Your spring of hot water

Sanitary heat pumps
and storage tanks

www.tiki.si

DHW line

1

Premium high energy-efficient solutions.

Tiki sanitary heat pumps provide extreme energy efficiency. With some models you can save as much as 75% of energy. The expanded temperature zone of operation ranging between -7 °C to +45 °C and the possibility of selecting volumetric air flow rate as well as the direction of air capture and release allows it to operate throughout the year.

Key characteristics of sanitary heat pumps

High **quality**

Numerous technical advantages and eco-friendly materials are the quintessence of top quality. Quality control and laboratory tests ensure the reliability of our appliances.

External condenser

Wrapped around the outer side of the tank, it prevents the buildup of limescale, extends the useful life of the equipment and improves safety.

Anti-legionella protection

Automatic weekly heating of domestic water (70 °C) by means of a built-in electric heater prevents the growth of legionella.

High comfort of operation

Electronic control units: With LCD touch screen display

The new generation of sanitary heat pumps is equipped with a user-friendly electronic controller, allowing a simple and transparent operation. The built-in LCD display ensures an even better transparency of contents and functions and even simpler touch operation.

The functions and characteristics of the LCD display control unit:

- Temperature settings and display.
- Time and day settings and display
- Display of available hot water.
- Time and day programming.
- Fast heating "TURBO" mode.
- Heating on higher temperature (75°C).
- Setting a several day absence.
- Independent ventilation function.
- Error diagnostic.
- Automatic anti-legionella program with disinfection (70 °C), (possible to set days of activation or to switch off)

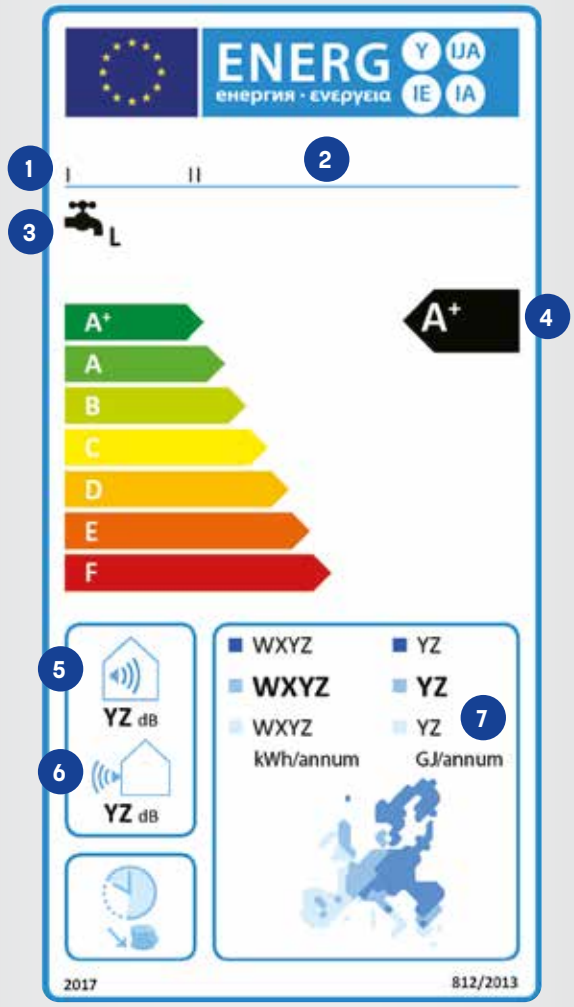
With soft buttons and led indicators

Simple, but efficient control unit offer the user complete comfort, safety and energy efficiency of hot water use.
The functions and characteristics of the control unit:

- Switch on/off
- Setting water temperature ranging from 10° C to 75 °C (heat pump up to 65 °C, electric heater from 65 °C to 75 °C
- Display of water temperature in the tank
- Automatic anti-legionella program with disinfection (70 °C), (possible to switch off)
- Quick (Turbo) heating to the desired temperature, (simultaneous heating of water with the heat pump and electrical heater)
- Indication of functioning in the spare mode
- Indication of the anti-legionella program implementation
- Indication of performance defects/errors

Energy label

Provides unambiguous and simple overview of characteristics and operation of heat pumps.



Legend:

1. Supplier's name or trade mark
2. Supplier's model identifier
3. Declared load profile
4. Energy efficiency class
5. Noise level of indoor unit
6. Noise level of HP's outdoor unit
7. Climate zones

Heat pumps Tiki reaches the highest level of energy efficiency and classifies at **A+ energy class.**

Interpretation and description of **icons for heat pumps**

Overheating protection

Protection against overheating prevents rising water temperature in the heater above 90°C. The water heater stops working and warns the user that the water temperature is too high due to malfunctioning issue. Thus protects the user from possible accidental burns.

Anti-legionella function

If the temperature of the water stored in the tank never reaches 65 ° C over a period of 14 consecutive days, the electric heating element will activate automatically and will heat the water to a temperature that prevents the emergence and successfully destroys Legionella bacteria in the water.

Air ducts

Modern buildings are characterized by tightly sealed windows and doors and superior wall insulation. Heat pump makes it possible to ventilate the home while using the exhaust hot air for the heating of domestic water simultaneously.

Indirect tube air heaters

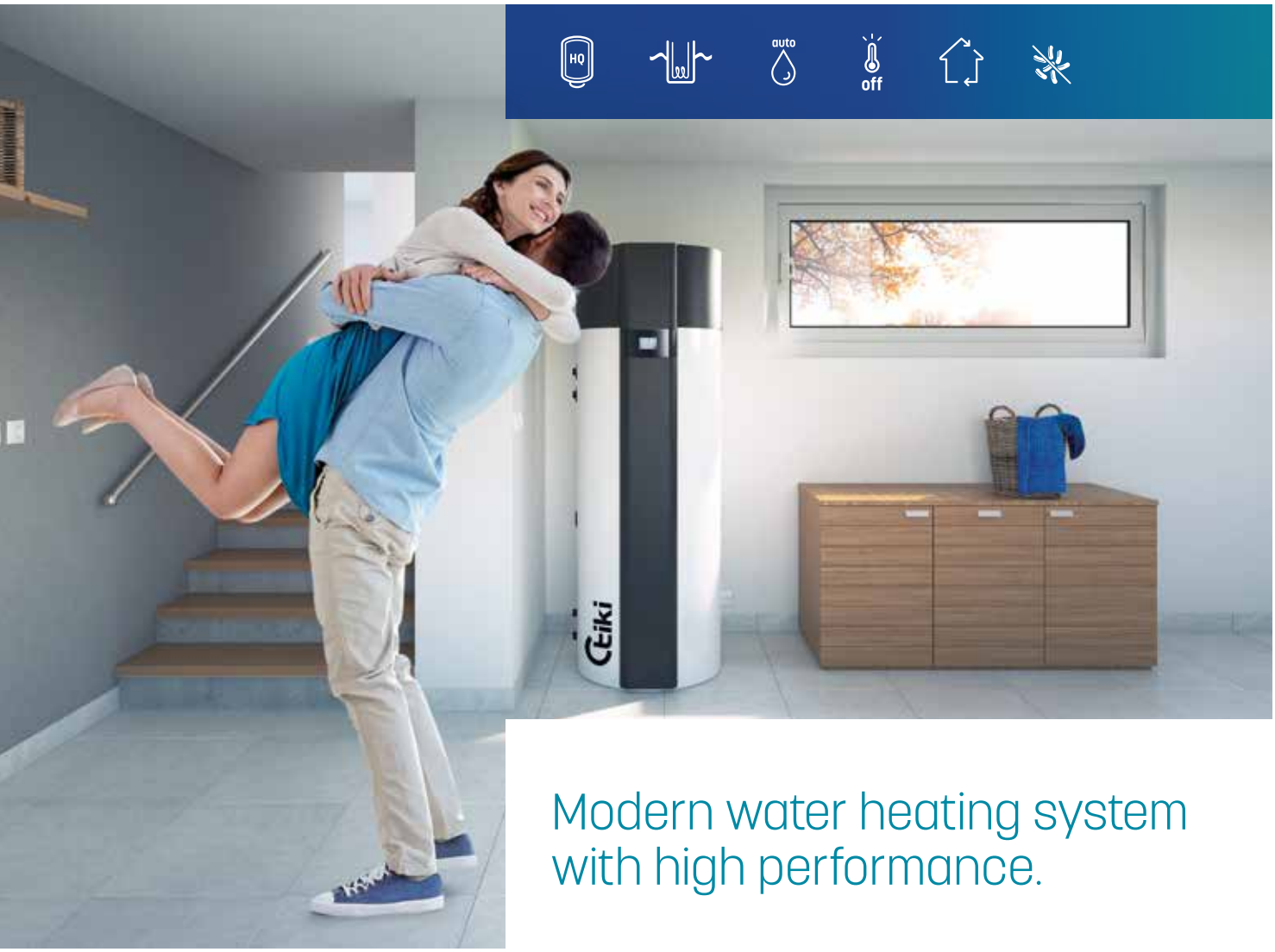
Electric heaters inserted into the heating flange made of special steel and enamelled against corrosion, ensures a long useful life as they are not in direct contact with water.

