

HYDRAULIKHANDBUCH 2024

BWP | BSK | BPH | BSV | BHZ | BCU

brunner.de

BRUNNER[®]

heizen auf bayerisch.

Sehr geehrter Fachhandwerker,

mit diesem Hydraulikhandbuch erhalten Sie einen Auszug, der am häufigsten verwendeten Hydraulikvarianten.

Die Produkte von BRUNNER können damit hydraulisch in eine bereits vorhandene bzw. in eine neu zu errichtende Heizungsanlage eingebunden werden.

Installationsarbeiten sind nach den gültigen Regeln und dem jeweiligen Stand der Technik von Fachhandwerkern auszuführen.

Für jedes Hydraulikschema ist auch ein passender Elektroplan vorhanden.

Länderspezifische Vorschriften sind zu beachten.

Die Heizungsanlage ist mit Wasser nach VDI-Richtlinie 2035 „Vermeidung von Schäden in Warmwasser-Heizanlagen“ zu befüllen.

Normen, Sicherheits- und örtliche Vorschriften beachten!

Alle in diesem Hydraulikhandbuch gezeigten Prinzipschemen dienen lediglich als unverbindliche Montagevorschläge und ersetzen keine fachtechnische Planung!

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8 BCU - PV Ofenheizung

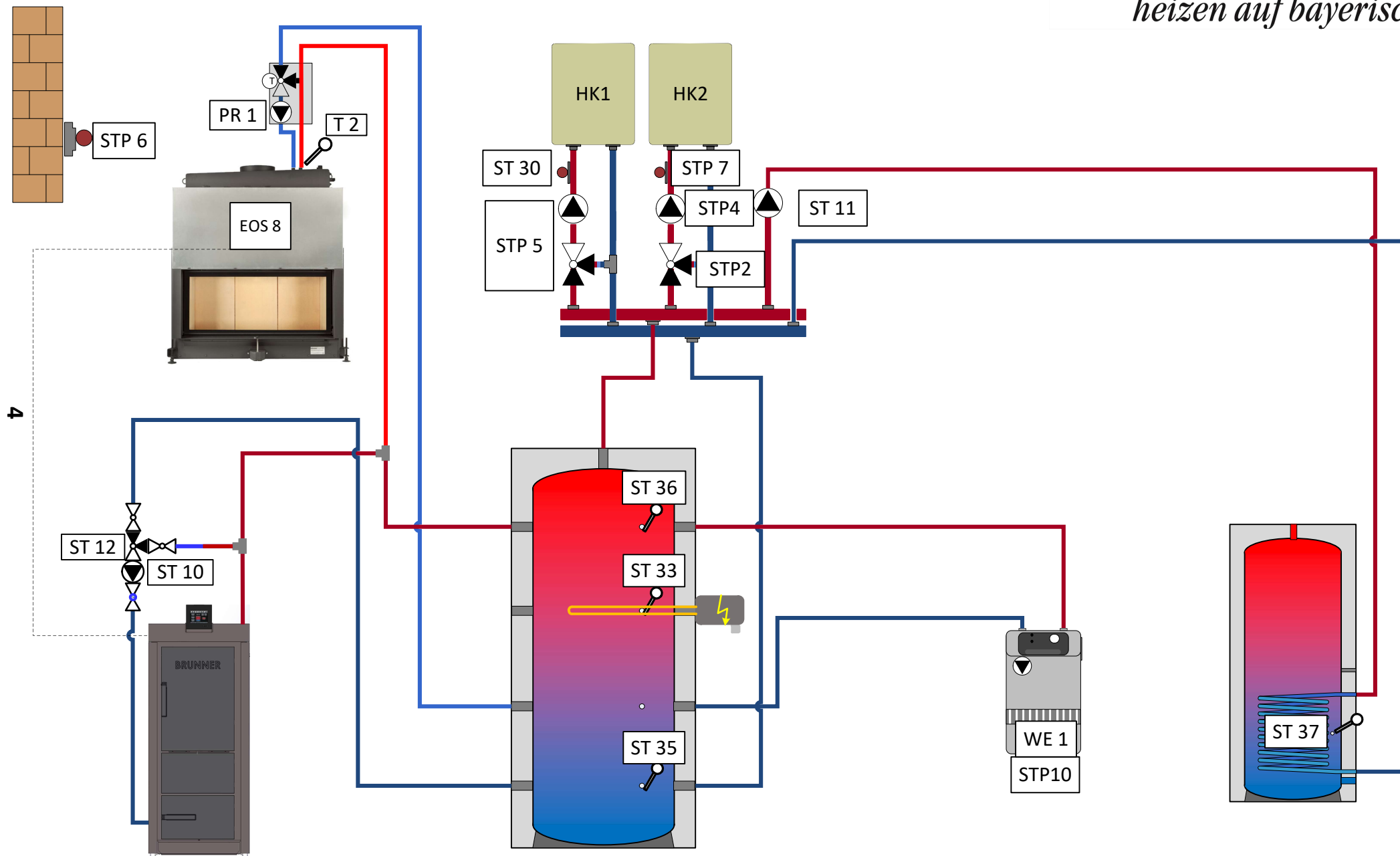
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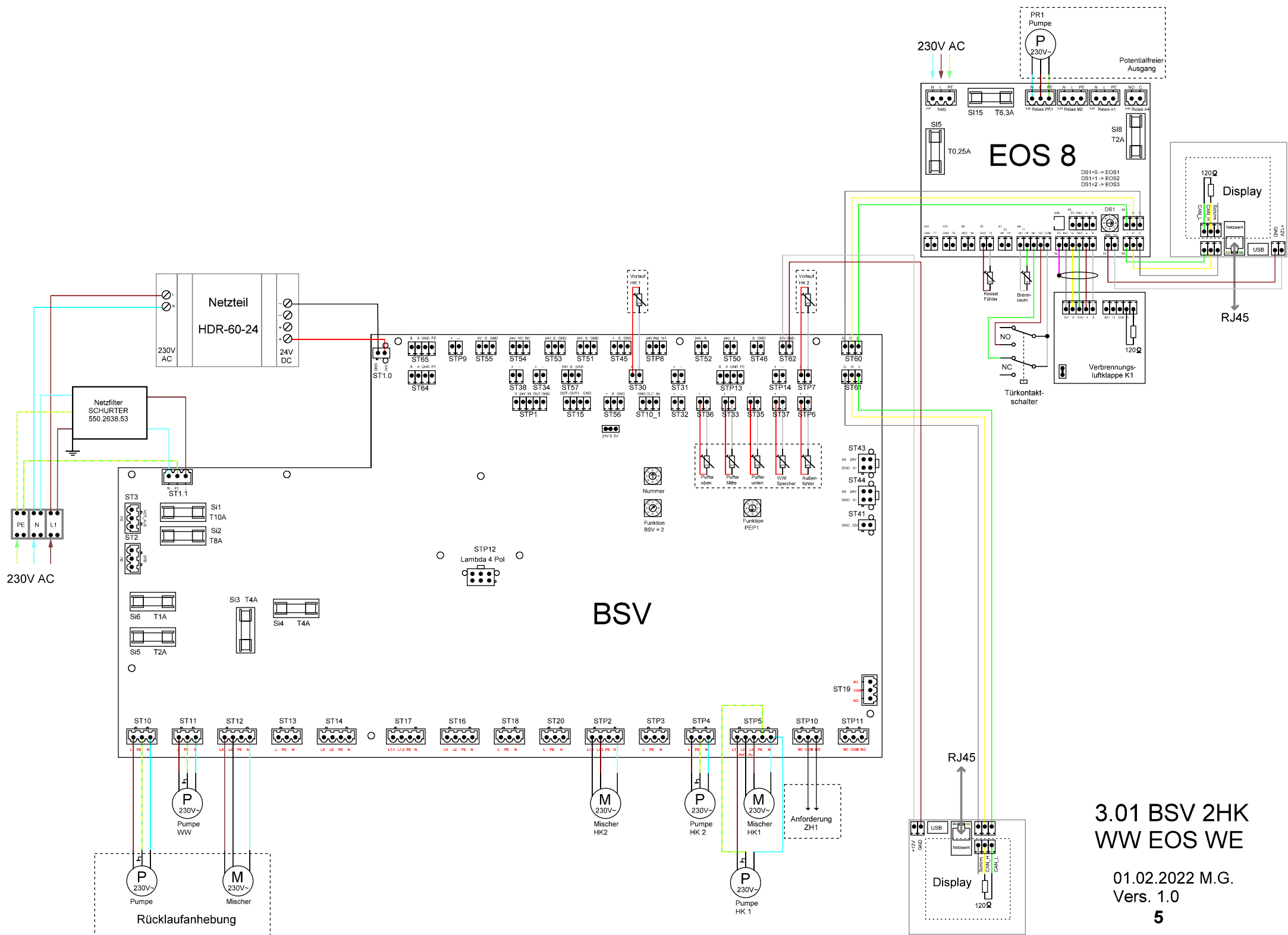
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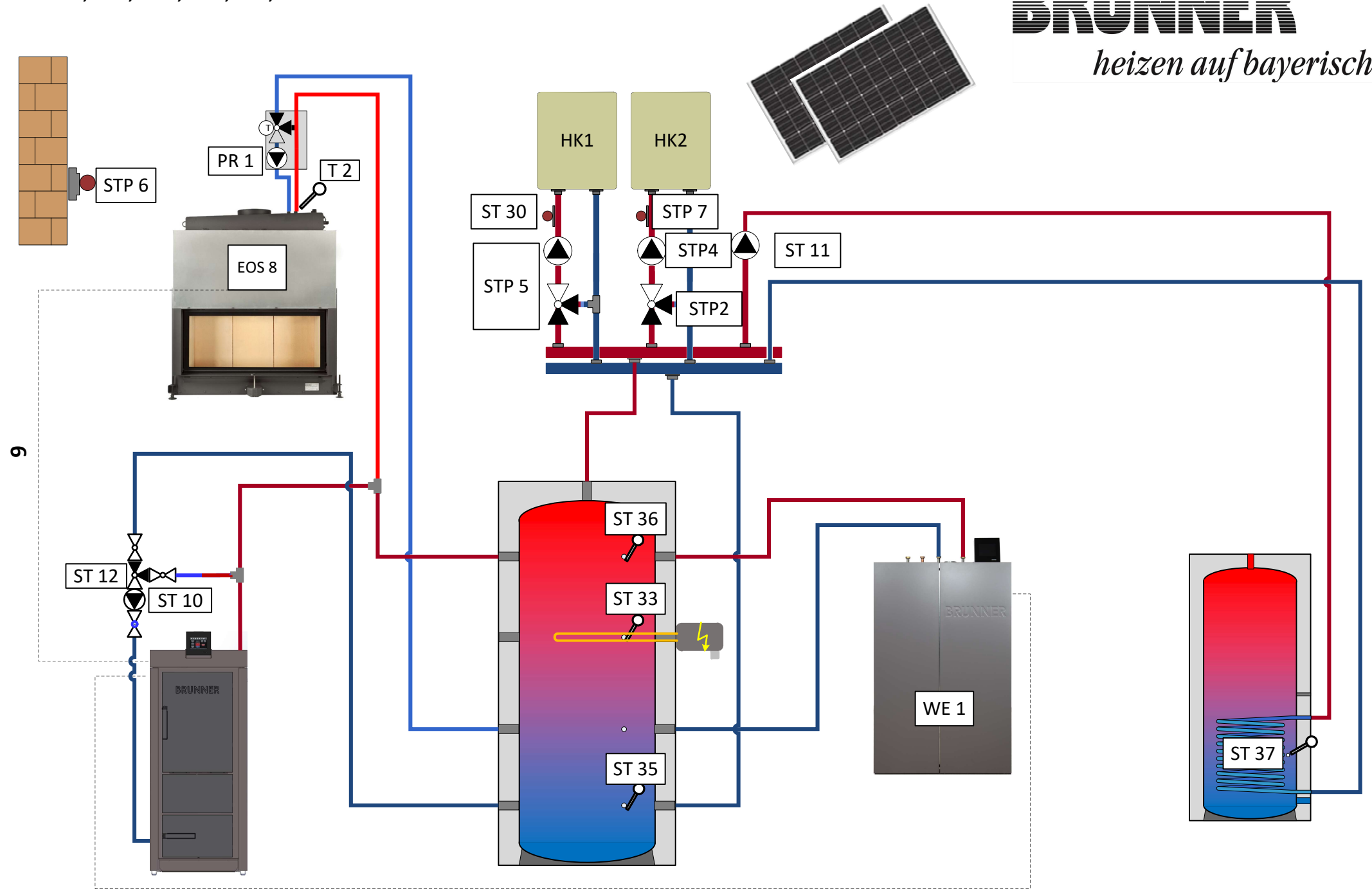
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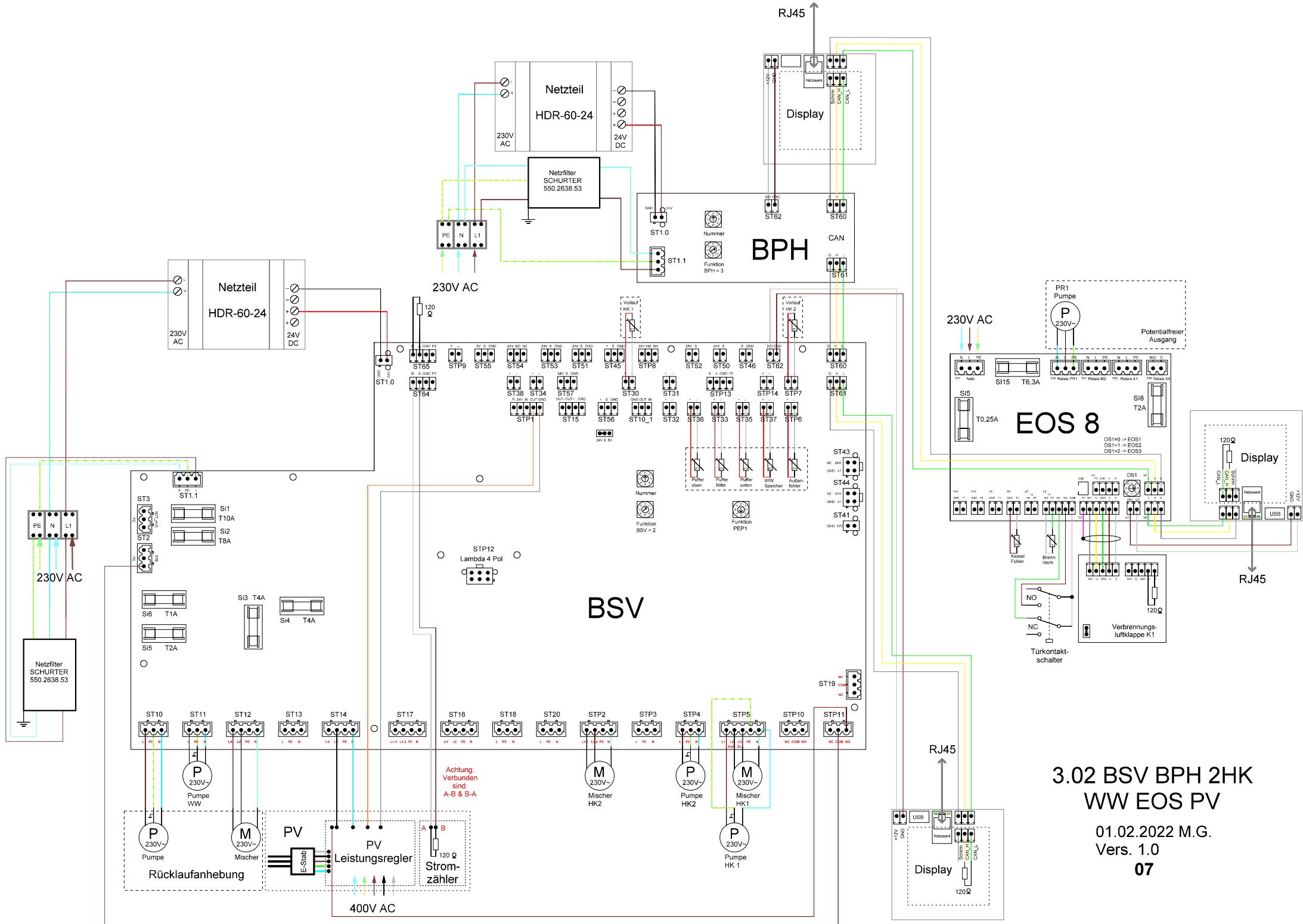




**3.01 BSV 2HK
WW EOS WE**

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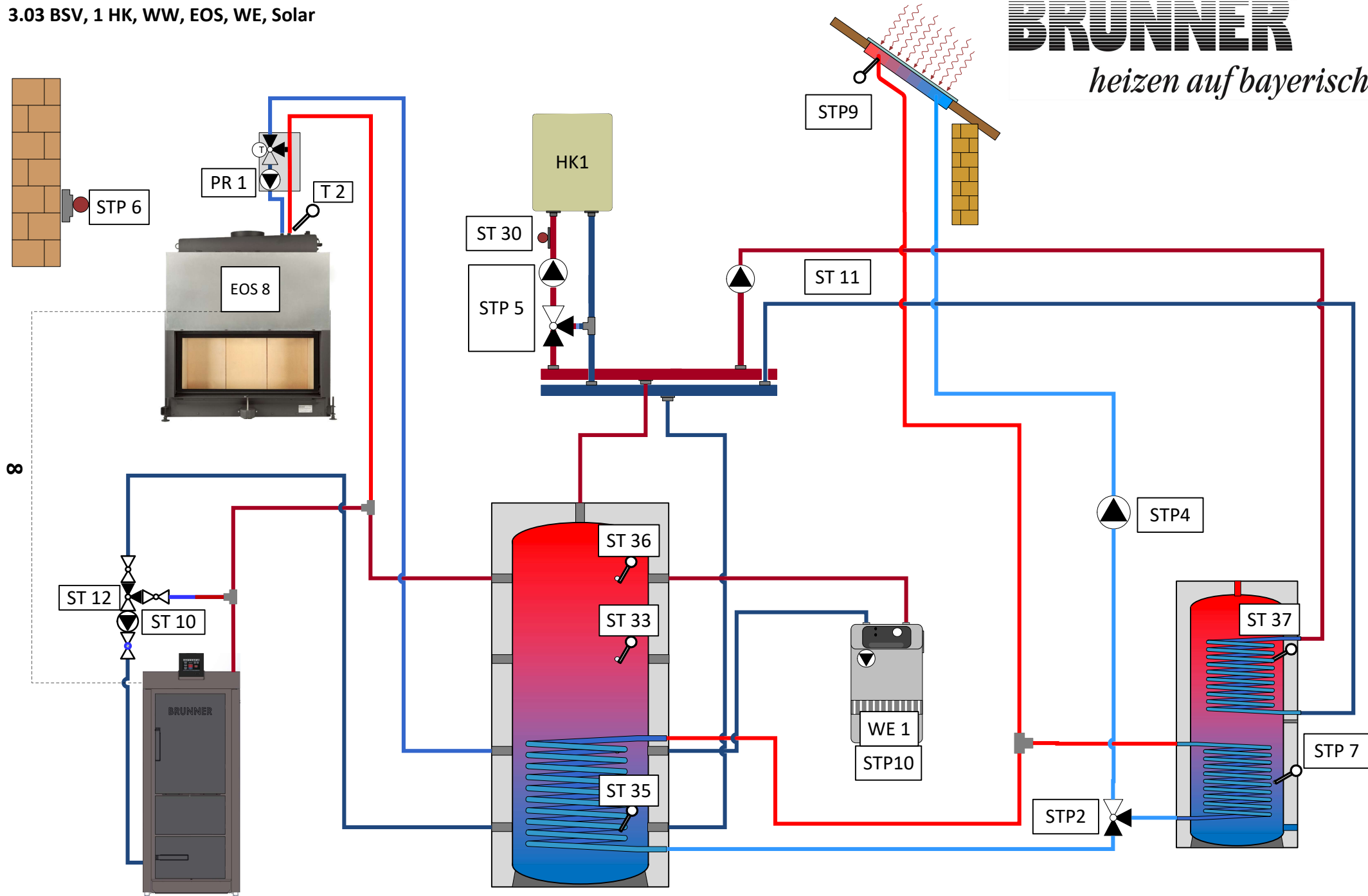


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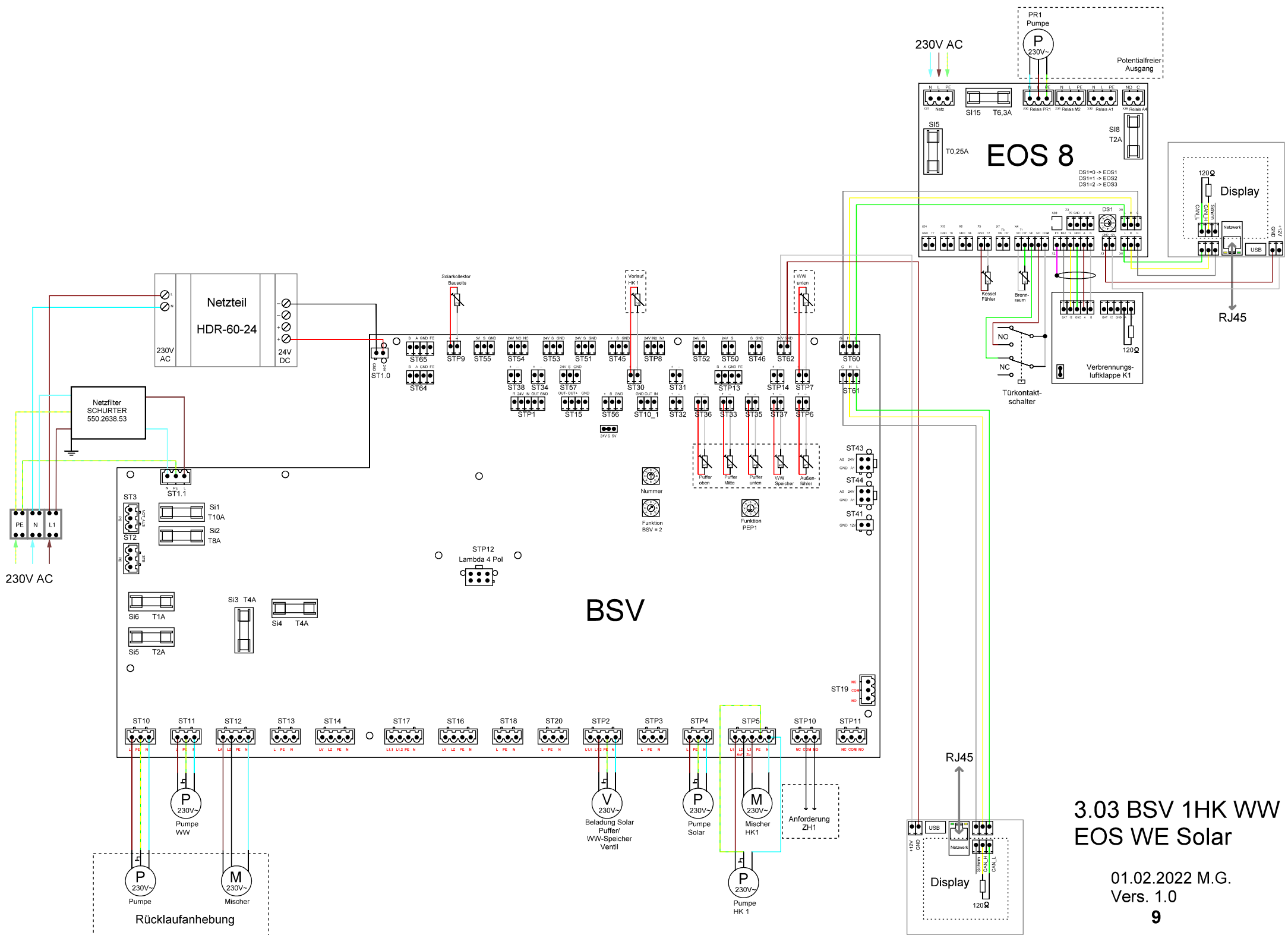
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Vers. 1.0

3.03 BSV, 1 HK, WW, EOS, WE, Solar

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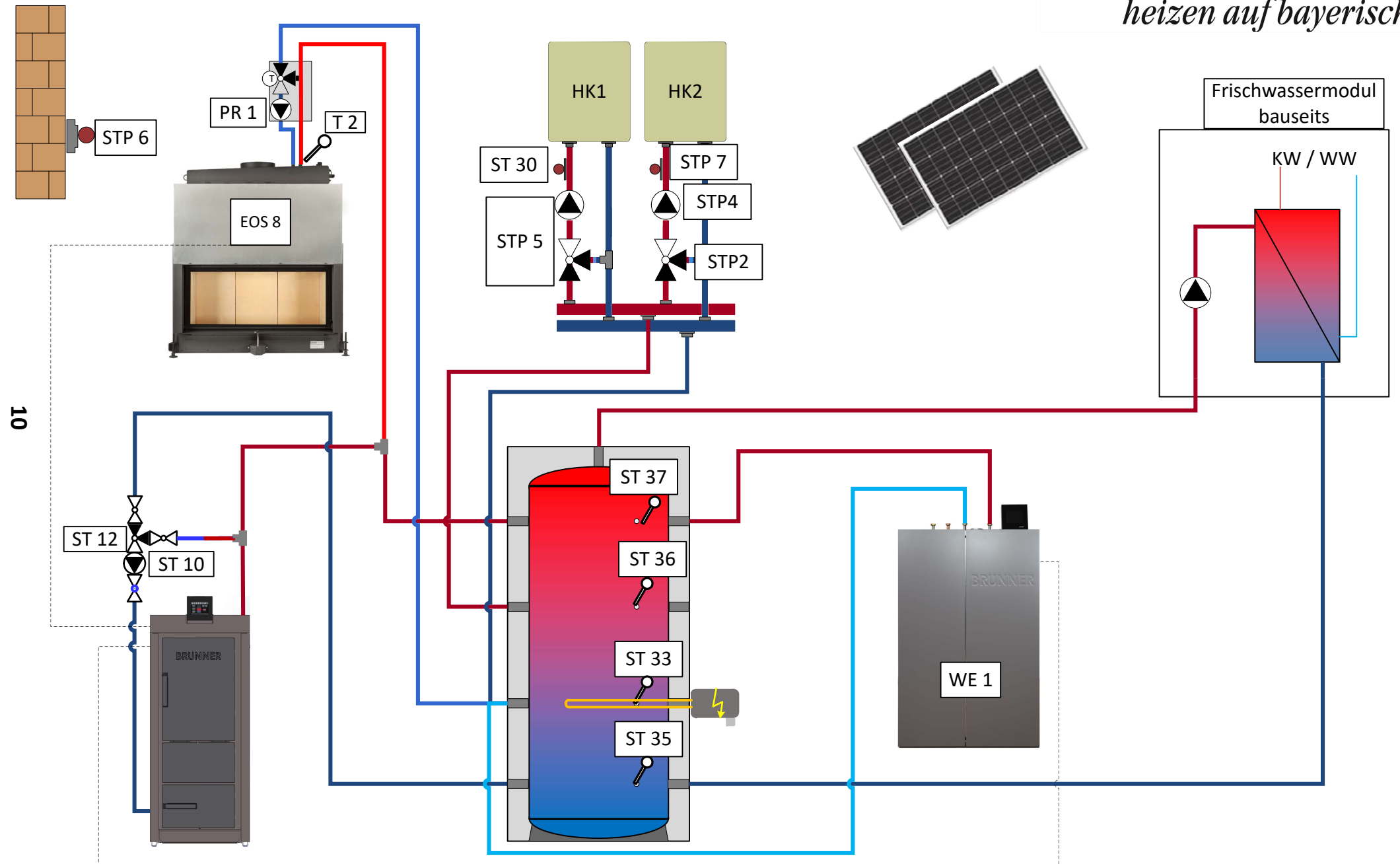


