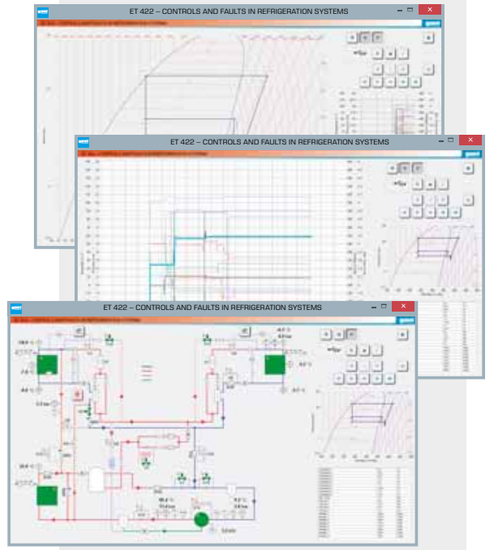
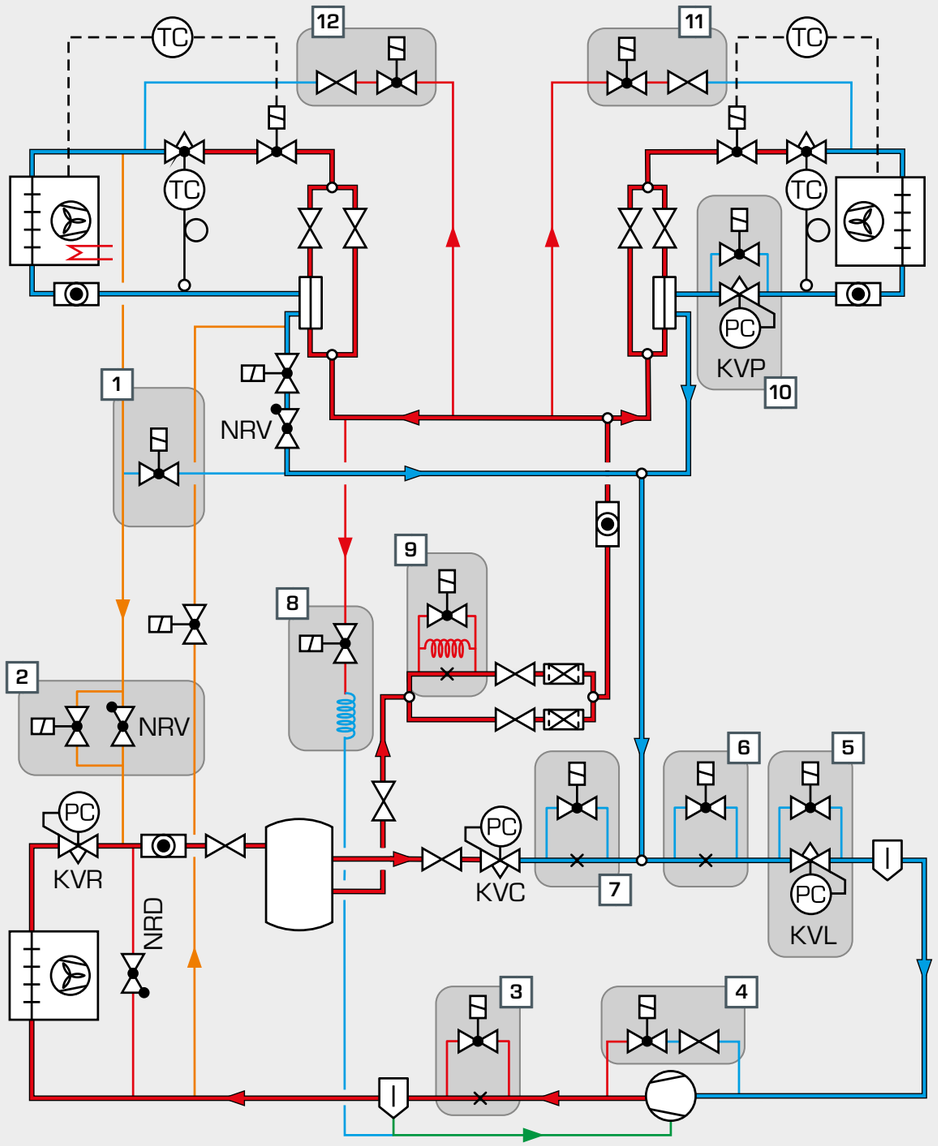
ET 422
Capacity control and faults in refrigeration systems



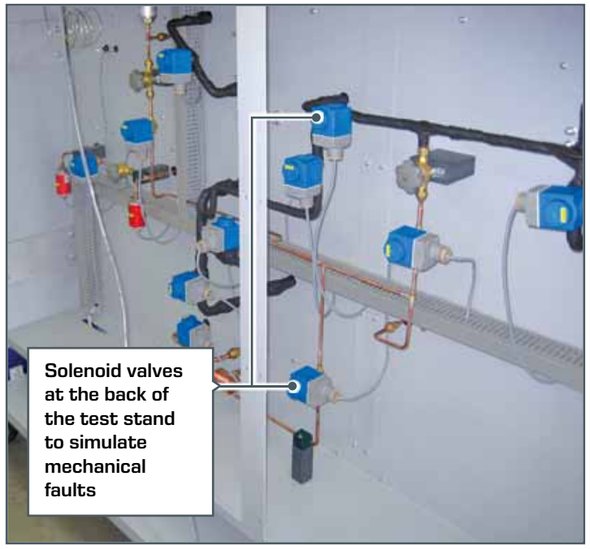
Software for optimum support of the learning process:

- process schematic with display of the measured values
- recording of time graphs
- representation of the thermodynamic cycle process in the log p-h diagram



KVP evaporation pressure controller, **KVR** condensation pressure controller, **KVL** start-up controller, **KVC** capacity controller, **NRD, NRV** non-return valve;
hot refrigerant, cold refrigerant, pipes for hot gas defrosting, lubrication oil return

Simulation of typical faults in refrigeration systems



Typical mechanical faults

1. non-return valve upstream of the start-up controller faulty
2. non-return valve for hot gas defrosting faulty
3. delivery pipe at the compressor clogged
4. leak at the compressor
5. start-up controller KVL faulty
6. intake pipe at the compressor clogged
7. capacity controller KVC faulty
8. oil separator faulty (float valve blocked)
9. filter/drier blocked (iced)
10. faulty KVP evaporation pressure controller in refrigeration chamber
11. expansion valve at the refrigeration chamber faulty
12. expansion valve at the freezing chamber faulty