



QVANTUM QE - HYDRAULIC SCHEMATICS

Quantum Hydraulic Schematics

QHS - QE_2626-D

D100020

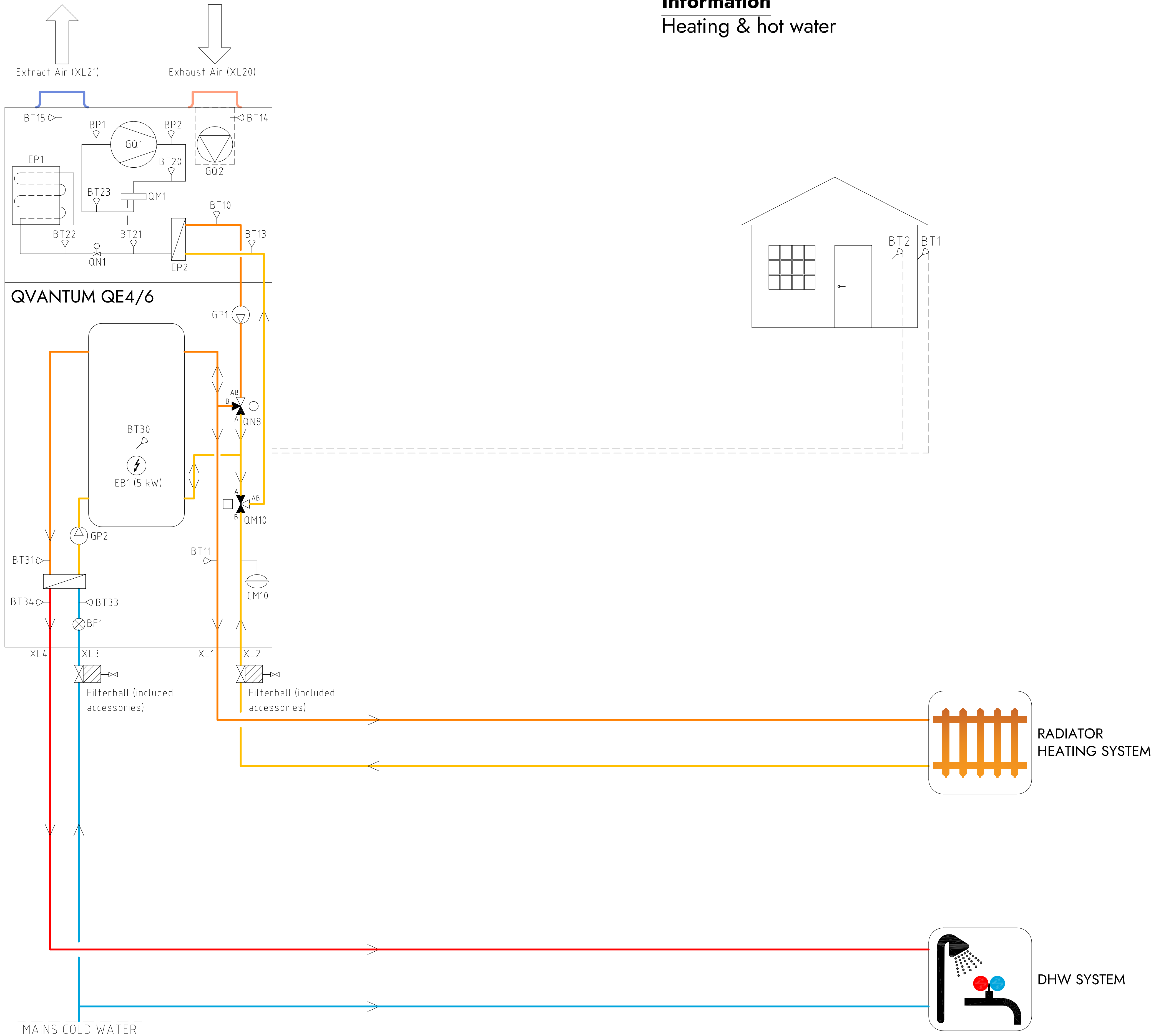
QVANTUM QE - HYDRAULIC SCHEMATICS

CONTENTS

QE heat pumps

Title	Drawing number	Page
QE4 & QE6, Heating & hot water	QE-56-8-001	4
QE4 & QE6, Heating & hot water with external hot water tank	QE-56-8-002	5
QE4 & QE6, Heating & hot water with external hot water tank & hot water circulation	QE-56-8-003	6
QE4 & QE6, Heating & hot water with external hot water tank & hot water circulation, QS - supply air conditioner	QE-56-8-004	7
QE4 & QE6, Underfloor heating & hot water	QE-56-8-005	8
QE4 & QE6, Underfloor heating & hot water with external hot water tank	QE-56-8-006	9
QE4 & QE6, Underfloor heating & hot water with external hot water tank & hot water circulation	QE-56-8-007	10
QE4 & QE6, Underfloor heating & hot water with external hot water tank & hot water circulation, QS - supply air conditioner	QE-56-8-008	11
QE4 & QE6, Heating & hot water, second heating system	QE-56-8-009	12
QE4 & QE6, Heating & hot water with external hot water tank, second heating system	QE-56-8-010	13
QE4 & QE6, Heating & hot water with external hot water tank & hot water circulation, second heating system	QE-56-8-011	14
QE4 & QE6, Heating & hot water with external hot water tank & hot water circulation, second heating system, QS - supply air conditioner	QE-56-8-012	15
QE4 & QE6, Heating & hot water, external circulation pump, second heating system	QE-56-8-013	16
QE4 & QE6, Heating & hot water with external hot water tank, external circulation pump, second heating system	QE-56-8-014	17
QE4 & QE6, Heating & hot water with external hot water tank & hot water circulation, external circulation pump, second heating system	QE-56-8-015	18
QE4 & QE6, Heating & hot water with external hot water tank & hot water circulation, external circulation pump, second heating system, QS - supply air conditioner	QE-56-8-016	19
QE4 & QE6, Heating & hot water, external circulation pump, individual zone control	QE-56-8-017	20
QE4 & QE6, Heating & hot water with external hot water tank, external circulation pump, individual zone control	QE-56-8-018	21
QE4 & QE6, Heating & hot water with external hot water tank & hot water circulation, external circulation pump, individual zone control	QE-56-8-019	22
QE4 & QE6, Heating & hot water with external hot water tank & hot water circulation, external circulation pump, individual zone control, QS - supply air conditioner	QE-56-8-020	23
QE4 & QE6, Heating & hot water, QS - supply air conditioner	QE-56-8-101	24

Information
Heating & hot water



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor

COMPONENT SYMBOLS

	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

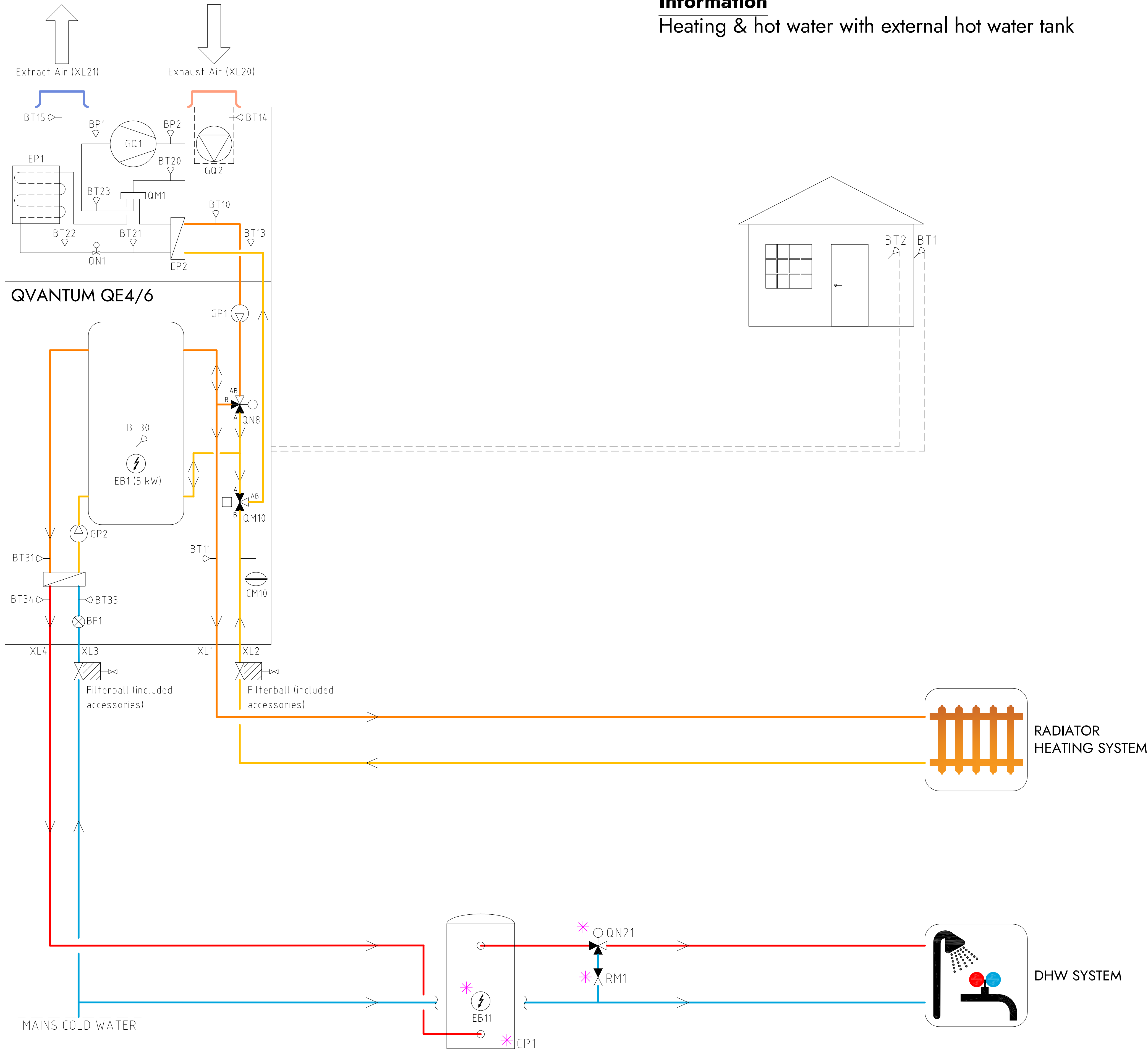
Copyright notice ISO16016

QVANTUM
HEAT PUMPS FOR SUSTAINABLE CITIES

QVANTUM ENERGI AB
Ji-te gatan 7, 265 38 Åstorp

DRAWN BY JE	DRAWING NUMBER QE-56-8-001	PAGE NUMBER 4
-----------------------	--------------------------------------	-------------------------

Information
Heating & hot water with external hot water tank



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
QN21	Thermostatic mixing valve (35-60°C)
CP1	DHW cylinder
EB11	Immersion heater
*	Components not delivered by Qvantum

