



Providing sustainable energy solutions worldwide

Installation- and maintenance instructions
CTC EcoZenith 510

IMPORTANT
READ CAREFULLY BEFORE USE
KEEP FOR FUTURE REFERENCE



CTC EcoZenith 510



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Faults and misprints are excepted. The right to construction modifications is reserved.

FOR YOUR OWN REFERENCE

Complete the boxes below. They can be handy if something should happen.

Unit	Manufacturing number
Installation engineer	Telephone number
Installation date	

Welcome!



You are now the owner of a CTC EcoZenith 510.
CTC EcoZenith 510 is a volume increasing buffer tank of over 500 litres primarily for wood burning and solar panel systems. The tanks are well insulated with 90 mm of polyurethane foam.

Safety instructions



When handling the product with a hoist ring or similar device, make sure that the lifting equipment, eyebolts and other parts are not damaged. Never stand under the hoisted product.



Safety valve check:

-Safety valve for boiler/system to be checked regularly.



This device can be used by children from the age of eight years and above and by people with reduced physical, sensory or mental ability or lack of experience or knowledge if they have been taught, either with supervision or with the instructions provided, how to use the device safely and understand the risks involved. Children should not play with the device. Cleaning and maintenance should not be carried out by children without supervision.



If these instructions are not followed when installing, operating and maintaining the system, Enertech's commitment under the applicable warranty terms is not binding.



Information in this type of box [!] is particularly important for correctly installing and using the product.

1. Important to remember!

Check the following points in particular at the time of delivery and installation:

1.1 Transportation

- Transport the unit to the installation site before removing the packaging. The product must be transported and stored in an upright position, but can be laid on its back for a short time if necessary.
- Handle CTC EcoZenith 510 in one of the following ways:
 - Forklift
 - Lifting eye which is fitted in the socket in the middle of the top of the tank.
 - Lifting straps around the pallet. **NOTE!** Can only be used with the packaging still in place. Be aware when handling that the unit's centre of gravity is high up.

1.2 Positioning

- Remove the packaging and check before installation that the product has not been damaged in transit. Report any transport damage to the carrier. Place the product on a solid foundation.
- Install CTC EcoZenith 510 on a solid foundation, preferably a concrete base.
NOTE! If the product needs to be placed on a soft carpet, base plates must be placed under the adjustable feet.
- Remember to leave a service area of at least 1 metre in front of the product. Space is also required around it for fitting the insulation and plastic top.
- The product must not be placed below floor level.

