


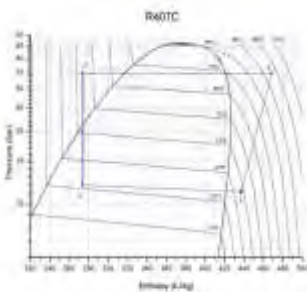


<p>Università degli Studi di Napoli Federico II</p> <p>Scuola Politecnica e delle Scienze di Base</p>		<p>Corso di Studi in Ingegneria Meccanica</p>
<p>Laurea Magistrale in Ingegneria Meccanica per l'Energia e l'Ambiente (Classe LM33) Elaborato di Laurea</p> <p><b>PERFORMANCE ANALYSIS OF A DOMESTIC CLOTHES DRYER ASSISTED BY A HEAT PUMP WITH A VAPOUR COMPRESSION CYCLE, USING BLDC MOTOR INSTEAD OF AN ASYNCHRONOUS ONE</b></p>		
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<p style="text-align: center;"><b>ABSTRACT</b></p> <p>The present work has been performed during an internship period spent at UPV (Universitat Politècnica de València) at the Institute of Energetic Engineering. The present work refers to a domestic clothes dryer assisted by heat pump; the main purpose is the achievement of a certain drying time without an increase of the energy consumption compared to the standard condition.</p> <p>To achieve the objective the first step was the assembly of the dryer and the replacement of induction motor with a synchronous one in order to increase the air flow inside the rotating drum. A series of tests have been carried out: temperatures, pressures, flows by mass, relative humidity, power consumption is recorded, analyzed and cataloged by program Bench Link HP Data Logger Pro.</p>		
 <p>Domestic Clothes Dryer</p>	 <p>Heat Pump</p>	 <p>Vapour Compression Cycle</p>
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