

Analisis Pengaruh Penambahan *Fan* Pada Kondensor Terhadap Capaian Temperatur Optimum Dan *Coefficient Of Performance Prototype* Lemari Pendingin

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Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan *fan* pada kondensor terhadap capaian temperatur optimum *Prototype* lemari pendingin dan COP *Prototype* lemari pendingin. Pada penelitian ini menggunakan metode eksperimen dengan jumlah sampel penelitian sebanyak 15 data serta dianalisis menggunakan analisis deskriptif kuantitatif. Dari hasil penelitian dapat dilihat bahwa terdapat pengaruh penambahan *fan* disisi Kondensor pada *Prototype* lemari pendingin terhadap capaian temperatur optimum dimana temperatur optimum tanpa penambahan *fan* disisi kondensor lebih besar dari capaian temperatur optimum dimana temperatur optimum dengan penambahan *fan* disisi kondensor sehingga temperatur optimum dengan penambahan *fan* disisi kondensor diperoleh lebih rendah dibandingkan dengan tidak menggunakan tambahan *fan* disisi kondensor. Terdapat pengaruh penambahan *fan* disisi Kondensor terhadap *Coefficient of Performance* (COP), dimana dengan adanya penambahan *fan* disisi kondensor maka akan berdampak pada peningkatan *Coefficient of Performance* (COP). Hal ini dilihat dari perhitungan nilai COP dengan penambahan *fan* disisi kondensor diperoleh sebesar 29,39% lebih besar dari *Coefficient Of Performance* (COP) tanpa penambahan *fan* disisi kondensor.

Kata Kunci : *Prototype* lemari pendingin, Penambahan *Fan*, Capaian Suhu Optimal, *Coefficient of Performance* (COP)

Analysis of the Effect of Adding Fan to the Condenser on the Achievement of Optimum Temperature and Coefficient Of Performance Prototype Refrigerator

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Abstract

This study aims to determine the effect of adding a fan to the condenser on the achievement of optimum temperature for the Prototype refrigerator and COP Prototype for the refrigerator. In this study using the experimental method with the number of research samples as many as 15 data and analyzed using quantitative descriptive analysis. From the results of the study, it can be seen that there is an effect of adding a fan on the condenser side of the Prototype refrigerator on the achievement of the optimum temperature where the optimum temperature without the addition of a fan filled with a condenser is greater than the achievement of the optimum temperature where the optimum temperature with the addition of a fan is filled with a condenser so that the optimum temperature with the addition of a fan is filled with a condenser, obtained is lower than not using an additional fan on the condenser side. There is an effect of adding a fan on the condenser side to the Coefficient Of Performance (COP), where the addition of a fan on the condenser side will have an impact on increasing the Coefficient Of Performance (COP). This can be seen from the calculation of the COP value with the addition of a fan filled with a condenser obtained by 29.39% greater than the Coefficient Of Performance (COP) without the addition of a fan filled with a condenser.

Keywords : *Refrigerator Prototype, Fan Modification, Optimal Temperature, Coefficient Of Performance (COP)*