1.3 Recycling

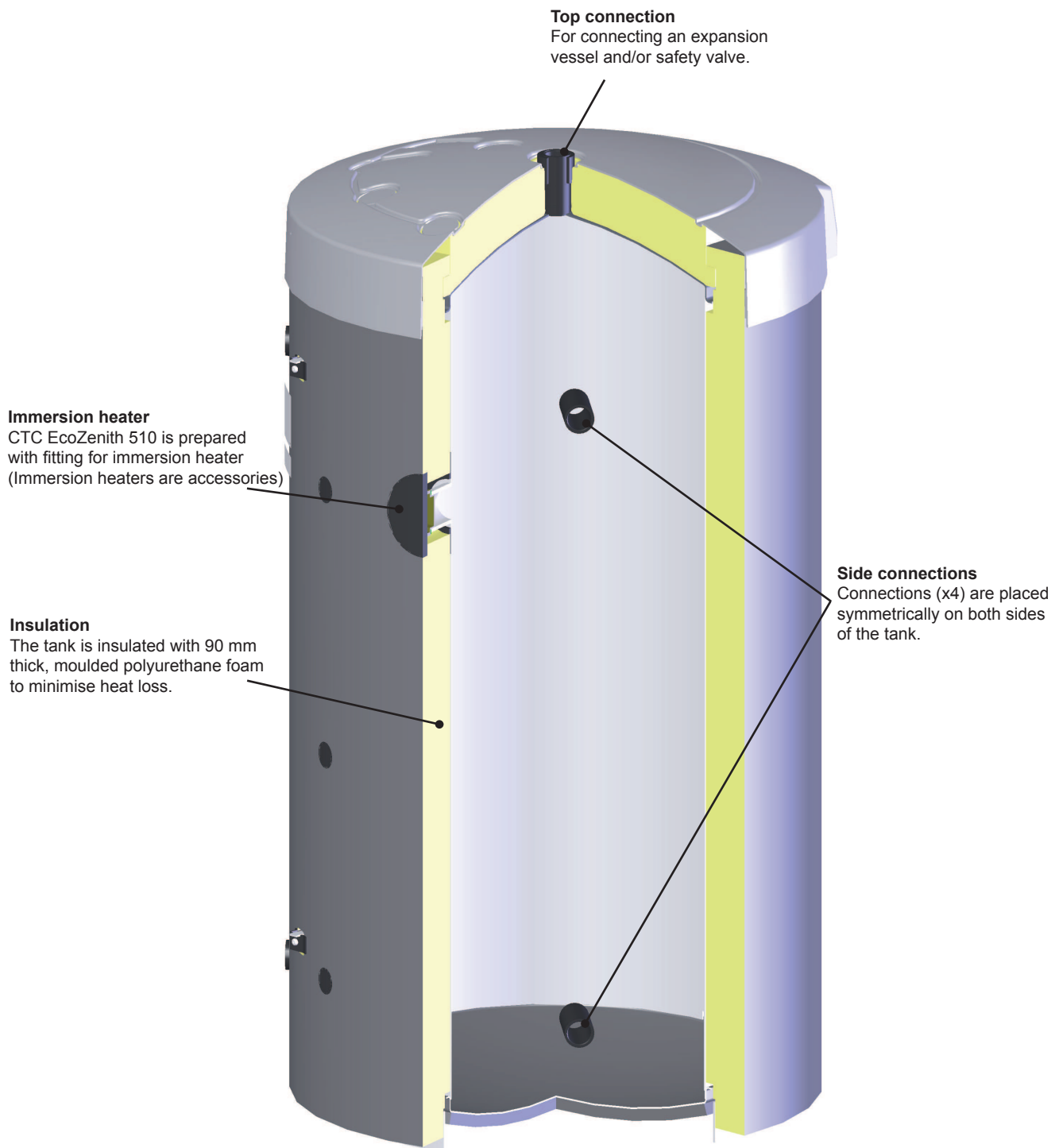
- The packaging must be deposited at a recycling station or with the installation engineer for correct waste management.
- At the end of the product's life cycle, it must be recycled in a correct way and be transported to a waste station or reseller offering a service of that type. Disposing of the product as household waste is not permitted.

1.4 After commissioning

- The installation engineer advises the property owner on the construction and servicing of the system.

2. CTC EcoZenith 510 design

The illustration below shows the design of the unit.



3. Operation and maintenance

When your new CTC EcoZenith 510 has been installed, you should, together with the installation technician, ensure that the installation is optimal. Let the technician show you how it works and should be maintained. Purge the radiators after about three day's operation and add water as necessary.

3.1 Safety valve for the tank and radiator system

Check regularly that the valve is working properly by manually turning the valve knob. Check that water comes out of the overflow pipe. The overflow pipe outlet must always be open. Hot water can drip from the safety valve.

3.2 Draining the tank

The drain valve is packaged separately and can be connected directly onto one of the lower connections, if one is free, or to a low lying pipe. When draining the whole system, fully open the mixing valve, i.e. turn it as far as possible anti-clockwise. Air must be applied to a closed system.

3.3 Operation stop

If there is a risk of the water freezing when the system is not in use, all the water must be drained from the tank and radiator system.

3.4 Noise problems


If pouring sounds come from the unit, check that it is well purged. Turn the boiler safety valve to evacuate any air in the system. If the problem is repeated, have a specialist check the cause.

4. Unpacking and installation

This section is intended for the technician responsible for one or several of the installations needed for CTC EcoZenith 510 to function as desired by the property owner. Take some time to go through the functions and settings with the property owner and answer any questions. Both CTC EcoZenith 510 and you will benefit by the user having good knowledge.