Automatic defrost

Automatic defrosting of the evaporator allows the operation of the heat pump even at low temperatures of the inlet air, and thus extend the range of operation.

High-quality insulation

High-quality environmentally friendly thermal insulation ensures the most economical use of energy and minimum heat loss.

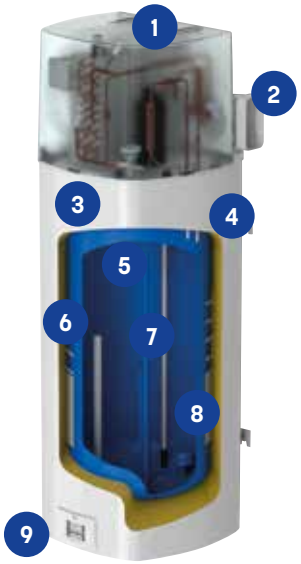


Modern water heating system with high performance.

Sanitary heat pumps with additional (one or two) heat exchanger can be simply and effectively combined with other sources of heating (central heating, sun collectors etc.). All models feature a modern electronic control unit with an LCD display for a simple, transparent and user-friendly use.

DHW line

DHW / DHW LT WALL MOUNTED



Legend:

1. Heat pump aggregate with rotation compressor
2. Air ducts
3. Enamelled tank
4. Polyurethane insulation (CFC and HCFC free)
5. Temperature sensor protection tube
6. Protective magnesium anode
7. Heating flange
8. Wrap around condenser
9. Electronic controller with LCD touch display

Advantages:

- Operating range from -7°C to +35°C*.
- Rotation compressor.
- Wrap around condenser.
- Air ducted version.
- Legionella control programme.
- Possibility of independent fan operation.
- Indirect air heating elements.
- Electronic controller with LCD touch display.
- Tank made of high quality steel sheet, enamel coated at 850°C.
- Magnesium anode for additional anti-corrosion protection of the tank.
- Eco friendly refrigerant R134a.

* Available models with operating range +7°C to +35°C (HPTC Z).

MODEL *	H/W/D (in mm)	Energy class	Annual electricity consumption	COP_{DHW} (A7 / W10-55) EN 16147	Heating time A7 / W10-55
80 L	1197x506x 533	A+	461 kWh	2,65	5 h 20 min
100 L	1342x506x 533	A+	464 kWh	2,63	6 h 50 min
120 L	1497x506x 533	A+	459 kWh	2,61	8 h 41 min

* For detailed tech. info. about the products go to pages 21

-7/+35 C° DHW LT

+7/+35 C° DHW

WORKING RANGE - AIR TEMPARATURE

6-9 bar

WORKING PRESSURE

55 C°

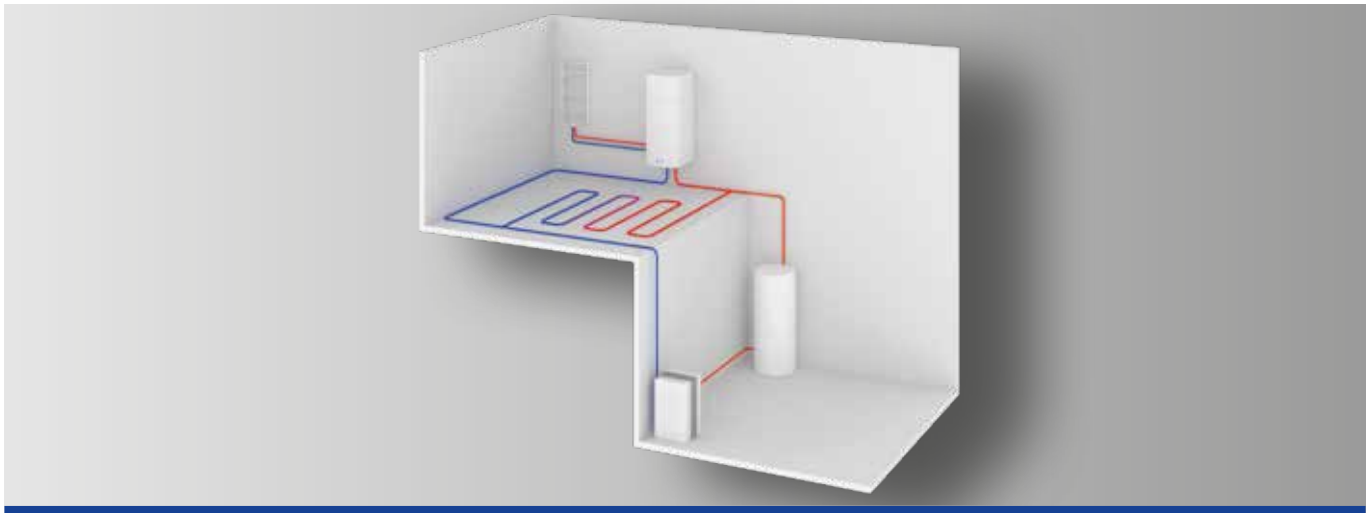
MAX. TEMPERATURE HOT WATER TANK HEAT PUMP

DHW line

DHW W / DHW WR WATER-WATER BOOSTER

Advantages:

- Heat source - underfloor heating (12 °C to 40 °C)
- Minimum flow rate of heating water 120 l/h
- Heating of domestic water up to 65 °C
- Primary function - heating of domestic water
- Secondary function - heating of one radiator
- Controlling and programming with an LCD control unit
- Integrated auxiliary heating element (In case the temperature of heating water is lower than 12 °C or higher than 40 °C and/or if the flow rate of the heating water is lower than 120 l/h an electric heating element will turn on as a spare source of heating).
- Programable anti-legionella function



MODEL *	H/W/D (in mm)	Energy class	Annual electricity consumption	COP_{DHW} (W25 / W10-55) EN 16147
100 L W	1342x506x533	A+	364 kWh	4,45
120 L W	1497x506x533	A+	383 kWh	4,20
120 L ZWR	1497x506x533	A+	393 kWh	4,03

* For detailed tech. info. about the products go to pages 22.

+12/+40 C°

WORKING RANGE WATER TEMPERATURE

6-9 bar

WORKING PRESSURE

65 C°

MAX. TEMPERATURE HOT WATER TANK HEAT PUMP

DHW line

DHW W WATER-WATER BOOSTER

Legend:

1. Heat pump aggregate with rotation compressor
2. Digital controller
3. Electric heater
4. Protective magnesium anode
5. Temperature sensor protection tube

Advantages:

- Heat source - underfloor heating (12 °C to 40 °C)
- Minimum flow rate of heating water 120 l/h
- Heating of domestic water up to 65 °C
- Controlling and programming with an LCD control unit
- Integrated auxiliary heating element (In case the temperature of heating water is lower than 12 °C or higher than 40 °C and/or if the flow rate of the heating water is lower than 120 l/h an electric heating element will turn on as a spare source of heating).
- Programable anti-legionella function
- Extremly low GWP refrigerant R1234ze

MODEL *	H/W/D (in mm)	Energy class	Annual electricity consumption	COP_{DHW} (W25 / W10-55) EN 16147
200 L W	1860x570x585	A+	680 kWh	4,72

* For detailed tech. info. about the products go to pages 23.

+12/+40 C°

WORKING RANGE WATER TEMPERATURE

6-9 bar

WORKING PRESSURE

65 C°

MAX. TEMPERATURE HOT WATER TANK HEAT PUMP

DHW line

DHWM / MC

Legend:

1. Heat pump aggregate with rotation compressor
2. Digital controller
3. Electric heater
4. Protective magnesium anode
5. Heat exchanger
6. Wrap around condenser
7. Temperature sensor protection tube

Advantages:

- Storage tank volume 200 l and 300 l
- Versions with integrated smooth-pipe heat exchanger
- Operation temperature range from +7 °C to +40 °C
- Heating of water with heat pump up to 65 °C
- Maximum temperature of domestic water 75 °C
- COP_{DHW} (A20 / W10-55) EN 16147: 4,4
- Tank is made of a high-quality steel sheet metal, enamelled at 850 °C.
- Magnesium anode for additional protection of the tank from corrosion.
- Built-in electric heater 2 kW as an additional or spare source of water heating
- Eco-friendly refrigerant R134a.
- Electronic control unit with mechanical buttons and LED indicator

MODEL *	H/W/D (in mm)	Energy class	Annual electricity consumption	COP_{DHW} (A20 / W10-55) EN 16147	Heating time A20 / W10-55
200 L	1860 x 570 x 585	A+	576 kWh	4,3	7 h 19 min
200 L M	1860 x 570 x 585	A+	581 kWh	4,3	6 h 59 min
300 L	1960 x 670 x 685	A+	935 kWh	4,4	7 h 14 min
300 L C	1960 x 670 x 685	A+	936 kWh	4,4	6 h 57 min

* For detailed tech. info. about the products go to pages 24.

