Performance Analysis Of Assembled Lithium Ion Batteries Energy Consumption In Buggy Vehicles

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ABSTRACT

An electric vehicle (EV) is a type of vehicle that uses one or more electric motors or traction engines for propulsion. Due to the high cost and dependence on batteries, the fuel of electric vehicles, very few people in the world today use them. As a result, electric vehicles are increasingly developing and are even starting to be sold in various countries, including Indonesia. The battery is one of the most important parts of an electric car because it is used as a current source for the entire electrical system and stores energy during the charging process. When the starter system is turned on, the battery provides current for the engine, lights, and other electrical components. Because this electric car requires a lot of electrical energy, further research was carried out to determine the performance of lithium ion batteries in terms of energy consumption with variations in the speed of a 3 kw BLDC motor against a lithium ion battery pack with a capacity of 72 v 15.6 ah and a lithium ion battery pack with a capacity of 72v 26 ah battery to be used for buggy type electric cars. The results of the energy consumption analysis show that the differences in power and current are not very significant but they have different usage times and produce better usage times and mileage on batteries with a capacity of 72 v 26 ah in electric vehicles.

Key words:, batteries, battery capacity, discharging, electric vehicles