2
Y1
TWW
K6
KW
B3
B31
B4
Q3a
Q3b
SV
SRV
SAM
EG
Q9
N11
B21
B71
B91
B92
Q8
E15
B9
Legend
B1 Flow temperature sensor heating circuit 1
B13 Swimming pool sensor (Limit Tmax.)
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
Q19 Swimming pool circulation pump
RSV Non-return valve
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
SWP Swimming pool pump (controlled externally)
TWW Domestic hot water
Y1 Heating circuit mixer 1
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
OH_Eco_02.30.10_E4
Subject to technical changes.
07 / 2021
FUP
DG
SIA 410
OH_Eco_SW
Project Manager PM



Legend

B1	Flow temperature sensor heating circuit 1
B21	Flow temperature sensor heat pump
B3	Domestic hot water temperature sensor
B31	DHW temperature sensor bottom (option)
B4	Buffer storage temperature sensor
B71	Return flow temperature sensor heat pump
B9	External temperature sensor
B91	Brine inlet temperature sensor
B92	Brine outlet temperature sensor
E15	Brine pressure controller
EG	Expansion vessel
K6	Electrical heating element DHW
KW	Cold water
N11	Heat pump controller
PI	Pressure gauge
PWT	Plate heat exchanger
Q2	Heating circuit pump 1
Q3	Deflector valve DHW
Q8	Brine pump
Q9	Condenser pump
RSV	Non-return valve
SAM	Dirt separator with magnet
SRV	Balancing valve
ST	Safety thermostat
SV	Safety valve
TWW	Domestic hot water
Y1	Heating circuit mixer 1
Y21	Deflector valve HC / CC 1
Y28	Deflector valve 230 V source side

				DATE	07 / 2021
				DESIGNER	FUP
				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.30.10_E6

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
- This presentation is used as planning aid for the concerned installer.