+7/+40 C°

WORKING RANGE - AIR TEMPARATURE

6-9 bar

WORKING PRESSURE

65 C°

MAX. TEMPERATURE HOT WATER TANK HEAT PUMP

DHW line

DHW LT / CLT HIGH-CAPACITY

Legend:

1. Digital controller
2. Electric heater
3. Air duct
4. Heat pump aggregate with rotation compressor
5. Polyurethane insulation (CFC free)
6. Heat exchangers
7. Wrap around condenser

Advantages:

- Integral design for operation with surrounding or channelled air
- Standard dimensions of air duct connections Ø160
- Several options for connection of the air capture and release duct system
- Airflow control option
- Integrated heating flange with air heating elements
- LCD electronic touch control allows: temp. adjustment and display, display of clock and day of the week, display of available amount of hot water, timer programming and rapid heating, "Away/Holiday" setting, automatic Legionella control system, fault/error diagnostics
- Design with or without heat exchangers
- High-quality PU insulation for lower heat losses
- Tank made of high-quality steel sheet is protected with enamel coating
- Additional anti-corrosion tank protection with a magnesium anode
- Pocket for temp. sensor of external heat source

OPTIONS OF THE AIR CAPTURE AND RELEASE

MODEL *	H/W/D (in mm)	Energy class	Annual electricity consumption	COP_{DHW} A7 / W10-55) EN 16147	Heating time A7 / W10-55
200 L LT	1540x670x690	A+	797 kWh	3,10	6 h 24 min
201 L CLT	1540x670x690	A+	806 kWh	3,06	6 h 06 min
300 L LT	1960x670x690	A+	1231 kWh	3,34	9 h 40 min
301 L CLT	1960x670x690	A+	1246 kWh	3,30	9 h 39 min
302 L 2CLT	1960x670x690	A+	1247 kWh	3,30	9 h 39 min

* For detailed tech. info. about the products go to pages 25.

-7/+35 C°

WORKING RANGE AIR TEMPERATURE

6-10 bar

WORKING PRESSURE

65 C°

MAX. TEMPERATURE HOT WATER TANK HEAT PUMP

DHW line

DHWA INDEPENDENT HP UNIT WITH WATER CONNECTION

Advantages:

- Standalone SPLIT version with water connection
- Interoperable with all storage tanks with a volume of 120 l to 500 l
- Minimum surface of heat exchanger in the storage tank 0,8 m²
- Integrated PWM controlled circulation pump for optimum operation of the cooling system
- Adaptive Fan Speed: automatic fan speed adjustment based on air temperature
- Can be connected to a photovoltaic system
- Possibility of controlling a spare electric heater (max. power 2 kW)
- Time programming of the operation of the heat pump and water heating
- Active anti-legionella protection
- Enclosed temperature sensor for storage tank
- Simple installation, also suitable for small spaces
- Allows connection to the tank's heat exchanger on the left or right side
- COP (A20 / W10-55) EN 16147 : 3,6 (depending on the size of the exchanger)
- Heating of water with heat pump up to 65 °C

Water connection with a storage tank enables simple and flexible installation.

MODEL *	Refference to storage tank / heat exchanger	Annual electricity consumption	COPDHW (A20 / W10-55) EN 16147	Heating up Period (A20/ W10-55) EN 16147
DHWA	300L / 2,5m²	1122 kWh	3,6	8 h 58 min

* For detailed tech. info. about the products go to pages 26.

-7/+45 C°

WORKING RANGE - AIR TEMPARATURE

IP 24

PROTECTION

65 C°

MAX. TEMPERATURE HOT WATER TANK HEAT PUMP

Space and Buffer line

2

High-capacity water heaters for all pampering wishes.

Responding to the trend of increasing use of renewable energy resources, Tiki has developed high-capacity combined water heaters - SPACE, intended to be connected with central heating systems with heat pumps, solar collectors or other energy sources. SPACE combined water heaters are a result of years of research and experience in water heater design and manufacturing.

High quality for low heat loss and hot water always at hand.

Space line combined water heaters are made of high-quality steel sheet, meticulously enamel-coated and fitted with a magnesium protection anode. Fitted inside are one or two smooth tube coil heat exchangers which guarantee fast heating and high permanent capacity. Insulation is made of solid Freon-free polyurethane with thickness ranging from 60 mm to 110 mm, for low heat losses.

SPACE line

SPACE HIGH CAPACITY COMBINED WATER HEATERS-STORAGE TANKS

Legend:

1. Protective magnesium anode
2. Polyurethane insulation (CFC and HCFC free)
3. Heat exchangers
4. Electric heater
5. Electric heater control
6. Inflow of cold water
7. Enamelled tank

Advantages:

- Simple connection to the heating system pipeline (connection with an outer thread)
- High-quality PU insulation ensures low heat losses
- Polystyrene cover coat casing
- Integrated heating flange with 3 kW electric air heating elements and regulation thermostat
- Large heat exchanger surface
- Versions with one or two heat exchangers
- Tank made of high-quality steel sheet is protected with enamel coating
- Additional anti-corrosion tank protection with a magnesium anode
- Optional temperature sensor for external heat source

MODEL *	H/Ø (in mm)	Depth (in mm)	Energy class	Standing loss S	Heat exchanger surface
Space A1 200	1535x570	695	C	71 W	2,0 m²
Space A3 200	1675x670	795	B	58 W	2,3 m²
Space B1 300	1590x670	795	C	89 W	2,5 m²
Space B2 300	1590x670	795	C	89 W	4,0 m²
Space 300	1450x750	875	B	68 W	3,4 m²
Space 2C 300	1450x750	875	B	68 W	2,4 +1 m²
Space 400	1920x750	875	B	72 W	6,1 m²

* For detailed tech. info. about the products go to pages 28.

85 C°

MAX. WATER TEMPERATURE STORAGE TANK

6-10 bar

WORKING PRESSURE STORAGE TANK

IP24

DEGREE OF PROTECTION

Buffer line

BUFFER TANKS FOR HEATING SYSTEMS

Advantages:

- Inner layer made of high quality sheet metal
- High quality PU-insulation, 34 mm thick
- Wall or floor mounting
- Equipped with:
  - Air purge valve G ½
  - Discharge ball valve G ½

MODEL *	H/Ø (in mm)	Depth (in mm)	Energy class	Standing loss S	Heat exchanger surface
50 L	570x454	-	C	46 W	-
100 L	1010x454	-	C	67 W	-

* For detailed tech. info. about the products go to pages 29..