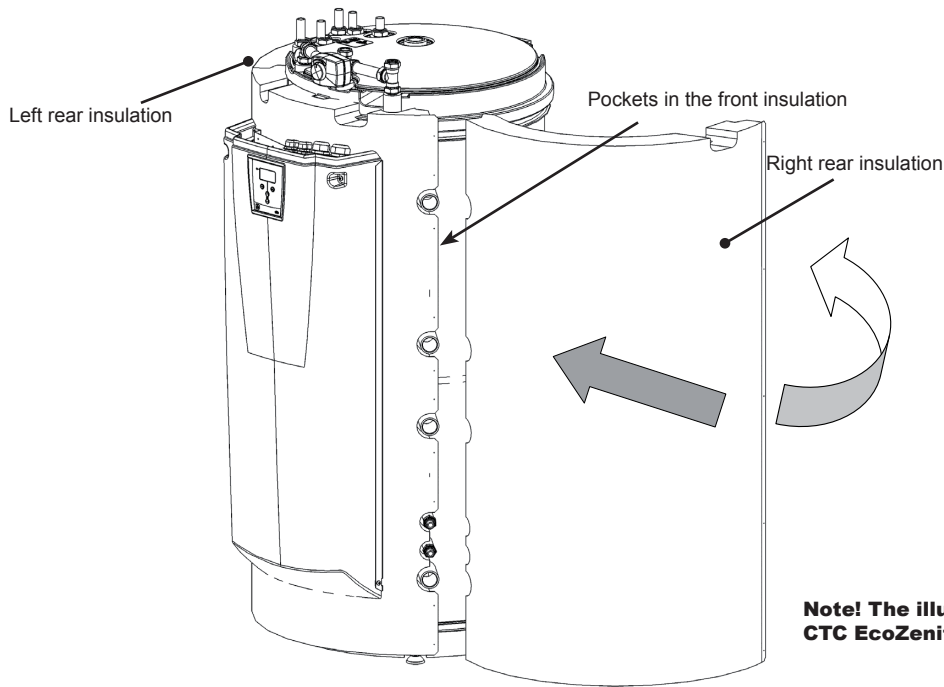
Standard delivery - CTC EcoZenith 510

- Tank - CTC EcoZenith 510
- Additional package with:
 - Installation and Maintenance Manual
 - Sensor - upper and lower tank, 2 off
 - Safety valve 2.5 bar (radiator system)
 - Drain valve
 - Adapter between the drain valve and the connection sleeve
 - Cover plates for upper and lower tank connections, 4 pcs
 - Insulation for connection sleeves that are not used
 - Screw 4.2 x 14 graphite grey, 21 off + 2 extra
 - Screw 4.2 x 14 zinc grey, 4 off + 2 extra
- Additional package with rear insulation sections and top

 The unit must be stored and transported in an upright position.

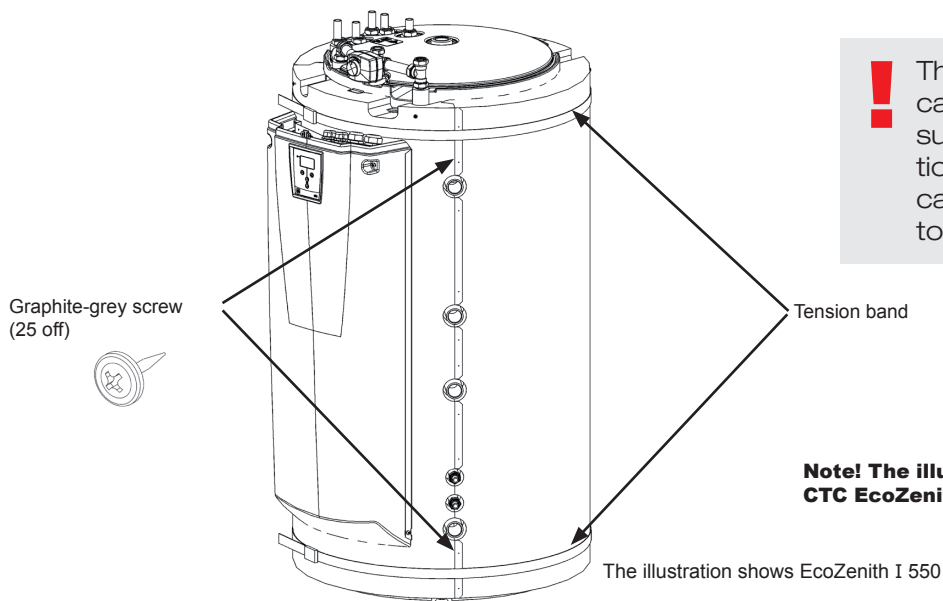
Fitting rear insulation and top cover

The rear insulation sections and top cover should be fitted before the CTC EcoZenith 510 is placed against a wall or in a corner for pipe and electrical connection. These parts are delivered separately and they are easier to fit if there is space around the unit.

