

Calculation Methods: special requirements for compact units

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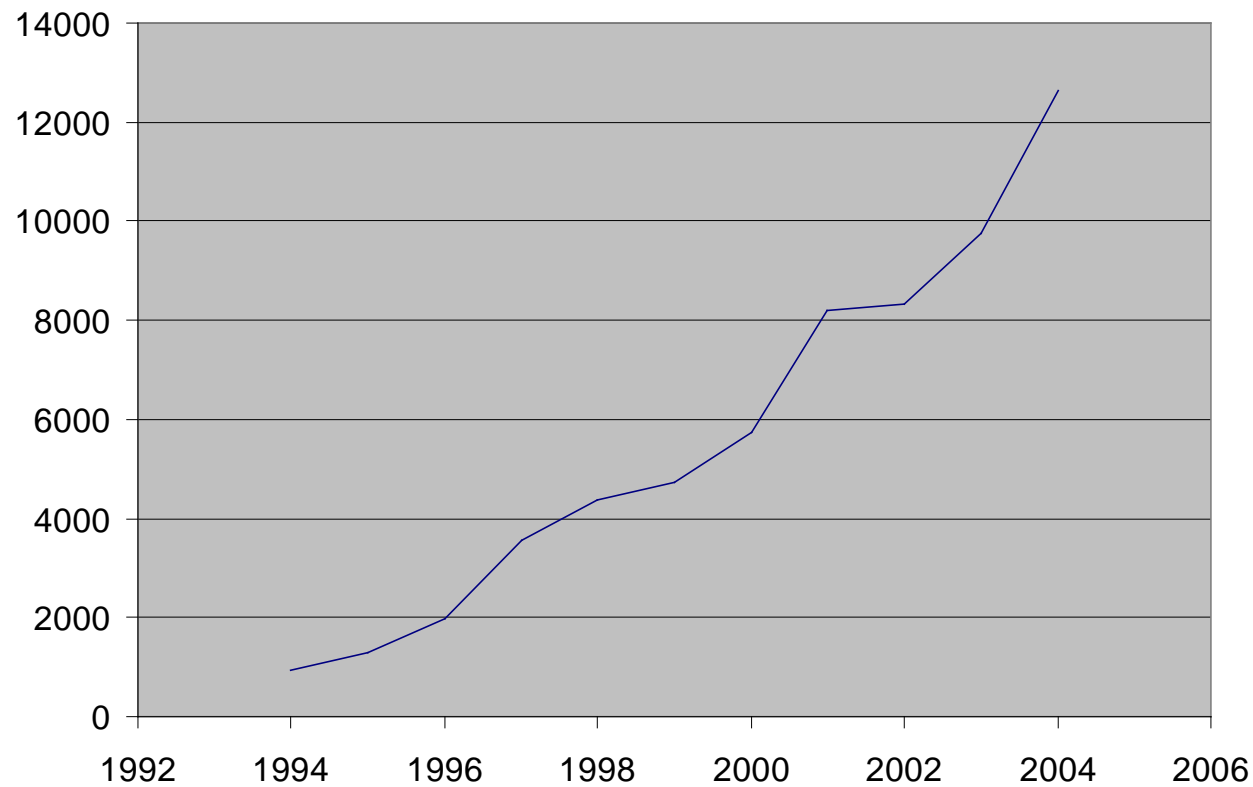
Viessmann Company Profile

- Important manufacturer of heating technology products (No. 3 in Europe)
- Wide range program (Oil and gas fired boilers, Solar, Heat Pumps)
- Private ownership,
- turn over about 1 billion € per annum
- approximately 6 800 employees
- 10 factories, both in Germany and abroad
- 106 sales offices based in 34 countries