95 C°

MAX. WATER TEMPERATURE

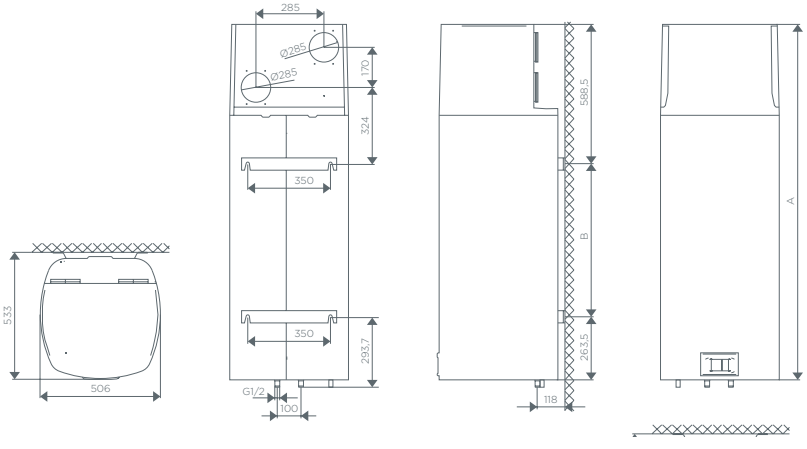
6-10 bar

WORKING PRESSURE

DHW line

MODEL		DHW 80 DHW LT	DHW 100 DHW LT 100	DHW 120 DHW LT 120
Declared load profile		M	M	M
Energy efficiency class [1]		A+	A+	A+
Energy efficiency ηwh [1]	%	111	111	112
AEC annual electricity consumption_ACC [1]	kWh	461	464	459
Daily electricity consumption Qelec_ACC [2]	kWh	2,205	2,225	2,240
Thermostat temperature settings	°C	55	55	55
Sound power level LWA, indoors /Sound Pressure on 1m [3]	dB(A)	51 / 39,5	51 / 39,5	51 / 39,5
Specific precautions (assembly, install, maintain)		When connected as pressurised, use of safety valve is mandatory		
Value of smart		0	0	0
Storage volume V	l	78,2	97,9	117,6
Mixed water at 40°C V40 [2]	l	90	130	142
TECHNICAL CHARACTERISTICS				
Heating up Period A15 / W10-55 *	h:min	04:40	05:40	06:40
Heating up Period A7 / W10-55 **	h:min	05:20	06:50	08:41
Energy consuption by choosen cyclus A15 / W10-55 *	kWh	2,04	2,05	2,08
Energy consuption by choosen cyclus A7 / W10-55 **	kWh	2,45	2,35	2,51
COP_{DHW} (A15 / W10-55) EN 16147 *		3,10	3,10	3,10
COP_{DHW} (A7 / W10-55) EN 16147 **		2,65	2,63	2,61
Standby power input according to EN16147	W	19	20	27
Refrigiant***		R134a (GWP 1430)	R134a (GWP 1430)	R134a (GWP 1430)
Quantty of refrigiant	kg	0,540	0,540	0,540
Working range - air temparature	°C	-7 / +35 (+ 7 / + 35)	-7 / +35 (+ 7 / + 35)	-7 / +35 (+ 7 / + 35)
Working Air Flow	m^3/h	100-230	100-230	100-230
Pressure Drop by 150m^3/h (60%/80%)	Pa	70 (90)	70 (90)	70 (90)
ELECTRICAL SPECIFICATIONS				
Nominal electrical power -compressor	W	250	250	250
Maximum power consumption	W	2350	2350	2350
Number of el.heaters x power	W	2 x 1000	2 x 1000	2 x 1000
Voltage/Frequecy	V/Hz	230/50	230/50	230/50
Electric protection	A	16	16	16
Protection		IP24	IP24	IP24
STORAGE TANK				
Enamelled steel / Protection Mg anode		+/+	+/+	+/+
Working pressure	Mpa (bar)	0,6 (6) / 0,9 (9)	0,6 (6) / 0,9 (9)	0,6 (6) / 0,9 (9)
MAX TEMPERATURE				
Hot water tank heat pump	°C	55	55	55
Hot water tank electric heater	°C	75	75	75
CONNECTION DIMENSIONS				
Average thickness of insulation	mm	50	50	50
Connections to the watter supply network		G 1/2	G 1/2	G 1/2
Dimensions of air connections	mm/m	Ø125 (150x70) /10	Ø125 (150x70) /10	Ø125 (150x70) /10
Netto/gross/with watter	kg	58 / 61 /138	62 / 65 /162	68 / 71 / 188
TRANSPORTATION DATA				
Packaging dimensions	mm	575x600x1365	575x600x1510	575x600x1665

[1] EU Regulation 812/2013 ; EN 16147:2011 , Average Climate Conditions (ACC) [2] EN 16147:2011 [3] EN 12102:2013 (*) by air inlet temperature of 15 °C, 74% humidity and 10 °C water on beginning heated up till 55 °C regarding to EN16147 (**) by air inlet temperature of 7 °C, 89% humidity and 10 °C water on beginning heated up till 55 °C regarding to EN16147 (***) This product contains fluorinated greenhouse gases. Hermetically sealed.

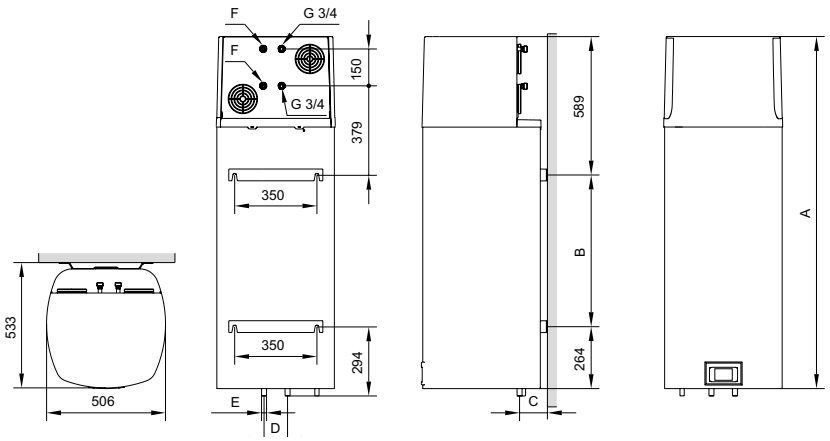


MODEL	DHW LT 80	DHW LT 100	DHW LT 120
A [mm]	1197	1342	1497
B [mm]	345	490	645

DHW line

MODEL		DHW W 100	DHW W 120	DHW WR 120
Declared load profile		M	M	M
Energy efficiency class [1]		A+	A+	A+
Energy efficiency ηwh [1]	%	141	134	131
AEC annual electricity consumption _AC [1]	kWh	364	383	393
Daily electricity consumption Qelec_ACC [2]	kWh	1,715	1,808	1,866
Thermostat temperature settings	°C	55	55	55
Sound power level LWA, indoors	dB(A)	51	51	51
Storage volume V	l	97,9	119,5	117,0
Mixed water at 40°C V40 [2]	l	116	157	153
TECHNICAL CHARACTERISTICS				
Heating up Period W25 / W10-55 [2]	h:min	03:25	04:42	04:19
Heating up energy input W25 / W10-55 [2]	kWh	0,78	1,14	1,15
Energy consuption by choosen cyclus W25 / W10-55 [2]	kWh	1,32	1,40	1,46
COP_{DHW} (W25 / W10-55) EN 16147 [2]		4,45	4,20	4,03
Standby power input according to EN16147 [2]	W	10	10	11
Refrigiant		R134a (GWP 1430)	R134a (GWP 1430)	R134a (GWP 1430)
Quantty of refrigiant	kg	0,550	0,550	0,550
Operating range - heating water temparature	°C	+12 / +40	+12 / +40	+12 / +40
Working Water Flow	l/h	200	200	200
ELECTRICAL SPECIFICATIONS				
Nominal electrical power -compressor	W	200	200	200
Maximum power consumption	W	2380	2380	2400
Number of el.heaters x power	W	2x1000	2x1000	2x1000
Voltage/Frequecy	V/Hz	230/50	230/50	230/50
Electric protection	A	16	16	16
Protection		IP24	IP24	IP24
STORAGE TANK				
Enamelled steel / Protection Mg anode		+/+	+/+	+/+
Working pressure	Mpa (bar)	0,6 (6) / 0,9 (9)	0,6 (6) / 0,9 (9)	0,6 (6) / 0,9 (9)
MAX. TEMPERATURE				
Hot water tank_ heat pump	°C	65	65	65
Hot water tank_ electric heater	°C	75	75	75
DIMENSIONS AND CONNECTION				
Height	mm	1342	1497	1497
Width	mm	506	506	506
Depth	mm	533	533	533
Connections to the watter supply network		G1/2	G1/2	G1/2
Connections water source and radiator		G3/4	G3/4	G3/4
Max. conection lenght - Radiator	m	/	/	8
Internal pressure drop - source	kPa (bar)	0,8 (0,08)	0,8 (0,08)	0,8 (0,08)
Netto/gross/with watter	kg	62 / 65 /162	68 / 71 / 188	77,5 / 80,5 / 195
TRANSPORTATION DATA				
Packaging dimensions	mm	575x600x1510	575x600x1665	575x600x1665

[1] by water source temparature of 10 °C and 10 °C watter on beginning heated up till 55 °C regarding to EN16147 and commission communication (2014/C 207/03), [2] by water source temparature of 25 °C and 10 °C watter on beginning heated up till 55 °C regarding to EN16147

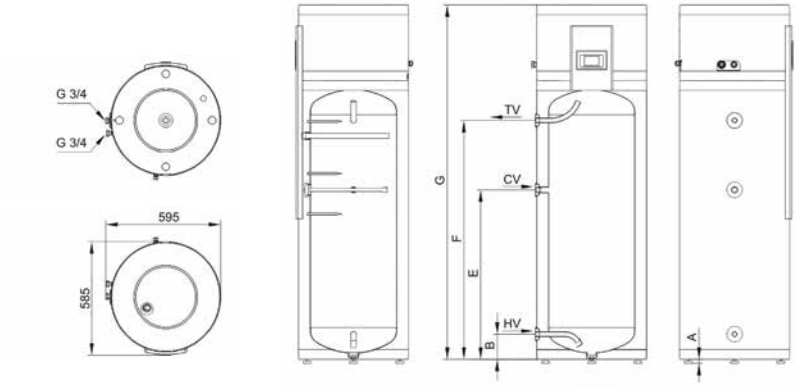


MODEL	DHW W 100	DHW W 120	DHW WR 120
A [mm]	1342	1497	1497
B [mm]	490	645	645
C [mm]	100	100	100
D [mm]	100	100	100
E [mm]	G 1/2	G 1/2	G 1/2
F [mm]	/	/	G 3/4

