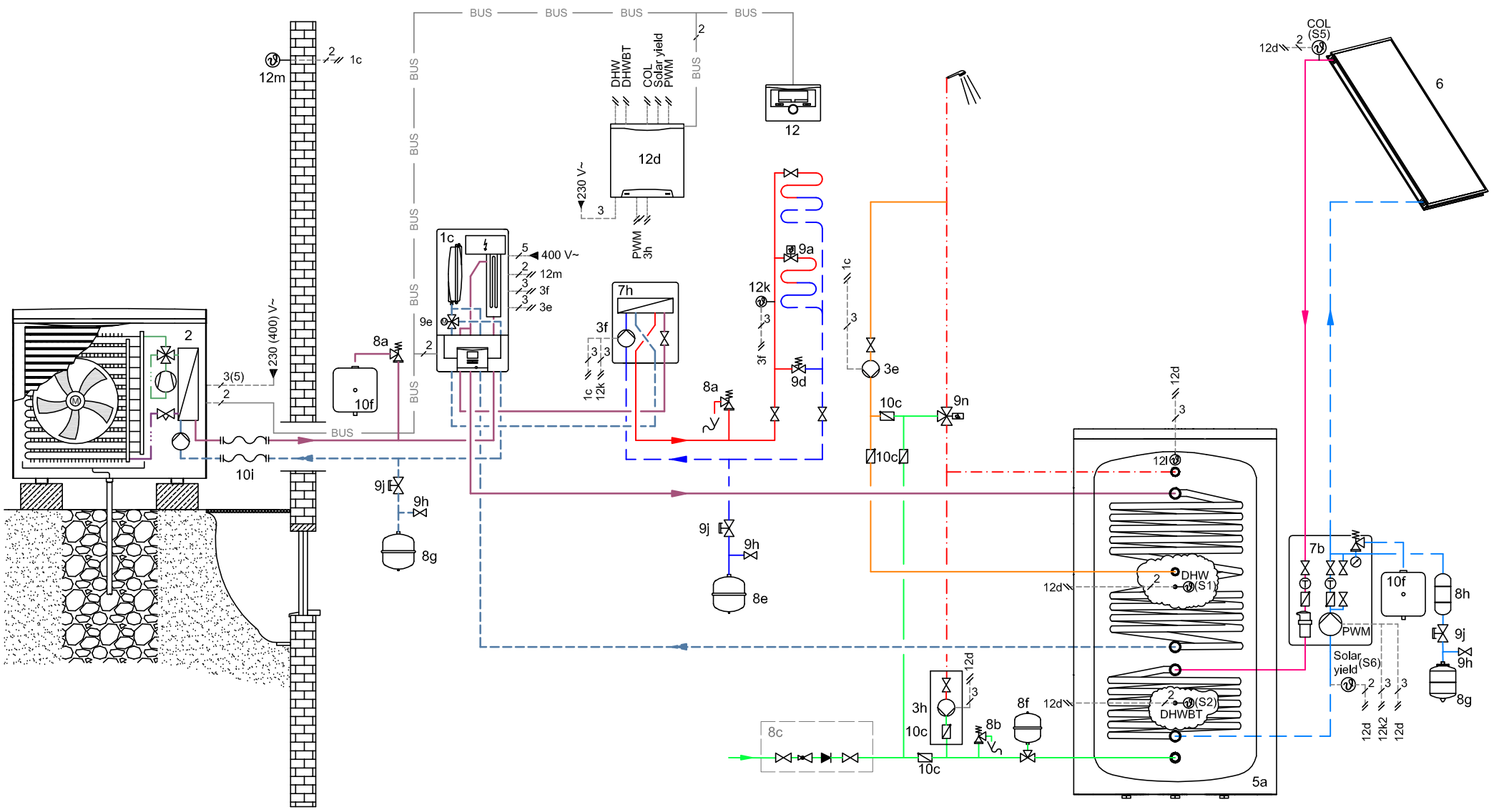**0020199449**

One-family house with one heating circuit. Heat pump to use for the heating circuit and DHW loading. The solar system supports the DHW loading. Planning the DHW double coil tank interpreted in accordance with applicable standards and requirements.
Attention: Mount the sensor of the overheat safety thermostat at an adequat position to avoid tank temperatures above 100°C. The heating output of the heat pump has to be aligned with the coil size of the DHW tank.

