Thermia Atria
Atria Duo

The air heat pump that retrieves energy at temperatures down to -20 °C.

The **Thermia Atria** is an efficient and reliable air heat pump. The high annual efficiency, which is a measurement of the heat pump's efficiency over the whole year, means that you can reduce your heating costs by up to 75 percent.

Energy can be retrieved from outdoor air at temperatures down to -20 °C. Electric heating elements provide additional heat at temperatures lower than this. This extra heat is provided in five steps (3, 6, 9, 12 and 15 kW) to give economically sound heating.

The heat pump consists of two units. All essential components are indoors. Demand-controlled defrosting for the outdoor components minimises energy consumption.

The hot water tank is fitted with our TWS* technique, which means that the hot water is produced faster and at higher temperatures than with traditional technique.

The **Thermia Atria Duo** is a variant of Thermia Atria. What separate them is that the Thermia Atria Duo has a separate hot water tank which makes it a good choice if you have a low ceiling height.

* TWS = Patented heating technique for water heaters, developed by Thermia.

Atria

Atria Duo

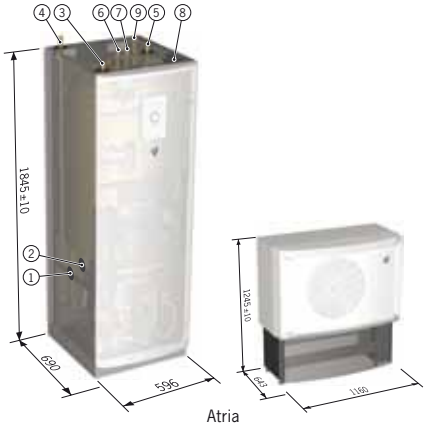
RETAILER:

Technical data Atria
Atria Duo

Connection Atria

The brine lines can be connected on either the left or right-hand sides of the heat pump.

1. Brine return line (Brine in), 28 Cu
2. Brine supply line (Brine out), 28 Cu
3. Heating system supply line, 22 Cu: 6-10 kW, 28 Cu: 12 kW
4. Heating system return line, 22 Cu: 6-10 kW, 28 Cu: 12 kW
5. Connection for bleed valve, 22 Cu
6. Hot water pipe, 22 mm
7. Cold water pipe, 22 mm
8. Lead-in for incoming power supply, sensors and communication cable
9. Expansion outlet brine circuit, DN25 int.



Atria

Connection Atria Duo

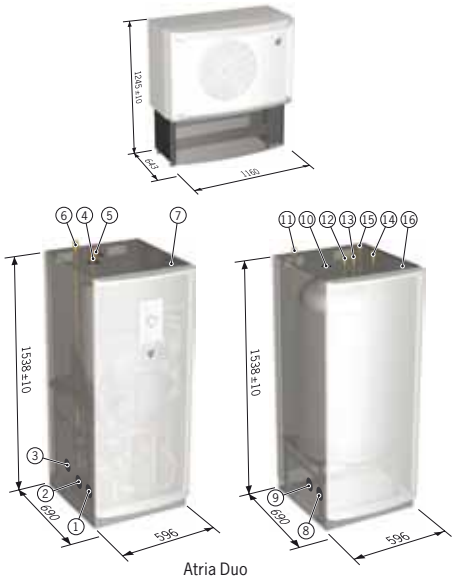
The brine lines can be connected on either the left or right-hand sides of the heat pump.

Heat pump:

1. Brine out, during defrosting, 28 Cu
2. Return pipe water heater, 28 Cu
3. Brine in
4. Heating system supply pipe, 22 Cu: 6-10 kW, 28 Cu: 12 kW
5. Heating system return pipe, 22 Cu: 6-10 kW, 28 Cu: 12 kW
6. Brine out, normal operation
7. Lead-in power and sensor lead

Water heater:

8. Brine in, during defrosting
9. Water heater, return pipe
10. Bleed valve, at stainless steel water heater
11. Brine out, during defrosting
12. Hot water pipe, 22 mm
13. Cold water pipe, 22 mm
14. Water heater supply pipe to TWS coil
15. Brine, expansion line when outdoor unit is positioned at high level
16. Lead-in sensor lead



