TESY

PRO

AquaThermica Compact

New range of air-to-water heat pump water heaters for domestic hot water production. The AquaThermica Compact range includes models with 100 and 150 liters of capacity for wall-hung installation.

AquaThermica Compact is an environmentally friendly product, operating with renewable energy sources resulting in minimum CO_2 emissions. It operates within a wide temperature range of incoming air, from -5ºC to 43ºC.

A+ energy class product for up to 75% lower power consumption*

Renewable Energy

Energy efficiency class A+

Low CO_2 emissions

Electronic step motor for precisely balanced refrigerant cycle

Operational temperature range -5ºC to +43ºC

60ºC DHW with the heat pump only

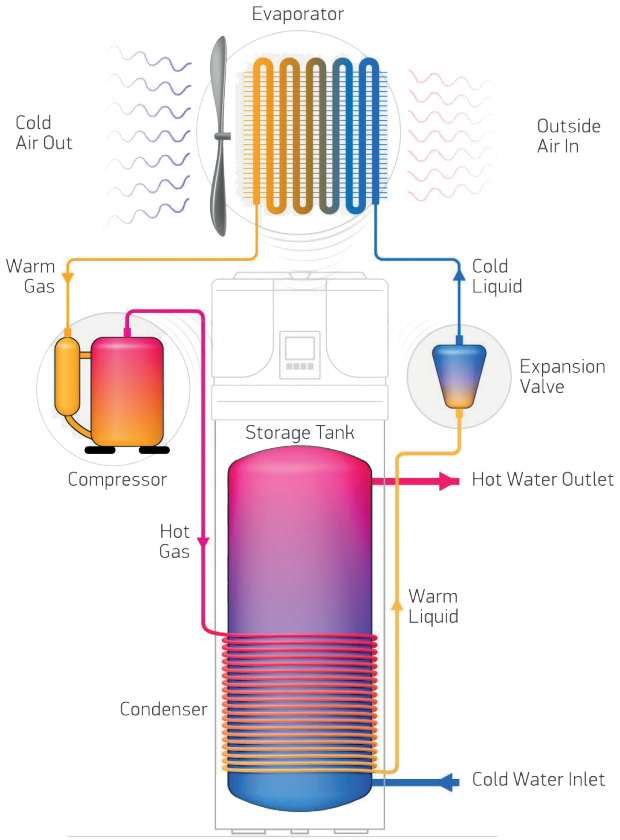
Up to 75% lower power consumption

User-friendly LED display

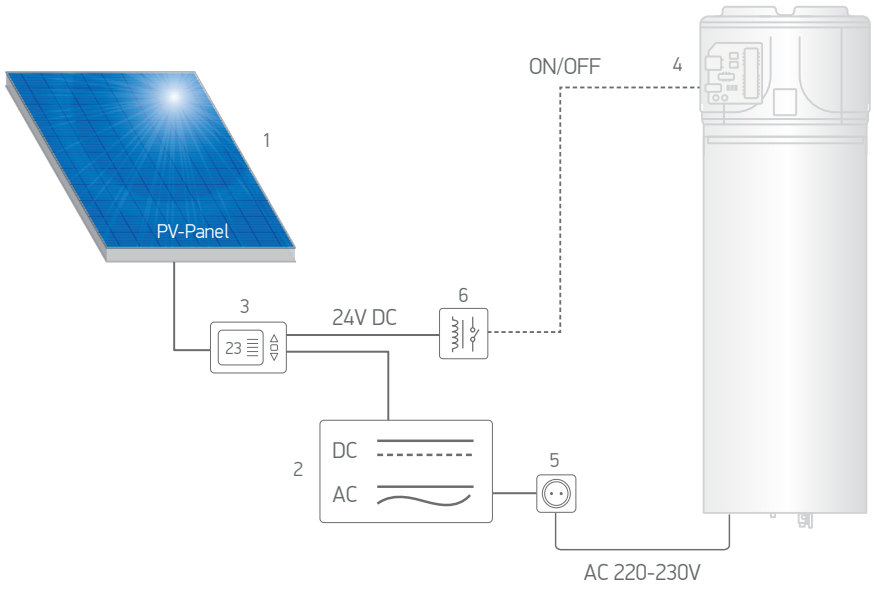
Ecological refrigerant

*Compared to a 100l electric water heater with load profile M.

OPERATING PRINCIPLE



CONNECTIVITY TO PV PANEL

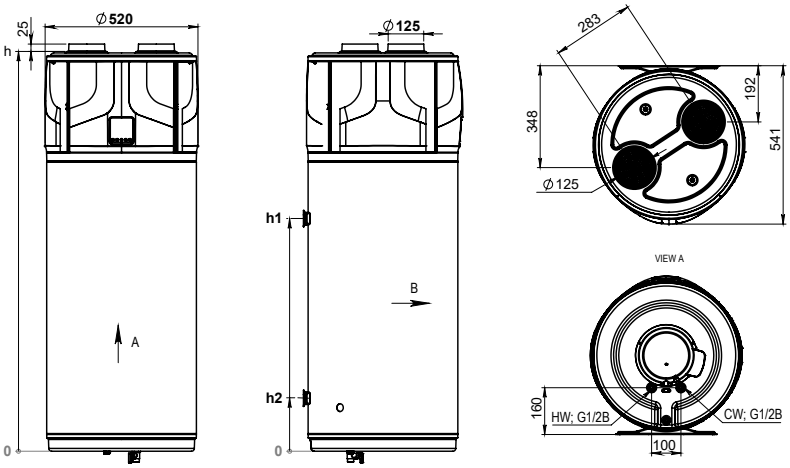


1. Photovoltaic panel
2. Invertor DC to AC
3. Control unit of PV system
4. Main PCB of the appliance
5. Main electric supply
6. Relay (normally open)