COMPONENT SYMBOLS

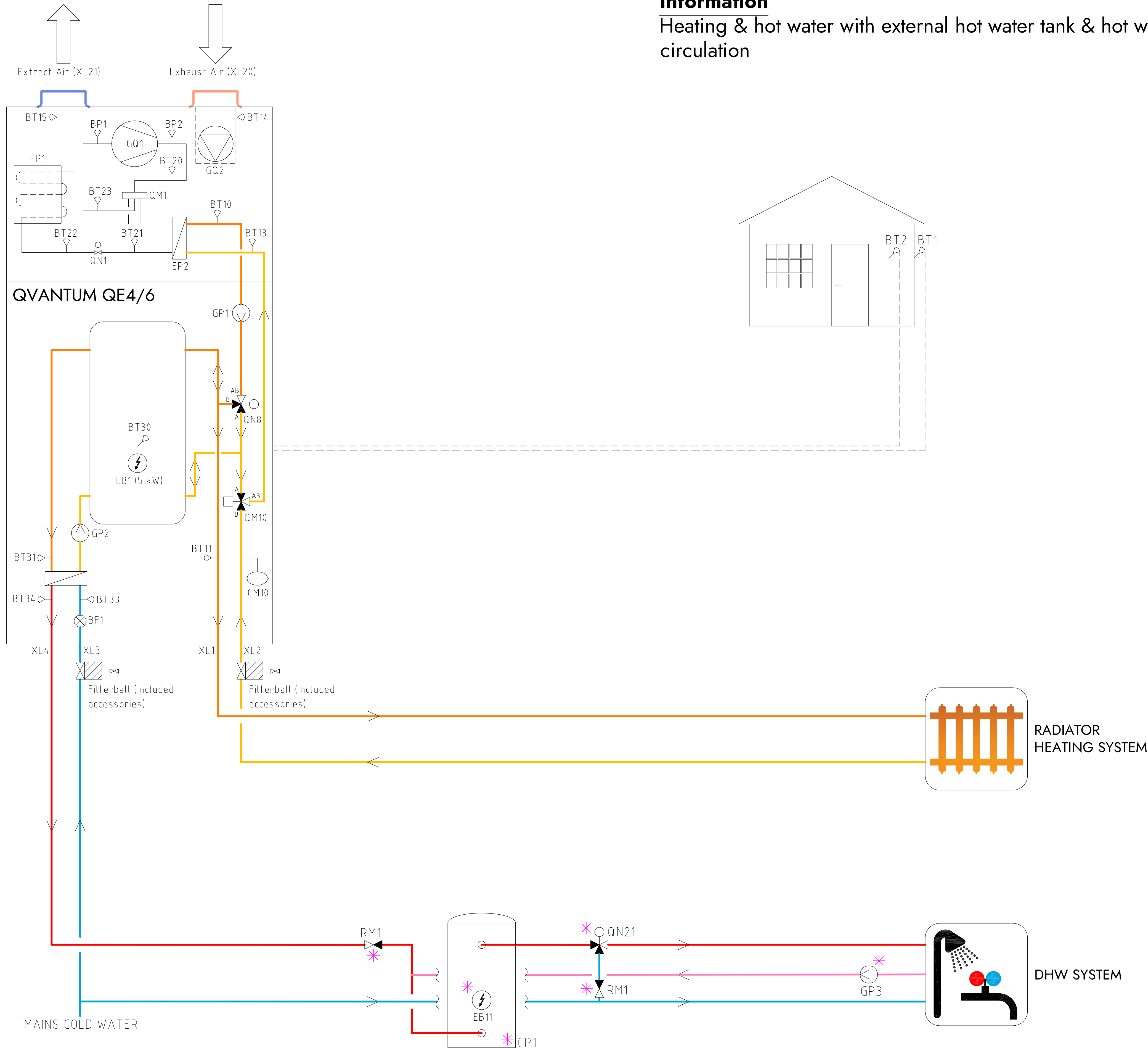
	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

Heating & hot water with external hot water tank & hot water circulation



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
QN21	Thermostatic mixing valve (35-60°C)
GP3	Circulation pump DHW return
CP1	DHW cylinder
EB11	Immersion heater
RM1	Non return valve hot water
*	Components not delivered by Quantum

COMPONENT SYMBOLS

	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

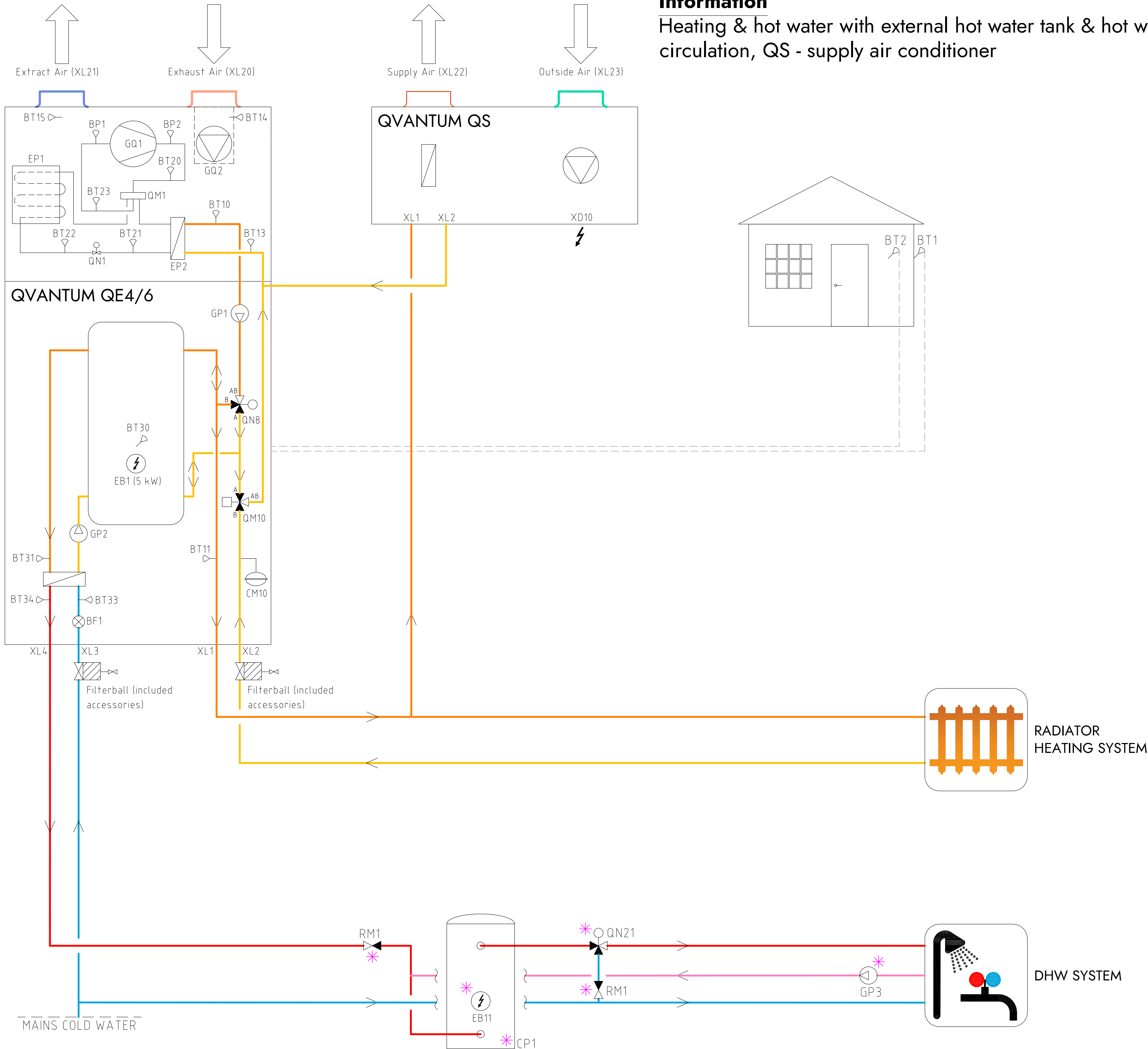
Heating & hot water with external hot water tank & hot water circulation, QS - supply air conditioner

COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
QN21	Thermostatic mixing valve (35-60°C)
GP3	Circulation pump DHW return
CP1	DHW cylinder
EB11	Immersion heater
RM1	Non return valve hot water
*	Components not delivered by Qvantum

COMPONENT SYMBOLS

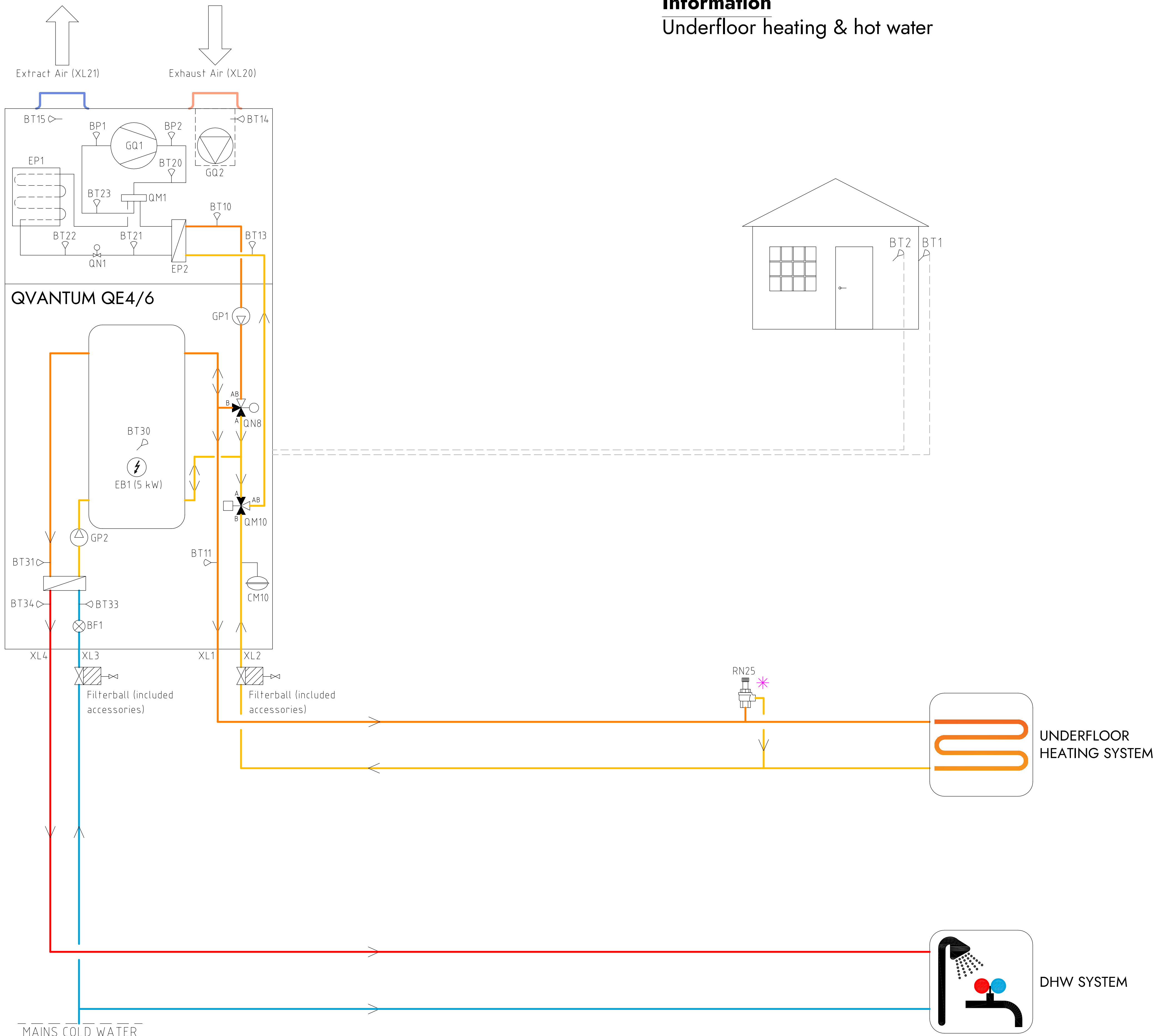
	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer



Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information
Underfloor heating & hot water



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
RN25	Overflow valve
*	Components not delivered by Quantum

COMPONENT SYMBOLS

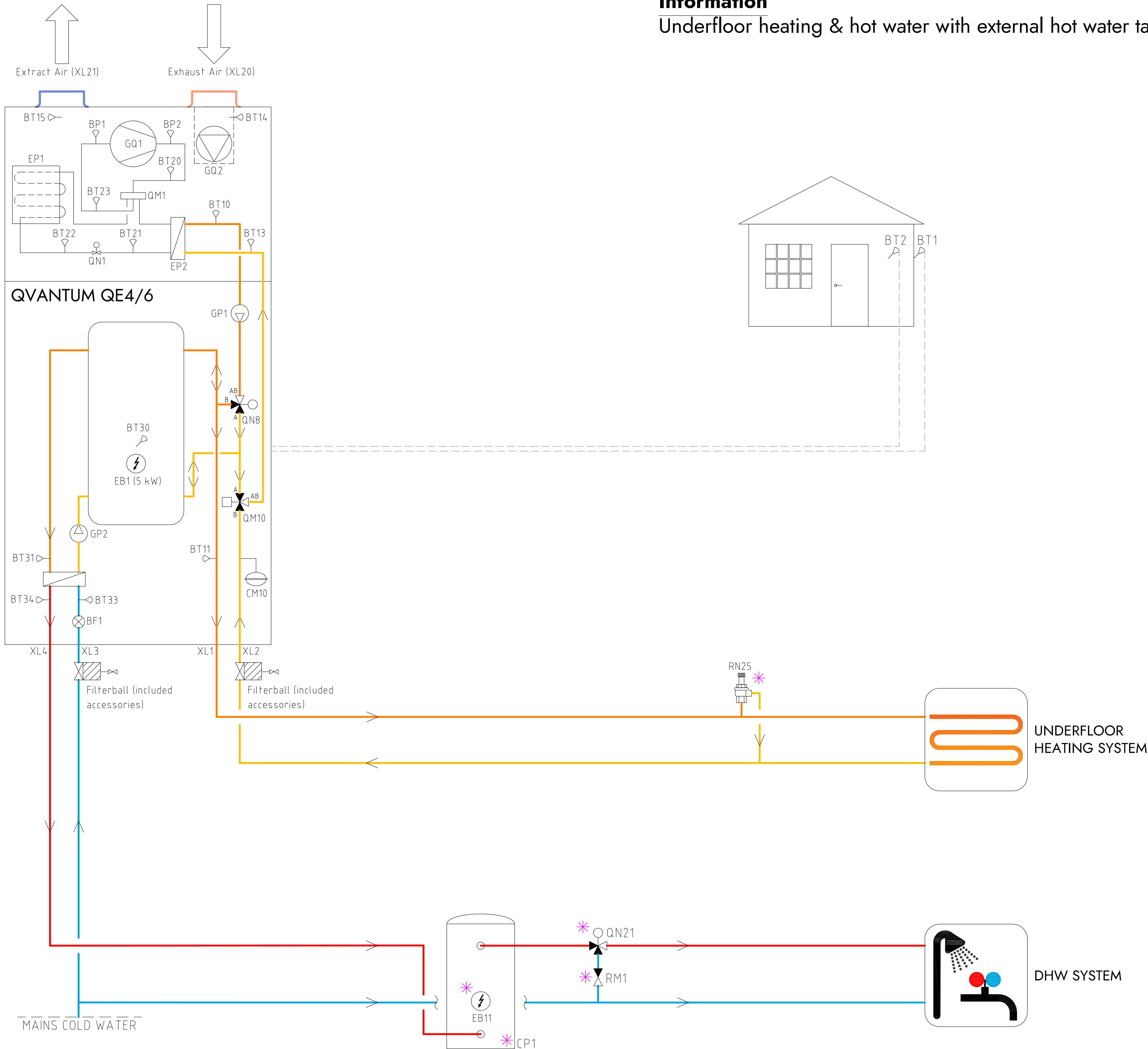
	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

Underfloor heating & hot water with external hot water tank



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
QN21	Thermostatic mixing valve (35-60°C)
CP1	DHW cylinder
EB11	Immersion heater
RN25	Overflow valve
*	Components not delivered by Quantum

COMPONENT SYMBOLS

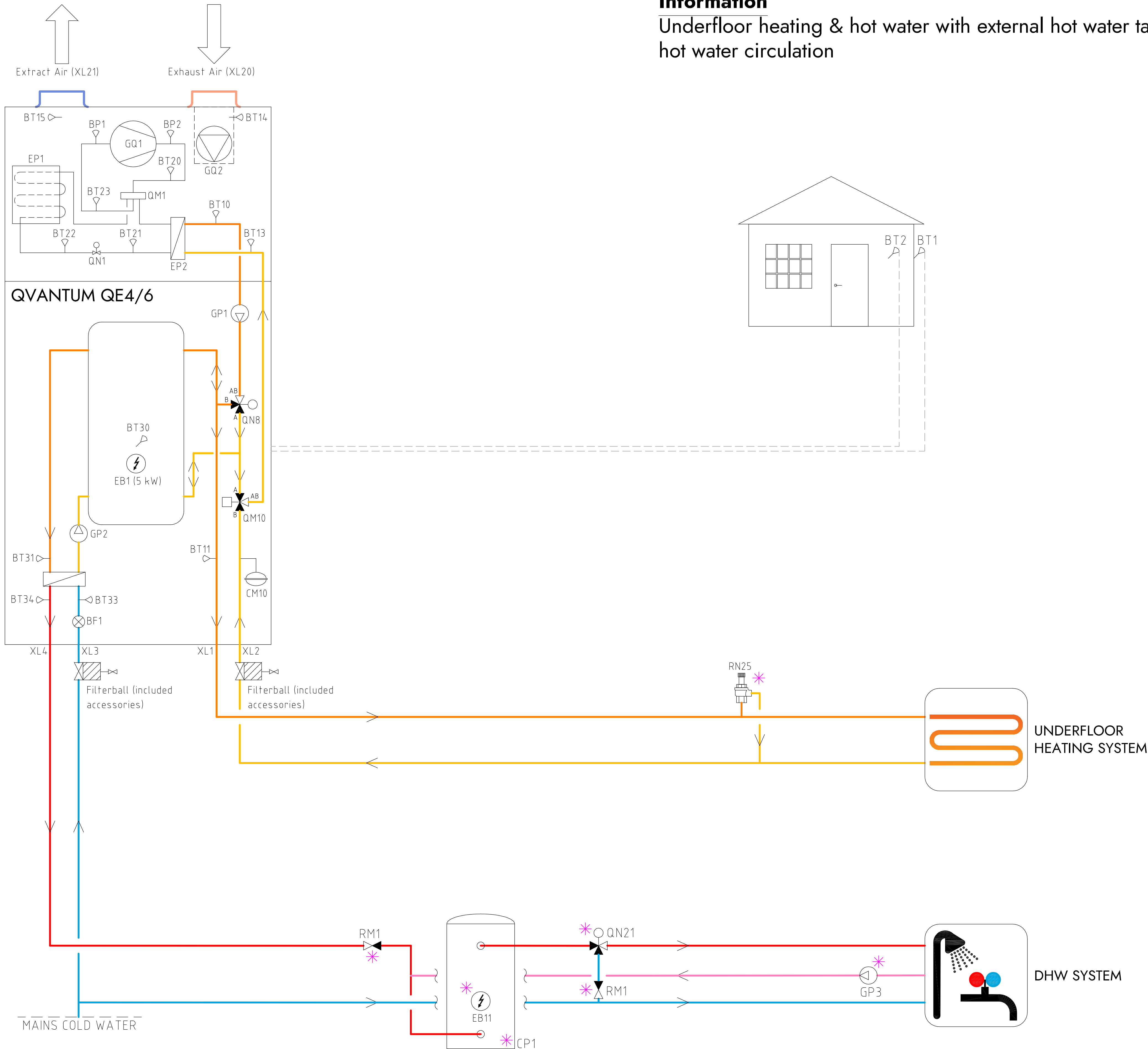
	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

Underfloor heating & hot water with external hot water tank & hot water circulation



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
QN21	Thermostatic mixing valve (35-60°C)
GP3	Circulation pump DHW return
CP1	DHW cylinder
EB11	Immersion heater
RM1	Non return valve hot water
RN25	Overflow valve
*	Components not delivered by Quantum

COMPONENT SYMBOLS

	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

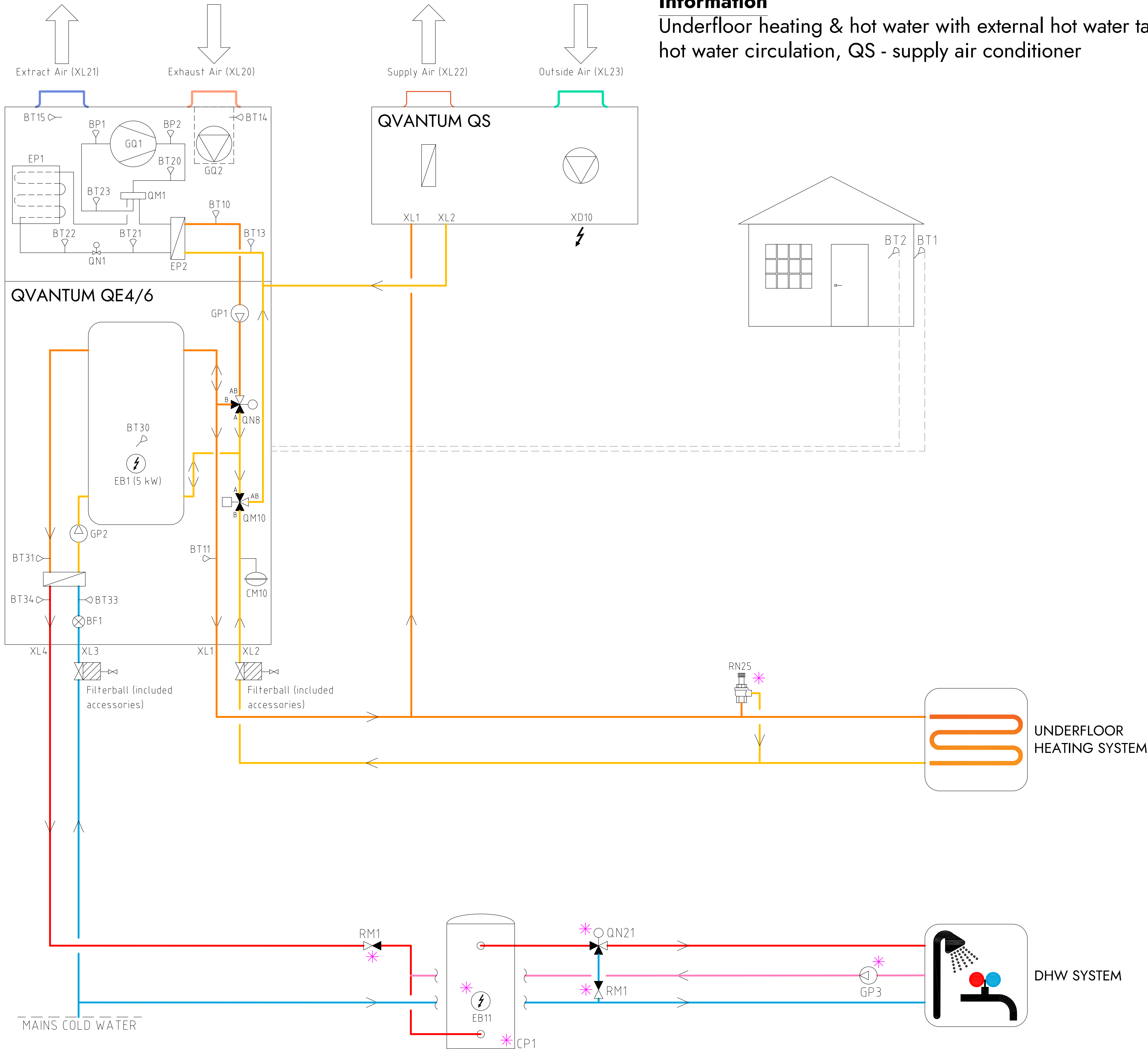
Underfloor heating & hot water with external hot water tank & hot water circulation, QS - supply air conditioner

COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
QN21	Thermostatic mixing valve (35-60°C)
GP3	Circulation pump DHW return
CP1	DHW cylinder
EB11	Immersion heater
RM1	Non return valve hot water
RN25	Overflow valve
*	Components not delivered by Quantum

COMPONENT SYMBOLS

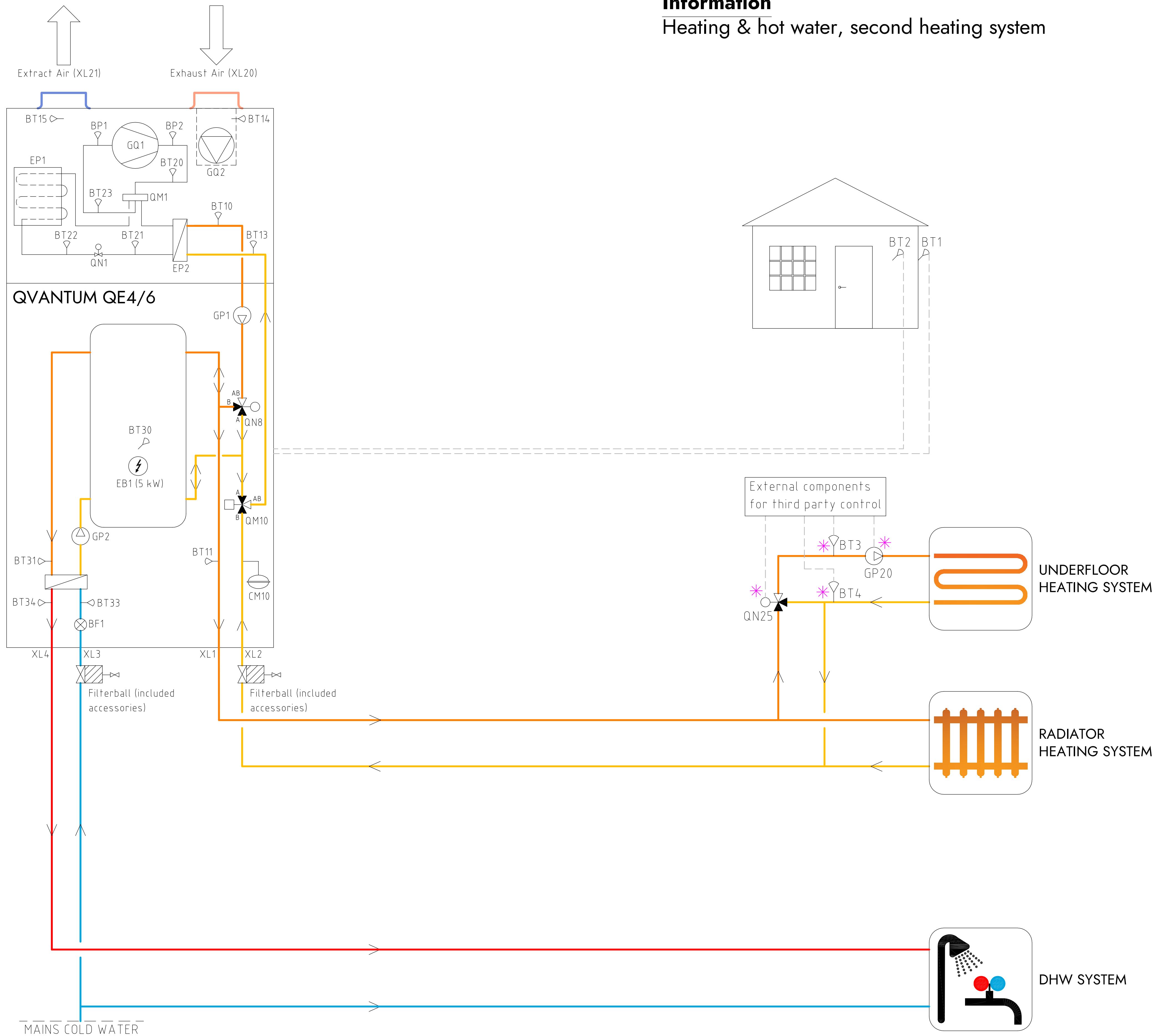
	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer



Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information
Heating & hot water, second heating system



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
QN25	Mixing valve, second heat system
GP20	Circulation pump second heat system
BT3	Heating supply, second heat system
BT4	Heating return, second heat system
RM2	Non return heat system
*	Components not delivered by Qvantum

COMPONENT SYMBOLS

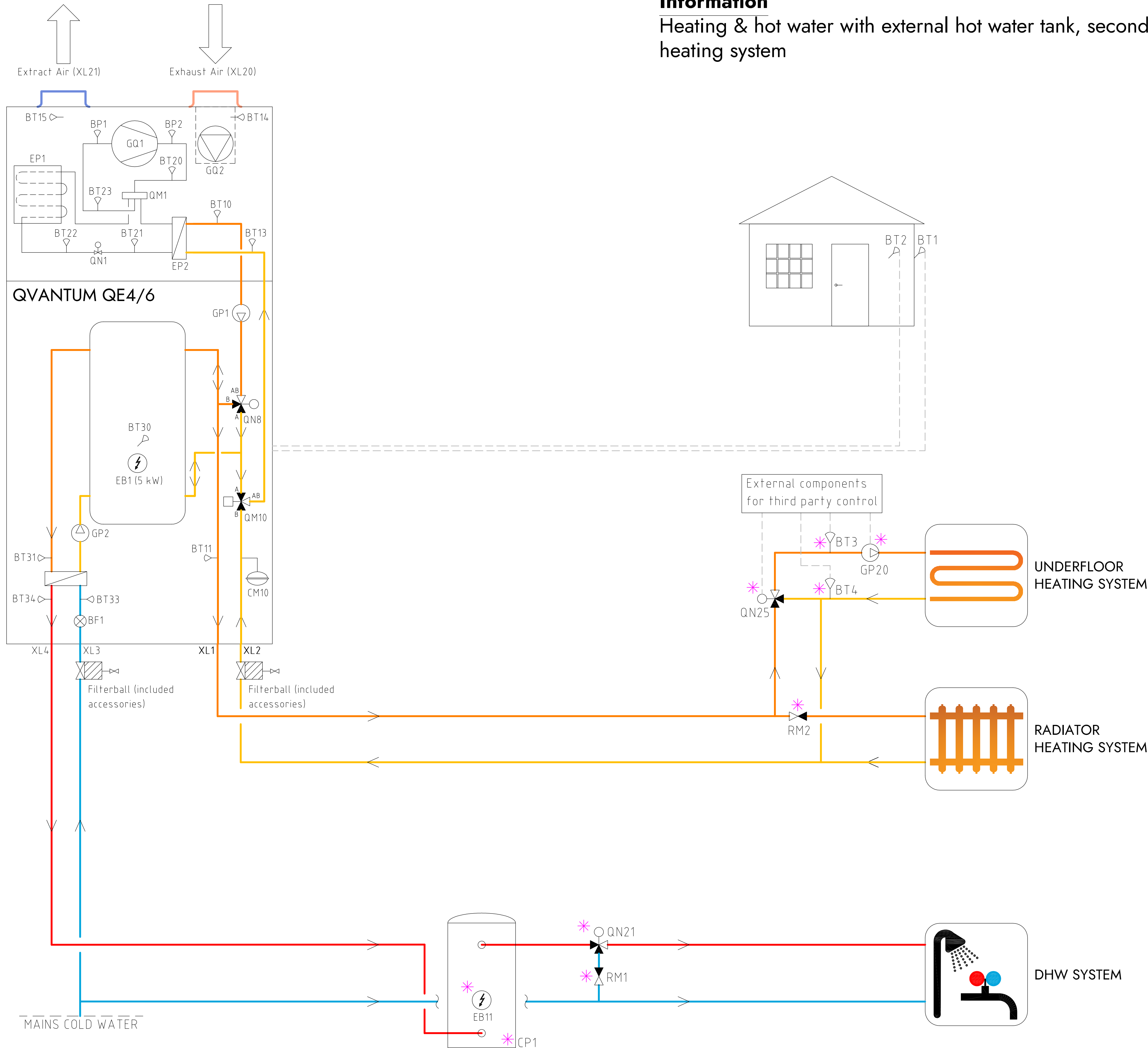
	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

Heating & hot water with external hot water tank, second heating system



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
QN25	Mixing valve, second heat system
GP20	Circulation pump second heat system
BT3	Heating supply, second heat system
BT4	Heating return, second heat system
RM2	Non return heat system
QN21	Thermostatic mixing valve (35-60°C)
CP1	DHW cylinder
EB11	Immersion heater
*	Components not delivered by Quantum

