



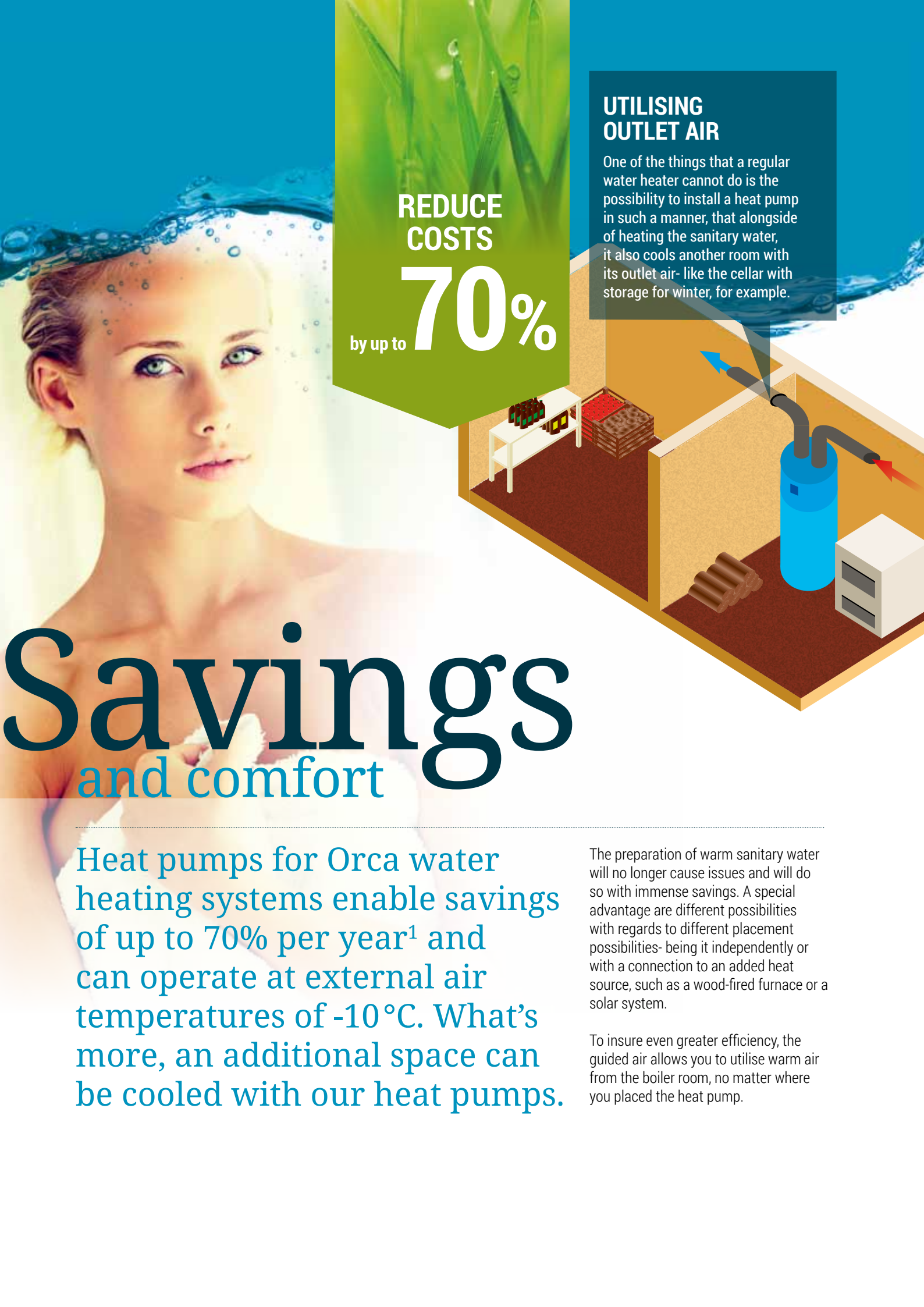
## DOMESTIC WATER HEAT PUMPS



Product catalogue



**Decades of heating.  
Decades of comfort.**



## UTILISING OUTLET AIR

One of the things that a regular water heater cannot do is the possibility to install a heat pump in such a manner, that alongside of heating the sanitary water, it also cools another room with its outlet air- like the cellar with storage for winter, for example.

