

# THE MICROCHP SYSTEM FOR A DETACHED BUILDING WITH A STIRLING ENGINE LIKE PRIME MOVER: THE COOLING SUBSYSTEM ANALYSIS

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## ABSTRACT

*The paper presents an analysis of the cooling subsystem used in a trigeneration system with the Stirling engine like prime mover. Because the low efficiency of the Stirling engine, a thermally activated cooling subsystem is used. The schematic thermal diagram of the trigeneration system is presented. A theoretical thermodynamic analysis of the adsorption cooling system is presented. The paper presents the influence of the operating conditions on the performance of the adsorption cooling.*

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