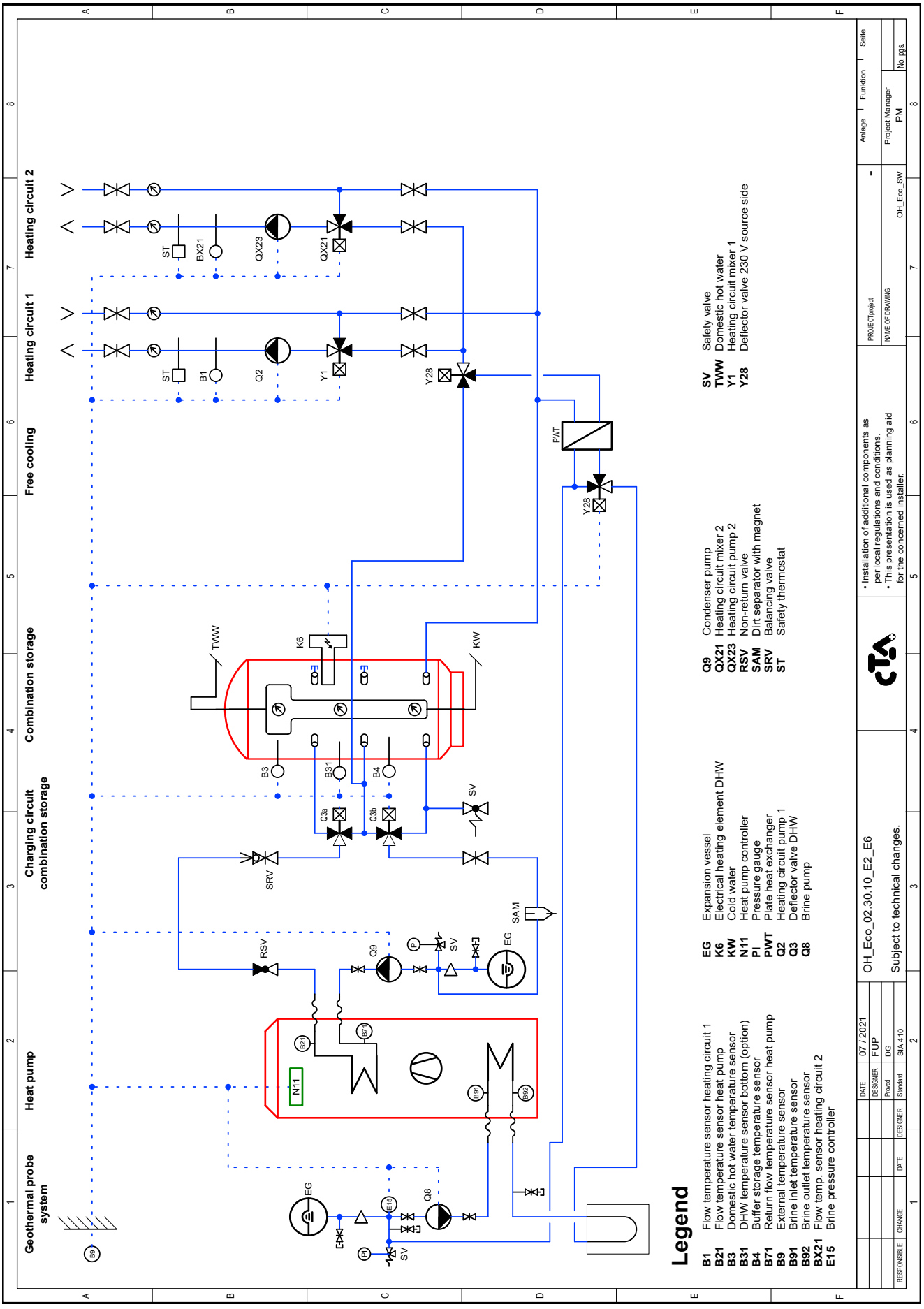
PROJECTproject -

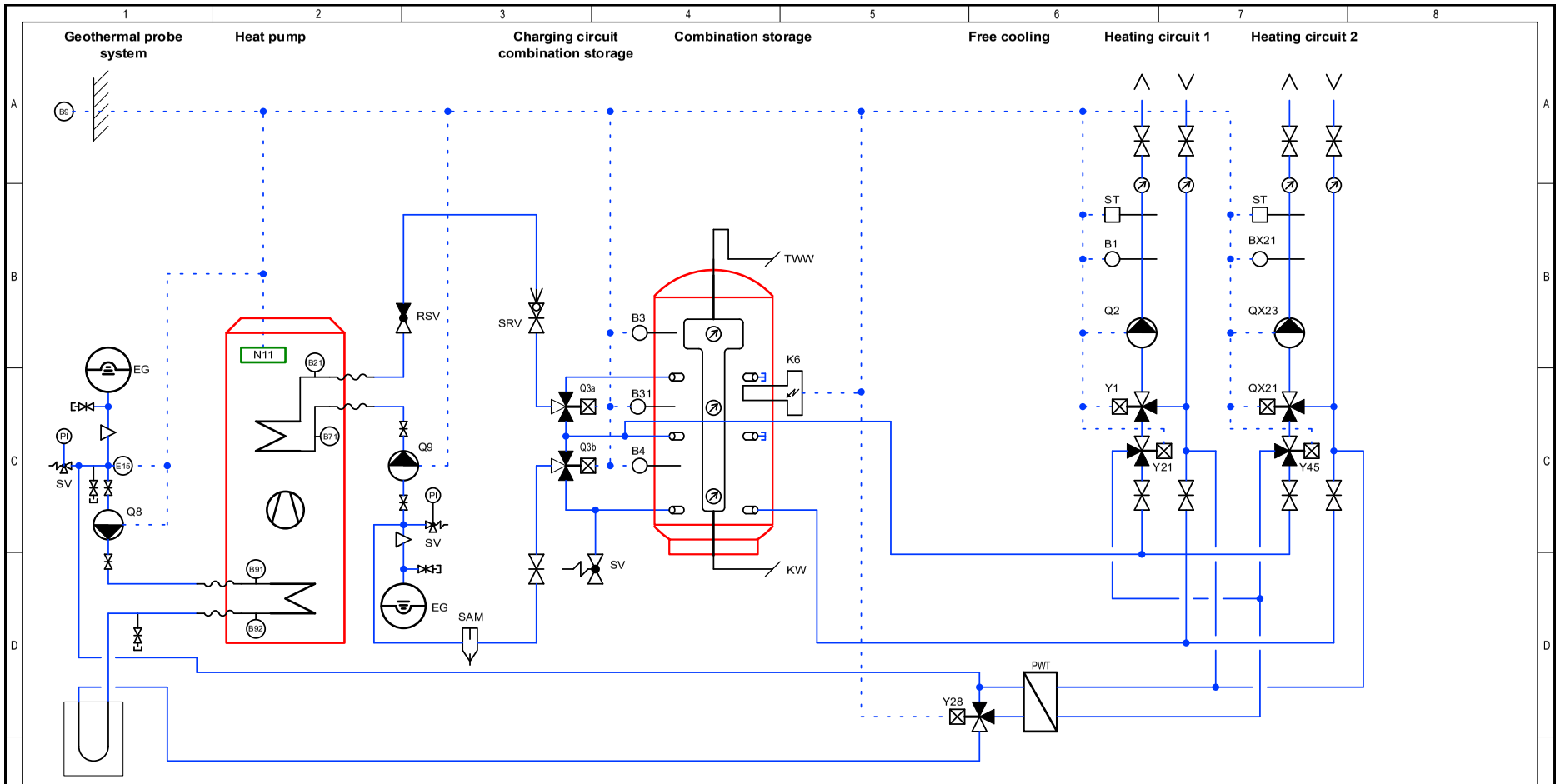
NAME OF DRAWING OH_Eco_SW

Anlage | Funktion | Seite

Project Manager PM

No. pgs.


Geothermal probe system
Heat pump
Charging circuit combination storage
Combination storage
Free cooling
Heating circuit 1
Heating circuit 2
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
RSV Non-return valve
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1
Y28 Deflector valve 230 V source side
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
OH_Eco_02.30.10_E2_E6
Subject to technical changes.
OH_Eco_SW
Project Manager PM

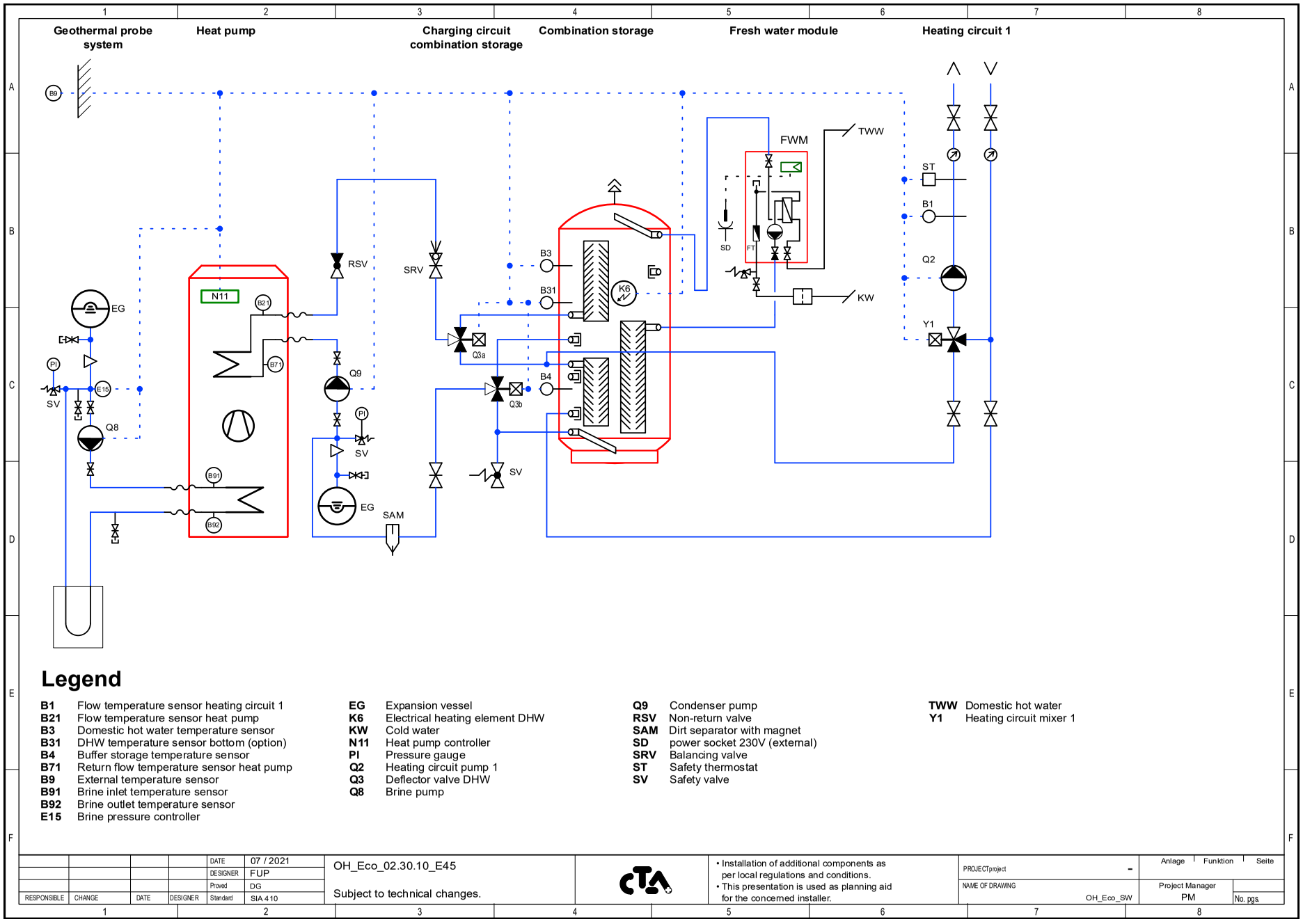


Legend

B1	Flow temperature sensor heating circuit 1	**EG**	Expansion vessel	**Q9**	Condenser pump
B21	Flow temperature sensor heat pump	**K6**	Electrical heating element DHW	**QX21**	Heating circuit mixer 2
B3	Domestic hot water temperature sensor	**KW**	Cold water	**QX23**	Heating circuit pump 2
B31	DHW temperature sensor bottom (option)	**N11**	Heat pump controller	**RSV**	Non-return valve
B4	Buffer storage temperature sensor	**PI**	Pressure gauge	**SAM**	Dirt separator with magnet
B71	Return flow temperature sensor heat pump	**PWT**	Plate heat exchanger	**SRV**	Balancing valve
B9	External temperature sensor	**Q2**	Heating circuit pump 1	**ST**	Safety thermostat
B91	Brine inlet temperature sensor	**Q3**	Deflector valve DHW	**SV**	Safety valve
B92	Brine outlet temperature sensor	**Q8**	Brine pump		
BX21	Flow temp. sensor heating circuit 2				
E15	Brine pressure controller				

TWW	Domestic hot water
Y1	Heating circuit mixer 1
Y21	Deflector valve HC / CC 1
Y28	Deflector valve 230 V source side
Y45	Deflector valve HC / CC 2

				DATE	07 / 2021	OH_Eco_02.30.10_E2_E6/2		• Installation of additional components as per local regulations and conditions. • This presentation is used as planning aid for the concerned installer.	PROJECTproject	-	Anlage / Funktion / Seite
				DESIGNER	FUP						
				Proved	DG	Subject to technical changes.			NAME OF DRAWING	OH_Eco_SW	Project Manager PM / No. pgs.
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410						



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
RSV Non-return valve
SAM Dirt separator with magnet
SD power socket 230V (external)
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1

				DATE	07 / 2021
				DESIGNER	FUP
				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.30.10_E45

