



System storage tank

SONNENTANK PRO CLEAN

Simple

Hygienic domestic water treatment in a continuous heating process by means of an integrated corrugated DN40 stainless steel pipe.

Efficient

Quick charging via the SONNENBOOSTER and/or BL25 charging station.

Extra

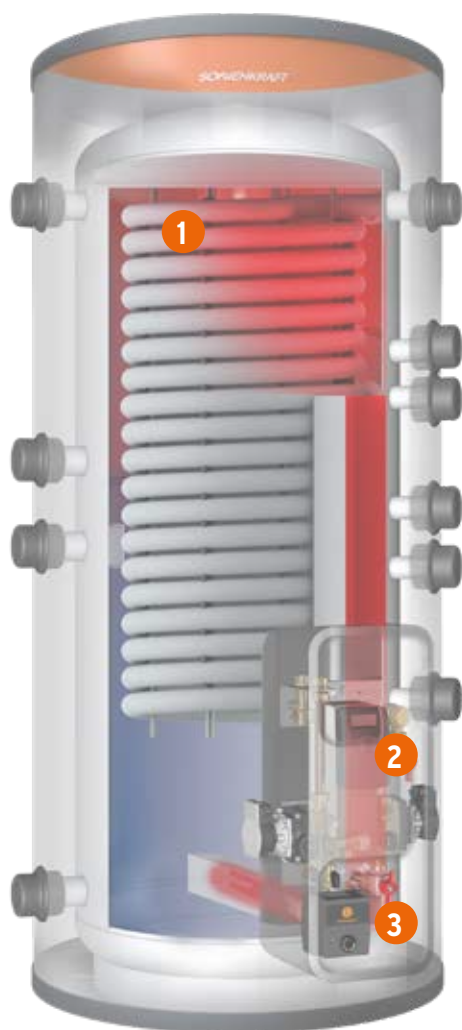
4 pcs. connections (IG 2") for combination with heat pump.



Ideal combination with solar power and heat pump.

SONNENTANK SYSTEM STORAGE TANK**ADDITIONAL STORAGE TANK**

		SOTPC500	SOTPC800	SOTPC1000	SOTPC1500	SOTB800	SOTB1000
Storage tank volumes	l	525	800	1000	1500	800	1000
Diameter, insulated	mm	900	990	990	1200	990	990
Diameter, uninsulated	mm	700	790	790	1000	790	790
Content corrugated service water pipe	l	45	55	55	110	55	60
Length	m	24	29	29	58	-	-
Surface	m ²	6.19	7.48	7.48	14.9	-	-
Cold/hot water connection	Type	1" IG	1" IG	1" IG	1" IG	-	-
Height, insulated	mm	1705	1805	2205	2130	1805	2205
Height, uninsulated	mm	1627	1726	2126	2052	1726	2126
Tilted dimension	mm	1660	1775	2180	2150	1775	2180
Weight	kg	140	165	188	280	135	158
perm. operating pressure for heating	bar	3	3	3	3	3	3
perm. operating pressure for solar	bar	10	10	10	10	10	10
perm. operating temperature for heating	°C	95	95	95	95	95	95
perm. operating pressure for solar	°C	110	110	110	110	110	110
Energy efficiency class		C	C	C	C	C	C
Loss on heating	Wh/d	116	134	145	168	134	145

**1****DN40 STAINLESS STEEL PIPE**

Hygienic domestic water treatment in a continuous heating process by means of an integrated corrugated DN40 stainless steel pipe. This results in high hot water volumes. At a storage temperature of 60° C and a pouring rate of 20 l/ min, up to 630 litres of hot water can be tapped at a temperature of 40° C.

2**CHARGING MODULE**

The optimum heat transfer at the plate heat exchanger and the speed-controlled pump maximise the solar yield. The space-saving installation on the SONNENTANK system storage tank reduces the installation time. The pre-programmed STRG Omega two-circuit controller enables easy commissioning.