DHW line

MODEL		DHW W 200
Declared load profile		L
Energy efficiency class [1]		A+
Energy efficiency ηwh [1]	%	151
AEC annual electricity consumption _AC [1]	kWh	680
Daily electricity consumption Qelec_ACC [2]	kWh	3,203
Thermostat temperature settings	°C	55
Sound power level LWA, indoors	dB(A)	51
Storage volume V	l	200,0
Mixed water at 40°C V40 [2]	l	265
TECHNICAL CHARACTERISTICS		
Heating up Period W25 / W10-55 [2]	h:min	06:48
Heating up energy input W25 / W10-55 [2]	kWh	1,81
Energy consuption by choosen cyclus W25 / W10-55 [2]	kWh	2,50
COP_{DHW} (W25 / W10-55) EN 16147 [2]		4,72
Standby power input according to EN16147 [2]	W	14
Refrigiant		R1234ze (GWP 7)
Quantty of refrigiant	kg	0,660
Operating range - heating water temparature	°C	+12 / +40
Working Water Flow	l/h	200
ELECTRICAL SPECIFICATIONS		
Nominal electrical power -compressor	W	220
Maximum power consumption	W	2400
Number of el.heaters x power	W	2 x 1000
Voltage/Frequecy	V/Hz	230/50
Electric protection	A	16
Protection		IP24
STORAGE TANK		
Enamelled steel / Protection Mg anode		+/+
Working pressure	Mpa (bar)	0,6 (6) / 0,9 (9)
MAX. TEMPERATURE		
Hot water tank_ heat pump	°C	65
Hot water tank_ electric heater	°C	75
DIMENSIONS AND CONNECTION		
Height	mm	1860
Width	mm	570
Depth	mm	585
Connections to the watter supply network		60
Connections water source and radiator		G 3/4
Max. conection lenght - Radiator	m	/
Internal pressure drop - source	kPa (bar)	1(0,10)
Netto/gross/with watter	kg	85/97/285
TRANSPORTATION DATA		
Packaging dimensions	mm	760x760x2060

[1] by water source temparature of 10 °C and 10 °C watter on beginning heated up till 55 °C regarding to EN16147 and commission communication (2014/C 207/03), [2] by water source temparature of 25 °C and 10 °C watter on beginning heated up till 55 °C regarding to EN16147

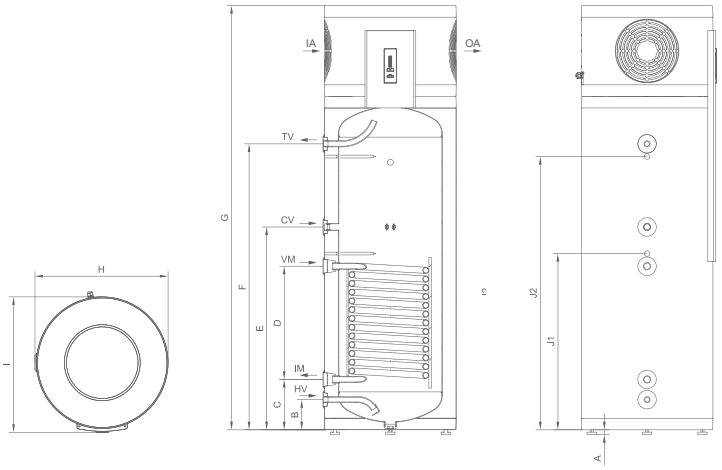


MODEL	DHW W 200
A (mm)	25
B (mm)	130
E (mm)	880
F (mm)	1240
G (mm)	1835
HV (mm)	G3/4
CV (mm)	G3/4
TV (mm)	G3/4

DHW line

MODEL		DHWM 200	DHWM C 200	DHWM 300	DHWM C 300
Declared load profile		L	L	XL	XL
Energy efficiency class [2]		A+	A+	A+	A+
Energy efficiency ηwh [2]	%	178	176	179	179
AEC annual electricity consumption _ACC [2]	kWh	576	581	935	936
Daily electricity consumption Qelec_ACC [2]	kWh	2,709	2,739	4,352	4,362
Thermostat temperature settings	°C	55	55	55	55
Sound power level LWA, indoors [4]	dB(A)	58	58	59	59
Storage volume V	l	200,0	190,0	285,0	275,0
Mixed water at 40°C V40 [2]	l	265	255	395	380
TECHNICAL CHARACTERISTICS					
Heating up Period A15 / W10-55 [1]	h:min	08:07	07:36	08:15	07:55
Heating up Period A20 / W10-55 [2]	h:min	07:19	06:59	07:14	06:57
Heating up energy input A15 / W10-55 [1]	kWh	2,25	2,10	3,32	3,18
Heating up energy input A20 / W10-55 [2]	kWh	2,05	1,97	3,14	3,01
Energy consuption by choosen cyclus A15 / W10-55 [1]	kWh	3,01	3,03	4,74	4,77
Energy consuption by choosen cyclus A20 / W10-55 [2]	kWh	2,72	2,75	4,36	4,37
COPDHW (A15 / W10-55) EN 16147 [1]		3,9	3,9	4,0	4,0
COPDHW (A20 / W10-55) EN 16147 [2]		4,3	4,3	4,4	4,4
Standby power input according to EN16147 [2]	W	15	17	17	18
Refrigiant		R134a (GWP 1430)	R134a (GWP 1430)	R134a (GWP 1430)	R134a (GWP 1430)
Quantty of refrigiant	kg	0,950	0,950	1,100	1,100
Working range - air temparature	°C	+7 / +40	+7 / +40	+7 / +40	+7 / +40
ELECTRICAL SPECIFICATIONS					
Nominal electrical power -compressor	W	300	300	475	475
Maximum power consumption	W	2480	2480	2750	2750
Number of el.heaters x power	W	2 x 1000	2 x 1000	2 x 1000	2 x 1000
Voltage/Frequecy	V/Hz	230/50	230/50	230/50	230/50
Electric protection	A	16	16	16	16
Protection		IP24	IP24	IP24	IP24
STORAGE TANK					
Enamelled steel / Protection Mg anode		+/+	+/+	+/+	+/+
Working pressure	Mpa (bar)	0,6 (6) / 0,9 (9)	0,6 (6) / 0,9 (9)	0,6 (6) / 0,9 (9)	0,6 (6) / 0,9 (9)
MAX. TEMPERATURE					
Hot water tank_ heat pump	°C	65	65	65	65
Hot water tank_ electric heater	°C	75	75	75	75
Hot water tank_heat exchanger	°C	-	85	-	85
DIMENSIONS AND CONNECTION					
Average thickness of insulation	mm	60	60	67	67
Connections to the watter supply network		G 3/4	G 3/4	G 1	G 1
Connections to the heat exchanger		-	G 1	-	G 1
Max working pressure heat exchanger	Mpa (bar)	-	1,2 (12)	-	1,2 (12)
Heat exchanger surface bottom /top	m²	-	1,1/-	-	1,1/-
Heat exchanger volume bottom /top	l	-	7	-	7
Exchange power in continuous mode (max. coil output) [3]	kW	-	30,3	-	29,1
Continous output ΔT=35K (3)	l/hour	-	745	-	715
Netto/gross/with watter	kg	85/97/285	102/114/292	118/130/403	135/147/410
TRANSPORTATION DATA					
Packaging dimensions	mm	760x760x2060	760x760x2060	800x800x2160	800x800x2160

[1] by air inlet temperature of 15 °C, 74% humidity and 10 °C water on beginning heated up till 55 °C regarding to EN16147, [2] by air inlet temperature of 20 °C, 58% humidity and 10 °C water on beginning heated up till 55 °C regarding to EN16147 and EU Regulation 812/2013, [3] Heating of sanitary water from 10°C to 45°C at inlet temperature of heat transfer fluid 80°C and flow rate 3000 l/h.
[4] EN 12102:2013

