

THE INFLUENCE OF THE TEMPERATURE DIFFERENCE ON RECUPERATOR OVER THE PERFORMANCES OF A SMALL SCALE COMBINED CYCLE UNIT FOR TERRESTRIAL PROPULSION

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ABSTRACT

The paper presents the results of a study regarding the performances of a Small Scale Combined Cycle Unit adapted to operate as terrestrial propulsion system. The analyzed configuration consists of a Gas Turboengine with recuperator and a Steam Turboengine based on a one-pressure-level Steam Cycle. Are analyzed the variations of the output power, specific fuel consumption and overall efficiency with the temperature difference on the Gas Turboengine recuperator (the difference between gases inlet and air outlet temperatures) for different values of the compressor pressure ratio

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