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- Installation of additional components as per local regulations and conditions.
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PROJECTproject	-	Anlage	Funktion / Seite
NAME OF DRAWING	OH_Eco_SW	Project Manager	PM
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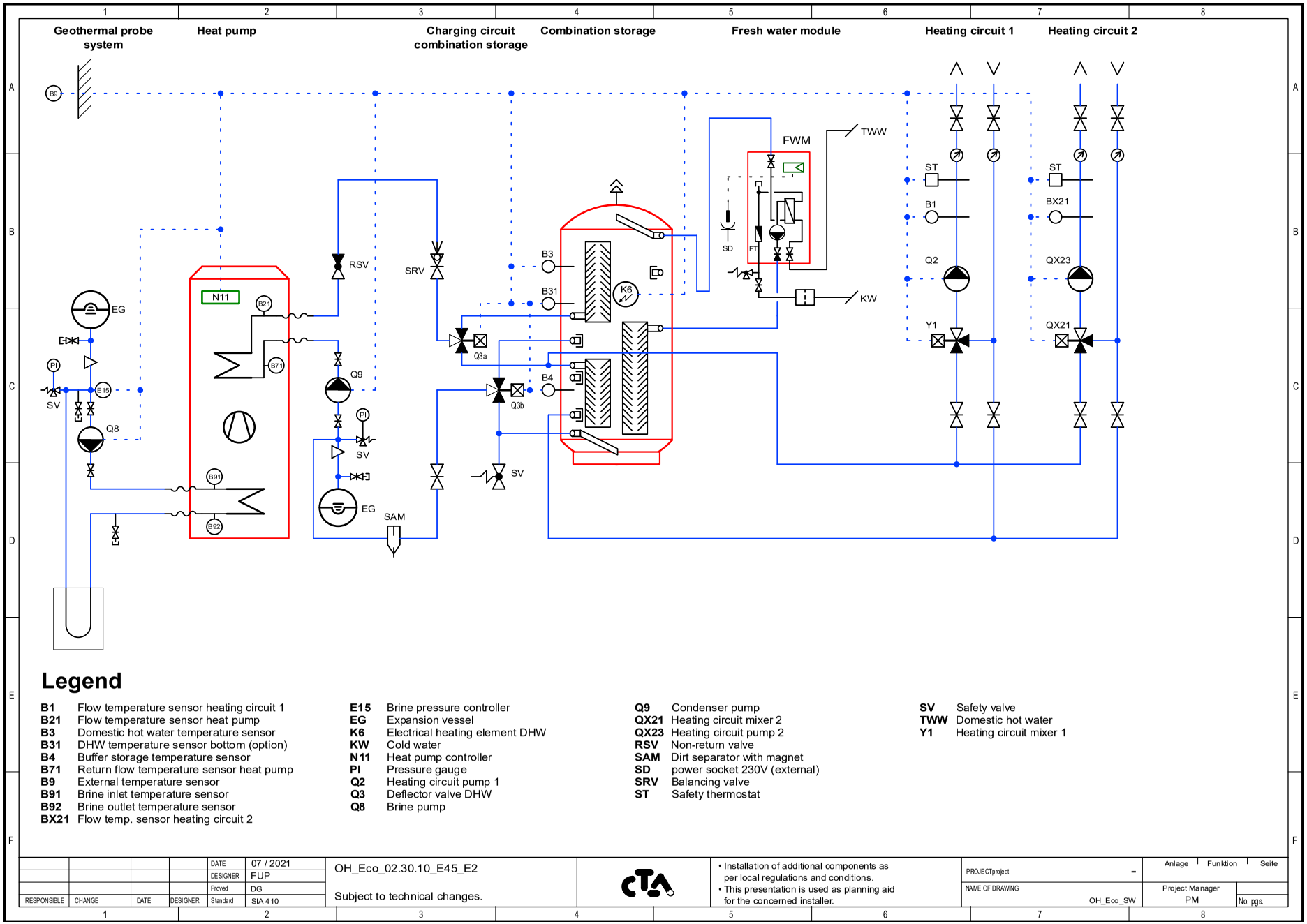

Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
RSV Non-return valve
SAM Dirt separator with magnet
SD power socket 230V (external)
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1

				DATE	07 / 2021
				DESIGNER	FUP
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OH_Eco_02.30.10_E45_E2

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
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PROJECTproject	-	Anlage	Funktion / Seite
NAME OF DRAWING	OH_Eco_SW	Project Manager	PM
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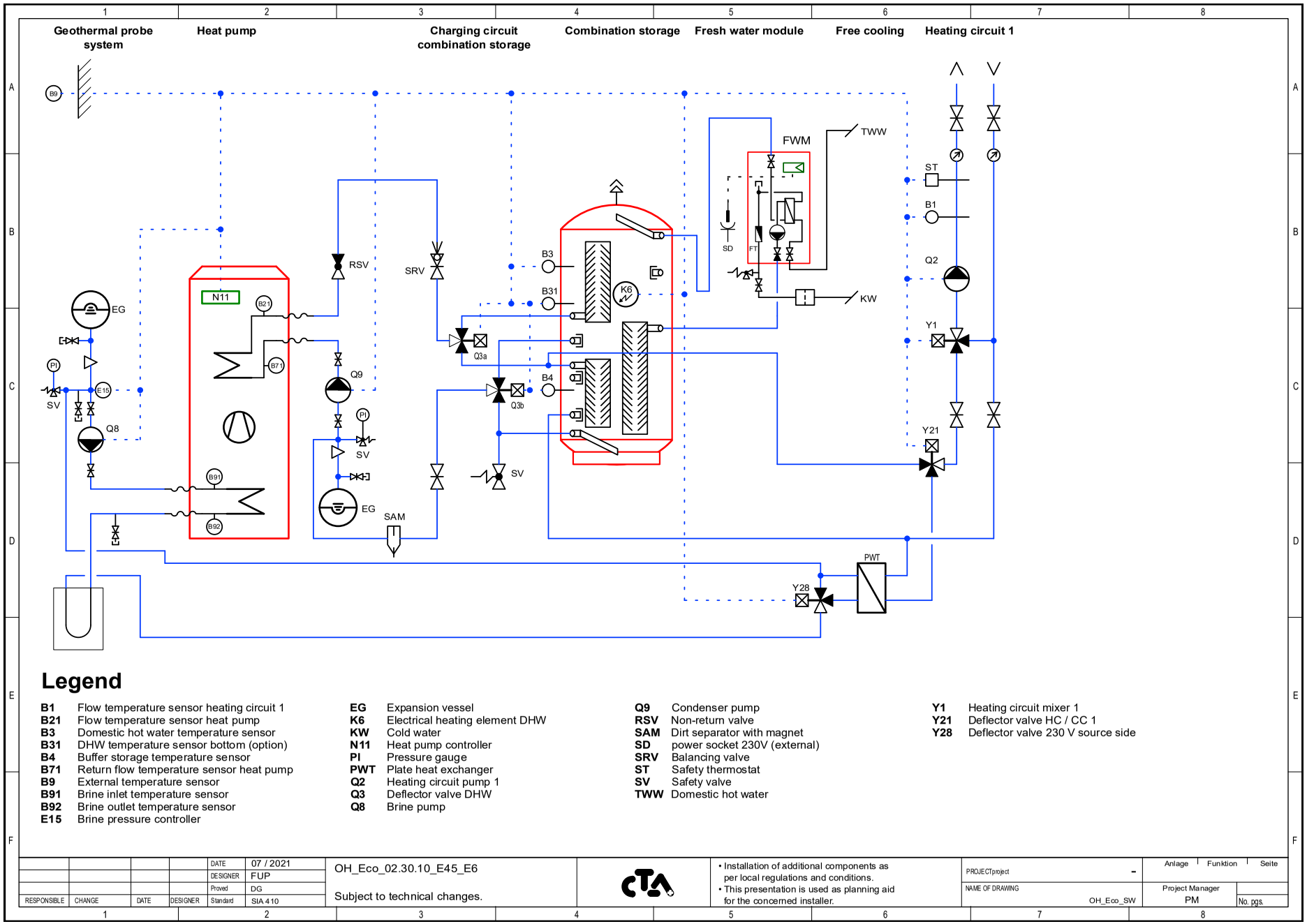

Legend

B1	Flow temperature sensor heating circuit 1
B21	Flow temperature sensor heat pump
B3	Domestic hot water temperature sensor
B31	DHW temperature sensor bottom (option)
B4	Buffer storage temperature sensor
B71	Return flow temperature sensor heat pump
B9	External temperature sensor
B91	Brine inlet temperature sensor
B92	Brine outlet temperature sensor
E15	Brine pressure controller
EG	Expansion vessel
K6	Electrical heating element DHW
KW	Cold water
N11	Heat pump controller
PI	Pressure gauge
PWT	Plate heat exchanger
Q2	Heating circuit pump 1
Q3	Deflector valve DHW
Q8	Brine pump
Q9	Condenser pump
RSV	Non-return valve
SAM	Dirt separator with magnet
SD	power socket 230V (external)
SRV	Balancing valve
ST	Safety thermostat
SV	Safety valve
TWW	Domestic hot water
Y1	Heating circuit mixer 1
Y21	Deflector valve HC / CC 1
Y28	Deflector valve 230 V source side

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				DESIGNER	FUP
				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.30.10_E45_E6

