Design methodology and tools for developing highly efficient cold appliances

Description:

The demand for lower and lower energy consuming cold appliances, mainly driven by energy labelling schemes (domestic appliances) and energy targets of large multinationals (commercial appliances), requires increasing understanding and knowledge about how to design these appliances.

The aim of this project is to increase understanding of refrigeration system design and to guide engineers to improve their designs using structured approach and assisting them by providing design tools. In the work varies example cases are given and advantaged energy saving options like the use of phase change material are discussed.

The research is done in close collaboration with Re/genT, a R&D centre specialized in refrigeration, air conditioning and heat pumps, with emphasis on green innovations, energy efficiency and natural refrigerants.

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