Implementasi Alat Pengatur Elektrolisis HHO Tipe BIM-001-NYB Pada Generator HHO Tipe Basah (*Wet Cell*)

(*Implementation Electrolysis Controller of HHO BIM-001-NYB On Wet Cell HHO Generator*)

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ABSTRACT

HHO controller type BIM-001-NYB fabrication by Trilaksono 2016 in "Design of Speed Controller Electrolysis Generator HHO (Dihydro Oxygen) Dry Cell Based Mikrokontroler Atmega 8535" research need more detailed and specific research. The weaknesses of the research is the duty cycle range or interval is too wide which have 25% interval. The purpose of this study is to determine the effect of setting duty cycle values on generator performance with interval value of 5% system control settings. Stages of this research conducted by literature study phase that studying about scientific journals, designing wet cell HHO generator, performance test and advanced performance test. The results achieved the lowest duty cycle value which still able to produce HHO gas using wet cell type generator is 10% which has 15.74% efficiency with little gas discharge. When duty cycle value is 100%, the efficiency only reach 14.50% because the power consumption used has not fully converted to electrolysis process so the power consumption becomes excessive and the efficiency becomes low. While the greatest efficiency value obtained at 25% duty cycle value which the number reach 31.06%.

Keywords: *Microcontroller, Generator type Wet Cell, HHO Gas, PWM*