COMPONENT SYMBOLS

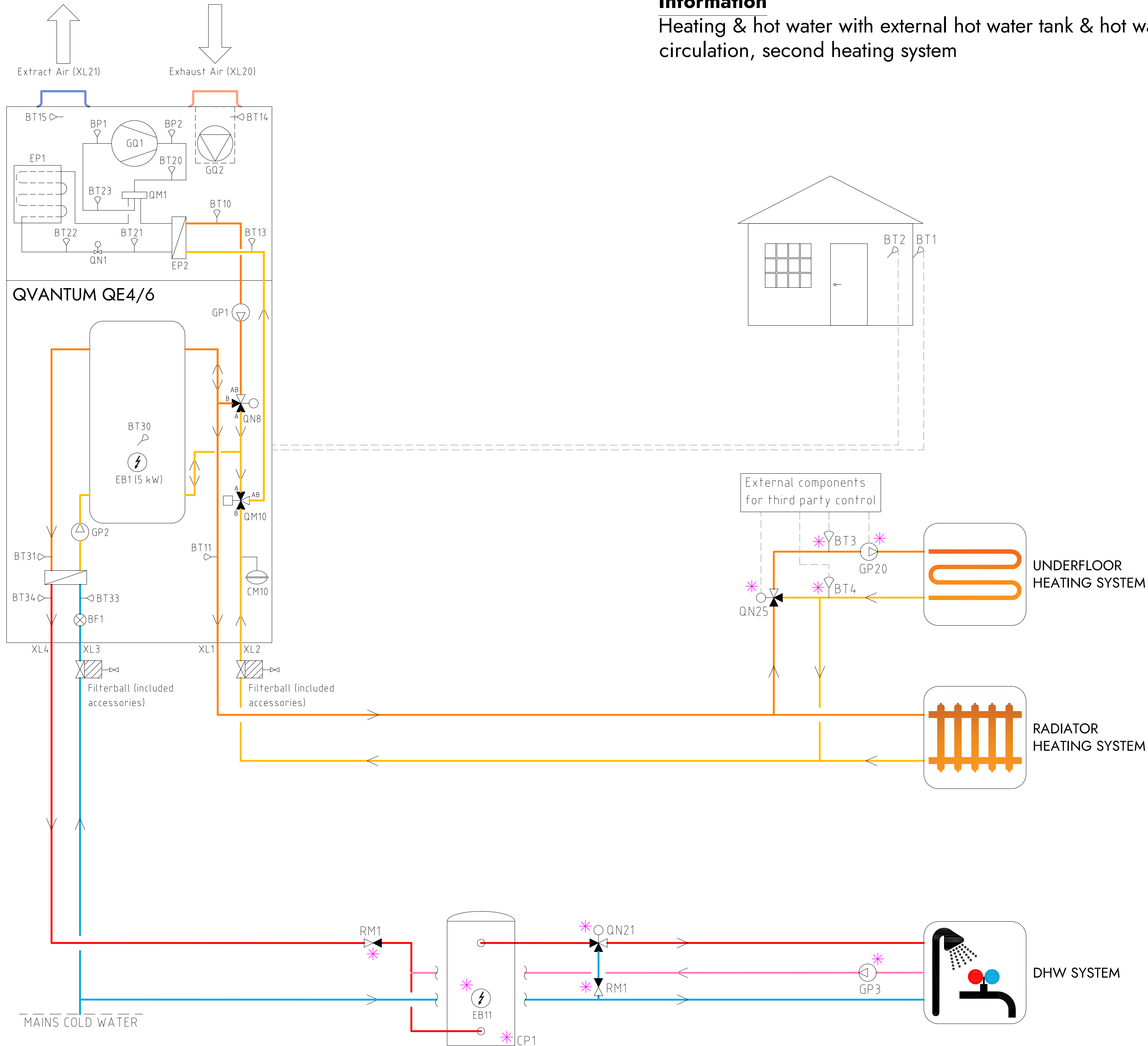
	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

Heating & hot water with external hot water tank & hot water circulation, second heating system



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
QN25	Mixing valve, second heat system
GP20	Circulation pump second heat system
BT3	Heating supply, second heat system
BT4	Heating return, second heat system
RM2	Non return heat system
QN21	Thermostatic mixing valve (35-60°C)
GP3	Circulation pump DHW return
CP1	DHW cylinder
EB11	Immersion heater
RM1	Non return valve hot water
*	Components not delivered by Quantum

COMPONENT SYMBOLS

- Circulation pump
- Temperature sensor
- 3-way control valve
- Isolation valve
- Non return valve
- Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Copyright notice ISO16016



Q V A N T U M
HEAT PUMPS FOR SUSTAINABLE CITIES

QVANTUM ENERGI AB
Ji-te gatan 7, 265 38 Åstorp

DRAWN BY
JE

DRAWING NUMBER
QE-56-8-011

PAGE NUMBER
14

Information

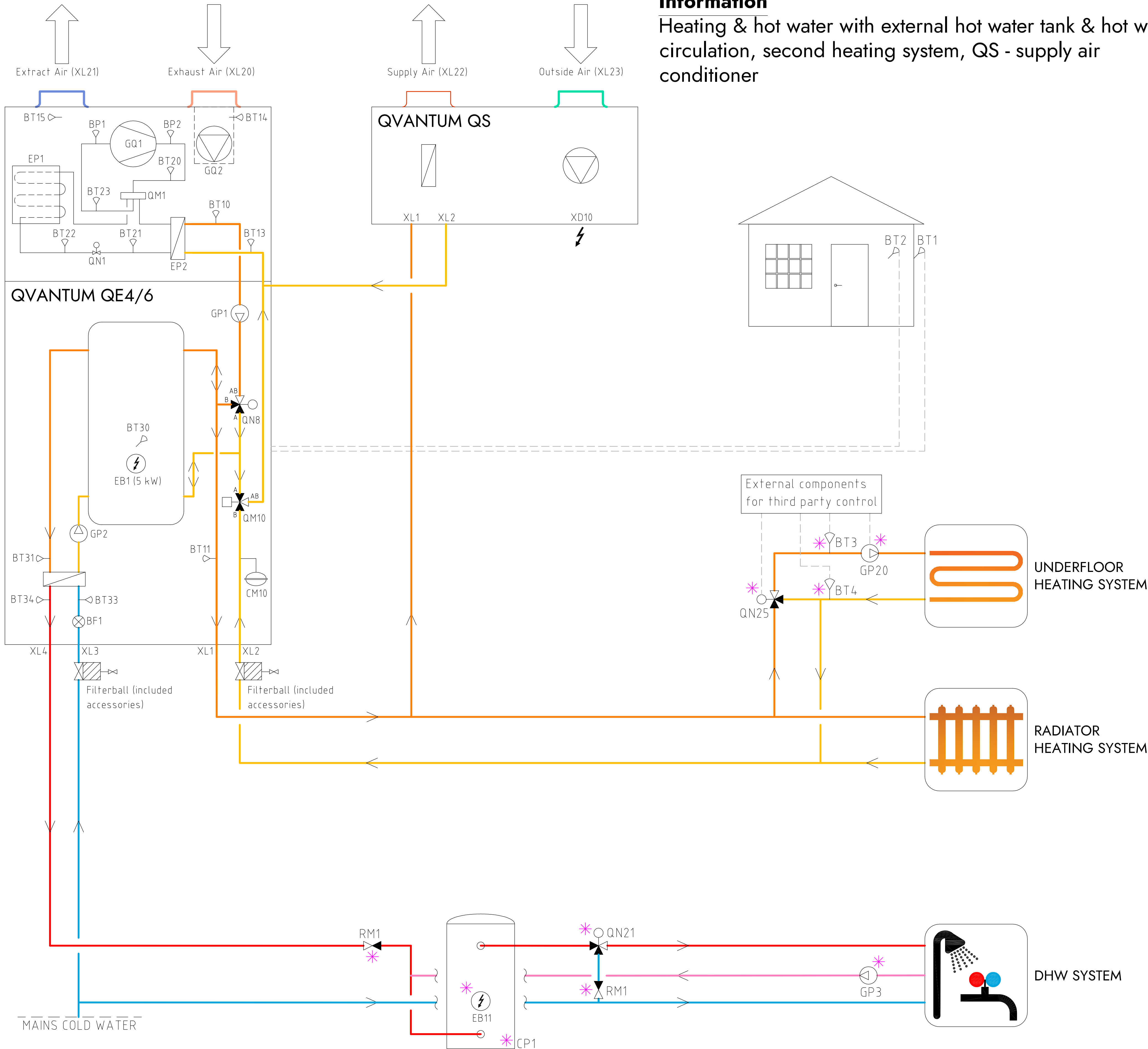
Heating & hot water with external hot water tank & hot water circulation, second heating system, QS - supply air conditioner

COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
QN25	Mixing valve, second heat system
GP20	Circulation pump second heat system
BT3	Heating supply, second heat system
BT4	Heating return, second heat system
RM2	Non return heat system
QN21	Thermostatic mixing valve (35-60°C)
GP3	Circulation pump DHW return
CP1	DHW cylinder
EB11	Immersion heater
RM1	Non return valve hot water
*	Components not delivered by Quantum

COMPONENT SYMBOLS

- Circulation pump
- Temperature sensor
- 3-way control valve
- Isolation valve
- Non return valve
- Strainer



Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.



QUANTUM ENERGI AB
Ji-te gatan 7, 265 38 Åstorp

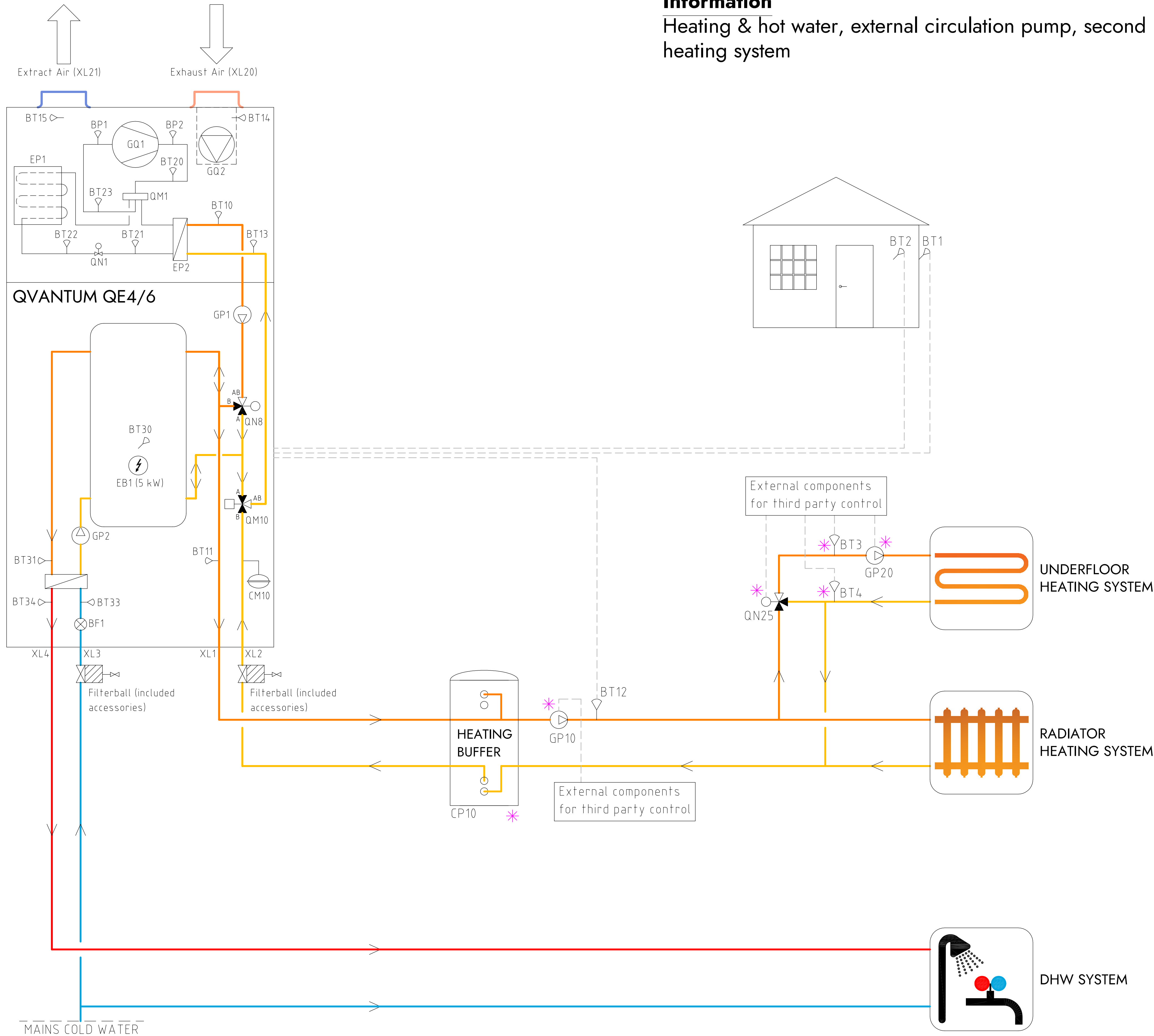
DRAWN BY
JE

DRAWING NUMBER
QE-56-8-012

PAGE NUMBER
15

Information

Heating & hot water, external circulation pump, second heating system



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
GP10	Circulation pump, main heat system
BT12	Heating supply, main heat system
CP10	Heating buffer tank
QN25	Mixing valve, second heat system
GP20	Circulation pump second heat system
BT3	Heating supply, second heat system
BT4	Heating return, second heat system
*	Components not delivered by Quantum