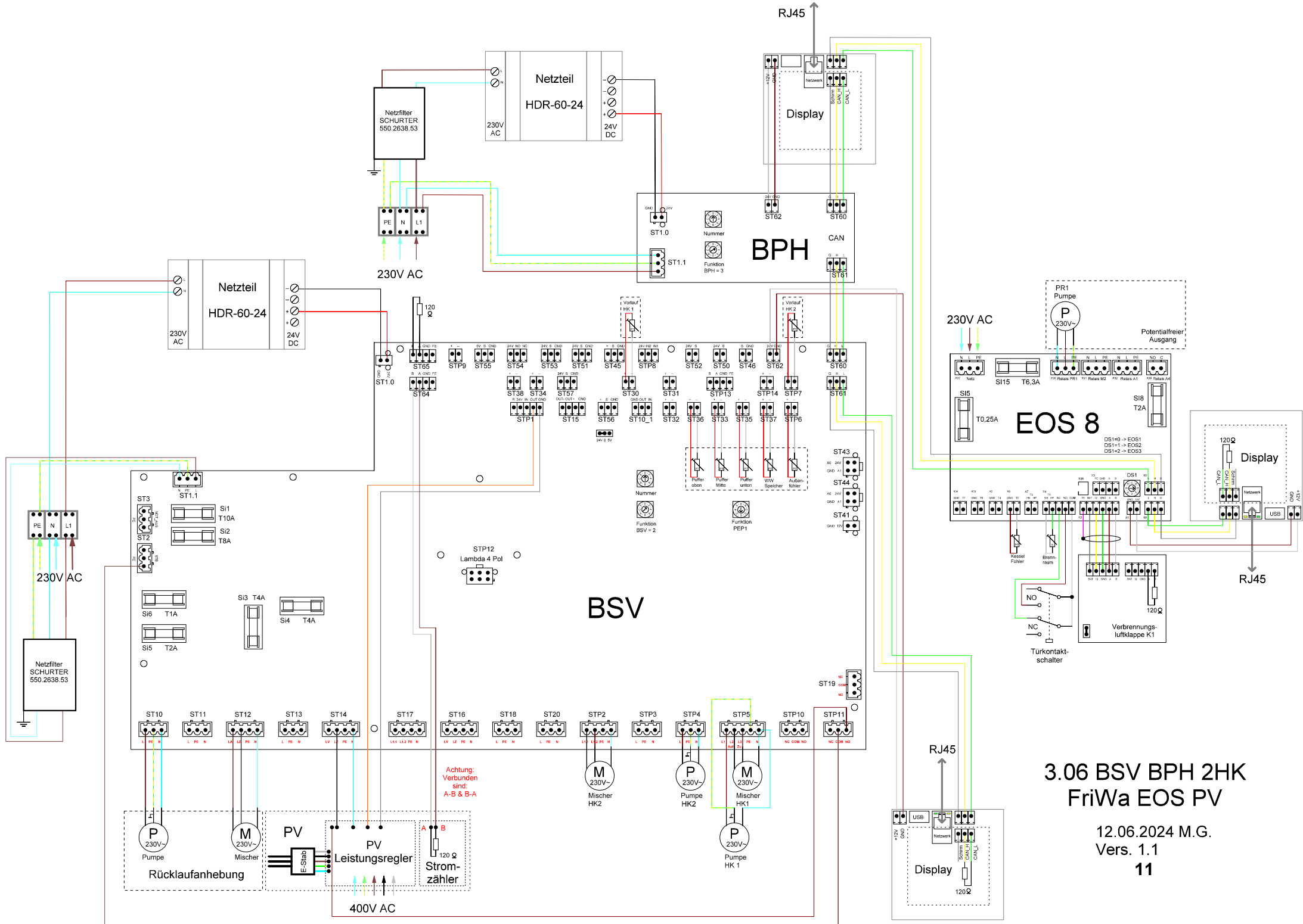
8



3.03 BSV 1HK WW EOS WE Solar

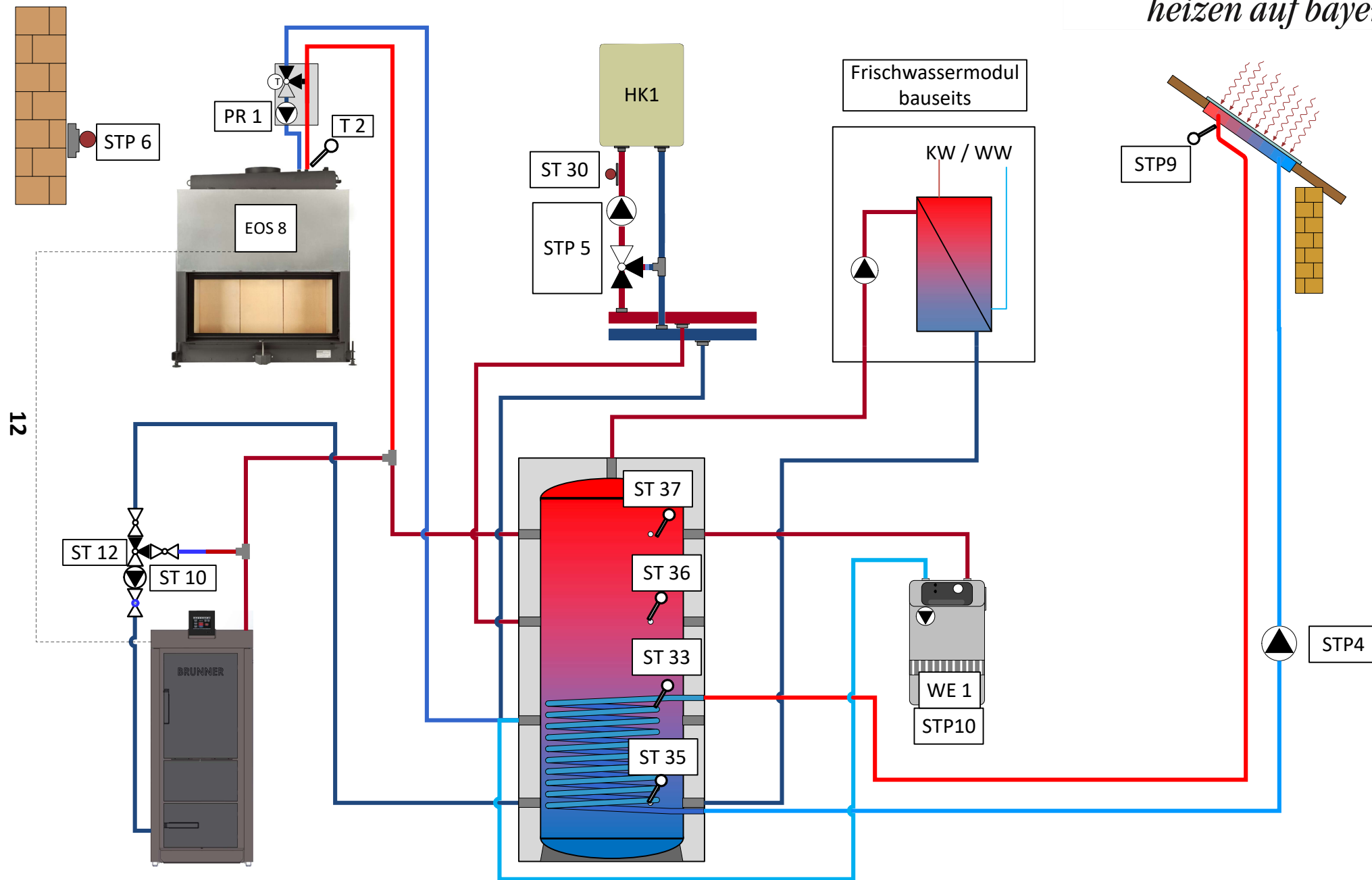
01.02.2022 M.G.
Vers. 1.0

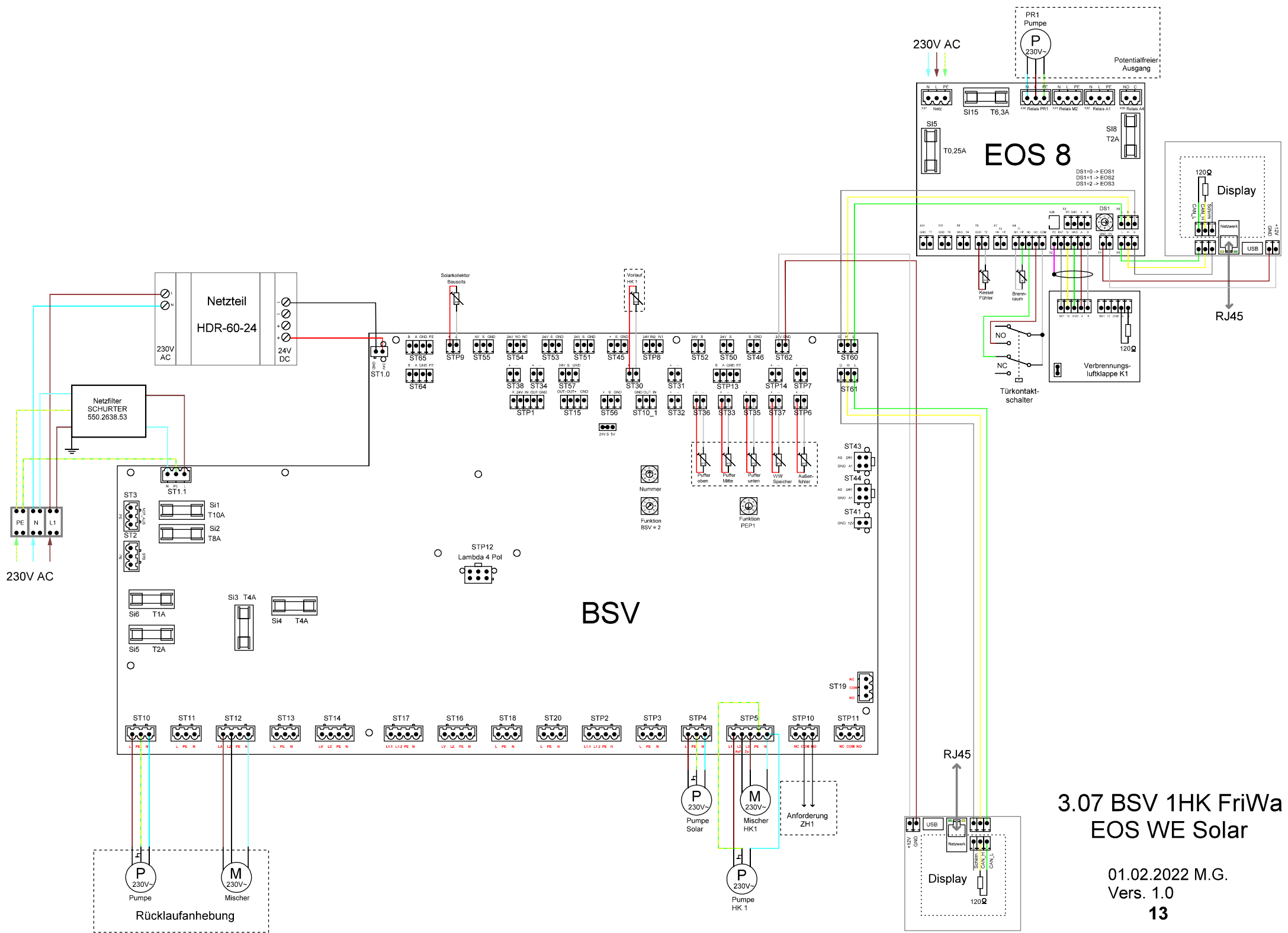




3.06 BSV BPH 2HK FriWa EOS PV

12.06.2024 M.G.
Vers. 1.1

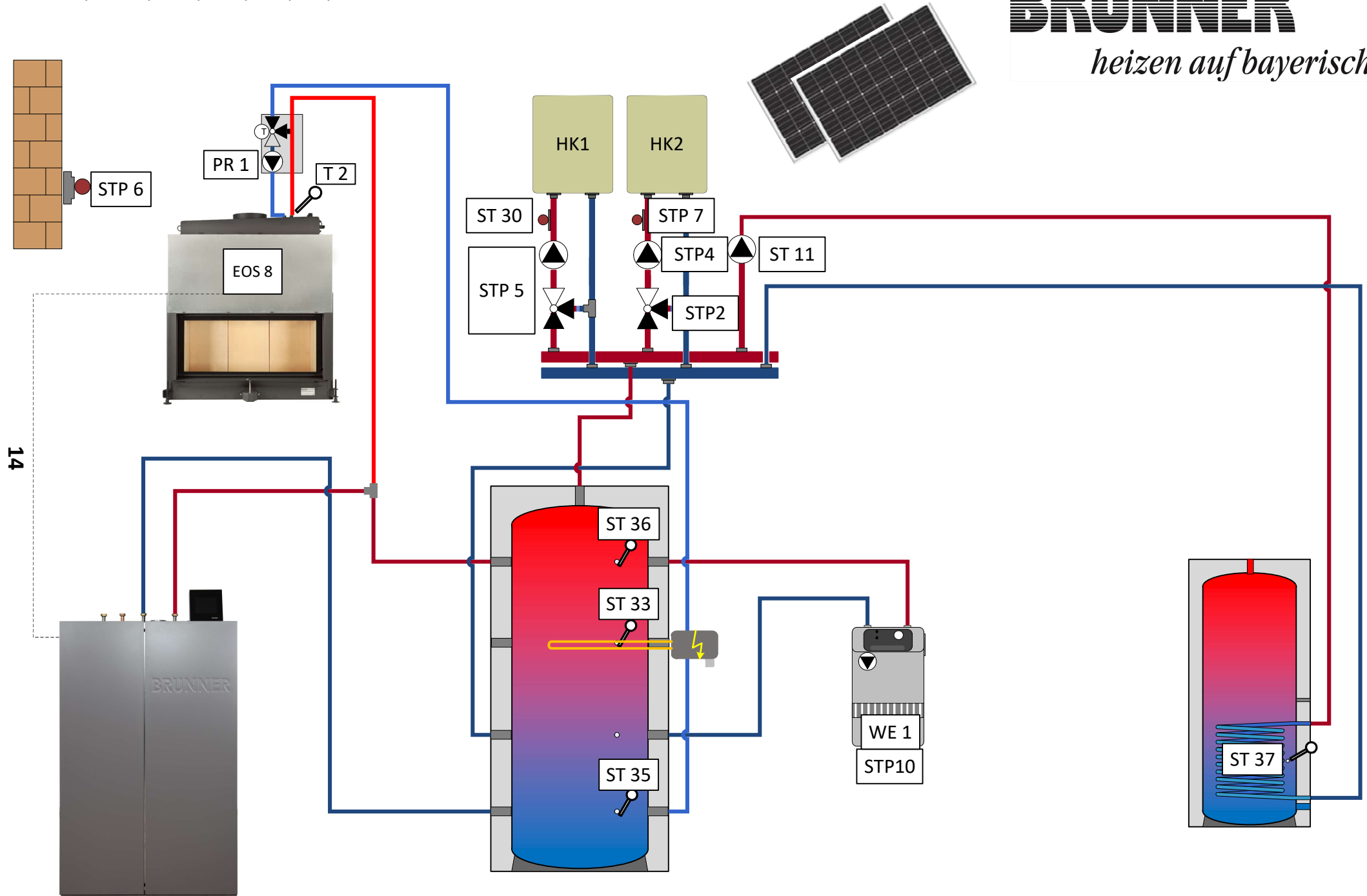


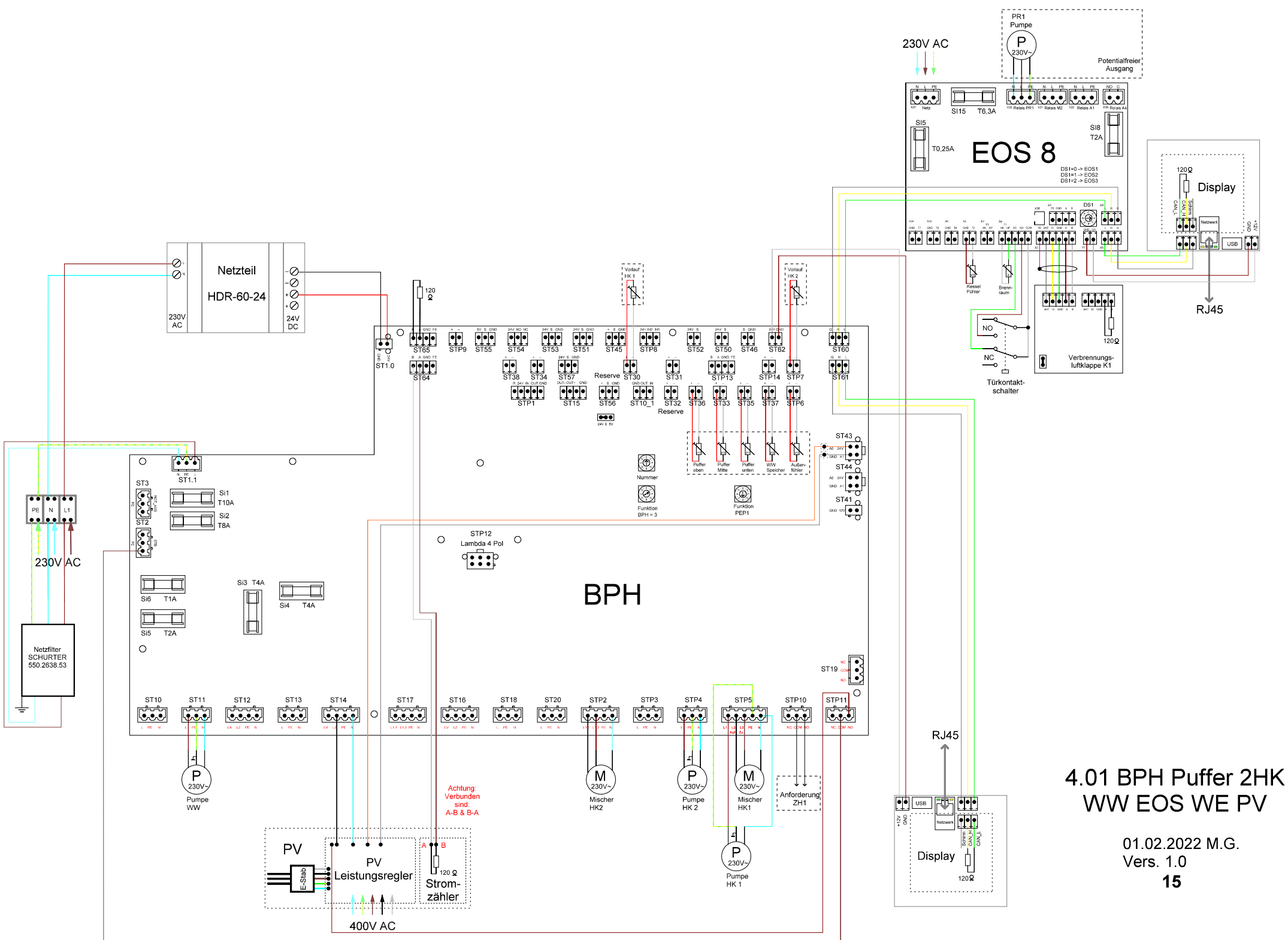


**3.07 BSV 1HK FriWa
EOS WE Solar**

01.02.2022 M.G.
Vers. 1.0

4.01 BPH, Puffer, 2 HK, WW, EOS, WE, PV



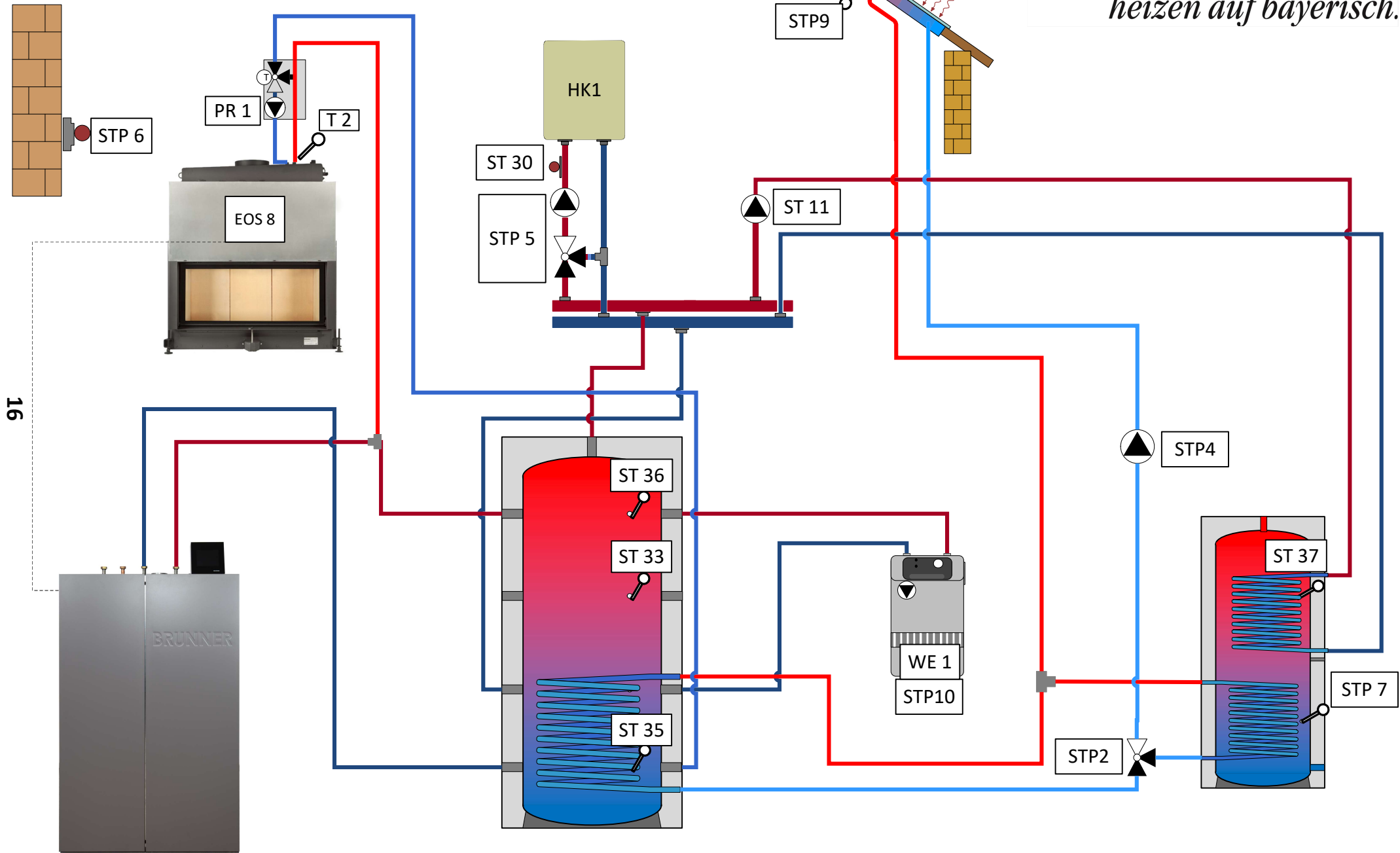


4.01 BPH Puffer 2HK
WW EOS WE PV

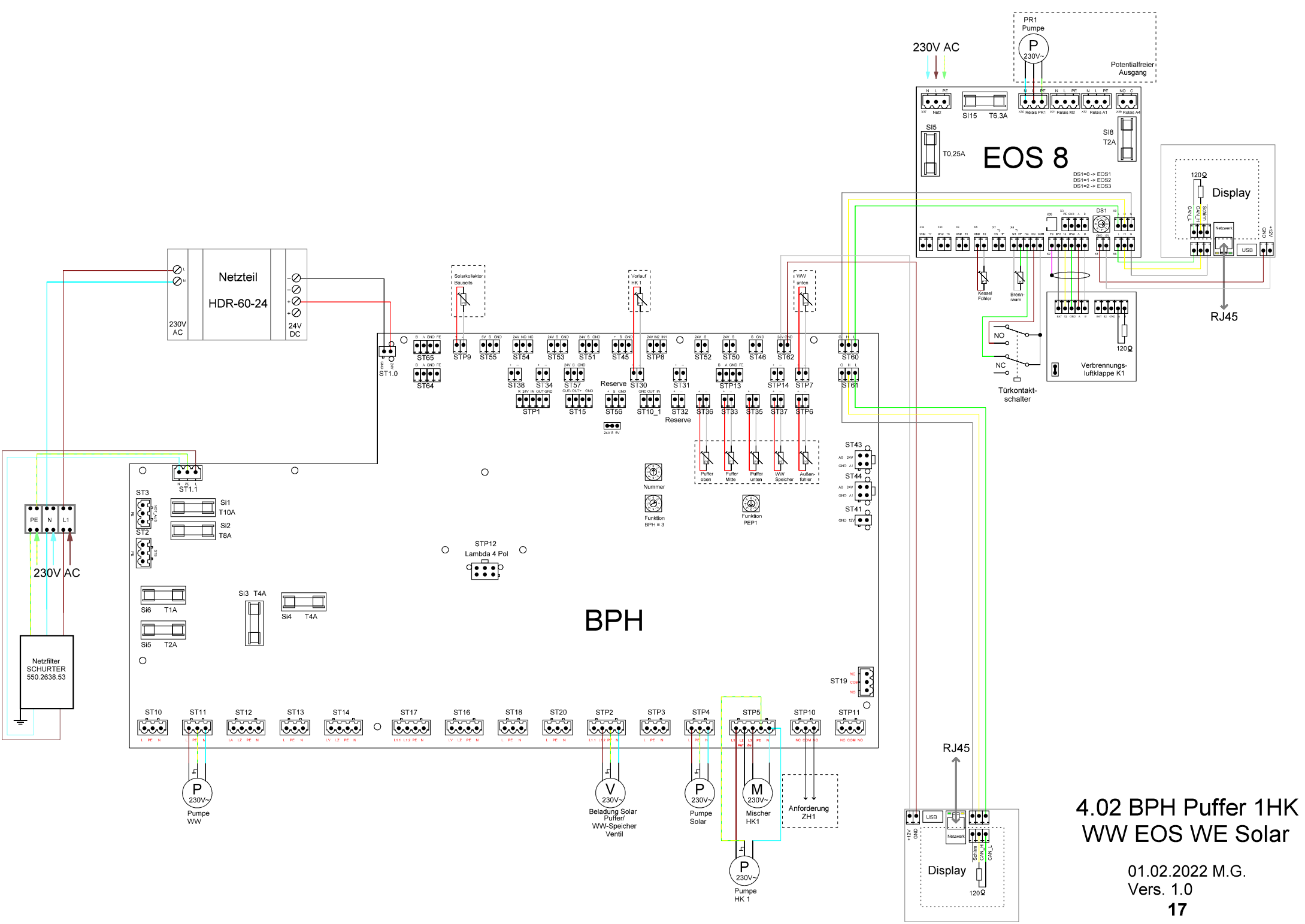
01.02.2022 M.G.
Vers. 1.0

4.02 BPH, Puffer, 1 HK, WW, EOS, WE, Solar

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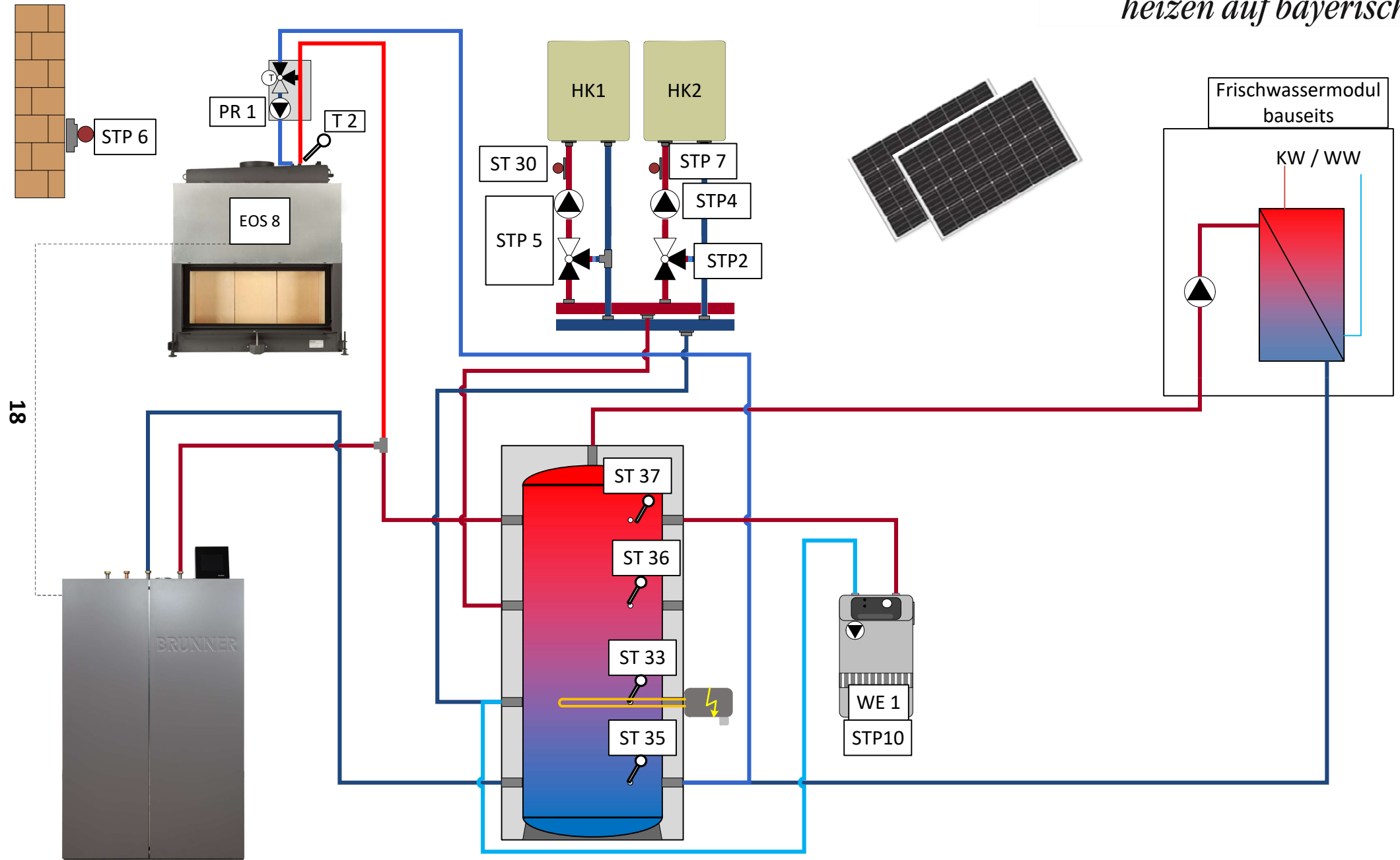


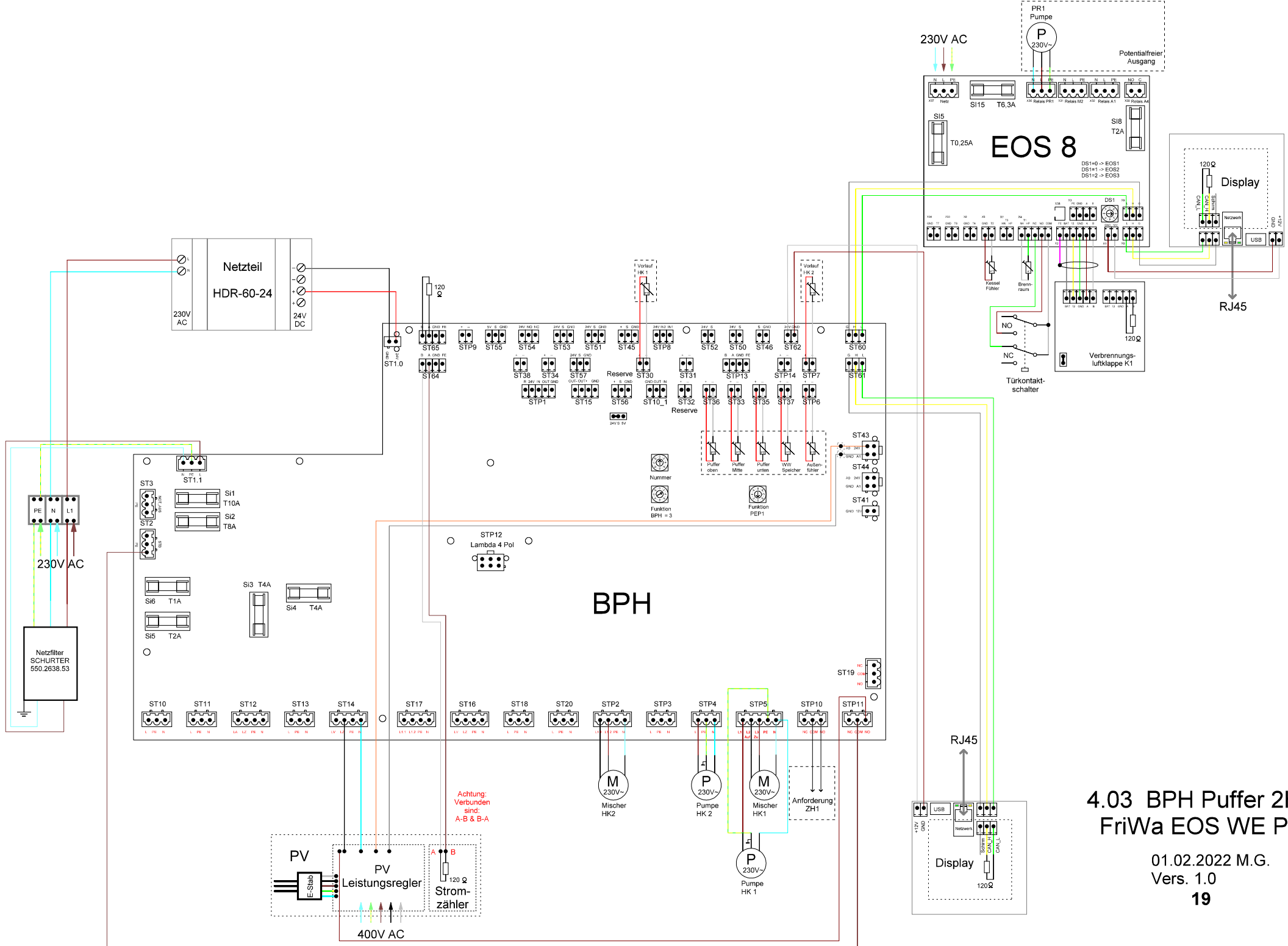
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4.02 BPH Puffer 1HK WW EOS WE Solar

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Vers. 1.0



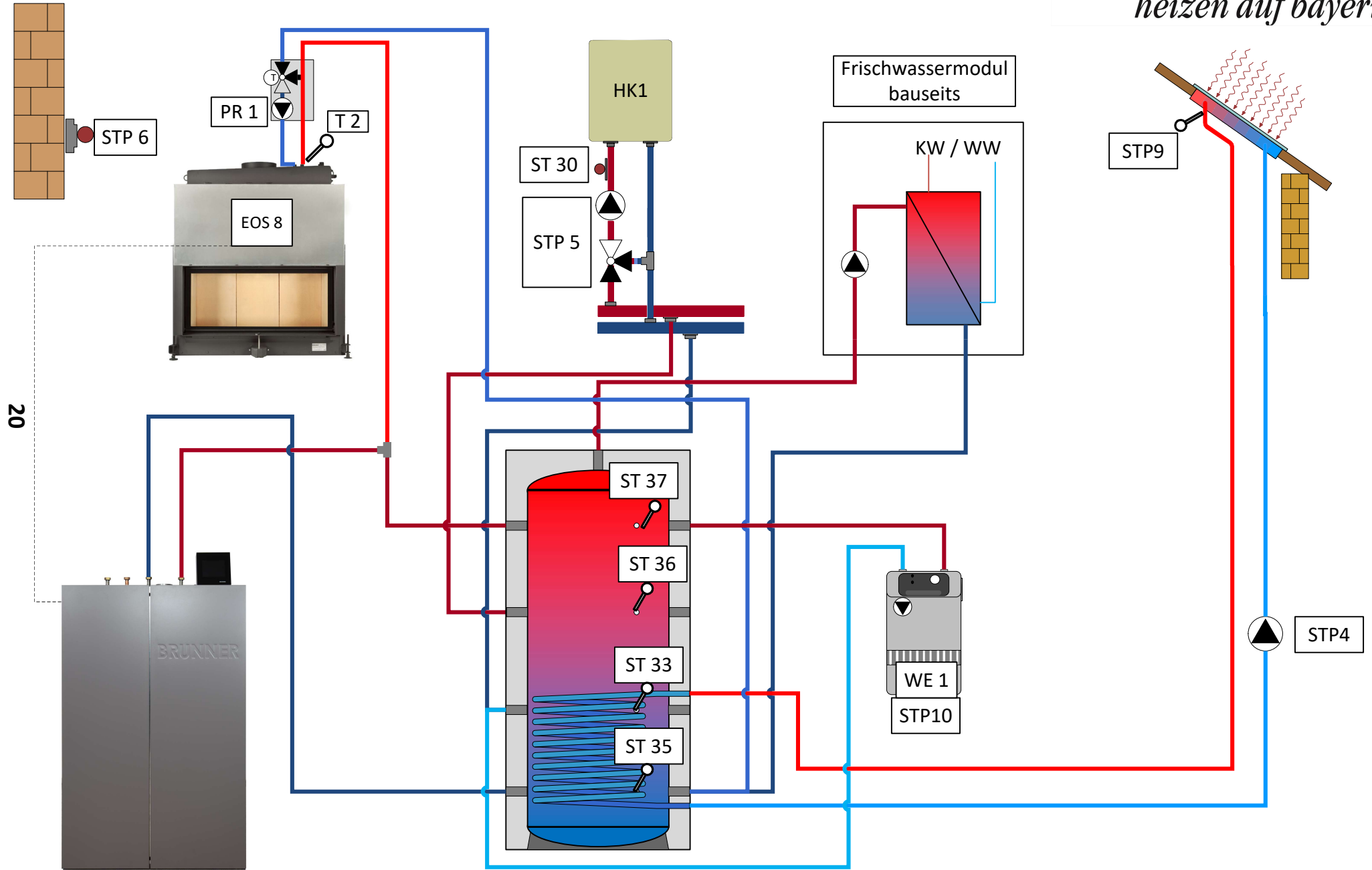


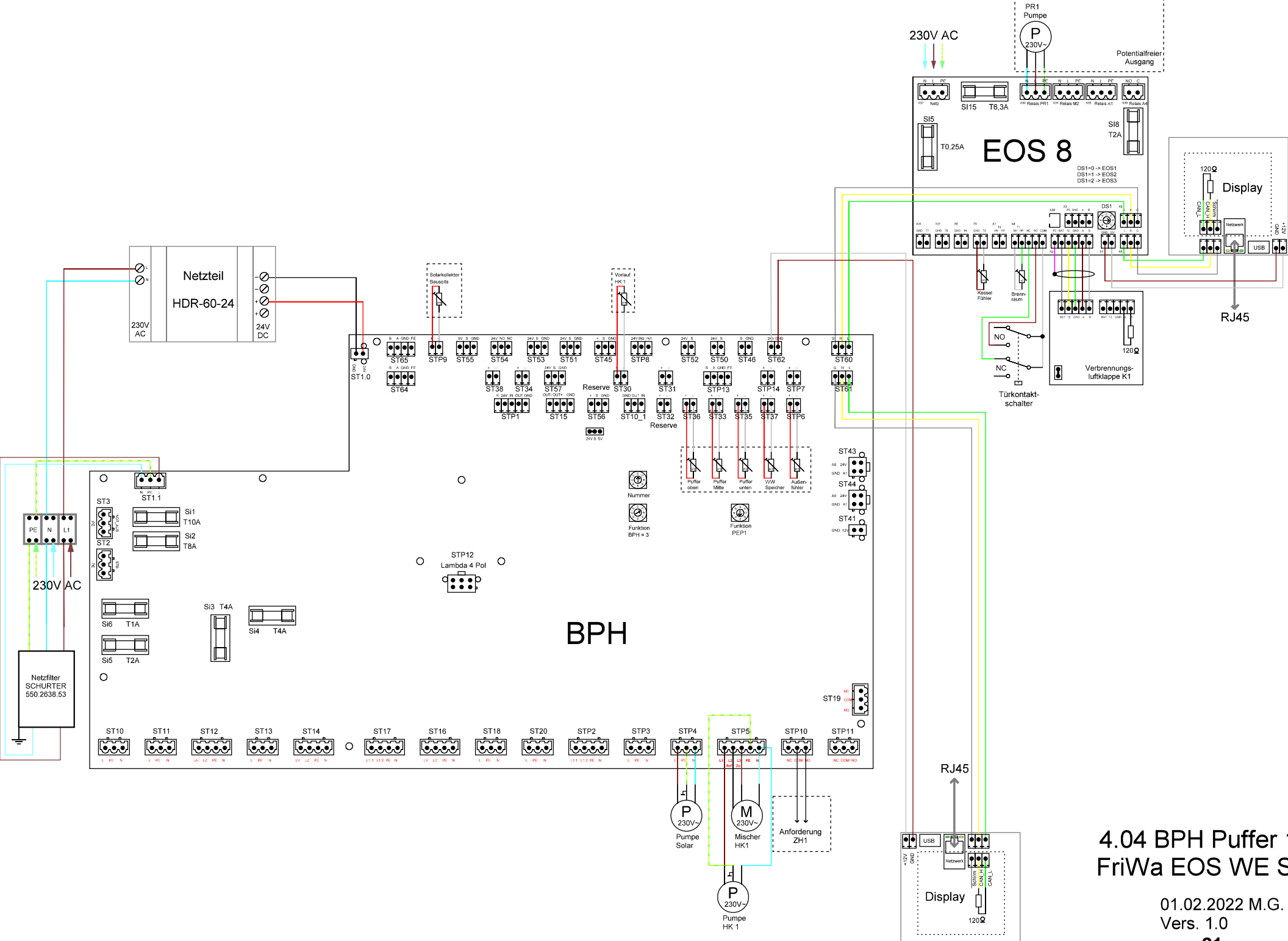
Achtung: Verbunden sind: A-B & B-A

4.03 BPH Puffer 2HK FriWa EOS WE PV

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Vers. 1.0

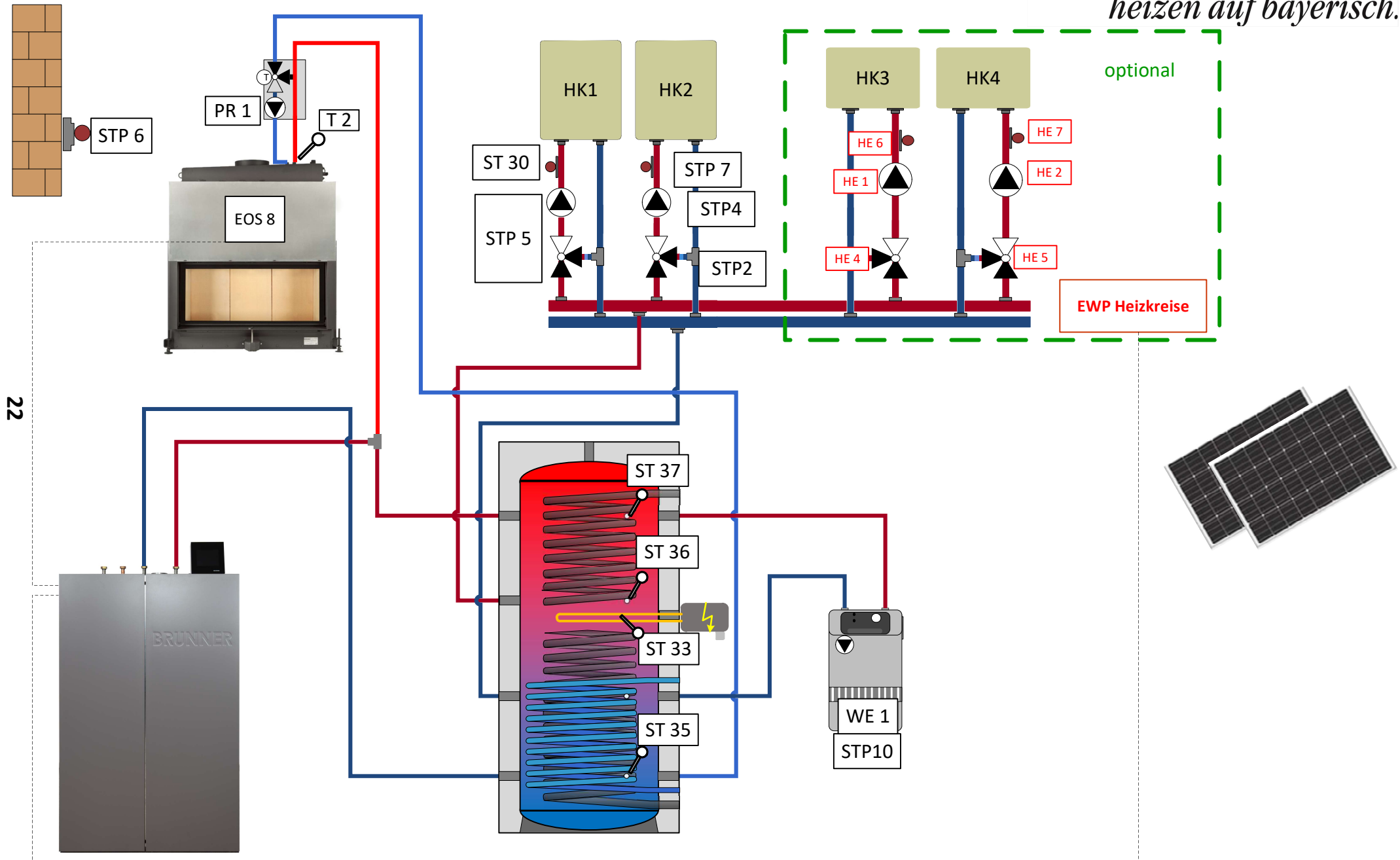
4.04 BPH, Puffer, 1HK, FRIWA, EOS, WE, Solar