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
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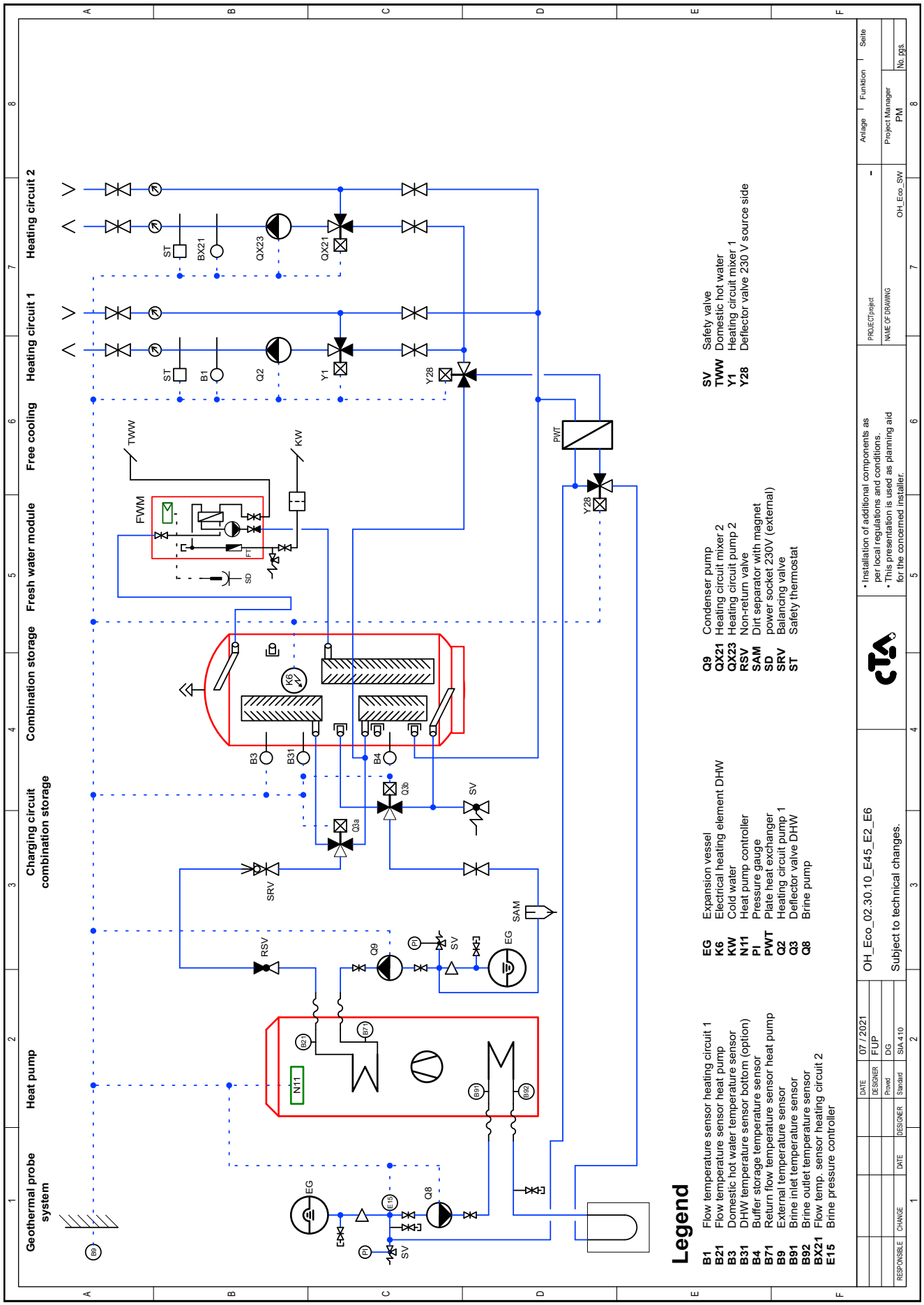
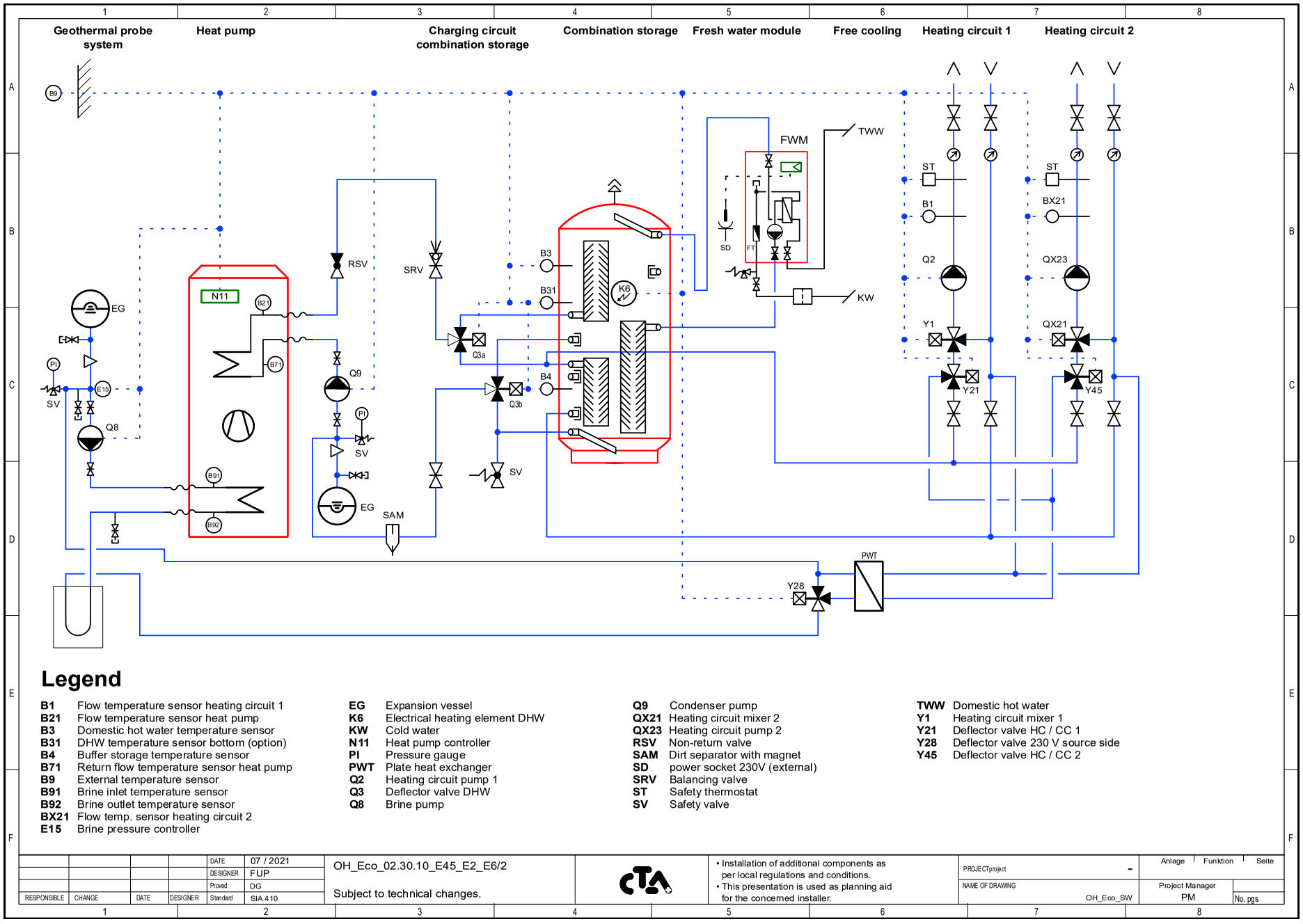
PROJECTproject	-	
NAME OF DRAWING	OH_Eco_SW	
Project Manager	PM	

Anlage | Funktion | Seite

No. pgs.


