

# FABRICATION AND ANALYSIS OF PORTABLE AIR CONDITIONER

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## ABSTRACT

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Portable air conditioners are movable units that can be used as a cooling tool in a specific place such as at home, in a building, or outdoor. The objectives of this study were to fabricate and analyze the performance of air conditioner. Besides, the problem of this study was that ordinary air conditioners required power supply making it not practical for outdoor areas. In contrast, fabricated portable air conditions used 12 V rechargeable batteries that made it easy to use anywhere. In order to fulfil the requirement of the data, the hygrometer and anemometer were used for measurement. All the data collected were used in analyzing the performance of the fabricated portable air conditioner. It has been analyzed in term of its efficiency, capacity, operation duration and cost according to the regulation recommended by the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE). As a result, the portable air conditioner successfully fabricated and analyzed its tremendous performance. In short, both the objectives of this study were achieved successfully.