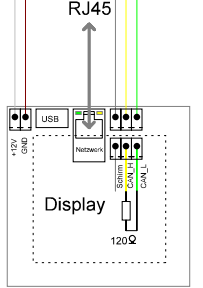
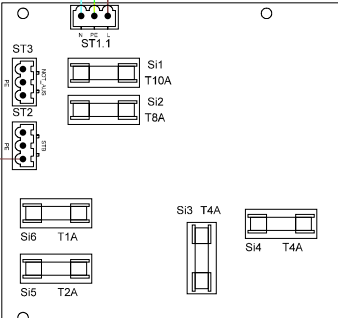
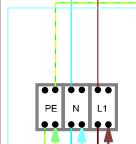
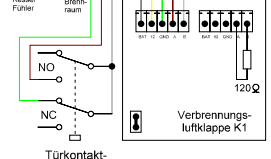
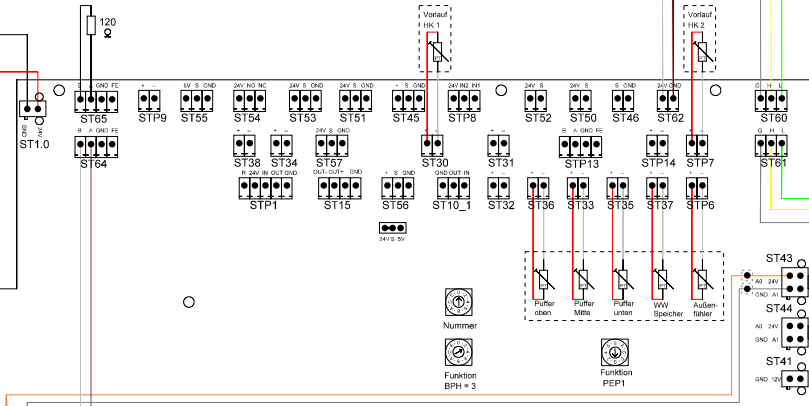
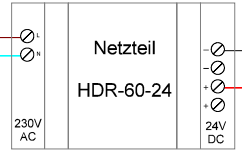
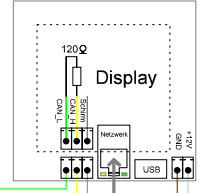
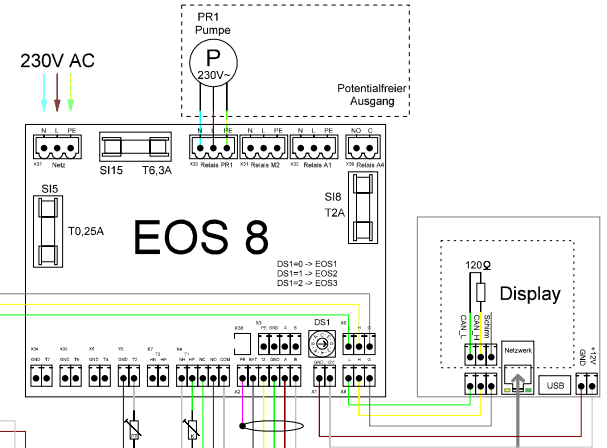
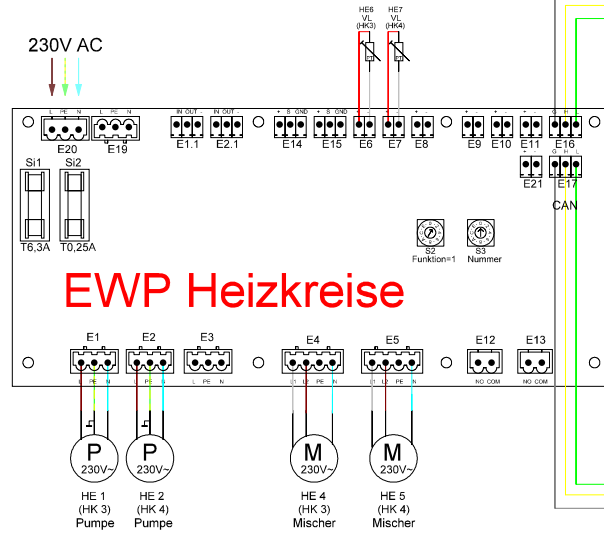


4.04 BPH Puffer 1HK FriWa EOS WE Solar

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Vers. 1.0

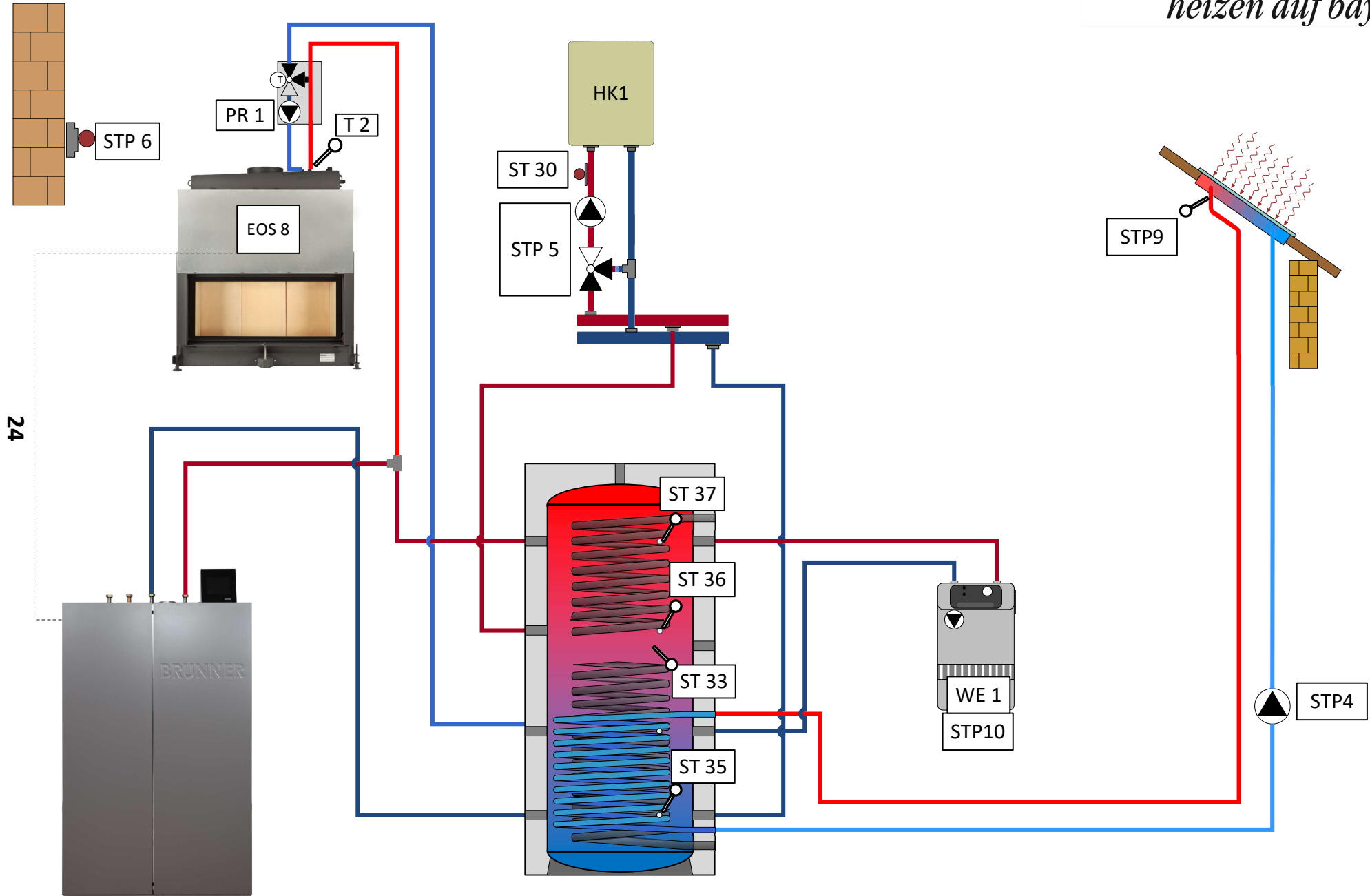


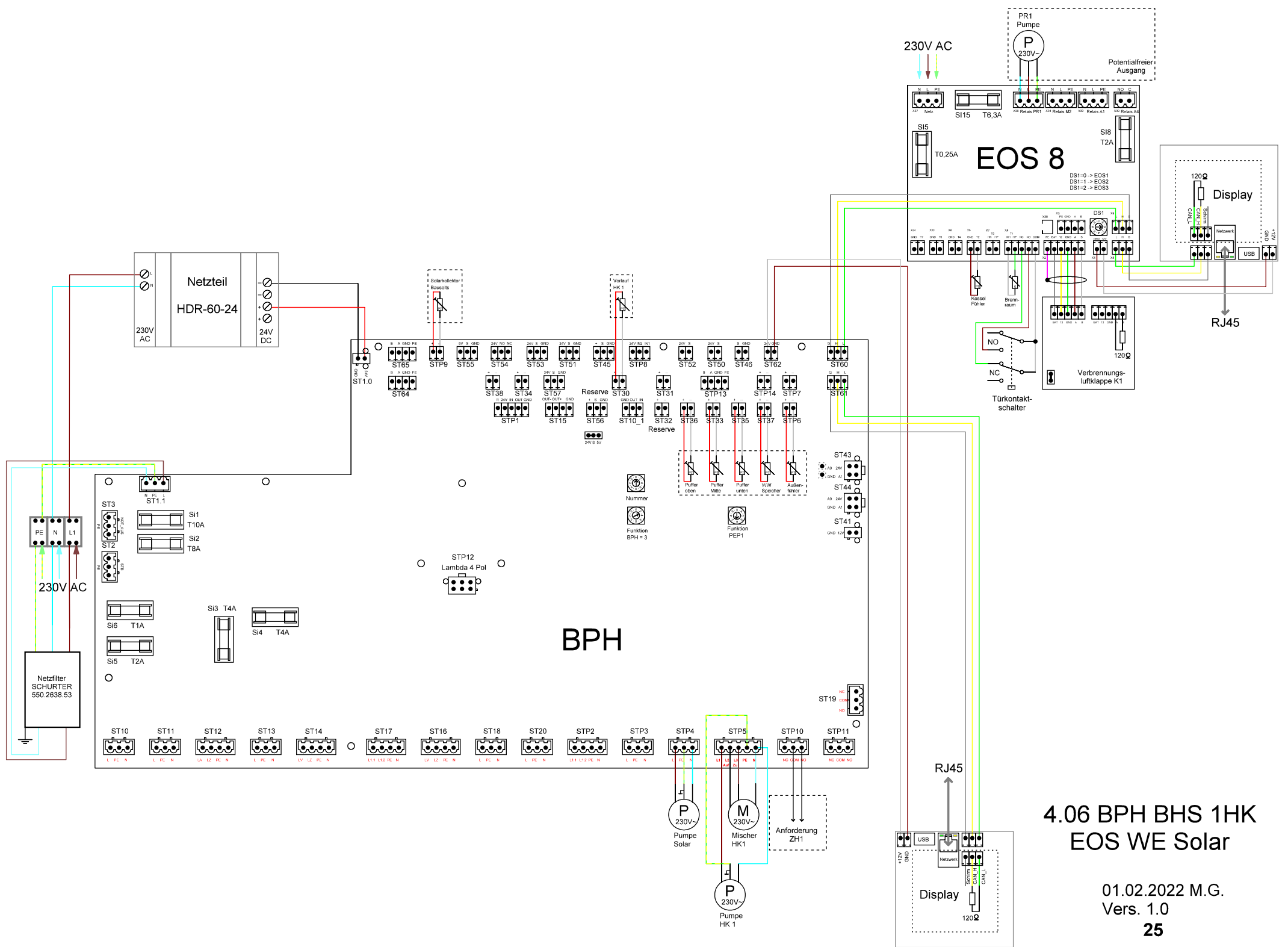
optional



4.05 BPH BHS 4HK EOS EWPHK PV

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4.06 BPH BHS 1HK EOS WE Solar

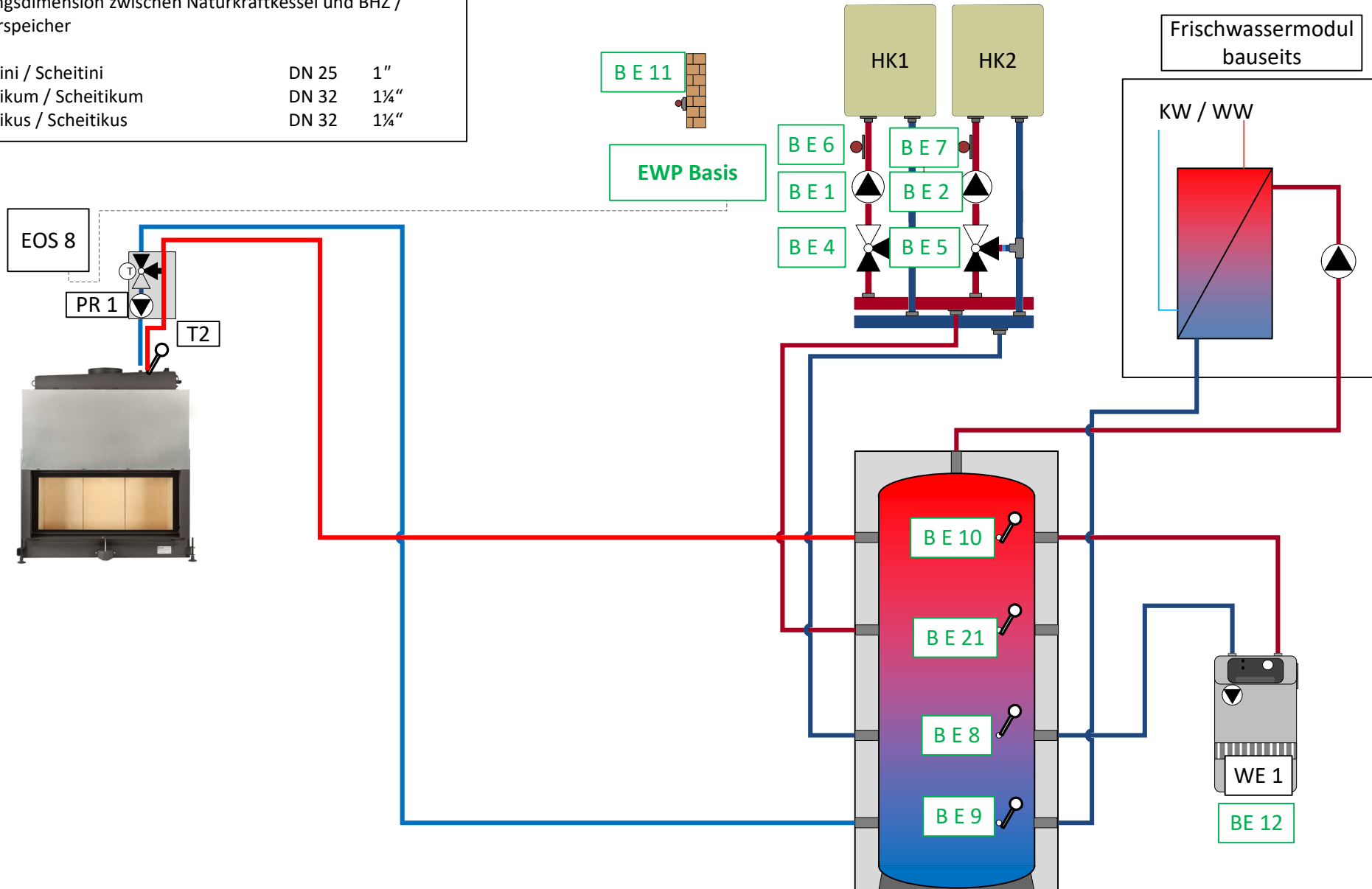
01.02.2022 M.G.
Vers. 1.0

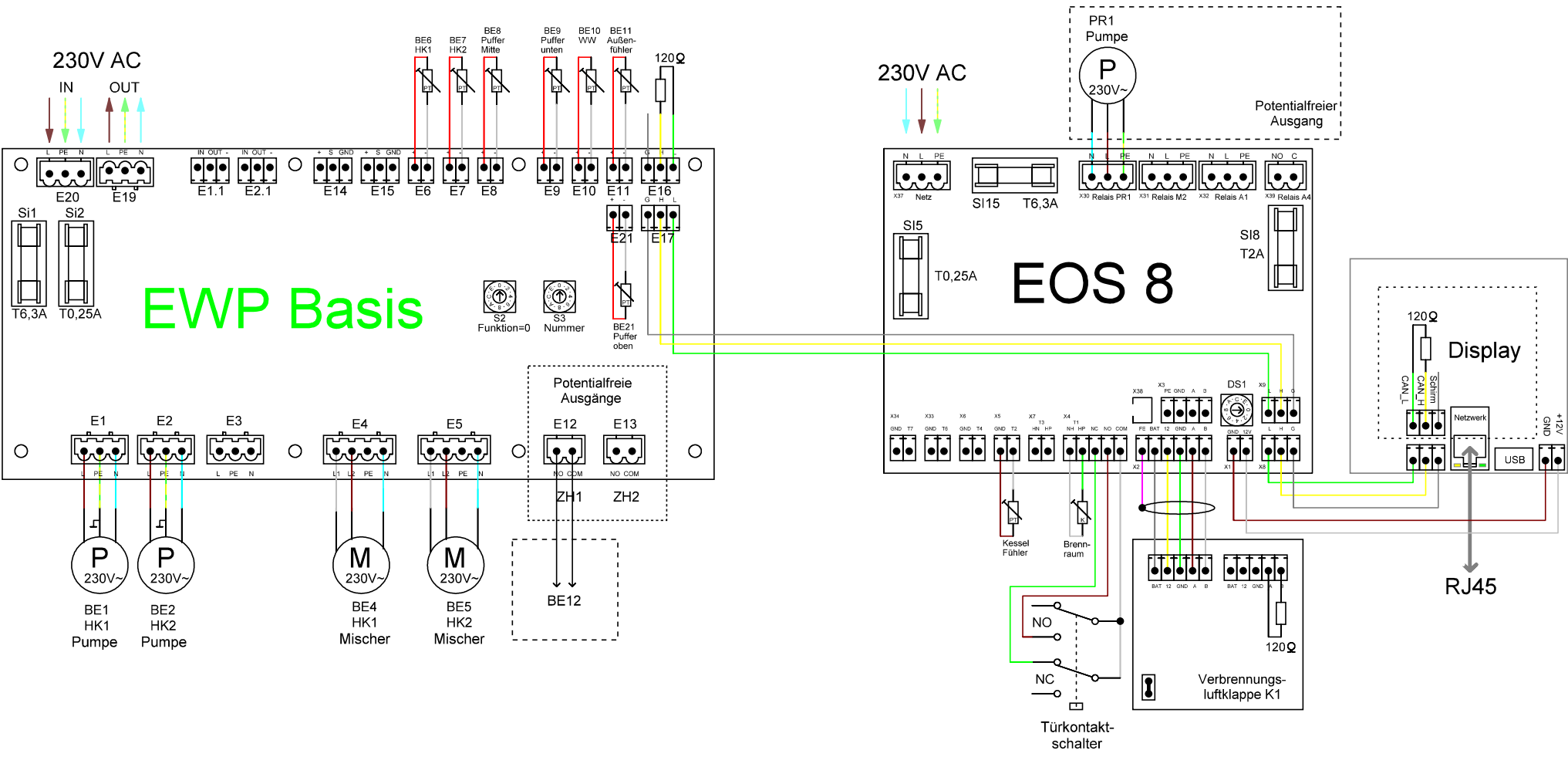
2.4 EOS, 2 HK, WE, EWP B

Leitungsdimension zwischen Naturkraftkessel und BHZ / Pufferspeicher

| | | |
|-------------------------|-------|-----|
| Pelletini / Scheitini | DN 25 | 1" |
| Pelletikum / Scheitikum | DN 32 | 1¼" |
| Pelletikus / Scheitikus | DN 32 | 1¼" |

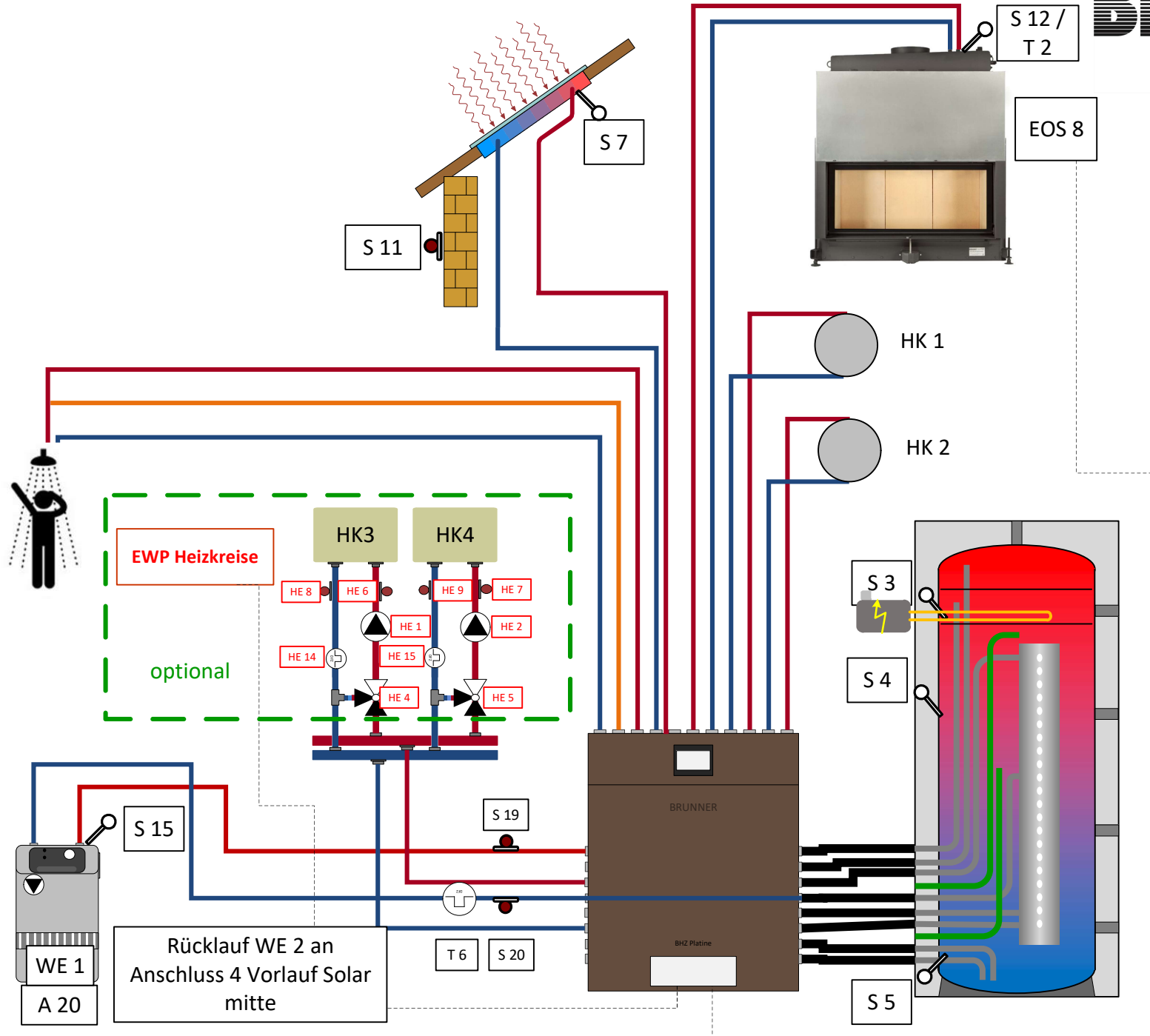
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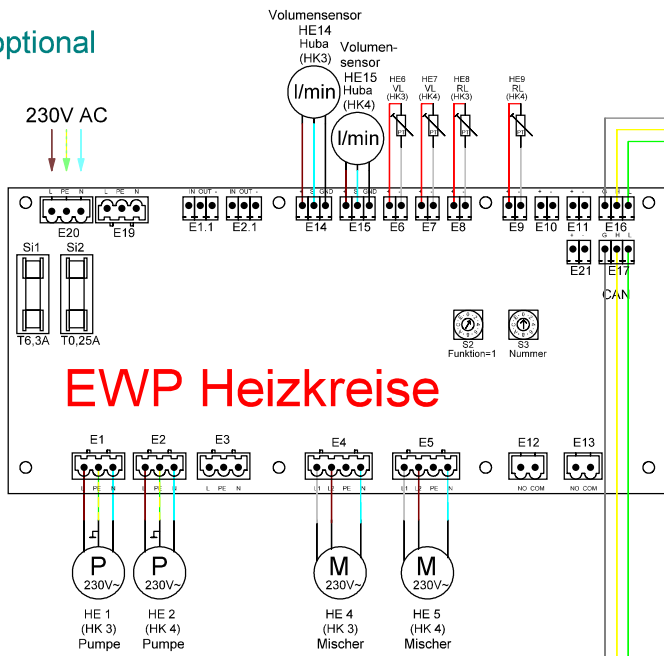


2.4 EOS 2HK WE EWPB

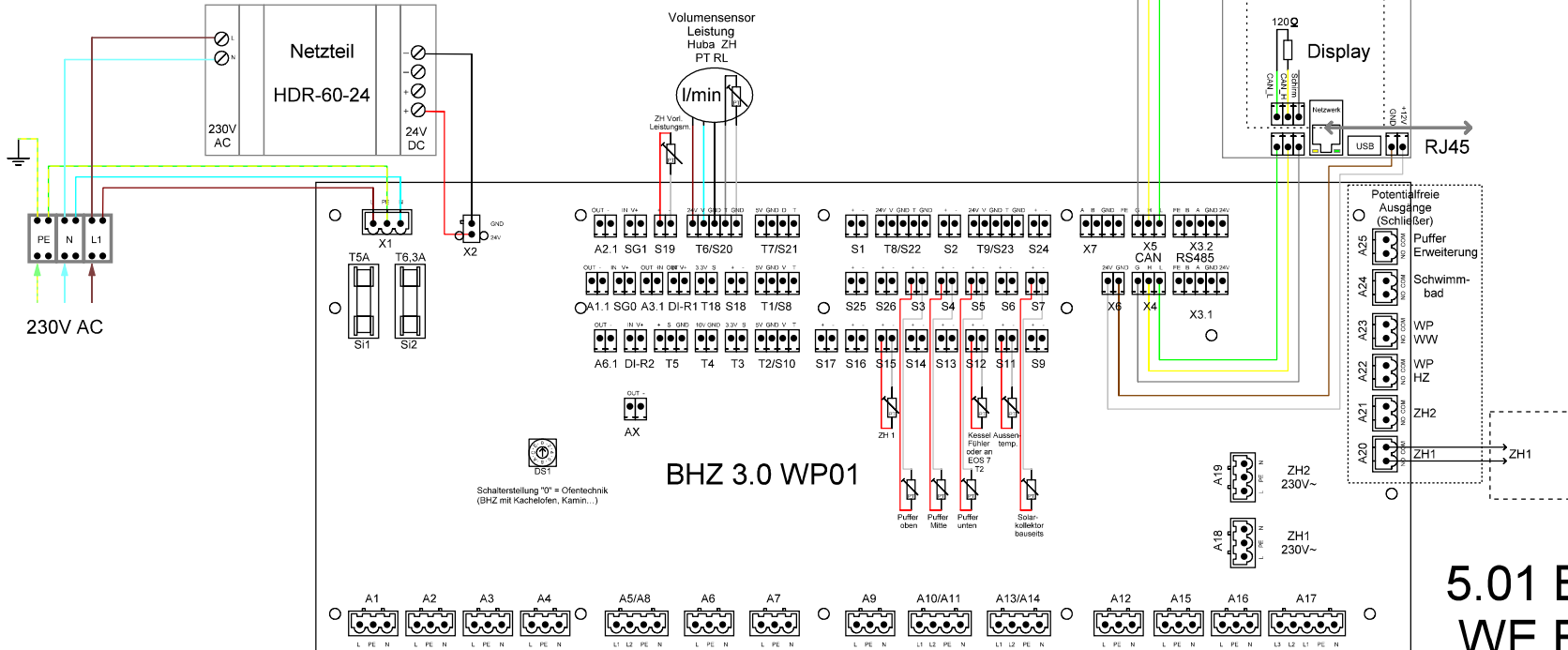
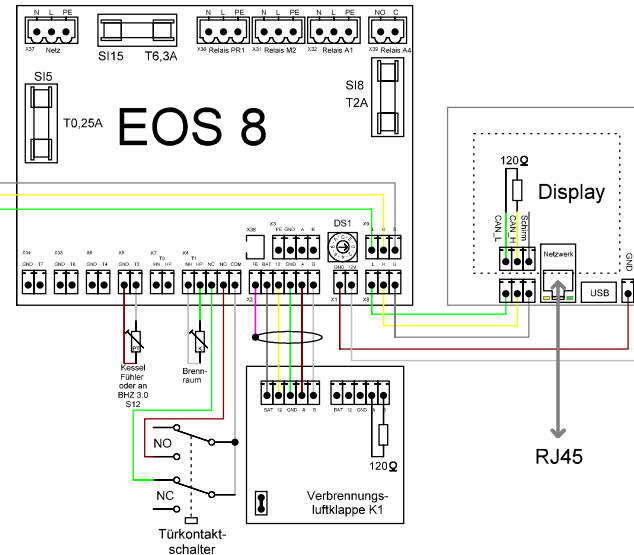
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Vers. 1.0



optional



230V AC



5.01 BHZ EOS 4HK WE EWPHK Solar

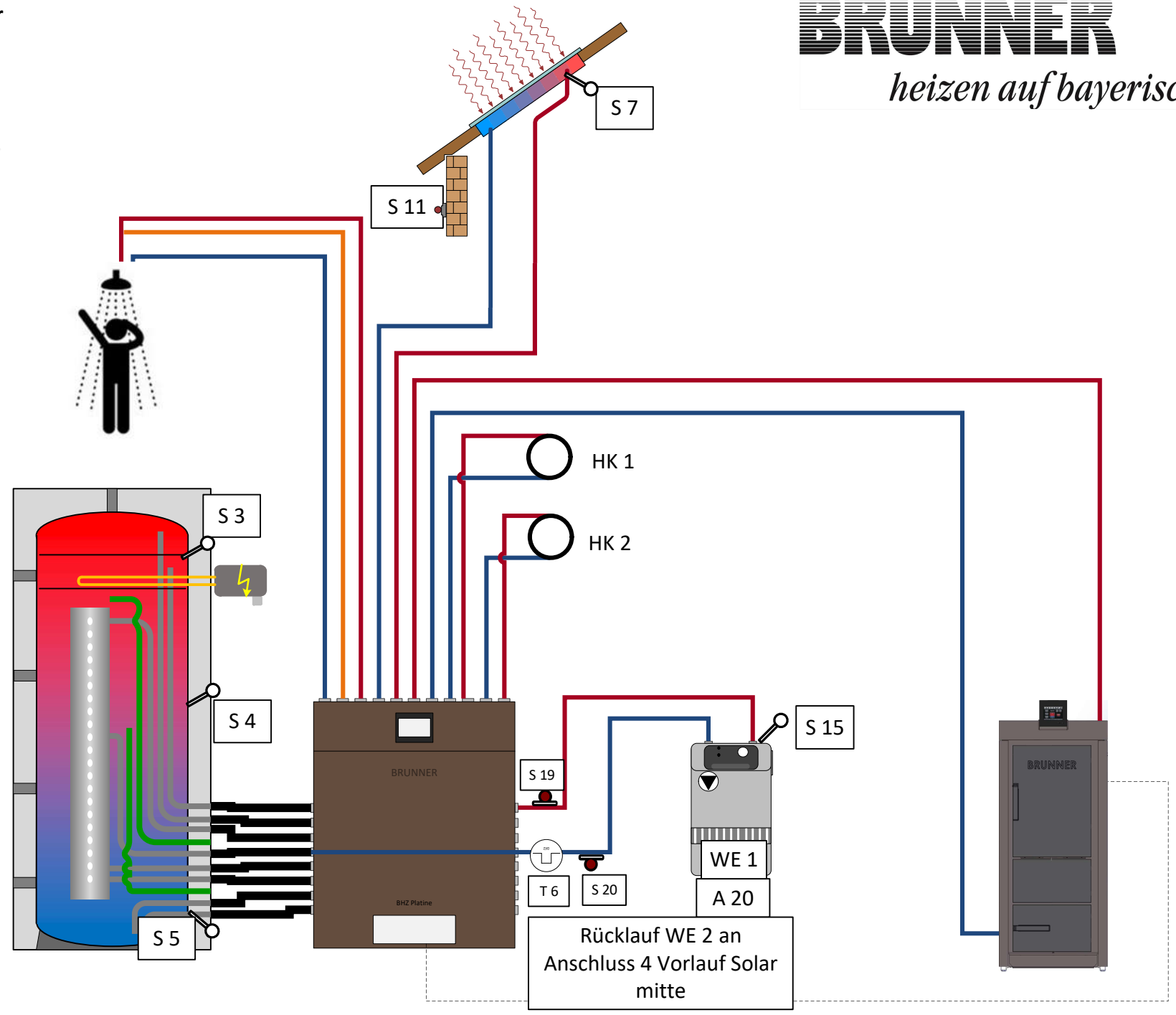
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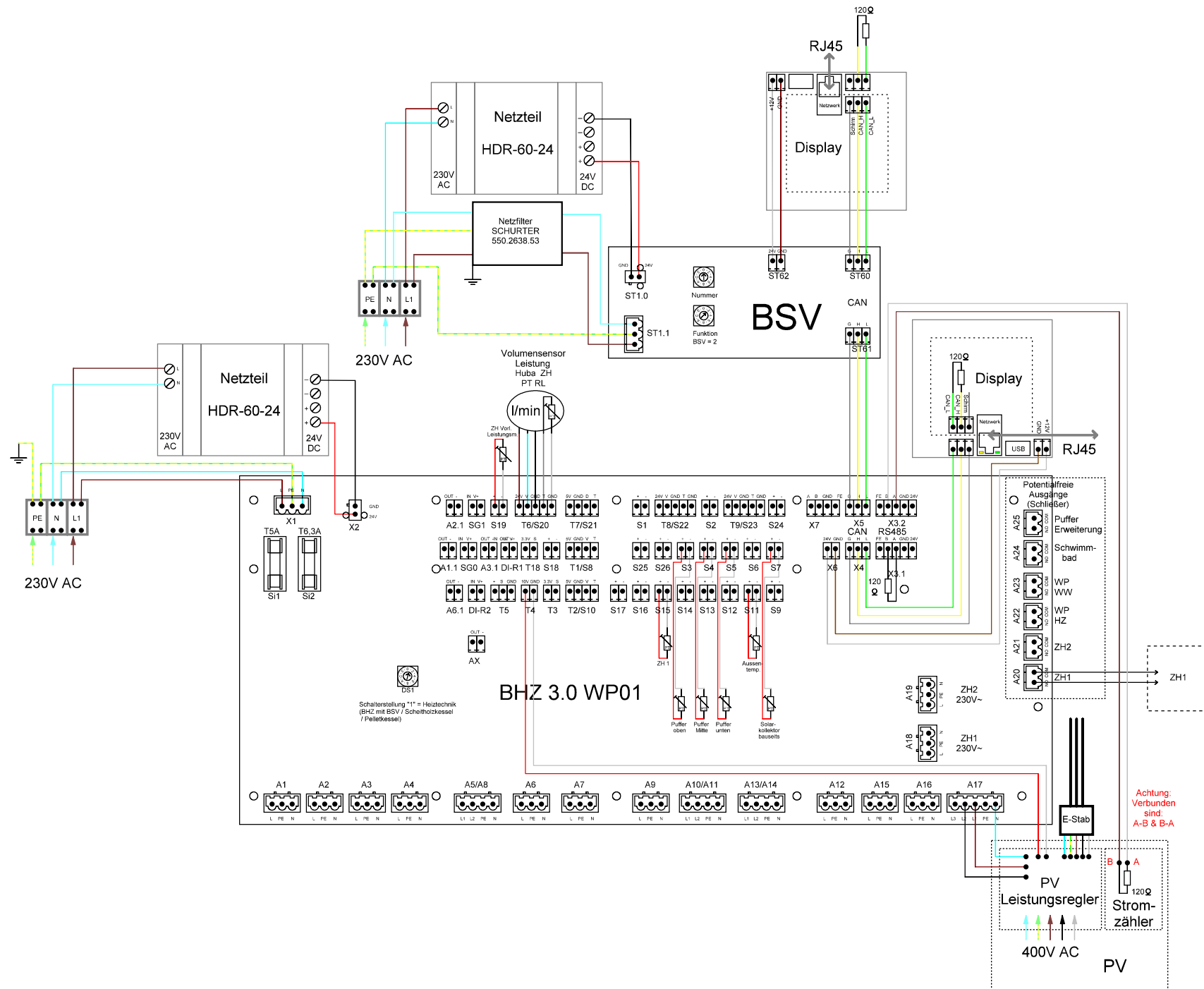
Vers. 1.0