Vaillant

BUS — BUS — BUS — BUS

DHW
DHWBT
COL
Solar yield
PWM

12d

12

12m

1c

230 V~

PWM
3h

1c

5 ◄ 400 V~
2
2   12m
3   3f
3   3e

9e

8a

2

10f

7h

3f

9a

12k

1c

9d

3e

10c

9n

10i

9j

9h

8g

3f
1c
12k

8a

9j

9h

8e

10c

10c

COL (S5)

12d

6

7b

10f

8h

DHW (S1)

12d

9j

9h

8g

Solar yield (S6)

2

3h

10c

8b

8f

12d

DHWBT (S2)

8c

10c

12d

12d
12k2
12d

5a

Attention: This principal scheme does not supersede a real planning!
This scheme does not include all necessary valves and safety devices for a right installation
The actual standards and regulations have to be attended

drawn.: AH

version no.

03.00

aroTHERM, VWZ MEH 61, VWZ MWT 150, VWZ AI, VR 70, VRC 700, geoSTOR VIH RW B, auroTHERM VFK, VPMS 70
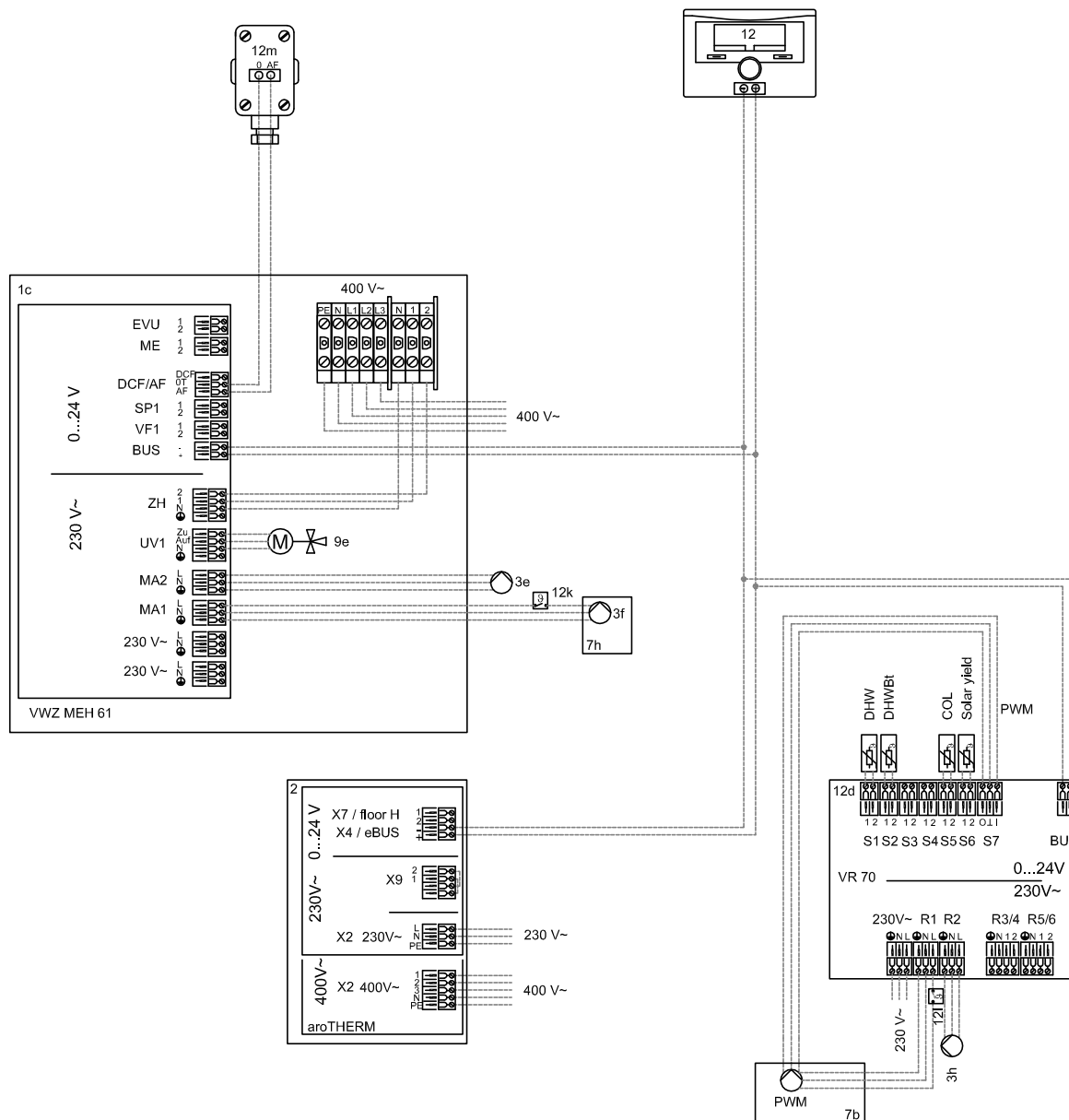system scheme setting 11, module setting 6