Geothermal probe system
Heat pump
Charging circuit combination storage
Combination storage
Fresh water module
Free cooling
Heating circuit 1
Heating circuit 2
Legend
B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2
E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump
Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
RSV Non-return valve
SAM Dirt separator with magnet
SD power socket 230V (external)
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TWW Domestic hot water
Y1 Heating circuit mixer 1
Y28 Deflector valve 230 V source side
• Installation of additional components as per local regulations and conditions.
• This presentation is used as planning aid for the concerned installer.
OH_Eco_02.30.10_E45_E2_E6
Subject to technical changes.
OH_Eco_SW
Project Manager PM



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2
E15 Brine pressure controller

EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump

Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
RSV Non-return valve
SAM Dirt separator with magnet
SD power socket 230V (external)
SRV Balancing valve
ST Safety thermostat
SV Safety valve

TWW Domestic hot water
Y1 Heating circuit mixer 1
Y21 Deflector valve HC / CC 1
Y28 Deflector valve 230 V source side
Y45 Deflector valve HC / CC 2

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OH_Eco_02.30.10_E45_E2_E6/2

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
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PROJECTproject -
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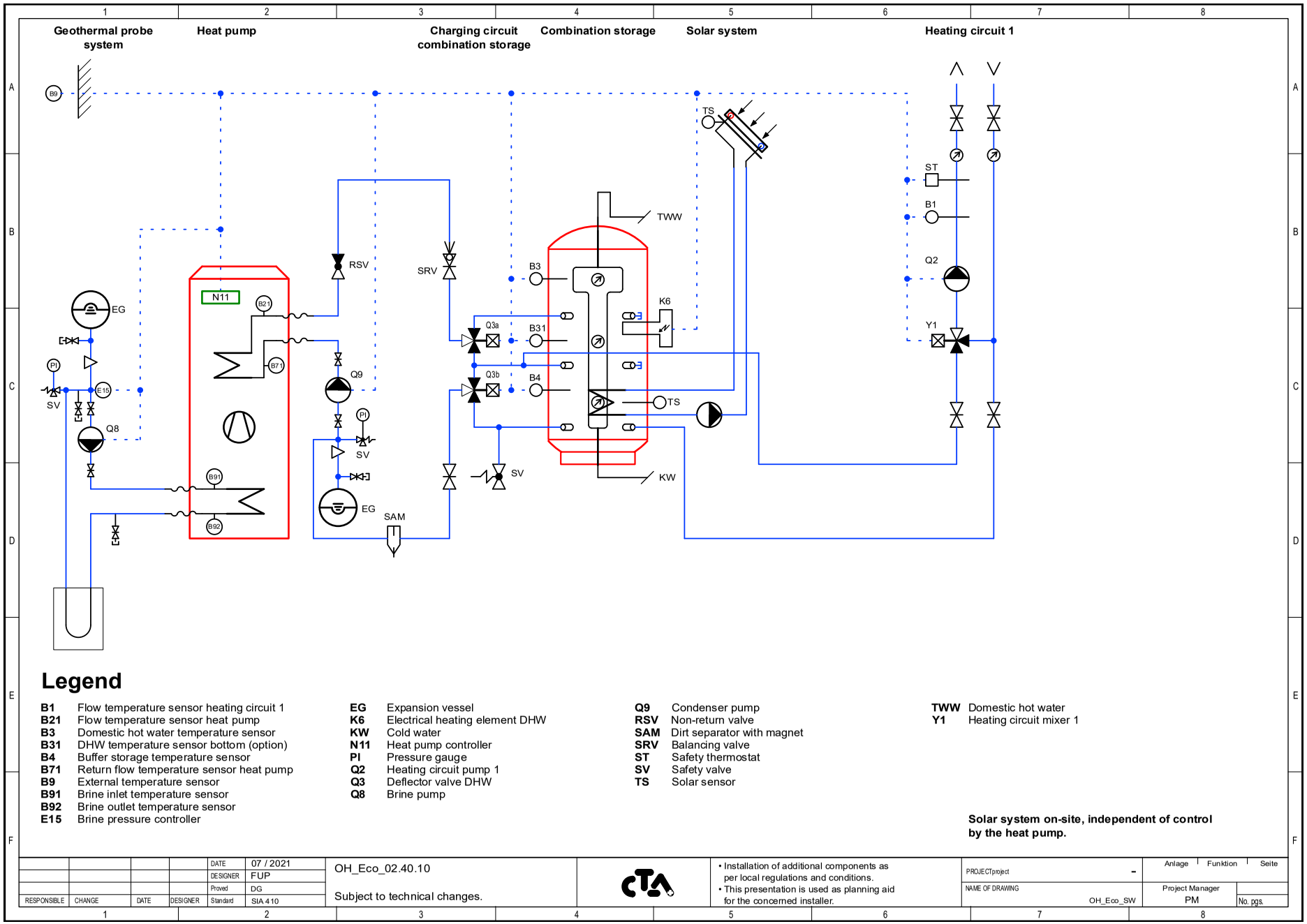
Anlage	Funktion	Seite
Project Manager PM		No. pgs.



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller

EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump

Q9 Condenser pump
RSV Non-return valve
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TS Solar sensor

TWW Domestic hot water
Y1 Heating circuit mixer 1

Solar system on-site, independent of control by the heat pump.

				DATE	07 / 2021
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RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.40.10

Subject to technical changes.

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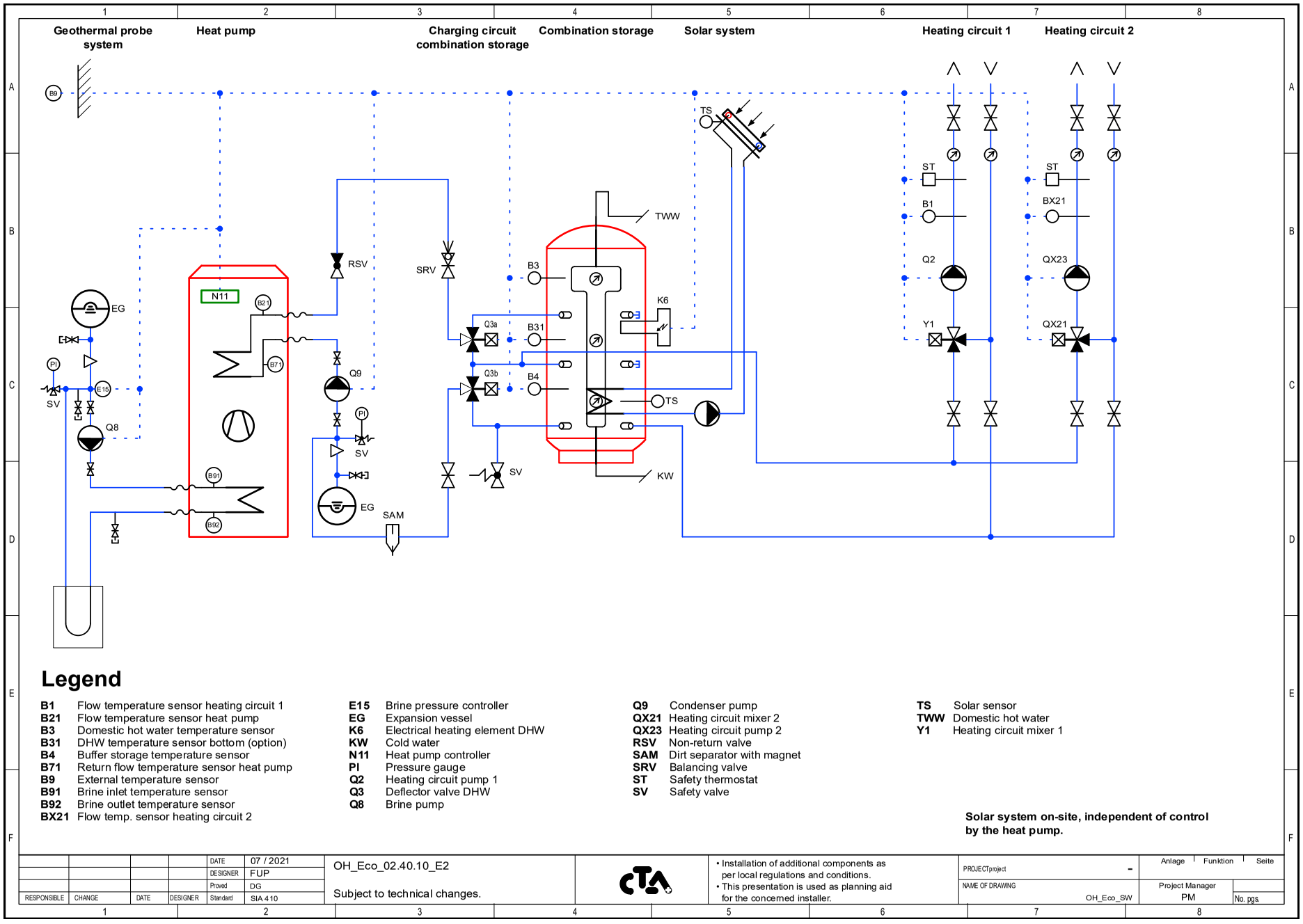
PROJECTproject -
NAME OF DRAWING OH_Eco_SW

Anlage	Funktion	Seite
Project Manager PM		No. pgs.