5.02 BHZ, BSV, 2 HK, WE, PV, Solar



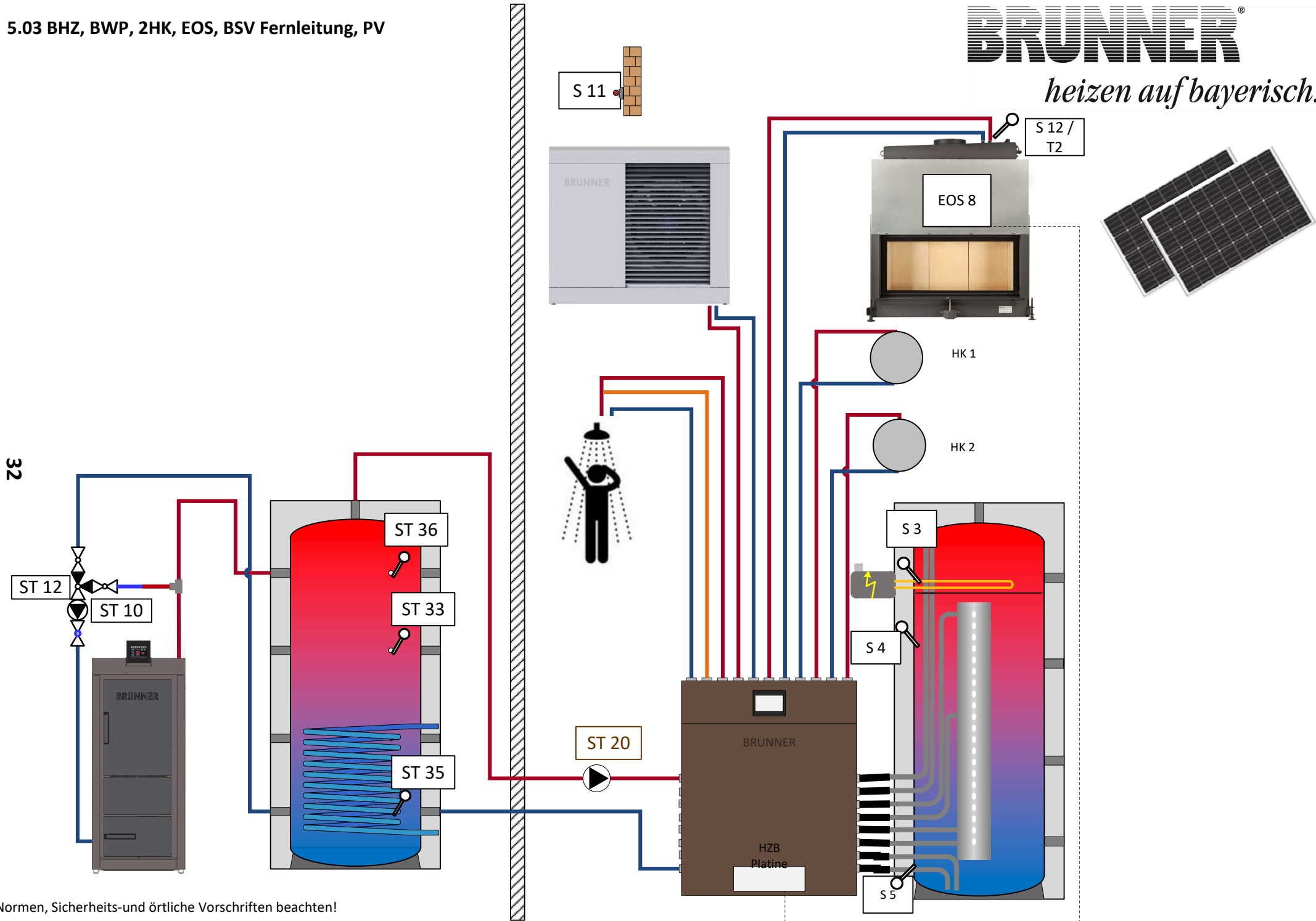
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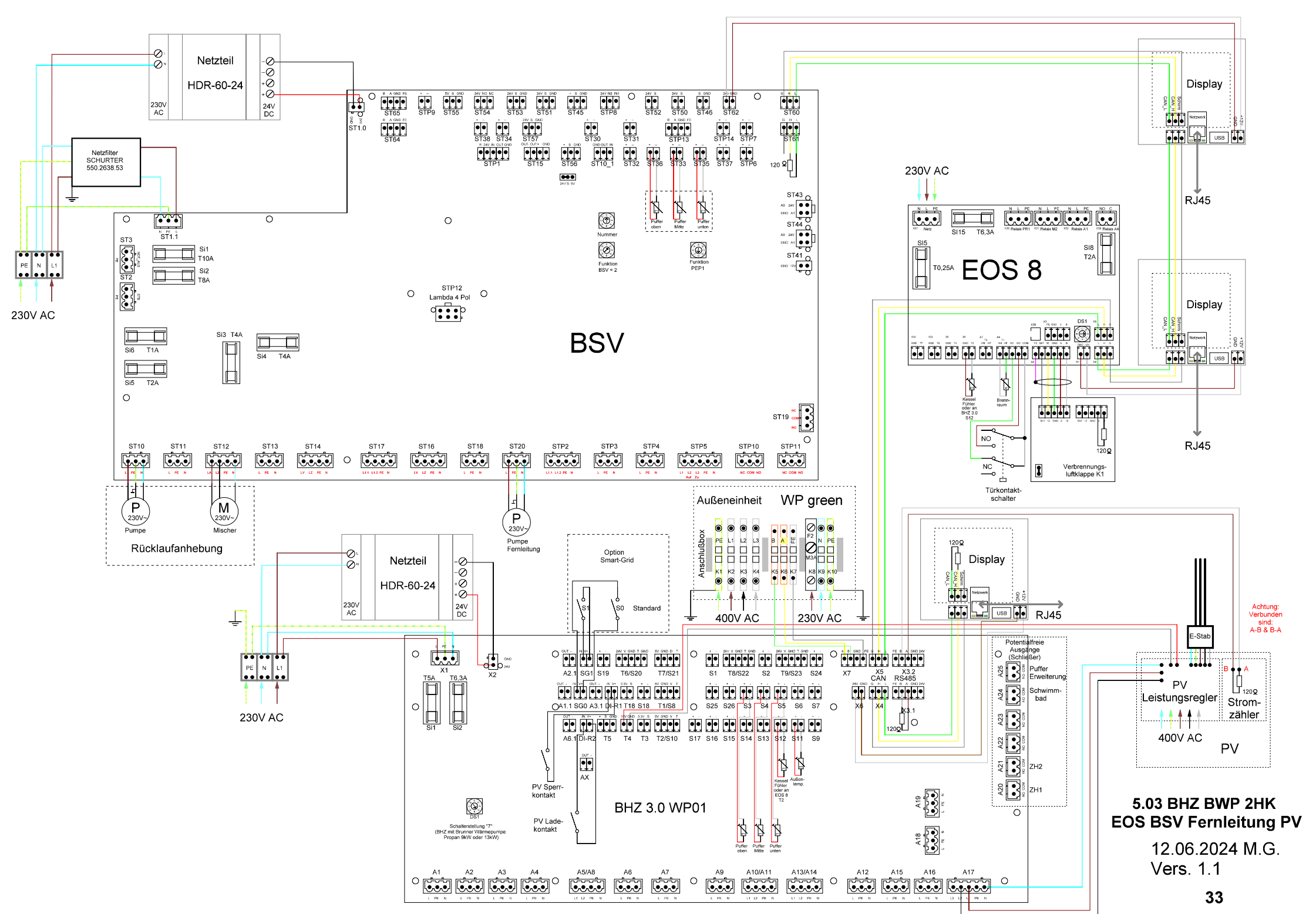




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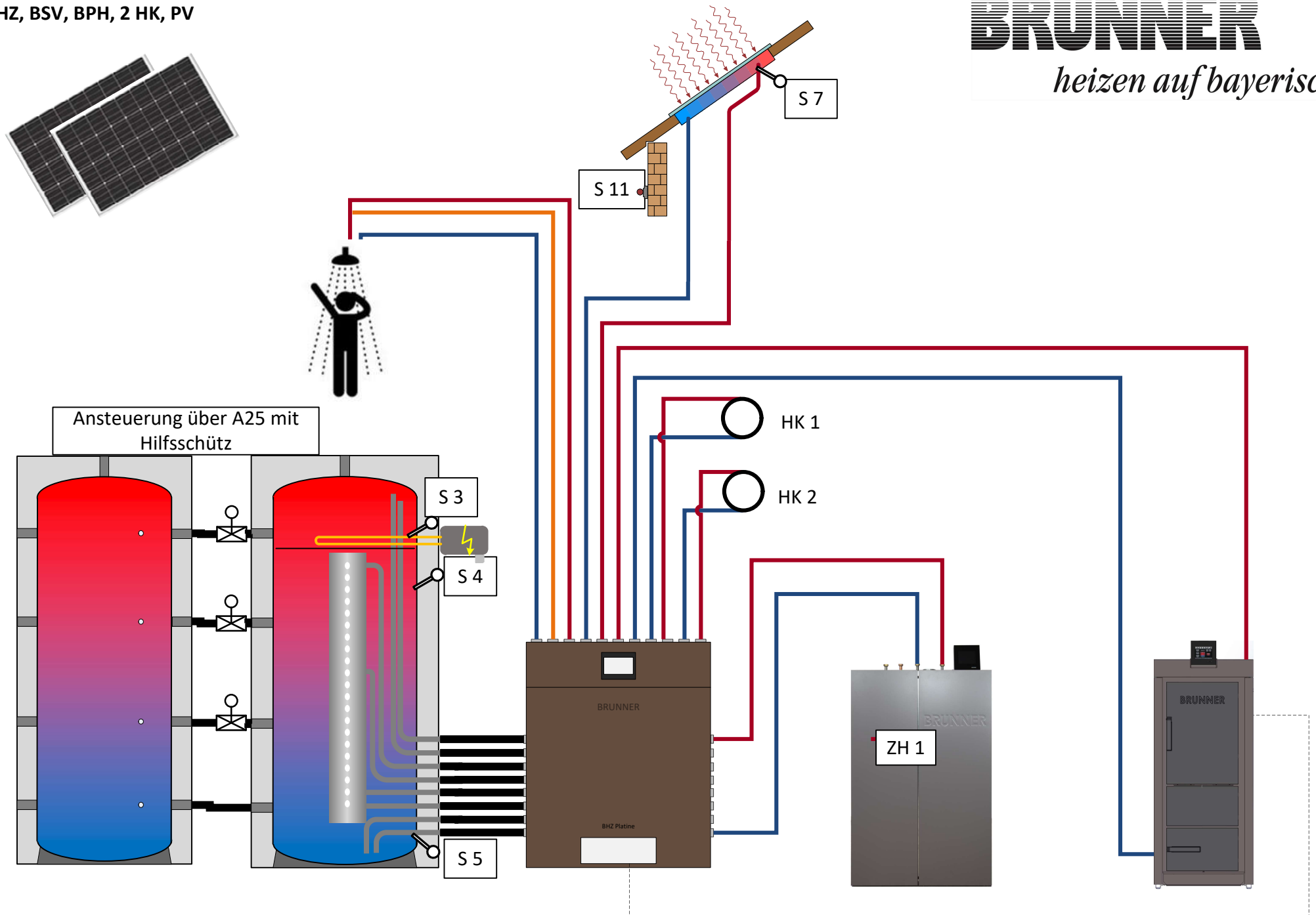
01.02.2022 M.G.
Vers. 1.0

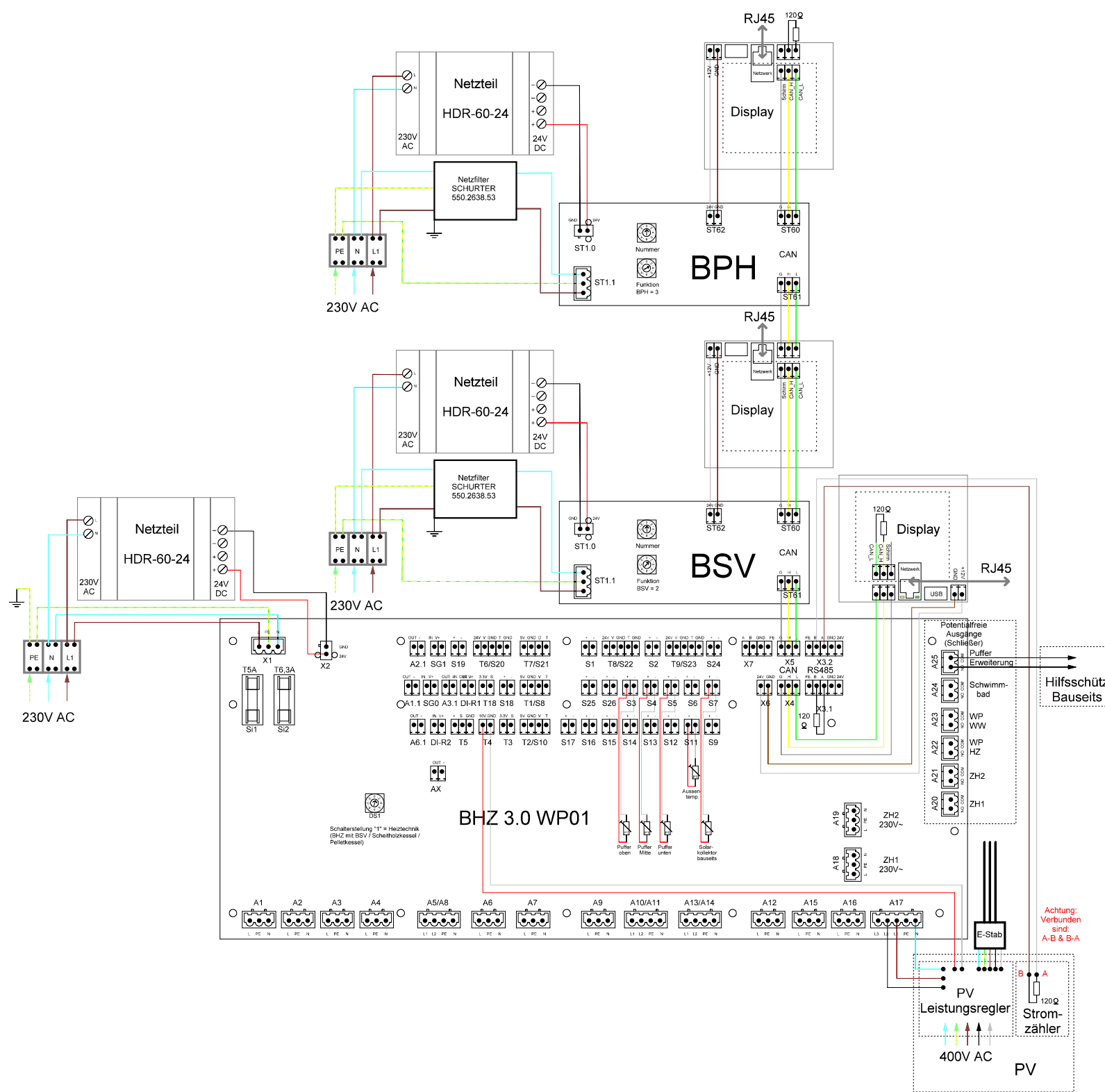




5.04 BHZ, BSV, BPH, 2 HK, PV

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5.04 BHZ BSV BPH 2HK PV

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S 11



T2

EOS 8

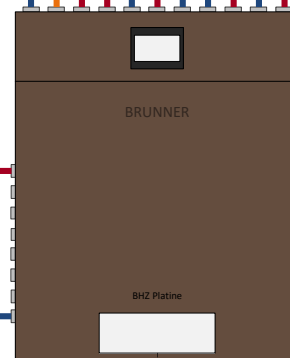


HK 1

HK 2

Ansteuerung über A25 mit
Hilfsschütz

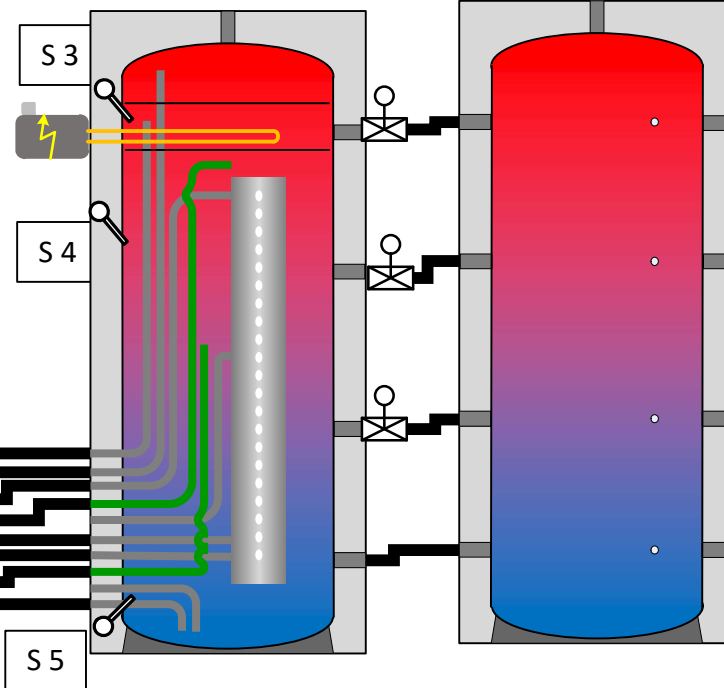
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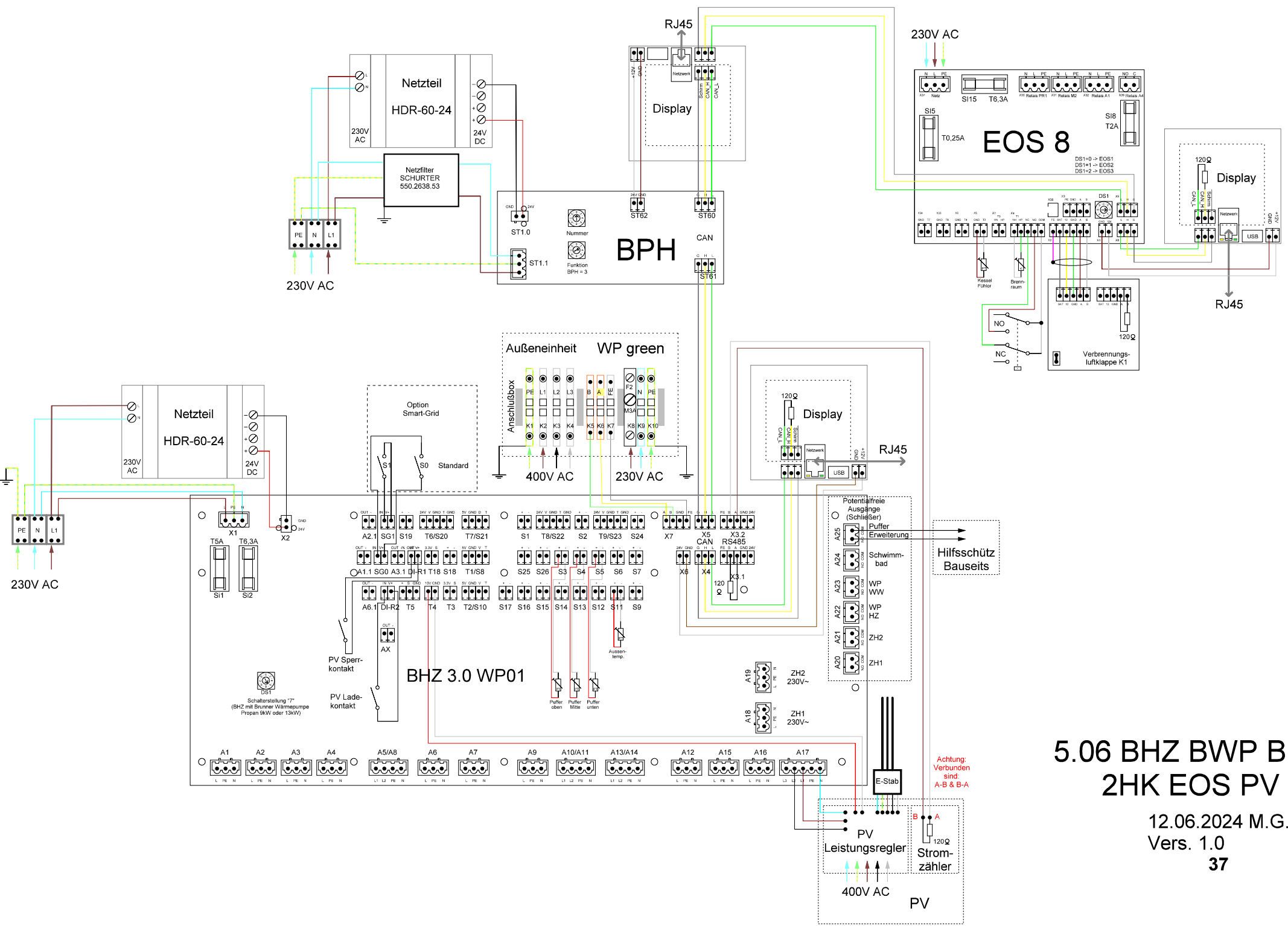


S 3

S 4

S 5



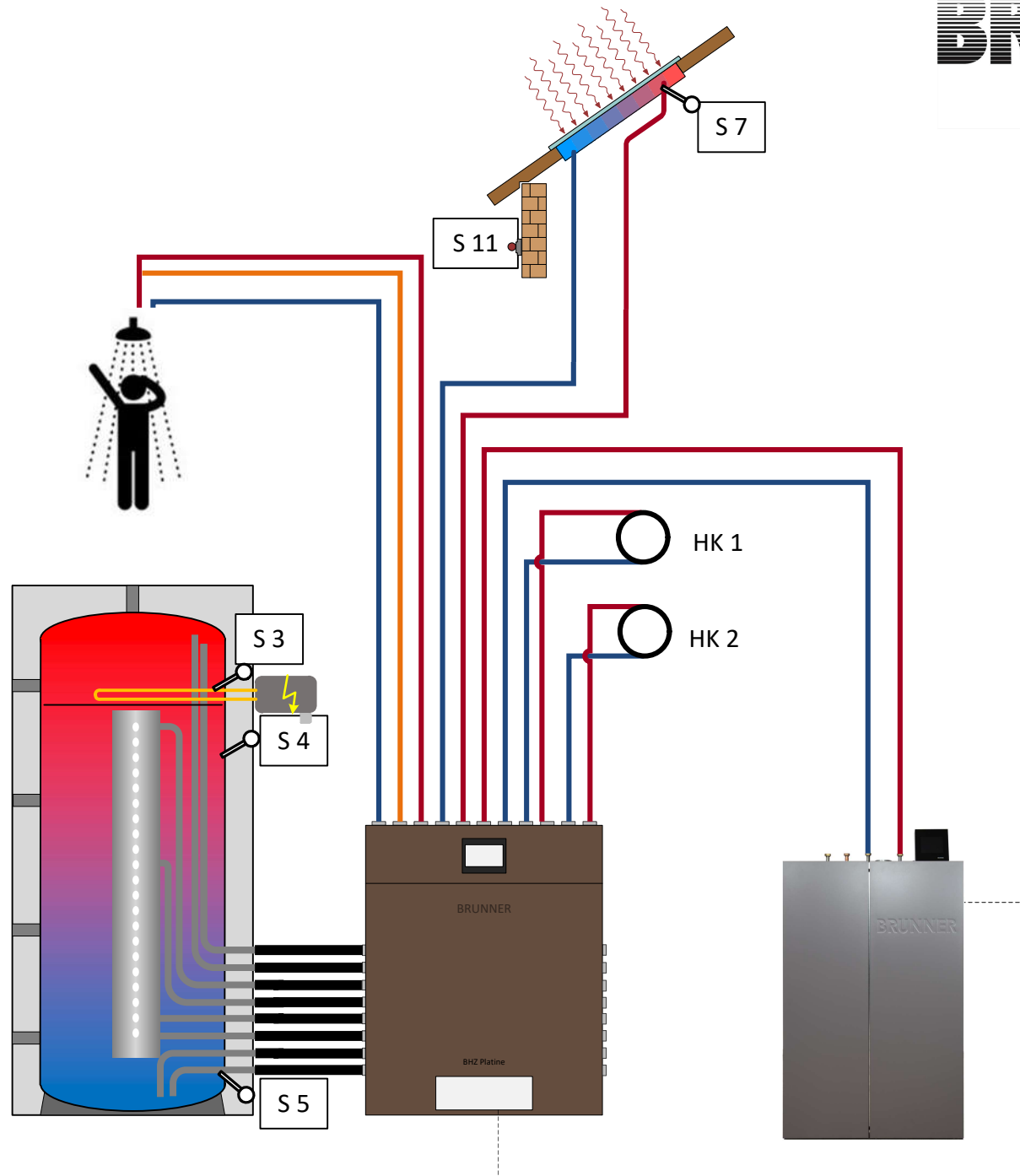


5.06 BHZ BWP BPH 2HK EOS PV

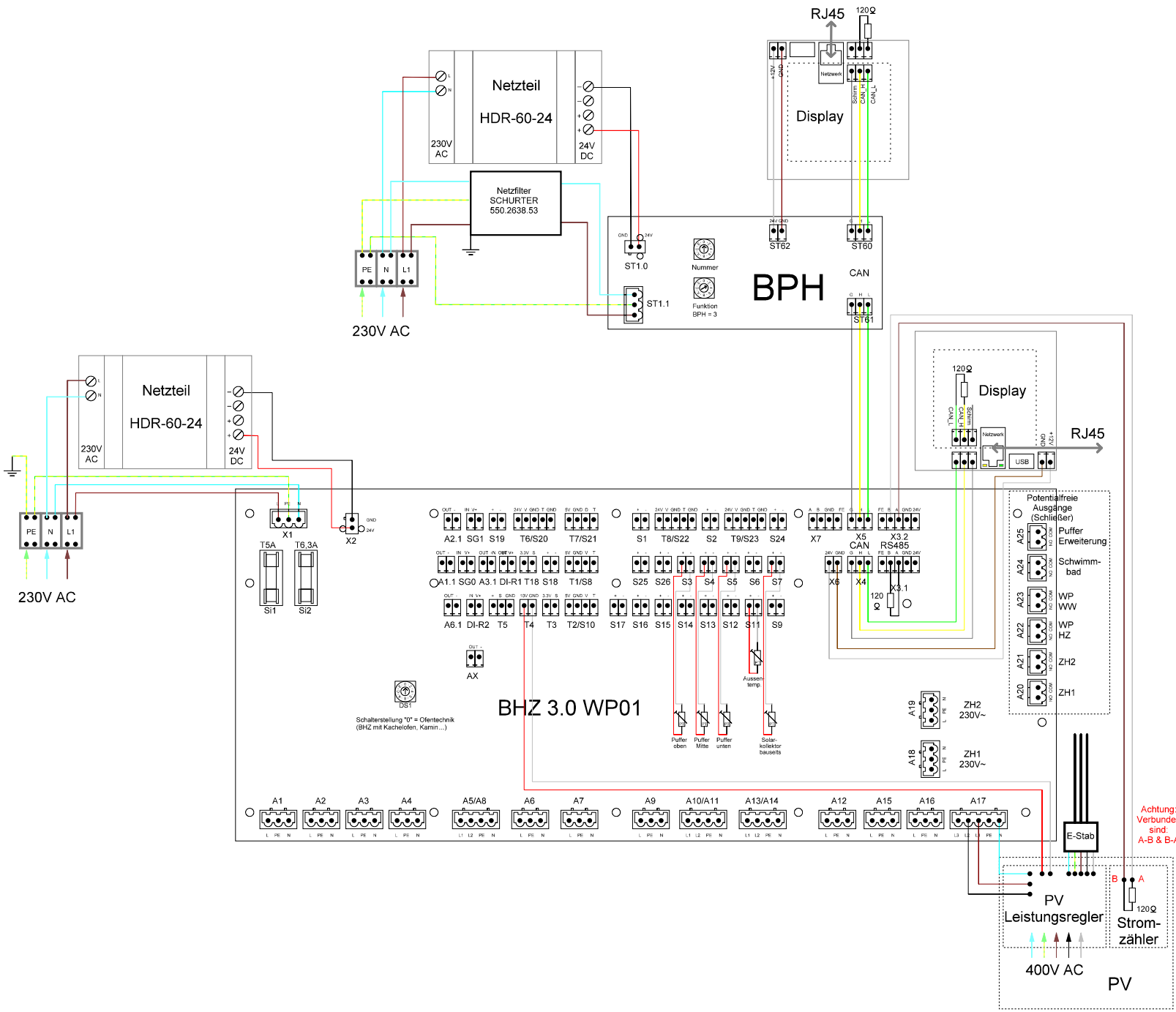
12.06.2024 M.G.
Vers. 1.0
37

Achtung:
Verbunden
sind:
A-B & B-A

5.07 BHZ, BPH, 2 HK, PV, Solar



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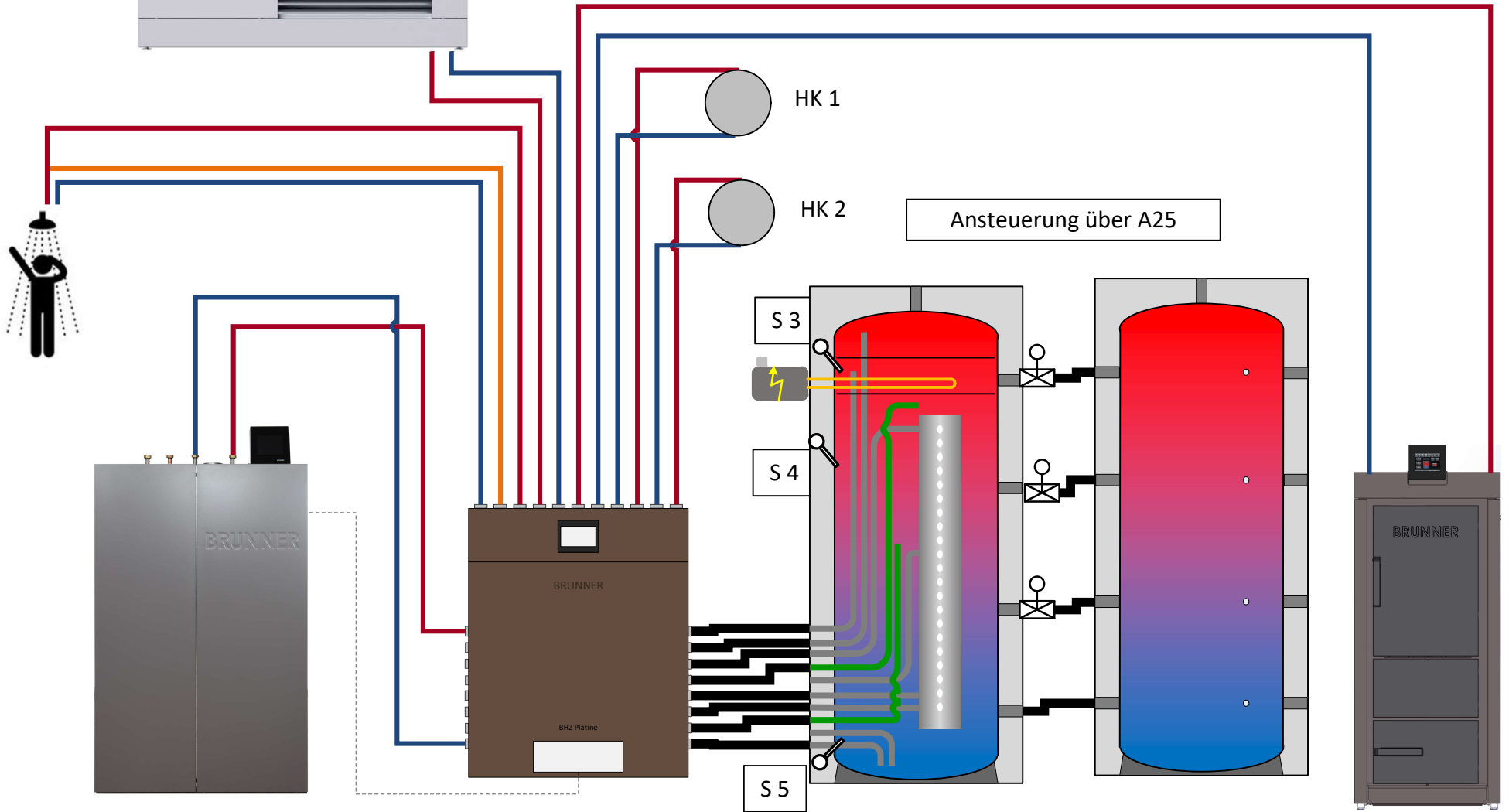
5.07 BHZ BPH 2HK PV Solar

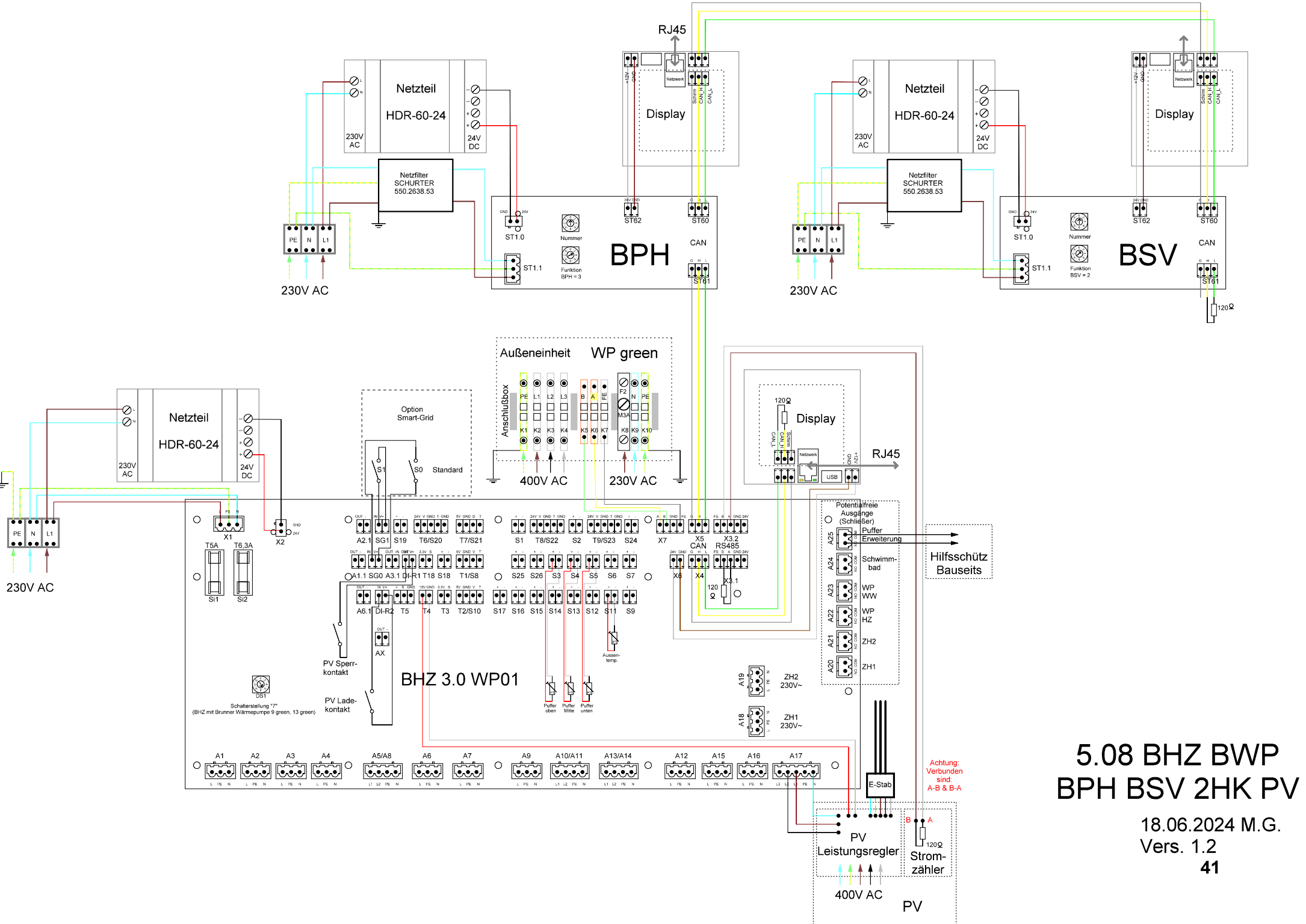
12.06.2024 M.G.
Vers. 1.2

S 11



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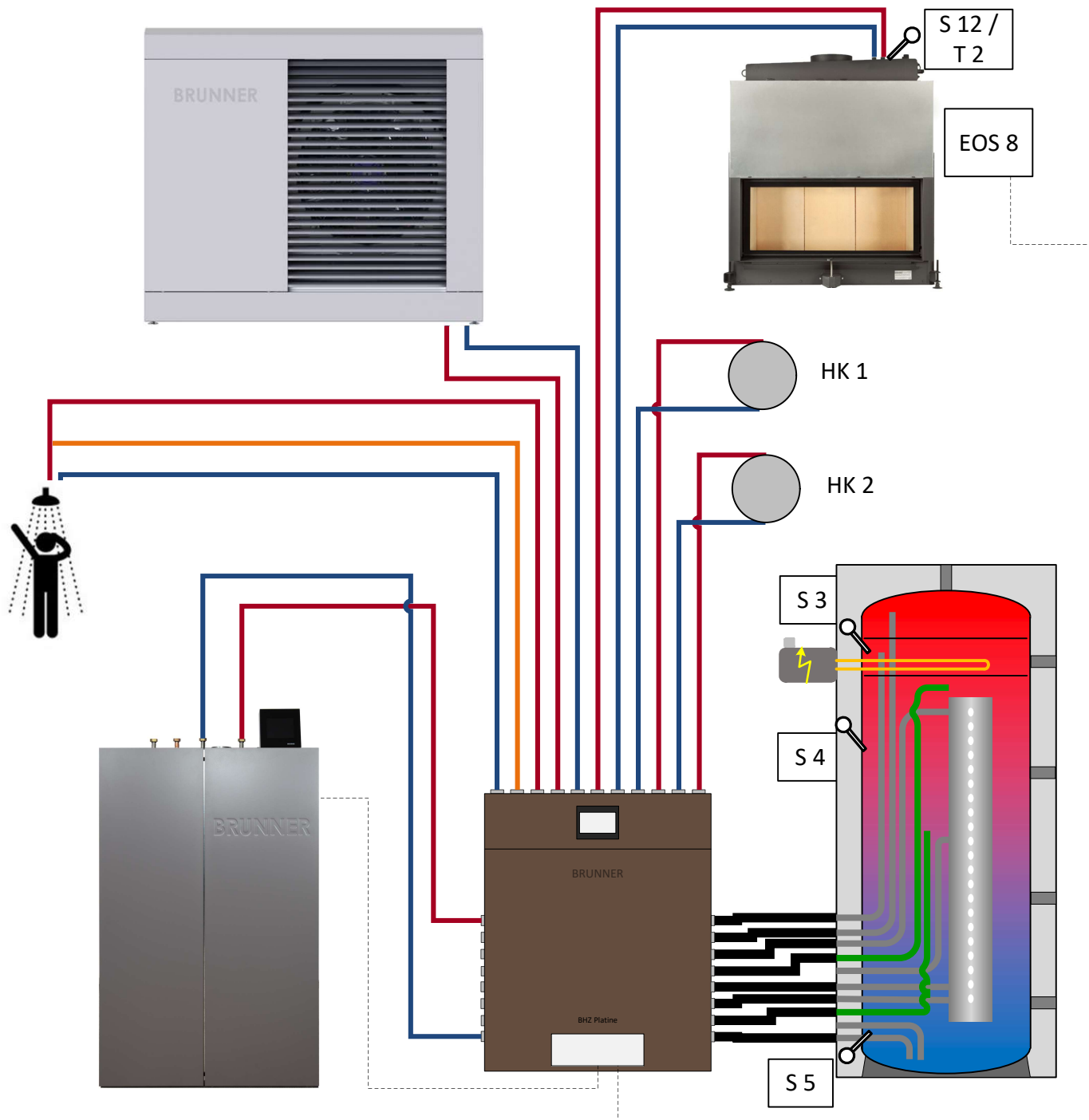
5.08 BHZ BWP BPH BSV 2HK PV