REDUCE  
COSTS

by up to **70%**

# Savings and comfort

Heat pumps for Orca water heating systems enable savings of up to 70% per year<sup>1</sup> and can operate at external air temperatures of -10°C. What's more, an additional space can be cooled with our heat pumps.

The preparation of warm sanitary water will no longer cause issues and will do so with immense savings. A special advantage are different possibilities with regards to different placement possibilities- being it independently or with a connection to an added heat source, such as a wood-fired furnace or a solar system.

To insure even greater efficiency, the guided air allows you to utilise warm air from the boiler room, no matter where you placed the heat pump.

## HITACHI ROTARY COMPRESSORS

It is especially developed for sanitary heat pumps and insures a high heating number and a long lifespan.

## ELECTRONIC EXPANSION VALVE

Regulates gas temperatures very accurately and thus optimises the performance of the heat pump, no matter what the temperatures of air and sanitary water are. It allows performance at temperatures of inlet air as low as  $-10^{\circ}\text{C}$ .

## GREAT HEAT TRANSMITTER

Allows the machine to perform in very low temperatures with very little defrosting, thus increasing the machine's efficiency.

## AXIAL VENTILATOR

Due to its great diameter, it allows for substantial air flow with the possibility of segmentation. This also makes it one of the quietest machines on the market.

## HEAT TRANSMITTER

Coiled on the outside of sanitary water container, it has a lifespan that is practically unlimited, since it is not in direct contact with sanitary water.

## SERIES-MOUNTED ELECTRIC HEATER

To make sure you never run out of warm sanitary water, it ensures safety in case of malfunction.

## 2 MAGNESIUM ANODES

Ensure for the safety of the container and for decades of its safe use.



### HIGH C.O.P.

C.O.P. (coefficient of performance) is a rating which tells us how much heat is produced compared to the amount of electricity used.



### SIMPLE INSTALLATION AND CONTROL

Heat pumps for sanitary water are simple to install into your area and they're even simpler to control. You'll have virtually no work with them.



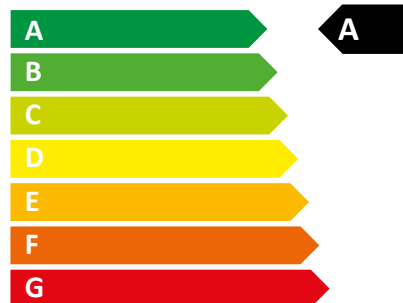
### MANUFACTURED ACCORDING TO HIGHEST EU STANDARDS

Manufactured in Europe according to highest standards.



### QUICK AND PROFESSIONAL MAINTENANCE

Our reliable service network ensures quick and professional maintenance.



### ENERGY CLASS A

Heat pumps for sanitary water with the A Energy Class are placed among the best energy efficient machines on the European market.



## ORCA ZEUS PLUS SERIES

# Technology

### FOR VERY LOW COSTS

**Orca Zeus Plus shows its true power at very low temperatures**, as it can heat water at external air temperatures of  $-10^{\circ}\text{C}$ . Orca Zeus Plus also features a 230 or 300 litre hot water tank.

Orca Zeus Plus reaches very high C.O.P. values, meaning that it uses energy from air extremely efficiently. Big savings can also be made on the coldest winter days.

Orca Zeus Plus does not only pride itself on splendid technical qualities but also offers marvelous design, silent operation and simple, user-friendly regulation.