Legend

B1 Flow temperature sensor heating circuit 1
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2

E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump

Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
RSV Non-return valve
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve

TS Solar sensor
TWW Domestic hot water
Y1 Heating circuit mixer 1

Solar system on-site, independent of control by the heat pump.

				DATE	07 / 2021
				DESIGNER	FUP
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RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.40.10_E2

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
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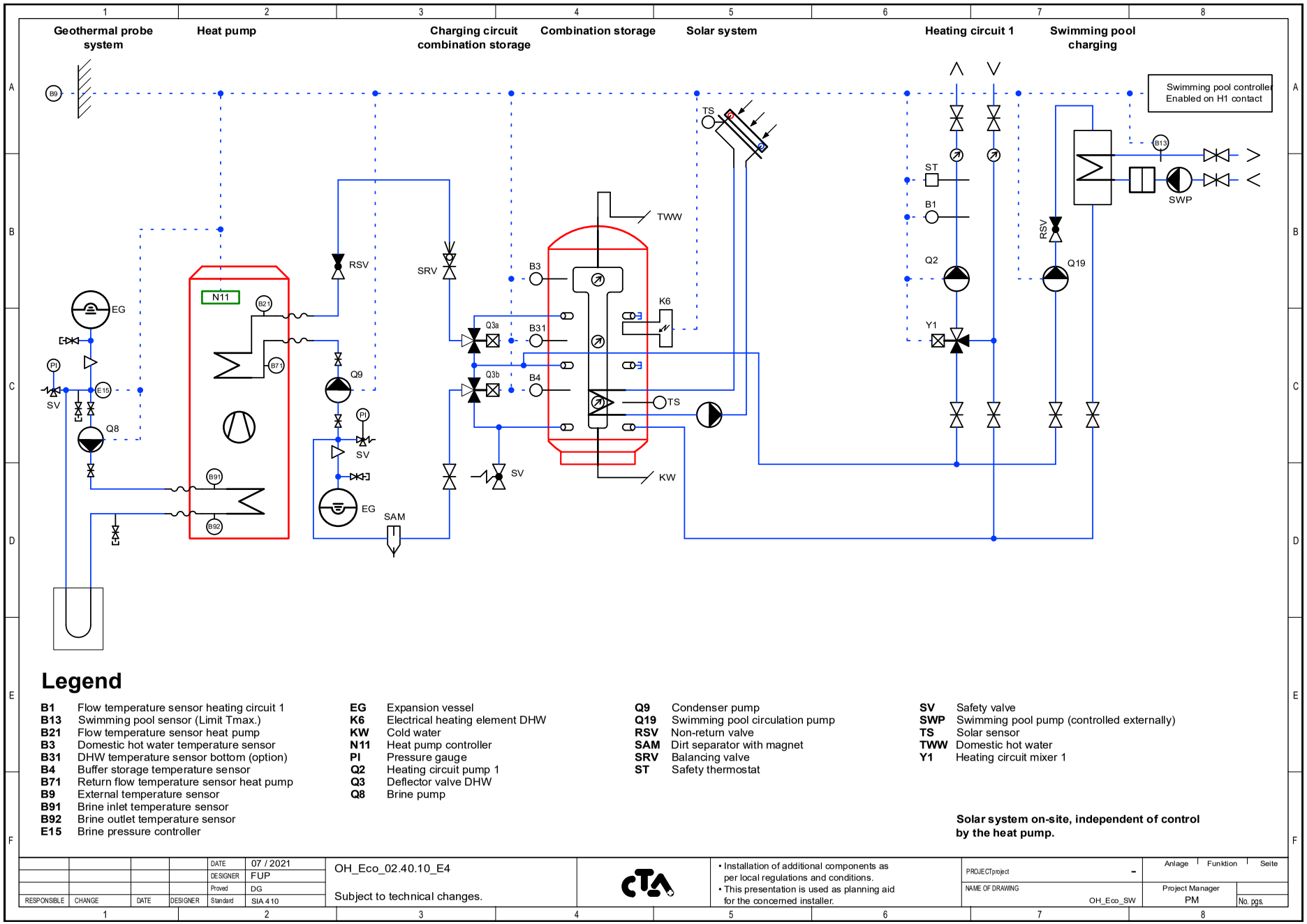
PROJECTproject -
NAME OF DRAWING OH_Eco_SW

Anlage | Funktion | Seite
Project Manager PM
No. pgs.



Legend

B1 Flow temperature sensor heating circuit 1
B13 Swimming pool sensor (Limit Tmax.)
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
E15 Brine pressure controller

EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump

Q9 Condenser pump
Q19 Swimming pool circulation pump
RSV Non-return valve
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat

SV Safety valve
SWP Swimming pool pump (controlled externally)
TS Solar sensor
TWW Domestic hot water
Y1 Heating circuit mixer 1

Solar system on-site, independent of control by the heat pump.

				DATE	07 / 2021
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RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.40.10_E4

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
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PROJECTproject	-	Anlage	Funktion / Seite
NAME OF DRAWING	OH_Eco_SW	Project Manager	PM
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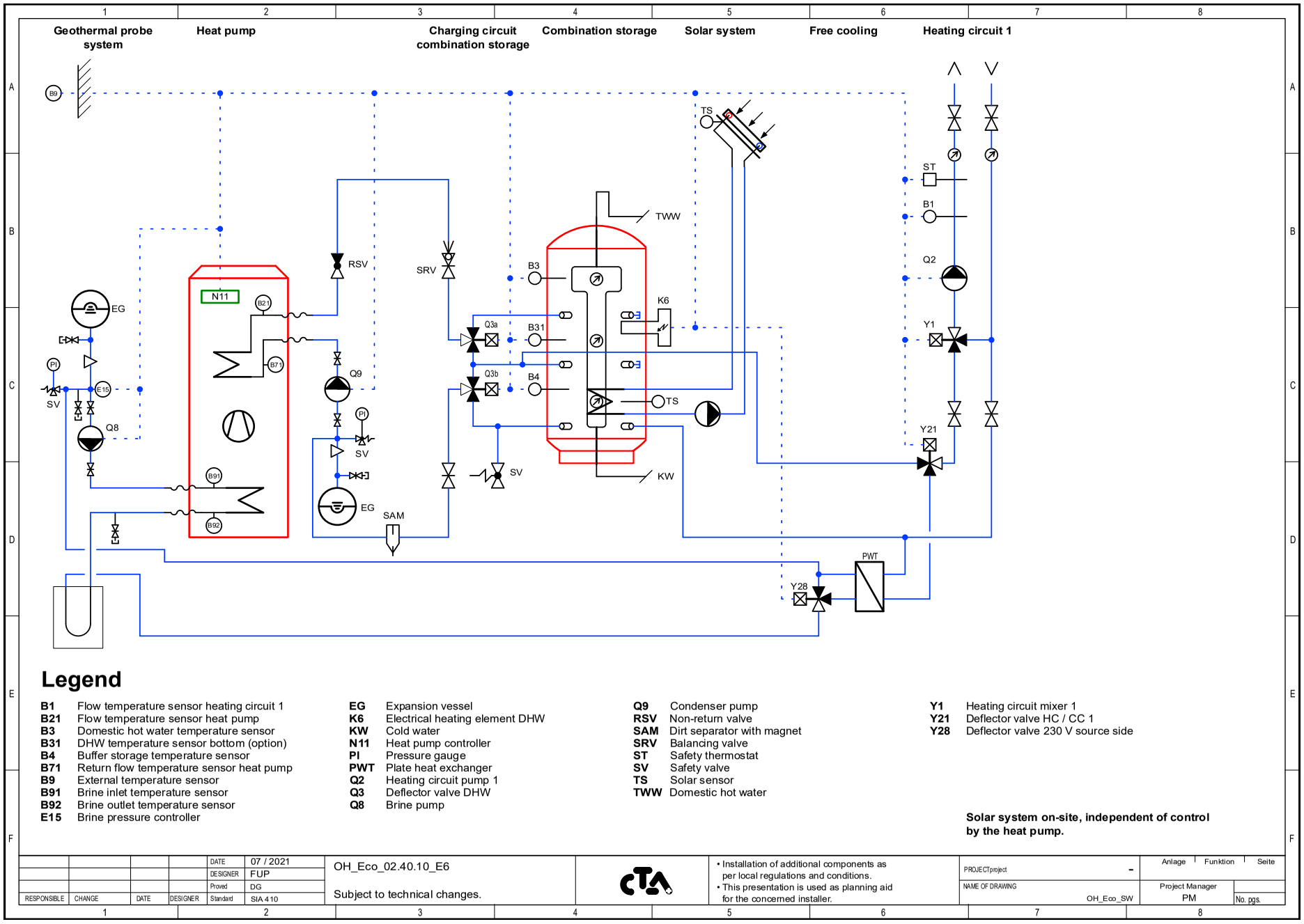

