DESIGN AND BUILD A 48 V 15 AH LITHIUM BATTERY PACK FOR ELECTRIC CARS

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ABSTRACT

The design and construction of a 48 v 15 ah lithium pack battery for electric car purposes is as a system designed through a technique where the battery is arranged in series with a BMS (Battery management system) as a battery output adapter to the electric car motor. The series connector on the battery uses a nickel plate that measures 5mm to form 8 series batteries. The battery arranged in series serves to increase the voltage in the battery. Ouput from the battery goes into the BMS then from the BMS goes to the motor on the electric car. In the series there are 16 lithium pack batteries arranged, where the voltage of one battery pack is 3.2 V and has a maximum electric current of 15 Ah. So we get a total V = 51.2 V and because of this series series we get that the current remains the same as 15 Ah. The comparison between the battery is measured theoretically and the measurement has a difference value that is not far around 0.03 V per battery, from the results of the analysis on the power measurement produced from the battery voltage of 768 Watts.

Keywords: *Adapter, BMS, , Battery, BLDC Motor.*