Confindential
only for internal use

date.:   09.09.2015

reference to

0020199449 — One-family house with one heating circuit. Heat pump to use for the heating circuit and DHW loading. The solar system supports the DHW loading. Planning the DHW double coil tank interpreted in accordance with applicable standards and requirements.

Attention: Mount the sensor of the overheat safety thermostat at an adequat position to avoid tank temperatures above 100°C. The heating output of the heat pump has to be aligned with the coil size of the DHW tank.

Vaillant

12m
0 AF

12

1c
400 V~

0...24 V

EVU 1 2
ME 1 2
DCF/AF DCF 0T AF
SP1 1 2
VF1 1 2
BUS

230 V~

ZH
UV1 Zu Auf N
MA2
MA1
230 V~
230 V~

400 V~

M 9e

3e   12k

3f

7h

VWZ MEH 61

2

0...24 V

X7 / floor H 1 2 3
X4 / eBUS

230V~

X9 2 1

X2 230V~ L N PE

400V~

X2 400V~ 1 2 3 N PE

aroTHERM

230 V~

400 V~

DHW / DHWBt
COL / Solar yield
PWM

12d

S1 S2 S3 S4 S5 S6 S7   BUS

VR 70   0...24V
230V~

230V~ R1 R2   R3/4 R5/6

230 V~

12l

3h

PWM

7b

Attention: This principal scheme does not supersede a real planning!
This scheme does not include all necessary valves and safety devices for a right installation
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drawn.: AH   version no.   03.00   aroTHERM, VWZ MEH 61, VWZ MWT 150, VWZ AI, VR 70, VRC 700, geoSTOR VIH RW B, auroTHERM VFK, VPMS 70