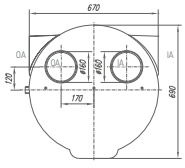


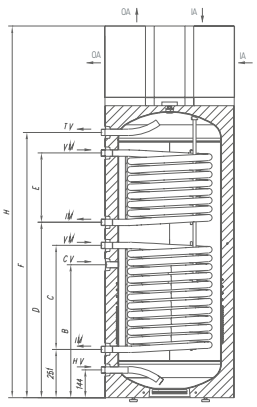
MODEL	DHWM 200 200 ZG	DHWM C 200 201 ZG	DHWM 300 300 ZG	DHWM C 300 306 ZG
A (mm)	25	25	25	25
B (mm)	130	130	140	140
C (mm)	/	218	/	245
D (mm)	/	490	/	490
E (mm)	880	880	880	880
F (mm)	1240	1240	1250	1250
G (mm)	1835	1835	1930	1930
H (mm)	570	570	670	670
I (mm)	585	585	685	685
J1 (mm)	/	765	/	805
J2 (mm)	/	1185	/	1185
HV	G3/4	G3/4	G1	G1
IM	/	G1	/	G1
CV	G3/4	G3/4	G3/4	G3/4
VM	/	G1	/	G1
TV	G3/4	G3/4	G1	G1

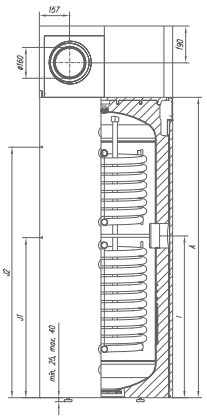
DHW line

MODEL		DHW LT 200	DHW CLT 200	DHW LT 300	DHW CLT 300	DHW 2CLT 300
Declared load profile		L	L	XL	XL	XL
Energy efficiency class[1]	-	A+	A+	A+	A+	A+
Energy efficiency ηwh [1]	%	129	127	136	134	134
AEC annual electricity consumption _ACC [1]	kWh	797	806	1231	1246	1247
Daily electricity consumption Qelec_ACC [2]	kWh	3,762	3,813	5,707	5,787	5,785
Thermostat temperature settings	°C	55	55	55	55	55
Sound power level LWA, indoors /Sound Pressure on 1m [3]	dB(A)	59 / 48	59 / 48	59 / 48	59 / 48	59 / 48
Value of smart	-	0	0	0	0	0
Storage volume V	l	208,0	194,0	295,0	276,0	276,0
Mixed water at 40°C V40 [2]	l	260	248	395	368	368
TECHNICAL CHARACTERISTICS						
Heating up Period A15 / W10-55 *	h:min	05:21	05:13	08:32	08:00	08:00
Heating up Period A7 / W10-55 **	h:min	06:24	06:06	09:40	09:39	09:39
Energy consumption by chosen cycle A15 / W10-55 *	kWh	3,71	3,86	5,75	5,75	5,75
Energy consumption by chosen cycle A7 / W10-55 **	kWh	3,82	3,97	5,80	5,96	5,96
COPDHW (A15 / W10-55) EN 16147 *	-	3,25	3,12	3,42	3,38	3,38
COPDHW (A7 / W10-55) EN 16147 **	-	3,10	3,06	3,34	3,30	3,30
Standby power input according to EN16147 **	W	24	26	18	20	20
Refrigerant***	-	R134a (GWP 1430)	R134a (GWP 1430)	R134a (GWP 1430)	R134a (GWP 1430)	R134a (GWP 1430)
Quantity of refrigerant	kg	1,100	1,100	1,100	1,100	1,100
Working range - air temperature	°C	-7 / +35	-7 / +35	-7 / +35	-7 / +35	-7 / +35
Working Air Flow	m3/h	220-450	220-450	220-450	220-450	220-450
Pressure Drop by 330m3/h (60%)	Pa	100	100	100	100	100
ELECTRICAL SPECIFICATIONS						
Nominal electrical power -compressor	W	490	490	490	490	490
Maximum power consumption	W	2490	2490	2490	2490	2490
Number of el. heaters x power	W	2 x 1000	2 x 1000	2 x 1000	2 x 1000	2 x 1000
Voltage/Frequency	V/Hz	230/50	230/50	230/50	230/50	230/50
Electric protection	A	16	16	16	16	16
Protection	-	IP24	IP24	IP24	IP24	IP24
STORAGE TANK						
Enameled steel / Protection Mg anode	-	+/+	+/+	+/+	+/+	+/+
Working pressure	Mpa (bar)	0,6 (6) / 0,9 (9)/ 1(10)	0,6 (6) / 0,9 (9)/ 1(10)	0,6 (6) / 0,9 (9)/ 1(10)	0,6 (6) / 0,9 (9)/ 1(10)	0,6 (6) / 0,9 (9)/ 1(10)
Max working pressure heat exchanger	Mpa (bar)	-	1,2 (12)	-	1,2 (12)	1,2 (12)
Heat exchanger surface bottom /top	m^2	-	1,45 /-	-	2,7 /-	1,6/1
Heat exchanger volume bottom /top	l	-	9,4/-	-	17,0/0	10,2/6,8
Exchange power in continuous mode (max. coil output) [4]	kW	-	41,1	-	74,1	43,9/27,4
Continuous output ΔT=35K [4]	l/hour	-	1010	-	1821	1079/674
MAX. TEMPERATURE						
Hot water tank_ heat pump	°C	65	65	65	65	65
Hot water tank_ electric heater	°C	75	75	75	75	75
Hot water tank_heat exchanger	°C	-	85	-	85	85
CONNECTION DIMENSIONS						
Average thickness of insulation	mm	67	67	67	67	67
Connections to the water supply network		G1	G1	G 1	G 1	G 1
Dimensions of air connections	mm	Ø160	Ø160	Ø160	Ø160	Ø160
Connections to the heat exchanger	-	-	G 1	-	G 1	G 1
Neto/gross/with water	kg	104/116/312	133/145/327	123/135/418	177/189/453	173/185/449
TRANSPORTATION DATA						
Packaging dimensions	mm	800x800x1765	800x800x1765	800x800x2155	800x800x2155	800x800x2155

[1] EU Regulation 812/2013 ; EN 16147:2011 , Average Climate Conditions (ACC) [2] EN 16147:2011 [3] EN 12102:2013 (at 60% ventilator speed -ducted air/ at 40% ventilator speed - air from premises, no ducts) [4] Heating of sanitary water from 10°C to 45°C at inlet temperature of heat transfer fluid 80°C and flow rate 3000 l/h. (*) by air inlet temperature of 15 °C, 74% humidity and 10 °C water on beginning heated up till 55 °C regarding to EN16147 (**) by air inlet temperature of 7 °C, 89% humidity and 10 °C water on beginning heated up till 55 °C regarding to EN16147 (***) This product contains fluorinated greenhouse gases. Hermetically sealed.







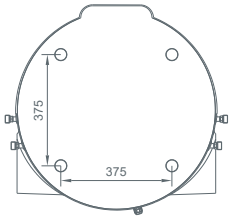
MODEL	DHW LT 200	DHW CLT 200	DHW LT 300	DHW CLT 300	DHW 2CLT 300
A (mm)	1170	1170	1560	1560	1560
B (mm)	580	580	690	690	690
C (mm)	/	620	/	1020	540
D (mm)	/	/	/	/	910
E (mm)	/	/	/	/	360
F (mm)	975	975	1375	1375	1375
H (mm)	1540	1540	1960	1960	1960
I (mm)	615	615	840	840	840
J1 (mm)	/	/	/	790	830
J2 (mm)	/	900	/	1300	1300
HV	G1	G 1	G1	G 1	G 1
IM	/	G 1	/	G 1	G 1
CV	G3/4	G3/4	G3/4	G3/4	G3/4
VM	/	G 1	/	G 1	G 1
TV	G 1	G 1	G 1	G 1	G 1