DHW HEATING  
ENERGY  
CLASS

**A**

UP TO  $-10^{\circ}\text{C}$   
EXTERNAL AIR  
TEMPERATURE  
ZEUS PLUS

**SG  
READY**

**5 YEAR  
WARRANTY  
ON HOT WATER  
TANK**

**CONTROL OF  
SOLAR  
SYSTEM**

	ZSW PLUS 230	ZSW PLUS 300
<b>Product number</b>	<b>11350</b> (no heat exchanger) <b>11351</b> (1 heat exchangers)	<b>11352</b> (no heat exchanger), <b>11353</b> (1 heat exchanger), <b>11354</b> (2 heat exchanger)
<b>Operational area of the compressor</b>	<b><math>-10\sim 35^{\circ}\text{C}</math></b>	<b><math>-10\sim 35^{\circ}\text{C}</math></b>
<b>Hot water tank volume</b>	<b>230 L</b>	<b>300 L</b>
<b>Max. temperature of output water</b>	<b><math>60^{\circ}\text{C}</math></b>	<b><math>60^{\circ}\text{C}</math></b>
Heat output	1800 W	1800 W
Max. heat output	3600 W	3600 W
Output of the electric heater	1800 W	1800 W
C.O.P. A20/W15-W45	4.5	4.5
C.O.P. (EN16147)	3.0	3.3
Dimensions (w×d×H)	ø670×1550	ø670×1820
Type of compressor	Hitachi - rotary	Hitachi - rotary
Compressor consumption	475 W	475 W
Rated current of the compressor	2.3 A	2.3 A
Refrigerant	R134a	R134a
Electricity supply	230 V / 1 Ph / 50 Hz	230 V / 1 Ph / 50 Hz
Required fuse	16 A	16 A
Noise level	48 dB(A)	48 dB(A)
Airflow	500 m <sup>3</sup>	500 m <sup>3</sup>
Available pressure	60 Pa	60 Pa
Diameter of air pipe	150 mm	150 mm
Max. length of air pipe	10 m	10 m
Dimensions of water connections	3/4"	3/4"
Min. / Max. water pressure	0.15 MPa / 0.6 MPa	0.15 MPa / 0.6 MPa
Safety	Mg. Anode 2x	Mg. Anode 2x
Net weight (with 1 heat exchanger)	110 kg	130 kg
Surface heat exchanger	0.5 m <sup>2</sup> , (11350 None)	1 m <sup>2</sup> , (11352 None)
Surface heat exchanger (optional)	/	0.5 m <sup>2</sup> (11354)
<b>Use of hot water cycle</b>	<b>L</b>	<b>XL</b>
<b>Sanitary water heating energy class</b>	<b>A</b>	<b>A</b>

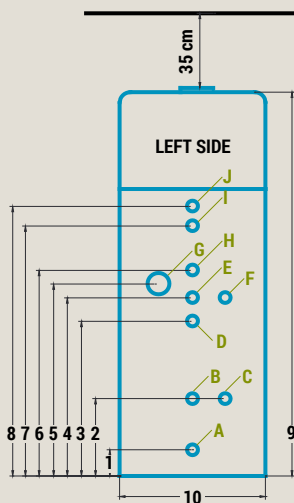
## INTELLIGENT CONTROL WITH TOUCHSCREEN

The Zeus Plus is controlled with a friendly and logical user interface on a comfortably big touchscreen.



- Operation possible even at -10 °C.
- Two time intervals for even bigger savings and using overnight rates.
- Guided air and cooling option for different rooms (e.g. a pantry).
- Exterior exchanger prevents scale formation.
- Anti-Legionella protection helps keep water clean.
- Options for connection to different heating systems (heating oil, wood, pellets or solar system).
- Options for connection to photovoltaic.

### CONNECTION BLUEPRINT



All connections are 3/4"  
(N) – Internal thread  
(Z) – External thread

	ZSW PLUS 230	ZSW PLUS 300
1	125 mm	125 mm
2	365 mm	365 mm
3	730 mm	730 mm
4	830 mm	840 mm
5	745 mm	905 mm
6	-	970 mm
7	-	1180 mm
8	980 mm	1270 mm
9	1550 mm	1820 mm
10	670 mm	670 mm
A	Cold water connection (Z)	
B	Heating coil – backflow (N)	
C	Magnesium anode	
D	Heating coil – inflow (N)	
E	Circulation (N)	
F	Magnesium anode	
G	Electric heater	
H		Heating coil (2) Backflow (N) (option)
I		Heating coil (2) Inflow (N) (option)
J	Hot water connection (Z)	