Legend

B1	Flow temperature sensor heating circuit 1
B21	Flow temperature sensor heat pump
B3	Domestic hot water temperature sensor
B31	DHW temperature sensor bottom (option)
B4	Buffer storage temperature sensor
B71	Return flow temperature sensor heat pump
B9	External temperature sensor
B91	Brine inlet temperature sensor
B92	Brine outlet temperature sensor
E15	Brine pressure controller
EG	Expansion vessel
K6	Electrical heating element DHW
KW	Cold water
N11	Heat pump controller
PI	Pressure gauge
PWT	Plate heat exchanger
Q2	Heating circuit pump 1
Q3	Deflector valve DHW
Q8	Brine pump
Q9	Condenser pump
RSV	Non-return valve
SAM	Dirt separator with magnet
SRV	Balancing valve
ST	Safety thermostat
SV	Safety valve
TS	Solar sensor
TWW	Domestic hot water
Y1	Heating circuit mixer 1
Y21	Deflector valve HC / CC 1
Y28	Deflector valve 230 V source side

Solar system on-site, independent of control by the heat pump.

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				Proved	DG
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OH_Eco_02.40.10_E6

Subject to technical changes.

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PROJECTproject	-	Anlage / Funktion / Seite	
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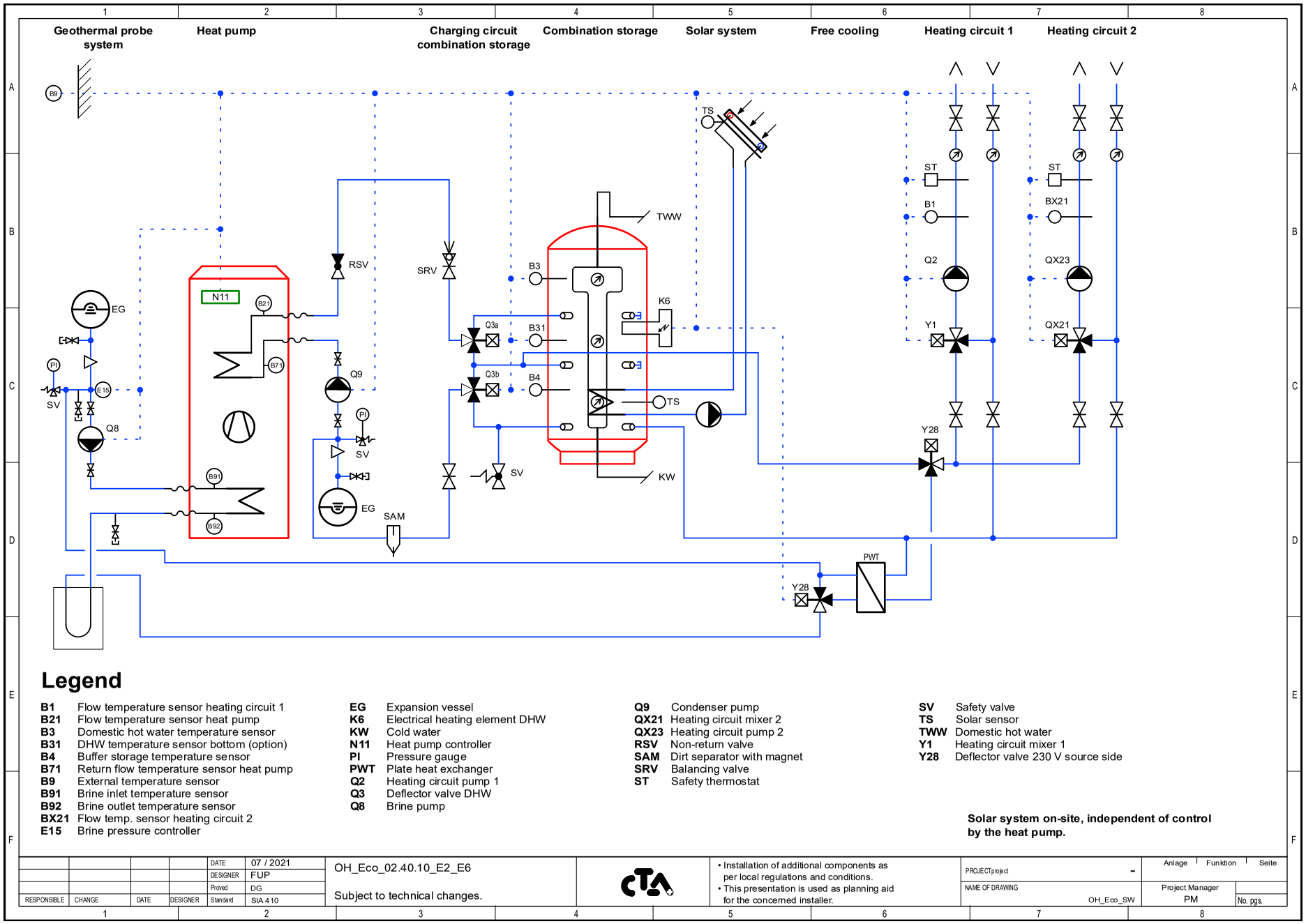

Legend

B1	Flow temperature sensor heating circuit 1
B21	Flow temperature sensor heat pump
B3	Domestic hot water temperature sensor
B31	DHW temperature sensor bottom (option)
B4	Buffer storage temperature sensor
B71	Return flow temperature sensor heat pump
B9	External temperature sensor
B91	Brine inlet temperature sensor
B92	Brine outlet temperature sensor
BX21	Flow temp. sensor heating circuit 2
E15	Brine pressure controller
EG	Expansion vessel
K6	Electrical heating element DHW
KW	Cold water
N11	Heat pump controller
PI	Pressure gauge
PWT	Plate heat exchanger
Q2	Heating circuit pump 1
Q3	Deflector valve DHW
Q8	Brine pump
Q9	Condenser pump
QX21	Heating circuit mixer 2
QX23	Heating circuit pump 2
RSV	Non-return valve
SAM	Dirt separator with magnet
SRV	Balancing valve
ST	Safety thermostat
SV	Safety valve
TS	Solar sensor
TWW	Domestic hot water
Y1	Heating circuit mixer 1
Y28	Deflector valve 230 V source side

Solar system on-site, independent of control by the heat pump.

