

Factsheet Cowa COMPACT Cell Kombi

The most compact combi storage in the world



Cowa COMPACT Cell Kombi

Wide	600	mm
Deep	680	mm
Hight	1400	mm
Weight	2x 260	kg
Total storage capacity ¹	24	kWh
Storage capacity DHW ²	13	kWh
Storage capacity ³ Buffer with surplus	11	kWh
Storage capacity per m ³ (without insulation)	75	kWh/m ³
Storage capacity per m ³ (with insulation)	45	kWh/m ³
Tapping volume V ₄₀ partial charge	400	L
Tapping volume V ₄₀ full charge	700	L
Possible water volume flow unloading circuit	20	L/min
Possible water flow rate charging circuit	20	L/min
Minimum operating pressure	1.5	Bar
Maximum operating pressure	8	Bar
Maximum operating temperature	75	°C
Preasure loss at max. volume flow	60	kPa

[1] Storage capacity calculated from state of charge > 65°C to temperature at outlet < 30°C.
 [2] Storage capacity calculated from state of charge > 65°C to temperature at outlet < 40°C.
 [3] Storage capacity calculated from state of charge > 55°C to outlet temperature < 30°C.

Functional description:

The Cowa COMPACT Cell 45 and Cowa COMPACT Cell 58 can be connected hydraulically correctly as a combi storage and form the Cowa COMPACT Cell Kombi as a unit.

When fully charged – e.g. during the day when there is a PV surplus or to increase the tapping capacity – both the cold Cowa COMPACT Cell 45 and the hot Cowa COMPACT Cell 58 are activated.

The heat can be provided both for heating the building via the mixed heating group and for hot water. In this case, the mixed group prevents overloading of the entire building.



Hydraulic integration

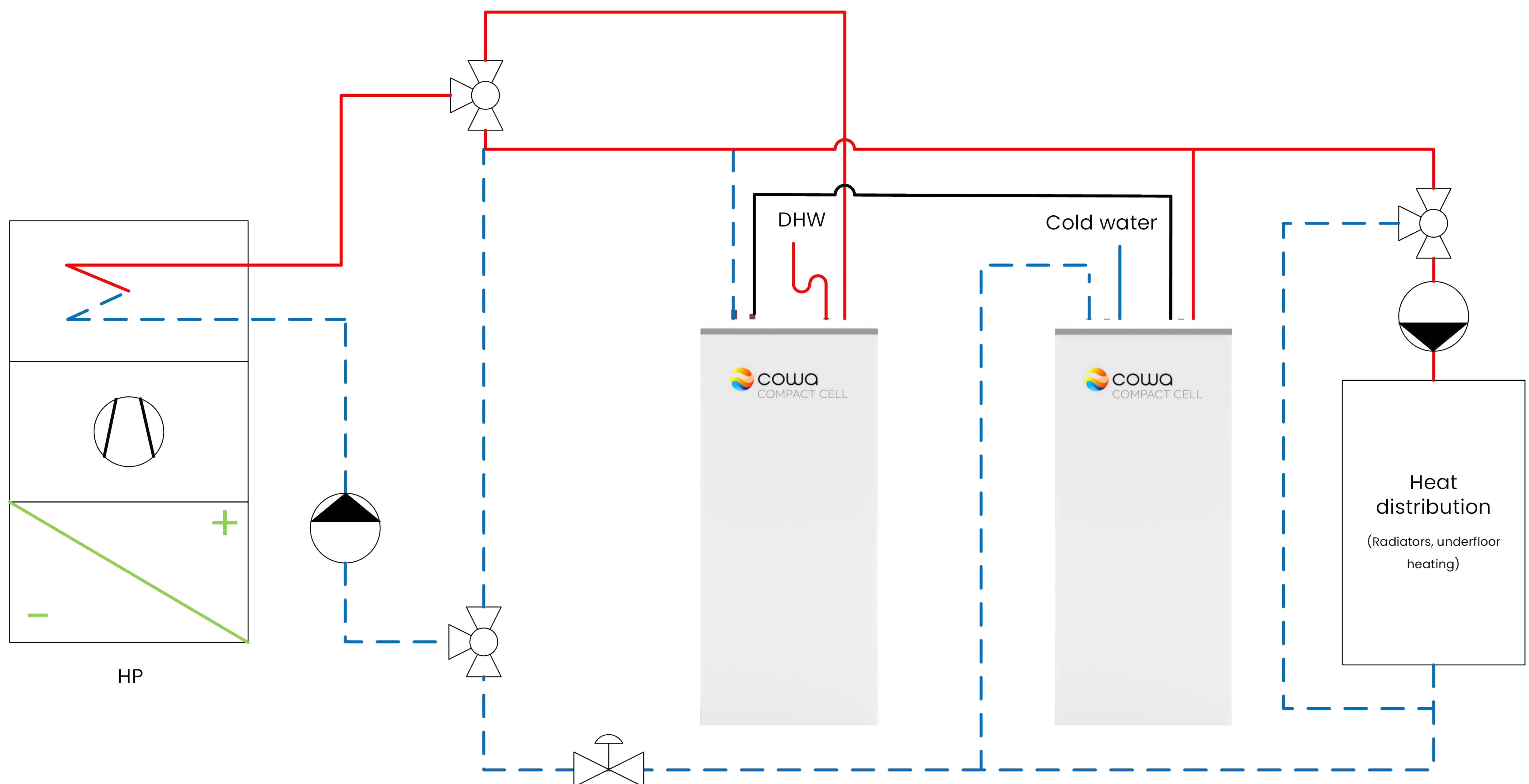


Figure 1: Hydraulic integration of the Cowa COMPACT Cell Kombi (WPSM 1.8)

In this configuration, the Cowa COMPACT Cell Kombi can provide up to 700 litres of hot water in the smallest of spaces and on demand. Similar to a conventional hygiene storage, the fresh water is provided using the instantaneous water heater principle.

In regular heating mode, the cold cell serves as a hydraulic separator, but offers a higher thermal inertia. Its capacity corresponds to a parallel buffer storage with a volume of around 50 litres, which is sufficient to store enough thermal energy for defrosting and to reduce the number of switching cycles.

The warm cell stores energy for the hot water supply according to the continuous flow principle, whereby it can heat up to 400 litres of water to 40 degrees Celsius when fully charged. Similar to a conventional hygienic storage tank, the fresh water is preheated in the cold cell.

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