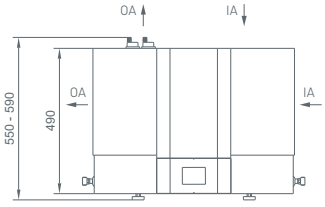
DHW line

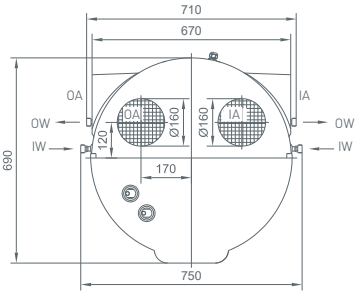
MODEL		DHWA + Space B1 300
Declared load profile	-	XL
Energy efficiency class [1]	-	A+
Energy efficiency ηwh [1]	%	149
AEC annual electricity consumption_ACC [1]	kWh	1122
Daily electricity consumption Qelec_ACC [1]	kWh	5,261
Thermostat temperature settings	°C	55
Sound power level LWA, indoors /Sound Pressure on 1m [2]	dB(A)	59 / 48
Storage volume V	l	276,0
Mixed water at 40°C V40 [1]	l	411
Reference heat exchanger surface	m^2	2,5
TECHNICAL CHARACTERISTICS		
COP_{DHW} (A20/W10-55) EN 16147 [1]		3,6
Heating up Period (A20/W10-55) EN 16147 [1]	h:min	08:58
Heating up energy input (A20/W10-55) EN 16147 [1]	kWh	3,66
Energy consuption by choosen cyclus (A20/W10-55) EN 16147 [1]	kWh	5,27
COP_{DHW} (A2 / W10-55) EN 16147	-	2,3
COP_{DHW} (A7 / W10-55) EN 16147	-	3,0
COP_{DHW} (A14 / W10-55) EN 16147	-	3,5
Heating output (A20 / W35) EN 14511	kW	1,75
COP (A20 / W35) EN 14511	-	4,36
Heating output (A20 / W45) EN 14511	kW	1,65
COP (A20 / W45) EN 14511	-	3,61
Heating output (A20 / W55) EN 14511	kW	1,54
COP (A20 / W55) EN 14511	-	3,00
Heating output (A20 / W65) EN 14511	kW	1,46
COP (A20 / W65) EN 14511	-	2,51
Standby power input according to EN16147	W	28,9
Refrigiant	-	R134a
Quantty of refrigiant	kg	0,450
Working range - air temparature	°C	-7 / +45
Max. DHW temperature with heat pump only	°C	65
Working Air Flow	m^3/h	330
Pressure Drop by 400 m^3/h	Pa	100
Water flow rate (PWM regulation)	l/h	200-400
Max water pressure in the pipe system	Mpa (bar)	10
ELECTRICAL SPECIFICATIONS		
Nominal electrical power -compressor	W	475
Maximum power consumption	W	2750
Max. permissible power of electric water heater	W	2000
Voltage/Frequecy	V/Hz	230/50
Electric protection	A	16
Protection	-	IP24
DIMENSIONS AND CONNECTION (ONLY HP UNIT)		
Height	mm	550
Width	mm	750
Depth	mm	730
Heat pump conection (left and right side)	-	G3/4
Dimensions of air connections	mm	Ø160
Netto waight	kg	41

[1] by air inlet temparature of 20 °C, 58% humidity and 10 °C watter on beginning heated up till 55 °C regarding to EN16147, [2] EN 12102:2013, Left or right water conection. Minimum permissible heat transfer surface area 0,8 m^2. Circulation pump included.

Legend:
IA - inlet air
OA - outlet air
IW - inlet water
OW - outlet water







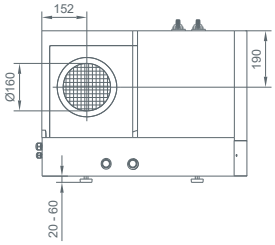


Chart: **Heating output EN14511**

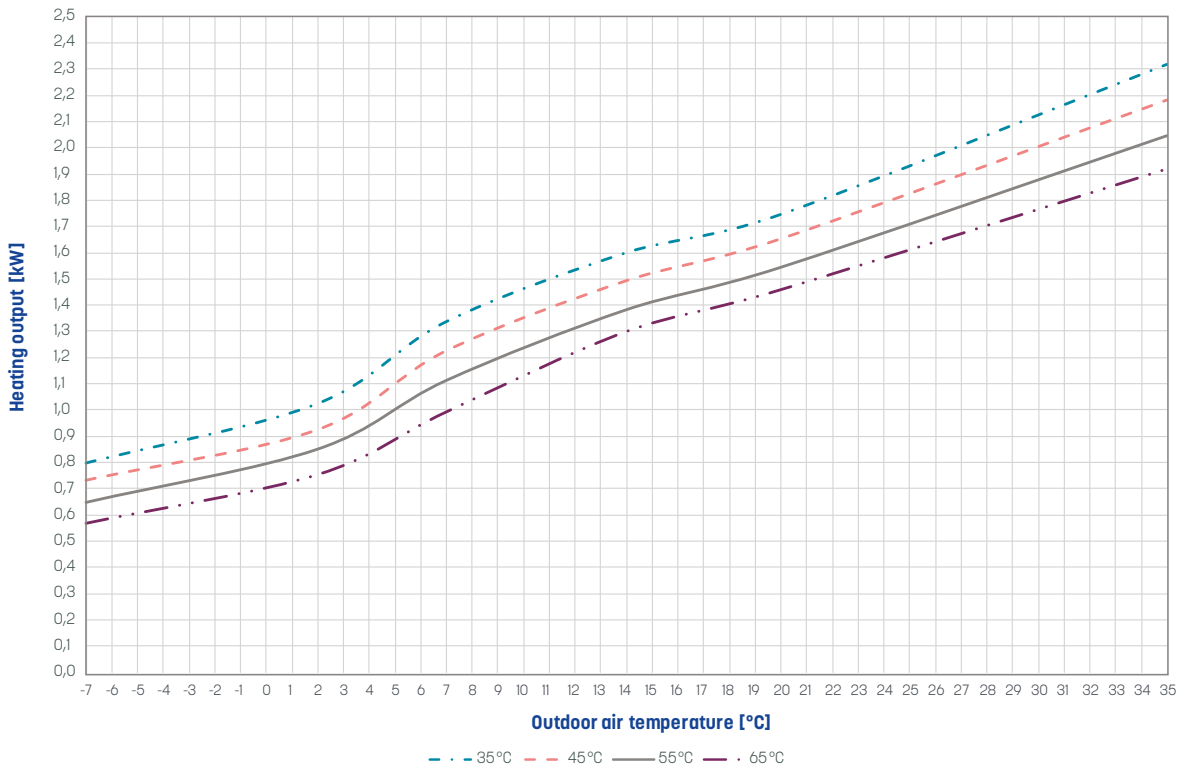
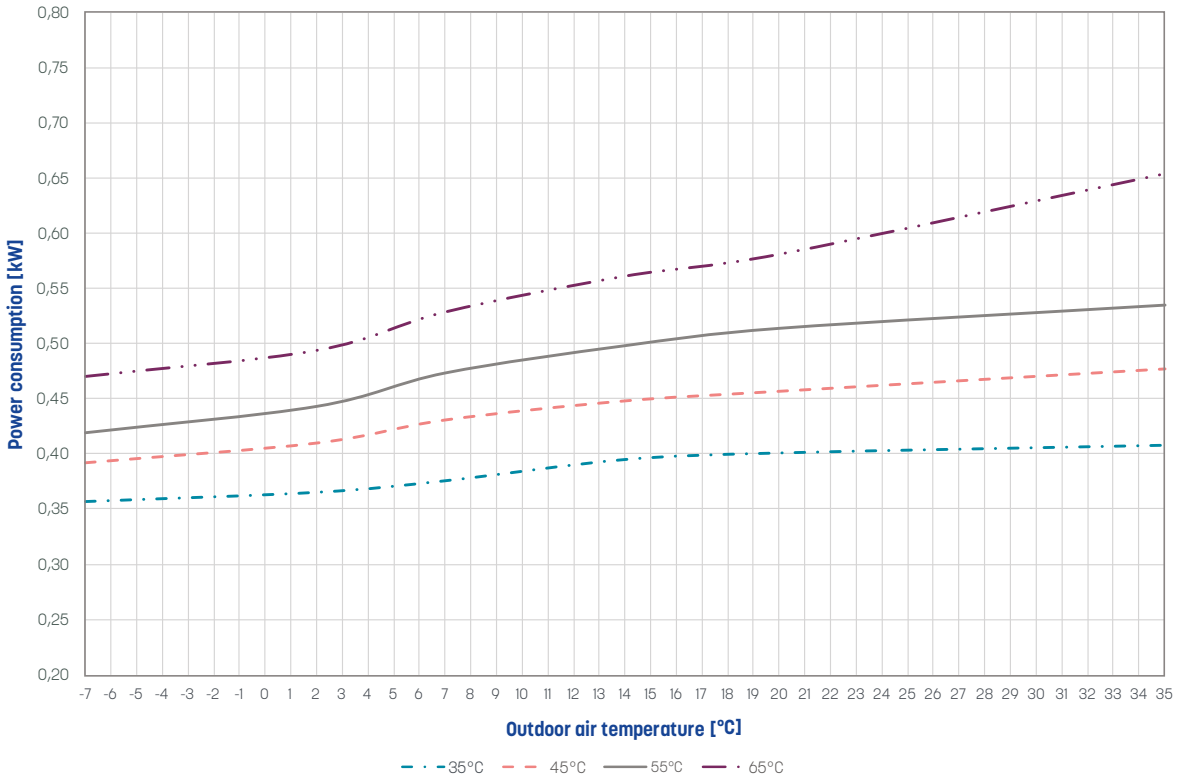


