



Nov 2024 – mostly w/c mode

COP = 3.7



Dec 2024 – AA with thermo diff on

COP = 3.96



Nov 2025 – Mostly w/c mode

COP = 3.73



Dec 2025 – w/c mode

COP = 3.74



Jan 2026 – AA with no thermo diff, temp limit

& quiet mode level 2

COP = 4.01

Comparison notes:

1. Rolling 13 day period
2. Uses times when the average outdoor temp was 6.2 degrees +/- 0.1 degrees
3. Jan 2026 was operated in AA mode with thermo diff turned off. I set the max flow temperature to 38 then 36 degrees. All of this period was operated in this mode.
4. All other periods were operated in various different modes as indicated.
5. Between Nov and Dec 2025 and Jan 2026 I cleaned the filter which had a significant amount of gunk.
6. Between 2024 and 2025 I added heating loop to the hot tub which will account for the additional heat load
7. Average indoor temp in 2026 is higher probably because there is more overshoot.
8. I have no data to back it up but I suspect that it was cheaper to run as I had it set to turn on at 1am at 21 degrees. Often it was up to 22 by 7am which leads to an extended time where the unit is off.
9. Defrost cycles were only logged after Feb 2025