

ECOLOGICAL OPTIMIZATION OF AN IRREVERSIBLE RANKINE HEAT ENGINE

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ABSTRACT

The Rankine cycle has become attractive due to its capacity to generate power by using low temperature energy sources (classic Rankine cycle as bottom cycle in cogeneration systems and Organic Rankine cycle). To make the cycle more efficient, the generated entropy must be reduced at maximum. Based on the finite-time thermodynamics, the power output and the corresponding thermal efficiency of an irreversible Rankine heat engines have been maximized.

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