

COMPARATIVE STUDY REGARDING HEAT RECOVERY FROM THE REFRIGERATING PLANT

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ABSTRACT

This paper analyses the possibility of using heat recovery from the refrigerating agent of overheated vapors after the compressor outlet. The survey has been carried out without modifying the functional parameters of the refrigeration plant (t_0) and by varying values of the refrigeration power for each season necessity. It is made obvious the favorable influence of the necessary heat recovery in order to prepare hot water as a method of improving the exergetic efficiency of a cooling system. A study has been conducted on the specific water production that corresponds to the refrigerating power unit.

This paper presents a comparative study regarding the importance of heat recovery, when using different technical solutions, different couples of refrigerants, within a range of values of the ambient and condensation temperature.

The study performed by computer is based on the use of equations for thermodynamic parameters of the surveyed refrigeration agents.

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