3**SONNENBOOSTER**

Your solar power surplus is stored with the SONNENBOOSTER sun booster in the SONNENTANK system storage tank. Example of maximum solar power storage: You have a 1000 L SONNENTANK with a fresh water station that you heat up to 40 °C with your heat pump with a good COP. With the SONNENBOOSTER, you can load this up to 85 °C.

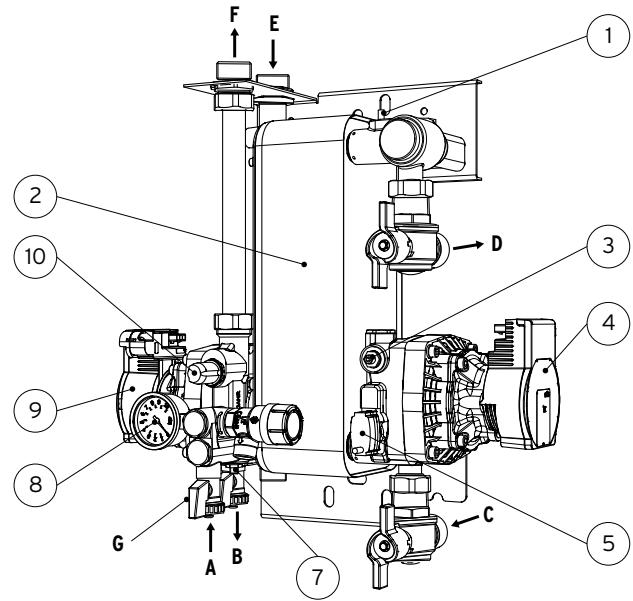
This means: $1000 \text{ L} \times 45 \text{ °C temperature difference to max. } 85 \text{ °C} \times 1.16 / 1000 = 52 \text{ kWh}$. You can therefore store up to 52 kWh of solar power.

BL25ST charging station

2

BL25ST

Dimensions (W x H x D)	mm	330 x 730 x 290
Cover		EPP black
Weight	kg	19
Solar control unit		STRGO
Maximum operating pressure for collector circuit / buffer circuit	bar	6 / 3
Solar pump	Type	Para HU 25/7.0 / PWM2
Nominal voltage	VAC/Hz	230/50
Nominal power	W	3-45
max. delivery height	m	max. 7
Buffer charge pump		Para HU 25/7.0 / PWM2
Nominal voltage	V/Hz	230/50
Nominal power	W	3-45
max. delivery height	m	max. 7
Plate heat exchanger		Glycol/water
Power	kW	15
Input temperature	°C	60 °C (glycol) / 29 °C (water)
Output temperature	°C	35 °C (glycol) / 54 °C (water)
Flow rate	kg/h	500



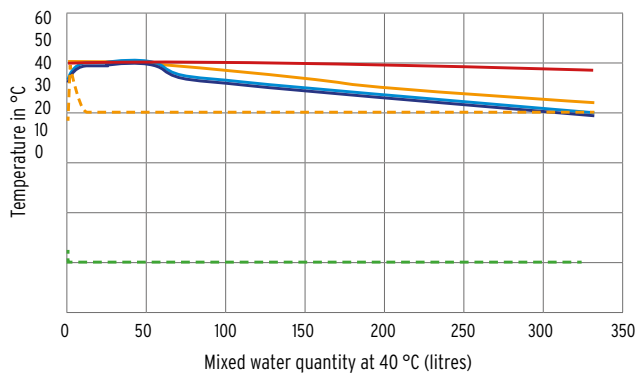
COMPONENTS

- 1 Buffer flow temperature sensor
- 2 Heat exchanger
- 3 Buffer circuit control valve
- 4 Buffer charge pump
- 5 Buffer circuit flow meter
- 6 Overpressure valve 6 bar
- 7 Solar circuit return control valve
- 8 Pressure gauge
- 9 Solar pump
- 10 Solar circuit flow meter