date.: 09.09.2015   reference to   system scheme setting 11, module setting 6

Confindential
only for internal use

Legend

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Hydraulic

1	heat generator
1a	additional boiler DHW
1b	additional boiler heating
1c	additional boiler heating/DHW
1d	solid fuel boiler
2	heat pump
2a	DHW heat pump
2b	air brine heat exchanger unit
2c	outdoor unit refrigerant split
2d	indoor unit refrigerant split
2e	ground water module
2f	passive cooling module
3	circulation pump heat generator
3a	circulation pump swimming pool
3b	circulation pump cooling circuit
3c	cylinder charging pump
3d	suction well pump
3e	circulation pump DHW
3f	heating pump
3g	circulation pump heat source
3h	legionella protection pump
4	buffer cylinder
5	monovalent DHW cylinder
5a	bivalent DHW cylinder
5b	shift-load DHW cylinder
5c	combined cylinder (tank-in-tank)
5d	multi-functional buffer cylinder
5e	hydraulic tower
6	solar collector (thermal)
7a	brine filling station
7b	solar unit
7c	DHW unit
7d	heating satelite
7e	hydraulic block
7f	decoupler module
7g	heat decoupling module
7h	heat exchanger module
7i	2-zone module
7j	pump group
8a	expansion relief valve
8b	expansion relief valve drinking water
8c	safety assembly drinking water connection
8d	safety assembly heat generator
8e	expansion vessel heating
8f	expansion vessel drinking water
8g	expansion vessel solar/brine
8h	solar protection vessel
8i	thermal safety device
9a	single room temperature control valve (thermostatic/motorized)
9b	zone valve
9c	balancing valve
9d	bypass valve
9e	diverter valve DHW
9f	diverter valve cooling
9g	switching valve
9h	filling and draining cock
9i	purging valve
9j	valve cap
9k	3-way mixer
9l	3-way mixer cooling
9m	3-way mixer increase in return
9n	thermostat mixing valve
9o	flow meter (Taco-Setter)
9p	cascade valve

10a	thermometer
10b	pressure gauge
10c	non-return valve
10d	air separator
10e	dirt and magnetite separator
10f	collecting vessel solar/brine
10g	heat exchanger
10h	low loss header
10i	flexible connections
11a	fan coil
11b	swimming pool
12	system control
12a	remote control
12b	heat pump extension module
12c	multi-functional module 2 to 7
12d	extension module/ mixer module
12e	main extension module
12f	control center
12g	bus coupler eBUS
12h	solar control
12i	external control
12j	isolating relay
12k	overheat protection thermostat
12l	cylinder temperature limiter
12m	outdoor temperature sensor
12n	flow switch
12o	eBUS generator
12p	radio receiver unit

Wiring

BufTop	temperature sensor buffer cylinder top
BufBt	temperature sensor buffer cylinder bottom
BufTopDHW	temperature sensor DHW of buffer top
BufBtDHW	temperature sensor DHW of buffer bottom
BufTopCH	temperature sensor heating of buffer top
BufBtCH	temperature sensor heating of buffer bottom
C1/C2	release of cylinder charge/ buffer charge
COL	collector temperature sensor
DEM	external heating demand for heating circuit
DHW	temperature sensor for DHW cylinder
DHWBT	temperature sensor for DHW cylinder bottom
EVU	switching contact energy supply company
FS	flow temperature sensor/ temperature sensor pool
MA	multi-function relay output
ME	multi-function relay input
PWM	PWM signal for pump
PV	interface to PV inverter
RT	room thermostat
SCA	signal cooling
SG	interface to power grid operator
Solar yield	solar yield sensor
SysFlow	system flow temperature sensor
TD	temperature sensor for ΔT control
TEL	switch contact remote control
TR	isolating circuit with switching heat generator

Multiple use components (x) are serially numbered (x1, x2,..., xn)

drinking water		flow brine
domestic hot water		return brine
circulation		flow cooling
wiring		return cooling
flow heating		flow refrigerant
return heating		return refrigerant
flow solar		
return solar		

Design and planning advice:

Caution! Schematic diagram!

1. Non-binding recommendation! The information below shall never supersede the correct professional design of the system. This system schematic does not include all the shut-off and safety devices necessary for professional assembly. The applicable national and international laws and regulations, standards and directives must be adhered to!

2. Subject to alterations in the schematic diagram! Full and/or partial reproduction of this schematic is subject to prior written approval by Vaillant GmbH.

3. During planning and design, installation and later use of the system, all operating instructions for installation and use created and applicable to the appliance, the accessories and/or all other system components must be adhered to.

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Attention: This principal scheme does not supersede a real planning! This scheme does not include all neccessary valves and safety devices for a right installation. The actual applicable national and international standards and regulations have to be attended.

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