Software changes 20240410

- Some improvements were made on the software of the EcoZenith i255 in order to improve the efficiency.
- Be aware that the combination CTC EcoZenith i255 and CTC EcoZenith i360 is not possible.



New setting: charge pump max speed during DHW

- Charge pump will no longer be a fixed speed during charging DHW. It will be done in the same way as for EcoZenith i360, speed will change to control the ΔT.
- In some cases, if the speed could be too high, this can lead to noise problems. The maximum speed of the pump can be adjusted in the coded menu of the upper tank, with the service code.





New setting: Minimum compressor speed (RPS) during DHW production

- A new setting is added: "Min RPS DHW charging"
- This was used before in the background as 50RPS compressor speed, now it is changeable in the settings.
- In case of 'heating off' (summer mode) it could happen that the RPS value was blocked on the heating latest used RPS for heating

| C Set. Upper tank | | |
|----------------------------------|-----|----|
| Program DHW | | |
| Start/stop diff upper °C | 0 | |
| Max time upper tank (min) | 0 | |
| Max time lower tank (min) | 0 | OK |
| Time lower after DHW (min) | 0 | UK |
| Max time DHW (min) | 0 | |
| Charge pump % | 0 | |
| SmartGrid Blocking °C | Off | |
| SmartGrid Low price °C | Off | |
| SmartGrid Overcapacity °C | Off | |
| SmartGrid Overcapacity block. HP | No | |
| Min RPS DHW charging | 0 | |
| Run time DHW circ. (min) | 0 | |



Improvement: Coded setting, lower tank Start/stop diff lower °C

- Where this setting could have been set to maximum 5°C it can be set now to 10°C
- The factory setting is 5°C
- If wanted departure temperature for heating is 40°C. The heat pump will heat the tank to 45°C and then stop. Once the 40°C is reached in the lower thank the HP will be activated again.





Improvement: Added DHW setting for lower tank for when the "heating off" mode is activated

- With this function you can now decide what the temperature in the lower tanks needs to be if 'heating off' mode is activated... It used to be 60°C in 'heating off' mode
- But if you are working with an external source like thermal solar energy this was not so good
- The lower the low tank temperature, the better your SCOP
- The lower the lower tank, the less DHW you will get

| 🔅 Set. Upper tank | | |
|----------------------------------|-----|----|
| Program DHW | | |
| Start/stop diff upper °C | 0 | |
| Start/stop diff heating off °C | 0 | |
| Max time upper tank (min) | 0 | OK |
| Max time lower tank (min) | 0 | UK |
| Time lower after DHW (min) | 0 | |
| Max time DHW (min) | 0 | |
| Charge pump % | 0 | |
| SmartGrid Blocking °C | Off | |
| SmartGrid Low price °C | Off | |
| SmartGrid Overcapacity °C | Off | |
| SmartGrid Overcapacity block. HP | No | |
| Min RPS DHW charging | 0 | |
| Run time DHW circ. (min.) | 0 | |



Improvement: Added setting for DHW, start/stop hysteresis when 'heating off' mode is activated

- With this setting you can differential between starting and stopping of the heat pump for the lower tank during summer mode ('heating off')
- Factory setting is 10°C
- If the set the lower tanks is 40°C and the setting is 10°C. The heat pump will heat the lower tank to 50°C and then stop. Once the 40°C is reached in the lower thank the HP will be activated again
- Separate parameter for working in 'heating off' mode

| 🔅 Set. Upper tank | | |
|----------------------------------|-----|----|
| Program DHW | | |
| Start/stop diff upper °C | 0 | |
| Start/stop diff heating off °C | 0 | |
| Max time upper tank (min) | 0 | OK |
| Max time lower tank (min) | 0 | UK |
| Time lower after DHW (min) | 0 | |
| Max time DHW (min) | 0 | |
| Charge pump % | 0 | |
| SmartGrid Blocking °C | Off | |
| SmartGrid Low price °C | Off | |
| SmartGrid Overcapacity °C | Off | |
| SmartGrid Overcapacity block. HP | No | |
| Min RPS DHW charging | 0 | |
| Run time DHW circ. (min.) | 0 | |



Improvement: Optimised logic for freeze protect low outdoor temperature

- It used to be that the charge pump was always working if the outside temperature was lower than +2°C.
- Now we run it from +5°C but not continuously .
- Function is working when the temperature outside is between 0° C and +5°C
- And if 'HP in' or 'HP out' is <15°C the circulation pump will be activated. @30% (for some PWM pumps, 30% is the minimum).
- The charge pump will stop if you reach 15,5°C.
- If the charge pump stops (mostly together with the heat pump, but it can be after function test as well). The charge pump will run for 15 seconds every 2h to test if we still measure correct temperatures.
- If the water temperature goes <15°C within this 2h, the charge pumps will always start until the 'HP in' or 'HP out' have reached the 15,5°C



Software 20240

New: Alarm for combination EZ255 and EA700

- This combination is not allowed
- If you try anyhow, you will get the alarm
 E026 Heat pump