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Vers. 1.2
41

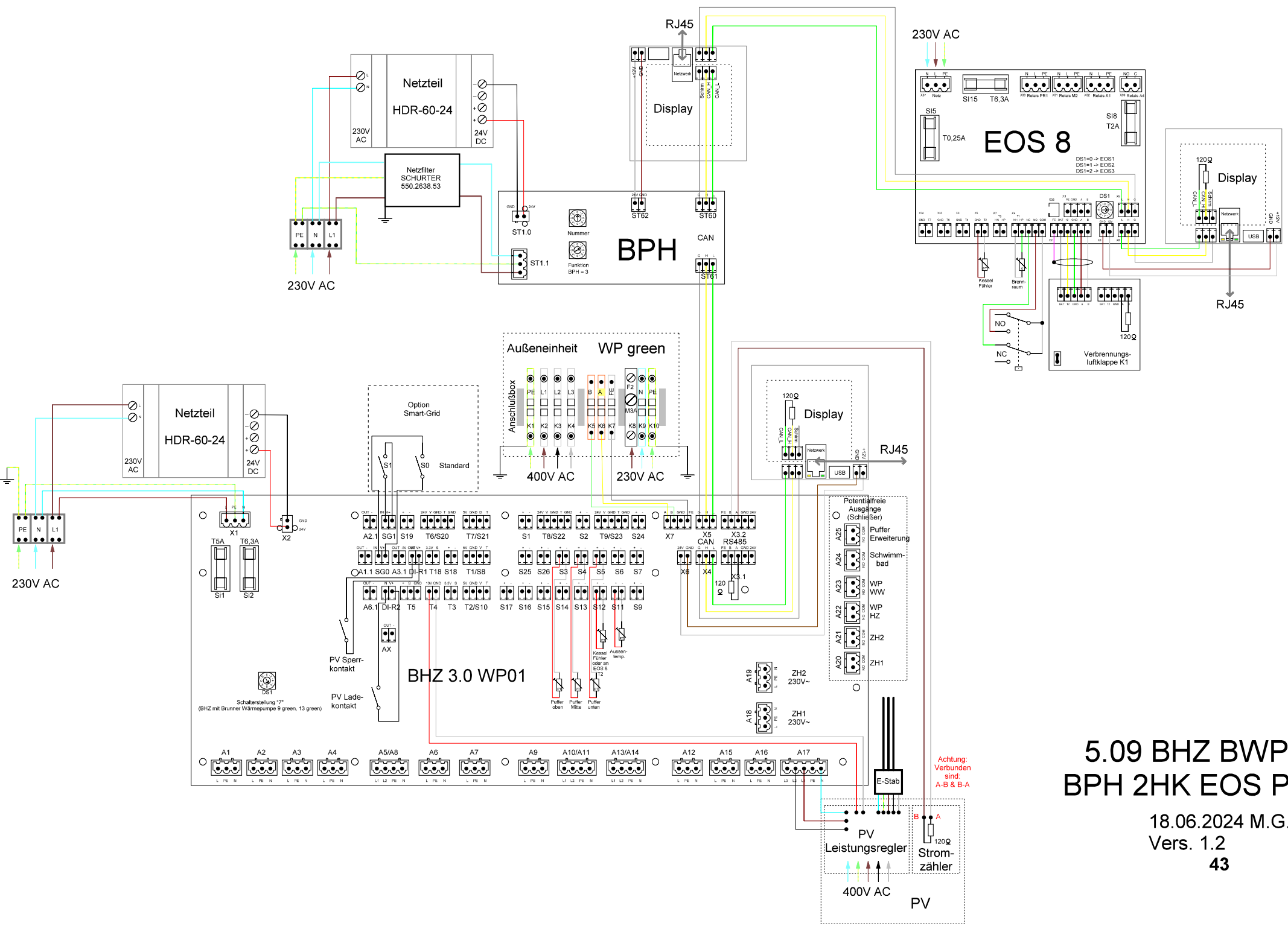
5.09 BHZ, BWP, BPH, 2 HK, EOS, PV

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S 11



42

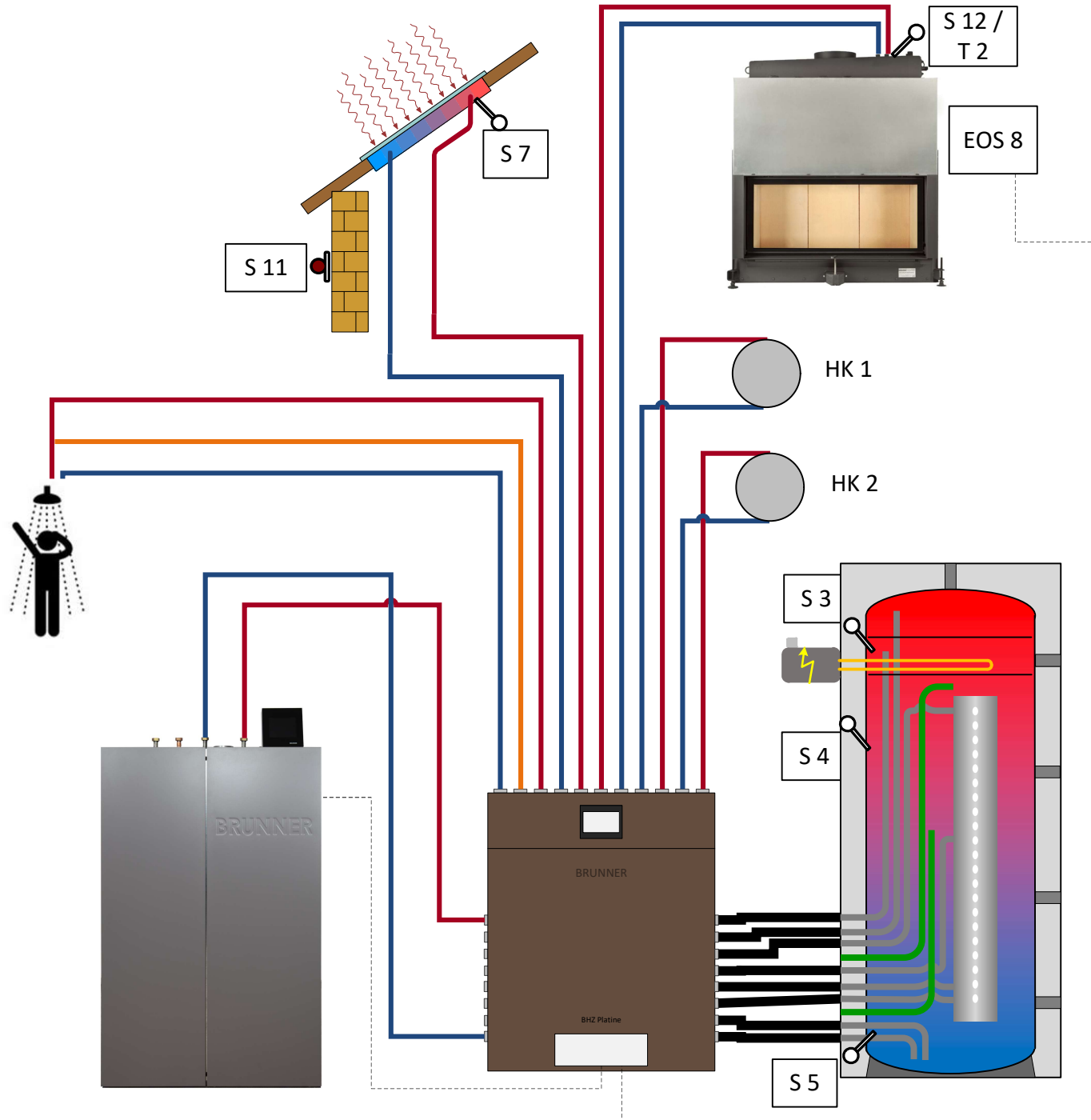


5.09 BHZ BWP BPH 2HK EOS PV

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Vers. 1.2
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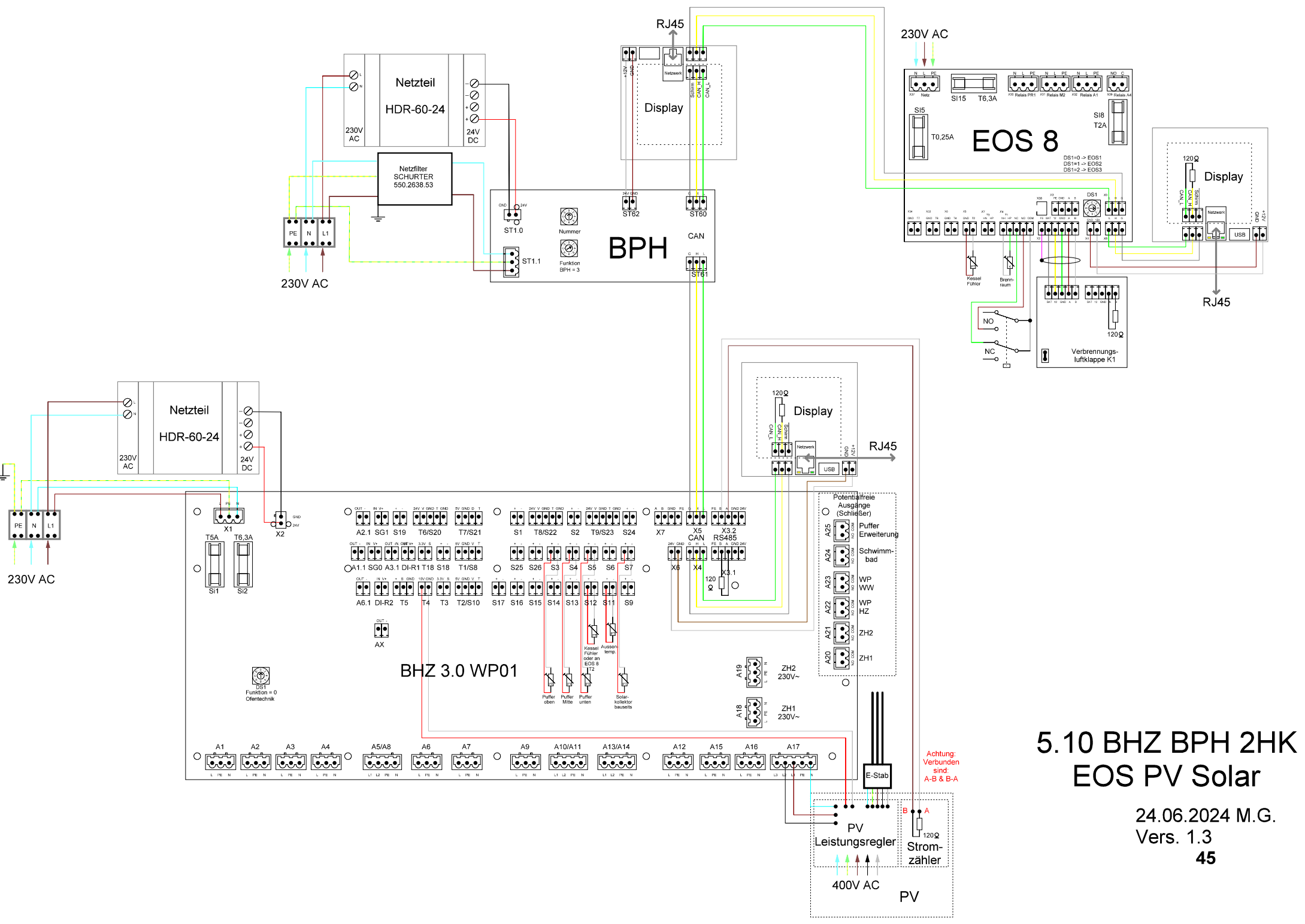
Achtung:
Verbunden
sind:
A-B & B-A

5.10 BHZ, BPH, 2 HK, EOS, PV, Solar



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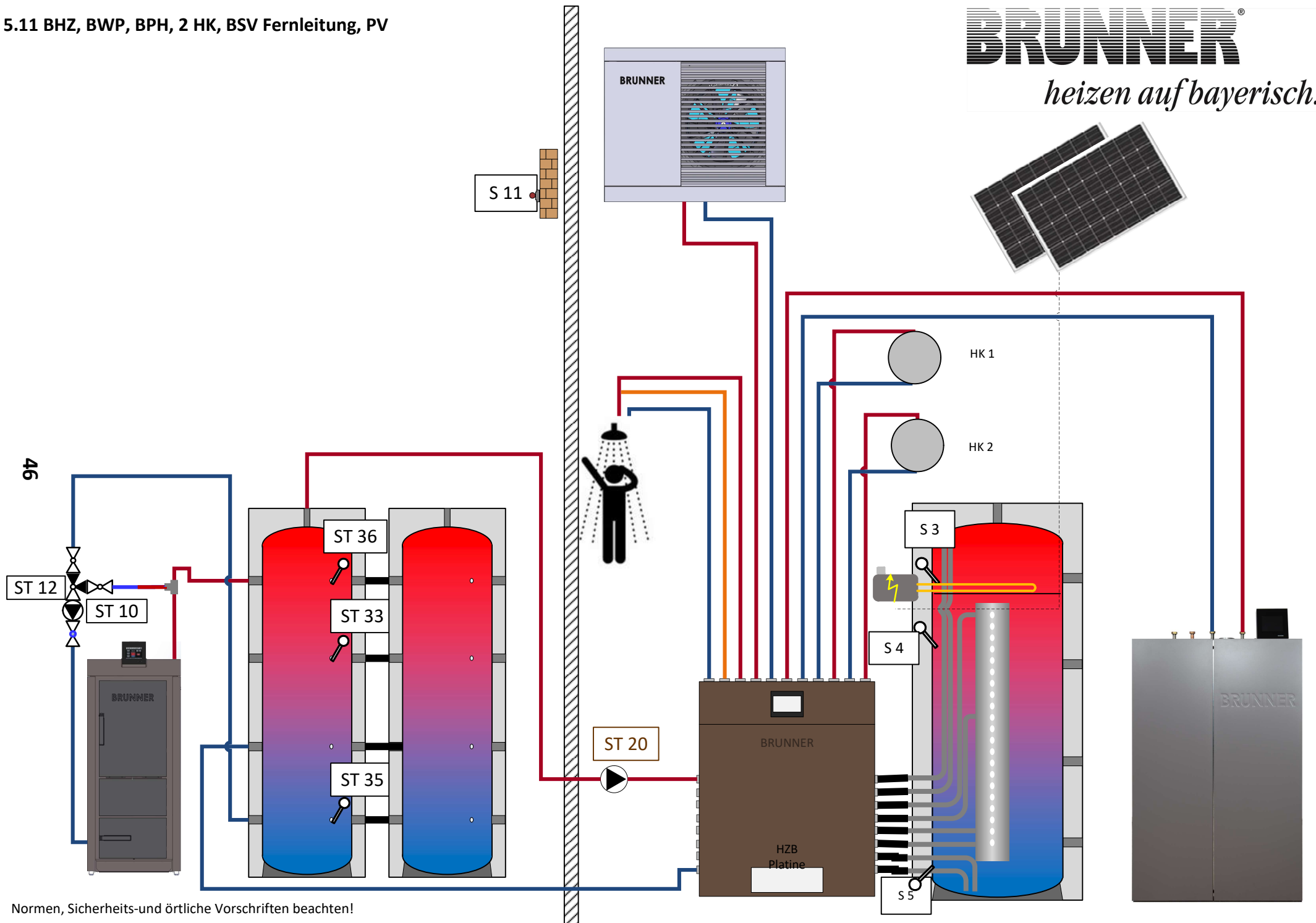
5.10 BHZ BPH 2HK EOS PV Solar

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Vers. 1.3
45

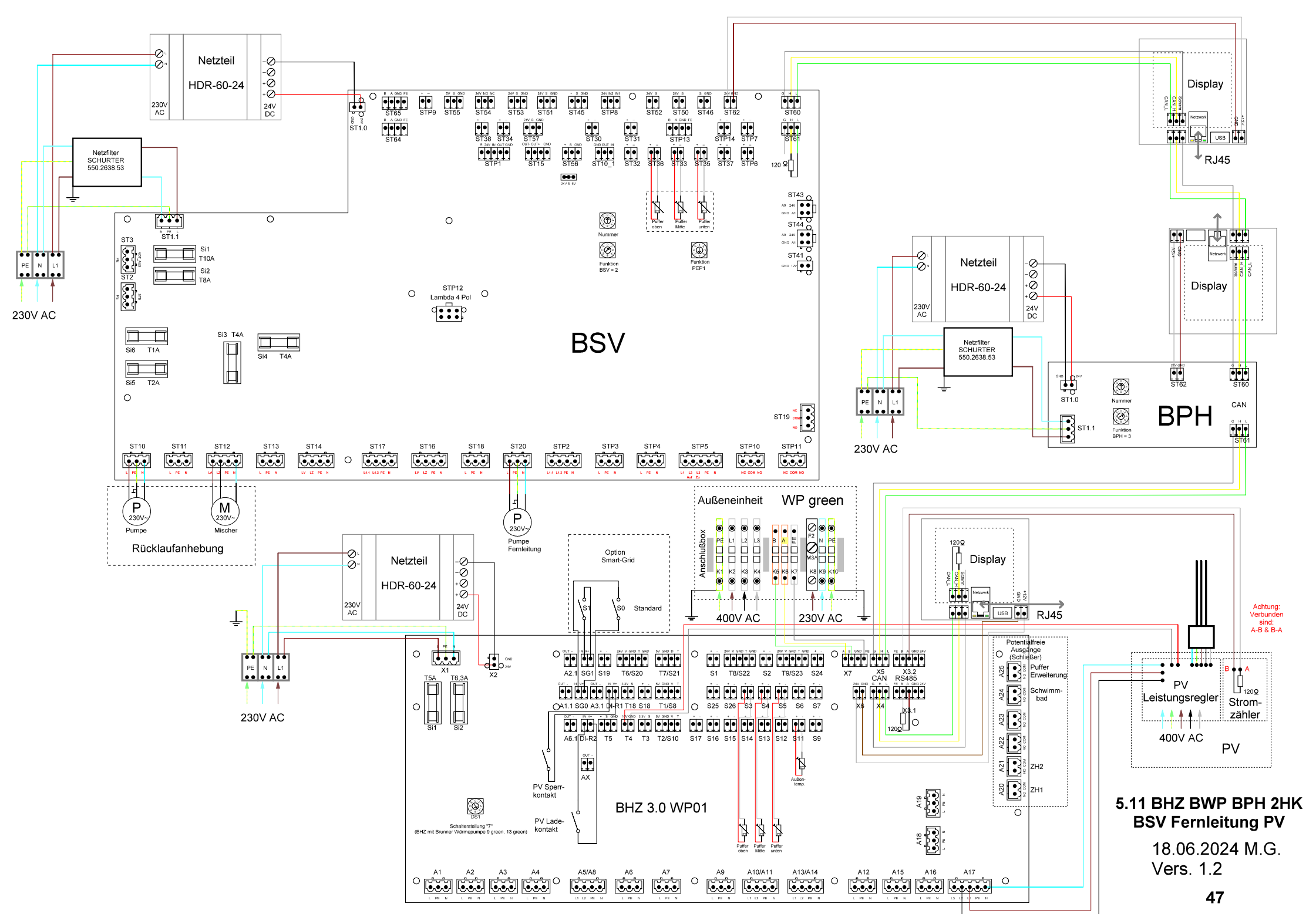
Achtung:
Verbunden
sind:
A-B & B-A

5.11 BHZ, BWP, BPH, 2 HK, BSV Fernleitung, PV

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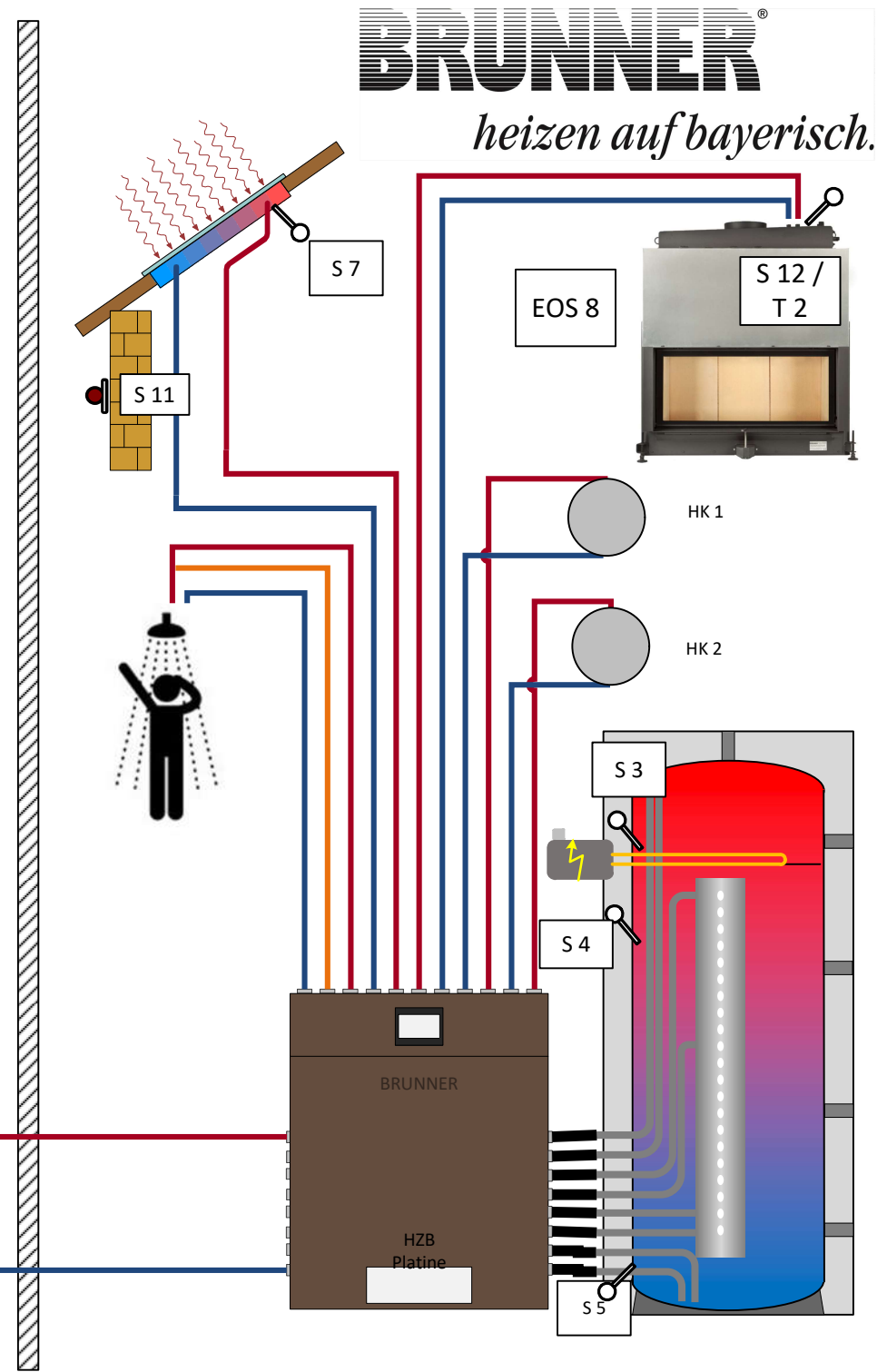
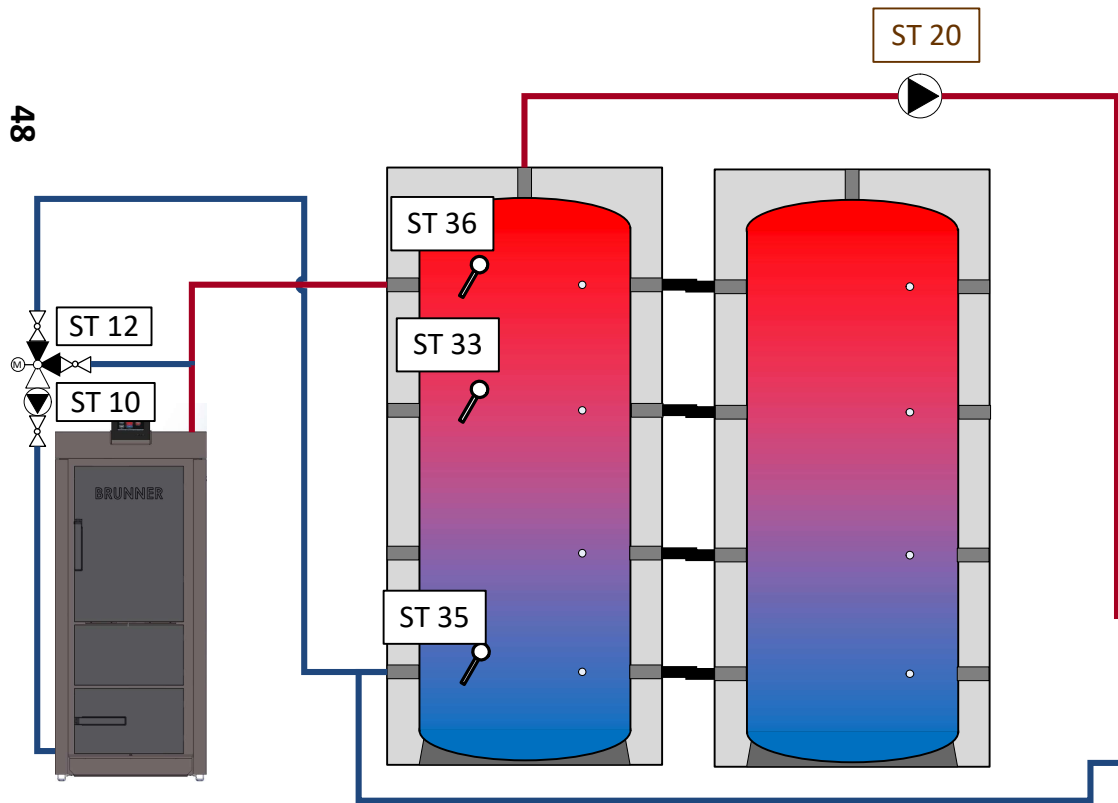
Normen, Sicherheits- und örtliche Vorschriften beachten!



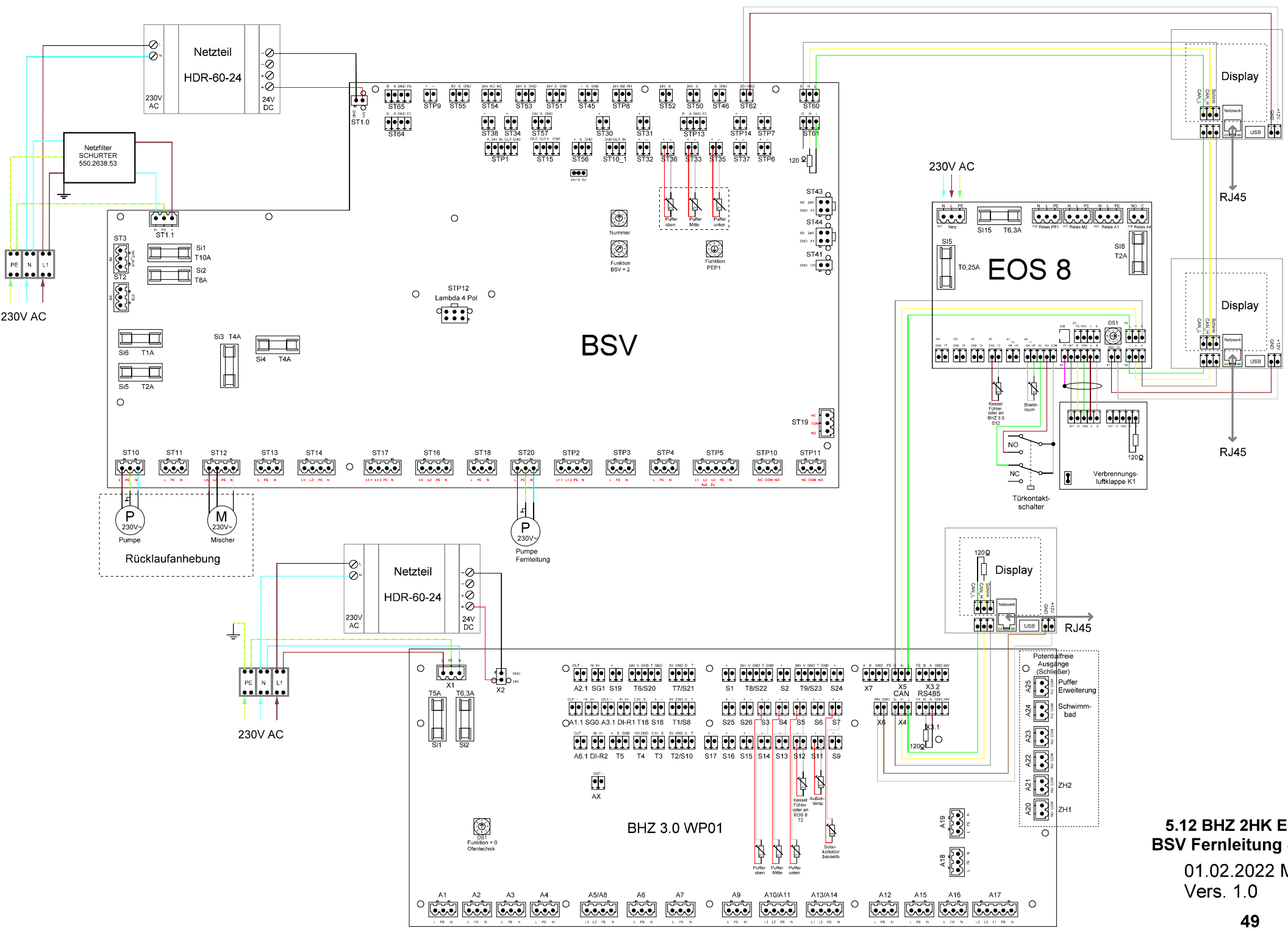
**5.11 BHZ BWP BPH 2HK
BSV Fernleitung PV**
18.06.2024 M.G.
Vers. 1.2

5.12 BHZ, 2 HK, EOS, BSV Fernleitung, Solar

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Normen, Sicherheits-und örtliche Vorschriften beachten!