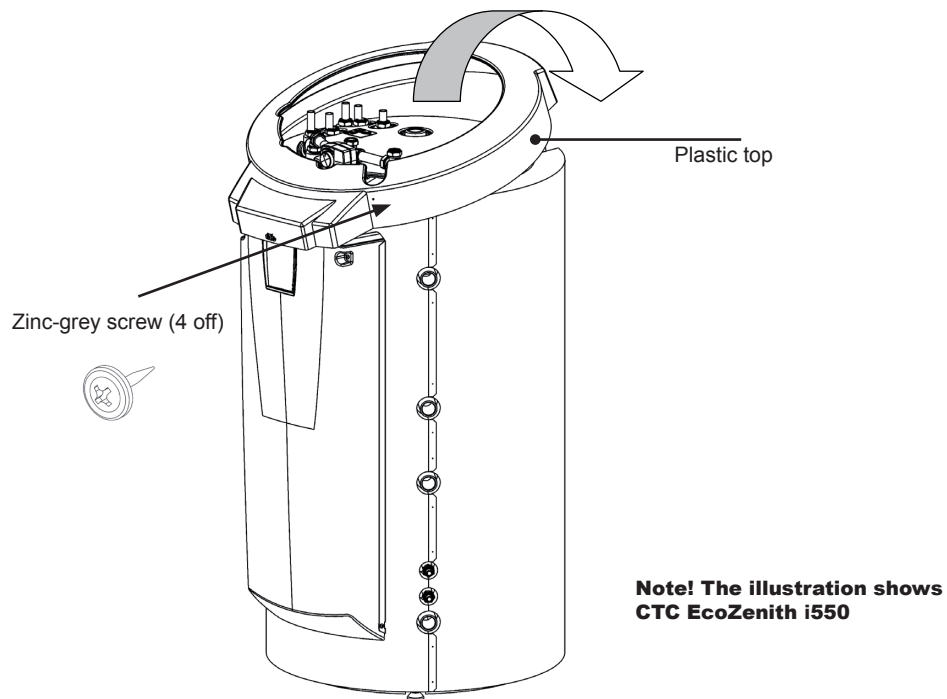


Note! The illustration shows CTC EcoZenith i550

Begin with the left rear insulation. Turn out the insulation, locate it in the pockets in the front insulation and then turn it in against the tank. Repeat this procedure for the right rear insulation. Note that the right rear insulation needs to be turned out quite a lot for it to locate easily in the pockets.



When the rear insulation is in place, tension bands can be used to hold it firmly against the tank. Attach the insulation sections to each other using the 25 graphite-grey screws provided. The screw holes are factory prepared.



Fit the plastic top at the front and tip it backwards to locate it under the mixing valve actuator. Fit the 4 provided zinc-grey screws in the prepared holes. Ensure that the top is correctly aligned with the front.

5. Pipe installation

The installation shall be carried out in accordance with applicable heating and hot water standard. The unit shall be connected to an expansion vessel in an open or closed system. Remember to flush the radiator systems before connecting.

5.1 Connections, position and dimensions


See 'Measurements and technical data'.

5.2 Pipe installation of the product

If annealed piping is used, fit support sleeves

5.3 Safety valves

The CTC EcoZenith 510 safety valves for the tap water circuit and boiler are packaged separately. Drain pipes shall run to a draining gutter, either directly, or, if the distance is more than two metres, to a funnel. Water can drip from the drain pipe. The piping must have a slope to the draining gutter, freezing risk must be avoided and it must be open/pressureless.

 The opening pressure of the safety valve must be determined by the component of the system that can withstand the lowest pressure.

5.4 Radiator system filling valve

Fit the filling valve between the cold water connection and the radiator return pipe, or between the cold water pipe and the expansion pipe.

5.5 Drain valve

Fit the drain valve (separate package) to one of the CTC EcoZenith 510 lower connections. The adapter for this is provided in the package. The drain valve can also be fitted into a low lying pipe.

5.6 Pressure gauge – system pressure

Fit a pressure gauge to the expansion pipe or radiator return pipe.