Atria Duo

Atria/Atria Duo			6	8	10	12
Refrigerant	Type		R404A	R404A	R404A	R404A
	Amount	kg	0.95	1.45	1.50	1.60
Compressor	Type		Scroll	Scroll	Scroll	Scroll
Electrical data 3-N, ~50Hz	Main supply	Volt	400	400	400	400
	Rated power compressor	kW	3.0	3.2	4.2	5.0
	Rated power circulation pumps/fan	kW	0.4	0.6	0.6	0.7
	Auxiliary heater, 5 steps	kW	3/6/9/12/15	3/6/9/12/15	3/6/9/12/15	3/6/9/12/15
	Start current [13]	A	9	10	12	14
	Fuse	A	10[3]/16[4]/20[5]/20[6]/ 25[7]/25[8]/30[9]	16[3]/16[4]/20[5]/20[6]/ 25[7]/25[8]/30[9]	16[3]/16[4]/20[5]/20[6]/ 25[7]/30[8]/35[9]	16[3]/20[4]/25[5]/25[6]/ 25[7]/30[8]/35[9]
Electrical data 1-N, ~50Hz	Main supply	Volt	230	230	230	230
	Rated power compressor	kW	3.2	3.6	4.5	5.5
	Rated power circulation pumps/fan	kW	0.4	0.6	0.6	0.7
	Auxiliary heater, 3 steps	kW	1.5/3/4.5	1.5/3/4.5	1.5/3/4.5	1.5/3/4.5
	Start current [13]	A	22	24	26	28
	Fuse	A	25[3]/32[4]/40[5]	25[3]/32[4]/40[5]	32[3]/40[4]/50[5]	32[3]/40[4]/50[5]
Performance	COP [1]		3.88	4.06	4.21	4.06
	COP [2]		3.26	3.45	3.29	3.35
	Heating capacity [2]	kW	5.90	7.96	9.85	11.3
	Electrical power [2]	kW	1.8	2.3	2.9	3.3
Lowest outdoor temperature allowed for compressor start		°C	-20	-20	-20	-20
Max/min temperature	Cooling circuit	°C	20/-25	20/-25	20/-25	20/-25
	Heating circuit	°C	55/20	55/20	55/20	55/20
Anti freeze media [10]			Ethylene glycol + Water solution with a freezing point below -32 ± 1°C			
Sound power level low/high	Indoor unit [11]	dB(A)	43	48	46	48
	Outdoor unit [12]	dB(A)	53/63	53/63	54/67	54/67
Max. pipe length (Cu pipe Ø 28 mm between heat pump and outdoor unit)		m	60 (30+30)	60 (30+30)	60 (30+30)	60 (30+30)
Water volume	Atria	l	180	180	180	180
	Water heater unit	l	180	180	180	180
Weight	Outdoor unit	kg	94	94	94	94
	Indoor unit Atria, empty	kg	260	260	260	268
	Indoor unit Atria, filled	kg	440	440	440	448
	Indoor unit Atria Duo	kg	154	154	154	162
	Water heater unit, filled	kg	352	352	352	360

The measurements are performed on a limited number of heat pumps which can cause variations in the results. Tolerances in the measuring methods can also cause variations.

1) At A7W35 Δ10 warm side (excluding circulation pumps and outdoor unit).
2) At A7W35 according to EN 14511 (including circulation pumps and outdoor unit).
3) Heat pump with 3 kW auxiliary heater (1-N 1.5 kW).
4) Heat pump with 6 kW auxiliary heater (1-N 3 kW).
5) Heat pump with 9 kW auxiliary heater (1-N 4.5 kW).
6) 12 kW auxiliary heater (compressor off).
7) 15 kW auxiliary heater (compressor off).
8) Heat pump with 12 kW auxiliary heater.
9) Heat pump with 15 kW auxiliary heater.
10) Propylene glycol or ethanol may not be used.
11) Sound power level measured according to EN ISO 3741 at A7W45 (EN 12102).
12) Sound power level measured according to EN ISO 3741.
13) According to IEC61000.