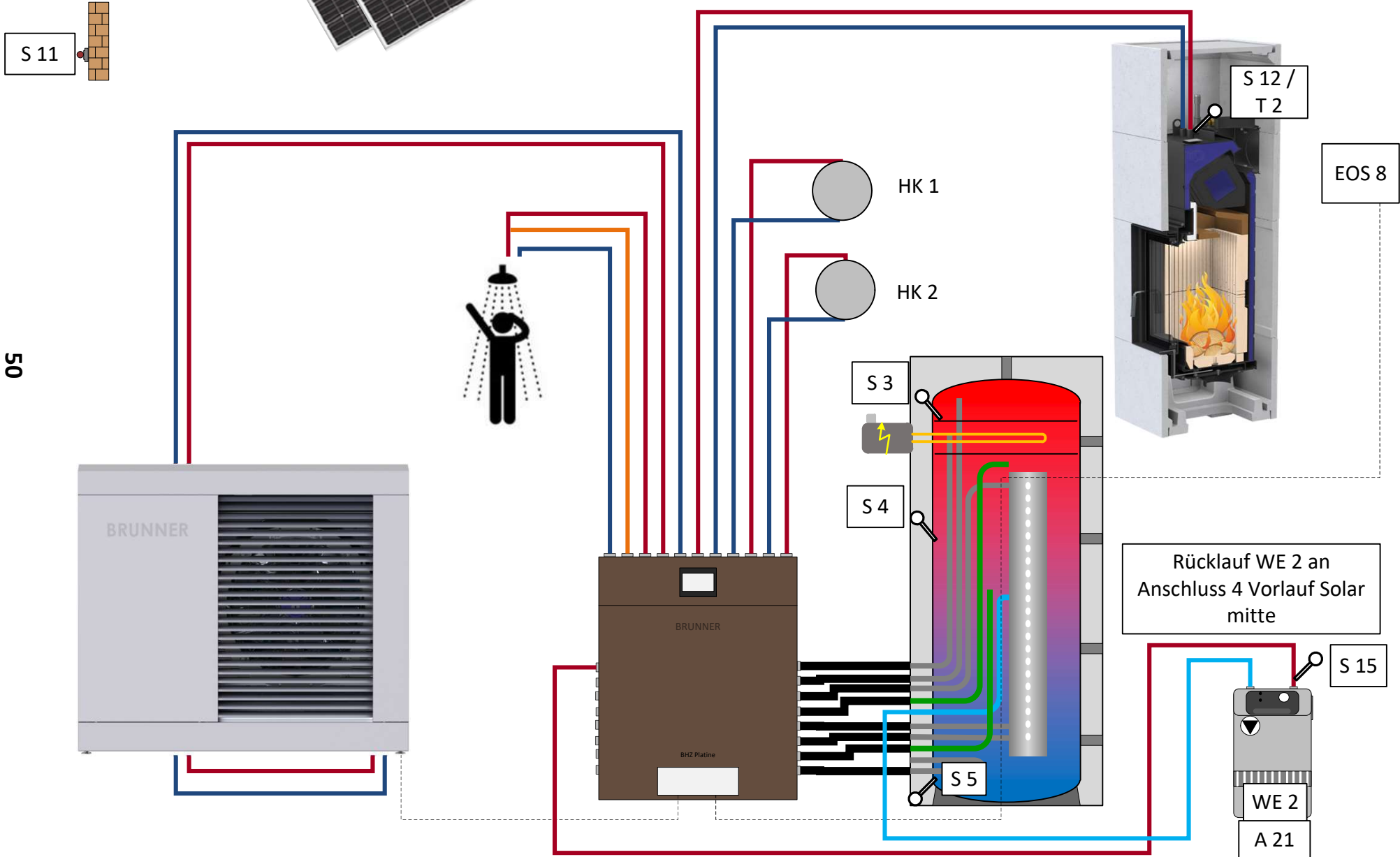
**5.12 BHZ 2HK EOS
BSV Fernleitung Solar**
01.02.2022 M.G.
Vers. 1.0

5.20 BHZ, BWP, 2 HK, EOS, WE, PV

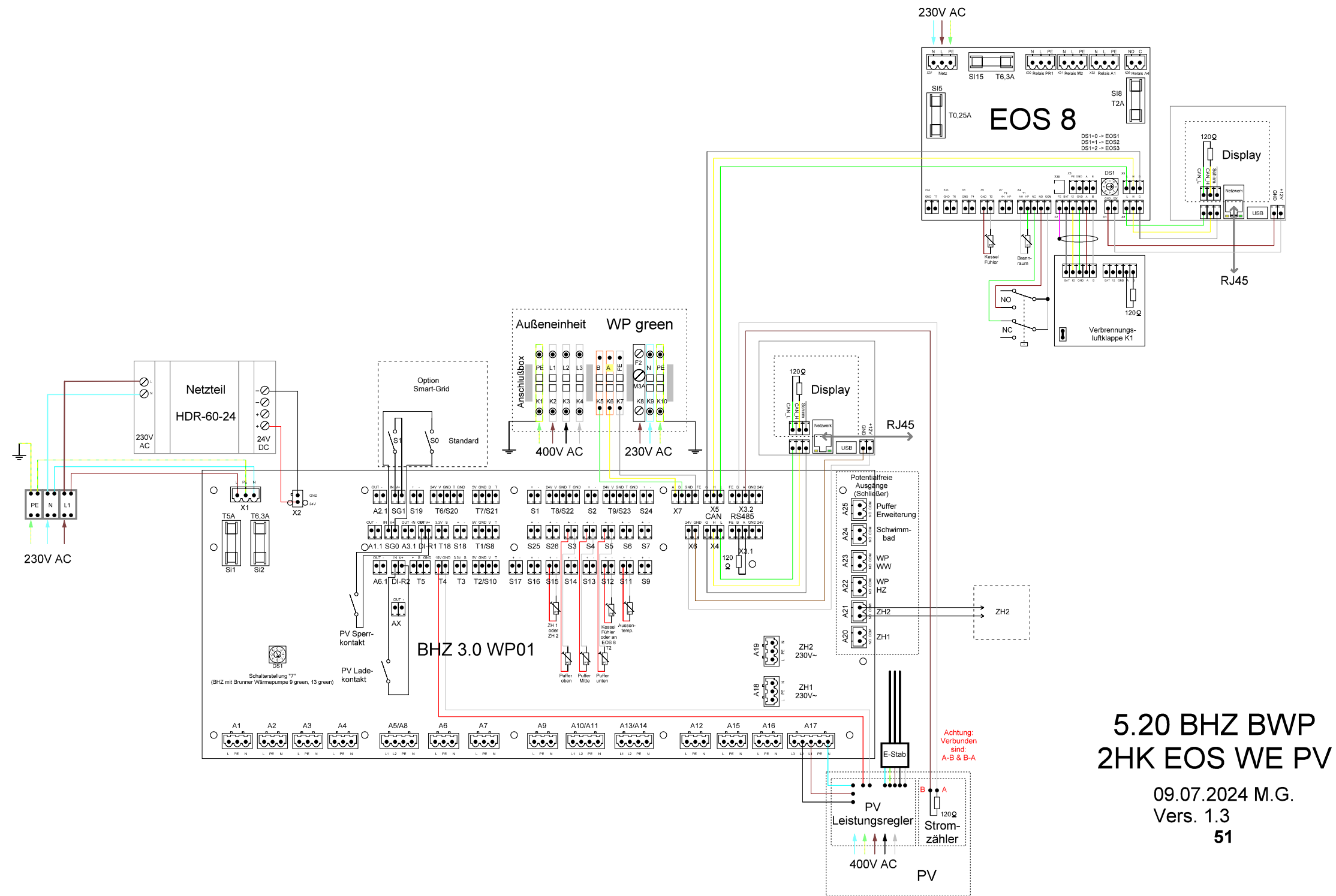


Leitungsdimension zwischen Wärmepumpe und BHZ

| | | |
|----------|-------|-----|
| Bis 20 m | DN 32 | 1¼" |
| Ab 20 m | DN 40 | 1½" |



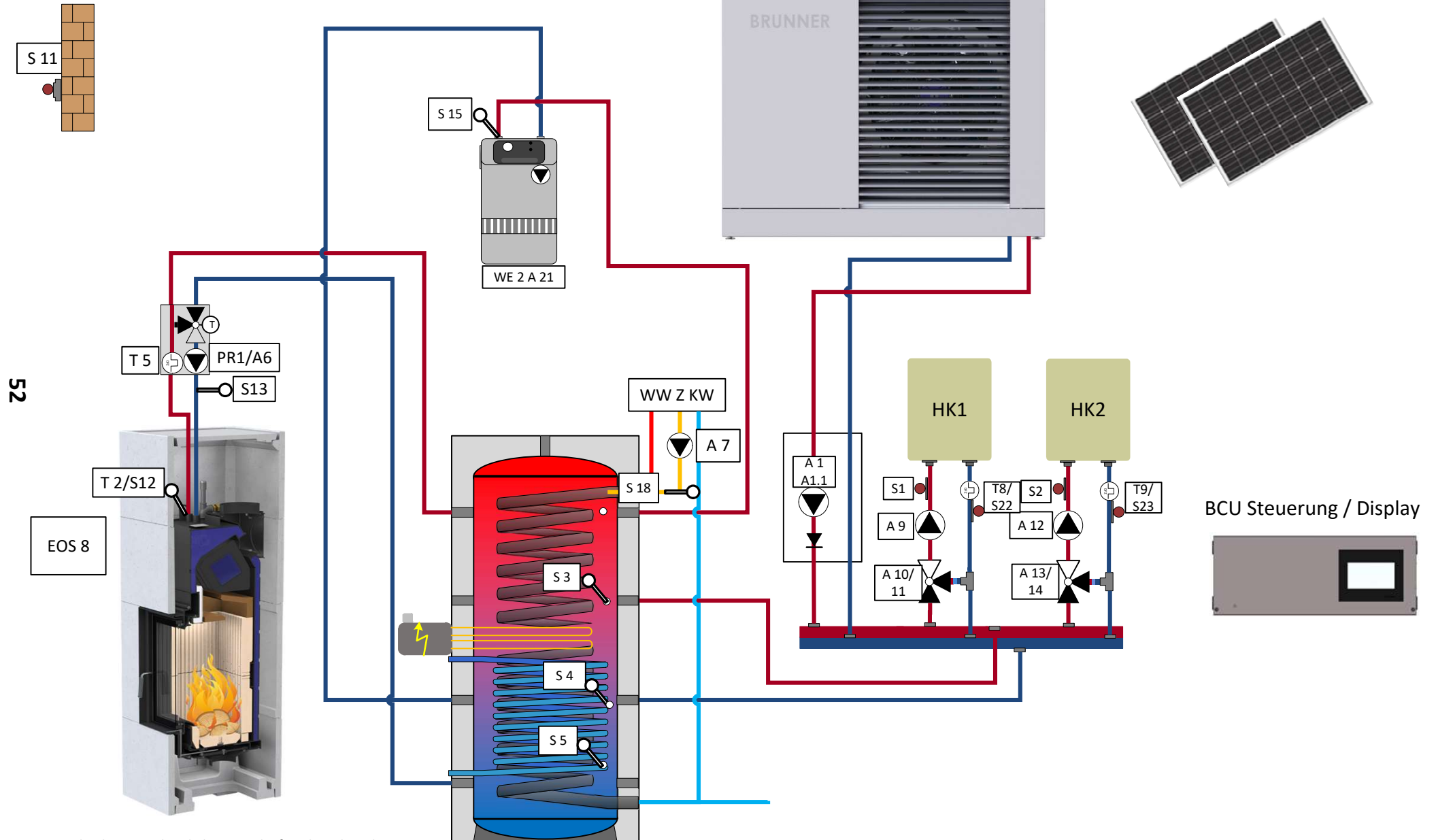
50

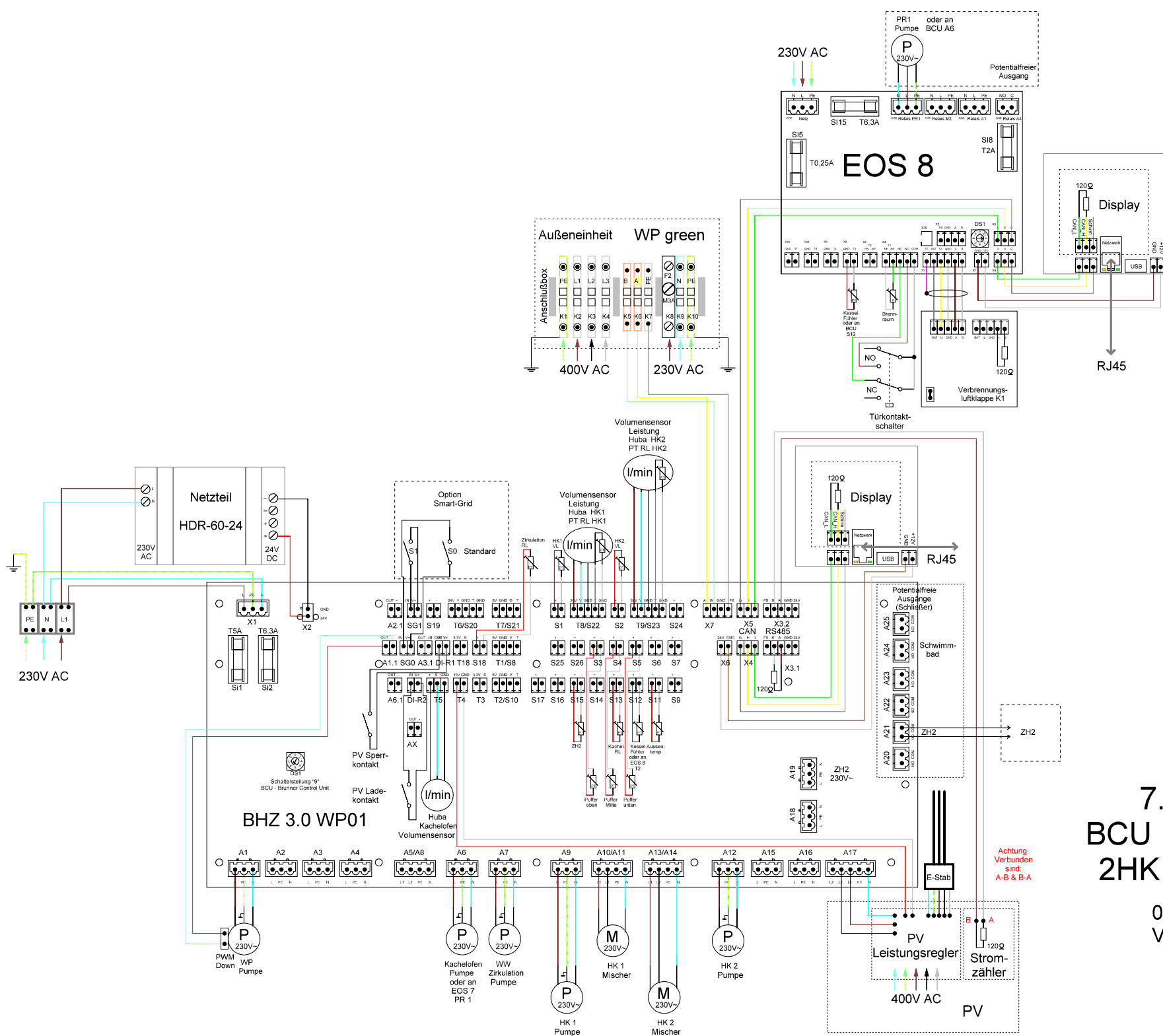


5.20 BHZ BWP 2HK EOS WE PV

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Achtung:
Verbunden
sind:
A-B & B-A





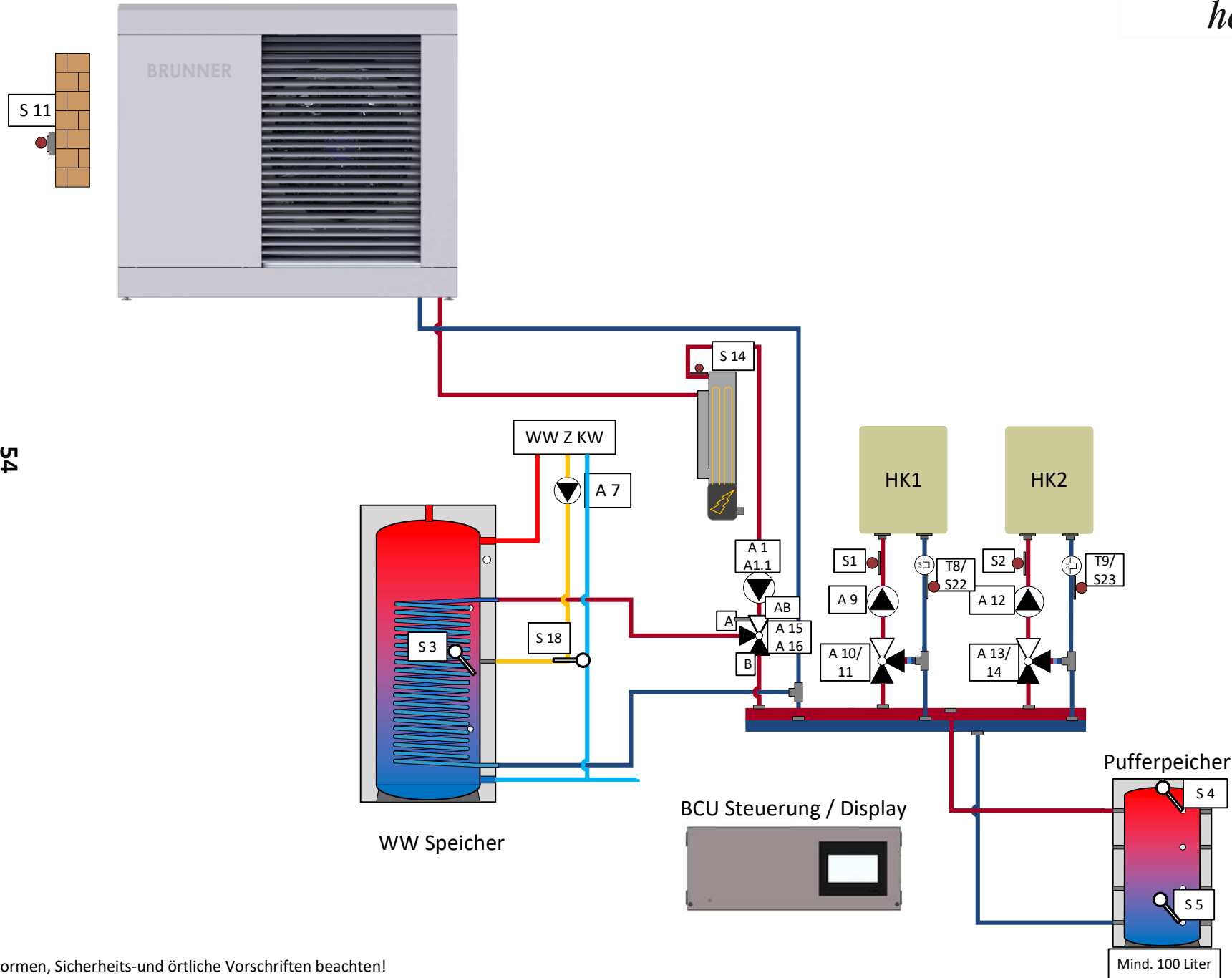
7.02 Plus 1: BCU BWP BHS 6m 2HK EOS PV WE

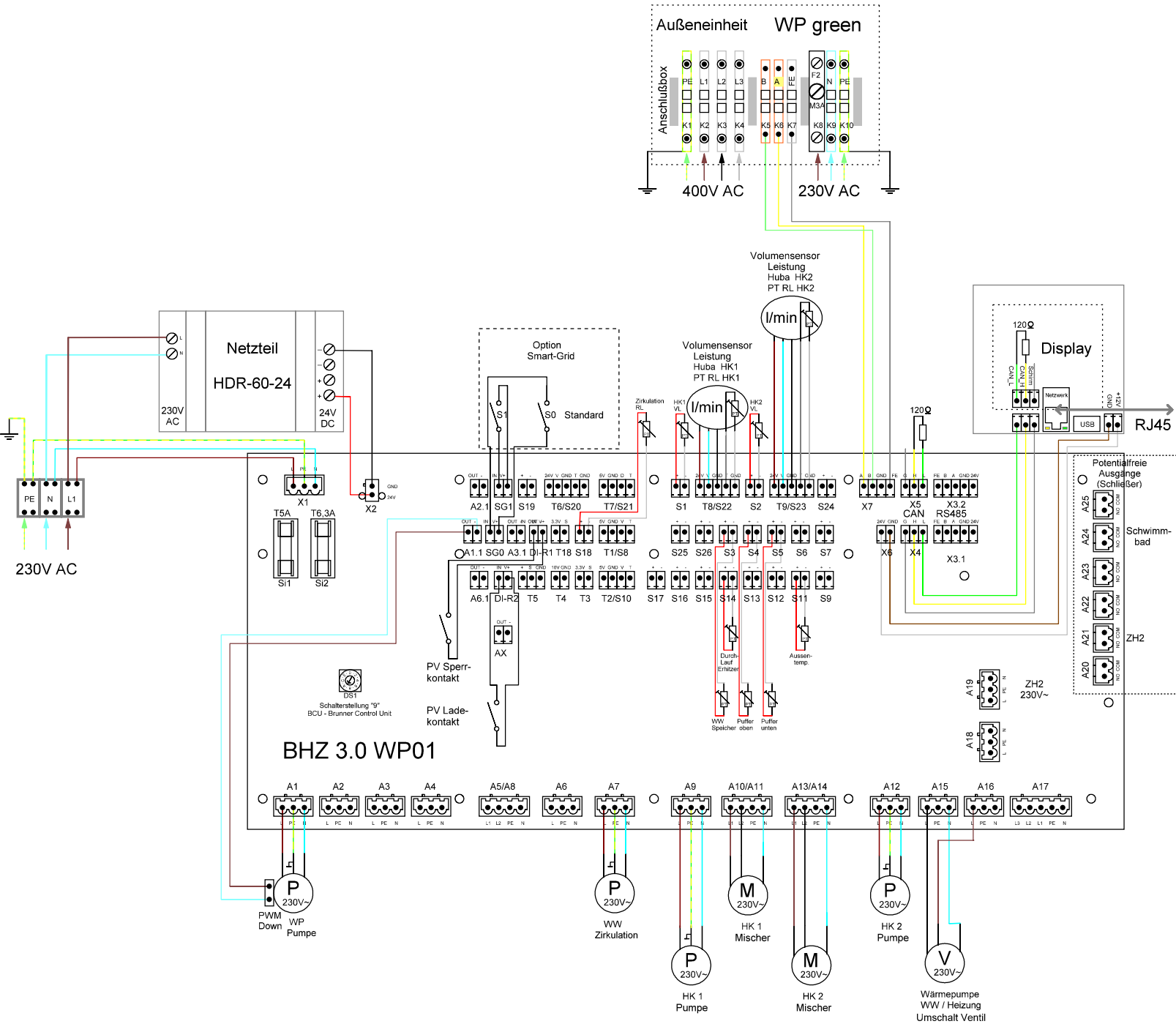
09.07.2024 M.G.
Vers. 1.3

Achtung:
Verbunden
sind:
A-B & B-A

7.03 BCU, BWP, Puffer, 2 HK, WW

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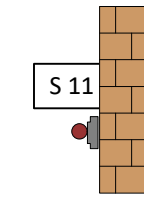




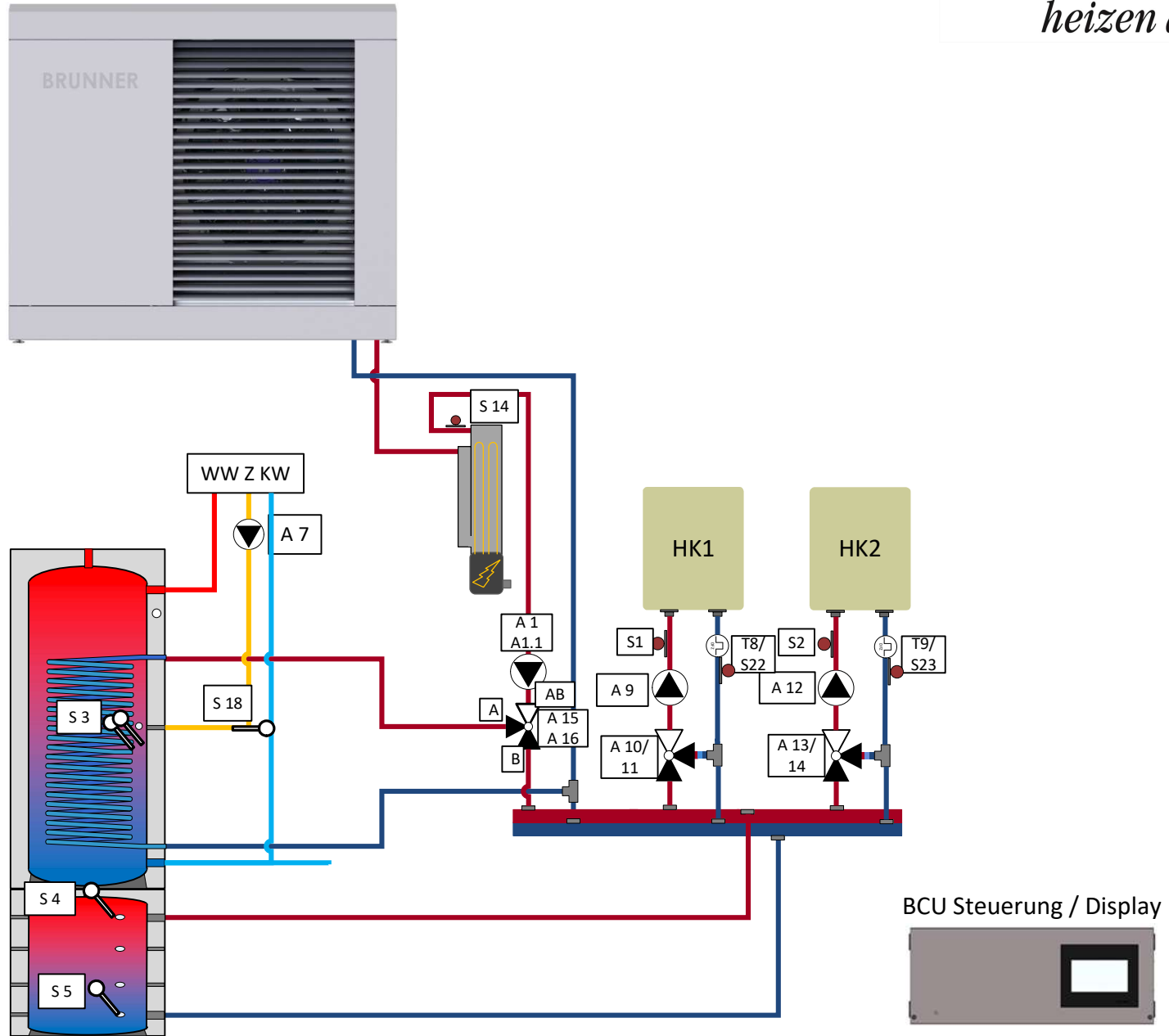
7.03 Pur1: BCU BWP Puffer 2HK WW

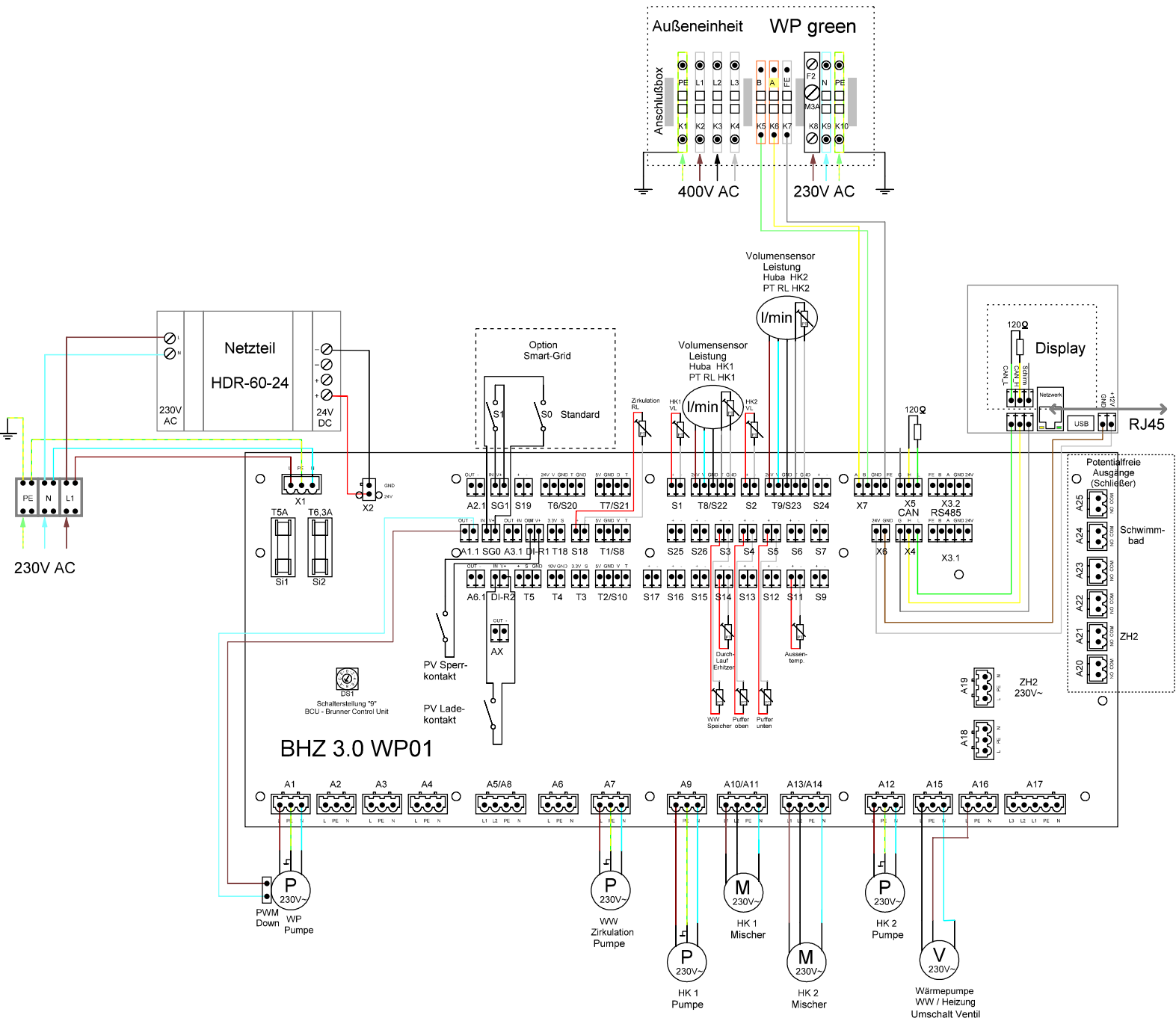
09.07.2024 M.G.
Vers. 1.3

7.04 BCU, BWP, Duo Speicher , 2 HK



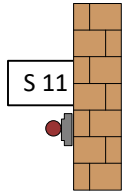
95



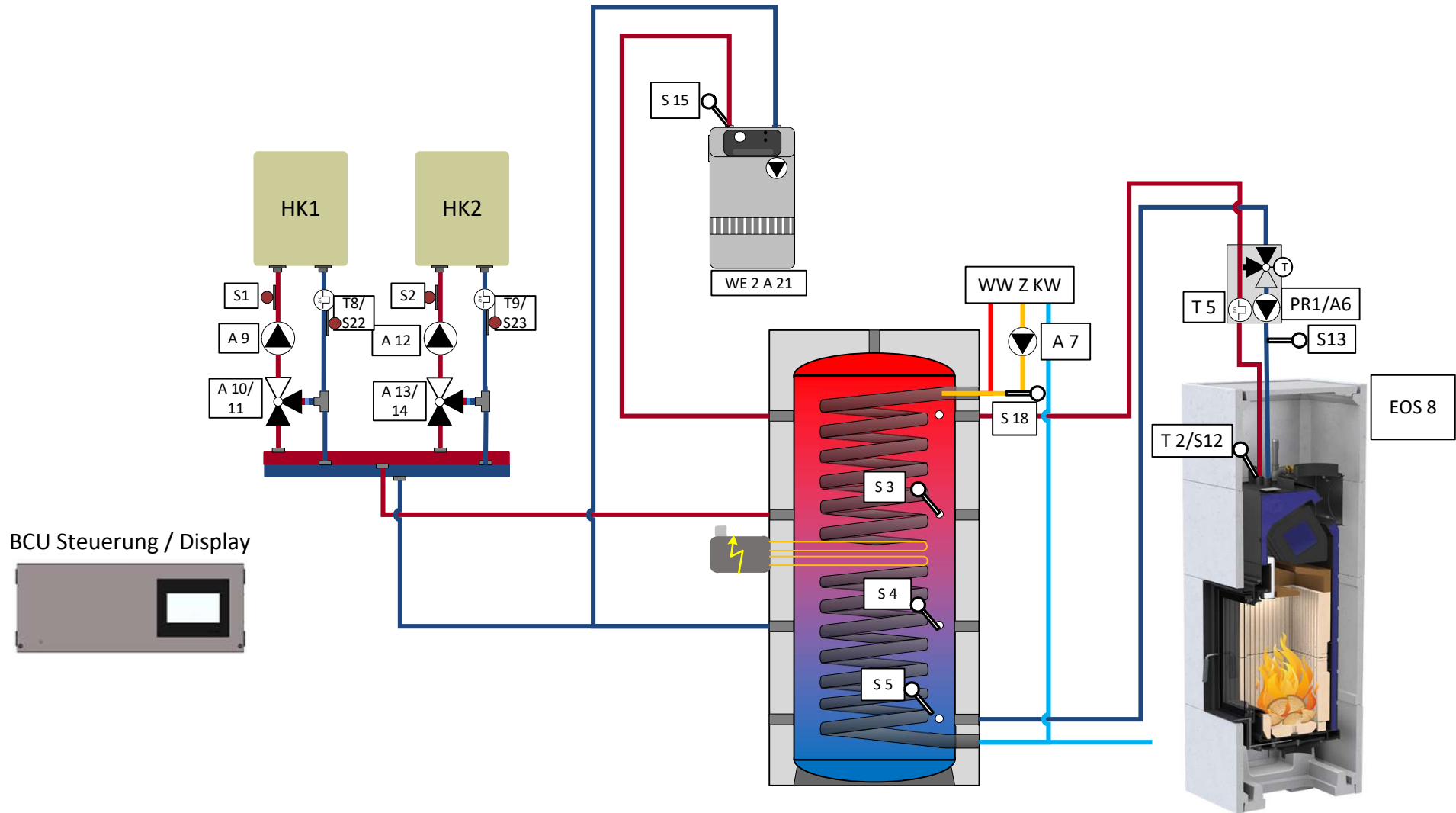


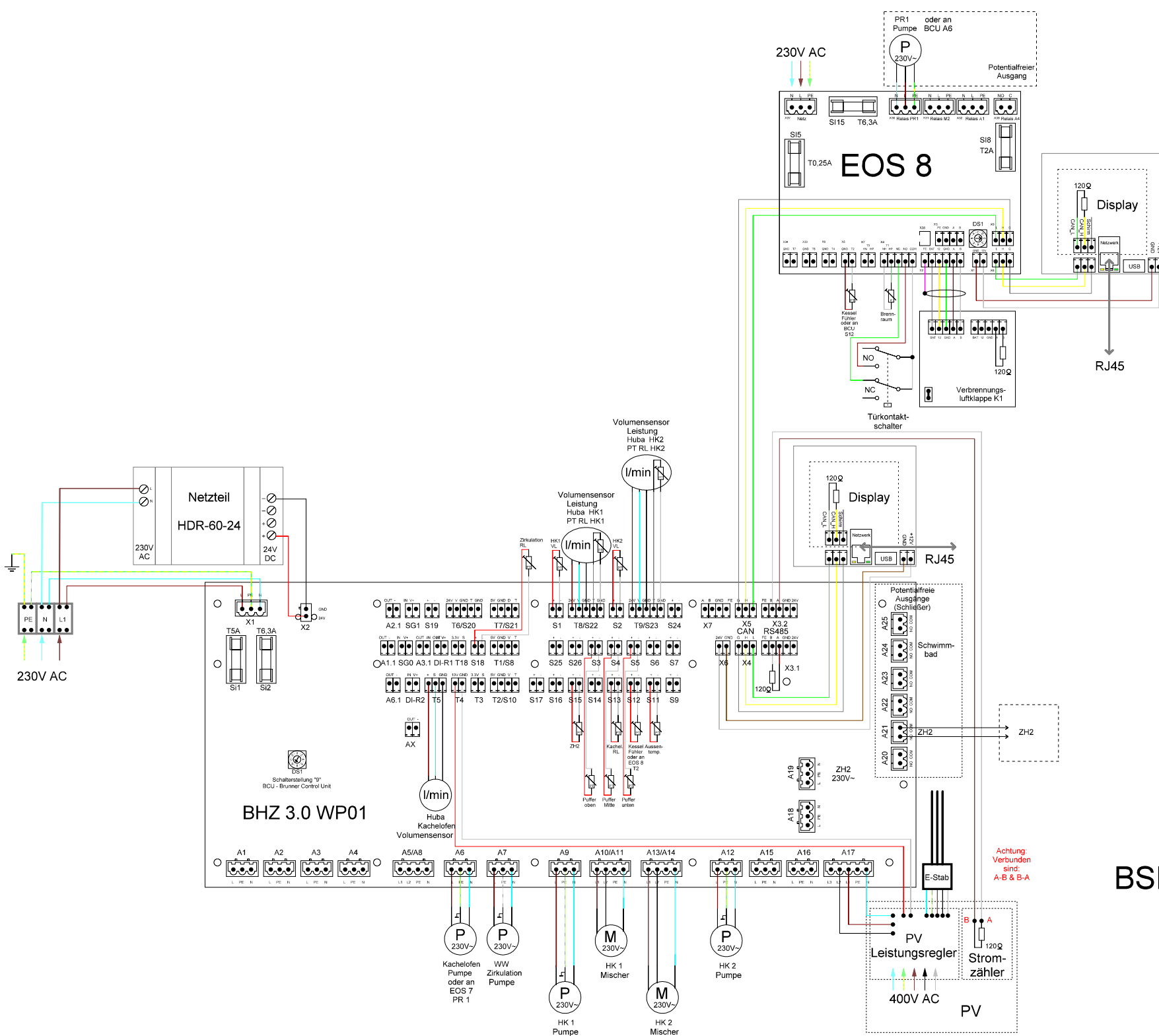
7.04 Pur2: BCU BWP 2HK Duo Speicher

09.07.2024 M.G.
Vers. 1.3



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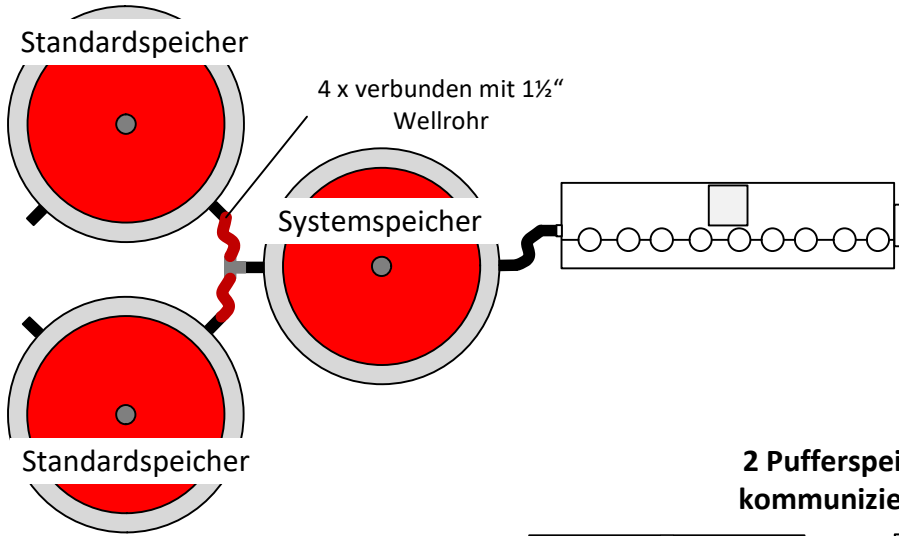




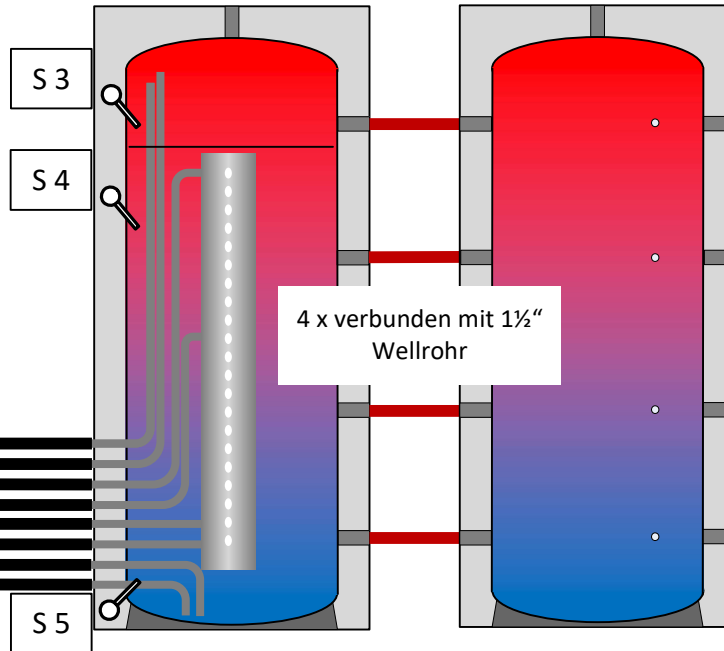
8.01 BCU EOS
BSH 6m 2HK PV WE
 09.07.2024 M.G.
 Vers. 1.3
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Pufferspeicheranschlussvarianten mit BHZ