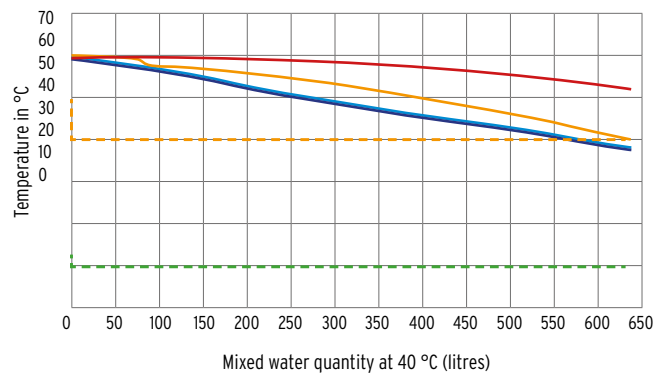
CONNECTIONS

- A** Solar filling nozzle - G3/4" AG
- B** Solar discharge nozzles - G3/4" AG
- C** Storage system tank return - G1" AG
- D** Storage system tank flow - G1" AG
- E** Solar flow - G1" AG
- F** Solar return - G1" AG
- G** Expansion tank connection

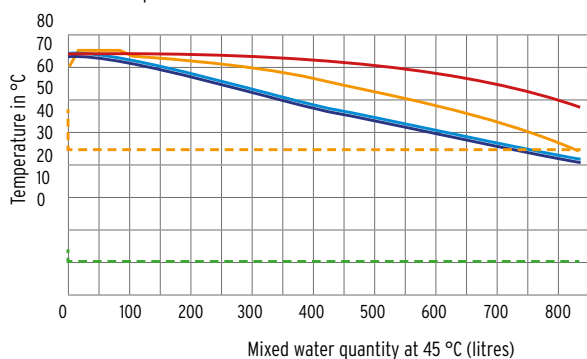
Buffer temperature 50 °C



Buffer temperature 60 °C



Buffer temperature 70 °C



- Buffer, top
 - Buffer, centre
 - Buffer, bottom
 - Storage tank hot water outlet
 - Hot water, mixed
 - Cold water
- Discharge volume at 20 l/min

3 SONNENTANK Pro Clean system storage tank SONNENBOOSTER energy manager



SYSTEM OPTIMISER with energy manager (to be installed in the control cabinet)

Control	7-stage, 750 W per stage
Control signal	Analogue mode (0-10 V control signal) and Modbus TCP
	Integrated legionella protection management
	Real-time visualisation in the home network via PC, tablet and mobile phone
Energy manager compatible with	Heat pumps (SG-ready) Inverters (e.g. SolarEdge, SMA, Kostal) Car charging stations (KEBA wall box)

SUN BOOSTER SOB0052 with 5.2 kW

Operating modes	Legionella protection Heat pump request as emergency operation Manual operation (automatic switch-off after 24h)
Heating element	Insulated design against corrosion, wired ready to plug in, easy cable connection to supplied connector plugs
Surface load	7 W/cm ² (for slight calcification)
Sensor	4 x PT1000 (Modbus TCP)
Connection	6/4" AG

- Z1 - Power supply:
Energy supply for heating elements and internal circuit boards
- Z2 - Sensors & analogue input:
Connection of external sensors and 0-10V analogue signal
- Z3 - Communication & relay signal:
Communication connection via RS485 interface
- Z4 - RJ45 connection socket:
poss. mains connection via LAN connection



3 SONNENTANK Pro Clean system storage tank SONNENBOOSTER Ohmpilot



SYSTEM OPTIMISER with Ohmpilot

Control	continuous, 0 to 9 kW
Frequency	50 Hz
Max. input current	16 A / 3 x 16 A
Input voltage	230 V / 3 x 230 V
AC output current	13 A / 3 x 13 A (I _{ac max})
Output voltage	230 V / 3 x 230 V

Prerequisite for use is a Fronius Datamanager 2.0 (to be retrofitted for non-Fronius inverters) and Fronius Smart Meter

SONNENBOOSTER SOB0075 with 7.5 kW

Operating modes	continuous control via Ohmpilot
Heating element	Insulated design against corrosion, wired ready to plug in, easy cable connection to supplied connector plugs
Surface load	7 W/cm ² (for slight calcification)
Connection	Standard flange 6/4" AG



Functional diagram POWER2HEAT Combination with SONNENTANK & Ohmpilot

