



**UNIVERSITI TEKNOLOGI MARA
CAWANGAN TERENGGANU**

MEC299

DEFENSE PROPOSAL

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ABSTRACT

The refrigeration system has a component that act as 'heart' which called as compressor. The compressor works by increasing the pressure and temperature of the vaporized refrigerant. Reciprocating, rotary, and centrifugal compressors are the most common among refrigeration units. The problem is how the different motor speed in the compressor affect to the refrigeration system. In this research, the objectives are to determine the relationship between the speeds of single compressor and the changes of temperature of refrigerant and to analyze the efficiency of compressor along the change of speed of electric motor. Numerous speeds of motor ranging from 600 to 1400 rpm with interval of 100 rpm. Cooling water flow rate will be constant at 3 litre/minute. Heater power also set at 800 Watt. Therefore, different types of speed will be considered and change during the experiment. It is expected that the greater speed of motor with great heater power can affect the efficiency of condenser. Hence, it may affect the efficiency of compressor.

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