TECHNICAL DATA

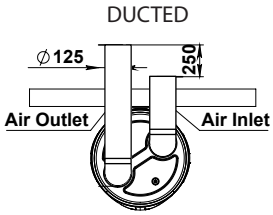
Model			AquaThermica Compact 100	AquaThermica Compact 150
SAP number		No	305766	305969
Performance data				
Load profile			M	L
Hot water temperature set point		°C	55	55
Heating up time in BOOST mode (A7/W10-55)		h:m	2:37	4:20
COP_{DHW}				
	(EN 16147:2017 – A20/W55)		3.7	3,9
	(EN 16147:2017 - A14/W55)		3.4	3,4
	(EN 16147:2017 - A7/W55)		2.8	2,8
Water heating energy efficiency / **ErP** class				
	(EN 16147:2017 – A20/W55)		A++	A++
	(EN 16147:2017 - A14/W55)	%	A++	A+
	(EN 16147:2017 - A7/W55)		A+	A+
Annual power consumption **AEC** (EN 16147:2017 - A7/W55)		kWh/a	429.3	884,2
Volume of mixed water at 40° / V40 (EN 16147:2017 - A7/W55)		l	135	178
Rated heat output; P_{rated}				
	(EN 16147:2017 – A20/W55)		0.93	0,92
	(EN 16147:2017 - A14/W55)	kW	0.79	0,80
	(EN 16147:2017 - A7/W55)		0.67	0,68
Electrical data				
Power supply		V	1/N/220-240	
Frequency		Hz	50	
Degree of protection			IPX4	
HP maximum power consumption		kW	0.330+1,500 (e-heater) = 1.83	
Electric heating element power		kW	1.5	
Maximum current of appliance		A	1.4+6.5 (e-heater) = 7.9	
Required overload protections		A	16A T fuse/ 16A automatic switch, characteristic C (to be expected during installation on power supply systems)	
Internal thermal protection			Safety thermostat with manual reset 85°C	
Operating conditions				
Min.÷ max temperature heat pump air intake (90% R.H.)		°C	-5 ÷ 43	
Min. ÷ max temperature installation site		°C	4 ÷ 40	
Working temperature				
Reference DHW temperature (EN 16147:2017)		°C	55	
Max. settable water temperature [with E-heater] (EN 16147:2017)		°C	60 [70]	
Design characteristics				
Compressor / Compressor protection			Rotary / Thermal circuit breaker with automatic reset	
Fan			Centrifugal	
	Available external pressure of heat pump	Pa	60	
	Ejection outlet diameter	mm	125	
	Nominal air capacity	m^3/h	235 (60 Pa)	
Motor protection			Internal thermal circuit breaker with automatic reset	
Condenser			Aluminium; wrapped externally, not in contact with water	
Refrigerant			R513a	
Refrigerant charge		g	760	
Global warming potential			631	
CO_2 equivalent (CO2e)		t	0.480	
Defrosting			Active hot gas defrost with "2-way valve"	
Automatic anti-Legionella cycle			YES	
Water storage capacity		l	98	143
Corrosion protection			Mg anode Ø32x270 mm; 360g	
Thermal insulation			50 mm rigid PU	
Maximum working pressure – storage tank		Bar	8	
Sound power level for outdoor; L_{wdo}		dB(A)	58	
Sound power level for indoor; L_{wi}		dB(A)	50	

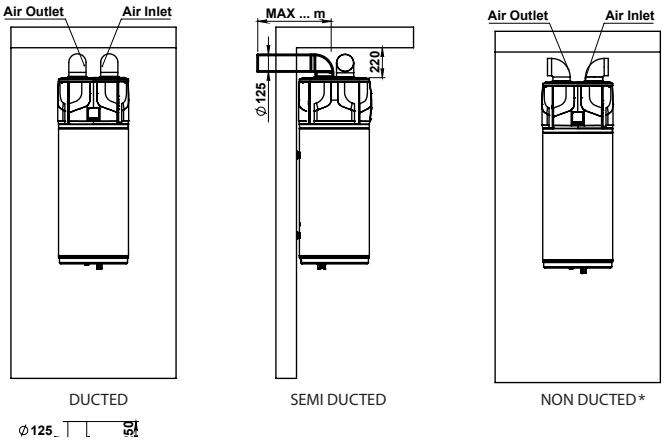
TECHNICAL DRAWINGS AND DIMENSIONS



Dimensions		AquaThermica Compact 100	AquaThermica Compact 150
h	mm	1351	1682
h1	mm	772	1120
h2	mm	162	209

AIR DUCT SYSTEM INSTALLATION





* Required space of 20 m3

SET OF ACCESORIES

Material	Units	Codes
Plastic sleeve spacer	2	108936
Washer M10 DIN440 Zn	4	100751
Dowel 14x80 Hook L 10x95 set	2	108096
Dielectric fitting set PA66GF30 R1/2"M-G1/2"F	1	103081
Safety valve 1/2" 8.3b	1	104292