## ORCA ZEUS SERIES



UP TO  
**70%**  
ANNUAL  
SAVINGS<sup>1</sup>

DHW HEATING  
ENERGY  
CLASS

**A**

ACTIVE  
LEGIONELLA  
PROTECTION

**5 YEAR**  
WARRANTY  
ON HOT WATER  
TANK

WHEN AVAILABLE SPACE IS AT A MINIMUM

**Orca Zeus is ideal when there is little room is available.**

Despite taking up very little space, these devices produce a fantastic yield and high power output in low temperatures. They also operate silently.

The Orca Zeus Series is very cost-effective because it can reduce water heating costs by up to 70% with a relatively small investment.

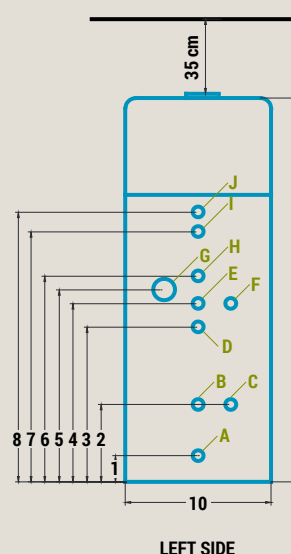
Brilliant heating properties are complemented by two hot water tanks of different sizes, meaning they can be adjusted for smaller or larger households.

- **Easy operation,**
- **modern and attractive design,**
- **blue lighting.**
- **Displays actual and desired temperatures**

- **Available in two sizes: 300 and 230 litre hot water tanks which are very space-efficient.**
- **Two time intervals for even bigger savings and using overnight rates.**
- **Guided air and cooling option for different rooms (e.g. a pantry).**
- **Exterior exchanger prevents scale formation.**
- **Anti-legionella protection helps keep water clean.**
- **Options for connection to different heating systems (heating oil, wood, pellets or solar system).**

	ZSW 230	ZSW 300
<b>Product number</b>	<b>10973</b> (no heat exchanger) <b>10783</b> (1 heat exchanger)	<b>10980</b> (no heat exchanger), <b>10806</b> (1 heat exchanger), <b>10981</b> (2 heat exchangers)
<b>Operational area of the compressor</b>	<b>-3~35 °C</b>	<b>-3~35 °C</b>
<b>Hot water tank volume</b>	<b>230 L</b>	<b>300 L</b>
<b>Max. temperature of output water</b>	<b>60 °C</b>	<b>60 °C</b>
Heat output	1800 W	1800 W
Max. heat output	3600 W	3600 W
Output of the electric heater	1800 W	1800 W
C.O.P. A20/W15-W45	4.3	4.3
C.O.P. (EN16147)	3.0	3.3
Dimensions (W/H)	ø670x1550	ø670x1820
Type of compressor	Hitachi - rotary	Hitachi - rotary
Compressor consumption	475 W	475 W
Rated current of the compressor	2.3 A	2.3 A
Refrigerant	R134a	R134a
Electricity supply	230 V / 1 Ph / 50 Hz	230 V / 1 Ph / 50 Hz
Required fuse	16 A	16 A
Noise level	48 dB(A)	48 dB(A)
Airflow	350 m³	350 m³
Available pressure	60 Pa	60 Pa
Diameter of air pipe	150 mm	150 mm
Max. length of air pipe	10 m	10 m
Dimensions of water connections	3/4"	3/4"
Min. / Max. water pressure	0.15 MPa / 0.6 MPa	0.15 MPa / 0.6 MPa
Safety	Mg. Anode 2x	Mg. Anode 2x
Net weight (with 1 heat exchanger)	110 kg	130 kg
Surface heat exchanger	0.5 m², (10973 None)	1 m², (10980 None)
Surface heat exchanger (optional)	/	0.5 m² (10981)
<b>Use of hot water cycle</b>	<b>L</b>	<b>XL</b>
<b>Sanitary water heating energy class</b>	<b>A</b>	<b>A</b>