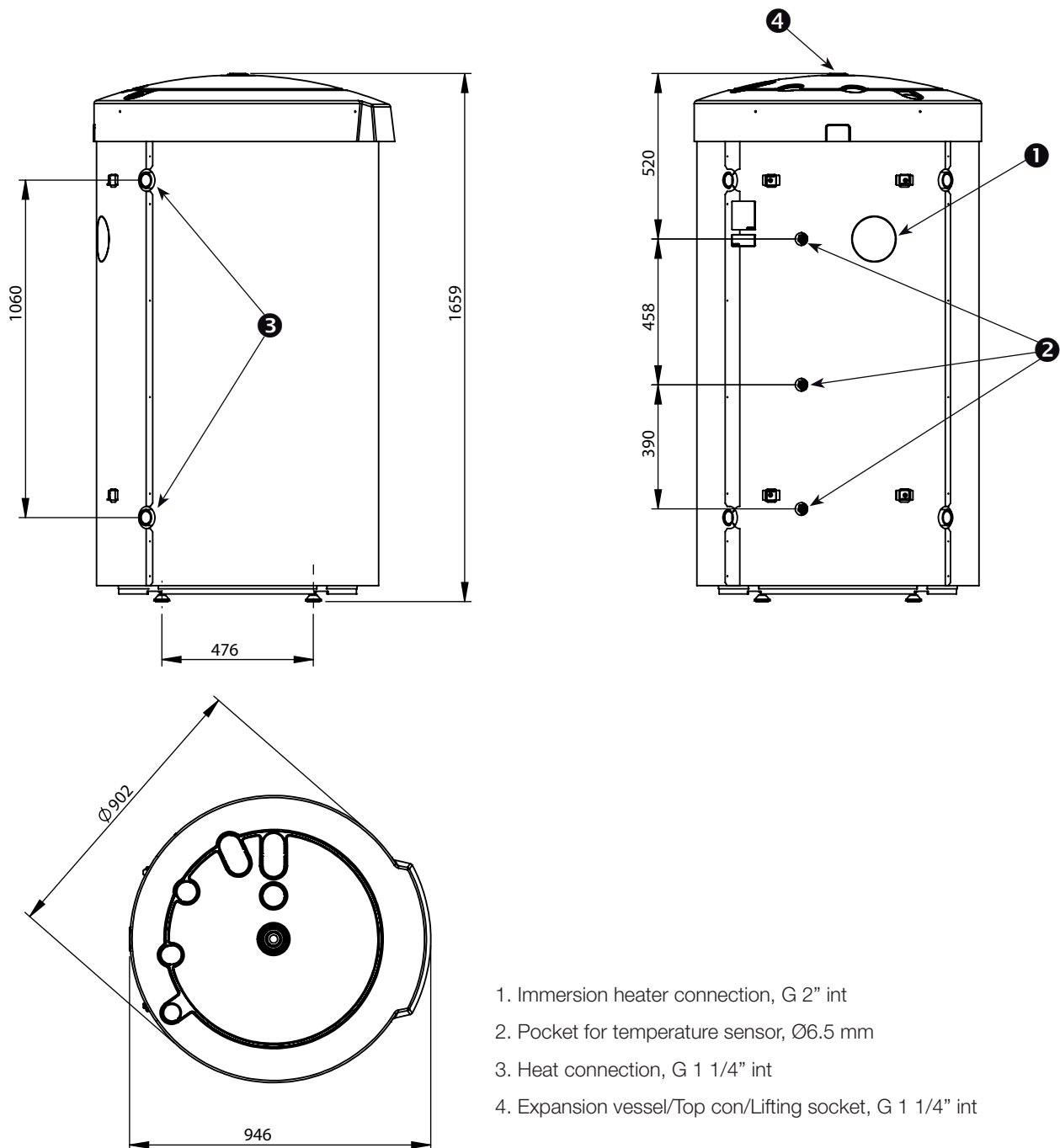
5.7 Expansion vessel connection

It is best to connect the CTC EcoZenith 510 to a closed expansion vessel. If an open system is used, the distance between the expansion vessel and the highest radiator should exceed 2.5 metres, otherwise the system will become oxygen saturated.

5.8 Insulation

For best efficiency, carefully insulate all parts of the piping, used connections and unused plugged connections. Use supplied insulation parts and complete with insulation of the type Armaflex with a thickness of at least 10-15 mm or equivalent. Make sure that the insulation on the connections reaches all the way up to EcoZeniths own insulation to avoid heat losses.

6. Measurements and technical data



1. Immersion heater connection, G 2" int
2. Pocket for temperature sensor, $\varnothing 6.5$ mm
3. Heat connection, G 1 1/4" int
4. Expansion vessel/Top con/Lifting socket, G 1 1/4" int

		CTC EcoZenith 510
Main dimensions on delivery	mm	902 x 946 x 1659
Main dimensions when installed	mm	938 x 1063 x 1659
Weight	kg	134
Insulation (Polyurethane, PUR)	mm	90
Volume - tank	litre	555