COMPONENT SYMBOLS

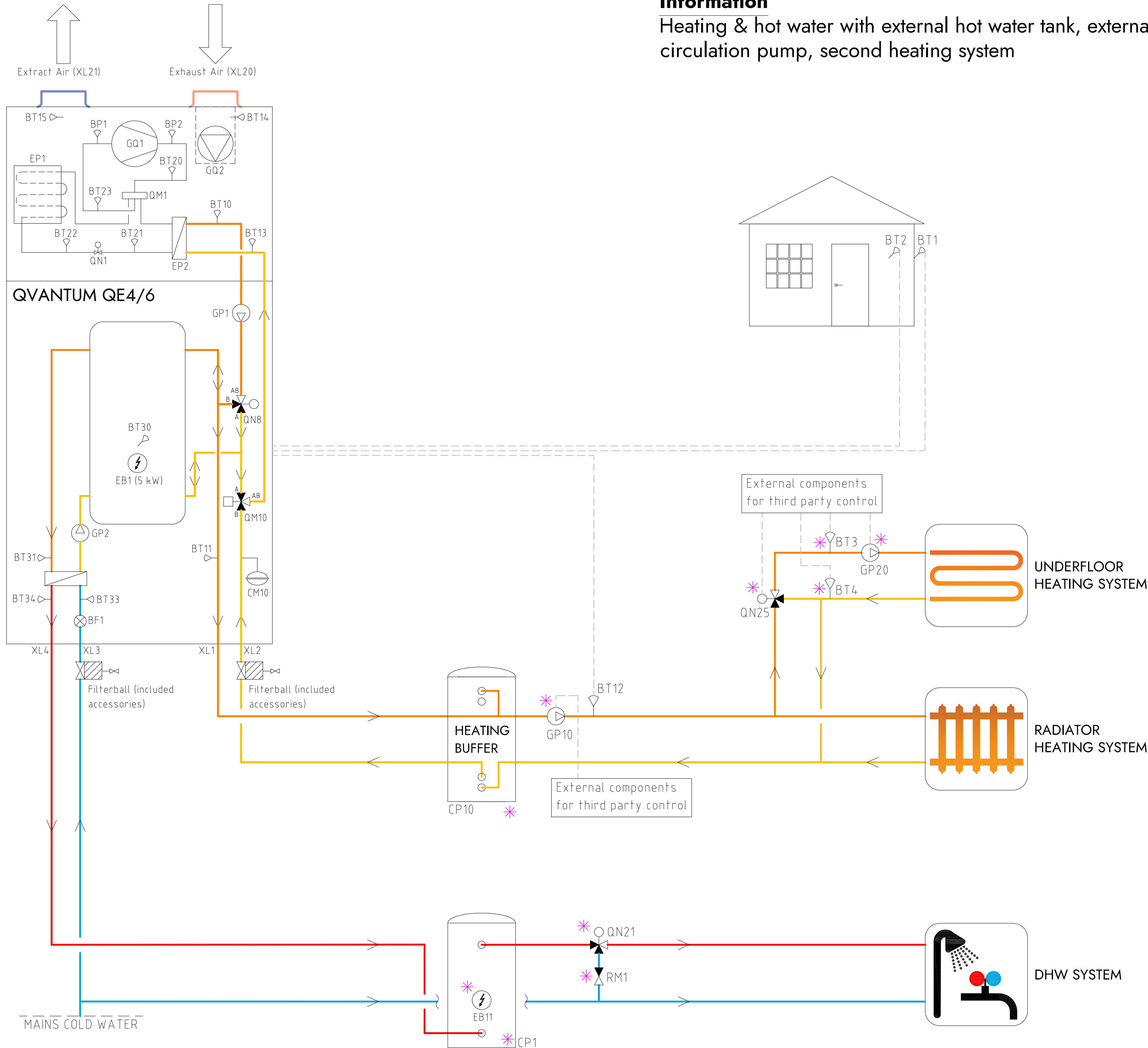
	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

Heating & hot water with external hot water tank, external circulation pump, second heating system



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
GP10	Circulation pump, main heat system
BT12	Heating supply, main heat system
CP10	Heating buffer tank
QN25	Mixing valve, second heat system
GP20	Circulation pump second heat system
BT3	Heating supply, second heat system
BT4	Heating return, second heat system
QN21	Thermostatic mixing valve (35-60°C)
CP1	DHW cylinder
EB11	Immersion heater
*	Components not delivered by Quantum

COMPONENT SYMBOLS

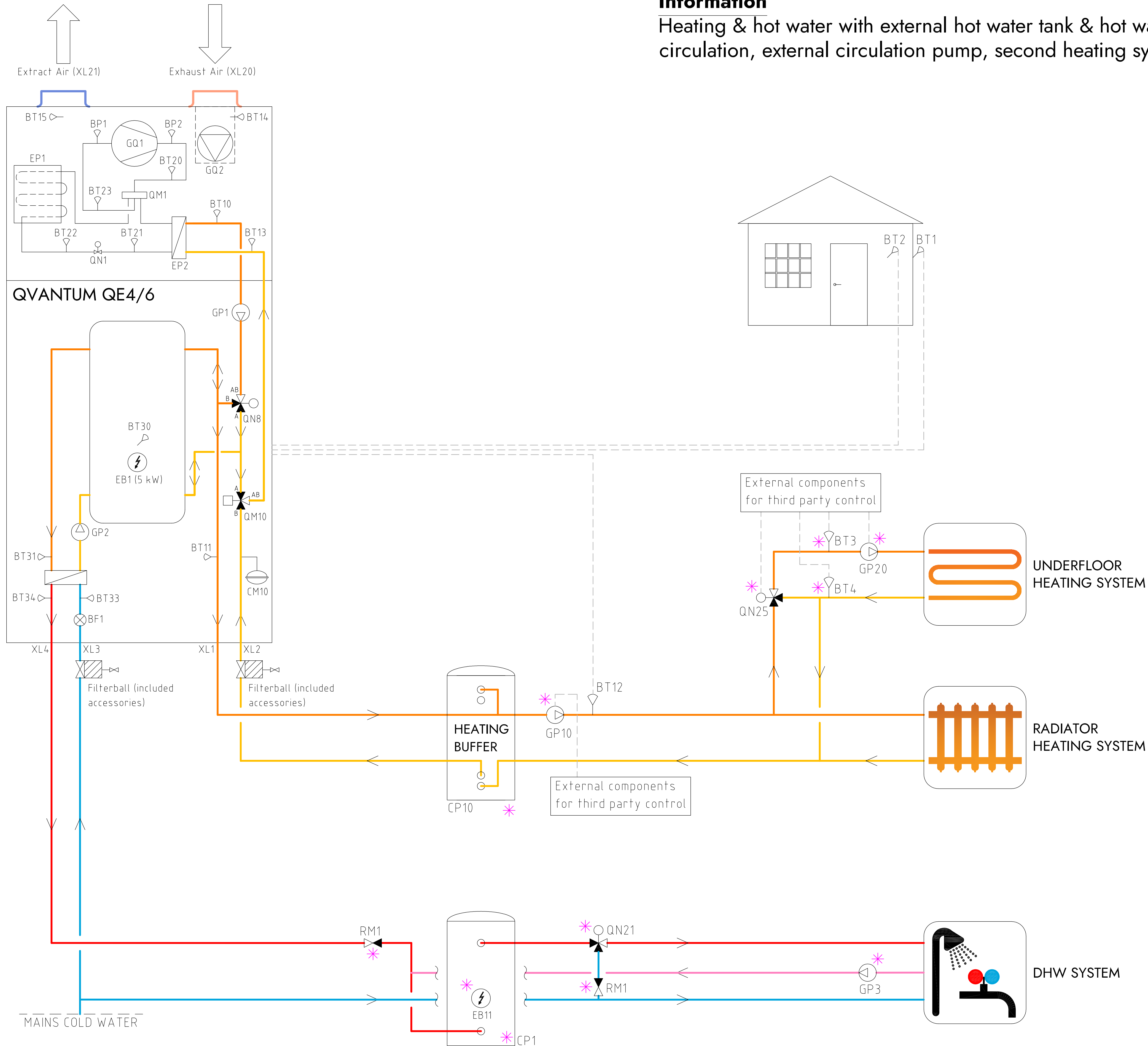
	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

Heating & hot water with external hot water tank & hot water circulation, external circulation pump, second heating system



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
GP10	Circulation pump, main heat system
BT12	Heating supply, main heat system
CP10	Heating buffer tank
QN25	Mixing valve, second heat system
GP20	Circulation pump second heat system
BT3	Heating supply, second heat system
BT4	Heating return, second heat system
QN21	Thermostatic mixing valve (35-60°C)
GP3	Circulation pump DHW return
CP1	DHW cylinder
EB11	Immersion heater
RM1	Non return valve hot water
*	Components not delivered by Quantum

COMPONENT SYMBOLS

	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.