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OH_Eco_02.40.10_E2_E6

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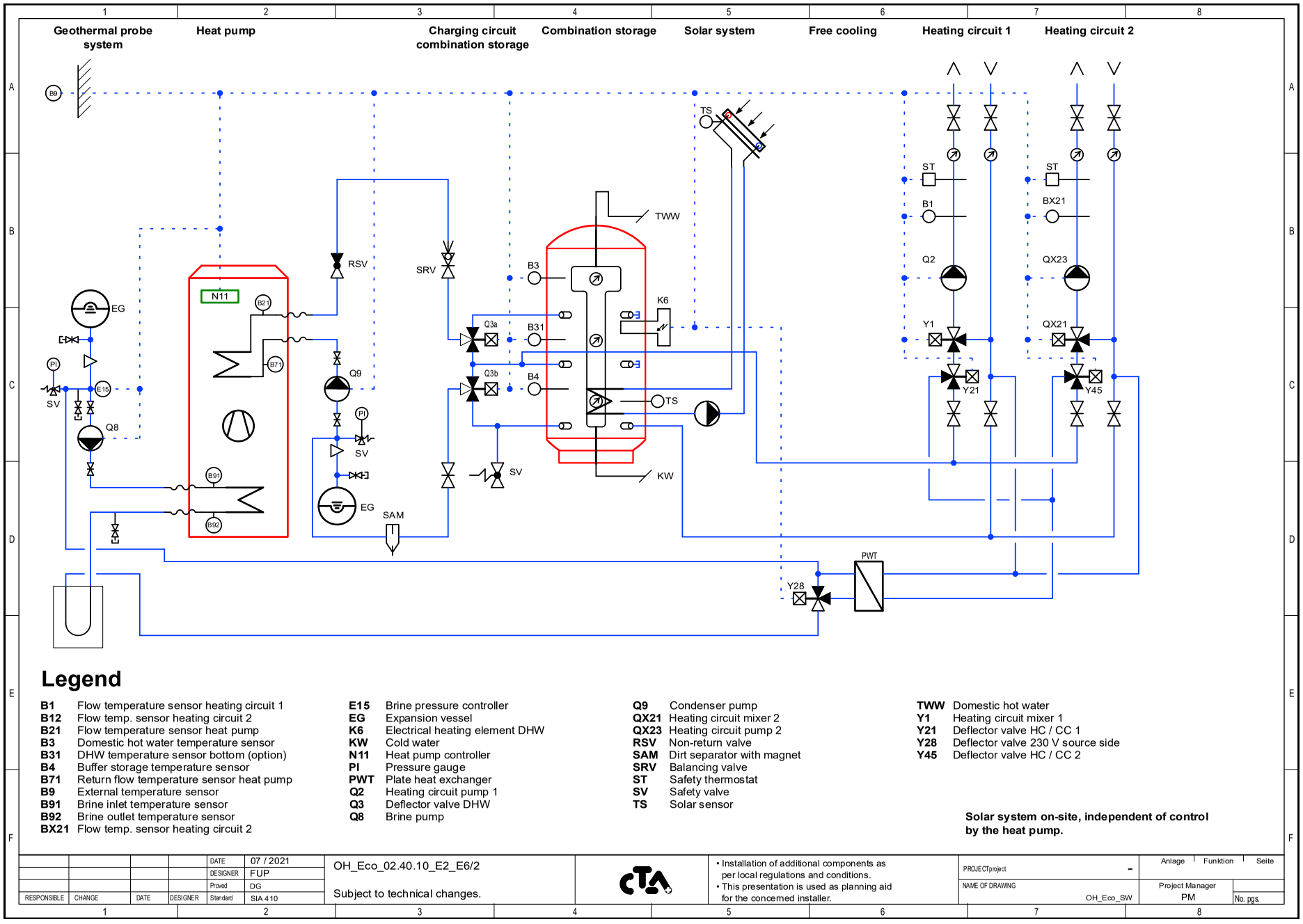

Legend

B1 Flow temperature sensor heating circuit 1
B12 Flow temp. sensor heating circuit 2
B21 Flow temperature sensor heat pump
B3 Domestic hot water temperature sensor
B31 DHW temperature sensor bottom (option)
B4 Buffer storage temperature sensor
B71 Return flow temperature sensor heat pump
B9 External temperature sensor
B91 Brine inlet temperature sensor
B92 Brine outlet temperature sensor
BX21 Flow temp. sensor heating circuit 2

E15 Brine pressure controller
EG Expansion vessel
K6 Electrical heating element DHW
KW Cold water
N11 Heat pump controller
PI Pressure gauge
PWT Plate heat exchanger
Q2 Heating circuit pump 1
Q3 Deflector valve DHW
Q8 Brine pump

Q9 Condenser pump
QX21 Heating circuit mixer 2
QX23 Heating circuit pump 2
RSV Non-return valve
SAM Dirt separator with magnet
SRV Balancing valve
ST Safety thermostat
SV Safety valve
TS Solar sensor

TWW Domestic hot water
Y1 Heating circuit mixer 1
Y21 Deflector valve HC / CC 1
Y28 Deflector valve 230 V source side
Y45 Deflector valve HC / CC 2

Solar system on-site, independent of control by the heat pump.

				DATE	07 / 2021
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				Proved	DG
RESPONSIBLE	CHANGE	DATE	DESIGNER	Standard	SIA 410

OH_Eco_02.40.10_E2_E6/2

Subject to technical changes.

- Installation of additional components as per local regulations and conditions.
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PROJECTproject	-	
NAME OF DRAWING	OH_Eco_SW	
Anlage	Funktion	Seite
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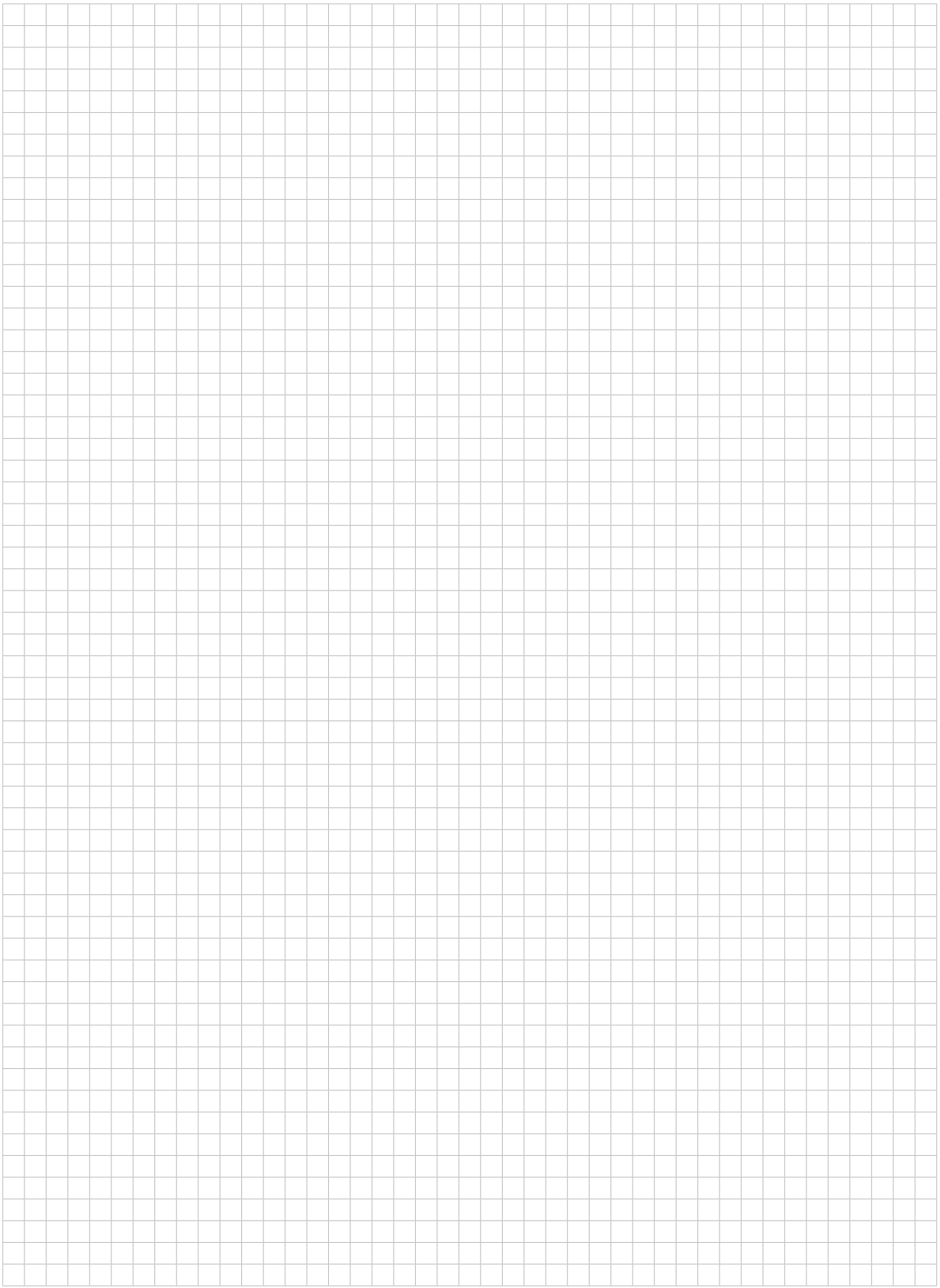
No. pgs.		



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