### CONNECTION BLUEPRINT



	ZSW 230	ZSW 300
<b>1</b>	125 mm	125 mm
<b>2</b>	365 mm	365 mm
<b>3</b>	730 mm	730 mm
<b>4</b>	830 mm	840 mm
<b>5</b>	745 mm	905 mm
<b>6</b>	/	970 mm
<b>7</b>	/	1180 mm
<b>8</b>	980 mm	1270 mm
<b>9</b>	1550 mm	1820 mm
<b>10</b>	670 mm	670 mm
<b>A</b>	Cold water connection (Z)	
<b>B</b>	Heating coil - backflow (N)	
<b>C</b>	Magnesium anode	
<b>D</b>	Heating coil - inflow (N)	
<b>E</b>	Circulation (N)	
<b>F</b>	Magnesium anode	
<b>G</b>	Electric heater	
<b>H</b>	/	Heating coil (2) Backflow (N) (option)
<b>I</b>	/	Heating coil (2) Inflow (N) (option)
<b>J</b>	Hot water connection (Z)	

All connections are 3/4"  
(N) – Internal thread  
(Z) – External thread

## ORCA WAVE COMPOSITE SERIES

### WHEN YOU WANT TO KEEP YOUR EXISTING BOILER

**Do you already own a hot water tank? Orca Wave Composite** will help you heat water economically. Simply install it next to your existing hot water tank and save money.

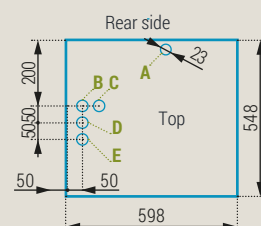
Orca Wave Composite is ideal for people who already own a new or a high quality hot water tank.

In such cases you can simply install Orca Wave Composite beside your existing hot water tank, which transforms instantly into an economic heat pump and utilises all the advantages of Orca heat pumps.

- **Two time intervals for even bigger savings and using overnight rates.**
- **A high airflow (500 m<sup>3</sup>/h) and a large evaporator result in a high C.O.P.**
- **High-quality rotary compressor from Hitachi.**
- **Electronic expansion valve.**
- **Anti-legionella protection helps keep water clean.**



Wave Composite	
A	Condensate drainage
B	System water backflow 3/4"
C	System water outlet 3/4"







**ORCA IS ALREADY RESPONSIBLE FOR HEATING  
OVER 15,000 HOMES IN EUROPE.**

Orcas are sociable animals which take great care of their families. They behave so very much like humans that certain tribes believed that human souls were trapped in these beautiful animals. Orcas don't mind the heat or the cold. They live in the extreme cold of the Arctic Sea as well as in the tropical seas near the equator. Despite the cold or the heat, they hunt, socialize and love.

**F R E E D O M**

You and your family wish to be just as free and independent from weather conditions. And financially as well? Because we share your wishes and values we have given our company the name of this powerful and free sea creature.

**Q U A L I T Y**

We have top experts from the field of cost-efficient heating working in our development labs, designing the flawless production of heating and cooling systems with advanced technologies and pinpoint precision. To consistently maintain quality, our systems are manufactured in the EU. We are aware that purchasing our heating and cooling systems represents a long term investment for you, and that is why we keep the flawless operation of our devices in mind, from the first sketch to the final product.

**E N V I R O N M E N T**

We use green energy sources for our products, and we are very responsible towards the local and global environment. Together we can make a small step towards fighting climate change, which endangers humanity and the oceans of our symbol – the orca.

**Remarks**

- 1 ZEUS and WAVE heat pumps use electricity for their operation. Taking into account the coefficient of performance (EN16147) 3.3 our heat pumps use 0.303kW of electricity to produce 1kW of heat. In comparison, typical electric radiators use 1kW of electricity to produce 1kW of heat. This means that with ZEUS and WAVE heat pumps, power consumption can be reduced by 69.7 % (and reduce heating costs by up to 70 %).

Your seller

**Decades of heating.  
Decades of comfort.**  
[orcaenergy.eu](http://orcaenergy.eu)