

DESIGN OF LOW SPEED 3 PHASE PERMANENT MAGNET GENERATOR AXIAL FLUX TYPE TWO ROTORS ONE STATOR

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ABSTRACT

At present the use of electrical energy sources is very important for people's lives, almost all people are greatly helped by the presence of energy, but all of that has negative effects that can be produced in obtaining electrical energy such as the excessive use of fossil fuels. Currently, the majority of power plants in Indonesia still use fossil fuels, which have a negative impact on environmental health. In this research, a two-rotor low-speed axial flux permanent magnet generator was made which will be tested so that its characteristics can be determined and whether this machine is indeed suitable and capable of being applied in various low-speed generator needs. The tests carried out include testing without a load and testing with a load. In this study, the resulting generator output voltage was 15,42 VAC, while the voltage from the generator from the calculation was 12,33 VAC. The output power generated by the generator is 5,78 watts, while the results obtained by calculating the generator produces a power of 5.66 watts.

Keyword: Magnet, Axial Flux Generator, Rotor, Stator