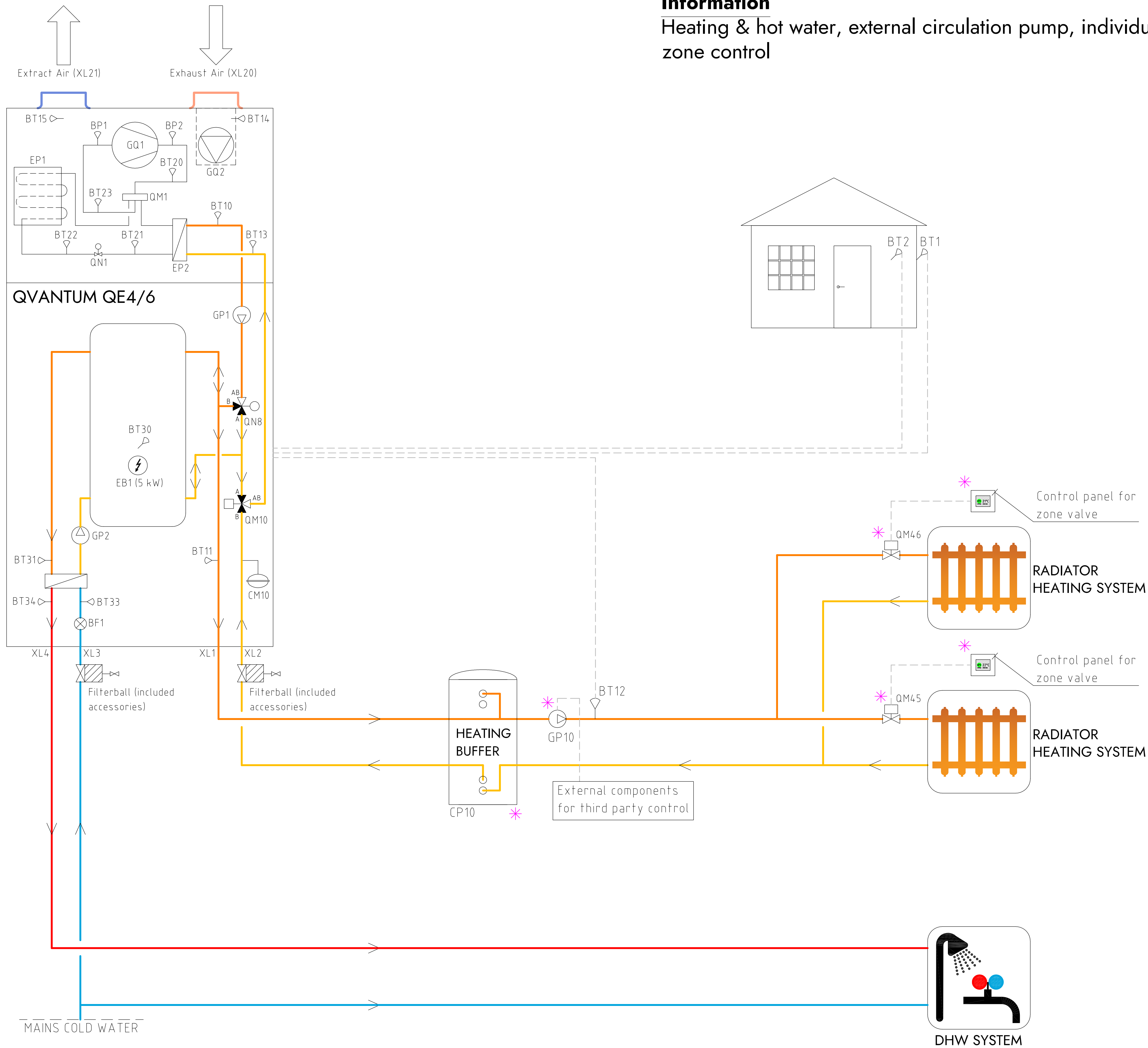
Heating & hot water with external hot water tank & hot water circulation, external circulation pump, second heating system, QS - supply air conditioner

	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

Heating & hot water, external circulation pump, individual zone control



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
GP10	Circulation pump, main heat system
BT12	Heating supply, main heat system
CP10	Heating buffer tank
QN25	Mixing valve, second heat system
GP20	Circulation pump second heat system
BT3	Heating supply, second heat system
BT4	Heating return, second heat system
QM45	Zone valve
QM46	Zone valve
*	Components not delivered by Quantum

COMPONENT SYMBOLS

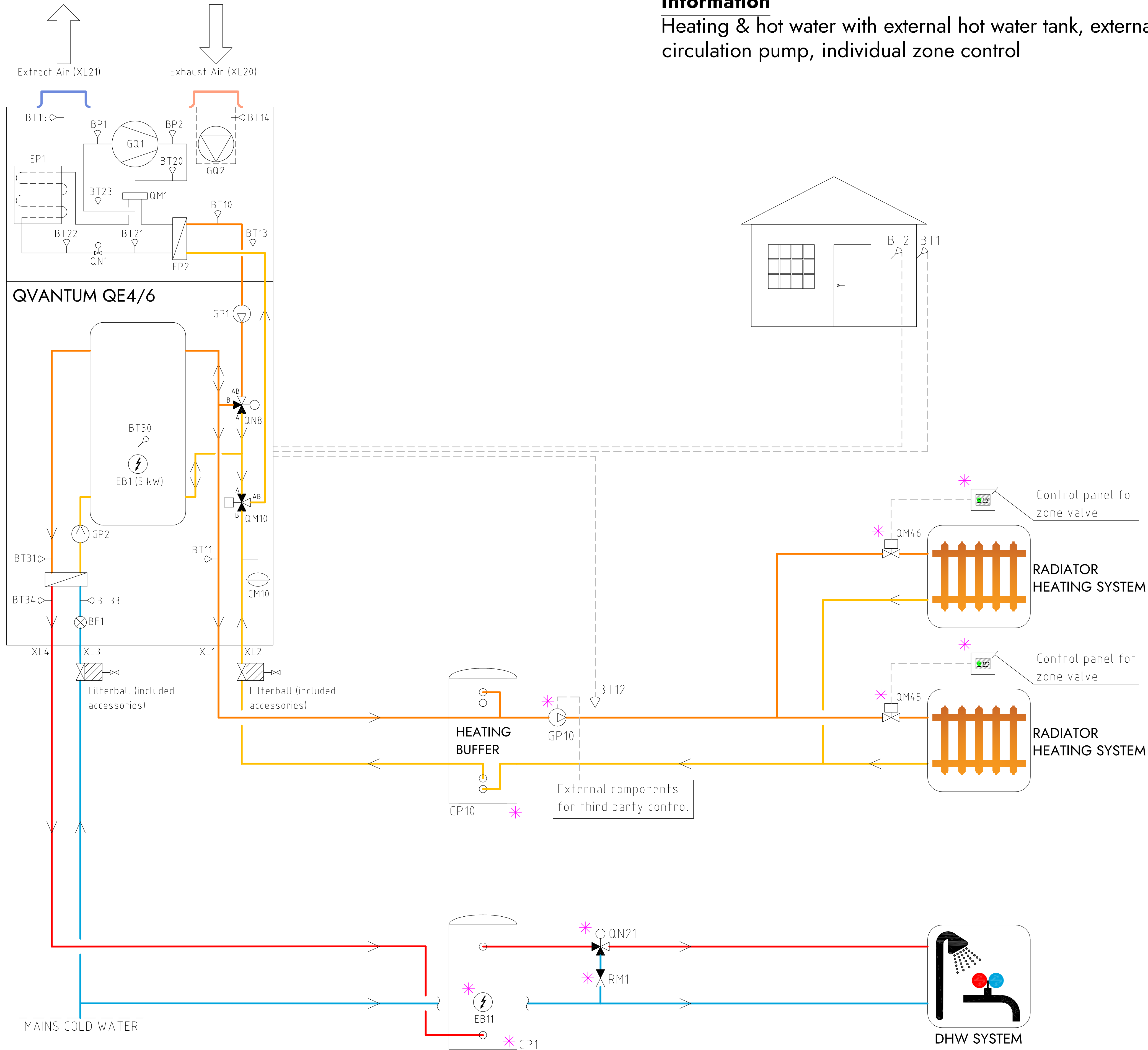
	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

Heating & hot water with external hot water tank, external circulation pump, individual zone control



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
GP10	Circulation pump, main heat system
BT12	Heating supply, main heat system
CP10	Heating buffer tank
QN25	Mixing valve, second heat system
GP20	Circulation pump second heat system
BT3	Heating supply, second heat system
BT4	Heating return, second heat system
QN21	Thermostatic mixing valve (35-60°C)
CP1	DHW cylinder
EB11	Immersion heater
QM45	Zone valve
QM46	Zone valve
*	Components not delivered by Quantum

COMPONENT SYMBOLS

	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

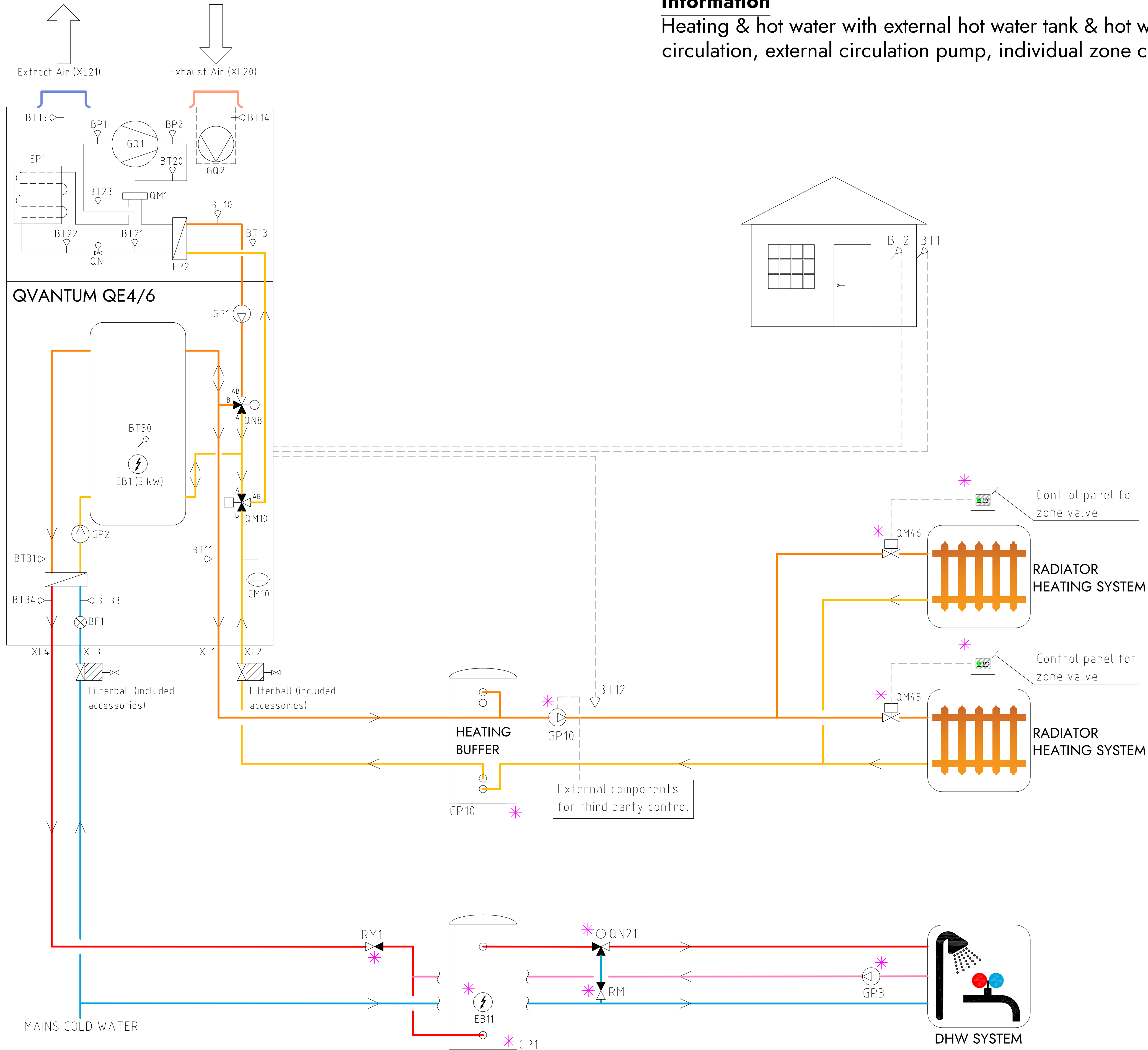


QVANTUM ENERGI AB
Ji-te gatan 7, 265 38 Åstorp

DRAWN BY JE	DRAWING NUMBER QE-56-8-018	PAGE NUMBER 21
-----------------------	--------------------------------------	--------------------------