Heat Pump Market in Germany

Heat Pumps installed



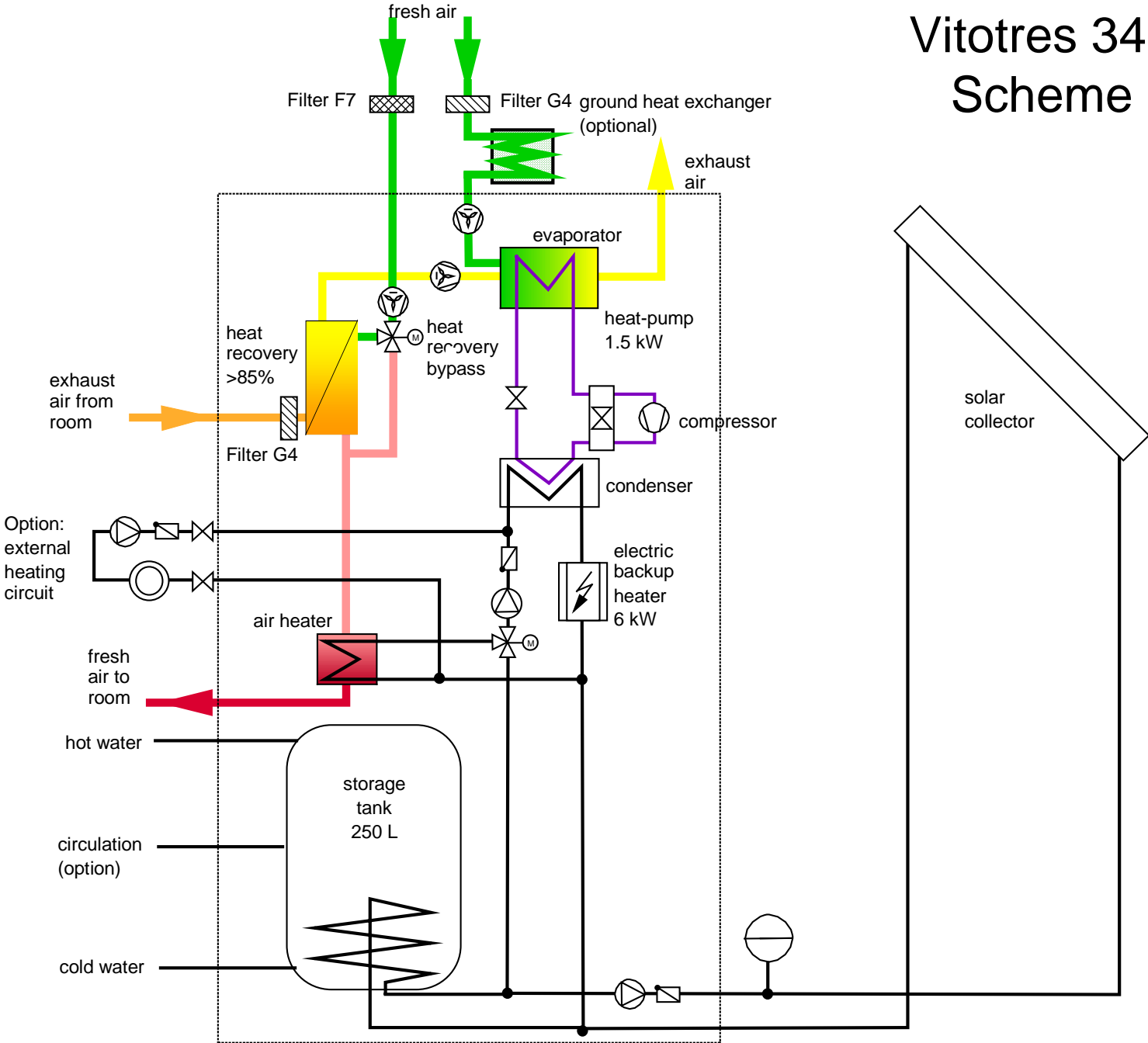
IEA Work

Interests in Annex 28:

- Characterisation of combined systems with heat-pumps for heating / DHW and ventilation
- Comparison of heat pumps with other heating systems (oil, gas, wood, solar)
- Direct relation to national and international standardisation work



Vitotres 343 Scheme



Consequences for calculation

Heat Recovery

- performance depends on air flow rate and humidity
- ☹ Average heat recovery – **only valid for one region**
- ☺ Measure “dry” and calculate

Heat Pump

- performance depends on air flow rate
- ☹ Average COP – **only valid for one installation**
- ☺ Measure at 2 flow rates and calculate

