

The DAIKIN ALTHERMA heat pump in combination with the optional domestic hot water tank provide hot water for household usage. The below mentioned date allow a proper selection of the domestic hot water tank size for maximum comfort and efficiency.

(1) Capacity:

	EKHTS*200	EKHTS*260
Total capacity (L)	210	258
Actual capacity (L)	193,5	250,5

Total capacity = internal volume of tank(= effective water volume+ coil volume)

Actual capacity=effective water volume inside the tank

(2) Maximum volume of usable hot water:

The volume of hot water available for domestic usage depends on the physical volume of the tank, on the domestic water setpoint temperature and on the temperature spreading in the tank.

Definition:

Maximum volume of usable hot water = the volume of hot water available for domestic usage at a temperature of 40°C.
40°C is considered a comfortable domestic hot water temperature. (cold water inlet temp = 10°C)

Tank	Setpoint temp.	Maximum volume of usable hot water	Tapping pattern*			
			Small	Medium	High	very high
EKHTS*200	40	190	+++	+	-	-
	50	255	+++	++	-	-
	60	320	+++	+++	-	-
	70	385	+++	+++	+	-
EKHTS*260	40	250	+++	++	-	-
	50	330	+++	+++	-	-
	60	415	+++	+++	++	-
	70	500	+++	+++	++	+

- Grade +++ more than excessive availability of sanitary hot water (more than 40% of EHWV is still available after tapping pattern)
- ++ Excessive availability of sanitary hot water. (10%< EHWV still available after tapping pattern<40%)
- + Sufficient availability of sanitary hot water. (EHWV still available after tapping pattern <10%)
- Temporary shortage of sanitary hot water can occur.

- Tapping pattern****
- Small** Daily demand up to 90l -> typical 1-person daily usage pattern
 - Medium** Daily demand up to 190l -> typical 2-persons daily usage pattern
 - High** Daily demand up to 370l -> typical 3 to 4 persons daily usage pattern
 - very high** Daily demand up to 500l -> 5 to 6 persons daily usage pattern

* based upon heat up to tank once / 24 hours

** Heat losses (over 24 hrs) are included in the tapping patterns

(3) Standing Heat loss:

Tank	Heat losses [kWh/24h]
EKHTS*200	1.2
EKHTS*260	1.5

* heat loss of tank at $\Delta T = 45K$

(4) Heat-up time:

Definition:

Heat-up time = The time is required to heat up the domestic hot water tank from 15°C to 60°C (minutes)

Tank	Heat-up time <min>		
	EKHBRD11	EKHBRD14	EKHBRD16
EKHTS*200	60	50	40
EKHTS*260	70	60	50

conditions for testing: Ta = 7°CDB / 6°CWB, TStart = 15°C

(5) Reheat time:

Definition:

Reheat time = The time required to reheat the domestic hot water tank back to 60°C after tapping 70% of the actual volume.

Tank	Reheat time <min>		
	EKHBRD11	EKHBRD14	EKHBRD16
EKHTS*200	50	40	30
EKHTS*260	60	50	40

Starting condition before tapping 70% of volume: tank at 60°C

conditions for testing: Ta = 7°CDB / 6°CWB, TCold = 15°C