Information

Heating & hot water with external hot water tank & hot water circulation, external circulation pump, individual zone control



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
GP10	Circulation pump, main heat system
BT12	Heating supply, main heat system
CP10	Heating buffer tank
QN25	Mixing valve, second heat system
GP20	Circulation pump second heat system
BT3	Heating supply, second heat system
BT4	Heating return, second heat system
QN21	Thermostatic mixing valve (35-60°C)
GP3	Circulation pump DHW return
CP1	DHW cylinder
EB11	Immersion heater
RM1	Non return valve hot water
QM45	Zone valve
QM46	Zone valve
*	Components not delivered by Qvantum

COMPONENT SYMBOLS

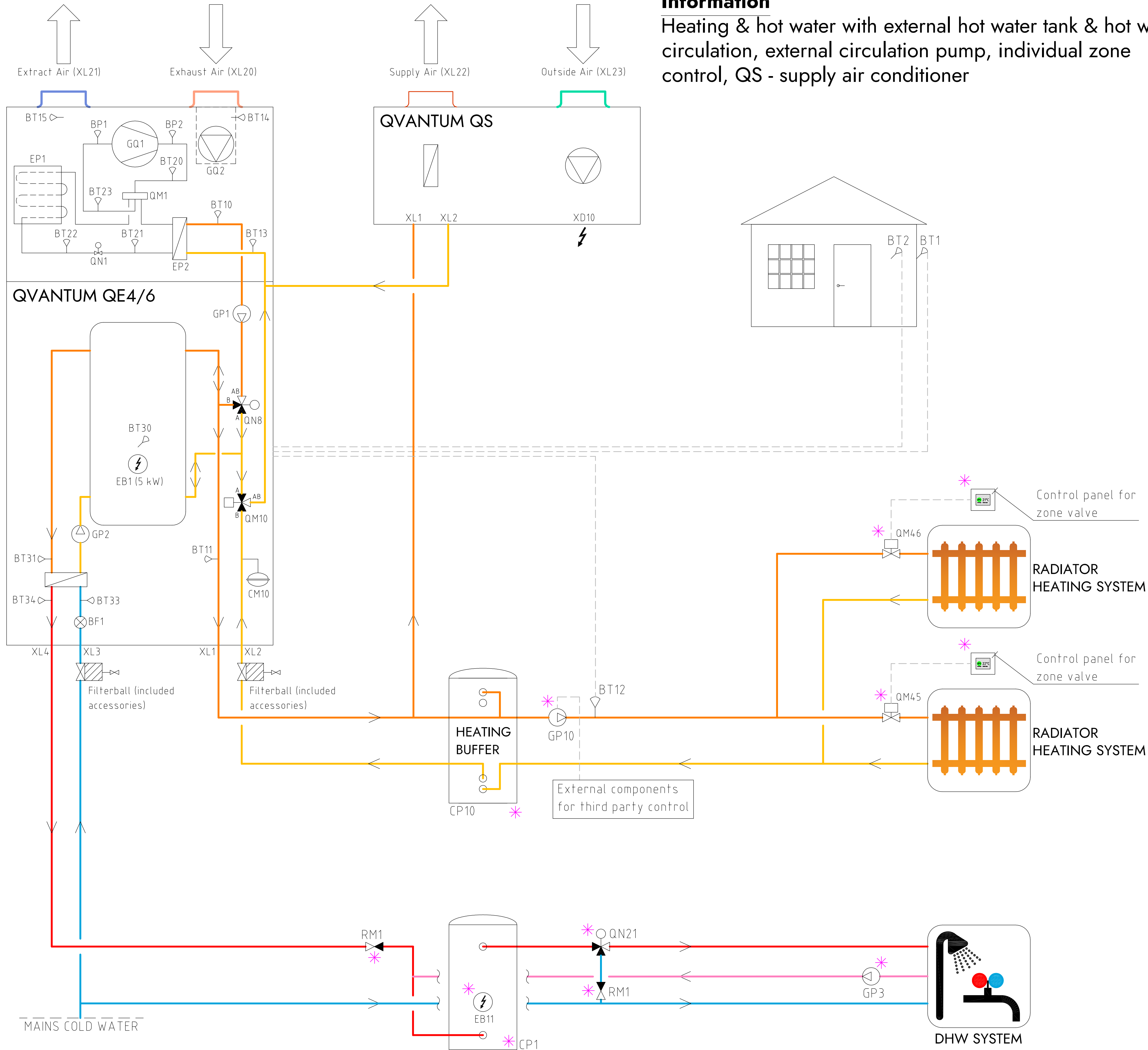
	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information

Heating & hot water with external hot water tank & hot water circulation, external circulation pump, individual zone control, QS - supply air conditioner



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor
GP10	Circulation pump, main heat system
BT12	Heating supply, main heat system
CP10	Heating buffer tank
QN25	Mixing valve, second heat system
GP20	Circulation pump second heat system
BT3	Heating supply, second heat system
BT4	Heating return, second heat system
QN21	Thermostatic mixing valve (35-60°C)
GP3	Circulation pump DHW return
CP1	DHW cylinder
EB11	Immersion heater
RM1	Non return valve hot water
QM45	Zone valve
QM46	Zone valve
*	Components not delivered by Qvantum

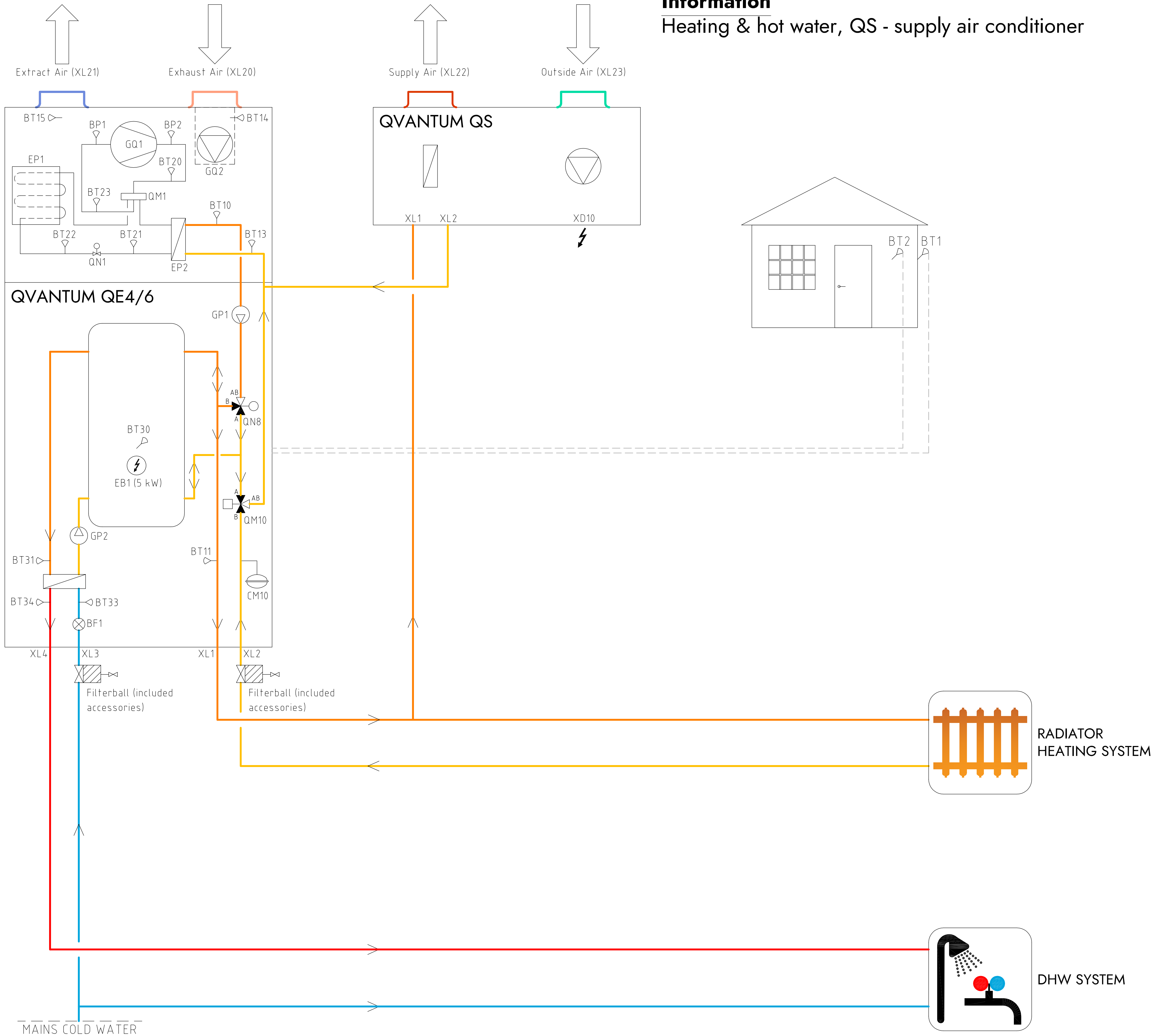
COMPONENT SYMBOLS

	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.

Information
Heating & hot water, QS - supply air conditioner



COMPONENT DESIGNATIONS

GQ1	Compressor
GQ2	Fan
EP1	Evaporator
EP2	Condenser
QM1	4-way valve
QM10	Diverting valve
QN8	Shunt valve
EB1	Immersion heater
GP1	Circulation pump heating
GP2	Circulation pump hot water
CM10	Expansion vessel
BT1	Outdoor sensor
BT2	Room sensor
BT10	Condenser outlet
BT11	Heating flow temperature
BT13	Condenser inlet
BT14	Extract air inlet
BT15	Exhaust air outlet
BT20	Discharge temperature
BT21	Liquid line temperature
BT22	Evaporating temperature
BT23	Suction gas temperature
BT30	Tank temperature
BT31	Plate heat exchanger inlet
BT33	Cold water inlet
BT34	Hot water outlet
BP1	Suction gas pressure
BP2	Discharge pressure
BF1	Flow sensor

COMPONENT SYMBOLS

	Circulation pump
	Temperature sensor
	3-way control valve
	Isolation valve
	Non return valve
	Strainer

Please note

- This hydraulic schematic is a non-binding, schematic proposal for the hydraulic integration of the QE unit.
- This hydraulic schematic does not replace professional planning and implementation, all applicable laws, standards, and regulations must be adhered to.
- The representation of safety devices is not complete.
- Fittings and safety devices outside the QE unit area are not included and must be provided and installed on site.