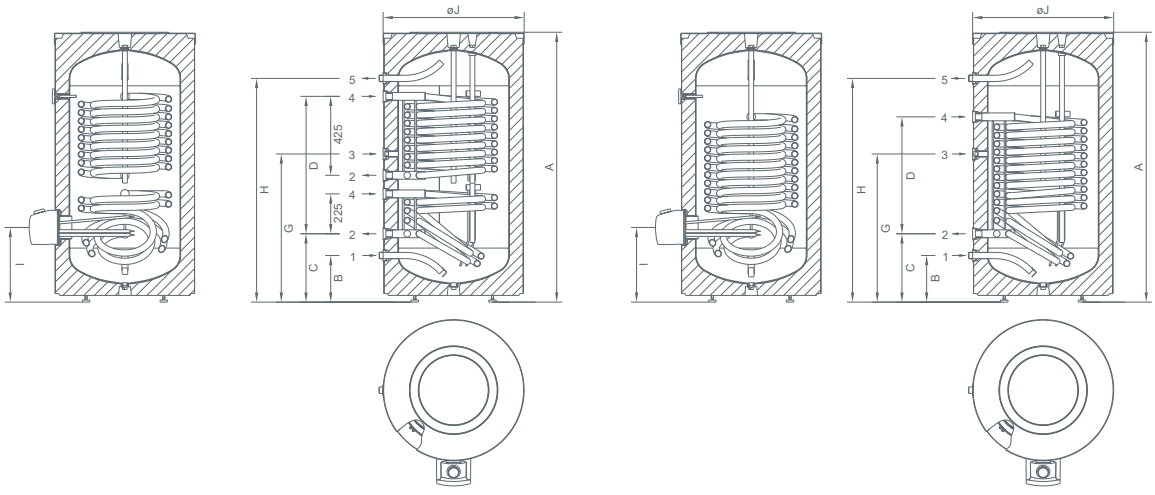
Chart: **Power consumption EN14511**



Space line

MODEL		Space A1 200	Space A3 200	Space B1 300	Space B2 300	Space 300	Space 2C 300	Space 400
Razred energijske učinkovitosti [1]		C	B	C	C	B	B	B
Lastna izguba S [2]	W	71	58	89	89	68	68	72
Prostornina za shranjevanje	l	184	190	276	262	284	284	396
DIMENSIONS OF CONNECTIONS								
Total height	mm	1535	1675	1590	1590	1450	1450	1920
Diameter	mm	570	670	670	670	750	750	750
Depth	mm	695	795	795	795	875	875	875
Connections to the supply network		G3/4	G3/4	G 1	G 1	G 1	G 1	G 1
Dimension of heat exchanger connection		G 1	G 1	G 1	G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4
Net/gross weight/with water	kg	97/107/281	115/125/305	140/150/416	165/175/427	155/169/439	150/164/434	215/229/611
TECHNICAL CHARACTERISTICS								
Enamelled steel tank (*)		+	+	+	+	+	+	+
Protective Mg anode		+	+	+	+	+	+	+
Average thickness of insulation	mm	60	110	67	67	75	75	75
Degree of protection		IP 24	IP 24	IP 24	IP 24	IP 24	IP 24	IP 24
Heat exchanger surface	m^2	2	2,3	2,5	4	3,4	2,4 +1	6,1
Heat exchanger volume	l	12,2	13,0	14,7	22,3	18,2	13 + 5	35,3
Exchange power in continuous mode (max. coil output) [3]	kW	56,2	64,6	66,8	106,8	90,8	64,1 + 26,7	121,6
Continous output ΔT=35K [3]	l/hour	1380	1587	1641	2625	2231	1575 + 656	2989
Working pressure storage tank	Mpa(bar)	0,6 (6) / 0,9 (9)/ 1(10)	0,6 (6) / 0,9 (9)/ 1(10)	0,6 (6) / 0,9 (9)/ 1(10)	0,6 (6) / 0,9 (9)/ 1(10)	0,6 (6) / 0,9 (9)/ 1(10)	0,6 (6) / 0,9 (9)/ 1(10)	0,6 (6) / 0,9 (9)/ 1(10)
Working pressure heat exchanger	Mpa(bar)	1,2 (12)	1,2 (12)	1,2 (12)	1,2 (12)	1,2 (12)	1,2 (12)	1,2 (12)
El. resistance heating power	kW	3	3	3	3	3	3	3
Voltage 230 V ~		+	+	+	+	+	+	+
Max. water temperature storage tank	°C	85	85	85	85	85	85	85
Max. water temperature heat exchenger	°C	95	95	95	95	95	95	95
Thermal losses [2]	kWh/24	1,7	1,4	2,1	2,1	1,6	1,6	1,7
TRANSPORTATION DATA								
Packaging dimensions [WxDxH]	mm	800x800x1730	800x800x1870	800x800x1785	800x800x1785	900x900x1640	900x900x1640	900x900x2110

[1] EU Regulation 812/2013 ; EN 50440, [2] Tested according to EN 12897:2006 or EN 60379:2005 [3] Heating of sanitary water from 10°C to 45°C at inlet temperature of heat transfer fluid 80°C and flow rate 3000 l/h. * Enameled according to DIN 4753

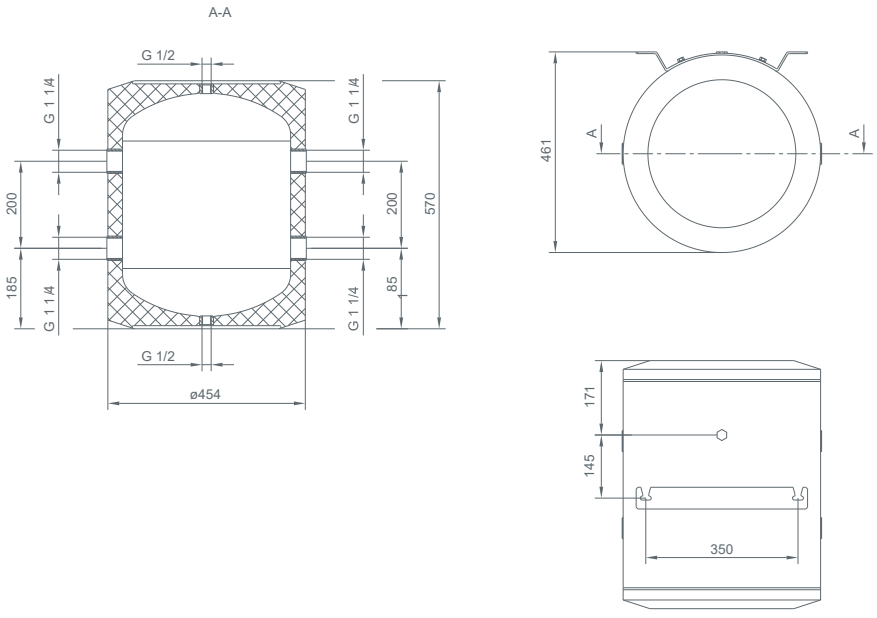


MODEL	Space A1 200	Space A3 200	Space B1 300	Space B2 300	Space 300	Space 2C 300	Space 400
A [mm]	1535	1675	1590	1590	1450	1450	1920
B [mm]	180	220	175	175	250	250	250
C [mm]	300	340	270	270	370	370	370
D [mm]	880	1015	890	890	610	740	1070
G [mm]	780	945	740	740	800	800	990
H [mm]	1355	1435	1410	1410	1205	1205	1675
I [mm]	365	405	320	340	400	400	400
J [mm]	580	680	680	680	760	760	760
1	G 3/4	G 3/4	G1	G1	G1	G1	G1
2	G1	G1	G1	G5/4	G5/4	G5/4	G5/4
3	G 3/4	G 3/4	G 3/4	G 3/4	G3/4	G3/4	G3/4
4	G1	G1	G1	G5/4	G5/4	G5/4	G5/4
5	G 3/4	G 3/4	G1	G1	G1	G1	G1

Buffer line

MODEL		BUFFER 50	Buffer 100
Energy efficiency class [1]		C	C
Standing loss S [2]	W	46	67
Storage volume	l	51	102
DIMENSIONS OF CONNECTIONS			
Height	mm	570	1010
Diameter	mm	Φ454	Φ454
Heating water inlet		G1 1/4	G1 1/4
Heating water outlet		G1 1/4	G1 1/4
Net/gross weight/with water	kg	16,5/18,5/66,50	29/31/131
TECHNICAL CHARACTERISTICS			
Working pressure	MPa (bar)	0,6 (6) / 1 (10)	0,6 (6) / 1 (10)
Max. watter temperature	°C	95	95
Non-enameled steel tank		+	+
Average thickness of insulation	mm	33	33
ACCESSORIES			
Air vent pot with valve G ½		+	+
Discharge ball valve		+	+
Tap G1 1/4-ZN 2 pcs		+	+
TRANSPORTATION DATA			
Packaging dimensions	mm	480x490x595	480x490x1100

[1] EU Regulation 812/2013 ; EN 50440 [2] Tested according to EN 12897:2006 or EN 60379:2005



Golubinački put b.b.
22300 Stara Pazova
Srbija