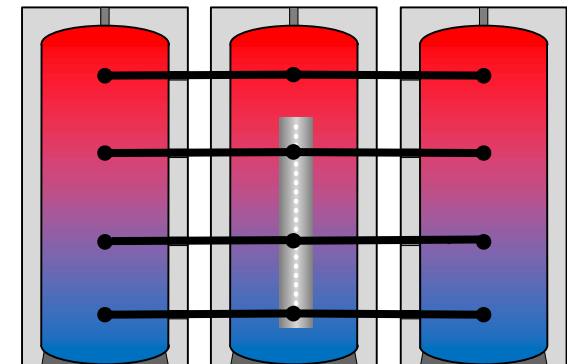
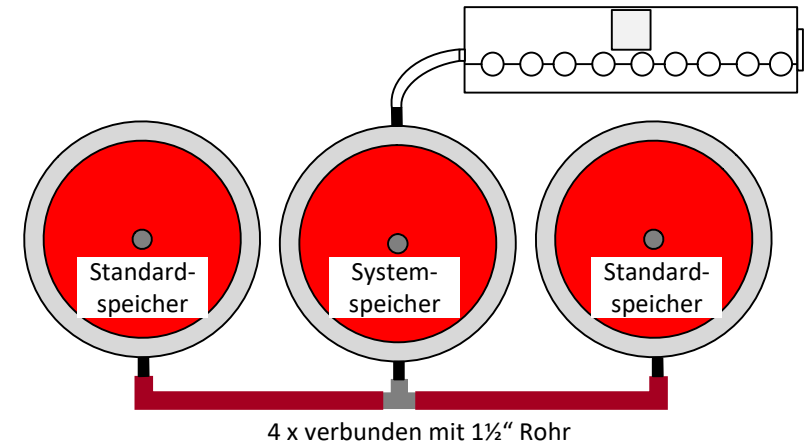
3 Pufferspeicher Sternschaltung



2 Pufferspeicher kommunizierend



3 Pufferspeicher Reihenschaltung



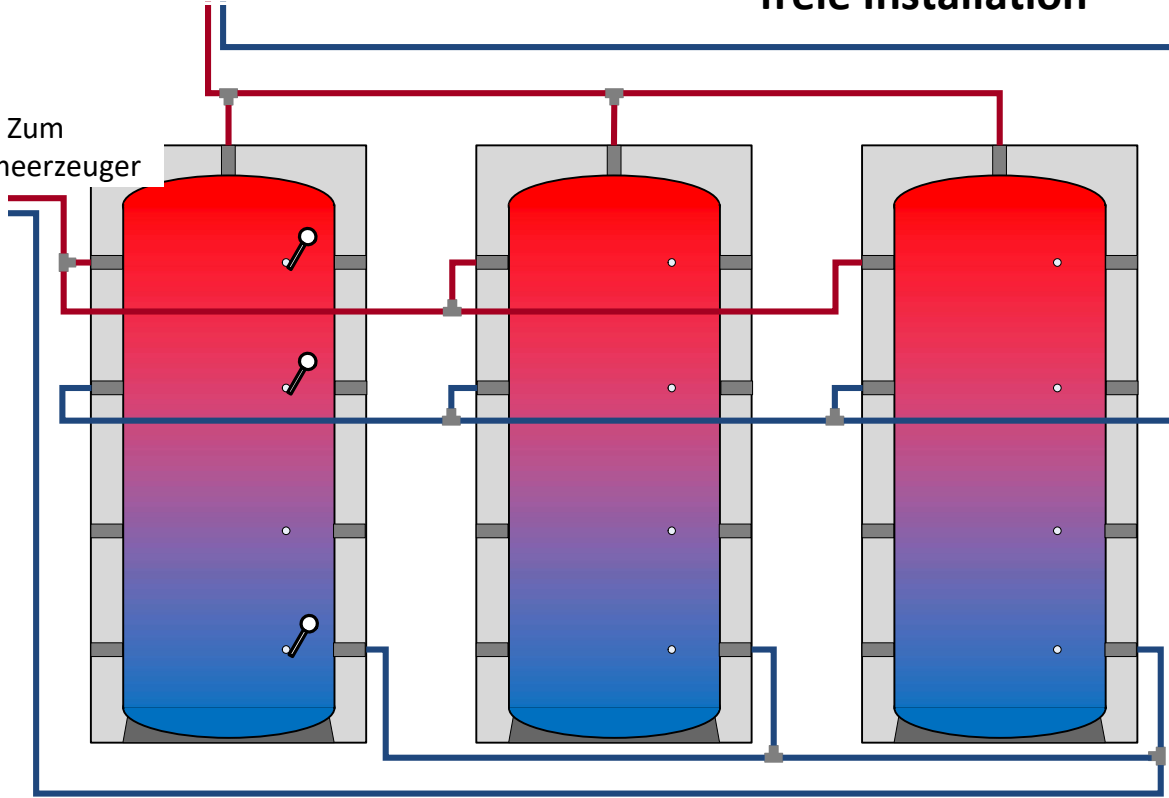
60

Pufferspeicher BHZ

Pufferspeicheranschlussvarianten freie Installation

Zu den Verbrauchern

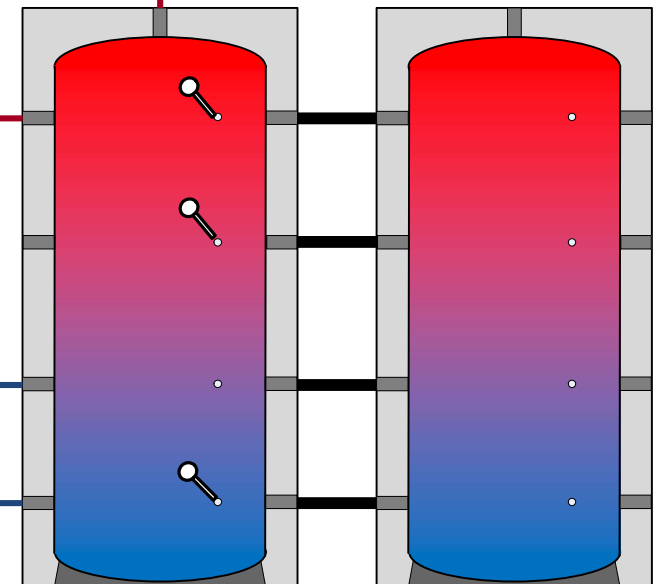
Zum Wärmeerzeuger



Ab 3 Puffer
Tichelmann

Zum
Wärmeerzeuger

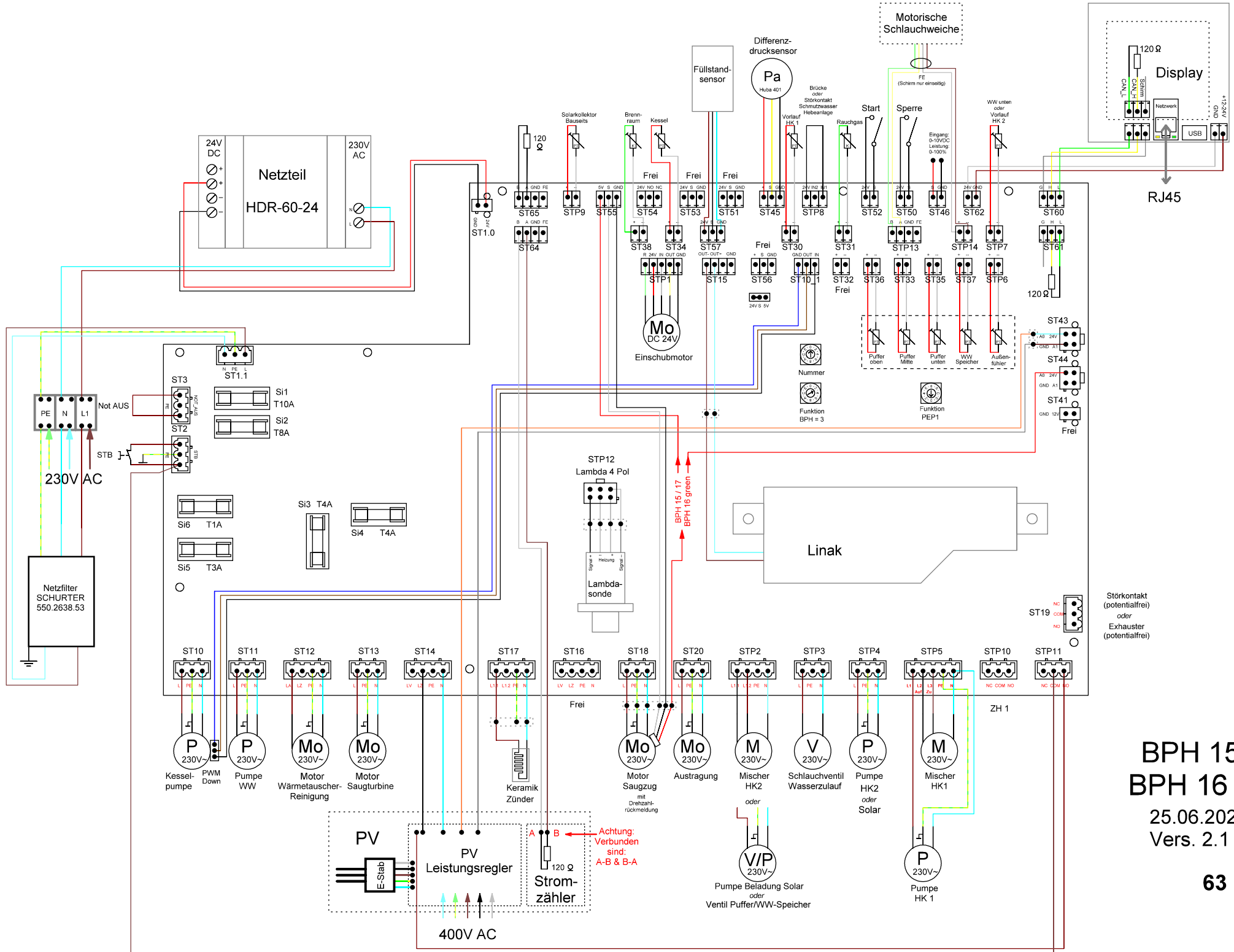
Zu den
Verbrauchern



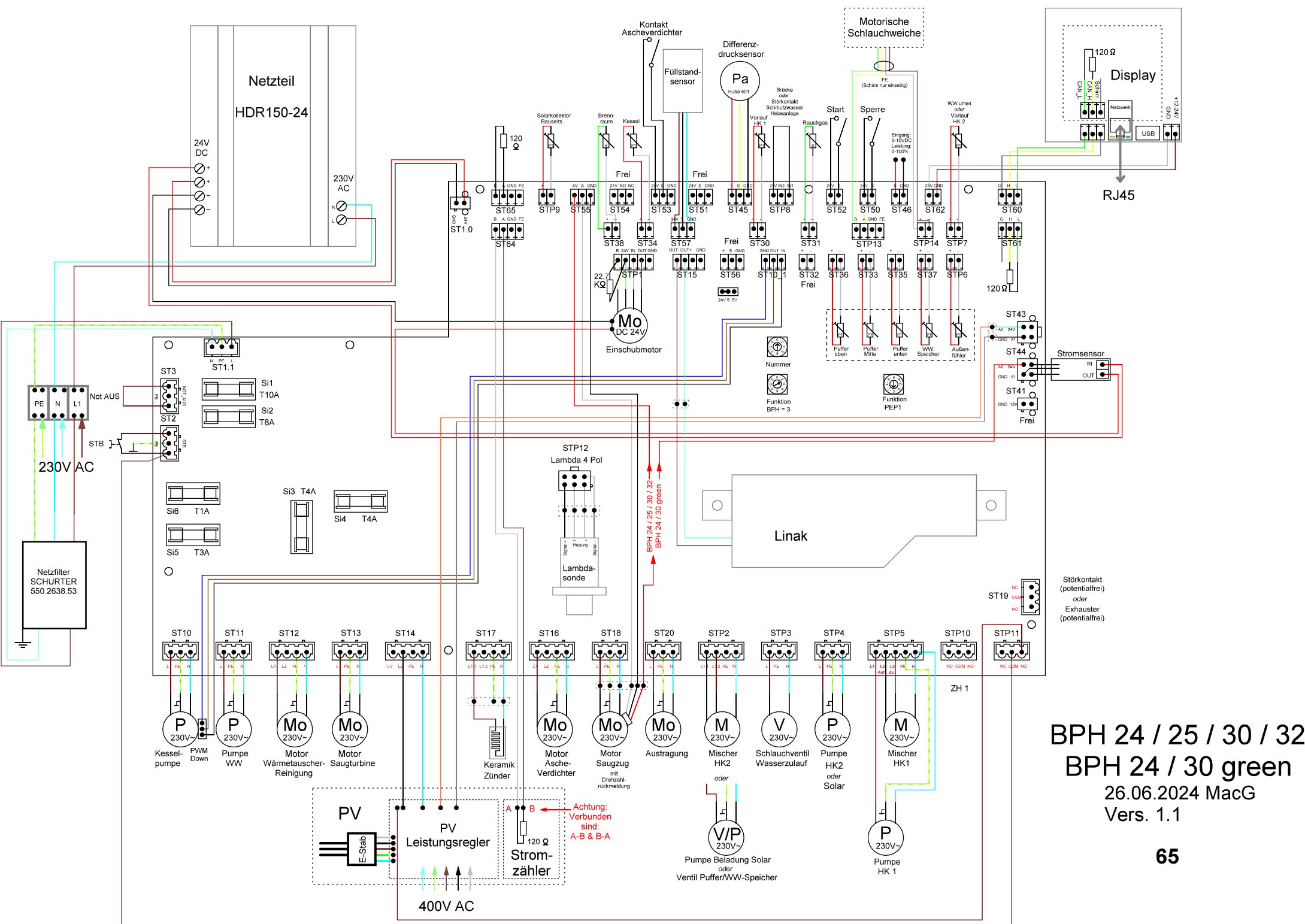
Bis 2 Pufferspeicher
kommunizierend

61

Pufferspeicher freie Installation



**BPH 15 / 17
BPH 16 green**
25.06.2024 MacG
Vers. 2.1

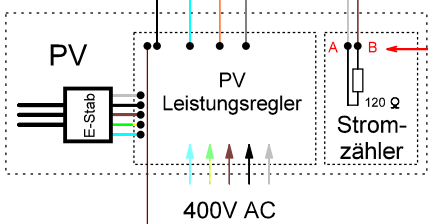
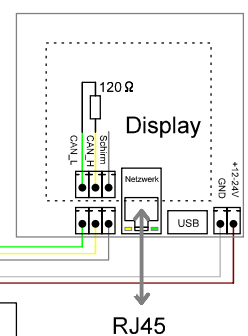
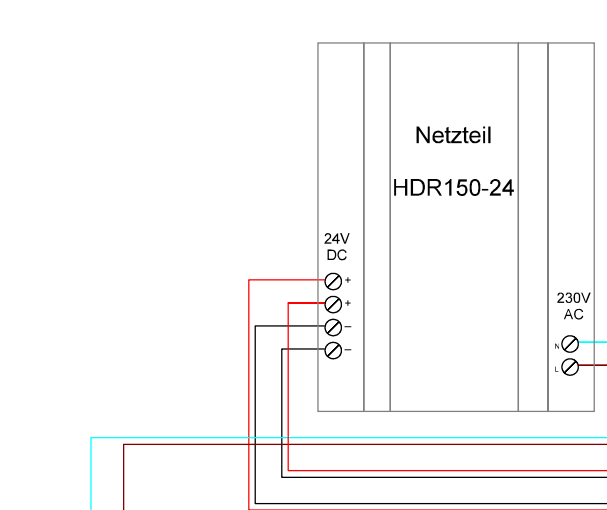
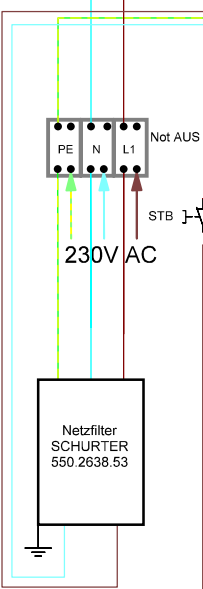


BPH 24 / 25 / 30 / 32
BPH 24 / 30 green
 26.06.2024 MacG
 Vers. 1.1

Achtung: Verbunden sind: A-B & B-A

Störkontakt (potentialfrei) oder Exhauster (potentialfrei)

BPH 24 / 25 / 30 / 32 green



Pumpe Beladung Solar oder Ventil Puffer/WW-Speicher

Pumpe HK 1

Kesselpumpe

Pumpe WW

Motor Wärmetauscher-Reinigung

Motor Saugturbine

Motor Ascheverdichter

Motor Saugzug mit Dreanzahl-rückmeldung

Austragung

Mischer HK2

Schlauchventil Wasserzulauf

Pumpe HK2 oder Solar

Mischer HK1

ST10

ST11

ST12

ST13

ST14

ST17

ST16

ST18

ST20

STP2

STP3

STP4

STP5

STP10

STP11

ST10

ST11

ST12

ST13

ST14

ST17

ST16

ST18

ST20

STP2

STP3

STP4

STP5

STP10

STP11

ST3

ST2

ST1

ST2

ST1

ST10

ST11

ST12

ST13

ST14

ST15

ST16

ST17

ST18

ST19

ST20

ST21

ST22

ST23

ST24

ST25

ST1.0

ST1.1

ST1.2

ST1.3

ST1.4

ST1.5

ST1.6

ST1.7

ST1.8

ST1.9

ST1.10

ST1.11

ST1.12

ST1.13

ST1.14

ST1.15

ST1.16

ST1.17

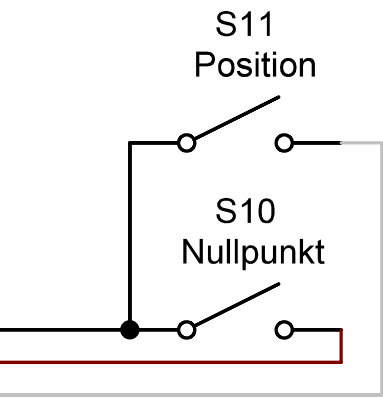
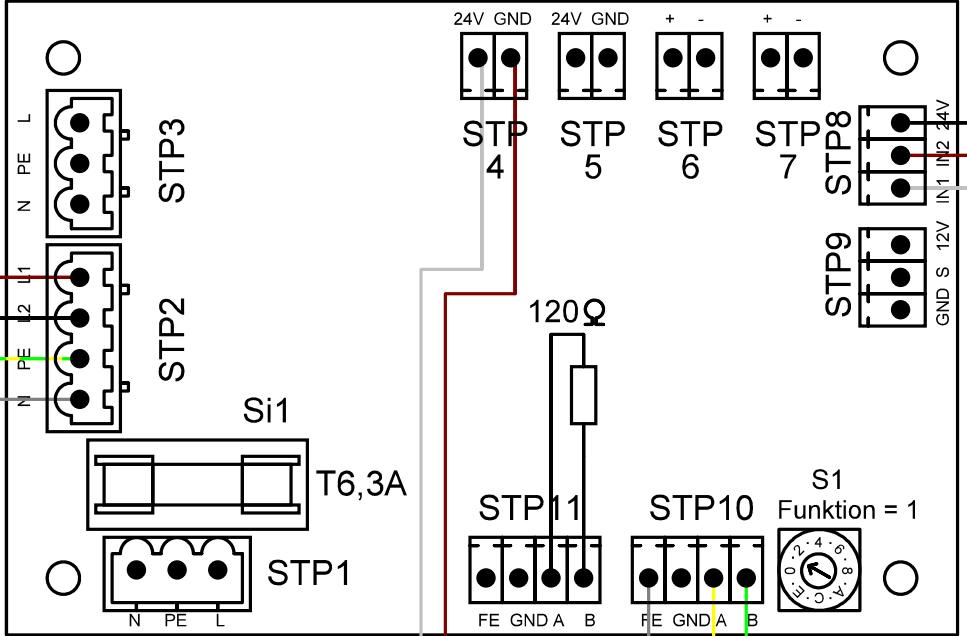
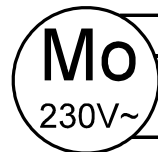
ST1.18

ST1.19

ST1.20

ST1.21

Motor
L1 Rechtslauf
L2 Linkslauf



230V AC

Motorische Schlauchweiche

01.02.2022 M.G.
Vers. 1.0

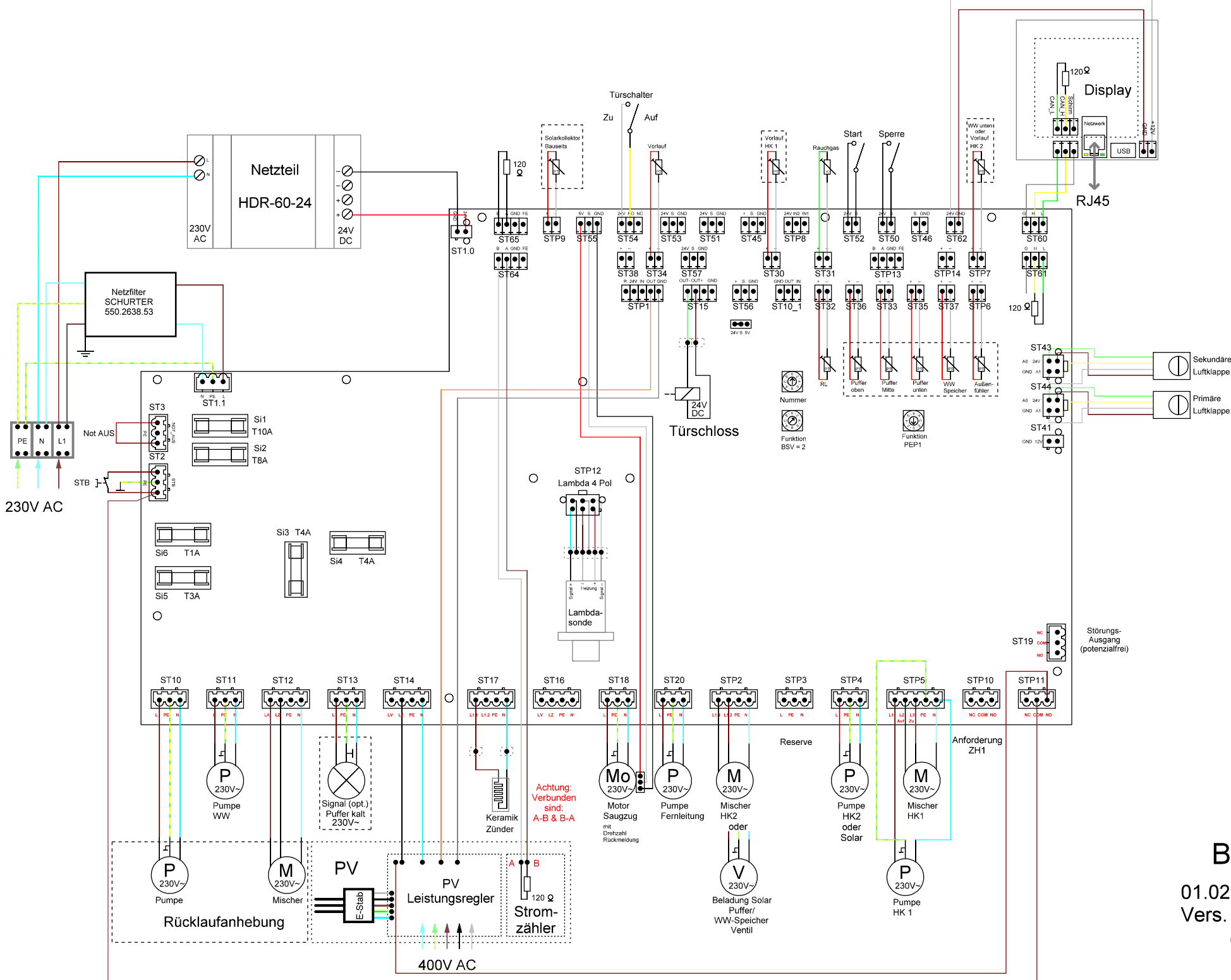
Im BPH
Platinen-Kasten

- BPH STP13 B
- BPH STP13 A
- BPH STP14 GND
- BPH STP14 +24V

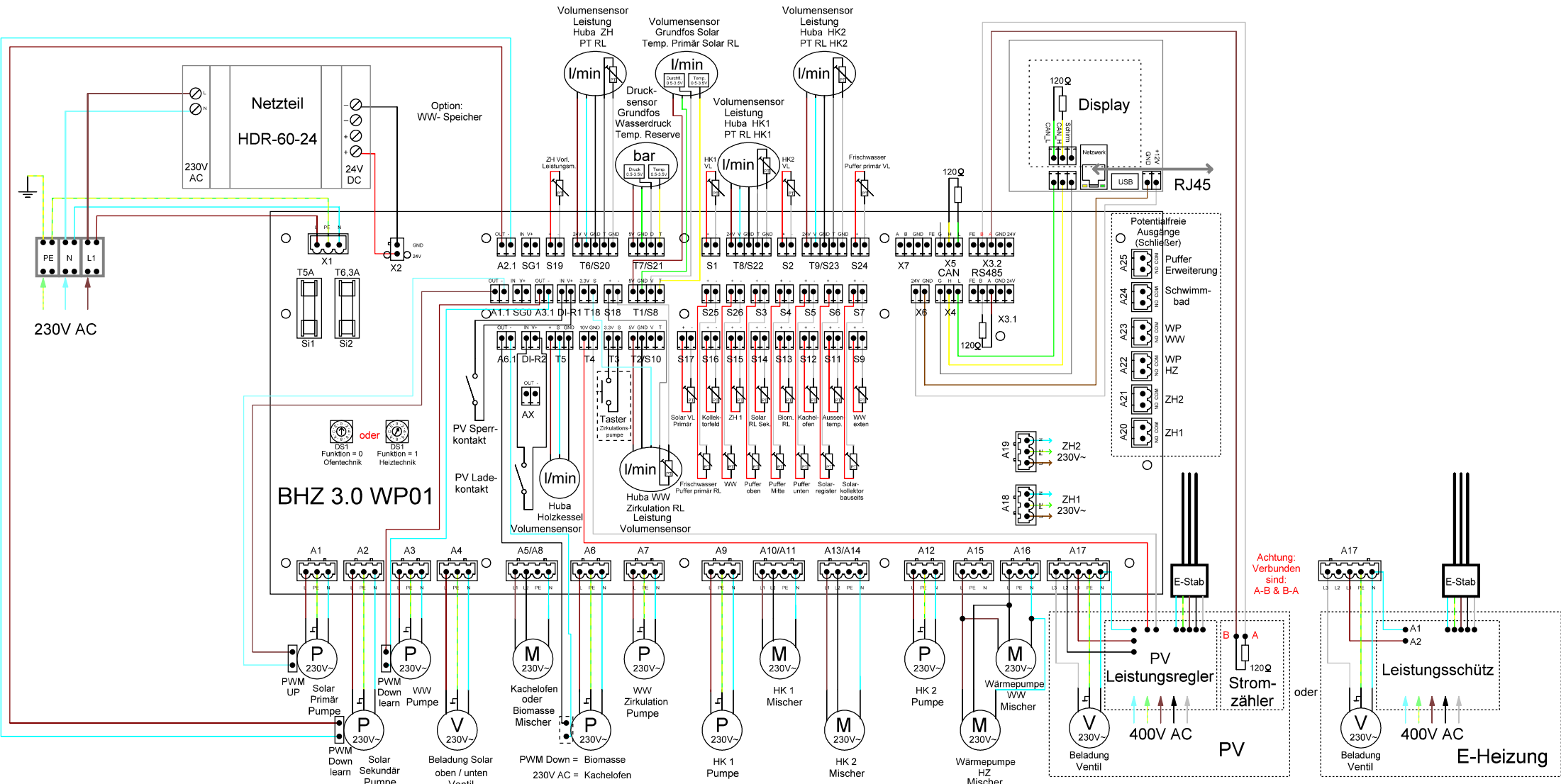
Im Pelletkessel
Platinen-Kasten

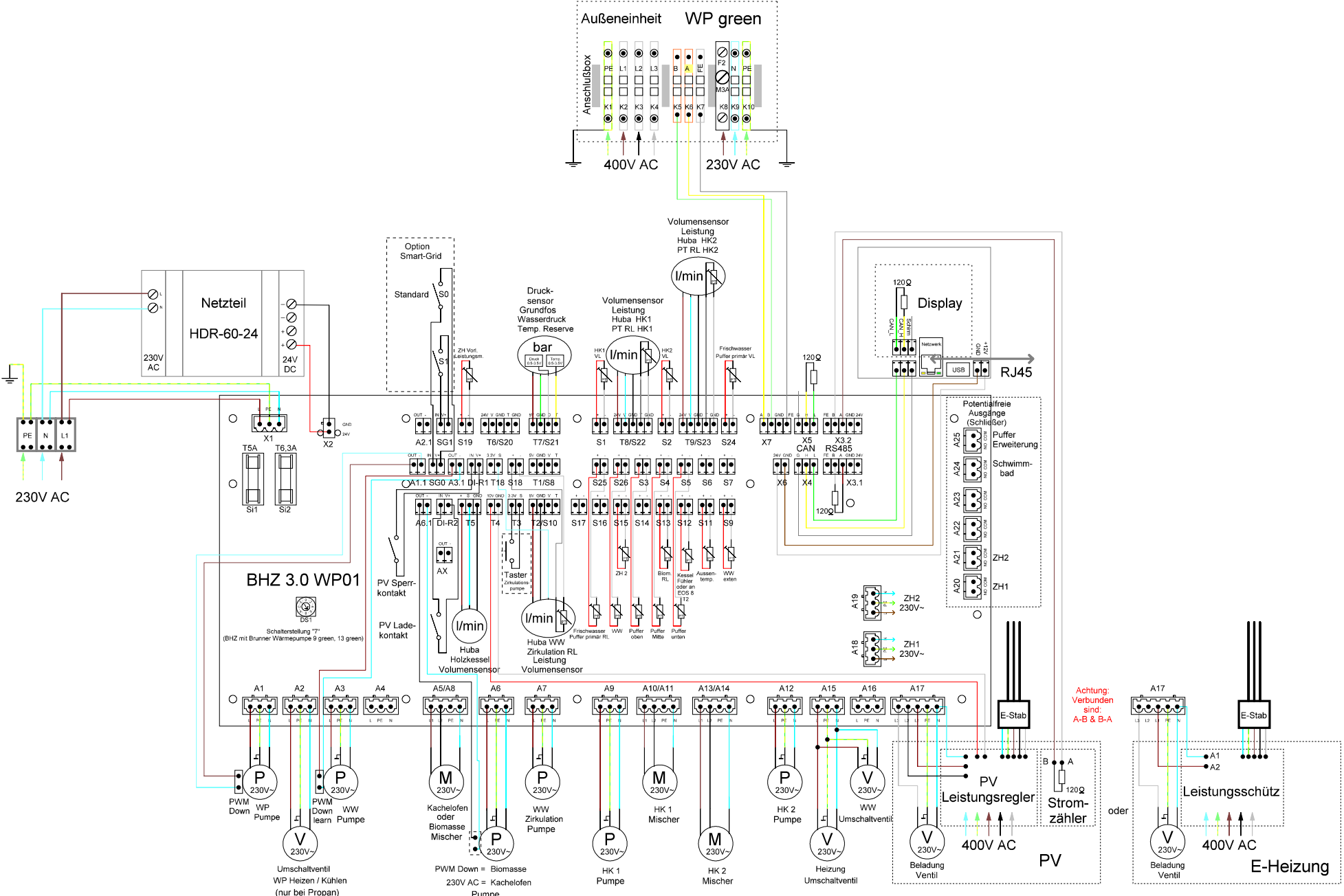
- Pelletkessel STP11 B
- Pelletkessel STP11 A
- Pelletkessel STP5 GND
- Pelletkessel STP5 24V

FE (Schirm nur einseitig)



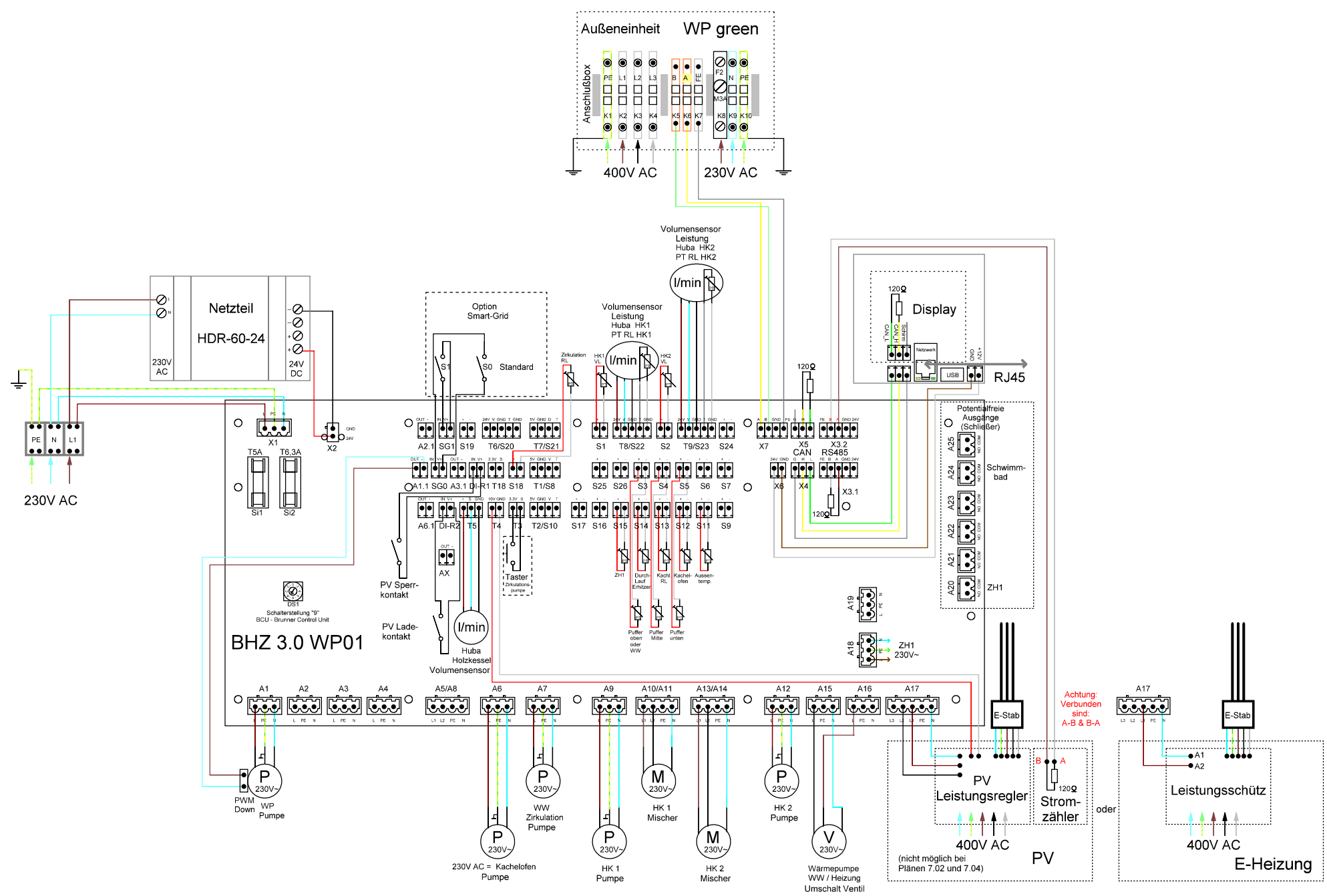
BSV
 01.02.2022 M.G.
 Vers. 1.0
67

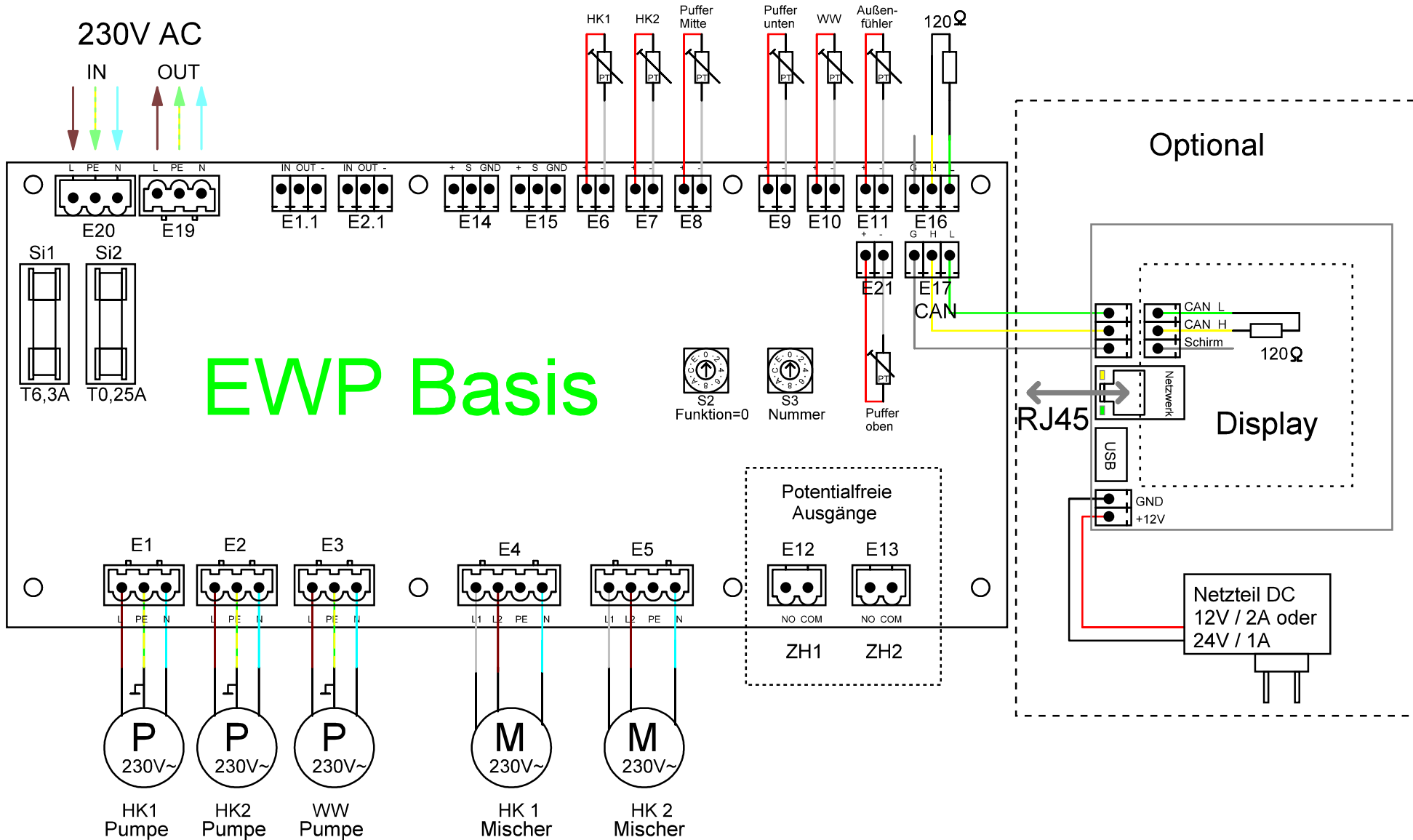




Brunner BHZ WP Propan

09.07.2024 M.G.
Vers. 1.5





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EWP Basis

01.02.2022 M.G.

Vers. 1.0

Volumensensor

Huba

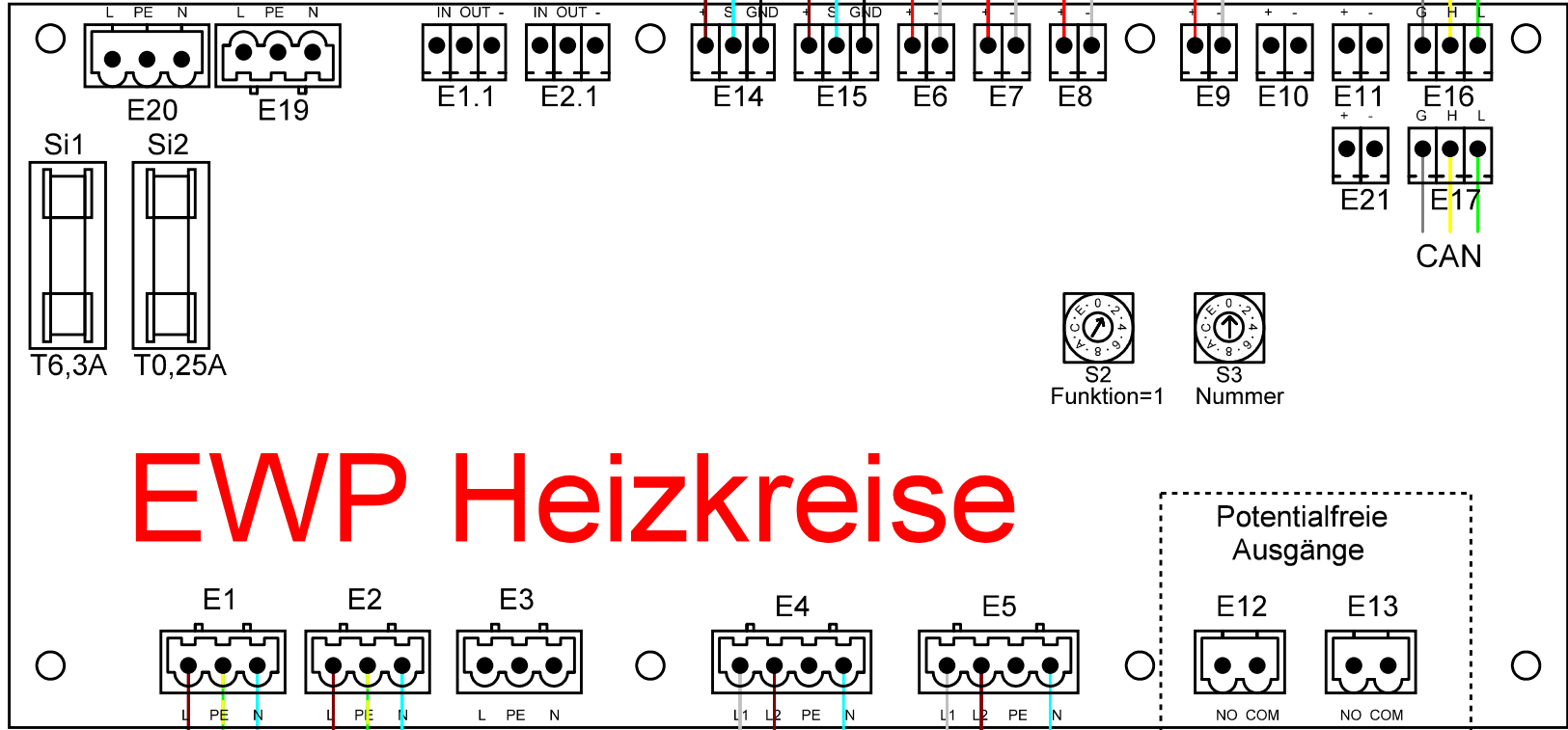
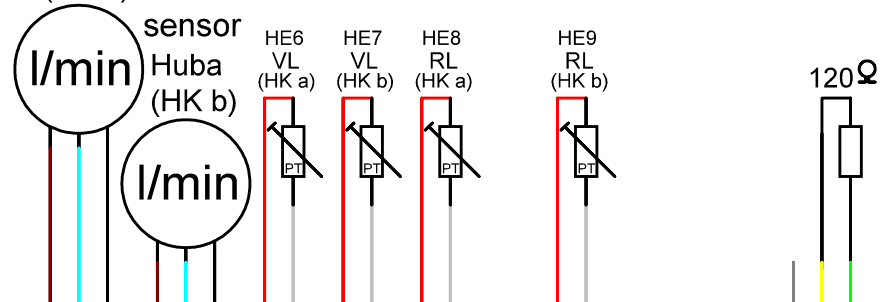
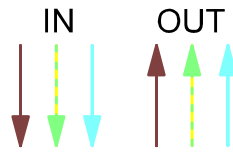
(HK a) Volumen-

sensor

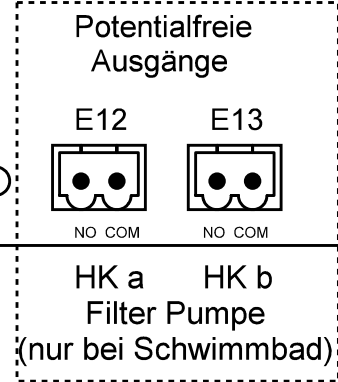
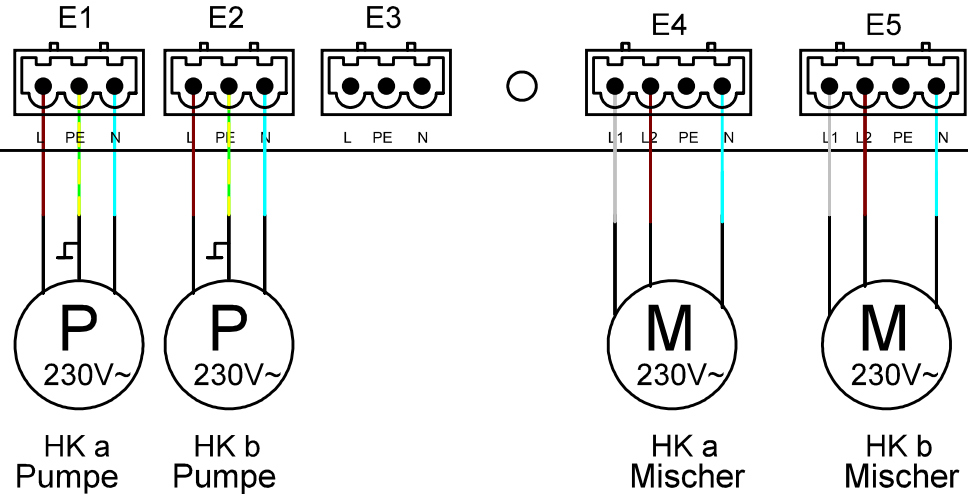
Huba

(HK b)

230V AC



EWP Heizkreise



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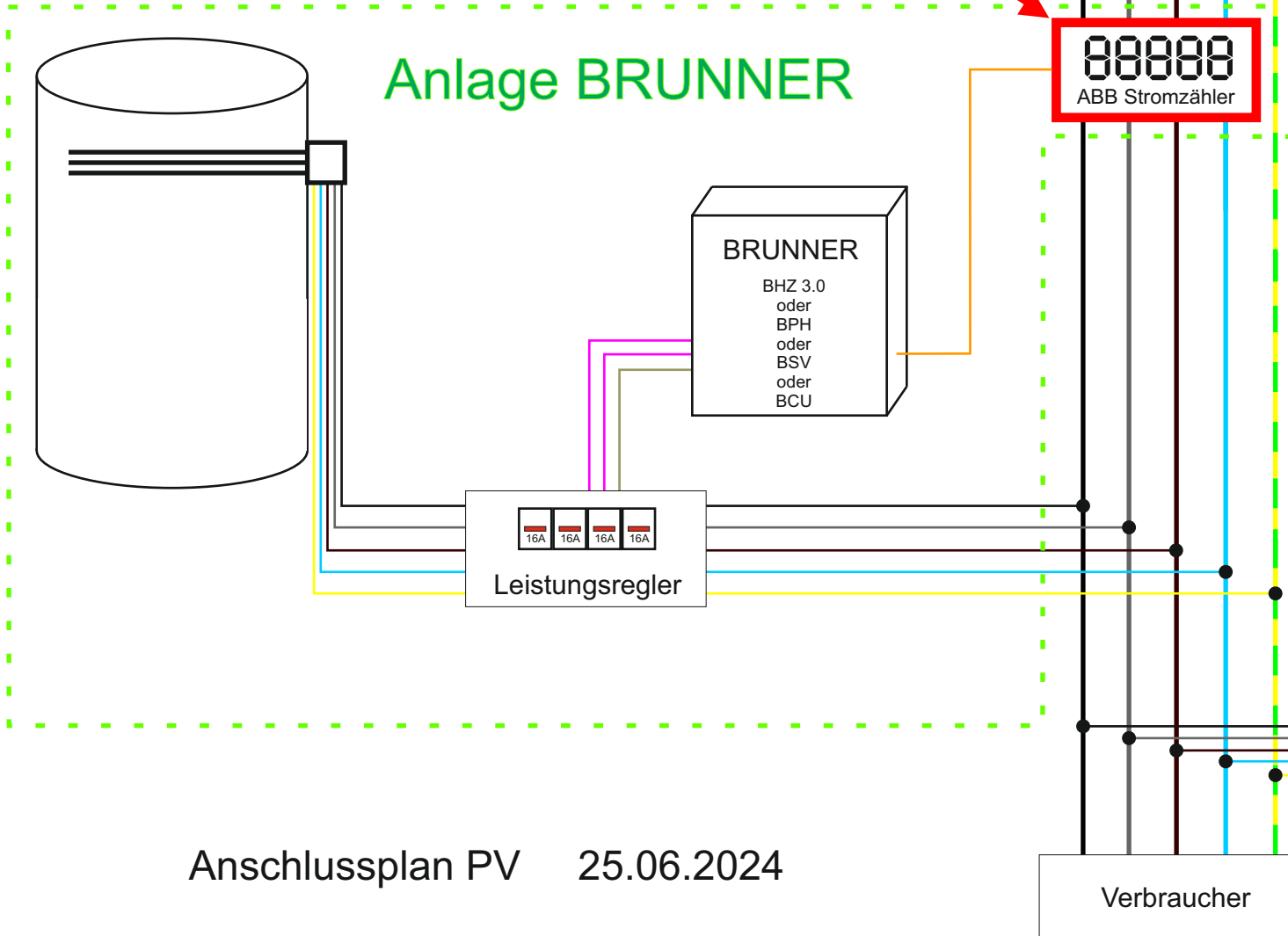
EWP Heizkreise

01.02.2022 M.G.
Vers. 1.0

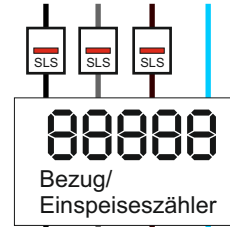
Achtung! Der ABB Zähler muss in der Reihe, direkt nach dem Hauptzähler (Bezug/Einspeisezähler) angeschlossen werden.

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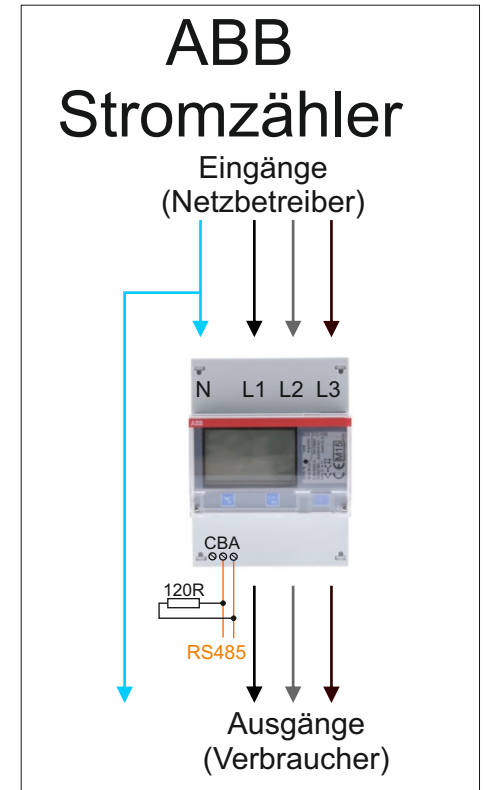
Anlage BRUNNER



Netzbetreiber

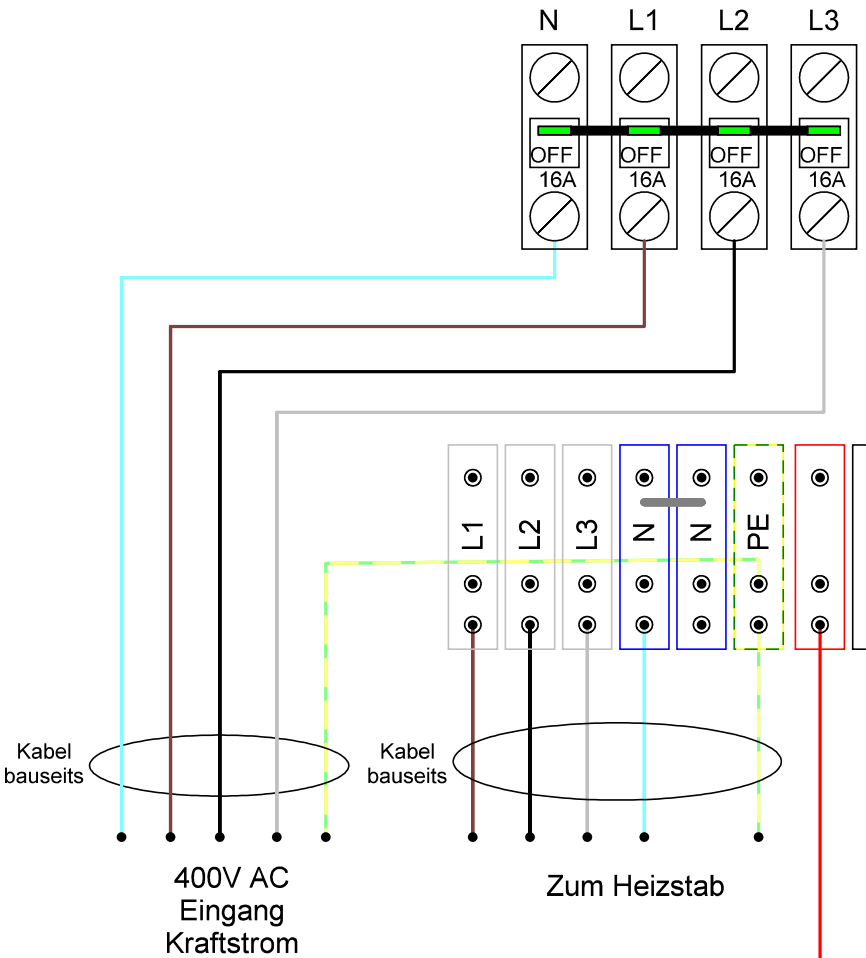
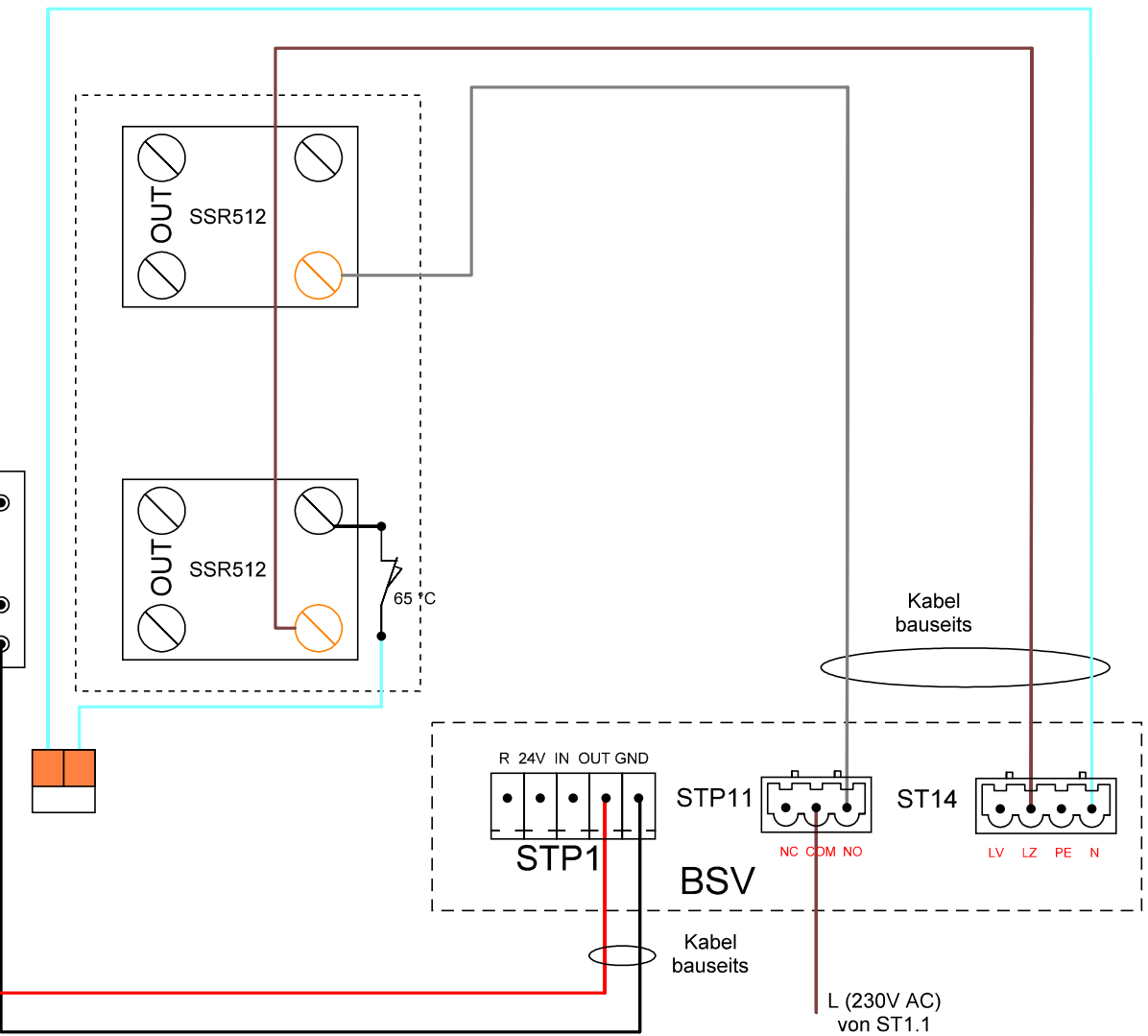


Der ABB Stromzähler ist werkseitig programmiert:
(Prot=Modbus, Baud=9600, Adresse=1, Parität=None)
Die Einstellungen dürfen nicht verändert werden!

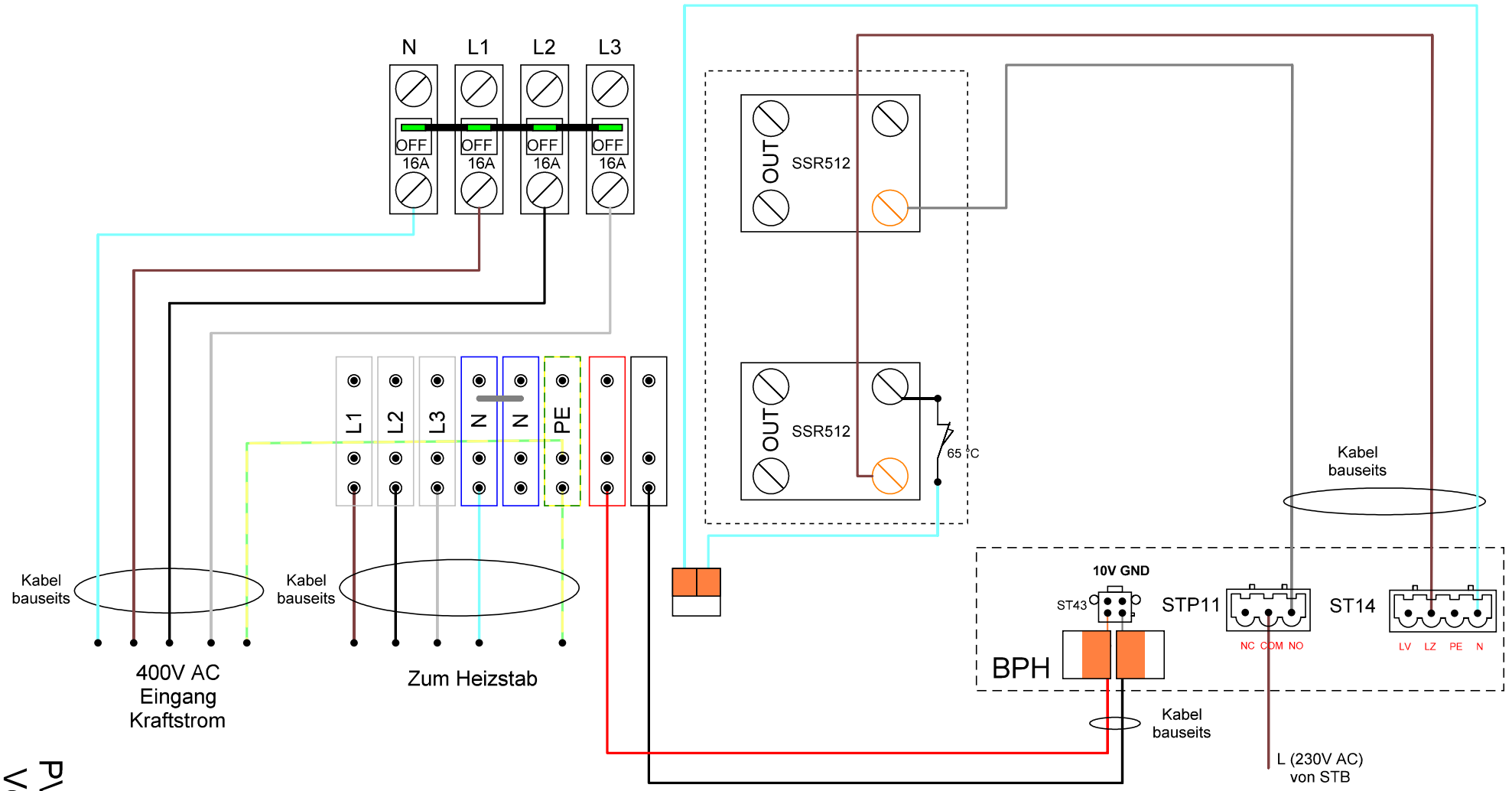


Anschlussplan PV 25.06.2024

Verbraucher



PV Leistungsregler
Verdrahtungsplan
BPH

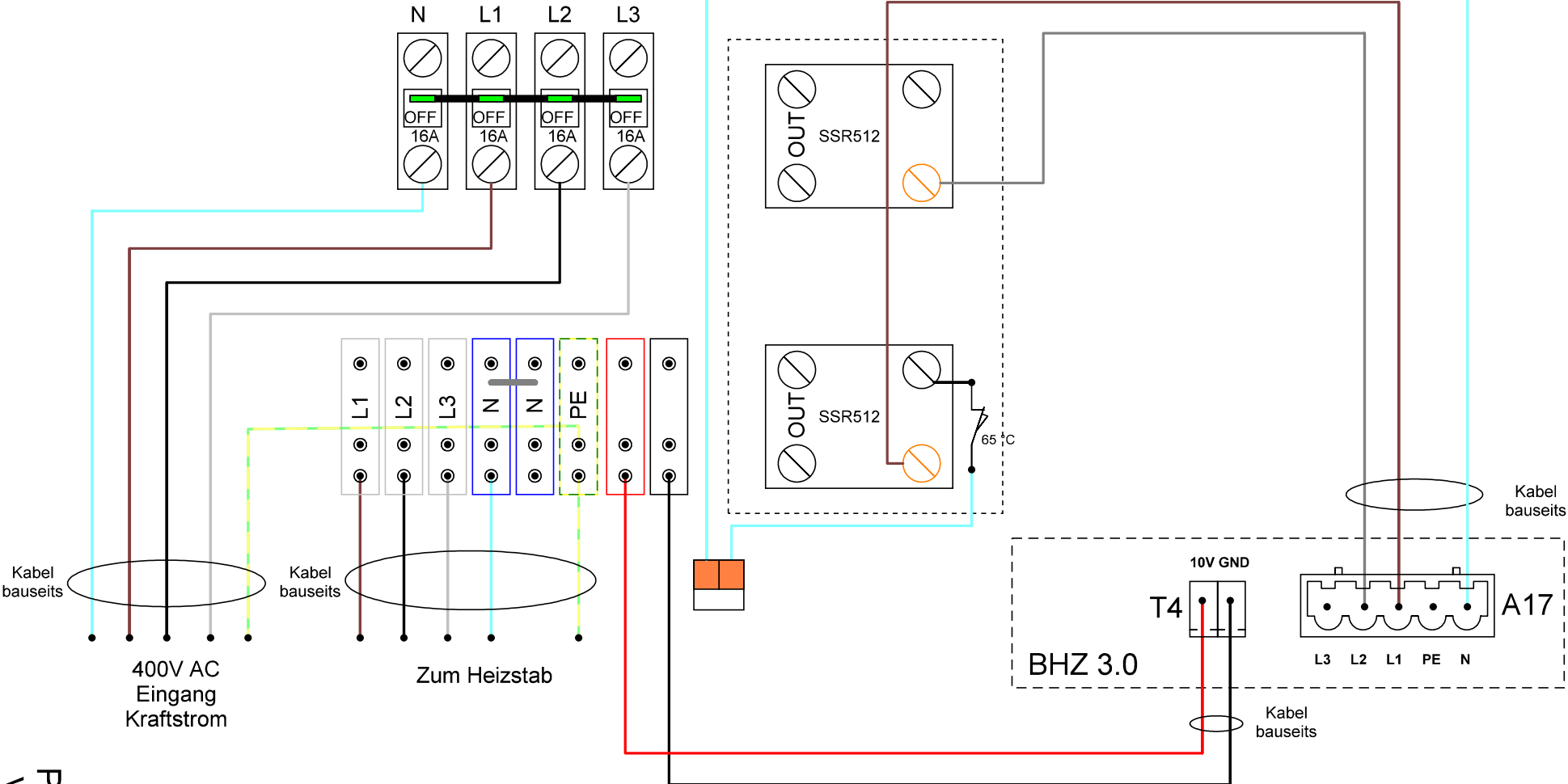


Kabel bauseits
400V AC
Eingang
Kraftstrom

Kabel bauseits
Zum Heizstab

10V GND
ST43
BPH
Kabel bauseits
STP11
NC CDM NO
ST14
LV LZ PE N
L (230V AC)
von STB

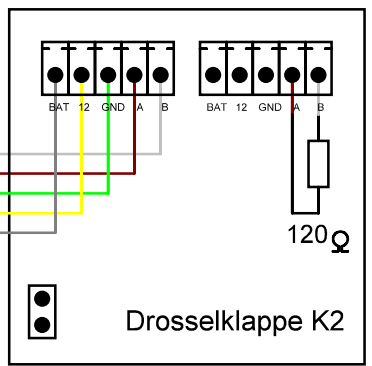
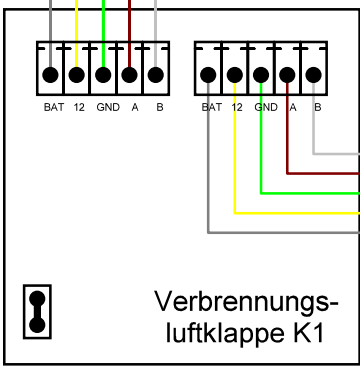
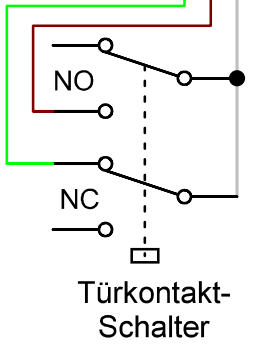
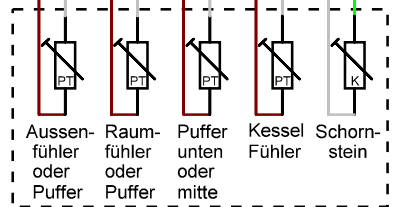
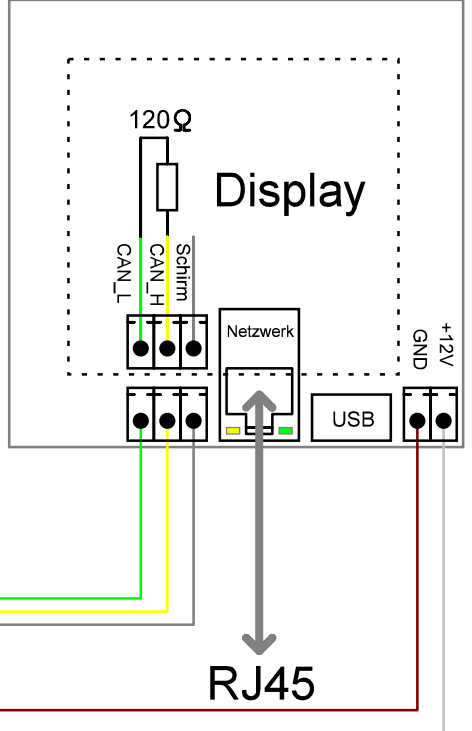
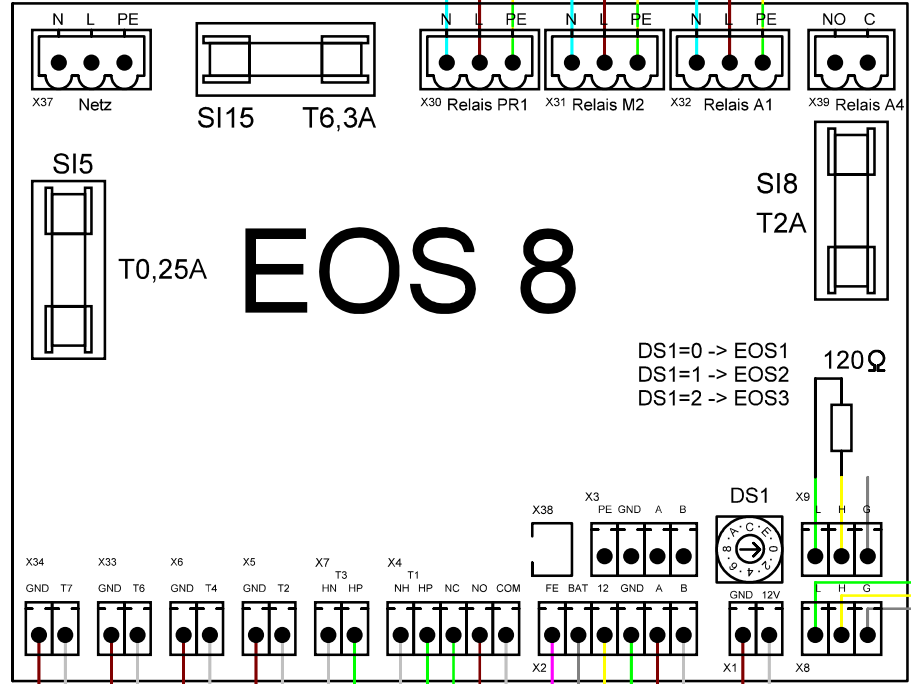
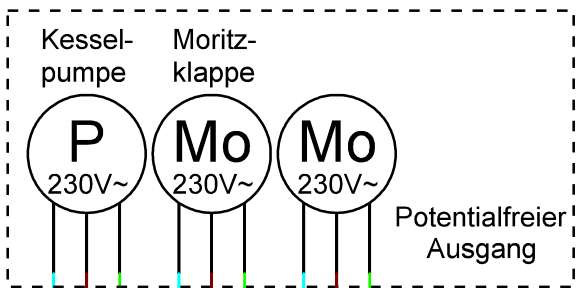
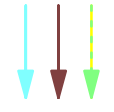
Kabel bauseits



PV Leistungsregler
Verdrahtungsplan
BHZ3.0

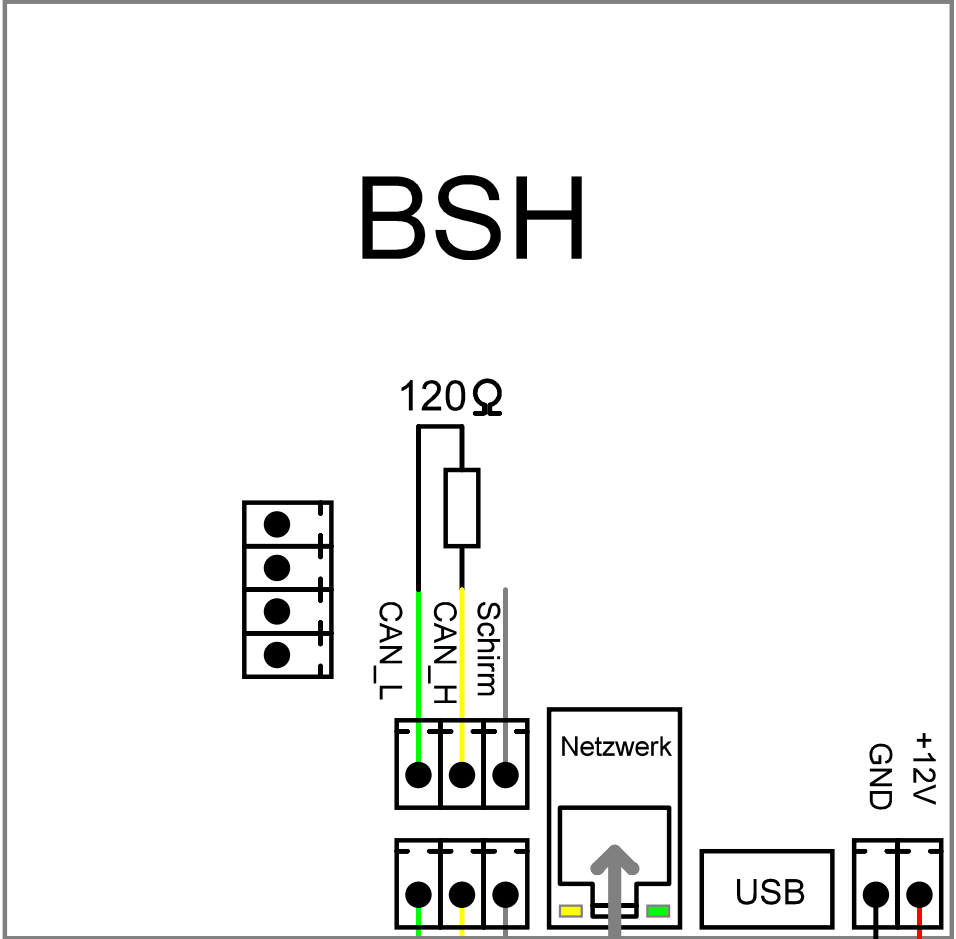
26.06.2024 M.G.
Vers. 1.5

230V AC



01.02.2022 M.G.
Vers. 1.0

EOS 8



BSH

120Ω

CAN_L
CAN_H
Schirm

Netzwerk

USB

+12V
GND

Die Spannungsversorgung kann auch von der: BHZ oder BCU oder BSV oder BPH erfolgen.

Netzteil DC
12V / 2A oder
24V / 1A

Option

RJ45

BSH (Brunner Smart Home)
zu: BHZ oder BCU oder BSV oder BPH

BSH

26.06.2024 M.G.
Vers. 1.0